

VOLUME 15

\$25.00

# JERRY'S MARINE SERVICE



MARINE ENGINES AND RELATED PRODUCTS



# NGK SPARK PLUGS

THE WORLD LEADER



NGK  
**SHOP  
PACK**  
25<sub>PCS.</sub>

A yellow rectangular box with the NGK logo at the top. Below the logo, the text 'SHOP PACK' is written in large, bold, black letters. At the bottom, the number '25' is written in a large, stylized font, with 'PCS.' in smaller letters below it. A single spark plug is shown vertically on the right side of the box.





**SUZUKI DF350A**

**A REVOLUTION IN INNOVATION**



GEKI: PARTING SEAS





# Jerry's Marine Service

## Policies & Procedures

### Freight Policy

All shipments are *Free On Board* Jerry's Marine Service (JMS) warehouse or original shipping point in the case of factory direct shipments to customer. Please check your incoming orders carefully at the time of arrival for shortage and/or damage.

You must note any damage or shortages on the delivering carrier's delivery receipt. If necessary, file your claim directly with the carrier. WE CANNOT file these claims for you. We will be happy to advise you if you have an issue filing a claim.

Items that are too heavy or too large to be shipped via UPS or FedEx will be shipped by *Common Carrier* (Motor or truck freight). These items will be shipped "Freight Collect" and cannot be refused when delivery is attempted. Common Carrier deliveries can be very expensive. If you refuse delivery, or cancel a truck freight order after it has been shipped, you are still subject to all freight and storage charges.

### Shortages or Errors

Please check your shipments soon after arrival to ensure the correct products and quantities have been received. Claims for missing product or errors must be made within 24 hours of receipt of goods.

### Special Orders

Special orders may require a deposit and may not be able to be returned.

### Defective Merchandise

A prior return authorization is required for any defective merchandise and is also subject to factory acceptance before a credit can be issued or replacement can be provided.

### Returned Goods Policy

Customer satisfaction is our goal. If you need to return or exchange merchandise, please contact us within 5 days of the purchase date for a return authorization. No returned merchandise will be accepted without prior authorization. **Defective merchandise is subject to manufacturers acceptance before JMS can issue a credit or replacement.** Returned merchandise must be accompanied by a copy of the original sales invoice, and must be sent using prepaid freight. New and unused merchandise in its original, undamaged packaging, ready to be resold and without customer markings, may be approved for restocking within 15 days of being received by JMS. Merchandise returned after 15 days will be subject to at least a 25% restocking fee. No returns will be accepted after 30 days from delivery.

### Responsibility

Data relating to strength of materials and safe working loads have been included within this catalog. Manufacturers have prepared this data. We do not assume responsibility or liability for the accuracy, omissions and errors of this data.

### Disclaimer of Warranty/Limitation of Remedies

Jerry's Marine Service is strictly a vendor and not a manufacturer. All goods are sold by Jerry's Marine Service as is, without any warranties, express or implied, including the implied warrant of merchantability, except as stated herein. The only warranties of the goods are those, if any, which are expressly made by the manufacturer. The sole and exclusive remedies in the event of any breach of warranty are (1) a claim for return of the goods and refund of the purchase price or (2) replacement of the defective product. In no event shall Jerry's Marine Service be liable for incidental or consequential damages.

### Terms and Conditions

Payment is due as designated on invoice and statement. Otherwise, goods will be shipped C.O.D. with cash be required for payment. Minimum order is \$25.00.

### Cash Sales

To eliminate costly C.O.D. fees, we encourage customers without an active account with terms to use one of the following credit cards when ordering: MasterCard, Visa or American Express. We will not use C.O.D. unless a pre-established account has been approved with Jerry's Marine Service.

### Credit Card Sales

We accept MasterCard, Visa or American Express credit card payments for orders made in person, by telephone, fax, internet or by mail. The credit card holder's billing address must be the same as the shipping address for orders needing to be shipped.

### Privacy Policy

Jerry's Marine Service (JMS) is committed to the security and privacy of all our customers' information. We do not keep a record of your credit card information nor do we share any personal information with third party agencies or individuals.

### Pricing

Due to market changes beyond our control, customers are encouraged to call or check online at [www.jerrysmarine.com](http://www.jerrysmarine.com) for current accurate pricing. Prices are subject to change without notice. Possession of this catalog does not constitute an offer to sell.

### Customer Service

Our regular business hours are Monday through Friday, 7:30 AM to 5 PM EST. For questions about delivery times feel free to contact a Jerry's Marine Service representative. Every effort is made to ship all orders received by 5:00 PM EST. that same day.



# UPS and FedEx Weight & Size Shipping Limits

(Subject to change without notice)

All shipments will be shipped the least expensive way.



Note: All UPS and FEDEX packages are subject to dimensional weight freight charges as opposed to actual weight.

International shipment measurements may vary

Up to 130 inches in combined length and girth. (Length not to exceed 108 inches)

**Hazardous materials and dangerous goods** may be subject to packing and shipping surcharges.

Maximum weight per package..... Up to 150 pounds per package.

Maximum size per package..... Up to 130 inches in combined length and girth.

Minimum charge for a package measuring over 84 inches in length and girth combined will be equal to the charge for a package weighing 30 pounds.

Unboxed items are subject to a delivery and handling surcharge.

Saturday deliveries are subject to a handling and delivery surcharge.

## HAZARDOUS MATERIALS AND DANGEROUS GOODS SURCHARGES



All dangerous goods, such as solvents, aerosols, most paints, flares and other similar products, shipped via UPS, FedEx, motor, sea or air freight may be subject to additional shipping and handling charges.

## Airline & Truck

Maximum weight & size..... No Limit

Subject to a \$25.00 service charge for airport delivery

## Parcel Post\*

... **No Liquids or Hazardous Materials Can Be Shipped Parcel Post** ...

Maximum weight per package..... 70 pounds

Maximum size per package..... 108 total inches length + girth

\* Subject to a \$25.00 service charge

F.O.B. warehouse - A term used in reference to the title passing to buyer (i.e., the Buyer pays and bears the freight charges, he owns the goods in transit and files all claims for overcharge, loss or damage.)






## Quick Reference by Manufacturer



Manufacturer	Code	Pages
ABA CLAMPS	ABA	273
ACME Trailer Accessories	ACM	Call
ADAPT-A-Ball	ADA	Call
ALBIN PRODUCTS <b>NEW</b>		Call
ALTO	ALT	141-148
ANDERSON RAPID HITCH	AND	Call
AQUAGARD PAINT	AQU	477
AQUALARM	ALA	577-578
ARCO MARINE	ARC	737-801
ARMSTRONG LADDERS	ARM	813
BARR MARINE PRODUCTS	BAR	171, 219-253
BARR MARINE ENGINES	EBA	6-8
BEL-RAY LUBRICANTS	BEL	478-479
BENNETT MARINE TRIM TABS	BEN	186-189
BLUE SEA SYSTEM	BSS	545-557
BOAT LEVELER TRIM TABS	B/L	190-191
BOATERS BEST	BBB	58, 60-61, 138, 141, 261, 302-308, 447, 480, 508, 558, 579, 588, 802-804
BOATLIFE <b>NEW</b>	BLF	481
BOESHIELD	BOE	467
BORG WARNER-VELVET DRIVE	BOR	139-155
BRASS VALVES & FITTINGS	BRA	280-284
BRIGGS & STRATON	EBS	51
BSP ELECTRICAL CONNECTORS	BSP	575-576
BUCK ALGONQUIN	BUC	173-174, 264, 284, 286
BUSHINGS INC.	M/M	168-170
BUSSMAN	BUS	567-568
CAL PUMP	CAL	578
CAMP ZINCS	ZIN	207-214
CARTER MARINE	CAR	305-308
CDI ELECTRONICS	CDI	CALL, 736
CEN TEK EXHAUST	MUF	262-269
CHAMPION SPARK PLUGS	CHM	446
CLAMP AID	CLA	273
CLYMER SERVICE MANUALS	CLY	CALL
COLE HERSEE	COL	562-566
COLOR RITE	CLR	477
CONBRACO VALVES & FITTINGS	CON	287-289
CONTINENTAL ELITE BELTS	GDY	280, 309-339
CORSA EXHAUST	COR	58, 270-271
CRC CHEMICALS	CRC	464, 467-470, 472, 474, 476
CRUSADER ENGINES	ECR	5
CRUSADER ENGINES PARTS	CRU	57, 63-134, 154, 301, 303, 477, 544
DAYTON SPRING	GSC	CALL
DRIVESAVER	DRI	175
DURA-SAFE LOCKS	BLT	CALL
EDELBROCK PERFORMANCE	BRK	302
FARIA INSTRUMENTS	FAR	532-537

Manufacturer	Code	Pages
FASTENERS STAINLESS STEEL	FAS	814
FEDERAL MOGUL	FED	340-359
FELPRO GASKETS	FEL	360-390
FIRST MATE REMAN ENGINES	EFM	9-19
FLAME ARRESTORS	FAC	303
FORESPAR <b>NEW</b>	FRS	290
FRAM FILTERS	FRA	504-508
FULTON TRAILER ACCESSORIES	FUL	CALL
GFO SHAFT PACKING	GFO	176
GLM MARINE <b>NEW</b>	GLM	CALL, 257-260, 495
GLOBE IMPELLERS	BCO	629-630
GOODYEAR BELTS, See CONTINENTAL ELITE	GDY	280, 309-339
GROCO <b>NEW</b>	GRO	291-299
HGE MARINE EXHAUST	HGE	254-256
HOLLEY MARINE	HOL	300-301
HONDA OUTBOARDS	EHM	CALL, 42
HONDA PARTS	HON	43-50, 471-472, 509
HURTH TRANSMISSIONS	HUR	CALL, 159-161
IDEAL HOSE CLAMP	IDE	272
INDMAR	IND	307
ISOFLEX MOUNTS	ISO	172
J. B. WELD	JBW	466
JABSCO PUMP	JAB	580-603, 609-612, 635, 647
JMP PUMPS <b>NEW</b>	JMP	580-603
JOHNSON PUMP	JOH	580-608, 636, 642-643
KANBERRA PRODUCTS	KAN	466
KIWIGRIP <b>NEW</b>	KWG	480
LANOCOTE LUBE	LAN	467
LENCO TRIM TABS	LEN	181-186
LUBRIMATIC	LMC	467, 470, 471, 474
LUMITEC LIGHTING	LUM	518-520
MAGSTAR IGNITION WIRES	MAG	447
MALLORY MARINE	MAL	CALL
MARINCO <b>NEW</b>	MCO	559-561
MARINE POWER ENGINES	EMP	1-4
MARINE POWER PARTS	M/P	54-62, 215
MASE GENERATORS	EMA	52-53
MASE PARTS	MAS	CALL, 52-53
MEGA-MAG WIRE SETS	MEG	448-460
MERCURY OILS	MER	468
MIZE ELECTRICAL	MIZ	569-575
MOELLER MARINE	MOE	475-476, 491, 541, 635, 812
MORSE BEARINGS	TRE	177-180
MPI HOSE	MPI	272, 275-279, 303, 635, 643, 812
NALCOOL	NAL	467, 469
NATIONAL PRODUCTS	TOL	CALL
NGK SPARK PLUGS	NGK	39, 391-445



## Quick Reference by Manufacturer

Manufacturer	Code	Pages
ONGARO CONTROL PARTS	ONG	659
OSCO EXHAUST	OSC	CALL
PANELTRONICS	PTI	544
PARKER HANNIFIN	P/H	689
PENRAY ADDITIVES	NAL	467, 469
PERFORMANCE METALS	PMC	195-197
PERKO FLUSHERS	SHE	810
PERMATEX-LOCTITE	PER	282, 288-289, 463-465
PIONEER PRODUCTS	PNR	303-304
PLEASURECRAFT ENGINES	EPL	CALL
PLEASURECRAFT PARTS	PLE	135-137, 303
POWERMANIA	PMI	541
QL BY VOLVO	VQL	CALL
QUALITY TRAILER PARTS	TCF	CALL
QUICKSILVER PROPELLERS	TYP	193-194
RACOR FILTERS	RAC	482-493
REVERSO OIL CHANGERS	REV	493, 631-635
RIGID LIGHTS	RGD	515-517
RINDA TECHNOLOGIES	RIN	58
ROYAL PURPLE	RPI	473
ROYZE CARBURETOR KITS	IAI	302
RULE PUMPS AND SWITCHES	RUL	637-641, 643-646
SEAKAMP PRODUCTS 	SEA	218
SEASENSE	SSE	CALL 471-472, 575, 810, 812
SEASTAR SOLUTIONS TELEFLEX GAUGES & SENDERS	TEL	521-531, 538-539
SEASTAR SOLUTIONS TELEFLEX STEERING & CONTROLS	TEL	649-651, 654-655, 657-659, 662-665, 667, 669-690, 692-695
SELOC SERVICE MANUALS	SIE	805-808
SEN-DURE PRODUCTS	SEN	215-217, 286
SEPAR FILTRATION	SEP	494
SHELL COOLANT & OILS	DIL	469, 471
SHERWOOD PUMPS	SHE	137, 286, 580-603, 613-628, 810
SHIELDS HOSE	SHI	CALL
SHURFLO PUMPS	SHU	635, 645, 648
SIERRA	SIE	57, 60, 279, 303, 306-308, 467, 470-474, 495-503, 563-564, 566-567
SILVER SEAL	SSP	303
SKEGGARD	SKE	809
SOUNDOWN INSULATION 	SDN	269
SPRAY NINE	SPN	465
STA-BIL	STA	467, 470
STAINLESS STEEL VALVES & FITTINGS	BRA	285
STAR BRITE	STB	475, 576
STARLED 	LED	513
STEELMAN LIGHTS	HEA	CALL

Manufacturer	Code	Pages
STEERING BUDDY	BUD	680
STOLTZ ROLLERS	STO	CALL
SURE BAIL	MPI	643
SUZUKI OUTBOARDS	ESZ	21-25
SUZUKI PARTS	SUZ	26-41, 471-472, 509
T & H MARINE ACCESSORIES	T/H	503, 514, 541, 573, 646, 689, 809-812
T & R STEERING & ACCESSORIES	T/R	668, 802
TAPE	TAP	282, 576
TECHFLEX	TFX	571-572
TECNOSEAL ANODES	TEC	198-208
TEMPO SPRAY PAINT	TEM	CALL
TIDES SHAFT SEALS	TID	176
TIE DOWN ENGINEERING	TDE	CALL
TRAC ECOLOGICAL	TRC	299, 461, 603
TRIDENT EXHAUST HOSE & CLAMPS	TRI	272, 274, 277, 279
UFLEX CONTROLS & STEERING	UFL	652-653, 656, 660-661, 666-667, 691, 696-709
UFLEX TRIM TABS	UFL	191
VALVETECH	VAL	475
VELOX PAINT 	VEL	477
VELVET DRIVE	BOR	139-155
VETUS ACCESSORIES	VET	CALL, 20
VETUS ENGINES	EVE	CALL, 20
VICTRON 	VIC	542-543
VIKING S/S PRODUCTS	VIK	668, 717, 719
VILLAGE WATERMAKERS	VIL	510-512
VOLVO PENTA ENGINES	EVO	CALL
VOLVO PENTA PROPS & PARTS	VOL	CALL 192, 472
WAGNER ALTERNATOR KIT	SPE	CALL
WALBRO FUEL PUMP	F/P	305
WALTER V-DRIVES	WAL	156-158
WATER PUMPS CIRCULATING	BBB	138, 579
WEATHERHEAD HOSE	HOS	280
WEMA - KUS	WEM	540
WESBAR Trailer Acc.	WES	CALL
WHITE WATER MARINE	WWM	707
WHITECAP	WHI	636
WIRE	WIR	569-570
WIRING HARNESES	BBB	558
WISECO PISTONS & SLEEVES	WIS	710-735
WORK LIGHTS	MIS	CALL
WORLDWIDE MARINE	BUD	668
YAMAHA LUBES & OILS, FILTERS	YAM	470, 477, 509
Z-TUFF	ZTF	480
ZF CONTROLS	ZFM	CALL
ZF TRANSMISSION PARTS	ZFM	162-167
ZF TRANSMISSIONS	EZF	159-161
ZINCS	ZIN	195-214



# Eddie Forbes

## EDDIEFORBESART.COM

*Enjoy beautiful artwork designed by Eddie Forbes printed on rugged materials such as lobster traps and cedar boards. Beautiful long-lasting artwork for your indoor and outdoor space!*



*Visually stunning outdoor friendly artwork which allows you to proudly display your favorite Eddie Forbes pieces indoors or outdoors such as behind a bar or poolside.*

*Hundreds of options to choose from online!*





### 3.0L / 181CID SportPac Engine

#### Part No. EMPS181SL-BT, Complete 3.0L Bobtail Inboard Engine

Includes: Service base engine with cast iron exhaust manifold & riser, complete fuel system with 2-BBL Holley carburetor, Engine & Transmission oil cooler, Hi-energy ignition system, Hi-output alternator, Hi-torque starter, 14" flywheel, Flywheel housing, Flex plate damper, engine wiring harness, fuel/water separator, flame arrestor, sending units, front sump oil pan, dipstick & tube, circulating water pump, harmonic balancer and rear engine mounts. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	3.0L 181 CID
Cylinders.....	4-Inline
Bore & Stroke (cu. in.) .....	4.00 x 3.60
Compression Ratio .....	9.25:1
Horsepower Rating.....	140
Rotation (viewed from flywheel) .....	Left Hand Rotation
Dimensions including skid (in.).....	26" x 35" x 34"
Weight with skid.....	575 lbs.

#### Optional Equipment

Fresh Water Cooling Kit (*installed*).....EMP501181

#### Transmission Options

Velvet Drive 72C.....	1.0:1, 1.52:1, 1.88:1, 2.10:1, 2.57:1
Velvet Drive 72C V-Drives .....	1.0:1, 1.52:1, 1.88:1, 2.10:1, 2.57:1
ZF 45A.....	1.25:1, 1.5, 2.0 & 2.43:1
ZF 63IV.....	1.29:1, 1.56:1, 2.0:1, 2.47:1

**Note:** When SportPac engines are ordered with transmissions, the following items will be included: Transmission support brackets, mounts, cable connection hardware, neutral safety switch, oil hoses to cooler and companion flange.



**Model S181SL-BT**



### 5.7L / 350CID SportPac Engine

#### Part No. EMPS5.7VL-BT, Complete 5.7L Bobtail Inboard Engine

#### Part No. EMPS5.7VRL-BT, Complete 5.7L Bobtail Inboard Engine (*RH Rotation*)

#### Part No. EMPS5.7VL-BT-FWC, Complete 5.7L Fresh Water Cooled Bobtail Inboard Engine

#### Part No. EMPS5.7VR-BT-FWC, Complete 5.7L Fresh Water Cooled Bobtail Inboard Engine (*RH Rotation*)

Includes: Service base engine with cast iron exhaust manifolds & risers, complete fuel system with 4-BBL Holley carburetor, Engine & Transmission oil cooler, Hi-energy ignition system, Hi-output alternator, Hi-torque starter, 14" flywheel, Flywheel housing, Flex plate damper, engine wiring harness, fuel/water separator, flame arrestor, sending units, plastisol coated oil pan, dipstick & tube, circulating water pump, harmonic balancer and front engine mounts. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	5.7L 350 CID
Cylinders.....	V8
Bore & Stroke (cu. in.) .....	4.0 x 3.48
Compression Ratio .....	9.4:1
Horsepower Rating.....	315/325
Rotation ( <i>viewed from flywheel</i> ) .....	Left Hand & Right Hand Rotation
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	888 lbs.

#### Optional Equipment

Port Fuel Injection System (*installed*).....EMP760350

Fresh Water Cooling Kit-MPI Only (*installed*).....EMP501350

#### Transmission Options

Velvet Drive 72C.....	1.0:1, 1.52:1, 1.88:1, 2.10:1, 2.57:1
Velvet Drive 72C V-Drives .....	1.0:1, 1.52:1, 1.88:1, 2.10:1, 2.57:1
ZF 63A.....	1.2:1, 1.56:1, 2.0:1, 2.5:1
ZF 63IV.....	1.29:1, 1.56:1, 2.0:1, 2.47:1

**Note:** When SportPac engines are ordered with transmissions, the following items will be included: Transmission support brackets, mounts, cable connection hardware, neutral safety switch, oil hoses to cooler and companion flange. ZF transmissions can only be used with left hand rotation engines.



**Model S5.7VL-BT**



### 3.0L / 181CID EnPac Engine

**Part No. EMPE181S-I/O**, Complete 3.0L Engine for I/O Applications

The E181S is ideally suited to replace most MerCruiser, OMC & Volvo Penta GM 2.5 & 3.0L models. Includes: Service base engine with cast iron exhaust manifold and riser, complete fuel system, ignition system, alternator, hi-torque starter, Engine oil cooler, 14" flywheel, engine wiring harness, fuel/water separator, flame arrestor, sending units, front sump oil pan, dipstick & tube, circulating water pump, harmonic balancer. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	3.0L 181 CID
Cylinders.....	4-Inline
Bore & Stroke (cu. in.).....	4.00 x 3.60
Compression Ratio.....	9.25:1
Horsepower Rating.....	140
Rotation (viewed from flywheel).....	Left Rotation
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	550 lbs.

#### Optional Equipment

Engine Coupler Kit (MerCruiser).....	SIE 18-2195
Engine Coupler (OMC Cobra / Volvo SX).....	SIE 18-21751
Fresh Water Cooling Kit (installed).....	EMP 500181
12-3/4" Flywheel Kit (installed).....	EMP 100181



**Model E181S-I/O**



**OMC / Volvo Style  
drive coupler**



**MerCruiser Style  
drive coupler kit**



### 5.7L / 350CID EnPac Engine

**Part No. EMPE5.7V-MR2**, Complete 5.7L Engine for MerCruiser I/O Applications 1986 and newer

**Part No. EMPE5.7V-VR1**, Complete 5.7L Engine for early Volvo I/O Applications

**Part No. EMPE5.7V-VR2**, Complete 5.7L Engine for OMC & Volvo SX I/O's

Includes: Service base engine with cast iron exhaust manifold and riser, complete fuel system with Holley carburetor, ignition system, alternator, hi-torque starter, Engine oil cooler, 14" flywheel, engine wiring harness, fuel/water separator, flame arrestor, sending units, plastisol coated oil pan, dipstick & tube, circulating water pump, harmonic balancer and front engine mounts. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	5.7L 350 CID
Cylinders.....	V8
Bore & Stroke (cu. in.).....	4.0 x 3.48
Compression Ratio.....	9.4:1
Horsepower Rating.....	315/325
Rotation (viewed from flywheel).....	CCW
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	778 lbs.

#### Optional Equipment

Port Fuel Injection System (installed).....	EMP 760350
Engine Coupler Kit (MerCruiser).....	Included on E5.7V-MR2
Engine Coupler (OMC Cobra / Volvo SX).....	SIE 18-21752-1
Fresh Water Cooling Kit for E5.7V-MR2.....	EMP 500350
Fresh Water Cooling Kit for E5.7V-VR1.....	EMP 500353
Fresh Water Cooling Kit for E5.7V-VR2.....	EMP 500354
Power Steering Kit (installed).....	EMP 310350
12-3/4" Flywheel Kit (installed).....	EMP 100350



**Model E5.7V-VR2  
with optional  
power steering installed**



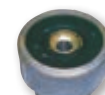
**MerCruiser Style  
drive coupler kit**



**MerCruiser Style  
exhaust used on  
E5.7V-MR2**



**Early Volvo Style  
exhaust used on  
E5.7V-VR1**



**OMC / Volvo Style  
drive coupler**





## 5.7L / 350CID Parpac Engine

**Part No. EMP882575**, Replaces GM Vortec models produced after 1996

**Part No. EMP882566**, Replaces GM Vortec models produced after 1996 (*Opposite Rotation*)

Includes: Service base engine with 14" flywheel, plastisol coated oil pan, intake manifold, complete fuel system including 4-BBL Holley carburetor, complete ignition system, circulating water pump, harmonic balancer, spark plugs, valve covers and a 1-year warranty. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	5.0L 305 CID
Cylinders.....	V8
Bore & Stroke (cu. in.).....	4.0 x 3.48
Compression Ratio.....	9.4:1
Horsepower Rating.....	315
Rotation (viewed from flywheel).....	Left Hand & Right Hand Rotation
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	503 lbs.



**Model 882575**

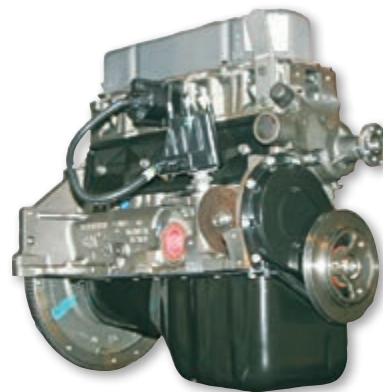


## 3.0L / 181CID Base Engine

**Part No. EMP881301**, Replaces GM Vortec models produced 1992 and later

Includes: Service base engine with 14" flywheel, front sump oil pan, dipstick & tube, circulating water pump, harmonic balancer, Delco electronic distributor and coil, spark plugs and valve cover. When replacing a pre-1992 engines, additional parts may need to be purchased for a complete retrofit. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	3.0L 181 CID
Cylinders.....	4-Inline
Bore & Stroke (cu. in.).....	4.00 x 3.60
Compression Ratio.....	9.25:1
Horsepower Rating.....	140
Rotation (viewed from flywheel).....	Left Hand Rotation
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	331 lbs.



**Model 881301**



## 5.0L / 305CID Base Engine

**Part No. EMP881501**, Replaces GM Vortec models produced 1996 and later

Includes: Service base engine with 14" flywheel, plastisol coated oil pan, circulating water pump, harmonic balancer, spark plugs and valve covers. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	5.0L 305 CID
Cylinders.....	V8
Bore & Stroke (cu. in.).....	3.74 x 3.48
Compression Ratio.....	9.4:1
Horsepower Rating.....	280
Rotation (viewed from flywheel).....	Left Hand Rotation
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	514 lbs.



**Model 881501**



### 5.7L / 350CID Base Engine

**Part No. EX1249952**, Replaces GM models produced Pre-1986

*(Does Not Come with Spark Plugs)*

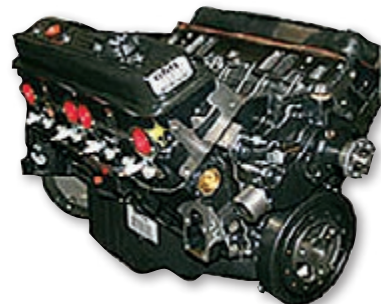
**Part No. EX1252027**, Replaces GM models produced between 1986 & 1996

*(Does Not Come with Spark Plugs)*

**Part No. 881571**, Replaces GM Vortec models produced 1996 & later

**Part No. 881575**, Replaces GM Vortec models produced 1996 & later (*Opposite Rotation*)

Includes: Service base engine with 14" flywheel, plastisol coated oil pan, circulating water pump, harmonic balancer, spark plugs and valve covers. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.



**Model Shown 881571**

Displacement.....	5.7L 350 CID
Cylinders.....	V8
Bore & Stroke (cu. in.).....	4.0 x 3.48
Compression Ratio.....	9.4:1
Horsepower Rating.....	290-310
Rotation (viewed from flywheel).....	Left Hand & Right Hand Rotation
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	540 lbs.

## SERVICE & SUPPORT

What happens to a leading manufacturer of marine gasoline-powered engines when it's supported by the nation's largest independent marine distributors? Just ask Marine Power. Partnering with the financial strength, distribution reach and industry innovation of Jerry's Marine Service, Marine Power holds the tools, talent and technology to support dealers worldwide.

**Worldwide Tools:** Marine Power's force comes from tremendous support throughout the world via Jerry's Marine Service. A satellite warehouse in the Pacific Northwest helps us supply parts quickly to dealers on the west coast. By inventorying service parts throughout our support network's 17 nationwide distribution centers, dealers enjoy next day deliveries in most cases.

Our international support helps us quickly and precisely address needs in Central and South America, Australia, and Western Europe. Add to this the ability of extending our reach to over 8000 dealers throughout the country and it's easy to see why Marine Power can deliver.

**Unsurpassed Talent:** You'll find the industry's best & brightest entrepreneurial management and engineering pioneers here – the real power behind the performance. Our sales team will contact your top dealers regularly to constantly evolve and continue to deliver immediate dealer support. Exactly what they expect and deserve from their engine supplier.





## 5.7L Classic

**Part No. ECR5.7LC-BT-FWC**, Complete 5.7L Engine, LH Rotation Bob-Tail

**Part No. ECR5.7RC-BT-FWC**, Complete 5.7L Engine, RH Rotation Bob-Tail

Includes: Service base engine with free-breathing ported pyramidal exhaust manifold and riser, complete fuel system with Holley carburetor, electronic ignition system, 65-amp alternator, hi-torque top mounted starter, engine and gear oil cooler, flywheel housing, 14" flywheel, transmission drive plate, engine wiring harness, fuel/water separator, flame arrestor, sending units, plastisol coated oil pan, fresh water cooling system, stainless modular sea water pump, 6-way adjustable vibration free mounts. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	5.7L 350 CID
Cylinders.....	V8
Bore & Stroke (cu. in.).....	4.0 X 3.48
Compression Ratio.....	9.4:1
Horsepower Rating.....	315
Rotation (viewed from flywheel).....	Left & Right Hand Rotation
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	925 lbs.

### Transmission Options

All Crusader Classic Series engines can be fitted with Velvet Drive 72 or 5000 Series gears or ZF 63 Series models.

**Crusader**



**Model 5.7RC-BT-FWC**

## 5.7L Captain's Choice

**Part No. ECR5.7L-MPI-BT**, Complete 5.7L MPI Engine, LH Rotation Bob-Tail

**Part No. ECR5.7R-MPI-BT**, Complete 5.7L MPI Engine, RH Rotation Bob-Tail

Export crating is available upon request and for a nominal charge.

Displacement.....	5.7L 350 CID
Cylinders.....	V8
Bore & Stroke (cu. in.).....	4.0 X 3.48
Compression Ratio.....	9.4:1
Horsepower Rating.....	330
Rotation (viewed from flywheel).....	Left & Right Hand Rotation
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	925 lbs.

### Transmission Options

All Crusader Captain's Choice Series engines can be fitted with Velvet Drive 72 or 5000 Series gears or ZF 63 Series models.



**Model 5.7R-MPI-BT**

## 6.0L Captain's Choice

**Part No. ECR6.0MPI-BT**, Complete 6.0L MPI Engine, LH Rotation Bob-Tail

Includes: Service base engine with free-breathing ported pyramidal exhaust manifold and riser, complete multi-port fuel injection system, distributorless ignition system, electronic engine management system, 70-amp alternator, hi-torque top mounted starter, engine and gear oil cooler, flywheel housing, 14" flywheel, transmission drive plate, engine wiring harness, hi-capacity fuel filter/water separator with vapor lock protection, flame arrestor, sending units, aluminum coated oil pan, fresh water cooling system, stainless modular sea water pump, 6-way adjustable vibration free mounts. Comes mounted to a wooden engine skid and is covered with heavy gauge plastic wrap for protection. Export crating is available upon request for a nominal charge.

Displacement.....	6.0L 364 CID
Cylinders.....	V8
Bore & Stroke (mm).....	101.6 x 92
Compression Ratio.....	10.9:1
Horsepower Rating.....	375
Rotation (viewed from flywheel).....	Left Hand
Dimensions including skid (in.).....	30" x 26" x 36"
Weight with skid.....	900 lbs.

### Transmission Options

All Crusader Captain's Choice Series engines can be fitted with Velvet Drive 72 or 5000 Series gears or ZF 63 Series models.



**Crusader**

**BARR**  
MARINE BY EDM**4.3L GM Base Marine Engine**

Indmar Part No. 051028N

**Indmar**  
MARINE ENGINES**Specifications**

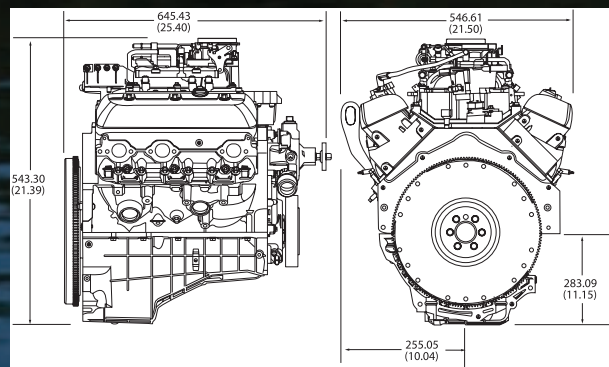
Displacement:	262 C.I.D. (4294 cc) / 4.3L
Cylinders:	90 Degree V6 Cylinder
Comp. Ratio:	9.4:1
Valve Config.:	Overhead Valves (2 valves per cylinder)
Valve Lifters:	Hydraulic Roller
Bore x Stroke:	4.00" x 3.48" (101.60 x 88.39 mm)
Main Bearings Caps	Cast Iron GM232-M
Ignition:	Customer Supplied
Intake Manifold:	Cast Iron (2 Barrel Carburetor)
Block MFG.:	GM Powertrain
Flywheel Dia.:	14" (Ring Gear Towards Engine)
Firing Order:	1 - 6 - 5 - 4 - 3 - 2
Oil Pan Capacity:	4.5 Quarts (W/O Filter)
Oil Type:	SAE 15W40 Pennzoil Marine
Paint Protectant:	High Gloss Black / Superior Corrosion Resistant
Horsepower:	223 H.P. @ 4800 RPM (Carburetor)
Torque:	267 lb-ft @ 2800 RPM
Warranty:	1 Year Limited (90 Days Commercial)

**Available Options:**

- A full range of new replacement parts needed to complete the build up!

**1 Year  
Warranty!****Part 051028N includes:**

- Block (with all internal engine components)
- Water Circulating Pump
- 14" Flywheel
- Harmonic Balancer
- Timing Chain Cover
- Cast Iron Intake (2 barrel)
- Valve Covers
- Spark Plugs
- Oil Pan

When ordering please place **"EIN"** in front of part number



**BARR**  
 MARINE BY EDM

# 5.0L GM "Long Block/Green" (vortec) Marine Engine

Indmar Part No. 05170G

**Indmar**  
 MARINE ENGINES

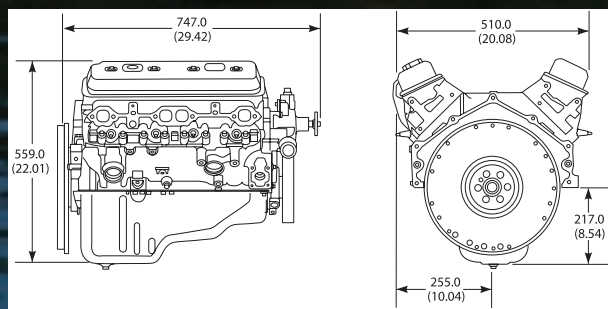

## Specifications

Displacement:	305 C.I.D. (4999 cc) / 5.0L
Cylinders:	90 Degree V8 Cylinder
Comp. Ratio:	9.4:1
Valve Config.:	Overhead Valves (2 valves per cylinder)
Valve Lifters:	Hydraulic Roller
Bore x Stroke:	4.00" x 3.48" (101.60 x 88.39 mm)
Main Bearings Caps:	Cast Iron GM232-M
Ignition:	Customer Supplied
Intake Manifold:	Customer Supplied (Vortec Style)
Block MFG.:	GM Powertrain
Flywheel Dia.:	14" (Ring Gear Towards Engine)
Firing Order:	1 - 8 - 4 - 3 - 6 - 5 - 7 - 2
Oil Pan Capacity:	5.5 Quarts (With Filter)
Oil Type:	SAE 15W40 Pennzoil Marine
Horsepower:	292 H.P. @ 4800 RPM (Carburetor)
Torque:	370 lb-ft @ 3200 RPM
Warranty:	1 Year Limited (90 Days Commercial)

Note: Actual power levels may vary depending on Indmar's calibration and application.

## Available Options:

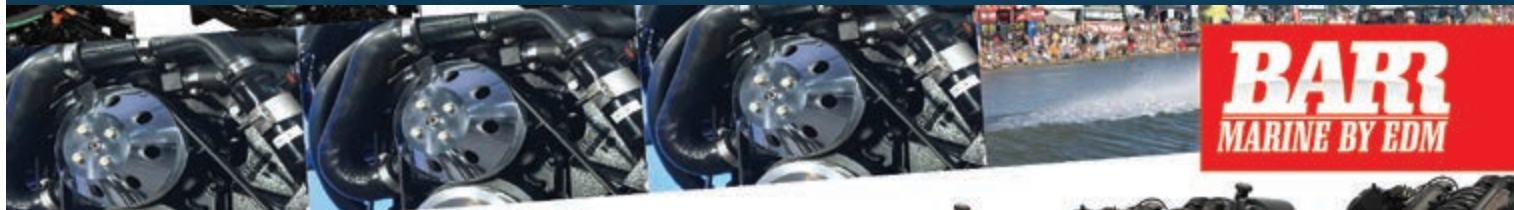
- A full range of new replacement parts needed to complete the build up!
- 12 3/4" Flywheel Order Part No. 24-14088650

**1 Year  
Warranty!**


## Part No. 05170G includes:

- Block (with all internal engine components)
- Water Circulating Pump
- 14" Flywheel
- Harmonic Balancer
- Timing Chain Cover
- Oil Pan
- Valve Covers
- Spark Plugs

When ordering please place "EIN" in front of part number





**BARR**  
 MARINE BY EDM

# 5.0L GM "Enhanced Base" Marine Engine

Indmar Part No. 041005

**Indmar**  
 MARINE ENGINES


## Specifications

Displacement:	305 C.I.D. (4999 cc) / 5.0L
Cylinders:	90 Degree V8 Cylinder
Comp. Ratio:	9.4:1
Valve Config.:	Overhead Valves (2 valves per cylinder)
Valve Lifters:	Hydraulic Roller
Bore x Stroke:	4.00" x 3.48" (101.60 x 88.39 mm)
Main Bearings Caps:	Cast Iron GM232-M
Ignition:	Customer Supplied
Intake Manifold:	4 Barrel (Vortec Style)
Block MFG.:	GM Powertrain
Flywheel Dia.:	14" (Ring Gear Towards Engine)
Firing Order:	1 - 8 - 4 - 3 - 6 - 5 - 7 - 2
Oil Pan Capacity:	5.5 Quarts (With Filter)
Oil Type:	SAE 15W40 Pennzoil Marine
Horsepower:	310 H.P. @ 4800 RPM (Carburetor)
Torque:	370 lb-ft @ 3200 RPM
Warranty:	1 Year Limited (90 Days Commercial)

Note: Actual power levels may vary depending on Indmar's calibration and application.

## Available Options:

- A full range of new replacement parts needed to complete the build up!
- 12 3/4" Flywheel Order Part No. 24-14088650

**1 Year  
Warranty!**

“ The Indmar "Enhanced Base" fuel and spark is brand new and the perfect engine for the boater who requires a new power plant in their boat. This engine is an excellent replacement for customer who has existing components they want to re-install to get their boat back in the water! ”

## Part No. 041005 includes:

- Block (with all internal engine components)
- Water Circulating Pump
- 14" Flywheel
- Electronic Distributor (HEI-Delco)
- Carburetor (Holley/4150-600 CFM)
- Harmonic Balancer
- Timing Chain Cover
- Oil Pan
- Fuel Pump (electronic)
- Thermostat Housing
- Valve Covers
- Spark Plugs
- Plug Wires
- Coil
- T-HSG Hose

When ordering please place "EIN" in front of part number







## QUALITY MARINE ENGINES TO FIT EVERY BUDGET

At First Mate Marine, your complete satisfaction is our first and foremost concern. We offer long blocks, cylinder head kits, and some long block assemblies with oil pan and timing cover. If you need an engine that is not listed in our catalog, please call us or fill out our quote form online. Cylinder head, block and crank casting numbers will assist us in supplying your exact needs.

## HOW TO USE THIS CATALOG

Years Approx.	Description	HP	Liters CID	Cyls	Block Casting Numbers	Part Numbers				Cylinder Head
						Standard Rotation	Reverse Rotation	Standard Rotation	Reverse Rotation	
85-86	2 Piece rear main seal. This is the early style block. 12 bolt intake. Flat tappet cam. 10 bolt timing cover.	175 & 205	4.3L 262 CID	V-6	177	GM262LA	GM262RA	GM262LAT	GM262RAT	H6009, H6009A
86-88	1 Piece rear main seal. Flat tappet cam engine. Valve cover bolts down center. 12 bolt intake. 10 bolt timing cover.	175 & 205	4.3L 262 CID	V-6	558, 683	GM262LB	GM262RB	GM262LBT	GM262RBT	H6009, H6009A
87-92	Flat cam engine. 1 piece rear main seal. 10 bolt intake.	175 & 205	4.3L 262 CID	V-6	558, 683	GM262LB	GM262RB	GM262LBT	GM262RBT	H6009, H6009A

1

Locate the make and year  
YEARS ARE APPROXIMATED

2

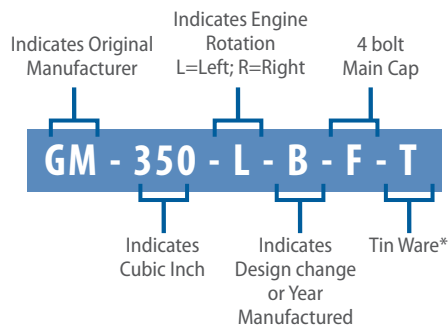
Note identifying attributes

3

Determine appropriate part number

CASTING NUMBERS HELP ENSURE  
ACCURATE CATALOGING.

## OUR PART NUMBER SYSTEM

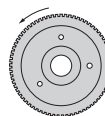


\*TIN INCLUDES TIMING COVER AND OIL PAN, OIL PUMP AND PICKUP TUBE, INSTALLED.

## ENGINE ROTATION TERMINOLOGY

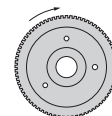
Engine rotation direction is determined by observing Flywheel rotation from the flywheel end of the engine looking forward to the pulley end of the engine.

Note: Propeller rotation is not necessarily the same as engine rotation. Do not rely on propeller rotation in determining engine rotation.



**Normal (Standard)**

Rotation: Counter-clockwise  
(left hand) flywheel rotation



**Reverse (Opposite)**

Rotation: Clockwise  
(right hand) flywheel rotation

When ordering please place "EFM" in front of part number

**MARINE DRIVE VARIATIONS****Stern Drive (Inboard/Outboard, Outdrive)**

The engine is mounted inside the boat. The transmission/drive unit is outside, attached to the transom. The engine and drive unit are joined by a torque coupler and universal joint. Angling the drive steers the boat.

**Inboard**

The engine and transmission/drive unit are inside the boat. A drive shaft is connected at the rear of the transmission and is run out of the hull through a sealing unit. The propeller is connected directly to the drive shaft at the in-water end. A separate rudder steers the boat.

**V-Drive**

Basically a modified inboard installation. The engine is mounted with the front (pulley end) facing stern (rear). The transmission faces the bow (front) and by the use of a universal joint on the end of the transmission, the drive shaft is directed stern-wards under the engine and through the hull. The propeller/rudder arrangement is the same as in a standard inboard installation.

**Jet Drive**

The engine is mounted inside the boat and attached to a high speed pump which draws in water through an intake grate, increases its velocity and forces it out through a directionally-adjustable nozzle which is mounted outside the boat. Changing the direction of the nozzle steers the boat.

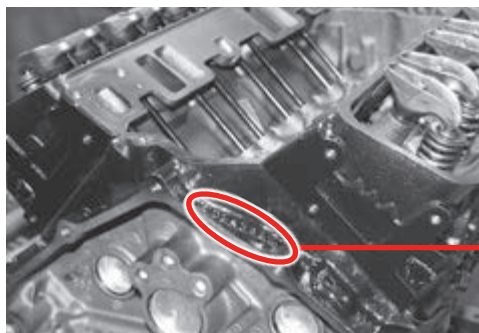
**IDENTIFYING CORRECT PART NUMBERS**

*When identifying the correct part number for an application, make sure to verify all of the information asked for in the description.*

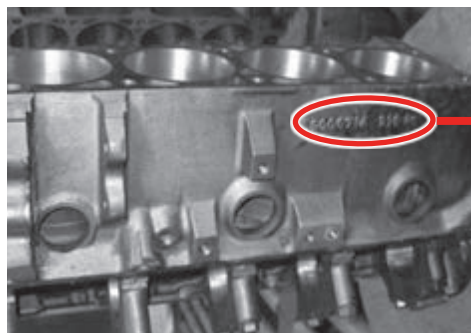
*Use both the casting numbers and the physical descriptions, including the rotation of the engine.*

**CASTING NUMBERS**

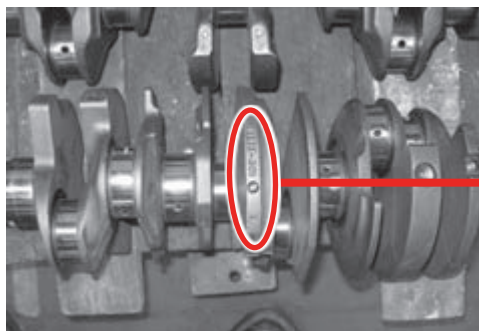
Casting numbers can be found in the locations depicted below:



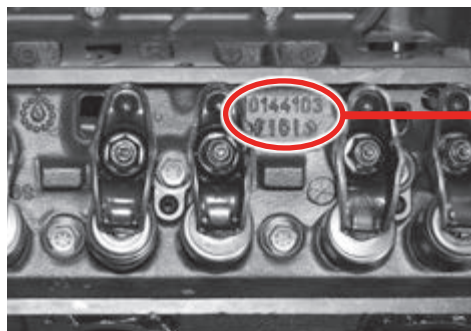
General Motors



Ford, Chrysler



Crankshaft

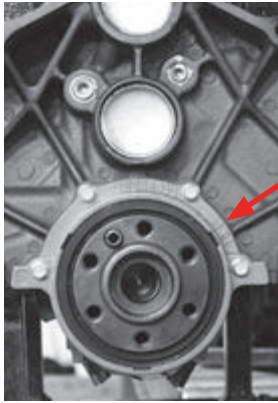


Cylinder Head

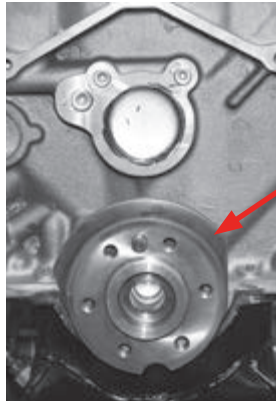
When ordering please place "EFM" in front of part number



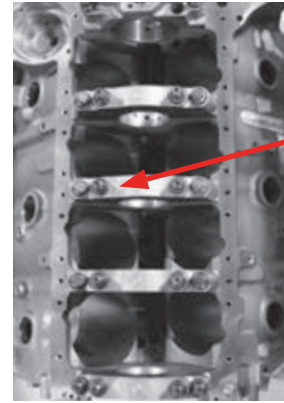
## ENGINE IDENTIFIERS



1 Piece Rear Main Seal

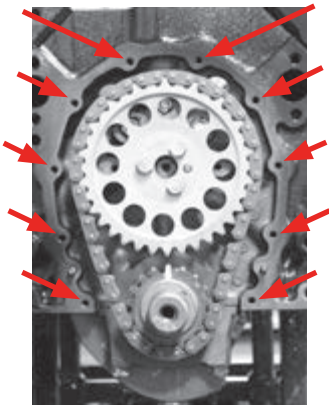


2 Piece Rear Main Seal

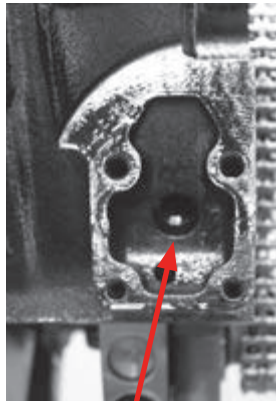


4 bolt Main

10 Bolt Timing Cover

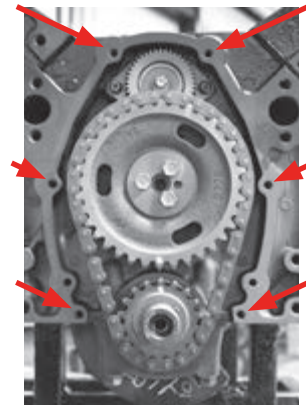


Mechanical/Electric Fuel Pump

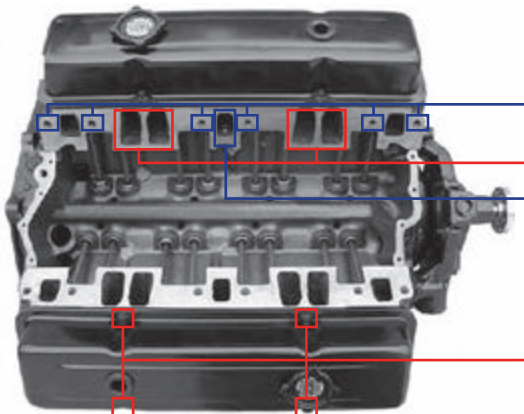


Is there a hole?

6 Bolt Timing Cover

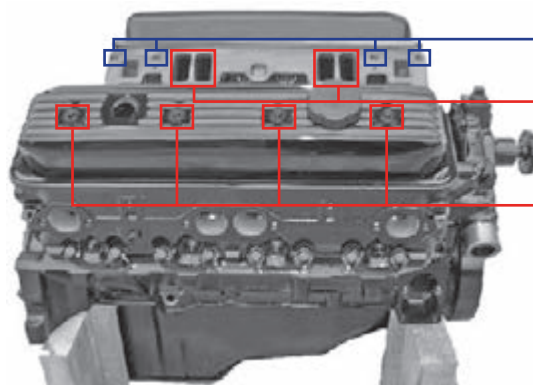


## CYLINDER HEAD IDENTIFIERS



12 Bolt Intake Mainfold  
Intake Ports  
Intake Crossover

Perimeter Bolt Valve Covers



8 Bolt Intake Mainfold  
Intake Ports  
Center Bolt Valve Covers

When ordering please place **"EFM"** in front of part number

# ENGINES

## FIRST MATE MARINE ENGINE FEATURES

- 24-month Limited Warranty\*
- New Pistons, Moly Rings
- Marine Cam and Lifters
- Brass Block Plugs
- New Rod, Main and Cam Bearings
- New H.D. Timing Chain and Gears
- New Oil Pump
- New Marine Gasket Set
- Block Resurfaced, Bored and Honed
- Crankshaft Reconditioned
- Connecting Rods Reconditioned
- Valve Guides Reconditioned
- Heads Resurfaced
- New Valve Springs
- Three-Angle Valve Job
- Spin Tested
- Pressure Tested
- **FirstMate Marine BluePrint Engines are blueprinted, balanced, Dyno-tested, and have a 12-month Limited Warranty**

\* See Warranty for Details

## HIGH-PERFORMANCE BLUEPRINT MARINE ENGINES



*For those of you who feel the need for speed on the open water, we offer the ultimate in performance—the Marine BluePrint. All Marine performance engines are completely balanced, blueprinted and dyno-tested just like the rest of the BluePrint line.*

### 4.3 Liter GM 262

**Peak HP: 262    Torque: 300 ft/lbs.**

.457 intake and exhaust lift, 218 intake and exhaust duration at .050, flat tappet cam, cast iron VORTEC heads, cast iron premium crank, hypereutectic pistons, new cast iron intake.

**Base Part #: MBP262CT**

### 5.7 Liter GM 355

**Peak HP: 365    Torque: 390 ft/lbs.**

.462 intake and .477 exhaust lift, 218 intake and 224 exhaust duration at .050, flat tappet cam, cast iron VORTEC heads, cast iron premium crank, hypereutectic pistons, new cast iron intake.

**Base Part #: MBP3550CT    Dressed Part #: MBP3550CTC**

### 5.7 Liter GM 350 "Stroker" 383

**Peak HP: 405    Torque: 450 ft/lbs.**

.503 intake and .510 exhaust lift, 224 intake and 230 exhaust duration at .050, roller cam, cast iron VORTEC heads, cast iron premium crank, hypereutectic pistons, new cast iron intake.

**Base Part #: MBP3830CT    Dressed Part #: MBP3830CTC**

### 7.4 Liter GM 454 "Stroker" 496

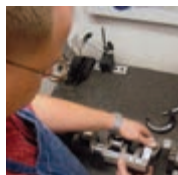
**Peak HP: 460    Torque: 515 ft/lbs.**

.544 intake and .547 exhaust lift, 226 intake and 236 exhaust duration at .050, flat tappet cam, cast iron heads, cast steel crank, hypereutectic pistons, polished intake.

**Base Part #: MBP4960CT    Dressed Part #: MBP4960CTC**



*At FirstMate Marine, we bore every cylinder to within .004 of the finished size. Then we use a diamond hone to ensure bore geometry is held within 300 millionths of an inch. Next is a surface finish test to measure the roughness and plateau finish of the cylinder wall.*



*We completely assemble each engine in a clean and controlled environment under the supervision of a trained Quality Control department. Constant super-vision, testing and auditing assures every FirstMate Marine Engine meets our stringent requirements.*



*FirstMate Marine Cylinder Heads are cleaned and remanufactured to perform like new. Our quality programs enforce excellence in every operation, from hand repair to state-of-the-art 3-angle seat cutting.*

When ordering please place "EFM" in front of part number



# ENGINES

## Part Numbers

With Timing Cover and  
Oil Pan already installed.

Years Approx.	Description	HP	Liters CID	Cyls	Block Casting Numbers	Standard Rotation	Reverse Rotation	Standard Rotation	Reverse Rotation	Cylinder Head
<b>CHRYSLER</b>										
66-88	Dipstick in front of block. 2 piece rear main seal	200	5.2L 318 CID	V-8	730, 230, 603, 803, 030	CR318LA	CR318RA	-	-	H6041, 6041A
75-88	Dipstick in front of block. 2 piece rear main seal	250	5.9L 360 CID	V-8	496, 230, 830	CR360LA	CR360RA	-	-	H6045, 6045A
76-80	Standard 440 Engine. Forged steel crank. Must have customer's cam for reverse rotation engine.	335	7.2L 440 CID	V-8	630, 930	CR440LA	CR440RA	-	-	H6047
<b>FORD</b>										
68-81	Flat tappet cam. Early style. Crank casting numbers Must Be 2M, 2MA, 2MAB. Firing order 1,5,4,2,6,3,7,8.	188 & 200	5.0L 302 CID	V-8	D4DE-AA, D8YE-A3A, D9DE-E3A, D5ZY-AA	FO302LA	FO302RA	-	-	H6061, 6061A
81-95	1 piece rear main seal, flat tappet cam. Crank casting number must be 2MAE. 14mm spark Plugs. Firing order 1,5,4,2,6,3,7,8.	188 & 200	5.0L 302 CID	V-8	E1AE-AA, E5AE, E0AE, E6SE	FO302LB	FO302RB	-	-	H6062, 6062A
95-98	Firing order 1,3,7,2,6,5,4,8. Has a 351 cam. Flat tappet with knock sensor. Dipstick on side of block.	188 & 200	5.0L 302 CID	V-8	F1SE	FO302LD	-	-	-	H6062, H6062A
69-94	Standard 351 Engine. Dipstick in pan or front cover. Has fuel pump hole. Flat tappet cam. Windsor block.	235 & 250	5.8L 351 CID	V-8	D4AE-AA, D4AE-DA, D9AE-ED, E4AE	FO351LA	FO351RA	-	-	H6063, 6064, 6064A
73-78	Early style. Crank casting numbers must be 2YA, 2YABC, C8VE-A, 2Y or 2YAB. Must have customers cam for reverse rotation engine.	340	7.5L 460 CID	V-8	D1TE, D1V, D1VE-AA, D1VE-A2	FO460LA	FO460RA	-	-	H6065
78-90	Late style. Crank casting numbers must be 3Y Or 3YAAABC. Must have customers cam for reverse rotation engine.	340	7.5L 460 CID	V-8	D9TE	FO460LB	FO460RB	-	-	H6065
<b>GENERAL MOTORS</b>										
62-86	Original replacement for the 2.5L 110 horse power engine. Must have core to return.	110 & 120	2.5L 153 CID	L-4	857,034, 449,045, 035,746, 087	GM153LA	-	-	-	H6001, H6002
75-90	2 Piece rear main seal. This is the early style block. Must have core to return.	130 & 140	3.0L 181 CID	L-4	087, 886, 678, 104, 446, 613, 080, 746	GM181LA	-	-	-	H6003
90-95	MERCUSIER APPLICATIONS ONLY, 1 piece rear main seal, pre-electronic ignition, Head casting number 619 or 770. Engine is built for a 2-bolt starter where the bolt holes are parallel to bell housing. Crankshaft does not have a pilot hole. Must have core to return.	130 & 140	3.0L 181 CID	L-4	613, 080	GM181LB	-	-	-	H6004
95-12	Head casting number must be 620. MERCUSIER APPLICATIONS ONLY, 1 piece rear main seal, electronic ignition. Engine is built for a 2-bolt starter where the bolt holes are parallel to bell housing. Crankshaft does not have a pilot hole. Must have core to return.	130 & 140	3.0L 181 CID	L-4	080	GM181LC	-	-	-	H6000
80-84	Valve covers bolt around perimeter. Flat tappet cam.	175	3.8L / 229	V-6	594	GM229LA	-	-	-	H6005
70-80	In Line 6 Cyl. Engine.	150 & 165	4.1L 250 CID	L-6	855,675, 127,466, 575	GM250LA	-	-	-	H6007

When ordering please place "EFM" in front of part number

						Part Numbers				
Years Approx.	Description	HP	Liters CID	Cyls	Block Casting Numbers	With Timing Cover and Oil Pan already installed.				Cylinder Head
						Standard Rotation	Reverse Rotation	Standard Rotation	Reverse Rotation	
85-86	2 Piece rear main seal. This is the early style block. 12 bolt intake. Flat tappet cam. 10 bolt timing cover.	175 & 205	4.3L 262 CID	V-6	177	GM262LA	GM262RA	GM262LAT	GM262RAT	H6009, H6009A
86-88	1 Piece rear main seal. Flat tappet cam engine. Valve cover bolts down center. 12 bolt intake. 10 bolt timing cover.	175 & 205	4.3L 262 CID	V-6	553, 683	GM262LB	GM262RB	GM262LBT	GM262RBT	H6009, H6009A
87-92	Roller cam engine. 1 piece rear main seal, 10 bolt timing cover. With fuel pump hole. 12 bolt intake.	175 & 205	4.3L 262 CID	V-6	011, 867, 611, 756, 256, 073, 683, 061	GM262LH	–	GM262LHT	–	H6009
92-96	Roller cam engine with wide intake. Head casting numbers 064, 209, Or 181 last three digits. 4 bolt lifter hold down. No fuel pump hole, no balance shaft. 12 bolt intake. 1 piece rear main seal. 10 bolt timing cover.	175 & 205	4.3L 262 CID	V-6	756, 073, 061	GM262LF	–	–	–	H6011, H6012
96-99	VORTEC. Roller cam engine with balance shaft. 8 bolt intake, 1 piece rear main, 6 bolt plastic timing cover, 10 bolt oil pan rail, stamped steel rockers.	175 & 205	4.3L 262 CID	V-6	090	GM262LG	–	GM262LGT	–	H6010
92-99	Roller cam engine with balance shaft. 6 or 10 bolt timing cover, 1 piece rear main. Without fuel pump hole. 12 bolt intake. 14 bolt. Oil Pan.	175 & 205	4.3L 262 CID	V-6	196, 534, 359, 535	GM262LI	–	GM262LIT	–	H6011, H6012
00-09	VORTEC. Roller cam with balance shaft. Has roller rockers. Block has metric mounts. Head casting should be 113. 8 bolt intake. Plastic 6 bolt timing cover. (Will not work with late model 4.3L 234 casting engines.)	200 & 230	4.3L 262 CID	V-6	090M only	GM262LJ	–	GM262LJT	–	H6014
63-73	7/16 Fly wheel bolts. 2 Bolt starter pad. Flat tappet cam.	200	4.8L 292 CID	L-6	258, 404, 659, 970	GM292LA	GM292RA	–	–	H6007
76-85	2 Piece rear main seal. Valve covers bolt around perimeter. Dip stick on starboard and port side of block, flat tappet, 12 bolt intake, 10 bolt timing cover.	200 & 230	5.0L 305 CID	V-8	909, 979, 776, 777, 371, 778	GM305LA	GM305RA	GM305LAT	GM305RAT	H6015, H6015A, H6016, H6016A
85-87	1 Piece rear main seal. Valve covers bolt around perimeter. Double check rear main seal. This is not a very common engine. Flat tappet, 12 bolt intake. 10 bolt timing cover.	200 & 230	5.0L 305 CID	V-8	535, 551, 627, 058	GM305LB	GM305RB	GM305LBT	GM305RBT	H6015, H6015A, H6016, H6016A
87-95	1 Piece rear main seal, flat tappet. Valve covers bolt down center. 10 bolt timing cover, 12 bolt intake.	200 & 230	5.0L 305 CID	V-8	535, 551, 627, 058	GM305LC	GM305RC	GM305LCT	GM305RCT	H6017, H6017A
87-99	1 Piece rear main seal. Valve cover bolt down center. Roller cam engine. 10 bolt timing cover, 12 bolt intake.	200 & 230	5.0L 305 CID	V-8	535, 551, 627, 058	GM305LD	–	GM305LDT	–	H6017, H6017A
96-12	VORTEC, 8 bolt intake. 8 or 10 bolt timing cover, roller cam, 1 piece rear main seal.	250	5.0L 305 CID	V-8	880, 878	GM305LF	–	GM305LFT	–	H6018
67-85	2 Piece rear main seal. Valve covers bolt around perimeter. 2 bolt main. Dip stick on starboard and port side of block, flat tappet, 12 bolt intake, 10 bolt timing cover	260	5.7L 350 CID	V-8	245, 379, 010, 014, 678, 388, 618	GM350LA	GM350RA	GM350LAT	GM350RAT	H6021, H6022, H6022A
67-85	2 Piece rear main seal. Valve covers bolt around the perimeter. 4 bolt main. Dip stick on starboard and port side of block, flat tappet, 12 bolt intake, 10 bolt timing cover	260	5.7L 350 CID	V-8	245, 379, 010, 014, 678, 388, 618	GM350LAF	GM350RAF	GM350LAFT	GM-350RAFT	H6021, H6022, H6022A
67-85	2 Piece rear main seal. Valve covers bolt around perimeter. 4 bolt main. This is a cam upgrade. Dip stick on starboard and port side of block, flat tappet, 12 bolt intake, 10 bolt timing cover	275	5.7L 350 CID	V-8	245, 379, 010, 014, 678, 388, 618	GM350LAFHO	–	GM350LAFHOT	–	H6021, H6022, H6022A
86-87	1 Piece rear main seal. Valve covers bolt around perimeter. 2 bolt main. Flat tappet, 12 bolt intake, 10 bolt timing cover.	260	5.7L 350 CID	V-8	245, 379, 010, 014, 678, 388, 618	GM350LB	GM350RB	GM350LBT	GM350RBT	H6021, H6022, H6022A

When ordering please place “EFM” in front of part number



# ENGINES

Years Approx.	Description	HP	Liters CID	Cyls	Block Casting Numbers	Part Numbers		With Timing Cover and Oil Pan already installed.		Cylinder Head
						Standard Rotation	Reverse Rotation	Standard Rotation	Reverse Rotation	
86-87	1 Piece rear main seal. Valve covers bolt around the perimeter. 4 bolt main. Flat tappet, 12 bolt intake, 10 bolt timing cover.	260	5.7L 350 CID	V-8	245, 379, 010, 014, 678, 388, 618	GM350LBF	GM350RBF	GM350LBFT	GM- 350RBFT	H6021, H6022, H6022A
86-87	1 Piece rear main seal. Valve covers bolt around perimeter. 4 bolt main. This is a cam upgrade. Flat tappet, 12 bolt intake, 10 bolt timing cover.	275	5.7L 350 CID	V-8	245, 379, 010, 014, 678, 388, 618	GM350LBFHO	–	GM350LBFHOT	–	H6021, H6022, H6022A
88-95	1 Piece rear main seal. Valve covers bolt down center. 2 bolt main. Flat tappet cam. Works for carbureted or fuel injected. 12 Bolt intake. 10 bolt timing cover.	260	5.7L 350 CID	V-8	548, 526, 148, 638	GM350LC	GM350RC	GM350LCT	GM350RCT	H6023, H6023A
88-94	1 Piece rear main seal. Valve covers bolt down center. 4 bolt main. 10 bolt timing cover, flat tappet, 12 bolt intake.	260	5.7L 350 CID	V-8	548, 526, 148, 638	GM350LCF	GM350RCF	GM350LCFT	GM- 350RCFT	H6023, H6023A
88-94	1 Piece rear main seal. Valve covers bolt down center. 4 bolt main. This is a cam upgrade. 10 bolt timing cover, flat tappet, 12 bolt intake.	275	5.7L 350 CID	V-8	548, 526, 148, 638	GM350LCFHO	–	GM350LCFHOT	–	H6023, H6023A
88-94	1 Piece rear main seal. Valve covers bolt down center. Roller cam engine. 10 bolt timing cover, 12 bolt intake.	260	5.7L 350 CID	V-8	548, 526, 148, 638	GM350LD	–	GM350LDT	–	H6023, H6023A
95-99	1 Piece rear main seal. Roller cam. 12 Bolt Intake. Center bolt valve covers, 6 bolt plastic timing cover. Mechanical fuel pump. Can use GM350LD and use tin timing cover.	260	5.7L 350 CID	V-8	880	GM350LE	–	GM350LET	–	H6023, H6023A
95-99	1 Piece rear main seal. Roller cam. 6 bolt plastic timing cover. Center bolt valve covers. 12 bolt intake with electric fuel pump.	260	5.7L 350 CID	V-8	880	GM350LEI	–	GM350LEIT	–	H6023, H6023A
96-05	VORTEC . 1 Piece rear main seal. Roller cam. Plastic timing cover. Center bolt valve covers. Has 8 bolt intake. Mechanical fuel pump.	295	5.7L 350 CID	V-8	880	GM350LF	–	GM350LFT	–	H6013
96-12	VORTEC . 1 Piece rear main seal. Roller cam. Has 8 bolt intake. Electric fuel pump. Center bolt valve covers, 6 bolt plastic timing cover. Can use GM350LF with fuel pump block off plate.	295	5.7L 350 CID	V-8	880	GM350LFI	GM350RFI	GM350LFIT	–	H6013
73-90	Mark IV 2 piece rear main seal. Oval intake port heads. Flat Tappet, 10 bolt timing cover. Built using 2 and 4 bolt main blocks.	330	7.4L 454 CID	V-8	289	GM454LA	GM454RA	GM454LAT	GM454RAT	H6032
73-90	Mark IV 2 piece rear main seal. Round intake port heads. This engine is a direct substitute for the GM454LA Or GM454RA. Flat Tappet, 10 bolt timing cover, built using 2 and 4 bolt main blocks	330	7.4L 454 CID	V-8	959, 445, 286, 775	GM454LAS	GM454RAS	GM454LAST	GM- 454RAST	H6031
73-90	Mark IV 2 piece rear main seal. Flat Tappet, oval intake ports, 10 bolt timing cover, 4 bolt main. This engine is a cam upgrade.	350	7.4L 454 CID	V-8	289	GM454LAHO	–	GM454LAHOT	–	H6032
91-97	Gen. V, 1 Piece rear main seal. Oval intake port heads. Flat tappet. 10 bolt timing cover, 4 bolt main.	330	7.4L 454 CID	V-8	182, 313	GM454LB	GM454RB	GM454LBT	GM454RBT	H6033
91-97	Gen. V , 1 Piece rear main seal. 10 bolt timing cover. HO Series. Flat Tappet, oval port heads. 4 bolt main.	360	7.4L 454 CID	V-8	182	GM454LC	–	GM454LCT	–	H6033
96-99	Gen VI. 6 Bolt timing cover. Roller cam engine. Electric fuel pump. L-29 Heads, 4 bolt main, oval intake ports.	330	7.4L 454 CID	V-8	297, 313	GM454LD	–	GM454LDT	–	H6036
96-03	Gen VI, oval intake ports, 4 bolt main. 1 Piece rear main seal. Roller cam. 6 bolt timing cover.	330	7.4L 454 CID	V-8	297	GM454LH	–	–	–	H6033
70-76	Oldsmobile Engine.	325	7.5/455	V-8	021	GM455LA	–	–	–	H6035

When ordering please place “EFM” in front of part number

						Part Numbers				
Years Approx.	Description	HP	Liters CID	Cyls	Block Casting Numbers	With Timing Cover and Oil Pan already installed.				Cylinder Head
						Standard Rotation	Reverse Rotation	Standard Rotation	Reverse Rotation	
91-98	Gen V flat tappet, large rectangle port, 10 bolt timing cover, 12 bolt intake, Standard base replacement. <b>R and R only.</b>	415	8.2L 502 CID	V-8	859	GM502LA				H6037
00-11	VORTEC, Not for H.O.	375	8.1L 496 CID	V-8	110	--		GM4960CT		H4608 (driver) H4609 (passanger)
00-11	VORTEC, Only for H.O.	420	8.1L 496 CID	V-8	110	--	–	GM4961CT	–	H4608 (driver) H4609 (passanger)
M E R C R U I S E R										
76-89	Must upgrade impeller to Quicksilver part number 47-12600A1. Must have core to return.	170 & 190	3.7L 224 CID	L-4	–	ME224LA	–	–	–	H6051

## CORE RETURN POLICY

Cores must be paid in full at the time of sale. All cores must be shipped prepaid unless pre-arranged with FirstMate Marine. Deduction will be assessed for missing parts and damaged blocks. Call 1-800-437-1779 for core shipping instructions.

## TERMS

- Worldwide shipping
- Engines sold on outright basis (except 4 cylinder and 454 engines require a core return.)
- All engines returned with freeze cracks, salt water and connecting rod blowouts will receive 1/2 core value
- All engines are sold C.O.D. or prepaid
- Store Hours: 8 a.m. to 5 p.m. CST Monday through Friday

\* Tin Ware includes timing cover and oil pan already installed.

## PRIMING

FirstMate Marine recommends priming all engines with a pressure pre-oiler.

## FREIGHT INSPECTION

Please inspect all engines before signing the freight bill. If there is freight damage, we need to start a claim with the freight line.



# HEADS

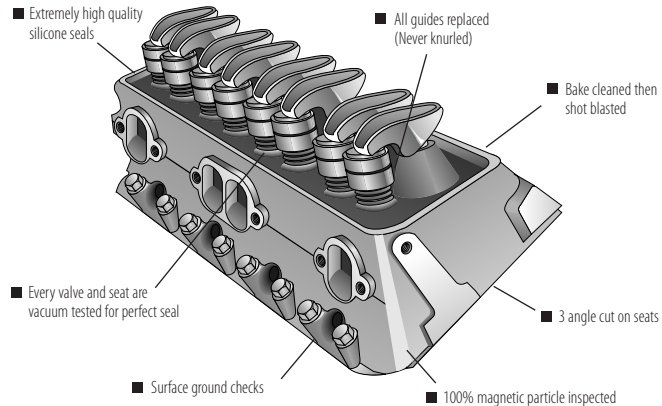
## HEAD KITS INCLUDE:

- New Valve Springs
- Three Angle Valve Job

## CYLINDER HEAD SALES POLICY

- Cylinder heads are sold on an outright basis.
- No core return necessary.

## FEATURES OF A FIRSTMATE MARINE CYLINDER HEAD



Liters	CID	Description	HP	Cyls	Head Casting Numbers	Part Number
<b>CHRYSLER</b>						
5.2L	318	Standard Chrysler Marine Replacement. W/O Pad and W/O AIR. With Roto's.	200	V-8	920, 675, 300	<b>H6041</b>
5.2L	318	Standard Chrysler Marine Replacement. With Pad and W/O AIR. With Roto's.	200	V-8	973, 163, 593, 851, 585	<b>H6041A</b>
5.9L	360	Standard Chrysler Marine Replacement. W/O Pad and W/O AIR. With Roto's.	250	V-8	830, 496, 230, 915	<b>H6045</b>
5.9L	360	Standard Chrysler Marine Replacement. With Pad and W/O AIR. With Roto's.	250	V-8	051, 596, 974, 587, 475, 805	<b>H6045A</b>
7.2L	440	Standard Chrysler Marine Replacement. Gasket Seat Spark Plug	335	V-8	452	<b>H6047</b>
<b>FORD</b>						
2.3L	140	D Shaped Intake Ports. Heart Shaped Combustion Chamber.	110	L-4	E5ZE, E6ZE, E59E, E68R	<b>H6052</b>
5.0L	302	18MM Spark Plugs. 5/16 Rocker Arm Studs. Large Combustion Chamber. 7/16 Head Bolts	188 & 200	V-8	DOOE, D2OE, C9TE	<b>H6061</b>
5.0L	302	18MM Spark Plugs. 5/16 Rocker Arm Studs. Small Combustion Chamber. 7/16 Head Bolts	188 & 200	V-8	DOOE, D2OE, C9TE	<b>H6061A</b>
5.0L	302	Bolt on rockers. 7/16 Inch Head Bolts. 14 mm Spark Plugs.	188 & 200	V-8	D8OE, E5AE, D7OE, F3JE-CA	<b>H6062</b>
5.0L	302	Bolt on rockers. 7/16 Inch Head Bolts. 14 mm Spark Plugs. D-Shaped Combustion Chamber.	188 & 200	V-8	E7TE, E5TE	<b>H6062A</b>
5.8L	351	14 mm Spark Plugs. 5/16 Inch Rocker Arm Studs. 1/2 Inch Head Bolts.	235 & 250	V-8	D8OE, D7OE-DA	<b>H6063</b>
5.8L	351	14 mm Spark Plugs. 5/16 Inch Bolt On Rockers. D Shaped Combustion Chamber. 1/2 Inch Head Bolts.	235 & 250	V-8	E5AE-CA, D8OE	<b>H6064</b>
5.8L	351	5/16 Bolt on rockers. 1/2 Head Bolt. 14mm Spark Plugs. D-Shaped Combustion Chamber.	235 & 250	V-8	E5TE, E7TE	<b>H6064A</b>
7.5L	460	14 mm Spark Plugs. Bolt on Rockers, perimeter bolt valve covers.	340	V-8	D6TE-DA, D3VE-A2A	<b>H6065</b>
7.5L	460	Has 7/16 Inch Bolt Hole on Front of Head, Center bolt valve covers.	340	V-8	E6TE-DA, E5TE-EA	<b>H6067</b>
<b>GENERAL MOTORS</b>						
2.5L	153	Standard Marine Replacement	120	L-4	770, 952, 031	<b>H6001</b>
2.5L	153	Standard Marine Replacement	120	L-4	198, 519, 433, 888, 988, 306, 998	<b>H6002</b>
3.0L	181	Intake Port Curved Because of Soft Plug. <b>R and R Only.</b>	140	L-4	748, 954, 950, 758, 087, 852, 531	<b>H6003</b>
3.0L	181	Shared Intake Ports. No Soft Plug Holes. <b>R and R Only.</b>	140	L-4	619, 770	<b>H6004</b>
3.0L	181	Newer Style Head. Intake ports separated.	130 & 140	L-4	620	<b>H6000</b>
3.8L	229	3/8 Inch Temp. Sender Hole. Standard Marine Replacement	175	V-6	595, 553	<b>H6005</b>
4.1L	250	Tapered seat plugs. Standard Marine Replacement	150 & 165	L-6	763, 052	<b>H6007</b>
4.3L	262	3 Accessory Mounting Holes on the Front of the Head. Substitute for the 2 Accessory Mounting Holes on the Front of the Head. Press in Studs.	175 & 205	V-6	768, 996, 107, 476, 103, 066	<b>H6009</b>
4.3L	262	3 Accessory Mounting on one Side of the Head. 2 Accessory Mounting Holes on Other. Press in Studs.	235 & 250	V-8	268, 248	<b>H6009A</b>

When ordering please place "EFM" in front of part number

Liters	CID	Description	HP	Cyls	Head Casting Numbers	Part Number
4.3L	262	VORTEC head. Screw In Studs. Heart Shaped Combustion Chambers.	175 & 205	V-6	772, 140	H6010
4.3L	262	Intake Ports Have Notch In Top Of Intake Port. Screw In Studs. Round Push Rod Holes.	175 & 205	V-6	181, 209, 064	H6011
4.3L	262	Intake Ports Have Notch In Top Of Intake Port. Screw In Studs. Round Push Rod Holes. Has Detonation Sensor Hole Above Water Temp Hole.	175 & 205	V-6	064, 181, 209	H6012
4.3L	262	VORTEC head. Roller Rocker Arms. No exhaust cross over. Heart shaped combustion chamber.	200 & 230	V-6	113	H6014
5.0L	305	7 Bolt Exhaust. Early Style. Valve Covers Bolt Around Perimeter. 1.720 Intake Valve.	200 & 230	V-8	513, 450, 416	H6015A
5.0L	305	Heavy Casting. 6 Bolt Exhaust. Early Style. Valve Covers Bolt Around Perimeter.	200 & 230	V-8	434, 741	H6015
5.0L	305	1.840 Intake Valves. 7 Bolt Exhaust. 3/8 Inch Temp Sender Hole.	200 & 230	V-8	450, 416	H6016A
5.0L	305	1.840 Intake Valves. 7 Bolt Exhaust. 1/2 Inch Temp Sender Hole.	200 & 230	V-8	450, 416	H6016
5.0L	305	Tall Valve Cover Rail. Valve Cover Bolts Down Center. Non VORTEC head. Slotted Push Rod Holes.	200 & 230	V-8	187	H6017A
5.0L	305	Tall Valve Cover Rail. Valve Cover Bolts Down Center. Non VORTEC head. Round Push Rod Holes. Must Use Rail Rockers.	200 & 230	V-8	081	H6017
5.0L	305	VORTEC head. Has 8 bolt intake.	200 & 230	V-8	520, 059	H6018
5.7L	350	1.9375 Intake Valves. Gasket Plug. Valve Covers Bolts Around Perimeter.	260	V-8		H6021
5.7L	350	1.9375 Intake Valves. Taper Plug. Valve Covers Bolts Around Perimeter. Non Roto.	260	V-8		H6022A
5.7L	350	1.9375 Intake Valves. Taper Plug. Valve Covers Bolts Around Perimeter. With Roto.	260	V-8		H6022
5.7L	350	1.9375 Intake Valves. 6 Bolt Exhaust. Valve Covers Bolts Around Perimeter.	260	V-8	882	H6024
5.7L	350	Tall Valve Cover Rail. Non VORTEC head . Valve Cover Bolts Down Center. 1.940 Intake Valves. Tapered intake ports.	260	V-8		H6023A
5.7L	350	Tall Valve Cover Rail. Non VORTEC head. Valve cover bolts down center of head. 1.940 Intake. Square intake ports.	260	V-8	083, 193, 217	H6023
5.7L	350	VORTEC Head. Heart shaped chambers. Rocker bolts in center of head. Has 4 intake bolts per side.	260	V-8	906, 062	H6013
7.4L	454	Taper Plug. Small Oval Intake Port Head. With Roto's. With Heat Crossover.	330	V-8	045, 360, 039, 416	H6031
7.4L	454	Taper Plug. Large Oval Intake Ports. With Roto's. With Heat Crossover	330	V-8	781, 049, 186	H6032
7.4L	454	Gen V head. Standard Marine Replacement. Oval Intake, with Heat Crossover	330	V-8	156, 932	H6033
7.4L	454	Heart shaped combustion chamber. 7/16 inch Mounting holes in heads. L-29, Oval Intake, No Heat Crossover	330	V-8	279	H6036
7.5L	455	Standard Marine Replacement	325	V-8	191, 409, 100, 783	H6035
8.2L	502	Early Style 502 Standard Marine Replacement. Large square intake ports. <b>R and R Only.</b>	360	V-8	088, 188	H6037
8.1L	496	VORTEC. Standard Replacement.	375 & 420	V-8	162	H4608 (driver) H4609 (passanger)
<b>M E R C R U I S E R</b>						
3.7L	224	Standard Marine Replacement. Has outlet on end of head.	170 & 190	L-4	E6TE-DA, E8TE-DA, D3VE-A2A	H6051

### FIRSTMATE MARINE CYLINDER HEAD WARRANTY

FirstMate Marine warrants its remanufactured cylinder heads to be free from defects in materials used or workmanship performed by FirstMate Marine for a period of 90 days. Warranty covers replacement of the defective parts and gaskets. Labor will be paid when the original installation was performed by a bona fide marine repair facility. When labor is allowed, it will be paid at the shop's regular rate, not to exceed \$45 per hour X the Motor Manual flat rate time. Labor not to exceed 1½ times price of head. Warranty does not cover oil, oil filter, incidental or consequential damages resulting from loss of time or use of boat. Repairs or replacements do not extend original warranty.

PRIOR AUTHORIZATION IS REQUIRED BEFORE WARRANTY WORK IS BEGUN. CALL YOUR DISTRIBUTOR OR FIRSTMATE MARINE.

When ordering please place **"EFM"** in front of part number



## Limited Warranty

### Long Blocks

#### Pleasure Craft Boats

12 Months Labor/24 Months Parts

#### Commercial or Charter Boats

12 Months Parts and Labor

### Performance Long Blocks

#### Pleasure Craft Boats

12 Months Parts and Labor\*

#### Commercial or Charter Boats

No Warranty

### Short Blocks

#### Pleasure Craft Boats

No Warranty\*

#### Commercial or Charter Boats

No Warranty

### Cylinder Heads

#### Pleasure Craft Boats

90 Days Parts and Labor

#### Commercial or Charter Boats

90 Days Parts and Labor

Your First Mate Marine engine is designed for a specific application (pleasure boat, commercial boat or charter boat) and is only covered by this Limited Warranty when used for its specified application. First Mate Marine engines, blocks and cylinder heads are NOT warranted for use in airboats. Any engine, block or cylinder head used for an application other than the one for which it was expressly designed will void this Warranty.

First Mate Marine expressly warrants that its engines are of good quality and free from defects in materials and workmanship. Purchaser acknowledges that First Mate Marine has made no affirmation of fact or promise relating to its engines outside this Limited Warranty and that First Mate Marine has provided the purchaser no description, sample or model of its engines upon which the purchaser has relied in deciding to purchase a First Mate Marine engine. First Mate Marine will, at its sole discretion, repair or replace defective parts or a complete engine. All repairs will be made at the seller's or distributor's cost, plus applicable labor pursuant to the labor policy set forth below. PRIOR AUTHORIZATION IS REQUIRED FROM FIRST MATE MARINE BEFORE WARRANTY WORK IS BEGUN. Contact First Mate Marine at [info@firstmatemarine.net](mailto:info@firstmatemarine.net) or 1-800-437-1779 for a numbered authorization. It is the sole responsibility of the purchaser to pay for such work (including labor and parts) and to submit the alleged defective parts, written order showing all charges, and a written receipt for all charges to First Mate Marine for review and determination by First Mate Marine that the failure is or is not covered by this Limited Warranty. Repairs or replacements do not extend this Limited Warranty.

### Accessory Parts

Fuel injectors, fuel pumps, oil pumps, water pumps, distributors, hydraulic high pressure pumps, sensors, sending units, turbochargers, belts, hoses and other accessories installed by First Mate Marine have a one year warranty, after which time they are considered maintenance items and are not covered under this Limited Warranty. Parts included in installation kits provided by First Mate Marine are warranted for defective workmanship and materials for that duration of time as stated by the original parts manufacturer.

### Labor Policy

First Mate Marine will pay labor claims only to repair facilities it has authorized and will only pay labor claims that the purchaser actually incurs as an out of pocket expense. First Mate Marine will not be liable for or pay any labor claims on First Mate Marine installed by any third party who is not a certified marine mechanic (Marine Certificate or equivalent) that it has authorized to perform repair work and will not pay any labor claims on engines installed in whole or in part by purchaser. All labor expenses for field repairs, removal or reinstallation shall be limited to that expense and to those hours listed on the most recent Motors Flat Rate manual or alternative manual pre-approved by First Mate Marine at a pre-determined labor rate. Warranty credits not used within one year against future purchase will be considered void.

### Owner Obligations

PRE-LUBE YOUR ENGINE AS INSTRUCTED IN THE INSTALLATION GUIDE PRIOR TO START-UP. Change oil after 10 hours. Monitor oil level for first 100 hours as oil consumption may be higher in this period. Use good quality motor oil of the appropriate grade and viscosity as recommended by the original engine manufacturer. Do not use synthetic oils during break-in or at anytime during the first 200 hours of operation. Synthetic oil can be used after the first 200 hours of operation. The use of synthetic oil during the first 200 hours of operation will void this Limited Warranty. Proper oil pressure and lubrication are mandatory for good engine break-in. All boats should be equipped with gauges or lights to indicate engine temperature and oil pressure. DO NOT OPERATE BOAT WITH ABNORMAL OIL PRESSURE OR WATER TEMPERATURE. After initial start-up, avoid excessive RPM and keep boat on plane. Vary RPM range for the first three (3) to five (5) hours of running time. High engine RPM may damage your new engine through friction and high temperatures. Avoid long periods of idling. Absent neglect by the purchaser, engine overheating and engine failure due to lack of lubrication can be prevented by proper monitoring of all gauges and/or lights and should never result in engine damage.

### Limitations and Exclusions

Except as provided by state or federal laws, all other warranties express or implied (including merchantability and fitness for a particular purpose) are hereby excluded and no warranties exist which extend beyond the description in the express limited warranty on the face of this document with regard to any engine or part provided by First Mate Marine. In the event that this exclusion of implied warranties is prohibited, all implied warranties are limited in duration to the duration of the express limited warranty. No oral or written statements or forms of any kind by or from any person, distributor or salesperson may modify or change this limited warranty.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

*This limited Warranty is not an unconditional warranty against all hazards or failures. First Mate Marine shall not be responsible for:*

- Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
- Parts not supplied by First Mate Marine.
- Damages resulting one year after date of purchase from accessory parts installed by First Mate Marine. (Accessory parts are covered for one year from date of purchase.)
- Damages resulting from detonation or pre-ignition, including but not limited to melted or broken pistons, broken or scored rings, damaged cylinder heads or gaskets, scoring on cylinder walls or piston heads.
- Damages resulting from improper pre-lubrication prior to start-up.

The purchaser's exclusive remedy against the First Mate Marine shall be for repair or replacement of defective parts or replacement of the engine as set forth above. No other remedy (including, but not limited to, any special, direct, or indirect, incidental or consequential damages, such as lost profits, lost sales, injury to person or property, towing, oil, lubricants, filters, antifreeze, gaskets, shipping and freight, loss of use of vehicle or loss of time or any other evidential or consequential loss) shall be available to the purchaser.

In no event shall the total value of this Limited Warranty, weather paid or made in kind by First Mate Marine exceed the original distribution price of the engine at the time of the sale by the distributor or seller to the purchaser, plus \$500 labor or all boats 20 foot or shorter or \$600 for cabin cruisers 21 foot or longer. An additional \$150 crane allowance will be allowed on cabin cruisers 21 foot or longer. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

### Governing Law and Venue

The terms and provisions of this Limited Warranty, and each and every document related to this Limited Warranty, shall be governed by and construed according to the laws of the State of Nebraska. Any action at law, suit in equity or judicial proceeding for the enforcement of this Limited Warranty or any provision thereof shall be instituted only in the courts of Nebraska.

This Limited Warranty gives you specific legal rights. You may also have other rights, which vary from state to state.

### Purchaser's Responsibilities

Should you need to start a warranty claim, contact our Customer Service Department at 1-800-437-1779 during office hours: 7:30 a.m.–5:30 p.m. (CST). Please have the following information ready: engine part number, serial number, installation date, make and model of boat, number of hours on the engine, and the nature of the problem.

**Prior Approval:** All warranty repairs, including any replacement parts or labor charges, must have prior approval of First Mate Marine. It is the owner's responsibility to contact First Mate Marine in event of a warranty problem. Your failure to contact First Mate Marine to obtain prior approval for any warranty repair will void this Limited Warranty.

**Return of Parts:** All defective parts must be returned to First Mate Marine. Upon arrival at our facility, the part(s) will be inspected. Credit will be issued provided that the engine is defective in material and/or workmanship—and is within the warranty period. If parts are discarded or not returned, the claim cannot be processed.

Thank you for purchasing a First Mate Marine engine. For additional information about our products and our company, please use the contact information provided below.

*\*See actual warranty for specific details.*

**FirstMate Marine Engines**  
**2915 Cherry Avenue**  
**Kearney, NE 68847**  
**1-800-437-1779**  
**[www.firstmatemarine.net](http://www.firstmatemarine.net)**



### Anti Syphon Device with Valve

Used for engine coolant plumbing where the cooling water injected into the exhaust is less than 6" above the waterline. Prevents seawater from siphoning into the exhaust system & engine. The ASDV must be mounted at least 16" above the waterline.

Part No.	Description
VET ASDV	Anti Syphon Device w/Valve, 1/2" to 1-1/4"



### Waterlocks Type LP

Vetus Type LP waterlocks quiet engine noise, lower exhaust gas temperature, and prevent exhaust cooling water from backing into the engine. Waterlocks collect cooling water left in the exhaust hose when the engine is turned off, and should be installed at the lowest point of the exhaust line.

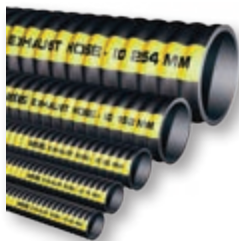


Part No.	Exhaust Hose ID:	Dimensions
VET WLOCKL40R	(40mm) 1-5/8 inch	14-5/8"L x 5-5/16"W x 8-5/16"H
VET WLOCKL45R	(45mm) 1-3/4 inch	14-5/8"L x 5-5/16"W x 8-5/16"H
VET WLOCKL50R	(51mm) 2 inch	14-5/8"L x 5-5/16"W x 8-5/16"H

### Vetus Rubber Exhaust Hose

Double stainless steel helix braid prevents hose collapse, while smooth bore interior provides a flush and smooth surface to minimize any back pressure. A flexible type of rubber construction makes for easy installation.

Part No.	Size
VET SLANG50	2"
VET SLANG75	3"
VET SLANG90	3.5"
VET SLANG100	4"



### Ignition Protected Bow Thrusters

This special housing will shield the bow or stern thruster from potentially explosive fuel vapour. An automatic fuse for the control room is also supplied. This can be reset externally without opening the housing. Because the motor housing is watertight, these sets are also ideal for use where the bow or stern thruster is installed in a wet or humid space.



Part No.	Description
VET BOW5512I	Bow Thrusters for both 12 and 24 Volt supply.

### Spare Propellers for Vetus Bow Thrusters

Six blade Vetus propellers for bow and stern thrusters are precision molded for light weight and stiffness, translating to immediate bursts of thrust. Vetus bow and stern thrusters make docking and maneuvering in challenging currents or winds easy.



Part No.	Description	Diameter
VET SET0086	Fits Bow 25	4 11/32
VET SET0087	Fits Bow 35/55	5 29/32"
VET SET0088	Fits Bow 50/60/75/95	7 9/32"
VET SET0090	Fits Bow 125/130/160	9 7/8"

# LOOKING FOR MORE VETUS PRODUCTS?



Give us a call!

**FL 1-800-432-2231**  
**SC 1-800-788-2231**

Our parts experts will be happy to assist you in finding the perfect fit.







## POWERFUL V6 & IN-LINE 4 [DRIVE BY WIRE SERIES]

### DF350A / DF300AP / DF250AP / DF200AP / DF175AP / DF150AP

Suzuki's new DF350A, and it's award winning AP Series outboards deliver both power and durability. Suzuki matches its proven systems with advanced drive-by-wire throttle and shift control for smooth, precise control, Lean Burn Control technology for improved fuel efficiency and, on the AP-Series outboards, Suzuki Selective Rotation, capable of either standard or counter prop rotation.

## INTRODUCING THE AWARD- WINNING DF350A

After three years of intense research, development and testing, Suzuki is proud to introduce its newest and most powerful outboard, the 350 horsepower DF350A. This V6 4-stroke outboard is, indeed, the ultimate 4-stroke outboard, establishing a new benchmark for performance, fuel economy and reliability.



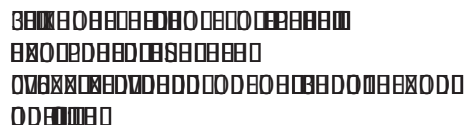
MODEL	DF350A	DF300AP/250AP	DF200AP	DF175AP/150AP
RECOMMENDED TRANSOM HEIGHT IN	X: 25 XX: 30	L: 20 <sup>*2</sup> X: 25 XX: 30	L: 20 X: 25	L: 20 X: 25
WEIGHT LBS *1	X: 727 XX: 747	L: 578 <sup>*2</sup> X: 639 XX: 659	L: 520 X: 531	L: 520 X: 531
ENGINE TYPE	DOHC 24-Valve V6		DOHC 16-Valve Inline 4	
PISTON DISPLACEMENT IN <sup>3</sup>	267.9	245.8	175.0	175.0
FUEL DELIVERY SYSTEM	Multi-Point Sequential Electronic Fuel Injection			
MAXIMUM OUTPUT HP(PS)	350	DF250AP:250 DF300AP:300	200	DF150AP: 150 DF175AP: 175
FULL THROTTLE OPERATING RANGE RPM	5,700-6,300	DF250AP: 5,500-6,100 DF300AP: 5,700-6,300	5,500-6,100	DF150AP: 5,000-6,000 DF175AP: 5,500-6,100
OIL PAN CAPACITY QTS	8.5	8.5	8.5	8.5
ALTERNATOR	12V 54A	12V 54A	12V 44A	12V 44A
TRIM METHOD	Power Trim and Tilt			
GEAR RATIO	2.29:1	2.08:1	2.50:1	2.50:1
PROPELLER SELECTION (PITCH)	12"-31.5"	17"-28"	17"-28"	17"-28"

\*All propellers are the 3-blade type. Please inquire at your local dealer for details of the propeller. \*1: Dry Weight: Including battery cable, not including propeller and engine oil.



For more information and complete specifications on Suzuki outboards, please visit [www.suzukimarine.com](http://www.suzukimarine.com).

**DF250 / DF225 / DF200A / DF175 / DF150 / DF140A / DF115A / DF90A / DF70A**



6800666808W8ED07H D80  
 D78D08D880D8SD 0MFI  
 1188880V  
 D8800D08080

MODEL	DF250/225	DF250SS	DF200A/200SS	DF175/150/150SS	DF140A	DF115A/SS	DF90A/70A
RECOMMENDED TRANSMOM HEIGHT IN	X: 25 XX: 30	L: 20 X: 25	L: 20 X: 25	L: 20 X: 25	L: 20 X: 25	L: 20 X: 25	L: 20 X: 25
WEIGHT LBS *1	X: 606 XX: 626	L: 578 X: 606	L: 518 X: 529	L: 511 X: 522	L: 394 X: 405	L: 394 X: 405	L: 343 X: 352
ENGINE TYPE	DOHC 24-Valve V6		DOHC 16-Valve Inline 4		DOHC 16-Valve Inline 4		
PISTON DISPLACEMENT IN³	220.5	245.6	175.0	175.0	124.7	124.7	91.8
FUEL DELIVERY SYSTEM	Multi-Point Sequential Electronic Fuel Injection				Multi-Point Sequential Electronic Fuel Injection		
00000000000000000000	DF225: 225 DF250: 250	DF250SS: 250	DF200A: 200 200SS: 200	DF150: 150 150SS: 150 DF175: 175	DF140A: 140	DF115A: 115	DF70A: 70 DF90A: 90
FULL THROTTLE OPERATING RANGE RPM	DF225: 5,000-6,000 DF250: 5,500-6,100	5,300- 6,300	5,500-6,100	DF150: 5,000-6,000 DF175: 5,500-6,100	DF140A: 5,600-6,200	DF115A: 5,600- 6,000	DF70A: 5,000- 6,000 DF90A: 5,300- 6,300
OIL PAN CAPACITY QTS	8.5	8.5	8.5	8.5	5.8	5.8	4.2
ALTERNATOR	12V 54A	12V/54A	12V 44A	12V 44A	12V 40A	12V 40A	12V 27A
TRIM METHOD	Power Trim and Tilt				Power Trim and Tilt		
GEAR RATIO	2.29:1	2.08:1	2.50:1	2.50:1	2.59:1	2.59:1	2.59:1
3600 (RPM) 00000000	17"-28"	17"-30"	17"-30"	17"-30"	9"-26"	9"-26"	9"-26"

00SSHO08W088008880  
00X0SSHO0880880000

**P O R T F O L I O**



**THE  
ULTIMATE<sup>TM</sup>  
4-STROKE OUTBOARD**

#####



## COMPACT AND PORTABLE OUTBOARDS

**DF60A / DF60AV / DF50A / DF50AV / DF40A / DF30A / DF25A  
DF20A / DF15A / DF9.9B / DF6A / DF4A / DF2.5**



High Energy Rotation (AV) models not shown

MODEL	DF60A/50A/40A	DF60AV/50AV	DF30AT/25AT	DF30ATH/25ATH	DF30A/25A		DF20AT/ 9.9BT	DF20ATH/ 15ATH/ 9.9BTH	DF20AE/ 15AE/ 9.9BE	DF20A/ 15A/ 9.9B	DF6A/4A	DF2.5	
RECOMMENDED TRANSOM HEIGHT INCHES	L: 20	L: 20	S: 15 <sup>*5</sup> L: 20	S: 15 <sup>*5</sup> L: 20	S: 15*5	S: 15 L: 20	S: 15 <sup>*3</sup> L: 20 X: 25 <sup>*3</sup>	S: 15 <sup>*4</sup> L: 20 X: 25 <sup>*4</sup>	S: 15 L: 20	S: 15 L: 20 <sup>*2</sup>	S: 15 L: 20 <sup>*5</sup>	S: 15	
STARTING SYSTEM	Electric		Electric/Manual		Electric/ Manual	Manual	Electric	Electric	Electric	Manual	Manual		
WEIGHT LBS <sup>*1</sup>	L: 229	L: 253	S: 156 L: 158	S: 160* <sup>4</sup> L: 163	S: 143* <sup>5</sup>	S: 136 L: 138	S: 115 L: 120 X: 125	S: 117 L: 122 X: 127	S: 105 L: 108	S: 97 L: 99	S: 13.5 L: 14 <sup>*5</sup>	S: 29	
ENGINE TYPE	DOHC 12-Valve Inline 3		SOHC Inline 3				SOHC Inline 2				1 Cyl	1 Cyl	
PISTON DISPLACEMENT IN <sup>3</sup>	57.4		29.8				20				8.4	4.1	
FUEL DELIVERY SYSTEM	Multi-Point Sequential Electronic Fuel Injection		Battery-Less Multi-Point Sequential Electronic Fuel Injection				Battery-Less Multi-Point Sequential Electronic Fuel Injection				Carburetor		
MAXIMUM OUTPUT HP (PS)	DF40A: 40    DF50A: 50    DF60A: 60	DF25A: 25 / DF30A: 30					DF9.9B: 9.9 DF15A: 15    DF20A: 20				DF4A: 4 DF6A: 6	DF2.5: 2.5	
FULL THROTTLE OPERATING RANGE RPM	DF40A: 5,000-6,000    DF50A: 5,300-6,300 DF60A: 5,300-6,300	DF25A: 5,000-6,000 DF30A: 5,300-6,300					DF9.9B: 4,700-5,700 DF15A: 5,000-6,000 DF20A: 5,300-6,300				DF4A: 4,000 - 5,000 DF6A: 4,750 - 5,750	DF2.5: 5,250 - 5,750	
STEERING	Remote		Remote	Tiller	Tiller		Remote	Tiller	Tiller	Tiller	Tiller	Tiller	
OIL PAN CAPACITY QTS	2.9		1.6				1.06				0.74	0.38	
ALTERNATOR	12V 19A		12V 14A				12V 12A			12V 6A		12V 5A (opt)	-
TRIM METHOD	Power Trim and Tilt		Power Trim and Tilt		Manual Trim and Tilt		Power Tilt		Manual Tilt		5-Pin	4-Pin	
GEAR RATIO	2.27:1	2.42:1	2.09:1				2.08:1				1.92:1	2.15:1	
PROPELLER SELECTION (PITCH)	9"-17"	9"-26"	9"-15"				7"-12"				6" - 7"	5-3/8"	

\*All propellers are the 3-blade type. Please inquire at your local dealer for details of the propeller. \*1: Dry Weight: Including battery cable, not including propeller and engine oil.\*2: DF60A only. \*4: DF25ATH only. \*5: DF25A only



For more information and complete specifications on Suzuki outboards, please visit [www.suzukimarine.com](http://www.suzukimarine.com).

SUZUKI DF350A

A REVOLUTION IN INNOVATION



GEKI: PARTING SEAS







## DF350A Specifications

MODEL	DF350A		
TRANSOM HEIGHT (in.)	X : 25"		XX : 30"
STARTING SYSTEM	Electric		
WEIGHT (lbs.) <sup>*1</sup>	X : 727		XX : 747
ENGINE TYPE	V6 - 55° DOHC 24-Valve		
Valve Train Drive	Chain with Variable Valve Timing		
FUEL DELIVERY SYSTEM	Electronic Fuel Injection		
NO. OF CYLINDERS	6		
PISTON DISPLACEMENT cu.in. (cm <sup>3</sup> )	267.9 (4,390)		
BORE × STROKE in. (mm)	3.74 (98) x 3.82 (97)		
MAXIMUM OUTPUT (HP)	350		
FULL THROTTLE OPERATING RANGE rpm	5,700 - 6,300		
STEERING	Remote		
OIL PAN CAPACITY U.S./Imp. qt. (ℓ)	8.5 (8.0)		
IGNITION SYSTEM	Fully-transistorized		
ALTERNATOR	12V 54A		
ENGINE MOUNTING	Shear Mount		
TRIM METHOD	Power Trim and Tilt		
GEAR RATIO	2.29:1		
GEAR SHIFT	F-N-R (Drive-by-Wire)		
EXHAUST	Through Prop Hub Exhaust		
PROPELLER SELECTION (Pitch)	FRONT: 3×15 1/2×19.5-31.5		
All propellers are the 3-blade type	REAR: 3×15 1/2×19.5-31.5		

\*1: Dry Weight: Including battery cable, not including propeller and engine oil.

## Propellers

With the release of Suzuki's newest flagship outboard engine, the DF350A, the Parts and Accessories Department is pleased to announce part numbers for both the propellers and control kits. This new engine utilizes a contra-rotating dual propeller system. Engine owners will have to purchase two propellers; a front and a rear.

DESC.	PART NUMBER*	PROP PITCH
Rear Propeller	990C0-0090R-195	19.5
	990C0-0090R-21P	21.0
	990C0-0090R-225	22.5
	990C0-0090R-24P	24.0
	990C0-0090R-255	25.5
	990C0-0090R-27P	27.0
	990C0-0090R-285	28.5
	990C0-0090R-30P	30.0
	990C0-0090R-315	31.5
Front Propeller	990C0-0090F-195	19.5
	990C0-0090F-21P	21.0
	990C0-0090F-225	22.5
	990C0-0090F-24P	24.0
	990C0-0090F-255	25.5
	990C0-0090F-27P	27.0
	990C0-0090F-285	28.5
	990C0-0090F-30P	30.0
	990C0-0090F-315	31.5
	09923-29810	Prop Tool

\*These propellers have a 15.5" Diameter and 3 Blades

## Control Kits

The following control kits will work with DF350 as well as all previous AP model engines.

# OF ENGINES	KIT DESCRIPTION	PART NUMBER	BCM
Single	1 <sup>st</sup> Station Binnacle Mount Control Kit	67000-98JE3	67200-98J14
	1 <sup>st</sup> Station Flush Mount Control Kit	67000-98JM1	67200-98J14
	2 <sup>nd</sup> Station Binnacle Mount Control Kit	67000-98JF3	67200-98J14
	2 <sup>nd</sup> Station Flush Mount Control Kit	67000-98JL3	67200-98J14
Dual	1 <sup>st</sup> Station Binnacle Mount Control Kit	67000-98JG3	67200-98J14
	2 <sup>nd</sup> Station Binnacle Mount Control Kit	67000-98JH3	67200-98J14
Triple	1 <sup>st</sup> Station Binnacle Mount Control Kit	67000-98JJ3	67200-98J14
	2 <sup>nd</sup> Station Binnacle Mount Control Kit	67000-98JK3	67200-98J14
Quadruple	1 <sup>st</sup> Station Binnacle Mount Control Kit	67000-98J73	67200-98J22
	2 <sup>nd</sup> Station Binnacle Mount Control Kit	67000-98J83	67200-98J22



Suzuki's flagship 300AP 4-stroke leads in power, performance and technology. The following are some high-tech items to help take advantage of Suzuki's leading edge technology.

### Suzuki Precision Control (SPC) Electronic Throttle and Shift Systems

For DF150AP/175AP/200AP/250AP/300AP



#### Single Engine SPC Box Only

(Replacement Units)

**SUZ 67200-98J03** Single Engine SPC Box only



#### Flush Mount SPC Box Only

(Replacement Units)

**SUZ 67200-98J22** Flush Mount SPC Box only



#### Dual/Triple/Quad Engine SPC Box Only

(Replacement Units)

**SUZ 67200-98J13** Dual/Triple/Quad Engine SPC Box only

#### Counter Rotation Adaptor

**36612-98J10** Regular Rotation Selector

**36612-98J20** Counter Rotation Selector

### Single Engine SPC Kits

	<b>67000-98J69</b> Flush-Mount Station Kit	<b>67000-98JE0</b> Single Station Binacle Kit	<b>67000-98JF0*</b> Second Station Kit*
<b>SUZ 67200-98J03</b> Binnacle-Mount RC Box		1	1
<b>SUZ 67200-98J22</b> Flush-Mount RC Box	1		
<b>SUZ 37100-98J04</b> Main Power Key Switch Assy	1	1	
<b>SUZ 37100-98J11</b> Single Engine Control Panel Assy	1	1	1
<b>SUZ 38500-93J90</b> Warning Buzzer	1	1	1
<b>SUZ 37803-93J04</b> Emergency Switch Panel			1
<b>SUZ 36625-98J10</b> Battery Lead	1	1	
<b>SUZ 36770-98J11</b> Boat Control Module (BCM)	1	1	1
<b>SUZ 36775-98J00</b> BCM Holder (L)	1	1	1
<b>SUZ 36776-98J00</b> BCM Holder (R)	1	1	1
<b>SUZ 33911-88B10</b> BCM-Connect Cap	1	1	1
<b>SUZ 33925-93J00</b> BCM Cushion	1	1	1
<b>SUZ 36623-98J20</b> BCM #1 Wiring Harness	1	1	
<b>SUZ 36624-98J02</b> BCM #2 Wiring Harness			1
<b>SUZ 36622-98J00</b> Dual Station Main Harness			1
<b>SUZ 33926-98J00</b> Terminal Resistor	2	2	
<b>SUZ 37860-87L00</b> Troll Mode Switch Panel	1	1	1

\*Order Single Station Kit in addition to Second Station Kit to complete

### Dual Engines SPC Kits

	<b>67000-98JG0</b> Single Station Kit	<b>67000-98JH0*</b> Second Station Kit*
<b>SUZ 67200-98J13</b> Dual Binnacle-Mount RC Box	1	1
<b>SUZ 37100-98J04</b> Main Power Key Switch Assy	1	
<b>SUZ 37100-98J21</b> Dual Engine Control Panel Assy	1	1
<b>SUZ 38500-93J90</b> Warning Buzzer	1	1
<b>SUZ 37803-93J04</b> Emergency Stop Switch Panel		1
<b>SUZ 36625-98J10</b> Battery Lead	1	
<b>SUZ 36770-98J11</b> Boat Control module (BCM)	1	1
<b>SUZ 36775-98J00</b> BCM Holder (L)	1	1
<b>SUZ 36776-98J00</b> BCM Holder (R)	1	1
<b>SUZ 33925-93J00</b> BCM Cushion	1	1
<b>SUZ 36623-98J30</b> BCM #1 Wiring Harness	1	
<b>SUZ 36624-98J11</b> BCM #2 Wiring Harness		1
<b>SUZ 33926-98J00</b> Terminal Resistor	2	
<b>SUZ 36621-98J00</b> Dual Engine Single Station Harness	1	
<b>SUZ 36622-98J00</b> Dual Station Main Harness		1
<b>SUZ 37860-87L00</b> Troll Mode Switch Panel	1	1

\*Order Single Station Kit in addition to Second Station Kit to complete

### Triple Engines SPC Kits

	<b>67000-98JJ0</b> Single Station Kit	<b>67000-98JK0*</b> Second Station Kit*
<b>SUZ 67200-98J13</b> Dual Binnacle-Mount RC Box	1	1
<b>SUZ 37100-98J04</b> Main Power Key Switch Assy	1	
<b>SUZ 37100-98J31</b> Triple Engine Control Panel Assy	1	1
<b>SUZ 38500-93J90</b> Warning Buzzer	1	1
<b>SUZ 37803-93J04</b> Emergency Switch Panel		1
<b>SUZ 36625-98J10</b> Battery Lead	1	
<b>SUZ 36770-98J11</b> Boat Control module (BCM)	1	1
<b>SUZ 36775-98J00</b> BCM Holder (L)	1	1
<b>SUZ 36776-98J00</b> BCM Holder (R)	1	1
<b>SUZ 33925-93J00</b> BCM Cushion	1	1
<b>SUZ 36623-98J30</b> BCM #1 Wiring Harness	1	
<b>SUZ 36624-98J11</b> BCM #2 Wiring Harness		1
<b>SUZ 33926-98J00</b> Terminal Resistor	2	
<b>SUZ 36621-98J10</b> Triple Engine Single Station Harness	1	
<b>SUZ 36622-98J00</b> Dual Station Main Harness		1
<b>SUZ 37860-87L00</b> Troll Mode Switch Panel	1	1

\*Order Single Station Kit in addition to Second Station Kit to complete

### Quad Engines SPC Kits

	<b>67000-98J71</b> Single Station Kit	<b>67000-98J81*</b> Second Station Kit*
<b>SUZ 67200-98J13</b> Dual Binnacle-Mount RC Box	1	1
<b>SUZ 37100-98J04</b> Main Power Key Switch Assy	1	
<b>SUZ 37100-98J21</b> Dual Engine Control Panel Assy	2	2
<b>SUZ 38500-93J90</b> Warning Buzzer	2	2
<b>SUZ 37803-93J04</b> Emergency Switch Panel		1
<b>SUZ 36625-98J10</b> Battery Lead	2	
<b>SUZ 36770-98J20</b> Boat Control module (BCM)	2	2
<b>SUZ 36775-98J00</b> BCM Holder (L)	2	2
<b>SUZ 36776-98J00</b> BCM Holder (R)	2	2
<b>SUZ 33925-93J00</b> BCM Cushion	2	2
<b>SUZ 36623-98J40</b> BCM Quadruple Wiring Harness	1	1
<b>SUZ 33926-98J00</b> Terminal Resistor	4	
<b>SUZ 36621-98J00</b> Dual Engine Single Station Harness	2	
<b>SUZ 36622-98J00</b> Dual Station Main Harness		2
<b>SUZ 37860-87L00</b> Troll Mode Switch Panel	1	1

\*Order Single Station Kit in addition to Second Station Kit to complete

## Control Panel Assemblies

Single to multiple engine, single or second station, select the panel needed for your application. Requires Main Switch Assembly 37100-98J03.



### Triple Engine Control Panel Assy

**37100-98J31** Triple Engine Control Panel Assembly



### Dual/Quad Engine Control Panel Assy

**37100-98J21** Dual Engine Control Panel Assembly  
**37100-98J21 x2** Quad Engine Control Panel Assembly



### Single Engine Control Panel Assy

**37100-98J11** Single Engine Control Panel Assembly



### Emergency Stop Switch Panel Assembly

Includes: Emergency Stop Switch with Panel and Lanyard. Required at each station.

**37803-93J04** Emergency Stop Switch Panel Assy



### Battery Lead

**36625-98J10**



### Battery Isolator Lead Sets

Used for charging an auxiliary battery.

**33830-98J02** DF300 2007-2011 only  
**33830-98J11** DF150/150AP/175/175AP/200AP/250AP/300A/300AP



### Main Power Key Switch Assembly

Main Power Key Switch required for use with switch control panels listed above. Includes key.

**37100-98J04** Main Power Key Switch Assembly



### Wiring Harnesses

**36620-98J50** 6.5' (2m) Wiring Harness Extension (Optional; order as needed)



### Replacement Wiring Harness (not shown)

**36621-98J00** Dual Engine Single Station Harness  
**36621-98J10** Triple Engine Single Station Harness  
**36622-98J00** Dual Station Main Harness  
**36770-98J11** Boat Control Module (BCM)



### Wiring Harnesses

Main Wiring Harness. Order length as needed for rigging applications.

**36620-98J30** 21' (6.5m) Wiring Harness  
**36620-98J40** 31' (9.5m) Wiring Harness



### BCM Harness

**36623-98J20** BCM Harness No1 for Single Engine Single Station  
**36623-98J30** BCM Harness No1 for Multiple Engines Single Station  
**36624-98J02** BCM Harness No 2 for Single Engine Second Station  
**36624-98J11** BCM Harness No 2 for Multiple Engine Second Station  
**36623-98J40** BCM Quadruple Harness



Suzuki Genuine Control Boxes are designed for longevity and ease of use. Choose a control box that fits your application. We offer Single Binnacle Control Box for your top of the line Suzuki Outboard, or choose a Dual Binnacle Control Box to manage 2 Suzuki Outboards masterfully. Suzuki Genuine Control Boxes define accuracy, user-friendliness and durability.



### Flush Mount Binnacle Control Box Kit

Suzuki's top quality Flush Mount Control Box features include a smooth action, thumb control power trim and tilt switch, a push button to disengage the shifting for faster warm-ups and a built in neutral safety switch. Reversible for left hand installations. Kit includes items listed.

\*Main Wiring Harness must be ordered separately, see below.

**67000-93J27\*** Flush Mount Binnacle Control Box Kit

Includes:

**37100-96J24** Ignition Switch Panel with  
Emergency Stop and Warning  
Buzzer Assembly

**67200-93J33** Flush Mount Control Box



### Side Mount Control Box Kits

Side Mount Control Boxes can be tailored to your needs. Standard features include a fast idle lever for easy warm-ups, a key-type ignition switch, and an emergency stop switch. \*Main Wiring Harness must be ordered separately, see below..



<b>67200-91J20</b>	DF4/6	'03 - '10
<b>67200-89E35</b>	DF9.9/15	'97 - '04
<b>67200-94J20</b>	DF9.9/15	'05 - '10
	DF8A/9.9A	'10 - Current
	DF25 V-Twin	'06 - Current
	DF25A/30A (NON PT or PTT)	'14 - Current
<b>67200-99E56</b>	DF25/30 (W+W/O PT)	'00 - '04
<b>67200-94J20</b>	DF25/30	'05 - '08
<b>67200-99E56</b>	DF40/50	'99 - '04
	DF60/70	'98 - '04
<b>67200-93J50</b>	DF25A/30A (With PT or PTT)	'14 - Current
	DF40/50	'05 - '10
	DF40A/50A/50AV/60A/60AV	'10 - Current
	DF60/70	'05 - '10
	DF70A/90A	'10 - Current
	DF90/115/140	'05 - Current
	DF150/175/200A	'06 - Current
	DF200/225/250	'05 - Current

### Replacement Control Boxes

<b>67200-88L00</b>	Single Binnacle Control Box	'05 - Current
<b>67200-88L10</b>	Dual Binnacle Control Box	'05 - Current
<b>67200-93J33</b>	Flush Mount Control Box	'05 - Current

### Single Binnacle

#### Control Box Kit

Single Binnacle Control Box uses a convenient thumb operated power trim and tilt switch, push-button shifting disengagement for faster warm ups and built-in neutral safety switch. Kit includes items listed. \*Main Wiring Harness must be ordered separately, see below.



<b>67000-88L00</b>	Single Binnacle Control Box Kit
includes:	
<b>37100-96J24</b>	Ignition Switch Panel with Emergency Stop and Warning Buzzer Assembly
<b>67200-88L00</b>	Single Binnacle Control Box Assembly

### Dual Binnacle

#### Control Box Kit

Dual Binnacle Control Box includes the same features as the Single Binnacle Control Box, plus a unique base mounted PTT system allowing you to trim the motors individually then adjust them together for maximum performance. Kit includes items listed. \*Main Wiring Harness must be ordered separately, see below.



<b>67000-88L10*</b>	Dual Binnacle Control Box Kit
Includes:	
<b>37100-96J14</b>	Dual Ignition Switch with Emergency Stop
<b>38500-92X50</b>	Warning Buzzer (2)
<b>67200-88L10</b>	Dual Binnacle Control Box Assembly



### Miscellaneous Components

<b>38500-92X50</b>	Warning Buzzer. Replacement for DF models.
<b>36620-93J20</b>	Control Box Adaptor Harness. Adapts 2005+ model control box with square connector to 2004 and earlier motors with round connector.
<b>36620-93J30</b>	Control Box Adaptor Harness. Adapts 2005+ model engine with square connector to 2004 and earlier harness with round connector.
<b>67500-93J00</b>	Single Binnacle Control Box Spacer
<b>67500-93J10</b>	Dual Binnacle Control Box Spacer

### Wiring Harnesses

Analog Wiring Harnesses.

<b>36620-94J01</b>	21' Wiring Harness (NON PT or PTT)
<b>36620-93J52</b>	16' Wiring Harness (PT or PTT)
<b>36620-93J02</b>	21' Wiring Harness (PT or PTT)
<b>36620-93J62</b>	26' Wiring Harness (PT or PTT)



The New Suzuki Color Display is a LED high resolution screen that has very sharp, crisp lines and is extremely easy to read. It has a bonded glass front screen so whether it be sun, salt, or UV rays, your screen will never blur or fade like a plastic cover. The C-10 has its mounting points in the front so there is no need to crawl under your console to mount it. It connects to Suzuki's digital harnesses with one easy connection. Save your favorite programming and update the display using the Mini USB port. The C-10 is able to monitor functions such as RPM, Speed\*, Water Pressure\*, Fuel Level\*, Fuel Consumption, Coolant Temperature, Oil Level, Oil Temperature, Trim Level, Hours, or Volts (\* additional sensors required). The C-10 is able to monitor up to 2 engines simultaneously. The Suzuki C-10 can be retro fitted, to replace a 4" round gauge.

## Benefits

- Bright, full color 320 x 240 LED screen makes it easier to see menus and screen detail in both full sunlight and night operation
- Fits standard 3 3/8" gauge cutout
- Displays data for one or two engines per gauge
- Preconfigured pages or create your own
- Micro USB for software updates (update cable required)
- Power and data through single NMEA 2000 micro-C connector
- Low profile front mount – 8mm of dash (rear mount option for "glass dash" installations)

## Suzuki C-10 Cover

This cover protects the Suzuki Color Display (C-10) from the elements. Use the cover to extend the life of your Suzuki C-10 color gauges.

**990C0-10C10** Suzuki C10 Cover



## Suzuki Color Display Kit

**990C0-01C10-KIT** Suzuki Color Display Kit includes:

Part Number	Description	Qty	Part Number	Description	Qty
<b>990C0-01C10</b>	Suzuki Color Display	1	<b>990C0-88113</b>	Female Terminator	1
<b>990C0-88114</b>	Male Terminator	1	<b>990C0-88110</b>	NMEA "T"	3
<b>990C0-88112</b>	Power Cable	1	<b>990C0-88149-350</b>	Interface Cable	1

## Color Display Update Cable

**990C0-99C10-CBL**



## GPS Antenna with Compass

Suzuki has upgraded its GPS Antenna to include compass heading.

**990C0-88122** GPS Antenna with Compass Heading



## Engine Interface Cables

DF9.9B thru DF300AP Suzuki Outboards can connect to the system using the exclusive Engine Interface. (Adaptor Cable also needed for DF150AP/175AP/200AP/250AP/300AP applications.)

**990C0-88149-350** Software Version 3.5 (subject to change)  
**990C0-88149-290** Software Version 2.9 (subject to change)



## NMEA 2000 Extension Cables

NMEA 2000 Extension Cable allows compatible sensors or other devices can be added by the use of T-Connectors throughout the system.

**990C0-88104** 2' Connection cable  
**990C0-88105** 6' Connection cable  
**990C0-88107** 15' Connection cable  
**990C0-88108** 25' Connection cable

## Adaptors

Adaptor must be used with Engine Interface to connect the DF150AP/175AP/200AP/250AP/300AP Outboard to the system.

**990C0-88131** Single Engine Adaptor (not shown)  
**990C0-88132** Dual Engine Adaptor (not shown)  
**990C0-88133** Triple Engine Adaptor (not shown)  
**990C0-88132 x2** Quad Engine Adaptor (not shown)  
**990C0-88136** NMEA 2000 Adaptor  
 – to connect at engine SDS connector



**990C0-88141** **K8 Adaptor (not shown)** Required in order to put new style Interface cable on older system with round SDS connection.

## Power Cable

Fused(3A) lead connects extension cable to the power source.

**990C0-88112** Single Power Cable



## Quad Power Node

Allows network to be powered from multiple power sources (key switch, accessory switch, etc...).

**990C0-88130** Quad Power Node



## NMEA Adaptor

Used to connect a new style NMEA device net connector to an older network with Blue T's.

**990C0-88137** NMEA Device to Blue "T"

Used to connect an early Blue Connector device to the later NMEA T.

**990C0-88029** Blue Device to NMEA "T"



## T-Connector

T-Connector for NMEA 2000 system.

**990C0-88110** T-Connector



## Terminating Resistors

120 ohm Terminating Resistors are required for any open cable ends in the NMEA 2000 system.

**990C0-88113** Terminator – Female  
**990C0-88114** Terminator – Male



## Fluid Level Sensor

Monitors fluid levels such as fuel, live well water level, etc. 10ft. cable.

**990C0-88217** Fluid Level Sensor



## Speed Sensor

Paddle wheel-type speed sensor. 10ft. cable.

**990C0-88117** Speed Wheel



## Temperature Sensor

Surface Water Temperature sensor. 10ft. cable.

**990C0-88118** Temperature Sensor



## Water Pressure Sensor

**990C0-88339** Water Pressure Sensor



Economically priced, high quality instruments feature easy plug-in wiring connections, perimeter-lighted dial, chrome bezels, contoured pointers and fog resistant glass lenses. All use standard 2" or 4" diameters for easy dash installation.



#### 4" Tachometers

7,000 max RPM Tachs are available with or without 4-Stroke monitor functions. Monitor functions include: Low Oil Pressure Warning, Engine Temperature Warning, Check Engine Warning and Over-Rev Limit Warning.

**34200-93J12** With monitor functions

**34200-93J32** Without monitor functions



#### 4" Tachometer With Suzuki Troll Mode Scale

Easy to read 4" Tachometer has a scale from 0-7,000 RPM for standard use and a secondary scale from 0-3,000 RPM with markers at 50 RPM intervals for use with the Suzuki Troll Mode System. Gauge also includes warning lamps for Engine Temperature, Low Oil, Check Engine, and Over-Rev. When in Troll mode, Over-Rev Lamp stays on to indicate that Troll mode has been engaged. The secondary RPM scale is designed to make setting and maintaining a lower troll speed simple. Fits DF40A/50A/50AV/60A/60AV/70A/90A/115A/140A (DF300 requires C-10 gauges) \*See engine owner's manual for information about Suzuki Troll Mode system. Not all models come equipped with trolling mode system. Accessory Troll Mode Switch is required for Suzuki Troll Mode System use. Suzuki recommends the use of this gauge for trolling use.

**34200-93J51** DF40A/50A/50AV/60A/60AV/70A/90A/115A/140A/150/175/250SS (DF150/175AP/200AP/250AP/300AP/300 requires digital instrumentation)



#### 4" Speedometers

Bourdon-tube type speedometer with readings in M.P.H. and Km/h. Includes vinyl tube, plus all installation instructions and hardware. \*Pitot tube 34190-87D00 must be ordered separately.

**34100-93J11** 80 mph

**34100-93J31** 50 mph

**34190-87D00\*** Pitot Tube

#### Trolling Mode Control Switch

Allows the use of the Suzuki Troll Mode on equipped engines. When Troll mode is engaged, this switch allows for adjustments of engine RPM in 50 RPM increments, from idle to 1,200 RPM to make setting and maintaining a trolling speed easy. Consult owner's manual or Suzuki Outboard Dealer for additional details on Suzuki Troll System operation

**37860-87L00** DF40A/50A/50AV/60A/60AV/70A/90A/115A/115SS/140A/150AP/175AP/DF200A/250AP/300AP

#### 2" Hour Meter

12 volt electric motor driven meter indicates the number of hours your outboard motor has been operated to indicate when periodic services are necessary

**34500-93J11** White



#### 2" Trim Gauge

Magnetic type gauge shows trim angle for optimum performance and efficiency

**34800-93J11** White



#### 2" Voltmeter

A well charged battery is essential for quick and easy starts. Monitor the charging system using a Voltmeter.

**34600-93J11** White



#### 2" Fuel Gauge

Operates on 12 volts with magnetically damped needle. Works with most fuel tank sending units.

**34300-93J11** White



#### 2" Water Pressure Gauge 15 psi

Bourdon-tube type gauge measures cooling water pressure. Instructions and dash installation hardware included. Order installation kit for appropriate model.

**34650-93J31** White



#### Water Pressure Gauge Installation Kits

Kit includes fittings and hoses needed for motor to gauge connection.

**34660-93J00** DF225/250/250AP/300AP

**34660-96J00** DF150/150AP/150A/ DF175/175AP/175A/200A

**34660-99E00** DF60/70

**34660-87J00** DF40/50

**34660-90J02** DF40A/50A/50AV/60A/60AV/70A/90/ DF90A/115/115A/140/140A



Economically priced, high quality instruments feature easy plug-in wiring connections, perimeter-lighted dial, chrome bezels, contoured pointers and fog resistant glass lenses. All use standard 2" or 4" diameters for easy dash installation.

## 4" Speedometer

Easy to read 4" Speedometer features include lighted dial, contoured pointer and fog resistant glass lens. \*Requires Tubing 99105-80009.

<b>99105-80102</b>	White 60 mph
<b>99105-80009*</b>	Speedometer Tubing (not shown)



## 4" Tachometers

7,000 max R.P.M. Tachs are available with or without 4-Stroke monitor functions. Monitor functions include: Low Oil Pressure Warning, Engine Temperature Warning, Check Engine Warning and Over-Rev Limit Warning.

<b>99105-80101</b>	White – With monitor functions
<b>99105-80100</b>	White – Without monitor functions

## 2" Engine Monitor Gauge

Engine Monitor Gauge for 4-stroke engines helps alert you to low oil pressure, high engine temperature and engine over-rev.

<b>99105-80108</b>	White
--------------------	-------



## 2" Hour Gauge

Handy Hour Meter helps you keep track of the time between services and total running time.

<b>99105-80107</b>	White
--------------------	-------



## 2" Voltmeter

A well charged battery is essential for quick and easy starts. Monitor the charging system using a Voltmeter.

<b>99105-80106</b>	White
--------------------	-------



## 2" Trim Gauge

To help maintain steering stability and good performance, proper trim angle is essential. The Trim Gauge helps you monitor the trim angle. For use with 2-wire senders.

<b>99105-80105</b>	White
--------------------	-------



## 2" Fuel Gauge

Adding a Fuel Gauge can help you monitor fuel level. Connects easily using your boat's fuel sending unit harness.

<b>99105-80103</b>	White
--------------------	-------



## 2" Water Pressure Gauge 30 psi

Bourdon-tube type gauge measures cooling water pressure. Instructions and dash installation hardware included. Order Installation kit for appropriate model.

<b>99105-80104</b>	White
--------------------	-------



## Water Pressure Gauge Installation Kits

Kit includes fittings and hoses needed for motor to gauge connection.

<b>34660-93J00</b>	DF225/250/250AP/300AP	<b>34660-87J00</b>	DF40/50
<b>34660-96J00</b>	DF150/150AP/150A/DF175/175AP/175A/200A	<b>34660-99E00</b>	DF60/70
<b>34660-90J02</b>	DF40A/50A/50AV/60A/60AV/70A/90A/90/115/115A/140/140A		



Suzuki Genuine Instruments are custom-designed to provide the quality, reliability and value you expect from Suzuki Products. The wide selection allows you to accurately monitor a variety of essential functions. All instruments are lighted for night time boating and feature standard 2" and 4" diameters for easy installation.



#### 4" Tachometers

7,000 max RPM Tachs are available with or without 4-Stroke monitor functions. Monitor functions include: Low Oil Pressure Warning, Engine Temperature Warning, Check Engine Warning and Over-Rev Limit Warning.

<b>34200-93J00</b>	with monitor functions
<b>34200-93J20</b>	without monitor



#### 4" Tachometer With Suzuki Troll Mode Scale

Easy to read 4" Tachometer has a scale from 0-7,000 RPM for standard use, and a secondary scale from 0-3,000 RPM with markers at 50 RPM intervals for use with the Suzuki Troll Mode System\*. Gauge also includes warning lamps for Engine Temperature, Low Oil, Check Engine and Over-Rev. When in troll mode, Over-Rev lamp stays on to indicate that Troll mode has been engaged. The secondary RPM scale is designed to make setting and maintaining a lower troll speed simple. \*See engine owner's manual for information about Suzuki Troll Mode system. Not all models come equipped with trolling mode system. Accessory Troll Mode Switch required for Suzuki Troll Mode System use. Suzuki recommends the use of this gauge for trolling use.

<b>34200-93J40</b>	DF40A/50A/50AV/60A/60AV/70A/90A/115A/140A/150/175/250SS (DF150/175AP/200AP/250AP/300AP/300 requires digital instrumentation)
--------------------	--

#### 2" Hour Meter

12 volt electric motor driven meter indicates the number of hours your outboard motor has been operated to indicate when periodic services are necessary.

<b>34500-93J00</b>	Black
--------------------	-------



#### Trolling Mode Control Switch

Allows the use of the Suzuki Troll Mode on equipped engines. When Troll mode is engaged, this switch allows for adjustments of engine RPM in 50 RPM increments, from idle to 1,200 RPM to make setting and maintaining a trolling speed easy. Consult owner's manual or Suzuki Outboard Dealer for additional details on Suzuki Troll System operation

<b>37860-87L00</b>	DF40A/50A/50AV/60A/60AV/70A/90A/115A/115SS/140A/150AP/175AP/DF200A/250AP/300AP
--------------------	--



#### 4" Speedometers

Bourdon-tube type speedometer with readings in M.P.H. and Km/h. Includes vinyl tube, plus all installation instructions and hardware. \*Pitot tube 34190-87D00 must be ordered separately.

<b>34100-93J00</b>	80 mph
<b>34100-93J20</b>	50 mph
<b>34190-87D00*</b>	Pitot Tube



#### 2" Trim Meter

Magnetic type gauge shows trim angle for optimum performance and efficiency.

<b>34800-93J00</b>	Black
--------------------	-------



#### 2" Voltmeter

A well charged battery is essential for quick and easy starts. Monitor the charging system using a Voltmeter.

<b>34600-93J00</b>	Black
--------------------	-------



#### 2" Fuel Gauge

Operates on 12 volts with magnetically damped needle. Works with most fuel tank sending units.

<b>34300-93J00</b>	Black
--------------------	-------



#### 2" Water Pressure Gauge 15 psi

Bourdon-tube type gauge measures cooling water pressure. Instructions and dash installation hardware included. Order Installation kit for appropriate model.

<b>34650-93J20</b>	Black
--------------------	-------



#### Water Pressure Gauge Installation Kits

Kit includes fittings and hoses needed for motor to gauge connection.

<b>34660-93J00</b>	DF225/250/250AP/300APP
<b>34660-96J00</b>	DF150/150AP/150A/DF175/175AP/175A/200A
<b>34660-99E00</b>	DF60/70
<b>34660-87J00</b>	DF40/50
<b>34660-90J02</b>	DF40A/50A/50AV/60A/60AV/70A/90/DF90A/115/115A/140/140A

Economically priced, high quality instruments feature easy plug-in wiring connections, perimeter-lighted dial, black bezels, contoured pointers and fog resistant glass lenses. All use standard 2" or 4" diameters for easy dash installation.

## 4" Speedometer

Easy to read 4" Speedometer features include lighted dial, contoured pointer and fog resistant glass lens.  
\*Requires Tubing 99105-80009.

<b>99105-80002</b>	Black 60 mph
<b>99105-80009*</b>	Speedometer Tubing (not shown)



## 4" Tachometers

7,000 max RPM Tachs are available with or without 4-Stroke monitor functions. Monitor functions include: Low Oil Pressure Warning, Engine Temperature Warning, Check Engine Warning and Over-Rev Limit Warning.

<b>99105-80001</b>	Black - With monitor functions
<b>99105-80000</b>	Black - Without monitor functions

## 2" Engine Monitor Gauge

Engine Monitor Gauge for 4-stroke engines helps alert you to low oil pressure, high engine temperature and engine over-rev.

<b>99105-80008</b>	Black
--------------------	-------



## 2" Trim Gauge

To help maintain steering stability and good performance, proper trim angle is essential. The Trim Gauge helps you monitor the trim angle. For use with 2-wire senders.

<b>99105-80005</b>	Black
--------------------	-------



## 2" Hour Gauge

Handy Hour Meter helps you keep track of the time between services and total running time.

<b>99105-80007</b>	Black
--------------------	-------



## 2" Fuel Gauge

Adding a Fuel Gauge can help you monitor fuel level. Connects easily using your boat's fuel sending unit harness.

<b>99105-80003</b>	Black
--------------------	-------



## 2" Voltmeter

A well charged battery is essential for quick and easy starts. Monitor the charging system using a Voltmeter.

<b>99105-80006</b>	Black
--------------------	-------



## 2" Water Pressure Gauge 30 psi

Bourdon-tube type gauge measures cooling water pressure. Instructions and dash installation hardware included. Order Installation kit for appropriate model.

<b>99105-80004</b>	Black
--------------------	-------



## Water Pressure Gauge Installation Kits

Kit includes fittings and hoses needed for motor to gauge connection.

<b>34660-93J00</b>	DF225/250/250AP/300AP	<b>34660-87J00</b>	DF40/50
<b>34660-96J00</b>	DF150/150AP/150A/DF175/175AP/175A/200A	<b>34660-99E00</b>	DF60/70
<b>34660-90J02</b>	DF40A/50A/50AV/60A/60AV/70A/90A/90/115/115A/140/140A		





## Switch Panels Assemblies

Genuine Suzuki Switch Panel assemblies are designed to match and connect with other Suzuki components for easy installation and trouble-free operation.

### Trolling Mode Control Switch

Allows the use of the Suzuki Troll Mode on equipped engines. When Troll mode is engaged, this switch allows for adjustments of engine RPM in 50 RPM increments, from idle to 1200 RPM to make setting and maintaining a trolling speed easy. Consult owner's manual or Suzuki Outboard Dealer for additional details on Suzuki Troll System operation.



**37860-87L00** DF40A/50A/50AV/60A/60AV/70A/90A/115A/115SS/140A/200A/200AP/DF250AP/300AP

### Single Engine Ignition Switch

#### Panel Assembly

Single Engine Ignition Switch Panel Assembly. Includes wiring and hardware.



**37100-96J00** DF40A/50A/50AV/60A/60AV/70A/90A/115A/115SS/140A/150/175/200

### Dual Engine Ignition and

#### Emergency Stop Switch Panel Assembly

Dual Engine Ignition and Emergency Stop Switch Panel Assembly. Includes wiring, hardware and stop switch lanyard.



**37100-96J14**

### Single Engine Ignition and

#### Emergency Stop Switch

#### Panel Assembly

Single Engine Ignition and Emergency Stop Switch Panel Assembly. Includes wiring, hardware and stop switch lanyard.



**37100-96J24**

### Emergency Stop Switch

#### Panel Assembly

Emergency Stop Switch Panel Assembly. Includes wiring, hardware and lanyard.



**37803-93J04**

### P.T.T. Switch Panel Assembly

P.T.T. Switch Panel Assembly. Includes wiring and hardware.



**37805-93J00**

### Aux Power Trim Switch

Allows quick connection of remote trim switch with easy plug in bullet connectors.

**36647-93J00**

### Wiring Harness

Main Wiring Harness. Order length as needed for rigging applications.

<b>36620-93J52</b>	16' Wiring Harness
<b>36620-93J02</b>	21' Wiring Harness
<b>36620-93J62</b>	26' Wiring Harness
<b>36620-93J10</b>	6' Wiring Harness Extension
<b>36620-93J40</b>	10' Wiring Harness Extension

### Battery Isolator Lead Set

Used for charging auxiliary battery.

33830-96J00	DF150/175 (S/N Models up to 499999)
33830-98J11	DF150/175 (S/N Models 510001 and newer)
	DF200AP/175AP/150AP/250A/300A/300AP
33830-98J02	DF300 (Models up to 199999)

### Thru-Hull Fitting And Hose Kits

Thru-Hull fitting and Hose kit can handle single, dual and triple motor installations. One Thru Hull Kit and one Adaptor Kit is necessary for each outboard used.

<b>990C0-20010</b>	Black Thru Hull Kit
Includes:	1 - 4' Black Hose
	1 - Fuel Hose Port
	1 - 2" Thru-Hull Fitting
	2 - Stainless Steel Bolts and Nuts
<b>990C0-20020</b>	White Thru Hull Kit
Includes:	1 - 4' Black Hose
	1 - Fuel Hose Port
	1 - 2" Thru-Hull Fitting
	2 - Stainless Steel Bolts and Nuts

### Adapter Kits

Kit Includes: 1 - Through-Hull attachment. 2 - pins, 2 - e-rings

<b>67300-98J10</b>	DF115A/140A/150/175/200A/200AP/DF250AP/300AP 2016-Newer
<b>67300-93J00</b>	DF150/175/200/225/250/300 2006-2015
<b>67300-90J00</b>	DF70A/90A/100/115/140 2006-2015

### Replacement Ignition Keys (not shown)

<b>37141-99E00</b>	Key 931	<b>37141-99E60</b>	Key 937
<b>37141-99E10</b>	Key 932	<b>37141-99E70</b>	Key 938
<b>37141-99E20</b>	Key 933	<b>37141-99E80</b>	Key 939
<b>37141-99E30</b>	Key 934	<b>37141-99E90</b>	Key 940
<b>37141-99E40</b>	Key 935	<b>37141-99EA0</b>	Key 941
<b>37141-99E50</b>	Key 936	<b>37141-99EB0</b>	Key 942

### Replacement Lanyard

Replacement Lanyard for Emergency Stop Switch.

**37823-92E01**

### Suzuki Performance

#### Remote Control Cables

Suzuki Performance Cables have a unique design that incorporates a patent-pending splined core. Ridges on the core to allow a close fit to the cable's inner liner with minimum contact, allowing the core to glide back and forth smoothly. All cables are factory tested and approved for heavy use applications. Order cable length as needed.

<b>99105-11002-008</b>	8'	<b>99105-11002-016</b>	16'	<b>99105-11002-024</b>	24'
<b>99105-11002-009</b>	9'	<b>99105-11002-017</b>	17'	<b>99105-11002-025</b>	25'
<b>99105-11002-010</b>	10'	<b>99105-11002-018</b>	18'	<b>99105-11002-026</b>	26'
<b>99105-11002-011</b>	11'	<b>99105-11002-019</b>	19'	<b>99105-11002-027</b>	27'
<b>99105-11002-012</b>	12'	<b>99105-11002-020</b>	20'	<b>99105-11002-028</b>	28'
<b>99105-11002-013</b>	13'	<b>99105-11002-021</b>	21'	<b>99105-11002-029</b>	29'
<b>99105-11002-014</b>	14'	<b>99105-11002-022</b>	22'	<b>99105-11002-030</b>	30'
<b>99105-11002-015</b>	15'	<b>99105-11002-023</b>	23'		



## Tiller Handle Kits

New fully-integrated tiller handle with digital tachometer display. Includes redesigned, more ergonomic shift lever.

### SHADOW BLACK METALLIC

<b>63002-88L12-0EP</b>	DF50AV/60A/60AV	'10 - Current
<b>63002-87L13-0EP</b>	DF70A/90A	'09 - Current
<b>63002-90J32-0EP</b>	DF115A w/ Adjustable Steering Damper	

### PEARL NEBULAR BLACK

<b>63002-88L22-YAY</b>	DF40A/50A	'10 - Current
<b>63002-88L12-YAY</b>	DF50AV/60A/60AV	'10 - Current
<b>63002-87L13-YAY</b>	DF70A/80A/90A	'09 - Current
<b>63002-90J33-YAY</b>	DF115A w/ Adjustable Steering Damper	



**Digital Tachometer**   **Shift Lever**   **Angle Adjustable Bracket**



## Tiller Handle Kits

Tiller Handle Kits are designed for easy installation for selected electric start models. Kit includes ignition switch, engine stop switches, wiring harness, cables and grommets.

<b>63001-94J40-0EP</b>	DF9.9/15	'05 - '09
<b>63002-87J26-0EP</b>	DF40/50	'05 - '09
<b>63002-99E29-0EP</b>	DF60 w/ Steering Tensioner	'05 - '09
	DF70 w/ Steering Tensioner	'05 - '08
<b>63002-88L07-0EP</b>	DF40A/50A/60A	'10 - Current
<b>63002-87L05-0EP</b>	DF70A/90A	'09 - Current
<b>63002-90J29-0EP</b>	DF90/115 w/ Hydraulic Tensioner	'05 - Current



## Dual Cable Steering Kit

Kit allows you to attach two steering cables for added reliability.

<b>99105-10004</b>	DF150 - DF250
--------------------	---------------



## Twin Engine Adapter Plate Set

Adapter plates are used when installing a tie bar on a D115A/140A.

<b>99105-10005</b>	DF115A/140A
	*Does NOT fit DF90A



## Drag Link Kits

Corrosion-resistant stainless steel Drag Links are specially designed for use with Suzuki Outboard Motors.

<b>67701-94JA0</b>	DF9.9T	'08 - Current
<b>67701-99J02</b>	DF8A/9.9A	'10 - Current
<b>67701-93E12</b>	DF9.9/15	'97 - '10
<b>67701-89J20</b>	DF25/30	'00 - '07
<b>67701-95J00</b>	DF25 V-Twin	'06 - Current
<b>67701-87J11</b>	DF40/50	'99 - '10
	DF40A/50A/60A	'10 - Current
	DF60/70	'98 - '10
<b>67701-87L01</b>	DF70A/90A	'09 - Current
<b>67701-90J01</b>	DF90/115/140A	'01 - Current
<b>67701-96J00</b>	DF150/150AP/175/175AP/200A	'06 - Current
<b>67700-93J00</b>	DF200/225/250/300A/300AP	'04 - Current



## Dual Engine Tie Bar

Stainless steel Tie Bar for dual engine steering, adjustable up to 36".

<b>99105-10006</b>	DF40A - DF140A
--------------------	----------------

**Compact Water Separator/Fuel Filter**

Compact size Water Separator/Fuel Filter is ideal for smaller boat-motor combinations of up to 140 H.P. Not for 150 and above.

<b>99105-20006</b>	Replacement Filter
<b>99105-20006-ASY</b>	Complete Assembly
<b>99105-20006-BWL</b>	Bowl and Drain Valve Assembly

**Fuel Connectors - Motor Side**

Male connectors are located on the motor side, for fuel hose attachment.

<b>65720-985L1</b>	OD:11mm Plated Brass	DT3.5 - 65
--------------------	----------------------	------------



<b>65720-95512</b>	OD:13mm Plated Brass	DT75 - 140A
--------------------	----------------------	-------------



<b>65720-94403</b>	OD:13mm Plastic	DT4 - 65
--------------------	-----------------	----------



<b>65720-94411</b>	OD:13mm Plastic	DT75 - 140A
--------------------	-----------------	-------------



<b>65720-986L0</b>	Plastic	DF4 - 140A
--------------------	---------	------------

<b>65721-87D00</b>	OD:13mm Plastic (not shown)	DT150 - 225
--------------------	-----------------------------	-------------

**Fuel Hose Connectors**

Quick connect and disconnect female fittings fit either hose end.

<b>65750-98505</b>	ID:11mm Metal for small diameter hoses
--------------------	--



<b>65750-93000</b>	ID:13mm Metal for small diameter hoses
--------------------	--



<b>65750-95500</b>	ID:13mm Metal for small diameter hoses
--------------------	--



<b>65750-94404</b>	ID:13mm Plastic	DT4 - 140A
--------------------	-----------------	------------



<b>65750-87J11</b>	Plastic	DF4 - 140A
--------------------	---------	------------

**Water Separator/Fuel Filter**

State-of-the-art filter removes water and other contaminants from the fuel before they reach your engine. It features a transparent removable bowl for easy viewing of fuel condition and a drain valve for water and other impurities. Due to the high flow rate capabilities of this filter system, a special large diameter thread is used. Use only Genuine Suzuki Replacement Filter 99105-20005. Applicable to all models, recommended 150 and up.

<b>99105-20005</b>	Replacement Filter
<b>99105-20005-ASY</b>	Complete Assembly
<b>99105-20004-BWL</b>	Bowl and Drain Valve Assembly

**Bowl Wrench**

<b>99105-20003</b>	Bowl Wrench
--------------------	-------------

**Plastic Fuel Tanks\***

Constructed of tough, lightweight, high-density polyethylene and made to CARB / EPA standards.

<b>65000-99J01</b>	3 Gallon Tank without Fuel Level Gauge, 11mm connector
<b>65000-95J01</b>	6.6 Gallon Tank with Fuel Level Gauge, 13mm connector



\* not for use with DF 4/6 without fuel hose with pressure regulator. see dealer for details.

**Fuel Tank Connectors**

Fuel tank connectors are available in stainless steel with metric thread and plated brass with 1/4" NPT.

<b>65720-98590</b>	OD:11mm Metric	All Models
--------------------	----------------	------------



<b>65740-95500</b>	OD:13mm Metric	All Models
--------------------	----------------	------------



<b>99105-00192</b>	OD:11mm 1/4" NPT	U.S. Tanks
--------------------	------------------	------------



<b>99105-00193</b>	OD:13mm 1/4" NPT	U.S. Tanks
--------------------	------------------	------------







## Water Pump Repair Kits

Repair kits include necessary parts to rebuild the water pump on the models listed.

SUZ 17400-986L1	DF4/6	'02 - '10
SUZ 17400-986L0	DF4/6	'11 - current
SUZ 17400-99J01	DF9.9A	'10 - later
SUZ 17400-94J00	DF9.9/15	'07 - later
SUZ 17400-93951	DF9.9/15/20A	'97 - '06
SUZ 17400-96353	DF25/30	'00 - '07
	DF40/50	'99 - '10
SUZ 17400-95J02	DF25 V-Twin	'06 - later
SUZ 17400-99E01	DF60/70	'07 - '10
SUZ 17400-87E04	DF60/70	'98 - '06
SUZ 17400-88L00	DF40A/50A/60A	'10 - later
SUZ 17400-87L01	DF70A/80A/90A	'09 - later
SUZ 17400-92J00	DF90/115/140	'06 - '08
SUZ 17400-90J20	DF90/115/140	'01 - '05
SUZ 17400-92J21	DF100A/175AP	'09 - later
SUZ 17400-96J02	DF150/175/1200AP	'06 - later
SUZ 17400-93J02	DF200/225/250	'04 - later
SUZ 17400-98J01	DF250S	'08 - later

<b>Two Stroke</b>	DF300/300AP	'07 - later
SUZ 17400-98652	DT4	'84 - '98
	DT5	'99 - '02
SUZ 17400-98551	DT6	'84 - '02
	DT8	'86 - '97
	DT9.9	'85 - '87
	DT15C	'89 - '97
	DT15	'83 - '88
SUZ 17400-92D01	DT8C/9.9C	'89 - '97
SUZ 17400-96403	DT25C	'89 - '00
	DT30C	'88 - '97
SUZ 17400-96352	DT20	'86 - '88
	DT25	'84 - '88
	DF25/30	'00 - '07
	DT30	'84 - '87
	DT35/40C	'83 - '10
SUZ 17400-94701	DT55/65	'85 - '97
SUZ 17400-95351	DT75/85	'85 - '00
SUZ 17400-94611	DT115/140	'86 - '01
SUZ 17400-94553	DT115/140	'83 - '85
SUZ 17400-87D11	V6 2-Stroke Models	'86 - '03

## Carburetor Repair Kit

Carburetor Repair Kits include gaskets and float needle valve.

SUZ 13910-89J01	DF25/30 (except V-Twin)	All
SUZ 13910-95D00	DT25/30C	All
SUZ 13910-94400	DT40/65/85/140	All
SUZ 13910-94701	DT55/75/115	All
SUZ 13910-87D00	V6, 2-Stroke Models	All



## Gear Case Seal Kit

Gear Case Seal Kits include all necessary replacement seals and o-rings.

SUZ 25700-95D00	DF25/30	(except V-Twin)
SUZ 25700-95J00	DF25	V-Twin All
SUZ 25700-94400	DF40/50	All
SUZ 25700-88L00	DF40A/50A/60A	'10 - later
SUZ 25700-87E00	DF60/70 and V4 Models	'89 - '00
SUZ 25700-99E00	DF60/70	'01 - '10
SUZ 25700-87L00	DF70A/80A/90A	'09 - later
SUZ 25700-90J01	DF90/100/115	All
SUZ 25700-92J00	DF140	All
SUZ 25700-93J00	DF150/175/ 200/225/250/300	All
SUZ 25700-98J00	DF250S/300	All
SUZ 25700-95D00	DT25C/30C	All
SUZ 25700-94400	DT40C	All
SUZ 25700-94700	DT55/65	All
SUZ 25700-95501	DT75/85	All
SUZ 25700-94500	DT115/140	All
SUZ 25700-87D00	V6, 2-Stroke Models	'89 - '03



## Spray Cleaner and Polish - 14 OZ

This is the ultimate roadside detailer. Good for painted surfaces, vinyl, plastic and chrome, this helps to remove dirt, bugs and road grime while leaving a light anti-static and water repellent film. It's also perfect for keeping helmets and helmet visors clean  
SUZ 990A0-04E06-14Z 14 oz Spray

## Zinc Anodes for saltwater use only



Part No.	Description
(A) SUZ 11281-94400	DF60/70 '98 – '01
(B) SUZ 55321-90L00	DF9.9/15 '97 – '10
(C) SUZ 55125-90J01	DF90–140 '98 – later
(D) SUZ 55125-98J00-0EP	DF200/225/250/300 Trim Tab
(E) SUZ 55125-95500	DF40/50 '99 – '10, DF40A/50A/60A
(F) SUZ 55125-98J10	DF250S '08 – later
(G) SUZ 55125-92J00	DF115/140Z '08 – 'later
(H) SUZ 55125-96310	DF25/30 '00 – '10 DF25 V-Twin '06 – later
(I) SUZ 55300-95500	DF9.9/15 '04 – '10, '96 – '03, DF40/50 '99 – '10, DF40A/50A/60A '10 –later
(J) SUZ 55320-94900	DF60 - 300 '01 – '10
(K) SUZ 55320-95311	DF25 /30 '00 – '07, DF40/50 '99 – '08, DF40A/50A/60A '10 – later, DF60/70 '01 – '08DF150/175 '06 – later DF200/225/250/300 '04 – later
(L) SUZ 55321-90J01	DF60–140 '98 – '08
(M) SUZ 55321-93900	DF9.9/15 '97 – '08



## Magnesium Anodes for Freshwater use only

Magnesium anodes protect underwater metal components from galvanic corrosion in freshwater environment. Do not use in saltwater. For 2-Stroke applications check parts fiche.



Part No.	Description
SUZ 55321-87J10	DF4/5/6, DF25 thru 140
SUZ 55321-94910	DF60 thru 140 '01 – '10. DF150/175/200 '06 – later /225/250/300

## Aluminum Anodes for Brackish and/or Saltwater

(Do not use in freshwater)



Part No.	Description
SUZ 55321-87J00	All Models All gears

## Suzuki Maintenance Kits

Part No.	Application	Contents
SUZ 17400-97810	DF2.5 ('12-newer)	Impeller, Spark Plug, Cotter Pin, Drain Plug Gasket, Anode, O Rings, Pin, Pump Case Panel, Pump Gasket.
SUZ 17400-91830	DF4/6 ('11-newer)	Water Pump Repair Kit, Cotter Pin, Spark Plug, Drain Plug Gasket, Anode, Water Pump Panel, Sleeve, Fuel Filter.
SUZ 17400-99840	DF8A/9.9A	Fuel Filter, Oil Filter, Cotter Pin, O Rings, Gaskets, Drain Plug, Anodes, O Rings, Spark Plug, Water Pump Repair Kit & Sleeve.
SUZ 17400-89810	DF9.9B/15A/20A	Water Pump Repair Kit, Cotter Pin, Spark Plug, Oil Filter, O Rings, Drain Plug Gasket, Anode, Water Pump Sleeve, Fuel Filter.
SUZ 17400-95870	DF25 V2	Water Pump Repair Kit, Oil Filter, Spark Plug, Gaskets, Anodes, O Rings, Water Pump Sleeve, Fuel Filter.
SUZ 17400-88810	DF40A/50A/60A	Water Pump Repair Kit, Cotter Pin, Oil Filter, Spark Plugs, Gaskets, Anode, O Rings, Fuel Filter.
SUZ 17400-88820	DF50AV/60AV	Water Pump Repair Kit, Cotter Pin, Oil Filter, Spark Plugs, Gaskets, Anode, O Rings, Fuel Filter.
SUZ 17400-87810	DF70A/80A/90A	Water Pump Repair Kit, Cotter Pin, Oil Filter, Spark Plugs, Gaskets, Anode, O Rings, Water Pump Impeller Key Fuel Filter.
SUZ 17400-92820	DF115A/140A	Water Pump Repair Kit, Cotter Pin, Oil Filter, Spark Plugs, Gaskets, Anode, O Rings, Water Pump Impeller Key Fuel Filter.
SUZ 17400-96820	DF150/175	Water Pump Repair Kit, Cotter Pin, Oil Filter, Spark Plugs, Gaskets, Anode, O Rings, Water Pump Impeller Key Fuel Filter.
SUZ 17400-93850	DF200/225/250	Water Pump Repair Kit, Cotter Pin, Oil Filter, Spark Plugs, Gaskets, Anodes & Brackets, O Rings, Water Pump Sleeve, Fuel Filter.
SUZ 17400-98860	DF250A/300(A)	Water Pump Repair Kit, Cotter Pin, Oil Filter, Spark Plugs, Gaskets, Anodes & Bracket, O Rings, Water Pump Sleeve.
	DF250S ('11-newer)	Water Pump Repair Kit, Cotter Pin, Oil Filter, Spark Plugs, Gaskets, Anodes & Bracket, O Rings, Water Pump Sleeve, Fuel Filter.





### Fuel Conditioner & Water Remover

Fuel Conditioner keeps stored fuel fresh for long periods of time.  
SUZ 990A0-02E30-12Z ... 12 Fluid oz. Bottle ..... 12/Case



### Fuel Injector Cleaner

Suzuki Fuel Injector Cleaner keeps injectors clean and corrosion-free for maximum power. Dissolves gum and varnish.  
SUZ 990A0-02E25-12Z ... 12 Fluid oz. Bottle ..... 12/Case



### Spark Plugs

Models Part Number Spark Plug

DF2.5	SUZ 09482-00406	NGK CR6HSA
DF4/6 - '03 - '10	SUZ 09482-00299	NGK BPR6ES
DF4/6 - '11	SUZ 09482-00L04	NGK CR6EEA-9
DF8A/9.9A	SUZ 09482-00528	NGK CR6E
DF9.9/15 - up to '04	SUZ 09482-00446	NGK DCPR6E
DF9.9/15 - '04-'10	SUZ 09482-00427	NGK BKR6E
DF9.9/15 - '11	SUZ 09482-00L04	NGK CPR6EA-9
DF25/30	SUZ 09482-00446	NGK DCPR6E
DF25 V-TWIN	SUZ 09482-00427	NGK BKR6E
DF40/50	SUZ 09482-00446	NGK DCPR6E
DF60/70	SUZ 09482-00299	NGK BPR6ES
DF60A	SUZ 09482-00446	NGK DCPR6E
DF70A/80A/90A	SUZ 09482-00446	NGK DCPR6E
DF90/115/140/100A	SUZ 09482-00427	NGK BKR6E
DF150/175	SUZ 09482-00427	NGK BKR6E
DF200/225/250	SUZ 09482-00427	NGK BKR6E
DF250SS	SUZ 09482-00427	NGK BKR6E
DF300	SUZ 09482-00427	NGK BKR6E



### Marine 4-cycle Engine Oil

Premium grade 4-cycle engine oil is formulated to provide superior lubrication and protection for your four-stroke outboard engine. It also protects internal engine parts from rust and corrosion in harsh marine environments.

See chart for recommended oil filter and capacities.

SUZ 990C0-01E30-QUA	1 QT. Bottle	12/Case
SUZ 990C0-01E30-GLN	1 GL Bottle	6/Case
SUZ 990C0-01E30-DRU	.55 Gallon Drum	

### Oil Change Necessities

SUZ 09248-12007	Oil Drain Plug	All models
SUZ 09168-12012	Drain Plug Gasket	All models



### Hypoid Gear Oil

Hypoid gear oil is formulated to Suzuki specifications. Available in two convenient sizes: 32 ounce and 5 gallon bottles.

SUZ 990A0-01E80-01Q	32 oz.	12/Case
SUZ 990A0-01E80-05G	5 Gallon	

### Oil Filters and Capacities

Models	Filter Part Number	Oil Capacity w/out Filter L/QT	Oil Capacity w/Filter L/QT
DF9.9/15 '96 - '10	16510-05240*	1.0/1.1	1.1/1.2
DF9.9T/9.9TH/9.9B/15/15A/20A '11 ~ Current	16510-45H10	1.0/1.1	1.1/1.2
DF9.9A	16510-05240	.8/.85	.9/.95
DF25/30	16510-87J00	1.5/1.6	1.6/1.7
DF25V-Twin	16510-87J00	1.5/1.6	1.8/1.9
DF25A/30A	16510-87JL0	3.0/3.2	3.2/3.4
DF40/50	16510-87J00	2.2/2.3	2.4/2.5
DF60/70	16510-87J00	4.5/4.8	4.8/5.1
DF40A/50A/60A	16510-87J00	2.7/3.0	2.9/3.2
DF70A/90A '09 - '10	16510-61A20-MHL	4.2/4.0	4.4/4.7
DF70A/90A '11 ~ Current	16510-61A31	4.2/4.0	4.4/4.7
DF90/115	16510-61A20-MHL	5.5/5.8	5.7/6.0
DF115A/140A	16510-61A31	5.5/5.8	5.7/6.0
DF140	16510-82703	5.5/5.8	5.7/6.0
DF150/175/200A	16510-96J00	8.0/8.5	8.5/9.0
DF200/225/250 ~ '07	16510-96J00	8.0/8.5	8.2/8.7
DF200/225/250/300	16510-96J00	8.0/8.5	8.2/8.7

\*Also replace drain plug "O" Rings





**DF4/6 (Optional '03-'10)**

Material	Blades	Diameter	Pitch	Part Number	DF4	DF6
Aluminum	3	7-1/2	6	<b>58110-91JL0-019</b>	'04-Current	'04-Current
Aluminum	3	7-1/2	6-1/2	<b>58110-91JM0-019</b>	'04-Current	'04-Current
Aluminum	3	7-1/2	7	<b>58110-91JN0-019</b>	'04-Current	'04-Current
Aluminum	3	7-1/2	6	<b>58111-98602-019</b>	'03	
Aluminum	3	7-1/2	6-1/2	<b>58111-98641-019</b>	'03	
Aluminum	3	7-1/2	7	<b>58111-98651-019</b>	'03	

Diameter and pitch are measured in inches. ■=Optional. Refer to the Bushing Application Chart.

**DF9.9/15/20**

Material	Blades	Diameter	Pitch	Part Number	DF9.9	DF15/20
Aluminum	3	9-1/4	7	<b>58100-89L00-019</b>	■	■
Aluminum	3	9-1/4	8	<b>58100-90L40-019</b>	■	■
Aluminum	3	9-1/4	9	<b>58100-90L50-019</b>	■	■
Aluminum	3	9-1/4	10	<b>58100-90L60-019</b>	■	■
Aluminum	3	9-1/4	11	<b>58100-89L40-019</b>	■	■
Aluminum	3	9-1/4	12	<b>58100-89L50-019</b>	■	■
Aluminum	3	9-1/4	10	<b>58100-90L21-019</b>	■	■
Aluminum	4	10	5	<b>58100-94JA1-019</b>	■	

Diameter and pitch are measured in inches. ■=Optional.

**DF9.9B/15A/20A**

Material	Blades	Diameter	Pitch	Part Number	DF15A/20A
Aluminum	3	9-1/4	8	<b>58100-90L40-019</b>	■
Aluminum	3	9-1/4	9	<b>58100-90L50-019</b>	■
Aluminum	3	9-1/4	10	<b>58100-90L60-019</b>	■
Aluminum	3	9-1/4	11	<b>58100-89L40-019</b>	■
Aluminum	3	9-1/4	12	<b>58100-89L50-019</b>	■

Diameter and pitch are measured in inches. ■=Optional.

**DF25A/30A**

Material	Blades	Diameter	Pitch	Part Number	DF25A/30A
Aluminum	3	10-1/4	9	<b>58100-96372-019</b>	■
Aluminum	3	10-1/4	10	<b>58100-96411-019</b>	■
Aluminum	3	10-1/4	10	<b>58100-96472-019*</b>	■
Aluminum	3	10-1/4	11	<b>58100-96421-019</b>	■
Aluminum	3	10-1/4	12	<b>58100-96482-019</b>	■
Aluminum	3	10-1/4	13	<b>58100-96491-019</b>	■
Aluminum	3	10-1/4	14	<b>58100-95D01-019</b>	■
Aluminum	3	10-1/4	15	<b>58100-96462-019</b>	■

Diameter and pitch are measured in inches. ■=Optional.

\*Thicker Blade

**DF60/70**

Material	Blades	Diameter	Pitch	Part Number	'98 - '09
Aluminum	3	14	11	<b>58100-99E10-019</b>	■
Aluminum	3	13-3/4	13	<b>58100-99E00-019</b>	■
Aluminum	3	13-1/2	15	<b>58100-94500-019</b>	■
Aluminum	3	13-1/4	17	<b>58100-94512-019</b>	■
Aluminum	3	13	19	<b>58100-94522-019</b>	■
Aluminum	3	13	21	<b>58100-94532-019</b>	■

Diameter and pitch are measured in inches. Extremely durable stainless steel propellers especially designed for high performance boats. ■=Optional. Type V Cupped aluminum propeller with press-in bushing

**Propeller Bushing Application**

Applications	Bushing Type	Bushing	Stopper	Spacer	Washer	Nut
DF4	'03 Models	Push-In	<b>58120-98600</b>			<b>58130-91JL0</b>
DF4	'04 - Current Models	Press-In	<b>58120-91JL0</b>	<b>57635-91JL0</b>		<b>58130-91JL0</b>
DF6	'03 - Current Models	Press-In	<b>58120-91JL0</b>	<b>57635-91JL0</b>		<b>58130-91JL0</b>
DF9.9/9.9A/9.9B/15/15A/20A		Press-In	<b>58120-89L00</b>	<b>57632-94J00</b>	<b>57633-93901</b>	<b>09160-12066</b>
DF25/30	'00 - Current Models	Press-In	<b>58120-96401</b>	<b>57632-96400</b>	<b>57633-96300</b>	<b>09160-14028</b>
DF25 V-Twin		Press-In	<b>58120-96401</b>	<b>57632-95J00</b>	<b>57633-96300</b>	<b>09160-14028</b>
DF40/50		Press-In	<b>58120-88L01</b>	<b>57632-95320</b>	<b>57633-94300</b>	<b>09160-18028</b>
DF40A/50A/60A	'10 - Current Models	Press-In	<b>58120-88L01</b>	<b>57632-95320</b>	<b>57633-94300</b>	<b>09160-18028</b>
DF60/70		Press-In	<b>58120-95500</b>	<b>57635-95510</b>	<b>57633-95501</b>	<b>09160-18028</b>
DF60/70		Press-In	<b>58120-94520</b>	<b>57635-94511</b>	<b>57633-94500</b>	<b>09160-18028</b>
DF70A/90A	'09 - Current Models	Press-In	<b>58120-90J00</b>	<b>57632-87L00</b>	<b>57633-90J02</b>	<b>09160-18028</b>
DF90/115/140A		Press-In	<b>58120-90J00</b>	<b>57635-90J01*</b>	year specific	<b>09160-18028</b>
DF90/115/140A	'01 - '02 Models	Press-In	<b>58120-90J00</b>	<b>57635-90J01*</b>	<b>57633-90J02</b>	<b>09160-18028</b>
DF90/115/140A	'03 - '08 Models	Press-In	<b>58120-90J00</b>	<b>57635-90J01*</b>	<b>57633-90J02</b>	<b>09160-18028</b>
DF115/140A	Counter Rotation Models	Press-In	<b>58120-90J00</b>	<b>57635-92J01*</b>	year specific	<b>09160-18028</b>
DF150/175/200/200A/225/250/250AP/300/300AP		Press-In	<b>58105-93J00</b>	<b>57632-93J11</b>	<b>57633-87D30</b>	<b>09160-18028</b>
DF250SS		Press-In	<b>58105-93J10</b>	<b>57632-93J21</b>	<b>57633-87D30</b>	<b>09160-18028</b>

\*Uses Spacer For Stopper, 57632-90J00

**Add SUZ in front of part number when ordering**

**DF40A/60A**

Material	Blades	Diameter	Pitch	Part Number	'99-Current
Aluminum	3	11-1/2	9	<b>58100-88L03-019</b>	■
Aluminum	3	11-1/2	10	<b>58100-88L13-019</b>	■
Aluminum	3	11-1/2	11	<b>58100-88L23-019</b>	■
Aluminum	3	11-5/8	12	<b>58100-88LA0-019</b>	■
Aluminum	3	11-1/2	13	<b>58100-92L30-019</b>	■
Aluminum	3	11-3/8	14	<b>58100-88L52-019</b>	■
Aluminum	3	11-1/4	15	<b>58100-88L62-019</b>	■
Aluminum	3	11-1/8	16	<b>58100-88L72-019</b>	■
Aluminum	3	11	17	<b>58100-88L83-019</b>	■
Stainless Steel	3	11-3/4	10	<b>990C0-00600-10P</b>	■
Stainless Steel	3	11-3/4	11	<b>990C0-00600-11P</b>	■
Stainless Steel	3	11-3/4	12	<b>990C0-00600-12P</b>	■
Stainless Steel	3	11-3/4	13	<b>990C0-00600-13P</b>	■
Stainless Steel	3	11-3/4	14	<b>990C0-00600-14P</b>	■
Stainless Steel	3	11-3/4	15	<b>990C0-00600-15P</b>	■
Stainless Steel	3	11-3/4	16	<b>990C0-00600-16P</b>	■
Stainless Steel	3	11-3/4	17	<b>990C0-00600-17P</b>	■

Diameter and pitch are measured in inches. ■=Optional.

**DF50AV/60AV/70A/90A/115/115A/140/140A**

Material	Blades	Diameter	Pitch	Part Number	'09-Current
Aluminum	3	14	9	<b>58100-87LG1-019</b>	■
Aluminum	3	14	11	<b>990C0-00750-11P</b>	■
Aluminum	3	14	13	<b>990C0-00750-13P</b>	■
Aluminum	3	13-7/8	15	<b>990C0-00750-15P</b>	■
Aluminum	3	13-3/4	17	<b>990C0-00750-17P</b>	■
Aluminum	3	13-3/4	19	<b>990C0-00750-19P</b>	■
Aluminum	3	13-3/4	21	<b>990C0-00750-21P</b>	■
Aluminum	3	13-3/4	23	<b>58100-87LF0-019</b>	■
Aluminum	3	13-1/2	15	<b>990C0-00760-15P</b>	■
Aluminum	3	14	17	<b>990C0-00760-17P</b>	■
Aluminum	3	14	19	<b>990C0-00760-19P</b>	■
Aluminum	3	14	21	<b>990C0-00760-21P</b>	■
Aluminum	3	14	23	<b>990C0-00760-23P</b>	■
Stainless Steel	3	14	15	<b>990C0-00610-15P</b>	■
Stainless Steel	3	14	16	<b>990C0-00610-16P</b>	■
Stainless Steel	3	14	17	<b>990C0-00610-17P</b>	■
Stainless Steel	3	14	18	<b>990C0-00610-18P</b>	■
Stainless Steel	3	14	19	<b>990C0-00610-19P</b>	■
Stainless Steel	3	14	20	<b>990C0-00610-20P</b>	■
Stainless Steel	3	14	21	<b>990C0-00610-21P</b>	■
Stainless Steel	3	14	22	<b>990C0-00610-22P</b>	■
Stainless Steel	3	14	23	<b>990C0-00610-23P</b>	■
Stainless Steel	3	14	24	<b>990C0-00610-24P</b>	■
Stainless Steel	3	14	25	<b>990C0-00610-25P</b>	■
Stainless Steel	3	14	26	<b>990C0-00610-26P</b>	■

**Counter Rotation Models**

Material	Blades	Diameter	Pitch	Part Number	'09-Current
Stainless Steel	3	14	15	<b>990C0-0061L-15P</b>	■
Stainless Steel	3	14	16	<b>990C0-0061L-16P</b>	■
Stainless Steel	3	14	17	<b>990C0-0061L-17P</b>	■
Stainless Steel	3	14	18	<b>990C0-0061L-18P</b>	■
Stainless Steel	3	14	19	<b>990C0-0061L-19P</b>	■
Stainless Steel	3	14	20	<b>990C0-0061L-20P</b>	■
Stainless Steel	3	14	21	<b>990C0-0061L-21P</b>	■
Stainless Steel	3	14	22	<b>990C0-0061L-22P</b>	■
Stainless Steel	3	14	23	<b>990C0-0061L-23P</b>	■
Stainless Steel	3	14	24	<b>990C0-0061L-24P</b>	■

Diameter and pitch are measured in inches. ■=Optional.

**DF150/150AP/175/175AP/200/200A/200AP/300/300AP**

Material	Blades	Diameter	Pitch	Part Number	DF150 - 300AP
Stainless Steel	3	15-1/2	17	<b>990C0-00830-17P</b>	■
Stainless Steel	3	15-1/4	19	<b>990C0-00830-19P</b>	■
Stainless Steel	3	15	21	<b>990C0-00830-21P</b>	■
Stainless Steel	3	14-3/4	23	<b>990C0-00830-23P</b>	■
Stainless Steel	3	14-1/2	25	<b>990C0-00830-25P</b>	■
Stainless Steel	3	14-1/2	27	<b>990C0-00830-27P</b>	■
Stainless Steel	3	16	17	<b>990C0-00800-17P</b>	■
Stainless Steel	3	16	18-1/2	<b>990C0-00800-185</b>	■
Stainless Steel	3	16	20	<b>990C0-00800-20P</b>	■
Stainless Steel	3	16	21-1/2	<b>990C0-00800-215</b>	■
Stainless Steel	3	16	23	<b>990C0-00800-23P</b>	■
Stainless Steel	3	16	24-1/2	<b>990C0-00800-245</b>	■
Stainless Steel	3	16	26	<b>990C0-00800-26P</b>	■
Stainless Steel	3	16	27-1/2	<b>990C0-00800-275</b>	■
Stainless Steel	4	14 1/4	17	<b>990C0-00622-17P</b>	■
Stainless Steel	4	14-1/4	18	<b>990C0-00622-18P*</b>	■
Stainless Steel	4	14-1/4	19	<b>990C0-00622-19P*</b>	■
Stainless Steel	4	14-1/4	20	<b>990C0-00622-20P*</b>	■
Stainless Steel	4	14-1/4	21	<b>990C0-00622-21P*</b>	■
Stainless Steel	4	14-1/4	22	<b>990C0-00622-22P*</b>	■
Stainless Steel	4	14-1/4	23	<b>990C0-00622-23P*</b>	■
Stainless Steel	4	14-1/4	24	<b>990C0-00622-24P</b>	■
Stainless Steel	4	14-1/4	25	<b>990C0-00622-25P*</b>	■
Stainless Steel	4	14-1/4	26	<b>990C0-00622-26P*</b>	■
Stainless Steel	4	14-1/4	27	<b>990C0-00622-27P*</b>	■
Stainless Steel	4	14-1/4	28	<b>990C0-00622-28P*</b>	■
Stainless Steel	4	15-1/4	20	<b>58300-93J10</b>	■
Stainless Steel	4	15-1/4	24	<b>58300-93J30</b>	■
Stainless Steel	4	15-1/4	26	<b>58300-93J40</b>	■

\*Uses Propeller Bushing 990C0-99600

**Counter Rotation Models**

Material	Blades	Diameter	Pitch	Part Number	DF150 - 300AP
Stainless Steel	3	15-1/2	17	<b>990C0-0083L-17P</b>	■
Stainless Steel	3	15-1/4	19	<b>990C0-0083L-19P</b>	■
Stainless Steel	3	15	21	<b>990C0-0083L-21P</b>	■
Stainless Steel	3	14-3/4	23	<b>990C0-0083L-23P</b>	■
Stainless Steel	3	14-1/2	25	<b>990C0-0083L-25P</b>	■
Stainless Steel	3	14-1/2	27	<b>990C0-0083L-27P</b>	■
Stainless Steel	3	16	17	<b>990C0-0080L-17P</b>	■
Stainless Steel	3	16	18-1/2	<b>990C0-0080L-185</b>	■
Stainless Steel	3	16	20	<b>990C0-0080L-20P</b>	■
Stainless Steel	3	16	21-1/2	<b>990C0-0080L-215</b>	■
Stainless Steel	3	16	23	<b>990C0-0080L-23P</b>	■
Stainless Steel	3	16	24-1/2	<b>990C0-0080L-245</b>	■
Stainless Steel	3	16	26	<b>990C0-0080L-26P</b>	■
Stainless Steel	4	15-1/4	20	<b>58300-93JA0</b>	■
Stainless Steel	4	15-1/4	22	<b>58300-93JB0</b>	■
Stainless Steel	4	15-1/4	24	<b>58300-93JC0</b>	■
Stainless Steel	4	15-1/4	26	<b>58300-93JD0</b>	■

Diameter and pitch are measured in inches. ■=Optional.

**DF250SS**

Material	Blades	Diameter	Pitch	Part Number	DF250SS
Stainless Steel	4	14.5	26	<b>990C0-00630-26P*</b>	■
Stainless Steel	4	14.5	27	<b>990C0-00630-27P*</b>	■
Stainless Steel	4	14.5	28	<b>990C0-00630-28P*</b>	■
Stainless Steel	4	14.5	29	<b>990C0-00630-29P*</b>	■
Stainless Steel	4	14.5	30	<b>990C0-00630-30P*</b>	■

Diameter and pitch are measured in inches. ■=Optional. \*Uses Propeller Bushing 990C0-99600

**Add SUZ in front of part number when ordering**

# **HONDA**

---

# **MARINE**

**REDEFINING BEST IN CLASS!**

*Need we say more?*



Always wear a personal flotation device while boating and read your owner's manual.



## Honda Outboards



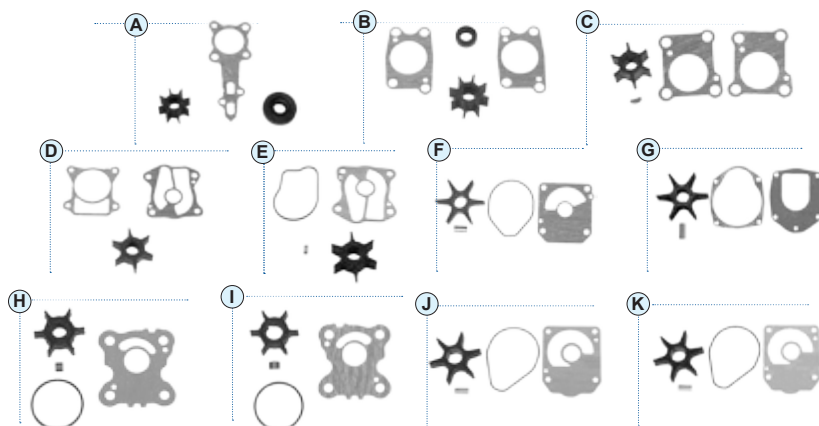
Part No.	Description
EHM BF2.3DHSCH	2 HP, 4-Stroke OHV, 57 cc
EHM BF4AHSNA	4 HP, 4-Stroke OHV, 127 cc
EHM BF5DHSNA	5 HP, 4-Stroke OHV, 127 cc
EHM BF6AHSNA	6 HP, 4-Stroke OHV, 127 cc
EHM BF8DK3SHA	8 HP, 4-Stroke SOHC, 222 cc
EHM BF10D3SH	9.9 HP, 4-Stroke SOHC, 222 cc
EHM BF15D3SH	15 HP, 4-Stroke SOHC, 350 cc
EHM BF20D3SH	20 HP, 4-Stroke SOHC, 350 cc
EHM BF25D3SHG	25 HP, 4-Stroke SOHC, 552 cc
EHM BF30D3LRG	30 HP, 4-Stroke SOHC, 552 cc

Always wear a personal flotation device while boating and read your owner's manual.

Many Other Models to Choose From 2.3hp thru 250hp

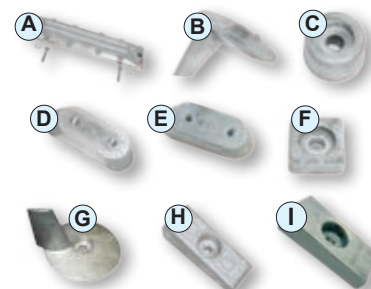
## Water Pump Service Kits

Part No.	Applications
<b>A</b> HON 06192-881-C00	BF8A
<b>B</b> HON 06192-ZV1-C00	BF5
<b>C</b> HON 06192-ZV4-000	BF9.9, 15A
<b>D</b> HON 06192-ZV5-003	BF35, 40, 45, 50
<b>E</b> HON 06192-ZV7-000	BF25, 30
<b>F</b> HON 06192-ZW1-000	BF75, 90, 115, 130
<b>G</b> HON 06192-ZW1-305	BF75, 90
<b>H</b> HON 06192-ZW9-000	BF8D, 9.9D
<b>I</b> HON 06192-ZW9-A30	BF8D, 9.9D
<b>J</b> HON 06192-ZY3-000	BF200, 225
<b>K</b> HON 06192-ZY6-000	BF135, 150



## Anodes

Part No.	Description	Applications
<b>A</b> HON 06411-ZW1-020	Anode Metal Kit	BF75, 90, 115, 130, 135, 150, 200, 250
<b>B</b> HON 06412-ZV5-000	Trim Tab Kit	BF25-BF50
<b>C</b> HON 12155-ZV5-000	Anode Metal	BF25, 30, 35, 40, 45, 50, 75, 90, 115, 200, 225
<b>D</b> HON 41106-935-812	External Anode Metal	BF2-15A
<b>E</b> HON 41106-ZV4-650	Anode Metal	BF2D, 5A, 8A, 9.9A, 15A
<b>F</b> HON 41106-ZW9-000	Anode Metal	BF8D, 9.9D, 15D, 20D, 25D, 30D
<b>G</b> HON 41107-ZV5-000	Trim Tab	BF75, 90
<b>H</b> HON 41109-ZW1-003	Anode Metal	BF8D, 9.9D
<b>I</b> HON 41109-ZW1-B00	Anode Metal Comp	BF75, 90, 115, 130, 135, 150, 200, 225



## Switches, Key Panels

Part No.	Applications
HON 36552-ZW9-200AH	Key Switch Panel with Stop Switch, DF8 - DF20
HON 37452-ZW7-110AH	<u>Push/Choke</u> Key Switch Panel with Stop Switch, DF25 - DF30
HON 36452-ZW7-410AH	Single Engine Key Switch Panel, All EFI 40hp - 250hp
HON 36652-ZW7-310AH	Dual Engine Key Switch Panel
HON 36852-ZY3-400AH	Triple Engine Key Switch Panel



## Single or Dual Top Mount Controls

The premium single controls have a single shift and throttle lever; fast idle function; trim and tilt. The premium dual controls have a single shift and throttle lever for each engine; fast idle function; trim and tilt.

Part No.	Description
HON 06240-ZW5-U40	Single top mount control
HON 06240-ZW5-U60	Dual top mount control

(Right hand operation. For use with Honda outboards only)



## Side Mount Remote Control

Controls feature clean, modern styling, improved ergonomics, and easier rigging. All models can be mounted on the port or starboard side. They allow the trim switch to be activated by your thumb, regardless of location.



Part No.	Model No.	Trim/Tilt	Harness
HON 24800-ZW9-A11	BF8 ~ BF20	Manual	16 ft. included
HON 24800-ZW9-A02	BF8 ~ BF20	Power	16 ft. included
HON 24800-ZW2-A11	BF25 ~ BF30	Manual	16 ft included
HON 24800-ZW2-A02	BF25 ~ BF30	Power	16 ft included
HON 24800-ZZ5-A22*	BF40 ~ BF250	Power	sold separately

## Premium Top Mount Control Heads

Offered in single and multiple engine applications, these control heads feature master trim control on the throttle handle, and individual controls on the head unit for dual engines. They also offer 'Slow' mode for increased throttle control while maneuvering at slow speeds and 'Trolling' mode for incremental RPM adjustments at any speed.

Part No.	Description
HON 06240-ZX2-040AH	Single Engine Control Head
HON 06240-ZX2-060AH	Multiple Engine Control Head



Single Engine



Multiple Engine

## Terminating Resistor

Completes the communication circuit between the control head(s) and outboard engine.

Part No.	Description
HON 32530-ZX2-000AH	Terminating Resistor



## Trim Switch Panels

These auxiliary panels are required to control individual trim adjustments when installing iST engines in triple or quadruple configurations. Connect directly to each engine key switch and main harness.

Part No.	Description
HON 35371-ZX2-000AH	Triple Trim Switch Panel
HON 35372-ZX2-000AH	Quadruple Trim Switch Panel



Triple Switch



Quadruple Switch

## Station Cables

Communicate data between the control head and outboard engine.

Part No.	Description
HON 32530-ZX2-015AH	15' Cable
HON 32530-ZX2-020AH	20' Cable
HON 32530-ZX2-025AH	25' Cable
HON 32530-ZX2-030AH	30' Cable



## Faria Gauges

Includes: 10~60 mph speedometer, 7k tach/hour meter, trim meter, volt meter, fuel gauge. Requires Faria instrument harness for installation, Part No. 32103-ZW7-000AH.



Part No.	Description
HON 06300-ZW5-010ZB	5 Gauge Set - White Face/ Flat Lens
HON 37200-ZW5-000ZB	Speedometer 10~60 MPH Includes pressure tubing. (shown)
HON 37250-ZW5-010ZB	7k Tach/Hour Meter, Includes digital hour meter. (shown)
HON 39700-ZW5-000ZB	Analog Hour Meter Includes removable black square bezel.
HON 37260-ZW5-000ZB	Trim Meter (shown)
HON 37300-ZW5-000ZB	Fuel Gauge (shown)
HON 37450-ZW5-000ZB	Volt Meter (shown)
HON 37350-ZW5-000ZB	Water Pressure Gauge 0~30 PSI Matches 5 gauge set dial face. Includes pressure tubing and fitting. Required 1/8" hose barb (BSPT), PN 19271-ZV5-000AH,

## Faria Gauges

Includes: 10~60 mph speedometer, 7k tach/hour meter, trim meter, volt meter, fuel gauge. Requires Faria instrument harness for installation, Part No. 32103-ZW7-000AH.



Part No.	Description
HON 06300-ZW5-010ZA	5 Gauge Set - Black Face/ Flat Lens
HON 06372-ZV5-950AH	Speedometer 5~35 MPH (shown) Intended for pontoon applications.
HON 37200-ZW5-000ZA	Speedometer 10~60 MPH Includes pressure tubing. (shown)
HON 37250-ZV5-950AH	7k Tach/Hour Meter Includes digital hour meter
HON 37250-ZW5-010ZA	7k Tach/Hour Meter
HON 39700-ZW5-000ZA	Includes digital hour meter.(shown) Analog Hour Meter Includes removable black square bezel.
HON 37260-ZW5-000ZA	Trim Meter (shown)
HON 37300-ZW5-000ZA	Fuel Gauge (shown)
HON 37450-ZW5-000ZA	Volt Meter (shown)
HON 37350-ZW5-000ZA	Water Pressure Gauge 0~30 PSI Matches 5 gauge set dial face. Includes pressure tubing and fitting. Required 1/8" hose barb (BSPT), PN 19271-ZV5-000AH, is included.

## Instrument Harness

Connects Faria 5 gauge set plus optional water pressure gauge to main harness. 54 inches long.

Part No.	Description
HON 32103-ZW7-000AH	Instrument Harness (Fused) 7.5 Amp



## Inductive Tachometer/ Hour Meter



**Part No.**  
HON 08181-ENM-036AH

**Description**  
Inductive Tachometer/ Hour Meter, Fits:  
BF2~BF20. Does not work on BF115~250.

## Faria Universal Tachometer



**Part No.**  
HON 37250-ZV5-950AH

**Description**  
Black face, flat lens tach.  
Tachometer only—no hour meter.

## Digital L.C.D. Hour Meter

Resettable. Note: Does not work with  
BF25-50A4 tiller handle models.



**Part No.**  
HON 39700-ZV5-800AH

**Description**  
Digital LCD Hour Meter

## Tach/Trim Meter Kit

Kit includes Faria tach/hour meter, trim  
meter and Faria connecting instrument  
harness. Only available in black face,  
flat lens.



**Part No.**  
HON 06300-ZW5-000KT

**Description**  
Tach/Trim Meter Kit

## Rudder Meter Kit

Enables the rudder indicator  
gauge function.



**Part No.**  
HON 06373-ZZ3-000  
HON 06373-ZZ3-610

**Description**  
Rudder Meter Kit, White face (not shown)  
Rudder Meter Kit, Black face

## Tachometer Bezel Kit

May be needed to install the smaller  
diameter original equipment  
tachometer in the standard 3-3/8 inch  
hole. Kit contains two black anodized  
aluminum bezel rings, needed for front  
and rear of mounting panel.



**Part No.**  
HON 06380-ZV5-000AH

**Description**  
Tachometer Bezel Kit

## Water Pressure Gauges

37353-ZY3-000AH Matches the face  
plate of the Honda digital speedometer  
and digital tachometer. Includes pressure  
tubing and engine fitting.  
37353-ZX2-000ZA and 37353-ZX2-000ZB  
Matches the styling of the NMEA 2000  
gauges from Veethree. Includes mount-  
ing bracket, rubber hose, hardware, and  
installation instructions..



(37353-ZY3-000AH shown)

Part No.	Description
HON 37353-ZY3-000AH	0 to 30 PSI Water Pressure Gauge (black)
HON 37353-ZX2-000ZA	0 to 40 PSI Water Pressure Gauge (black)
HON 37353-ZX2-000ZB	0 to 40 PSI Water Pressure Gauge (white)

## Speedometer Tubing (rubber hose)

Connects any speedometer to the pitot  
tube on the engine gear case, transom  
mounted pitot tube, or pitot tube  
connection at the front grommet.  
Heavy wall construction. Fits: BF75/90/100,  
BF135/150, BF200/225, 2000 model year and  
subsequent BF250A



Part No.	Description
HON 37202-ZW5-025AH	Rubber hose 25 feet
HON 37202-ZW5-100AH	Rubber hose 100 feet

## Hose Barb—BSPT

This brass fitting screws into the port  
(remove plug first) on the powerhead  
for water pressure source. This is a  
British Pipe Thread which conforms to  
the factory thread on the designated  
engines. Always use 2 wire ties to  
secure tubing to this fitting.



Part No.	Description
HON 19271-ZV5-000AH	1/8 Inch Hose Barb—BSPT

## HD-4 Multi-function Color Display

For all NMEA 2000® compatible Honda  
Marine engines. Supports up to four  
(4) engine installations, and can display  
two (2) engines per instrument.



Part No.	Description
HON 06333-ZX2-000AH	HD-4 MULTI-FUNCTION DISPLAY
HON 06633-ZX2-100AH	FUEL DATA MANAGER KIT
HON 06324-ZX2-000AH	GPS ANTENNA
HON 06321-ZX2-000AH	FUEL LEVEL ADAPTER TANK 1
HON 06322-ZX2-000AH	FUEL LEVEL ADAPTER TANK 2



## Wire Harnesses

Harness "A" Connects original equipment tachometer, trim meter, and harness "B" to main harness or side mount control box. 54 inches long. Harness "B" Provides additional connection to harness "A" for speedometer, hour meter and volt meter.



Part No.	Description
HON 32540-ZV5-911	Harness "A" (Fused) 4-Wire Connection Original Equipment Pre-2003
HON 32550-ZV5-910	Harness "B" Original Equipment
HON 32570-ZY3-010AH	6 Wire Extension Harness, <b>10 ft. long</b>
HON 06326-ZY3-802AH	Digital Gauge Harness. Connects to new 7-wire key switch panel harness.
HON 36552-ZW9-020AH	Main Harness, <b>20 ft. long</b>
HON 36552-ZW9-025AH	Main Harness, <b>25 ft. long</b>
HON 32205-ZY6-010AH	20 Wire Main Engine Harness with 6-Pin Engine Connector, <b>10 ft. long</b>
HON 32205-ZY6-015AH	20 Wire Main Engine Harness with 6-Pin Engine Connector, <b>15 ft. long</b>
HON 32205-ZY6-020AH	20 Wire Main Engine Harness with 6-Pin Engine Connector, <b>20 ft. long</b>
HON 32205-ZY6-025AH	20 Wire Main Engine Harness with 6-Pin Engine Connector, <b>25 ft. long</b>
HON 32205-ZY6-030AH	20 Wire Main Engine Harness with 6-Pin Engine Connector, <b>30 ft. long</b>
HON 32205-ZY6-050AH	20 Wire Main Engine Harness with 6-Pin Engine Connector, <b>50 ft. long</b>
HON 32530-ZW9-020AH	Side Mount Control Main Harness, <b>20 ft. long</b>
HON 32530-ZW9-025AH	Side Mount Control Main Harness, <b>25 ft. long</b>
HON 32570-ZW9-000AH	Long Main Harness Extension Manual Tilt models, <b>7 ft. long</b>
HON 2570-ZY1-000AH	Long Main Harness Extension Power Tilt models, <b>7 ft. long</b>
HON 08M66-ZW7-230AH	17 Wire Extension Connects at helm, <b>7 ft. long</b>
HON 08M66-ZW7-240AH	3 Wire PGM-FI Panel Harness Extension, <b>3 ft.</b>
HON 08M66-ZW7-210AH	3 Wire PGM-FI Panel Harness Extension, <b>7 ft.</b>
HON 32185-ZW5-000	3 Wire PGM-FI Panel Harness Extension, <b>16.5 ft.</b>
HON 08M66-ZW7-220AH	3 Wire PGM-FI Panel Harness Extension, <b>30 ft.</b>
HON 32185-ZY6-020AH	Digital Gauge Ready - 9 Wire Panel Indicator Harness, <b>20 ft. long</b>
HON 32185-ZY6-025AH	Digital Gauge Ready - 9 Wire Panel Indicator Harness, <b>25 ft. long</b>
HON 32185-ZY6-004AH	9 Wire Panel Indicator Harness Extension, <b>4 ft.</b>
HON 32197-ZH8-003	Tachometer Adapter Harness
HON 32198-ZY6-002AH	3 Pin to 6 Pin Panel Indicator Harness Adapter
HON 32197-ZY6-002AH	6 Pin to 3 Pin Panel Indicator Harness Adapter



## Engine Outlet Grommets

Allows waterproof connection of hard wall conduit or covering material

Part No.	Description
(A) HON 32168-ZW1-000AH	Fits: BF75A, BF90A
(B) HON 40105-ZY9-000	Fits: BF75DK, BF90DK, BF100A
(C) HON 40106-ZW7-U00	Fits: BF115A, BF130A
(D) HON 40105-ZY3-010	Fits: BF200/225, A2~A5
HON 40105-ZY3-A11	Fits: BF200/225, A6~K0
HON 40105-ZY3-C01	Fits: BF200/225K1, BF250

## Split Rigging Tube Kit

Five piece kit allows easy rigging of engine harnesses, control cables, fuel line. Replaces rubber grommet.

Note: Solid wall tubing must be used with this kit.



Part No.	Description
HON 40105-ZY3-010AH	Fits: BF200A, BF225A, BF250A

## Threaded Rigging Tube Adapter

This adapter allows the use of a solid rigging tube from the outboard engine to the hull of the boat.



Part No.	Description
HON 40105-ZY6-010AH	Fits: BF115D, BF135A, BF150A
HON 40200-ZY3-020AH	Fits: BF200A, BF225A, BF250A
The tube inside diameter must be 1-7/8"	

## Split Rigging Tube Service Kit

This kit consists of 4 sheets of the rubber material used with the split rigging tube kit. When re-rigging an engine with the split rigging tube kit, you will need to re-apply two sheets per engine—this kit accommodates a twin engine installation.



Part No.	Description
HON 40106-ZY3-010	Fits: BF200A, BF225A

LOOKING FOR A SPECIFIC  
**HONDA** PRODUCT?

Give us a call!

FL 1-800-432-2231

SC 1-800-788-2231

Our parts experts will be happy to assist you in finding the perfect fit.

## Genuine Honda Oil Filter Wrenches



**Part No.**

HON 07AAA-PAAA100  
HON 07AAA-PLCA100

**Description**

for Smaller Honda Filters.  
for Larger Honda Filters.

## Honda Carb Cleaner



**Part No.**

HON 08732-CC000

**Description**

Non-Chlorinated 12 oz Can

## Honda Oil Filters



**Part No.**

HON 15400-PFB-014

**Description**

BF8/BFP8 D1, D2, D3, D4. BF9.9/  
BFP9.9D1,D2,D3,D4, ,BF15/BFP15D3,  
D4. BF20 D3, D4. BF25A, BF30A, BF35AM  
BF40A, BF45AM, BF40D, BF50D,  
BF50A. BF60A, BFP60  
BF25-BF50. AX, AW, AY, A1, A2, A3, A4  
BF 75/90 AT, AW, AX, AY, A1, A2, A3,A4,A5,  
A6, DK0 BF115/130 AX, AY, A1, A2, A3, A4,  
A5, A6, K0 BF115D, BF135/150 A4, A5, A6,  
K0 BF200/225 A2, A3, A4, A5, A6, K0, K1

HON 15400-PFB-007

HON 15400-PLM-A01PE

## Honda Fuel Filters



**Part No.**

HON 16900-SA5-004

**Description**

Fits: BF35/45AM, BF 40/50A, AW, AX: Sers #14ZV50M:  
BF90, AT, AW, AX, AY: Sers #14ZW00E14M  
Fits: BF35/45 AM, BF4050A, AW, AX, Sers #14ZV50M,  
BF75, BF90,AT,AW,AX,AY. Sers #14ZW00E1M  
BF150 Fuel Pump Filter

HON 16901-ZY3-003

HON 16911-759-003

## Honda Marine Oil

Honda Marine oil is approved by the national Marine Manufacturing Association (NMMA) to meet the rigorous FC-W standard. It has also been tested by Honda Research and Development and certified for use in all Honda marine engines, complying with all of Honda's service and warranty requirements. Honda marine engine oil's advantages over automotive oils include: Increased rust and oxidation inhibitors to fight corrosion in the marine environment Shear stable polymers to resist viscosity breakdown under high rpm and high load conditions. Excellent performance in High Temperature High Shear Viscosity test to ensure viscosity retention despite the fuel dilution associated with marine engines. Additional anti-wear additives for better bearing protection

**Part No.**

HON 08739-90W

HON 08739-M0500

HON 08207-5W30M2

HON 08207-10W30MFC-W

HON 08209-10W30MFC-W

HON 08208-10W30MFC-W

**Description**

Gear Case Oil

Gear Case Oil

SAE 5W-30 motor oil

SAE 10W-30 motor oil

SAE 10W-30 motor oil

SAE 10W-30 motor oil

**Size**

1 qrt

5 gal

1 qrt

1 qrt

1 gal

55 gal drum



Gear Case Oil



SAE 5W-30



SAE 10W-30

Need we say more?



Always wear a personal flotation device while boating and read your owner's manual.

## Fuel Stabilizer

Genuine StaBil® formula prevents gasoline-related problems during periods of extended storage. Prevents rust, freezing, or gelling of fuel. Keeps jets and float bowls free of gummy residues. Equipment stays "ready-to-use."



Part No.	Description
HON 08732-0008M	8 fl. oz. (case of 12)
HON 08732-0032M	32 oz. measure bottle (case of 12)

## Salt Terminator

For all marine applications, salt terminator is designed to dissolve and removes salt build up commonly associated with marine environments while providing a protective sheen, guarding against future salt corrosion.



Part No.	Description
HON 08C10-SX10	12 oz. bottle (case of 12)
HON 08C10-SX32	1 qt. concentrate (case of 7)
HON 08C10-SX32M	1 qt. concentrate with mixer (case of 6)
HON 08C10-SX128	1 gal. concentrate (case of 6)

## Power Trim and Tilt Fluid

Specially formulated for Honda Marine power trim and tilt systems. High shear stability resists viscosity breakdown. Special additives protect against wear, scuffing, and corrosion. Available in 1 quart bottles. Sold in a case of 12 quarts only.



Part No.	Description
HON 08207-TNT32	1 qt. bottle (case of 12)

## Corrosion Inhibitor

Protects many components under the engine cover from salt water corrosion. Dries to a light tack, and will not harm plastics or electrical wires, connectors, or terminals.



Part No.	Description
HON 08732-1100	13 oz. spray can (case of 12)

## Contact/Brake Cleaner

Cleans grease and oils from electrical components and brake systems. New formula dries fast and leaves no residue. Won't harm most plastic, rubber, or painted surfaces.



Part No.	Description
HON 08732-CBL49	15 oz. aerosol can (case of 12) <i>Not for sale or use in California.</i>
HON 08732-CBCCA	15 oz. aerosol can (case of 12) <i>*Formulated for California.</i>

## Antiseize

Protects up to 2600°F. Waterproof. Protects against rust and corrosion caused by chemicals. Excellent for threaded fittings. 8 oz. container.



Part No.	Description
HON 08732-AS000	8 oz. container

## White Lithium Grease

White Lithium Grease  
Heavy-duty general purpose lubricant sets up quickly.



Part No.	Description
HON 08732-WLG01	12 oz. aerosol can (case of 12)

## Hondalube/Rust Penetrant

Displaces moisture, protects against rust and corrosion. Low VOC formula; meets current CARB and OTC standards. Contains no chlorinated solvents or CFCs.



Part No.	Description
HON 08732-RP001	12 oz. aerosol can (case of 12)



## Silicone Spray

Eliminates squeaks and sticking while lubricating and protecting. Protects, preserves, and waterproofs fabrics, leathers, and rubber



Part No.	Description
HON 08732-SS000	12 oz. aerosol can (case of 12)

## Spray Cleaner and Polish

Superior performance and economy. Cleans, polishes, and protects paint, plastic, glass, vinyl, and rubber. Repels water, blocks UV rays, reduces dust build-up.



Part No.	Description
HON 08732-SCP00	14 oz. aerosol can (case of 12)

## Hondalock 1

Low strength threadlock for frequently removed/low torque fasteners.

Part No.	Description
HON 08713-0001	10 cc bottle (case of 6)



## Hondalock 2

Medium strength threadlock for medium-torque fasteners.

Part No.	Description
HON 08713-0002	10 cc bottle (case of 6)



## Hondalock 3

High-strength threadlock for hightorque fasteners or semi-permanent applications.

Part No.	Description
HON 08713-0003	10 cc bottle (case of 6)



## Hondalock 2HT

High temperature threadlock for medium-torque fasteners in high-heat applications, such as exhaust studs.

Part No.	Description
HON 08713-0004	10 cc bottle (case of 6)



## Dielectric Grease

Non-conductive water-proofing compound. Insulates electrical connections. Adheres to most surfaces. Seals out moisture, dirt and corrosion



Part No.	Description
HON 08798-0001	5 oz. tube (case of 6)

## Moly Assembly Paste

Moly M-77 assembly paste contains a moly grease formula designed so that it will not separate at room temperature. It is made by Honda and is recommended for gears, bearings and other high-pressure, high-temperature applications.



Part No.	Description
HON 08798-9010	2.65 oz. tube

## Hondabond 4

Semi-drying liquid gasket. Seals with a tough, elastic film, yet removes easily. Solvent-based formula resists gasoline.



Part No.	Description
HON 08717-1194	3.5 oz. tube (case of 6)

## Weatherstrip Cement

A permanent waterproof adhesive that adheres to rubber, plastic, metal. Also works for vinyl repair.



Part No.	Description
HON 08712-0002	5 oz. tube (case of 6)

## Hondabond HT

High-temperature silicone liquid gasket. Non-acidic, will not corrode aluminum. For use in areas not requiring solid gaskets.



Part No.	Description
HON 08718-0004	3.5 oz. tube (case of 6)

## Hondabrite

Genuine S-100® in a mid-size package. Easy-to-use cleaner; simply spray on and hose off.



Part No.	Description
HON 08732-0020B4	20 oz. bottle w/sprayer (case of 12)
HON 08732-0032	32 fl. oz. refill bottle (case of 12)

## Spray Paint/ Bulk Paint

Dealers and their repair shops are urged to use all Color-Rite paint products in combination with each other. Substitutes may not be compatible.



Part No.	Description
<b>Spray Paint</b>	
HON 08707-PRIMA	Primer
HON 08707-NHB14M	Aquamarine Silver Metallic Paint
HON 08707-NH282MA	Oyster Silver Metallic Paint
HON 08707-UCA150	Clearcoat
HON 08707-NH190M	Vintage Grey Metallic
HON 08707-NH283MA	Stin Gray Propeller Paint
HON 08707-PB109	Neptune Blue
<b>Touch-up Pen.</b>	
HON 08707-NH282MXP	Oyster Silver Metallic, Touch-up pen.
<b>Bulk Paint</b>	
HON CR3031-P	Primer, Pint
HON CR3031-Q	Primer, Quart
HON PCR-410	Clearcoat, Pint
HON QCR-410	Clearcoat, Quart
HON MP2958	Oyster Silver Paint, Pint
HON MQ2958	Oyster Silver Paint, Quart
HON QUR-1	Paint Reducer, Quart

## 14 Liter Motor Oil Extractor

Vacuum extractor easily removes crankcase oil from engine with no spillage or mess. Float mechanism prevents overfilling. Includes 3 different diameter suction hoses. Combination of 2 hoses joined is 9 ft 4 inches. Holds 14 liters/14.8 quarts/3.7 gallons.



Part No.	Description
HON 07999-ZW7-014AH	14 Liter Oil Extractor

## 6 Liter Motor Oil Extractor

Vacuum extractor easily removes crankcase oil from engine with no spillage or mess. Float mechanism prevents over filling.



Part No.	Description
HON 07999-ZW7-000AH	6 Liter Oil Extractor

## Outboard Lower Unit Gear Case Oil Pump

Fits standard QT bottles. Flexible hose and metal threaded fitting for connection to gear case. Comes with 8 mm x 1.25 mm adapter.



Part No.	Description
HON 08200-9011	Gear Case Oil Pump

## Optional Dipstick Suction Hose

Continuous 9 foot long dipstick suction hose fits all Honda engine models. Eliminates the joint for connecting two shorter lengths. Can be used with either the 6 liter or 14 liter extractor.



Part No.	Description
HON 07998-ZW7-009AH	9' long hose

## Marine Grease

Multi-Purpose extreme pressure grease for high load use with water resistance properties. Resistant to water washout, rust, and corrosion under severe duty conditions. Maintains superb consistency and adhesion under wide temperature ranges and extreme salt water exposure.



Part No.	Description
HON 08734-0003	14 oz. cartridge (multiple of 10)



## INVERTER GENERATORS

### 030675

#### Q6500 QuietPower™ Inverter Generator

##### 30% Lighter than a standard generator.<sup>1</sup>

Integrated engine/alternator design allows for lightweight design for easy portability.

##### 45% More Compact than a standard generator.<sup>1</sup>

Designed to be smaller in size for simple storage.



- **Up to 14 Hour Run Time<sup>2</sup>:** Extended refueling with variable RPM engine that automatically adjusts to wattage needs.
- **Variable RPM Engine:** Automatically adjusts to wattage needs extending refueling intervals.
- **Integrated engine/alternator:** Get reliable power that's more quiet, compact and lighter than ever.
- Starting Watts<sup>3</sup>: 6500
- Running Watts<sup>4</sup>: 5000
- Engine CC: 306
- Volts 120/240
- Fuel Tank Capacity: 5 Gallons
- Outlets:
  - (4) 120V-20A GFCI
  - (1) 120/240V, 30A Locking
  - (2) USB
- Decibel Rating<sup>5</sup>: 66
- 128 lbs
- 25.5"Lx21.1"Wx21.43"H



### 030651

#### P2200 Inverter Generator



- 2200 Starting Watts
- 1700 Running Watts
- Outlets:
  - 2-120V Household
  - 12V DC Accessory
- 59 Decibels<sup>5</sup>
- Provides up to 6.5 hours of run time at 25% load
- 54 lbs
- 21"Lx12.5Wx17.35H

### 030545

#### P3000 Inverter Generator



- 3000 Starting Watts
- 2600 Running Watts
- Outlets:
  - 4-120V Household
  - 1-120V, 30A Locking
  - 12V DC Accessory
  - RV Adapter
  - USB Port
  - Parallel Port
- 58 Decibels<sup>5</sup>
- Provides up to 10 hours of run time at 25% load
- Parallel Connector Port- for more power
- Telescoping Style Handle
- Starts most 13,500 and 16,000 BTU A/Cs
- 84 lbs
- 26"Lx14"Wx21"H

## PARALLEL KIT

### 6278

#### PowerSmart Series Parallel Kit



- **Connect two units together for more power**
- Allows for 4800W continuous when used with two P3000 inverters

## PRESSURE WASHER

### 020507

#### 4000 Max PSI 4.0 Max GPM



- Briggs & Stratton 2100 Series OHV Engine, 420cc
- Annovi Reverberi Triplex Pump
- 5 Quick-Connect Nozzles
- 50' Steel Braided Hose
- 12" Never Go Flat Wheels

<sup>1</sup> Versus a standard generator 030607.

<sup>2</sup> At 25% Load.

<sup>3</sup> This generator is rated in accordance with Briggs & Stratton standard 628K.

<sup>4</sup> Per ANSI/PGMA G300-2015.

<sup>5</sup> Measured at 1/4 load at 7m from control panel side.

For more information or to purchase

FL Office: 1.800.432.2231 • SC Office: 1.800.788.2231 • Email: sales@jerrysmarine.com

**YOU.POWERED.**





Mase Generators is a leading manufacturer in Europe. Mase has 40 years of manufacturing power systems. They offer a wide range of Marine generators which stand out for quiet sound levels, compact size, good weight/power ratios with innovative and elegant designs. Mase Marine Generators are mainly powered by Yanmar and feature efficient size and built-in aluminum sound shields combining practical design with Italian style. Diesel-powered generators ranging from 3.2 kW to 150 kW. Mase gensets are designed and manufactured 100% at Mase's headquarters in Italy. Two marine generators series (Mariner and IS intercooler) reach 148 models to fulfill your needs. Mase is available to customize the generators in order to satisfy all boat builder's needs. Mase cares for its customers from the original purchase through the many years of productive use and offer an extensive worldwide sales & service network which provides technical support and coordinates authorized service workshops all over the world.

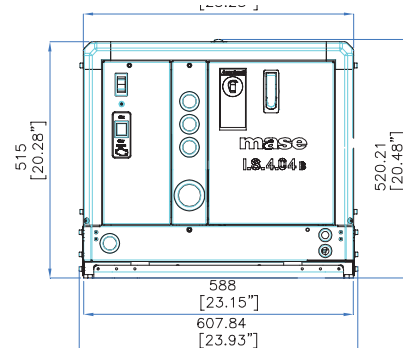
*Jerry's Marine Service offers many more models. Please call for availability and pricing.*

### EMA IS4.04

Engine	60Hz
Model	Yanmar L70 LV
Type	Diesel, 4-stroke
Cylinders (nr.)	1
Cylinder block material	Aluminium
Bore (mm. - in.)	78 - 3
Stroke (mm. - in.)	62 - 2.44
Displacement (cc. - CID)	320 - 19,5
Power (hp - kW)	6,4 - 4.8
RPM	3600
Compression ratio	20:1
Combustion system	Direct injection
Engine head material	Aluminium
Speed governor	Centrifugal mechanical
Lubrication system	Forced
Oil sump capacity with filter (lt. - US qts)	1.1 - 0.24
Engine stop system	Fuel solenoid
Fuel pump	Electric
Fuel pump discharge (cm. - ft)	70 - 2.3
Fuel consumption (l/h-gl/h )	1.5 - 0.39
Air intake (l/min. - gl/min.)	480 - 16.9
Starting battery (Ah-V)	45 - 12
Starter (kW-V)	1 - 12
Max. inclination	30°
Water pump flow (l/min. - gl/min.)	20 - 5.3

Alternator	60Hz
Type	Brush less synchronous, 2-poles self-excited
Cooling	Air/water (Intercooler W/A)
Voltage (V)	120 - 240
Frequency (Hz)	60
Nominal current (A)	26.6 - 16.3
Max. power (kW)	3.2
Continuous power (kW)	2.9
Battery charging output (A-V)	10 - 12
Power factor ( cos $\phi$ )	1
Insulating class	H
Voltage stability	$\pm 10\%$
Frequency stability	$\pm 5\%$

### IS 4.04



### EMA IS5.6

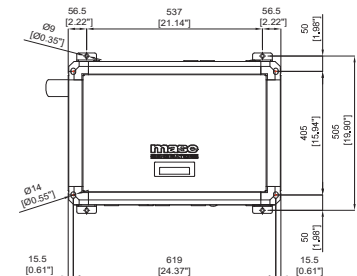
#### Engine

Model	KUBOTA Z482
Type	Diesel 4 stroke
Cylinders (nr.)	2
Cylinder block material	Cast iron
Bore (mm. - in.)	67 - 2,6
Stroke (mm.- in.)	68 - 2,6
Displacement (cc. - CID)	479 - 29,2
Power (hp)	13,3
RPM	3600
Injection system	Indirect
Engine head material	Cast iron
Speed governor	Centrifugal mechanical
Lubrication system	Forced
Engine stop system	Stop solenoid
Fuel pump	Electric
Fuel pump discharge (cm. - ft)	70 - 2,3
Starting battery (Ah-V)	45 - 12
Starter (kW-V)	0,7 - 12
Max. inclination	30°
Water pump flow (l/min. - gal/min.)	20 - 5,3

#### Alternator

Type	Synchronous, 2-poles self excited
Cooling	Air/water ( Intercooler W/A )
Voltage (V)	120 - 240
Frequency (Hz)	60
Amps	46,7 - 23,3
Max. power (kW)	5,6
Continuous power (kW)	5
Battery charger output (A-V)	10-12
Power factor ( cos ø )	1
Insulating class	H
Voltage stability	±10%
Frequency stability	±5%

#### IS 5.6



### EMA MARINER1304

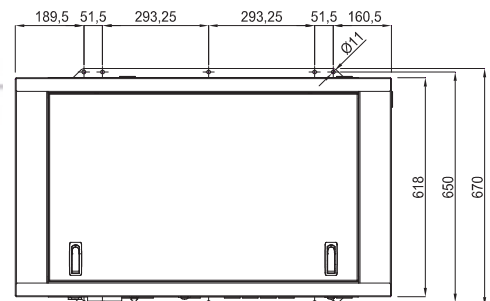
#### Engine

Model	YANMAR 3TNM88F-UGGE
Type	Diesel 4 stroke
Cylinders (nr.)	3
Cylinder block material	Cast iron
Bore (mm - in.)	88
Stroke (mm - in.)	90
Displacement (cc - cu.in.)	993
Power (hp)	20,4
Rated rpm	1800
Combustion system	Indirect
Engine head material	Cast iron
Speed governor	Centrifugal mechanical
Lubrication system	Forced
Oil sump capacity (L - qt.)	6,7
Engine stop system	Stop solenoid
Fuel pump	Electric
Fuel pump discharge (cm - in.)	70
Full load consumption (L/h - qt/h)	4,8 - 5,0
Starting battery (Ah-V)	45 - 12
Battery charger (Ah-V)	40 - 12
Starter (kW-V)	0,8 - 12
Max. inclination	30°
Water pump flow (L/min - gal/min)	24

#### Alternator

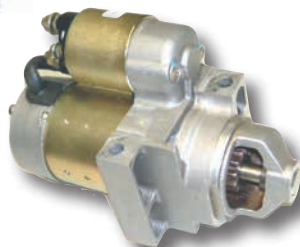
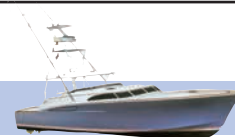
Type	60 Hz Synchronous, 2-poles, self-excited
Cooling	Air
Voltage (V)	120 - 240
Frequency (Hz)	60
Current (A)	100,0 - 50,0
Max. power (kW)	12
Continuous power (kW)	11,5
Power factor ( cos ø )	1
Insulating class	H
Voltage stability	±10%
Frequency stability	±5%

#### MARINER 1304

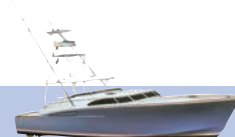


MFG	Item Number	Description
EMA	IS4.04	GENSET 3.2KW DIESEL
EMA	MARINER560S	GENSET 5KW DIESEL
EMA	IS5.7	GENSET 5KW DIESEL...
EMA	IS5.6	GENSET 5KW DIESEL
EMA	IS7.1	GENSET 7.1KW DIESEL.
EMA	IS7.1B	GENSET 7.1KW DIESEL
EMA	MARINER704A	GENSET 7KW DIESEL

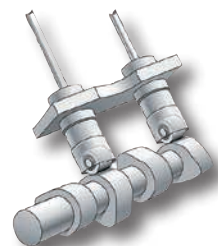
MFG	Item Number	Description
EMA	MARINER704S	GENSET 7KW DIESEL
EMA	IS9.6	GENSET 9.6KW DIESEL
EMA	MARINER904S	GENSET 8.5KW DIESEL
EMA	MARINER1304A	GENSET 12KW DIESEL..
EMA	MARINER1304S	GENSET 12KW DIESEL
EMA	IS13.04	GENSET 12KW DIESEL..
EMA	IS14	GENSET 13.5KW DIESEL



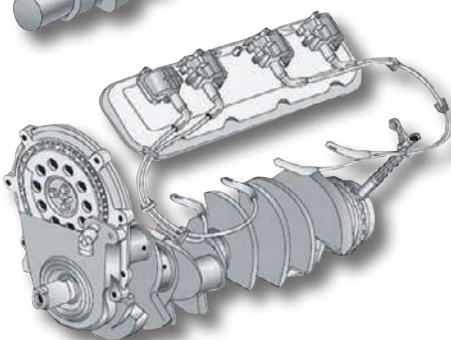
Description	3.0L	4.3L	5.7L	7.4L	8.1L
Fuel Filter (spin-on)		M/P 395524	M/P 395524	M/P 395524	
Oil Filter (block mounted)	M/P 397554	M/P 397542	M/P 397554	M/P 397554	
Oil Filter (remotely mounted)	M/P 397578	M/P 397578	M/P 397578	M/P 397578	M/P 397578
Impeller Kit		M/P 527246	M/P 527246	M/P 527246	M/P 527246
V-Belt (non power steering)					
V-Belt (for power steering)					
Ignition Wire Set (Delco EST)	M/P 470300	M/P 470511	M/P 470511	M/P 470511	
Spark Plugs	M/P 479104	M/P 479104	M/P 479104	M/P 479104	
Distributor Cap & Rotor Kit (Delco EST)	M/P 482175	M/P 482163	M/P 482151	M/P 482151	
Distributor Cap & Rotor Kit (Delco HVS)		M/P 482149	M/P 482137		
Ignition Coil (Delco EST)	M/P 481503	M/P 481503	M/P 481503	M/P 481503	
Ignition Coil (Delco HVS)		M/P 481577	M/P 481577	M/P 481577	M/P 481577
Ignition Module (Delco EST)	M/P 483002	M/P 483002	M/P 483002	M/P 483002	
Thermostat (fresh water cooled)	M/P 515411	M/P 515411	M/P 515411	M/P 515411	
Thermostat (raw-water cooled)	M/P 515300	M/P 515400	M/P 515400	M/P 515400	
Starter (top mount 14" flywheel)	M/P 475106	M/P 475106	M/P 475106	M/P 475106	M/P 475106
Starter (bottom mount 14" flywheel)	M/P 475447	M/P 475447	M/P 475447	M/P 475447	M/P 475447



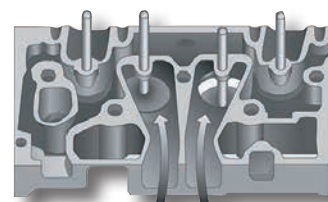
The General Motors Vortec engine design provides many advantages verses competitive brands. These advantages make GM the leading manufacturer of marine recreational engines the world over.



Roller valve lifters reduce friction and improve performance



A high-flow cylinder head, with strighter intake ports and a higher compression ratio, significantly better combustion.

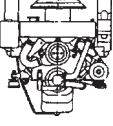
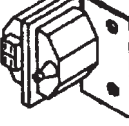
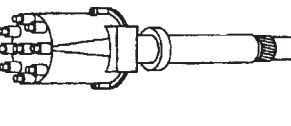

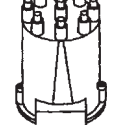
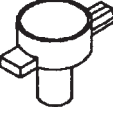



The coil-near-plug ignition system, with both crankshaft sensor and camshaft sensor, is another example of GM Powertrain bringing advanced automotive technology to the marine engine market

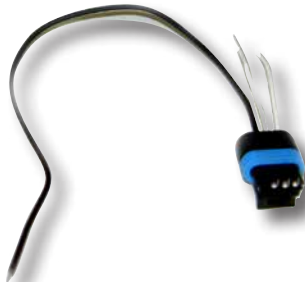


**Delco HEI Ignition Components**  
**181 CID, 262 CID, 350 CID, 454 CID & 502 CID**  
*(Current Production Engines)*



						
<b>Engine</b>	<b>Coil</b>	<b>Distributor</b>	<b>Module</b>	<b>Cap</b>	<b>Rotor</b>	<b>Wire Sets</b>
181 4 Cyl	M/P 481503	M/P 480133	M/P 483002	M/P 482036	M/P 482240	M/P 470300
262 V6	M/P 481503	M/P 480157	M/P 483002	M/P 482050	M/P 482252	M/P 470500
350 V8	M/P 481503	M/P 480151 (Left Hand)	M/P 483002	M/P 482101	M/P 482303	M/P 470511
		M/P 480155 (Right Hand)				
454 V8	M/P 481503	M/P 480151 (Left Hand)	M/P 483002	M/P 482101	M/P 482303	M/P 470511
		M/P 480155 (Right Hand)				
502 V8	M/P 481503	M/P 480151 (Left Hand)	M/P 483002	M/P 482101	M/P 482303	M/P 470511
		M/P 480155 (Right Hand)				

**TIMING TOOL**



Isolates electronic advance so engine can be timed.

**Part No.**  
M/P 009159

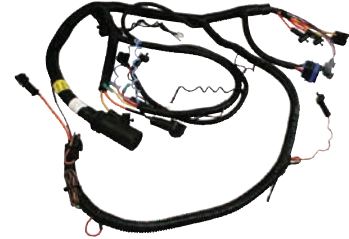
**SHIFT INTERRUPTER HARNESS**



Adapts Delco HEI distributor to be used with MerCru

**Part No.**  
M/P 500492

**ENGINE WIRING HARNESS**  
*(Current Production Engine)*



Fits all current production 4, 6 & 8 cylinder carbureted engines.

**Part No.**  
M/P 472302

**ENGINE TEMPERATURE & PRESSURE SENDERS**



M/P457007



M/P457045



M/P456106



M/P457083



M/P456423



Part No.	Application
M/P 457007	Oil Pressure Switch (Hobbs)
M/P 456105	Oil Pressure Sender (Single Station)
M/P 457045	Oil Pressure Switch (for Alarm)
M/P 456423	Water Temp Sender (1/2" Single Station)
M/P 457083	Water Temp (Alarm)
M/P 462705	Sensor: Map 5.7 PFI/L-29 (Not Pictured)
M/P 462503	Sensor: Map EFI / MSTs (Not Pictured)
M/P 456132	Oil Pressure Sender (Dual) (Not Pictured)
M/P 456409	Water Temp Sender 3/8" (Single) (Not Pictured)
M/P 456435	Water Temp Sender 3/8" (Dual) (Not Pictured)
M/P 456601	Coolant Temp EFI / MSTs (Not Pictured)
M/P 0806-030	Manifold Air Temp PFI (Not Pictured)

**ELECTRICAL SYSTEM ACCESSORIES**



M/P460206



M/P485006



M/P460004

**Part No.**  
M/P 485006  
M/P 460004  
M/P 460206

**Application**  
Circuit Breaker  
Harness Relay with Skirt (Hella)  
Starter Solenoid Relay

## 4.3L V-6 Ignition Kit



Kit Includes:



Qty.	M/P No.	Description
1	M/P 480157	Delco V6 Dist.
1	M/P 481503	Coil: Delco
1	M/P 470500	Ignition Wire: V6 Set
1	M/P 500428	Wire Lead: Coil-Dist-Filter
1	M/P 500442	Wire Lead: Coil Harness
1	M/P 500492	Ignition Wire: Shift Interrupt
1	M/P 009159	Tool: Timing
1	M/P 288426	Gasket: Distributor

**Part No.**  
M/P481058

## Big &amp; Small Block High Performance Ignition Kit



Kit Includes:



Qty.	M/P No.	Description
1	M/P 480151	Delco V8 Dist. Left Hand
1	M/P 480155	Delco V8 Dist. Right Hand
1	M/P 481503	Coil: Delco
1	M/P 470511	Ignition Wire: V8 Set
1	M/P 500428	Wire Lead: Coil-Dist-Filter
1	M/P 500442	Wire Lead: Coil Harness
1	M/P 500492	Ignition Wire: Shift Interrupt
1	M/P 009159	Tool: Timing
1	M/P 288426	Gasket: Distributor

**Part No.**  
M/P 481084

**Description**  
Left Hand Kit

## Electronic Fuel Pumps



M/P438108



M/P438603



**Part No.**  
M/P 438108  
M/P 438603

**Application**  
Carbureted + EFI  
EFI 3.0L-8.2L

## Oil Pump Pickup Screen

**Part No.**

M/P 0014-270  
M/P 371029  
M/P 0007-256  
M/P 0007-256  
M/P 0005-256  
M/P 0005-256

**Application**

181 CID. 3.0 Ltr. (Center Sump)  
181 CID. 3.0 Ltr. (Rear Sump)  
V6 262 CID, 4.3 Ltr.  
V8 350 CID, 5.7 Ltr.  
V8 454, CID, 7.4 Ltr.  
V8 502, CID, 8.2 Ltr.

## Spare Cap



**Part No.**  
M/P 512029

**Description**  
Heat Exchanger Tank 7 PSI Dual Seal

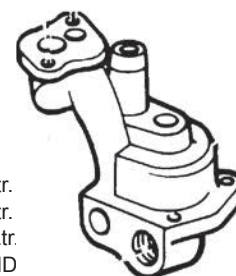
## Oil Pumps

**Part No.**

M/P 0025-255  
M/P 0007-255  
M/P 0007-255  
M/P 0053-255F8  
M/P 0055-255F8

**Application**

181 CID. 3.0 Ltr.  
V6 262 CID, 4.3 Ltr.  
V8 350 CID, 5.7 Ltr.  
V8 454, CID, 7.4 Ltr.  
V8 454P & 502, CID



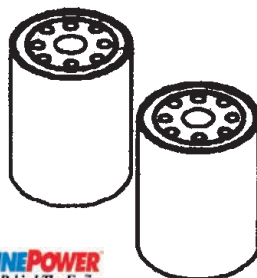
## Oil Filters

**Part No.**

M/P 397554  
M/P 397578  
M/P 397542  
M/P 397578  
M/P 397554  
M/P 397578  
M/P 397554

**Application**

181 EnPac/Sport Pac  
262 SportPac  
262 EnPac  
350 SportPac  
350 EnPac  
502/454 SportPac  
454/502 EnPac



## Remote Oil Filter Adaptors for All V6 &amp; V8 Engines



M/P372160



M/P248876



M/P372552

**Part No.**

M/P 372160  
M/P 248876  
M/P 372552

**Application**

Remote Adapter with O-Rings & Fittings  
Remote Thread Adaptor  
Dual Filter Base

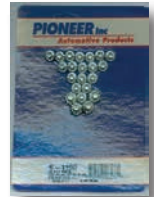


## Oil Pans &amp; Bolt Kits

Part No.	Application	Description
	M/P 0014-241	181 CID Steel Pan Center Sump (2 Piece Rear Seal)
M/P 0014-242	181 CID	Steel Pan Rear Sump (2 Piece Rear Seal)
M/P 370003	181 CID	Steel Pan Front Sump (1 Piece Rear Seal)
M/P 370003	181 CID	Steel Pan Rear Sump (1 Piece Rear Seal)
M/P 0009-240	262 CID	Steel Pan (1 Piece Rear Seal Except Vortec)
M/P 370027	350 CID	Steel Pan (1 Piece Rear Seal)
M/P 0003-240	454 & 502 CID	Steel Pan (2 Piece Rear Seal)
M/P 0053-240F8	454 & 502 CID	Steel Pan (1 Piece Rear Seal)
M/P 370039	454 & 502 CID	Plastisol Steel Pan (1 Piece Rear Seal)
M/P 0053-300	454 & 502 CID	Aluminum Pan (1 Piece Rear Seal)
M/P 1460-000	-----	Easy Oil Drain 1/2"-20
M/P 1460-001	-----	Easy Oil Drain Metric 12-1.75
PNRS-1100	Small Block GM & Ford	Bolt Kit for Stamped Steel Pans
PNRS-1101	Big Block GM & Ford	Bolt Kit for Stamped Steel Pans



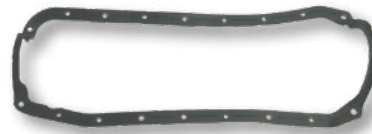
**MARINEPOWER**  
The Force Behind The Fun™



**PIONEER Inc**  
Automotive Products

## Oil Pan Gaskets

Part No.	Application
M/P 00014-245	181 CID 4 Cylinder with 2 Piece Rear Seal
M/P 0025-245	181 CID 4 Cylinder with 1 Piece Rear Seal
M/P 0009-245	262 CID V6 with 1 Piece Rear Seal
M/P 288630	350 CID V8 with 1 Piece Rear Seal
M/P 0053-245F7	454/502 V8 with 1 piece rear seal



**MARINEPOWER**  
The Force Behind The Fun™

## Timing Cover, Seals, Gaskets, Tabs &amp; Bolt Kit

**MARINEPOWER**  
The Force Behind The Fun™



**Crusader®**

**Sierra**

Seals, Gaskets, Tabs & Bolt Kit Sold Separately

Engine Model	Timing Cover Part No.	Left Hand Seal Part No.	Right Hand Seal Part No.	Left Hand Tab Part No.	Right Hand Tab Part No.	Gasket
181 4 Cyl	M/P 0014-058	M/P 0025-005	N/A	N/A	N/A	SIE 18-0887
262 V6	M/P 0009-058*	M/P 0025-005	N/A	N/A	N/A	SIE 18-0976
350	M/P 0009-058*	M/P 0025-005	M/P 0010-005	N/A	N/A	SIE 18-0976
454/502 Gen IV	SSPTW6552	M/P 0053-005	CRU R047180	CRU 30173	CRU 30174	SIE 18-0980
454/502 Gen V		M/P 0053-005	N/A	CRU 30173	CRU 30174	SIE 18-0980
454/502 Gen VI	M/P 0053-058F8	N/A	N/A	N/A	N/A	N/A

\*PNR 859021

In-line/V6 & V8 GM Engines - Bolt Kit (Tin Cover Only)

**PIONEER Inc**  
Automotive Products

## Dipstick, Tubes &amp; Fittings



**MARINEPOWER**  
The Force Behind The Fun™

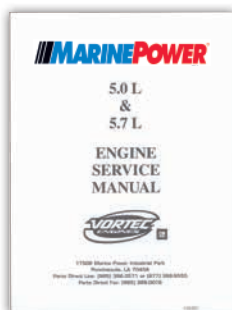
Engine Model	Banjo Part No.	Dip Stick Part No.	Tube Part No.
181 CID		M/P 371500	M/P 373009
262 CID V6 (Oil Pan Mounted)	M/P 0400-800 (SAE) M/P 0400-801 (Metric)	M/P 371663	M/P 373201
262 CID V6 (Block Mounted)		M/P 371663	M/P 373059
350 CID (Oil Pan Mounted)	M/P 0400-800 (SAE) M/P 0400-801 (Metric)	M/P 371663	M/P 373201
350 CID (Block Mounted)		M/P 371663	M/P 373115
454/502 CID (Gen IV & V Pan Mounted)		M/P 371663	M/P 373150
454/502 CID Gen V	M/P 0400-800 (SAE) M/P 0400-801 (Metric)	M/P 371663	M/P 373201





## Technical Manuals

Part No.	Description
M/P 105608	EFI Training/Service Manual
M/P 105501	Gasoline Service Manual
M/P 110077	350 CID Parts Book
M/P 110091	454/502 CID Parts Book



## Transmission and Engine Oil Coolers

Part No.	Application
M/P 513526	Engine / Gear Oil Cooler-Dual
M/P 513615	Engine Oil Cooler
M/P 0445-000	Engine Oil Cooler 6.5L (Not Pictured)



513526



513615



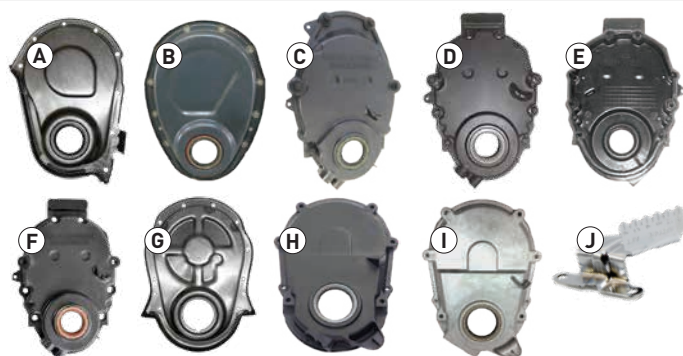
## Fuel Injection Return Tee

Includes Ground Connector

Part No.	Return Hose Size
BBB 264420	3/8"



1-1/2"



## Timing Covers

Part No.	Description
(A) BBB 095005	Steel Inline 4 & 6 cyl GM
(B) SSP 6544	Steel 4.3, 5.0, 5.7, Pre-Vortec
(C) BBB 095023	Plastic 4.3 Vortec w/o Sensor Hole
(D) BBB 095031	Plastic 4.3 Vortec w/Sensor Hole
(E) BBB 095008	Plastic 5.0/5.7 Vortec w/o Sensor Hole
(F) BBB 095012	Plastic 5.0/5.7 Vortec w/Sensor Hole
(G) BBB 095022	Steel Gen IV 454/502
(H) BBB 095021	Aluminum Gen VI 454/502 w/o Sensor Hole
(I) BBB 095011	Aluminum Gen VI 454/502 w/Sensor Hole
(J) BBB 095173	Timing Tab 5.0/5.7



## Exhaust Flap Retro Fit Kit

Retro-Fit kit is constructed from 4" O.D. stainless tubing, 3" long with stainless steel flap-installed. Simply slide kit inside hose before exhaust tip. Perfect for almost any application. **Sold Each!**

Part No.
COR 11100



Size
4"

## CodeMate™ EFI Code Reader

CodeMate™ serves as both an EFI Problem Indicator and a Spark Timing service tool. It is the perfect tool for the low volume repair shop that troubleshoots a minimal number of EFI systems a year.

- Minimum required tool needed to perform GM EFI diagnostic procedures
- Low cost tool for service dealers performing basic EFI diagnostics
- indicates if EFI fault codes are present
- Allows fault codes to be read
- Allows base spark advance to be set when used with a timing light

Part No.
RIN 94008



## AC Spark Plugs

Part No.	Description
BBB 095044	41-110 Professional Iridium
BBB 095041	41-933 Professional Platinum
BBB 095016	41-983 Professional Platinum
BBB 095018	41-993 Professional Iridium
BBB 095035	MR43T Specialty Marine
BBB 095034	MR43LTS Specialty Marine



## Volvo Trim/Tilt Cylinder Seal Kits

Part No.	Description
BBB 153001	For 3860881 Volvo Cylinder, Fits: SP/DP/DPX
BBB 153004	For 3857470 Volvo Cylinder, Fits: SX/TSK/SXM



## Pulleys

Part No.	Description
(A) M/P 514693	Pulley Dual Groove Crank 4.3, 5.0, 5.7
(B) BBB 095006	7.4L Crankshaft Dual Groove
(C) M/P 514821	Power Steering Single Groove V-Belt Pulley
(D) BBB 095677	Power Steering Serpentine Pulley
(E) BBB 095037	Circulation Pump Dual Groove Pulley

## Harmonic Balancers

Part No.	Description
BBB 095001	7.4L
BBB 095007	5.0L/5.7L



Oil Line Hoses



Part No.	Description
M/P 387109	Oil Line: SportPac 10" 90-90
M/P 387301	Oil Line: SportPac 28" 90-90
M/P 387426	Oil Line: SportPac 45"
M/P 387197	Oil Line: SportPac 19" (Not Pictured)
M/P 1255-001	Oil Line: EnPac 9" (Not Pictured)
M/P 387508	Oil Line: EnPac 5" (Not Pictured)



Circulation Pump Hose



Part No.	Description
M/P 274085	Big Block Raw Water
M/P 274047	Small Block & Big Block Fresh Water
M/P 273906	Fresh Water Tank Rear Mount
M/P 274009	Big & Small Block (Not Pictured)
M/P 274009	3.0L/181 C.I.D. Circulation Pump to Thermostat Housing

Gear Line Hoses

Part No.	Description
M/P 387375	Gear Line: 37"
M/P 387426	Gear Line: 42"
M/P 387515	Gear Line: 51"



Sea Pump to Raw Water Thermostat Housing V6/V8



Part No.  
M/P 273401

Heat Exchanger to Exhaust Manifold Big & Small Block



Part No.  
M/P 274643

Sea Pump to Fresh Water Tank V6/V8



Part No.  
M/P 273007

Easy Oil Drains

Part No.	Description
M/P 1460-000	Easy Oil Drain 1/2"-20
M/P 1460-001	Easy Oil Drain Metric 12-1.75



Sea Pump to Cooler



Part No.  
M/P 272005

Elbow (Riser) to Fresh Water Tank V6/V8



Part No.  
M/P 274504

Manifold to Thermostat Housing

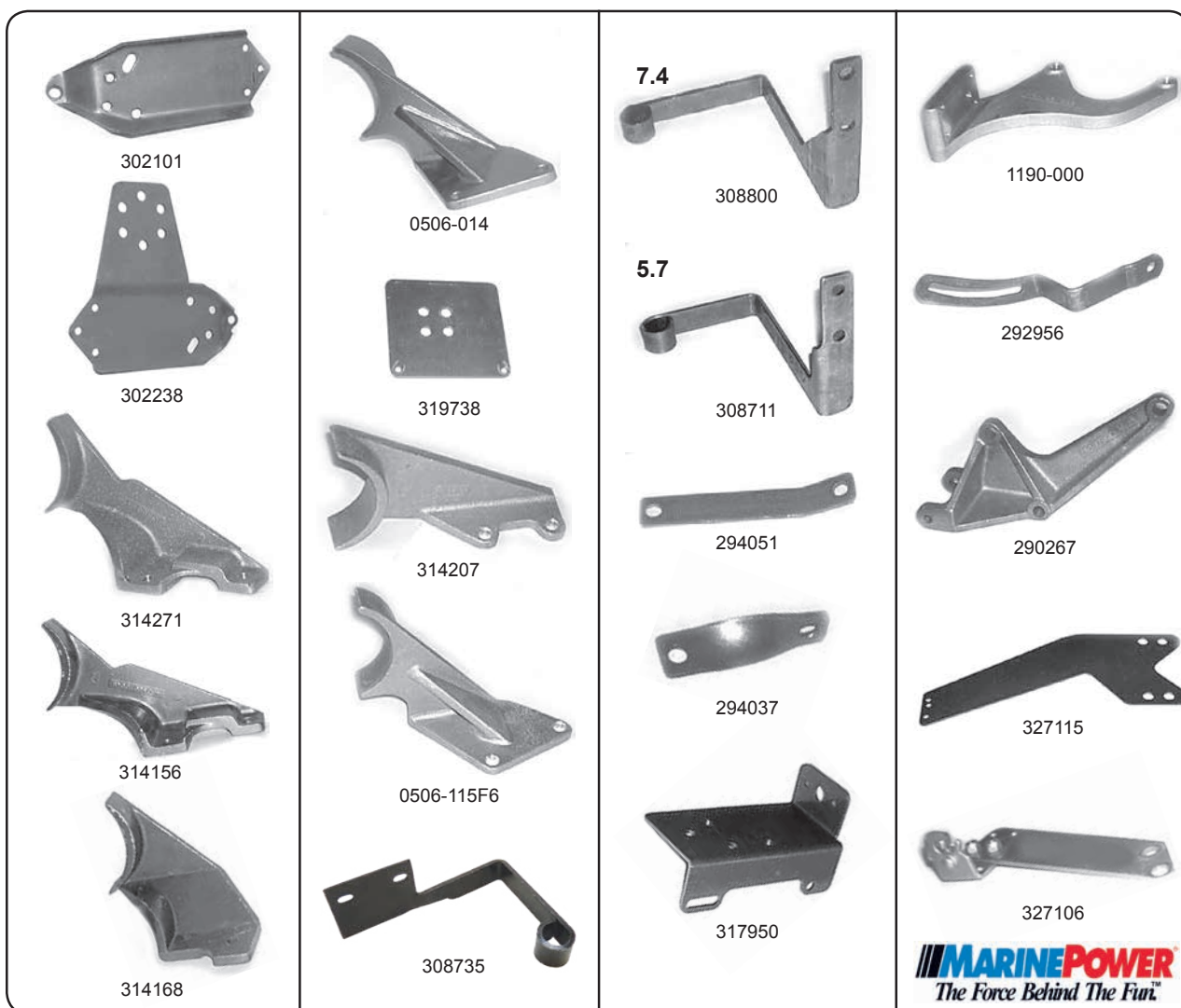


Part No.	Description
M/P 273704	Big Block Starboard
M/P 273728	Big Block Port
M/P 274403	3.0L/181 C.I.D. Raw Water

Small & Big Block Vent Tube



Part No.  
M/P 278007



Part No.	Description
M/P 302101	Fuel/Water Separator Bracket Small Block Rear Mount
M/P 302238	Fuel/Water Separator & Electric Fuel Pump Bracket Big Block
M/P 314271	Rear Mount Bracket Right Hand for Big Block Heat Exchanger
M/P 314156	Rear Mount Bracket Left Hand for Small Block Heat Exchanger
M/P 314168	Rear Mount Bracket Right Hand for Small Block Heat Exchanger
M/P 0506-014	Rear Mount Bracket Left Hand for Big Block Heat Exchanger
M/P 319738	Recovery Bottle Bracket
M/P 314207	Front Mount Right Hand Bracket for Big Block Heat Exchanger
M/P 0506-115F6	Front Mount Left Hand Bracket for Big Block Heat Exchanger
M/P 308735	Crank Pump Bracket Small Block with Power Steering
M/P 308824	Crank Pump Bracket Big Block with Power Steering (Not Pictured)

Part No.	Description
M/P 308800	Crank Pump Bracket Big Block
M/P 308711	Crank Pump Bracket Small Block
M/P 294051	Oil Cooler Bracket 6" long
M/P 294037	Oil Cooler Bracket Twist
M/P 317950	Elec Component Bracket V6 Carb
M/P 292956	Tension Arm Big and Small Block
M/P 290267	Alternator Bracket Big Block
M/P 1190-000	Shift Cable Bracket Velvet Drive Models 71 & 72
M/P 327115	Shift Cable Bracket Velvet Drive 71C/72C
M/P 327106	Shift Cable Bracket Velvet Drive Model 5000

## Fuel Lines

Replaces copper or steel fuel lines.  
 3/8" PTFE composite hose SAE J1527 type A1.  
 (2) 5/8-18 male inverted flare fittings  
 (1) Straight, & (1) 90°. Brass swivel fittings on stainless steel tubing.



Part No.	Description
BBB 134122	25" Universal Fuel Line
BBB 134125	31" Universal Fuel Line

## Tygon F-4040-A PVC Fuel Vent and Lubricant Tubing

1/4" ID, 3/8" OD, 1/16" Wall, Yellow

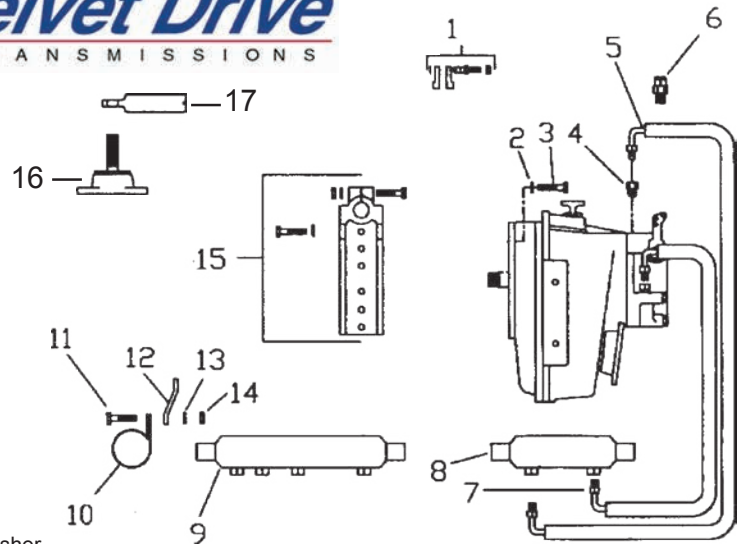
Part No.	Description
BBB 134139	30 inch Fuel Vent Tubing
SIE 18-8152	50 foot Box Fuel Vent Tubing



TYGON  
Extruded by Chem-Tek

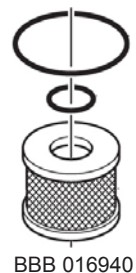
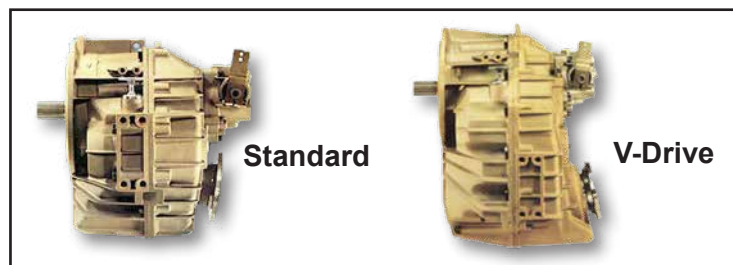
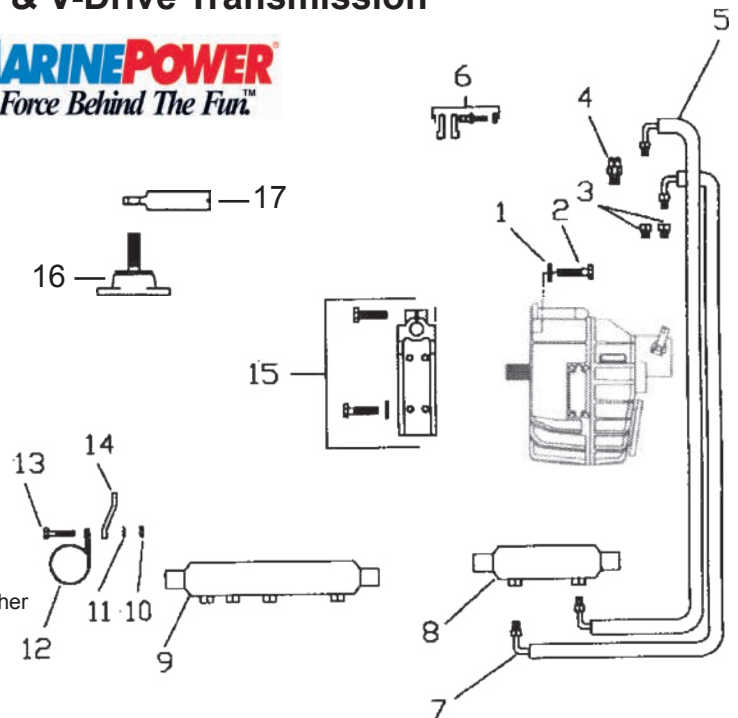


Item	Part No.	Description
1	M/P 433146	Shift Terminal Eye
2	M/P W0L0-007	7/16" Lock Washer
3	M/P B000-720	7/16" x 1-1/4" NC Bolt
4	M/P 223052	Oil / Gear Fitting
5	M/P 387197	21" Gear Line
5	M/P 387375	37" Gear Line
5	M/P 387426	42" Gear Line
5	M/P 387515	51" Gear Line
6	M/P 760012	Neutral Safety Switch
7	M/P 387197	21" Gear Line
7	M/P 387375	37" Gear Line
7	M/P 387426	42" Gear Line
7	M/P 387515	51" Gear Line
8	M/P 513641	9" Gear Cooler
9	M/P 513526	Tandem Dual Cooler 5" x 9"
10	M/P 0790-000	Oil Cooler Clamp
11	M/P B000-616	3/8" x 1" NC Bolt
12	M/P 294051	Oil Cooler Bracket
13	M/P W0L0-006	3/8" Lock Washer
14	M/P N000-006	3/8" NC Nut
15	M/P 0034-250G4	Gear 5000C Assy. Mount
16	M/P 330200	Mount: Isolator w/ 2 Nuts & Lock Washer
17	M/P 331708	Trunnion: Engine / Gear 4.75"
17A	M/P 331722	Trunnion: Engine / Gear 6"

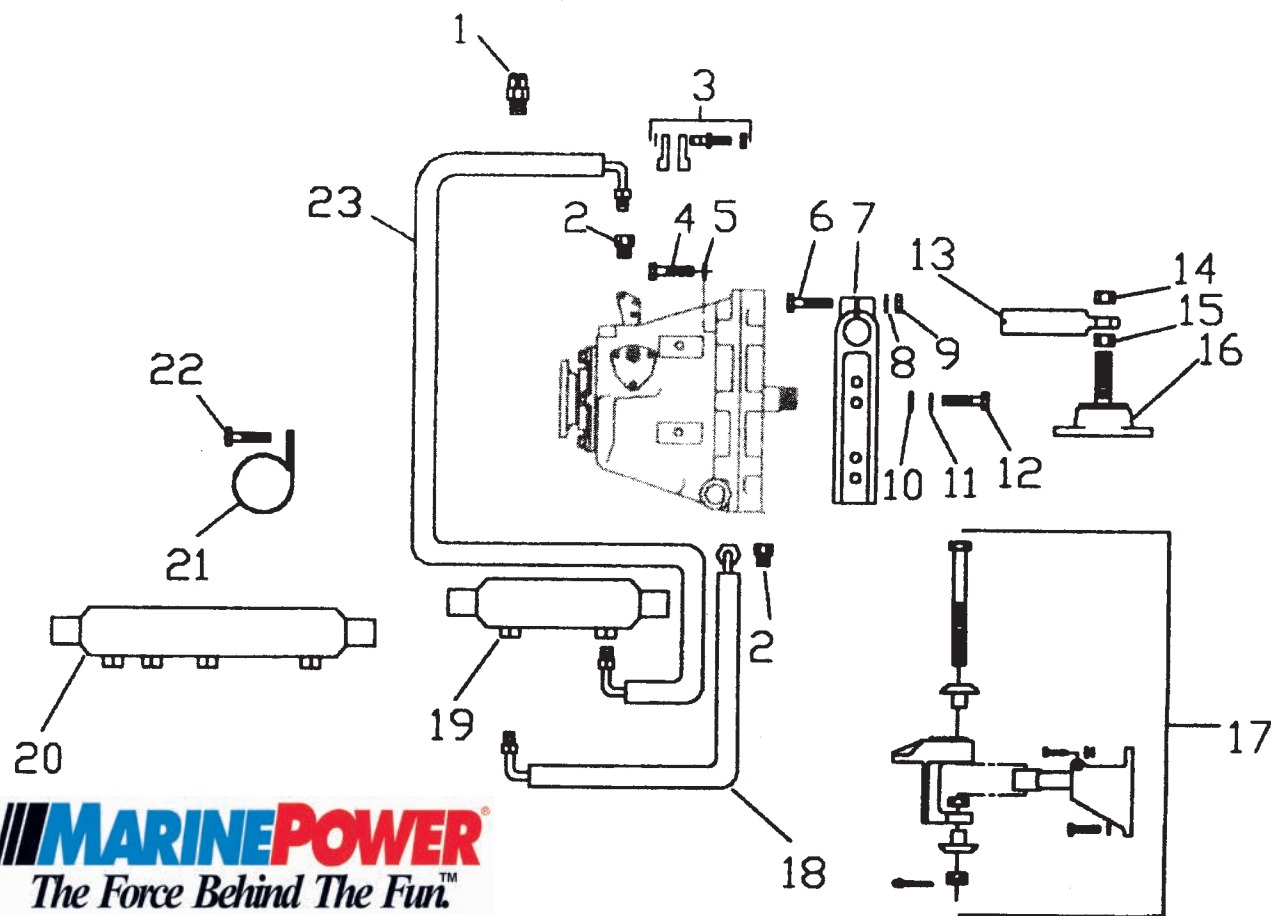


## 454/502 Drive System Hurth Standard & V-Drive Transmission

Item	Part No.	Description
1	M/P W0L0-007	7/16" Lock Washer
2	M/P B000-720	7/16" x 1-1/4" NC Bolt
3	M/P 223052	Oil / Gear Cooler Fitting
4	M/P 760012	Neutral Safety Switch
5	M/P 387197	21" Gear Line
5	M/P 387375	37" Gear Line
5	M/P 387426	42" Gear Line
5	M/P 387515	51" Gear Line
6	M/P 433146	Shift Terminal Eye
7	M/P 387197	21" Gear Line
7	M/P 387197	21" Gear Line (V-Drive)
7	M/P 387375	37" Gear Line
7	M/P 387426	42" Gear Line
7	M/P 387515	51" Gear Line
9	M/P 513526	Tandem Dual Cooler 5" x 9"
10	M/P N000-006	3/8" NC Nut
11	M/P W0L0-006	3/8" Lock Washer
12	M/P 0790-000	Oil Cooler Clamp
13	M/P B000-616	3/8" x 1" NC Bolt
14	M/P 294051	Oil Cooler Bracket
15	M/P 340441	Starboard Hurth Mount
16	M/P 330200	Mount: Isolator w/ 2 Nuts & Lock Washer
17	M/P 331708	Trunnion: Engine / Gear 4.75"
17A	M/P 331722	Trunnion: Engine / Gear 6"

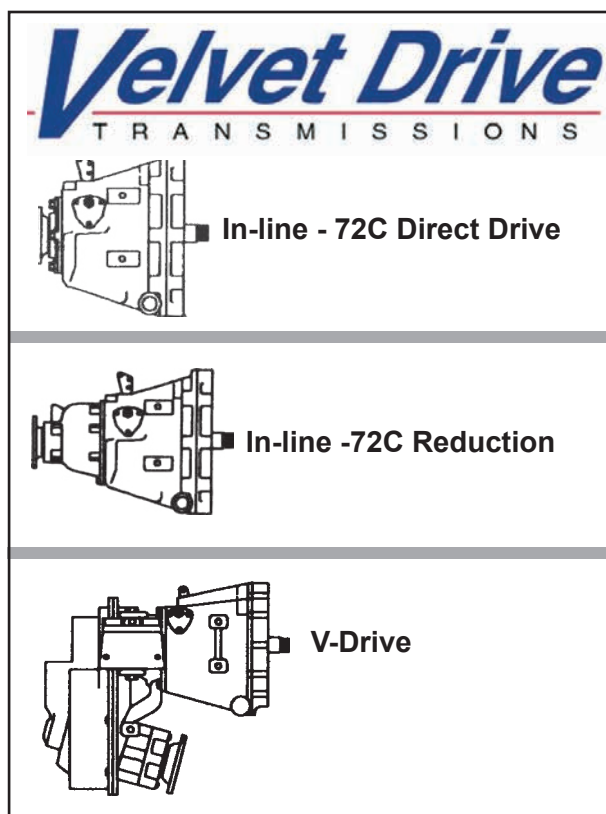


# 181, 262, 350 & 454/502 Drive System Velvet Drive Transmission In-line - 72C Direct Drive, In-line - 72C Reduction & V-Drive



**MARINEPOWER**  
The Force Behind The Fun.™

Item	Part No.	Description
1	M/P 760012	Neutral Safety Switch
2	M/P 223052	Oil / Gear Cooler Fitting
3	M/P 433146	Shift Terminal Eye
4	M/P B000-756	7/16" x 3-1/2" NC Bolt
5	M/P W0L0-007	7/16" Lock Washer
6	M/P B000-636	3/8" x 2-1/4" NC Bolt
7	M/P 328105	Gear 71C/72C Mount
8	M/P W0L0-006	Lock Washer 3/8"
10	M/P W0F0-007	7/16" Flat Washer
11	M/P W0L0-007	7/16" Lock Washer
16	M/P 330200	Isolator 3/4" Mount
17	BAR 535011	Chrysler Style Gear Mount
18	M/P 387197	21" Gear Line
18	M/P 1256-026E3	26" Gear Line
18	M/P 387375	37" Gear Line
18	M/P 387426	42" Gear Line
18	M/P 387515	51" Gear Line
19	M/P 1440-000	9" Gear Cooler
20	M/P 513526	Tandem Dual Cooler 5" x 9" (for 72C Reduction)
21	M/P 0790-000	Oil Cooler Clamp
22	M/P B000-616	3/8" x 1" NC Bolt
23	M/P 387197	21" Gear Line
23	M/P 387375	37" Gear Line
23	M/P 387426	42" Gear Line
23	M/P 387515	51" Gear Line



Part No.	Description
CRU TECM-517	Parts Catalog C454 (1987 & Prior)
CRU TECM-518	Parts Catalog C262
CRU TECM-520	Parts Catalog C305/350
CRU TECM-544	Parts Catalog C502
CRU TECM-547	Parts Catalog C454
CRU TECM-549	Parts Catalog C305/350
CRU TECM-551	Parts Catalog CS305/350
CRU TECM-556	Parts Catalog CM454XL
CRU TECM-557	Parts Catalog CM502XL
CRU TECM-590	Parts Catalog CM454HO
CRU TECM-591	Parts Catalog CM305/350XL
CRU TECM-614	Parts Catalog TB350XLI
CRU TECM-615	Parts Catalog TB454XLI
CRU TECM-616	Parts Catalog TB502XLI
CRU C190022	Parts Manual 5.7L (TBI/MPI)
CRU L510012	Parts Manual 5.7L MPI (Model Year 2002 & Forward)
CRU L510020	Parts Manual 5.7L Carbureted Series (model year 1999 & forward)
CRU L510008	Parts Manual 7.4L (MPI)
CRU C190021	Parts Manual 7.4HO/8.2L (MPI)
CRU L510018	Parts Manual 6.0L (MPI)
CRU L510009	Parts Manual 8.1L (MPI)



CRU TECM-508	Operation & Maintenance Manual (262, 305, 350, 454 thru 1986)
CRU TECM-548	Operation & Maintenance Manual
CRU TECM-550	Owners Operation (Champion Series)
CRU TECM-55	Operation & Maintenance Manual
CRU TECM-611	Operation Champion Manual

CRU TECM-593	Owners XL Manual 305/350
CRU TECM-613	Owners XLI Manual
CRU TECM-620	Owners & Maintenance XLI Manual
CRU TECM-621	Owners & Maintenance XL Manual
CRU TECM-622	Owners & Maintenance Manual
CRU TECM-641	Owners Service & Warranty Guide
CRU C190001	Owners Operations & Maintenance Manual (1999-2000)
CRU C190003	Owners Service & Warranty Guide (1999-2000)
CRU C510001	Owners Operations & Maintenance 5.7/8.1L Manual (2001)
CRU C510001-02	Owners Operations & Maintenance 5.7/8.1L Manual (2002)
CRU C510001-03	Owners Operations & Maintenance 5.7/8.1L Manual (2003)
CRU C510001-04	Owners Operations & Maintenance 5.7/8.1L Manual (2004)
CRU C510019-03	Owners Operations & Maintenance 5.7 Carbureted Series Manual
CRU C510019-04	Owners Operations & Maintenance 5.7 Carbureted Series Manual

CRU TECM-596	Service MK4 Manual (1980-1992)
CRU TECM-600	Service XL Manual (1993 & Forward)
CRU TEEC-100	Service 1980-Prior Manual
CRU L510015	Service GM 5.7L Manual
CRU L510016	Service GM 6.0L Manual
CRU L510003	Service GM 8.1L Manual
CRU TECM-587	Installation XL Series Manual
CRU TECM-630	Installation XLI Series Manual
CRU L190180	GM MEFI 2 Manual (1996 Software)
CRU L510004	Manual, GM MEFI 3 (1998 Software)
CRU L510005	Manual, GM MEFI 4 (2000 Software)
CRU TECM-612	MEFI 1 Manual (1993 Software) (1993-1997 TBI)
CRU TECM-617	Service & Warranty Guide
CRU 22407	Manual, Crusader Dealer Product & Parts (3-Binder Set)
CRU L550001-03	Retail Parts Price List



## Crusader Models

Description	262	305	350	454	502
Head Gasket	33524	7057500	7057500	30266	31004
Rocker Cover Gasket	33538	7231330	7231330	33558	33558
Timing Cover Gasket	20129	20129	20129	30240	30240
Rocker Cover	33521 (1)				
	33520 (2)	33738	33738	30257	30257
Timing Cover	33307 (6)	33307 (6)	33307 (6)		
	33308 (7)	33308 (7)	33308 (7)	30172	30172
Spark Plug	97782	97782	97782	97782	97782

---

Description	305XL	350XL/HT	454XL	502XL
Head Gasket	7057500	7057500	31136	31137
Rocker Cover Gskt	7231330	7231330	7230050	7230050
Timing Cover Gskt	7130240	7130240	7130020	7130020
Rocker Cover	33738	33738	31121	31121
Timing Cover	7070820 (6)	7070820 (6)	31123 (6)	30172
	7070830 (7)	7070830 (7)	31122 (7)	
Spark Plug	97782	97782	97782	97782
Distributor	38065	38065	38065	38065
Ignition Coil	38066	38066	R117005	R117005
Ignition Module	38068	38068	38068	38068

---

Description	TB350/350HT	454XLI	MP5.0L	MP5.7L	MP6.0L	MP8.1L
Head Gasket	33709	RM0227	RM0195	RM0195	RM0278	RM0262B (4) RM0262A (5)
Rocker Cover Gskt	97981	RM0247	RM0193	RM0193	RM0282	RM0261
Timing Cover Gskt	20129	7130260	NSS	NSS	RM0280	RM0264
Rocker Cover	33738	7231720	RO33008	RO33008	RA033016 (6) RA033017 (7)	RO33013
Timing Cover	33307 (6)					
	33308 (7)	7071060	7070860	7070860		RO40011
Spark Plug	97782	RP03008	7243030	7243030	RP030011	RP030009
		49078 (3)	49079 (3)	49079 (3)		
Distributor	7242750	RA107039E	7243750	7243750		
Ignition Coil	7243200	R117005	7243200	7243200	7243200	
Ignition Module	7243110	R116014	7243110	7243110		
Crankshaft Position Sensor			RO20038	RO20038	R020044	R020034
Camshaft Position Sensor					RO20045	RO20035
Knock Sensor	48008	49039	48008	48008	RO20043	RO20033

**ENGINE ROTATION:**

Engine rotation is identified as "RH" or "LH" with the engine model number. Rotation is always determined from the flywheel end looking toward the front of the engine. In some instances, propeller shaft rotation may be opposite to that of the engine.

When ordering a replacement engine, production block or parts for the engine, be certain to check engine rotation.

**DO NOT rely on propeller rotation in determining engine rotation. LEFT-HAND ROTATION is STANDARD ROTATION.**

**Notes:**

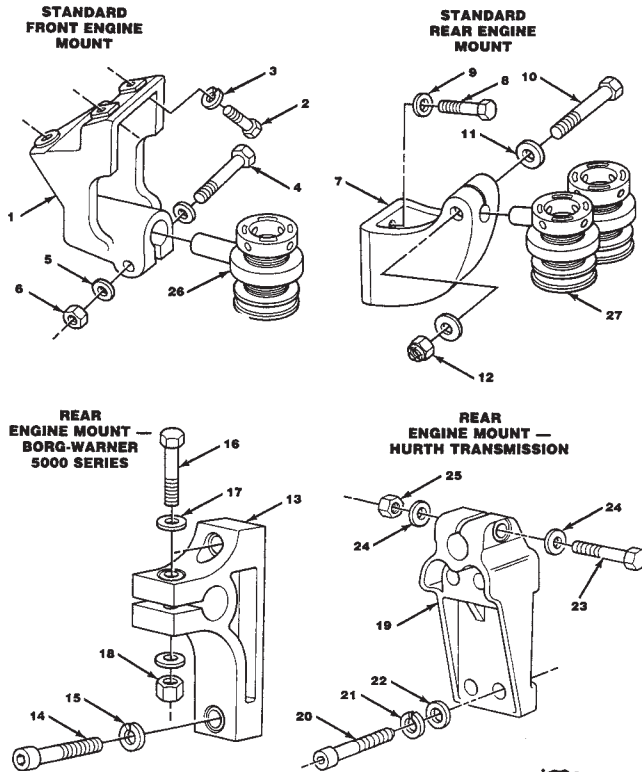
- 1 Without Oil Fill Hole
- 2 With Oil Fill Hole
- 3 Platinum
- 4 Right Side
- 5 Left Side
- 6 Left Hand Rotation (std.)
- 7 Right Hand Rotation (opp.)

**Symbols shown throughout parts list**

- |     |   |                         |
|-----|---|-------------------------|
| AR  | = | As Required             |
| OPT | = | Optional                |
| NSS | = | Not Serviced Separately |
| NA  | = | Not Available           |
| SS  | = | Single Station Control  |
| DS  | = | Dual Station Control    |
| OS  | = | Oversize                |
| US  | = | Undersize               |
| NS  | = | Not Shown               |
| TBD | = | To Be Determined        |
| NI  | = | Not Illustrated         |



## Engine & Transmission Mounts-All Models



**Crusader**  
ENGINES

### \*\* Standard Front Engine Mount \*\*

Item	Part No.	Description
1	97938	Bracket, engine mounting (Front)
2	179841	Bolt, bracket to engine (1-1/4")
3	103321	Lockwasher, bracket mounting bolt
4	454916	Bolt, trunnion shaft (2-1/4")
5	103341	Washer, trunnion bolt
6	22436	Nut, trunnion bolt — locking

### \*\* Standard Rear Engine Mount \*\*

7	97917	pt, engine mounting (Rear)
8	179860	Bolt, bracket to transmission (1-1/4")
9	103322	Lockwasher, bracket mounting bolt
10	9423205	Bolt, trunnion shaft (3-1/4")
11	103341	Washer, trunnion bolt
12	22436	Nut, trunnion bolt — locking

### \*\* Rear Engine Mount Borg-Warner 5000 Series \*\*

13	98224	Bracket, transmission mounting (Starboard)
13	98225	Bracket, transmission mounting (Port)
14	21149	Bolt, bracket to transmission (12 mm x 60 mm)
15	21113	Lockwasher (12 mm)
16	454916	Bolt, trunnion shaft (3-1/4")
17	103341	Washer, trunnion bolt
18	22436	Nut, trunnion bolt — locking

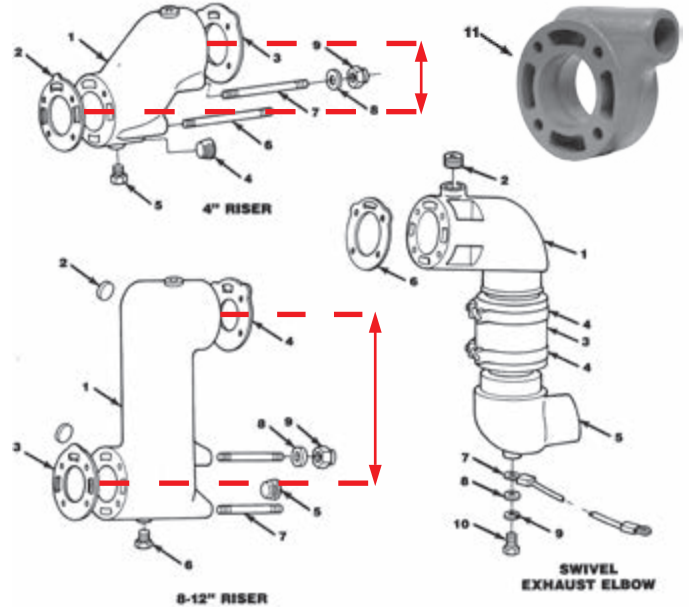
### \*\* Rear Engine Mount — Hurth Transmission \*\*

19	98077	Bracket, engine mounting (Rear)
20	21144	Bolt, bracket to transmission (12 mm x 35 mm)
21	21145	Lockwasher (12 mm)
22	21146	Washer (12 mm)
23	9426907	Bolt, trunnion shaft (3-1/4")
24	103341	Washer, trunnion bolt
25	22436	Nut, trunnion bolt — locking

### \*\* Mount Supports \*\*

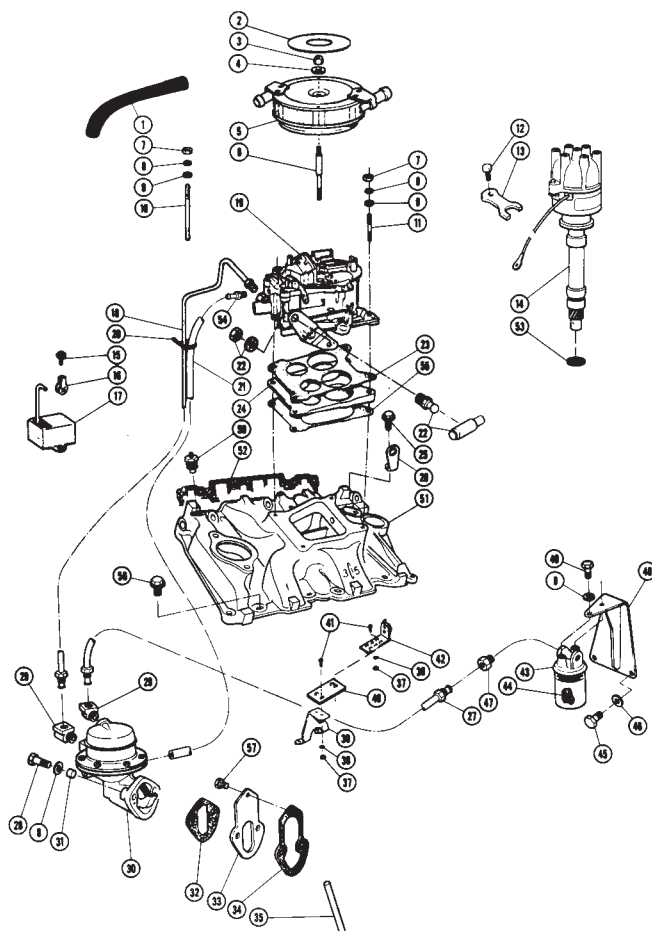
26	97926	Mount, engine support (Single Front)
27	97905	Mount, engine support (Dual Rear)

## Early Model Exhaust System Options 262/305/350/454 & 502 C.I.D.



**\* All risers are measured from center hole to center hole.**

Item	Part No.	Description
	21134*	Exhaust Riser Kit — (4 inch)
1	97772*	Exhaust Riser
2	96108	Gasket, manifold to riser (3 Hole)
3	96562	Gasket, riser to elbow (1 Hole)
4	113186	Plug, pipe (3/4")
5	127951	Plug, drain (1/4")
6	20471	Stud, riser mounting (5-3/4")
7	22033	Stud, riser mounting (7-3/4")
8	116103	Washer, copper sealing
9	20472	Nut, riser attaching
	21136*	Exhaust Riser Kit (8 Inch)
1	97169*	Exhaust Riser
2	20244	Plug, core (1-1/4")
3	96108	Gasket, manifold to riser (3 Hole)
4	96562	Gasket, riser to elbow (1 Hole)
5	113177	Plug, pipe (3/4")
6	127951	Plug, drain (1/4")
7	22033	Stud, riser mounting (7-3/4")
8	116103	Washer, copper sealing
9	20472	Nut, riser attaching
	21138*	Exhaust Riser Kit — (12 Inch)
1	11006*	Exhaust Riser
2	20244	Plug, core (1-1/4")
3	96108	Gasket, manifold to riser (3 Hole)
4	96562	Gasket, riser to elbow (1 Hole)
5	113177	Plug, pipe (3/4")
6	127951	Plug, drain (1/4")
7	22033	Stud, riser mounting (7-3/4")
8	116103	Washer, copper sealing
9	20472	Nut, riser attaching
	22472	Swivel Exhaust Elbow Kit — (4 Inch Outlet)
	22095	Swivel Exhaust Elbow Kit — (3 Inch Outlet)
1	97386	Exhaust Elbow — Upper
2	113186	Plug, exhaust elbow
3	22221	Hose, elbow attaching
4	96455	Clamp, hose attaching
5	97624	Exhaust Elbow — Lower (4")
5	97387	Exhaust Elbow — Lower (3")
6	96562	Gasket, elbow to manifold (1 Hole)
7	97839	Wire, ground
8	103339	Washer, ground wire bold
9	103319	Lockwasher, ground wire bolt
10	179791	Bolt, ground wire attaching (1/2")
11	CR-20-97295	Water Outlet Adapter

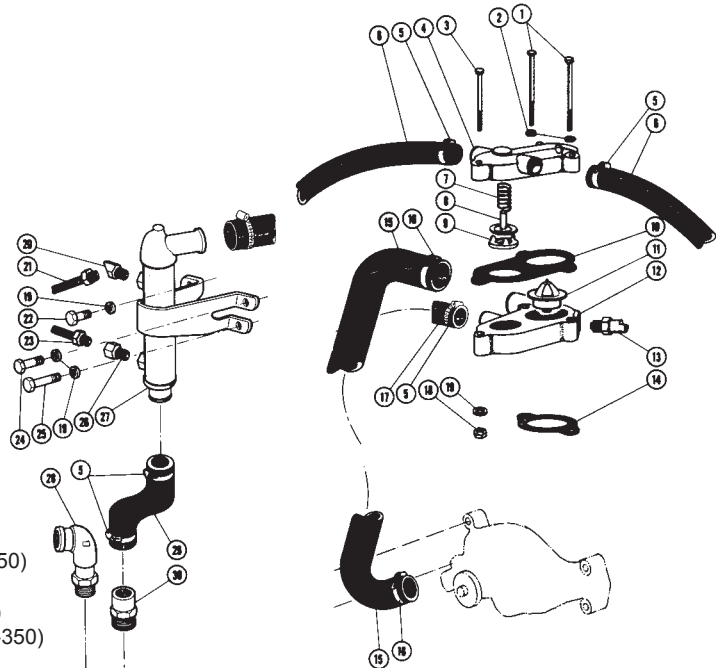


Item	Part No.	Description	Item	Part No.	Description
1	20806	Hose, 5/8" x 12" Long	30	97827	Fuel Pump, Carter®
2	97915	Decal, Flame Arrestor	31	97660	Reducing Bushing Fuel Pump
3	20231	Elastic Stop Nut, 1/4" - 20	32	91340	Gasket, Fuel Pump Mtg
4	103339	Washer, 1/4" Flat	33	33385	Plate, Fuel Pump Mtg
5	97595	Flame Arrestor Dual Vent	34	33384	Gasket, Fuel Pump Mtg Plate
6	96926	Stud 1/4" - 20 x 3-3/4"	35	33386	Rod Fuel Pump Push
7	102634	Nut 5/16" - 18 Hex			(Engine Serial Number Prior to 64788) Steel
8	103320	Washer, 5/16", Medium Lock	35	33694	Rod Fuel Pump Push
9	103340	Washer, 5/16", Flat			(Engine Serial Number After 64788) Cast Iron
10	96818	Stud Carburetor	36	20790	Screw with Lock Washer 1/4" - 20 x 3/8,"
		5/16" - 18 x 4-1/4", 0° Installation	37	12034	Nut; #10 - 24 Zinc Plated Hex
11	96817	Stud, Carburetor	38	106497	Washer, #10 Medium Lock
		5/16" - 18 x 2-1/4", 12° Installation	39	96683	Throttle Bracket
12	97948	Bolt, Distributor Hold Down	40	97280	Plate, Throttle Control
13	20799	Clamp, Distributor Hold Down	41	443874	Screw; 10 - 24 x 1-1/2" Hex HD (Machine)
14	41081	Distributor Assembly	42	21033	Clip, Shift Cable, Single Control
15	273513	Screw & Washer Assembly - Choke	43	97889	Filter Fuel Assembly
16	30123	Choke Clip	44	91606	Cartridge, Fuel Filter
17	33240	Automatic Choke Assembly	45	179845	Bolt 3/8", - 16 x 1-3/4" Hex HD (GR 5)
18	97831	Fuel Line - Pump to Carburetor	46	103321	Washer 3/8" Medium Lock
19	45356	Carburetor - 4 BBL	47	30572	Connector Inverted Flare,
20	22410	Tie Wrap			3/8" Tube to 1/4" Pipe, Male
21	22580	Tygon® Tubing	48	97820	Bracket-Fuel Filter
		3/8," O.D. x 1/4" I.D. 30" Long	49	181339	Bolt 5/16", - 24 x 1 " Hex HD (GR5)
22	21025	Ball Joint Single Station	50	700427	Sender Water Temperature Single Station
23	97033	Gasket, 4 BBL Carburetor Mounting	50	727046	Sender Water Temperature Dual Station
23	97826	Gasket, 4 BBL Carburetor Mounting	51	33595	Intake Manifold
24	97122	Wedge Plate	52	33393	Intake Gasket Set
25	186628	Bolt, 3/8" - 16 x 1-1/2" Hex Cap (GR 8)	53	33397	Gasket Distributor Mounting
26	96845	Lifting Ring	54	97829	Hose Adapter, Quad Jet
27	97830	Fuel Line - Filter to Pump	55	33505	Carburetor Isolator Gasket
28	179822	Bolt, 5/16 - 18 x 1-1/2" Hex HD (GR 5)	56	179841	Bolt, 3/8" - 16 x 1-1/4"
29	30573	Elbow; Inverted Flare,	56	33700	Bolt, 3/8" - 16 x 1-1/8"
		3/8," Tube to 1/4" Pipe 90°	57	20790	Bolt, 1/4" - 20 x 3/8" Hex HD (GR 5)



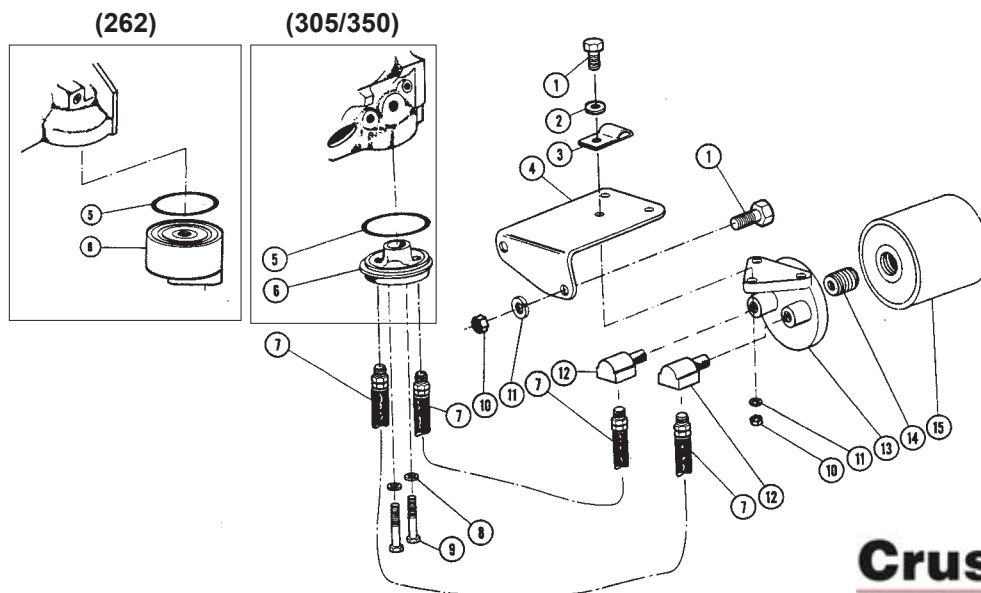
## V-6-262 C.I.D./220 hp-305 C.I.D./270 hp-350 C.I.D.

Item	Part No.	Description
1	186285	Bolt, 3/4" - 16 x 4" Hex HD (GR 5)
2	116103	Washer, 3/8 Copper, Flat
3	186282	Bolt, 3/8" - 16 x 3-1/4" Hex HD (GR 5)
4	97556	Housing, Thermostat (Upper)
5	20228	#20 Clamp Hose
6	23026	Hose, 1-1/4 x 16" Long
7	96686	Spring, Pressure Relief
8	96066	Valve, Pressure Relief
9	96065	Seat, Pressure Relief
10	97361	Gasket, Thermostat Cover
11	96319	Thermostat, 143° F R.W.C.
12	97557	Housing, Thermostat (Lower)
13	20326	Sender, Engine Water Temp: (Alarm)
14	96105	Gasket, Thermostat Housing to Intake
15	96296	Hose; 1-3/4" I.D. Formed
16	20420	#32 Clamp Hose
17	97902	Formed Hose
18	102635	Nut, 3/8" x 16" Hex HD
19	103321	Washer, 3/8 Medium Lock
20	137425	Elbow; 3/8" x 1/2" Tube, Inverted Flare 90°
21	22427	Hydraulic Hose, Top Cooler Gear Out (262)
21	22618	Hydraulic Hose, Top Cooler Gear Out (305-350)
22	179837	Bolt; 3/8" - 16 x 3/4" Hex HD (GR 5)
23	22422	Hydraulic Hose, Bottom Cooler Gear In (262)
23	22628	Hydraulic Hose, Bottom Cooler Gear In (305-350)
24	179847	Bolt; 3/8" - 16 x 2" Hex HD (GR 5)
25	179850	Bolt; 3/8" - 16 x 2-3/4" Hex HD (GR 5)
26	37409	Connector; 3/8" Pipe x 1/2" Tube, Inverted Flare
27	97886	9" Oil Cooler (Raw Water Only)
27	97885	9" Oil Cooler (Fresh Water Only)
29	97310	Hose Formed 1-1/4" I.D.
30	97852	Adapter; 1" Pipe x 1-1/4" Hose, Brass



**Crusader**

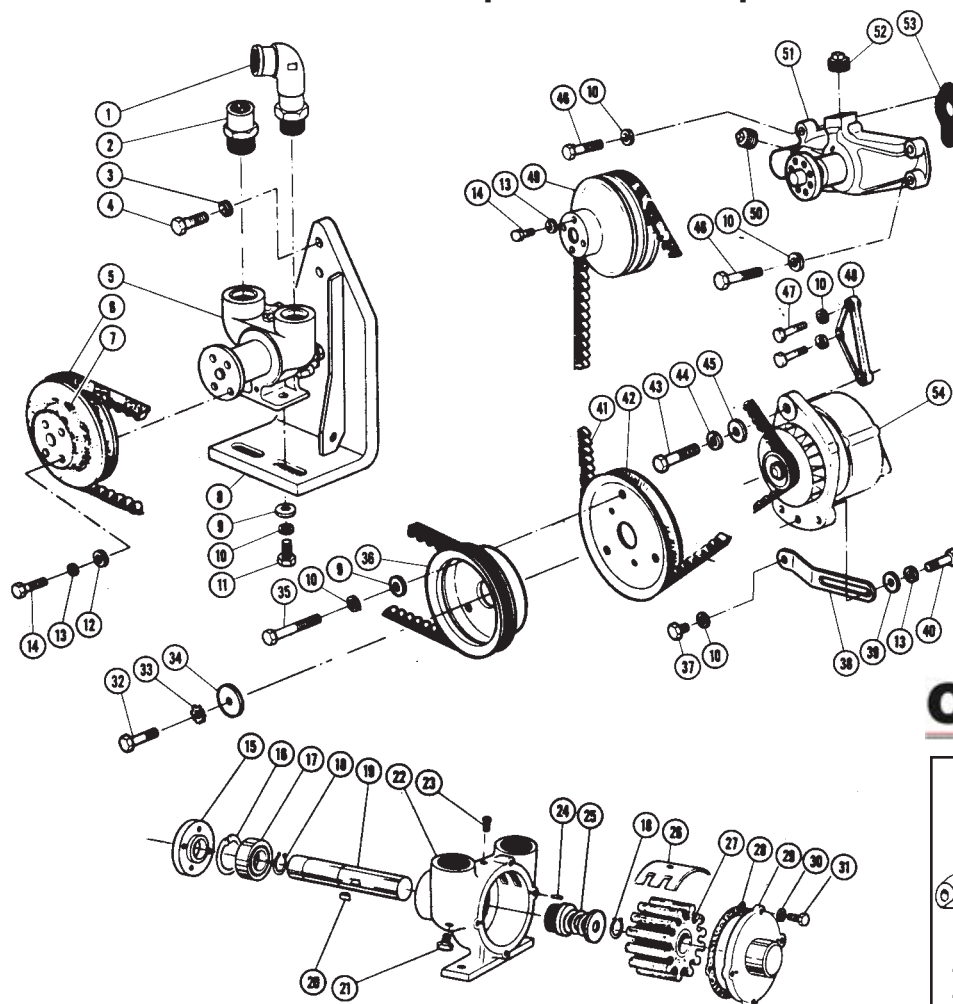
## V-6-262 C.I.D./220 hp-305 C.I.D./270 hp-350 C.I.D.



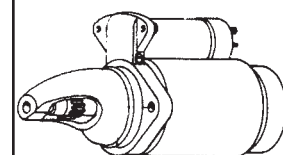
**Crusader**

Item	Part No.	Description	Item	Part No.	Description
1	179820	Bolt, 5/16" x 18 x 1-1/4" Hex HD (GR5) (305-350)	7	22626	Hose Assemble, 10" x 22" Filter to Block (305-350)
1	179822	Bolt, 5/16" x 18 x 1-1/2" Hex HD (GR5) (262)	7	22426	Hose Assemble, Filter to Block (262)
2	103340	Washer, 5/16 Flat	8	22226	Washer, 5/16" Copper Flat (305-350)
3	96566	Clamp	9	179828	Bolt, 5/16" x 18 x 2-1/2" Hex HD (GR5) (305-350)
4	97342	Bracket, Oil Filter Support	10	102634	Nut, 5/16" - 18 Hex
5	20156	Gasket, 1/8" Sq. Ring (305-350)	11	103320	Washer, 5/16" Medium Lock
5	97678	Seal, (262)	12	30550	Elbow, 1/2" Pipe x 1/2" Tube, Inverted Flare, 90°
6	97667	Adapter, Remote Oil Filter (305-350)	13	719571	Adapter, Remote Oil Filter
6	97675	Adapter, Remote Oil Filter (262)	14	97292	Nipple, Filter Adapter
			15	9002514	Oil Filter, PF2

V-6-262 C.I.D./220 hp-305 C.I.D./270 hp-350 C.I.D.



### Starter



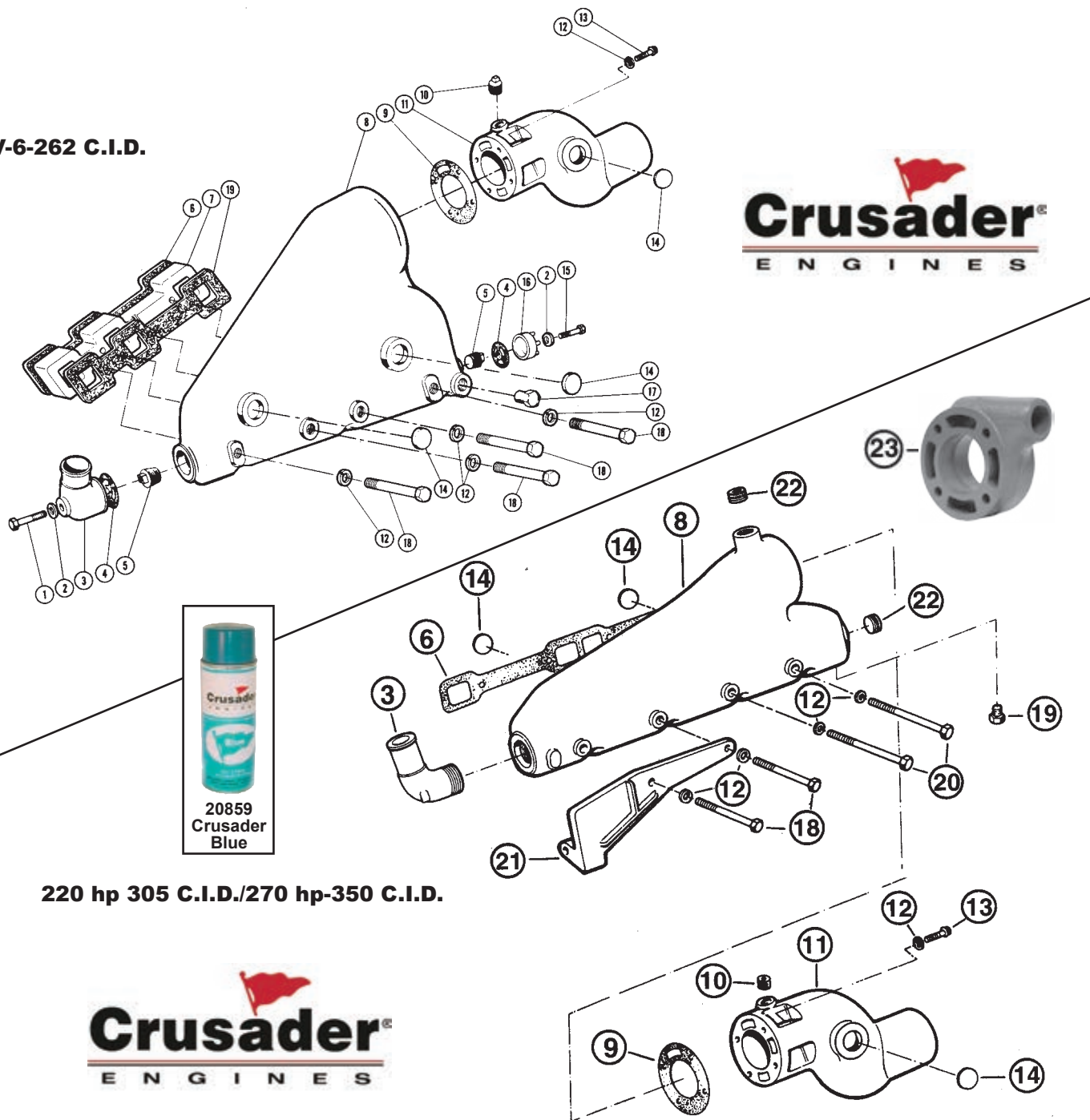
42150 Left Hand  
42090 Right Hand

Item	Part No.	Description
1	97853	Elbow, 1" Pipe x 1-1/4" Hose 90° Brass
2	97852	Adapter, 1" Pipe x 1-1/4" Hose Brass
3	103322	Washer, 7/16" Lock
4	179860	Bolt, 7/16" - 14 x 1 1/4" Hex HD (GR 5)
5	97179	Pump Assembly, Raw Water
6	97178	Belt Crankshaft to Raw Water Pump
7	97952	Pulley Raw Water Pump
8	96945	Bracket Raw Water Pump Mount
9	20465	Washer, 3/8" x 7/8" Flat
10	103321	Washer, 3/8" Medium Lock
11	22249	Bolt, 3/8" - 16 x 1" SSTL Hex HD
12	103340	Washer, 5/16" Flat
13	103320	Washer, 5/16" Medium Lock
14	181336	Bolt, 5/16" - 24 x 3/4" Hex HD (GR 5)
15	97176	Hub Water Pump
16	20294	Retaining Ring, Internal
17	20292	Ball Bearing
18	20293	Retaining Ring, External
19	20304	Shaft
20	20295	Shaft Key
21	127950	Plug, 1/8" Hex HD Brass Pipe
22	20307	Body Service Assembly
23	20298	Screw; Flat Head Machine Brass
24	20290	Dowel Pin
25	20309	Seal and Seat Assembly
26	20303	Cam
27	20300	Impeller
28	20302	Gasket
29	20308	Cover and Bushing Assembly

Item	Part No.	Description
29	20296	Bushing Only
30	20305	Washer, Lock
31	20291	Bolt, Hex HD
32	181408	Bolt, 7/16" - 20 x 2-1/2" Hex HD (GR 5)
33	136857	Washer Lock External Tooth 7/16"
34	33189	Washer Flat (Special)
35	181364	Bolt, 3/8" - 24 x 1"
36	97953	Pulley, Crankshaft Raw Water Pump Drive
37	179837	Bolt, 3/8", - 16 x 3/4" Hex HD (GR 5)
38	97061	Strap Alternator Adjusting
39	20523	Washer, 11/32" x 7/8" Flat
40	179816	Bolt, 5/16", - 18 x 3/4" Hex HD (GR 5)
41	97877	Alternator Belt (262)
41	96307	Alternator Belt (305/350)
42	97955	Pulley Crankshaft
43	179890	Bolt, 1/2" - 13 x 2-1/4" Hex HD (GR 5) (262)
43	179893	Bolt, 1/2" - 13 x 3" Hex HD (GR 5) (305/350)
44	103323	Washer, 1/2" Lock
45	103343	Washer, 1/2" Flat
46	179845	Bolt, 3/8" - 16 x 1-3/4" Hex HD (GR 5)
47	179843	Bolt, 3/8" - 16 x 1-1/2" Hex HD (GR 5)
48	97849	Alternator Mounting Bracket (262)
49	20114	Pulley Circulation Pump
50	444705	1/2", Pipe Plug Brass
51	20318	Circulation Pump
52	113186	3/4", Pipe Plug Cast Iron
53	91112	Gasket Circulation Pump to Block
54	39049	Alternator Assembly, (51 Amp/12 Volt)

V-6-262 C.I.D./220 hp-305 C.I.D./270 hp-350 C.I.D.

V-6-262 C.I.D.



220 hp 305 C.I.D./270 hp-350 C.I.D.



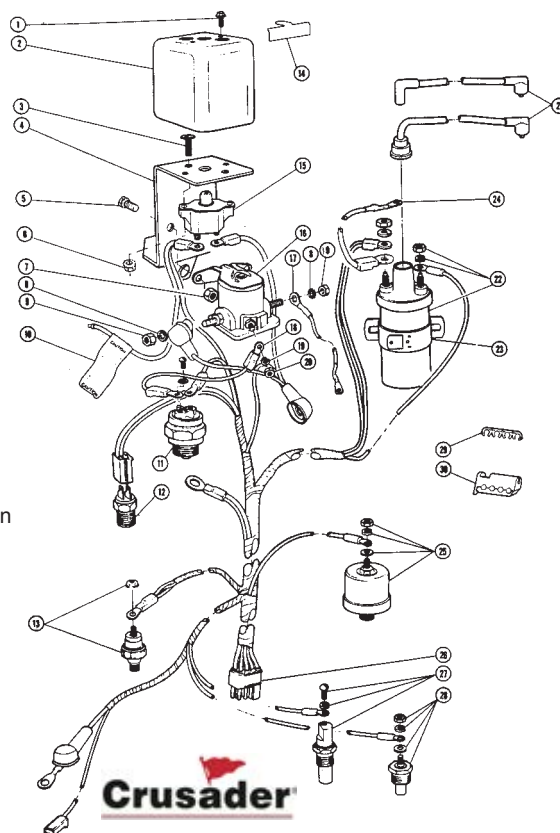
Item	Part No.	Description
1	90304275	Bolt, 3/8", -16 x 2-1/4" Hex HD SSTL
2	92302000	Flat Washer, 3/8" Copper
3	96049	Elbow; Water Inlet, Exhaust Manifold (262)
3	97854	Elbow, Brass 90° Short 1" Pipe (305-350)
4	96216	Gasket, Water Inlet Elbow
5	RS3533	Plug; 3/4" Brass, Tapped Pipe
6	97498	Gasket Exhaust Manifold (262)
6	96306	Exhaust Manifold Gasket (305-350)
7	97850	Exhaust Manifold Spacer
8	97484	Manifold, Exhaust (Port) (262)
8	97485	Manifold, Exhaust (Starboard) (262)
8	97753	Manifold, Exhaust (Port) (305-350)
8	97752	Manifold, Exhaust (Starboard) (305-350)
9	96562	Gasket, Exhaust Elbow 1 Hole

Item	Part No.	Description
10	103876	Plug, Pipe 3/4" N.P.T.
11	98068	Elbow Exhaust 3" Diameter Outlet
11	97924	Elbow Exhaust 4" Diameter Outlet
12	103321	Lockwasher, 3/8"
13	90345125	Bolt, 3/8" - 16 x 1-1/4", 12 pt. Ferry HD
14	20244	Core Plug, 1-1/4" SSTL (Cupped)
15	20272	Bolt, 3/8" - 16 x 1-1/4" Hex HD SSTL
16	1104485	Cover, Exhaust Manifold Drain
17	RS3552	Plug, Pipe 1/4" Hex HD, Brass
18	90305550	Bolt, 3/8" - 16 x 5-1/2" Hex HD (GR 5)
19	97867	Gasket, Exhaust Manifold (Offset Hole)
20	90305500	Bolt, 3/8"-16 x 5" Hex HD (GD 5)
21	96422	Bracket, Alternator Mounting
22	103876	Plug, Exhaust Manifold
23	CR-20-97295	Water Outlet Adapter



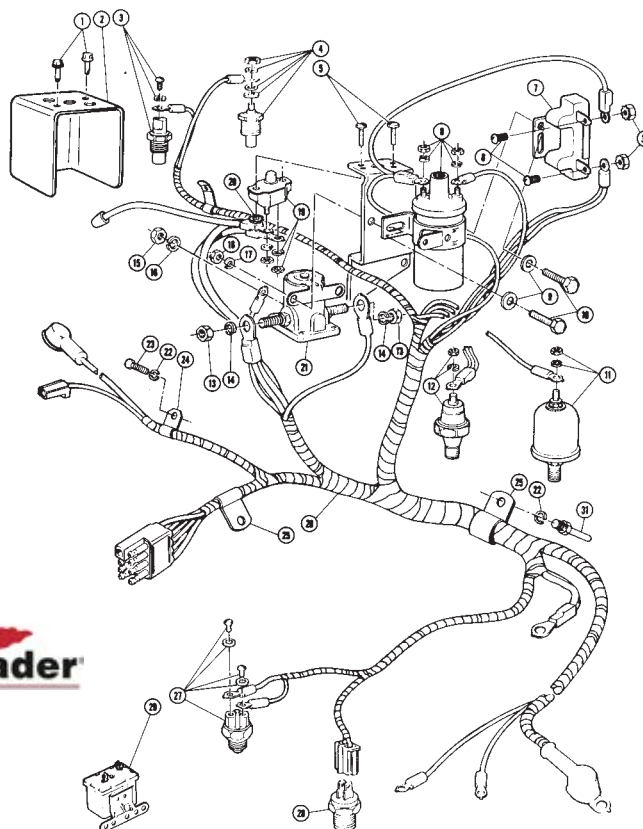
## Crusader 220 hp-305 C.I.D./270 hp-350 C.I.D. Engine Wiring

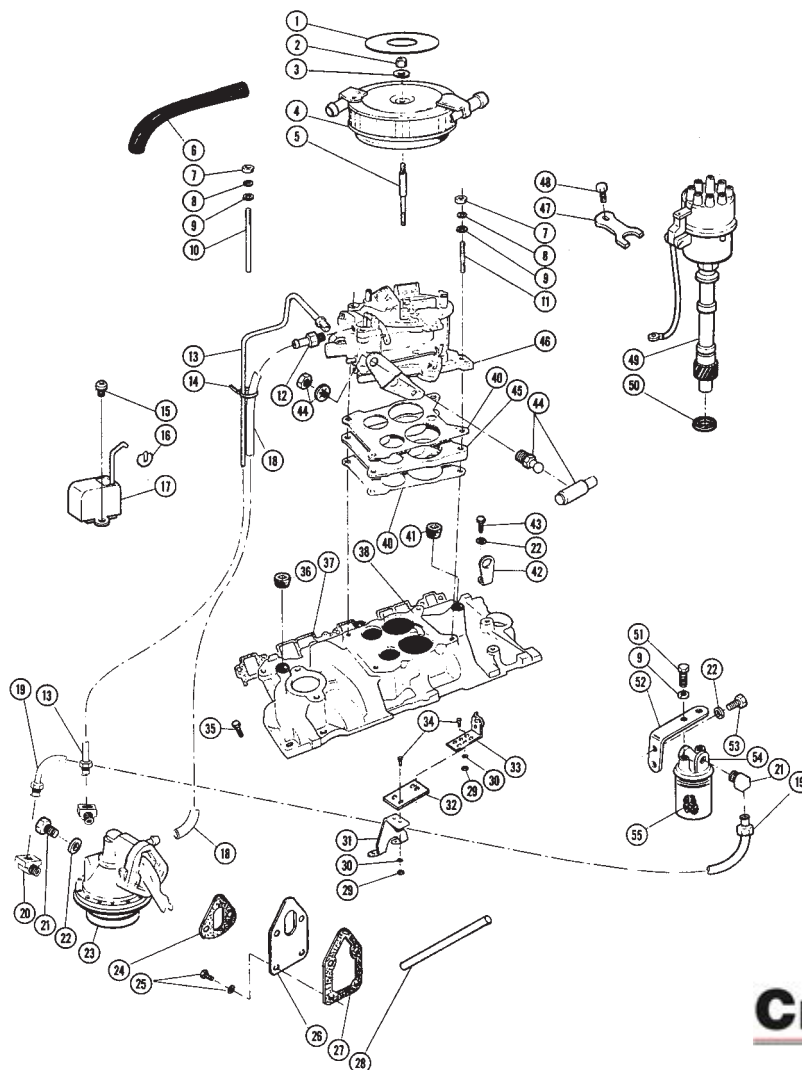
Item	Part No.	Description
1	91007038	Screw, #10 - 24 x 3/8" Self Tapping
2	97474	Cover, Relay Bracket
3	22382	Screw, #10 - 24 x 7/8" Slotted Pan Head
4	97478	Bracket, Engine Relay
5	22383	Bolt, 1/4" - 20 x 1/2" Hex HD
6	95000060	Nut, #10 - 24 Plated Hex
7	109084	Nut, 1/4" x 20 Hex
8	RS2179	Washer, 5/16", Medium Lock
9	102634	Nut, 5/16" - 18 Hex
10	97958	Decal, Caution Accessory Wire
11	20171	Switch, Neutral Safety
12	R020037	Sender, Gear Oil Temp (Alarm)
13	97767	Sender, Engine Oil Pressure (Alarm)
14	22155	Decal, Circuit Breaker
15	97568	Circuit Breaker (50 Amp)
16	9006320	Relay, Starter Motor
17	97479	Wire Assembly, Solenoid to Relay
18	97480	Wire Assembly, Safety Switch to Relay
19	93000000	Washer, #10 Medium Lock
20	95011000	Nut, 10-32 Hex Brass
21	97454	Spark Plug Ignition Wire Set, Ignition Suppression
21	97423	Spark Plug Ignition Wire Set, Steel Core Wire
22	37068	Ignition Coil Assembly, High Output, B.I.D.
23	41063	Bracket, Ignition Coil
24	97990	Wire Assembly, Resistor to Coil
25	700425	Sender, Engine Oil Pressure (Single) Gauge
25	700403	Sender, Engine Oil Pressure (Dual) Gauge
26	98048	Wiring Harness, Universal
27	R020014A	Sender, Engine Water Temp. (Alarm)
28	700427	Sender, Engine Water Temp. (Single) Gauge
28	727046	Sender, Engine Water Temp. (Dual) Gauge
	22152	Noise Suppression Kit
29	R127062	Wire Separator Spark Plug 4
30	22222	Retainer Ignition Wire 4



## Crusader V-6/262 C.I.D. Engine Wiring

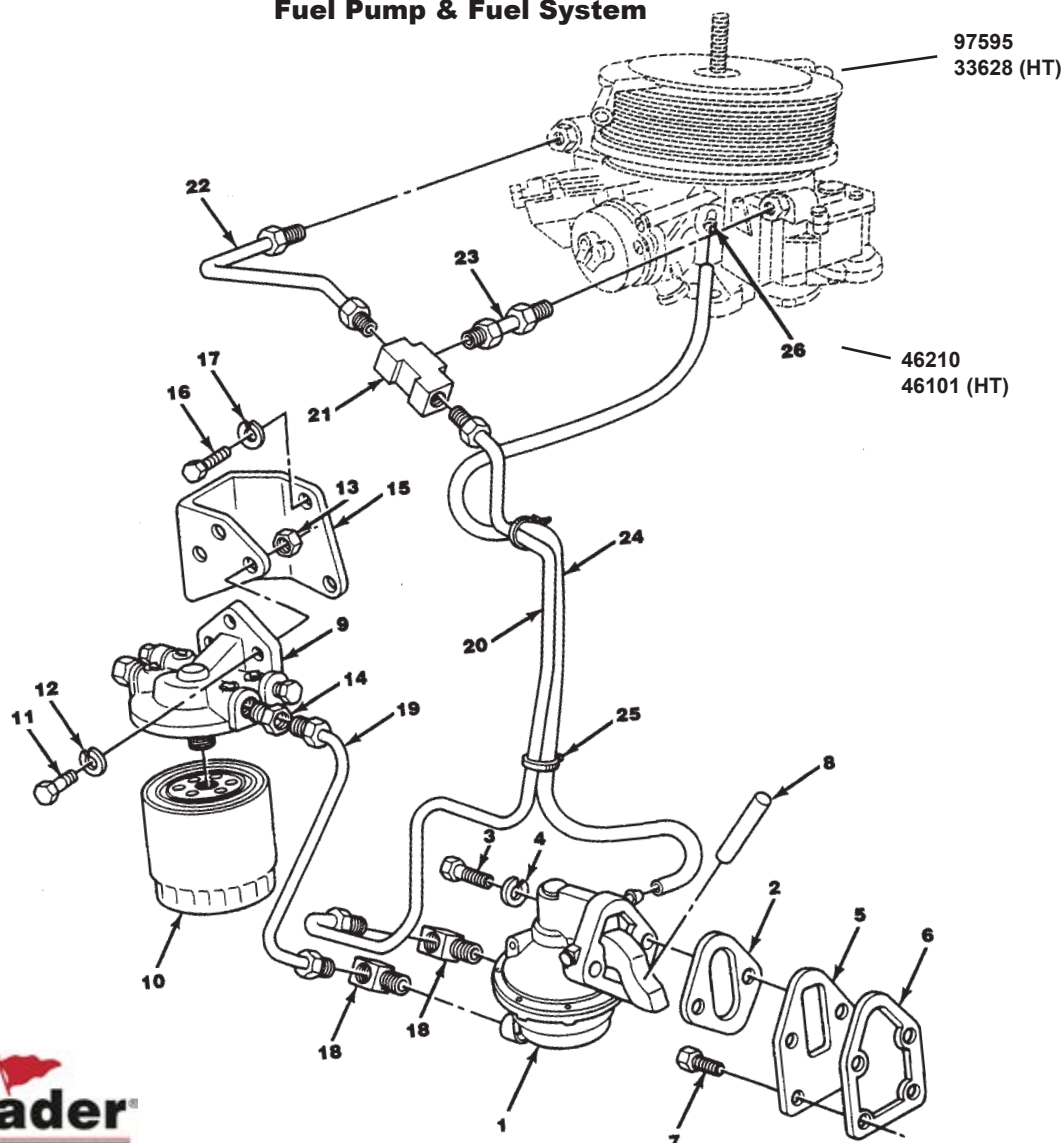
Item	Part No.	Description
1	91007038	Screw, #10 - 24 x 3/8" Self Tapping
2	97474	Cover, Relay Bracket
3	R020014A	Sender, Engine Water Temp (Alarm)
4	700427	Sender, Engine Water Temp (Single) Gauge
4	727046	Sender, Engine Water Temp (Dual) Gauge
5	22382	Screw, #10 - 24 x 7/8" Slotted Pan HD
6	22219	Screw, #6 - 32 x 3/8" Slotted Round Head
7	R119001	Resistor
8	41080	Ignition Coil Assembly
9	103339	Washer, 1/4" Flat
10	22383	Bolt, 1/4 - 20 - Hex Head
11	700425	Sender, Engine Oil Pressure (Single) Gauge
11	700403	Sender, Engine Oil Pressure (Dual) Gauge
12	97767	Sender, Engine Oil Pressure (Alarm)
13	102634	Nut, 5/16" - 18 Hex
14	RS2179	Washer, 5/16" Medium Lock
15	112432	Nut, 10 - 32 Hex, Brass
16	106497	Washer, #10 Medium Lock
17	103319	Washer, 1/4" Lock
18	109084	Nut, 1/4" x 20 Hex
19	97568	Circuit Breaker, (50 amp)
20	95000060	Nut, #10 - 24 Plated Hex
21	9000320	Relay, Starter Motor
22	103321	Washer, 3/8" Medium Lock
23	RS0305	Bolt, 3/8" - 16 x 1/4" Hex HD (GR 5)
24	2000147	Clamp Support
25	96566	Clamp Support
26	97977	Engine Wiring Harness
27	20171	Switch Neutral Safety
28	20188	Sender, Gear Oil Temp (Alarm)
29	20640	Alarm Buzzer
30	22220	Nut, #6 - 32 Plated Hex
31	97661	Bolt, Hex HD Wire Clamp
32	22223	Retainer, Spark Plug Wire Set
33	22224	Separator, Spark Plug Wire Set
	97584	Spark, Plug Wire Set





Item	Part No.	Description	Item	Part No.	Description
1	97916	Decal, Flame Arrestor	28	R039005	Rod, Fuel Pump Push
2	95104300	Nut, 1/4"-20 Elastic Stop	29	12034	Nut; #10-24 Zinc Plated
3	103339	Washer, 1/4" Flat	30	106497	Washer, #10 Medium Lock
4	97595	Flame Arrestor, Dual Vent	31	98253	Throttle Bracket
5	96926	Stud Carburetor, 1/4" - 20 x 3-3/4"	32	97280	Plate, Throttle Control
6	20806	Heater Hose, 5/8" x 12" Long	33	21033	Clip, Shift Cable, Single Control
7	102634	Nut, Hex, 5/16"-18	34	443874	Screw; 10 - 24 x 1-1/4" Hex HD Machine
8	RS2179	Washer, Lock 5/16" Medium	35	RS0307	Bolt, Intake
9	92200000	Washer, Flat 5/16"	36	444705	Pipe Plug, 1/2" NPT Hex Socket
10	96818	Stud Carburetor, 5/16" - 18 x 4-1/4"	37	21005	Gasket, Intake Manifold
11	96817	12° Stud Carburetor, 5/16" - 18 x 2-1/4"	38	33712	Intake Manifold
11	97982	0° Stud Carburetor, 5/16" - 18 x 1-1/4"	40	97033	Gasket; 4 BBL Carburetor Mounting
12	97829	Hose Adaptor	41	444868	Pipe Plug, 3/8" Hex Socket
13	RF201012	Fuel Line, Pump to Carburetor	42	96845	Strap, Lifting
14	22410	Tie Wrap, Nylon, 5-1/2" Long	43	90305100	Bolt, 3/8" - 16 x 1" Hex HD (GR5)
15	273513	Screw and Washer Assembly	44	21025	Ball Joint, Single Station
16	30123	Clip, Choke	45	97122	Wedge Plate
17	RN0173	Choke	46	45356	Carburetor, 4 BBL
18	22401	Vent, Tygon Tubing 3/8" O.D. x 1/4" I.D. 30" Long	47	20799	Clamp, Distributor, Hold Down
19	97834	Fuel Line, Filter to Pump	48	97948	Bolt, Distributor, Hold Down
20	30573	Elbow, Inverted Flare 3/8"	49	37061	Distributor Assembly-Mallory
21	179843	3/8"- 16 x 1-1/2" Hex HD (GR5)	49	37067	Distributor, Breakerless Prestolite
22	103321	Washer, Lock 3/8" Medium	50	RM0123	Gasket, Distributor Mounting
23	97842	Fuel Pump, Carter®	51	181339	Bolt, 5/16" - 24 x 1" Hex HD (GR5)
24	RM0015	Gasket-Fuel Pump Flange	52	97259	Bracket, Fuel Filter
25	20790	Screw - Lockwasher	53	179837	Bolt, 3/8", - 16 x 3/4" Hex HD (GR5)
26	91607	Plate, Fuel Pump Mounting	54	97889	Fuel Filter Assembly
27	91341	Gasket, Fuel Pump Plate	55	91606	Fuel Filter Element

## Fuel Pump &amp; Fuel System



**Crusader**

Item	Part No.	Description
1	97842	Pump Assembly, fuel
2	RM0015	Gasket, fuel pump
3	186628	Bolt, fuel pump mounting (1-1/2")
4	103321	Lockwasher, mounting bolt
5	91607	Plate, fuel pump mounting
6	91341	Gasket, fuel pump mounting plate
7	22383	Bolt, mounting plate to block (1/2")
8	R039005	Rod, fuel pump actuating (Base Engine only)
8A	33756	Rod, fuel pump actuating (High Torque only)
9	22778	Header, fuel
10	22687	Fuel Filter/Water Separator
11	9418918	Bolt, header to bracket (1")
12	RS2179	Lockwasher, header to bracket bolt
13	9413583	Nut, header to bracket bolt
14	30572	Fitting, fuel line to header
15	98254	Bracket, fuel header
16	90305100	Bolt, bracket to block (1")
17	103321	Lockwasher, bracket to block bolt

Item	Part No.	Description
18	30573	Fitting, fuel line
19	98260	Fuel Line, pump to filter
20	98262	Fuel Line, pump to carburetor (0°)
20A	98261	Fuel Line, pump to carburetor (12°)
21	178661	Tee, fuel line
22	98148	Fuel Line, rear
23	98149	Fuel Line, front
24	22401	Tygon Hose, fuel pump to carburetor (36")
25	22410	Tie wrap, hose
26	30614	Fitting, tygon hose to carburetor

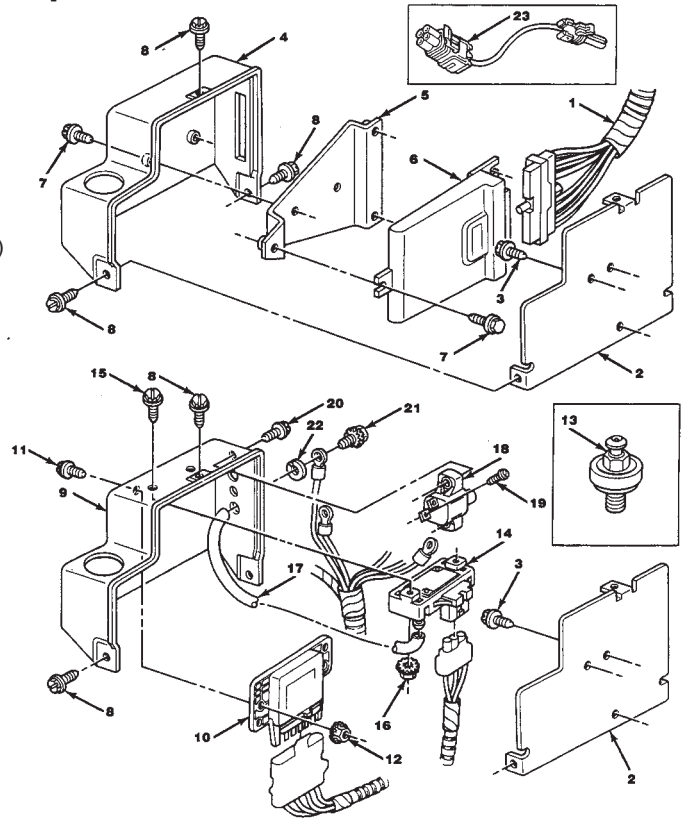
**Base  
Engine  
Only**

**High  
Torque  
Engine  
Only**



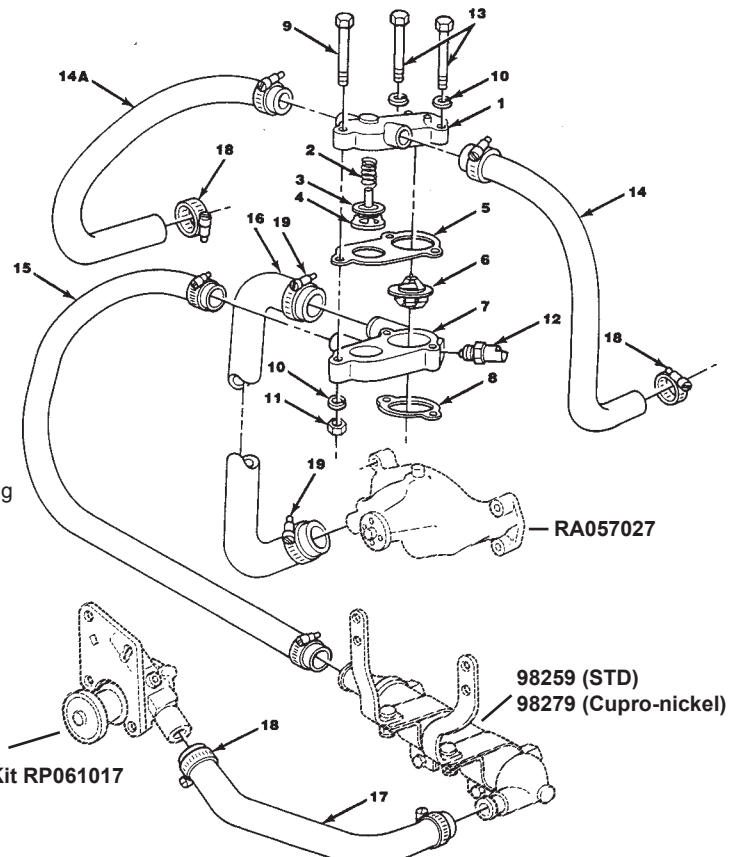
MSTS Components

Item	Part No.	Description
*	23218	MSTS Kit
1	48012	Harness, MSTS wiring
2	98267	Bracket, component mounting
3	21310	Bolt, mounting bracket (1/2")
4	98269	Cover, electronic control unit
5	98132	Bracket, electronic control mounting
6	48001	Electronic Control Unit
7	9439930	Bolt, electronic control unit mounting (9/16")
8	22860	Screw, self-tapping (3/8")
9	98268	Cover, component mounting
10	48006	Knock Module
11	22861	Bolt, module mount (1/2")
12	95000060	Nut, module mount bolt
13	R020027	Knock Sensor
14	48004	MAP Sensor
15	22863	Bolt, mounting (1")
16	95000060	Nut, mounting bolt
17	20237	Hose, vacuum (5/32") [24"]
18	98322	Circuit Breaker (50 Amp)
19	21306	Screw, wire attaching
20	22882	Screw, circuit breaker mounting
21	22383	Bolt, MSTS ground
22	138165	Lockwasher, MSTS ground bolt
23	98299	MSTS Jumper

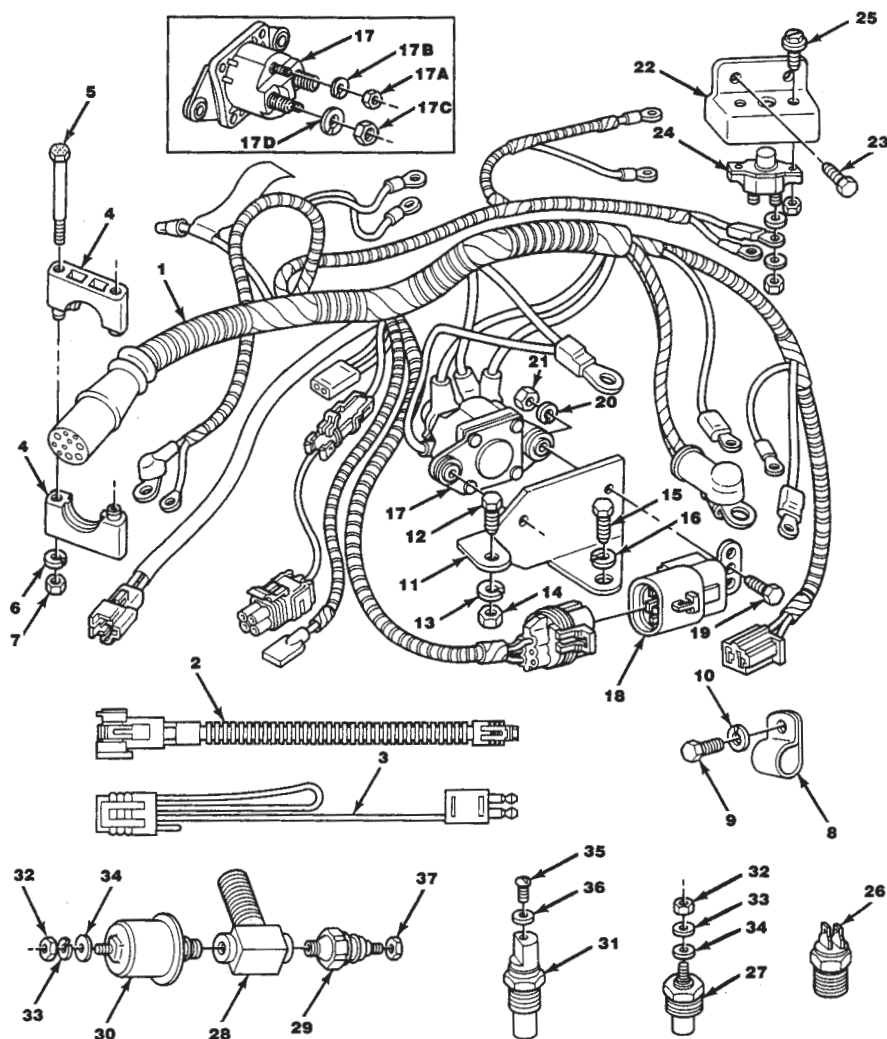


Raw Water Cooling Components

Item	Part No.	Description
*	22366	Thermostat Housing Assembly, Complete
1	97556	Thermostat Housing, upper
2	96686	Spring, pressure relief
3	96066	Valve, pressure relief
4	96065	Seat, pressure relief
5	97361	Gasket, thermostat housing, upper
6	96319	Thermostat (143°)
7	97557	Thermostat Housing, lower
8	RM0121	Gasket, thermostat housing, lower
9	90305350	Bolt, thermostat housing (3-1/2")
10	103321	Lockwasher, thermostat housing bolt
11	102635	Nut, thermostat housing bolt
12	R020014A	Switch, temperature alarm
13	RS0316	Bolt, thermostat housing to intake (4")
14	18333	Hose, thermostat housing to manifold (LH)
14A	18334	Hose, thermostat housing to manifold (RH)
15	18331	Hose, oil cooler to thermostat housing
16	96296	Hose, circulation pump to thermostat housing
17	18330	Hose, water pump to oil cooler
18	RS3858	Clamp, water hose (#20)
19	20420	Clamp, water hose (#32)



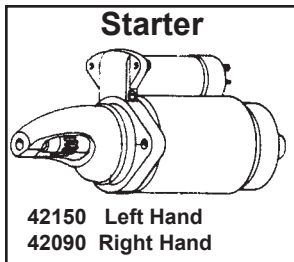
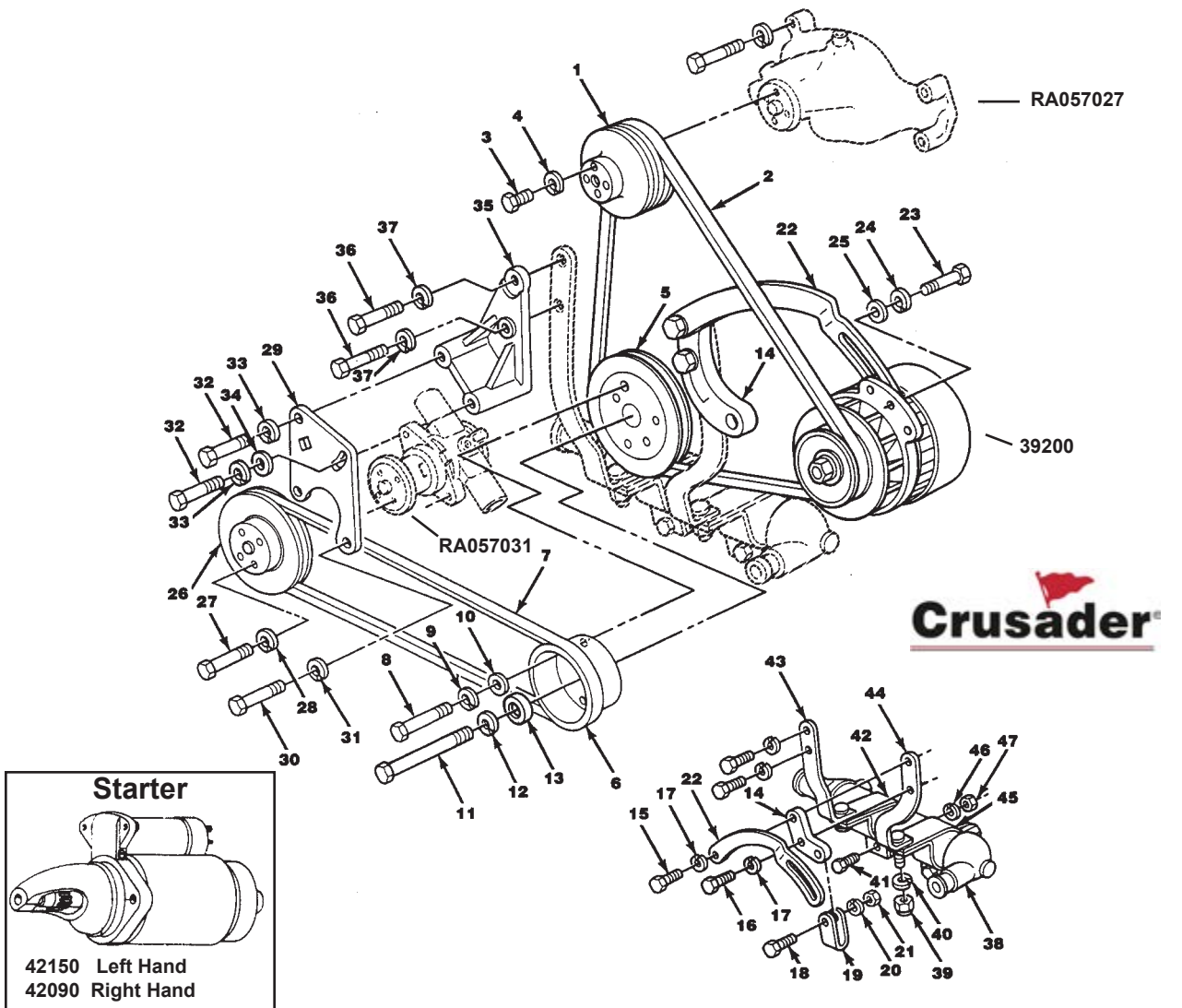
## Wiring Harness &amp; Senders



Item	Part No.	Description
1	98314	Harness Assembly, engine wiring
2	98177	Wire, distributor to coil
3	98073	Wire, timing connector
4	98266	Anchor, 10-pin connector
5	90105300	Bolt, harness anchor (3")
6	103339	Washer, flat
7	95104300	Nut, anchor bolt
8	96566	Clamp, support, round (1/2")
9	179837	Bolt, support clamp (3/4")
10	103321	Lockwasher, clamp bolt
11	98255	Bracket, relay solenoid and relay harness
12	179820	Bolt, bracket mounting (1-1/4")
13	RS2179	Lockwasher, bolt
14	9413583	Nut, mounting bolt
15	179837	Bolt, bracket mounting (3/4")
16	103321	Lockwasher, bolt
17	22611	Relay, solenoid
17A	112432	Nut, solenoid (brass), #10
17B	106497	Lockwasher, #10
17C	21304	Nut, solenoid (bronze) (5/16")
17D	21305	Lockwasher (5/16")
18	98175	Relay, solenoid harness
19	179795	Bolt, relay mounting (3/4")
20	103319	Lockwasher, relay mounting

Item	Part No.	Description
21	109084	Nut, relay mounting bolt
22	98242	Cover, circuit breaker mounting
23	21310	Bolt, cover mounting (1/2")
24	98322	Circuit Breaker Assembly (50 Amp)
25	22860	Screw, circuit breaker mounting
26	R020037	Switch, oil gear alarm
27	R020014A	Switch, water temperature alarm
28	R024205	Tee, pipe
29	97767	Switch, oil pressure alarm
30	700425	Sender, oil pressure (SS)
30A	22702	Sender, oil pressure (SS VDO)
30B	700403	Sender, oil pressure (DS)
30C	22704	Sender, oil pressure (DS VDO)
31	700427	Sender, water temperature (SS)
31 A	22701	Sender, water temperature (SS VDO)
31 B	727046	Sender, water temperature (DS)
31 C	22703	*Sender, water temperature (DS VDO)
32	112432	Nut, sender terminal
33	455777	Lockwasher, terminal
34	106090	Washer, sender terminal
35	159997	Screw, wire attaching
36	106497	Washer, sender screw
37	271163	Nut, sender terminal
*	120322	Bushing, reducing
		VDO sender (used with 22703 only)
		*Note: Must also order 120322 Bushing

Pulleys, Belts & Mounting Hardware

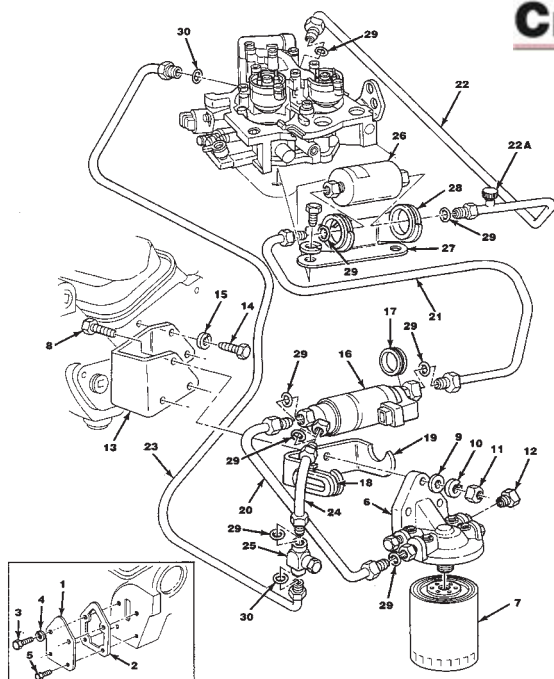


Item	Part No.	Description
1	R065049	Pulley, circulation pump
2	96307	Belt, alternator and circulation pump
3	RS0775	Bolt, pulley (3/4")
4	RS2179	Lockwasher, pulley bolt
5	R065048	Pulley, crankshaft
6	97951	Pulley, raw water pump drive
7	97178	Belt, raw water pump
8	90315100	Bolt, pulley mounting (1")
9	103321	Lockwasher, pulley mounting bolt
10	92300000	Washer, pulley mounting bolt
11	181408	Bolt, pulley center (2-1/2")
12	93400200	Lockwasher, pulley center bolt
13	33189	Washer, flat pulley center bolt
14	98245	Bracket, alternator mounting
15	RS0307	Bolt, bracket mounting (1-3/4")
16	186628	Bolt, bracket mounting (1-1/2")
17	103321	Lockwasher, mounting bolt
18	9419111	Bolt, alternator lower mount (2-3/4")
19	98184	Clip, alternator adjust
20	93500000	Lockwasher, lower bolt
21	9418828	Nut, lower bolt
22	98246	Strap, alternator adjust
23	9418918	Bolt, alternator upper (1")
24	RS2179	Lockwasher, upper bolt

Item	Part No.	Description
25	20523	Washer, flat
26	97952	Pulley, raw water pump
27	RS0775	Bolt, pulley mounting (3/4")
28	RS2179	Lockwasher, pulley mounting bolt
29	98121	Bracket, raw water pump adjust
30	22828	Bolt, bracket to pump (1")
31	RS2179	Lockwasher, bolt
32	90405100	Bolt, adjustment bracket to mount (1")
33	RS2181	Lockwasher, adjustment bracket bolt
34	103342	Washer, pivot bolt
35	98244	Bracket, raw water pump mounting
36	RS0307	Bolt, mounting bracket to block (1-3/4")
37	103321	Lockwasher, mounting bolt
38	98259	Oil Cooler Assembly (STD)
38A	98279	Oil Cooler (cupro-nickel)
39	95300300	Nut, clamp support to bracket
40	92300000	Lockwasher, clamp support to bracket
41	RS0251	Bolt, clamp support (1/2")
42	91466	Clamp, cooler support holder
43	98257	Bracket, oil cooler mounting (RH)
44	98256	Bracket, oil cooler mounting (LH)
45	91465	Clamp, cooler support back
46	103319	Lockwasher, support clamp
47	109084	Nut, support clamp



## Fuel Pump &amp; Fuel System


**Crusader**


Item	Part No.	Description
1	R109047	Plate, block-off
2	91341	Gasket, block-off plate to block
3	179837	Bolt, block-off plate mounting (3/4")
4	103321	Lockwasher, block-off plate bolt
5	22383	Bolt, block-off plate to block (1/2")
6	22778	Header, fuel
7	22687	Fuel Filter/Water Separator
8	179820	Bolt, fuel header to bracket (1-1/4")
9	92200000	Washer, fuel header bolt
10	RS2179	Lockwasher, fuel header bolt
11	9413583	Nut, fuel header bolt
12	30572	Fitting, fuel line to header
13	98323	Bracket, fuel header
14	90305100	Bolt, fuel header bracket to block (1")
15	103321	Lockwasher, bracket to block bolt
16	23234	Pump Assembly, fuel
17	22799	Grommet, fuel pump mounting (outlet)
18	22799	Grommet, fuel pump mounting (inlet)
19	98311	Bracket, fuel pump mounting

**Use Following Parts for Thin Adapter (1")**

20	98300	Fuel line, fuel header to pump
21	98304	Fuel line, pump to secondary fuel filter
22	98301	Fuel line, secondary fuel filter to TBI
22A	47036	Cap, schrader valve
23	98302	Fuel line, TBI outlet to tee
24	98306	Fuel line, tee to fuel pump

**Use Following Parts for Thick Adapter (1-3/4")**

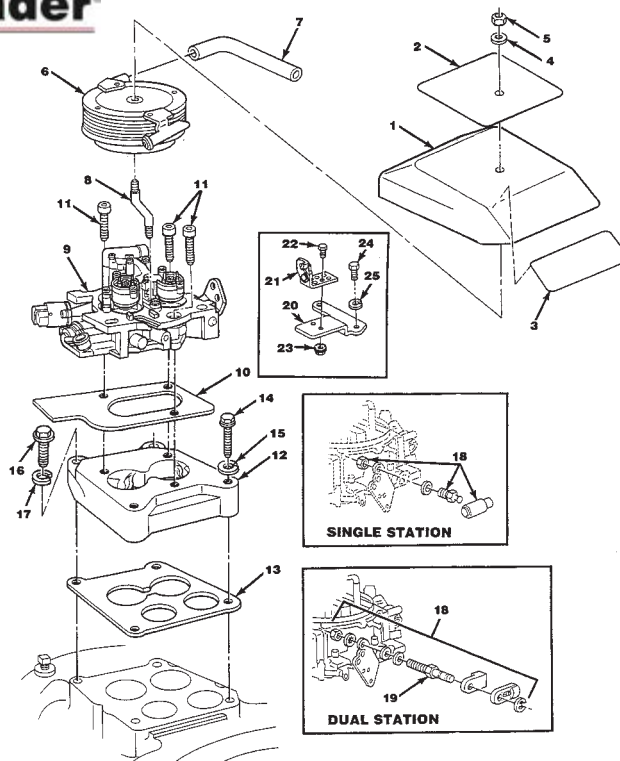
20	98300	Fuel line, fuel header to pump
21	98353	Fuel line, pump to secondary fuel filter
22	98344	Fuel line, secondary fuel filter to TBI
22A	47036	Cap, schrader valve
23	98355	Fuel line, TBI outlet to tee
24	98306	Fuel line, tee to fuel pump

**Use Following Parts for HT Models Only**

20	98300	Fuel line, fuel header to pump
21	98305	Fuel line, pump to secondary fuel filter
22	98344	Fuel line, secondary fuel filter to TBI
22A	47036	Cap, schrader valve
23	98303	Fuel line, TBI outlet to tee
24	98306	Fuel line, tee to fuel pump
25	30620	Tee, fuel line, return
26	23150	Filter, secondary fuel/with O-Rings
27	98310	Bracket, fuel filter
28	22954	Grommet, fuel filter mounting
29	22800	O-ring, fuel inlet line (3/8")*
30	23508	O-ring, fuel outlet line (5/16")*

\*NOTE: O-Rings are included with fuel lines

## Throttle Body Mounting



Item	Part No.	Description
1	98270	Cover, flame arrestor
2	22831	Decal, flame arrestor — Crusader XL
3	22960	Decal, flame arrestor — fuel injection
4	92104000	- Washer, flame arrestor cover
5	95104300	Nut, flame arrestor stud
6	33628	Flame arrestor, throttle body
7	20806	Vent hose, crankcase (12") (9")
8	98309	Stud, flame arrestor
9	47006	Throttle Body Assembly
10	RM0240	Gasket, throttle body mounting
11	9440414	Bolt, throttle body mounting (2-1/4")

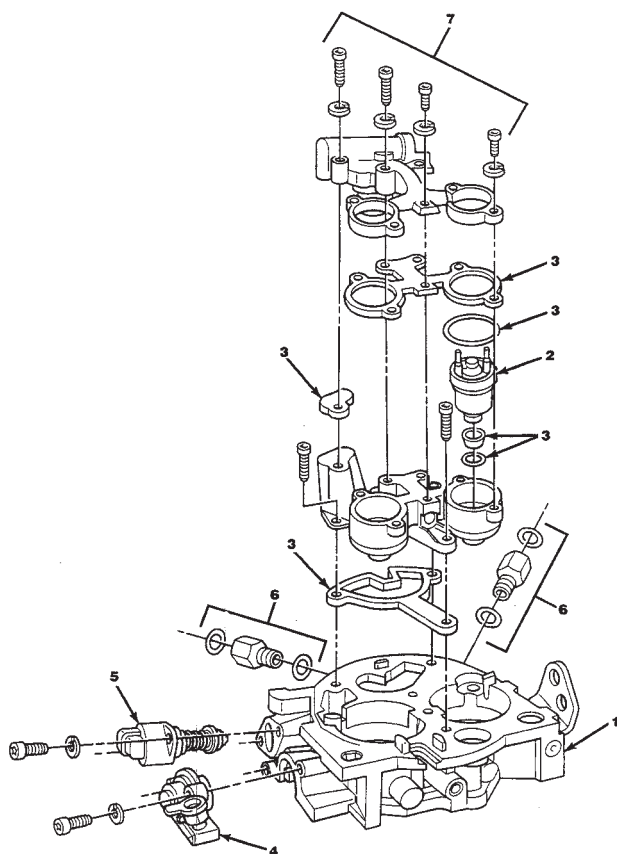
**Use Following Parts for Thin Adapter Plate Mounting (1" thick)**

12	98307	Adapter, throttle body mounting (thin)
13	98308	Gasket, adapter plate mounting
14	90205150	Bolt, adapter plate mounting (1-1/2")
15	21311	Lockwasher, adapter mounting bolt
16	9421624	Bolt, adapter plate mounting (1")
17	RS2179	Lockwasher, adapter mounting bolt

**Use Following Parts for Thick Adapter Plate Mounting (1-3/4" thick)**

12	98339	Adapter, throttle body mounting (thick)
13	98340	Gasket, adapter plate mounting
14	90205250	Bolt, adapter plate mounting (2-1/2")
15	21311	Lockwasher, adapter mounting bolt
16	179826	Bolt, adapter plate mounting (2")
17	RS2179	Lockwasher, adapter mounting bolt
18	22977	Ball Joint Assembly, cable attaching
18	21025	Ball Joint Assembly, cable attaching
19	22978	Pivot pin, dual station
20	98253	Bracket, throttle control
21	21033	Clip, throttle attaching (single)
21	22232	Clip, throttle attaching (dual)
22	443874	Screw, clip to throttle bracket
23	95000060	Nut, clip mounting screw
24	179817	Bolt, throttle bracket mounting (7/8")
25	RS2179	Lockwasher, mounting bolt

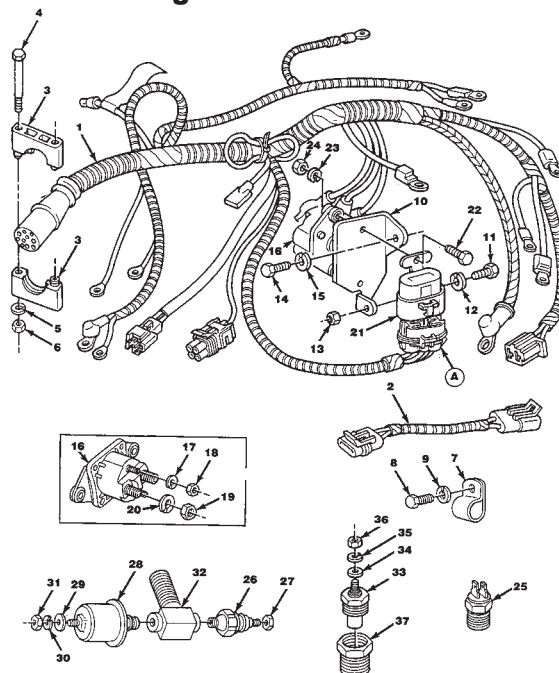
### Throttle Body Assembly



Item	Part No.	Description
1	47006	Throttle Body Assembly
2	47030	Fuel Injector Package
3	47037	Fuel Meter Gasket & Filter Package
4	47032	Throttle Position Sensor
5	47033	Idle Air Control Valve
6	47034	Fuel Inlet/Outlet Nut Package
7	47035	Screw Assortment Package

  
**Crusader**<sup>®</sup>

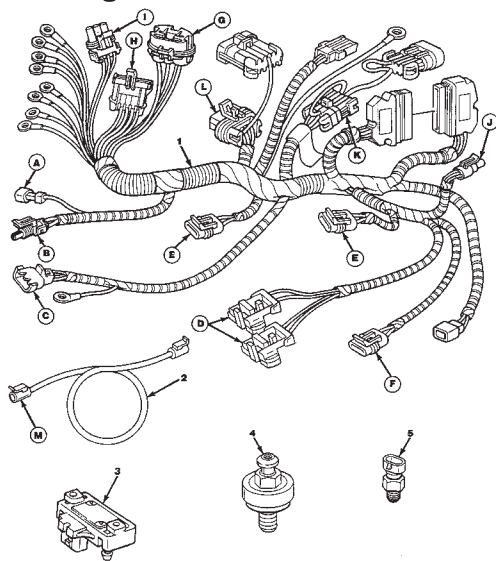
### Wiring Harness & Hardware



Item	Part No.	Description
1	98314	Harness Assembly, engine wiring
1A	47211	Connector With Seal, ignition relay
1A	47141	Seal, cable (light gray 280)
1A	47145	Seal, cable (light gray 630)
1A	47115	Terminal, female 14-16
1A	47111	Terminal, female 18-20
1A	47243	Lock Secondary
2	98177	Wire, distributor to coil
3	98266	Anchor, 10-pin connector
4	90105300	Bolt; harness anchor (3")
5	103339	Washer, flat
6	95104300	Nut, anchor bolt
7	96566	Clamp, support round
8	179837	Bolt; support clamp and harness ground (3/4")
9	103321	Lockwasher, support clamp & harness ground
10	98255	Bracket, relay solenoid and relay harness
11	179820	Bolt, bracket mounting (1-1/4")
12	RS2179	Lockwasher, bracket mounting bolt
13	9413583	Nut bracket mounting bolt
14	179837	Bolt bracket mounting (3/4")
15	103321	Lockwasher, mounting bolt
16	22611	Relay, starter
17	112432	Nut, solenoid #10
18	21301	Lockwasher, #10
19	21304	Nut, solenoid (5/16")
20	21305	Lockwasher, (5/16")
21	98175	Relay, ignition
22	179795	Bolt, relay mounting (3/4")
23	103319	Lockwasher, relay mounting bolt
24	109084	Nut, relay mounting bolt
25	R020037	Switch, gear oil alarm
26	97767	Switch, oil pressure alarm
27	271163	Nut, alarm switch
28	700425	Sender, oil pressure (SS)
	700403	Sender, oil pressure (DS)
	22702	Sender, oil pressure (SS VDO)
	22704	Sender, oil pressure (DS VDO)
29	106090	Washer, sender terminal
30	455777	Lockwasher, sender terminal
31	112432	Nut, sender terminal
32	30612	Tee, sender attaching
33	700427	Sender, temperature (SS)
	727046	Sender, temperature (DS)
	22701	Sender, temperature (SS VDO)
	22703	Sender, temperature (DS VDO)*
34	106090	Washer, sender terminal
35	455777	Lockwasher, sender terminal
36	112432	Nut, sender terminal
37	120322	Reducer, VDO sender

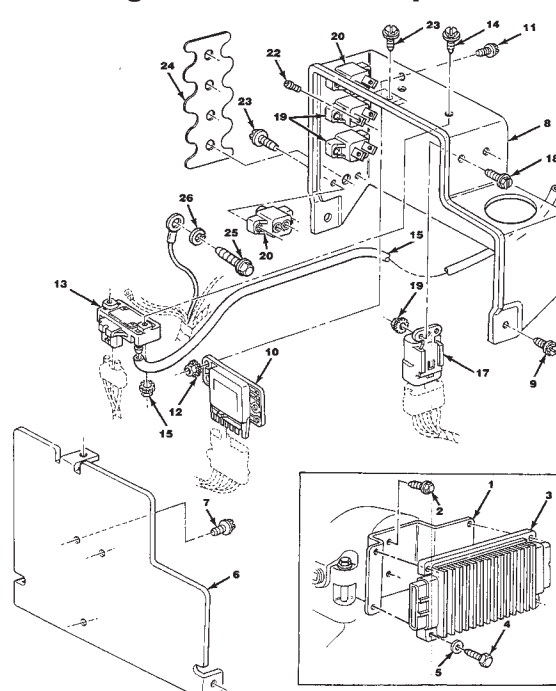
**Note:** Requires 120322 bushing with this sender.

## Wiring Harness &amp; Hardware



Item	Part No.	Description
1	47005	Harness Assembly, throttle body
A	47209	Connector With Seal, knock sensor
A	47143	Seal, cable (green)
A	47109	Terminal, knock sensor (m w/p 18-20 gage)
B	47221	Connector With Seal, master slave (male)
	47143	Seal, cable (green)
	47121	Terminal, master/slave (male 14-16 gage)
C	47214	Connector With Seal, fuel pump
C	47114	Terminal, fuel pump (female)
D	47205	Connector With Seal, fuel injector
	47146	Seal, cable (tan)
	47105	Terminal, fuel injector
E	47203	Connector With Seal, idle air and distributor
	47103	Terminal, idle air and distributor
F	47207	Connector With Seal, Throttle Position Sensor
F	47107	Terminal, Throttle Position Sensor
G	47211	Connector With Seal, fuel pump relay
	47141	Seal, cable (light gray 280)
	47145	Seal, cable (light gray 630)
	47115	Terminal, fuel pump relay (female 14-16)
	47111	Terminal, fuel pump relay (female 18-20)
	47243	Lock Secondary
H	47208	Connector, Knock Module
	47143	Seal, cable
	47111	Terminal, Knock Module
	47241	Lock Secondary
I	47213	Connector With Seal, MAP sensor
I	47143	Seal, cable (Green)
I	47109	Terminal, MAP sensor
J	47216	Connector With Seal, Coolant Temperature Sensor
J	47103	Terminal, Coolant Temperature Sensor
K	47218	Connector With Seal, ALDL plug
	47118	Terminal, ALDL connector (female 18-20)
	47144	Seal, cable (red 18-20)
	47246	Lock Secondary
	47247	Lock Secondary
L	47220	Connector With Seal, light panel plug
L	47147	Plug, connector cavity
L	47144	Seal, cable (red 18-20)
L	47120	Terminal, light panel plug (female 18-20)
L	47245	Lock Secondary
2	47010	Harness, master/slave-twin engine only
M	47292	Cap, master/slave connector (Not Shown)
M	47142	Plug, master/slave cap (Not Shown)
M	47143	Seal, cable (green)
3	48004	MAP Sensor
4	R020027	Knock Sensor
5	R020019	Coolant Sensor

## Engine Electrical Components

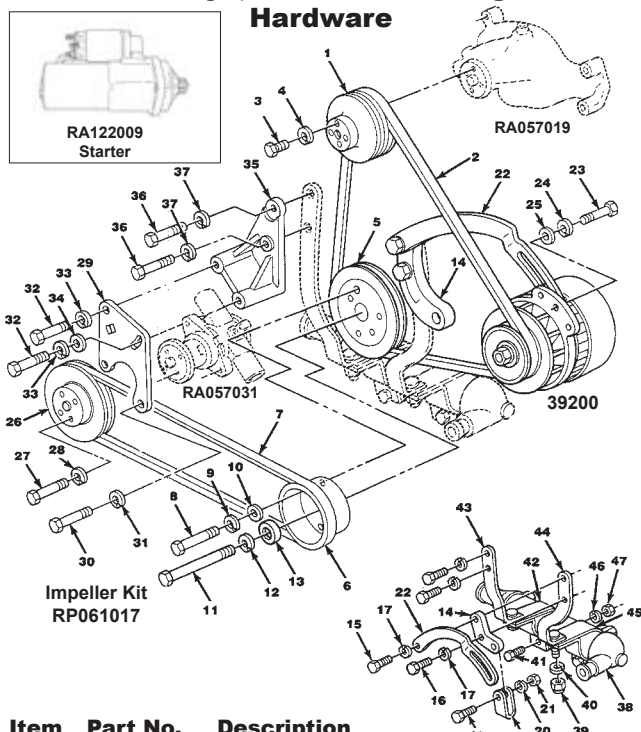


Item	Part No.	Description
1	98313	Bracket, ECM mounting
2	21310	Bolt, bracket mounting (1/2")
3	47012	Electronic Control Module (ECM) — TB350
	47013	Electronic Control Module (ECM) — TB350HT
4	179795	Bolt, ECM mounting (5/8")
5	103319	Lockwasher, mounting bolt
6	98267	Bracket, component mounting
7	21310	Bolt, bracket mounting (1/2")
8	98328	Cover, component mounting
9	22860	Screw, cover attaching (3/8")
10	48006	Knock Module
11	22861	Bolt, module attaching (1/2")
12	95000060	Nut, attaching bolt
13	48004	MAP Sensor
14	22863	Bolt, sensor attaching (1")
15	95000060	Nut, attaching bolt
16	20237	Hose, vacuum (5/32" ID x 24")
17	98175	Relay, fuel pump
18	22861	Bolt, relay attaching (1/2")
19	95000060	Nut, attaching bolt
20	97568	Circuit Breaker Assembly (50 amp)
21	98321	Circuit Breaker Assembly (10 amp)
22	21306	Screw, wire attaching
23	22882	Screw, circuit breaker attaching (3/4")
24	22969	Decal, circuit breaker
25	22383	Bolt, engine harness ground (1/2")
26	138165	Lockwasher, ground bolt

  
**Crusader**  
 ENGINES

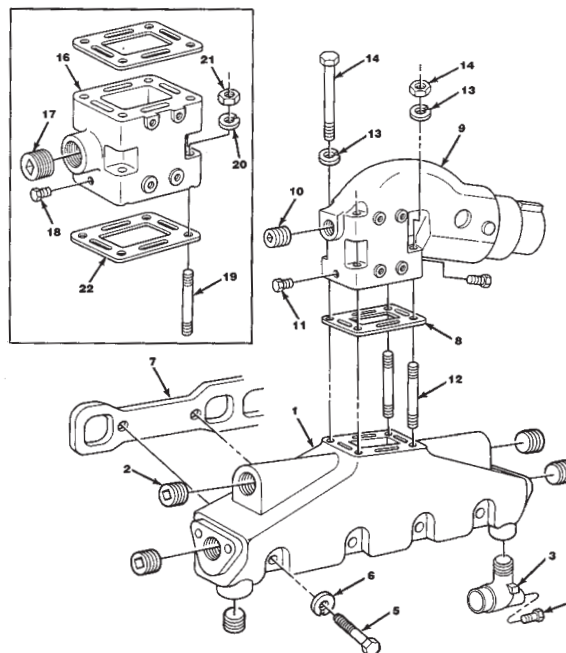


## Pulleys, Belts & Mounting Hardware



Item	Part No.	Description
1	R065049	Pulley, circulation pump
2	96307	Belt, alternator and circulation pump
3	RS0775	Bolt, pulley (3/4")
4	RS2179	Lockwasher, pulley bolt
5	R065048	Pulley, crankshaft
6	97951	Pulley, raw water pump drive
7	97178	Belt, raw water pump
8	90315100	Bolt, pulley mounting (1")
9	103321	Lockwasher, pulley mounting bolt
10	92300000	Washer, pulley mounting bolt
11	181408	Bolt, pulley center (2-1/2")
12	93400200	Lockwasher, pulley center bolt
13	33189	Washer, flat pulley center bolt
14	98245	Bracket, alternator mounting
15	RS0307	Bolt, bracket mounting (1-3/4")
16	186628	Bolt, bracket mounting (1-1/2")
17	103321	Lockwasher, mounting bolt
18	9419111	Bolt, alternator lower mount (2-3/4")
19	98184	Clip, alternator adjust
20	93500000	Lockwasher, lower bolt
21	9418828	Nut, lower bolt
22	98246	Strap, alternator adjust
23	9418918	Bolt, alternator upper (1")
24	RS2179	Lockwasher, upper bolt
25	20523	Washer, flat
26	97952	Pulley, raw water pump
27	RS0775	Bolt, pulley mounting (3/4")
28	RS2179	Lockwasher, pulley mounting bolt
29	R090263	Bracket, raw water pump adjust
30	22828	Bolt, bracket to pump (1")
31	RS2179	Lockwasher, bolt
32	90405100	Bolt, adjustment bracket to mount (1")
33	RS2181	Lockwasher, adjustment bracket bolt
34	103342	Washer, pivot bolt
35	98244	Bracket, raw water pump mounting
36	RS0307	Bolt, mounting bracket to block (1-3/4")
37	103321	Lockwasher, mounting bolt
38	98259	Oil Cooler Assembly (STD)
38A	98279	Oil Cooler (cupro-nickel)
39	95300300	Nut, clamp support to bracket
40	92300000	Lockwasher, clamp support to bracket
41	RS0251	Bolt, clamp support (1/2")
42	91466	Clamp, cooler support holder
43	98257	Bracket, oil cooler mounting (RH)
44	98256	Bracket, oil cooler mounting (LH)
45	91465	Clamp, cooler support back
46	103319	Lockwasher, support clamp
47	109084	Nut, support clamp

## Exhaust Manifold Assembly



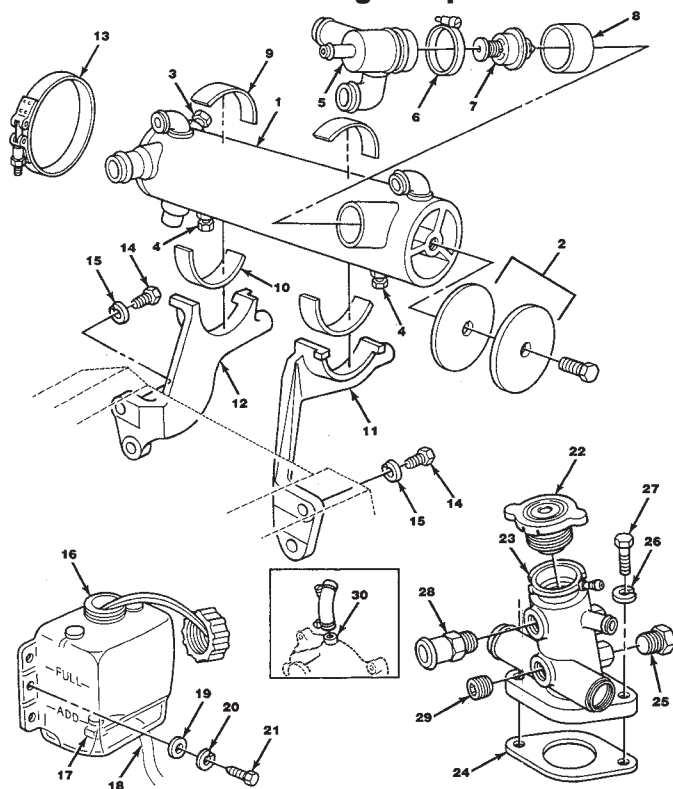
Item	Part No.	Description
1	98243	Exhaust Manifold
2	113186	Plug, exhaust manifold (1")
3	30624	Fitting, water (90°)
4	RS0316	Bolt, manifold to cylinder head (4")
5	103321	Lockwasher, manifold to head bolt
6	96306	Gasket, manifold to cylinder head
7	98127	Gasket, manifold to elbow
8	R029015	Exhaust Elbow Assembly (4" Outlet)
9	113186	Plug, exhaust elbow
10	RS3554	Plug, drain (1/8")
11	R031042	Stud, exhaust elbow attaching (3")
12	103321	Lockwasher, elbow attaching bolt
13	102635	Nut, elbow attaching stud (1")
14	90305475	Bolt, exhaust elbow attaching (4-3/4")
15	98128	4-Inch Riser Kit
16	98128	Exhaust Riser
17	113186	Plug, pipe (3/4")
18	RS3554	Plug, drain (1/8")
19	R031041	Stud, riser mounting (2-3/4")
20	103321	Lockwasher, riser stud
21	102635	Nut, riser mounting stud
22	98127	Gasket, riser mounting

**NOTE:** See fresh-water-cooling section for parts used on fresh-water-cooled engines.



20859  
Crusader  
Blue

## Fresh Water Cooling Components

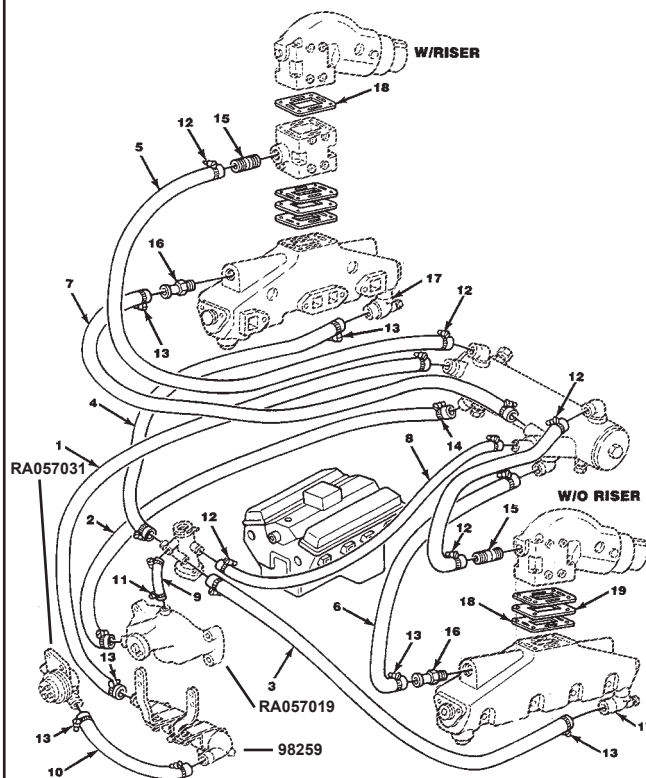


Item	Part No.	Description
1	98510	Heat Exchanger Assembly (STD)
1A	98289	Heat Exchanger Assembly (cupro-nickel)
2	22163	End Cap Assembly
3	10972	Zinc, sacrificial
4	RS3554	Plug, drain
5	98202	Housing, thermostat
6	20868	Clamp, thermostat housing
7	R026007	Thermostat, 170°
8	R045162	Hose, thermostat housing attaching
9	98274	Cushion, heat exchanger, back
10	98275	Cushion, heat exchanger, front
11	98273	Bracket, heat exchanger mount (LH)
12	98272	Bracket, heat exchanger mount (RH)
13	22940	Clamp, heat exchanger mount
14	RS0305	Bolt, bracket mounting (1-1/4")
15	RS2179	Lockwasher, bracket mounting bolt
16	R146002	Tank, coolant recovery
17	22830	Clamp, overflow tube
18	22580	Tube, overflow [48"]*
19	92200000	Washer, mounting bolt
20	RS2179	Lockwasher, mounting bolt
21	179816	Bolt, tank mounting (3/4")
22	98201	Cap, coolant fill
23	98249	Fill Riser, fresh water
24	RM0121	Gasket, fill riser to intake
25	444705	Plug, fill riser
26	103321	Lockwasher, mounting bolt
27	RS0305	Bolt, fill riser mounting (1-1/4")
28	7140280	Fitting, hose fill riser to circulation pump
29	444868	Plug, pipe (3/8")
30	30613	Fitting, circulation pump hose to fill riser
	23217	Complete kit

**\*NOTE:** Numbers in brackets (48") indicate minimum length that must be ordered when using bulk hose for replacement.

Items included in fresh-water-cooling kit

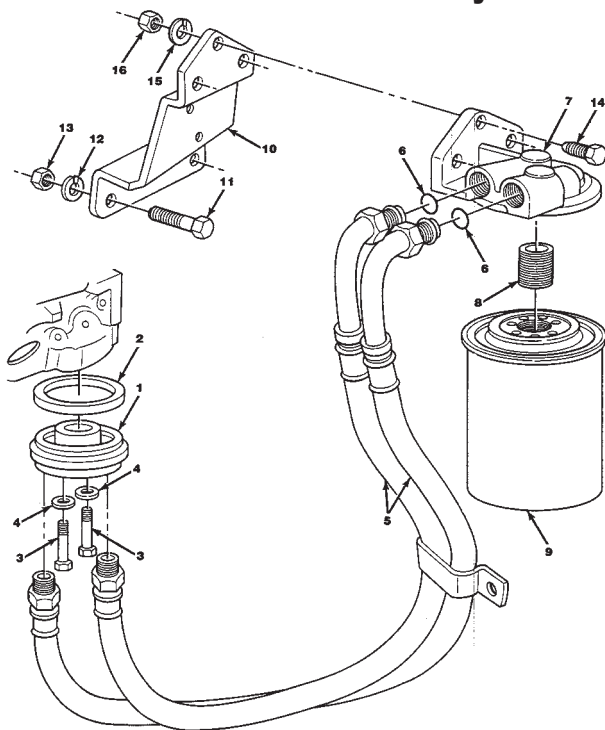
## Fresh Water Cooling Components



Item	Part No.	Description
	23217	Fresh Water Cooling Kit
1	18335	Hose, oil cooler to exchanger
2	R045146	Hose, circulation pump to exchanger
3	18333	Hose, fill riser to manifold (LH)
4	18334	Hose, fill riser to manifold (RH)
5	18340	Hose, exchanger to exhaust elbow (STD)
5A	18341	Hose, exchanger to exhaust elbow (reverse elbow)
6	18338	Hose, thermostat housing to manifold (LH)
7	18339	Hose, thermostat housing to manifold (RH)
8	18343	Hose, fill riser to thermostat (with cast iron fill riser)
8A	20806	Hose, fill riser to thermostat (with copper fill riser) (36")
9	22102	Hose, fill riser to circulation pump (12")
10	18330	Hose, raw water pump to oil cooler
11	20226	Clamp, hose (#12)
12	20227	Clamp, hose (#16)
13	RS3858	Clamp, hose (#20)
14	20420	Clamp, hose (#32)
15	97911	Fitting, exhaust elbow (1" hose)
16	97852	Fitting, exhaust elbow (1-1/4" hose)
17	97854	Fitting, exhaust manifold (90°)
18	98127	Gasket, exhaust riser and elbow (Use of exhaust riser requires 6 gaskets)
19	98124	Block-off Plate, exhaust elbow

**Crusader®**

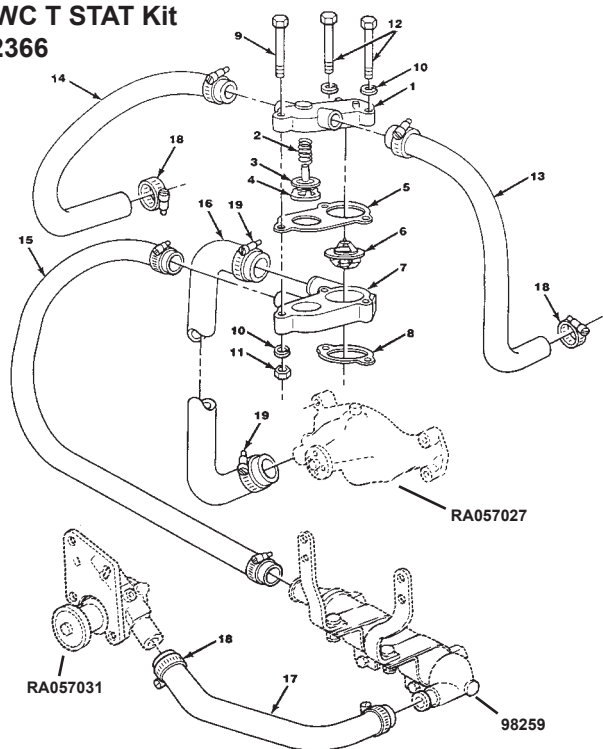
### Remote Oil Filter Assembly



Item	Part No.	Description
1	97667	Adaptor, remote filter to cylinder block
2	20156	Gasket, adaptor to cylinder block
3	90205250	Bolt, adaptor to cylinder block (2-1/2")
4	92205000	Washer, copper — adaptor bolt
5	18103	Hose Assembly, adaptor to filter (30")
6	R047245	O-ring, oil line
7	R079066	Oil Filter Header
8	97292	Nipple, header filter adaptor
9	22679	Oil Filter Element
10	98252	Bracket, filter mounting
11	179820	Bolt, bracket to bellhousing (1-1/4")
12	RS2179	Lockwasher, bracket bolt
13	9413583	Nut, bracket bolt
14	9418918	Bolt, header to bracket (1")
15	RS2179	Lockwasher, header mounting bolt
16	9413583	Nut, header mounting bolt
17	22112	Clamp, oil line support

### Raw Water Cooling Components

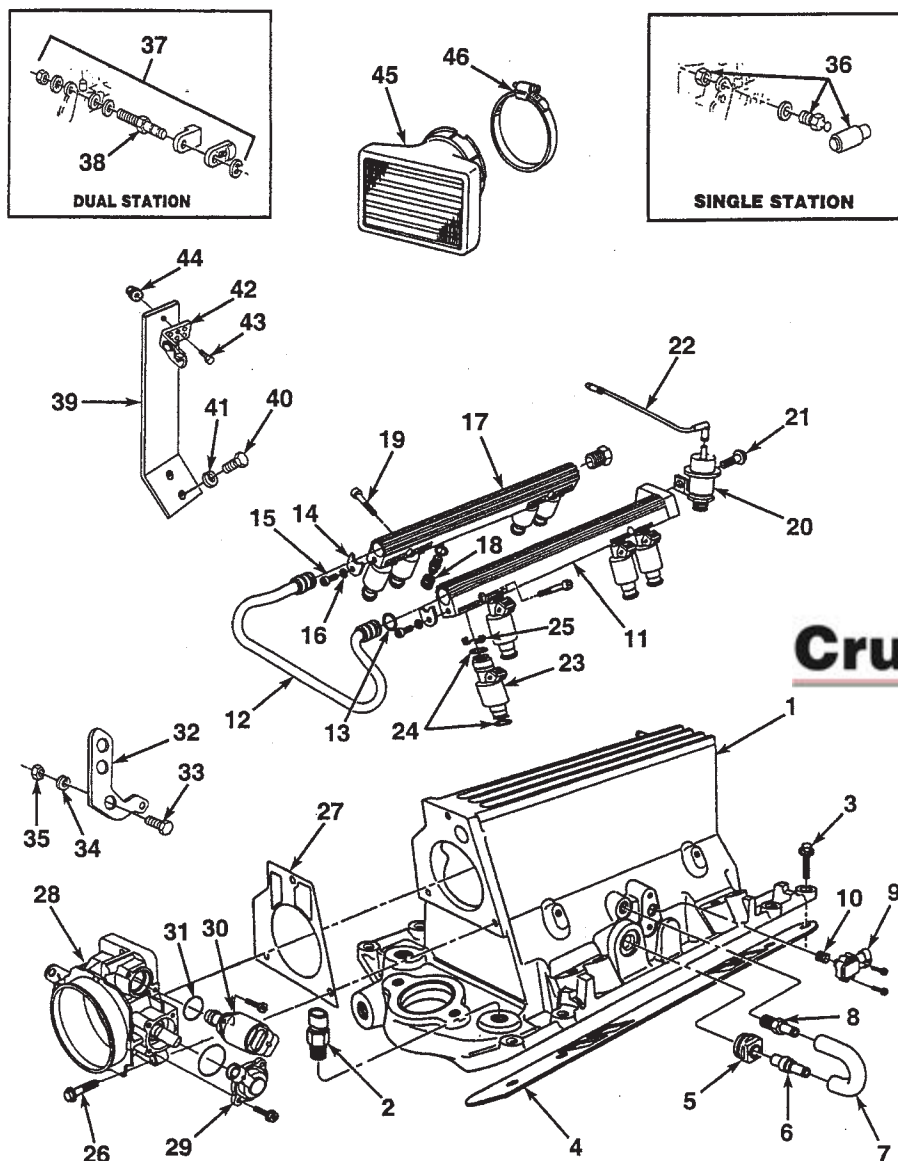
#### RWC T STAT Kit 22366



Item	Part No.	Description
*	22366	Thermostat Housing Assembly, Complete
1	97556	Thermostat Housing, upper
2	96686	Spring, pressure relief
3	96066	Valve, pressure relief
4	96065	Seat, pressure relief
5	97361	Gasket, thermostat housing, upper
6	96319	Thermostat (143°)
7	97557	Thermostat Housing, lower
8	RM0121	Gasket, thermostat housing, lower
9	90305350	Bolt, thermostat housing (3-1/2")
10	103321	Lockwasher, thermostat housing bolt
11	102635	Nut, thermostat housing bolt
12	RS0316	Bolt, thermostat housing to intake (4")
13	18333	Hose, thermostat housing to manifold (LH)
14	18334	Hose, thermostat housing to manifold (RH)
15	18331	Hose, oil cooler to thermostat housing
16	96296	Hose, circulation pump to thermostat housing
17	18330	Hose, water pump to oil cooler
18	RS3858	Clamp, water hose (#20)
19	20420	Clamp, water hose (#32)



## Multi-Port Intake Assembly

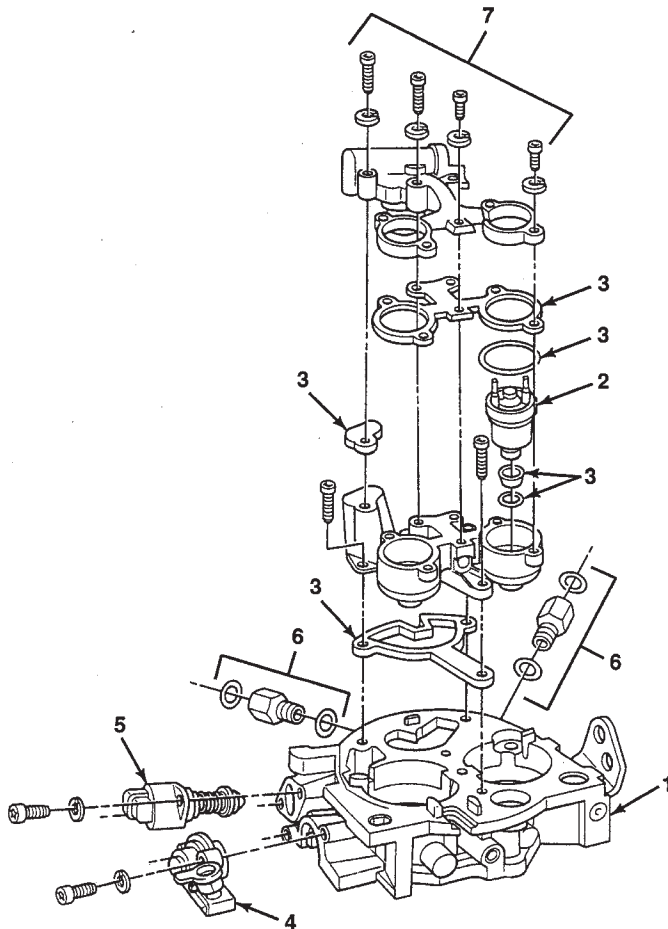


Item	Part No.	Description	Item	Part No.	Description
1	47300	Intake Manifold	25		Retainer, fuel injector
2		Sender, temperature (CTS)	26	98222030	Bolt, throttle body mounting
3		Bolt, intake mounting (1-1/4")	27	RM0251	Gasket, throttle body mounting
4		Gasket, intake manifold	28	49045	Throttle Body Assembly
5		Grommet, PCV	29	49061	Throttle Position Sensor, (TPS)
6		PVC, valve	30	49060	Idle Control Valve, (IAC)
7		Hose, PCV connecting	31	7151470	Seal Kit, IAC O-Ring
8		Fitting, PCV hose to intake	32	98551	Lever, throttle
9		Sensor, MAP	33	RS0251	Bolt, throttle lever mounting
10		Seal, MAP sensor	34	93100000	Lockwasher, mounting bolt
11		Injector Fuel Rail Assembly (LH)	35	95100000	Nut, mounting bolt
12		Fuel Line, fuel rail connector	36	22977	Ball Joint Assembly, single cable attaching
13		O-Ring, fuel line sealing	37	21025	Ball Joint Assembly, dual cable attaching
14		Clamp, fuel line retaining	38	22978	Pivot Pin, dual cable
15		Screw, clamp retaining	39	98613	Bracket, throttle control
16		Lockwasher, retaining screw	40	99229012	Bolt, throttle control bracket mounting
17		Injector Fuel Rail Assembly (RH)	41	93920030	Lockwasher, mounting bolt
18		Cap, test valve	42	21033	Clip, cable attaching (single)
19	98222030	Bolt, fuel rail attaching	42	22232	Clip, cable attaching (dual)
20	49114	Fuel Pressure Regulator	43	91000050	Screw, clip to bracket attaching
21	98222010	Bolt, pressure regulator mounting	44	95000060	Nut, mounting screw
22		Line, Vacuum - Fuel Regulator	45	49037	Flame Arrester, intake
23	47306	Injector Assembly	46	23541	Clamp, arrester retaining
24		O-Ring, kit fuel injector			

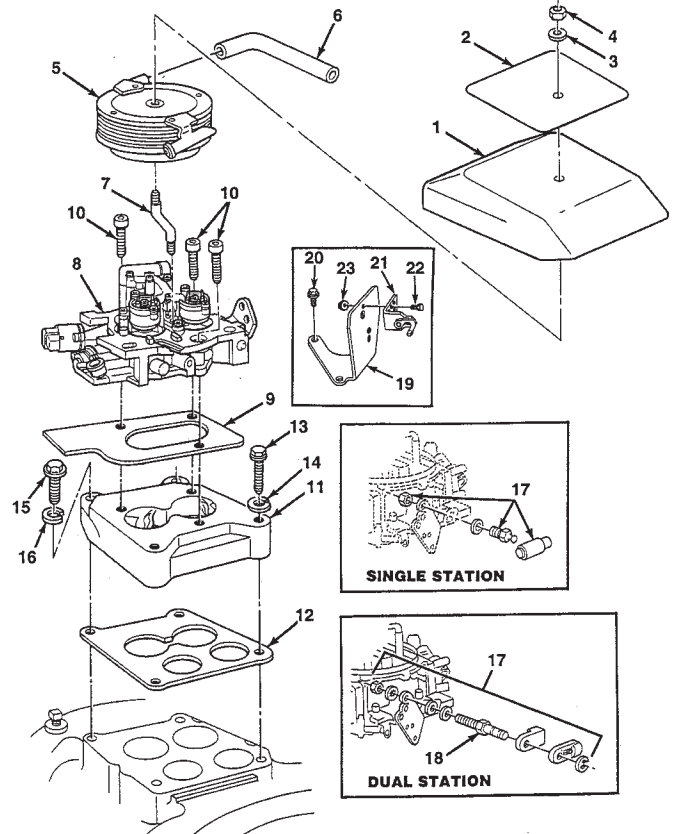
**Throttle Body  
Injection Assembly**



**Throttle Body  
Mounting**



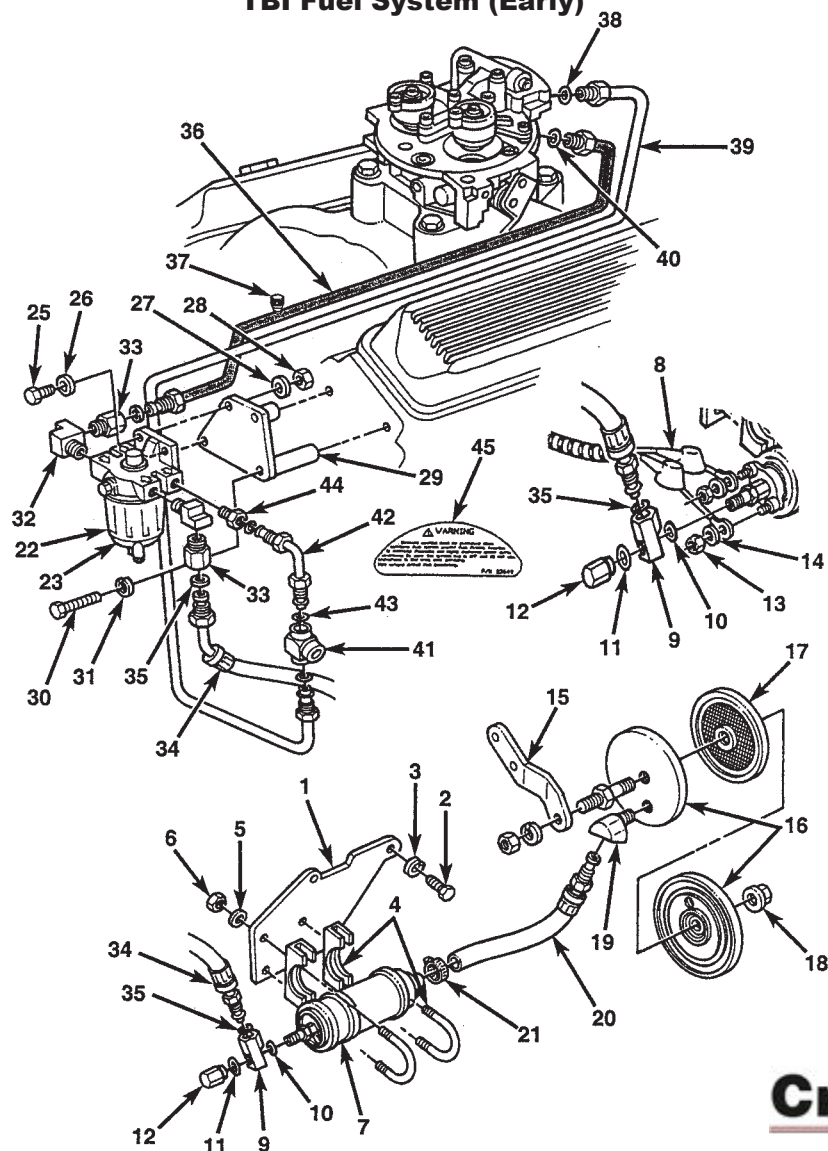
Item	Part No.	Description
1	47020	Throttle Body Assembly
2	47031	Fuel Injector Package
3	47037	Fuel Meter Gasket & Filter Package
4	47032	Throttle Position Sensor
5	47033	Idle Air Control Valve
6	47034	Fuel Inlet/Outlet Nut Package
7	47035	Screw Assortment Package



Item	Part No.	Description
1	98270	Cover, flame arrestor
2		Decal, flame arrestor cover
3	92104000	Washer, cover sealing
4		Nut, flame arrestor stud
5	33628	Flame Arrestor, throttle body
6	20806	Hose, crankcase vent (12")
7	98309	Stud, flame arrestor mounting
8	47020	Throttle Body Assembly
9	RM0240	Gasket, throttle body mounting
10		Bolt, throttle body mounting
11	98339	Adaptor, throttle body to intake
12	98340	Gasket, adaptor to intake
13		Bolt, adaptor mounting (2-1/2")
14		Lockwasher, mounting bolt
15		Bolt, adaptor mounting (2")
16		Lockwasher, mounting bolt
17	22977	Ball Joint Assembly, single cable attaching
17	21025	Ball Joint Assembly, dual cable attaching
18	22978	Pivot Pin, dual cable
19		Bracket, throttle control
20		Bolt, throttle control bracket mounting
21	21033	Clip, cable attaching (single)
21	22232	Clip, cable attaching (dual)
22	443874	Screw, clip to bracket attaching
23		Nut, mounting screw



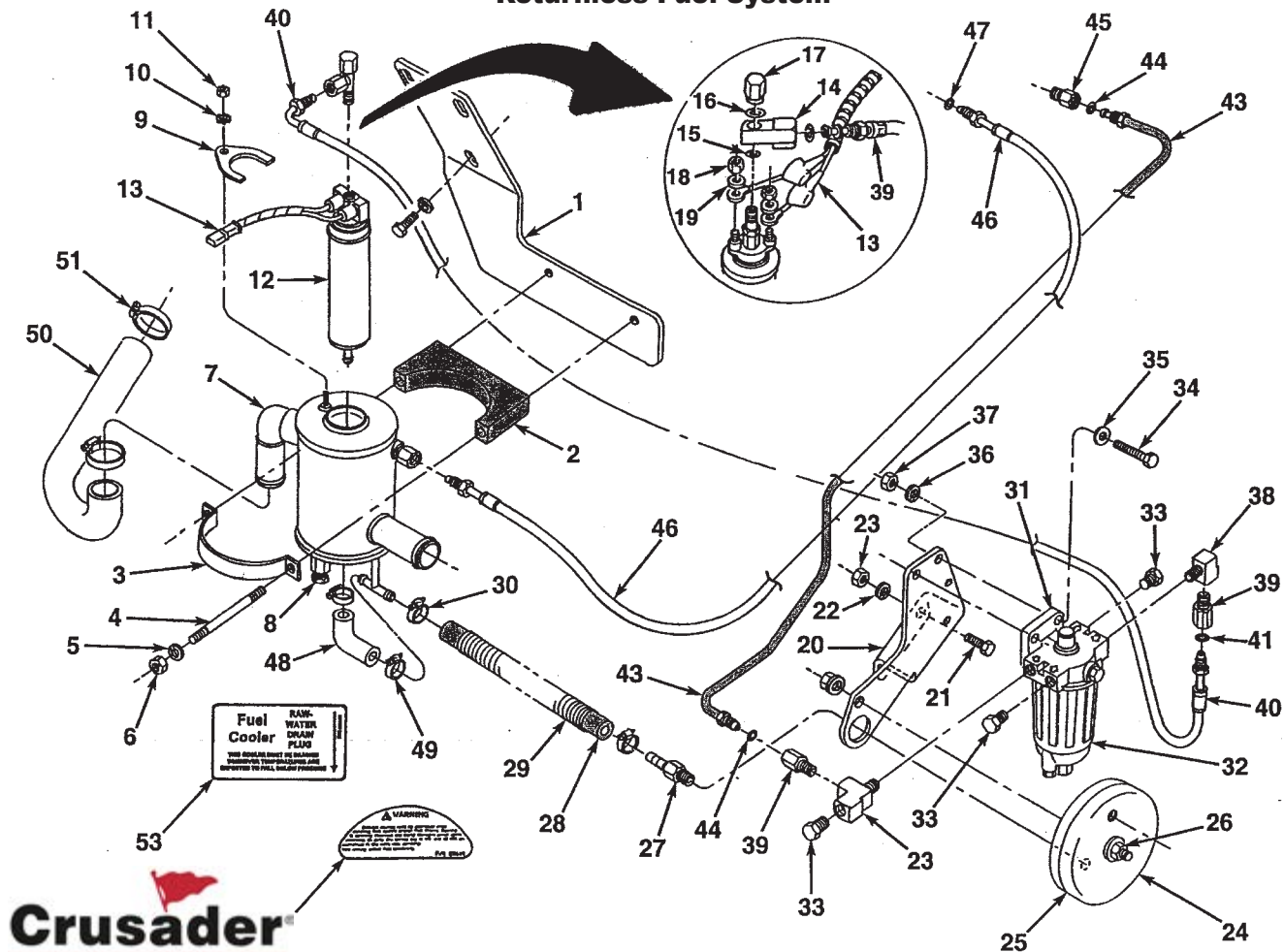
## TBI Fuel System (Early)



Item	Part No.	Description	Item	Part No.	Description
1	98475	Bracket, fuel pump mounting	23	47047	Element, Racor fuel filter (Not shown)
2	90505100	Bolt, fuel pump bracket mounting	24	RS3552	Fitting, blockoff
3	93500000	Lockwasher, mounting bolt	25	90205100	Bolt, filter mounting
4	98437	Clamp, fuel pump retaining	26	92200000	Washer, mounting bolt
5	92200000	Washer, retaining nut	27	RS2179	Lockwasher, mounting bolt
6	95200300	Nut, retaining clamp	28	95200000	Nut, mounting bolt
7	47039	Electric Fuel Pump Assembly	29	98477	Bracket, Racor filter mounting
8	49038	Wire Harness, fuel pump to engine harness	30	90305250	Bolt, bracket mounting
9	98440	Fitting, fuel line to fuel pump	31		Lockwasher, mounting bolt
10	23516	O-Ring, fuel pump sealing (Large)	32	80302	Elbow, fuel inlet fitting
11	23515	O-Ring, fuel pump sealing (Small)	33	30637	Adapter, fuel line
12	98442	Nut, fitting to fuel pump	34	98480	Fuel Line Assembly, fuel pump to Racor filter
13		Nut, wire retaining	35	22800	O-Ring, fuel line sealing
14		Lockwasher, retaining nut	36	98481	Fuel Line Assembly, filter to throttle body inlet
15	98476	Bracket, filter mounting	37	47036	Cap, test valve
16	RA077013	Filter, Fuel inlet	38	22800	O-Ring, fuel line sealing
17	47061	Screen, inlet filter	39	98482	Fuel Line Assembly, return from throttle body
18	R077013	Nut, filter to bracket attaching	40	23508	O-Ring, fuel line
19	143340	Elbow, fuel outlet	41	30620	Tee, fuel return fitting
20	98469	Fuel Line, filter to fuel pump	42	98306	Fuel Line Assembly, return fitting to filter
21	80543	Clamp, fuel line to fuel pump	43	23508	O-Ring, fuel line
22	47046	Fuel Filter, Racor water separating	44	98450	Adapter, air bleed
			45	23649	Decal, fuel system warning

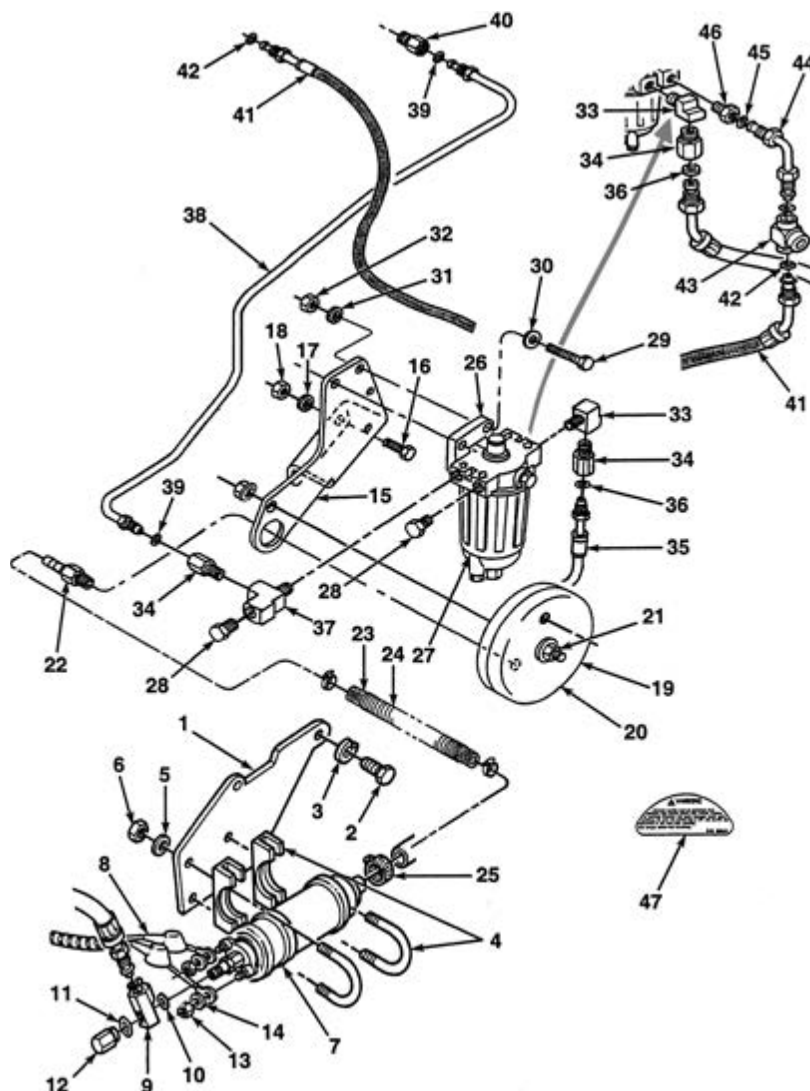


## Returnless Fuel System



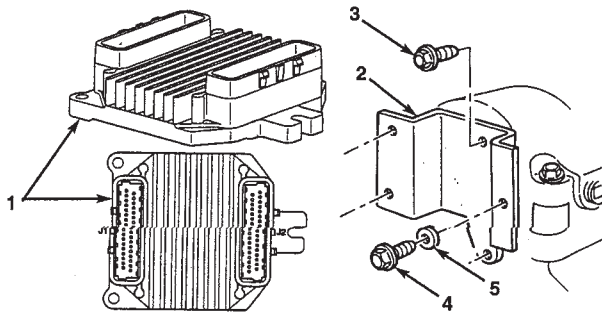
Item	Part No.	Description	Item	Part No.	Description
1	98658	Bracket, fuel cooler mounting	31	47046	Fuel Filter, Racor water separating
2	23554	Retainer, fuel cooler rubber	32	47047	Element, Racor fuel filter (Not Shown)
3	98642	Clamp, fuel cooler retaining	33	RS3552	Plug, filter blockoff
4		Stud, fuel cooler mounting	34	90205125	Bolt, filter mounting
5	RS2180	Lockwasher, mounting stud	35	92200000	Washer, mounting bolt
6		Nut, clamp retaining nut	36	RS2179	Lockwasher, mounting bolt
7	98597	Fuel Cooler Assembly	37	95200000	Nut, mounting bolt
8		Drain Plug, fuel cooler	38	80302	Elbow, fuel inlet fitting
9	98642	Retainer, fuel pump	39	30637	Adapter, fuel line
10		Star washer, retaining nut	40	47125	Fuel Line Assembly, fuel pump to Racor filter (ALL)
11		Nut, fuel pump retainer attaching	41	22800	O-Ring, fuel line sealing
12	47039	Electric Fuel Pump Assembly	42	98443	Fitting, three way fuel
13	49038	Wire Harness, fuel pump to engine harness	43	47120	Fuel Line Assembly, Racor filter to fuel rail (MPI)
14	98440	Fitting, fuel line to fuel pump	43	47113	Fuel Line Assembly, Racor filter to throttle body (TBI)
15	23516	O-Ring, fuel pump sealing (Large)	44	22800	O-Ring, fuel line sealing
16	23515	O-Ring, fuel pump sealing (Small)	45	98614	Adaptor, fuel line to fuel rail (MPI Only)
17	98442	Nut, fuel fitting to fuel pump	46	47083	Fuel Line Assembly, from fuel rail to fuel cooler (MPI)
18		Nut, wire retaining	47	23563	O-Ring, regulator outlet
19		Lockwasher, retaining nut	46	49076	Fuel Line Assembly, from throttle body to fuel cooler (TBI)
20	98584	Bracket, filter mounting	47	23508	O-Ring, fuel line sealing
21	90105125	Bolt, bracket to bellhousing attaching	48	49041	Fuel Line , fuel cooler to fuel pump inlet
22	93100000	Lockwasher, attaching bolt	49	80543	Clamp, fuel line
23	95100000	Nut, attaching bolt	50	18407	Hose, cooler to water pump
24	RA077013	Filter, Fuel inlet	51	RS3858	Clamp, hose
25	R077013	Screen, inlet filter (Not Shown)	52	23649	Decal, fuel system warning
26	47066	Nut, filter to bracket attaching	53	23645	Decal, fuel cooler system warning
27	30636	Fitting, fuel outlet			
28	49041	Fuel Line, inlet filter to fuel cooler (20')			
29	47064	Shield, fuel line (20')			
30	80543	Clamp, fuel line			

## Return Type Fuel System

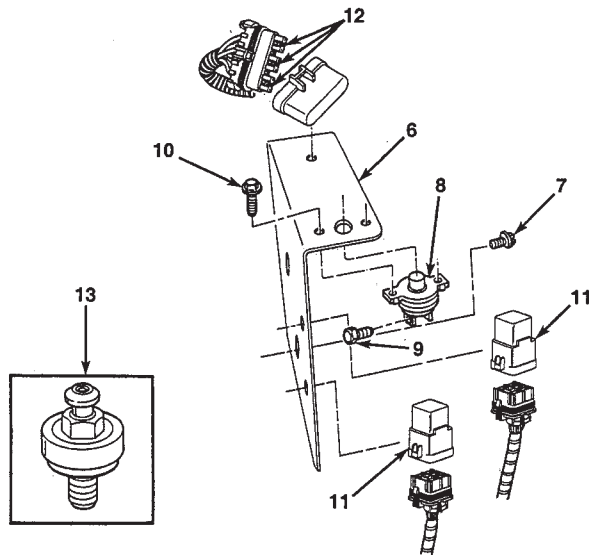


Item	Part No.	Description	Item	Part No.	Description
1	98475	Bracket, fuel pump mounting	26	47046	Fuel Filter, Racor water separating
2	90505100	Bolt, bracket mounting	27	47047	Element, Racor fuel filter (Not Shown)
3	93500000	Lockwasher, mounting bolt	28	127951	Fitting, blockoff
4	98437	Clamp, fuel pump retaining	29	90205125	Bolt, filter mounting
5		Washer, retaining nut	30	92200000	Washer, mounting bolt
6	95200300	Nut, retaining clamp	31	93200000	Lockwasher, mounting bolt
7	47039	Electric Fuel Pump Assembly	32	95200000	Nut, mounting bolt
8	49038	Wire Harness, fuel pump to engine harness	33	80302	Elbow, fuel inlet fitting
9	98440	Fitting, fuel line to fuel pump	34	30637	Adapter, fuel line
10	23516	O-Ring, fuel pump sealing (Large)	35	49042	Fuel Line Assembly, fuel pump to Racor filter
11	23515	O-Ring, fuel pump sealing (Small)	36	22800	O-Ring, fuel line
12	98442	Nut, fitting to fuel pump	37	80302	Elbow, fuel outlet fitting
13		Nut, wire retaining	38	47120	Fuel Line Assembly, filter to fuel rail inlet (MPI)
14		Lockwasher, retaining nut	38	47081	Fuel Line Assembly, filter to fuel rail inlet (TBI)
15	98584	Bracket, filter mounting	39	22800	O-Ring, fuel line
16	90105125	Bolt, bracket to bellhousing attaching	40	98614	Adaptor, fuel line to fuel rail (MPI Only)
17	93100000	Lockwasher, attaching bolt	41	47122	Fuel Line Assembly, return from fuel rail (MPI)
18	95100000	Nut, attaching bolt	42	23563	O-Ring, fuel line
19	47038	Filter, Fuel inlet	41	47082	Fuel Line Assembly, return from throttle body (TBI)
20	47061	Screen, inlet filter (Not Shown)	42	22508	O-Ring, fuel line
21	47066	Nut, filter to bracket attaching	43	30620	Fitting, fuel return
22	30636	Fitting, fuel outlet	44	47083	Fuel Line Assembly, return fitting to filter
23	98431	Fuel Line, filter to fuel pump (12")	45	22800	O-Ring, fuel line
24	47064	Shield, fuel line (12")	46	98450	Adapter, air bleed orifice
25	80543	Clamp, fuel line to fuel pump	47	23649	Decal, fuel system warning

### Late Style ECM Mounting & Electrical Components

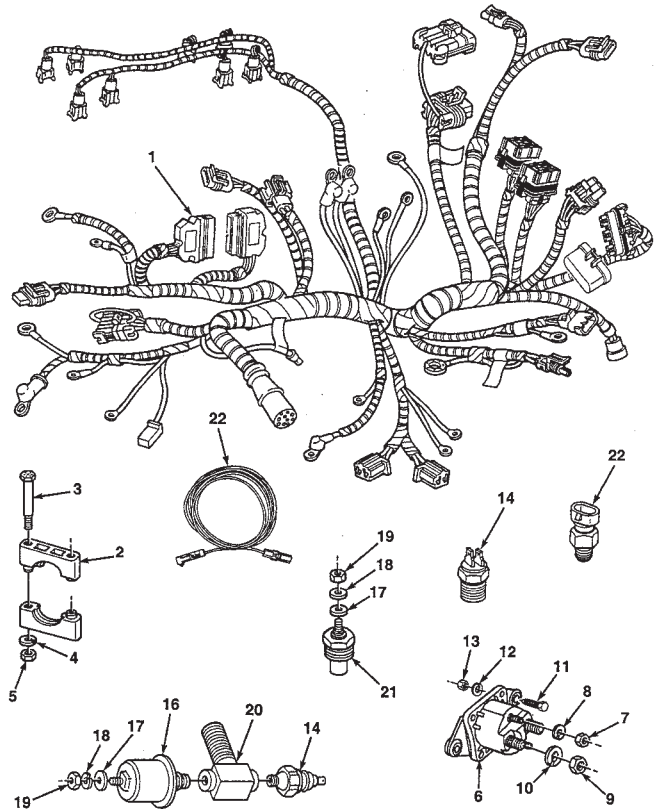


LATE STYLE ECM ASSEMBLY - 3 BOLT MOUNTING



Item	Part No.	Description
1	47058	Electronic Control Module (ECM) MP5.7L
2	98616	Bracket, ECM mounting
3	90124050	Bolt, bracket to elbow mounting
4	90105125	Bolt, ECM to mounting bracket
5	93100000	Washer, mounting bolt
6	98617	Bracket, component mounting
7	90124050	Bolt, bracket to elbow mounting
8	98322	Circuit Breaker Assembly (50 amp)
9	21306	Screw, wire attaching
10	91833075	Bolt, circuit breaker mounting
11	49069	Relay Assembly, fuel pump and ignition
12		Fuses, 20 amp
13	48008	Knock Sensor

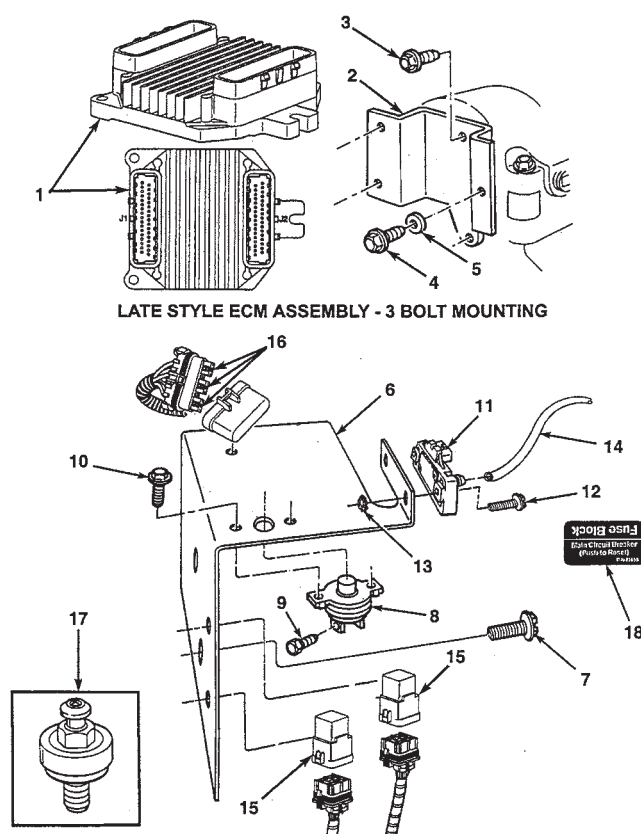
### Multi-Port Wiring Harness Assy.



Item	Part No.	Description
1	47119	Engine Wire Harness Assembly (MP5.7L)
2	98266	Clamp, main connector mounting
3	90105300	Bolt, clamp attaching
4	92100000	Lockwasher, attaching bolt
5	95104300	Nut, attaching bolt
6	22611	Solenoid, starter slave
7	95011000	Nut, solenoid terminal (#10)
8	93003000	Lockwasher, solenoid terminal (#10)
9	95201000	Nut, solenoid terminal (5/16")
10	93203000	Lockwasher, solenoid terminal (5/16")
11	90105075	Bolt, solenoid mounting
12	93100000	Lockwasher, mounting bolt
13	95100000	Nut, mounting bolt
14	21088	Switch, transmission alarm
15	22980	Switch, engine oil pressure alarm
16	700425	Sender, oil pressure (SS)
16	700403	Sender, oil pressure (DS)
16	22702	Sender, oil pressure (SS-VDO)
16	22704	Sender, oil pressure (DS-VDO)
17	106090	Washer, sender terminal
18	455777	Lockwasher, sender terminal
19	95011000	Nut, sender terminal
20	30612	Tee, sender attaching
21	700427	Sender, temperature (SS)
21	727046	Sender, temperature (DS)
21	22701	Sender, temperature (SS-VDO)
21	22703	Sender, temperature (DS-VDO)
22	47022	Sender, (CTS) coolant temperature switch
23	98654	Harness, Slave (Twin engine applications only)
24	120322	Reducer, VDO sender (Not Shown)

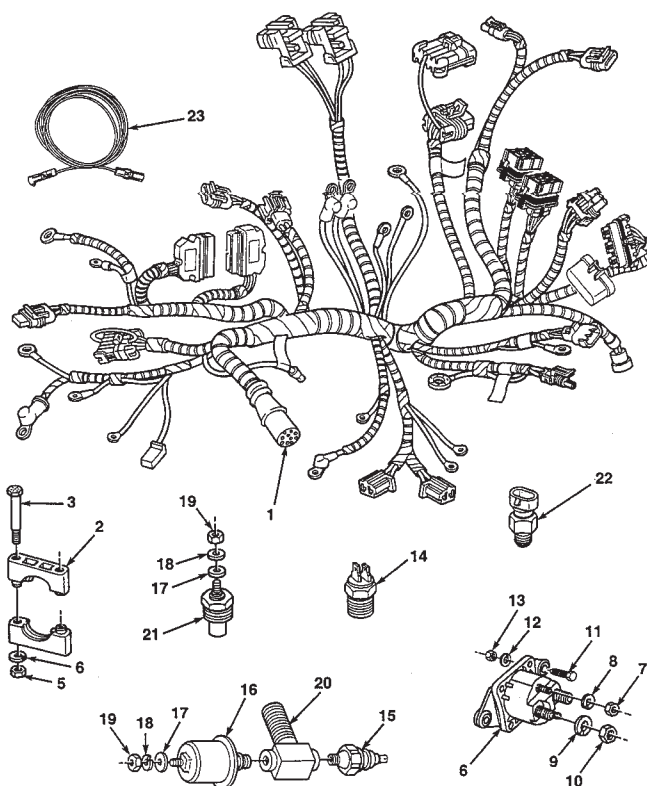


## TBI ECM Mounting &amp; Electrical Components



Item	Part No.	Description
1	47085	Electronic Control Module (ECM) TB5.7L
2	98616	Bracket, ECM mounting
3	90124050	Bolt, bracket to elbow mounting
4	90105125	Bolt, ECM to mounting bracket
5	93100000	Washer, mounting bolt
6	98602	Bracket, component mounting
7	90124050	Bolt, bracket to elbow mounting
8	98322	Circuit Breaker Assembly (50 amp)
9	21306	Screw, wire attaching
10	91833075	Bolt, circuit breaker mounting
11	7370200	MAP Sensor
12	91023100	Screw, MAP sensor attaching
13	95000060	Nut, attaching bolt
14	20237	Hose, vacuum (18")
15	49069	Relay Assembly, fuel pump and ignition
16		Fuses, 20 amp
17	48008	Knock Sensor
18	23655	Decal, circuit breaker

## TBI Wiring Harness Assy.

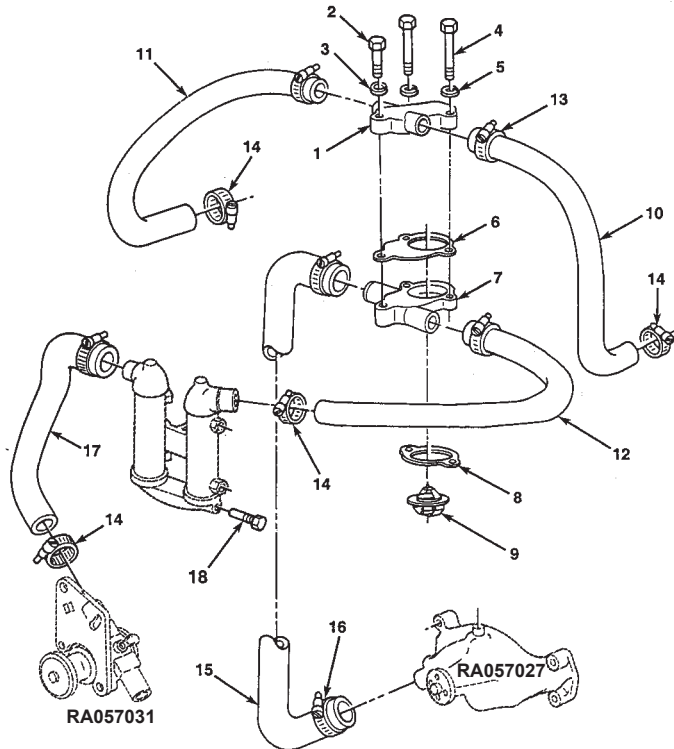


Item	Part No.	Description
1	47117	Engine Wire Harness Assembly (TB5.7L)
2	98266	Clamp, main connector mounting
3	90105300	Bolt, clamp attaching
4	92100000	Lockwasher, attaching bolt
5	95104300	Nut, attaching bolt
6	22611	Solenoid, starter slave
7	95011000	Nut, solenoid terminal (#10)
8	93003000	Lockwasher, solenoid terminal (#10)
9	95201000	Nut, solenoid terminal (5/16")
10	93203000	Lockwasher, solenoid terminal (5/16")
11	90105075	Bolt, solenoid mounting
12	93100000	Lockwasher, mounting bolt
13	95100000	Nut, mounting bolt
14	21088	Switch, transmission alarm
15	22980	Switch, engine oil pressure alarm
16	700425	Sender, oil pressure (SS)
16	700403	Sender, oil pressure (DS)
16	22702	Sender, oil pressure (SS-VDO)
16	22704	Sender, oil pressure (DS-VDO)
17	106090	Washer, sender terminal
18	455777	Lockwasher, sender terminal
19	95011000	Nut, sender terminal
20	30612	Tee, sender attaching
21	700427	Sender, temperature (SS)
21	727046	Sender, temperature (DS)
21	22701	Sender, temperature (SS-VDO)
21	22703	Sender, temperature (DS-VDO)
22	47002	Sender, (CTS) coolant temperature switch
23	98654	Harness, Slave (Twin engine applications only)
24	120322	Reducer, VDO sender (Not Shown)

**MPI Raw Water  
Cooling Components**

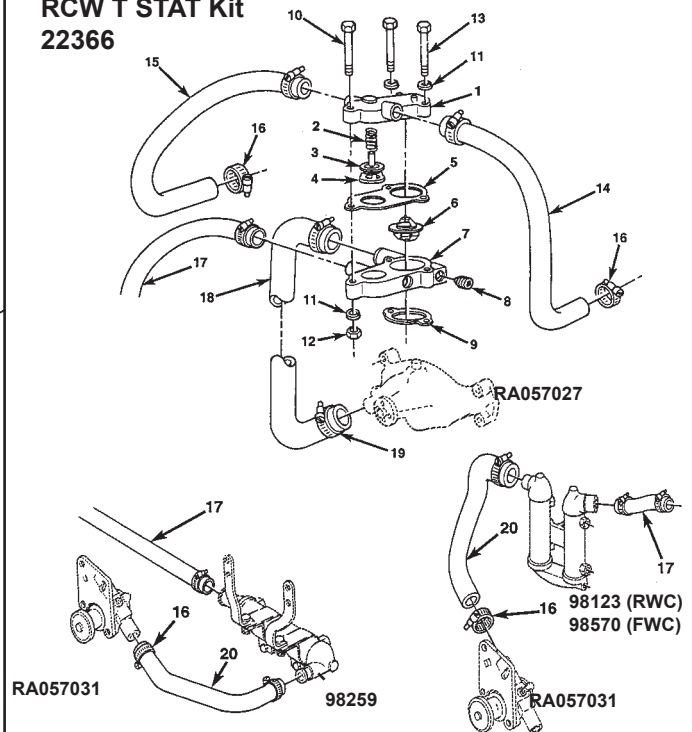


**TBI Raw Water  
Cooling Components**



Item	Part No.	Description
1	98622	Thermostat Housing, upper
2	90205125	Bolt, thermostat housing (5/16 X 1-11/4")
3	93200000	Lockwasher, thermostat housing bolt
4	90305275	Bolt, thermostat housing to intake (3/8 X 2-3/4")
5	93300000	Lockwasher, thermostat housing bolt
6	98651	Gasket, thermostat housing
7	98623	Thermostat Housing, lower
8	96105	Gasket, thermostat housing
9	96319	Thermostat (143°)
10	18413	Hose, thermostat housing to LH manifold
11	18414	Hose, thermostat housing to RH manifold
12	18412	Hose, oil cooler to thermostat housing
13	20227	Clamp, hose (#16)
14	20228	Clamp, hose (#20)
15	96296	Hose, circulating pump to thermostat housing
16	20420	Clamp, hose (#32)
17	18300	Hose, raw water pump to oil cooler
18	10335	Zinc, sacrificial - Oil Cooler

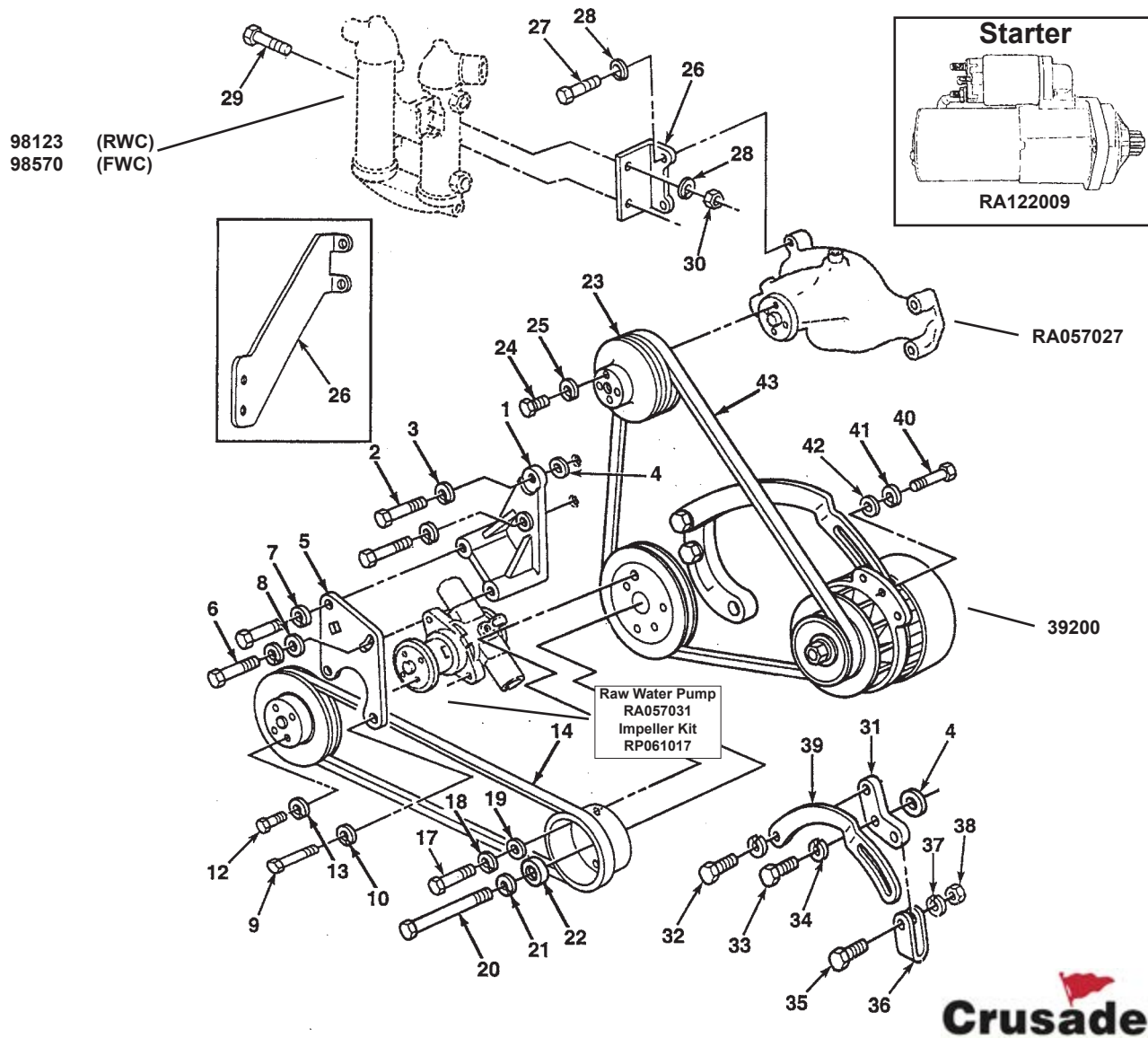
**RCW T STAT Kit  
22366**



Item	Part No.	Description
	22366	Thermostat Housing Assembly, Complete
1	97556	Thermostat Housing, upper
2	96686	Spring, pressure relief
3	96066	Valve, pressure relief
4	96065	Seat, pressure relief
5	97361	Gasket, thermostat housing
6	96319	Thermostat (143°)
7	98552	Thermostat Housing, lower
8	444705	Plug, thermostat housing
9	96105	Gasket, thermostat housing
10	90305350	Bolt, thermostat housing (3-1/2")
11	93300000	Lockwasher, thermostat housing bolt
12	95300000	Nut, thermostat housing bolt
13	90305400	Bolt, thermostat housing to intake
14	18333	Hose, thermostat housing to LH manifold
15	18334	Hose, thermostat housing to RH manifold
16	20228	Clamp, water hose (#20)
17	18331	Hose, oil cooler to thermostat housing (Trans Cooler)
17	97310	Hose, oil cooler to thermostat housing (U-Cooler)
18	96296	Hose, water pump to thermostat housing
19	20420	Clamp, hose (#32)
20	18330	Hose, raw water pump to oil cooler (Trans Cooler)
20	18300	Hose, raw water pump to oil cooler (U-Cooler Models)



## MPI Pulleys &amp; Mounting Hardware

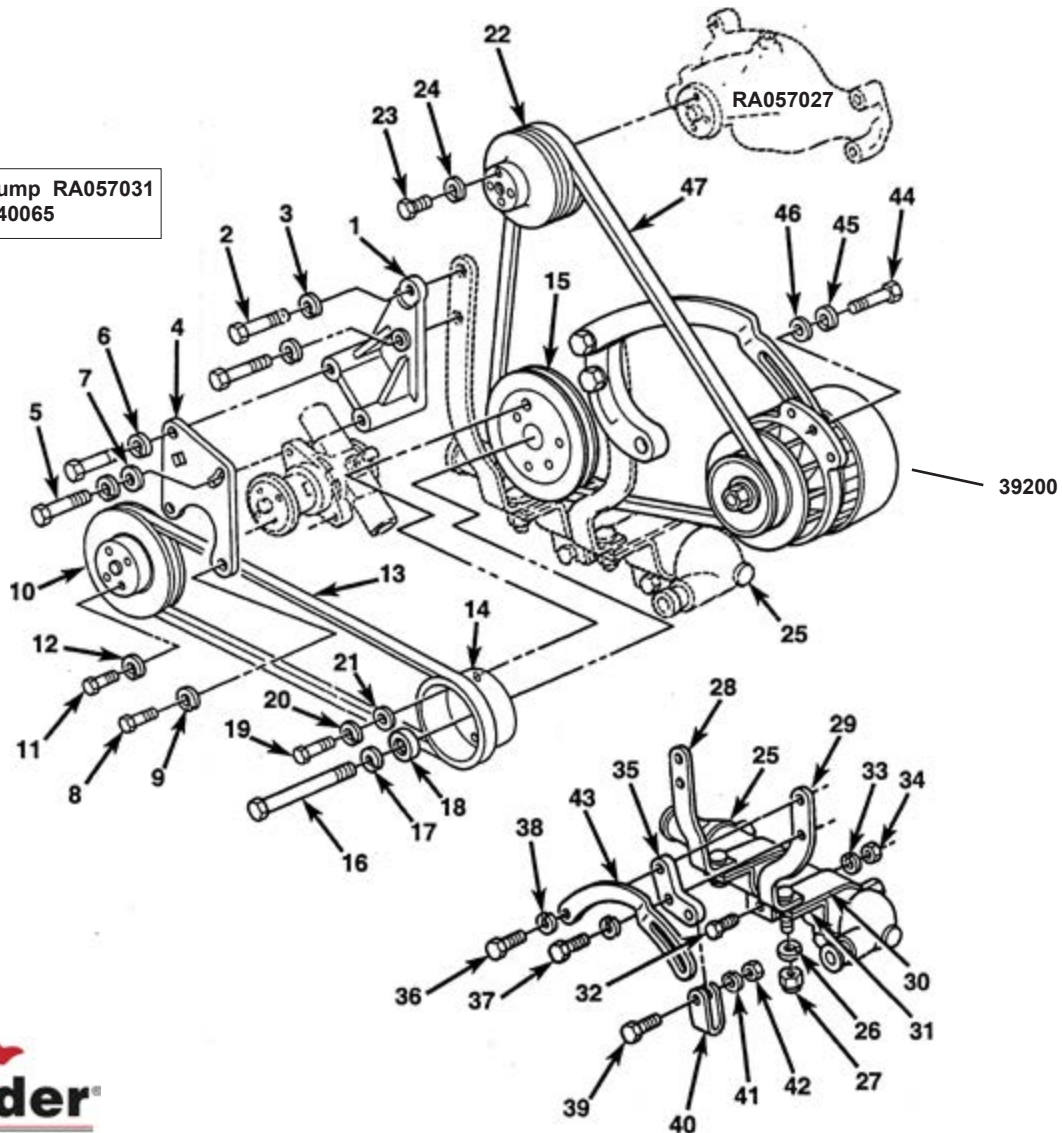


Item	Part No.	Description	Item	Part No.	Description
1	98244	Bracket, raw water pump mounting	23	98211	Pulley, engine circulating pump
2	90305175	Bolt, bracket to cylinder block (1-3/4")	24	90215075	Bolt, water pump pulley (3/4")
3	93300000	Lockwasher, mounting bolt	25	93200000	Lockwasher, water pump pulley bolt
4	92300020	Spacer, bracket to block	26	98670	Bracket, oil cooler mounting
5	98121	Bracket, raw water pump adjusting	26	98648	Bracket, oil cooler mounting (Front Mounted Closed Cooling)
6	90305175	Bolt, adjusting bracket mounting (1-1/4")	27	90305200	Bolt, attaching (2")
7	93400000	Lockwasher, adjusting bolt	28	93300000	Lockwasher, attaching bolt
8	92400000	Washer, adjusting bolt	29	90305100	Bolt, oil cooler mounting (1")
9	90204100	Bolt, raw water pump mounting (1/2")	30	95300000	Nut, cooler mounting bolt
10	93200000	Lockwasher, pump mounting bolt	31	98245	Bracket, alternator mounting
11	97951	Pulley, raw water pump	32	90305175	Bolt, bracket attaching (1-3/4")
12	90215075	Bolt, pulley attaching (3/4")	33	90305150	Bolt, bracket attaching (1-1/2")
13	93200000	Lockwasher, attaching bolt	34	93300000	Lockwasher, attaching bolt
14	97178	Belt, raw water drive	35	90505275	Bolt, alternator attaching (2-3/4") (55 amp)
15	97951	Pulley, crankshaft to raw water pump	36	96164	Loop, alternator adjusting
16	97955	Pulley, crankshaft to alternator	37	93500000	Lockwasher, attaching bolt
17	90315100	Bolt, pulley to balancer (1")	38	95500000	Nut, attaching bolt
18	93300000	Lockwasher, pulley attaching bolt	39	98246	Strap, alternator adjusting (55 amp)
19	92300000	Washer, pulley attaching bolt	40	90205100	Bolt, alternator adjusting (1")
20	90415250	Bolt, balancer retaining		93200000	Lockwasher, alternator adjusting bolt
21	93400200	Lockwasher, retaining bolt	42	92200020	Washer, alternator adjusting bolt
22	92400220	Washer, retaining bolt	43	96307	Belt, alternator drive



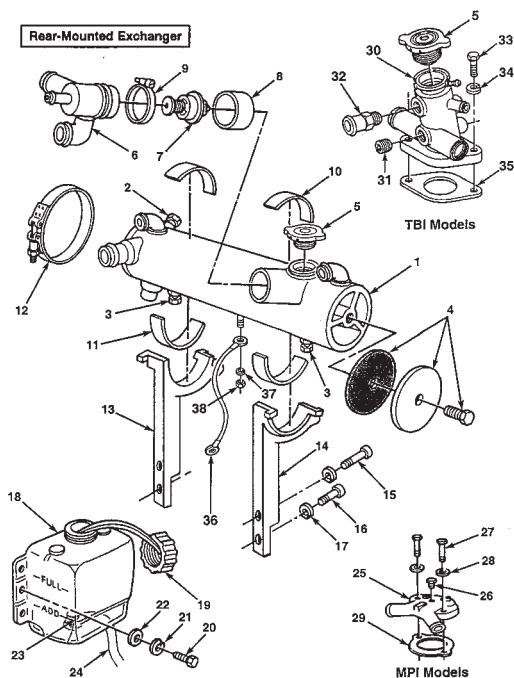
TBI Pulleys & Mounting Hardware

Raw Water Pump RA057031  
Impeller Kit 40065



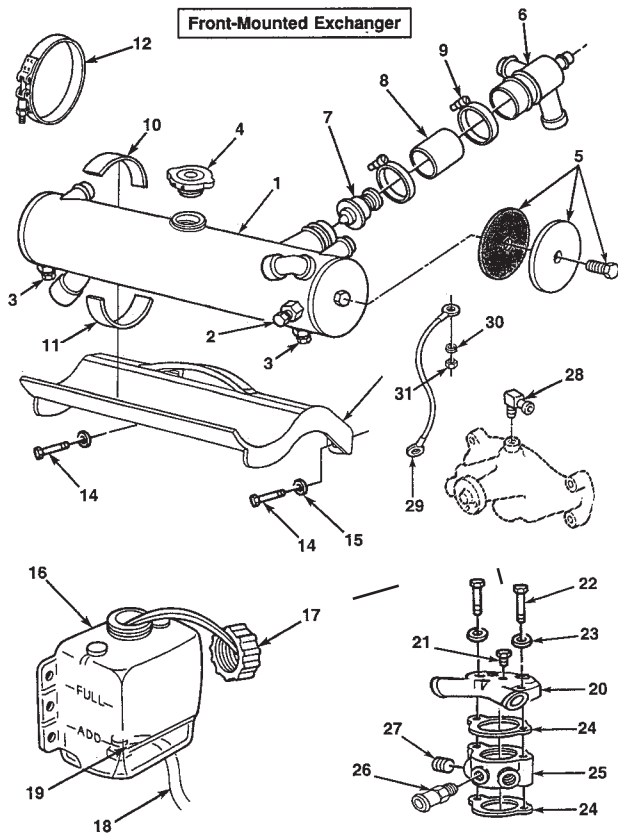
Item	Part No.	Description	Item	Part No.	Description
1	98120	Bracket, raw water pump mounting	25	98259	Oil Cooler Assembly
2	90405125	Bolt, bracket to cylinder block (1-1/4")	26	92300000	Lockwasher, attaching stud
3	93400000	Lockwasher, mounting bolt	27	95300300	Nut, clamp support to bracket
4	98121	Bracket, raw water pump adjusting	28	98527	Bracket, oil cooler mounting (RH)
5	90405125	Bolt, adjusting bracket mounting (1-1/4")	29	98256	Bracket, oil cooler mounting (LH)
6	93400000	Lockwasher, adjusting bolt	30	91465	Clamp, oil cooler support - TOP
7	92400000	Washer, adjusting bolt	31	91465	Clamp, oil cooler support - BOTTOM
8	90204100	Bolt, raw water pump mounting (1/2")	32	90105050	Bolt, oil cooler support
9	93200000	Lockwasher, pump mounting bolt	33	93100000	Lockwasher, attaching bolt
10	97952	Pulley, raw water pump	34	95100000	Nut, cooler mounting bolt
11	90215075	Bolt, pulley attaching (3/4")	35	98245	Bracket, alternator mounting
12	93200000	Lockwasher, attaching bolt	36	90305175	Bolt, alternator adjusting (1-3/4")
13	97178	Belt, raw water drive	37	90305150	Bolt, alternator adjusting (1-1/2")
14	97951	Pulley, crankshaft to raw water pump	38	93300000	Lockwasher, mounting bolt
15	97955	Pulley, crankshaft to alternator	39	90505275	Bolt, alternator mounting (2-3/4") (55 amp)
16	90415250	Bolt, balancer to crankshaft (2-1/2")	40	98184	Loop, alternator adjusting
17	93400200	Lockwasher, balancer attaching bolt	41	93500000	Lockwasher, mounting bolt
18	92400220	Washer, attaching bolt	42	95500000	Nut, mounting bolt
19	90315100	Bolt, pulley to balancer (1")	43	98246	Strap, alternator adjusting (55 amp)
20	93300000	Lockwasher, pulley to balancer bolt	44	90205100	Bolt, alternator adjusting (1")
21	93200000	Washer, mounting bolt	45	93200000	Lockwasher, alternator adjusting bolt
22	98211	Pulley, engine circulating pump	46	92200020	Washer, alternator adjusting bolt
23	90215075	Bolt, pulley mounting (3/4")	47	96307	Belt, alternator drive
24	93300000	Lockwasher, mounting bolt			

## Rear Mounted Fresh Water Cooling Components



Item	Part No.	Description
1	98619	Heat Exchanger Assembly w/cap (MPI Only)
1	98587	Heat Exchanger Assembly (TBI Only)
2	10335	Zinc, sacrificial
3	127951	Plug, drain (1/4")
4	22164	End Cap Kit
5	98201	Cap, coolant pressure (7 lb)
6	98202	Thermostat Housing
7	98203	Thermostat (170°)
8	98204	Hose, thermostat housing attaching
9	20868	Clamp, thermostat housing (#36)
10	98206	Isolator, top
11	98205	Isolator, bottom
12	22829	Clamp, exchanger mounting
13	98455	Support, exchanger (Starboard)
14	98454	Support, exchanger (Port)
15	90368100	Bolt, support attaching (2")
16	90368175	Bolt, support attaching (2-1/2")
17	93300000	Lockwasher, attaching bolt
18	98207	Bottle, coolant overflow
19	23527	Cap, overflow tank
20	90205075	Bolt, bottle mounting (3/4")
21	93200000	Lockwasher, mounting bolt
22	92200000	Washer, mounting bolt
23	7170480	Clamp, overflow tube
24	23083	Tube, overflow 48"
<b>MPI ENGINES</b>		
25	98249	Housing, fresh water distribution
26	444705	Plug, vent
27	90305125	Bolt, riser attaching (1-1/4")
28	93300000	Lockwasher, attaching bolt
29	96105	Gasket, housing to intake
<b>TBI ENGINES</b>		
30	98249	Fill Riser, fresh water
31	444705	Plug, pipe
32	7140280	Fitting, water bypass hose
33	90305125	Bolt, riser attaching (1-1/4")
34	93300000	Lockwasher, attaching bolt
35	96105	Gasket, fill riser
36	98493	Wire, grounding
37	RS2179	Lockwasher, ground stud
38	RS1078	Nut, ground wire stud

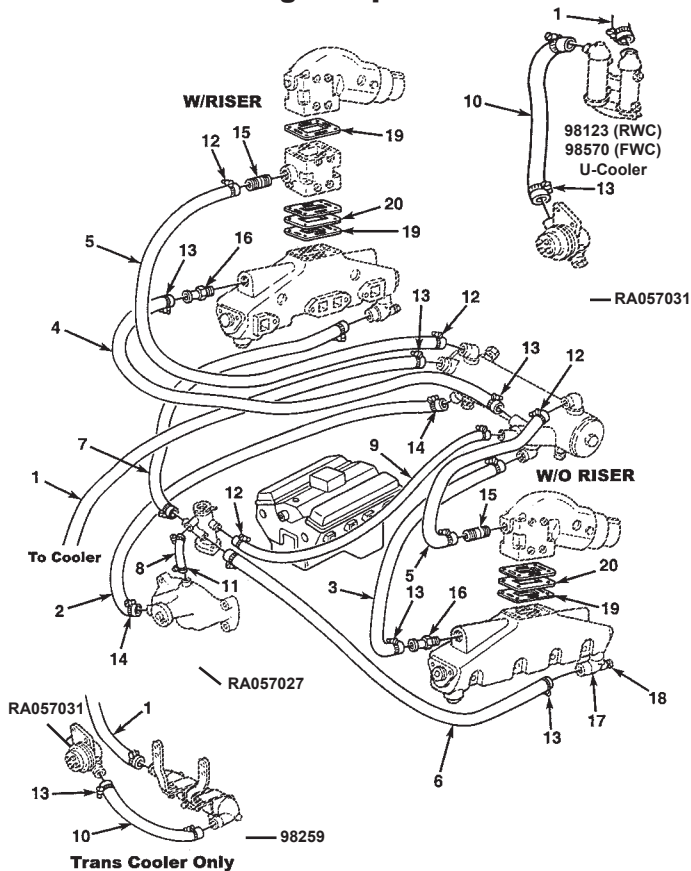
## Front Mounted Fresh Water Cooling Components



Item	Part No.	Description
1	98646	Heat Exchanger Assembly
2	10335	Zinc, sacrificial
3	129951	Plug, drain (1/4")
4	98201	Cap, exchanger pressure (7 lb)
5	22164	End Cap Kit (exchanger)
6	97851	Thermostat Housing
7	98203	Thermostat (170°)
8	98204	Hose, thermostat housing attaching
9	20868	Clamp, thermostat housing (#36)
10	98206	Isolator, top
11	98205	Isolator, bottom
12	22829	Clamp, exchanger mounting
13	98647	Bracket, exchanger mounting
14	90305075	Bolt, support attaching (3/4")
15	93300000	Lockwasher, attaching bolt
16	98207	Bottle, coolant overflow
17	23527	Cap, coolant fill
18	23083	Tube, overflow [48"]
19	7170480	Clamp, overflow tube
20	97851	Housing, water distribution
21	127950	Plug, vent (1/8")
22	90305175	Bolt, riser attaching (1-3/4") W/O Spacer
22	90305350	Bolt, riser attaching (3-1/2") W/Spacer
23	93300000	Lockwasher, attaching bolt
24	96105	Gasket, housing to intake
25	98069	Spacer, water distribution housing (TBI Only)
26	30177	Fitting, water bypass
27	444705	Plug, housing
28	80948	Fitting, 90° water pump bypass (MPI Only)
28	23555	Fitting, water pump bypass (TBI Only)
29	98493	Wire, ground (heat exchanger)
30	RS2179	Lockwasher, attaching nut
31	RS1078	Nut, attaching

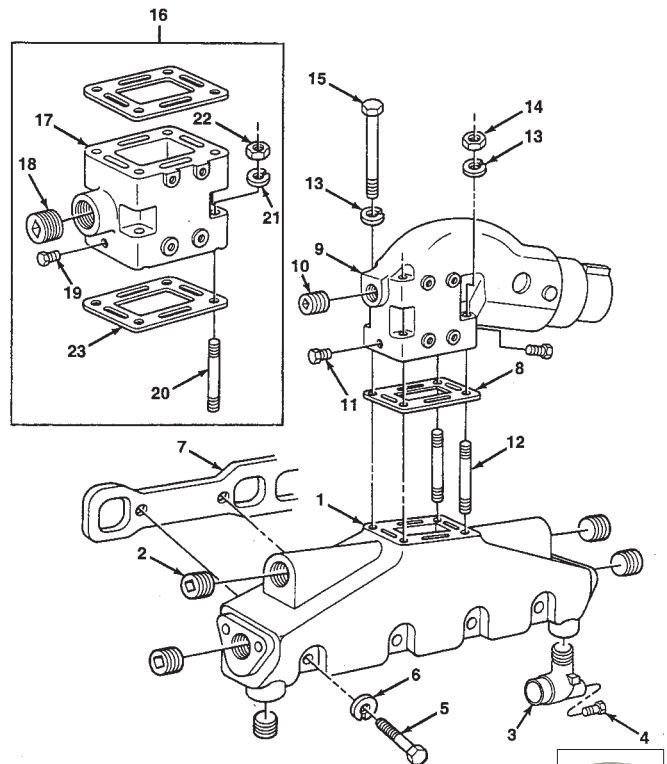
**Crusader**

## Rear Mounted Fresh Water Cooling Components



Item	Part No.	Description
1	19390	Hose, oil cooler to exchanger (MPI Only)
1	18385	Hose, oil cooler to exchanger (TBI W/U-Cooler)
	18335	Hose, oil cooler to exchanger (TBI W/O U-Cooler)
2	18306	Hose, circulation pump to exchanger
3	18307	Hose, thermostat housing to exhaust manifold (LH)
4	18339	Hose, thermostat housing to exhaust manifold (RH)
5	18340	Hose, exchanger to exhaust elbow (STD)
5	18341	Hose, exchanger to exhaust elbow ("V"-Drive)
6	18333	Hose, intake to exhaust manifold (LH)
7	18334	Hose, intake to exhaust manifold (RH)
8	18387	Hose, fill riser to circulation pump (TBI Only)
9	20806	Hose, bypass - thermostat to circulation pump (33") (MPI Only)
9	18386	Hose, bypass - thermostat to fill riser (TBI Only)
10	18384	Hose, raw water pump to oil cooler (U-Cooler)
10	18330	Hose, raw water pump to oil cooler
11	20226	Clamp, hose (#12)
12	20227	Clamp, hose (#16)
13	20228	Clamp, hose (#20)
14	20420	Clamp, hose (#32)
15	97911	Fitting, exhaust elbow (1" hose)
16	97852	Fitting, exhaust elbow (1-1/4" hose)
17	30624	Fitting, exhaust manifold (90°)
18	127591	Plug, drain
19	98127	Gasket, exhaust riser & elbow (Use of exhaust riser requires 6 gaskets)
20	98124	Block-Off Plate, exhaust elbow

## Exhaust Manifold Assembly



**Crusader**

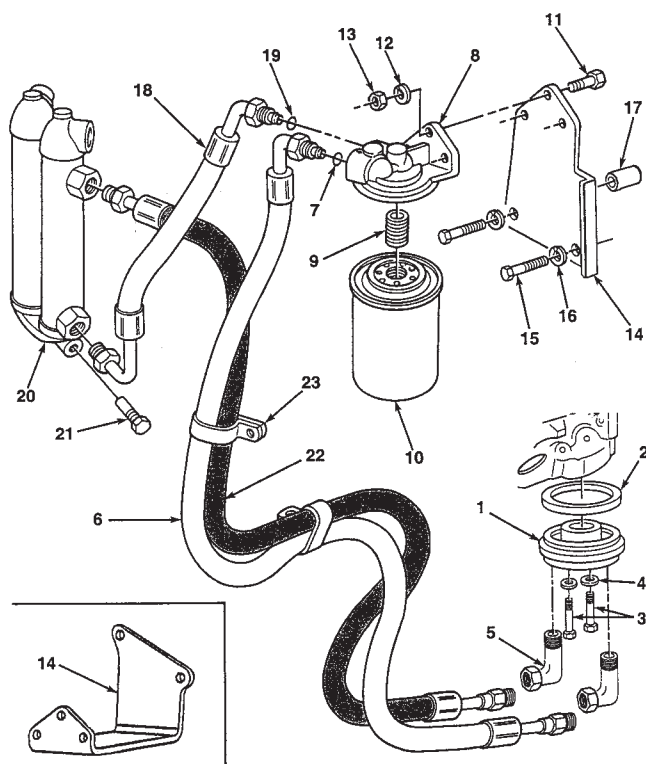
Item	Part No.	Description
1	98243	Exhaust Manifold
2	103876	Plug, exhaust manifold (1")
3	30624	Fitting, water elbow (90°)
4	127591	Plug, drain
5	90348150	Bolt, manifold to cylinder head (1-1/2")
6	93300000	Lockwasher, manifold to head bolt
7	96306	Gasket, manifold to cylinder head
8	98127	Gasket, manifold to exhaust elbow
9	98126	Exhaust Elbow Assembly
10	113186	Plug, exhaust elbow (3/4")
11	127950	Plug, drain
12	20827	Stud, exhaust elbow attaching
13	93300000	Lockwasher, elbow attaching stud
14	95300000	Nut, elbow attaching stud
15	90305475	Bolt, exhaust elbow attaching (4-3/4")
16	22818	4-Inch Riser Kit
17	98128	Exhaust Riser
18	113186	Plug, exhaust riser (3/4")
19	127950	Plug, drain
20	20783	Stud, riser mounting (2-3/4")
21	93300000	Lockwasher, riser stud
22	95300000	Nut, riser mounting stud
23	98127	Gasket, riser mounting

**\*NOTE:** See Fresh Water Cooling section for parts used on Fresh Water Cooled engines.



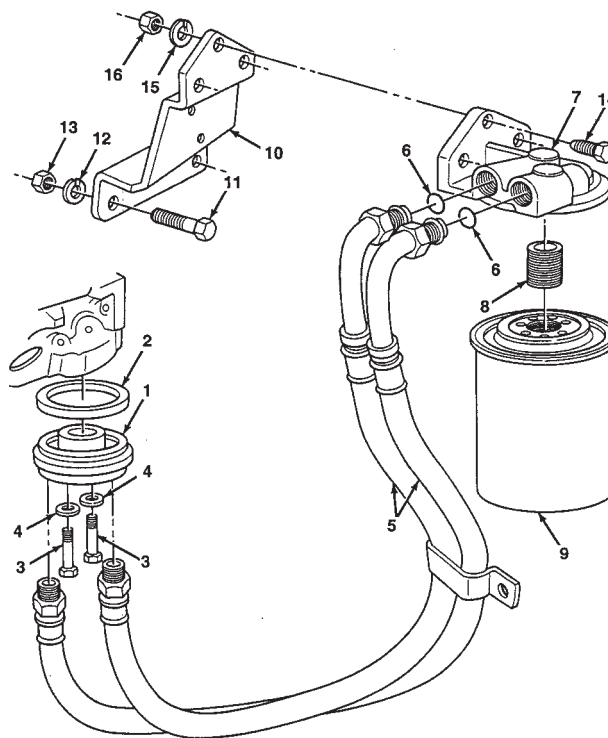


### Remote Oil Filter Assembly Front Mounted



Item	Part No.	Description
1	97667	Adapter, remote oil filter to cylinder block
2	20156	O-Ring, oil adapter to block
3	90205250	Bolt, adapter to cylinder block
4	92202000	Washer, adapter bolt (copper)
5		Fitting, oil line to adaptor (90°)
6		Hose Assembly, adapter to filter header (40")
7	22897	O-Ring, oil line
8	98106	Oil Filter Header
9	97292	Nipple, header filter adapter
10	22679	Oil Filter Element
11	9418918	Bolt, header to bracket
12	9417953	Lockwasher, header mounting bolt
13	9413583	Nut, header mounting bolt
14		Bracket, oil filter mounting (STD)
15		Bolt, bracket to cylinder head
16		Lockwasher, bracket mounting bolt
17		Spacer, mounting bracket
14	98649	Bracket, oil filter mounting (front mounted FWC only)
15		Bolt, bracket to cylinder head
16		Lockwasher, bracket mounting bolt
18		Hose Assembly, filter header to oil cooler (18")
19	22897	O-Ring, oil line
20	98123	Oil Cooler Assembly (RWC only)
20	98570	Oil Cooler Assembly (FWC only)
21	10335	Zinc, sacrificial
22		Hose Assembly, oil cooler to adapter (47")
23		Clamp, oil line mounting

### Remote Oil Filter Assembly Rear Mounted

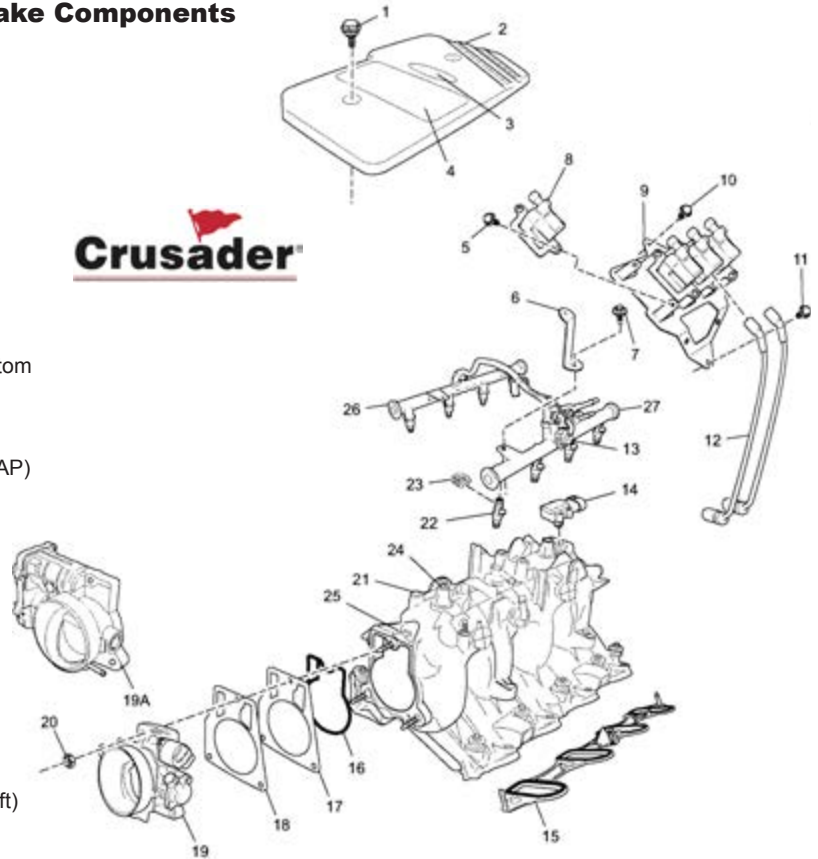


Item	Part No.	Description
1	97667	Adapter, remote oil filter to cylinder block
2	20156	Gasket, oil adapter to block
3	90205250	Bolt, adapter to cylinder block
4	92202000	Washer, adapter bolt (sealing)
5	18103	Hose Assembly, adapter to filter header (30")
6	22897	O-Ring, oil line
7	98106	Oil Filter Header
8	97292	Nipple, header filter adapter
9	22679	Oil Filter Element
10	98252	Bracket, oil filter mounting
11	90205125	Bolt, bracket to bellhousing
12	93200000	Lockwasher, mounting bolt
13	95200000	Nut, mounting bracket
14	90205100	Bolt, header to bracket
15	93200000	Lockwasher, header mounting bolt
16	95200000	Nut, header mounting bolt
17	22112	Clamp, oil line mounting

  
**Crusader**®

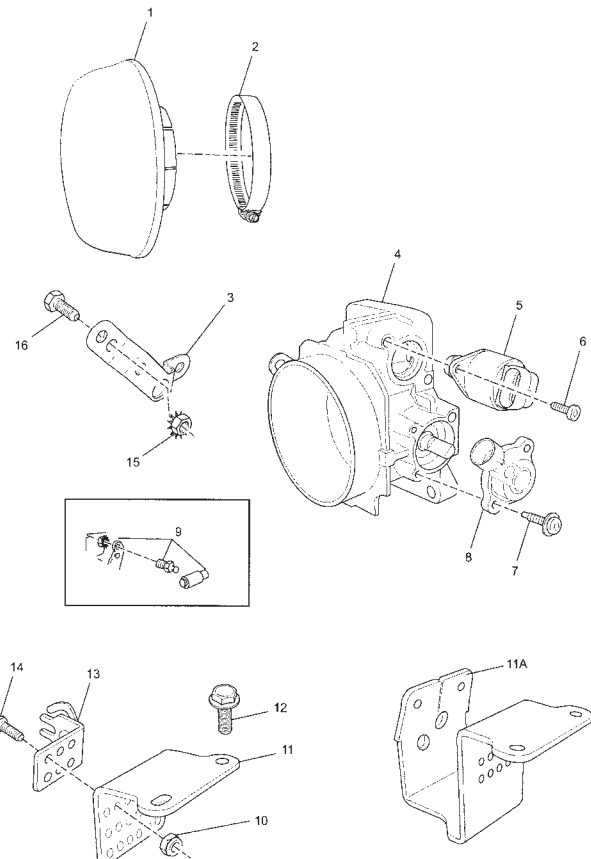
Intake Components

Item	Part No.	Description
1	R009204	Knob, cover retention
2	R060064	Cover, engine
3	R143164	Decal, cover, oval, "6.0L MPI"
4	R143130	Decal, cover, "Captain's Choice"
5	91107075	Screw, ignition coil attaching
6	R090268	Bracket, coil support
7	TBD	Bolt, fuel rail attaching
8	R117013	Coil, ignition
9	R090273	Bracket, ignition coil mounting
10	RS5126	Bolt, coil bracket attaching, top
11	98223016	Bolt, coil bracket attaching, bottom
NI	93920000	Lockwasher, coil bracket attaching, bottom
12	RK120021A	Spark Plug Wire Set
13	R088003	Regulator, fuel pressure (returnless type fuel system Only)
14	R020036	Sensor, manifold absolute pressure (MAP)
15	RMO277	Intake Manifold Gasket Set
16	TBD	Seal, throttle body
17	R062087	Plate, throttle body adapter
18	RMO251	Gasket, throttle body
19	RA035036B	Throttle Body Assembly
20	L00918	Nut, throttle body attaching
21	R002025	Intake Manifold
22	RA087008	Fuel Injector Assembly
23	R127097	Retainer, fuel injector to rail
24	R0360007	Insert, threaded, intake
25	RS3550	Plug pipe, 1/4" NPT
26	R086003	Fuel Rail, 6.0L, (right)
27	R086004	Fuel Rail, 6.0L with regulator pocket (left)



Throttle Body & Related Components

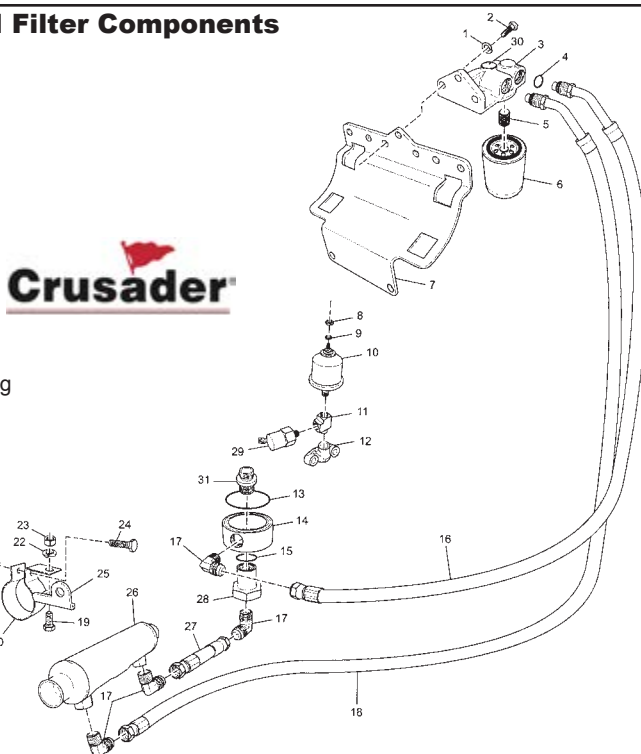
Item	Part No.	Description
1	R145026	Arrestor, flame
2	RS3857	Clamp, flame arrestor
3	R081008	Throttle Arm, throttle body
4	RA035036B	Throttle Body Assembly
5	R084003	Valve, idle air control
6	TBD	Screw, IAC valve attaching
7	TBD	Screw, TP sensor attaching
8	R020041	Sensor, throttle position
9	R178003	Ball Joint Assembly, cable attaching
10	RS2055	Locking Nut, cable clip mounting bolt
11	R090267	Throttle Bracket, intake
11A	R090267A	Throttle/Degas Bottle Bracket, optional
12	98222018	Bolt, throttle cable bracket attaching
13	R090086	Cable Clip, throttle attaching
14	RS5122	Bolt, cable clip mounting
15	RS 1078	Nut, throttle arm attaching
16	RS0251	Bolt, throttle arm attaching



**Crusader**

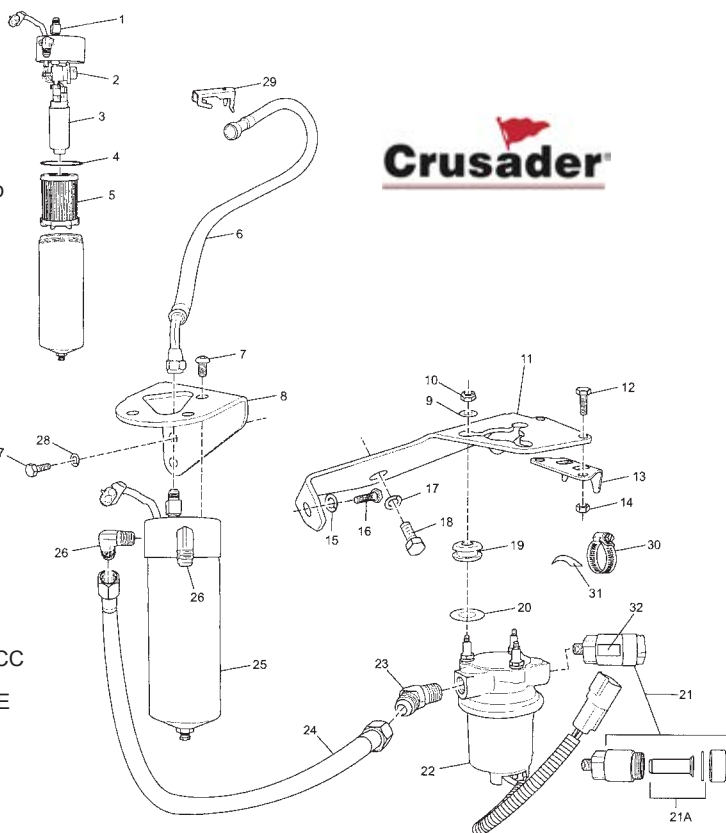
## Remote Oil Filter Components

Item	Part No.	Description
1	93930000	Lockwasher, oil filter header mounting
2	99333020	Bolt, oil filter header mounting
3	R079066	Oil Filter Header
4	R047245	O-ring oil line
5	R024203	Nipple, header filter adapter
6	22679	Filter, oil
7	R090258	Bracket, heat exchanger
8	95011000	Nut, sender terminal
9	95300300	Lockwasher, sender terminal
10	R020001	Sender, oil pressure
11	R024145	Tee, sender attaching
12	R079071	Adapter, oil sending unit
13	R047240	O-ring oil bypass adapter
14	R079067	Adapter, oil bypass
15	R047202	O-ring oil bypass adapter attaching fitting
16	RA045155	Hose, oil, adapter to remote oil filter
17	R024184	Fitting, 90 degree
18	RA045155A	Hose, oil, oil cooler to remote oil filter
19	RS0302	Bolt, oil cooler strap attaching
20	R090010	Strap, oil cooler
21	RS2058	Nut, oil cooler strap
22	RS2180	Washer, lock, oil cooler strap attaching
23	95300000	Nut, oil cooler strap attaching
24	RS0256	Bolt, oil cooler strap
25	R090013A	Bracket, oil cooler
26	R147049	Cooler, oil
27	RA045103D	Hose, oil, oil cooler to adapter
28	R079068	Nut, oil bypass adapter attaching
29	R020015A	Switch, oil pressure
30	R143175	Decal, "Caution Hot"
31	R079074	Adapter, engine to oil bypass

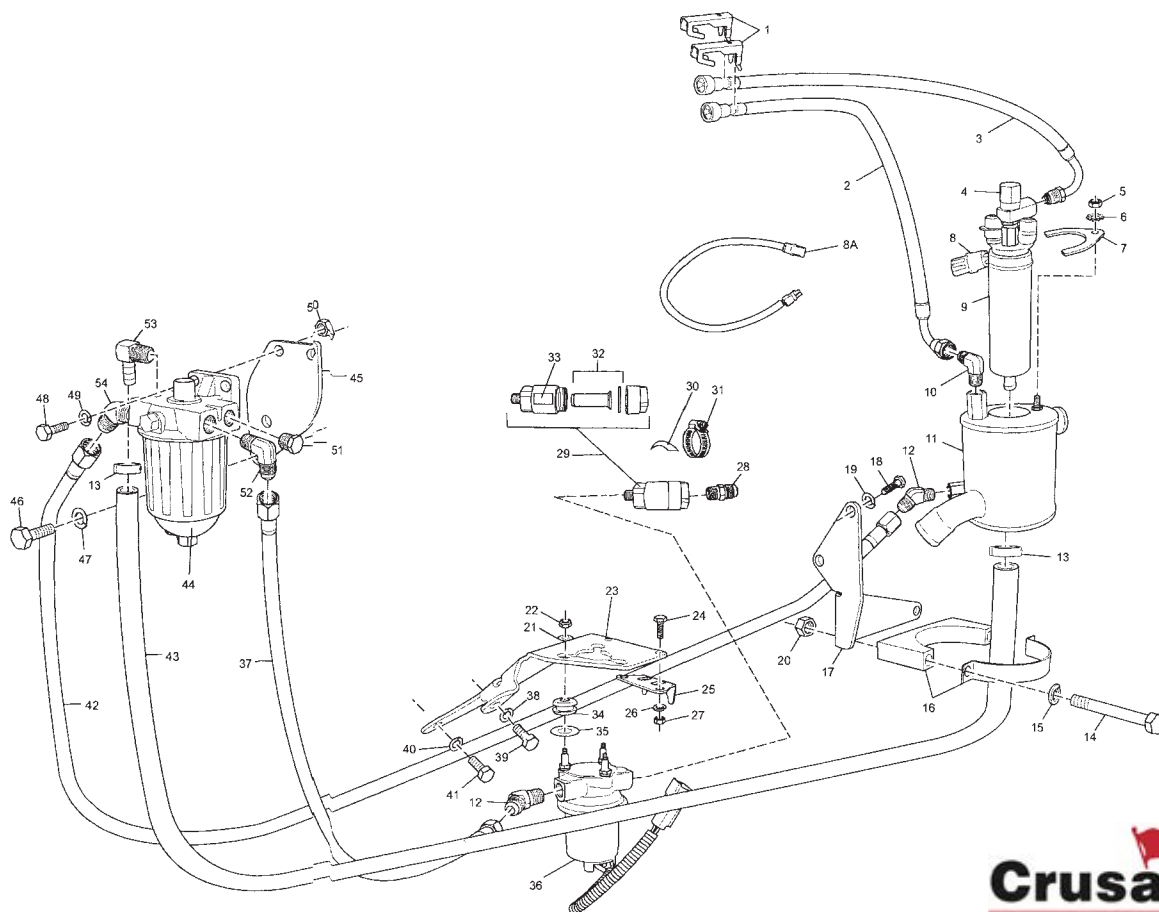


## Fuel Control Cell (FCC) Components

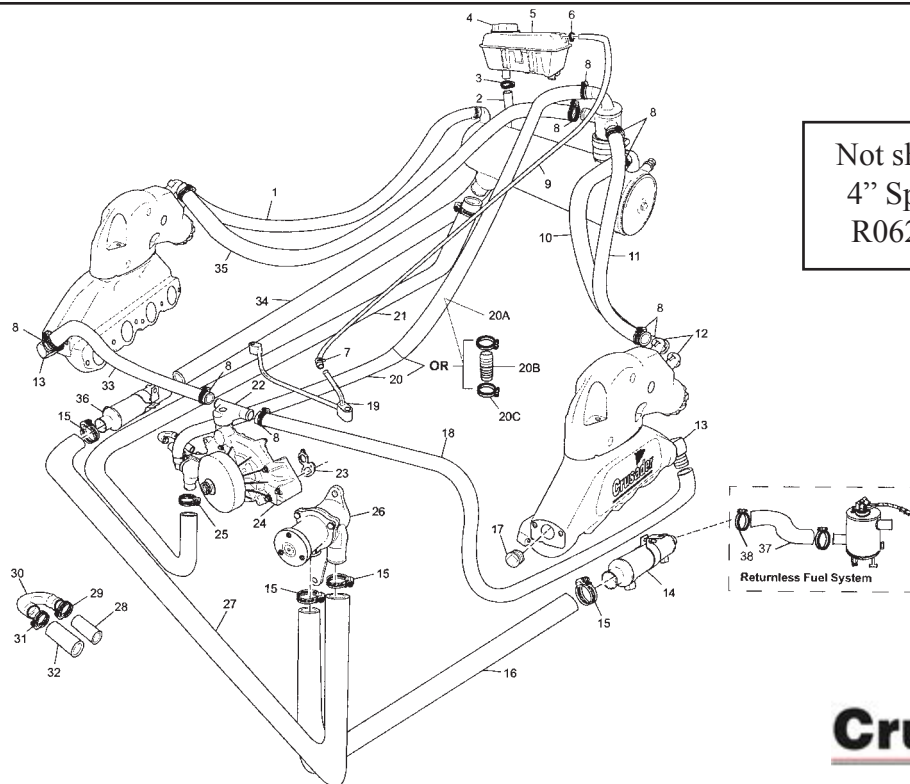
Item	Part No.	Description
1	R024214	Fitting, fuel line
2	R088004	Regulator, fuel pressure (FCC System Only)
3	RA080027	Pump, high pressure fuel
4	R047214	O-ring, FCC sealing (p/o item #5)
5	RP080026	Filter, FCC fuel
6	RA085090C	Hose Assy, FCC to fuel rail (inlet)
6	RA085090B	Hose Assy, FCC to fuel rail (inlet), V-DRIVE
7	90384075	Bolt, FCC attaching
8	R090276	Bracket, FCC mounting
8	R090277	Bracket, FCC mounting, V-DRIVE
9	R096142	Washer, flat, mounting, upper
10	RS1521L	Locking Nut, low-pressure fuel pump
11	R090286	Bracket, low-pressure fuel pump mounting
12	RS0251	Bolt, pre-filter bracket attaching
13	R090272	Bracket, pre-filter mounting
NI	RS3858	Clamp, pre-filter 1-1/4"
NI	R094040	Isolator, rubber, w/ adhesive
14	RS1078	Nut, w/lockwasher, pre-filter bracket attaching
15	93930000	Lockwasher, LPFP bracket attaching, mount
16	99333020	Bolt, LPFP bracket attaching, mount
17	93940000	Lockwasher, LPFP bracket attaching, block
18	98443025	Bolt, LPFP bracket attaching, block
19	R094035A	Grommet, isolator
20	R096141	Washer, fuel pump mounting, lower
21	RA077014	Pre-filter, fuel
21A	RP077014	Kit, fuel filter and seal
22	RA080018	Fuel Pump, low-pressure
23	R024197	Fitting, 45°
23	R024163	Fitting, 90°, V-DRIVE
24	RA085071	Hose Assy, low-pressure pump to FCC
24	RA085071B	Hose Assy, low-pressure pump to FCC, V-DRIVE
25	RA080030	Fuel Control Cell Assy
NI	R143112	Decal, FCC operating instructions
NI	R143114	Decal, Warning, fuel leaks
26	R024163	Fitting, 90 degree
27	98443025	Bolt, FCC mounting bracket
28	93940000	Lockwasher, FCC mounting bracket
29	R127100	Retainer, fuel line
30	RS3858	Clamp, pre-filter 1-1/4"
31	R094040	Isolator, rubber, w/ adhesive
32	R143174	Decal, pre-filter







Item	Part No.	Description	Item	Part No.	Description
1	R127100	Locking Clip, fuel line	25	R090272	Bracket, pre-filter mounting
2	RA085091B	Fuel Line Assy, fuel rail to fuel cooler	26	93940000	Lockwasher, pre-filter bracket attaching
3	RA085099	Fuel Line Assy, fuel pump to fuel rail	27	RS1078	Nut, pre-filter bracket attaching
4	98442	Nut, fitting to fuel pump	28	30603	Fitting, fuel inlet, pre-filter
NI	23516	O-ring, fuel fitting sealing	29	R077012	Pre-filter, fuel
NI	98440	Fitting, fuel line to fuel pump	30	R094040	Isolator, rubber, pre-filter
NI	23515	O-ring, fuel fitting sealing	31	RS3858	Clamp, pre-filter
5	RS1078	Nut, w/lockwasher, fuel pump retainer attaching (RS1078 replaces items 5 and 6)	32	RP077014	Kit, fuel filter and seal
6	NSS	Star washer, retaining nut	33	R143174	Decal, pre-filter
7	98642	Retainer, fuel pump	34	R094035A	Grommet, isolator
8	49038	Harness, fuel pump	35	R096141	Washer, fuel pump mounting, lower
8A	R121078	Harness, extension, fuel pump	36	RA080018	Fuel Pump, low-pressure
9	47039	Electric Fuel Pump Assy	37	RA085071	Fuel Line Assembly, L.P. pump to Racor filter
10	R024204	Fitting, 90°	38	93940000	Lockwasher, LPFP bracket attaching, mount
11	RA147051	Fuel Cooler Assy	39	98443030	Bolt, LPFP bracket attaching, mount
NI	23649	Decal, fuel Warning	40	93940000	Lockwasher, LPFP bracket attaching, block
12	R024197	Fitting, 45° (use (1), V-DRIVE)	41	98443025	Bolt, LPFP pump bracket attaching, block
12	R024163	Fitting, 90°, LPFP to filter, v-drive	42	RA085071B	Fuel Line Assy, Racor filter to cooler
13	R127087E	Clamp, 7/8"	42	RA085071	Fuel Line Assy, Racor filter to cooler (V-DRIVE)
14	90318325	Bolt, fuel cooler attaching	43	98431	Hose, fuel line, Racor filter to H.P. pump
15	RS2180	Lockwasher, fuel cooler attaching	44	47046	Fuel Filter, Racor water separating
16	23554	Retainer, fuel cooler attaching	NI	47047	Element, Racor fuel filter (not shown)
17	R090297	Bracket, fuel cooler mounting	45	R090297	Bracket, Racor filter mounting
17	R090290	Bracket, fuel cooler mounting, V-DRIVE	46	98443025	Bolt, Racor filter bracket attaching
18	98443025	Bolt, fuel cooler bracket attaching	47	93940000	Lockwasher, Racor filter bracket attaching
19	93940000	Lockwasher, fuel cooler bracket attaching	48	90205125	Bolt, Racor filter mounting
20	95310300	Nut, nylock, fuel cooler attaching	48	92200000	Washer, Racor filter mounting
21	R096142	Washer, flat, mounting, upper	50	RS2060	Nut, nylock, Racor filter mounting
22	RS1521L	Locking Nut, low-pressure fuel pump	51	RS3552	Fitting, plug 114" NPT
23	R090286	Bracket, low-pressure fuel pump mounting	52	R024163	Fitting, 90° fuel in, Racor
24	RS0251	Bolt, pre-filter bracket attaching	53	R024207	Fitting, 90°, 1/2" barb, fuel out, Racor
			54	R024197	Fitting, 45°, fuel return, Racor



Not shown.  
4" Spacer  
R062086

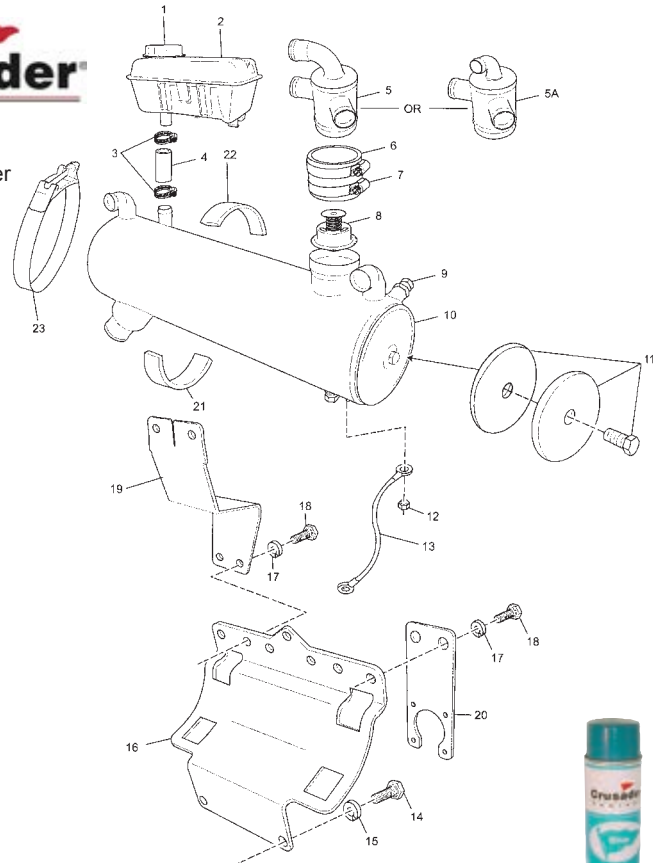


Item	Part No.	Description
1	R045107	Hose, bulk 1" i.d., exchanger to exhaust manifold (Starboard STD)
1	R045107	Hose, bulk 1" i.d., exchanger to exhaust manifold (Starboard STD) (w/ 4" spacers)
1	R045158	Hose, exchanger to exhaust manifold (Stb. V-DRIVE)
1	R045107	Hose, bulk 1" i.d., exchanger to exhaust manifold (Stbd. V-DRIVE) (w/ 4" spacers)
2	R045153	Hose, bulk 3/4" i.d., degas bottle to heat exchanger
2	R045161	Hose, degas bottle to heat exchanger (V-DRIVE)
3	RS3854	Clamp, hose, 3/4"
4	R034045	Cap, degas bottle
5	R146001	Bottle, degas
6	R127087	Clamp, hose (Oetiker)
7	RS3870	Clamp, hose, vent (1/4")
8	RS3851	Clamp, hose (1")
9	R045132	Hose, bulk 1/4" i.d., vent to degas bottle
10	R045107	Hose, bulk 1" i.d., exchanger to exhaust manifold (Port STD)
10	R045107	Hose, bulk 1" i.d., exchanger to exhaust manifold (Port STD) (w/ 4" spacers)
10	R045158	Hose, exchanger to exhaust manifold (Port V-DRIVE)
10	R045107	Hose, bulk 1" i.d., exchanger to exhaust manifold (Port V-DRIVE) (w/ 4" spacers)
11	R045107	Hose, bulk 1" i.d., FM, elbow to tstat (Port STD)
11	R045107	Hose, bulk 1" i.d., F/W, elbow to tstat (Port STD) (w/ 4" spacers)
11	R045158	Hose, F/W, elbow to tstat, port 1" (Port V-DRIVE)
11	R045107	Hose, bulk 1" i.d., FM, elbow to tstat, (Port V-DRIVE) (w/ 4" spacers)
12	727003	Fitting, 90°, bronze
13	R024006A	Fitting, 90°, bronze
14	R147049	Cooler, oil
15	RS3858	Clamp, hose (1 1/4")
16	R045152B	Hose, R/W, oil cooler to r/w pump (cut-to-fit)
16	R045173	Hose, R/W, oil cooler to r/w pump (OEM specific, V-drv)
17	113186	Plug, manifold
18	R045156A	Hose, F/W inlet to exhaust manifold, (Port), 1" formed

Item	Part No.	Description
19	TBD	Tube, coolant air bleed
20	R045107	Hose, bulk 1" i.d., bypass, tstat to circulating pump
20A	R045157A	Hose, bulk 1" i.d., bypass, tstat to circulating pump (OEM specific, V-drv)
20B	R024229	Fitting, union, 1" hose, couple R045157A to R045107 (OEM specific, V-drv)
20C	RS3851	Clamp, hose (1") (OEM specific, V-drv)
21	R045148	Hose, circulating pump to heat exchanger
22	R025035A	Waterneck, tee, FIW outlet
23	RMO281	Gasket, water pump to engine block
24	RA057036	Water Pump Assembly
25	RS3868	Clamp, hose (1-1/2")
26	RA057032	Raw Water Pump
27	R045147	Hose, RNV pump to transmission cooler 1-1/4" formed (cut-to-fit)
27	R045172	Hose, R/W pump to transmission cooler 1-1/4" formed (OEM specific, V-drv)
28	R045086	Hose, bulk 5/8" i.d., U-tube, bypass
29	R127087F	Clamp, U-tube, 5/8" hose (1" Oetiker)
30	R024210	U-tube, heater bypass
31	R127087G	Clamp, U-tube, 3/4" hose (1-1/16" Oetiker)
32	R045153	Hose, bulk 3/4" i.d., U-tube, bypass
33	R045136B	Hose, F/W inlet to exhaust manifold (STBD)
34	R045147	Hose, R/W, transmission cooler to H.E. 1-1/4" formed (cut-to-fit)
34	R045144A	Hose, R/W, transmission cooler to H.E. 1-1/4" formed (OEM specific, v-drv)
35	R045107	Hose, bulk 1" i.d., FNV, elbow to tstat, (Stbd Standard)
35	R045107	Hose, bulk 1" i.d., FNV, elbow to tstat, (Stbd Standard) (w/ 4" spacer)
35	R045157	Hose, F/W, elbow to tstat, (Stbd V-DRIVE)
35	R045107	Hose, bulk 1" i.d., FNV, elbow to tstat, (Stbd V-DRIVE) (w/ 4" spacer)
36	R147006	Cooler, transmission oil
37	RS045122	Hose, fuel cooler to oil cooler (returnless fuel system)
38	RS3858	Clamp, hose 1 1/4" (returnless fuel system)

## Heat Exchanger and Components

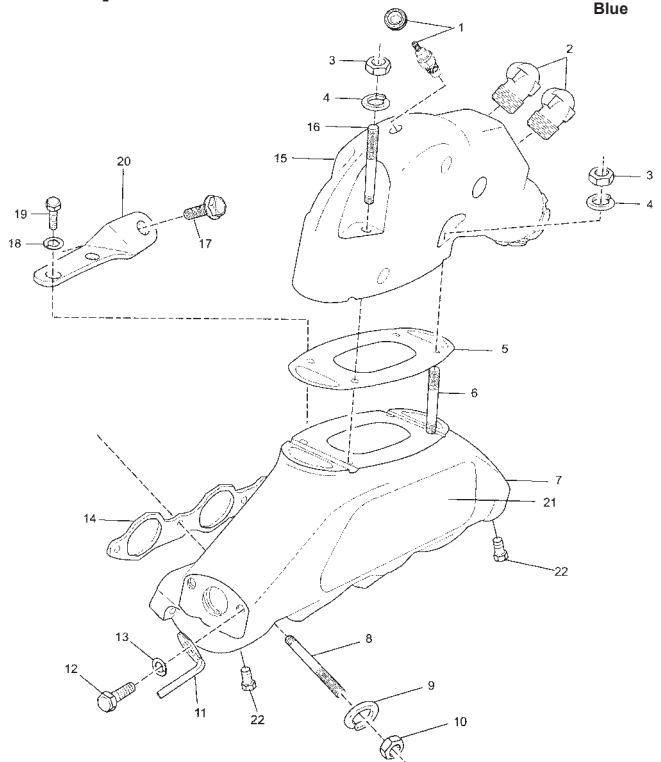
Item	Part No.	Description
1	R034045	Cap, degas bottle
2	R146001	Bottle, degas
NI	R143152	Decal, specification, 6.0L
NI	R143153	Decal, coolant fill
3	RS3854	Clamp, hose
4	R045153	Hose, bulk 3/4" i.d., degas bottle to heat exchanger
4	R045161	Hose, degas bottle to heat exchanger (V-drv)
5	R025038	Housing, tstat, heat exchanger
5A	R025038A	Housing, tstat, heat exchanger (Optional)
6	98204	Hose, tstat housing
7	RS3860	Clamp, tstat housing
8	R026007	Thermostat, 170° F
9	R168005	Anode, sacrificial zinc
10	RA147048	Heat Exchanger Assembly
11	23540	End Cap Kit, exchanger
12	RS1078	Nut, ground wire stud
13	R101013	Wire, grounding
14	RS0304	Bolt, heat exchanger bracket attaching
15	RS2180	Lockwasher, h.e. bracket attaching
16	R090258	Bracket, heat exchanger
17	RS2179	Lockwasher, degas bottle brkt. attaching
18	RS0280	Bolt, degas bottle bracket attaching
19	R090311	Bracket, degas bottle
20	R090306	Bracket, degas bottle w/ 4" spacer
21	R094040	Isolator, rubber, adhesive, bottom
NI	R094041	Isolator, rubber, top
22	8171009	Clamp, exchanger mounting
NI	23627	Decal, Protective Anode
NI	R143162-04	Decal, 6.0 Emission (C.A.R.B.) (MY '04)
NI	R143162A	Decal, 6.0 Emission (C.A.R.B.) (MY '05)
NI	R143158	Decal, "Ultra Low Emission"
NI	R143156	Decal, Raw Water Drain
NI	R143157	Decal, Fresh Water Drain



20859  
Crusader  
Blue

## Exhaust Manifold & Components

Item	Part No.	Description
1	R020047	Switch, exhaust temperature
1	RS3539	Plug, Hex Socket, Brass 1/8" NPT
2	727003	Fitting, 90°, bronze
3	95310000	Nut, exhaust elbow attaching
4	93300000	Lockwasher, exhaust elbow attaching
5	RM0274	Gasket, manifold to exhaust elbow
6	R031036	Stud, exhaust elbow attaching (short)
6	R031039	Stud, exhaust elbow attaching w/4" riser (short)
7	R028024	Exhaust Manifold Assembly
8	R031035	Stud, manifold to cylinder head attaching
9	93930000	Lockwasher, manifold to cylinder head attaching
10	97330000	Nut, manifold to cylinder head attaching
11	R096144	Retainer, spark plug wire clip
12	RS0280	Bolt, retainer attaching
13	RS2179	Lockwasher, retainer attaching
14	RM0276	Gasket, manifold to cylinder head
15	R029016A	Exhaust Elbow Assembly
16	R031037	Stud, exhaust elbow attaching (long)
16	R031040	Stud, exhaust elbow attaching w/4" riser (long)
17	98222018	Bolt, bracket attaching
18	93920000	Lockwasher, bracket attaching
19	90165063	Bolt, bracket attaching
20	R090305	Bracket, manifold support
NI	922200020	Washer, retainer attaching
NI	R127090	Clip, spark plug wires
NI	RS3557	Fitting, plug, manifold drain
21	R143002G	Decal, Exhaust Manifold
22	RS3557	Plug, Hex Head, Brass 3/8" NPT



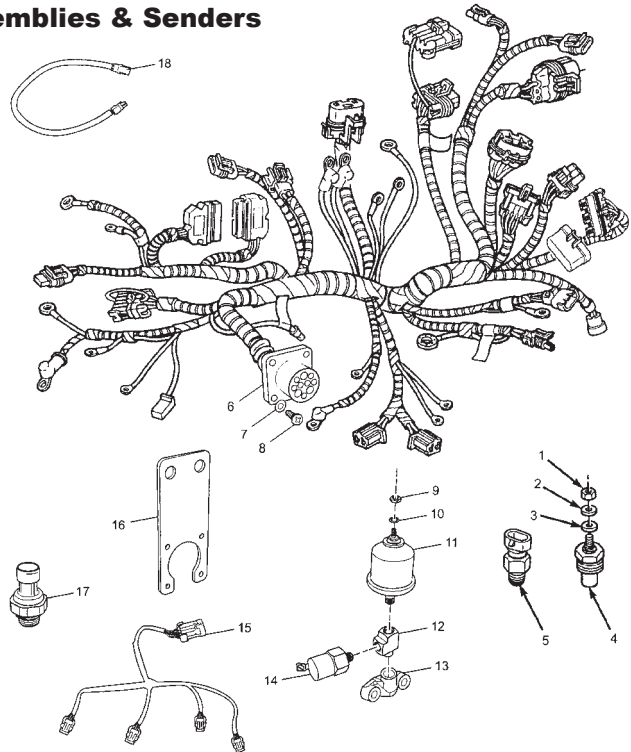
\*NOTE: See Fresh Water Cooling section for parts used on Fresh Water Cooled engines.





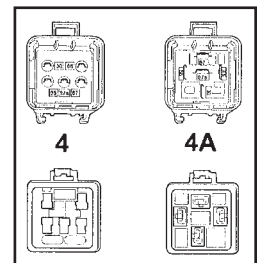
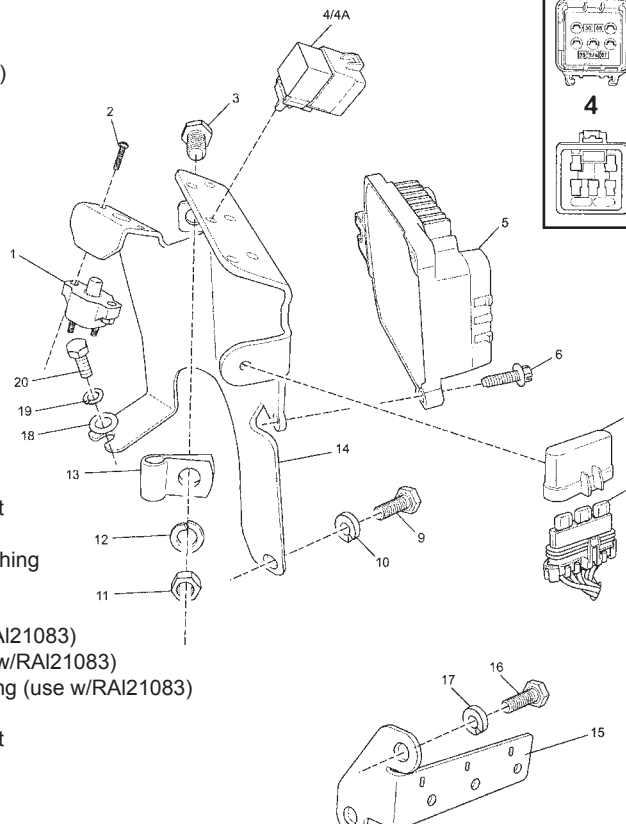
## Wiring Harness Assemblies &amp; Senders

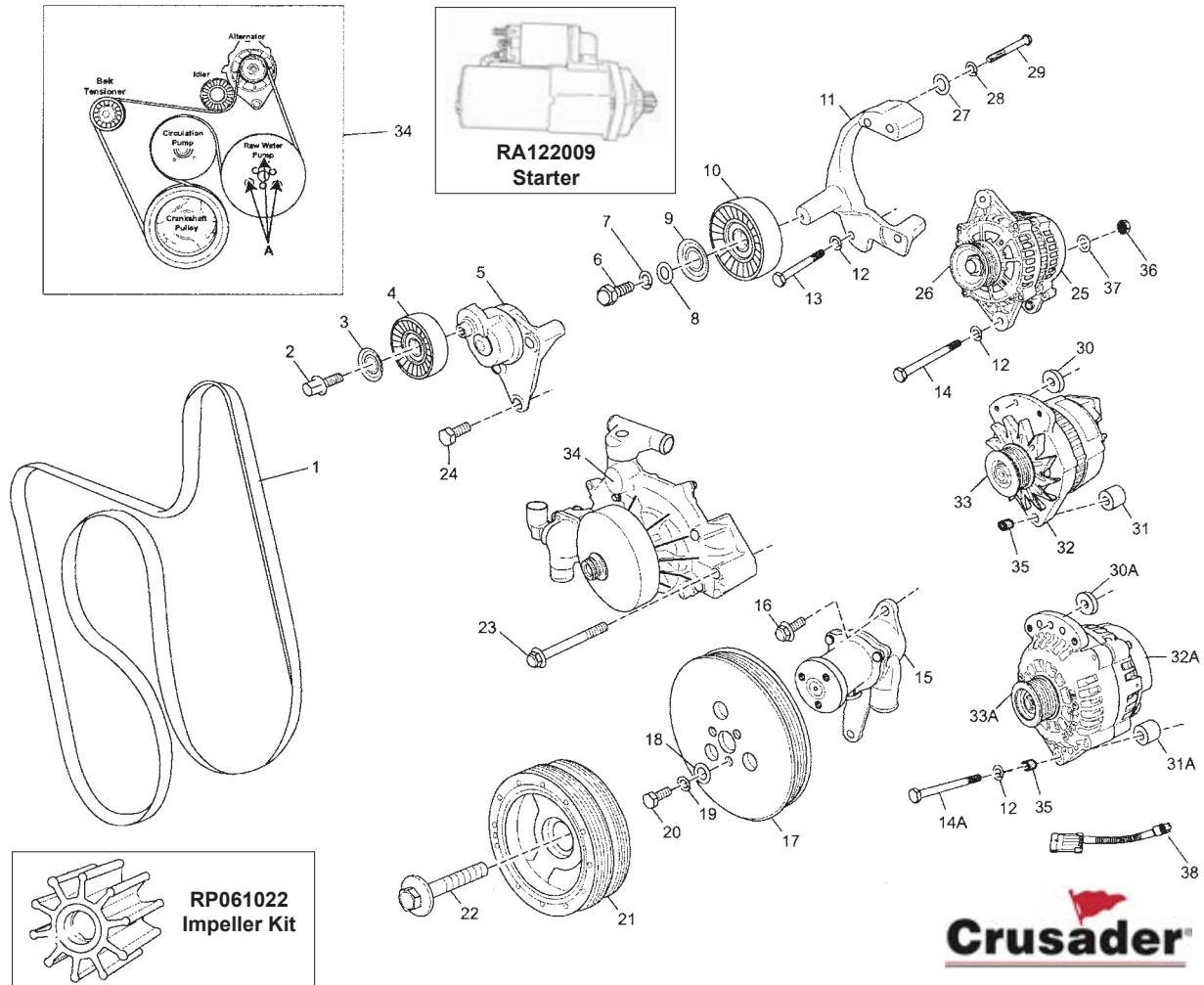
Item	Part No.	Description
1	RS1540	Nut, sender terminal
2	RS2197	Lockwasher, sender terminal
3	RS2746	Washer, sender terminal
4	R020002	Sender, temperature
5	R020046	Sensor, engine coolant temperature (ECT)
6	RAI21076B	Engine Wiring Harness Assembly w/110-Pin boat Harness connector
6	RAI21083	Engine Wiring Harness Assembly w/116-Pin boat Harness connector
7	R096142	Washer, main Harness attaching
8	RS5115	Screw, main Harness attaching
9	RS1540	Nut, sender terminal
10	RS2197	Lockwasher, sender terminal
11	R020001	Sender, oil pressure
12	R024145	Tee, sender attaching
13	R079071	Adapter, oil sending unit
14	R020015A	Switch, oil pressure
15	R121101	Harness, ignition coil
16	R090291	Bracket, 10-pin mounting
17	R020048	Sensor, oil pressure (used w/RAI21083)
18	R121078	Harness, extension, fuel pump (V-Drive)
18	RAI21062D	Harness, extension, fuel pump to engine Harness (used w/RAI21083)
NI	RS0280	Bolt, 10-pin bracket attaching
NI	RS2179	Lockwasher, 10-pin bracket attaching



## EMC and Relays

Item	Part No.	Description
1	RI 53006C	Circuit Breaker Assembly (60 amp)
NI	23655	Decal, Main Circuit Breaker
NI	R143176	Decal, Fuse Block (replaces #23655)
NI	R143177	Decal, Main Circuit Breaker (replaces #23655)
2	RS5084	Bolt, circuit breaker mounting
3	RS0302	Bolt, oil dipstick tube attaching
4	8130012	Relay, fuel pump, ignition, starter
4	R13001 1A	Relay, fuel pump, ignition, starter (SN 640394 and higher)
5	R116021K	Engine Control Module (thru '05)
5	R1160210	Engine Control Module ('05 MY)
6	91107075	Bolt, ECM attaching
7	R126014	Cover, fuse holder
8	R153017B	Fuses, 20 amp
9	RS0302	Bolt, bracket attaching
10	RS2180	Lockwasher, bracket attaching bolt
11	RS1028	Nut, oil dipstick tube attaching
12	RS2180	Lockwasher, oil dipstick tube attaching
13	R127015	Clamp, oil dipstick tube attaching
14	R090283	Bracket, ECM/relay mounting
15	R090315	Bracket, relay mounting (use w/RAI21083)
16	98443025	Bolt, relay bracket mounting (use w/RAI21083)
17	93940000	Lockwasher, relay bracket mounting (use w/RAI21083)
18	92200000	Washer, bracket attaching bolt
19	RS2179	Lockwasher, bracket attaching bolt
20	98333025	Bolt, bracket attaching

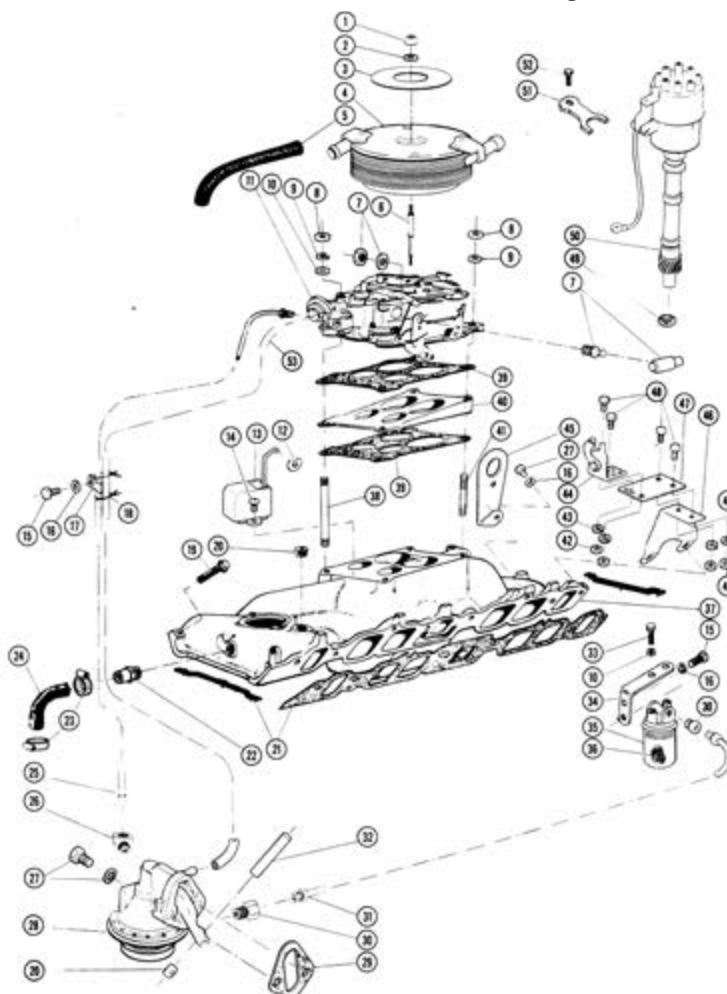




**Crusader**

Item	Part No.	Description	Item	Part No.	Description
1	R066027	Belt, serpentine drive	24	TBD	Bolt, belt tensioner mounting
2	Part of item	#5 Bolt, tensioner pulley attaching	25	RA097007C	Alternator Assembly (Delco 70 amp)
3	Part of item	#5 Washer, tensioner pulley attaching bolt	26	R065055	Pulley, alternator (70 amp)
4	Part of item	#5 Pulley, tensioner	27	92930000	Flatwasher, alternator mounting
5	RA068002	Tensioner, belt	28	93930000	Lockwasher, alternator mounting
6	RS6531	Bolt, idler pulley attaching	29	98339070	Bolt, alternator mounting
7	RS2179	Lockwasher, idler pulley attaching bolt	30	R062081	Spacer, upper
8	92940000	Washer, idler pulley attaching bolt (small)	30A	R062082	Spacer, upper
9	R096145	Washer, idler pulley attaching bolt (large)	31	R062084	Spacer, lower
10	R065040	Pulley, idler	31A	98183	Spacer, lower
11	R090269	Bracket, idler pulley mounting I alternator	32	RA097008A	Alternator Assembly (Balmar, 100 amp) (external fan, external regulator)
12	93940000	Lockwasher, idler pulley bracket attaching bolt	32A	RA097010A	Alternator Assembly (Balmar, 100 amp) (internal fan, internal regulator) (MY '05)
13	98446070	Bolt, alternator/pulley bracket attaching, lower	33	R065042A	Pulley, alternator (100 amp)
14	98443110	Bolt, alternator/bracket attaching, upper	33A	TBD	Pulley, alternator (100 amp)
14A	98443120	Bolt, alternator/bracket attaching, upper	34	R143147	Decal, belt routing
15	RA057032	Raw Water Pump Assembly	35	R176023	Bushing, 100 Amp Alternator
16	98442030	Bolt, raw water pump mounting	36	97220060	Nut, KEPS 70A Alternator - BAT Terminal
17	R065050	Pulley, raw water pump	37	92920000	Flat Washer, 70A Alternator - BAT Terminal
18	92934000	Washer, raw water pump pulley attaching	38	R121081	Harness, adapter 70A harness to 100A Alternator
19	93934000	Lockwasher, raw water pump pulley attaching bolt	NI	TBD	Wire, Ground, alternator
20	99335016	Bolt, raw water pump pulley attaching	NI	TBD	Wire, Charge, alternator
21	R064016	Balancer, crankshaft	NI	R153018A	Wire, Fused, starter to circuit breaker
22	TBD	Bolt, crankshaft balancer			
23	TBD	Bolt, water circulation pump attaching			

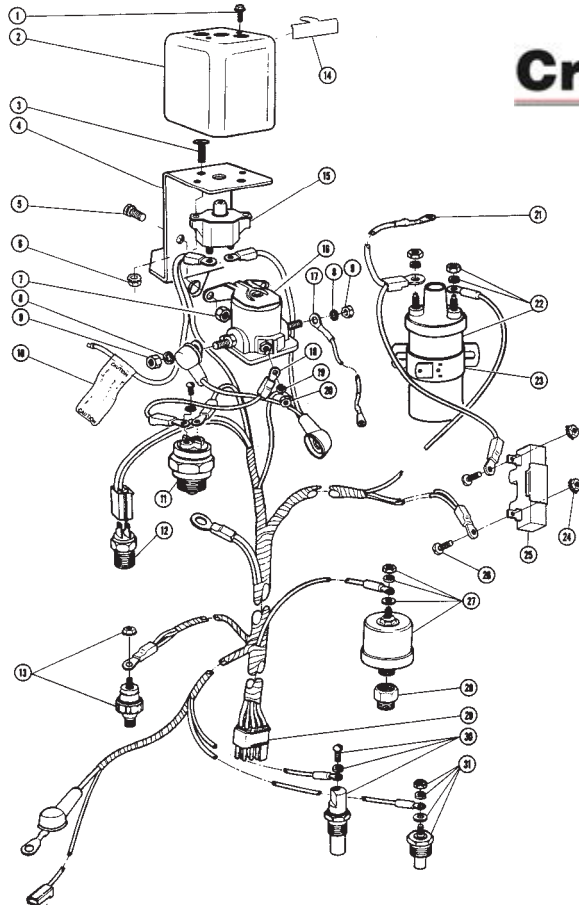
## Intake Manifold Assembly



Item	Part No.	Description	Item	Part No.	Description
1	95104300	Elastic Stop Nut, 1/4"-20	31	97846	Fuel Line, Filter to Carter Pump
2	92100000	Washer, 1/4" Flat	32	30135	Push Rod, Fuel Pump
3	97916	Decal, Flame Arrestor	33	9021500	Bolt, 5/16"-24 x 1" Hex Head (GR5)
4	33628	Flame Arrestor; Tall Stack, Dual Vent	34	97259	Bracket, Fuel Filter
5	20806	Hose 5/8" Heater	35	97889	Fuel Filter Assembly
6	98003	Stud, Flame Arrestor Tall Stack Mounting	36	91606	Cartridge, Fuel Filter
7	21025	Ball Joint Assembly	37	7150240	Intake Manifold Assembly
8	95200000	Nut, 5/16"-18 Hex	37	31014	Intake Manifold Assembly (502 Gen V & IV)
9	93200000	Washer, 5/16" Medium Lock	38	96818	Stud; Carburetor, 5/16"-18 x 4-1/4"
10	92200000	Washer, 5/16" Flat	39	97033	Gasket, 4BBL Carburetor Mounting
11	45356	Carburetor, 4 BBL	40	97122	Wedge Plate
12	30123	Clip, Choke Rod Retaining	41	97983	Stud; Carburetor, 5/16"-18 x 2-1/4", 8° Installation
13	30233	Automatic Choke Assembly	41	97982	Stud; carburetor, 5/16"-18 x 1-1/2", 0° Installation
14	273513	Screw & Washer Assembly Choke	42	95000060	Nut, #10-24, Zinc Plated Hex
15	90305075	Bolt, 3/8"-16 x 3/4" Hex Head (GR5)	43	93000000	Washer, #10 Medium Lock
16	93300000	Washer, 3/8" Medium Lock	44	21033	Clip, Shift Cable (Single Control)
17	22971	Clamp, Dip Stick Support	45	96750	Strap, Lifting
18	22410	Tie Wrap; Nylon, 5-1/2" Long	46	98253	Bracket, Throttle Control
19	90325152	Bolt, 3/8"-16 x 1-1/4" Hex Head (GR5)	47	97280	Plate, Throttle Control
20	7141870	Plug, 3/8" Hex Socket Pipe	48	91000050	Screw; 10-24 x 1/2" Hex Hd. Machine
21	30221	Gasket Kit, Intake Manifold	49	7240320	Gasket; Ignition Timer, Distributor
21	30281	Gasket Kit, Intake Manifold (502 Gen V & IV)	50	37061	Distributor Assembly (Mallory)
22	7140280	Nipple; Thermostat By-Pass Hose, 1/2" MP x 3/4" Hose	51	7240300	Clamp, Distributor Hold Down
23	20226	#12 Hose Clamp	52	90325100	Bolt, Distributor Hold Down
24	7140240	Hose, Thermostat By-Pass	53	22401	Tygon Tubing 3/8" O.D. x 1/4 I.D.
25	97845	Fuel Line, Carter Pump to Carburetor		33558	Intake Manifold Gasket Kit
26	30573	Elbow; Inverted Flair, 3/8" Tube, to 1/4" Pipe, Male 90°		20228	Valve Grind Gasket Kit
27	90308150	Bolt; 3/8"-16 x 1-1/2", Hex Cap (GR8)		45334	Carburetor Overhaul Kit 4 BBL
28	97843	Fuel Pump, Carter 454		45334	Carburetor Gasket Kit 4 BBL
29	7050060	Gasket, Fuel Pump		22041	Overhaul Gasket Kit
30	30572	Connector; Inverted Flair, 3/8" Tube, to 1/4" Pipe, Male			



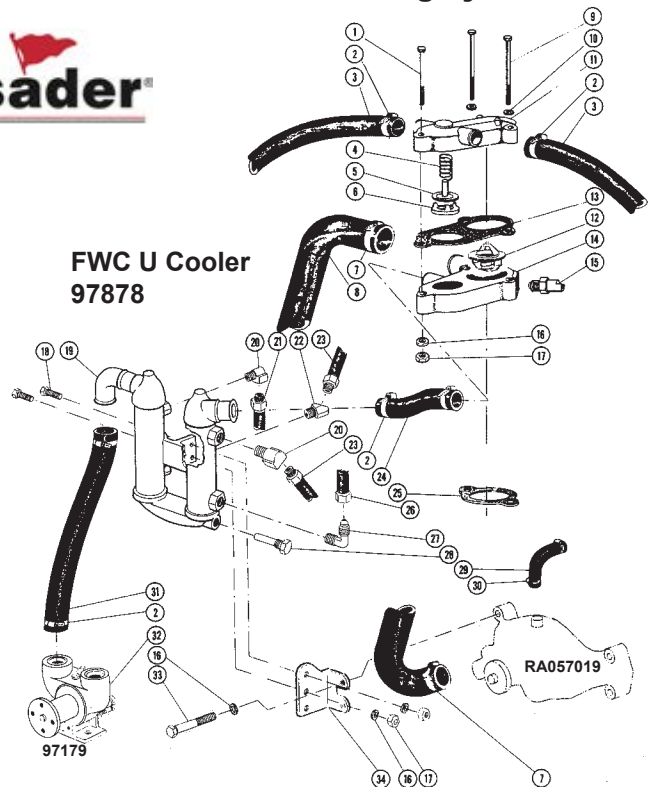
Engine Wiring



Item	Part No.	Description
1	22140	Screw, #10-24 x 3/8" Self Tapping
2	97474	Cover, Relay Bracket
3	22382	Screw, #10-24 x 7/8" Slotted Pan Head
4	97478	Bracket, Engine Relay
5	22383	Bolt, 1/4"-20 x 1/2" Hex HD
6	22440	Nut, #10-24 Plated Hex
7	109084	Nut, 1/4" x 20 UNC Hex
8	103320	Washer, 5/16" Medium Lock
9	102634	Nut, 5/16"-18 Hex
10	97958	Decal, Caution Accessory Wire
11	20171	Switch, Neutral Safety
12	21088	Sender, Gear Oil Temp (Alarm)
13	97767	Sender, Engine Oil Pressure (Alarm)
14	22155	Decal, Circuit Breaker
15	97568	Circuit Breaker (50 Amp)
16	9006320	Relay, Starter Motor
17	97479	Wire Assembly, Solenoid to Relay
18	97480	Wire Assembly, Safety Switch to Relay
19	106497	Washer, #10 Medium Lock
20	112432	Nut, 10-32 Hex Brass
21	97475	Wire Assembly, Resistor to Coil
22	41080	Ignition Coil Assembly
23	41063	Bracket, Ignition Coil
24	22220	Nut, #6-32 Plated Hex
25	41068	Resistor
26	22219	Screw, #6-32 x 3/8" Slotted Round Head
27	700425	Sender, Engine Oil Pressure (Single) Gauge
27	700403	Sender, Engine Oil Pressure (Dual) Gauge
28	443998	Adapter, 1/8" Pipe
29	97945	Wiring Harness, Universal
30	20326	Sender, Engine Water Temp. (Alarm)
31	700427	Sender, Engine Water Temp. (Single) Gauge
31	727046	Sender, Engine Water Temp. (Dual) Gauge
	22152	Noise Suppression Kit

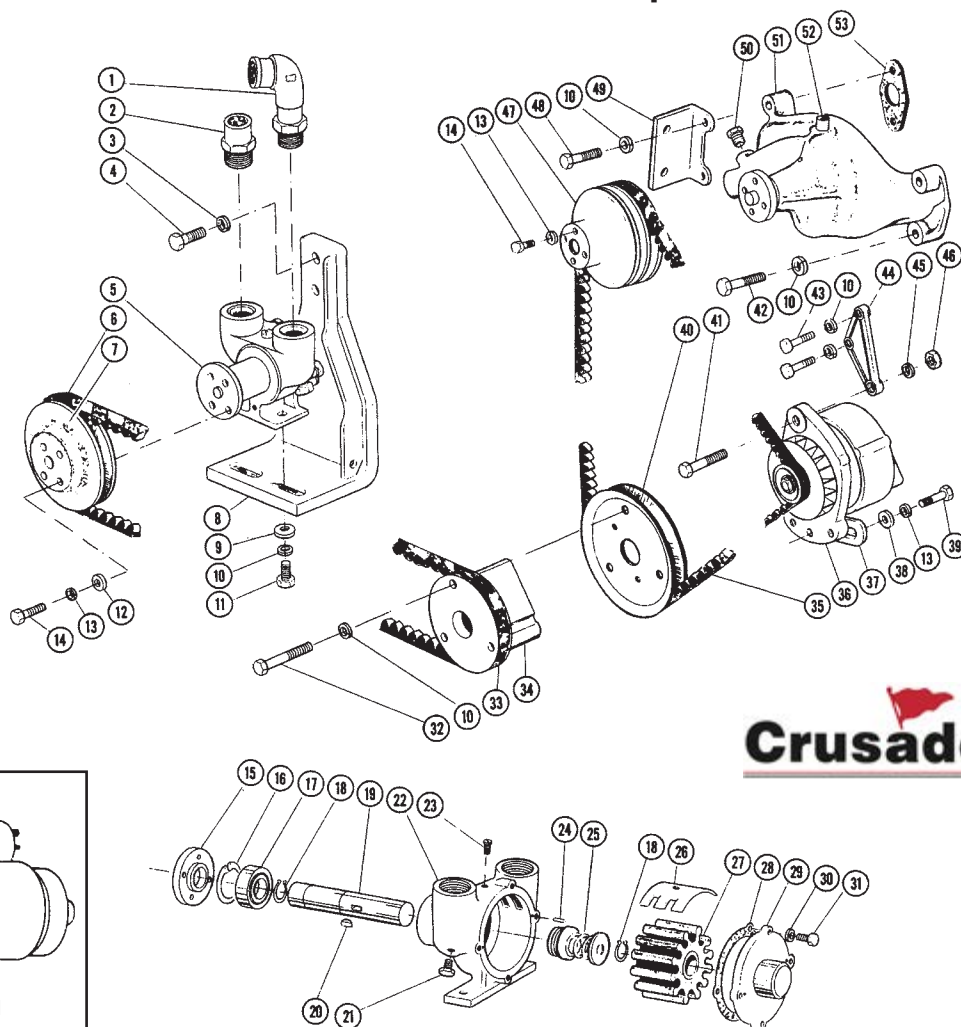
**Crusader**

Raw Water Cooling System



Item	Part No.	Description
1	186282	Bolt, 3/8"-16 x 3-1/4" Hex HD (GR5)
2	20228	#20 Clamp Hose
3	23026	Hose, 1-1/4" x 16" Long
4	96686	Spring, Pressure Relief
5	96066	Valve, Pressure Relief
6	96065	Seat, Pressure Relief
7	20420	#32 Clamp Hose
8	96296	Hose; 1-1/4" I.D., Formed
9	186285	Bolt, 3/8"-16 x 4" Hex HD (GR5)
10	116103	Washer; 3/8" Copper, Flat
11	97556	Housing, Thermostat (Upper)
12	96319	Thermostat, 143° F
13	97361	Gasket, Thermostat Cover
14	97557	Housing, Thermostat (Lower)
15	20326	Sender, Engine Water Temp. (Alarm)
16	103321	Washer, 3/8" Medium Lock
17	102635	Nut, 3/8"-16 Hex
18	179839	Bolt, 3/8"-16 x 1" Hex HD (GR5)
19	97878	U-Cooler, Raw Water Only (Use 97882 Fresh Water Only)
20	137425	Elbow; 3/8" Pipe x 1-1/2" Tube, Inverted Flare, 90°
21	22416	Hose Assembly; 44" Long, Standard
21	22417	Hose Assembly; 62" Long, V-Drive
22	143340	Elbow; 3/8" Pipe x 1/2" Tube, Inverted Flare, 45°
23	22415	Hose Assembly; 42" Long
24	97861	Hose; 1-1/4" I.D., Formed
25	96105	Gasket, Thermostat Housing to Intake
26	22420	Hose Assembly; 53" Long
27	30543	Elbow; 1/2" Pipe x 7/8" Tube, Male, Inverted Flare, 90°
28	10335	Plug, Zinc, 1/4" Pipe
29	30178	Hose, Bypass
30	20226	#12 Clamp Hose
31	97927	Hose; 1-1/4" I.D., Formed, LH
31	97928	Hose; 1-1/4" I.D., Formed, RH
32	97179	Pump Assembly, Raw Water
33	179849	Bolt, 3/8"-16 x 2-1/2" Hex HD (GR5)
34	97937	Bracket, Oil Cooler Mount
	22605	Complete Engine Hose Kit (Raw Water)

## Circulation &amp; Raw Water Pumps



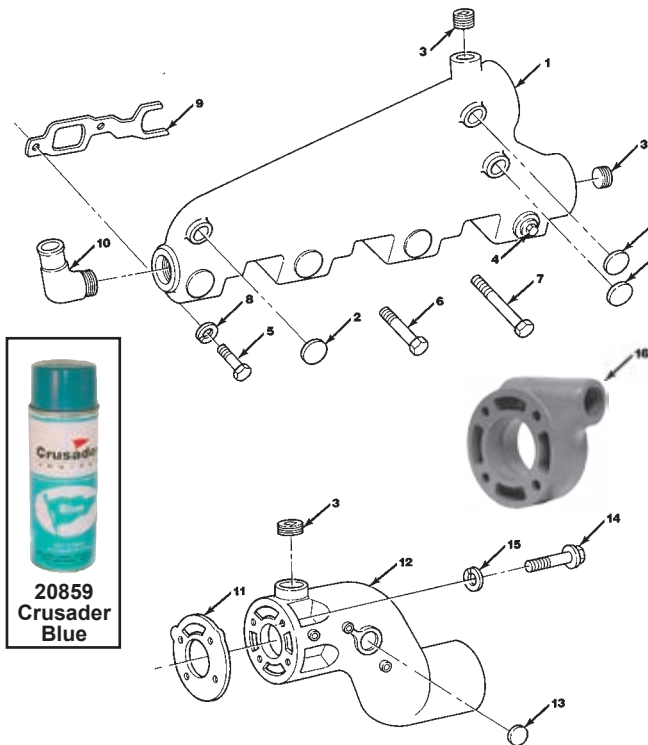
## Item Part No. Description

1	97853	Elbow; 1" Pipe x 1-1/4" Hose, Brass, Long, 90°
2	97852	Adapter; 1" Pipe x 1-1/4" Hose, Brass
3	103322	Washer, 7/16" Lock
4	179860	Bolt, 7/16" 14 x 1-1/4" Hex HD (GR5)
5	97179	Pump Assembly, Raw Water
6	10258	V-Belt, Raw Water Pump
7	97177	Pulley, Raw Water Pump
8	97293	Bracket Assembly, Raw Water Pump Mounting
9	20465	Washer, 3/8" x 7/8", Flat
10	103321	Washer, 3/8" Medium Lock
11	22249	Bolt, 3/8"-16 x 1" Hex HD SSTL
12	103340	Washer, 5/16" Flat
13	103320	Washer, 5/16" Medium Lock
14	181336	Bolt, 5/16"-24 x 3/4" Hex HD (GR5)
15	96972	Hub, Water Pump
16	20294	Retaining Ring, internal
17	20292	Ball Bearing
18	20293	Retaining Ring, External
19	20304	Shaft
20	20295	Shaft Key
21	RS3554	Plug, 1/8" Hex HD Pipe Brass
22	97179	Body Service Assembly
23	R175042	Screw; Flat Head Machine, Brass
24	20290	Dowel Pin
25	20309	Seal & Seat Assembly
26	20303	Cam
27	R061017	Impeller, Kit

## Item Part No. Description

28	20302	Gasket
29	20308	Cover & Bushing Assembly
30	20305	Washer, Lock
32	179850	Bolt, 3/8"-16 x 2-3/4" Hex HD (GR5)
33	10258	V-Belt, (Raw Water Pump)
34	97118	Pulley, Crankshaft (Raw Water Pump)
35	96745	V-Belt; Crankshaft, Alternator & Circulation Pump
36	39049	Alternator Assembly (51 Amp/12 Volt)
37	97061	Strap, Alternator Adjusting
38	20523	Washer, 11/32" x 7/8" Flat
39	90205075	Bolt, 5/16"-18 x 3/4" Hex HD (GR5)
40	30104	Pulley, Crankshaft (Circulation Pump & Alternator)
41	179893	Bolt, 1/2"-13 x 3" Hex HD (GR5)
42	90305175	Bolt, 3/8"-16 x 1-3/4" Hex HD (GR5)
43	90308150	Bolt, 3/8"-16 x 1-1/2" Hex HD (GR5)
44	97348	Bracket, Alternator
45	103323	Washer, 1/2" Lock
46	102637	Nut, 1/2"-13 Hex (Full)
47	20114	Pulley, Circulation Pump
48	179847	Bolt, 3/8" - 16 x 2" Hex HD (GR5)
49	97937	Bracket, Oil Cooler Support
50	444588	Plug, 1/2" NPT
51	RA057019	Circulation Water Pump Assembly
52	7140280	Nipple, Thermostat Bypass Hose
53	7140210	Gasket, Pump to Block
	20311	Major Repair Kit, Raw Water Pump #16, #17, #18, #25, #26, #27, #28 plus cover bushing (Not Shown)

### Exhaust Manifold Assemble



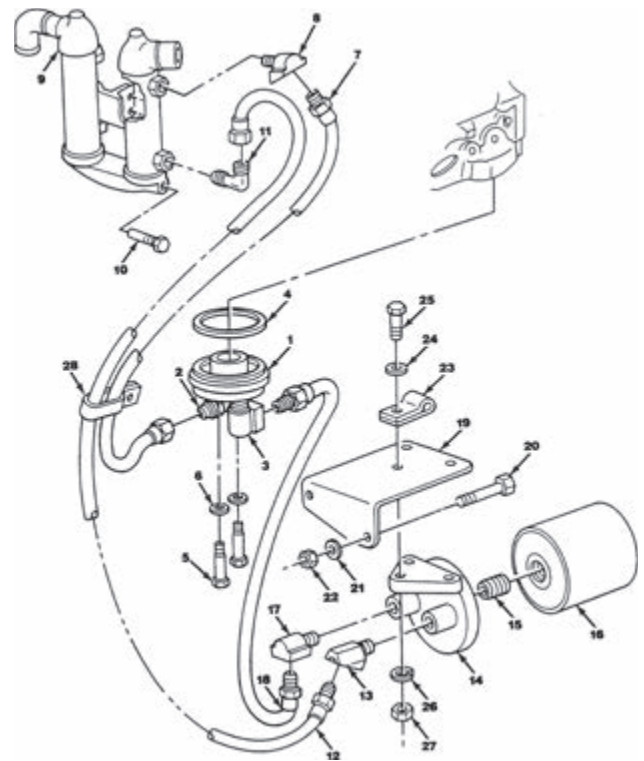
Item	Part No.	Description
1	97992	Exhaust Manifold (Right Side)
1	97993	Exhaust Manifold (Left Side)
2	20244	Plug, core (1-1/4")
3	103876	Plug, exhaust manifold
4	RS3552	Plug, manifold drain
5	90305125	Bolt, manifold to cylinder head (1-1/4")
6	90305375	Bolt, manifold to cylinder head (3-3/4")
7	90305475	Bolt, manifold to cylinder head (4-3/4")
8	93300000	Lockwasher, manifold to head bolt
9	96653	Gasket, manifold to cylinder head
10	97854	Elbow, 90 degree
11	96562	Gasket, manifold to elbow (1 Hole)
12	97924	Exhaust Elbow Assembly (4" Outlet)
12A	98068	Exhaust Elbow Assembly (3" Outlet)
13	20244	Plug, core (1-1/4")
14	90345125	Bolt, exhaust elbow attaching (1-1/4")
15	93300000	Lockwasher, elbow attaching bolt
16	CR-20-97295	Water Outlet Adapter

**NOTE:** Exhaust manifolds are reversed on V-drive engines. This may require the opposite manifold on these applications. Verify the part number cast into the manifold casting before ordering part.

**NOTE 1:** See Fresh Water Cooling section for parts used on Fresh Water Cooled engines.

**NOTE 2:** See exhaust options for parts breakdown of optional exhaust risers and exhaust elbows.

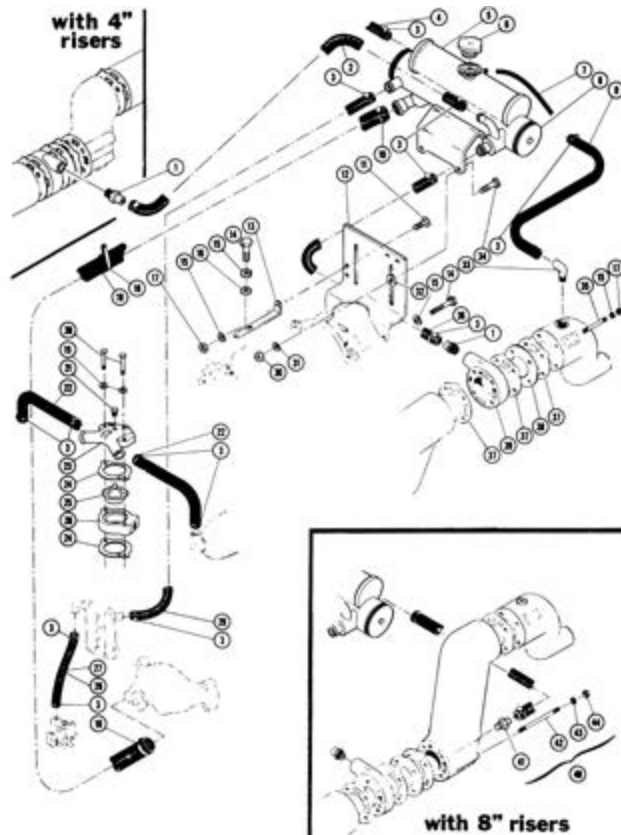
### Remote Oil Filter & Cooler Assembly



Item	Part No.	Description
1	97667	Adapter, remote filter to cylinder block
2	R024184	Elbow, hose - adapter to cooler
3	30550	Elbow, hose - adapter to filter
4	20156	Gasket, adaptor to cylinder block
5	90205250	Bolt, adaptor to cylinder block (2-1/2")
6	92202000	Washer, copper - adapter bolt
7	22624	Hose Assy. adapter to cooler (44-1/2")
8	30549	Elbow, hose - oil cooler (45°)
9	97878	Oil Cooler Assy.
9A	97878A	Oil Cooler Assy. - (Cupro-Nickel)
10	R168005	Zinc, sacrificial
11	R024184	Elbow, hose - oil cooler (90°)
12	22672	Hose Assy., cooler to filter (61")
13	30549	Elbow, hose - filter header (45°)
14	719571	Oil Filter Header
15	97292	Nipple, header filter adapter
16	22679	Oil Filter Element
17	30550	Elbow, hose - filter header (90°)
18	22627	Hose Assy., header to adapter (14")
19	97342	Bracket, filter mounting
20	90205125	Bolt, bracket to bellhousing (1-1/4")
21	93200000	Lockwasher, bracket bolt
22	95200000	Nut, bracket bolt
23	96566	Clamp, wire harness mounting
24	92200000	Washer, clamp retaining
25	90205125	Bolt, header to bracket (1-1/4")
26	93200000	Lockwasher, header mounting bolt
27	RS1027	Nut, header mounting bolt
28	R127099	Clamp, oil hose mounting



## Fresh Water Cooling Full System-Old Style 454 &amp; 502 C.I.D.



**Crusader**<sup>®</sup>

Item	Part No.	Description
1	97852	Adapter; 1" pipe x 1-1/4" hose, brass
2	20865*	Hose; 1-1/4" ID x 20" long starboard manifold to heat exchanger
3	RS3853	#20 Clamp, hose
4	20865	Hose; 1" ID x 23", exchanger tee to starboard manifold
5	97930	Heat Exchanger (Std) As shown
5	98191	New style 6" Single Heat Exchanger
6	98201	Filler Cap, heat exchanger
7	R045139	Hose, 5/16 x 27, overflow
8	22164	End Plate Kit - metal 5"
9	20866	Hose; 1" ID x 26", exchanger tee to port manifold
10	RS3855	#32 Clamp, hose
11	90305100	Bolt, 3/8"-16 x 1" hex head (GR5)
12	97308	Bracket, heat exchanger mounting
13	97309	Brace, heat exchanger bracket
14	RS0306	Bolt, 3/8"-16 1-1/2" hex cap (GR8)
15	93300000	Washer, 3/8" medium lock
16	92300000	Washer, 3/8" flat
17	95300000	Nut, 3/8"-16 hex
18	22118	Clamp, 2" hose support
19	98014	Hose; 1-7/8" x 48" heat exchanger to circulation pump
20	90305300	Bolt, 3/8"-16 x 3" hex head (GR5)
21	127950	Plug, 1/8" pipe hex head brass
22	NLA	Hose; 1-1/4" ID x 14", thermostat housing to exchanger manifold
23	97851	Thermostat Housing
24	96105	Gasket, thermostat housing to intake manifold
25	97895	Thermostat, 160°F w/ .156 hole
26	97452	Spacer, thermostat housing
27	NLA	Hose; 1-1/4" ID x 16-1/2", (RH Rotation)
28	NLA	Hose; 1-1/4" ID x 17-1/2", (LH Rotation)
29	20865	Hose; 1-1/4" ID x 35" oil cooler to heat exch.

Item	Part No.	Description
30	95400001	Nut, 7/16" -14 (5/8 Special)
31	93400000	Washer, 7/16" lock
32	92400220	Washer, 7/16" (Special)
33	727003	Elbow; 3/4" pipe x 1" ID 90°
34	90405150	Bolt, 7/16" - 14 x 1-1/2" hex head (GR5)
35	96369	Stud, 3/8" - 16 x 3-3/4"
36	20865	Hose; 1-1/4" ID x 12-1/2" long port manifold to exchanger
37	96108	Gasket, exhaust elbow; 3 hole
38	97296	Shim, water block-off
39	97295	Adapter, water outlet
40	97700	Stud Package, 8" & 12" risers (Kit)**
40	97773	Stud Package, 4" risers (Kit)*
41	97911	Adapter, 1" ID hose x 3/4" NPT**
41	97911	Adapter, 1" ID hose x 3/4" NPT*
42	22032	Stud, 3/8" - 16 x 9-3/8" SSTL**
42	22032	Stud, 3/8" - 16 x 9-3/8" SSTL*
42	22033	Stud, 3/8" - 16 x 7-3/4" SSTL*
43	92302000	Washer, flat 3/8" copper**
43	92302000	Washer, flat 3/8" copper*
44	95301300	Nut, elastic stop brass**
44	95301300	Nut, elastic stop brass*
	22606	Complete Engine Hose Kit (Fresh Water)
	22221	Fresh Water Cooling Kit (Full System)
	R127038D	Tie Wrap (Plastic)

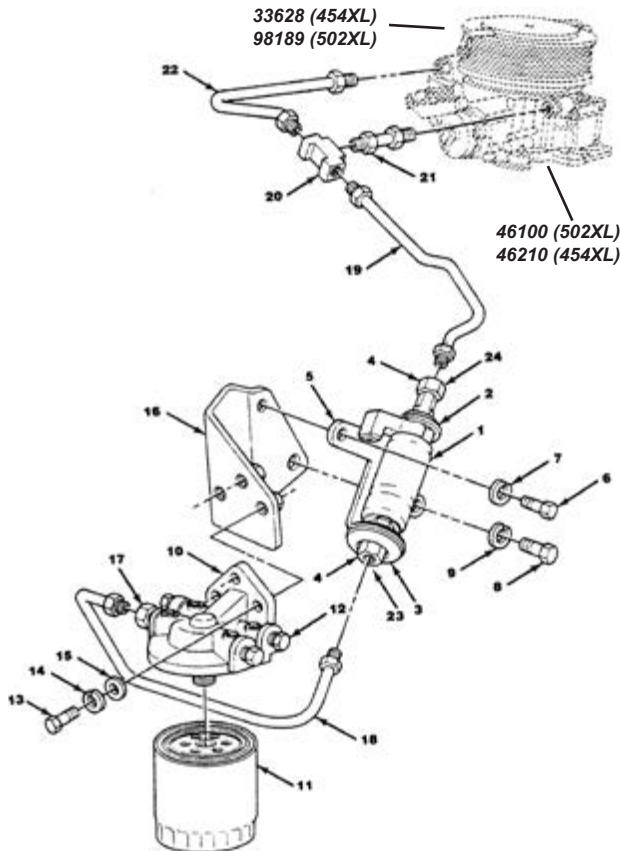
\*Indicates Items Included with 4" Riser Application

\*\*Indicates Items Included with 8" & 12" Riser Application

Note 1:#97700 Stud Package must be ordered when installing fresh water cooled 8" & 12" risers with 97992 & 97115 exhaust manifolds.

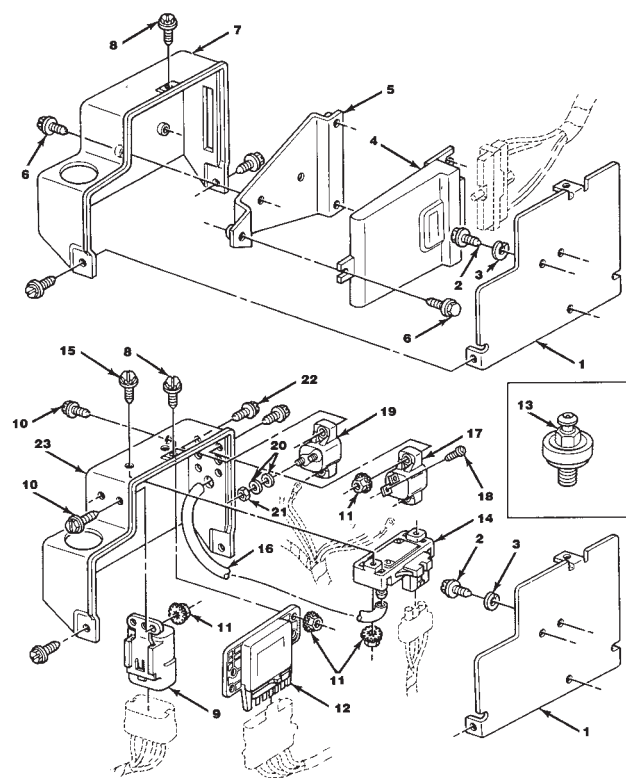
Note 2:#97773 Stud Package must be ordered when installing fresh water cooled 4" risers with 97992 & 97115 exhaust manifolds.

Fuel Pump & Fuel System



Item	Part No.	Description
1	22898	Fuel Pump Assembly
2	22798	Grommet, fuel pump mounting (Upper)
3	22799	Grommet, fuel pump mounting (Lower)
4	NLA	Fitting, fuel line
5	98336	Bracket, fuel pump mounting
6	90350100	Bolt, fuel pump bracket to head (1")
7	93300000	Lockwasher, mounting bolt
8	90405100	Bolt, fuel pump bracket to head (1")
9	93400000	Lockwasher, mounting bolt
10	22686	Header, fuel filter - 454XL
10	22778	Header, fuel filter - 502XL
11	22687	Fuel Filter/Water Separator
12	127951	Plug, pipe (1/4")
13	RS0282	Bolt, header mounting (1")
14	93200000	Lockwasher, header mounting bolt
15	92200000	Washer, header mounting bolt
16	98337	Bracket, fuel filter mounting
17	R024146	Adaptor, fuel line to header
18	98114	Fuel Line, fuel filter to fuel pump
19	98113	Fuel Line, pump to carb. (12°)- 454XL
19	98115	Fuel Line, pump to carb. (12°)- 502XL
19	98180	Fuel Line, pump to carb. (0°)- 454XL
19	98139	Fuel Line, pump to carb. (0°)- 502XL
20	178661	Tee, fuel pump to carburetor fuel lines
21	98149	Fuel Line, tee to carb. (Front)- 454XL
21	98091	Fuel Line, tee to carb. (Front)- 502XL
22	98148	Fuel Line, tee to carb. (Rear)- 454XL
22	98083	Fuel Line, tee to carb. (Rear)- 502XL
23	22801	O-Ring
24	22800	O-Ring

MSTS Components

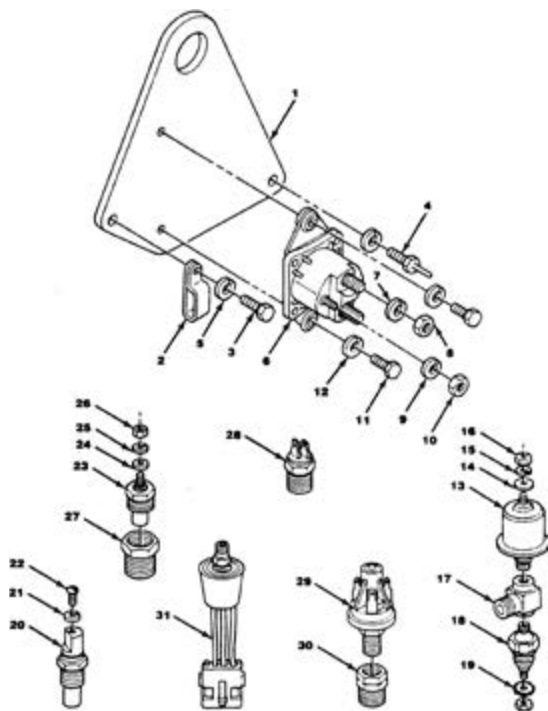


Item	Part No.	Description
1	98130	Bracket, component mounting
2	90125056	Bolt, bracket to riser attaching (9/16")
3	93100000	Lockwasher, bracket mounting bolt
4	48001	Electronic Control Module (ECM)
5	98132	ECM Mounting Bracket
6	9439930	Bolt, ECM to bracket attaching (9/16")
7	98133	Cover, ECM mounting
8	22860	Screw, cover attaching (3/8")
9	98175	Relay, MSTS Power
10	22861	Bolt, attaching (1/2")
11	22440	Nut, attaching bolt
12	R116015	Knock Module
13	R020029	Knock Sensor (Block)
14	R020017	MAP Sensor (Manifold Absolute Pressure)
15	91023100	Bolt, attaching (1")
16	20237	Hose, MAP sensor to carburetor (24")
17	98131	Circuit Breaker (10 AMP)
18	91680025	Screw, wire attaching
19	R153006B	Circuit Breaker (50 AMP)
20	92005000	Washer, wire attaching stud
21	95002000	Nut, wire attaching stud
22	22862	Bolt, circuit breaker mounting (3/4")
23	98320	Cover, component mounting

NOTE: Numbers in brackets (24") indicate minimum length that must be ordered when using bulk hose for replacement.

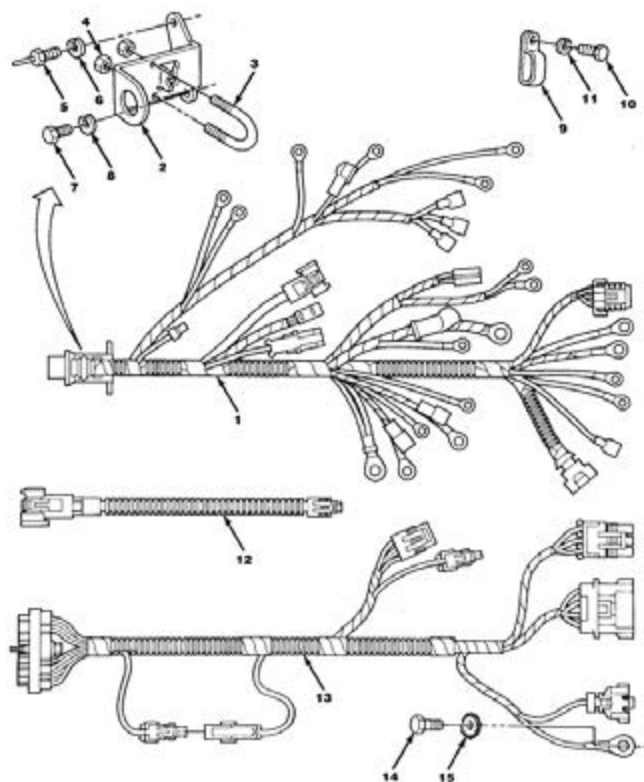


## Electrical Components



Item	Part No.	Description
1	98330	Bracket, solenoid mounting
2	20247	Clamp, wiring harness mounting
3	90305100	Bolt, bracket mounting (1")
4	98235	Bolt, Pin, bracket mounting (1")
5	93300000	Lockwasher, mounting bolt
6	22611	Solenoid, starter
7	93203000	Lockwasher, solenoid terminal
8	95201000	Nut, solenoid terminal
9	93000000	Lockwasher, solenoid terminal
10	95011000	Nut, solenoid terminal (10-32)
11	9439930	Bolt, solenoid mounting
12	RS2178	Lockwasher, mounting bolt
13	700425	Oil Pressure Sender (SS)
13	700403	Oil Pressure Sender (DS)
14	NLA	Washer, sender terminal
15	NLA	Lockwasher, sender terminal
16	95011000	Nut, sender terminal
13A	R020001	Oil Pressure Sender (VDO - SS)
13A	RS1540	Oil Pressure Sender (VDO - DS)
17	30606	Tee, oil sender mounting
18	97767	Oil Pressure Alarm Sender
19	271163	Nut, sender terminal
20	R020014A	Water Temp. Alarm Sender
21	93000000	Lockwasher, sender screw
22	NLA	Screw, wire attaching
23	R020003	Water Temp. Sender (SS)
23	727046	Water Temp. Sender (DS)
24	NLA	Washer, sender terminal
25	NLA	Lockwasher, sender terminal
26	95011000	Nut, sender terminal
23A	22701	Water Temp. Sender (VDO-SS)
23A	22703	Water Temp. Sender (VDO-DS)
27	120322	Bushing, 1/2" x 3/8"
28	R020037	Trans Temp. Alarm Sender
29	98176	Oil Pressure Switch (Fuel Pump) (Serial # 89381 and Below)
30	30610	Reducer, oil pressure switch
31	98220	Oil Pressure Switch (Fuel Pump) (Serial # 89382 and Above)

## Wiring Harness Assembly



Item	Part No.	Description
1	98338	Wiring Harness, main engine (Serial # 89381 and Below) (SEE NOTE)
1	98338	Wiring Harness, main engine (Serial # 89382 and Above)
2	98331	Bracket, harness plug mounting
3	98197	U-Clamp, wiring harness attaching
4	95104300	Nut, U-clamp
5	98235	Bolt, Pin bracket to block (3/8-1")
6	93300000	Lockwasher, mounting bolt
7	90405100	Bolt, mounting (7/16-1")
8	RS2181	Lockwasher, mounting bolt
9	20247	Clamp, harness attaching
10	90305100	Bolt, clamp attaching (3/8-1")
10	90405100	Bolt, clamp attaching (7/16-1")
11	93300000	Lockwasher, clamp attaching bolt (7/16")
11	93400000	Lockwasher, clamp attaching bolt (7/16")
12	7241790	Wire Lead, coil to distributor
13	48005	Wiring Harness, MSTs
14	RS0279	Bolt, harness ground
15	93200200	Lockwasher, harness ground bolt

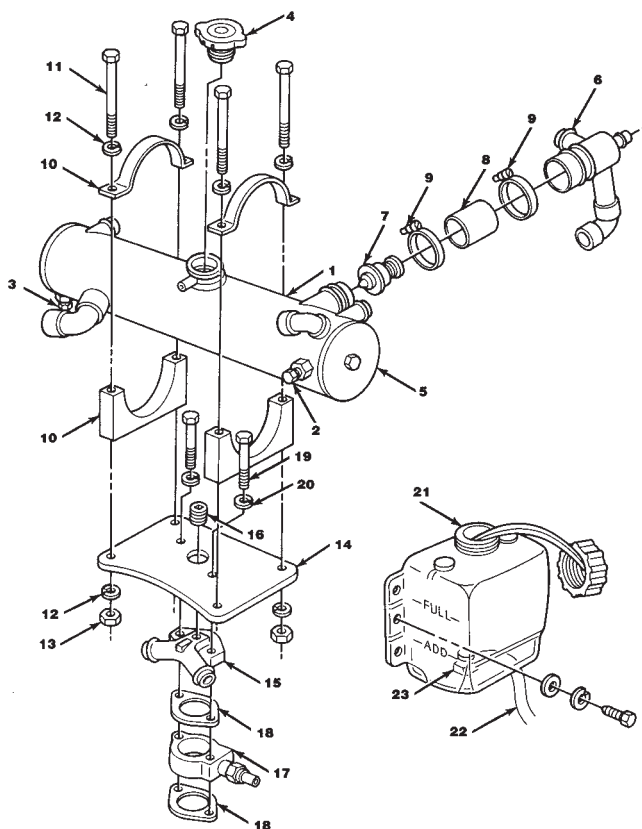
**NOTE:** When replacing a main engine wiring harness on all XL models, serial number 89381 and below, it will be necessary to replace the electric fuel pump oil pressure switch. Order switch part number 98220. This is necessary due to incompatibility in wiring harness connectors in this location.

  
**Crusader**<sup>®</sup>



### Fresh Water Cooling Components

Front-Mounted Exchanger

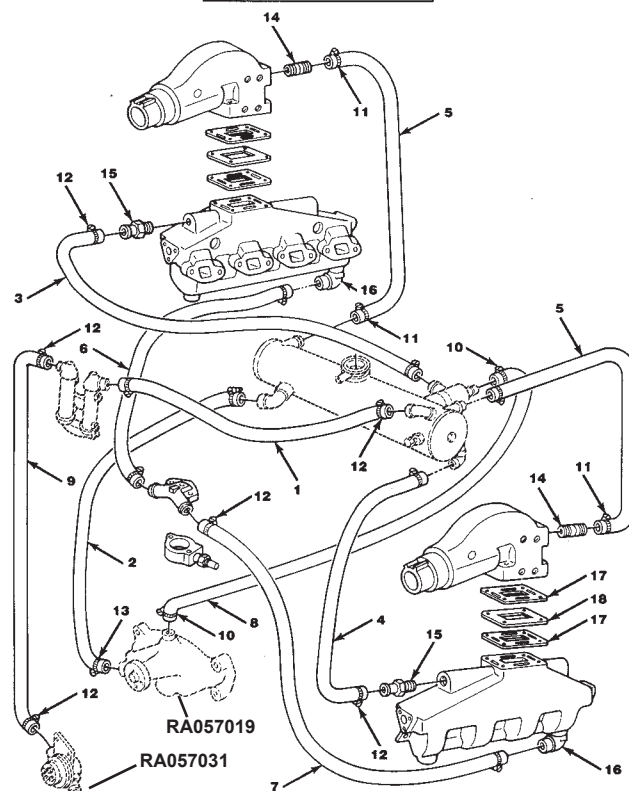


Item	Part No.	Description
1	98236	Heat Exchanger Assembly (Front)
2	R168005	Zinc, sacrificial
3	RS3552	Plug, drain (1/4")
4	RK034006A	Cap, exchanger fill
5	22164	End Cap Kit
6	98238	Thermostat Housing
7	R026007	Thermostat (170°)
8	R045162	Hose, thermostat housing attaching
9	RS3860	Clamp, thermostat housing (#36)
10	98237	Clamp and Cradle Assembly
11	90305400	Bolt, exchanger mounting (4")
12	93300000	Lockwasher, mounting bolt
13	95300000	Nut, mounting bolt
14	98239	Base, exchanger mounting
15	97851	Cover, water distribution block
16	RS3554	Plug, vent
17	97452	Base, water distribution block
18	RM0121	Gasket, water distribution block
19	90308425	Bolt, attaching (4-1/4")
20	93300000	Lockwasher, attaching bolt
21	R146002	Bottle, overflow
22	R045139	Tube, overflow [48"]
23	7170480	Clamp, overflow tube

**NOTE:** Numbers in brackets "[24"]" indicate minimum length that must be ordered when using bulk hose for replacement.

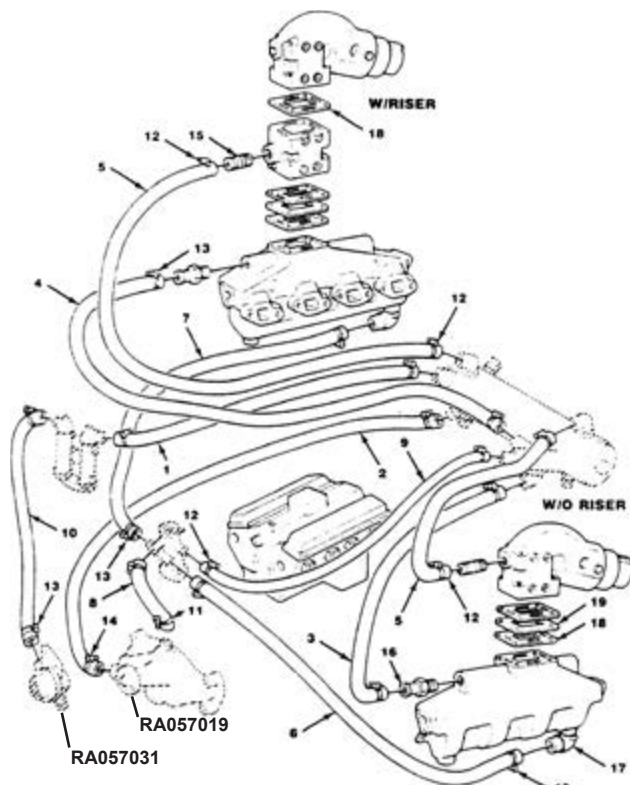
### Fresh Water Cooling Components

Front-Mounted Exchanger



Item	Part No.	Description
1	18321	Hose, oil cooler to exchanger
2	18320	Hose, circulation pump to exchanger
3	18308	Hose, thermostat housing to manifold (Starboard)
4	18307	Hose, thermostat housing to manifold (Port)
5	18323	Hose, exchanger to elbow (STD)
5	18322	Hose, exchanger to elbow ("V"-Drive)
6	18317	Hose, distribution block to manifold (Starboard)
7	18327	Hose, distribution block to manifold (Port)
8	20206	Hose, bypass — thermostat to pump (28")
9	18300	Hose, raw water pump to oil cooler
10	RS3854	Clamp, hose (#12)
11	20227	Clamp, hose (#16)
12	RS3858	Clamp, hose (#20)
13	RS3855	Clamp, hose (#32)
14	97911	Fitting, exhaust elbow (1" hose)
15	97852	Fitting, exhaust elbow (1-1/4" hose)
16	R024268	Fitting, exhaust manifold (90°)
17	98127	Gasket, exhaust riser and elbow
18	98124	Block-Off Plate, exhaust elbow
		Fresh Water Cooling Kits:
	22816	FWC Kit (Standard — rear-mounted exchanger)
*	22816	FWC Kit ("V"-Drive — rear-mounted exchanger)
	22905	FWC Kit (All — front-mounted exchanger)

## Fresh Water Cooling Components

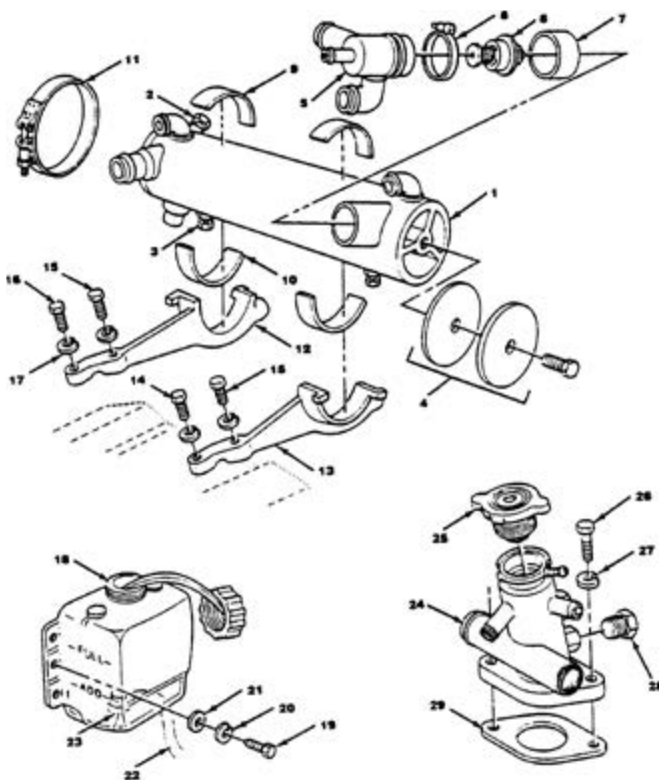
Rear-Mounted  
Exchanger

Item	Part No.	Description
1	18305	Hose, oil cooler to exchanger
2	18306	Hose, circulation pump to exchanger
3	18307	Hose, therm. housing to manifold (LH)
4	18308	Hose, therm. housing to manifold (RH)
5	18309	Hose, exch. to exhaust elbow (STD)
5A	18311	Hose, exch. to exhaust elbow (V-drive)
6	18327	Hose, fill riser to manifold (Port)
7	18317	Hose, fill riser to manifold (Starboard)
8	22102	Hose, fill riser to circulation pump
9	20806	Hose, bypass - therm. to fill riser
10	18300	Hose, raw water pump to oil cooler
11	RS3854	Clamp, hose (#12)
12	20227	Clamp, hose (#16)
13	RS3853	Clamp, hose (#20)
14	RS3855	Clamp, hose (#32)
15	97911	Fitting, exhaust elbow (1" hose)
16	97852	Fitting, exhaust elbow (1-1/4" hose)
17	97854	Fitting, exhaust manifold (90°)
18	98127	Gasket, exhaust riser & elbow (Use of exhaust riser req. 6 gaskets)
19	98124	Block-Off Plate, exhaust elbow

## Fresh Water Cooling Kits:

*	22816	FWC Kit (Standard app.) (Rear)
*	22816	FWC Kit ("V" -drive app.) (Rear)

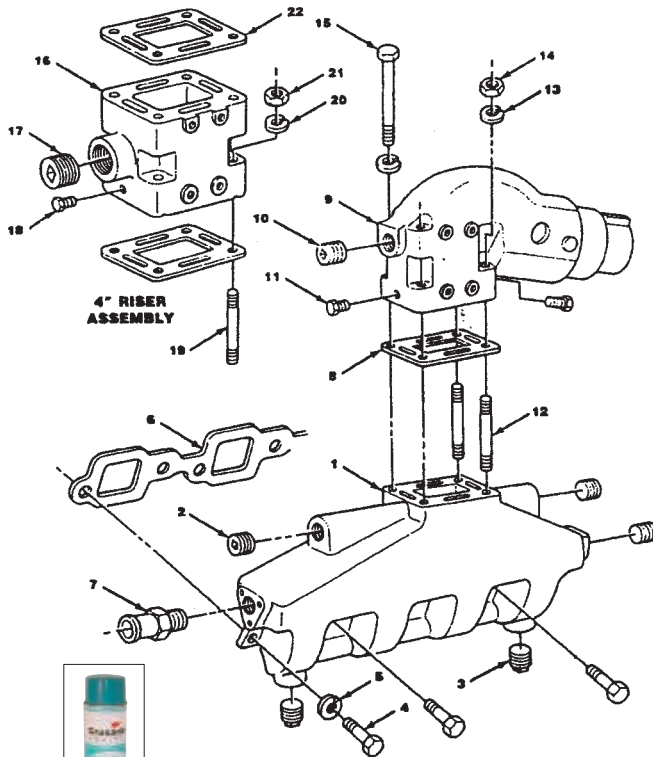
## Fresh Water Cooling Components

Rear-Mounted  
Exchanger

Item	Part No.	Description
1	98117	Heat Exchanger Assembly
2	R168005	Zinc, sacrificial
3	RS3552	Plug, drain (1/4")
4	22164	End Cap Kit
5	98202	Thermostat Housing
6	R026007	Thermostat 170°
7	R045162	Hose, thermostat housing attaching
8	RS3860	Clamp, thermostat housing (#36)
9	R094041	Isolator, top
10	R094040	Isolator, bottom
11	R171009	Clamp, exchanger mounting
12	98213	Support, exchanger (Starboard)
13	98118	Support, exchanger (Port)
14	RS0308	Bolt, support attaching (2")
15	90305250	Bolt, support attaching (2-1/2")
16	90305225	Bolt, support attaching (2-1/4")
17	93300000	Lockwasher, attaching bolt
18	R146002	Bottle, overflow
19	90205075	Bolt, bottle mounting
20	93200000	Lockwasher, mounting bolt
21	92200000	Washer, mounting bolt
22	R045139	Tube, overflow [48"]
23	R127084	Clamp, overflow tube
24	NLA	Fill Riser, fresh water
25	RK034006A	Cap, fill riser
26	RS0306	Bolt, fill riser mounting
27	93300000	Lockwasher, mounting bolt
28	444705	Plug, pipe - fill riser
29	RM0121	Gasket, fill riser to intake manifold

NOTE: Numbers in brackets [48"] indicate minimum length that must be ordered when using bulk hose for replacement.

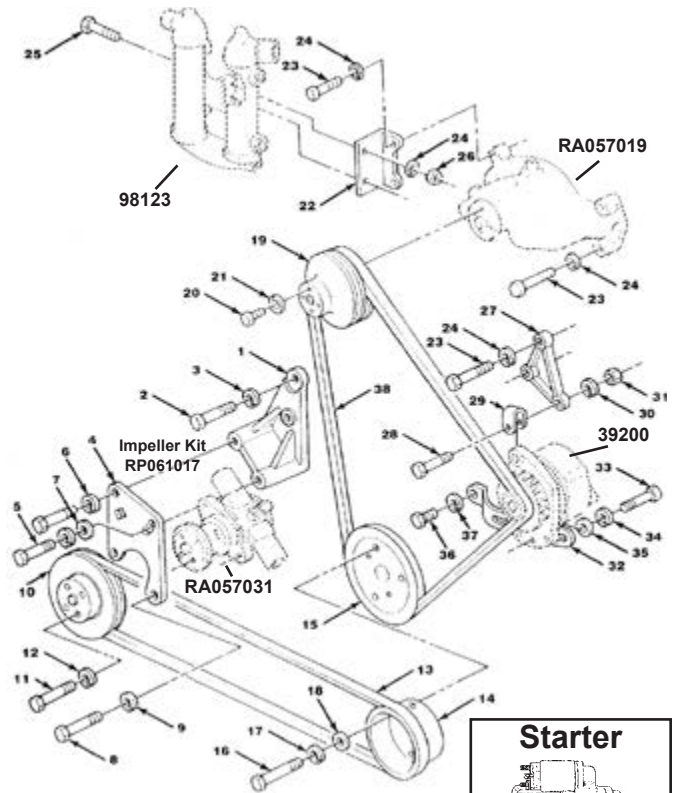
### Exhaust Manifold Assembly



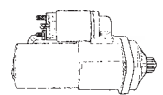
NOTE: See Fresh Water Cooling section for parts used on Fresh Water Cooled engines.

Item	Part No.	Description
1	98125	Exhaust Manifold
2	103876	Plug, exhaust manifold (1")
3	113178	Plug, manifold drain
4	RS0460	Bolt, manifold to cylinder head (1-1/2")
5	93300000	Lockwasher, manifold to head bolt
6	RS0306	Gasket, manifold to cylinder head
7	97852	Fitting, water (Straight)
7	R024268	Fitting, water (90°)
8	98127	Gasket, manifold to elbow
9	R029015	Exhaust Elbow Assembly
10	113186	Plug, exhaust elbow (3/4")
11	RS3554	Plug, drain
13	93300000	Lockwasher, elbow attaching stud
14	95300000	Nut, elbow attaching stud
15	90305475	Bolt, exhaust elbow attaching (4-3/4")
*	22818	4-Inch Riser Kit 1
16	98128	Exhaust Riser
17	113186	Plug, exhaust riser (3/4")
18	RS3554	Plug, drain
19	20783	Stud, riser mounting (2-3/4")
20	93300000	Lockwasher, riser stud
21	95300000	Nut, riser mounting stud
22	98127	Gasket, riser mounting

### Pulley, Belts, and Mounting Hardware



#### Starter

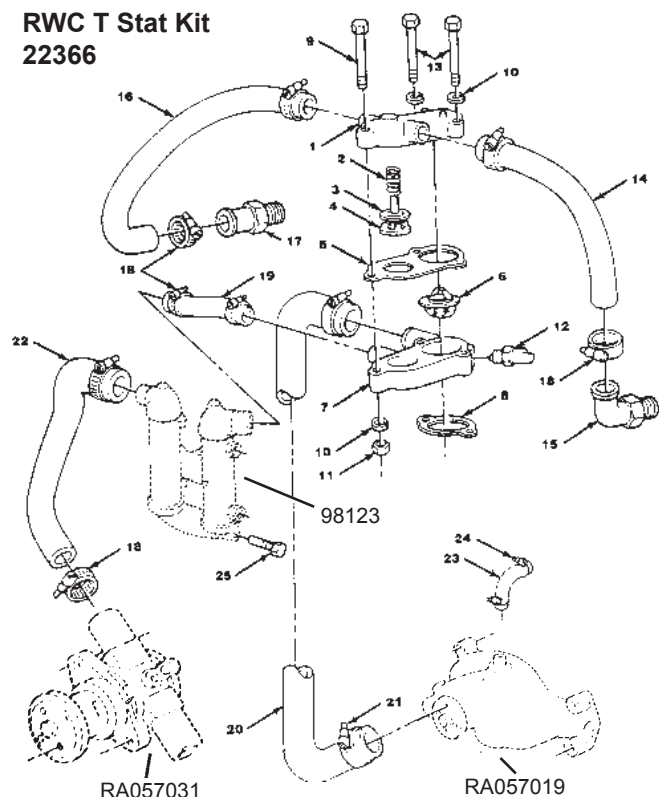


RA122009 Left Hand  
RA122008 Right Hand

Item	Part No.	Description
1	98120	Bracket, raw water pump mounting
2	90405125	Bolt, bracket to cylinder (1-1/4")
3	RS2181	Lockwasher, mounting bolt
4	R090263	Bracket, raw water pump adjusting
5	90405125	Bolt, adjusting bracket mounting (1-1/4")
6	RS2181	Lockwasher, adjusting bolt
7	92400000	Washer, adjusting bolt
8	90204100	Bolt, raw water pump mounting (1")
9	93200000	Lockwasher, pump mounting bolt
10	97952	Pulley, raw water pump
11	90215075	Bolt, pulley attaching (3/4")
12	93200000	Lockwasher, attaching bolt
13	10258	Belt, raw water drive
14	97950	Pulley, crankshaft to raw water pump
15	97954	Pulley, crankshaft to alternator
16	90315175	Bolt, pulley to balancer (1-3/4") 454XL
16	90305100	Bolt, pulley to balancer (1") 502XL
17	93300000	Lockwasher, pulley attaching bolt
18	92300000	Washer, pulley attaching bolt
19	R065049	Pulley, engine circulating pump
20	90215075	Bolt, water pump pulley (3/4")
21	93200000	Lockwasher, water pump pulley pump
22	97937	Bracket, oil cooler mounting
23	90305200	Bolt, attaching (2")
24	93300000	Lockwasher, attaching bolt
25	90305100	Bolt, oil cooler mounting (1")
26	95300000	Nut, cooler mounting bolt
27	98333	Bracket, alternator mounting
28	90505325	Bolt, alternator attaching (3-1/4")
29	98184	Loop, alternator adjusting
30	93500000	Lockwasher, attaching bolt
31	95800000	Nut, attaching bolt
32	98209	Strap, alternator adjusting
33	90205100	Bolt, alternator adjusting (1")
34	93200000	Lockwasher, alternator adjusting bolt
35	92200020	Washer, alternator adjusting bolt
36	90405100	Bolt, adjusting strap to bolt (1")
37	93400000	Lockwasher, adjusting strap to bolt
38	98210	Belt, alternator drive

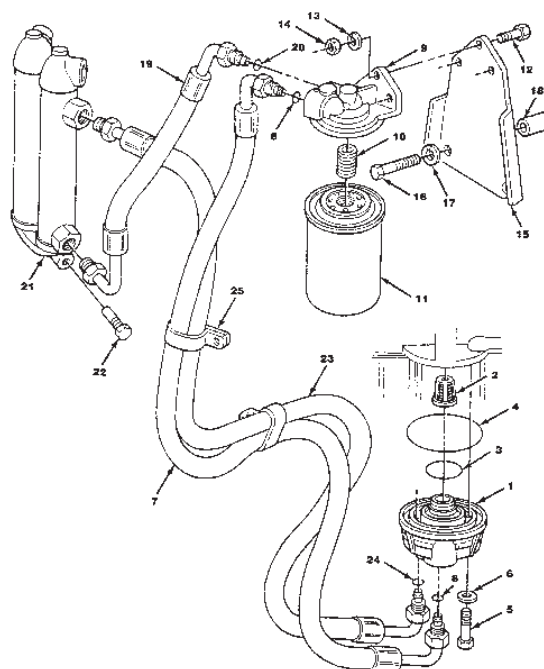


## Raw Water Cooling Components

RWC T Stat Kit  
22366

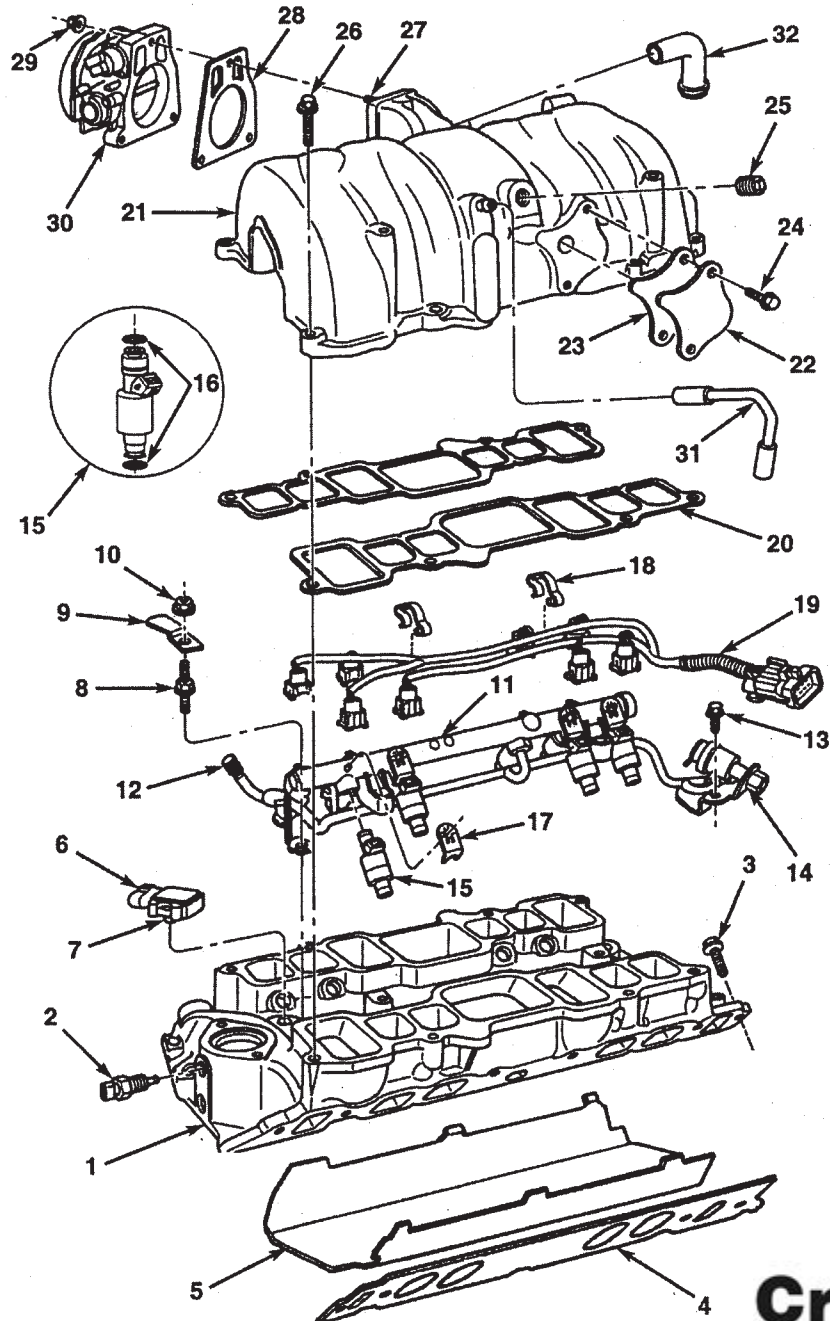
Item	Part No.	Description
*	22366	<b>Thermostat Housing Assy.</b> , Complete
1	97556	<b>Thermostat Housing</b> , upper
2	96686	<b>Spring</b> , pressure relief
3	96066	<b>Valve</b> , pressure relief
4	96065	<b>Seat</b> , pressure relief
5	97361	<b>Gasket</b> , thermostat housing
6	R026002E	<b>Thermostat (143°)</b>
7	97557	<b>Thermostat Housing</b> , lower
8	RM0121	<b>Gasket</b> , thermostat housing
9	90305350	<b>Bolt</b> , thermostat housing (3-1/2")
10	93300000	<b>Lockwasher</b> , thermostat housing bolt
11	95300000	<b>Nut</b> , thermostat housing bolt
12	R020014A	<b>Sender</b> , temperature alarm
13	90305400	<b>Bolt</b> , therm. housing to intake (4") (Port)
14	18303	<b>Hose</b> , therm. housing to LH manifold
15	R024268	<b>Fitting</b> , water (90°) (Starboard)
16	18304	<b>Hose</b> , therm. housing to RH manifold
17	97852	<b>Fitting</b> , water (straight)
18	RS3858	<b>Clamp</b> , water hose
19	97861	<b>Hose</b> , oil cooler to thermostat housing
20	18302	<b>Hose</b> , water pump to therm. housing
21	RS3855	<b>Clamp</b> , hose
22	18300	<b>Hose</b> , water pump to oil cooler
23	7140240	<b>Hose</b> , block water bypass
24	RS3854	<b>Clamp</b> , bypass hose
25	R168005	<b>Zinc</b> , sacrificial

## Remote Oil Filter Assembly



Item	Part No.	Description
1	98105	<b>Adaptor</b> , remote filter to cylinder block
2	98173	<b>Valve</b> , oil pressure relief
3	22802	<b>O-Ring</b> , adaptor to block (Small)
4	22654	<b>O-Ring</b> , adaptor to block (Large)
5	90205175	<b>Bolt</b> , adaptor to cylinder block (1-3/4)
6	92202000	<b>Washer</b> , adaptor bolt, copper
7	18100	<b>Hose Assembly</b> , adapt. to fit. head. (40")
8	22897	<b>O-Ring</b> , oil line
9	R079066	<b>Oil Filter Header</b>
10	97292	<b>Nipple</b> , header filter adaptor
11	22679	<b>Oil Filter Element</b>
12	90205100	<b>Bolt</b> , header to bracket (1")
13	93200000	<b>Lockwasher</b> , header mounting bolt
14	95200000	<b>Nut</b> , header mounting bolt
15	98334	<b>Bracket</b> , filter mounting
16	90305200	<b>Bolt</b> , bracket to cylinder head (2")
17	93300000	<b>Lockwasher</b> , bracket bolt
18	98183	<b>Spacer</b> , filter mounting bracket
19	18102	<b>Hose Assembly</b> , fit. head. to cooler (18")
20	22897	<b>O-Ring</b> , oil line
21	98123	<b>Oil Cooler Assembly</b>
22	R168005	<b>Zinc</b> , sacrificial
23	18101	<b>Hose Assembly</b> , oil cooler to adapt. (47")
24	22897	<b>O-Ring</b> , oil line
25	R127099	<b>Clamp</b> , oil line mounting

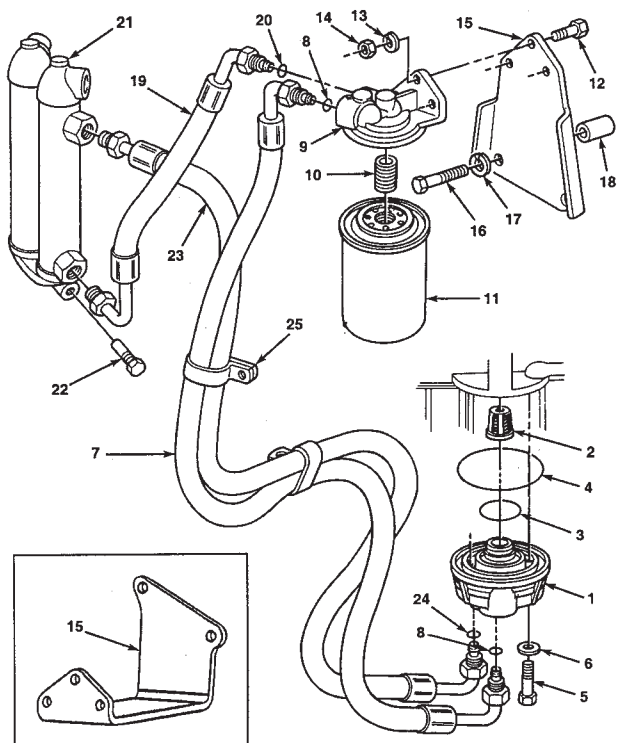
Intake Manifold Assembly



**Crusader**

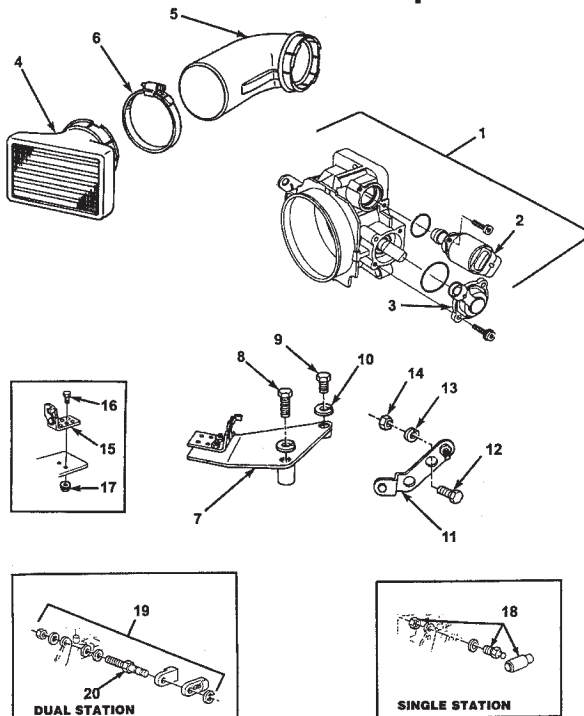
Item	Part No.	Description	Item	Part No.	Description
1	7151280	Intake Manifold, lower	17	49052	Retainer, fuel injector to fuel rail
2	R020019	Sender, temperature (CTS)	18	49058	Clip, injector wire harness retaining
3	7151310	Bolt, intake mounting (1-1/4")	19	49057	Wire Harness Assembly, fuel injectors
4	7151330	Gasket, intake manifold	20	7151320	Gasket, upper to lower intake manifold
5	31038	Guard, oil splash - lifter	21	7151290	Intake Manifold, Upper
6	49050	Sensor, MAP	22	7151340	Cover, EGR blockoff
7	47310	Seal, MAP sensor	23	7150540	Gasket, EGR blockoff cover
8	49055	Stud, fuel rail retaining	24	7142110	Bolt, EGR blockoff cover attaching
9	49054	Clip, MAP sensor retaining	25	RS3551	Plug, 3/8" NPT
10	97330010	Nut, retaining clip hold-down	26	7151300	Bolt, intake mounting
11	49059	Injector Fuel Rail Assembly	27	49066	Stud, throttle body mounting
12	49053	Cap, test valve	28	RMO251	Gasket, throttle body mounting
13	49056	Bolt, fuel rail attaching	29	49027	Nut, throttle body mounting
14	49063	Fuel Pressure Regulator	30	RA035036	Throttle Body Assembly
15	49051	Injector Assembly	31	49064	Hose, PCV connecting
16	49062	O-Ring, kit fuel injector	32	49065	Hose, fresh air inlet

## Remote Oil Filter Assembly



Item	Part No.	Description
1	98105	Adapter, remote filter to cylinder block
2	98173	Valve, oil pressure relief
3	22802	O-Ring, adapter to block (Small)
4	22654	O-Ring, adapter to block (Large)
5	90225175	Bolt, adapter to cylinder block
6	92205000	Washer, adapter bolt (Copper)
7	18100	Hose Assembly, adapter to filter header (40")
8	22897	O-Ring, oil line
9	R079066	Oil Filter Header
10	R024203	Nipple, header filter adapter
11	22679	Oil Filter Element
12	RS0282	Bolt, header to. bracket
13	93200000	Lockwasher, header mounting bolt
14	95200000	Nut, header mounting bolt
15	98334	Bracket, filter mounting
15	98635	Bracket, filter mounting (Front mounted closed cooling)
16	RS0331	Bolt, bracket to cylinder head
17	93400000	Lockwasher, bracket mounting bolt
18	98183	Spacer, mounting bracket
19	18102	Hose Assembly, filter header to oil cooler (18")
20	22897	O-Ring, oil line
21	98123	Oil Cooler Assembly (RWC cooling only)
21	98570	Oil Cooler Assembly (Closed cooling only)
22	R168005	Zinc, sacrificial
23	18101	Hose Assembly, oil cooler to adapter (47")
24	22897	O-Ring oil line
25	R127099	Clamp, oil line mounting

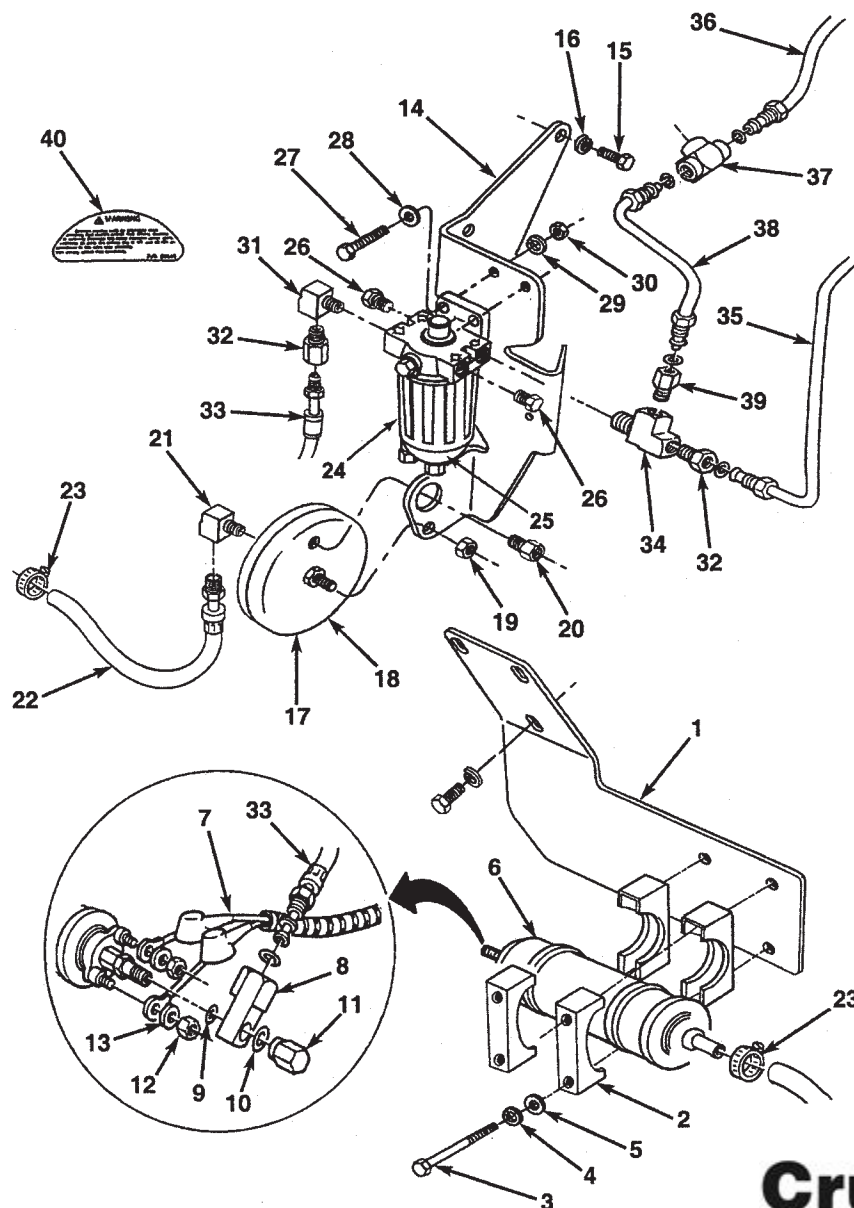
## Intake Manifold Components



Item	Part No.	Description
1	RA035036	Throttle Body Assembly
2	R084003	Idle Air Control Valve (IAC)
3	R020041	Throttle Position Sensor (TPS)
4	49037	Flame Arrestor, intake
5	98580	Extension Tube, air inlet
6	23541	Clamp, retaining
7	98568	Throttle Bracket, intake
8	90205125	Bolt, bracket mounting (Long)
9	RS0282	Bolt, bracket mounting (Short)
10	93200000	Lockwasher, mounting bolt
11	98551	Throttle Arm, throttle body
12	90124050	Bolt, throttle arm retaining
13	93100000	Lockwasher, retaining bolt
14	95100000	Nut, retaining bolt
15	R090086	Cable Clip, throttle attaching (Single)
15	22232	Cable Clip, throttle attaching (Dual)
16	91000051	Screw, clip mounting
17	95000060	Nut, clip mounting screw
18	R178014	Ball Joint Assembly, cable attaching (Single)
19	23235	Cable Attaching Kit, Dual
20	22978	Pivot Pin, cable attaching (Dual)



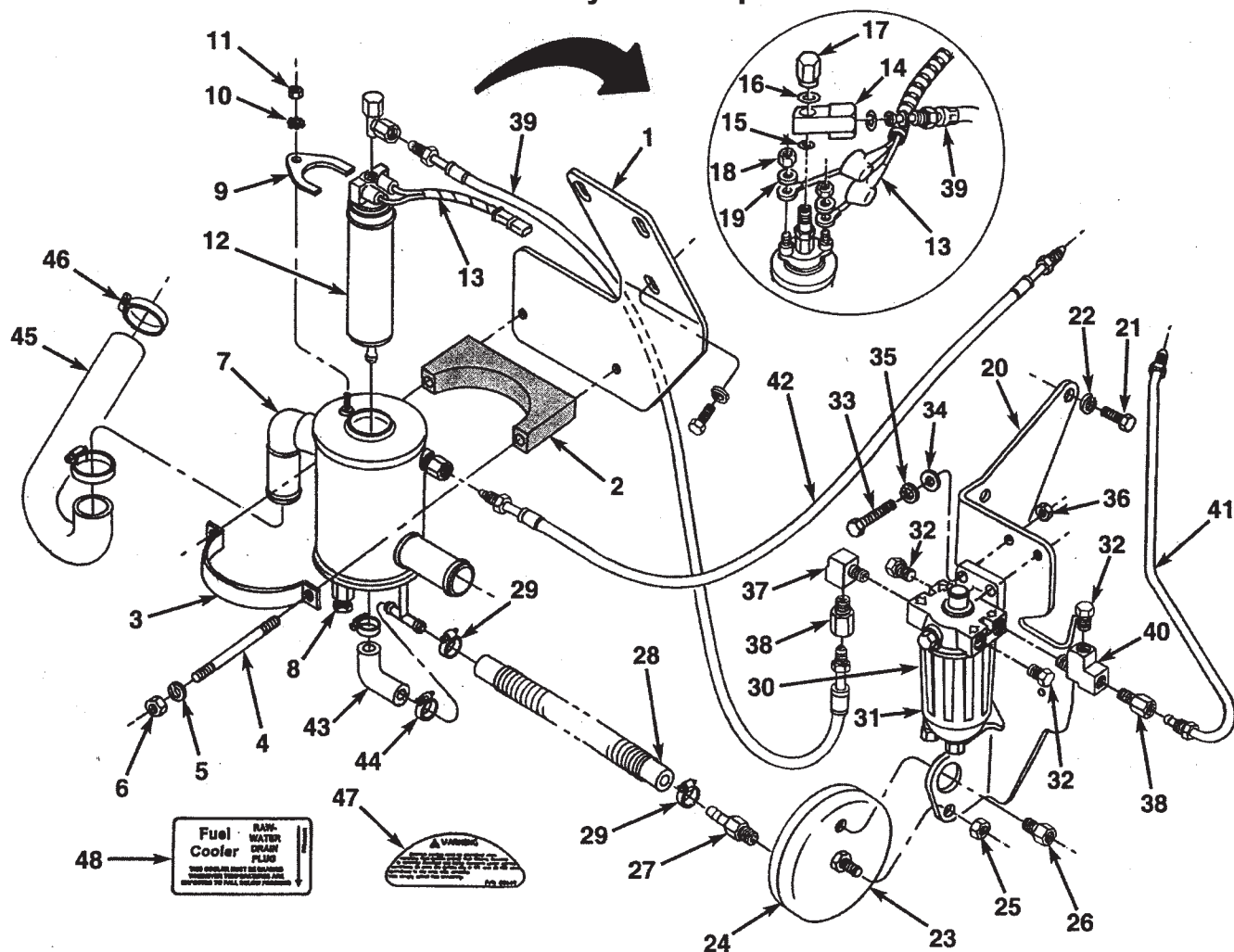
Return Type Fuel System Components



**Crusader**<sup>®</sup>

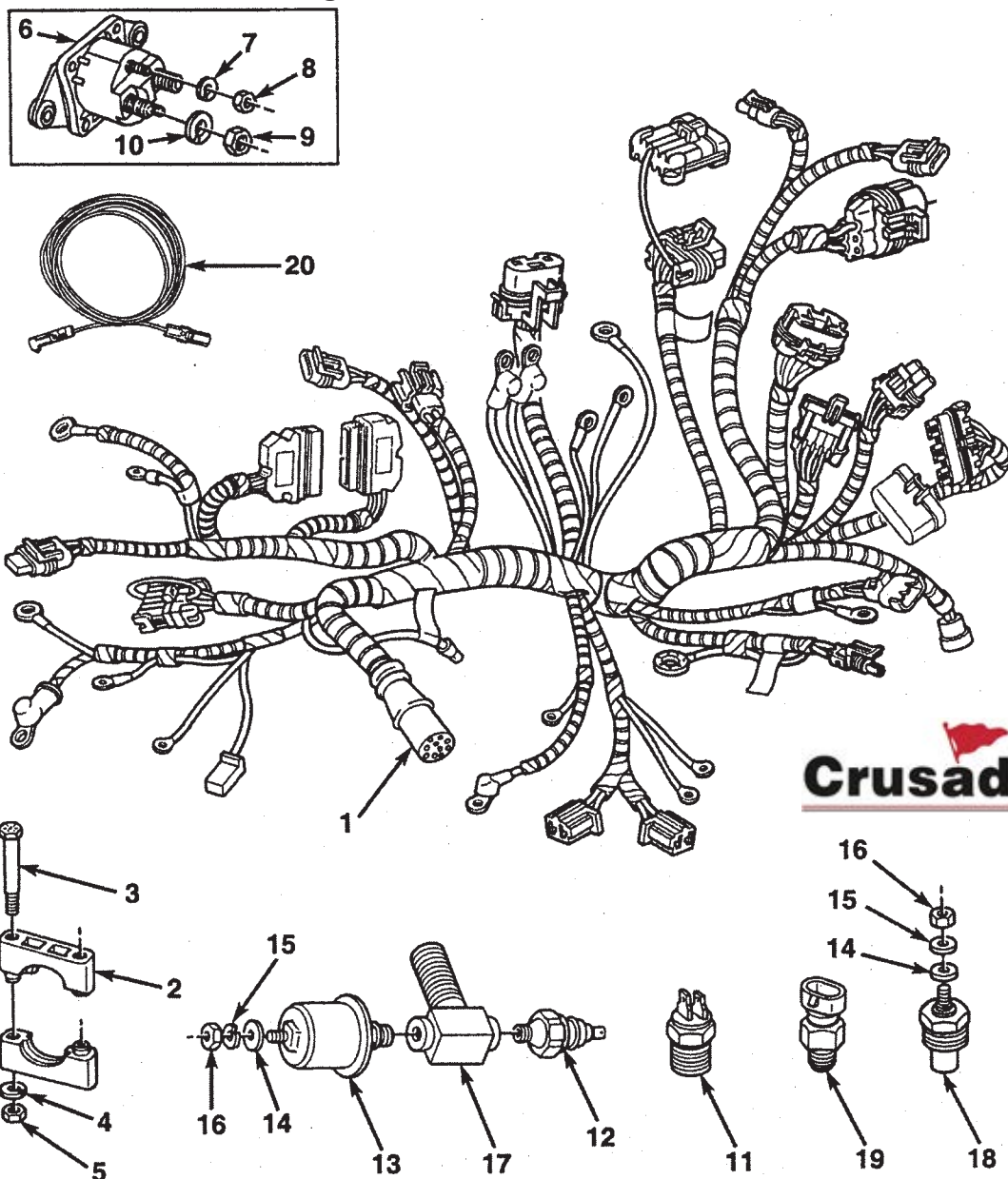
Item	Part No.	Description	Item	Part No.	Description
1	98531	Bracket, fuel pump mounting	21	137425	Elbow, fuel outlet
2	98437	Clamp, fuel pump retaining	22	98469	Fuel Line, filter to fuel pump
3	90205350	Bolt, fuel pump mounting	23	RS3864	Clamp, fuel line to fuel pump
4	93200000	Lockwasher, mounting bolt	24	47046	Fuel Filter, Racor water separating
5	92200000	Washer, mounting bolt	25	47047	Element, Racor fuel filter (Not Shown)
6	47039	Electric Fuel Pump Assembly	26	RS3552	Fitting, blockoff
7	49038	Wire Harness, fuel pump to engine harness	27	90205125	Bolt, filter mounting
8	98440	Fitting, fuel line to fuel pump	28	92200000	Washer, mounting bolt
9	23516	O-Ring, fuel pump sealing (Large)	29	93200000	Lockwasher, mounting bolt
10	23515	O-Ring, fuel pump sealing (Small)	30	95200000	Nut, mounting bolt
11	98442	Nut, fitting to fuel pump	31	80302	Elbow, fuel inlet fitting
12	NSS	Nut, wire retaining	32	30637	Adapter, fuel line
13	NSS	Lockwasher, retaining nut	33	49034	Fuel Line Assembly, fuel pump to filter
14	98553	Bracket, filter mounting	34	98447	Elbow, three way fuel fitting
15	90405100	Bolt, bracket to cylinder head attaching	35	49032	Fuel Line Assembly, filter to fuel rail
16	93400000	Lockwasher, attaching bolt	36	49033	Fuel Line Assembly, return from fuel rail
17	47038	Filter, Fuel inlet	37	30620	Elbow, fuel return fitting
18	R077013	Screen, inlet filter (Not Shown)	38	49035	Fuel Line Assembly, return fitting to filter
19	47066	Nut, filter to bracket attaching	39	98450	Adapter, air bleed
20	R024196	Fitting, fuel inlet	40	23649	Decal, fuel system warning

## Return Fuel System Components



Item	Part No.	Description	Item	Part No.	Description
1	98596	Bracket, fuel cooler mounting	26	R024196	Fitting, fuel inlet
2	23554	Retainer, fuel cooler rubber	27	R024218	Fitting, fuel outlet
3	NSS	Clamp, fuel cooler retaining (part of item #2)	28	98431	Fuel Line, filter to fuel pump
4	96369	Stud, fuel cooler mounting	29	RS3864	Clamp, fuel line
5	93300000	Lockwasher, mounting stud	30	47046	Fuel Filter, Racor water separating
6	RS1028	Nut, clamp retaining nut	31	47047	Element, Racor fuel filter (Not Shown)
7	98597	Fuel Cooler Assembly	32	RS3552	Fitting, blockoff
8	RS3552	Drain Plug, fuel cooler	33	90205125	Bolt, filter mounting
9	98642	Retainer, fuel pump	34	92200000	Washer, mounting bolt
10	TBD	Star Washer, retaining nut	35	93200000	Lockwasher, mounting bolt
11	TBD	Nut, fuel pump retainer attaching	36	95200000	Nut, mounting bolt
12	47039	Electric Fuel Pump Assembly	37	80302	Elbow, fuel inlet fitting
13	49038	Wire Harness, fuel pump to engine harness	38	30637	Adapter, fuel line
14	98440	Fitting, fuel line to fuel pump	39	47116	Fuel Line Assembly, fuel pump to filter
15	23516	O-Ring, fuel pump sealing (Large)	40	98447	Elbow, three way fuel fitting
16	23515	O-Ring, fuel pump sealing (Small)	41	49032	Fuel Line Assembly, filter to fuel rail
17	98442	Nut, fitting to fuel pump	42	49076	Fuel Line Assembly, from fuel rail to fuel cooler
18	NSS	Nut, wire retaining	43	49041	Fuel Line, return fitting to fuel pump
19	NSS	Lockwasher, retaining nut	44	RS3864	Clamp, fuel line
20	98553	Bracket, filter mounting	45	18388	Hose, cooler to water pump
21	90405100	Bolt, bracket to cylinder head attaching	46	RS3858	Clamp, hose
22	93400000	Lockwasher, attaching bolt	47	23649	Decal, fuel system warning
23	47038	Filter, Fuel inlet	48	23645	Decal, fuel cooler system warning
24	R077013	Screen; inlet filter (Not Shown)			
25	47066	Nut, filter to bracket attaching			

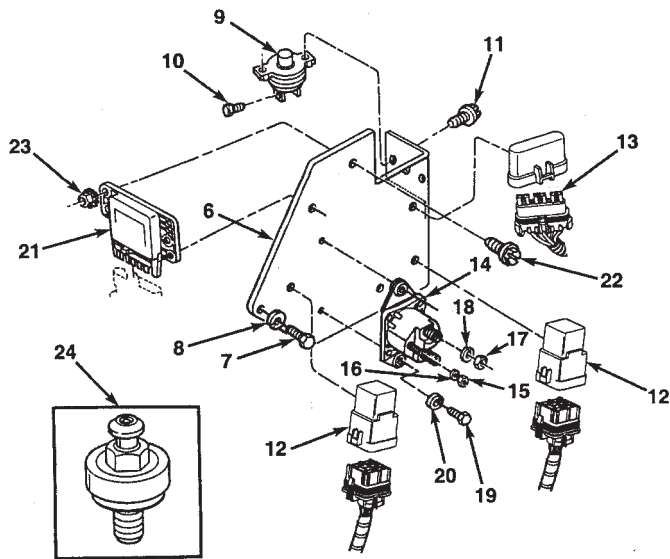
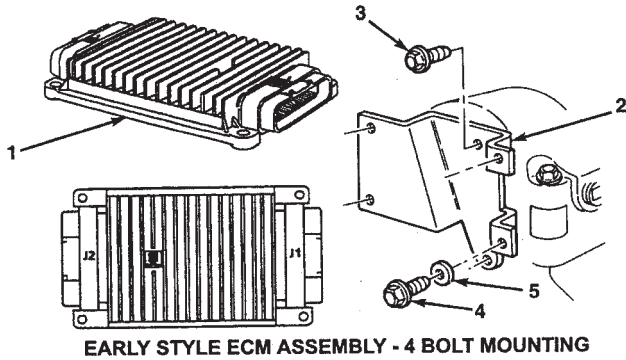
Wiring Harness Assemblies & Senders



Item	Part No.	Description	Item	Part No.	Description
1	49080	Engine Wire Harness Assembly (MP454XLI)	13	22702	Sender, oil pressure (SS-VDO)
1	49028	Engine Wire Harness Assembly (MP7.4L)	13	22704	Sender, oil pressure (DS-VDO)
2	98266	Clamp, main connector mounting	14	TBD	Washer, sender terminal
3	90105300	Bolt, clamp attaching	15	TBD	Lockwasher, sender terminal
4	92100000	Lockwasher, attaching bolt	16	95011000	Nut, sender terminal
5	95104300	Nut, attaching bolt	17	R024205	Tee, sender attaching
6	R130014	Solenoid, starter slave	18	R020003	Sender, temperature (SS)
7	95011000	Nut, solenoid terminal (#10)	18	727046	Sender, temperature (DS)
8	93003000	Lockwasher, solenoid terminal (#10)	18	22701	Sender, temperature (SS-VDO)
9	95201000	Nut, solenoid terminal (5/16")	18	22703	Sender, temperature (DS-VDO)
10	93203000	Lockwasher, solenoid terminal (5/16")	14	TBD	Washer, sender terminal
11	R020037	Switch, transmission alarm	15	TBD	Lockwasher, sender terminal
12	R020015A	Switch, engine oil pressure alarm	16	95011000	Nut, sender terminal
13	R020001	Sender, oil pressure (SS)	19	47022	Sender, (CTS) coolant temperature switch
13	R020006	Sender, oil pressure (DS)	20	98654	Harness, Slave
					(Twin engine applications only)
			NI	120322	Reducer, VDO sender (Not Shown)

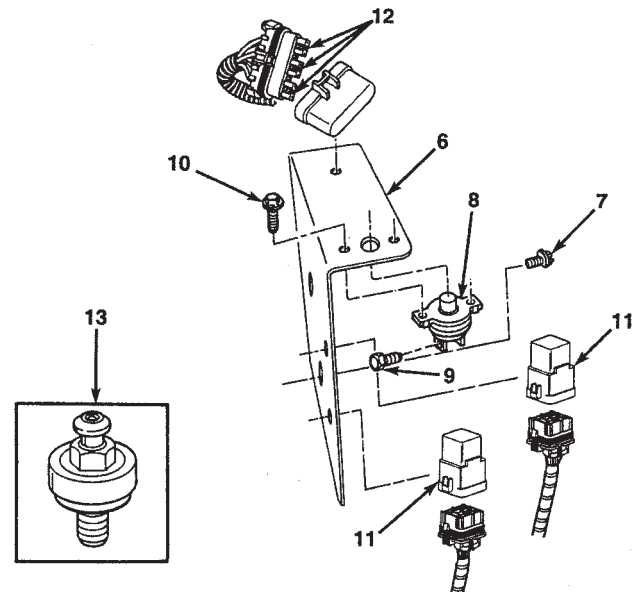
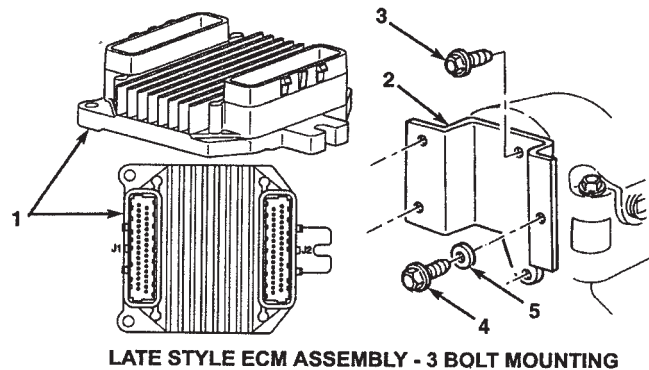


## Early Style ECM Assemblies



Item	Part No.	Description
1	47056	Electronic Control Module (ECM)
2	98435	Bracket, ECM mounting
3	90124050,	Bolt, bracket to elbow mounting
4	90105125	Bolt, ECM to mounting bracket
5	93100000	Washer, mounting bolt
6	98535	Bracket, component mounting
7	90405100	Bolt, bracket to cylinder head mounting
8	93400000	Lockwasher, mounting bolt
9	R153006B	Circuit Breaker Assembly (50 amp)
10	91680025	Screw, wire attaching
11	91833075	Bolt, circuit breaker mounting
12	R130012	Relay Assembly, fuel pump and ignition
13	R153017B	Fuses, 20 amp
14	R130014	Solenoid, starter slave
15	95011000	Nut, solenoid terminal (#10)
16	93003000	Lockwasher, solenoid terminal (#10)
17	95201000	Nut, solenoid terminal (5/16")
18	93203000	Lockwasher, solenoid terminal (5/16")
19	RS0251	Bolt, slave solenoid mounting
20	93100000	Lockwasher, mounting bolt
21	R116016	Knock Module
22	90105075	Bolt, module attaching
23	TBD	Nut, module attaching bolt
24	R020029	Knock Sensor

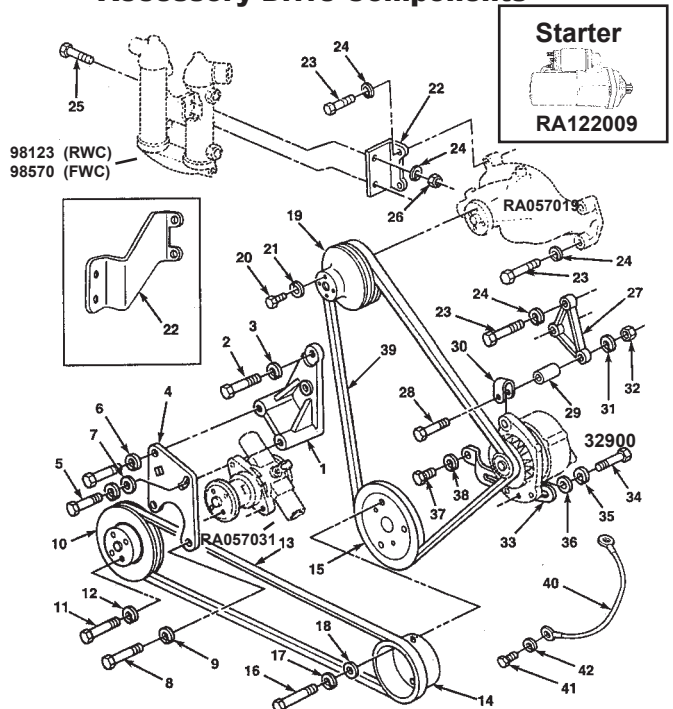
## Late Style ECM Assembly



Item	Part No.	Description
1	47086	Electronic Control Module (ECM)
2	98616	Bracket, ECM mounting
3	90124050	Bolt, bracket to elbow mounting
4	90105125	Bolt, ECM to mounting bracket
5	93100000	Washer, mounting bolt
6	98660	Bracket, component mounting
7	90124050	Bolt, bracket to elbow mounting
8	R153006B	Circuit Breaker Assembly (50 amp)
9	91680025	Screw, wire attaching
10	91833075	Bolt, circuit breaker mounting
11	R130012	Relay Assembly, fuel pump and ignition
12	R153017B	Fuses, 20 amp
13	R020029	Knock Sensor

  
**Crusader**<sup>®</sup>

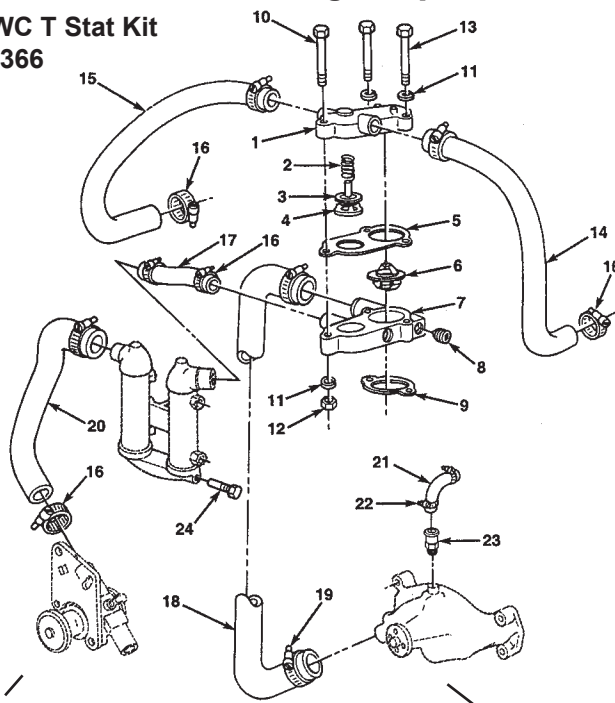
### Accessory Drive Components



Item	Part No.	Description
1	98120	Bracket, raw water pump mounting
2	90405125	Bolt, bracket to cylinder block (1-1/4")
3	93400000	Lockwasher, mounting bolt
4	R090263	Bracket, raw water pump adjusting
5	90405125	Bolt, adjusting bracket mounting (1-1/4")
6	93400000	Lockwasher, adjusting bolt
7	92400000	Washer, adjusting bolt
8	90204100	Bolt, raw water pump mounting (1/2")
9	93200000	Lockwasher, pump mounting bolt
10	R065047	Pulley, raw water pump
11	90215075	Bolt, pulley attaching (3/4")
12	93200000	Lockwasher, attaching bolt
13	10258	Belt, raw water drive
14	97950	Pulley, crankshaft to raw water pump
15	97954	Pulley, crankshaft to alternator
16	90315175	Bolt, pulley to balancer (1-3/4")
17	93300000	Lockwasher, pulley attaching bolt
18	92300000	Washer, pulley attaching bolt
19	R065049	Pulley, engine circulating pump
20	90215075	Bolt, water pump pulley (3/4")
21	93200000	Lockwasher, water pump pulley bolt
22	97937	Bracket, oil cooler mounting
22	98637	Bracket, oil cooler mounting (front mounted FWC only)
23	90405200	Bolt, attaching (2")
24	93400000	Lockwasher, attaching bolt
25	90305100	Bolt, oil cooler mounting (1")
26	95300000	Nut, cooler mounting bolt
27	98333	Bracket, alternator mounting
28	90505325	Bolt, alternator attaching (3-1/4") (55 amp)
28	TBD	Bolt, alternator attaching (3-1/4") (100 amp)
29	98515	Spacer, alternator mounting (100 amp only)
30	98184	Loop, alternator adjusting
31	93500000	Lockwasher, attaching bolt
32	95500000	Nut, attaching bolt
33	98209	Strap, alternator adjusting (55 amp)
33	98519	Strap, alternator adjusting (100 amp)
34	90205100	Bolt, alternator adjusting (1")
35	93200000	Lockwasher, alternator adjusting bolt
36	92200020	Washer, alternator adjusting bolt
37	90405100	Bolt, adjusting strap to block (1")
38	93400000	Lockwasher, adjusting strap bolt
39	98210	Belt, alternator drive
40	98391	Cable, alternator grounding (100 amp only)
41	90205063	Bolt, cable attaching (100 amp only)
42	93200000	Lockwasher, attaching bolt (100 amp only)

### Raw Water Cooling Components

#### RWC T Stat Kit 22366



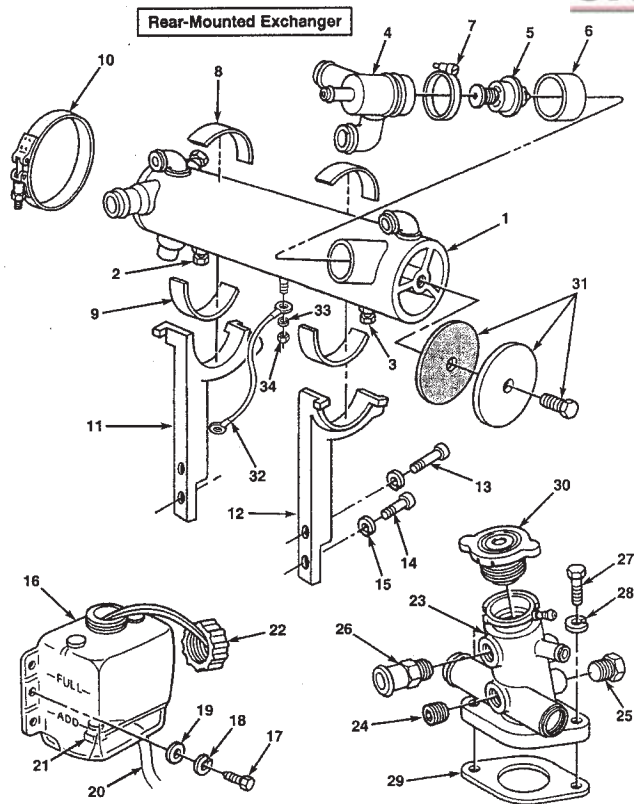
#### RA057031 Impeller Kit RP061017

Item	Part No.	Description
*	22366	Thermostat Housing Assembly, Complete
1	97556	Thermostat Housing, upper
2	96686	Spring, pressure relief
3	96066	Valve, pressure relief
4	96065	Seat, pressure relief
5	97361	Gasket, thermostat housing
6	R026002E	Thermostat (143°)
7	98552	Thermostat Housing, lower
8	444705	Plug, thermostat housing
9	RM0121	Gasket, thermostat housing
10	90305350	Bolt, thermostat housing (3-1/2")
11	93300000	Lockwasher, thermostat housing bolt
12	95300000	Nut, thermostat housing bolt
13	90305400	Bolt, thermostat housing to intake (4")
14	18327	Hose, thermostat housing to LH manifold
15	18317	Hose, thermostat housing to RH manifold
16	RS3858	Clamp, water hose
17	97861	Hose, oil cooler to thermostat housing
18	18302	Hose, water pump to thermostat housing
19	RS3855	Clamp, hose
20	18300	Hose, water pump to oil cooler
21	R045116	Hose, block water bypass
22	RS3854	Clamp, bypass hose
23	7140280	Fitting, water pump bypass
24	R168005	Zinc, sacrificial

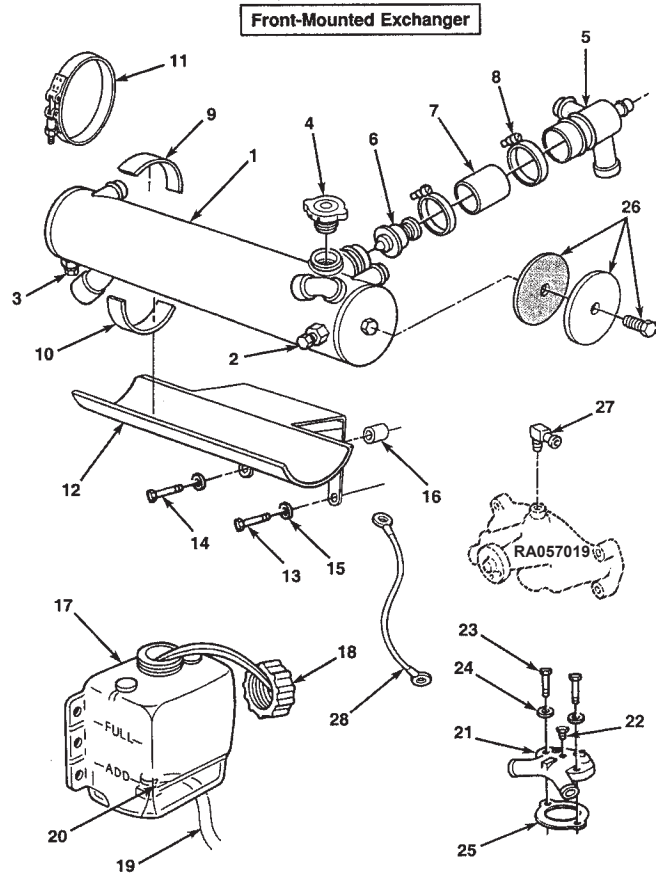
### Fresh Water Cooling Rear Mount Exchanger

### Fresh Water Cooling Front Mount Exchanger

**Crusader**



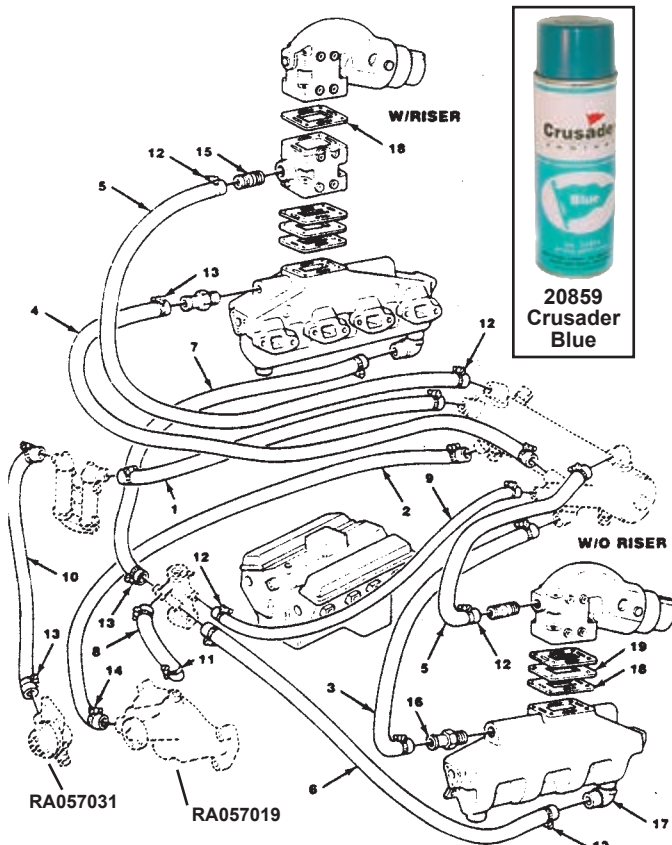
Item	Part No.	Description
1	98562	Heat Exchanger Assembly
2	R168005	Zinc, sacrificial
3	RS3552	Plug, drain (1/4")
4	98202	Thermostat Housing
5	R026007	Thermostat (170°)
6	R045162	Hose, thermostat housing attaching
7	RS3860	Clamp, thermostat housing (#36)
8	R094041	Isolator, top
9	R094040	Isolator, bottom
10	R171009	Clamp, exchanger mounting
11	R090255	Support, exchanger (Starboard)
12	R090254	Support, exchanger (Port)
13	90368175	Bolt, support attaching
14	90368100	Bolt, support attaching
15	93300000	Lockwasher, attaching bolt
16	R146002	Bottle, coolant overflow
17	90205075	Bolt, bottle mounting (3/4")
18	93200000	Lockwasher, mounting bolt
19	92200000	Washer, mounting bolt
20	R045139	Tube, overflow [48"]
21	R127084	Clamp, overflow tube
22	23527	Cap, coolant fill (7 lb)
23	98249	Fill Riser, fresh water
24	444705	Plug, pipe
25	RS3551	Plug, pipe (3/8")
26	7140280	Fitting, water bypass hose
27	90305125	Bolt, riser attaching (1 -1/4")
28	93300000	Lockwasher, attaching bolt
29	RM0121	Gasket, fill riser
30	R034006A	Cap, fill riser pressure (7 lb)
31	23540	End Cap Kit
32	R101013	Wire, grounding
33	TBD	Lockwasher, ground stud
34	TBD	Nut, ground wire stud



Item	Part No.	Description
1	98636	Heat Exchanger Assembly (Early style)
1	98653	Heat Exchanger Assembly (Late style)
2	R168005	Zinc, sacrificial
3	R3552	Plug, drain (1/4")
4	RK034006A	Cap, exchanger pressure (7 lb)
5	98638	Thermostat Housing
6	R026007	Thermostat (170°)
7	R045162	Hose, thermostat housing attaching
8	RS3860	Clamp, thermostat housing (#36)
9	R094041	Isolator, top
10	R094040	Isolator, bottom
11	R171009	Clamp, exchanger mounting
12	98634	Bracket, exchanger mounting
13	90405100	Bolt, support attaching (7/16 X 1")
14	90405150	Bolt, support attaching (7/16 X 1-1/2")
15	93400000	Lockwasher, attaching bolt
16	98639	Spacer, mounting bracket attaching
17	R146002	Bottle, coolant overflow
18	23527	Cap, coolant fill
19	R045132	Tube, overflow [48"]
20	R127084	Clamp, overflow tube
21	97851	Housing, intake water distribution
22	RS3551	Plug, vent (1/4")
23	90305125	Bolt, riser attaching (1 -1/4")
24	93300000	Lockwasher, attaching bolt
25	RM0121	Gasket, housing to intake
26	23540	End Cap Kit (exchanger)
27	80948	Fitting, 90° water pump bypass
NI	R101013	Wire, ground (heat exchanger)

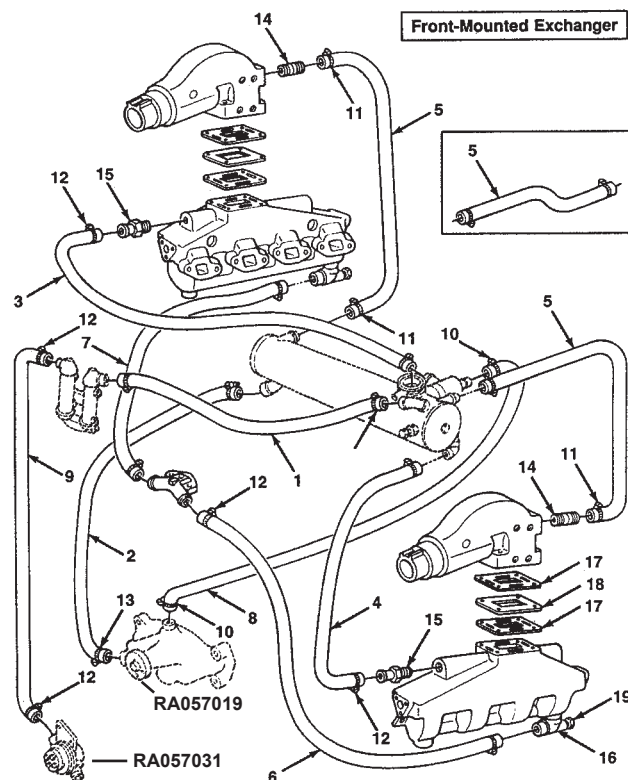


Fresh Water Cooling Components



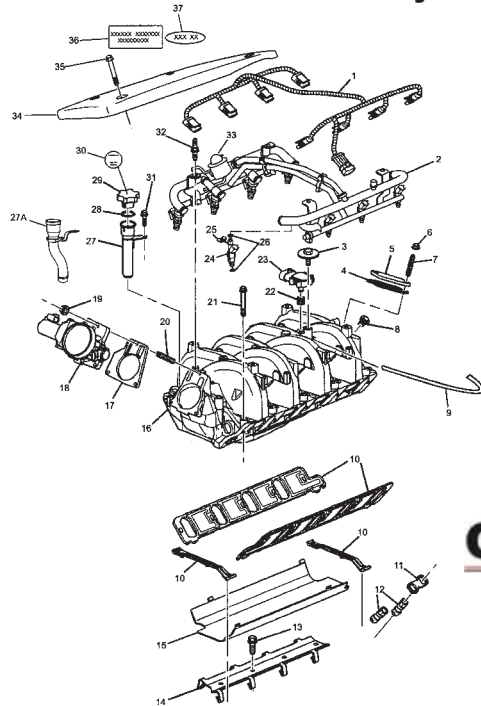
Item	Part No.	Description
1	18368	Hose, oil cooler to exchanger
2	18306	Hose, circulation pump to exchanger
3	18307	Hose, thermostat housing to manifold (LH)
4	18369	Hose, thermostat housing to manifold (RH)
5	18309	Hose, exchanger to exhaust elbow (STD)
5	18370	Hose, exchanger to exhaust elbow (STD)
5	18311	Hose, exchanger to exhaust elbow ("V" Drive)
6	18327	Hose, fill riser to manifold (Port)
7	18317	Hose, fill riser to manifold (Starboard)
8	18383	Hose, fill riser to circulation pump
9	18343	Hose, bypass - thermostat to fill riser
10	18300	Hose, raw water pump to oil cooler
11	RS3854	Clamp, hose (#12)
12	RS3851	Clamp, hose (#16)
13	RS3858	Clamp, hose (#20)
14	RS3855	Clamp, hose (#32)
15	97911	Fitting, exhaust elbow (1" hose)
16	97852	Fitting, exhaust elbow (1-1/4" hose)
17	30624	Fitting, exhaust manifold (90°)
18	RS3552	Plug, drain
19	98127	Gasket, exhaust riser & elbow (Use of exhaust riser requires 6 gaskets)
20	98124	Block-Off Plate, exhaust elbow
NI	23283	FWC Kit (rear mounted heat exchanger) Std. & V-drive

Fresh Water Cooling Components

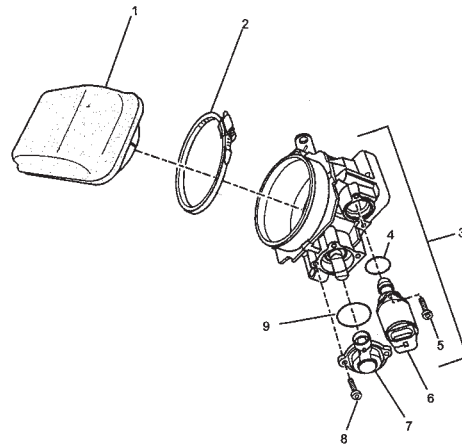
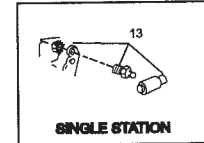
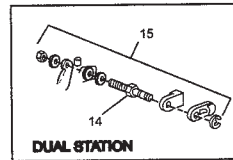
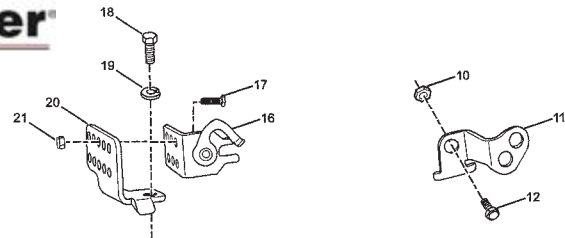


Item	Part No.	Description
1	18393	Hose, oil cooler to exchanger
2	18400	Hose, circulation pump to exchanger
3	18401	Hose, thermostat housing to manifold (LH)
4	18402	Hose, thermostat housing to manifold (RH)
5	18396	Hose, exchanger to exhaust elbow (STD)
5	18397	Hose, exchanger to exhaust elbow (STD)
5	18398	Hose, exchanger to exhaust elbow ("V"-Drive)
6	18317	Hose, intake to manifold (Port)
7	18327	Hose, intake to manifold (Starboard)
8	20806	Hose, bypass - thermostat housing to water pump
9	18384	Hose, raw water pump to oil cooler
10	RS3854	Clamp, hose (#12)
11	RS3851	Clamp, hose (#16)
12	RS3858	Clamp, hose (#20)
13	RS3855	Clamp, hose (#32)
14	97911	Fitting, exhaust elbow (1 " hose)
15	97852	Fitting, exhaust elbow (1-1/4" hose)
16	30624	Fitting, exhaust manifold (90°)
17	98127	Gasket, exhaust riser & elbow (Use of exhaust riser requires 6 gaskets)
18	98124	Block-Off Plate, exhaust elbow
19	RS3552	Plug, drain
NI	23296	FWC Kit (Standard application) (Front)

## Intake Manifold Assembly



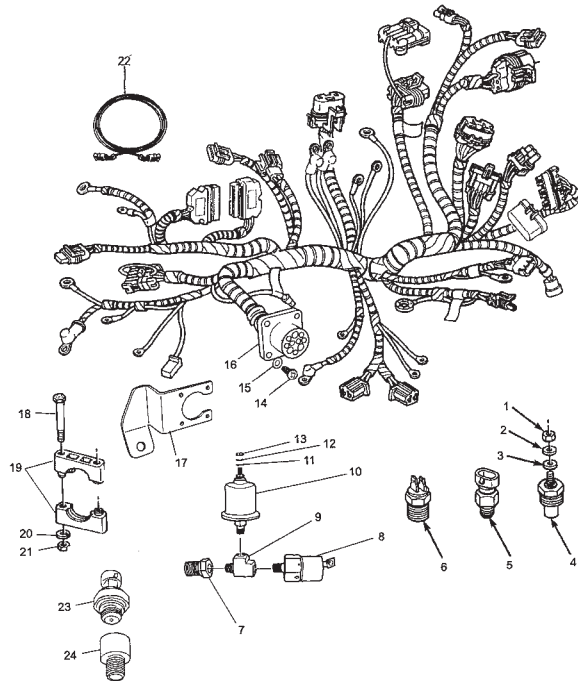
## Throttle Body &amp; Related Components

Item	Part No.	Description
1	R121075	Wire Harness, fuel injectors
2	RA086001	Fuel Rail Assembly
2	RA086001A	Fuel Rail Assembly (2005 FCC Fuel System)
3	TBD	Bolt, MAP sensor retaining
4	RMO265	Gasket, EGR blockoff cover
5	TBD	Cover, EGR blockoff
6	TBD	Nut, EGR blockoff cover attaching
7	TBD	Stud, EGR blockoff cover attaching
8	TBD	Plug, intake manifold core hole
9	20237	Hose, fuel pressure regulator vacuum
10	RMO267	Gasket Set, intake manifold
11	R037004	Guide, valve lifter
12	R040004	Lifter, valve
13	TBD	Bolt, valve lifter retainer
14	8090253	Retainer, valve lifter
15	R012025	Guard, oil splash - lifter
16	R002022	Intake Manifold
16	TBD	Intake Manifold (S/N 640118 and above)
17	RMO251	Gasket, throttle body mounting
18	RA035036	Throttle Body, mechanical throttle (STD)
18	RA035036A	Throttle Body, mechanical throttle (HO)
18	RA035041	Throttle Body, electronic
19	49027	Nut, throttle body attaching
20	TBD	Stud, throttle body mounting
21	R009201	Bolt, intake manifold to cylinder head
21	TBD	Bolt, intake manifold to cylinder head (S/N 640118 and above)
22	TBD	Seal, MAP sensor
23	R020036	MAP Sensor
24	RA087006	Fuel Injector Assembly
25	R127097	Retainer, fuel injector to fuel rail
26	RK047227	O-Ring, kit fuel injector
27	R034046	Riser, oil fill ('01-'02 MY)
27	R034046A	Riser, oil fill ('03 MY to present)
27A	R034046B	Riser, oil fill (MY '05, OEM specific)
28	NSS	O-Ring, oil fill riser cap
29	R034038A	Cap, oil fill riser ('01-'02 MY)
29	R034038B	Cap, oil fill riser ('03 MY to present)
30	R143137	Decal, oil fill riser cap
31	98222020	Bolt, oil fill riser attaching
32	TBD	Stud, fuel rail assembly attaching
33	R088001	Regulator, fuel pressure
34	R060057	Cover, engine
35	99223030	Bolt, engine cover attaching
36	R143130	Decal, "CAPTAIN'S CHOICE"
36	R143130A	Decal, "CRUSADER ENGINES"
37	R143133	Decal, "8.1 mpr (red/silver)"
37	R143133A	Decal, "8.1 MPI" (black/silver)
37	R143134	Decal, "8.1 HO" (red/silver)

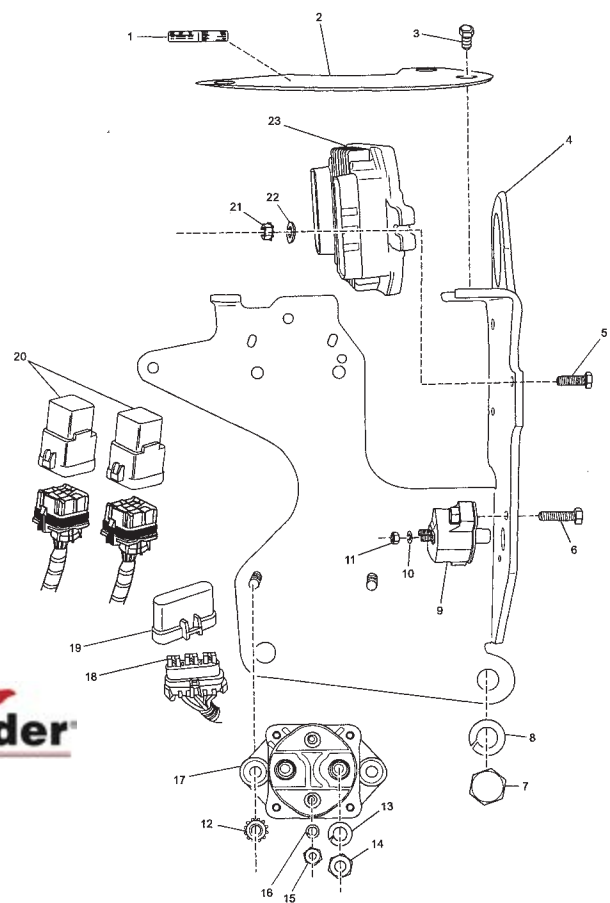
Item	Part No.	Description
1	R145021	Flame Arrestor
2	RS3857	Clamp, retaining
3	RA035036	Throttle Body Assembly, STD
3	RA035036A	Throttle Body Assembly, HO
4	TBD	O-Ring Seal, idle air control valve
5	TBD	Screw, IAC valve attaching
6	R084003	Valve, idle air control
7	R020041	Sensor, throttle position
8	TBD	Screw, TP sensor attaching
9	TBD	O-Ring Seal, throttle position sensor
10	RS1078	Nut, retaining bolt
11	8090230	Throttle Arm, throttle body
12	RS0251	Bolt, throttle arm retaining
13	R178014	Ball Joint Assembly, cable attaching (single)
14	22978	Pivot Pin, cable attaching (dual)
15	23235	Cable Attaching Kit, (dual)
16	R090086	Cable Clip, throttle attaching (single)
17	RS5122	Bolt, cable clip mounting
18	98223016	Bolt, bracket mounting
19	93920000	Lockwasher, bracket mounting
20	R090229	Throttle Bracket, intake
21	95014300	Locking Nut, cable clip mounting bolt

Wiring Harness & Senders



Item	Part No.	Description
1	RS1540	Nut, sender terminal
2	RS2197	Lockwasher, sender terminal
3	RS2746	Washer, sender terminal
4	R020003	Sender, temperature (SS)
4	R020005	Sender, temperature (DS)
4	22701	Sender, temperature (SS-VDO)
4	22703	Sender, temperature (DS-VDO)
5	R020019	Sensor, engine coolant temperature (ECT)
6	R020037	Switch, transmission alarm
7	RS3677	Adapter, sender attaching tee
8	R020015A	Switch, oil pressure (SS)
9	R024145	Tee, sender attaching
10	R020001	Sender, oil pressure (SS)
10	R020006	Sender, oil pressure (DS)
10	22702	Sender, oil pressure (SS-VDO)
10	22704	Sender, oil pressure (DS-VDO)
11	RS2746	Washer, sender terminal
12	RS2197	Lockwasher, sender terminal
13	RS1540	Nut, sender terminal
14	RS5115	Screw, 10-pin attaching
15	R096142	Washer, 10-pin attaching
16	RA121071B	Engine Wiring Harness Assembly (SIN 610000 Thru 631659) (MUST be used with relay, p/n R130012)
16	RAI21071B	Engine Wiring Harness Assembly (SIN 631660 and above) (MUST be used with relay, p/n R13001 1A)
16	RAI21084	Engine Wiring Harness Assembly (OEM specific) (MY 2005) (16-Pin Boat Harness Connector) (MUST be used with relay, p/n R13001 1A)
17	R090251	Bracket, 10-pin attaching (square base)
18	90105300	Bolt, 10-pin clamp attaching (round base)
19	R127093	Clamp, 10-pin attaching (round base)
20	92100000	Lockwasher, 10-pin attaching clamp (round base)
21	95104300	Nut, 10-pin attaching clamp (round base)
22	RAI21072	Harness, slave 3-pin connector (twin applications only)
22	RAI21072A	Harness, slave 4-pin connector (twin applications only)
22	RAI21072B	Harness, slave 3-pin to 4-pin connector (twin applications only)
23	R020048	Sensor, CAN BUS oil pressure (OEM specific)
24	R024223	Adapter, CAN BUS oil pressure sensor (OEM specific)
NI	RAI21062D	Harness, fuel pump extension (OEM specific)

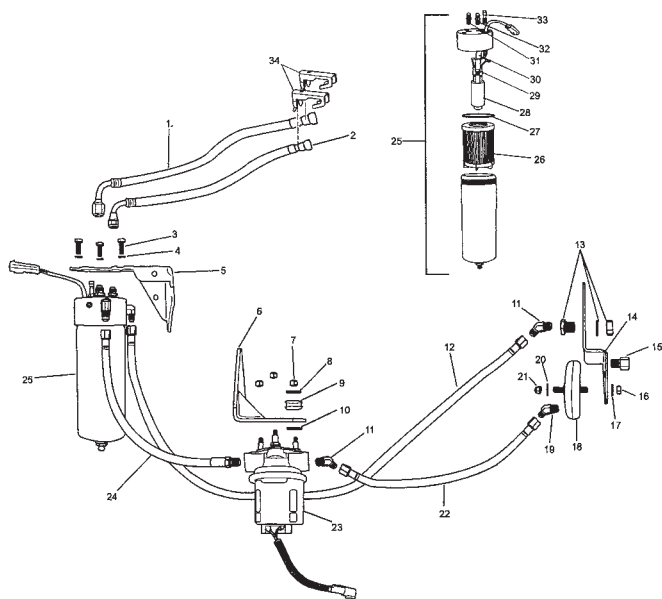
ECM & Relays (Thru S/N 630396)



Item	Part No.	Description
1	R143128	Decal, ECM cover
2	R126015	Cover, ECM
3	RS5126	Screw, ECM cover attaching
4	R090231	Bracket, ECM/relay mounting
5	RS0254	Bolt, ECM mounting
6	RS5084	Bolt, circuit breaker mounting
7	98443025	Bolt, ECM/relay mounting bracket attaching
8	93940000	Lockwasher, bracket mounting bolt
9	R153006B	Circuit Breaker Assembly (50 amp)
10	P/O item 9	Washer, circuit breaker terminal
11	P/O item 9	Nut, circuit breaker terminal
12	RS1078	Nut, starter relay mounting star washer
13	RS2200	Lockwasher, solenoid terminal (5/16")
14	RS1046	Nut, solenoid terminal (5/16")
15	RS1540	Nut, solenoid terminal (#10)
16	RS2197	Lockwasher, solenoid terminal (#10)
17	R130014	Solenoid, starter slave
18	R153017B	Fuses, 20 amp
19	R126014	Cover, fuse holder
20	R130012	Relay Assembly, fuel pump and ignition
21	RS1078	Nut, ECM mounting star washer
22	92100000	Washer, ECM mounting
23	R116021A	Electronic Control Module (thru '04 MY) cksum - 32956OLD Coils (STD - prior to S/N 621056)
23	R116021C	Electronic Control Module (thru '04 MY) cksum - 40051 OLD Coils (HO - prior to S/N 630082)
23	R116021F	Electronic Control Module (thru '04 MY) cksum - 31582 NEW Coils (STD - S/N 621056 and above)
23	R116021G	Electronic Control Module (thru '04 MY) cksum - 39560 NEW Coils (HO - S/N 630082 and above)

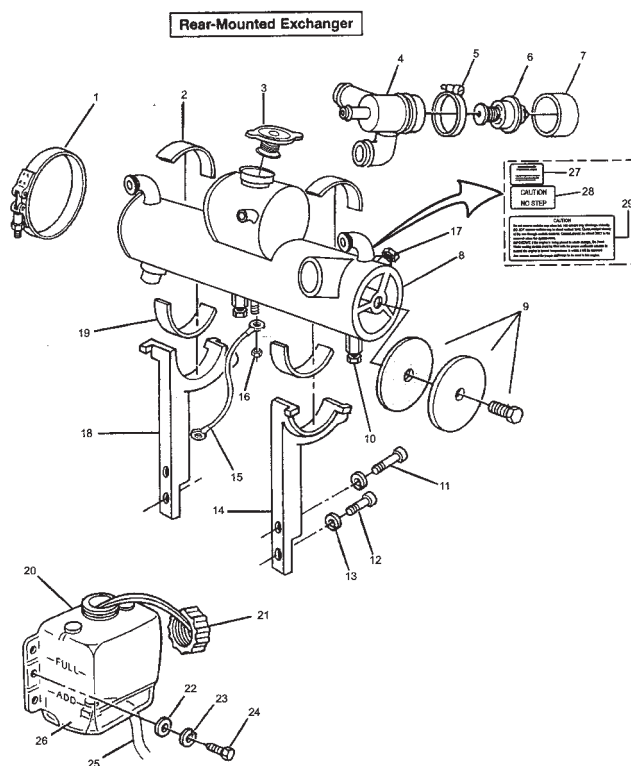


### Fuel Control Cell (FCC) Components (2001-2004)



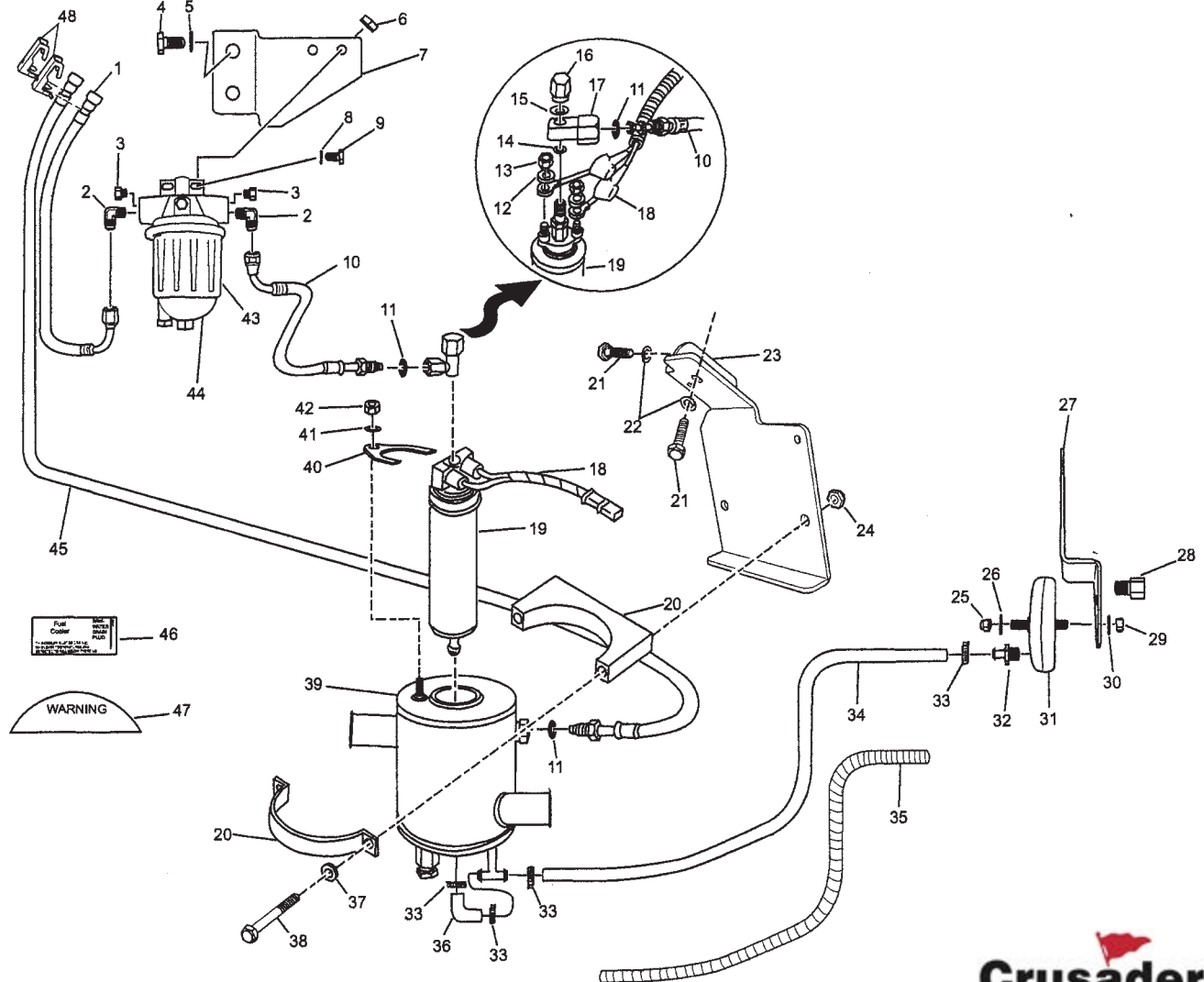
Item	Part No.	Description
1	RA085090	Hose Assembly, FCC to fuel rail (inlet)
2	RA085091	Hose Assembly, fuel rail to FCC (return)
3	RS0302	Bolt, FCC mounting
4	RS2180	Lockwasher, FCC mounting
5	R090227	Bracket, FCC mounting
6	R090228	Bracket, low-pressure fuel pump mounting
7	RS1521L	Locking Nut, fuel pump terminal
8	R096142	Washer, fuel pump mounting
9	R094035A	Grommet, mounting bracket
10	R096141	Washer, fuel pump mounting
11	R024197	Fitting, 45°
12	RA085071 B	Hose Assembly, FCC to fuel return line adapter
13	R024062A	Adapter, fuel return line
14	R090234	Bracket, fuel filter mounting
15	R024196	Fitting, fuel inlet
16	RS1529	Nut, fuel filter mounting
17	RS2181	Washer, fuel filter mounting
18	RA077013	Filter, fuel (115 micron)
NI	R077013	Filter, screen (115 micron)
19	R024198	Fitting, 45°
20	RS2675	Washer
21	TBD	Locking Nut
22	RA085071	Hose Assembly, filter to low-pressure pump
23	RA080018	Fuel Pump, low-pressure
24	RA085070	Hose Assembly, low-pressure pump to FCC
25	RA080029	Fuel Control Cell (FCC) Assembly
26	RP080026	Fuel Filter, FCC Assembly
27	R047214	O-Ring, FCC seal
28	RA080027	Fuel Pump, high pressure
29	R127087	Clamp, Oetiker
30	R045098	Hose, 5/16 I.D. - 1/2 O.D.
31	R024175	Fitting, fuel line
32	R024163A	Fitting, fuel line
33	R035031	Fitting, fuel pressure, Schrader valve
34	R127100	Retainer, fuel line
NI	R034041	Cap, Schrader valve

### Heat Exchanger & Components Rear Mounted Exchanger



Item	Part No.	Description
1	R171009	Clamp, exchanger mounting
2	R094041	Isolator, top
3	R034006A	Pressure Cap (7 lb), exchanger
4	R025027	Thermostat Housing
5	RS3860	Clamp, thermostat housing (#36)
6	R026007	Thermostat (170°)
7	R045162	Hose, thermostat housing attaching
8	RA147039	Heat Exchanger Assembly
9	23540	End Cap Kit, exchanger
10	RS3552	Plug, drain (1/4")
11	90368175	Bolt, support attaching (1-3/4")
12	90368100	Bolt, support attaching (1")
13	RS2180	Lockwasher, support attaching bolt
14	R090254	Support, exchanger (port)
15	R101013	Wire, grounding
16	RS1078	Nut, ground wire stud
17	R168008	Zinc, sacrificial
18	R090225	Support, exchanger (starboard)
19	R094040	Isolator, bottom
20	R146002	Bottle, coolant overflow
21	23527	Cap, coolant fill
22	92200000	Washer, mounting bolt
23	RS2179	Lockwasher, mounting bolt
24	RS0280	Bolt, coolant overflow mounting (3/4")
25	R045132	Tube, overflow (48")
26	R127084	Clamp, overflow tube
27	23627	Decal, exchanger
28	22847	Decal, exchanger
29	23657	Decal, exchanger

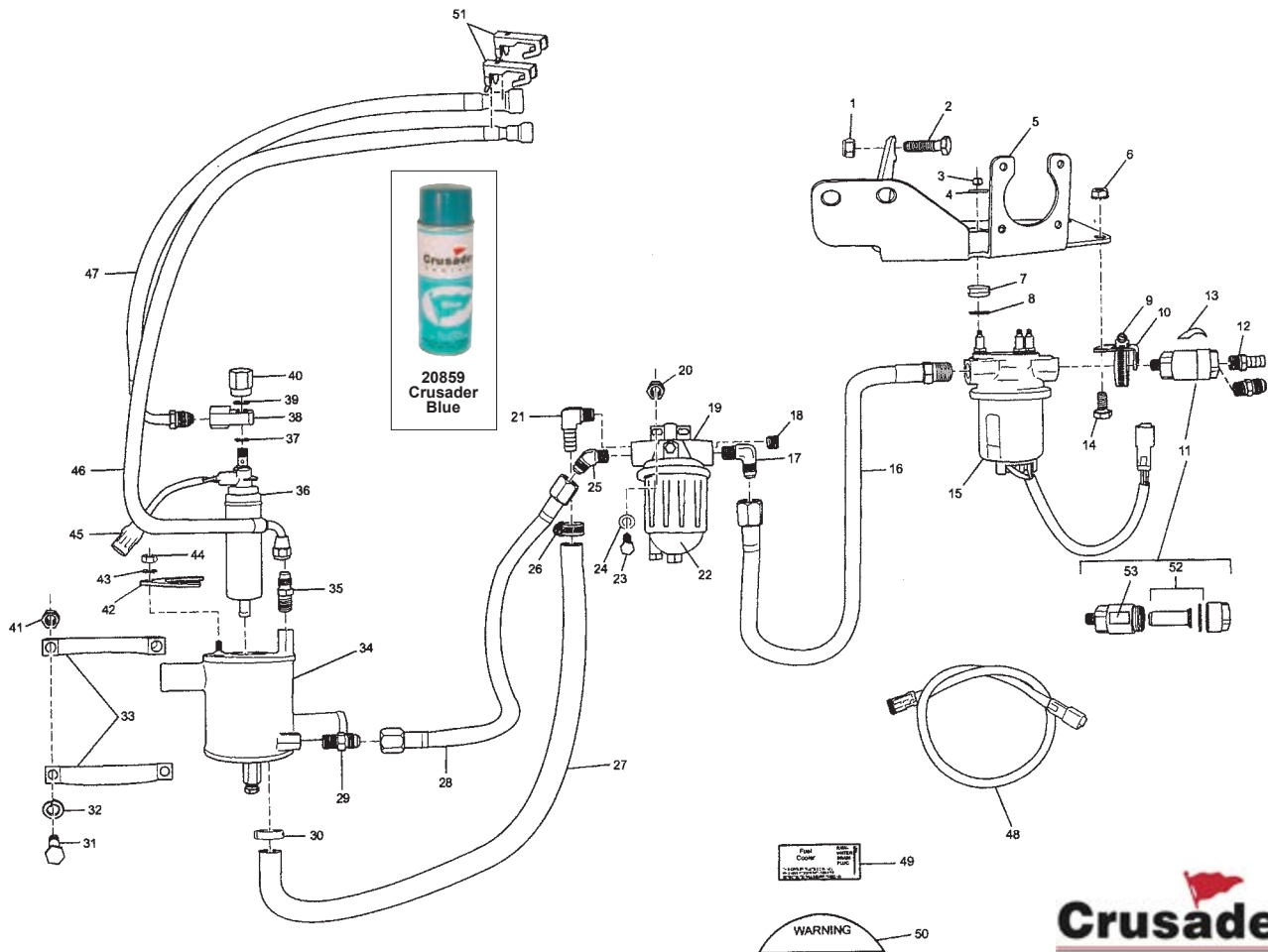
Old Returnless Fuel System Components (S/N 630206 thru 630206)



Item	Part No.	Description
1	RA085090	Fuel Line Assembly, filter to fuel rail
2	R024163	Fitting, 90°
3	RS3552	Fitting, blockoff
4	98443025	Bolt, filter bracket mounting
5	93940000	Lockwasher, mounting bolt
6	RS2060	Nut, mounting bolt
7	R090237	Bracket, filter mounting
8	92200000	Washer, mounting bolt
9	RS0282	Bolt, filter mounting
10	RA085092	Fuel Line Assembly, fuel pump to filter
11	22800	O-Ring, fuel line assembly
12	NSS	Lockwasher, retaining nut
13	NSS	Nut, wire retaining
14	23516	O-Ring, fuel pump sealing (large)
15	23515	O-Ring, fuel pump sealing (small)
16	98442	Nut, fitting to fuel pump
17	98440	Fitting, fuel line to fuel pump
18	49038	Wire Harness, fuel pump to engine harness
19	47039	Electric Fuel Pump Assembly
20	23554	Retainer, fuel cooler rubber
21	98443025	Bolt, fuel cooler mounting bracket
22	93940000	Lockwasher, mounting bolt
23	R090238	Bracket, fuel cooler mounting
24	95310300	Locking Nut, fuel cooler mounting
25	NSS	Locking Nut, fuel filter
26	RS2675	Washer, fuel filter

Item	Part No.	Description
27	R090234	Bracket, fuel filter mounting
28	R024196	Fitting, fuel inlet
29	RS1529	Nut, fuel filter mounting
30	RS2181	Washer, fuel filter mounting
31	RA077013	Filter, fuel (115 micron)
32	R024218	Fitting, fuel outlet
33	RS3864	Clamp, fuel line
34	98431	Fuel Line Assembly, filter to fuel pump
35	47064	Conduit, protective
36	49041	Fuel Line Assembly, 90° elbow
37	RS2180	Lockwasher, mounting bolt
38	90318325	Bolt, fuel cooler mounting
39	R147041	Fuel Cooler Assembly
40	98642	Retainer, fuel pump
41	NSS	Star washer, retaining nut
42	RS1078	Nut, w/lockwasher fuel pump retainer attaching (RS1078 replaces items 41 and 42)
43	47046	Fuel Filter, Racor water separating
44	47047	Element, Racor fuel filter (not shown)
45	RA085093	Fuel Line Assembly, fuel rail to fuel cooler
46	23645	Decal, fuel cooler system warning
47	23649	Decal, fuel system warning
48	R127100	Retainer, fuel line

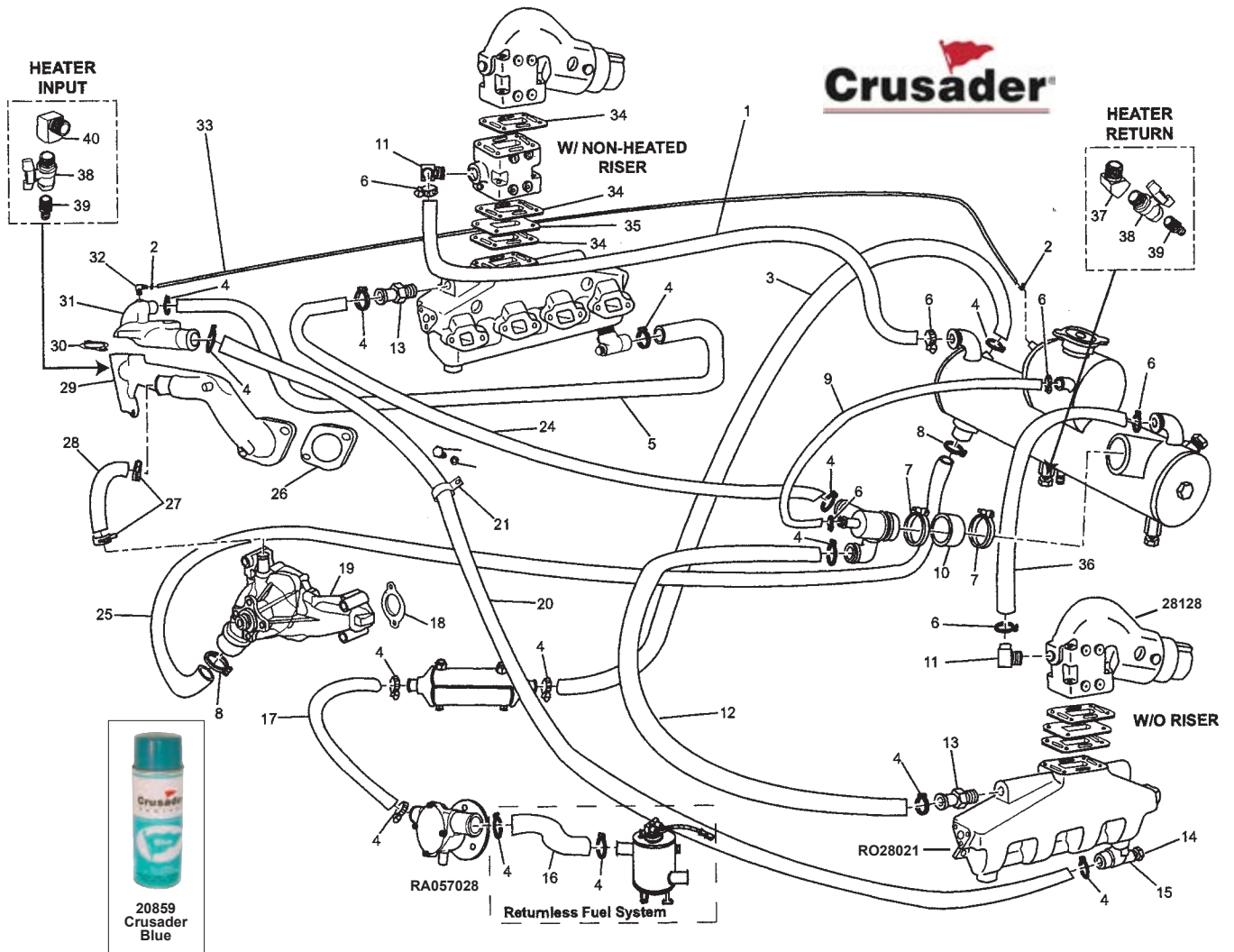
## New Returnless Fuel System Components (S/N 630207 thru Present)



Item	Part No.	Description	Item	Part No.	Description
*	RF201007	Kit, retrofit	28	RA085071	Fuel Line Assembly, fuel cooler to Racor filter
1	RS2060	Nut, locking	29	R024163A	Fitting, cooler to hose assembly
2	90205125	Bolt, bracket mounting	30	R127087E	Clamp, crimp
3	RSI 521L	Nut, locking	31	90318325	Bolt, fuel cooler mounting
4	R096142	Flatwasher, mounting	32	RS2180	Lockwasher, fuel cooler mounting
5	R090270	Bracket, L.P. pump/Racor water separating	33	23554	Retainer, fuel cooler mounting
6	RS1078	Nut, pre-filter bracket mounting	34	RA147041A	Fuel Cooler Assembly
7	R094035A	Grommet, rubber	35	R024175	Fitting, hose assembly to cooler
8	R096141	Flatwasher, mounting	36	47039	Electric Fuel Pump Assembly
9	RS3858	Clamp, pre-filter mounting	37	23515	O-Ring, fuel fitting sealing
10	R090272	Bracket, pre-filter mounting	38	98440	Fitting, fuel line to fuel pump
11	RA077014	Filter, fuel	39	23516	O-Ring, fuel fitting sealing
12	R024218	Fitting, fuel inlet, hose	40	98442	Nut, fitting to fuel pump
12	30603	Fitting, fuel inlet, SAE	41	95310300	Locking Nut, fuel cooler mounting
13	R094040	Adhesive, rubber strip	42	98642	Retainer, fuel pump
14	RS0251	Bolt, pre-filter bracket mounting	43	NSS	Star washer, retaining nut
15	RA080018	Fuel Pump, low-pressure	44	RS1078	Nut, w/lockwasher fuel pump retainer attaching (RS1078 replaces items 43 and 44)
16	RA085070	Fuel Line Assembly, L.P. fuel pump to Racor filter	45	49038	Harness, fuel pump
17	R024163	Fitting, 90°	46	RA085091A	Fuel Line Assembly, fuel rail to fuel cooler
18	RS3550	Fitting, blockoff	47	RA085098	Fuel Line Assembly, fuel pump to fuel rail
19	47046	Fuel Filter, Racor water separating	48	R121077	Jumper Harness, low-pressure fuel pump
20	RS2060	Nut, Racor filter locking	49	23645	Decal, fuel cooler system warning
21	R024207	Fitting, 90°	50	23649	Decal, fuel system warning
22	47047	Element, Racor fuel filter (not shown)	51	R127100	Retainer, fuel line
23	RS0282	Bolt, Racor filter mounting	52	RP077014	Kit, service, fuel pre-filter
24	92200000	Flatwasher, Racor filter mounting	53	R143174	Decal, fuel pre-filter
25	R024197	Fitting, 45°			
26	RS3864	Clamp,			
27	98431	Fuel Line Assembly, Racor filter to high pressure fuel pump			
NI	47064	Conduit, protective (not shown)			

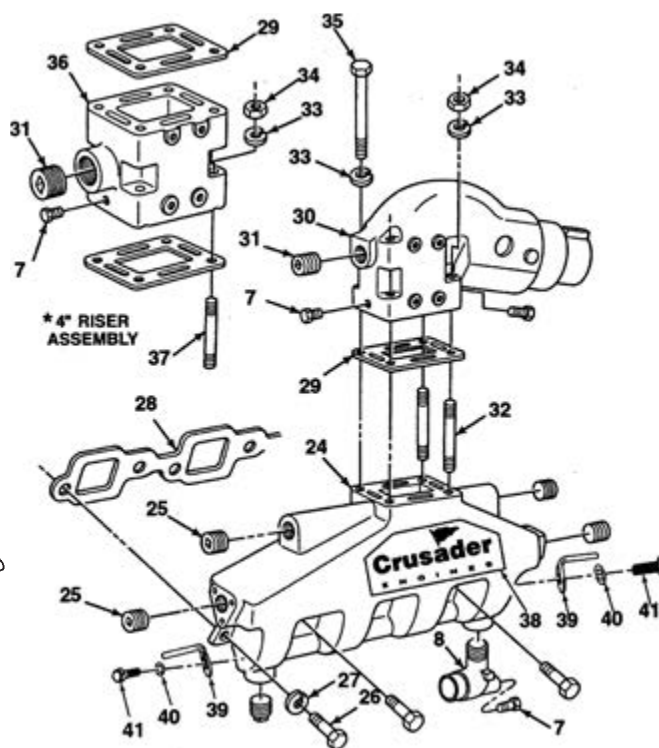
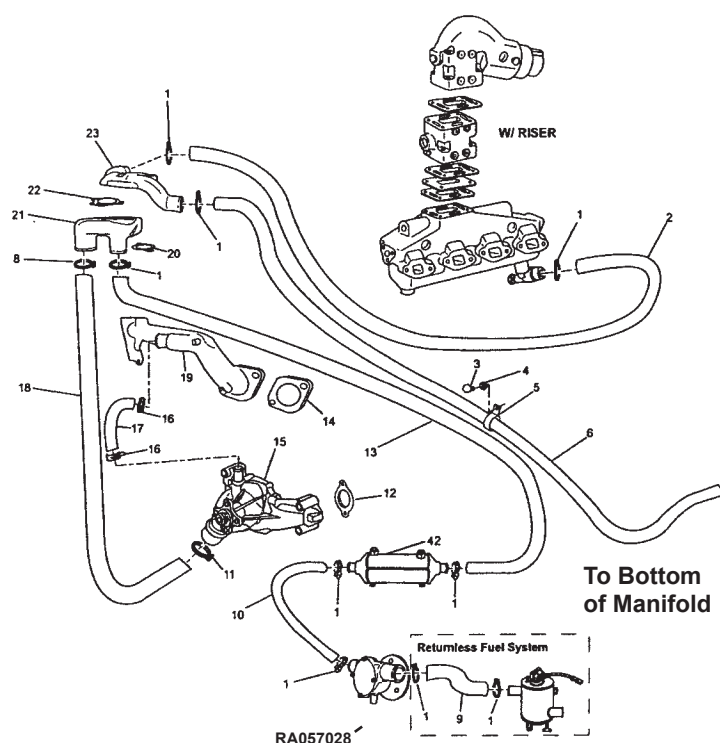


Fresh Water Cooling System Components (Non -Heated Risers)



Item	Part No.	Description
1	R045124	Hose, exchanger to exhaust elbow (Port STD)
1	R045125	Hose, exchanger to exhaust elbow (Starboard STD)
2	RS3870	Clamp, hose
3	R045123	Hose, oil cooler to exchanger
4	RS3858	Clamp, hose (#20)
5	R045127	Hose, fill riser to exhaust manifold (Starboard)
6	RS3851	Clamp, hose (#16)
7	RS3860	Clamp, thermostat housing (#36)
8	RS3855	Clamp, hose (#32)
9	20806	Hose, bypass - thermostat housing to expansion tank
10	R045162	Hose, thermostat housing attaching
11	R024006A	Fitting, 90°
12	18307	Hose, thermostat housing to exhaust manifold (LH)
13	97852	Fitting, exhaust elbow (1" hose)
14	RS3554	Plug, drain
15	30624	Fitting, exhaust manifold (90°)
16	R045129	Hose, raw water pump to fuel cooler assy (returnless fuel system only)
17	R045122	Hose, raw water pump to oil cooler
18	RMO266	Gasket, water pump to engine block
19	RA057030	Water Pump Assembly

Item	Part No.	Description
20	R045128	Hose, fill riser to exhaust manifold (Port)
21	R090082	Clamp, strap
22	93920000	Lockwasher, strap clamp attaching
23	98223016	Bolt, strap clamp attaching
24	18308	Hose, thermostat housing to exhaust manifold (RH)
25	R045126	Hose, circulation pump to exchanger
26	RMO268	Gasket, water crossover
27	RS3864	Clamp, hose
28	R045116A	Hose, circulation pump to water crossover
29	R025034	Water Crossover
30	RM0121	Gasket, distribution housing to water crossover
31	R025030	Housing, coolant distribution
32	R024055	Fitting, fill riser (90°)
33	R045132	Hose, fill riser to expansion tank
34	98127	Gasket, elbow to riser / elbow to manifold / riser to manifold
35	98124	Plate, blockoff
36	R045124A	Hose, exchanger to exhaust elbow (Port "V"-Drive)
36	R045124	Hose, exchanger to exhaust elbow (Port STD)
37	R024209	Fitting, 45°, heater applications
38	R035039	Valve, ball, heater applications
39	30645	Fitting, 5/8" nipple, heater applications
40	R024139	Fitting, 90°, heater applications



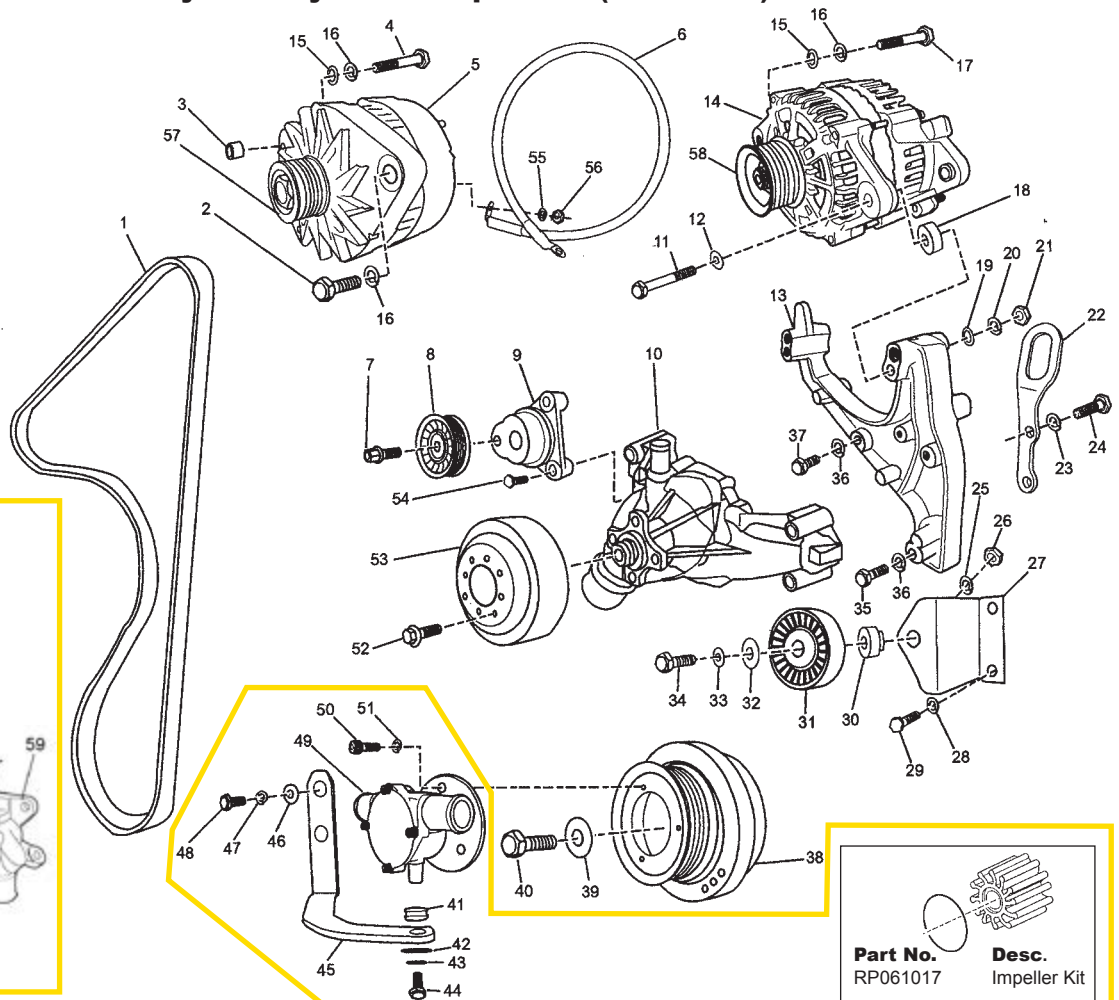
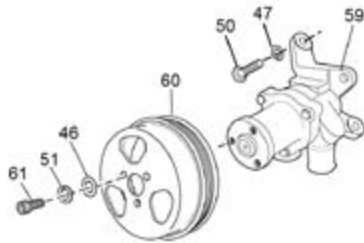
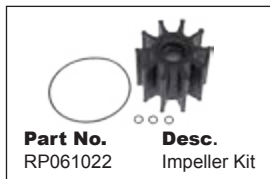
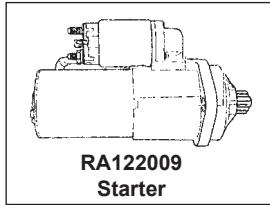
Item	Part No.	Description
1	RS3858	Clamp, hose (#20)
2	R045131	Hose, fill riser to exhaust manifold (Starboard)
3	98223016	Bolt, strap clamp attaching
4	93920000	Lockwasher, strap clamp attaching
5	R090082	Clamp, strap
6	R045128	Hose, fill riser to exhaust manifold (Port)
7	RS3554	Plug, drain
8	30624	Fitting, exhaust manifold (90°)
9	R045129	Hose, raw water pump to fuel cooler assembly (returnless fuel system only)
10	R045122	Hose, raw water pump to oil cooler
11	RS3855	Clamp, hose (#32)
12	RMO266	Gasket, water pump to engine block
13	R045137	Hose, fill riser to oil cooler
14	RMO268	Gasket, water crossover
15	RA057030	Water Pump Assembly
16	RS3864	Clamp, hose
17	R045116A	Hose, circulation pump to water crossover
18	R045138	Hose, circulation pump to fill riser
19	R025034	Water Crossover
20	RMO121	Gasket, distribution housing to water crossover
21	R025028	Fill Riser, lower
22	RMO256	Gasket, upper fill riser to lower fill riser
23	R025029	Fill Riser, upper

Item	Part No.	Description
24	R028021	Exhaust Manifold
25	103876	Plug, exhaust manifold (1")
26	98333035	Bolt, manifold to cylinder head
27	93930000	Lockwasher, manifold to head bolt
28	96653	Gasket, manifold to cylinder head
29	98127	Gasket, manifold to exhaust elbow
30	98126	Exhaust Elbow Assembly, Low Profile
30	R029015	Exhaust Elbow Assembly, High Profile
31	RS3556	Plug, exhaust elbow (3/4")
33	RS3554	Plug, drain
32	20827	Stud, exhaust elbow attaching (T)
33	93300000	Lockwasher, elbow attaching stud
34	95300000	Nut, elbow attaching stud
35	90305475	Bolt, exhaust elbow attaching (4-3/4")
*	22818	4-Inch Riser Kit
36	98128	Exhaust Riser
37	20783	Stud, riser mounting (2-3/4")
38	R143129	Decal, exhaust manifold
39	R096144	Bracket, spark plug wire loom
40	RS0302	Lockwasher, attaching bolt
41	RS2180	Bolt, wire loom attachin
42	RA147035A	Oil cooler
*	R024216	Oil cooler adapter for fuel cooler

  
**Crusader**®

Accessory Drive System Components (2001-2004)

**Crusader**

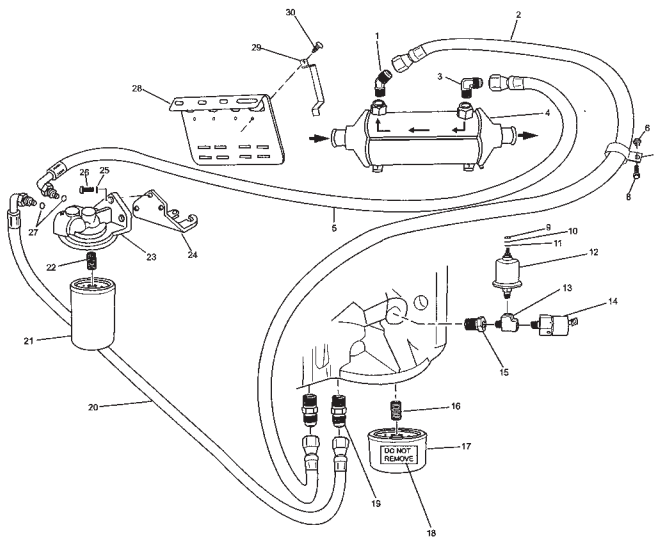


Item	Part No.	Description
1	R066024	Belt, accessory drive
2	90505200	Bolt, mounting (100 amp alternator only)
3	R062082	Spacer, mounting (100 amp alternator only)
4	90205300	Bolt, mounting (100 amp alternator only)
5	RA097008	Alternator Assembly, (100 amp)
6	R101012	Cable, ground (100 amp alternator only)
7	TBD	Bolt, tensioner attaching
8	TBD	Pulley, belt tensioner
9	RA068001	Tensioner, belt
10	RA057030	Water Pump Assembly
11	98333110	Bolt, alternator attaching (70 amp)
12	92930000	Washer, alternator attaching bolt (70 amp)
13	R090225	Bracket, alternator mounting (70 amp)
14	RA097007	Alternator Assembly, (70 amp)
15	92930000	Washer, alternator attaching bolt
16	93930000	Lockwasher, alternator attaching bolt
17	90205300	Bolt, alternator attaching (70 amp)
18	R062081	Spacer, alternator mounting (70 amp)
19	92930000	Washer, alternator mounting bolt
20	93930000	Lockwasher, alternator mounting bolt
21	97330000	Nut, alternator mounting
22	R042009	Bracket, lift
23	93940000	Lockwasher, lift bracket attaching bolt
24	98443025	Bolt, lift bracket attaching
25	93940000	Lockwasher, idler pulley attaching bolt
26	97440000	Nut, idler pulley attaching bolt
27	R090232	Bracket, idler pulley mounting
28	93940000	Lockwasher, idler pulley mounting bracket bolt
29	98443025	Bolt, idler pulley mounting bracket
30	R062083	Spacer, idler pulley
31	R065040	Pulley, idler

Item	Part No.	Description
32	R096145	Washer, idler pulley attaching bolt large
33	92940000	Washer, idler pulley attaching bolt small
34	98443050	Bolt, idler pulley attaching
35	98449055	Bolt, alternator bracket attaching bolt (long)
36	93940000	Lockwasher, alternator bracket attaching bolt
37	L00926	Bolt, alternator bracket attaching (short)
38	R064015	Balancer, crankshaft (STD)
38	R064015A	Balancer, crankshaft (HO)
39	TBD	Washer, crankshaft balancer
40	TBD	Bolt, crankshaft balancer
41	R094038	Grommet, rubber
42	RS2673	Washer, mounting bolt large
43	RS2179	Washer, mounting bolt small
44	RS0280	Bolt, raw water pump mounting
45	R090216	Bracket, raw water pump mounting
46	92940000	Waffler, raw water pump mounting bracket
47	93940000	Lockwasher, raw water pump mounting bracket
48	98443025	Bolt, raw water pump mounting bracket
49	RA057028	Raw Water Pump Assembly
50	99443030	Bolt, raw water pump-to-balancer mounting
51	93940000	Lockwasher, raw water pump-to-balancer mounting
52	TBD	Bolt, engine circulating pump pulley mounting
53	R065044	Pulley, engine circulating pump
54	98443050	Bolt, belt tensioner mounting
55	TBD	Lockwasher, ground cable attaching (100 amp only)
56	TBD	Nut, ground cable attaching (100 amp only)
57	R065042	Pulley, alternator, 100A
58	R065043	Pulley, alternator, 70A
59	RA057035	Raw Water Pump Assembly
60	R064056	Pulley
61	99335016	Bolt pulley attaching



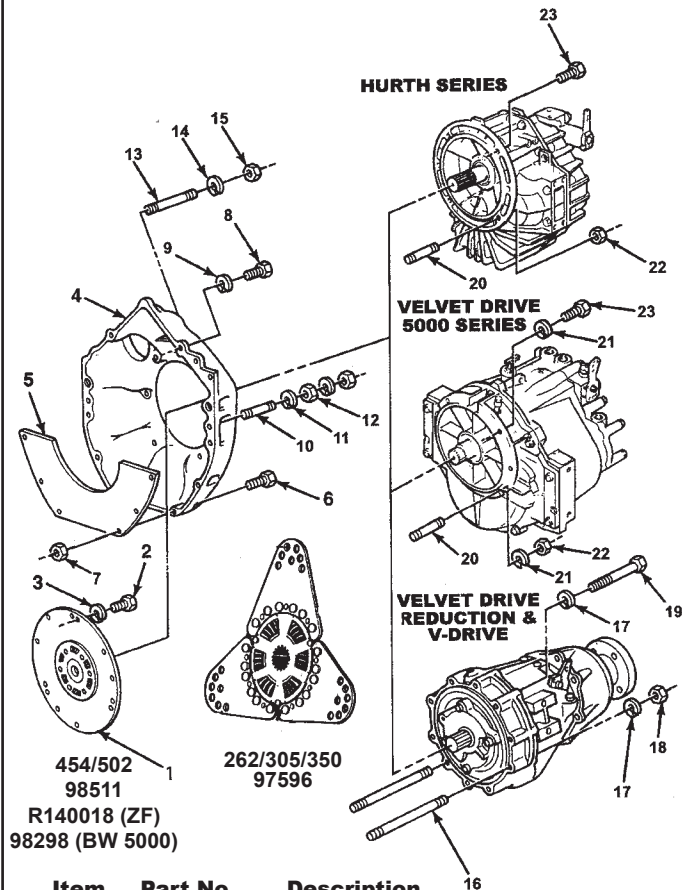
## Remote Oil Filter Components (2001-2004)



Item	Part No.	Description
1	R024150	Fitting, 45°
2	RA045121	Hose Assembly, cooler to filter header
3	R024184	Fitting, 90°
4	R147035A	Cooler Assembly
5	RA045120A	Hose Assembly, adapter to cooler
6	RS1078	Nut, strap clamp attaching
7	98315	Clamp, strap
8	90105125	Bolt, strap clamp attaching
9	95011000	Nut, sender terminal
10	95300300	Lockwasher, sender terminal
11	92300200	Washer, sender terminal
12	R020001	Sender, oil pressure (SS)
12	727046	Sender, oil pressure (DS)
13	R024145	Tee, sender attaching
14	R020015A	Switch, oil pressure (SS)
15	RS3677	Adapter, sender attaching tee
16	R079048	Fitting, oil bypass adapter
17	R079065	Adapter, oil bypass
18	R143135	Decal, oil bypass adapter
19	R024183	Fitting, remote oil filter hose
20	RA045120	Hose Assembly, adapter to filter header
21	22679	Filter, oil
22	R024203	Nipple, header filter adapter
23	R079066	Oil Filter Header
24	R090226	Bracket, oil filter mounting
25	93930000	Lockwasher, header mounting bolt
26	99333020	Bolt, header mounting
27	R047245	O-Ring, oil line
28	R090194	Bracket, oil cooler mounting
29	R171007	Strap, cooler mounting
30	RS5115	Bolt, cooler mounting strap

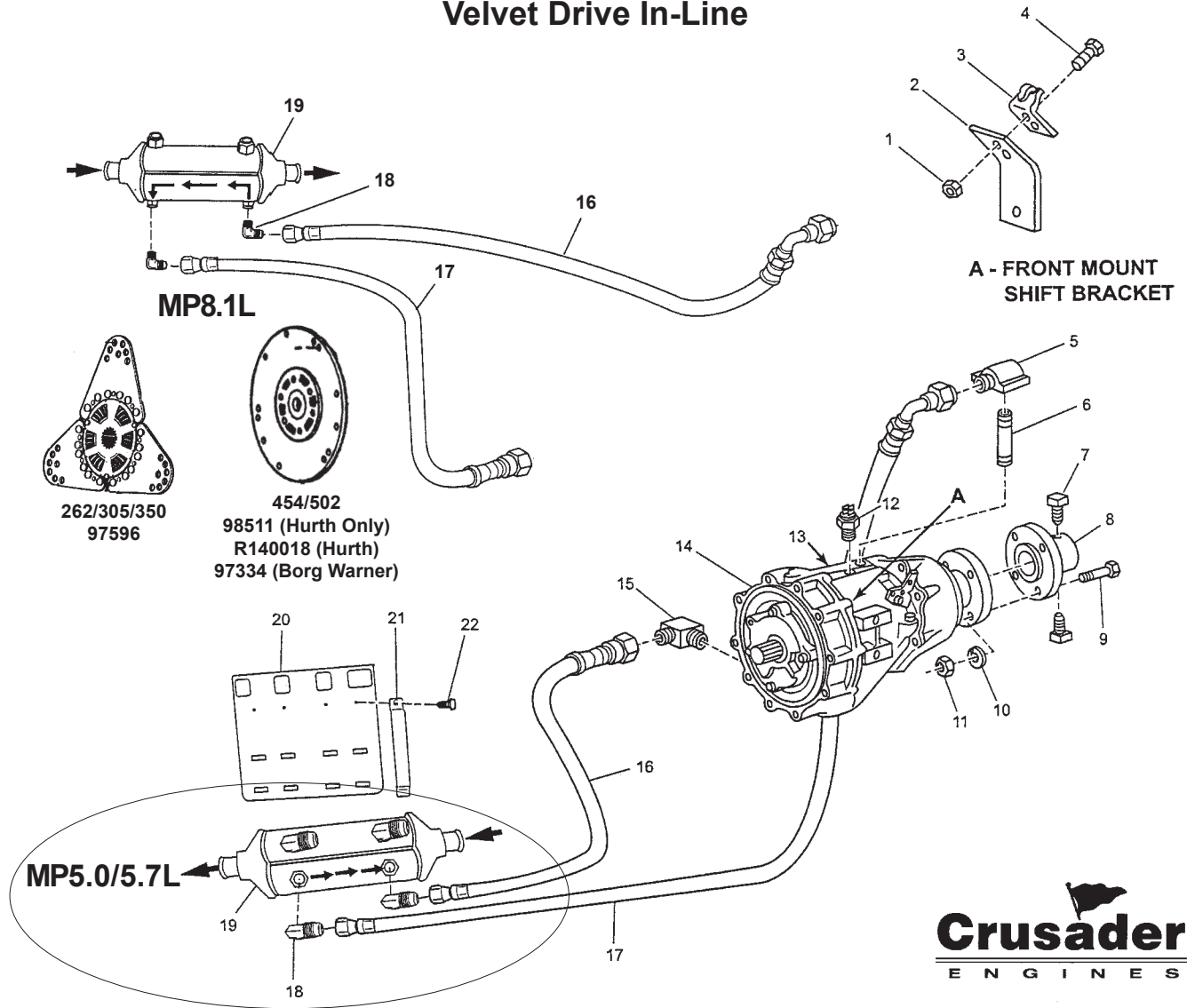


## Bell Housing Assembly



<b>Item</b>	<b>Part No.</b>	<b>Description</b>	<b>16</b>
1	R140018	Drive Damper Assembly, (ZF)	
1	98511	Drive Damper Assembly, 454, 502 (Standard Velvet Drive)	
1	97596	Drive Damper Assy 262, 305 & 350	
2	98446030	Bolt, damper to flywheel (1")	
3	93940000	Lockwasher, damper bolt	
4	R142014	Bellhousing, flywheel	
5	R019008	Cover, bellhousing (use w/top mount starter)	
5	R019008A	Cover, bellhousing (use w/bottom mount starter)	
NI	R019010	Cover, top mount starter (used w/R019008A)	
NI	RS0327	Bolt, dust cover attaching	
NI	RS2181	Lockwasher, dust cover attaching	
6	RS0256	Bolt, cover to bellhousing (1")	
6	90105125	Bolt, cover to bellhousing (1-1/4")	
7	RS1078	Nut, cover bolt	
8	98443050	Bolt, bellhousing to block	
8	99443030	Bolt, SHCS (behind starter)	
9	93940000	Lockwasher, bellhousing bolt	
10	R031034	Stud, bellhousing mounting	
11	93940000	Lockwasher, mounting stud	
12	97440000	Nut, mounting stud	
13	R031018	Stud, starter mounting (1-5/8")	
14	RS2181	Lockwasher, starter mounting stud	
15	RS1029	Nut, starter mounting stud	
<b>**Velvet Drive Reduction &amp; "V"-Drive**</b>			
16	96541	Stud, transmission mounting (4")	
17	RS2181	Lockwasher, transmission mounting	
18	RS1029	Nut, transmission mounting stud	
19	RS0337	Bolt, transmission mounting	
<b>**Velvet Drive 5000 &amp; ZF Gears**</b>			
20	R031018	Stud, transmission mounting (1-5/8")	
21	RS2180	Lockwasher, transmission mounting	
22	RS1029	Nut, transmission mounting stud	
23	RS0329	Bolt, transmission mounting	
	98298	Borg Warner 5000 - Damper Plate	

## MP5.0L/MP5.7L/MP8.1L Velvet Drive In-Line

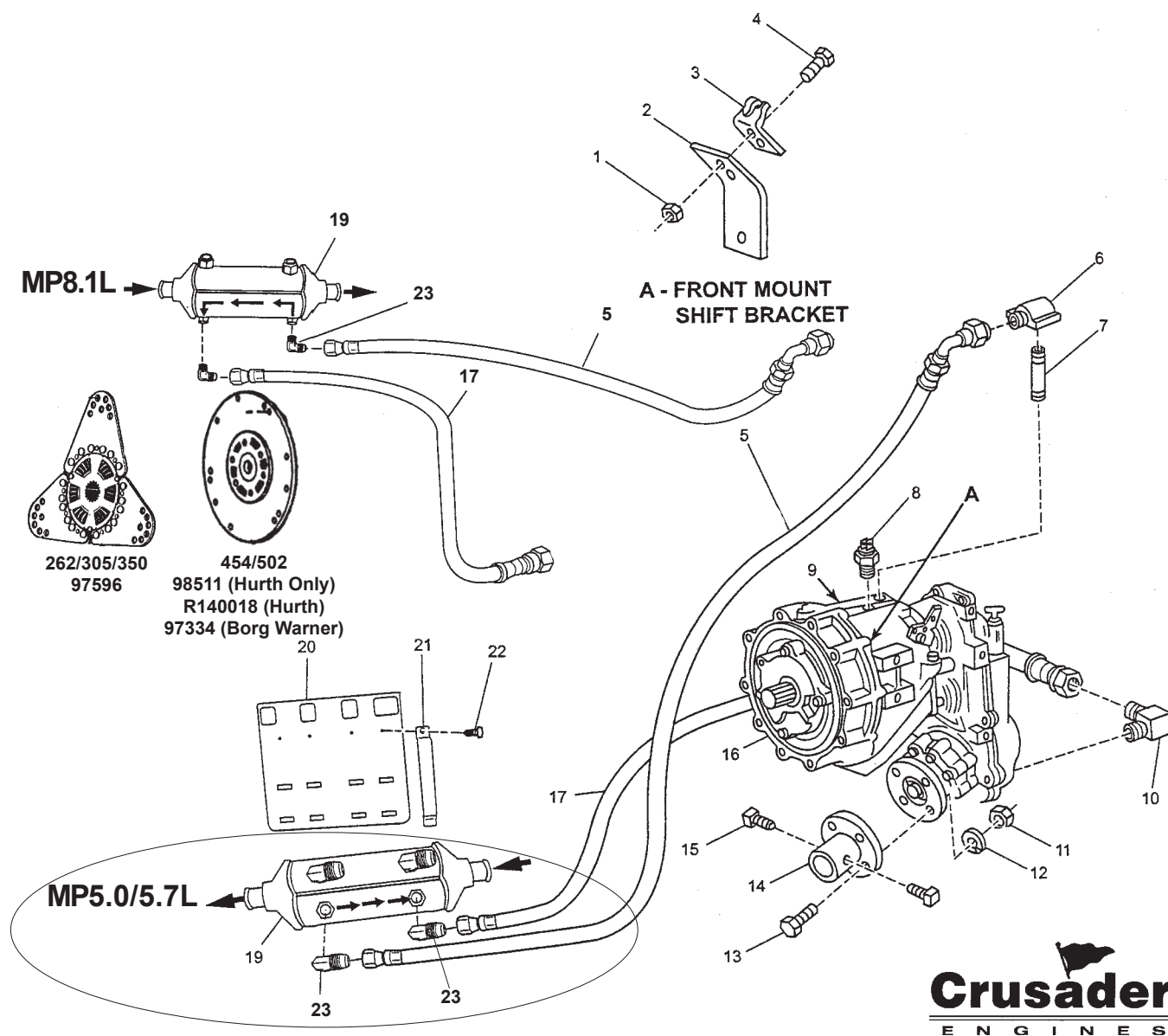


Item	Part No.	Description
1	RS2055	Nut, attaching bolt
2	96341	Shift Bracket (front mount)
3	R090086	Cable Clip, single cable
3	22232	Cable Clip, dual cable clip (not shown)
4	RS5122	Bolt, clip attaching (1/2")
5	R024008	Elbow, hose - transmission (90 degree)
6	RS4674	Nipple, pipe (3")
7	2000090	Screw, set - coupler
8	R148001	Coupler, prop shaft (1" shaft)
8	R148002	Coupler, prop shaft (1-1/8" shaft)
8	R148003	Coupler, prop shaft (1-1/4" shaft)
8	R148004	Coupler, prop shaft (1-3/8" shaft)
8	R148005	Coupler, prop shaft (1-1/2" shaft)
8	R148007	Coupler, prop shaft (1-3/4" shaft)
8	R148008	Coupler, prop shaft (2" shaft)
9	22136	Bolt, coupling (1-1/2")
10	RS2181	Lockwasher, coupling bolt
11	RS1529	Nut, coupling bolt
12	R020037	Sender, temperature alarm
13	R153002	Switch Kit, neutral start (not shown)
13A	25542	Switch & O-Ring Assembly (not shown)
14	RA157003	Transmission (1:1 Direct Drive)
14	RA157004	Transmission (1.52:1 Reduction)
14	RA157004A	Transmission (1.88:1 Reduction)

Item	Part No.	Description
14	RA157004D	Transmission (2.57:1 Reduction)
14	RA157004E	Transmission (2.91:1 Reduction)
15	R024010	Elbow, hose - transmission (90°)
16	RA045007H	Hose Assembly, cooler to transmission MP5.0/5.7L
16	RA045007P	Hose Assembly, cooler to transmission MP8.1L
17	RA045007N	Hose Assembly, transmission to cooler MP5.0/5.7L
17	RA045007T	Hose Assembly, transmission to cooler MP8.1L
18	R02410	Fitting, 90°
19	RA147035	Oil Cooler Assembly MP5.0/5.7L
19	RA147035A	Oil Cooler Assembly MP8.1L
20	R090194	Bracket, cooler
21	R171007	Strap, cooler mounting
22	RS5115	Screw, cooler mounting
	97334	Borg Warner in-line dampner

## MP5.0L/MP5.7L/MP8.1L

## Velvet Drive "V" Drive

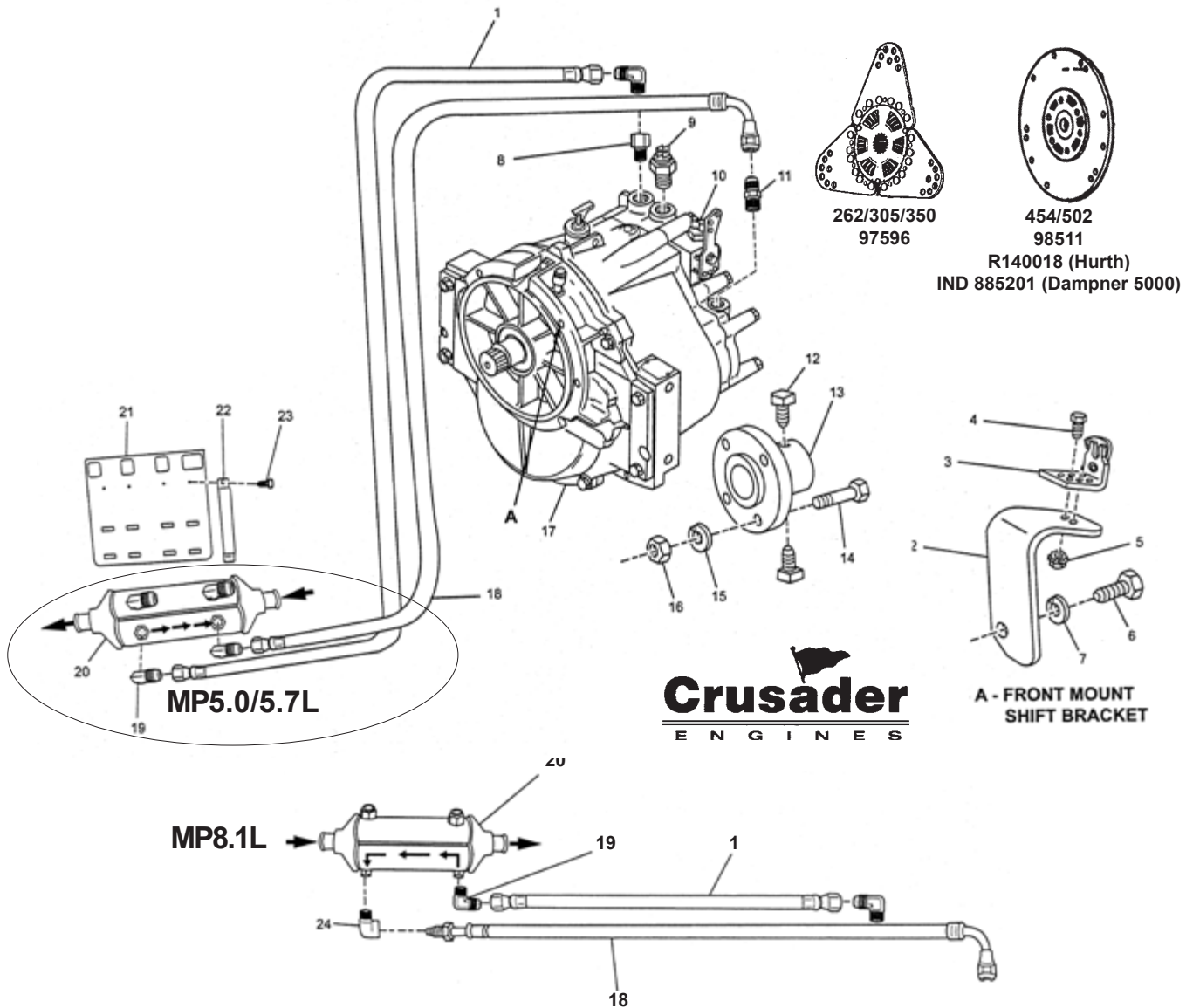


Item	Part No.	Description
1	95014300	Nut, attaching bolt
2	96341	Shift Bracket (front mount)
3	R090086	Cable Clip, single cable
3	22232	Cable Clip, dual cable clip (not shown)
4	RS5122	Bolt, clip attaching (1/2")
5	RA045007N	Hose Assy, transmission to cooler MP5.0/5.7L
5	RA045007T	(63") Hose Assy, transmission to cooler MP8.1L
6	R024008	Elbow, hose - transmission (90°)
7	RS4674	Nipple, pipe (3")
8	R020037	Sender, temperature alarm
9	R153002	Switch Kit, neutral start (not shown)
9A	25542	Switch & O-Ring Assembly (not shown)
10	R024010	Elbow, hose - transmission (90°)
11	RS1529	Nut, coupling bolt
12	RS2181	Lockwasher, coupling bolt
13	22136	Bolt, coupling (1-1/2")
14	R148001	Coupler, prop shaft (1" shaft)
14	R148002	Coupler, prop shaft (1-1/8" shaft)

Item	Part No.	Description
14	R148003	Coupler, prop shaft (1-1/4" shaft)
14	R148004	Coupler, prop shaft (1-3/8" shaft)
14	R148005	Coupler, prop shaft (1-1/2" shaft)
14	R148007	Coupler, prop shaft (1-3/4" shaft)
14	R148008	Coupler, prop shaft (2" shaft)
15	2000090	Screw, set - coupler
16	RA156002B	Transmission (1.51:1 Reduction)
16	RA156002D	Transmission (1.99:1 Reduction)
16	RA156002E	Transmission (2.49:1 Reduction)
17	RA045007N	Hose Assembly, cooler to transmission
17	RA045007T	(46") Hose Assy, transmission to cooler MP8.1L
18	30526	Fitting, 90°
19	RA147035A	Oil Cooler Assembly MP8.1L
19	R147035	Oil Cooler Assembly MP5.0/5.7L
20	R090194	Bracket, cooler
21	R171007	Strap, cooler mounting
22	RS5115	Screw, cooler mounting
23	RO24010	Fitting 90°
	97334	Borg Warner in-line dampner



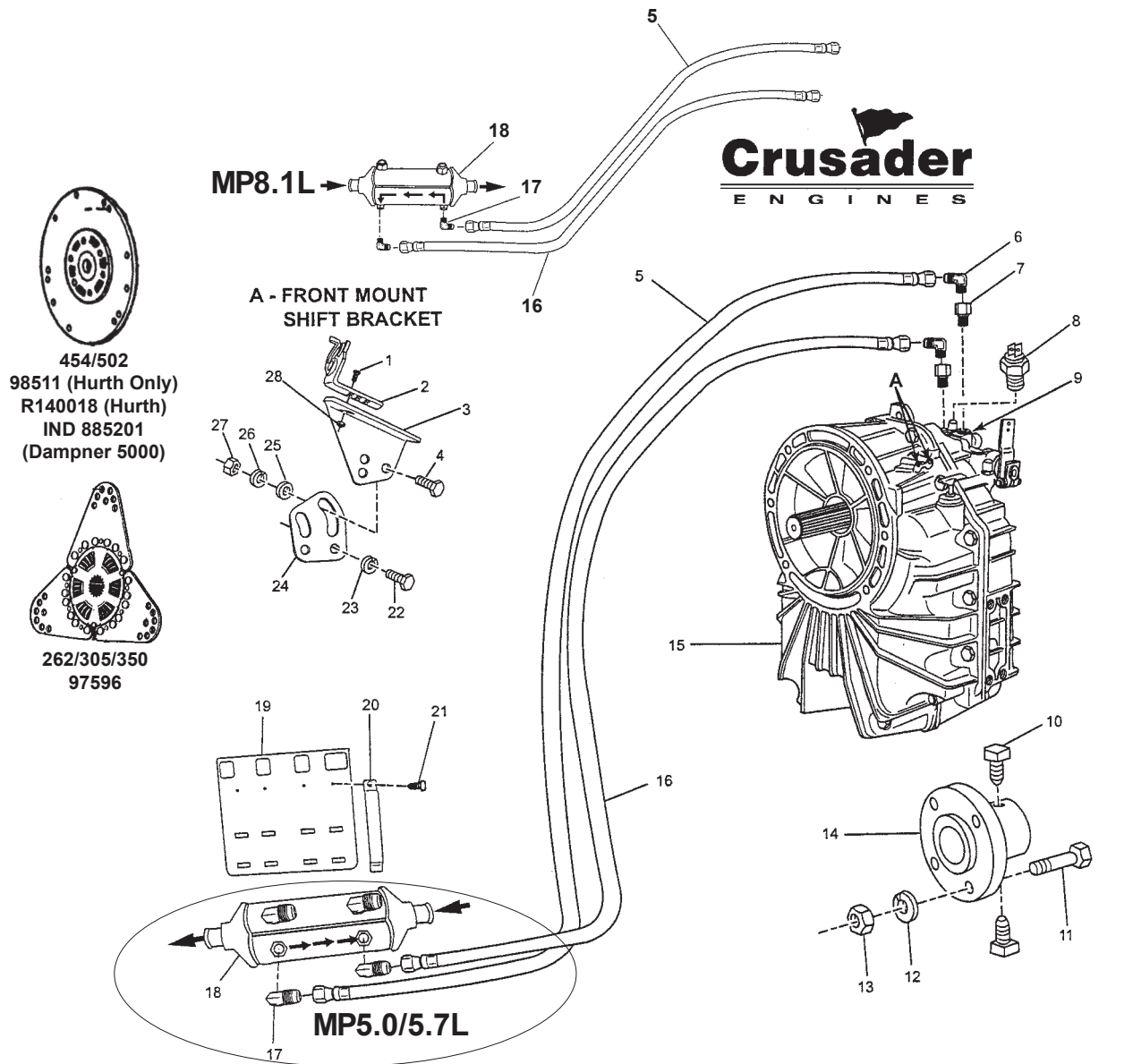
## MP5.0L/MP5.7L/MP8.1L Velvet Drive 5000



Item	Part No.	Description
1	RA045007H	(63") Hose Assembly, transmission to cooler MP8.1L
1	RA045007N	Hose Assy, transmission to cooler MP5.0/5.7L
2	98227	Shift Bracket, (front entry)
3	R090086	Cable Clip, single cable
3	22232	Cable Clip, dual cable clip (not shown)
4	RS5122	Bolt, clip attaching (1/2")
5	RS2055	Nut, attaching bolt
6	TBD	Bolt, shift bracket attaching
7	TBD	Washer, shift bracket attaching bolt
8	R024196	Fitting, adapter
9	R020037	Sender, temperature alarm
10	25542	Switch & O-Ring Assembly (not shown)
11	30603	Fitting, adapter
12	2000090	Screw, set - coupler
13	R148001	Coupler, prop shaft (1" shaft)
13	R148002	Coupler, prop shaft (1-1/8" shaft)
13	R148003	Coupler, prop shaft (1-1/4" shaft)
13	R148004	Coupler, prop shaft (1-3/8" shaft)
13	R148005	Coupler, prop shaft (1-1/2" shaft)
13	R148007	Coupler, prop shaft (1-3/4" shaft)
13	R148008	Coupler, prop shaft (2" shaft)

Item	Part No.	Description
14	22136	Bolt, coupling (1-1/2")
15	RS2181	Lockwasher, coupling bolt
16	RS1529	Nut, coupling bolt
17	RA157020B	Transmission (1.50:1 Reduction) Down Angle
17	RA157020C	Transmission (2:1 Reduction) Down Angle
17	RA157020D	Transmission (2.45:1 Reduction) Down Angle
17	RA157020E	Transmission (2.80:1 Reduction) Down Angle
17	RA156008	Transmission (125:1 Reduction) V-Drive
17	RA156008A	Transmission (1.50:1 Reduction) V-Drive
17	RA156008B	Transmission (2:1 Reduction) V-Drive
17	RA156008C	Transmission (2.50:1 Reduction) V-Drive
18	RA045007P	Hose Assy, cooler to transmission MP5.0L/MP5.7L
18	18203	(50½") Hose Assembly, transmission to cooler MP8.1L
19	RO24010	Fitting, 90°
20	R147035	Oil Cooler Assembly MP5.0L/MP5.7L
20	RA147035A	Oil Cooler Assembly MP8.1L
21	R090194	Bracket, cooler
22	R171007	Strap, cooler mounting
23	RS5115	Screw, cooler mounting
24	137425	Fitting, 90°
	IND 885201	Dampner 5000

# MP5.0L/MP5.7L/MP8.1L (ZF Gear)



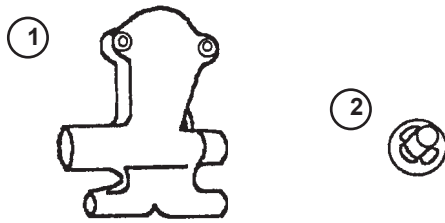
Item	Part No.	Description
1	RS5122	Bolt, cable clip attaching
2	R090086	Cable Clip, single cable
2	22232	Cable Clip, dual cable clip (not shown)
3	R090202	Shift Bracket, cable clip attaching
4	RS0282	Bolt, shift bracket attaching
5	RA045007N	Hose Assembly, transmission to cooler
5	RA045007H	(63") Hose Assy, transmission to cooler
6	R024010	Fitting, 90°
7	R024196	Fitting, adapter
8	R020037	Sender, temperature alarm
9	25542	Switch & O-Ring Assembly (not shown)
10	2000090	Screw, set - coupler
11	90418138	Bolt, coupling (1-3/8")
12	RS2181	Lockwasher, coupling bolt
13	RS1529	Nut, coupling bolt
14	R148001	Coupler, prop shaft (1" shaft)
14	R148002	Coupler, prop shaft (1-1/8" shaft)
14	R148003	Coupler, prop shaft (1-1/4" shaft)
14	R148004	Coupler, prop shaft (1-3/8" shaft)
14	R148005	Coupler, prop shaft (1-1/2" shaft)
14	R148007	Coupler, prop shaft (3/4" shaft)
14	R148008	Coupler, prop shaft (2" shaft)

Item	Part No.	Description
15	RA157022	Trans 630A (1.22:1 Reduction)
15	RA157022A	Trans 630A (1.55:1 Reduction)
15	RA157022B	Trans 630A (2.00:1 Reduction)
15	RA157022C	Trans 630A (2.50:1 Reduction)
15	RA157022D	Trans 630A (2.70:1 Reduction)
15	RA157023F	Trans 800A (2.85:1 Reduction)
15	RA156009	Trans 630V (1.29:1 Reduction)
15	RA156009A	Trans 630V (1.50:1 Reduction)
15	RA156009B	Trans 630V (2.00:1 Reduction)
15	RA156009C	Trans 630V (2.50:1 Reduction)
16	RA045007T	Hose Assy, cooler to transmission
16	RA045007N	(50 1/2") Hose Assy, cooler to transmission MP8.1L
17	30526	Fitting, 90°
18	R147035	Oil Cooler Assembly MP5.0/5.7L
18	RA147035A	Oil Cooler Assembly MP8.1L
19	R090194	Bracket, cooler
20	R171007	Strap, cooler mounting
21	RS5115	Screw, cooler mounting
22	RS6529	Bolt, shift bracket attaching
23	93930000	Lockwasher, shift bracket attaching bolt
	IND 885201	Dampner 5000

8° Down  
Angle

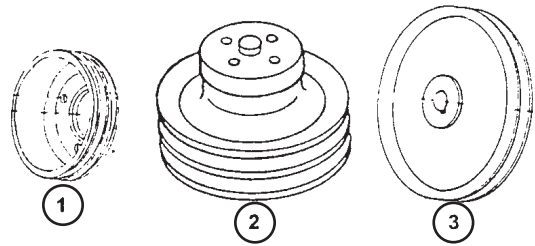
V-Drive

## Thermostat Housing Assemblies



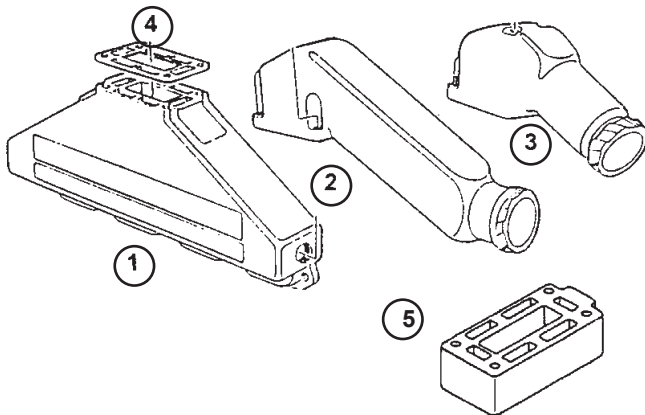
Item	Part No.	Description
1	R025014	Thermostat hsg. 305 & 350 CID
1	R025014A	Thermostat hsg. 454 CID
2	RP026003	Thermostat 143°

## Pulleys



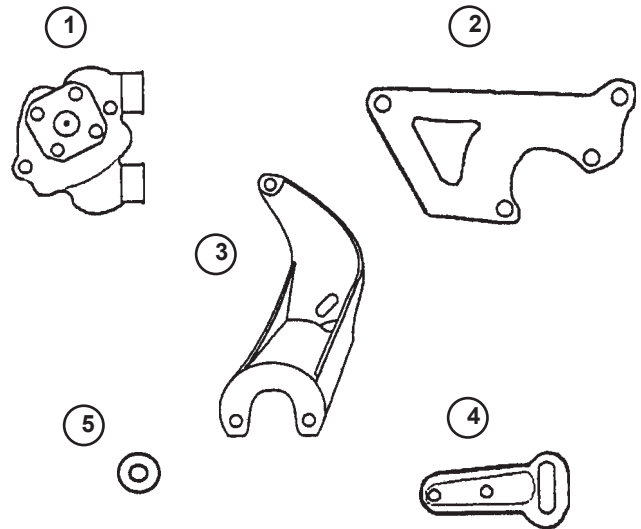
Item	Part No.	Description
1	R065014	Crank pulley 2 grooves for 305/350 CID
1	R065016	Crank pulley 2 grooves for 454 CID
2	R065015	Circ. pump pulley (All)
3	R065012	Raw water pump pulley for all models

## Exhaust System Group



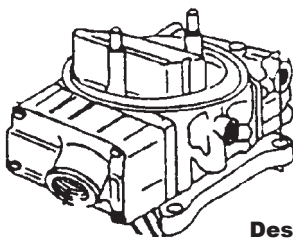
Item	Part No.	Description
1	R028009	Manifold for 305 & 350
1	R028010	Manifold for 454 CID
2	R029001	Standard riser 3" 305 & 350
2	R029004	Standard riser 3" 454 CID
3	R029011	Elbow 3 1/2" 305 & 350
4	RM0002	Elbow gasket 305 & 350
4	RM0099	Elbow gasket 454 CID
5	R062032	2" Spacer 454
5	R062033	4" Spacer 454
5	R062003	2" Spacer 350
5	R062004	4" Spacer 350

## Raw Water Pump and Mounting Brackets



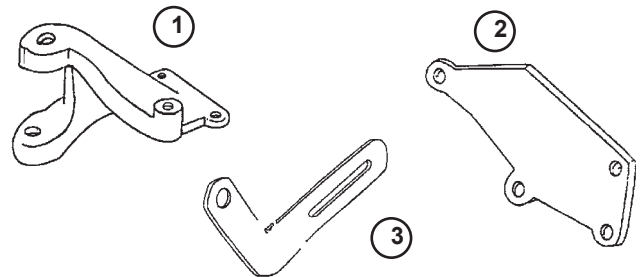
Item	Part No.	Description
1	RA057009	Raw water pump (All)
2	R090072	Outer bracket for 305 & 350 CID
3	R090088	Outer bracket for 454 CID
4	R090073	Anchor brkt. (All)
5	R062036	Spacer (All)

## Chevrolet Carburetors



Part No.	Description
RA052002	Holley 4 bbl. 305 CID
RA052003	Holley 4 bbl. 350/280
RA052007	Holley 4 bbl. 5.7 HO
RA052007	Holley 4 bbl. 454/350
RA052010	Holley 4 bbl. 454/425
R023001	Holley to Q-Jet adaptor

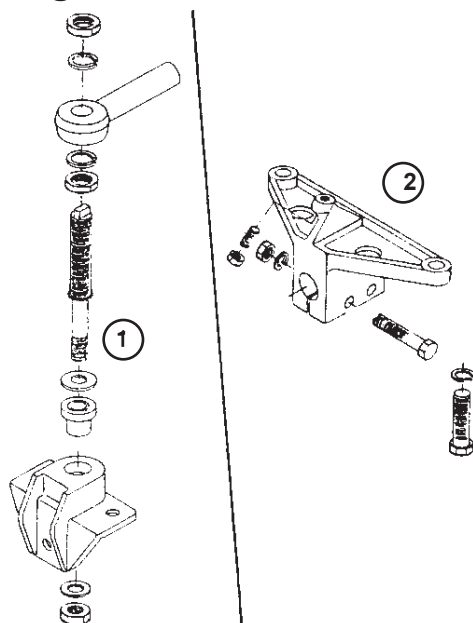
## Alternator Mounting Brackets



Item	Part No.	Description
1	R090075	Mount bracket for 305 & 350 CID
2	R090087	Mount bracket for 454 CID
3	R099009	Adjustment strap (All)



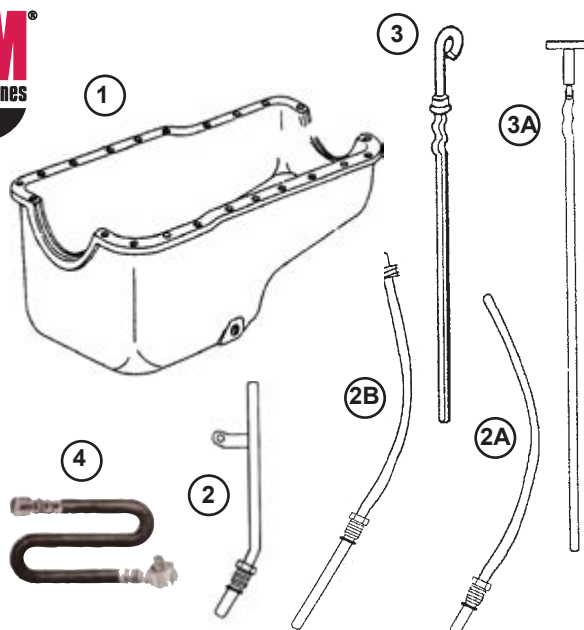
## Engine Mount Assemblies



Item	Part No.	Description
1	RC091001	Trunnion & foot assy for 302 & 351
2	RK090001	Mount brkt assy for 302 & 351



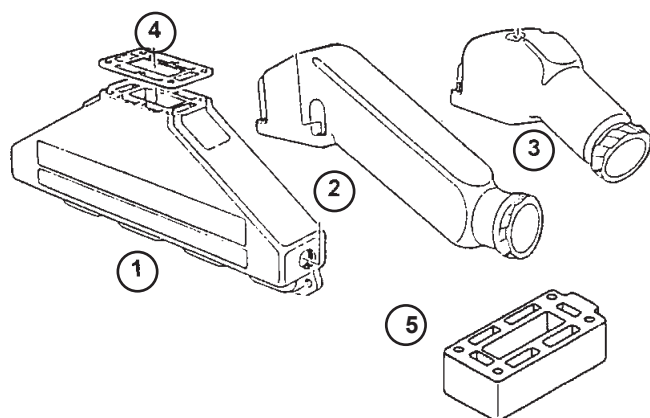
## Oil Pans &amp; Dip Stick Assemblies



Item	Part No.	Description
1	RK005002A	Oil pan & dipstick assy. for 302, 1971-84
1	R005002A	Center sump pan for 302, '85 & up
1	R005004A	Oil pan w/metric plug 351, '86 & up
2	R041046	Tube, left rear block mount, 5.0, '85 & up
3	R041047	Dipstick for R041046
2	R041031B	Tube, left side near front mount, 5.8
3	R041032	Dipstick for R041031B, 5.8, '71-'85
3	R041032A	Dipstick for R041031B, '86 & up
3	R041033A	Dipstick, level mount, 5.8, '71-'85
3	R041033A	Dipstick, I/B use, '86 & up
2	R041062	Tube, left rear block mount, R005020 Pan See Note*
2A	R041031A	Tube, left side mount, pump out style, No oil drain kit, 5.8, 1997
2B	R041031B	Tube, left side above valve cover entry, with drain kit, 5.8, 1998 & up
3	R041063	Dipstick, for R041062A or B tube for level mount, Black handle, *See Note
3	R041063	Dipstick, for R041062A or B tube for I/B use, Yellow handle, *See Note
3A	R041064A	Dipstick, for R041031A & B tube for level mount, Black handle, 5.8, 1997 & up
3	R041063	Dipstick, for R041031A & B tube for I/B use, Yellow handle, 1997 & up
4	RK024056A	Oil drain kit 1/2" 20 plug
4	RK024056C	Oil drain kit metric

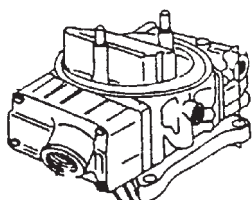
\*Note: These parts were used on 5.8 engines between serial numbers 371319 and 371783

## Exhaust System Group



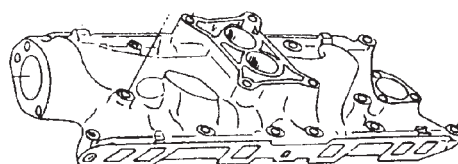
Item	Part No.	Description
1	R028001	Manifold for 302 & 351
2	R029001	Standard Riser for 302 & 351
3	R029011	3 1/2" exhaust riser for 302 & 351
4	RM0002	Elbow gasket
5	R062003	2" Spacer
5	R062004	4" Spacer

## Ford Carburetors



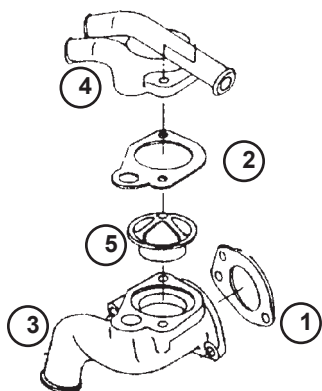
Part No.	Description
RA052001	Holley 2 bbl. for 302
RA052002	Holley 4 bbl. for 302
RA052003	Holley 4 bbl. for 351

## Intake Manifolds



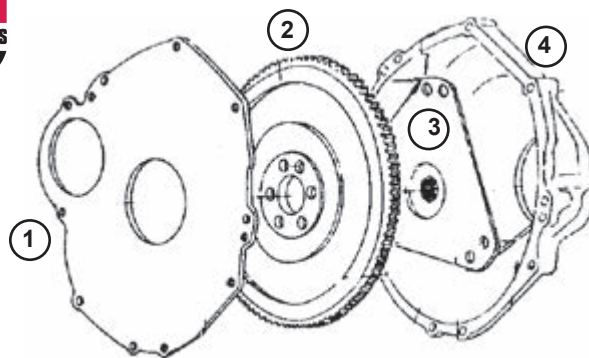
Part No.	Description
R002001	2 bbl. intake for 302 CID
R002002	4 bbl. intake for 302 CID
R002003A	4 bbl. intake for 351 CID

### Thermostat Assembly Raw Water Cooled



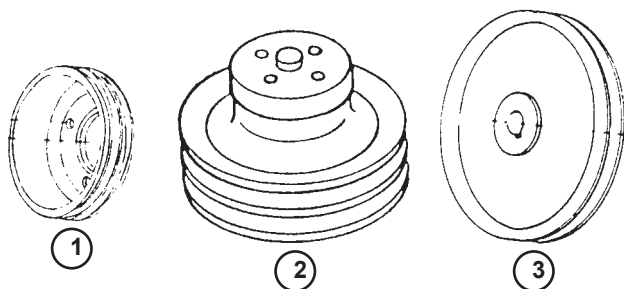
Item	Part No.	Description
1	RM0001	Mounting gasket, 302/351
2	RM0003	Cover gasket, 302/351
3	R025001	Lower T-Stat Hsg., 302/351
4	R025002	Upper T-Stat Hsg., 302/351
5	RP026002E	143° Thermostat, 302/351
5	RP026002	160° Thermostat, 302/351

### Flywheel & Housing Group



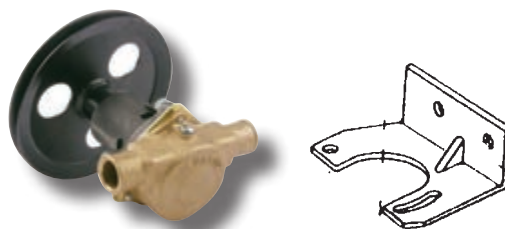
Item	Part No.	Description
1	R019001	Starter location plate, 302/351
2	RA138001	Flywheel 302, 1971-80
2	RA138003	Flywheel 302, 1981 to date
2	RA138001	Flywheel 351, all
2A	R139006	Ring gear only, 157 teeth, 302/351
3	R140001	Drive damper plate, 302/351
4	R142001	Flywheel housing, 302/351

### Pulleys



Item	Part No.	Description
1	R065002	Crank pulley, 2 grooves, 302/351
2	R065001	Circ. pump pulley, 2 grooves, 302/351
3	R065033	Raw water pump pulley, 302/351

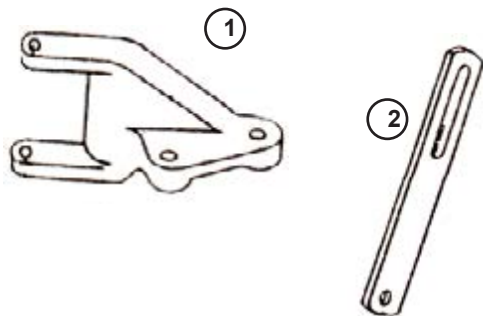
### Raw Water Pump & Bracket



Engine Model Numbers 302 and 351  
1" Ports

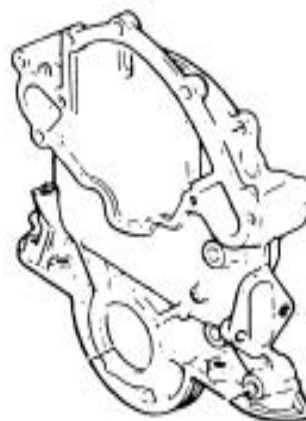
Part No.	Description
PLE RA057007	Pump
SHE 09959K	Impeller Kit
SHE 23979	Minor Repair Kit
SHE 12665	Major Repair Kit
PLE R090008	Pump Mount Bracket, 305/351

### Alternator Mounting Brackets



Item	Part No.	Description
1	R090055B	Support bracket for prestolite LH, 302/351
1	R090055C	Support bracket for Prestolite RH, 302/351
2	R099007	Adjustment bracket, 302/351

### Timing Cover



Part No.	Description
R004001A	Timing Cover, 302/351

**Chevy Small Block V-6 & V-8**  
 262/283/305/327/350 C.I.D.



**Part No.**  
 BBB 286232

**Description**  
 New water pump features black powder coated finish, stainless steel backing plate, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gaskets.

**Chevy Big Block V-8**  
 409/427/454/502 C.I.D.



**Part No.**  
 BBB 286231

**Description**  
 New water pump features black powder coated finish, stainless steel backing plate, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gaskets.

**Chevy 8.1 Ltr. V-8**  
 496 C.I.D.



**Part No.**  
 BBB 286590

**Description**  
 New water pump features black powder coated finish, stainless steel backing plate, stainless/ceramic seal, cast brass impeller heavy duty bearings & OE mounting gaskets.

**Chevy In-Line 4-6 Cylinder**


**Part No.**  
 BBB 286219

**Description**  
 New water pump features black powder coated finish, stainless/ceramic seal, cast brass impeller heavy duty bearings & mounting gasket. Open back style.

**Ford Small Block V-8**  
 302/351 C.I.D.



**Part No.**  
 BBB 286225

**Description**  
 New water pump features black powder coated finish, stainless steel backing plate, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gaskets.

**Ford 2.3 Ltr. In-line 4 Cylinder**


**Part No.**  
 BBB 286343

**Description**  
 New water pump features black powder coated finish, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gasket.

**Chrysler V-8 Small Block**  
 273/318/340/360 C.I.D.



**Part No.**  
 BBB 286235

**Description**  
 New water pump features black powder coated finish, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gasket.

**Chrysler V-8 Big Block**  
 413/426/440 C.I.D.



**Part No.**  
 BBB 286290

**Description**  
 New water pump features black powder coated finish, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gasket.

**Chevy Raw Water Pump Conversion Kit Old & New Style**


**Part No.**  
 BBB 313350  
  
 BBB 313454

**Description**  
 Small Block Kit contains Pump, Bracket, Bushing & Three Mounting Bolts.  
 Big Block Kit contains Pump, Bracket, Bushing & Six Mounting Bolts (Gen IV - Course Thread, Gen V & VI - Fine Threads)

**Small Block Ford Raw Water Pump Conversion Kit**


**Part No.**  
 BBB 313351

**Description**  
 New Pump, Bracket, Bushing & Three Mounting Bolts.



**Velvet Drive 72 Series Marine Transmissions** are available in a direct drive, in-line reduction and V-drive configuration. They include a wide selection of gear ratios, proven reliability and a heavy duty cast iron case. The 72 Series transmissions are rated for use with in pleasure craft, light duty commercial and heavy duty commercial applications. **Pleasure craft rating** is defined as full throttle operation is used 5% or less and cruising speed at 80% or less. Total running time is 400 hours a year or less. **Light duty commercial** is defined as full throttle operation is used 5% or less with 75% of full throttle operation being used for longer durations. Total running time is 1500 hours a year or less. **Heavy duty commercial** is much the same as light duty but extends running time to 2500 hours or less.



Velvet Drive 72 Series Direct Drive marine transmission. The 72 Series Direct Drives can be used with either standard or reverse rotation engines by simply rotating the hydraulic pump mounted on the front of the transmission.

## Direct Drive Power Ratings

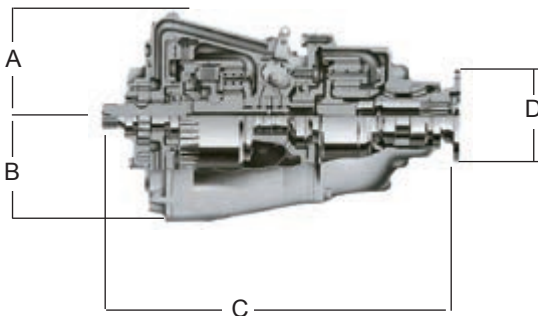
Transmission Model	Gas engine torque	Diesel engine torque
BOR 72C Pleasure	595 lb. ft.	450 lb. ft.
BOR 72C Commercial	425 lb. ft.	350 lb. ft.



Velvet Drive 72 Series In-Line reduction gear marine transmission. The 72 Series reduction gears can be used with either standard or reverse rotation engines by simply rotating the hydraulic pump mounted on the front of the transmission. Reduction ratios include 1.52, 1.88, 2.10, 2.57 & 2.91:1

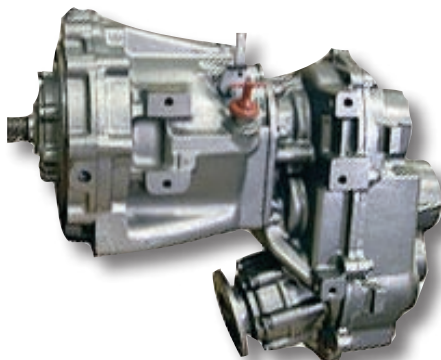
## Reduction Gear Power Ratings

Transmission Model	Ratio	Gas engine torque	Diesel engine torque
BOR 72C Pleasure	1.52, 1.88, 2.10	495 lb. ft.	375 lb. ft.
BOR 72C Commercial	1.52, 1.88, 2.10	400 lb. ft.	325 lb. ft.
BOR 72C Pleasure	2.57, 2.91	595 lb. ft.	450 lb. ft.
BOR 72C Commercial	2.57, 2.91	425 lb. ft.	350 lb. ft.



## Weight and Dimensions

Transmission Model	A	B	C	D	Weight
BOR 72C Direct Drive	5.63"	5.69"	11.44"	5"	109 lbs.
BOR 72C Reduction Gear	5.63"	5.69"	17.79"	5"	153 lbs.



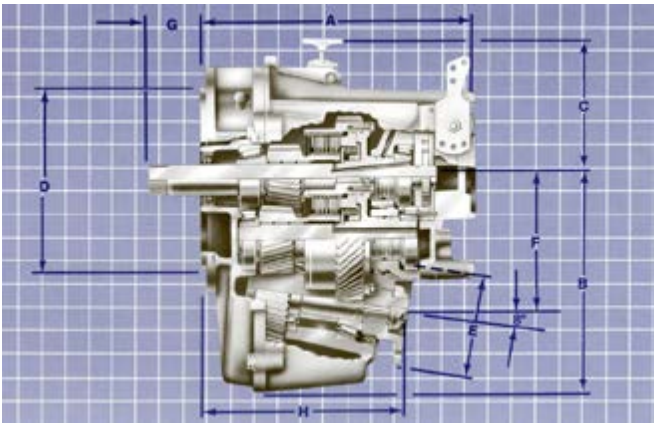
Velvet Drive 72 Series V-Drives. The 72 Series V-Drives can be used with either standard or reverse rotation engines by simply rotating the hydraulic pump mounted on the front of the transmission. Opposite rotating propellers can be provided using twin, like rotation engines. Reduction ratios include 1.20, 1.51, 1.99 & 2.49:1

## V-Drive Power Ratings

Transmission Model	Ratio	Gas engine torque	Diesel engine torque
BOR 72C Pleasure	1.51, 1.21	495 lb. ft.	375 lb. ft.
BOR 72C Commercial	1.51, 1.21	400 lb. ft.	325 lb. ft.
BOR 72C Pleasure	1.99, 2.49	435 lb. ft.	330 lb. ft.
BOR 72C Commercial	1.99, 2.49	375 lb. ft.	305 lb. ft.

Liberty Series

The Libert Series Down Angle transmission is specifically designed for twin engine applications that require nearly horizontal engine installation. Its full reversing feature eliminates the need for opposite rotating engines, while the 8° "down angle" eliminates the problems that result from extremely steep engine installation angle. An improved hydraulic system provides more engine torque to the propeller. New design features such as an hydraulic pump and control valve make service easier. The control lever and dipstick are centrally located. Like all Velvet Drive® marine transmission, the Libert Series accepts flywheel housing adapters and propeller shaft couplings from the complete line of Velvet Drive® accessories.



Dimension inches (millimeters)

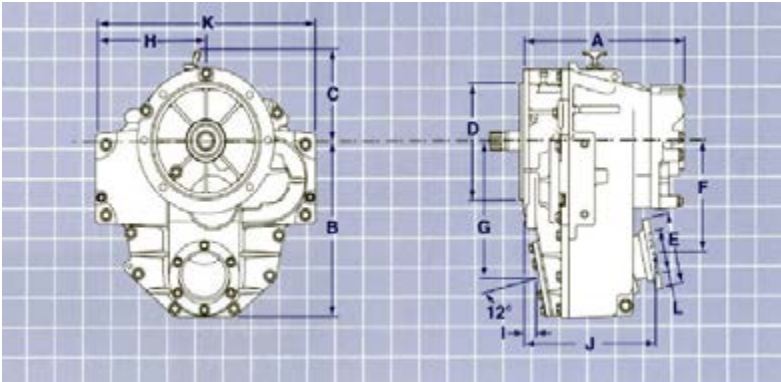
A	B	C	D	E	F	G	H
12.09 (307.0)	9.78 (248.5)	6.38 (162.0)	8.25 (209.5)	5.00 (127.0)	5.95 (151.2)	2.56 (65.0)	8.98 (228.1)

General Information (subject to change without notice)

Available Ratios.....	1.0, 1.25, 1.5, 2.0, 2.45, 2.8:1
Both directions of output rotation	
Input Shaft Spline Teeth.....	26
Input Shaft Rotation.....	automotive
Output Shaft Rotation.....	either direction
Approximate Dry Weight.....	114 lbs. (51.7 kg)

Model 5000V

The Series 5000V is designed specifically for V-drive applications. Its fully reversing feature allows for a twin-engine layout using "automotive" rotating engines, while the 12 degree down angle between the input and output shafts allows the desired system installation. The coupling flange, located on the opposite side to the engine and hollow output shaft, provides position and ease of propeller shaft alignment. The compact design and aluminum case provide a lighter and considerably shorter package than the 72 Series V-drive. The improved hydraulic system, with reduced parasitic losses, offers more power to the propeller. The Series 5000V has the same engine adaptation features as the 72 Series and Libert Series down angle.



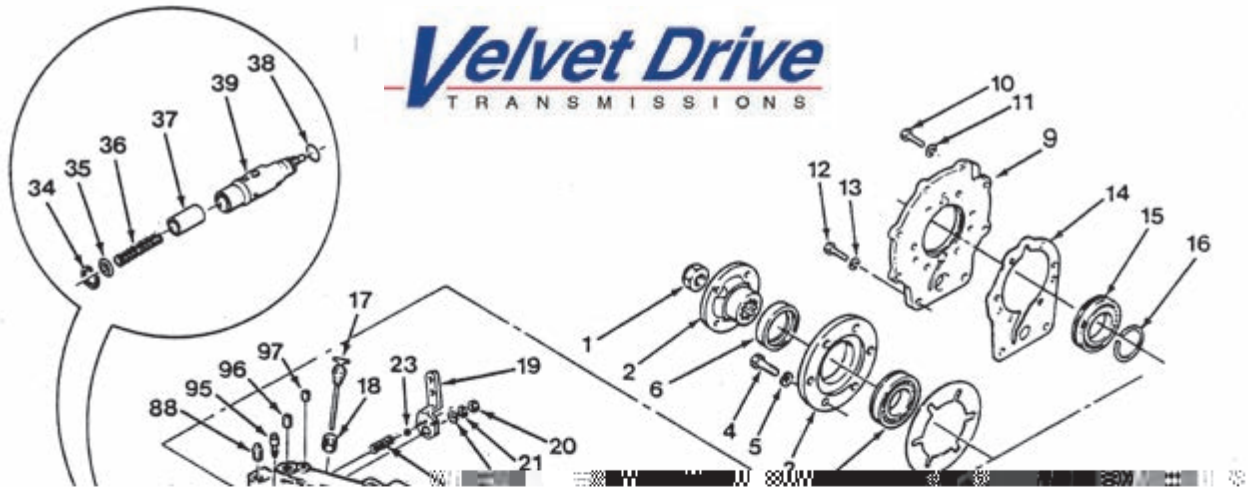
Dimensions Inches (millimeters)

A	B	C	D	E	F	G	H	I	J	K	L
12.10 (307)	12.40 (316)	6.37 (161.8)	8.25 (209.55)	5.00 (127)	7.90 (200)	9.80 (248)	8.23 (209)	1.10 (28)	10.0 (254)	16.46 (418)	2.50 (63.50)

General Information (subject to change without notice)

Available Ratios.....	1.25, 1.5, 2.00, 2.50:1
Input Shaft Spline Teeth.....	26
Input Shaft Rotation.....	automotive
Output Shaft Rotation.....	either direction
Approximate Dry Weight.....	133 lbs. (60.4 kg)

## 71c &amp; 72c Transmission Assembly - Current Production



Sump Strainer  
**1000-238-002**

Speedy Sleeve  
Output Shaft  
**BBB 186019**

Speedy Sleeve  
Input Shaft  
**BBB 186032**

## 71C &amp; 72C Series



A



B

ALT 23901

ALT 23801B

ALT 23755A

Complete Overhaul Kit  
(includes both "A" & "B")  
Seal Kit Only "A"  
Clutch Pack Only "B"

**See Next  
Page for  
Part Numbers**



## 71c &amp; 72c Transmission Assembly

Index No.	Part No.	Description
	10-17-000-	TRANS. ASSY. (MODEL 71C)
	10-18-000-	TRANS. ASSY. (MODEL 72C)
1	4775L	OUTPUT SHAFT NUT
2	4547BA	COUPLING (10-17 ONLY)
2A	4547AY	COUPLING (10-18 ONLY)
3	71-7	BEARING RETAINER (10-17 ONLY)
3A	72-7	BEARING RETAINER (10-18 ONLY)
4	0000179859	HEX HEAD BOLT (7/16-14 x 1-1/4) (10-17 ONLY)
4A	1000-183-043	HEX HEAD BOLT (7/16-14 x 1-1/4) (10-18 ONLY)
5	0000103322	LOCK WASHER (7/16) (10-17 ONLY)
6	71C-110	OIL SEAL
7	1000-130-017	BEARING (1 PKG.)
7A	1000-130-018	BEARING (10-17)
7B	B309AGS	BEARING (10-18)
8	71-147	BEARING RETAINER GSKT. (10-17 ONLY)
8A	72-147	BEARING RETAINER GSKT. (10-18 ONLY)
9	**	ADAPTER
9A	**	ADAPTER
9B	**	ADAPTER
10	**	LOCK BOLT (7/16-14 x 7/8)
11	**	LOCK WASHER (7/16) (10-18 ONLY)
11A	**	LOCK WASHER (7/16) (10-17 ONLY)
12	**	HEX HEAD BOLT (7/16-14 x 1-3/4)
13	**	LOCK WASHER (7/16)
14	**	ADAPTER GSKT.
15	**	BEARING
16	**	RETAINER RING
17	1017-559-001	DIPSTICK (ALL DIRECT DRIVE EXCEPT -015 & -016)
17A	1013-559-001	DIPSTICK (FOR -015 & -016)
18	1004-034-002	DIPSTICK TUBE
19	71-79B	SHIFT LEVER
20	9418892	HEX NUT (5/16-24)
21	0000108579	LOCK WASHER (5/16)
22	0000103340	FLAT WASHER (5/16)
23	0000453632	STEEL BALL (5/16)
24	71-42	POPPET SPRING
25	1004-420-052	NEUTRAL SWITCH ASSY.
26	1000-640-004	NEUTRAL SWITCH (NSS)
27	1000-141-046	O-RING
28	1016-039-001	VALVE COVER
29	179796	HEX HEAD BOLT (1/4-20 x 1/2)
30	103319	LOCK WASHER (1/4)
31	1016-099-001	SWITCH CAM
32	71-14	VALVE COVER GSKT.
33	71-A244A	CONTROL VALVE ASSY.
34	4821	SNAP RING
35	71-246	SPRING RETAINER
36	71-242	VALVE SPRING
37	71-243	REGULATOR VALVE
38	4804H	O-RING
39	71-A244A	CONTROL VALVE
40	71C-A60	PUMP ASSY.
41	1000-183-021	HEX HEAD BOLT (5/16-18 x 1-3/8)
42	1000-044-014	OIL SEAL
43	3-61	PUMP GSKT.
44	4873	WOODRUFF KEY
45	71C-A8	FORWARD & REVERSE ADAPTER ASSY.
46	4911	CAPSCREW (3/8-16 x 1-1/4)
47	NO NUMBER	FORWARD & REVERSE ADAPTER (NSS)
48	4840D	NEEDLE BEARING
49	71-144B	GASKET
50	0000444858	PIPE PLUG (1/4)
51	71-35	REVERSE CLUTCH PISTON
52	4805A	CLUTCH SEALING RING
53	4804G	O-RING
54	71-71	REVERSE CLUTCH PRESSURE PLATE
55	72-176	STEEL CLUTCH PLATE
56	72-A66B	FRICTION CLUTCH PLATE
57	71-97	PRESSURE PLATE SPRING
58	71-87A	DOWEL PIN (.312 DIA. x .438 LONG)
58A	R6-177	DOWEL PIN (.312 DIA x .621 LONG)
58B	4622E	DOWEL PIN (.312 DIA x .875 LONG)
59	71-15B	THRUST WASHER STANDARD
59A	1016-193-001	THRUST WASHER THICK
60	4822	SNAP RING
61	R6A-7-1/2	SNAP RING (10-17 ONLY)
61A	4766B	SNAP RING (10-18 ONLY)
62	4734	SNAP RING (10-17 ONLY)
62A	4559A	SNAP RING (10-18 ONLY)
63	B107A	BEARING (10-17 ONLY)
63A	1000-130-016	BEARING (10-18 ONLY)
64	71-70	FORWARD CLUTCH CYLINDER (10-17 ONLY)
64A	72-70	FORWARD CLUTCH CYLINDER (10-18 ONLY)
65	1016-124-001	FORWARD CLUTCH PISTON W/O RIFICE
65A	71-45	FORWARD CLUTCH PISTON
66	5M-122	O-RING
67	5L-36	PISTON SEAL RING
68	5C-33	CLUTCH SPRING BEARING RING
69	3-37	CLUTCH BELLEVILLE SPRING
70	4755	SNAP RING
71	5C-175A	CLUTCH PRESSURE PLATE

Index No.	Part No.	Description
72	3-176	STEEL CLUTCH PLATE (10-17 ONLY)
72A	3-176	STEEL CLUTCH PLATE (10-18 ONLY)
73	5C-A66A	FRICTION CLUTCH PLATE (10-17 ONLY)
73A	5C-A66A	FRICTION CLUTCH PLATE (10-18 ONLY)
74	5L-67	CLUTCH PRESSURE PLATE
75	1000-139-048	SNAP RING (.033-.037 THICK) (10-17 ONLY) YELLOW
75A	1000-139-049	SNAP RING (.050-.054 THICK) (10-17 ONLY) PINK
75B	4768	SNAP RING (.050-.054 THICK) (10-18 ONLY) GREEN
75C	4768A	SNAP RING (.074-.078 THICK) (10-18 ONLY) ORANGE
75D	4768B	SNAP RING (.096-.100 THICK) (10-18 ONLY) WHITE
75E	1000-139-018	SNAP RING (.062-.066 THICK) (10-18 ONLY) PURPLE
76	71-6	RING GEAR (10-17 ONLY)
76A	72-6	RING GEAR (10-18 ONLY)
77	71-17	THRUST WASHER
78	4806J	SEALING RING
79	4495	SNAP RING
80	71-40	FORWARD CLUTCH HUB (10-17 ONLY)
80A	1016-179-001	FORWARD CLUTCH HUB (10-18 ONLY)
81	0000218211	WOODRUFF KEY (10-17 ONLY)
81A	0000124553	WOODRUFF KEY (10-18 ONLY)
82	71C-3A16	DRIVE GEAR ASSY. (10-17 ONLY)
82A	72C-2A16	DRIVE GEAR ASSY. (10-18 ONLY)
83	4806B	SEALING RING
84	A4867DD (KIT)	BUSHING
85	1017-659-***	PINION CARRIER ASSY. (10-17 ONLY)
85A	1018-659-***	PINION CARRIER ASSY. (10-18 ONLY)
86	71-159	THRUST WASHER (USE W/BUSHING STYLE CASE)
86A	1017-193-001	THRUST WASHER (USE W/SEALING RING STYLE CASE)
87	1017-036-002	OIL BAFFLE (10-17 ONLY)
87A	1018-036-002	OIL BAFFLE (10-18 ONLY)
88	1000-191-002	PLUG (3/8-18)
89	4885B	DRY SEAL BUSHING (3/4-14)
90	5L-222	SPRING
91	35-143	FLAT WASHER
93	71C-84	OIL RETURN TUBE
94	71C-A98	OIL STRAINER ASSY.
95	A4740G	BREATHER
96	0000444866	PIPE PLUG (3/8-18)
97	0000444687	PIPE PLUG (1/8-27)
98	10-17-565-***	CASE (10-17 ONLY)
98A	10-18-565-***	CASE (10-18 ONLY)

The following kits are available for the Model 71C & 72C transmissions. Index numbers shown match the index numbers on the exploded view.

Index No.	Part No.	Description
	A4867AB	FORWARD CLUTCH PACK KIT (10-18 ONLY)
71	5C-175A	CLUTCH PRESSURE PLATE
72A	3-176	STEEL CLUTCH PLATE
73A	5C-A66A	FRICTION CLUTCH PLATE
74	5L-67	CLUTCH PRESSURE PLATE

Index No.	Part No.	Description
	A4867AE	FORWARD CLUTCH PACK KIT (10-17 ONLY)
71	5C-175A	CLUTCH PRESSURE PLATE
72	3-176	STEEL CLUTCH PLATE
73	5C-A66A	FRICTION CLUTCH PLATE
74	5L-67	CLUTCH PRESSURE PLATE

Index No.	Part No.	Description
	A4867HA	OIL SEAL & SEALING RING KIT
6	71C-110	OIL SEAL
38	4804H	O-RING
42	1000-044-014	OIL SEAL
43	3-61	PUMP GSKT.
52	4805A	CLUTCH SEALING RING
53	4804G	O-RING
66	5M-122	O-RING
67	5L-36	CLUTCH SEALING RING
78	4806J	SEALING RING
83	4806B	SEALING RING
	1000-044-017	OIL SEAL (REDUCTION UNITS ONLY)
	1017-410-002	SERVICE GSKT. KIT (FOR CONTENTS SEE NEXT KIT LIST)

Index No.	Part No.	Description
	1017-410-002	SERVICE GASKET KIT
8	71-147	BEARING RETAINER GSKT. (10-17 ONLY)
8A	72-147	BEARING RETAINER GSKT. (10-18 ONLY)
14	L4-146	ADAPTER GSKT.
32	71-14	VALVE COVER GSKT.
49	71-144B	GASKET
	L4-145	GASKET (REDUCTION UNITS ONLY)
	L4-147	GASKET (REDUCTION UNITS ONLY)

JMS No. FED99138

SPEEDY SLEEVE

## Model 71c & 72c Kits Continued

### Next Page

\*\* REFER TO REDUCTION SECTION IN THE VELVET DRIVE TRANSMISSION SERVICE MANUAL JMS PART NO. BOR 1289

\*\*\* CHECK MODEL CHART TO DETERMINE CORRECT PART NUMBER. NSS - NOT SERVICED SEPARATELY, BUY NEXT HIGHER ASSEMBLY

## Parts Listing for 71c &amp; 72c Transmission Assembly (cont.)

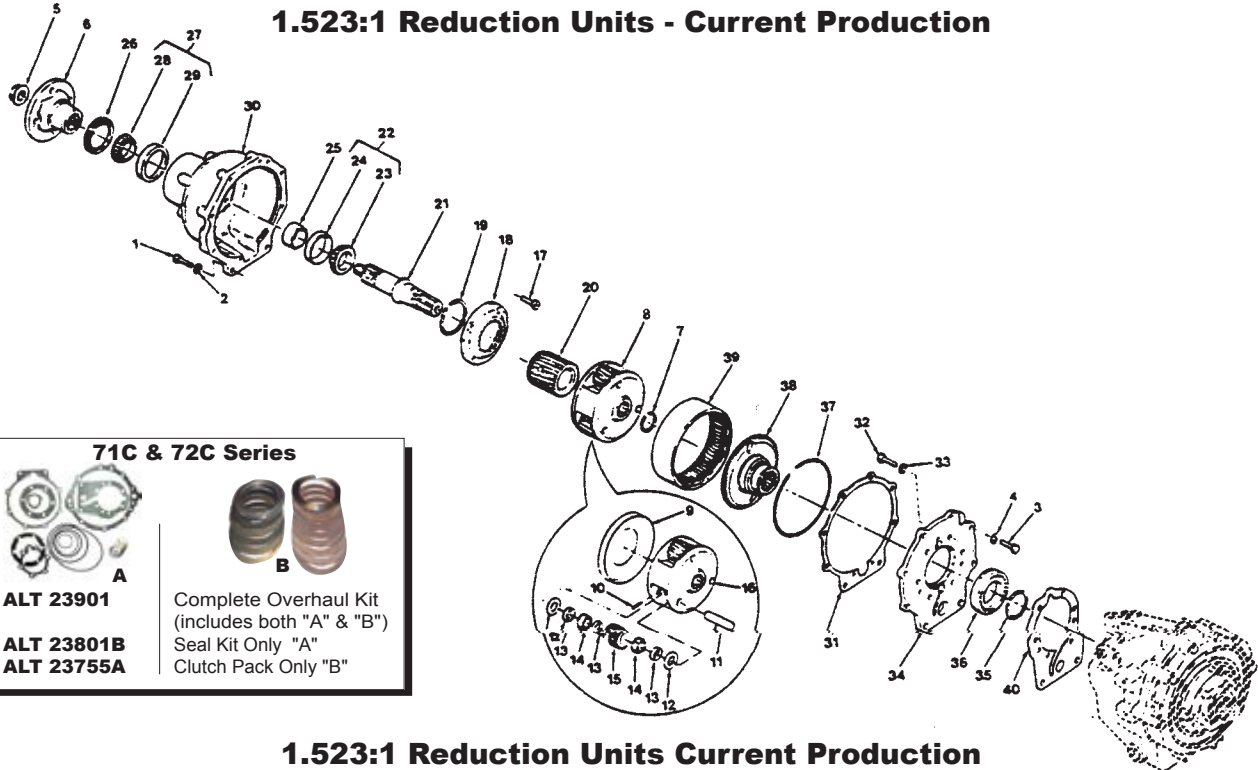


The following kits are available for the Model 71C & 72C transmissions. Index numbers shown match the index numbers on the exploded view.

Index No.	Part No.	Description	Qty.
	1004-420-052	NEUTRAL SWITCH KIT	
	1004-539-001	SWITCH & BODY ASSY.	1
25	1000-640-004	NEUTRAL SWITCH ASSY.	1
28	1016-039-001	VALVE COVER	1
29	0000179796	HEX HEAD BOLT (1/4-20 x 1/2)	3
30	0000103319	LOCK WASHER (1/4)	3
31	1016-099-001	SWITCH CAM	1
32	71-14	VALVE COVER GSKT.	1
	1340	INSTRUCTION SHEET	1

Index No.	Part No.	Description	Qty.
	1095-410-002	SNAP RING SERVICE KIT	
15	4766	RETAINING RING	1
34	4821	SNAP RING	1
60	4822	SNAP RING	1
61	R6A-7-1/2	SNAP RING (10-17 ONLY)	1
61A	4766B	SNAP RING (10-18 ONLY)	1
62	4734	SNAP RING (10-17 ONLY)	2
62A	4559A	SNAP RING (10-18 ONLY)	1
70	4755	SNAP RING	1
75	1000-139-048	SNAP RING (.033-.037 THICK) (10-17 ONLY) YELLOW	1
75A	1000-139-049	SNAP RING (.050-.054 THICK) (10-17 ONLY) PINK	1
75B	4768	SNAP RING (.050-.054 THICK) (10-18 ONLY) GREEN	2
75C	4768A	SNAP RING (.074-.078 THICK) (10-18 ONLY) ORANGE	1
75D	4768B	SNAP RING (.096-.100 THICK) (10-18 ONLY) WHITE	1
75E	1000-139-018	SNAP RING (.062-.066 THICK) (10-18 ONLY) PURPLE	1
79	4495	SNAP RING	1
	4756D	SNAP RING (REDUCTION UNITS ONLY)	1
	4756E	SNAP RING (REDUCTION UNITS ONLY)	1
	4816	SNAP RING (REDUCTION UNITS ONLY)	1
	4766A	SNAP RING (REDUCTION UNITS ONLY)	1

## 1.523:1 Reduction Units - Current Production



## 1.523:1 Reduction Units Current Production

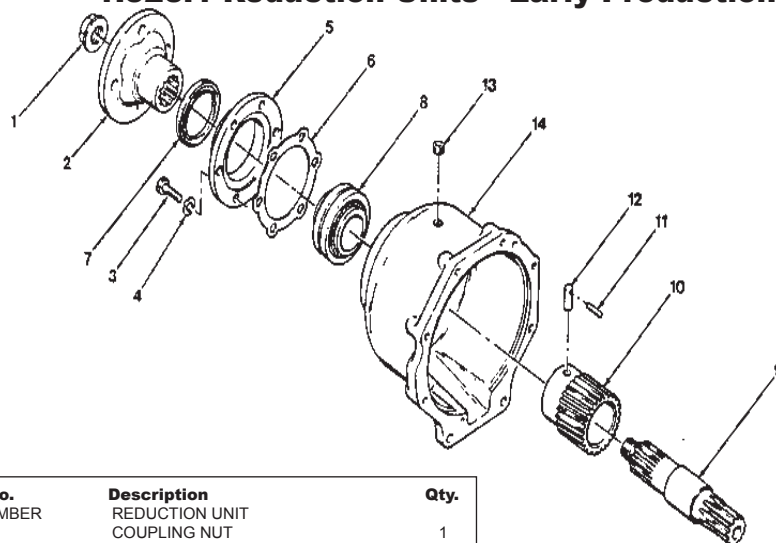
Index No.	Part No.	Description	Qty.
	NO NUMBER	REDUCTION UNIT ASSY. (1.523:1)	
1	0000179864	HEX HEAD BOLT (7/16-14 x 1-3/4)	2
2	0000103322	LOCK WASHER (7/16)	2
3	0000179840	HEX HEAD BOLT (3/8-18 x 1-1/8)	6
4	0000103321	LOCK WASHER (3/8)	6
5	1000-149-034	COUPLING NUT	1
6	1000-031-001	COUPLING	1
7	4734	SNAP RING	1
8	L4-A150	PINION CARRIER ASSY.	1
9	L4-135	OIL COLLECTOR RING	1
10	4717L	PINION SHAFT PIN	3
11	L5-39	PINION SHAFT	3
12	L3-43	PINION THRUST WASHER	6
13	L3-41	PINION BEARING SPACER	9
14	4741A	ROLLER BEARING	144
15	L4-5	PINION GEAR	3
16	L4-150	PINION CAGE	1
17	4776BB	LOCK BOLT (7/16-14 x 7/8)	4
18	1017-179-001	SUN GEAR HUB	1
19	1000-139-013	SNAP RING	1
20	1017-165-001	SUN GEAR	1
21	1017-171-001	MAIN SHAFT	1
22	NO NUMBER	BEARING ASSY.	1
23	1000-133-010	BEARING CONE*	1
24	1000-133-009	BEARING CUP*	1
25	1017-053-002	SOLID SPACER (.820-.821 INCH LONG)**	1

Index No.	Part No.	Description	Qty.
25A	1017-053-003	SOLID SPACER (.829-.830 INCH LONG)**	1
25B	1017-053-004	SOLID SPACER (.832-.833 INCH LONG)**	1
25C	1017-053-005	SOLID SPACER (.835-.836 INCH LONG)**	1
25D	1017-053-006	SOLID SPACER (.838-.839 INCH LONG)**	1
25E	1017-053-007	SOLID SPACER (.841-.842 INCH LONG)**	1
25F	1017-053-008	SOLID SPACER (.844-.845 INCH LONG)**	1
25G	1017-053-009	SOLID SPACER (.847-.848 INCH LONG)**	1
25H	1017-053-010	SOLID SPACER (.850-.851 INCH LONG)**	1
25I	1017-053-011	SOLID SPACER (.853-.854 INCH LONG)**	1
25J	1017-053-012	SOLID SPACER (.856-.857 INCH LONG)**	1
26	1000-044-017	OIL SEAL	1
27	NO NUMBER	BEARING ASSY.	1
28	1000-133-002	BEARING CONE*	1
29	1000-133-001	BEARING CUP*	1
30	1017-065-001	REDUCTION HOUSING	1
31	L4-146	REAR ADAPTER GSKT.	1
32	10-00-183-073	LOCK BOLT (7/16-14 x 7/8)	6
33	0000103322	LOCK WASHER (7/16)	6
34	L4-8B	REDUCTION UNIT ADAPTER	1
35	4766	SNAP RING	1
36	1000-130-017	BEARING	1
37	4756D	SNAP RING	1
38	L4-16	INPUT GEAR	1
39	L3-6	RING GEAR	
40	L4-145	FRONT ADAPTER GSKT.	

\*REPLACE BOTH PARTS IF ONE IS DAMAGED

\*\*SELECT CORRECT SIZE SPACER AT ASSEMBLY. ONLY ONE REQUIRED

## 1.523:1 Reduction Units - Early Production



Index No.	Part No.	Description	Qty.
	NO NUMBER	REDUCTION UNIT	
1	4775L	COUPLING NUT	1
2	4547AY	COUPLING (72C ONLY) 5"	1
2B	4547BA	COUPLING (71C ONLY) 4"	1
3	0000179860	HEX HEAD BOLTS (7/16-14 x1-1/4)	6
4	0000103322	LOCK WASHER (7/16)	6
5	L4-7	BEARING RETAINER	1
6	L4-147	BEARING RETAINER GSKT.	1
7	71C-110	OIL SEAL	1
8	4920A	BEARING	1
9	L9-2	MAIN SHAFT	1
10	L4-4	SUN GEAR	1
11	4808	SPRING PIN	1
12	L4-151	PINION CAGE DRIVE PIN	1
13	103891	EXPANSION PLUG	1
14	L4-1A	REDUCTION HOUSING	1

**Velvet Drive**  
TRANSMISSIONS

## 71C &amp; 72C Series



ALT 23901

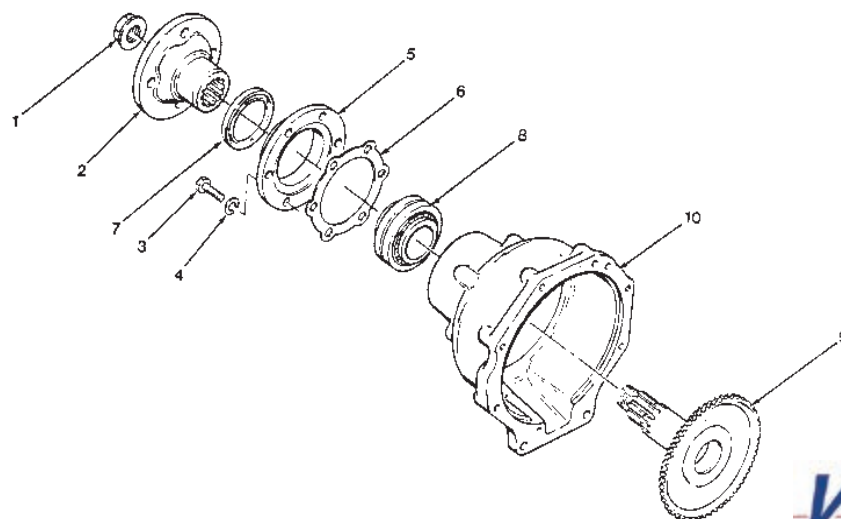


ALT 23801B  
ALT 23755A

Complete Overhaul Kit  
(includes both "A" & "B")  
Seal Kit Only "A"  
Clutch Pack Only "B"

These early production parts are not interchangeable with current production parts

## 1.91:1 Reduction Units - Early Production



Index No.	Part No.	Description	Qty.
	NO NUMBER	REDUCTION UNIT (1.91:1 ONLY)	
1	4775L	COUPLING NUT	1
2	4547AY	COUPLING (72C ONLY)	1
2B	4547BA	COUPLING (71C ONLY)	1
3	0000179860	HEX HEAD BOLT (7/16-14 x 1-1/4)	6
4	0000103322	LOCK WASHER (7/16)	6
5	L4-7	BEARING RETAINER	1
6	L4-147	BEARING RETAINER GSKT.	1
7	71C-110	OIL SEAL	1
8	4920A	BEARING	1
9	L5-A2	MAIN SHAFT	1
10	L5-1A	REDUCTION HOUSING	1

**Velvet Drive**  
TRANSMISSIONS

## 71C &amp; 72C Series



ALT 23901



ALT 23801B  
ALT 23755A

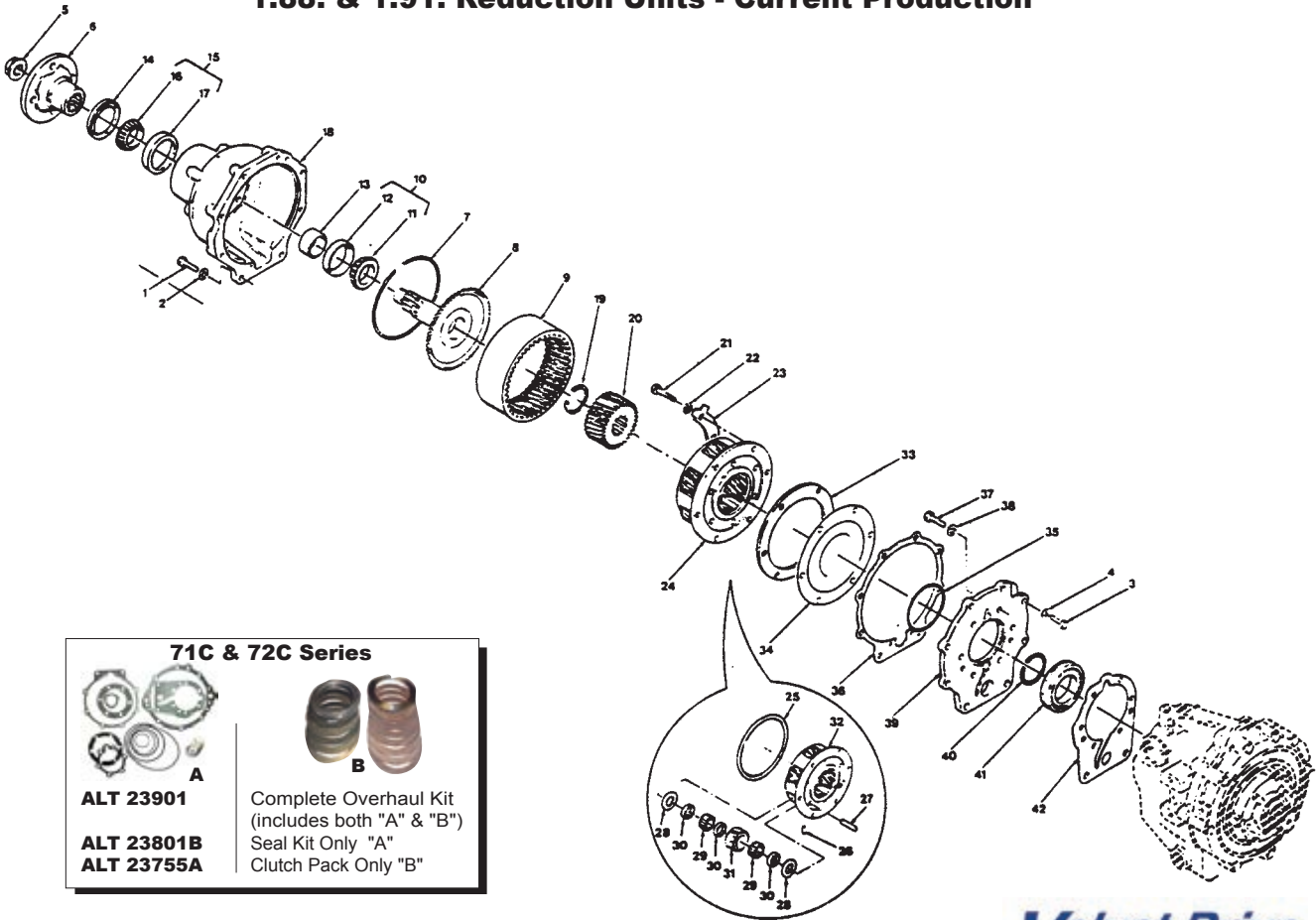
Complete Overhaul Kit  
(includes both "A" & "B")  
Seal Kit Only "A"  
Clutch Pack Only "B"

1.88 & 1.91:1 REDUCTION UNITS - CURRENT PRODUCTION SEE NEXT PAGE

These early production parts are not interchangeable with current production parts



## 1.88: &amp; 1.91: Reduction Units - Current Production



## 71C &amp; 72C Series



ALT 23901



Complete Overhaul Kit  
(includes both "A" & "B")  
Seal Kit Only "A"  
Clutch Pack Only "B"

ALT 23801B  
ALT 23755A

**Velvet Drive**  
TRANSMISSIONS

Index No.	Part No.	Description
	NO NUMBER	REDUCTION UNIT ASSY. (1.91:1)
	NO NUMBER	REDUCTION UNIT ASSY. (1.88:1)
1	0000179864	HEX HEAD BOLT (7/16 -14 x 1-3/4)
2	0000103322	LOCK WASHER (7/16)
3	0000179840	HEX HEAD BOLT (3/8-18 x 1-1/8)
4	0000103321	LOCK WASHER (3/8)
5	1000-149-034	COUPLING NUT
6	1000-031-001	COUPLING
7	4756D	SNAP RING
8	1017-171-002	MAIN SHAFT (1.91:1 ONLY)
8A	1017-171-004	MAIN SHAFT (1.88:1 ONLY)
9	L3-6	RING GEAR (1.91:1 ONLY)
9A	1017-162-001	RING GEAR (1.88:1 ONLY)
10	NO NUMBER	BEARING ASSY.
11	1000-133-010	BEARING CONE*
12	1000-133-009	BEARING CUP*
13	1017-053-002	SOLID SPACER (.820-.821 INCH LONG)**
13A	1017-053-003	SOLID SPACER (.829-.830 INCH LONG)**
13B	1017-053-004	SOLID SPACER (.832-.833 INCH LONG)**
13C	1017-053-005	SOLID SPACER (.835-.836 INCH LONG)**
13D	1017-053-006	SOLID SPACER (.838-.839 INCH LONG)**
13E	1017-053-007	SOLID SPACER (.841-.842 INCH LONG)**
13F	1017-053-008	SOLID SPACER (.844-.845 INCH LONG)**
13G	1017-053-009	SOLID SPACER (.847-.848 INCH LONG)**
13H	1017-053-010	SOLID SPACER (.850-.851 INCH LONG)**
13I	1017-053-011	SOLID SPACER (.853-.854 INCH LONG)**
13J	1017-053-012	SOLID SPACER (.856-.857 INCH LONG)**
14	1000-044-017	OIL SEAL
15	NO NUMBER	BEARING ASSY.
16	1000-133-002	BEARING CONE*
17	1000-133-001	BEARING CUP*
18	1017-065-003	REDUCTION HOUSING

Index No.	Part No.	Description
19	4734	SNAP RING
20	L7-104	SUN GEAR (1.91:1 ONLY)
20A	1017-165-004	SUN GEAR (1.88:1 ONLY)
21	4853B	LOCK BOLT (5/16-18 x 3/4)
22	0000114605	LOCK WASHER (5/16) (1.88:1 ONLY)
23	1000-014-002	LOCK PLATE (1.91:1 ONLY)
24	L9-A150	PINION CARRIER ASSY. (1.91:1 ONLY)
24A	1017-659-021	PINION CARRIER ASSY. (1.88:1 ONLY)
25	4827	RETAINING RING
26	4717L	PINION SHAFT PIN
27	L5-39	PINION SHAFT
28	L3-43	PINION THRUST WASHER
29	4741A	ROLLER BEARING (1.91:1 ONLY)
29A	1000-131-011	ROLLER BEARING (1.88:1 ONLY)
30	L3-41	PINION BEARING SPACER (1.91:1 ONLY)
30A	1000-053-024	PINION BEARING SPACER (1.88:1 ONLY)
31	L4-5	PINION GEAR (1.91:1 ONLY)
31A	1017-163-002	PINION GEAR (1.88:1 ONLY)
32	L9-150	PLANETARY CAGE (1.91:1 ONLY)
32A	1017-159-011	PLANETARY CAGE (1.88:1 ONLY)
36	L4-146	REAR ADAPTER GSKT.
37	1000-183-073	LOCK BOLT (7/16-14 x 7/8)
38	0000103322	LOCK WASHER (7/16)
39A	1017-172-001	REDUCTION UNIT ADAPTER****
40	4816	SNAP RING
41	1000-130-018	BEARING
42	L4-145	FRONT ADAPTER GSKT.

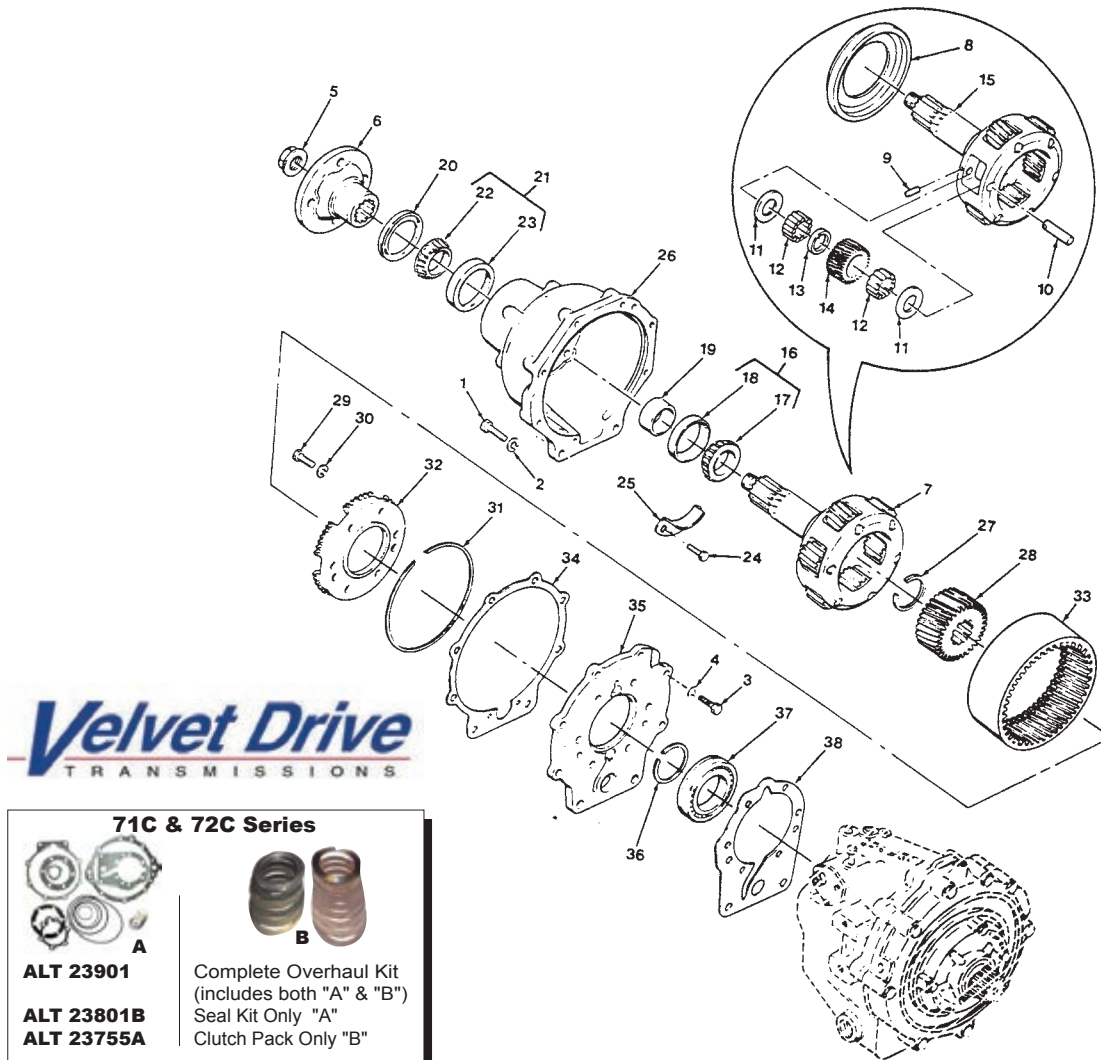
\*REPLACE BOTH PARTS IF ONE IS DAMAGED.

\*\*SELECT CORRECT SIZE SPACER AT ASSEMBLY. ONLY ONE REQUIRED.

\*\*\*FOR USE WITH 1.91:1 NOISE REDUCTION PARTS. THESE INCLUDE LOCK PLATES (23), PINION CARRIER GSKT. (33), AND O-RING (35).

\*\*\*\*FOR USE WITH 1.88:1 OR 1.91:1 WITHOUT NOISE REDUCTION PARTS.

## 2.57:1 &amp; 2.91:1 Reduction Units - Current Production



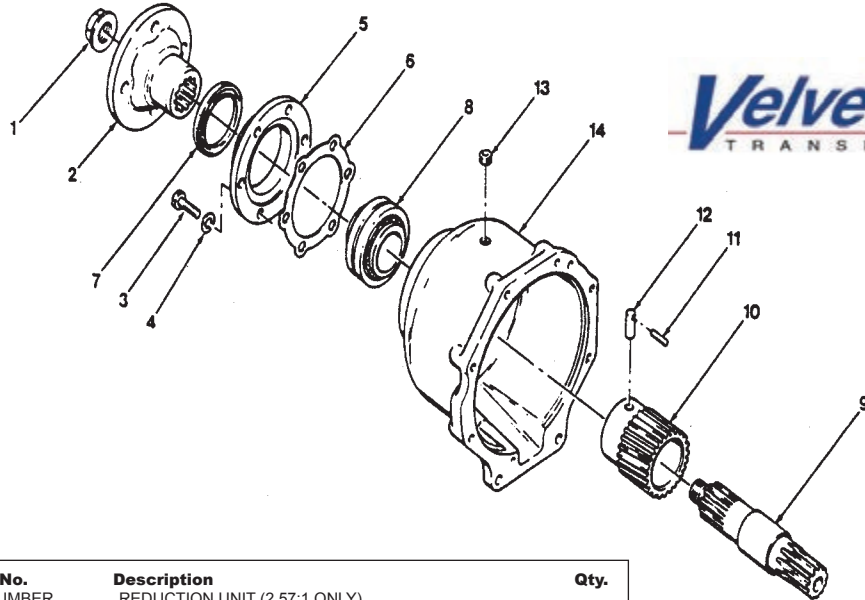
## 14. 2.57:1 &amp; 2.91:1 Reduction Units - Current Production

Index No.	Part No.	Description
Fig. 14	NO NUMBER	REDUCTION UNIT ASSY. (2.57:1)
14A	NO NUMBER	REDUCTION UNIT ASSY. (2.91:1)
1	0000179864	HEX HEAD BOLT (7/16-14 x 1-3/4)
2	0000103322	LOCK WASHER (7/16)
3	0000179840	HEX HEAD BOLT (3/8-18 x 1-1/8)
4	0000103321	LOCK WASHER (3/8)
5	1000-149-034	COUPLING NUT
6	1000-031-001	COUPLING
7	1017-659-007	PINION CAGE & OUTPUT SHAFT ASSY. (2.57:1 ONLY)
7A	1017-659-008	PINION CAGE & OUTPUT SHAFT ASSY. (2.91:1 ONLY)
8	L6-135	OIL COLLECTOR RING (2.57:1 ONLY)
8A	L4-135	OIL COLLECTOR RING (2.91:1 ONLY)
9	R10B-40	PINION SHAFT PIN (2.57:1 ONLY)
9A	4717B	PINION SHAFT PIN (2.91:1 ONLY)
10	L5-39	PINION SHAFT
11	L6-43	THRUST WASHER (2.57:1 ONLY)
11A	L3-43	THRUST WASHER (2.91:1 ONLY)
12	4741A	ROLLER BEARING
13	L3-41	PINION BEARING SPACER
14	L6-5	PINION GEAR (2.57:1 ONLY)
14A	L4-5	PINION GEAR (2.91:1 ONLY)
15	1017-159-003	PINION CAGE & OUTPUT SHAFT (2.57:1 ONLY)
15A	1017-159-004	PINION CAGE & OUTPUT SHAFT (2.91:1 ONLY)
16	NO NUMBER	BEARING ASSY.
17	1000-133-010	BEARING CONE*
18	1000-133-009	BEARING CUP*
19	1017-053-002	SOLID SPACER (.820-.821 INCH LONG)**
19A	1017-053-003	SOLID SPACER (.829-.830 INCH LONG)**
19B	1017-053-004	SOLID SPACER (.832-.833 INCH LONG)**

Index No.	Part No.	Description
19C	1017-053-005	SOLID SPACER (.835-.836 INCH LONG)**
19D	1017-053-006	SOLID SPACER (.838-.839 INCH LONG)**
19E	1017-053-007	SOLID SPACER (.841-.842 INCH LONG)**
19F	1017-053-008	SOLID SPACER (.844-.845 INCH LONG)**
19G	1017-053-009	SOLID SPACER (.847-.848 INCH LONG)**
19H	1017-053-010	SOLID SPACER (.850-.851 INCH LONG)**
19I	1017-053-011	SOLID SPACER (.853-.854 INCH LONG)**
19J	1017-053-012	SOLID SPACER (.856-.857 INCH LONG)**
20	1000-044-017	OIL SEAL
21	NO NUMBER	BEARING ASSY.
22	1000-133-002	BEARING CONE*
23	1000-133-001	BEARING CUP*
24	4776BB	LOCK BOLT (7/16-14 x 7/8)
25	1017-036-001	OIL BAFFLE
26	1017-065-001	REDUCTION HOUSING
27	4734	SNAP RING
28	L6-104	SUN GEAR (2.57:1 ONLY)
28A	L7-104	SUN GEAR (2.91:1 ONLY)
29	4853E	LOCK BOLT (7/16-14 x 1-1/4)
30	0000115550	LOCK WASHER (7/16)
31	4756E	SNAP RING (2.57:1 ONLY)
31A	4756D	SNAP RING (2.91:1 ONLY)
32	L6-31	STATIONARY GEAR PLATE (2.57:1 ONLY)
32A	L7-31	STATIONARY GEAR PLATE (2.91:1 ONLY)
33	L6-6	RING GEAR (2.57:1 ONLY)
33A	L3-6	RING GEAR (2.91:1 ONLY)
34	L4-146	REAR ADAPTER GSKT.
35	L7-8A	REDUCTION UNIT ADAPTER
36	4816	SNAP RING
37	1000-130-018	BEARING
38	L4-145	FRONT ADAPTER GSKT.

\*REPLACE BOTH PARTS IF ONE IS DAMAGED

\*\*SELECT CORRECT SIZE SPACER AT ASSY. ONLY ONE REQUIRED

**2.57:1 & 2.91:1 Reduction Units - Early Production**

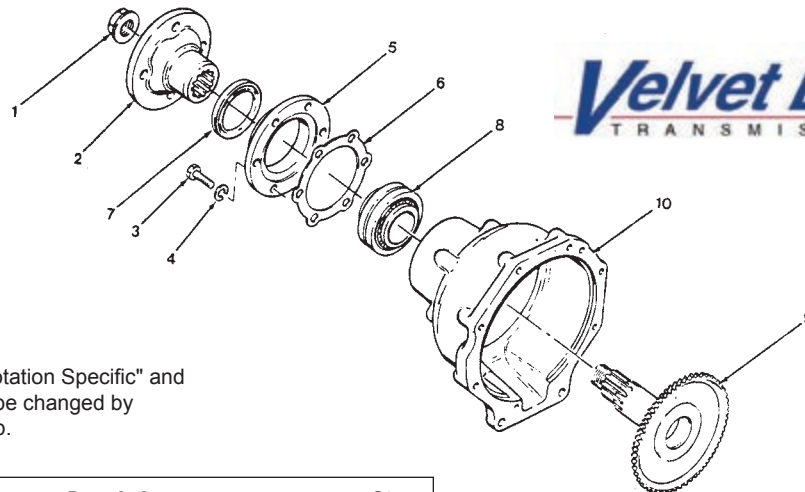
Index No.	Part No.	Description	Qty.
	NO NUMBER	REDUCTION UNIT (2.57:1 ONLY)	
	NO NUMBER	REDUCTION UNIT (2.91:1 ONLY)	
1	1000-149-034	COUPLING NUT	1
2	4912	COUPLING	1
3	0000179860	HEX HEAD BOLT (7/16-14 x 1-1/4)	6
4	0000103322	LOCK WASHER (7/16)	6
5	L4-7	BEARING RETAINER	1
6	L4-147	BEARING RETAINER GSKT.	1
7	71C-110	OIL SEAL	1
8A	4920A	DOUBLE RACE & TAPERED ROLLER BEARING LATE	1
9	L6-A2D	PINION CAGE & OUTPUT SHAFT ASSY. (2.57:1 ONLY)	1
9A	L7-A2D	PINION CAGE & OUTPUT SHAFT ASSY. (2.91:1 ONLY)	1
10	L7-1A	REDUCTION HOUSING	1

**71C & 72C Series**

**ALT 23901**  
**ALT 23801B**  
**ALT 23755A**

Complete Overhaul Kit (includes both "A" & "B")  
 Seal Kit Only "A"  
 Clutch Pack Only "B"

**These early production parts are not interchangeable with current production parts**

**2.10:1 Reduction Units - Early Production**

Note:  
 Model 2.10's are "Rotation Specific" and rotation "CANNOT" be changed by re-indexing the pump.

Index No.	Part No.	Description	Qty.
	NO NUMBER	REDUCTION UNIT (2.10:1)	
1	4775L	COUPLING NUT	1
2	4547AY	COUPLING (72C ONLY) 4"	1
2B	4547BA	COUPLING (71C ONLY) 5"	1
3	0000179860	HEX HEAD BOLT (7/16-14 x 1-1/4)	6
4	0000103322	LOCK WASHER (7/16)	6
5	L4-7	BEARING RETAINER	1
6	L4-147	BEARING RETAINER GSKT.	1
7	71C-110	OIL SEAL	1
8	4920A	BEARING	1
9	L5-A2	OUTPUT SHAFT & BUSHING ASSY.	1
10	L5-4	SUN GEAR	1
11	L5-1B	REDUCTION HOUSING	1

**71C & 72C Series**

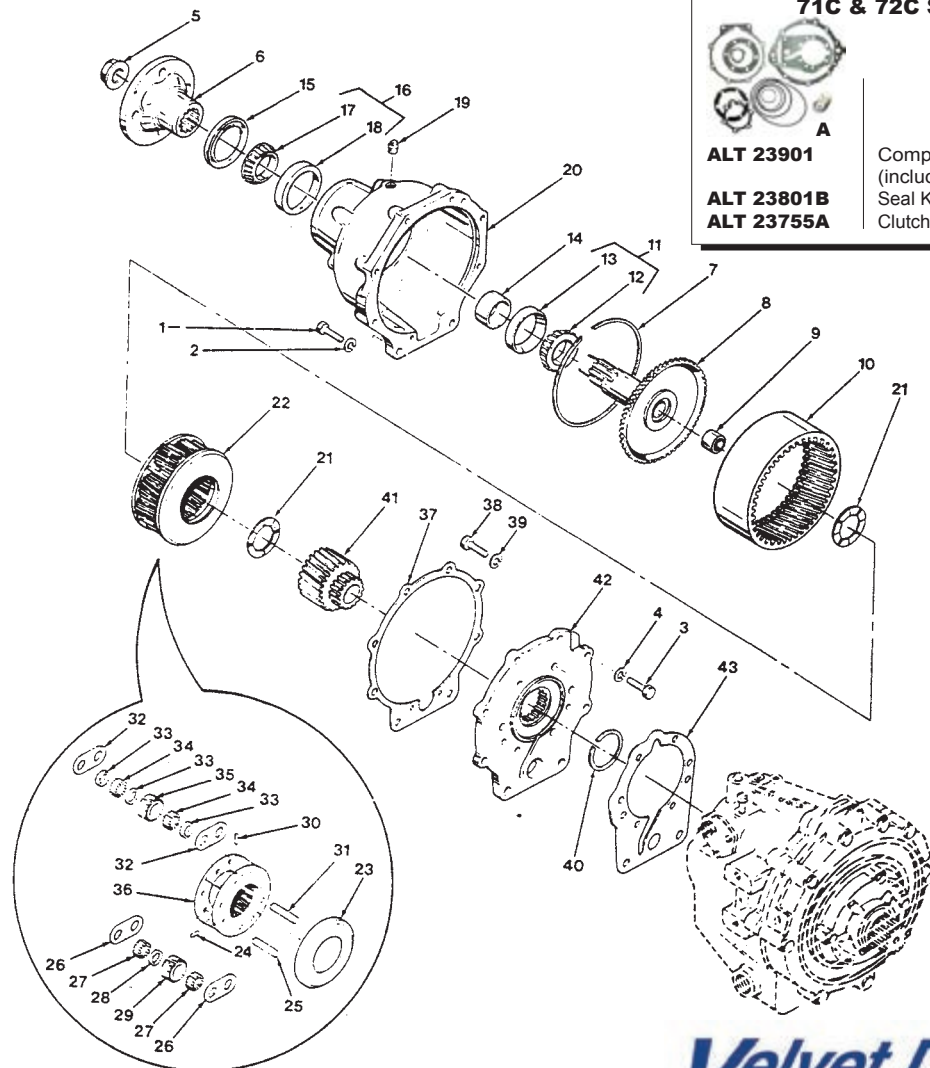
**ALT 23901**  
**ALT 23801B**  
**ALT 23755A**

Complete Overhaul Kit (includes both "A" & "B")  
 Seal Kit Only "A"  
 Clutch Pack Only "B"

**These early production parts are not interchangeable with current production parts**



## 2.10:1 Reduction Units - Current Production



## 71C &amp; 72C Series



ALT 23901

ALT 23801B

ALT 23755A



Complete Overhaul Kit  
(includes both "A" & "B")  
Seal Kit Only "A"  
Clutch Pack Only "B"

**Velvet Drive**  
TRANSMISSIONS

Index No.	Part No.	Description
	NO NUMBER	REDUCTION UNIT ASSY. (2.10:1)
1	0000179864	HEX HEAD BOLT (7/16-14 x 1-3/4)
2	0000103322	LOCK WASHER (7/16)
3	0000179840	HEX HEAD BOLT (3/8-18 x 1-1/8)
4	0000103321	LOCK WASHER (3/8)
5	1000-149-034	COUPLING NUT
6	1000-031-001	COUPLING
7	4756D	SNAP RING
8	1017-671-001	OUTPUT SHAFT & BUSHING ASSY.
9	A4867DD	BUSHING KIT
10	L3-6	RING GEAR
11	NO NUMBER	BEARING ASSY.
12	1000-133-010	BEARING CONE*
13	1000-133-009	BEARING CUP*
14	1017-053-002	SOLID SPACER (.820-.821 INCH LONG)**
14A	1017-053-003	SOLID SPACER (.829-.830 INCH LONG)**
14B	1017-053-004	SOLID SPACER (.832-.833 INCH LONG)**
14C	1017-053-005	SOLID SPACER (.835-.836 INCH LONG)**
14D	1017-053-006	SOLID SPACER (.838-.839 INCH LONG)**
14E	1017-053-007	SOLID SPACER (.841-.842 INCH LONG)**
14F	1017-053-008	SOLID SPACER (.844-.845 INCH LONG)**
14G	1017-053-009	SOLID SPACER (.847-.848 INCH LONG)**
14H	1017-053-010	SOLID SPACER (.850-.851 INCH LONG)**
14I	1017-053-011	SOLID SPACER (.853-.854 INCH LONG)**
14J	1017-053-012	SOLID SPACER (.856-.857 INCH LONG)**
15	1000-044-017	OIL SEAL
16	NO NUMBER	BEARING ASSY.
17	1000-133-002	BEARING CONE*

Index No.	Part No.	Description
18	1000-133-001	BEARING CUP*
19	1000-191-002	PLASTIC PLUG
20	1017-065-002	REDUCTION HOUSING
21	L3-24	THRUST WASHER
22	1017-659-006	PINION CAGE ASSY.***
22A	1017-659-010	PINION CAGE ASSY.***
23	L4-135	OIL COLLECTOR RING
24	4717L	PINION SHAFT PIN
25	L5-39A	PINION SHAFT
26	72-43	PINION THRUST PLATE
27	4741A	ROLLER BEARING
28	L3-41	PINION BEARING SPACER
29	L3-105	RH PINION GEAR
30	R4-40	PINION SHAFT PIN
31	L5-39	PINION SHAFT
32	72-43	PINION THRUST PLATE
33	L3-41	PINION BEARING SPACER
34	4741A	ROLLER BEARING
35	L3-5	LH PINION GEAR
36	1017-159-005	PLANETARY CAGE ASSY.
36A	1017-159-009	PLANETARY CAGE ASSY.
37	L4-146	REAR ADAPTER GSKT.
38	1000-183-073	LOCK BOLT (7/16-14 x 7/8)
39	115550	LOCK WASHER (7/16)
40	4766A	SNAP RING
41	1017-165-002	SUN GEAR
42	L5-8A	REDUCTION UNIT ADAPTER
43	L4-145	FRONT ADAPTER GSKT.

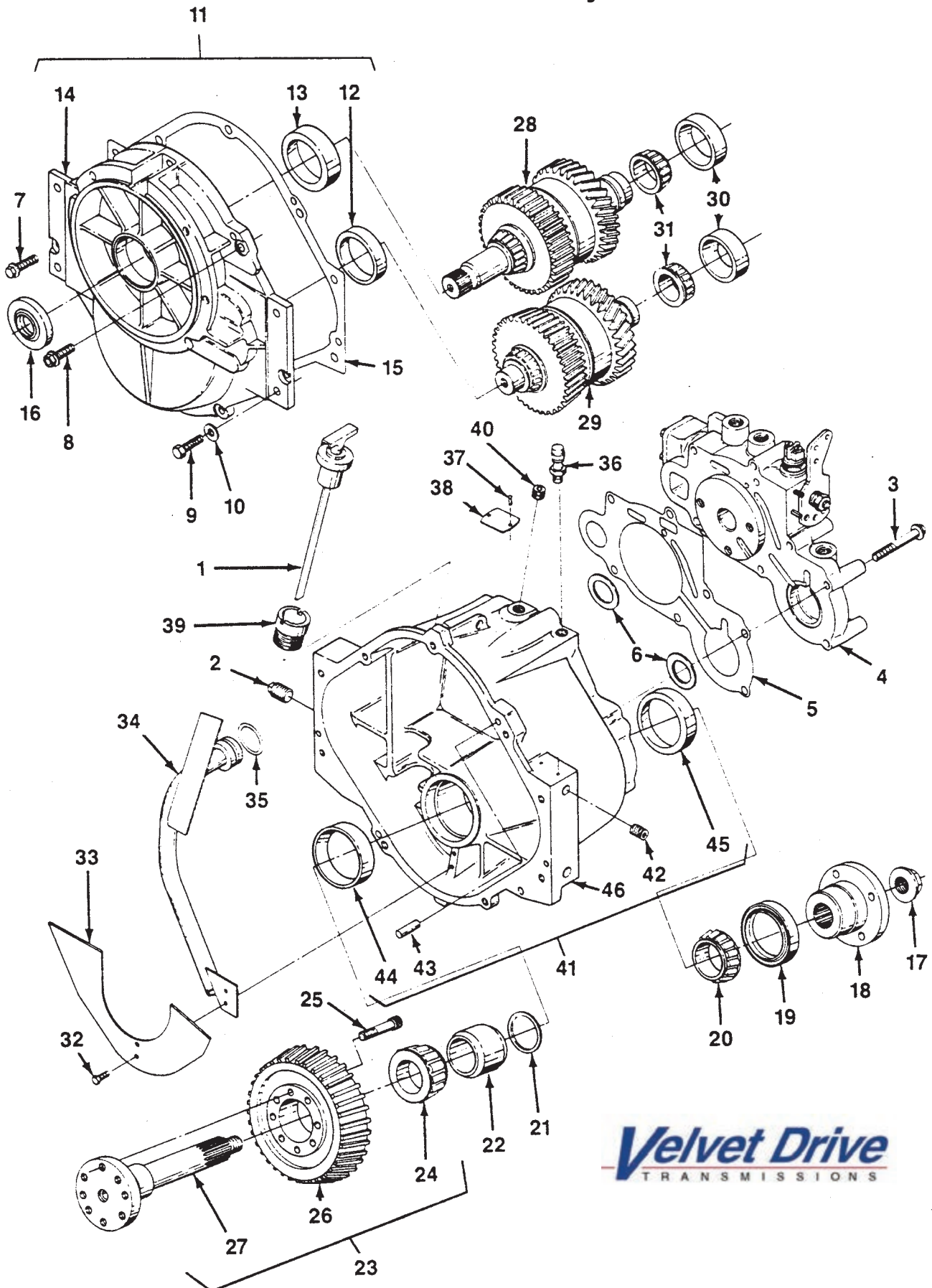
\*REPLACE BOTH PARTS IF ONE IS DAMAGED

\*\*SELECT CORRECT SIZE SPACER AT ASSY. ONLY ONE REQUIRED

\*\*\*USED WITH TRANSMISSION 10-17-00-009 &amp; 10-18-00-007. HAS DRILL SPOTS ON PLANETARY CAGE FOR IDENTIFICATION.

\*\*\*\*USED WITH TRANSMISSIONS 10-17-000-010 &amp; 10-18-000-008

## Transmission Assembly

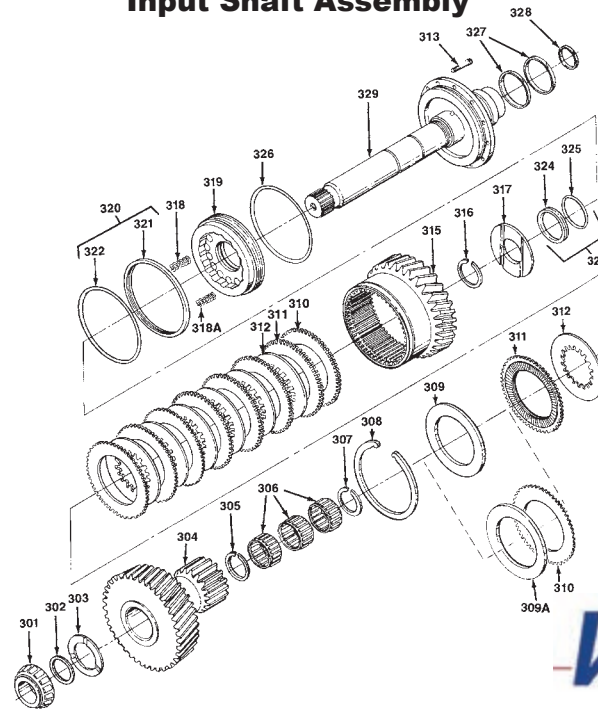


## Transmission Assembly

Index No.	Part No.	Description	Qty.	Index No.	Part No.	Description	Qty.
	2001-000-001	Transmission Assy, S5000 Marine 1.00:1 Ratio	1		2001-070-010	Gear, Output (Transmission 2001-000-004)	1
	2001-000-002	Transmission Assy, S5000 Marine 1.25:1 Ratio	1		2001-070-011	Gear, Output (Transmission 2001-000-005)	1
	2001-000-003	Transmission Assy, S5000 Marine 1.50:1 Ratio	1		2001-070-012	Gear, Output (Transmission 2001-000-006)	1
	2001-000-004	Transmission Assy, S5000 Marine 2.00:1 Ratio	1	27	2001-171-001	Shaft, Output	1
	2001-000-005	Transmission Assy, S5000 Marine 2.45:1 Ratio	1	28	2001-689-001	Shaft Assy, Input (Transmission 2001-000-001)	NP
	2001-000-006	Transmission Assy, S5000 Marine 2.80:1 Ratio	1		2001-689-002	Shaft Assy, Input (Transmission 2001-000-002)	NP
1	2001-559-003	Dipstick	1		2001-689-003	Shaft Assy, Input (Transmission 2001-000-003)	NP
2	444583	Plug, Drain	1		2001-689-004	Shaft Assy, Input (Transmission 2001-000-004)	NP
3	1000-183-088	Bolt, Hex Head, M10 x 1.5 x 65	7		2001-689-005	Shaft Assy, Input (Transmission 2001-000-005)	NP
4	2001-736-005	Valve & Pump Assy, (Transmission 2001-000-001 thru-006)	NP		2001-689-006	Shaft Assy, Input (Transmission 2001-000-006)	NP
5	2001-045-002	Gasket	1		2001-567-001	Shaft Assy, Intermediate (Transmission 2001-000-001)	NP
6	1000-037-058	Shim, 0.076 mm (0.0030 in.) thick	AR	29	2001-567-002	Shaft Assy, Intermediate (Transmission 2001-000-002)	NP
	1000-037-059	Shim, 0.127 mm (0.0050 in.) thick	AR		2001-567-003	Shaft Assy, Intermediate (Transmission 2001-000-003)	NP
	1000-037-060	Shim, 0.178 mm (0.0070 in.) thick	AR		2001-567-004	Shaft Assy, Intermediate (Transmission 2001-000-004)	NP
	1000-037-061	Shim, 0.229 mm (0.0090 in.) thick	AR		2001-567-005	Shaft Assy, Intermediate (Transmission 2001-000-005)	NP
	1000-037-062	Shim, 0.508 mm (0.0200 in.) thick	AR		2001-567-006	Shaft Assy, Intermediate (Transmission 2001-000-006)	NP
	1000-037-063	Shim, 0.760 mm (0.0300 in.) thick	AR		1000-133-009	Cup, Bearing	2
	1000-037-064	Shim, 1.106 mm (0.0400 in.) thick	AR	30	1000-133-010	Cone, Bearing	2
	1000-037-065	Shim, 1.270 mm (0.0500 in.) thick	AR	31	11503875	Bolt, Hex Head, M6 x 1.0 x 10	2
	1000-037-066	Shim, 1.524 mm (0.0600 in.) thick	AR	32	2001-036-001	Baffle, Oil (Transmission 2001-000-005)	1
	1000-037-067	Shim, 1.778 mm (0.0700 in.) thick	AR	33	2001-036-002	Baffle, Oil (Transmission 2001-000-004)	1
7	11502693	Bolt, Hex Head, M8 x 1.25 x 20	2		2001-036-003	Baffle, Oil (Transmission 2001-000-006)	1
8	1300-183-018	Bolt, Hex Head, M10 x 1.5 x 30	5		2001-036-004	Baffle, Oil (Transmission 2001-000-003)	1
9	1000-183-092	Bolt, Hex Head, M12 x 1.75 x 35	4		2001-036-005	Baffle, Oil (Transmission 2001-000-002)	1
10	120395	Washer	4		2001-036-006	Baffle, Oil (Transmission 2001-000-001)	1
11	2001-672-002	Adapter & Bearing Cup Assy	1	34	2001-534-001	Tube Assy, Suction	1
12	1000-133-051	Cup, Bearing	1	35	1000-141-214	O-Ring	1
13	1000-133-053	Cup, Bearing	1	36	A4740G	Breather	1
14	2001-672-001	Adapter & Magnet Assy	1	37	1000-183-077	Screw, Drive	2
15	2001-145-001	Gasket	1	38	2001-199-001	TAG, Identification (Transmission 2001-000-001)	1
16	1000-044-065	Seal, Oil	1		2001-199-002	TAG, Identification (Transmission 2001-000-002)	1
17	1000-149-034	Nut, Lock	1		2001-199-003	TAG, Identification (Transmission 2001-000-003)	1
18	2001-031-001	Flange, Output	1		2001-199-004	TAG, Identification (Transmission 2001-000-004)	1
19	1000-044-066	Seal, Oil	1		2001-199-005	TAG, Identification (Transmission 2001-000-005)	1
20	1000-133-004	Cone, Bearing	1		2001-199-006	TAG, Identification (Transmission 2001-000-006)	1
21	1013-037-001	Shim, 0.076 mm (0.0030 in.) thick	AR	39	2001-031-003	Tube, Dipstick	1
	1013-037-002	Shim, 0.127 mm (0.0050 in.) thick	AR	40	444688	Plug, Pipe	2
	1013-037-003	Shim, 0.178 mm (0.0070 in.) thick	AR	41	2001-565-002	Case & Bearing Cup Assy	1
	1013-037-004	Shim, 0.229 mm (0.0090 in.) thick	AR	42	2001-241-001	Insert, Thread	8
	1308-037-009	Shim, 0.508 mm (0.0200 in.) thick	AR	43	1000-043-030	Pin	2
22	2001-103-001	Sleeve	1	44	1000-133-003	Cup, Bearing	1
23	2001-671-001	Shaft Assy, Output (Transmission 2001-000-001)	1	45	1001-133-049	Cup, Bearing	1
	2001-671-002	Shaft Assy, Output (Transmission 2001-000-002)	1	46	2001-065-001	Case, Transmission	1
	2001-671-003	Shaft Assy, Output (Transmission 2001-000-003)	1				
	2001-671-004	Shaft Assy, Output (Transmission 2001-000-004)	1				
	2001-671-005	Shaft Assy, Output (Transmission 2001-000-005)	1				
	2001-671-006	Shaft Assy, Output (Transmission 2001-000-006)	1				
24	1000-133-048	Cone, Bearing	1				
25	1000-183-086	Bolt, Socket Head, M* x 1.25 x 30	8				
26	2001-070-007	Gear, Output (Transmission 2001-000-001)	1				
	2001-070-008	Gear, Output (Transmission 2001-000-002)	1				
	2001-070-009	Gear, Output (Transmission 2001-000-003)	1				

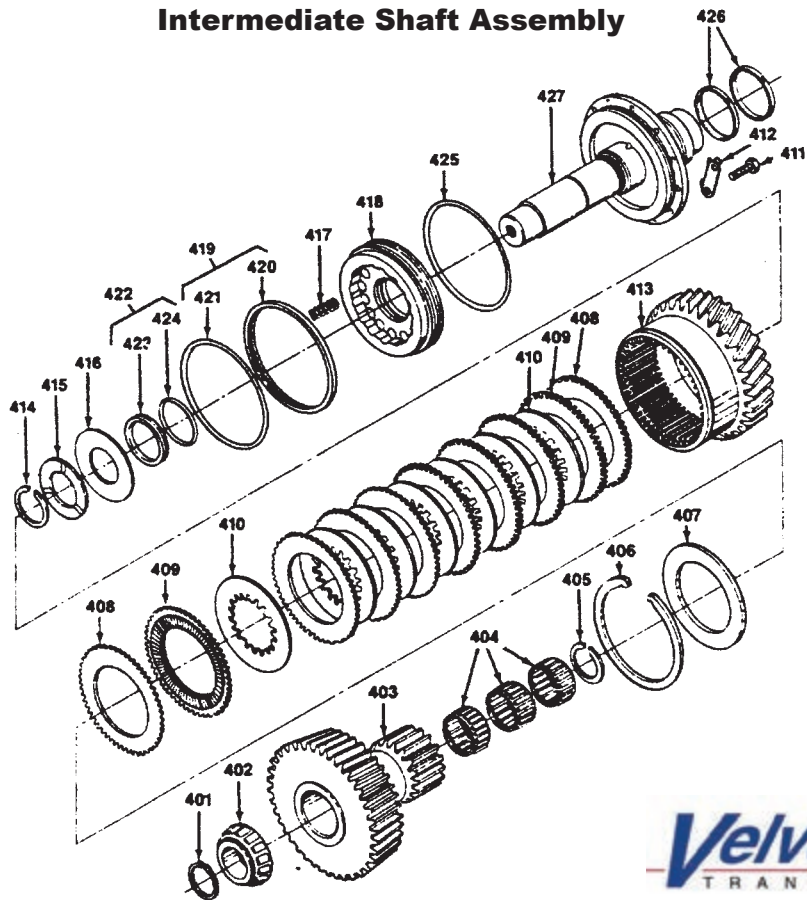


## Input Shaft Assembly



Index No.	Part No.	Description	Qty.
	2001-689-001	Shaft Assy, Input (Transmission 2001-000-001-001,-R01)	Ref
	2001-689-002	Shaft Assy, Input (Transmission 2001-000-002,-R02)	Ref
	2001-689-003	Shaft Assy, Input (Transmission 2001-000-003,-R03)	Ref
	2001-689-004	Shaft Assy, Input (Transmission 2001-000-004,-R04)	Ref
	2001-689-005	Shaft Assy, Input (Transmission 2001-000-005,-R05)	Ref
	2001-689-006	Shaft Assy, Input (Transmission 2001-000-006,-R06)	Ref
	2001-689-011	Shaft Assy, Input (Transmission 2001-000-011)	Ref
	2001-689-012	Shaft Assy, Input (Transmission 2001-000-012)	Ref
	2001-689-013	Shaft Assy, Input (Transmission 2001-000-013)	Ref
	2001-689-014	Shaft Assy, Input (Transmission 2001-000-014)	Ref
	2001-689-015	Shaft Assy, Input (Transmission 2001-000-015)	Ref
	2001-689-016	Shaft Assy, Input (Transmission 2001-000-016)	Ref
301	1000-133-052	Cone, Bearing	1
302	2001-053-001	Spacer	1
303	1000-193-022	Washer, Thrust	1
301	2001-080-024	Gear, Clutch, 20 tooth (Transmission 2001-000-006, -R06 &-016)	1
	2001-080-022	Gear, Clutch, 22 tooth (Transmission 2001-000-005, -R05 &-015)	1
	2001-080-020	Gear, Clutch, 25 tooth (Transmission 2001-000-004, -R04 &-014)	1
	2001-080-018	Gear, Clutch, 29 tooth (Transmission 2001-000-003, -R03 &-013)	1
	2001-080-016	Gear, Clutch, 33 tooth (Transmission 2001-000-002, -R02 &-012)	1
	2001-080-014	Gear, Clutch, 37 tooth (Transmission 2001-000-001, -R01 &-011)	1
305	1000-139-068	Ring, Snap	1
306	1000-132-055	Bearing, Needle	3
307	1000-139-068	Ring, Snap	1
308	1000-139-069	Ring, Snap	1
309	2001-062-003	Plate, Backing, 5.00mm (0.200") thick (Supersedes 2001-062-001)	1
309A	2001-062-001	Plate, Backing, 3.00mm (0.112") thick (Superseded by 2001-062-003)	1
310	2001-062-002	Plate, Clutch (2 used when 2001-062-001 is used)	1
311	2001-666-001	Disc Assy, Clutch (drive)	8
312	2001-166-002	Disc, Clutch (driven)	7
313	2000-183-002	Bolt, M6 x 1.0 x 20	12
315	2001-125-001	Cylinder, Clutch Gear (RH)	1
316	1000-139-068	Ring, Snap	1
317	2001-040-001	Retainer, Spring	1
318	2001-156-001	Spring (Transmission 2001-000-001 thru-006)	4
	2001-156-001	Spring (Transmission 2001-000-011 thru-016)	16
318A	2001-156-003	Spring (Transmission 2001-000-001 thru-006)	12
319	2001-624-001	Piston Assy, Clutch (Supersedes Piston 2001-124-001)	1
320	1000-516-019	Ring Assy, Sealing	1
321	1000-016-019	Ring, Sealing	1
322	1000-141-241	O-Ring	1
323	1000-516-020	Ring Assy, Sealing	1
324	1000-016-020	Ring, Sealing	1
325	1000-149-130	O-Ring	1
326	1000-141-045	O-Ring	1
327	2000-016-050	Ring, Oil Seal (Superseded 4806B)	2
328	1000-189-001	Ring, Seal (Steel)	1
329	2001-189-001	Shaft, Input (Transmission 2001-000-001 thru-016)	1

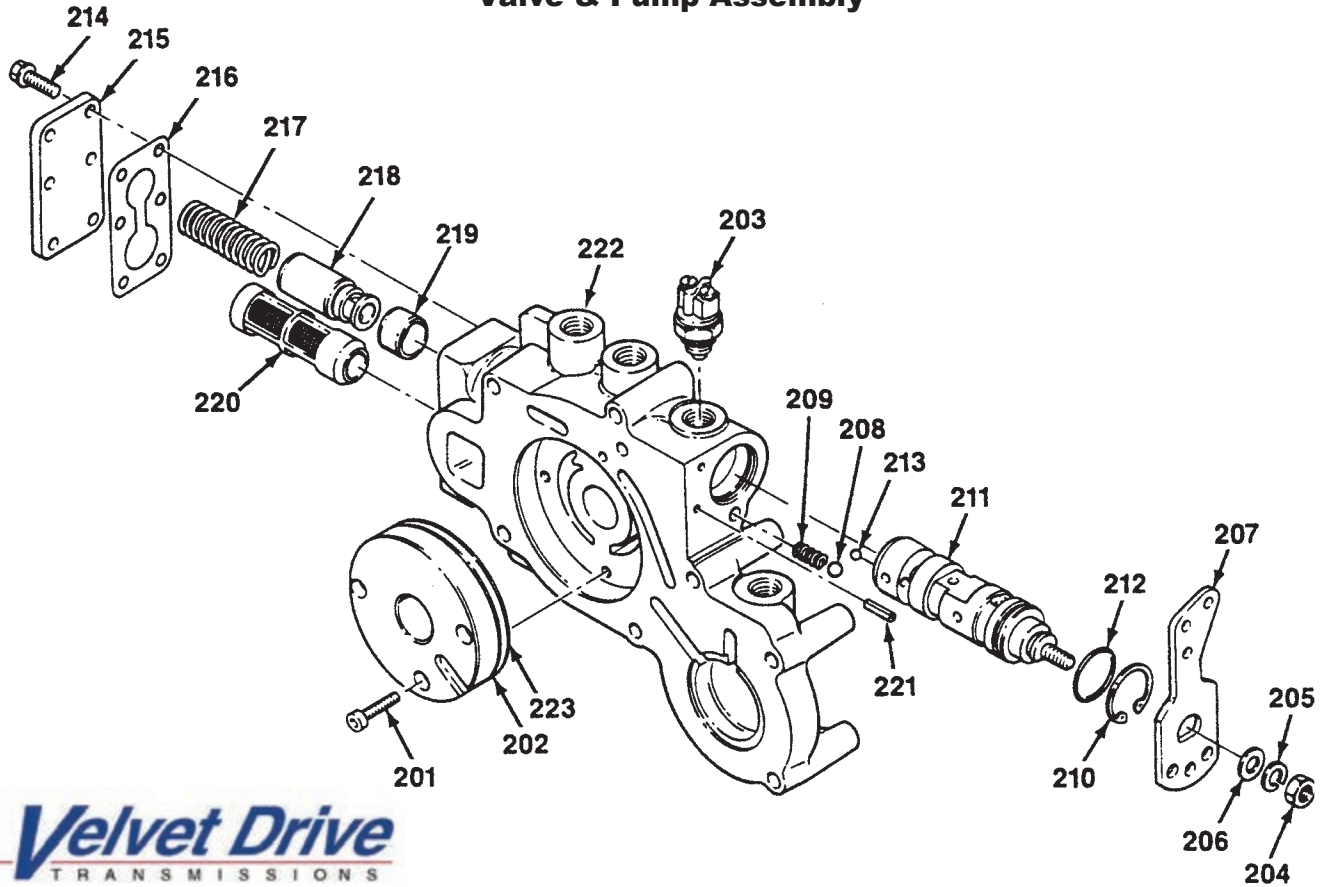
## Intermediate Shaft Assembly



**Velvet Drive**  
TRANSMISSIONS

Index No.	Part No.	Description	Qty.
	2001-567-001	Shaft Assy, Intermediate (Transmission 2001-000-001)	NP
	2001-567-002	Shaft Assy, Intermediate (Transmission 2001-000-002)	NP
	2001-567-003	Shaft Assy, Intermediate (Transmission 2001-000-003)	NP
	2001-567-004	Shaft Assy, Intermediate (Transmission 2001-000-004)	NP
	2001-567-005	Shaft Assy, Intermediate (Transmission 2001-000-005)	NP
	2001-567-006	Shaft Assy, Intermediate (Transmission 2001-000-006)	NP
401	1000-139-072	Ring, Snap	1
402	1000-133-050	Cone, Bearing	1
403	2001-080-013	Gear, Clutch (Transmission 2001-000-001)	1
	2001-080-015	Gear, Clutch (Transmission 2001-000-002)	1
	2001-080-017	Gear, Clutch (Transmission 2001-000-003)	1
	2001-080-019	Gear, Clutch (Transmission 2001-000-004)	1
	2001-080-021	Gear, Clutch (Transmission 2001-000-005)	1
	2001-080-023	Gear, Clutch (Transmission 2001-000-006)	1
404	1000-132-055	Bearing, Needle	3
405	1000-139-068	Ring, Snap	1
406	1000-139-069	Ring, Snap	1
407	2001-062-001	Plate, Clutch Backing (outer)	1
408	2001-062-002	Plate, Clutch	2
409	2001-666-001	Disc Assy, Clutch (drive)	8
410	2001-166-001	Disc, Clutch (drive)	7
411	11503867	Bolt, Hex Head, M6 x 1.0 x 20	12
412	2001-014-001	Plate, Lock	6
413	2001-125-002	Cylinder, Clutch Gear	1
414	1000-139-068	Ring, Snap	1
415	1000-193-019	Washer, Thrust	1
416	2001-040-001	Retainer, Spring	1
417	2001-156-001	Spring	16
418	2001-124-001	Piston, Clutch	1
419	1000-516-019	Ring Assy, Sealing	1
420	1000-016-019	Ring, Sealing	1
421	1000-141-241	O-ring	1
422	1000-516-020	Ring Assy, Sealing	1
423	1000-016-020	Ring, Sealing	1
424	1000-141-130	O-ring	1
425	1000-141-045	O-ring	1
426	4806B	Ring, Seal (steel)	1
427	2001-067-001	Shaft, Intermediate	1

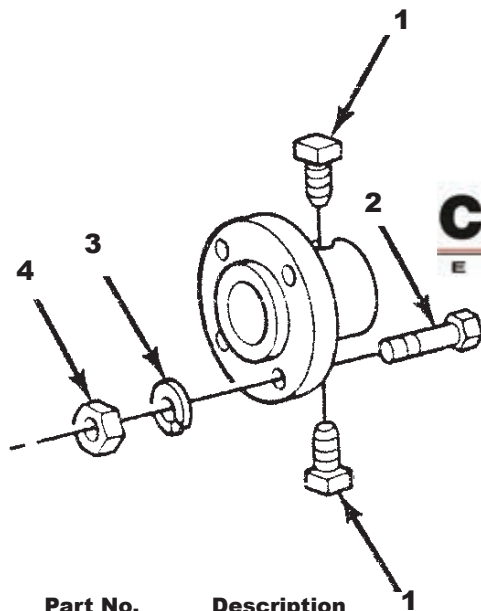
## Valve &amp; Pump Assembly



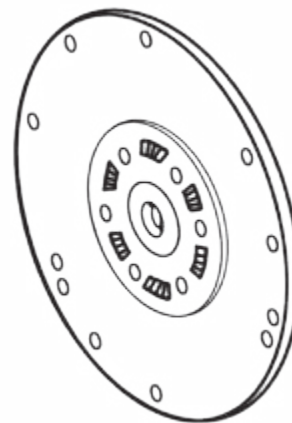
Index No.	Part No.	Description	Qty.
	2001-736-002	Valve & Pump Assy (4, fig P-1) (Transmission 2001-000-001 thru -006)	Ref
201	1000-183-087	Bolt, Socket Head, M6 x 1.0 x 25	3
202	2001-508-001	Pump Assy	1
203	1000-640-004	Switch Assy	1
204	11505919	Nut, Hex, M8 x 1.25	1
205	120214	Washer, Lock	1
206	120393	Washer, Flat	1
207	2001-098-001	Lever, Control	1
208	453632	Ball, Steel	1
209	71-42	Spring	1
210	1000-139-071	Ring, Snap	1
211	2001-239-001	Valve, Control	1
212	1000-141-123	O-Ring	1
213	1000-109-001	Ball, Steel	1
214	1000-183-090	Bolt, hex Head, M6 x 1.0 x 16	6
215	2001-039-001	Plate, Cover	1
216	2001-045-003	Gasket	1
217	71-242	Spring	1
218	2001-124-002	Piston, Valve	1
219	2001-103-002	Sleeve	1
220	2001-238-001	Filter & Screen Assy	1
221	9422127	Pin, Spring	2
222	2001-236-002	Housing, Valve	1
223	2001-141-501	O-Ring	1



## Coupling Hardware



Item	Part No.	Description
1	CRU 2000090	Set Screw 1-1/4"
2	CRU 22135	Coupling Bolt 1-1/2" for 4" Coupling
2	CRU 22136	Coupling Bolt 1-1/2" for 5" Coupling
3	CRU 103321	Lock Washer for 4" Coupling
3	CRU 103322	Lock Washer for 5" Coupling
4	CRU 115287	Nut for 4" Coupling
4	CRU 272231	Nut for 5" Coupling

Damper Plate  
for Hurth & B/W 5000 Gears

These dampers eliminate low RPM clatter that may occur with other dampers using Hurth and Velvet Drive 5000 series gears.

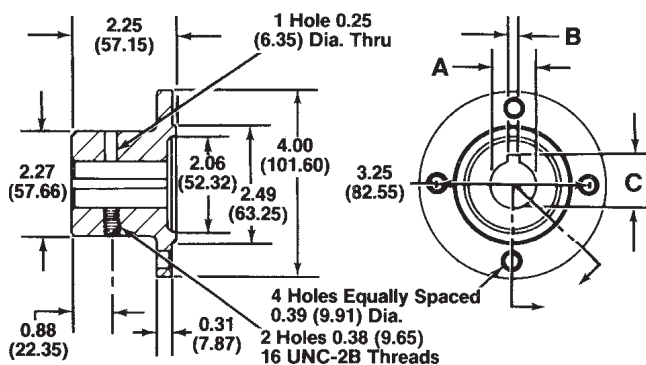
Part No.	Description
CRU 98298	V-8 - 305, 350 & 454 GM
CRU 98511	V-8 502 GM

## PROPELLER SHAFT COUPLING

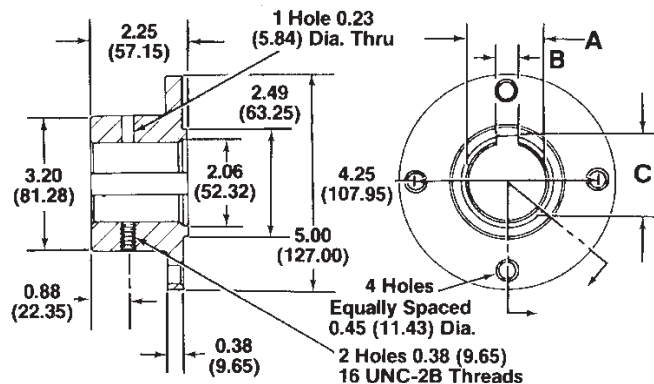
## 4" DIA. SHAFT COUPLING



## 5" DIA. SHAFT COUPLER

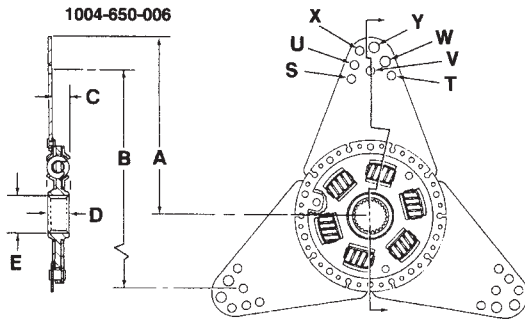


Part No.	Size
BOR 4BX-B	1" x 4"
BOR 4BX-C	1-1/8" x 4"
BOR 4BX-D	1-1/4" x 4"
BOR 4BX-E	1-3/8" x 4"
BOR 4BX-F	1-1/2" x 4"



Part No.	Size
BOR 5AX-B	1" x 5"
BOR 5AX-C	1-1/8" x 5"
BOR 5AX-D	1-1/4" x 5"
BOR 5AX-E	1-3/8" x 5"
BOR 5AX-F	1-1/2" x 5"
BOR 5AX-H	1-3/4" x 5"
BOR 5AX-K	2" x 5"

## Damper Assemblies

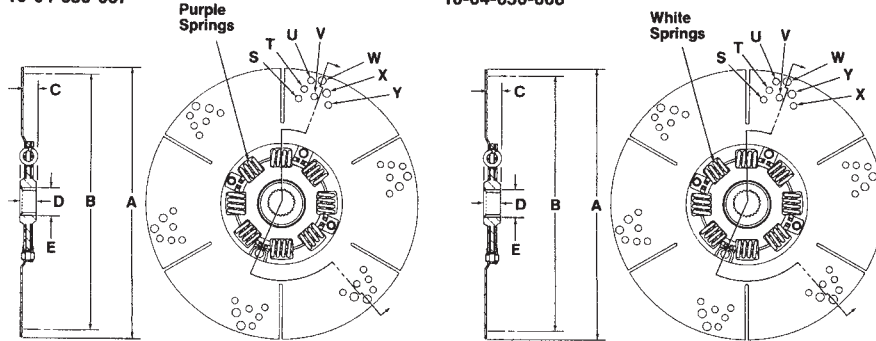


### Bolt Circle Chart

Hole	S	T	U	V	W	X	Y
Dia. B	10.38 (263.65)	10.63 (270.00)	10.88 (276.35)	11.38 (289.05)	11.63 (295.40)	12.38 (314.45)	12.63 (320.80)
Hole Dia.	0.324 (8.25)	0.324 (8.25)	0.324 (8.25)	0.324 (8.25)	0.387 (9.86)	0.324 (8.25)	0.387 (9.86)

10-04-650-007

10-04-650-008



### Damper Assembly Information Continued

Part No.	Engines Up To	Dia. A	Dia. B	Dim. C	Dim. D	Dia. E	Spline Teeth
1004-650-006	350 CID	6.66R (169.16)	See Chart	0.84 (21.34)	0.80 (20.32)	1.35 (34.29)	26
1004-650-007	430 CID	13.25 (336.55)	See Chart	0.80 (20.32)	0.80 (20.32)	1.35 (34.29)	26
1004-650-008	370 CID	13.25 (336.55)	See Chart	0.80 (20.32)	0.80 (20.32)	1.35 (34.29)	26

All specification and descriptive data shown are nominal and subject to change without notice

10-04-650-001

8 Holes Equally Spaced  
0.41 (10.41) Dia.

10-04-650-002

5 Holes Equally Spaced  
0.26 (6.60) Dia.

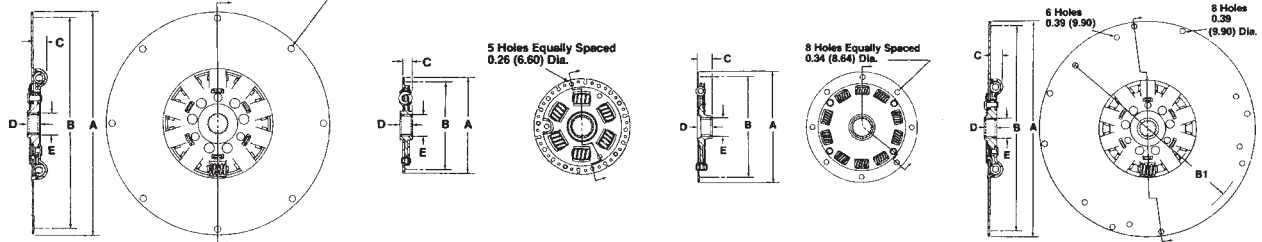
10-04-650-003

8 Holes Equally Spaced  
0.34 (8.64) Dia.

10-04-650-005

6 Holes  
0.39 (9.90)

8 Holes  
0.39 (9.90) Dia.



### Damper Assembly Information Inches (millimeters)

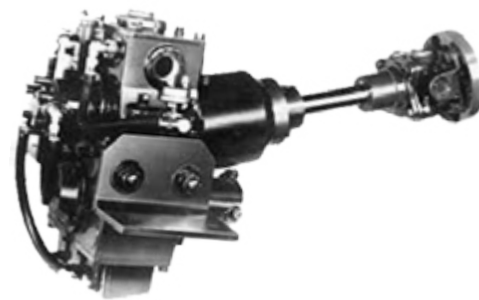
Part No.	Application	Dia. A	Dia. B	Dim. B1	Dim. C	Dia. D	Dia. E	Spline Teeth
1004-650-001		13.87 (352.30)	13.13 (333.50)		0.99 (25.15)	0.80 (20.32)	1.35 (34.29)	26
1004-650-002	Flywheel Forward	6.18 (157.97)	5.59 (141.99)		0.54 (13.72)	0.80 (20.32)	1.35 (34.29)	26
1004-650-003		7.98 (202.69)	7.13 (181.10)		1.05 (26.67)	1.10 (27.94)	1.35 (34.29)	26
1004-650-005	15" or Larger	15.00 (406.72)	14.50 (368.30)	13.25 (366.55)	0.51 (12.95)	0.80 (20.32)	1.35 (34.29)	26

# WALTER V-DRIVES

• EST. 1927 •



Directly Mounted V-Drive equipped with cardan joints, oil circulating pump and spray nozzle. Water jacket cooling, oil strainer, pressure drop switch, warning light, adaptor housing, spined adaptor flange and prop shaft coupling



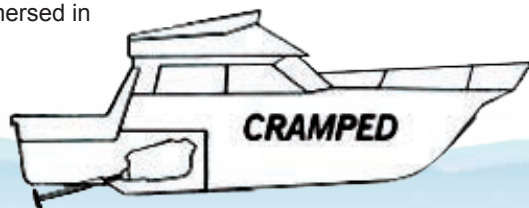
Independently Mounted V-Drive equipped with cardan joints, oil circulating pump, spray nozzle, water cooling jacket, oil strainer, pressure drop switch, warning light, adjustable mounting brackets, prop shaft coupling and flexible joint assembly

*Easy Engine  
Access for Installation,  
Removal and Repair*

**THIS!**



**NOT THIS!**



## More Space For Living Quarters and Cargo-

Placing engines in the stern saves space for living quarters and cargo space. Engine compartment becomes very compact and can be bulkheaded reducing engine noise and fuel odors while increasing safety.

## Better Performance-

Weight of engines in stern of boat allows boat to plane more easily. Floorboards and center of gravity can be lowered, resulting in a more stable boat design.

## Reliable-Practically Maintenance free-

V-Drives makes it possible to use inboard engines on small cruisers. Eliminates costly maintenance and problems associated with I/O's which are constantly immersed in corrosive saltwater.

## Advantages of WALTER V-DRIVES

- 1 WIDE RANGE OF STANDARD RATIOS!** Up to 8:1 reduction available on most models. No need for reduction gear or transmission.
- 2 CHOICE OF V-ANGLES!** All Independently mounted V-Drives can be supplied with a choice of 3 standard V-angles.
- 3 IDLER GEAR CHANGES ROTATION OF PROP SHAFT!** This option makes it possible to obtain twin screw rotation with same-hand engines. WALTER V-Drives use a third gear to reverse rotation rather than potentially troublesome chains & sprockets
- 4 HIGH QUALITY GEARS!** Only fully hardened precision helical gears made of the finest alloy steel are employed in WALTER V-Drive. The gear teeth are cut, heated-treated and precision ground or honed to an aircraft quality finish and accuracy for smooth and quiet operation. No other method of manufacturing can consistently produce a finer gear.
- 5 HIGH PROP TRUST CAPACITY!** Special anti friction bearings and rugged tapered roller bearings are used.
- 6 REVOLUTIONARY DESIGN!** Specially coupled cardan-type needle bearing universal joints operate at equal angles for constant velocity. Fully encased; lubricated & cooled by lube system.
- 7 EXCEPTIONAL FLEXIBILITY!** Independently mounted models use self-aligning bearing slidable splined connecting shaft and flex joint assembly to provide 2 points of flexibility; eliminate strain between engine and V-Drive.
- 8 HIGH CAPACITY WATER COOLING!** A waterjacket or tubular oil cooler and filter cools each V-Drive. V-Drives equipped with reversible oil-circulating pumps force feed lubrication to gears and bearings and have an oil pressure drop switch and warning light. Oil pumps are self-adjusting for either right or left hand rotation.
- 9 ADJUSTABLE MOUNTING BRACKETS!** Easy installation and realignment. Brackets are 2 or 9 way adjustable on all models.
- 10 CLAMP-FIT PROPELLER SHAFT COUPLINGS!** Standard on all V-Drives, these flanges grip the entire circumference of the prop shaft and compensate for small variations in shaft sizes. Bores are broached and keyed.

MADE IN THE U.S.A.

Call for Part Numbers & Pricing  
Please Have the Walters Serial Numbers When Ordering

When ordering please place **"WAL"** in front of part number





1.....	Housing, main	11D .....	Spacer Ring
2.....	Adapter Plate	12.....	Breather cap
02D .....	Adapter Housing	12A .....	Breather elbow
02D-1 .....	Cover, Adapter	13.....	Gasket, complete set
3.....	Cover, no pump	14.....	Bearing, pinion shaft, closed end
3SP.....	Cover, pump	15.....	Bearing, gear shaft, closed end
4.....	Cover, seal	15A.....	Bearing, gear shaft, flanged end
5.....	Cover, blank	16.....	Mounting bkt
6.....	Cover, watercooled	18.....	Stud, nut & lockwash
6B.....	Cover, plain bottom	19A.....	Screw & lockwasher
6D.....	Cover, top	19B.....	Stud, nut & lockwash
6E.....	Oil cooling coil	21.....	Oil level gauge
6F.....	Coil terminal and o-rings	22.....	Magnet plug
8.....	Seal, gear shaft	23B .....	Screw & lockwasher
9A.....	Pinion shaft only	23D .....	Angle housing
9AJ.....	Pinion shaft and yoke, 1 piece	24D .....	Angle housing cover
9AJ-N.....	Locknut	24A-D .....	Seal, angle housing
9AJ-W.....	Lockwasher	25.....	Prop flange, complete
9B.....	Pinion gear	25B .....	Bolt & lockwasher
9C.....	Pinion shaft sleeve	26D .....	Bearing angle housing
9F.....	Spacer ring	28.....	Idler gear
10.....	driven gear	29.....	Idler Shaft
11A.....	Gear shaft	29A .....	Idler bushing
11A-N.....	Locknut	29B .....	Idler spacer & shim
11A-W.....	Lockwasher	30.....	Idler bearing
11C.....	Gear shaft sleeve	34.....	Universal joint double complete
11T.....	Spacer	34A.....	Joint repair kit

34J.....Universal joint, less yoke

38B\*.....Bolt, nut and lockwasher

38D.....Splined adapter flange

42A.....Oil pump and spring

42B.....Pump end cap

42T.....Pump drive ring & pin

43S.....Oil strainer

44.....Hose & hose connectors

45.....Spray nozzle

45C.....Nozzle holder

49.....Pressure drop switch

50.....Seal, adapter housing

\* Supplied by engine manufacturer

### Assembly To Reverse Gear

Unbolt the output flange and back cover from the reverse gear/marine transmission. (On the RV-48 and the RV-50 mounted to the Warner 73 only, the spacer ring and bearing cup must also be removed from the reverse gear back cover and installed in the #02D-73 Adapter Housing). Bolt the #02D adapter housing to the reverse gear (the reverse gear back cover is no longer required). Reinstall the reverse gear output flange and fasten with the locknut per the reverse gear manufacturer's specifications. Remove the #02D-1 "Window" from the adapter housing for wrench clearance and bolt the #38D splined adapter flange to the reverse gear output flange. Reinstall #02D-1 "Window". (on some RV-10D models the #38D is not required; the female spline of the #34 universal joint fits over the male spline on the reverse gear output shaft). Place the #20D-G gasket over the studs on the #02D adapter housing and then slide the V-Drive on the #38D splined adapter flange. Secure the #23D angle housing against the #02D adapter housing with the nuts provided.

## ZF 45 1

**ZF Model 45-1** is a hydraulic, verticle offset transmission that will mount to a SAE 3, 4, Yanmar 4LH-4JH or Volvo 30-40 & Volvo D4-D6 housing.

• **Max RPM 5500** • **Weight 60 kg.** • **Offset 151 mm** • **Angle 0°**

Part No.	Ratio	Input Power Capacity
ZF45-1	2.20:1	132kW or 177hp @ 2800 155kW or 209hp @ 3300 179kW or 240hp @ 3800
ZF45-1	2.51:1	132kW or 177hp @ 2800 155kW or 209hp @ 3300 179kW or 240hp @ 3800
ZF45-1	3.03:1	132kW or 177hp @ 2800 155kW or 209hp @ 3300 179kW or 240hp @ 3800
ZF45-1	3.74:1	132kW or 177hp @ 2800 155kW or 209hp @ 3300 179kW or 240hp @ 3800



Part No.	Description
ZFM 3311004006	ZF 45-1 Transmission 2.20:1 ratio
ZFM 3311004007	ZF 45-1 Transmission 2.51:1 ratio
ZFM 3311004008	ZF 45-1 Transmission 3.03:1 ratio
ZFM 3311004010	ZF 45-1 Transmission 3.74:1 ratio

## ZF 45A

**ZF Model 45A** is a hydraulic, Down-Angle transmission that will mount to a SAE 3, 4, Yanmar 4LH-4JH or Volvo 30-40 & Volvo D4-D6 housing.

• **Max RPM 5500** • **Weight 28 kg.** • **Offset 126 mm** • **Angle 8°**

Part No.	Ratio	Input Power Capacity
ZF 45A	1.26:1	132kW or 177hp @ 2800 155kW or 209hp @ 3300 179kW or 240hp @ 3800
ZF 45A	1.51:1	132kW or 177hp @ 2800 155kW or 209hp @ 3300 179kW or 240hp @ 3800
ZF 45A	2.03:1	132kW or 177hp @ 2800 155kW or 209hp @ 3300 179kW or 240hp @ 3800
ZF 45A	2.43:1	123kW or 165hp @ 2800 145kW or 195hp @ 3300 167kW or 224hp @ 3800



Part No.	Description
ZFM 3311001014	ZF 45A Transmission 1.26:1 ratio
ZFM 3311001015	ZF 45A Transmission 1.51:1 ratio
ZFM 3311001016	ZF 45A Transmission 2.03:1 ratio
ZFM 3311001017	ZF 45A Transmission 2.43:1 ratio

## ZF 45C

**ZF Model 45C** is a hydraulic, Co-Axial direct drive transmission that will mount to a SAE 3, 4, Yanmar 4LH-4JH or Volvo 30-40 & Volvo D4-D6 housing.

• **Max RPM 5500** • **Weight 31 kg.** • **Offset 0 mm** • **Angle 0°**

Part No.	Ratio	Input Power Capacity
ZF45C	1.00:1	155kW or 208hp @ 2800 183kW or 246hp @ 3300 211kW or 283hp @ 3800

Part No.	Description
ZFM 3311000001	ZF 45C Transmission 1.00:1 ratio (with mechanical shift)
ZFM 3311000009	ZF 45C Transmission 1.00:1 ratio (with electric shift)
ZFM 3311000013	ZF 45C Transmission 1.00:1 ratio (with electric shift for MerCruiser)





## ZF 45 IV

**ZF Model 45IV** is a hydraulic, V-Drive transmission that will mount to a SAE 3, 4, Yanmar 4LH-4JH or Volvo 30-40 & Volvo D4-D6 housing.

• **Max RPM 5500** • **Weight 47 kg.** • **Offset 126 mm** • **Angle 20°**

Part No.	Ratio	Input Power Capacity
ZF45IV	1.21:1	181kW or 243hp @ 2800 213kW or 286hp @ 3300 246kW or 329hp @ 3800
ZF45IV	1.46:1	181kW or 243hp @ 2800 213kW or 286hp @ 3300 246kW or 329hp @ 3800



Part No.	Description
ZFM 3311003005	ZF45IV Transmission 1.21:1 ratio (with mechanical shift)
ZFM 3311003006	ZF45IV Transmission 1.46:1 ratio (with mechanical shift)
ZFM 3311003016	ZF45IV Transmission 1.21:1 ratio (with electric shift)
ZFM 3311003017	ZF45IV Transmission 1.46:1 ratio (with electric shift)
ZFM 3311000013	ZF45C Transmission 1.00:1 ratio (with electric shift for MerCruiser)

## ZF 63C

**ZF Model 63C** is a hydraulic, Co-Axial direct drive transmission that will mount to a SAE 3, 4, Yanmar 4LH-4JH or Volvo 30-40 & Volvo D4-D6 housing.

• **Max RPM 5500** • **Weight 32 kg.** • **Offset 0 mm** • **Angle 0°**

Model	Ratio	Input Power Capacity
ZF63C	1.00:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800

Part No.	Description
ZFM 3312000001	ZF 63C Transmission 1.00:1 ratio (with mechanical shift)
ZFM 3312000004	ZF 63C Transmission 1.00:1 ratio (with electric shift)

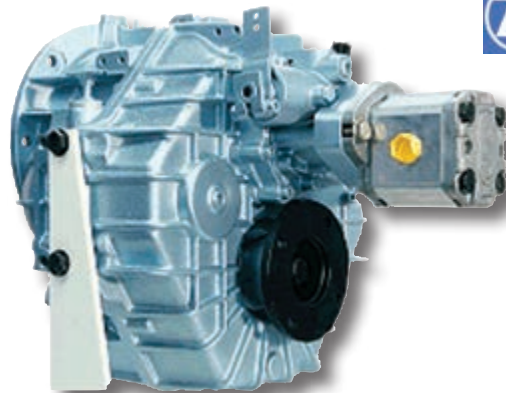


## ZF 63

**ZF Model 63** is a hydraulic, verticle offset transmission that will mount to a SAE 3, 4, 5, Yanmar 4LH-4JH or Volvo 30-40 & Volvo D4-D6 housing.

• **Max RPM 5500** • **Weight 46 kg.** • **Offset 127 mm** • **Angle 0°**

Part No.	Ratio	Input Power Capacity
ZF63	1.25:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF63	1.50:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF63	1.75:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF63	1.93:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF63	2.48:1	165kW or 222hp @ 2800 195kW or 261hp @ 3300 224kW or 301hp @ 3800
ZF63	2.78:1	165kW or 222hp @ 2800 195kW or 261hp @ 3300 224kW or 301hp @ 3800



Shown with optional PTO

Part No.	Description
ZFM 3312002010	ZF 63 Transmission 1.25:1 ratio
ZFM 3312002011	ZF 63 Transmission 1.51:1 ratio
ZFM 3312002012	ZF 63 Transmission 1.75:1 ratio
ZFM 3312002013	ZF 63 Transmission 1.93:1 ratio
ZFM 3312002014	ZF 63 Transmission 2.48:1 ratio
ZFM 3312002015	ZF 63 Transmission 2.78:1 ratio

## ZF 63 A

**ZF Model 63A** is a hydraulic, down angle transmission that will mount to a SAE 3, 4, 5, Yanmar 4LH-4JH or Volvo 30-40 & Volvo D4-D6 housing.

• **Max RPM 5500**

• **Weight 44 kg.**

• **Offset 144 mm**

• **Angle 8°**

Model	Ratio	Input Power Capacity
ZF 63A	1.22:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF 63A	1.56:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF 63A	2.04:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF 63A	2.52:1	174kW or 234hp @ 2800 206kW or 276hp @ 3300 237kW or 317hp @ 3800
ZF 63A	2.70:1	174kW or 234hp @ 2800 206kW or 276hp @ 3300 237kW or 317hp @ 3800

**Part No.**

ZFM 3312001015

ZFM 3312001016

ZFM 3312001017

ZFM 3312001020

ZFM 3312001021

**Description**

ZF 63A Transmission 1.22:1 ratio

ZF 63A Transmission 1.56:1 ratio

ZF 63A Transmission 2.04:1 ratio

ZF 63A Transmission 2.52:1 ratio

ZF 63A Transmission 2.70:1 ratio

*Ratings shown are for Pleasure applications. For light, medium and continuous duty ratings please contact us.*

We carry a large inventory of  
**ZF Transmissions  
and Parts**

**Jerry's  
Marine  
Service**

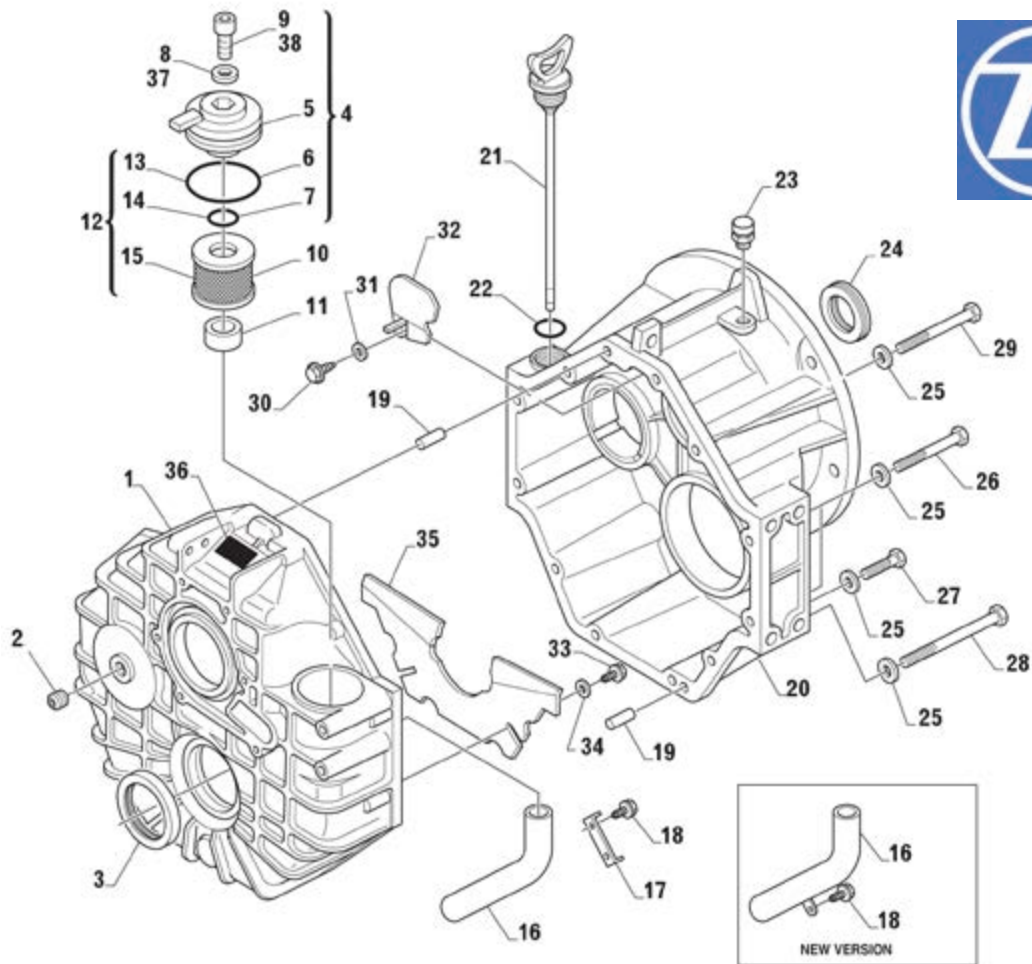
Give us a call!

**FL 1-800-432-2231**

**SC 1-800-788-2231**

Our parts experts will be happy to assist you in finding the perfect fit.

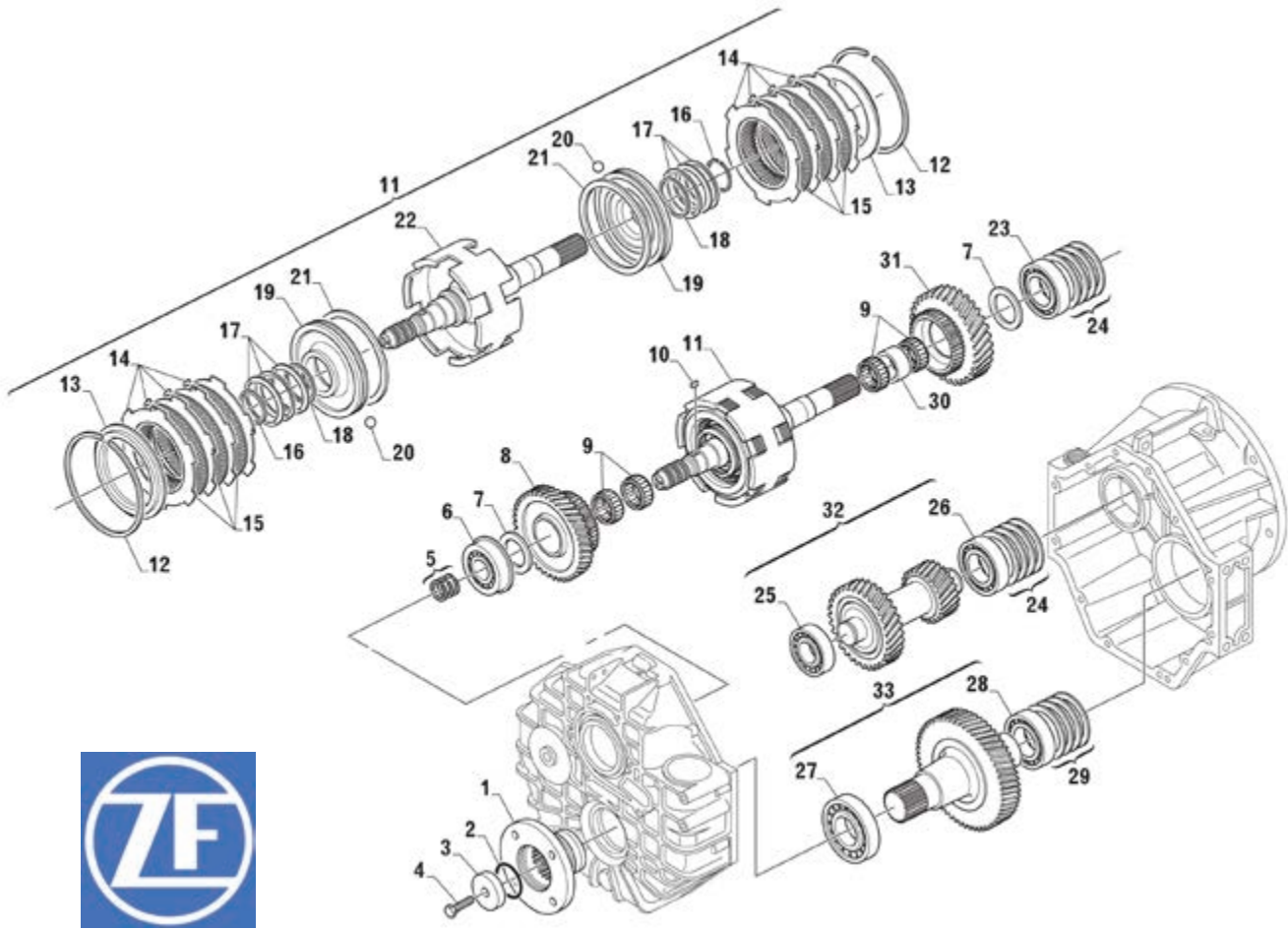




Item	Part #	Old #	Description	Qty.	Item	Part #	Old #	Description	Qty.
1	3312 301 007	451892	Housing	1	22	0634 304 405	501211	O-Ring	1
2	0636 301 041	442373	Plug	1				(Oil dipstick)	
3	0634 319 132	442135	Output shaft seal	1	23	3311 301 002	442369	Breather valve	1
4	3312 101 003	500484	Filter cover, assy.	1	24	3312 301 030	413883	Input shaft seal	1
5			Filter cover	1	25	0630 302 091	442371	Washer	12
6	0634 304 688	442731	O-Ring	1	26	0636 010 550	442374	Hex head screw	4
7	0634 306 204	105542	O-Ring	1	27	0636 015 227	442375	Hex head screw	5
8	0630 001 085	167010	Washer	1	28	0636 010 572	442376	Hex head screw	2
9	0636 101 475	320202	Screw M8x30	1	29	0636 015 386	452512	Hex head screw	1
10	3312 301 007	438637	Oil filter	1	30	0636 113 006	455079	Hex head screw	1
11	3312 301 008	439653	Sealing washer	1		0636 015 020		Hex head screw	1
12	3312 199 031	463772	Oil filter, assy	1	31	0630 001 046		Washer	1
	(BBB 016940)				32	3312 301 011	455053	plate Ratio 1=1.2; 1.6; 2.0	1
13	0634 304 688	442731	O-Ring	1		3312 301 012	458290	plate Ratio I = 2.5; 2.7	1
14	0634 306 204	105542	O-Ring	1	33	0636 113 006	455079	Hex head screw	2
15	3312 301 037		Oil filter	1		0636 015 020		Hex head screw	2
16	3312 301 005	438948	Suction pipe	1	34	0630 001 046		Washer	2
	3312 301 033		Suction pipe with support	1	35	3312 301 006	438963	Baffle plate	1
17	3312 301 013	439223	Retaining plate	1	36	3312 301 001		Name plate	1
18	0636 113 006	455079	Hex head screw	2	37	0630 001 085	167010	Washer	1
			(suction pipe retainer)		38	0636 101 475	320202	Screw MUM	1
	0636 015 020		Hex head screw	2					
			(suction pipe with support)						
19	0631 315 520	335817	Locator pin	2					
20	3312 301 002	451889	Cover (housing)	1					
	3312 301 003	501352	Cover (housing)	1					
21	978.36.701.02	454913	Oil dipstick	1					
	3312 201 002	500989	Oil dipstick + OR	1					

When Ordering please place **"ZFM"** in front of part number



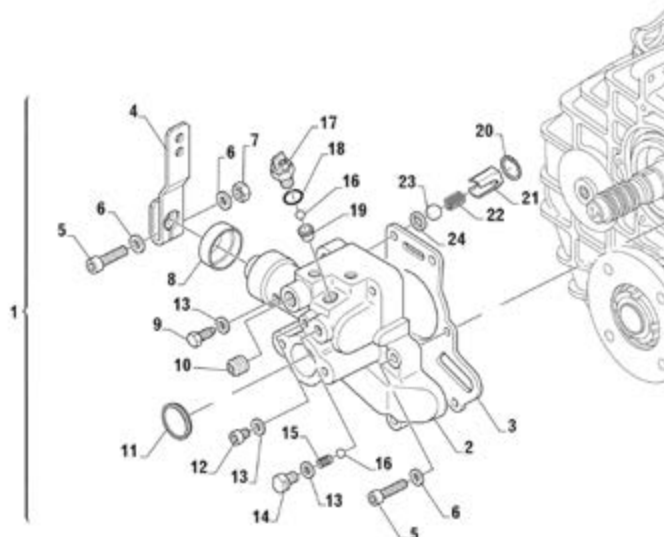


Item	Part #	Old #	Description	Qty.	Item	Part #	Old #	Description	Qty.
1	3312 304 009	439489	Output flange	1	20	0635 460 006	106690	Ball	2
2	0634 306 328	105571	O-Ring	1	21	0634 402 176	500069	Outer clutch piston ring	2
3	3313 304 017	475710	Washer	1	22	3312199 032		Input shaft & clutch housing	1
4	0636 016 111	348826	Hex head screw	1		3312199 033		Input shaft & clutch housing	1
5	3312 302 041	447038	Piston ring	3	23	0635 501 937	447754	Tapered roller bearing	1
6	0635 501 940		Tapered roller bearing	1		0635 501 941		Tapered roller bearing	1
7	3312 302 004	454406	Butting ring	2	24	3312 302 023	277213	Shim 0.1 mm	2
8	3312 302 006	488955	Reverse gear Z3=49	1		3312 302 024	277214	Shim 0.15 mm	2
	3312 302 007	501462	Reverse gear Z3 = 50	1		3312 302 025	277215	Shim 0.2 mm	2
			Only Ratio I= 2.04		25	0635 501 942		Tapered roller bearing	1
9	3312 302 040	441438	Needle bearing	4	26	0635 501 941		Tapered roller bearing	1
10	0631501062	437956	Key	1		0735 370 229	501332	Tapered roller bearing	1
11	3312199 051		Input shaft, assy.	1	27	0635 501 938	333859	Tapered roller bearing	1
	3312199 052		Input shaft, assy. 1		28	0635 501 922		Tapered roller bearing	1
12	0630 513 066	455788	Snap ring	2	29	3312 304 027	166807	Shim 0.1 mm	2
13	3312 302 012	455789	End disc	2		3312 304 028	442340	Shim 0.15 mm	2
	3312 302 013	501345	End disc	2		3312 304 029	154102	Shim 0.3 mm	2
14	3312 302 008	455787	Outer clutch disc	10		3312 304 030	154101	Shim 0.5 mm	2
15	3312 302 009	455786	Inner clutch disc	8	30	3312 302 016	501341	Spacer	1
16	0630 501 038	500076	Retainer ring	2					
17	3312 302 015	500148	Cup spring	6					
	3312 302 038		Cup spring	6					
			From s/n 18674 L						
18	0634 402 178	500066	Inner clutch piston ring	2					
19	3312 302 014	500147	Clutch piston	2					

When Ordering please place **"ZFM"** in front of part number

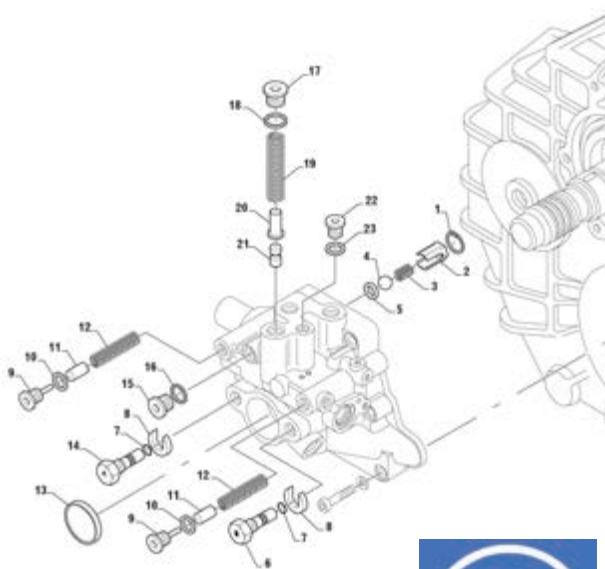
Item	Part #	Old #	Description	Qty.
1	3312108 001		Control valve assy. 23 bar 23 bar	1
	3313108 001		High speed control valve Only for ZF 80-1A, 26 bar 26 bar	1
2			Control valve	1
3	3312 308 020	408388	Gasket	1
4	3312 308 025	452963	Lever	1
5	0636 101 727	442377	Hex head screw	7
6	0630 302 090	442372	Washer	8
7	0637 006 157	455785	Nut	1
8	0634 309 621	500065	Gasket	1
9	3312 308 034	500026	Stop screw	1
10	0636 309 007	455756	Plug	1
11	0631 405 061	500107	Plug	1
12	0636 302 053	103465	Plug	1
13	0634 801 302	107410	Washer	3
14	3312 308 037	500028	Guide bolt	1
15	3312 308 047	500044	Spring	1
16	0635 460 014	106695	Ball	2
17	3312 308 029	455764	Neutral safety switch assy.	1
18	001.105.0158	105527	O-Ring	1
19	3312 308 039	500030	Bushing	1
20	0630 502 005	500083	Snap ring	1
21	3312 308 038	500029	Bushing	1
22	3312 308 042	500032	Spring	1
23	0635 460 023	500097	Ball	1
24	3312 308 036	500027	Spacer	1

### Mechanical Selector Valve for ZF63A, ZF63, ZF80A & ZF80-1 A



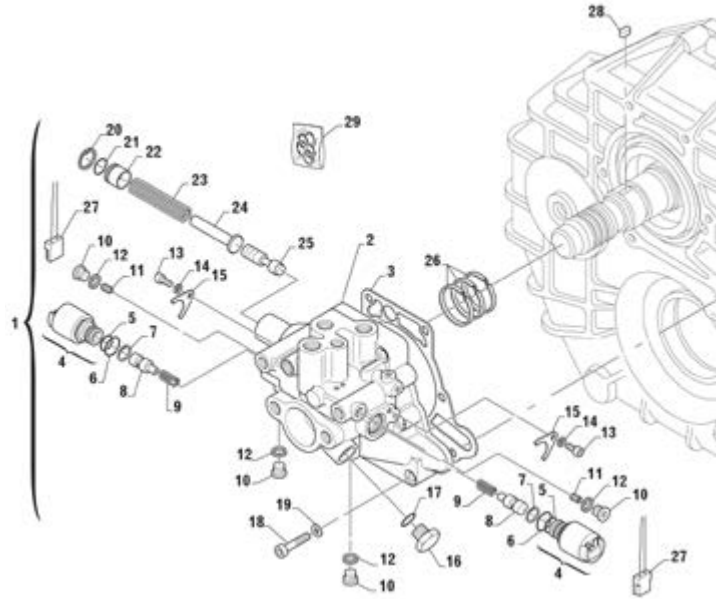
Item	Part #	Old #	Description	Qty.
1	0630 502 005	500083	Snap ring	1
2	3312 308 038	500029	Bushing	1
3	3312 308 042	500032	Spring	1
4	0635 460 023	500097	Ball	1
5	3312 308 036	500027	Spacer	1
6	3312 308 052	501497	Come home screw "B"	1
7	0634 304 690	501522	O-Ring	2
8	3312 308 050	501495	Washer	2
9	3312 308 056	501513	Screw	2
10	0634 801 298	500095	Washer	2
11	4656 306 013		Piston	2
12	0732 042 539		Spring	2
13	0631 405 062	501530	Plug	1
14	3312 308 051	501496	Come home screw "A"	1
15	0636 302 068	500744	Plug	1
16	0634 801 260	500897	Washer	1
17	0636 302 065	501520	Screw	1
18	0634 801 281	227851	Washer	1
19	3312 308 061	501532	Spring	1
20	3312 308 057	501514	Spring guide pin	1
21	3312 308 053	501498	Valve piston	1
22	0636 302 053	103465	Plug	1
23	0634 801 302	107410	Washer	1

### Mechanical Selector Valve for ZF63A, ZF63, ZF80A & ZF80-1 A



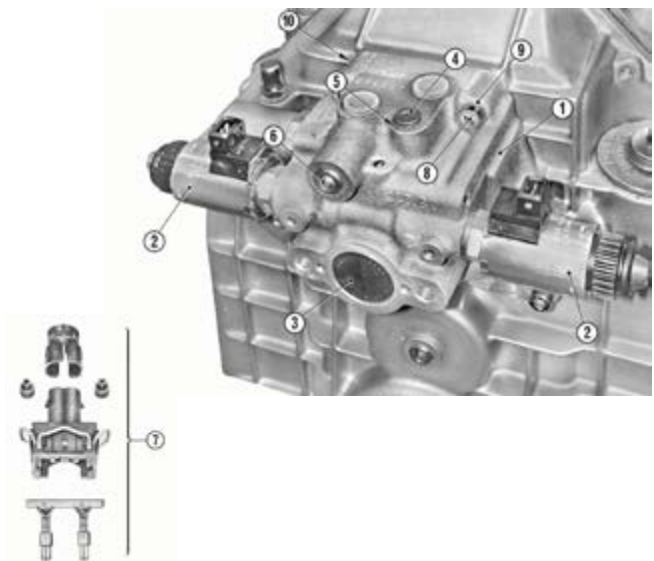
Item	Part #	Old #	Description	Qty.
1	3312199 004		Electric selector valve	1
	3312199 005		Electric selector valve	1
	3313108 003		Electric selector valve	1
		Only for ZF 80-1 A		
	3313108 004		Electric selector valve	1
		Only for ZF 80-1 A		
2			Control valve	1
3	3312 308 020	408388	Gasket	1
4	3312 308 064	501634	12 V Electric valve 12 V	2
	3312 308 065	501635	24 V Electric valve 24 V	2
5	0634 304 651	501724	O-Ring	2
6	0634 304 391	501524	Piston ring	2
7	0630 502 078	501528	Snap ring	2
8	3312 308 054	501502	Valve piston	2
9	3312 308 062	501533	Piston spring	2
10	0636 302 053	103465	Plug	4
11	3312 308 059	501516	Drilled plug	2
12	0634 801 302	107410	Washer	4
13	0636101 651	501525	Screw	2
14	0630 001 096	501527	Washer	2
15	1043 326 045		Valve lock	2
16	3312 308 063	501562	Plug	1
17	0634 306 524		O-Ring	1
18	0636101727	442377	Hex head screw	6
19	0630 302 090	442372	Washer	6
20	0630 532 004	501529	Snap ring	1
21	0634 304 309	501523	O-Ring	1
22	3312 308 058	501515	Plug	1
23	3312 308 040	500031	Spring	1
24	3312 308 043	500038	Spring guide pin	1
25	3312 308 017	500040	Valve piston	1
26	3312 302 041	447038	Piston ring	3
27	3312 117 001		Connectors kit	1
28	0631501062	437956	Key	1
29	978.28.641.01	501751	Seal kit	1

**Old Style Selector Valve with Proportional Selector  
for ZF63A, ZF63, ZF80A & ZF80-1 A**



**Old Style Electric Selector Valve, On/Off 12V 26 Bar  
for ZF63A, ZF63, ZF80A & ZF80-1 A**

Item	Part #	Old #	Description	Qty.
1	3312199 015		Electric selector valve 26 bar ON/OFF	1
2	3312 308 069		12V Solenoid valve ON/OFF 12V	2
3	0631 405 061		Dummy plug	1
4	0636 302 053		Screw plug M10x1	1
		Ma= 12 Nm		
5	0634 801 302		Washer	1
6	0636 309 007		Screw plug	1
		Ma= 30 Nm		
7	3316 117 001		Connector kit	2
8	0636101727		Cap screw M8x40	6
9	0630 302 090		Washer	6
10	3312 308 020		Gasket	1

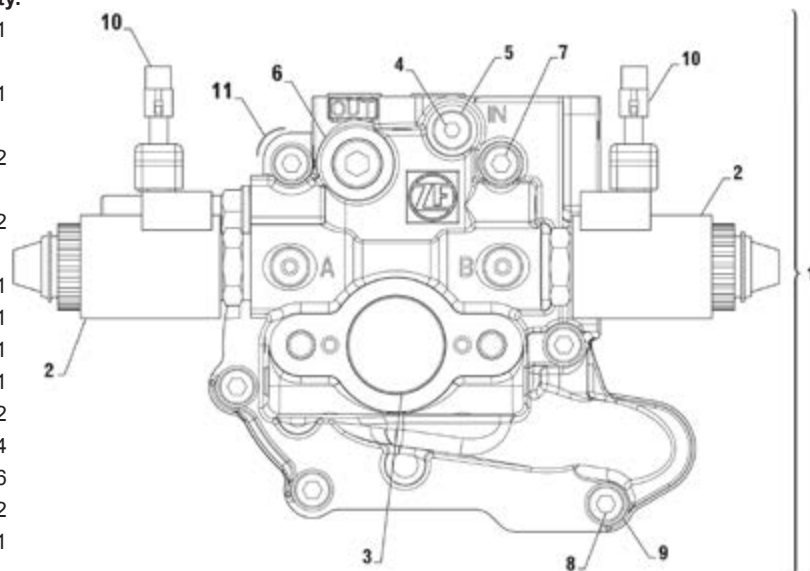


When Ordering please place **“ZFM”** in front of part number



**New Style Electric Selector Valve, On/Off 12V 26  
Bar or 24V 26 Bar for ZF63A, ZF63, ZF80A & ZF80-1  
A**

Item	Part #	Old #	Description	Qty.
1	3312199 063		Electric selector valve ON/OFF 12V - 26 bar	1
	3312199 064		Electric selector valve ON/OFF 24V - 26 bar	1
2	3312 308 069		12V Solenoid valve ON/OFF 12V 2	2
	3312 308 106		24V Solenoid valve ON/OFF 24V	2
3	0631 405 061		plug	1
4	0636 302 053		Screw plug M10x1	1
5	0634 801 302		Washer	1
6	0636 309 007		Screw plug	1
7	0636101709		Cap screw M8x65	2
8	0636101727		Cap screw M8x40	4
9	0630 302 090		Spring washer	6
10	3316117 001		Connector kit	2
11	3312 308 020		Gasket	1



**Seal Kit and Piston Rings for ZF63A & ZF63  
Part No. ZFM 3312199017**

Kit Contains the items below

Part No.	Old No.	Description	
0634 306 328	105571	O-ring	1
3312 301 030	413883	Input shaft seal	1
0634 319 132	442135	Output shaft seal	1
3312 308 020	408388	Gasket	1
0634 304 405	501211	O-Ring	1
3312 302 041	447038	Piston ring	3
0634 309 621	500065	Seal	1
0634 304 688	442731	O-Ring	1
0634 306 204	105542	O-Ring	1
3312 301 008	439653	Gasket	1



**Clutch and Seal Kit for ZF63A & ZF63  
Part No. ZFM 3312199018**

Kit Contains the items below

Part No.	Old No.	Description	
3312 199 017	501175	Seal kit & piston rings	1
3312 302 009	455786	Inner disc	8
3312 302 008	455787	Outer disc	10



When Ordering please place **"ZFM"** in front of part number

## Kit Contains the items below

Part No.	Old No.	Description	
3312 302 040	441438	Needle bearing	4
0635 501 942		Tapered roller bearing	1
0635 501 941		Tapered roller bearing	1
0635 501 940		Tapered roller bearing	1
0635 501 937	447754	Tapered roller bearing	1
0635 501 938	333859	Tapered roller bearing	1
0635 501 922		Tapered roller bearing	1
3312 302 023	277213	Shim 0.1 mm	2
3312 302 024	277214	Shim 0.15 mm	2
3312 302 025	277215	Shim 0.2 mm	2
3312 304 027	166807	Shim 0.1 mm	2
3312 304 028	442340	Shim 0.15 mm	2
3312 304 029	154102	Shim 0.3 mm	2
3312 304 030	154101	Shim 0.5 mm	2

**Bearing Kit for ZF63A & ZF63**  
**Part No. ZFM 3312199019**



3312 302 040	441438	Needle bearing	4
0635 501 942		Tapered roller bearing	1
0635 501 941		Tapered roller bearing	1
0635 501 940		Tapered roller bearing	1
0735 370 229	501332	Tapered roller bearing	1
0635 501 938	333859	Tapered roller bearing	1
0635 501 922		Tapered roller bearing	1
3312 302 023	277213	Shim 0.1 mm	2
3312 302 024	277214	Shim 0.15 mm	2
3312 302 025	277215	Shim 0.2 mm	2
3312 304 027	166807	Shim 0.1 mm	2
3312 304 028	442340	Shim 0.15 mm	2
3312 304 029	154102	Shim 0.3 mm	2
3312 304 030	154101	Shim 0.5 mm	2

**Bearing Kit for ZF63A & ZF63 with 2.5 & 2.7:1 ratios**  
**Part No. ZFM 3312199053**



When Ordering please place **"ZFM"** in front of part number

## ZF 63IV

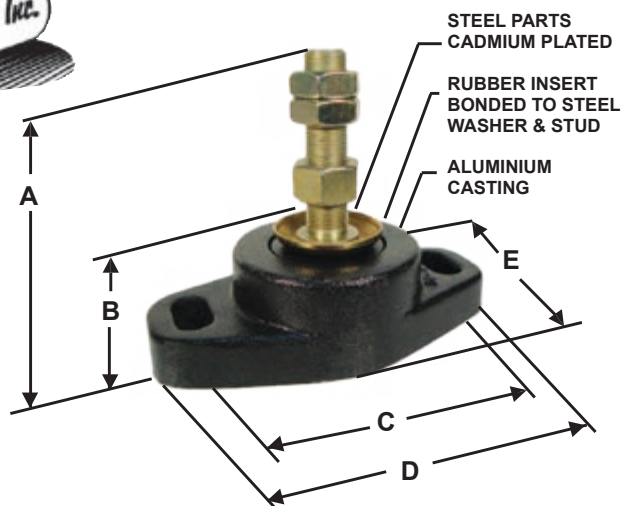
**ZF Model 63IV** is a hydraulic, V-Drive transmission that will mount to a SAE 3, 4, 5, Yanmar 4LH-4JH or Volvo 30-40 & Volvo D4-D6 housing.

• **Max RPM 5500**      • **Weight 62 kg.**      • **Offset 219 mm**      • **Angle 12°**

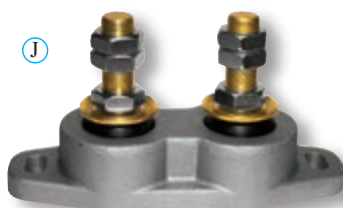
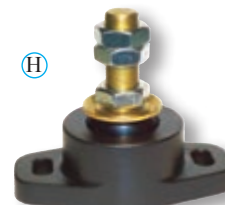
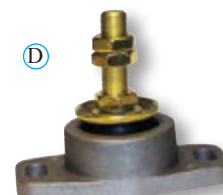
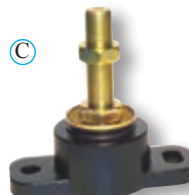
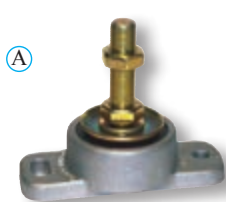
Model	Ratio	Input Power Capacity
ZF 63IV	1.29:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF 63IV	1.56:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF 63IV	1.99:1	199kW or 267hp @ 2800 235kW or 315hp @ 3300 271kW or 363hp @ 3800
ZF 63IV	2.47:1	184kW or 247hp @ 2800 217kW or 291hp @ 3300 250kW or 336hp @ 3800



Part No.	Description
ZFM 3312003012	ZF 63IV Transmission 1.29:1 ratio
ZFM 3312003013	ZF 63IV Transmission 1.56:1 ratio
ZFM 3312003014	ZF 63IV Transmission 1.99:1 ratio
ZFM 3312003015	ZF 63IV Transmission 2.47:1 ratio



Part number M/M DF216 shown here is used on a Marine Power engine



	Part No.	A	B	C	D	E	Stud	Weight Range
A	M/M DF100	4"	1-7/8"	4"	5"	2-3/4"	5/8"-18	up to 850 lbs
B	M/M DF206	4-1/4"	2-7/16"	4"	5-3/16"	2-5/8"	5/8"-18	up to 800 lbs
C	M/M DF216	4-7/8"	2-3/8"	4"	5-1/4"	2-5/8"	3/4"-16	up to 800 lbs
D	M/M DF2205-1	3-13/16"	2-3/8"	4"	5"	2-3/4"	1/2"-20	up to 450 lbs
E	M/M DF236-M1	5"	2-5/8"	5"	6-1/2"	3-3/8"	3/4"-16	1,100 - 1,500 lbs
F	M/M DF238-M1	5"	2-5/8"	5"	6-1/2"	3-3/8"	3/4"-16	1,800 - 2,200 lbs
G	M/M DF4406-4	5-5/8"	3-3/8"	5"	6-3/4"	3-11/16"	1"-14	1,800 - 2,200 lbs
H	M/M DF4407-4	5-5/8"	3-3/8"	5"	6-3/4"	3-11/16"	1"-14	2,200 - 2,500 lbs
I	M/M DF4408-4	5-5/8"	3-3/8"	5"	6-3/4"	3-11/16"	1"-14	2,500 - 2,800 lbs
J	M/M DF4428-4	5-5/8"	3-3/8"	9"	10-3/4"	3-11/16"	1"-14	5,000 - 5,600 lbs
K	M/M DF9106	7-1/4"	3-1/2"	5"	6-1/2"	3-3/4"	1"-14	1,300 - 2,400 lbs
L	M/M RM1060	5-5/8"	2-1/4"	4"	6-3/8"	2-3/8"	3/4"-16	500 - 1,200 lbs



## BUSHINGS INC.

### Engine Model / Mount Cross Reference / 4 Point Mountings

Stern Drive & Inboard Installations	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
All 4 and 6 Cylinder and V8 GAS Engines	500-1200	80-500+	4.0"	3/4" - 16	DF-216
Where Additional Clearance is Desired	500-1200	80-500+	4.25"	3/4" - 16	DF-216 B2
All 4 and 6 Cylinder and V8 GAS Engines	Up to 800	80-375	4.0"	5/8" - 18	Use DF-206 for 5/8" stud
Gas Inboard Rear Mount (Transmission End)	500-1200	80-500+	4.0"	3/4" - 16	RM-1060
Caterpillar Diesel Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
3116/3126/C7/C9	1500-2400	205-500	5.0"	1" - 14	DF-9106
3208/3304B	1700-2200	85 up to 340	5.0"	3/4" - 16	DF-238-M1
3208	1700-2600	>340	5.0"	1" - 14	DF-4408-4
3308C/3406E/3176B/3306C	1600-3800	500-820	5.0" 9.0"	1" - 14 1" - 14 @ 2	DF-4407-4 Light end DF-4428-4 Heavy end
Chris-Craft Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
181-F	650	130	4.0"	5/8" - 18	DF-2207-2
305-F/350K/350KBM	500-1200 Up to 800	250-330	4.0"	3/4" - 16 5/8" - 18	DF-216 Use DF-206 for 5/8" stud
All 454 engines	1200	330-425	4.0"	3/4" - 16	DF-216
Cummins Diesel Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
4BT/6BT	900-1600	80-370	5.0"	3/4" - 16	DF-477-M3
6C/420 Diamond	1800-2300	150-450	5.0"	1" - 14	DF-9106
V-504/555-M	1800-2200	200-250	5.0"	3/4" - 16	DF-238-M1
VT-555-M	2200-2500	270	5.0"	1" - 14	DF-4407-4
V-903-M	2800	305-360	5.0"	1" - 14	DF-4408-4
NTA855, QSM 11 Engines	2800-4200	215-635	5.0" 9.0"	1" - 14 1" - 14 @ 2	DF-4408-4 Light end DF-4428-4 Heavy end
Detroit Diesel Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
6.2/4-53/8.2/6V53/6V53T/471N	700-2400	130-420	5.0"	3/4" - 16	DF-238-M1
471TI/6-71/6-71TI/6V71/6V71TA, 8V71/8V71TI	2200-2800	250-550	5.0"	1" - 14	DF-4408-4
6V92/6V92TA/8V92/8V92TA	3500-4200	650-720	5.0" 9.0"	1" - 14 1" - 14 @ 2	DF-4408-4 Light end DF-4428-4 Heavy end
Duetz Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
F1L208/F1L210/F1L511/F2L511	190-425	13028	4.0"	5/8" - 18	DF-2205-2
F2L912/F3L912/F4L912/F5L912					
F6L912/BF6L913	600-1200 Up to 800	36-200	4.0"	3/4" - 16 5/8" - 18	DF-216 Use DF-206 for 5/8" stud
V-6 & V-8 Engines	1250-2800	210-500	5.0"	1" - 14	DF-4408-4
V-6 & V-8 Engines	3400-4200	520-600	5.0" 9.0"	1" - 14 1" - 14 @ 2	DF-4408-4 Light end DF-4428-4 Heavy end
Ford Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
LSG/CSG/WSG (Gas engines)	200-480	120-245	4.0"	5/8" - 18	DF-206
YSD-424/YSD-635/SSD437/ DSD-442 (Gas engines)	500-800	250-325	4.0"	3/4" - 16	DF-216
SSD655N/655T/DSD659/ DSD659/660/662 (Gas engines)	950-1500	300-480	5.0"	3/4" - 16	DF-236-M1
DSD-681N/T (Gas engines)	1500-1600	500	5.0"	3/4" - 16	DF-237-M1
Lehman & Merlin Diesel	2800	300-475	5.0"	1" - 14	DF-4408-4
Ford Gas Generators, VSG411/413/ LSG423	200-450	20-75	4.0"	5/8" - 18	DF-2205-2
LSG875/CSG649	470-725	80-200	4.0"	5/8" - 18	DF-2207-2
Ford Diesel Engines & Gen, ESD442 Marine	290	80-100	4.0"	5/8" - 18	DF-2205-2
All other ESD/BSD Series Engines	800-1400	150-300	5.0"	3/4" - 16	DF-236-M1
Isuzu Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
QD27	400-500	14-28	4.0"	5/8" - 18	DF-2207-2
QD40/60	500-750	40-60	4.5"	3/4" - 16	DF-3304-3
QSD 130/145	1100-1400	130-145	4.5"	3/4" - 16	DF-3306-3
Iveco Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
8041SRM15/8061M05	900-1500	140-150	5.0"	3/4" - 16	DF-236-M1

8061SM05/06/8061SRM 05 & 06 & 27	1160-1800	190-270	5.0"	3/4" - 16	DF-237-M1
8361SRM10 & 37	1500-1800	285-420	5.0"	1" - 14	DF-4407-4
8281SRM70	3700-4200	500-700	5.0"	1" - 14	DF-4408- 4 Light end
			9.0"	1" - 14 @ 2	DF-4428-4 Heavy end

**BUSHINGS INC.****Engine Model / Mount Cross Reference / 4 Point Mountings**

John Deere Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
3.9 Liter & 4.5 Liter	1000-1200	70-150	5.0"	3/4" - 16	DF-236-M1
6.8 Liter	1500-1800	155-320	5.0"	3/4" - 16	DF-237-M1
7.6 & 8.1 Liter	1800-2200	240-450	5.0"	3/4" - 16	DF-238-M1
9.0 Liter	2350	325-500	5.0"	1" - 14	DF-9106
12.5Liter	2500-2800	240-450	5.0"	1" - 14	DF-4408
Peninsular Diesel Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
All Models	500-2000	110-450	5.0"	3/4" - 16	DF-238-M1
Perkins Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
M20/M30	240-300	17-50	4.0"	5/8" - 18	DF-2205-2
M35 - M90NA	450-650	33.5-80	4.0"	5/8" - 18	DF-2207-2
4-108M/4-154M	465-700	50-60	4.0"	5/8" - 18	DF-2207-2
M135/165T/200TI/240TI/275TI, 4-236M	840-1500	85-250	5.0"	3/4" - 16	DF-236-M1
T6-3544M/ST6-3544M, SSTT6-3544M	1250-2100	135-200	5.0"	1" - 14	DF-4406-4
TV8-540M	2200-2500	350	5.0"	1" - 14	DF-4407-4
Renault Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
RC8D/11D/12D/16D	180-450	0-20	4.0"	5/8" - 18	DF-2205-2
RC30D	500-700	30-50	4.0"	5/8" - 18	DF-2207-2
RC55D/80D/90D/RC130DTS& 140	750-1400	55-160	5.0"	3/4" - 16	DF-236-M1
Universal Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
Model 12, 18, 20, 25, 25XP, 30	175-450	0-35	4.0"	5/8" - 18	DF-2205-2
Model 40, 50	490 - 700	40-50	4.0"	5/8" - 18	DF -2207-2
M3-20/M4-30	235-450	18-25	4.0"	5/8" - 18	DF-2205-2
5444/M4-44&50	480-550	45-60	4.0"	5/8" - 18	DF-206
ATOMIC 1	130	10	4.0"	5/8" - 18	DF-2204-2
ATOMIC 2/ ATOMIC 4 / STEVEDORE, 5411, 5416, 5424)	175-335	0-30	4.0"	5/8" - 18	DF-2205-2
ATOMIC Model 5432	490	30-40	4.0"	5/8" - 18	DF-2207-2
Volvo Diesel Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
MD5A/6B/7A	245-385	7.5-13	4.0"	5/8" - 18	DF-2205-2
MD11C/17C/MD17C-110S/MD21A	500-750	23-61	4.0"	5/8" - 18	DF-2207-2
TMD31/TAMD31/MD32A	740-900	62-150	4.5"	3/4" - 16	DF-3304-3
TMD40A/TMD40A/TMD41/TAMD41	1000-1100	117-200	4.5"	3/4" - 16	DF-3306-3
TAMD60A/61/MD70B/TAMD70B/C	1800-2200	150-310	5.0"	3/4" - 16	DF-238-M1
TAMD42/THAMD70C/TAMD71/MD70E	2000-2400	200-430	5.0"	1" - 14	DF-4407-4
TMD120A/TAMD120A/TAMD122	2200-4200	260-450	5.0"	1" - 14	DF-4408-4 Light end
			9.0"	1" - 14 @ 2	DF-4428-4 Heavy end
Westerbeke	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
W-10, W13, W18,W21,W21A,W27	200-450	0-27	4.0"	5/8" - 18	DF-2205-2
W33, W46, W52, W58, W70	500 - 750	33-70	4.0"	5/8" - 18	DF-2207-2
W80, W100, W120	800 - 1400	80-120	5.0"	3/4" - 16	DF-236-M1
Yanmar Engines	Weight lbs	Hp Range	Hole Centers	Stud Size	Suggested Part No. *
GM Series	100-320	9-28	4.0"	5/8" - 18	DF-2205-2
3JH Series	390-425	35-50	4.0"	5/8" - 18	DF-2205-2
4JH Series	490-550	50-100	4.0"	5/8" - 18	DF-2207-2
4LH Series	750-900	110-170	4.5"	3/4" - 16	DF-3304-3
6LP Series	700-900	260-315	4.0"	3/4" - 16	RM-1060
6LYA-CX Series	1300-1500	315-465	5.0"	1" - 14	DF-9106
6CX- GTE2 Series	1800-2400	490-500	5.0"	1" - 14	DF-9106

Note 1: DF2200 Series Mounts available as DF2200 - 2 (with 5/8" stud) or DF-2200-1 (with 1/2" stud)

Note 2: Use DF-3300 Series Mounts for 4 1/2" hole centers (with 3/4" stud)

Note 3: Use DF-100 Mount for 1 7/8" minimum clearance

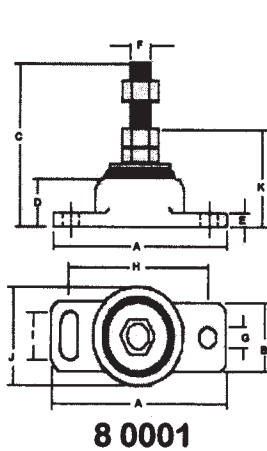
Note 4: DF-242 Series - Twin stud/double mount with 3/4" stud

\*Suggested Mounts are based on actual applications - make sure to compare the listed mount weight capacities against your actual combined engine, gear, and other engine mounted accessory weights.

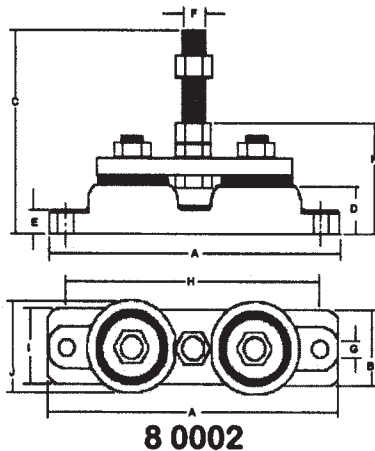
Do not exceed listed four (4) point mounting capacities.



## Rubber Engine Mounts



8 0001



8 0002

Part No.  
8-0001

### Description

Rubber engine mount; single. Adjustable both vertically and horizontally to facilitate engine propeller shaft alignment. Each mount has a capacity of 350 lbs. The rubber cushions are locked to the base and are oil and fuel resistant.

8-0002

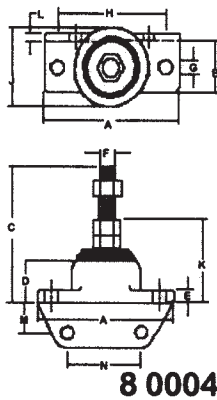
Rubber engine mount; double. Increased capacity for Diesel and extra heavy duty applications. The rubber cushions are locked to the base, not vulcanized and can be replaced. This mount is vertically adjustable to facilitate engine alignment. Each mount has a capacity of 350 lbs.

8-0004

Rubber engine mount; single. This mount retains all of the fine features of the 8-0001 augmented by an additional tie down area to bolt to the stringer pads. Each mount has a capacity of 350 lbs.

8-0006

Rubber engine mount; single. Adjustable both vertically and horizontally to facilitate engine propeller shaft alignment. Each mount has a capacity of 350 lbs. The rubber cushions are locked to the base and are oil and fuel resistant.



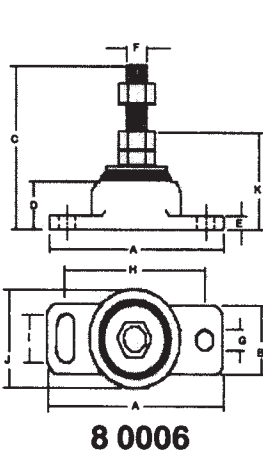
8 0004

8-0007

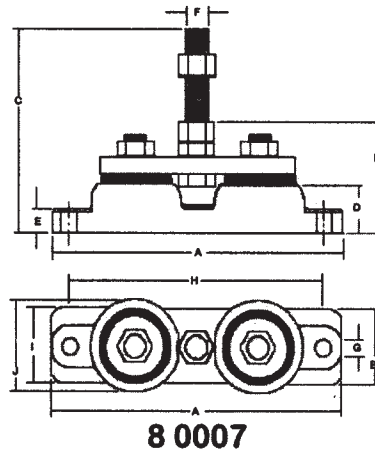
Rubber engine mount; double. Increased capacity for Diesel and extra heavy duty applications. The rubber cushions are locked to the base, not vulcanized and can be replaced. This mount is vertically adjustable to facilitate engine alignment. Each mount has a capacity of 550 lbs.

8-0008

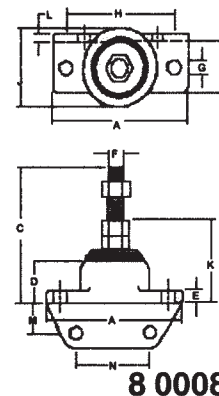
Rubber engine mount; single. This mount retains all of the fine features of the 8-0006 augmented by an additional tie down area to bolt to the stringer pads. Each mount has a capacity of 350 lbs.



8 0006



8 0007



8 0008

### Specifications For Rubber Engine Mounts

Part #	A	B	C	D	E	F Bolt Size & Thread	G Hold Down Bolt Size	H	I	J	K	L	M	N	O	Max Rated Load Per Mount in Lbs.	Deflection at Avg. Rated Load in Ins.	Packaged Weight in Lbs.
8-0001	5	1 3/4	4 1/2	1 5/16	5/8	5/8 - 18UNF	7/16	4	1 3/16	2 1/2	2 11/16	N/A	N/A	N/A	N/A	350	0.060	3
8-0002	8 1/4	2	5 5/8	1 5/16	5/8	5/8 - 18UNF	7/16	7 1/4	N/A	2 1/2	3 1/8	N/A	N/A	N/A	N/A	550	0.060	5
8-0004	5	1 3/4	4 1/2	1 5/16	5/8	5/8 - 18UNF	7/16	4	N/A	2 3/4	2 11/16	1/4	1	2 3/4	1 1/2	350	0.060	3.5
8-0006	5	1 3/4	4 1/2	1 5/16	5/8	3/4 - 16UNF	7/16	4	1 3/16	2 1/2	2 11/16	N/A	N/A	N/A	N/A	350	0.060	3
8-0007	8 1/4	2	5 5/8	1 5/16	5/8	3/4 - 16UNF	7/16	7 1/4	N/A	2 1/2	N/A	N/A	N/A	N/A	N/A	550	0.060	5
8-0008	5	1 3/4	4 1/2	1 5/16	5/8	3/4 - 16UNF	7/16	4	N/A	2 3/4	2 11/16	1/4	1	2 3/4	1 1/2	350	0.060	3

When ordering please place **"BARR"** in front of part number





**M55 Series**  
Replacement mount for  
Mercruiser, 4 cyl diesel  
Volvo, Yanmar

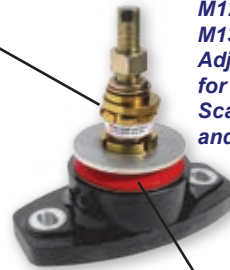


**MDC-30 Series**  
Replacement  
mount for Yanmar



**M75 - M85 Series**  
Replacement mounts  
for Volvo, Cummins,  
John Deere, Perkins,  
Mercruiser, Steyr &  
others

Adjusters increase  
stud strength 3x  
by providing a  
compression fit



**M125, M127, M130 Series,  
M136 (Shown M127 with AST  
Adjuster)** Replacement mount  
for Volvo IPS, Cummins,  
Scania, MAN, FTP, CAT  
and others



**MD100 and MD125**  
(shown MD125XHD)



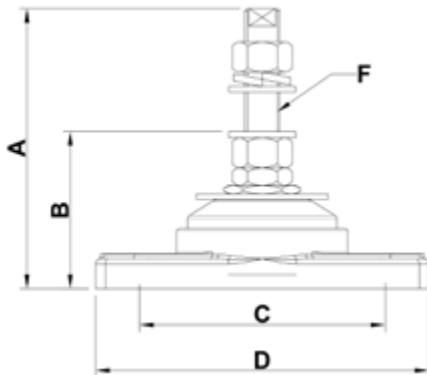
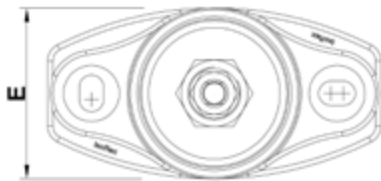
High tensile  
adjusting stud



**M90 Series (M90 with  
ANS Adjuster)**  
Replacement mount  
for Cummins, CAT,  
John Deere

Corrosion proof  
polymer base

Corrosion proof  
polymer core with  
patented thrust  
block



- Superior resistance to oil, fuel, water, hydraulic fluids and climatic conditions.
- Fail-safe design = Isoflex mounts can hold the weight of the engine even in knock-down or total inversion.
- At least 85% vibration at worst case engine idle scenario (4 cyl and above).
- Rated for 6G in all directions, Mil spec mounts 10G.
- Self-aligning swivel adjusters allow up to 4 degrees of bracket to bearer misalignment to reduce point loading.,
- Various durometer selections for optimum vibration dampening and longevity.
- Sizing range allows replacement of most engine mounts used by major manufacturers.
- In-house engineering available to assist with selection and sizing.
- DNV Type approved.

Part No.	A	B	C	D	E	F	F	Weight Range
	in	in	in	in	in	Stud size mm Coarse	Approx. Imperial equivalent	lb per mount
ISO MDC30-16S.....	6.1	4.05	6.85	8.66	2.91	M16	5/8	55-220
ISO M55-16S.....	6.1	4.05	6.85	8.66	2.91	M16	5/8	55-220
ISO M75-20S.....	6.26	3.35	5	6.97	3.86	M20	3/4	165-660
ISO M85-16S.....	5.51	3.31	5.5	7.48	3.86	M16	5/8	165-660
ISO M90-20S.....	6.81	4.09	5	6.89	4.02	M20	3/4	165-770
ISO M90-24S.....	7.72	4.25	5	6.89	4.02	M24	1	165-770
ISO M110-24S.....	8.43	5.04	6.7	8.66	4.21	M24	1	165-770
ISO M130HD-20S.....	6.81	4.09	7.125	9.45	5	M20	3/4	550-1650
ISO M130HD-24S.....	7.72	4.33	7.125	9.45	5	M24	1	550-1650
ISO M127HD-20S.....	8.43	5.04	7.125	9.45	5	M20	3/4	550-1650
ISO M127HD-24S.....	8.63	5.28	7.125	9.45	5	M24	1	550-1650
ISO M130XHD-24S.....	7.72	4.33	7.125	9.45	5	M24	1	1100-2640



**Solid  
Coupling**



**Split Shaft  
Coupling**



The part numbers listed are only a prefix. The complete part number will need a suffix number below. Example 50MC005 + shaft size of 1-1/4". The complete number would be 50MC005125

### Borg Warner /Velvet Drive

### Hurth /ZF

Part No.	Solid Coupling	Shaft Dia.
BUC 50MC004100	4"	1"
BUC 50MC004112	4"	1-1/8"
BUC 50MC004125	4"	1-1/4"
BUC 50MC004137	4"	1-3/8"
BUC 50MC004150	4"	1-1/2"
BUC 50MC005100	5"	1"
BUC 50MC005112	5"	1-1/8"
BUC 50MC005125	5"	1-1/4"
BUC 50MC005137	5"	1-3/8"
BUC 50MC005150	5"	1-1/2"

Part No.	Split Shaft Coupling	Shaft Dia.
BUC 50500A1250	5"	1-1/4"

Shaft Dia.	Part No. Suffix	Shaft Dia.	Part No. Suffix
3/4"	075	2-1/4"	225
7/8"	087	2-1/2"	250
1"	100	2-3/4"	275
1-1/8"	112	3"	300
1-1/4"	125	3-1/4"	325
1-3/8"	137	3-1/2"	350
1-1/2"	150	3-3/4"	375
1-3/4"	175	4"	400
2"	200		

### Keyway Sizes

Shaft Dia.	Key Size	Shaft Dia.	Key Size
3/4"	3/16"	2-1/4"	9/16"
7/8" - 1-1/8"	1/4"	2-1/2" - 2-3/4"	5/8"
1-1/4" - 1-3/8"	5/16"	3" - 3-1/4"	3/4"
1-1/2"	3/8"	3-1/2" - 3-3/4"	7/8"
1-3/4"	7/16"	4"	1"
2"	1/2"		

Cast from ductile iron and machined to SAE J755 specifications. Most of our couplers are machined with our universal bolt hole pattern. All couplers are supplied with mounting hardware.

## Transmission Couplings Specifications

Flange Dia.	Transmission	Model No.	Pilot M/F	# of Bolts	Bolts Dia	Bolts Circle	Part No. Solid	Split
4"	Hurth	HBW5, 10, 20, 50, 100, 125, 125H, 150, 150A, 150V, 220, 250, HSW450D, 250H, 250A	2 1/2"/M	4	3/8"	3 1/4"	50MC004	
4"	Borg Warner	70C, 1017, 1023, 2301	2 1/2"/M	4	3/8"	3 1/4"	50MC004	
4"	Newage	PRM Delta	2 1/2"/M	4	3/8"	3 1/4"	50MC004	
4"	ZF	ZF5M, 10M, 12M, 12, 15M, 15MA, 15MIV, 25M, 25MA, 30M, 45C, 25, 25A, 451V	2 1/2"/M	4	3/8"	3 1/4"	50MC004	
5"	Borg Warner	72C, 1017, 1018, 1004, 1005, 1013, 1014, 2001	2 1/2"/F	4	7/16"	4 1/4"	50MC005	50500A
5"	Hurth	HS25A, HS45A, HS63IV, HSW630A, 630H 630V, 880D, 450A2, 630D, 630A1, 630H1, 630V1, 90ATS, 90TS, 90VTS, 110TS, HBW630, 630A, 400, 450, 600, 630	2 1/2"/M	4	7/16"	4 1/4"	50MC005	50500A
5"	Newage	PRM 210/160	2 1/2"/M	4	7/16"	4 1/4"	50MC005	50500A
5"	Twin Disc	5010A, 5011A	2 1/2"/M	8	7/16"	4 1/4"		
5"	Volvo	MS, MS3, MS4A, MV2	2 1/2"/M	4	7/16"	4 1/4"	50MC005	50500A
5"	ZF	ZF88C, 45A, 63A, 63IV, 90ATS, 90TS 110TS, IRM41A2, 50A2, 50V2, 50V3, 501, 50A2/K3, 50V2/3LD	2 1/2"/M	4	7/16"	4 1/4"	50MC005	50500A

### Flange Puller - Coupler Removal Tool

Cast gray iron -  
Complete w/ 3/4" bolt Fits most 4" 8 5"  
couplers with a 4 bolt pattern.

Part No.	Flange Dia.	Weight
BUC 50MCP00500	5"	2.75



### Coupler Flange Bolt Sets

Standard Set includes bolts,  
nuts, & lock washers



Part No.	Bolt Size	Pkg
BUC BOLTSET375	3/8"-24 x 1-1/2"	4
BUC BOLTSET437	7/16"-20 x 1-1/2"	4
BUC BOLTSET432	7/16"-20 x 2-3/4"	4
BUC BOLTSET500	1/2"-20 x 2"	6
BUC BOLTSET625	5/8"-18" x 1-1/2"	6
BUC BOLTSET626	5/8"-18 x 2"	6



### Bronze Rudder Bearing Oval Flanges



Part No.	Flange Size	Description
BUC 00RBOF125	1 1/4"	Rudder Bearing
BUC 00RBOF138	1 3/8"	Rudder Bearing
BUC 00RBOF150	1 1/2"	Rudder Bearing

### Bronze Rudder Bearing Flanges



Part No.	Flange Size	Description
BUC 00RBF100	1"	Rudder Bearing
BUC 00RBF113	1 1/8"	Rudder Bearing
BUC 00RBF125	1 1/4"	Rudder Bearing
BUC 00RBF138	1 3/8"	Rudder Bearing
BUC 00RBF150	1 1/2"	Rudder Bearing

### Bronze Tiller Arms



Part No.	Shaft Size	Keyway Size	O/A Length
BUC 10TA10X700	1"	1/4"	9 1/4"
BUC 10TA11X700	1 1/8"	1/4"	9 1/4"
BUC 10TA12X700	1 1/4"	1/4"	9 1/4"
BUC 10TA12X130	1 1/4"	1/4"	13"
BUC 10TA12X900	1 1/4"	1/4"	11 1/2"
BUC 10TA13X130	1 3/8"	1/4"	15 1/2"
BUC 10TA13X700	1 3/8"	1/4"	9 1/4"

### Rudder Ports



Part No.	Length	Shaft Size
BUC 00RP100	4"	1"
BUC 00RP113	4"	1 1/8"
BUC 00RP125	4"	1 1/4"
BUC 00RP138	7"	1 3/8"
BUC 00CL150	7"	1 1/2"
BUC 00CL175	7 1/8"	1 3/4"

### Swivel Sockets

Use with ball type steering tiller arms



Part No.	Pipe Size	Description
BUC 00SW50	1/2"	Socket
BUC 00SW75	3/4"	Socket
BUC 70THDBALL	1" Ball	S/S Ball

### Bronze Collars



Part No.	Shaft Size	Description
BUC 00RC100	1"	Rudder Collar
BUC 00RC113	1 1/8"	Rudder Collar
BUC 00RC125	1 1/4"	Rudder Collar
BUC 00RC150	1 1/2"	Rudder Collar
BUC 00RC200	2"	Rudder Collar

### Bronze Clevises



Part No.	Length	Jaw Size
BUC 00CL50LT	3 3/8"	9/16"
BUC 00CL50	3 1/2"	3/4"
BUC 00CL75	4 1/4"	1/2"
BUC 00CL75E	4 1/4"	5/8"
BUC 00CL100	4 1/4"	7/8"

### Self Aligning Packing Boxes



Part No.	Bolt Length	Shaft Size
BUC 00PB200G	3 3/4"	2"
BUC 00PB200GH	5 1/2"	2"

### Bronze Angled Shaft Logs



Part No.	Shaft Size	Angle	O/A Length
BUC 00SL100	1"	13	19 1/4"
BUC 00SL150	1 1/2"	12	30"
BUC 00SL175	1 3/4"	9	41"



Hex Spud

Hex Nut

Body w/Hose Section

All packing boxes come with stainless steel clamps.

### Complete Packing Boxes

Part No.	Shaft Size	Hose I.D.
BUC 00PB100	1"	1-3/4"
BUC 00PB113	1 1/8"	1-3/4"
BUC 00PB125	1 1/4"	2-1/4"
BUC 00PB138	1 3/8"	2-1/2"
BUC 00PB150	1 1/2"	2-1/2"
BUC 00PB175	1 3/4"	3"
BUC 00PB200	2"	3"

### Hex Spud

Part No.
BUC 00100PBS
BUC 00113PBS
BUC 00125PBS
BUC 00138PBS
BUC 00150PBS
BUC 00175PBS
BUC 00200PBS

### Hex Nut

Part No.
BUC 00100PBN
BUC 00113PBN
BUC 00125PBN
BUC 00138PBN
BUC 00150PBN
BUC 00175PBN
BUC 00200PBN

### Hose Sections

Part No.	Hose I.D.	Hose O.D.	Length
BUC 80HO175	1 3/4"	2 3/8"	4 1/2"
BUC 80HO200	2"	2 3/4"	4"
BUC 80HO225	2 1/4"	3"	4 1/2"
BUC 80HO2375	2 3/8"	3 1/4"	5"
BUC 80HO250	2 1/2"	3 1/4"	5"
BUC 80HO275	2 3/4"	3 5/8"	5"
BUC 80HO300	3"	3 1/2"	5 1/2"





Model 1058



Model 7256PR  
Plus Rated

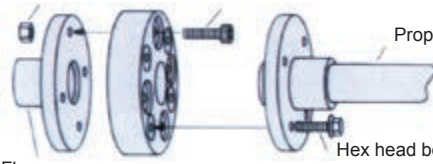


Model 404



Use hex nut and washer if  
engine flange not tapped

Round socket head bolts though  
recessed inserts in DRIVESAVER  
to reverse gear flange



Reverse Gear Flange

Propeller shaft  
Hex head bolt & washer to  
threaded insert in disc drive

Allison	Order No.
M, M15L, M2OL	DRI 7256
MH	DRI 908
HYH/HP7700 (9.00)	DRI 908A
<b>Capitol</b>	
2HD-200, 5HD-200	DRI 4756
HE10200, HE10250	DRI 5756T
HE10700, HE10750	DRI 7256
HE11200, HE12400	DRI 5756T
HE11700	DRI 7256
HP500, HP9600	DRI 7256
HY400, HY6900	DRI 7256
HY22000, HY24000	DRI 7256
HY25000, HY28000	DRI 7256
M-105, M-125	DRI 5756
<b>Crusader</b>	
4500 Series	DRI 404A

Twin Disc	Reduction Ratio	
MG502,	502-1	DRI 4756
MG506,	506-1, 506A, 1.1, 1.5, 2, 2.5, 3	DRI 5756
MG506,	506-1, 506A 4.0, 4.5	DRI 7256
MG507-1,	507-2, 507A 1.1, 1.5, 2	DRI 5756
MG507A-1	1.1, 1.5, 2	DRI 5756
MG507-1,	507A 2.5, 3	DRI 7256
MG509	1.5, 2, 3	DRI 7256
MG510,	510A 1.5, 2, 2.5, 3	DRI 908
MG509,	510, 4.5, 5.1	DRI 1058
MG516		DRI 1108
MG5050,	5050A, 5050V	DRI 5756
MG5050,	5051A	DRI 5756T
MG5061,	5061A & V 1.1, 1.5, 2, 2.5, 3	DRI 5756
MG5091SC		DRI 7256
MG5101DC4,	4.5, 5.1	DRI 1058
MG5111DC,	5114CHP 4, 4.5, 5.1	DRI 1058
MG5111	(9" FLANGE)	DRI 908
MG5111	(10-1/2" FLANGE)	DRI 1058
MG5111SC	1.5, 2, 2.5, 3	DRI 908
MG5114A		DRI 9085

Warner	
1004, 1005, 1013, 1014	DRI 504
1017, 1018, 2001, 2002	DRI 504
72C	DRI 504
1006, 1026, 73C	DRI 5756
1017, 1023, 70C, 71C	DRI 404A

Yanmar	
20M, 20H/G, GM SERIES	DRI 424Y
KBW10, KM2 SERIES	DRI 424Y
KM3A SERIES, YP-7M	DRI 424Y
30M, 30H/G, KH18, KM4A	DRI 524Y
YP-10M	DRI 524Y
HMH6A	DRI 5756

ZF/Hurth	
ZF6, ZF10M, ZF12, ZF12M	DRI 404A
ZF15M, ZF15MA, ZF25, ZF25A	DRI 404A
ZF25M, ZF25MA	DRI 404A
ZF45A, ZF45C, ZF45IV	DRI 404A
ZF63, ZF63A, ZF63C, ZF63IV	DRI 504
ZF80A, ZF80IV, ZF85A, ZF85IV	DRI 5756A or T
ZF220, ZF220A, ZF220IV	DRI 5756A or T
ZF280-1A, ZF280IV	DRI 5756A or T
ZF301A, ZF301C	DRI 5756T
ZF302IV, ZF311A	DRI 7258Z

Volvo	
MB10A, MD7A, MD11C	DRI 404V
MD38, MS2B, 2000 SERIES	DRI 404V
MS3, MS4A	DRI 504

## DRIVESAVER SPECIFICATIONS

Part No.	Flange Dia	Number Bolts	Bolt Dia	Bolt Circle	Pilot Dia	Coupling Dia	Coupling Thickness	Torque Rating
DRI 303	3"	3	.375"	2.5"	1.75"	4"	.6875"	225
DRI 353	3.5"	3	.375"	2.75"	1.875"	4.3125"	.6875"	250
DRI 404	4"	4	.375"	3.25"	2"	5"	1"	550
DRI 404A	4"	4	.375"	3.25"	2.5"	5"	1"	550
DRI 404AC	4"	4	.375"	3.25"	2.625"	5"	1"	550
DRI 404S	4"	4	10 mm	90 mm	60 mm	5.25"	1"	550
DRI 404V	4"	4	10 mm	80 mm	60 mm	5"	1"	550
DRI 424Y	100 mm	4	10 mm	78 mm	50 mm	4.25"	1"	675
DRI 454	4.5"	4	.375"	3.75"	2.625"	5.375"	1"	675
DRI 4756	4.75"	6	.4375"	3.875"	2.5"	5.375"	1"	675
DRI 4756A	4.75"	6	.6"	3.875"	2.5"	4.875"	1"	675
DRI 504	5"	4	.4375"	4.25"	2.5"	6"	1"	675
DRI 504A	5"	4	.375"	4.125"	2.75"	6"	1"	675
DRI 504AC	5"	4	.4375"	4.125"	2.875"	6"	1"	675
DRI 504H	5"	4	.4375"	4.25"	2.5"	5.125"	1"	675
DRI 524Y	120 mm	4	10 mm	100 mm	65	5.25"	1"	675
DRI 554	5.5"	4	.375"	4.625"	3.125"	6.5"	1"	720
DRI 5756	5.75"	6	.5"	4.75"	3"	6.8125"	1.25"	1800
DRI 5756A	5.75"	6	.5"	4.75"	3"	6.375"	1.25"	1800
DRI 5756AZF	5.75"	6	.5"	4.75"	3"	6.375"	1.25"	1800
DRI 5756T	5"	6	.5"	4.75"	3"	6.125"	1.125"	1800
DRI 6256	6.25"	6	.4375"	5.375"	3.25"	7.25"	1.0625"	1900
DRI 7256	7.25"	6	.625"	6"	3.75"	8.375"	1.1875"	3200
DRI 7258Z	7.25"	8	.625"	6"	3.75"	7.25"	1.25"	2200
DRI 7306Z	7.25"	6	.625"	6"	3.75"	7.25"	1.1875"	2200
DRI 8010Z	205 mm	10	14 mm	170 mm	140 mm	8.3125	1.5"	3300
DRI 8078Z	225 mm	8	.625"	6.875"	5.5"	8.0625"	1.75"	3300
DRI 8858Z	225 mm	8	14 mm	196 mm	140 mm	9.15"	1.5"	3500
DRI 908	9"	8	.625"	7.5"	6"	11"	1.375"	3000
DRI 908A	9"	8	.625"	7.75"	5.125"	11"	1.375"	3000
DRI 908AC	190 mm	8	15 mm	155 mm	100 mm	228 mm	1"	3000
DRI 908S	9"	8	.625"	7.5"	6"	9.125"	1.375"	3000
DRI 1058	10.5"	8	.75"	8.75"	5"	12.5"	1.75"	4200
DRI 1108	11"	8	.75"	9.5"	6"	13.25"	1.8125"	4200

Part No.	Flange Dia	Number Bolts	Bolt Dia	Bolt Circle	Pilot Dia	Coupling Dia	Coupling Thickness	Torque Rating	Plus Rated
DRI 4756PR	4.75"	6	.4375"	3.875"	2.5"	5.375"	1"	675	1600 lbs
DRI 504PR	5"	4	.4375"	4.25"	2.5"	6"	1"	675	1600 lbs
DRI 504HPR	5"	4	.4375"	4.25"	2.5"	5.125"	1"	675	1600 lbs
DRI 5756PR	5.75"	6	.5"	4.75"	3"	6.8125"	1.25"	1800	3000 lbs
DRI 5756APR	5.75"	6	.5"	4.75"	3"	6.375"	1.25"	1800	3000 lbs
DRI 7258ZPR	7.25"	8	.625"	6"	3.75"	7.25"	1.25"	2200	3200 lbs
DRI 7306ZPR	7.25"	6	.625"	6"	3.75"	7.25"	1.1875"	2200	3200 lbs
DRI 8078ZPR	225 mm	8	.625"	6.875"	5.5"	8.0625"	1.75"	3300	4800 lbs
DRI 908PR	9"	8	.625"	7.5"	6"	11"	1.375"	3000	4900 lbs
DRI 908APR	9"	8	.625"	7.75"	5.125"	11"	1.375"	3000	4900 lbs
DRI 908ACPR	190 mm	8	15 mm	155 mm	100 mm	228 mm	1"	3000	4900 lbs
DRI 908SPR	9"	8	.625"	7.5"	6"	9.125"	1.375"	3000	4900 lbs

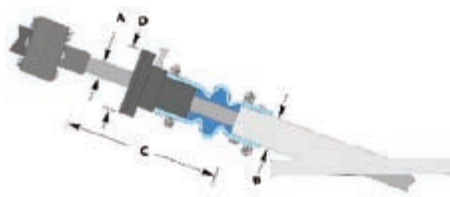
# TIDES MARINE

innovative products for the marine industry

A	Shaft Diameter
B	Stern Tube Diameter
C	Minimum Distance to Stern Tube w/o Spare Seal Carrier. Add 1" for each Spare Seal Carrier
D	Body Diameter

## SureSeal™ Specifications

(dimensions in inches)



More Sizes Available  
Also Metric Sizes



**SINGLE ENGINE  
DESIGN**



**TWIN ENGINE  
DESIGN**

A = SHAFT SIZE	B = HOSE ID	C = MINIMUM DISTANCE	D = PART DIAMETER
----------------	-------------	----------------------	-------------------

The Sure Seal dripless shaft seal system from Tides Marine is the most advanced and effective solution available for the elimination of propeller and rudder shaft leakage issues. Made from fiber-reinforced composite material, the housing is dimensionally unaffected by changes in temperature and will not absorb water. Seal replacements are simple with a removable front cap. With an optional Spare Seal Carrier in place on your shaft, seal changes may be executed without haul out in most applications. Systems are available for single or twin engine installations. Many other sizes in addition to those listed below, included mTREc sizes are now available.

A	B	C	D	KIT NUMBER	A	B	C	D	KIT NUMBER
1"	1-3/4"	6"	3-7/8"	TID FSK-1000-1750-1	1-3/4"	3-1/2"	7"	4-3/8"	TID FSK-1750-3500-1
1"	1-7/8"	6"	3-7/8"	TID FSK-1000-1875-1	1-3/4"	4"	7"	4-3/8"	TID FSK-1750-4000-1
1"	2"	6"	3-7/8"	TID FSK-1000-2000-1	2"	3"	7"	4-7/8"	TID FSK-2000-3000-1
1"	2-1/4"	6"	3-7/8"	TID FSK-1000-2250-1	2"	3-1/4"	7"	4-7/8"	TID FSK-2000-3250-1
1"	2-1/2"	6"	3-7/8"	TID FSK-1000-2500-1	2"	3-1/2"	7"	4-7/8"	TID FSK-2000-3500-1
1-1/4"	2"	7"	4-1/8"	TID FSK-1250-2000-1	2"	4"	7"	4-7/8"	TID FSK-2000-4000-1
1-1/4"	2-1/4"	7"	4-1/8"	TID FSK-1250-2250-1	2"	4-1/2"	7"	4-7/8"	TID FSK-2000-4500-1
1-1/4"	2-3/8"	7"	4-1/8"	TID FSK-1250-2375-1	2-1/4"	3"	7"	4-7/8"	TID FSK-2250-3000-1
1-1/4"	2-1/2"	7"	4-1/8"	TID FSK-1250-2500-1	2-1/4"	3-1/2"	7"	4-7/8"	TID FSK-2250-3500-1
1-1/4"	2-5/8"	7"	4-1/8"	TID FSK-1250-2625-1	2-1/4"	3-3/4"	7"	4-7/8"	TID FSK-2250-3750-1
1-3/8"	2"	7"	4-1/8"	TID FSK-1375-2000-1	2-1/4"	4"	7"	4-7/8"	TID FSK-2250-4000-1
1-3/8"	2-1/4"	7"	4-1/8"	TID FSK-1375-2250-1	2-1/4"	4-1/2"	7"	4-7/8"	TID FSK-2250-4500-1
1-3/8"	2-3/8"	7"	4-1/8"	TID FSK-1375-2375-1	2-1/2"	3-1/2"	7"	5-3/8"	TID FSK-2500-3500-1
1-3/8"	2-1/2"	7"	4-1/8"	TID FSK-1375-2500-1	2-1/2"	4"	7"	5-3/8"	TID FSK-2500-4000-1
1-3/8"	2-5/8"	7"	4-1/8"	TID FSK-1375-2625-1	2-1/2"	4-1/4"	7"	5-3/8"	TID FSK-2500-4250-1
1-1/2"	2-1/4"	7"	4-3/8"	TID FSK-1500-2250-1	2-1/2"	4-1/2"	7"	5-3/8"	TID FSK-2500-4500-1
1-1/2"	2-1/2"	7"	4-3/8"	TID FSK-1500-2500-1	2-1/2"	5"	7"	5-3/8"	TID FSK-2500-5000-1
1-1/2"	2-5/8"	7"	4-3/8"	TID FSK-1500-2625-1	2-3/4"	4"	7"	5-3/8"	TID FSK-2750-4000-1
1-1/2"	3"	7"	4-3/8"	TID FSK-1500-3000-1	2-3/4"	4-1/2"	7"	5-3/8"	TID FSK-2750-4500-1
1-1/2"	3-1/2"	7"	4-3/8"	TID FSK-1500-3500-1	2-3/4"	5"	7"	5-3/8"	TID FSK-2750-5000-1
1-3/4"	2-1/2"	7"	4-3/8"	TID FSK-1750-2500-1	3"	4"	7 3/4"	5-7/8"	TID FSK-3000-4000-1
1-3/4"	2-3/4"	7"	4-3/8"	TID FSK-1750-2750-1	3"	4-1/2"	7 3/4"	5-7/8"	TID FSK-3000-4500-1
1-3/4"	3"	7"	4-3/8"	TID FSK-1750-3000-1	3"	5"	7 3/4"	5-7/8"	TID FSK-3000-5000-1

## High - Performance Marine Shaft Packing

**EASY TO INSTALL** No grease, no mess. Just cut the rings to length and install them in the stuffing box. Make maybe one adjustment to the gland follower after a short run-in, and virtually never tinker with the stuffing box again. You'll rarely need to make any adjustments, and it will last for years.

**BILGES STAY DRY** Since GFO fiber packing is four times more thermally conductive than flax, it needs virtually no sea water for lubrication or cooling and because it doesn't swell or shrink, leakage is controlled and kept to an absolute minimum. In fact, you'll notice that your bilge is dry and cleaner, because this remarkable packing hardly ever drips. It's so conformable and flexible that it will solve most perpetual problem leakers, too.

### Packages

Part No.	Size
GFO 1/8X24	1/8" x 24"
GFO 3/16X24	3/16" x 24"
GFO 1/4X24	1/4" x 24"
GFO 5/16X24	5/16" x 24"
GFO 3/8X24	3/8" x 24"
GFO 1/2X30	1/2" x 30"
GFO 5/8X30	5/8" x 30"
GFO 9/16X30	9/16" x 30"



The proper packing size is determined by measuring the distance between "A" (I.D. of stuffing box) & "B" (O.D. of shaft)



### Bulk Rolls

#### 1 Pound Rolls

Part No.	Size x Weight
GFO 1/8X1LB	1/8" x 1 Pound
GFO 3/16X1LB	3/16" x 1 Pound
GFO 1/4X1LB	1/4" x 1 Pound
GFO 5/16X1LB	5/16" x 1 Pound
GFO 3/8X1LB	3/8" x 1 Pound
GFO 7/16X1LB	7/16" x 1 Pound
GFO 1/2X1LB	1/2" x 1 Pound

#### 5 Pound Rolls

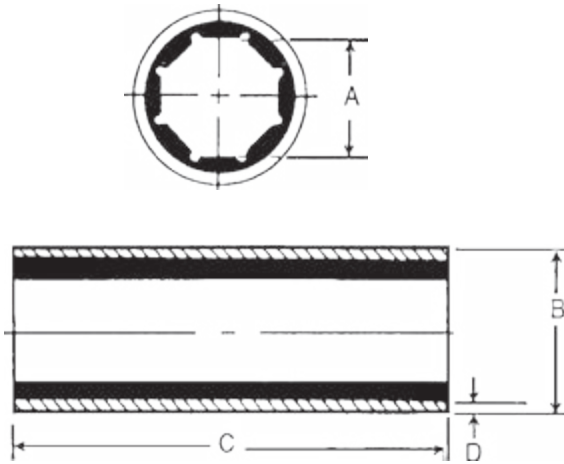
Part No.	Size x Weight
GFO 1/8X5LB	1/8" x 5 Pounds
GFO 3/16X5LB	3/16" x 5 Pounds
GFO 1/4X5LB	1/4" x 5 Pounds
GFO 5/16X5LB	5/16" x 5 Pounds
GFO 3/8X5LB	3/8" x 5 Pounds
GFO 7/16X5LB	7/16" x 5 Pounds
GFO 1/2X5LB	1/2" x 5 Pounds
GFO 9/16X5LB	9/16" x 5 Pounds
GFO 5/8X5LB	5/8" x 5 Pounds

#### 10 Pound Rolls

Part No.	Size x Weight
GFO 1/8X10LB	1/8" x 10 Pounds
GFO 3/16X10LB	3/16" x 10 Pounds
GFO 1/4X10LB	1/4" x 10 Pounds
GFO 5/16X10LB	5/16" x 10 Pounds
GFO 3/8X10LB	3/8" x 10 Pounds
GFO 7/16X10LB	7/16" x 10 Pounds
GFO 1/2X10LB	1/2" x 10 Pounds
GFO 9/16X10LB	9/16" x 10 Pounds
GFO 5/8X10LB	5/8" x 10 Pounds

# MARINE BEARING

## Brass Sleeve Series

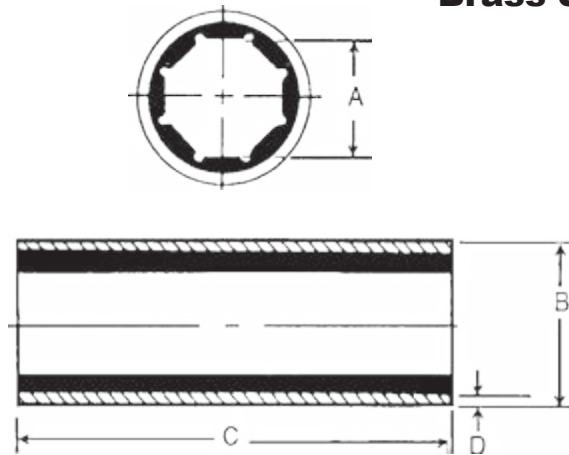


**Morse Rubber**

PART NO.	UNIT WT.	SHAFT DIA (A)	OUTSIDE DIA (B)	LENGTH INCH (C)	METAL WALL (D)
TRE Albacore	0.50	3/4"	1-1/4"	3"	1/8"
TRE Blenny	0.31	7/8"	1-1/4"	3-1/2"	1/16"
TRE Barracuda	0.69	7/8"	1-3/8"	3-1/2"	1/8"
TRE Bass	0.75	7/8"	1-1/2"	3-1/2"	1/8"
TRE Betta	0.13	1"	1-1/4"	3"	1/32"
TRE Blackfish	0.31	1"	1-1/4"	4"	1/32"
TRE Bloater	0.38	1"	1-3/8"	4"	1/16"
TRE Bonito	0.81	1"	1-1/2"	4"	1/8"
TRE Broadbill	0.88	1"	1-5/8"	4"	1/8"
TRE Bullhead	1.25	1"	2"	4"	1/8"
TRE Cama	0.50	1-1/8"	1-1/2"	4-1/2"	1/16"
TRE Caribe	0.47	1"	1-1/4"	6"	1/32"
TRE Carp	1.00	1-1/8"	1-5/8"	4-1/2"	1/8"
TRE Catfish	1.19	1-1/8"	1-3/4"	4-1/2"	1/8"
TRE Chobie	1.38	1-1/8"	2"	4-1/2"	1/8"
TRE Chogset	0.50	1-1/4"	1-1/2"	5"	1/8"
TRE Chub	1.13	1-1/4"	1-3/4"	5"	1/8"
TRE Cod	1.50	1-1/4"	2"	5"	1/8"
TRE Croaker	1.75	1-1/4"	2-1/8"	5"	1/8"
TRE Devilfish	1.44	1-3/8"	1-7/8"	5-1/2"	1/8"
TRE Dogfish	1.69	1-3/8"	2"	5-1/2"	1/8"
TRE Dolphin	1.75	1-3/8"	2-1/8"	5-1/2"	1/8"
TRE Eel	2.13	1-3/8"	2-3/8"	5-1/2"	1/8"
TRE Flamen	1.13	1-1/2"	2"	4-3/8"	1/8"
TRE Flatfish	1.63	1-1/2"	2"	6"	1/8"
TRE Flounder	2.19	1-1/2"	2-3/8"	6"	1/8"
TRE Gar	1.88	1-5/8"	2-1/8"	6-1/2"	1/8"
TRE Grayback	2.75	1-5/8"	2-5/8"	6-1/2"	1/8"
TRE Grouper	2.38	1-3/4"	2-3/8"	7"	1/8"
TRE Haddo	2.81	1-3/4"	2-5/8"	7"	1/8"
TRE Hake	3.00	1-7/8"	2-5/8"	7-1/2"	1/8"
TRE Halibut	3.69	1-7/8"	2-15/16"	7-1/2"	1/8"
TRE Herring	3.06	2"	2-5/8"	8"	1/8"
TRE Kingfish	3.88	2"	3"	8"	1/8"
TRE Lamprey	4.85	2"	3"	10"	1/8"
TRE Mackerel	3.69	2-1/8"	2-15/16"	8-1/2"	1/8"
TRE Manta	4.50	2-1/8"	3-1/8"	8-1/2"	1/8"
TRE Margate	4.90	2-1/4"	3"	9"	1/8"
TRE Marlin	3.94	2-1/4"	2-15/16"	9"	1/8"
TRE Minnow	4.44	2-1/4"	3-1/8"	9"	1/8"

## MARINE BEARING

### Brass Sleeve Series

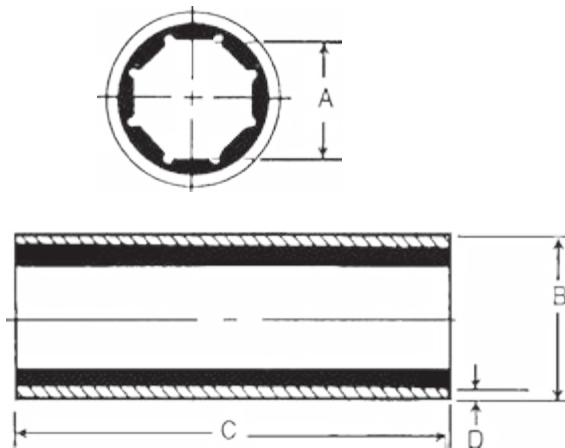


**Morse Rubber**

PART NO.	UNIT WT.	SHAFT DIA (A)	OUTSIDE DIA (B)	LENGTH INCH (C)	METAL WALL (D)
TRE Mudfish	5.44	2-1/4"	3-3/8"	9"	1/8"
TRE Mullet	5.44	2-3/8"	3-3/8"	9-1/2"	1/8"
TRE Musky	4.63	2-1/2"	3-1/8"	10"	1/8"
TRE Perch	5.50	2-1/2"	3-3/8"	10"	1/8"
TRE Pickerel	5.75	2-5/8"	3-3/8"	10-1/2"	1/8"
TRE Picuda	5.63	2-3/4"	3-3/8"	11"	1/8"
TRE Pike	6.47	2-1/2"	3-1/2"	10"	1/8"
TRE Pinfish	6.88	2-3/4"	3-3/4"	11"	1/8"
TRE Porgy	7.13	2-7/8"	3-3/4"	11-1/2"	1/8"
TRE Ray	7.06	3"	3-3/4"	12"	1/8"
TRE Redfin	7.94	3"	4"	12"	1/8"
TRE Redfish	9.25	3-1/8"	4-1/4"	12-1/2"	1/8"
TRE Rockfish	8.13	3-1/4"	4"	13"	1/8"
TRE Sailfish	9.38	3-1/4"	4-1/4"	13"	1/8"
TRE Salmon	10.63	3-3/8"	4-1/2"	13-1/2"	1/8"
TRE Sandfish	9.56	3-1/2"	4-1/4"	14"	1/8"
TRE Sawfish	10.25	3-1/2"	4-1/2"	14"	1/8"
TRE Sculpin	10.81	3-5/8"	4-1/2"	14-1/2"	1/8"
TRE Shad	11.00	3-3/4"	4-1/2"	15"	1/8"
TRE Shark	17.56	3-3/4"	5"	15"	3/16"
TRE Silverfish	18.19	3-3/4"	5-1/4"	15"	3/16"
TRE Smelt	20.00	3-7/8"	5-1/4"	15-1/2"	3/16"
TRE Snapper	18.25	4"	5"	16"	3/16"
TRE Sockeye	19.63	4"	5-1/4"	16"	3/16"
TRE Spearfish	20.06	4-1/8"	5-1/4"	16-1/2"	3/16"
TRE Squit	22.00	4-1/4"	5-1/2"	17"	3/16"
TRE Streaker	24.31	4-3/8"	5-3/4"	17-1/2"	3/16"
TRE Sucker	22.00	4-1/2"	5-1/2"	18"	3/16"
TRE Sunfish	24.63	4-1/2"	5-3/4"	18"	3/16"
TRE Swordfish	34.00	4-5/8"	6-1/8"	18-1/2"	1/4"
TRE Tarpon	34.00	4-3/4"	6-1/8"	19"	1/4"
TRE Trout	33.00	4-7/8"	6-1/8"	19-1/2"	1/4"
TRE Wahoo	35.00	5"	6-1/8"	20"	1/4"
TRE Walleye	39.00	5"	6-1/2"	20"	1/4"
TRE Wandtail	44.00	5-1/4"	6-3/4"	21"	1/4"
TRE Wap	48.00	5-1/4"	7"	21"	1/4"
TRE Warfish	57.00	5-3/8"	6-3/4"	21-1/2"	1/4"
TRE Warsaw	62.00	5-3/8"	7"	21-1/2"	1/4"
TRE Whitefish	59.00	5-1/2"	7"	22"	1/4"
TRE Windfish	44.50	5-5/8"	7"	22-1/2"	1/4"
TRE Yellowtail	48.00	5-3/4"	7"	23"	1/4"
TRE Yowling	52.00	5-7/8"	7-1/2"	24"	1/4"
TRE Zancus	55.00	6"	7-1/2"	24"	1/4"



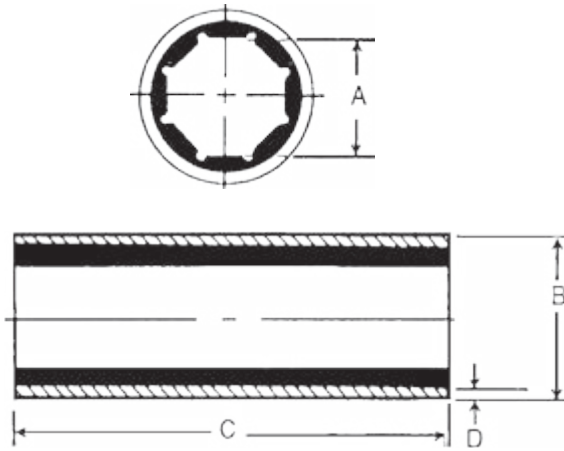
# **MARINE BEARING** **Non-Metallic Series** **Type E F**



**Morse Rubber**

PART NO.	UNIT WT.	SHAFT DIA (A)	OUTSIDE DIA (B)	LENGTH INCH (C)	WALL (D)
TRE Adder	0.13	3/4"	1-1/4"	3"	1/8"
TRE Agii	0.19	7/8"	1-3/8"	3-1/2"	1/8"
TRE Anchovy	0.19	7/8"	1-1/2"	3-1/2"	1/8"
TRE Anableps	0.15	1"	1-1/4"	4"	1/32"
TRE Arrowana	0.17	1"	1-3/8"	4"	1/16"
TRE Angel	0.19	1"	1-1/2"	4"	1/8"
TRE Barbel	0.25	1"	1-5/8"	4"	1/8"
TRE Billfish	0.50	1"	2"	4"	1/8"
TRE Bloodfin	0.40	1-1/8"	1-1/2"	4-1/2"	1/16"
TRE Bluefish	0.25	1-1/8"	1-5/8"	4-1/2"	1/8"
TRE Bone	0.31	1-1/8"	1-3/4"	4-1/2"	1/8"
TRE Bream	0.44	1-1/8"	2"	4-1/2"	1/8"
TRE Brichardi	0.46	1-1/4"	1-1/2"	5"	1/32"
TRE Brill	0.25	1-1/4"	1-3/4"	5"	1/8"
TRE Burbot	0.50	1-1/4"	2"	5"	1/8"
TRE Capelin	0.63	1-1/4"	2-1/8"	5"	1/8"
TRE Chirus	0.44	1-3/8"	1-7/8"	5-1/2"	1/8"
TRE Ciscoes	0.50	1-3/8"	2"	5-1/2"	1/8"
TRE Coal	0.63	1-3/8"	2-1/8"	5-1/2"	1/8"
TRE Coney	0.81	1-3/8"	2-3/8"	5-1/2"	1/8"
TRE Corbina	0.50	1-1/2"	2"	6"	1/8"
TRE Craig	0.50	1-1/2"	2-3/8"	6"	1/8"
TRE Cramp	0.50	1-5/8"	2-1/8"	6-1/2"	1/8"
TRE Didon	1.13	1-5/8"	2-5/8"	6-1/2"	1/8"
TRE Dorade	0.81	1-3/4"	2-3/8"	7"	1/8"
TRE Gerres	1.00	1-3/4"	2-5/8"	7"	1/8"
TRE Gilthead	1.00	1-7/8"	2-5/8"	7-1/2"	1/8"
TRE Globe	1.50	1-7/8"	2-15/16"	7-1/2"	1/8"
TRE Gobie	0.94	2"	2-5/8"	8"	1/8"
TRE Guppy	1.56	2"	3"	8"	1/8"
TRE Haddock	1.31	2-1/8"	2-15/16"	8-1/2"	1/8"
TRE Hayho	1.88	2-1/8"	3-1/8"	8-1/2"	1/8"
TRE Holia	1.38	2-1/4"	2-15/16"	9"	1/8"
TRE Hoopid	1.81	2-1/4"	3-1/8"	9"	1/8"
TRE Horned	2.19	2-1/4"	3-3/8"	9"	1/8"
TRE Jurel	2.13	2-3/8"	3-3/8"	9-1/2"	1/8"
TRE Launce	1.44	2-1/2"	3-1/8"	10"	1/8"
TRE Loach	1.75	2-1/2"	3-3/8"	10"	1/8"
TRE Lump	1.81	2-5/8"	3-3/8"	10-1/2"	1/8"
TRE Midge	1.75	2-3/4"	3-3/8"	11"	1/8"

**MARINE BEARING**  
**Non-Metallic Series**  
**Type E F**



**Morse Rubber**

PART NO.	UNIT WT.	SHAFT DIA (A)	OUTSIDE DIA (B)	LENGTH INCH (C)	WALL (D)
TRE Monda	2.63	2-3/4"	3-3/4"	11"	1/8"
TRE Moray	2.56	2-7/8"	3-3/4"	11-1/2"	1/8"
TRE Numb	2.38	3"	3-3/4"	12"	1/8"
TRE Oarfish	3.00	3"	4"	12"	1/8"
TRE Ox	3.75	3-1/8"	4-1/4"	12-1/2"	1/8"
TRE Ono	2.75	3-1/4"	4"	13"	1/8"
TRE Paddle	3.50	3-1/4"	4-1/4"	13"	1/8"
TRE Pipe	4.13	3-3/8"	4-1/2"	13-1/2"	1/8"
TRE Plaice	3.88	3-1/2"	4-1/4"	14"	1/8"
TRE Pilot	4.00	3-1/2"	4-1/2"	14"	1/8"
TRE Piper	3.50	3-5/8"	4-1/2"	14-1/2"	1/8"
TRE Sprat	3.13	3-3/4"	4-1/2"	15"	1/8"
TRE Saltie	5.81	3-3/4"	5"	15"	3/16"
TRE Sole	7.13	3-3/4"	5-1/4"	15"	3/16"
TRE Sardine	6.38	3-7/8"	5-1/4"	15-1/2"	3/16"
TRE Skate	4.75	4"	5"	16"	3/16"
TRE Skittle	6.38	4"	5-1/4"	16"	3/16"
TRE Star	5.63	4-1/8"	5-1/4"	16-1/2"	3/16"
TRE Sand	7.13	4-1/4"	5-1/2"	17"	3/16"
TRE Spotted	8.81	4-3/8"	5-3/4"	17-1/2"	3/16"
TRE Sting	6.13	4-1/2"	5-1/2"	18"	3/16"
TRE Strugeon	8.13	4-1/2"	5-3/4"	18"	3/16"
TRE Sterlet	10.50	4-5/8"	6-1/8"	18-1/2"	1/4"
TRE Sea	10.00	4-3/4"	6-1/8"	19"	1/4"
TRE Scald	9.31	4-7/8"	6-1/8"	19-1/2"	1/4"
TRE Scarina	8.50	5"	6-1/8"	20"	1/4"
TRE Scomber	12.25	5"	6-1/2"	20"	1/4"
TRE Seacal	13.25	5-1/4"	6-3/4"	21"	1/4"
TRE Shanny	15.75	5-1/4"	7"	21"	1/4"
TRE Skipjack	12.00	5-3/8"	6-3/4"	21-1/2"	1/4"
TRE Scad	14.00	5-3/8"	7"	21-1/2"	1/4"
TRE Tunny	13.50	5-5/8"	7"	22"	1/4"
TRE Skippy	12.63	5-5/8"	7"	22-1/2"	1/4"
TRE Snook	12.25	5-3/4"	7"	23"	1/4"
TRE Spinous	18.00	5-7/8"	7-1/2"	24"	1/4"
TRE Serrono	16.00	6"	7-1/2"	24"	1/4"

## Standard Mount Trim Tab Kits

The **LENCO Standard Mount Trim Tab Kit** provides fast response electric actuators for precise control. Fully submersible with all plug & play Deutsch connections. Blades are constructed of #12 gauge 304 Stainless Steel with 5/8" flared trailing edge.

### Each Kit Includes:

- 12- volt actuators (2) with 6-foot leads and Deutsch connectors
- Stainless steel trim tab blades (2)
- 20' actuator extension harness with Deutsch connectors (2)
- Upper mounting bracket with gland seal
- Minimum Transom Height 14"

### Switch Kits Sold Separately

Part No.	Tab Size L x W	Hinge Height	Description Boat Length
LEN 15000-101	9" x 9"	2"	14' - 18'
LEN 15001-101	9" x 12"	2"	16' - 25'
LEN 15002-101	9" x 18"	2"	22' - 30'
LEN 15003-101	9" x 24"	1"	26' - 40'
LEN 15004-101	9" x 30"	1"	30' - 50'
LEN 15007-101	12" x 12"	2"	17' - 30'
LEN 15008-101	12" x 18"	2"	26' - 36'
LEN 15009-101	12" x 24"	1"	30' - 44'
LEN 15010-101	12" x 30"	1"	34' - 54'
LEN 15069-001	Standard Tactile Switch Kit(Sold Separately)		
LEN 15070-001	LED Indicator Switch Kit(Sold Separately)		



## Rocker Switches



LEN 15069-001



LEN 15070-001



## Edge Mount Trim Tab Kits

Fast response electric actuators for precise control. Fully submersible. All Plug & Play Deutsch connections. Blades are constructed of #12 gauge 304 Stainless Steel with 1" turned up edges and an 85° inside taper. The actuators mount at the trailing edge of the blades, requiring 1/2" less transom height (than the standard mount tabs which use approx. 14" transom height on the three 12" versions).

**Kit Includes:** Two 12 Volt Standard Actuators (5/16" Stainless Steel thru-bolts) with 6' leads & Deutsch connectors, two 20' actuator extension harness, upper & lower mounting brackets, two Stainless Steel trim tab blades, all Stainless Steel mounting hardware, and an owner's manual.

Hinge Height = 2".

### Switch Kits Sold Separately

Part No.	Tab Size L x W	Minimum Transom Height	Description Boat Length
LEN 15014-101	9" x 12"	13.5"	16' - 25'
LEN 15015-101	12" x 9"	11"	14' - 18'
LEN 15016-101	12" x 12"	11"	17' - 30'
LEN 15017-101	12" x 18"	11"	26' - 36'
LEN 15069-001	Standard Tactile Switch Kit (Sold Separately)		
LEN 15070-001	LED Indicator Switch Kit (Sold Separately)		



## Limited Space Trim Tab Kits

The **LENCO Limited Space Trim Tab Kit** is ideal for applications where there is limited transom space due to the positioning of ladders, other transom mounted equipment. Provides fast response electric actuators for precise control. Fully submersible with all plug & play Deutsch connections. Blades are constructed of 12 gauge 304 Stainless Steel with 5/8" flared trailing edge. Standard Finish.

### Each Kit Includes:

- 12- volt actuators (2) with 6-foot leads and Deutsch connectors
- Stainless steel trim tab blades (2)
- 20' actuator extension harness with Deutsch connectors (2)
- Upper mounting bracket with gland seal
- Minimum Transom Height 13". Hinge Height = 2".

### Switch Kits Sold Separately

Part No.	Description Boat Length	Description L x W
LEN 15052-101	14' - 25'	4" x 12"
LEN 15069-001	Standard Tactile Switch Kit (Sold Separately)	
LEN 15070-001	LED Indicator Switch Kit (Sold Separately)	



## Air Boat Trim Tab Kits NEW TYPE

The world's first Airboat specific design. The planning surface provides greater lift and less drag. Engineered to prevent the tab from digging in during hard turns resulting in a safer ride.

### Each Kit Includes:

- 12-gauge stainless steel standard finish blade
- 15055-001 XD Extreme Duty 12-Volt actuator with 316L stainless steel billet ram, 5/16" bolt, 6' wire lead & Deutsch connector
- 30133-002 14' actuator extension wiring harness
- 15085-001 upper mounting bracket with gland seal
- Lenco owner's/installation manual
- Stainless steel mounting hardware

### Switch Kit Sold Separately

Part No.	Description Boat Length	Description L x W
LEN 15112-101	Air Boat Trim Tab Kit	9" x 14"
LEN 15095-001	Air Boat Rocker Switch	(Sold Separately)



All Necessary Stainless Steel Mounting Hardware

Trim Tab Part # Definition:

1st Number = Length of Tab/2nd Number=Hinge on Transom

## Standard Performance Trim Tab Kits

The **LENCO Standard Performance Trim Tab Kit** provides fast response electric actuators for precise control. Fully submersible with all plug & play Deutsch connections. Blades are constructed of Electro-Polished 12 gauge 304 Stainless Steel with 1" turned up edges, an 85° inside taper and a 1/4" dia. hinge pin.

### Each Kit Includes:

- 12- volt actuators (2) with 6-foot leads and Deutsch connectors
- Stainless steel trim tab blades, Electro Polished (2)
- 20' actuator extension harness with Deutsch connectors (2)
- Upper mounting bracket with gland seal. Hinge Height = 2".

### • Switch Kits Sold Separately

Part No.	Tab Size L x W	Min. Transom Height	Description Boat Length
LEN 15034-101	9" x 9"	13.5"	13'-20'
LEN 15035-101	9" x 12"	13.5"	16'-26'
LEN 15036-101	12" x 9"	11"	16'-26'
LEN 15037-101	12" x 12"	11"	18'-32'
LEN 15038-101	14" x 12"	11"	19'-34'
LEN 15039-101	16" x 12"	11"	20'-36'
LEN 15040-101	18" x 14"	11"	22'-40'
LEN 15069-001	Standard Tactile Switch Kit (Sold Separately)		
LEN 15070-001	LED Indicator Switch Kit (Sold Separately)		



## Heavy Duty Performance Trim Tab Kits

The **LENCO Heavy Duty Performance Trim Tab Kit** provides fast response electric actuators for precise control. Fully submersible with all plug & play Deutsch connections. Blades are constructed of Electro-Polished 12 gauge 304 Stainless Steel with 1" turned up edges, and 85° inside taper, Extreme-Duty Actuators with 316 SS billit ram, Full transom back plate, adjustable C channel and a 1/4" dia. hinge pin. Factory assembled with mechanical strain relief cable seal & 3/4" anodes. Minimum Transom Height 10 1/2"

### Each Kit Includes:

- 12- volt actuators (2) with 6-foot leads and Deutsch connectors
- Stainless steel trim tab blades, Electro Polished (2)
- 20' actuator extension harness with Deutsch connectors (2)

### • Switch Kits Sold Separately

Part No.	Tab Size L x W	Boat Length
LEN 15041-101	12" x 12"	18'-34'
LEN 15042-101	14" x 12"	19'-36'
LEN 15043-101	16" x 12"	20'-38'
LEN 15044-101	18" x 14"	22'-42'
LEN 15069-001	Standard Tactile Switch Kit (Sold Separately)	
LEN 15070-001	LED Indicator Switch Kit (Sold Separately)	



Boat Mounting Hardware Supplied by Customer

Trim Tab Part # Definition:

1st Number = Length of Tab/2nd Number=Hinge on Transom

## Extreme Duty Performance Trim Tab Kits

The **LENCO Extreme Duty Performance Trim Tab Kit** provides fast response electric actuators for precise control. Fully submersible with all plug & play Deutsch connections. Blades are constructed of 10 Electro-Polished gauge 304 Stainless Steel with 1" turned up edges and 85° inside taper, Extreme-Duty Actuators with 316 SS billit ram, Full transom back plate, adjustable C channel and a 1/4" dia. hinge pin. Minimum Transom Height 10 1/2". Fully assembled.

### Each Kit Includes:

- 12- volt Extreme Duty actuator with 6-foot lead and Deutsch connectors
- Stainless steel trim tab blade-Electro Polished (2)
- 3-3/4" Sacrificial anodes

### • Actuator Extension Harnesses Sold Separately

### • Switch Kits Sold Separately

Part No.	Description	Tab Size	Boat Length
LEN 15045-101	Single Actuator Model	17" x 12"	20'-40'
LEN 15046-101	Dual Actuator Model	19" x 14"	23'-45'
LEN 15047-101	Dual Actuator Model	24" x 14"	25'-50'

LEN 15069-001	Standard Tactile Switch Kit for Single Actuator Kit (Sold Separately)
LEN 15070-001	LED Indicator Tactile Switch Kit for Single Actuator Kit (Sold Separately)
LEN 15071-001	Dual Actuator LED Indicator Tactile Switch Kit (Sold Separately)



Tactile Switch Kit  
with LED Indicator



## High Performance Trim Tab Kits

### The Lenco High Performance Trim Tab Kit

Radiused blades give maximum clearance for multiple outboard applications and reduces cavitation to the prop. The stylish design gives maximum performance and is built for extreme duty applications. Fast response electric actuators for precise control. Fully submersible. All Plug & Play Deutsch connectors. Blades are Electro-Polished 7 Gauge flat -304 Stainless Steel with 3/8" diameter hinge pin. Extreme Duty actuators with 3/8" Stainless Steel bolts. Kit is factory assembled with full transom back plate, mechanical strain relief cable seal, adjustable C-channel mounting brackets & 3/4" anodes. Minimum transom height 10.5"

#### Each Kit Includes:

- 12- volt Extreme Duty actuator with 6-foot lead and Deutsch connectors
- 7-Gauge 304 Stainless steel trim tab blade Electro-Polished
- 3-3/4" Sacrificial anodes
- **Switch and Actuator Extension Harnesses Sold Separately**

Part No.	Description	Tab Size	Boat Length
LEN 15048-101	Single Actuator	14" x 12"	16'-32'
LEN 15049-101	Single Actuator	18" x 12"	20'-40'
LEN 15050-101	Dual Actuator	21" x 14"	24'-42'
LEN 15051-101	Dual Actuator	25" x 14"	28'-46'
LEN 15068-101	Dual Actuator	29" x 14"	30'-52'
LEN 15070-001	Single Actuator Tactile Switch Kit (sold separately) with LED Indicator		
LEN15071-001	Dual Actuator Tactile Switch Kit (sold separately) with LED Indicator		

**Actuator extension harnesses used with High Performance trim tab kits are sold separately. One harness is required for each actuator.**



Tactile Switch Kit with LED Indicator

## Super Strong Trim Tab Kits

### The Lenco Super Strong Trim Tab Kit

Designed for sport-fishing boats, high speed cruising boats & large commercial vessels. 7 Gauge flat - 304 Stainless Steel blades with all stainless steel mounting hardware withstand the rigors of the most demanding conditions. No spray or mist when mounted in recessed pockets. 3/8" diameter hinge pin & 3.75" sacrificial anode. Single & Dual Actuator Systems have Vandar Upper Mounting Brackets with Gland Seal (#15085-001) and 10 Ga. Stainless Steel lower mounting brackets with 3/8" Stainless Steel bolts.

#### Each Kit Includes:

- 12- volt or 24-volt Extreme Duty actuator with 6-foot lead and Deutsch connectors
- 7-Gauge 304 Stainless steel trim tab blade
- 3-3/4" Sacrificial anodes
- **Switch and Actuator Extension Harnesses Sold Separately**

#### 12 Volt Models

Part No.	Description	Tab Size	Boat Length
LEN 15018-101	Single Actuator	12" x 18"	24'-40'
LEN 15019-101	Single Actuator	12" x 24"	27'-44'
LEN 15020-101	Single Actuator	12" x 30"	30'-48'
LEN 15021-101	Single Actuator	12" x 36"	33'-52'
LEN 15022-101	Dual Actuator	16" x 24"	35'-50'
LEN 15023-101	Dual Actuator	16" x 30"	40'-60'
LEN 15024-101	Dual Actuator	16" x 36"	45'-70'
LEN 15025-101	Dual Actuator	16" x 42"	50'-80'

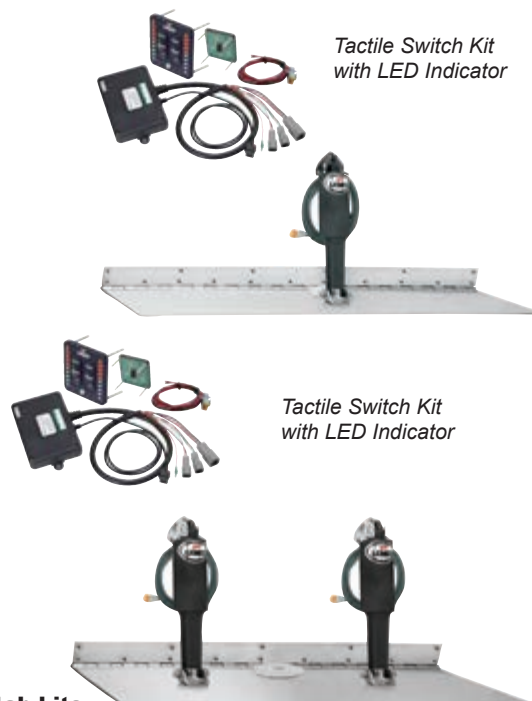
#### 24 Volt Models

Part No.	Description	Tab Size	Boat Length
LEN 15026-101	Single Actuator	12" x 18"	24'-40'
LEN 15027-101	Single Actuator	12" x 24"	27'-44'
LEN 15028-101	Single Actuator	12" x 30"	30'-48'
LEN 15029-101	Single Actuator	12" x 36"	33'-52'
LEN 15030-101	Dual Actuator	16" x 24"	35'-50'
LEN 15031-101	Dual Actuator	16" x 30"	40'-60'
LEN 15032-101	Dual Actuator	16" x 36"	45'-70'
LEN 15033-101	Dual Actuator	16" x 42"	50'-80'
LEN 15070-001	Single Actuator Tactile Switch Kit (sold separately) with LED Indicator		
LEN 15071-001	Dual Actuator Tactile Switch Kit (sold separately) with LED Indicator		

**Actuator extension harnesses used with Super Strong Series trim tab kits are sold separately. One harness is required for each actuator.**



Tactile Switch Kit with LED Indicator



Tactile Switch Kit with LED Indicator

## Electric Hatch Lifts

The **LENCO Electric Hatch Lifts** allow for easy push button access to engine and storage compartments. Fast response electric actuators provide precise control. Sizes range from 19" to 77" extended. The in line motor provides over 500 lbs. (227 kg) of force. Easy to install with all plug & play Deutsch connections.

### Each Kit Includes:

- Completely submersible, made entirely of non-corrosive materials
- Ball screw spins freely when hatch is fully opened or closed eliminating limit switches and burned out motor
- Switch and Actuator extension harness sold separately
- Amp draw 10 amp at 12 volt & 5 amps at 24 volts
- CE Certified & ABYC Compliant
- 12- volt or 24-volt actuator with 2-foot leads and Deutsch connectors
- Switch and Actuator extension harness sold separately



### 12 Volt Models

Part No.	LOA Retracted	Approx. Stroke	LOA Extended
LEN 20760-001	15"	4"	19"
LEN 20762-001	20"	6"	26"
LEN 20764-001	20"	8"	28"
LEN 20766-001	24"	8"	32"
LEN 20768-001	24"	12"	36"
LEN 20770-001	29"	12"	41"
LEN 20774-001	29"	16"	45"
LEN 20776-001	33"	16"	49"
LEN 20778-001	33"	20"	53"
LEN 20780-001	37"	20"	57"
LEN 20782-001	37"	24"	61"
LEN 20784-001	41"	24"	65"
LEN 20786-001	47"	26"	73"
LEN 20788-001	47"	30"	77"

### 24 Volt Models

Part No.	LOA Retracted	Approx. Stroke	LOA Extended
LEN 20761-001	15"	4"	19"
LEN 20763-001	20"	6"	26"
LEN 20765-001	20"	8"	28"
LEN 20767-001	24"	8"	32"
LEN 20769-001	24"	12"	36"
LEN 20771-001	29"	12"	41"
LEN 20775-001	29"	16"	45"
LEN 20777-001	33"	16"	49"
LEN 20779-001	33"	20"	53"
LEN 20781-001	37"	20"	57"
LEN 20783-001	37"	24"	61"
LEN 20785-001	41"	24"	65"
LEN 20787-001	47"	26"	73"
LEN 20789-001	47"	30"	77"

LEN 15096-001 Standard Rocker Switch Kit  
For Single Hatch Lift Applications

(sold separately)

Lenco Part No.  
**LEN 15096-001**  
Rocker Switch



**New Clear  
Anodized Finish**



## Standard Tactile Switch Kit



**Part No. LEN 15069-001**

The **LENCO Standard Tactile Switch kit** features a built-in tab retractor feature. This kit is use with single actuator 12 volt trim tab systems. Includes #30006-001 Key Pad, #30134-001 control box and #30140-001 pigtail harness.

## LED Indicator Tactile Switch Kit



**Part No. LEN 15070-001**

The **LENCO LED Indicator Tactile Switch kit** features a tab position indicator and a built-in tab retractor feature. This kit is use with single actuator 12 and 24 volt trim tab systems. Includes #30007-001 Key Pad, #30072-001 control box and #30140-001 pigtail harness.

## LED Dual Actuator Indicator Tactile Switch Kit



**Part No. LEN 15071-001**

The **LENCO LED Indicator Tactile Switch kit** features a tab position indicator and a built-in tab retractor feature. This kit is use with dual actuator 12 and 24 volt trim tab systems. Includes #30007-001 Key Pad, #30112-001 control box and #10249-001 pigtail harness.

## Double Rocker Switch Kit



The Lenco Double Rocker Switch kit can be used with all 12 volt single actuator systems. Includes #30140-001 pigtail harness.

**Part No.** LEN 10222-211D

## Replacement Standard Key Pad

For Standard Tactile Trim Tab Switches  
With nylon nuts

**Part No.** LEN 30006-001D



## Replacement LED Indicator Key Pad



Key Pad for all Indicator Trim Tab Switches  
(with Nylon Nuts)

**Part No.** LEN 30007-001D

## Actuator Extension Harness



The Lenco Actuator Extension Harness is used with all 12 & 24 volt single and double actuator systems.

<b>Part No.</b>	<b>Length</b>
LEN 30133-001D.....	7'
LEN 30133-002D.....	14'
LEN 30133-103D.....	20'
LEN 30142-001.....	26'
LEN 30142-002.....	32'
LEN 30142-104.....	45'

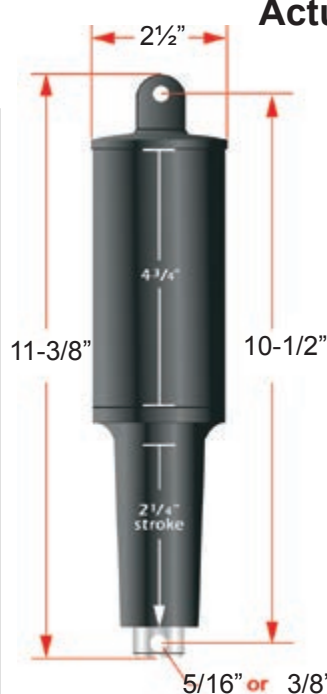


## Actuators



**101 Series** 2.25" Stroke Standard Actuator w/ 6' Wire & Deutsch Connector. 5/16" Hardware

<b>Part No.</b>	<b>Desc/Hole</b>
LEN 15054-001	12 Volt
LEN 15061-001	24 Volt



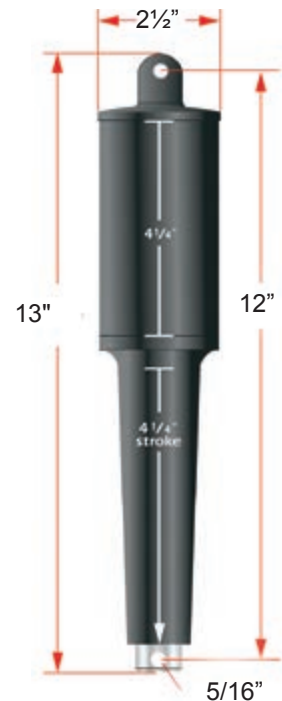
**101 XD Series** 2.25" Stroke Extreme Duty Actuator w/ 6' Wire, Deutsch Connector Hardware

<b>Part No.</b>	<b>Desc/Hole</b>
LEN 15055-001	12v/5/16"
LEN 15056-001	12v/3/8"
LEN 15062-001	24v/5/16"
LEN 15063-001	24v/3/8"



**101 XDS Series** 2.25" Stroke "Short" XDS Actuator with 6' Wire, Deutsch Connector & 5/16" Hardware.

<b>Part No.</b>	<b>Desc/Hole</b>
LEN 15057-001	12v/5/16"
LEN 15058-001	12v/3/8"



**102 XD Series** 4.25" Stroke Extreme Duty Actuator with 6' Wire, Deutsch Connector & 5/16" Hardware

<b>Part No.</b>	<b>Desc/Hole</b>
LEN 15060-001	12v/5/16"
LEN 15067-001*	24v/5/16"

\*Tip to tip= 13-1/4"

## Brackets



Upper Mounting Bracket with Gland Seal 3 Screws 1 Wire (2008-Current)

**Part No.**  
LEN 15085-001



Standard Lower Mounting Bracket Three Screws

**Part No.**  
LEN 50014-001D



Standard Upper Mounting Bracket Three Screws (Thru 2007)

**Part No.**  
LEN 50015-001D



7" Mounting Shim for Upper & Lower Mounting Brackets

**Part No.**  
LEN 50015-002D



Compact Upper Mounting Bracket

**Part No.**  
LEN 50225-001D



# AutoTrim Pro

*Put Your Trim Tabs on Cruise Control*

*Reduce bow rise, improve visibility, correct listing*



NEW

## Introducing the new AutoTrim Pro for Electronic & Hydraulic Systems

AutoTrim Pro is an all-in-one trim tab control system designed for boats of all sizes—packing in a boatload of essential features into an easy-to-use, space-saving keypad.

Compatible with Bennett hydraulic or electric trim tab systems, and most non-Bennett Marine Trim tab systems.



AP000A1HA – Hydraulic (12V & 24V)  
AP000A1BC – Electric (12V & 24V)



Watch the video

[BennettTrimTabs.com/ATP](http://BennettTrimTabs.com/ATP)

## Smart Features for a smoother ride

### Auto Trim Tab Control

automatically reduces bow rise and corrects listing.

**Manual Tab Control** puts you back in full manual control at the touch of a button.

### Trim Tab Position Indication

alerts you to the position and activity of the trim tabs.

### “All Up” and “All Down” Buttons

allow for one-touch manual adjustments.

### Automatic Tab Retraction

protects tabs during storage and trailering.

**OEM Customizable Response Time** enables boat builders to pre-configure reaction time.

**Technical questions?** Call Bennett at (954) 427-1400

**Ready to order?** Call JMS at FL (800) 432-2231 • SC (800) 788-2231



**BENNETT MARINE**



## Hydraulic Trim Tab Kits

Hydraulic trim tabs are known for power, precision and durability. Get the most from your boat, no matter what the load, speed or sea conditions. Using the helm control, you can adjust the tabs to create the perfect cruising attitude. Get on plane faster, improve visibility, increase overall performance and efficiency.



### 3 Control Options Control sold separately



Part No.	Size
BEN 129KIT	12" x 9"
BEN 189KIT	18" x 9"
BEN 249KIT	24" x 9"
BEN 309KIT	30" x 9"
BEN 369KIT	36" x 9"
BEN 429KIT	42" x 9"
BEN 489KIT	48" x 9"
BEN 549KIT	54" x 9"
BEN 1212KIT	12" x 12"
BEN 1812KIT	18" x 12"
BEN 2412KIT	24" x 12"
BEN 3012KIT	30" x 12"
BEN 3612KIT	36" x 12"
BEN 4212KIT	42" x 12"
BEN 4812KIT	48" x 12"
BEN 5412KIT	54" x 12"
BEN 6012KIT	60" x 12"
BEN 6612KIT	66" x 12"
BEN 7212KIT	72" x 12"

### Kits Include:

- (2) Stainless steel trim tabs
- (2) Hydraulic actuators
- (1) Hydraulic power unit

All necessary wiring, tubing, hardware and installation instructions

### Control sold separately



## Complete Sport Trim Tab Kits



### 2 Control Options Control included in set



Unique batwing design provides 30% more lift than conventional trim tabs. Space-saving design will fit virtually any transom.

**Kits Include:** (2) Trim Plane Assemblies, (2) Hydraulic Actuators, (1) Hydraulic Power Unit, (1) Helm Control Switch including wiring, (1) Hardware Bag, (2) 20' Hydraulic Tubing

Part No.	Description
BEN M80	8"x10" tabs with Euro-style Rocker
BEN M80EIC	8"x10" tabs with Indicator Control
BEN M120	10"x12" tabs with Euro-style Rocker
BEN M120EIC	10"x12" tabs with Indicator Control

## BOLT Electric Trim Tab Kits

Balance loads, plane faster, increase efficiency and performance with Bennett BOLT Electric Trim Tabs Systems, built to outlast any electric system on the market.



### 4 Control Options Control sold separately



Part No.	Size
BEN BOLT129	12" x 9"
BEN BOLT189	18" x 9"
BEN BOLT249	24" x 9"
BEN BOLT1212	12" x 12"
BEN BOLT1812	18" x 12"
BEN BOLT2412	24" x 12"

### Kits Include:

- (2) 12-volt actuators with 6ft. wire harnesses and waterproof connectors
- (2) Stainless steel trim planes (tabs) and mounting plates
- (2) 20ft. or custom length harnesses with waterproof connectors

### Control sold separately



## BOLT Edge Mount Electric Trim Tab Kits

Designed with an adjustable upper hinge for transoms with limited space. Tabs turn up for added strength and feature piano hinged backing plates.



BEN BOLT1212ED



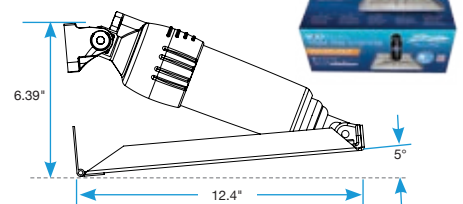
### 4 Control Options Control sold separately



### Kits Include:

- (2) 12-volt actuators with 6ft. wire harnesses and waterproof connectors
- (2) Stainless steel trim planes (tabs) and mounting plates
- (2) 20ft. or custom length harnesses with waterproof connectors

### Control sold separately



Part No.
BEN BOLT912ED
BEN BOLT1212ED

Size
Size: 9" x 12"
Size: 12" x 12"

## Complete Hydraulic Performance Trim Tab Kits

The Performance Tab Series is engineered for the demands of off-shore water conditions. Features two heavy duty stainless steel tabs with powder coated black finish, secured with heavy duty mounting plates and fasteners.



BEN ST16

### Kits Include:

- (2 or 4) Hydraulic actuators
- (1) Hydraulic power unit
- (1) Helm Control
- All necessary wiring, tubing and hardware.



### 2 Control Options

Control included in kit



EIC5000 ES2000



Part No.	Size	Control	Actuators Per Plane
BEN ST9	12" x 9"	ES2000	1
BEN ST12	12" x 12"	ES2000	2
BEN ST16	12" x 16"	ES2000	2
BEN ST9EIC	12" x 9"	EIC5000	1
BEN ST12EIC	12" x 12"	EIC5000	2
BEN ST16EIC	12" x 16"	EIC5000	2

## Self-Leveling Tabs for Small Boats



BEN SLT6



A simple, durable and affordable trimming solution for smaller boats. Quick and easy installation with nothing to do inside the boat – just mount the actuators and trim tabs on the transom and enjoy the benefits. Plane at lower speeds, improved efficiency and performance, eliminate porpoising and chine walking.

### Kits Include:

- (2) 14 gauge stainless steel tabs
- (2) Strong, durable actuators, and all stainless steel hardware.



Part No.	Tab Size	Boat Size
BEN SLT6	6" x 8"	Up to 16'
BEN SLT10	10" x 10"	17' and up

## Euro-Style Rocker Switch Control

This control is ergonomically designed, water resistant and easy to install, fitting inside a single 2 1/2" hole.



Part No.	Description
BEN ES2000	Switch
BEN ES2000A	Switch for Flybridge with 20' Harness



## Electronic Indicator Control Kit

Three features combined into one sophisticated control — Trim tab controls, trim tab indicator and Auto Tab Retractor. Water resistant, highly accurate and features variable intensity LEDs for night or day. Features a relay module mounted near the transom, which simplifies installation by reducing the number of wires to run to the helm.



**Includes:** EIC Display, 12V EIC Relay Module, port and starboard upper hinge sensors, 20' EIC Cable, EIC Pigtail Pack, EIC Hardware Pack

Part No.
BEN EIC5000



## AutoTrim Pro: All-in-one Trim Tab Control Kit

AutoTrim Pro is an all-in one boat leveling system designed to reduce bow rise, improve visibility and correct listing. Bennett's ATP manually or automatically levels the pitch of your boat, and corrects any roll due to uneven loads or shifting weight - automatically - in a variety of conditions. Installation is simple with plug 'n play connectors, and is compatible with Bennett hydraulic or electric trim tab systems, and most non-Bennett Marine Trim tab systems. It's like cruise control for your trim tabs.



**Features:** Auto Trim Tab Control with favorite buttons, manual tab control buttons, trim tab position indication with adjustable L.E.D.s, auto tab retraction when ignition is powered off, customizable response time for boat builders.

**Kit Includes:** ATP Helm Control, ATP Control Unit, 25 ft. Extension Cable

Part No.	Description
BEN AP000A1HA	For Hydraulic Systems
BEN AP000A1BC	For Electric Systems



## Auto Tab Control

ATC is designed to pair with existing Bennett hydraulic Rocker or EIC controls, adding auto trim tab functionality. It's like cruise control for your boat. The ATC monitors & maintains your boats perfect attitude, automatically correcting out-of-trim conditions. Maximize trim tab efficiency and increase your boating safety and enjoyment with the Auto Tab Control.



**Includes:** ATC Keypad, ATC Control Unit, Relay Module with plug-and-play pigtails

Part No.	Description
BEN AC3000	Pairs with ES2000 Rocker
BEN AC3EIC	Pairs with EIC5000 Control



## Bennett Actuators



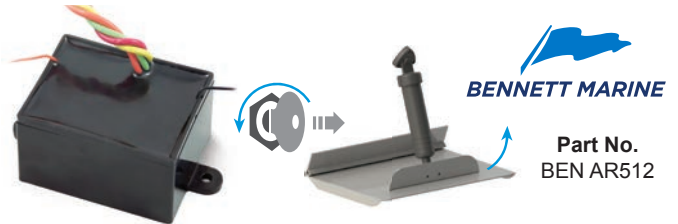
Bennett actuators are built to last, maintenance-free, and backed by Bennett's legendary support and lifetime limited warranty. The piston-like arms push tabs into position. All models provide a 2.5" stroke. Replacement actuators do not include hardware. Hardware kit H1170A is recommended when replacing a hydraulic actuator assembly.

Part No.	Description
BEN A1101A	Standard hydraulic actuator
BEN A1101EX	External line connection actuator
BEN A1200S	Short hydraulic actuator
BEN BEA2000	Electric fixed upper hinge actuator
BEN BEA3000	Electric adjustable upper hinge



## Auto Tab Retractor

Automatically retracts tabs when the boat's ignition is turned off. Trailered boats have added defense from trim tab damage with them "full-up" during hauling, trailering and storage. Assures trim tabs are all the way up every time boat is started if boat is not equipped with trim tab indicators. Easily installs behind instrument panel. 12 volt.



Part No.  
BEN AR512

## Relay Module

Interrupter Relay available for rocker switches for eliminating the possibility of blowing a fuse if both "Bow Down" and "Bow Up" are pressed simultaneously.



Part No.  
BEN RM12



## Common Replacement Parts



Item#	Description
<b>Electric System Miscellaneous Parts</b>	
BEN BEA2100	Upper Hinge Spacer for Bolt Actuator
<b>Hydraulic Actuator Parts</b>	
BEN A1103	Actuator Upper Hinge
BEN A1113	Actuator Lower Hinge
BEN A1114	Actuator Lower Hinge with Pin
BEN A1115	Stainless Steel Lower Hinge Pin
BEN CC3003P	Port UH w/Sensor 30' & Clip
BEN CC3003S	Stbd UH w/Sensor 30' & Clip
<b>Hydraulic Power Units</b>	
BEN V351HPU1	12 V Hydraulic Power Unit
BEN V351HPU2	24 V Hydraulic Power Unit
<b>Hydraulic Power Unit Parts</b>	
BEN H1172	Female Elbow
BEN H1179	Mounting Bracket for HPU
BEN VP1135G	Solenoid Valve (Green wire)
BEN VP1135R	Solenoid Valve (Red wire)
BEN VP1138	HPU Lexan Cover
<b>Hydraulic System Miscellaneous Parts</b>	
BEN H1170A	Hydraulic Hardware Pack
BEN H1170B	2nd Hardware Pack for Dual Actuators
BEN T112520	1/4" Hydraulic Tubing 20'
BEN T112550	1/4" Hydraulic Tubing 50'
BEN H11713	Brass Pipe Nipple - 3"
BEN T1127	Nut with Ferrule
BEN WH1000	Wire Harness - 22'
<b>Dealer Service Kit</b>	
BEN DSKIT	Contains all above parts and more at a discounted rate



BEN H1170A



BEN H1170B



BEN DSKIT



See [BennettRimTabs.com/product/dealer-service-kit/](http://BennettRimTabs.com/product/dealer-service-kit/) for a list of all items included





Part No.	Description
B/L 12609	OIL RESERVOIR PLUG
B/L 12610	INSTA-TRIM BIODEGRADABLE OIL
B/L 12611	FUNNEL FOR BIODEGRADABLE OIL
B/L 12612	INSTA-TRIM BIODEGRADABLE OIL & FUNNEL KIT
B/L 12634	MOTOR TO SHAFT COUPLING
B/L 12635	OIL SUMP TUBE
B/L 12657	OUTSIDE HOUSING & RESERVOIR WITHOUT FEMALE WIRE RECEPTACLE
B/L 12668	BRASS NIPPLE FROM PUMP TO SOLENOID
B/L 12688	FEMALE WIRE RECEPTACLE
B/L 12702	HYDRAULIC PUMP WITH PRESSURE RELIEF VALVE
B/L 12709	STAINLESS STEEL SOLENOID HOSE FITTING CLAMP
B/L 12715	SOLENOID HOSE FITTING BARB TYPE
B/L 12726	20 AMP FUSE WITH WIRE
B/L 12728	HYDRAULIC HOSE 2,000 POUNDS BURST PRESSURE, PER FOOT
B/L 12729	HOSE TRIM WITH SCREWS PER EACH
B/L 12730	CYLINDER PINS
B/L 12731	HOSE COLLARS
B/L 12732	NYLON CYLINDER BRACKETS (4 PIECES-COMplete SET)
B/L 12735	25' WIRE HARNESS
B/L 12737	40' WIRE HARNESS
B/L 12738	STAINLESS STEEL TABS WITH HINGE, PER SQUARE INCH
B/L 12739	STAINLESS STEEL TAPPING SCREW 10 X 1"
B/L 12740	STAINLESS STEEL 1/4" x 5/8" BOLT
B/L 12741	STAINLESS STEEL LOCK WASHER FOR 5/8" BOLT
B/L 12742	STAINLESS STEEL 1/4" x 20 HEX NUT
B/L 12743	BRASS T CONNECTION SET FOR DUAL CYLINDER APPLICATION
B/L 13000	14' WIRE HARNESS FOR FLY BRIDGE CONTROLS
B/L 13001	ONE SWITCH PLATE WITH SCREWS (BLACK)
B/L 13302	18" WIRE HARNESS FOR CONVERTING OLD STYLE MOTOR PUMP TO NEW STYLE
B/L 12641-12	SOLENOID VALVE WITH WHITE WIRE, 12 VOLT
B/L 12641-24	SOLENOID VALVE WITH WHITE WIRE, 24 VOLT
B/L 12641-32	SOLENOID VALVE WITH WHITE WIRE, 32 VOLT
B/L 12657-A	WHITE RESERVOIR
B/L 12657-B	OUTSIDE HOUSING ONLY WITHOUT FEMALE WIRE RECEPTACLE
B/L 12662-12	12 VOLT MOTOR ONLY
B/L 12662-24	24 VOLT MOTOR ONLY
B/L 12662-32	32 VOLT MOTOR ONLY
B/L 12700-12	COMPLETE MOTOR PUMP UNIT 12 VOLT
B/L 12700-24	COMPLETE MOTOR PUMP UNIT 24 VOLT
B/L 12700-32	COMPLETE MOTOR PUMP UNIT 32 VOLT
B/L 12700-A-12	12 VOLT WITH TEES FOR 4 CYLINDERS & HOSES
B/L 12700-A-24	24 VOLT WITH TEES FOR 4 CYLINDERS & HOSES
B/L 12700-A-32	32 VOLT WITH TEES FOR 4 CYLINDERS & HOSES
B/L 12700UNIV	UNIVERSAL MOTOR PUMP CONVERTS TO FIT OTHER BRANDS
B/L 12701-12	SOLENOID VALVE WITH GREEN WIRE, 12 VOLT
B/L 12701-24	SOLENOID VALVE WITH GREEN WIRE, 24 VOLT
B/L 12701-32	SOLENOID VALVE WITH GREEN WIRE, 32 VOLT
B/L 12725-A	ONE SWITCH ONLY
B/L 12725-B	ONE SET SWITCHES WITH WIRE FOR FLY BRIDGE
B/L 12727-A	HYDRAULIC CYLINDER W/HOSE PER EACH
B/L 12727ATBL204	HYDRAULIC CYLINDER W/ HOSE W/SENSOR FOR SYSTEMS WITH TAB LOCATORS
B/L 12729-S	SHORT HOSE TRIM WITH SCREWS PER EACH
B/L 12732-A	NYLON CYLINDER BRACKET (1 PIECE)
B/L 12738-A	H.D. 1/4 INCH STAINLESS STEEL PLATE RAVEN GLOSS BLACK, PER SQUARE INCH
B/L 13001-A	ONE SWITCH PLATE FOR WATER RESISTANT COVER W/SCREWS (BLACK)
B/L 2002TTCBFFB	WATERPROOF SWITCHES BLACK FACE WITH WIRE FOR FLYBRIDGE
B/L 2002TTCBFGB	WATERPROOF SWITCHES BLACK FACE GRAY BUTTONS
B/L 2002TTCBFGB-G	WATERPROOF SWITCHES BLACK FACE GRAY BUTTONS NO LOGO



## Insta-Trim Electronic Tab Locator



Insta-Trim boat Leveler's electronic tab locator shows the position of your tabs. Two separate lines of diode lamps accurately indicate the position of each tab. The screen is small, mounts on the dashboard and is designed to match your rocker type controls in size and appearance. Installation is quick, easy and simple. Only a few common tools are required, and the locators come with easy to follow instructions.

Part No.	Description
B/L 29000BWL	Black Round with 25' Harness
B/L 29000WBL	White Round with 25' Harness



## Packaged Uflex Trim Tab Set

The prepackaged UFLEX set includes 1 pair of actuators complete with brackets, intuitive joystick switch and SS polished tabs.

*Not intended for racing applications*

**CE Certification**  
**Waterproof: IP68**  
**EN60945 Certification**  
**12V DC**

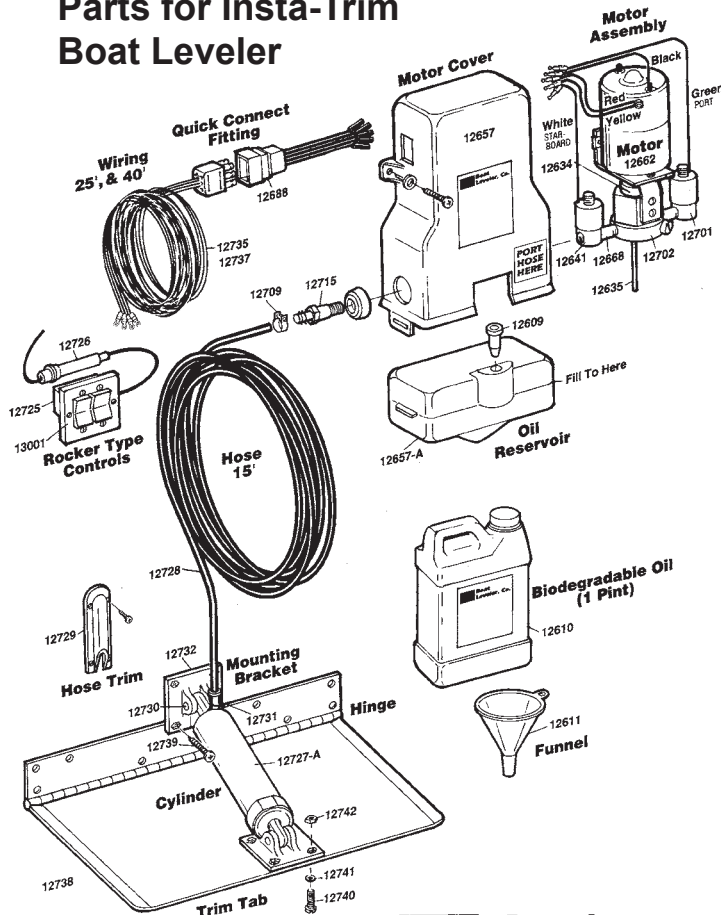
**2-Year Warranty**



## NEW!!! Polished Stainless Steel Tab Kits w/AC Actuators and Round Joysticks

Part No.	Size
UFL MTCP99RJ	9" X 9"
UFL MTCP912RJ	9" X 12"
UFL MTCP1212RJ	12" X 12"
UFL MTCP1218RJ	12" X 18"

## Parts for Insta-Trim Boat Leveler



Mirror polished stainless steel tabs

## High Performance Polished Tabs

Stainless steel, mirror electro-polished trim tab blades. No need for new holes in case of Lenco® or Bennett® same size replacements. They are not designed for use in racing applications.

Part No.	Description	Weight Per Pair
UFL NP99	(9"x9")	7.3 lbs
UFL NP912	(9"x12")	8.8 lbs
UFL NP1212	(12"x12")	11.0 lbs
UFL NP1218	(12"x18")	16.3 lbs

# VOLVO PENTA

## DUOPROP Propellers and Propeller Kits

Type A - Aluminum propellers for DP280, 290,  
DP-A-E. Not for KAD42-44, KAD300

Kit	Front LH	Rear RH	
Part Number	Part Number	Part Number	DIM
VOL 872270	VOL 872259	VOL 872264	A0
VOL 854764	VOL 854774	VOL 854784	A1
VOL 854765	VOL 854775	VOL 854785	A2
VOL 854766	VOL 854776	VOL 854786	A3
VOL 854767	VOL 854777	VOL 854787	A4
VOL 854768	VOL 854778	VOL 854788	A5
VOL 854769	VOL 854779	VOL 854789	A6
VOL 854770	VOL 854780	VOL 854790	A7
VOL 854771	VOL 854781	VOL 854791	A8
VOL 854772	VOL 854782	VOL 854792	A9
VOL 854773	VOL 852271	VOL 854793	A10

Type B - Aluminum propellers for  
DP280, 290, DP-A-E.

Kit	Front LH	Rear RH	
Part Number	Part Number	Part Number	DIM
VOL 854814	VOL 854822	VOL 854830	B1
VOL 854815	VOL 854823	VOL 854831	B2
VOL 854816	VOL 854824	VOL 854832	B3
VOL 854817	VOL 854825	VOL 854833	B4
VOL 854818	VOL 854826	VOL 854834	B5
VOL 854819	VOL 854827	VOL 854835	B6
VOL 854820	VOL 854828	VOL 854836	B7
VOL 854821	VOL 854829	VOL 854837	B8

Type C - Stainless Steel propellers for  
DP280, 290, DP-A-E, DP-G. Cone is Black.

Kit	Front LH	Rear RH	
Part Number	Part Number	Part Number	DIM
VOL 3860877	VOL 3860602	VOL 3860603	C2
VOL 3860878	VOL 3860604	VOL 3860605	C3
VOL 3857495	VOL 3857461	VOL 3857465	C4
VOL 3857496	VOL 3857462	VOL 3857466	C5
VOL 3857497	VOL 3857463	VOL 3857467	C6
VOL 3857498	VOL 3857464	VOL 3857468	C7

Propeller Cone Kits & Nut for DP280, 290, DP-A-E & G  
Type A, B, and C

Cone Kit	Nut	Shaft, mm
Part Number	Part Number	Size
VOL 872549	VOL 3851334	20
VOL 872614	n/a	16

NOTE! Propellers with different size codes must never be mounted on the same drive!

Call for I.P.S. Props



Type D - Aluminum propellers for DP-S Drives

Kit	Front LH	Rear RH	
Part Number	Part Number	Part Number	DIM
VOL 3851480	VOL 3851420	VOL 3851440	D0
VOL 3851481	VOL 3851421	VOL 3851441	D1
VOL 3851482	VOL 3851422	VOL 3851442	D2
VOL 3851483	VOL 3851423	VOL 3851443	D3
VOL 3851484	VOL 3851424	VOL 3851444	D4
VOL 3856365	VOL 3856345	VOL 3856355	D5
VOL 3856366	VOL 3856346	VOL 3856356	D6
VOL 3856367	VOL 3856347	VOL 3856357	D7
NUTS:	VOL 3851569	VOL 3851341	

Type E - Stainless Steel propellers for DPX Drives

Kit	Front LH	Rear RH	
Part Number	Part Number	Part Number	DIM
VOL 3860065	VOL 872422	VOL 3860011	E2
VOL 3860066	VOL 872423	VOL 3860012	E3
VOL 3860067	VOL 872424	VOL 3860013	E4
NUTS:	VOL 3851335	VOL 872179	

Type F - Stainless Steel propellers for DP-S Drives

Kit	Front LH	Rear RH	
Part Number	Part Number	Part Number	DIM
VOL 3857563	VOL 3857557	VOL 3857558	F2
VOL 3857564	VOL 3857559	VOL 3857560	F3
VOL 3851494	VOL 3851464	VOL 3851474	F4
VOL 3851495	VOL 3851465	VOL 3851475	F5
VOL 3851496	VOL 3851466	VOL 3851476	F6
VOL 3851497	VOL 3851467	VOL 3851477	F7
VOL 3851498	VOL 3851468	VOL 3851478	F8
VOL 3851499	VOL 3851469	VOL 3851479	F9
NUTS:	VOL 3851569	VOL 3851341	

Type G - Nickel-aluminum-bronze propellers  
for DPH Drives

Performance is outstanding and the special nickel-aluminum-bronze alloy complete with full electric isolation ensures no growth and excellent corrosion resistance.

Kit	Front LH	Rear RH	
Part Number	Part Number	Part Number	DIM
VOL 3863030	VOL 3587386	VOL 3587388	G2
VOL 3863031	VOL 3587389	VOL 3587390	G3
VOL 3587379	VOL 3587391	VOL 3587392	G4
VOL 3587380	VOL 3587393	VOL 3587394	G5
VOL 3587381	VOL 3587395	VOL 3587397	G6
VOL 3587382	VOL 3587398	VOL 3587399	G7
VOL 3587383	VOL 3587400	VOL 3587401	G8
VOL 3587384	VOL 3587402	VOL 3587403	G9
VOL 3587385	VOL 3587404	VOL 3587405	G10
NUTS:	VOL 3851334	VOL 872549	





## SILVERADO

An excellent choice for increased performance & durability over a standard aluminum propeller. One piece 3-blade cast stainless steel for exceptional strength and durability.

## BLACK DIAMOND

Great performance from a value priced propeller. Cast with an exclusive alloy for toughness and exceptional corrosion resistance. Sizes available for most O/B's & I/O's from 2.5 hp to 250 hp.

## FLO-TORQ II HUB KIT

Application specific models allow boaters to run Mercury propellers on virtually any boat. Quality marine-grade materials prevent fusing of parts, making propeller changes easier. The Delrin sleeve cushions shift shock and protects lower unit from impact damage.

### STEP 1: Select Hardware

1st: Locate the Model, Year and Horsepower of your Outboard or Stern Drive  
2nd: Locate "Hub Kit" Part Number and Corresponding "Prop Code" Letter

#### Mercury, Mariner, and Force Outboards, and MerCruiser Sterndrives

	Hub Kit #	Prop Code
Mercury/Mariner 135-250 HP, Verado 200-275 HP, MerCruiser 120-375 HP Alpha and Bravo One I/O's	TYP 835257Q1	A
Mercury/Mariner 75 HP 1984 and Newer, 90 & 115 HP 1978 & Newer, 125 HP 1994 & Newer	TYP 835257Q1	B
Verado 135-175 HP	TYP 835257Q10	A
Mercury/Mariner 40-60 HP Bigfoot and 90-115 HP 4-Stroke O/B's	TYP 35257Q9	B
Mercury 225 EFI 4-Stroke O/B	TYP 835274Q1	A
MerCruiser 400 HP+ Bravo One I/O's	TYP 835258Q2	A
Mercury V6 used with Torrent Propellers	TYP 835257Q6	A
Mercury Racing Choppers & Cleavers for V6 O/B's	TYP 835258Q1	A
MerCruiser XZ & XR. Racing Sport & Torque Master ( 1-1/4" Shaft)	TYP 840389Q06	A
Force 75 HP 1999, 90-115 HP & 1995+	TYP 835257Q1	B



#### Yamaha Outboards and Sterndrives

	Hub Kit #	Prop Code
50-100 HP O/B's with Splined Forward Washer	TYP 835272Q1	B
115 & 130 HP 1984 & Newer	TYP 835271Q2	B
300 HPDI & 130-300 I/O's	TYP 835271Q2	A
150/200/225 HP 4-Stroke O/B's	TYP 835274Q1	A

#### Evinrude and Johnson Outboards, and Volvo and OMC Stern Drives

	Hub Kit #	Prop Code
Johnson 90-115 HP 4-Stroke O/B's	TYP 835283Q1	B
Johnson 140 HP 4-Stroke O/B	TYP 835283Q2	B
Evinrude/Johnson V-4 O/B's	TYP 835266Q1	C
Evinrude/Johnson O/B's and I/O's with V-6 & V-8 Gearcases, Cobra & King Cobra I/O's 1991 & Newer	TYP 835265Q02	A
Evinrude/Johnson O/B's and I/O's with V-6 & V-8 Gearcases, Cobra & King Cobra I/O's 1990 & Older**	TYP 835267Q1	A
Volvo SX 1996 & Newer & OMC Cobra SX I/O's 1994 & Newer, 7.4L 1994 & Newer (19 tooth spline)**	TYP 835270Q1	A

#### Evinrude and Johnson Outboards, and Volvo and OMC Stern Drives

	Hub Kit #	Prop Code
Johnson 90-115 HP 4-Stroke O/B's	TYP 835283Q1	B
Johnson 140 HP 4-Stroke O/B	TYP 835283Q2	B
Evinrude/Johnson V-4 O/B's	TYP 835266Q1	C
Evinrude/Johnson O/B's and I/O's with V-6 & V-8 Gearcases, Cobra & King Cobra I/O's 1991 & Newer	TYP 835265Q02	A
Evinrude/Johnson O/B's and I/O's with V-6 & V-8 Gearcases, Cobra & King Cobra I/O's 1990 & Older**	TYP 835267Q1	A
Volvo SX 1996 & Newer & OMC Cobra SX I/O's 1994 & Newer, 7.4L 1994 & Newer (19 tooth spline)**	TYP 835270Q1	A

\*\*WARNING: Interference exists between the ribs on Quicksilver Stainless Steel Propellers and the add-on OMC/Volvo Anode #3852970. Anode & hardware must be removed for proper clearance.

#### Suzuki Outboards

	Hub Kit #	Prop Code
60-70 HP 4-Stroke & 75-140 HP 2-Stroke	TYP 835282Q1	C
150-225 HP O/B's & 150-250 HP 4-Stroke	TYP 835281Q1	A
90-115 HP 4-Stroke	TYP 835283Q1	B
140 HP 4-Stroke	TYP 835283Q2	B



#### Honda Outboards

	Hub Kit #	Prop Code
75-90 HP 1998 & Older	TYP 835277Q1	B
75-90 HP 1999 & Newer & 115-130 HP	TYP 835279Q2	B
135-225 HP 4-Stroke	TYP 835278Q1	A

#### Tohatsu and Nissan Outboards

	Hub Kit #	Prop Code
60-140 HP	TYP 835284Q1	B



**THUNDERBOLT** A larger diameter 3-blade design provides exceptional performance on heavier, high performance boats. Recommended for big V6 outboards and V8 sterndrives.

**DIAMOND 4** 4-Blade cast alloy design improves acceleration and mid-range performance on many sterndrive powered boats. A great value for family oriented tow-sports.

**TORRENT** The ultimate propeller for high power, high speed, Bass, Walleye and Bay boats. Higher rake and bigger cup provide better handling and lift on big V6 outboard powered boats.

**LIGHTSPEED** This 3-blade stainless steel propeller is designed for maximum speed on light boats with lots of power. The aggressive rake angles provide excellent bow lift and the barrel is vented for positive acceleration.

**TYPHOON** Stainless steel 4-blade design is a must for boaters seeking great acceleration and holding power. Provides unbeatable acceleration for serious tow-sports activities.

## STEP 2: Select Propeller

- 1st: Locate the "Prop Code" Group listed below that matched your Step 1 selection from previous page  
2nd: Select a propeller from that matched group that best compliments your boat and general usage

### Prop Code: Group "A"

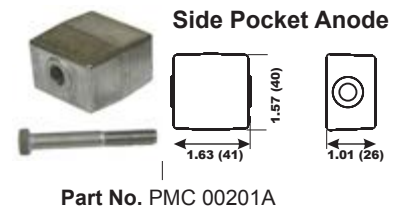
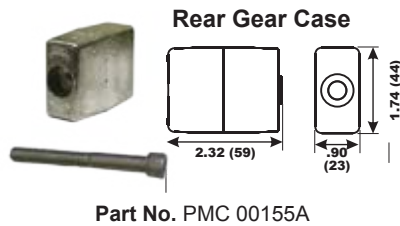
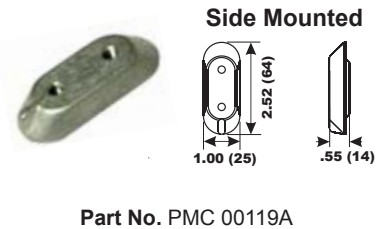
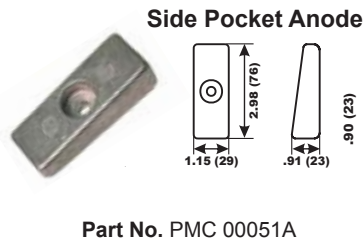
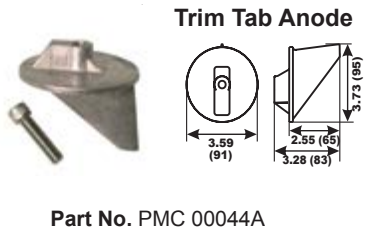
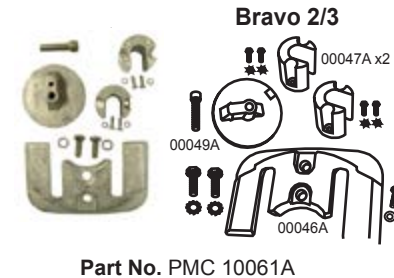
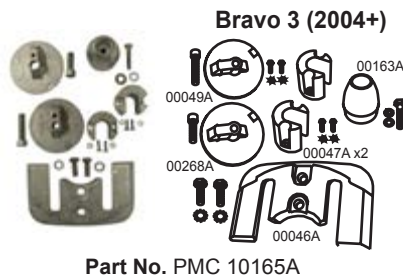
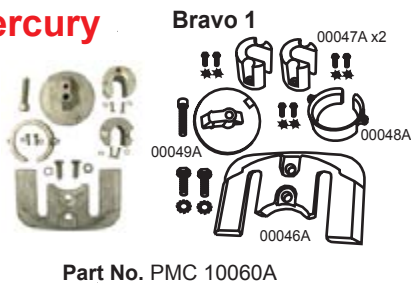
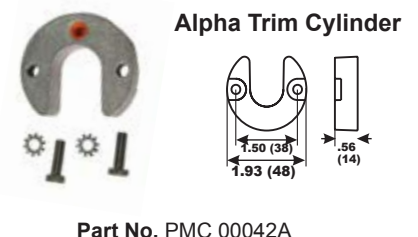
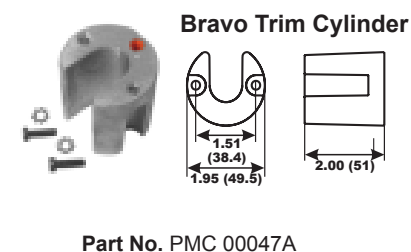
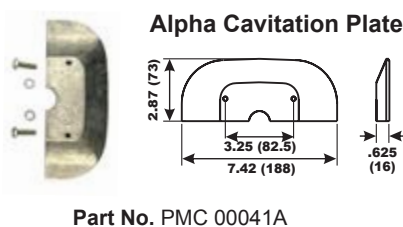
Size	Blades	Model	RH Part #	LH Part #
16" x 11"	3	Blk Diamond	TYP QA2000X	n/a
16" x 12"	3	Blk Diamond	TYP QA2002X	n/a
16" x 13"	3	Blk Diamond	TYP QA2004X	n/a
16" x 14"	3	Blk Diamond	TYP QA2006X	n/a
15-1/2" x 15"	3	Blk Diamond	TYP QA2008X	n/a
16" x 16"	3	Blk Diamond	TYP QA2010X	n/a
14-1/2" x 17"	3	Blk Diamond	TYP QA2012X	n/a
15" x 17"	3	Blk Diamond XT	TYP QA1912X	n/a
15-1/2" x 18"	3	Blk Diamond	TYP QA2014X	n/a
14" x 19"	3	Blk Diamond	TYP QA2016X	n/a
14-1/2" x 19"	3	Blk Diamond XT	TYP QA1916X	n/a
13-3/4" x 21"	3	Blk Diamond	TYP QA2018X	n/a
14-1/4" x 21"	3	Blk Diamond XT	TYP QA1918X	n/a
14" x 23"	3	Blk Diamond XT	TYP QA1920X	n/a
13-3/8" x 25"	3	Blk Diamond	TYP QA2022X	n/a
15" x 16"	4	Diamond 4	TYP QA2182X	TYP QA2183X
14-1/2" x 18"	4	Diamond 4	TYP QA2184X	TYP QA2185X
14" x 20"	4	Diamond 4	TYP QA2186X	TYP QA2187X
14-1/2" x 15"	3	Silverado	TYP QS5050X	TYP QS5051X
14-1/2" x 17"	3	Silverado	TYP QS5052X	TYP QS5053X
14" x 19"	3	Silverado	TYP QS5054X	TYP QS5055X
13-3/4" x 21"	3	Silverado	TYP QS5056X	TYP QS5057X
13-1/2" x 23"	3	Silverado	TYP QS5058X	TYP QS5059X
14" x 19"	3	Lightspeed	TYP QS5070x	TYP QS5071X
13-7/8" x 21"	3	Lightspeed	TYP QS5072X	TYP QS5073X
13-3/4" x 23"	3	Lightspeed	TYP QS5074X	TYP QS5075X
13-3/4" x 25"	3	Lightspeed	TYP QS5076X	TYP QS5077X
14" x 17"	4	Typhoon	TYP QS6002X	TYP QS6001X
14" x 19"	4	Typhoon	TYP QS6004X	TYP QS6003X
14" x 21"	4	Typhoon	TYP QS6006X	TYP QS6005X
15-3/4" x 15"	3	Thunderbolt	TYP QS5002X	TYP QS5003X
15-1/2" x 17"	3	Thunderbolt	TYP QS5004X	TYP QS5005X
15-1/4" x 19"	3	Thunderbolt	TYP QS5006X	TYP QS5007X
14-3/4" x 21"	3	Thunderbolt	TYP QS5008X	TYP QS5009X
14-5/8" x 23"	3	Thunderbolt	TYP QS5010X	TYP QS5011X
14-5/8" x 21"	3	Torrent	TYP QS5862X	n/a
14-5/8" x 23"	3	Torrent	TYP QS5864X	n/a
14-5/8" x 25"	3	Torrent	TYP QS5866X	n/a

### Prop Code: Group "B"

Size	Blades	Model	RH Part #
14" x 9"	3	Blk Diamond	TYP QA2026X
14" x 10"	3	Blk Diamond	TYP QA2028X
14" x 10" Extra Cup	3	Blk Diamond	TYP QA2828X
14" x 11"	3	Blk Diamond	TYP QA2030X
14" x 11" Extra Cup	3	Blk Diamond	TYP QA2830X
14" x 13"	3	Blk Diamond	TYP QA2032X
14" x 13" Extra Cup	3	Blk Diamond	TYP QA2832X
13-3/4" x 15"	3	Blk Diamond	TYP QA2034X
13-1/4" x 17"	3	Blk Diamond	TYP QA2036X
13" x 19"	3	Blk Diamond	TYP QA2038X
12-3/4" x 21"	3	Blk Diamond	TYP QA2040X
12-1/2" x 23"	3	Blk Diamond	TYP QA2042X
13-3/8" x 14"	3	Silverado	TYP QS5114X
13-1/8" x 16"	3	Silverado	TYP QS5116X
13" x 18"	3	Silverado	TYP QS5118X
13-1/4" x 20"	3	Lightspeed	TYP QS5120X
13-1/2" x 22"	3	Lightspeed	TYP QS5122X
13-1/2" x 24"	3	Lightspeed	TYP QS5124X
13-1/2" x 26"	3	Lightspeed	TYP QS5126X

### Prop Code: Group "C"

Size	Blades	Model	RH Part
14" x 10" Extra Cup	3	Blk Diamond	TYP QA3828X
14" x 11" Extra Cup	3	Blk Diamond	TYP QA3830X
14" x 13" Extra Cup	3	Blk Diamond	TYP QA3832X
13-3/4" x 15"	3	Blk Diamond	TYP QA2208X
13-1/4" x 17"	3	Blk Diamond	TYP QA2206X
13" x 19"	3	Blk Diamond	TYP QA2204X
12-3/4" x 21"	3	Blk Diamond	TYP QA2202X
13-1/8" x 16"	3	Silverado	TYP QS5136X
13" x 18"	3	Silverado	TYP QS5138X
13-1/4" x 20"	3	Lightspeed	TYP QS5140X
13-1/2" x 22"	3	Lightspeed	TYP QS5142X
13-1/2" x 24"	3	Lightspeed	TYP QS5144X

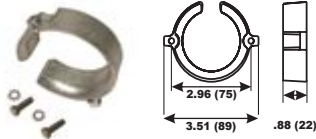
**Bombardier****Honda****Mercury****Mercury****Mercury****Mercury**



## Mercury

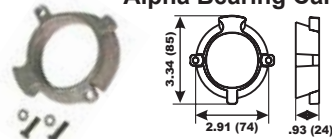


Bravo Bearing Carrier



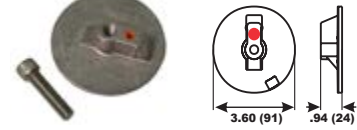
Part No. PMC 00048A

Alpha Bearing Carrier



Part No. PMC 00043A

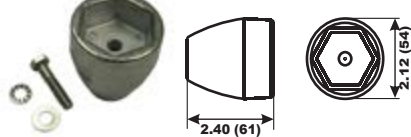
Trim Tab Anode Flat



Part No. PMC 00049A

## Mercury

Prop Anode Bravo 3



Part No. PMC 00163A

Trim Tab Anode



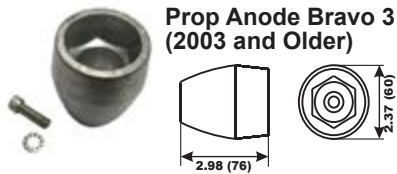
Part No. PMC 00044A

Gimbal Housing Bolt



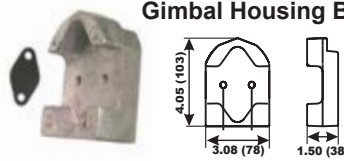
Part No. PMC 00050A

## Mercury

Prop Anode Bravo 3  
(2003 and Older)

Part No. PMC 00196A

Gimbal Housing Block



Part No. PMC 00045A

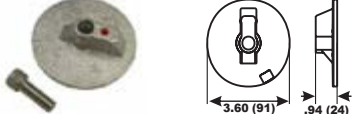
Side Pocket Anode



Part No. PMC 00051A

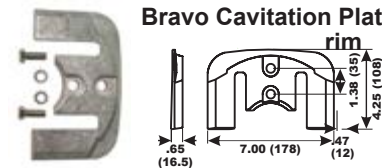
## Mercury

Trim Anode Flat (No Thread)



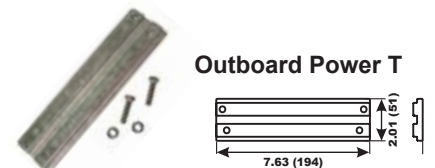
Part No. PMC 00268A

Bravo Cavitation Plate



Part No. PMC 00046A

Outboard Power T



Part No. PMC 00052A

## Volvo

Volvo SX



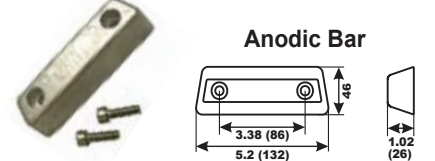
Part No. PMC 10278A

Volvo 290 Dual Prop



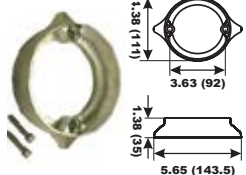
Part No. PMC 10277A

Anodic Bar



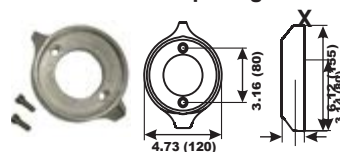
Part No. PMC 00112A

## Volvo

Prop Ring  
Duo Prop

Part No. PMC 00116A

Prop Ring - V18



Part No. PMC 00161A

Gimbal Plate - S

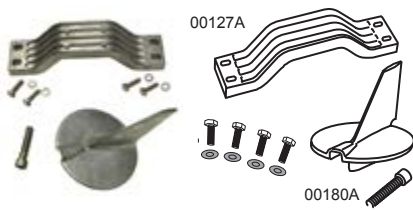


Part No. PMC 00117A

Transom Plate - SX



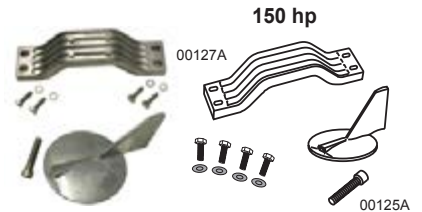
Part No. PMC 00162A

**Yamaha****200-250 hp 4-stroke**

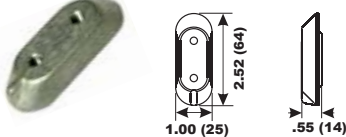
Part No. PMC 10182A



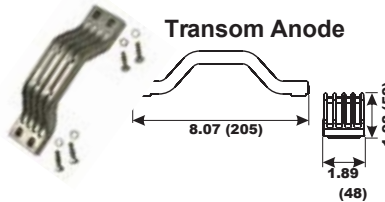
Part No. PMC 10184A



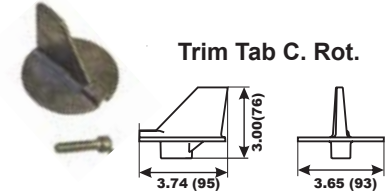
Part No. PMC 10183A

**Yamaha****Side Mounted**

Part No. PMC 00119A

**Transom Anode**

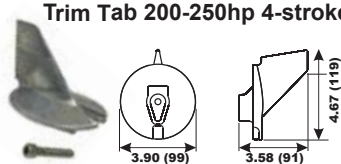
Part No. PMC 00127A

**Trim Tab C. Rot.**

Part No. PMC 00121A

**Yamaha****Trim Tab 150, 175 hp**

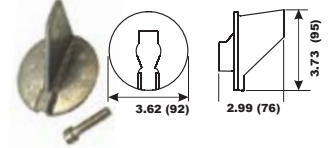
Part No. PMC 00125A

**Trim Tab 200-250hp 4-stroke**

Part No. PMC 00180A

**Trim Tab 150-175 hp C. Rot.**

Part No. PMC 00181A

**Trim Tab**

Part No. PMC 00122A

**Anodes**

Any two different metals that are submersed in water will create a "battery" called electrolysis. This is where the electrons from one metal flow to the other metal. The goal of an anode is to be more negative than the metal you are trying to protect. An anode that lasts a year untouched is not working. Anodes should be changed annually or when they reduce to half their original size. The three factors of an anode that contribute to effectiveness are the type of metal, the mass of the anode and the purity of the metal. You should be looking for a military spec of A-24779, A18001 and A21412. A cheaper grade is false economy.

The choice of the metal in the anode should be a priority. There are three main metals used as anodes Zinc, Aluminum and Magnesium. Magnesium works best in fresh water but not in saltwater, brackish or polluted fresh water. Magnesium should not be used with outboards or outdrives and boats with aluminum, wood or steel hulls. Zinc is considered the most reliable of anodes especially in saltwater but is subject to a whitish coating that neutralizes the zinc. Outboards and stern drives are another problem with zinc, so check your warranty before installing. Aluminum anodes can be used in all water types and are considered safe for all applications and they last longer and weigh less. Do not mix metals, you must stay with only one type of anode for any protected area.

**Important Notes:** Do not paint anodes. Do not use copper base paint on aluminum. Keep engine and drives painted. Watch out for small scratches. Water conductivity is not enough, anodes need bare metal contact.

*(See chart on page 211 for suggested anode types)*



**TEC 20820**  
MerCruiser Alpha  
Trim Ram Kit  
Zinc

**TEC 20820AL**  
Aluminum



**TEC 20800**  
MerCruiser Alpha I Gen I  
Drive and Transom Kit  
Zinc

**TEC 20800AL**  
Aluminum



**TEC 20801**  
MerCruiser Alpha I Gen II,  
Drive and Transom Kit  
Zinc

**TEC 20801AL**  
Aluminum



**TEC 20822**  
MerCruiser Bravo  
Trim Ram Kit  
Zinc

**TEC 20822AL**  
Aluminum



**TEC 20803**  
MerCruiser Bravo I,  
Drive and Transom Kit  
Zinc

**TEC 20803AL**  
Aluminum



**TEC 20804**  
MerCruiser Bravo I & III,  
Drive and Transom Kit  
Zinc

**TEC 20804AL**  
Aluminum



**TEC 20805**  
MerCruiser Bravo III (2004+)  
Drive and Transom Kit  
Zinc

**TEC 20805AL**  
Aluminum



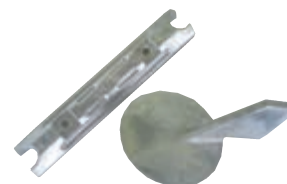
**TEC 20814**  
Mercury Verado 4-Cyl  
Engine Kit  
Zinc

**TEC 20814AL**  
Aluminum



**TEC 20816**  
Mercury Verado 6-Cyl  
Engine Kit  
Zinc

**TEC 20816AL**  
Aluminum



**TEC 21100**  
Yamaha 60-90 Hp  
Engine Kit  
Zinc



**TEC 21101**  
Yamaha 150-200 Hp  
Engine Kit  
Zinc



**TEC 21102**  
Yamaha 150-200 Hp (LH)  
Engine Kit  
Zinc



**TEC 21104**  
Yamaha 200-250 Hp  
Engine Kit  
Zinc

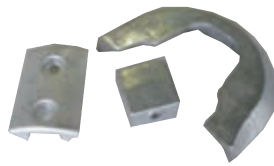


**TEC 21106**  
Yamaha 200-300 Hp  
Engine Kit  
Zinc





**TEC 20905**  
Johnson / Evinrude 50-75 Hp  
Engine Kit  
Zinc



**TEC 20901**  
OMC Stringer Mount Drives  
Drive and Transom Kit  
Zinc



**TEC 20902**  
OMC Cobra Drives  
Drive and Transom Kit  
Zinc



**TEC 20908**  
Johnson / Evinrude V4 & V6  
Engine Kit  
Zinc



**TEC 20700**  
Volvo Penta 250, 270, 275  
Drive and Transom Kit  
Zinc



**TEC 20701**  
Volvo Penta 280  
Drive and Transom Kit  
Zinc



**TEC 20702**  
Volvo Penta 280 Duo Prop  
Drive and Transom Kit  
Zinc



**TEC 20705**  
Volvo Penta 290  
Drive and Transom Kit  
Zinc



**TEC 20706**  
Volvo Penta 290 Duo prop  
Drive and Transom Kit  
Zinc



**TEC 20709**  
Volvo Penta DPR/DPH Drives  
Drive and Transom Kit  
Zinc



**TEC 20708**  
Volvo Penta SX Drives  
Drive and Transom Kit  
Zinc



**TEC 20711**  
Volvo Penta DPS/SXA Drives  
Drive and Transom Kit  
Zinc



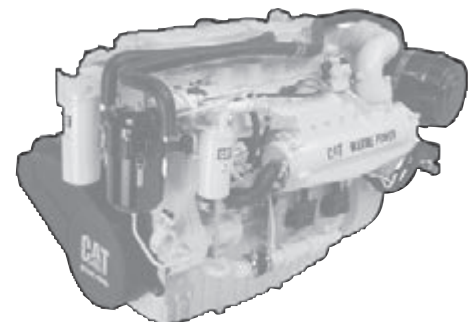
## Caterpillar Engine Zinc Kits



**TEC 3116K**  
Caterpillar 3116 marine engines  
Heat exchanger, oil cooler and  
exhaust elbow  
Zinc



**TEC 3126K**  
Caterpillar 3126 marine engines  
Heat exchanger, oil cooler and  
exhaust elbow  
Zinc



## BRP/Bombardier/OMC/Evinrude/Johnson

## HOW TO ORDER

Type	Add at the end	Example
Zinc		TEC 01400
Aluminum	AL	TEC 01400AL
Magnesium	MG	TEC 01400MG

OEM Part # in Blue

Availability is noted next to each item:

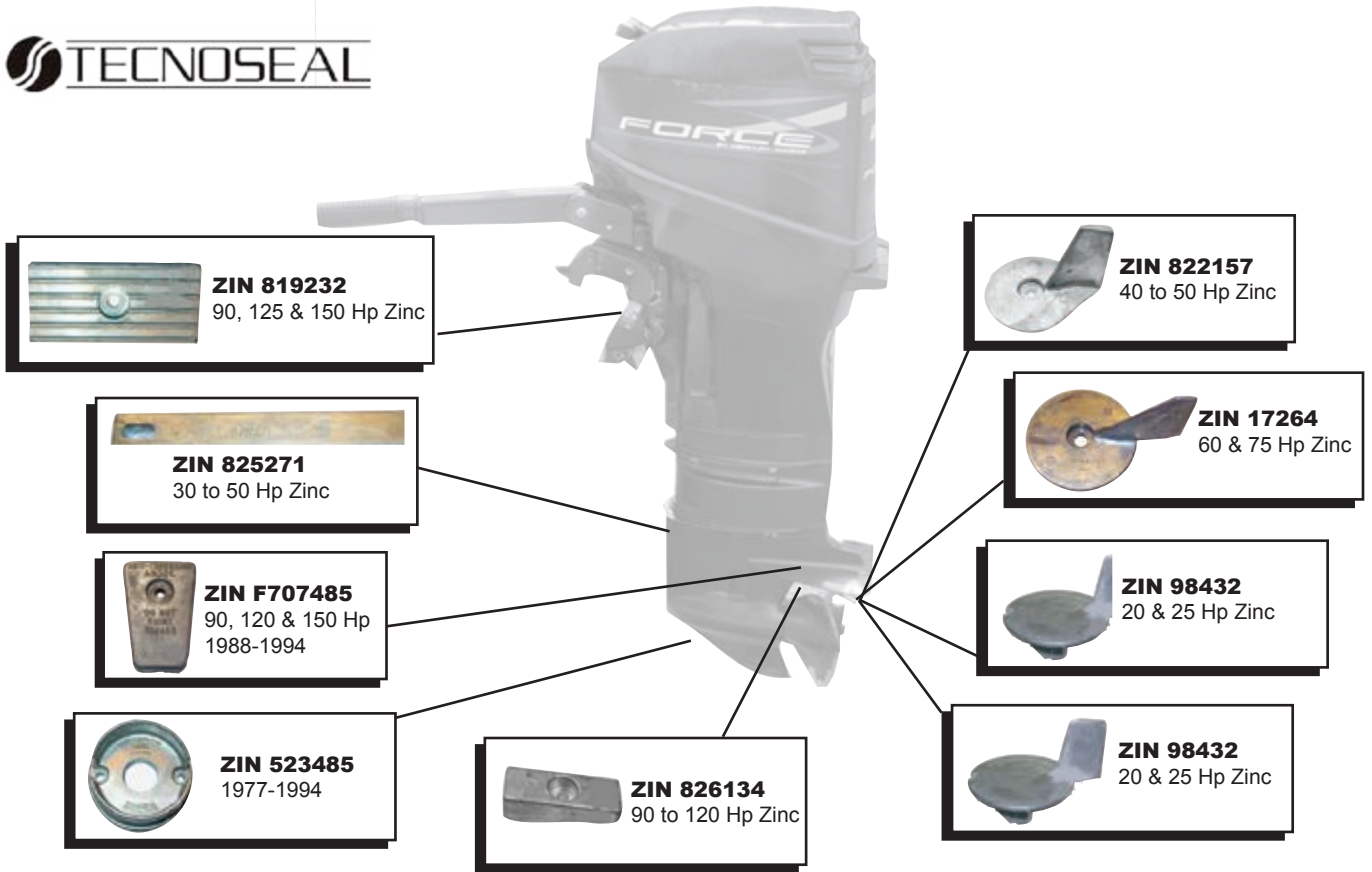
ZN = Zinc,

AL = Aluminum,

MG = Magnesium



## Force Outboards Anodes



## Honda Outboards

### HOW TO ORDER

Type	Add at the end	Example
Zinc		TEC 01400
Aluminum	AL	TEC 01400AL
Magnesium	MG	TEC 01400MG

#### OEM Part # in Blue

Availability is noted next to each item:

ZN = Zinc,  
AL = Aluminum,  
MG = Magnesium



TEC 01400  
41106-ZW-000

TEC 01401  
HON 01402CORR366JR3

TEC 01402  
41106-ZV4-650  
41106-935-812

TEC 01403  
41107-ZV5-000

TEC 01404  
06411-ZV5-000

TEC 01405  
41109-ZW1-003

TEC 01406  
06411-ZW1-000

TEC 01407  
41109-ZW1-B00

TEC 01408  
12155-ZV4-A00

TEC 01408/1  
12155-ZW5-000

TEC 01409  
41106-ZW9-000

TEC 01410  
41107-ZW1-B01ZA

TEC 01411  
41107-ZW1-003-ZA

TEC 01412





## HOW TO ORDER

Type	Add at the end	Example
Zinc		TEC 01400
Aluminum	AL	TEC 01400AL
Magnesium	MG	TEC 01400MG

## OEM Part # in Blue

Availability is noted next to each item:

ZN = Zinc,

AL = Aluminum,

MG = Magnesium



# Sacrificial Anodes Suzuki Outboards

203



## HOW TO ORDER

Type	Add at the end	Example
Zinc		TEC 01400
Aluminum	AL	TEC 01400AL
Magnesium	MG	TEC 01400MG

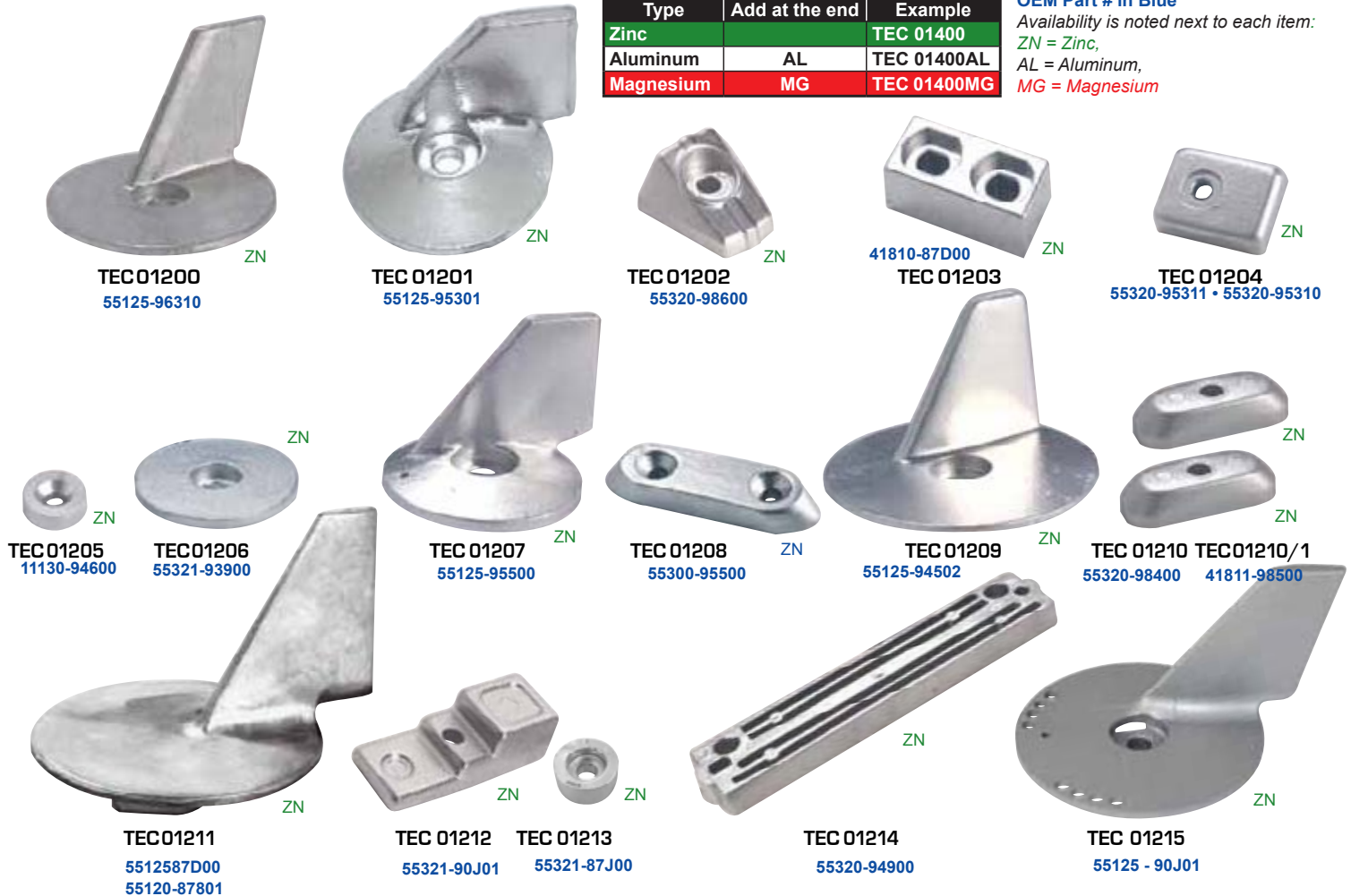
### OEM Part # in Blue

Availability is noted next to each item:

ZN = Zinc,

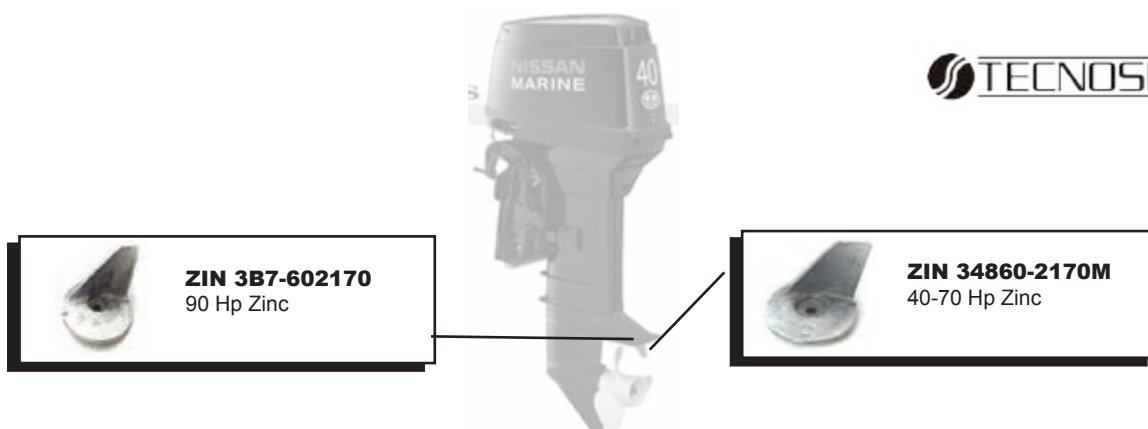
AL = Aluminum,

MG = Magnesium



Availability is noted next to each item. ZN = Zinc, AL = Aluminum, MG = Magnesium

## Nissan & Tohatsu Outboards Anodes



# Sacrificial Anodes

## Yamaha Outboards



### HOW TO ORDER

Type	Add at the end	Example
Zinc		TEC 01400
Aluminum	AL	TEC 01400AL
Magnesium	MG	TEC 01400MG

### OEM Part # in Blue

Availability is noted next to each item:

ZN = Zinc,

AL = Aluminum,

MG = Magnesium



# Sacrificial Anodes

## Yamaha Outboards

205



### HOW TO ORDER

Type	Add at the end	Example
Zinc		TEC 01400
Aluminum	AL	TEC 01400AL
Magnesium	MG	TEC 01400MG

OEM Part # in Blue

Availability is noted next to each item:

ZN = Zinc,

AL = Aluminum,

MG = Magnesium







## HOW TO ORDER

Type	Add at the end	Example
Zinc		TEC 01400
Aluminum	AL	TEC 01400AL
Magnesium	MG	TEC 01400MG

OEM Part # in Blue

Availability is noted next to each item:

ZN = Zinc,

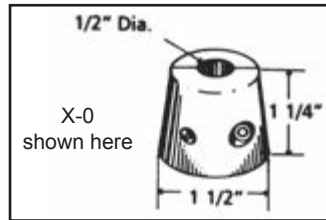
AL = Aluminum,

MG = Magnesium



CAMP  
CORPORATION

TECNOSEAL



Allen Screw Held in  
by washer

Copper contact  
for permanent ground



X-1 thru X-19  
shown here

Call for Metric Size Collars

**Zinc****BARREL COLLARS FOR SHAFT**

Technoseal Part No.	Camp Part No.	Shaft Size	Std.Box
TEC X-0	ZIN X-0	1/2"	-
TEC X-1	ZIN X-1	3/4"	24
TEC X-1A (Ex. Hvy)	ZIN X-1A (Ex. Hvy)	3/4"	24
TEC X-2	ZIN X-2	7/8"	24
TEC X-3	ZIN X-3	1"	24
TEC X-3A (Ex. Hvy)	ZIN X-3A (Ex. Hvy)	1"	24
TEC X-4"	ZIN X-4"	1-1/8"	24
TEC X-5	ZIN X-5	1-1/4"	24
TEC X-5A (Ex. Hvy)	ZIN X-5A (Ex. Hvy)	1-1/4"	12
TEC X-6	ZIN X-6	1-3/8"	12
TEC X-7	ZIN X-7	1-1/2"	12
TEC X-8	ZIN X-8	1-3/4"	8
TEC X-9	ZIN X-9	2"	8
TEC X-10	ZIN X-10	2-1/4"	4
TEC X-11	ZIN X-11	2-1/2"	4
TEC X-12	ZIN X-12	2-3/4"	4
TEC X-13	ZIN X-13	3"	4
TEC X-14	ZIN X-14	3-1/4"	2
TEC X-17	ZIN X-17	4"	2
TEC X-18	ZIN X-18	4-1/2"	2

CAMP  
CORPORATION

TECNOSEAL

Copper contact  
for permanent ground

**Zinc****DONUT COLLAR SHAFT ANODES (STANDARD)\***

Technoseal Part No.	Camp Part No.	Shaft Size	O.D. Dia.	Width	Std.Box
TEC 00550	ZIN C-1	3/4"	2-1/8"	1"	5
TEC 00551	ZIN C-2	7/8"	2-1/8"	1"	5
TEC 00553	ZIN C-3	1"	2-1/2"	1-1/4"	10
TEC 00554	ZIN C-4	1-1/8"	2-1/2"	1-1/4"	5
TEC 00556	ZIN C-5	1-1/4"	2-1/2"	1-1/4"	10
TEC 00557	ZIN C-6	1-3/8"	3"	1-1/4"	6
TEC 00562	ZIN C-7	1-1/2"	3"	1-1/4"	6
TEC 00559	ZIN C-8	1-3/4"	3-1/2"	1-3/8"	5
TEC 00560	ZIN C-9	2"	3-1/2"	1-3/8"	5
TEC 00563	ZIN C-11	2-1/4"	4"	1-1/2"	8
TEC 00565	ZIN C-12	2-1/2"	5"	1-1/2"	5
TEC 00567	ZIN C-12A	2-3/4"	5"	1-1/2"	5
TEC 00568	ZIN C-13	3"	5"	1-1/2"	5
TEC 00571	ZIN C-14	3-1/2"	6-1/2"	1-1/2"	4
TEC 00573	ZIN C-15	4"	6-1/2"	1-1/2"	4

\*Anodes subject to cavitation will decay more rapidly.

CAMP  
CORPORATION

TECNOSEAL

**Zinc**

Brass Bushing  
for Permanent Ground

**RUDDER ANODES**

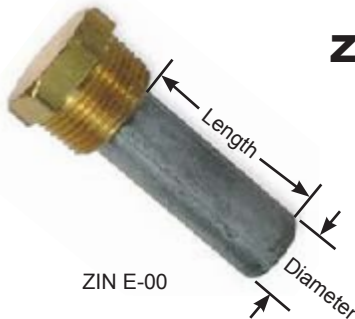
Technoseal Part No.	Camp Part No.	Diameter	Std.Box
TEC R-1	ZIN R-1	1-7/8"	-
TEC R-2	ZIN R-2	2-13/16"	25
TEC R-3	ZIN R-3	3-3/4"	20
TEC R-4	ZIN R-4	5"	8
TEC R-5	ZIN R-5	5-1/8"	6
TEC R-7	ZIN R-7	6-1/2"	2

CAMP  
CORPORATION

TECNOSEAL

**Zinc****TEAR DROP ANODES**

Technoseal Part No.	Camp Part No.	Length	Center Distance Between Holes	Std. Box
TEC T-20	ZIN T-20	3-1/2"	1-5/16"	25
TEC T-21	ZIN T-21	5-1/4"	1-5/8"	25


**Zinc**

ZIN E-00

### PENCIL ANODES ELEMENT WITH BRONZE PLUG OR ELEMENT ONLY

Part No. Kit	Part No. Zinc Only	Plug N.P.T.	Zinc Diameter	Zinc Length	Zinc Thread Size
ZIN E-00	ZIN E-00Z	1/8"	1/4"	2"	1/4-20
ZIN E-00A	ZIN E-00AZ	1/8"	1/4"	1/2"	1/4-20
ZIN E-0	ZIN E-0Z	1/4"	3/8"	1-3/4"	5/16-18
ZIN E-0A	ZIN E-0AZ	1/4"	3/8"	2-1/2"	5/16-18
ZIN E-0B	ZIN E-0BZ	1/4"	3/8"	3/4"	5/16-18
ZIN E-0D	ZIN E-0DZ	1/4"	3/8"	1"	5/16-18
ZIN E-0E	ZIN E-0EZ	1/4"	3/8"	1-1/4"	5/16-18
ZIN E-0F	ZIN E-0FZ	1/4"	3/8"	1-1/2"	5/16-18
ZIN E-0H	ZIN E-0HZ	1/4"	3/8"	1-5/8"	5/16-18
ZIN E-1	ZIN E-1Z	3/8"	1/2"	2"	3/8-16
ZIN E-1D	ZIN E-1DZ	3/8"	1/2"	1-3/4"	3/8-16
ZIN E-1E	ZIN E-1EZ	3/8"	1/2"	1-1/2"	3/8-16
ZIN E-1F	ZIN E-1FZ	3/8"	1/2"	1-1/4"	3/8-16
ZIN E-1G	ZIN E-1GZ	3/8"	1/2"	1"	3/8-16
ZIN E-1H	ZIN E-1HZ	3/8"	1/2"	1-5/8"	3/8-16
ZIN E-2	ZIN E-2Z	1/2"	5/8"	2"	7/16-14
ZIN E-2A	ZIN E-2AZ	1/2"	5/8"	1-1/4"	7/16-14
ZIN E-2B	ZIN E-2BZ	1/2"	5/8"	3"	7/16-14
ZIN E-2D	ZIN E-2DZ	1/2"	5/8"	1-3/4"	7/16-14
ZIN E-3	ZIN E-3Z	3/4"	3/4"	2"	1/2-13
ZIN E-3A	ZIN E-3AZ	3/4"	3/4"	3/4"	1/2-13
ZIN E-4	ZIN E-4Z	3/4"	3/4"	3-3/8"	1/2-13
ZIN E-5	ZIN E-5Z	3/4"	3/4"	3-5/8"	1/2-13
ZIN E-6	ZIN E-6Z	3/4"	3/4"	4-3/4"	1/2-13




C272100-200300

**Zinc**

C300



C10421141-300

**YANMAR ENGINE ANODES**

Part No.	Zinc Thread Size Metric
ZIN C-272100-200 300	M8x1.25MM pitch
ZIN C-10421141-300	M8x1.25MM pitch
C-300	M8x1.25MM pitch

(For 300 H.P. Engines)

**CATERPILLAR ENGINE ANODES**

ZIN 6L2280

**Zinc**

Technoseal Kit Part No.	Technoseal Zinc Only Part No.	Plug B.S.P.	Zinc Diameter	Zinc Length	Zinc Thread Size
TEC 02027T	TEC 02027	3/8"	1/2"	1-5/8"	3/8-UNC
TEC 02024T	TEC 02024	1/2"	5/8"	2-1/2"	3/8-UNC
TEC 02026T	TEC 02026	1-1/4"	1-1/4"	2-5/16"	3/4-UNC

Camp Kit Part No.	Camp Zinc Only Part No.	Plug N.P.T.	Zinc Diameter	Zinc Length	Zinc Thread Size
ZIN 6L2280	ZIN 6L2280Z	3/8"	1/2"	1-5/8"	3/8-16
ZIN 6L2288	ZIN 6L2288Z	1/2"	5/8"	2-1/2"	3/8-16
ZIN 6L2285	ZIN 6L2285Z	1-1/4"	1-1/4"	2-5/16"	3/4-10



ZIN 8515842

**Zinc**

**GM / DETROIT DIESEL ENGINE ANODES**

Part No. Kit	Part No. Zinc Only	Plug N.P.T.	Zinc Diameter	Zinc Length	Zinc Thread Size
ZIN 8515842	ZIN 8515842Z	3/4"	3/4"	2-1/8"	5/8-11"
ZIN 8515850	ZIN 8515850Z	3/4"	3/4"	3-3/8"	5/8-11"
ZIN 8517479	ZIN 8517479Z	1/2"	5/8"	2"	7/16-14"

**CAMP**  
CORPORATION**HONDA OUTBOARD ANODES****Zinc****Part No.**

ZIN 41107-ZV5-000

41109-ZW1-003

(Use Part # ZIN 826134)

ZIN 06411-ZW1-000



ZIN 41107-ZV5-000



41109-ZW1-003

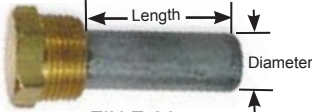
(Use Part # ZIN 826134)



ZIN 06411-ZW1-000

**ISUZU ENGINE ANODES**

Part No. Kit	Part No. Zinc Only	Plug N.P.T.	Zinc Diameter	Zinc Length	Zinc Thread Size
ZIN E-2A	ZIN E-2AZ	1/2"	5/8"	1-1/4"	7/16-14"

**CAMP**  
CORPORATION

ZIN E-2A

**Zinc****JOHNSON & EVINRUDE OUTBOARD ANODES**

Part No.	H.P.	Model Year	Std. Box
ZIN 393023AL	90-225	1991 to Present	-
ZIN 392462	50-75	1982 to Present	10
ZIN 395780		1984 to Present	-
ZIN 397768	8 Cylinder Outboards	1985 to Present	-
ZIN 398331AL			-
ZIN C173	For All Outboards		-
ZIN 433580AL	50-225	1991 to Present	-
ZIN 436745AL	90-225	1991 to Present	-



ZIN 393023AL



ZIN 392462



ZIN 395780



ZIN 397768



ZIN 398331AL



ZIN C173



ZIN 433580AL



ZIN 436745AL

**CAMP**  
CORPORATION**Zinc****OMC SAIL DRIVE ANODE****Part No.**

ZIN C389999

**Zinc****CAMP**  
CORPORATION**SEA SAIL DRIVE ANODE****Part No.**

ZIN C983191

**Zinc****CAMP**  
CORPORATION**FORCE OUTBOARD ANODES****H.P.****Model Year**60 & 75 H.P.  
20-25 Outboard1995 and Newer  
1984 and Newer**Part No.**

ZIN 17264

ZIN 98432

ZIN 819232

ZIN 822157

ZIN 825271

ZIN 826134

ZIN F5H025

40 to 50 H.P.

1996

30 and 50 H.P.

1996 and Newer

90 to 120 H.P.



ZIN 17264



ZIN 98432

**CAMP**  
CORPORATION**Zinc**

ZIN 819232



ZIN 822157



ZIN 825271



ZIN 826134



ZIN F5H025

**MARINER OUTBOARD ANODES****Part No.****H.P.****Model Year****Std. Box**

ZIN 15300

ZIN 17264

55

Sea Pro Only  
1996 & Newer

ZIN 31640AL (Aluminum Anode)

ZIN A76214

ZIN 811990M

ZIN 822157

30 H.P. Sea Pro  
50 H.P. 4 Stroke

1996

ZIN 822777

ZIN 823912

ZIN 823913

ZIN 825271

ZIN 826134

ZIN C89949

ZIN 98432

60-225

20-25 Outboard

1984 &amp; Newer



ZIN 15300



ZIN 17264



ZIN 31640AL



ZIN A76214



ZIN 811990M



ZIN 822157



ZIN 822777



ZIN 823912



ZIN 823913



ZIN 825271



ZIN 826134



ZIN 98432



ZIN C89949

**CAMP**  
CORPORATION**Zinc**



## MERCURY OUTBOARD ANODES

Part No.	H.P.	Model Year	Std. Box
ZIN 15300			-
ZIN 17264	55	Sea Pro Only 1996 & Newer	-
ZIN 31640AL (Aluminum Anode)			-
ZIN 89026			-
ZIN A76214			20
ZIN C89949			5
ZIN 94286	25	To 1983	-
ZIN 98432	20-25 Outboard	1984 & Newer	-
ZIN 822157	30	Sea Pro 1996	-
ZIN 822777	50	4-Stroke	-
ZIN 823912			5
ZIN 823913			-
ZIN 825271			-
ZIN 826134			-
ZIN 880653	(Verado)		-

CAMP  
CB.

Zinc



## MERCURY OUTDRIVE ANODES

Part No.	Std. Box
ZIN 31640AL (Aluminum Anode)	-
ZIN 34127	5
ZIN 34762	10
ZIN 43994A	10
ZIN C55989	-
ZIN 55989AL (Aluminum Anode)	-
ZIN A76214	20
ZIN 806189	-
ZIN 806189AL (Aluminum Anode)	-
ZIN 806190	26
ZIN 815933	10
ZIN 817373	5
ZIN 821629AL (Aluminum Anode)	-
ZIN 821630	5
ZIN 821630AL (Aluminum Anode)	-
ZIN 821631	5
ZIN 821631AL (Aluminum Anode)	-
ZIN 822777	5
ZIN 847635	-
ZIN 76214-5	20
ZIN 76214-5AL (Aluminum Anode)	-
ZIN 865182A01	-

CAMP  
CB.

Zinc



## NISSAN &amp; TOHATSU OUTBOARD ANODES

Part No.	H.P.	Std. Box
ZIN 33860-2181	40-70	-
ZIN 34860-2170M*	40-70	5
ZIN 3B7-602170*	90	-
ZIN 3B760-2180	50-140	-
ZIN 3C8-60217-3-1	-	-

\*After Installing New Anode, Always Check Propeller Clearance Before Starting Engine.

CAMP  
CB.

Zinc

## SUZUKI OUTBOARD

Part No.	H.P.	Std. Box
ZIN 55321-94900	115-140	-
ZIN 55125-9630*	20-30	-
ZIN 55123-87D00*	150-200	5
ZIN 55125-94502*	115-140	-
ZIN 41810-87D00	90	-

CAMP  
CB.

Zinc



## OMC OUTDRIVE ANODES

Part No.	Length (In Inches)	Distance Between Hole Centers	Std. Box
ZIN 367	7-5/8"	6-15/16"	20
ZIN C393023	-	-	20
ZIN 397768	-	-	-
ZIN 436745AL (Aluminum Anode)	-	-	-
ZIN 982438	-	-	5
ZIN 983494	-	-	10
ZIN 983952	-	-	5
ZIN 984513	-	-	5
ZIN 984547	-	-	4
ZIN 986158	-	-	-
ZIN 3854130	-	-	-

**CAMP**  
Zinc



## VOLVO OUTDRIVE ANODES

Part No.	Model	Std. Box
ZIN 875810-4(V-15)	100	-
ZIN 875809-6(V-16)	200	-
ZIN 875805-4(V-17)	250-275	-
ZIN 875815-3(V-18)	270T-280	10
ZIN 832598	250-270	10
ZIN 838929	-	-
ZIN 852835	209B	10
ZIN 875821	Duo-Prop	-
ZIN 876286-6	120	-
ZIN 3855411-2	-	-
ZIN 3854130	-	-
ZIN 872139	DPX	-
ZIN 872793	DPX	-
ZIN 3858399	2, 3 or 4 Blade Prop	-

**CAMP**  
Zinc



## YAMAHA OUTDRIVE ANODES

Part No.	H.P.	Std. Box
ZIN 6E5-11325	-	-
ZIN 6E5-45251	115-200	-
ZIN 688-45251	40-90	-
ZIN 688-45371	-	5
ZIN 664-45371	-	5
ZIN 688-45371-02	-	5
ZIN 6G5-45251	115-200	10
ZIN 6J9-45371	-	10
ZIN 6H1-45251	40-90	5
ZIN 61A-45371+	225-250	5
ZIN 6G1-45251-03	-	-
ZIN 6H1-45251-02	-	-
ZIN 67F-45371-00	-	-
ZIN 6E5-45371-10	-	-
ZIN 69L-45371-00	-	-

**CAMP**  
Zinc



## Suggested Anode Type From ABYC

## Select Anodes Based on Water Type

	Salt Water	Brackish Water	Fresh Water
Zn	✓		
Al	✓	✓	✓
Mg			✓

	Inboard				Outdrive
Hull	Wood	Fiberglass	Aluminum	Steel	All
Freshwater (Pure)	Alum	Alum/Mag	Alum	Alum/Mag	Alum/Mag
Freshwater (Polluted)	Alum	Alum	Alum	Alum	Alum
Brackish	Alum/Zinc	Alum/Zinc	Alum/Zinc	Alum/Zinc	Alum
Salt	Alum/Zinc	Alum/Zinc	Alum/Zinc	Alum/Zinc	Alum

## ARNESON OUTDRIVE ANODES

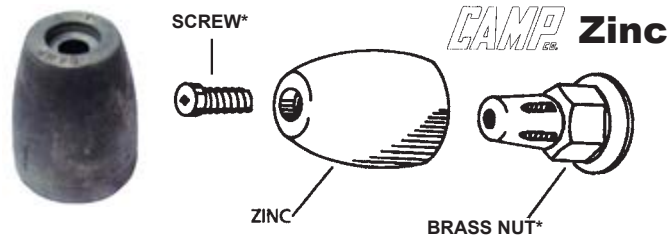
**Zinc**

Technoseal Part No.	Camp Part No.	Length	Center Distance Between Holes	Hole Size
-----	ZIN ARN-S	6-1/8"	3-1/2"	5/16"
TEC 02510	ZIN ARN-L	7-7/16"	5"	25/64"



## BULLET STYLE PROPELLER ANODES &amp; BRASS NUT KITS

Zinc Only Part No.	Brass Nut Kit Only* Part No.	Zinc Outside Diameter	Shaft Size	Thread Size
AA	AN	1-1/4"	3/4"	1/2-13
BB	BN	1-5/8"	7/8"	5/8-11
CC	CN	2"	1" & 1-1/8"	3/4-10
DD	DN	2-5/16"	1-1/4"	7/8-9
EE	EN	2-1/2"	1-3/8"	1-8
FF	FN	2-3/4"	1-1/2"	1-1/8-7
GG	GN	2-13/16"	1-3/4"	1-1/4-7
HH	HN	3-13/64"	2"	1-1/2-6



\* Brass Nut Kit includes Nut &amp; Screw (Screw NOT sold separately)

## VETUS® BOW THRUSTER ANODES

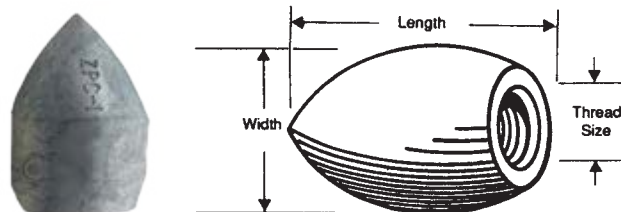
**CAMP Zinc**

Part No.	Model	Std. Box
ZIN BP-129 w/ Screw [SET 0153]	55	Bow 2512
	77	Bow 3512
	121	Bow 55 (old)
	176	Bow 80 (old)
	210	Bow 95 (old)
	352	Bow 16024
ZIN BP-195 w/ Screw [SET 0151]	275	Bow 125
	352	Bow 160 / 16024
	352	Bow 160 HM
	488	Bow 22024
	905	Bow 410 HM
	1215	Bow 550 HM
ZIN BP-1126 w/ Screws & Nut	77	Bow 35
	121	Bow 55 (new)
	121	Bow 55 HM
ZIN BP-1185 w/ Screws [SET 1050]	132	Bow 60
	165	Bow 75
	210	Bow 95 (new)
	210	Bow 95 HM
ZIN BP-1210 w/ Screws	485	Bow 220
	628	Bow 285
	665	Bow 300 HM
ZIN BP-1221 w/Screwa	55	Bow25



## ACORN NUT PROPELLER ANODES (ESSEX STYLE)

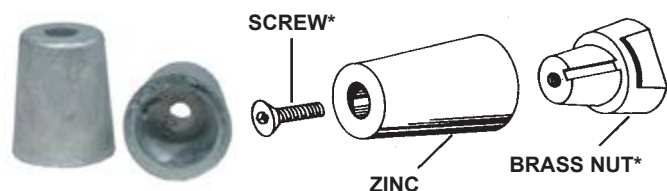
Part No.	Thread Size	Length	Width
ZIN ZPC-1	3/4-10	2-1/8"	1-1/2"
ZIN ZPC-2	3/4-10	2-15/16"	1-7/8"
ZIN ZPC-3	3/4-10	3-1/16"	2-7/32"

**CAMP Zinc**

## BEN-NET-EAU PROPELLER ANODES &amp; BRASS NUT KITS

**CAMP Zinc**

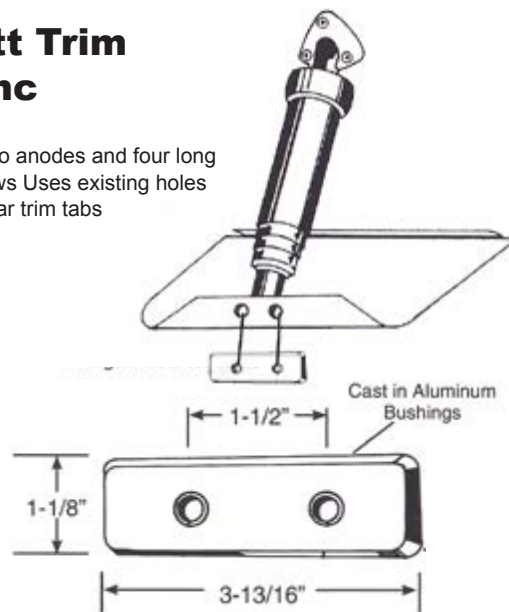
Zinc Only Part No.	Brass Nut Kit Only* Part No.	Shaft Thread Size	Shaft Size
ZIN 22/25MM	ZIN 2250	M16X1.5	22MM-25MM
ZIN 30MM	ZIN 2300	M20X1.5	30MM
ZIN 35MM	ZIN 2350	M24X2	35MM
ZIN 40MM	ZIN 2400	M24X2	40MM
ZIN 45MM	ZIN 2450	M30X2	45MM



\* Brass Nut Kit includes Nut &amp; Screw (Screw NOT sold separately)

## Bennett Trim Tab Zinc

Kit includes two anodes and four long stainless screws. Uses existing holes on most popular trim tabs.

**CAMP Zinc**

Technoseal Part No. TEC BNT

Camp Part No. ZIN BNT-1

**BEN-NET-EAU PROPELLER ANODES & BRASS NUT KITS**

Technoseal Part No.	Camp Part No.	Shaft Size	Description
TEC 00480/6	ZIN 63M-2	3/4, 7/8, 1, 1-1/8	2002 Props
----	ZIN 63M-3	3/4, 7/8, 1, 1-1/8	2003 Props & Newer
----	ZIN 63M-4	3/4, 7/8, 1, 1-1/8	Universal Anode
TEC 00481/6	ZIN 70M	1-1/4, 1-3/8	2001 & Older Props Only
----	ZIN 70M-2	1-1/4, 1-3/8	2002 Props
----	ZIN 70M-3	1-1/4, 1-3/8	2003 Props & Newer
TEC00482/6	ZIN 83M	1-1/2, 1-3/4	2003 & Older Props Only
----	ZIN 100M	2	

**Zinc****MAXI-PROP SCREWS**

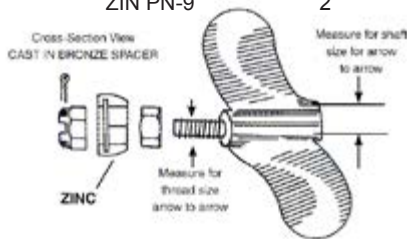
Part No.	Description
ZIN 63-70	Metric Screws for 63M, 63M-2, 70M, 70M-2
ZIN 83-100	Metric Screws for 83M, 100M
ZIN N63-N70	Metric Screws for 63M-3, 70M-3
ZIN U83	Metric Screws for 83M-4
ZIN N63-U70	Metric Screws for 63M-4, 70M-4
ZIN 63-2B	Metric Screws for 63M-2B



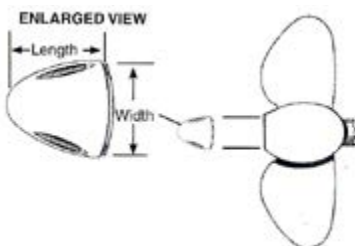
(Comes in sets of 3)

**Zinc****PROPELLER NUT ANODES & BRASS NUT KITS (PATENT #259811)**

Zinc Only Part No.	Brass Nut Kit Only Part No.	Shaft Size	Thread Size
ZIN P-1	ZIN PN-1	3/4"	1/2 - 13
ZIN P-1	ZIN PN-2	7/8"	5/8 - 11
ZIN P-3&4	ZIN PN-3&4	1" & 1-1/8"	3/4 - 10
ZIN P-5	ZIN PN-5	1-1/4"	7/8 - 9
ZIN P-6	ZIN PN-6	1-3/8"	1/8
ZIN P-7	ZIN PN-7	1-1/2"	1-1/8 - 7
ZIN P-8	ZIN PN-8	1-3/4"	1-1/4 - 7
ZIN P-9	ZIN PN-9	2"	1-1/2 - 6

**Zinc****PROWELL PROPELLER ANODES**

Part No.	Length	Width
ZIN GER-1	2-1/2"	2-1/2"
ZIN GER-2	2-5/8"	3-1/4"

**Zinc****DE-ICER ANODES**

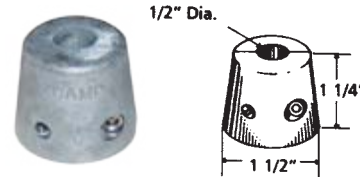
(STANDARD)\*

Part No.	Shaft Size	Outer Dia.	Width	Std. Box
ZIN X-0	1/2"	1-1/2"	1-1/4"	-

(widest point)

\*Anodes subject to cavitation will decay more rapidly.

Anodes should be inspected frequently to assure proper functionality.

**Zinc****ZINC GROUPEUR**

Technoseal Part No.	Camp Part No.	Description
TEC 00630FISH	ZIN GP-1	Zinc Grouper comes with 20 ft. of galvanized wire rope and an electrical connector with instruction sheet enclosed. Nominal weight 6 lbs.

**Zinc****SEA STRAINER ZINC**

Technoseal Part No.	Camp Part No.	Length	Width	Center Distance Between Holes
TEC SZ-1	ZIN SZ-1	3-7/8"	1-1/2"	1-1/2"
TEC DOK	ZIN DOK	3-3/8"	1-1/4"	1-27/32"



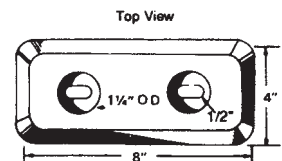
SZ-1



DOK

**Zinc****BOLT-ON HULL ANODES**

Part No.	Part No.	Length	Width	Thickness	Weight
TEC ZHC-2	ZIN ZHC-2	5-3/4"	2-5/8"	3/4"	2lb.
----	ZIN HCR-3	6-1/8"	2-5/8"	3/4"	2lb.
TEC ZHC-3	ZIN ZHC-3	6-1/4"	2-3/4"	3/4"	2lb.
TEC ZHC-5	ZIN ZHC-5	8"	4"	3/4"	5lb.

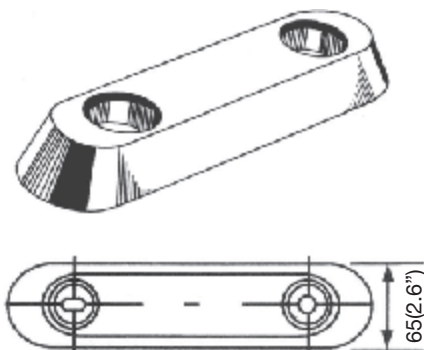
**Zinc****COMMERCIAL HULL ZINCS**

Part No.	Part No.	Length	Width	Thickness	Weight
TEC 00271E	ZIN ZHC-11	12"	3"	1-1/2"	11lb.
TEC 00272E	ZIN ZHC-15	15"	3"	1-1/2"	13lb.
----	ZIN ZHC-24	12"	6"	1-1/4"	-

**Zinc**



## HULL ZINC

CAMP  
CORP.

Cast-in steel plated washer

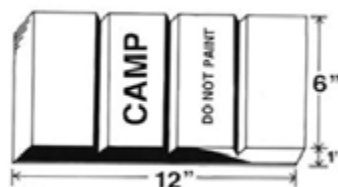
Part No. ZIN 25  
Weight 2.3 kg  
(5.1 lbs.)



Zinc

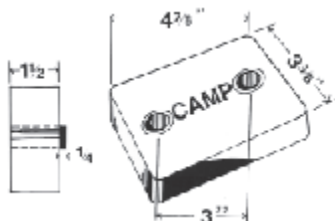
## ZINC PLATES

Part No.	Description
ZIN ZP-1	Zinc Plate 6" x 12" x 1/2" Smooth Finish, Similar to Roll Zinc Nominal Weight - 9 lbs
ZIN ZP-6	Zinc Plate 6" x 12" x 1/2" 2 Score. This can be broken into 3 Sections. Nominal Weight - 9 lbs
ZIN ZP-9	Zinc Plate 6" x 12" x 1" -- 3 Score. This can be broken into 4 Sections. Nominal Weight - 17 lbs

CAMP  
CORP.

Zinc

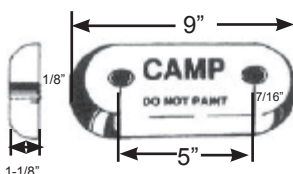
(ZIN ZP-9 Break Apart  
Zincs Shown Here)



ZIN B-6  
Rectangular Zinc Anode  
with two cast-in 7/16" I.D.  
Bronze Bushings  
Nominal Weight - 6 lbs

CAMP  
CORP.

Zinc



ZIN B-12  
Tapered Zinc Anode  
with two cast-in 7/16" I.D.  
Bronze Bushings.  
Nominal Weight - 9 lbs.



ZIN B-24  
Tapered Zinc Anode  
with two cast-in 7/16" I.D.  
Bronze Bushings.  
Nominal Weight - 23 lbs.



ZIN A-25



ZIN A-30



ZIN A-40



ZIN DP-1

## BOLT-ON HULL ANODES

Part No.	Length	Width	Thickness	Weight	Standard Box
ZIN A-25	9-1/4"	3-3/8"	3/4"	3lb. 5 oz.	10
ZIN A-30	6-1/4"	2-3/4"	5/8"	1lb. 13 oz.	25
ZIN A-40	7-1/4"	2-3/4"	1/2"	2lb.	10
ZIN DP-1	11-1/2"	5-1/4"	5/8"	-	4
ZIN DP-2	5-3/4"	3-3/4"	1/2"	-	-

CAMP  
CORP.

Zinc



Specify part number for water hose bib or N.P.T. size.

## 2" DUAL OIL COOLERS TRANSMISSION/LUBE OIL

Oil Fittings are standard 3/8" N.P.T.

- Step 1 – Choose a number for the tube bundle length (5" lg, 6" lg, 9" lg, 12" lg).  
 Step 2 – Choose a number for the end fitting and oil connection sizes.  
 Step 3 – Choose a number for the type of material (Copper, Cupro-Nickel).

### EXAMPLES

- 1225-1-5    1 - Tube bundle, 5" long.  
                  2 - End fitting 1" NPT with 3/8" NPT oil connections.  
                  3 - Copper Tubes
- 1229-800-7    1 - Tube bundle is 9" long.  
                  2 - End fitting is 1-3/4" dia. hose with 3/4" NPT oil connections.  
                  3 - Cupro-Nickel Tubes

### Step 1

- 1225 → 5" Long Tube Bundle  
 1226 → 6" Long Tube Bundle  
 1229 → 9" Long Tube Bundle  
 1232 → 12" Long Tube Bundle

### Step 2

End Fitting Size	OIL CONNS.		
	3/8 NPT	1/2 NPT	3/4 NPT
1" NPT	-1	-10	-100
1" Hose	-2	-20	-200
1-1/8" Hose	-3	-30	-300
1-1/4" Hose	-4	-40	-400
1-3/8" Hose	-5	-50	-500
1-1/2" Hose	-6	-60	-600
1-5/8" Hose	-7	-70	-700
1-3/4" Hose	-8	-80	-800

### Step 3

-5	-7
CU	CU/NI

## SUPER COOLERS FOR FUEL, GEAR & LUBE OIL

These shell and tube coolers maintain return fuel to a temperature that prevents loss of horsepower due to fuel temperature increase, provide adequate injector cooling and eliminate hot fuel storage tanks. 90/10 Cupro Nickel tubes.



## FUEL COOLERS FOR USE ON DETROIT DIESEL ALLISON 53, 71 & 92 Series

These special Super Return Fuel Coolers are designed to meet the special horsepower demands of these engines. They provide all of the cool fuel advantages required to obtain maximum horsepower available from these high performance engines.

D.D.A. Part No.	Sen-Dure Part No.
5136348.....	For Direct Replacement Order.....4898-1-7
.....	For D.D.A.8.2 Engine.....4469-1-7
.....	4-71,6-71, 6V-71.....
.....	and 6V-53.....9005-1-7
.....	8V-71, 6V-92.....
.....	and 8V-92.....9006-1-7
.....	12V-71 and 12V-92.....9007-1-7



## RETURN FUEL OIL COOLERS FOR USE ON CUMMINS ENGINES



• KEEPS FUEL TANKS COOLER

For use on Cummins 470, 504, 555, and others. 1-1/4" water hose connections. 3/8" N.P.T. oil connections, 8" overall 90/10 Cupro Nickel Tubes.....Part No. 2751-1-7

For use on Cummins 300, 370, 903 and others. 1-1/4" water hose connections. 3/8" N.P.T. oil connections, 12" overall 90/10 Cupro Nickel Tubes.....Part No. 2752-1-7

## MARINEPOWER<sup>®</sup> The Force Behind The Fun<sup>™</sup> Transmission and Engine Oil Coolers



513526

513615



Part No.  
M/P 513526  
M/P 513615

Application  
Engine / Gear Oil Cooler-Dual  
Engine Oil Cooler

## Recovery Tank - Coolant

Part No.  
1490

Description  
Complete assembly  
ready for installation



**CLASS I****HOW TO SELECT PART NUMBERS****2" OIL COOLERS**

Oil Fittings are standard 3/8" N.P.T.

- Step 1 – Choose a number for the tube bundle length (5" lg, 6" lg, 9" lg, 12" lg).  
 Step 2 – Choose a number for the end fitting and oil connection sizes.  
 Step 3 – Choose a number for the type of material (Copper, Cupro-Nickel).

**EXAMPLES**

- 1125-1-5 1 - Tube bundle, 5" long.  
 ↑ ↑ ↑  
 ① ② ③ 2 - End fitting 3/4" dia. hose with 3/8" NPT oil connections.  
 3. Copper Tubes
- 1132-151-7 1 - Tube bundle is 12" long.  
 ↑ ↑ ↑  
 ① ② ③ 2 - End fitting is 1-1/2" dia. hose with 1/2" NPT oil connections.  
 3 - Cupro-Nickel Tubes

ADD A "Z" TO LAST NUMBER SPECIFYING ZINC

**3" OIL COOLERS**

Oil Fittings are standard 1/2" N.P.T.

- Step 1 – Choose a number for the tube bundle length (6" lg, 9" lg, 12" lg).  
 Step 2 – Choose a number for the end fitting and oil connection sizes.  
 Step 3 – Choose a number for the type of material (Copper, Cupro-Nickel).

**EXAMPLES**

- 1187-40-7 1 - Tube bundle, 6" long.  
 ↑ ↑ ↑  
 ① ② ③ 2 - End fitting 1-1/2" dia. hose with 1/2" NPT oil connections.  
 3. Cupro-Nickel Tubes
- 1209-700-5 1 - Tube bundle is 9" long.  
 ↑ ↑ ↑  
 ① ② ③ 2 - End fitting is 1" NPT with 3/4" NPT oil connections.  
 3 - Copper Tubes

ADD A "Z" TO LAST NUMBER SPECIFYING ZINC

**Step 1****Step 2****Step 3**

	End Fitting Size	OIL CONNS.			
		3/8 NPT	1/2 NPT	3/4 NPT	
1125 → 5" Long Tube Bundle	3/4" Hose	-1	-11	-100	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">-5</div> <div style="border: 1px solid black; padding: 2px;">-7</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">CU</div> <div style="border: 1px solid black; padding: 2px;">CU/NI</div> </div>
1126 → 6" Long Tube Bundle	1" Hose	-2	-21	-200	
	1/2" NPT	-3	-31	-300	
	5/8" Hose	-4	-41	-400	
1129 → 9" Long Tube Bundle	3/4" NPT	-5	-51	-500	
	1" NPT	-6	-61	-600	
	1-1/4" NPT	-7	-71	-700	
	1-1/2" NPT	-8	-81	-800	
	1-1/8" Hose	-10	-101	-1000	
	1-1/4" Hose	-12	-121	-1200	
1132 → 12" Long Tube Bundle	1-3/8" Hose	-14	-141	-1400	
	1-1/2" Hose	-15	-151	-1500	
	1-5/8" Hose	-16	-161	-1600	
	1-3/4" Hose	-17	-171	-1700	
	2" Hose	-18	-181	-1800	

**Step 1****Step 2****Step 3**

	End Fitting Size	OIL CONNS.			
		3/8 NPT	1/2 NPT	3/4 NPT	
1187 → 6" Long Tube Bundle	1" Hose	-1	-10	-100	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">-5</div> <div style="border: 1px solid black; padding: 2px;">-7</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">CU</div> <div style="border: 1px solid black; padding: 2px;">CU/NI</div> </div>
1209 → 9" Long Tube Bundle	2" Hose	-2	-20	-200	
	1-3/8" Hose	-3	-30	-300	
	1-1/2" Hose	-4	-40	-400	
	1-1/4" Hose	-5	-50	-500	
	1-3/4" Hose	-6	-60	-600	
	1" NPT	-7	-70	-700	
	1-1/2" NPT	-8	-80	-800	
1928 → 12" Long Tube Bundle	2-1/4" Hose		-85	-850	
	2" NPT	-9	-90	-900	
	2-1/2" Hose		-95	-950	
	1-1/4" NPT	-11	-111	-1000	

2 2/3" oil coolers overall length is determined by tube bundle and end caps.  
 Pressure rated 150 PSIG oil side.

**CLASS II****HIGH PRESSURE COOLERS**

Made of 90/10 Cupro Nickel tubes, 375 PSIG oil side.

PART NO.	BUNDLE	OIL CONN.	WATER CONN.
2251-1-07	2" X 9"	.500 N.P.T.F.	1.250 N.P.T.F.
2251-2-07	2" X 9"	.500 N.P.T.F.	1.250 O.D. H.B.
2251-3-07	2" X 9"	.500 N.P.T.F.	1.000 N.P.T.F.
2252-1-07	2" X 12"	.500 N.P.T.F.	1.250 N.P.T.F.
2252-2-07	2" X 12"	.500 N.P.T.F.	1.250 O.D. H.B.
2252-3-07	2" X 12"	.500 N.P.T.F.	1.000 N.P.T.F.
2252-4-07	2" X 12"	.500 N.P.T.F.	1.500 O.D. H.B.
2253-1-7	3" X 9"	1.000 N.P.T.F.	2.000 N.P.T.F.
2253-2-7	3" X 9"	1.000 N.P.T.F.	1.250 N.P.T.F.
2253-3-7	3" X 9"	1.000 N.P.T.F.	1.500 N.P.T.F.
2253-4-7	3" X 9"	1.000 N.P.T.F.	2.000 O.D. H.B.
2254-1-7	3" X 12"	1.000 N.P.T.F.	2.000 N.P.T.F.

PART NO.	BUNDLE	OIL CONN.	WATER CONN.
2254-2-7	3" X 12"	1.000 N.P.T.F.	1.250 N.P.T.F.
2254-3-7	3" X 12"	1.000 N.P.T.F.	1.500 N.P.T.F.
2254-4-7	3" X 12"	1.000 N.P.T.F.	2.000 O.D. H.B.
2254-5-7	3" X 12"	1.000 N.P.T.F.	1.500 O.D. H.B.
3664-1-7	4" X 9"	1.000 N.P.T.F.	2.000 N.P.T.F.
3664-2-7	4" X 9"	1.000 N.P.T.F.	2.000 O.D. H.B.
3664-3-7	4" X 9"	1.000 N.P.T.F.	3.000 N.P.T.F.
3666-1-7	4" X 12"	1.000 N.P.T.F.	2.000 N.P.T.F.
3666-2-7	4" X 12"	1.000 N.P.T.F.	2.000 O.D. H.B.
3666-3-7	4" X 12"	1.000 N.P.T.F.	3.000 N.P.T.F.
3666-4-7	4" X 12"	1.000 N.P.T.F.	2.500 O.D. H.B.
3668-1-7	4" X 15"	1.000 N.P.T.F.	1.250 N.P.T.F.
3668-2-7	4" X 15"	1.000 N.P.T.F.	1.250 O.D. H.B.
3668-3-7	4" X 15"	1.000 N.P.T.F.	1.000 N.P.T.F.
11053-1-7	4" X 18"	1.000 N.P.T.F.	2.000 N.P.T.F.
11053-2-7	4" X 18"	1.000 N.P.T.F.	2.500 O.D. H.B.
11053-3-7	4" X 18"	1.000 N.P.T.F.	3.000 N.P.T.F.
12301-1-7	5" X 12"	1.000 N.P.T.F.	3.000 N.P.T.F.
12301-2-7	5" X 12"	1.000 N.P.T.F.	2.500 N.P.T.F.
12301-3-7	5" X 12"	1.000 N.P.T.F.	2.000 N.P.T.F.
12302-1-7	5" X 15"	1.000 N.P.T.F.	3.000 N.P.T.F.
12302-2-7	5" X 15"	1.000 N.P.T.F.	2.000 O.D. H.B.
12302-3-7	5" X 15"	1.000 N.P.T.F.	2.500 O.D. H.B.



When ordering please place "SEN" in front of part number



### Oil Cooler and Heat Exchanger Brackets

Sen-Dure Oil cooler and heat exchanger brackets are available in a variety of sizes.

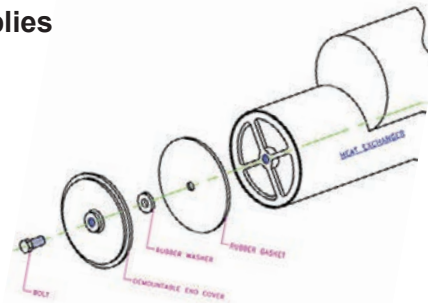
Part No.	Description
SEN 0245-2	for 2" diameter shell
SEN 6673	2" heavy duty clamp
SEN 0306-1	for 3" diameter shell
SEN 5278	for 4" diameter shell
SEN 7407	for 5" diameter shell
SEN 7408	for 6" diameter shell
SEN 7328	angle base for 3" dia.
SEN 7225	angle base for 4" dia.
SEN 6680	angle base for 5" dia.
SEN 6663	angle base for 6" dia.



### End Cover Assemblies

Assembly consists of Copper End Plate, Rubber Gasket, Gum Rubber Washer, Bolt and Instructions

Part No.	Description
SEN 5372	2" Dia. Assembly
SEN 5373	3" Dia. Assembly
SEN 5374	4" Dia. Assembly
SEN 5375	5" Dia. Assembly
SEN 5376	6" Dia. Assembly



### Gaskets for Heat Exchanger End Covers & Flanges

Part No.	Size/Description
SEN 0493	2" Rubber 1-7/8" O.D. / center hole
SEN 0131	3" Cork 4-1/2" O.D. / 1 Pass - 8 hole flange
SEN 0129	3" Cork 4-1/2" O.D. / 2 Pass - 8 hole flange
SEN 0332	3" Rubber 2-3/4" O.D. / center hole
SEN 0132	4" Cork 5-1/2" O.D. / 1 Pass - 8 hole flange
SEN 0130	4" Cork 5-1/2" O.D. / 2 Pass - 8 hole flange
SEN 0259	4" Rubber 3-3/4" O.D. / 1 pass - center hole
SEN 0138	4" Rubber 3-7/8" O.D. / 2 pass - center hole
SEN 0134	5" Cork 6-3/4" O.D. / 2 Pass - 10 hole flange
SEN 0135	5" Cork 6-3/4" O.D. / 1 Pass - 10 hole flange
SEN 0396	5" Rubber 4-3/4" O.D. / center hole
SEN 0137	6" Cork 8" O.D. / 1 Pass - 12 hole flange
SEN 0136	6" Cork 8" O.D. / 2 Pass - 12 hole flange
SEN 5029	6" Rubber Gasket / 5-3/4" O.D. - 1 pass
SEN 8895	Gum Rubber Washer



### In-Line Zinc Pencils

Part No.	Size
SEN 5140	3/4" Hose
SEN 5141	1" Hose
SEN 5142	1-1/4" Hose
SEN 5143	1-1/2" Hose
SEN 5144	1-3/4" Hose
SEN 5146	1/2" N.P.T.
SEN 5147	3/4" N.P.T.
SEN 5148	1" N.P.T.
SEN 5149	5/8" Hose



### Sen-Dure Strainers

Part No.	Material	Seacock Size	Size
SEN 0905	Bronze	1/2"	6 1/8" x 3 1/4"
SEN 0290	Bronze	1 1/4"	9" x 4 3/8"
SEN 0291	Bronze	1 1/2"	12 1/4" x 5 1/4"
SEN 0910	Bronze	2 1/2"	15" x 5 7/8"
SEN 5403	Aluminum	2 1/2"	15" x 5 7/8"



### Pressure Caps

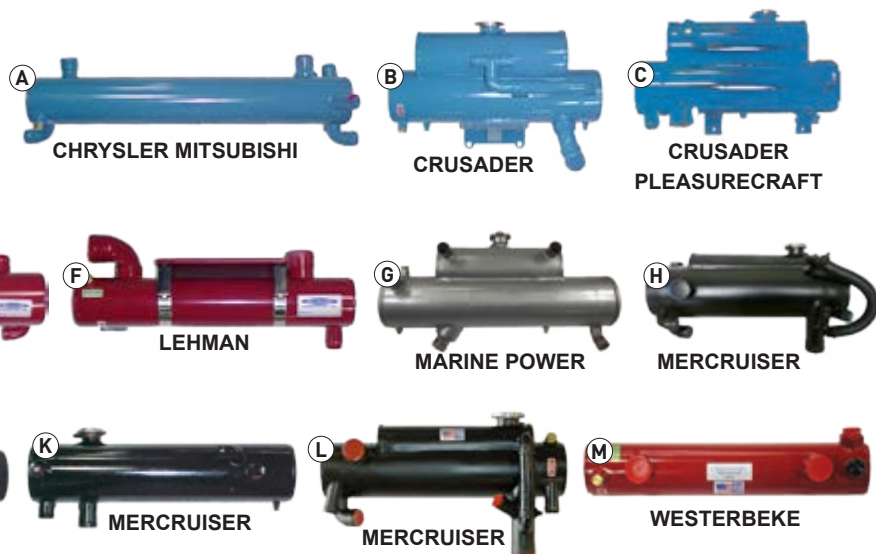
Part No.	Description
SEN 0078	7 lb.
SEN 6582	15 lb.







## HEAT EXCHANGERS

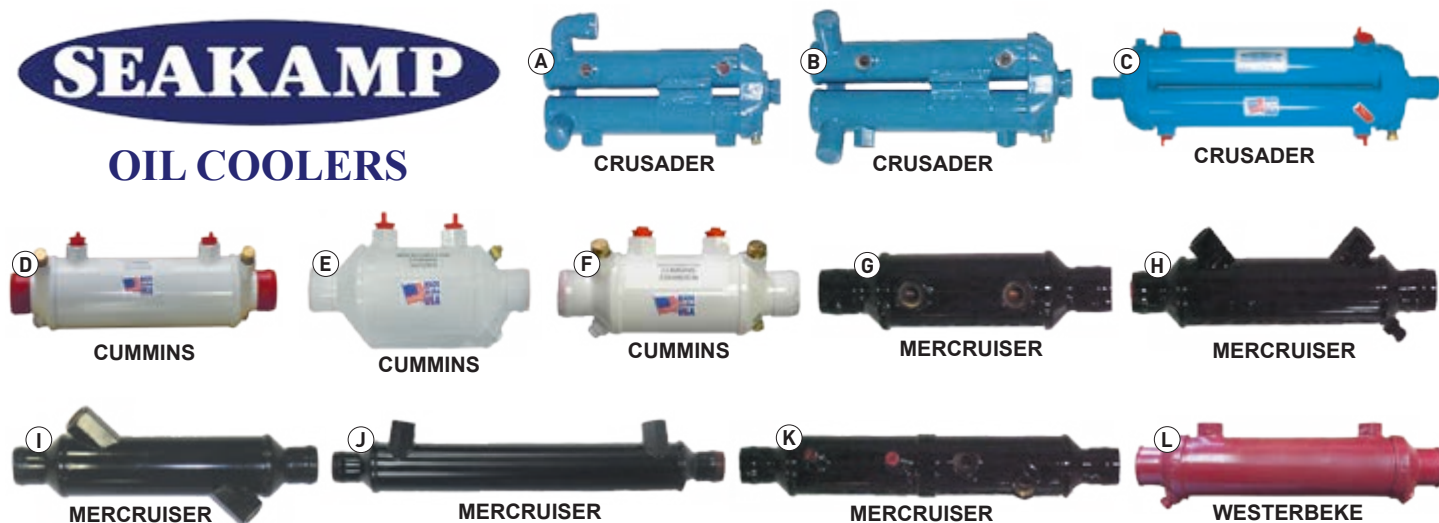


Part No.	Description
(A) SEA 4142016	CHRYSLER MITSUBISHI, Diesel 6-55
(B) SEA 97930	CRUSADER, BB GM/Chevy 454 cu
(C) SEA RA147017	CRUSADER, PLEASURECRAFT, Fits: GM 305-350
(D) SEA 3914642	CUMMINGS 6BT, 6BTA, CUPRO NICKEL
SEA 3866719	CUMMINGS 6BT later vers 250-HP & 300-HP
(E) SEA 2C218	LEHMAN Rear Mount 380 - 6 Cyl.
(F) SEA 2C219	LEHMAN Rear Mount 242 - 4 Cyl.
(G) SEA 0500-003	MARINE POWER, Rear mount, Chevy 305, 350, 454
(H) SEA 864395T01	MERCRUISER, Fmt mnt, 350-Magnum, 4.3-L, 6.2-L
(I) SEA 79607	MERCRUISER, GM Chevy)454 cu BB
(J) SEA 807400-A1	MERCRUISER, BB GM Chevy 7.4 Liter, Late Model

Part No.	Description
(K) SEA 814864	MERCRUISER, 454 cu.in. (7.4-Liter) GM Chevy BB Models 1992-1997 GEN-V & GEN-VI
(L) SEA 860234A1	MERCRUISER, SB GM Chevy 5.0-Liter & 5.7-Liter
(M) SEA 45374CN	WESTERBEKE Exhaust manifold & heat exchanger
	Universal 44A 44B 12.5 BTDB-60 9.4 BTDB-50 15.0 BTDC-60 12.0, Westerbeke 35C 35D 8.0 BTDA-60 6.0 BTDA-50 10.0 BTDA-60 7.5 B
SEA 45528	WESTERBEKE, Universal 44A 44B 12.5 BTDB-60 9.4 BTDB-50 15.0 BTDC-60 12.0 - 12.5 BTDB - 15.0 BTDC, Westerbeke 35C 35D 8.0 BTDA-60 6.0 BTDA-50 10.0 BTDA-60 7.5 B - 8.0 - 10.0 BTDA



## OIL COOLERS



Part No.	Description
(A) SEA 97878	CRUSADER, Engine Oil & Transmission Cooler
SEA 97878A	CRUSADER, Engine Oil & Transmission Cooler
(B) SEA SK98123	CRUSADER, Engine Oil & Transmission Cooler
(C) SEA RA147035A	CRUSADER, PLEASURECRAFT, Dual Oil Cooler
(D) SEA SK3912146CN	CUMMINGS, Trans/Gear Cooler, Cupro Nickel
(E) SEA 3917117CN	CUMMINGS, Gear Cooler, Cupro Nickel
(F) SEA SK3393663CN	CUMMINS Trans & Oil Cooler 6BTA diesel 300, 315, 330, and 370.
(G) SEA 806426-T	MERCRUISER, 2x5 1/2" Inverted flair, 1-25 hose

Part No.	Description
(H) SEA SK807371-T	MERCRUISER 9.75 in. (248 mm) OA length, 1.25 in. (32 mm) O.D. hose
(I) SEA SK807371-T1	MERCRUISER 10.25" OA length, 1.25" O.D. Hose
(J) SEA 862837T	MERCRUISER, Oil Cooler 16.62 in. (422 mm) overall length, 1.25 in. (32 mm) O.D. hose fittings
	Fits MIE GM V-8 350 & 454/502 cid engines.
(K) SEA 89690T	MERCRUISER, Oil & Power Steering Oil cooler,
(L) SEA SK24309	WESTERBEKE, Oil Cooler W58 Propulsion/20 KW thru 3/01/81 W52/15 KW Flowcontroller

**Manifold End Plate & Gasket  
Identification Listing**

<b>Manifold Part #</b>	<b>Front End Plate</b>	<b>Gasket</b>	<b>Exhaust End Plate</b>	<b>Gasket</b>	<b>Header Adaptor</b>
BV-1-57	1-0032	1-0019	1-0025	1-0019	1-0001
BV-1-67	1-0032	1-0019	1-0025	1-0019	1-0001
BV6-1-75	1-0092	1-0022	1-0024##	1-0022	1-0000
C-1-6364	1-0032	1-0019	1-0025	1-0019	1-0001
C6-1-M7M27	1-0056	1-0062	1-0067*	1-0068	1-0007
C6-1-M47	1-0057	1-0062	1-0067*	1-0068	1-0007
CAT-1-3208	DA-1-6371L2/R2	1-0019	1-0025	1-0019	1-0001
CHD-1-82	1-0036	1-0019	1-0025	1-0019	1-0001
CHV-1-5557	1-0042	1-0022	1-0024	1-0022	1-0000
CHV-1-63	1-0032	1-0019	1-0025	1-0019	1-0001
CHVA-1-58	1-0032	1-0019	1-0025	1-0019	1-0001
CHVA-1-65	1-0032	1-0019	1-0025	1-0019	1-0001
CM-1-5665	1-0092	1-0022	1-0024##	1-0022	1-0000
D-1-M6M26	1-0056	1-0062	1-0067*	1-0068	1-0007
D-1-M46SP	1-0057	1-0062	1-0067*	1-0068	1-0007
D1-M46ST	1-0057	1-0062	1-0067*	1-0068	1-0007
DD-1-501	1-0036	1-0019	1-0025	1-0019	1-0001
FC-1-60	1-0042	1-0022	1-0024	1-0022	1-0000
FE-1-58	1-0032	1-0019	1-0025	1-0019	1-0001
FM-1-5457	1-0031	1-0022	1-0024	1-0022	1-0000
FM-1-6970	1-0032	1-0019	1-0025	1-0019	1-0001
FM-1-7275	1-0032	1-0019	1-0025	1-0019	1-0001
GR-1-162**	1-0059	1-0060	GR-1-0001**	N/A	N/A
GR-1-175**	1-0059	1-0060	GR-1-0001**	N/A	N/A
GR-1-226	1-0009	1-0011	GR-1-0001**	N/A	N/A
GR-1-3273L	GR-1-0005L	GR-1-0006	GR-1-0003L	GR-1-0006	1-0069
GR-1-3273R	GR-1-0005R	GR-1-0006	GR-1-0003R	GR-1-0006	1-0069
GR-1-3274L	GR-1-0005L	GR-1-0006	GR-1-0002L	GR-1-0006	1-0002
GR-1-3274R	GR-1-0005R	GR-1-0002R	GR-1-0002R	GR-1-0006	1-0002
GR-1-6470	GR-1-6470A	1-0019	1-0036##	1-0019	1-0001
INT-1-5457L	1-0072	1-0022	1-0024##	1-0022	1-0000
INT-1-5457R	1-0074	1-0022	1-0024##	1-0022	1-0000
INT-1-58L	1-0077	1-0019	1-0025##	1-0019	1-0001
INT-1-58R	1-0076	1-0019	1-0025##	1-0019	1-0001
INT-1-6268L	1-0072	1-0022	1-0024##	1-0022	1-0000
INT-1-6268R	1-0074	1-0022	1-0024##	1-0022	1-0000
MC-1-0120	1-0075	1-0022	1-0092	1-0022	Not Req'd
MC-1-6364	C-1-6365B	1-0019	1-0036	1-0019	Not Req'd
OF-1-60	1-0036	1-0019	1-0025	1-0019	1-0001
OR-1-73	Not Req'd	Not Req'd	1-0080	1-0082	1-0081
V6D-1-478	V8D-1-0002	V8D-1-0003	V8D-1-0001##	V8D-1-0003	V8D-1-0004
V8D-1-637	V8D-1-0002	V8D-1-0003	V8D-1-0001##	V8D-1-0003	V8D-1-0004

\*Note: Manifolds with four bolt style end flanges require adaptor 1-0061 and gasket 1-0062 between manifold and end plate.

\*\*Note: GR-1-0001 is a replacement for the original gray threaded flange and is not supplied with the manifolds. Manifold marked (\*\*) thus can be used with original gray exhaust fitting.

##Header adaptor furnished instead of exhaust end plate.



**Made in the U.S.A.  
Quality Since 1933**

***BARR***  
***MARINE BY EDM***

When ordering please place **"BAR"** in front of part number

**Chevrolet V8-283, 302, 305, 307, 327 and 350 C.I.D.**  
**All Models Center Riser Generic**



CHV-1-83 Cast Iron  
CHV-1-92 Aluminum



CHV-47-0000



20-0100 Cast Iron  
20-0107 Aluminum



20-0082 Cast Iron  
20-0108 Aluminum



BAR 20-0102 3"  
IND 532027 3 1/2"



20-0097



20-0087P



20-0093P



20-0088P



20-0086P



20-0085P



20-0089P



20-0082P



1-0104P



CHV-1-83P



CC-27-79



CHV-27-0083



1-0106P



1-0107P



1-0105



M-6-0001P



MC-45-0002



OMC-20-0003

**Part No.**

CHV-1-83 & CHV-1-92

20-0082 & 20-0108

20-0100 & 20-0107

20-0102

1-0104P

1-0105

1-0106P

1-0107

20-0082P

20-0082SS-P

20-0085P

20-0086P

20-0087P

20-0088P

20-0089P

20-0093P

20-0097

CHV-1-83P

CHV-1-83SS-P

CHV-27-0083

CHV-47-0000

CC-27-79

MC-45-0002

MC-6-0001P

OMC-20-0003

**Description**

Water cooled center discharge manifold to fit the small block GM engine (3/4" N.P.T. cooling hose connections). All years.

Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Standard for use with 3" I.D. exhaust hose.

Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Standard for use with 4" I.D. exhaust hose.

Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Replaces Indmar 532009.

Adaptor package for fresh water cooled manifold (includes gaskets and block off plate).

Center riser manifold-to-riser gasket for fresh water cooling.

Adaptor package for raw water cooling.

Used in pre-heating applications (includes gaskets and block off plate with vent hole).

Center riser manifold-to-riser gasket (raw water cooling).

Riser mounting package for both 20-0082 and 20-0100.

Stainless steel mounting package (with brass plugs) for both 20-0082 and 20-0100. Not pictured.

Straight exhaust adaptor (includes adaptor, hose and clamps). For use with 2-1/2" I.D. exhaust hose.

90° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 2-1/2" I.D. exhaust hose.

90° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3" I.D. exhaust hose.

30° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 2-1/2" I.D. exhaust hose.

30° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3" I.D. exhaust hose.

90° exhaust elbow adaptor

(includes adaptor, hose and clamps). For use with 3-1/2" or 4" I.D. exhaust hose.

3" spacer block (complete with mounting hardware, gasket and 3/4" pipe plug). Capable of stacking.

Manifold mounting package (includes bolts and pipe plugs).

Stainless steel manifold mounting package (includes stainless bolts and brass plugs). Not pictured.

Alternator bracket. Use where engine water pump is mounted on port side of engine below alternator.

Manifold to cylinder head gasket.

Alternator bracket. Use where engine water pump is mounted on the starboard side of the engine.

Fuel filter/solenoid bracket.

Exhaust manifold plumbing fittings

Hose bushing 3" to 3-1/2"

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.



**Made in the U.S.A.**  
**Quality Since 1933**

**BARR**  
**MARINE BY EDM**

When ordering please place "BAR" in front of part number

**Chevrolet Big Block 427 and 454 C.I.D.  
All Models Center Riser Generic  
Cast Iron & Aluminum**

**BARR**  
MARINE BY EDM



CHVA-1-84 Cast Iron  
CHVA-1-92 Aluminum



CHVA-47-0000



20-0100 Cast Iron  
20-0107 Aluminum



20-0082 Cast Iron  
20-0108 Aluminum



BAR 20-0102 3"  
IND 532027 3 1/2"



20-0084P



20-0085P



20-0086P



20-0087P



20-0088P



20-0089P



20-0092P



20-0093P



1-0104P



1-0105



1-0106P



1-0107P



20-0082P



MC-27-47487

**Part No.**

**Description**

CHVA-1-84 & CHVA-1-92

Water cooled center discharge manifold to fit the big block GM engine (3/4" N.P.T. cooling hose connections). All years.

20-0082 & 20-0108

Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Standard for use with 3" I.D. exhaust hose.

20-0100 & 20-0107

Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Standard for use with 4" I.D. exhaust hose.

20-0102

Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Replaces Indmar 532009.

1-0104P

Adaptor package for fresh water cooled manifold (includes gaskets and block off plate).

1-0105

Center riser manifold-to-riser gasket for fresh water cooling.

1-0106P

Adaptor package for raw water cooling. Used in pre-heating applications (includes gaskets and block off plate with vent hole).

1-0107

Center riser manifold-to-riser gasket (raw water cooling).

20-0082P

Riser mounting package for both 20-0082 and 20-0100.

20-0082SS-P

Stainless steel mounting package (with brass plugs) for both 20-0082 and 20-0100. Not pictured.

20-0084P

Straight exhaust adaptor (includes adaptor, hose and clamps). For use with 3-1/2" I.D. exhaust hose.

20-0085P

Straight exhaust adaptor (includes adaptor, hose and clamps). For use with 2-1/2" I.D. exhaust hose.

20-0086P

90° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 2-1/2" I.D. exhaust hose.

20-0087P

90° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3" I.D. exhaust hose.

20-0088P

30° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 2-1/2" I.D. exhaust hose.

20-0089P

30° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3" I.D. exhaust hose.

20-0092P

45° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3" I.D. exhaust hose.

20-0093P

90° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3-1/2" or 4" I.D. exhaust hose.

20-0097

3" spacer block (complete with mounting hardware, gasket and 3/4" pipe plug). Capable of stacking.

CHVA-1-84P

Manifold mounting package (includes bolts and pipe plugs).

CHVA-1-84SS-P

Stainless steel manifold mounting package (includes stainless bolts and brass plugs). Not pictured.

CHVA-47-0000

Manifold to cylinder head gasket.

MC-27-47487

Alternator bracket.



Made in the U.S.A.  
Quality Since 1933

When ordering please place **"BAR"** in front of part number



## Chris Craft V8-283, 302, 305, 307, 327 and 350 C.I.D.

All Models Log Style Direct Replacement The CC-1-07686 must not be used in 3 pass plumbing systems



CC-1-07686



CC47-1650-05944



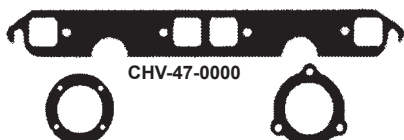
CC47-1650-06022



CC-20-0828P



CC-1-07686P

CC-20-08288 (Port)  
CC-20-08289 (Stb.)

CHV-47-0000



CC47-1650-07597



CC47-1650-07290



CC47-1650-07681



CC47-1650-07596



CC-6-80



CC-20-07593



CC-20-07605

## Part No.

## Description

CC-1-07686

Direct replacement water cooled manifold. Replaces Chris Craft 16.20-07686.

CC-20-08288

Direct replacement port side riser.

CC-20-08289

Direct replacement starboard side riser.

CC-1-07686P

Manifold mounting package.

CC-6-80

Pressure relief valve adaptor package for use with Chris Craft direct replacement risers as needed.

CC-20-07593

Riser/deflector plate. Replaces Chris Craft 16.20-07593

CC-20-07605

Direct replacement exhaust elbow.

CC-20-0828P

Exhaust riser mounting package.

CC47-1650-05944

End cap gasket for all models except 283 C.I.D. with flywheel forward (Order (2) of the appropriate gaskets according to your requirements).

CC47-1650-06022

End cap gasket for 283 C.I.D. with flywheel forward

CC47-1650-07290

Pressure relief valve housing gasket.

CC47-1650-07596

Riser/deflector plate gasket. Also

CC47-1650-07597

requires gasket CC47-1650-07597 (Order (2) of the appropriate gaskets according to your requirements).

CC47-1650-07681

Riser/tail pipe gasket. Also requires gasket CC47-1650-07596

CHV-47-0000

(Order (2) of the appropriate gaskets according to your requirements).

Adaptor/tail pipe gasket for 283 C.I.D. with flywheel forward (Order (2) of the appropriate gaskets according to your requirements).

Manifold to cylinder head gasket.

**BARR**  
MARINE BY EDMMade in the U.S.A.  
Quality Since 1933

## Chris Craft V8-283, 302, 305, 307, 327 and 350 C.I.D.

All Models Generic



20-0000



20-0031



20-0055



20-0039



20-0035



20-0034



20-0002P



CC47-1650-05944

**BARR**  
MARINE BY EDM

CC47-1650-06022



CC-6-80



1-0283L / 1-0283R



1-0012L / 1-0012R

## Part No.

## Description

1-0012L

Adaptor for Chris Craft V8 283 C.I.D. Manifolds prior to Models F, G, K and Q (three pass manifold system) left side. Requires Chris Craft adaptor part 16.20-07602 (port side).

1-0012R

Adaptor for Chris Craft V8 283 C.I.D. Manifolds prior to Models F, G, K and Q (three pass manifold system) right side. Requires Chris Craft adaptor part 16.20-07064 (starboard side).

1-0283A

Adaptor for Chris Craft V8 283, 302, 305, 307, 327 and 350 C.I.D. Manifolds, Models F, G, and K (two pass manifold system). Not pictured.

1-0283L

Adaptor for Chris Craft V8 283, 302, 305, 307, 327 and 350 C.I.D. Manifolds, Model Q (single pass manifold system) left side.

1-0283R

Adaptor for Chris Craft V8 283, 302, 305, 307, 327 and 350 C.I.D. Manifolds, Model Q (single pass manifold system) right side.

20-0000

Swivel-type high discharge exhaust riser; 8-1/2" riser protection.

Requires (1) mounting hardware kit 20-0002P per riser. Use only with 2-7/8" to 3" I.D. exhaust hose.

20-0002P

Mounting hardware kit.

20-0031

Swivel-type 90° exhaust elbow connector with internal water discharge.

Accepts 2-1/2" to 3" I.D. exhaust hose. Requires (1) mounting hardware kit 20-0002P per elbow.

20-0034 or 20-0035

Exhaust connector 20-0035 (for 2-1/2" I.D. exhaust hose) or exhaust connector 20-0034 (for 3" I.D. exhaust hose). Connects to 20-0039 using (1) 20-0002P per connector.

20-0039

Fully jacketed swivel type exhaust riser; 7" riser protection. Requires (2) mounting hardware kits 20-0002P (1) kit to mount riser to manifold and (1) kit to mount elbows 20-0034 or 20-0035 to riser).

20-0055

Swivel type 30° exhaust elbow connector; fully jacketed. Accepts 2-1/2" or 3" I.D. exhaust hose. Requires (1) mounting hardware kit 20-0002P per elbow.

CC-6-80

Pressure relief valve adaptor package for Chris Craft V8 Models F, G, K, and Q. Use with 20-0039 riser.

CC47-1650-05944

End cap gasket for all models except 283 C.I.D. with flywheel forward

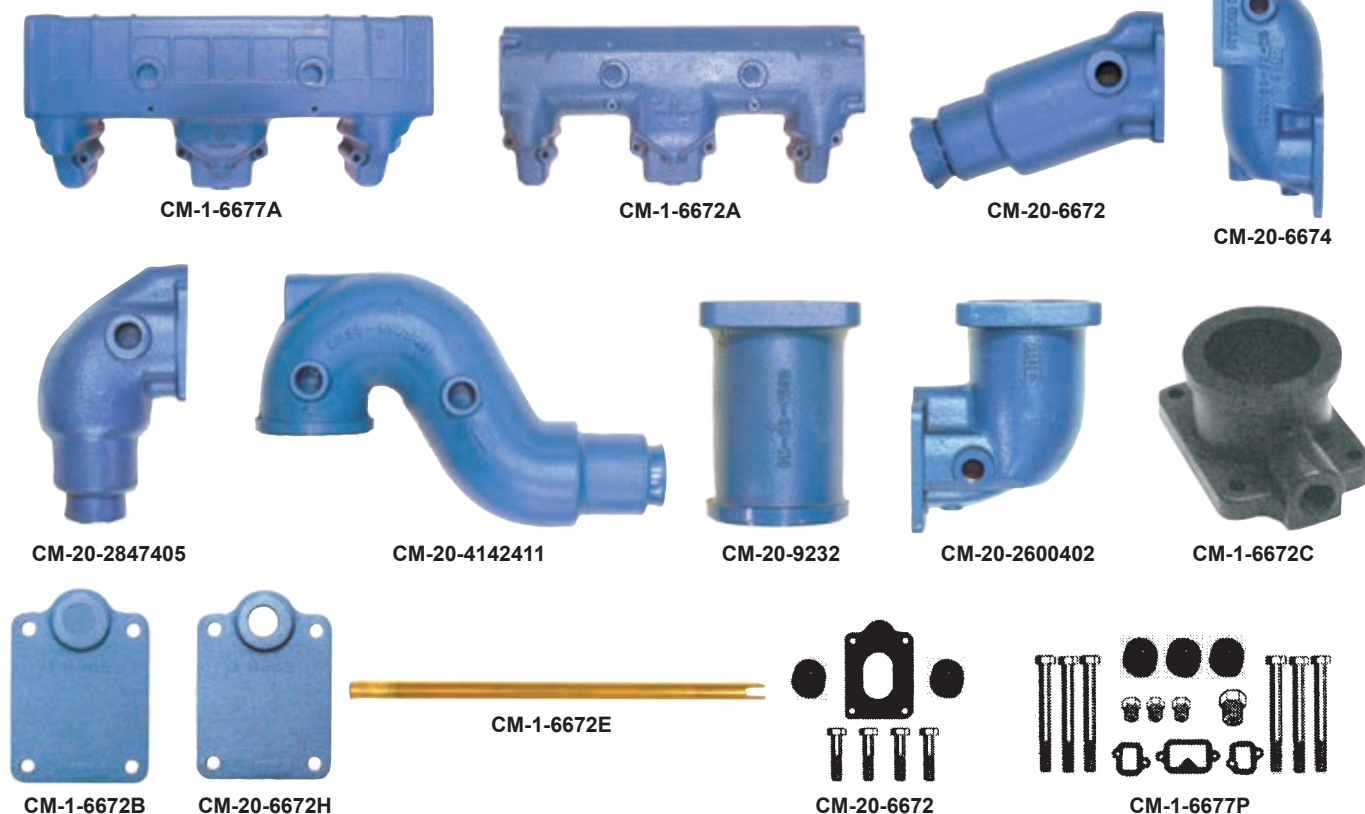
CC47-1650-06022

End gasket for 283 C.I.D. with fly wheel forward

(Order (2) of the appropriate gaskets according to your requirements).

When ordering please place "BARR" in front of part number

## Chrysler V8 - 273, 318, 340, and 360 C.I.D. All Models. 1966 and Up Log Style Direct Replacement



Part No.	Description
CM-1-6672A	Direct replacement water cooled manifold for model years 1966 to 1972.
CM-1-6677A	Direct replacement water cooled manifold for model years 1973 to 1986.
CM-20-2600402	Exhaust riser lower elbow. Direct replacement for Chrysler 2600402.
CM-20-2847405	90° exhaust elbow. Direct replacement for Chrysler 2847405 and 2469639.
CM-20-4142411	Exhaust riser/upper elbow. Direct replacement for Chrysler 3745639, 2847623, 2487404 and E9233M.
CM-20-6672	Fully jacketed 20° exhaust elbow. Accepts 3" I.D. exhaust hose.
CM-20-6674	Direct replacement for Chrysler 3527794. Will mount directly to manifold or can be used with riser CM-20-6674.
CM-20-9232	Fully jacketed exhaust riser. 6" riser protection. Direct replacement for Chrysler 2846689.
CM-1-6672B	6" exhaust elbow high riser extension. Direct replacement for Chrysler E9232M.
CM-1-6672C	Front end plate without the water connector, (1) required per manifold (Chrysler 2846106). May require mounting kit CM-1-6672B-P (shown on next page).
CM-1-6672E	Order the appropriate end flanges and fittings according to your requirements.
CM-1-6672H	Adaptor for rear end of manifold. Use with Barr style exhaust risers or elbows, (1) required per manifold.
CM-1-6677P	Copper water distribution tube, (1) required per manifold. Replaces original tube (Chrysler part 3527781) where used. Will fit both manifold styles.
CM-1-6677SS-P	Front end plate with 1/2" N.P.T. water connection. For use where water connection is made from the front of the manifold. Will replace Chrysler part 3527869, (1) required per manifold. May require mounting kit CM-1-6672B-P (show on next page).
CM-20-6672P	Will fit both manifold styles.
CM-1-6677P	Manifold to cylinder head mounting kit (Order (1) of the appropriate mounting kits according to your requirements).
CM-1-6677SS-P	Stainless steel manifold to cylinder head mounting kit (includes stainless studs, nuts, manifold to head gaskets and brass drain plugs). Not pictured.
CM-20-6672P	Mounting kit for exhaust elbow connector for raw water cooled manifold (includes bolts, gasket and pipe plug).

Note: CM-1-6672A, CM-1-6677A, CM-20-6672, CM-20-6674 and CM-20-2847405 include all mounting hardware, gaskets and plugs. Swivel-style connector packages must be purchased separate for the corresponding riser/elbows. See next page for part numbers.

# **BARR**

**MARINE BY EDM**

**Made in the U.S.A.**

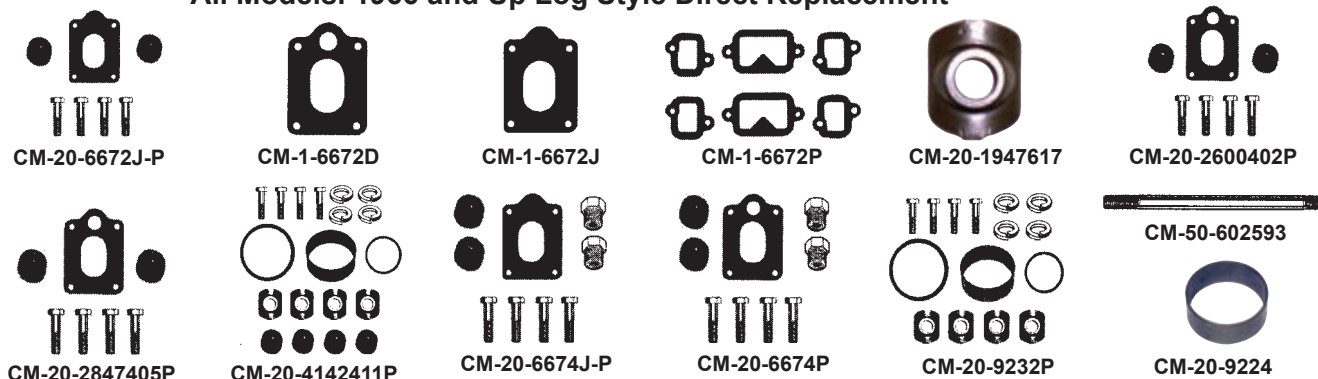
**Quality Since 1933**

**There are None Better**



When ordering please place **"BARR"** in front of part number

**Chrysler V8 - 273, 318, 340, and 360 C.I.D.**  
**All Models. 1966 and Up Log Style Direct Replacement**

**Part No.**

CM-1-6672D

CM-1-6672J

CM-1-6672P

CM-20-1947617

CM-20-2600402P

CM-20-2847405P

CM-20-4142411P

CM-20-6672J-P

CM-20-6674J-P

CM-20-6674P

CM-20-9232P

CM-20-9224

CM-20-9225

CM-20-9226

CM-50-115729

CM-50-602593

**Description**

End flange gasket for raw water cooled manifolds, (2) required per manifold.

Replaces Chrysler part 2847480. Will fit both manifold styles.

End flange gasket for fresh water cooled manifolds, (1) required per exhaust end. Will fit both manifold styles.

Manifold to cylinder head gasket set,

(1) required per engine. Replaces Chrysler part 3745220. Will fit both manifold styles.

Exhaust elbow extension retainer.

Mounting kit for lower elbow riser (includes bolts, gasket and pipe plugs).

Mounting kit for exhaust elbow (includes bolts, gasket and pipe plugs).

Mounting kit for upper riser/elbow (includes sleeve, O-rings retainers, bolts and pipe plugs).

Mounting kit for exhaust elbow connector for fresh water cooled manifold (includes bolts, gasket, and pipe plugs).

Mounting kit for exhaust riser for fresh water cooled manifold (includes bolts, gasket and pipe plug).

Mounting kit for raw water cooled manifold (includes bolts, gasket and pipe plugs).

Mounting kit for 6" extension (includes sleeve, O-rings retainers and bolts).

Exhaust to elbow extension retainer sleeve.

Exhaust to elbow extension inner seal. Not Pictured

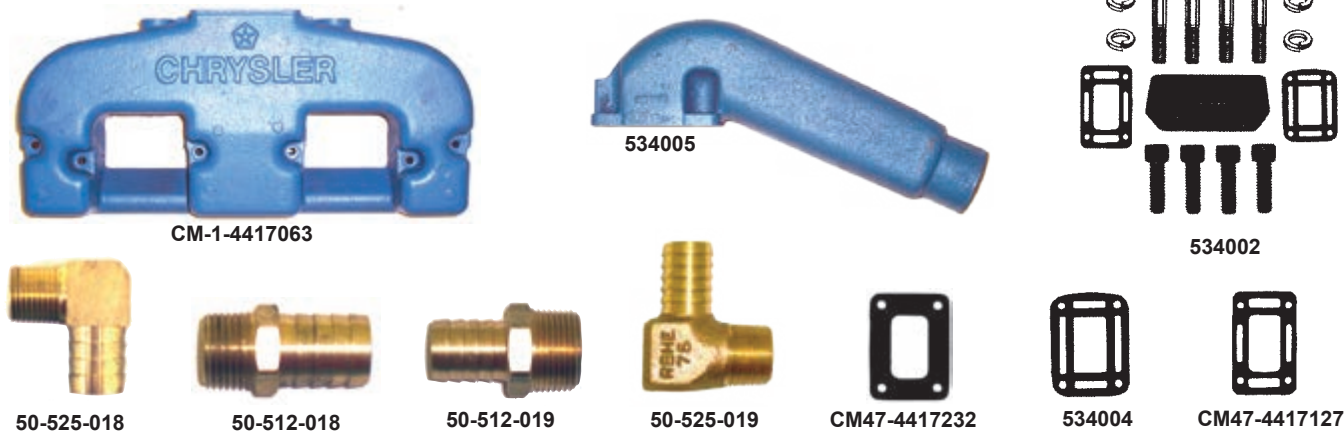
Exhaust to elbow extension outer seal. Not Pictured

Stainless steel exhaust manifold stud nut. Not Pictured

Stainless steel exhaust manifold stud.

**BARR**  
**MARINE BY EDM**

**Chrysler V8 - 273, 318, 340, and 360 C.I.D.**  
**All Models. 1986 and Up Center Riser Direct Replacement**

**Part No.**

CM-1-4417063

534005

534002

534004

50-512-018

50-512-019

50-525-018

50-525-019

CM47-4417127

CM47-4417232

**Description**

Water cooled center discharge exhaust manifold to fit the small block Chrysler

(1/2" N.P.T. cooling hose connections). Used during years 1986 and later.

Generic riser designed to be mounted to the original Chrysler center riser exhaust manifold

(for use with 3" I.D. exhaust hose/3/4" N.P.T. cooling hose connection).

Adaptor kit (sold as shown) to fit the original Chrysler center riser exhaust manifold to the Barr style riser

(part 534005). Adaptor must be used for Barr style riser.

Riser gasket for raw water cooled manifolds (installed between manifold and adaptor plate).

1/2" N.P.T. x 3/4" hose (straight barb) brass fitting.

3/4" N.P.T. x 3/4" hose (straight barb) brass fitting.

1/2" N.P.T. x 3/4" hose (90°) brass fitting

3/4" N.P.T. x 3/4" hose (90°) brass fitting.

Riser gasket for raw water cooled manifolds (installed between adaptor plate and riser).

Riser gasket for fresh water cooled manifolds (installed between manifold and adaptor plate).

Note: Manifold includes all mounting hardware, gaskets and plugs.

**BARR**  
**MARINE BY EDM**



Made in the U.S.A.  
 Quality Since 1933

When ordering please place "BARR" in front of part number



**Chrysler V8 - 361, 383, 400, 413, 426 and 440 C.I.D.  
All Models. 1959 and Up Log Style Direct Replacement**



Part No.	Description
CM-1-5972A	Direct replacement water cooled manifold for big block Chrysler.
CM-20-4142411	Exhaust riser/upper elbow. Direct replacement for Chrysler 3745639, 2847623, 2847404 and E9233M.
CM-20-9232	6" exhaust elbow high riser extension. Direct replacement for Chrysler E9232M.
CM-20-9234	Exhaust riser lower elbow. Direct replacement for Chrysler E9234M.
1-0007	Adaptor for rear end of manifold. Use with Barr style exhaust risers or elbow connectors.
1-0067	2-1/2" N.P.T. threaded exhaust end plate.
CM-1-5972B	Direct replacement front end plate.
CM-1-5972C	End plate gasket, (2) required per manifold.
CM-1-5972D	Copper water distribution tube. Replaces original tube where used.
CM-1-5972G-P	Manifold to cylinder head mounting kit (includes bolts, manifold to heat gaskets and brass drain plug).
CM-1-5972P	Manifold to cylinder head mounting gasket set.
CM-1-5972SS-P	Manifold to cylinder head mounting kit (includes stainless steel studs and nuts, manifold to head gaskets and brass drain plugs).
CM-20-1947617	Exhaust elbow extension retainer.
CM-20-4142411P	Mounting kit for upper riser/elbow (includes sleeve, O-rings retainers, bolts and pipe plugs).
CM-20-9224	Exhaust elbow to extension seal retainer sleeve.
CM-20-9225	Exhaust elbow to extension inner seal.
CM-20-9226	Exhaust elbow to extension outer seal.
CM-20-9232P	Mounting kit for 6" extension (includes sleeve, O-rings clamps and bolts).
CM-20-9234P	Mounting kit for lower elbow riser (includes bolts, gasket and pipe plugs).
CM-50-114942	Stainless steel exhaust manifold stud nut.
CM-50-5023040	Stainless steel exhaust manifold stud.

Note: Manifold includes all mounting hardware to head, gaskets and plugs. Swivel-style connector packages must be purchased separate for the corresponding riser/elbows.

**BARR**  
**MARINE BY EDM**

**Made in the U.S.A.**  
**Quality Since 1933**  
**There are None Better**



When ordering please place **"BARR"** in front of part number



Crusader V8-283, 305, 307, 327 and 350 C.I.D.

All Models Direct Replacement

CR-1-97753 (Port)  
CR-1-97752 (Stb.)

CR-20-97386



CR-20-97924



CR-20-96560



CR-20-96068



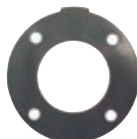
CHV-47-0000



CR-20-97772



CR-20-97169



CR-20-97296



CR-47-C-96108



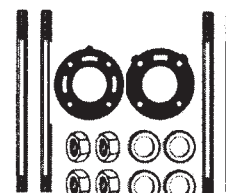
CR-47-C-96562



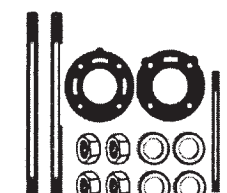
CR-20-97387



CR-20-97624



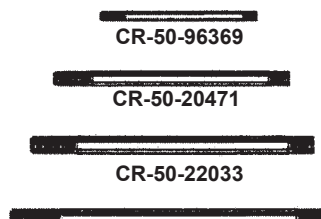
CR-20-97169P



CR-20-97772P



CR-20-97295

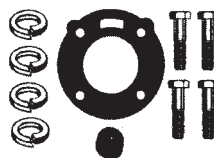


CR-50-96369

CR-50-20471

CR-50-22033

CR-50-22032



CR-20-96560P

**BARR**  
**MARINE BY EDM**
**Part No.**

CR-1-97752  
 CR-1-97753  
 CR-20-96560  
 CR-20-97169  
 CR-20-97386  
 CR-20-97387  
 CR-20-97624  
 CR-20-97772  
 CR-20-97924  
 CR-20-98068  
 CHV-47-0000  
 CR-1-97752P  
 CR 1 97753P  
 CR-20-96560P  
 CR-20-97169P  
 CR-20-97296  
 CR-20-97772P  
 CR-20-96319  
 CR47-C-96108  
 CR47-C-96562  
 CR-50-20471  
 CR-50-22032  
 CR-50-22033  
 CR-50-96369  
 CR-20-97295

**Description**

Direct replacement starboard side manifold. Replaces Crusader 97752.  
 Direct replacement port side manifold. Replaces Crusader 97753.  
 Direct replacement exhaust elbow assembly, 3" I.D. exhaust hose. Replaces Crusader 96560.  
 8" riser extension. Replaces Crusader 97169.  
 90° swivel elbow. Replaces Crusader 97386.  
 Elbow, lower swivel with 3" outlet. Replaces Crusader 97387.  
 Elbow, lower swivel with 4" outlet. Replaces Crusader 97624.  
 4" riser extension. Replaces Crusader 97772.  
 Direct replacement exhaust elbow assembly, 4" I.D. exhaust hose. Replaces Crusader 97924.  
 Direct replacement exhaust elbow assembly, 3" I.D. exhaust hose.  
 For use without Crusader spacer 97295. Replaces Crusader 98068.  
 Manifold to cylinder head gasket.  
 Manifold mounting package. Not pictured.  
 Manifold mounting package (alternator side of engine). Not pictured.  
 Mounting package for CR-20-96560, CR-20-97386, CR-20-97924, and CR-20-98068.  
 Mounting package for CR-20-97169.  
 Stainless steel block off plate for fresh water applications.  
 Mounting package for CR-20-97772.  
 143° thermostat for Crusader. Not pictured.  
 Replacement exhaust elbow gasket (3 hole).  
 Replacement exhaust elbow gasket (1 hole).  
 Replaces Crusader 20471 (3/8" x 5-3/4" stainless steel stud).  
 Replaces Crusader 22032 (3/8" x 9-3/8" stainless steel stud). For use with OEM adaptor 97295.  
 Replaces Crusader 22033 (3/8" x 7-3/4" stainless steel stud).  
 Replaces Crusader 96369 (3/8" x 4" stainless steel stud). For use with OEM adaptor 97295.  
 Water Outlet Adapter



Made in the U.S.A.  
 Quality Since 1933

Note: Manifolds and elbows include all mounting hardware, gaskets and plugs. CR-20-96169P and CR-20-97772P must be purchased separate for the corresponding risers.

When ordering please place **"BAR"** in front of part number

## Crusader V8 454 and 502 C.I.D.

### All Models Direct Replacement



CR-1-97993 (Port)  
CR-1-97992 (Stb.)



CHVA-47-0000



CR-20-97386



CR-20-97924



CR-20-96560



CR-20-96068



CR-20-97772



CR-20-97169



CR-20-97296



CR-47-C-96108



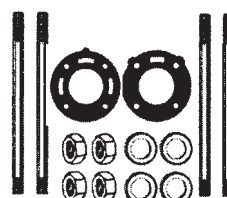
CR-47-C-96562



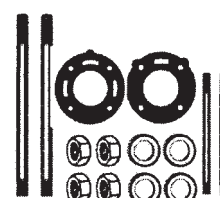
CR-20-97387



CR-20-97624



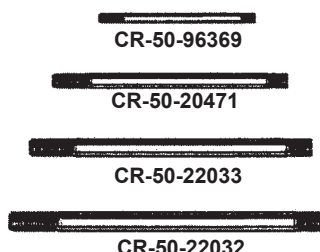
CR-20-97169P



CR-20-97772P



CR-20-97295

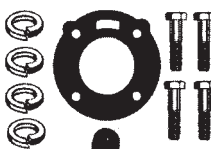


CR-50-96369

CR-50-20471

CR-50-22033

CR-50-22032



CR-20-96560P

# **BARR**

## **MARINE BY EDM**

### Part No.

CR-1-97992  
CR-1-97993  
CR-20-96560  
CR-20-97169  
CR-20-97386  
CR-20-97387  
CR-20-97624  
CR-20-97772  
CR-20-97924  
CR-20-98068

CHVA-47-0000  
CR-1-97992P  
CR-1-97993P  
CR-20-96560P  
CR-20-97169P  
CR-20-97296  
CR-20-97772P  
CR-20-96319  
CR47-C-96108  
CR47-C-96562  
CR-50-20471  
CR-50-22032  
CR-50-22033  
CR-50-96369  
CR-20-97295

### Description

Direct replacement starboard side manifold. Replaces Crusader 97992.  
Direct replacement port side manifold. Replaces Crusader 97993.  
Direct replacement exhaust elbow assembly, 3" I.D. exhaust hose. Replaces Crusader 96560.  
8" riser extension. Replaces Crusader 97169.  
90° swivel elbow. Replaces Crusader 97386.  
Elbow, lower swivel with 3" outlet. Replaces Crusader 97387.  
Elbow, lower swivel with 4" outlet. Replaces Crusader 97624.  
4" riser extension. Replaces Crusader 97772.  
Direct replacement exhaust elbow assembly, 4" I.D. exhaust hose. Replaces Crusader 97924.  
Direct replacement exhaust elbow assembly, 3" I.D. exhaust hose.  
For use without Crusader spacer 97295. Replaces Crusader 98068.  
Manifold to cylinder head gasket.  
Manifold mounting package. Not pictured.  
Manifold mounting package. Not pictured.  
Mounting package for CR-20-96560, CR-20-97386, CR-20-97924, and CR-20-98068.  
Mounting package for CR-20-97169.  
Stainless steel block off plate for fresh water applications.  
Mounting package for CR-20-97772.  
143° thermostat for Crusader (not pictured).  
Replacement exhaust elbow gasket (3 hole).  
Replacement exhaust elbow gasket (1 hole).  
Replaces Crusader 20471 3/8" x 5-3/4" stainless steel stud).  
Replaces Crusader 22032 (3/8" x 9-3/8" stainless steel stud). For use with OEM adaptor 97295.  
Replaces Crusader 22033 (3/8" x 7-3/4" stainless steel stud).  
Replaces Crusader 96369 (3/8" x 4" stainless steel stud). For use with OEM adaptor 97295.  
Water Outlet Adapter



Made in the U.S.A.  
Quality Since 1933

Note: Manifolds and elbows include all mounting hardware, gaskets and plugs. CR-20-96169P and CR-20-97772P must be purchased separate for the corresponding risers.

When ordering please place **"BAR"** in front of part number

**Crusader V8-454, 502 C.I.D.  
Center Riser Direct Replacement**



CR-1-98125



CHVA-47-0000

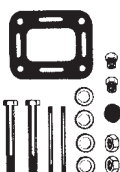
**BARR**  
MARINE BY EDM



CR-20-98126



CR47-C-98127



CR-20-98126P



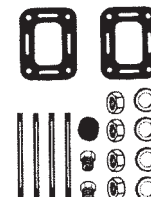
CR-20-98128



CR-1-98125P



CR-20-98124



CR-20-98128

**Part No.****Description**

CR-1-98125

Direct replacement water cooled exhaust manifold. Replaces Crusader 98125.

CR-20-98126

Direct replacement water cooled center discharge riser.

Replaces Crusader part 98126. Accepts 4" I.D. exhaust hose.

CR-20-98128

Manifold to riser 3" spacer block (single). Replaces Crusader 98128.

CHVA-47-0000

Manifold to cylinder head gasket.

CR-1-98125P

Mounting package for CR-1-98243.

CR-20-98124

Stainless steel block off plate for closed cooling applications.

CR-20-98126P

Mounting package for CR-20-98126 riser.

CR-20-98128P

Mounting package for CR-20-98128 spacer.

CR47-C-98127

Direct replacement manifold to riser gasket.

**Note:**

Manifold, riser and spacer block include all mounting hardware, gaskets and plugs.



Made in the U.S.A.  
Quality Since 1933

**Crusader V8-283, 305, 307, 327 and 350 C.I.D.**

**Center Riser Direct Replacement**



CR-1-98243



CHV-47-0000

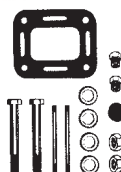
**BARR**  
MARINE BY EDM



CR-20-98126



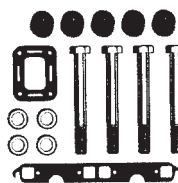
CR47-C-98127



CR-20-98126P



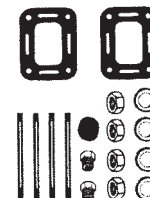
CR-20-98128



CR-1-98243P



CR-20-98124



CR-20-98128

**Part No.****Description**

CR-1-98243

Direct replacement water cooled exhaust manifold. Replaces Crusader 98243.

CR-20-98126

Direct replacement water cooled center discharge riser.

Replaces Crusader part 98126. Accepts 4" I.D. exhaust hose.

CR-20-98128

Manifold to riser 3" spacer block (single). Replaces Crusader 98128.

CHV-47-0000

Manifold to cylinder head gasket.

CR-1-98243P

Mounting package for CR-1-98243.

CR-20-98124

Stainless steel block off plate for closed cooling applications.

CR-20-98126P

Mounting package for CR-20-98126 riser.

CR-20-98128P

Mounting package for CR-20-98128 spacer.

CR47-C-98127

Direct replacement manifold to riser gasket.

**Note:**

Manifold, riser and spacer block include all mounting hardware, gaskets and plugs.

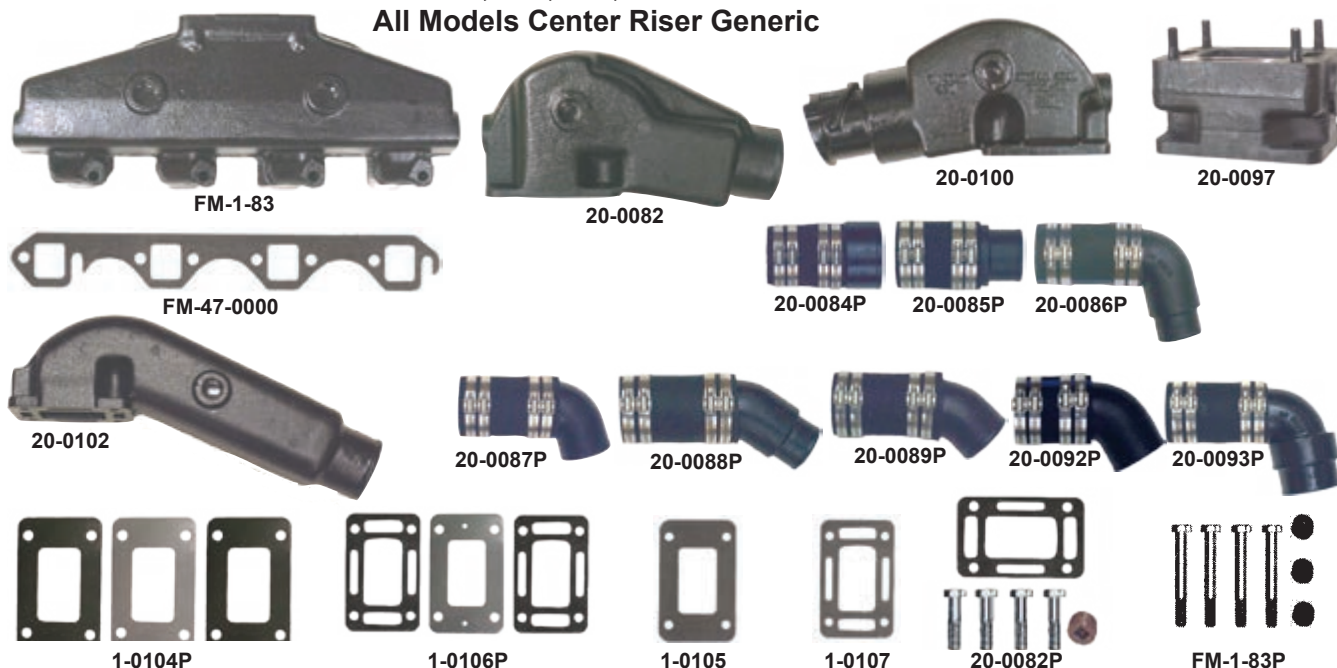


Made in the U.S.A.  
Quality Since 1933

When ordering please place **"BARR"** in front of part number



**Ford V8-221, 260, 289, 302 and 351 C.I.D.  
All Models Center Riser Generic**



Part No.	Description
FM-1-83	Water cooled center discharge manifold to fit the small block Ford engine (3/4" N.P.T. cooling hose connections). All years.
20-0082	Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Standard for use with 3" I.D. exhaust hose.
20-0100	Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Standard for use with 4" I.D. exhaust hose.
20-0102	Water cooled center discharge riser (3/4" N.P.T. cooling hose connection). Replaces Indmar 532009.
1-0104P	Adaptor package for fresh water cooled manifold (includes gaskets and block off plate).
1-0105	Center riser manifold-to-riser gasket for fresh water cooling.
1-0106P	Adaptor package for raw water cooling. Used in pre-heating applications (includes gaskets and block off plate with vent hole).
1-0107	Center riser manifold-to-riser gasket (raw water cooling).
20-0082P	Riser mounting package for both 20-0082 and 20-0100.
20-0082SS-P	Stainless steel mounting package (with brass plugs) for both 20-0082 and 20-0100. Not pictured.
20-0084P	Straight exhaust adaptor (includes adaptor, hose and clamps). For use with 3-1/2" I.D. exhaust hose.
20-0085P	Straight exhaust adaptor (includes adaptor, hose and clamps). For use with 2-1/2" I.D. exhaust hose.
20-0086P	90° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 2-1/2" I.D. exhaust hose.
20-0087P	90° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3" I.D. exhaust hose.
20-0088P	30° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 2-1/2" T.D. exhaust hose.
20-0089P	30° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3" I.D. exhaust hose.
20-0092P	45° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3" I.D. exhaust hose.
20-0093P	90° exhaust elbow adaptor (includes adaptor, hose and clamps). For use with 3-1/2" or 4" I.D. exhaust hose.
20-0097	3" spacer block (complete with mounting hardware, gasket and 3/4" pipe plug). Capable of stacking.
FM-1-83P	Manifold mounting package (includes bolts and pipe plug).
FM-1-83SS-P	Stainless steel manifold mounting package (includes stainless bolts and grass plugs). Not pictured.
FM-47-0000	Manifold to cylinder head gasket.

**BARR**  
MARINE BY EDM

**Made in the U.S.A.  
Quality Since 1933**

**BARR**  
MARINE BY EDM

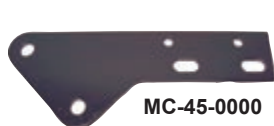


**There are None Better**

When ordering please place **"BAR"** in front of part number



**Ford V8-221, 260, 289, 302 and 351 C.I.D.  
All Models Center Riser Generic - Continued**



MC-45-0000



OMC-20-0003



OMC-20-0000P



MC-6-0000P



MC-6-0001P

**Part No.**

MC-6-0000P  
MC-6-0001P  
MC-45-0000  
OMC-20-0000P  
OMC-20-0003

**Description**

Exhaust manifold plumbing fittings package for models 188, 255, 233, 255, 302, 351 and 888.  
Exhaust manifold plumbing fittings package for model 215.  
Fuel filter and solenoid universal mounting bracket.  
Hook up package; may be required for connection to stern drive units (exhaust hose and clamps not included).  
Hose bushing 3" to 3-1/2" (where applicable).

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold

**Thermostat and Thermostat Housing Assemblies  
Barr Marine Style**



CHVA-29-0120



CHVA-29-78



OR-29-74



CHV-29-80



FM-29-0083



MC-29-59137  
CR-29-96319



OMC-29-383307  
MC-29-59078



CM-29-4142522  
CM-29-3675303

**All Barr Thermostat Hous-  
ings have 3/4" NPT**

**Part No.**

CHV-29-0120  
CHVA-29-78  
OR-29-74  
CHV-29-80  
FM-29-0083  
MC-29-59137  
CR-29-96319  
MC-29-59078  
CM-29-3675303  
CM-29-4142522  
OMC-29-383307

**Description**

Thermostat housing assembly for dual pump cooling system on 4 cyl. Chevrolet engines.  
Thermostat housing assembly for dual pump cooling system on Big Block Chevrolet V8's.  
Thermostat housing assembly for dual pump cooling system on Oldsmobile V8's (350, 403 and 455 C.I.D.).  
Thermostat housing assembly for dual pump cooling system on Chevrolet V6 and Small Block V8 engines.  
Thermostat housing assembly for dual pump system on Small Block Ford V8's.  
MerCruiser thermostat for models 888 (Ford), 225 (Ford), 233 (Ford) and 255 (Ford).  
Crusader thermostat (143°).  
MerCruiser thermostat for models 120, 140, 120R/140R, 160, 165 and 200.  
Chrysler thermostat (143°).  
Chrysler thermostat (163°).  
OMC thermostat (160°).



**Made in the U.S.A.  
Quality Since 1933**

**BARR  
MARINE BY EDM**

When ordering please place **"BAR"** in front of part number

**MerCruiser 4 Cylinder 153 C.I.D. 120 HP Model 120 Engine  
Log Style Direct Replacement**



MC-1-63122



MC-20-55538



MC-29-60372



MC-29-47587



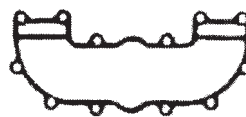
1-73811



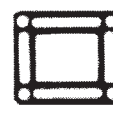
1-47638



MC47-475KIT



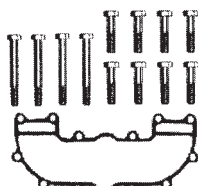
MC47-27-35898



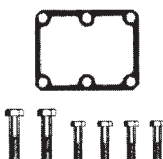
MC47-27-39915



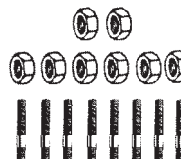
1-73811



MC-1-35898P



1-47638P



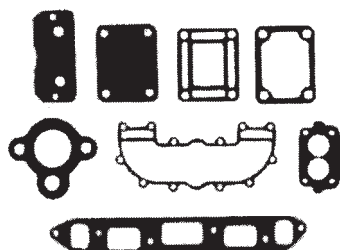
MC-1-63122P



MC-20-55538P



MC47-27-39923



MC47-27-35898A4



MC47-27-39917



MC47-27-52546

**Part No.**

MC-1-63122  
MC-20-55538  
MC-20-55538P  
1-39949P  
1-47638  
1-47638P  
1-73811  
1-73811P  
MC-1-35898P  
MC-1-63122P  
MC-29-47587  
MC-29-60372  
MC47-475KIT  
MC47-27-35898  
MC47-27-35898A4  
MC47-27-39915  
MC47-27-39917  
MC47-27-39923  
MC47-27-52546

**Description**

Direct replacement water cooled exhaust manifold. Replaces MerCruiser B-63122A1.  
Direct replacement exhaust elbow/riser. Replaces MerCruiser B-39920 and B-55538A2.  
Riser to exhaust manifold mounting package.  
Choke oven cover assembly. Not pictured.  
Direct replacement exhaust manifold end cap/connector (front). Replaces MerCruiser B-47638.  
Exhaust manifold end cap/connector (front) mounting package.  
Direct replacement exhaust manifold end cap (rear).  
Exhaust manifold end cap (rear) mounting package.  
Intake manifold mounting package.  
Exhaust manifold mounting package.  
Direct replacement lower thermostat housing.  
Direct replacement upper thermostat housing.  
Thermostat kit (includes gasket and thermostat).  
Direct replacement intake manifold gasket.  
Exhaust manifold gasket set.  
Direct replacement exhaust manifold to exhaust elbow gasket.  
Direct replacement exhaust manifold end cap/connector gasket.  
Direct replacement exhaust manifold end cap gasket.  
Direct replacement exhaust manifold to cylinder head gasket.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Riser includes plugs, gasket and mounting hardware to mount to manifold.

**BARR**  
**MARINE BY EDM**



**Made in the U.S.A.  
Quality Since 1933**

When ordering please place **"BARR"** in front of part number

## MerCruiser 4 Cylinder 181 C.I.D. 140 H.P.

## Model 140 Engine

## Log Style Direct Replacement



MC-1-52390

MC-20-60426  
MC-20-76351

MC-20-61851A3



MC-29-60372



MC-29-47587



MC47-27-53354



MC-20-60426P



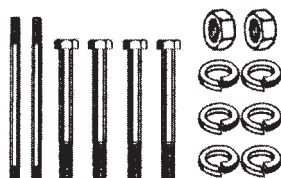
1-54870



1-60252



MC47-475KIT



MC1-27-52390P



MC47-27-52076



MC47-27-48043



MC-20-60207

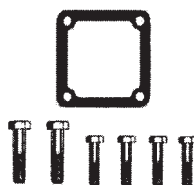


MC-20-55730

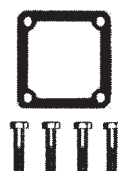


MC47-27-73814

**BARR**  
MARINE BY EDM



1-60252P



1-54870P

Part No.	Description
MC-1-52390	Direct replacement water cooled exhaust manifold. Replaces MerCruiser B-52390A1. For serial 3332138 and up.
MC-20-60426	Direct replacement exhaust elbow riser (utilizes a stainless steel sleeve at the water/air mixing area). Replaces MerCruiser B-60426A1.
MC-20-76351	Direct replacement exhaust elbow riser. Replaces MerCruiser B-76351A1. Not pictured.
1-54870	Direct replacement exhaust manifold rear end cap. Serial 4481625 and below.
1-54870P	Rear end cap mounting package.
1-60252	Direct replacement exhaust manifold end cap/connector. Replaces MerCruiser B-60252.
1-60252P	Front end plate mounting package.
1-73813	Direct replacement exhaust manifold rear end cap. Serial 4481625 and up.
MC-1-52390P	Exhaust manifold mounting package.
MC-20-55730	Stainless steel fresh water cooling block off plate for use with MerCruiser risers 60426, 76351 and 76771. Requires (2) gaskets MC47-27-52076.
MC-20-60207	Stainless steel block off plate (with vent hole) for use with MerCruiser risers 60426, 76351 and 76771. Requires (2) gaskets MC47-27-52076. Used in pre-heating plumbing systems.
MC-20-60426P	Exhaust riser elbow mounting package. For use with both MC-2060426 and MC-20-76351 risers.
MC-20-61851A3	Manifold to riser 3" spacer (single block). Includes all mounting hardware, gaskets and drain plug.
MC-29-47587	Lower thermostat housing.
MC-29-60372	Upper thermostat housing.
MC47-475KIT	Thermostat kit (includes gasket and thermostat).
MC47-27-48043	Direct replacement exhaust manifold end cap/connector gasket (will fit both ends).
MC47-27-52076	Direct replacement exhaust elbow to exhaust manifold gasket.
MC47-27-53354	Direct replacement exhaust manifold to cylinder head gasket.
MC47-27-53354A1	Exhaust manifold gasket set.
MC47-27-73814	Direct replacement exhaust manifold end cap gasket. Utilized with 1-73813 rear end cap.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Riser includes plugs, gasket and mounting hardware to mount to manifold.



Made in the U.S.A.  
Quality Since 1933

**BARR**  
MARINE BY EDM

When ordering please place "BAR" in front of part number

**MerCruiser 4 Cylinder 153 C.I.D. and 181 C.I.D.  
120 H.P. (2.5L), 140 H.P. (3.0L)  
Models 120R and 140R-MR/Alpha 1 Engines  
Log Style Direct Replacement**

**BARR**  
**MARINE BY EDM**



MC-1-99798



MC47-27-96429



MC-20-12076



MC-20-76325



MC-20-61851A3



MC47-27-99777A1



MC-29-47587



MC-29-60372



1-99179P



1-60252



MC47-475KIT



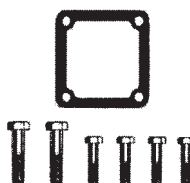
MC47-27-48043



MC47-27-73814



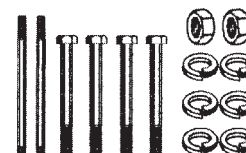
MC47-27-99777



1-60252P



1-99179P



MC-1-99798P

Part No.	Description
MC-1-95862	Direct replacement water cooled manifold (Rochester (3-1/4" X 1-7/8") bolt pattern). 6 bolt mounting. Replaces MerCruiser 95862A9 (no choke stove).
MC-1-96705	Direct replacement water cooled manifold (Rochester (3-1/4" X 1-7/8") bolt pattern). 6 bolt mounting. Replaces MerCruiser 96705A1.
MC-1-99798	Direct replacement water cooled manifold (MerCarb (3-11/16" X 2") bolt pattern). 6 bolt mounting. Replaces MerCruiser 99798A9.
MC-20-12076	Direct replacement exhaust riser. Replaces MerCruiser 12076A2.
MC-20-76325	Direct replacement exhaust riser. Replaces MerCruiser 76325A2.
1-60252	Direct replacement exhaust manifold end cap/connector. Replaces MerCruiser B-60252.
1-60252P	Front end plate mounting package.
1-99197	Direct replacement exhaust manifold rear end cap/lifting eye.
1-99179P	Rear end cap mounting package.
MC-1-99798P	Exhaust manifold to cylinder head mounting package.
MC-20-61851A3	Manifold to riser 3" spacer (single block). Includes all mounting hardware, gaskets and drain plug.
MC-29-47587	Lower thermostat housing.
MC-29-60372	Upper thermostat housing.
MC47-475KIT	Thermostat kit (includes gasket and thermostat).
MC47-27-48043	Direct replacement exhaust manifold end cap/connector gasket (will fit both ends).
MC47-27-73814	Direct replacement exhaust manifold end cap gasket. Utilized with 1-73813 rear end cap.
MC47-27-96429	Direct replacement exhaust manifold to cylinder head gasket.
MC47-27-99777	Direct replacement exhaust elbow to manifold gasket. Supersedes MerCruiser 27-52076.
MC47-27-99777A1	Exhaust manifold gasket set.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.



**Made in the U.S.A.  
Quality Since 1933**

**BARR**  
**MARINE BY EDM**

When ordering please place **"BARR"** in front of part number



**MerCruiser 4 Cylinder 181 C.I.D. 140 H.P.  
3.0L and 3.0LX Models  
All Models 1990 and Up (Vortec Style Head)  
Log Style Direct Replacement**



MC-1-860235



MC-20-12076



MC47-27-99777-2



MC-20-12076P



MC47-27-815528



MC-50-10-806300



MC47-27-807982



MC-50-10-53728



50-170-207



MC-50-23-861634



MC-50-25-32506



MC-50-865549



MC-50-22-806608



50-512-020

MC-50-11-24883  
MC-50-11-862902

MC-50-12-20553

**Part No.**

MC-1-860235  
MC-20-12076  
MC-20-12076P  
50-170-207  
50-512-020  
MC47-27-99777-2  
MC47-27-807982  
MC47-27-815528  
MC-50-865549  
MC-50-10-53728  
MC-50-10-806300  
MC-50-11-24883  
MC-50-11-862902  
MC-50-12-20553  
MC-50-22-862557  
MC-50-25-32506  
MC-50-23-861634

**Description**

Direct replacement exhaust manifold. Replaces MerCruiser 860235A04.  
Direct replacement exhaust riser. Replaces MerCruiser 12076A2.  
Exhaust riser mounting kit.  
3/8"-16 x 3/4" Hex Head Cap Screw (for mounting lifting eye).  
Fitting, 3/4" N.P.T. x 1" hose.  
Replacement exhaust riser to manifold gasket. Supersedes MerCruiser 27-52076 and 27-99777.  
Replacement carburetor to intake/exhaust manifold gasket.  
Replacement cylinder head to exhaust manifold gasket.  
Lifting eye.  
Replacement 3/8"-16 x 4-5/8" screw.  
Replacement 3/8" x 5-3/8" stud.  
Replacement nut.  
Replacement nut.  
Replacement washer.  
Replacement bushing, 3/8" x 1/2" NPT.  
Replacement O-Ring.  
Replacement cooling water hose, formed.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

**BARR**  
**MARINE BY EDM**

Made in the U.S.A.  
Quality Since 1933



There are None Better

When ordering please place **"BAR"** in front of part number

**MerCruiser Straight 6 Cylinder Model 165**  
Log Style Direct Replacement



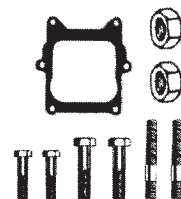
MC-1-58759



MC-20-60426  
MC-20-76351



MC-20-61851A3



MC-1-58764P



MC47-27-46401



MC-29-47587



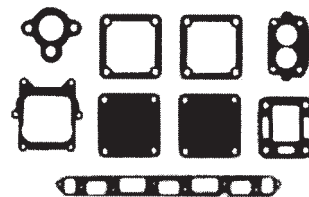
MC-29-60372



1-73813



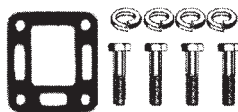
1-60252



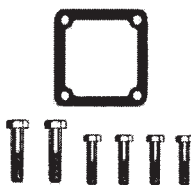
MC47-27-46401A1



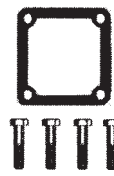
MC47-475KIT



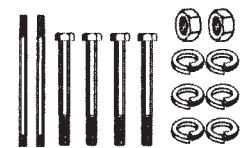
MC-20-60426P



1-60252P



1-54870P



MC-1-58759P



MC47-27-48043



MC-20-60207



MC-20-55730



MC47-27-73814



MC-1-58764P



MC47-27-99777

**Part No.**

**Description**

MC-1-58759	Direct replacement water cooled manifold to fit the 6 cyl. GM (Model 165) engine. Replaces MerCruiser B-58759A1.
MC-20-60426	Direct replacement exhaust elbow riser (utilizes a stainless steel sleeve at the water/air mixing area). Replaces MerCruiser B-60426A1.
MC-20-76351	Direct replacement exhaust elbow riser. Replaces MerCruiser B-76351A1. Not pictured.
1-54870	Direct replacement exhaust manifold end cap (rear). Superseded by 1-73813.
1-54870P	Exhaust manifold end cap (rear) mounting package.
1-60252	Direct replacement exhaust manifold end cap/connector (front). Replaces MerCruiser B-60252.
1-60252P	Exhaust manifold end cap/connector mounting package.
1-73813	Direct replacement manifold end cap (rear). Supersedes 1-54870.
1-71813P	Exhaust manifold end cap mounting package.
MC-1-58759P	Exhaust manifold mounting package.
MC-1-58764P	Manifold to carburetor adaptor mounting package.
MC-20-55730	Stainless steel fresh water cooling block off plate for use with MerCruiser risers 60426, 76351 and 76771. Requires (2) gaskets MC47-27-99777.
MC-20-60207	Stainless steel block off plate (with vent hole) for use with MerCruiser risers 60426, 76351 and 76771. Requires (2) gaskets MC47-27- 99777. Used in pre-heating plumbing systems.
MC-20-60426P	Exhaust riser elbow mounting package. For use with both MC-2060426 and MC-20-76351 risers.
MC-20-61851A3	Manifold to riser 3" spacer (single block). Includes all mounting hardware, gaskets and drain plug.
MC-29-47587	Lower thermostat housing.
MC-29-60372	Upper thermostat housing.
MC47-475KIT	Thermostat kit (includes gasket and thermostat).
MC47-27-46401	Direct replacement manifold to head gasket.
MC47-27-46401A1	Exhaust manifold gasket set.
MC47-27-48043	Direct replacement exhaust manifold end cap/connector gasket (will fit both ends).
MC47-27-58764	Direct replacement manifold to carburetor adaptor gasket.
MC47-27-73814	Direct replacement exhaust manifold end cap gasket. Utilized with 1-73814 rear end cap.
MC47-27-99777	Direct replacement exhaust elbow to manifold gasket. Supersedes MerCruiser 27-52076.



Made in the U.S.A.  
Quality Since 1933

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

**BARR**  
MARINE BY EDM

When ordering please place "BAR" in front of part number

**MerCruiser V6-229 C.I.D and 262 C.I.D.  
Models 185R, 185MR, 205R and 205MR  
Center Riser Direct Replacement**



MC-1-99746



MC-20-44354



MC-20-98504



MC-27-93175



MC-20-14478



MC-20-93322A3



MC-20-93320A3



MC-20-87918



MC-20-99208



MC-50-806926



MC-20-32-44348



MC-50-87238



MC47-27-41811



MC47-27-87105



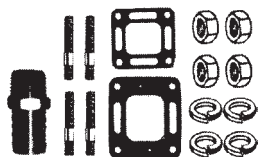
MC47-27-41813



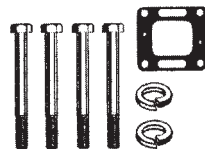
MC47-27-99757



MC-20-32-14358



MC-20-98504P



MC-20-44354P

**BARR**  
**MARINE BY EDM**



Made in the U.S.A.  
Quality Since 1933

Part No.	Description
MC-1-99746	Direct replacement water cooled exhaust manifold. Replaces MerCruiser 99746A3 or 99746A8.
MC-20-44354	Direct replacement water cooled center discharge riser.
	Replaces MerCruiser B-44354A3. Accepts 4" I.D. exhaust hose (8° angle).
MC-20-98504	Direct replacement water cooled center discharge riser.
	Replaces MerCruiser 98504A3. Accepts 3" I.D. exhaust hose (15° angle).
MC-20-44354P	Mounting package for MC-20-44354 riser.
MC-20-87918	Direct replacement stainless steel block off plate for use with MerCruiser risers 98502, 98504 and 44354. Requires (2) gaskets part MC47-27-41813.
MC-20-93320A3	Manifold to riser 3" spacer blocks (pair) with fastener and gasket package.
MC-20-93322A3	Manifold to riser 6" spacer blocks (pair) with fastener and gasket package.
MC-20-98504P	Mounting package for MC-20-98504 riser (includes gaskets, drain plug, pipe plug, stainless steel restrictor plate and fasteners).
MC-20-99208	Direct replacement stainless steel restrictor plate for use with MerCruiser risers 98502, 98504 and 44354. Requires (2) gaskets MC47-27-41813.
MC-27-93175	Alternator bracket.
MC47-27-41811	Direct replacement restrictor gasket. Replaces MerCruiser 27-41811. To be used with MC-20-87918 (2) required per plate used).
MC47-27-41813	Direct replacement restrictor gasket. Replaces MerCruiser 41813.
MC47-27-87105	Direct replacement exhaust elbow gasket. Replaces MerCruiser 27-87105.
MC47-27-99757	Direct replacement manifold to head gasket.
MC-50-87238	Exhaust manifold drain cock.
MC-50-806926	Replacement 3/4" N.P.T. x 1" hose fitting (90°) brass drain cock.
MC-20-14478	MERC. V6 Conversion Elbow & Hoses
MC-20-32-44348	Upper Bellows
MC-20-32-14358	Lower Bellows

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

When ordering please place **"BARR"** in front of part number

**MerCruiser V8-198, 228, 255, 260 & 898 C.I.D  
Inboard & Stern-Drive Units  
Log Style Direct Replacement**



MC-1-77234 (Port)  
MC-1-77235 (Stb.)



MC-20-76771



MC-20-60426  
MC-20-76351



MC-29-78984



MC47-27-33395



MC-29-47441



MC-27-48104



MC47-488KIT



MC-20-60207



MC-20-55730



1-73813



1-60252



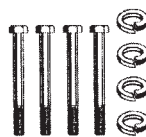
MC-20-60426P



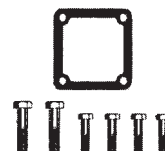
MC47-27-99777



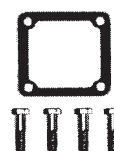
MC47-27-48043



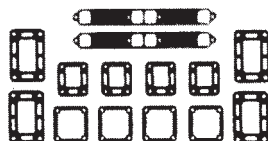
MC-1-77234P



1-60252P



1-73813P



MC47-27-33395A2



MC-20-61851A2

**BARR**  
MARINE BY EDM



Made in the U.S.A.  
Quality Since 1933

Part No.	Description
MC-1-77234	Direct replacement water cooled exhaust manifold (port side). Replaces MerCruiser B-77234A2.
MC-1-77235	Direct replacement water cooled exhaust manifold (starboard side). Replaces MerCruiser B-77235A2.
MC-20-60426	Direct replacement exhaust elbow riser (utilizes a stainless steel sleeve at the water/air mixing area). Replaces MerCruiser B-60426A1 I/O applications).
MC-20-76351	Direct replacement exhaust elbow riser. Replaces MerCruiser B-76351A1(I/O applications). Not pictured.
MC-20-76771	Direct replacement exhaust elbow riser. Replaces MerCruiser B-76771A3 (inboard applications).
1-60252	Direct replacement exhaust manifold end cap/connector. Replaces MerCruiser B-60252.
1-60252P	Front end plate mounting package.
1-73813	Direct replacement manifold end cap (rear). Supersedes part 1-54870.
1-73813P	Rear end cap mounting pkg.
MC-1-77234P	Manifold mounting package.
MC-20-55730	Stainless steel fresh water cooling block off plate for use with MerCruiser risers 60426, 76351 and 76771. Requires (2) gaskets MC47-27-99777.
MC-20-60207	Stainless steel block off plate (with vent hole) for use with MerCruiser risers 60426, 76351 and 76771. Requires (2) gaskets part MC47-27- 99777. Used in pre-heating plumbing systems.
MC-20-60426P	Exhaust riser elbow mounting package. For use with both MC-2060426 and MC-20-76351 risers.
MC-20-61851A2	Manifold to riser 3" spacers (sold in pairs). Includes all mounting hardware, gaskets and drain plugs.
MC-27-48104	Alternator mounting bracket.
MC-29-47441	Upper thermostat housing.
MC-29-78984	Lower thermostat housing.
MC47-488KIT	Thermostat kit (includes gasket and thermostat).
MC47-27-33395	Direct replacement exhaust manifold to head gasket.
MC47-27-33395A2	Exhaust manifold gasket set.
MC47-27-48043	Direct replacement exhaust manifold end cap/connector gasket (will fit both ends).
MC47-27-99777	Direct replacement exhaust elbow to manifold gasket. Supersedes MerCruiser 27-52076.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Riser includes plugs, gasket and mounting hardware to mount to manifold.

When ordering please place **"BAR"** in front of part number



**MerCruiser V8-225, 250, 255, 270 and 280  
Inboard and Stern-Drive Units Log Style Direct Replacement**



MC-1-47737 (Port)  
MC-1-47738 (Stb.)



MC-20-72963



MC-20-76668



MC-29-47441



MC-29-78984



MC47-27-33395



MC47-27-48042



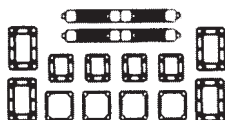
MC47-27-48043



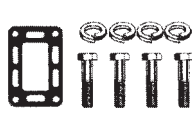
1-73813



1-60252



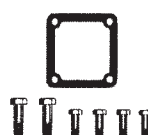
MC47-27-33395A2



MC-20-76668P  
MC-20-72963P



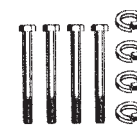
1-73813P



1-60252P



MC-20-61851A2



MC-1-77234P

**Part No.**

MC-1-47737  
MC-1-47738  
MC-20-72963  
MC-20-76668  
  
1-60252  
1-60252P  
1-73813  
1-73813P  
MC-1-77234P  
MC-20-72963P  
MC-20-76668P  
MC-20-61811A4  
MC-29-47441  
MC-29-78984  
MC47-488KIT  
MC47-27-33395  
MC47-27-33395A2  
MC47-27-48042  
MC47-27-48043

**Description**

Direct replacement water cooled exhaust manifold (port side). Replaces MerCruiser B.47737A1.  
Direct replacement water cooled exhaust manifold (starboard side). Replaces MerCruiser B.47738A1.  
Direct replacement exhaust elbow riser. Replaces MerCruiser B-72963A1 (inboard applications).  
Direct replacement exhaust elbow riser.  
Replaces MerCruiser B-76668A3, B-72964A1 and B-47877A4 (I/O applications).  
Direct replacement exhaust manifold end cap/connector. Replaces MerCruiser B-60252.  
Front end plate mounting package.  
Direct replacement manifold end cap (rear). Supersedes 1-54870.  
Rear end cap mounting package.  
Manifold mounting package. Use this package for the MC-1-47737 and MC-1-47738 manifolds.  
Exhaust riser elbow mounting package.  
Exhaust riser elbow mounting package.  
Manifold to riser 3" spacers (sold in pairs). Includes all mounting hardware, gaskets and drain plugs.  
Upper thermostat housing.  
Lower thermostat housing.  
Thermostat kit (includes gasket and thermostat).  
Direct replacement exhaust manifold to head gasket.  
Exhaust manifold gasket set.  
Direct replacement exhaust elbow to manifold gasket.  
Direct replacement exhaust manifold end cap/connector gasket (will fit both ends).

**BARR**  
MARINE BY EDM

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Riser includes plugs, gasket and mounting hardware to mount to manifold.

**MerCruiser 3" & 6" Riser Kits Direct Replacement**



MC-20-61811A4



MC-20-61851A2



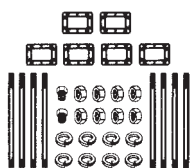
MC-20-61851A3



MC-20-93320A3



MC-20-93322A3



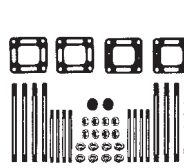
MC-20-61811A4P



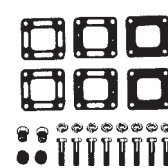
MC-20-61851A2P



MC-20-61851A3P



MC-20-93320A3P



MC-20-93322A3P

**Part No.**

MC-20-61811A4  
MC-20-61851A2  
MC-20-61851A3  
MC-20-93320A3  
MC-20-93322A3  
MC-20-61811A4P  
MC-20-61851A2P  
MC-20-61851A3P  
MC-20-93320A3P  
MC-20-93322A3P

**Description**

Manifold to riser 3" spacers (sold in pairs). Includes all mounting hardware, gaskets and drain plugs.  
Manifold to riser 3" spacers (sold in pairs). Includes all mounting hardware, gaskets and drain plugs.  
Manifold to riser 3" spacer (single block). Includes all mounting hardware, gaskets and drain plug.  
Manifold to riser 3" spacer blocks (pair) with fastener and gasket package.  
Manifold to riser 6" spacer blocks (pair) with fastener and gasket package.  
Mounting package for MC-20-61811A4 spacer block kit.  
Mounting package for MC-20-61851A2 spacer block kit.  
Mounting package for MC-20-61851A3 spacer block kit.  
Mounting package for MC-20-93320A3 spacer block kit.  
Mounting package for MC-20-93322A3 spacer block kit.

Note: Each spacer block kit includes the spacer block (s) and the corresponding package to mount.

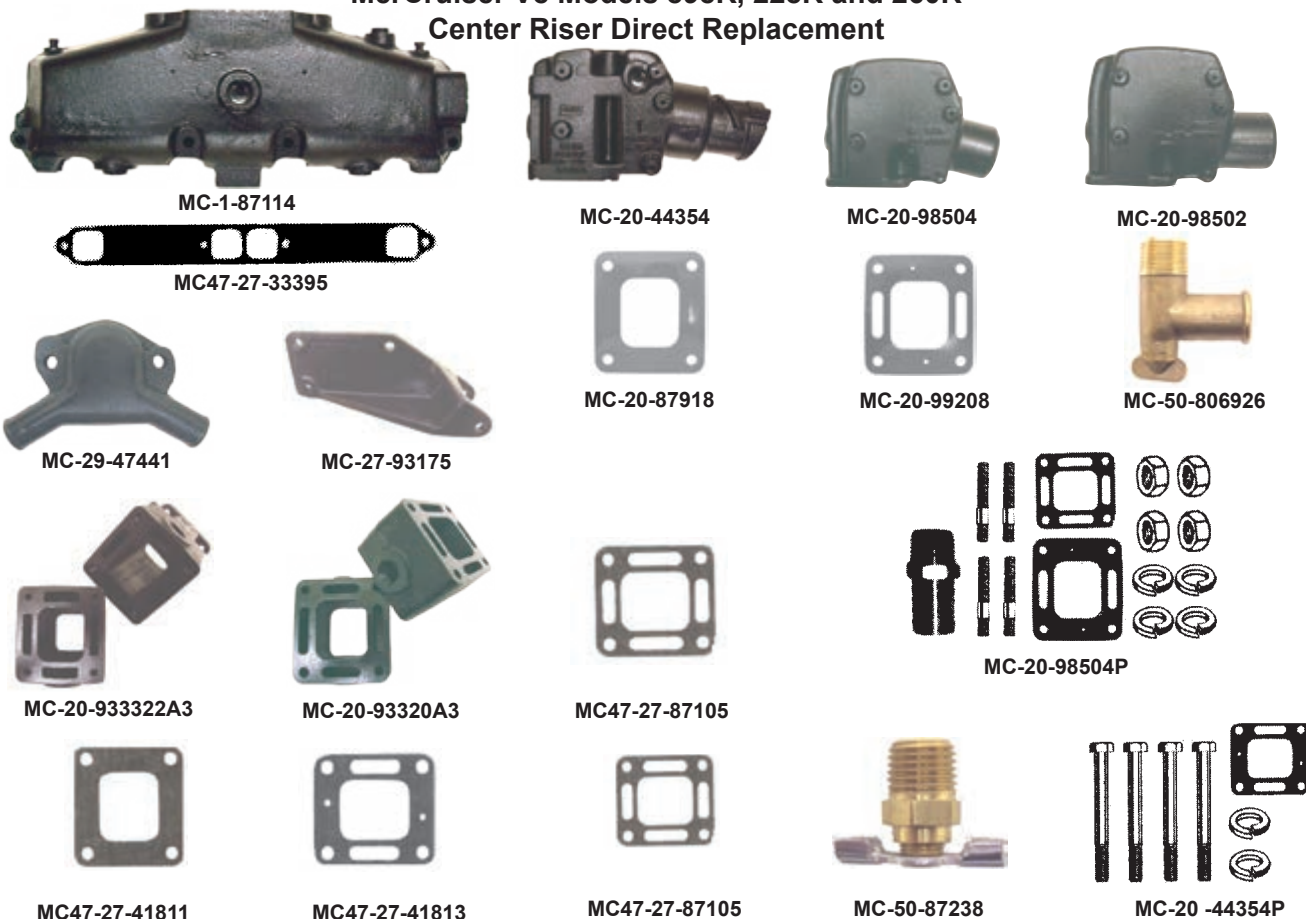


Made in the U.S.A.  
Quality Since 1933

**BARR**  
MARINE BY EDM

When ordering please place "BARR" in front of part number

## MerCruiser V8 Models 898R, 228R and 260R Center Riser Direct Replacement



Part No.	Description
MC-1-87114	Direct replacement water cooled exhaust manifold. Replaces MerCruiser 87114A8, 87114A19 & 860246A10.
MC-20-44354	Direct replacement water cooled center discharge riser. Replaces MerCruiser B-44354A3. Accepts 4" I.D. exhaust hose (8° angle).
MC-20-98502	Direct replacement water cooled center discharge riser. Replaces MerCruiser 98502A2. Accepts 3" I.D. exhaust hose (0° angle).
MC-20-98504	Direct replacement water cooled center discharge riser. Replaces MerCruiser 98504A3. Accepts 3" I.D. exhaust hose (15° angle).
MC-20-44354P	Mounting package for MC-20-44354 riser.
MC-20-87918	Direct replacement stainless steel block off plate for use with MerCruisers 98502, 98504 & 44354. Requires (2) gaskets MC47-27-41813.
MC-20-93320A3	Manifold to riser 3" spacer blocks (pair) with fastener and gasket package.
MC-20-93322A3	Manifold to riser 6" spacer blocks (pair) with fastener and gasket package.
MC-20-98504P	Mounting package for MC-20-98504 riser (includes gaskets, drain plug, pipe plug, stainless steel restricter plate and fasteners).
MC-20-99208	Direct replacement stainless steel restricter plate for use with MerCruisers 98502, 98504 and 44354. Requires (2) gaskets MC47-27-41813.
MC-27-93175	Alternator bracket.
MC-29-47441	Upper thermostat housing.
MC-29-87290	Lower thermostat housing.
MC47-27-33395	Direct replacement exhaust manifold to head gasket.
MC47-27-41811	Direct replacement restricter gasket. Replaces MerCruiser 27-41811. To be used with MC-20-87918 (2) required per plate used).
MC47-27-41813	Direct replacement restricter gasket. Replaces MerCruiser 27-41813.
MC47-27-87105	Direct replacement exhaust elbow gasket. Replaces MerCruiser 27-87105.
MC-50-87238	Exhaust manifold drain cock.
MC-50-806926	Replacement 3/4" N.P.T. x 1" hose fitting (90°) brass drain cock.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

**BARR**  
MARINE BY EDM



Made in the U.S.A.  
Quality Since 1933

When ordering please place "BARR" in front of part number



## MerCruiser "Dry Joint" Exhaust

All Models Carbureted, MPI, Inboard, Alpha and Bravo Stern Drives  
Center Riser Direct Replacement



V8

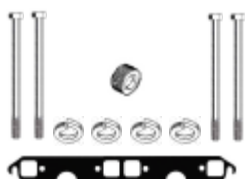
**Part No.**  
MC-1-865735

**Description**  
Direct replacement exhaust manifold.  
Replaces MerCruiser part# 865735A02.



**Part No.**  
CHV-47-0000

**Description**  
Exhaust manifold to cylinder head gasket.



**Part No.**  
MC-1-865735P

**Description**  
Exhaust manifold mounting package.  
Riser gasket sold separately. Purchase  
correct gasket as needed. Not shown.



V6

**Part No.**  
MC-1-864612

**Description**  
Direct replacement exhaust manifold.  
Replaces MerCruiser part #864612T01.



**Part No.**  
MC47-27-99757

**Description**  
Direct replacement manifold to head gasket.  
Replaces MerCruiser part # 864549A02



Made in the U.S.A.  
Quality Since 1933



**Part No.**  
MC-1-864612P

**Description**  
Exhaust manifold mounting package.  
Riser gasket sold separately. Purchase  
correct gasket as needed.

## Common Parts for V8 or V6



MC 20 864591



MC 20 864309



MC47 27 864547



MC47 27 864549



MC47 27 864850



MC-20-864591P

Exhaust riser mounting package. Includes  
restrictor gasket for raw water cooled  
applications.



50 170 275



50 170 248

**Part No.**  
MC-20-864591

**Description**  
Direct replacement exhaust riser/ elbow. Repl:  
Merc part # 864591T02. Riser will replace the  
equivalent part number used on 4.3L Models

**Part No.**  
MC-20-864309

**Description**  
Direct replacement exhaust riser/ elbow. Repl:  
Merc part # 864309T01. Riser will replace the  
equivalent part number used on 4.3L Models

MC47-27-864850

Direct replacement restrictor gasket. Replaces Mer  
Cruiser part # 864850A02. Please refer to supplied  
directions or OEM information for proper installation

MC47-27-864547

Direct replacement full flow gasket. Repl: Merc part  
# 864547A02. Please refer to supplied directions or  
OEM information for proper installation.

MC47-27-864549

Direct replacement block off gasket. Repl: Merc part  
# 864549A02. Please refer to supplied directions or  
OEM information for proper installation

50-170-248

Replacement manifold mounting bolts. Repl: Merc part  
# 8M2000229. (to be used with 3/8" lockwasher).  
Dimensions of bolt is 3/8"-16 X 4.75".

50-170-275

Replacement riser mounting and 6 inch spacer  
block mounting bolt. Repl: Merc part # 865982057  
(to be used with 3/8" lockwasher). Dimensions of  
bolt is 3/8"-16 X 7.50".

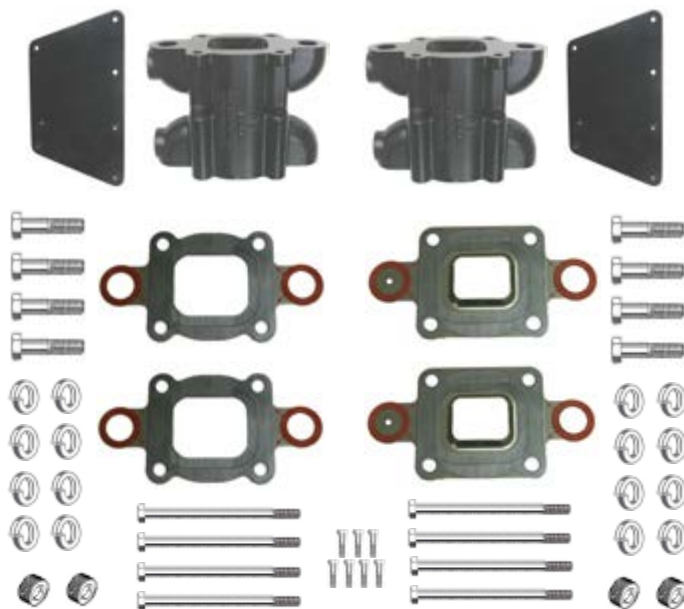
**Note: Manifold includes all applicable plugs, mounting hardware, manifold to cylinder head and restrictor gasket. Riser includes all applicable plugs, mounting hardware and restrictor gasket. Always use correct riser gaskets. Please refer to the correct guide to install gaskets. Improperly installed gasket, leaks or damage caused by either are not covered by your Barr Marine warranty! Gaskets are not subject to exchange or refund under any circumstances.**

When ordering please place "BAR" in front of part number

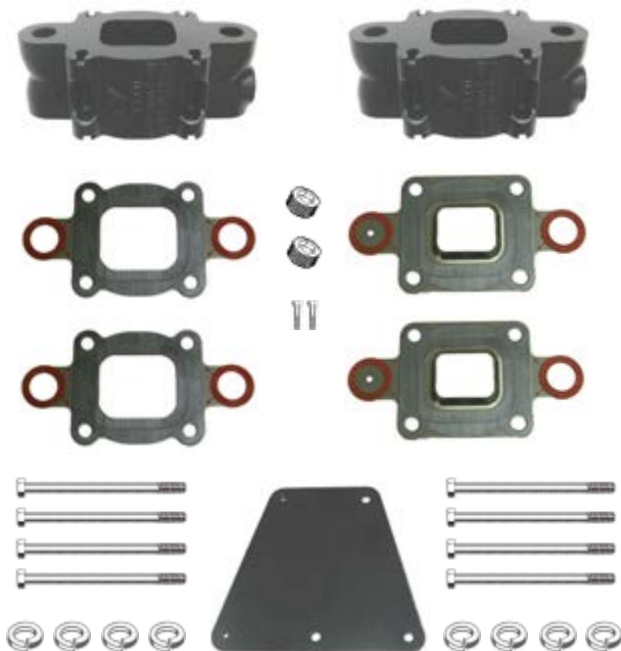


## MerCruiser V8-4.3L, 5.0L, 5.7L and 6.2L "Dry Joint" Spacers

All Models Carbureted, MPI, Inboard, Alpha and Bravo Stern Drives  
Center Riser Direct Replacement



MC 20 864908A1



MC 20 864929A3

Part No.	Description
MC-20-864908A1	Direct replacement 6 inch spacer kit. Replaces MerCruiser part # 864908A1. Kit includes a pair of spacers, mounting hardware and gaskets for raw water cooled applications. Need to purchase additional block off gaskets for closed cooled applications. Sold as shown.
MC-20-864929A3	Direct replacement 3 inch spacer kit. Replaces MerCruiser part # 864929A3. Kit includes a pair of spacers, mounting hardware and gaskets for raw water cooled applications. Need to purchase additional block off gaskets for closed cooled applications. Sold as shown.
MC-20-864908A1P	Six inch spacer mounting package. Includes all items less the spacers and brackets. Not shown separate.
MC-20-864908A1P	Three inch spacer mounting package. Includes all items less the spacers and brackets. Not shown separate.
MC47-27-864850	Direct replacement restrictor gasket. Replaces MerCruiser part # 864850A02. Please refer to supplied directions or OEM information for proper installation procedures.
MC47-27-864547	Direct replacement full flow gasket. Replaces MerCruiser part # 864547A02. Please refer to supplied directions or OEM information for proper installation procedures.
MC47-27-864549	Direct replacement block off gasket. Replaces MerCruiser part # 864549A02. Please refer to supplied directions or OEM information for proper installation procedures.
50-170-210	Replacement spacer mounting bolts. Replaces MerCruiser part # 865982005 (to be used with 3/8" lockwasher). Dimensions of bolt is 3/8"-16 X 1.00".
50-170-275	Replacement riser mounting and 6 inch spacer block mounting bolt. Replaces MerCruiser part # 865982057 (to be used with 3/8" lockwasher). Dimensions of bolt is 3/8"-16 X 7.50".
50-170-295	Replacement riser mounting and 3 inch spacer block mounting bolt. Replaces MerCruiser part # 865982077 (to be used with 3/8" lockwasher). Dimensions of bolt is 3/8"-16 X 10.50".



Made in the U.S.A.  
Quality Since 1933



**Note: Always use correct riser gasket for your application.  
Please refer to the correct guide to install gaskets correctly.**

**Note: Improperly installed gasket, leaks or damage caused by either are not covered by your Barr Marine warranty! Gaskets are not subject to exchange or refund under any circumstances.**

When ordering please place **"BAR"** in front of part number



**MerCruiser V8 325, 330, 350, 370 & 400  
Inboard & Stern-Drive Units Log Style Direct Replacement**



MC-1-47735 (Port)  
MC-1-47736 (Stb.)



MC-20-72963



MC-29-47441



1-73813



MC47-27-46820



MC-20-76668



MC-20-61811A4



1-60252



MC-27-47487

**BARR**  
MARINE BY EDM



MC-29-78985



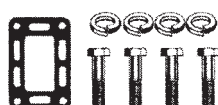
MC47-27-48042



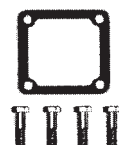
MC47-27-48043



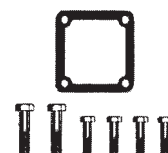
MC47-27-46820A1



MC-20-76668P  
MC-20-72963P



1-73813P



1-60252P



MC47-488KIT

Part No.	Description
MC-1-47735	Direct replacement water cooled exhaust manifold (port side). Replaces MerCruiser B-47735A1.
MC-1-47736	Direct replacement water cooled exhaust manifold (starboard side). Replaces MerCruiser B-47736A1.
MC-20-72963	Direct replacement exhaust elbow riser. Replaces MerCruiser B-72963A1 (inboard applications).
MC-20-76668	Direct replacement exhaust elbow riser. Replaces MerCruiser B-76668A3, B-72964A1 and B-47877A4 (I/O applications).
1-60252	Direct replacement exhaust manifold end cap/connector. Replaces MerCruiser B-60252.
1-60252P	Front end plate mounting package.
1-73813	Direct replacement manifold end cap (rear). Supersedes 1-54870.
1-73813P	Rear end cap mounting package.
MC-20-72963P	Exhaust riser elbow mounting package.
MC-20-76668P	Exhaust riser elbow mounting package.
MC-20-61811A4	Manifold to riser 3" spacers (sold in pairs). Includes all mounting hardware, gaskets and drain plugs.
MC-27-47487	Alternator bracket.
MC-29-47441	Upper thermostat housing.
MC-29-78985	Lower thermostat housing.
MC47-488KIT	Thermostat kit (includes gasket and thermostat).
MC47-27-46820	Direct replacement exhaust manifold to head gasket.
MC47-27-46820A1	Exhaust manifold gasket set.
MC47-27-48042	Direct replacement exhaust elbow to manifold gasket.
MC47-27-48043	Direct replacement exhaust manifold end cap/connector gasket (will fit both ends).

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Riser includes plugs, gasket and mounting hardware to mount to manifold.

**BARR**  
MARINE BY EDM



Made in the U.S.A.  
Quality Since 1933

When ordering please place **"BARR"** in front of part number

## MerCruiser V8 Models 330, 340 and 454 Magnum Inboard and Stern Drive Units Center Riser Direct Replacement



Part No.	Description
MC-1-89011	Direct replacement water cooled exhaust manifold. Replaces MerCruiser 89011A8.
MC-20-44354	Direct replacement water cooled center discharge riser. Replaces MerCruiser B-44354A3. Accepts 4" I.D. exhaust hose (8° angle).
MC-20-98502	Direct replacement water cooled center discharge riser. Replaces MerCruiser 98502A2. Accepts 3" I.D. exhaust hose (0° angle).
MC-20-98504	Direct replacement water cooled center discharge riser. Replaces MerCruiser 98504A3. Accepts 3" I.D. exhaust hose (15° angle).
MC-20-44354P	Mounting package for MC-20-44354 riser.
MC-20-87918	Direct replacement stainless steel block off plate for use with MerCruiser risers 98502, 98504 and 44354. Requires (2) gaskets MC47-27-41813.
MC-20-93320A3	Manifold to riser 3" spacer blocks (pair) with fastener and gasket package.
MC-20-93322A3	Manifold to riser 6" spacer blocks (pair) with fastener and gasket package.
MC-20-98504P	Mounting package for MC-20-98504 riser (includes gaskets, drain plug, pipe plug, stainless steel restrictor plate and fasteners).
MC-20-99208	Direct replacement stainless steel restrictor plate for use with MerCruiser riser 98502, 98504 and 44354. Requires (2) gaskets MC47-27-41813.
MC-27-47487	Alternator bracket.
MC-29-47442	Upper thermostat housing.
MC-29-90736	Lower thermostat housing.
MC47-27-41811	Direct replacement restrictor gasket. Replaces MerCruiser 27-41811. To be used with MC-20-87918 (2) required per plate used.
MC47-27-41813	Direct replacement restrictor gasket. Replaces MerCruiser 27-41813.
MC47-27-46820	Direct replacement exhaust manifold to head gasket.
MC47-27-87105	Direct replacement exhaust elbow gasket. Replaces MerCruiser 27-87105.
MC-50-87238	Exhaust manifold drain cock.
MC-50-806926	Replacement 3/4" N.P.T. x 1" hose fitting (90°) brass drain cock.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

**BARR**  
MARINE BY EDM



Made in the U.S.A.  
Quality Since 1933

When ordering please place **"BARR"** in front of part number

## MerCruiser V8 (Ford) 302 and 351 C.I.D.

Models 188, 215, 225, 233, 255 and 888 Inboard and I/O Units Log Style Direct Replacement

MC-1-65604 (Port)  
MC-1-65603 (Stb.)

MC-20-76771



MC-20-60426



MC-29-63588



MC47-27-73866



1-73813



1-60252



MC-29-62898



MC47-27-48043



MC47-27-99777



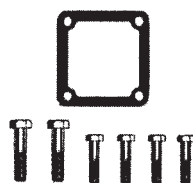
MC-20-60207



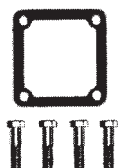
MC-20-55730



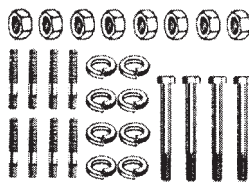
MC-20-61851A2



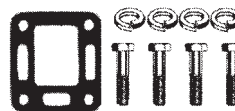
1-60252P



1-73813P



MC-1-6560P



MC-20-60426P

**BARR**  
MARINE BY EDM
Made in the U.S.A.  
Quality Since 1933

Part No.	Description
MC-1-65603	Direct replacement water cooled exhaust manifold (starboard side). Replaces MerCruiser B-65603A4 and B-54099A5.
MC-1-65604	Direct replacement water cooled exhaust manifold (port side). Replaces MerCruiser B-65604A4 and B-54100A5.
MC-20-60426	Direct replacement exhaust elbow riser (utilizes a stainless steel sleeve at the water/air mixing area). Replaces MerCruiser B-60426A1 (I/O applications).
MC-20-76351	Direct replacement exhaust elbow riser. Replaces MerCruiser B-76351A1(I/O applications). Not pictured.
MC-20-76771	Direct replacement exhaust elbow riser. Replaces MerCruiser B-76771A3 (inboard applications).
1-60252	Direct replacement exhaust manifold end cap/connector. Replaces MerCruiser B-60252.
1-60252P	Front end plate mounting package.
1-73813	Direct replacement manifold end cap (rear). Supersedes 1-54870.
1-73813P	Rear end cap mounting package.
MC-1-6560P	Manifold mounting package.
MC-20-55730	Stainless steel fresh water cooling block off plate for use with MerCruiser risers 60426, 76351 and 76771. Requires (2) gaskets MC47-27-99777.
MC-20-60207	Stainless steel block off plate (with vent hole) for use with MerCruiser risers 60426, 76351 and 76771. Requires (2) gaskets MC47-27- 99777. Used in preheating plumbing systems.
MC-20-60426P	Exhaust riser elbow mounting package. For use with both MC-2060426 and MC-20-76351 risers.
MC-20-61851A2	Manifold to riser 3" spacers (sold in pairs). Includes all mounting hardware, gaskets and drain plugs.
MC-29-62898	Upper thermostat housing.
MC-29-63588	Lower thermostat housing.
MC47-27-48043	Direct replacement exhaust manifold end cap/connector gasket (will fit both ends).
MC47-27-73866	Direct replacement exhaust manifold to head gasket.
MC47-27-99777	Direct replacement exhaust elbow to manifold gasket. Supersedes MerCruiser 27-52076.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Riser includes plugs, gasket and mounting hardware to mount to manifold.

When ordering please place "**BAR**" in front of part number

## OMC 4-Cylinder 181 C.I.D. 140 H.P. 3.0 Liter Model 140 Engine Log Style Direct Replacement



OMC-1-984054



OMC-20-910380



1-910384



OMC47-908013



OMC47-311121



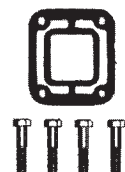
OMC47-908079



Made in the U.S.A.  
Quality Since 1933



OMC-1-984054P



OMC-20-910380P

### Part No.

### Description

OMC-1-984054	Direct replacement exhaust manifold. Replaces OMC 998083, 980460, 980957 and 982490.
OMC-20-910380	Direct replacement exhaust elbow. Replaces OMC riser 980188 and 910380.
OMC-1-910384	Direct replacement front end cap. Replaces OMC 910384.
OMC-1-984054P	Exhaust manifold mounting package.
OMC-20-910380P	Exhaust riser mounting package.
OMC47-311121	Exhaust manifold to elbow and end cap gasket.
OMC47-908013	Adaptor plate (OMC-20-908014) to riser (OMC-20-910380) gasket.
OMC47-908079	Exhaust manifold to cylinder head gasket,

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

## OMC 4-Cylinder 153 C.I.D. 120 H.P. 2.5 Liter Model 120 Engine Log Style Direct Replacement



OMC-1-981462  
OMC-1-982657



OMC-20-980536



OMC-20-910380



OMC-20-909368



OMC-20-907765



OMC47-311068



OMC47-907761



1-380446



1-907885



1-910280



1-910384



OMC-20-908014



OMC47-908013



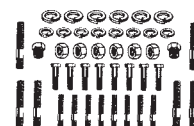
OMC47-907764



OMC47-311121



OMC-20-910380P



OMC-1-981462/982

### Part No.

### Description

OMC-1-981462	Direct replacement water cooled exhaust manifold. Replaces OMC 979729 and 980459.
OMC-1-982657	Direct replacement water cooled exhaust manifold. Manifold has the heat source in the exhaust port for automatic choke.
OMC-20-909368	Direct replacement high rise to adaptor elbow for use with OMC-20980536.
OMC-20-910380	Direct replacement exhaust elbow. Replaces OMC riser 980188 and 910380.
OMC-20-980536	Direct replacement exhaust riser. Replaces OMC riser part It's 979730 and 980536.
1-380446	Heat exchanger assembly.
1-907885	Direct replacement rear end cap. Replaces OMC 907885.
1-910280	Direct replacement front end cap. Replaces OMC 910280 and 311550 (choke).
1-910384	Direct replacement front end cap. Replaces OMC 910384.
OMC-1-981462P	Manifold mounting package.
OMC-20-907765	Direct replacement exhaust elbow to hose adaptor.
OMC-20-908014	Exhaust manifold to riser adaptor for use with OMC risers 980188 and 910380.
OMC-20-910380P	Exhaust riser mounting package.
OMC47-311068	Exhaust manifold to cylinder head gasket.
OMC47-311121	Exhaust manifold to elbow and end cap gasket.
OMC47-907761	Manifold end cap gasket.
OMC47-907764	Exhaust elbow to hose adaptor gasket.
OMC47-908013	Adaptor plate (OMC-20-908014) to riser (OMC-20-910380) gasket.



Made in the U.S.A.  
Quality Since 1933

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

When ordering please place "BARR" in front of part number



**OMC V6-155 H.P. All Years  
Log Style Direct Replacement**



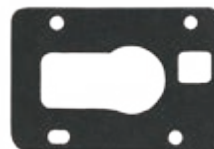
OMC-20-981281



1-312148



1-312149



OMC47-314809



OMC47-907775



OMC-29-0000



OMC-29-383307



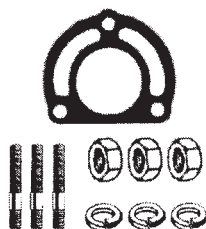
1-380985



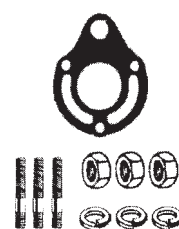
OMC47-311130



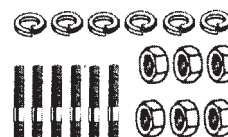
OMC-1-9797P



1-31214P



OMC-20-981281P



OMC-1-97975P

**Part No.**

OMC-20-981281  
1-31214P  
1-312148  
1-312149

**Description**

Direct replacement exhaust elbow. Replaces OMC 907776 and 907777.  
Exhaust manifold end cap/connector mounting package.

Direct replacement exhaust manifold front end cap/connector (port side).

Direct replacement exhaust manifold front end cap/connector (starboard side).

End cap has extra hole drilled for choke stove.

Choke stove heat exchanger (starboard side only). Uses 1-312149 end cap.

1-380985

End cap and exhaust elbow stud package.

OMC-1-9797P

Exhaust manifold mounting package.

OMC-1-97975P

Exhaust elbow mounting package.

OMC-20-981281P

OMC-29-383307

160° thermostat.

OMC-29-0000

Upper thermostat housing. Replaces either OMC 314810 or 982201  
(may also order under OMC29-314810 or OMC-29-982201).

OMC47-311130

Direct replacement exhaust manifold end cap/connector gasket (not to be used between elbow and manifold).

OMC47-314809

Thermostat housing gasket.

OMC47-907775

Direct replacement exhaust elbow gasket.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.



**Made in the U.S.A.  
Quality Since 1933**

***BARR***  
***MARINE BY EDM***

When ordering please place **"BAR"** in front of part number

## Volvo/OMC 4 Cylinder 181 C.I.D. 140 H.P. 3.0L Models

All Models (Carbureted) With Vortec Style Head  
Log Style Direct Replacement



OMC 1 3858850



OMC 20 3862603

Part No.	Description
OMC-1-3858850	Direct replacement exhaust manifold. Replaces OMC/Volvo part# 3858870, 986985, 3854045, 3857450, 3858871
OMC-20-3862603	Direct replacement exhaust riser/elbow. Replaces OMC/Volvo part # 3862603, 3853673, 3857821, 3857198, 3863071, 3851227, 3850799, 3588684.
OMC-20-3853628	Exhaust riser restrictor plate. Replaces OMC/Volvo part # 3853628.
OMC47-908013	Exhaust riser gasket. Two gaskets will be required when using the restrictor plate.
OMC47-3853256	Exhaust manifold to head gasket.
OMC-20-3862603P	Exhaust riser mounting package.
OMC-1-3858870P	Exhaust manifold mounting package.

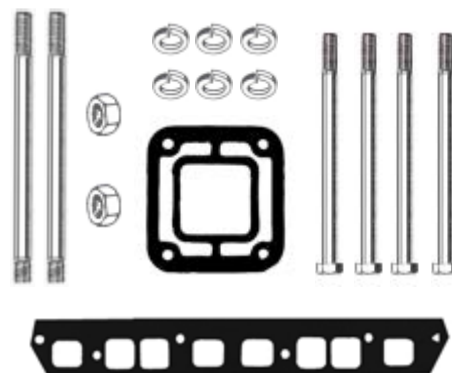
**Note:**  
*Manifold and riser includes all applicable plugs, mounting hardware and gaskets.*



OMC 20 3853628



OMC47 908013



OMC 1 3858870P



OMC 20 3862603P



OMC47 3853256



Made in the U.S.A.  
Quality Since 1933

**Note:** *Stainless steel restrictor plate only used in some applications. If you are not sure if the plate is use, please consult your original equipment manufacturer. Two gaskets required when using the plate (one on each side of the plate).*

When ordering please place **"BAR"** in front of part number

OMC V8-283, 305, 307 and 350 C.I.D.

Models 225, and 245 H.P. Log Style Direct Replacement



OMC-1-979760 (Port)  
OMC-1-979761 (Stb.)



OMC47-909314



OMC-20-981281



1-312148



1-312149



OMC47-314809



OMC47-907775



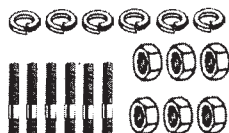
OMC-29-0000



OMC-29-383307



1-380985



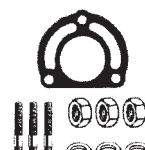
OMC-1-97975P



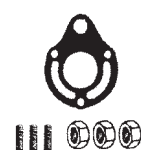
OMC-1-9797P



OMC47-311130



1-31214P



OMC-20-981281P

**BARR**  
MARINE BY EDM

Part No.	Description
OMC-1-979760	Direct replacement exhaust manifold (port side). Replaces OMC 979760.
OMC-1-979761	Direct replacement exhaust manifold (starboard side). Replaces OMC 979761.
OMC-20-981281	Direct replacement exhaust elbow. Replaces OMC 907776 and 907777.
1-31214P	Exhaust manifold end cap/connector mounting package.
1-312148	Direct replacement exhaust manifold front end cap/connector (port side).
1-312149	Direct replacement exhaust manifold front end cap/connector (starboard side). End cap has extra hole drilled for choke stove.
1-380985	Choke stove heat exchanger (starboard side only). Uses 1-312149 end cap.
OMC-1-9797P	End cap and exhaust elbow stud package.
OMC-1-97975P	Exhaust manifold mounting package.
OMC-20-981281P	Exhaust elbow mounting package.
OMC-29-383307	160° thermostat.
OMC-29-0000	Upper thermostat housing. Replaces either OMC 314810 or 982201 (may also order under OMC29-314810 or OMC-29-982201).
OMC47-311130	Direct replacement exhaust manifold end cap/connector gasket (not to be used between elbow and manifold).
OMC47-314809	Thermostat housing gasket.
OMC47-907775	Direct replacement exhaust elbow gasket.
OMC47-909314	Manifold to cylinder head gasket.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.



Made in the U.S.A.  
Quality Since 1933

**BARR**  
MARINE BY EDM

When ordering please place "BARR" in front of part number

**OMC (Ford) V8-302 and 351 C.I.D.  
Models 170, 175, 190 and 235 H.P. Direct Replacement**



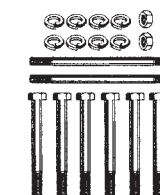
OMC-1-980959



OMC-20-980617



OMC-20-980617P



OMC-1-980959P



OMC47-908717



1-908719



OMC47-908935

**BARR**  
MARINE BY EDM



Made in the U.S.A.  
Quality Since 1933

Part No.	Description
OMC-1-980959	Direct replacement exhaust manifold. Replaces OMC 980572 and 980959.
OMC-20-980617	Direct replacement exhaust elbow. Replaces OMC 980617.
1-908719	Direct replacement exhaust manifold end cap/connector (front). Replaces OMC 908719.
OMC-1-980959P	Manifold to cylinder head mounting package.
OMC-20-980617P	Exhaust elbow mounting package.
OMC47-908717	Exhaust manifold to cylinder head gasket.
OMC47-908935	Direct replacement exhaust manifold end cap/connector gasket.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

**OMC V8-283, 305, 307 and 350 C.I.D.  
Models 185, 200, 225, 230, and 260 H.P.  
Log Style Direct Replacement**



OMC-1-912442 (Port)  
OMC-1-912441 (Stb.)



OMC-20-982680



OMC-29-383307



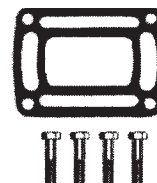
OMC47-909786



OMC47-909314



OMC-29-0000



OMC-20-982680P



OMC47-314809

Part No.	Description
OMC-1-912441	Direct replacement exhaust manifold (starboard side). Replaces OMC 912441 and 909280.
OMC-1-912442	Direct replacement exhaust manifold (port side). Replaces OMC 912442 and 910144.
OMC-20-982680	Direct replacement exhaust riser/elbow. Replaces OMC 982680.
OMC-20-982680P	Exhaust riser/elbow mounting package.
OMC-29-0000	Upper thermostat housing. Replaces either OMC 314810 or 982201 (may also order under OMC29-314810 or OMC-29-982201).
OMC-29-383307	160° thermostat.
OMC47-314809	Thermostat housing gasket.
OMC47-909314	Exhaust manifold to cylinder head gasket.
OMC47-909786	Direct replacement exhaust riser to manifold gasket.

**BARR**  
MARINE BY EDM



Made in the U.S.A.  
Quality Since 1933

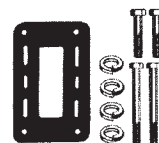
Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

When ordering please place **"BAR"** in front of part number



**Volvo V8-307 and 350 C.I.D.**

**Models AQ 200D, 200F, 225D, 225E, 225F, 255B, 260A, 271 A, 280A, 290A, 311A, BB, 225A, 225 AV, 225B, 260A, 260B and 260C Center Riser Direct Replacement**



**BARR**  
MARINE BY EDM

VO47-841601

**Part No.**

VO-1-835804

VO-20-855384

VO-20-855384P

VO47-835908

VO47-841601

**Description**

Direct replacement water cooled exhaust manifold. Replaces Volvo 835804-6.

Direct replacement exhaust riser/ elbow. Replaces Volvo 855384-4.

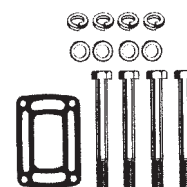
Exhaust riser/elbow mounting package.

Exhaust riser/elbow to manifold gasket.

Exhaust manifold to cylinder head gasket

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

**OMC/VOLVO V6- 4.3 Liter Cobra**  
**All Models Center Riser Direct Replacement**



MC47-27-99757

**Part No.**

OMC-1-3857656

OMC-20-913784

OMC-20-913784P

MC47-27-99757

OMC47-913783

50-512-017

**Description**

Direct replacement exhaust manifold. Replaces Volvo 3857656.

Direct replacement exhaust riser/elbow. Replaces OMC 913784 and Volvo 3863061 (New Style).

Exhaust riser/elbow mounting package.

Exhaust manifold to cylinder head gasket.

Direct replacement exhaust riser/elbow to manifold gasket.

Replacement 1/2" N.P.T. to 1" hose (straight) / brass hose fitting.

**BARR**  
MARINE BY EDM

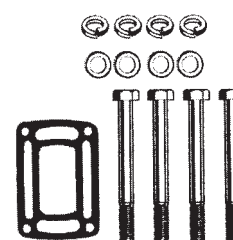
Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

**OMC/VOLVO (FORD) V8- 5.0L and 5.8L Cobra**  
**All Models Center Riser Direct Replacement**



Made in the U.S.A.  
Quality Since 1933

**BARR**  
MARINE BY EDM

**Part No.**

OMC-1-3852347

OMC-20-913784

OMC-20-913784P

FM-47-0000

OMC47-913783

50-512-017

**Description**

Direct replacement exhaust manifold. Replaces Volvo 3852347.

Direct replacement exhaust riser/elbow.

Replaces OMC 913784 and Volvo 3863061 (New Style).

Exhaust riser/elbow mounting pack age.

Exhaust manifold to cylinder head gasket.

Direct replacement exhaust riser/elbow to manifold gasket.

Replacement 1/2" N.P.T. to 1" hose (straight) / brass hose fitting.

Note: Manifold includes all plugs, gaskets, hose fitting and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

When ordering please place **"BAR"** in front of part number

**OMC/VOLVO V8- 5.7 Liter Cobra  
All Models Center Riser Direct Replacement**



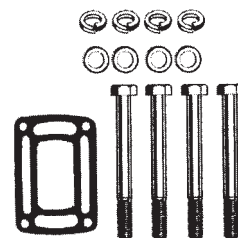
OMC-1-914035



OMC-20-913784



50-512-017



OMC-20-913784P



OMC47-909314



OMC47-913783



OMC-1-914035P

**BARR**  
MARINE BY EDM

**Part No.**

OMC-1-914035  
OMC-20-913784  
OMC-1-914035P  
OMC-20-913784P  
OMC47-909314  
OMC47-913783  
50-512-017

**Description**

Direct replacement exhaust manifold. Replaces OMC 914035 and Volvo 3857723 (New Style).  
Direct replacement exhaust riser/elbow. Replaces OMC 913784 and Volvo 3863061 (New Style).  
Exhaust manifold mounting package.  
Exhaust riser/elbow mounting package.  
Exhaust manifold to cylinder head gasket.  
Direct replacement exhaust riser/elbow to manifold gasket.  
Replacement 1/2" N.P.T. to 1" hose (straight) / brass hose fitting.

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Risers include plugs, gasket and mounting hardware to mount to manifold.

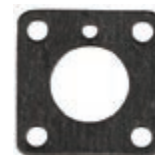
**Volvo 4 Cylinder Models AQ 115 and AQ 130  
Log Style Direct Replacement**



VO-1-824532



VO-20-825599



VO47-856028

**Part No.**

VO-1-824532  
VO-20-825599  
VO47-856028

**Description**

Direct replacement water cooled exhaust manifold. Replaces Volvo 824532-6.  
Direct replacement exhaust elbow. Replaces Volvo 825599-4.  
Direct replacement exhaust elbow to manifold gasket. Replaces Volvo 856028.

**BARR**  
MARINE BY EDM

**Volvo 4 Cylinder  
Models AQ 120B, 125A, 140A, 145A, BB  
Log Style Direct Replacement**



VO-1-855387



VO47-855383

**BARR**  
MARINE BY EDM

**Part No.**

VO-1-855387  
VO47-855383

**Description**

Direct replacement water cooled exhaust manifold. Replaces Volvo 855387-7 and 834438-4.  
Exhaust manifold to cylinder head gasket (requires four gasket per engine).

Note: Manifold includes all plugs, gaskets and mounting hardware to head. Barr Marine extends a 1 year warranty on these exhaust manifold.



Made in the U.S.A.  
Quality Since 1933

When ordering please place **"BARR"** in front of part number

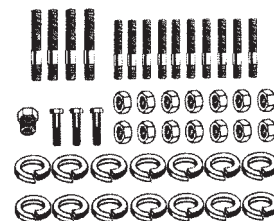
**Perkins Diesel 160 H.P. 354 C.I.D.  
Model T6.354M**



PE-1-6354



PE-1-6354B



PE-1-6354P

**Part No.**

PE-1-6354  
PE-1-6354B  
PE-1-6354P

**Description**

Water cooled exhaust manifold (includes mounting hardware to head). Replaces Perkins 89058.  
Cover plate. Replaces Perkins 35732861.  
Manifold mounting kit.

**BARR**  
MARINE BY EDM

Note: The manifold will fit vertical or inclined models and will accept all of the original end plates, fittings, gaskets and hardware. It will not fit engines equipped with a combined exhaust manifold heat exchanger, nor is it applicable to naturally aspirated models.



20-0094 Cast Iron  
20-0101 Aluminum



50-090-150

**Barr Marine Diesel Engine Riser****Part No.**

20-0094  
20-0101  
50-090-150

**Description**

Versatile 1-1/2" N.P.T. exhaust riser approx 10 lbs gray cast iron.  
Versatile 1-1/2" N.P.T. exhaust riser approx 2.5 lbs aluminum.  
1-1/2" N.P.T. pipe plug

**BARR**  
MARINE BY EDM

**Detroit Diesel 3-71, 6V-71, 4-71, 8V-71  
6-71 and 12V-71 All Models Direct Replacement**



DD-1-6710



DD-1-4710



DD-1-3710



DD47-5150195



DD47-5150196



DD-7-5119925



DD-7-5119926



DD47-5156319



1-0064



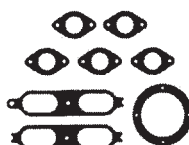
DD-7-5119921



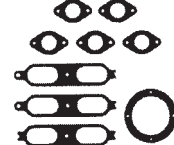
DD-7-5119924



DD47-5163811



DD47-4710



DD47-6710

**Part No.**

DD-1-3710  
DD-1-4710  
DD-1-6710  
1-0064  
DD-7-5119921  
DD-7-5119924  
DD-7-5119925  
DD-7-5119926  
DD47-4710  
DD47-5150195  
DD47-5150196  
DD47-5156319  
DD47-5163811  
DD47-6710

**Description**

Direct replacement water cooled exhaust manifold to fit the 3 and 6V cylinder 71 Series Detroit Diesel.  
Direct replacement water cooled exhaust manifold to fit the 4 and 8V cylinder 71 and early style 92 Series Detroit Diesel.  
Direct replacement water cooled exhaust manifold to fit the 6 and 12V cylinder 71 and early style 92 Series Detroit Diesel.  
4" N.P.T. exhaust end plate. Replaces Detroit Diesel part 5164146.  
Blank water cover plate and gasket.  
3/8" water cover plate and gasket.  
1/2" water cover plate and gasket.  
3/4" water cover plate and gasket.  
Exhaust manifold gasket set for 4 cylinder manifold (order (1) of the appropriate gasket set per manifold).  
Exhaust manifold to head gasket for 4 and 6 cylinder manifolds (order (2) of the appropriate gaskets per manifold).  
Exhaust manifold to head gasket for 6 cylinder manifold (order (1) of the appropriate gasket per manifold).  
Exhaust manifold cover plate gasket for 4 and 6 cylinder manifolds (order (5) gaskets per manifold).  
4" exhaust outlet gasket (order (1) gasket per manifold).  
Exhaust manifold gasket set for 6 cylinder manifold (order (1) gasket set per manifold).

**BARR**  
MARINE BY EDM

Note: Detroit 71 series exhaust will fit some of the earlier 92 series engines. Please call for assistance.

When ordering please place **"BARR"** in front of part number



## Adaptor Bell Housings



CHV-24-0001



CHV-WVDC-5561A



CHVA-WVDC-77A



FM-WVDC-70A



HUR-SAE4



MC-24-14043



MC-24-44187



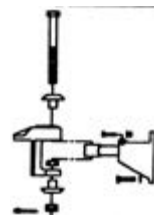
OR-WVDC-65A



OR-WVDC-73A



OR-WVDC-76A



BAR535011

**Part No.****Description**

CHV-24-0001	Chevrolet in-line 6 cylinder 1962-79; 194, 230 and 250 C.I.D.; all models with 12 5/8" diameter flywheel. Also for 1963-283, 307, 327 and 350 C.I.D. with 12 5/8" diameter flywheel (26 spline applications).
CHV-WVDC-5561A	Chevrolet V8 OHV 1955-62; 265, 283 and 327 C.I.D.; 1963 to date, 292 C.I.D. with 14" flywheel and starter mounting to flywheel housing; 1959-70; 348, 396, 409, 427 and 454 C.I.D. with 14" diameter flywheel (26 spline applications).
CHV-WVDC-70A	Chevrolet V8 OHV 1971 to date; all models with 14" diameter flywheel and starter mounting to the under side of block (26 spline applications). <b>NOT PICTURED.</b>
CHVA-WVDC-77A	Chevrolet V8 OHV 1971 to date; all models with 14" flywheel and top mounted starter (26 spline applications).
FM-WVDC-70A	Ford and Mercury in-line 6 cylinder 1965-69; 240 and 300 C.I.D. Ford and Mercury V8 OHV 1965 to date; 289, 302 and 351 C.I.D. (identified by the use of 6 bolts to attach flywheel housing to cylinder block 26 spline applications).
HUR-SAE4	Kubota Diesel 1902 Series; flywheel housing for Hurth HBW-50, 100 and 150-2R gear (2:1 ratio).
MC-24-0001	Starter cover plate for use on housings (MC-24-44187) utilizing bottom mounted starters (26 spline applications). <b>NOT PICTURED.</b>
MC-24-14043	Dust cover plate used on MerCruiser style flywheel housing (MC-24-44187) (26 spline transmissions).
MC-24-44187	Direct replacement for MerCruiser part # 44187. Fits Chevrolet in-line 6 cylinder 250 and 292 C.I.D. with 14" flywheel, Chevrolet V6 200, 201, 229 and 262 C.I.D. with 14" flywheel, Chevrolet V8 (Small Block) 265, 283, 305, 307, 327 and 350 C.I.D. with 14" flywheel and Chevrolet V8 (Big Block) 348, 396, 409, 427 and 454 C.I.D. with 14" flywheel (26 spline applications).
OR-WVDC-65A	Buick V8 1967-75; 400, 430 and 455 C.I.D., Oldsmobile V8 1964-84; 330, 350, 400, 403, 425 and 455 C.I.D. and Pontiac V8 1965-78; 326, 350, 389, 400, 428 and 455 C.I.D. (26 spline applications).
OR-WVDC-73A	All above Pontiac, Olds and Buick models with use of top mounted starter. Requires separate rear motor supports which mount to transmission. Order AS1-9 for centerline mounting; 9-0003 for 3" offset above centerline mounting and 9-0004 for 6" (26 spline applications).
OR-WVDC-76A	All above Pontiac, Olds and Buick models with use of top mounted starter. Requires separate rear motor supports which mount to transmission. Order part # AS1-9 for centerline mounting; 9-0003 for 3" offset above centerline mounting and 9-0004 for 6" (26 spline applications). Rear engine mounts are incorporated into housing for top mounted starter.
OR-WVDC-78A	Buick V8 1967-75; 400, 430 and 455 C.I.D., Oldsmobile V8 1964-84; 330, 350, 400, 403, 425 and 455 C.I.D. and Pontiac V8 1965-78; 326, 350, 389, 400, 428 and 455 C.I.D. (26 spline applications). Except not equipped with rear engine mount. <b>NOT PICTURED.</b>
SAES-WVDC	Caterpillar 3100 and 3200 Series 636 C.I.D.; Adapts SAE # 3 pattern to Warner "Velvet Drive" transmission (26 Spline applications). <b>NOT PICTURED.</b>
SAE2-502	Twin Disc SAE pattern; adapts SAE #2 pattern to Twin Disc 502 transmission. <b>NOT PICTURED.</b>
BAR535011	Chrysler Style Gear Mount



**Made in the U.S.A.**  
**Quality Since 1933**

**BARR**  
**MARINE BY EDM**

When ordering please place **"BAR"** in front of part number



### V8 Dry Joint GM Small Block



Repl: Merc #865735A01. Mounting Kit HGE5735MK  
Fits: Merc SB V8, GM 5.0, 5.7 & 6.2

<b>Part No.</b>	<b>Description</b>
HGE 5735	Cast Iron

### V6 GM Dry Joint



Repl: Merc #864612T01. Mount Kit: HGE4612MK

<b>Part No.</b>	<b>Description</b>
HGE 4612	Cast Iron

### MerCruiser Short Center Riser, 7° Down Angle



Repl: Merc #864309T01. Fits: Merc SB V8, GM 5.0, 5.7 & 6.2 Mount Kit: HGE4309MK

<b>Part No.</b>	<b>Description</b>
HGE 4309	Cast Iron

### MerCruiser High Riser, 14° Down Angle



Repl: Merc #864591T02. Mount Kit: HGE4591MK

<b>Part No.</b>	<b>Description</b>
HGE 4591	Cast Iron

### MerCruiser Dry Joint 3" Spacer Blocks



Repl: Merc #864929A 3  
kit includes a pair of spacers &  
mounting hardware gaskets

<b>Part No.</b>	<b>Description</b>
HGE 4929PR	Cast Iron

### GM Big Block V8, Manifold



GM Big Block V8 Exhaust Manifold with gaskets and hardware. Replaces Merc. 89011A8, 807078A6 and most MerCruiser 7.4L & 8.1L GM engines with center-riser manifolds.

<b>Part No.</b>	<b>Description</b>
HGE 9011	Cast Iron
HGE 9011A	Aluminum
HGE 3320	Cast Iron 3" Spacer Block
HGE 3320-A	Aluminum 3" Spacer Block

### GM Small Block V8 Manifold



GM Small Block V8 Exhaust Manifold with gaskets and hardware. Replaces Merc. 87114A19, 86024A10 and most MerCruiser small block GM engines with center-riser manifolds.

<b>Part No.</b>	<b>Description</b>
HGE 7114	Cast iron
HGE 7114A	Aluminium
HGE 3320	Cast Iron 3" Spacer Block
HGE 3320-A	Aluminum 3" Spacer Block

### GM V6 Manifold



GM V6 Manifold with gaskets and hardware Model 185R, 185MR, 205R and 205MR Replaces: Barr MC-1-99746, GLM 51220, Marine Power 0996-000, MerCruiser 99746A8/A17, Osco 9745, Sierra 18-1952-1.

<b>Part No.</b>	<b>Description</b>
HGE 9746	Cast Iron
HGE 9746A	Aluminum
HGE 3320	Cast Iron 3" Spacer Block
HGE 3320-A	Aluminum 3" Spacer Block

### MerCruiser Style 4" Center Riser



4" Center Riser with gaskets and hardware Replaces: Barr MC-20-44354, GLM 51140, Marine Power 0992-400, MerCruiser 44354A9/A13, 807988A2, Osco 4354, Sierra 18-1976-1.

<b>Part No.</b>	<b>Description</b>
HGE 4354	Cast Iron
HGE 4354A	Aluminum

### MerCruiser 4-Cylinder Manifold



All risers and manifolds come with mounting kits. Repl: Merc 99798A9, 96705A1, 95862A9, 806867A8, 52390A1

<b>Part No.</b>	<b>Description</b>
HGE 9798	Cast Iron

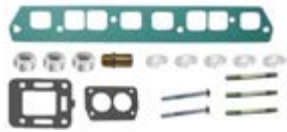
## MerCruiser 4-Cylinder Manifold



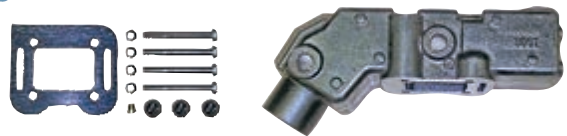
Repl: Merc #860235  
Mount Kit: HGE1235MK

**Part No.**  
HGE 1235

**Description**  
Cast Iron



## MerCruiser GM 3.71 4 Cylinder



Exhaust Elbow with gaskets and hardware. Fits MerCruiser 3.71 4-cyl. engines. Replaces: MerCruiser 98561 & 98562A6, Osco 8561 Sierra 18-1937

**Part No.**  
HGE 8561

**Description**  
Cast Iron

King Cobra  
Manifold Adapter

**Part No.**  
HGE 460MK

**Description**  
Aluminum

Allows MerCruiser style 9011 Chevy manifolds to adapt to the OMC Ford 460 King Cobra

GM Small Block V8 Style Center  
Manifold

GM Small Block V8, Barr Style Center Riser Manifold with gaskets and hardware. Replaces: Barr CHV-1-83, Marine Power 613287, Osco 994 & Sierra 18-1997-1

**Part No.**  
HGE 1-83

**Description**  
Cast Iron

## 3" Barr Style Center Riser



3" Barr Style Center Riser with gaskets and hardware. Replaces: Barr 20-0082, Marine Power 601167, Osco 992 & Sierra 18-1999.

**Part No.**  
HGE 0082

**Description**  
Cast Iron

## Ford Small Block V8 Barr Style



Ford Small Block V8, Barr Style Center Riser Manifold with gaskets and hardware. Replaces: Barr FM-1-83, Osco FL994 & Sierra 18-1998-1.

**Part No.**  
HGE 1-81

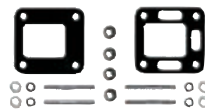
## Indmar 3.5" Outlet Center Riser



Repl: Indmar 532027-T. Mounting Kit: HGE2027MK  
HGE10107 - Riser Gasket (open). HGE10105 -  
Riser Gasket (close) Stud 3/8"x 1-3/4"

**Part No.**  
HGE 2018  
HGE 2027

**Description**  
3" Cast Iron Riser  
3.5" Cast Iron Riser

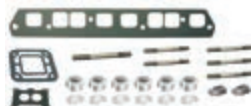
MerCruiser Style  
Exhaust Elbow

Exhaust Elbow with gaskets and hardware. Fits numerous 4,6 and V8 MerCruiser engines. Replaces: Barr MC-20-60426 & MC-20-76351, MerCruiser 76351A2, Osco 6351, Sierra 18-1971.

**Part No.**  
HGE 6351

**Description**  
Cast Iron

## OMC/Volvo 4 Cylinder 3L Manifold



Mount Kit: HGE8870MK Repl: OMC/Volvo 3858870,  
986985, 3854045, 3857450, 3858871

**Part No.**  
HGE 8870

**Description**  
Cast Iron

## Volvo 4 Cyl. Exhaust Manifold



Volvo 4 Cyl. Exhaust Manifold with gaskets and hardware. Fits models AQ120B, 125A, 140A, 145A, BB140A & 145A Replaces: Barr #VO-1-855387, Osco #VO418, Sierra #18-1930-1, Volvo 834438 & 855387

**Part No.**  
HGE 5387

## Volvo / OMC 4" Center Riser



Volvo / OMC 4" Center Riser with gaskets and hardware. Fits numerous Ford and GM V6 and V8 engines 2000 and newer. Replaces: OMC-20-913784, Osco #50456, Volvo #3850456, 3854466 & 3855270

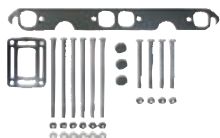
**Part No.**  
HGE 3784

Volvo V6 4.3L Manifold  
(Up to 1993)

V6 4.3L engine 1993 & before, models AQ150, AQ150A, AQ150B, AQ175A, AQ205A, AQ430A, AQ430B, AQ431A, AQ431B, AQ432, AQ434. Replaces: Volvo #856894-1, GLM #51640, Sierra #18-1932

**Part No.**  
HGE 6894

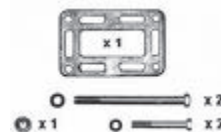
## GM / Volvo / OMC V8 Manifold



GM / Volvo Small Block V8 Exhaust Manifold with gaskets and hardware. Fits GM 5.0L and 5.7L engines 2000 and newer. Replaces: Barr #OMC-1-914035, Osco #52374 & 57579, Sierra 18-1986, Volvo #3852374 & 3857579.

**Part No.**  
HGE 4035

## Volvo V6 Center Riser



Volvo V6 4.3L engine, models AQ150, AQ150A, AQ150B, AQ175A, AQ205A, AQ430A, AQ430B, AQ431A, AQ431B, AQ432, AQ434. Replaces: Volvo #857037-6, GLM #51520, Sierra #18-1936

**Part No.**  
HGE 7037

## Volvo Riser TAMD30



Volvo TAMD30, 41P, 42, 43 & 44  
Repl: Volvo #859963.

**Part No.**  
HGE 9963

## Volvo TAMD31 &amp; 41B



Volvo TAMD31 & 41B  
Repl: Volvo #860656 & 861289.

**Part No.**  
HGE 1289

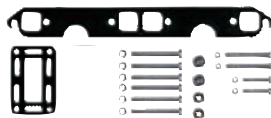
## GM / Volvo / OMC V6 4.3L Manifold



GM / Volvo / OMC V6 Manifold with gaskets and hardware. Replaces: Barr #OMC-1-3857656, Sierra #18-1848, Volvo #3852338, 3857656 & 3857678

**Part No.**  
HGE 7656

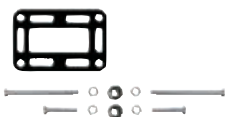
## GM / Volvo V8 Exhaust Manifold



GM / Volvo V8 Exhaust Manifold with gaskets and hardware. Fits numerous 5.0L and 5.7L V8 GM engines. Replaces: Barr VO-1-835804, Osco #5805, Sierra #18-1931-1, Volvo 835804, 855926 & 856883

**Part No.**  
HGE 5804

## Volvo Center Riser



Volvo Center Riser with gaskets and hardware. Fits numerous 5.0L and 5.7L V8 GM engines. Replaces: Barr VO-20-855384, Osco 56859, Sierra 18-1935-1, Volvo 855380, 855384, 856879 & 856891

**Part No.**  
HGE 5384

Not sure  
**WHICH**  
**MANIFOLD**  
you need?

**Jerry's**  
**Marine**  
**Service**

Give us a call!

**FL 1-800-432-2231**

**SC 1-800-788-2231**

Our parts experts will be happy to assist you in finding the perfect fit.





NEW!

GLM

In Stock

# Maximum Manifold Features

## FULLY TUNED

Increase Performance, Reduce Back Pressure and Add More Horsepower to your Engine!

## & PROTECTED

Cast Iron Manifolds are Black Painted for Corrosion Resistance!

### Elbows / Risers



In the Merc. 4" riser, there are 2 extra exits at each side. This allows water to exit more efficiently, keeping engine cooler.



### Small Block



OEM



Our fully tuned design guides exhaust gases directly to riser without turbulence and back pressure. This increases the engines performance up to 10%. In the meantime, an additional 40% water cooling area will decrease the entire manifold body temperature significantly.

### Big Block



OEM



Our fully tuned design will reduce turbulence and enhance flow for added performance. An extra 30% water cooling area will help reduce temperature in the exhaust exit area allowing for longer gasket life.

### Hi-Rise Elbows



Complete Sets for OMC & Volvo Penta GM V6, V8sb, V8bb & FORD V8sb

STANDARD



HI-RISE



Single-Piece Hi-Rise Approx. 11.3" High

GLM Manifold Sets with Hi-Rise Elbows come with all the gaskets & hardware needed. GLM is your Best Choice for Aftermarket Manifolds!

### Dry Joint Alternative

Manifold + Elbow Sets



For MerCruiser V6 & V8 S.B.

Additional Water Ports

Elimination of Exterior Water Cooling System

For just over the cost of 1 dry joint elbow, you can purchase GLM's manifold + elbow set and **replace both pieces**, eliminating your costly dry joint exhaust system!



## GLM's SUPERIOR DESIGNS = BETTER PERFORMANCE !





NEW!

## Manifolds For MERCURISER

## Inline 4 Cyl.

Model 120/140 - 153/181 CID (1982-95)  
Model 3.0LX/3.0L - 181 CID (1990 and After)



#51214 (860235A03)



## Inline 4 Cyl.

Model 140 - 181 CID (1968-82)



#51212 (96705A1)



## V-6 Cyl. GM

Model 175/205, V6  
229/262 CID  
(1983—0M SN's)

#51220 (99746A17)



## Small Block V-8 Cyl. GM

Model 200/320, V8 SB  
305/350/377 CID  
(1983—0M SN's)

#51230 (860246Q11)



## Big Block V-8 Cyl. GM

Model 330/370, V8 BB  
454/502 CID  
(1982 & Up)

#51240 (807078T08)



## Dry Joint ALTERNATIVE Sets

Eliminates exterior water cooling system.  
Manifold & Elbow Set includes hdwe, gskts.

#58650 For V6

#58660 For V8 SB



Water Tight Gasket

For spacers, use #50300 or #50600

## Spacers



3" - #50300 (93320A14)

6" - #50600 (807477A5)

## Elbow 4 Cyl.



#51160 (12076A2)

## Elbow 3" 15°



#51110 (98504A3)

## Elbow 4" 7°



#51140 (807988A2)

## Exhaust Elbow Gaskets



#32080 (27-860232) Center Riser Open

#30240 (27-860233) Center Riser Restricted

#30220 (27-860231) Cntr Riser Closed Cooling

#31520 (27-99777-2) Rear Riser Open 4/6 Cyl. (1968-82)  
(except 120HP), All V8 (1978-82)

## Exhaust Manifold Gaskets



#31710 (27-68715) 4 Cyl. (3.7L) Merc Built

#32170 (27-99757) Chevy V6

#33790 (27-73866) Ford 302/351

#31100 (27-33395) Chev 305/350

#31101 (CHV-47-0000) Chev 305/350 Barr style

#33760 (27-46820) Chev 454/502



GLM's SUPERIOR DESIGNS =  
BETTER PERFORMANCE !

## Manifolds For OMC/VOLVO

NEW!



## Inline 4 Cyl.

OMC Model 3.0/3.0 HO- GM 181 CID, 4 Cyl. (1991 & Up)  
VOLVO Model 3.0GS- GM 181 CID, 4 Cyl. (1994 & Up)



Uses Riser #51340



#51450 (3858870)

## V6 Cyl. - 4.3L

OMC Model 4.3L- GM 262 CID, V6 (1986 & Up)  
VOLVO Model 4.3L- GM 262 CID, V6 (1994 & Up)



Uses Risers

#51330 Std.



#51337 Hi Rise



#51480 (3857656)

## V6 Cyl. - AQ

VOLVO Model AQ175/AQ205/AQ430A,B/AQ432/AQ434  
GM V6 (1993 & Before)



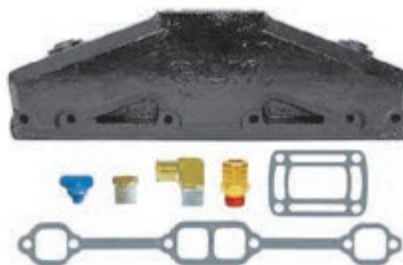
Uses Riser #51520



#51640 (856894)

## Small Block V-8 Cyl. GM

OMC Model 5.0/5.7L- GM 305/350 CID, V8 SB (1989 & Up)  
VOLVO Model 5.0/5.7L- GM 305/350 CID, V8 SB (1994 & Up)



Uses Risers

#51330 Std.



#51337 Hi Rise



#51430 (3857723)

## Small Block V-8 Cyl. GM

VOLVO Model 5.0/5.7L- GM 305/350 CID, V8 SB  
(1993 & Before)



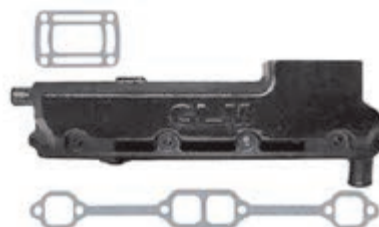
Uses Riser #51510



#51630 (856883)

## SB V-8 Cyl. - 800 Series

OMC Model 800 Series- GM 305/350 CID, V8 SB (1979-88)



Uses Riser #51320



#51410 - Stbd (912441)

#51420 - Port (912442)



GLM's SUPERIOR DESIGNS =  
BETTER PERFORMANCE !



## Manifolds For OMC/VOLVO

### Big Block V-8 Cyl. GM

OMC Model 7.4/8.2L - GM 454/502 CID, V8 BB (1991 & Up)  
VOLVO Model 7.4/8.2L - GM 454/502 CID, V8 BB (1994 & Up)



**#51500** (3861459)



### Small Block V-8 Cyl. FORD

OMC 5.0/5.8L/5.8 & 351 EFI - FORD 302/351 CID (1991 & Up)  
VOLVO 5.0/5.8L/5.8 & Fi/FSi - FORD 302/351 CID (1994 & Up)



**#51490** (3852347)

### 4 Cyl. Elbow



**#51340** (3863071)

### Std. Rise Elbow



**#51330** (3857944)

### Hi-Rise Elbow



**#51337** (3862627)

### Volvo AQ Elbow



**#51520** (857037)

### Volvo Elbow (93 & Before)



**#51510** (856891)

### 800 Series Elbow



**#51320** (909863)

### EFI Elbows



**#51332 - Port** (3855271)  
**#51334 - Stbd** (3855269)

### Adapter Plate

Converts BB FORD to BB GM



**#50040**



## Manifolds - Indmar/Marine Power

### Manifold

Model FORD 5.0/5.8L - 302/351 CID, V8 SB



**#56250**  
(FM-1-83, Barr)

### 3" Spacer



**#56030** (20-0097)

### Elbow 3" 10°



**#56110** (20-0082, 0992-000)

### Elbow 4" 10°



**#56140** (20-0100, 0992-593)



**GLM's SUPERIOR DESIGNS =  
BETTER PERFORMANCE !**



## Cummins 6B, BT, BTA 5.9L

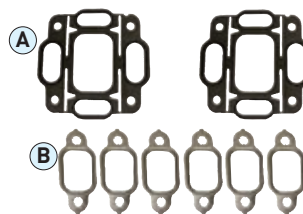


### Part No. BBB 045001

Fits Cummins 6B, BT & BTA 5.9L engines  
Replaces Cummins #3922122, 4020066 & 4019951

**BoatersBest**

## Mounting Gaskets



- (A) Part No. BBB 3921926 (Requires 2)
- (B) Part No. BBB 3927154 (Requires 6)



## Cummins 6C, CT, CTA 8.1L

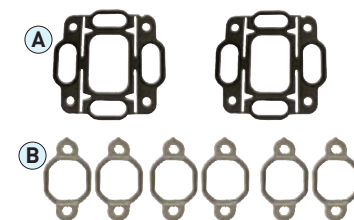


### Part No. BBB 045002

Fits Cummins 6C, CT & CTA 8.1L engines  
Replaces Cummins #3922935 & 3921481

**BoatersBest**

## Mounting Gaskets



- (A) Part No. BBB 3921926 (Requires 2)
- (B) Part No. BBB 3927154 (Requires 6)



## Cummins 855, 855T, 855TI

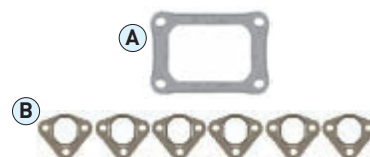


### Part No. BBB 045003

Fits Cummins 855M Series marine engines  
Replaces Cummins #3008590

**BoatersBest**

## Mounting Gaskets



- (A) Part No. BBB 3069177 (Requires 1)
- (B) Part No. BBB 3020943 (Requires 6)



## Cummins K19



### Part No. BBB 045004

Fits Cummins K19 marine engine:  
Replaces Cummins #3036088, 3078024 & 3655046

**BoatersBest**

## Mounting Gaskets



Part No. BBB 3043097 (Requires 6)



## Caterpillar 3208, 3208T, 3208TA

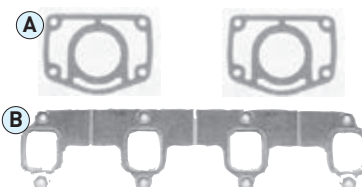


### Part No. BBB 045005

Fits Caterpillar 3208, 3208T & 3208TA marine engines. Replaces Caterpillar #1W6586 & 8N2250

**BoatersBest**

## Mounting Gaskets

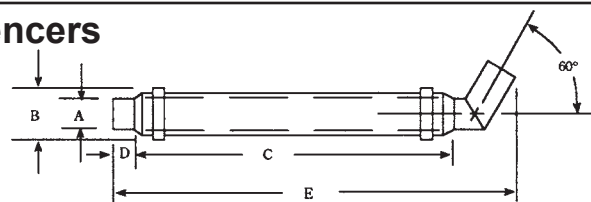


- (A) Part No. BBB 1258486 (Requires 2)
- (B) Part No. BBB 9L8027 (Requires 1)





## Ski Boat Silencers

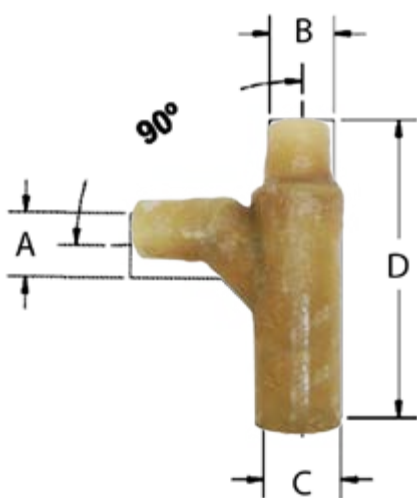


Will not exceed engine manufacture's maximum back-pressure levels. Excellent exhaust noise reduction and is not affected by electrolysis. Easy to Install.

Part No.	Description	"A"	"B"	"C"	"D"
*MUF 1000217	Straight Ends	3"	4 1/4"	38 1/4"	44 1/4"
*MUF 1000267	Straight Ends	4"	4 1/4"	38 1/4"	44 1/2"
*MUF 1000216	with Elbow	3"	4 1/4"	38 1/4"	47 1/2"
*MUF 1000265	with Elbow	4"	4 1/4"	38 1/4"	47 1/2"

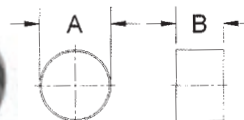


## Primex Exhaust Sweep Collector 90°



Part No.	"A"	"B"	"C"	"D"
MUF 1200498	3"	3"	4"	14.25"
MUF 1200499	3"	3"	5"	12"
MUF 1200763	4"	4"	4"	13"
MUF 1200742	4"	4"	5"	14"

## Crush Sleeves



Fits inside Inlet/Outlet to prevent damage due to over tightening of hose clamps



Crush Sleeves

Part No.	A NOM. O.D.		B LENGTH	
	INCHES	MM	INCHES	MM
MUF 1200584	4.00	102	4.00	102
MUF 1200585	5.00	127	4.00	102
MUF 1200586	6.00	152	4.00	102
* MUF 1200593	6.60	168	4.00	102
MUF 1200587	8.00	203	4.00	102
* MUF 1200594	8.63	219	4.00	102
MUF 1200588	10.00	254	4.00	102
* MUF 1200595	10.63	270	4.00	102
* MUF 1200589	12.00	305	4.00	102
* MUF 1200590	14.00	356	4.00	102
* MUF 1200591	16.00	406	4.00	102
* MUF 1200592	18.00	457	4.00	102

\*Special order only

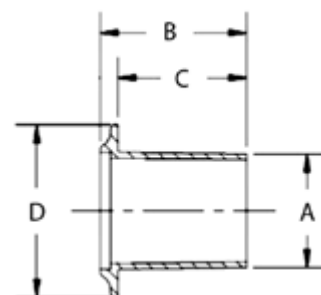
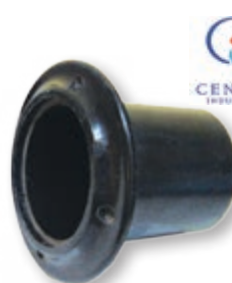
## Exhaust Flap Retro Fit Kit



Retro-Fit kit is constructed from 4" O.D. stainless tubing, 3" long with stainless steel flap-installed. Simply slide kit inside hose before exhaust tip. Perfect for almost any application. **Sold Each!**

Part No.	Size
COR 11100	4"

## Exhaust Thru-Hull Fittings

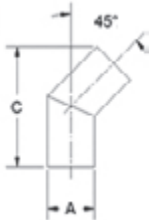


Constructed of black fire retardant/heat resistant fiberglass and is corrosion resistant. Easy to install with integral sealant cavity and recessed mounting locations.

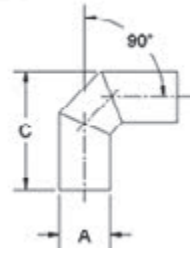
Part No.	"A"	"B"	"C"	"D"
MUF 1200288	3"	3-1/2"	3"	5"
MUF 1200323	4"	5"	4-1/2"	6"

\* Special shipping charges will apply unless picked up or delivered by Jerry's Marine Service

### Primex Elbow 45°



### Primex Elbows 90°



Constructed of fire retardant resins with smooth interior surfaces. Custom angles available.

Constructed of fire retardant resins with smooth interior surfaces. Custom angles available.

Part No.	A NOM. O.D.		C NOM. O.D.	
	INCHES	MM	INCHES	MM
MUF 1200217	1.50	38	6.00	152
MUF 1200214	1.63	41	6.00	152
MUF 1200281	1.88	48	6.00	152
MUF 1200192	2.00	51	6.63	168
MUF 1200215	2.50	64	7.25	184
MUF 1200109	3.00	76	8.50	216
MUF 1200111	3.50	89	10.25	260
MUF 1200112	4.00	102	10.25	260
MUF 1200113	5.00	127	13.63	346
MUF 1200114	6.00	152	15.38	391
MUF 1200216	8.00	203	19.31	490
MUF 1200204	10.00	254	22.44	570

Part No.	A NOM. O.D.		C NOM. O.D.	
	INCHES	MM	INCHES	MM
MUF 1200202	1.50	38	5.13	130
MUF 1200201	1.63	41	5.13	130
MUF 1200267	1.88	48	5.63	143
MUF 1200200	2.00	51	5.75	146
MUF 1200330	2.25	57	6.00	152
MUF 1200171	3.00	76	7.50	191
MUF 1200189	3.50	89	9.00	229
MUF 1200157	4.00	102	9.38	238
MUF 1200190	4.50	114	10.83	275
MUF 1200175	5.00	127	12.25	311
MUF 1200162	6.00	152	14.00	356
MUF 1200197	8.00	203	18.12	460
MUF 1200327	10.00	254	21.83	554

### Vernatube Exhaust Tubing

Part No.	A NOM. O.D.		B WALL THK		C WEIGHT		F STD. LENGTH	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
*MUF 1200508	1.50	38	0.105	2.7	0.40	0.27	60.00	1524
*MUF 1200510	1.62	41	0.113	2.9	0.40	0.27	60.00	1524
*MUF 1200861	1.75	44	0.112	2.8	0.45	0.30	60.00	1524
*MUF 1200543	1.88	48	0.116	2.9	0.50	0.34	60.00	1524
*MUF 1200512	2.00	51	0.125	3.2	0.50	0.34	60.00	1524
*MUF 1200863	2.25	57	0.127	3.2	0.60	0.40	60.00	1524
*MUF 1200865	2.38	60	0.127	3.2	0.65	0.44	60.00	1524
*MUF 1200544	2.50	64	0.128	3.3	0.70	0.47	60.00	1524
*MUF 1200541	3.00	76	0.130	3.3	0.90	0.60	60.00	1524
*MUF 1200514	3.50	89	0.135	3.4	1.00	0.67	60.00	1524
*MUF 1200516	4.00	102	0.138	3.5	1.30	0.87	60.00	1524
*MUF 1200867	4.50	114	0.140	3.6	1.50	1.01	60.00	1524
*MUF 1200518	5.00	127	0.144	3.7	1.70	1.14	60.00	1524
*MUF 1200520	6.00	152	0.148	3.8	2.00	1.34	60.00	1524
*MUF 1200538	8.00	203	0.154	3.9	3.00	2.02	60.00	1524
*MUF 1200539	10.00	254	0.160	4.1	3.80	2.55	60.00	1524
*MUF 1200540	12.00	305	0.160	4.1	4.60	3.09	60.00	1524

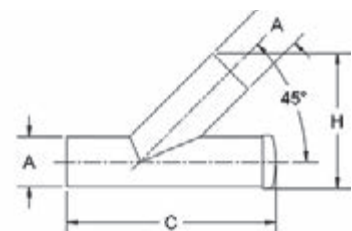


Priced per 5' (60.00 inch) Length Only

### Exhaust Fittings Surge Chambers Fiberglass

Part No.	A NOM. O.D.		C NOM. O.D.		H NOM. O.D.	
	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1200407	2.00	51	9.00	229	5.36	136
MUF 1200442	3.00	76	14.19	360	8.30	211
MUF 1200387	3.50	89	15.75	400	9.70	246
MUF 1200362	4.00	102	18.00	457	11.07	281
MUF 1200363	4.50	114	19.75	502	12.28	312
MUF 1200364	5.00	127	21.50	546	13.50	343
MUF 1200365	6.00	152	25.00	635	15.90	404
MUF 1200366	8.00	203	32.00	813	20.75	527
MUF 1200367	10.00	254	39.00	991	25.56	649

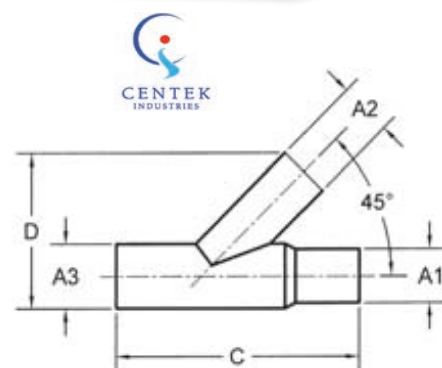
← 35° Angle



\* Special shipping charges will apply unless picked up or delivered by Jerry's Marine Service

## Exhaust Fittings - Standard Y - Fiberglass

Part No.	A1 & A2 NOM. O.D.		A3 NOM. O.D.		C NOM. O.D.		H NOM. O.D.	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
MUF1200896	1.50	38	2.00	51	9.00	229	5.18	132
MUF1200427	2.00	51	3.00	76	10.83	275	5.83	148
MUF1200406	2.00	51	3.50	89	16.00	406	8.45	215
MUF1200458	2.38	60	3.50	89	18.50	470	8.72	221
MUF1200321	2.50	64	3.50	89	18.50	470	8.80	224
MUF1200432	2.50	64	4.00	102	13.00	330	8.95	227
MUF1200413	3.00	76	3.00	76	14.00	356	8.55	217
MUF1200293	3.00	76	3.50	89	19.00	483	11.18	284
MUF1200256	3.00	76	4.00	102	14.00	356	9.30	236
MUF1200116	3.00	76	4.50	114	14.38	365	9.83	250
MUF1200320	3.00	76	5.00	127	14.87	378	10.08	256
MUF1200417	3.50	89	3.50	89	16.00	406	9.94	252
MUF1200415	3.50	89	4.00	102	16.00	406	10.19	259
MUF1200255	3.50	89	4.50	114	16.00	406	10.67	271
MUF1200315	3.50	89	5.00	127	21.50	546	11.19	284
MUF1200414	3.50	89	6.00	152	20.00	508	12.02	305
MUF1200316	4.00	102	4.00	102	16.50	419	11.20	284
MUF1200391	4.00	102	4.50	114	18.00	457	10.86	276
MUF1200304	4.00	102	5.00	127	17.50	445	11.82	300
MUF1200119	4.00	102	6.00	152	19.13	486	13.33	339
MUF1200453	4.50	114	6.00	152	19.50	495	13.42	341
MUF1200120	5.00	127	5.00	127	21.57	548	13.85	352
MUF1200310	5.00	127	6.00	152	23.00	584	15.19	386
MUF1200319	5.00	127	8.00	203	28.50	724	16.83	427
MUF1200203	6.00	152	6.00	152	26.50	673	16.61	422
MUF1200322	6.00	152	8.00	203	30.00	762	18.61	473
MUF1200314	6.00	152	10.00	254	37.19	945	20.61	523
MUF1200397	6.63	168	10.00	254	37.19	945	20.61	523
MUF1200525	8.00	203	12.00	305	33.00	838	26.31	668



## Exhaust Reducer Couplers



Part No.	A1 NOM. O.D.		A2 NOM. O.D.		C NOM. O.D.	
	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1200410	1.50	38	2.00	51	6.20	157
MUF 1200264	2.00	51	3.00	76	8.00	203
MUF 1200270	2.50	64	3.00	76	8.50	216
MUF 1200161	3.00	76	3.50	89	9.50	241
MUF 1200170	3.00	76	4.00	102	10.00	254
MUF 1200222	3.50	89	4.00	102	10.50	267
MUF 1200124	3.50	89	4.50	114	11.00	279
MUF 1200223	4.00	102	5.00	127	12.00	305
MUF 1200123	4.50	114	6.00	152	14.00	356
MUF 1200148	5.00	127	6.00	152	14.00	356

## Exhaust Collector V-Type Grey Iron



Part No.	Shank Y End	Diameter Straight End	Overall Length
BUC 40EC250400	2.50"	4.00"	9.50"
BUC 40EC300300	3.00"	3.00"	9.50"
BUC 40EC300350	3.00"	3.50"	9.50"
BUC 40EC300400	3.00"	4.00"	9.50"
BUC 40EC300500	3.00"	5.00"	9.50"
BUC 40EC350500	3.50"	5.00"	19.75"
BUC 40EC400500	4.00"	5.00"	13.50"

## Exhaust "T"s Grey Iron



Part No.	Hose Size
BUC 40EC30400B	3" x 3" x 4"
BUC 40EC4040B	4" x 4" x 4"
BUC 40EC4050B	4" x 4" x 5"

## Exhaust Elbows Grey Iron



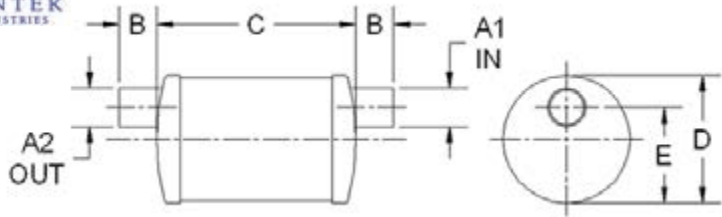
Part No.	Hose Size	Angles	Center to Center Dimensions
BUC 40EE30045	3.00"	45°	3.00" x 3.00"
BUC 40EE30090	3.00"	90°	4.50" x 4.50"
BUC 40EE30090S	3.00"	90°	3.75" x 3.75"
BUC 40EE300160	3.00"	160°	4.25" x 4.25"
BUC 40EE40090	4.00"	90°	9.00" x 9.00"



Vernalift Mufflers - Inline



Top View

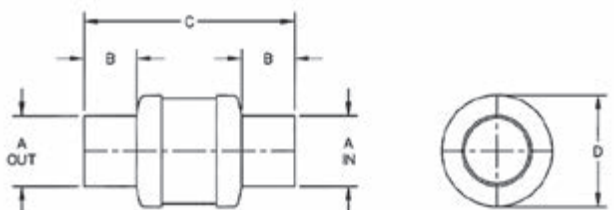


Part#	A1 INLET		A2 OUTLET		B I/O LENGTH		C LENGTH		D DIAMETER		E I/O OFFSET	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1500035	1.50	38	1.50	38	2.00	51	10.50	267	6.36	162	4.88	124
MUF 1500036	1.63	41	1.63	41	2.00	51	10.50	267	6.36	162	4.88	124
MUF 1500037	1.63	41	1.63	41	2.00	51	14.00	356	8.36	212	6.18	157
MUF 1500155	1.63	41	1.63	41	2.00	51	17.00	432	10.04	255	7.52	191
MUF 1500038	1.75	44	1.75	44	2.00	51	10.50	267	6.36	162	4.68	119
MUF 1500039	1.75	44	1.75	44	2.00	51	14.00	356	8.36	212	6.18	157
MUF 1500040	1.88	48	1.88	48	2.00	51	10.50	267	6.36	162	4.88	124
MUF 1500041	1.88	48	1.88	48	2.00	51	14.00	356	8.36	212	6.18	157
MUF 1500042	2.00	51	2.00	51	2.00	51	10.50	267	6.36	162	4.88	124
MUF 1500043	2.00	51	2.00	51	2.00	51	14.00	356	8.36	212	6.18	157
MUF 1500044	2.00	51	2.00	51	2.00	51	17.50	445	10.04	255	7.52	191
MUF 1500095	2.00	51	2.50	64	2.50	64	17.00	432	10.04	255	7.52	191
MUF 1500059	2.00	51	3.00	76	3.00	76	17.50	445	10.04	255	7.52	191
MUF 1500045	2.25	57	2.25	57	2.25	57	14.00	356	8.36	212	6.18	157
MUF 1500046	2.25	57	2.25	57	2.25	57	17.50	445	10.04	255	7.52	191
MUF 1500047	2.38	60	2.38	60	2.38	60	14.00	356	8.36	212	6.18	157
MUF 1500048	2.38	60	2.38	60	2.38	60	17.50	445	10.04	255	7.52	191
MUF 1500049	2.50	64	2.50	64	2.50	64	17.50	445	10.04	255	7.52	191
MUF 1500050	2.88	73	2.88	73	3.00	76	17.50	445	10.04	255	7.52	191
MUF 1500051	3.00	76	3.00	76	3.00	76	17.50	445	10.04	255	7.52	191
MUF 1500096	3.00	76	3.00	76	3.00	76	20.00	508	12.34	313	9.17	233
MUF 1500119	3.50	89	3.50	89	3.50	89	17.00	432	10.04	255	7.52	191
MUF 1500098	4.00	102	4.00	102	4.00	102	22.00	559	12.34	313	9.17	233
MUF 1500099	4.50	114	4.50	114	5.00	127	22.00	559	12.34	313	9.17	233
MUF 1500100	5.00	127	5.00	127	5.00	127	22.00	559	12.34	313	9.17	233
MUF 1500101	6.00	152	6.00	152	6.00	152	28.00	711	16.17	411	12.47	317
MUF 1500102	8.00	203	8.00	203	6.00	152	32.00	813	18.50	470	13.75	349
MUF 1500169	10.00	254	10.00	254	8.00	203	40.00	1016	22.00	559	16.00	406

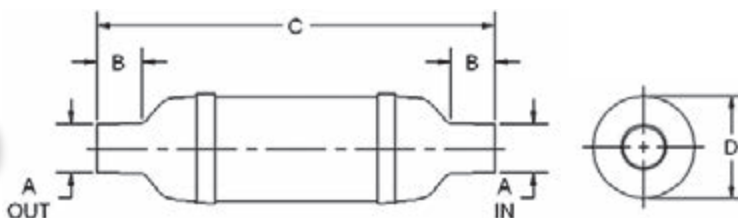
- For Inboards, sailboats & generators
- Gasoline or diesel
- For use above or below water line

Exhaust Fittings - Check Valves - Fiberglass

Part No.	A NOM. O.D.		B I/O LENGTH		C LENGTH		D DIAMETER	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1200403	1.50	38	2.00	51	11.79	299	4.34	110
MUF 1200263	1.63	41	1.50	38	11.79	299	4.34	110
MUF 1200398	1.88	48	1.88	48	9.00	229	4.34	110
MUF 1200328	2.00	51	1.50	38	8.37	213	4.34	110
MUF 1200426	2.25	57	3.19	81	16.13	410	5.58	142
MUF 1200449	2.38	60	3.31	84	18.69	475	7.06	179
MUF 1200307	2.50	64	3.00	76	16.13	410	5.58	142
MUF 1200274	3.00	76	3.50	89	18.66	474	7.06	179
MUF 1200411	3.50	89	3.50	89	20.30	516	8.09	205
MUF 1200369	4.00	102	3.50	89	21.00	533	9.06	230
MUF 1200479	4.50	114	5.00	127	24.63	626	11.15	283
MUF 1200377	5.00	127	4.38	111	24.25	616	11.15	283
MUF 1200386	6.00	152	5.00	127	26.20	665	12.20	310



## Primex Round Silencers

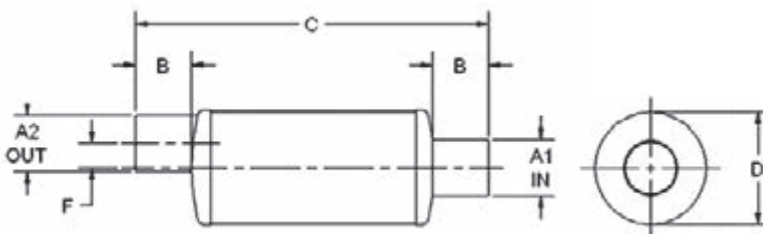


Part No.	A IN/OUT		B I/O LENGTH		C LENGTH		D DIAMETER	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1000103	2.50	64	3.00	76	21.62	549	5.58	142
MUF 1000145	3.00	76	3.50	89	20.12	511	7.07	180
MUF 1000104	3.00	76	3.50	89	25.84	656	0.71	18
MUF 1000105	3.50	89	3.50	89	30.00	762	8.09	205
MUF 1000165	4.00	102	3.50	89	25.50	648	9.06	230
MUF 1000106	4.00	102	3.50	89	33.69	856	9.06	230
MUF 1000107	4.50	114	4.00	102	35.62	905	10.10	257
MUF 1000108	5.00	127	4.40	112	38.75	984	11.00	279
MUF 1000112	6.00	152	5.00	127	31.43	798	12.20	310
MUF 1000111	6.00	152	5.00	127	41.50	1054	12.20	310
MUF 1000117	6.00	152	6.00	152	39.62	1006	16.21	412
MUF 1000113	6.00	152	6.00	152	52.75	1340	16.21	412
MUF 1000245	6.50	165	5.75	146	41.50	1054	12.25	311
MUF 1000299	6.63	168	5.75	146	52.75	1340	16.21	412
MUF 1000120	8.00	203	6.00	152	39.62	1006	16.21	412
MUF 1000119	8.00	203	6.00	152	52.75	1340	16.21	412
MUF 1000246	8.50	216	6.00	152	52.75	1340	16.25	413



## VernaTone MKII Mufflers - Round

- For all inboard applications - gasoline or diesel
- For use above water line VernaTone MKII Mufflers - Round

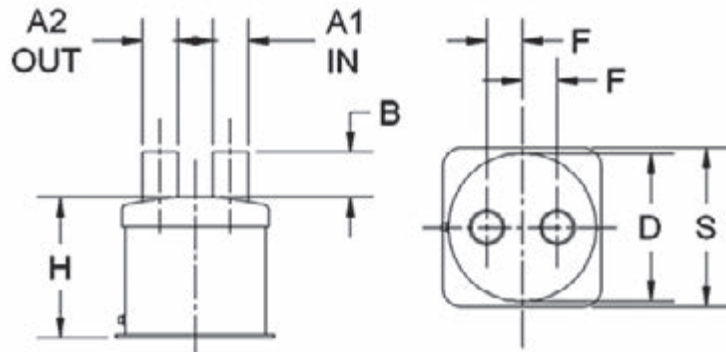


Part#	A1 INLET		A2 OUTLET		B I/O LENGTH		C LENGTH		D DIAMETER		F I/O OFFSET	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1400003	2.00	51	2.00	51	2.50	64	16.00	406	6.38	162	1.85	47
MUF 1400002	2.38	60	2.38	60	3.00	76	16.00	406	6.38	162	1.66	42
MUF 1400032	2.50	64	2.50	64	3.00	76	18.00	457	6.38	162	1.60	41
MUF 1400015	3.00	76	3.00	76	3.00	76	19.00	483	8.38	213	2.38	60
MUF 1400016	3.50	89	3.50	89	4.00	102	23.00	584	8.38	213	2.13	54
MUF 1400017	4.00	102	4.00	102	4.00	102	25.38	724	10.04	255	2.66	68
MUF 1400018	4.50	114	4.50	114	4.50	114	28.50	724	10.04	255	2.41	61
MUF 1400006	5.00	127	5.00	127	5.00	127	31.50	800	10.04	255	2.16	55
MUF 1400040	5.00	127	6.00	152	5.00	127	40.00	1016	12.50	318	2.84	72
MUF 1400007	6.00	152	6.00	152	6.00	152	38.00	965	12.50	318	2.84	72
MUF 1400039	6.00	152	8.00	203	8.00	203	50.50	1283	16.25	413	3.72	94
MUF 1400059	6.63	168	6.63	168	6.00	152	38.00	965	12.50	318	2.32	59
MUF 1400008	8.00	203	8.00	203	8.00	203	50.50	1283	16.25	413	3.72	94
MUF 1400030	8.00	203	10.00	254	10.00	254	61.00	1549	18.50	470	3.85	98
MUF 1400009	10.00	254	10.00	254	10.00	254	63.00	1600	18.50	470	3.85	98
MUF 1400010	12.00	305	12.00	305	12.00	305	75.50	1918	22.50	572	4.25	108
MUF 1400011	14.00	356	14.00	356	12.00	305	87.00	2210	22.50	572	3.25	83



Vernalift Mufflers - Top In/Top Out

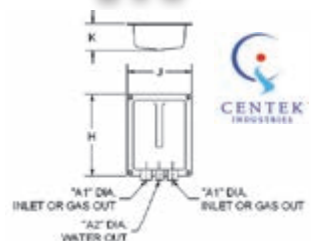
\*Square base - other specialty sizes available/call for details



Part#	A1 INLET		A2 OUTLET		B I/O LENGTH		D DIAMETER		F I/O OFFSET		H HEIGHT		S SQ. BASE	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1500060	1.50	38	1.50	38	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500219	1.50	38	2.00	51	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500220	1.63	41	1.50	38	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500270	1.63	41	1.63	41	2.00	51	6.38	162	1.50	38	9.00	229	7.00	178
MUF 1500003	1.63	41	1.63	41	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500143	1.63	41	1.88	48	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500005	1.75	44	1.75	44	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500007	1.88	48	1.88	48	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500276	2.00	51	2.00	51	2.00	51	6.36	162	1.50	38	9.00	229	7.00	178
MUF 1500221	2.00	51	1.50	38	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500009	2.00	51	2.00	51	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500010	2.00	51	2.00	51	2.50	64	10.04	255	2.50	64	10.16	258	10.50	267
MUF 1500126	2.00	51	2.38	60	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500011	2.25	57	2.25	57	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500012	2.25	57	2.25	57	2.50	64	10.04	255	2.50	64	10.16	258	10.50	267
MUF 1500013	2.38	60	2.38	60	2.50	64	8.36	212	2.00	51	8.00	203	9.00	229
MUF 1500015	2.50	64	2.50	64	2.50	64	10.04	255	2.50	64	10.16	258	10.50	267
MUF 1500141	2.50	64	2.50	64	3.00	76	12.34	313	2.75	70	12.00	305	12.00	305
MUF 1500138	2.50	64	3.00	76	3.00	76	10.04	255	2.50	64	10.16	258	10.50	267
MUF 1500016	2.88	73	2.88	73	3.00	76	10.04	255	2.50	64	10.16	258	10.50	267
MUF 1500017	3.00	76	3.00	76	3.00	76	10.04	255	2.50	64	10.16	258	10.50	267
MUF 1500063	3.00	76	3.00	76	4.00	102	12.34	313	2.75	70	12.00	305	12.00	305
MUF 1500150	3.00	76	3.50	89	4.00	102	12.34	313	2.75	70	12.00	305	12.00	305
MUF 1500064	3.50	89	3.50	89	4.00	102	12.34	313	2.75	70	12.00	305	12.00	305
MUF 1500065	4.00	102	4.00	102	4.00	102	12.34	313	2.75	70	12.00	305	12.00	305
MUF 1500066	4.50	114	4.50	114	4.00	102	12.34	313	3.00	76	12.00	305	12.00	305
MUF 1500067	4.50	114	4.50	114	4.00	102	16.17	411	4.00	102	16.00	406	17.00	432
MUF 1500271	5.00	127	5.00	127	5.00	127	12.34	313	3.31	84	17.00	432	12.00	305
MUF 1500068	5.00	127	5.00	127	5.00	127	16.17	411	4.00	102	16.00	406	17.00	432
MUF 1500069	6.00	152	6.00	152	5.00	127	16.17	411	4.00	102	16.00	406	17.00	432
MUF 1500131	8.00	203	8.00	203	8.00	203	22.00	559	5.00	127	22.00	559	23.00	584
MUF 1500154	10.00	254	10.00	254	8.00	203	28.50	724	7.00	178	28.00	711	30.00	762

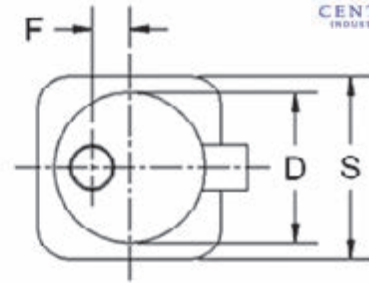
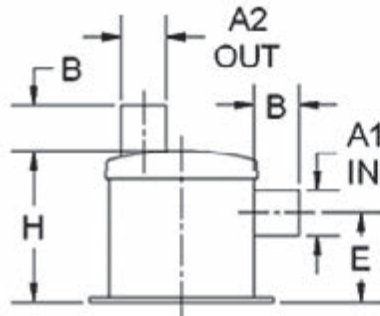
Gen-Sep™ Mufflers

Part#	APPLICATION	A1 I/O		A2 DRAIN		H HEIGHT		J WIDTH		K DEPTH	
		INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1020150	Diesel	1.50	38	1.25	32	15.63	397	12.38	314	5.03	128
MUF 1020150P	Gasoline	1.50	38	1.25	32	15.63	397	12.38	314	5.03	128
MUF 1020162	Diesel	1.62	41	1.25	32	15.63	397	12.38	314	5.03	128
MUF 1020175	Diesel	1.75	44	1.50	38	15.63	397	12.38	314	5.03	128
MUF 1020200	Diesel	2.00	51	1.50	38	15.63	397	12.38	314	5.03	128
MUF 1020200P	Gasoline	2.00	51	1.50	38	15.63	397	12.38	314	5.03	128
MUF 1020250	Diesel	2.50	64	1.50	38	20.50	521	17.50	445	7.00	178
MUF 1020300	Diesel	3.00	76	1.50	38	20.50	521	17.50	445	7.00	178
MUF 1020350	Diesel	3.50	89	2.00	51	27.00	686	23.50	597	9.00	229
MUF 1020400	Diesel	4.00	102	2.50	64	27.00	686	23.50	597	9.00	229
MUF 1020450	Diesel	4.50	114	2.50	64	30.00	762	28.00	711	7.25	184
MUF 1020500	Diesel	5.00	127	3.00	76	30.00	762	28.00	711	7.25	184



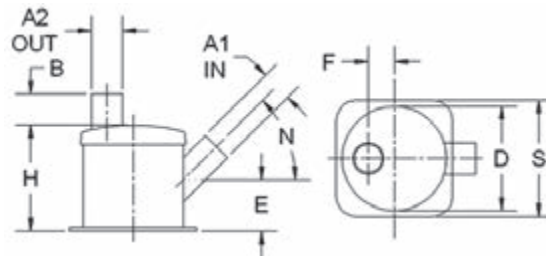


## Centek Silencers - Side In/Top Out



Part#	A1 INLET		A2 OUTLET		B I/OLENGTH		D DIAMETER		E INLETHGT		F I/OOFFSET		H HEIGHT		S SQ.BASE	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
MUF 1500275	1.50	38	1.50	38	2.00	51	6.38	162	5.81	148	1.50	38	9.00	229	7.00	178
MUF 1500071	1.50	38	1.50	38	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500225	1.50	38	1.50	38	2.50	64	12.34	313	8.25	210	2.75	70	12.00	305	12.00	305
MUF 1500142	1.50	38	2.00	51	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500125	1.75	44	1.50	38	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500022	1.75	44	1.75	44	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500148	1.75	44	2.00	51	2.50	64	10.04	255	6.50	165	2.50	64	10.16	258	10.50	267
MUF 1500210	2.00	51	1.50	38	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500077	2.00	51	1.63	41	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500121	2.00	51	1.88	48	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500078	2.00	51	1.88	48	2.50	64	10.40	264	6.50	165	2.50	64	10.16	258	10.50	267
MUF 1500054	2.00	51	2.00	51	2.00	51	6.38	162	4.13	105	1.50	38	9.00	229	7.00	178
MUF 1500264	2.00	51	2.00	51	2.00	51	6.38	162	5.81	148	1.50	38	9.00	229	7.00	178
MUF 1500026	2.00	51	2.00	51	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500027	2.00	51	2.00	51	2.50	64	10.04	255	6.50	165	2.00	51	10.16	258	10.50	267
MUF 1500120	2.00	51	2.00	51	2.00	51	12.34	313	8.50	216	2.50	64	12.00	305	12.00	305
MUF 1500147	2.00	51	2.25	57	3.00	76	12.34	313	8.50	216	2.50	64	12.00	305	12.00	305
MUF 1500137	2.00	51	2.50	64	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500055	2.00	51	2.50	64	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500079	2.00	51	2.50	64	2.50	64	10.04	255	6.50	165	2.50	64	10.16	258	10.50	267
MUF 1500132	2.00	51	2.50	64	3.00	76	12.34	313	8.50	216	2.50	64	12.00	305	12.00	305
MUF 1500028	2.25	57	2.25	57	2.50	64	8.36	212	4.68	119	2.00	51	8.00	203	9.00	229
MUF 1500029	2.25	57	2.25	57	2.50	64	10.04	255	6.50	165	2.50	64	10.16	258	10.50	267
MUF 1500080	2.25	57	2.38	60	2.50	64	12.34	313	8.34	212	2.50	64	12.00	305	12.00	305
MUF 1500083	2.50	64	2.38	60	2.50	64	12.34	313	8.25	210	2.50	64	12.00	305	12.00	305
MUF 1500032	2.50	64	2.50	64	2.50	64	10.04	255	6.50	165	2.50	64	10.16	258	10.50	267
MUF 1500128	2.50	64	3.00	76	3.00	76	12.34	313	7.25	184	2.75	70	12.00	305	12.00	305
MUF 1500084	3.00	76	2.88	73	3.00	76	12.34	313	8.00	203	2.75	70	12.00	305	12.00	305
MUF 1500034	3.00	76	3.00	76	3.00	76	10.04	255	6.50	165	2.50	64	10.16	258	10.50	267
MUF 1500085	3.00	76	3.00	76	3.00	76	12.34	313	8.00	203	2.75	70	12.00	305	12.00	305
MUF 1500152	3.00	76	3.50	89	3.50	89	10.04	255	6.50	165	2.50	64	10.16	258	10.50	267
MUF 1500086	3.50	89	3.00	76	3.50	89	12.34	313	7.75	197	2.75	70	12.00	305	12.00	305
MUF 1500087	3.50	89	3.50	89	3.50	89	12.34	313	7.75	197	2.75	70	12.00	305	12.00	305
MUF 1500151	3.50	89	5.00	127	5.00	127	12.34	313	7.75	197	2.75	70	12.00	305	12.00	305
MUF 1500130	4.00	102	3.50	89	4.00	102	12.34	313	7.25	184	2.75	70	12.00	305	12.00	305
MUF 1500088	4.00	102	4.00	102	4.00	102	12.34	313	7.50	191	2.75	70	12.00	305	12.00	305
MUF 1500149	4.00	102	5.00	127	5.00	127	16.17	411	8.75	222	4.00	102	16.00	406	17.00	432
MUF 1500089	4.50	114	4.50	114	4.50	114	12.34	313	7.25	184	2.75	70	12.00	305	12.00	305
MUF 1500091	5.00	127	5.00	127	5.00	127	12.34	313	6.00	152	2.75	70	12.00	305	12.00	305
MUF 1500090	5.00	127	5.00	127	5.00	127	16.17	411	8.75	222	4.00	102	16.00	406	17.00	432
MUF 1500092	6.00	152	6.00	152	5.00	127	16.17	411	8.75	222	4.00	102	16.00	406	17.00	432
MUF 1500094	8.00	203	8.00	203	6.00	152	18.50	470	10.50	267	3.00	76	18.00	457	19.00	483
MUF 1500159	10.00	254	10.00	254	8.00	203	24.60	625	12.00	305	6.00	152	24.00	610	26.00	660

## Vernalift Mufflers - Side Angle In/Top Out



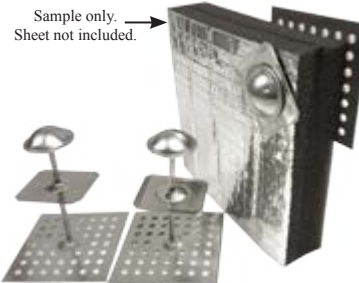
Part#	A1 INLET		A2 OUTLET		B I/O LENGTH		D DIAMETER		E INLET HGT		F I/O OFFSET		H HEIGHT		N ANGLE	S SQ. BASE	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM		INCHES	MM
MUF 1500223	1.50	38	1.50	38	2.50	64	8.36	212	4.43	113	2.50	64	8.00	203	45°	9.00	229
MUF 1500265	1.63	41	1.63	41	2.00	51	6.36	162	4.43	113	1.50	38	6.00	152	45°	7.00	178
MUF 1500266	1.63	41	1.63	41	2.00	51	6.36	162	6.57	167	1.50	38	9.00	229	45°	7.00	178
MUF 1500104	1.63	41	1.63	41	2.00	51	8.36	212	4.43	113	2.00	51	8.00	203	45°	9.00	229
MUF 1500127	1.75	44	1.75	44	2.00	51	8.36	212	4.43	113	2.00	51	8.00	203	45°	9.00	229
MUF 1500267	1.88	48	1.88	48	2.00	51	6.36	162	6.57	167	1.50	38	9.00	229	45°	7.00	178
MUF 1500157	1.88	48	1.88	48	2.00	51	8.36	212	4.43	113	2.00	51	8.00	203	45°	9.00	229
MUF 1500106	1.88	48	1.88	48	2.00	51	10.04	255	5.30	135	2.50	64	10.16	258	45°	10.50	267
MUF 1500268	2.00	51	2.00	51	2.00	51	6.36	162	6.63	168	1.50	38	9.00	229	45°	7.00	178
MUF 1500171	2.00	51	2.00	51	2.00	51	8.36	212	4.43	113	2.00	51	8.00	203	45°	9.00	229
MUF 1500107	2.00	51	2.00	51	2.00	51	10.04	255	5.30	135	2.50	64	10.16	258	45°	10.50	267
MUF 1500108	2.25	57	2.25	57	2.00	51	10.04	255	5.30	135	2.50	64	10.16	258	45°	10.50	267
MUF 1500109	2.25	57	3.00	76	2.50	64	10.04	255	5.30	135	2.50	64	10.16	258	45°	10.50	267
MUF 1500122	2.38	60	2.38	60	2.00	51	10.04	255	5.30	135	2.50	64	10.16	258	45°	10.50	267
MUF 1500110	2.50	64	2.50	64	2.00	51	10.04	255	5.30	135	2.50	64	10.16	258	45°	10.50	267
MUF 1500160	2.50	64	3.00	76	3.00	76	12.34	313	6.67	169	2.75	70	12.00	305	45°	12.00	305
MUF 1500111	2.88	73	2.88	73	2.50	64	10.04	255	5.30	135	2.50	64	10.16	258	45°	10.50	267
MUF 1500112	3.00	76	3.00	76	3.00	76	12.34	313	6.67	169	2.75	70	12.00	305	45°	12.00	305
MUF 1500153	3.00	76	4.00	102	4.00	102	12.34	313	6.92	176	2.75	70	12.00	305	30°	12.00	305
MUF 1500113	3.50	89	3.50	89	3.50	89	12.34	313	7.50	191	2.75	70	12.00	305	30°	12.00	305
MUF 1500134	3.50	89	5.00	127	4.50	114	12.34	313	7.75	197	2.75	70	12.00	305	45°	12.00	305
MUF 1500114	4.00	102	4.00	102	4.00	102	12.34	313	6.92	176	2.75	70	12.00	305	30°	12.00	305
MUF 1500115	4.50	114	4.50	114	4.00	102	12.34	313	7.25	184	2.75	70	12.00	305	45°	12.00	305
MUF 1500116	5.00	127	5.00	127	5.00	127	12.34	313	6.00	152	2.75	70	12.00	305	30°	12.00	305
MUF 1500117	6.00	152	6.00	152	5.00	127	16.17	411	8.75	222	4.00	102	14.50	368	45°	17.00	432
MUF 1500118	8.00	203	8.00	203	6.00	152	18.50	470	10.00	254	3.00	76	18.00	457	45°	19.00	483
MUF 1500136	10.00	254	10.00	254	8.00	203	24.60	625	12.00	305	6.00	152	24.00	610	45°	26.00	660

## Soundown insulation

Vinyl insulation



No vinyl insulation

**Vinyl/foam composite sheet****Part No. SDN IVF1010MN32**

Sheet size 54" x 32" x 1" thick

Soundown composite foam and vinyl insulation sheets effectively quiet and dampen noise created by engines, generators, and other equipment. Available in 12 square foot sheets and featuring a silver rip-stop vapor barrier facing to protect the foam. Insulation sheets are composed of a layer of mass loaded vinyl sandwiched between two layers of polyether fire retardant foam.

**Acoustic foam composite sheet****Part No. SDN IAF10MN32**

Sheet size 54" x 32" x 1" thick

Soundown acoustic foam with silver rip-stop vapor barrier facing. Used in applications where barrier treatments are not required.

**Seam and Edge Tape****Part No. SDN HTA20SC**

Roll size 2" x 125'

Soundown Seam and Edge tape made from the same material as the facing on the insulation products, this tape virtually disappears when used to seal seams and edges.

**Insulation Hanging Pin****Part No. SDN HPA25KD10**

Pin length 2-1/2" (10 per pack)

Soundown perforated hanging pin base is made to create a firm adhesive bond to surface. 2-1/2" pin length includes push on "keeper" and finish dome cap. All aluminum. (Foam composite sheet not included)

**Spray Adhesive****Part No. SDN NFSC1**

12 oz aerosol coated cement.

Special installation adhesive. One can covers 16-24 sq.ft.

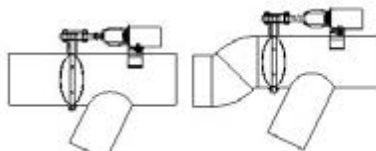
## The CAPTAIN'S CALL™ Exhaust Diverters

Exhaust diverters allow the captain to switch from loud "thru-hull" mode to a quieter "thru-prop" mode with the simple flick of a helm mounted switch. This is an ideal solution for you morning boater who are kind enough not to disturb the late night boaters, after all, they didn't awaken you when they came in late because they were equipped with the Captain's Call™ diverter option. We offer these in a wide range of applications from a standard straight system, offset, or side exit system. They are offered in a highly polished stainless steel finish as well as lower cost gloss black powder coated stainless finish; both are very attractive to highlight any engine compartment. Some of the standard applications are offered in a convenient kit that includes tips, hose and clamps. Even with an exhaust diverter installed in your boat you may exceed the allowable noise level. Approximately 4-5 hours complete kit installation.



**CORSA**  
PERFORMANCE EXHAUSTS  
*More than exhaust.*

**CORSA PRODUCTS ARE PRICED PER PAIR OR PER ENGINE  
Unless Otherwise Noted**



## Mercury 5.0, 5.7 & 6.2 Exhaust Options

### PRE-2005 DIVERTERS

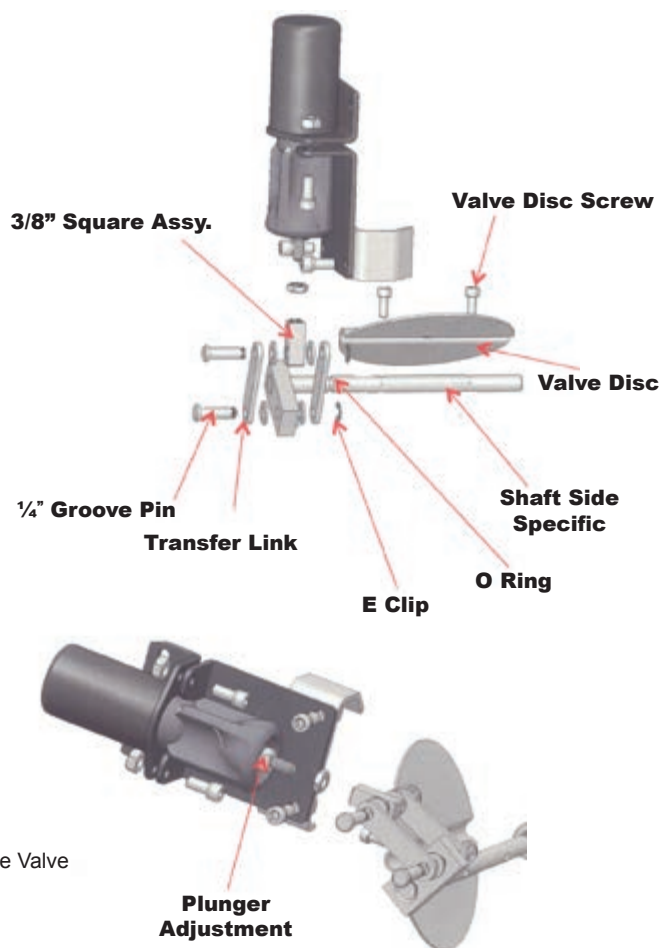
Part No.	Description
COR 13091	Standard Polished Diverter
COR P13091	Standard Black Powder-coated Diverter
COR 13092	Standard Polished Diverter with 90° elbow
COR P13092	Standard Black Powder-coated Diverter with 90° elbow
COR P13093	Below Platform Black Powder-coated Diverters w/ 180° turndown and elbows
COR 13134	Polished Diverter w/ elbow & balance tube (side exit boats)
COR P13134	Black Powder-coated Diverter w/ elbow & balance tube (side exit boats)
COR 13091-3	Standard Polished Diverter with 3" spacer
COR 13091R	Reverse Action Polished Diverter
COR P13091R	Reverse Action Black Powder-coated Diverter
COR 61000	5.0/5.7/6.2 2005 Diverter (NO SPACER)
COR 61001	5.0/5.7/6.2 2005 Diverter with 90° elbow (NO SPACER)
COR 61002	MERC 5.0/5.7/6.2 Diverter W/1.7" spacer
COR 61003	MERC 5.0/5.7/6.2 2005 Diverter with 90° elbow & 1.7" Spacer
COR 61006	MERC 5.0/5.7/6.2 Diverter W/4.7" spacer
COR 61008	MERC 5.0/5.7/6.2 Diverter W/6" spacer

## Mercury 7.4 & 8.2 Exhaust Options

### DIVERTERS

Part No.	Description
COR 13141	Standard Polished Diverter
COR P13141	Standard Black Powder-coated Diverter
COR 13142	Standard Polished Diverter with 90° elbow
COR P13142	Standard Black Powder-coated Diverter with 90° elbow
COR 13143	Below Platform Polished Diverters w/ 180° turndown and elbows
COR P13143	Below Platform Black Powder-coated Diverters w/ 180° turndown and elbows
COR 13133	Polished Diverter w/ elbow & balance tube (side exit boats)
COR 13141-3	Standard Polished Diverter with 3" spacer
COR 13141R	Reverse action Polished Diverter
COR 13141R	Reverse Action Black Powder-coated Diverter

## Anatomy of Diverter Linkage



Part No.	Description
COR 10165	Speed Switch Reverse 2000
COR 10159	Speed Switch Reverse 3000
COR 10167	Speed Switch Reverse 4000
COR 10166	Speed Switch Normal 4000
COR 10173	Rubber Boot (only)
COR 10882	Wiring Harness 3 Wire (2004-Present)
COR 10871	Solenoid 3 Wire (2004-Present)
COR 10102-REPL	Replacement Shafts
COR 10826	Linkage Assy.
COR 11999	Retro Fit Other Manufacturers Tips with Carek Anti Surge Valve
COR 10072C	Sailsbury Guard (External Rubber Guard)
COR 10826	Shaft and Flapper Kit <b>No Solenoids</b>



## Mercury 8.1 Exhaust Options



### DIVERTERS

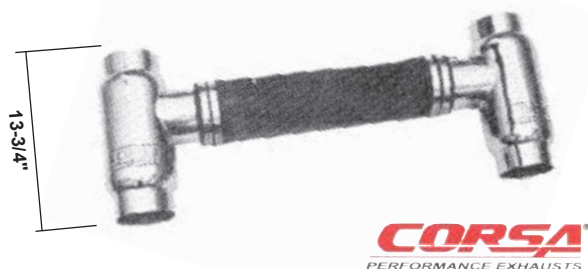
Part No.	Description
COR 81000	Standard Polished Diverter with Vertical Shaft
COR P81000	Standard Black Powder-coated Diverter with Vertical Shaft
COR 81000H	Standard Polished Diverter with Horizontal Shaft
COR 81002	Standard Polished Diverter with 90° elbow
COR 81020-REPL	Polished Offset Diverter to fit in standard Mercury 454 hole location
COR P81020-REPL	Black Powder-coated Offset Diverter to fit in standard Mercury 454 hole location
COR 87800	Below Platform Black Powder-coated Diverter w/ 180° turndown and elbows
COR 81000-2	Standard Polished Diverter with 2" longer Down Tube & Vertical Shaft
COR 81000-6	Standard Polished Diverter with 6" longer Down Tube & Vertical Shaft

### The CAPTAIN'S CALL™ Exhaust Diverter Replacement Solenoids



Part No.	Description
COR 10871	Repl. Solenoid
COR 10882	Repl. Solenoid Harness
COR 10173	Rubber Boot (only)

### The EQUALIZER™ Muffler System



For a solution in meeting noise regulations without sacrificing performance or good looks. Made of polished stainless steel this muffler systems add to the appearance of any engine. Note: When production-type engines (ie: not HP or built-up racing engines) are equipped with the Equalizer Muffler System, they will pass a sound test measured per SAE J2005 at less than 90 db (a). Kit includes mufflers, hose and clamps; Limited Lifetime Warranty.

Part No.	Description
COR 12001*	4"
COR 12101*	3"
COR 12153*	OMC 302/351 EFI with 3-1/2" Inlet, 4" outlet

\*For Black Powder coat finish add "P" to front of part no.

### 4" Exhaust Tips



CORSA™ PERFORMANCE Exhaust Tips help protect your engine from damage without compromising horsepower or performance. Ordinary anti-surge valves can easily curl, fatigue and tear. But the CORSA Carek™ stainless steel anti-surge valve is based on a unique design guaranteed against failure, requires absolutely no maintenance, no replacement and no major investment and every CORSA Carek™ Valve is warranted with a limited lifetime guarantee. Molded silicon edge eliminates metal-to-metal contact for quiet operation and improved back splash seal. A Teflon™ bearing assures a lifetime of quiet, smooth performance with a selection of tips styled and suited for your application requirements.

Part No.	Description
COR 11000	Angle Cut, 90° Flange, 12.5" Overall Length
COR 11020	Angle Cut, 12° Flange, 12.5" Overall Length
COR 11021	90° Cut, Salisbury Guard, 12° Flange
COR 11050	4" Diameter, 90° Cut, Salisbury Guard, 90° Flange, 5" Overall Length
COR 11062	4" Diameter, 40° Flush Flange for Side Exit



*More than exhaust.*

## ASR™ Silencer Tip



Developed for those boats equipped with Mercury's Silent Choice™ or the Corsa Performance Captain's Call™ exhaust cutouts, the ASR 5 silencer tip is based upon a "patent applied for" design which provides superior air flow and excellent sound reduction. Meets new noise regulations and still be able to enjoy all of the power and performance your particular engine was designed to deliver. Made of polished stainless steel.

Part No.	Description
COR 12200	5" Transom mount Silencer Tip w/Salisbury Guards



CORSA PRODUCTS ARE PRICED PER PAIR OR PER ENGINE  
Unless Otherwise Noted

**"63" Hy-Gear**

Extra high nickel alloy stainless steel (300 series) band, housing and worm drive screw. Full size 9/16" band provides 12-1/2% more sealing area than conventional 1/2" bands. Standard Box 10.

Part No.	Min.	Max.
IDE 6306	3/8"	7/8"
IDE 6308	7/16"	1"
IDE 6310	1/2"	1-1/8"
IDE 6312	1/2"	1-1/4"
IDE 6316	3/4"	1-1/2"
IDE 6320	3/4"	1-3/4"
IDE 6324	1"	2"
IDE 6328	1-5/16"	2-1/4"
IDE 6332	1-9/16"	2-1/2"
IDE 6336	1-3/4"	2-3/4"
IDE 6340	1-1/8"	3"
IDE 6344	1-5/16"	3-1/4"
IDE 6348	1-5/8"	3-1/2"
IDE 6352	1-7/8"	3-3/4"
IDE 6356	2-1/8"	4"
IDE 6364	2-5/8"	4-1/2"
IDE 6372	3-1/8"	5"
IDE 6380	3-5/8"	5-1/2"
IDE 6388	4-1/4"	6"
IDE 6396	4-3/4"	6-1/2"
IDE 63104	4"	7"

**IDEAL®****Pow'r-Gear Lined 6M Series IDEAL®**

For maximum protection of soft hoses. Protective liner prevents extrusion and shearing of hose through band notches. Extended band design prevents liner from skewing during installation. Screw: 5/16" hex-head. 305 grade stainless steel. Band-liner: 5/8" wide. .027" thick. 304 grade stainless steel.



Part No.	Min.	Max.	Std. Box
IDE 6M175	1"	1-3/4"	10
IDE 6M200	1-1/4"	2-1/8"	10
IDE 6M250	1-3/4"	2-5/8"	10
IDE 6M300	2-1/4"	3-1/8"	10
IDE 6M350	2-3/4"	3-5/8"	10
IDE 6M400	3-1/4"	4-1/8"	10
IDE 6M450	3-3/4"	4-5/8"	10
IDE 6M500	4-1/4"	5-1/8"	10
IDE 6M550	4-3/4"	5-5/8"	5
IDE 6M600	5-1/4"	6-1/8"	5
IDE 6M650	5-3/4"	6-5/8"	5
IDE 6M700	6-1/4"	7-1/8"	5
IDE 6M750	6-3/4"	7-5/8"	5
IDE 6M800	7-1/4"	8-1/8"	5
IDE 6M850	7-3/4"	8-5/8"	5
IDE 6M900	8-1/4"	9-1/8"	5

**"62" Micro-Gear**

Features the high nickel alloy stainless (300 Series) as "63" Hy-Gear Clamps. Seal with only 10" pounds of tightening torque. Slotted 1/4" hex-head screw. Standard Box 10.

**IDEAL®**

Part No.	Min.	Max.
IDE 62602	1/4"	5/8"
IDE 62606	5/16"	7/8"
IDE 62M05	3/8"	5/8"

**Constant Torque Clamps  
All Stainless Steel**

Features the high nickel alloy 304 stainless. 5/8" band with slotted 401 stainless washer 1/4" hex-head screw. Standard Box 10.



All Stainless Steel Made by BREEZE®

Part No.	Hose I.D.	Hose O.D.
TRI 730-1000	1" to 1-1/8"	1" to 1.75"
TRI 730-1140	1" to 1-1/2"	1.25" to 2.125"
TRI 730-1120	1-1/4" to 2"	1.75" to 2.625"
TRI 730-2000	1-7/8" to 2-1/2"	2.25" to 3.125"
TRI 730-2120	2-3/8" to 3"	2.75" to 3.625"
TRI 730-3000	2-3/4" to 3-1/4"	3.25" to 4.125"
TRI 730-3120	3-1/4" to 3-1/2"	3.75" to 4.625"
TRI 730-4000	4"	4.25" to 5.125"
TRI 730-4120	4-1/8" to 4-1/2"	4.75" to 5.625"
TRI 730-5000	5" to 5-1/8"	5.25" to 6.125"
TRI 730-5120	5-1/2"	5.75" to 6.625"
TRI 730-6000	6"	6.25" to 7.125"
TRI 730-8000	8"	7.25" to 8.125"

**Exhaust Hose T-Bolt Band Clamps**

Excellent for corrugated hose applications. Designed to assure proper coupling retention for any marine hose. T-bolt band clamps offer a full 360° clamping surface. Ideal for any below water line connection. Clamps are 18-8 stainless steel with 1/4" hardware, .025" T x .75" W band. Nylon insert lock nut assures safety. Extra long T-bolt allows maximum adjustment.



Diameter Part No.	Hose Range	I. D.
MPI 720-1000	1.25" - 1.37"	1"
MPI 720-1140	1.0" - 1.5"	1-1/4"
MPI 720-1120	1.69" - 1.94"	1-1/2"
MPI 720-2000	2.19" - 2.44"	2"
MPI 720-2120	2.75" - 3.06"	2-1/2"
MPI 720-3000	3.31" - 3.81"	3"
MPI 720-3120	3.75" - 4.25"	3-1/2"
MPI 720-4000	4.19" - 4.69"	4"
MPI 720-4120	4.81" - 5.31"	4-1/2"
MPI 720-5000	5.38" - 5.88"	5"
MPI 720-6000	6.50" - 7.00"	6"
MPI 720-8000	8.50" - 9.00"	8"
MPI 720-10000	10.50" - 11.00"	10"
MPI 720-12000	12.40" - 13.00"	12"

**Flexible Hose Clamp Driver****IDEAL®**

Stop using that old rigid nut driver and add some flexibility to your work! The flexible shaft and no-slip grip work best in hard to reach places such as compact car engines and plumbing repair applications. The socket fits mini and standard hose clamp screw heads. Just flip the socket for the desired size.

**Part No.**  
IDE 9999V

## Rubberlined Hose Clamps



For reliable, vibration damping support for pipes, cables, groups of cables, hoses etc. The clamp is made of 304 stainless steel and the edges are protected by a rubber section. Impacts and vibrations are dampened by the rubber, which eliminates wear and tear. On tightening, the band adapts itself easily to the dimension it is to fit. One of the fastening holes is oval to permit any subsequent adjustment. 10 per box.

Part No.	Inches I.D.	Part No.	Inches I.D.
ABA 13301	3/16"	ABA 13310	3/4"
ABA 13302	1/4"	ABA 13312	7/8"
ABA 13303	5/16"	ABA 13314	1"
ABA 13304	3/8"	ABA 13316	1-1/8"
ABA 13305	7/16"	ABA 13318	1-1/4"
ABA 13306	1/2"	ABA 13320	1-3/8"
ABA 13317	9/16"	ABA 13322	1-1/2"
ABA 13308	5/8"	ABA 13323	1-3/4"

## 304 Stainless Steel Mini Hose Clamps



Unbeatable reliability and manufactured entirely of 304 stainless steel for the most corrosive marine environment. ABA clamps have rolled band edges to prevent clamp from cutting into hose and specially stamped threads and housing. Smooth insides eliminate friction and promote uniform tensioning for superior strength. 10 per box.

Part No.	Minimum Diameter	Maximum Diameter
ABA 13508	19/64"	21/64"
ABA 13509	11/32"	3/8"
ABA 13510	3/8"	27/64"
ABA 13511	27/64"	15/32"
ABA 13512	29/64"	33/64"
ABA 13513	1/2"	35/64"
ABA 13514	17/32"	19/32"
ABA 13515	37/64"	5/8"
ABA 13516	19/32"	43/64"
ABA 13517	41/64"	43/64"

## 316 Stainless Steel Hose Clamps



Unbeatable reliability and manufactured entirely of 316 acid resistant stainless steel for the most corrosive marine environment. ABA clamps have rolled band edges to prevent clamp from cutting into hose and specially stamped threads and housing. Smooth insides eliminate friction and promote uniform tensioning for superior strength. 10 per box.

Part No.	U.S. Size	Minimum Diameter	Maximum Diameter	Std. Pkg.
ABA 13614	3	5/16"	5/8"	10
ABA 13617	4	7/16"	3/4"	10
ABA 13620	6	1/2"	7/8"	10
ABA 13624	8	5/8"	1-1/8"	10
ABA 13628	10	3/4"	1-3/16"	10
ABA 13632	12	7/8"	1-23/64"	10
ABA 13638	16	1-1/16"	1-5/8"	10
ABA 13644	20	1-1/4"	1-7/8"	10
ABA 13650	24	1-5/32"	2-3/32"	10
ABA 13657	28	1-1/4"	2-1/4"	10
ABA 13664	32	1-1/2"	2-1/2"	10
ABA 13670	36	1-3/4"	2-3/4"	10
ABA 13676	40	2"	3"	10
ABA 13683	44	2-1/4"	3-1/4"	10
ABA 13689	48	2-1/2"	3-1/2"	10
ABA 13694	52	2-3/4"	3-3/4"	10
ABA 13696	56	3"	4"	10
ABA 13697	60	3-1/4"	4-1/4"	10
ABA 13698	64	3-1/2"	4-1/2"	10
ABA 13699	72	3"	5"	10

## These Sizes are Sold Each

ABA 66140	80	4"	5-1/2"	1
ABA 66152	88	4-1/2"	6"	1
ABA 66165	96	5"	6-1/2"	1
ABA 66178	104	5-1/2"	7"	1
ABA 66191	112	6"	7-1/2"	1
ABA 66203	120	6-1/2"	8"	1
ABA 66216	128	7"	8-1/2"	1
ABA 66232	138	7-5/8"	9-1/8"	1
ABA 66257	154	8-5/8"	10-1/8"	1
ABA 66283	170	9-5/8"	11-1/8"	1
ABA 66308	186	10-5/8"	12-1/8"	1

## Flexible Screwdriver



Tighten or loosen clamps from any angle up to 90° without slippage. Designed for 9/32" hex head screw found on all aba clamps. Flexible double-wound steel spiral is corrosion protected. Handle is made of high impact plastic.

Part No.	Length
ABA 60002	10"
ABA 60003	24"

## Clamp Aid



- Add a finished and professional look to your work.
- Can be cut with scissors for shorter bands.
- Can withstand temperatures up to 266 °F
- Can stretch to accommodate larger marine clamps.
- Are made of a flexible strong hi-tech plastic.
- Protect other hoses and nearby objects from chafing and damage.
- Float flat on water.



**Sold 20 per Package Single Color**

Part No.	Color
CLA GRAY	Gray
CLA GREEN	Green
CLA BLUE	Blue
CLA ORANGE	Orange
CLA YELLOW	Yellow
CLA RED	Red
CLA BLACK	Black



These high quality rubber components will withstand the same operating conditions and temperature as marine exhaust hose. They will also absorb more engine vibration and movement than fiberglass or metal components; with substantially less cost, labor, exhaust hose and clamps. PACKAGED WITH 4 STAINLESS STEEL T-BOLTS CLAMPS.



**TRIDENT MARINE**  
WET EXHAUST SYSTEMS



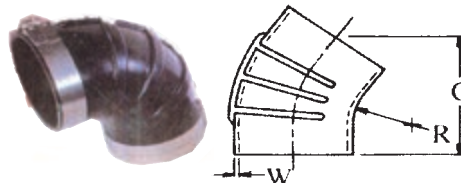
### Black Rubber

Elbows, Hump Hose & Reducers Molded High Temp Rubber - 250° F Max. Continuous 5 Year Warranty

### Blue Silicone Rubber

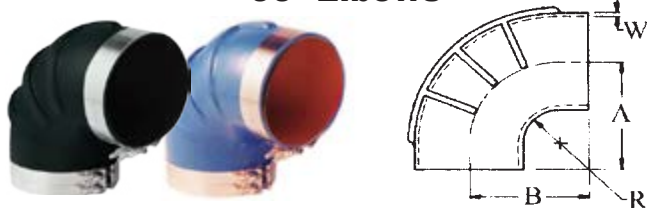
Elbow & Hump Hose Molded Very High Temp Silicone - 350° F Max. Continuous 10 Year Warranty  
*Special Order Only*

### Special Elbows



Black Rubber Part No.	Blue Silicone Part No.	Deg.	I.D.	C	R	W
TRI TRL422	TRI 222V4000	22°	4.00	4.50	1.75	.25
TRI TRL4568	TRI 268V4000	68°	4.50	6.75	1.75	.25
TRI TRL622	TRI 222V6000	22°	6.00	5.25	1.75	.25
TRI TRL638	TRI 238V6000	38°	6.00	7.25	.75	.25
TRI TRL654	TRI 254V6000	54°	6.00	7.50	2.50	.25
TRI TRL668	TRI 268V6000	68°	6.00	8.50	4.00	.25
TRI TRL863	TRI 263V8000	63°	8.00	11.00	1.25	.37

### 90° Elbows



All elbows 6" & over are ribbed to provide the maximum resistance to panting & collapse.

Black Rubber Part No.	Blue Silicone Part No.	I.D.	A	B	R	W
TRI TRL290	TRI 290V2000	2.00	4.50	5.50	2.00	.20
TRI TRL2590	TRI 290V2500	2.50	4.25	4.25	2.00	.20
TRI TRL390	TRI 290V3000	3.00	5.25	5.25	2.00	.25
TRI TRL3590	TRI 290V3500	3.50	5.50	5.50	2.00	.25
TRI TRL490	TRI 290V4000	4.00	5.75	5.75	2.00	.25
TRI TRL4590	TRI 290V4500	4.50	6.00	6.00	1.75	.25
TRI TRL590	TRI 290V5000	5.00	6.00	6.00	1.75	.25
TRI TRL5490	TRI 290V5040	5 x 4	8.25	3.50	2.75	.28
TRI TRL6590	TRI 290V6050	6 x 5	7.00	6.25	1.50	.31
TRI TRL690	TRI 290V6000	6.00	7.00	7.00	1.75	.25
TRI TRL890	TRI 290V8000	8.00	8.50	8.50	2.12	.37
TRI TRL1090	TRI 290V10000	10.00	10.50	10.50	3.12	.37

### 45° Elbows



Black Rubber Part No.	Blue Silicone Part No.	I.D.	C	R	W
TRI TRL345	TRI 240V3000	3.00	5.50	2.00	.25
TRI TRL3545	TRI 240V3500	3.50	5.50	2.00	.25
TRI TRL445	TRI 240V4000	4.00	5.50	2.00	.25
TRI TRL4545	TRI 240V4500	4.50	5.75	1.75	.25
TRI TRL545	TRI 240V5000	5.00	5.25	1.75	.25
TRI TRL645	TRI 240V6000	6.00	6.50	1.75	.25
TRI TRL845	TRI 240V8000	8.00	8.25	2.12	.37
TRI TRL1045	TRI 240V10000	10.00	10.50	3.12	.37

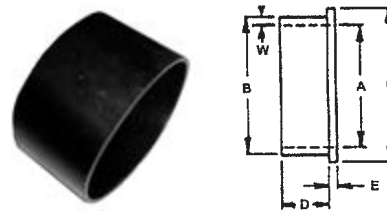
### Hump Hose



Black Rubber Part No.	Blue Silicone Part No.	I.D.	A	B
TRI THH3	TRI 270V3000	3.00	5.25	4.50
TRI THH35	TRI 270V3500	3.50	5.25	5.00
TRI THHR353	TRI 270V3530	3.50 x 3.00	5.25	5.00
TRI THH4	TRI 270V4000	4.00	5.25	5.37
TRI THHR43	TRI 270V4030	4.00 x 3.00	5.25	5.50
TRI THH45	TRI 270V4050	4.50	5.25	5.87
TRI THH5	TRI 270V5000	5.00	6.00	6.12
TRI THHR54	TRI 270V5040	5.00 x 4.00	5.50	6.50
TRI THH6	TRI 270V6000	6.00	7.00	7.50
TRI THHR65	TRI 270V6050	6.00 x 5.00	6.00	7.50
TRI THH8	-----	8.00	5.00	9.50
TRI THHR86	TRI 270V8060	8.00 x 6.00	6.00	9.50
TRI THH10	-----	10.00	6.00	11.50
TRI THHR108	-----	10.00 x 8.00	6.00	11.50

Wall Thickness = .25

### Black Rubber Reducer Insert Sleeve



Black Rubber Part No.	A	B	C	D	E	W
TRI TRS430	3.00	4.00	4.50	1.50	.25	.25
TRI TRS435	3.50	4.00	5.50	1.50	.25	.25
TRI TRS454	4.00	4.50	5.00	1.50	.25	.25
TRI TRS540	4.00	5.00	5.50	1.50	.25	.25
TRI TRS545	4.50	5.00	5.50	1.50	.25	.25
TRI TRS650	5.00	6.00	6.50	1.50	.25	.25

Blue Silicone Part Numbers in the Grey Boxes are Special Order Only

## Blue Silicone Rubber Elbows, Hump Hose, Bellows & Exhaust Hose

**Reinforced Very High Temp Silicone Rubber - 350° F Max. Continuous - 10 Year Warranty - Made in USA**

These high quality Silicone components will withstand the same operating conditions and temperature as marine Silicone exhaust hose. They will also absorb more engine vibration and movement than fiberglass or metal components; with substantially less cost, labor, exhaust hose and clamps.

### 3' Lengths of Hose



Part No.	I.D.	Wall
TRI 202V1000-36	1"	.20"
TRI 202V1180-36	1-1/8"	.20"
TRI 202V1140-36	1-1/4"	.20"
TRI 202V1560-36	1-5/16"	.20"
TRI 202V1380-36	1-3/8"	.20"
TRI 202V1120-36	1-1/2"	.20"
TRI 202V1580-36	1-5/8"	.20"
TRI 202V1340-36	1-3/4"	.20"
TRI 202V1780-36	1-7/8"	.20"
TRI 202V2000-36	2"	.20"
TRI 202V2180-36	2-1/8"	.20"
TRI 202V2140-36	2-1/4"	.20"
TRI 202V2380-36	2-3/8"	.20"
TRI 202V2120-36	2-1/2"	.20"
TRI 202V2580-36	2-5/8"	.20"
TRI 202V2340-36	2-3/4"	.20"
TRI 202V2780-36	2-7/8"	.20"
TRI 202V3000-36	3"	.20"
TRI 202V3180-36	3-1/8"	.20"
TRI 202V3140-36	3-1/4"	.20"
TRI 202V3120-36	3-1/2"	.20"
TRI 202V3340-36	3-3/4"	.20"
TRI 202V4000-36	4"	.20"
TRI 202V5000-36	5"	.20"
TRI 202V5120-36	5-1/2"	.20"
TRI 202V6000-36	6"	.25"
TRI 202V6580-36	6-5/8"	.25"
TRI 202V7000-36	7"	.25"
TRI 202V8000-36	8"	.25"
TRI 202V8580-36	8-5/8"	.25"
TRI 202V10000-36	10"	.25"
TRI 202V12000-36	12"	.25"
TRI 202V14000-36	14"	.25"
TRI 202V16000-36	16"	.25"
TRI 202V18000-36	18"	.25"

*Corrugated Hose Available Special Order*

### 45° Elbows

Part No.	I.D.	Wall
TRI 242V2000	2"	.20"
TRI 242V2120	2-1/2"	.20"
TRI 242V3000	3"	.20"
TRI 242V3120	3-1/2"	.20"
TRI 242V4000	4"	.20"



PACKAGED WITH 4  
STAINLESS STEEL  
T-BOLTS CLAMPS.

### Hump Hose

Part No.	I.D.	Length	Wall
TRI 272V2000	2"	6"	.20"
TRI 272V2120	2-1/2"	6"	.20"
TRI 272V3000	3"	6"	.20"
TRI 272V3120	3-1/2"	6"	.20"
TRI 272V4000	4"	6"	.20"
TRI 272V5000	5"	6"	.20"
TRI 272V6000	6"	8"	.25"
TRI 272V8000	8"	8"	.25"
TRI 272V10000	10"	12"	.25"
TRI 272V12000	12"	12"	.25"



PACKAGED WITH 4  
STAINLESS STEEL  
T-BOLTS CLAMPS.

### Double Hump Hose

Part No.	I.D.	Length	Wall
TRI 274V6000	6"	14"	.25"
TRI 274V8000	8"	14"	.25"
TRI 274V10000	10"	14"	.25"
TRI 274V12000	12"	14"	.25"
TRI 274V14000	14"	14"	.25"
TRI 274V16000	16"	14"	.25"
TRI 274V18000	18"	14"	.25"



PACKAGED WITH 4  
STAINLESS STEEL  
T-BOLTS CLAMPS.

### 90° Elbows

Part No.	I.D.	Wall
TRI 292V2000	2"	.20"
TRI 292V2120	2-1/2"	.20"
TRI 292V3000	3"	.20"
TRI 292V3120	3-1/2"	.20"
TRI 292V4000	4"	.20"



PACKAGED WITH 4  
STAINLESS STEEL  
T-BOLTS CLAMPS.

### Shields Corrugated Silicone Exhaust Hose



Available  
in 50' Coil or  
by the Foot



Nautiflex Corrugated Silicone Exhaust Hose has a blue silicone tube and cover with a smooth finish for easy cleaning. The hose is wire reinforced and will not collapse under suction or in a bend. The temperatures ranges from -20°F – +350°F. This hose meets SAEJ2006 Type R2 and ISO 13362:2004 – Type 1 – Class B standards.

Part No.	I.D.	O.D.
SHI 262-1000	1"	1.421"
SHI 262-1180	1 1/8"	1.564"
SHI 262-1140	1 1/4"	1.703"
SHI 262-1120	1 1/2"	2"
SHI 262-1580	1 5/8"	2.171"
SHI 262-1340	1 3/4"	2.269"
SHI 262-1780	1 7/8"	2.406"
SHI 262-2000	2"	2.531"

### Corrugated Marine Exhaust Hose Series 252



Some Sizes  
Available  
in 50' Box

Same features as our Series 200 and 250 premium marine wet exhaust hose. Corrugated construction with double wire helix imbedded between multiple plies of tough rayon spiral cord provides strength and outstanding flexibility. For use on longer runs which require the tightest bends. Color coded with blue strip brand. Meets SAE J2006 standard.

Part No.	Description
MPI 252-2000	2" Exhaust Hose
MPI 252-2380	2-3/8" Exhaust Hose
MPI 252-2120	2-1/2" Exhaust Hose
MPI 252-3000	3" Exhaust Hose
MPI 252-3120	3-1/2" Exhaust Hose
MPI 252-4000	4" Exhaust Hose
MPI 252-5000	5" Exhaust Hose
MPI 252-6000	6" Exhaust Hose
MPI 252-8000	8" Exhaust Hose

### Heavy Duty PVC Livewell Hose Series 149



Some Sizes  
Available  
in 50' Box

Helical PVC reinforcement provides excellent flexibility and bend radius for livewell and heavy duty bilge applications. Smooth outer surface to allow easy clamping. Recommended for below the water line.

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 149-0340	MPI 149-0346	3/4"	6316
MPI 149-0580	MPI 149-0586	5/8"	6316
MPI 149-1000	MPI 149-1006	1"	6316
MPI 149-1100	MPI 149-1106	1-1/16"	6320
MPI 149-1180	MPI 149-1186	1-1/8"	6320
MPI 149-1140	MPI 149-1146	1-1/4"	6324
MPI 149-1120	MPI 149-1126	1-1/2"	6328
MPI 149-2000	MPI 149-2006	2"	6328

### Premium PVC Sanitation Hose/FDA Series 148

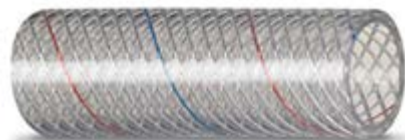


Available  
in 50' Box

Smooth wall extra heavy duty vinyl hose for all sanitation system connections and other critical applications. FDA approved and low water absorption compound provide excellent odor resistance. Recommended for below water line use.

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 148-0340	MPI 148-0346	3/4"	6316
MPI 148-1000	MPI 148-1006	1"	6316
MPI 148-1180	MPI 148-1186	1-1/8"	6320
MPI 148-1140	MPI 148-1146	1-1/4"	6324
MPI 148-1120	MPI 148-1126	1-1/2"	6328
MPI 148-2000	MPI 148-2006	2"	6328

### Reinforced PVC Tubing with Red & Blue Tracer Series 162



Some Sizes  
Available  
in 50' Box

Heavy duty, all clear vinyl tubing for hot or cold pressurized water systems and many other uses. Nontoxic, odorless, tasteless and FDA approved compound.

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 162-0380	MPI 162-0386	3/8"	6306
MPI 162-0120	MPI 162-0126	1/2"	6306
MPI 162-0580	MPI 162-0586	5/8"	6306
MPI 162-0340	MPI 162-0346	3/4"	6310
MPI 162-1000	MPI 162-1006	1"	6312
MPI 162-1180	MPI 162-1186	1-1/8"	6316
MPI 162-1140	MPI 162-1146	1-1/4"	6316
MPI 162-1120	MPI 162-1126	1-1/2"	6320

### Corrugated PVC Water Hose/FDA Series 140



Some Sizes  
Available  
in 50' Box

Flexible vinyl hose with smooth inside surface for potable water fill, holding tank pump-out, drain lines and heavy duty bilge discharge. Good resistance to odor permeation and toilet chemicals. Excellent bend radius.

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 140-0340	MPI 140-0346	3/4"	6310
MPI 140-1000	MPI 140-1006	1"	6316
MPI 140-1180	MPI 140-1186	1-1/8"	6320
MPI 140-1140	MPI 140-1146	1-1/4"	6324
MPI 140-1120	MPI 140-1126	1-1/2"	6328

### PVC Bilge Vac Hose Series 141



Some Sizes  
Available  
in 50' Box

Smooth clear vinyl tube reinforced with black PVC helical rod. Tube produced from FDA approved compound suitable for potable water. Excellent flexibility for use as bilge pump discharge, live well circulation and scupper drains.

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 141-0340	MPI 141-0346	3/4"	6316
MPI 141-1180	MPI 141-1186	1-1/8"	6316
MPI 141-1140	MPI 141-1146	1-1/4"	6324
MPI 141-1120	MPI 141-1126	1-1/2"	6324
MPI 141-2000	MPI 141-2006	2"	6328

### Standard Bilge Hose Series 120



Some Sizes  
Available  
in 50' Box

Black heavy corrugated polyethylene hose provides outstanding flexibility. Resist oily bilge acids and sea water. Custom molded cuffs every foot for easy installation and clamping. Ideal for bilge intake and discharge.

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 120-0120	MPI 120-0126	1/2"	6306
MPI 120-0580	MPI 120-0586	5/8"	6306
MPI 120-0340	MPI 120-0346	3/4"	6310
MPI 120-1180	MPI 120-1186	1-1/8"	6316
MPI 120-1140	MPI 120-1146	1-1/4"	6316
MPI 120-1120	MPI 120-1126	1-1/2"	6320



## Split Conduit Tubing Series 125



Some Sizes  
Available  
in 50' Box

Corrugated, split polyethylene provides excellent conduit for multiple wire or cable routing. Creates quality appearance in wiring systems. Ideal product for hose abrasion protection.

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 125-0140	MPI 125-0146	1/4"	62602
MPI 125-0380	MPI 125-0386	3/8"	62606
MPI 125-0120	MPI 125-0126	1/2"	6306
MPI 125-0580	MPI 125-0586	5/8"	6308
MPI 125-0340	MPI 125-0346	3/4"	6308
MPI 125-1000	MPI 125-1006	1"	6312
MPI 125-1140	MPI 125-1146	1-1/4"	6320
MPI 125-1120	MPI 125-1126	1-1/2"	6324
MPI 125-2000	MPI 125-2006	2"	6332

## Clear PVC Tubing Series 150



Some Sizes  
Available  
in 50' Box

Single extrusion, nontoxic vinyl hose produced with FDA approved compound. Recommended for cool water uses like fresh water lines, sink, ice boxes, refrigerators and vent lines.

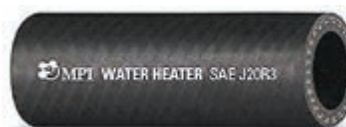
Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 150-0140	MPI 150-0146	1/4"	6304
MPI 150-0560	MPI 150-0566	5/16"	6306
MPI 150-0380	MPI 150-0386	3/8"	6306
MPI 150-0120	MPI 150-0126	1/2"	6306
MPI 150-0580	MPI 150-0586	5/8"	6316
MPI 150-0340	MPI 150-0346	3/4"	6316
MPI 150-1000	MPI 150-1006	1"	6316
MPI 150-1140	MPI 150-1146	1-1/4"	6316
MPI 150-1120	MPI 150-1126	1-1/2"	6320

Air Vent / Blower Hose  
A.C. Duct Series 400/402

Some Sizes  
Available  
in 50' Box

Strong, flexible construction of wire supported vinyl. Resistant to ozone, weather, and sunlight. Will not support a flame. Air-conditioning dusting rated to -40°F to +250°F. Flexible aluminum ducting also available.

White Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 400-2120	MPI 400-2126	2-1/2"	6332
MPI 400-3000	MPI 400-3006	3"	6344
MPI 400-4000	MPI 400-4006	4"	6372
Black Part No.			
MPI 402-2120	MPI 402-2126	2-1/2"	6332
MPI 402-3000	MPI 402-3006	3"	6344
MPI 402-4000	MPI 402-4006	4"	6372

Heavy Duty Water/Heater Hose  
Series 132

Some Sizes  
Available  
in 50' Box

Heavy wall construction reinforced with high strength polyester yarn. Used mainly for engine water, bilge, baitbox, air-conditioned circulation and ice box, sink and shower drain lines. Resistant to sea water, mid chemicals and most temperature extremes.

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 132-0380	MPI 132-0386	3/8"	6306
MPI 132-0120	MPI 132-0126	1/2"	6306
MPI 132-0580	MPI 132-0586	5/8"	6316
MPI 132-0340	MPI 132-0346	3/4"	6316
MPI 132-1000	MPI 132-1006	1"	6316
MPI 132-1140	MPI 132-1146	1-1/4"	6320
MPI 132-1120	MPI 132-1126	1-1/2"	6324

## Boxed Rigging Hose



Heavy walled vinyl construction offers excellent abrasion resistance. All vinyl construction eliminates corrosion. Material is resistant to bilge acids, fuel solutions and ultra violet rays. Sold in 50' Boxes Only.

Part No.	I.D.	Bend Radius	Weight Per CFT	Color
MPI 126-2006	2"	3"	39	Gray
MPI 127-2006	2"	3"	39	Black
MPI 128-2006	2"	3"	39	White

Hose Cuff  
Series 147

Part No.	I. D.	
MPI 147-0340	3/4"	Made of durable PVC using FDA materials. Provides excellent clamping surface for Series 140 corrugated PVC water hose. Apply with sealing compound for water tight fit. Right hand thread.
MPI 147-1000	1"	
MPI 147-1140	1-1/4"	
MPI 147-1120	1-1/2"	

## PVC Air Conditioning



Part No.	Size
MPI 163-0580	5/8"
MPI 163-0586	5/8", 50' Box

Extra Heavy duty white PVC cover with black PVC inner tube reinforced with braided polyester yarn. Specially formulated for chiller circulation and drain lines in air conditioner systems. Superior kink resistance. Operating temperature range -40F to +150F.

HVAC  
Blower  
Hose

Trident Polyduct - Flexible, crush proof, and rugged blower duct hose for Heat, Ventilation, and Air Conditioning (HVAC). Heavy Duty polypropylene hose, reinforced with a flexible polypropylene rod helix. Meets FMVSS 302 flame resistance, Temp. range: -40° F to 225° F (-40° C to 107° C). 3 YEAR WARRANTY

Part No.	Size
TRI 481-3000	3"
TRI 481-4000	4"



TRIDENT MARINE  
WET EXHAUST SYSTEMS

## Marine Exhaust Hose / Softwall Series 200



Type certified for wet exhaust service. Heavy wall construction with multiple plies of nylon spiral cord prevents shock, wall collapse, panting and vibration. Resists engine exhaust, high temperatures and ozone. Recommended for short, straight connections. Formulated to withstand operating temperatures of 220°F continuous. Color coded with blue strip brand. Meets SAE J2006 standard.

Part No.	I.D.	Clamp Size
MPI 200-1120	1-1/2"	6324
MPI 200-1580	1-5/8"	6324
MPI 200-1340	1-3/4"	6328
MPI 200-1780	1-7/8"	6352
MPI 200-2000	2"	6352
MPI 200-2180	2-1/8"	6352
MPI 200-2140	2-1/4"	6352
MPI 200-2380	2-3/8"	6356
MPI 200-2120	2-1/2"	6364
MPI 200-2580	2-5/8"	6364
MPI 200-2340	2-3/4"	6364
MPI 200-2780	2-7/8"	6364
MPI 200-3000	3"	6364
MPI 200-3180	3-1/8"	6364
MPI 200-3120	3-1/2"	6372
MPI 200-3340	3-3/4"	6372
MPI 200-4000	4"	6380
MPI 200-4180	4-1/8"	6380
MPI 200-4120	4-1/2"	6380
MPI 200-5000	5"	6380
MPI 200-6000	6"	6380
MPI 200-8000	8"	6388
MPI 200-10000	10"	720-8000
MPI 200-12000	12"	720-10000
MPI 200-14000	14"	720-12000



Some Sizes  
Available  
in 50' Box



## Marine Exhaust Hose / Hardwall Series 250



Same features as our premium softwall exhaust hose. Wire reinforcement provides additional strength for longer connections with excellent flexibility. Recommended for runs longer than four times the inside diameter of the hose. Color coded with blue strip brand. Meets SAE J2006 standard.

Part No.	I.D.	Clamp Size
MPI 250-1120	1-1/2"	6324
MPI 250-1580	1-5/8"	6324
MPI 250-1340	1-3/4"	6328
MPI 250-1780	1-7/8"	6328
MPI 250-2000	2"	6332
MPI 250-2180	2-1/8"	6332
MPI 250-2140	2-1/4"	6336
MPI 250-2380	2-3/8"	6336
MPI 250-2120	2-1/2"	6340
MPI 250-2580	2-5/8"	6340
MPI 250-2340	2-3/4"	6344
MPI 250-2780	2-7/8"	6344
MPI 250-3000	3"	6348
MPI 250-3180	3-1/8"	6348
MPI 250-3120	3-1/2"	6352
MPI 250-4000	4"	6364
MPI 250-4120	4-1/2"	6372
MPI 250-5000	5"	6580
MPI 250-6000	6"	6396
MPI 250-8000	8"	720-8888



Some Sizes  
Available  
in 50' Box

## Premium Water Hose Series 110



### SOFTWALL

Part No.	I.D.	Clamp Size
MPI 110-0120	1/2"	6308
MPI 110-0580	5/8"	6308
MPI 110-0340	3/4"	6310
MPI 110-0780	7/8"	6310
MPI 110-1000	1"	6312
MPI 110-1180	1-1/8"	6316
MPI 110-1140	1-1/4"	6320
MPI 110-1560	1-5/16"	6320
MPI 110-1380	1-3/8"	6320



Some Sizes  
Available  
in 50' Box



Premium quality marine water hose suitable for a variety of applications including engine intake, bilge discharge, sanitation connection, scupper lines and other non-fuel uses. A fully embedded helical wire provides strength and flexibility. Resists mild acid, bilge oils and engine water.



Some Sizes  
Available  
in 50' Box

### HARDWALL

Part No.	Part No. 50' Box	I.D.	Clamp Size
MPI 100-0120	MPI 100-0126	1/2"	6308
MPI 100-0580	MPI 100-0586	5/8"	6308
MPI 100-0340	MPI 100-0346	3/4"	6310
MPI 100-0780	MPI 100-0786	7/8"	6310
MPI 100-1000	MPI 100-1006	1"	6312
MPI 100-1180	MPI 100-1186	1-1/8"	6316
MPI 100-1140	MPI 100-1146	1-1/4"	6320
MPI 100-1380		1-3/8"	6320
MPI 100-1120		1-1/2"	6320
MPI 100-1580		1-5/8"	6344

### Perm-Guard A1-15 Marine Fuel Hose



Some Sizes  
Available  
in 50' Box

**Application:**

Marine gasoline fuel lines from fuel tank to the engine or generator under new EPA low-permeation regulations. Inner tube provides extraordinary resistance to gasoline, ethanol, diesel and alcohol-enhanced fuels. Excellent flexibility and bend radius.

Part No. by Foot	Part No. 50' Box	Description	Clamp Size
MPI 360-0140	MPI 360-0146	1/4" A1-15 Fuel Feed	62602
MPI 360-0560	MPI 360-0566	5/16" A1-15 Fuel Feed	62606
MPI 360-0380	MPI 360-0386	3/8" A1-15 Fuel Feed	62606
MPI 360-0120	MPI 360-0126	1/2" A1-15 Fuel Feed	6306



### Fuel Feed / Vent Hose SAE J1527 / 7469 USCG Type B1/B2 Series 315



Some Sizes  
Available  
in 50' Box

Excellent quality standard fuel hose meets or exceeds all requirements of new ISO 7469 and SAE J1527. For use in non-enclosed engine compartments. Resistant to gasoline and alcohol-enhanced fuels. Braided reinforcement provides excellent flexibility and bend radius.

Part No. by Foot	Part No. 50' Box	Description	Clamp Size
MPI 315-0140	MPI 315-0146	1/4" Type B1	62602
MPI 315-0560	MPI 315-0566	5/16" Type B1	62606
MPI 315-0380	MPI 315-0386	3/8" Type B1	62606
MPI 315-0580	MPI 315-0586	5/8" Type B2	6308

### Fuel Fill Hose SAE J1527 / 7840 USCG Type A2 Series 350



Some Sizes  
Available  
in 50' Box

Premium quality fire-retardant fuel hose meets or exceeds all requirements of new ISO 7840 and SAE J1527 standards required by USCG, ABYC and NMMA. Resistant to gasoline, diesel and alcohol-enhanced fuels. Reinforced with helical wire between plies of nylon spiral cord. Provides strength and flexibility. Resistant to abrasion, heat and ozone.

Part No.	Description	Clamp Size
MPI 350-1120	1-1/2" Fuel Fill Hose	6324
MPI 350-1780	1-7/8" Fuel Fill Hose	6344
MPI 350-2000	2" Fuel Fill Hose	6332
MPI 350-2380	2-3/8" Fuel Fill Hose	6336

### Fuel Feed / Vent Hose SAE J1527 / 7840 USCG Type A1/A2 Series 350



Some Sizes  
Available  
in 50' Box

Premium quality fire-retardant fuel hose meets or exceeds all requirements of new ISO 7840 and SAE J1527 standards, recommended by USCG, ABYC and NMMA. Inner tube material provides extraordinary resistance to gasoline, diesel and alcohol enhanced fuels. Braided reinforcement provides excellent flexibility and bend radius.

Part No. by Foot	Part No. 50' Box	Description	Clamp Size
MPI 350-0140	MPI 350-0146	1/4" Hose	62602
MPI 350-0560	MPI 350-0566	5/16" Hose	62606
MPI 350-0380	MPI 350-0386	3/8" Hose	6306
MPI 350-0120	MPI 350-0126	1/2" Hose	6308
MPI 350-0580	MPI 350-0586	5/8" Hose	6308
MPI 350-0340	MPI 350-0346	3/4" Hose	6310
MPI 350-1000	N/A	1" <u>NON-BARRIER</u>	6316

### Silverado 4000 Fuel Line



Constructed with a non-permeable THV barrier layer, polyester reinforcement, and a CPE weather and UV resistant cover. It meets all current EPA and CARB standards.

Part no	Description	Clamp Size
SIE 337-0560	5/16" Bulk Reel Sold by Foot	62606
SIE 337-0380	3/8" Bulk Reel Sold by Foot	62606

### Low Permeation O/B Fuel Hose Barrier Lined - Type B1-15 Hose By Trident Marine Hose



Bulk Roll  
Sold by the  
Foot



TRIDENT MARINE  
WET EXHAUST SYSTEMS

This new B1-15 hose series was created to resolve the issue of fuel hose degradation by ethanol blended fuels. Trident Low Permeation Type B1-15 O/B Marine Fuel Hose (#305 Series) is suitable for both gasoline (petrol) and diesel, including ethanol

Part No.	I.D.	Clamp Size
TRI 305-0140	1/4"	62602
TRI 305-0380	3/8"	62606



**Blue Goodyear & Black Weatherhead Hose**

MSHA Accepted. Working Pressure 350 PSI & Minimum Burst Pressure 1400 PSI. Typical Application: General purpose low pressure air, oil and water lines. Inner Tube: Nitrile. Reinforcement: 1 Fiber Braid. Cover: Neoprene. Temperature Range: -40°F to +212°F (-40°C to +200°C)

**WEATHERHEAD**

<b>Weatherhead Part No.</b>	<b>Goodyear Part No.</b>	<b>Hose I.D.</b>	<b>Hose O.D.</b>
HOS H10104	----	1/4"	1/2"
HOS H10105	----	5/16"	5/8"
HOS H10106	GDY 9273306	3/8"	5/8"
HOS H10108	GDY 9273308	1/2"	3/4"
HOS H10110	GDY 9273310	5/8"	29/32"
HOS H10112	----	3/4"	1-1/32"

*For use with push-lock fittings listed below*

**"push-lock" Field Attachable 100 'B' Series Barb-Tite™ Style Hose Ends****Swivel Inverted Male Flare to Hose Adapters**

<b>Part No.</b>	<b>Hose Size</b>	<b>Tube</b>
BRA 10005BB04	5/16"	1/4"
BRA 10005BB05	5/16"	5/16"
BRA 10006BB05	3/8"	5/16"
BRA 10006BB06	3/8"	3/8"
BRA 10008BB06	1/2"	3/8"
BRA 10008BB08	1/2"	1/2"
BRA 10010BB10	5/8"	5/8"

**Male Pipe to Hose Adapters**

<b>Part No.</b>	<b>Hose Size</b>	<b>I.P.S.</b>
BRA 10004B102	1/4"	1/8"
BRA 10004B104	1/4"	1/4"
BRA 10004B106	1/4"	3/8"
BRA 10005B104	5/16"	1/4"
BRA 10006B104	3/8"	1/4"
BRA 10006B106	3/8"	3/8"
BRA 10008B106	1/2"	3/8"
BRA 10008B108	1/2"	1/2"
BRA 10008B110	5/8"	1/2"

**Swivel Female Flare to Hose Adapters**

<b>Part No.</b>	<b>Size</b>	<b>Hose Tube</b>
BRA 10004B404	1/4"	1/4"
BRA 10004B405	1/4"	5/16"
BRA 10004B406	1/4"	3/8"
BRA 10006B406	3/8"	3/8"
BRA 10008B406	1/2"	3/8"
BRA 10008B408	1/2"	1/2"
BRA 10010B410	5/8"	5/8"

**Hose Barb Unions  
(Push Lock Fitting)**

<b>Part No.</b>	<b>Hose Size</b>
BRA 10004BY04	1/4" x 1/4"
BRA 10006BY06	3/8" x 3/8"
BRA 10008BY08	1/2" x 1/2"

**Tee Hose Barb  
(Push Lock Fitting)**

<b>Part No.</b>	<b>Hose Size</b>
BRA 127-1/4	1/4"
BRA 127-3/8	3/8"
BRA 127-5/16	5/16"

**Hose Mender  
(Push Lock Fitting)**

<b>Part No.</b>	<b>Hose Size</b>
BRA 30-302	1/2" x 1/2"
BRA 30-303	5/8" x 5/8"

**Brass Valves****Fuel Shut Valves Male  
Flare to Male Pipe**

<b>Part No.</b>	<b>Tube</b>	<b>I.P.S.</b>
BRA V290-1/4 x 1/4	1/4"	1/4"
BRA V290-3/8 x 1/4	3/8"	1/4"
BRA V290-3/8 x 3/8	3/8"	3/8"

**Three Way Fuel Selector Valve**

(One outlet, selecting one of two inlets)

<b>Part No.</b>	<b>I.P.S.</b>
SIE 18-1650	1/4"
BRA 95LCK-3/8	3/8"

**Fuel Shut-Off Valves  
Female Pipe**

<b>Part No.</b>	<b>I.P.S.</b>
BRA V310-1/4	1/4"
BRA V310-3/8	3/8"

**Four Way Fuel Selector Valves**

(One outlet, selecting one of three inlets)

<b>Part No.</b>	<b>I.P.S.</b>	<b>Handle Length</b>
SIE 18-1654	1/4"	3/4"
BRA 70LCK-3/8	3/8"	3/4"

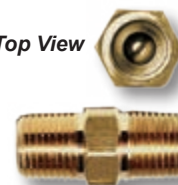
**Fuel Shut-Off Valves  
Male to Female Pipe**

<b>Part No.</b>	<b>I.P.S.</b>
BRA V320-1/4	1/4"

**Anti-Siphon Fuel Valve**

Top View

<b>Part No.</b>	<b>NPT</b>	<b>NPT</b>
BRA 46-520	1/4"	1/4"
BRA 46-521	3/8"	3/8"
BRA AS182-B	1/2"	1/2"



### 90° Pipe Elbows

Part No.	I.P.S.
BRA 100-1/8	1/8"
BRA 100-1/4	1/4"
BRA 100-3/8	3/8"
BRA 100-1/2	1/2"
BRA 100-3/4	3/4"



### Pipe Tees

Part No.	I.P.S.
BRA 101-1/8	1/8"
BRA 101-1/4	1/4"
BRA 101-3/8	3/8"
BRA 101-1/2	1/2"
BRA 101-3/4	3/4"



### Pipe Crosses

Part No.	I.P.S.
BRA 102-1/8	1/8"
BRA 102-1/4	1/4"
BRA 102-3/8	3/8"
BRA 102-1/2	1/2"
BRA 102-3/4	3/4"



### Pipe Couplings

Part No.	I.P.S.
BRA 103-1/8	1/8"
BRA 103-1/4	1/4"
BRA 103-3/8	3/8"
BRA 103-1/2	1/2"
BRA 103-3/4	3/4"



### Pipe Bushings

Part No.
BRA 110-1/4 x 1/8
BRA 110-3/8 x 1/8
BRA 110-3/8 x 1/4
BRA 110-1/2" x 1/8
BRA 110-1/2" x 1/4
BRA 110-1/2" x 3/8
BRA 110-3/4 x 1/4
BRA 110-3/4 x 3/8
BRA 110-3/4 x 1/2
BRA 110-1 x 3/8
BRA 110-1 x 1/2
BRA 110-1 x 3/4
BRA 110-1-1/4 x 3/4
BRA 110-1-1/4 x 1
BRA 110-1-1/2 x 1



### Pipe Nipples

Part No.
BRA 113-1/8 x 1-1/2
BRA 113-1/8 x 2
BRA 113-1/8 x 2-1/2
BRA 113-1/8 x 3
BRA 113-1/8 x 3-1/2
BRA 113-1/8 x 4
BRA 113-1/4 x 1-1/2
BRA 113-1/4 x 2
BRA 113-1/4 x 2-1/2
BRA 113-1/4 x 3
BRA 113-1/4 x 3-1/2
BRA 113-1/4 x 5
BRA 113-3/8 x 1-1/2
BRA 113-3/8 x 2
BRA 113-3/8 x 2-1/2
BRA 113-3/8 x 3



Part No.
BRA 113-3/8 x 3-1/2
BRA 113-3/8 x 4
BRA 113-3/8 x 4-1/2
BRA 113-3/8 x 5
BRA 113-3/8 x 5-1/2
BRA 113-1/2 x 1-1/2
BRA 113-1/2 x 2
BRA 113-1/2 x 2-1/2
BRA 113-1/2 x 3
BRA 113-1/2 x 4
BRA 113-1/2 x 4-1/2

### 90° Street Elbows

Part No.	Male I.P.S.	Female I.P.S.
BRA 116-1/8	1/8"	1/8"
BRA 116-1/4	1/4"	1/4"
BRA 116-3/8	3/8"	3/8"
BRA 116-1/2	1/2"	1/2"
BRA 116-3/4	3/4"	3/4"



### Close Pipe Nipples

Part No.	I.P.S.
BRA 112-1/8	1/8"
BRA 112-1/4	1/4"
BRA 112-3/8	3/8"
BRA 112-1/2	1/2"
BRA 112-3/4	3/4"
BRA 112-1 x 1	1"



### Counter Sunk Pipe Plugs

Part No.	I.P.S.
BRA 118-1/8	1/8"
BRA 118-1/4	1/4"
BRA 118-3/8	3/8"
BRA 118-1/2	1/2"
BRA 118-3/4	3/4"



### Male Pipe to Hose Adapters

Part No.	Hose Size	I.P.S.
BRA 125-1/8 x 1/8	1/8"	1/8"
BRA 125-1/8 x 1/4	1/8"	1/4"
BRA 125-3/16 x 1/8	3/16"	1/8"
BRA 125-3/16 x 1/4	3/16"	1/4"
BRA 125-1/4 x 1/8	1/4"	1/8"
BRA 125-1/4 x 1/4	1/4"	1/4"
BRA 125-1/4 x 3/8	1/4"	3/8"
BRA 125-1/4 x 1/2	1/4"	1/2"
BRA 125-5/16 x 1/8	5/16"	1/8"
BRA 125-5/16 x 1/4	5/16"	1/4"
BRA 125-5/16 x 3/8	5/16"	3/8"
BRA 125-3/8 x 1/8	3/8"	1/8"
BRA 125-3/8 x 1/4	3/8"	1/4"
BRA 125-3/8 x 3/8	3/8"	3/8"
BRA 125-3/8 x 1/2	3/8"	1/2"
BRA 125-3/8 x 3/4	3/8"	3/4"
BRA 125-1/2 x 1/4	1/2"	1/4"
BRA 125-1/2 x 3/8	1/2"	3/8"
BRA 125-1/2 x 1/2	1/2"	1/2"
BRA 125-1/2 x 3/4	1/2"	3/4"
BRA 125-5/8 x 3/8	5/8"	3/8"
BRA 125-5/8 x 1/2	5/8"	1/2"
BRA 125-5/8 x 3/4	5/8"	3/4"
BRA 125-3/4 x 1/2	3/4"	1/2"
BRA 125-3/4 x 3/4	3/4"	3/4"
BRA 125-3/4 x 1	3/4"	1"
BRA 125-1 x 3/4	1"	3/4"
BRA 125-1 x 1	1"	1"



### 45° Pipe Elbows

Part No.	I.P.S.
BRA 123-1/8	1/8"
BRA 123-1/4	1/4"
BRA 123-3/8	3/8"
BRA 123-1/2	1/2"
BRA 123-3/4	3/4"
BRA 123-1	1"



### 45° Street Elbows

Part No.	I.P.S.
BRA 124-1/8	1/8"
BRA 124-1/4	1/4"
BRA 124-3/8	3/8"
BRA 124-1/2	1/2"
BRA 124-3/4	3/4"



### Swivel Female Hose Barbs

Part No.	Hose Size	Female I.P.S.
BRA 128-1/4 x 1/4	1/4"	1/4"
BRA 128-1/4 x 3/8	1/4"	3/8"
BRA 128-5/16 x 1/4	5/16"	1/4"
BRA 128-3/8 x 1/4	3/8"	1/4"
BRA 128-3/8 x 3/8	3/8"	3/8"
BRA 128-3/8 x 1/2	3/8"	1/2"



### Female Pipe to Hose Adapters

Part No.	Hose Size	I.P.S.
BRA 2126-1/8 x 1/8	1/8"	1/8"
BRA 2126-1/8 x 1/4	1/8"	1/4"
BRA 2126-1/4 x 1/4	1/4"	1/4"
BRA 2126-1/4 x 1/8	1/4"	1/8"
BRA 2126-1/4 x 3/8	1/4"	3/8"
BRA 2126-5/16 x 1/8	5/16"	1/8"
BRA 2126-5/16 x 1/4	5/16"	1/4"
BRA 2126-3/8 x 1/8	3/8"	1/8"
BRA 2126-3/8 x 1/4	3/8"	1/4"
BRA 2126-3/8 x 3/8	3/8"	3/8"
BRA 2126-3/8 x 1/2	3/8"	1/2"
BRA 2126-1/2 x 1/4	1/2"	1/4"
BRA 2126-1/2 x 3/8	1/2"	3/8"
BRA 2126-3/4 x 3/4	3/4"	3/4"
BRA 2126-1 x 3/4	1"	3/4"



### Hose Splices

Part No.	Size
BRA 222-3/16	3/16"
BRA 222-1/4	1/4"
BRA 222-5/16	5/16"
BRA 222-3/8	3/8"
BRA 222-1/2	1/2"
BRA 222-5/8	5/8"
BRA 222-3/4	3/4"



### Drain Cocks

Part No.	Pipe Size
BRA 46-075	1/4"



ALL PIPE FITTINGS ARE  
MADE OF SOLID BRASS

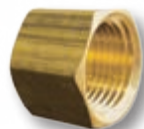
## Inverted Flare Tube Nuts

Part No.	Tube
BRA 105-1/4	1/4"
BRA 105-5/16	5/16"
BRA 105-3/8	3/8"
BRA 105-5/8	5/8"



## Pipe Caps

Part No.	I.P.S.
BRA 108-1/8	1/8"
BRA 108-1/4	1/4"
BRA 108-3/8	3/8"
BRA 108-1/2	1/2"
BRA 108-3/4	3/4"
BRA 108-1	1"



ALL PIPE FITTINGS ARE  
MADE OF SOLID BRASS

Inverted Female  
Flare to 90° Elbows

Part No.	Tube	I.P.S.
BRA 400-1/8 x 1/8	1/8"	1/8"
BRA 400-3/16 x 1/8	3/16"	1/8"
BRA 400-1/4 x 1/8	1/4"	1/8"
BRA 400-1/4 x 1/4	1/4"	1/4"
BRA 400-5/16 x 1/8	5/16"	1/8"
BRA 400-5/16 x 1/4	5/16"	1/4"
BRA 400-3/8 x 1/8	3/8"	1/8"
BRA 400-3/8 x 1/4	3/8"	1/4"
BRA 400-3/8 x 3/8	3/8"	3/8"
BRA 400-1/2 x 3/8	1/2"	3/8"
BRA 400-1/2 x 1/2	1/2"	1/2"
BRA 400-5/8 x 1/2	5/8"	1/2"

## Brass Lock Nuts

Part No.	I.P.S.
BRA 111-1/4	1/4"
BRA 111-3/8	3/8"
BRA 111-1/2	1/2"



## Hex Head Pipe Plugs

Part No.	I.P.S.
BRA 121-1/8	1/8"
BRA 121-1/4	1/4"
BRA 121-3/8	3/8"
BRA 121-1/2	1/2"
BRA 121-3/4	3/4"



## Pipe Reducing Couplings

BRA 126-1/4 x 1/8
BRA 126-3/8 x 1/8
BRA 126-3/8 x 1/4
BRA 126-1/2 x 1/4
BRA 126-1/2 x 3/8
BRA 126-1/2 x 3/8
BRA 126-3/4 x 3/8
BRA 126-1 x 3/4



## Male Pipe Elbows

Part No.	I.P.S.
BRA 133-1/8	1/8"
BRA 133-1/4	1/4"
BRA 133-1/4 x 1/8	1/4 x 1/8"
BRA 133-3/8	3/8"
BRA 133-1/2	1/2"
BRA 133-1/2 x 3/8	1/2 x 3/8"

Inverted Female Flare  
to 45° Elbows

Part No.	Tube	I.P.S.
BRA 350-3/8 x 1/4	3/8"	1/4"
BRA 350-1/2 x 3/8	1/2"	3/8"

## Male Pipe Elbows



Part No.	Hose Size	I.P.S.
BRA 2128-1/4 x 1/8	1/4"	1/8"
BRA 2128-1/4 x 1/4	1/4"	1/4"
BRA 2128-5/16 x 1/8	5/16"	1/8"
BRA 2128-5/16 x 1/4	5/16"	1/4"
BRA 2128-3/8 x 1/8	3/8"	1/8"
BRA 2128-3/8 x 1/4	3/8"	1/4"
BRA 2128-3/8 x 3/8	3/8"	3/8"
BRA 2128-1/2 x 3/8	1/2"	3/8"
BRA 2128-1/2 x 1/2	1/2"	1/2"
BRA 2128-5/8 x 3/8	5/8"	3/8"
BRA 2128-5/8 x 1/2	5/8"	1/2"
BRA 2128-3/4 x 1/2	3/4"	1/2"
BRA 2128-3/4 x 3/4	3/4"	3/4"

## Square Head Pipe Plugs

Part No.	I.P.S.
BRA 109-1/8	1/8"
BRA 109-1/4	1/4"
BRA 109-3/8	3/8"
BRA 109-1/2	1/2"
BRA 109-3/4	3/4"



## Hex Male Couplings

Part No.	I.P.S.
BRA 122-1/8	1/8"
BRA 122-1/4	1/4"
BRA 122-3/8	3/8"
BRA 122-1/2	1/2"
BRA 122-3/4	3/4"
BRA 122-1	1"

Inverted Female Flare  
to Male Pipe Adapters

Part No.	Tube	I.P.S.
BRA 200-1/8 x 1/8	1/8"	1/8"
BRA 200-3/16 x 1/8	3/16"	1/8"
BRA 200-3/16 x 1/4	3/16"	1/4"
BRA 200-1/4 x 1/8	1/4"	1/8"
BRA 200-1/4 x 1/4	1/4"	1/4"
BRA 200-5/16 x 1/8	5/16"	1/8"
BRA 200-5/16 x 1/4	5/16"	1/4"
BRA 200-3/8 x 1/8	3/8"	1/8"
BRA 200-3/8 x 1/4	3/8"	1/4"
BRA 200-3/8 x 3/8	3/8"	3/8"
BRA 200-1/2 x 3/8	1/2"	3/8"
BRA 200-1/2 x 1/2	1/2"	1/2"
BRA 200-5/8 x 1/2	5/8"	1/2"

Female Pipe to  
Male Pipe Adapters

Part No.	Female I.P.S.	Male I.P.S.
BRA 120-1/8 x 1/8	1/8"	1/8"
BRA 120-1/4 x 1/8	1/4"	1/8"
BRA 120-1/4 x 1/4	1/4"	1/4"
BRA 120-3/8 x 1/8	3/8"	1/8"
BRA 120-3/8 x 1/4	3/8"	1/4"
BRA 120-3/8 x 3/8	3/8"	3/8"
BRA 120-1/2 x 3/8	1/2"	3/8"
BRA 120-1/2 x 1/2	1/2"	1/2"
BRA 120-3/4 x 1/2	3/4"	1/2"
BRA 120-3/4 x 3/4	3/4"	3/4"

Thread Sealant  
with PTFE  
with Teflon®

Outperforms tapes and pipe dopes. Seals and resists pressure in air, oil, diesel fuel and hydraulic systems. Remains pliable at higher and lower temperatures. Resists common shop fluids.

**Suggested Applications:** Air conditioning fittings, temperature sending fittings, hydraulic fittings.

Part No.	Size	Pack
PER 80631	1 oz. Tube, Carded	12
PER 80632	4 oz. Can	12

## Teflon® Tape

Part No.	Description
TAP 200	1/2" x 520"





### 48 Series Flare Half Unions



Part No.	Tube	I.P.S.
BRA 48-3/16 x 1/8	3/16"	1/8"
BRA 48-3/16 x 1/4	3/16"	1/4"
BRA 48-1/4 x 1/8	1/4"	1/8"
BRA 48-1/4 x 1/4	1/4"	1/4"
BRA 48-1/4 x 3/8	1/4"	3/8"
BRA 48-1/4 x 1/2	1/4"	1/2"
BRA 48-5/16 x 1/8	5/16"	1/8"
BRA 48-5/16 x 1/4	5/16"	1/4"
BRA 48-5/16 x 3/8	5/16"	3/8"
BRA 48-3/8 x 1/8	3/8"	1/8"
BRA 48-3/8 x 1/4	3/8"	1/4"
BRA 48-3/8 x 3/8	3/8"	3/8"
BRA 48-3/8 x 1/2	3/8"	1/2"
BRA 48-1/2 x 1/4	1/2"	1/4"
BRA 48-1/2 x 3/8	1/2"	3/8"
BRA 48-1/2 x 1/2	1/2"	1/2"
BRA 48-1/2 x 3/4	1/2"	3/4"
BRA 48-5/8 x 1/4	5/8"	1/4"
BRA 48-5/8 x 3/8	5/8"	3/8"
BRA 48-5/8 x 1/2	5/8"	1/2"
BRA 48-3/4 x 1/2	3/4"	1/2"
BRA 48-3/4 x 3/4	3/4"	3/4"

### 49 Series Flare Male Elbows



Part No.	Tube	I.P.S.
BRA 49-3/16 x 1/8	3/16"	1/8"
BRA 49-1/4 x 1/8	1/4"	1/8"
BRA 49-1/4 x 1/4	1/4"	1/4"
BRA 49-1/4 x 3/8	1/4"	3/8"
BRA 49-1/4 x 1/2	1/4"	1/2"
BRA 49-5/16 x 1/8	5/16"	1/8"
BRA 49-5/16 x 1/4	5/16"	1/4"
BRA 49-5/16 x 3/8	5/16"	3/8"
BRA 49-3/8 x 1/8	3/8"	1/8"
BRA 49-3/8 x 1/4	3/8"	1/4"
BRA 49-3/8 x 3/8	3/8"	3/8"
BRA 49-3/8 x 1/2	3/8"	1/2"
BRA 49-1/2 x 1/4	1/2"	1/4"
BRA 49-1/2 x 3/8	1/2"	3/8"
BRA 49-1/2 x 1/2	1/2"	1/2"
BRA 49-1/2 x 3/4	1/2"	3/4"
BRA 49-5/8 x 3/8	5/8"	3/8"
BRA 49-5/8 x 1/2	5/8"	1/2"
BRA 49-5/8 x 3/4	5/8"	3/4"
BRA 49-3/4 x 3/8	3/4"	3/8"
BRA 49-3/4 x 1/2	3/4"	1/2"
BRA 49-3/4 x 3/4	3/4"	3/4"

### Flare Swivel Nuts

Part No.	Tube
BRA 39-1/4	1/4"
BRA 39-3/8	3/8"
BRA 39-1/2	1/2"
BRA 39-5/8	5/8"
BRA 39-3/4	3/4"



### Flare Plugs

Part No.	Tube
BRA 47-3/16	3/16"
BRA 47-1/4	1/4"
BRA 47-5/16	5/16"
BRA 47-3/8	3/8"
BRA 47-1/2	1/2"
BRA 47-5/8	5/8"



### 42 Series Flare Unions

Part No.	Tube
BRA 42-1/8	1/8"
BRA 42-3/16	3/16"
BRA 42-1/4	1/4"
BRA 42-5/16	5/16"
BRA 42-3/8	3/8"
BRA 42-1/2	1/2"
BRA 42-5/8	5/8"
BRA 42-3/4	3/4"



### 43 Series Flare Male Tees



Part No.	Tube	I.P.S.
BRA 43-1/4 x 1/8	1/4"	1/8"
BRA 43-1/4 x 1/4	1/4"	1/4"
BRA 43-3/8 x 1/4	3/8"	1/4"
BRA 43-3/8 x 3/8	3/8"	3/8"
BRA 43-1/2 x 1/2	1/2"	1/2"

### 44 Series Flare Male Tees



Part No.	Tube
BRA 44-1/8	1/8"
BRA 44-3/16	1/8"
BRA 44-1/4	1/4"
BRA 44-5/16	5/16"
BRA 44-3/8	3/8"
BRA 44-1/2	1/2"
BRA 44-5/8	5/8"
BRA 44-3/4	3/4"

### 45 Series Flare Male Tees



Part No.	Tube	I.P.S.
BRA 45-1/8 x 1/8	1/8"	1/8"
BRA 45-3/16 x 1/8	3/16"	1/8"
BRA 45-1/4 x 1/8	1/4"	1/8"
BRA 45-1/4 x 1/4	1/4"	1/4"
BRA 45-5/16 x 1/4	5/16"	1/4"
BRA 45-3/8 x 1/8	3/8"	1/8"
BRA 45-3/8 x 1/4	3/8"	1/4"
BRA 45-3/8 x 3/8	3/8"	3/8"
BRA 45-1/2 x 3/8	1/2"	3/8"

### 37 Series Flare Caps



Part No.	Tube
BRA 37-1/8	1/8"
BRA 37-3/16	3/16"
BRA 37-1/4	1/4"
BRA 37-5/16	5/16"
BRA 37-3/8	3/8"
BRA 37-1/2	1/2"
BRA 37-5/8	5/8"
BRA 37-3/4	3/4"

### 41 Series Flare Nuts



Part No.	Tube
BRA 41-1/8	1/8"
BRA 41-3/16	3/16"
BRA 41-1/4	1/4"
BRA 41-5/16	5/16"
BRA 41-3/8	3/8"
BRA 41-1/2	1/2"
BRA 41-5/8	5/8"
BRA 41-3/4	3/4"

### 46 Series Flare Female Connectors



Part No.	Tube	I.P.S.
BRA 46-1/4 x 1/8	1/4"	1/8"
BRA 46-1/4 x 1/4	1/4"	1/4"
BRA 46-5/16 x 1/8	5/16"	1/8"
BRA 46-5/16 x 1/4	5/16"	1/4"
BRA 46-3/8 x 1/4	3/8"	1/4"
BRA 46-3/8 x 3/8	3/8"	3/8"
BRA 46-1/2 x 1/4	1/2"	1/4"
BRA 46-5/8 x 1/2	5/8"	1/2"

### 50 Series Flare Female Elbows



Part No.	Male Tube	Female I.P.S.
BRA 50-1/4 x 1/4	1/4"	1/4"
BRA 50-3/8 x 1/4	3/8"	1/4"
BRA 50-3/8 x 3/8	3/8"	3/8"
BRA 50-1/2 x 3/8	1/2"	3/8"
BRA 50-1/2 x 1/2	1/2"	1/2"
BRA 50-5/8 x 1/2	5/8"	1/2"
BRA 50-5/8 x 3/4	5/8"	3/4"
BRA 50-3/4 x 3/4	3/4"	3/4"

### 54 Series Flare Male 45° Elbows



Part No.	Tube	I.P.S.
BRA 54-1/4 x 1/8	1/4"	1/8"
BRA 54-5/16 x 1/4	5/16"	1/4"
BRA 54-3/8 x 1/4	3/8"	1/4"
BRA 54-1/2 x 3/8	1/2"	3/8"

### 55 Series Flare Elbows



Part No.	Tube
BRA 55-3/16	3/16"
BRA 55-1/4	1/4"
BRA 55-5/16	5/16"
BRA 55-3/8	3/8"
BRA 55-1/2	1/2"
BRA 55-5/8	5/8"

### Compression Tees Male Threaded Branch

Part No.	Tube	I.P.S.
BRA 72-3/8 x 1/4	3/8"	1/4"



### Compression Tees

Part No.	Tube
BRA 74-3/8	3/8"
BRA 74-1/4	1/4"



### Compression Unions

Part No.	Tube	Tube
BRA 62-1/8	1/8"	1/8"
BRA 62-3/16	3/16"	3/16"
BRA 62-1/4	1/4"	1/4"
BRA 62-5/16	5/16"	5/16"
BRA 62-3/8 x 1/4	3/8"	1/4"
BRA 62-1/2	1/2"	1/2"



### Compression Sleeves

Part No.	Tube
BRA 60-3/16	3/16"
BRA 60-1/4	1/4"
BRA 60-5/16	5/16"
BRA 60-3/8	3/8"
BRA 60-1/2	1/2"
BRA 60-5/8	5/8"



### Compression Nuts

Part No.	Tube
BRA 61-1/4	1/4"
BRA 61-5/16	5/16"
BRA 61-3/8	3/8"
BRA 61-1/2	1/2"



### 3/4" Garden Hose Caps

Part No.	Description
BRA 161-3/4	Without Chain



### Swivel Garden Hose to Pipe Adapters

Part No.	I.P.S.	Hose Size
BRA 156-1/2 x 3/4	1/2"	3/4"
BRA 156-3/4 x 3/4	3/4"	3/4"



### Swivel Garden Hose to Hose Adapters

Part No.	Hose Size
BRA 160-3/4 x 3/4	3/4"



### Swivel Garden Hose to Hose Adapters

Part No.	Hose Size	Hose Size
BRA 159-1/2 x 3/4	1/2"	3/4"



## Low Profile Seacocks

### Full Flow w/Drain Plug & Grounding Screw

Bronze body - hard chrome plated ball - U.L. listed - stainless steel handle



Part No.	N.P.T. Size
BUC 00ASC75LP	3/4"
BUC 00ASC100LP	1"
BUC 00ASC125LP	1-1/4"
BUC 00ASC150LP	1-1/2"
BUC 00ASC200LP	2"
BUC 00ASC250LP	2-1/2"
BUC 00ASC300LP	3"
BUC 00ASC400LP	4"



## Ball Valves - Full Flow

Bronze Body - Hard Chrome Plated Ball - U.L. Listed - Stainless Steel Handle. \*Aluminum Handle

Part No.	N.P.T. Size
BUC 00BBV25FSS	1/4"
BUC 00BBV38FSS	3/8"
BUC 00BBV50FSS	1/2"
BUC 00BBV75FSS	3/4"
BUC 00BBV100FS	1"
BUC 00BBV125FS	1-1/4"
BUC 00BBV150FS	1-1/2"
BUC 00BBV200FA*	2"
BUC 00BBV250FA*	2-1/2"
BUC 00BBV300FA*	3"
BUC 00BBV400FA*	4"



## Intake Basket Strainers

Part No.	Pipe Size	Overall Height	Overall Width	Cylinder
BUC 00ISB50	1/2"	8-3/8"	4-1/2"	3-1/2"x6"
BUC 00ISB75	3/4"	8-3/8"	4-1/2"	3-1/2"x6"
BUC 00ISB100	1"	9-1/2"	5-1/2"	4-1/2"x5-1/2"
BUC 00ISB125	1-1/4"	10"	5-1/2"	4-1/2"x6"
BUC 00ISB150	1-1/2"	10-1/2"	7-1/4"	6"x8"
BUC 00ISB200	2"	16"	7-1/2"	6"x12"
BUC 00ISB250	2-1/2"	16"	7-1/2"	6"x12"



### Cylinder Gasket Sold Each

Part No.	Use With Part No.
BUC C0ISBWSCGC50	BUC 00ISB50
BUC C0ISBWSCGC75	BUC 00ISB75
BUC C0ISBWSCGC100	BUC 00ISB100
BUC C0ISBWSCGC125	BUC 00ISB125
BUC C0ISBWSCGC150	BUC 00ISB150
BUC C0ISBWSCGC200	BUC 00ISB200
BUC C0ISBWSCGC250	BUC 00ISB250

### Cover Gasket Sold Each

Part No.	Use With Part No.
BUC C0ISBWSCG50	BUC 00ISB50
BUC C0ISBWSCG75	BUC 00ISB75
BUC C0ISBWSCG100	BUC 00ISB100
BUC C0ISBWSCG125	BUC 00ISB125
BUC C0ISBWSCG150	BUC 00ISB150
BUC C0ISBWSCG200	BUC 00ISB200
BUC C0ISBWSCG250	BUC 00ISB250

Made of cast bronze - complete with stainless steel basket.

**90° Pipe Elbows**

Part No.	I.P.S.
BRA 74-100	1/8"
BRA 74-101	1/4"
BRA 74-102	3/8"
BRA 74-103	1/2"
BRA 74-104	3/4"
BRA 74-105	1"
BRA 74-106	1-1/4"
BRA 74-107	1-1/2"
BRA 74-108	2"
BRA 74-109	2-1/2"

**Pipe Tees**

Part No.	I.P.S.
BRA 74-250	1/8"
BRA 74-251	1/4"
BRA 74-252	3/8"
BRA 74-253	1/2"
BRA 74-254	3/4"
BRA 74-255	1"
BRA 74-256	1-1/4"
BRA 74-257	1-1/2"
BRA 74-258	2"
BRA 74-259	2-1/2"

**Pipe Crosses**

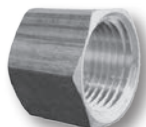
Part No.	I.P.S.
BRA 74-390	1/8"
BRA 74-391	1/4"
BRA 74-392	3/8"
BRA 74-393	1/2"
BRA 74-394	3/4"
BRA 74-395	1"
BRA 74-396	1-1/4"
BRA 74-397	1-1/2"
BRA 74-398	2"

**Pipe Couplings**

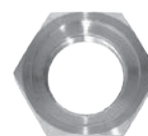
Part No.	I.P.S.
BRA 74-410	1/8"
BRA 74-411	1/4"
BRA 74-412	3/8"
BRA 74-413	1/2"
BRA 74-414	3/4"
BRA 74-415	1"
BRA 74-416	1-1/4"
BRA 74-417	1-1/2"
BRA 74-418	2"
BRA 74-419	2-1/2"

**Pipe Caps**

Part No.	I.P.S.
BRA 74-470	1/8"
BRA 74-471	1/4"
BRA 74-472	3/8"
BRA 74-473	1/2"
BRA 74-474	3/4"
BRA 74-475	1"
BRA 74-476	1-1/4"
BRA 74-477	1-1/2"
BRA 74-478	2"
BRA 74-479	2-1/2"

**LockNuts**

Part No.	I.P.S.
BRA 74-700	1/8"
BRA 74-701	1/4"
BRA 74-702	3/8"
BRA 74-703	1/2"
BRA 74-704	3/4"
BRA 74-705	1"
BRA 74-706	1-1/4"
BRA 74-707	1-1/2"
BRA 74-708	2"
BRA 74-709	2-1/2"

**90° Street Elbows**

Part No.	I.P.S.
BRA 74-160	1/8"
BRA 74-161	1/4"
BRA 74-162	3/8"
BRA 74-163	1/2"
BRA 74-164	3/4"
BRA 74-165	1"
BRA 74-166	1-1/4"
BRA 74-167	1-1/2"
BRA 74-168	2"
BRA 74-169	2-1/2"

**Solid Square Head Pipe Plugs**

Part No.	I.P.S.
BRA 74-670	1/8"
BRA 74-671	1/4"
BRA 74-672	3/8"
BRA 74-673	1/2"
BRA 74-674	3/4"
BRA 74-675	1"
BRA 74-676	1-1/4"
BRA 74-677	1-1/2"
BRA 74-678	2"
BRA 74-679	2-1/2"

**Pipe Nipples**

Part No	Desc.
BRA 70-002	1/8 x 1-1/2
BRA 70-003	1/8 x 2
BRA 70-004	1/8 x 2-1/2
BRA 70-005	1/8 x 3
BRA 70-006	1/8 x 3-1/2
BRA 70-007	1/8 x 4
BRA 70-021	1/4 x 1-1/2
BRA 70-022	1/4 x 2
BRA 70-023	1/4 x 2-1/2
BRA 70-024	1/4 x 3
BRA 70-025	1/4 x 3-1/2
BRA 70-026	1/4 x 4
BRA 70-027	1/4 x 4-1/2
BRA 70-028	1/4 x 5
BRA 70-041	3/8 x 1-1/2
BRA 70-042	3/8 x 2
BRA 70-043	3/8 x 2-1/2
BRA 70-044	3/8 x 3
BRA 70-045	3/8 x 3-1/2
BRA 70-046	3/8 x 4
BRA 70-047	3/8 x 4-1/2
BRA 70-048	3/8 x 5
BRA 70-049	3/8 x 5-1/2

**Close Pipe Nipples**

Part No.	I.P.S.
BRA 70-001	1/8"
BRA 70-020	1/4"
BRA 70-040	3/8"
BRA 70-060	1/2"
BRA 70-080	3/4"
BRA 70-100	1"

**Hex Bushing**

Part No.	Desc.
BRA 74-500	1/4 x 1/8
BRA 74-501	3/8 x 1/8
BRA 74-502	3/8 x 1/4
BRA 74-503	1/2 x 1/8
BRA 74-504	1/2 x 1/4
BRA 74-505	1/2 x 3/8
BRA 74-506	3/4 x 1/8
BRA 74-507	3/4 x 1/4
BRA 74-508	3/4 x 3/8
BRA 74-509	3/4 x 1/2
BRA 74-510	1 x 1/4
BRA 74-511	1 x 3/8
BRA 74-512	1 x 1/2
BRA 74-513	1 x 3/4
BRA 74-514	1-1/4 x 1/4
BRA 74-515	1-1/4 x 3/8
BRA 74-516	1-1/4 x 1/2
BRA 74-517	1-1/4 x 3/4
BRA 74-518	1-1/4 x 1
BRA 74-519	1-1/2 x 1/4
BRA 74-520	1-1/2 x 3/8
BRA 74-521	1-1/2 x 1/2
BRA 74-522	1-1/2 x 3/4
BRA 74-523	1-1/2 x 1
BRA 74-524	1-1/2 x 1-1/4
BRA 74-525	2 x 1/4
BRA 74-526	2 x 3/8
BRA 74-527	2 x 1/2
BRA 74-528	2 x 3/4
BRA 74-529	2 x 1
BRA 74-530	2 x 1-1/4
BRA 74-531	2 x 1-1/2
BRA 74-532	2-1/2 x 1
BRA 74-534	2-1/2 x 1-1/2
BRA 74-535	2-1/2 x 2

**45° Pipe Elbows**

Part No.	I.P.S.
BRA 74-180	1/8"
BRA 74-181	1/4"
BRA 74-182	3/8"
BRA 74-183	1/2"
BRA 74-184	3/4"
BRA 74-185	1"
BRA 74-186	1-1/4"
BRA 74-187	1-1/2"
BRA 74-188	2"
BRA 74-189	2-1/2"

**Unions**

Part No.	I.P.S.
BRA 74-600	1/8"
BRA 74-601	1/4"
BRA 74-602	3/8"
BRA 74-603	1/2"
BRA 74-604	3/4"
BRA 74-605	1"
BRA 74-606	1-1/4"
BRA 74-607	1-1/2"
BRA 74-608	2"
BRA 74-609	2-1/2"

**Reducing Coupling**

Part No.	Desc.
BRA 74-430	1/4 x 1/8
BRA 74-431	3/8 x 1/8
BRA 74-432	3/8 x 1/4
BRA 74-433	1/2 x 1/8
BRA 74-434	1/2 x 1/4
BRA 74-435	1/2 x 3/8
BRA 74-436	3/4 x 1/8
BRA 74-437	3/4 x 1/4
BRA 74-438	3/4 x 3/8
BRA 74-439	3/4 x 1/2
BRA 74-440	1 x 1/4
BRA 74-441	1 x 3/8
BRA 74-442	1 x 1/2
BRA 74-443	1 x 3/4
BRA 74-444	1-1/4 x 3/8
BRA 74-445	1-1/4 x 1/2
BRA 74-446	1-1/4 x 3/4



Part No.	Desc.
BRA 74-447	1-1/4 x 1
BRA 74-448	1-1/2 x 1/2
BRA 74-449	1-1/2 x 3/4
BRA 74-450	1-1/2 x 1
BRA 74-451	1-1/2 x 1-1/4
BRA 74-452	2 x 1/2
BRA 74-453	2 x 3/4
BRA 74-454	2 x 1
BRA 74-455	2 x 1-1/4
BRA 74-456	2 x 1-1/2





## Intake Water Strainers



### Clear Lid

Made of cast bronze - Complete with stainless steel screen. Tapped Height 4-1/2" - Overall Diameter 6"

Part No.	Size	Hose NPT
BUC 00IWS1215DOME	1-1/4" & 1-1/2"	3/4"
BUC 00IWS150DOME	1-1/2"	1"

### IWS Part Kit

Part kit includes a dome lid, lid gasket, spacer, o-ring, washer, center bolt & nut

Part No.	Use With Part Numbers
BUC D0IWS1215TKIT	BUC 00IWS1215DOME BUC 00IWS150DOME



## Strainers

Made of cast bronze.

### Round

Part No.	Diameter	Covers Thru Hull	FHWS Size
BUC 00SR350	3-1/2"	3/4"	#6
BUC 00SR400	4"	1"	#8
BUC 00SR500	5"	1-1/2"	#8
BUC 00SR600	6"	2-1/2"	#8
BUC 00SR800	8"	3"	#10

### Scoop

Part No.	Diameter	Covers Thru Hull	FHWS Size
BUC 00SS450	4-1/4" x 3"	1/2"	#6
BUC 00SS500	5" x 3-1/4"	3/4"	#8
BUC 00SS600	6" x 4"	1"	#8
BUC 00SS650	6-1/2" x 4-1/4"	1-1/4"	#8
BUC 00SS850	8-1/8" x 5-1/4"	1-1/2"	#10
BUC 00SS1050	10-9/16" x 7-5/16"	4"	1/4"
BUC 00SS1100	11" x 7-1/2"	3"	1/4"

### Oval Base



Part No.	N.P.T. Size	Stem Length	Base Size
BUC 00IS75L	3/4"	3-1/4"	2-3/8" x 3-1/8"
BUC 00IS100L	1"	3-1/2"	3-1/4" x 4-1/4"
BUC 00IS125	1-1/4"	3"	3-7/8" x 5-3/4"
BUC 00IS150	1-1/2"	3-1/2"	3-7/8" x 5-3/4"
BUC 00IS200	2"	3-1/2"	4" x 6"

## Seawater Strainer & Bracket

Pictured with  
Optional Mounting Bracket



- Full Flow Filtering with Ultra Low Pressure Differential
- Durable Non-Corrosive Construction
- Stainless Steel Screens

Strainer Part No.	Port Size	Screen Size	Opt Brkt. Part No.
SHE 15935	1/2"	20 Mesh	N/A
SHE 18004	1/2"	50 Mesh	N/A
SHE 18001	3/4"	20 Mesh	SHE 14240
SHE 18010	3/4"	40/20 Mesh	SHE 14240
SHE 18005	1"	20 Mesh	SHE 14239
SHE 18016	1-1/4"	20 Mesh	SHE 14238
SHE 18029	1-1/2"	20 Mesh	SHE 21930

Strainer Part No.	Screen Part No.	O-Ring Part No.	Bowl Part No.
SHE 15935	SHE 11810	SHE 11805	SHE 14379
SHE 18004	SHE 11811	SHE 11805	SHE 14379
SHE 18001	SHE 11810	SHE 11805	SHE 14379
SHE 18005	SHE 11807	SHE 11803	SHE 14380
SHE 18016	SHE 14214	SHE 11803	SHE 14380
SHE 18029	SHE 16126	SHE 11803	SHE 14380



## Sen-Dure Strainers

Part No.	Material	Seacock Size	Size
SEN 0905	Bronze	1/2"	6 1/8" x 3 1/4"
SEN 0290	Bronze	1 1/4"	9" x 4 3/8"
SEN 0291	Bronze	1 1/2"	12 1/4" x 5 1/4"
SEN 0910	Bronze	2 1/2"	15" x 5 7/8"
SEN 5403	Aluminum	2 1/2"	15" x 5 7/8"

## Bronze Ball Type Seacocks



An all bronze 85-5-5 ball type valve developed to replace plug & other types of sea cocks, the first ball type UL listed sea valve. Chromium plated bronze ball resists damage from marine growth. Easy on-off operation. No thumb screws to create seal. Glass reinforced TFE seats and seals. Stainless steel levers and nuts, lubrication required. Grounding screw.

Thread Part No.	Size
CON 78-115-01F*	3/4"
CON 78-118-01	1"
CON 78-119-01	1-1/4"
CON 78-116-01F	1-1/2"
CON 78-BRA 120-01	2"
CON 78-117-01	2-1/2"

\*All above Ball Valves are full flow.

## Bronze Full Port Apollo® Straight Ball Valves



**"Apollo"**



Valves have reinforced TFE seat, stuffing box ring and chromium plated ball. Blow-out-proof stem design meets WW-V-35C, Type II, Style 3, Composition: BZ. Mounting pads. Stainless steel lever and nut.

Part No.	Thread Size	Spare Handle
CON 77-104-10	3/4"	W565700
CON 77-105-10	1"	W565800
CON 77-106-10	1-1/4"	W565800
CON 77-107-10	1-1/2"	W565900
CON 77-108-10	2"	W565900
CON 77-109-10	2-1/2"	W565900

Full port valves have flow rate (Cv) comparable to equivalent length of pipe.

## Bronze Ball Valves



**"Apollo"**



Valves have reinforced TFE seats, stuffing box ring and chromium plated ball. Stainless steel lever & nut. Blow-out-proof stem design meets WW-V-35C, Type II, Style 3, Composition: BZ

Part No.	Thread Size	Spare Handle
CON 70-101-10	1/4"	W565600
CON 70-102-10	3/8"	W565600
CON 70-103-10	1/2"	W565600
CON 70-104-10	3/4"	W565CON 700
CON 70-105-10	1"	W565CON 700
CON 70-106-10	1-1/4"	W565800
CON 70-107-10	1-1/2"	W635CON 700
CON 70-108-10	2"	W635CON 700

## Ball Type Fuel Shut-Off Valve



Surface mount glass reinforced TFE seats and seals. All wetted metallic parts are cast or bronze cast. Stainless steel lever and nut, fast 90° on-off turn. Tested 100 PSI air under water & 400 PSI service rating. Chromium plated bronze ball.

Part No.	Thread Size	Spare Handle
CON 78-248-10	1/4"	W565600
CON 78-250-10	3/8"	W565600
CON 78-256-10	1/2"	W565600
CON 78-438-10	3/4"	W565700

### Thru Hull Step Wrench



BUC3BTHW50150



BUC3BTHW20250

### Plated Malleable Iron

Part No.	Fits Thru Hulls Min to Max	Overall Length
BUC 3BTHW50150	1/2" TO 1-1/2"	6-1/4"
BUC 3BTHW20250	2" to 2-1/2"	4-1/2"

### Thread Sealant with PTFE and Teflon®



Outperforms tapes and pipe dopes. Seals and resists pressure in air, oil, diesel fuel and hydraulic systems. Remains pliable at higher and lower temperatures. Resists common shop fluids. **Suggested Applications:** Air conditioning fittings, temperature sending fittings, hydraulic fittings.

Part No.	Size	Pack
PER 80631	1 oz. Tube, Carded	12
PER 80632	4 oz. Can	12

### 3 Way Diverter Valves

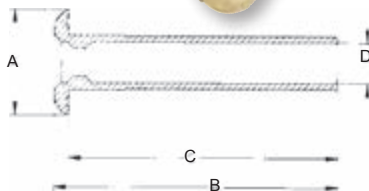


Conbraco  
Industries, Inc.



Part No.	Size	Spare Handle
CON 70-603-10	1/2"	W649800
CON 70-604-10	3/4"	W649900
CON 70-605-10	1"	W649900
CON 70-606-10	1-1/4"	W650000
CON 70-607-10	1-1/2"	-
CON 70-608-10	2"	-

### Extra Long Bronze Thru Hull with Flange Nut



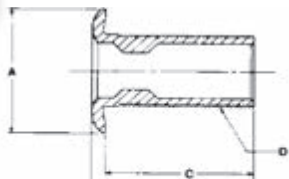
Conbraco  
Industries, Inc.



Cast bronze. Back side of flange is machined to fit snugly to hull and is grooved retain bedding compound or sealant. Neck is threaded to approximately 3/8" from flange. Lock nut included.

Part No.	Max Hull Thickness	Pipe Sizes			
		A	B	C	D
CON 65-BN8-03	5.25	1.88	5.94	5.63	.75 3/4" NPSM
CON 65-BN8-04	5.19	2.25	5.88	5.53	1.00 1" NPSM
CON 65-BN8-05	5.00	2.75	5.88	5.50	1.25 1-1/4" NPSM
CON 65-BN8-06	5.00	3.06	5.88	5.50	1.50 1-1/2" NPSM
CON 65-BN8-07	5.00	3.69	6.03	5.63	2.00 2" NPSM
CON 65-BN8-08	5.00	4.44	5.94	5.50	2.50 2-1/2" NPSM

### Bronze Thru Hull with Flange Nut



Conbraco  
Industries, Inc.



LISTED (EXCLUDES 1/2" & 3/4")

Part No.	Size	A	B	C	D
CON 65-BN7-63	1/2"	1.70	2.50	2.26	1/2" - NPSM
CON 65-BN7-50	3/4"	1.93	2.46	2.25	3/4" - NPSM
CON 65-BN7-51	1"	2.31	2.75	2.50	1" - NPSM
CON 65-BN7-52	1-1/4"	2.81	3.28	3.00	1-1/4" - NPSM
CON 65-BN7-53	1-1/2"	3.06	3.62	3.31	1-1/2" - NPSM
CON 65-BN7-54	2"	3.62	3.81	3.50	2" - NPSM
CON 65-BN7-55	2-1/2"	4.31	3.93	3.56	2-1/2" - NPSM
CON 65-BN7-64	3"	5.43	5.53	5.06	3" - NPSM

### 5-Port Fuel Tank Selector Ball Valve



Conbraco  
Industries, Inc.



Bronze ball valve with stainless steel lever and nut. Stem packing adjustable for wear, RTFE seats and stem packing. Four selected inlets feed one common outlet - pointer on handle indicates the selected inlet. Non-lubricated 50 PSIG pressure rating.

Part No.	Thread Size
CON 78-124-01	1/2"
CON 78-125-01A	3/4"

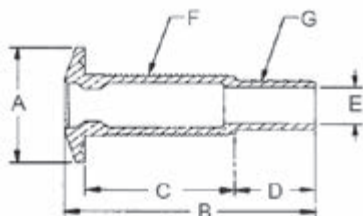


Bronze Barbed Thru Hull with Flange Nut

Thread Sealant  
with PTFE and Teflon®



Conbraco  
Industries, Inc.



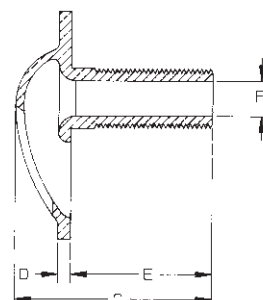
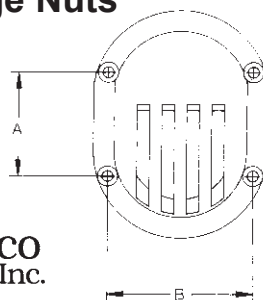
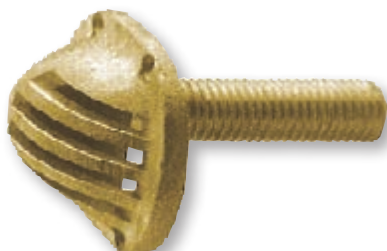
Part No.	Max Hull Thickness	A	B	C	D	E	Pipe Size	Hose Size
CON 65-BN7-97	1.06	1.56	3.00	1.50	1.25	.44	1/2" NPSM	.63
CON 65-BN7-98	1.63	1.88	3.69	2.06	1.38	.56	3/4" NPSM	.75
CON 65-BN7-99	1.75	2.38	3.88	2.25	1.31	.75	1" NPSM	1.00
CON 65-BN7-01	1.88	2.75	4.25	2.44	1.47	1.00	1-1/4" NPSM	1.25
CON 65-BN7-02	1.88	3.06	4.25	2.38	1.50	1.25	1-1/2" NPSM	1.50



Outperforms tapes and pipe dopes. Seals and resists pressure in air, oil, diesel fuel and hydraulic systems. Remains pliable at higher and lower temperatures. Resists common shop fluids. **Suggested Applications:** Air conditioning fittings, temperature sending fittings, hydraulic fittings.

Part No.	Size	Pack
PER 80631	1 oz. Tube, Carded	12
PER 80632	4 oz. Can	12

One Piece Bronze Intake Strainers  
with Flange Nuts



Conbraco  
Industries, Inc.



Part No.	Max Hull Thickness	Strainer Dim. Inches	A	B	C	D	E	F	Pipe Size
CON 65-BN8-09	2.00	3 x 4	1.56	2.19	3.00	.19	2.13	.53	1/2" NPSM
CON 65-BN8-10	2.19	3 x 4	1.94	2.47	3.63	.19	2.56	.75	3/4" NPSM
CON 65-BN8-11	2.50	3 x 4	1.88	2.50	3.88	.19	2.91	1.00	1" NPSM
CON 65-BN8-12	3.00	3-1/4 x 4-1/4	1.75	2.81	4.50	.19	3.50	1.25	1-1/4" NPSM

Bronze Pipe to Hose Adapter  
Straight (Tailpiece)

90° Bronze Pipe to Hose Adapter



Conbraco  
Industries, Inc.



Made of cast bronze. The threaded portion should be installed with pipe dope or pipe tape. Use two stainless steel hose clamps on barbed end.

Part No.	Thread Size	Hose Size
CON 65-007-56	1/2"	1/2"-5/8"
CON 65-007-51	3/4"	3/4"
CON 65-007-52	1"	1"
CON 65-007-53	1-1/4"	1-1/4"
CON 65-007-54	1-1/2"	1-1/2"
CON 65-007-55	2"	2"
CON 65-006-49	2-1/2"	2-1/2"

Made of cast bronze. The threaded portion should be installed with pipe dope or pipe tape. Use two stainless steel hose clamps on barbed end.

Part No.	Thread Hose	Hose Size
CON 65-907-50	1/2"	1/2"-5/8"
CON 65-907-51	3/4"	3/4"
CON 65-907-52	1"	1"
CON 65-907-53	1-1/4"	1-1/4"
CON 65-907-54	1-1/2"	1-1/2"
CON 65-907-55	2"	2"
CON 65-907-56	2-1/2"	2-1/2"



## Flange Mounting Seacocks

Forespar's Flange Mounted Seacocks made with Marelon® offer superior strength and corrosion resistance compared to conventional bronze type valves. Strong, lightweight, corrosion and electrolysis free, they make the ideal thru-hull valve. Available in most common sizes and thread configurations, Marelon Seacocks can be used as replacement valves for most existing marine thru-hull fittings.



Part No.	Desc.	Female I.P.S.	Height w/Handle
FRS 904009	Flush Mount	.5"	4"
FRS 904010	Flush Mount	.75"	4"
FRS 904011	Flush Mount	1.5"	8"

## Female Threaded Barbed Hose Fitting

This fitting is also made of high strength glass-reinforced Marelon®.



Part No.	Thread Size to Hose Barb Size
FRS 901014	1/2"(12.7mm) FPT to 1/2"(12.7mm) HOSE BARB
FRS 901015	3/4"(19.05mm) FPT to 3/4"(19.05mm) HOSE BARB
FRS 905012	1-1/2"(38.1mm) FPT to 3/4"(19.85mm) HOSE BARB
FRS 905013	1-1/2"(38.1mm) FPT to 1"(24.4mm) HOSE BARB
FRS 905015	1-1/2"(38.1mm) FPT to 1-1/8"(28.57mm) HOSE BARB
FRS 905014	1-1/2"(38.1mm) FPT to 1-1/2"(38.1mm) HOSE BARB

## Male Threaded Tailpipes / Hose Connectors

Our Tailpipes are also made from high-strength glass-reinforced Marelon®. Perfect choice for joining hose lines to Forespar® Ball Valves and Seacocks



Part No.	Thread Size	Length w/Handle
FRS 905100	1/2"(12.7mm)	4"(101.6mm)
FRS 905101	3/4"(19.05mm)	4"(101.6mm)
FRS 905102	1"(25.4mm)	5-1/2"(139.7mm)
FRS 905103	1-1/4"(31.75mm)	5-3/4"(146.05mm)
FRS 905104	1-1/2"(38.1mm)	7-1/2"(190.5mm)
FRS 905105	2"(50.08mm)	8"(203.2mm)

## MF 850 Ball valves

Forespar's MF 850 series of Ball Valves are precision molded in high strength Marelon®. Their great strength, light weight, and complete freedom from corrosion and electrolysis make them the ideal valve for controlling inlet and outlet water requirements above and below the waterline. Our engineers opened and closed one of our 3/4"(19.05mm) valves 11,000 times, then submerged it in water with an air line pressurized to 40 p.s.i. connected to it. The result was an absolutely leak free condition with no evidence of internal seal wear. Valves sold throughout the U.S.A. have parallel marine type threads. If specified, B.S.P. are available outside of America.



Part No.	Thread Size	Length w/Handle
FRS 905100	1/2"(12.7mm)	4"(101.6mm)
FRS 905101	3/4"(19.05mm)	4"(101.6mm)
FRS 905102	1"(25.4mm)	5-1/2"(139.7mm)
FRS 905103	1-1/4"(31.75mm)	5-3/4"(146.05mm)
FRS 905104	1-1/2"(38.1mm)	7-1/2"(190.5mm)
FRS 905105	2"(50.08mm)	8"(203.2mm)

## Elbows

Molded from high-strength Marelon®.



Part No.	Male NPT	Hose
FRS 901000	1/2"	5/8"
FRS 901001	3/4"	3/4"
FRS 901002	1"	1"
FRS 901003	1-1/4"	1-1/4"
FRS 901004	1-1/2"	1-1/2"
FRS 901005	2"	2"
FRS 901052	1-1/2"	1-1/4"
FRS 901053	1"	1-1/8"

Part No.	Female NPT	Hose
FRS 901006	1/2"	5/8"
FRS 901007	3/4"	3/4"
FRS 901008	1"	1"
FRS 901009	1-1/4"	1-1/4"
FRS 901010	1-1/2"	1-1/2"
FRS 901011	2"	2"

Looking for a particular  
**FITTING?**

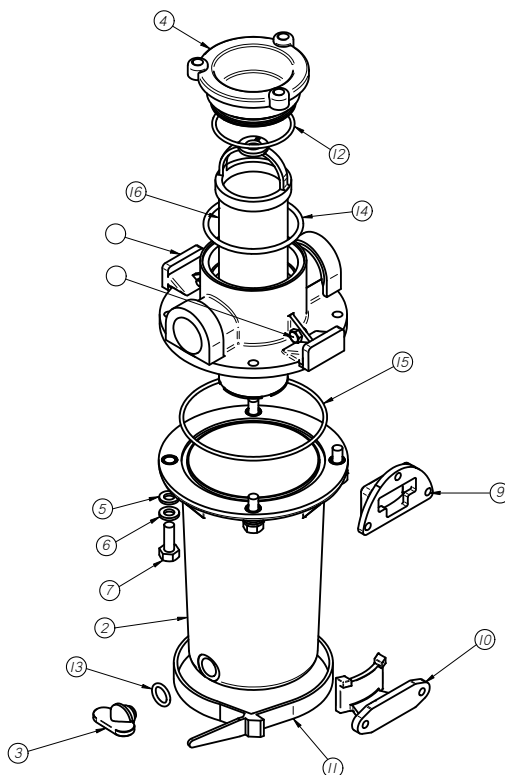
Give us a call!  
**1-800-432-2231**



**ARG SERIES**  
with magnifying cap for easy inspection



Go to [www.groco.net](http://www.groco.net) for updates, applications, and servicing information.



ITEM NO	NAME	IN SVC KIT	QTY	ARG-500	ARG-755	ARG-750	IN SVC KIT	QTY	ARG-1000	ARG-1210	ARG-1250	IN SVC KIT	QTY	ARG-1500	ARG-2015	ARG-2000	ARG-2515	ARG-2520	ARG-2500	ARG-3015	ARG-3020	ARG-3025	ARG-3000
1	Head Casting	1	ARG-510-H	ARG-760-H	ARG-760-H	ARG-760-H	1	ARG-1010-H	ARG-1260-H	ARG-1260-H	ARG-1260-H	1	ARG-1510-H	ARG-2010-H	ARG-2010-H	ARG-2510-H	ARG-2510-H	ARG-2510-H	ARG-3010-H	ARG-3010-H	ARG-3010-H	ARG-3010-H	
2	Sight Glass	1	ARG-503	ARG-503	ARG-753	ARG-753	1	ARG-1003	ARG-1003	ARG-1003	ARG-1233	1	ARG-1503	ARG-1503	ARG-1503	ARG-2003	ARG-1503	ARG-2003	ARG-2503	ARG-1503	ARG-2003	ARG-2503	
3	Drain Plug W/O-RING	1	ARG-756	ARG-756	ARG-756	ARG-756	1	ARG-756	ARG-756	ARG-756	ARG-756	1	ARG-756	ARG-756	ARG-756	ARG-756	ARG-756	ARG-756	ARG-756	ARG-756	ARG-756	ARG-756	
4	Drain Plug W/O-RING before 080101	1	ARG-506	ARG-506	ARG-506	ARG-506	1	ARG-506	ARG-506	ARG-506	ARG-506	1	ARG-506	ARG-506	ARG-506	ARG-506	ARG-506	ARG-506	ARG-506	ARG-506	ARG-506	ARG-506	
5	Cap. Plastic before 010901	1	ARG-501-PC	ARG-501-PC	ARG-501-PC	ARG-501-PC	1	ARG-1001-PC	ARG-1001-PC	ARG-1001-PC	ARG-1001-PC	1	ARG-1501-PC	ARG-1501-PC	ARG-1501-PC	ARG-1501-PC	ARG-1501-PC	ARG-1501-PC	ARG-1501-PC	ARG-1501-PC	ARG-1501-PC	ARG-1501-PC	
6	Cap. Bronze, before 010901	1	ARG-501-B	ARG-501-B	ARG-501-B	ARG-501-B	1	ARG-1001-B	ARG-1001-B	ARG-1001-B	ARG-1001-B	1	ARG-1501-B	ARG-1501-B	ARG-1501-B	ARG-1501-B	ARG-1501-B	ARG-1501-B	ARG-1501-B	ARG-1501-B	ARG-1501-B	ARG-1501-B	
7	Cap. Bronze, after 010901	1	ARG-501-C	ARG-501-C	ARG-501-C	ARG-501-C	1	ARG-1001-C	ARG-1001-C	ARG-1001-C	ARG-1001-C	1	ARG-1501-C	ARG-1501-C	ARG-1501-C	ARG-1501-C	ARG-1501-C	ARG-1501-C	ARG-1501-C	ARG-1501-C	ARG-1501-C	ARG-1501-C	
8	Washer	ARG-1	1	FW-2 SET	FW-2 SET	FW-2 SET	ARG-2	1	FW-2 SET	FW-2 SET	FW-2 SET	ARG-3	1	FW-2 SET	FW-2 SET	FW-2 SET	FW-2 SET	FW-2 SET	FW-2 SET	FW-2 SET	FW-2 SET	FW-2 SET	
9	Washer	4	14SS	14SS	14SS	14SS	6	14SS	14SS	14SS	14SS	6	14SS	14SS	14SS	14SS	14SS	14SS	14SS	14SS	14SS	14SS	
10	Hex Bolt	2	1420X34HS	1420X34HS	1420X34HS	1420X34HS	6	1420X34HS	1420X34HS	1420X34HS	1420X34HS	6	1420X34HS	1420X34HS	1420X34HS	1420X34HS	1420X34HS	1420X34HS	1420X34HS	1420X34HS	1420X34HS	1420X34HS	
11	Bracket, Upper	1	ARG-505	ARG-505	ARG-505	ARG-505	1	ARG-1005	ARG-1005	ARG-1005	ARG-1005	1	ARG-1505	ARG-1505	ARG-1505	ARG-1505	ARG-1505	ARG-1505	ARG-1505	ARG-1505	ARG-1505	ARG-1505	
12	Bracket, Lower	1	ARG-504	ARG-504	ARG-504	ARG-504	1	ARG-1004	ARG-1004	ARG-1004	ARG-1004	1	ARG-1504	ARG-1504	ARG-1504	ARG-1504	ARG-1504	ARG-1504	ARG-1504	ARG-1504	ARG-1504	ARG-1504	
13	O-Ring	ARG-1	1	2-228	2-228	2-228	ARG-2	1	2-232	2-232	2-232	ARG-3	1	2-238	2-238	2-238	2-238	2-238	2-238	2-238	2-238	2-238	
14	O-Ring	ARG-1	1	2-111	2-111	2-111	ARG-2	1	2-111	2-111	2-111	ARG-3	1	2-111	2-111	2-111	2-111	2-111	2-111	2-111	2-111	2-111	
15	O-Ring before 080101	ARG-1	1	2-011	2-011	2-011	ARG-2	1	2-011	2-011	2-011	ARG-3	1	2-011	2-011	2-011	2-011	2-011	2-011	2-011	2-011	2-011	
16	O-Ring	ARG-1	1	2-135	2-135	2-135	ARG-2	1	2-229	2-229	2-229	ARG-3	1	2-234	2-234	2-234	2-234	2-234	2-234	2-234	2-234	2-234	
17	Basket, Polyethylene	1	BP-1	BP-1	BP-2	BP-2	ARG-2	1	BP-3	BP-4	BP-5	ARG-3	1	BP-6	BP-7	BP-8	BP-9	BP-10	BP-11	BP-12	BP-13	BP-14	
18	Basket, #304 SS	1	BS-1	BS-1	BS-2	BS-2	ARG-2	1	BS-3	BS-4	BS-5	ARG-3	1	BS-6	BS-7	BS-8	BS-9	BS-10	BS-11	BS-12	BS-13	BS-14	
19	Basket, Monel	1	BM-1	BM-1	BM-2	BM-2	ARG-2	1	BM-3	BM-4	BM-5			BM-6	BM-7	BM-8	BM-9	BM-10	BM-11	BM-12	BM-13	BM-14	



Groco manufactures a complete line of strainers for a variety of applications:

- High Capacity Strainers
- Strainers for high powered engines with 4", 5" & 6" intakes
- Vertical Duplex strainers for equipment that must run continuously
- Self-Cleaning strainers to eliminate the need for untimely shut downs & maintenance

For additional information on all Groco products call Jerry's Marine Service at 1-800-432-2231

### ARG SERIES IS NOW AVAILABLE WITH BSPP OR NPT THREADS

#### MODEL ARG BRONZE CASTINGS CLEAR SIGHT GLASS



PLASTIC BASKET	#304 SS BASKET	THREAD NPT/BSPP
ARG-500-P	ARG-500-S	1/2"
ARG-755-P	ARG-755-S	3/4"
ARG-750-P	ARG-750-S	3/4"
ARG-1000-P	ARG-1000-S	1"
ARG-1210-P	ARG-1210-S	1-1/4"
ARG-1250-P	ARG-1250-S	1-1/4"
ARG-1500-P	ARG-1500-S	1-1/2"
ARG-2015-P	ARG-2015-S	2"
ARG-2000-P	ARG-2000-S	2"
ARG-2515-P	ARG-2515-S	2-1/2"
ARG-2520-P	ARG-2520-S	2-1/2"
ARG-2500-P	ARG-2500-S	2-1/2"
ARG-3015-P	ARG-3015-S	3"
ARG-3020-P	ARG-3020-S	3"
ARG-3025-P	ARG-3025-S	3"
ARG-3000-P	ARG-3000-S	3"

### SERVICE KITS

Part No.	APPLICATION
ARG-1	STRAINER SERVICE KIT
ARG-2	STRAINER SERVICE KIT
ARG-3	STRAINER SERVICE KIT
BVS-1	SERVICE KIT
BVS-2	SERVICE KIT
BVS-3	SERVICE KIT
SA-1	STRAINER SERVICE KIT
SA-3	STRAINER SERVICE KIT
SD	STRAINER SERVICE KIT



BP Series  
Polyethylene

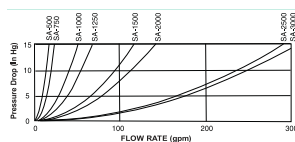
### STRAINER BASKETS

Part No.	Fits Strainer Model(s)
BP-3	ARG-1000, VD-1000, 932-1000
BP-5	ARG-1250, SA-1250, VD-1250
BS-2	ARG-750, SA-750
BS-3	ARG-1000, VD-1000, 932-1000
BS-5	ARG-1250, SA-1250, VD-1250
BS-6	ARG-1500, SA-1500, VD-1500
BS-8	ARG-2000, SA-2000
BS-11	ARG-2500, SA-2500, 932-2500
BS-15	ARG-3000, 932-3000



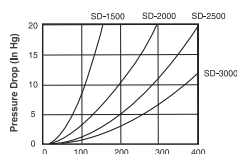
BS Series  
Stainless Steel

#### SA-SERIES BRONZE CASTINGS CLEAR SIGHT GLASS



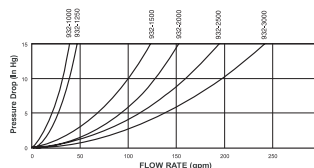
#304 SS BASKET	THREAD NPT
SA-500-S	1/2"
SA-750-S	3/4"
SA-1000-S	1"
SA-1250-S	1-1/4"
SA-1500-S	1-1/2"
SA-2000-S	2"
SA-2500-S	2-1/2"
SA-3000-S	3"

#### SD-SERIES BRONZE CASTINGS CLEAR SIGHT GLASS



#304 SS BASKET	THREAD NPT
SD-1500-S	1-1/2"
SD-2000-S	2"
SD-2500-S	2-1/2"
SD-3000-S	3"

#### 932-SERIES BRONZE CASTINGS CLEAR SIGHT GLASS



#304 SS BASKET	THREAD NPT
932-0500-00	1/2"
932-0750-00	3/4"
932-1000-00	1"
932-1250-00	1-1/4"
932-1500-00	1-1/2"
932-2000-00	2"
932-2500-00	2-1/2"
932-3000-00	3"

#### SE-SERIES



(Call Jerry's)

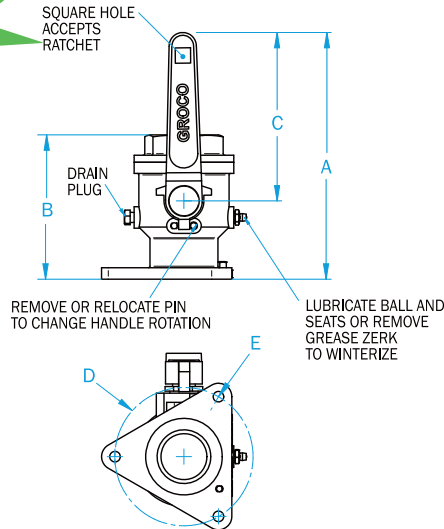
#### HYDROMATIC™ SELF-CLEANING SERIES



(Call Jerry's)

- Includes one grease zerk fitting (can be used for lubrication or for draining).
- Tri-flange base and mount hole pattern provide easy retrofit when replacing most popular brands.
- Patented selectable handle rotation.
- Handle has square hole to accept standard ratchet to help reach valves in hard-to-reach locations and ease actuation of difficult to operate valves.
- Full flow.
- Stainless steel ball and stem.
- PTFE seats and seals.
- Serviceable while installed.
- Base has bonding attachment.

**NEW PATENT-PENDING FEATURE**



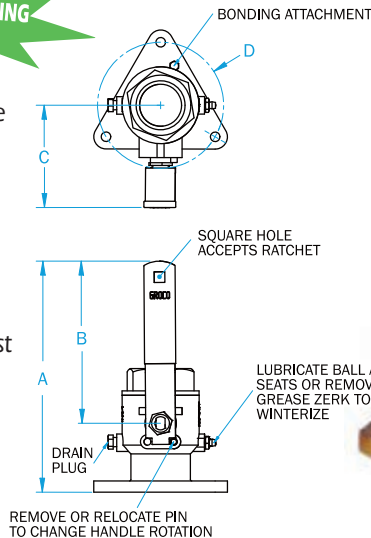
## BV SERIES



MODEL	THREAD BOTTOM NPS	THREAD TOP NPT	A inch	B inch	C inch	D inch	E inch	WEIGHT lb	PKG
BV-750	3/4"	3/4"	5.75	3.50	3.8	3.12	5/16	2.3	1
BV-1000	1"	1"	6.63	4.13	4.4	3.38	5/16	3.5	1
BV-1250	1-1/4"	1-1/4"	7.00	4.50	4.4	3.62	5/16	4.6	1
BV-1500	1-1/2"	1-1/2"	8.00	4.63	5.5	4.50	5/16	6.0	1
BV-2000	2"	2"	8.38	5.25	5.5	5.00	3/8	10.0	1
BV-2500	2-1/2"	2-1/2"	10.31	6.75	6.5	5.88	3/8	13.0	1
BV-3000	3"	3"	13.50	7.75	9.5	7.00	3/8	24.0	1
BV-4000	4"	4"	19.20	9.60	14.1	8.00	1/2	52.0	1
BV-5000	5"	5"	19.90	11.20	14.1	11.00	5/8	91.0	1

- 1-1/4" sizes and larger include one grease zerk fitting (can be used for lubrication or for draining).
- Patented field reversible handle allows you to select the closed position orientation (clockwise or counter-clockwise) that best suits the installation.
- Handle has square hole to accept standard ratchet, to help reach valves in hard-to-reach locations and ease actuation of difficult to operate valves.
- Full Flow.
- Triangular base with bolt pattern to match most popular brands makes retrofit easy.
- Stainless steel handle and hardware.
- Chrome plated solid brass ball.
- PTFE Seats and Seals.
- Bonding attachment on base.

**NEW PATENT-PENDING FEATURE**



## FBV SERIES



**FBVL Series**  
has locking mechanism

MODEL	THREAD BOTTOM NPS	THREAD TOP NPT	A inch	B inch	C inch	D inch	E inch	WEIGHT lb	PKG
FBV-750	3/4"	3/4"	6.14	3.92	2.40	3.12	5/16	1.9	2
FBV-1000*	1"	1"	6.98	4.40	2.60	3.38	5/16	2.6	2
FBV-1250	1-1/4"	1-1/4"	7.12	4.85	2.70	3.62	5/16	3.0	2
FBV-1500*	1-1/2"	1-1/2"	8.23	5.77	3.15	4.50	5/16	4.4	2
FBV-2000	2"	2"	10.14	7.53	3.54	5.00	3/8	6.2	2
FBV-2500	2-1/2"	2-1/2"	12.81	7.75	4.21	5.88	3/8	14.3	1
FBV-3000	3"	3"	14.85	9.02	6.99	7.00	3/8	23.2	1

\*These sizes are available with locking handle. Order FBVL-1000 or FBVL-1500.

## IBV SERIES

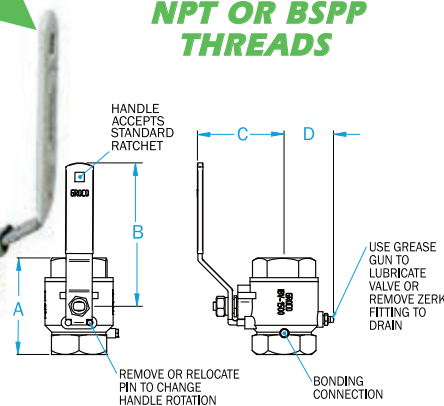
ISO-9093-1  
(BSPP MODELS)

UL  
LISTED  
15PR  
(NPT MODELS)

IBVL Series  
has locking mechanism

NEW

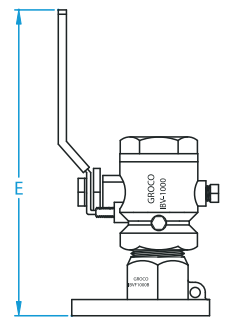
AVAILABLE WITH  
NPT OR BSPP  
THREADS

NEW PATENT-PENDING  
FEATURE

- 1-1/4" sizes and larger include one grease zerk fitting (can be used for lubrication or for draining).
- Patented selectable handle rotation.
- Handle has square hole to accept standard ratchet, to help reach valves in hard-to-reach locations and ease actuation of difficult to operate valves.
- 400 WOG rated.
- Full flow.
- Stainless steel handle and hardware.
- Chrome plated solid brass ball (not a hollow ball).
- PTFE seats and seals.
- Bonding attachment.
- UL listed for fuel or water.
- Fits IBVF.

ANSI MODELS	THREAD NPT/BSPP	A inch/mm	B inch/mm	C inch/mm	D inch/mm	E inch/mm	WEIGHT lb/kg
IBV-250	1/4"	1.77/45.0	4.48/113.79	1.99/50.55	1.08/27.43	-	0.48/0.2
IBV-375	3/8"	1.77/45.0	4.48/113.79	1.99/50.55	1.08/27.43	-	0.46/0.2
IBV-500	1/2"	2.05/52.1	5.10/129.54	2.26/57.40	1.14/28.96	-	0.74/0.3
IBV-750	3/4"	2.33/59.2	5.15/130.81	2.27/57.66	1.26/32.00	7.55	1.00/0.5
IBV-1000*	1"	2.79/70.9	5.93/150.62	2.48/62.99	1.47/37.34	7.58	1.70/0.8
IBV-1250	1-1/4"	3.18/80.8	6.54/166.12	2.65/67.31	1.71/43.43	8.05	2.24/1.0
IBV-1500*	1-1/2"	3.60/91.4	7.62/193.55	3.20/81.28	1.88/47.75	9.38	3.28/1.5
IBV-2000	2"	4.30/109.2	9.13/231.90	3.59/91.19	2.17/55.12	10.85	4.56/2.1
IBV-2500	2-1/2"	4.88/124.0	10.00/254.00	4.40/111.76	2.60/66.04	12.81	10.40/4.7
IBV-3000	3"	6.87/174.5	10.75/273.05	4.75/120.65	3.00/76.20	14.85	17.54/8.0
IBV-4000	4"	8.20/208.3	12.00/304.80	6.00/152.40	4.00/101.60	-	29.80/13.5

\*Available with locking handle. Order IBVL-1000 or IBVL-1500.

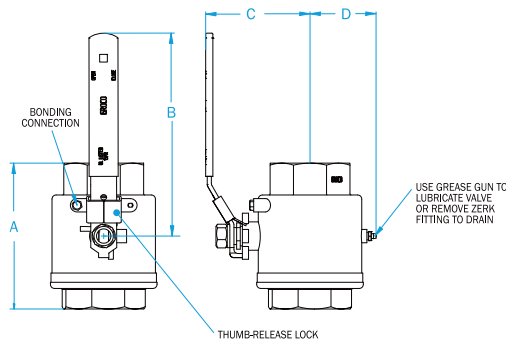


IBV MOUNTED ON IBVF

## IBV-S SERIES



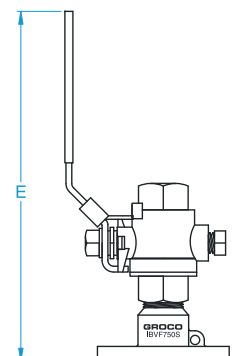
UL  
LISTED  
15PR

NEW PATENT-PENDING  
FEATURE

- 1-1/4" sizes and larger include one grease zerk fitting (can be used for lubrication or for draining).
- Handle has square hole to accept standard ratchet (helps you to reach hard-to-reach valves and eases actuation of hard to operate valves).
- Thumb-release locking mechanism assures the valve remains in the position selected.
- 1000 WOG rated.
- #316 SS body. #304 SS handle and trim.
- Bonding attachment.
- PTFE seats and seals.
- UL listed for fuel or water. Full flow.
- Fits IBVF-S.

MODEL	THREAD NPT	A inch	B inch	C inch	D inch	E inch	WEIGHT lb
IBV-250-S	1/4"	2.20	3.92	1.83	0.61	-	0.61
IBV-375-S	3/8"	2.20	3.92	1.83	0.61	-	0.57
IBV-500-S	1/2"	2.48	3.92	1.90	1.28	-	0.66
IBV-750-S	3/4"	2.98	4.98	2.43	1.38	8.17	1.28
IBV-1000-S	1"	3.30	4.98	2.73	1.60	8.33	1.57
IBV-1250-S	1-1/4"	3.86	6.02	3.18	1.80	9.65	2.71
IBV-1500-S	1-1/2"	4.25	6.02	3.43	2.07	9.90	3.34
IBV-2000-S	2"	4.75	7.56	3.76	2.40	11.66	5.45
IBV-2500-S	2-1/2"	6.32	9.76	4.70	2.75	15.27	10.34
IBV-3000-S	3"	7.33	9.76	5.12	4.00	15.83	21.60
IBV-4000-S	4"	8.82	12.60	6.58	-	-	-

\*Sizes 3/4" - 3" include drain plug



IBV-S MOUNTED ON IBVF-S



## BB SERIES - BACKING BLOCKS

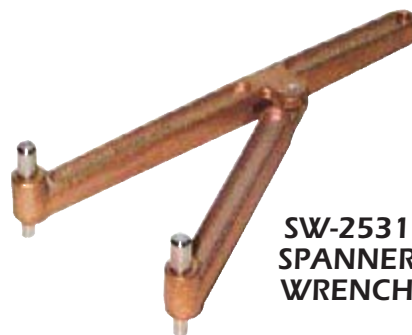
Flanged seacock installation is improved with the use of a backing block between the valve flange and the hull.

- Each size fits multiple seacock sizes.
- Press threaded inserts into the hull side of the backing block into the holes that match the seacock flange.
- Rigid 1/2" thickness provides secure installation but is flexible enough to conform to minor hull curvature.
- Will not swell or absorb moisture.



MODEL	FITS SEACOCK SIZES	BACKING BLOCK DIAMETER	INSERT THREADS
BB-1	750 AND 1000	4.29	5/16-18
BB-2	1250 AND 1500	5.38	5/16-18
BB-3	2000 AND 2500	7.13	3/8-16
BB-4	3000	9.50	3/8-16
BB-4A	4000	9.50	1/2-13
BB-5	5000	12.50	5/8-11

## SW-2531 SPANNER WRENCH DECK PLATE KEY



**SW-2531  
SPANNER  
WRENCH**

- Cast bronze with stainless steel pins to fit 1/4" and 5/16" holes. Opens to service deck plates or strainer caps with key holes up to 7" apart.
- Hangs conveniently near the strainer(s) location.

NOTE: Do not use SW-2531 to tighten non-metallic caps.

## U-LUBE

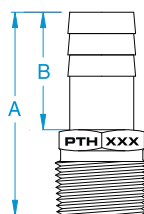
Patent Pending



VALVE SIZE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"
OUNCES of U-LUBE	.03	.03	.04	.05	.1	.35	.7	1	2.8	7	11	16

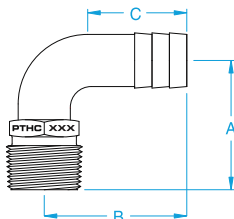
## Bronze Fittings

### PTH SERIES, NPT THREAD, STANDARD FLOW



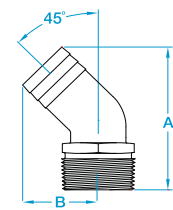
MODEL NO.	THREAD NPT	HOSE ID inch	A inch	B inch	WEIGHT lb	PKG
PTH-500	1/2"	1/2"	2.39	1.38	.17	10
PTH-5062	1/2"	1/2" or 5/8"	2.70	1.80	.18	10
PTH-750	3/4"	3/4"	2.39	1.38	.20	10
PTH-1000	1"	1"	2.48	1.38	.26	10
PTH-1125	1-1/4"	1-1/8"	2.48	1.38	.58	10
PTH-1250	1-1/4"	1-1/4"	2.65	1.55	.60	10
PTH-1500	1-1/2"	1-1/2"	3.00	1.90	.75	10
PTH-2000	2"	2"	3.00	1.90	1.05	1
PTH-2500	2-1/2"	2-1/2"	4.00	2.00	1.75	1
PTH-3000	3"	3"	4.00	2.00	2.58	1
PTH-3000-L	3"	3"	5.00	3.00	2.95	1
PTH-4000	4"	4"	4.25	2.00	3.50	1
PTH-5000	5"	5"	4.25	2.00	5.10	1

### PTHC SERIES, NPT THREAD, STANDARD FLOW



MODEL NO.	THREAD NPT	HOSE ID inch	A inch	B inch	C inch	WEIGHT lb	PKG
PTHC-5062	1/2"	1/2" or 5/8"	1.90	2.00	1.56	.22	10
PTHC-750	3/4"	3/4"	1.86	2.05	1.43	.29	10
PTHC-1000	1"	1"	2.34	2.40	1.63	.54	10
PTHC-1125	1-1/4"	1-1/8"	2.37	2.44	1.75	.78	5
PTHC-1250	1-1/4"	1-1/4"	2.44	2.53	1.38	.80	5
PTHC-1500	1-1/2"	1-1/2"	2.50	2.50	2.25	1.12	5
PTHC-2000	2"	2"	2.88	3.10	2.25	1.58	1
PTHC-2500	2-1/2"	2-1/2"	3.83	3.35	2.10	2.40	1
PTHC-3000	3"	3"	4.20	3.55	2.00	3.85	1
PTHC-4000	4"	4"	5.05	5.25	2.85	5.90	1
PTHC-5000	5"	5"	5.5	6.20	3.30	9.70	1

### PTHD SERIES, NPT THREAD, STANDARD FLOW

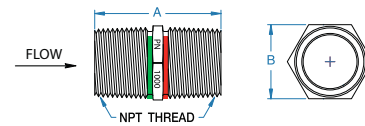


MODEL NO.	THREAD NPT	HOSE ID inch	A inch	B inch	WEIGHT lb	PKG
PTHD-750	3/4"	3/4"	2.98	1.58	.25	10
PTHD-1000	1"	1"	3.15	1.63	.36	10
PTHD-1250	1-1/4"	1-1/4"	3.34	1.68	.56	10
PTHD-1500	1-1/2"	1-1/2"	3.73	1.99	.82	5
PTHD-2000	2"	2"	4.12	2.36	1.15	5
PTHD-2500	2-1/2"	2-1/2"	5.68	2.66	1.96	1
PTHD-3000	3"	3"	6.03	3.06	2.61	1

## PNC SERIES - CHECK VALVE



PNC Series are made from cast bronze nipples. A check valve is placed inside to prevent back-flow in plumbing systems. The check valve imposes almost zero flow restriction, and requires less than 1/2 PSI to open. Colored bands indicate flow direction (green to red), confirmed by the permanent laminated tag. Sizes 1/2" to 2". Do not use in diesel fuel or gasoline applications.



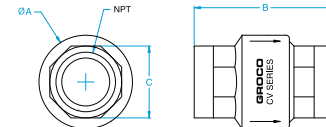
MODEL	THREAD NPT	A inch	B inch	PSI TO OPEN	WEIGHT lb	PKG
PNC-500	1/2"	1.77	0.88	.45	0.17	10
PNC-750	3/4"	1.77	1.06	.45	0.21	10
PNC-1000	1"	2.34	1.38	.45	0.33	10
PNC-1250	1-1/4"	2.51	1.75	.45	0.62	10
PNC-1500	1-1/2"	2.49	2.00	.45	0.72	6
PNC-2000	2"	2.37	2.50	.45	0.84	2

## CV SERIES - CHECK VALVE



CV Series in-line check valve may be used in water or fuel systems to keep pumps primed and to prevent back-flow in pressure systems. Unique design reduces flow turbulence and restriction, thus improving pump performance.

- Cast bronze construction.
- NPT threaded ports.
- 1/2" - 2" sizes.
- Suitable for use with diesel fuel or gasoline.

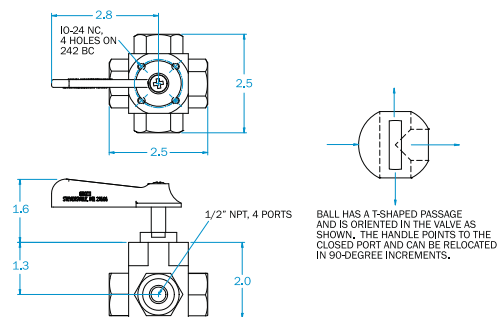


MODEL	THREAD NPT	A inch	B inch	C inch	PSI TO OPEN	WEIGHT lb	PKG
CV-50	1/2"	1.42	2.45	1.00	.33	0.4	1
CV-75	3/4"	1.65	2.58	1.20	.16	0.5	1
CV-100	1"	1.90	3.30	1.45	.19	0.8	1
CV-125	1-1/4"	2.38	3.98	1.88	.10	1.4	1
CV-150	1-1/2"	2.93	4.34	2.23	.10	2.3	1
CV-200	2"	3.63	5.00	2.75	.10	3.2	1

## FV-450-X - TANK SELECTOR VALVE



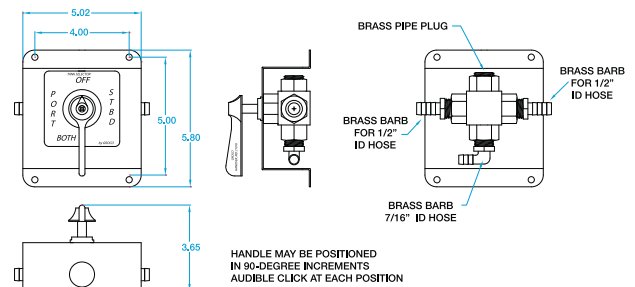
- For fuel or water.
- Four Positions: Tank-1, Tank-2, Tanks 1 & 2, Off.
- Full 1/2" flow.
- Audible "click" at each handle position.
- For thru panel mounting.
- Available separately or as part of TS-350-T Kit (below).



## TS-350-T - TANK SELECTOR KIT



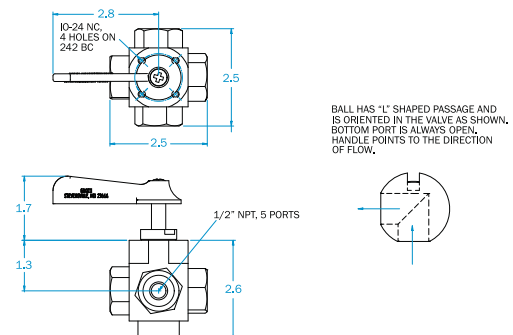
TS-350-T Tank Selector Kit utilizes FV-450-X full flow valve (see above for details) mounted on an attractive stainless steel mount bracket and plumbed with (2) 1/2" straight hose barbs and (1) 7/16" 90-degree hose barb. Two labels are provided to match your installation (port/starboard or fore/aft). Handle can be relocated in 90-degree increments to align plumbing.



## FV-550-L - TANK SELECTOR VALVE

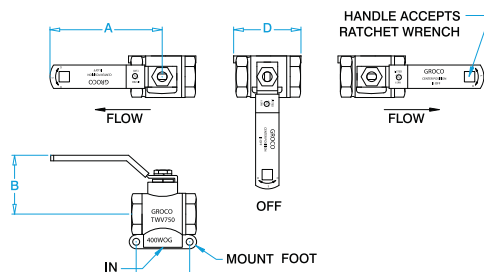


- For fuel or water.
- Bottom port is common. Select between four outlets.
- Full 1/2" flow.
- Audible "click" at each handle position.
- For thru panel mounting.



## Three-Way Valve

- 3-way valve operates logically - The handle points to the direction of flow. Center position is "off".
- Handle rotates a full 180°.
- Mount foot included.
- Full flow.
- Stainless steel handle and hardware.
- PTFE seats and seals.
- TWV-1500 size is ideal for waste systems.
- UL listed for fuel or water.



## TWV SERIES

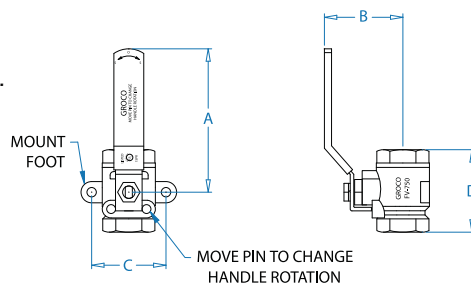


MODEL	THREAD NPT	A inch	B inch	C inch	D inch	WEIGHT lb	PKG
TWV-500	1/2"	4.10"	2.12"	1.90"	2.40"	1.08	2
TWV-750	3/4"	4.10"	2.20"	1.93"	2.44"	1.24	2
TWV-1500	1-1/2"	6.00"	3.30"	3.15"	3.95"	5.60	1

## Fuel Valve

ABYC H33.9.2 states that fuel system valves must have an independent means of support. That's why regular in-line valves are not appropriate for fuel systems applications.

- Patented selectable handle rotation.
- Full flow.
- Mount foot included.
- Stainless steel handle and hardware.
- 400 WOG.
- PTFE seats and seals.
- UL listed for fuel or water.



## FV SERIES

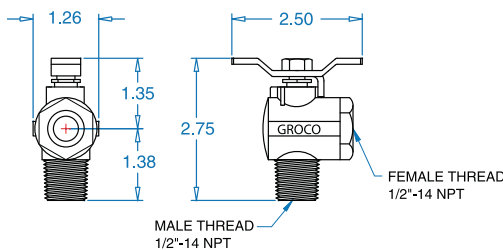
U.S. PATENT NO. 7,000,896



MODEL	THREAD NPT	A inch	B inch	C inch	D inch	WEIGHT lb	PKG
FV-250	1/4"	4.10"	2.22"	1.54"	1.77"	.52	16
FV-375	3/8"	4.10"	2.22"	1.54"	1.77"	.50	16
FV-500	1/2"	4.10"	2.20"	1.85"	2.05"	.82	16
FV-750	3/4"	4.10"	2.22"	2.10"	2.33"	1.06	10

## 90-Degree Fuel Valve

- Compact design.
- 90° flow path.
- 1/2" NPT male and female ports.
- Use FV-590 for fiberglass tanks.
- Use FV-590-S with aluminum or stainless steel tanks.



## FV-590 SERIES



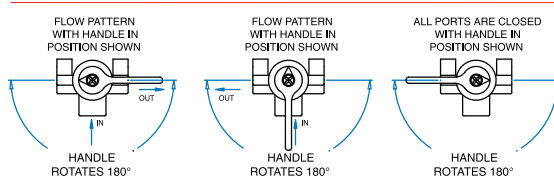
## 6-PORT FUEL VALVES

Six-port fuel valves are used where 2 tanks supply a single engine, and a return to each supply tank is required.

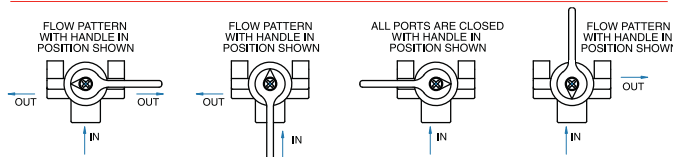
ABYC H33.9.2 states that fuel system valves must have an independent means of support, so in-line valves are not suitable for fuel system applications.

FV-65038 and FV-61075 have an "L" shaped flow pattern and 180° handle swing; FV-65038-A and FV-61075-A have a "T" shaped flow pattern and 360° handle actuation.

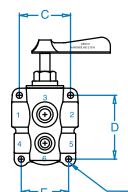
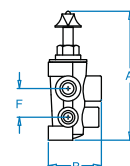
### FLOW PATTERN FV-65038 AND FV-61075



### FLOW PATTERN FV-65038-A AND FV-61075-A

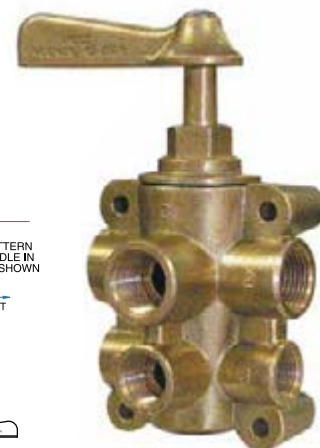


MODELS	MAIN NPT	RETURN NPT	A inch	B inch	C inch	D inch	E inch	F inch
FV-65038	1/2"	3/8"	5.62	2.31	2.23	2.78	2.06	1.25
FV-65038-A	1/2"	3/8"	5.62	2.31	2.23	2.78	2.06	1.25
FV-61075	1"	3/4"	8.42	3.47	3.34	4.17	3.09	1.88
FV-61075-A	1"	3/4"	8.42	3.47	3.34	4.17	3.09	1.88



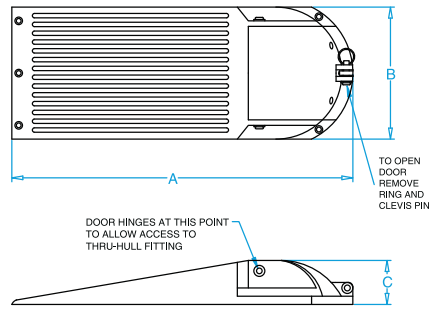
PORTS 1, 2, 3 = MAIN  
PORTS 4, 5, 6 = RETURN

MOUNT WITH (4) 1/4" BOLTS





## ASC SERIES - SLOTTED HULL STRAINER

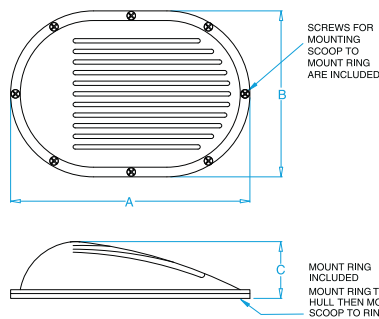


Aluminum models may be welded or screwed to aluminum hulls.

BRONZE MODEL	MAX T-HULL	A inch	B inch	C inch	SCREWS	PKG	Ratio of Open Area to Pipe Size								
							1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
ASC-1250	1-1/4"	7.00	3.38	1.50	4 #10	4	26.5	11.8	6.6	4.3	-	-	-	-	-
ASC-2000	2"	10.25	4.38	1.63	5 #10	4	61.1	27.2	15.3	9.8	6.8	3.8	-	-	-
ASC-3000	3"	15.38	6.00	2.00	5 #10	2	129.1	57.4	32.3	20.7	14.4	8.1	5.2	3.6	-
ASC-6000	4"	20.25	11.00	4.00	9 #12	2	324.5	144.2	81.1	51.9	36.1	20.3	13.0	9.0	5.1

Dimensions and ratios for aluminum models are identical to bronze models. Add suffix -AL for aluminum models.

## Groco - SC Series - Slotted Strainer with Mount Ring



SC Series provides course primary filtration. SC hi-flow sizes (shaded versions below) provide greater flow and less restriction. SC-4300 is available now; smaller sizes available soon. All models are available with or without the mount ring.

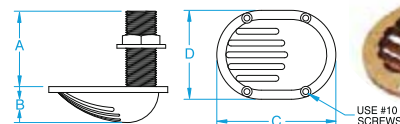
BRONZE LESS RING	BRONZE WITH RING	MAX T-HULL	A inch	B inch	C inch	SCREWS	PKG	Ratio of Open Area to Pipe Size							
								1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
SC-1000-L	SC-1000	1"	5.25	3.62	1.25	6 #10	2	13.4	6.0	3.3	-	-	-	-	-
SC-1075-L	SC-1075	1"	5.25	3.62	1.25	6 #10	2	-	-	-	-	-	-	-	-
SC-1500-L	SC-1500	1-1/2"	6.82	4.70	1.50	6 #10	2	20.2	9.0	5.0	3.2	2.2	-	-	-
SC-1512-L	SC-1512	1-1/2"	6.82	4.70	1.50	6 #10	2	-	-	-	-	-	-	-	-
SC-2500-L	SC-2500	2-1/2"	8.50	6.00	2.00	6 #10	2	36.0	16.0	9.0	5.8	4.0	2.2	1.4	-
SC-2520-L	SC-2520	2-1/2"	8.50	6.00	2.00	6 #10	2	-	-	-	-	-	-	-	-
SC-4000-L	SC-4000	4"	12.50	8.62	2.75	8 #10	2	109.0	48.4	27.2	17.4	12.1	6.8	4.4	3.0
SC-4300-L	SC-4300	4"	12.50	8.62	2.75	8 #10	2	176.0	78.2	43.9	28.2	19.6	11.0	7.0	4.9

Dimensions and ratios for aluminum models are identical to bronze models.

## Groco - Bronze Thru-Hull Fittings

## AVAILABLE WITH BSPP OR NPS THREADS

THREAD NPS	THREAD NPS/BSPP	A inch/mm	B inch/mm	C inch/mm	D inch/mm	WEIGHT lb/kg	PKG
STH-500-W	1/2"	2.20/55.88	1.05/26.67	3.28/83.31	2.55/64.77	.70/0.4	1
STH-750-W	3/4"	2.20/55.88	1.05/26.67	4.00/101.60	3.05/77.47	.95/0.5	1
STH-1000-W	1"	2.85/72.39	1.05/26.67	4.00/101.60	3.05/77.47	1.25/0.6	1
STH-1250-W	1-1/4"	2.90/73.66	1.20/30.48	4.30/109.22	3.35/85.09	1.75/0.8	1
STH-1500-W	1-1/2"	3.15/80.01	1.30/33.02	4.83/122.68	3.50/88.90	2.25/1.0	1
STH-2000-W	2"	3.60/91.44	1.50/38.10	5.75/146.05	4.00/101.60	3.50/1.6	1
STH-2500-W	2-1/2"	3.20/81.28	2.25/57.15	7.85/199.39	5.85/148.59	5.50/2.5	1

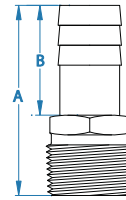


STH-W has nut

## STH, SCOOP THRU-HULLS BRONZE

## PTH-S, STANDARD FLOW #316 SS

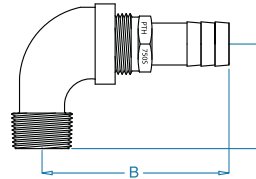
MODEL NO.	THREAD NPT	HOSE ID inch	A inch	B inch	WEIGHT lb	PKG
PTH-750-S	3/4"	3/4"	2.56	1.50	.26	1
PTH-1000-S	1"	1"	2.95	1.70	.41	1
PTH-1250-S	1-1/4"	1-1/4"	3.35	2.10	.57	1
PTH-1500-S	1-1/2"	1-1/2"	3.54	2.20	.77	1
PTH-2000-S	2"	2"	3.94	2.60	1.29	1
PTH-2500-S	2-1/2"	2-1/2"	4.73	2.80	2.30	1
PTH-3000-S	3"	3"	5.12	3.20	3.12	1



NSF-61 COMPLIANT.  
SUITABLE FOR USE IN  
POTABLE WATER SYSTEMS.

## PTHC-S, STANDARD FLOW #316 SS

MODEL NO.	THREAD NPT	HOSE ID inch	A inch	B inch	WEIGHT lb	PKG
PTHC-750-S	3/4"	3/4"	1.31	2.97	.51	1
PTHC-1000-S	1"	1"	1.50	3.40	.79	1
PTHC-1250-S	1-1/4"	1-1/4"	1.75	4.00	1.20	1
PTHC-1500-S	1-1/2"	1-1/2"	1.93	4.40	1.62	1
PTHC-2000-S	2"	2"	2.25	5.00	2.61	1
PTHC-2500-S	2-1/2"	2-1/2"	2.68	6.25	4.69	1
PTHC-3000-S	3"	3"	3.06	7.00	6.50	1



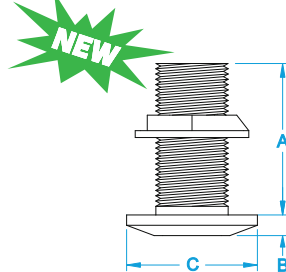
NSF-61 COMPLIANT.  
SUITABLE FOR USE IN  
POTABLE WATER SYSTEMS.

## AVAILABLE WITH BSPP OR NPS THREADS

## TH, STANDARD LENGTH THRU-HULLS BRONZE AND SS

THREAD BRONZE NPS	THREAD #316 SS BSPP	THREAD NPS/BSPP	A inch/mm	B inch/mm	C inch/mm	WEIGHT* lb/kg	PKG
TH-500-W	TH-500-WS	1/2"	2.20/55.9	.30/7.62	1.70/43.18	0.40/0.18	10
TH-750-W	TH-750-WS	3/4"	2.20/55.9	.30/7.62	1.90/48.26	0.50/0.23	10
TH-1000-W	TH-1000-WS	1"	2.85/72.4	.30/7.62	2.32/58.93	0.70/0.32	10
TH-1250-W	TH-1250-WS	1-1/4"	2.90/73.7	.30/7.62	2.62/66.55	1.20/0.54	12
TH-1500-W	TH-1500-WS	1-1/2"	3.15/80.0	.30/7.62	2.89/73.41	1.50/0.68	12
TH-2000-W	TH-2000-WS	2"	3.90/99.1	.30/7.62	3.33/84.58	1.90/0.86	1
TH-2500-W	TH-2500-WS	2-1/2"	3.56/90.4	.42/10.67	4.40/111.76	3.80/1.72	1
TH-3000-W	TH-3000-WS	3"	4.00/101.6	.42/10.67	5.50/139.70	6.00/2.72	1
TH-4000-W	-	4"	5.31/134.9	.56/10.67	7.00/177.80	13.20/5.99	1
TH-5000-W	-	5"	5.34	.57	8.18	18.50	1

\*Weight is with nut.



ISO 9093-1  
CERTIFIED



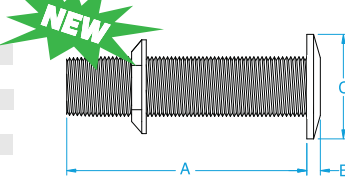
TH-W  
has nut

For installations where hull thickness dictates the use of a longer fitting.

## THXL, EXTRA-LENGTH THRU-HULLS BRONZE

BRONZE	#316 SS	THREAD NPS	A inch	B inch	C inch	WEIGHT* lb	PKG
THXL-750-W	THXL-750-WS	3/4"	5.33	0.30	1.90	0.75	10
THXL-1000-W	THXL-1000-WS	1"	5.33	0.30	2.32	1.00	1
THXL-1250-W	THXL-1250-WS	1-1/4"	5.45	0.30	2.62	1.75	1
THXL-1500-W	THXL-1500-WS	1-1/2"	5.45	0.30	2.89	2.12	1
THXL-2000-W	THXL-2000-WS	2"	5.58	0.30	3.34	2.52	1

\*Weight is with nut.

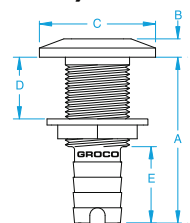


THXL-W  
has nut

## HTH, HOSE THRU-HULLS BRONZE AND SS

BRONZE	#316 SS	THREAD NPS	HOSE ID inch	A inch	B inch	C inch	D* inch	E inch	WEIGHT BRONZE/SS lb	PKG
HTH-500	HTH-500-S	1/2"	1/2"	2.7	0.3	1.7	1.1	1.3	0.4/0.4	10
HTH-625	HTH-625-S	3/4"	5/8"	2.7	0.3	1.9	1.1	1.3	0.5/0.4	10
HTH-750	HTH-750-S	3/4"	3/4"	2.7	0.3	1.9	1.2	1.3	0.6/0.6	10
HTH-1000	HTH-1000-S	1"	1"	2.8	0.3	2.3	1.2	1.3	0.9/0.8	10
HTH-1125	HTH-1125-S	1"	1-1/8"	2.8	0.3	2.3	1.2	1.3	1.1/1.0	10
HTH-1250	HTH-1250-S	1-1/4"	1-1/4"	2.8	0.3	2.6	1.1	1.3	1.2/1.1	12
HTH-1500	HTH-1500-S	1-1/2"	1-1/2"	2.8	0.3	2.9	1.1	1.3	1.5/1.3	12
HTH-2000	HTH-2000-S	2"	2"	2.8	0.3	3.3	1.1	1.3	2.0/1.8	4

\*Maximum hull thickness.



## Trac FLUSH Caps

Designed to fit GROCO ARG strainers Available in three sizes to fit any GROCO ARG Strainer, TRAC's FLUSHcaps make flushing your raw water cooled equipment a snap! Temporarily replacing your existing strainer cap with a FLUSHcap will allow you to easily connect a Port-O-Flush Jr.® to your system. Use TRAC's FLUSHcaps to flush you raw water cooled equipment with Barnacle Buster®, fresh water, or to aid in winterizing your system.

- (A) TRC 1285-A Small Unit - Fits GROCO ARG 500, 750 & 755 strainers (2 1/4" diameter)
- (B) TRC 1285-B Medium Unit - Fits GROCO ARG 1000, 1210 & 1250 strainers (2 1/2" diameter)
- (C) TRC 1285-C Large Unit - Fits GROCO ARG 1500, 2000, 2500, 2515, 2520, 3000, 3015, 3020 & 3025 strainers (3 1/4" diameter)

**NOTE:** Not intended to replace your existing strainer cap, for flushing use only. Each unit sold individually





**Marine "j-style" vent tubes:** directs fuel/fumes back into carb. **Marine calibrations:** Compensates for engine loads found on boats Power valve blow out Protection. **Dichromate finish:** For corrosion resistance in marine environments. Available with vacuum or mechanical secondaries in a wide variety of CFMs

#### MARINE 4-BBL DOMINATOR 4500 Carbs

1050 CFM Four Barrel      HOL 0-80340-1



#### Description

300 CFM Two Barrel  
450 CFM Four Barrel  
500 CFM Two Barrel  
600 CFM Four Barrel  
600 CFM Four Barrel  
600 CFM Four Barrel  
600 CFM Four Barrel  
600 CFM Four Barrel  
650 CFM Four Barrel  
750 CFM Four Barrel  
750 CFM Four Barrel  
800 CFM Four Barrel  
850 CFM Four Barrel

#### Part No.

HOL 0-80320-1  
HOL 0-80364  
HOL 0-80402-1  
HOL 0-80319-1  
HOL 0-80318-1  
HOL 0-80492  
HOL 0-80551  
HOL 0-80559  
HOL 0-80552  
HOL 0-80537  
HOL 0-9015-1  
HOL 0-9022  
HOL 0-80443

### Throttle Brackets

Designed for Holley square bore carburetors. This throttle bracket kit allows for simple hook-up of the throttle cable from the helm and comes complete with gaskets, studs & nuts.



**Part No.**  
HOL 717-5

### MerCruiser Linkage Kit

Use this kit to facilitate installation and hook-up of a Holley marine carburetor when using one of the Holley throttle brackets kit listed on this page.



**Part No.**  
HOL 717-7

### Base Gaskets Model 4165 & 4175

Part No.	Bore Size	Thickness
HOL108-25	Primary 1-1/2"	1/4"
	Secondary 2"	



### Square Flange to Spread Bore

Cast aluminum this adapter will allow any 4150 or 4160 carburetor to be mounted on manifolds designed originally for Rochester Quadra-Jet or Carter Thermo-Quad carburetors. It can also be used in reverse.



**Part No.**  
HOL 17-6

### Marine Carb Mount Rom Gaskets

Marine QuadraJet Open Plenum w/4 Bbl. Gasket Thickness 0.25". Carburetor Flange Spread bore. Open Center Gasket Style. Gasket Paper Material.

**Part No.**  
FEL 17843



### 2300 Flange to Large Rochester 2GC



**Part No.**  
HOL 17-43

**Description**  
Cast aluminum - Open

### Carburetor Fuel Inlet Brass Filter



Moraine fuel inlet filter is brass and fits Holley 4-bbl carburetors with center-hung-style float bowls. Also is a stock replacement for Rochester Quadra-Jet carburetors. 2 per package includes, new filter springs.

**Part No.**  
HOL 162-500

### Base Gasket & Studs Model 4150 & 4160



.3125" thick open center base gasket for Holley square flange 4150 / 4160 carburetor and square flange Holley EFI throttle body applications. Hardware included. Compression support grommets in mounting corners.

Part No.	Bore Size	Thickness
HOL 108-12	1-3/4"	5/16"



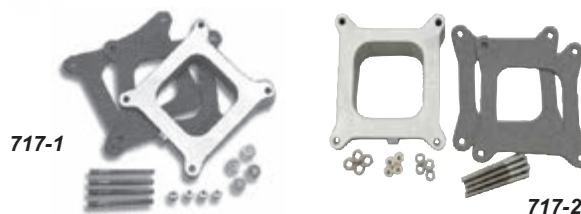
## Electric Choke Kits



This electric choke conversion kit is designed for carburetors with "external vacuum source".

**Part No.**  
HOL 745-224

## Wedge Plates



Holley cast aluminum wedge plates allow the carburetor to sit level on tilted engines. These kits come complete with gaskets, studs, & nuts.

Part No.	Angle	Flange Type
HOL 717-1	7°	Square
HOL 717-2	12°	Square

## Electric Choke Thermostat



Replaces electric thermostat for Holley marine carburetors with integral electric chokes.

**Part No.**  
HOL 45-258

## Chevy Small Block Choke Assy Kit



Chokes are designed to provide quick, reliable starts under harsh marine conditions.

**Part No.**  
CRU 33240  
CRU 30233

## Chevy Big Block Choke Assy Kit



**Description**  
S/B Choke Assy.  
B/B Choke Assy.

## RENEW KIT®

Renew Kit® original equipment marine rebuild kits are available for all Holley marine carburetors as well as Carter and Rochester. Each kit contains all parts and gaskets that are necessary to restore "like new" performance to your marine carburetor. Detailed instructions are also included to guide you through the rebuilding process. Start off the season with a quality Holley Renew Kit® marine repair kit. It's your guarantee for trouble-free cruising.



Part #	Holley Marine Carburetors
HOL 3-1184	R6361, R8572, R9029, R80159
HOL 37-1539	R75010, R75011, R80340, R80340-1
HOL 703-28	R9393, R9394, R9399, R9399-1, R50405, R50405-1, R50418, R50462, R50462-1, R50468, R50468-1, R80262, R80264, R80364
HOL 703-29	R50419, R50419-1, R50419-2, R50463, R50463-1, R80265, R80315, R80315-1, R80403, R80403-1, R80473, R80473-1, R80492
HOL 703-30	R50417, R50417-1, R50461, R50461-1, R50467, R50467-1, R80263, R80320-1
HOL 703-32	R7036
HOL 703-34	R80310, R80310-1, R80310-2, R80391, R80552
HOL 703-36	R80312, R80312-1, R80402, R80402-1
HOL 703-41	R80313, R80313-1, R80316, R80316-1, R80321, R80321-1, R80385

Part #	Holley Marine Carburetors
HOL 703-46	R80180
HOL 703-48	R80378, R80378-1
HOL 703-51	R82020, R82021, R82028, R82028-1, R82029
HOL 703-58	R80443
HOL 703-59	R84037
HOL 3-352	4695
HOL 3-588	3213, 3214, 3392, 3543, 3980, 4476, 4699, 6130, 6212
HOL 3-592	2955, 3660, 6310 Rochester
HOL 3-539	7020994, 7020996, 7024083, 7024087, 7024089, 7024180, 7024181, 7025183, 7025184, 7025638, 7025662
HOL 3-555	7023182, 7024088
HOL 3-670	7044187
HOL 703-39	17080560, 17080561, 17080563, 17080564, 17080565, 17084516, 17085013

**600 CFM, Square-Flange Electric Choke**

For use with Edelbrock Performer manifolds and others of similar design in marine applications. Complies with U.S. Coast guard safety standards. Cast surfaces are iridited and shaft and pump arm are Teflon coated for maximum corrosion protection. Other features include modified bowl venting, specially designed throttle shaft, accelerator pump seal, 3/8" inverted flare fuel inlet fitting, tube in airhorn for fuel pump vent, 5-1/8" flame arrestor flange, universal throttle lever and a revised secondary system for improved transient performance. Comes with the following jets, rods and springs: Metering Jets: Primary .098, Secondary .101; Metering Rods: .068 x .047. Step-Up Springs: orange (5" Hg).

**Part No.**  
BRK 1409

**750 CFM, Square-Flange Electric Choke**

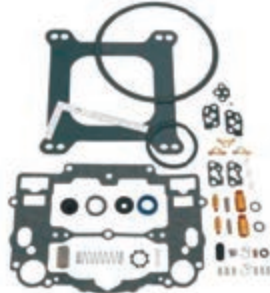
For use with Edelbrock Performer RPM and Torker II manifolds and others of similar design in marine applications. Complies with U.S. Coast Guard safety standards. Cast surfaces are iridited; shafts and pump arm are Teflon coated for maximum corrosion protection. Other features include: modified bowl venting, specially designed throttle shafts, accelerator pump seal, 3/8" inverted flare fuel inlet fitting, tube in airhorn for fuel pump vent, 5-1/8" flame arrestor flange, universal throttle lever and revised secondary system for improved transient performance. Comes with the following jets, rods and springs: Metering Jets: Primary, 113, Secondary, 107; Metering Rods: .071 x .047 Step-Up Springs: orange (5" Hg).

**Part No.**  
BRK 1410

**Carburetor Rebuild Kit**

Includes all parts and gaskets necessary to rebuild Edelbrock Square-Bore Carbs.

**Part No.**  
BRK 1477

**Volvo Penta Carburetor Kits**

Replaces: #841292-6  
Down Draft (4 cylinder)  
AQ130, AQ170, Solex 44PAI

**Part No.**  
IAI RZS068K

Replaces: #841293  
Side Draft (4 cylinder)  
AQ140, Solex 44PHN-3

**Part No.**  
IAI RZS069K

**Performer Vortec (Idle - 5500 RPM)**

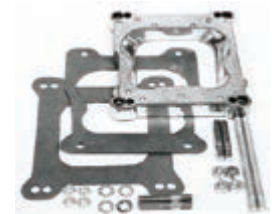
Accepts both square-bore and spread-bore carbs, electric choke only. No brass insert - Fresh Water Cooled Only!

**Part No.**      **Type**  
BRK 2116      Aluminum  
BBB 215062      Steel

**4 bbl. Quadrajet Adapter (.750")**

Mounts 4-bbl. Rochester Quadrajet carburetors to square-bore, single-plane manifolds.

**Part No.**  
BRK 2692

**Insulator Gasket**

Designed to help prevent fuel percolation in Performer Series Carburetors exposed to extreme temperatures. #9266 feature a divided center which is designed to seat the carburetor to dual-plane Performer and Performer RPM manifolds. All gaskets come with extended carb studs. Divided Square-Bore Heat Insulator Gasket (0.32" Thick).

**Part No.**  
BRK 9266

**Four-hole, Square-bore to Spread-bore Adapter (.850" thick)**

Mounts Edelbrock square-bore carbs to stock Quadrajet & Thermo-Quad manifolds.

**Part No.**  
BRK 2696

**Marine intake manifold for Chevy V6 - V8**

(With Brass Insert)



**BRK 2516** is designed for use with 262-400 c.i.d. Chevy V8 marine engines with 1996-later Vortec (L31) cast iron heads. Accepts square-bore and spread-bore carbs. Requires Edelbrock bolt kit #8504 and electric choke carb.

**BRK 2504** is for use with 1955-86 262-400 c.i.d. Chevrolet V8's with spread-bore (Q-Jet) or square-bore carbs. Carb pad will accept square-bore carbs without adapters.

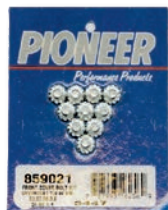
**BRK 2561** is ideal for 396-502 c.i.d. Chevrolet V8's with oval-port cylinder heads. Has no provisions for exhaust heated chokes. Accepts square-bore & spread-bore carbs.

**BRK 2519** is designed specifically for use on 1996-present Chevy 4.3L V6 Vortec engines. Eight hold down bolts.

## Timing Covers &amp; Bolt Kits



**PIONEER Inc**  
Automotive Products



Part No.	Application
SSP 6504	Chevy S.B. Cover with welded on tab
SSP 6544	Chevy S.B. Cover with bolt on tab
SIE 18-0976	Chevy S.B. Gasket
SSP TW6552	Chevy B.B. Cover
SIE 18-0980	Chevy B.B. Gasket
CRU 31174	Chevy L.H. Seal
CRU 31175	Chevy R.H. Seal
PNR 859021	Bolt Kit for all V6 & V8 GM engines
CRU 30173	Tab Left Hand
CRU 30174	Tab Right Hand

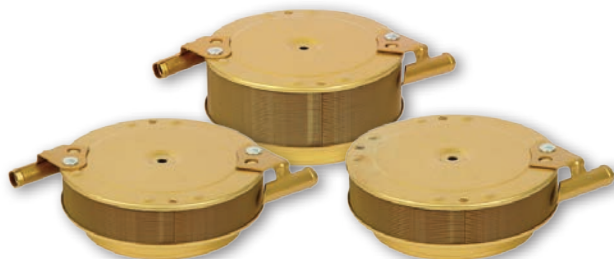
## Oil Pans &amp; Bolt Kits

**PIONEER Inc**  
Automotive Products



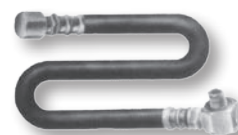
Part No. Pan	Part No. Gasket	Application
SSP 6500M	FEL 17980	Chevy S.B. port dipstick 305 & 350 1968-79
SSP 6501M	FEL 17981	Chevy S.B. starboard dipstick 1980-85 (2 pc. seal)
BBB 135011	FEL 17982	Chevy S.B. 1985 & newer 1 pc. seal starboard dipstick
SSP TW6550	FEL 17985	Chevy B.B. 1965-86 5qt.-Stb dipstick
PNR S-1100		Bolt Kit for Small Block GM & Ford with Stamped Steel Pans
PNR S-1101		Bolt Kit for Big Block GM & Ford with Stamped Steel Pans

## Anodized Aluminum Flame Arrestors



Part No.	Engines	Overall Height	Element Height	Throat Diameter
FAC 1750062	4 & 6 Cyl.	1.766	1.088	2.320
FAC 1750032	4 & 6 Cyl.	1.906	1.088	2.660
FAC 1750031	4 & 6 Cyl.	1.906	1.088	2.660
FAC 1750053	4 & 6 Cyl.	1.906	1.088	3.120
FAC 1750056	4 & 6 Cyl.	2.156	1.088	3.120
FAC 1750058	4 & 6 Cyl.	1.906	1.088	3.120
FAC 1750059	V-8	2.281	1.470	2.660
FAC 1750055	V-8	2.250	1.470	5.050
FAC 1750054	V-8	2.250	1.470	5.050
FAC 1750029	V-8	2.250	1.470	5.050
FAC 1750074	High Performance	2.969	2.190	5.050
FAC 1750060	High Performance	2.969	2.190	5.050
FAC 1750030	High Performance	2.969	2.190	5.050

## Oil Drain Kit



It's quick and easy to drain engine oil without a pump. Simply push the hose through the transom drain plug hole or place anywhere below oil pan. Assembly includes oil resistant hose with noncorrosive brass fittings. Available in sizes to fit most I/O marine engines.

Part No.	Description
MPI 305-0380	Engine model is Standard Chevy 1996 and prior. Oil pan thread size is 1/2"-20.
MPI 306-0380	Engine model is MerCruiser Inboard. Oil pan thread size is 3/8"-18.
MPI 307-0380	Engine model is Volvo Penta Inline. Oil pan thread size is 3/4"-16.
MPI 308-0380	Engine model is Metric Chevy 1996 and later. Oil pan thread size is 12mm x 1.75.
MPI 309-0380	Engine model is Metric Ford 302 & 351. Oil pan thread size is 14mm x 1.5.

## Fuel Lines

Replaces copper or steel fuel lines.  
3/8" PTFE composite hose SAE J1527 type A1.  
(2) 5/8-18 male inverted flare fittings  
(1) Straight, & (1) 90°. Brass swivel fittings on stainless steel tubing.



Part No.	Description
BBB 134122	25" Universal Fuel Line
BBB 134125	31" Universal Fuel Line

## Valve Covers



Part No. Valve Cover	Part No. Gskt. Kit	Application
SSP 6541	FEL 17930	Chevy S.B. 1968-85 w/ bracket (Pair)
* SSP 6506	FEL 17931	Chevy S.B. 1986 & newer (Pair)
* SSP TW6551	FEL 17935	Chevy B.B. early (Short) (Pair)
* SSP 6512	FEL 17945	Ford (Pair)

\* Note: requires two of each:

SSP TW4807	Oil Cap (Push-In Plastic, Chrome Finish)
PLE R034032	Oil Cap (Push-In Rubber)
SSP 6507	Push-In Style Grommet

CRU 98214	Push-In Style Grommet
-----------	-----------------------



Oil Cap

Grommet

## Tygon F-4040-A PVC Fuel Vent and Lubricant Tubing

1/4" ID, 3/8" OD, 1/16" Wall, Yellow

Part No.	Description
BBB 134139	30 inch Fuel Vent Tubing
SIE 18-8152	50 foot Box Fuel Vent Tubing

TYGON  
FLEXIBLE TUBING



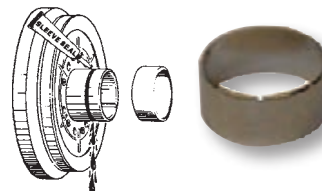
## Brass Expansion Plug Kits



**PIONEER Inc**  
Automotive Products

Part No.	Application
PNR PE-104-B	In-line 4 & 6 Cylinder GM
PNR PE-100-B	V-6 & Small Block V-8 GM
PNR PE-102-B	V-8 Big Block GM
PNR PE-108-B	Ford Small Block V-8's

## Harmonic Balancer Sleeve Repair



Part No.	Application
PNR HB-4121	All GM Except Big Block
PNR HB-4123	Big Block GM 7.4L
PNR HB-2124	Chrysler Small Block V-8
PNR HB-2122	Chrysler Big Block V-8
PNR HB-4122	Ford Small Block V-8
PNR HB-3124	Ford Big Block V-8

## Bolt Kits



## CYLINDER HEAD BOLT KITS

Part No.	Application
PNR 851200	GM SB - Complete Engine Kit
PNR 851201	GM BB - Complete Engine Kit
BBB 254510	Inline Head Bolt (sold each)

## FLYWHEEL BOLT KITS

Part No.	Bolt Size
PNR 859026	7/16"-20 x 1" (with lock washers)

## CONNECTION ROD BOLT KITS

Part No.	Application
PNR S-1030	All Ford V-8
PNR S-1032	Big Block GM 3/8" Dia.
PNR S-1035	Small Block GM 3/8" Dia.

## BALANCER BOLT KITS

Part No.	Application
PNR 859012	V-6 & Small Block V8 GM Engines
PNR 859013	Big Block V-8 GM Engines

## OIL PAN BOLT KITS

Part No.	Application
PNR S-1100	All Small Block Ford & GM with Stamped Steel Pans
PNR S-1101	All Big Block Ford & GM with Stamped Steel Pans

## HEAD BOLT WASHER KIT

Part No.	Application
PNR S-1018	All 7/16" Dia. Head Bolts

## TIMING COVER BOLT KIT

Part No.	Application
PNR 859021	All V-6 & V-8 GM Engines

## TIMING GEAR BOLT KIT

Part No.	Application
PNR S-1107	All V-6 & V-8 GM Engines

## STARTER BOLTS - INDIVIDUAL

Part No.	Bolt Size
PNR PG600	3/8"-16 x 1-7/8" Sold Each
PNR PG601	3/8"-16 x 4-11/16" Sold Each

## Ring Gears



Part No.	Description
PNR FRG-153-N	GM 12.75" Flywheel
PNR FRG-157N	Ford 302/351-Merc 470
PNR FRG-168-S	GM 14" Flywheel

## Standard Flywheels



FW-100

FW-101

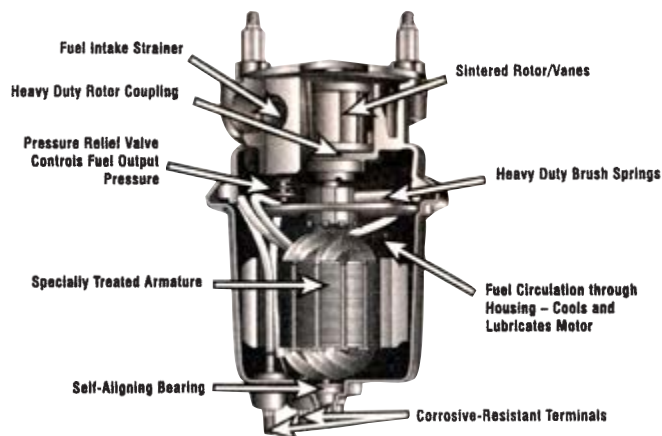
Part No.	Description
PNR FW-100	w/out Weight -Internal Balance, GM# 3991469 SB thru 1985, 2 Pc. Seal 168 teeth, 14.13" O.D., 12-14 Pitch
PNR FW-101	with Weight - External Balance GM# 3993827, BB Mark IV Engine 168 teeth, 14.13" O.D., 12-14 Pitch

**PIONEER Inc**  
Automotive Products

## Rotary Vane Design



- Positive Displacement
- Compact/Rugged Design
- 12 or 24 volt Models
- 7 P.S.I. Rated



All rotary vane type fuel pumps meet United States Coast Guard regulations 183.524 and 183.590

Recommended for use on 4, 6 and 8 Cylinder Engines

Part No.	Volts	Gal/HR Wide Open	Pressure (PSI)	Inlet/Outlet
P4070	12	72	5 to 9	1/4" NPSF for 3/8" Hose
P4389	12	72	4 to 8	1/4" NPSF for 3/8" Hose
P4603HD	24	43	5 to 9	1/4" NPSF for 3/8" Hose

Meets U.S.C.G. Regulations 183.524 and 183.590

## Solenoid Type



Recommended for use on 4, 6 and Small Displacement 8 Cylinder Engines

Almost all inboard and stern drive boats produced today are fuel injected and use electric fuel pumps, older marine applications utilize mechanical fuel pumps to provide fuel to the carburetor. The rotary vane and solenoid pumps below are ideal universal electric pump replacements for mechanical pumps that are no longer available or are hard to find. Steel and preferably stainless steel lines are to be used from the fuel tank to the electric pump as well as from the fuel pump to the carburetor. The mechanical pump should be removed and a block-off plate installed on the pump-mounting hole on the block.

Part No.	Voltage	Pressure (PSI)	Flow (GPH) @2.3 psi	Specifications
P74021	12	3.5 to 5.5	20-30	1/8"-27 NPSF
P74022	12	5.5 to 9.0	20-30	1/8"-27 NPSF

It is recommended that a Safety Circuit Oil Pressure switch be used. This circuit stops the electric fuel pump should the engine stop without the ignition turned "OFF". The additional safety warnings of "low oil pressure" and "broken oil lines" may also be incorporated.

**WARNING - These Pumps are Not Intended for Aircraft Usage. Do Not Use Teflon Tape on Any Fittings**

When ordering please add "CAR" in front of part number

## Safety Interlock Pressure Switch



Recommended pressure switch for electric fuel pumps. This will prevent engine damage and reduce the chance of fire in the case that the engine stops without the ignition in the off position.

**Note: Switch is "S.P.D.T." Diaphragm Actuated**

**Part No.**  
BBB 032049

## Walbro Fuel Pumps



- USCG and CE Approved
- For Gasoline, Gasohol, Diesel or BioDiesel
- 2 Amp Draw When Pump Runs
- Reverse Polarity Protected
- Self Prime Dry Up To 48"
- Run Dry Up To 4 Hours
- Flow Up To 60 GPH
- Inlet/Outlet 1/4" - 18 NPTF
- Made In The USA

Part No.	PSI	Volts
F/P FRB-20-2	4 lbs	12 D.C.
F/P FRB-13-2	7 lbs	12 D.C.
F/P FRB-16-2	7 lbs	24 D.C.

**Mechanical Fuel Pump**

- Flange ID # 41413, M6696
- AC style pump
- For Ford (V-8) 302,351



**Part No.**  
CAR M6696

**Description**  
Mechanical fuel pump

**Mechanical Fuel Pump**

- Flange ID # M60337
- Carter style pump
- Replaces 42725A3, 861676A1, 8M0073435
- For GM (V-6) 225



**Part No.**  
CAR M60337

**Description**  
Mechanical fuel pump

**Mechanical Fuel Pump**

- Flange ID # 41414
- AC style pump
- Replaces 62092, T
- For Ford (V-8) 302



**Part No.**  
SIE 18-7267

**Description**  
Mechanical fuel pump

**Mechanical Fuel Pump**

- Flange ID # M60600, M61073
- Carter style pump
- Replaces 97401A2, A8, 861678A1, 8M0058164
- For GM (V-8) 305,350



**Part No.**  
CAR M61073

**Description**  
Mechanical fuel pump

**Mechanical Fuel Pump**

- Flange ID # 41421, M73021
- AC style pump
- Replaces 86246
- For GM (V-8) 305, 350, 400



**Part No.**  
SIE 18-7274

**Description**  
Mechanical fuel pump

**Mechanical Fuel Pump**

- Flange ID # M60315
- Carter style pump
- Replaces 41141A2, 862077A1
- For GM (V-6) 231, 262



**Part No.**  
SIE 18-7284

**Description**  
Mechanical fuel pump

**Mechanical Fuel Pump**

- Flange ID # 41422
- AC style pump
- Replaces 86247, T
- For GM (V-8) 454



**Part No.**  
SIE 18-7275

**Description**  
Mechanical fuel pump \$214.87

**Mechanical Fuel Pump**

- Flange ID # 60601
- Carter style pump
- Replaces 812454A1, 862048A1
- For GM (V-8) 305, 350, 454



**Part No.**  
CAR M60601

**Description**  
Mechanical fuel pump

**Mechanical Fuel Pump**

- Flange ID # M60032
- Carter style pump
- Replaces 86234A4, 86234A05
- For GM (4 & 6 Cyl) 153, 181, 224, 225, 250



**Part No.**  
CAR M60032

**Description**  
Mechanical fuel pump

**Mechanical Fuel Pump**

**BoatersBest**

- Flange ID # 60932
- Replaces 861677T, 818383T
- For GM (V-8) 454 & 502



**Part No.**  
BBB 104017

**Description**  
Mechanical fuel pump



## Mechanical Fuel Pump

- Flange ID # 6790, M3530
- AC style pump
- Replaces 32722
- For GM (4 & 6 Cyl) 153, 230, 250, 292



**Part No.**  
SIE 18-7256

**Description**  
Mechanical fuel pump



## Electric Fuel Pump

- Replaces 866169T01
- For GM V8 w/Gen III Cool Fuel Module (high pressure)
- Includes regulator



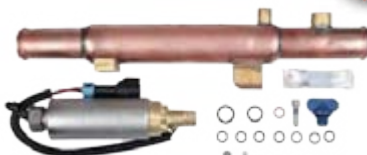
**Part No.**  
SIE 18-8864

**Description**  
Electric fuel pump



## Electric Fuel Pump Kit with Fuel Cooler

- Replaces 861156A02
- For GM V6 & V8 EFI (s/n OL000000 - OM299999)



**Part No.**  
SIE 18-8861

**Description**  
Electric fuel pump kit



## Electric Fuel Pump

- Replaces 866170A01
- For GM V8 w/Gen III Cool Fuel Module (low pressure)



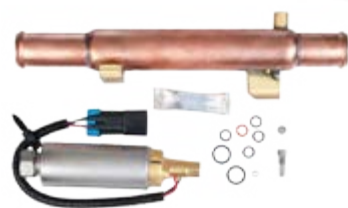
**Part No.**  
SIE 18-8865

**Description**  
Electric fuel pump



## Electric Fuel Pump Kit with Fuel Cooler

- Replaces 861156A03
- For GM V6 & V8 EFI (s/n OM300000 & up)



**Part No.**  
SIE 18-8862

**Description**  
Electric fuel pump kit



## Electric Fuel Pump

- Replaces 861155A3
- For GM V8 5.0L/5.7L, V6 4.3L



**Part No.**  
BBB 104014

**Description**  
Electric fuel pump



## Electric Fuel Pump

- Replaces 861155A6
- For 4.3L V6



**Part No.**  
CAR P61122

**Description**  
Electric fuel pump



## Electric Fuel Pump



- One end threaded, one end snap fitting
- Replaces 861155A1
- For GM V6 & V8 305/350/377/454/502 EFI
- Replaces fuel cool pump



**Part No.**  
BBB 104021

**Description**  
Electric fuel pump

## Electric Fuel Pump

Amperage Draw: 6 Amps Max  
Flow: 114LPH @ 43psi  
Minimum Voltage: 12V  
Free Flow Rate: 30 gph/114 lph  
Maximum Pressure (psi): 43.5 psi  
1 Inlet/1 Outlet hose barb  
Notes: Mercury 881705T1



**Part No.**  
F/P GSS436

**Description**  
Electric fuel pump

## Indmar Fuel Pump Conversion Kit

Fuel Pump Conversion Kit for Indmar Engines. Replaces discontinued Indmar 55-6014 Fuel Pump

**Part No.**  
IND 495117

**Description**  
Electric fuel pump



## Indmar Fuel Pump

MPFI fuel pump for late model multiport fuel injected 350 Chev based engines

**Part No.**  
IND 556184

**Description**  
Electric fuel pump



### Crusader Marine Electric Fuel Pump



**Part No.** BBB 104001    **OEM No.** Crusader 47039    **Description** M.P.I Engines

### Mercury Marine Electric Fuel Pump



**Part No.** CAR P60965    **OEM No.** OMC 3857986    **Description** OMC 1998 Cobra 2V 4V & TBI Models

### Crusader Marine Mechanical Fuel Pump



**Part No.** BBB 104002    **Description** 305 (5.0L), 350 (5.7L) 1986-1991 327 (5.3L) 1984

### Yamaha Electric Fuel Pump



**Part No.** SIE 18-7341    **OEM No.** 66K-13907-00-00    **Description** DX150, LX150, PX150, SX150, VX150, LX200, SX200, V200, VX200, LX225, SX225, VX225, V225, LX250, SX250 1999-01

### Crusader Marine Mechanical Fuel Pump



**Part No.** BBB 104006    **OEM No.** Crusader 97843    **Description** All Models; 454 (7.4L) 84-91

### Yamaha Electric Fuel Pump



**Part No.** SIE 18-7342    **OEM No.** 68F-13907-00    **Description** 150HP, 175HP, 200HP HDPI 2000-2012

### Mercury Marine Electric Fuel Pump



**Part No.** SIE 18-7340    **OEM No.** 880889T    **Description** 2001-2006 115 HP EFI 4-Stroke OBs

### Yamaha Electric Fuel Pump

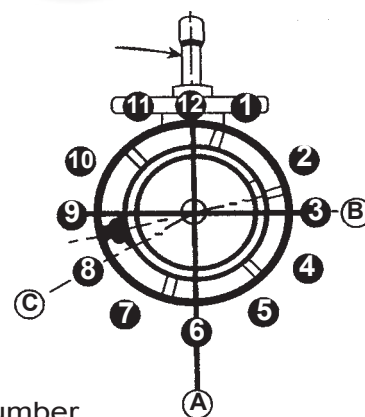


**Part No.** SIE 18-7340    **OEM No.** 68V-13907-03    **Description** F115TLR & F115TXR 2000-2011

At times the model or displacement of an engine may be difficult to determine. If the pump is available it can be identified by checking the clocking of the pump. Simply hold the pump with the lever facing away from you at the 12 o'clock position. Then note the clock positions of the inlet and outlet (the diagram below illustrates this, showing a view of the bottom of the pump). Once you have defined these you can locate the proper pump by the chart shown. In the catalog, the numbers shown in parentheses with an application denote the clocking of a pump. For example, (3.6.9) illustrates a pump with a 3 o'clock inlet, 6 o'clock outlet, and 9 o'clock separator. You must also check the levers to see that they are correct for the application. You may also check the cross-reference chart if the pump has an identifiable number on it. If you are unable to identify the model of the boat/engine/year, the matrix below will show you the inlet/outlet/separator of our pumps. If you have a match you can then compare the two pumps and review the application data.

Part No.	Inlet	Outlet	Separator
M60176	9	3	NR
18-7274	10	9	7
18-7267	7	5	4
M6696	5	4	4

NR = Not Required



When ordering please place "CAR" in front of part number

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**CATERPILLAR MARINE ENGINES****3114****L4 4.4L**

V-Belt, Alt ..... 17442

V-Belt, WP ..... 17351

**3116****L6 6.6L**

V-Belt, Alt ..... 17442

V-Belt, WP ..... 17351

**3126****L6 7.2L**

V-Belt, Alt ..... 17501

V-Belt, WP ..... 17341

**3176****L6 10.3L**

V-Belt, Alt ..... 22480

**3208****V8 10.4L**

V-Belt, Alt ..... 17484\*

V-Belt, Water Pump and Sea Water Pump .. 17505

Coolant Hose, Molded Hose, Pipe To ..... 60475

Intercooler ..... 60475

**3304****L4 7.0L**

V-Belt, Alt, W/ 37 1/2" belt ..... 17375\*

V-Belt, Alt, W/ 39" Belt ..... 17391\*

V-Belt, Alt, w/ 44" belt ..... 17442\*

V-Belt, Alt, w/ 44 1/4" belt ..... 17446\*

V-Belt, Alt, w/ 47 1/2" Belt ..... 17474\*

V-Belt, Alt, w/ 49" Belt ..... 17491\*

V-Belt, Alt, w/ 50" Belt ..... 17501\*

**D13000****L6 20.4L**

V-Belt, Gen ..... 24457\*

V-Belt, Bilge Pump, W/ 36" Belt ..... 17361

**D17000 (SN 8V)****V12 27.2L**

V-Belt, Gen ..... 28633

V-Belt, Governor ..... 17425

**D311 (SN 9S)****L4 4.1L**

V-Belt, Alt ..... 17391

V-Belt, STARTER ..... 24437

**D315 (SN 5V)****L4 4.4L**

V-Belt, Alt ..... 17391

V-Belt, Gen, 3 required ..... 17481

V-Belt, Governor ..... 17425

V-Belt, STARTER ..... 24437

**CATERPILLAR MARINE ENGINES****D3160 (SN 68P)****V8 10.4L**

V-Belt, Alt ..... 17484

V-Belt, Water Pump (Raw Water), Ser. No. .

68P1 Thru 68P612 ..... 17521

V-Belt, Water Pump (Raw Water), Ser. No. .

68P613 &amp; After ..... 17541

**D318 (SN 6V)****L6 8.6L**

V-Belt, Gen, 3 required ..... 17481

V-Belt, Governor ..... 17425

V-Belt, STARTER ..... 22480

**D326 (SN 26B)****L6 13.2L**

V-Belt, Gen, 3 required ..... 17581

V-Belt, STARTER ..... 22380

**D326F (SN 40B)****L6 13.2L**

V-Belt, Gen, W/ 36 3/4" Belt ..... 24367\*

V-Belt, Gen, W/ 37 1/2" belt ..... 24377\*

**D330 (SN 57B)****L6 5.7L**

V-Belt, Compressor ..... 24447

V-Belt, Gen, w/ 40" Belt ..... 17401\*

V-Belt, Gen, w/ 41 1/2" belt ..... 17415\*

V-Belt, Gen, w/ 44 1/4" belt ..... 17446\*

V-Belt, Gen, w/ 53" belt ..... 17531\*

**D3304 (SN67D)****L6 10.5L**

V-Belt, Alt, w/ 45" Belt ..... 17451\*

V-Belt, Alt, W/ 39" Belt ..... 17391\*

V-Belt, Alt, w/ 43 1/2" Belt ..... 17435\*

V-Belt, Alt, w/ 44 1/4" belt ..... 17446\*

V-Belt, Alt, w/ 47 1/2" Belt ..... 17474\*

V-Belt, Alt, w/ 49" Belt ..... 17491\*

V-Belt, Alt, w/ 50" Belt ..... 17501\*

**D330A (SN 86B)****L6 5.7L**

V-Belt, Gen ..... 24423

V-Belt, Alt ..... 17446\*

**D330C (SN 5B)****L6 10.5L**

V-Belt, Alt, W/ 37 1/2" belt ..... 17375\*

V-Belt, Alt, W/ 39" Belt ..... 17391\*

V-Belt, Alt, w/ 44 1/8" Belt ..... 17442\*

V-Belt, Alt, w/ 44 1/4" belt ..... 17446\*

V-Belt, Alt, w/ 47 1/2" Belt ..... 17474\*

V-Belt, Alt, w/ 49" Belt ..... 17491\*

V-Belt, Alt, w/ 50" Belt ..... 17501\*



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**CATERPILLAR MARINE ENGINES****D333A (SN 59B)****L6 10.5L**

V-Belt, Compressor .....	24447
V-Belt, Gen, w/ 40" Belt .....	17401*
V-Belt, Gen, w/ 41 1/2" belt .....	17415*
V-Belt, Gen, w/ 44 1/4" belt .....	17446*
V-Belt, Gen, w/ 53" belt .....	17531*

**D333A (SN 86B)****L6 10.5L**

V-Belt, Gen .....	24423
V-Belt, Alt .....	17446*

**D333C (SN 67D)****L6 10.5L**

V-Belt, Alt, w/ 43 1/2" Belt .....	17435*
V-Belt, Alt, W/ 39" Belt .....	17391*
V-Belt, Alt, w/ 44 1/8" Belt .....	17442*
V-Belt, Alt, w/ 44 1/4" belt .....	17446*
V-Belt, Alt, w/ 47 1/2" Belt .....	17474*
V-Belt, Alt, w/ 49" Belt .....	17491*
V-Belt, Alt, w/ 50" Belt .....	17501*
V-Belt, Alt, w/ 45" Belt .....	17451*

**D334 (SN 93B)****L6 10.5L**

V-Belt, Alt, w/ 47 1/2" Belt .....	17474*
V-Belt, Alt, W/ 49 1/4" belt .....	17491*

**D334 (SN 93B)****L6 10.5L**

V-Belt, Alt, w/ 47 1/2" Belt .....	17474*
V-Belt, Alt, W/ 49 1/4" belt .....	17491*

**D337 (SN 23B)****L6 12.2L**

V-Belt, Gen, w/ 11/16" Top Width .....	22380
V-Belt, Gen, W/ 17/32" Top Width .....	17581

**D337F (SN 38B)****L6 12.2L**

V-Belt, Gen, W/ 36 3/4" Belt .....	24367
V-Belt, Gen, W/ 37 1/2" belt .....	24377
V-Belt, WP .....	17521*

**D3400 (SN 1N)****L4 3.6L**

V-Belt, Alt .....	17391
V-Belt, Gen .....	24457*

**D342 (SN 32B)****L6 20.4L**

V-Belt, Alt .....	15371*
V-Belt, Gen .....	22354

**D342C (SN 50B)****L6 20.4L**

V-Belt, Alt .....	15371*
V-Belt, Gen .....	22354

**CATERPILLAR MARINE ENGINES****D343 (SN 33B)****L6 14.6L**

V-Belt, Alt, w/ 50 1/2" belt .....	17505*
V-Belt, Alt, w/ 55" belt .....	17551*
V-Belt, Gen, w/ 44 1/2" Belt .....	17446
V-Belt, Gen, w/ 48" Belt .....	17481

**D348 (SN 38J)****V12 29.2L**

V-Belt, Alt, w/ 49 1/2" Belt .....	15495*
V-Belt, Alt, w/ 50 1/2" belt .....	15506*

**D349 (SN 62P)****V16 39.0L**

V-Belt, Alt, w/ 50 1/2" belt .....	15506
------------------------------------	-------

**D353 (SN 47B)****L6 24.1L**

V-Belt, Alt .....	22670
-------------------	-------

**D364 (SN 17P)****V8 27.2L**

V-Belt, Auxiliary Water Pump, 6 Req. ....	22590
V-Belt, STARTER, 6 Req. ....	24513

**D375 (SN 20B)****V8 27.2L**

V-Belt, Auxiliary Water Pump, 6 Req. ....	22590
V-Belt, STARTER, 6 Req. ....	24513

**D379 (SN 69B)****V8 32.2L**

V-Belt, Gen .....	17405
-------------------	-------

**D386 (SN 11B)****V12 40.9L**

V-Belt, Auxiliary Water Pump, 6 Req. ....	22590
V-Belt, STARTER, 6 Req. ....	24513

**D397 (SN 14B)****V12 40.9L**

V-Belt, Auxiliary Water Pump, 6 Req. ....	22590
V-Belt, STARTER, 6 Req. ....	24513

**D398 (SN 67B)****V12 48.3L**

V-Belt, Alt .....	17375*
V-Belt, Gen .....	17401

**D399 (SN 91B)****V16 64.4L**

V-Belt, Alt .....	17375*
-------------------	--------

**D4400 (SN 1N)****L4 13.6L**

V-Belt, Bilge Pump, W/ 36" Belt .....	17361
V-Belt, Alt .....	17391
V-Belt, STARTER .....	24437

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
<b>CATERPILLAR MARINE ENGINES</b>			<b>CHRIS-CRAFT</b>		
<b>D4600 (SN 1N)</b>			<b>305GLV</b>		
<b>L6 7.7L</b>			<b>V8 5.0L (305)</b>		
	V-Belt, Governor .....	17425		V-Belt, WP, Raw Water .....	17301
	V-Belt, STARTER, w/ 43 3/4" Belt .....	24437		V-Belt, Alt .....	17470
	V-Belt, STARTER, W/ 49 1/4" belt .....	24493	<b>305K</b>		
<b>D8800 (SN 1N)</b>			<b>V8 5.0L (305)</b>		
<b>L4 13.6L</b>				V-Belt, WP, Raw Water .....	17301
	V-Belt, Bilge Pump, W/ 36" Belt .....	17361		V-Belt, Alt .....	17470
	V-Belt, Gen .....	24457*	<b>307</b>		
<b>CHRIS-CRAFT</b>			<b>V8 5.0L (307)</b>		
<b>153FLV</b>				V-Belt, WP, Raw Water .....	17301
<b>L4 2.5L (153)</b>			<b>307GC</b>		
	V-Belt, Alt .....	15396		<b>V8 5.0L (307)</b>	
	V-Belt, WP, Raw Water .....	13411		V-Belt, WP, Raw Water .....	17301
<b>181FL</b>			<b>307GCL</b>		
<b>L4 3.0L (181)</b>				<b>V8 5.0L (307)</b>	
	V-Belt, Alt .....	15406		V-Belt, WP, Raw Water .....	17301
	V-Belt, WP, Raw Water .....	13411	<b>307GCLV</b>		
<b>181FLV</b>				<b>V8 5.0L (307)</b>	
<b>L4 3.0L (181)</b>				V-Belt, WP, Raw Water .....	17301
	V-Belt, Alt .....	15406	<b>307GL</b>		
	V-Belt, WP, Raw Water .....	13411		<b>V8 5.0L (307)</b>	
<b>225B</b>				V-Belt, WP, Raw Water .....	17301
<b>V6 3.6L (225)</b>			<b>307GLV</b>		
	V-Belt, Alt .....	15440		<b>V8 5.0L (307)</b>	
<b>283</b>				V-Belt, WP, Raw Water .....	17301
<b>V8 4.6L (283)</b>			<b>307Q</b>		
	V-Belt, Gen, W/ Delco-Remy Gen. ....	15295*		<b>V8 5.0L (307)</b>	
	V-Belt, Gen, W/ Autolite Gen. ....	15301*		V-Belt, Alt .....	17391
	V-Belt, Alt, W/ Autolite Alt. ....	15366		V-Belt, WP .....	17470
	V-Belt, Alt, w/ Leece-Neville Alt. ....	15382	<b>327F</b>		
<b>283F</b>				<b>V8 5.4L (327)</b>	
<b>V8 4.6L (283)</b>				V-Belt, Alt .....	17371
	V-Belt, Alt .....	17371		V-Belt, WP .....	17481
	V-Belt, WP .....	17481	<b>327Q</b>		
<b>283FLV</b>				<b>V8 5.4L (327)</b>	
<b>V8 4.6L (283)</b>				V-Belt, Alt .....	17371
	V-Belt, Alt .....	17371		V-Belt, WP .....	17481
	V-Belt, WP .....	17481	<b>350FLV</b>		
<b>283H</b>				<b>V8 5.0L (305)</b>	
<b>V8 4.6L (283)</b>				V-Belt, Alt .....	17481
	V-Belt, Gen, W/ Delco-Remy Gen. ....	15295*	<b>350GLV</b>		
	V-Belt, Gen, W/ Autolite Gen. ....	15301*		<b>V8 5.0L (305)</b>	
	V-Belt, Alt, W/ Autolite Alt. ....	15366		V-Belt, WP, Raw Water .....	17301
	V-Belt, Alt, w/ Leece-Neville Alt. ....	15382		V-Belt, Alt .....	17470
<b>302</b>			<b>350K</b>		
<b>V8 5.0L (302)</b>				<b>V8 5.0L (305)</b>	
	V-Belt, Alt .....	17361		V-Belt, WP, Raw Water .....	17301
				V-Belt, Alt .....	17470

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
<b>CHRIS-CRAFT</b>			<b>CHRIS-CRAFT</b>		
<b>350Q</b>			<b>KLC</b>		
	V8 5.0L (305)			L6 All Eng.	
	V-Belt, Water Pump & Raw Water Pump .....	17291		V-Belt, Gen .....	22360
	V-Belt, Alt .....	17391	<b>M</b>	L6 All Eng.	
	V-Belt, WP .....	17470		V-Belt, Gen .....	22360
<b>427</b>			<b>MBL</b>		
	V8 7.0L (427)			L6 All Eng.	
	V-Belt, Alt, w/ 26 1/2" belt .....	13265		V-Belt, Gen .....	22360
	V-Belt, WP, Raw Water .....	15295	<b>ML</b>	L6 All Eng.	
	V-Belt, WP .....	17351		V-Belt, Gen .....	22360
<b>427F</b>			<b>W</b>		
	V8 7.0L (427)			V8 5.4L	
	V-Belt, Alt .....	15475		Instapower Belt, V-Belt, Gen .....	85420
	V-Belt, WP .....	15295	<b>WB</b>		
<b>430</b>				V8 5.4L	
	V8 7.0L (430)			Instapower Belt, V-Belt, Gen .....	85420
	V-Belt, Alt .....	15456	<b>CHRYSLER MARINE</b>		
	V-Belt, WP, Raw Water .....	15346*	<b>115</b>	L2 (121)	
	V-Belt, WP .....	22394		V-Belt, ALT. ....	15285
<b>430H</b>			<b>155</b>	V8 (273)	
	V8 7.0L (430)			V-Belt, Alt .....	15456
	V-Belt, Alt .....	15456		V-Belt, Water Pump and Raw Water Pump ..	15456
	V-Belt, WP, Raw Water .....	15346*		V-Belt, Water Pump (Raw Water) .....	15535
	V-Belt, WP .....	22394		Coolant Hose, Standard Straight Hose, Oil ..	
<b>431</b>				Cooler to Water Pump (Raw) .....	56020 <sup>■</sup>
	V8 7.0L (430)			Coolant Hose, Standard Straight Hose, Tee .	
	V-Belt, Alt .....	15456		to Thermostat .....	56016 <sup>■</sup>
	V-Belt, WP, Raw Water .....	15346*		Coolant Hose, Standard Straight Hose, Tee .	
	V-Belt, WP .....	22394		to Water Pump, W/ Closed Cooling System .	56024
<b>454</b>				Coolant Hose, Standard Straight Hose, .....	
	V8 7.4L (454)			Thermostat To Heat Exchanger, W/ Closed	
	V-Belt, Alt .....	17451		Cooling System .....	56024
	V-Belt, WP .....	17341		Coolant Hose, Standard Straight Hose, Water..	
<b>A</b>				Pump To Heat Exchanger, W/ Closed .....	
	L4 All Eng.			Cooling System .....	56024
	V-Belt, Alt .....	15411		Molded Heater Hose, By-Pass .....	63735
	V-Belt, Gen .....	22330	<b>165</b>		
<b>B</b>				L4 (183)	
	L4 All Eng.			V-Belt, Alt .....	15420
	V-Belt, Alt .....	15411			
	V-Belt, Gen .....	22330			
<b>K</b>					
	L6 All Eng.				
	V-Belt, Gen .....	22360			
<b>KBL</b>					
	L6 All Eng.				
	V-Belt, Gen .....	22360			
<b>KL</b>					
	L6 All Eng.				
	V-Belt, Gen .....	22360			



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**CRUSADER MARINE****270**

<b>V6 4.3L (262)</b>	
V-Belt, Alt .....	15446
V-Belt, Water Pump & Raw Water Pump .....	17321
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exh. Manifold - Stern, W/ .....	
Closed Cooling System .....	56018
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exh. Manifold - Bow, W/ .....	
Closed Cooling System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Intake..	
Manifold to WP, Raw Water .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler, W/ Closed Cooling..	
System .....	56020 <sup>■</sup>

**305**

<b>V8 5.0L (305)</b>	
V-Belt, Alt .....	15446
V-Belt, Water Pump & Raw Water Pump .....	17321
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exh. Manifold - Stern, W/ .....	
Closed Cooling System .....	56018
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exh. Manifold - Bow, W/ .....	
Closed Cooling System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Intake..	
Manifold to WP, Raw Water .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler, W/ Closed Cooling..	
System .....	56020 <sup>■</sup>

**502XLI**

<b>V8 8.2L (502)</b>	
V-Belt, Alt, w/ 47 1/2" Belt .....	15475
V-Belt, Alt, w/ 49" Belt .....	15491
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to WP, Raw Water .....	56022

**CH210**

<b>V8 5.0L (305)</b>	
V-Belt, Alt .....	15440
V-Belt, Water Pump & Raw Water Pump .....	17321

**CH220**

<b>V8 5.0L (305)</b>	
V-Belt, Alt .....	15440
V-Belt, Water Pump & Raw Water Pump .....	17321

**CH260**

<b>V8 5.0L (305)</b>	
V-Belt, Alt .....	15440
V-Belt, Water Pump & Raw Water Pump .....	17321

**CH270**

<b>V8 5.0L (305)</b>	
V-Belt, Alt .....	15440
V-Belt, Water Pump & Raw Water Pump .....	17321

**CRUSADER MARINE****CH320**

<b>V8 7.0L (427)</b>	
V-Belt, Alt .....	15475
V-Belt, WP, W/ 27" Belt .....	13271
V-Belt, WP, w/ 29 1/2" Belt .....	15295

**350**

<b>V8 5.7L (350)</b>	
V-Belt, Alt .....	15446
V-Belt, Water Pump & Raw Water Pump .....	17321
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exh. Manifold - Stern, W/ .....	
Closed Cooling System .....	56018
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exh. Manifold - Bow, W/ .....	
Closed Cooling System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Intake..	
Manifold to WP, Raw Water .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler, W/ Closed Cooling..	
System .....	56020 <sup>■</sup>

**350XL**

<b>V8 5.7L (350)</b>	
V-Belt, Alt .....	15446
V-Belt, Water Pump & Raw Water Pump .....	17321

**454**

<b>V8 7.4L (454)</b>	
V-Belt, Alt, w/ 47 1/2" Belt .....	15475
V-Belt, Alt, w/ 49" Belt .....	15491
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to WP, Raw Water .....	56022

**454XL**

<b>V8 7.4L (454)</b>	
V-Belt, Alt, w/ 47 1/2" Belt .....	15475
V-Belt, Alt, w/ 49" Belt .....	15491
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to WP, Raw Water .....	56022

**502**

<b>V8 8.2L (502)</b>	
V-Belt, Alt, w/ 47 1/2" Belt .....	15475
V-Belt, Alt, w/ 49" Belt .....	15491
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to WP, Raw Water .....	56022

**502XL**

<b>V8 8.2L (502)</b>	
V-Belt, Alt, w/ 47 1/2" Belt .....	15475
V-Belt, Alt, w/ 49" Belt .....	15491
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to WP, Raw Water .....	56022

When ordering please place "GDY" in front of part number

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCRUISER****110****L4 2.5L**

V-Belt, Alt, w/ 40 1/2" Belt .....	15406
V-Belt, Alt, w/ 41" Belt .....	15411
Coolant Hose, Molded Hose, Thermostat to . WP .....	66686

**120****L4 2.5L**

V-Belt, Alt, w/ 40 1/2" Belt .....	15406
V-Belt, Alt, w/ 41" Belt .....	15411
V-Belt, PS, W/ 37 1/2" belt .....	15376
V-Belt, PS, w/ 40 1/2" Belt .....	15406
V-Belt, PS, w/ 42" Belt .....	15420
V-Belt, PS, w/ 43 1/2" Belt .....	15436
V-Belt, PS, w/ 44 1/2" Belt .....	15446
Coolant Hose, Molded Hose, Thermostat to . WP .....	66686

**MERCRUISER****140****L4 2.5L**

V-Belt, Alt, w/ 40 1/2" Belt .....	15406
V-Belt, Alt, w/ 41" Belt .....	15411
V-Belt, PS, W/ 37 1/2" belt .....	15376
V-Belt, PS, w/ 40 1/2" Belt .....	15406
V-Belt, PS, w/ 42" Belt .....	15420
V-Belt, PS, w/ 43 1/2" Belt .....	15436
V-Belt, PS, w/ 44 1/2" Belt .....	15446

**150****L4 3.7L**

V-Belt, PS, w/ 41" Belt .....	13411
V-Belt, Alt, w/ 40 1/2" Belt .....	15406
V-Belt, PS, w/ 42" Belt .....	15420
V-Belt, PS, w/ 43 1/2" Belt .....	15436
V-Belt, PS, w/ 44 1/2" Belt .....	15446

**L6 4.1L**

V-Belt, Alt, w/ 40 1/2" Belt .....	15406
V-Belt, Alt, w/ 41" Belt .....	15411
V-Belt, PS, W/ 37 1/2" belt .....	15376
V-Belt, PS, w/ 41" Belt .....	13411
V-Belt, PS, w/ 42" Belt .....	15420
V-Belt, PS, w/ 43 1/2" Belt .....	15436
V-Belt, PS, w/ 44 1/2" Belt .....	15446

**160****L4 3.7L**

V-Belt, PS, w/ 41" Belt .....	13411
V-Belt, Alt, w/ 40 1/2" Belt .....	15406
V-Belt, PS, w/ 42" Belt .....	15420
V-Belt, PS, w/ 43 1/2" Belt .....	15436
V-Belt, PS, w/ 44 1/2" Belt .....	15446

**L6 4.1L**

V-Belt, Alt, w/ 40 1/2" Belt .....	15406
V-Belt, Alt, w/ 41" Belt .....	15411
V-Belt, PS, W/ 37 1/2" belt .....	15376
V-Belt, PS, w/ 41" Belt .....	13411
V-Belt, PS, w/ 42" Belt .....	15420
V-Belt, PS, w/ 43 1/2" Belt .....	15436
V-Belt, PS, w/ 44 1/2" Belt .....	15446

**165****L4 3.7L**

V-Belt, PS, w/ 41" Belt .....	13411
Coolant Hose, Molded Hose, Block To .....	
Exhaust Manifold .....	60138 <sup>■</sup>
Coolant Hose, Molded Hose, Water Pump To..	
Intake Manifold .....	61344
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler .....	56016 <sup>■</sup>



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****165 CONT.****L6 4.1L**

V-Belt, Alt, w/ 40 1/2" Belt .....	15406
V-Belt, Alt, w/ 41" Belt .....	15411
V-Belt, PS, W/ 37 1/2" belt .....	15376
V-Belt, PS, w/ 41" Belt .....	13411
V-Belt, PS, w/ 42" Belt .....	15420
V-Belt, PS, w/ 43 1/2" Belt .....	15436
V-Belt, PS, w/ 44 1/2" Belt .....	15446

**V6 3.8L**

V-Belt, PS, w/ 41" Belt .....	13411
Coolant Hose, Molded Hose, Block To .....	
Exhaust Manifold .....	60138 <sup>■</sup>
Coolant Hose, Molded Hose, Water Pump To..	
Intake Manifold .....	61344
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler .....	56016 <sup>■</sup>

**175****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 52" Belt .....	15521
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56026 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler .....	56020 <sup>■</sup>

**180****L4 3.7L**

V-Belt, PS, w/ 41" Belt .....	13411
Coolant Hose, Molded Hose, Block To .....	
Exhaust Manifold .....	60138 <sup>■</sup>
Coolant Hose, Molded Hose, Water Pump To..	
Intake Manifold .....	61344
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler .....	56016 <sup>■</sup>

**V6 3.8L**

V-Belt, PS, w/ 41" Belt .....	13411
Coolant Hose, Molded Hose, Block To .....	
Exhaust Manifold .....	60138 <sup>■</sup>
Coolant Hose, Molded Hose, Water Pump To..	
Intake Manifold .....	61344
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler .....	56016 <sup>■</sup>

**MERCURISER****185****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS .....	15521
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56026 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler .....	56020 <sup>■</sup>

**185MR****V6 3.8L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 52" Belt .....	15521
V-Belt, PS, w/ 52 1/2" belt .....	15525
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler .....	56020 <sup>■</sup>

**185R****V6 3.8L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 52" Belt .....	15521
V-Belt, PS, w/ 52 1/2" belt .....	15525
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler .....	56020 <sup>■</sup>

**190****L4 3.7L**

V-Belt, PS, w/ 41" Belt .....	13411
Coolant Hose, Molded Hose, Block To .....	
Exhaust Manifold .....	60138 <sup>■</sup>
Coolant Hose, Molded Hose, Water Pump To..	
Intake Manifold .....	61344
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler .....	56016 <sup>■</sup>



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****190 CONT.****V6 3.8L**

V-Belt, PS, w/ 41" Belt .....	13411
Coolant Hose, Molded Hose, Block To .....	
Exhaust Manifold .....	60138 <sup>■</sup>
Coolant Hose, Molded Hose, Water Pump To..	
Intake Manifold .....	61344
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler .....	56016 <sup>■</sup>

**V8 5.0L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, PS, W/ Low Mount Fan .....	15461
V-Belt, PS, w/ High Mount Fan .....	15456
V-Belt, WP, w/ 15/32" TW; w/ 35" belt .....	15351
V-Belt, WP, w/ 15/32" TW; w/ 45 1/2" belt ...	15456
V-Belt, WP, w/ 17/32" TW; w/ 43" belt .....	17432
V-Belt, WP, w/ 17/32" TW; w/ 44 1/2" belt ...	17442
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

**198****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 35" Belt .....	15351
V-Belt, PS, w/ 52 1/2" belt .....	15525
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

**200****L6 4.8L**

V-Belt, Alt .....	15406
V-Belt, PS .....	15396

**MERCURISER****200 CONT.****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS .....	15521
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

**V8 5.0L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS .....	15521
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

**205****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, Alt, w/ 45 1/2" belt .....	15456
V-Belt, PS, w/ 52" Belt .....	15521
V-Belt, PS, w/ 52 1/2" belt .....	15525
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/ 1 1/4" ID..	
Hose .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, w/ 1" ID ...	
Hose .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler .....	56020 <sup>■</sup>

**215****V8 5.0L**

V-Belt, Alt .....	15446
V-Belt, PS .....	15285
V-Belt, WP, Raw Water .....	17335

**V8 5.7L**

V-Belt, Alt .....	15446
V-Belt, PS .....	15285
V-Belt, WP, Raw Water .....	17335

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****225****V8 5.0L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442

**V8 5.4L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS .....	15585
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, w/ 44" belt .....	17442

**225S****V8 5.0L CHEVROLET ENG**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442

**V8 5.0L FORD ENG**

V-Belt, Alt .....	15446
V-Belt, WP, Raw Water .....	17351
V-Belt, PS .....	15285

**V8 5.4L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 58 1/4" Belt .....	15585
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, w/ 44" belt .....	17442

**MERCURISER****228****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 35" Belt .....	15351
V-Belt, PS, w/ 52 1/2" belt .....	15525
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

**V8 5.0L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442

**V8 5.8L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442

**228TR****V8 5.0L**

V-Belt, Alt, w/ 45 1/2" belt .....	15456
V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, PS, W/ 35" Belt .....	15351
V-Belt, PS, W/ 50 1/8" Belt .....	15501
V-Belt, PS, w/ 52 1/2" belt .....	15525
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Oil Cooler, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****228TR CONT.****V8 5.7L**

V-Belt, Alt, w/ 45 1/2" belt .....	15456
V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, PS, W/ 35" Belt .....	15351
V-Belt, PS, W/ 50 1/8" Belt .....	15501
V-Belt, PS, w/ 52 1/2" belt .....	15525
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Oil Cooler, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

**230****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 35" Belt .....	15351
V-Belt, PS, w/ 52 1/2" belt .....	15525
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

**V8 5.0L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442
V-Belt, PS, w/ 50" Belt .....	15501
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To P.S. Oil Cooler, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>

**MERCURISER****230 CONT.****V8 5.7L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442
V-Belt, PS, w/ 50" Belt .....	15501
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To P.S. Oil Cooler, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>

**233****V8 5.8L**

V-Belt, Alt .....	15446
V-Belt, WP, Raw Water .....	17351

**250****V8 5.4L**

V-Belt, Alt .....	15461
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Heat Exch. Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>

**V8 5.7L**

V-Belt, Alt .....	15461
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Heat Exch. Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>

**255****V8 5.0L FORD ENG**

V-Belt, Alt .....	15446
V-Belt, WP, Raw Water .....	17351
V-Belt, PS .....	15285



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****255 CONT.****V8 5.7L**

V-Belt, Alt, w/ 43 1/2" Belt .....	15436
V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 32" belt .....	15321
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, WP, W/ 34" Belt .....	17341
V-Belt, WP, W/ 35" Belt .....	17351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>

**260****V8 5.7L**

V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 32" belt .....	15321
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, PS, w/ 50" Belt .....	15501
V-Belt, WP, W/ 34" Belt .....	17341
V-Belt, WP, W/ 35" Belt .....	17351

**260MR****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 35" Belt .....	15351
V-Belt, PS, w/ 52 1/2" belt .....	15525
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

**MERCURISER****260MR CONT.****V8 5.0L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442
V-Belt, PS, w/ 50" Belt .....	15501

Coolant Hose, Standard Straight Hose, .....

Thermostat to Exhaust Manifold, W/O Closed..

Cooling System .....

Coolant Hose, Standard Straight Hose, .....

Thermostat To P.S. Oil Cooler, W/O Closed..

Cooling System .....

**V8 5.7L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442
V-Belt, PS, w/ 50" Belt .....	15501

Coolant Hose, Standard Straight Hose, .....

Thermostat to Exhaust Manifold, W/O Closed..

Cooling System .....

Coolant Hose, Standard Straight Hose, .....

Thermostat To P.S. Oil Cooler, W/O Closed..

Cooling System .....

**260R****V6 4.3L**

V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 35" Belt .....	15351
V-Belt, PS, w/ 52 1/2" belt .....	15525
V-Belt, WP, Raw Water .....	15351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****260R CONT.****V8 5.0L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442
V-Belt, PS, w/ 50" Belt .....	15501

Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To P.S. Oil Cooler, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>

**V8 5.7L**

V-Belt, Alt, w/ 51 1/2" belt .....	15515
V-Belt, Alt, w/ 52 1/2" belt .....	15525
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, w/ 28 1/2" Belt .....	15285
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, WP, W/ 33" Belt .....	17331
V-Belt, WP, w/ 43 1/8" Belt .....	17432
V-Belt, WP, W/ 35" Belt .....	17351
V-Belt, WP, w/ 44" belt .....	17442
V-Belt, PS, w/ 50" Belt .....	15501

Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To P.S. Oil Cooler, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>

**270****V8 5.4L**

V-Belt, Alt .....	15461
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Heat Exch. Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>

**MERCURISER****270 CONT.****V8 5.7L**

V-Belt, Alt .....	15461
V-Belt, PS, w/ 29 1/2" Belt .....	15295
V-Belt, PS, W/ 30" Belt .....	15301
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, WP, Raw Water .....	17331
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Heat Exch. Elbow .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>

**280****V8 5.7L**

V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, PS, W/ 31" Belt .....	13311
V-Belt, PS, W/ 32" belt .....	15321
V-Belt, PS, W/ 33" Belt .....	15332
V-Belt, PS, w/ 50" Belt .....	15501
V-Belt, WP, W/ 34" Belt .....	17341
V-Belt, WP, W/ 35" Belt .....	17351
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>

**3.0L****L4 3.0L**

V-Belt, Alt, w/o PS .....	13411
V-Belt, Alt, W/ PS .....	15406
V-Belt, PS .....	15376

**3.0LX****L4 3.0L**

V-Belt, Alt, w/o PS .....	13411
V-Belt, Alt, W/ PS .....	15406
V-Belt, PS .....	15376

**3.0LXA1****L4 3.0L**

V-Belt, Alt, w/o PS .....	13411
V-Belt, Alt, W/ PS .....	15406
V-Belt, PS .....	15376

**300 TEMPEST****V8 7.4L**

V-Belt, Alt .....	15485
V-Belt, PS .....	15501
V-Belt, WP, w/ 15/32" TW; w/ 35" belt .....	15351
V-Belt, WP, W/ 17/32" Top Width .....	17341

**V8 7.5L**

V-Belt, Alt .....	15485
V-Belt, PS .....	15501
V-Belt, WP, w/ 15/32" TW; w/ 35" belt .....	15351
V-Belt, WP, W/ 17/32" Top Width .....	17341

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****350 MAGNUM****V8 5.7L**

V-Belt, Alt, w/ 45 1/2" belt .....	15456
V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, Alt, w/ 44 1/2" Belt .....	15446
V-Belt, Alt, w/ 47 1/2" Belt .....	15475
V-Belt, PS, W/ 32" belt .....	15321
V-Belt, PS, w/ 50" Belt .....	15501
V-Belt, PS, w/ 52" Belt .....	15521
V-Belt, PS, W/ 31" Belt .....	13311
V-Belt, WP, Raw Water .....	15301
V-Belt, WP, W/ 34" Belt .....	17341
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), W/O ..	
Closed Cooling System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler, W/O Closed Cooling ...	
System .....	56020 <sup>■</sup>

**454 MAGNUM****V8 7.4L**

V-Belt, Alt, w/ 47 1/2" Belt .....	15475
V-Belt, Alt, w/ 48 1/2" belt .....	15485
V-Belt, PS .....	15557
V-Belt, PS & WP .....	17561
V-Belt, WP, W/ 30" Belt .....	15301
V-Belt, WP, w/ 40 1/2" Belt .....	15406
Coolant Hose, Molded Hose, By-Pass .....	60794
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold, W/ Closed .	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler, W/ Closed Cooling..	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Tee, W/ Closed Cooling .....	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Intake..	
Manifold to WP, W/O Closed Cooling System..	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Oil ..	
Cooler to Oil Cooler, W/ Closed Cooling .....	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	

**MERCURISER****454 MAGNUM**

System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Manifold, W/ Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler .....	56020 <sup>■</sup>

**460TRS****V8 7.9L**

V-Belt, Alt .....	15485
V-Belt, PS .....	17551
V-Belt, WP .....	17341
Coolant Hose, Molded Hose, By-Pass .....	60794

**465****L4 3.7L**

V-Belt, PS, w/ 41" Belt .....	13411
V-Belt, WP .....	15351

**V8 8.2L**

V-Belt, Alt .....	15481
V-Belt, PS .....	15565
V-Belt, WP .....	15301
Coolant Hose, Molded Hose, By-Pass .....	60794
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold, W/ Closed .	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler, W/ Closed Cooling..	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Tee, W/ Closed Cooling .....	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Intake..	
Manifold to WP, W/O Closed Cooling System..	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Oil ..	
Cooler to Oil Cooler, W/ Closed Cooling .....	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Manifold, W/ Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler .....	56020 <sup>■</sup>

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****470****L4 3.7L**

Coolant Hose, Standard Straight Hose, Cyl. .	
Head To Exhaust, 2 required .....	<b>56016</b> ■
Coolant Hose, Molded Hose, Intake Manifold..	
to WP .....	<b>61344</b>

**485****L4 3.7L**

V-Belt, PS .....	<b>13411</b>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Thermostat, W/ Closed Cooling..	
System .....	<b>56020</b> ■

**5.0L****V8 5.0L**

V-Belt, Alt, w/ 45 1/2" belt .....	<b>15456</b>
V-Belt, Alt, w/ 46" belt .....	<b>15461</b>
V-Belt, PS, W/ 32" belt .....	<b>15321</b>
V-Belt, PS, w/ 53" belt .....	<b>15530</b>
V-Belt, PS, w/ 52" Belt .....	<b>15521</b>
V-Belt, WP, Raw Water .....	<b>15301</b>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	<b>56016</b> ■
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler, W/O Closed .....	
Cooling System .....	<b>56016</b> ■
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), W/O ..	
Closed Cooling System .....	<b>56020</b> ■
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler, W/O Closed Cooling ...	
System .....	<b>56020</b> ■
Coolant Hose, Molded Hose, Thermostat to .	
WP .....	<b>61422</b>
Coolant Hose, Molded Hose, By-Pass .....	<b>60794</b>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	
System .....	<b>56016</b> ■
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	<b>56016</b> ■

**MERCURISER****5.0LX****V8 5.0L**

V-Belt, Alt, w/ 45 1/2" belt .....	<b>15456</b>
V-Belt, Alt, w/ 46" belt .....	<b>15461</b>
V-Belt, PS, W/ 32" belt .....	<b>15321</b>
V-Belt, PS, w/ 53" belt .....	<b>15530</b>
V-Belt, PS, w/ 52" Belt .....	<b>15521</b>
V-Belt, WP, Raw Water .....	<b>15301</b>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	<b>56016</b> ■
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler, W/O Closed .....	
Cooling System .....	<b>56016</b> ■
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), W/O ..	
Closed Cooling System .....	<b>56020</b> ■
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler, W/O Closed Cooling ...	
System .....	<b>56020</b> ■
Coolant Hose, Molded Hose, Thermostat to .	
WP .....	<b>61422</b>
Coolant Hose, Molded Hose, By-Pass .....	<b>60794</b>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	
System .....	<b>56016</b> ■
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	<b>56016</b> ■

**5.7L****V8 5.7L**

V-Belt, Alt, w/ 45 1/2" belt .....	<b>15456</b>
V-Belt, Alt, w/ 46" belt .....	<b>15461</b>
V-Belt, PS, W/ 32" belt .....	<b>15321</b>
V-Belt, PS, w/ 53" belt .....	<b>15530</b>
V-Belt, PS, w/ 52" Belt .....	<b>15521</b>
V-Belt, WP, Raw Water .....	<b>15301</b>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	<b>56016</b> ■
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler, W/O Closed .....	
Cooling System .....	<b>56016</b> ■
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), W/O ..	
Closed Cooling System .....	<b>56020</b> ■
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler, W/O Closed Cooling ...	
System .....	<b>56020</b> ■
Coolant Hose, Molded Hose, Thermostat to .	
WP .....	<b>61422</b>
Coolant Hose, Molded Hose, By-Pass .....	<b>60794</b>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****5.7L**

WP .....	61422
Coolant Hose, Molded Hose, By-Pass .....	60794
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>

**5.7LX****V8 5.7L**

V-Belt, Alt, w/ 45 1/2" belt .....	15456
V-Belt, Alt, w/ 46" belt .....	15461
V-Belt, PS, W/ 32" belt .....	15321
V-Belt, PS, w/ 53" belt .....	15530
V-Belt, PS, w/ 52" Belt .....	15521
V-Belt, WP, Raw Water .....	15301
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Transmission to Oil Cooler, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), W/O ..	
Closed Cooling System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler, W/O Closed Cooling ..	
System .....	56020 <sup>■</sup>
Coolant Hose, Molded Hose, Thermostat to .	
WP .....	61422
Coolant Hose, Molded Hose, By-Pass .....	60794
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>

**500 BRAVO ONE****V8 8.2L**

V-Belt, Alt .....	17481
V-Belt, PS .....	17561
V-Belt, WP .....	15406

**500 H.P.****V8 8.9L**

V-Belt, Alt .....	17481
V-Belt, PS, w/ 46" belt .....	17461
V-Belt, WP, W/ 39 1/2" Belt .....	17395

**MERCURISER****502 MAGNUM****V8 8.2L**

V-Belt, Alt, w/ 48" Belt .....	15481
V-Belt, Alt, w/ 48 1/2" belt .....	15485
V-Belt, PS, w/ 50 1/2" belt .....	15506
V-Belt, PS, w/ 55 1/2" belt .....	15557
V-Belt, PS, w/ 56" Belt .....	17561
V-Belt, WP, Raw Water .....	15301
Drive Belt, Poly-V, Alt & PS, W/ Poly-V Belt .	4061045
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Oil ..	
Cooler to Oil Cooler, W/ Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), W/O ..	
Closed Cooling System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler, W/ Closed Cooling..	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold, W/ Closed .	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Intake..	
Manifold to WP, W/O Closed Cooling System..	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Manifold, W/ Closed Cooling .....	
System .....	56016 <sup>■</sup>

**525 H.P.****V8 7.4L**

V-Belt, Alt .....	15485
V-Belt, PS .....	17561
V-Belt, WP, Raw Water .....	15351
Drive Belt, Poly-V, Supercharger .....	4100540
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Oil ..	
Cooler to Oil Cooler, W/ Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), W/O ..	
Closed Cooling System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Water..	

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**MERCURISER****525 H.P.**

Pump To Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger to Oil Cooler, W/ Closed Cooling..	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Heat..	
Exchanger To Exhaust Manifold, W/ Closed .	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Intake..	
Manifold to WP, W/O Closed Cooling System..	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Elbow, W/O Closed Cooling .....	
System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, Tee .	
To Exhaust Manifold, W/ Closed Cooling .....	
System .....	56016 <sup>■</sup>

**888****V8 5.0L FORD ENG**

V-Belt, Alt .....	15446
-------------------	-------

**898****V8 5.0L CHEVROLET ENG**

V-Belt, Alt, w/ High Mount Fan .....	15456
V-Belt, Alt, W/ Low Mount Fan .....	15461
V-Belt, PS, w/ High Mount Fan .....	15501
V-Belt, PS, W/ Low Mount Fan .....	15332
V-Belt, WP .....	15351
Coolant Hose, Molded Hose, Thermostat to .	
WP .....	61422
Coolant Hose, Standard Straight Hose, Water..	
Pump To Oil Cooler, W/O Closed Cooling ...	
System .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat To Transom, W/O Closed .....	
Cooling System .....	56016 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Thermostat to Exhaust Manifold, W/O Closed..	
Cooling System .....	56020 <sup>■</sup>

**VOLVO PENTA****110**

<b>DIESEL</b>	
V-Belt, Alt .....	15285

<b>GAS</b>	
V-Belt, Alt .....	15285

**1113BR**

<b>L3 3.8L (231)</b>	
V-Belt, Alt .....	22450

**2001**

<b>L1 .4L (26)</b>	
V-Belt, Alt, W/ 34 1/2" Belt .....	15346

**2002**

<b>L2 .9L (52)</b>	
V-Belt, Alt, W/ 33" Belt .....	15332
V-Belt, Alt, W/ 36" Belt .....	15361
V-Belt, Alt, W/ 37" Belt .....	15371

**2003**

<b>L3 1.3L (78)</b>	
V-Belt, Alt, W/ 33" Belt .....	15332
V-Belt, Alt, W/ 36" Belt .....	15361
V-Belt, Alt, W/ 37" Belt .....	15371

**2003 SOLAS**

<b>L3 1.3L (78)</b>	
V-Belt, Alt, W/ 33" Belt .....	15332
V-Belt, Alt, W/ 36" Belt .....	15361
V-Belt, Alt, W/ 37" Belt .....	15371

**2003T**

<b>L3 1.3L (78)</b>	
V-Belt, Alt, W/ 33" Belt .....	15332
V-Belt, Alt, W/ 36" Belt .....	15361
V-Belt, Alt, W/ 37" Belt .....	15371

**230**

<b>L4 2.3L (141)</b>	
V-Belt, Alt .....	15436
Timing Belt, Timing Belt .....	40032
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), Late ...	56020 <sup>■</sup>
Coolant Hose, Molded Hose, Trans. To Water..	
Pump (Raw Water), Early .....	60138

**250**

<b>L4 2.3L (141)</b>	
V-Belt, Alt .....	15436
Timing Belt, Timing Belt .....	40032
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), Late ...	56020 <sup>■</sup>
Coolant Hose, Molded Hose, Trans. To Water..	
Pump (Raw Water), Early .....	60138

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**VOLVO PENTA****251****L4 2.5L (152)**

V-Belt, Alt .....	15436
Timing Belt, Timing Belt .....	40032
Coolant Hose, Standard Straight Hose, .....	
Trans. To Water Pump (Raw Water), Late ...	56020 <sup>■</sup>
Coolant Hose, Molded Hose, Trans. To Water..	
Pump (Raw Water), Early .....	60138

**3.0GS****L4 3.0L**

Drive Belt, Poly-V, Alt .....	4060745
Heater Hose, Hy-T Black Heater Hose, .....	
Thermostat to Exhaust Manifold .....	65000

**3.0GS/SX****L4 3.0L**

V-Belt, Alt .....	15406
-------------------	-------

**4.3GL/SX****V6 4.3L**

V-Belt, Alt .....	15491
V-Belt, PS .....	15461

**430****V6 4.3L (262)**

V-Belt, Alt .....	15475
V-Belt, WP, Raw Water .....	17403
Coolant Hose, Standard Straight Hose, .....	
Thermostat to WP, Raw Water .....	56020 <sup>■</sup>
Heater Hose, Hy-T Black Heater Hose, .....	
Thermostat to Exhaust Manifold .....	65009

**431****V6 4.3L (262)**

V-Belt, Alt .....	15475
V-Belt, WP, Raw Water .....	17403
Coolant Hose, Standard Straight Hose, .....	
Thermostat to WP, Raw Water .....	56020 <sup>■</sup>
Heater Hose, Hy-T Black Heater Hose, .....	
Thermostat to Exhaust Manifold .....	65009

**5.0GI/SX****V8 5.0L (302)**

V-Belt, Alt .....	15491
V-Belt, PS .....	15461

**500****V8 5.0L (305)**

V-Belt, Alt .....	17570
V-Belt, PS .....	17403
Coolant Hose, Standard Straight Hose, .....	
Trans. Oil Cooler To Eng. Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat, Raw Water .....	56020 <sup>■</sup>

**VOLVO PENTA****501****V8 5.0L (305)**

V-Belt, Alt .....	17570
V-Belt, PS .....	17403
Coolant Hose, Standard Straight Hose, .....	
Trans. Oil Cooler To Eng. Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat, Raw Water .....	56020 <sup>■</sup>

**570****V8 5.0L (305)**

V-Belt, Alt .....	17570
V-Belt, PS .....	17403
Coolant Hose, Standard Straight Hose, .....	
Trans. Oil Cooler To Eng. Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat, Raw Water .....	56020 <sup>■</sup>

**571****V8 5.0L (305)**

V-Belt, Alt .....	17570
V-Belt, PS .....	17403
Coolant Hose, Standard Straight Hose, .....	
Trans. Oil Cooler To Eng. Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat, Raw Water .....	56020 <sup>■</sup>

**572****V8 5.0L (305)**

V-Belt, Alt .....	17570
V-Belt, PS .....	17403
Coolant Hose, Standard Straight Hose, .....	
Trans. Oil Cooler To Eng. Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat, Raw Water .....	56020 <sup>■</sup>

**7.4GSI/DP****V8 7.4L (454)**

V-Belt, Alt .....	15565
V-Belt, Alt, PS .....	15485

**740****V8 5.0L (305)**

V-Belt, Alt .....	17501
V-Belt, WP, Raw Water .....	17415
Coolant Hose, Standard Straight Hose, P.S...	
Oil Cooler To Eng. Oil Cooler, W/O Closed ..	
Cooling System .....	56020 <sup>■</sup>
Coolant Hose, Molded Hose, Pipe To P.S. Oil..	
Cooler, W/O Closed Cooling System .....	60138 <sup>■</sup>
Coolant Hose, Standard Straight Hose, .....	
Trans. To Pipe, W/O Closed Cooling System..	56020 <sup>■</sup>
Coolant Hose, Flexible, W.P. To Heat Exch, ..	
W/ Closed Cooling System .....	52816
Molded Heater Hose, By-Pass .....	63641

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
<b>VOLVO PENTA</b>			<b>VOLVO PENTA</b>		
<b>95</b>			<b>AQ120</b>		
	<b>DIESEL</b>			<b>L4 2.1L OHC Eng</b>	
	V-Belt, Alt .....	15285		V-Belt, Alt .....	15425
	<b>GAS</b>			Timing Belt, Timing Belt .....	40032
	V-Belt, Alt .....	15285	<b>AQ120B</b>		
<b>AD31</b>				<b>L4 2.1L OHC Eng</b>	
	<b>L4 2.4L (146)</b>			V-Belt, Alt, w/ 42 1/2" belt .....	15425
	V-Belt, Alt .....	15440*		V-Belt, Alt, W/ 36 1/2" Belt .....	15436
<b>AD31P</b>				Timing Belt, Timing Belt .....	40032
	<b>L4 2.4L (146)</b>		<b>AQ125A</b>		
	V-Belt, PS .....	17470		<b>L4 2.1L OHC Eng</b>	
<b>AD41</b>				V-Belt, Alt, w/ 42 1/2" belt .....	15425
	<b>L6 3.6L (219)</b>			V-Belt, Alt, W/ 36 1/2" Belt .....	15436
	V-Belt, Alt .....	15440*		Timing Belt, Timing Belt .....	40032
	V-Belt, WP, Raw Water .....	17465	<b>AQ125B</b>		
	Coolant Hose, Standard Straight Hose, .....			<b>L4 2.1L OHC Eng</b>	
	Transmission to Oil Cooler .....	56020 <sup>m</sup>		V-Belt, Alt, w/ 42 1/2" belt .....	15425
<b>AD41DP</b>				V-Belt, Alt, W/ 36 1/2" Belt .....	15436
	<b>L6 3.6L (219)</b>			Timing Belt, Timing Belt .....	40032
	V-Belt, Alt .....	15440*	<b>AQ130</b>		
	V-Belt, WP, Raw Water .....	17465		<b>L4 2.1L (130)</b>	
	Coolant Hose, Standard Straight Hose, .....			V-Belt, Alt .....	15285
	Transmission to Oil Cooler .....	56020 <sup>m</sup>	<b>AQ131A</b>		
<b>ADQ19</b>				<b>L4 2.3L (141) OHC Eng</b>	
	<b>L4 1.0L (119)</b>			V-Belt, Alt .....	15425
	V-Belt, Alt, 3 required .....	15461		Timing Belt, Timing Belt .....	40032
<b>ADQ21A</b>				Coolant Hose, Molded Hose, Water Intake To..	
	<b>L4 2.1L (129) DIESEL</b>			W.P., Raw Water .....	60138
	V-Belt, Alt, 3 required .....	15461	<b>AQ131B</b>		
<b>ADQ21B</b>				<b>L4 2.3L (141) OHC Eng</b>	
	<b>L4 2.1L (129) DIESEL</b>			V-Belt, Alt .....	15425
	V-Belt, Alt, 3 required .....	15461		Timing Belt, Timing Belt .....	40032
<b>ADQ27</b>				Coolant Hose, Molded Hose, Water Intake To..	
	<b>L6 2.7L (166) DIESEL</b>			W.P., Raw Water .....	60138
	V-Belt, Alt .....	17401	<b>AQ140</b>		
<b>AQ100</b>				<b>L4 2.1L</b>	
	<b>L4 1.8L (109)</b>			V-Belt, Alt .....	15425
	V-Belt, Alt .....	15285	<b>AQ140A</b>		
<b>AQ105</b>				<b>L4 2.1L OHC Eng</b>	
	<b>L4 2.0L (121)</b>			V-Belt, Alt, w/ 42 1/2" belt .....	15425
	V-Belt, Alt .....	15285		V-Belt, Alt, W/ 36 1/2" Belt .....	15436
<b>AQ110</b>				Timing Belt, Timing Belt .....	40032
	<b>L4 1.8L (109)</b>		<b>AQ145</b>		
	V-Belt, Alt .....	15285		<b>L4 2.1L</b>	
<b>AQ115</b>				V-Belt, Alt .....	15425
	<b>L4 2.0L (121)</b>		<b>AQ145A</b>		
	V-Belt, Alt .....	15285		<b>L4 2.1L OHC Eng</b>	
				V-Belt, Alt, w/ 42 1/2" belt .....	15425
				V-Belt, Alt, W/ 36 1/2" Belt .....	15436
				Timing Belt, Timing Belt .....	40032



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**VOLVO PENTA****AQ145B****L4 2.1L OHC Eng**

V-Belt, Alt, w/ 42 1/2" belt ..... 15425

V-Belt, Alt, W/ 36 1/2" Belt ..... 15436

Timing Belt, Timing Belt ..... 40032

**AQ150****V6 3.7L (225)**

V-Belt, Alt ..... 15420

V-Belt, WP ..... 13411

**AQ150A****V6 3.7L (225)**

V-Belt, Alt ..... 15420

V-Belt, WP ..... 13411

**AQ150B****V6 3.7L (225)**

V-Belt, Alt ..... 15461

V-Belt, WP ..... 15402

**AQ151A****L4 2.3L (141) OHC Eng**

V-Belt, Alt ..... 15436

Timing Belt, Timing Belt ..... 40032

Coolant Hose, Standard Straight Hose, Water..

Intake To W.P., Late ..... 56020<sup>■</sup>

Coolant Hose, Molded Hose, Water Intake To..

W.P., Early ..... 60138

**AQ151B****L4 2.3L (141) OHC Eng**

V-Belt, Alt ..... 15436

Timing Belt, Timing Belt ..... 40032

Coolant Hose, Standard Straight Hose, Water..

Intake To W.P., Late ..... 56020<sup>■</sup>

Coolant Hose, Molded Hose, Water Intake To..

W.P., Early ..... 60138

**AQ165****3.0L (182)**

V-Belt, Alt ..... 15420

**AQ165A****3.0L (182)**

V-Belt, Alt ..... 15420

**AQ170****3.0L (182)**

V-Belt, Alt ..... 15420

**AQ170A****3.0L (182)**

V-Belt, Alt ..... 15420

**AQ171A****L4 2.5L (152)**

V-Belt, Alt ..... 15436

Coolant Hose, Standard Straight Hose, Intake..

Manifold to Pipe ..... 56020<sup>■</sup>**VOLVO PENTA****AQ171B****L4 2.5L (152)**

V-Belt, Alt ..... 15436

Coolant Hose, Standard Straight Hose, .....

Trans. To Pipe ..... 56020<sup>■</sup>**AQ200****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295<sup>\*</sup>**AQ205****V6 4.3L (262)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295<sup>\*</sup>

Coolant Hose, Standard Straight Hose, WP to..

Thermostat ..... 56020<sup>■</sup>**AQ211****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295<sup>\*</sup>

Coolant Hose, Standard Straight Hose, WP to..

Thermostat ..... 56020<sup>■</sup>**AQ225****V8 5.0L (307)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295<sup>\*</sup>

Coolant Hose, Standard Straight Hose, WP to..

Thermostat ..... 56020<sup>■</sup>**AQ231****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295<sup>\*</sup>

Coolant Hose, Standard Straight Hose, WP to..

Thermostat ..... 56020<sup>■</sup>**AQ255****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295<sup>\*</sup>**V8 5.0L (307)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295<sup>\*</sup>

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**VOLVO PENTA****AQ255 CONT.****V8 5.7L (350)**

V-Belt, Alt .....	17470
V-Belt, PS .....	17403
V-Belt, WP, Raw Water .....	17295*

**AQ260****V8 5.0L (305)**

V-Belt, Alt .....	17470
V-Belt, PS .....	17403
V-Belt, WP, Raw Water .....	17295*
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat .....	56020 <sup>■</sup>

**AQ271****V8 5.7L (350)**

V-Belt, Alt .....	17470
V-Belt, PS .....	17403
V-Belt, WP, Raw Water .....	17295*
Coolant Hose, Standard Straight Hose, .....	
Trans. Oil Cooler To Eng. Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat, Raw Water .....	56020 <sup>■</sup>

**AQ280****V8 5.7L (350)**

V-Belt, Alt .....	17470
V-Belt, PS .....	17403
V-Belt, WP, Raw Water .....	17295*
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat .....	56020 <sup>■</sup>

**AQ290****V8 5.7L (350)**

V-Belt, Alt .....	17470
V-Belt, PS .....	17403
V-Belt, WP, Raw Water .....	17295*

**AQ311****V8 5.7L (350)**

V-Belt, Alt .....	17470
V-Belt, PS .....	17403
V-Belt, WP, Raw Water .....	17295*
Coolant Hose, Standard Straight Hose, .....	
Trans. Oil Cooler To Eng. Oil Cooler .....	56020 <sup>■</sup>
Coolant Hose, Standard Straight Hose, WP to..	
Thermostat .....	56020 <sup>■</sup>

**AQ45****DIESEL**

Coolant Hose, Molded Hose, Water Intake To..	
W.P., Early .....	60138
Coolant Hose, Standard Straight Hose, Water..	
Intake To W.P., Late .....	56020 <sup>■</sup>

**VOLVO PENTA****AQ45 CONT.****GAS**

Coolant Hose, Molded Hose, Water Intake To..	
W.P., Early .....	60138
Coolant Hose, Standard Straight Hose, Water..	
Intake To W.P., Late .....	56020 <sup>■</sup>

**AQ60F****L4 1.8L (109)**

V-Belt, Alt .....	15285
-------------------	-------

**AQ80****L4 GAS**

V-Belt, Alt .....	15285
-------------------	-------

**AQ90****L4 1.8L (109) GAS**

V-Belt, Alt .....	15295
-------------------	-------

**AQ95****L4 1.8L (109) GAS**

V-Belt, Alt .....	15295
-------------------	-------

**AQAD30A****L4 2.4L (146)**

V-Belt, Alt .....	15440*
-------------------	--------

**AQAD31A****L4 2.4L (146)**

V-Belt, Alt .....	15440*
-------------------	--------

**AQAD40A****L6 3.6L (220)**

V-Belt, Alt .....	15440*
-------------------	--------

**AQAD40B****L6 3.6L (220)**

V-Belt, Alt .....	15440*
-------------------	--------

**AQAD41A****L6 3.6L (220)**

V-Belt, Alt .....	15440*
-------------------	--------

**AQD40A****L6 3.6L (220)**

V-Belt, Alt .....	15440*
-------------------	--------

**AQD41A****L6 3.6L (220)**

V-Belt, Alt .....	15440*
-------------------	--------

**AQDB****DIESEL**

V-Belt, Alt, W/ 36" Belt .....	15361
V-Belt, Alt, w/ 41" Belt .....	15411
V-Belt, Gen, w/ 51" belt .....	15515

**B18****L4 1.8L**

V-Belt, Alt .....	15285
-------------------	-------

**B20****L4 1.8L**

V-Belt, Alt .....	15285
-------------------	-------

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**VOLVO PENTA****BB100****L4 1.8L**

V-Belt, Alt, w/ 28 1/2" Belt ..... 15285

V-Belt, Alt, w/ 29 1/2" Belt ..... 15295

**BB115****L4 2.0L (121)**

V-Belt, Alt, w/ 28 1/2" Belt ..... 15285

V-Belt, Alt, w/ 29 1/2" Belt ..... 15295

**BB140A****L4 2.1L (130)**

V-Belt, Alt, w/ 43 1/2" Belt ..... 15436

V-Belt, Alt, w/ 42 1/2" belt ..... 15425

Timing Belt, Timing Belt ..... 40032

**BB145A****L4 2.1L (130)**

V-Belt, Alt, w/ 43 1/2" Belt ..... 15436

V-Belt, Alt, w/ 42 1/2" belt ..... 15425

Timing Belt, Timing Belt ..... 40032

**BB165****L6 3.0L (182)**

V-Belt, Alt, w/ 42" Belt ..... 15420

V-Belt, Alt, w/ 42 1/2" belt ..... 15425

**BB165A****L6 3.0L (182)**

V-Belt, Alt, w/ 42" Belt ..... 15420

V-Belt, Alt, w/ 42 1/2" belt ..... 15425

**BB170A****L6 3.0L (182)**

V-Belt, Alt, w/ 42" Belt ..... 15420

V-Belt, Alt, w/ 42 1/2" belt ..... 15425

**BB170B****L6 3.0L (182)**

V-Belt, Alt, w/ 42" Belt ..... 15420

V-Belt, Alt, w/ 42 1/2" belt ..... 15425

**BB170C****L6 3.0L (182)**

V-Belt, Alt, w/ 42" Belt ..... 15420

V-Belt, Alt, w/ 42 1/2" belt ..... 15425

**BB200****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**V8 5.7L (350)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**VOLVO PENTA****BB225****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**V8 5.7L (350)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**BB225A****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**V8 5.7L (350)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**BB231****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**V8 5.7L (350)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**BB260****V8 5.0L (305)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

**V8 5.7L (350)**

V-Belt, Alt ..... 17470

V-Belt, PS ..... 17403

V-Belt, WP, Raw Water ..... 17295\*

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
<b>VOLVO PENTA</b>			<b>VOLVO PENTA</b>		
<b>BB261</b>			<b>D3-110 CONT.</b>		
	<b>V8 5.0L (305)</b>		2004	<b>2.4L (146)</b>	
	V-Belt, Alt .....	17470		Alternator Clutch Pulley, Inboard & Stern .....	
	V-Belt, PS .....	17403		Drive .....	49709
	V-Belt, WP, Raw Water .....	17295*	2003	<b>2.4L (146)</b>	
	Coolant Hose, Standard Straight Hose, W.P...			Alternator Clutch Pulley, Inboard & Stern .....	
	To Heat Exch, W/ Closed Cooling System ...	56016 <sup>■</sup>		Drive .....	49709
	Coolant Hose, Standard Straight Hose, WP to..		<b>D3-130</b>		
	Thermostat, W/O Closed Cooling System ...	56022	2007	<b>2.4L (146)</b>	
	Heater Hose, Hy-T Black Heater Hose, .....			Alternator Clutch Pulley, Inboard & Stern .....	
	Thermostat to Exhaust Manifold, W/O Closed..			Drive .....	49709
	Cooling System .....	65009	2006	<b>2.4L (146)</b>	
	Heater Hose, Hy-T Black Heater Hose, Heat..			Alternator Clutch Pulley, Inboard & Stern .....	
	Exchanger to Thermostat, W/ Closed Cooling..			Drive .....	49709
	System .....	65009	2005	<b>2.4L (146)</b>	
	<b>V8 5.7L (350)</b>			Alternator Clutch Pulley, Inboard & Stern .....	
	V-Belt, Alt .....	17470		Drive .....	49709
	V-Belt, PS .....	17403	2004	<b>2.4L (146)</b>	
	V-Belt, WP, Raw Water .....	17295*		Alternator Clutch Pulley, Inboard & Stern .....	
	Coolant Hose, Standard Straight Hose, W.P...			Drive .....	49709
	To Heat Exch, W/ Closed Cooling System ...	56016 <sup>■</sup>	2003	<b>2.4L (146)</b>	
	Coolant Hose, Standard Straight Hose, WP to..			Alternator Clutch Pulley, Inboard & Stern .....	
	Thermostat, W/O Closed Cooling System ...	56022		Drive .....	49709
	Heater Hose, Hy-T Black Heater Hose, .....		<b>D3-160</b>		
	Thermostat to Exhaust Manifold, W/O Closed..		2007	<b>2.4L (146)</b>	
	Cooling System .....	65009		Alternator Clutch Pulley, Inboard & Stern .....	
	Heater Hose, Hy-T Black Heater Hose, Heat..			Drive .....	49709
	Exchanger to Thermostat, W/ Closed Cooling..		2006	<b>2.4L (146)</b>	
	System .....	65009		Alternator Clutch Pulley, Inboard & Stern .....	
	<b>BB261A</b>			Drive .....	49709
	<b>V8 5.7L (350)</b>		2005	<b>2.4L (146)</b>	
	V-Belt, Alt .....	17470		Alternator Clutch Pulley, Inboard & Stern .....	
	<b>BB30</b>			Drive .....	49709
	<b>L4 1.8L (109)</b>		2004	<b>2.4L (146)</b>	
	V-Belt, Alt .....	15285		Alternator Clutch Pulley, Inboard & Stern .....	
	<b>BB70</b>			Drive .....	49709
	<b>L4 1.6L (98)</b>		2003	<b>2.4L (146)</b>	
	V-Belt, Alt .....	15285		Alternator Clutch Pulley, Inboard & Stern .....	
	<b>D3-110</b>			Drive .....	49709
2007	<b>2.4L (146)</b>		<b>D3-190</b>		
	Alternator Clutch Pulley, Inboard & Stern .....		2007	<b>2.4L (146)</b>	
	Drive .....	49709		Alternator Clutch Pulley, Inboard & Stern .....	
2006	<b>2.4L (146)</b>			Drive .....	49709
	Alternator Clutch Pulley, Inboard & Stern .....		2006	<b>2.4L (146)</b>	
	Drive .....	49709		Alternator Clutch Pulley, Inboard & Stern .....	
2005	<b>2.4L (146)</b>			Drive .....	49709
	Alternator Clutch Pulley, Inboard & Stern .....		2005	<b>2.4L (146)</b>	
	Drive .....	49709		Alternator Clutch Pulley, Inboard & Stern .....	
				Drive .....	49709



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
<b>VOLVO PENTA</b>			<b>VOLVO PENTA</b>		
<b>D41</b>			<b>MB20B</b>		
	<b>L6 3.6L (219)</b>			<b>L4 2.0L (121)</b>	
	V-Belt, Alt .....	15440*		V-Belt, Alt .....	15386
	V-Belt, WP, Raw Water .....	17465		<b>MB20C</b>	
<b>DPX415</b>				<b>L4 2.0L (121)</b>	
	<b>V8 8.2L (502)</b>			V-Belt, Alt .....	15386
	V-Belt, Alt .....	15565		<b>MD1</b>	
	V-Belt, PS .....	15485		<b>L1 .4L (27)</b>	
	V-Belt, WP, Raw Water .....	15285		V-Belt, Alt, w/ 51 1/2" belt .....	15515*
<b>DPX500</b>				V-Belt, Alt, w/ 53" belt .....	15530*
	<b>V8 8.2L (502)</b>			<b>MD10</b>	
	V-Belt, Alt .....	15565		<b>DIESEL</b>	
	V-Belt, PS .....	15561		V-Belt, Alt .....	15321
	Coolant Hose, Standard Straight Hose, Heat..			V-Belt, Gen, w/ 42" Belt .....	15420*
	Exchanger To Exhaust Manifold .....	56016 <sup>■</sup>		V-Belt, Gen, w/ 43 1/2" Belt .....	15436*
<b>DPX525</b>				<b>MD100A</b>	
	<b>V8 8.2L (502)</b>			<b>L6 DIESEL</b>	
	V-Belt, Alt .....	15565		V-Belt, Alt .....	15420
	V-Belt, PS .....	15561		V-Belt, WP, w/ 29 1/2" Belt .....	15295
	Coolant Hose, Standard Straight Hose, Heat..			V-Belt, WP, W/ 33 1/2" Belt .....	15335
	Exchanger To Exhaust Manifold .....	56016 <sup>■</sup>		<b>MD100B</b>	
<b>DPX600</b>				<b>L6 DIESEL</b>	
	<b>V8 8.9L (540)</b>			V-Belt, Alt .....	15420
	V-Belt, Alt .....	15565		V-Belt, WP, w/ 29 1/2" Belt .....	15295
	V-Belt, PS .....	15561		V-Belt, WP, W/ 33 1/2" Belt .....	15335
	Coolant Hose, Standard Straight Hose, Heat..			<b>MD11C</b>	
	Exchanger To Exhaust Manifold .....	56016 <sup>■</sup>		<b>L2 1.1L (68) DIESEL</b>	
<b>KAD42</b>				V-Belt, Alt, W/ Closed Cooling System .....	15615
	<b>L6 3.6L (219)</b>			V-Belt, Alt, W/O Closed Cool. System; W/ 35..	
	V-Belt, Alt .....	15382		3/4" Belt .....	15356
	V-Belt, WP .....	17391		V-Belt, Alt, W/O Closed Cool. System; W/ 36..	
	Drive Belt, Poly-V, SC .....	4060478		1/8" Belt .....	15361
<b>KAD44P EDC/DPX</b>				V-Belt, Alt, W/O Closed Cool. System; W/ 51..	
	<b>L6 3.6L (219)</b>			1/8" Belt .....	15515
	V-Belt, Alt .....	17391		V-Belt, Alt, W/O Closed Cool. System; W/ 55..	
	V-Belt, PS .....	15406		5/8" Belt .....	15556
<b>KAMD42</b>				<b>MD11D</b>	
	<b>L6 3.6L (219)</b>			<b>L2 1.1L (68) DIESEL</b>	
	V-Belt, Alt .....	15382		V-Belt, Alt, W/ Closed Cooling System .....	15615
	V-Belt, WP .....	17391		V-Belt, Alt, W/O Closed Cool. System; W/ 35..	
	Drive Belt, Poly-V, SC .....	4060478		3/4" Belt .....	15356
<b>MB18</b>				V-Belt, Alt, W/O Closed Cool. System; W/ 36..	
	<b>L4 1.8L (109)</b>			1/8" Belt .....	15361
	V-Belt, Alt .....	15386		V-Belt, Alt, W/O Closed Cool. System; W/ 51..	
<b>MB18F</b>				1/8" Belt .....	15515
	<b>L4 1.8L (109)</b>			V-Belt, Alt, W/O Closed Cool. System; W/ 55..	
	V-Belt, Alt .....	15386		5/8" Belt .....	15556
<b>MB20A</b>					
	<b>L4 2.0L (121)</b>				
	V-Belt, Alt .....	15386			

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**VOLVO PENTA****MD17C****L2 1.7L (103)**

V-Belt, Alt, w/ 54 1/2" Belt ..... 15545

V-Belt, Alt, w/ 46" belt ..... 15461

**MD17D****L2 1.7L (103)**

V-Belt, Alt, W/O Closed Cooling System ..... 15501

**MD19****L4 2.0L**

V-Belt, Alt, 3 required ..... 15461

**MD1B****L1 .6L (34)**

V-Belt, Gen, w/ 51 1/2" belt ..... 15515

V-Belt, Alt, W/ 36" Belt ..... 15361

V-Belt, Alt, w/ 41" Belt ..... 15411

**MD2****L2 .9L (54)**

V-Belt, Alt, w/ 51 1/2" belt ..... 15515

V-Belt, Alt, w/ 40" Belt ..... 15402

V-Belt, Alt, w/ 41" Belt ..... 15411

V-Belt, Fan ..... 15515

**MD2010****L2 .5L (28)**

V-Belt, Alt ..... 13311

**MD21A****L4 2.1L (129) DIESEL**

V-Belt, Alt ..... 15461

**MD21B****L4 2.1L (129) DIESEL**

V-Belt, Alt ..... 15461

**MD22****L4 1.9L DIESEL**

V-Belt, Alt ..... 15391

**MD27****DIESEL**

V-Belt, Alt ..... 17401

**MD29****L6 DIESEL**

V-Belt, Alt ..... 17411

**MD2A****L2 .9L (54)**

V-Belt, Alt, W/ 36" Belt ..... 15361

V-Belt, Alt, w/ 40" Belt ..... 15402

V-Belt, Alt, w/ 41" Belt ..... 15411

V-Belt, Gen ..... 15515

**MD30****L4 2.4L (146)**

V-Belt, Alt ..... 15440\*

**VOLVO PENTA****MD31****L4 2.4L (146)**

V-Belt, Alt ..... 15440\*

**MD32****DIESEL**

V-Belt, Alt ..... 17411

**MD3B****L3 1.7L (102) DIESEL**

V-Belt, Alt ..... 22450

V-Belt, WP ..... 15515

**MD40****L6 3.6L (219) DIESEL**

V-Belt, Alt, w/ 40" Belt ..... 15402\*

V-Belt, Alt, w/ 44" belt ..... 15440\*

**MD40A****L6 3.6L (219) DIESEL**

V-Belt, Alt, w/ 40" Belt ..... 15402\*

V-Belt, Alt, w/ 44" belt ..... 15440\*

**MD50****DIESEL**

V-Belt, Alt ..... 15340

V-Belt, WP ..... 17305

**MD5A****L1 .4L (27)**

V-Belt, Alt ..... 15515

**MD5B****L1 .4L (27)**

V-Belt, Alt ..... 15515

**MD5C****L1 .4L (27)**

V-Belt, Alt, w/ 51 1/2" belt ..... 15515

V-Belt, Alt, w/ 53" belt ..... 15530

**MD6A****L2 .7L (39)**

V-Belt, Gen, w/ 28 1/2" Belt ..... 15285

**MD6B****L2 .7L (39)**

V-Belt, Gen, W/ 56 1/2" belt ..... 15565

**MD70****L3 1.3L**

V-Belt, Alt, W/ 36" Belt ..... 15361

V-Belt, Alt, W/ 37" Belt ..... 15371

V-Belt, Alt, w/ 60" Belt ..... 17601

V-Belt, WP ..... 17305

**MD7A****L2 .7L (39)**

V-Belt, Gen, W/ 56 1/2" belt ..... 15565

**MD7B****L2 .7L (39)**

V-Belt, Gen, W/ 56 1/2" belt ..... 15565

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**VOLVO PENTA****TAMD122P****L6 12.0L (731)**

V-Belt, Alt ..... 15411\*

V-Belt, WP ..... 15346\*

Coolant Hose, Standard Straight Hose, Pipe..  
to Pipe ..... 56034**TAMD122P EDC****L6 12.0L (731)**

V-Belt, Alt ..... 15411\*

V-Belt, WP ..... 15346\*

Coolant Hose, Standard Straight Hose, Pipe..  
to Pipe ..... 56034**TAMD30A****L4 2.4L (146)**

V-Belt, Alt ..... 15440

**TAMD31A****L4 2.4L (146)**

V-Belt, Alt ..... 15440

**TAMD40A****L6 3.6L (219)**

V-Belt, Alt ..... 15440

**TAMD40B****L6 3.6L (219)**

V-Belt, Alt ..... 15440

**TAMD41B****L6 3.6L (219)**

V-Belt, Alt ..... 15440

**TAMD42WJ****L6 3.6L (219)**

V-Belt, WP, Raw Water ..... 15406

**TAMD61A****L6 5.5L (333)**

V-Belt, Alt ..... 15411\*

V-Belt, WP ..... 15346\*

Coolant Hose, Standard Straight Hose, Pipe..  
to Pipe ..... 56034**TAMD71****L6 6.7L (410)**

V-Belt, Alt ..... 17505

Coolant Hose, Flexible, Oil Cooler To Exhaust.. 53220

**TAMD72****L6 6.7L (410)**

V-Belt, Alt ..... 17505

Coolant Hose, Flexible, Oil Cooler To Exhaust.. 53220

**TMD30A****L4 2.4L (146)**

V-Belt, Alt ..... 15440

**TMD31A****L4 2.4L (146)**

V-Belt, Alt ..... 15440

**VOLVO PENTA****TMD40A****L6 3.8L (230)**

V-Belt, Alt, w/ 40" Belt ..... 15402\*

V-Belt, Alt ..... 15440\*

**TMD40B****L6 3.6L (219)**

V-Belt, Alt, w/ 40" Belt ..... 15402\*

V-Belt, Alt ..... 15440\*

**TMD40C****L6 3.6L (219)**

V-Belt, Alt, w/ 40" Belt ..... 15402\*

V-Belt, Alt ..... 15440\*

**TMD40D****L6 3.6L (219)**

V-Belt, Alt, w/ 40" Belt ..... 15402\*

V-Belt, Alt ..... 15440\*

**TMD41A****L6 3.6L (219)**

V-Belt, Alt, w/ 40" Belt ..... 15402\*

V-Belt, Alt ..... 15440\*

**WESTERBEKE****20.0 BED****L4 2.5L (154)**

V-Belt, WP, Raw Water ..... 15285

Coolant Hose, Standard Straight Hose, Oil ..

Cooler to WP, Raw Water ..... 56016<sup>■</sup>

Coolant Hose, Standard Straight Hose, Oil ..

Cooler to Pipe ..... 56028<sup>■</sup>

Coolant Hose, Standard Straight Hose, WP to..

Pipe ..... 56028<sup>■</sup>

Coolant Hose, Molded Hose, Thermostat to .

Exhaust Manifold ..... 60113

Coolant Hose, Molded Hose, Heat Exchanger..

To Exhaust Manifold ..... 60751

**20B****L2 .6L (39)**

V-Belt, Alt ..... 15366

Coolant Hose, Standard Straight Hose, W.P...

To Heat Exch ..... 56016<sup>■</sup>**L2 1.0L (50)**

Coolant Hose, Standard Straight Hose, W.P...

To Heat Exch ..... 56016<sup>■</sup>**30B****L2 .6L (39)**

V-Belt, Alt ..... 15366

Coolant Hose, Standard Straight Hose, W.P...

To Heat Exch ..... 56016<sup>■</sup>**L2 1.0L (50)**

Coolant Hose, Standard Straight Hose, W.P...

To Heat Exch ..... 56016<sup>■</sup>

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
<b>WESTERBEKE</b>			<b>WESTERBEKE</b>		
<b>35B</b>			<b>4-99</b>		
	<b>L3 1.1L (59)</b>			<b>L4 1.6L (99) DIESEL</b>	
	V-Belt, Alt .....	15402		V-Belt, Alt .....	17411
	Coolant Hose, Standard Straight Hose, W.P...			V-Belt, WP, Raw Water .....	17281
	To Heat Exch .....	56016 <sup>■</sup>		V-Belt, Gen .....	17401
	Coolant Hose, Standard Straight Hose, .....			<b>L4 1.6L (99) GAS</b>	
	Transmission to Heat Exchanger .....	56016 <sup>■</sup>		V-Belt, Alt .....	17411
	Coolant Hose, Molded Hose, Thermostat to .			V-Belt, WP, Raw Water .....	17281
	Exhaust Manifold .....	60664		V-Belt, Gen .....	17401
	Coolant Hose, Standard Straight Hose, .....			<b>4.5 BCG</b>	
	Trans. To Pipe .....	56016 <sup>■</sup>		<b>L3 .5L (33)</b>	
	<b>L3 1.3L (80)</b>			V-Belt, Governor .....	15406
	V-Belt, Alt .....	15402		<b>42B</b>	
	Coolant Hose, Standard Straight Hose, W.P...			<b>L4 1.5L (91)</b>	
	To Heat Exch .....	56016 <sup>■</sup>		V-Belt, Alt .....	15402
	Coolant Hose, Standard Straight Hose, .....			Coolant Hose, Molded Hose, Thermostat to .	
	Transmission to Heat Exchanger .....	56016 <sup>■</sup>		Exhaust Manifold .....	60138 <sup>■</sup>
	Coolant Hose, Molded Hose, Thermostat to .			Coolant Hose, Standard Straight Hose, .....	
	Exhaust Manifold .....	60664		Trans. To Water Pump (Raw Water) .....	56016 <sup>■</sup>
	Coolant Hose, Standard Straight Hose, .....			<b>63B</b>	
	Trans. To Pipe .....	56016 <sup>■</sup>		<b>L4 2.2L (134)</b>	
<b>38B</b>	<b>L3 1.1L (68)</b>			V-Belt, Alt .....	17470 <sup>*</sup>
	V-Belt, Alt .....	15402		V-Belt, Compressor .....	17361 <sup>*</sup>
	Coolant Hose, Standard Straight Hose, W.P...			Coolant Hose, Molded Hose, Fill Tank to ....	
	To Heat Exch .....	56016 <sup>■</sup>		Engine .....	60113 <sup>■</sup>
	Coolant Hose, Standard Straight Hose, .....			Coolant Hose, Standard Straight Hose, W.P...	
	Transmission to Heat Exchanger .....	56016 <sup>■</sup>		To Heat Exch .....	56016 <sup>■</sup>
	Coolant Hose, Molded Hose, Thermostat to .			Coolant Hose, Standard Straight Hose, .....	
	Exhaust Manifold .....	60664		Transmission to Heat Exchanger .....	56016 <sup>■</sup>
	Coolant Hose, Standard Straight Hose, .....			Coolant Hose, Standard Straight Hose, WP to..	
	Trans. To Pipe .....	56016 <sup>■</sup>		Thermostat .....	56020 <sup>■</sup>
	<b>L3 1.3L (80)</b>		<b>70</b>	<b>L4 2.5L (154) DIESEL</b>	
	V-Belt, Alt .....	15402		Coolant Hose, Molded Hose, Thermostat to .	
	Coolant Hose, Standard Straight Hose, W.P...			Exhaust Manifold .....	60288
	To Heat Exch .....	56016 <sup>■</sup>		Coolant Hose, Standard Straight Hose, W.P...	
	Coolant Hose, Standard Straight Hose, .....			To Heat Exch .....	56016 <sup>■</sup>
	Transmission to Heat Exchanger .....	56016 <sup>■</sup>		Coolant Hose, Standard Straight Hose, Pipe..	
	Coolant Hose, Molded Hose, Thermostat to .			To Heat Exchanger .....	56028 <sup>■</sup>
	Exhaust Manifold .....	60664		<b>L4 2.5L (154) GAS</b>	
	Coolant Hose, Standard Straight Hose, .....			V-Belt, Alt .....	17470 <sup>*</sup>
	Trans. To Pipe .....	56016 <sup>■</sup>		V-Belt, Compressor .....	17401 <sup>*</sup>
<b>4-107</b>	<b>L4 1.8L (107) DIESEL</b>			V-Belt, WP, Raw Water .....	17315
	V-Belt, Alt .....	17411		<b>L4 3.0L (180) GAS</b>	
	V-Belt, WP, Raw Water .....	17281		V-Belt, Alt .....	17470 <sup>*</sup>
	<b>L4 1.8L (107) GAS</b>			V-Belt, Compressor .....	17401 <sup>*</sup>
	V-Belt, Alt .....	17411		V-Belt, WP, Raw Water .....	17315
	V-Belt, WP, Raw Water .....	17281			



Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
---------------	---------------------------------	-------------------------------	---------------	---------------------------------	-------------------------------

**WESTERBEKE****70 CONT.****L4 3.0L (182) DIESEL**

Coolant Hose, Molded Hose, Thermostat to .	
Exhaust Manifold .....	<b>60288</b>
Coolant Hose, Standard Straight Hose, W.P...	
To Heat Exch .....	<b>56016<sup>■</sup></b>
Coolant Hose, Standard Straight Hose, Pipe..	
To Heat Exchanger .....	<b>56028<sup>■</sup></b>

**71****L4 2.2L (134) DIESEL**

Coolant Hose, Molded Hose, Thermostat to .	
Exhaust Manifold .....	<b>60288</b>
Coolant Hose, Standard Straight Hose, W.P...	
To Heat Exch .....	<b>56016<sup>■</sup></b>
Coolant Hose, Standard Straight Hose, Pipe..	
To Heat Exchanger .....	<b>56028<sup>■</sup></b>

**L4 2.2L (134) GAS**

V-Belt, Alt .....	<b>17470*</b>
V-Belt, Compressor .....	<b>17401*</b>
V-Belt, WP, Raw Water .....	<b>17315</b>

**L4 3.0L (180) GAS**

V-Belt, Alt .....	<b>17470*</b>
V-Belt, Compressor .....	<b>17401*</b>
V-Belt, WP, Raw Water .....	<b>17315</b>

**L4 3.0L (182) DIESEL**

Coolant Hose, Molded Hose, Thermostat to .	
Exhaust Manifold .....	<b>60288</b>
Coolant Hose, Standard Straight Hose, W.P...	
To Heat Exch .....	<b>56016<sup>■</sup></b>
Coolant Hose, Standard Straight Hose, Pipe..	
To Heat Exchanger .....	<b>56028<sup>■</sup></b>

**W58****L4 2.5L (154)**

V-Belt, Alt .....	<b>15440</b>
V-Belt, WP, Raw Water .....	<b>17315</b>
Coolant Hose, Molded Hose, Thermostat to .	
Exhaust Manifold .....	<b>60664</b>
Coolant Hose, Standard Straight Hose, .....	
Transmission to Heat Exchanger .....	<b>56016<sup>■</sup></b>

**YANMAR****1GM10**

<b>L1 .3L (19)</b>	
V-Belt, Alt .....	<b>17291</b>

**2GM20**

<b>L2 .6L (39)</b>	
Instapower Belt, V-Belt, WP .....	<b>83190</b>
V-Belt, Alt .....	<b>17315</b>
Molded Heater Hose, Heat Exchanger To ...	
Exhaust Manifold .....	<b>63806</b>

**2GM20F**

<b>L2 .6L (39)</b>	
Instapower Belt, V-Belt, WP .....	<b>83190</b>
V-Belt, Alt .....	<b>17315</b>
Molded Heater Hose, Heat Exchanger To ...	
Exhaust Manifold .....	<b>63806</b>

**2GM20FL**

<b>L2 .6L (39)</b>	
V-Belt, Alt, W/ 31 1/2" Belt .....	<b>17315</b>
Molded Heater Hose, Heat Exchanger To ...	
Exhaust Manifold .....	<b>63806</b>

**2GMD**

<b>L2 .6L (39)</b>	
Instapower Belt, V-Belt, WP .....	<b>83190</b>
V-Belt, Alt .....	<b>17315</b>
Molded Heater Hose, Heat Exchanger To ...	
Exhaust Manifold .....	<b>63806</b>

**2GMF**

<b>L2 .6L (39)</b>	
Instapower Belt, V-Belt, WP .....	<b>83190</b>
V-Belt, Alt .....	<b>17315</b>
Molded Heater Hose, Heat Exchanger To ...	
Exhaust Manifold .....	<b>63806</b>

**2QM15**

<b>L2 .6L (39)</b>	
V-Belt, FHP Belt, WP .....	<b>3L230</b>
V-Belt, Alt .....	<b>13311</b>

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
<b>YANMAR</b>			<b>YANMAR</b>		
<b>2QM20</b>			<b>3HM35</b>		
	<b>L2 .6L (39)</b>			<b>L3 1.0L (58)</b>	
	V-Belt, FHP Belt, WP .....	<b>3L230</b>		Instapower Belt, V-Belt, WP .....	<b>83190</b>
	V-Belt, Alt .....	<b>13311</b>		V-Belt, Alt .....	<b>17315</b>
<b>2QM20F</b>				Molded Heater Hose, Heat Exchanger To ....	
	<b>L2 .6L (39)</b>			Exhaust Manifold .....	<b>63806</b>
	V-Belt, Alt .....	<b>17371</b>	<b>3HM35F</b>		
<b>3.0L</b>				<b>L3 1.0L (58)</b>	
	<b>L4 3.0L (181)</b>			Instapower Belt, V-Belt, WP .....	<b>83190</b>
	V-Belt, Alt & WP .....	<b>15420</b>		V-Belt, Alt .....	<b>17315</b>
	V-Belt, WP, Raw Water .....	<b>13215</b>		Molded Heater Hose, Heat Exchanger To ....	
	Coolant Hose, Standard Straight Hose, .....			Exhaust Manifold .....	<b>63806</b>
	Trans. To Water Pump (Raw Water) .....	<b>56016<sup>■</sup></b>	<b>3HMF</b>		
	Coolant Hose, Standard Straight Hose, .....			<b>L3 1.0L (58)</b>	
	Thermostat to Exhaust Manifold .....	<b>56020<sup>■</sup></b>		Instapower Belt, V-Belt, WP .....	<b>83190</b>
	Coolant Hose, Standard Straight Hose, .....			V-Belt, Alt .....	<b>17315</b>
	Thermostat to WP, Raw Water .....	<b>56020<sup>■</sup></b>		Molded Heater Hose, Heat Exchanger To ....	
<b>3GM30</b>				Exhaust Manifold .....	<b>63806</b>
	<b>L3 1.0L (58)</b>		<b>3QM30</b>		
	Instapower Belt, V-Belt, WP .....	<b>83190</b>		<b>L3</b>	
	V-Belt, Alt .....	<b>17315</b>		V-Belt, Alt .....	<b>13311</b>
	Molded Heater Hose, Heat Exchanger To ....		<b>3QM30F</b>		
	Exhaust Manifold .....	<b>63806</b>		<b>L3</b>	
<b>3GM30F</b>				V-Belt, Alt .....	<b>17371</b>
	<b>L3 1.0L (58)</b>		<b>3TN-75E</b>		
	Instapower Belt, V-Belt, WP .....	<b>83190</b>		<b>L3</b>	
	V-Belt, Alt .....	<b>17315</b>		V-Belt, Alt .....	<b>17405</b>
	Molded Heater Hose, Heat Exchanger To ....		<b>3TN-82E</b>		
	Exhaust Manifold .....	<b>63806</b>		<b>L3</b>	
<b>3GM30FL</b>				V-Belt, Alt .....	<b>17391</b>
	<b>L3 1.0L (58)</b>		<b>4.3L</b>		
	V-Belt, Alt, W/ 31 1/2" Belt .....	<b>17315</b>		<b>V6 4.3L (262)</b>	
	Molded Heater Hose, Heat Exchanger To ....			V-Belt, Alt & WP, Raw Water .....	<b>15595<sup>*</sup></b>
	Exhaust Manifold .....	<b>63806</b>		V-Belt, PS & WP .....	<b>15565</b>
<b>3GMD</b>				Coolant Hose, Standard Straight Hose, Oil ..	
	<b>L3 1.0L (58)</b>			Cooler to WP, Raw Water .....	<b>56020<sup>■</sup></b>
	Instapower Belt, V-Belt, WP .....	<b>83190</b>		Coolant Hose, Standard Straight Hose, .....	
	V-Belt, Alt .....	<b>17301</b>		Thermostat To Exhaust Elbow .....	<b>56020<sup>■</sup></b>
	Molded Heater Hose, Heat Exchanger To ....		<b>4JH-DTBE</b>		
	Exhaust Manifold .....	<b>63806</b>		<b>L4 2.0L (122)</b>	
<b>3HM</b>				V-Belt, Alt & PS .....	<b>17470</b>
	<b>L3 1.0L (58)</b>		<b>4JH2-UT</b>		
	Instapower Belt, V-Belt, WP .....	<b>83190</b>		<b>L4 2.0L (122)</b>	
	V-Belt, Alt .....	<b>17315</b>		Coolant Hose, Molded Hose, W.P. To Heat ..	
	Molded Heater Hose, Heat Exchanger To ....			Exch .....	<b>60998<sup>■</sup></b>
	Exhaust Manifold .....	<b>63806</b>	<b>4JH2-VT</b>		
				<b>L4 2.0L (122)</b>	
				V-Belt, Alt & PS .....	<b>17470</b>

Model Year	Eng. Description Accessories	Continental Elite Part No.	Model Year	Eng. Description Accessories	Continental Elite Part No.
<b>YANMAR</b>			<b>YANMAR</b>		
<b>4LH-DTE</b>			<b>NT70M</b>		
	<b>L4 3.5L (211)</b>			V-Belt, Gen .....	<b>22370*</b>
	V-Belt, Alt & WP .....	<b>17470</b>		V-Belt, WP .....	<b>17432</b>
	Coolant Hose, Standard Straight Hose, .....				
	Transmission to Heat Exchanger .....	<b>56020<sup>■</sup></b>			
<b>4LH-TE</b>			<b>NT86M</b>		
	<b>L4 3.5L (211)</b>			V-Belt, Accessory Drive, W/ 36" Belt .....	<b>17361</b>
	V-Belt, Alt & WP .....	<b>17470</b>		V-Belt, Accessory Drive, w/ 45 1/2" belt .....	<b>17456</b>
	Coolant Hose, Standard Straight Hose, .....			V-Belt, Accessory Drive, w/ 49" Belt .....	<b>17491</b>
	Transmission to Heat Exchanger .....	<b>56020<sup>■</sup></b>		V-Belt, Accessory Drive, w/ 50" Belt .....	<b>17501</b>
<b>4LH-THE</b>			<b>PMX6</b>		
	<b>L4 3.5L (211)</b>			V-Belt, Gen, w/ 44 1/2" Belt .....	<b>15446</b>
	V-Belt, Alt & WP .....	<b>17470</b>		V-Belt, Gen, w/ 49 1/2" Belt .....	<b>15495</b>
	Coolant Hose, Standard Straight Hose, .....				
	Transmission to Heat Exchanger .....	<b>56020<sup>■</sup></b>			
<b>4TH-82E</b>			<b>SB12</b>		
	<b>L4 3.5L (211)</b>			<b>L1</b>	
	V-Belt, Alt & WP, W/ Radiator .....	<b>17391</b>		V-Belt, Alt .....	<b>15301</b>
<b>5.0L</b>			<b>SB8</b>		
	<b>V8 5.0L (305)</b>			<b>L1</b>	
	V-Belt, Alt & WP, Raw Water .....	<b>15595*</b>		V-Belt, Alt .....	<b>15301</b>
	V-Belt, PS & WP .....	<b>15565</b>			
	Coolant Hose, Standard Straight Hose, Oil ..			<b>SVE12</b>	
	Cooler to WP, Raw Water .....	<b>56020<sup>■</sup></b>		<b>L1</b>	
	Coolant Hose, Standard Straight Hose, .....			V-Belt, Alt .....	<b>15301</b>
	Thermostat To Exhaust Elbow .....	<b>56020<sup>■</sup></b>		<b>SVE8</b>	
<b>5.7L</b>				<b>L1</b>	
	<b>V8 5.7L (350)</b>			V-Belt, Alt .....	<b>15301</b>
	V-Belt, Alt & WP, Raw Water .....	<b>15595*</b>			
	V-Belt, PS & WP .....	<b>15565</b>		<b>YSB12</b>	
	Coolant Hose, Standard Straight Hose, Oil ..			<b>L1</b>	
	Cooler to WP, Raw Water .....	<b>56020<sup>■</sup></b>		V-Belt, FHP Belt, Alt .....	<b>3L220</b>
	Coolant Hose, Standard Straight Hose, .....			V-Belt, WP .....	<b>15335</b>
	Thermostat To Exhaust Elbow .....	<b>56020<sup>■</sup></b>			
<b>6CXM-ETE</b>			<b>YSB8</b>		
	<b>L6</b>			<b>L1</b>	
	Coolant Hose, Molded Hose, Transmission to..			V-Belt, FHP Belt, Alt .....	<b>3L220</b>
	Heat Exchanger .....	<b>60117</b>		V-Belt, WP .....	<b>15335</b>
	Coolant Hose, Molded Hose, Heat Exchanger..				
	to Exhaust Elbow .....	<b>60113<sup>■</sup></b>		<b>YSE8</b>	
	Coolant Hose, Standard Straight Hose, Heat..			<b>L1</b>	
	Exchanger to Intercooler .....	<b>56028<sup>■</sup></b>		V-Belt, FHP Belt, Alt .....	<b>3L220</b>
<b>6CXME-ETE</b>				V-Belt, WP .....	<b>15335</b>
	<b>L6</b>				
	V-Belt, Alt .....	<b>17442</b>		<b>YSM12</b>	
<b>6LY-UTE</b>				<b>L1</b>	
	<b>L6 5.2L (316)</b>			Instapower Belt, V-Belt, WP .....	<b>83190</b>
	V-Belt, Alt & WP .....	<b>17541</b>		V-Belt, Alt .....	<b>13265</b>
	Coolant Hose, Molded Hose, W.P. To Heat ..				
	Exch .....	<b>60117</b>		<b>YSM8</b>	
				<b>L1</b>	
				Instapower Belt, V-Belt, WP .....	<b>83190</b>
				V-Belt, Alt .....	<b>13265</b>

**Continental Elite Belt Dimensions (Formerly Goodyear)**

<b>Instafind Belt Dimensional Listing by Effective Length</b>										
		1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1"
TOP WIDTH - INCHES		(8/32)	(10/32)	(13/32)	(15/32)	(17/32)	(22/32)	(24/32)	(28/32)	(32/32)
TOP WIDTH - MM		6AV	8AV	10AV	11 AV	13AV	15AV	17AV	20AV	23AV
SAE - PULLEY GROOVE		0.25	0.315	0.38	.380*	.500	.597	0.66	.785	.910
EFFECTIVE LENGTH										
INCHES	MM									
21	535									
21.5	545			13215						
22	560			13221						
22.5	570		10226		15231					
23	585									
23.5	595		10236		15241					
24	610			13241						
24.5	620			13245		17245				
25	635			13251		17251				
25.5	650	08256			15261	17255				
26	660	08262		13261			22264			
26.5	675			13265		17265				
27	685			13271		17271				
27.5	700	08276	10276	13276						
28	710				15285	17281				
28.5	725						22290			
29	735				15295	17291				
29.5	750	08296			15301	17295	22300			
30	760				15305	17301				
30.5	775		10306			17305	22310			
31	785	08312		13311				24313		
31.5	800				15321	17315	22320	24317		
32	815	08322	10321		15325	17321				
32.5	825		10326		15332	17325	22330			
33	840	08332			15335	17331	22334	24333		
33.5	850		10336		15340	17335	22340			
34	865	08342			15346	17341		24343		
34.5	875		10344		15351	17345	22350		28347	
35	890	08352			15356	17351	22354	24353		
35.5	900				15361		22360	24357		
36	915	08362	10362		15366	17361	22364			
36.5	925				15371	17365	22370	24367	28373	
37	940	08372			15376	17371	22374			
37.5	955		10376		15382	17375	22380	24377		
38	965	08382	10381		15387	17380	22384			
38.5	980		10386		15391	17386	22390			
39	990	08392	10391		15396	17391	22394	24393	28393	
39.5	1005				15402	17395	22400		28397	
40	1015				15406	17401	22404	24403	28403	
40.25	1020					17403				
40.5	1030		1040E		15411	17405	22410			
41	1040	08412		13411		17411	22414	24413	28413	
41.5	1055				15420	17415	22420			
42	1065		10421		15425	17421	22424	24423	28423	
42.5	1080				15430	17425	22430			
43	1090				15436	17432	22434	24433		
43.5	1105				15440	17435	22440	24437	28437	
43.8	1115							24443		
44	1120				15446	17442				
44.5	1130		10446		15450	17446	22450	24447	28447	
45	1145		10451		15456	17451	22454	24453		
45.5	1155				15461	17456	22460		28457	
45.75	1160							24457		
46	1170		10461		15466	17461	22464		28463	32464
46.5	1180			13465		17465	22470	24467	28467	
47	1195				15475	17470			28473	
47.5	1205				15481	17474	22480		28477	
48	1220				15485	17481		24483	26483	
48.5	1230				15491	17484	22490		28487	
49	1245				15495	17491	22494	24493	28493	32494
49.5	1255		10496		15501	17494	22500		28497	
50	1270				15506	17501		24503	28503	32504
50.5	1285				15512	17505	22510			
51	1295				15515	17511	22514	24513	28513	
51.5	1310				15521	17515	22520		28517	
52	1320				15525	17521	22524		28523	
52.5	1335				15530	17525	22530			
53	1345				15535	17531	22534	24533	28533	
53.5	1360				15542	17535	22540			
54	1370				15545	17541	22544	24543		

When ordering please place "GDY" in front of part number



## Instafind Belt Dimensional Listing by Effective Length

		1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1"
TOP WIDTH - INCHES		(8/32)	(10/32)	(13/32)	(15/32)	(17/32)	(22/32)	(24/32)	(28/32)	(32/32)
TOP WIDTH - MM		6AV	8AV	10AV	11 AV	13AV	15AV	17AV	20AV	23AV
SAE - PULLEY GROOVE		0.25	0.315	0.38	.380*	.500	.597	0.66	.785	.910
EFFECTIVE LENGTH										
INCHES	MM									
54.5	1385				15550	17544	22550		28547	32550
55	1395				15556	17551			28553	
55.5	1410				15561	17555	22560		26557	
56	1420				15565	17561				
56.5	1435				15572	17565	22570		28567	
57	1450				15574	17570	22574		26573	
57.5	1460				15581	17575	22580			
58	1475				15585	17581			28583	
58.5	1485				15591	17585	22590			
59	1500				15595	17591	22594		28593	
59.5	1510			13595						32600
60	1525				15606	17S01	22604		28603	
60.5	1535			13605		17S05	22610			
61	1550				15615	17611			28613	
61.5	1560				15621	17615		24617		
62	1575			13621		17621	22624		28623	
62.5	1590				15634	17625	22630	24627		
63	1600			13631		17633	22634		28633	
63.5	1615			13633		17635	22640			
64	1625				15646	17641				
64.5	1640				15651	17645	22650			
65	1650			13651		17651	22654	24653	28653	
65.5	1665			13655		17655	22660			
66	1675			13661		17661			28663	
66.5	1690			13665		17665	22670			
67	1700			13671		17671			28673	
67.5	1715				15680	17675	22680		28683	
68	1725			13681		17681		24687		
68.5	1740									
69	1755					17691	22694			
69.5	1765				15701				28697	
70	1780					17701				
70.5	1790					17705	22710		28707	
71	1805									
71.5	1815					17714	22720			
72	1830			13721					28723	
72.5	1840					17725	22730			
73	1855					17731			28733	
73.5	1865					17735	22740			
74	1880					17741			28743	
74.5	1890						22750			
75	1905					17751				
75.5	1920						22760			
76	1935									
76.5	1945					17765				
77	1955									
77.25	1960						22776			
77.5	1970						22780			
78	1980									
78.5	1995									
79	2005									
79.5	2020									
80	2030									
80.5	2045									
81	2055									
81.5	2070					17815				
82	2085									
82.5	2095									
83.0	2110									
83.5	2120									
84	2135									
84.5	2145						22850			
85	2160									
85.5	2170									
86	2185									
86.5	2195									
87	2210									
87.5	2225									
88	2235								28883	

When ordering please place "GDY" in front of part number

## Mercury Marine


**1 2.5L 153 OHV L4 (Chevrolet), 3.875" Bore (GMC Eng.)**  
**Marine Applications Model 120/2.5 Liter (120 HP)**

TIMING	YEARS	PART NO.	DESCRIPTION
Gear Set		221-2528S	120 HP; From Ser. No. 3253906 to 3331603, & from Ser. No. 3331897; Incl. (1) 221-2526, (1) 221-2527
Crank Gear		221-2501	110 HP; From Ser. No. 1537370; 27 Teeth
Crank Gear		221-2501	120 HP; From Ser. No. 1666601 to 3253905, & from Ser. No. 3331604 to 3331896; 27 Teeth
Crank Gear		221-2527	120 HP; From Ser. No. 3253906 to 3331603, & from Ser. No. 3331897; 27 Teeth
Cam Gear		221-2520	110 HP; From Ser. No. 1537370; Laminated, silent type; 54 Teeth
Cam Gear		221-2520	120 HP; From Ser. No. 1666601 to 3253905, & from Ser. No. 3331604 to 3331896; Laminated, silent type; 54 Teeth
Cam Gear		221-2526	120 HP; From Ser. No. 3253906 to 3331603, & from Ser. No. 3331897; Alum.; 54 Teeth
CAMSHAFT/LIFTER	YEARS	PART NO.	DESCRIPTION
Cam		CS-708	120 HP; From Ser. No. 1666601 & up
Lifter		HT-817 Std Only	110 HP; From Ser. No. 1537370 to 1633400 & from Ser. No. 1945392; Hyd.
Lifter		HT-817 Std Only	120 HP; From Ser. No. 1666601; Hyd.
Lifter, Bulk		HT-817B Std Only	110 HP; From Ser. No. 1537370 to 1633400 & from Ser. No. 1945392; Hyd.; Carton of 128
Lifter, Bulk		HT-817B Std Only	120 HP; From Ser. No. 1666601 & from Ser. No. 1945392; Hyd.; Carton of 128
Prelube		55-400	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
PUSH ROD	YEARS	PART NO.	DESCRIPTION
Push Rod		RP-3214R	9.6800" O.A.L.
ROCKER PARTS	YEARS	PART NO.	DESCRIPTION
Arm Assy.		R-832	Incl. arm, ball & nut
Arm Assy., Bulk		R-832B	Incl. arm, ball & nut; Carton of 64
Stud		MR-1752	.003" O/S, 3/8" x 24 threads
VALVE	YEARS	PART NO.	DESCRIPTION
Exhaust		V-1888X Std Only	110 HP; 120 HP; To Ser. No. 3377340; Chrome plated stem; 1.5000" Head Dia., .3412" Stem Dia., 4.9230" O.A.L.
Exhaust		V-1904 Std-3-15-30	120 HP; From Ser. No. 3377341; Chrome plated stem; 1.5000" Head Dia., .3414" Stem Dia., 4.9280" O.A.L.
Exhaust, Bulk		V-1904B Std-15	120 HP; From Ser. No. 3377341; Chrome plated stem; Carton of 25; 1.5000" Head Dia., .3414" Stem Dia., 4.9280" O.A.L.
Intake		V-1927 Std-3-15	Chrome plated stem; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L.
Intake, Bulk		V-1927B Std-15	Chrome plated stem; Carton of 25; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L.
VALVE GUIDE	YEARS	PART NO.	DESCRIPTION
Guide		VG-5061	Exh.; .3430" ID, 2.3800" O.A.L.
Guide		VG-5005	Int.; .3430" ID, 2.2500" O.A.L.
Guide		VG-5005H	Int.; Hardened; .3430" ID, 2.2500" O.A.L.
Guide		VG-5005T	Int.; Threaded; .3425" ID, 2.2500" O.A.L.
Guide, Bulk		VG-5005B	Int.; Carton of 50; .3430" ID, 2.2500" O.A.L.
Guide, Bulk		VG-5005TB	Int.; Threaded; Carton of 50; .3425" ID, 2.2500" O.A.L.
VALVE SPRING	YEARS	PART NO.	DESCRIPTION
Spring		VS-521	110 HP; To Ser. No. 1564733; Incl. damper; 2.1100" Free Height
Spring, Bulk		VS-521B	110 HP; To Ser. No. 1564733; Incl. damper; Carton of 150; 2.1100" Free Height
VALVE SEAL	YEARS	PART NO.	DESCRIPTION
Positive Valve Stem Seal		MV-1903	Use w/repair guide; Rubber
Positive Valve Stem Seal		ST-2001	Use w/O.E. guide; Use w/MT-2001H tool; Rubber/Teflon®
Valve Stem Seal		MV-1233C	O-Ring; Rubber
Valve Stem Seal Bulk		MV-1233	O-Ring; Carton of 100; Rubber
Valve Stem Seal Bulk		ST-2001BC	Use w/O.E. guide; Use w/MT-2001H tool; Carton of 100; Rubber/Teflon®
Tool		MT-2001H	Use w/cyl. head off
VALVE SEAT	YEARS	PART NO.	DESCRIPTION
Exh.		245-1562-1N	Optional-Premium Material; 1.5680" OD, 1.3125" ID, .2160" Depth
Exh.		245-1562-1	1.5675" OD, 1.3125" ID, .2160" Depth
Int.		245-1812-4	1.8175" OD, 1.5625" ID, .2160" Depth
VALVE, MISC	YEARS	PART NO.	DESCRIPTION
Keeper		VK-115	Hardened
Keeper		VK-115R	Carton of 1000
Keeper, Bulk		VK-115B	

(continued on next page)

When ordering please place "FED" in front of part number.



## Mercury Marine

2.5L 153 OHV L4 (Chevrolet), 3.875" Bore (GMC Eng.) 1				
Marine Applications Model 120/2.5 Liter (120 HP) (cont.)				
B L O C K	<b>PISTON</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cast Piston		235P Std-20-30-40-60	2-5/64", 1-3/16" Ring Groove, 1.780" CD, .9275" Pin Dia., Flat Head w/4 valve reliefs
	Power Forged		L-2163F30 30-40-60	2-5/64", 1-3/16" Ring Groove, 1.795" CD, .9272" Pin Dia., Flat Head w/4 valve reliefs. <b>DurOshield® skirt coated piston.</b>
	Pin		P-2208 Std-3-5-0015	
	<b>RINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Premium Set		E-450K Std-20-30-40-60	2-5/64, 1-3/16
	Economy Set		E-450X Std-20-30-40-60	2-5/64, 1-3/16
	<b>ENGINE BEARINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Main Set		4123MA Std-1-10-20-30	<b>A-Series bored aluminum bearings</b>
	Main Set		4123M Std-1-10-20-30	<b>A-Series bored aluminum bearings; When depleted use 4123MA</b>
V A L V E  T R A I N	Rod Set		4-2020CP Std-1-10-20-30-40	
	Rod Pair		2020CP Std-1-2-10-20-30-40-50	
	Cam Set		1202M Std Only	
	<b>OIL PUMP</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Pump		224-4147	
	Pump		224-4157	High Volume, check pan for clearance
	<b>GASKETS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Kit Gasket Set		260-1504M	From Ser. No. 1666601 to 6229717; Standard Rotation; Two-piece rear main brg. seal & four-piece oil pan gskt. incl.
	Kit Gasket Set		260-1505M	From Ser. No. 6229718; Standard Rotation; Two-piece rear main brg. seal & four-piece oil pan gskt. incl.
	<b>FREEZE PLUGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Brass Block Plug Kit		381-8006	
3.0L 181 OHV L4 (Chevrolet), 4" Bore (GMC Eng.) 2				
Marine Applications Models 140/3.0 Liter, 140/3.0 Liter LX (115 HP); 140/3.0 Liter, 140/3.0 Liter LX (130 HP); 140/3.0 Liter, 140/3.0 Liter LX (135 HP); 140/3.0 Liter, 140/3.0 Liter LX (140 HP)				
V A L V E  T R A I N	<b>TIMING</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Gear Set		221-2528S	From Ser. No. 2508261 to Ser. No. 2911134.; Incl. (1) 221-2526, (1) 221-2527
	Crank Gear		221-2527	From Ser. No. 2911135; 27 Teeth
	Cam Gear		221-2526	From Ser. No. 2508261; Alum.; 54 Teeth
	<b>CAMSHAFT/LIFTER</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cam		CS-1068M	From Ser. No. 2508261; Hyd.
	Lifter		HT-817 Std Only	From Ser. No. 2508261; Hyd.; Carton of 128
	Lifter, Bulk		HT-817B Std Only	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
	Prelube		55-400	
	<b>CAM KIT</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
V A L V E  T R A I N	Cam/Lifter Kit		KC-1068M	Incl. (1) CS-1068M, (8) HT-817, (1) 55-403B
	<b>PUSH ROD</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Push Rod		RP-3214R	9.6800" O.A.L.
	<b>ROCKER PARTS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Arm Assy.		R-832	Incl. arm, ball & nut
	Arm Assy., Bulk		R-832B	Incl. arm, ball & nut; Carton of 64
	<b>VALVE</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Exhaust		V-4231 Std Only	Chrome plated stem; 1.6000" Head Dia., .3407" Stem Dia., 4.9000" O.A.L.
	Intake		V-1926 Std-3-15	Chrome plated stem; 1.9400" Head Dia., .3410" Stem Dia., 4.8800" O.A.L.
	Intake, Bulk		V-1926B Std-15	Chrome plated stem; Carton of 25; 1.9400" Head Dia., .3410" Stem Dia., 4.8800" O.A.L.
V A L V E  T R A I N	<b>VALVE GUIDE</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Guide		VG-5005	Plain; .3430" ID, 2.2500" O.A.L.
	Guide		VG-5005H	Exh; Hardened; .3430" ID, 2.2500" O.A.L.
	Guide		VG-5005T	Exh.; Threaded; .3425" ID, 2.2500" O.A.L.
	Guide		VG-5055T	Int.; .3430" ID, 2.3750" O.A.L.
	Guide		VG-5006	Int.; Plain; .3440" ID, 2.3750" O.A.L.
	Guide		VG-5006T	Int.; Threaded; .3425" ID, 2.3800" O.A.L.
	Guide, Bulk		VG-5005B	Plain; Carton of 50; .3430" ID, 2.2500" O.A.L.
	Guide, Bulk		VG-5005TB	Exh.; Threaded; Carton of 50; .3425" ID, 2.2500" O.A.L.
	Guide, Bulk		VG-5006B	Int.; Plain; Carton of 50; .3440" ID, 2.3750" O.A.L.
V A L V E  T R A I N	<b>VALVE, MISC</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Keeper		VK-115	
V A L V E  T R A I N	Keeper		VK-115R	Hardened

(continued on next page)

When ordering please place "FED" in front of part number.



## Mercury Marine



2 3.0L 181 OHV L4 (Chevrolet), 4" Bore (GMC Eng.)				
(cont.) Marine Applications Models 140/3.0 Liter, 140/3.0 Liter LX (115 HP); 140/3.0 Liter, 140/3.0 Liter LX (130 HP); 140/3.0 Liter, 140/3.0 Liter LX (135 HP); 140/3.0 Liter, 140/3.0 Liter LX (140 HP)				
B L O C K	VALVE, MISC (cont.) Keeper, Bulk	YEARS	PART NO. VK-115B	DESCRIPTION Carton of 1000
	PISTON Cast Piston	YEARS	PART NO. 650P Std-20-30	DESCRIPTION 140 Engs.; 2-5/64", 1-3/16" Ring Groove, 1.624" CD, .9275" Pin Dia., Recessed Head .130" deep.
	RINGS Premium Set Economy Set	YEARS	PART NO. E-381K Std-20-30-40-60 E-381X Std-20-30-40-60	DESCRIPTION 2-5/64, 1-3/16 2-5/64, 1-3/16
	ENGINE BEARINGS Main Set Main Set	YEARS	PART NO. 4123MA Std-1-10-20-30 4123M Std-1-10-20-30	DESCRIPTION A-Series bored aluminum bearings A-Series bored aluminum bearings; When depleted use 4123MA
	Rod Pair		2555A Std-1-2-10-20-30-40-50-60	A-Series bored aluminum bearings
	Rod Pair		2555CP Std-1-2-10-20-30-40-50	Overplated copper-lead alloy
	Cam Set		1461M Std Only	
	OIL PUMP Pump	YEARS	PART NO. 224-4147	DESCRIPTION
	GASKETS Kit Gasket Set	YEARS	PART NO. 260-1505M	DESCRIPTION From Ser. No. 6229718; Exc. LX Engs.; Standard Rotation; Two-piece rear main brg. seal & four-piece oil pan gskt. incl.
	Kit Gasket Set		260-1506M	To Ser. No. 6229717; Standard Rotation; Two-piece rear main brg. seal & four-piece oil pan gskt. incl.
V A L V E  T R A I N	FREEZE PLUGS Brass Block Plug Kit	YEARS	PART NO. 381-8006	DESCRIPTION
	3 3.7L 224 L4, 4.36" Bore			
	Marine Applications Models 165; 170; 180; 190; 470; 485; 488			
	TIMING Timing Chain	YEARS	PART NO. 222-168M	DESCRIPTION 66 Links
	CAMSHAFT/LIFTER Cam Lifter Lifter, Bulk Prelube	YEARS	PART NO. CS-1060M HT-900 Std Only HT-900B Std Only 55-400	DESCRIPTION w/o camshaft driven water pump. Hyd. Hyd.; Carton of 122 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
	PUSH ROD Push Rod	YEARS	PART NO. RP-3185	DESCRIPTION 8.6480" O.A.L.
	VALVE Exhaust  Exhaust  Intake  Intake	YEARS	PART NO. V-1984 Std Only  V-2569 + Std Only  V-2568 + Std Only  V-3929 Std Only	DESCRIPTION Chrome plated stem; 1.6530" Head Dia., .3419" Stem Dia., 4.9830" O.A.L. Chrome plated stem; 1.6530" Head Dia., .3419" Stem Dia., 4.9830" O.A.L.; When depleted use V-1984 Chrome plated stem; 2.0820" Head Dia., .3419" Stem Dia., 5.1980" O.A.L.; When depleted use V-3929 Chrome plated stem; 2.0830" Head Dia., .3419" Stem Dia., 5.1980" O.A.L.
	VALVE SPRING Spring Spring, Bulk	YEARS	PART NO. VS-718 VS-718B	DESCRIPTION 2.0280" Free Height Carton of 250; 2.0280" Free Height
	VALVE, MISC Keeper Keeper Keeper, Bulk	YEARS	PART NO. VK-115 VK-115R VK-115B	DESCRIPTION Hardened Carton of 1000
	ENGINE BEARINGS Main Set Rod Set Cam Set	YEARS	PART NO. 7205M Std-10-20 4-4180CP Std-10-20-30 1414M Std Only	DESCRIPTION
4 3.8L 229 OHV V6 (Chevrolet), 3.736" Bore (GMC Eng.)				
Marine Applications Model 185				
	TIMING 3 Piece Set Timing Chain Crank Sprocket Cam Sprocket	YEARS	PART NO. KT3-499S 222-499 223-391 223-390	DESCRIPTION Incl. (1) 222-499, (1) 223-390, (1) 223-391 46 Links Powdered metal; 18 Teeth 36 Teeth

(continued on next page)

When ordering please place "FED" in front of part number.





## Mercury Marine

3.8L 229 OHV V6 (Chevrolet), 3.736" Bore (GMC Eng.) <b>4</b>				
Marine Applications Model 185 (cont.)				
B L O C K	<b>CAMSHAFT/LIFTER</b> Lifter Lifter, Bulk	<b>YEARS</b>	<b>PART NO.</b> HT-817 Std Only HT-817B Std Only	<b>DESCRIPTION</b> Hyd. Hyd.; Carton of 128
	<b>PISTON</b> Cast Piston	<b>YEARS</b>	<b>PART NO.</b> 698P Std-20-30-40-60	<b>DESCRIPTION</b> 2-5/64", 1-3/16" Ring Groove, 1.540" CD, .9275" Pin Dia., Recessed Head .110" deep x 3.115" dia. - 8.5:1 C.R.
	<b>RINGS</b> Premium Set Economy Set	<b>YEARS</b>	<b>PART NO.</b> E-414K Std-30-40 E-414X Std-30-40-60	<b>DESCRIPTION</b> 2-5/64, 1-3/16 2-5/64, 1-3/16
	<b>ENGINE BEARINGS</b> Main Set Main Set Rod Set Rod Pair Cam Set Cam Set	<b>YEARS</b>	<b>PART NO.</b> 5085M Std-1-10-20-30-40 6687M10 10-20-30 6-3750P Std-1-10-20-30-40 3750P Std-1-10-20-30-40 1463M Std-1 1791M Std Only	<b>DESCRIPTION</b> w/.020" O/S length flange brg. Full round design, babbitt mtl. O.E. split type design.
	<b>OIL PUMP</b> Pump	<b>YEARS</b>	<b>PART NO.</b> 224-4146A	<b>DESCRIPTION</b> High Pressure, 5/8" inlet
V A L V E  T R A I N	<b>3.8L 230 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.) <b>5</b></b>			
	Marine Applications Models 140 from Ser. No. 1538930 to 1725960 (140 HP); 150 (150 HP)			
	<b>TIMING</b> Crank Gear Cam Gear	<b>YEARS</b>	<b>PART NO.</b> 221-2501 221-2524	<b>DESCRIPTION</b> From Ser. No. 1666495; 27 Teeth From Ser. No. 1666495; Alum.; 54 Teeth
	<b>CAMSHAFT/LIFTER</b> Lifter Lifter, Bulk	<b>YEARS</b>	<b>PART NO.</b> HT-817 Std Only HT-817B Std Only	<b>DESCRIPTION</b> From Ser. No. 1666495; Hyd. From Ser. No. 1666495; Hyd.; Carton of 128
	<b>PUSH ROD</b> Push Rod	<b>YEARS</b>	<b>PART NO.</b> RP-3214R	<b>DESCRIPTION</b> 9.6800" O.A.L.
	<b>ROCKER PARTS</b> Arm Assy. Arm Assy., Bulk	<b>YEARS</b>	<b>PART NO.</b> R-832 R-832B	<b>DESCRIPTION</b> Incl. arm, ball & nut Incl. arm, ball & nut; Carton of 64
	<b>VALVE</b> Exhaust  Intake  Intake, Bulk	<b>YEARS</b>	<b>PART NO.</b> V-1888X Std Only  V-1927 Std-3-15  V-1927B Std-15	<b>DESCRIPTION</b> Chrome plated stem; 1.5000" Head Dia., .3412" Stem Dia., 4.9230" O.A.L. Chrome plated stem; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L. Chrome plated stem; Carton of 25; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L.
	<b>VALVE GUIDE</b> Guide Guide Guide Guide Guide, Bulk Guide, Bulk Guide, Bulk	<b>YEARS</b>	<b>PART NO.</b> VG-5005 VG-5005H VG-5005T VG-5038 VG-5005TB VG-5005B VG-5038B	<b>DESCRIPTION</b> Exh.; .3430" ID, 2.2500" O.A.L. Exh.; Hardened; .3430" ID, 2.2500" O.A.L. Exh.; Threaded; .3425" ID, 2.2500" O.A.L. Int.; .3430" ID, 2.1200" O.A.L. Exh.; Threaded; Carton of 50; .3425" ID, 2.2500" O.A.L. Exh.; Carton of 50; .3430" ID, 2.2500" O.A.L. Int.; Carton of 50; .3430" ID, 2.1200" O.A.L.
	<b>VALVE SEAL</b> Positive Valve Stem Seal Positive Valve Stem Seal Valve Stem Seal Valve Stem Seal Bulk Valve Stem Seal Bulk  Tool	<b>YEARS</b>	<b>PART NO.</b> MV-1903 ST-2001 MV-1233C MV-1233 ST-2001BC  MT-2001H	<b>DESCRIPTION</b> Use w/repair guide; Rubber Use w/O.E. guide; Use w/MT-2001H tool; Rubber/Teflon® O-Ring; Rubber O-Ring; Carton of 100; Rubber Use w/O.E. guide; Use w/MT-2001H tool; Carton of 100; Rubber/Teflon® Use w/cyl. head off
	<b>VALVE SEAT</b> Exh.  Exh. Int.	<b>YEARS</b>	<b>PART NO.</b> 245-1562-1N  245-1562-1 245-1812-4	<b>DESCRIPTION</b> Optional-Premium Material; 1.5680" OD, 1.3125" ID, .2160" Depth 1.5675" OD, 1.3125" ID, .2160" Depth 1.8175" OD, 1.5625" ID, .2160" Depth
	<b>VALVE, MISC</b> Keeper Keeper Keeper, Bulk	<b>YEARS</b>	<b>PART NO.</b> VK-115 VK-115R VK-115B	<b>DESCRIPTION</b> Hardened Carton of 1000
	<b>PISTON</b> Cast Piston	<b>YEARS</b>	<b>PART NO.</b> 235P Std-20-30-40-60	<b>DESCRIPTION</b> 2-5/64", 1-3/16" Ring Groove, 1.780" CD, .9275" Pin Dia., Flat Head w/4 valve reliefs

(continued on next page)

When ordering please place "FED" in front of part number.

## Mercury Marine



5 3.8L 230 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.)				
(cont.) Marine Applications Models 140 from Ser. No. 1538930 to 1725960 (140 HP); 150 (150 HP)				
B L O C K	PISTON (cont.) Power Forged	YEARS	PART NO. L-2163F30 30-40-60	DESCRIPTION 2-5/64", 1-3/16" Ring Groove, 1.795" CD, .9272" Pin Dia., Flat Head w/4 valve reliefs. DurOshield® skirt coated piston.
	Pin		P-2208 Std-3-5-0015	
	RINGS	YEARS	PART NO.	DESCRIPTION
	Premium Set		E-234K Std-20-30-40-60	2-5/64, 1-3/16
	Economy Set		E-234X Std-20-30-40-60	2-5/64, 1-3/16
	ENGINE BEARINGS	YEARS	PART NO.	DESCRIPTION
	Main Set		4124MA * Std-1-10-20-30-40-50-60	A-Series bored aluminum bearings
	Main Set		4124M Std-1-10-20-30-40-50-60	A-Series bored aluminum bearings; When depleted use 4124MA
	Rod Set		6-2020CP Std-10-20-30-40	6-2020CA60 avail. as unplated & resizeable
	Rod Set		6-2020CA60 60	Unplated & resizeable
V A L V E T R A I N	Rod Pair		2020CP Std-1-2-10-20-30-40-50	
	Cam Set		1203M Std-10	
	OIL PUMP	YEARS	PART NO.	DESCRIPTION
	Pump		224-4147	
	Screen Assy.		224-1347	From Ser. No. 1820930 & up
	UTILITY PACK	YEARS	PART NO.	DESCRIPTION
	Rod & Main Brg.		UP1-118	
6 4.1L 250 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.) 1967-81				
Marine Applications Models 160 (160 HP); 165 from Ser. No. 2770032 to 6916778 (165 HP)				
V A L V E T R A I N	TIMING	YEARS	PART NO.	DESCRIPTION
	Gear Set		221-2528S	160 & 165 HP; Incl. (1) 221-2526, (1) 221-2527
	Crank Gear		221-2527	160 & 165 HP; 27 Teeth
	Cam Gear		221-2524	140 HP; Alum.; 54 Teeth
	Cam Gear		221-2526	160 & 165 HP; Alum.; 54 Teeth
	CAMSHAFT/LIFTER	YEARS	PART NO.	DESCRIPTION
	Cam		CS-1092M	
	Lifter		HT-817 Std Only	Hyd.
	Lifter, Bulk		HT-817B Std Only	Hyd.; Carton of 128
	Prelube		55-400	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
B L O C K	CAM KIT	YEARS	PART NO.	DESCRIPTION
	Cam/Lifter Kit		KC-1092M	Incl. (1) CS-1092M, (12) HT-817, (1) 55-403B
	PUSH ROD	YEARS	PART NO.	DESCRIPTION
	Push Rod		RP-3214R	9.6800" O.A.L.
	ROCKER PARTS	YEARS	PART NO.	DESCRIPTION
	Arm Assy.		R-832	Incl. arm, ball & nut
	Arm Assy., Bulk		R-832B	Incl. arm, ball & nut; Carton of 64
	VALVE	YEARS	PART NO.	DESCRIPTION
	Exhaust		V-1888X Std Only	Chrome plated stem; 1.5000" Head Dia., .3412" Stem Dia., 4.9230" O.A.L.
	Intake		V-1927 Std-3-15	Chrome plated stem; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L.
B L O C K	Intake, Bulk		V-1927B Std-15	Chrome plated stem; Carton of 25; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L.
	VALVE GUIDE	YEARS	PART NO.	DESCRIPTION
	Guide		VG-5005	Exh.; .3430" ID, 2.2500" O.A.L.
	Guide		VG-5005H	Exh.; Hardened; .3430" ID, 2.2500" O.A.L.
	Guide		VG-5005T	Exh.; Threaded; .3425" ID, 2.2500" O.A.L.
	Guide		VG-5038	Int.; .3430" ID, 2.1200" O.A.L.
	Guide, Bulk		VG-5005B	Exh.; Carton of 50; .3430" ID, 2.2500" O.A.L.
	Guide, Bulk		VG-5005TB	Exh.; Threaded; Carton of 50; .3425" ID, 2.2500" O.A.L.
	Guide, Bulk		VG-5038B	Int.; Carton of 50; .3430" ID, 2.1200" O.A.L.
	VALVE SEAL	YEARS	PART NO.	DESCRIPTION
B L O C K	Positive Valve Stem Seal		MV-1903	Use w/repair guide; Rubber
	Positive Valve Stem Seal		ST-2001	Use w/O.E. guide; Use w/MT-2001H tool; Rubber/Teflon®
	Valve Stem Seal		MV-1233C	O-Ring; Rubber
	Valve Stem Seal Bulk		MV-1233	O-Ring; Carton of 100; Rubber
	Valve Stem Seal Bulk		ST-2001BC	Use w/O.E. guide; Use w/MT-2001H tool; Carton of 100; Rubber/Teflon®
	Tool		MT-2001H	Use w/cyl. head off
	VALVE SEAT	YEARS	PART NO.	DESCRIPTION
	Exh.		245-1562-1N	Optional-Premium Material; 1.5680" OD, 1.3125" ID, .2160" Depth

\* New Item — Check For Availability

(continued on next page)

When ordering please place "FED" in front of part number.





## Mercury Marine

4.1L 250 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.) 1967-81 <b>6</b>				
Marine Applications Models 160 (160 HP); 165 from Ser. No. 2770032 to 6916778 (165 HP) (cont.)				
BLOCK	<b>VALVE SEAT (cont.)</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Exh.		245-1562-1	1.5675" OD, 1.3125" ID, .2160" Depth
	Int.		245-1812-4	1.8175" OD, 1.5625" ID, .2160" Depth
	<b>VALVE, MISC</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Keeper		VK-115	
	Keeper		VK-115R	Hardened
	Keeper, Bulk		VK-115B	Carton of 1000
	<b>PISTON</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cast Piston		403P Std-20-30-40-60-80	160 & 165 HP; 2-5/64", 1-3/16" Ring Groove, 1.640" CD, .9275" Pin Dia., Recessed Head .085" deep.
	Cast Piston		403CP Std-20-30-40-60-80	160 & 165 HP; 2-5/64", 1-3/16" Ring Groove, 1.640" CD, .9275" Pin Dia., Recessed Head .085" deep. <b>DurOshield® skirt coated piston.</b>
	Pin		P-2208 Std-3-5-0015	
BLOCK	<b>RINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Premium Set		E-234K Std-20-30-40-60	2-5/64, 1-3/16
	Economy Set		E-234X Std-20-30-40-60	2-5/64, 1-3/16
	<b>ENGINE BEARINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Main Set		4124MA * Std-1-10-20-30-40-50-60	<b>A-Series bored aluminum bearings</b>
	Main Set		4124M Std-1-10-20-30-40-50-60	<b>A-Series bored aluminum bearings;</b> When depleted use 4124MA
	Rod Set		6-2020CP Std-10-20-30-40	6-2020CA60 avail. as unplated & resizeable
	Rod Set		6-2020CA60 60	Unplated & resizeable
	Rod Pair		2020CP Std-1-2-10-20-30-40-50	
	Cam Set	81-71	1557M Std-10	
BLOCK	Cam Set	70-67	1203M Std-10	
	<b>OIL PUMP</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Pump		224-4147	
	Screen Assy.		224-1647	From Ser. No. 3777200 to 4331786
	Screen Assy.		224-1347	160 & 165 HP; To Ser. No. 3777199 & from Ser. No. 4331787
	<b>GASKETS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Kit Gasket Set		260-1508M	140 HP From Ser. No. 1538930 to 1725960; All 150 & 160 HP; 165 HP From Ser. No. 2770032 to 6916778; 200 HP From Ser. No. 2453769 to 2712072; 16 bolt oil pan gskt. not incl.; Standard Rotation
	<b>FREEZE PLUGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Brass Block Plug Kit		381-8006	
	<b>UTILITY PACK</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Rod & Main Brg.		UP1-118	
4.3L 262 OHV V6 (Chevrolet), 4" Bore (GMC Eng.) <b>7</b>				
Marine Applications Models 4.3 Liter, 4.3L (155 HP); 4.3 Liter, 4.3L (175 HP); 4.3LX (175 HP); 4.3LX (180 HP); 4.3LX (205 HP); 175 (175 HP w/2 Bbl.); 185 (185 HP w/2 Bbl.); 205 (205 HP w/4 Bbl.)				
BLOCK	<b>CAMSHAFT/LIFTER</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cam		CS-1049M	O.E. No. 14095789; Standard Rotation
	Cam		CS-1051M	O.E. No. 14096233; Standard Rotation; Rlr. cam; Use HT-2148 rlr. lifter.
	Lifter		HT-817 Std Only	Hyd.
	Lifter		HT-2148 Std Only	Hyd. rlr.
	Lifter, Bulk		HT-2148B Std Only	Hyd. rlr.; Carton of 128
	Lifter, Bulk		HT-817B Std Only	Hyd.; Carton of 128
	Prelube		55-400	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
	<b>PISTON</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cast Piston		640P Std-20-30-40-60-80	175 & 205 HP w/4.3LX, 4.3L Gen II, 4.3LX Gen II Eng.; 2-5/64", 1-3/16" Ring Groove, 1.540" CD, .9275" Pin Dia., Recessed Head .067" deep x 3.160" dia. - 8.4:1 C.R.
BLOCK	Power Forged		L-2403NF Std-20-30-40-60	175 & 205 HP w/4.3LX, 4.3L Gen II, 4.3LX Gen II Eng.; 2-5/64", 1-3/16" Ring Groove, 1.562" CD, .9275" Pin Dia., Recessed Head .068" deep. <b>DurOshield® skirt coated piston.</b>
	<b>RINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Premium Set		E-459K Std-20-30-40-60	2-5/64, 1-3/16
	<b>ENGINE BEARINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Main Set		5085M Std-1-10-20-30-40	w/.020" O/S length flange brg.
	Main Set		6687M10 10-20-30	<b>A-Series bored aluminum bearings</b>
	Main Set		5085MA Std-10-20-30-40	Use in .020" O/S Bore; <b>A-Series bored aluminum bearings</b>
	Main Set		7380MA10X20 * 10X20	

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FED" in front of part number.

## Mercury Marine



**7 4.3L 262 OHV V6 (Chevrolet), 4" Bore (GMC Eng.)**  
 (cont.) **Marine Applications** Models 4.3 Liter, 4.3L (155 HP); 4.3 Liter, 4.3L (175 HP); 4.3LX (175 HP); 4.3LX (180 HP); 4.3LX (205 HP); 175 (175 HP w/2 Bbl.); 185 (185 HP w/2 Bbl.); 205 (205 HP w/4 Bbl.)

B  
L  
O  
C  
K

ENGINE BEARINGS		YEARS	PART NO.	DESCRIPTION
(cont.)				
Main Set			7380M10X20 10X20	Use in .020" O/S Bore; <b>A-Series bored aluminum bearings</b> When depleted use 7380MA10X20
Rod Set			6-1020CP Std-.026-.25-.50-.75-1.00MM	
Rod Set			6-1020A Std-.25-.50-.75-1.00MM	<b>A-Series bored aluminum bearings</b>
Rod Set			6-1020CP25X2 25X2-50X2-75X2	Use in .002" O/S Rod Bore
Rod Pair			1020CP Std-.026-.25-.50-.75-1.00MM	
Cam Set			1855M Std-1	Full round design, babbitt mtl. Engs. identified w/"T" before the ID No., located on frt. of block
Cam Set			1463M Std-1	Full round design, babbitt mtl. Exc. Engs. identified w/"T" before the ID No., located on frt. of block
Cam Set			1791M Std Only	O.E. split type design. Exc. Engs. w/"T" before the ID No. Located on frt. of block
Ball Brg.			106L	Position Frt.; Bal. shaft front, ball brg.
Balance Shaft Bearing			3204DR Std Only	Position Rr.; Will not replace needle brg. used in early 1992 Engs.
OIL PUMP		YEARS	PART NO.	DESCRIPTION
Pump			224-4146A	High Pressure, 5/8" inlet
Inter. Shaft			224-6146	Use w/nylon shaft guide
Shaft Guide			224-43343	Nylon
GASKETS		YEARS	PART NO.	DESCRIPTION
Kit Gasket Set			260-1509M	Standard Rotation; Engs. w/o Balance shaft; Two-piece rear main brg. seal & four-piece oil pan gskt. incl.
UTILITY PACK		YEARS	PART NO.	DESCRIPTION
Rod & Main Brg.			UP1-126	Incl. A-Series bored aluminum bearings

B  
L  
O  
C  
K

**8 4.6L 283 OHV V8 (Chevrolet), 3.875" Bore (GMC Eng.)**  
**Marine Applications** Model 190 (190 HP)

VALVE TRAIN

<b>TIMING</b> 3 Piece Set Timing Chain Crank Sprocket Cam Sprocket	<b>YEARS</b>	<b>PART NO.</b> <b>KT3-163S</b> <b>222-163</b> <b>223-289</b> <b>223-288</b>	<b>DESCRIPTION</b> Double rlr.; Incl. (1) 222-163, (1) 223-288, (1) 223-289 Double rlr.; 58 Links Double row; 22 Teeth Double row; 44 Teeth
<b>CAMSHAFT/LIFTER</b> Cam Lifter Lifter, Bulk Prelube	<b>YEARS</b>	<b>PART NO.</b> <b>CS-274</b> <b>HT-817</b> Std Only <b>HT-817B</b> Std Only <b>55-400</b>	<b>DESCRIPTION</b> Hyd. Hyd.; Carton of 128 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
<b>CAM KIT</b> Cam/Lifter Kit	<b>YEARS</b>	<b>PART NO.</b> <b>KC-274</b>	<b>DESCRIPTION</b> Hyd.; Incl. (1) CS-274, (16) HT-817, (1) 55-403B
<b>PUSH ROD</b> Push Rod Push Rod, Bulk	<b>YEARS</b>	<b>PART NO.</b> <b>RP-3093</b> <b>BRP-3093</b>	<b>DESCRIPTION</b> 7.7940" O.A.L. Carton of 100; 7.7940" O.A.L.
<b>ROCKER PARTS</b> Arm Assy. Arm Assy., Bulk	<b>YEARS</b>	<b>PART NO.</b> <b>R-826</b> <b>R-826B</b>	<b>DESCRIPTION</b> Incl. arm, ball & nut Incl. arm, ball & nut; Carton of 64
<b>VALVE</b> Exhaust  Intake  Intake, Bulk	<b>YEARS</b>	<b>PART NO.</b> <b>V-1888X</b> Std Only  <b>V-1927</b> Std-3-15  <b>V-1927B</b> Std-15	<b>DESCRIPTION</b> Chrome plated stem; 1.5000" Head Dia., .3412" Stem Dia., 4.9230" O.A.L. Chrome plated stem; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L. Chrome plated stem; Carton of 25; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L.
<b>VALVE GUIDE</b> Guide Guide Guide Guide Guide, Bulk Guide, Bulk	<b>YEARS</b>	<b>PART NO.</b> <b>VG-5061</b> <b>VG-5005</b> <b>VG-5005H</b> <b>VG-5005T</b> <b>VG-5005B</b> <b>VG-5005TB</b>	<b>DESCRIPTION</b> Exh.; .3430" ID, 2.3800" O.A.L. Int.; .3430" ID, 2.2500" O.A.L. Int.; Hardened; .3430" ID, 2.2500" O.A.L. Int.; Threaded; .3425" ID, 2.2500" O.A.L. Int.; Carton of 50; .3430" ID, 2.2500" O.A.L. Int.; Threaded; Carton of 50; .3425" ID, 2.2500" O.A.L.
<b>VALVE SEAL</b> Positive Valve Stem Seal Positive Valve Stem Seal Valve Stem Seal	<b>YEARS</b>	<b>PART NO.</b> <b>MV-1903</b> <b>ST-2001</b> <b>MV-1233C</b>	<b>DESCRIPTION</b> Use w/repair guide; Rubber Use w/O.E. guide; Use w/MT-2001H tool; Rubber/Teflon® O-Ring; Rubber

VALVE TRAIN

(continued on next page)

When ordering please place "FED" in front of part number.





## Mercury Marine

**4.6L 283 OHV V8 (Chevrolet), 3.875" Bore (GMC Eng.) 8**  
**Marine Applications Model 190 (190 HP) (cont.)**

B L O C K	<b>VALVE SEAL</b> (cont.) Valve Stem Seal Bulk Valve Stem Seal Bulk  Tool	<b>YEARS</b>	<b>PART NO.</b> MV-1233 ST-2001BC  MT-2001H	<b>DESCRIPTION</b> O-Ring; Carton of 100; Rubber Use w/O.E. guide; Use w/MT-2001H tool; Carton of 100; Rubber/Teflon® Use w/cyl. head off	B L O C K	
	<b>VALVE SEAT</b> Exh.  Exh. Int.	<b>YEARS</b>	<b>PART NO.</b> 245-1562-1N  245-1562-1 245-1812-4	<b>DESCRIPTION</b> Optional-Premium Material; 1.5680" OD, 1.3125" ID, .2160" Depth 1.5675" OD, 1.3125" ID, .2160" Depth 1.8175" OD, 1.5625" ID, .2160" Depth		
	<b>VALVE, MISC</b> Keeper Keeper Keeper, Bulk Rotocap	<b>YEARS</b>	<b>PART NO.</b> VK-115 VK-115R VK-115B RC-157S	<b>DESCRIPTION</b>  Hardened Carton of 1000		
	<b>PISTON</b> Cast Piston  Power Forged	<b>YEARS</b>	<b>PART NO.</b> 235P Std-20-30-40-60  L-2163F30 30-40-60	<b>DESCRIPTION</b> 2-5/64", 1-3/16" Ring Groove, 1.780" CD, .9275" Pin Dia., Flat Head w/4 valve reliefs 2-5/64", 1-3/16" Ring Groove, 1.795" CD, .9272" Pin Dia., Flat Head w/4 valve reliefs. <b>DurOshield® skirt coated piston.</b>		
	<b>RINGS</b> Premium Set Economy Set	<b>YEARS</b>	<b>PART NO.</b> E-245K Std-20-30-40-60 E-245X Std-20-30-40-60-80	<b>DESCRIPTION</b> 2-5/64, 1-3/16 2-5/64, 1-3/16		
	<b>ENGINE BEARINGS</b> Main Set Rod Set Rod Pair  Cam Set Cam Set Cam Set Cam Set	<b>YEARS</b>	<b>PART NO.</b> 994M Std-1-10-20-30-40 8-2020CP Std-1-10-20-30-40 2020CP Std-1-2-10-20-30-40-50  1145M Std Only 1235M Std-1-10 1749M Std Only 1750M Std Only	<b>DESCRIPTION</b>    Full round design, babbitt mtl. Full round design, babbitt mtl. Heavy Duty Material Split type design, 2.030" housing bore		
	<b>OIL PUMP</b> Pump Inter. Shaft Screen Assy. Shaft Guide	<b>YEARS</b>	<b>PART NO.</b> 224-4146 224-6146 224-1346 224-43343	<b>DESCRIPTION</b> 5/8" inlet Use w/nylon shaft guide 5/8" inlet tube dia. Nylon		
	<b>GASKETS</b> Kit Gasket Set	<b>YEARS</b>	<b>PART NO.</b> 260-1510M	<b>DESCRIPTION</b> Standard Rotation; Two-piece rear main brg. seal, four-piece oil pan gskt., & rim bolt valve cover gskts. incl.		
	<b>FREEZE PLUGS</b> Brass Block Plug Kit Steel Block Plug Kit	<b>YEARS</b>	<b>PART NO.</b> 381-8007 381-4011	<b>DESCRIPTION</b>		
	K I T S	<b>OVERHAUL KIT</b> <b>YEARS</b> <b>DESCRIPTION</b> Std. Rotation				<b>PREMIUM KIT NO.</b> MKP-6271A MK-6271A
			Master Master w/o Pistons			
<b>UTILITY PACK</b> Rod & Main Brg.		<b>YEARS</b>	<b>PART NO.</b> UP1-128	<b>DESCRIPTION</b>		

**5.0L 302 OHV V8, 4" Bore (Ford Eng.) 9**  
**Marine Applications Models 215 (215 HP); 225 (225 HP); 888 (198 HP)**

B L O C K	<b>TIMING</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	B L O C K
	3 Piece Set		KT3-358S	From Ser. No. 3108723; w/1 pc. fuel pump ecc.; Incl. (1) 222-358, (1) 223-406, (1) 223-431	
	3 Piece Set		KT3-358SA	From Ser. No. 3108723; w/2 pc. fuel pump ecc.; Incl. (1) 222-358, (1) 223-430, (1) 223-431	
	2 Piece Set		KT2-358S	From Ser. No. 3108723; w/1 pc. fuel pump ecc.; Incl. (1) 222-358, (1) 223-406	
	Timing Chain		222-358	From Ser. No. 3108723; 58 Links	
	Crank Sprocket		223-431	From Ser. No. 3108723; If Eng. is equipped with an oil shield, the shield must be discarded when installing crank sprocket 223-431; 21 Teeth	
	Cam Sprocket		223-406	From Ser. No. 3108723; w/1 pc. fuel pump ecc.; 42 Teeth	
	Cam Sprocket		223-430	From Ser. No. 3108723; w/2 pc. fuel pump ecc.; 42 Teeth	
	<b>CAMSHAFT/LIFTER</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
	Cam		CS-1057M	Reverse Rotation	

(continued on next page)

When ordering please place "FED" in front of part number.

## Mercury Marine


**9 5.0L 302 OHV V8, 4" Bore (Ford Eng.)**  
 (cont.) Marine Applications Models 215 (215 HP); 225 (225 HP); 888 (198 HP)

VALVE TRAIN	CAMSHAFT/LIFTER	YEARS	PART NO.	DESCRIPTION
	(cont.) Cam		CS-674	Standard Rotation; 215 From Ser. No. 2781153 to Ser. No. 3395720; 888 From Ser. No. 3108723; 225 From Ser. No. 3385721 to Ser. No. 4166999
	Cam		CS-764	Standard Rotation; 225 & 225S
	Lifter		HT-900 Std Only	From Ser. No. 3108723; Hyd.
	Lifter, Bulk		HT-900B Std Only	From Ser. No. 3108723; Hyd.; Carton of 122
	Prelube		55-400	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
	CAM KIT	YEARS	PART NO.	DESCRIPTION
	Cam/Lifter Kit		KC-1057M	Reverse Rotation; 225 & 225S; Incl. (1) CS-1057M, (16) HT-900, (1) 55-403B
	Cam/Lifter Kit		KC-674	Standard Rotation; 215 & 888 w/351W firing order 1-3-7-2-6-5-4-8; Incl. (1) CS-674, (16) HT-900, (1) 55-403B
	Cam/Lifter Kit		KC-764	Standard Rotation; 225 & 225S w/351W firing order 1-3-7-2-6-5-4-8; Incl. (1) CS-764, (16) HT-900, (1) 55-403B
VALVE TRAIN	PUSH ROD	YEARS	PART NO.	DESCRIPTION
	Push Rod		RP-3166	From Ser. No. 3833160 to 4166999 & from Ser. No. 4615130; 8.1420" O.A.L.
	Push Rod		RP-3223R	To Ser. No. 3833159 & from Ser. No. 4167000 to 4615129; 6.8850" O.A.L.
	Push Rod, Bulk		BRP-3166B	From Ser. No. 3833160 to 4166999 & from Ser. No. 4615130; Carton of 100; 8.0920" O.A.L.
	Push Rod, Bulk		BRP-3166	From Ser. No. 3833160 to 4166999 & from Ser. No. 4615130; Carton of 100; 8.1420" O.A.L.
	ROCKER PARTS	YEARS	PART NO.	DESCRIPTION
	Arm Assy.		R-847	Incl. 3/8" & 5/16" nuts; Incl. arm, ball & nut
	Arm Assy., Bulk		R-847B	Incl. 3/8" & 5/16" nuts; Incl. arm, ball & nut; Carton of 64
	VALVE	YEARS	PART NO.	DESCRIPTION
	Exhaust		V-2044 Std Only	From Ser. No. 4167000 to 4615129; Chrome plated stem; 1.4610" Head Dia., .3414" Stem Dia., 5.0700" O.A.L.
VALVE TRAIN	Exhaust		V-1893 Std-3-15	To Ser. No. 4166999; Chrome plated stem; 1.5400" Head Dia., .3415" Stem Dia., 5.0700" O.A.L.
	VALVE SPRING	YEARS	PART NO.	DESCRIPTION
	Spring		VS-919	Exh.; From Ser. No. 4615130; 1.9000" Free Height
	Spring		VS-699 +	Exh. & Int.; To Ser. No. 4615129; 1.9430" Free Height; When depleted use VS-1435
	Spring		VS-1435	Exh. & Int.; To Ser. No. 4615129; 1.9650" Free Height
	Spring		VS-699 +	Int.; From Ser. No. 4615130; 1.9430" Free Height; When depleted use VS-1435
	Spring		VS-1435	Int.; From Ser. No. 4615130; 1.9650" Free Height
	Spring, Bulk		VS-919B	Exh.; From Ser. No. 4615130; Carton of 300; 1.9000" Free Height
	Spring, Bulk		VS-1435B	Exh. & Int.; To Ser. No. 4615129; Carton of 250; 1.9650" Free Height
	Spring, Bulk		VS-1435B	Int.; From Ser. No. 4615130; Carton of 250; 1.9650" Free Height
BLOCK	VALVE SEAL	YEARS	PART NO.	DESCRIPTION
	Valve Stem Seal		MV-1906	Umbrella type; Nylon
	VALVE, MISC	YEARS	PART NO.	DESCRIPTION
	Keeper		VK-115	
	Keeper		VK-115R	Hardened
	Keeper, Bulk		VK-115B	Carton of 1000
	PISTON	YEARS	PART NO.	DESCRIPTION
	Cast Piston		272AP Std-20-30-40-60-80	2-5/64", 1-3/16" Ring Groove, 1.585" CD, .9122" Pin Dia., Recessed Head .110" deep x 2.910" dia. w/4 valve reliefs - 8.9:1 C.R.
	Power Forged		L-2305F Std-20-30-40-60	2-5/64", 1-3/16" Ring Groove, 1.605" CD, .9122" Pin Dia., Recessed Head .068" deep w/4 valve reliefs and pressed pin. DurOshield® skirt coated piston
	RINGS	YEARS	PART NO.	DESCRIPTION
BLOCK	Premium Set		E-251K Std-10-20-30-40-60	2-5/64, 1-3/16
	Premium Set		E-251KC Std-10-20-30-40-60	2-5/64, 1-3/16
	Economy Set		E-251X Std-10-20-30-40-60-80	2-5/64, 1-3/16
	ENGINE BEARINGS	YEARS	PART NO.	DESCRIPTION
	Main Set		4125M Std-1-2-10-20-30-40-60	w/.020" O/S length flange brg.
	Main Set		7151M10 10-20-30	
	Main Set		4125MA Std-10-20-30-40	A-Series bored aluminum bearings
	Rod Set		8-2600A Std-10-20-30-40	A-Series bored aluminum bearings
	Rod Set		8-2600CP10X2 10X2-20X2-30X2-40X2	Use in .002" O/S Rod Bore
	Rod Set			

+ Superseded Part Number

(continued on next page)

When ordering please place "FED" in front of part number.



## Mercury Marine

5.0L 302 OHV V8, 4" Bore (Ford Eng.) 9				
Marine Applications Models 215 (215 HP); 225 (225 HP); 888 (198 HP) (cont.)				
B L O C K	<b>ENGINE BEARINGS</b> (cont.)	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Rod Set		8-2600A10X2 10X2-20X2-30X2	Use in .002" O/S Rod Bore; A-Series bored aluminum bearings
	Rod Set		8-2600CP Std-1-2-10-20-30-40	8-2600CA60 avail. as unplated & resizeable
	Rod Set		8-2600CA60 60	Unplated & resizeable
	Rod Pair		2600CP Std-1-2-10-20-30-40	
	Rod Pair		2600A Std-10-20-30-40	A-Series bored aluminum bearings
	Cam Set		1204M Std-10	Full round design, babbitt mtl.
	<b>OIL PUMP</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Pump		224-41118	
	Inter. Shaft		224-61118	
	<b>FREEZE PLUGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Brass Block Plug Kit		381-8015	
	<b>UTILITY PACK</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Rod & Main Brg.		UP1-101	Incl. A-Series bored aluminum bearings
5.0L 305 OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.) 10				
Marine Applications Models 5.0L (180 HP); 5.0L (190 HP); 5.0L (200 HP); 5.0LX (205 HP); 5.0LX (230 HP); 198/898 (198 HP); 200, 200/5.0L (200 HP); 228 (228 HP); 230, 230/5.0L, 230/5.0LX (230 HP)				
V A L V E  T R A I N	<b>TIMING</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	3 Piece Set		KT3-163S	Standard Rotation; From Ser. No. 4765100; Double rlr.; Incl. (1) 222-163, (1) 223-288, (1) 223-289
	3 Piece Set		KT3-4SR46	Standard Rotation; From Ser. No. 4765100; Single rlr.; Incl. (1) 222-4SR46, (1) 223-634, (1) 223-645
	2 Piece Set		KT2-4SR46	Standard Rotation; From Ser. No. 4765100; Single rlr.; Incl. (1) 222-4SR46, (1) 223-634
	Timing Chain		222-163	Standard Rotation; From Ser. No. 4765100; Double rlr.; 58 Links
	Timing Chain		222-4SR46	Standard Rotation; From Ser. No. 4765100; 46 Links
	Crank Sprocket		223-645	Standard Rotation; From Ser. No. 4765100
	Crank Sprocket		223-289	Standard Rotation; From Ser. No. 4765100; Double row; 22 Teeth
	Cam Sprocket		223-288	Standard Rotation; From Ser. No. 4765100; Double row; 44 Teeth
	Cam Sprocket		223-634	Standard Rotation; From Ser. No. 4765100; Single row; 36 Teeth
V A L V E  T R A I N	<b>CAMSHAFT/LIFTER</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cam		CS-1044M	Reverse Rotation
	Cam		CS-1043M	Standard Rotation
	Lifter		HT-817 Std Only	From Ser. No. 4765100; Hyd.
	Lifter, Bulk		HT-817B Std Only	From Ser. No. 4765100; Hyd.; Carton of 128
	Prelube		55-400	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
	<b>CAM KIT</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cam/Lifter Kit		KC-1044M	Reverse Rotation; Incl. (1) CS-1044M, (16) HT-817, (1) 55-403B
	Cam/Lifter Kit		KC-1043M	Standard Rotation; Incl. (1) CS-1043M, (16) HT-817, (1) 55-403B
	<b>PUSH ROD</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Push Rod		RP-3093	7.7940" O.A.L.
	Push Rod, Bulk		BRP-3093	Carton of 100; 7.7940" O.A.L.
V A L V E  T R A I N	<b>ROCKER PARTS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Arm Assy.		R-826	Incl. arm, ball & nut
	Arm Assy., Bulk		R-826B	Incl. arm, ball & nut; Carton of 64
	Stud		MR-1752	.003" O/S, 3/8" x 24 threads
	<b>VALVE</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Exhaust		V-1888X Std Only	1st design; Chrome plated stem; 1.5000" Head Dia., .3412" Stem Dia., 4.9230" O.A.L.
	Exhaust		V-1904 Std-3-15-30	1st design; Chrome plated stem; 1.5000" Head Dia., .3414" Stem Dia., 4.9280" O.A.L.
	Exhaust		V-1988X Std-3	2nd design; Chrome plated stem; 1.5000" Head Dia., .3718" Stem Dia., 4.9230" O.A.L.
	Exhaust, Bulk		V-1904B Std-15	1st design; Chrome plated stem; Carton of 25; 1.5000" Head Dia., .3414" Stem Dia., 4.9280" O.A.L.
	Exhaust, Bulk		V-1988XB Std Only	2nd design; Chrome plated stem; Carton of 25; 1.5000" Head Dia., .3718" Stem Dia., 4.9230" O.A.L.
V A L V E  T R A I N	Intake		V-1927 Std-3-15	Chrome plated stem; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L.
	Intake, Bulk		V-1927B Std-15	Chrome plated stem; Carton of 25; 1.7200" Head Dia., .3413" Stem Dia., 4.9170" O.A.L.
	<b>VALVE GUIDE</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Guide		VG-5005	Exh.; .3430" ID, 2.2500" O.A.L.
	Guide		VG-5046	Exh.; .3740" ID, 2.2500" O.A.L.

(continued on next page)

When ordering please place "FED" in front of part number.



## Mercury Marine

**10 5.0L 305 OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.)**

(cont.) **Marine Applications Models 5.0L (180 HP); 5.0L (190 HP); 5.0L (200 HP); 5.0LX (205 HP); 5.0LX (230 HP); 198/898 (198 HP); 200, 200/5.0L (200 HP); 228 (228 HP); 230, 230/5.0L, 230/5.0LX (230 HP)**

V A L V E  T R A I N	<b>VALVE GUIDE (cont.)</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	V A L V E  T R A I N
	Guide		<b>VG-5038</b>	Int.; .3430" ID, 2.1200" O.A.L.	
	Guide, Bulk		<b>VG-5005B</b>	Exh.; Carton of 50; .3430" ID, 2.2500" O.A.L.	
	Guide, Bulk		<b>VG-5038B</b>	Int.; Carton of 50; .3430" ID, 2.1200" O.A.L.	
	<b>VALVE SPRING</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
	Spring		<b>VS-727</b>	Exh.; 1st design; Valve guide height is .75"; Incl. damper; 1.9100" Free Height	
	Spring		<b>VS-677</b>	Exh. & Int.; 2nd design; Valve guide height is .84"; Incl. damper; 2.0300" Free Height	
	Spring		<b>VS-677</b>	Int.; 1st design; Valve guide height is .75"; Incl. damper; 2.0300" Free Height	
	Spring, Bulk		<b>VS-727B</b>	Exh.; 1st design; Valve guide height is .75"; Incl. damper; Carton of 250; 1.9100" Free Height	
	Spring, Bulk		<b>VS-677B</b>	Exh. & Int.; 1st design; Valve guide height is .75"; Incl. damper; Carton of 250; 2.0300" Free Height	
V A L V E  T R A I N	<b>VALVE SEAL</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	V A L V E  T R A I N
	Positive Valve Stem Seal		<b>MV-1903</b>	Use w/repair guide, w/.371" valve stem; Rubber	
	Positive Valve Stem Seal		<b>ST-2001</b>	Exh.; Use w/O.E. guide w/.343" valve stem; Use w/MT-2001H tool; Rubber/Teflon®	
	Valve Stem Seal		<b>MV-1233C</b>	O-Ring; Rubber	
	Valve Stem Seal Bulk		<b>MV-1233</b>	O-Ring; Carton of 100; Rubber	
	Valve Stem Seal Bulk		<b>ST-2001BC</b>	Exh.; Use w/O.E. guide w/.371" valve stem; Use w/MT-2001H tool; Carton of 100; Rubber/Teflon®	
	Tool		<b>MT-2001H</b>	Use w/cyl. head off	
	<b>VALVE SEAT</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
	Exh.		<b>245-1562-1N</b>	Optional-Premium Material; 1.5680" OD, 1.3125" ID, .2160" Depth	
	Exh.		<b>245-1562-1</b>	1.5675" OD, 1.3125" ID, .2160" Depth	
V A L V E  T R A I N	<b>VALVE, MISC</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	V A L V E  T R A I N
	Keeper		<b>VK-115</b>	Hardened	
	Keeper		<b>VK-115R</b>	Carton of 1000	
	Keeper, Bulk		<b>VK-115B</b>		
	Rotocap		<b>RC-157S</b>		
	<b>PISTON</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
	Cast Piston		<b>H826CP</b> Std-20-30-40-60	Not O.E. duplicate Wt.; Use in sets only; 2-5/64", 1-3/16" Ring Groove, 1.560" CD, .9275" Pin Dia., Recessed Head .140" deep x 2.830" dia. w/4 valve reliefs. <b>DurOshield® skirt coated piston.</b>	
	Cast Piston		<b>536NCP</b> Std-20-30-40-60	200/5.0L, 230/5.0LX & 230/5.0L MIE Eng.s.; 2-5/64", 1-3/16" Ring Groove, 1.540" CD, .9275" Pin Dia., Recessed Head .062" deep x 3.130" dia. <b>DurOshield® skirt coated piston.</b>	
	Cast Piston		<b>536NP</b> Std-20-30-40-60	200/5.0L, 230/5.0LX & 230/5.0L MIE Eng.s.; 2-5/64", 1-3/16" Ring Groove, 1.540" CD, .9275" Pin Dia., Recessed Head .062" deep x 3.130" dia.	
	Cast Piston		<b>454NP</b> Std-20-30-40-60	200, 228, 230, 898 & 989/198; 2-5/64", 1-3/16" Ring Groove, 1.540" CD, .9275" Pin Dia., Recessed Head .110" deep x 3.115" dia. - 8.5:1 C.R.	
B L O C K	<b>RINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	B L O C K
	Premium Set		<b>E-356K</b> Std-10-20-30-40-60	2-5/64, 1-3/16	
	Premium Set		<b>E-356KC</b> Std-10-20-30-40-60	2-5/64, 1-3/16	
	Economy Set		<b>E-356X</b> Std-20-30-40-60	2-5/64, 1-3/16	
	<b>ENGINE BEARINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
	Main Set		<b>4663M</b> Std-1-2-10-20-30-40-60	w/.010" O/S length flange brg.; <b>A-Series bored aluminum bearings</b>	
	Main Set		<b>7329MA10</b> * 10-20-30	w/.010" O/S length flange brg.; <b>A-Series bored aluminum bearings</b> ; When depleted use 7329MA10	
	Main Set		<b>7329M10</b> 10-20-30	w/.010" O/S length flange brg.; <b>A-Series bored aluminum bearings</b> ; When depleted use 7329MA10	
	Main Set		<b>6688M10</b> 10-20-30	w/.020" O/S length flange brg.	
	Main Set		<b>4663MA</b> Std-1-10-20-30-40	<b>A-Series bored aluminum bearings</b>	
B L O C K	Main Set		<b>7274MA10X20</b> * 10X20	<b>A-Series bored aluminum bearings</b> ; w/.020" O/S OD	B L O C K
	Main Set		<b>7274M10X20</b> 10X20	<b>A-Series bored aluminum bearings</b> ; w/.020" O/S OD; When depleted use 7274MA10X20	
	Rod Set		<b>8-2555A</b> Std-1-2-10-20-30-40-50-60	<b>A-Series bored aluminum bearings</b>	

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FED" in front of part number.





## Mercury Marine

5.0L 305 OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.) 10				
Marine Applications Models 5.0L (180 HP); 5.0L (190 HP); 5.0L (200 HP); 5.0LX (205 HP); 5.0LX (230 HP); 198/898 (198 HP); 200, 200/5.0L (200 HP); 228 (228 HP); 230, 230/5.0L, 230/5.0LX (230 HP)				
B L O C K	<b>ENGINE BEARINGS</b> (cont.)	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Rod Set		8-2555A10X2 10X2-20X2-30X2	A-Series bored aluminum bearings; Use in .002" O/S Rod Bore
	Rod Set		8-2555CP10X2 10X2-20X2-30X2-40X2	Use in .002" O/S Rod Bore; Overplated copper lead-alloy
	Rod Set		8-2555CP Std-1-2-10-20-30-40-50	8-2555CA60 avail. as unplated & resizeable; Overplated copper-lead alloy
	Rod Set		8-2555CA60 60	Unplated & resizeable
	Rod Pair		2555A Std-1-2-10-20-30-40-50-60	A-Series bored aluminum bearings
	Rod Pair		2555CP Std-1-2-10-20-30-40-50	Overplated copper-lead alloy
	Cam Set		1235M Std-1-10	Full round design, babbit mtl.
	Cam Set		1749M Std Only	Heavy Duty Material
	Cam Set		1750M Std Only	Split type design, 2.030" housing bore
V A L V E  T R A I N	<b>OIL PUMP</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Pump		224-4146A	High Pressure, 5/8" inlet
	Pump		224-120M	Optional Hi-Perf.
	Screen Assy.		224-1146	5/8" inlet tube dia.
	<b>FREEZE PLUGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Brass Block Plug Kit		381-8059	
	Steel Block Plug Kit		381-4016	
	<b>UTILITY PACK</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Rod & Main Brg.		UP1-100	Incl. A-Series bored aluminum bearings
5.3L 327 OHV V8 (Chevrolet), 4" Bore (GMC Eng.) 1963-69 11				
Marine Applications Models 225 (225 HP); 250 (250 HP)				
V A L V E  T R A I N	<b>TIMING</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	3 Piece Set		KT3-163S	Standard Rotation; Double rlr.; Incl. (1) 222-163, (1) 223-288, (1) 223-289
	3 Piece Set		KT3-4SR46	Standard Rotation; Single rlr.; Incl. (1) 222-4SR46, (1) 223-634, (1) 223-645
	2 Piece Set		KT2-4SR46	Standard Rotation; Single rlr.; Incl. (1) 222-4SR46, (1) 223-634
	Timing Chain		222-163	Standard Rotation; Double rlr.; 58 Links
	Timing Chain		222-4SR46	Standard Rotation; 46 Links
	Crank Sprocket		223-645	Standard Rotation
	Crank Sprocket		223-289	Standard Rotation; Double row; 22 Teeth
	Cam Sprocket		223-288	Standard Rotation; Double row; 44 Teeth
	Cam Sprocket		223-634	Standard Rotation; Single row; 36 Teeth
B L O C K	<b>CAMSHAFT/LIFTER</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cam		CS-1044M	Reverse Rotation
	Cam		CS-274	Standard Rotation
	Lifter		HT-817 Std Only	Hyd.
	Lifter, Bulk		HT-817B Std Only	Hyd.; Carton of 128
	Prelube		55-400	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
	<b>CAM KIT</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cam/Lifter Kit		KC-1044M	Reverse Rotation; Incl. (1) CS-1044M, (16) HT-817, (1) 55-403B
	Cam/Lifter Kit		KC-274	Standard Rotation; Hyd.; Incl. (1) CS-274, (16) HT-817, (1) 55-403B
B L O C K	<b>PISTON</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cast Piston		H951P Std-30-40-60	2-5/64", 1-3/16" Ring Groove, 1.655" CD, .9275" Pin Dia., Recessed Head .065" deep x 3.200" dia. w/2 valve reliefs
	<b>RINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Premium Set		E-251K Std-10-20-30-40-60	2-5/64, 1-3/16
	Premium Set		E-251KC Std-10-20-30-40-60	2-5/64, 1-3/16
	Economy Set		E-251X Std-10-20-30-40-60-80	2-5/64, 1-3/16
	<b>ENGINE BEARINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Main Set	69-68	4663M Std-1-2-10-20-30-40-60	
	Main Set	69-68	4663MA Std-1-10-20-30-40	A-Series bored aluminum bearings
	Main Set	67-63	994M Std-1-10-20-30-40	
	Main Set		7329MA10 * 10-20-30	w/.010" O/S length flange brg.; A-Series bored aluminum bearings
B L O C K	Main Set		7329M10 10-20-30	w/.010" O/S length flange brg.; A-Series bored aluminum bearings
	Main Set		6688M10 10-20-30	When depleted use 7329MA10
	Main Set			w/.020" O/S length flange brg.
	Rod Set	69-68	8-2555A Std-1-2-10-20-30-40-50-60	A-Series bored aluminum bearings

(continued on next page)

When ordering please place "FED" in front of part number.

## Mercury Marine


**11 5.3L 327 OHV V8 (Chevrolet), 4" Bore (GMC Eng.) 1963-69**  
 (cont.) Marine Applications Models 225 (225 HP); 250 (250 HP)

ENGINE BEARINGS			
(cont.)	YEARS	PART NO.	DESCRIPTION
Rod Set	69-68	8-2555CP10X2 10X2-20X2-30X2-40X2	Use in .002" O/S Rod Bore; Overplated copper lead-alloy
Rod Set	69-68	8-2555CP Std-1-2-10-20-30-40-50	8-2555CA60 avail. as unplated & resizeable; Overplated copper-lead alloy
Rod Set	67-63	8-2020CP Std-1-10-20-30-40	Unplated & resizeable <b>A-Series bored aluminum bearings</b>
Rod Set	69-68	8-2555CA60 60	
Rod Pair	69-68	2555A Std-1-2-10-20-30-40-50-60	Overplated copper-lead alloy
Rod Pair	69-68	2555CP Std-1-2-10-20-30-40-50	
Rod Pair	67-63	2020CP Std-1-2-10-20-30-40-50	
Cam Set		1235M Std-1-10	Full round design, babbitt mtl., early small block
Cam Set		1749M Std Only	Heavy Duty Material; Early small block
Cam Set		1750M Std Only	Split type design, 2.030" housing bore
OIL PUMP			
Pump	YEARS	PART NO.	DESCRIPTION
Inter. Shaft		224-4146	5/8" inlet
Shaft Guide		224-6146	Use w/nylon shaft guide
		224-43343	Nylon
GASKETS			
Kit Gasket Set	YEARS	PART NO.	DESCRIPTION
		260-1510M	Standard Rotation; Two-piece rear main brg. seal, four-piece oil pan gskt., & rim bolt valve cover gskts. incl.
UTILITY PACK			
Rod & Main Brg.	YEARS	PART NO.	DESCRIPTION
Rod & Main Brg.	69-68	UP1-100	Incl. A-Series bored aluminum bearings
	67-63	UP1-128	

B  
L  
O  
C  
K

**12 5.7L 350 OHV V8 (Chevrolet), 4" Bore (GMC Eng.)**

Marine Applications Models Black Scorpion (315 HP); 5.7L (230 HP); 5.7L (235 HP); 5.7L (260 HP); 5.7L Blue Water Inboard (250 HP); 5.7L Blue Water Inboard (260 HP); 5.7L Bravo (240 HP); 5.7L Bravo (250 HP); 5.7L Bravo (270 HP); 5.7L Comp Ski (250 HP); 5.7L Comp Ski (260 HP); 255 (255 HP); 260, 260/5.7L (260 HP); 270 (270 HP); 280 (280 HP); 300, 300 MR/TR (300 HP); 350 Magnum, 350 Magnum Tournament Ski (240 HP); 350 Magnum, 350 Magnum Tournament Ski (250 HP); 350 Magnum, 350 Magnum Tournament Ski (265 HP); 350 Magnum, 350 Magnum Tournament Ski (270 HP)

VALVE TRAIN

<b>TIMING</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
3 Piece Set		<b>KT3-163S</b>	250 HP From Ser. No. 4768000, & 255 HP From Ser. No. 4175500; Double rlr.; Incl. (1) 222-163, (1) 223-288, (1) 223-289
Timing Chain		<b>222-163</b>	250 HP From Ser. No. 4768000, & 255 HP From Ser. No. 4175500; Double rlr.; 58 Links
Crank Sprocket		<b>223-289</b>	250 HP From Ser. No. 4768000, & 255 HP From Ser. No. 4175500; Double row; 22 Teeth
Cam Sprocket		<b>223-288</b>	250 HP From Ser. No. 4768000, & 255 HP From Ser. No. 4175500; Double row; 44 Teeth
<b>CAMSHAFT/LIFTER</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Cam		<b>CS-1044M</b>	Reverse Rotation; Flat lifter
Cam		<b>CS-1043M</b>	Standard Rotation; Flat lifter; Exc. 270, 280, 300 & 320EFI
Cam		<b>CS-274</b>	Standard Rotation; Flat lifter; 270
Lifter		<b>HT-2148</b> Std Only	Hyd. rlr.
Lifter		<b>HT-817</b> Std Only	250 HP; From Ser. No. 4768000; 255 HP; From Ser. No. 4175500; Hyd.
Lifter, Bulk		<b>HT-2148B</b> Std Only	Hyd. rlr.; Carton of 128
Lifter, Bulk		<b>HT-817B</b> Std Only	250 HP; From Ser. No. 4768000; 255 HP; From Ser. No. 4175500; Hyd.; Carton of 128
Prelube		<b>55-400</b>	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
<b>CAM KIT</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Cam/Lifter Kit		<b>KC-1044M</b>	Reverse Rotation; 250 HP; From Ser. No. 4768000; 255 HP; From Ser. No. 4175500; Incl. (1) CS-1044M, (16) HT-817, (1) 55-403B
Cam/Lifter Kit		<b>KC-1043M</b>	Standard Rotation; 250 HP; From Ser. No. 4768000; 255 HP; From Ser. No. 4768000; Incl. (1) CS-1043M, (16) HT-817, (1) 55-403B
<b>PUSH ROD</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Push Rod		<b>RP-3093</b>	7.7940" O.A.L.
Push Rod, Bulk		<b>BRP-3093</b>	Carton of 100; 7.7940" O.A.L.
<b>ROCKER PARTS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Arm Assy.		<b>R-826</b>	Incl. arm, ball & nut
Arm Assy., Bulk		<b>R-826B</b>	Incl. arm, ball & nut; Carton of 64

VALVE TRAIN

(continued on next page)

When ordering please place "FED" in front of part number.



## Mercury Marine

## 5.7L 350 OHV V8 (Chevrolet), 4" Bore (GMC Eng.) 12

**Marine Applications** Models Black Scorpion (315 HP); 5.7L (230 HP); 5.7L (235 HP); 5.7L (260 HP); 5.7L Blue Water Inboard (250 HP); 5.7L Blue Water Inboard (260 HP); 5.7L Bravo (240 HP); 5.7L Bravo (250 HP); 5.7L Bravo (270 HP); 5.7L Comp Ski (250 HP); 5.7L Comp Ski (260 HP); 255 (255 HP); 260, 260/5.7L (260 HP); 270 (270 HP); 280 (280 HP); 300, 300 MR/TR (300 HP); 350 Magnum, 350 Magnum Tournament Ski (240 HP); 350 Magnum, 350 Magnum Tournament Ski (250 HP); 350 Magnum, 350 Magnum Tournament Ski (265 HP); 350 Magnum, 350 Magnum Tournament Ski (270 HP)

V A L V E  T R A I N	ROCKER PARTS (cont.)	YEARS	PART NO.	DESCRIPTION
	Stud		MR-1752	.003" O/S, 3/8" x 24 threads
	VALVE	YEARS	PART NO.	DESCRIPTION
	Exhaust		V-1888X Std Only	Chrome plated stem; 1.5000" Head Dia., .3412" Stem Dia., 4.9230" O.A.L.
	Intake		V-1926 Std-3-15	Chrome plated stem; 1.9400" Head Dia., .3410" Stem Dia., 4.8800" O.A.L.
	Intake, Bulk		V-1926B Std-15	Chrome plated stem; Carton of 25; 1.9400" Head Dia., .3410" Stem Dia., 4.8800" O.A.L.
	VALVE GUIDE	YEARS	PART NO.	DESCRIPTION
	Guide		VG-5005	Exh.; .3430" ID, 2.2500" O.A.L.
	Guide		VG-5005H	Exh.; Hardened; .3430" ID, 2.2500" O.A.L.
	Guide		VG-5005T	Exh.; Threaded; .3425" ID, 2.2500" O.A.L.
B L O C K	Guide		VG-5046	Int.; .3740" ID, 2.2500" O.A.L.
	Guide, Bulk		VG-5005B	Exh.; Carton of 50; .3430" ID, 2.2500" O.A.L.
	Guide, Bulk		VG-5005TB	Exh.; Threaded; Carton of 50; .3425" ID, 2.2500" O.A.L.
	VALVE SPRING	YEARS	PART NO.	DESCRIPTION
	Spring		VS-727	Exh.; Incl. damper; 1.9100" Free Height
	Spring		VS-677	Int.; Incl. damper; 2.0300" Free Height
	Spring, Bulk		VS-727B	Exh.; Incl. damper; Carton of 250; 1.9100" Free Height
	Spring, Bulk		VS-677B	Int.; Incl. damper; Carton of 250; 2.0300" Free Height
	VALVE SEAL	YEARS	PART NO.	DESCRIPTION
	Positive Valve Stem Seal		MV-1903	Use w/repair guide; Rubber
	Positive Valve Stem Seal		ST-2001	Use w/O.E. guide; Use w/MT-2001H tool; Rubber/Teflon®
	Valve Stem Seal		MV-1233C	O-Ring; Rubber
	Valve Stem Seal Bulk		MV-1233	O-Ring; Carton of 100; Rubber
	Valve Stem Seal Bulk		ST-2001BC	Use w/O.E. guide; Use w/MT-2001H tool; Carton of 100; Rubber/Teflon®
	Tool		MT-2001H	Use w/cyl. head off
	VALVE SEAT	YEARS	PART NO.	DESCRIPTION
	Exh.		245-1562-1N	Optional-Premium Material; 1.5680" OD, 1.3125" ID, .2160" Depth
	Exh.		245-1562-1	1.5675" OD, 1.3125" ID, .2160" Depth
	VALVE, MISC	YEARS	PART NO.	DESCRIPTION
	Keeper		VK-115	Hardened
	Keeper		VK-115R	Carton of 1000
	Keeper, Bulk		VK-115B	
	Rotocap		RC-157S	
	PISTON	YEARS	PART NO.	DESCRIPTION
	Cast Piston		H423NCP Std-20-30-40-60	Not O.E. duplicate Wt.; Use in sets only.; 2-5/64", 1-3/16" Ring Groove, 1.550" CD, .9275" Pin Dia., Recessed Head .100" deep x 2.750" dia. w/4 valve reliefs. <b>DurOshield® skirt coated piston.</b>
	Cast Piston		H423NP Std-20-30-40-60	Not O.E. duplicate Wt.; Use in sets only.; 2-5/64", 1-3/16" Ring Groove, 1.550" CD, .9275" Pin Dia., Recessed Head .100" deep x 2.750" dia. w/4 valve reliefs.
	Cast Piston		H345NCP Std-20-30-40-60	Not O.E. duplicate Wt.; Use in sets only.; 2-5/64", 1-3/16" Ring Groove, 1.560" CD, .9275" Pin Dia., Flat Head w/4 valve reliefs. <b>DurOshield® skirt coated piston.</b>
	Cast Piston		H345NP Std-20-30-40-60	Not O.E. duplicate Wt.; Use in sets only.; 2-5/64", 1-3/16" Ring Groove, 1.560" CD, .9275" Pin Dia., Flat Head w/4 valve reliefs.
	Cast Piston		H819CP Std-5-20-30-40-60	Use w/E-251KC, E-251KX & E251X ring set. Casting No. 10128213; 2-5/64", 1-3/16" Ring Groove, 1.560" CD, .9279" Pin Dia., Recessed Head .060" deep x 3.00" dia. w/2 valve reliefs. Use w/E251K, E251K C or E251X ring set. <b>DurOshield® skirt coated piston.</b>
	Cast Piston		345NP Std-20-30-40-60-80	2-5/64", 1-3/16" Ring Groove, 1.540" CD, .9275" Pin Dia., Flat Head w/4 valve reliefs - 8.7:1 C.R.
	Cast Piston		423NP Std-20-30-40-60-80	250, 255, 260, 260 HP/5.7L, 5.7L Alpha EFI, 5.7L Bravo, 5.7L Bravo EFI, 350 Mag Alpha, 350 Mag Bravo, 260 MIE, 260 HP/5.7L MIE, 5.7L MIE, 5.7L SKI Eng's.; 2-5/64", 1-3/16" Ring Groove, 1.540" CD, .9275" Pin Dia., Recessed Head .067" deep x 3.160" dia. - 8.4:1 C.R.
	Power Forged		L-2256F Std-20-30-40-60	2-5/64", 1-3/16" Ring Groove, 1.563" CD, .9275" Pin Dia., Flat Head w/4 valve reliefs. <b>DurOshield® skirt coated piston.</b>

(continued on next page)

When ordering please place "FED" in front of part number.



## Mercury Marine

**12 5.7L 350 OHV V8 (Chevrolet), 4" Bore (GMC Eng.)**

(cont.) **Marine Applications** Models Black Scorpion (315 HP); 5.7L (230 HP); 5.7L (235 HP); 5.7L (260 HP); 5.7L Blue Water Inboard (250 HP); 5.7L Blue Water Inboard (260 HP); 5.7L Bravo (240 HP); 5.7L Bravo (250 HP); 5.7L Bravo (270 HP); 5.7L Comp Ski (250 HP); 5.7L Comp Ski (260 HP); 255 (255 HP); 260, 260/5.7L (260 HP); 270 (270 HP); 280 (280 HP); 300, 300 MR/TR (300 HP); 350 Magnum, 350 Magnum Tournament Ski (240 HP); 350 Magnum, 350 Magnum Tournament Ski (250 HP); 350 Magnum, 350 Magnum Tournament Ski (265 HP); 350 Magnum, 350 Magnum Tournament Ski (270 HP)

B L O C K	<b>PISTON</b> (cont.) Power Forged	<b>YEARS</b>	<b>PART NO.</b> <b>L-2403NF</b> Std-20-30-40-60	<b>DESCRIPTION</b> 250, 255, 260 & 260 HP w/5.7L, 5.7L Alpha EFI, 5.7L Bravo, 5.7L Bravo EFI, 350 Mag Alpha, 350 Mag Bravo, 260 MIE, 260/5.7L MIE, 5.7L MIE, 5.7L SKI Eng.s.; 2-5/64", 1-3/16" Ring Groove, 1.562" CD, .9275" Pin Dia., Recessed Head .068" deep. <b>DurOshield® skirt coated piston.</b>	B L O C K
	<b>RINGS</b> Premium Set Premium Set Economy Set	<b>YEARS</b>	<b>PART NO.</b> <b>E-251K</b> Std-10-20-30-40-60 <b>E-251KC</b> Std-10-20-30-40-60 <b>E-251X</b> Std-10-20-30-40-60-80	<b>DESCRIPTION</b> 2-5/64, 1-3/16 2-5/64, 1-3/16 2-5/64, 1-3/16	
	<b>ENGINE BEARINGS</b> Main Set Main Set	<b>YEARS</b>	<b>PART NO.</b> <b>4663M</b> Std-1-2-10-20-30-40-60 <b>7329MA10 *</b> 10-20-30	<b>DESCRIPTION</b> w/.010" O/S length flange brg.; <b>A-Series bored aluminum bearings</b>	
	Main Set		<b>7329M10</b> 10-20-30	w/.010" O/S length flange brg.; <b>A-Series bored aluminum bearings</b> ; When depleted use 7329MA10	
	Main Set		<b>6688M10</b> 10-20-30	w/.020" O/S length flange brg.	
	Main Set		<b>4663MA</b> Std-1-10-20-30-40	<b>A-Series bored aluminum bearings</b>	
	Main Set		<b>7274MA10X20 *</b> 10X20	<b>A-Series bored aluminum bearings</b> ; w/.020" O/S OD	
	Main Set		<b>7274M10X20</b> 10X20	<b>A-Series bored aluminum bearings</b> ; w/.020" O/S OD; When depleted use 7274MA10X20	
	Rod Set		<b>8-2555A</b> Std-1-2-10-20-30-40-50-60	<b>A-Series bored aluminum bearings</b>	
	Rod Set		<b>8-2555CP10X2</b> 10X2-20X2-30X2-40X2	Use in .002" O/S Rod Bore; Overplated copper lead-alloy	
	Rod Set		<b>8-2555CP</b> Std-1-2-10-20-30-40-50	8-2555CA60 avail. as unplated & resizeable; Overplated copper-lead alloy	
	Rod Set		<b>8-2555CA60</b> 60	Unplated & resizeable	
	Rod Pair		<b>2555A</b> Std-1-2-10-20-30-40-50-60	<b>A-Series bored aluminum bearings</b>	
	Rod Pair		<b>2555CP</b> Std-1-2-10-20-30-40-50	Overplated copper-lead alloy	
	Cam Set		<b>1235M</b> Std-1-10	Full round design, babbitt mtl., late small block	
	Cam Set		<b>1749M</b> Std Only	Heavy Duty Material; Late small block	
	Cam Set		<b>1750M</b> Std Only	Split type design, 2.030" housing bore	
	<b>OIL PUMP</b> Pump Pump Screen Assy.	<b>YEARS</b>	<b>PART NO.</b> <b>224-4146A</b> <b>224-120M</b> <b>224-1146</b>	<b>DESCRIPTION</b> High Pressure, 5/8" inlet Optional Hi-Perf. 5/8" inlet tube dia.	
	<b>GASKETS</b> Kit Gasket Set	<b>YEARS</b>	<b>PART NO.</b> <b>260-1517M</b>	<b>DESCRIPTION</b> Reverse Rotation; One-piece rear main brg. seal, one-piece oil pan gskt. & both rim bolt & center bolt valve cover gskts. incl.	
	Kit Gasket Set		<b>260-1516M</b>	Standard Rotation; One-piece rear main brg. seal, one-piece oil pan gskt., & both rim bolt & center bolt valve cover gskts. incl.	
	<b>FREEZE PLUGS</b> Brass Block Plug Kit Steel Block Plug Kit	<b>YEARS</b>	<b>PART NO.</b> <b>381-8007</b> <b>381-4011</b>	<b>DESCRIPTION</b>	
	<b>UTILITY PACK</b> Rod & Main Brg.	<b>YEARS</b>	<b>PART NO.</b> <b>UP1-100</b>	<b>DESCRIPTION</b> Incl. A-Series bored aluminum bearings	

**13 5.8L 351 OHV V8 (Windsor), 4" Bore (Ford Eng.) 1969-76**

**Marine Applications** Models 233 from Ser. No. 3258728 to 4175499 (233 HP); 255 from Ser. No. 3258728 to 4175499 (255 HP)

<b>TIMING</b> 3 Piece Set	<b>YEARS</b>	<b>PART NO.</b> <b>KT3-358SA</b>	<b>DESCRIPTION</b> From Ser. No. 3258728 to 4175499; Incl. (1) 222-358, (1) 223-430, (1) 223-431
Timing Chain		<b>222-358</b>	From Ser. No. 3258728 to 4175499; 58 Links
Crank Sprocket		<b>223-431</b>	From Ser. No. 3258728 to 4175499; If Eng. is equipped with an oil shield, the shield must be discarded when installing crank sprocket 223-431; 21 Teeth
Cam Sprocket		<b>223-430</b>	From Ser. No. 3258728 to 4175499; 42 Teeth
<b>CAMSHAFT/LIFTER</b> Cam	<b>YEARS</b>	<b>PART NO.</b> <b>CS-1057M</b>	<b>DESCRIPTION</b> Reverse Rotation; Firing order 1-8-4-5-6-2-7-3

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FED" in front of part number.





## Mercury Marine

**5.8L 351 OHV V8 (Windsor), 4" Bore (Ford Eng.) 1969-76 13**  
**Marine Applications Models 233 from Ser. No. 3258728 to 4175499 (233 HP); 255 from Ser. No. 3258728 to 4175499 (255 HP) (cont.)**

V A L V E  T R A I N	<b>CAMSHAFT/LIFTER</b> (cont.)	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cam		<b>CS-764</b>	Standard Rotation
	Performance Cam		<b>CS-1067R</b>	Standard Rotation; Use 351W firing order 1-3-7-2-6-5-4-8; Pro-2000 Perf. Cam; Hyd.; Duration at .050: 206 Int., 221 Exh.; Valve lift .4450" Int., .4530" Exh.; Lobe Separation 115 Degrees
	Lifter		<b>HT-900</b> Std Only	From Ser. No. 3258728 to 4175499; Hyd.
	Lifter, Bulk		<b>HT-900B</b> Std Only	From Ser. No. 3258728 to 4175499; Hyd.; Carton of 122
	Prelube		<b>55-400</b>	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
	<b>CAM KIT</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cam/Lifter Kit		<b>KC-1057M</b>	Reverse Rotation; Incl. (1) CS-1057M, (16) HT-900, (1) 55-403B
	Cam/Lifter Kit		<b>KC-764</b>	Standard Rotation; Incl. (1) CS-764, (16) HT-900, (1) 55-403B
	Cam/Lifter Kit		<b>KC-1067R</b>	Standard Rotation; Pro-2000 Perf. Cam; Incl. (1) CS-1067R, (16) HT-900, (1) 55-403B
	<b>PUSH ROD</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Push Rod		<b>RP-3166</b>	8.1420" O.A.L.
	Push Rod, Bulk		<b>BRP-3166B</b>	Carton of 100; 8.0920" O.A.L.
	Push Rod, Bulk		<b>BRP-3166</b>	Carton of 100; 8.1420" O.A.L.
	<b>ROCKER PARTS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Arm Assy.		<b>R-847</b>	Incl. 3/8" & 5/16" nuts.; Incl. arm, ball & nut
	Arm Assy., Bulk		<b>R-847B</b>	Incl. 3/8" & 5/16" nuts.; Incl. arm, ball & nut; Carton of 64
B L O C K	<b>VALVE</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Exhaust		<b>V-1893</b> Std-3-15	Chrome plated stem; 1.5400" Head Dia., .3415" Stem Dia., 5.0700" O.A.L.
	<b>VALVE GUIDE</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Guide		<b>VG-5005</b>	.3430" ID, 2.2500" O.A.L.
	Guide		<b>VG-5005H</b>	Hardened; .3430" ID, 2.2500" O.A.L.
	Guide		<b>VG-5005T</b>	Threaded; .3425" ID, 2.2500" O.A.L.
	Guide, Bulk		<b>VG-5005B</b>	Carton of 50; .3430" ID, 2.2500" O.A.L.
	Guide, Bulk		<b>VG-5005TB</b>	Threaded; Carton of 50; .3425" ID, 2.2500" O.A.L.
	<b>VALVE SPRING</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Spring		<b>VS-699 +</b>	1.9430" Free Height; When depleted use VS-1435
	Spring		<b>VS-1435</b>	1.9650" Free Height
	Spring, Bulk		<b>VS-1435B</b>	Carton of 250; 1.9650" Free Height
	<b>VALVE SEAL</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Positive Valve Stem Seal		<b>MV-1903</b>	Use w/repair guide; Rubber
	Positive Valve Stem Seal		<b>ST-2001</b>	Use w/O.E. guide; Use w/MT-2001H tool; Rubber/Teflon®
	Valve Stem Seal		<b>MV-1906</b>	Umbrella type; Nylon
	Valve Stem Seal Bulk		<b>ST-2001BC</b>	Use w/O.E. guide; Use w/MT-2001H tool; Carton of 100; Rubber/Teflon®
	Tool		<b>MT-2001H</b>	Use w/cyl. head off
B L O C K	<b>VALVE SEAT</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Exh.		<b>245-1625-1</b>	1.6300" OD, 1.3750" ID, .2160" Depth
	<b>VALVE, MISC</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Keeper		<b>VK-115</b>	Hardened
	Keeper		<b>VK-115R</b>	Carton of 1000
	Keeper, Bulk		<b>VK-115B</b>	
	<b>PISTON</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Cast Piston		<b>463P</b> Std-20-30-40-60	233 HP; 2-5/64", 1-3/16" Ring Groove, 1.752" CD, .9122" Pin Dia., Recessed Head .140" deep w/2 valve reliefs - 8.1:1 C.R.
	<b>RINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Premium Set		<b>E-251K</b> Std-10-20-30-40-60	2-5/64, 1-3/16
	Premium Set		<b>E-251KC</b> Std-10-20-30-40-60	2-5/64, 1-3/16
	Economy Set		<b>E-251X</b> Std-10-20-30-40-60-80	2-5/64, 1-3/16
	<b>ENGINE BEARINGS</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Main Set	76-69	<b>7156M10</b> 10-20-30	w/.020" O/S length flange brg.
	Main Set		<b>5107M</b> Std-1-10-20-30-40	
	Rod Set		<b>8-3380CPA</b> Std-1-10-20-30-40	
	Rod Set		<b>8-3380A</b> Std-10-20-30-40	<b>A-Series bored aluminum bearings</b>
	Rod Set		<b>8-3380CPA10X2</b> 10X2-20X2-30X2-40X2	Use in .002" O/S Rod Bore
	Rod Pair		<b>3380CPA</b> Std-1-10-20-30-40	
	Rod Pair		<b>3380A</b> Std-10-20-30-40	<b>A-Series bored aluminum bearings</b>
	Cam Set		<b>1204M</b> Std-10	Full round design, babbitt mtl.
	<b>OIL PUMP</b>	<b>YEARS</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
	Pump		<b>224-41143</b>	

(continued on next page)

+ Superseded Part Number

When ordering please place "FED" in front of part number.

## Mercury Marine



**13 5.8L 351 OHV V8 (Windsor), 4" Bore (Ford Eng.) 1969-76**  
 (cont.) **Marine Applications** Models 233 from Ser. No. 3258728 to 4175499 (233 HP); 255 from Ser. No. 3258728 to 4175499 (255 HP)

K I T S	OIL PUMP (cont.)	YEARS	PART NO.	DESCRIPTION	PREMIUM KIT NO. MKP-6201A MK-6201A	ECONOMY KIT NO. ----- -----	K I T S
	Screen Assy.		224-11143				
	GASKETS	YEARS	PART NO.	DESCRIPTION			
	Kit Gasket Set		260-1524M	Standard Rotation			
K I T S	FREEZE PLUGS	YEARS	PART NO.	DESCRIPTION	PREMIUM KIT NO. MKP-6201A MK-6201A	ECONOMY KIT NO. ----- -----	K I T S
	Brass Block Plug Kit		381-8015				
	OVERHAUL KIT	YEARS	DESCRIPTION				
	Std. Rotation			Master Master w/o Pistons			
K I T S	UTILITY PACK	YEARS	PART NO.	DESCRIPTION	PREMIUM KIT NO. MKP-6201A MK-6201A	ECONOMY KIT NO. ----- -----	K I T S
	Rod & Main Brg.		UP1-117				

**14 7.0L 427 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)**  
**Marine Applications** Model 325 (325 HP)

K I T S	TIMING	YEARS	PART NO.	DESCRIPTION	PREMIUM KIT NO. MKP-6201A MK-6201A	ECONOMY KIT NO. ----- -----	K I T S
	Gear Set		221-2532S	Reverse Rotation; Cam gear 221-2530 & crank gear 221-2531 are not sold separately; Incl. (1) 221-2530, (1) 221-2531			
	CAMSHAFT/LIFTER	YEARS	PART NO.	DESCRIPTION			
	Cam Cam Lifter Lifter, Bulk Prelube		CS-1045M CS-1093M HT-817 Std Only HT-817B Std Only 55-400	Reverse Rotation Standard Rotation Hyd. Hyd.; Carton of 128 4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.			
K I T S	CAM KIT	YEARS	PART NO.	DESCRIPTION	PREMIUM KIT NO. MKP-6201A MK-6201A	ECONOMY KIT NO. ----- -----	K I T S
	Cam/Lifter Kit Cam/Lifter Kit		KC-1045M KC-1093M	Reverse Rotation; Incl. (1) CS-1045M, (16) HT-817, (1) 55-403B Standard Rotation; Chain driven; Incl. (1) CS-1093M, (16) HT-817, (1) 55-403B			
	RINGS	YEARS	PART NO.	DESCRIPTION			
	Premium Set Economy Set		E-233K Std-20-30-40-60 E-233X Std-20-30-40-60	2-5/64, 1-3/16 2-5/64, 1-3/16			
K I T S	ENGINE BEARINGS	YEARS	PART NO.	DESCRIPTION	PREMIUM KIT NO. MKP-6201A MK-6201A	ECONOMY KIT NO. ----- -----	K I T S
	Main Set Main Set Main Set		7122M10 10-20-30 4400MA Std-1-2-10-20-30-40 4400M Std-1-2-10-20-30-40	w/.020" O/S length flange brg. <b>A-Series bored aluminum bearings</b> <b>A-Series bored aluminum bearings;</b> When depleted use 4400MA			
	Rod Set Rod Set		8-3190A Std-1-2-10-20-30-40 8-3190CP Std-1-2-10-20-30-40	<b>A-Series bored aluminum bearings</b> 8-3190CA60 avail. as unplated & resizeable			
	Rod Set Rod Pair Cam Set		8-3190CA60 60 3190CP Std-1-2-10-20-30-40 1404M Std Only	Unplated & resizeable			
K I T S	OIL PUMP	YEARS	PART NO.	DESCRIPTION	PREMIUM KIT NO. MKP-6201A MK-6201A	ECONOMY KIT NO. ----- -----	K I T S
	Pump Pump Pump		224-4154 224-4154G 224-121M	Optional Hi-Perf.			
	GASKETS	YEARS	PART NO.	DESCRIPTION			
	Kit Gasket Set Kit Gasket Set		260-1519M 260-1518M	Reverse Rotation; Incl. oval port int. manifold gskts. Standard Rotation; Incl. oval port int. manifold gskts.			
K I T S	FREEZE PLUGS	YEARS	PART NO.	DESCRIPTION	PREMIUM KIT NO. MKP-6201A MK-6201A	ECONOMY KIT NO. ----- -----	K I T S
	Brass Block Plug Kit		381-8009				
	UTILITY PACK	YEARS	PART NO.	DESCRIPTION			
	Rod & Main Brg.		UP1-107				



## Mercury Marine

## 7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.) 15

**Marine Applications** Models HP420 (420 HP Gen. IV & Gen. V); HP425 (385 HP Gen. IV & Gen. V); HP425 (400 HP Gen. IV & Gen. V); HP425 (425 HP Gen. IV & Gen. V); HP 525 SC (500 HP Gen. V); 7.4L Blue Water Inboard to Ser. No. D715493 (310 HP & 340 HP Gen. IV); 7.4L Blue Water Inboard from Ser. No. D715494 (310 HP Gen. V); 7.4L Bravo to Ser. No. D603117 (300 HP & 330 HP Gen. IV); 7.4L Bravo I from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo II from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo III from Ser. No. D603118 (350 HP Gen. V); 7.4L EFI Inboard from Ser. No. F215800 (310 HP Gen. V); 330 (330 HP Gen. IV); 340 (340 HP Gen. IV); 350 (350 HP Gen. IV); 370 TRS (370 HP Gen. IV); 400 TRS (400 HP Gen. IV); 450 (450 HP Gen. V); 454 Magnum Alpha from Ser. No. A631894 to B785148 (330 HP Gen. IV); 454 Magnum Bravo from Ser. No. B721206 to D805068 (350 HP & 365 HP Gen. IV); 454 Magnum Bravo from Ser. No. D805069 (350 HP Gen. V)

TIMING	YEARS	PART NO.	DESCRIPTION
3 Piece Set		KT3-501SA	Standard Rotation; 330 From Ser. No. 4623115; Bravo From Ser. No. 0B771113 to 0D603117; Mag Alpha From Ser. No. 0A631 to 0B785148; 330MIE From Ser. No. 4623115 to 5889913; 340MIE From Ser. No. 5889914 to 0D715493; MIE w/Hurth From Ser. No. 0C391564 to 0D71593; 350MIE From Ser. No. 3780450 to 4623109; Incl. (1) 222-501, (1) 223-392, (1) 223-393
2 Piece Set		KT2-501SA	Incl. (1) 222-501, (1) 223-392
Timing Chain		222-168	Double rlr.; 66 Links
Timing Chain		222-501	Silent type; 50 Links
Crank Sprocket		223-393	19 Teeth
Crank Sprocket		223-395	25 Teeth
Cam Sprocket		223-392N	Nylon; 38 Teeth
Cam Sprocket		223-392	38 Teeth
Cam Sprocket		223-394	50 Teeth
CAMSHAFT/LIFTER	YEARS	PART NO.	DESCRIPTION
Cam		CS-1045M	Reverse Rotation; 330MIE, 340MIE B-W, 350MIE; Gear drive cam; Firing order 1-2-7-5-6-3-4-8
Cam		CS-1047M	Standard Rotation; EFI (Gen V), EFI SKI, Mag Bravo Mag Bravo (Gen V)
Cam		CS-1093M	Standard Rotation; 330, 330MIE, 340MIE, 350MIE, Bravo, Bravo Gen V, Mag Alpha, MIE EFI Gen V, MIE Gen V, MIE w/Hurth Eng.
Lifter		HT-969 Std Only	EFI Gen V, EFI SKI, Mag Bravo, Mag Bravo Gen V; Hyd.
Lifter		HT-817 Std Only	330, 330MIE, 340MIE w/B-W, 350MIE, 370TRS, Bravo, Mag Alpha & MIE w/Hurth; Hyd.
Lifter, Bulk		HT-969B Std Only	EFI Gen V, EFI SKI, Mag Bravo, Mag Bravo Gen V; Hyd.; Carton of 128
Lifter, Bulk		HT-817B Std Only	330, 330MIE, 340MIE w/B-W, 350MIE, 370TRS, Bravo, Mag Alpha & MIE w/Hurth; Hyd.; Carton of 128
Prelube		55-400	4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
CAM KIT	YEARS	PART NO.	DESCRIPTION
Cam/Lifter Kit		KC-1045M	Reverse Rotation; 330 MIE, 340/7.4L MIE & 350 MIE; Gear drive cam; Firing order 1-2-7-5-6-3-4-8; Incl. (1) CS-1045M, (16) HT-817, (1) 55-403B
Cam/Lifter Kit		KC-1093M	Standard Rotation; 330, 7.4L Bravo, 7.4L Bravo Gen V, 454 Mag Alpha, 7.4L EFI MIE Gen V, 330 Gen V, 330 Gen V, 454 Mag Alpha, 7.4L EFI MIE Gen V, 330 MIE & 350 MIE Eng.; Incl. (1) CS-1093M, (16) HT-817, (1) 55-403B
Cam/Lifter Kit		KC-1047M	Standard Rotation; 454 Mag Bravo, 454 Mag Bravo (Gen V), 454 EFI (Gen V) & 454 EFI SKI; Incl. (1) CS-1047M, (16) HT-817, (1) 55-403B
ROCKER PARTS	YEARS	PART NO.	DESCRIPTION
Arm Assy.		R-851	Incl. arm, ball & nut
Arm Assy., Bulk		R-851B	Incl. arm, ball & nut; Carton of 64
Nut		MR-1813	w/7/16" thread
Stud		MR-1910RS	
VALVE	YEARS	PART NO.	DESCRIPTION
Exhaust		V-1989X Std Only	Chrome plated stem; 1.7200" Head Dia., .3716" Stem Dia., 5.3550" O.A.L.
Intake		V-1905 Std Only	From Ser. No. 4501641 to 4623114; Chrome plated stem; 2.1900" Head Dia., .3720" Stem Dia., 5.2250" O.A.L.
VALVE GUIDE	YEARS	PART NO.	DESCRIPTION
Guide		VG-688	Exh.; .3740" ID, 2.6300" O.A.L.
Guide		VG-689	Int.; .3735" ID, 2.4200" O.A.L.
Guide, Bulk		VG-688B	Exh.; Carton of 50; .3740" ID, 2.6300" O.A.L.
Guide, Bulk		VG-689B	Int.; Carton of 50; .3735" ID, 2.4200" O.A.L.
VALVE SPRING	YEARS	PART NO.	DESCRIPTION
Spring		VS-671	From Ser. No. 4623115; 2.0500" Free Height

(continued on next page)

When ordering please place "FED" in front of part number.



## Mercury Marine

**15 7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)**

(cont.) **Marine Applications** Models HP420 (420 HP Gen. IV & Gen. V); HP425 (385 HP Gen. IV & Gen. V); HP425 (400 HP Gen. IV & Gen. V); HP425 (425 HP Gen. IV & Gen. V); HP 525 SC (500 HP Gen. V); 7.4L Blue Water Inboard to Ser. No. D715493 (310 HP & 340 HP Gen. IV); 7.4L Blue Water Inboard from Ser. No. D715494 (310 HP Gen. V); 7.4L Bravo to Ser. No. D603117 (300 HP & 330 HP Gen. IV); 7.4L Bravo I from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo II from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo III from Ser. No. D603118 (350 HP Gen. V); 7.4L EFI Inboard from Ser. No. F215800 (310 HP Gen. V); 330 (330 HP Gen. IV); 340 (340 HP Gen. IV); 350 (350 HP Gen. IV); 370 TRS (370 HP Gen. IV); 400 TRS (400 HP Gen. IV); 450 (450 HP Gen. V); 454 Magnum Alpha from Ser. No. A631894 to B785148 (330 HP Gen. IV); 454 Magnum Bravo from Ser. No. B721206 to D805068 (350 HP & 365 HP Gen. IV); 454 Magnum Bravo from Ser. No. D805069 (350 HP Gen. V)

B L O C K	<b>VALVE SPRING</b> (cont.) Spring, Bulk	<b>YEARS</b>	<b>PART NO.</b> VS-671B	<b>DESCRIPTION</b> From Ser. No. 4623115; Carton of 150; 2.0500" Free Height	B L O C K
	<b>VALVE SEAL</b> Valve Stem Seal Valve Stem Seal Bulk	<b>YEARS</b>	<b>PART NO.</b> MV-1769C MV-1769	<b>DESCRIPTION</b> Umbrella type; Polyacrylate Umbrella type; Carton of 100; Polyacrylate	
	<b>VALVE, MISC</b> Keeper Keeper Keeper, Bulk	<b>YEARS</b>	<b>PART NO.</b> VK-138 VK-138R VK-138B	<b>DESCRIPTION</b> Hardened Carton of 1000	
	<b>PISTON</b> Cast Piston	<b>YEARS</b>	<b>PART NO.</b> H661CP	<b>DESCRIPTION</b> Std-20-30-40-60-100 330, 330 MIE, 340/7.4L MIE, 7.4L Bravo, 7.4L MIE w/Hurth, 7.4L Bravo, 454 Mag Alpha. All Exc. GEN V Engs.; Use in complete sets only; 2-5/64", 1-3/16" Ring Groove, 1.625" CD, .9893" Pin Dia., Flat Head w/2 valve reliefs. Use E424K30 ring set for H661CP100. <b>DurOshield® skirt coated piston.</b>	
	Power Forged		L-2377F	Std-20-30-40-60 330, 330 MIE, 340/7.4L MIE, 7.4L Bravo, 7.4L MIE w/Hurth, 7.4L Bravo, 454 Mag Alpha. All Exc. GEN V Engs.; 2-5/64", 1-3/16" Ring Groove, 1.640" CD, .9894" Pin Dia., Flat Head w/2 valve reliefs, .18" wide X 45 degree top land chamfer. <b>DurOshield® skirt coated piston.</b>	
	Power Forged		L-2399F	Std-30-40-60 350, 370 TRS, 400 TRS, 420, 425, 440 TRS, 454 Mag Bravo; Exc. GEN V Engs.; 2-5/64", 1-3/16" Ring Groove, 1.645" CD, .9894" Pin Dia., Domed Head .095" high. <b>DurOshield® skirt coated piston.</b>	
	Power Forged		L-2453F	Std-30-60 525SC Engs., Exc. GEN V; 2-5/64", 1-3/16" Ring Groove, 1.640" CD, .9897" Pin Dia., Recessed Head w/one valve relief. <b>DurOshield® skirt coated piston.</b>	
	<b>RINGS</b> Premium Set Economy Set	<b>YEARS</b>	<b>PART NO.</b> E-233K E-233X	<b>DESCRIPTION</b> Std-20-30-40-60 2-5/64, 1-3/16 Std-20-30-40-60 2-5/64, 1-3/16	
	<b>ENGINE BEARINGS</b> Main Set Main Set Main Set	<b>YEARS</b>	<b>PART NO.</b> 7122M10 4400MA 4400M	<b>DESCRIPTION</b> 10-20-30 w/.020" O/S length flange brg. Std-1-2-10-20-30-40 <b>A-Series bored aluminum bearings</b> Std-1-2-10-20-30-40 <b>A-Series bored aluminum bearings</b> ; When depleted use 4400MA	
	Main Set Rod Set Rod Set		7273M 8-3190A 8-3190CP	Std-10-20-30 Engs. w/full grooved brgs. Std-1-2-10-20-30-40 <b>A-Series bored aluminum bearings</b> Std-1-2-10-20-30-40 8-3190CA60 avail. as unplated & resizeable	
	Rod Set Rod Pair Cam Set		8-3190CA60 3190CP 1404M	60 Unplated & resizeable Std-1-2-10-20-30-40 Std Only Full round design, babbitt mtl.	
	<b>OIL PUMP</b> Pump	<b>YEARS</b>	<b>PART NO.</b> 224-4154G	<b>DESCRIPTION</b> "Short Pump", compare to orig.; Check for adequate main cap and crankshaft clearance	
	Pump		224-4154	"Tall Pump", compare to orig.; Check for adequate main cap and crankshaft clearance	
	Pump		224-121M	Optional Hi-Perf.	
	<b>GASKETS</b> Kit Gasket Set	<b>YEARS</b>	<b>PART NO.</b> 260-1519M	<b>DESCRIPTION</b> Generation IV Engs. 300 HP to 350 HP; Rev. Rot. Incl. oval port int. manifold gskts.	
	Kit Gasket Set		260-1518M	Generation IV Engs. 300 HP to 350 HP; Standard Rotation; Incl. oval port int. manifold gskts.	
	Kit Gasket Set		260-1520M	Generation IV Engs. 365 HP to 400 HP; Std. rotation; Incl. rectangular port int. manifold gskts.	
	<b>FREEZE PLUGS</b> Brass Block Plug Kit	<b>YEARS</b>	<b>PART NO.</b> 381-8009	<b>DESCRIPTION</b>	

(continued on next page)

When ordering please place "FED" in front of part number.





## Mercury Marine

7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)					15
Marine Applications Models HP420 (420 HP Gen. IV & Gen. V); HP425 (385 HP Gen. IV & Gen. V); HP425 (400 HP Gen. IV & Gen. V); HP425 (425 HP Gen. IV & Gen. V); HP 525 SC (500 HP Gen. V); 7.4L Blue Water Inboard to Ser. No. D715493 (310 HP & 340 HP Gen. IV); 7.4L Blue Water Inboard from Ser. No. D715494 (310 HP Gen. V); 7.4L Bravo to Ser. No. D603117 (300 HP & 330 HP Gen. IV); 7.4L Bravo I from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo II from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo III from Ser. No. D603118 (350 HP Gen. V); 7.4L EFI Inboard from Ser. No. F215800 (310 HP Gen. V); 330 (330 HP Gen. IV); 340 (340 HP Gen. IV); 350 (350 HP Gen. IV); 370 TRS (370 HP Gen. IV); 400 TRS (400 HP Gen. IV); 450 (450 HP Gen. V); 454 Magnum Alpha from Ser. No. A631894 to B785148 (330 HP Gen. IV); 454 Magnum Bravo from Ser. No. B721206 to D805068 (350 HP & 365 HP Gen. IV); 454 Magnum Bravo from Ser. No. D805069 (350 HP Gen. V)					(cont.)
K I T S	OVERHAUL KIT			PREMIUM	ECONOMY
	YEARS	DESCRIPTION		KIT NO.	KIT NO.
		Std. Rotation; 330, 7.4L Bravo (Exc. Gen. V), 330 MIE & Master 350 MIE; Incl. oval port int. manifold gskts. Master w/o Pistons		MKP-6197A MK-6197A	— —
	UTILITY PACK	YEARS	PART NO.	DESCRIPTION	
	Rod & Main Brg.		UP1-107		
8.2L 502 OHV V8 (Performance), 4.466" Bore (GMC Eng.)					16
Marine Applications Models HP465 (465 HP Gen. V); HP 600 SC (550 HP Gen. V); 8.2L Inboard to Ser. No. D857199 (400 HP Gen. IV); 8.2L Inboard from Ser. No. D857200 to F819619 (400 HP Gen. V); 500 (470 HP Gen. V); 502 Magnum Bravo to Ser. No. D824588 (390 HP Gen. IV); 502 Magnum Bravo from Ser. No. D824589 (390 HP & 415 HP Gen. V)					
B L O C K	CAMSHAFT/LIFTER	YEARS	PART NO.	DESCRIPTION	
	Lifter		HT-2279	Std Only	
	RINGS	YEARS	PART NO.	DESCRIPTION	
	Premium Set		E-648K	Std-30-60 1-2.00MM, 1-1.50MM, 1-4.00MM	
	ENGINE BEARINGS	YEARS	PART NO.	DESCRIPTION	
	Main Set		7122M10	10-20-30 w/.020" O/S length flange brg.	
	Main Set		4400MA	Std-1-2-10-20-30-40 A-Series bored aluminum bearings	
	Main Set		4400M	Std-1-2-10-20-30-40 A-Series bored aluminum bearings; When depleted use 4400MA	
	Main Set		7273M	Std-10-20-30 Engs. w/full grooved brgs.	
	Rod Set		8-3190A	Std-1-2-10-20-30-40 A-Series bored aluminum bearings	
	Rod Set		8-3190CP	Std-1-2-10-20-30-40 8-3190CA60 avail. as unplated & resizeable	
	Rod Set		8-3190CA60	60 Unplated & resizeable	
	Rod Pair		3190CP	Std-1-2-10-20-30-40	
	Cam Set		1404M	Std Only Full round design, babbit mtl.	
	GASKETS	YEARS	PART NO.	DESCRIPTION	
	Kit Gasket Set		260-1676M	Generation V Engs.; Magnum Bravo From Ser. No. D824589, Exc. EFI; w/Closed cooling system; For both std. & rev. rotation Engs.	
	Kit Gasket Set		260-1675M	Generation V Engs.; Magnum Bravo From Ser. No. D824589, Exc. EFI; w/Open cooling system; For both std. & rev. rotation Engs.	
	FREEZE PLUGS	YEARS	PART NO.	DESCRIPTION	
	Brass Block Plug Kit		381-8009		
UTILITY PACK	YEARS	PART NO.	DESCRIPTION		
Rod & Main Brg.		UP1-107			



## Marine Set Contents



Listed below are the typical set contents and photographs for each type of Fel-Pro Marine Gasket set.

**17000 Series Head Gaskets:** Single packed cylinder head gaskets.

**17100 Series Conversion Sets:** All gaskets and oil seals not found in a head set that are necessary for a complete engine overhaul. This includes oil pan gaskets and rear main bearing seals.

**17200 Series Head Sets:** All gaskets and seals necessary for a valve grinding job, including cylinder head, valve cover and manifold gaskets. (**Note:** 4-cylinder sets do not contain intake/exhaust manifold gaskets — these must be ordered separately).

**17300 Series Intake Manifold Sets:** Intake manifold side gaskets; intake manifold end seals; and distributor mounting gasket.

**17400 Series Exhaust Manifold Sets:** Exhaust manifold (manifold-to-cylinder head) gaskets.

**17500 Series Exhaust Manifold Cooling Sets:** All gaskets needed to rebuild the water cooled exhaust manifold, exhaust elbow and exhaust riser, other than the exhaust manifold-to-cylinder head gasket. Set contents are designed for specific marine engine applications, unlike wasteful "universal" sets sold by other suppliers. Gasket material resists hardening due to heat; conforms to exhaust manifold and exhaust elbow sealing surfaces. Special surface coating resists sticking, provides more positive seal.

**17600 Series Thermostat Housing Sets:** All gaskets needed to repair the thermostat housing/water distribution system.

**17700-17749 Series Reverse Rotation Rear Main Bearing Seal Sets:** Rear main bearing seals designed to seal a crankshaft which rotates in the opposite direction from normal. (Normal rotation seal included in Conversion Set.)

**17750-17799 Series Reverse Rotation Timing Cover Seal Sets:** Timing cover seals designed to seal a crankshaft which rotates in the opposite direction from normal. (Normal rotation seal included in Conversion Set.)

**17800-17869 Series Carburetor Mounting Gaskets:** Single packed carburetor mounting gaskets.

**17870-17899 Series Timing Cover Sets:** All timing cover gaskets and seals required to seal one engine, including front oil pan seal and water pump gaskets.

**17900-17949 Series Valve Cover Sets:** All valve cover or push rod cover gaskets required to seal one engine.

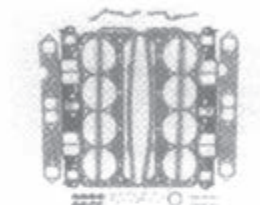
**17950-17999 Series Oil Pan Sets:** All oil pan side gaskets and end seals or molded one piece gaskets required to seal one engine.



17000



17100



17200



17300



17400



17500



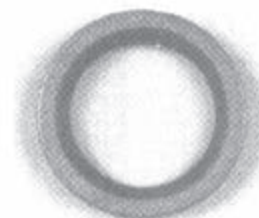
17600



17700-17749



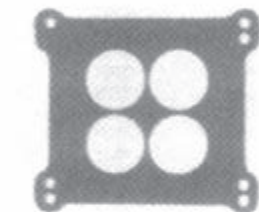
17750-17799



17750-17799



17800-17869



17800-17869



17870-17899



17900-17949



17900-17949



17950-17999

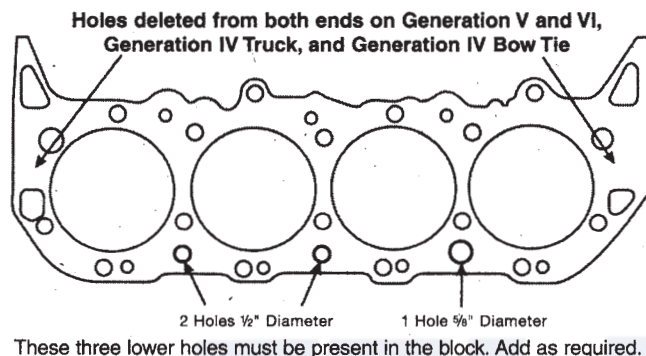


17950-17999

When ordering please place "FEL" in front of part number

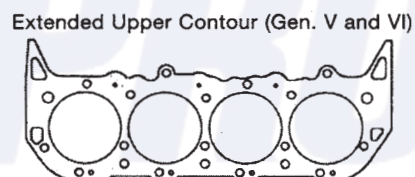
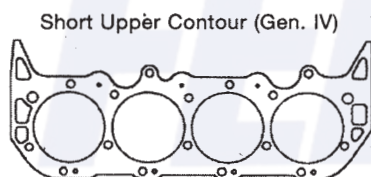


Chevrolet Big Block engines produced from 1965-90 are designated MARK IV or GEN IV. The next generation, produced from 1991-97 are known as MARK V or GEN V. The new generation (MARK VI or GEN VI) has been produced since 1998. There are head gasket interchangeability problems between these three series of engines. The FEL-PRO® head gasket part numbers 17042 (454 standard), 17046 (454 high performance), 17048 (502-510-540-572 standard bore), and 17049 (502-510-540-572 overbored) are designed to fit Generation V engines and Generation IV truck and Bow Tie race blocks without modifications. They can also be used on the Generation IV passenger car and performance blocks, if additional coolant holes are added as shown below. **THESE FOUR GASKETS MUST BE USED ON BLOCKS THAT HAVE ALL THREE LOWER COOLANT HOLES.**



Generation V and VI blocks have large core holes located in the front of each bank adjacent to the dowel tubes. To direct the coolant flow toward the exhaust side of the engine, Generation V and VI gaskets block these holes off.

Generation IV gaskets have holes in these locations, so an excessive amount of coolant will be transferred across the front, causing other areas of the engine to run too hot.



<b>FEL-PRO® Marine Head Gasket Recommendations for Big Block Chevrolet Gen. IV and Gen. V Head and Block Combinations</b>	Gen. IV Passenger Car/Marine Block • Short Upper Contour • 1 large coolant hole at lower edge • No large coolant hole in front of block • OEM: Both rear holes open & lower hole half open in gasket	Gen. IV Truck/Bow Tie/Marine Block • Short Upper Contour • 3 large coolant holes at lower edge • No large coolant hole in front of block • OEM: One rear hole open & all 3 lower holes open in gasket	Gen. V, VI Factory/Bow Tie Block • Extended Upper Contour • 3 large coolant holes at lower edge • <b>Large coolant hole in front of block must be blocked off by gasket.</b> • OEM: One rear hole open & all 3 lower holes open in gasket
Gen. IV Head Short Upper Contour	Head and Block compatible. Gasket Recommendations: See catalog listings for specific applications. 17046, 17048, and 17049 wire ring gaskets can also be used <b>if additional coolant holes are added to block.</b> See catalog listings for information.	Head and Block compatible. Gasket Recommendations: See catalog listings for specific applications. 17046, 17048, and 17049 wire ring gaskets. Blocks already have correct coolant holes.	Head and Block NOT generally compatible. <b>Large coolant hole in front of block must be blocked off by gasket.</b> Bow Tie: Upper coolant holes cast round so they can be plugged to gain sealing area, redrill to match gasket. If there is 3/16" or more sealing area between upper contour of head and coolant hole in block, you may use 17042. 17046, 17048, and 17049 wire ring gaskets. Blocks already have correct coolant holes.
Gen. V, VI Head Extended Upper Contour	<b>Caution:</b> Marginal sealing area between Gen. IV Block upper coolant holes and upper edge of Gen. V Head. If there is 3/16" or more sealing area between upper contour of block and coolant hole in head, you may use 17040. 17046, 17048, and 17049 wire ring gaskets can also be used <b>if additional coolant holes are added to the block.</b> See catalog listings for information.	<b>Caution:</b> Marginal sealing area between Gen. IV Block upper coolant holes and upper edge of Gen. V Head. If there is 3/16" or more sealing area between upper contour of block and coolant hole in head, you may use 17040 or 17042. 17046, 17048, and 17049 wire ring gaskets. Blocks already have correct coolant holes.	Head and Block compatible. Gasket Recommendations: See catalog listings for specific applications. <b>Caution:</b> Do not use Gen. IV gaskets, as large coolant hole will not be blocked off.

When ordering please place "FEL" in front of part number

**Open (or Raw Water, Sea Water) Cooling System**

In this type of system, water is drawn in from outside the boat, circulated through the engine, and then expelled through the exhaust system.

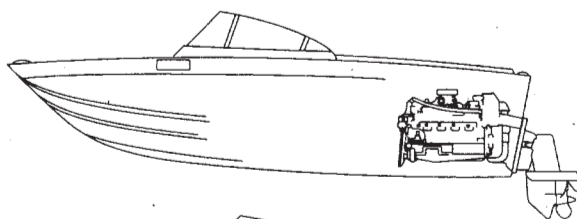
**Closed (or Fresh Water) Cooling System**

An antifreeze/water solution circulates through the engine, then into the heat exchanger (passing around the outside of the heat exchanger core tubes), and then back into the engine. "Raw" water is drawn in from outside the boat, circulates through the inside of the heat exchanger core tubes (cooling the engine coolant), and is then expelled through the exhaust elbows and exhaust lines. The presence of a heat exchanger makes this system easily recognizable.

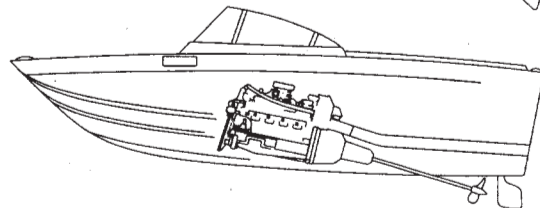
## MARINE ENGINE/DRIVE VARIATIONS

**Stern Drive (Inboard/Outboard, Outdrive)**

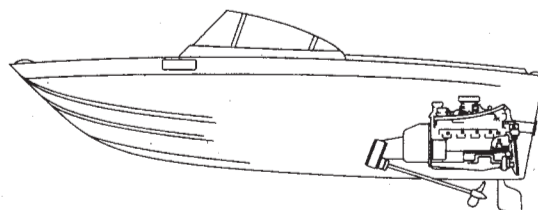
The engine is mounted inside the boat. The transmission/drive unit is outside, attached to the transom. The engine and drive unit are joined by a torque coupler and universal joint. Angling the drive steers the boat.

**Inboard**

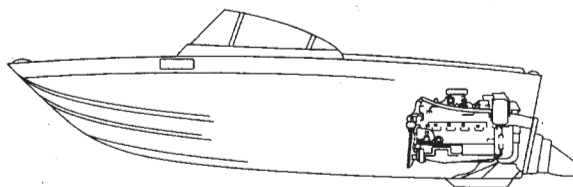
The engine and transmission/drive unit are inside the boat. A drive shaft is connected to the rear of the transmission and is run out of the hull through a sealing unit. The propeller is connected directly to the drive shaft at the in-water end. A separate rudder steers the boat.

**V-Drive**

Basically a modified inboard installation. The engine is mounted with the front (pulley end) facing the stern (rear). The transmission faces the bow (front), and by use of a universal joint on the end of the transmission, the drive shaft is directed towards the stern under the engine and through the hull. The propeller/rudder arrangement is the same as in a standard inboard installation.

**Jet Drive**

The engine is mounted inside the boat and attached to a high speed pump which draws in water through an intake grate, increases its velocity, and forces it out through a directionally adjustable nozzle which is mounted outside the boat. Changing the direction of the nozzle steers the boat.



## MARINE ENGINE ROTATION

The FEL-PRO® Marine Gaskets line offers optional timing cover seals and rear main bearing seals for reverse rotation engine applications (such as V-Drive installations).

Engine rotation direction is determined by observing FLYWHEEL rotation from the flywheel end of the engine, looking forward to the pulley end of the engine.

Normal (Standard) Rotation: Counter-clockwise (left hand) flywheel rotation.

Reverse (Opposite) Rotation: Clockwise (right hand) flywheel rotation.

It is critical to determine engine rotation direction before selling crankshaft seals for a marine application. The two different types of seals have different helixes on the sealing lip to direct oil back into the engine, so using the wrong seal can actually direct oil out of the engine.

NOTE: Propeller rotation is NOT necessarily the same as engine rotation. Do not rely on propeller rotation in determining engine rotation.

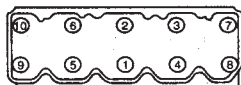
When ordering please place "FEL" in front of part number



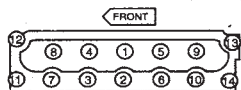
# HEAD BOLT TORQUE SPECIFICATIONS

- Use 190,000 psi fasteners only.
- Wire brush bolt threads and fine stud threads to remove coating.
- Use moly or anti-seize lubricant only. DO NOT use oil.

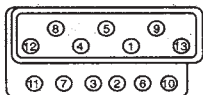
ENGINE	FT.-LBS.
<b>CHEVROLET 4</b> Inline Design 153, 181 Engines	95



ENGINE	FT.-LBS.
<b>CHEVROLET 6</b> Inline Design 230, 250, 292 Engines	95



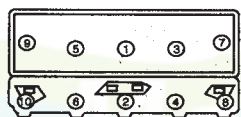
ENGINE	FT.-LBS.
<b>CHEVROLET V6</b> 90° V-Design 262 Engine	65



ENGINE	FT.-LBS.
<b>FORD V8 (Note: Replace worn dowel pins)</b> 260, 289, 302 Engines (Standard Hex Head) Long Bolts 80 Short Bolts 68	



<b>FORD V8 (Note: Replace worn dowel pins)</b> 302 Engine (Flanged Hex Head) 1st 25-35 2nd 45-55 3rd Turn 85-95 degrees	
--	--

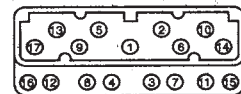


<b>FORD V8 (Note: Replace worn dowel pins)</b> 351W Engine	95-105
---	--------

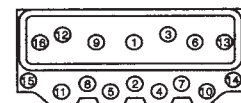


- Apply lube to both sides of washers, and under bolt heads or nuts.
- Lube bolts that go into water jackets with Teflon® sealer.
- Install studs with sealer.

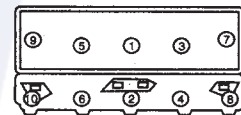
ENGINE	FT.-LBS.
<b>CHEVROLET V8</b> Small Block 283, 302, 305, 307, 327, 350, 400 Engines	(Cast Iron Heads) 65 (Aluminum Heads) Short Bolts 60; Medium & Long Bolts 65



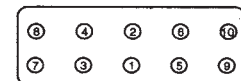
<b>CHEVROLET V8</b> Big Block 427, 454, 502, 510, 540, 572 Engines	(Cast Iron Heads) 80 (Aluminum Heads) Short Bolts 65; Medium & Long Bolts 75
--	---



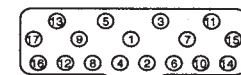
ENGINE	FT.-LBS.
<b>FORD V8 (Note: Replace worn dowel pins)</b> 460 Engine	130-140



<b>CHRYSLER V8</b> 318, 340, 360 Engines	95-105
---	--------



<b>CHRYSLER V8</b> 440 Engine	70
----------------------------------	----



## Crusader Marine

2.5L 153 OHV L4 (Chevrolet), 3.875" Bore (GMC Eng.) 1 Marine Applications Models 110 (110 HP); 120 (120 HP)		
<b>CYLINDER HEAD</b> Head Gasket Head Set	<b>PART NO.</b> 17000 17200	<b>DESCRIPTION</b> Int. & Exh. manifold gskt. not incl.
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17100	<b>DESCRIPTION</b> Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b> Int. & Exh. Gasket Set	<b>PART NO.</b> 17300	<b>DESCRIPTION</b>
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17950	<b>DESCRIPTION</b>
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17900	<b>DESCRIPTION</b>
<b>PUSH ROD COVER</b> Push Rod Cover Gasket Set	<b>PART NO.</b> 17903	<b>DESCRIPTION</b>
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17870	<b>DESCRIPTION</b> Std. rotation

When ordering please place "FEL" in front of part number

**Crusader Marine**

<b>2 4.3L 262 OHV V6 (Chevrolet), 4" Bore (GMC Eng.)</b> <b>Marine Applications Models V6 262 (175 HP); V6 262 (180 HP); V6 262 XL (205 HP)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17010	2 Req'd.
Head Set	17210	Eng. w/o Balance shaft; One additional Exh. manifold set 17410 is req'd.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17211	Eng. w/Balance shaft; One additional Exh. manifold set 17410 is req'd.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17115	Eng. w/o Balance shaft; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17116	Eng. w/Balance shaft; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17310	2 Req'd.
Exh. Manifold Gasket Set	17410	w/Closed cooling system
Exh. Manifold Cooling Set	17526	w/Open cooling system; Exhaust riser gskt. set
Exh. Manifold Cooling Set	17515	w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17525	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17971	w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Rear Main Seal & Gasket Set	17725	Rev. rotation; Rubber; One-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17920	Eng. w/o Balance shaft; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17921	Eng. w/Balance shaft; PermaDry® molded rubber gskts. incl.
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17610	Thermostat housing set
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Eng. w/o Balance shaft; Std. rotation
Oil Seal	17760	Eng. w/o Balance shaft; Rev. rotation timing cover seal
<b>3 4.6L 283 OHV V8 (Chevrolet), 3.875" Bore (GMC Eng.)</b> <b>Marine Applications Model 185 (185 HP)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.
Head Set	17230	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17120	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	
Exh. Manifold Gasket Set	17420	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17980	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17930	
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Std. rotation
Oil Seal	17760	Rev. rotation timing cover seal
<b>4 4.8L 292 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.)</b> <b>Marine Applications Model CH-185 (185 HP)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17019	
Head Set	17219	
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17119	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. & Exh. Gasket Set	17319	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17975	

(continued on next page)

When ordering please place "FEL" in front of part number

## Crusader Marine

4.8L 292 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.) <b>4</b>		
Marine Applications Model CH-185 (185 HP) (cont.)		
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17925	<b>DESCRIPTION</b>
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17870	<b>DESCRIPTION</b> Std. rotation
5.0L 302 OHV V8, 4" Bore (Ford Eng.) <b>5</b>		
Marine Applications Models 188 (188 HP); 215 (215 HP); 225 (225 HP)		
<b>CYLINDER HEAD</b> Head Gasket Head Set	<b>PART NO.</b> 17060 17260	<b>DESCRIPTION</b> 2 Req'd. Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17160	<b>DESCRIPTION</b> Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set Exh. Manifold Gasket Set	<b>PART NO.</b> 17360 17460	<b>DESCRIPTION</b>
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17995	<b>DESCRIPTION</b>
<b>CRANKSHAFT REAR SEAL</b> Split Seal	<b>PART NO.</b> 17746	<b>DESCRIPTION</b> Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17945	<b>DESCRIPTION</b>
<b>TIMING COVER</b> Timing Cover Gasket Set Oil Seal	<b>PART NO.</b> 17875 17795	<b>DESCRIPTION</b> Std. rotation Rev. rotation timing cover seal
5.0L 305 OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.) <b>6</b>		
Marine Applications Models CH-190 (190 HP); CH-220 (220 HP); 305 (210 HP)		
<b>CYLINDER HEAD</b> Head Gasket Head Set  Head Set	<b>PART NO.</b> 17020 17224 *  17220	<b>DESCRIPTION</b> 2 Req'd. w/Center bolt design valve covers; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. w/Rim bolt design valve covers; Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set  Gasket Conversion Set	<b>PART NO.</b> 17125  17120	<b>DESCRIPTION</b> Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl. Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set Exh. Manifold Gasket Set Exh. Manifold Cooling Set  Exh. Manifold Cooling Set Exh. Manifold Cooling Set Exh. Manifold Cooling Set Exh. Manifold Cooling Set Exh. Manifold Cooling Set Exh. Manifold Cooling Set Exh. Manifold Cooling Set	<b>PART NO.</b> 17320 17420 17555  17526 17515  17525 17524 17523 17524 17523 17515	<b>DESCRIPTION</b> Rectangular exhaust elbow; Two sets req'd. for systems w/Exhaust risers Round exhaust elbow w/Bolt-on water inlet; w/Closed cooling system Round exhaust elbow w/Bolt-on water inlet; w/Open cooling system; Exhaust riser gskt. set Round exhaust elbow w/Bolt-on water inlet; w/Open cooling system; Exhaust riser gskts. not incl. Round exhaust elbow w/Screw-in water inlet; w/Closed cooling system w/o Exhaust risers Round exhaust elbow w/Screw-in water inlet; w/Closed cooling system w/Exhaust risers; Must be used w/17524 Round exhaust elbow w/Screw-in water inlet; w/Closed cooling system w/Exhaust risers; Must be used w/17523 Round exhaust elbow w/Screw-in water inlet; w/Open cooling system w/o Exhaust risers Round exhaust elbow w/Screw-in water inlet; w/Open cooling system w/Exhaust risers
<b>OIL PAN</b> Oil Pan Gasket Set  Oil Pan Gasket Set Oil Pan Gasket Set Oil Pan Gasket Set	<b>PART NO.</b> 17982  17983 17980 17981	<b>DESCRIPTION</b> w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl. Opt. PermaDryPlus® One-piece molded rubber gskt. for engines w/Two-piece rear main bearing seal Port (L.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt. Starboard (R.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>CRANKSHAFT REAR SEAL</b> Rear Main Seal & Gasket Set	<b>PART NO.</b> 17725	<b>DESCRIPTION</b> Rev. rotation; Rubber; One-piece

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FEL" in front of part number



## Crusader Marine

<b>6 5.0L 305 OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.)</b> (cont.) Marine Applications Models CH-190 (190 HP); CH-220 (220 HP); 305 (210 HP)		
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17931	w/Center bolt design; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17930	w/Rim bolt design
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17625	Thermostat housing set
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Std. rotation
Oil Seal	17760	Rev. rotation timing cover seal
<b>7 5.0L 307 OHV V8 (Chevrolet), 3.875" Bore (GMC Eng.)</b> Marine Applications Model 200 (200 HP)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.
Head Set	17230	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17120	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	
Exh. Manifold Gasket Set	17420	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17980	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17930	
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Std. rotation
Oil Seal	17760	Rev. rotation timing cover seal
<b>8 5.3L 327 OHV V8 (Chevrolet), 4" Bore (GMC Eng.)</b> Marine Applications Models 210 (210 HP); 225 (225 HP); 230 (230 HP); 250 (250 HP); 320 (320 HP)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.
Head Set	17230	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17120	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	
Exh. Manifold Gasket Set	17420	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17980	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17930	
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Std. rotation
Oil Seal	17760	Rev. rotation timing cover seal
<b>9 5.7L 350 OHV V8 (Chevrolet), 4" Bore (GMC Eng.)</b> Marine Applications Models CH-270 (270 HP); 350 (235 HP); 350 HT (260 HP); 350 XL-HT, 350 XLI-HT (265 HP)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.
Head Set	17214 *	Exc. GEN+ eng. w/Plastic intake manifold gskts.; w/Center bolt design valve covers; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17230	Exc. GEN+ eng. w/Plastic intake manifold gskts.; w/Rim bolt design valve covers; Premium valve stem seals incl.
Head Set	17232 *	GEN+ eng. w/Plastic intake manifold gskts.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.

\* New Item — Check For Availability

(continued on next page)

When ordering please place "FEL" in front of part number



## Crusader Marine

<b>5.7L 350 OHV V8 (Chevrolet), 4" Bore (GMC Eng.) 9</b> <b>Marine Applications Models CH-270 (270 HP); 350 (235 HP); 350 HT (260 HP); 350 XL-HT, 350 (cont.) XLI-HT (265 HP)</b>		
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17125	Eng. w/o Plastic timing cover; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17124 *	Eng. w/Plastic timing cover; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17120	Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	Exc. GEN+ eng. w/Plastic intake manifold gskts.
Exh. Manifold Gasket Set	17420	
Exh. Manifold Cooling Set	17555	Rectangular exhaust elbow; Two sets req'd. for systems w/Exhaust risers
Exh. Manifold Cooling Set	17526	Round exhaust elbow w/Bolt-on water inlet; w/Closed cooling system
Exh. Manifold Cooling Set	17515	Round exhaust elbow w/Bolt-on water inlet; w/Open cooling system; Exhaust riser gskt. set
Exh. Manifold Cooling Set	17525	Round exhaust elbow w/Bolt-on water inlet; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17524	Round exhaust elbow w/Screw-in water inlet; w/Closed cooling system w/o Exhaust risers
Exh. Manifold Cooling Set	17523	Round exhaust elbow w/Screw-in water inlet; w/Closed cooling system w/Exhaust risers; Must be used w/17524
Exh. Manifold Cooling Set	17524	Round exhaust elbow w/Screw-in water inlet; w/Closed cooling system w/Exhaust risers; Must be used w/17523
Exh. Manifold Cooling Set	17523	Round exhaust elbow w/Screw-in water inlet; w/Open cooling system w/o Exhaust risers
Exh. Manifold Cooling Set	17515	Round exhaust elbow w/Screw-in water inlet; w/Open cooling system w/Exhaust risers
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17982	w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
Oil Pan Gasket Set	17983	Opt. PermaDryPlus® One-piece molded rubber gskt. for engines w/Two-piece rear main bearing seal
Oil Pan Gasket Set	17980	Port (L.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Oil Pan Gasket Set	17981	Starboard (R.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Rear Main Seal & Gasket Set	17725	Eng. w/o Plastic timing cover; Rev. rotation; Rubber; One-piece
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17931	w/Center bolt design; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17930	w/Rim bolt design
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17625	Thermostat housing set
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Eng. w/o Plastic timing cover; Std. rotation
Oil Seal	17760	Eng. w/o Plastic timing cover; Rev. rotation timing cover seal
<b>5.8L 351 OHV V8 (Windsor), 4" Bore (Ford Eng.) 10</b> <b>Marine Applications Models 233 (233 HP); 255 (255 HP)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17060	2 Req'd.
Head Set	17260	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17165	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17360	
Exh. Manifold Gasket Set	17460	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17996	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17748	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17945	
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17875	Std. rotation

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FEL" in front of part number

## Crusader Marine

<b>10 5.8L 351 OHV V8 (Windsor), 4" Bore (Ford Eng.)</b> (cont.) Marine Applications Models 233 (233 HP); 255 (255 HP)		
<b>TIMING COVER (cont.)</b> Oil Seal	<b>PART NO.</b> 17795	<b>DESCRIPTION</b> Rev. rotation timing cover seal
<b>11 7.0L 427 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)</b> Marine Applications Model CH-320 (320 HP)		
<b>CYLINDER HEAD</b> Head Gasket Head Set	<b>PART NO.</b> 17040 17240	<b>DESCRIPTION</b> 2 Req'd. Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17140	<b>DESCRIPTION</b> Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set Exh. Manifold Gasket Set	<b>PART NO.</b> 17340 17440	<b>DESCRIPTION</b>
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17985	<b>DESCRIPTION</b>
<b>CRANKSHAFT REAR SEAL</b> Split Seal	<b>PART NO.</b> 17740	<b>DESCRIPTION</b> Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17935	<b>DESCRIPTION</b>
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17872	<b>DESCRIPTION</b> Std. rotation
<b>12 7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)</b> Marine Applications Models CH-350 (350 HP Gen. IV); CM 454 XL (320 HP Gen. V); CM 454 XL (355 HP Gen. V); CM 454 XL (365 HP Gen. V); CM 454 XLI (320 HP Gen. V); CM 454 XLI-HO (355 HP Gen. V); CM 454 XLI-HO (365 HP Gen. V); 454 (300 HP Gen. IV)		
<b>CYLINDER HEAD</b> Head Gasket Head Gasket Head Set Head Set  Head Set  Head Set  Head Set  Head Set	<b>PART NO.</b> 17040 17042 17240 17242  17280  17243 17242 17205 17201	<b>DESCRIPTION</b> Generation IV engs.; 2 Req'd. Generation V & VI engs.; 2 Req'd. Generation IV engs.; Premium valve stem seals incl. Generation V engs.; Exc. EFI or H.O.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Generation V engs.; EFI only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Generation V engs.; H.O. only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Generation VI engs.; Exc. EFI or H.O.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Generation VI engs.; EFI only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Generation VI engs.; H.O. only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set  Gasket Conversion Set  Gasket Conversion Set	<b>PART NO.</b> 17140  17145  17146	<b>DESCRIPTION</b> Generation IV engs.; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt. Generation V engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl. Generation VI engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set Int. Manifold Gasket Set Int. Manifold Gasket Set Int. Manifold Gasket Set Exh. Manifold Gasket Set Exh. Manifold Cooling Set Exh. Manifold Cooling Set  Exh. Manifold Cooling Set  Exh. Manifold Cooling Set  Exh. Manifold Cooling Set  Exh. Manifold Cooling Set	<b>PART NO.</b> 17340 17340 17342 17341 17440 17526 17515  17525  17523  17523  17523	<b>DESCRIPTION</b> Generation IV engs. Generation V & VI engs.; Exc. EFI or H.O. Generation V & VI engs.; EFI only Generation V & VI engs.; H.O. only Generation IV & V & VI engs. Generation IV engs.; w/Bolt-on water inlet; w/Closed cooling system Generation IV engs.; w/Bolt-on water inlet; w/Open cooling system; Exhaust riser gskt. set Generation IV engs.; w/Bolt-on water inlet; w/Open cooling system; Exhaust riser gskts. not incl. Generation IV engs.; w/Screw-in water inlet; w/Closed cooling system w/o Exhaust risers; Two sets req'd. Generation IV engs.; w/Screw-in water inlet; w/Closed cooling system w/Exhaust risers; Three sets req'd. Generation IV engs.; w/Screw-in water inlet; w/Open cooling system w/o Exhaust risers

(continued on next page)



## Crusader Marine

7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.) <b>12</b>		
Marine Applications Models CH-350 (350 HP Gen. IV); CM 454 XL (320 HP Gen. V); CM 454 XL (355 HP Gen. V); CM 454 XL (365 HP Gen. V); CM 454 XLI (320 HP Gen. V); CM 454 XLI-HO (355 HP Gen. V); CM 454 XLI-HO (365 HP Gen. V); 454 (300 HP Gen. IV)		
<b>MANIFOLD - INT. &amp; EXH.</b> (cont.)	<b>PART NO.</b>	<b>DESCRIPTION</b>
Exh. Manifold Cooling Set	17515	Generation IV engs.; w/Screw-in water inlet; w/Open cooling system w/Exhaust risers
Exh. Manifold Cooling Set	17555	Generation V engs.
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17985	Generation IV engs.; w/Four-piece oil pan gskt.
Oil Pan Gasket Set	17986	Generation V & VI engs.; w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17740	Generation IV engs.; Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17935	Generation IV engs.
Valve Cover Gasket Set	17937	Generation V & VI engs.; PermaDry® molded rubber gskts. incl.
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17610	Generation IV & V engs.; Thermostat housing set
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17872	Generation IV & V engs.; Std. rotation
8.2L 502 OHV V8 (Performance), 4.466" Bore (GMC Eng.) <b>13</b>		
Marine Applications Models CM 502 XL from Ser. No. 88765 (380 HP Gen. V); CM 502 XLI from Ser. No. 88765 (380 HP Gen. V); 502 CID to Ser. No. 88764 (355 HP Gen. IV)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17049	Generation IV & V & VI engs.; Performance design; Extra large bore; 2 Req'd.
Head Gasket	17048	Generation IV & V & VI engs.; Performance design; 2 Req'd.
Head Set	17248	Generation IV engs.; Performance design head gskts. incl.; Premium valve stem seals incl.
Head Set	17249	Generation V engs.; Exc. EFI; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17281	Generation V engs.; EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17207	Generation VI engs.; EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17140	Generation IV engs.; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Gasket Conversion Set	17145	Generation V engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17146	Generation VI engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17341	Generation IV engs.
Int. Manifold Gasket Set	17342	Generation V & VI engs.; EFI only
Int. Manifold Gasket Set	17341	Generation V engs.; Exc. EFI
Exh. Manifold Gasket Set	17440	Generation IV & V & VI engs.
Exh. Manifold Cooling Set	17523	Generation IV engs.; w/Closed cooling system w/o Exhaust risers; Two sets req'd.
Exh. Manifold Cooling Set	17523	Generation IV engs.; w/Closed cooling system w/Exhaust risers; Three sets req'd.
Exh. Manifold Cooling Set	17523	Generation IV engs.; w/Open cooling system w/o Exhaust risers
Exh. Manifold Cooling Set	17515	Generation IV engs.; w/Open cooling system w/Exhaust risers
Exh. Manifold Cooling Set	17555	Generation V engs.
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17985	Generation IV engs.; w/Four-piece oil pan gskt.
Oil Pan Gasket Set	17986	Generation V & VI engs.; w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17740	Generation IV engs.; Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17935	Generation IV engs.
Valve Cover Gasket Set	17937	Generation V & VI engs.; PermaDry® molded rubber gskts. incl.

(continued on next page)

When ordering please place "FEL" in front of part number

## Crusader Marine

**13** 8.2L 502 OHV V8 (Performance), 4.466" Bore (GMC Eng.)  
 (cont.) **Marine Applications** Models CM 502 XL from Ser. No. 88765 (380 HP Gen. V); CM 502 XLi from Ser. No. 88765 (380 HP Gen. V); 502 CID to Ser. No. 88764 (355 HP Gen. IV)

<b>WATER OUTLET GASKET</b> Thermostat Gasket	<b>PART NO.</b> 17610	<b>DESCRIPTION</b> Generation IV & V engs.; Thermostat housing set
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17872	<b>DESCRIPTION</b> Generation IV & V engs.; Std. rotation

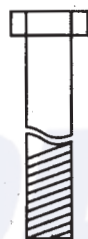
### TORQUE-TO-YIELD HEAD BOLTS

Beginning in the 1992 model year, all Ford 302 (5.0L) engines were assembled at the factory using Torque-To-Yield head bolts. The illustration below shows the visual differences between standard head bolts and Torque-To-Yield head bolts.

#### Identifying Torque-To-Yield Bolts



**Torque-To-Yield  
(Flanged Hex Head)**  
 Flanged head is typical.  
 Threads usually run  
 75-100% of the length  
 of the shaft.



**Standard Hex Head**  
 Head without flange is  
 typical. Threads usually  
**do not** run the length of  
 the shaft.

As the torque specifications and procedures for these two types of head bolts differ, they must NEVER be used in combination in the same engine. Either all standard head bolts, or all Torque-to-Yield head bolts, must be used on an engine. Ford also specifies that the Torque-To-Yield bolts must NOT be reused. Always use a new set of head bolts each time a head is re-installed on an engine using this type of head bolt.

Follow these torque specifications for 1992 and later Ford 302 (5.0L) engines with Torque-To-Yield head bolts:

- 1st step – Torque all bolts to 25-35 ft.-lbs.
- 2nd step – Increase torque on all bolts to 45-55 ft.-lbs.
- 3rd step – Torque all bolts an additional 85-95 degrees.



When ordering please place "FEL" in front of part number



## Marine Power Marine (Incl. Enpac, Jetpac, Sportpac)

### 3 4.3L 262 OHV V6 (Chevrolet), 4" Bore (GMC Eng.)

Marine Applications Models 262 (180 HP); 262 (190 HP); 262 (200 HP); 262 (205 HP)

CYLINDER HEAD	PART NO.	DESCRIPTION
Head Gasket	17010	2 Req'd.
<b>4.3L 262 OHV V6 (Chevrolet), 4" Bore (GMC Eng.)</b>		
Marine Applications Models 262 (180 HP); 262 (190 HP); 262 (200 HP); 262 (205 HP)		
<b>CYLINDER HEAD (cont.)</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Set	17210	Eng. w/o Balance shaft; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17211	Eng. w/Balance shaft; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17115	Eng. w/o Balance shaft; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17110	Eng. w/o Balance shaft; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Gasket Conversion Set	17116	Eng. w/Balance shaft; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17310	
Exh. Manifold Gasket Set	17410	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17970	w/Four-piece oil pan gskt.
Oil Pan Gasket Set	17971	w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Rear Main Seal & Gasket Set	17725	Rev. rotation; Rubber; One-piece
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17920	Eng. w/o Balance shaft; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17921	Eng. w/Balance shaft; PermaDry® molded rubber gskts. incl.
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Eng. w/o Balance shaft; Std. rotation
Oil Seal	17760	Eng. w/o Balance shaft; Rev. rotation timing cover seal

### 5.0L 305 OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.) 4

Marine Applications Models 305 (205 HP); 305 (210 HP); 305 (220 HP); 305 GL, 305 GLV, 305 K, 305 KBM, 305 KL (225 HP)

<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17020	2 Req'd.
Head Set	17224 *	w/Center bolt design valve covers; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17220	w/Rim bolt design valve covers; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17125	Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17120	Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	
Exh. Manifold Gasket Set	17420	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17982	w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
Oil Pan Gasket Set	17983	Opt. PermaDryPlus® One-piece molded rubber gskt. for engines w/Two-piece rear main bearing seal
Oil Pan Gasket Set	17980	Port (L.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Oil Pan Gasket Set	17981	Starboard (R.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Rear Main Seal & Gasket Set	17725	Rev. rotation; Rubber; One-piece
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17931	w/Center bolt design; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17930	w/Rim bolt design
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Std. rotation
Oil Seal	17760	Rev. rotation timing cover seal

\* New Item — Check For Availability

When ordering please place "FEL" in front of part number

**Marine Power Marine (Incl. Enpac, Jetpac, Sportpac)**

<b>5 5.0L 307 OHV V8 (Chevrolet), 3.875" Bore (GMC Eng.)</b> <b>Marine Applications Models 307 G, 307 GL, 307 K, 307 KL (215 HP)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.
Head Set	17230	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17120	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	
Exh. Manifold Gasket Set	17420	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17980	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17930	
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Std. rotation
Oil Seal	17760	Rev. rotation timing cover seal
<b>6 5.7L 350 OHV V8 (Chevrolet), 4" Bore (GMC Eng.)</b> <b>Marine Applications Models 350 (235 HP); 350 (245 HP); 350 (260 HP); 350 (270 HP); 350 (285 HP); 350 (295 HP); 350 (310 HP); 350 (325 HP); 350 FLV (300 HP); 350 G, 350 GL, 350 GLV, 350 K, 350 KBM, 350 KL (250 HP)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.
Head Set	17214 *	Exc. GEN+ eng. w/Plastic intake manifold gskts.; w/Center bolt design valve covers; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17230	Exc. GEN+ eng. w/Plastic intake manifold gskts.; w/Rim bolt design valve covers; Premium valve stem seals incl.
Head Set	17232 *	GEN+ eng. w/Plastic intake manifold gskts.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17125	Eng. w/o Plastic timing cover; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17124 *	Eng. w/Plastic timing cover; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17120	Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	Exc. GEN+ eng. w/Plastic intake manifold gskts.
Exh. Manifold Gasket Set	17420	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17982	w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
Oil Pan Gasket Set	17983	Opt. PermaDryPlus® One-piece molded rubber gskt. for engines w/Two-piece rear main bearing seal
Oil Pan Gasket Set	17980	Port (L.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Oil Pan Gasket Set	17981	Starboard (R.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Rear Main Seal & Gasket Set	17725	Eng. w/o Plastic timing cover; Rev. rotation; Rubber; One-piece
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17931	w/Center bolt design; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17930	w/Rim bolt design.
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Eng. w/o Plastic timing cover; Std. rotation
Oil Seal	17760	Eng. w/o Plastic timing cover; Rev. rotation timing cover seal

\* New Item — Check For Availability

When ordering please place "FEL" in front of part number



**Marine Power Marine (Incl. Enpac, Jetpac, Sportpac)**

<b>7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.) 7</b> <b>Marine Applications Models 454 (305 HP Gen. V); 454 (315 HP Gen. IV); 454 (320 HP Gen. IV); 454 (320 HP Gen. V); 454 (330 HP Gen. IV); 454 (340 HP Gen. IV); 454 (340 HP Gen. V); 454 (365 HP Gen. IV); 454 (380 HP Gen. IV); 454 (400 HP Gen. IV); 454 (420 HP Gen. V); 454 (440 HP Gen. IV); 454 BM, 454 L (330 HP Gen. IV)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17040	Generation IV engs.; 2 Req'd.
Head Gasket	17042	Generation V & VI engs.; Exc. Performance Series eng.; 2 Req'd.
Head Gasket	17042	Generation V & VI engs.; Performance Series eng. EFI only; 2 Req'd.
Head Gasket	17049	Generation V engs.; Performance Series eng. exc. EFI; Performance design; Extra large bore; 2 Req'd.
Head Gasket	17046	Generation V engs.; Performance Series eng. exc. EFI; Performance design; 2 Req'd.
Head Set	17240	Generation IV engs.; w/Oval intake ports; Premium valve stem seals incl.
Head Set	17241	Generation IV engs.; w/Rectangular intake ports; Premium valve stem seals incl.
Head Set	17242	Generation V engs.; Exc. Performance Series eng. or EFI; w/Oval intake ports; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17243	Generation V engs.; Exc. Performance Series eng. or EFI; w/Rectangular intake ports; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17246	Generation V engs.; Performance Series eng. exc. EFI; w/Rectangular intake ports; Performance design head gskts. incl.; Premium valve stem seals incl.
Head Set	17280	Generation V engs.; Performance Series eng. EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17242	Generation VI engs.; Exc. Performance Series eng. or EFI; w/Oval intake ports; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17201	Generation VI engs.; Exc. Performance Series eng. or EFI; w/Rectangular intake ports; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17205	Generation VI engs.; Performance Series eng. EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17140	Generation IV engs.; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Gasket Conversion Set	17145	Generation V engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17146	Generation VI engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17340	Generation IV & V & VI engs.; Exc. EFI; w/Oval intake ports
Int. Manifold Gasket Set	17341	Generation IV & V & VI engs.; Exc. EFI; w/Rectangular intake ports
Int. Manifold Gasket Set	17342	Generation V & VI engs.; EFI only
Exh. Manifold Gasket Set	17440	Generation IV & V & VI engs.
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17985	Generation IV engs.; w/Four-piece oil pan gskt.
Oil Pan Gasket Set	17986	Generation V & VI engs.; w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17740	Generation IV engs.; Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17935	Generation IV engs.
Valve Cover Gasket Set	17937	Generation V & VI engs.; Exc. Performance Series eng. or EFI; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17937	Generation V & VI engs.; Performance Series eng. EFI only; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17935	Generation V engs.; Performance Series eng. exc. EFI
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17872	Generation IV & V engs.; Std. rotation

When ordering please place "FEL" in front of part number

**Marine Power Marine (Incl. Enpac, Jetpac, Sportpac)**

<b>8 8.2L 502 OHV V8 (Performance), 4.466" Bore (GMC Eng.)</b> <b>Marine Applications Models 502 (360 HP Gen. V); 502 (385 HP Gen. IV); 502 (405 HP Gen. V); 502 (410 HP Gen. IV); 502 (445 HP Gen. IV); 502 (450 HP Gen. IV); 502 (450 HP Gen. V); 502 (475 HP Gen. IV)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17049	Generation IV & V & VI engs.; Performance design; Extra large bore; 2 Req'd.
Head Gasket	17048	Generation IV & V & VI engs.; Performance design; 2 Req'd.
Head Set	17248	Generation IV engs.; Performance design head gskts. incl.; Premium valve stem seals incl.
Head Set	17249	Generation V engs.; Exc. EFI; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17281	Generation V engs.; EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17207	Generation VI engs.; EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17140	Generation IV engs.; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Gasket Conversion Set	17145	Generation V engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17146	Generation VI engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17341	Generation IV engs.
Int. Manifold Gasket Set	17342	Generation V & VI engs.; EFI only
Int. Manifold Gasket Set	17341	Generation V engs.; Exc. EFI
Exh. Manifold Gasket Set	17440	Generation IV & V & VI engs.
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17985	Generation IV engs.; w/Four-piece oil pan gskt.
Oil Pan Gasket Set	17986	Generation V & VI engs.; w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17740	Generation IV engs.; Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17935	Generation IV engs.
Valve Cover Gasket Set	17937	Generation V & VI engs.; PermaDry® molded rubber gskts. incl.
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17872	Generation IV & V engs.; Std. rotation



When ordering please place "FEL" in front of part number



Mercury Marine		2.5L 153 OHV L4 (Chevrolet), 3.875" Bore (GMC Eng.) Marine Applications Model 120/2.5 Liter (120 HP)	1
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Head Gasket	17000		
Head Set	17200	Int. & Exh. manifold gskt. not incl.	
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Gasket Conversion Set	17100	From Ser. No. 2361802; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.	
Gasket Conversion Set	17101	From Ser. No. 2361802; Std. rotation; w/Two-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.	
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Int. & Exh. Gasket Set	17300	From Ser. No. 1666601 to 6229717	
Int. & Exh. Gasket Set	17302	From Ser. No. 6229718	
Exh. Manifold Cooling Set	17500	From Ser. No. 2046625 to 6229717	
Exh. Manifold Cooling Set	17501	From Ser. No. 6229718	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Oil Pan Gasket Set	17950	w/Two-piece rear main bearing seal & Four-piece oil pan gskt.	
Oil Pan Gasket Set	17951	w/Two-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Split Seal	BS40013	Std. rotation; Rubber; Two-piece; Double lip	
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Valve Cover Gasket Set	17900		
<b>PUSH ROD COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Push Rod Cover Gasket Set	17903		
<b>VALVE STEM SEAL SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Valve Stem Seal Set	SS5112	Int. & Exh.; O-ring	
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Thermostat Gasket	17600	Thermostat housing set; From Ser. No. 2046625	
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Timing Cover Gasket Set	17870	Std. rotation	
<b>3.0L 181 OHV L4 (Chevrolet), 4" Bore (GMC Eng.) Marine Applications Models 140/3.0 Liter, 140/3.0 Liter LX (115 HP); 140/3.0 Liter, 140/3.0 Liter LX (130 HP); 140/3.0 Liter, 140/3.0 Liter LX (135 HP); 140/3.0 Liter, 140/3.0 Liter LX (140 HP)</b>			2
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Head Gasket	17000		
Head Set	17200	Int. & Exh. manifold gskt. not incl.	
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Gasket Conversion Set	17102	Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.	
<b>2 3.0L 181 OHV L4 (Chevrolet), 4" Bore (GMC Eng.) Marine Applications Models 140/3.0 Liter, 140/3.0 Liter LX (115 HP); 140/3.0 Liter, 140/3.0 Liter LX (130 HP); 140/3.0 Liter, 140/3.0 Liter LX (135 HP); 140/3.0 Liter, 140/3.0 Liter LX (140 HP)</b>			
<b>CONVERSION SET (cont.)</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Gasket Conversion Set	17100	Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.	
Gasket Conversion Set	17101	Std. rotation; w/Two-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.	
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Int. & Exh. Gasket Set	17302	From Ser. No. 6229718; Exc. 3.0 Liter LX	
Int. & Exh. Gasket Set	17304	From Ser. No. 6229718; 3.0 Liter LX only	
Int. & Exh. Gasket Set	17301	To Ser. No. 6229717	
Exh. Manifold Cooling Set	17501	To Ser. No. OF 603999	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Oil Pan Gasket Set	17952	w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.	
Oil Pan Gasket Set	17950	w/Two-piece rear main bearing seal & Four-piece oil pan gskt.	
Oil Pan Gasket Set	17951	w/Two-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Split Seal	BS40013	Std. rotation; Rubber; Two-piece; Double lip	
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Valve Cover Gasket Set	17900		
<b>PUSH ROD COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Push Rod Cover Gasket Set	17903		
<b>VALVE STEM SEAL SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Valve Stem Seal Set	SS5112	Int. & Exh.; O-ring	
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Thermostat Gasket	17600	Thermostat housing set	
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	
Timing Cover Gasket Set	17870	Std. rotation	

**Mercury Marine**

<b>3 3.7L 224 L4, 4.36" Bore</b> <b>Marine Applications Models 165; 170; 180; 190; 470; 485; 488</b>		
<b>CYLINDER HEAD</b> Head Gasket	<b>PART NO.</b> 17069	<b>DESCRIPTION</b> Performance design
<b>4 3.8L 230 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.)</b> <b>Marine Applications Models 140 from Ser. No. 1538930 to 1725960 (140 HP); 150 (150 HP)</b>		
<b>CYLINDER HEAD</b> Head Gasket Head Set	<b>PART NO.</b> 17019 17219	<b>DESCRIPTION</b>
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17119	<b>DESCRIPTION</b> Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b> Int. & Exh. Gasket Set	<b>PART NO.</b> 17319	<b>DESCRIPTION</b>
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17975	<b>DESCRIPTION</b>
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17925	<b>DESCRIPTION</b>
<b>PUSH ROD COVER</b> Push Rod Cover Gasket Set	<b>PART NO.</b> 17926	<b>DESCRIPTION</b>
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17870	<b>DESCRIPTION</b> Std. rotation
<b>5 4.1L 250 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.)</b> <b>Marine Applications Models 160 (160 HP); 165 from Ser. No. 2770032 to 6916778 (165 HP)</b>		
<b>CYLINDER HEAD</b> Head Gasket Head Set	<b>PART NO.</b> 17019 17219	<b>DESCRIPTION</b>
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17119	<b>DESCRIPTION</b> 24 bolt oil pan only; Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b> Int. & Exh. Gasket Set Exh. Manifold Cooling Set	<b>PART NO.</b> 17319 17501	<b>DESCRIPTION</b> Model 165 only
<b>4.1L 250 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.)</b> <b>Marine Applications Models 160 (160 HP); 165 from Ser. No. 2770032 to 6916778 (165 HP)</b>		
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17975	<b>DESCRIPTION</b> 24 bolt oil pan only
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17925	<b>DESCRIPTION</b>
<b>PUSH ROD COVER</b> Push Rod Cover Gasket Set	<b>PART NO.</b> 17926	<b>DESCRIPTION</b>
<b>WATER OUTLET GASKET</b> Thermostat Gasket	<b>PART NO.</b> 17600	<b>DESCRIPTION</b> Thermostat housing set
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17870	<b>DESCRIPTION</b> Std. rotation



When ordering please place "FEL" in front of part number

## Mercury Marine

<b>4.3L 262 OHV V6 (Chevrolet), 4" Bore (GMC Eng.) 6</b> <b>Marine Applications Models 4.3 Liter, 4.3L (155 HP); 4.3 Liter, 4.3L (175 HP); 4.3LX (175 HP); 4.3LX (180 HP); 4.3LX (205 HP); 175 (175 HP w/2 Bbl.); 185 (185 HP w/2 Bbl.); 205 (205 HP w/4 Bbl.)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17010	2 Req'd.
Head Set	17210	Eng. w/o Balance shaft; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17211	Eng. w/Balance shaft; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17115	Eng. w/o Balance shaft; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17110	Eng. w/o Balance shaft; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Gasket Conversion Set	17116	Eng. w/Balance shaft; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17310	
Exh. Manifold Gasket Set	17410	
Exh. Manifold Cooling Set	17510	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17970	w/Four-piece oil pan gskt.
Oil Pan Gasket Set	17971	w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Rear Main Seal & Gasket Set	17725	Rev. rotation; Rubber; One-piece
Rear Main Seal & Gasket Set	BS40520	Std. rotation; Rubber; One-piece
Split Seal	17720	Rev. rotation; Rubber; Two-piece
Split Seal	BS40013	Std. rotation; Rubber; Two-piece; Double lip
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17920	Eng. w/o Balance shaft; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17921	Eng. w/Balance shaft; PermaDry® molded rubber gskts. incl.
<b>VALVE STEM SEAL SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Stem Seal Set	SS72529	Int. & Exh.; Premium valve stem seals incl.
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17620	Thermostat housing set; Design I; Hose connections in both housing body and cap
Thermostat Gasket	17621	Thermostat housing set; Design II; Hose connections in housing body only
Thermostat Gasket	17622 *	Thermostat housing set; Design III; Hose connections in cap only
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Eng. w/o Balance shaft; Std. rotation
Oil Seal	17760	Eng. w/o Balance shaft; Rev. rotation timing cover seal
<b>4.6L 283 OHV V8 (Chevrolet), 3.875" Bore (GMC Eng.) 7</b> <b>Marine Applications Model 190 (190 HP)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.
Head Set	17230	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17120	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	
Exh. Manifold Gasket Set	17420	

(continued on next page)

\* New Item — Check For Availability



When ordering please place "FEL" in front of part number



## Mercury Marine

<b>7 4.6L 283 OHV V8 (Chevrolet), 3.875" Bore (GMC Eng.)</b> (cont.) Marine Applications Model 190 (190 HP)		
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17980	<b>DESCRIPTION</b>
<b>CRANKSHAFT REAR SEAL</b> Split Seal Split Seal	<b>PART NO.</b> 17720 BS40013	<b>DESCRIPTION</b> Rev. rotation; Rubber; Two-piece Std. rotation; Rubber; Two-piece; Double lip
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17930	<b>DESCRIPTION</b>
<b>VALVE STEM SEAL SET</b> Valve Stem Seal Set	<b>PART NO.</b> SS5112	<b>DESCRIPTION</b> Int. & Exh.; O-ring
<b>TIMING COVER</b> Timing Cover Gasket Set Oil Seal	<b>PART NO.</b> 17871 17760	<b>DESCRIPTION</b> Std. rotation Rev. rotation timing cover seal
<b>8 4.8L 292 OHV L6 (Chevrolet), 3.875" Bore (GMC Eng.)</b> Marine Applications Model 200 from Ser. No. 2453769 to 2712072 (200 HP)		
<b>CYLINDER HEAD</b> Head Gasket Head Set	<b>PART NO.</b> 17019 17219	<b>DESCRIPTION</b>
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17119	<b>DESCRIPTION</b> 24 bolt oil pan only; Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b> Int. & Exh. Gasket Set	<b>PART NO.</b> 17319	<b>DESCRIPTION</b>
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17975	<b>DESCRIPTION</b> 24 bolt oil pan only
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17925	<b>DESCRIPTION</b>
<b>WATER OUTLET GASKET</b> Thermostat Gasket	<b>PART NO.</b> 17600	<b>DESCRIPTION</b> Thermostat housing set
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17870	<b>DESCRIPTION</b> Std. rotation
<b>9 5.0L 302 OHV V8, 4" Bore (Ford Eng.)</b> Marine Applications Models 215 (215 HP); 225 (225 HP); 888 (198 HP)		
<b>CYLINDER HEAD</b> Head Gasket Head Set	<b>PART NO.</b> 17060 17260	<b>DESCRIPTION</b> 2 Req'd. Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17160	<b>DESCRIPTION</b> Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set Exh. Manifold Gasket Set Exh. Manifold Cooling Set	<b>PART NO.</b> 17360 17460 17535	<b>DESCRIPTION</b>
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17995	<b>DESCRIPTION</b>
<b>CRANKSHAFT REAR SEAL</b> Split Seal Split Seal	<b>PART NO.</b> 17746 BS30136	<b>DESCRIPTION</b> Rev. rotation; Rubber; Two-piece Std. rotation; Rubber; Two-piece
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17945	<b>DESCRIPTION</b>
<b>VALVE STEM SEAL SET</b> Valve Stem Seal Set	<b>PART NO.</b> SS13364	<b>DESCRIPTION</b> Int. & Exh.; Premium valve stem seals incl.
<b>WATER OUTLET GASKET</b> Thermostat Gasket	<b>PART NO.</b> 17660	<b>DESCRIPTION</b> Thermostat housing set
<b>TIMING COVER</b> Timing Cover Gasket Set Oil Seal	<b>PART NO.</b> 17875 17795	<b>DESCRIPTION</b> Std. rotation Rev. rotation timing cover seal
<b>10 5.0L 305 OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.)</b> Marine Applications Models 5.0L (180 HP); 5.0L (190 HP); 5.0L (200 HP); 5.0LX (205 HP); 5.0LX (230 HP); 198/898 (198 HP); 200, 200/5.0L (200 HP); 228 (228 HP); 230, 230/5.0L, 230/5.0LX (230 HP)		
<b>CYLINDER HEAD</b> Head Gasket Head Set	<b>PART NO.</b> 17020 17224 *	<b>DESCRIPTION</b> 2 Req'd. w/Center bolt design valve covers; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.

\* New Item — Check For Availability

(continued on next page)

When ordering please place "FEL" in front of part number



## Mercury Marine

<b>5.0L 305 OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.) 10</b> <b>Marine Applications Models 5.0L (180 HP); 5.0L (190 HP); 5.0L (200 HP); 5.0LX (205 HP); 5.0LX (cont.) (230 HP); 198/898 (198 HP); 200, 200/5.0L (200 HP); 228 (228 HP); 230, 230/5.0L, 230/5.0LX (230 HP)</b>		
<b>CYLINDER HEAD (cont.)</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Set	17220	w/Rim bolt design valve covers; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17125	Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17120	Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	
Exh. Manifold Gasket Set	17420	
Exh. Manifold Cooling Set	17520	Model 198/898 from Ser. No. 6218462; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17510	Model 198/898 from Ser. No. 6218462; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17540	Model 198/898 from Ser. No. 6218462; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
Exh. Manifold Cooling Set	17537	Model 198/898 to Ser. No. 6218461; w/Closed cooling system
Exh. Manifold Cooling Set	17535	Model 198/898 to Ser. No. 6218461; w/Open cooling system
Exh. Manifold Cooling Set	17520	Model 228 from Ser. No. 6218462; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17510	Model 228 from Ser. No. 6218462; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17540	Model 228 from Ser. No. 6218462; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
Exh. Manifold Cooling Set	17535	Model 228 to Ser. No. 6218461; Exc. MCM228TR
Exh. Manifold Cooling Set	17535	Model 228; MCM228TR only from Ser. No. 4888930 to 6218461
Exh. Manifold Cooling Set	17530	Model 228; MCM228TR only to Ser. No. 4888929
Exh. Manifold Cooling Set	17540	Model 230 to Ser. No. 6218461; w/Closed cooling system; 2 Req'd.
Exh. Manifold Cooling Set	17540	Model 230 to Ser. No. 6218461; w/Open cooling system
Exh. Manifold Cooling Set	17520	Models 200, 200/5.0L from Ser. No. 6218462; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17510	Models 200, 200/5.0L from Ser. No. 6218462; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17540	Models 200, 200/5.0L from Ser. No. 6218462; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
Exh. Manifold Cooling Set	17520	Models 230, 230/5.0LX from Ser. No. 6218462; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17510	Models 230, 230/5.0LX from Ser. No. 6218462; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17540	Models 230, 230/5.0LX from Ser. No. 6218462; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17982	w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
Oil Pan Gasket Set	17983	Opt. PermaDryPlus® One-piece molded rubber gskt. for engines
Oil Pan Gasket Set	17980	w/Two-piece rear main bearing seal
Oil Pan Gasket Set	17981	Port (L.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
		Starboard (R.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Rear Main Seal & Gasket Set	17725	Rev. rotation; Rubber; One-piece
Split Seal	17720	Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17931	w/Center bolt design; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17930	w/Rim bolt design
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17620	Thermostat housing set; Design I; Hose connections in both housing body and cap
Thermostat Gasket	17621	Thermostat housing set; Design II; Hose connections in housing body only
Thermostat Gasket	17622 *	Thermostat housing set; Design III; Hose connections in cap only
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Std. rotation
Oil Seal	17760	Rev. rotation timing cover seal
<b>5.3L 327 OHV V8 (Chevrolet), 4" Bore (GMC Eng.) 11</b> <b>Marine Applications Models 225 (225 HP); 250 (250 HP)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FEL" in front of part number

## Mercury Marine

<b>11 5.3L 327 OHV V8 (Chevrolet), 4" Bore (GMC Eng.)</b> (cont.) Marine Applications Models 225 (225 HP); 250 (250 HP)		
<b>CYLINDER HEAD (cont.)</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Set	17230	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17120	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	
Exh. Manifold Gasket Set	17420	
Exh. Manifold Cooling Set	17530	Model 225 from Ser. No. 2399398
Exh. Manifold Cooling Set	17535	Model 250 from Ser. No. 4768860
Exh. Manifold Cooling Set	17530	Model 250 to Ser. No. 4768859
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17980	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17720	Rev. rotation; Rubber; Two-piece
Split Seal	BS40013	Std. rotation; Rubber; Two-piece; Double lip
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17930	
<b>VALVE STEM SEAL SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Stem Seal Set	SS5112	Int. & Exh.; O-ring
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17620	Thermostat housing set; Model 225 from Ser. No. 2399398
Thermostat Gasket	17620	Thermostat housing set; Model 250
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17871	Std. rotation
Oil Seal	17760	Rev. rotation timing cover seal
<b>12 5.7L 350 OHV V8 (Chevrolet), 4" Bore (GMC Eng.)</b> Marine Applications Models Black Scorpion (315 HP); 5.7L (230 HP); 5.7L (235 HP); 5.7L (260 HP); 5.7L Blue Water Inboard (250 HP); 5.7L Blue Water Inboard (260 HP); 5.7L Bravo (240 HP); 5.7L Bravo (250 HP); 5.7L Bravo (270 HP); 5.7L Comp Ski (250 HP); 5.7L Comp Ski (260 HP); 255 (255 HP); 260, 260/5.7L (260 HP); 270 (270 HP); 280 (280 HP); 300, 300 MR/TR (300 HP); 350 Magnum, 350 Magnum Tournament Ski (240 HP); 350 Magnum, 350 Magnum Tournament Ski (250 HP); 350 Magnum, 350 Magnum Tournament Ski (265 HP); 350 Magnum, 350 Magnum Tournament Ski (270 HP)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17030	2 Req'd.
Head Set	17214 *	Exc. GEN+ eng. w/Plastic intake manifold gskts.; w/Center bolt design valve covers; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17230	Exc. GEN+ eng. w/Plastic intake manifold gskts.; w/Rim bolt design valve covers; Premium valve stem seals incl.
Head Set	17232 *	GEN+ eng. w/Plastic intake manifold gskts.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17125	Eng. w/o Plastic timing cover; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17124 *	Eng. w/Plastic timing cover; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17120	Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17320	Exc. GEN+ eng. w/Plastic intake manifold gskts.
Exh. Manifold Gasket Set	17420	
Exh. Manifold Cooling Set	17542	All Models; GEN+ eng.; w/Open or Closed cooling system; Exhaust riser gskts. incl.
Exh. Manifold Cooling Set	17535	Model 255 from Ser. No. 4499061 to 5195908
Exh. Manifold Cooling Set	17535	Model 255 from Ser. No. 5195909; Inboard only
Exh. Manifold Cooling Set	17530	Model 255 from Ser. No. 5195909; V-Drive only
Exh. Manifold Cooling Set	17530	Model 255 to Ser. No. 4499060
Exh. Manifold Cooling Set	17536	Model 300 MR/TR
Exh. Manifold Cooling Set	17540	Models 260, 260/5.7L; Inboard only from Ser. No. 5907058 to 6218461; w/Closed cooling system; 2 Req'd.
Exh. Manifold Cooling Set	17540	Models 260, 260/5.7L; Inboard only from Ser. No. 5907058 to 6218461; w/Open cooling system
Exh. Manifold Cooling Set	17520	Models 260, 260/5.7L; Inboard only from Ser. No. 6218462; w/Closed cooling system; Exhaust riser gskts. not incl.

\*New Item — Check For Availability

(continued on next page)

When ordering please place "FEL" in front of part number

## Mercury Marine

<b>5.7L 350 OHV V8 (Chevrolet), 4" Bore (GMC Eng.) 12</b> <b>Marine Applications Models Black Scorpion (315 HP); 5.7L (230 HP); 5.7L (235 HP); 5.7L (260 HP);</b> <b>5.7L Blue Water Inboard (250 HP); 5.7L Blue Water Inboard (260 HP); 5.7L Bravo (240 HP); 5.7L Bravo</b> <b>(250 HP); 5.7L Bravo (270 HP); 5.7L Comp Ski (250 HP); 5.7L Comp Ski (260 HP); 255 (255 HP); 260,</b> <b>260/5.7L (260 HP); 270 (270 HP); 280 (280 HP); 300, 300 MR/TR (300 HP); 350 Magnum, 350</b> <b>Magnum Tournament Ski (240 HP); 350 Magnum, 350 Magnum Tournament Ski (250 HP); 350</b> <b>Magnum, 350 Magnum Tournament Ski (265 HP); 350 Magnum, 350 Magnum Tournament Ski (270</b> <b>HP)</b>		
<b>MANIFOLD - INT. &amp; EXH.</b>		
(cont.)	<b>PART NO.</b>	<b>DESCRIPTION</b>
Exh. Manifold Cooling Set	17510	Models 260, 260/5.7L; Inboard only from Ser. No. 6218462; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17540	Models 260, 260/5.7L; Inboard only from Ser. No. 6218462; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
Exh. Manifold Cooling Set	17537	Models 260, 260/5.7L; Stern Drive only from Ser. No. 4908850 to 6218461; w/Closed cooling system
Exh. Manifold Cooling Set	17535	Models 260, 260/5.7L; Stern Drive only from Ser. No. 4908850 to 6218461; w/Open cooling system
Exh. Manifold Cooling Set	17520	Models 260, 260/5.7L; Stern Drive only from Ser. No. 6218462; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17510	Models 260, 260/5.7L; Stern Drive only from Ser. No. 6218462; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17540	Models 260, 260/5.7L; Stern Drive only from Ser. No. 6218462; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
Exh. Manifold Cooling Set	17530	Models 270, 280
Exh. Manifold Cooling Set	17520	Models 350 Magnum, 350 Magnum Ski, Black Scorpion; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17510	Models 350 Magnum, 350 Magnum Ski, Black Scorpion; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	17540	Models 350 Magnum, 350 Magnum Ski, Black Scorpion; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
<b>OIL PAN</b>		
Oil Pan Gasket Set	17982	w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
Oil Pan Gasket Set	17983	Opt. PermaDryPlus® One-piece molded rubber gskt. for engines w/Two-piece rear main bearing seal
Oil Pan Gasket Set	17980	Port (L.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Oil Pan Gasket Set	17981	Starboard (R.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>CRANKSHAFT REAR SEAL</b>		
Rear Main Seal & Gasket Set	17725	Eng. w/o Plastic timing cover; Rev. rotation; Rubber; One-piece
Rear Main Seal & Gasket Set	BS40520	Eng. w/o Plastic timing cover; Std. rotation; Rubber; One-piece
Split Seal	17720	Rev. rotation; Rubber; Two-piece
Split Seal	BS40013	Std. rotation; Rubber; Two-piece; Double lip
<b>VALVE COVER</b>		
Valve Cover Gasket Set	17931	w/Center bolt design; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17930	w/Rim bolt design
<b>VALVE STEM SEAL SET</b>		
Valve Stem Seal Set	SS72526	Exh.; Premium valve stem seals incl.
Valve Stem Seal Set	SS5112	Int. & Exh.; O-ring
Valve Stem Seal Set	SS72527	Int.; Premium valve stem seals incl.
<b>WATER OUTLET GASKET</b>		
Thermostat Gasket	17620	Thermostat housing set; Design I; Hose connections in both housing body and cap
Thermostat Gasket	17621	Thermostat housing set; Design II; Hose connections in housing body only
Thermostat Gasket	17622 *	Thermostat housing set; Design III; Hose connections in cap only
Thermostat Gasket	17624	Thermostat housing set; GEN+ eng.; w/Open or Closed cooling system
<b>TIMING COVER</b>		
Timing Cover Gasket Set	17871	Eng. w/o Plastic timing cover; Std. rotation
Oil Seal	17760	Eng. w/o Plastic timing cover; Rev. rotation timing cover seal
<b>5.8L 351 OHV V8 (Windsor), 4" Bore (Ford Eng.) 13</b> <b>Marine Applications Models 233 from Ser. No. 3258728 to 4175499 (233 HP); 255 from Ser. No.</b> <b>3258728 to 4175499 (255 HP)</b>		
<b>CYLINDER HEAD</b>		
Head Gasket	17060	2 Req'd.

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FEL" in front of part number



## Mercury Marine

<b>13 5.8L 351 OHV V8 (Windsor), 4" Bore (Ford Eng.)</b> (cont.) <b>Marine Applications</b> Models 233 from Ser. No. 3258728 to 4175499 (233 HP); 255 from Ser. No. 3258728 to 4175499 (255 HP)		
<b>CYLINDER HEAD</b> (cont.)	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Set	17260	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17165	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17360	
Exh. Manifold Gasket Set	17460	
Exh. Manifold Cooling Set	17535	
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17996	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17748	Rev. rotation; Rubber; Two-piece
Split Seal	BS40042	Std. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17945	
<b>VALVE STEM SEAL SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Stem Seal Set	SS13364	Int. & Exh.; Premium valve stem seals incl.
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17660	Thermostat housing set
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17875	Std. rotation
Oil Seal	17795	Rev. rotation timing cover seal
<b>14 7.0L 427 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)</b> <b>Marine Applications</b> Model 325 (325 HP)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17040	2 Req'd.
Head Set	17240	Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17140	Std. rotation
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17340	
Exh. Manifold Gasket Set	17440	
Exh. Manifold Cooling Set	17530	From Ser. No. 2313965
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17985	
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17740	Rev. rotation; Rubber; Two-piece
Split Seal	BS40096-1	Std. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17935	
<b>VALVE STEM SEAL SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Stem Seal Set	SS71152	Int. & Exh.; Premium valve stem seals incl.
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17620	Thermostat housing set
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17872	Std. rotation
<b>15 7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)</b> <b>Marine Applications</b> Models HP420 (420 HP Gen. IV & Gen. V); HP425 (385 HP Gen. IV & Gen. V); HP425 (400 HP Gen. IV & Gen. V); HP425 (425 HP Gen. IV & Gen. V); HP 525 SC (500 HP Gen. V); 7.4L Blue Water Inboard to Ser. No. D715493 (310 HP & 340 HP Gen. IV); 7.4L Blue Water Inboard from Ser. No. D715494 (310 HP Gen. V); 7.4L Bravo to Ser. No. D603117 (300 HP & 330 HP Gen. IV); 7.4L Bravo I from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo II from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo III from Ser. No. D603118 (350 HP Gen. V); 7.4L EFI Inboard from Ser. No. F215800 (310 HP Gen. V); 330 (330 HP Gen. IV); 340 (340 HP Gen. IV); 350 (350 HP Gen. IV); 370 TRS (370 HP Gen. IV); 400 TRS (400 HP Gen. IV); 450 (450 HP Gen. V); 454 Magnum Alpha from Ser. No. A631894 to B785148 (330 HP Gen. IV); 454 Magnum Bravo from Ser. No. B721206 to D805068 (350 HP & 365 HP Gen. IV); 454 Magnum Bravo from Ser. No. D805069 (350 HP Gen. V)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17040	Generation IV engs.; Exc H.O.; 2 Req'd.

(continued on next page)



## Mercury Marine

7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.) **15**

(cont.)

**Marine Applications** Models HP420 (420 HP Gen. IV & Gen. V); HP425 (385 HP Gen. IV & Gen. V); HP425 (400 HP Gen. IV & Gen. V); HP425 (425 HP Gen. IV & Gen. V); HP 525 SC (500 HP Gen. V); 7.4L Blue Water Inboard to Ser. No. D715493 (310 HP & 340 HP Gen. IV); 7.4L Blue Water Inboard from Ser. No. D715494 (310 HP Gen. V); 7.4L Bravo to Ser. No. D603117 (300 HP & 330 HP Gen. IV); 7.4L Bravo I from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo II from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo III from Ser. No. D603118 (350 HP Gen. V); 7.4L EFI Inboard from Ser. No. F215800 (310 HP Gen. V); 330 (330 HP Gen. IV); 340 (340 HP Gen. IV); 350 (350 HP Gen. IV); 370 TRS (370 HP Gen. IV); 400 TRS (400 HP Gen. IV); 450 (450 HP Gen. V); 454 Magnum Alpha from Ser. No. A631894 to B785148 (330 HP Gen. IV); 454 Magnum Bravo from Ser. No. B721206 to D805068 (350 HP & 365 HP Gen. IV); 454 Magnum Bravo from Ser. No. D805069 (350 HP Gen. V)

CYLINDER HEAD (cont.)		PART NO.	DESCRIPTION
Head Gasket		17049	Generation IV engs.; H.O. only; Performance design; Extra large bore; 2 Req'd.
Head Gasket		17046	Generation IV engs.; H.O. only; Performance design; 2 Req'd.
Head Gasket		17042	Generation V & VI engs.; 2 Req'd.
Head Set		17240	Generation IV engs.; Exc. H.O.; w/Oval intake ports; Premium valve stem seals incl.
Head Set		17241	Generation IV engs.; Exc. H.O.; w/Rectangular intake ports; Premium valve stem seals incl.
Head Set		17246	Generation IV engs.; H.O. only; w/Rectangular intake ports; Performance design head gskts. incl.; Premium valve stem seals incl.
Head Set		17242	Generation V engs.; Exc. EFI or H.O.; w/Oval intake ports; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set		17280	Generation V engs.; EFI only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set		17243	Generation V engs.; H.O. only; w/Rectangular intake ports; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set		17242	Generation VI engs.; Exc. EFI or H.O.; w/Oval intake ports; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set		17205	Generation VI engs.; EFI only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set		17201	Generation VI engs.; H.O. only; w/Rectangular intake ports; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
CONVERSION SET		PART NO.	DESCRIPTION
Gasket Conversion Set		17140	Generation IV engs.; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Gasket Conversion Set		17145	Generation V engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set		17146	Generation VI engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
MANIFOLD - INT. & EXH.		PART NO.	DESCRIPTION
Int. Manifold Gasket Set		17341	Generation IV & V & VI engs.; H.O. only; w/Rectangular intake ports
Int. Manifold Gasket Set		17340	Generation IV engs.; Exc. H.O.; w/Oval intake ports
Int. Manifold Gasket Set		17341	Generation IV engs.; Exc. H.O.; w/Rectangular intake ports
Int. Manifold Gasket Set		17340	Generation V & VI engs.; Exc. EFI or H.O.; w/Oval intake ports
Int. Manifold Gasket Set		17342	Generation V & VI engs.; EFI only
Exh. Manifold Gasket Set		17440	Generation IV & V & VI engs.
Exh. Manifold Cooling Set		17542	All Models; Generation VI engs.; w/Open or Closed cooling system; Exhaust riser gskts. incl.
Exh. Manifold Cooling Set		17536	Model 370 TRS from Ser. No. 6721528; w/Zero degree Exhaust elbow (3" OD)
Exh. Manifold Cooling Set		17540	Model 370 TRS from Ser. No. 6721528; w/7 degree Exhaust elbow (4" OD)
Exh. Manifold Cooling Set		17530	Model 370 TRS to Ser. No. 6721527
Exh. Manifold Cooling Set		17530	Model 400 TRS
Exh. Manifold Cooling Set		17521	Model 454 Magnum Bravo; w/Closed cooling system w/Mufflers; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set		17510	Model 454 Magnum Bravo; w/Open cooling system w/o Mufflers; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set		17511	Model 454 Magnum Bravo; w/Open cooling system w/Mufflers; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set		17540	Model 454 Magnum Bravo; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
Exh. Manifold Cooling Set		17520	Models 330, 340; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set		17510	Models 330, 340; w/Open cooling system; Exhaust riser gskts. not incl.

(continued on next page)

When ordering please place "FEL" in front of part number

## Mercury Marine

<b>15 7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)</b> <b>(cont.) Marine Applications</b> Models HP420 (420 HP Gen. IV & Gen. V); HP425 (385 HP Gen. IV & Gen. V); HP425 (400 HP Gen. IV & Gen. V); HP425 (425 HP Gen. IV & Gen. V); HP 525 SC (500 HP Gen. V); 7.4L Blue Water Inboard to Ser. No. D715493 (310 HP & 340 HP Gen. IV); 7.4L Blue Water Inboard from Ser. No. D715494 (310 HP Gen. V); 7.4L Bravo to Ser. No. D603117 (300 HP & 330 HP Gen. IV); 7.4L Bravo I from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo II from Ser. No. D603118 (300 HP & 330 HP Gen. V); 7.4L Bravo III from Ser. No. D603118 (350 HP Gen. V); 7.4L EFI Inboard from Ser. No. F215800 (310 HP Gen. V); 330 (330 HP Gen. IV); 340 (340 HP Gen. IV); 350 (350 HP Gen. IV); 370 TRS (370 HP Gen. IV); 400 TRS (400 HP Gen. IV); 450 (450 HP Gen. V); 454 Magnum Alpha from Ser. No. A631894 to B785148 (330 HP Gen. IV); 454 Magnum Bravo from Ser. No. B721206 to D805068 (350 HP & 365 HP Gen. IV); 454 Magnum Bravo from Ser. No. D805069 (350 HP Gen. V)		
<b>MANIFOLD - INT. &amp; EXH.</b>		
Exh. Manifold Cooling Set	<b>PART NO.</b> <b>17540</b>	<b>DESCRIPTION</b> Models 330, 340; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
Exh. Manifold Cooling Set	<b>17530</b>	Models 350, 390
Exh. Manifold Cooling Set	<b>17520</b>	Models 454 EFI Magnum Bravo, 7.4L Bravo III, 7.4L EFI Inboard; w/Closed cooling system
Exh. Manifold Cooling Set	<b>17510</b>	Models 454 EFI Magnum Bravo, 7.4L Bravo III, 7.4L EFI Inboard; w/Open cooling system
Exh. Manifold Cooling Set	<b>17520</b>	Models 454 Magnum Alpha, 7.4L Bravo, 7.4L Bravo I, 7.4L Bravo II, 7.4L Inboard; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	<b>17510</b>	Models 454 Magnum Alpha, 7.4L Bravo, 7.4L Bravo I, 7.4L Bravo II, 7.4L Inboard; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	<b>17540</b>	Models 454 Magnum Alpha, 7.4L Bravo, 7.4L Bravo I, 7.4L Bravo II, 7.4L Inboard; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
<b>OIL PAN</b>		
Oil Pan Gasket Set	<b>PART NO.</b> <b>17985</b>	<b>DESCRIPTION</b> Generation IV engs.; w/Four-piece oil pan gskt.
Oil Pan Gasket Set	<b>17986</b>	Generation V & VI engs.; w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>		
Split Seal	<b>PART NO.</b> <b>17740</b>	<b>DESCRIPTION</b> Generation IV engs.; Rev. rotation; Rubber; Two-piece
Split Seal	<b>BS40096-1</b>	Generation IV engs.; Std. rotation; Rubber; Two-piece
<b>VALVE COVER</b>		
Valve Cover Gasket Set	<b>PART NO.</b> <b>17935</b>	<b>DESCRIPTION</b> Generation IV engs.
Valve Cover Gasket Set	<b>17937</b>	Generation V & VI engs.; PermaDry® molded rubber gskts. incl.
<b>VALVE STEM SEAL SET</b>		
Valve Stem Seal Set	<b>PART NO.</b> <b>SS71152</b>	<b>DESCRIPTION</b> Generation IV & V engs.; Int. & Exh.; Premium valve stem seals incl.
<b>WATER OUTLET GASKET</b>		
Thermostat Gasket	<b>PART NO.</b> <b>17624</b>	<b>DESCRIPTION</b> Thermostat housing set; All Models; Generation VI engs.; w/Open or Closed cooling system
Thermostat Gasket	<b>17620</b>	Thermostat housing set; Model 454 Magnum Bravo; Design I; Hose connections in both housing body and cap
Thermostat Gasket	<b>17621</b>	Thermostat housing set; Model 454 Magnum Bravo; Design II; Hose connections in housing body only
Thermostat Gasket	<b>17623 *</b>	Thermostat housing set; Model 7.4L EFI Inboard; w/Closed cooling system
Thermostat Gasket	<b>17620</b>	Thermostat housing set; Models HP420, HP425
Thermostat Gasket	<b>17620</b>	Thermostat housing set; Models 330, 340, 350, 390, 454 Magnum Alpha, 7.4L Bravo, 7.4L Inboard; Design I; Hose connections in housing body and cap
Thermostat Gasket	<b>17621</b>	Thermostat housing set; Models 330, 340, 350, 390, 454 Magnum Alpha, 7.4L Bravo, 7.4L Inboard; Design II; Hose connections in housing body only
Thermostat Gasket	<b>17620</b>	Thermostat housing set; Models 370 TRS, 400 TRS
Thermostat Gasket	<b>17620</b>	Thermostat housing set; Models 454 EFI Magnum Bravo, 7.4L Bravo III; w/Closed cooling system; Design I; Hose connections in both housing body and cap
Thermostat Gasket	<b>17621</b>	Thermostat housing set; Models 454 EFI Magnum Bravo, 7.4L Bravo III, 7.4L EFI Inboard; w/Open cooling system; Design II; Hose connections in housing body only
Thermostat Gasket	<b>17622 *</b>	Thermostat housing set; Models 454 EFI Magnum Bravo, 7.4L Bravo III, 7.4L EFI Inboard; w/Open cooling system; Design III; Hose connections in cap only
Thermostat Gasket	<b>17620</b>	Thermostat housing set; Models 7.4L Bravo I, 7.4L Bravo II; w/Closed cooling system; Design I; Hose connections in both housing body and cap
Thermostat Gasket	<b>17621</b>	Thermostat housing set; Models 7.4L Bravo I, 7.4L Bravo II; w/Open cooling system; Design II; Hose connections in housing body only

\* New Item — Check For Availability

(continued on next page)

When ordering please place "FEL" in front of part number

## Mercury Marine

<b>7.4L 454 OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.) 15</b> <b>Marine Applications Models HP420 (420 HP Gen. IV &amp; Gen. V); HP425 (385 HP Gen. IV &amp; Gen. V); HP425 (400 HP Gen. IV &amp; Gen. V); HP425 (425 HP Gen. IV &amp; Gen. V); HP 525 SC (500 HP Gen. V);</b> <b>7.4L Blue Water Inboard to Ser. No. D715493 (310 HP &amp; 340 HP Gen. IV); 7.4L Blue Water Inboard from Ser. No. D715494 (310 HP Gen. V); 7.4L Bravo to Ser. No. D603117 (300 HP &amp; 330 HP Gen. IV);</b> <b>7.4L Bravo I from Ser. No. D603118 (300 HP &amp; 330 HP Gen. V); 7.4L Bravo II from Ser. No. D603118 (300 HP &amp; 330 HP Gen. V); 7.4L Bravo III from Ser. No. D603118 (350 HP Gen. V); 7.4L EFI Inboard from Ser. No. F215800 (310 HP Gen. V); 330 (330 HP Gen. IV); 340 (340 HP Gen. IV); 350 (350 HP Gen. IV); 370 TRS (370 HP Gen. IV); 400 TRS (400 HP Gen. IV); 450 (450 HP Gen. V); 454 Magnum Alpha from Ser. No. A631894 to B785148 (330 HP Gen. IV); 454 Magnum Bravo from Ser. No. B721206 to D805068 (350 HP &amp; 365 HP Gen. IV); 454 Magnum Bravo from Ser. No. D805069 (350 HP Gen. V)</b>		
<b>WATER OUTLET GASKET</b>		
Thermostat Gasket	<b>PART NO.</b> 17622 *	<b>DESCRIPTION</b> Thermostat housing set; Models 7.4L Bravo I, 7.4L Bravo II; w/Open cooling system; Design III; Hose connections in cap only
<b>TIMING COVER</b>		
Timing Cover Gasket Set	<b>PART NO.</b> 17872	<b>DESCRIPTION</b> Generation IV & V engs.; Std. rotation
<b>8.2L 502 OHV V8 (Performance), 4.466" Bore (GMC Eng.) 16</b> <b>Marine Applications Models HP465 (465 HP Gen. V); HP 600 SC (550 HP Gen. V); 8.2L Inboard to Ser. No. D857199 (400 HP Gen. IV); 8.2L Inboard from Ser. No. D857200 to F819619 (400 HP Gen. V); 500 (470 HP Gen. V); 502 Magnum Bravo to Ser. No. D824588 (390 HP Gen. IV); 502 Magnum Bravo from Ser. No. D824589 (390 HP &amp; 415 HP Gen. V)</b>		
<b>CYLINDER HEAD</b>		
Head Gasket	<b>PART NO.</b> 17049	<b>DESCRIPTION</b> Generation IV & V & VI engs.; Performance design; Extra large bore; 2 Req'd.
Head Gasket	<b>17048</b>	Generation IV & V & VI engs.; Performance design; 2 Req'd.
Head Set	<b>17248</b>	Generation IV engs.; Performance design head gskts. incl.; Premium valve stem seals incl.
Head Set	<b>17249</b>	Generation V engs.; Exc. EFI; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	<b>17281</b>	Generation V engs.; EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	<b>17207</b>	Generation VI engs.; EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>		
Gasket Conversion Set	<b>PART NO.</b> 17140	<b>DESCRIPTION</b> Generation IV engs.; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Gasket Conversion Set	<b>17145</b>	Generation V engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	<b>17146</b>	Generation VI engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>		
Int. Manifold Gasket Set	<b>PART NO.</b> 17341	<b>DESCRIPTION</b> Generation IV engs.
Int. Manifold Gasket Set	<b>17342</b>	Generation V & VI engs.; EFI only
Int. Manifold Gasket Set	<b>17341</b>	Generation V engs.; Exc. EFI
Exh. Manifold Gasket Set	<b>17440</b>	Generation IV & V & VI engs.
Exh. Manifold Cooling Set	<b>17520</b>	Generation IV & V engs.; w/Closed cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	<b>17510</b>	Generation IV & V engs.; w/Open cooling system; Exhaust riser gskts. not incl.
Exh. Manifold Cooling Set	<b>17540</b>	Generation IV & V engs.; w/Open or Closed cooling system; Exhaust riser gskt. set; Services one riser only
Exh. Manifold Cooling Set	<b>17542</b>	Generation VI engs.; w/Open or Closed cooling system; Exhaust riser gskts. incl.
<b>OIL PAN</b>		
Oil Pan Gasket Set	<b>PART NO.</b> 17985	<b>DESCRIPTION</b> Generation IV engs.; w/Four-piece oil pan gskt.
Oil Pan Gasket Set	<b>17986</b>	Generation V & VI engs.; w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>		
Split Seal	<b>PART NO.</b> 17740	<b>DESCRIPTION</b> Generation IV engs.; Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>		
Valve Cover Gasket Set	<b>PART NO.</b> 17935	<b>DESCRIPTION</b> Generation IV engs.
Valve Cover Gasket Set	<b>17937</b>	Generation V & VI engs.; PermaDry® molded rubber gskts. incl.

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FEL" in front of part number



## Mercury Marine

<b>16 8.2L 502 OHV V8 (Performance), 4.466" Bore (GMC Eng.)</b> <b>(cont.) Marine Applications</b> Models HP465 (465 HP Gen. V); HP 600 SC (550 HP Gen. V); 8.2L Inboard to Ser. No. D857199 (400 HP Gen. IV); 8.2L Inboard from Ser. No. D857200 to F819619 (400 HP Gen. V); 500 (470 HP Gen. V); 502 Magnum Bravo to Ser. No. D824588 (390 HP Gen. IV); 502 Magnum Bravo from Ser. No. D824589 (390 HP & 415 HP Gen. V)		
<b>WATER OUTLET GASKET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Thermostat Gasket	17620	Generation IV & V engs.; Thermostat housing set; w/Closed cooling system; Design I; Hose connections in both housing body and cap
Thermostat Gasket	17621	Generation IV & V engs.; Thermostat housing set; w/Open cooling system; Design II; Hose connections in housing body only
Thermostat Gasket	17622 *	Generation IV & V engs.; Thermostat housing set; w/Open cooling system; Design III; Hose connections in cap only
Thermostat Gasket	17624	Generation VI engs.; Thermostat housing set; w/Open or Closed cooling system
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17872	Generation IV & V engs.; Std. rotation
<b>17 8.9L 540 OHV V8 (Performance), 4.5" Bore (GMC Eng.)</b> <b>Marine Applications</b> Models HP500 (475 HP Gen. IV & Gen. V); HP575 (525 HP Gen. IV & Gen. V); HP 1000 SC Race (950 HP Gen. IV & Gen. V); 500 Bulldog (470 HP Gen. IV & Gen. V)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17049	Generation IV & V engs.; Performance design; Extra large bore; 2 Req'd.
Head Gasket	17048	Generation IV & V engs.; Performance design; 2 Req'd.
<b>18 9.4L 572 OHV V8 (Performance), 4.56" Bore (GMC Eng.)</b> <b>Marine Applications</b> Models HP 800 SC (700 HP Gen. IV & Gen. V); HP 800 SC (750 HP Gen. IV & Gen. V)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17049	Generation IV & V engs.; Performance design; Extra large bore; 2 Req'd.
Head Gasket	17048	Generation IV & V engs.; Performance design; 2 Req'd.



## Volvo-Penta Marine

<b>1 3.0L 2966cc (181) OHV L4 (Chevrolet), 4" Bore (GMC Eng.)</b> <b>Marine Applications</b> Model 3.0 GS (135 HP)		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17000	Int. & Exh. manifold gskt. not incl.
Head Set	17200	
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17102	Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17100	Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.

(continued on next page)

When ordering please place "FEL" in front of part number



## Volvo-Penta Marine

<b>1 3.0L 2966cc (181) OHV L4 (Chevrolet), 4" Bore (GMC Eng.)</b> (cont.) Marine Applications Model 3.0 GS (135 HP)		
<b>CONVERSION SET</b> (cont.) Gasket Conversion Set	<b>PART NO.</b> 17101	<b>DESCRIPTION</b> Std. rotation; w/Two-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b> Int. & Exh. Gasket Set	<b>PART NO.</b> 17302	<b>DESCRIPTION</b> Exc. H.O.
Int. & Exh. Gasket Set	17304	H.O. only
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17952	<b>DESCRIPTION</b> w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
Oil Pan Gasket Set	17950	w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Oil Pan Gasket Set	17951	w/Two-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17900	<b>DESCRIPTION</b>
<b>PUSH ROD COVER</b> Push Rod Cover Gasket Set	<b>PART NO.</b> 17903	<b>DESCRIPTION</b>
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17870	<b>DESCRIPTION</b> Std. rotation
<b>2 4.3L 4293cc (262) OHV V6 (Chevrolet), 4" Bore (GMC Eng.)</b> Marine Applications Models 4.3 Gi (205 HP); 4.3 GL (190 HP); 4.3 GS (205 HP); 430, 430 DP (155 HP); 431 (180 HP); 431 (205 HP); 432 DP (164 HP); 434 DP (187 HP)		
<b>CYLINDER HEAD</b> Head Gasket	<b>PART NO.</b> 17010	<b>DESCRIPTION</b> 2 Req'd.
Head Set	17210	Eng. w/o Balance shaft; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17211	Eng. w/Balance shaft; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17115	<b>DESCRIPTION</b> Eng. w/o Balance shaft; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17116	Eng. w/Balance shaft; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set	<b>PART NO.</b> 17310	<b>DESCRIPTION</b>
Exh. Manifold Gasket Set	17410	
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17971	<b>DESCRIPTION</b> w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b> Rear Main Seal & Gasket Set	<b>PART NO.</b> 17725	<b>DESCRIPTION</b> Rev. rotation; Rubber; One-piece
<b>VALVE COVER</b> Valve Cover Gasket Set	<b>PART NO.</b> 17920	<b>DESCRIPTION</b> Eng. w/o Balance shaft; PermaDry® molded rubber gskts. incl.
Valve Cover Gasket Set	17921	Eng. w/Balance shaft; PermaDry® molded rubber gskts. incl.
<b>TIMING COVER</b> Timing Cover Gasket Set	<b>PART NO.</b> 17871	<b>DESCRIPTION</b> Eng. w/o Balance shaft; Std. rotation
Oil Seal	17760	Eng. w/o Balance shaft; Rev. rotation timing cover seal
<b>3 5.0L 4949cc (302) OHV V8, 4" Bore (Ford Eng.)</b> Marine Applications Models 5.0 Fi (220 HP); 5.0 FL (190 HP); 215 (215 HP); 220 (220 HP); 225 (225 HP)		
<b>CYLINDER HEAD</b> Head Gasket	<b>PART NO.</b> 17060	<b>DESCRIPTION</b> 2 Req'd.
Head Set	17261	w/Cast Aluminum valve covers; Premium valve stem seals incl.
Head Set	17260	w/Stamped steel valve covers; Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17161	<b>DESCRIPTION</b> Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17160	Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set	<b>PART NO.</b> 17360	<b>DESCRIPTION</b>
Exh. Manifold Gasket Set	17460	
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17995	<b>DESCRIPTION</b> w/Four-piece oil pan gskt.

(continued on next page)

When ordering please place "FEL" in front of part number

## Volvo-Penta Marine

<b>5.0L 4949cc (302) OHV V8, 4" Bore (Ford Eng.) 3</b> <b>Marine Applications Models 5.0 Fi (220 HP); 5.0 FL (190 HP); 215 (215 HP); 220 (220 HP); 225 (225 HP) (cont.)</b>		
<b>OIL PAN</b> Oil Pan Gasket Set	<b>PART NO.</b> 17997	<b>DESCRIPTION</b> w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b> Split Seal	<b>PART NO.</b> 17746	<b>DESCRIPTION</b> Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b> Valve Cover Gasket Set Valve Cover Gasket Set	<b>PART NO.</b> 17946 17945	<b>DESCRIPTION</b> w/Cast Aluminum valve covers w/Stamped steel valve covers
<b>TIMING COVER</b> Timing Cover Gasket Set Oil Seal	<b>PART NO.</b> 17875 17795	<b>DESCRIPTION</b> Std. rotation Rev. rotation timing cover seal
<b>5.0L 5012cc (305) OHV V8 (Chevrolet), 3.736" Bore (GMC Eng.) 4</b> <b>Marine Applications Models AQ200 (200 HP); AQ211 (210 HP); AQ225 (225 HP); AQ231 (229 HP); BB225 (225 HP); BB231 (229 HP); 500 DP (187 HP); 500 DP (190 HP); 501, 501 DP (204 HP); 501, 501 DP (205 HP)</b>		
<b>CYLINDER HEAD</b> Head Gasket Head Set  Head Set	<b>PART NO.</b> 17020 17224 *  17220	<b>DESCRIPTION</b> 2 Req'd. w/Center bolt design valve covers; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. w/Rim bolt design valve covers; Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set  Gasket Conversion Set	<b>PART NO.</b> 17125  17120	<b>DESCRIPTION</b> Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl. Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set Exh. Manifold Gasket Set	<b>PART NO.</b> 17320 17420	<b>DESCRIPTION</b>
<b>OIL PAN</b> Oil Pan Gasket Set  Oil Pan Gasket Set Oil Pan Gasket Set Oil Pan Gasket Set	<b>PART NO.</b> 17982  17983 17980 17981	<b>DESCRIPTION</b> w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl. Opt. PermaDryPlus® One-piece molded rubber gskt. for engines w/Two-piece rear main bearing seal Port (L.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt. Starboard (R.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>CRANKSHAFT REAR SEAL</b> Rear Main Seal & Gasket Set Split Seal	<b>PART NO.</b> 17725 17720	<b>DESCRIPTION</b> Rev. rotation; Rubber; One-piece Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b> Valve Cover Gasket Set Valve Cover Gasket Set	<b>PART NO.</b> 17931 17930	<b>DESCRIPTION</b> w/Center bolt design; PermaDry® molded rubber gskts. incl. w/Rim bolt design
<b>TIMING COVER</b> Timing Cover Gasket Set Oil Seal	<b>PART NO.</b> 17871 17760	<b>DESCRIPTION</b> Std. rotation Rev. rotation timing cover seal
<b>5.7L 5736cc (350) OHV V8 (Chevrolet), 4" Bore (GMC Eng.) 5</b> <b>Marine Applications Models AQ260 (260 HP); AQ271 (270 HP); AQ271 (275 HP); AQ290 (290 HP); AQ311 (307 HP); BB260, BB261 (260 HP); 5.7 Gi (250 HP); 5.7 GL (215 HP); 570, 570 DP (245 HP); 571 (273 HP); 572 (225 HP)</b>		
<b>CYLINDER HEAD</b> Head Gasket Head Set  Head Set Head Set	<b>PART NO.</b> 17030 17214 *  17230 17232 *	<b>DESCRIPTION</b> 2 Req'd. Exc. GEN+ eng. w/Plastic intake manifold gskts.; w/Center bolt design valve covers; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Exc. GEN+ eng. w/Plastic intake manifold gskts.; w/Rim bolt design valve covers; Premium valve stem seals incl. GEN+ eng. w/Plastic intake manifold gskts.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set  Gasket Conversion Set	<b>PART NO.</b> 17125  17124 *	<b>DESCRIPTION</b> Eng. w/o Plastic timing cover; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl. Eng. w/Plastic timing cover; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.

(continued on next page)

\* New Item — Check For Availability

When ordering please place "FEL" in front of part number

# Volvo-Penta Marine

<b>5 5.7L 5736cc (350) OHV V8 (Chevrolet), 4" Bore (GMC Eng.)</b> <b>(cont.) Marine Applications Models AQ260 (260 HP); AQ271 (270 HP); AQ271 (275 HP); AQ290 (290 HP); AQ311 (307 HP); BB260, BB261 (260 HP); 5.7 Gi (250 HP); 5.7 GL (215 HP); 570, 570 DP (245 HP); 571 (273 HP); 572 (225 HP)</b>		
<b>CONVERSION SET</b> Gasket Conversion Set	<b>PART NO.</b> 17120	<b>DESCRIPTION</b> Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set Exh. Manifold Gasket Set	<b>PART NO.</b> 17320 17420	<b>DESCRIPTION</b> Exc. GEN+ eng. w/Plastic intake manifold gskts.
<b>OIL PAN</b> Oil Pan Gasket Set  Oil Pan Gasket Set  Oil Pan Gasket Set  Oil Pan Gasket Set	<b>PART NO.</b> 17982  17983  17980  17981	<b>DESCRIPTION</b> w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl. Opt. PermaDryPlus® One-piece molded rubber gskt. for engines w/Two-piece rear main bearing seal Port (L.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt. Starboard (R.H.) dipstick; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>CRANKSHAFT REAR SEAL</b> Rear Main Seal & Gasket Set Split Seal	<b>PART NO.</b> 17725 17720	<b>DESCRIPTION</b> Eng. w/o Plastic timing cover; Rev. rotation; Rubber; One-piece Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b> Valve Cover Gasket Set Valve Cover Gasket Set	<b>PART NO.</b> 17931 17930	<b>DESCRIPTION</b> w/Center bolt design; PermaDry® molded rubber gskts. incl. w/Rim bolt design
<b>TIMING COVER</b> Timing Cover Gasket Set Oil Seal	<b>PART NO.</b> 17871 17760	<b>DESCRIPTION</b> Eng. w/o Plastic timing cover; Std. rotation Eng. w/o Plastic timing cover; Rev. rotation timing cover seal
<b>6 5.8L 5752cc (351) OHV V8 (Windsor), 4" Bore (Ford Eng.)</b> <b>Marine Applications Models 5.8 FL (235 HP); 5.8 FSi (265 HP); 240 (240 HP)</b>		
<b>CYLINDER HEAD</b> Head Gasket Head Set Head Set	<b>PART NO.</b> 17060 17261 17260	<b>DESCRIPTION</b> 2 Req'd. w/Cast Aluminum valve covers; Premium valve stem seals incl. w/Stamped steel valve covers; Premium valve stem seals incl.
<b>CONVERSION SET</b> Gasket Conversion Set  Gasket Conversion Set	<b>PART NO.</b> 17166  17165	<b>DESCRIPTION</b> Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl. Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
<b>MANIFOLD - INT. &amp; EXH.</b> Int. Manifold Gasket Set Exh. Manifold Gasket Set	<b>PART NO.</b> 17360 17460	<b>DESCRIPTION</b>
<b>OIL PAN</b> Oil Pan Gasket Set Oil Pan Gasket Set	<b>PART NO.</b> 17996 17998	<b>DESCRIPTION</b> w/Four-piece oil pan gskt. w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b> Split Seal	<b>PART NO.</b> 17748	<b>DESCRIPTION</b> Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b> Valve Cover Gasket Set Valve Cover Gasket Set	<b>PART NO.</b> 17946 17945	<b>DESCRIPTION</b> w/Cast Aluminum valve covers w/Stamped steel valve covers
<b>TIMING COVER</b> Timing Cover Gasket Set Oil Seal	<b>PART NO.</b> 17875 17795	<b>DESCRIPTION</b> Std. rotation Rev. rotation timing cover seal
<b>7 7.4L 7439cc (454) OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.)</b> <b>Marine Applications Models 7.4 Gi (330 HP Gen. V); 7.4 GL (300 HP Gen. V); 7.4 GSi (385 HP Gen. V); 740 (300 HP Gen. IV); 740 DP (300 HP Gen. IV); 740 DP (300 HP Gen. V)</b>		
<b>CYLINDER HEAD</b> Head Gasket Head Gasket Head Set Head Set  Head Set  Head Set  Head Set	<b>PART NO.</b> 17040 17042 17240 17242  17280  17243  17242	<b>DESCRIPTION</b> Generation IV engs.; 2 Req'd. Generation V & VI engs.; 2 Req'd. Generation IV engs.; Premium valve stem seals incl. Generation V engs.; Exc. EFI or H.O.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Generation V engs.; EFI only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Generation V engs.; H.O. only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl. Generation VI engs.; Exc. EFI or H.O.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.

(continued on next page)



## Volvo-Penta Marine

<b>7.4L 7439cc (454) OHV V8 (Chevrolet), 4.25" Bore (GMC Eng.) 7</b> <b>Marine Applications Models 7.4 Gi (330 HP Gen. V); 7.4 GL (300 HP Gen. V); 7.4 GSi (385 HP Gen. V); 740 (300 HP Gen. IV); 740 DP (300 HP Gen. IV); 740 DP (300 HP Gen. V) (cont.)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Set	17205	Generation VI engs.; EFI only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17201	Generation VI engs.; H.O. only; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17140	Generation IV engs.; Std. rotation; w/Two-piece rear main bearing seal & Four-piece oil pan gskt.
Gasket Conversion Set	17145	Generation V engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17146	Generation VI engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17340	Generation IV engs.
Int. Manifold Gasket Set	17340	Generation V & VI engs.; Exc. EFI or H.O.
Int. Manifold Gasket Set	17342	Generation V & VI engs.; EFI only
Int. Manifold Gasket Set	17341	Generation V & VI engs.; H.O. only
Exh. Manifold Gasket Set	17440	Generation IV & V & VI engs.
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17985	Generation IV engs.; w/Four-piece oil pan gskt.
Oil Pan Gasket Set	17986	Generation V & VI engs.; w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>CRANKSHAFT REAR SEAL</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Split Seal	17740	Generation IV engs.; Rev. rotation; Rubber; Two-piece
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17935	Generation IV engs.
Valve Cover Gasket Set	17937	Generation V & VI engs.; PermaDry® molded rubber gskts. incl.
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17872	Generation IV & V engs.; Std. rotation
<b>8.2L 502 OHV V8 (Performance), 4.466" Bore (GMC Eng.) 8</b> <b>Marine Applications Model 820 DPX (385 HP Gen. V)</b>		
<b>CYLINDER HEAD</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Head Gasket	17049	Generation V & VI engs.; Performance design; Extra large bore; 2 Req'd.
Head Gasket	17048	Generation V & VI engs.; Performance design; 2 Req'd.
Head Set	17249	Generation V engs.; Exc. EFI; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17281	Generation V engs.; EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
Head Set	17207	Generation VI engs.; EFI only; Performance design head gskts. incl.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
<b>CONVERSION SET</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Gasket Conversion Set	17145	Generation V engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
Gasket Conversion Set	17146	Generation VI engs.; Std. rotation; w/One-piece rear main bearing seal & One-piece oil pan gskt.; PermaDry® molded rubber oil pan gskt. incl.
<b>MANIFOLD - INT. &amp; EXH.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Int. Manifold Gasket Set	17342	Generation V & VI engs.; EFI only
Int. Manifold Gasket Set	17341	Generation V engs.; Exc. EFI
Exh. Manifold Gasket Set	17440	Generation V & VI engs.
<b>OIL PAN</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Oil Pan Gasket Set	17986	Generation V & VI engs.; w/One-piece oil pan gskt.; PermaDry® molded rubber gskt. incl.
<b>VALVE COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Valve Cover Gasket Set	17937	Generation V & VI engs.; PermaDry® molded rubber gskts. incl.
<b>TIMING COVER</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Timing Cover Gasket Set	17872	Generation V engs.; Std. rotation





**Quality Spark Plugs**



**Corrosion Resistant**



**#1 OEM Supplier**



Since 1936, NGK has been the industry leader in technology, innovation and world-class design.

[ngksparkplugs.com](http://ngksparkplugs.com)

THE WORLD LEADER





Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
<b>EVINRUDE</b>									
1970-1968	1 HP	1R	BR6S	3522			---	---	.030"
1947-1946	1.1 HP		B-4L	3112			---	---	.030"
1990-1986	1.2 HP	MAGNETO	BR6S	3522			---	---	.030"
1970-1968	1.5 HP		BR6S	3522			---	---	.030"
1970-1968	2 HP		BR6S	3522			---	---	.030"
1998-1991	2 HP	1-CYL.	BPR6HS	7022			BPR6HIX	4085	.030"
1984-1971	2 HP	2R	BR6S	3522			---	---	.030"
1970-1966	2 HP	AQUANAUT DIVING UNIT	BM4A SOLID	4000			---	---	.030"
2001-2000	2 HP	COMMERCIAL	BZ7HS-10	3579			---	---	.030"
1990-1971	2 HP	JR., COLT	BR6S	3522			---	---	.030"
1997-1991	2.3 HP		BPR6HS	7022			BPR6HIX	4085	.030"
1999-1998	2.3 HP		BZ7HS-10	3579			---	---	.030"
1988-1987	2.5 HP		BZ7HS-10	3579			---	---	.030"
1999	3 HP		BZ7HS-10	3579			---	---	.030"
1968-1952	3 HP		BR6S	3522			---	---	.030"
1997-1989	3 HP	2-CYL.	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1974-1952	3 HP	LIGHTWIN	BR6S	3522			---	---	.030"
1951-1948	3.3 HP		BR6S	3522			---	---	.030"
2003-1991	3.3 HP	1-CYL.	BPR6HS	7022			BPR6HIX	4085	.030"
1974-1964	3.4 HP	YACHTWIN	BR6S	3522			---	---	.030"
1984-1981	4 HP		BZ7HS-10	3579			---	---	.030"
1987-1977	4 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1998-1989	4 HP	2-CYL.	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1976-1969	4 HP	4R, 4W	BR6S	3522			---	---	.030"
1988-1987	4 HP	ULTRA, EXCEL	BZ7HS-10	3579			---	---	.030"
1967-1958	4 HP	V4, V4A, V4M	BR6S	3522			---	---	.030"
1967-1958	4 HP	V4S, VX, VXH	BR6S	3522			---	---	.030"
1974-1964	4 HP	YACHTWIN	BR6S	3522			---	---	.030"
1985-1980	4.5 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1998	5 HP		BZ7HS-10	3579			---	---	.030"
1997-1990	5 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2003-1997	5 HP	4-STROKE OHC 128CC	DR6HS	4823			---	---	.027"
1968-1965	5 HP	ANGLER	BR6S	3522			---	---	.030"
1974-1952	5.2 HP	LIGHTWIN	BR6S	3522			---	---	.030"
1964-1956	5.5 HP		BR6S	3522			---	---	.030"
1974-1956	5.5 HP	FISHERMAN	BR6S	3522			---	---	.030"
1976-1965	6 HP		BR6S	3522			---	---	.030"
1976-1975	6 HP		BR6S	3522			---	---	.030"
1998-1977	6 HP	2-STROKE	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2003-1997	6 HP	4-STROKE OHC 128CC	DR6HS	4823			---	---	.027"
1976-1971	6 HP	6R, 6RL	BR6S	3522			---	---	.030"
1979-1978	6 HP	EVINRUDE 6	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1974-1956	6 HP	FISHERMAN	BR6S	3522			---	---	.030"
1993-1981	6.5 HP	COM	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1958-1952	7.5 HP		BR6S	3522			---	---	.030"
1997-1977	7.5 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1998-1977	8 HP	2-STROKE	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2003-1996	8 HP	4-STROKE OHC 211CC	DR6HS	4823			---	---	.030"
1998-1977	8 HP	COM	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1974	9 HP	9R, 9RL, 9EL	BZ7HS-10	3579			---	---	.030"
1973-1952	9.5 HP		BR6S	3522			---	---	.030"
1973-1956	9.5 HP	SPORTWIN	BR6S	3522			---	---	.030"
1949-1942	9.7 HP		AB-6	2910			---	---	.030"
1976-1974	9.9 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2001-1977	9.9 HP	2-STROKE	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1998-1996	9.9 HP	4-STROKE 211CC	DR6HS	4823			---	---	.027"
2003-2002	9.9 HP	4-STROKE OHC 302CC	DCPR7E	3932			DCPR7EIX	6046	.030"
2003-1995	9.9 HP	4-STROKE OHC 305CC	DCPR7E	3932			DCPR7EIX	6046	.030"
1979-1978	9.9 HP	EVINRUDE 9.9	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1963-1952	10 HP		BR6S	3522			---	---	.030"
1976-1975	10 HP	10E, 10EL	BZ7HS-10	3579			---	---	.030"
1976-1975	10 HP	10R, 10RL	BZ7HS-10	3579			---	---	.030"
1982-1981	10 HP	COM	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1993-1992	10 HP	COM	BZ7HS-10	3579			---	---	.030"
2003-1994	10 HP	COM	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1973-1956	10 HP	SPORTWIN	BR6S	3522			---	---	.030"
1972-1950	14 HP		BR6S	3522			---	---	.030"
1989-1988	14 HP		BZ7HS-10	3579			---	---	.030"
1981	14 HP	COM	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1991-1982	14 HP	COM	BZ7HS-10	3579			---	---	.030"
1958-1956	15 HP		BR6S	3522			---	---	.030"
1976-1974	15 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1992-1977	15 HP		BZ7HS-10	3579			---	---	.030"
1976-1974	15 HP	15E, 15EL, 15R, 15RL	BZ7HS-10	3579			---	---	.030"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
1998-1994	15 HP	2-STROKE	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1995	15 HP	4-STROKE OHC 305CC	DCPR7E	3932			DCPR7EIX	6046	.030"
1993-1992	15 HP	COM	BZ7HS-10	3579			---	---	.030"
2001-1994	15 HP	COM	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2011	15 HP	E15DHPLIIC	---	---			IZFR6N-E	4757	.044"
2011	15 HP	E15DHPLIIH	---	---			IZFR6N-E	4757	.044"
2012	15 HP	E15DHPLINR	---	---			IZFR6N-E	4757	.044"
2010	15 HP	E15DHPLISS	---	---			IZFR6N-E	4757	.044"
2011	15 HP	E15DHTLIIC	---	---			IZFR6N-E	4757	.044"
2011	15 HP	E15DHTLIH	---	---			IZFR6N-E	4757	.044"
2012	15 HP	E15DHTLINR	---	---			IZFR6N-E	4757	.044"
2010	15 HP	E15DHTLISS	---	---			IZFR6N-E	4757	.044"
2011	15 HP	E15HPSLIH	---	---			IZFR6N-E	4757	.044"
2011	15 HP	E15HPSLIIS	---	---			IZFR6N-E	4757	.044"
2012	15 HP	E15HPSLINC	---	---			IZFR6N-E	4757	.044"
2012	15 HP	E15HPSXINC	---	---			IZFR6N-E	4757	.044"
2011	15 HP	E15HTSLIH	---	---			IZFR6N-E	4757	.044"
2011	15 HP	E15HTSLIIS	---	---			IZFR6N-E	4757	.044"
2012	15 HP	E15HTSLINC	---	---			IZFR6N-E	4757	.044"
2012	15 HP	E15HTSXINC	---	---			IZFR6N-E	4757	.044"
1979-1978	15 HP	EVINRUDE 15	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1998-1995	15 HP	KERO	BUHXW-1	5526			---	---	.030"
1972-1950	18 HP		BR6S	3522			---	---	.030"
1973-1957	18 HP		BR6S	3522			---	---	.030"
1973-1957	18 HP	FASTWIN	B8S	3810			---	---	.030"
1998-1995	18 HP	JET 2-CYL.	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1973-1966	20 HP		BR6S	3522			---	---	.030"
1993-1978	20 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1973	20 HP	20R, 20RL	BR6S	3522			---	---	.030"
1972-1969	20 HP	20R, 25R	BR6S	3522			---	---	.030"
1972-1971	20 HP	20RL, 25RL	BR6S	3522			---	---	.030"
1998-1978	20 HP	2-CYL.	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1977	25 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1955-1952	25 HP		BR6S	3522			---	---	.030"
1976-1969	25 HP		BR6S	3522			---	---	.030"
1972-1969	25 HP	20R, 25R	BR6S	3522			---	---	.030"
1972-1971	25 HP	20RL, 25RL	BR6S	3522			---	---	.030"
1976-1972	25 HP	25E, 25EL	BR6S	3522			---	---	.030"
1976-1973	25 HP	25R, 25RL	BR6S	3522			---	---	.030"
1998-1977	25 HP	2-CYL.	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1998-1995	25 HP	3-CYL.	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2001-2000	25 HP	4-STROKE	DCPR7E	3932			DCPR7EIX	6046	.030"
1970-1951	25 HP	BIGWIN	B8S	3810			---	---	.030"
1998-1981	25 HP	COM	BUHXW-1	5526			---	---	---
2001-1999	25 HP	COMMERCIAL	BUHXW-1	5526			---	---	---
2011	25 HP	E25DELIH	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DELIIR	---	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DELINA	---	---			IZFR6N-E	4757	.044"
2010	25 HP	E25DELISC	---	---			IZFR6N-E	4757	.044"
2009	25 HP	E25DELSES	---	---			IZFR6N-E	4757	.032"
2011	25 HP	E25DPLIIG	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DPLIIH	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DPLIIR	---	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DPLINA	---	---			IZFR6N-E	4757	.044"
2010	25 HP	E25DPLISC	---	---			IZFR6N-E	4757	.044"
2009	25 HP	E25DPLSES	---	---			IZFR6N-E	4757	.032"
2011	25 HP	E25DPSLIH	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DPSLIIS	---	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DPSLINC	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DRIIH	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DRIIR	---	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DRINA	---	---			IZFR6N-E	4757	.044"
2010	25 HP	E25DRISC	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DRLIIR	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DRLIIR	---	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DRLINA	---	---			IZFR6N-E	4757	.044"
2010	25 HP	E25DRLISC	---	---			IZFR6N-E	4757	.044"
2009	25 HP	E25DRLSES	---	---			IZFR6N-E	4757	.032"
2009	25 HP	E25DRSES	---	---			IZFR6N-E	4757	.032"
2011	25 HP	E25DRSIH	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DRSIIS	---	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DRSINC	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DRSLIIR	---	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DRSLIIS	---	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DRSLINC	---	---			IZFR6N-E	4757	.044"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2011	25 HP	E25DTEIIG	----	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DTEIIH	----	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DTEIIR	----	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DTEINA	----	---			IZFR6N-E	4757	.044"
2010	25 HP	E25DTEISC	----	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DTELIH	----	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DTELIIR	----	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DTELIINA	----	---			IZFR6N-E	4757	.044"
2010	25 HP	E25DTELIISC	----	---			IZFR6N-E	4757	.044"
2009	25 HP	E25DTELSSES	----	---			IZFR6N-E	4757	.032"
2009	25 HP	E25DTESES	----	---			IZFR6N-E	4757	.032"
2011	25 HP	E25DTLIH	----	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DTLIIR	----	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DTLIINA	----	---			IZFR6N-E	4757	.044"
2010	25 HP	E25DTLIISC	----	---			IZFR6N-E	4757	.044"
2009	25 HP	E25DTLSSES	----	---			IZFR6N-E	4757	.032"
2011	25 HP	E25DTSLIHH	----	---			IZFR6N-E	4757	.044"
2011	25 HP	E25DTSLIIS	----	---			IZFR6N-E	4757	.044"
2012	25 HP	E25DTSLINC	----	---			IZFR6N-E	4757	.044"
2011	25 HP	E25TESLIH	----	---			IZFR6N-E	4757	.044"
2011	25 HP	E25TESLIIS	----	---			IZFR6N-E	4757	.044"
2012	25 HP	E25TESLINC	----	---			IZFR6N-E	4757	.044"
1993-1978	25 HP	EVINRUDE 25	BZ7HS-10	3579			----	---	.030"
1964-1962	28 HP		BR6S	3522			----	---	.030"
1997-1978	28 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1992	28 HP	28 JET	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	----	---	.030"
1971-1956	30 HP		BR6S	3522			----	---	.030"
1998-1978	30 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-2000	30 HP		DCPR7E	3932			DCPR7EIX	6046	.030"
1970-1951	30 HP	BIGWIN	B8S	3810			----	---	.030"
2011	30 HP	E30DELIH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DELIIR	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DELIINA	----	---			IZFR6N-E	4757	.044"
2010	30 HP	E30DELIISC	----	---			IZFR6N-E	4757	.044"
2009	30 HP	E30DELSES	----	---			IZFR6N-E	4757	.032"
2011	30 HP	E30DPLIHH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DPLIIR	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DPLIINA	----	---			IZFR6N-E	4757	.044"
2010	30 HP	E30DPLISC	----	---			IZFR6N-E	4757	.044"
2009	30 HP	E30DPLSES	----	---			IZFR6N-E	4757	.032"
2011	30 HP	E30DPSLIH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DPSLIIS	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DPSLINC	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRIIG	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRIIH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRIIR	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DRINA	----	---			IZFR6N-E	4757	.044"
2010	30 HP	E30DRISC	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRLIIG	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRLIHH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRLIIR	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DRLIINA	----	---			IZFR6N-E	4757	.044"
2010	30 HP	E30DRLISC	----	---			IZFR6N-E	4757	.044"
2009	30 HP	E30DRLSES	----	---			IZFR6N-E	4757	.032"
2009	30 HP	E30DRSES	----	---			IZFR6N-E	4757	.032"
2011	30 HP	E30DRSIHH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRSIIS	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DRSINC	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRSLIHH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DRSLIIS	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DRSLINC	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DTELIH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DTELIIR	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DTELIINA	----	---			IZFR6N-E	4757	.044"
2010	30 HP	E30DTELIISC	----	---			IZFR6N-E	4757	.044"
2009	30 HP	E30DTELSSES	----	---			IZFR6N-E	4757	.032"
2011	30 HP	E30DTLIHH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DTLIIR	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DTLIINA	----	---			IZFR6N-E	4757	.044"
2010	30 HP	E30DTLIISC	----	---			IZFR6N-E	4757	.044"
2009	30 HP	E30DTLSSES	----	---			IZFR6N-E	4757	.032"
2011	30 HP	E30DTSLIHH	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30DTSLIIS	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30DTSLINC	----	---			IZFR6N-E	4757	.044"
2011	30 HP	E30TESLIH	----	---			IZFR6N-E	4757	.044"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2011	30 HP	E30TESLIIS	----	---			IZFR6N-E	4757	.044"
2012	30 HP	E30TESLINC	----	---			IZFR6N-E	4757	.044"
1971-1965	33 HP		BR6S	3522			---	---	.030"
1976	35 HP		BZ7HS-10	3579			---	---	.030"
2001-1993	35 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1959-1957	35 HP	2-CYL.	BR6S	3522			---	---	.030"
2001-1995	35 HP	2-CYL.	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1997-1977	35 HP	4-STROKE	BZ7HS-10	3579			---	---	.030"
1970-1951	35 HP	BIGWIN	B8S	3810			---	---	.030"
1971-1956	40 HP		BR6S	3522			---	---	.030"
1971-1965	40 HP		BR6S	3522			---	---	.030"
1973-1960	40 HP		BR6S	3522			---	---	.030"
1976-1974	40 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1999	40 HP		DCPR7E	3932			DCPR7EIX	6046	.030"
1988-1980	40 HP	2-CYL.	BZ7HS-10	3579			---	---	.030"
1998-1989	40 HP	2-CYL.	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-1984	40 HP	3-CYL.	BUHXW-1	5526			---	---	---
1973-1969	40 HP	40E, 40EL, 40R, 40RL	BR6S	3522			---	---	.030"
1974	40 HP	40E, 40EL, 40R, 40RL	BZ7HS-10	3579			---	---	.030"
1976-1975	40 HP	40E, 40EL, 40R, 40RL	BZ7HS-10	3579			---	---	.030"
1970-1951	40 HP	BIGWIN	B8S	3810			---	---	.030"
1990-1981	40 HP	COM 43 CID	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2006	40 HP	E40DELSDA	----	---			IZFR6N-E	4757	.032"
2005	40 HP	E40DELSOR	----	---			PZFR6H	7696	.032"
2012	40 HP	E40DHLINS	----	---			IZFR6N-E	4757	.044"
2012	40 HP	E40DHLINS	----	---			IZFR6N-E	4757	.044"
2008	40 HP	E40DP	----	---			IZFR6N-E	4757	.032"
2011	40 HP	E40DPLIIS	----	---			IZFR6N-E	4757	.044"
2012	40 HP	E40DPLINC	----	---			IZFR6N-E	4757	.044"
2010	40 HP	E40DPLISD	----	---			IZFR6N-E	4757	.044"
2010	40 HP	E40DPLISF	----	---			IZFR6N-E	4757	.044"
2006	40 HP	E40DPLSDA	----	---			IZFR6N-E	4757	.032"
2009	40 HP	E40DPLSEE	----	---			IZFR6N-E	4757	.032"
2005	40 HP	E40DPLSOR	----	---			PZFR6H	7696	.032"
2007	40 HP	E40DPLSUM	----	---			IZFR6N-E	4757	.032"
2011	40 HP	E40DRLIIS	----	---			IZFR6N-E	4757	.044"
2012	40 HP	E40DRLINC	----	---			IZFR6N-E	4757	.044"
2010	40 HP	E40DRLISD	----	---			IZFR6N-E	4757	.044"
2010	40 HP	E40DRLISF	----	---			IZFR6N-E	4757	.044"
2008	40 HP	E40DRLSCB	----	---			IZFR6N-E	4757	.032"
2006	40 HP	E40DRLSDA	----	---			IZFR6N-E	4757	.032"
2009	40 HP	E40DRLSEE	----	---			IZFR6N-E	4757	.032"
2005	40 HP	E40DRLSOR	----	---			PZFR6H	7696	.032"
2007	40 HP	E40DRLSUM	----	---			IZFR6N-E	4757	.032"
2011	40 HP	E40DSLIIA	----	---			IZFR6N-E	4757	.044"
2012	40 HP	E40DSLINM	----	---			IZFR6N-E	4757	.044"
2010	40 HP	E40DSLISF	----	---			IZFR6N-E	4757	.044"
2010	40 HP	E40DSLISR	----	---			IZFR6N-E	4757	.044"
2008	40 HP	E40DSLSCS	----	---			IZFR6N-E	4757	.032"
2009	40 HP	E40DSLSEC	----	---			IZFR6N-E	4757	.032"
2011	40 HP	E40DTLIIA	----	---			IZFR6N-E	4757	.044"
2012	40 HP	E40DTLINM	----	---			IZFR6N-E	4757	.044"
2010	40 HP	E40DTLISF	----	---			IZFR6N-E	4757	.044"
2010	40 HP	E40DTLISR	----	---			IZFR6N-E	4757	.044"
2008	40 HP	E40DTLSCS	----	---			IZFR6N-E	4757	.032"
1990-1986	45 HP	COM	BUZHW-2	2173			---	---	---
2003-1991	45 HP	COM	BUHXW-1	5526			---	---	---
1988-1980	48 HP	2-CYL.	BZ7HS-10	3579			---	---	.030"
1997-1989	48 HP	2-CYL.	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1997-1994	48 HP	2-CYL.	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1959-1958	50 HP		BR6S	3522			---	---	.030"
1975-1971	50 HP		BZ7HS-10	3579			---	---	.030"
1979-1978	50 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1988-1980	50 HP	2-CYL.	BZ7HS-10	3579			---	---	.030"
1998-1989	50 HP	2-CYL.	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1998-1995	50 HP	3-CYL.	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-1999	50 HP	4-STROKE DOHC 815CC	DCPR7E	3932			DCPR7EIX	6046	.030"
2011	50 HP	E50DPLIIS	----	---			IZFR6N-E	4757	.044"
2012	50 HP	E50DPLINC	----	---			IZFR6N-E	4757	.044"
2010	50 HP	E50DPLISD	----	---			IZFR6N-E	4757	.044"
2010	50 HP	E50DPLISF	----	---			IZFR6N-E	4757	.044"
2008	50 HP	E50DPLSCB	----	---			IZFR6N-E	4757	.032"
2006	50 HP	E50DPLSDA	----	---			IZFR6N-E	4757	.032"
2009	50 HP	E50DPLSEE	----	---			IZFR6N-E	4757	.032"
2005	50 HP	E50DPLSOR	----	---			PZFR6H	7696	.032"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2007	50 HP	E50DPLSUM	----	---			IZFR6N-E	4757	.032"
2011	50 HP	E50DSLIIA	----	---			IZFR6N-E	4757	.044"
2012	50 HP	E50DSLINM	----	---			IZFR6N-E	4757	.044"
2010	50 HP	E50DSLISF	----	---			IZFR6N-E	4757	.044"
2010	50 HP	E50DSLISR	----	---			IZFR6N-E	4757	.044"
2008	50 HP	E50DSLSCS	----	---			IZFR6N-E	4757	.032"
2009	50 HP	E50DSLSEC	----	---			IZFR6N-E	4757	.032"
2011	50 HP	E50DTLIIA	----	---			IZFR6N-E	4757	.044"
2012	50 HP	E50DTLINM	----	---			IZFR6N-E	4757	.044"
2010	50 HP	E50DTLISF	----	---			IZFR6N-E	4757	.044"
2010	50 HP	E50DTLISR	----	---			IZFR6N-E	4757	.044"
2008	50 HP	E50DTLSCS	----	---			IZFR6N-E	4757	.032"
2009	50 HP	E50DTLSEC	----	---			IZFR6N-E	4757	.032"
1989-1976	55 HP	2-CYL.	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1969-1968	55 HP	3-CYL.	BZ7HS-10	3579			---	---	.030"
2003-1986	55 HP	COM	BUHXW-1	5526			---	---	---
1995-1994	55 HP	COM 2 CYL.	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2011	55 HP	E55MJRLIIM	----	---			IZFR6N-E	4757	.044"
2012	55 HP	E55MJRLINB	----	---			IZFR6N-E	4757	.044"
2010	55 HP	E55MJRLISA	----	---			IZFR6N-E	4757	.044"
2008	55 HP	E55MJRLSCC	----	---			IZFR6N-E	4757	.032"
2009	55 HP	E55MJRLSEF	----	---			IZFR6N-E	4757	.044"
2009	55 HP	E55MJRLSER	----	---			IZFR6N-E	4757	.032"
2011	55 HP	E55MRLIIM	----	---			IZFR6N-E	4757	.044"
2012	55 HP	E55MRLINB	----	---			IZFR6N-E	4757	.044"
2010	55 HP	E55MRLISA	----	---			IZFR6N-E	4757	.044"
2008	55 HP	E55MRLSCC	----	---			IZFR6N-E	4757	.032"
2009	55 HP	E55MRLSEF	----	---			IZFR6N-E	4757	.044"
2009	55 HP	E55MRLSER	----	---			IZFR6N-E	4757	.032"
1971	55 HP	SURPER SIX-O	BUZHW	2147			---	---	---
1985-1980	60 HP	2-CYL.	BZ7HS-10	3579			---	---	.030"
1989-1975	60 HP	3-CYL. 49 CID	BZ7HS-10	3579			---	---	.030"
1993-1989	60 HP	3-CYL. 56 CID	BZ7HS-10	3579			---	---	.030"
1998-1994	60 HP	3-CYL. 56 CID	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-2002	60 HP	4-STROKE OHC	BPR6ES SOLID	4008			BPR6EIX	6637	.036"
2011	60 HP	E60DPLIIS	----	---			IZFR6N-E	4757	.044"
2012	60 HP	E60DPLINC	----	---			IZFR6N-E	4757	.044"
2010	60 HP	E60DPLISD	----	---			IZFR6N-E	4757	.044"
2010	60 HP	E60DPLISF	----	---			IZFR6N-E	4757	.044"
2008	60 HP	E60DPLSCB	----	---			IZFR6N-E	4757	.032"
2006	60 HP	E60DPLSDA	----	---			IZFR6N-E	4757	.032"
2009	60 HP	E60DPLSEE	----	---			IZFR6N-E	4757	.032"
2007	60 HP	E60DPLSUM	----	---			IZFR6N-E	4757	.032"
2011	60 HP	E60DSLIIA	----	---			IZFR6N-E	4757	.044"
2012	60 HP	E60DSLINM	----	---			IZFR6N-E	4757	.044"
2010	60 HP	E60DSLISF	----	---			IZFR6N-E	4757	.044"
2010	60 HP	E60DSLISR	----	---			IZFR6N-E	4757	.044"
2008	60 HP	E60DSLSCS	----	---			IZFR6N-E	4757	.032"
2009	60 HP	E60DSLSEC	----	---			IZFR6N-E	4757	.032"
2011	60 HP	E60DTLIIA	----	---			IZFR6N-E	4757	.044"
2012	60 HP	E60DTLINM	----	---			IZFR6N-E	4757	.044"
2010	60 HP	E60DTLISF	----	---			IZFR6N-E	4757	.044"
2010	60 HP	E60DTLISR	----	---			IZFR6N-E	4757	.044"
2008	60 HP	E60DTLSCS	----	---			IZFR6N-E	4757	.032"
2009	60 HP	E60DTLSEC	----	---			IZFR6N-E	4757	.032"
2005	60 HP	E60WDRLSOS	----	---			PZFR6H	7696	.032"
2005	60 HP	E60WDRYSOS	----	---			PZFR6H	7696	.032"
1971	60 HP	SURPER SIX-O	BUZHW	2147			---	---	---
1971-1970	60 HP	TRIUMPH, 3-CYL.	BUZHW	2147			---	---	---
1967-1964	60 HP	V4	BR6S	3522			---	---	.030"
2001-1998	65 HP		BUHXW-1	5526			---	---	---
1987-1984	65 HP	COM HC LC	BZ7HS-10	3579			---	---	.030"
1997-1988	65 HP	COM HC LC	BUHXW-1	5526			---	---	---
1995-1994	65 HP	COM, 3-CYL.	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1997-1992	65 HP	CV4 65 JET	BZ7HS-10	3579			---	---	.030"
2011	65 HP	E65WDRLLIA	----	---			IZFR6N-E	4757	.044"
2012	65 HP	E65WDRLLINM	----	---			IZFR6N-E	4757	.044"
2010	65 HP	E65WDRLLISF	----	---			IZFR6N-E	4757	.044"
2010	65 HP	E65WDRLLISR	----	---			IZFR6N-E	4757	.044"
2008	65 HP	E65WDRLLSCS	----	---			IZFR6N-E	4757	.032"
2009	65 HP	E65WDRLLSEC	----	---			IZFR6N-E	4757	.032"
2011	65 HP	E65WDRYIIA	----	---			IZFR6N-E	4757	.044"
2012	65 HP	E65WDRYINM	----	---			IZFR6N-E	4757	.044"
2010	65 HP	E65WDRYISF	----	---			IZFR6N-E	4757	.044"
2010	65 HP	E65WDRYISR	----	---			IZFR6N-E	4757	.044"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2008	65 HP	E65WDRYSCS	----	---			IZFR6N-E	4757	.032"
2009	65 HP	E65WDRYSEC	----	---			IZFR6N-E	4757	.032"
1973-1972	65 HP	TRIUMPH, 3-CYL.	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1968	65 HP	V4 SPORTFOUR	BZ7HS-10	3579			---	---	.030"
1989-1975	70 HP	3-CYL. 49 CID	BZ7HS-10	3579			---	---	.030"
1993-1989	70 HP	3-CYL. 56 CID	BZ7HS-10	3579			---	---	.030"
1998-1994	70 HP	3-CYL. 56 CID	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-1998	70 HP	4-STROKE OHC 1298CC	BPR6ES SOLID	4008			BPR6EIX	6637	.036"
1988-1975	75 HP		B7HS-10 #	2129			---	---	.040"
1988-1975	75 HP		B7HS-10 #	2129			---	---	.040"
2005-2001	75 HP		BKR5EK	7797			BKR5EIX	6341	.030"
2011	75 HP	E75DPLIIS	----	---			IZFR6N-E	4757	.044"
2012	75 HP	E75DPLINC	----	---			IZFR6N-E	4757	.044"
2010	75 HP	E75DPLISD	----	---			IZFR6N-E	4757	.044"
2010	75 HP	E75DPLISF	----	---			IZFR6N-E	4757	.044"
2008	75 HP	E75DPLSCB	----	---			IZFR6N-E	4757	.032"
2006	75 HP	E75DPLSDA	----	---			IZFR6N-E	4757	.032"
2009	75 HP	E75DPLSEE	----	---			IZFR6N-E	4757	.032"
2005	75 HP	E75DPLSOR	----	---			PZFR6H	7696	.032"
2007	75 HP	E75DPLSUM	----	---			IZFR6N-E	4757	.032"
2011	75 HP	E75DSLIIA	----	---			IZFR6N-E	4757	.044"
2012	75 HP	E75DSLINM	----	---			IZFR6N-E	4757	.044"
2010	75 HP	E75DSLISF	----	---			IZFR6N-E	4757	.044"
2010	75 HP	E75DSLISR	----	---			IZFR6N-E	4757	.044"
2008	75 HP	E75DSLSCS	----	---			IZFR6N-E	4757	.032"
2009	75 HP	E75DSLSEC	----	---			IZFR6N-E	4757	.032"
1965-1960	75 HP	V4	BR6S	3522			---	---	.030"
1967-1966	80 HP		BR6S	3522			---	---	.030"
1998-1979	80 HP	80 JET CV4	BZ7HS-10	3579			---	---	.030"
1967-1966	80 HP	STARFIRE	B8S	3810			---	---	.030"
1980-1968	85 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1993-1986	85 HP		BZ7HS-10	3579			---	---	.030"
1995-1994	85 HP	V4 BACKTROLLER	BZ7HS-10	3579			---	---	.030"
1997-1979	88 HP	SPL CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1965-1964	90 HP		BR6S	3522			---	---	.030"
2005-2001	90 HP		BKR5EK	7797			BKR5EIX	6341	.030"
1998-1979	90 HP	CV4	BZ7HS-10	3579			---	---	.040"
2009	90 HP	E90DMXSES	----	---			IZFR6N-E	4757	.032"
2011	90 HP	E90DPLIIS	----	---			IZFR6N-E	4757	.032"
2012	90 HP	E90DPLINC	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90DPLISD	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90DPLISF	----	---			IZFR6N-E	4757	.032"
2008	90 HP	E90DPLSCB	----	---			IZFR6N-E	4757	.032"
2006	90 HP	E90DPLSDA	----	---			IZFR6N-E	4757	.032"
2009	90 HP	E90DPLSEE	----	---			IZFR6N-E	4757	.032"
2005	90 HP	E90DPLSOR	----	---			PZFR6H	7696	.032"
2007	90 HP	E90DPLSUM	----	---			IZFR6N-E	4757	.032"
2011	90 HP	E90DPXIIS	----	---			IZFR6N-E	4757	.032"
2012	90 HP	E90DPXINC	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90DPXISD	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90DPXISF	----	---			IZFR6N-E	4757	.032"
2008	90 HP	E90DPXSCB	----	---			IZFR6N-E	4757	.032"
2006	90 HP	E90DPXSDA	----	---			IZFR6N-E	4757	.032"
2009	90 HP	E90DPXSEE	----	---			IZFR6N-E	4757	.032"
2005	90 HP	E90DPXSOR	----	---			PZFR6H	7696	.032"
2007	90 HP	E90DPXSUM	----	---			IZFR6N-E	4757	.032"
2011	90 HP	E90DSLII	----	---			IZFR6N-E	4757	.032"
2012	90 HP	E90DSLINS	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90DSLISE	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90DSLISF	----	---			IZFR6N-E	4757	.032"
2008	90 HP	E90DSLSCM	----	---			IZFR6N-E	4757	.032"
2006	90 HP	E90DSLSDR	----	---			IZFR6N-E	4757	.032"
2009	90 HP	E90DSLSEB	----	---			IZFR6N-E	4757	.032"
2005	90 HP	E90DSL SOC	----	---			PZFR6H	7696	.032"
2007	90 HP	E90DSL SUM	----	---			IZFR6N-E	4757	.032"
2011	90 HP	E90WDELI	----	---			IZFR6N-E	4757	.032"
2012	90 HP	E90WDELINM	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90WDELISF	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90WDELISR	----	---			IZFR6N-E	4757	.032"
2008	90 HP	E90WDELSCS	----	---			IZFR6N-E	4757	.032"
2009	90 HP	E90WDELSEC	----	---			IZFR6N-E	4757	.032"
2011	90 HP	E90WDEXIIA	----	---			IZFR6N-E	4757	.032"
2012	90 HP	E90WDEXINM	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90WDEXISF	----	---			IZFR6N-E	4757	.032"
2010	90 HP	E90WDEXISR	----	---			IZFR6N-E	4757	.032"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2008	90 HP	E90WDEXSCS	---	---			IZFR6N-E	4757	.032"
2009	90 HP	E90WDEXSEC	---	---			IZFR6N-E	4757	.032"
2005	90 HP	E90WDPLSOS	---	---			PZFR6H	7696	.032"
1998-1995	90 HP	LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2000-1998	90 HP	LV4 F.F.I.	---	---			PZFR6H	7696	.032"
1997-1994	90 HP	TURBOJET CV4	BZ7HS-10	3579			---	---	.040"
1966	100 HP		BR6S	3522			---	---	.030"
2001-1999	100 HP		BZ7HS-10	3579			---	---	.030"
2005-2004	100 HP		BKR5EK	7797			BKR5EIX	6341	.030"
2005-2004	100 HP	4 CYL DI	---	---			PZFR6H	7696	.032"
1988-1985	100 HP	COM	BUZHW-2	2173			---	---	---
1998-1984	100 HP	COM	BUHXW-1	5526			---	---	---
2005	100 HP	E100FPLSOC	---	---			PZFR6F-11	3271	.044"
2005	100 HP	E100FSLSOC	---	---			PZFR6F-11	3271	.044"
1972-1967	100 HP	STARFIRE	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1980-1979	100 HP	V4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1993	105 HP	105 JET LV6	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-1997	105 HP	COM LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1997-1979	110 HP	CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1997-1979	112 HP	CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1985	115 HP		BUHXW-1	5526			---	---	---
1970-1969	115 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1979-1973	115 HP		BZ7HS-10	3579			---	---	.030"
1993-1986	115 HP		BZ7HS-10	3579			---	---	.030"
2005-2004	115 HP		BKR5EK	7797			BKR5EIX	6341	.030"
1984-1975	115 HP	COM	BZ7HS-10	3579			---	---	.030"
1998-1979	115 HP	CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2011	115 HP	E115DBXIIB	---	---			IZFR6N-E	4757	.044"
2012	115 HP	E115DBXINE	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DBXISF	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DBXISM	---	---			IZFR6N-E	4757	.044"
2008	115 HP	E115DBXSCR	---	---			IZFR6N-E	4757	.032"
2009	115 HP	E115DBXSEF	---	---			IZFR6N-E	4757	.032"
2007	115 HP	E115DBXSUC	---	---			IZFR6N-E	4757	.032"
2011	115 HP	E115DCXIIA	---	---			IZFR6N-E	4757	.044"
2012	115 HP	E115DCXINM	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DCXISF	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DCXISR	---	---			IZFR6N-E	4757	.044"
2008	115 HP	E115DCXSCS	---	---			IZFR6N-E	4757	.032"
2009	115 HP	E115DCXSEF	---	---			IZFR6N-E	4757	.032"
2011	115 HP	E115DHLIR	---	---			IZFR6N-E	4757	.044"
2012	115 HP	E115DHLINA	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DHLISC	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DHLISF	---	---			IZFR6N-E	4757	.044"
2009	115 HP	E115DHLSES	---	---			IZFR6N-E	4757	.032"
2011	115 HP	E115DHXIIR	---	---			IZFR6N-E	4757	.044"
2012	115 HP	E115DHXINA	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DHXISC	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DHXISF	---	---			IZFR6N-E	4757	.044"
2009	115 HP	E115DHXSES	---	---			IZFR6N-E	4757	.032"
2011	115 HP	E115DPLIIB	---	---			IZFR6N-E	4757	.044"
2012	115 HP	E115DPLINE	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DPLISF	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DPLISM	---	---			IZFR6N-E	4757	.044"
2008	115 HP	E115DPLSCR	---	---			IZFR6N-E	4757	.032"
2009	115 HP	E115DPLSEF	---	---			IZFR6N-E	4757	.032"
2007	115 HP	E115DPLSUC	---	---			IZFR6N-E	4757	.032"
2011	115 HP	E115DPXIIB	---	---			IZFR6N-E	4757	.044"
2012	115 HP	E115DPXINE	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DPXISF	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DPXISM	---	---			IZFR6N-E	4757	.044"
2008	115 HP	E115DPXSCR	---	---			IZFR6N-E	4757	.032"
2009	115 HP	E115DPXSEF	---	---			IZFR6N-E	4757	.032"
2007	115 HP	E115DPXSUC	---	---			IZFR6N-E	4757	.032"
2011	115 HP	E115DSLIIIB	---	---			IZFR6N-E	4757	.044"
2012	115 HP	E115DSLIIINE	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DSLISF	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115DSLISM	---	---			IZFR6N-E	4757	.044"
2008	115 HP	E115DSLSCR	---	---			IZFR6N-E	4757	.032"
2009	115 HP	E115DSLSEF	---	---			IZFR6N-E	4757	.032"
2007	115 HP	E115DLSLSC	---	---			IZFR6N-E	4757	.032"
2006	115 HP	E115FPLSDS	---	---			PZFR6F-11	3271	.044"
2005	115 HP	E115FPLSOD	---	---			PZFR6F-11	3271	.044"
2006	115 HP	E115FPXSDS	---	---			PZFR6F-11	3271	.044"
2005	115 HP	E115FPXSOD	---	---			PZFR6F-11	3271	.044"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2006	115 HP	E115FSLSDS	---	---			PZFR6F-11	3271	.044"
2005	115 HP	E115FSLSOD	---	---			PZFR6F-11	3271	.044"
2011	115 HP	E115HSLIIR	---	---			IZFR6N-E	4757	.044"
2012	115 HP	E115HSLINA	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115HSLISC	---	---			IZFR6N-E	4757	.044"
2010	115 HP	E115HSLISF	---	---			IZFR6N-E	4757	.044"
2009	115 HP	E115HSLSES	---	---			IZFR6N-E	4757	.032"
1998-1995	115 HP	INTRUDER LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-1998	115 HP	LV4 F.F.I.	---	---			PZFR6H	7696	.032"
1998-1994	115 HP	TURBOJET CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1968-1967	115 HP	X-115	BUZHW	2147			---	---	---
2003-1985	120 HP	LV 4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1972-1971	125 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2011	130 HP	E130DCXIIR	---	---			IZFR6N-E	4757	.044"
2012	130 HP	E130DCXINA	---	---			IZFR6N-E	4757	.044"
2010	130 HP	E130DCXISC	---	---			IZFR6N-E	4757	.044"
2010	130 HP	E130DCXISF	---	---			IZFR6N-E	4757	.044"
2009	130 HP	E130DCXSES	---	---			IZFR6N-E	4757	.032"
2011	130 HP	E130DPLIIR	---	---			IZFR6N-E	4757	.044"
2012	130 HP	E130DPLINA	---	---			IZFR6N-E	4757	.044"
2010	130 HP	E130DPLISC	---	---			IZFR6N-E	4757	.044"
2010	130 HP	E130DPLISF	---	---			IZFR6N-E	4757	.044"
2009	130 HP	E130DPLSES	---	---			IZFR6N-E	4757	.032"
2011	130 HP	E130DPXIIR	---	---			IZFR6N-E	4757	.044"
2012	130 HP	E130DPXINA	---	---			IZFR6N-E	4757	.044"
2010	130 HP	E130DPXISC	---	---			IZFR6N-E	4757	.044"
2010	130 HP	E130DPXISF	---	---			IZFR6N-E	4757	.044"
2009	130 HP	E130DPXSES	---	---			IZFR6N-E	4757	.032"
2011	130 HP	E130DSLIIIR	---	---			IZFR6N-E	4757	.044"
2012	130 HP	E130DSLINA	---	---			IZFR6N-E	4757	.044"
2010	130 HP	E130DSLISC	---	---			IZFR6N-E	4757	.044"
2010	130 HP	E130DSLISF	---	---			IZFR6N-E	4757	.044"
2009	130 HP	E130DSLSES	---	---			IZFR6N-E	4757	.032"
2003-1985	130 HP	LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1984-1973	135 HP		BUHXW-1	5526			---	---	---
1984-1973	140 HP	140	BUHXW-1	5526			---	---	---
2003-1985	140 HP	LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1998-1993	150 HP	COM L	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1987-1978	150 HP	CV6	BUHXW-1	5526			---	---	---
1991-1988	150 HP	CV6	BZ7HS-10	3579			---	---	.030"
2012	150 HP	DE150CXINS	---	---			IZFR6N-E	4757	.044"
2012	150 HP	DE150PXINS	---	---			IZFR6N-E	4757	.044"
2011	150 HP	E150DBXIIB	---	---			IZFR6N-E	4757	.044"
2012	150 HP	E150DBXINE	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DBXISF	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DBXISM	---	---			IZFR6N-E	4757	.044"
2008	150 HP	E150DBXSCF	---	---			IZFR6N-E	4757	.032"
2008	150 HP	E150DBXSCR	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150DBXSEA	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DBXSUF	---	---			IZFR6N-E	4757	.032"
2011	150 HP	E150DCXIIB	---	---			IZFR6N-E	4757	.044"
2012	150 HP	E150DCXINE	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DCXISF	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DCXISM	---	---			IZFR6N-E	4757	.044"
2008	150 HP	E150DCXSCF	---	---			IZFR6N-E	4757	.032"
2008	150 HP	E150DCXSCR	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150DCXSEA	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DCXSUC	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DCXSUF	---	---			IZFR6N-E	4757	.032"
2011	150 HP	E150DHLIIB	---	---			IZFR6N-E	4757	.044"
2012	150 HP	E150DHLINE	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DHLISF	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DHLISM	---	---			IZFR6N-E	4757	.044"
2008	150 HP	E150DHLSCF	---	---			IZFR6N-E	4757	.032"
2008	150 HP	E150DHLSCR	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150DHLSEA	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DHLISUC	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DHLISUF	---	---			IZFR6N-E	4757	.032"
2011	150 HP	E150DPLIIB	---	---			IZFR6N-E	4757	.044"
2012	150 HP	E150DPLINE	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DPLISF	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DPLISM	---	---			IZFR6N-E	4757	.044"
2008	150 HP	E150DPLSCR	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150DPLSEA	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DPLSUC	---	---			IZFR6N-E	4757	.032"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2007	150 HP	E150DPLSUF	---	---			IZFR6N-E	4757	.032"
2011	150 HP	E150DPXIIB	---	---			IZFR6N-E	4757	.044"
2012	150 HP	E150DPXINE	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DPXISF	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DPXISM	---	---			IZFR6N-E	4757	.044"
2008	150 HP	E150DPXSCF	---	---			IZFR6N-E	4757	.032"
2008	150 HP	E150DPXSCR	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150DPXSEA	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DPXSUC	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DPXSUF	---	---			IZFR6N-E	4757	.032"
2011	150 HP	E150DSLIIIB	---	---			IZFR6N-E	4757	.044"
2012	150 HP	E150DSLIIIB	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DSLISF	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150DSLISM	---	---			IZFR6N-E	4757	.044"
2008	150 HP	E150DSLSCR	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150DSLSEA	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DLSLSCF	---	---			IZFR6N-E	4757	.032"
2007	150 HP	E150DLSLSUF	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150HGLSES	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150HGXSSES	---	---			IZFR6N-E	4757	.032"
2011	150 HP	E150HSLIIA	---	---			IZFR6N-E	4757	.044"
2012	150 HP	E150HSLIIB	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150HSLISF	---	---			IZFR6N-E	4757	.044"
2010	150 HP	E150HSLISR	---	---			IZFR6N-E	4757	.044"
2008	150 HP	E150HSLSCF	---	---			IZFR6N-E	4757	.032"
2008	150 HP	E150HSLSCS	---	---			IZFR6N-E	4757	.032"
2009	150 HP	E150HSLSEC	---	---			IZFR6N-E	4757	.032"
1998-1991	150 HP	INTRUDER L	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-1997	150 HP	LV6 F.F.I.	---	---			PZFR6H	7696	.032"
1987	155 HP	COM	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1992-1989	155 HP	COM CV6	BUHXW-1	5526			---	---	---
1987-1978	155 HP	CV6	BUHXW-1	5526			---	---	---
1987-1977	175 HP		BUHXW-1	5526			---	---	---
1991-1988	175 HP	CV6	BZ7HS-10	3579			---	---	.030"
2011	175 HP	E175DCXIIB	---	---			IZFR6N-E	4757	.044"
2012	175 HP	E175DCXINE	---	---			IZFR6N-E	4757	.044"
2010	175 HP	E175DCXISF	---	---			IZFR6N-E	4757	.044"
2010	175 HP	E175DCXISM	---	---			IZFR6N-E	4757	.044"
2008	175 HP	E175DCXSCF	---	---			IZFR6N-E	4757	.032"
2008	175 HP	E175DCXSCR	---	---			IZFR6N-E	4757	.032"
2009	175 HP	E175DCXSEA	---	---			IZFR6N-E	4757	.032"
2007	175 HP	E175DCXSUF	---	---			IZFR6N-E	4757	.032"
2008	175 HP	E175DMXSCF	---	---			IZFR6N-E	4757	.032"
2011	175 HP	E175DPLIIB	---	---			IZFR6N-E	4757	.044"
2012	175 HP	E175DPLINE	---	---			IZFR6N-E	4757	.044"
2010	175 HP	E175DPLISF	---	---			IZFR6N-E	4757	.044"
2010	175 HP	E175DPLISM	---	---			IZFR6N-E	4757	.044"
2008	175 HP	E175DPLSCR	---	---			IZFR6N-E	4757	.032"
2009	175 HP	E175DPLSEA	---	---			IZFR6N-E	4757	.032"
2007	175 HP	E175DPLSUF	---	---			IZFR6N-E	4757	.032"
2007	175 HP	E175DPLSUF	---	---			IZFR6N-E	4757	.032"
2011	175 HP	E175DPXIIB	---	---			IZFR6N-E	4757	.044"
2012	175 HP	E175DPXINE	---	---			IZFR6N-E	4757	.044"
2010	175 HP	E175DPXISF	---	---			IZFR6N-E	4757	.044"
2010	175 HP	E175DPXISM	---	---			IZFR6N-E	4757	.044"
2008	175 HP	E175DPXSCF	---	---			IZFR6N-E	4757	.032"
2008	175 HP	E175DPXSCR	---	---			IZFR6N-E	4757	.032"
2009	175 HP	E175DPXSEA	---	---			IZFR6N-E	4757	.032"
2007	175 HP	E175DPXSUF	---	---			IZFR6N-E	4757	.032"
2007	175 HP	E175DPXSUF	---	---			IZFR6N-E	4757	.032"
2011	175 HP	E175DSLIIIB	---	---			IZFR6N-E	4757	.044"
2012	175 HP	E175DSLIIIB	---	---			IZFR6N-E	4757	.044"
2010	175 HP	E175DSLISF	---	---			IZFR6N-E	4757	.044"
2010	175 HP	E175DSLISM	---	---			IZFR6N-E	4757	.044"
2008	175 HP	E175DSLSCR	---	---			IZFR6N-E	4757	.032"
2009	175 HP	E175DSLSEA	---	---			IZFR6N-E	4757	.032"
2007	175 HP	E175DLSLSCF	---	---			IZFR6N-E	4757	.032"
1998-1991	175 HP	INTRUDER LV6	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-1998	175 HP	LV6 F.F.I.	---	---			PZFR6H	7696	.032"
1987-1977	185 HP		BUZ8H	7447			---	---	---
1994-1990	185 HP	COM.	BZ7HS-10	3579			---	---	.030"
2004	200 HP		---	---			PZFR6H	7696	.032"
1983-1976	200 HP		BUHXW-1	5526			---	---	---
1992	200 HP	COM	BUHXW-1	5526			---	---	---

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
1998-1993	200 HP	COM	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2005	200 HP	DCXSOC	---	---	---	---	IZFR6N-E	4757	.032"
2012	200 HP	DE200CXINS, 60° V-6 2.6 L	---	---	---	---	IZFR6N-E	4757	.044"
2012	200 HP	DE200PXINS, 60° V-6 2.6 L	---	---	---	---	IZFR6N-E	4757	.044"
2006	200 HP	DHLSDF	---	---	---	---	IZFR6N-E	4757	.032"
2005	200 HP	DHLSOC	---	---	---	---	IZFR6N-E	4757	.032"
2005	200 HP	DHLSOG	---	---	---	---	IZFR6N-E	4757	.032"
2006	200 HP	DHXSDS	---	---	---	---	IZFR6N-E	4757	.032"
2005	200 HP	DPLSOC	---	---	---	---	IZFR6N-E	4757	.032"
2005	200 HP	DPXSOC	---	---	---	---	IZFR6N-E	4757	.032"
2005	200 HP	DSL SOC	---	---	---	---	IZFR6N-E	4757	.032"
2011	200 HP	E200DCXIIE	---	---	---	---	IZFR6N-E	4757	.044"
2012	200 HP	E200DCXIND, 60° V-6 2.6 L	---	---	---	---	IZFR6N-E	4757	.044"
2010	200 HP	E200DCXISB	---	---	---	---	IZFR6N-E	4757	.044"
2010	200 HP	E200DCXISF	---	---	---	---	IZFR6N-E	4757	.044"
2008	200 HP	E200DCXSCA	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200DCXSOF	---	---	---	---	IZFR6N-E	4757	.032"
2009	200 HP	E200DCXSEM	---	---	---	---	IZFR6N-E	4757	.032"
2009	200 HP	E200DCXSEM	---	---	---	---	IZFR6N-E	4757	.044"
2005	200 HP	E200DCXSOC	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DCXSUF	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DCXSUR	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200DHLSCF	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200DHLSCG	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200DHLSCM	---	---	---	---	IZFR6N-E	4757	.032"
2006	200 HP	E200DHLSDF	---	---	---	---	IZFR6N-E	4757	.032"
2005	200 HP	E200DHLSOC	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DHL SUA	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DHL SUG	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200DHXSCF	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200DHXSCG	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200DHXSCR	---	---	---	---	IZFR6N-E	4757	.032"
2006	200 HP	E200DHXSDS	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DHXSUC	---	---	---	---	IZFR6N-E	4757	.032"
2011	200 HP	E200DPLIIE	---	---	---	---	IZFR6N-E	4757	.044"
2012	200 HP	E200DPLIND, 60° V-6 2.6 L	---	---	---	---	IZFR6N-E	4757	.044"
2010	200 HP	E200DPLISB	---	---	---	---	IZFR6N-E	4757	.044"
2010	200 HP	E200DPLISF	---	---	---	---	IZFR6N-E	4757	.044"
2008	200 HP	E200DPLSCA	---	---	---	---	IZFR6N-E	4757	.032"
2009	200 HP	E200DPLSEM	---	---	---	---	IZFR6N-E	4757	.032"
2009	200 HP	E200DPLSEM	---	---	---	---	IZFR6N-E	4757	.044"
2007	200 HP	E200DPLSUF	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DPLSUR	---	---	---	---	IZFR6N-E	4757	.032"
2011	200 HP	E200DPXIIE	---	---	---	---	IZFR6N-E	4757	.044"
2012	200 HP	E200DPXIND, 60° V-6 2.6 L	---	---	---	---	IZFR6N-E	4757	.044"
2010	200 HP	E200DPXISB	---	---	---	---	IZFR6N-E	4757	.044"
2010	200 HP	E200DPXISF	---	---	---	---	IZFR6N-E	4757	.044"
2008	200 HP	E200DPXSCA	---	---	---	---	IZFR6N-E	4757	.032"
2009	200 HP	E200DPXSEM	---	---	---	---	IZFR6N-E	4757	.032"
2009	200 HP	E200DPXSEM	---	---	---	---	IZFR6N-E	4757	.044"
2005	200 HP	E200DPXSOC	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DPXSUF	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DPXSUR	---	---	---	---	IZFR6N-E	4757	.032"
2011	200 HP	E200DSL IIE	---	---	---	---	IZFR6N-E	4757	.044"
2012	200 HP	E200DSLIND, 60° V-6 2.6 L	---	---	---	---	IZFR6N-E	4757	.044"
2010	200 HP	E200DSLISB	---	---	---	---	IZFR6N-E	4757	.044"
2010	200 HP	E200DSLISF	---	---	---	---	IZFR6N-E	4757	.044"
2008	200 HP	E200DSLSCA	---	---	---	---	IZFR6N-E	4757	.032"
2009	200 HP	E200DSLSEM	---	---	---	---	IZFR6N-E	4757	.032"
2005	200 HP	E200DLSOC	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DLSUF	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200DLSUR	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HCXSCF	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HCXSCG	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HCXSCR	---	---	---	---	IZFR6N-E	4757	.032"
2006	200 HP	E200HCXSDS	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200HCXSUC	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HLSOCF	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HLSOCG	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HLSOCR	---	---	---	---	IZFR6N-E	4757	.032"
2006	200 HP	E200HLSOCS	---	---	---	---	IZFR6N-E	4757	.032"
2007	200 HP	E200HLSUC	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HVLSCF	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HVLSCG	---	---	---	---	IZFR6N-E	4757	.032"
2008	200 HP	E200HVLSCS	---	---	---	---	IZFR6N-E	4757	.032"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2005	200 HP	F MODELS	----	---			PZFR6H	7696	.032"
2006	200 HP	HCXSDS	----	---			IZFR6N-E	4757	.032"
2006	200 HP	HSLSDS	----	---			IZFR6N-E	4757	.032"
2004-1999	200 HP	LV6 F.F.I.	----	---			PZFR6H	7696	.032"
1993-1986	200 HP	V6	BZ7HS-10	3579			----	---	.030"
1998-1994	200 HP	VINDICATOR L	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	----	---	.030"
2004	225 HP		----	---			PZFR6H	7696	.032"
1993-1986	225 HP		BZ7HS-10	3579			----	---	.030"
2006	225 HP	DCXSDR	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DCXSOC	----	---			IZFR6N-E	4757	.032"
2006	225 HP	DCZSDR	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DCZSOC	----	---			IZFR6N-E	4757	.032"
2006	225 HP	DHLSDF	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DHLSOC	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DHLSOF	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DHLSOG	----	---			IZFR6N-E	4757	.032"
2006	225 HP	DHXSDF	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DHXSOC	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DHXSOG	----	---			IZFR6N-E	4757	.032"
2006	225 HP	DPLSDR	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DPLSOC	----	---			IZFR6N-E	4757	.032"
2006	225 HP	DPXSDR	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DPXSOC	----	---			IZFR6N-E	4757	.032"
2006	225 HP	DPZSDR	----	---			IZFR6N-E	4757	.032"
2005	225 HP	DPZSOC	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DCXSCF	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DCXSCG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DCXSCM	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DCXSUA	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DCZSCF	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DCZSCG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DCZSCM	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DCZSUA	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DCXSUG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DHLSCF	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DHLSCG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DHLSCM	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DHLSUA	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DHLSUG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DHXSCA	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DHXSCF	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DHXSCG	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DHXSUG	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DHXSUR	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPLSCF	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPLSCG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPLSCM	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DPLSUA	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DPLSUG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPXSCF	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPXSCG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPXSCM	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DPXSUA	----	---			IZFR6N-E	4757	.032"
2007	225 HP	E225DPXSUG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPZSCF	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPZSCG	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225DPZSCM	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225HLSLSCF	----	---			IZFR6N-E	4757	.032"
2008	225 HP	E225HLSLSCG	----	---			IZFR6N-E	4757	.032"
2005	225 HP	F MODELS	----	---			PZFR6H	7696	.032"
2004-1999	225 HP	LV6 F.F.I.	----	---			PZFR6H	7696	.032"
1998-1994	225 HP	VINDICATOR	BPZ8HS-10 BUHXW-1	3133 5526	BPZ8HS-10 BLYB	1506	----	---	.030"
1985-1978	235 HP						----	---	---
2006	250 HP	DCXSDR	----	---			IZFR6N-E	4757	.032"
2005	250 HP	DCXSOC	----	---			IZFR6N-E	4757	.032"
2006	250 HP	DCZSDR	----	---			IZFR6N-E	4757	.032"
2005	250 HP	DCZSOC	----	---			IZFR6N-E	4757	.032"
2006	250 HP	DPLSDR	----	---			IZFR6N-E	4757	.032"
2005	250 HP	DPLSOC	----	---			IZFR6N-E	4757	.032"
2006	250 HP	DPXSDR	----	---			IZFR6N-E	4757	.032"
2005	250 HP	DPXSOC	----	---			IZFR6N-E	4757	.032"
2006	250 HP	DPZSDR	----	---			IZFR6N-E	4757	.032"
2005	250 HP	DPZSOC	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DCXSCF	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DCXSCG	----	---			IZFR6N-E	4757	.032"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2008	250 HP	E250DCXSCM	----	---			IZFR6N-E	4757	.032"
2007	250 HP	E250DCXSUA	----	---			IZFR6N-E	4757	.032"
2007	250 HP	E250DCXSUG	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DCZSCF	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DCZSCG	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DCZSCM	----	---			IZFR6N-E	4757	.032"
2007	250 HP	E250DCZSUA	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPLSCF	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPLSCG	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPLSCM	----	---			IZFR6N-E	4757	.032"
2007	250 HP	E250DPLSUA	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPXSUF	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPXSCG	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPXSCM	----	---			IZFR6N-E	4757	.032"
2007	250 HP	E250DPXSUA	----	---			IZFR6N-E	4757	.032"
2007	250 HP	E250DPXSUG	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPZSCF	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPZSCG	----	---			IZFR6N-E	4757	.032"
2008	250 HP	E250DPZSCM	----	---			IZFR6N-E	4757	.032"
2007	250 HP	E250DPZSUA	----	---			IZFR6N-E	4757	.032"
2007	250 HP	E250DPZSUG	----	---			IZFR6N-E	4757	.032"
2005	250 HP	E250FCXSOB	----	---			PZFR6H	7696	.032"
2005	250 HP	E250FCZSOB	----	---			PZFR6H	7696	.032"
2005	250 HP	E250FPLSOM	----	---			PZFR6H	7696	.032"
2005	250 HP	E250FPXSOB	----	---			PZFR6H	7696	.032"
2005	250 HP	E250FPZSOB	----	---			PZFR6H	7696	.032"
2005	250 HP	F MODELS	----	---			PZFR6H	7696	.032"
1998-1985	250 HP	V8	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2004-2003	250 HP	V8	---	---			PZFR6H	7696	.032"
1988-1985	275 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1997-1985	300 HP	V8	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1950-1939	HP	18MM HEADS	AB-6	2910			---	---	.030"
1986-1985	HP	3.6L	BZ7HS-10	3579			---	---	.030"
	HP	AIR BOUY DIVING UNIT	BM4A SOLID	4000			---	---	.024"
1968-1954	HP	CD, JH	BR6S	3522			---	---	.030"
1968-1956	HP	FD, FDE	BR6S	3522			---	---	.030"
1968-1967	HP	JHF, JWF	BR6S	3522			---	---	.030"
1968-1952	HP	JW	BR6S	3522			---	---	.030"
1968-1965	HP	LD	BR6S	3522			---	---	.030"
1968-1964	HP	MQ	BR6S	3522			---	---	.030"
1968-1951	HP	RD, RDE, RDDS, RJE, RK	BR6S	3522			---	---	.030"
1968-1962	HP	RX	BR6S	3522			---	---	.030"
1968-1965	HP	RXE	BR6S	3522			---	---	.030"
1968	HP	SC	BR6S	3522			---	---	.030"
1966-1952	HP	TN, AD, QD, V4H, V4ML	BR6S	3522			---	---	.030"
1984-1981	3.5 HP		XR5	3332			XR5IX	7355	.030"
1984-1981	5 HP		XR5	3332			XR5IX	7355	.030"
1984-1981	7.5 HP		XR5	3332			XR5IX	7355	.030"
1984-1981	9.9 HP		XR5	3332			XR5IX	7355	.030"
1984-1981	15 HP		XR5	3332			XR5IX	7355	.030"
<b>FORCE</b>									
1994-1990	3 HP		BP6HS-10 #	6326			---	---	.040"
1987-1984	4 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1999-1988	5 HP		BPR6HS	7022			BPR6HIX	4085	.030"
1985	7.5 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1999-1984	9.9 HP		BPR6HS	7022			BPR6HIX	4085	.030"
1999-1984	15 HP		BPR7HS	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.030"
1999-1996	25 HP		BPR7HS	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.036"
1991-1986	35 HP		BR6HS-10	1090			---	---	.040"
1999-1992	40 HP		BUZHW	2147			---	---	---
1987-1984	50 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1991-1988	50 HP	W/PRESOLITE IGN.	BUHX	2522			---	---	---
1999-1991	50 HP	W/THUNDERBOLT IGN.	BUZHW	2147			---	---	---
1985	60 HP		BUZHW	2147			---	---	---
1995-1991	70 HP	W/THUNDERBOLT IGN.	BUZHW	2147			---	---	---
1999-1996	75 HP		BUZHW	2147			---	---	---
1989-1983	85 HP		BUHX	2522			---	---	---
1991-1990	90 HP	W/PRESOLITE IGN.	BUHX	2522			---	---	---
1999-1991	90 HP	W/THUNDERBOLT IGN.	BUZHW	2147			---	---	---
1991-1990	120 HP	W/PRESOLITE IGN.	BUHX	2522			---	---	---
1999-1991	120 HP	W/THUNDERBOLT IGN.	BUZHW	2147			---	---	---
1989-1983	125 HP		BUHX	2522			---	---	---
1991-1989	150 HP	W/PRESOLITE IGN.	BUHX	2522			---	---	---
1994-1991	150 HP	W/THUNDERBOLT IGN.	BUZHW	2147			---	---	---

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
<b>HONDA</b>									
	2 HP	BF20, 1-CYL. 4-STROKE SIDE VALVE	BMR4A SOLID #	4004			---	---	.024"
	2 HP	BF2A, 1-CYL. 4-STROKE SOHV	BMR4A SOLID #	4004			---	---	.024"
	2 HP	BF2D, FROM 1026044	CR4HSB #	4695			---	---	.028"
	2 HP	BF2D, TO 1026043	CR5HSB #	6535	CR5HSB BLYB	6786	---	---	.028"
	5 HP	BF50	BPR5ES SOLID #	4006			BPR5EIX	6597	.028"
	5 HP	BF5A	BPR5ES SOLID #	4006			BPR5EIX	6597	.028"
	7.5 HP	B75	DR5HS #	4623			---	---	.024"
	7.5 HP	BF75	DR5HS #	4623			---	---	.024"
	8 HP	BF8	DR5HS #	4623			---	---	.024"
	8 HP	BF8A	DR5HS #	4623			---	---	.024"
	8 HP	BF8D	CR5EH-9 #	6689			---	---	.036"
	8 HP	BFP8D	CR5EH-9 #	6689			---	---	.036"
	9.8 HP	BF100	DR5HS #	4623			---	---	.024"
	9.9 HP	BF9.9A	DR5HS #	4623			---	---	.024"
	9.9 HP	BF9.9D	CR5EH-9 #	6689			---	---	.036"
	9.9 HP	BFP9.9D	CR5EH-9 #	6689			---	---	.036"
	10 HP	BF100	DR5HS #	4623			---	---	.024"
	15 HP	BF15A	DR6HS #	4823			---	---	.024"
	15 HP	BF15D	CR5EH-9 #	6689			---	---	.036"
	15 HP	BFP15D	CR5EH-9 #	6689			---	---	.036"
	20 HP	BF20D	CR5EH-9 #	6689			---	---	.036"
	20 HP	BFP20D	CR5EH-9 #	6689			---	---	.036"
	25 HP	BF25A, SERIAL #BAJL-1000001-1999999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25A, SERIAL #BAJS-1000001-1999999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25A, SERIAL #BAJU-1000001-1999999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25A1, SERIAL #BAJS-3210001-3219999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25A2, SERIAL #BAJS-3220001-3299999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25A3, SERIAL #BAJS-3300001-3399999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25AW, SERIAL #BAJL-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25AW, SERIAL #BAJS-3000001-2999999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25AW, SERIAL #BAJS-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25AW, SERIAL #BAJU-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25AX, SERIAL #BAJL-3000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25AX, SERIAL #BAJS-3000001-3200000	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25AX, SERIAL #BAJU-3000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25AY, SERIAL #BAJS-3200001-3210000	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25D4, SERIAL #BATJ-1000001-1099999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25D5, SERIAL #BATJ-1100001-1199999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25D6, SERIAL #BATJ-1200001-1299999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25DK0, SERIAL #BATJ-1300001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25DK2, SERIAL #BATJ-1400001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	25 HP	BF25DK3, SERIAL #BATJ-1500001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30A, SERIAL #BAWL-1000001-1999999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30A, SERIAL #BAWS-1000001-1999999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30A1, SERIAL #BAWS-3210001-3219999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30A2, SERIAL #BAWS-3220001-3299999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30A3, SERIAL #BAWS-3300001-3399999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30AW, SERIAL #BAWL-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30AW, SERIAL #BAWS-2000001-2999999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30AW, SERIAL #BAWS-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30AX, SERIAL #BAWL-3000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30AX, SERIAL #BAWS-3000001-3200000	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30AY, SERIAL #BAWS-3200001-3210000	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30D4, SERIAL #BAUJ-1000001-1099999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30D5, SERIAL #BAUJ-1100001-1199999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30D6, SERIAL #BAUJ-1200001-1299999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30DK0, SERIAL #BAUJ-1300001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30DK2, SERIAL #BAUJ-1400001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	30 HP	BF30DK3, SERIAL #BAUJ-1500001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	35 HP	BF35AM, SERIAL #BAPU-1000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	35 HP	BF35AM, SERIAL #BLAG-1000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	35 HP	BF35AM, SERIAL #BSAG-1000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A, SERIAL #BAYL-1000001-2000000	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A, SERIAL #BAYU-1000001-2000000	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A1, SERIAL #BAYS-3210001-3219999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A2, SERIAL #BAYS-3220001-3299999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A2, SERIAL #BAYS-3220001-3399999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A3, SERIAL #BAYS-3300001-3399999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A4, SERIAL #BAYS-3400001-3499999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A5, SERIAL #BAYS-3500001-3599999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40A6, SERIAL #BAYS-3600001-3699999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40AK0, SERIAL #BAYS-3700001-3799999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40AW, SERIAL #BAYL-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40AW, SERIAL #BAYU-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	40 HP	BF40AX, SERIAL #BAYL-3000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40AX, SERIAL #BAYU-3000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40AY, SERIAL #BAYS-3200001-3209999	DR7EA #	7839			DR7EIX	5686	.028"
	40 HP	BF40D, SERIAL #BBDJ-1000001-9999999	DR7EB #	5469			---	---	.028"
	40 HP	BF40DK2, SERIAL #BBDJ-1100001-9999999	DR7EB #	5469			---	---	.028"
	45 HP	B45	DR5HS #	4623			---	---	.024"
	45 HP	BF45AM, SERIAL #BANU-1000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	45 HP	BF45AM, SERIAL #BLAF-1000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	45 HP	BF45AM, SERIAL #BSAF-1000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A, SERIAL #BAZJ-1000001-2000000	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A, SERIAL #BAZL-1000001-2000000	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A, SERIAL #BAZU-1000001-2000000	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A1, SERIAL #BAZS-3210001-3219999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A2, SERIAL #BAZS-3220001-3299999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A3, SERIAL #BAZS-3300001-3399999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A4, SERIAL #BAZS-3400001-3499999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A5, SERIAL #BAZS-3500001-3599999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50A6, SERIAL #BAZS-3600001-3699999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50AK0, SERIAL #BAZS-3700001-3799999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50AW, SERIAL #BAZJ-2000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50AW, SERIAL #BAZL-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50AW, SERIAL #BAZU-2000001-3000000	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50AX, SERIAL #BAZL-3000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50AX, SERIAL #BAZS-3000001-3200000	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50AX, SERIAL #BAZU-3000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50AY, SERIAL #BAZS-3200001-3209999	DR7EA #	7839			DR7EIX	5686	.028"
	50 HP	BF50D, SERIAL #BBEJ-1000001-9999999	DR7EB #	5469			---	---	.028"
	50 HP	BF50DK2, SERIAL #BBEJ-1100001-9999999	DR7EB #	5469			---	---	.028"
	50 HP	BF50F	BPR5ES SOLID #	4006			BPR5EIX	6597	.028"
	60 HP	BF60A, SERIAL #BBFJ-1000001-9999999	LMAR6C-9 #	1679			---	---	.036"
	60 HP	BF60AK1, SERIAL #BBFJ-1100001-9999999	LMAR6C-9 #	1679			---	---	.036"
	60 HP	BF60A, SERIAL #BBFJ-8000001-9999999	LMAR6C-9 #	1679			---	---	.036"
	60 HP	BF60AK1, SERIAL #BBFJ-8100001-9999999	LMAR6C-9 #	1679			---	---	.036"
	75 HP	BF75A, SERIAL #BF75-1200185-1205094	DR5HS #	4623			---	---	.028"
	75 HP	BF75A, SERIAL #BF75-1200425-1205254	DR5HS #	4623			---	---	.028"
	75 HP	BF75A1, SERIAL #BBAL-4400001-4409999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75A2, SERIAL #BBAL-4410001-4499999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75A3, SERIAL #BBAL-4500001-4599999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75A4, SERIAL #BBAL-4600001-4699999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75A5, SERIAL #BBAL-4700001-4799999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75A6, SERIAL #BBAL-4800001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75AT, SERIAL #BBAL-1000001-2999999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75AT, SERIAL #BBAL-1000001-2999999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75AW, SERIAL #BBAL-3000001-4000000	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75AW, SERIAL #BBAL-3000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75AX, SERIAL #BBAL-4000001-4200000	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75AY, SERIAL #BBAL-4200001-4400000	DR7EA #	7839			DR7EIX	5686	.028"
	75 HP	BF75B, SERIAL #BF75L-1300002-1301092	DR5HS #	4623			---	---	.028"
	75 HP	BF75B, SERIAL #BF75S-1300001-1301023	DR5HS #	4623			---	---	.028"
	75 HP	BF75C, SERIAL #BF75L-1400002-1500000	DR5HS #	4623			---	---	.028"
	75 HP	BF75C, SERIAL #BF75S-1400001-1500000	DR5HS #	4623			---	---	.028"
	75 HP	BF75D, SERIAL #BF75L-1500001-1600000	DR5HS #	4623			---	---	.028"
	75 HP	BF75D, SERIAL #BF75S-1500001-1600000	DR5HS #	4623			---	---	.028"
	75 HP	BF75DK0, SERIAL #BBAJ-1000001-9999999	---	---			IZFR6K-11E #	6748	.044"
	75 HP	BF75DK2, SERIAL #BBAJ-1100001-9999999	---	---			IZFR6K-11E #	6748	.044"
	75 HP	BF75DK3, SERIAL #BBAJ-1200001-9999999	---	---			IZFR6K-11E #	6748	.044"
	90 HP	BF90A1, SERIAL #BBBL-4400001-4409999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90A2, SERIAL #BBBL-4410001-4499999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90A3, SERIAL #BBBL-4500001-4599999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90A4, SERIAL #BBBL-4600001-4699999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90A5, SERIAL #BBBL-4700001-4799999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90A6, SERIAL #BBBL-4800001-4999999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AT, SERIAL #BBBL-1000001-2999999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AT, SERIAL #BBBL-1000001-2999999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AW, SERIAL #BBBJ-3000001-4000000	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AW, SERIAL #BBBL-3000001-4000000	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AW, SERIAL #BBBL-3000001-4000000	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AX, SERIAL #BBBJ-4000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AX, SERIAL #BBBL-4000001-4200000	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AX, SERIAL #BBBL-4000001-9999999	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90AY, SERIAL #BBBL-4200001-4400000	DR7EA #	7839			DR7EIX	5686	.028"
	90 HP	BF90DK0, SERIAL #BBCJ-1000001-9999999	---	---			IZFR6K-11E #	6748	.044"
	90 HP	BF90DK2, SERIAL #BCJ-1100001-9999999	---	---			IZFR6K-11E #	6748	.044"
	90 HP	BF90DK4, SERIAL #BBCJ-1300001-9999999	---	---			IZFR6K-11E #	6748	.044"
	100 HP	BF100A, SERIAL #B100-1200155-1205094	DR5HS #	4623			---	---	.028"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	100 HP	BF100A, SERIAL #B100-1200395-1205254	DR5HS #	4623			---	---	.028"
	100 HP	BF100B, SERIAL #B100L-1300002-1303707	DR5HS #	4623			---	---	.028"
	100 HP	BF100B, SERIAL #B100S-1300001-1303200	DR5HS #	4623			---	---	.028"
	100 HP	BF100C, SERIAL #B100L-1400001-1500000	DR5HS #	4623			---	---	.028"
	100 HP	BF100C, SERIAL #B100S-1400001-1500000	DR5HS #	4623			---	---	.028"
	100 HP	BF100D, SERIAL #B100L-1500001-1600000	DR5HS #	4623			---	---	.028"
	100 HP	BF100D, SERIAL #B100S-1500001-1600000	DR5HS #	4623			---	---	.028"
	115 HP	BF115A1, SERIAL #BZBD-1200001-1299999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A1, SERIAL #BZBG-1200001-1299999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A2, SERIAL #BZBD-1300001-1400000	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A2, SERIAL #BZBG-1300001-1400000	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A3, SERIAL #BZBD-1400001-1499999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A3, SERIAL #BZBG-1400001-1499999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A4, SERIAL #BZBD-1500001-1599999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A4, SERIAL #BZBG-1500001-1599999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A5, SERIAL #BZBD-1600001-1699999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A5, SERIAL #BZBG-1600001-1699999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A6, SERIAL #BZBD-1700001-1799999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115A6, SERIAL #BZBG-1700001-1799999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115AK0, SERIAL #BZBD-1800001-9999999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115AX, SERIAL #BZBD-1000001-1099999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115AX, SERIAL #BZBG-1000001-1099999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115AY, SERIAL #BZBD-1100001-1199999	ZFR7F #	5913			---	---	.032"
	115 HP	BF115AY, SERIAL #BZBG-1100001-1199999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130A1, SERIAL #BZBE-1200001-1299999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130A1, SERIAL #BZBH-1200001-1299999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130A2, SERIAL #BZBE-1300001-1400000	ZFR7F #	5913			---	---	.032"
	130 HP	BF130A2, SERIAL #BZBH-1300001-1400000	ZFR7F #	5913			---	---	.032"
	130 HP	BF130A3, SERIAL #BZBE-1400001-1499999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130A3, SERIAL #BZBH-1400001-1499999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130A4, SERIAL #BZBE-1500001-1599999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130A4, SERIAL #BZBH-1500001-1599999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130AX, SERIAL #BZBE-1000001-1099999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130AX, SERIAL #BZBH-1000001-1099999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130AY, SERIAL #BZBE-1100001-1199999	ZFR7F #	5913			---	---	.032"
	130 HP	BF130AY, SERIAL #BZBH-1100001-1199999	ZFR7F #	5913			---	---	.032"
	135 HP	BF135A4, SERIAL #BARJ-1000001-1099999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135A4, SERIAL #BASJ-1000001-1099999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135A5, SERIAL #BARJ-1100001-1199999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135A5, SERIAL #BASJ-1100001-1199999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135A6, SERIAL #BARJ-1200001-1299999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135A6, SERIAL #BASJ-1200001-1299999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135AK0, SERIAL #BARJ-1300001-9999999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135AK0, SERIAL #BASJ-1300001-9999999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135AK2, SERIAL #BARJ-1400001-9999999	---	---			IZFR6K11 #	6994	.044"
	135 HP	BF135AK2, SERIAL #BASJ-1400001-9999999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150A4, SERIAL #BANJ-1000001-1099999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150A4, SERIAL #BAPJ-1000001-1099999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150A5, SERIAL #BANJ-1100001-1199999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150A5, SERIAL #BAPJ-1100001-1199999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150A6, SERIAL #BANJ-1200001-1299999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150A6, SERIAL #BAPJ-1200001-1299999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150AK0, SERIAL #BANJ-1300001-9999999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150AK0, SERIAL #BAPJ-1300001-9999999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150AK2, SERIAL #BANJ-1400001-9999999	---	---			IZFR6K11 #	6994	.044"
	150 HP	BF150AK2, SERIAL #BAPJ-1400001-9999999	---	---			IZFR6K11 #	6994	.044"
	175 HP	BF175AK1, SERIAL #BAJJ-1300001-9999999	---	---			IZFR6F11 #	4095	.044"
	175 HP	BF175AK1, SERIAL #BAKJ-1300001-9999999	---	---			IZFR6F11 #	4095	.044"
	175 HP	BF175AK2, SERIAL #BAJJ-1400001-1499999	---	---			IZFR6F11 #	4095	.044"
	175 HP	BF175AK2, SERIAL #BAKJ-1400001-1499999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A2, SERIAL #BAEJ-1000001-1099999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A2, SERIAL #BAFJ-1000001-1099999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A3, SERIAL #BAEJ-1100001-1199999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A3, SERIAL #BAFJ-1100001-1199999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A4, SERIAL #BAEJ-1200001-1299999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A4, SERIAL #BAFJ-1200001-1299999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A5, SERIAL #BAEJ-1300001-1399999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A5, SERIAL #BAFJ-1300001-1399999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A6, SERIAL #BAEJ-1400001-1499999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200A6, SERIAL #BAFJ-1400001-1499999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200AK0, SERIAL #BAEJ-1500001-9999999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200AK0, SERIAL #BAFJ-1500001-9999999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200AK1, SERIAL #BAEJ-1600001-9999999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200AK1, SERIAL #BAFJ-1600001-9999999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200AK2, SERIAL #BAEJ-1700001-1799999	---	---			IZFR6F11 #	4095	.044"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	200 HP	BF200AK2, SERIAL #BAFJ-1700001-1799999	---	---			IZFR6F11 #	4095	.044"
	200 HP	BF200AK3, SERIAL #BAEJ-1800001-9999999	---	---			IZFR6K-11E #	6748	.044"
	200 HP	BF200AK3, SERIAL #BAFJ-1800001-9999999	---	---			IZFR6K-11E #	6748	.044"
	220 HP	BF220	---	---			IZFR6F-11 #	4095	.044"
	225 HP	BF225A2, SERIAL #BAGJ-1000001-1099999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A2, SERIAL #BAHJ-1000001-1099999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A3, SERIAL #BAGJ-1100001-1199999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A3, SERIAL #BAGJ-1200001-1299999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A3, SERIAL #BAHJ-1100001-1199999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A4, SERIAL #BAGJ-1200001-1299999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A4, SERIAL #BAHJ-1200001-1299999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A5, SERIAL #BAGJ-1300001-1399999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A5, SERIAL #BAHJ-1300001-1399999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A6, SERIAL #BAGJ-1400001-1499999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225A6, SERIAL #BAHJ-1400001-1499999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225AK0, SERIAL #BAGJ-1500001-9999999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225AK0, SERIAL #BAHJ-1500001-9999999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225AK1, SERIAL #BAGJ-1600001-9999999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225AK1, SERIAL #BAHJ-1600001-9999999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225AK2, SERIAL #BAGJ-1700001-1799999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225AK2, SERIAL #BAHJ-1700001-1799999	---	---			IZFR6F11 #	4095	.044"
	225 HP	BF225AK3, SERIAL #BAGJ-1800001-9999999	---	---			IZFR6K-11E #	6748	.044"
	225 HP	BF225AK3, SERIAL #BAHJ-1800001-9999999	---	---			IZFR6K-11E #	6748	.044"
	250 HP	BF250A, SERIAL #(blank)	---	---			IZFR6K-11E #	6748	.044"
JOHNSON									
1970-1968	1 HP	1R	BR6S	3522			---	---	.030"
1947-1946	1.1 HP		B-4L	3112			---	---	.030"
1990-1986	1.2 HP	MAGNETO	BR6S	3522			---	---	.030"
1970-1968	1.5 HP		BR6S	3522			---	---	.030"
1970-1968	2 HP		BR6S	3522			---	---	.030"
2001-1991	2 HP		BPR6HS	7022			BPR6HIX	4085	.032"
1984-1971	2 HP	2R	BR6S	3522			---	---	.030"
1970-1966	2 HP	AQUANAUT DIVING UNIT	BM4A SOLID	4000			---	---	.030"
1990-1971	2 HP	COLT, JR	BR6S	3522			---	---	.030"
1988-1987	2 HP	EXCEL 4, ULTRA	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1998-1991	2.3 HP		BPR6HS	7022			BPR6HIX	4085	.030"
1988-1987	2.5 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1968-1952	3 HP		BR6S	3522			---	---	.030"
1997-1989	3 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1974-1952	3 HP	LIGHTWIN	BR6S	3522			---	---	.030"
1951-1948	3.3 HP		BR6S	3522			---	---	.030"
2003-1991	3.3 HP		BPR6HS	7022			BPR6HIX	4085	.030"
2005-2004	3.5 HP		BPR7HS	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.020"
1976-1969	4 HP		BR6S	3522			---	---	.030"
1987-1977	4 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1988	4 HP		BZ7HS-10	3579			---	---	.030"
2003-1989	4 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2005-2004	4 HP		BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
1976-1969	4 HP	4R, 4W	BR6S	3522			---	---	.030"
1988-1987	4 HP	EXCEL, ULTRA	BZ7HS-10	3579			---	---	.030"
1967-1958	4 HP	V4, V4A, V4M	BR6S	3522			---	---	.030"
1967-1958	4 HP	V4S, VX, VXH	BR6S	3522			---	---	.030"
1985-1980	4.5 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1997-1990	5 HP	14mm Plug	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2003-1997	5 HP	12mm Plug	DR6HS	4823			---	---	.027"
2001-1998	5 HP	14mm Plug	BZ7HS-10	3579			---	---	.030"
2005-2004	5 HP		BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
1968-1965	5 HP	ANGLER	BR6S	3522			---	---	.030"
1974-1952	5.2 HP	LIGHTWIN	BR6S	3522			---	---	.030"
1964-1956	5.5 HP		BR6S	3522			---	---	.030"
1976-1965	6 HP		BR6S	3522			---	---	.030"
2001-1977	6 HP	14mm Plug	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2003-1997	6 HP	12mm Plug	DR6HS	4823			---	---	.027"
2005	6 HP		BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
1976-1971	6 HP	6R, 6RL	BR6S	3522			---	---	.030"
1979-1977	6 HP	MAG	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
2004	6 HP	RLSRS, RSRs	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1993-1981	6.5 HP	COM	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
1958-1952	7.5 HP		BR6S	3522			---	---	.030"
1997-1977	7.5 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2001-1977	8 HP	14mm Plug	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2003-1996	8 HP	12mm Plug	DR6HS	4823			---	---	.027"
2005	8 HP		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2001-1977	8 HP	COM	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2004	8 HP	RLSRC, RSRC	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
1974	9 HP	9R, 9RL, 9EL	BZ7HS-10	3579			---	---	.030"
1973-1952	9.5 HP		BR6S	3522			---	---	.030"
1949-1942	9.7 HP		AB-6	2910			---	---	.030"
2001-1974	9.9 HP	14mm Plug	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2004-1995	9.9 HP	12mm Plug	DCPR7E	3932			DCPR7EIX	6046	.030"
1963-1952	10 HP		BR6S	3522			---	---	.030"
2006	10 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1976-1975	10 HP	10E, 10EL	BZ7HS-10	3579			---	---	.030"
1979-1977	10 HP	10E, 10R, 10SEL	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1976-1975	10 HP	10R, 10RL	BZ7HS-10	3579			---	---	.030"
1982-1981	10 HP	COM	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1993-1992	10 HP	COM	BZ7HS-10	3579			---	---	.030"
2002-1994	10 HP	COM	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2005	10 HP	EL4SOR, R4SOA, L4SOA, TBL4SOB, TE4SOA, TEL4SOA	BKR6E #	6962			BKR6EIX	6418	.036"
2004	10 HP	EL4SRC, R4SR, RL4SR, RBL4SR, RE4SR, TEL4SR	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2003	10 HP	R4STC, BL4STS, LE4STS, L4STC, BL4STC, RE4STC, TEL4STC	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2005	10 HP	RHLSOR, RHSOR, RLSOS, RSOS	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2004	10 HP	RHLSRC, RHSRC, RLSRD, RSRD	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003	10 HP	RHLSTS, RHSTS, RLSTE, RSTE	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1989-1988	14 HP		BZ7HS-10	3579			---	---	.030"
1991-1981	14 HP	COM	BZ7HS-10	3579			---	---	.030"
1972-1950	14 HP	FASTWIN	BR6S	3522			---	---	.030"
1971-1956	15 HP		BR6S	3522			---	---	.030"
1976-1974	15 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1980-1978	15 HP		BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1992-1981	15 HP		BZ7HS-10	3579			---	---	.030"
1976-1974	15 HP	15E, 15EL, 15R, 15RL	BZ7HS-10	3579			---	---	.030"
2001-1994	15 HP	2-STROKE	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1995	15 HP	4-STROKE OHC	DCPR7E	3932			DCPR7EIX	6046	.030"
1993-1992	15 HP	COM	BZ7HS-10	3579			---	---	.030"
2001-1994	15 HP	COM	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2007-2005	15 HP	J15EL4SDC, J15R4SDM, J15RL4SDM, J15TE4SDM, J15TEL4SDM, J15EL4SOS, J15R4SOA, J15RL4SOA, J15TE4SOA, J15TEL4SOA, J15WRLSOB, J15WRSOB, J15EL4SUR, J15R4SUB, J15RL4SUB, J15TE4SUB, J15TEL4SUB	BKR6E #	6962			BKR6EIX	6418	.036"
2004	15 HP	J15R4SR, J15RL4SR, J15TE4SR, J15TEL4SR, Serial # 22030001 & Up	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2007-2004	15 HP	J15RLSDR, J15RSDR, J15RTSDC, J15RLSOC, J15RSOC, J15RTSOS, J15RLSRS, J15RSRS, J15WRLSRM, J15WRSRM, J15RLSUA, J15RSUA, J15RTSUR	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1998-1995	15 HP	KERO	BUHXW-1	5526			---	---	---
1973-1957	18 HP		BR6S	3522			---	---	.030"
1972-1950	18 HP	FASTWIN	BR6S	3522			---	---	.030"
1998-1995	18 HP	JET	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1973-1966	20 HP		BR6S	3522			---	---	.030"
1993-1978	20 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1973	20 HP	20R, 20RL	BR6S	3522			---	---	.030"
1972-1969	20 HP	20R, 25R	BR6S	3522			---	---	.030"
1972-1971	20 HP	20RL, 25RL	BR6S	3522			---	---	.030"
2001-1999	20 HP	JET	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1955-1952	25 HP		BR6S	3522			---	---	.030"
1976-1969	25 HP		BR6S	3522			---	---	.030"
2002-1977	25 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2005-2003	25 HP		BZ7HS-10	3579			---	---	.030"
1972-1969	25 HP	20R, 25R	BR6S	3522			---	---	.030"
1976-1973	25 HP	25E, 25EL, 25R, 25RL	BR6S	3522			---	---	.030"
1978-1977	25 HP	25E, 25EL, 25R	BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
2002-1981	25 HP	COM	BUHXW-1	5526			---	---	---
1964-1962	28 HP		BR6S	3522			---	---	.030"
2003-1992	28 HP	28 JET	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1997-1978	28 HP	SPL	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2002-1978	30 HP	14mm Plug	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1995	30 HP	12mm Plug	DCPR7E	3932			DCPR7EIX	6046	.030"
2005-2004	30 HP		BZ7HS-10	3579			---	---	.030"
2001-1999	30 HP	JET	BPR7HS	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.030"
1970-1969	33 HP		BR6S	3522			---	---	.030"
1959-1957	35 HP		BR6S	3522			---	---	.030"
1970-1969	35 HP		BR6S	3522			---	---	.030"
1976	35 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1997-1977	35 HP		BZ7HS-10	3579			---	---	.030"
2001-1995	35 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1993	35 HP	JET	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1973-1960	40 HP		BR6S	3522			---	---	.030"
1976-1974	40 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
1988-1980	40 HP		BZ7HS-10	3579			---	---	.030"
2002-1989	40 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-2002	40 HP		DCPR7E	3932			DCPR7EIX	6046	.030"
2005	40 HP		DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1973-1969	40 HP	40E, 40EL, 40R, 40RL	BR6S	3522			---	---	.030"
1976-1974	40 HP	40E, 40EL, 40R, 40RL	BZ7HS-10	3579			---	---	.030"
1983-1981	40 HP	COM	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1984	40 HP	COM	BUHXW-1	5526			---	---	---
2001-1999	40 HP	JET	BPR7HS	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.030"
2004	40 HP	PL4SRM, PL4SRS	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2004	40 HP	PLSRS, RLSRS, RSRS	BZ7HS-10	3579			---	---	.030"
2002-1984	45 HP	COM	BUHXW-1	5526			---	---	---
1988-1980	48 HP		BZ7HS-10	3579			---	---	.030"
1997-1989	48 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1997-1994	48 HP	SPL	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1959-1958	50 HP		BR6S	3522			---	---	.030"
1979-1971	50 HP		BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1988-1980	50 HP		BZ7HS-10	3579			---	---	.030"
2002-1989	50 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2005	50 HP		DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2004	50 HP	PL4SRS, PL4SRM	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2003	50 HP	PL4STC	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2004	50 HP	PLSRS	BZ7HS-10	3579			---	---	.030"
2003	50 HP	PLSTD	BZ7HS-10	3579			---	---	.030"
1975-1971	50 HP	SIZZLER	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1969-1968	55 HP		BZ7HS-10	3579			---	---	.030"
1988-1987	55 HP		BUHW-2	5626	BUHW-2 BLYB	1475	---	---	---
1989-1976	55 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1995-1994	55 HP	COM	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2005-1986	55 HP	COM	BUHXW-1	5526			---	---	---
1993-1975	60 HP		BZ7HS-10	3579			---	---	.030"
1998-1994	60 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2001-1999	60 HP		BZ7HS-10	3579			---	---	.030"
2005-2002	60 HP		BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
1971-1970	60 HP	TRIUMPH	BUZHW	2147			---	---	---
1967-1964	60 HP	V4	BR6S	3522			---	---	.030"
1973-1972	65 HP		BZ7HS-10	3579			---	---	.030"
1997-1992	65 HP	65 JET CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1995-1994	65 HP	COM	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1987-1984	65 HP	COM HC LC	BZ7HS-10	3579			---	---	.030"
2003-1988	65 HP	COM HC LC	BUHXW-1	5526			---	---	---
1968	65 HP	V4 SPORTFOUR	BZ7HS-10	3579			---	---	.030"
1993-1975	70 HP		BZ7HS-10	3579			---	---	.030"
2001-1994	70 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2005-2002	70 HP		BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
1965-1960	75 HP	V4	BR6S	3522			---	---	.030"
1967-1966	80 HP		BR6S	3522			---	---	.030"
2001-1979	80 HP	80 JET CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1967-1966	80 HP	STARFIRE	B8S	3810			---	---	.030"
1980-1968	85 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1993-1986	85 HP		BZ7HS-10	3579			---	---	.030"
1995-1994	85 HP	V4 BACKTROLLER	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1997-1979	88 HP	CV4 SPL	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1965-1964	90 HP		BR6S	3522			---	---	.030"
2006	90 HP		BZ7HS-10	3579			---	---	.030"
2002-2001	90 HP	CARBURATED	BZ7HS-10	3579			---	---	.030"
1998-1979	90 HP	CV4	BZ7HS-10	3579			---	---	.040"
2005	90 HP	GLSOB, PX4SOR	BKR6E #	6962			BKR6EIX	6418	.036"
2004	90 HP	GLSRM, PLSRR, PXSRS	BZ7HS-10	3579			---	---	.030"
2003	90 HP	GLSTA, PLSTC	BZ7HS-10	3579			---	---	.030"
2000-1995	90 HP	LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1998	90 HP	LV4 F.F.I.	---	---			PZFR6H	7696	.032"
2005	90 HP	PL4SOR, PLSOA, PXSOC	BZ7HS-10	3579			---	---	.030"
2004	90 HP	PL4SRC, PX4SRC, PL4SRC, PX4SRC	BKR6E #	6962			BKR6EIX	6418	.036"
2003	90 HP	PL4STC, PX4STC, PL4STC, PX4STC	BKR6E #	6962			BKR6EIX	6418	.036"
1998-1994	90 HP	TURBOJET CV4	BZ7HS-10	3579			---	---	.040"
1966	100 HP		BR6S	3522			---	---	.030"
2001-1984	100 HP	COM	BUHXW-1	5526			---	---	---
1972-1967	100 HP	STARFIRE	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1980-1979	100 HP	V4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1997	105 HP	COM LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003-1993	105 HP	LV6 105 JET	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1997-1979	110 HP	CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1997-1979	112 HP	CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1970-1969	115 HP		BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
1979-1973	115 HP		BZ7HS-10	3579			---	---	.030"
1985	115 HP		BUHXW-1	5526			---	---	---
1993-1986	115 HP		BZ7HS-10	3579			---	---	.030"
2006	115 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1984-1975	115 HP	COM	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1998-1979	115 HP	CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2002-1995	115 HP	FAST STRIKE LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2005	115 HP	GLSOB, PLSOR, PXSOR, WPLSOC	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2004	115 HP	GLSRC, PLSRC, PXSRM, WPLSRS	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2003	115 HP	GLSTA, PLSTS, PXSTS	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2004	115 HP	L4SRC, 5X4SRC, PL4SRC, PX4SRC	BKR6E #	6962			BKR6EIX	6418	.036"
2003	115 HP	L4STS, X4STS, PL4STS, PX4STS	BKR6E #	6962			BKR6EIX	6418	.036"
1998	115 HP	LV4 F.F.I.	---	---			PZFR6H	7696	.032"
2005	115 HP	PL450R, PX450R	BKR6E #	6962			BKR6EIX	6418	.036"
1998-1994	115 HP	TURBOJET CV4	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
1968-1967	115 HP	X-115	BUZHW	2147			---	---	---
2003-1985	120 HP	LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1972-1971	125 HP	125 COM	BR7HS	4122	BR7HS BLYB	1445	BR7HIX	7067	.030"
2003-1985	130 HP	LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1984-1973	135 HP	STARFLITE	BUHXW-1	5526			---	---	---
1984-1973	140 HP		BUHXW-1	5526			---	---	---
2005-2003	140 HP		BKR6E #	6962			BKR6EIX	6418	.036"
2002-1985	140 HP	LV4	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2006-2003	150 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2002	150 HP	CARBURATED	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1998-1993	150 HP	COM LV6	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1987-1978	150 HP	CV6	BUHXW-1	5526			---	---	---
1991-1988	150 HP	CV6	BZ7HS-10	3579			---	---	.030"
2001-1991	150 HP	FAST STRIKE LV6	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1998-1997	150 HP	LV6 F.F.I.	---	---			PZFR6H	7696	.032"
1992-1989	155 HP	COM CV6	BUZ8H	7447			---	---	---
1987-1978	155 HP	CV6	BUZ8H	7447			---	---	---
1987-1977	175 HP		BUHXW-1	5526			---	---	---
2006-1999	175 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1991-1988	175 HP	CV6	BZ7HS-10	3579			---	---	.030"
2002-1991	175 HP	FAST STRIKE LV6	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1998	175 HP	LV6 F.F.I.	---	---			PZFR6H	7696	.032"
1987-1977	185 HP		BUZ8H	7447			---	---	---
1993-1990	185 HP		BZ7HS-10	3579			---	---	.030"
1983-1976	200 HP		BUZ8H	7447			---	---	---
2005-2004	200 HP		BKR6E #	6962			BKR6EIX	6418	.036"
1992	200 HP	COM	BUZ8H	7447			---	---	---
1998-1993	200 HP	COM	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2004	200 HP	LV6 DI	---	---			PZFR6H	7696	.032"
1993-1986	200 HP	V6	BZ7HS-10	3579			---	---	.030"
2003-1994	200 HP	VENOM LV6	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2005-2004	225 HP		BKR6E #	6962			BKR6EIX	6418	.036"
2004	225 HP	LV6 DI	---	---			PZFR6H	7696	.032"
1993-1986	225 HP	V6	BZ7HS-10	3579			---	---	.030"
2001-1994	225 HP	VENOM LV6	BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
1985-1978	235 HP		BUHXW-1	5526			---	---	---
1997-1985	250 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
2001-1999	250 HP	LV6	BUHXW-1	5526			---	---	---
1988-1985	275 HP		BPR7HS	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.030"
1997-1985	300 HP		BPZ8HS-10	3133	BPZ8HS-10 BLYB	1506	---	---	.030"
<b>MARINER</b>									
	2 HP	2A 646	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
	2 HP	2B 6A1, FROM M-011601	BR5HS #	3722			---	---	.024"
	2 HP	2B 6A1, TO M-011600	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
2002-1990	2.5 HP	2.5	BPR6HS-10 #	2633			---	---	.040"
	2.5 HP	FOURSTROKE 2.5, 2.5 CARB	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2002-1993	3.3 HP	3.3	BPR6HS-10 #	2633			---	---	.040"
	3.5 HP	3.5 642, FROM M-23741	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
	3.5 HP	3.5 642, FROM ML-41691	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
	3.5 HP	3.5 642, TO M-23740	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	3.5 HP	3.5 642, TO ML-41690	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	3.5 HP	FOURSTROKE 3.5, 3.5 CARB	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2002-1990	4 HP	4 14mm Plug	BPR7HS-10 #	1092			---	---	.040"
2002-1999	4 HP	4 12mm Plug	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	4 HP	4A 6E0	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	4 HP	FOURSTROKE 4, SAILMATE	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2002-1990	5 HP	5 14mm Plug	BPR7HS-10 #	1092			---	---	.040"
2002-1999	5 HP	5 12mm Plug	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	5 HP	5A 661	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	5 HP	5C 6E3	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	5 HP	FOURSTROKE 5	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2002-1992	6 HP	6 14mm Plug	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-2000	6 HP	6 12mm Plug	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1992-1987	6 HP		BP8HS-10 #	3823			---	---	.040"
	6 HP	6B 678	BR5HS #	3722			---	---	.024"
	6 HP	6C 6H8	BB7HS-10 #	2129			---	---	.040"
	6 HP	6D 6H6	B7HS-10 #	2129			---	---	.040"
	6 HP	FOURSTROKE 6	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	8 HP	8	DCPR6E	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2002-1993	8 HP	8	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
1999-1995	8 HP	8.0 BODENSEE	CR6HS #	7023			CR6HIX	7274	.028"
	8 HP	8A 647	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
	8 HP	8A 655	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
	8 HP	8B 677	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	8 HP	8C 6G1	B7HS-10 #	2129			---	---	.040"
2000-1991	8 HP	K8 680	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
	8 HP	MARATHON 8 677	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	8 HP	W8 677	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	9.9 HP	9.9	DCPR6E	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1994-1987	9.9 HP		BP8HS-10 #	3823			---	---	.040"
2000-1995	9.9 HP	9.9 14mm Plug	BP8HS-15 #	6729			---	---	.060"
2002-1995	9.9 HP	9.9 10mm Plug	CR6HS #	7023			CR6HIX	7274	.028"
2002-1999	9.9 HP	9.9 12mm Plug	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	9.9 HP	9.9C 682	B7HS-10 #	2129			---	---	.040"
	9.9 HP	9.9C 682	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1998-1991	10 HP	10 MAGNUM	BP8HS-15 #	6729			---	---	.060"
2002-1991	10 HP	10 MARATHON	BP8HS-15 #	6729			---	---	.060"
2002-1998	15 HP	15	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	15 HP	15 CARB	DCPR6E	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1992	15 HP	15 MARATHON	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-1997	15 HP	15 MARATHON	BP8HS-15 #	6729			---	---	.060"
	15 HP	15 MARATHON 684	B7HS-10 #	2129			---	---	.040"
	15 HP	15 MARATHON 684	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	15 HP	15A 651	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	15 HP	15C 684	B7HS-10 #	2129			---	---	.040"
	15 HP	15C 684	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2002-1989	15 HP	2-CYL	BP8HS-15 #	6729			---	---	.060"
	15 HP	K15 669	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
2000-1984	15 HP	K15 6K4	B7HS-10 #	2129			---	---	.040"
	15 HP	K15 6M7	B7HS-10 #	2129			---	---	.040"
	15 HP	W15 662	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	15 HP	W15 684	B7HS-10 #	2129			---	---	.040"
2002-1985	20 HP	20	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	20 HP	20 CARB	DCPR6E	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2001-1995	20 HP	20 JET	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	20 HP	20A 653	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
	20 HP	20C 6A9	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2001-1985	25 HP	25	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-1998	25 HP	25	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
1992	25 HP	25	BU8H #	6431	BU8H BLYB	1473	---	---	---
	25 HP	25 EFI	DCPR6E	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2002-1993	25 HP	25 MARATHON	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	25 HP	25 MARATHON 648, 694, 695	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	25 HP	25A, 25B, 25C	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2000-1997	25 HP	K25 6A4	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	25 HP	W25, WS25	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	28 HP	28 664	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2000-1995	30 HP	30 14mm Plug	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-1999	30 HP	30 12mm Plug	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
1997-1995	30 HP	30 JET	BUZHW-2 #	2173			---	---	---
2001-1998	30 HP	30 JET	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-1995	30 HP	30 MARATHON	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	30 HP	30 MARATHON 698B	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1994-1992	30 HP	30A 689	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1993-1992	30 HP	W30 689A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1993-1992	30 HP	W30 689B	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1997-1989	40 HP	40	BUZHW-2 #	2173			---	---	---
2001-1998	40 HP	40 14mm Plug	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2001-1998	40 HP	40 12mm Plug	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2002-1995	40 HP	40 MARATHON	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
1994-1985	40 HP	40 MARATHON 6F6	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	40 HP	40A 676A	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
	40 HP	40B 675B	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1994-1981	40 HP	40C 6E9	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
2000-1984	40 HP	K40 6F5	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	40 HP	W40 676A	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
	40 HP	W40 6F6	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1989-1986	45 HP	45	BUZHW-2 #	2173			---	---	---
1998-1995	45 HP	45 BODENSEE	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2001-1995	45 HP	45 JET	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	48 HP	48 670	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	48 HP	W48 670	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1985-1980	50 HP	50	BUZHW-2 #	2173			---	---	---
1990-1986	50 HP	50	BUZHW #	2147			---	---	---
2001-1991	50 HP	50 14mm Plug	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2001-1995	50 HP	50 12mm Plug	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2002-1991	55 HP	55 MARATHON	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	55 HP	M55 663, FROM E-004041	B8HS-10 #	5126			---	---	.038"
	55 HP	M55 663, FROM EL-315379	B8HS-10 #	5126			---	---	.038"
	55 HP	M55 663, TO E-004040	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
	55 HP	M55 663, TO EL-315378	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
	55 HP	MARATHON 55 663	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
	55 HP	W55 663	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1990-1984	60 HP	60	BUZHW #	2147			---	---	---
2001-1991	60 HP	60	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	60 HP	60 675, FROM L-302051	B8HS-10 #	5126			---	---	.038"
	60 HP	60 675, FROM S-000781	B8HS-10 #	5126			---	---	.038"
	60 HP	60 675, TO L-302050	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
	60 HP	60 675, TO S-000780	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
	60 HP	60 6F0	B8HS-10 #	5126			---	---	.038"
1999-1995	60 HP	60 BIG FOOT	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-1995	60 HP	60 MARATHON	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2001-1995	65 HP	65 JET	BUZHW-2 #	2173			---	---	---
	70 HP	70	BUZHW #	2147			---	---	---
	75 HP	75	BUZHW-2 #	2173			---	---	---
2001-1987	75 HP	75	BUZHW-2 #	2173			---	---	---
2000	75 HP	75	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2002-1991	75 HP	75 MARATHON	BUZHW-2 #	2173			---	---	---
	75 HP	OPTIMAX 75, DFI	---	---			IZFR5J #	5899	.032"
	80 HP	80	BUZHW-2 #	2173			---	---	---
2001-1995	80 HP	80 JET	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	85 HP	85	BUZHW-2 #	2173			---	---	---
	90 HP	90	BUZHW #	2147			---	---	---
2001-1987	90 HP	90	BUZHW-2 #	2173			---	---	---
2000	90 HP	90	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
	90 HP	OPTIMAX 90, DFI	---	---			IZFR5J #	5899	.032"
1999-1988	100 HP	100	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
1999-1995	105 HP	105 JET	BU8H #	6431	BU8H BLYB	1473	---	---	---
1988-1977	115 HP	115	BUZHW #	2147			---	---	---
2002-1989	115 HP	115	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2004-2000	115 HP	115 OPTIMAX	---	---			PZFR5F-11 #	4363	.040"
2011-2006	115 HP	OPTIMAX 115, 115 DFI	---	---			IZFR5J #	5899	.032"
2002-1994	125 HP	125	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	125 HP	OPTIMAX 125	---	---			IZFR5J #	5899	.032"
1999-1986	135 HP	135	BU8H #	6431	BU8H BLYB	1473	---	---	---
2001-2000	135 HP	135	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	---	---	.040"
1999-1986	135 HP	135 MARATHON	BU8H #	6431	BU8H BLYB	1473	---	---	---
2002-1998	135 HP	135 OPTI MAX	---	---			PZFR5F-11 #	4363	.040"
1993-1986	135 HP	135 WORK	BU8H #	6431	BU8H BLYB	1473	---	---	---
	135 HP	VERADO 135	---	---			ILFR6G-E #	4212	.032"
	140 HP	140	BUZHW #	2147			---	---	---
1999-1995	140 HP	140 JET	BU8H #	6431	BU8H BLYB	1473	---	---	---
1999-1979	150 HP	150	BU8H #	6431	BU8H BLYB	1473	---	---	---
2001-2000	150 HP	150	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	---	---	.040"
1999-1997	150 HP	150 EFI	BU8H #	6431	BU8H BLYB	1473	---	---	---
2001-2000	150 HP	150 EFI	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	---	---	.040"
	150 HP	150 MAGNUM	BU8H #	6431	BU8H BLYB	1473	---	---	---
1997-1993	150 HP	150 MAGNUM EFI	BU8H #	6431	BU8H BLYB	1473	---	---	---
1991-1988	150 HP	150 MAGNUM II	BU8H #	6431	BU8H BLYB	1473	---	---	---
1997-1992	150 HP	150 MAGNUM III	BU8H #	6431	BU8H BLYB	1473	---	---	---
2002-1997	150 HP	150 OPTI MAX	---	---			PZFR5F-11 #	4363	.040"
	150 HP	150 WORK	BU8H #	6431	BU8H BLYB	1473	---	---	---
	150 HP	OPTIMAX 150	---	---			IZFR5G #	5887	.032"
	150 HP	VERADO 150	---	---			ILFR6G-E #	4212	.032"
1998-1978	175 HP	175	BU8H #	6431	BU8H BLYB	1473	---	---	---
2000	175 HP	175 EFI	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	---	---	.040"
1999-1998	175 HP	175 EFI	BU8H #	6431	BU8H BLYB	1473	---	---	---
1997-1991	175 HP	175 MAGNUM EFI	BU8H #	6431	BU8H BLYB	1473	---	---	---
1994-1989	175 HP	175 SKI	BU8H #	6431	BU8H BLYB	1473	---	---	---

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	175 HP	VERADO 175	----	----			ILFR6G-E #	4212	.032"
2000	200 HP	200	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	----	----	.040"
1999-1979	200 HP	200	BU8H #	6431	BU8H BLYB	1473	----	----	----
1997	200 HP	200 DFI 3.0L	----	----			PZFR6H	7696	.040"
2000	200 HP	200 EFI	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	----	----	.040"
1999-1998	200 HP	200 EFI	BU8H #	6431	BU8H BLYB	1473	----	----	----
1997-1989	200 HP	200 MAGNUM EFI	BU8H #	6431	BU8H BLYB	1473	----	----	----
2004-1997	200 HP	200 OPTI MAX	----	----			PZFR5F-11 #	4363	.040"
1997	200 HP	200 SUPER MAGNUM EFI	BU8H #	6431	BU8H BLYB	1473	----	----	----
2011-2006	200 HP	200 VERADO	----	----			ILFR6G-E #	4212	.032"
2011-2006	200 HP	200 VERADO	----	----			ILFR6G-E #	4212	.032"
	200 HP	OPTIMAX 200	----	----			IZFR5G #	5887	.032"
1988-1987	220 HP	220 MAGNUM EFI	BU8H #	6431	BU8H BLYB	1473	----	----	----
	225 HP	225 EFI	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2004-1995	225 HP	225 EFI/CARB	BR8HS	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
2004-1998	225 HP	225 OPTI MAX DFI	----	----			PZFR5F-11 #	4363	.040"
2011-2006	225 HP	225 VERADO	----	----			ILFR6G-E #	4212	.032"
2001-1994	225 HP	3.0L MARATHON	BR8HS	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
	225 HP	OPTIMAX 225	----	----			IZFR5G #	5887	.032"
1999-1997	225 HP	SUPER MAGNUM EFI	BU8H #	6431	BU8H BLYB	1473	----	----	----
1990-1989	250 HP	250 3.4L	BU8H #	6431	BU8H BLYB	1473	----	----	----
2001-1996	250 HP	250 MAGNUM EFI	BR8HS	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
2011-2006	250 HP	250 PRO VERADO	----	----			ILFR6G-E #	4212	.032"
	250 HP	VERADO 250	----	----			ILFR6G-E #	4212	.032"
1998-1995	260 HP	2.5L EFI	BU8H #	6431	BU8H BLYB	1473	----	----	----
1997	265 HP	2.5L EFI	BU8H #	6431	BU8H BLYB	1473	----	----	----
1994-1991	275 HP	275	BU8H #	6431	BU8H BLYB	1473	----	----	----
2011-2006	275 HP	275 VERADO	----	----			ILFR6G-E #	4212	.032"
1998-1997	300 HP	2.5L DRAG EFI V6	BUZHW	2147			----	----	----
1998-1997	300 HP	3.0L SUPER MAGNUM EFI	BZ7HS-10	3579			----	----	.030"
2011-2006	300 HP	300 PRO VERADO	----	----			ILFR6G-E #	4212	.032"
	300 HP	VERADO 300	----	----			ILFR6G-E #	4212	.032"

## MERCURY

	2 HP	FOURSTROKE 2, CARB	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2005-1993	2.5 HP	CLASSIC	BP6HS-10 #	6326			----	----	.040"
	2.5 HP	FOURSTROKE 2.5, CARB	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1992-1990	3 HP	3	BPR6HS-10 #	2633			----	----	.040"
2006-1993	3.3 HP	3.3	BPR6HS-10 #	2633			----	----	.040"
1985-1983	3.5 HP	3.5	BP6HS-10 #	6326			----	----	.040"
	3.5 HP	FOURSTROKE 3.5, CARB	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1982-1980	3.6 HP	3.6	BP7HS-10 #	7829			----	----	.040"
1966-1964	3.9 HP	39	BR6S	3522			----	----	.025"
1968-1967	3.9 HP	39	BR5HS #	3722			----	----	.024"
1982-1980	4 HP	4	BPR7HS #	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.028"
1987-1986	4 HP	4	BUZHW-2 #	2173			----	----	----
1969	4 HP	40	BR5HS #	3722			----	----	.024"
1974-1970	4 HP	40	BUZHW-2 #	2173			----	----	----
1979-1976	4 HP	40 GNAT	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.030"
2005-1988	4 HP	CLASSIC	BPR7HS-10 #	1092			----	----	.040"
2014-2000	4 HP	FOURSTROKE 4	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1985-1975	4.5 HP	4.5	BUZHW-2 #	2173			----	----	----
2006-1988	5 HP	CLASSIC	BPR7HS-10 #	1092			----	----	.040"
2014-2000	5 HP	FOURSTROKE 5	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2003-1986	6 HP	6	BPZ8H-N-10 #	4495			----	----	.040"
1966-1963	6 HP	60	BR6S	3522			----	----	.025"
1968-1967	6 HP	60	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
2014-2000	6 HP	FOURSTROKE 6	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1969	7.5 HP	75	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
1973-1970	7.5 HP	75	BUZHW-2 #	2173			----	----	----
1974	7.5 HP	75	BUZHW #	2147			----	----	----
1978-1975	7.5 HP	75	BUZHW-2 #	2173			----	----	----
1985-1979	7.5 HP	75	B9HS-10 #	3626			----	----	.040"
2000-1986	8 HP	8	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	----	----	.040"
2006-2001	8 HP	8	BPZ8H-N-10 #	4495			----	----	.040"
2006-1995	8 HP	8.0 BODENSEE	CR6HS #	7023			CR6HIX	7274	.028"
2014-2005	8 HP	FOURSTROKE 8	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1985-1979	9.8 HP	9.8	B9HS-10 #	3626			----	----	.040"
1969-1967	9.8 HP	110	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1973-1970	9.8 HP	110	BUZHW-2 #	2173			----	----	----
1974	9.8 HP	110	BUZHW #	2147			----	----	----
1978-1975	9.8 HP	110	BUZHW-2 #	2173			----	----	----
1966-1960	9.8 HP	100, 110	BR6S	3522			----	----	.025"
1994-1986	9.9 HP	9.9	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	----	----	.040"
1998-1995	9.9 HP	9.9 10mm Plug	CR6HS #	7023			CR6HIX	7274	.028"
2000-1995	9.9 HP	9.9 14mm Plug	BP8HS-15 #	6729			----	----	.060"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2006-2001	9.9 HP	9.9	BPZ8HS-15 #	3180			---	---	.060"
	9.9 HP	FOURSTROKE 9.9, 232CC, SERIAL 0H000058 AND 0H016909	CR6HS #	7023			CR6HIX	7274	.028"
2002-1999	9.9 HP	FOURSTROKE 9.9, 323CC EFI	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2014-2001	9.9 HP	FOURSTROKE 9.9, BIGFOOT, PROKICKER, 209CC	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2002-2001	10 HP	10 SEA PRO	BPZ8HS-15 #	3180			---	---	.060"
2000-1991	10 HP	10, XR10, SEA PRO	BP8HS-15 #	6729			---	---	.060"
	10 HP	FOURSTROKE 10, CARB	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1961-1960	15 HP	150	BR6S	3522			---	---	.025"
2000-1989	15 HP	15, SEA PRO	BP8HS-15 #	6729			---	---	.060"
2006-2001	15 HP	15, SEA PRO	BPZ8HS-15 #	3180			---	---	.060"
	15 HP	FOURSTROKE 15, BIGFOOT, EFI	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	15 HP	FOURSTROKE 15, PROKICKER, BIGFOOT, SEAPRO, CARB	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1985-1981	18 HP	18, XD	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
1966-1960	20 HP	200	BR6S	3522			---	---	.025"
1969-1967	20 HP	200	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1980-1970	20 HP	20, 200	BUZHW-2 #	2173			---	---	---
2000-1986	20 HP	20, JET	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2006-2001	20 HP	20, JET, SEA PRO	BPZ8H-N-10 #	4495			---	---	.040"
	20 HP	FOURSTROKE 20, CARB	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1962	25 HP	250	BR6S	3522			---	---	.025"
2006-2001	25 HP	25, 2-STROKE	BPZ8H-N-10 #	4495			---	---	.040"
2000-1980	25 HP	25, SEA PRO, SUPER 15	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2000-1980	25 HP	25XD, 2-STROKE	BUHW #	2622	BUHW BLYB	1474	---	---	---
	25 HP	FOURSTROKE 25 JET, SEAPRO, 3-CYL EFI	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	25 HP	FOURSTROKE 25, 3-CYL EFI	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	25 HP	FOURSTROKE 25, CARB	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
1997-1995	30 HP	30	BUZHW-2 #	2173			---	---	---
1960	30 HP	300	BR6S	3522			---	---	.025"
2000-1995	30 HP	30, SEA PRO, JET	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-2001	30 HP	30, SEA PRO, JET	BPZ8H-N-10 #	4495			---	---	.040"
	30 HP	FOURSTROKE 30, 3-CYL CARB	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	30 HP	FOURSTROKE 30, 3-CYL EFI	DCPR7E	3932			DCPR7EIX	6046	.032"
1991-1984	35 HP	35	BUZHW #	2147			---	---	---
1966-1961	35 HP	350	B7S	3710			---	---	.025"
1969-1967	35 HP	350	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1997-1988	40 HP	40	BUZHW-2 #	2173			---	---	---
2000-1998	40 HP	40	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-2001	40 HP	40	BPZ8H-N-10 #	4495			---	---	.040"
1961-1960	40 HP	400	BR6S	3522			---	---	.025"
2011-2007	40 HP	40 EFI, BIGFOOT	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1983-1970	40 HP	40, 400, 402	BUZHW #	2147			---	---	---
2006-2001	40 HP	40, BIG FOOT	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2000-1995	40 HP	40, SEA PRO	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2006-2001	40 HP	40, SEA PRO	BPZ8H-N-10 #	4495			---	---	.040"
	40 HP	FOURSTROKE 40, 4-CYL CARB	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	40 HP	FOURSTROKE 40, BIGFOOT, 3-CYL EFI	DCPR7E	3932			DCPR7EIX	6046	.032"
	40 HP	FOURSTROKE 40, ITALY, 3-CYL CARB	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	40 HP	FOURSTROKE 40, JET, SEAPRO, 4-CYL EFI	DCPR7E	3932			DCPR7EIX	6046	.032"
1989-1986	45 HP	45	BUZHW-2 #	2173			---	---	---
1962	45 HP	450	BR6S	3522			---	---	.025"
2000-1995	45 HP	45 JET	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2002-2001	45 HP	45 JET	BPZ8H-N-10 #	4495			---	---	.040"
	45 HP	FOURSTROKE 45 BODENSEE, 4-CYL CARB	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
1990-1986	50 HP	50	BUZHW #	2147			---	---	---
2000-1991	50 HP	50	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2006-2001	50 HP	50	BPZ8H-N-10 #	4495			---	---	.040"
1966-1961	50 HP	500	B7S	3710			---	---	.025"
1985-1978	50 HP	50, 500	BUZHW-2 #	2173			---	---	---
1977-1967	50 HP	500, 500SS	BUZHW #	2147			---	---	---
1967	50 HP	500M, 500S	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	50 HP	FOURSTROKE 50, BIGFOOT, 4-CYL CARB	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	50 HP	FOURSTROKE 50, BIGFOOT, 4-CYL EFI	DCPR7E	3932			DCPR7EIX	6046	.032"
2000-1992	55 HP	55 SEA PRO	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2006-2001	55 HP	55 SEA PRO	BPZ8H-N-10 #	4495			---	---	.040"
1990-1984	60 HP	60	BUZHW #	2147			---	---	---
1960	60 HP	600	BR6S	3522			---	---	.025"
2006-2001	60 HP	60, SEA PRO	BPZ8H-N-10 #	4495			---	---	.040"
2000-1991	60 HP	60, SEA PRO, BIGFOOT	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
	60 HP	FOURSTROKE 60, BIGFOOT, 4-CYL CARB	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	60 HP	FOURSTROKE 60, BIGFOOT, SEAPRO, FORMULA 60, 4-CYL EFI	DCPR7E	3932			DCPR7EIX	6046	.032"
1966-1963	65 HP	650	B7S	3710			---	---	.025"
1976-1972	65 HP	650	BUZHW #	2147			---	---	---

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2002-1995	65 HP	65 JET	BUZHW-2 #	2173			---	---	---
1967	65 HP	650S	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1971-1968	65 HP	650S	BUZHW #	2147			---	---	---
1971-1967	65 HP	650SS	BUH	2422			---	---	---
	65 HP	FOURSTROKE 65 JET, 4-CYL EFI	ZFR5F #	7558			---	---	.032"
1989-1987	70 HP	70	BUZHW-2 #	2173			---	---	---
1961-1960	70 HP	700	BR6S	3522			---	---	.025"
1978-1977	70 HP	700	BUZHW #	2147			---	---	---
1983-1979	70 HP		BUZHW #	2147			---	---	---
2006-2001	75 HP	75	BUZHW-2 #	2173			---	---	---
2001	75 HP	75 JET	BUZHW-2 #	2173			---	---	---
2000-1987	75 HP	75, SEA PRO	BUZHW-2 #	2173			---	---	---
1986-1984	75 HP	75XD	BUZHW-2 #	2173			---	---	---
	75 HP	FOURSTROKE 75 SEAPRO, 4-CYL EFI	ZFR5F #	7558			---	---	.032"
	75 HP	FOURSTROKE 75, 1.7L, SERIAL 1B366823 AND UP	LFR4A-E #	6499			---	---	.032"
	75 HP	FOURSTROKE 75, BODANESE, 1596CC, SERIAL 0G960500-1B366822	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
	75 HP	OPTIMAX 75, 1.5L DFI	---	---			IZFR5J #	5899	.032"
1983-1979	80 HP	80	BUZHW-2 #	2173			---	---	---
1989-1987	80 HP	80	BUZHW-2 #	2173			---	---	---
1961-1960	80 HP	800	B7S	3710			---	---	.025"
1972-1969	80 HP	800	BUZHW #	2147			---	---	---
1978	80 HP	800	BUZHW-2 #	2173			---	---	---
2000-1995	80 HP	80 JET	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2001	80 HP	80 JET	BPZ8H-N-10 #	4495			---	---	.040"
	80 HP	FOURSTROKE 80 JET, 4-CYL EFI	ZFR5F #	7558			---	---	.032"
	80 HP	FOURSTROKE 80, 1.7L, SERIAL 1B366823 AND UP	LFR4A-E #	6499			---	---	.032"
	80 HP	OPTIMAX 80 JET, 1.5L 3-CYL DFI	---	---			IZFR5J #	5899	.032"
1964-1962	85 HP	850	B7S	3710			---	---	.025"
1977-1973	85 HP	850	BUZHW #	2147			---	---	---
2006-1987	90 HP	90	BUZHW-2 #	2173			---	---	---
1965	90 HP	900	B7S	3710			---	---	.025"
1986-1978	90 HP	90900	BUZHW #	2147			---	---	---
	90 HP	FOURSTROKE 90 SEAPRO, 4-CYL EFI	ZFR5F #	7558			---	---	.032"
	90 HP	FOURSTROKE 90, 1.7L, SERIAL 1B366823 AND UP	LFR4A-E #	6499			---	---	.032"
	90 HP	FOURSTROKE 90, 1596CC, SERIAL 0G960500-1B366822	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
	90 HP	OPTIMAX 90, 1.5L DFI	---	---			IZFR5J #	5899	.032"
1966	95 HP	950	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1967-1966	95 HP	950SS	BUZHW #	2147			---	---	---
1999-1988	100 HP	100	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
1964-1962	100 HP	1000	B7S	3710			---	---	.025"
1969-1968	100 HP	1000BP, 1000SS	BUZHW #	2147			---	---	---
	100 HP	FOURSTROKE 100, 1.7L, SERIAL 1B366823 AND UP	LFR4A-E #	6499			---	---	.032"
1998-1995	105 HP	105 JET	BU8H #	6431	BU8H BLYB	1473	---	---	---
1966	110 HP	1100	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1967-1966	110 HP	1100SS	BUZHW #	2147			---	---	---
2000-1989	115 HP	115	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2006-2001	115 HP	115	BPZ8H-N-10 #	4495			---	---	.040"
1988-1970	115 HP	115, 1150	BUZHW #	2147			---	---	---
	115 HP	FOURSTROKE 115, 1.7L, SERIAL 0T178500-1B366822	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
	115 HP	FOURSTROKE 115, 1.7L, SERIAL 1B366823-2B094995	LFR4A-E #	6499			---	---	.032"
	115 HP	FOURSTROKE 115, SEAPRO, PRO XS, 1.7L, SERIAL 2B095049 AND UP	ZFR5F #	7558			---	---	.032"
	115 HP	OPTIMAX 115, PRO XS, 1.5L DFI	---	---			IZFR5J #	5899	.032"
	115 HP	OPTIMAX V-115, DFI	---	---			IZFR5G #	5887	.032"
2000-1994	125 HP	125	BP8H-N-10 #	4838	BP8H-N-10 BLYB	1505	---	---	.040"
2006-2001	125 HP	125	BPZ8H-N-10 #	4495			---	---	.040"
1969-1968	125 HP	1250 BP, SS	BUZHW #	2147			---	---	---
2011-2010	125 HP	OPTIMAX 1.5L	---	---			IZFR5J #	5899	.032"
	125 HP	OPTIMAX 125, 1.5L DFI	---	---			IZFR5J #	5899	.032"
1999-1986	135 HP	135	BU8H #	6431	BU8H BLYB	1473	---	---	---
2002-2000	135 HP	135	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	---	---	.040"
1971-1970	135 HP	1350	BUZHW #	2147			---	---	---
	135 HP	FOURSTROKE 135, 4-CYL EFI	ZFR5F #	7558			---	---	.032"
	135 HP	OPTIMAX V-135, 2.5L DFI	---	---			IZFR5G #	5887	.032"
	135 HP	VERADO 135, 4-CYL SUPERCHARGED EFI	---	---			ILFR6G-E #	4212	.032"
1980-1979	140 HP	140	BUZHW #	2147			---	---	---
1978-1970	140 HP	1400	BUZHW #	2147			---	---	---
1999-1995	140 HP	140 JET	BU8H #	6431	BU8H BLYB	1473	---	---	---
1977-1973	150 HP	1500	BUZHW #	2147			---	---	---
2002-1978	150 HP	150, 1500, PROMAX, SUPERMAG	BU8H #	6431	BU8H BLYB	1473	---	---	---
2006-2000	150 HP	150, EFI, XRI, XR-2, XR-4	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	---	---	.040"
	150 HP	FOURSTROKE 150, SEAPRO, 4-CYL EFI	ZFR5F #	7558			---	---	.032"

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	150 HP	OPTIMAX 150XS PRO, 2.5L SERIAL # 1B690542 AND UP	---	---			IZFR6J #	4462	.040"
	150 HP	OPTIMAX V-150, 2.5L DFI	---	---			IZFR5G #	5887	.032"
	150 HP	VERADO 150, 4-CYL SUPERCHARGED EFI	---	---			ILFR6G-E #	4212	.032"
1978-1976	175 HP	1750	BUZHW #	2147			---	---	---
2001-2000	175 HP	175 EFI MFI	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	---	---	.040"
2002-1991	175 HP	175 XRI	BU8H #	6431	BU8H BLYB	1473	---	---	---
1999-1979	175 HP	175, EFI	BU8H #	6431	BU8H BLYB	1473	---	---	---
	175 HP	OPTIMAX 175XS PRO, SERIAL # 1B516339 AND UP	---	---			IZFR6J #	4462	.040"
	175 HP	OPTIMAX 3.0L DSI, DIESEL SPARK IGNITION	---	---			IZFR6J #	4462	.040"
	175 HP	OPTIMAX V-175, 2.5L DFI	---	---			IZFR5G #	5887	.032"
	175 HP	VERADO 175, 4-CYL SUPERCHARGED EFI	---	---			ILFR6G-E #	4212	.032"
	185 HP	OPTIMAX JP 3.0L, MULTI-FUEL ENGINE	---	---			IZFR6J #	4462	.040"
1978	200 HP	2000	BUZHW #	2147			---	---	---
2006	200 HP	200 EFI	BR8HS	4322	BR8HS BLYB	1466	BR8HIX	7001	.040"
1997	200 HP	200 SST, EFI, SS, XR2	BUZHW #	2147			---	---	---
2002-1989	200 HP	200 XRI	BUZ8H #	7447			---	---	---
1999-1979	200 HP	200, EFI	BU8H #	6431	BU8H BLYB	1473	---	---	---
2006-2000	200 HP	200, EFI, MFI, PROMAX	BPZ8HS-10 #	3133	BPZ8HS-10 BLYB	1506	---	---	.040"
	200 HP	200XS SST, RACING 2-STROKE	---	---			IZFR7M #	4214	.032"
1997	200 HP	DUECE HIGH EFI	BUZ8H #	7447			---	---	---
1997	200 HP	F1 EFI	BUZHW #	2147			---	---	---
	200 HP	OPTIMAX 200, DFI	---	---			IZFR5G #	5887	.032"
	200 HP	OPTIMAX 200XS, 2.5L DFI	---	---			IZFR5G #	5887	.032"
	200 HP	OPTIMAX 3.0L DTS	---	---			IZFR5G #	5887	.032"
	200 HP	OPTIMAX 3.0L PRO XS, 3.0L DFI	---	---			IZFR6J #	4462	.040"
	200 HP	VERADO 200, PRO VERADO, 4 & 6 CYL SUPER-CHARGED EFI	---	---			ILFR6G-E #	4212	.032"
1988-1987	220 HP	V-220 LASER	BUZ8H #	7447			---	---	---
1981-1980	225 HP	225	BU8H #	6431	BU8H BLYB	1473	---	---	---
2006-1995	225 HP	225 EFI, SEA PRO, XRI, WORK	BR8HS	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1997-199	225 HP	225, WORK	BPZ8H-N-10 #	4495	---	---	---	---	.040"
	225 HP	FOURSTROKE 225, SERIAL # 0T653945 AND UP	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
	225 HP	OPTIMAX 225, 3.0L DFI	---	---			IZFR5G #	5887	.032"
	225 HP	OPTIMAX 225XS PRO, SPORT XS, XS	---	---			IZFR6J #	4462	.040"
	225 HP	VERADO 225, 6-CYL SUPERCHARGED EFI	---	---			ILFR6G-E #	4212	.032"
1996-1995	245 HP	2.5L	BU8H #	6431	BU8H BLYB	1473	---	---	---
1990-1989	250 HP	250 3.4L	BU8H #	6431	BU8H BLYB	1473	---	---	---
2006-1995	250 HP	250 XRI EFI	BR8HS	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
	250 HP	OPTIMAX 250, SERIAL # 1B528615 AND UP	---	---			IZFR6J #	4462	.040"
	250 HP	OPTIMAX 250XS PRO, SPORT XS, 250XS, 2.5XS	---	---			IZFR6J #	4462	.040"
	250 HP	VERADO 250, PRO VERADO, 6-CYL SUPERCHARGED EFI	---	---			ILFR6G-E #	4212	.032"
1997-1995	260 HP	2.5L OFFSHORE	BU8H #	6431	BU8H BLYB	1473	---	---	---
1997	265 HP	2.5L SS DRAG EFI	BU8H #	6431	BU8H BLYB	1473	---	---	---
1994-1989	275 HP	275	BU8H #	6431	BU8H BLYB	1473	---	---	---
	275 HP	VERADO 275, 6-CYL SUPERCHARGED EFI	---	---			ILFR6G-E #	4212	.032"
2002	275 HP	EFI SPORT, SS, OFFSHORE	BZ7HS-10	3579			I--	--	.030"
1983-1981	300 HP	300	BU8H #	6431	BU8H BLYB	1473	---	---	---
1997	300 HP	2.5L S3000 EFI	BU8H #	6431	BU8H BLYB	1473	---	---	---
1988-1984	300 HP	3.4L	BU8H #	6431	BU8H BLYB	1473	---	---	---
	300 HP	OPTIMAX 300XS 3.2L DFI "STROKER", RACING 2-STROKE	---	---			IZFR7M #	4214	.032"
	300 HP	OPTIMAX 300XS EFI	---	---			IZFR5J #	5899	.032"
	300 HP	PROMAX 300, SUPERMAGNUM 300, 2-STROKE 3.0L EFI	BR8HS	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
	300 HP	VERADO 300, PRO VERADO, 6-CYL SUPERCHARGED EFI	---	---			ILFR6G-E #	4212	.032"
	350 HP	VERADO 350, PRO VERADO, Sci, 6-CYL SUPER-CHARGED EFI	---	---			ILFR6G-E #	4212	.032"
	400 HP	VERADO 400, 6-CYL SUPERCHARGED EFI	---	---			ILFR6G-E #	4212	.032"
<b>NISSAN</b>									
2008-2007	2 HP	NSF 2A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1985	2.5 HP	NS 2.5A	BP6HS-10 #	6326			---	---	.040"
2007-1997	2.5 HP	NS 2.5A	BPR6HS-10 #	2633			---	---	.040"
	2.5 HP	NS 2.5A2	BP6HS-10 #	6326			---	---	.040"
	2.5 HP	NSF 2.5B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1992-1985	3.5 HP	NS 3.5A	BP6HS-10 #	6326			---	---	.040"
2006-1997	3.5 HP	NS 3.5A	BPR6HS-10 #	2633			---	---	.040"
2007	3.5 HP	NS 3.5A2	BPR6HS-10 #	2633			---	---	.040"
1996-1993	3.5 HP	NS 3.5B	BP6HS-10 #	6326			---	---	.040"
2007-1997	3.5 HP	NS 3.5B	BPR6HS-10 #	2633			---	---	.040"
	3.5 HP	NS 3.5B2	BP6HS-10 #	6326			---	---	.040"
2008-2007	3.5 HP	NSF 3.5A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	3.5 HP	NSF 3.5B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2008-2007	4 HP	NSF 4	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2000	4 HP	NSF 4A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	4 HP	NSF 4A2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	4 HP	NSF 4B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1985	5 HP	NS 5	BP7HS-10 #	7829			---	---	.040"
2008-1997	5 HP	NS 5B	BPR7HS-10 #	1092			---	---	.040"
	5 HP	NS 5BS	BPR7HS-10 #	1092			---	---	.040"
2008-2007	5 HP	NSF 5	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-1999	5 HP	NSF 5A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	5 HP	NSF 5A2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	5 HP	NSF 5B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	5 HP	NSF 5C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2007	6 HP	NSF 6	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	6 HP	NSF 6A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	6 HP	NSF 6A2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	6 HP	NSF 6B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	6 HP	NSF 6C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1986-1985	8 HP	NS 8A	BP7HS-10 #	7829			---	---	.040"
1996-1987	8 HP	NS 8B	BP7HS-10 #	7829			---	---	.040"
2008-1997	8 HP	NS 8B	BPR7HS-10 #	1092			---	---	.040"
2008-2004	8 HP	NSF 8A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	8 HP	NSF 8A3	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-1998	9.8 HP	NS 9.8B	BPR7HS-10 #	1092			---	---	.040"
	9.8 HP	NSF 9.8A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	9.8 HP	NSF 9.8A3	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1985	9.9 HP	NS 9.9B	B7HS-10 #	2129			---	---	.040"
2007-1997	9.9 HP	NS 9.9B	BR7HS-10 #	1098			---	---	.040"
2008-2004	9.9 HP	NS 9.9C	B7HS-10 #	2129			---	---	.040"
2007-2004	9.9 HP	NS 9.9D	B7HS-10 #	2129			---	---	.040"
	9.9 HP	NS 9.9D2	BP7HS-10 #	7829			---	---	.040"
2008-2000	9.9 HP	NSF 9.9A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	9.9 HP	NSF 9.9B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	9.9 HP	NSF 9.9B2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1987-1985	12 HP	NS 12	B7HS-10 #	2129			---	---	.040"
1994	12 HP	NS 12	B7HS-10 #	2129			---	---	.040"
2007-2004	12 HP	NS 12C	BR7HS-10 #	1098			---	---	.040"
1992-1985	15 HP	NS 15B	B7HS-10 #	2129			---	---	.040"
2007-2004	15 HP	NS 15B	BR7HS-10 #	1098			---	---	.040"
1996-1993	15 HP	NS 15C	BP7HS-10 #	7829			---	---	.040"
1999-1997	15 HP	NS 15C	BPR7HS-10 #	1092			---	---	.040"
2008-2004	15 HP	NS 15C	B7HS-10 #	2129			---	---	.040"
2001-2000	15 HP	NS 15D	BPR7HS-10 #	1092			---	---	.040"
2007-2004	15 HP	NS 15D	BR7HS-10 #	1098			---	---	.040"
	15 HP	NS 15D2	B7HS-10 #	2129			---	---	.040"
2008-2004	15 HP	NSF 15A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	15 HP	NSF 15B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	15 HP	NSF 15B2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	15 HP	NSF 15C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1993	18 HP	NS 18	B7HS-10 #	2129			---	---	.040"
1999-1997	18 HP	NS 18	BR7HS-10 #	1098			---	---	.040"
1992-1985	18 HP	NS 18C	B7HS-10 #	2129			---	---	.040"
2007-2004	18 HP	NS 18C	B7HS-10 #	2129			---	---	.040"
2008-2004	18 HP	NS 18D	B7HS-10 #	2129			---	---	.040"
2001-2000	18 HP	NS 18E	BPR7HS-10 #	1092			---	---	.040"
2007-2004	18 HP	NS 18E	BR7HS-10 #	1098			---	---	.040"
	18 HP	NS 18E2	B7HS-10 #	2129			---	---	.040"
2008-2004	18 HP	NSF 18B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	18 HP	NSF 18B2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	20 HP	NS F20C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1986	25 HP	NS 25	B7HS-10 #	2129			---	---	.040"
2007-1997	25 HP	NS 25C	BR7HS-10 #	1098			---	---	.032"
	25 HP	NS 25C3	B7HS-10 #	2129			---	---	.040"
2008-2004	25 HP	NSF 25A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2007	25 HP	NSF 25B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1986	30 HP	NS 30A	B7HS-10 #	2129			---	---	.040"
2007-1997	30 HP	NS 30A	BR7HS-10 #	1098			---	---	.040"
	30 HP	NS 30A4	B7HS-10 #	2129			---	---	.040"
2008-2004	30 HP	NSF 30A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2007	30 HP	NSF 30B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1995-1994	35 HP	NS 35C	B7HS-10 #	2129			---	---	.040"
1992-1985	40 HP	NS 40C	B7HS-10 #	2129			---	---	.040"
2007-2004	40 HP	NS 40C	BR7HS-10 #	1098			---	---	.040"
1996-1991	40 HP	NS 40D	B7HS-10 #	2129			---	---	.040"
2006-1997	40 HP	NS 40D	BR7HS-10 #	1098			---	---	.032"
2007	40 HP	NS 40D2	BR7HS-10 #	1098			---	---	.032"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	40 HP	NS 40D2	B7HS-10 #	2129			---	---	.040"
2008-2004	40 HP	NSD 40A	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	40 HP	NSD 40B	---	---			PZFR6H #	7696	.032"
	40 HP	NSD 40B2	---	---			IZFR6Q	91234	.032"
1995-1994	45 HP	NS 45A	B8HS-10 #	5126			---	---	.040"
1992-1985	50 HP	NS 50C	B8HS-10 #	5126			---	---	.040"
1996-1991	50 HP	NS 50D	B8HS-10 #	5126			---	---	.040"
2006-1997	50 HP	NS 50D	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2007	50 HP	NS 50D	B8HS-10 #	5126			---	---	.040"
2007	50 HP	NS 50D2	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2004	50 HP	NSD 50A	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	50 HP	NSD 50B	---	---			PZFR6H #	7696	.032"
	50 HP	NSD 50B2	---	---			IZFR6Q	91234	.032"
2008-2004	50 HP	W50B	---	---			PZFR6H #	7696	.032"
1986-1985	60 HP	NS 55	B8HS-10 #	5126			---	---	.040"
1992-1987	60 HP	NS 60A	B8HS-10 #	5126			---	---	.040"
1995-1993	60 HP	NS 60B	B8HS-10 #	5126			---	---	.040"
2007-2004	60 HP	NS 60B	B8HS-10 #	5126			---	---	.040"
2007-2004	60 HP	NS 60C	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	70 HP	NS 70A	B8HS-10 #	5126			---	---	.040"
1996-1986	70 HP	NS 70B	B8HS-10 #	5126			---	---	.040"
1999-1997	70 HP	NS 70B	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2007-2004	70 HP	NS 70B	B8HS-10 #	5126			---	---	.040"
2007-2000	70 HP	NS 70C	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2004	70 HP	NSD 70A	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
	70 HP	NSD 70A2	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	70 HP	NSD 70B	---	---			PZFR6H #	7696	.032"
	75 HP	NSD 75C2	---	---			IZFR6Q	91234	.032"
1996-1987	90 HP	NS 90A	B8HS-10 #	5126			---	---	.040"
1996-1987	90 HP	NS 90A	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2004	90 HP	NSD 90A	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
	90 HP	NSD 90A2	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	90 HP	NSD 90B	---	---			PZFR6H #	7696	.032"
	90 HP	NSD 90C2	---	---			IZFR6Q	91234	.032"
2008-2007	115 HP	NSD 115A	---	---			IZFR5J #	5899	.032"
	115 HP	NSD 115A2	---	---			IZFR5J #	5899	.032"
1996-1990	120 HP	NS 120A	B8HS-10 #	5126			---	---	.040"
2007-1997	120 HP	NS 120A	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1996-1990	140 HP	NS 140A	B8HS-10 #	5126			---	---	.040"
2006-1997	140 HP	NS 140A2	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
<b>SUZUKI</b>									
1989-1977	2 HP	DT2	B-4H #	4110			---	---	.028"
1997-1990	2 HP	DT2	BR5HS #	3722			---	---	.024"
1997-1993	2.2 HP	DT2.2	BR5HS #	3722			---	---	.024"
	2.5 HP	DF2.5	CR6HSA #	2983			CR6HIX	7274	.028"
1984-1979	3.5 HP	DT3.5	BPR6HS #	7022			BPR6HIX	4085	.028"
2010-2003	4 HP	DF4	BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
2011	4 HP	DF4	CPR6EA-9 #	6899			---	---	.036"
1987-1985	4 HP	DT4	BPR6HS #	7022			BPR6HIX	4085	.028"
1998-1988	4 HP	DT4	BPR5HS #	6222			---	---	.028"
1979-1977	4 HP	DT4D	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
1979-1977	4.5 HP	DT4.5	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
1983-1977	5 HP	DT5	BPR6HS #	7022			BPR6HIX	4085	.028"
2002-1999	5 HP	DT5	BPR7HS-10 #	1092			---	---	.040"
1985-1984	6 HP	DT6	BPR6HS #	7022			BPR6HIX	4085	.028"
2002-1986	6 HP	DT6	BR6HS-10 #	1090			---	---	.040"
2010-2003	6 HP	DF6	BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
2011	6 HP	DF6	CPR6EA-9 #	6899			---	---	.036"
1979-1977	7.5 HP	DT7.5	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
2011-2010	8 HP	DF8A	CR6E #	6965			---	---	.032"
1987-1977	8 HP	DT8	BPR6HS #	7022			BPR6HIX	4085	.028"
1997-1988	8 HP	DT8C	BR6HS-10 #	1090			---	---	.040"
1979-1977	9 HP	DT9	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
2004-1996	9.9 HP	DF9.9	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2010-2005	9.9 HP	DF9.9	BKR6E #	6962			BKR6EIX	6418	.036"
2011	9.9 HP	DF9.9	CPR6EA-9 #	6899			---	---	.036"
	9.9 HP	DF9.9A	CR6E #	6965			---	---	.032"
	9.9 HP	DF9.9AE	CR6E #	6965			---	---	.032"
	9.9 HP	DF9.9B, EFI	CPR6EA-9 #	6899			---	---	.036"
	9.9 HP	DF9.9TH	CPR6EA-9 #	6899			---	---	.036"
1982-1977	9.9 HP	DT9.9	BR7HS-10 #	1098			---	---	.040"
1985-1983	9.9 HP	DT9.9	B7HS-10 #	2129			---	---	.040"
1988-1986	9.9 HP	DT9.9	BR6HS-10 #	1090			---	---	.040"
1991-1988	9.9 HP	DT9.9C	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
1997-1992	9.9 HP	DT9.9C	BR6HS-10 #	1090			---	---	.040"
2004-1996	15 HP	DF15	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2010-2005	15 HP	DF15	BKR6E #	6962			BKR6EIX	6418	.036"
2011	15 HP	DF15	CPR6EA-9 #	6899			---	---	.036"
	15 HP	DF15A, EFI	CPR6EA-9 #	6899			---	---	.036"
1988-1983	15 HP	DT15	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1991-1989	15 HP	DT15C	B7HS-10 #	2129			---	---	.040"
1997-1992	15 HP	DT15C	BR7HS-10 #	1098			---	---	.040"
1982-1977	16 HP	DT16	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	20 HP	DF20A, EFI	CPR6EA-9 #	6899			---	---	.036"
1988-1977	20 HP	DT20	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2006-2000	25 HP	DF25	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2011-2006	25 HP	DF25	BKR6E #	6962			BKR6EIX	6418	.036"
	25 HP	DF25A, EFI	CPR6EA-9 #	6899			---	---	.036"
	25 HP	DF25E	BKR6E #	6962			BKR6EIX	6418	.036"
	25 HP	DF25R	BKR6E #	6962			BKR6EIX	6418	.036"
1988-1977	25 HP	DT25	B7HS-10 #	2129			---	---	.040"
1992-1989	25 HP	DT25C	B7HS-10 #	2129			---	---	.040"
2000-1993	25 HP	DT25C	BR7HS-10 #	1098			---	---	.040"
2007-2000	30 HP	DF30	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	30 HP	DF30A, EFI	CPR6EA-9 #	6899			---	---	.036"
1987-1983	30 HP	DT30	B7HS-10 #	2129			---	---	.040"
1992-1988	30 HP	DT30C	B7HS-10 #	2129			---	---	.040"
1998-1993	30 HP	DT30C	BR7HS-10 #	1098			---	---	.040"
1982-1980	35 HP	DT35	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1989-1987	35 HP	DT35	B8HS-10 #	5126			---	---	.040"
2010-1999	40 HP	DF40	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2011	40 HP	DF40A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1985-1980	40 HP	DT40	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1993-1984	40 HP	DT40C	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1998-1994	40 HP	DT40C	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1993-1989	40 HP	PU40	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1995-1994	40 HP	PU40	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2005	46 HP	DF46	BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
2010-1999	50 HP	DF50	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	50 HP	DF50A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	50 HP	DF50AV	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1984-1977	50 HP	DT50	B8HS-10 #	5126			---	---	.040"
1995-1985	55 HP	DT55	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1997-1996	55 HP	DT55	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1993-1989	55 HP	PU55	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1995-1994	55 HP	PU55	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2009-1998	60 HP	DF60	BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
	60 HP	DF60A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	60 HP	DF60AV	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1984-1983	60 HP	DT60	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1982-1978	65 HP	DT65	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1995-1985	65 HP	DT65	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1997-1996	65 HP	DT65	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-1998	70 HP	DF70	BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
	70 HP	DF70A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2007-2005	70 HP	DF70THL, TL	BPR6ES SOLID #	4008			BPR6EIX	6637	.036"
1996-1983	75 HP	DT75	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.034"
1996	75 HP	DT75	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2011-2009	80 HP	DF80A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1993-1979	85 HP	DT85	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
2000-1994	85 HP	DT85	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1993-1989	85 HP	PU85	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
1997-1994	85 HP	PU85	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2001	90 HP	DF90	BKR6E #	6962			BKR6EIX	6418	.036"
	90 HP	DF90A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1990-1989	90 HP	DT90	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1995-1991	90 HP	DT90	BR8HCS-10 #	1157			---	---	.040"
1997-1996	90 HP	DT90	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2010	99 HP	DF99AR	CR6E #	6965			---	---	.032"
2010	99 HP	DF99TH	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2010-2009	100 HP	DF100	BKR6E #	6962			BKR6EIX	6418	.036"
	100 HP	DF100A	BKR6E #	6962			BKR6EIX	6418	.036"
1990-1989	100 HP	DT100	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1995-1991	100 HP	DT100	BR8HCS-10 #	1157			---	---	.040"
2000-1996	100 HP	DT100	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2011-2001	115 HP	DF115	BKR6E #	6962			BKR6EIX	6418	.036"
	115 HP	DF115A	BKR6E #	6962			BKR6EIX	6418	.036"
	115 HP	DF115SS	BKR6E #	6962			BKR6EIX	6418	.036"
1990-1981	115 HP	DT115	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
1997-1991	115 HP	DT115	BR8HCS-10 #	1157			---	---	.040"
2000-1998	115 HP	DT115	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
2001-1996	115 HP	DT115S EFI	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2011-2002	140 HP	DF140	BKR6E #	6962			BKR6EIX	6418	.036"
	140 HP	DF140A, 14003F-310001 to 14003F-51XXXX	BKR6E #	6962			BKR6EIX	6418	.036"
1995-1981	140 HP	DT140	B8HS-10 #	5126			---	---	.040"
1996	140 HP	DT140	BR8HCS-10 #	1157			---	---	.040"
2000-1997	140 HP	DT140	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.036"
2001-1997	140 HP	DT140 EFI	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1995-1989	140 HP	PU140	BR8HCS-10 #	1157			---	---	.040"
1997-1996	140 HP	PU140	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	150 HP	DF150	BKR6E #	6962			BKR6EIX	6418	.036"
	150 HP	DF150SS	BKR6E #	6962			BKR6EIX	6418	.036"
1997-1986	150 HP	DT150	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2003-1987	150 HP	DT150 EFI	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2003-1987	150 HP	DT150S EFI	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1988-1986	150 HP	DT150SS	B8HS-10 #	5126			---	---	.040"
1992-1989	150 HP	DT150SS	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	175 HP	DF175	BKR6E #	6962			BKR6EIX	6418	.036"
1992-1987	175 HP	DT175	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	200 HP	DF200	BKR6E #	6962			BKR6EIX	6418	.036"
	200 HP	DF200A, 20003F-510001 to 20003F-51XXXX	LKR6E #	92650			---	---	.036"
2000-1986	200 HP	DT200	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	225 HP	DF225	BKR6E #	6962			BKR6EIX	6418	.036"
2003-1987	225 HP	DT225	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	250 HP	DF250	BKR6E #	6962			BKR6EIX	6418	.036"
	250 HP	DF250AP, 25003P-310001 to 25003P-51XXXX	BKR6E #	6962			BKR6EIX	6418	.036"
	250 HP	DF250SS, 25004F-310001 to 25004F-51XXXX	BKR6E #	6962			BKR6EIX	6418	.036"
2011-2007	300 HP	DF300	BKR6E #	6962			BKR6EIX	6418	.036"
	300 HP	DF300AP, 30002P-210001 to 30002P-51XXXX	BKR6E #	6962			BKR6EIX	6418	.036"
<b>TANAKA</b>									
1989-1972	1.2 HP	TOB 12	BMR6A SOLID #	4002			---	---	.028"
1998-1981	1.2 HP	TOB 120	BMR6A SOLID #	4002			---	---	.028"
1990-1981	1.75 HP	TOB 175	BMR6A SOLID #	4002			---	---	.028"
1979-1973	2.5 HP	TOB 25	BMR6A SOLID #	4002			---	---	.028"
1999-1981	3 HP	TOB 300	BMR6A SOLID #	4002			---	---	.028"
1988-1984	5.5 HP	TOB 550	BPR7HS #	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.028"
1988-1984	5.5 HP	TOB 550L	BPR7HS #	6422	BPR7HS BLYB	1503	BPR7HIX	5944	.028"
1992	HP	BUMBLE BEE	BM6F #	6221	BM6F BLYB	6720	---	---	.028"
<b>TOHATSU</b>									
2008-2007	2 HP	MFS2A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1980	2.5 HP	M2.5A	BP6HS-10 #	6326			---	---	.040"
2007-1997	2.5 HP	M2.5A	BPR6HS-10 #	2633			---	---	.040"
	2.5 HP	M2.5A2	BP6HS-10 #	6326			---	---	.040"
	2.5 HP	M2.5B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	2.5 HP	MFS2.5B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1990-1986	3.5 HP	M3.5A	BP6HS-10 #	6326			---	---	.040"
2007-1997	3.5 HP	6.5	BPR6HS-10 #	2633			---	---	.040"
	3.5 HP	M3.5A2	BP6HS-10 #	6326			---	---	.040"
1996-1991	3.5 HP	M3.5B	BP6HS-10 #	6326			---	---	.040"
2007-1997	3.5 HP	M3.5B	BPR6HS-10 #	2633			---	---	.040"
	3.5 HP	M3.5B2	BP6HS-10 #	6326			---	---	.040"
	3.5 HP	MFS3.5A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	3.5 HP	MFS3.5B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2000	4 HP	MFS4A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	4 HP	MFS4A2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	4 HP	MFS4B, MFS4C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1983-1978	5 HP	M5A2	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1996-1983	5 HP	M5B	BP7HS-10 #	7829			---	---	.040"
2007-1997	5 HP	M5B	BPR7HS-10 #	1092			---	---	.040"
2007	5 HP	M5BS	BPR7HS-10 #	1092			---	---	.040"
	5 HP	MFS5	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-1999	5 HP	MFS5A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	5 HP	MFS5A2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	5 HP	MFS5B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	5 HP	MFS5C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	6 HP	MFS6A, MFS6B, MFS6C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	6 HP	MFS6A2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1976-1974	8 HP	B13B	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1986-1976	8 HP	M8A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1996-1986	8 HP	M8B	BP7HS-10 #	7829			---	---	.040"
2007-1997	8 HP	M8B	BPR7HS-10 #	1092			---	---	.040"
	8 HP	MFS8A3	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	8 HP	MFS8B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2008-2004	8 HP	MSF8A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1976-1974	9.8 HP	B18D	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1985-1976	9.8 HP	M9.8A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2007-2000	9.8 HP	M9.8B	BPR7HS-10 #	1092					.040"
	9.8 HP	MFS9.8A3	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	9.8 HP	MFS9.8B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	9.8 HP	MSF9.8A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1986-1982	9.9 HP	M9.9B	B7HS-10 #	2129					.040"
1994-1986	9.9 HP	M9.9B2	B7HS-10 #	2129					.040"
2007-1994	9.9 HP	M9.9C	B7HS-10 #	2129					.040"
2007-1996	9.9 HP	M9.9D	B7HS-10 #	2129					.040"
	9.9 HP	M9.9D2	BR7HS-10 #	1098					.040"
2008-2000	9.9 HP	MFS9.9A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	9.9 HP	MFS9.9B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	9.9 HP	MFS9.9B2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1976-1974	12 HP	B18C	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1980-1976	12 HP	M12A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1982-1980	12 HP	M12B	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1986-1982	12 HP	M12C	B7HS-10 #	2129					.040"
2007	12 HP	M12C	B7HS-10 #	2129					.040"
1982-1980	15 HP	M15A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1986-1982	15 HP	M15B	B7HS-10 #	2129					.040"
2007	15 HP	M15B	BR7HS-10 #	1098					.040"
1994-1986	15 HP	M15B2	B7HS-10 #	2129					.040"
1996-1994	15 HP	M15C	BPR7HS-10 #	7829					.040"
2007-2004	15 HP	M15C	B7HS-10 #	2129					.040"
2001-1997	15 HP	M15D	BPR7HS-10 #	1092					.040"
2007-2004	15 HP	M15D	B7HS-10 #	2129					.040"
	15 HP	M15D2	B7HS-10 #	2129					.040"
2008-2000	15 HP	MFS15A	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	15 HP	MFS15B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	15 HP	MFS15B2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	15 HP	MFS15C 12mm Plugs	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	15 HP	MFS15C 14mm Plugs	B7HS-10 #	2129					.040"
	15 HP	MFS15D	B7HS-10 #	2129					.040"
	15 HP	MFS15D2	BR7HS-10 #	1098					.040"
1983-1980	18 HP	M18A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1986-1982	18 HP	M18C	B7HS-10 #	2129					.040"
2007	18 HP	M18C	BR7HS-10 #	1098					.040"
1994-1986	18 HP	M18C2	B7HS-10 #	2129					.040"
2007-1994	18 HP	M18D	B7HS-10 #	2129					.040"
1999-1996	18 HP	M18E	BR7HS-10 #	1098					.040"
2001-2000	18 HP	M18E	BPR7HS-10 #	1092					.040"
2007-2004	18 HP	M18E	B7HS-10 #	2129					.040"
	18 HP	M18E2	B7HS-10 #	2129					.040"
2008-2004	18 HP	MFS18B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
2008-2004	18 HP	MFS18B2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1976-1974	20 HP	B30C	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1980-1976	20 HP	M20A2	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	20 HP	MFS20C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	20 HP	MFS20D	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1976-1973	25 HP	B40A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1983-1976	25 HP	M25A2	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1985-1979	25 HP	M25B	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1986-1984	25 HP	M25C	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2007-1986	25 HP	M25C2	B7HS-10 #	2129					.040"
	25 HP	M25C2	BPR7HS-10 #	1092					.040"
2007-1997	25 HP	M25C3	BR7HS-10 #	1098					.040"
2001-2000	25 HP	M25C4	BR7HS-10 #	1098					.040"
	25 HP	M25D	B7HS-10 #	2129					.040"
	25 HP	MD25 JET	---	---			IZFR6Q	91234	.032"
2008-2004	25 HP	MFS25A, B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	25 HP	MFS25C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1981-1979	30 HP	M30A	B7HS-10 #	2129					.040"
1986-1981	30 HP	M30A2	B7HS-10 #	2129					.040"
1996-1986	30 HP	M30A3	B7HS-10 #	2129					.040"
1999-1997	30 HP	M30A3	BR7HS-10 #	1098					.040"
2007-2004	30 HP	M30A3	B7HS-10 #	2129					.040"
2007-2000	30 HP	M30A4	BR7HS-10 #	1098					.040"
2008-2004	30 HP	MFS30A, B	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
	30 HP	MFS30C	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1980-1976	35 HP	M35A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1982-1979	35 HP	M35B	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1990-1984	35 HP	M35C	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	35 HP	MD35 JET	---	---			IZFR6Q	91234	.032"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	35 HP	MD35B2 JET	---	---			IZFR6Q	91234	.032"
1976-1973	40 HP	M40A	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2006-1983	40 HP	M40C	B7HS-10 #	2129			---	---	.040"
2007	40 HP	M40C	BR7HS-10 #	1098			---	---	.040"
1996-1989	40 HP	M40D	B7HS-10 #	2129			---	---	.040"
2006-1997	40 HP	M40D	BR7HS-10 #	1098			---	---	.040"
2007	40 HP	M40D	B7HS-10 #	2129			---	---	.040"
2007-2004	40 HP	M40D2	BR7HS-10 #	1098			---	---	.040"
2008-2004	40 HP	MD40A	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	40 HP	MD40B	---	---			PZFR6H #	7696	.032"
	40 HP	MD40B2	---	---			IZFR6Q	91234	.032"
	42 HP	MFS4A2	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1991-1986	50 HP	M50C	B8HS-10 #	5126			---	---	.040"
2006-2004	50 HP	M50C	B8HS-10 #	5126			---	---	.040"
	50 HP	M50C	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1996-1990	50 HP	M50D	B8HS-10 #	5126			---	---	.040"
2006-1997	50 HP	M50D	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2007	50 HP	M50D	B8HS-10 #	5126			---	---	.040"
	50 HP	M50D	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	50 HP	M50D2	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2004	50 HP	MD50A	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	50 HP	MD50B	---	---			PZFR6H #	7696	.032"
	50 HP	MD50B2	---	---			IZFR6Q	91234	.032"
2008-2004	50 HP	W50	---	---			PZFR6H #	7696	.032"
	52 HP	MFS5A2S	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1983-1980	55 HP	M55A	B8HS-10 #	5126			---	---	.040"
1986-1980	55 HP	M55B	B8HS-10 #	5126			---	---	.040"
2006-2004	55 HP	M55B	B8HS-10 #	5126			---	---	.040"
	60 HP	BFT60A	LMAR6C-9 #	1679			---	---	.036"
	60 HP	BFTW60A	LMAR6C-9 #	1679			---	---	.036"
	60 HP	M60A	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2007-1992	60 HP	M60B	B8HS-10 #	5126			---	---	.040"
	60 HP	M60C	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	62 HP	MFS6A2S	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1986-1982	70 HP	M70A	B8HS-10 #	5126			---	---	.040"
	70 HP	M70A	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1992-1986	70 HP	M70A2	B8HS-10 #	5126			---	---	.040"
2006-2004	70 HP	M70A2	B8HS-10 #	5126			---	---	.040"
1996-1992	70 HP	M70B	B8HS-10 #	5126			---	---	.040"
2006-1997	70 HP	M70B	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2007	70 HP	M70B	B8HS-10 #	5126			---	---	.040"
2007-2000	70 HP	M70C	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2004	70 HP	MD70A2	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	70 HP	MD70B	---	---			PZFR6H #	7696	.032"
	75 HP	MD75C2	---	---			IZFR6Q	91234	.032"
	83 HP	MFS8A3	DCPR6E #	3481	DCPR6E BLYB	96530	DCPR6EIX	8196	.036"
1996-1987	90 HP	M90A	B8HS-10 #	5126			---	---	.040"
2007-1997	90 HP	M90A	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2008-2004	90 HP	MD90A	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	90 HP	MD90A2	ZFR6F-11	4291	ZFR6F-11 BLYB	90760	ZFR6FIX-11	6441	.044"
2008-2004	90 HP	MD90B	---	---			PZFR6H #	7696	.032"
	90 HP	MD90C2	---	---			IZFR6Q	91234	.032"
1995-1993	115 HP	M115A	B8HS-10 #	5126			---	---	.040"
2006-2004	115 HP	M115A	B8HS-10 #	5126			---	---	.040"
	115 HP	M115A	---	---			IZFR5J #	5899	.032"
1996-1995	115 HP	M115A2	B8HS-10 #	5126			---	---	.040"
2001-1997	115 HP	M115A2	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2006-2004	115 HP	M115A2	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	115 HP	MD115A	---	---			PZFR6H #	7696	.032"
	115 HP	MD115A2	---	---			IZFR5J #	5899	.032"
1995-1990	120 HP	M120A	B8HS-10 #	5126			---	---	.040"
2006-2004	120 HP	M120A	B8HS-10 #	5126			---	---	.040"
1996-1995	120 HP	M120A2	B8HS-10 #	5126			---	---	.040"
1999-1997	120 HP	M120A2	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2007	120 HP	M120A2	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1995-1989	140 HP	M140A	B8HS-10 #	5126			---	---	.040"
1996-1995	140 HP	M140A2	B8HS-10 #	5126			---	---	.040"
2006-1997	140 HP	M140A2	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	200 HP	BFT200A	---	---			IZFR6K-11E	6748	.044"
	225 HP	BFT225A	---	---			IZFR6K-11E	6748	.044"
<b>YAMAMHA</b>									
2002-1984	2 HP	2	BR5HS #	3722			---	---	.024"
2013-2003	2.5 HP	F2.5	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"
2010-2006	2.5 HP	F2.5MSH	BR6HS #	3922	BR6HS BLYB	1507	BR6HIX	3419	.028"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2002-1988	3 HP	3	BR6HS-10 #	1090			---	---	.040"
1999-1984	4 HP	4	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2005-1999	4 HP	F4	BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.024"
	4 HP	F4	CR6HSB #	6500			---	---	.028"
2002-1984	5 HP	5	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2000-1986	6 HP	6	B7HS-10 #	2129			---	---	.040"
2005-2001	6 HP	F6	BR6HS-10 #	1090			---	---	.040"
	6 HP	F6	CR6HSB #	6500			---	---	.028"
2010-2006	6 HP	F6M, F6A	BR6HS-10 #	1090			---	---	.040"
2005-1986	8 HP	8	B7HS-10 #	2129			---	---	.040"
2010-2006	8 HP	8MSH	B7HS-10 #	2129			---	---	.040"
	8 HP	F8	BR6HS-10 #	1090			---	---	.040"
2010-2006	8 HP	F8C, M	BR6HS-10 #	1090			---	---	.040"
2010-2001	8 HP	T8	BR6HS-10 #	1090			---	---	.040"
2005-1984	9 HP	9.9	B7HS-10 #	2129			---	---	.040"
2004-1985	9 HP	F9.9	CR6HS #	7023			CR6HIX	7274	.028"
2004-1985	9 HP	F9.9 COLD CLIMATES	CR4HSA #	2430			---	---	.024"
2005	9 HP	F9.9	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2004-1985	9 HP	FT9.9	CR6HS #	7023			CR6HIX	7274	.028"
2004-1985	9 HP	FT9.9 COLD CLIMATES	CR4HSA #	2430			---	---	.024"
2005	9 HP	FT9.9	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2004-1985	9 HP	T9.9	CR6HS #	7023			CR6HIX	7274	.028"
2004-1985	9 HP	T9.9 COLD CLIMATES	CR4HSA #	2430			---	---	.024"
2005	9.9 HP	9.9D	B7HS-10 #	2129			---	---	.040"
2010-2006	9.9 HP	9.9MSH	B7HS-10 #	2129			---	---	.040"
	9.9 HP	F9.9	BR6HS-10 #	1090			---	---	.040"
2005	9.9 HP	F9.9D	CR6HSA #	2983			CR6HIX	7274	.028"
2010-2006	9.9 HP	F9.9ELR, MLH, MSH	CR6HSA #	2983			CR6HIX	7274	.028"
2010-2006	9.9 HP	F9.9ELR2, ELR2K	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2013-2006	9.9 HP	F9.9F	BR6HS-10 #	1090			---	---	.040"
2010-2006	9.9 HP	F9.9MLH2, MLH2K	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2010-2006	9.9 HP	F9.9MSH2, MSH2K	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2005	9.9 HP	T9.9D	CR6HSA #	2983			CR6HIX	7274	.028"
2010-2006	9.9 HP	T9.9ELH, ELR, EXH	CR6HSA #	2983			CR6HIX	7274	.028"
2010-2006	9.9 HP	T9.9ELH2, ELH2K	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2010-2006	9.9 HP	T9.9ELR2, ELR2K	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2010-2006	9.9 HP	T9.9EXH2, EXH2K	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2013-2011	9.9 HP	T9.9G	BR6HS-10 #	1090			---	---	.040"
2005-1984	15 HP	15	B7HS-10 #	2129			---	---	.040"
2010-2006	15 HP	15MSH	B7HS-10 #	2129			---	---	.040"
2004-1998	15 HP	F15	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2013-2006	15 HP	F15C	DPR6EB-9 #	3108			---	---	.036"
2010-2006	15 HP	F15E, M, P	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
1997-1996	20 HP	20	B7HS-10 #	2129			---	---	.040"
1996	20 HP	C20	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	20 HP	F20	DPR6EB-9 #	3108			---	---	.036"
2010-1984	25 HP	25	B7HS-10 #	2129			---	---	.040"
1997-1990	25 HP	C25	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
	25 HP	F25	DPR6EB-9 #	3108			---	---	.036"
2013-2006	25 HP	F25L, S	DPR6EB-9 #	3108			---	---	.036"
2010-2006	25 HP	F25E, M, T	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2005-2001	25 HP	T25	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2013-2006	25 HP	T25LA	DPR6EB-9 #	3108			---	---	.036"
2010-2006	25 HP	T25TLR	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
1997-1987	28 HP	28	B7HS-10 #	2129			---	---	.040"
1986-1984	30 HP	30	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2002-1987	30 HP	30	B7HS-10 #	2129			---	---	.040"
1992-1989	30 HP	C30	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1997-1993	30 HP	C30	B8HS-10 #	5126			---	---	.040"
2005-2001	30 HP	F30	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	30 HP	F30, 3-CYL	DPR6EB-9 #	3108			---	---	.036"
2010-2006	30 HP	F30TLR	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
1997-1987	35 HP	35	B8HS-10 #	5126			---	---	.040"
2005-1984	40 HP	40	B7HS-10 #	2129			---	---	.040"
2010-2006	40 HP	40TLR	B7HS-10 #	2129			---	---	.040"
1996-1989	40 HP	C40	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
2002-1997	40 HP	C40	B7HS-10 #	2129			---	---	.040"
2005-1999	40 HP	F40	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
	40 HP	F40, 3-CYL	DPR6EB-9 #	3108			---	---	.036"
2013-2006	40 HP	F40A,J, L	DPR6EB-9 #	3108			---	---	.036"
2000-1995	48 HP	E48	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
2005-1984	50 HP	50	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2010-2006	50 HP	50TLR	B8HS-10 #	5126			---	---	.040"
1998	50 HP	C50	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2001-1999	50 HP	C50	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2004-1995	50 HP	F50	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2005	50 HP	F50 EFI	DPR6EB-9 #	3108			---	---	.036"
	50 HP	F50, 4-CYL	DPR6EB-9 #	3108			---	---	.036"
2013-2006	50 HP	F50,TLR	DPR6EB-9 #	3108			---	---	.036"
1996-1987	50 HP	P50	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2004-1995	50 HP	T50	DPR6EA-9 #	5531	DPR6EA-9 BLYB	92482	---	---	.036"
2005	50 HP	T50 EFI	DPR6EB-9 #	3108			---	---	.036"
2013-2006	50 HP	T50,TLR	DPR6EB-9 #	3108			---	---	.036"
2004-1996	50 HP	T50LRD	DPR6EB-9 #	3108			---	---	.036"
1995-1989	55 HP	C55	B8HS-10 #	5126			---	---	.040"
2005-2001	60 HP	60	B8HS-10 #	5126			---	---	.040"
2010-2006	60 HP	60TLR	B8HS-10 #	5126			---	---	.040"
2002-1996	60 HP	C60	B8HS-10 #	5126			---	---	.040"
2000-1995	60 HP	E60	B8HS-10 #	5126			---	---	.040"
2004-2002	60 HP	F60	DPR5EA-9 #	2887			---	---	.036"
	60 HP	F60,TJR, TLR, 4-CYL EFI	DPR6EB-9 #	3108			---	---	.036"
1999-1991	60 HP	P60	B8HS-10 #	5126			---	---	.040"
2004-2003	60 HP	T60	DPR5EA-9 #	2887			---	---	.036"
2005	60 HP	T60 EFI	DPR6EB-9 #	3108			---	---	.036"
2013-2006	60 HP	T60,TLR	DPR6EB-9 #	3108			---	---	.036"
1997-1987	65 HP	65	B8HS-10 #	5126			---	---	.040"
2005-1984	70 HP	70	B8HS-10 #	5126			---	---	.040"
2010-2006	70 HP	70TLR	B8HS-10 #	5126			---	---	.040"
2001-2000	70 HP	C70	B8HS-10 #	5126			---	---	.040"
	70 HP	F70, 4-CYL	LKR7E #	1643			LKR7AIX	93911	.036"
2013-2011	70 HP	F70LA	LKR7E #	1643			LKR7AIX	93911	.036"
1999-1994	75 HP	C75	B8HS-10 #	5126			---	---	.040"
2000-1995	75 HP	E75	B8HS-10 #	5126			---	---	.040"
	75 HP	F75, 4-CYL	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2011-2006	75 HP	F75TLR	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
1999-1996	75 HP	P75	B8HS-10 #	5126			---	---	.040"
1997	80 HP	C80	B8HS-10 #	5126			---	---	.040"
2002-1999	80 HP	F80	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
1996-1989	85 HP	C85	B8HS-10 #	5126			---	---	.040"
2005-1984	90 HP	90	B8HS-10 #	5126			---	---	.040"
2010-2006	90 HP	90TLR	B8HS-10 #	5126			---	---	.040"
1999-1998	90 HP	B90	B8HS-10 #	5126			---	---	.040"
2001-1997	90 HP	C90	B8HS-10 #	5126			---	---	.040"
	90 HP	F90, 4-CYL	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2010-2006	90 HP	F90TJR, TLR, TXR	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2002-1999	100 HP	F100	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2005-1984	115 HP	115 / P115	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1997-1987	115 HP	115TJR	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2010-2006	115 HP	115TLR, TXR	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1998	115 HP	B115	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2000-1991	115 HP	C115	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2013-2000	115 HP	F115, 4-CYL	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	115 HP	F115TJR, TLR, TXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2014	115 HP	F115XB, LB, JB, L4 DOHC FROM 02-2014	LKR6E #	92650			---	---	.036"
2013-2000	115 HP	LF115	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2011-2006	115 HP	LF115TXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2014	115 HP	LF115XB, L4 DOHC FROM 02-2014	LKR6E #	92650			---	---	.036"
1996-1993	115 HP	P115	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1984	115 HP	S115	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	115 HP	VF115, 4-CYL V MAX SHO	LKR6E #	92650			---	---	.036"
2004-1988	130 HP	130	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
2001-1989	130 HP	L130	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
1999-1988	130 HP	S130	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
1987-1984	150 HP	150	BR7HS-10 #	1098			---	---	.040"
1995-1988	150 HP	150	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2004-1996	150 HP	150	BR7HS-10 #	1098			---	---	.040"
1997-1996	150 HP	150TJR	BR7HS-10 #	1098			---	---	.040"
2010-2006	150 HP	150TXR	BR7HS-10 #	1098			---	---	.040"
1996	150 HP	C150	BR7HS-10 #	1098			---	---	.040"
1999-1997	150 HP	C150	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1997	150 HP	D150	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1993-1986	150 HP	D150 TWIN PROP	B8HS-10 #	5126			---	---	.040"
2005-1999	150 HP	DX150	BR7HS-10 #	1098			---	---	.040"
	150 HP	F150,TJR, TLR, TXR	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
1987-1986	150 HP	L150	BR7HS-10 #	1098			---	---	.040"
1995-1988	150 HP	L150	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1996	150 HP	L150	BR7HS-10 #	1098			---	---	.040"
2013-2004	150 HP	LF150	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2011-2006	150 HP	LF150TXR	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2004-1999	150 HP	LX150	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
2005-2002	150 HP	LZ150	BKR6EKU #	6993			BKR6EIX	6418	---
2001	150 HP	LZ150TX HPDI, FROM 800555	BKR6EKU #	6993			BKR6EIX	6418	---
2001-2000	150 HP	LZ150TX HPDI, TO 800554	BKR6ES-11 #	5553			BKR6EIX-11	3764	.044"
2010-2006	150 HP	LZ150TXR	BKR6EKU #	6993			BKR6EIX	6418	---
1995-1986	150 HP	P150	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1996	150 HP	P150	BR7HS-10 #	1098			---	---	.040"
1999	150 HP	PX150	BR7HS #	4122	BR7HS BLYB	1445	BR7HIX	7067	.028"
1999-1994	150 HP	S150	BR7HS-10 #	1098			---	---	.040"
2004-1999	150 HP	SX150	BR7HS-10 #	1098			---	---	.040"
2005-1999	150 HP	V150	BR7HS-10 #	1098			---	---	.040"
2010-2006	150 HP	V150TLR	BR7HS-10 #	1098			---	---	.040"
	150 HP	VF150, 4-CYL V MAX SHO	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
	150 HP	VF150X, 4-CYL V MAX SHO	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2005-2000	150 HP	VX150	BR7HS-10 #	1098			---	---	.040"
2005-2002	150 HP	VZ150	BKR6EKU #	6993			BKR6EIX	6418	---
2001	150 HP	VZ150T HPDI, FROM 800712	BKR6EKU #	6993			BKR6EIX	6418	---
2001-2000	150 HP	VZ150T HPDI, TO 800711	BKR6ES-11 #	5553			BKR6EIX-11	3764	.044"
2013-2006	150 HP	VZ150TLR	BKR6EKU #	6993			BKR6EIX	6418	---
2005-2002	150 HP	Z150TL	BKR6EKU #	6993			BKR6EIX	6418	---
2001	150 HP	Z150TL HPDI, FROM 800453	BKR6EKU #	6993			BKR6EIX	6418	---
2001-2000	150 HP	Z150TL HPDI, TO 800452	BKR6ES-11 #	5553			BKR6EIX-11	3764	.044"
2001	150 HP	Z150TX HPDI, FROM 851536	BKR6EKU #	6993			BKR6EIX	6418	---
2001-2000	150 HP	Z150TX HPDI, TO 851535	BKR6ES-11 #	5553			BKR6EIX-11	3764	.044"
2010-2006	150 HP	Z150TXR	BKR6EKU #	6993			BKR6EIX	6418	---
2000-1984	175 HP	175	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	175 HP	F175, 4-CYL	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
1999-1994	175 HP	P175	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1994	175 HP	S175	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1994	175 HP	T175	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2000	175 HP	V175	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	175 HP	VF175, 4-CYL V MAX SHO	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2005-2002	175 HP	VZ175	BKR7EKU #	5881			---	---	---
2012-2011	175 HP	VZ175 HPDI	BKR6EKU #	6993			BKR6EIX	6418	---
2001	175 HP	VZ175TL HPDI, 800105 TO 800201	BKR7ES-11 #	4952			BKR7EIX-11	6988	.044"
2001	175 HP	VZ175TL HPDI, FROM 800202	BKR7EKU #	5881			---	---	---
2010-2006	175 HP	VZ175TLR	BKR7EKU #	5881			---	---	---
2005-2002	175 HP	Z175	BKR7EKU #	5881			---	---	---
2001	175 HP	Z175TX HPDI, 800101 TO 800231	BKR7ES-11 #	4952			BKR7EIX-11	6988	.044"
2001	175 HP	Z175TX HPDI, FROM 800232	BKR7EKU #	5881			---	---	---
2010-2006	175 HP	Z175TXR	BKR7EKU #	5881			---	---	---
1999-1984	200 HP	200 / L200 / S200	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1995-1987	200 HP	200TJR	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	200 HP	F200, 3.3L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
	200 HP	F200, 4-CYL	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2013-2012	200 HP	F200B,C	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	200 HP	F200TXR	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2005-2002	200 HP	LF200	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2013-2011	200 HP	LF200	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2013-2012	200 HP	LF200B,C	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	200 HP	LF200TXR	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2001-1999	200 HP	LX200	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2005-2002	200 HP	LZ200	BKR7EKU #	5881			---	---	---
2001-2000	200 HP	LZ200TX HPDI, 2000 TO 100874	BKR7ES-11 #	4952			BKR7EIX-11	6988	.044"
2001	200 HP	LZ200TX HPDI, FROM 100875	BKR7EKU #	5881			---	---	---
2013-2006	200 HP	LZ200TXR	BKR7EKU #	5881			---	---	---
1995-1991	200 HP	P200	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
1999-1996	200 HP	P200	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2005-1999	200 HP	SX200	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1998	200 HP	V200 V760 EFI	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	200 HP	VF200, 4.2L V6 V MAX SHO	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2005-2000	200 HP	VX200	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2005	200 HP	VX200D	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2005	200 HP	VZ200	BKR6EKU #	6993			BKR6EIX	6418	---
2004-2000	200 HP	VZ200	BKR7EKU #	5881			---	---	---
2010-2006	200 HP	VZ200RTL, TLR	BKR6EKU #	6993			BKR6EIX	6418	---
2005-2002	200 HP	Z200	BKR7EKU #	5881			---	---	---
2012-2011	200 HP	Z200 HPDI	BKR7EKU #	5881			---	---	---
2001-2000	200 HP	Z200TL HPDI, 2000 TO 150689	BKR7ES-11 #	4952			BKR7EIX-11	6988	.044"
2001	200 HP	Z200TL HPDI, FROM 150690	BKR7EKU #	5881			---	---	---
2010-2006	200 HP	Z200TLR, TXR	BKR7EKU #	5881			---	---	---
2001-2000	200 HP	Z200TX HPDI, 2000 TO 102420	BKR7ES-11 #	4952			BKR7EIX-11	6988	.044"
2001	200 HP	Z200TX HPDI, FROM 102421	BKR7EKU #	5881			---	---	---
1986-1984	220 HP	220, V6 SPECIAL	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1995-1987	225 HP	225 / EXCEL RESISTOR REQUIRED, V6 - 2.6L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
1998-1994	225 HP	225L 20" SHAFT ONLY, V6 - 2.6L	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Year	HP	Model	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
1999-1994	225 HP	225X, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
	225 HP	F225, 3.3L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
	225 HP	F225, 4.2L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	225 HP	F225TLR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	225 HP	F225TUR, TXR	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
1995-1994	225 HP	I225	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
1999-1994	225 HP	L225, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
2005-2002	225 HP	LF225	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2010-2006	225 HP	LF225TUR, TXR	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2003-2002	225 HP	LX225	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2002-1997	225 HP	LX225, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
1999-1994	225 HP	S225, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
2002-1997	225 HP	SX225, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
2001-1997	225 HP	V225 V760 EFI, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
	225 HP	VF225, 4.2L V6 V MAX SHO	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2004-1997	225 HP	VX225 V760 EFI, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
2004-2003	225 HP	VZ225	BKR6EUK #	6993			BKR6EIX	6418	---
2010-2006	225 HP	VZ225HTLR, TLR	BKR6EUK #	6993			BKR6EIX	6418	---
1995-1990	250 HP	250 / L250, V6 - 3.1L	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
	250 HP	F250, 3.3L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
	250 HP	LF250, 4.2L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2013-2011	250 HP	F250A, 4.2L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	250 HP	F250BTUR, BTXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	250 HP	F250TUR, TXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
1999-1997	250 HP	L250 / S250, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
2005	250 HP	LF250	LFR5A-11 #	6376	LFR5A-11 BLYB	95945	LFR5AIX-11	4469	.044"
2013-2011	250 HP	LF250, 3.3L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2013-2011	250 HP	LF250A, 4.2L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	250 HP	LF250BTUR, BTXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	250 HP	LF250TUR, TXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2003-1997	250 HP	LX250, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
2005-2003	250 HP	LZ250 / Z250, 3.3L	BKR6EUK #	6993			BKR6EIX	6418	---
2010-2006	250 HP	LZ250TUR, TXR	BKR6EUK #	6993			BKR6EIX	6418	---
1996-1990	250 HP	S250, V6 - 3.1L	BR8HS-10 #	1134	BR8HS-10 BLYB	1468	---	---	.040"
2003-1997	250 HP	SX250, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
	250 HP	VF250, 4.2L V6 V MAX SHO	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
	250 HP	VF250X, 4.2L V6 V MAX SHO	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2004-2002	250 HP	VX250, V6 - 3.1L	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"
2005-2003	250 HP	VZ250	BKR6EUK #	6993			BKR6EIX	6418	---
2010-2006	250 HP	VZ250FTLR, TLR	BKR6EUK #	6993			BKR6EIX	6418	---
2010-2006	250 HP	Z250TUR, Z250TXR	BKR6EUK #	6993			BKR6EIX	6418	---
	300 HP	F300, 4.2L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2013-2011	300 HP	F300A, 4.2L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	300 HP	F300TUR, TXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2013-2011	300 HP	LF300A, 4.2L V6	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	300 HP	LF300TUR, TXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2005-2004	300 HP	LX300 / Z300, 3.3L	BKR6EUK #	6993			BKR6EIX	6418	---
2010-2006	300 HP	LZ300TUR, TXR	BKR6EUK #	6993			BKR6EIX	6418	---
2005-2004	300 HP	VZ300	BKR6EUK #	6993			BKR6EIX	6418	---
2010-2006	300 HP	VZ300BTLR, LTR	BKR6EUK #	6993			BKR6EIX	6418	---
2010-2006	300 HP	Z300TUR, Z300TXR	BKR6EUK #	6993			BKR6EIX	6418	---
	350 HP	F350, 5.3L V8	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2013-2011	350 HP	F350A	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	350 HP	F350TUR, TXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2013-2011	350 HP	LF350A	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
2010-2006	350 HP	LF350TUR, TXR	LFR6A-11 #	3672	LFR6A-11 BLYB	90537	LFR6AIX-11	6619	.044"
1989-1987	HP	V6 EXCEL	BR9HS-10 #	4551	BR9HS-10 BLYB	1472	---	---	.040"

Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
<b>CHRYSLER</b>									
6 CYL	B46-4		BR6S	3522			---	---	.036"
6 CYL	B46S-3		BR6S	3522			---	---	.036"
8 CYL	LM318A		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM318AC		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM318B		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM318BC		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM318BJ		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM318BT		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM318BV		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM318D		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM340B		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM340BJ		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM340BT		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	LM340BV		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
4 CYL	M122A		B7HS	5110			BR7HIX	7067	.036"
4 CYL	M122B		B7HS	5110			BR7HIX	7067	.036"
6 CYL	M170		BR6ES	4922			---	---	.036"
6 CYL	M183B		B7HS	5110			BR7HIX	7067	.036"
6 CYL	M225A		BR6ES	4922			---	---	.036"
6 CYL	M225D	1979-1975	BPR6FS	2623			UR6IX	7348	.036"
6 CYL	M225D	To 1974	BR6ES	4922			---	---	.036"
6 CYL	M225D		BR6ES	4922			---	---	.036"
6 CYL	M225GD		BR6ES	4922			---	---	.036"
6 CYL	M265		BR6S	3522			---	---	.036"
6 CYL	M265A		BR6S	3522			---	---	.036"
8 CYL	M273A		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M273B		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M273BT		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M318A		XR5	3332			XR5IX	7355	.036"
8 CYL	M318B		XR5	3332			XR5IX	7355	.036"
8 CYL	M318C		XR5	3332			XR5IX	7355	.036"
8 CYL	M318GD		XR5	3332			XR5IX	7355	.036"
8 CYL	M360A		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M360B		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M360BC		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M360BJ		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M360BT		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M360BV		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
8 CYL	M383B		XR5	3332			XR5IX	7355	.036"
8 CYL	M383BV		XR5	3332			XR5IX	7355	.036"
8 CYL	M400B		XR5	3332			XR5IX	7355	.036"
8 CYL	M400BV		XR5	3332			XR5IX	7355	.036"
8 CYL	M400S		XR5	3332			XR5IX	7355	.036"
8 CYL	M413B		XR5	3332			XR5IX	7355	.036"
8 CYL	M413D		XR5	3332			XR5IX	7355	.036"
8 CYL	M413E		BR6ES	4922			---	---	.036"
8 CYL	M426B		XR5	3332			XR5IX	7355	.036"
8 CYL	M426D		XR5	3332			XR5IX	7355	.036"
8 CYL	M426-SKI		XR5	3332			XR5IX	7355	.036"
8 CYL	M44		BR6S	3522			---	---	.036"
8 CYL	M440B		XR5	3332			XR5IX	7355	.036"
8 CYL	M440BJ		XR5	3332			XR5IX	7355	.036"
8 CYL	M440BV		XR5	3332			XR5IX	7355	.036"
8 CYL	M440D		XR5	3332			XR5IX	7355	.036"
8 CYL	M440S		XR5	3332			XR5IX	7355	.036"
8 CYL	M440SV		XR5	3332			XR5IX	7355	.036"
8 CYL	M44-3		BR6S	3522			---	---	.036"
8 CYL	M45		BR6ES	4922			---	---	.036"
8 CYL	M45-3		BR6ES	4922			---	---	.036"
8 CYL	M45S		BR6ES	4922			---	---	.036"
8 CYL	M45-S3		BR6ES	4922			---	---	.036"
8 CYL	M45-SP3		BR6ES	4922			---	---	.036"
8 CYL	M460B		UR5	2771			UR5IX	7177	.036"
6 CYL	M46-3		BR6S	3522			---	---	.036"
6 CYL	M47-3		BR6S	3522			---	---	.036"
6 CYL	M47-4		BR6S	3522			---	---	.036"
6 CYL	M47S-3		BR6S	3522			---	---	.036"
8 CYL	M80		XR5	3332			XR5IX	7355	.036"
8 CYL	M81		BR6ES	4922			---	---	.036"
4 CYL	M91D		BPR6EY	6427			BPR6EIX	6637	.036"
4 CYL	M91F		BPR6EY	6427			BPR6EIX	6637	.036"

Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
<b>CRUSADER</b>									
229 CID	165	1980-1979	BPR6FS	2623			UR6IX	7348	.036"
292 CID	185	1980-1971	R5674-7	5034			---	---	.036"
305 CID	190	1996-1976	BPR6FS	2623			UR6IX	7348	.036"
307 CID	210	1980-1971	R5674-7	5034			---	---	.036"
305 CID	220	1996-1976	BPR6FS	2623			UR6IX	7348	.036"
351 CID	255	1975-1974	AR6FS	3323			---	---	.032"
350 CID	270	1998-1971	BPR6FS	2623			UR6IX	7348	.036"
454 CID	350	1980-1972	BPR6FS	2623			UR6IX	7348	.036"
460 CID	350	1975-1974	BPR6FS	2623			UR6IX	7348	.036"
427 CID	427	1980-1968	R5674-7	5034			---	---	.036"
454 CID	454	1998-1981	BPR6FS	2623			UR6IX	7348	.036"
502 CID	502	1998-1989	BPR6FS	2623			UR6IX	7348	.036"
200 CID		1979	BPR6FS	2623			UR6IX	7348	.036"
262 CID		1998-1985	BPR6FS	2623			UR6IX	7348	.036"
302 CID		1975-1974	AR6FS	3323			---	---	.032"
	BOAT BUILDER-170J		B6S	3510			---	---	.025"
	BOAT BUILDER-185		B6S	3510			---	---	.025"
	BOAT BUILDER-200J		B6S	3510			---	---	.025"
	BOAT BUILDER-210		B6S	3510			---	---	.025"
	BOAT BUILDER-230		B6S	3510			---	---	.025"
	BOAT BUILDER-230J		B6S	3510			---	---	.025"
	BOAT BUILDER-CS100		B6ES	7432			---	---	.032"
	BOAT BUILDER-CS150		B6ES	7432			---	---	.032"
	BOAT BUILDER-CS165		B6ES	7432			---	---	.032"
	BOAT BUILDER-CS180		B6S	3510			---	---	.032"
	BOAT BUILDER-CS220		B6S	3510			---	---	.032"
	BOAT BUILDER-CS250		B6S	3510			---	---	.032"
	BOAT BUILDER-CS280		B6ES	7432			---	---	.032"
	BOAT BUILDER-CS320		B6ES	7432			---	---	.032"
229 CID	CH185	1984-1981	BPR6FS	2623			UR6IX	7348	.036"
305 CID	CHAMPION		BPR6FS	2623			UR6IX	7348	.036"
350 CID	CHAMPION		BPR6FS	2623			UR6IX	7348	.036"
454 CID	CHAMPION		BPR6FS	2623			UR6IX	7348	.036"
350 CID	CHAMPION-350 CID HT		BPR6FS	2623			UR6IX	7348	.036"
	CHARGER-CS185		B6S	3510			---	---	.025"
	CHARGER-CS220		B6S	3510			---	---	.025"
	CHARGER-CS250		B6S	3510			---	---	.025"
	CHARGER-CS280		B6ES	7432			---	---	.036"
	CHARGER-CS320		B6ES	7432			---	---	.034"
	CLASSIC-5.7L PLUS EFI		TR5	2238			TR5IX	7397	.045"
	CLASSIC-5.7L PLUS MPI		TR5	2238			TR5IX	7397	.045"
	CLASSIC-7.4L HO MPI		BR6FS	4323			BR6FIX	2318	.045"
	CLASSIC-7.4L MPI		TR5	2238			TR5IX	7397	.045"
	CLASSIC-8.2L MPI		BR6FS	4323			BR6FIX	2318	.045"
275 HP	GM V8-5.0L MP	2005	TR55	3951			TR55IX	7164	.060"
300 HP	GM V8-5.7L CARB		TR55	3951			TR55IX	7164	.060"
220 HP	GM V8-5.7L MP	2005	TR55	3951			TR55IX	7164	.060"
375 HP	GM V8-6.0L MP		TR55	3951			TR55IX	7164	.060"
385 HP	GM V8-8.1L MP		TR55	3951			TR55IX	7164	.060"
425 HP	GM V8-8.1L MP (HO)		TR55	3951			TR55IX	7164	.060"
	MARK 140		B6S	3510			---	---	.025"
	MARK 170		B6S	3510			---	---	.025"
	MARK 200		B6S	3510			---	---	.025"
	MARK 225		B6S	3510			---	---	.025"
	MARK 240		B6ES	7432			---	---	.032"
	MARK 275		B8S	3810			---	---	.032"
	MARK 280		B6ES	7432			---	---	.032"
	MARK 300		B8S	3810			---	---	.032"
	MARK 325		B8S	3810			---	---	.032"
	PLATINUM-5.7L PLUS MPI		TR5	2238			TR5IX	7397	.045"
	PLATINUM-7.4L HO MPI		BR6FS	4323			BR6FIX	2318	.045"
	PLATINUM-7.4L MPI		TR5	2238			TR5IX	7397	.045"
	PLATINUM-8.2L MPI		BR6FS	4323			BR6FIX	2318	.045"
262 CID	XL/XLI		BPR6FS	2623			UR6IX	7348	.036"
305 CID	XL/XLi		BPR6FS	2623			UR6IX	7348	.036"
350 CID	XL/XLi		BPR6FS	2623			UR6IX	7348	.036"
454 CID	XL/XLi		BPR6FS	2623			UR6IX	7348	.036"
502 CID	XL/XLi		BPR6FS	2623			UR6IX	7348	.036"
454 CID	XL/XLI-454 CID HO		BPR6FS	2623			UR6IX	7348	.036"



Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
<b>INDMAR</b>									
279 CID	4.6L MPI NORTHSTAR		TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	5.0L V8 230		BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM SMALL BLOCK	5.0L V8 230SP		BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM SMALL BLOCK	5.7L LS1 CORVETTE		TR4	3754			TR4IX	7300	.036"
8 CYL GM SMALL BLOCK	5.7L V8	1987-1976	UR5	2771			UR5IX	7177	.040"
8 CYL GM SMALL BLOCK	5.7L V8 CARB		BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM SMALL BLOCK	5.7L V8 CARB H.O.		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	5.7L V8 EFI		BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM SMALL BLOCK	5.7L V8 EFI H.O.		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	5.7L V8 EXCEPT LS1	2005-1994	TR5	2238			TR5IX	7397	.040"
8 CYL GM SMALL BLOCK	5.7L V8 GEN 1+ CARB		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	5.7L V8 GEN 1+ H.O. CARB		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	5.7L V8 GEN 1+ H.O. PFI		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	5.7L V8 INDMAR TBI		BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM SMALL BLOCK	5.7L V8 LS1	2002-1994	TR55	3951			TR55IX	7164	.050"
8 CYL GM SMALL BLOCK	5.7L V8 LS1	2005-2003	TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	5.7L V8 LT-1		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM BIG BLOCK	6.0L V8	2005-2003	TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	6.6L V8		BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM BIG BLOCK	7.4L V8	1999-1998	BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM BIG BLOCK	7.4L V8	2005-2003	TR5	2238			TR5IX	7397	.045"
8 CYL GM BIG BLOCK	7.4L V8 CARB	To 1997	BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM BIG BLOCK	7.4L V8 CARB H.O.	To 1997	BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM BIG BLOCK	7.4L V8 EFI	To 1997	BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM BIG BLOCK	7.4L V8 EFI H.O.	To 1997	BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM BIG BLOCK	7.4L V8 H.O.	To 1997	BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM BIG BLOCK	8.1L MPI VORTEC	2005-2003	TR55	3951			TR55IX	7164	.060"
8 CYL GM BIG BLOCK	8.2L V8	1999-1998	BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM BIG BLOCK	8.2L V8	2005-2003	TR5	2238			TR5IX	7397	.045"
8 CYL GM BIG BLOCK	8.2L V8	To 1997	BR6FS	4323			BR6FIX	2318	.045"
8 CYL GM BIG BLOCK	8.2L V8 H.O.	To 1997	BR6FS	4323			BR6FIX	2318	.045"
302 CID	FORD 5.0L V8 200	1995-1991	UR5	2771			UR5IX	7177	.044"
302 CID	FORD 5.0L V8 225	1997-1991	UR5	2771			UR5IX	7177	.036"
351 CID	FORD 5.8L V8	1987-1983	AR6FS	3323			---	---	.036"
351 CID	FORD 5.8L V8 250	1997-1991	UR5	2771			UR5IX	7177	.036"
351 CID	FORD 5.8L V8 285 H.O.	1997-1991	BPR6EFS	3623			TR6IX	3689	.045"
460 CID	FORD 7.5L V8	1984-1976	UR5	2771			UR5IX	7177	.036"
4 CYL	GM-3.0L		BR6FS	4323			BR6FIX	2318	.036"
6 CYL	GM-4.3L V6 EFI		BR6FS	4323			BR6FIX	2318	.045"
350 CID	OLDSMOBILE 5.7L V8	1982-1976	XR4	5858			XR4IX	7189	.040"
403 CID	OLDSMOBILE 6.6L V8	1982-1976	XR4	5858			XR4IX	7189	.040"
455 CID	OLDSMOBILE 7.5L V8	1976-1975	XR4	5858			XR4IX	7189	.040"
181 CID	3.0L L4 140 HP	2000-1999	UR4	6630			UR4IX	7401	.045"
262 CID	4.3L V6 220 HP	2000-1999	BR6FS	4323			BR6FIX	2318	.045"
350 CID	5.7L V8 310 HP	2000-1999	TR5	2238			TR5IX	7397	.045"
454 CID	7.4L V8 350 HP	2000-1999	BR6FS	4323			BR6FIX	2318	.045"
<b>MARINE POWER</b>									
262 CID	GM V6 4.3L	1997-1995	BR6FS	4323			BR6FIX	2318	.036"
262 CID	GM V6 4.3L	2000-1998	TR5	2238			TR5IX	7397	.036"
181 CID, GASKET SEAT	L4 3.0L	1978-1975	BR6ES	4922			---	---	.036"
181 CID, TAPER SEAT .460 REACH	L4 3.0L	1991-1975	BR6FS	4323			BR6FIX	2318	.036"
181 CID, TAPER SEAT .708 REACH	L4 3.0L	2000-1992	BPR6EFS	3623			TR6IX	3689	.036"
305 CID	V8 5.0L	2000	TR5	2238			TR5IX	7397	.036"
305 CID	V8 5.0L G, K, LV	1986-1977	BR6FS	4323			BR6FIX	2318	.036"
307 CID	V8 5.0L G, K, LV 215 HP	1976-1975	BR6FS	4323			BR6FIX	2318	.036"
350 CID	V8 5.7L	1997-1992	BR6FS	4323			BR6FIX	2318	.036"
350 CID	V8 5.7L	2000-1998	TR5	2238			TR5IX	7397	.036"
350 CID	V8 5.7L FLV 300 HP	1986-1975	BR6FS	4323			BR6FIX	2318	.036"
350 CID	V8 5.7L FLV, GLV, K 250 HP	1986-1975	BR6FS	4323			BR6FIX	2318	.036"
350 CID	V8 5.7L PREMIUM	1997-1992	BPR6EFS	3623			TR6IX	3689	.036"
350 CID	V8 5.7L Q SERIES	1991-1979	BR6FS	4323			BR6FIX	2318	.036"
454 CID	V8 7.4L	1997-1992	BR6FS	4323			BR6FIX	2318	.036"
454 CID	V8 7.4L	2000-1998	BR6FS	4323			BR6FIX	2318	.036"
454 CID	V8 7.4L (L29)	2000	BPR6EFS	3623			TR6IX	3689	.036"
454 CID	V8 7.4L B, BM 330 HP	1991-1975	BR6FS	4323			BR6FIX	2318	.036"
454 CID	V8 7.4L PREMIUM	1997-1992	BR6FS	4323			BR6FIX	2318	.036"
502 CID	V8 8.2L	1997-1995	BR6FS	4323			BR6FIX	2318	.036"
502 CID	V8 8.2L PREMIUM	1997-1995	BR6FS	4323			BR6FIX	2318	.036"
540 CID	V8 8.9L 550 HP	1997-1995	BR6FS	4323			BR6FIX	2318	.036"
<b>MERCURISER</b>									
8 CYL GM SMALL BLOCK	198		YR5	7052			YR5IX	7516	.036"
8 CYL FORD SMALL BLOCK	215		AR6FS	3323			---	---	.030"
8 CYL FORD SMALL BLOCK	225		AR6FS	3323			---	---	.030"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
<b>MERCUISER</b>									
8 CYL GM SMALL BLOCK	225		B7S	3710			---	---	.030"
8 CYL GM SMALL BLOCK	228		YR5	7052			YR5IX	7516	.036"
8 CYL GM SMALL BLOCK	230		BR6FS	4323			BR6FIX	2318	.036"
8 CYL FORD SMALL BLOCK, 14MM HDS.	233		BPR6FS	2623			UR6IX	7348	.030"
8 CYL FORD SMALL BLOCK, 18MM HDS.	233		AR6FS	3323			---	---	.030"
8 CYL GM SMALL BLOCK, 2317201-2797056	250		B7S	3710			---	---	.040"
8 CYL FORD SMALL BLOCK	255		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM SMALL BLOCK	255		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM SMALL BLOCK	260		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM SMALL BLOCK, GASKET SEAT	270		B7S	3710			---	---	.036"
8 CYL GM SMALL BLOCK, TAPER SEAT	270		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK, FROM 2762442	325		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK, TO 2762441	325		BUE	2322			---	---	---
8 CYL GM BIG BLOCK	330		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	340		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	350		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK	390		BPR8ES	3923			BPR8EIX	6684	.036"
4 CYL	470		BPR6FS	2623			UR6IX	7348	.036"
8 CYL GM SMALL BLOCK	350 MAG		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK, TO 0F799999	350 MAG EFI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK, FROM 0F800000	350 MAG EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, TO 0F799999	350 MAG EFI/MP		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	350 MAG MPI	2007	---	---			IZFR7M	4214	.032"
8 CYL GM SMALL BLOCK, FROM 0L304700	350 MAG MPI	2006-2000	TR5	2238			TR5IX	7397	.036"
8 CYL GM SMALL BLOCK, TO 0F799999	350 MAG MPI	2006-2000	BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK, 0L002600-0L309999	350 MAG MPI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, FROM 0M310000	350 MAG MPI GEN+		TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	350 MAG MPI HORIZON	2007	---	---			IZFR7M	4214	.032"
8 CYL GM BIG BLOCK	400 JET		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	454 EFI MP		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	454 EFI/MP		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK, FROM 0L002200	454 MAG MPI		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	454 MPI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	454 MPI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	5.0L		YR5	7052			YR5IX	7516	.036"
8 CYL GM SMALL BLOCK	5.0L MPI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	5.7L	2007	---	---			IZFR7M	4214	.032"
8 CYL GM SMALL BLOCK, TO 0L000000	5.7L		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK, TO 0L000000	5.7L COMP		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK, FROM 0L002005	5.7L COMP GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, FROM 0L010035	5.7L EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, FROM 0L010037	5.7L GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	5.7L HORIZON DTS ECT		---	---			ITR4A15	5599	.060"
8 CYL GM SMALL BLOCK	5.7L MPI ECT		---	---			ITR4A15	5599	.060"
8 CYL GM SMALL BLOCK	6.2L HORIZON DTS ECT		---	---			ITR4A15	5599	.060"
8 CYL GM BIG BLOCK	7.4L		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	7.4L EFI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	7.4L EFI/MP		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK, FROM 0L002006	7.4L MPI		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM BIG BLOCK, TO 0L000000	7.4L MPI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	8.1S HO	2007	---	---			IZFR7M	4214	.032"
8 CYL GM BIG BLOCK	8.1S HO	2006-2000	TR55	3951			TR55IX	7164	.060"
8 CYL GM BIG BLOCK	8.1S HORIZON	2007	---	---			IZFR7M	4214	.032"
8 CYL GM BIG BLOCK	8.1S HORIZON	2006-2000	TR55	3951			TR55IX	7164	.060"
8 CYL GM BIG BLOCK	8.2 HO DTS ECT		BPR6ES SOLID	4008			BPR6EIX	6637	.033"
8 CYL GM BIG BLOCK	8.2 HORIZON DTS ECT		BPR6ES SOLID	4008			BPR6EIX	6637	.033"

Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
8 CYL GM BIG BLOCK	8.2L		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	8.2L MPI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	BLACK SCORPION 5.7L	2007	---	---			IZFR7M	4214	.032"
8 CYL GM SMALL BLOCK, FROM 0F800000	BLACK SCORPION 5.7L	2006-2000	BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, FROM 0M391852	BLACK SCORPION 5.7L	2006-2000	TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	BLACK SCORPION MX 6.2	2007	---	---			IZFR7M	4214	.032"
8 CYL GM SMALL BLOCK	BLACK SCORPION MX 6.2	2006-2000	TR5	2238			TR5IX	7397	.036"
8 CYL GM SMALL BLOCK, FROM 0M391778	BLACK SCORPION MX 6.2	2006-2000	TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	MX 6.2 MPI	2007	---	---			IZFR7M	4214	.032"
8 CYL GM SMALL BLOCK, FROM 0M320614	MX 6.2 MPI	2006-2000	TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK, TO 0M320613	MX 6.2 MPI	2006-2000	BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, FROM 0M320614	MX 6.2 MPI HORIZON	2007	---	---			IZFR7M	4214	.032"
8 CYL GM SMALL BLOCK, FROM 0M320614	MX 6.2 MPI HORIZON	2006-2000	TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	SCORPION 350 DTS ECT		---	---			ITR4A15	5599	.060"
8 CYL GM SMALL BLOCK	SCORPION 377		BPR6EFS	3623			TR6IX	3689	.045"
4 CYL RENAULT	60		BR6HS	3922	BR6HS BLYB	1507	BR6HIX	3419	.025"
4 CYL RENAULT	80		BPR6ES SOLID	4008			BPR6EIX	6637	.025"
4 CYL RENAULT	90		BPR6ES SOLID	4008			BPR6EIX	6637	.032"
4 CYL GM	110		BR6ES	4922			---	---	.036"
4 CYL GM, FROM 3825579	120		YR5	7052			YR5IX	7516	.036"
4 CYL GM, TO 3825578	120		BR6ES	4922			---	---	.036"
6 CYL GM L-6	140		BR6ES	4922			---	---	.036"
4 CYL GM, FROM 3826283	140		YR5	7052			YR5IX	7516	.036"
4 CYL GM, TO 3826282	140		BR6ES	4922			---	---	.036"
6 CYL GM L-6	150		BR6ES	4922			---	---	.036"
6 CYL GM L-6	160		BR6ES	4922			---	---	.036"
4 CYL MERCURY MARINE, 224 CID	165		BPR6FS	2623			UR6IX	7348	.036"
6 CYL GM L-6, FROM 2771484	165		YR5	7052			YR5IX	7516	.036"
6 CYL GM L-6, TO 2771483	165		BR6ES	4922			---	---	.036"
4 CYL MERCURY MARINE, 224 CID	170		BPR6FS	2623			UR6IX	7348	.036"
6 CYL GM V-6	175		BR6FS	4323			BR6FIX	2318	.036"
4 CYL MERCURY MARINE, 224 CID	180		BPR6FS	2623			UR6IX	7348	.036"
6 CYL GM V-6	185		BR6FS	4323			BR6FIX	2318	.036"
6 CYL GM V-6, 229 CID	185		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM SMALL BLOCK	190		XR5	3332			XR5IX	7355	.036"
4 CYL MERCURY MARINE, 224 CID	190		BPR6FS	2623			UR6IX	7348	.036"
6 CYL GM L-6	200		BR6ES	4922			---	---	.036"
6 CYL GM V-6	205		BR6FS	4323			BR6FIX	2318	.036"
8 CYL FORD SMALL BLOCK	215		AR6FS	3323			---	---	.030"
8 CYL FORD SMALL BLOCK	225	2006	BPR6FS	2623			UR6IX	7348	.030"
8 CYL FORD SMALL BLOCK	225		AR6FS	3323			---	---	.030"
8 CYL GM SMALL BLOCK, FROM 2278647	225		XR5	3332			XR5IX	7355	.036"
8 CYL GM SMALL BLOCK, TO 2278646	225		B7S	3710			---	---	.036"
8 CYL GM SMALL BLOCK	228		YR5	7052			YR5IX	7516	.036"
8 CYL GM SMALL BLOCK	230		BR6FS	4323			BR6FIX	2318	.036"
8 CYL FORD SMALL BLOCK, 14MM HDS.	233		BPR6FS	2623			UR6IX	7348	.030"
8 CYL FORD SMALL BLOCK, 18MM HDS.	233		AR6FS	3323			---	---	.030"
8 CYL GM SMALL BLOCK, FROM 4768000	250		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM SMALL BLOCK, TO 2639854	250		B7S	3710			---	---	.030"
8 CYL GM SMALL BLOCK	255		BR6FS	4323			BR6FIX	2318	.036"
8 CYL FORD SMALL BLOCK, FROM 4175499 14MM HDS.	255		BPR6FS	2623			UR6IX	7348	.030"
8 CYL FORD SMALL BLOCK, FROM 4175499 18MM HDS.	255		AR6FS	3323			---	---	.030"
8 CYL FORD SMALL BLOCK, TO 4175498	255		BR6FS	4323			BR6FIX	2318	.030"
8 CYL GM SMALL BLOCK	260		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM SMALL BLOCK, GASKET SEAT	270		B7S	3710			---	---	.030"
8 CYL GM SMALL BLOCK, TAPER SEAT	270		R5673-8	3249			---	---	.036"
8 CYL GM SMALL BLOCK	280		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK, FROM 3043030	325		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK, TO 2761141	325		BUE	2322			---	---	---
8 CYL GM BIG BLOCK	330		BR6FS	4323			BR6FIX	2318	.036"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
8 CYL GM BIG BLOCK, B-W	330		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	370		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	390		BPR8ES	3923			BPR8EIX	6684	.036"
8 CYL GM BIG BLOCK	400		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	420		BR6FS	4323			BR6FIX	2318	.036"
4 CYL MERCURY MARINE, 224 CID	470		BPR6FS	2623			UR6IX	7348	.036"
4 CYL MERCURY MARINE, 224 CID	485		BPR6FS	2623			UR6IX	7348	.036"
4 CYL MERCURY MARINE, 224 CID	488		BPR6FS	2623			UR6IX	7348	.036"
8 CYL FORD SMALL BLOCK, FROM 4169597 14MM HDS.	888		BPR6FS	2623			UR6IX	7348	.030"
8 CYL FORD SMALL BLOCK, FROM 4169597 18MM HDS.	888		AR6FS	3323			---	---	.030"
8 CYL FORD SMALL BLOCK, TO 4169596	888		AR6FS	3323			---	---	.030"
6 CYL GM V-6, 0F803800 TO 0L000000	262 MAG EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
4 CYL GM	3.0L MPI ECT		TR5	2238			TR5IX	7397	.045"
4 CYL GM	3.0L TKS		BPR6EFS	3623			TR6IX	3689	.045"
4 CYL GM	3.0LX		BPR6EFS	3623			TR6IX	3689	.036"
4 CYL MERCURY MARINE, 224 CID	3.7L		BPR6FS	2623			UR6IX	7348	.036"
4 CYL MERCURY MARINE, 224 CID	3.7LX		BPR6FS	2623			UR6IX	7348	.036"
8 CYL GM SMALL BLOCK	300 TEMPEST		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM SMALL BLOCK	320 EFI		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM SMALL BLOCK	350 MAG		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	350 MAG ECT		---	---			ITR4A15	5599	.060"
8 CYL GM SMALL BLOCK, FROM 0F800500	350 MAG EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, TO 0F602199	350 MAG EFI/MP		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK, 0F602000 TO 0M320489	350 MAG MPI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, FROM 0M320590	350 MAG MPI GEN+		TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK, 0L304700 TO 0M309999	350 MAG MPI GEN+ HO-RIZON		TR5	2238			TR5IX	7397	.036"
8 CYL GM SMALL BLOCK, FROM 0M310000	350 MAG MPI GEN+ HO-RIZON		TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	377 MAG ECT		---	---			ITR4A15	5599	.060"
6 CYL GM V-6, TO 0F802999	4.3L		BR6FS	4323			BR6FIX	2318	.040"
6 CYL GM V-6, FROM 0L012009	4.3L EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
6 CYL GM V-6, FROM 0L010065	4.3L GEN+		BPR6EFS	3623			TR6IX	3689	.045"
6 CYL GM V-6	4.3L MPI ECT		---	---			ITR4A15	5599	.060"
6 CYL GM V-6, FROM 0M322781	4.3L MPI GEN+		TR55	3951			TR55IX	7164	.060"
6 CYL GM V-6	4.3L TKS		TR5	2238			TR5IX	7397	.045"
6 CYL GM V-6, FROM 0L010044	4.3LH EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
6 CYL GM V-6, TO 0F802999	4.3LX		BR6FS	4323			BR6FIX	2318	.040"
6 CYL GM V-6, 0F803000 TO 0L000000	4.3LX GEN+		BPR6EFS	3623			TR6IX	3689	.045"
6 CYL GM V-6, 0F803000 TO 0L000000	4.3LXH GEN+		BPR6EFS	3623			TR6IX	3689	.045"
6 CYL V-6	4.5L BRIZO		BPR5EFS-13 #	2359			TR55IX	7164	.052"
8 CYL GM BIG BLOCK	400 CYCLONE		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	440 CYCLONE		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	454 MAG ALPHA		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	454 MAG BRAVO		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	454 MAG EFI/MP		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	454 MAG MPI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK, FROM 0L604250	454 MAG MPI HORIZON		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	460 CYCLONE		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK	475 TURBO		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK	496 MAG		TR55	3951			TR55IX	7164	.060"
8 CYL GM BIG BLOCK	496 MAG HO		TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK, TO 0L000000	5.0L		YR5	7052			YR5IX	7516	.036"
8 CYL GM SMALL BLOCK, FROM 0L015751	5.0L EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, FROM 0L015751	5.0L GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	5.0L MPI ECT		---	---			ITR4A15	5599	.060"
8 CYL GM SMALL BLOCK, FROM 0M320415	5.0L MPI GEN+		TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK	5.0LX		YR5	7052			YR5IX	7516	.036"
8 CYL GM SMALL BLOCK, TO 0L000000	5.7L		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK, TO 0L000000	5.7L EFI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK, FROM 0L010035	5.7L EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"

Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
8 CYL GM SMALL BLOCK, FROM 0L010037	5.7L GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	5.7LX		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	5.7LX EFI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM SMALL BLOCK	5.7LX EFI GEN+		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM BIG BLOCK	502 MAG		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	502 MAG EFI/MP		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	502 MAG MPI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	7.4L ALPHA		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	7.4L BRAVO		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK, FROM 0L010003	7.4L L MPI L29		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM BIG BLOCK	7.4L LX EFI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	7.4L LX MPI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK, 0B771113 TO 0C407646	7.4L TR		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	8.2L MAG ECT		BPR6ES SOLID	4008			BPR6EIX	6637	.033"
8 CYL GM BIG BLOCK	8.2L MAG HO ECT		BPR6ES SOLID	4008			BPR6EIX	6637	.033"
8 CYL GM SMALL BLOCK	898, 200		YR5	7052			YR5IX	7516	.036"
153 CID	GM L4 2.5L		BR6FS	4323			BR6FIX	2318	.036"
181 CID, FROM 0L010042	GM L4 3.0L		BPR6EFS	3623			TR6IX	3689	.036"
181 CID, TO 0F353100	GM L4 3.0L		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK, DRY SUMP; FROM 0M905359	HP1075 SCI		BR9ECS	4677			BR9ECSIX	5438	.030"
8 CYL GM BIG BLOCK	HP425		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK	HP450		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK	HP465		BR6FS	4323			BR6FIX	2318	.036"
8 CYL GM BIG BLOCK, 502 CID	HP500		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK, 540 CID	HP500		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK, 502 CID	HP500 EFI		BR6FS	4323			BR6FIX	2318	.040"
8 CYL GM BIG BLOCK, 502 CID	HP525 EFI		BR6ES	4922			---	---	.036"
8 CYL GM BIG BLOCK	HP525 SC		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK	HP575		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK	HP575 SCI		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK	HP600 SC		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK	HP600 SCI		BR6ES	4922			---	---	.036"
8 CYL GM BIG BLOCK	HP700 SCI		BR6ES	4922			---	---	.036"
8 CYL GM BIG BLOCK	HP800 SC		R5673-8	3249			---	---	.036"
8 CYL GM BIG BLOCK	HP850 SCI		BR9ECS	4677			BR9ECSIX	5438	.030"
8 CYL GM BIG BLOCK	HP900 SC		R5671A-9	5238			---	---	.025"
8 CYL GM BIG BLOCK, DRY SUMP	HP900 SC		R5671A-9	5238			---	---	.025"
8 CYL GM SMALL BLOCK, FROM 0M320614	MX 6.2 MPI		TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK, TO 0M320613	MX 6.2 MPI		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK, FROM 0M320614	MX 6.2 MPI HORIZON		TR55	3951			TR55IX	7164	.060"
8 CYL GM SMALL BLOCK, FROM 0L416146	SCORPION 377		BPR6EFS	3623			TR6IX	3689	.045"
8 CYL GM SMALL BLOCK	SCORPION 377 HO ECT		BPR6EFS	3623			TR6IX	3689	.032"
<b>OMC</b>									
	AJ		XR5	3332			XR5IX	7355	.036"
	AJ		UR5	2771			UR5IX	7177	.036"
	ALL MODELS	1982-1974	UR5	2771			UR5IX	7177	.036"
	AT		XR5	3332			XR5IX	7355	.036"
	AT		UR5	2771			UR5IX	7177	.036"
	JET DRIVE-TURBOJET 115		BZ7HS-10	3579			---	---	.030"
	JET DRIVE-TURBOJET 90		BZ7HS-10	3579			---	---	.030"
	SAIL DRIVE-15S10G	1984-1977	BPR6HS	7022			BPR6HIX	4085	.045"
	SAIL DRIVE-15S10S	1984-1977	BPR6HS	7022			BPR6HIX	4085	.045"
	SAIL DRIVE-15S11C	1984-1977	BPR6HS	7022			BPR6HIX	4085	.045"
	SAIL DRIVE-15S13A	1984-1977	BPR6HS	7022			BPR6HIX	4085	.045"
	SAIL DRIVE-15S14M	1984-1977	BPR6HS	7022			BPR6HIX	4085	.045"
	SEA DRIVE-1.6L 115-SD	1991-1985	BZ7HS-10	3579			---	---	.030"
	SEA DRIVE-1.8L 140-SD	1991-1985	BZ7HS-10	3579			---	---	.030"
	SEA DRIVE-2.0L 140-SD	1991-1985	BZ7HS-10	3579			---	---	.030"
	SEA DRIVE-2.5L	1984-1981	BUHXW-1	5526			---	---	---
	SEA DRIVE-2.6L 190-SD	1988-1985	BUHXW-1	5526			---	---	---
	SEA DRIVE-2.7L 225-SD	1987	BZ7HS-10	3579			---	---	.030"
	SEA DRIVE-3.0L 225-SD	1991-1985	BZ7HS-10	3579			---	---	.030"
	SEA DRIVE-3.6L 275-SD	1981-1987	BZ7HS-10	3579			---	---	.030"
	SEA DRIVE-4.0L 300-SD	1991-1985	BZ7HS-10	3579			---	---	.030"
	TJ		XR5	3332			XR5IX	7355	.036"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	TJ		UR5	2771			UR5IX	7177	.036"
	TT		XR5	3332			XR5IX	7355	.036"
	TT		UR5	2771			UR5IX	7177	.036"
	480		B8S	3810			---	---	.030"
		1974-1973	B6ES	7432			---	---	.036"
		1985-1973	UR5	2771			UR5IX	7177	.036"
		1974	AR6FS	3323			---	---	.030"
	2.3L COBRA	1990-1987	TR5	2238			TR5IX	7397	.036"
	2.5L	1986-1982	BR6FS	4323			BR6FIX	2318	.036"
	3.0L	1989-1982	BR6FS	4323			BR6FIX	2318	.036"
	3.0L COBRA	1992-1987	UR4	6630			UR4IX	7401	.045"
	3.0L COBRA	1998-1993	TR5	2238			TR5IX	7397	.045"
	3.0L COBRA HO	1998-1990	TR5	2238			TR5IX	7397	.045"
	3.8L	1985-1982	YR5	7052			YR5IX	7516	.036"
	4.3L	1993-1991	BR6FS	4323			BR6FIX	2318	.036"
	4.3L	1998-1997	TR4	3754			TR4IX	7300	.036"
262 CID, MODELS WITH A SUFFIXES (.460" REACH)	4.3L	1996	UR4	6630			UR4IX	7401	.036"
262 CID, MODELS WITH S SUFFIXES (.708" REACH)	4.3L	1996	TR4	3754			TR4IX	7300	.036"
	4.3L COBRA	1995-1986	UR4	6630			UR4IX	7401	.036"
	4.3L COBRA HO	1991-1990	UR4	6630			UR4IX	7401	.036"
	4.3L COBRA HO	1995-1993	UR4	6630			UR4IX	7401	.045"
	4.3L STINGER	1986-1978	UR4	6630			UR4IX	7401	.030"
	5.0L	1998	TR4	3754			TR4IX	7300	.036"
	5.0L	1985-1982	YR5	7052			YR5IX	7516	.036"
	5.0L COBRA	1996-1986	UR4	6630			UR4IX	7401	.036"
	5.0L COBRA	1996	TR4	3754			TR4IX	7300	.036"
	5.0L COBRA EFI	1995-1993	TR5	2238			TR5IX	7397	.045"
	5.0L COBRA HO	1995-1989	UR4	6630			UR4IX	7401	.036"
	5.7L	1982	BR6FS	4323			BR6FIX	2318	.036"
	5.7L	1983	YR5	7052			YR5IX	7516	.036"
	5.7L	1998	TR4	3754			TR4IX	7300	.036"
	5.7L	1985-1984	BR6FS	4323			BR6FIX	2318	.036"
	5.7L	1997	TR4	3754			TR4IX	7300	.036"
	5.7L	1997	UR4	6630			UR4IX	7401	.036"
	5.7L COBRA	1996	UR4	6630			UR4IX	7401	.036"
	5.7L COBRA	1992-1986	UR4	6630			UR4IX	7401	.036"
	5.7L K	1995-1993	UR4	6630			UR4IX	7401	.045"
	5.7L KING COBRA	1992-1986	UR4	6630			UR4IX	7401	.036"
	5.8L COBRA	1996-1989	UR4	6630			UR4IX	7401	.036"
	5.8L COBRA EFI	1996-1992	TR5	2238			TR5IX	7397	.045"
	5.8L KING COBRA EFI HO	1995-1993	TR5	2238			TR5IX	7397	.045"
	7.4L	1997	BPR6EFS	3623			TR6IX	3689	.045"
	7.4L	1998	UR4	6630			UR4IX	7401	.036"
	7.4L	1996	UR4	6630			UR4IX	7401	.036"
	7.4L	1996	BPR6EFS	3623			TR6IX	3689	.045"
	7.4L COBRA	1995-1990	UR4	6630			UR4IX	7401	.045"
	7.4L COBRA HO	1993-1991	UR4	6630			UR4IX	7401	.045"
	7.4L KING COBRA	1995	UR4	6630			UR4IX	7401	.045"
	7.4L KING COBRA EFI	1995	UR4	6630			UR4IX	7401	.045"
	7.5L COBRA	1990-1986	UR4	6630			UR4IX	7401	.036"
	8.2L KING COBRA	1998-1992	UR4	6630			UR4IX	7401	.045"
	CU		B6ES	7432			---	---	.036"
	DU		B8S	3810			---	---	.030"
	GU		B6ES	7432			---	---	.036"
	HU		XR5	3332			XR5IX	7355	.036"
	JU		BR6FS	4323			BR6FIX	2318	.036"
	KU		B6S	3510			---	---	.036"
	LU		B6ES	7432			---	---	.036"
	NU		BPR6EY	6427			BPR6EIX	6637	.025"
	STINGER	1986-1978	UR4	6630			UR4IX	7401	.036"
	SU		B6ES	7432			---	---	.036"
	TU-14		XR5	3332			XR5IX	7355	.036"
	TU-15		XR5	3332			XR5IX	7355	.036"
	TU-16		XR5	3332			XR5IX	7355	.036"
	TU-17		B6S	3510			---	---	.036"
	TU-20		BR6FS	4323			BR6FIX	2318	.036"
	TU-21		BR6FS	4323			BR6FIX	2318	.036"



Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	VU		B6ES	7432			---	---	.036"
	WU		BR6FS	4323			BR6FIX	2318	.036"
	XU-20C		BR6FS	4323			BR6FIX	2318	.036"
	XU20S		B6S	3510			---	---	.036"
<b>VOLVO-PENTA</b>									
	5.7L GXI		TR55	3951			TR55IX	7164	.060"
	5.8L FL 4 BBL		UR4	6630			UR4IX	7401	.036"
	5.8L FSI EFI HO		BPR6EFS	3623			TR6IX	3689	.036"
	7.4L GI EFI		BPR6FS	2623			UR6IX	7348	.045"
	7.4L GL 4 BBL		BR6FS	4323			BR6FIX	2318	.045"
	7.4L GSI EFI		BR6FS	4323			BR6FIX	2318	.045"
	8.1L GI/GSI		TR4	3754			TR4IX	7300	.060"
	8.1L GXI		TR55	3951			TR55IX	7164	.060"
	8.2L GSI EFI		BR6FS	4323			BR6FIX	2318	.045"
	AQ60F		B5HS	4210			---	---	.036"
	B16A		XR5	3332			XR5IX	7355	.025"
	B16C		XR5	3332			XR5IX	7355	.025"
	B18A		B6HS	7534			BR6HIX	3419	.025"
	BB100		B6HS	7534			BR6HIX	3419	.025"
	BB100A		B6HS	7534			BR6HIX	3419	.025"
	BB115A		BP7HS	5111			BPR7HIX	5944	.025"
	BB115B		BP7HS	5111			BPR7HIX	5944	.025"
	BB115C		BP7HS	5111			BPR7HIX	5944	.025"
	BB140		BPR6EY	6427			BPR6EIX	6637	.036"
	BB140A		BP8ES	2912			BPR8EIX	6684	.025"
	BB145		BPR6EY	6427			BPR6EIX	6637	.036"
	BB145C		BP8ES	2912			BPR8EIX	6684	.025"
	BB165A		BP7HS	5111			BPR7HIX	5944	.025"
	BB170A		BP7HS	5111			BPR7HIX	5944	.025"
	BB170B		BP7HS	5111			BPR7HIX	5944	.025"
	BB225		BR6FS	4323			BR6FIX	2318	.036"
	BB25		B6S	3510			---	---	.025"
	BB260		BR6FS	4323			BR6FIX	2318	.036"
	BB30B		B6HS	7534			BR6HIX	3419	.025"
	BB30F		B5HS	4210			---	---	.036"
	BB70		B6S	3510			---	---	.025"
	BB70		B8S	3810			---	---	.025"
	C10		AB-6	2910			---	---	.025"
	C23		AB-6	2910			---	---	.025"
	C5		AB-6	2910			---	---	.025"
	MB10		BP5HS	4111			---	---	.025"
	MB10A		BP5HS	4111			---	---	.025"
	MB18F		B5HS	4210			---	---	.036"
	MB20A		BP6HS	7331			BPR6HIX	4085	.025"
	MB20B		BP6HS	7331			BPR6HIX	4085	.025"
	MB36A		B6S	3510			---	---	.025"
	MB36B		B6S	3510			---	---	.025"
	OCEAN SERIES - 4.3L OSI-XPD		TR5	2238			TR5IX	7397	.036"
	OCEAN SERIES - 5.0L OSI-XPD		TR5	2238			TR5IX	7397	.036"
	OCEAN SERIES - 5.7L OSI-XPD		TR5	2238			TR5IX	7397	.036"
	OCEAN SERIES - 5.7L OSXI-XPD		TR5	2238			TR5IX	7397	.036"
305 CID, KEROSENE	PZ-200 I/O		BR6FS	4323			BR6FIX	2318	.036"
	SAIL DRIVE - MB10A/100S		BP5HS	4111			---	---	.025"
	SAIL DRIVE - MB2/50S		D6HA	6512			---	---	.025"
	145A, B		BP7ES	1034			BPR7EIX	4055	.036"
	AQ105A, 110, 115A, 120		BP7HS	5111			BPR7HIX	5944	.025"
	AQ120		BPR6EY	6427			BPR6EIX	6637	.036"
	AQ125 A,B, 145		BPR6EY	6427			BPR6EIX	6637	.036"
	AQ130, A, B, C, D		BP7HS	5111			BPR7HIX	5944	.025"
	AQ131, A, B, C, D		BP7ES	1034			BPR7EIX	4055	.036"
	AQ140A		BP7ES	1034			BPR7EIX	4055	.036"
	AQ150, A, B		XR5	3332			XR5IX	7355	.036"
	AQ151A, B, C		BP7ES	1034			BPR7EIX	4055	.025"
	AQ165A		BP7HS	5111			BPR7HIX	5944	.025"
	AQ170, A, B, C		BP7HS	5111			BPR7HIX	5944	.025"
	AQ171A, C		BPR6EY	6427			BPR6EIX	6637	.036"
	AQ175, 175A		YR5	7052			YR5IX	7516	.036"
	AQ180		XR5	3332			XR5IX	7355	.025"
	AQ190		YR5	7052			YR5IX	7516	.036"
	AQ190A		AR6FS	3323			---	---	.025"
	AQ200, A, B, C, D, F		UR5	2771			UR5IX	7177	.025"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut

Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	AQ205A		YR5	7052			YR5IX	7516	.036"
	AQ210A		UR6	7773			UR6IX	7348	.025"
	AQ210A		B6S	3510			---	---	.025"
	AQ211/DP		YR5	7052			YR5IX	7516	.036"
	AQ211A		YR5	7052			YR5IX	7516	.036"
	AQ225, A, B, C, D		UR6	7773			UR6IX	7348	.025"
	AQ225E, F		YR5	7052			YR5IX	7516	.036"
	AQ230A		BPR6ES SOLID	4008			BPR6EIX	6637	.036"
	AQ231/DP		YR5	7052			YR5IX	7516	.036"
	AQ231A, B		YR5	7052			YR5IX	7516	.036"
	AQ240A		UR6	7773			UR6IX	7348	.025"
	AQ255B		UR6	7773			UR6IX	7348	.025"
	AQ260, A, B		BR6FS	4323			BR6FIX	2318	.025"
	AQ271/DP		YR5	7052			YR5IX	7516	.036"
	AQ271A, B, C, D		BR6FS	4323			BR6FIX	2318	.025"
	AQ280A		UR6	7773			UR6IX	7348	.025"
	AQ290A		BR6FS	4323			BR6FIX	2318	.025"
	AQ290B		BR6FS	4323			BR6FIX	2318	.025"
	AQ311A		BR6FS	4323			BR6FIX	2318	.025"
	AQ311B		BR6FS	4323			BR6FIX	2318	.025"
	AQ430		BR6FS	4323			BR6FIX	2318	.025"
	AQ500A		BR6FS	4323			BR6FIX	2318	.036"
	AQ501A		BR6FS	4323			BR6FIX	2318	.036"
	AQ531		BR6FS	4323			BR6FIX	2318	.025"
	AQ570A		BR6FS	4323			BR6FIX	2318	.036"
	AQ571A		BR6FS	4323			BR6FIX	2318	.036"
	AQ572		BR6FS	4323			BR6FIX	2318	.036"
	AQ740A		BR6FS	4323			BR6FIX	2318	.036"
	AQ80		B6S	3510			---	---	.025"
	AQ90		B6HS	7534			BR6HIX	3419	.025"
	AQ95, 95A, 100		BP6HS	7331			BPR6HIX	4085	.025"
	DPX-5.7L DPX 375		TR55	3951			TR55IX	7164	.060"
	DPX-7.4L DPX 385 GSI EFI		BR6FS	4323			BR6FIX	2318	.045"
	DPX-8.1L DPX 420		TR55	3951			TR55IX	7164	.060"
	DPX-8.2L DPX 415 GSI EFI		BR6FS	4323			BR6FIX	2318	.045"
262 CID, .460 REACH	DUOPROP - 4.3L GI EFI		BPR6FS	2623			UR6IX	7348	.045"
262 CID, .708 REACH	DUOPROP - 4.3L GI EFI		BPR6EFS	3623			TR6IX	3689	.045"
262 CID, .460 REACH	DUOPROP - 4.3L GL 2 BBL		BPR6FS	2623			UR6IX	7348	.045"
262 CID, .708 REACH	DUOPROP - 4.3L GL 2 BBL		BPR6EFS	3623			TR6IX	3689	.045"
262 CID, .460 REACH	DUOPROP - 4.3L GS 4 BBL		BPR6FS	2623			UR6IX	7348	.045"
262 CID, .708 REACH	DUOPROP - 4.3L GS 4 BBL		BPR6EFS	3623			TR6IX	3689	.045"
	DUOPROP - 5.0L FI EFI		TR5	2238			TR5IX	7397	.036"
	DUOPROP - 5.0L FL 2 BBL		UR4	6630			UR4IX	7401	.036"
	DUOPROP - 5.0L GI GEN 1+		BPR6EFS	3623			TR6IX	3689	.045"
	DUOPROP - 5.0L GL GEN 1+		BPR6EFS	3623			TR6IX	3689	.045"
	DUOPROP - 5.7L GI EFI		BPR6FS	2623			UR6IX	7348	.045"
	DUOPROP - 5.7L GL 2 BBL		BR6FS	4323			BR6FIX	2318	.045"
	DUOPROP - 5.7L GLI EFI		BPR6FS	2623			UR6IX	7348	.045"
	DUOPROP - 5.7L GS 4 BBL		BR6FS	4323			BR6FIX	2318	.045"
	DUOPROP - 5.7L GS GEN 1+		BPR6EFS	3623			TR6IX	3689	.045"
	DUOPROP - 5.7L GSI GEN 1+		BPR6EFS	3623			TR6IX	3689	.045"
	DUOPROP - 5.7L GXI		TR55	3951			TR55IX	7164	.060"
	DUOPROP - 5.8L FL 4 BBL		UR4	6630			UR4IX	7401	.036"
	DUOPROP - 5.8L FSI EFI HO		BPR6EFS	3623			TR6IX	3689	.036"
	DUOPROP - 7.4L GI EFI		BPR6FS	2623			UR6IX	7348	.045"
	DUOPROP - 7.4L GI L29		BPR6EFS	3623			TR6IX	3689	.036"
	DUOPROP - 7.4L GL 4 BBL		BR6FS	4323			BR6FIX	2318	.045"
	DUOPROP - 7.4L GSI EFI		BR6FS	4323			BR6FIX	2318	.045"
	DUOPROP - 8.2L GSI EFI		BR6FS	4323			BR6FIX	2318	.045"
	PJX WATERJET - 4.3L GI EFI		BPR6EFS	3623			TR6IX	3689	.045"
	PJX WATERJET - 4.3L GS 4 BBL		BPR6EFS	3623			TR6IX	3689	.045"
	SXCOBRA - 3.0L GS 2 BBL		BPR6EFS	3623			TR6IX	3689	.045"
262 CID, .460 REACH	SXCOBRA - 4.3L GI EFI		BPR6FS	2623			UR6IX	7348	.045"
262 CID, .708 REACH	SXCOBRA - 4.3L GI EFI		BPR6EFS	3623			TR6IX	3689	.045"
	SXCOBRA - 4.3L GL 2 BBL		BPR6EFS	3623			TR6IX	3689	.045"
	SXCOBRA - 4.3L GS 4 BBL		BPR6EFS	3623			TR6IX	3689	.045"
	SXCOBRA - 5.0L FI EFI		TR5	2238			TR5IX	7397	.036"
	SXCOBRA - 5.0L FL 2 BBL		UR4	6630			UR4IX	7401	.036"
	SXCOBRA - 5.0L GI GEN 1+		BPR6EFS	3623			TR6IX	3689	.045"
	SXCOBRA - 5.0L GL GEN 1+		BPR6EFS	3623			TR6IX	3689	.045"

Engine	Model	Year	Nickel Plug	Stk No.	Yellow Box BLYB	Stk No.	Premium Plug	Stk No.	Gap
	SXCOBRA - 5.7L GI EFI		BPR6FS	2623			UR6IX	7348	.045"
	SXCOBRA - 5.7L GL 2 BBL		BR6FS	4323			BR6FIX	2318	.045"
	SXCOBRA - 5.7L GLI EFI		BPR6FS	2623			UR6IX	7348	.045"
	SXCOBRA - 5.7L GS 4 BBL		BR6FS	4323			BR6FIX	2318	.045"
	SXCOBRA - 5.7L GS GEN 1+		BPR6EFS	3623			TR6IX	3689	.045"
	SXCOBRA - 5.7L GSI GEN 1+		BPR6EFS	3623			TR6IX	3689	.045"
	SXCOBRA - 5.7L GXI		TR55	3951			TR55IX	7164	.060"
	SXCOBRA - 5.8L FL 4 BBL		UR4	6630			UR4IX	7401	.036"
	SXCOBRA - 5.8L FSI EFI HO		BPR6EFS	3623			TR6IX	3689	.036"
	SXCOBRA - 7.4L GI EFI		BPR6FS	2623			UR6IX	7348	.045"
	SXCOBRA - 7.4L GI L29		BPR6EFS	3623			TR6IX	3689	.036"
	SXCOBRA - 7.4L GL 4 BBL		BR6FS	4323			BR6FIX	2318	.045"
<b>YAMAHA</b>									
	110	1966-1963	B6ES	7432			---	---	.032"
1812 cc	190 FSH	2016	LFR6A #	6668			---	---	.036"
1812 cc	190 FSH DELUXE	2016	LFR6A #	6668			---	---	.036"
1812 cc	190 FSH SPORT	2016	LFR6A #	6668			---	---	.036"
1100 cc	212S	2010-2008	CR9EB #	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1812 cc	212SS	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	212SS CALIFORNIA	2016-2015	LFR6A #	6668			---	---	.036"
1100 cc	212X	2010-2008	CR9EB #	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1812 cc	212X	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	212X CALIFORNIA	2016-2015	LFR6A #	6668			---	---	.036"
1100 cc	232 LIMITED	2009-2008	CR9EB	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1812 cc	242 LIMITED	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	242 LIMITED CALIFORNIA	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	242 LIMITED E SERIES	2016	LFR6A #	6668			---	---	.036"
1812 cc	242 LIMITED E SERIES CALIFORNIA	2016	LFR6A #	6668			---	---	.036"
1812 cc	242 LIMITED S	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	242 LIMITED S CALIFORNIA	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	242 LIMITED S E SERIES	2016	LFR6A #	6668			---	---	.036"
1812 cc	242 LIMITED S E SERIES CALIFORNIA	2016	LFR6A #	6668			---	---	.036"
1812 cc	242X E SERIES	2016	LFR6A #	6668			---	---	.036"
1812 cc	242X E SERIES CALIFORNIA	2016	LFR6A #	6668			---	---	.036"
1812 cc	AR190	2016	LFR6A #	6668			---	---	.036"
1812 cc	AR192	2016-2015	LFR6A #	6668			---	---	.036"
1812	AR210	2015	LFR6A #	6668			---	---	.036"
1812	AR210 CALIFORNIA	2015	LFR6A #	6668			---	---	.036"
1200 cc	AR210	2005-2003	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1100 cc	AR210	2010-2006	CR9EB #	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1049 cc	AR210	2015	CR9EB #	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1000 cc	AR230	2006-2004	CR9EB	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1100 cc	AR230 HIGH OUTPUT	2009-2005	CR9EB #	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1812 cc	AR240 CALIFORNIA	2015	LFR6A #	6668			---	---	.036"
1812 cc	AR240 HIGH OUTPUT	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	AR240 HIGH OUTPUT CALIFORNIA	2016	LFR6A #	6668			---	---	.036"
1200 cc	EXCITER 135	1999-1998	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1100 cc	EXCITER 220	1998-1996	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1200 cc	EXCITER 227	1999-1998	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1200 cc	EXCITER 270	1999-1998	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1200 cc	LS2000	2003-1999	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1200 cc	LX2000	2002	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1200 cc	LX210	2005-2003	BR8HS #	4322	BR8HS BLYB	1466	BR8HIX	7001	.024"
1100 cc	SR210	2007-2006	CR9EB	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1000 cc	SR230	2005-2003	CR9EB	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1100 cc	SR230 HIGH OUTPUT	2007	CR9EB	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1812 cc	SX190	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	SX190 CALIFORNIA	2015	LFR6A #	6668			---	---	.036"
1812 cc	SX192	2016-2015	LFR6A #	6668			---	---	.036"
1100 cc	SX210	2010-2007	CR9EB #	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1049 cc	SX210	2015	CR9EB #	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1000 cc	SX230	2006-2003	CR9EB	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1100 cc	SX230 HIGH OUTPUT	2009-2005	CR9EB #	6955	CR9EB BLYB	1491	CR9EIX	3521	.032"
1812 cc	SX240 CALIFORNIA	2015	LFR6A #	6668			---	---	.036"
1812 cc	SX240 HIGH OUTPUT	2016-2015	LFR6A #	6668			---	---	.036"
1812 cc	SX240 HIGH OUTPUT CALIFORNIA	2016	LFR6A #	6668			---	---	.036"
1200 cc	XR1800	2001-2000	BR8ES-11 #	7986			---	---	.044"
	ALL 3.0L L4		BR6FS #	4323			BR6FIX	2318	.036"
	ALL V6		BR6FS #	4323			BR6FIX	2318	.036"
	ALL V8		BR6FS #	4323			BR6FIX	2318	.036"

# Denotes Original Equipment

\* Denotes Solid Terminal Nut



Brand	Genuine Parts #	NGK Part #	Stk #
AC Delco	12568387	ITR4A15	5599
AC Delco	12607280	ILTR5C11	5581
AC Delco	19256067	ITR4A15	5599
AC Delco	25163148	PTR4B-15	5146
AC Delco	25164640	TR5IX	7397
AC Delco	25332827	TR55IX	7164
AC Delco	25332828	TR55IX	7164
Chrysler	4887030	ZFR5F-11	2262
Chrysler	4886206	BP6ES	7333
Chrysler	4886213	BPR5ES-11	7634
Chrysler	4886215	BCPR5ES	6130
Chrysler	4886219	BKR6ES	6364
Chrysler	04606823AB	ZFR5F-11	2262
Chrysler	04606823AC	ZFR5F-11	2262
Chrysler	05149177AB	LZFR5C-11	92174
Chrysler	BUJ00004	BP6ES	7333
Chrysler	BUJ00018	BPR5ES-11	7634
Chrysler	BUJ00020	BCPR5ES	6130
Chrysler	BUJ00025	BKR6ES	6364
Chrysler	S2LZTR4A11	LZTR4A-11	5306
Chrysler	S2LZTR4A11	LZTR4A-11	5306
Chrysler	SOLZTR4A11	LZTR4A-11	5306
Chrysler	SP0ZFR5F11	ZFR5F-11	2262
Chrysler	SPLZFR5C11	LZFR5C-11	92174
Daihatsu	90048-51008-000	B7ES	1111
Daihatsu	90048-51006-000	B8ES	2411
Daihatsu	90048-51015-000	B6ES	7432
Daihatsu	90048-51020-000	B4H	4110
Daihatsu	90048-51022-000	B6HS	7534
Daihatsu	90048-51033-000	B5ES	6410
Daihatsu	90048-51034-000	BP6ES	7333
Daihatsu	90048-51034-010	BP6ES	7333
Daihatsu	90048-51047-000	BP5EA-L	7834
Daihatsu	90048-51072-000	BP5ES	7832
Daihatsu	90048-51093-000	BPR5EY-11	6937
Daihatsu	90048-51096-000	BPR6ES	7131
Daihatsu	90048-51100	BKR6E-11	2756
Daihatsu	90048-51100-000	BKR6E-11	2756
Daihatsu	90048-51114-000	BPR5ES	7734
Daihatsu	90048-51152-000	BKR6E	6962
Daihatsu	90048-51158-000	BKR5E-11	6953
Daihatsu	90048-51158-008	BKR5E-11	6953
Daihatsu	90048-51161	BKR7E	4644
Daihatsu	90048-51161-000	BKR7E	4644
Daihatsu	90048-51166-000	PFR6G	4793
Daihatsu	90919-01061-000	BP5EA-L	7834
Daihatsu	90919-01104	BPR5EY-11	6937
Daihatsu	991-1339-2361-00	AB-6	2910
Daihatsu	995-2021-2361-32	B8HS	5510
Daihatsu	999-06910-P9-002	BR6HS	3922
Daihatsu	999-06910-P9-003	BR8HS	4322

Brand	Genuine Parts #	NGK Part #	Stk #
Daihatsu	999-06910-P9-004	BPR5HS	6222
Daihatsu	999-06910-P9-005	BPR6HS	7022
Daihatsu	999-06910-P9-007	BR6ES	4922
Daihatsu	999-06910-P9-008	BR7ES	5122
Daihatsu	999-06910-P9-009	BR8ES	5422
Daihatsu	999-06910-P9-011	BPR5ES-11	7634
Daihatsu	999-06910-P9-012	BPR6ES-11	7133
Daihatsu	999-06910-X9-003	BPR7EIX	4055
Daihatsu	999-06910-X9-006	BKR5EIX-11	5464
Daihatsu	999-06910-X9-012	BR8EIX	5044
Daihatsu	999-06910-X9-014	DR8EIX	6681
Daihatsu	999-06910-X9-020	ZFR6FIX-11	6441
Daihatsu	999-06910-X9-024	CR9EIX	3521
Daihatsu	999-06910-X9-027	BPR6EIX	6637
Daihatsu	999-06910-X9-029	BKR6EIX	6418
Daihatsu	999-3405-6911-00	BP5ES-11	7732
Daihatsu	999-3408-6911-00	BP5ES-11	7732
Daihatsu	999-3409-6911-00	BP6HS	7331
Ford	P0K01318110	BKR6E-11	2756
Ford	AGSF32FEC	PTR5F-11	6579
Ford	BP4718110P00	BKR5E	7938
Ford	P0948200427	BKR6E	6962
Ford	PBP0118110AA	BKR5E-11	6953
Ford	PK066018110	BP5ES	7832
Ford	PKK15018110	BP5ES-11	7732
Honda	08981-999-010	BPR5ES	7734
Honda	08983-999-010	BPR6ES	7131
Honda	31901-NN2-0030	BR6ES	4922
Honda	31908-ZZ3-003	LMAR6C-9	1679
Honda	31911-HW1-671	IMR9D-9H	6544
Honda	31914-Z0H-003	CMR4H	5246
Honda	31916-KPH-901	CPR6EA-9	6899
Honda	31916-Z0H-003	CMR6H	3365
Honda	31916-ZY3-003	IZFR6F11	4095
Honda	98056-54718	CR4HSA	2430
Honda	98056-54777	CR4HSB	4695
Honda	98056-55777	CR5HSB	6535
Honda	98056-56713	C6HSA	3228
Honda	98056-56716	CR6HS	7023
Honda	98056-56717	C6HSA	3228
Honda	98056-56718	CR6HSA	2983
Honda	98056-57713	C7HSA	4629
Honda	98056-57716	CR7HS	7223
Honda	98059-55916	CR5EH-9	6689
Honda	98059-58816	CR8E	1275
Honda	98059-59816	CR9E	6263
Honda	98059-59916	CR9EH-9	7502
Honda	98066-54716	DR4HS	3326
Honda	98066-55710	DR5HS	4623
Honda	98066-55716	DR5HS	4623
Honda	98066-55740	DR5HS	4623

Brand	Genuine Parts #	NGK Part #	Stk #
Honda	98066-56716	DR6HS	4823
Honda	98066-56717	D6HA	6512
Honda	98066-58716	DR8HS	5123
Honda	98069-38719	DR8ES-L	2923
Honda	98069-56717	D6EA	7512
Honda	98069-56916	DPR6EA-9	5531
Honda	98069-5697Q	DCPR6E	3481
Honda	98069-57717	D7EA	7912
Honda	98069-57719	DR7ES	3123
Honda	98069-5771P	DR7EA	7839
Honda	98069-5777P	DR7EB	5469
Honda	98069-57916	DPR7EA-9	5129
Honda	98069-5797Q	DCPR7E	3932
Honda	98069-58717	D8EA	2120
Honda	98069-5871P	DR8EA	7162
Honda	98069-58911	DP8EA-9	5829
Honda	98069-58916	DPR8EA-9	4929
Honda	98069-59911	DP9EA-9	6629
Honda	98073-52710	B2	3110
Honda	98073-54744	BMR4A	5728
Honda	98073-56740	BM6A	5921
Honda	98073-56744	BMR6A	7421
Honda	98076 54710	B4H	4110
Honda	98076 54770	B4H	4110
Honda	98076-54710	B4H	4110
Honda	98076-54717	BPR4HS	7823
Honda	98076-54747	BPR4HS	7823
Honda	98076-54770	B4H	4110
Honda	98076-54911	BP4HS-10	5011
Honda	98076-54919	BP4HS-10	5011
Honda	98076-55716	BR5HS	3722
Honda	98076-55717	BPR5HS	6222
Honda	98076-55747	BPR5HS	6222
Honda	98076-56710	B6HS	7534
Honda	98076-56716	BR6HS	3922
Honda	98076-56717	BPR6HS	7022
Honda	98076-56719	BP6HS	7331
Honda	98076-56740	B6HS	7534
Honda	98076-56747	BPR6HS	7022
Honda	98076-56917	BPR6HS-10	2633
Honda	98076-57710	B7HS	5110
Honda	98076-57716	BR7HS	4122
Honda	98076-57717	BPR7HS	6422
Honda	98076-57719	BP7HS	5111
Honda	98076-57740	B7HS	5110
Honda	98076-58710	B8HS	5510
Honda	98076-58716	BR8HS	4322
Honda	98076-58717	BPR8HS	3725
Honda	98076-58719	BP8HS	2630
Honda	98076-58740	B8HS	5510
Honda	98076-58747	BPR8HS	3725

Brand	Genuine Parts #	NGK Part #	Stk #
Honda	98076-59710	B9HS	5810
Honda	98076-59716	BR9HS	4522
Honda	98076-59740	B9HS	5810
Honda	98079-52876	BPR2ES	2264
Honda	98079-5414G	ZFR4F-11	4043
Honda	98079-54817	BPR4ES	7222
Honda	98079-54846	BPR4ES	7222
Honda	98079-55140	BKR5E-11	6953
Honda	98079-55144	BP5ES-11	7732
Honda	98079-55145	BPR5ES-11	7634
Honda	98079-55146	BPR5EY-11	6937
Honda	98079-5514E	BKR5E-11	6953
Honda	98079-5514E-HE	BKR5EIX-11	5464
Honda	98079-5514G	ZFR5F-11	2262
Honda	98079-5514N	PZFR5F-11	4363
Honda	98079-5514P	ZFR5J-11	5584
Honda	98079-55178	B5ES	6410
Honda	98079-55810	B5ES	6410
Honda	98079-55811	BP5ES	7832
Honda	98079-55817	BPR5ES	7734
Honda	98079-55840	B5ES	6410
Honda	98079-55841	BP5ES	7832
Honda	98079-55846	BPR5ES	7734
Honda	98079-55876	BPR5ES	7734
Honda	98079-5587G	ZFR5F	7558
Honda	98079-56145	BPR6ES-11	7133
Honda	98079-5614E	BKR6E-11	2756
Honda	98079-5614G	ZFR6F-11	4291
Honda	98079-5614N	PZFR6F-11	3271
Honda	98079-56810	B6ES	7432
Honda	98079-56811	BP6ES	7333
Honda	98079-56817	BR6ES	4922
Honda	98079-56840	B6ES	7432
Honda	98079-56841	BP6ES	7333
Honda	98079-56846	BPR6ES	7131
Honda	98079-56847	BR6ES	4922
Honda	98079-56849	BR6ES	4922
Honda	98079-57144	BPR7ES-11	7226
Honda	98079-57145	BPR7ES-11	7226
Honda	98079-5714G	ZFR7F-11	6855
Honda	98079-57177	BR7ES	5122
Honda	98079-57810	B7ES	1111
Honda	98079-57811	BP7ES	1034
Honda	98079-57816	BR7ES	5122
Honda	98079-57840	B7ES	1111
Honda	98079-57841	BP7ES	1034
Honda	98079-57846	BPR7ES	5534
Honda	98079-57849	BR7ES	5122
Honda	98079-57877	BR7ES	5122
Honda	98079-5787G	ZFR7F	5913
Honda	98079-58646	BR8EIX	5044

Brand	Genuine Parts #	NGK Part #	Stk #
Honda	98079-58810	B8ES	2411
Honda	98079-58816	BR8ES	5422
Honda	98079-58840	B8ES	2411
Honda	98079-58841	BP8ES	2912
Honda	98079-58846	BR8ES	5422
Honda	98079-58847	BPR8ES	3923
Honda	98079-58870	B8ES	2411
Honda	98079-58876	BR8ES	5422
Honda	98079-59678	B9EG	3530
Honda	98079-59810	B9ES	2611
Honda	98079-59816	BR9ES	5722
Honda	98079-59819	BR9ECS	4677
Honda	98079-59840	B9ES	2611
Honda	98079-59847	BR9ES	5722
Honda	98079-59870	B9ES	2611
Honda	98079-59876	BR9ES	5722
Honda	98079-60817	BR10ES	4832
Honda	980795514EA0	BKR5E-11	6953
Honda	9807955846A1	BPR5ES	7734
Honda	980795614EA0	BKR6E-11	2756
Honda	9807956846A0	BPR6ES	7131
Honda	9807B-5617W	IZFR6K11	6994
Honda	9807B-561BW	IZFR6K-11S	5266
Honda	9807B5617WA0	IZFR6K11	6994
Honda	9807B561BWA0	IZFR6K-11S	5266
Mercury	33-14103Q	BUZHW-2	2173
Mercury	33-13686B 2	BU8H	6431
Mercury	33-13686Q	BU8H	6431
Mercury	33-14814Q	BPZ8HS-10	3133
Mercury	33-59571B	BR6FS	4323
Mercury	33-816336Q	BPR6EFS	3623
Mercury	33-816737B 2	BP8H-N-10	4838
Mercury	33-816737Q	BP8H-N-10	4838
Mercury	33-816837B 2	BPZ8H-N-10	4495
Mercury	33-816837Q	BPZ8H-N-10	4495
Mercury	33-827858Q	DPR6EA-9	5531
Mercury	33-843220Q	IZFR6J	4462
Mercury	33-859495Q	LFR5A-11	6376
Mercury	33-881284Q	LFR6A-11	3672
Mercury	33-889246Q39	ILFR6G-E	4212
Mercury	33-889597Q	IZFR5G	5887
Mercury	33-889680001	ILFR6G-E	4212
Mercury	33-892567	IZFR5J	5899
Mercury	33-892567Q	IZFR5J	5899
Mercury	33-898829	LFR4A-E	6499
Mercury	33-97180B	BUHW	2622
Mercury	33-97180Q	BUHW	2622
Mercury	33-97182B	BUHW-2	5626
Mercury	33-97182Q	BUHW-2	5626
Mercury	8M0007190	IZFR7M	4214
Mercury	8M0035043	ZFR5F	7558

Brand	Genuine Parts #	NGK Part #	Stk #
Mercury	8M0037136	IZFR6J	4462
Mercury	8M0058932	ITR4A15	5599
Mercury	8M0058933	IZFR5G	5887
Mercury	8M0058934	ILFR6G-E	4212
Mercury	8M0058935	IZFR5J	5899
Mercury	8M0058936	IZFR6J	4462
Mercury	8M0061474	BKR6ES	6364
Mercury	8M2018369	ITR4A15	5599
Mercury	BM0006613	ILFR6G-E	4212
Nissan	22401-W8917	BP7ES	1034
Nissan	22401 55Y15	BKR5E-11	6953
Nissan	22401-12E15	BCPR5ES	6130
Nissan	22401-19V65	BCPR5ES	6130
Nissan	22401-20J05	BKR5E	7938
Nissan	22401-20J06	BKR6E	6962
Nissan	22401-20J07	BKR7E	4644
Nissan	22401-2DR15	PLFR5A-11	6240
Nissan	22401-50Y05	BKR5E-11	6953
Nissan	22401-50Y06	BKR6E-11	2756
Nissan	22401-58S15	PFR5A-11	4588
Nissan	22401-58S16	PFR6A-11	4045
Nissan	22401-5M015	PLFR5A-11	6240
Nissan	22401-85E16	BKR6ES-11	5553
Nissan	22401-85E17	BKR7ES-11	4952
Nissan	22401-8H515	LFR5A-11	6376
Nissan	22401-8H516	LFR6A-11	3672
Nissan	22401-AR716	LFR6A	6668
Nissan	22401-C99X0	DCPR6E	3481
Nissan	22401-M7714	B4ES	4129
Nissan	22401-M7715	B5ES	6410
Nissan	22401-M7716	B6ES	7432
Nissan	22401-M7717	B7ES	1111
Nissan	22401-M7916	BR6ES	4922
Nissan	22401-M7917	BR7ES	5122
Nissan	22401-N8715	BP5ES-11	7732
Nissan	22401-N8717	BPR7ES-11	7226
Nissan	22401-N8785	BP5ES-11	7732
Nissan	22401-N8790	BP5ES-11	7732
Nissan	22401-P8315	BPR5ES-11	7634
Nissan	22401-P8316	BPR6ES-11	7133
Nissan	22401-P8317	BPR7ES-11	7226
Nissan	22401-P8385-PC	BPR5ES-11	7634
Nissan	22401-P8386-PC	BPR6ES-11	7133
Nissan	22401-P8390	BPR5ES-11	7634
Nissan	22401-P8391	BPR6ES-11	7133
Nissan	22401-P8617	BR7ES	5122
Nissan	22401-P8815	B5ES	6410
Nissan	22401-S6015	BP5ES-11	7732
Nissan	22401-V0515	BP5ES	7832
Nissan	22401-V0516	BP6ES	7333
Nissan	22401-V1414	BPR4ES	7222



# NGK - OEM Quick Reference

441

Brand	Genuine Parts #	NGK Part #	Stk #
Nissan	22401-V1415	BPR5ES	7734
Nissan	22401-V1416	BPR6ES	7131
Nissan	22401-V1417	BPR7ES	5534
Nissan	22401-V1484-PC	BPR4ES	7222
Nissan	22401-V1485-PC	BPR5ES	7734
Nissan	22401-V1486-PC	BPR6ES	7131
Nissan	22401-V1490	BPR5ES	7734
Nissan	22401-V1491	BPR6ES	7131
Nissan	22401-W8915	BP5ES	7832
Nissan	22401-W8916	BP6ES	7333
Nissan	22401-W8985	BP5ES	7832
Nissan	22401-W8985-PC	BP5ES	7832
Nissan	22401-W8986	BP6ES	7333
Nissan	22401-W8986-PC	BP6ES	7333
Nissan	22401-W8990	BP5ES	7832
Nissan	22401-W8991	BP6ES	7333
Nissan	22401-W9815	BPR5ES	7734
Nissan	22401-W9816	BPR6ES	7131
Nissan	22401-W9817	BPR7ES	5534
Nissan	22401-Y9214	BPR4ES	7222
Nissan	22401-Y9215	BPR5ES	7734
Nissan	22401-Y9216	BPR6ES	7131
Nissan	22401-Y9265	BP5ES	7832
Nissan	22401-Y9266	BP6ES	7333
Nissan	2240155Y75	BKR5E-11	6953
Nissan	224015M075	PLFR5A-11	6240
Nissan	B2401-4A0A0	DCPR7E	3932
Nissan	B2401-6A0A0	ZFR6F-11	4291
Nissan	B2401-6A0A2	ZFR5F-11	2262
Nissan	B2401-89902	B5ES	6410
Nissan	B2401-M7715	B5ES	6410
Nissan	B2401-V1415	BPR5ES	7734
Nissan	B2401-V1416	BPR6ES	7131
Nissan	B2401-W8915	BP5ES	7832
Nissan	B2401-W8916	BP6ES	7333
Nissan	B2401-W8917	BP7ES	1034
Nissan	BY480-BKR6E	BKR6EIX	6418
Nissan	BY480-BPR6E	BPR6EIX	6637
Nissan	BY480-BPR7E	BPR7EIX	4055
Nissan	BY480-BPR8E	BPR8EIX	6684
Nissan	BY481-BKR5E	BKR5EIX-11	5464
Nissan	BY481-TR5X0	TR5IX	7397
Nissan	BY481-ZFR6F	ZFR6FIX-11	6441
Nissan	BY485-TR55X	TR55IX	7164
Suzuki	09482-00139	BP7ES	1034
Suzuki	09482-00011	B4H	4110
Suzuki	09482-00051	B6S	3510
Suzuki	09482-00053	B7S	3710
Suzuki	09482-00054	B6ES	7432
Suzuki	09482-00059	BP6HS	7331
Suzuki	09482-00066	B9ES	2611

Brand	Genuine Parts #	NGK Part #	Stk #
Suzuki	09482-00074	BP6HS	7331
Suzuki	09482-00079	BR6ES	4922
Suzuki	09482-00082	B7HS	5110
Suzuki	09482-00084	BP6HS	7331
Suzuki	09482-00088	BR6HS	3922
Suzuki	09482-00089	B7ES	1111
Suzuki	09482-00091	B8ES	2411
Suzuki	09482-00095	B6HS	7534
Suzuki	09482-00095	B6HS	7534
Suzuki	09482-00098	BR9ES	5722
Suzuki	09482-00102	BR8HS	4322
Suzuki	09482-00105	BP7HS	5111
Suzuki	09482-00114	BR8EIX	5044
Suzuki	09482-00116	BR7HS	4122
Suzuki	09482-00117	BR7ES	5122
Suzuki	09482-00118	BP6ES	7333
Suzuki	09482-00121	BR8ES	5422
Suzuki	09482-00127	BR9ES	5722
Suzuki	09482-00131	BP5ES	7832
Suzuki	09482-00141	BPR6HS	7022
Suzuki	09482-00142	B4H	4110
Suzuki	09482-00143	BR5HS	3722
Suzuki	09482-00144	D8EA	2120
Suzuki	09482-00147	BPR5HS	6222
Suzuki	09482-00149	DR8ES-L	2923
Suzuki	09482-00151	B8HS	5510
Suzuki	09482-00153	B7HS	5110
Suzuki	09482-00155	BPR5ES	7734
Suzuki	09482-00157	BR8HS	4322
Suzuki	09482-00175	BP8ES	2912
Suzuki	09482-00177	BP6ES	7333
Suzuki	09482-00182	D7EA	7912
Suzuki	09482-00198	B8HS	5510
Suzuki	09482-00205	BPR4HS	7823
Suzuki	09482-00208	BR8EIX	5044
Suzuki	09482-00210	BR10EIX	6801
Suzuki	09482-00219	BP5EA-L	7834
Suzuki	09482-00220	DR7ES	3123
Suzuki	09482-00225	B8ES	2411
Suzuki	09482-00226	BP7ES	1034
Suzuki	09482-00229	BPR6HS	7022
Suzuki	09482-00230	BR8HS	4322
Suzuki	09482-00237	B8HS	5510
Suzuki	09482-00239	BPR8ES	3923
Suzuki	09482-00255	BPR7HS	6422
Suzuki	09482-00259	BP6HS	7331
Suzuki	09482-00264	BP6HS-10	6326
Suzuki	09482-00268	BP8HS	2630
Suzuki	09482-00269	B7HS-10	2129
Suzuki	09482-00277	BR7HS-10	1098
Suzuki	09482-00278	B8HS-10	5126

Brand	Genuine Parts #	NGK Part #	Stk #
Suzuki	09482-00279	B8HS-10	5126
Suzuki	09482-00280	BR8HS-10	1134
Suzuki	09482-00281	BPR6HS	7022
Suzuki	09482-00282	B5HS	4210
Suzuki	09482-00282	B5HS	4210
Suzuki	09482-00285	BPR6ES-11	7133
Suzuki	09482-00287	BP5ES-11	7732
Suzuki	09482-00289	B4H	4110
Suzuki	09482-00294	C6HSA	3228
Suzuki	09482-00299	BPR6ES	7131
Suzuki	09482-00309	B5HS	4210
Suzuki	09482-00316	BPR5HS	6222
Suzuki	09482-00325	BR8EIX	5044
Suzuki	09482-00327	BR6HS-10	1090
Suzuki	09482-00328	DP9EA-9	6629
Suzuki	09482-00332	DP8EA-9	5829
Suzuki	09482-00334	DPR8EA-9	4929
Suzuki	09482-00338	B6HS-10	1052
Suzuki	09482-00339	B6HS-10	1052
Suzuki	09482-00340	CR6HS	7023
Suzuki	09482-00341	BR6HS-10	1090
Suzuki	09482-00348	BR8ES	5422
Suzuki	09482-00349	BR9ES	5722
Suzuki	09482-00351	B9ES	2611
Suzuki	09482-00354	DPR7EA-9	5129
Suzuki	09482-00359	BPR5HS	6222
Suzuki	09482-00360	BR10ES	4832
Suzuki	09482-00367	BPR4HS	7823
Suzuki	09482-00370	BR8HS-10	1134
Suzuki	09482-00375	B8HS-10	5126
Suzuki	09482-00376	B8HS	5510
Suzuki	09482-00385	BP7ES	1034
Suzuki	09482-00398	DR7EA	7839
Suzuki	09482-00399	DR8EA	7162
Suzuki	09482-00400	DR9EA	3437
Suzuki	09482-00406	CR6HSA	2983
Suzuki	09482-00410	CR9EK	4548
Suzuki	09482-00427	BKR6E	6962
Suzuki	09482-00433	BPR5EY-11	6937
Suzuki	09482-00446	DCPR6E	3481
Suzuki	09482-00448	DCPR7E	3932
Suzuki	09482-00450	DCPR8E	4339
Suzuki	09482-00456	CR8E	1275
Suzuki	09482-00458	CR9E	6263
Suzuki	09482-00464	BR8HCS-10	1157
Suzuki	09482-00467	BR9HS-10	4551
Suzuki	09482-00477	BKR5E	7938
Suzuki	09482-00481	DCPR8EIX	6546
Suzuki	09482-00486	BR8HCS-10	1157
Suzuki	09482-00487	BPR6ES	7131
Suzuki	09482-00494	BKR6E-11	2756

Brand	Genuine Parts #	NGK Part #	Stk #
Suzuki	09482-00495	BPR7ES	5534
Suzuki	09482-00519	BR9EYA	7548
Suzuki	09482-00522	BPR7HS-10	1092
Suzuki	09482-00523	BPR8HS	3725
Suzuki	09482-00528	CR6E	6965
Suzuki	09482-00530	BPR6HS	7022
Suzuki	09482-00531	BP6HS	7331
Suzuki	09482-00532	B7HS-10	2129
Suzuki	09482-00533	BR7HS-10	1098
Suzuki	09482-00534	B6HS-10	1052
Suzuki	09482-00535	BR6HS-10	1090
Suzuki	09482-00564	BR9EYA	7548
Suzuki	09482-00566	BKR5E-11	6953
Suzuki	09482-00620	CPR6EA-9	6899
Suzuki	09482-00649	LKR6E	92650
Suzuki	99000-69571	C7HSA	4629
Suzuki	99000-69835-B8R	BR8HIX	7001
Suzuki	99000-69835-BR1	BR10EIX	6801
Suzuki	99000-69835-BR1	BR10EIX	6801
Suzuki	99000-69835-BR8	BR8EIX	5044
Suzuki	99000-69835-CR9	CR9EIX	3521
Suzuki	99000-69835-DR8	DR8EIX	6681
Suzuki	99000-69837-BR1	BR10EIX	6801
Suzuki	99000-69837-BR7	BPR7EIX	4055
Suzuki	99000-69837-BR8	BR8EIX	5044
Suzuki	99000-79A45-B0E	BR10EIX	6801
Suzuki	99000-79A45-B8E	BR8EIX	5044
Suzuki	99000-79A45-B8H	BR8HIX	7001
Suzuki	99000-79A45-BR8	BR8EIX	5044
Suzuki	99000-79A45-D8E	DR8EIX	6681
Suzuki	99000-79A45-P8E	BP8ES	2912
Suzuki	99000-79C42-004	BPR6HS-10	2633
Suzuki	99000-79C42-005	BPR5ES-11	7634
Suzuki	99000-79C42-007	BKR5E-11	6953
Suzuki	99000-79K60-K6R	BKR6EIX	6418
Suzuki	99000-79K60-P6R	BPR6EIX	6637
Suzuki	99000-79K60-P7R	BPR7EIX	4055
Suzuki	99000-79S19-BR1	BR10EIX	6801
Suzuki	99000-79S19-BR7	BPR7EIX	4055
Suzuki	99000-79S19-BR8	BR8EIX	5044
Tohatsu	9701-1-1014	BPR7HS-10	1092
Tohatsu	9701-0-1006	B8HS	5510
Tohatsu	9701-0-1010	BP7HS	5111
Tohatsu	9701-0-1022	BR7ES	5122
Tohatsu	9701-0-1023	BR8ES	5422
Tohatsu	9701-1-1003	B7S	3710
Tohatsu	9701-1-1004	B7HS	5110
Tohatsu	9701-1-1005	B7HS-10	2129
Tohatsu	9701-1-1009	B8HS-10	5126
Tohatsu	9701-1-1010	BP7HS-10	7829
Tohatsu	9701-1-1011	BP6HS-10	6326

# NGK - OEM Quick Reference

443

Brand	Genuine Parts #	NGK Part #	Stk #
Tohatsu	9701-1-1013	BPR6HS-10	2633
Tohatsu	9701-1-1015	BR7HS-10	1098
Tohatsu	9701-1-1016	BR8HS-10	1134
Tohatsu	9701-1-1103	DCPR6E	3481
Tohatsu	9701-1-1108	PZFR6H	7696
Tohatsu	9701-1-1109	IZFR5J	5899
Tohatsu	9701-1-1110	IZFR6J	4462
Volvo Penta	3851857	TR5	2238
Volvo Penta	3851859	UR4	6630
Volvo Penta	3851861	UR4	6630
Volvo Penta	3851868	TR4	3754
Volvo Penta	3854399	TR5	2238
Volvo Penta	3856759	TR5	2238
Volvo Penta	3858996	PTR5F-11	6579
Volvo Penta	3858997	PTR5F-11	6579
Volvo Penta	3861632	PTR5F-11	6579
Yamaha	94701-00117	BP7ES	1034
Yamaha	888-BP8HS-00	BP8HS	2630
Yamaha	90793-20002	BR8EIX	5044
Yamaha	90793-20004	BR10EIX	6801
Yamaha	90793-20007	BR8HIX	7001
Yamaha	90793-20008	BP8ES	2912
Yamaha	90793-20011	DR8EIX	6681
Yamaha	90793-20022	DR8EIX	6681
Yamaha	90793-20025	BP8ES	2912
Yamaha	90793-20028	BR8EIX	5044
Yamaha	90793-20029	BR10EIX	6801
Yamaha	90793-20030	BR10EIX	6801
Yamaha	90793-20031	BR10EIX	6801
Yamaha	90793-20037	BP4HS-10	5011
Yamaha	90793-20040	BP5ES-11	7732
Yamaha	90793-20043	BP5EA-L	7834
Yamaha	90793-20048	BP5ES-11	7732
Yamaha	90793-20050	DR5HS	4623
Yamaha	90793-20057	BR6HS	3922
Yamaha	90793-20058	BR7HS-10	1098
Yamaha	90793-20060	BR6ES	4922
Yamaha	90793-20062	BPR8ES	3923
Yamaha	90793-20066	BPR5EY-11	6937
Yamaha	90793-20071	CR7HS	7223
Yamaha	90793-20073	DR5HS	4623
Yamaha	90793-20074	DR6HS	4823
Yamaha	90793-20075	DR8HS	5123
Yamaha	90793-20076	DR7ES	3123
Yamaha	90793-20098	BPMR7A	4626
Yamaha	90793-20105	B6ES	7432
Yamaha	90793-20110	BPR7EIX	4055
Yamaha	90793-20111	BPR7EIX	4055
Yamaha	90793-20112	BR8EIX	5044
Yamaha	90793-20113	BP8HS-10	3823
Yamaha	90793-20117	BPR6EIX	6637

Brand	Genuine Parts #	NGK Part #	Stk #
Yamaha	90793-20121	BR6FS	4323
Yamaha	90793-20123	CR9EIX	3521
Yamaha	90793-20125	CR9EIX	3521
Yamaha	90793-20127	BPR7ES-11	7226
Yamaha	90793-20129	BPR7HS-10	1092
Yamaha	90793-20131	BR5HS	3722
Yamaha	90793-20132	CR6HSA	2983
Yamaha	90793-20141	BPR8HS	3725
Yamaha	90793-20151	CR9EIX	3521
Yamaha	90793-20152	DR8EIX	6681
Yamaha	90793-20160	BR8EIX	5044
Yamaha	90793-20164	BR8HIX	7001
Yamaha	90793-20165	BR10EIX	6801
Yamaha	90793-20168	BPR6EIX	6637
Yamaha	90793-20175	BPR7EIX	4055
Yamaha	90793-2B125	CR9EIX	3521
Yamaha	9079E-NG001	BR8EIX	5044
Yamaha	9079E-NG003	BR10EIX	6801
Yamaha	9079E-NG004	BR8EIX	5044
Yamaha	90890-78065	D6HA	6512
Yamaha	90890-78066	D6EA	7512
Yamaha	90890-78068	DP9EA-9	6629
Yamaha	90890-78070	B9HS-10	3626
Yamaha	90890-78071	BP8HS	2630
Yamaha	90890-78072	BP9ES	7526
Yamaha	90890-78074	BM6A	5921
Yamaha	90890-78077	BR9HS	4522
Yamaha	90890-78081	B5ES	6410
Yamaha	90890-78082	BR10EIX	6801
Yamaha	94700-00050	BP7HS	5111
Yamaha	94700-00108	BP6HS	7331
Yamaha	94700-00282	CR6HS	7023
Yamaha	94700-00375	DPR6EA-9	5531
Yamaha	94700-00825	BP7HS-10	7829
Yamaha	94700-00827	D8EA	2120
Yamaha	94700-00835-00-IV	C7HSA	4629
Yamaha	94700-00841	C6HSA	3228
Yamaha	94700-00850-00-IV	C6HSA	3228
Yamaha	94700-00879	CR6HSA	2983
Yamaha	94701-00039	B6HS	7534
Yamaha	94701-00040	B7HS	5110
Yamaha	94701-00041	B8HS	5510
Yamaha	94701-00042	B9HS	5810
Yamaha	94701-00043	B6ES	7432
Yamaha	94701-00044	B7ES	1111
Yamaha	94701-00045	B8ES	2411
Yamaha	94701-00046	B9ES	2611
Yamaha	94701-00050	BP7HS	5111
Yamaha	94701-00069	B5HS	4210
Yamaha	94701-00078	B5ES	6410
Yamaha	94701-00108	BP6HS	7331



Brand	Genuine Parts #	NGK Part #	Stk #
Yamaha	94701-00110	BR7HS	4122
Yamaha	94701-00111	BR6ES	4922
Yamaha	94701-00116	BP6ES	7333
Yamaha	94701-00118	BP8ES	2912
Yamaha	94701-00157	D8EA	2120
Yamaha	94701-00160	B8HS-10	5126
Yamaha	94701-00188	BR9ES	5722
Yamaha	94701-00189	D7EA	7912
Yamaha	94701-00194	BPR5HS	6222
Yamaha	94701-00195	BR8HS	4322
Yamaha	94701-00198	BPR6HS	7022
Yamaha	94701-00203	DR8ES-L	2923
Yamaha	94701-00204	BR8ES	5422
Yamaha	94701-00217	B7HS-10	2129
Yamaha	94701-00218	BPR7ES	5534
Yamaha	94701-00219	BPR8ES	3923
Yamaha	94701-00227	BPR7HS	6422
Yamaha	94701-00232	BP6HS-10	6326
Yamaha	94701-00234	BPR6ES	7131
Yamaha	94701-00237	BP8HS-10	3823
Yamaha	94701-00241	DPR8EA-9	4929
Yamaha	94701-00247	BR8HS-10	1134
Yamaha	94701-00248	BR6HS	3922
Yamaha	94701-00250	CR7HS	7223
Yamaha	94701-00251	BR9HS	4522
Yamaha	94701-00254	C7HSA	4629
Yamaha	94701-00256	C6HSA	3228
Yamaha	94701-00258	BPR4HS	7823
Yamaha	94701-00262	DPR7EA-9	5129
Yamaha	94701-00264	BP7HS-10	7829
Yamaha	94701-00268	BP8HS	2630
Yamaha	94701-00273	B6HS-10	1052
Yamaha	94701-00275	DP8EA-9	5829
Yamaha	94701-00280	BPR8HS	3725
Yamaha	94701-00282	CR6HS	7023
Yamaha	94701-00292	BPR6HS-10	2633
Yamaha	94701-00309	BR9HS-10	4551
Yamaha	94701-00318	CR9E	6263
Yamaha	94701-00325	B9EG	3530
Yamaha	94701-00328	BPR5ES	7734
Yamaha	94701-00330	CR8E	1275
Yamaha	94701-00333	DR8EA	7162
Yamaha	94701-00340	DR9EA	3437
Yamaha	94701-00345	DR7EA	7839
Yamaha	94701-00349	BR7ES	5122
Yamaha	94701-00354	CR4HSA	2430
Yamaha	94701-00356	BR10ES	4832
Yamaha	94701-00365	BR6FS	4323
Yamaha	94701-00371	BR7HS-10	1098
Yamaha	94701-00372	CR6HSA	2983
Yamaha	94701-00375	DPR6EA-9	5531

Brand	Genuine Parts #	NGK Part #	Stk #
Yamaha	94701-00381	CR6E	6965
Yamaha	94701-00395	CR9EK	4548
Yamaha	94701-00403	CR9EK	4548
Yamaha	94701-00410	CR9E	6263
Yamaha	94701-00411	CR8E	1275
Yamaha	94701-00429	LKR7E	1643
Yamaha	94701-20076	DR7ES	3123
Yamaha	94702-00039	B6HS	7534
Yamaha	94702-00040	B7HS	5110
Yamaha	94702-00041	B8HS	5510
Yamaha	94702-00044	B7ES	1111
Yamaha	94702-00045	B8ES	2411
Yamaha	94702-00046	B9ES	2611
Yamaha	94702-00069	B5HS	4210
Yamaha	94702-00160	B8HS-10	5126
Yamaha	94702-00188	BR9ES	5722
Yamaha	94702-00195	BR8HS	4322
Yamaha	94702-00204	BR8ES	5422
Yamaha	94702-00217	B7HS-10	2129
Yamaha	94702-00234	BPR6ES	7131
Yamaha	94702-00247	BR8HS-10	1134
Yamaha	94702-00248	BR6HS	3922
Yamaha	94702-00249	BR5HS	3722
Yamaha	94702-00251	BR9HS	4522
Yamaha	94702-00271	BR7HS-10	1098
Yamaha	94702-00272	BR7HS	4122
Yamaha	94702-00273	B6HS-10	1052
Yamaha	94702-00274	BR6HS-10	1090
Yamaha	94702-00309	BR9HS-10	4551
Yamaha	94702-00317	B9HS-10	3626
Yamaha	94702-00325	B9EG	3530
Yamaha	94702-00331	BPR4ES	7222
Yamaha	94702-00348	BPR2ES	2264
Yamaha	94702-00349	BR7ES	5122
Yamaha	94702-00372	CR6HSB	6500
Yamaha	94702-00383	BR9ECS	4677
Yamaha	94702-00391	LFR5A-11	6376
Yamaha	94702-00396	BR8ES-11	7986
Yamaha	94702-00399	BKR7ES-11	4952
Yamaha	94702-00400	LFR6A-11	3672
Yamaha	94702-00401	BKR6ES-11	5553
Yamaha	94702-00404	BKR7EKU	5881
Yamaha	94702-00405	BKR6EKU	6993
Yamaha	94702-00409	CR9EB	6955
Yamaha	94702-00418	DPR6EB-9	3108
Yamaha	94702-00419	CR4HSB	4695
Yamaha	94702-00427	LFR6A	6668
Yamaha	94702-00429	LKR7E	1643
Yamaha	94702-00437	LKR6E	92650
Yamaha	94703-00001	B4H	4110
Yamaha	94703-00039	B6HS	7534

Brand	Genuine Parts #	NGK Part #	Stk #
Yamaha	94703-00040	B7HS	5110
Yamaha	94703-00041	B8HS	5510
Yamaha	94703-00042	B9HS	5810
Yamaha	94703-00043	B6ES	7432
Yamaha	94703-00044	B7ES	1111
Yamaha	94703-00045	B8ES	2411
Yamaha	94703-00046	B9ES	2611
Yamaha	94703-00050	BP7HS	5111
Yamaha	94703-00069	B5HS	4210
Yamaha	94703-00078	B5ES	6410
Yamaha	94703-00108	BP6HS	7331
Yamaha	94703-00110	BR7HS	4122
Yamaha	94703-00112	BR7ES	5122
Yamaha	94703-00113	BR8EIX	5044
Yamaha	94703-00116	BP6ES	7333
Yamaha	94703-00117	BP7ES	1034
Yamaha	94703-00118	BP8ES	2912
Yamaha	94703-00133	BP5ES	7832
Yamaha	94703-00157	D8EA	2120
Yamaha	94703-00160	B8HS-10	5126
Yamaha	94703-00188	BR9ES	5722
Yamaha	94703-00189	D7EA	7912
Yamaha	94703-00194	BPR5HS	6222
Yamaha	94703-00198	BPR6HS	7022
Yamaha	94703-00203	DR8ES-L	2923
Yamaha	94703-00204	BR8ES	5422
Yamaha	94703-00207	B4ES	4129
Yamaha	94703-00213	C6HSA	3228
Yamaha	94703-00217	B7HS-10	2129
Yamaha	94703-00218	BPR7ES	5534
Yamaha	94703-00227	BPR7HS	6422
Yamaha	94703-00232	BP6HS-10	6326
Yamaha	94703-00234	BPR6ES	7131
Yamaha	94703-00241	DPR8EA-9	4929
Yamaha	94703-00254	C7HSA	4629
Yamaha	94703-00256	C6HSA	3228
Yamaha	94703-00258	BPR4HS	7823
Yamaha	94703-00262	DPR7EA-9	5129
Yamaha	94703-00264	BP7HS-10	7829
Yamaha	94703-00273	B6HS-10	1052
Yamaha	94703-00275	DP8EA-9	5829
Yamaha	94703-00279	BR8EIX	5044
Yamaha	94703-00282	CR6HS	7023
Yamaha	94703-00292	BPR6HS-10	2633
Yamaha	94703-00318	CR9E	6263
Yamaha	94703-00320	BPR7ES-11	7226
Yamaha	94703-00325	B9EG	3530
Yamaha	94703-00328	BPR5ES	7734
Yamaha	94703-00330	CR8E	1275
Yamaha	94703-00331	BPR4ES	7222
Yamaha	94703-00333	DR8EA	7162

Brand	Genuine Parts #	NGK Part #	Stk #
Yamaha	94703-00340	DR9EA	3437
Yamaha	94703-00345	DR7EA	7839
Yamaha	94703-00372	CR6HSA	2983
Yamaha	94703-00375	DPR6EA-9	5531
Yamaha	94703-00381	CR6E	6965
Yamaha	94703-00403	CR9EK	4548
Yamaha	94703-00410	CR9E	6263
Yamaha	94703-00411	CR8E	1275
Yamaha	94709-00195	BR8HS	4322
Yamaha	94709-00247	BR8HS-10	1134
Yamaha	94709-00248	BR6HS	3922
Yamaha	94709-00271	BR7HS-10	1098
Yamaha	94709-00274	BR6HS-10	1090
Yamaha	94709-00309	BR9HS-10	4551
Yamaha	94709-00348	BPR2ES	2264
Yamaha	94709-00372	CR6HSB	6500
Yamaha	94709-00383	BR9ECS	4677
Yamaha	94709-00391	LFR5A-11	6376
Yamaha	94709-00396	BR8ES-11	7986
Yamaha	94709-00399	BKR7ES-11	4952
Yamaha	94709-00400	LFR6A-11	3672
Yamaha	94709-00401	BKR6ES-11	5553
Yamaha	94709-00404	BKR7EKU	5881
Yamaha	94709-00405	BKR6EKU	6993
Yamaha	94709-00409	CR9EB	6955
Yamaha	94709-00418	DPR6EB-9	3108
Yamaha	94709-00419	CR4HSB	4695
Yamaha	94709-00427	LFR6A	6668
Yamaha	94709-00429	LKR7E	1643
Yamaha	94709-00437	LKR6E	92650
Yamaha	94793-20037	BP4HS-10	5011
Yanmar	129155-77800	Y-702R	1065
Yanmar	124190-78010	BPR4ES	7222
Yanmar	160110-78011	B6HS	7534
Yanmar	160232-78010	B4H	4110
Yanmar	160690-78010	BP6ES	7333
Yanmar	160690-78020	BP5ES	7832
Yanmar	160693-78010	BPR6ES	7131
Yanmar	160793-78010	BPR5ES	7734
Yanmar	160798-78010	BPR2ES	2264
Yanmar	160810-78010	BPR4HS	7823
Yanmar	160999-78030	BKR5E	7938
Yanmar	181630-78010	BUHW	2622
Yanmar	182001-04880	BMR4A	5728
Yanmar	182001-13010	DR4HS	3326
Yanmar	182001-13020	DR5HS	4623
Yanmar	182001-22470	DR6HS	4823
Yanmar	182001-26760	DR7EA	7839
Yanmar	182001-47140	ZFR7F	5913
Yanmar	182001-59620	CR5EH-9	6689



### Most Popular Champion Marine Spark Plugs

Part No.	Stock No.	Pack Qty.
CJ14	846	8
D16	516	6
J4C	825	8
J6C	823	8
J6C/S24	823S	24
J8C	841S	4
J17LM	845	8
L76V	827M	4
L76V/S24	827S	24
L77JC4	821M	4
L77JC4/S24	821S	24
L78V	833M	4
L78V/S24	833S	24
L78YC	936M	4
L78YC/S24	936S	24
L82C	811M	4
L82YC	328	4
L86C	306	8
L90C	896	8
L92YC	806	8
N3C	801	8
QC10PEP	958	6
QC12PEP	956M	6
QC12PEPA	952M	4
QC12PEPB	7953	4
QL6VC	886M	4
QL16V	876M	4
QL76V	898M	4
QL77CC	941M	6
QL77JC4	828M	4
QL77JC4/S24	828S	24
QL77PP	943M	6
QL78C	883M	4
QL78C/S24	883S	24
QL78V	838M	4
QL78YC	938M	4
QL78YC/S24	938S	24
QL82C	931M	4
QL82C/S24	931S	24
QL82YC	932M	4
QL82YC/S24	932S	24
QL86C	933M	4

### Most Popular Champion Marine Spark Plugs

Part No.	Stock No.	Pack Qty.
QL87YC	934M	4
RA6HC	809	8
RA8HC	810	8
RC12YC	71	6
RF10C	129	8
RF11YC	22	8
RFN14LY	82	6
RH8C	538	8
RJ8C	871	8
RJ12YC	14	4
RJ14YC	63	8
RN9YC	415	4
RN12YC	404	4
RS9YC	304	6
RS12PYP	7401	6
RS12YC	401	6
RS12YC/S24	401S	24
RS14YC	408	6
RS14YC6	13	8
RS15LYC	15	6
RS17YX	909	8
RV8C	121	8
RV8C/S24	121S	24
RV9YC	400	4
RV12C	113	8
RV12YC	406	4
RV12YC/S24	406S	24
RV15YC4	18	8
RV15YC6	79	4
RV17YC	25	4
RV91MC	942M	4
RV92YC	930	8
RZ7C	965	4
UD16	555	6
UL18V	824	8
UL77V	831M	4
V63C	802	8
XC12PEPB	955	4
XEJ8	557	8
XMJ20	573	8
Z9Y	808	8

When ordering please place "CHM" in front of part number





## MAGSTAR Gold Wire

- Hi-Temp double silicone jacket & insulation protects up to 600°F
- Unique S-Four mag wire conductor
- Fiberglass braid tensile increases wire strength
- Kevlar® inner core ensures conductor integrity
- Electronics friendly - Protects on-board components

## MAGSTAR Boots and Terminals

- Hi-Temp boots provide maximum heat protection
- Premium stainless steel snap lock terminals
- Special crimp design helps prevent terminal pull-off

## MAGSTAR Limited Lifetime Warranty

Part No.	Model	Ignition	Cyl.
<b>CHRIS CRAFT</b>			
MAG 602	All 6 Cylinder Engines	Conventional	6
MAG 801	350 w/ Top Term. Dist. Cap	Conventional	8
MAG 806	350 w/ Flat Top Dist. Cap	Conventional	8

## CHRYSLER

MAG 604	229 V-6	All	6
MAG 807	273/318/340/360 Small Block	All	8
MAG 802	360 Big Block, 383/400/440	All	8

## CRUSADER

MAG 604	262	Conventional	6
MAG 601	229,262(4.3L) V-6	Electronic	6
MAG 801	302, 351 Ford	Conventional	8
MAG 810	All GM Models	Conventional	8
MAG 815	5.0L / 5.7L New style Dist. (2002+)	Electronic	8
MAG 813	MP6.0L (2003-04')	Electronic	8
MAG 803	All GM Models w/ Old Style Dist.	Electronic	8
MAG 809	454XL,454XL(HO), 502XL	Electronic	8
MAG 808	8.1L / 496	Electronic	8

## INDMAR, FLAGSHIP, MSTR. CRAFT & MARINE POWER

MAG 604	262	Conventional	6
MAG 601	262(4.3L) V-6	Electronic	6
MAG 801	302, 351 Ford	Conventional	8
MAG 801	305, 350	Conventional	8
MAG 803	305, 350, 454	Electronic	8
MAG 810	454, 502	Conventional	8
MAG 809	454, 502	Electronic	8
MAG 808	8.1L / 496	Electronic	8

## MERCURISER

MAG 401	110,120,140,3.0LX	Conventional	4
MAG 405	120,140,3.0LX	Electronic	4
MAG 402	470,485,488,3.7L	Conventional	4
MAG 602	140,150,160,165	Conventional	6
MAG 604	185 (229 cu.in.)	Thunderbolt	6
MAG 601	185MR, 205MR, 4.3XL	Electronic	6
MAG 606	4.3L w/ New Style Dist. '02 & up	Electronic	6
MAG 801	All Models Top Term. Dist. Cap	Conventional	8
MAG 806	All Models Flat Top Dist. Cap	Conventional	8
MAG 804	All Models excl. 454 Hi-Perf.	Electronic	8
MAG 815	5.0 / 5.7L New Style Dist. '02 & up	Electronic	8
MAG 813	6.2L MPI, MEI	Electronic	8
MAG 809	454 Hi Performance	Electronic	8
MAG 808	8.1L / 496	Electronic	8

Part No.	Model	Ignition	Cyl.
<b>OMC</b>			
MAG 401	100/110/120/140/2.5L/3.0L	Conventional	4
MAG 403	2.5L/3.0L Ford	Conventional	4
MAG 405	3.0L/HO	Electronic	4
MAG 406	3.0L/HO with Delco	Electronic	4
MAG 602	All In Line 6 Cylinder	Conventional	6
MAG 604	3.8L/4.3L	Conventional	6
MAG 601	4.3L (262)	Electronic	6
MAG 801	370/454/502	Conventional	8
MAG 801	175/185/190/200/5.0L/5.7L GM*	Conventional	8
MAG 801	225/230/235/240/250/260*	Conventional	8
*Except with Mallory Flat Top Dist. Cap			
MAG 806	All w/Mallory Flat Top Dist. Cap	Conventional	8
MAG 805	5.0L (302), 5.8L (351) Ford	Conventional	8
MAG 803	5.0L (302), 5.8L (351)	Electronic	8
MAG 811	460 King Cobra	Conventional	8
MAG 814	8.1L / 496	Electronic	8

## PLEASURECRAFT (PCM)

MAG 801	All w/Top Term. Cap (except 454)	Conventional	8
MAG 806	All w/Mallory Flat Top Dist. Cap	Conventional	8
MAG 815	5.0L/5.7L New Style Dist '02 & up	Electronic	8
MAG 813	MP6.0L	Electronic	8
MAG 809	7.4L / 454	Electronic	8
MAG 814	8.1L / 496	Electronic	8

## VOLVO-PENTA

MAG 404	All 4 Cylinder models	Conventional	4
MAG 604	All V-6 models	Electronic	6
MAG 801	All w/Top Term Dist. Cap	Conventional	8
MAG 806	All w/Mallory Flat Top Term Cap	Electronic	8
MAG 808	8.1L / 496	Electronic	8

## YAMAHA

MAG 601	4.3L	Electronic	6
MAG 803	5.0L / 5.7L / 7.4L	Electronic	8



**BoatersBest**™

**"OUTBOARD"**

Leads & Sets Feature:

- Stainless steel mag wire conductor delivers the hottest spark
- Stainless steel terminals prevent corrosion
- Electronic friendly to protect you GPS, VHS, Depth Finder and Loran from RFI and EMI
- High grade Silicone insulation for maximum heat protection
- Exceeds original equipment specifications

## MERCURY, MARINER & FORCE

Part No.	Description
BBB 023002	5" Lead
BBB 023003	7" Lead
BBB 023004	9" Lead
BBB 023005	12" Lead

## OMC, JOHNSON & EVINRUDE

Part No.	Description
BBB 023012	4" Lead
BBB 023013	6" Lead
BBB 023014	9" Lead
BBB 023015	12" Lead

## MEGA-MAG MARINE IGNITION WIRE SETS

- Silicone Boots
- Silicone Magnetic Radio Suppression Wire
- Less Resistance
- Permits Spark Plug to Fire More Efficiently
- Heat, Oil and Moisture Resistance
- Custom Tailored to Fit Applications
- Stainless Steel Snap Ring Terminals



- Sets for Mercruiser, Chrysler, Ford, Volvo & Crusader
- Semi-Tailored Wire Sets
- Wire Sets for Generators
- Meets or Exceeds O.E.M. Specifications

### Chris Craft

Call for availability

### Chrysler Marine

Call for availability

### Crusader

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
-------------	-------	-------	------------------	---------------------	-------------	--------

#### 8 CYLINDER

##### W/ DELCO Ignition

##### W/ CENTER RISER Manifolds

305, 350	2004-91	305 (5.0L), 350 (5.7L)	Delco HEI (EST)	98171 (w/ 180° spark plug boots)		<b>203</b>
305, 350	1990-85	305 (5.0L), 350 (5.7L)	Delco HEI (EST)	98070 (w/ 90° spark plug boots)		<b>126</b>
				98070 (w/ 90° spark plug boots)		<b>126</b>
377	1998-95	6.2L	Delco (Flat cap - side terminal)			<b>135</b>
454, 502	2004-91	GM Engines	Delco HEI (EST)	98171 (w/ 180° spark plug boots)		<b>203</b>

##### W/ END RISER Manifolds

305, 350	1998-91	220, 270	Delco HEI (EST)	98070		<b>126</b>
454, 502, 540, 572	1998-95	ALL	Delco (Flat cap - side terminal)			<b>135</b>

#### W/ PRESTOLITE IGNITION

305, 350, 454 (GM)	2004-70	220, 270, 350	Prestolite	97454		<b>201</b>
302, 351 (FORD)	1978-70	ALL	Prestolite			<b>109</b>
460 (FORD)	1978-70	ALL	Prestolite			<b>110</b>

#### W/ MALLORY IGNITION

283, 327, 348	1972-61	ALL	Mallory (Top Terminal)			<b>109</b>
			Mallory (Side Terminal)			<b>202</b>
307, 350		ALL	Mallory (Side Terminal)			<b>202</b>
396, 454	1975-69	ALL	Mallory (Side Terminal)	97454		<b>201</b>
409	1972-61	ALL	Mallory (Top Terminal)			<b>109</b>
427	1975-69	ALL	Mallory (Side Terminal)	97454		<b>201</b>
			Mallory (Top Terminal)			<b>109</b>
427	1968-61	ALL	Mallory (Top Terminal)			<b>109</b>

### Ford Marine

Call for availability

### Mercruiser

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
-------------	-------	-------	------------------	---------------------	-------------	--------

#### 4 CYLINDER

153 (2.5)	1986-64	120	Delco	84-813720A5 / 84-816761Q4	1666601 - 0B531853	<b>105</b>
	1966-63	110	Delco	84-813720A5 / 84-816761Q5	1537370 - 2044033	<b>105</b>
180 (3.0)	2004-98	3.0L	Delco EST	84-816761Q14	0D504542 & Up	<b>215</b>
	1997-92	3.0L	Delco EST	84-816761Q14	0D504542 & Up	<b>215</b>
		3.0LX	Delco EST	84-816761Q14	0D504542 - 0K999999	<b>215</b>
	1991	3.0L	Delco EST	84-816761Q14	0D504542 & Up	<b>215</b>
		3.0LX	Delco EST	84-816761Q14	0D504542 - 0K999999	<b>215</b>
		3.0L, LX	Prestolite	84-813720A5 / 84-816761Q4	0C856559 - 0D504541	<b>105</b>

When ordering please place "MEG" in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
			Delco Digital	84-813720A13, 84-816761A13,Q13	0C856559 - 0D504541	<b>104</b>
	1990	3.0L, LX	Prestolite	84-813720A5 / 84-816761Q4	0C856559 - 0D504541	<b>105</b>
			Delco Digital	84-813720A13, 84-816761A13,Q13	0C856559 - 0D504541	<b>104</b>
	1989-87	3.0L	Delco	84-813720A5 / 84-816761Q4	0B450801 - 0C856558	<b>105</b>
	1986-68	140	Delco	84-813720A5 / 84-816761Q4	2508261 - 0B450800	<b>105</b>
224 (3.7)	1989-88	3.7L	Delco	84-813720A6, 84-816761Q6	0B774252 & Up	<b>106</b>
		3.7LX	Delco	84-813720A6, 84-816761Q6	0B775249 & Up	<b>106</b>
			Prestolite	84-813720A5 / 84-816761Q4	0B775249 & Up	<b>105</b>
	1987	165	Delco	84-813720A6, 84-816761Q6	0B434940 - 0B774251	<b>106</b>
		180	Prestolite	84-813720A5 / 84-816761Q4	0B436391 - 0B775248	<b>105</b>
	1986-85	170	Delco	84-813720A6, 84-816761Q6	6916779 - 0B434940	<b>106</b>
		190	Delco	84-813720A6, 84-816761Q6	6916779 - 0B436390	<b>106</b>
	1984-83	470	Delco	84-813720A6, 84-816761Q6	4208370 - 6916778	<b>106</b>
		488	Delco	84-813720A6, 84-816761Q6	6170297 - 6916778	<b>106</b>
	1982-81	470	Delco	84-813720A6, 84-816761Q6	4208370 - 6916778	<b>106</b>
		485	Delco	84-813720A6, 84-816761Q6	5685394 - 6218036	<b>106</b>
		488	Delco	84-813720A6, 84-816761Q6	6170297 - 6916778	<b>106</b>
	1980	470	Delco	84-813720A6, 84-816761Q6	4208370 - 6916778	<b>106</b>
		485	Delco	84-813720A6, 84-816761Q6	5685394 - 6218036	<b>106</b>
	1979-76	470	Delco	84-813720A6, 84-816761Q6	4208370 - 6916778	<b>106</b>
<b>6 CYLINDER</b>						
194 (3.1)	1981-70	165	Delco	84-813720A8 / 84-816761A8,Q8	2770032 - 5813433	<b>108</b>
	1969	160, 200	Delco	84-813720A8 / 84-816761A8,Q8	2048022 - 2770031	<b>108</b>
		200	Delco	84-813720A8 / 84-816761A8,Q8	2453769 - 2712072	<b>108</b>
	1968-67	160, 200	Delco	84-813720A8 / 84-816761A8,Q8	2048022 - 2770031	<b>108</b>
	1966-64	150	Delco	84-813720A8 / 84-816761A8,Q8	1666495 - 2048046	<b>108</b>
	1963	140	Delco	84-813720A8 / 84-816761A8,Q8	1538930 - 1725960	<b>108</b>
262 (4.3)	2008-05	4.3L MPI	Delco (Flat cap - side terminal)		0M300000 & Up	<b>204</b>
	2004	4.3L MPI	Delco (Flat cap - side terminal)		0M300000 & Up	<b>204</b>
		4.3L EFI	Delco/Mercury HEI	84-816608A82	0L360000 - UP	<b>127</b>
	2003-98	4.3L MPI	Delco (Flat cap - side terminal)		0M300000 & Up	<b>204</b>
		4.3L EFI	Delco/Mercury HEI	84-816608A82	0L012009 - UP	<b>127</b>
		4.3L (H Alpha & H Bravo)	Thunderbolt V	84-813720A11, 84-816761Q16	0L010044 & Up	<b>111</b>
	1997	262 Mag	Delco/Mercury HEI	84-816608A82	0F803800 - 0K999999	<b>127</b>
		4.3LX, LXH	Thunderbolt IV	84-813720A11, 84-816761Q16	0B775130 - 0K999999	<b>111</b>
	1996	262 Mag	Delco/Mercury HEI	84-816608A82	0F803800 - 0K999999	<b>127</b>
		4.3LX, LXH	Thunderbolt IV	84-813720A11, 84-816761Q16	0B775130 - 0K999999	<b>111</b>
		4.3L	Thunderbolt IV	84-813720A11, 84-816761Q16	0B773243 - 0F802999	<b>111</b>
	1995-88	4.3LX, LXH	Thunderbolt IV	84-813720A11, 84-816761Q16	0B775130 - 0K999999	<b>111</b>
		4.3L	Thunderbolt IV	84-813720A11, 84-816761Q16	0B773243 - 0F802999	<b>111</b>
	1987	175	Thunderbolt IV	84-813720A11, 84-816761Q16	0B527955 - 0B773242	<b>111</b>
		185	Thunderbolt IV	84-813720A11, 84-816761Q16	6919656 - 0B527954	<b>111</b>
		205	Thunderbolt IV	84-813720A11, 84-816761Q16	0A331445 - 0B775129	<b>111</b>
	1986-85	185	Thunderbolt IV	84-813720A11, 84-816761Q16	6919656 - 0B527954	<b>111</b>
		205	Thunderbolt IV	84-813720A11, 84-816761Q16	0A331445 - 0B775129	<b>111</b>
<b>8 CYLINDER</b>						
283 (4.7)	1964-63	190 (GM)	Delco		1564539 - 1730903	<b>109</b>
302 (5.0) FORD	1977-75	888	Autolite/Mallory/Pres- tolite/Mercury		3108723 - 4887829	<b>109</b>
	1974-73	888	Autolite/Mallory/Pres- tolite/Mercury		3108723 - 4887829	<b>109</b>
		225 MCM & MIE	Autolite / Mallory / Mercury		3385721 - 4166999	<b>109</b>
	1972-71	888	Autolite/Mallory/Pres- tolite/Mercury		3108723 - 4887829	<b>109</b>
		215 MCM & MIE	Autolite / Mallory		2781153 - 3563181	<b>109</b>
	1970	215 MCM & MIE	Autolite / Mallory		2781153 - 3563181	<b>109</b>
305 (5.0)	2003-01	5.0L MPI Alpha	Delco (Flat cap - side terminal)	84-863656A1, A03	0M300000 & Up	<b>135</b>

When ordering please place **"MEG"** in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
		5.0L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
		5.0L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
305 (5.0)	2000-99	5.0L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
		5.0L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
305 (5.0)	1998	5.0L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
		5.0L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
		5.0L EFI	Delco HEI	84-816608 - A70 / Q70	0L012052 - 0L339999	<b>203</b>
305 (5.0)	1997-96	5.0L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
		5.0L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
305 (5.0)	1995-89	5.0L	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B774445 - 0F600999	<b>103</b>
		5.0LX	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B773740 - 0F600999	<b>103</b>
		5.0L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
		5.0L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
305 (5.0)	1988	5.0L	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B774445 - 0F600999	<b>103</b>
		5.0LX	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B773740 - 0F600999	<b>103</b>
		5.0L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
		5.0L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L015751 & Up	<b>103</b>
		5.0L MIE (LH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B788152 - 0C396832	<b>103</b>
		5.0L MIE (RH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B788152 - 0C396832	<b>103</b>
305 (5.0)	1987-85	200	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6899058 - 0B774444	<b>103</b>
		230	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6899269 - 0B773739	<b>103</b>
		230 MIE (LH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		230 MIE (RH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>

When ordering please place **"MEG"** in front of part number



Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
305 (5.0)	1984-83	898	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6218462 - 6899057	<b>103</b>
		228	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6218462 - 6899268	<b>103</b>
		230 MIE (LH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		230 MIE (RH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
305 (5.0)	1982-81	898	Mallory		4762210 - 6218461	<b>109</b>
		228	Mallory		4765100 - 6218461	<b>109</b>
		228	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6218462 - 6899268	<b>103</b>
		230 MIE (LH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		230 MIE (RH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		230 MIE (LH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		230 MIE (RH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
305 (5.0)	1980-77	898	Mallory		4762210 - 6218461	<b>109</b>
		228 MIE	Mallory		4765100 - 5907057	<b>109</b>
		228	Mallory		4765100 - 6218461	<b>109</b>
305 (5.0)	1977	198 MIE	Mallory		4776402 - 4931099	<b>109</b>
327 (5.3)	1969	225 (GM)	Delco		1539620 - 2694014	<b>109</b>
		250 MCM & MIE	Thunderbolt		2314301 - 2639854	<b>109</b>
	1968	225 (GM)	Delco		1539620 - 2694014	<b>109</b>
		225 MIE (GM)	Thunderbolt		2278647 - 2694014	<b>109</b>
		250 MCM & MIE	Thunderbolt		2314301 - 2639854	<b>109</b>
	1967-63	225 (GM)	Delco		1539620 - 2694014	<b>109</b>
350 (5.7)	2004	5.7L MIE	Thunderbolt V	84-816608A80,Q80	0L02003 & Up	<b>123</b>
		5.7L Ski	Thunderbolt V	84-816608A80,Q80	0L002005 & Up	<b>123</b>
350 (5.7)	2003-01	350 Mag MPI (Alpha & Bravo)	Delco (Flat cap - side terminal)	84-863656A1, A03	0M300000 & Up	<b>135</b>
		350 Mag MPI (Horizon & MIE)	Delco (Flat cap - side terminal)	84-863656A1, A03	0M300000 & Up	<b>135</b>
		5.7L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L010037 & Up	<b>103</b>
		5.7L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353525 & Up	<b>103</b>
		5.7L MIE	Thunderbolt V	84-816608A80,Q80	0L02003 & Up	<b>123</b>
		5.7L Ski	Thunderbolt V	84-816608A80,Q80	0L002005 & Up	<b>123</b>
350 (5.7)	2000-99	5.7L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L010037 & Up	<b>103</b>
		5.7L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353525 & Up	<b>103</b>
		5.7L MIE	Thunderbolt V	84-816608A80,Q80	0L02003 & Up	<b>123</b>
		5.7L Ski	Thunderbolt V	84-816608A80,Q80	0L002005 & Up	<b>123</b>
350 (5.7)	1998	5.7L EFI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F225560 - 0L339999	<b>203</b>
		350 Mag MPI	Delco HEI	84-816608 - A70, Q70	0L010019 - 0L325952	<b>203</b>
		5.7L Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0L010037 & Up	<b>103</b>

When ordering please place **"MEG"** in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
		5.7L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353525 & Up	<b>103</b>
		5.7L MIE	Thunderbolt V	84-816608A80, Q80	0L02003 & Up	<b>123</b>
		5.7L Ski	Thunderbolt V	84-816608A80, Q80	0L002005 & Up	<b>123</b>
350 (5.7)	1997	5.7L EFI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F225560 - 0L339999	<b>203</b>
		5.7L EFI MIE	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0K040300 - 0K999999	<b>203</b>
		350 Mag EFI Ski	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F215561 - 0K999999	<b>203</b>
		350 Mag Alpha EFI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F800300 - 0K999999	<b>203</b>
		5.7LX Bravo & EFI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F752400 - 0K999999	<b>203</b>
		350 Mag Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353691 - 0K999999	<b>103</b>
		5.7L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353525 & Up	<b>103</b>
		5.7LX Alpha & Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F601000-0K999999	<b>103</b>
		350 Mag MPI Ski	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0D505450 - 0K999999	<b>103</b>
		5.7L Ski	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F775200 - 0K999999	<b>103</b>
		5.7L MIE	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F622100 - 0K999999	<b>103</b>
350 (5.7)	1996	5.7L EFI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F225560 - 0L339999	<b>203</b>
		5.7LX Bravo & EFI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F752400 - 0K999999	<b>203</b>
		350 Mag Alpha EFI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F800300 - 0K999999	<b>203</b>
		350 Mag EFI Ski	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F215561 - 0K999999	<b>203</b>
		350 Mag Bravo MPI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F415189 - 0K999999	<b>203</b>
		5.7L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353525 & Up	<b>103</b>
		5.7LX Alpha & Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F601000-0K999999	<b>103</b>
		5.7L Ski	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F775200 - 0K999999	<b>103</b>
		5.7L MIE	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F622100 - 0K999999	<b>103</b>
		350 Mag Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353691 - 0K999999	<b>103</b>
		350 Mag MPI Ski	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0D505450 - 0K999999	<b>103</b>
350 (5.7)	1995	5.7L EFI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F225560 - 0L339999	<b>203</b>
		350 Mag EFI Ski	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F215561 - 0K999999	<b>203</b>
		350 Mag Bravo MPI	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F415189 - 0K999999	<b>203</b>

When ordering please place **"MEG"** in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
		5.7L Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B773305 - 0F600999	<b>103</b>
		5.7L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353525 & Up	<b>103</b>
		350 Mag Alpha	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353691 - 0K999999	<b>103</b>
		350 Mag MPI Ski	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0D505450 - 0K999999	<b>103</b>
		5.7L MIE	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B788152 - 0F746099	<b>103</b>
		5.7L Ski	Mallory / Prestolite	84-813720A12, 84-816761A12, Q12	0A338553 - 0F775199	<b>112</b>
350 (5.7)	1994	350 Mag EFI Ski	Delco HEI	84-816608 - A68,71,78 / Q68,71,78	0F215561 - 0K999999	<b>203</b>
		5.7L Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B773305 - 0F600999	<b>103</b>
		5.7L Bravo	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0F353525 & Up	<b>103</b>
		5.7L MIE	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B788152 - 0F746099	<b>103</b>
		350 Mag MPI Ski	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0D505450 - 0K999999	<b>103</b>
		350 Mag Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0A635178 - 0F353690	<b>103</b>
		5.7L Ski	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B514627 - 0F775199	<b>103</b>
		5.7L Ski	Mallory / Prestolite	84-813720A12, 84-816761A12, Q12	0A338553 - 0F775199	<b>112</b>
350 (5.7)	1993-91	350 Mag Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0A635178 - 0F353690	<b>103</b>
		350 Mag MPI Ski	Thunderbolt V	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0D505450 - 0K999999	<b>103</b>
		5.7L Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B773305 - 0F600999	<b>103</b>
		5.7L Bravo	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B773305 - 0F353524	<b>103</b>
		5.7L MIE	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B788152 - 0F746099	<b>103</b>
		5.7L Ski	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B514627 - 0F775199	<b>103</b>
		5.7L Ski	Mallory / Prestolite	84-813720A12, 84-816761A12, Q12	0A338553 - 0F775199	<b>112</b>
350 (5.7)	1990-88	350 Mag Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0A635178 - 0F353690	<b>103</b>
		320 EFI	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0A543604 - 0C622418	<b>103</b>
		5.7L Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B773305 - 0F600999	<b>103</b>

When ordering please place **"MEG"** in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
		5.7L Bravo	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B773305 - 0F353524	<b>103</b>
		5.7L MIE	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B788152 - 0F746099	<b>103</b>
		5.7L Ski	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B514627 - 0F775199	<b>103</b>
		5.7L Ski	Mallory / Prestolite	84-813720A12, 84-816761A12, Q12	0A338553 - 0F775199	<b>112</b>
350 (5.7)	1987	350 Mag Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0A635178 - 0F353690	<b>103</b>
		320 EFI	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0A543604 - 0C622418	<b>103</b>
		260	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6218462 - 0B773304	<b>103</b>
		5.7L Ski	Mallory / Prestolite	84-813720A12, 84-816761A12, Q12	0A338553 - 0F775199	<b>112</b>
		5.7L Ski	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0B514627 - 0F775199	<b>103</b>
350 (5.7)	1986-85	350 Mag Alpha	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	0A635178 - 0F353690	<b>103</b>
		300	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6668677 - 0B430367	<b>103</b>
		260	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6218462 - 0B773304	<b>103</b>
		260 MIE (LH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		260 MIE (RH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		5.7L Ski	Mallory / Prestolite	84-813720A12, 84-816761A12, Q12	0A338553 - 0F775199	<b>112</b>
350 (5.7)	1984-81	260 MIE (LH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		260 MIE (RH)	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	5907058 - 0B788151	<b>103</b>
		260	Thunderbolt IV	84-813720A2, A3, A4 84-816608A61, Q61 84-816761A2, A15, K4, K17, Q3	6218462 - 0B773304	<b>103</b>
		260	Mallory		4908850 - 6218461	<b>109</b>
350 (5.7)	1980-78	260	Mallory		4908850 - 6218461	<b>109</b>
		255 MIE	Mercury		4768000 - 5907057	<b>109</b>
350 (5.7)	1977	250	Mallory		4768000 - 4908849	<b>109</b>
		255 MIE	Mercury		4768000 - 5907057	<b>109</b>
350 (5.7)	1976	255 MCM & MIE	Mercury		4498701 - 4767999	<b>109</b>
			Mallory		3258728 - 4501254	<b>109</b>
350 (5.7)	1975	255 MCM & MIE	Mallory		3258728 - 4501254	<b>109</b>
		280 TRS	Mercury / Mallory		4176250 - 4499390	<b>109</b>
350 (5.7)	1974-69	270 MCM & MIE	Thunderbolt		2851074 - 3385720	<b>109</b>
351 (5.8) FORD	1980-73	255 MCM & MIE	Mallory / Mercury		3258728 - 5907057	<b>109</b>
	1977-75	233 MCM & MIE	Mercury / Prestolite		4173000 - 4902304	<b>109</b>
377 (6.2)	2003-01	MX 6.2L MPI	Delco (Flat cap - side terminal)	84-863656A1, A03	0M300000 & Up	<b>135</b>
		MX 6.2L MPI Horizon	Delco (Flat cap - side terminal)	84-863656A1, A03	0M300000 & Up	<b>135</b>

When ordering please place **"MEG"** in front of part number



Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
		MX 6.2L MPI Horizon MIE	Delco (Flat cap - side terminal)	84-863656A1, A03	0M300000 & Up	135
		MX 6.2L MPI MIE	Delco (Flat cap - side terminal)	84-863656A1, A03	0M300000 & Up	135
427 (7.0)	1974-73	325 MCM & MIE	Thunderbolt		2278747 & Up	109
427 (7.0)	1972-71	325 MCM & MIE	Thunderbolt		2278747 & Up	109
			Mallory		2278747 & Up	110
427 (7.0)	1970-68	325 MCM & MIE	Thunderbolt		2278747 & Up	109
			Mallory		2278747 & Up	110
		390	Mallory		ALL	110
454 (7.4)	2003-99	454 Mag MPI	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F802350 & Up	203
		454 Mag MPI Horizon MIE	Delco HEI	84-816608A68,71,78 / Q68,71,78	0L002200 & Up	203
		7.4L MPI (L29)	Delco HEI	84-816608A68,71,78 / Q68,71,78	0L010003 & Up	203
		7.4L MPI MIE	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F563052 & Up	203
454 (7.4)	1998	7.4L MPI (L29)	Delco HEI	84-816608A68,71,78 / Q68,71,78	0L010003 & Up	203
		7.4L MPI MIE	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F563052 & Up	203
454 (7.4)	1997	7.4L MIE	Thunderbolt V	84-816761A4, 84-816761Q4	0D715494 - 0K999999	102
		7.4L MPI - MIE	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F563052 & Up	203
		7.4L Bravo I, II, III	Thunderbolt IV	84-816761A4, 84-816761Q4	0B771113 - 0K999999	102
		7.4LX Bravo EFI & MPI	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F602010 - 0K999999	203
		454 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0B721206 - 0K999999	102
		454 Mag MPI Ski	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F215800 - 0K999999	203
454 (7.4)	1996	7.4L EFI & EFI MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0B788366 - 0F820141	102
		7.4L MIE	Thunderbolt V	84-816761A4, 84-816761Q4	0D715494 - 0K999999	102
		7.4L MPI MIE	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F563052 & Up	203
		7.4L Bravo I, II, III	Thunderbolt V	84-816761A4, 84-816761Q4	0B771113 - 0K999999	102
		7.4LX Bravo EFI & MPI	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F602010 - 0K999999	203
		454 Mag MPI Ski	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F215800 - 0K999999	203
		454 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0B721206 - 0K999999	102
		454 Mag EFI	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F115700 - 0F802349	203
		450	Thunderbolt IV	84-816761A4, 84-816761Q4	0F347100 - 0F347277	102
		525 SC (Gen. V)	Thunderbolt IV	847701Q7	0F615814 - 0F745215	102
454 (7.4)	1995	7.4L EFI & EFI MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0B788366 - 0F820141	102
		7.4L MIE	Thunderbolt V	84-816761A4, 84-816761Q4	0D715494 - 0K999999	102
		7.4L MPI MIE	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F563052 & Up	203
		7.4L Bravo I, II, III	Thunderbolt IV	84-816761A4, 84-816761Q4	0B771113 - 0K999999	102
		454 Mag MPI Ski	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F215800 - 0K999999	203
		454 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0B721206 - 0K999999	102
		454 Mag EFI	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F115700 - 0F802349	203
		450	Thunderbolt IV	84-816761A4, 84-816761Q4	0F347100 - 0F347277	102
		525 SC (Gen. V)	Thunderbolt IV	816608Q61, 847701Q7	0D456000 - 0F348963	102
454 (7.4)	1994	7.4L Bravo I, II, III	Thunderbolt IV	84-816761A4, 84-816761Q4	0B771113 - 0K999999	102
		7.4L MIE	Thunderbolt V	84-816761A4, 84-816761Q4	0D715494 - 0K999999	102
		7.4L EFI & EFI MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0B788366 - 0F820141	102
		454 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0B721206 - 0K999999	102
		454 Mag EFI	Delco HEI	84-816608A68,71,78 / Q68,71,78	0F115700 - 0F802349	203
		525 SC (Gen. V)	Thunderbolt IV	816608Q61, 847701Q7	0D456000 - 0F348963	102
454 (7.4)	1993-92	7.4L MIE	Thunderbolt V	84-816761A4, 84-816761Q4	0D715494 - 0K999999	102
		7.4L EFI & EFI MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0B788366 - 0F820141	102
		7.4L Bravo I, II, III	Thunderbolt IV	84-816761A4, 84-816761Q4	0B771113 - 0K999999	102
		454 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0B721206 - 0K999999	102
		525 SC (Gen. V)	Thunderbolt IV	816608Q61, 847701Q7	0D456000 - 0F348963	102
454 (7.4)	1991	7.4L Bravo I, II, III	Thunderbolt IV	84-816761A4, 84-816761Q4	0B771113 - 0K999999	102
		7.4L EFI & EFI MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0B788366 - 0F820141	102
		454 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0B721206 - 0K999999	102
		525 SC (Gen. V)	Thunderbolt IV	816608Q61, 847701Q7	0D456000 - 0F348963	102
454 (7.4)	1990-89	7.4L Bravo I, II, III	Thunderbolt IV	84-816761A4, 84-816761Q4	0B771113 - 0K999999	102
		7.4L EFI & EFI MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0B788366 - 0F820141	102
		454 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0B721206 - 0K999999	102
454 (7.4)	1988	7.4L Bravo I, II, III	Thunderbolt IV	84-816761A4, 84-816761Q4	0B771113 - 0K999999	102
		7.4L EFI & EFI MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0B788366 - 0F820141	102
		454 Mag Alpha	Thunderbolt IV	84-816761A4, 84-816761Q4	0A631894 - 0B785148	102
		454 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0B721206 - 0K999999	102
454 (7.4)	1987	330	Thunderbolt IV	84-816761A4, 84-816761Q4	6083145 - 0B816540	102
		340 MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	5889914 - 0B788365	102
		370 TRS	Thunderbolt IV	84-816761A4, 84-816761Q4	6721528 - 0B714586	102

When ordering please place **"MEG"** in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
		454 Mag Alpha	Thunderbolt IV	84-816761A4, 84-816761Q4	0A631894 - 0B785148	<b>102</b>
454 (7.4)	1986	454 Mag Alpha	Thunderbolt IV	84-816761A4, 84-816761Q4	0A631894 - 0B785148	<b>102</b>
		330	Thunderbolt IV	84-816761A4, 84-816761Q4	6083145 - 0B816540	<b>102</b>
		340 MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	5889914 - 0B788365	<b>102</b>
		370 TRS	Thunderbolt IV	84-816761A4, 84-816761Q4	6721528 - 0B714586	<b>102</b>
		440 TRS	Mallory / Holley	813720A9, 813705A39	6181070 - 0B485220	<b>110</b>
		400 TRS	Mallory / Holley	813720A9, 813705A40	5668232 - 0B457644	<b>110</b>
454 (7.4)	1985	330	Thunderbolt IV	84-816761A4, 84-816761Q4	6083145 - 0B816540	<b>102</b>
		340 MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	5889914 - 0B788365	<b>102</b>
		370 TRS	Thunderbolt IV	84-816761A4, 84-816761Q4	6721528 - 0B714586	<b>102</b>
		370 TRS	Mallory / Holley	813720A9, 813705A41	4179554 - 6721527	<b>110</b>
		440 TRS	Mallory / Holley	813720A9, 813705A39	6181070 - 0B485220	<b>110</b>
		400 TRS	Mallory / Holley	813720A9, 813705A40	5668232 - 0B457644	<b>110</b>
454 (7.4)	1984-83	330	Thunderbolt IV	84-816761A4, 84-816761Q4	6083145 - 0B816540	<b>102</b>
		340 MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	5889914 - 0B788365	<b>102</b>
		370 TRS	Mallory / Holley	813720A9, 813705A41	4179554 - 6721527	<b>110</b>
		400 TRS	Mallory / Holley	813720A9, 813705A40	5668232 - 0B457644	<b>110</b>
		440 TRS	Mallory / Holley	813720A9, 813705A39	6181070 - 0B485220	<b>110</b>
454 (7.4)	1982	330	Thunderbolt IV	84-816761A4, 84-816761Q4	6083145 - 0B816540	<b>102</b>
		340 MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	5889914 - 0B788365	<b>102</b>
		370 TRS	Mallory / Holley	813720A9, 813705A41	4179554 - 6721527	<b>110</b>
		400 TRS	Mallory / Holley	813720A9, 813705A40	5668232 - 0B457644	<b>110</b>
454 (7.4)	1981	330	Mallory	92151A37	4623115 - 6083144	<b>110</b>
		340 MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	5889914 - 0B788365	<b>102</b>
		370 TRS	Mallory / Holley	813720A9, 813705A41	4179554 - 6721527	<b>110</b>
		400 TRS	Mallory / Holley	813720A9, 813705A40	5668232 - 0B457644	<b>110</b>
454 (7.4)	1980	330	Mallory	92151A37	4623115 - 6083144	<b>110</b>
		370 TRS	Mallory / Holley	813720A9, 813705A41	4179554 - 6721527	<b>110</b>
		400 TRS	Mallory / Holley	813720A9, 813705A40	5668232 - 0B457644	<b>110</b>
454 (7.4)	1979-78	330	Mallory	92151A37	4623115 - 6083144	<b>110</b>
		370 TRS	Mallory / Holley	813720A9, 813705A41	4179554 - 6721527	<b>110</b>
454 (7.4)	1977	330	Mallory	92151A37	4623115 - 6083144	<b>110</b>
454 (7.4)	1976-74	350 MIE	Thunderbolt	47861A18	3780450 - 4623109	<b>109</b>
482 (8.0)	1986	460 TRS	Mallory / Holley	813705A39	6180970 - 6181046	<b>110</b>
482 (8.0)	1985-83	460 TRS	Mallory / Holley	813705A39	6180970 - 6181046	<b>110</b>
		460 Cyclone	ALL		ALL	<b>110</b>
482 (8.0)	1970-69	390	Thunderbolt		2781129 - 2825059	<b>110</b>
496 (8.1)	2008-04	496 Mag & Mag HO	DELCO - Distributor-less	84-881698	0M025000 & Up	<b>116</b>
		8.1S MIE & HO MIE	DELCO - Distributor-less	84-881698	0M025000 & Up	<b>116</b>
502 (8.2)	2007-04	525 EFI	Delco (Flat cap - side terminal)	84-840955T01	0M900146 & up	<b>217</b>
502 (8.2)	2003	525 EFI	Delco (Flat cap - side terminal)	84-840955T01	0M900146 & up	<b>217</b>
		502 Mag MPI	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0F802600 & Up	<b>203</b>
		8.2L MPI MIE	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0F819620 & Up	<b>203</b>
502 (8.2)	2002-97	502 Mag MPI	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0F802600 & Up	<b>203</b>
		8.2L MPI MIE	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0F819620 & Up	<b>203</b>
		525, 600 SC	Thunderbolt IV	84-816761A4, 84-816761Q4	0K000227 & up	<b>102</b>
502 (8.2)	1996	8.2L MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0C878221 - 0F819619	<b>102</b>
		8.2L MPI MIE	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0F819620 & Up	<b>203</b>
		502 Mag EFI	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0D840650 - 0F802599	<b>203</b>
		502 Mag MPI	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0F802600 & Up	<b>203</b>
		525, 600 SC	Thunderbolt IV	84-816761A4, 84-816761Q4	0D736876 - 0F877642	<b>102</b>
502 (8.2)	1995-94	8.2L MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0C878221 - 0F819619	<b>102</b>
		502 Mag EFI	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0D840650 - 0F802599	<b>203</b>
		525, 600 SC	Thunderbolt IV	84-816761A4, 84-816761Q4	0D736876 - 0F877642	<b>102</b>
502 (8.2)	1993	8.2L MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0C878221 - 0F819619	<b>102</b>
		502 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0C878221 - 0F114528	<b>102</b>
		502 Mag EFI	Delco HEI (EST)	84-816608A68,71,78 / Q68,71,78	0D840650 - 0F802599	<b>203</b>
		525, 600 SC	Thunderbolt IV	84-816761A4, 84-816761Q4	0D456000 - 0D763875	<b>102</b>
502 (8.2)	1992	8.2L MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0C878221 - 0F819619	<b>102</b>
		502 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0C878221 - 0F114528	<b>102</b>

When ordering please place **"MEG"** in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
		525, 600 SC	Thunderbolt IV	84-816761A4, 84-816761Q4	0D456000 - 0D763875	<b>102</b>
502 (8.2)	1991-90	8.2L MIE	Thunderbolt IV	84-816761A4, 84-816761Q4	0C878221 - 0F819619	<b>102</b>
		502 Mag Bravo	Thunderbolt IV	84-816761A4, 84-816761Q4	0C878221 - 0F114528	<b>102</b>
		525 SC	Thunderbolt IV	84-816761A4, 84-816761Q4	0D456000 - 0F877734	<b>102</b>
		525, 600 SC	Thunderbolt IV	84-816761A4, 84-816761Q4	0D456000 - 0D763875	<b>102</b>
540 (8.8)	2001-99	500 Bulldog	Thunderbolt V	847701Q25	0L414620-0M050281	<b>126</b>
540 (8.8)	1998-97	500 Bulldog	Thunderbolt V	847701Q25	0K000248-0L001607	<b>126</b>
540 (8.8)	1996-93	500 Bulldog	Thunderbolt IV	847701Q7, Q25	0C577003-0F745405	<b>102</b>
540 (8.8)	1992-90	500 Bulldog	Thunderbolt IV	847701Q7, Q25	0C577003-0F745405	<b>102</b>
		575	Thunderbolt IV	847701Q7, Q25	0A677429-0D763716	<b>102</b>
540 (8.8)	1989-86	575	Thunderbolt IV	847701Q7, Q25	0A677429-0D763716	<b>102</b>
572 (9.4)	2003-97	800SC	Thunderbolt V	847701Q25	0K000223 and up	<b>126</b>
	1996-93	800SC	Thunderbolt IV	847701Q7, Q25	0D763836-0F877725	<b>102</b>

## Marine Power

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial numbers	Part #
<b>4 CYLINDER</b>						
181	2009-83	3.0	Delco Electronic ignition			<b>104</b>
<b>6 CYLINDER</b>						
262	2009-05	4.3	Delco (Flat cap - side terminal)			<b>204</b>
262	2004-98	4.3	Delco (top terminal)			<b>127</b>
<b>8 CYLINDER</b>						
350	2009-06	5700	Delco (Flat cap - side terminal)			<b>135</b>
	2005-93	5.7	Delco (top terminal)	470511		<b>126</b>
364	2008-04	6.0 VVT - LY6	DECLO - Distributor-less	470600		<b>116</b>
454	1998-93	7.4	Delco (top terminal)			<b>123</b>
496	2009-04	8.1	DECLO - Distributor-less	470600		<b>116</b>

## OMC / OMC Cobra

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial numbers	Part #
<b>4 CYLINDER</b>						
151, 153 (2.5)	1986-81	2.5L	ALL	503748		<b>105</b>
151, 153 (2.5)	1969-68	80	ALL	503748		<b>105</b>
151, 153 (2.5)	1973-72	100	ALL	503748		<b>105</b>
151, 153 (2.5)	1964-63	110	ALL	503748		<b>105</b>
151, 153 (2.5)	1981-65	120	ALL	503748		<b>105</b>
140 (2.3) FORD	1990-87	2.3L TKO Cobra	ALL	503747		<b>118</b>
181 (3.0)	1998-96	3.0L GS	Delco / EST			<b>214</b>
181 (3.0)	1995-93	3.0L Cobra & H.O.	Delco / EST			<b>214</b>
181 (3.0)	1992-91	3.0L Cobra & H.O.	Delco / EST			<b>214</b>
		3.0L Cobra & H.O.	Delco - EXCEPT EST ignition	503749		<b>213</b>
181 (3.0)	1990	3.0L Cobra & H.O.	Delco / EST			<b>214</b>
		3.0L Cobra	Delco - EXCEPT EST ignition	503748		<b>105</b>
181 (3.0)	1989-81	3.0L & Cobra	ALL	503748		<b>105</b>
181 (3.0)	1981-73	140	ALL	503748		<b>105</b>
<b>6 CYLINDER</b>						
250 (4.1)	1976-72	165	Delco			<b>108</b>
300 (4.9)	1968-66	200	Ford			<b>108</b>
262 (4.3)	1998-96	4.3L GI / GL / GS	Delco	503751		<b>127</b>
262 (4.3)	1995-94	4.3 Cobra	Delco	503751		<b>127</b>
262 (4.3)	1993-91	4.3 Cobra & HO	Delco	503751		<b>127</b>
262 (4.3)	1990-86	4.3L ALL	Prestolite	503750		<b>117</b>
231 (3.8)	1985-81	3.8L	Prestolite			<b>107</b>
225 (3.7)	1972-64	150	ALL	503750		<b>117</b>
<b>8 CYLINDER</b>						
283 cid	1972-68	185, 210	ALL			<b>132</b>

When ordering please place **"MEG"** in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
302 (5.0) FORD	1998-92	5.0 EFI - F.I. - F.S.I.	Ford - Flat cap	503754		210
302 (5.0) FORD	1991-88	5.0 Cobra & HO	Prestolite / Mallory	503753		211
302 (5.0) FORD	1974	170	ALL			139
302 (5.0) FORD	1977-75	175	ALL			139
302 (5.0) FORD	1977-74	190	ALL			139
305 (5.0)	1990-80	ALL	Prestolite	503752, 503755		112
305 (5.0)	1979-75	ALL	Prestolite	503752, 503755		112
			Mallory (Side Terminal)			115
307 (5.0)	1971	215	ALL			132
307 (5.0)	1976-72	225	Prestolite	503752, 503755		112
			Mallory (Side Terminal)			115
307 (5.0)	1971	235	ALL			132
307 (5.0)	1975-72	245	ALL			132
			Mallory (Side Terminal)			115
350 (5.7)	1991-88	350, 370 King Cobra	Delco - EFI			126
			Prestolite	503752, 503755		112
350 (5.7)	1987-80	ALL	Prestolite	503752, 503755		112
350 (5.7)	1979-75	ALL	Prestolite	503752, 503755		112
			Mallory (Side Terminal)			115
351 (5.8) FORD	1998-95	5.8 - F.I, F.S.I	Ford electronic	503754		210
351 (5.8) FORD	1994-92	5.8 - F.I, F.S.I	Ford electronic	503754		210
		5.8 FACPMDA	Prestolite			139
351 (5.8) FORD	1991-89	5.8 FACPMDA	Prestolite			139
351 (5.8) FORD	1977-75	235	ALL			139
351 (5.8) FORD	1978	240	ALL			139
351 (5.8) FORD	1979	250	ALL			139
351 (5.8) FORD	1974-70	250 I/B	Mallory (Side Terminal)			132
			ALL			139
351 (5.8) FORD	1975-74	290 Cobra Jet	Mallory (Side Terminal)			115
454 (7.4)	1998-95	ALL	Delco (Flat cap - side terminal)			217
			Delco - (Top terminal cap)			123
454 (7.4)	1994-90	ALL	Prestolite	503756		216
454 (7.4)	1989-83	ALL	Prestolite or Mallory	503755		212
454 (7.4)	1982-80	454 I/B	Mallory	503752		112
454 (7.4)	1979-77	454 ALL	Mallory	503752		112
			Mallory (Side Terminal)			115
460 (7.5) FORD	1990-87	460 ALL	Prestolite or Mallory	503755		212
502 (8.2)	1998-95	8.2GSi	Delco (Flat cap - side terminal)			217
			Delco - (Top terminal cap)			123
502 (8.2)	1994-90	Stinger	Ford electronic (HEI cap)	503754		210
			Prestolite	503756		216

### Pleasurecraft Marine (PCM)

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial numbers	Part #
<b>8 CYLINDER</b>						
<b>GM V-8 Engines</b>						
305 (5.0)	2009-06	ProSport	Delco (Flat cap)			TBA
	1988-76		Prestolite			109
350 (5.7)	2009-06	Excalibur 343	Delco (Flat cap)			TBA
	1988-76		Prestolite			109
366 (6.0)	2009-06	ZR-409	Delco distributorless			TBA
396	1971-60		Mallory (Side Terminal)			129

When ordering please place **"MEG"** in front of part number



Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
427	1971-60		Mallory (Side Terminal)			129
454	1988-76		Prestolite			110
454	1971-60		Mallory (Side Terminal)			129
<b>FORD V-8 Engines</b>						
302	1996-92	GT40 MPI	Ford - Flat cap	RK120015		210
	1988-87		Prestolite w/ 90° Plug Boots			132
	1986-72		Prestolite w/ 90° Plug Boots			132
			Prestolite w/ 135° Plug Boots			130
			Mallory (Top Terminal)			109
			Prestolite w/ 135° Plug Boots			130
351	1996-92	GT40 MPI	Ford - Flat cap	RK120015		210
351	1988-87		Prestolite w/ 90° Plug Boots	503752, 503755		112
			Prestolite w/ 135° Plug Boots			130
351	1986-72		Prestolite w/ 90° Plug Boots	503752, 503755		112
			Prestolite w/ 135° Plug Boots			130
			Mallory (Top Terminal)			109
460	1988-87		Prestolite w/ 90° Plug Boots	503752, 503755		112
			Prestolite w/ 135° Plug Boots			130
460	1986-72		Prestolite w/ 90° Plug Boots	503752, 503755		112
			Prestolite w/ 135° Plug Boots			130
			Mallory (Top Terminal)			109
<b>Universal Marine</b>						
<b>Call for availability</b>						
<b>Volvo Penta</b>						
Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial numbers	Part #
<b>4 CYLINDER</b>						
L4	1994-65	AQ115, AQ130	ALL	875363		137
L4		AQ120B, AQ125A-B, AQ131A-D, AQ/BB140A, AQ145A-BAQ151A-C	ALL	875571-2		140
181	2006-91	3.0 GL / GS	Delco EST	3851815 sup. To 3888324		104
<b>6 CYLINDER</b>						
L6 (Chrysler)	1985-65	A/AQ/BB165, 170A-C	ALL			300
262	2006-00	4.3 GL	Delco E.S.T.	3857165 sup. To 3888325		127
		4.3 GXi / OSi	Delco (Flat cap - side terminal)	3858999 sup. To 3888327		204
262	1999-94	4.3 GL / Gi / GS	Delco E.S.T.	3857165 sup. To 3888325		127
262	1993-87	430, 431, 432, 434	Prestolite			117
229, 262	1986-77	AQ150, 175, 205	Prestolite	876532-3		107
<b>8 CYLINDER</b>						
305	2008-00	5.0GXi-B, 5.0GXi-BF, 5.0OSi-B, 5.0OSi-BF	Delco (Flat cap - side terminal)	3859000 sup. To 3888328		217
		5.0GL-B,C,D,E / 5.0GXi-A --				
		w/ 90° spark plug boots	Delco E.S.T.	3857167 sup. To 3888326		123
		w/ 180° spark plug boots	Delco E.S.T.	3857169		203
		5.0GL-A	Prestolite	3857166		109
350		5.7Gi - F,C,CF,D,DF,E,EF,F,FF,G,GF	Delco (Flat cap - side terminal)	3859000 sup. To 3888328		217
		5.7Gil - B,C,D,E,F,G				
		5.7GXi - C,CF,D,DF,E,EF,F,FF,G,GF,H,HF				

When ordering please place **"MEG"** in front of part number

Engine Size	Years	Model	Distributor Type	OE wire set numbers	OE Serial #	Part #
		5.7GXil - C,D,E,F,G,H				
		5.7OSi - A,AF,B,BF,C,CF,D,DF,E,EF,G,GF				
		5.7OSXi - A,AF,B,BF,C,CF,D,DF,E,EF,G,GF				
		5.7GL - B,C,D,E				
		5.7Gi- A				
		5.7GXi - A,B 5.7Gil-A				
		5.7GXil - A,B				
		w/ 90° spark plug boots	Delco E.S.T.	3857167 sup. To 3888326		123
		w/ 180° spark plug boots	Delco E.S.T.	3857169		203
		5.7GL-A	Prestolite	3857166		109
496		8.1 GI / GS / GX / GO	DECLO - Distributorless	3861295		116
305, 350	1999-97	All	Prestolite	876533-1		109
454, 502		All -- w/ 180° spark plug boots	w/ Delco E.S.T.	3857169		203
		All -- w/ 90° spark plug boots	w/ Delco E.S.T.	3857167 sup. To 3888326		123
454, 502		ALL -- w/180 Degree Plug Boots	Prestolite			138
305, 350	1996-92	All	Prestolite	876533-1		109
454, 502		All -- w/ 180° spark plug boots	w/ Delco E.S.T.	3857169		203
		All -- w/ 90° spark plug boots	w/ Delco E.S.T.	3857167 sup. To 3888326		123
		ALL -- w/180 Degree Plug Boots	Prestolite			138
302, 351, 460		5.0-F.I. -- 5.8-F.I, F.S.I	Ford Electronic (Flat cap w/HEI towers)	3851817		210
		w/135° Spark Plug Boots	Prestolite			130
283, 307, 327, 350	1991-65	ALL	Mallory - Top Terminal Cap	3851821 SUP. TO 3857168		109
			Mallory - Side Terminal Cap	8757116-7		115
			Prestolite	876533-1		109
396, 427, 454		w/180° Plug Boots	Mallory - Top terminal cap			138
			Mallory - Side Terminal Cap			120
			Prestolite			138
		w/ 90° Spark Plug boots	Mallory / Prestolite			110
302, 351, 460		Ford Engines -- w/135° Plug Boots	Prestolite			130
		Ford Engines -- w/90° Plug Boots	Prestolite			112
283,327,348,350	1964-58		Mallory - w/Side Terminal Cap	8757116-7		115



## Trac Ecological

Part No.	Description
(A) TRC 1208-MG	<b>Barnacle Buster®</b> 1 Gal Regular (4 per case) Non-toxic biodegradable marine growth remover for water cooled equipment.
TRC 1206-MQ	<b>Barnacle Buster®</b> 1 Qt Concentrate (12 per case) Non-toxic biodegradable marine growth remover for water cooled equipment.
TRC 1206-MG	<b>Barnacle Buster®</b> 1 Gal Concentrate (4 per case) Non-toxic biodegradable marine growth remover for water cooled equipment.
TRC 1206-MP	<b>Barnacle Buster®</b> 5 Gal Concentrate (1 pail) Non-toxic biodegradable marine growth remover for water cooled equipment.
(B) TRC 1204-MG	<b>TRAC Descaler®</b> 1 Gal Regular (4 per case) For fresh & brackish water descaling of cooling systems.
TRC 1204-MP	<b>TRAC Descaler®</b> 5 Gal Regular (1 pail) For fresh & brackish water descaling of cooling systems.
TRC 1212-MG	<b>TRAC Descaler®</b> 1 Gal Concentrate (4 per case) For fresh & brackish water descaling of cooling systems. 1 gal makes up to 10 gals.
TRC 1212-MP	<b>TRAC Descaler®</b> 5 Gal Concentrate (1 pail) For fresh & brackish water descaling of cooling systems. 1 gal makes up to 10 gals.
(C) TRC 1218-MQ	<b>Sew Clean®</b> 1 Qt (12 per case) Removes uric scale from sewage systems & from toilet to tank.
TRC 1218-MG	<b>Sew Clean®</b> 1 Gal (4 per case) Removes uric scale from sewage systems & from toilet to tank.
TRC 1218-MP	<b>Sew Clean®</b> 5 Gals (1 pail) Removes uric scale from sewage systems & from toilet to tank.
(D) TRC 1226-MG	<b>T-Greaser®</b> 1 Gal (4 per case) Multi-purpose, green formula, concentrated cleaner & degreaser. Pleasant fragrance & solvent-free.
(E) TRC 1226-MS	<b>T-Greaser® 32 oz Bottle</b> (12 per case) Multi-purpose spray bottle of concentrated cleaner & degreaser.
(F) TRC 1245-DC	<b>Port-O-Flush Jr.®</b> 12v Flushing kit for small to medium size engines, heat exchangers, air conditioning & refrigeration systems.
TRC 1245	<b>Port-O-Flush Jr.®</b> 110V Flushing kit for small to medium size engines, heat exchangers, air conditioning & refrigeration systems.



## Trac FLUSHCaps

Available in three sizes to fit any GROCO ARG Strainer. TRAC's FLUSHcaps make flushing your raw water cooled equipment a snap! Temporarily replacing your existing strainer cap with a FLUSHcap will allow you to easily connect a Port-O-Flush Jr.® to your system. Use TRAC's FLUSHcaps to flush your raw water cooled equipment with Barnacle Buster®, fresh water, or to aid in winterizing your system.

(A) TRC 1285-A	Small Unit - Fits GROCO ARG 500, 750 & 755 strainers (2 1/4" diameter)
(B) TRC 1285-B	Medium Unit - Fits GROCO ARG 1000, 1210 & 1250 strainers (2 1/2" diameter)
(C) TRC 1285-C	Large Unit - Fits GROCO ARG 1500, 2000, 2500, 2515, 2520, 3000, 3015, 3020 & 3025 strainers (3 1/4" diameter)

**NOTE:** Not intended to replace your existing strainer cap, for flushing use only.  
Each unit sold individually

## Trac Impeller Puller Kit

A revolutionary precision puller for the professionals. It will pull all rubber impellers, gears, bearings etc. from 1" to 3" diameter. Pulls with up to 2 tons of torque!

- CNC machined from 45C tool steel treated with a Titanium Nitride coating to improve rust resistance
- Replaces most of your standard pullers in one compact, easy-to-use system
- Precise and secure gripping of any object to be pulled.
- Precision adjustment of arms and self-centering center block ensure even and parallel pulling from both sides.
- New vertical thumbscrew locking bolt quickly secures pulling arms for easy set-up.
- Horizontal locking bolt presses and secures the metal multi tooth pulling arms into the impeller surface – eliminating any slip.
- Unique groove system holds puller arms in perfect alignment.
- Truss head screw holds puller arms securely and allows for fast exchange of arms.



Part No.  
TRC 1290





## Part No.

## Description

- (A) PER 25224 **Right Stuff® Gasket Maker** 7 oz. Automatic Tube®. Make leakproof gaskets in just one minute.
- (B) PER 25229 **Right Stuff® 1 Minute Gasket™** 3 oz. Automatic Tube® This handy size package can replace two or three large cut gaskets.
- (C) PER 82180 **Ultra Black® RTV Silicone Gasket Maker** 3.35 oz. Tube, Carded. Fast curing formula. Sensor-safe, low odor, noncorrosive.
- PER 24105 **Ultra Black® RTV Silicone Gasket Maker** 13 oz. Cartridge. Fast curing formula. Sensor-safe, low odor, noncorrosive.
- (D) PER 81724 **Ultra Blue® RTV Silicone Gasket Maker** 3.35 oz. Tube, Carded.. Fast curing flexible formula. Sensor-safe, low odor, noncorrosive.
- (E) PER 82194 **Ultra Grey® High-Torque RTV Silicone Gasket Maker** 3.35 oz. Tubed, Carded. For high torque applications requiring RTV gaskets.
- (F) PER 81878 **Ultra Copper® Max-Temp RTV Silicone Gasket Maker** 3 oz. Tube, Carded. Sensor safe, low odor, noncorrosive & superior adhesion.
- (G) PER 80022 **Sensor-Safe Blue RTV Silicone Gasket Maker** 3 oz. Tube, Carded. Replaces cut gaskets. Makes "formed-in-place" gaskets.
- (H) PER 81160 **High-Temp Red RTV Silicone Gasket Maker** 3 oz. Tube, Carded for hi-temp applications, or heavy duty use (such as towing, etc.).
- (I) MER 92-86166Q1 **Mercury Quicksilver Bellows Adhesive** 1.5 oz. Tube. Seals universal and exhaust bellows. Resistant to oil, grease, gasoline and water.



## Part No.

## Description

- (A) PER 51813 **Anaerobic Gasket Maker** 50 ml Tube, Carded. **OEM specified.** Noncorrosive designed for use on aluminum, iron & steel.
- PER 51817 **Anaerobic Gasket Maker** 6 ml Tube, Carded. **OEM specified.** Noncorrosive designed for use on aluminum, iron & steel.
- (B) PER 80645 **Gasket Remover-Low VOC Formula** 4 oz. Power Can with Brush Tip Nozzle. Powerful gasket remover strength.
- (C) PER 80007 **Form-A-Gasket® No. 1 Sealant** 1.5 oz. Tube, Carded. Fast drying, hard setting sealant for sealing rigid materials & flanges.
- PER 80008 **Form-A-Gasket® No. 1 Sealant** 3 oz. Tube, Carded. Fast drying, hard setting sealant for sealing rigid materials & flanges.
- (D) PER 80015 **Form-A-Gasket® No. 2 Sealant** 1.5 oz. Tube, Carded. Slow drying, non-hardening sealant for sealing cut gaskets & stamped parts.
- PER 80016 **Form-A-Gasket® No. 2 Sealant** 3 oz. Tube, Carded. Slow drying, non-hardening sealant for sealing cut gaskets & stamped parts.
- (E) MER 92-34227Q02 **Mercury Quicksilver Sealing Compound** 1 Pint. Provides a better gasket seal when used on threads, fittings & propshafts.
- (F) PER 80057 **Super "300"® Form-A-Gasket® Sealant** 4 oz. Can. Non-hardening sealant resists heat transfer fluids such as, oil or antifreeze.
- (G) PER 80017 **Aviation Form-A-Gasket® No. 3 Sealant Liquid** 16 oz. Brush-top, Bottle. For use in aviation as well as marine applications.
- PER 80019 **Aviation Form-A-Gasket® No. 3 Sealant Liquid** 4 oz. Brush-top, Bottle. For use in aviation as well as marine applications.
- (H) PER 80697 **Copper Spray-A-Gasket® Hi-Temp Sealant** 12 oz. Aerosol Can. Copper sealant helps dissipate heat, prevents gasket burnout.
- (I) PER 80062 **High Tack™ Gasket Sealant** 4 oz. Brush-top Can. Adhesive and sealant dries to a highly tacky, non brittle film.
- PER 80063 **High Tack™ Gasket Sealant** 16 oz. Brush-top Can. Adhesive and sealant dries to a highly tacky, non brittle film.





Part No.	Description
(A) PER 29520	<b>Multipack Threadlocker Assortment (Purple/Blue/Red)</b> 3, .5 mi carded. Variety pack of popular threadlocker formulas.
(B) PER 80060	<b>Super High Tack™ Gasket Sealant</b> 1.75 oz. Tube, Carded. Fast drying sealant dries to a highly tacky, non-brittle film.
(C) PER 80064	<b>High Tack™ Spray-A-Gasket® Sealant</b> 6 oz. Aerosol Can. All purpose sealant sets fast to hold the heaviest of gaskets in place.
PER 80065	<b>High Tack™ Spray-A-Gasket® Sealant</b> 12 oz. Aerosol Can. All purpose sealant sets fast to hold the heaviest of gaskets in place.
(D) PER 24206	<b>Medium Threadlocker - Blue</b> 2.5 ml Bottle, Carded. All purpose medium strength threadlocker. Ideal for all nut and bolt applications.
PER 24200	<b>Medium Threadlocker - Blue</b> 6 ml Tube, Carded. All purpose medium strength threadlocker. Ideal for all nut and bolt applications.
PER 24240	<b>Medium Threadlocker - Blue</b> 36 ml Bottle, Carded. All purpose medium strength threadlocker. Ideal for all nut and bolt applications.
PER 24283	<b>Medium Threadlocker - Blue</b> 90 ml Bottle. All purpose medium strength threadlocker. Ideal for all nut and bolt applications.
(E) PER 27100	<b>Hi-Strength Threadlocker - Red.</b> 6 ml. Tube, Carded. High-strength heavy duty threadlocker. For locking studs and press fits.
PER 27140	<b>Hi-Strength Threadlocker - Red.</b> 36 ml. Bottle, Carded. High-strength heavy duty threadlocker. For locking studs and press fits.
PER 27183	<b>Hi-Strength Threadlocker - Red.</b> 90 ml. Bottle. High-strength heavy duty threadlocker. For locking studs and press fits.
(F) PER 24005	<b>Threadlocker - Blue</b> 5 g Gel Squeeze™ Applicator, Carded. Medium Strength Blue Gel with Gel Twist™ pinpoint applicator.
PER 24010	<b>Threadlocker - Blue</b> 10 g Gel Twist™ Applicator, Carded. Medium Strength Blue Gel with Gel Twist™ pinpoint applicator.
(G) PER 27005	<b>Threadlocker - Red</b> 5 g Gel Squeeze™ Applicator, Carded. High Strength Red Gel Threadlocker with pinpoint applicator.
PER 27010	<b>Threadlocker - Red</b> 10 g Gel Twist™ Applicator, Carded. High Strength Red Gel Threadlocker with pinpoint applicator.
(H) PER 27200	<b>Hi-Temp Threadlocker - Red</b> 10 ml Bottle, Carded. Hi-temp/hi-strength threadlocker for heavy-duty applications.



Part No.	Description
(A) PER 56521	<b>High Perf. Thread Sealant.</b> 50 ml. Tube, Carded. For metal, tapered pipe thread fittings. Replaces Teflon® tape or pipe dopes.
(B) PER 80631	<b>Thread Sealant with PTFE with Teflon®</b> 1 oz. Tube, Carded. General purpose fitting sealant. Outperforms tapes & pipe dopes.
PER 80632	<b>Thread Sealant with PTFE with Teflon®</b> 4 oz. Can. General purpose fitting sealant. Outperforms tapes and pipe dopes.
(C) PER 59214	<b>High Temp Thread Sealant.</b> 6 ml. Tube, Carded. Locks & seals threaded fittings. Won't shred or wear like Teflon®.
PER 59235	<b>High Temp Thread Sealant.</b> 50 ml. Tube, Carded. Locks & seals threaded fittings. Won't shred or wear like Teflon®.
(D) PER14600	<b>Cold Weld Bonding Compound.</b> 2-1 oz. Tubes, Carded. Two-part adhesive & filler that eliminates the need for welding or brazing.
(E) PER 82191	<b>Super Glue Gel</b> 2 g Tube, Carded. No-run gel formula "stays put" for precise application even on vertical surfaces.
(F) PER 82099	<b>Spray'n'Seal™ Leak Repair.</b> 9 oz. Aerosol can. A sprayable sealer that forms a durable rubber barrier that stop leaks in minutes.
(G) PER 21425	<b>Fast Cure Epoxy</b> 10 - 4g Mixer Cups. Premeasured epoxy mixer cups. No mess, no guess, no waste. For bonding glass, hard plastics.



**Part No. Description**

- (A) PER 81158 **Black Silicone Adhesive Sealant** 3 oz. Tube, Carded. General purpose, black RTV indoor / outdoor sealant.  
 PER 81173 **Black Silicone Adhesive Sealant** 11 oz. Cartridge. General purpose, black RTV indoor / outdoor sealant.
- (B) PER 80050 **Clear RTV Silicone Adhesive Sealant** 3 oz. Tube, Carded General purpose, clear RTV indoor/outdoor sealant.  
 PER 80855 **Clear RTV Silicone Adhesive Sealant** 11 oz. Cartridge General purpose, clear RTV indoor/outdoor sealant.
- (C) PER 80036 **Valve Grinding Compound** 1-1/2 oz. Tube, Carded. Two-part adhesive & filler. Eliminates the need for welding or brazing.  
 PER 80037 **Valve Grinding Compound** 3 oz. Tube, Carded. Two-part adhesive & filler. Eliminates the need for welding or brazing.
- (D) CRC 05107 **Tech Grade Dielectric Grease** - .28 oz tube. Non-curing silicone compound for sealing, lubricating, protecting & electrical insulating.  
 CRC 05109 **Tech Grade Dielectric Grease** - 5 oz can. Non-curing silicone compound for sealing, lubricating, protecting & electrical insulating.
- (E) PER 81150 **Dielectric Tune-Up Grease** - 33 oz. Tube. Protects bulb sockets life & electrical connections and wiring from salt, dirt & corrosion.
- (F) PER 81849 **Rust Treatment** 16 oz. Aerosol Can. One-step rust treatment destroys old rust & prevents new rust. Leaves a black polymer coating.
- (G) PER 80345 **White Lithium Grease** 1.5 fl. oz. Tube, Carded. All-purpose white lubricant that protects against rust & makes surfaces friction-free.
- (H) PER 80070 **Silicone Spray Lubricant** 16 oz. Aerosol Can. Lubricates & waterproofs mechanical equipment. Stops friction & squeaks.
- (I) PER 81343 **Anti-Seize Lubricant** 1 oz. Tube, Carded. Blend of aluminum, copper and graphite lubricants. Use during assembly.  
 PER 80078 **Anti-Seize Lubricant** 8 oz. Brush-top Bottle. Blend of aluminum, copper and graphite lubricants. Use during assembly.



**Part No. Description**

- (A) PER 77124 **Nickel Anti-Seize Lubricant**. 8 oz. Brush-top Bottle. Protects metal parts from seizing and galling at temperatures up to 2400° F.
- (B) PER 81950 **Ultra Slick™ Engine Assembly Lube**. 4 oz. Bottle. Proper lubrication of metal mating surfaces during initial start up.
- (C) PER 82606 **Pro-Strength Brake and Parts Cleaner** 20 oz. Aerosol can penetrates, dissolves and removes oil, grease and brake fluid.
- (D) PER 82220 **Non-Chlorinated Brake and Parts Cleaner** 20 oz. Aerosol Can. Dissolves and removes dirt and oil from brake systems and metal parts.
- (E) PER 80043 **Eliminator® II Engine Degreaser** 20 oz. Aerosol Can. Dissolves and removes grease, oil, and dirt from all types of equipment.
- (F) PER 82580 **Carburetor and Parts Cleaner** 3.5 Gal. Pail. Removes grease, gum, varnish, paint and carbon from carburetor assemblies and metal parts.
- (G) PER 80279 **Motor Muscle™ Throttle Body, Carb and Choke Cleaner** 16 oz. Aerosol Can. Dissolve and clean residue on carburetors and chokes.
- (H) PER 82588 **Permatex® Electrical Contact and Parts Cleaner**. 16 oz. Aerosol Can. Cleans electrical devices. Non-corrosive and leaves no residue.



**Part No. Description**

- (A) PER 80652 **RTV Silicone Dissolver** 2.7 oz. Brush-top Bottle. Gel-like formula dissolves & removes silicone residue from aluminum, steel & plastic.
- (B) PER 80190 **Safer Scraper™** Includes scraper & 2 refillable blades. Hard plastic double-edged razor blade for cleaning & scraping applications.
- (C) PER 08184 **Premium Grade Disposable Black Nitrile Gloves** 100-ct. Box - Medium. 100% synthetic rubber resistant to solvents & chemicals.
- PER 08185 **Premium Grade Disposable Black Nitrile Gloves** 100-ct. Box - Large. 100% synthetic rubber resistant to solvents & chemicals.
- PER 08186 **Premium Grade Disposable Black Nitrile Gloves** 100-ct. Box - X-Large. 100% synthetic rubber resistant to solvents & chemicals.
- (D) PER 09184 **Heavy Duty Nitrile Disposable Blue Gloves** 100-ct. Box - Medium. 100% synthetic rubber. Lightly powdered for easy on & off.
- PER 09185 **Heavy Duty Nitrile Disposable Blue Gloves** 100-ct. Box - Large. 100% synthetic rubber. Lightly powdered for easy on & off.
- PER 09186 **Heavy Duty Nitrile Disposable Blue Gloves** 100-ct. Box - X-Large. 100% synthetic rubber. Lightly powdered for easy on & off.
- (E) PER 85310 **Mechanics Gloves** 1 Pair - Large. Triple layer fabric prevents nicks, cuts & abrasions. Features elastic cuffs with adjustable closures.
- PER 85315 **Mechanics Gloves** 1 Pair -X-Large. Triple layer fabric prevents nicks, cuts & abrasions. Features elastic cuffs with adjustable closures.



**Part No. Description**

- (A) PER 25108 **Fast Orange® Fine Pumice Hand Cleaners** 7.5 fl. oz bottle. Biodegradable, waterless, petroleum & solvent-free hand cleaner.
- (B) PER 25217 **Fast Orange® Fine Pumice Hand Cleaners** 1/2 gal with pump. Biodegradable, waterless, petroleum & solvent-free hand cleaner.
- (C) PER 25219 **Fast Orange® Fine Pumice Hand Cleaners** 1 gal with pump/brush. Biodegradable, waterless, petroleum & solvent-free hand cleaner
- (D) PER 35013 **Fast Orange® Cream Hand Cleaner.** 14 oz. plastic tub. Fresh-smelling citrus. Biodegradable, non-toxic & petroleum solvent-free.
- (E) PER 35406 **Fast Orange® Cream Hand Cleaner.** 4.5 lb. container. Fresh-smelling citrus. Biodegradable, non-toxic & petroleum solvent-free.
- (F) PER 25025 **Fast Orange® Hand Cleaner Wipes** 25-count. Pre-moistened wipe with one side textured surface for cleaning heavy-duty soils.



**Part No. Description**

- (A) SPN 26932 **Spray Nine.** 25 oz spray bottle. Digs out tough marine soils & removes impossible stains. Aqueous-based non-petroleum solvents.
- SPN 26901S **Spray Nine.** 1 gal jug. Digs out tough marine soils & removes impossible stains. Aqueous-based non-petroleum solvents.
- (B) SPN 30232 **Marine Grez-Off.** 32 oz spray bottle. Quickly & completely cuts through oil, grease and grime.
- (C) SPN 23319 **Glass & Steel Cleaner.** 19 oz can. Shines glass, stainless steel & metal surfaces. Foaming action for cleaning vertical surfaces.
- (D) SPN 15045 **Mold and Mildew Stain Remover** 32 oz spray bottle. Controls mold and mildew on indoor and outdoor surfaces.
- (E) SPN 26832 **Heavy Duty Cleaner/Degreaser/Disinfectant,** 32 oz spray bottle. Clean, degrease, disinfect, remove stains, control mold and mildew and deodorize. Kills bacteria and viruses in 45 seconds.





## Kanberra® Gel Eliminates Mold, Mildew & Odors



Part No.	Description	Size*
<b>Kanberra® Gel</b>		
(D) KAN KG0001A	Gel. Small Areas (<50 sq ft)	1 oz
(E) KAN KG00002	Gel. Small Areas (<100 sq ft)	2 oz
(F) KAN KG00004	Gel. Medium Areas (100-200 sq ft)	4 oz
(G) KAN KG00008	Gel. Large Areas (>200 sq ft)	8 oz
(C) KAN KG0024P	Gel. Refill Pouch	24 oz

\*Other sizes available. Please inquire.

<b>Kanberra® Spray</b>		
(H) KAN KS002	Kanberra® Spray	2 oz
(I) KAN KS008	Kanberra® Spray	8 oz
(A) KAN KS64R	Kanberra® Spray Refill	64 oz

<b>Kanberra® Wipes</b>		
(B) KAN KW0030	Kanberra® Wipes	30 ct

<b>Kanberra® Premium Soap</b>		
(J) KAN KGSOAP07	Kanberra® Soap	200 mL
KAN KGSOAPREFL	Kanberra® Soap Refill (Not shown)	56 oz

<b>New Product</b>		
KAN KEO15MLORG	Kanberra® Essential Oil Diffusion Blend (not shown)	15mL

Kanberra® products are 100% natural, contain no chemicals or synthetic perfumes and are safe when used around children and pets. Neutralize odors from boats to litter boxes to wet dogs to pet beds. The gel is activated by simple air movement and dissipates the properties of a blend of ATTIA certified pure Australian tea tree oil into a vapor to remove airborne impurities. Enjoy clean air for up to 90 days.



Part No.	Description
(A) JBW 31310	<b>Clear All-Purpose RTV Silicone Sealant</b> - 3 oz. For windshields, windows, lens housing, door frames, tub & shower & aquariums.
(B) JBW 31312	<b>White All-Purpose RTV Silicone Sealant</b> - 3 oz. For tub & shower, sink & bathroom, interior trim, moldings, door frames & lens housing
(C) JBW 31314	<b>Red High Temperature RTV Sealant</b> - 3 oz. Gasket maker for oven doors, water pumps, valve covers, oil pans & exhaust manifolds.
(D) JBW 31316	<b>Blue RTV Sealant</b> - 3 oz. Sensor safe for timing covers, transmission pans, oil pans, water pumps, valve covers & thermostat housings.
(E) JBW 31319	<b>Black RTV Sealant</b> - 3 oz. Mold & mildew resistant. For bonding & sealing weather stripping, moldings, interior trim, windows & windshields.
(F) JBW 50101	<b>MinuteWeld Clear Super Glue</b> - Sets in 1 minute. Cures in 1 hour. 2850 PSI strength. For tile, most plastics, ceramics, glass & more.
(G) JBW 50112	<b>Mini Epoxy Syringe</b> - 2 fl. oz. Clear Epoxy Adheres to metal, wood, tile, ceramic, glass, plastics, jewelry & china. Sets in 5 minutes
(H) JBW 8237	<b>Plastic Weld Epoxy Putty Stick</b> - Repair ABS, PVC or CPVC. Bonds instantly with superior strength. Does not shrink or pull away.
(I) JBW 8257	<b>KwikWood Tan Epoxy Putty Stick</b> - For dry rot, knotholes, window, door frames, screw holes, insect damage, furniture, carvings & handles.
(J) JBW 8265-S	<b>"Original" Cold Weld</b> - Repair damaged welds and solders. Saves time & money for permanent repair.
(K) JBW 8272	<b>MarineWeld</b> - Strong as steel. Water & weatherproof. Impervious to saltwater, chemicals, oil, acids, & corrosive materials.
(L) JBW 8276	<b>KwikWeld</b> - Sets in just 4 minutes. All-purpose cold weld for most household maintenance & repairs. Cleans up with soap & water.
(M) JBW 8277	<b>WaterWeld</b> - Plug holes and make permanent repairs under water and in gas tanks while they're still leaking. Drinking water safe.





Part No.	Description
(A) STA 30306	<b>303® Aerospace Protectant™</b> - 32 oz. Spray Bottle. Protectant Matte finish with no oily & greasy residue. Keeps surfaces looking new.
(B) CRC 06005	<b>6-56™ Multi-Purpose Lubricant</b> - 5 oz. Drives out moisture to start wet engines. Lubricates protects against salt water corrosion.
CRC 06006	<b>6-56™ Multi-Purpose Lubricant</b> - 9 oz. Drives out moisture to start wet engines. Lubricates protects against salt water corrosion.
CRC 06007	<b>6-56™ Multi-Purpose Lubricant</b> - 11 oz Drives out moisture to start wet engines. Lubricates protects against salt water corrosion.
CRC 06008	<b>6-56™ Multi-Purpose Lubricant</b> - 1 gal. Drives out moisture to start wet engines. Lubricates protects against salt water corrosion.
CRC 06010	<b>6-56™ Multi-Purpose Lubricant</b> - 5 gal. Drives out moisture to start wet engines. Lubricates protects against salt water corrosion.
(C) CRC 06026	<b>Heavy Duty Corrosion Inhibitor</b> - 10 oz. Seals out salt air & moisture. Won't crack or craze. Provides long-term protection.
(D) BOE T90004	<b>Boeshield T-9</b> - 4 oz can. For long term protection. Ideal lubricant / protectant for engines, deck hardware & electronics, tackle & metal.
BOE T90012	<b>Boeshield T-9</b> - 12 oz can. For long term protection. Ideal lubricant / protectant for engines, deck hardware & electronics, tackle & metal.
BOE T91000	<b>Boeshield T-9</b> - 1 gal. For long term protection. Ideal lubricant / protectant for engines, deck hardware & electronics, tackle & metal.
(E) SIE 18-9032	<b>Greaseless Spray Lubricant</b> - 12 oz. Resists oil & dust build up. Cleans & displaces moisture. Ideal for electrical mechanisms.
(F) SIE 18-9570-0	<b>Carbon Cleaner</b> - 12 oz. Improve engine performance & efficiency. Removes gum, varnish & carbon deposits. Cleans intake ports.
(G) LMC 11470	<b>Silicone Spray Lubricant</b> - 9-3/4-oz. Eliminates squeaking, sticking & binding on rubber, nylon & metal surfaces. Protects & preserves.
(H) SIE 18-9580-3	<b>Combustion Cleaner</b> - 12 oz. Improve engine performance & efficiency. Dissolves gum & varnish from fuel system. Stabilizes fuel.
(I) LAN 770001	<b>LanoCote®</b> - 4 oz. Jar. Prevents & stops corrosion of metals. Withstands salt water marine conditions on boats & machinery.
(J) LAN 770002	<b>LanoCote®</b> - 7 oz. can. Prevents & stops corrosion of metals. Withstands salt water marine conditions on boats & machinery.
(K) CRC 14101	<b>Tyme-1 Carb/Cold Parts Cleaner</b> - 1 gal. 2-Phase, water rinsable, cold tank liquid parts cleaner. Non-corrosive, non-flammable.
CRC 14104	<b>Tyme-1 Carb/Cold Parts Cleaner</b> - 5 gal. 2-Phase, water rinsable, cold tank liquid parts cleaner. Non-corrosive, non-flammable.



Part No.	Description
(A) NAL 1000-12	<b>Fuel-Prep 1000</b> - 12 oz. Control bacterial & fungal growth in diesel fuel. Stabilize diesel fuel by preventing gum formation & sludge.
NAL 1000-32	<b>Fuel-Prep 1000</b> - 32 oz. Control bacterial & fungal growth in diesel fuel. Stabilize diesel fuel by preventing gum formation & sludge.
NAL 1000-05	<b>Fuel-Prep 1000</b> - 5 gal. Control bacterial & fungal growth in diesel fuel. Stabilize diesel fuel by preventing gum formation & sludge.
(B) STA 22285	<b>Marine Ethanol Fuel Treatment</b> - 12 oz. Treats up to 120 gals. Releases a corrosion fighting vapor that coats metal parts.
(C) STA 22283	<b>Diesel Biocide</b> - 16 oz. Treats up to 880 gals. Prevents microbial growth in diesel fuel. Kills bacteria, mold & yeast in contaminated fuels
(D) STA 22213	<b>Sta-Bil Gas Stabilizer</b> - 1 gal. Improves performance, dissolves gum & varnish. For use with gasoline powered engines.
(E) LMC 11631	<b>Gas Stabilizer</b> - 8 oz. Treats 20 gals. For off-season storage. Gas Stabilizer for any 2 or 4 cycle engine. Keeps fuel fresh up to 12 months.
LMC 11632	<b>Gas Stabilizer</b> - 1 qt. Treats 40 gals. For off-season storage. Gas Stabilizer for any 2 or 4 cycle engine. Keeps fuel fresh up to 12 months.
(F) CRC 06171	<b>Fuel Stabilizer Diesel Formula</b> - 8 oz. Concentrated, high-potency formula that keeps stored diesel fuel fresh for easy start-up
CRC 06172	<b>Fuel Stabilizer Diesel Formula</b> - 16 oz. Concentrated, high-potency formula that keeps stored diesel fuel fresh for easy start-up
(G) CRC 05312	<b>Top Engine Cleaner</b> - 16 oz. Breaks down carbon, varnish & other harmful deposits in the combustion chamber.



Part No.	Description	Net Content	Case
(A) CRC 06068	<b>Engine Star® Fogging Oil.</b> Protects marine engines during seasonal storage.	13 oz.	12
(B) CRC 06069	<b>Engine Star® Fogging Oil.</b> Protects marine engines during seasonal storage.	1 gal	4
(C) CRC 06064*	<b>Carb &amp; Choke Cleaner.</b> Penetrates fast to remove gum, carbon and varnish deposits.	12 oz	12
(D) CRC 06077*	<b>Heavy Duty Silicone™ Lubricant.</b> Cleans, Odorless, Water Resistant, Fights Rust & Corrosion.	7.5 oz	12
(E) CRC 06023	<b>Battery Cleaner w/ Acid Indicator.</b> Neutralizes acid spills, cleans terminals, cables, hold-downs, carriers.	11 oz	12
(F) CRC 06046*	<b>Battery Terminal Protector.</b> Prolongs battery life. Lead-free protective coating prevents corrosion.	7.5 oz	12
(G) CRC 06102*	<b>QD® Electronic Cleaner.</b> Instantly removes oil, grease, dirt, flux and other contaminants.	11 oz	12
(H) CRC 05185	<b>Duster™ Moisture-Free Dust &amp; Lint Remover.</b> Provides a powerful blast to remove embedded debris.	8 oz	12
(I) CRC 05401	<b>Glass &amp; Dash™ Cleaner.</b> Cuts through dirt, dust, fingerprints and haze deposits.	20 oz	12
(J) CRC 06020	<b>Non-Chlorinated Marine Degreaser.</b> Degreases metal parts and non-sensitive marine equipment	20 oz	12
(K) CRC 06067	<b>Octane Boost.</b> Increases horsepower & octane ratings of pump gasoline by up to 5.5%.	12 oz	12
(L) CRC 06114	<b>Marine Dry Lube</b> with PTFE Technology. Reduces friction and drag. Seals out moisture and prevents corrosion.	10 oz	12
(M) CRC 06121	<b>Marine Engine Tune Up &amp; Decarbonizer.</b> Dramatically improves power and performances.	13 oz	12
(N) CRC 14170	<b>Citrus Degreaser.</b> Low VOC Formula. Removes grease, oil and lubricants with no water wash-off.	15 oz	12
(O) CRC SL3400	<b>Red Grease #2.</b> Multi-purpose lithium grease contains extreme pressure, anti-wear, & anti-oxidation additives	14 oz	10
(P) CRC 05107	<b>Bulb &amp; Connector Di-Electric Grease.</b> Used for sealing, protecting & electrical insulating.	.28 oz	12
(Q) CRC 14009	<b>Bee Blast®</b> with Residual Wasp & Hornet Killer. Instantly saturates insects and their nests with a 20' jet blast.	20 oz	12
(R) CRC 14010	<b>Wasp &amp; Hornet Killer Plus™ Insecticide.</b> Fast acting, high strength insecticide. Ergonomic trigger.	20 oz	12
(S) CRC 18418	<b>Rust Converter.</b> A fast drying vinyl/acrylic coating that is applied to any rusted metal surface.	32 oz	12
(T) CRC 14021	<b>Empty Trigger Bottle.</b> 24 oz bottle features volume measurements as well as blank lines and boxes	24 oz Sprayer	12

## MERCURY



Part No.	Description	Size	Part No.	Description	Size
(A) MER 92-858022K01	Premium 2-Cycle TC-W3 Oil	1 Gallon	(I) MER 92-858080K03	Power Tune	12 oz. can
(B) MER 92-858027K01	Premium Plus 2-Cycle O/B Oil	1 Gallon	(J) MER 92-802851K01	Gear Lube	8 oz. tube
(C) MER 92-858037K01	Optimax /DFI 2-Cycle O/B Oil	1 Gallon	(K) MER 92-34227Q02	Perfect Seal	1 Pint
(D) MER 92-8M0078014	Synthetic Verado 4-Stroke Oil (25W-50)	1 Gallon	(L) MER 35-877767K01	Oil Filter	
(E) MER 92-858064K01	High Performance SAE 90 gear lube	1 Quart	(M) MER 35-802893T	Water Separating Fuel Filter	
(F) MER 92-858065K01	High Performance SAE 90 gear lube	2.5 Gallon	(N) MER 35-877769K01	Verado 6 cyl Oil Filter	
(G) MER 92-858077K01	Power Steering Fluid	1 Quart	(O) MER 35-866340K01	MerCruiser Oil Filter	
(H) MER 92-858075K01	Power Trim / Steering Fluid	1 Quart	(P) MER 92-86166Q1	Quicksilver Bellows Adhesive	1.5 oz. Tube



Part No.	Description
(A) CRC 14011	<b>Insect Repellent</b> - 16 Oz can. Double strength formula repels insects. Helps guard Against contracting Lyme Disease.
(B) CRC 14010	<b>Wasp &amp; Hornet Killer</b> - 14 Oz can Fast acting, high strength insecticide kills insects on contact from 20' away.
(C) CRC SX-32M	<b>Salt Terminator® Engine Flush, Cleaner &amp; Corrosion Inhibitor</b> - 32 oz. with Mixer. Cleans & protects anything exposed to salt.
(D) CRC SX-128	<b>Salt Terminator® Engine Flush, Cleaner &amp; Corrosion Inhibitor</b> - 1 gal Concentrate. Cleans & protects anything exposed to salt.
(E) CRC 06019	<b>Cleaner &amp; Degreaser</b> - 19 oz can. Cleans electric parts & equipment.. Removes dirt, oil & grease from metal, wood, canvas & fabric.
(F) CRC 05671	<b>Jump Start™ Starting Fluid with Lubricity</b> - 11 oz can. Fast, economical starts in cold or humid conditions. Contains lubricant.
(G) CRC 05002	<b>Freeze-Off™</b> - 11.5 oz can. Penetrant uses Freeze Shock to FREEZE, PENETRATE & LOOSEN rusted & corroded mechanisms.
(H) CRC 05107	<b>Tech Grade Dielectric Grease</b> - .28 oz tube. Non-curing silicone compound for sealing, lubricating, protecting & electrical insulating.
CRC 05109	<b>Tech Grade Dielectric Grease</b> - 5 oz can. Non-curing silicone compound for sealing, lubricating, protecting & electrical insulating.
(I) CRC MK2832	<b>Spray Away™ All Purpose Cleaner</b> - 32 oz. spray bottle. Cleans grease, grime, oil, rain stains, fish blood & more.
CRC MK28128	<b>Spray Away™ All Purpose Cleaner</b> - 1 gal. Cleans grease, grime, oil, rain stains, fish blood & more.



Part No.	Description
(A) CRC 05021	<b>Gasket Remover</b> - 12 oz can. Used for the removal of conventional & formed in place gaskets on motors, pumps & flanges.
(B) CRC 05130	<b>Magic Oil™ Lock Lubricant &amp; De-Icer</b> - 4 oz bottle. Long lasting graphite formula lubricates seized & frozen locks.
(C) CRC MK4016	<b>On &amp; Off for Outdrives</b> 15 fl oz Formulated to clean painted aluminum outdrives, outboard lower units & propulsion components.
(D) CRC MK2032	<b>On &amp; Off Hull &amp; Bottom Cleaner</b> - 32 oz bottle. Removes tough waterline stains, algae, barnacle stains, rust & gas exhaust stains.
CRC MK20128	<b>On &amp; Off Hull &amp; Bottom Cleaner</b> - gal jug. Removes tough waterline stains, algae, barnacle stains, rust & gas exhaust stains.
(E) DIL 94042-1	<b>Shell Rotella® ELC Extended Life Coolant/Antifreeze</b> - 1 gal. A "fill for life" ethylene glycol based coolant for heavy-duty engines
(F) NAL 2001-64	<b>2001 Cleaner Online Cooling System Cleaner</b> - 1/2 gal. Removes mineral scale, corrosion products, light oil contamination & sludge
(G) NAL 2000-16	<b>Pencool® 2000 Cooling System Treatment</b> - Pint. Protects six metals commonly found in cooling systems. Extends antifreeze life.
NAL 2000-64	<b>Pencool® 2000 Cooling System Treatment</b> - 1/2 gal. Protects six metals commonly found in cooling systems. Extends antifreeze life.
NAL 2000-5	<b>Pencool® 2000 Cooling System Treatment</b> - 5 gal. Protects six metals commonly found in cooling systems. Extends antifreeze life.
NAL 2000-55	<b>Pencool® 2000 Cooling System Treatment</b> - 55 gal. Protects six metals commonly found in cooling systems. Extends antifreeze life.
(H) NAL 3000-16	<b>Pencool® 3000 Cooling System Treatment with Stabil-Aid®</b> - 1 pint Protects six metals commonly found in cooling systems.
NAL 3000-64	<b>Pencool® 3000 Cooling System Treatment with Stabil-Aid®</b> - 1/2 gal Protects six metals commonly found in cooling systems.
NAL 3000-05	<b>Pencool® 3000 Cooling System Treatment with Stabil-Aid®</b> - 5-gal Protects six metals commonly found in cooling systems.





Part No.	Description
(A) STA 22206	<b>Fuel Stabilizer</b> - 10 oz. For 2 & 4-cycle marine engines. 32 oz. bottle treats up to 80 gallons. 10 oz. bottle treats up to 25 gallons..
STA 22214	<b>Fuel Stabilizer</b> - 32 oz. For 2 & 4-cycle marine engines. 32 oz. bottle treats up to 80 gallons. 10 oz. bottle treats up to 25 gallons..
(B) STA 22239	<b>Marine Formula Ethanol Treatment</b> - 8 oz. Ethanol Problem Fighter, Extra Corrosion Protection & Fuel System Cleaning.
STA 22240	<b>Marine Formula Ethanol Treatment</b> - 32 oz. Ethanol Problem Fighter, Extra Corrosion Protection & Fuel System Cleaning.
(C) STA 22001	<b>STA-BIL Fogging Oil</b> - 12 oz. Coats internal engine components. Prevent corrosion & displaces moisture from metal to protect engine.
(D) LMC 11412	<b>Storage Fogging Oil</b> - 9-3/4-oz. Protects internal components of 2 & 4-cycle engines from rust, corrosion or seizing during storage.
(E) STA GC15	<b>Carb &amp; Choke Cleaner</b> - 16 oz. Dissolves gum, varnish, dirt & carbon deposits. Faster starts, smooth idling & restore performance.
(F) SIE 18-9013	<b>Gasoline Performance Additive &amp; Stabilizer</b> - 8 oz. Promotes quick starting & keeps carburetor and fuel system clean.
SIE 18-9024	<b>Gasoline Performance Additive &amp; Stabilizer</b> - 32 oz. Promotes quick starting & keeps carburetor and fuel system clean.
(G) CRC 05316	<b>Motor Treatment</b> - 16 oz. Cleans gum, varnish & carbon from the fuel system, injectors, pistons & combustion chamber.
(H) CRC 05089	<b>Brakleen® Brake Parts Cleaner</b> - 19 oz. Quickly & effectively remove grease, brake dust, brake fluids, oils, & other contaminants..
(I) CRC 06161	<b>Fuel Stabilizer Gas Formula</b> - 8 oz. Concentrated, high-potency formula that keeps stored gas fresh for easy start-up next season.
CRC 06162	<b>Fuel Stabilizer Gas Formula</b> - 16 oz. Concentrated, high-potency formula that keeps stored gas fresh for easy start-up next season.
CRC 06163	<b>Fuel Stabilizer Gas Formula</b> - 32 oz. Concentrated, high-potency formula that keeps stored gas fresh for easy start-up next season.
CRC 06164	<b>Fuel Stabilizer Gas Formula</b> - 1 gal. Concentrated, high-potency formula that keeps stored gas fresh for easy start-up next season.
(J) CRC 06067	<b>Octane Boost</b> - 12 fl. oz. Increases horsepower & gas octane ratings. Protects rings, pistons, & combustion chambers
(K) CRC 05343	<b>Gas Tank Treatment</b> - 12 fl. oz. Isopropanol based formula. Removes water from gasoline. Protects & cleans the fuel.



## YAMAHA Marine Additives and Lubricants

Part No.	Description	Size	Part No.	Description	Size
(A) YAM ACC-FSTAB-PL-12	Fuel Stabilizer	12 oz	(L) YAM LUB-05W30-FC-12	5W30 Marine Full-Syn	Quart
(B) YAM ACC-GEARL-UB-10	Marine Gear Case Lube	10 oz	(M) YAM LUB-10W30-FC-04	10W30 Marine Oil	Gallon
(C) YAM ACC-GEARL-UB-GL	Marine Gear Lube	Gallon	(N) YAM LUB-10W30-FC-12	10W30 Marine Oil	Quart
(D) YAM ACC-GEARL-UB-QT	Gear Case Lube	32 oz	(O) YAM LUB-10W40-WV-04	10W-40 Watercraft	Gallon
(E) YAM ACC-GLUBE-HD-QT	HD Gear Lube	Quart	(P) YAM LUB-10W40-WV-12	10W-40 Watercraft	Quart
(F) YAM ACC-PWRTR-MF-10	Power Trim/Tilt Fluid	12 oz	(Q) YAM LUB-20W40-FC-04	20W40 Marine Oil	Gallon
(G) YAM ACC-PWRTR-MF-32	Power Trim/Tilt Fluid	32 oz	(R) YAM LUB-20W40-FC-12	20W40 Marine Oil	Quart
(H) YAM ACC-RNGFR-PL-12	Ring Free Additive	12 oz	(S) YAM LUB-2STRK-M1-04	2 Stroke Marine Oil	Gallon
(I) YAM ACC-RNGFR-PL-32	Ring Free Additive	32 oz	(T) YAM LUB-2STRK-M1-12	2 Stroke Marine Oil	32 oz
(J) YAM ACC-SLCNS-PR-AY	Silicone Spray Lube	10.5 oz	(U) YAM LUB-2STRK-W1-04	2 Stroke Watercraft Oil	Gallon
(K) YAM ACC-YAMSH-LD-00	Protectant / Lubricant Spray	12 oz	(V) YAM LUB-2STRK-W1-12	2 Stroke Watercraft Oil	Quart

\*Jerry's Marine Service is NOT an authorized Yamaha dealer and it is NOT affiliated with Yamaha Motor Corporation.





Part No.	Description
(A) SIE 18-9440-2	<b>25W-40 Synthetic 4 Stroke Marine Outboard Oil</b> - 5 qt. Blended with premium grade synthetic & mineral based stock.
SIE 18-9440-4	<b>25W-40 Synthetic 4 Stroke Marine Outboard Oil</b> - 5 qt. Blended with premium grade synthetic & mineral based stock.
SIE 18-9440-8	<b>25W-40 Synthetic 4 Stroke Marine Outboard Oil</b> - 1 liter. Blended with premium grade synthetic & mineral based stock.
SIE 18-9440-3	<b>25W-40 Synthetic 4 Stroke Marine Outboard Oil</b> - 4 liter. Blended with premium grade synthetic & mineral based stock.
(B) SIE 18-9400-2	<b>25W-40 Premium Blend Marine Inboard Engine Oil</b> - 1 qt. Marine 4 Stroke Inboard Engine Oil. Provides excellent lubrication.
SIE 18-9400-4	<b>25W-40 Premium Blend Marine Inboard Engine Oil</b> - gal. Marine 4 Stroke Inboard Engine Oil. Provides excellent lubrication.
(C) SIE 18-9410-2	<b>SAE 30 Full Synthetic Marine Engine Oil</b> - 1 qt. Blend of synthetic base oil & a balanced additive system.
SIE 18-9410-4	<b>SAE 30 Full Synthetic Marine Engine Oil</b> - 1 gal. Blend of synthetic base oil & a balanced additive system.
(D) SIE 18-9690-2	<b>10W30 Synthetic Oil</b> - 1 qt. for 4-Stroke Outboard & Sterndrive engines. Synthetic base oil and balanced additive system.
SIE 18-9690-3	<b>10W30 Synthetic Oil</b> - 1 gal. for 4-Stroke Outboard & Sterndrive engines. Synthetic base oil and balanced additive system.
(E) SIE 18-9420-2	<b>10W-30 4 Stroke Marine Outboard Engine Oil</b> - 1 qt. Formulated to meet or exceed the tough marine requirements.
SIE 18-9420-3	<b>10W-30 4 Stroke Marine Outboard Engine Oil</b> - 1 gal. Formulated to meet or exceed the tough marine requirements.
(F) DIL 54104-1	<b>SAE40 Shell Rotella T Premium Oil</b> - 1 gal
DIL 54104-5	<b>SAE40 Shell Rotella T Premium Oil</b> - 5 gal
DIL 54103-1	<b>SAE30 Shell Rotella T Premium Oil</b> - 1 gal
DIL 54103-5	<b>SAE30 Shell Rotella T Premium Oil</b> - 5 gal
DIL 50012-1	<b>SAE15W/40 Shell Rotella T Premium Oil</b> - 1 gal. For Diesel Engines. Meets or exceeds most engine manufacturers requirements.
DIL 50012-5	<b>SAE15W/40 Shell Rotella T Premium Oil</b> - 5 gal. For Diesel Engines. Meets or exceeds most engine manufacturers requirements

# ENGINE LUBRICATION IS KEY!



Give us a call!

**FL 1-800-432-2231**

**SC 1-800-788-2231**

Our parts experts will be happy to help you find the right maintenance products for your boat.





Part No.	Description
(A) CRC SL3120	<b>Marine Boat Trailer Bearing Blue Grease</b> - 14 oz cartridge. Will resist water under the most severe water conditions.
(B) CRC SL3184	<b>Marine Boat Trailer Bearing Blue Grease</b> - 3 oz. 3 cartridges. Will resist water under the most severe water conditions.
(C) CRC SL3190	<b>Sta-Plex Extreme Pressure Premium Red Grease</b> - 14 oz cartridge. Multi-purpose high pressure, anti-wear, & anti-oxidation.
(D) LMC 11578	<b>Power Trim and Tilt Fluid</b> - 10 oz. tube. Provides viscosity & lubricity to ensure proper pump performance & seal life.
(E) SIE 18-9750-0	<b>Power Trim and Tilt Fluid</b> - 10 oz. tube. For high operating pressure. Anti-foam additives assures uniform flow.
(F) SIE 18-9500-1	<b>TC-W3 Two-Cycle Premium Motor Oil (Blue)</b> - 1 pint. High performance lubricant designed to meet all engine warranties.
(F) SIE 18-9500-2	<b>TC-W3 Two-Cycle Premium Motor Oil (Blue)</b> - 1 qt. High performance lubricant designed to meet all engine warranties.
(F) SIE 18-9500-3	<b>TC-W3 Two-Cycle Premium Motor Oil (Blue)</b> - 1 gal. High performance lubricant designed to meet all engine warranties.
(G) HON 08739-90W	<b>Genuine Gear Case Oil</b> - 1 qt. Honda marine engine oils have increased rust & oxidation inhibitors to fight corrosion.
(G) HON 08739-M0500	<b>Genuine Gear Case Oil</b> - 5 gal. Honda marine engine oils have increased rust & oxidation inhibitors to fight corrosion.
(H) HON 08207-5W30M2	<b>SAE 5W-30 Motor Oil</b> - 1 qt. Honda marine engine oils have increased rust & oxidation inhibitors to fight corrosion.
(I) HON 08207-10W30MFC-W	<b>SAE 10W-30 Motor Oil</b> - 1 qt. Honda marine engine oils have increased rust & oxidation inhibitors to fight corrosion.
(I) HON 08209-10W30MFC-W	<b>SAE 10W-30 motor oil</b> - 1 gal. Honda marine engine oils have increased rust & oxidation inhibitors to fight corrosion.
(J) SUZ 990A0-01E80-01Q	<b>Hypoid Gear Oil</b> - 32 oz. Formulated to Suzuki specifications. For use in all Suzuki outboards.
(J) SUZ 990A0-01E80-05Q	<b>Hypoid Gear Oil</b> - 5 gal. Formulated to Suzuki specifications. For use in all Suzuki outboards.
(K) SUZ 990C0-01E30-QUA	<b>Marine 4-cycle Engine Oil</b> - 1 qt. Premium 4-cycle engine oil. Formulated for superior lubrication & protection.
(K) SUZ 990C0-01E30-GLN	<b>Marine 4-cycle Engine Oil</b> - 1 gal. Premium 4-cycle engine oil. Formulated for superior lubrication & protection.
(K) SUZ 990C0-01E30-DRU	<b>Marine 4-cycle Engine Oil</b> - 55 gal. Premium 4-cycle engine oil. Formulated for superior lubrication & protection.
(L) SUZ 09248-12007	<b>Oil Drain Plug</b> - For oil change. All models Suzuki outboards.
(M) SUZ 09168-12012	<b>Drain Plug Gasket</b> - For oil change. All models Suzuki outboards.
(N) SSE 50091443	<b>Mix Bottle</b> - Large mouth oil resistant plastic bottle. Easy to pour & has the most popular oil to gas ratios for an exact mix every time.



Part No.	Description
(A) SIE 18-9680-2	<b>Synthetic Gear Lube</b> - 1 qt. Synthetic formulation is shear stable & resists oxidation to ensure high performance.
(A) SIE 18-9680-5	<b>Synthetic Gear Lube</b> - 5 gal. Synthetic formulation is shear stable & resists oxidation to ensure high performance.
(B) SIE18-9600-2	<b>Premium Lower Unit Gear Lube</b> - 1 qt. For all general marine applications requiring a GL-5 class lubricant.
(B) SIE 18-9600-5	<b>Premium Lower Unit Gear Lube</b> - 5 gal. For all general marine applications requiring a GL-5 class lubricant.
(C) SIE 18-9650-2	<b>Hi-Performance "Synthetic Blend" Lower Unit Gear Lube</b> - 1 qt. Synthetic marine formulation reduces operating friction.
(C) SIE 18-9650-5	<b>Hi-Performance "Synthetic Blend" Lower Unit Gear Lube</b> - 5 gal. Synthetic marine formulation reduces operating friction.
(D) SIE 18-9620-2	<b>Type "C" Gear Lube</b> - 1 qt. For older model O/Bs & I/Os with electric shift. Reduces friction & protects gears,
(E) LMC 11540	<b>80w/90 High Viscosity Gear Lube</b> - 10 oz. For modern outboard & stern drive lower units. Meets API-MT-1 and GL-5 ratings.
(E) LMC 11552	<b>80w/90 High Viscosity Gear Lube</b> - 1 qt. For modern outboard & stern drive lower units. Meets API-MT-1 and GL-5 ratings
(E) LMC 11546	<b>80w/90 High Viscosity Gear Lube</b> - 5 gal. For modern outboard & stern drive lower units. Meets API-MT-1 and GL-5 ratings
(F) LMC 11544	<b>Hypoid 90 Gear Lube</b> - 10 oz. For mechanical shift O/Bs & S/Ds. Meets or exceeds API-MT-1 & GL-5 ratings.
(F) LMC 11556	<b>Hypoid 90 Gear Lube</b> - 1 qt. For mechanical shift O/Bs & S/Ds. Meets or exceeds API-MT-1 & GL-5 ratings.
(F) LMC 11550	<b>Hypoid 90 Gear Lube</b> - 5 gal. For mechanical shift O/Bs & S/Ds. Meets or exceeds API-MT-1 & GL-5 ratings.
(G) LMC 11563	<b>80w/90 Power Pro Gear Lube</b> - 10 oz. Synthetic blend protects high-performance lower units in extreme operating conditions.
(G) LMC 11564	<b>80w/90 Power Pro Gear Lube</b> - 1 qt. Synthetic blend protects high-performance lower units in extreme operating conditions.
(G) LMC 11565	<b>80w/90 Power Pro Gear Lube</b> - 5 gal. Synthetic blend protects high-performance lower units in extreme operating conditions.
(H) LMC 11542	<b>Premium Typ "C" Lube</b> - 10 oz. For older model O/Bs & I/Os with electric shift. Evinrude O/B 1962 -1972, OMC S/D 1977 & earlier.
(H) LMC 11554	<b>Premium Typ "C" Lube</b> - 1 qt. For older model O/Bs & I/Os with electric shift. Evinrude O/B 1962 -1972, OMC S/D 1977 & earlier.
(H) LMC 11548	<b>Premium Typ "C" Lube</b> - 5 gal. For older model O/Bs & I/Os with electric shift. Evinrude O/B 1962 -1972, OMC S/D 1977 & earlier.
(I) VOL 1141679	<b>Fully Synthetic Gear Oil</b> - 1 qt. Synthetic oil for drives & transmissions. Provides protection against wear at extreme temperature
(I) VOL 1141680	<b>Fully Synthetic Gear Oil</b> - 1 gal. Synthetic oil for drives & transmissions. Provides protection against wear at extreme temperature
(J) LMC 55-011	<b>Marine Lower Unit Pail Pump</b> Fits: 5 gal open head pails. For bulk filling marine lower units & stern drives. Delivers 3 oz. per stroke.
(K) LMC 55-123	<b>Heavy Duty Barrel Pump</b> Two-piece telescoping suction tube fits 30 to 55 gal drums. Dispenses approximately 10 oz./stroke





Part No.	Description
(A) RPI 01011	<b>XPR 5W-20 Extreme Performance Racing Oil</b> - 1 qt. Light-viscosity oil withstands exotic fuels like alcohol, methanol & nitrous oxide.
RPI 01041	<b>XPR 10W-40 Extreme Performance Racing Oil</b> - 1 qt. For Marine, Oval Track & Endurance Racing. Withstands extreme heat,
RPI 05041	<b>XPR 10W-40 Extreme Performance Racing Oil</b> - 5 gal. For Marine, Oval Track & Endurance Racing. Withstands extreme heat,
RPI 01051	<b>XPR 20W-50 Extreme Performance Racing Oil</b> - 1 qt. For running extended periods under extreme pressure and heat.
RPI 05051	<b>XPR 20W-50 Extreme Performance Racing Oil</b> - 5 gal. For running extended periods under extreme pressure and heat.
(B) RPI 11487	<b>Engine Break-In Oil</b> - 1 qt. Fully formulated & does not require the use of any other chemical additives.
(C) RPI 01311	<b>HP 2-C High Performance 2-Cycle Motor Oil</b> - 1 qt. For use in both pre-mixed & oil injected gasoline 2-cycle engines.
RPI 04311	<b>HP 2-C High Performance 2-Cycle Motor Oil</b> - 1 gal. For use in both pre-mixed & oil injected gasoline 2-cycle engines.
(D) RPI 01030	<b>SAE 30 Straight Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 01040	<b>SAE 40 Straight Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 01020	<b>0W-20 Multi Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 01520	<b>5W-20 Multi Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 51530	<b>5W-30 Multi Grade API Licensed Motor Oil</b> - 5 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 01530	<b>5W-30 Multi Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 01540	<b>5W-40 Multi Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 51130	<b>10W-30 Multi Grade API Licensed Motor Oil</b> - 5 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 01130	<b>10W-30 Multi Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 01140	<b>10W-40 Multi Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 04154	<b>15W-40 Multi Grade API Licensed Motor Oil</b> - 1 gal. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
RPI 01250	<b>20W-50 Multi Grade API Licensed Motor Oil</b> - 1 qt. Meets dexos1™ & ILSAC GF-5. Fuel efficiency Improved. Ethanol compatible.
(E) RPI 31520	<b>5W-20 HPS High Performance Street Motor Oil</b> - 1 qt. Outperforms leading synthetics & lubricants. For gas & diesel engines.
RPI 31530	<b>5W-30 HPS High Performance Street Motor Oil</b> - 1 qt. Outperforms leading synthetics & lubricants. For gas & diesel engines.
RPI 31130	<b>10W-30 HPS High Performance Street Motor Oil</b> - 1 qt. Outperforms leading synthetics & lubricants. For gas & diesel engines.
RPI 31140	<b>10W-40 HPS High Performance Street Motor Oil</b> - 1 qt. Outperforms leading synthetics & lubricants. For gas & diesel engines.
RPI 31250	<b>20W-50 HPS High Performance Street Motor Oil</b> - 1 qt. Outperforms leading synthetics & lubricants. For gas & diesel engines.
(F) RPI 01315	<b>10W-40 Max-Cycle</b> - 1 qt. For high stressed engines & transmissions. Compatible with other mineral & synthetic motor oils.
RPI 01316	<b>20W-50 Max-Cycle</b> - 1 qt. For high stressed engines & transmissions. Compatible with other mineral & synthetic motor oils.
(G) RPI 11757	<b>Max-Boost™</b> - 16 oz high performance octane booster and fuel treatment for racing applications that increases gasoline octane.
(H) RPI 01512	<b>Synchromax</b> - 1 qt. For manual transmissions that specify an automatic transmission fluid or other light-viscosity oil.
(I) RPI 01300	<b>75W-90 Max Gear Oils</b> - 1 qt. Maximizes horsepower, extends gear & bearing life, reduces operating temperature & lowers friction.
RPI 05300	<b>75W-90 Max Gear Oils</b> - 5 gal. Maximizes horsepower, extends gear & bearing life, reduces operating temperature & lowers friction.
RPI 01301	<b>75W-140 Max Gear Oils</b> - 1 qt. Maximizes horsepower, extends gear & bearing life, reduces operating temperature & lowers friction.
(J) RPI 01320	<b>Max ATF</b> - 1 qt. Synthetic, high performance, automatic transmission fluid. High strength helps to dramatically reduce heat & wear.
RPI 11754	<b>Max-Clean</b> - 6 oz. High performance synthetic fuel system cleaner that maximizes the performance of you system.
(K) RPI 11722	<b>Max-Clean</b> - 20 oz. High performance synthetic fuel system cleaner that maximizes the performance of you system.
(L) RPI 06755	<b>Max-Tane</b> - 20 oz. Diesel Fuel Injection Cleaner & Cetane Booster. Improves engine startup & reliability in both warm & cold.
(M) RPI 01600	<b>Purple Ice®</b> - 12 oz. High performance radiator treatment. For use with Antifreeze. Use 1 oz per quart of cooling capacity.
(N) RPI 01312	<b>Ultra-Performance Grease</b> - 14 oz. "UPG" is a high performance, multi-service, aluminum-complex, synthetic grease.
(O) RPI 10036	<b>Synthetic Gun Oil</b> - 4 oz. Recommended for cleaning of all firearms after use & for preserving them while in storage.
(P) RPI 10035	<b>Maxfilm</b> - 4 oz. A high film strength, multipurpose, synthetic lubricant / penetrant.
RPI 05000	<b>Maxfilm</b> - 11 oz. A high film strength, multipurpose, synthetic lubricant / penetrant.
(Q) RPI 11407	<b>Max-Chain</b> - 4 oz High performance, synthetic lubricant provides excellent protection for chains, open gears & exposed metal surfaces.
(R) RPI 10553	<b>Max-Tuff Assembly Lubricant</b> - 2 oz For greater wear protection. Compatible with conventional mineral & synthetic oils.



Part No.	Description
(A) LMC 11101	<b>Marine Lower Unit Fill Kit</b> Includes: two 10 oz. tubes of 11540 High-Viscosity Lower Unit Gear Lube & filler tube for MerCruiser, OMC, Evinrude, Johnson, Volvo, Force & Gamefisher models.
(B) LMC 55-005	<b>Marine Lower Unit Quart Pump w/ adapter.</b> Ideal for adding oil & other fluids to small engines & marine lower units. Flexible hose for hard-to-reach fill plugs. Fits MerCruiser, Mercury, OMC, Evinrude, Johnson, Volvo, Force Gamefisher & Honda (70 hp & up).
(C) LMC 55-012	<b>Adapter Fitting</b> 8 mm x 1.25" thread. This adapts 55-005 for various lower units. Fits: Tohatsu, Nissan & Honda (2 - 50 hp).
(D) LMC 55-008	<b>Lube Tube</b> 3/8" x 15 thread fitting. Marine lower unit drain, flush & fill tool. Quick & easy way to change lower unit gear lube.
LMC 55-010	<b>Lube Tube</b> 8 mm x 1.25" thread fittings. Marine lower unit drain, flush & fill tool. Quick & easy way to change lower unit gear lube.
(E) LMC 11380	<b>Disc/Drum Brake Wheel Bearing Grease.</b> Meets high temp. requirements of all disc and drum brakes & similar applications.
(F) CRC 06037	<b>White Lithium Grease</b> - 10 oz. Heavy duty lubricant will not wash off, melt or freeze. Provides metal to metal lubrication.
(G) LMC 11350	<b>White Lithium Grease</b> - 16 oz. Zinc additive for white color. Contains no silicones & can be used on plastic components.
(H) SIE 18-9200	<b>Spline Grease</b> - 16 oz. Replaces: Mercury #92 81639A4 Specialty grease used in the assembly of engine yokes & couplers.
(I) LMC 11399	<b>Marine Corrosion Control Trailer Bearing Grease</b> - 2-Pack of 3-oz. Cartridges. Calcium sulfonate complex, water insoluble.
(J) LMC 11400	<b>Marine Corrosion Control Trailer Bearing Grease</b> - 4-Pack of 3-oz. Cartridges. Calcium sulfonate complex, water insoluble.
(K) LMC 11402	<b>Marine Corrosion Control Trailer Bearing Grease</b> - 14-oz Cartridge. Calcium sulfonate complex, water insoluble.
(L) LMC 11404	<b>Marine Corrosion Control Trailer Bearing Grease</b> - 16-oz Can. Calcium sulfonate complex, water insoluble.
(M) SIE 18-9700-2	<b>Bearing Grease</b> - 3 oz. Cartridge. Premium lithium formulation for optimum corrosion protection in freshwater and saltwater.
(N) SIE 18-9710-1	<b>Bearing Grease</b> - 14 oz. Cartridge. Premium lithium formulation for optimum corrosion protection in freshwater and saltwater.
(O) LMC 11315	<b>Multi-Purpose Lithium Grease</b> - 14 oz. cartridge. Long lasting formula delivers high performance in wide range of applications.
(P) LMC 11316	<b>Multi-Purpose Lithium Grease</b> - 16 oz. can. Long lasting formula delivers high performance in wide range of applications.



Part No.	Description
(A) LMC05-031	<b>Fittings</b> - for standard jaw-type coupler spring loaded ball check valve. Fits all 1/8" NPT threads. For hand operated lube equipment.
(B) LMC 05-019	<b>Fittings</b> - Professional Narrow Needle Nose Dispenser Hardened steel tip and 1-1/2" length dispenses a fine line of grease.
(C) LMC 05-042	<b>Fittings</b> - Needle Tip Adapter. <i>For hand operated grease guns only.</i>
(D) LMC 11278	<b>Marine Engine Prep Kit</b> - Includes 6 qt Drain Pan (75-760), Lower Unit Quart Pump w/ Fitting (55-007), 1 qt Lower Unit Gear Lube (11552), two 3 oz. cartridges Trailer Bearing Grease (11399), 1 pt LubriMatic® TC-W3® (11590), 8 oz. Funnel (75-060). Shrink wrapped.
(E) LMC 75-074	<b>Mult-Purpose Flex Funnel-Detachable Spout</b>
(F) LMC 75-075	<b>3-Piece Funnel Set</b> - ½ Pint, 1 Pint & 2 Pint.
(G) LMC 75-007	<b>Metal Funnel with Flex Spout</b> - 5¼" dia.-Qt. Capacity.
(H) LMC 75-760	<b>6 Quart Drain Pan</b> - 13" x 4".
(I) LMC 11-955	<b>Standard Grease Fitting Assortment</b> - 8 Piece 1/4" - 28 standard fittings. Includes 4 straight, 2 @ 45° angle and 2 @ 90° angle.
(J) LMC 05-061	<b>Grease Pipe</b> - Standard length pipe with 1/8" pipe thread on each end. 30° angle.
(K) LMC 30-465	<b>Industrial Grease Gun</b> - Dual port head cap with bulk loader fitting for 3-way loading (14oz. cartridge, bulk or suction) and air bleeder valve. 5-3/8" pipe & coupler.
(L) LMC 30-195	<b>Jiffy Luber® Handi Gun</b> - Squeeze tubes (not included) fit into zinc die cast body for easy dispensing. Includes 2-11/16" grease pipe, with plastic push-type adapter.
(M) LMC 30-197	<b>Handi-Grip Pistol Luber®</b> With 5-1/2" flex hose. All-purpose gun attaches to handy squeeze tubes of grease (not included). Includes spring-returned plated steel lever, zinc die cast body, riveted plated steel link and standard duty coupler.
(N) LMC 30-480	<b>The Ultimate® Grease Gun</b> - 10" grease pipe, HD coupler, longer lever, barrel & lever comfort grips, air bleeder valve, bulk loader fitting, variable stroke & 3-way loading (14 oz. cartridge, bulk or suction).
(O) LMC 30-190	<b>Heavy Duty Midget</b> Small grease gun kit allows for front or top pipe placement. Barrel takes 3 oz. 5-1/2" straight grease pipe, standard-duty coupler and 3 oz. cartridge of LubriMatic Corrosion Control Grease.
(P) LMC 30-100	<b>Mini Grease Gun Kit</b> Includes 5-1/2 in. grease pipe and standard duty coupler. Pistol grip allows for easy one-handed operation. Develops up to 4,500 psi. Includes push lock plunger, die-cast T-handle that locks in place for loading.



## StarTron® Gasoline Additive Counter Top Display

Star Tron Gasoline Formula makes engines start easily and run smoothly. It cures & prevents ethanol fuel problems such as water in fuel, or lost power. It also helps prevent phase separation, removes gums, varnish and carbon deposits and will stabilize gasoline for up to 2 years. It works in boats, cars, motorcycles, small equipment or any other 2 or 4-cycle engine

Part No.	Description
STB 093615	Counter Top Display (6) 8oz



## StarTron® Additives

Increase fuel economy. Make engines start easier and run smoother. Cannot be overdosed. Disperses bacteria without the use of poisons/biocides. Reduces all emissions, including carcinogenic particulate smoke and eliminates diesel soot. Stabilizes fuel for up to two years. Lowers fuel system maintenance.

### Diesel Additive

Part No.	Size	Case	Treats (up to)
STB 093108	8 oz.	12	256 gal.
STB 093116	16 oz.	12	512 gal.
STB 093132	32 oz.	12	1024 gal.



### Gasoline Additive

Part No.	Size	Case	Treats (up to)
STB 093008	8 oz.	12	128 gal.
STB 093016	16 oz.	12	256 gal.
STB 093032	32 oz.	12	512 gal.



## Shooter Display

Enzyme Fuel Treatment Cleans Entire Fuel Delivery System

Part No.	Size	Case	Treats (up to)
STB 14324	1 oz.	24	6 gal.



## Marine Motor De-Carb.

**VALVTEC**

- Part No. VAL MMTS13LV**
- 13 oz Aerosol can.
  - De-carbonize 2 & 4 cycle engines.
  - Clean-up carbon deposits, gum & varnish.



## Small Engine Formula

Economical to use and easy to mix in small applications under 48 gal.

Part No.	Size	Case	Treats (up to)
STB 14308	8 oz.	6	48 gal.



## Engine Paint

Heat and solvent resistant acrylic lacquer is formulated for extended staying power engines need. Color matched to your engines original color. For use on all O/B, I/B, I/O and lower units.

Part No.	Description
MOE 025103	Cummins Tan
MOE 025107	Evinrude Blue Metallic
MOE 025350	Mercury Phantom Black
MOE 025425	Johnson White (1964-76)
MOE 025433	Johnson White (1977-80)
MOE 025436	Volvo Aquamatic White
MOE 025454	J/E Lt. Blue Metallic (78-87)
MOE 025461	J/E White (1972-Present)
MOE 025469	Yamaha Blue/Silver (85-90)
MOE 025478	OMC Charcoal Non-Met.(86-pres)
MOE 025479	OMC Charcoal Metallic (85-pres)
MOE 025488	Volvo Stern Drive Grey (89-pres)

Part No.	Description
MOE 025513	Tohatsu Lt. Grey Met. (84-pres)
MOE 025515	Yamaha Dark Blue Met. (94-97)
MOE 025516	Honda Silver Metallic
MOE 025813	Yamaha Shiny Black "Touch-Up"
MOE 025814	Yamaha Bluish Gray "Touch-Up" -
MOE 025804	Suzuki Shadow Black - NEW!
MOE 025805	Suzuki Charcoal Metallic - NEW!
MOE 025815	Volvo Engine Red
MOE 025816	Volvo Grey - DPX & DPS
MOE 025817	Volvo Engine Charcoal/Grey
MOE 025818	Volvo Metallic Silver, SX & DP-S



12 oz. Spray Can

**MOELLER**  
A Proud Division of the Moore Company



## MERCURY

### Phantom Black Paint

For all Mercury outboards & MCM/MIE engines and drives.

Part No.	Description
MER 92-8028781	12 oz spray can



### Clear Coat

Finishing any paint project should include application of Moeller's Clear Coat to increase luster and depth. Formulated for the marine environment. For use on all O/B, I/B, I/O and lower units. Quick-dry formula.

Part No.	Description
MOE 025519	Clear Coat Lacquer 12 oz. Can

### Color Vision

Color matched to your engines original color. For use on all O/B, I/B, I/O and lower units. Oil & Gas Resistant. Quick-dry formula. 12 oz. Net Weight Spray Can



Part No.	Description
MOE 025100	Neptune Black
MOE 025102	Neptune Flat Black
MOE 025104	Caterpillar Yellow
MOE 025109	Sea Foam Gloss White
MOE 025203	Gloss Black
MOE 025320	Chris Craft Blue
MOE 025340	Chrysler Blue
MOE 025473	Volvo Green
MOE 025475	Fuel Tank Red
MOE 025491	Crusader Blue
MOE 025806	High Heat Black
MOE 025807	High Heat Metallic Black
MOE 025808	High Heat Charcoal
MOE 025809	High Heat Aluminum
MOE 025811	High Heat White - "Cummins"
MOE 025900	Olive Drab Camouflage

### Zinc Primers

For aluminum surfaces above or below the waterline. This powerful primer etches into the aluminum, forming a strong surface/primer union that is resistant to corrosion. For steel & iron this corrosive barrier contains a high percentage (95%) of zinc, for maximum resistance against solvents& abrasions. 12 oz. spray can.



Part No.	Description
MOE 025421	Chromate Yellow
MOE 025472	Chromate Green
MOE 025801	Phosphate Yellow
MOE 025802	Phosphate Green
MOE 025800	Cold Galvanizing Green
MOE 025803	Bright Zinc Galvanization Sandable Primers



Part No.	Description
MOE 025730	Red Oxide 12 oz. Can
MOE 025740	Platinum Grey 12 oz. Can

### Instant Galvanize™ Zinc Rich Galvanize Coating



- Protects against saltwater corrosion and rust creepage.
- Excellent for touch-ups; matte gray color.
- Offers same protection as expensive hot dip galvanizing.

Part No.	Net Content	Case
CRC 06054	13 oz.	12

*\*This product is extremely flammable.  
Do not apply while equipment is energized.*

### Camo Paint 3 Pack



Tan, Black and Olive Drab Camouflage paint 3 pack

Part No.	Description
MOE 025901	Camo Paint 3 Pack

### Rust Converter



Apply to any rusted metal surface to stop rust in it's tracks. Eliminates the need for sanding and scraping. Neutralizes rust and converts it to a tough primer in one easy step. Protective coating helps prevent future rust and may be painted if desired.

Part No.	Net Content	Case
CRC 14610	15 oz.	12



## AQUAGARD

### Alumi-Koat Anti-Fouling Spray Paints Outboard & Lower Unit Colors

- Ideal for use on stern drive & other lower units
- For use on aluminum & other nonferrous materials
- Easy application, requires less prep work!
- U.S. EPA approved
- Controls slime, barnacles & other fouling organisms
- Comfort-tip premium spray nozzle



Part No.	Description
AQU 71301	Black 12oz. Spray Can
AQU 71309	Gray 12oz. Spray Can
AQU 71307	Off White 12oz. Spray Can

### Outboard & Lower Unit Clear

- The Only TRUE CLEAR ANTIFOULING aerosol approved by the U.S. EPA on the market today!
- Controls slime, barnacles & other fouling organisms
- For use on aluminum & other nonferrous materials
- The ONLY true clear antifouling paint available, to let you keep your lower unit the same color
- Easy application, requires less prep work
- U.S. EPA approved
- Comfort-tip premium spray nozzle



Part No.	Description
AQU 71310	Clear 12oz. Spray Can

### Crusader® Blue Spray Paint



Part No.	Description
CRU 20859	Blue 12oz. Spray Can

### 189 Sandless Primer

- Use on Aluminum, Fiberglass & Wooden Surfaces
- Formulated to be used prior to antifouling paint
- Excellent resistance to hostile marine environments
- Excellent resistance to corrosion and salt
- Improves adhesion of final coat
- Comfort-tip premium spray nozzle



Part No.	Description
AQU 20309	189 Sandless Primer 12oz. Spray Can

### YANMAR Spray Paint

This paint is specifically suited to match the colour of Yanmar engines.



Part No.	Description
YAM ACC-MRNPA-IT-8D	Paint 8D-Dark Blue Gray

### YAMAHA Spray Paint

A factory-matched spray paint for touch-ups or full overcoat application. The 8D is the dark gray used on 1994 and newer external components (like the lower unit). This durable enamel coating will provide good performance in the rigors of the marine environment.



Part No.	Description
YAM ACC-MRNPA-IT-8D	Paint 8D-Dark Blue Gray

## VELOX PLUS



Velox Plus is an anti-fouling paint for metal beneath the waterline. Velox Plus is a durable, multi-seasonal system developed specifically to protect propellers, stern drives, shafts, out-drives, struts, jet pumps, etc. By applying Velox Plus, you will keep your running gear clean and thus save money by increasing fuel economy and extending the period between haul-outs. Velox Plus can be applied by brush, roller or spray gun.

Part No.	Description
VEL PRIMER.25	Adhesion Metal Primer .25L
VEL PRIMER.50	Adhesion Metal Primer .5L
VEL WHITE.25	Velox Plus White Antifouling Paint .25L
VEL WHITE.50	Velox Plus White Antifouling Paint .5L
VEL BLACK.25	Velox Plus Black Antifouling Paint .25L
VEL BLACK.50	Velox Plus Black Antifouling Paint .5L

*\*This product is Hazardous Material & requires additional freight charges.*

### Color Rite Paints



Part No.	Description
CLR 2956-NHB14M	Honda Aquamarine Silver Metallic
CLR 2958-NH282	Honda Oyster Silver
CLR 4095-YKV	Suzuki Metallic Matte Black #2
CLR 4648-Y5S	Suzuki Cool White
CLR 4650-OEP	Suzuki Shadow Black Metallic
CLR 4652-OED	Suzuki Charcoal
CLR 4970-YAY	Suzuki Pearl Nebular Black
CLR 5364-008D	Yamaha Dark Bluish Gray
CLR 5547-04D	Yamaha Dark Bluish Gray Metallic





### 6 in 1 Multi-purpose Lubricant (6 oz can)

Penetrates rust, cleans, displaces water, and lubricates. Won't harm electrical contacts, vinyl, wood or paint.

Part No.	Size	Case
BEL 99020-A175W	6 fl. oz.	12
BEL 99020-A400W	13.5 fl. oz.	12



### Assembly Lube

Prevents Galling and Seizing, Easy assembly & disassembly. Minimize wear during break-in. Brush top can.

Part No.	Size	Case
BEL 99030-CAB10	10 fl. oz.	12



### Biodegradable 2-Stroke Oil

Fully synthetic, solvent-free, 2-stroke engine oil for marine applications. TC-W3® & European Eco-label registered.

Part No.	Size	Case
BEL 99700-BT1	33.8 oz.	12
BEL 99700-BT4	1.06 gal.	4
BEL 99700-DR	55 gal drum	1



### Waterproof Grease

High Performance Aluminum Complex based multi-purpose grease for all marine applications.

Part No.	Size	Case
BEL 99540-TB16W	16 oz.	12



### Rust Preventative Coating

Maximum protection against corrosion. Can be applied by dipping, spraying or painting. Will not melt, run, or washout.

Part No.	Size	Case
BEL 99708-A400W	13.5 oz. can	12
BEL 99706-BT4	1.06 gal.	4
BEL 99706-PA	20 ltr pail	1



### 6 in 1 Biodegradable Lubricant

Penetrates, Cleans, lubricates & protects. More than 60% biodegradable

Part No.	Size	Case
BEL 99704-A175W	6 oz. can	12
BEL 99705-BT4	1.06 gal liquid	4
BEL 99705-PA	20 ltr pail	1



### E P Waterproof Grease

High Performance aluminum complex grease with Extreme Pressure additives. Superior protection even in salt water.

Part No.	Size	Case
BEL 99710-CG3OZ	3 oz. tube	24
BEL 99710-CG	14 oz. tube	12



### Marine Silicone Lubricant

Silicone all-purpose lubricant, seals, cleans, lubricates, and displaces water. Odorless, colorless, and non-staining. Safe on electrical contacts, vinyl, fiberglass, rubber, wood or paint

Part No.	Size	Case
BEL 99707-A175W	6 oz can	12
BEL 99707-A400W	13.5 oz can	12



### 4-Stroke 25W-40 High Performance Engine Oil

Advanced additive technology provides better wear protection. Exceeds "NMMA FC-W Catalyst Compatible" standards

Part No.	Size	Case
BEL 99730-BT1	33.8 oz	12
BEL 99730-BT4	1.06 gal	4
BEL 99730-DR	55 gal drum	1



### HP Synthetic Blend 2-Stroke Oil

Outperforms competitor's full synthetics, exceptional performance in direct injected engines. Meets & exceeds the NMMA TC-W3® requirements

Part No.	Size	Case
BEL 99721-BT1	33.8 oz	12
BEL 99721-BT4	1.06 gal	4
BEL 99721-DR	55 gal drum	1



### All in One Fuel Treatment

Increases octane for more efficient combustion and more engine power. Cleans fuel lines and injectors to ensure smooth fuel delivery. Neutralizes the harmful effects of ethanol. Keeps fuel fresh during storage. Simple application to fuel with no complicated measuring or mixing

Part No.	Size	Case
BEL 99570-BT1OZ	1 oz	24
BEL 99570-BT4OZ	4 oz	12



### High Performance Gear Oil

High Performance protection outperforms other aftermarket semi & full synthetic gear lubes. Utilizes Extreme Pressure & anti-wear additives

Part No.	Size	Case
BEL 99735-BT1	33.8 oz	12
BEL 99735-BT4	1.06 gal	4
BEL 99735-PA	20 ltr	1
BEL 99735-DR	55gal drum	1



### Semi-Synthetic Gear Oil

Infused with Extreme Pressure additives, delivering superior protection GL-5 rated. Eco-friendly antimony free formulation.

Part No.	Size	Case
BEL 99740-BT1	33.8 oz	12
BEL 99740-BT4	1.06 gal	4
BEL 99740-DR	55 gal drum	1



### Marine Synthetic Gear Oil

High Performance Synthetic Ester based gear oil infused with Extreme Pressure additives and GL-5 rated.

Part No.	Size	Case
BEL 99741-BT1	33.8 oz	12
BEL 99741-BT4	1.06 gal	4
BEL 99741-PA	20 ltr	1
BEL 99741-DR	55 gal drum	1



### 4-Stroke Semi-Synthetic Engine Oil 10W-30

Engine Oil 10W-30  
High Performance synthetic blend lowers engine temperature, increases HP, and provides extended change intervals. Exceeds NMMA FC-W CAT

Part No.	Size	Case
BEL 99750-BT1	33.8 oz	12
BEL 99750-BT4	1.06 gal	4
BEL 99750-DR	55 gal drum	1



### 4-Stroke Semi-Synthetic Engine Oil 10W-40

High Performance synthetic blend lowers engine temperature, increases HP, and provides extended change intervals. Exceeds NMMA FC-W CAT

Part No.	Size	Case
BEL 99751-BT1	33.8 oz	12
BEL 99751-BT4	1.06 gal	4
BEL 99751-DR	55 gal drum	1



### Marine Diesel Engine Oil 10W-30

Marine grade heavy-duty engine oil with anti-wear and corrosion protection, long change intervals for diesel & gasoline engine use. Reduces oil consumption.

Part No.	Size	Case
BEL 99760-BT1	33.8 oz	12
BEL 99760-BT4	1.06 gal	4
BEL 99760-DR	55 gal drum	1



### Marine Diesel Engine Oil 15W-40

Marine grade heavy-duty engine oil with anti-wear and corrosion protection, long change intervals, and reduces oil consumption for diesel & gas engine use.

Part No.	Size	Case
BEL 99761-BT1	33.8 oz	12
BEL 99761-BT4	1.06 gal	4
BEL 99761-DR	55 gal drum	1



### Marine Diesel Engine Oil 20W-50

Marine grade heavy-duty engine oil with anti-wear and corrosion protection, long change intervals for diesel & gasoline engine use. Reduces oil consumption

Part No.	Size	Case
BEL 99762-BT1	33.8 oz	12
BEL 99762-BT4	1.06 gal	4
BEL 99762-DR	55 gal drum	1

# Need OIL?

Give us a call!

FL 1-800-432-2231

SC 1-800-788-2231

We have a wide selection of marine oils for all your boating needs.



# KiwiGrip

Non-Skid Deck Systems



**NEW**

Revolutionary non-skid coating that is durable, low-glare, and easy to apply. Texture for ALL colors can be adjusted with the roller and technique used to apply. KiwiGrip is a non-toxic acrylic polymer that requires minimal prep and cleans easily. Covers uneven surfaces, cracks in gel coat and can be easily tinted.



*\* Colors do not dictate the texture. These are just examples of the textures you can achieve with any color.*



Part No.	Description	Color
KWG KG1011-1	1 liter can & (1) 4" roller sleeve	White
KWG KG1011-4	4 liter can & (1) 4" roller sleeve	White
KWG KG1012-1	1 liter can & (1) 4" roller sleeve	Gray
KWG KG1012-4	4 liter can & (1) 4" roller sleeve	Gray
KWG KG1013-1	1 liter can & (1) 4" roller sleeve	Cream
KWG KG1013-4	4 liter can & (1) 4" roller sleeve	Cream
KWG KG1014-1	1 liter can & (1) 4" roller sleeve	Blue
KWG KG1014-4	4 liter can & (1) 4" roller sleeve	Blue
KWG KG1017-1	1 liter can & (1) 4" roller sleeve	Black
KWG KG1017-4	4 liter can & (1) 4" roller sleeve	Black
KWG KG1018-1	1 liter can & (1) 4" roller sleeve	Neutral
KWG KG1018-4	4 liter can & (1) 4" roller sleeve	Neutral

## Extra Rollers

Part No.	Description
KWG KG1020-4	4"/100 mm roller sleeve
KWG KG1020-9	9"/228 mm roller sleeve



## Z-CLEANER Powerful Cleaners and Protectants



**NEW**

Part No.	Description
ZTF ZC-1GC	Z-Cleaner 1 Gal Concentrate
ZTF ZC-32C	Z-Cleaner 32 OZ Concentrate
ZTF ZC-32RTU	Z-Cleaner 32 OZ Spray Bottle
ZTF ZC-55C	Z-Cleaner 55 Gal Concentrate
ZTF ZDC-32SQ	Z-Deck 32 OZ For Non-Skid Decks
ZTF ZRR-32S	Z-Rust 32 OZ Gel Rust & Stain Remover
ZTF ZWW-32C	Z-Wash & Wax 32 OZ, Concentrated Soap
ZTF ZS-1-R	Z-Scrubber Cleaning Pads



## Temporary Surface Protection Film PSA Polyethylene Film with Adhesive

36", 48" and 60" widths available by special order

**BoatersBest™**



BBB 380242

**NEW**

Part No.	Description
BBB 380242	Blue Protection Film 24" x 200', 3 mil



**NEW**

## Life-Calk® Two-Part Sealant Compound\*

Fast curing two-part polysulfide deck and hull seam compound. Cures to a firm resilient rubber. Resists teak cleaners, oils, fumes, gasoline, and diesel fuel. No primer necessary with Type P. Available in Pourable (Type P) and Heavy (Type H) grades. Type P offers excellent flow properties reducing the possibility of air entrapment. Type H is recommended for seam sealing where wide openings require a non-sagging sealant. Approximately 60 minute application time.



Part No.	Desc.	Size	Color
BLF 1046	Pourable (Type P)	Quart Kit	Black
BLF 1048	Heavy (Type H)	Quart Kit	Black

\*\* Can only be shipped via ground. No air shipments allowed

\*\*\* Not Compatible with all paints. Please check with paint Mfg.

## Liquid Life-Calk® Sealant

Has same outstanding properties as Life-Calk® Sealant above. Non-shrinking, flexible, sandable compound. Low viscosity, free-flowing polysulfide sealant for use on fine cracks and seams.

Part No.	Size	Color
BLF 1052	Tube 80 ml./3 fl.oz.	White
BLF 1055	Tube 80 ml./3 fl.oz.	Black

\*\* Can only be shipped via ground. No air shipments allowed

\*\*\* Not Compatible with all paints. Please check with paint Mfg.

## Life-Calk® Solvent and Cleaner

Cleans surfaces prior to caulking with Life-Calk®, Life Seal®, Silicone or Teak Deck Sealant. Safe for fiberglass. Removes uncured polysulfide sealant and grease from tools and equipment. Acetone free formula.

Part No.	Size
BLF 1056	473 ml./16 fl.oz.

\*\* Can only be shipped via ground. No air shipments allowed

\*\*\* Not Compatible with all paints. Please check with paint Mfg.

## Marine Silicone Rubber Sealant

An all-purpose, non-corrosive, acid free, non-yellowing, mildew resistant, low-odor, 100% marine high quality silicone sealant. Tack-free in 30 minutes or less. \*Fully cured in 24 hours. For use above or below the waterline. Will not shrink, crack, or dry out. Superior flexibility and adhesion to fiberglass, plastic, metal, and wood. Retains flexibility and tensile strength even after years of exposure. Will not corrode metal or electronics.

Part No.	Size	Color
BLF 1110	Tube 30 ml./1 fl.oz.	Clear
BLF 1140	Tube 80 ml./3 fl.oz.	Clear
BLF 1141	Tube 80 ml./3 fl.oz.	White
BLF 1142	Tube 80 ml./3 fl.oz.	Black
BLF 1150	Cart. 310 ml./10.6 fl.oz.	Clear
BLF 1151	Cart. 310 ml./10.6 fl.oz.	White
BLF 1152	Cart. 310 ml./10.6 fl.oz.	Black
BLF 1153	Cart. 310 ml./10.6 fl.oz.	Oyster White

\*\* Can only be shipped via ground. No air shipments allowed

\*\*\* Not Compatible with all paints. Please check with paint Mfg.

## Life-Calk® Sealant

A long lasting, permanently flexible marine polysulfide sealant which can be sanded, painted\*\*\*, and used above and below the waterline. Tack-free in 1 to 3 days\*, excellent resistance to teak oils, gasoline, and diesel fuel. Ideal for teak decks, to bed deck and hull hardware, seal thru-hull fittings, and underwater seams. Will bond to fiberglass, wood, metal, glass, and itself. Cures to a firm flexible rubber seal with excellent waterproofing and adhesion qualities. Can be applied underwater for emergency repairs. Can be applied to damp surfaces.

Part No.	Size	Color
BLF 1305	Tube 30 ml./1 fl.oz.	White
BLF 1030	Tube 80 ml./3 fl.oz.	White
BLF 1031	Tube 80 ml./3 fl.oz.	Black
BLF 1032	Tube 80 ml./3 fl.oz.	Mahogany
BLF 1037	Tube 80 ml./3 fl.oz.	Teak Brown
BLF 1372	Cart. 155 ml./5.2 fl.oz.	White
BLF 1033	Cart. 310 ml./10.6 fl.oz.	White
BLF 1034	Cart. 310 ml./10.6 fl.oz.	Black
BLF 1035	Cart. 310 ml./10.6 fl.oz.	Mahogany
BLF 1036	Cart. 310 ml./10.6 fl.oz.	Teak Brown

\*\* Can only be shipped via ground. No air shipments allowed

\*\*\* Not Compatible with all paints. Please check with paint Mfg.

## LifeSeal® Sealant Fast Curing Polyurethane Silicone

A unique combination of marine silicone and polyurethane, formulated especially for fiberglass. LifeSeal® offers a fast-curing, low odor, high adhesion, non-sagging, non-corrosive, non-yellowing formula. It provides a durable watertight seal for joints subject to structural movement. May be used above and below the waterline. Use for sealing decks to hulls, thru-hull fittings, vinyl ports, sealing/glazing windshields and bedding marine hardware. Will adhere to metal, glass, wood, Lexan®, ABS® and certain other materials. Can be removed without damaging gel-coat. Not recommended for ferro cement hulls, impregnated wood or oil-soaked materials. UV resistant. Mildew resistant and acid free. Custom colors available.

Part No.	Size	Color
BLF 1109	Tube 30 ml./1 fl.oz.	Clear
BLF 1160	Tube 80 ml./3 fl.oz.	Clear
BLF 1161	Tube 80 ml./3 fl.oz.	White
BLF 1162	Tube 80 ml./3 fl.oz.	Black
BLF 1169	Cart. 310 ml./10.6 fl.oz.	Clear
BLF 1170	Cart. 310 ml./10.6 fl.oz.	White
BLF 1171	Cart. 310 ml./10.6 fl.oz.	Black
BLF 1172	Cart. 310 ml./10.6 fl.oz.	Aluminum
BLF 1173	Cart. 310 ml./10.6 fl.oz.	Came

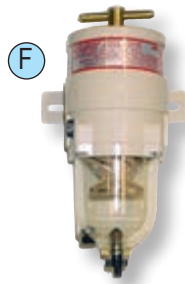
\*\* Can only be shipped via ground. No air shipments allowed

\*\*\* Not Compatible with all paints. Please check with paint Mfg.



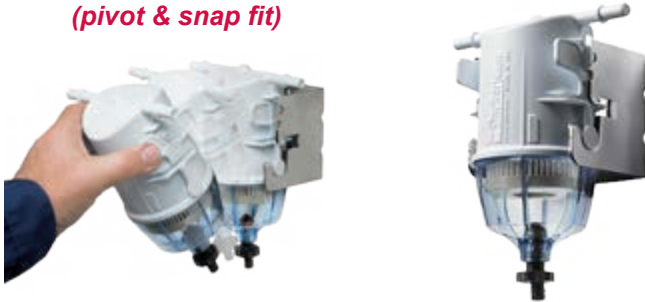


Part No.	Description
<b>A</b> RAC 120AS, AT, AP	Fuel Filter Assy. 2/10/30 micron
RAC R12S	02 Micron Element
RAC R12T	10 Micron Element
RAC R12P	30 Micron Element
<b>B</b> RAC 215R2, R10, R30	Fuel Filter Assy. 2/10/30 micron
RAC R15S	02 Micron Element
RAC R15T	10 Micron Element
RAC R15P	30 Micron Element
<b>C</b> RAC 230R2, R10, R30	Fuel Filter Assy. 2/10/30 micron
RAC R20S	02 Micron Element
RAC R20T	10 Micron Element
RAC R20P	30 Micron Element
<b>D</b> RAC 245R2, R10, R30	Fuel Filter Assy. 2/10/30 micron
RAC R25S	02 Micron Element
RAC R25T	10 Micron Element
RAC R25P	30 Micron Element
<b>E</b> RAC 460R2, R10, R30	Fuel Filter Assy. 2/10/30 micron
RAC R60S	02 Micron Element
RAC R60T	10 Micron Element
RAC R60P	30 Micron Element
<b>F</b> RAC 500FG2, FG10, FG30	Fuel Filter Assy. 2/10/30 micron
RAC 2010SM-OR	02 Micron Element
RAC 2010TM-OR	10 Micron Element
RAC 2010PM-OR	30 Micron Element
<b>G</b> RAC 900FH2, FH10, FH30	Fuel Filter Assy. 2/10/30 micron
RAC 2040N-02	02 Micron Element
RAC 2040N-10	10 Micron Element
RAC 2040N-30	30 Micron Element
<b>H</b> RAC 1000FH2, FH10, FH30	Fuel Filter Assy. 2/10/30 micron
RAC 2020N-02	02 Micron Element
RAC 2020N-10	10 Micron Element
RAC 2020N-30	30 Micron Element
<b>I</b> RAC S2502	10 Micron Element



## Racor SNAPP™ Series

(pivot &amp; snap fit)



Standard Racor self-venting drain. Only 1 FKM seal at drain. Large finger tabs for one-handed removal. Clear nylon bowl for water level detection. 3/8 quick connect fittings (per SAE J2044). 2, 10 or 30 micron elements available. Patented quick attachment method (pivot & snap fit). No tools required

Part No.	Description
RAC 23281-02	Fuel Filter Assy with Bracket -02 micron
RAC 23281-10	Fuel Filter Assy with Bracket -10 micron
RAC 23281-30	Fuel Filter Assy with Bracket -30 micron
RAC 23299-02	Fuel Filter Assy with Bracket & Drain -02 micron
RAC 23299-10	Fuel Filter Assy with Bracket & Drain -10 micron
RAC 23299-30	Fuel Filter Assy with Bracket & Drain -30 micron
RAC R23280-02	Fuel Filter Only -02 micron
RAC R23280-10	Fuel Filter Only -10 micron
RAC R23280-30	Fuel Filter Only -30 micron
RAC R23298-02	Fuel Filter Only with Drain -02 micron
RAC R23298-10	Fuel Filter Only with Drain -10 micron
RAC R23298-30	Fuel Filter Only with Drain -30 micron



## Quick-Connect Fitting Kits

SAE J2044 End Form

Part No.	Description	Hose Barb	Hose ID	# of Units
RAC RK23319	90° Fitting Kit,	3/8"	3/8"	2
RAC RK23320	Straight Fitting Kit,	5/16"	5/16"	2
RAC RK23321	90° Fitting Kit,	5/16"	5/16"	2



## Replacement Spin On Filters



Part No.	Application
RAC B32013	Replaces Quicksilver. Also fits: Honda, Yamaha, Suzuki, Volvo, Sierra, Tohatsu & Other Filter Heads
RAC S3213	Replacement Element for B32013
RAC B32014	Replaces OMC
RAC S3214	Replacement Element for B32014
RAC RK30475	Spare Bowl Kit
RAC B32002	Detroit Diesel, 30 Micron, 90 gph DDA6438839
RAC S3202	Replacement Element 30 Micron
RAC RK30745-01	Spare Bowl Kit



## Replacement Filters

Part No.	Application
RAC 31871	Mercury Replacement Element (2 per pack)
RAC B32020MAM	Replaces Quicksilver. Also fits: Honda, Yamaha, Suzuki, Volvo, Sierra, Tohatsu & Other Filter Heads
RAC S3220TUL	Replacement Element for B32020MAM
RAC B32021MAM	Replaces OMC UL Recognized
RAC S3221TUL	Replacement Element for B32021MAM
RAC RK30473-02	Spare Bowl Kit

## Replacement Spin On Filters

- 96% Contaminate Removal
- 98% Water Removal
- Two or Four Cycle
- High or Low Pressure
- 10 Micron



Part No.	Description
RAC PFF5510	Fits Mercury, MerCruiser, Yamaha, Suzuki, Honda & Tohatsu 3.6" Dia - 4.25 " Tall - 11/16-16 Thread

## Ford &amp; Navistar



Part No.
RAC PFF4616
6.0L Ford Pickups



Part No.
RAC PFF4606
6.0L Ford Vans



Part No.
RAC INF829B
7.3L Navistar Diesel



## Compact Gasoline Filters for Smaller Boats & Personal Watercraft Will Not Separate Gas from Oil



<b>Part No.</b>	<b>RAC110A (10 Mic)</b>
<b>Application</b>	Gas Inboard, Outboard, Diesel & PWC
<b>Bowl</b>	Metal
<b>Max Flow</b>	15 GPH Diesel / 35 GPH Gas
<b>Element</b>	R11T (10 Mil)
<b>Available Water Probe</b>	No
<b>Port Connection</b>	2 in 2 Out
<b>Port Size</b>	1/4"-18 NPTF
<b>Placement</b>	Vacuum or Pressure
<b>Height</b>	4.75"
<b>Width</b>	2.3"
<b>Max Pressure</b>	150 psi
<b>Notes:</b>	Marine UL

Spin on gasoline filters meets ABYC Standards for gas vessels. See thru bowls for gas outboards. Metal bowls for gas inboards & gas outboards. Will not separate gas from oil.



**RAC 120R-RAC-01**  
Outboards or Diesel  
See Thru RACRK10222  
30 GPH  
S3240 (10 mic)  
No  
2 in 2 Out  
1/4"-18 NPTF  
Vacuum Side  
6.5"  
3.2"







**RAC 320R-RAC-01**  
Outboards or Diesel  
See Thru RACRK30475  
60 GPH  
S3227 (10 mic)  
No  
2 in 1 Out  
1/4"-18 NPTF  
Vacuum Side  
9-3/8"  
4"



**RAC 3200R-RAC-02**  
Outboards, Inboard Gas or Diesel  
Metal RACRK30473-02  
60 GPH  
S3228UL (10 mic)  
No  
2 in 1 Out  
1/4"-18 NPTF  
Vacuum Side  
9-3/8"  
4"  
Marine UL USCG Reg.  
ABYC

**Application**  
**Bowl**  
**Max Flow**  
**Element**  
**Available Water Probe**  
**Port Connection**  
**Port Size**  
**Placement**  
**Height**  
**Width**  
**Notes:**

## Parker Hannifin & Racor Fitting Chart

Fitting	Racor Part No.	Model No.	T1 Unit Port Side	T2 Fuel Line Side
Straight Thread w/O-Ring 90° Elbow Male JIC37° 	*P/H6-8C5OX-S	500 Series New Style	3/4"-16-w/O-Ring	9/16"-18
Straight Thread w/O-Ring Male JIC37° 	*P/H8F5OX-S *P/H10-8F5OX-S *P/H6F5OX-S *P/H6-10F5OX-S *P/H8-10F5OX-S	500 Series New Style 500 Series New Style 500 Series Old Style 900/1000 Series 900/1000 Series	3/4"-16-w/O-Ring 3/4"-16-w/O-Ring 9/16"-18-w/O-Ring 7/8"-14-w/O-Ring 7/8"-14-w/O-Ring	3/4"-16 7/8"-14 9/16"-18 9/16"-18 3/4"-16
Straight Thread w/O-Ring Female Pipe 	*P/H8-1/4F5OG-S *P/H8-3/8F5OG-S *P/H8-1/2F5OG-S *P/H6-1/4F5OG-S *P/H6-3/8F5OG-S *P/H10-1/4F5OG-S *P/H10-3/8F5OG-S *P/H10-1/2F5OG-S *P/H10-3/4F5OG-S	500 Series New Style 500 Series New Style 500 Series New Style 500 Series Old Style 500 Series Old Style 900/1000Series 900/1000Series 900/1000 Series 900/1000 Series	3/4"-16-w/O-Ring 3/4"-16-w/O-Ring 3/4"-16-w/O-Ring 9/16"-18-w/O-Ring 9/16"-18-w/O-Ring 7/8"-14-w/O-Ring 7/8"-14-w/O-Ring 7/8"-14-w/O-Ring 7/8"-14-w/O-Ring	1/4"-18 Pipe Thread 3/8"-18 Pipe Thread 1/2"-14 Pipe Thread 1/4"-18 Pipe Thread 3/8"-18 Pipe Thread 1/4"-18 Pipe Thread 3/8"-18 Pipe Thread 1/2"-14 Pipe Thread 3/4"-14 Pipe Thread
Barb Hose Fitting 	RAC 9020HF-4-5/6 *P/H05TB-8-6 *P/H05TB-8-8 *P/H05TB-8-10 RAC 911-O10-H6 RAC 911-O10-H8	200 Series 500 Series New Style 500 Series New Style 500 Series New Style 900, 1000 Series 900, 1000 Series	7/16"-20-w/O-Ring 3/4"-16-w/O-Ring 3/4"-16-w/O-Ring 3/4"-16-w/O-Ring 7/8"-14 7/8"-14	5/16"-3/8" Hose 3/8" Hose 1/2" Hose 5/8" Hose 3/8" Hose 1/2" Hose

\* In 1996 Racor Changed the Port Thread from 9/16"-18 to 3/4"-16 Please Verify Size

## Spin on Diesel Filters



**Application**  
**Bowl**  
**Max Flow**  
**Element**

**Available Water Probe**  
**Port Connection**  
**Port Size**  
**Placement**  
**Height**  
**Width**  
**Max Pressure**  
**Notes:**

**RAC 120AS (2 Mic)**  
**RAC 120AT (10 Mic)**  
**RAC 120AP (30 Mic)**

Outboards or Diesel  
See Thru RACRK10215  
15 GPH  
R12S (2 mic)  
R12T (10 mic)  
R12P (30 mic)  
RK30964\*  
2 in 2 Out  
1/4"-18 NPTF  
Vacuum  
5.7"  
3.2"  
7 psi

**RAC 215R2**  
**RAC 215R10**  
**RAC 215R30**  
Outboards or Diesel  
See Thru RACRK22350-02  
15 GPH  
R15S (2 mic)  
R15T (10 mic)  
R15P (30 mic)  
RK30964\*  
1 in 2 Out  
1/4"-18 NPTF  
Vacuum or Pressure  
8.3"  
4"  
30 psi  
Primer Pump

**RAC 230R2**  
**RAC 230R10**  
**RAC 230R30**  
Outboards or Diesel  
RACRK22350-02  
30 GPH  
R20S (2 mic)  
R20T (10 mic)  
R20P (30 mic)  
RK30964\*  
1 in 2 Out  
1/4"-18 NPTF  
Vacuum or Pressure  
9"  
4"  
30 psi  
Primer Pump

\*Diesel use only needs water alarm kit RK 20725 or RK 20726  
Operating Temp -40° - +255° Max Pressure 7 psi

## Spin on Diesel Filters



**Application**  
**Bowl See Thru**  
**Max Flow**  
**Element**

**Available Water Probe**  
**Port Connection**  
**Port Size**  
**Placement**  
**Height**  
**Width**  
**Max Pressure**  
**Notes:**

**RAC 245R2**  
**RAC 245R10**  
**RAC 245R30**

Outboards or Diesel  
RACRK22350-02  
45 GPH  
R25S (2 mic)  
R25T (10 mic)  
R25P (30 mic)  
RK30964\*  
1 in 2 Out  
1/4"-18 NPTF  
Vacuum or Pressure  
10.5"  
4"  
30 psi  
Primer Pump

**RAC 460R2**  
**RAC 460R10**  
**RAC 460R30**

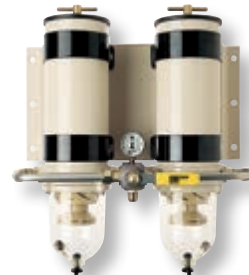
Outboards or Diesel  
RACRK21113-13-11  
60 GPH  
R60S (2 mic)  
R60T (10 mic)  
R60P (30 mic)  
RK30964\*  
2 in 2 Out  
3/8"-18 NPTF  
Vacuum or Pressure  
11"  
4.5"  
30 psi  
Primer Pump

**RAC 4120R10**  
**RAC 4120R30**

Outboards or Diesel  
RACRK30063  
120 GPH  
R120S (2 mic)  
R120T (10 mic)  
R120P (30 mic)  
RK30964\*  
2 in 2 Out  
3/4"-16 (SAE) O-ring  
Vacuum or Pressure  
15"  
4.5"  
15 psi  
Primer Pump

\*Diesel use only needs water alarm kit RK 20725 or RK 20726  
Operating Temp -40° - +255° Max Pressure 7 psi

## Diesel Turbine Series Fuel Filters/Water Separator



Application  
Bowl  
Max Flow  
Element

Available Water Probe  
Port Size  
Height  
Width  
Depth  
Weight  
Filter Change Clearance  
Notes:

**RAC 500FG2**  
**RAC 500FG10**  
**RAC 500FG30**

Diesel  
See Thru  
60 GPH  
2010SM-OR (2 mic) Brown  
2010TM-OR (10 mic) Blue  
2010PM-OR (30 mic) Red

RK21069\*  
3/4"-16 Female O-Ring

11.5"  
5.8"  
4.8"  
4 lbs.  
4"

**RAC 900FH2**  
**RAC 900FH10**  
**RAC 900FH30**

Diesel  
See Thru  
90 GPH  
2040SM-OR (2 mic) Brown  
2040TM-OR (10 mic) Blue  
2040PM-OR (30 mic) Red

RK21069\*  
7/8"-14 Female O-Ring

17"  
6"  
7"  
6 lbs.  
5"

**RAC 1000FH2**  
**RAC 1000FH10**  
**RAC 1000FH30**

Diesel  
See Thru  
180 GPH  
2020SM-OR (2 mic) Brown  
2020TM-OR (10 mic) Blue  
2020PM-OR (30 mic) Red

RK21069\*  
7/8"-14 Female O-Ring

22"  
6"  
7"  
10 lbs.  
10"

**RAC 751000FHX2**  
**RAC 751000FHX10**  
**RAC 751000FHX30**

Diesel  
See Thru  
360 GPH  
2020SM-OR (2 mic) Brown  
2020TM-OR (10 mic) Blue  
2020PM-OR (30 mic) Red

RK21069\*  
7/8"-14 ( Male Flare 37°)

22"  
18.75"  
11"  
30 lbs.  
10"

Selector valve &  
vac./pres. gauge

\*Diesel use only, needs water alarm kit RK 20725 or RK 20726

Operating Temp -40° - +255° Max Pressure 7 psi

Horsepower x 0.18=GPH of Engine, do Not undersize Designed for vacuum side

Operating Temp -40° - +255° Max Pressure 7 psi

## Diesel or Gas MAM Series Turbine Fuel Filters/Water Separators

### Marine UL ABS & USCG Accepted



Application  
Bowl  
Max Flow  
Element

Available Water Probe  
Port Size  
Height  
Width  
Depth  
Weight  
Filter Change Clearance

**RAC 500MAM2**  
**RAC 500MAM10**  
**RAC 500MAM30**

Diesel or Gas  
Metal Bowl  
60 GPH  
2010SM (2 mic) Brown  
2010TM (10 mic) Blue  
2010PM (30 mic) Red

RK21069\*  
3/4"-16 Female O-Ring

11.5"  
5.8"  
4.8"  
4 lbs.  
4"

**RAC 900MAM2**  
**RAC 900MAM10**  
**RAC 900MAM30**

Diesel or Gas  
Metal Bowl  
90 GPH  
2040SM-OR (2 mic) Brown  
2040TM-OR (10 mic) Blue  
2040PM-OR (30 mic) Red

RK21069\*  
7/8"-14 Female O-Ring

17"  
6"  
7"  
6 lbs.  
5"

**RAC 1000MAM2**  
**RAC 1000MAM10**  
**RAC 1000MAM30**

Diesel or Gas  
Metal Bowl  
180 GPH  
2020SM-OR (2 mic) Brown  
2020TM-OR (10 mic) Blue  
2020PM-OR (30 mic) Red

RK21069\*  
7/8"-14 Female O-Ring

22"  
6"  
7"  
10 lbs.  
10"

\*Diesel use only, needs water alarm kit RK 20725 or RK 20726

Operating Temp -40° - +255° Max Pressure 7 psi

Horsepower x 0.18=GPH of Engine, do Not undersize Designed for vacuum side

Operating Temp -40° - +250°



## MA Turbine Series Diesel Fuel Filter/Water Separators

### Marine UL Listed & USCG Accepted, ABS



	<b>RAC 500MA2</b> <b>RAC 500MA10</b> <b>RAC 500MA30</b>	<b>RAC 900MA2</b> <b>RAC 900MA10</b> <b>RAC 900MA30</b>	<b>RAC 1000MA2</b> <b>RAC 1000MA10</b> <b>RAC 1000MA30</b>	<b>RAC 75500MAX2</b> <b>RAC 75500MAX10</b> <b>RAC 75500MAX30</b>
<b>Application</b>	Diesel	Diesel	Diesel	Diesel
<b>Bowl</b>	See Thru/Heat Deflector	See Thru/Heat Deflector	See Thru/Heat Deflector	See Thru/Heat Deflector
<b>Max Flow</b>	60 GPH	90 GPH	180 GPH	120 GPH
<b>Element</b>	2010SM-OR (2 mic) Brown 2010TM-OR (10 mic) Blue 2010PM-OR (30 mic) Red RK21069*	2040SM-OR (2 mic) Brown 2040TM-OR (10 mic) Blue 2040PM-OR (30 mic) Red RK21069*	2020SM-OR (2 mic) Brown 2020TM-OR (10 mic) Blue 2020PM-OR (30 mic) Red RK21069*	2010SM-OR (2 mic) Brown 2010TM-OR (10 mic) Blue 2010PM-OR (30 mic) Red RK21069*
<b>Available Water Probe</b>	RK21069*	RK21069*	RK21069*	RK21069*
<b>Port Size</b>	3/4"-16 Female O-Ring	7/8"-14 Female O-Ring	7/8"-14 Female O-Ring	3/4"-16 Female O-Ring
<b>Height</b>	11.5"	17"	22"	11.5"
<b>Width</b>	5.8"	6"	6"	14.5"
<b>Depth</b>	4.8"	7"	7"	9.5"
<b>Weight</b>	4 lbs.	6 lbs.	10 lbs.	17 lbs.
<b>Filter Change Clearance</b>	4"	5"	10"	4"
<b>Notes:</b>	Marine UL	Marine UL	Marine UL	Marine UL Selector valve & vac./pres. gauge

\*Diesel use only, needs water alarm kit RK 20725 or RK 20726

Operating Temp -40° - +255° Max Pressure 7 psi

Horsepower x 0.18=GPH of Engine, do not undersize. Designed for vacuum side



	<b>RAC 75900MAX2</b> <b>RAC 75900MAX10</b> <b>RAC 75900MAX30</b>	<b>RAC 751000MAX2</b> <b>RAC 751000MAX10</b> <b>RAC 751000MAX30</b>	<b>RAC 791000MAV2</b> <b>RAC 791000MAV10</b> <b>RAC 791000MAV30</b>
<b>Application</b>	Diesel	Diesel	Diesel
<b>Bowl</b>	See Thru/Heat Deflector	See Thru/Heat Deflector	See Thru/Heat Deflector
<b>Max Flow</b>	180 GPH	360 GPH	540 GPH
<b>Element</b>	2040SM-OR (2 mic) Brown 2040TM-OR (10 mic) Blue 2040PM-OR (30 mic) Red RK21069*	2020SM-OR (2 mic) Brown 2020TM-OR (10 mic) Blue 2020PM-OR (30 mic) Red RK21069*	2020SM-OR (2 mic) Brown 2020TM-OR (10 mic) Blue 2020PM-OR (30 mic) Red RK21069*
<b>Available Water Probe</b>	RK21069*	RK21069*	RK21069*
<b>Port Size</b>	7/8"-14 ( Male Flare 37°)	7/8"-14 ( Male Flare 37°)	3/4"-14 NPTM
<b>Height</b>	17"	17"	22"
<b>Width</b>	18.75"	18.8"	22"
<b>Depth</b>	11"	11"	12"
<b>Weight</b>	23 lbs.	23 lbs.	53 lbs.
<b>Filter Change Clearance</b>	5"	10"	10"
<b>Notes:</b>	Marine UL Selector valve & vac./pres. gauge	Marine UL Selector valve & vac./pres. gauge	Marine UL Selector Ball Valves

\*Diesel use only, needs water alarm kit RK 20725 or RK 20726

Operating Temp -40° - +255° Max Pressure 7 psi

Designed for vacuum side. Horsepower x 0.18=GPH of Engine, do not undersize. Designed for vacuum side

## Water Sensor Probes and Kits

## Water Sensor Probe Only



1/2"-20 Threads 12 or 24 volts Diesel Only.

**Part No.**  
RAC RK21069

## Under Dash Detection



Module 12 Volt Indicator Light.

**Part No.**  
RAC RK20725



## 2" In Dash Light &amp; Buzzer



12 or 24 volts  
**Part No.**  
RAC RK20726



## T Handle Vacuum Gauge Kit

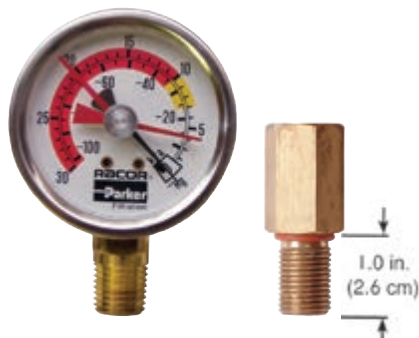


500 Series Includes Gauge & Adapter Fittings, Red Line Decal Kit. 2" Wide  
1/4"-NPT Gauge - 9/16"-18 UNF Adapter.

**Part No.**  
RAC RK11-1969

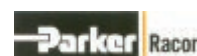
## Vacuum Gauge Kits

## T Handle Vacuum Gauge Kit



900 & 1000 Series Includes Gauge & Adapter Fittings, Red Line Decal Kit. 2" Wide  
1/4"-NPT Gauge - 9/16"-18 UNF Adapter.

**Part No.**  
RAC RK11-1669



## Vacuum Gauge



Gauge Only Silicone Dampened  
0-30 in HG 2" Wide - 1/4"NPTM

**Part No.**  
RAC RK11-1676E

## Panel Mount Vacuum Kit



Silicone Dampened 0-30 in HG 2" Wide -  
1/4" NPTM has Two Adapters  
1/8" NPTM X 1/4" Hose & 1/4" Swivel x  
1/4" Hose

**Part No.**  
RAC RK19668

Not sure which  
**RACOR**  
product you need?

Give us a call!  
**1-800-432-2231**

Our parts experts will be happy to assist you in finding the perfect fit.

## Racor Multipass Fuel Polisher Fuel Filter Water Separator

The New Racor Fuel Polisher removes contamination at the source - the fuel tank. Most filtration solutions block contamination as it moves through the fuel system on the way to the engine. As contamination builds, fuel filters will choke leading to inadequate fuel delivery to the engine, damage to injectors and other engine components, increased emissions, and decreased performance.

### Available Part Numbers

P510MAM	FF/WS, 10 micron
R58065-2	2 micron Replacement Element
R58065-10	10 micron Replacement Element
R58065-30	30 micron Replacement Element
RK 20725	12V Water Detection
RK 20725-24	24V Water Detection
RK 12870	12V Water Detection w/ Buzzer
RK 12871	24V Water Detection w/ Buzzer
RK 15211	Seal Service Kit

- Bottom loading cartridge design
- Aluminum & stainless steel construction
- Approved for all bio-fuels
- Aquablock media cartridges
- Stainless Steel Water in fuel sensor
- UL 1105 fire test Certified
- Electrical wire harness w/control switch included

### Part No.

RAC P510MAM

### Description

Flow rate to 72 GPH (272 LPH)  
26 PSI MAX pressure output  
Both 12V and 24V applications



RAC RK 15211



## 500FG Replacement Parts

Note Replacement Parts may Vary for Other Than FG series. Contact Customer Service with Model for Correct parts

Part Number		Description
1	RK 11888	T-handle and O-ring Kit (9/16"-18 UNF Threads) <i>Hand Tighten</i>
1a	RK11350	T-handle O-ring
2	RK 15078	Lid Kit
2a	15005	Lid Seal
B	2010SM-OR (2 micron),	Replacement Filter (All Models)
C	RK 15438-01	Heater Kit (12 vdc, 100 watt with TCO)
	RK 15438-02	Heater Kit (24 vdc, 100 watt with TCO)
3	RK 15081	Bowl Fasteners (4) <i>Tighten to 60 in. lbs (6.78 Nm)</i>
4	RK 15035	Bowl Ring Kit
5a	RK15374	Bowl Seal
6	RK 15013D	Turbine Centrifuge and Conical Baffle Kit <i>Hand Tighten</i>
7	(not sold separately)	Check Ball Seal
8	RK 15010B	Check Ball Kit (includes 7)
9	RK 30476 (>2002)	Self-venting Drain Kit <i>Tighten to 30 in. lbs (3.39 Nm)</i>
9a	(not sold separately)	Drain Gasket
10	RK 21067	Heater Feedthru Kit <i>Tighten to 15 in. lbs (1.69 Nm)</i>
	RK 11-1679	Feed-thru Plug Kit <i>Tighten to 15 in. lbs (1.69 Nm)</i>
10a	43506	Feedthru or plug O-ring
11	RK 21069	Water Probe Kit <i>Tighten to 15 in. lbs (1.69 Nm)</i>
	RK 20126	Bowl Plug Kit <i>Tighten to 15 in. lbs (1.69 Nm)</i>
11a	(not sold separately)	Water Probe or Plug O-ring
D	RK 15378	Clamp Bracket Kit
	RK 11838	Carriage Bolt Kit
E	(not sold separately)	500 Body/Housing



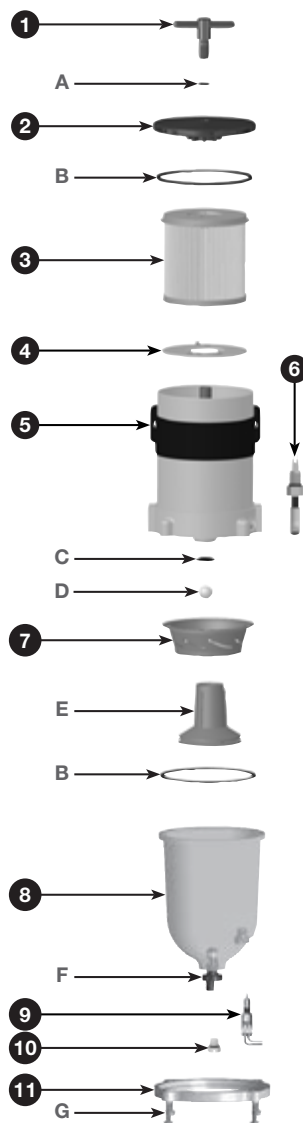


## 900FH & 1000FH Replacement Parts

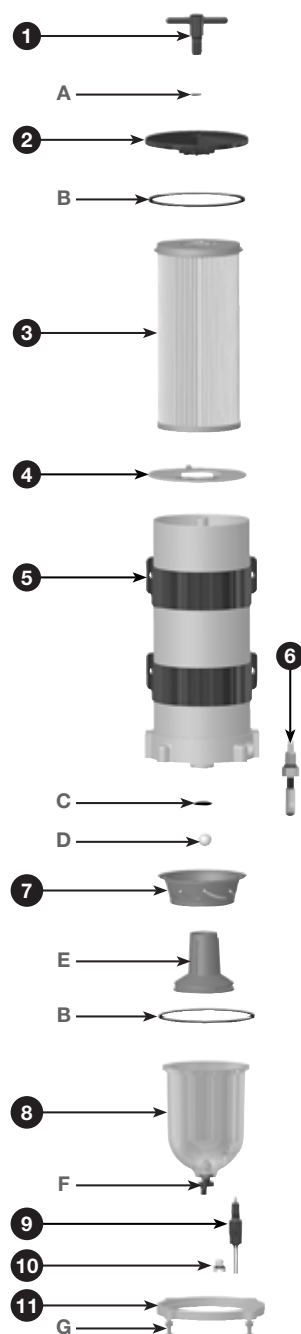
Note Replacement Parts may Vary for Other Than FH series. Listed Contact Customer Service with Model for Correct parts.

	Part No.	Description
1.	RK 11-1945	T-handle and O-ring Kit (includes A)
2.	RK 11-1927-01	Lid Kit (includes B)
3.	2040SM-OR	Replacement Filter (2 Micron) (includes A & B)
	2040TM-OR	Replacement Filter (10 Micron) (includes A & B)
	2040PM-OR	Replacement Filter (30 Micron) (includes A & B)
4.	RK 11-2002	12 vdc, Heater Body Feed-thru Kit (includes A, B, & 6)
	RK 11-2001	24 vdc, Heater Body Feed-thru Kit (includes A, B, & 6)
5.	RK 11815-103	Mounting Bracket Kit
6.	RK 21067	Body Feed-thru Heater Assembly Kit
	RK 11-1679	Body Feed-thru Plug Kit
7.	RK 11-1939	Conical Baffle and Turbine Centrifuge Kit (includes B, C, D, & E)
8.	RK 11-1938	See-thru Bowl with Drain and Plug Kit (includes B, F, & 10)
9.	RK 32204	Water Sensor Kit
10.	RK 20126	Bowl Plug Kit
11.	RK 11037A	Bowl Ring (includes B & G)
G.	RK 11542	Cap Screw Kit
Additional Parts (not shown)		
	RK 11-1952	Complete Seal Service Kit

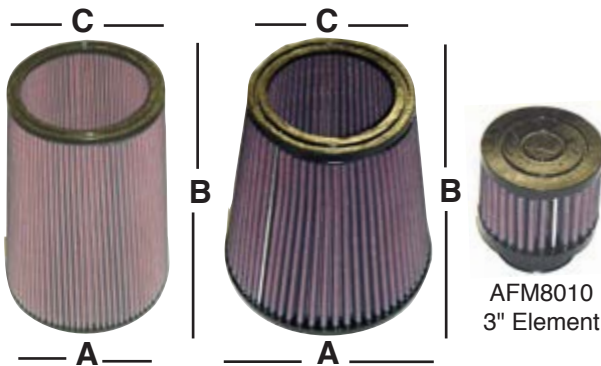
### RAC 900FH



### RAC 1000FH



## Air Filter Replacement



The filter media for all replacement filters is an oil-impregnated cotton gauze and is sandwiched between pleated, epoxy-coated aluminum wire-mesh with polyurethane sealing surfaces. This product is cleanable and must be oiled before reusing.

### Walker No. Dimensions (in inches)

Part No.	Air/Sep	"A"	"B"	"C"
RAC AFM8145	CD170	10"	8"	10"
RAC AFM8121	CD174	7.5"	6"	7.5"
RAC AFM8122	CD175	7.5"	7"	7.5"
RAC AFM8126	CD178	7.5"	10"	7.5"
RAC AFM8010	CD180	3" Air Separators		
RAC AFM8153	CD183	12"	12"	12"
RAC AFM8037	CD184	9"	14"	6.875"
RAC AFM8047	CD185	10"	14"	7"
RAC AFM8152	CD186	12"	7"	12"
RAC AFM8157	CD189	12"	14"	12"
RAC AFM8026	CD190	7.5"	10"	5.1"
RAC AFM8025	CD195	7.5"	8"	5.125"
RAC AFM8034	CD196	9"	9"	6.9"
RAC AFM8033	CD197	9"	12"	6.9"
RAC AFM8040	-	6"	10.25"	6"
RAC AFM8134	CD200	9"	12"	6"
RAC AFM8133	CD201	9"	12"	9"
RAC AFM8141	CD202	10"	6"	10"
RAC AFM8156	CD204	12"	12"	8"

## Air Filter Cleaning Kit



To be used for washing and re-oiling Racor cleanable air filter.

**Part No.**  
RAC AFM82006



## Fuel Vent Overflow Valves



**Thermal Expansion** Up to 2.4 psi  
**Vent Line Size** 5/8"

Part No.	Application	Dimension	Max Air Flow
RAC LG50	Gas	1-3/4"D x 6"L	12 cfm / 5.6 lps
RAC LG100	Diesel/Gas	4"D x 9-3/4"L	17 cfm / 8 lps

## Bowl Wrench



Racor offers a hand wrench to remove all metal and see-thru spin-on bowls that feature external ribs. The wrench is made of a corrosion proof, high-strength engineered polymer.

**Part No.**  
RAC 22628

## Fuel Funnels



RAC RFF1C RAC RFF3C RAC RFF8C

Separates freewater & solids down to .005 inches (100 micron) carbon power is injected into the plastic so the filter will conduct static electricity.

Part No.	Max Flo Rate	Height	Dia
RAC RFF1C	2.7	6"	3.5"
RAC RFF3C	3.9	9"	5.5"
RAC RFF8C	5	10"	8.5"
RAC RFF15C	15	10"	8.5"

## Siphon pump



Siphon pump to transfer water, gas, etc. Non Electric.  
Glass ball in brass end that "shakes" to start siphon.

**Part No.**  
MOE 042907

## CCV Systems



-06 medium density element, -08 high density element, L for inlet on left side, R for inlet right side

Part Nos.	RAC CCV4500-06L RAC CCV4500-08L RAC CCV4500-08R	RAC CCV6000-08L	RAC CCV8000-08L RAC CCV8000-08R
Max. Flow Rate	10 CFM (283 LPM)	20 CFM (566 LPM)	40 CFM (1132 LPM)
Max. Engine Rating	400 HP (298 KW)	800 HP (597 KW)	1600 HP (1193 KW)
Height	9.3 in (23.5 cm)	12.0 in (30.4 cm)	13.9 in (35.2 cm)
Opening Width	7.5 in (19.0 cm)	11.3 in (28.6 cm)	13.3 in (33.6 cm)
Depth	5.6 in (14.2 cm)	7.3 in (18.5 cm)	9.3 in (23.6 cm)
Weight	3.3 lbs (1.5 kg)	5.0 lbs (10.1 kg)	8.7 lbs (4.0 kg)
Service Clearance	2.3 in (5.7 cm)	4.0 in (10.1 cm)	5.0 in (12.7 cm)
Extream Density Element	-10	-10	-10
High Density Element	RAC CCV55248-08	RAC CCV55274-08	RAC CCV55222-08
Inlet/Outlet	13/16" - 12 STOR	1-5/8" - 12 STOR	1-7/8" - 12 STOR
Pressure Regulator	Integral	Integral	Integral
Bypass Indicator	Integral or Remote	Integral or Remote	Integral or Remote
Return Fitting	1/4" NPT	1/4" NPT	3/8" NPT
Swivel	#6 JIC (2 pcs)	#6 JIC (2 pcs)	#8 JIC (2 pcs)
Oil Drain Hose I.D.	0.375 in.	0.375 in.	.5 in.

Operating Temp -40° - +240° (-40° to + 116° C)

## Tap Sleeves

Installs inline between element & turbocharger. Sized by matching pipe diameter.

Part No.	Description	Weight
RAC CCV30100-B	5.0 in. (12.7 cm) x 3.0 in. (7.6 cm)	2 lbs (9 kg)
RAC CCV40100-B	5.0 in. (12.7 cm) x 4.0 in. (10.4 cm)	2.5 lbs (1.1 kg)
RAC CCV50125-B	6.0 in. (15.2 cm) x 5.1 in. (13.0 cm)	2.5 lbs (1.1 kg)
*RAC CCV60125-B	6.0 in. (15.2 cm) x 6.1 in. (15.5 cm)	2.5 lbs (1.1 kg)

\*Note: Includes a 1-1/4" by 1-1/2" bushing reducer (connects to 1-1/2" ID hose) part #55020



## For Model CCV4500

## Hose/Fitting Kits

Part No.	Description
RAC CCV55024	(1) 3/4" fitting, (1) 1" fitting, (1) 3/4" ID x 4' hose, (1) 1" ID x 4' hose, (4) clamps, and (4) ties.
RAC CCV55025	(2) 1" fittings, (1) 1" ID x 8' hose, (4) clamps, and (4) ties
RAC CCV55037	(1) 1-1/4" fitting, (1) 1" fitting, (1) 1-1/4" ID x 4' hose, (1) 1" ID x 4' hose, (4) clamps, and (4) ties.
RAC CCV55038	(1) 3/4" fitting, (1) 1" fitting, (1) 3/4" ID x 6' hose, (1) 3/4" Tee fitting, (1) 1" ID x 4' hose, (8) clamps, and (8) ties

## For Model CCV6000

RAC CCV55046	(2) 1-1/4" fittings, (1) 1-1/4" ID x 8' hose, (4) clamps, and (4) ties.
RAC CCV55047	(2) 1-1/4" fittings, (1) 1-1/4" Tee fitting, (1) 1-1/4" ID x 10' hose, (8) clamps, and (8) ties.
RAC CCV55048	(2) 1-1/4" fittings, (1) 1-1/2" ID x 4' hose, (1) bushing reducer, (1) 1-1/4" ID x 4' hose, (4) clamps, and (4) ties.
RAC CCV55049	(2) 1-1/4" fittings, (1) 1-1/2" ID x 5' hose with 2" cuff, (1) bushing reducer, (1) 1-1/4" ID x 4' hose, (4) clamps, and (4) ties.

## For Model CCV8000

RAC CCV55067	(2) 1-1/2" fittings, (1) 1-1/2" ID x 10' hose, (1) bushing reducer, (4) clamps, and (4) ties.
RAC CCV55068	(2) 1-1/2" fittings, (1) 1-1/2" Tee fitting, (1) 1-1/2" ID x 12' hose, (2) bushing reducers, (8) clamps, and (8) ties.
RAC CCV55069	(2) 1-1/2" fittings, (1) 1-1/2" ID x 5" hose with 2" cuff, (1) 1-1/2" ID x 5" hose, (4) clamps & (4) ties



A filtration and dispensing system combined into a single portable unit. Removes sludge and separates water buildup caused by storing diesel fuel.

## REVERSO

### Basic Features

- Hose
- Separ filter SWK-2000/40MK
- 30 micron paper element
- Electronic control box with 5-hour mechanical timer
- LED indicators for element replacement and backflushing
- Drip pan - easy to remove for cleaning
- Wired for 110V
- Vacuum gauge
- Safety shutdown and alarm for clogged filter and water
- Truck skids
- Hose hanger
- Strainer valve on suction side



### Part No.

REV 82-3144  
SEP 04060S  
SEP 04030

### Description

Fuel Cart Assy.  
60 Micron Element Repl.  
30 Micron Element Repl.

REV82-3144  
SEP04030  
REV80-3189  
REV80-3190

Diesel Fuel Cart  
30 Micron Element  
Nozzle Holder  
Nozzle

### Optional Features

Technical Specifications

- 220V
- Nozzle - manual
- Flow meter
- Variable length pickup/discharge tube
- Seal kit
- 60 micron stainless steel element
- 10 micron paper element

## Racor Fuel Polishing Cart

The Racor heavy duty Fuel Polishing Cart is a cost effective way to filter diesel, jet fuels, mixtures of biodiesel, and other petroleum hydrocarbon fluids in storage or transport. This filter cart polishes, cleans up, and recycles old or contaminated fuel. It can also be used in preventative maintenance practices to keep fuel tanks clean, or as a servicing unit to clean up fuel tanks that have become contaminated with rain, sea water, dirt, rust, and microbial growth.



Specifications	FC-16-25
Application	Power generation, fuel transfer, and fuel storage
Replacement Filter*	FBO 60338
Flow Rate	Up to 16 GPM
Maximum Pressure Rating	150 PSI (10 bar)
Height	40.7 in. (103.8 cm)
Width	25.5 in. (64.8 cm)
Length	19.8 in. (50.3 cm)
Weight (dry)	107 lbs (48.5 kg)
Max. Fuel Operating Temperature	100° F (38° C)

Features	FC-16-25
2 Wheel Cart	•
FBO-14	•
25 micron element	•
110V Power Requirement	•
Hose Kit/Wands	•

NOTE: The Racor Fuel Polishing Cart does not include an FBO element. Select an appropriate element from the list below to suit your needs.



### FBO Replacement Filters

		Water Separator	Silicone Treated	Water Absorber
		Water separator filters remove water and contaminants from hydrocarbon fuel streams and are the most popular filters.	Silicone treated fuel filters remove particle contaminants down to one micron. Silicone filters can also be used upstream, before a fuel filter/ water separator, to extend filter life	Water absorber filters absorb water and filter out contaminants from diesel fuel and other hydrocarbon streams.
FBO	Micron Rating			
FBO-10 (6 X 10)	5	RAC FBO 60328	RAC FBO 60331	RAC FBO 60334
	10	RAC FBO 60353	RAC FBO 60354	RAC FBO 60355
	25	RAC FBO 60329	RAC FBO 60332	RAC FBO 60335
FBO-14 (6 X 14)	5	RAC FBO 60337	RAC FBO 60340	RAC FBO 60343
	10	RAC FBO 60356	RAC FBO 60357	RAC FBO 60358
	25	RAC FBO 60338	RAC FBO 60341	RAC FBO 60344

## SWK-2000 Series

SEPAR 2000 water separator/fuel filters are a simple solution to many different fuel related problems. Their small footprint gives SEPAR 2000 the advantage in tight fit installations. Five separate stages of filtration insures 99.9% water separation at max flow rate. Low restriction reduces wear on fuel pumps and ensures full power settings. Back flushable (cleanable) elements give operators a two-fold bonus effect. First: fewer element changes means less costly down time, and second: fewer element changes means reduced impact on our environment. Reusable up to 5 times.



### SWK-2000/5 Series Max. Flow Rate: 80 GPH



Gauge



Elements



Part No.	Description
SEP 2000/5D-G	Filter Assy. w/ 3/4"-16 Ports w/O-Ring

#### Replacement Parts for all SWK2000/5 Filter Assembly

SEP 00510	10 Micron Element
SEP 00530	30 Micron Element
SEP 10367	Lid Gasket
SEP 10366	Bowl Gasket
SEP 30652	Gauge
SEP 40002	Drain Valve O-ring

#### Replacement Parts for all SWK2000/5 /50 Filter Assembly

SEP 00510-50	10 Micron Element
SEP 00530-50	30 Micron Element
Lid & Bowl Gaskets & Gauge same as above.	

### SWK-2000/10 Series Max. Flow Rate: 160 GPH



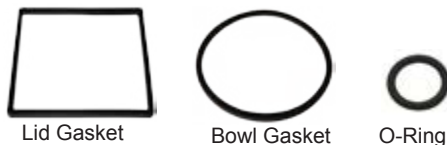
SEP 2000/5D-G SEP 2000/10D-G SEP 2000/10UD-G

Part No.	Description
SEP 2000/10D-G	Filter Assy. w/ 7/8"-14 Ports w/O-Ring
SEP 2000/10UD-G	Switchable Filter Assy. w/ #8 JIC Ports
SEP 30367	Drain Valve
SEP 40002	Drain Valve O-ring

#### Replacement Parts for all SEP 2000/10 Filter Assembly

SEP 01010	10 Micron Element
SEP 01030	30 Micron Element
SEP 10362	Lid Gasket
SEP 10361	Bowl Gasket
SEP 30652	Gauge

### SWK-2000/18 Series Max. Flow Rate: 285 GPH



Part No.	Description
SEP 2000/18D-G	Filter Assy. w/ 1-1/16"-12 Ports w/O-Ring
SEP 2000/18UD-G	Switchable Filter Assy. w/ #12 JIC Ports
SEP 01810	10 Micron Element
SEP 01830	30 Micron Element
SEP 30421	Lid Gasket
SEP 30996	Clear Bowl
SEP 30423	Bowl Gasket
SEP 30652	Gauge
SEP 30367	Drain Valve
SEP 40002	Drain Valve O-ring



Gauge



Element



Clear Bowl



SEP 2000/18D-G



SEP 2000/18UD-G

### SWK-2000/40 Series Max. Flow Rate: 635 GPH



Part No.	Description
SEP 2000/40MK-G	Filter Assy. w/ 1-5/16"-12 Ports w/O-Ring
SEP 2000/40/UMK-G	Switchable Filter Assy. with #20 JIC Ports
SEP 04010	10 Micron Element
SEP 04030	30 Micron Element
SEP 30440	Lid Gasket
SEP 30457	Gray Metal Bowl
SEP 30442	Bowl Gasket
SEP 30652	Gauge
SEP 40002	Drain Valve O-ring



Gauge



Gray Metal Bowl



Element



SEP 2000/40MK-G



SEP 2000/40/UMK-G

## Complete with Stainless Steel Bracket



Includes: GLM 24940 & GLM 25010  
1/4" NPTF Ports with 2 brass plugs & extension tubes. Merc Thread.

Part No.	Flow	Micron
GLM 24956	50 GPH	28

Includes: GLM 24942 & GLM 25010  
1/4" NPTF Ports with 2 brass plugs & extension tubes. Merc Thread.

Part No.	Flow	Micron
GLM 24957	50 GPH	10

Includes: GLM 24940 & GLM 25030  
3/8" NPTF Ports with 2 brass plugs & extension tubes. Merc Thread.

Part No.	Flow	Micron
GLM 24959	75 GPH	28

Includes: GLM 24930 & GLM 24942  
3/8" NPTF Ports with 2 brass plugs & extension tubes. OMC Thread.

Part No.	Flow	Micron
GLM 24959	75 GPH	28

## Complete with Die Cast Aluminum Bracket



Includes: GLM 24940 & GLM 25000  
1/4" NPTF Ports with 2 brass plugs & extension tubes. Merc Thread.

OEM: 35-60494A4

Part No.	Flow	Micron
GLM 24950	50 GPH	28

## Elements Only Water Separator/Fuel Filter



Mercury Yamaha, Suzuki, Honda & Tohatsu

Part No.	Micron	Height
GLM 24940	28	4-7/16"
GLM 24942	10	4-7/16"

Part No.	Micron	Height
GLM 24930	28	4-7/16"

Standard Case 40

## Brackets Only



Part No.	Thread	Material	Replaces
SIE 18-7777	3/8"	Stainless Steel	Yamaha MAR-FLTHD-SS-12
SIE 18-7853-1	1/4"	Aluminum	Mercury 89876A3 Yamaha MAR-FLTHD-AL-12
SIE 18-7775	3/8"	Aluminum	

## Fuel Water Separator Kits



Sierra recommends 10 Micron for fuel injection system, 21 Micron for carbureted system  
\*Fits Merc/Mariner, OMC Cobra, Johnson/Evinrude, Yamaha, MerCruiser & Volvo

Part No.	Description	Micron Rating	Contains
*SIE 18-7848-1	1/4" Aluminum (Short Filter)	21	(1)-18-7844 & (1)-18-7853-1 35-60494A4 Mercury 35-802893A4, Q4
*SIE 18-7848-2	1/4" Aluminum Bonus Extra Filter	21	(2)-18-7844 (1)-18-7853
*SIE 18-7852-1	1/4" Aluminum (Tall Filter)	21	(1)-18-784 5 (1)-18-7853-1
*SIE 18-7852-2	1/4" Aluminum Bonus Extra Filter	21	(2)-18-7845 (1)-18-7853-1 Yamaha ABB-SEPAR-AT-OR
*SIE 18-7775-1	3/8" Aluminum (Tall Filter)	21	(1)-18-7845 (1)-18-7775 Yamaha ABB-SERAR-AT-OR
*SIE 18-7777-1	1/4" Stainless Steel (Tall Filter)	21	(1)-18-7845 (1)-18-7777 Yamaha ABB-SPRTR-HD-SS
*SIE 18-7776-1	3/8" Stainless Steel (Tall Filter)	21	(1)-18-7845 (1)-18-7776
SIE 18-7983-1	1/4" Aluminum Short	10	(1)-18-7944 Filter & (1) 18-7853 Bracket, (2) 18-4256 1/4" Pipe Plugs
SIE 18-7983-2	1/4" Aluminum Bonus Extra Filter	10	(2) 18-7944 Filter & (1) 18-7853-1 Bracket. (2) 18-4256 1/4" Pipe Plugs
SIE 18-7982-1	1/4" Aluminum (Tall Filter)	10	(2) 18-7944 Filter & (1) 18-7853-1 Bracket. (2) 18-4256 1/4" Pipe Plugs
SIE 18-7966-1	1/4" Aluminum (High Capacity Filter)	10	(1) 18-7866 Filter & (1) 18-7853-1 Bracket. (2) 18-4256 1/4" Pipe Plugs Yamaha MAR-SEPAR-AT-OR
SIE 18-7711	Fuel Filter (Inline)	10	Suzuki
SIE 18-7965-1	Fuel Filter (Inline)	10	(1) 18-7865 Filter & (1) 18-7774 Bracket Repl: Yamaha MAR-MINIF-LT-AS
SIE 18-7785	Fuel Filter (Inline)	10	Honda 16010-ST5-993
SIE 18-7786	Fuel Filter (Inline)	10	Honda 16900-SA5-004
SIE 18-7932	1/4" Aluminum w/AquaVue™ Bowl	10	(1) 18-7919 Filter & (1) 18-7853-1 Bracket (1) 18-7922 AquaVue™ Bowl (2) 18-4256 1/4" Pipe Plugs



## Volvo Style Brackets and Separator Kits



Part No.	Description	Micron Rating	Contents
SIE 18-7990-1	Separator Kit	21	Filter, Bracket
SIE 18-7789	Filter Only		

## Elements



Sierra recommends 10 Micron for fuel injection system, 21 Micron for carbureted system

\*Fits Merc/Mariner, OMC Cobra, Johnson/Evinrude, Yamaha, MerCruiser & Volvo

Part No.	Description	Micron Rating	Replaces
*SIE 18-7944	Short-3.875"	10	Mercury 35-807172, 35-802893Q
*SIE 18-7945	Long-4.35"	10	Mercury 35-802893Q Yamaha ABB-FUELF-IL-TR
*SIE 18-7866	High Capacity-6"	10	Yamaha MAR-FUELF-IL-TR
SIE 18-7865	Spin On	10	Yamaha MAR-MINIF-IL-TR
*SIE 18-7967	V6 EFI 1995-Earlier with sensor	10	Mercury 35-18458Q3
SIE 18-7968	V6 EFI 1996-Up with sensor	10	Mercury 35-18458Q4
SIE 18-7946	OMC Thread	10	OMC 502905
SIE 18-7989	Volvo SX/EFI Cobra EFI	10	OMC 502906
SIE 18-7919	Spin On Replacement	10	Merc 35-809097 Rac S3213
SIE 18-7920	Spin On Replacement	10	Merc 35-809099 Rac S3214
SIE 18-7948	Spin On Replacement	10	Merc 35-886638 Rac S3227
SIE 18-7720	Spin On	10	Honda 16900-SR3-004
SIE 18-7958	Spin On	10	Crusader 47047, 110 Sers
SIE 18-7947	120RRAC01	10	Honda 17670-ZW1-030GH Racor S3240, Suzuki 99105-20006
SIE 18-7948	320RRAC01	10	Honda 17670-ZW1-030GH Merc 35-886638, Racor S3227 Suzuki 99105-200005
SIE 18-7846	OMC Thread	21	OMC 502905
SIE 18-7789	Cobra EFI	21	OMC 502906
SIE 18-7844	Short 3.875"	21	Merc 35-807172, 35-802893Q
SIE 18-7845	Long 4.35"	21	Merc 35-802893Q, Yamaha ABB-FUEL-IL-TR
SIE 18-7846		21	Volvo OMC Thread
SIE 18-7789	Volvo SX/EFI, Cobra EFI	21	Volvo 3851218-2, 3852413, OMC 502906

## Volvo Fuel Filter



Replaces: 3840335

Fits: KAD42P-A, KAMD42P-1, KAD44P-B, KAD44P-C, KAMD44P-A, KAMD44P-B, KAMD44P-C, TAMD42WJ-A, KAD43P-A, KAMD43P-A, KAT44P-C, KAD300-A, KAMD300-A, MD6A, MD6B, MD7A, MD7B, D41L-A, TAMD41H-B, TMD41L-A, AD41L-A, AD41P-A, TAMD41H-A, TAMD41P-A, MD22A, MD22A-A, MD22L-A, TMD22A, TMD22-A, D3-110I-A, D3-130A-A, D3-130I-A, D3-160A-A, D3-160I-A, D3-110I-B, D3-110I-C, D3-130A-B, D3-130I-B, D3-130A-C, D3-130I-C, D3-160A-B, D3-160I-B, D30160A-B, D3-160A-C, D3-160I-C, D3-190A-B, D3-190I-B, D3-190A-C, D3-190I-C, KKAD42A, KAMD42A, AD41D, D41D, TAMD41D, TMD41D, MD22L-B, MD22P-B, TMD22-B, TMD22P-C, TAMD22P-B

Part No.	Description	Replaces
SIE 18-7709	for Volvo Penta	3840335

## Volvo Fuel Filter



Replaces: Volvo 3583443

Fits: D4-180i-B, D4-180I-C, D4-210A-A, D4-210A-B, D4-210i-A, D4-210i-B, D4-225A-B, D4-225A-C, D4-225i-B, D4-225I-C, D4-260A-A, D4-260A-B, D4-260A-C, D4-260D-B, D4-260D-C, D4-260i-A, D4-260i-B, D4-260I-C, D4-300A-A, D4-300A-C, D4-300D-A, D4-300D-C, D4-300I-A, D4-300I-C, D6-280A-A, D6-280A-B, D6-280i-A, D6-280i-B, D6-310A-A, D6-310A-B, D6-310D-A, D6-310D-B, D6-310i-A, D6-310i-B, D6-330A-B, D6-330A-C, D6-330D-B, D6-330D-C, D6-330i-B, D6-330I-C, D6-350A-A, D6-350A-B, D6-370A-B, D6-370A-C, D6-370D-A, D6-370D-B, D6-370D-C, D6-370i-A, D6-370i-B, D6-370I-C, D6-435D-A, D6-435D-C, D6-435i-A, D6-435I-C

Part No.	Description	Replaces
SIE 18-8125	for Volvo Penta	3583443

## Volvo Fuel Filter



Replaces: Volvo 861477

Fits: D1-13 A, D1-13 B, D1-20 A, D1-20 B, D1-30 A, D1-30 B, D2-40 A, D2-40 B, D2-55 A, D2-55 B, D2-55 C, D2-55 D, D2-55 E, D2-55F, D2-75 A, D2-75 B, D2-75 C, D2-75F, MD2010A, MD2010B, MD2020A, MD2020B, MD2030A, MD2030B, MD2040A, MD2040B

Part No.	Description	Replaces
SIE 18-8126	for Volvo Penta	861477

## Johnson/ Evinrude Fuel Filter



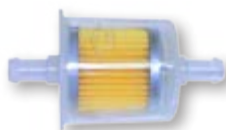
**Part No.** SIE 18-79781  
**Description** Fits: 60 Degree V-4 and V-6 O/B  
**Replaces** OEM 433190

## Johnson/ Evinrude Fuel Filter



**Part No.** SIE 18-7953  
**Description** Fits: 25HP (2006-07) / 90,115,140 4 stroke (2005-06)  
**Replaces** 5035974

## Johnson/ Evinrude Fuel Filter



**Part No.** SIE 18-7722  
**Description** Fits: E-Tec 40, 50, 60, 75, 90, 115, 150, 175 & 200DPL  
**Replaces** OMC 5005266

## Johnson/ Evinrude Suzuki Fuel Filter



**Part No.** SIE 18-7953  
**Description** Fits: Suzuki DF25 Thru DF140 Johnson 25 4-Stroke (2004-05), 30 4-Stroke (2004-07), 40/60/70 4-Stroke (2002-06), 90/115/140 4-Stroke (2003-04, 06) Evinrude 25/30/40/50/70 4-Stroke (2000-01)  
**Replaces** Suzuki 15410-87J10 OMC 5032323

## Johnson/ Evinrude Suzuki Fuel Filter



**Part No.** SIE 18-7830  
**Description** 5/16"  
**Replaces** Johnson/Evinrude #398327 Merc/Mariner #35-16494-1, 35-816296-1

**Part No.** SIE 18-7831  
**Description** 3/8"  
**Replaces** Johnson/Evinrude #398319

## Carburetor Fuel Filter



**Part No.** SIE 18-7859  
**Description** For: Chris-Craft I/B, Crusader I/B, Merc I/B #35-53336, 3302-9033, Sterndrive/Cobra I/B O/B #90834 & Volvo I/B #835576.

## Fuel Filter



**Part No.** SIE 18-7860  
**Description** (Used in 18-7278 Fuel Pump)  
**Replaces** Merc #35-49088A2, #35-49088Q2

## Fuel Filter



**Part No.** SIE 18-7869  
**Description** Fits: most Merc V8, V6 & 4CYL For screw on filter use 18-7844  
**Replaces** Merc #1397-8767Q, OMC #983870

## Fuel Filter Element



**Part No.** SIE 18-7936  
**Description** Fits: 75 4 stroke (2000 & Up), 90 4 stroke (2000 & Up), 115 EFI 4 stroke (2001 & Up)  
**Replaces** Merc #881540. Suzuki #15412-93J00

## Fuel Filter Inline



**Part No.** SIE 18-7712  
**Description** Fits: 4/5 2 cyl 1999 & up, 4/5/6 4 stroke 1999 & up 8/9.9 4 stroke 2005 & up  
**Replaces** Merc #35-16248

## Fuel Filter Inline



**Part No.**  
SIE 18-7713

**Description**  
Fits: Merc 9.9 4-Stroke(95-98)  
15 4-Stroke(98 & Up) Yamaha 6  
(89 92-99) 8 (89-99 01-02) F4  
(99-02) F9.9 (89-95 1997-99,

**Replaces**  
Merc #35-80365M  
Yamaha- 646-24251-02-00

## Fuel Filter



**Part No.**  
SIE 18-7856-1

**Description**  
Repl: AC Delco for 5/16" Fuel Line

## Fuel Filter Inline



**Part No.**  
SIE 18-7718

**Description**  
Fits: Merc 35-879885T, For: Merc  
135/150/175 4-Stroke Verado  
(Serial Numbers 1B227000 & Up),  
200/225 4-Stroke Verado  
(Serial Numbers OT980000 & Up),  
250/275 4-Stroke Verado  
(Serial Numbers OT801000 & Up)

**Replaces**  
Merc #35-879885T

## Fuel Filter



**Part No.**  
SIE 18-7792

**Description**  
Replaces OMC 910641, 38855104.  
Fits 3.0L (1996-98), 3.8L/170 (1981)

## Fuel Filter



**Part No.**  
SIE 18-7979

**Description**  
For: Merc 115 EFI (4 Stroke)  
75HP (4 Stroke). 90HP (4 Stroke).  
Yamaha 68V-24563-00-00

**Replaces**  
Merc # 881540

## Fuel Filter



**Part No.**  
SIE 18-79799

**Description**  
Yamaha 6D8-WS24A-00-00  
F50-F115 after 2006  
For filters marked "6D8" ONLY!

## Fuel Filter



**Part No.**  
SIE 18-7723

**Description**  
Fits: 1/4" & 5/16" Hose

## Fuel Filter



**Part No.**  
SIE 18-79905

**Description**  
10 Micron Filter  
Yamaha 69J-24501-10-00  
Fits F150-F225 (2006-current)  
F250 (2005-current)

## Fuel Filter



**Part No.**  
SIE 18-7724

**Description**  
Fits: 3/8" & 7/16"

## Fuel Filter



**Part No.**  
SIE 18-7955

**Description**  
10 Micron Filter  
Yamaha 68F-24563-10-00  
Fits 150hp – 300hp (2004-2006)  
Model Z, VZ, LZ



## Fuel Filter



**Part No.**  
SIE 18-79903

**Description**  
VST Filter Replaces: 68V-13915-00-00. Fits: F115 (2000-09), F200 TXR(2002-09), LF200. TXR(2002-09), F225 TXR(2002-09), F225 TUR(2002-09).  
Repl: 68V-13915-00-00 YAMAHA

## Fuel Filter



**Part No.**  
SIE 18-79952

**Description**  
VST KITS. Repl: Kit 3. Fits: DX150(99-05), L225(99), L250(99), LX150(99-01), LX200(99-01), LX225(00-03), LX250(00-03), PX150(99), S225(99), S250(99), SX150(99-04), SX200(00-05), SX225(00-03), SX250(00-03), V200(99), V225(99), VX150(00-04), VX200(00-05), VX225(00-04), VX250(02-04)

## Fuel Filter



**Part No.**  
SIE 18-79907

**Description**  
VST Filter Repl: 60V-24251-01-00. Fits: LZ150(2005), VZ150(2005-10), Z150(2005), VZ175(2005-10), Z175(2005), LZ200(2005-10), VZ200(2005-09), Z200(2005-10), VZ225(2005-09), LZ250(2005), VZ250(2005-09), Z250(2005), LZ300(2005-06), VZ300(2005-09), Z300(2005-06) Repl: Yamaha 60V-24251-10-00

## Fuel Filter



**Part No.**  
SIE 18-79904

**Description**  
VST Filter Repl: 68F-13915-00-00 Fits: HPDI 150 (2000-05), V-Max HPDI 150(2000-09), V-Max HPDI 175(2001-09), HPDI 200(2000-09), HPDI 225(2003-09), HPDI 250 (2003-09), HPDI 300(2004-09)  
Repl: 68F-13915-00-00 YAMAHA

## Fuel Filter



**Part No.**  
SIE 18-79900

**Description**  
Fuel Filter,Yamaha VST 97-99, 150-250 HP EFI VST Filter. Repl: 66K-13915-00-00. Fits: DX150 (1999-05), LX150 1999-01), PX150 (1999), SX150 (1999-04), VX150 (2000-04), LX200 (1999-01), SX200 (1999-05), V200 (1999), VX200 (2000-05), L225. (1999), LX225 (2000-03), S225 (1999), SX225 (2000-03), V225 (1999), VX225 (2000-04), L250 (1999), LX250 (2000-03), SX250 (2000-03), VX250 (2002-04) Repl: Yamaha 66K-13915-00-00

## Fuel Filter



**Part No.**  
SIE 18-79953

**Description**  
VST KITS Repl: Kit 4 LZ150(00-05), LZ200(00-11), LZ250(03-05), LZ300(04-06), VZ150(00-11), VZ175(01-11), VZ200(01-09), VZ225(03-09), VZ250(03-09)VZ300(04-09), Z150(00-05), Z175(01-05), Z200(00-11), Z250(03-05), Z300(04-06) Repl: Yamaha

## Fuel Filter



**Part No.**  
SIE 18-79950

**Description**  
Yamaha VST Kits Repl: Kit 1 Fits: F150(04-12), LF150(04-12) Repl: Yamaha

## Fuel Filter



**Part No.**  
SIE 18-79902

**Description**  
VST Filter Repl: 63P-13915-00-00. Fits: F150 TXR (2004-09), F150 TLR(2004-09), F150. TJR(2009), LF150 TXR(2004-09), F250 TXR(2005-09), F250 TUR(2005-09), F300 TXR(2007-09), F300 TUR(2007-09), F350 TXR(2007-09), F350 TUR(2007-09), F225TLR (2007-09). Repl: 63P-13915-00-00 YAMAHA

## Fuel Filter



**Part No.**  
SIE 18-79951

**Description**  
VST KITSReplaces Kit 2. Fits F115(00-11), F200(02-10) F225(02-06), F225TXR(07-10), LF115(00-11), LF200(02-10), LF225(02-06), LF225 TXR(07-10)

## Suzuki



Suzuki 15410-87J10, Johnson Evinrude 5032323 Fits: Suzuki DF25 thru DF140, Johnson 25 4-Stroke (2004-05), 30 4-Stroke (2004-07), 40/60/70 4-Stroke (2002-06), 90/115/140 4-Stroke (2003-04, 2006), Evinrude 25/30/40/50/70 4-Stroke (2000-01)

**Part No.**  
SIE 18-7716



Suzuki 15410-98500, Johnson Evinrude 5032328 Fits: Most Small Suzuki Outboards, Johnson 4/5 (2003-07), 6 4-Stroke (2005-07), 10/15 4-Stroke, (2002-07), 40/50/60/70 4-Stroke (2002-06), Evinrude 40/50 4-Stroke (2000-01)

**Part No.**  
SIE 18-7719

## Johnson/Evinrude



Johnson Evinrude 981911  
**Part No.**  
GLM 24900



Johnson Evinrude 982230  
**Part No.**  
GLM 24910

## Mercury



Mercury: 35-884380T Fits: All Verados, 90hp (DFI) 3 Cylinders, 115hp (DFI) 3 Cylinders, 200hp (DFI) / 225hp (DFI) (Including 3.0L DFI)

**Part No.**  
SIE 18-7981



Mercury/Mariner: 35-87946A3, 35-87946-Q3, Q4. For 6hp thru 25hp.

**Part No.**  
SIE 18-7802

## MerCruiser



MerCruiser 35-11004A1, 35-803897Q1. For 2.5L/3.0L (6229718 & Later), All MC224 CID (6218037 & Later). All GM 2262 CID (A331455 & Later) with Carter® Fuel Pumps.

**Part No.**  
SIE 18-7784



MerCruiser 35-803897K1  
**Part No.**  
GLM 24850

## Misc.



Small Capacity for 1/4" Fuel line  
**Part No.**  
SIE 18-7828-1



Complete Kit Contains: Housing, Replacement Element & Fittings for 1/4", 5/16", & 3/8" Fuel Lines

**Part No.**  
SIE 18-7790



Replaces: 35-864572 Fits All MPI & EFI Engines with Boost Pump, 8.1L & 496 CID for 3/8" ID Fuel Line.

**Part No.**  
SIE 18-7721

## Honda



Honda: 16900-SR-004 For BF115, BF130, AX, AY, A1: Series #14ZW50E1M

**Part No.**  
SIE 18-7720



Honda 16900-SA5-004 For: BF35/45AM, BF 40/50A, AW, AX: Series #14ZV50M: BF90, AT, AW, AX, AY: Series #14ZW00E14M

**Part No.**  
SIE 18-7786



Honda 16010-ST5-993 For: BF115, BF130, AX, AY, A1 Series #14ZW50E1M

**Part No.**  
SIE 18-7785

## Yamaha



Yamaha 6F5-24563-00 For: 9.9 - 225NR

**Part No.**  
SIE 18-7780



Yamaha 61N-24563-00-00 For: 9.9/90° SX

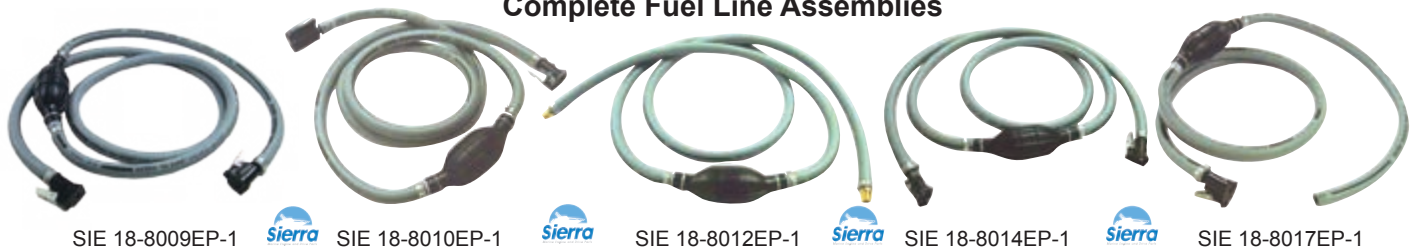
**Part No.**  
SIE 18-7781



Yamaha 61A-24563-00-00 For: V6, 3.1L, D-T

**Part No.**  
SIE 18-7782

## Complete Fuel Line Assemblies



Silverado 3000 Outboard Fuel Line is resistant to Ethanol blend fuels and is CARB compliant for small engine use. this EPA compliant outboard fuel line has a thermoplastic construction resists UV and the barrier layer prevents permeation. The gray color of the hose helps prevent vapor lock. This hose is primarily used for above deck primer bulb assemblies

Part No.	Description
SIE 18-8009EP-1	Johnson Evinrude (OMC BRP) 3/8" x 8' Fits 2 hp (1 Cylinder) - 75 hp (3 Cylinder) (1976-2002) SIE 18-8005 Primer Bulb.
SIE 18-8010EP-1	Mercury/Mariner 3/8" x 8' with SIE 18-8005 Primer Bulb.
SIE 18-8012EP-1	Mercury/Mariner 3/8" x 8' Fuel Line Assembly Components Has 1/8" NPT threaded fitting on engine end & 1/4" NPT threaded fitting on the tank end. SIE 18-8012EP-1 Primer bulb is included in this 8' assembly. Fits various applications using the older style teist type disconnects at the engine end and either a bayonet or thread-in fitting on the tank end.
SIE 18-8013EP-1	Universal 5/16" x 8" with SIE 18-8004 Primer Bulb. <b>(NOT Pictured)</b>
SIE 18-8014EP-1	Johnson Evinrude (OMC BRP) 3/8" x 8' Fits: All V6 & V8 (1976-2002) with SIE 18-8005 Primer Bulb.
SIE 18-8015EP-1	Universal 3/8" x 8' with SIE 18-8005 Primer Bulb. <b>(NOT Pictured)</b>
SIE 18-8016EP-1	Mercury/Mariner 3/8" x 8' Has double sealed quick connect type fitting on tank end & clip on type quick connect on engine end. Primer bulb is included in this 8' assembly. Fits Force 40 hp & larger (1993 & newer), Force 9.9/15/25 hp (1998) & all Mercury Mariner Outboards using clip on type disconnects at both tank & engine ends. <b>(NOT Pictured)</b>
SIE 18-8017EP-1	Yamaha 3/8" x 8' Fits F75-F250 & 115-300 hp with 18-8005 Primer Bulb.
SIE 18-8032EP-1	Universal 5/16" x 12' with SIE 18-8004 Primer Bulb. <b>(NOT Pictured)</b>

### Primer Bulbs



Part No.	Size
SIE 18-8002EP-1	1/4"
SIE 18-8004EP-1	5/16"
SIE 18-8005EP-1	3/8"

### Universal Fuel Tank Fittings



Part No.	Description	Size
BRA 121-3/8	Pipe Plug	3/8"
BRA 133-1/4 x 1/8	Elbow	1/8" NPT x 1/4" NPT
BRA 2128-3/8 x 1/4	Elbow	3/8" Barb x 1/4" NPT
SIE 18-8090	Connector	1/4" NPT

### Snapper Clamps



Part No.	O.E.	O.E.	Clamp Range	Clamp Size	Part No.	O.E.	Clamp O.E.	Clamp Range	Size
SIE 18-8020	Mercury	54-41582-7	.538-.608	#8	SIE 18-8201	Johnson/Evinrude	124249	.410-.468	#4
SIE 18-8021	Johnson/Evinrude	322652	.597-.665	#10	SIE 18-8202	Johnson/Evinrude	322654	.475-.536	#6
SIE 18-8034	Johnson/Evinrude	911616	.670-.780	#12	SIE 18-8203	Johnson/Evinrude	329653	.750-.875	#14
SIE 18-8200	Johnson/Evinrude	322653	.360-.468	#2	SIE 18-8204	Johnson/Evinrude	324825	.875-.975	#19

### Honda Fuel Tank Fittings



SIE18-80400



SIE18-80401



SIE18-80408



SIE18-80420

Part No.	Description
SIE 18-80400	Tank Connector Honda 1/4" NPT #16977-ZV5-A00 Male Tank Outlet, New Style, Nickle Plated Brass.
SIE 18-80401	Male Connector, for Fuel Tank Mates with SIE 18-80401
SIE 18-80408	Fuel Connector Honda (Female) Hose Connector, New Style, 3/8" Hose, will not interchange with OE's 5/16" Hose Assemblies. Mates with SIE 18-80400
SIE 18-80408	Fuel Connector Honda 5/16" #17650ZW9-003 (Female) with Rectangular Locking Post. Fits Late Models. Mates with SIE 18-80407
SIE 18-80420	Fuel Connector Honda #17650-921-0032B Fits BF5/BF8A (2001) and earlier Mates with 17710-881-00ZA



## Johnson/Evinrude Fuel Tank Fittings



SIE 18-8056



SIE 18-8063



SIE 18-8092

**Part No.****Description**

SIE 18-8056	Fuel Connector Johnson/Evinrude 5/16" #174508 & 775640 Mates SIE 18-8063
SIE 18-8063	Tank Connector Johnson/Evinrude 1/4" #502867 & 772681 (1/4" NPT) Mates with 18-8092 & 18-8056
SIE 18-8092	Fuel Connector 3/8" Replaces: #176445 & 775641 Mates with 18-8063

## Mercury/Mariner Fuel Tank Fittings



SIE 18-8068



SIE 18-8069



SIE 18-8070



SIE 18-8075



SIE 18-8076



SIE 18-8077-1



SIE 18-8083



SIE 18-8084



SIE 18-8085



SIE 18-8091



SIE 18-80402



SIE 18-80410



SIE 18-80412

**Part No.****Description**

SIE 18-8068	Tank Connector 1/4" NPT (Female)
SIE 18-8069	Fuel Connector Mercury/Mariner 5/16" #22831Q3 & 22831A3 (Female)
SIE 18-8070	Fuel Connector Mercury/Mariner 5/16" #30185A3 & 30185Q3 (Male)
SIE 18-8075	Fuel Connector Mercury/Mariner 1/4" #22-14213M & 2214213Q Mates with 18-8077-1
SIE 18-8076	Fuel Connector Mercury/Mariner 3/8" #22-13563A3 & 22-13563Q3 Mates with 18-8077-1
SIE 18-8077-1	Tank Connector Yamaha Mercury & Mariner 1/4" NPT Fits F75-F250 115-300hp Mates with SIE 18-804013, SIE 18-80414, SIE 18-80415
SIE 18-8083	Fuel Connector 3/8" (Female)
SIE 18-8084	Fuel Connector Mercury/Mariner 3/8" #30185A3 & 30185Q3 (Male)
SIE 18-8085	Fuel Connector Mercury/Mariner 5/16" Mates with SIE 18-8077-1
SIE 18-8091	Fuel Connector Mercury/Mariner #22-13563Q7 & 22-13563T7 Mates with SIE 18-80402
SIE 18-80402	Tank Connector 1/4" NPT Mates with SIE 18-8091
SIE 18-80410	Fuel Connector Mercury/Mariner 5/16" (Female) #22-13563T3 Fits 4/5 s-Stroke (1999 & Up) Mates with SIE 18-80412
SIE 18-80412	Fuel Connector Mercury/Mariner 5/16" (Male) Fits 100 hp 4 cyl (1988-99), 115 hp 4 cyl (1989 & Up) 125 4 cyl (1994 & Up), 65 Jet (1994 & Up), 75 3 cyl (1987 & Up), 80 Jet (1994 & Up), 90 3-cyl (1987 & Up) Mates with SIE 18-80410

## Nissan/Tohatsu Fuel Tank Fittings



SIE 18-8078



SIE 18-8079



SIE 18-8088



SIE 18-8089

**Part No.****Description**

SIE 18-8078	Tank Connector 1/4" NPT .508 O.D. Nissan Tank Large Inlet Fits All Models Mates with SIE 18-8079 (Male)
SIE 18-8079	Fuel Connector Nissan/Tohatsu Large Inlet #3B2-70281-0 Fits All Models Mates with SIE 18-8078 (Female)
SIE 18-8088	Fuel Connector Nissan/Tohatsu (Engine End) #345-70250-0 3/8" Hose Fits 5-90hp 2-Stroke & TLDI Models Mates with SIE 18-8089
SIE 18-8089	Fuel Connector Nissan/Tohatsu (Engine End) #3B2-70260-0 (Metric Threads) 5/16" Hose Fits 5-90hp 2-Stroke & TLDI Models Mates with SIE 18-8088

## Suzuki Fuel Tank Fittings



SIE 18-8071



SIE 18-8078



SIE 18-8079



SIE 18-8087



SIE 18-80405

### Part No.

### Description

SIE 18-8071	Tank Connector 1/4" NPT .432 O.D. Suzuki #99105-00192 Fits DT4-DT65 Mates with SIE 18-8062
SIE 18-8078	Tank Connector 1/4" NPT .508 OD Nissan/Tohatsu Large Tank Inlet Fits All Models Mates with SIE 18-8079
SIE 18-8079	Fuel Connector Nissan/Tohatsu Large Inlet #3B2-70281-0 Fits All Models Mates with SIE 18-8078 (Female)
SIE 18-80405	Fuel Connector Female to 3/8" hose barb Mates with SIE 18-8078
SIE 18-8062	Fuel Connector Chrysler/Force #197787-3 Mates with SIE 18-8071



## Yamaha Fuel Tank Fittings



SIE 18-8077-1



SIE 18-80413



SIE 18-80414



SIE 18-80415

### Part No.

### Description

SIE 18-8077-1	Tank Connector Yamaha/Mercury & Mariner 1/4" NPT Fits F75-F250 115-300hp Mates with SIE 18-80413, SIE 18-80414, SIE 18-80415
SIE 18-80413	Fuel Connector Yamaha #6Y1-24305-04 Mates with SIE 18-8077-1
SIE 18-80414	Fuel Connector Yamaha 5/16" #6G1-24305-04 & 6G1-24305-05-00 Mates with SIE 18-8077-1 Many Applications
SIE 18-80415	Fuel Connector Yamaha 3/8" #6Y2-24305-05 & 6E5-24305-05 Mates with SIE 18-8077-1



## Fuel Hose Port & Hose Union



T/H RFHU-1



T/H RFFHP-1



- Completes professional Rigging Installation
- Complies with ABYC-NMMA Specs
- Split design of Union Allows Installation on Pre-Rigged Boats
- Fuel Hose Port Fits type "A" Hose and Hose Union Fits Type "A" and "B" Hose
- Installs with T-H Marine Rigging Hose

### Part No.

T/H RFHU-1-DP  
T/H RFFHP-1-DP

### Description

Black Rigging Flange Hose Union  
Black Flange with Fuel Hose Port

## Rigging Flange & Hose Kits



- Protects Cables, Hoses and Wiring from Elements.
- Molded Polypropylene Flange Threaded to Retain Hose.
- Vinyl Cap Provides Closure for the Engine End of Hose.

### Part No.

T/H RFK-1-DP  
T/H RFK-1CP-DP

### Description

4' Black Rig Hose/Black Flange (Kit)  
4' Black Rig Hose/Chrome Flange (Kit)

## Zippered Rigging Sleeve



Protect your cables and hoses with this easy to remove rigging sleeve. Made of rugged Sunbrella® fabric, this sleeve will withstand the elements and resist fading. Easily zips on and off to access cables of hoses when needed. Ends are secured with cable ties sewn into pockets.




### Part No.

T/H ZRS-1-DP  
T/H ZRS-2-DP

### Description

48" Long Zippered Rigging Sleeve  
28" Long Zippered Rigging Sleeve

## Application Chart for Inboard and Outboard Oil Filters

			<b>Daytona</b>		
Model		Replaces	Part #		
200, 292, 300, 350, 400, 427, 427A, 427B					PH5 PH30-01
<b>Detroit Diesel</b>					
Model		Replaces	Part #		
2-71 (142), 3-71 (213), 4-53 (212), 4-71 (284), 6V-53 (318), 6-71 (426), 6-71E (426), 671N (426), 6-71T (426), 6V-71 (426), 6V-71T (426), 6V-92 (552), 6V-92T (522), 8V-71 (568), 8V-71T (568), 8V-92 (736), 8V-92T (736), 12V-71 (1788), 12V-71T (1788), 12V-149 (1788), 16V-71 (1136), 16V-71T (1136), 16V-92 (1472), 16V-92T (1472), 16V-149 (2384) Series		25010495			PH3612
<b>Evinrude/Johnson (Bombardier)</b>					
Models	Year	Replaces	Part #		
10HP	1995-2001	434839	PH4967		
15HP	1995-2001	434839	PH4967		
10HP	2002-2007	5033102, 763364	18-7903		
15HP	2002-2007	5033102, 763364	18-7903		
25HP	2000-2007	5031411, 778885	PH7575		
30HP	2000-2001	5031411, 778885	PH7575		
30HP	2004-2005	5031411, 778885	PH7575		
40HP	1999-2006	5031411, 778885	PH7575		
50HP	1999-2006	5031411, 778885	PH7575		
60HP	2002-2006	5031411, 778885	PH7575		
70HP	2001-2006	5031411, 778885	PH7575		
90HP	2003-2006	778886, 5033539	18-7896		
115HP	2003-2006	778886, 5033539	18-7896		
140HP	2003-2006	778887, 5033919	PH4967		
200HP	2004-2006	778888, 5035703	18-7895		
225HP	2004-2006	778888, 5035703	18-7895		
<b>Flagship</b>					
Model		Replaces	Part #		
150FA, 220FF, 250FA, 400FA, 425FAJ, 650FAJ, 950FAJ			PH30-01 PH5 PH30-01		
292, 300, 307, 327, 350, 482					
<b>Ford</b>					
Model		Replaces	Part #		
CSG850M WSG858M, LSG875M, SSD-655, -655M, -655MT, (5.5 Liter), 140(2.3L) FOUR, 170, 200 Six, 240 Six, 300 Six, 302 (5.0L), 351 (5.8L), 460 (7.5L), 2711E, 2712E, 2713E, 2714E, 2715E (diesel)			PH8A		
254 (DSD-442 4.2 Liter), 362 (DSD-659 5.9 Liter)			PH8A		
91—V4, 104 V4, 380 (DSD-662 6.2 Liter)					

<b>Caterpillar</b>		
Model	Replaces	Part #
3304, 3306, D330	1R-0658	PH49A
3116, 3116TA, 3208, 3208T, 3208TA	1R-0714	
<b>Chris-Craft</b>		
Model	Replaces	Part #
307G, 305K, 307K	16.81-08746	PH30-01
<b>Chrysler</b>		
Model	Replaces	Part #
(Chrysler-Volvo) 100, 110, 120, 130, 165, 170		
125, 150, 155, 175, Fury 190, 195, 200, 210, 225, 235, 250, 260, 280, 300, 330, 335, 375, 525, CM6-55, CMC-55NA, M-170A, M-225A, M-225D, M-273A, M-273B, M-273BO/D, LM-318, LM-318A, LM-318B, M-318B, M-318C, M-383B, M-413B, M-413D, M-413E, M-440B, M-440D, Model 340, M-80, M-81, Super Crown 145, 150, Imperial 290, 325, Jet II, Jet III, Jet IV, Super Bee, Super Bee II, Super Bee III, V-8 Engines 1962-on	1851658	PH8A
V-6 GM	L-319	PH3980
3.7L, 5.2L	3549957, L-19, L1008	
<b>Commander</b>		
Model	Replaces	Part #
225, 340 Clevor		PH8A
<b>Crusader</b>		
Model	Replaces	Part #
150, 160, 165, CH185, 210, CH220, CH270, 350, CH350	201104	PH30-01 PH5 PH30-01
SS330	201104	PH30-01
220 Conqueror, 255 Conqueror, 255 Conqueror Jet, 250 ('71), 300 Scorpion, 460	9002514	PH8A
220, 300, 320, 325		
<b>Cummins</b>		
Model	Replaces	Part #
V-555, VT555, N-855, NT-855, NTA-855, V-903, VT-903, VTA-903, KT-1150, KTA-1150, VT-1710, VTA-1710, KT-2300, KTA-2300, KTA-3067	299670	PH3612

FRAM


FRAM

FRAM





GM			
Model	Replaces	Part #	
6-194 (1962-67), 6-230 (1963-68), V8-305 (1976-78), V8-307 (1970-73), V8-350 (1970-87), V8-366 (1970-87), V8-400 (1971-72, 1975-83), V8-454 (1973-87), V8-267 (1979-81), V8-305 (1979-87), V8-350 (1978-81), V8-400 (1974-77)		PH5 PH30-01	
<div>FRAM</div>			
Honda			
Models	Years	SS Number	Replace Part #
BF8D, BFP8D	2001-Current	15400-PFB-004	15400-PFB-014 PH6017A
BF9D, BFP9D	2001-Current	15400-PM3-004	15400-PFB-014 PH6017A
BF15D, BFP15D	2003-Current	15400-PM3-405	15400-PFB-014 PH6017A
BF20D	2003-Current	15400-PJ7-015	15400-PFB-014 PH6017A
BF25A	1998-Earlier	15400-PJ7-005	15400-PFB-014 PH6017A
BF30A	1998-Earlier	15400-PJ7-005	15400-PFB-014 PH6017A
BF35AM	1998-Earlier	15400-PJ7-005	15400-PFB-014 PH6017A
BF40A	1998-Earlier	15400-PJ7-005	15400-PFB-014 PH6017A
BF45AM	1998-Earlier	15400-PJ7-005	15400-PFB-014 PH6017A
BF50A	1998-Earlier	15400-PJ7-005	15400-PFB-014 PH6607
BF25	1999-Current	15400-ZW4-003	15400-PFB-007 PH6607
BF30	1999-Current	15400-ZW4-003	15400-PFB-007 PH6607
BF40	1999-Current	15400-ZW4-003	15400-PFB-007 PH6607
BF50	1999-Current	15400-ZW4-003	15400-PFB-007 PH6607
BF75, BF90	1997-Current	15400-P0H-305PE	15400-PLM-A01PE 18-7909
BF115, BF130	1999-Current	15400-P0H-305	15400-PLM-A01PE 18-7909
BF135, BF150	2004-Current	15400-ZJ1-004	15400-PLM-A01PE 18-7909
BF200, BF225	2002-Current	15400-ZJ1-999AH	15400-PLM-A01PE 18-7909
<div>FRAM</div>			
Indmar			
Model	Replaces	Part #	
250		PH8A	
275 (SP), 300 (SP) , 350-2, 350-4, 350(SP), 454-2, 454-4, 400 (SP)		PH5 PH30-1	
<div></div>			
Lehman			
Model	Replaces	Part #	
Models (w/Ford 242), (w/Ford 254), (w/Ford 363), (w/Ford 380), (Lehman 2N50)		PH8A	
Marine Power, Inc.			
Model	Replaces	Part #	
3.0L, 350 (5.7L) 454 (7.4L) ENPACK 350 (5.7L) 454 (7.4L) SPORTPAC	0905-000-0 0904-000-0	PH5 PH8A	

Mercruiser				
Models	Cyl.	Year	Replaces	Part #
D7.3L Diesel	8	1994-99	35-805809T	PH3766
60 HP	4	1965-68	35-803470, Q	PH16
80 HP	4	1966-69	35-803470, Q	PH16
Vazer 1.6L	L4	2007-Up	35-866340K01,Q3	PH30-01
110 (153 CID) ④ ⑤	L4	1963-66	35-866340K01,Q3	PH30-01
120 (153 CID) ④ ⑤	L4	1964-82	35-866340K01,Q3	PH30-01
120 (153 CID) ④ ⑤	L4	1983-86	35-866340K01,Q3	PH30-01
140 (181 CID) ④ ⑤	L4	1968-82	35-866340K01,Q3	PH30-01
140 (181 CID) ④ ⑤	L4	1982-86	35-866340K01,Q3	PH30-01
150 (230 CID)	L6	1964-66	35-16595Q, T1	PH5
160 (250 CID)	L6	1967-69	35-16595Q, T1	PH5
165 (250 CID)	L6	1970-81	35-16595Q, T1	PH5
185 CID	V6	1985-87	35-883702K, Q	PH3980
198 GM	8	1977	35-16595Q, T1	PH5
224 CID (470) (485) (488) ④ ⑤	L4	1976-84	35-866340K01,Q3	PH30-01
224 CID (3.7L, 3.7LX, 165, 170, 180, 190) ④ ⑤	L4	1985-89	35-866340K01,Q3	PH30-01
225 FORD ③	8	1973-74	35-802886Q	PH8A
228 GM	8	1977-84	35-16595Q, T1	PH5
229 CID	V6	1983-84	35-883702K, Q	PH3980
233 FORD ③	8	1975-76	35-802886Q	PH8A
250 GM	8	1968-69, 1977	35-16595Q, T1	PH5
255 FORD ③	8	1975-76	35-802886Q	PH8A
260 GM ④ ⑤	8	1978-86	35-866340K01,Q3	PH30-01
260 GM MIE ④ ⑤	8	1981-86	35-866340K01,Q3	PH30-01
260 GM MIE & MCM ④ ⑤	8	1987	35-866340K01,Q3	PH30-01
262 CID (175, 180, 205, 4.3L/LX, MAG) ④	V6	1985-98	35-883702K, Q	PH980
262 CID (4.3L/LX/LXH, EFI, MPI, TBI) ④	V6	1999-UP	35-883702K, Q	PH3980
280 GM ④ ⑤	8	1975-76	35-866340K01,Q3	PH30-01
320 EFI ④ ⑤	8	1987-89	35-866340K01,Q3	PH30-01
330 ④	8	1977-81	35-16595Q, T1	PH5
330 ④ ⑤	8	1982-87	35-866340K01,Q3	PH30-01
350 MAG ④	8	1986-87	35-16595Q, T1	PH5
350 MAG ④ ⑤	8	1987-95	35-866340K01,Q3	PH3612
350 MAG SKI ④ ⑤	8	1991-UP	35-866340K01,Q3	PH30-01
350 MAG BRAVO MPI & GEN +	8	1995-UP	35-866340K01,Q3	PH30-01
350 MAG MPI MIE (GEN +)	8	1998-UP	35-866340K01,Q3	PH30-01
350 MAG EFI SKI	8	1994-97	35-866340K01,Q3	PH30-01
350 MAG MPI SKI (GEN +)	8	1998-UP	35-866340K01,Q3	PH30-01
BLACK SCORPION SKI (GEN+) 350CID	8	1996-UP	35-866340K01,Q3	PH30-01
370 (454 CID) ④	8	1978-87	35-16595Q, T1	PH5
400 (454 CID) ④	8	1980-86	35-16595Q, T1	PH5
420 (454 CID) ④	8	1987-89	35-16595Q, T1	PH5
440 (454 CID) ④	8	1983-86	35-16595Q, T1	PH5
454 MAG	8	1986-UP	35-866340K01,Q3	PH30-01
454 EFI, Mag MPI and Horizin MIE	8	1994-UP	35-866340K01,Q3	PH30-01

Mercruiser (Cont.)					OMC				
Models	Cyl.	Year	Replaces	Part #	Engine	Cyl.	Year	Replaces	Part #
460 ④	8	1983-86	35-16595Q, T1	PH5	2.3L	L4	1987-90	173231	PH8A
496	8	All	35-866340K01,Q3	PH30-01	2.5L	L4	1982-86	173232	PH30
502 Mag	8	1990-97	35-866340K01,Q3	PH30-01	3.0L/				
502 EFI & Mag MPI	8	1998-UP	35-866340K01,Q3	PH30-01	3.0L HO	L4	1982-98	173232	PH30-01
888 FORD	8	1971-77	35-802886Q	PH8A	3.8L	V6	1981-85	173834	PH30-01
898 GM ④	8	1977-84	35-16595Q, T1	PH5	4.3L	V6	1985-98	173834	PH3980
2.5L (153 CID) ④ ⑤	L4	1987-89	35-866340K01,Q3	PH30-01	5.0L	8	1982-88	173233	PH3980
3.0L (181 CID) ④ ⑤	L4	1987-UP	35-866340K01,Q3	PH30-01	5.0L	8	1993-96	173231	PH5
3.0LX (181 CID) ④ ⑤	L4	1990-97	35-866340K01,Q3	PH30-01	5.0L	8	1998	502901	PH8A
3.7L/LX	L4	1988-89	35-866340K01,Q3	PH30-01	5.7L	8	1982-92	173233	PH5
4.3L/LX ⑤	V6	1988-98	35-883702K, Q	PH3980	5.7L	8	1996-98	502901	PH5
4.3L/XL, EFI, TBI, MPI ⑤	V6	1998-UP	35-883702K, Q	PH3980	5.8L	8	1989-96	173231	PH5
5.0L ④ ⑤	8	1988-UP	35-866340K01,Q3	PH30-01	7.5L	8	1987	173231	PH8A
5.0L IB ④ ⑤	8	1987-95	35-866340K01,Q3	PH30-01	100	L4	1972-73	173232	PH8A
5.0LX ④ ⑤	8	1988-95	35-866340K01,Q3	PH30-01	120	L4	1965-81	173232	PH30-01
5.0L EFI	8	1998-01	35-866340K01,Q3	PH30-01	140	L4	1973-81	173232	PH30-01
5.0L MIE MPI	8	2002-UP	35-866340K01,Q3	PH30-01	155	V6	1968-72		PH30-01
5.7L	8	1998-UP	35-866340K01,Q3	PH30-01	165	L6	1972-76	173233	PH5
5.7L IB ④ ⑤	8	1988-UP	35-866340K01,Q3	PH30-01	170	8	1974	173233	PH5
5.7L SKI ④ ⑤	8	1985-UP	35-866340K01,Q3	PH30-01	175	8	1975-77	173231	PH8A
7.4L ④ ⑤	8	1988-UP	35-866340K01,Q3	PH30-01	185	8	1978-80	173231	PH8A
7.4L IB ④ ⑤	8	1988-UP	35-866340K01,Q3	PH30-01	190	8	1974-77	173231	PH8A
					200	8	1979-81	173233	PH5
					M-100, M-200 (460 CID)	4	1961-70	502904	PH8A
					225	8	1972-76, 1978	381767	PH5
					230	8	1979-81	173233	PH5
					235	8	1971-77	381767	PH5
					240	8	1978	173231	PH8A
					245	8	1972-75	381767	PH5
					250	8	1979	173231	PH8A
					260	8	1979-81	173233	PH5
					Onan				
					Model	Replaces		Part #	
					JA, JB, JB (Ind. eng.), JC gen., JC (Ind. eng.), MJA, MJB, MJC, J-30, J-60, J-120, RDJF, RJC, DJA, DJB, DJC, MDJA, MDJB, MDJC, RDJC, DJ-30, DJ-60, DJ-120, JD-130, MDJ-30, MDJ-130, 6MDJB-37, 15MDJC-3R, 3.0 DJA, DJE, 6.0 DJB, MDJE, MDJF, NH, 7.5 MDJE, 15MDJF, 15 MDJ-3R, 705 MDJE-3R, 150 MDJF, DJB Gen. (Standard) EF				
					Onan (Generator Sets) 3.0 Aux. (w/MDJA diesel eng.)		122-0185		PH16 PH8A
									
					Perkins				
					Model	Replaces		Part #	
					4.154M, 4.154/165, 4.203, 4.236, 4.236, 4A236, 4.248, 4.300, A4300, A4.318 (Except A4-318), 6.247, 6.354, 6.354M, T6.354, T6.354M, HT6.354, HT6.354M, 6.3544, T6(.354, ST6.3544 Ranger 4 Series: 6.372, 6/152, 3/152Y, 3AB152, 4.107, 4.107M, 4.108, A4-212, AG4-212, 6.354.2				
							2654347, 2654347 2654403		PH977A PH2821A

FRAM			
Nissan/Tohatsu			
Model	Year	Replaces	Part #
9.9-30HP	All	3R0076150M	18-79111



Pleasurecraft				Volvo-Penta (Gasoline) (Cont.)			
Model		Replaces	Part #	Model	Replaces	Cyl.	Part #
PCM Model 200, 220, 250, 8200, 8240		R-077001	PH8A	AQ170A/B/C	2366286-2, 430143-8, 3517857-3	L4	PH16
			PH5	AQ171A/C	2366286-2, 430143-8, 3517857-3	L4	PH16
PCM Model 230, 280, 300, 350		R-077002	PH30-01	AQ175A	—	V6	PH3980
				AQ190A	—	8	PH8A
				AQ200B/C/D/F	835440-9	8	PH30-01
				AQ205A	—	V6	PH3980
				AQ211A	835440-9	8	PH30-01
				AQ225B/C/D/E/F	835440-9	8	PH30-01
Suzuki				AQ231A	835440-9	8	PH30-01
Model	Year	Replaces	Part #	AQ231B	835440-9	8	PH30-01
DF9.9, DF15	1996-06	16510-05240	18-7903	AQ240A	—	8	PH8A
DF25, DF30	2000-06	16510-87J00	PH7575	AQ255A/B	835440-9	8	PH30-01
DF40, DF50, DF60, DF70	1999-06	16510-87J00	PH7575	AQ260A/B	835440-9	8	PH30-01
DF90, DF115	2001-06	16510-61A01	PH4386	AQ271A/B/C/D	835440-9	8	PH30-01
DF140	2002-04	16510-82703	PH4967	AQ280A	835440-9	8	PH30-01
DF150, DF175	2006	16510-93J00	PH4386	AQ290A	835440-9	8	PH30-01
DF200, DF225, DF250	2004-07	16510-93J00	PH4386	AQ311A/B	835440-9	8	PH30-01
DF200, DF225, DF250	2008	16510-96J00	18-7905	AQ60F	2366286-2, 430143-8, 3517857-3	8	PH16
DF150, DF175, DF300	2007 & Up	16510-96J00	18-7905	AQ90	2366286-2, 430143-8, 3517857-3	L4	PH16
				AQ95/A	2366286-2, 430143-8, 3517857-3	L4	PH16
				BB100	2366286-2, 430143-8, 3517857-3	L4	PH16
				BB115A/B/C	2366286-2, 430143-8, 3517857-3	L4	PH16
				BB140A	2366286-2, 430143-8, 3517857-3	L4	PH16
				BB145A	2366286-2, 430143-8, 3517857-3	L4	PH16
				BB165A	2366286-2, 430143-8, 3517857-3	L4	PH16
				BB170A/B/C	2366286-2, 430143-8, 3517857-3	L4	PH16
				BB225A/B/C	835440-9	8	PH30-01
				BB231A	835440-9	8	PH30-01
				BB260A/B/C	835440-9	8	PH30-01
Volvo-Penta (Gasoline)				BB261A	835440-9	8	PH30-01
Model	Replaces	Cyl.	Part #	BB30	2366286-2, 430143-8, 3517857-3	L4	PH16
230A/B	2366286-2, 430143-8, 3517857-3	L4	PH16	MB10A	2366286-2, 430143-8, 3517857-3	L4	PH16
250A/B	2366286-2, 430143-8, 3517857-3	L4	PH16	MB18/F	2366286-2, 430143-8, 3517857-3	L4	PH16
251A	2366286-2, 430143-8, 3517857-3	L4	PH16	MB20A/B/C	2366286-2, 430143-8, 3517857-3	L4	PH16
3.0GL/GS	835440-9	L4	PH30-01	Volvo-Penta (Diesel)			
4.3Gi/GL/GS	—	V6	PH3980	Model	Replaces	Part #	
430A/B	—	V6	PH3980	120AHC	423135-3, 4785974-9		PH3306A
431A/B	—	V6	PH3980	2001,B			PH4967
432A	—	V6	PH3980	2002,B			PH4967
434A	—	V6	PH3980	2003,B, TB			PH4967
5.0Fi/FL	—	8	PH8A	AD31A/B/D/P/XD	2366286-2, 430143-8, 3517857-3		PH16
5.7Gi/GL	835440-9	8	PH30-01	AQ70B/C	423135-3, 4785974-9		PH3306A
5.8Fi/FL	—	8	PH8A	AQAD30A	2366286-2, 430143-8, 3517857-3		PH16
5.8FSi	—	8	PH8A	AQAD31A	2366286-2, 430143-8, 3517857-3		PH16
500A/B	835440-9	8	PH30-01	AQD2B			PH4967
501A/B	835440-9	8	PH30-01	AQD21AB, 32A	3827069		PH2846B
570A/MS4A	835440-9	8	PH30-01	D100BHC/BRC	423135-3, 4785974-9		PH3306A
571A	835440-9	8	PH30-01	D41B	423135-3, 4785974-9		PH3306A
572A	835440-9	8	PH30-01	D70HC/CRC	423135-3, 4785974-9		PH3306A
7.4Gi/GL/Gsi	835440-9	8	PH30-01	KAD32P	423135-3, 4785974-9		PH3306A
740A/B	835440-9	8	PH30-01	KAD42B/P/PA	423135-3, 4785974-9		PH3306A
8.2GL	835440-9	8	PH30-01	KAD43P/44P/300	423135-3, 4785974-9		PH3306A
AQ100	2366286-2, 430143-8, 3517857-3	L4	PH16	KAMD42A/B/P	423135-3, 4785974-9		PH3306A
AQ110	2366286-2, 430143-8, 3517857-3	L4	PH16	KAMD43P/44P/300	423135-3, 4785974-9		PH3306A
AQ115AB	2366286-2, 430143-8, 3517857-3	L4	PH16	MD100A/B	423135-3, 4785974-9		PH3306A
AQ120/B	2366286-2, 430143-8, 3517857-3	L4	PH16	MD11C			PH4967
AQ125A/B	2366286-2, 430143-8, 3517857-3	L4	PH16	MD11D			PH4967
AQ130A/B/C/D	2366286-2, 430143-8, 3517857-3	L4	PH16	MD120A/B	423135-3, 4785974-9		PH3306A
AQ131A/B/C/D	2366286-2, 430143-8, 3517857-3	L4	PH16	MD17C			PH4967
AQ140A	2366286-2, 430143-8, 3517857-3	L4	PH16	MD17D			PH4967
AQ145A/B	2366286-2, 430143-8, 3517857-3	L4	PH16	MD1B			PH4967
AQ151A/B/C	2366286-2, 430143-8, 3517857-3	L4	PH16	MD2			PH4967
				MD2B			PH4967
				MD21A/B	3827069		PH2846B
				MD30A	2366286-2, 430143-8, 3517857-3		PH16
				MD31A	2366286-2, 430143-8, 3517857-3		PH16
				MD32A	3827069		PH2846B
				MD3B			PH4967
				MD5A			PH4967
				MD5B			PH4967
				MD5C			PH4967
				MD6A			PH4967
				MD6B			PH4967
				MD70B/A	423135-3, 4785974-9		PH3306A



Volvo-Penta (Diesel) (Cont.)			Westerbeke		
Model	Replaces	Part #	Model	Replaces	Part #
MD7A		PH4967	L25(12)	21235	PH2870A
MD7B		PH4967	Four-60, Four-91, Four-154, BR-30, BR-45, Performer-6, WPDS-10, WPDS-20		PH3593A
T70CRC	423135-3, 4785974-9	PH3306A	D60, D80, 10 TWO, 13A, 18, 21 (A), 27 (A), 33, 41G, W70G	30220	PH8A
TAD120BHC/CHC	423135-3, 4785974-9	PH3306A	Yamaha		
TAMD120A/B	423135-3, 4785974-9	PH3306A	Model	Year	Replaces
TAMD30A	2366286-2, 430143-8, 3517857-3	PH16	F9.9/T9.9	2006-2007	5GH-13440-00-00
TAMD31B/D/PL	2366286-2, 430143-8, 3517857-3	PH16	F9.9/T9.9	1990-2005	6G8-13440-00-00
TAMD40A/B	423135-3, 4785974-9	PH3306A	F15	1998-1999	3FV-13440-00-00
TAMD41A/B/D	423135-3, 4785974-9	PH3306A	F15	2000-2007	5GH-13440-00-00
TAMD42B/WJ	423135-3, 4785974-9	PH3306A	F25	1998-1999	3FV-13440-00-00
TAMD60A/B/C	423135-3, 4785974-9	PH3306A	F25/T25	2000-2006	5GH-13440-00-00
TAMD61A, 62A, 63LA, 63PA	3827069	PH2846B	F30	2001-2006	5GH-13440-00-00
TAMD70B/C	423135-3, 4785974-9	PH3306A	F40	1999-2000	3FV-13440-00-00
TAMD71A/B, 72A, 73P-A, 73WJ-A, 74A-A, 74A-B, 74C-A, 74C-B, 74P-B, 75P-A	3827069	PH2846B	F40	2001-2006	5GH-13440-00-00
TD11AHC	423135-3, 4785974-9	PH3306A	F50/T50	1995-1999	3FV-13440-00-00
TD120A/ARC/BHC/BRC	423135-3, 4785974-9	PH3306A	F50/T50	2000-2005	5GH-13440-00-00
THAMD70B/C	423135-3, 4785974-9	PH3306A	F60/T60	2002-2005	5GH-13440-00-00
TMD100A	423135-3, 4785974-9	PH3306A	F75/F90	2003-2006	5GH-13440-00-00
TMD120A/B	423135-3, 4785974-9	PH3306A	F80/F100	1999	3FV-13440-00-00
TMD30A	2366286-2, 430143-8, 3517857-3	PH16	F80	2000-2003	5GH-13440-00-00
TMD31A	2366286-2, 430143-8, 3517857-3	PH16	F100	2000-2002	5GH-13440-00-00
TMD31B	2366286-2, 430143-8, 3517857-3	PH16	F115	2001-2006	5GH-13440-00-00
TMD31D	2366286-2, 430143-8, 3517857-3	PH16	F150	2004-2006	69J-13440-00-00
TMD31L-A	2366286-2, 430143-8, 3517857-3	PH16	F200/F225	2002-2006	69J-13440-00-00
TMD41B	423135-3, 4785974-9	PH3306A	F250	2005-2006	69J-13440-00-00
TMD41L-A	423135-3, 4785974-9	PH3306A	F350	2008-UP	N26-13440-00-00
TMD70B/C	423135-3, 4785974-9	PH3306A	Yanmar		
<b>FRAM</b>			Model	Replaces	Part #
			2QM, 2QM15, 2QM20, 3QM, 3QM30, 3HM, 3HM(F), 3HM35, 3HM35(F)	124450-35110, 124550-35110, 171056-35110, 171056-35111	PH5046
			1GM, 1GM10, 2GM, 2GMF, 2GM20, 2GM20F, 3GM, 3GMF, 3GM30, 3GM30F	124450-35100	PH3593A

### Economy Swivel Handled Filter Wrenches

For hard-to-reach jobs. Features a swivel handle with vinyl grip to easily clear obstructions

Part No.	Description
LMC 70-537	3½" to 3-7/8"
LMC 70-539	2¼" TO 2½"



### Handled Filter Wrench



Heavy duty steel construction with rugged corrosion resistant epoxy finish. Wide studded band prevents crushed filters.

Part No.	Description
LMC 70-701	Small, fits 2-13/16" to 3-5/32" (71 - 80 mm) diameter filters.



### Adjustable Filter Wrench

Economy Adjustable Filter Wrench 4-way adjustable band fits a wide range of sizes. Wide band prevents crushed filters.

Part No.	Description
LMC 70-805	Fits car, truck & marine small and large diameter filters from 2¼" to 4"



### Inboard/Sterndrive Marine Diesel Air Filters - Volvo

**FRAM**



#### Model No.

AQAD30A, AQAD40A, AQAD40B, AQD40A, KAD300, KAD32P-A, KAD42A, KAD42B, KAD42P-A, KAD43P-A, KAD44P-A, KAD44P-B, KAD44P-C, KAMD300, KAMD42A, KAMD42B, KAMD42P-A, KAMD43P-A, KAMD44P-A, KAMD44P-B, KAMD44P-C, MD30A, MD40A, TAMD30A, TAMD40A, TAMD40B, TAMD42WJ-A, TAMD61A, TAMD62A, TAMD71A, TAMD71B, TAMD72A, TAMD72P-A, TMD30A, TMD40A, TMD40B, TMD40C

Part No.
FRA CA4365

### Oil Pads

**BoatersBest™**



Part No.	Size	Master Pack
BBB 140101	15" x 18"	100

Sold Each or Master Pack

## Honda Oil Filters



Part No.	Description
HON 15400-PFB-014	BF8/BFP8 D1, D2, D3, D4. BF9.9/BFP9.9D1,D2,D3,D4,, BF15/BFP15D3, D4. BF20 D3, D4. BF25A, BF30A, BF35AM BF40A, BF45AM, BF40D, BF50D, BF50A. BF60A, BFP60
HON 15400-PLM-A01PE	BF 75/90AT,AW,AX,AY,A1,A2,A3,A4,A5, A6, DK0 BF115/130AX,AY,A1,A2,A3,A4, A5,A6, K0 BF115D, BF135/150A4,A5,A6, K0 BF200/225 A2, A3, A4, A5, A6, K0, K1

## Honda Fuel Filters



Part No.	Description
HON 16900-SA5-004	Fits: BF35/45AM, BF 40/50A, AW, AX: Sers #14ZV50M: BF90, AT, AW, AX, AY: Sers #14ZW00E14M
HON 16901-ZY3-003	Fits: BF35/45 AM, BF4050A, AW, AX, Sers #14ZV50M, BF75, BF90,AT,AW,AX,AY. Sers #14ZW00E1M
HON 16911-ZY3-010	Fits: BF90 2007+UP, BF115 1997+BELOW 2002+UP, BF130 2002-2004. BF135 2004+UP, BF150 2004+UP, BF175 2007+UP, BF200 2002+UP, BF225 2002+UP, BF250 1997+BELOW
HON 16911-759-003	BF150 Fuel Pump Filter

## Suzuki Filters



Part No.	Description
SUZ 15410-87D01	FILTER ASSY,FUEL
SUZ 15410-87J00	FILTER ASSY,FUEL
SUZ 15410-87J10	FUEL FILTER
SUZ 15410-87L00	FILTER COMP,FUEL
SUZ 15410-92E02	FUEL FILTER
SUZ 15410-93J00	FILTER,FUEL(L)
SUZ 15410-96J00	FILTER,FUEL(L)
SUZ 15412-93J00	FILTER,FUEL
SUZ 15412-93J10	FILTER ASSY
SUZ 15643-93J00	FILTER,FUEL(L)
SUZ 16510-05240*	DF9.9/15 '96 - '10
SUZ 16510-45H10	DF9.9T/9.9HT/15 '11
SUZ 16510-61A20-MHL	DF70A/80A/90A '09 -'10
SUZ 16510-61A31	OIL FILTER ASSY
SUZ 16510-82703	OIL FILTER ASSY DF140
SUZ 16510-87J00	DF25/30/25V-Twin
SUZ 16510-96J00	FILTER ASSY, OIL DF150/175
SUZ 17631-94600	FILTER, WATER
SUZ 17631-98J10	FILTER
SUZ 99105-20005-ASY	FUEL FILTER ASSY
SUZ 99105-20006-ASY	SML FILTER ASSY

(\*Also replace "O" Rings SUZ 09280-54001 & SUZ 09280-13004)



## Yamaha Filters



Part No.	Description
YAM 60V-24251-01-00	Strainer Fit 2006 Models & Later
YAM 68F-13915-00-00	Fuel Filter Fits 2006 & Later
YAM 6P3-WS24A-01-00	Fuel Filter Fits 2006 & Later
YAM MAR-FUELF-IL-TR	Fuel / Water Filter
YAM 61N-24563-10-00	Filter Element
YAM 65L-24563-00-00	Fuel Filter
YAM 65W-24251-10-00	Fuel Filter
YAM 66K-13915-00-00	Filter
YAM 68F-13915-00-00	Filter
YAM 68F-24563-10-00	Fuel Filter Element
YAM 68V-24563-00-00	Filter
YAM 69J-13440-01-00	Oil Filter
YAM 6P2-WS245-00-00	Fuel Filter
YAM 6P3-WS24A-01-00	Filter Element w/tag
YAM 6P3-WS24B-03-00	Cup, Filter (with ta
YAM MAR-MINIF-IL-TR	Mini Fuel Filter
YAM N26-13440-00-00	Oil Filter

*\*Jerry's Marine Service is NOT an authorized Yamaha dealer and it is NOT affiliated with Yamaha Motor Corporation.*

**Stowaway Series Watermakers****400-800 GPD*****For Sportfishers, Trawlers and Ocean Yachts*****Village Marine**

The Stowaway Series offers fresh water independence for ocean crossings, extended fishing trips or cruising where dock supplies are unreliable. The Stowaway features a semi modular frame format, which maximizes installation flexibility. The frame is compact and can be above or below water line. The boost pump and prefilters are supplied as loose items. The watermaker can be operated and monitored from the electronic remote control.

**Standard Features:**

- Unique titanium high pressure pump head is impervious to the corrosive seawater environment and is designed for very simple valve service
- Easy access sediment prefilter
- Maintenance-free air/oil separator allows operation while underway
- Magnetic drive low pressure pump provides up to 10 psi of boost pressure to the filtration system. Never requires seal replacement
- Glycerine filled pressure gauges and acrylic flow meters for both product and reject streams
- Freshwater flush system included standard.
- 316 stainless steel pressure regulator ensures consistent pressure and prevents over or under pressurization of the unit. Adjustable to allow operation in brackish or fresh water.
- Easy to operate 316 SS high pressure bypass valve controls the operation from cleaning/rinse to R.O. mode and allows high pressure bypass for start-up and low pressure flushing without readjustment of regulating valve
- Automatic diversion valve diverts water to discharge if water quality drops below acceptable standards
- Digital water quality monitor displays purity of product water output. Also displays temperature and total hours for accurate service log
- Cleaning valve for easy cleaning or preservation of the unit using VMT cartridge cleaners

Model	Part No.	Power Volts/Hz/Amps	Capacity GPH/LPH	Weight lbs/kg
VIL STW-400	90-8293	110/60/13	16/63	110/50
	90-8294	220/60/8		
	90-8295	230/50/8		
VIL STW-600	90-8296	110/60/13	25/95	116/53
	90-8297	220/60/8		
	90-8298	230/50/8		
VIL STW-800	90-8299	110/60/13	33/126	135/61
	90-8300	220/60/8		
	90-8301	230/50/8		

**Spare Parts****Part No.**

VIL 85-0050  
VIL 33-0117  
VIL 33-0311  
VIL 90-0005  
VIL 99-6881  
VIL 70-6182

**Description**

Pump Oil, Quart\*  
Prefilter Element\*  
Flush Filter Element\*  
Filter O-Ring\*  
Filter Wrench\*  
HP Pump Service Kit\*

**Little Wonder Desalinators****6-8 GPH 22-30 LPH*****Compact reliable supply of fresh water. For sailboats and other marine applications***

The Little Wonder (LWM) Series Reverse Osmosis Desalination System is the preferred choice for boaters who require small low power watermakers. The units are simple to install and easy to operate. Ideal for applications where space and power are limited. The quality components that go into the LWM units ensure safety and years of reliable service.

**Standard Features:**

- Titanium High Pressure Pump is impervious to corrosion and designed for maximum efficiency
- Raw Water Boost Pump with magnetic drive
- Adjustable 316 SS Pressure, Regulating Valve provides constant pressure and low noise
- Product Flowmeter to monitor gallons per hour of fresh water produced
- Glycerine filled high pressure gauge to assure accurate reading of operating pressure
- Easy to operate High Pressure, Bypass Valve controls the operating mode from cleaning/ rinse to reverse osmosis
- High salt water rejection rate
- Fresh Water Flush System included
- Product Sample Valve included
- CIP system allows membrane cleaning/pickling

**Village Marine**

Model	Part No.	Water Production GPH/LPH	Power Supply Volts/Amps	Frame Size WxDxH inch/cm	Weight lbs/kg
VIL LWM-145	90-8200	6/22	12 VDC/13	Modular	62/28
VIL LWM-200	90-8512	8/30	12 VDC/17	Modular	69/31
	90-8516		110 VAC 60Hz/6		
	90-8515		220 VAC 50Hz/3.3		

**Spare Parts****Part No.**

VIL 85-0050  
VIL 33-0117  
VIL 33-0311  
VIL 90-0005  
VIL 99-6881  
VIL 70-6181  
VIL 33-3000

**Description**

Pump Oil, Quart  
Prefilter Element  
Flush Filter Element  
Filter O-Ring  
Filter Wrench  
HP Pump Service Kit  
Membrane Element  
(models 145)



## LTM Series Modular Desalinators

### 500-1,800 GPD

For Sail Boat and Motor Boat Applications The LTM Series offers high quality Racor Village Marine engineered components with straightforward manual operation. Driven by AC motors (from genset power), the modular configuration comes in ready to mount modules for flexible installation options. Integral to every LTM unit are a stainless steel pressure regulator and bypass valve.

#### Standard Features:

- Available for 110/1/60, 220/1/60 or 230/1/50 power supplies as shown
- Powder coated mounting brackets included To maintain peak performance always use genuine Parker Racor Village Marine replacement parts. We reserve the right to change our specifications or standards without notice.
- 5 micron cleanable prefilter
- 316 stainless steel pressure regulator ensures consistent pressure and prevents over or under pressurization of the unit. Adjustable to allow operation in brackish or fresh water
- High quality spiral wound TFC reverse osmosis membranes
- Magnetic drive boost pump
- Stainless steel glycerin filled pressure gauges
- High pressure plunger pump with stainless steel 316 head
- Acrylic flowmeter to monitor production



**Village Marine**

Model	Part Number	Electrical Supply Volts/Ph/Hz/Amps	Capacity GPH/LPH	Weight lbs./kg
VIL LTM-500	90-6019	110/1/60/18	21/79	92/42
	90-6047	220/1/60/8		
	90-6048	230/1/50/8		
VIL LTM-800	90-6049	110/1/60/18	33/125	100/45
	90-6050	220/1/60/9		
	90-6051	230/1/50/8		
VIL LTM-1000	90-6052	220/1/60/12	42/158	133/60
	90-6053	230/1/50/12.5		
VIL LTM-1300	90-6054	220/1/60/12	54/205	153/70
	90-6055	230/1/50/12.5		
VIL LTM-1800	90-6056	220/1/60/12	75/284	168/76

Part No.	Description
VIL 85-0050	Pump Oil
VIL 33-0117	5 Micron Filter (up to model 800)
VIL 33-0052	5 Micron Filter (model 1000 and up)
VIL 33-0311	Carbon Flush Filter
VIL 33-0238	Membrane Element
VIL 90-0005	Filter Housing O-Ring (model 1000 and up)
VIL 33-0271	Filter Housing O-Ring (model 1000 and up)
VIL 90-2512	Membrane O-Ring Kit
VIL 40-0241	Salinity Probe
VIL 85-0102	Cleaning Kit
VIL 85-0103	Preservation Kit

## Seafari Versatile

Along the coast or around the world, the Seafari Versatile is perfect for weekend fishing or blue water cruising. It's user friendly operable system and rugged build withstands the ocean's harshest conditions, while maintaining its high level of quality. Max Production: 1,800 Gal (6,815 Lit) / day\*

#### Benefits:

- Modular configuration allows you to control system remotely.
- Small footprint for limited engine room spaces.
- Easy access to main system parts for easy maintenance.
- Easy semi-auto operation



**Village Marine**

Model No.	Per 24 Hours - Gal / Lit	Per Hour - Gal/ Lit	Weight lbs./kg
VIL H14C450-1	450 / 1,705	18 / 70	118 lbs / 54 kg
VIL H14C700-1	700 / 2,650	26 / 110	125 lbs / 57 kg
VIL H14C900-1	900 / 3,405	38 / 140	136 lbs / 62 kg
VIL H14C900-2	900 / 3,405	38 / 140	136 lbs / 62 kg
VIL H14C1400-2	1,400 / 5,300	58 / 220	147 lbs / 67 kg
VIL H14C1800-2	1,800 / 6,815	75 / 285	150 lbs / 68 kg

## Pleated Filters and Filter Cartridge Kits



The Village Marine Tec. line of **pleated filters** are designed specifically for the RO watermaker industry and are superior to wound or polyspun cartridges to give you a longer filter life as well as increasing flow rates and keeping cartridge size down.

Available in a wide range of sizes and micron ranges to ensure that every type of watermaker filter need is taken care of. Stock sizes fit most standard filter housings, if the size you need is not shown please contact us with the dimensions required.

Single use **Cleaning and Preservative Cartridge Kits** are designed specifically for small RO Systems. The Cartridges allow for easy and effective membrane maintenance.

The Cleaning and Preservative Cartridge Kits eliminate the trouble and mess of measuring powdered chemicals and ensuring correct chemical concentrations. The Chemical cartridges fit directly into 2.5" x 10" housings and contain the correct amount of chemical for a single use.

**Pleated Sediment Elements**

Part Number	Micron	Filter Area ft <sup>2</sup> /m <sup>2</sup>	Diameter inch/cm	Length inch/cm
VIL 33-0118	20	10/0.93	2.75/7	9.75/25
VIL 33-0117	5	10/0.93	2.75/7	9.75/25
VIL 33-0053	20	18/1.67	4.5/11.4	9.75/25
VIL 33-0052	5	18/1.67	4.5/11.4	9.75/25
VIL 33-0020	20	30/2.79	8.63/22	7.75/20
VIL 33-0005	5	30/2.79	8.63/22	7.75/20
VIL 33-0058	20	35/3.25	4.5/11.4	20/51
VIL 33-0057	5	35/3.25	4.5/11.4	20/51
VIL 33-0172	100	100/9.29	8.63/22	24.3/62
VIL 33-2100	20	100/9.29	8.63/22	24.3/62
VIL 33-5100	5	100/9.29	8.63/22	24.3/62
VIL 33-1100	1	100/9.29	8.63/22	24.3/62
VIL 33-1105	0.5	100/9.29	8.63/22	24.3/62

**Carbon Flushing Filters**

Part Number	Diameter inch/cm	Length inch/cm
VIL 33-0311	2.75/7	9.75/25
VIL 33-0315	4.5/11.4	9.75/25
VIL 33-0083	4.5/11.4	20/50.8

**Filter Cartridge Kit**

- Cartridge with Blue stripe contains cleaner #1, a biological cleaner to remove algae, fungi and bacteria
- Cartridge with Red stripe contains cleaner #2, an acidic cleaner to remove scale from the membrane
- Cartridge with Green stripe contains the preservative. This chemical is used for pickling the membranes
- Cartridges are capable of being used in any housing that takes a standard 2.5" (64mm) x 10" (254mm) filter cartridges

Part Number	Description	Contents
VIL 85-0102	Cleaning Kit	1 Blue stripe cleaner 1 Red stripe cleaner
VIL 85-0103	Preservation Kit	2 Green stripe preservative

## Aqua Pro® Sea Water RO Membranes

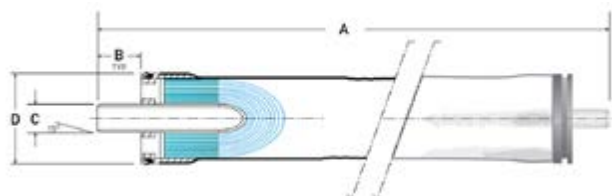


Aqua Pro® thin film composite reverse osmosis membranes deliver high salt rejection while maintaining high production rates to obtain the energy efficiency demanded by plant operators.

By selecting the highest grade of materials and thoroughly testing performance, Racor Village Marine Tec. is able to offer the highest quality products.

Aqua Pro® membranes are designed for use in Parker Village Marine Tec. pressure vessel housings as well as other brand housings.

- Maximum Operating Pressure: 1000 psi
- Maximum Operating Temperature: 113°F (45°C)
- Maximum Feed Turbidity: 1 NTU
- Free Chlorine Tolerance: 0 PPM
- Maximum Feed Silt Density Index: SDI 5
- pH Range: Continuous Operation: 4-11 Short-term for Cleaning: (30 minute duration) 2.5-11

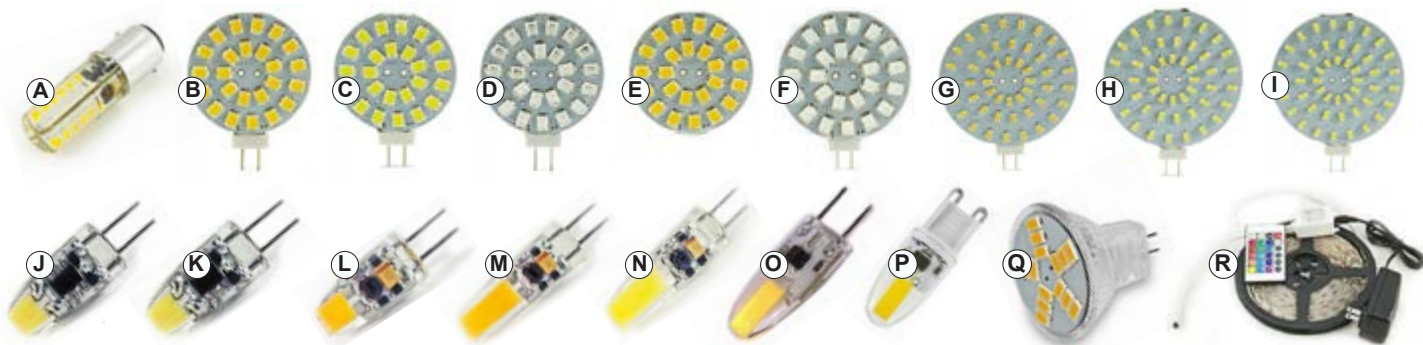


Part Number	A*	B	C	D
VIL 33-2519	19/48	1.1/2.8	0.75/1.9	2.4/6.1
VIL 33-3000 **	19/48	1.1/2.8	0.75/1.9	2.4/6.1
VIL 33-3001**	19/48	1.1/2.8	0.75/1.9	2.4/6.1
VIL 33-0238	38/96.5	1.1/2.8	0.75/1.9	2.4/6.1
VIL 33-3002**	38/96.5	1.1/2.8	0.75/1.9	2.4/6.1
VIL 33-0440	40/101.6	1.0/2.5	0.75/1.9	3.96/10.1
VIL 33-0036	40/101.6	1.27/3.2	1.5/3.8	5.98/15.2

\* All 19" and 38" elements come with a 2" removable extender so that the stocked size also fits 21" and 40" housings

\*\* Elements are specially designed for low feed flow applications. Use only with certain Sea Quencher and Little Wonder watermakers.



**NEW****STARLED****Base G4 Bi-Pin push LED lights****Base G9 Bi-pin and looped bi-pin LED lights.****Base GU5.3 / MR16 & Specialized Light Bulbs for Boat & Yacht Lighting.****Wafer Specialty fit flat wafer LED lights in 12V DC, 24V DC, and 120V AC.**

Part No.	Description
(A) LED BAY-0001-A	30W BA15D Light Bulb, 3000K Warm W
LED BAY-0001-B	30W BA15D Light Bulb, 6000K Cool W
(B) LED G4-0001-A	40W 1 1/4" G4 Wafer DC10V-DC30V, 3000K Warm W
(C) LED G4-0001-B	40W 1 1/4" G4 Wafer DC10V-DC30V, 6000K Cool W
(D) LED G4-0001-C	40W 1 1/4" G4 Wafer DC10V-DC30V, 9000K Blue Fish
(E) LED G4-0001-G	40W 1 1/4" G4 Wafer Back Pin DC10V-DC30V, 3000K Warm W
LED G4-0001-H	40W 1 1/4" G4 Wafer Back Pin DC10V-DC30V, 6000K Cool W
(F) LED G4-0001-I	40W 1 1/4" G4 Wafer DC10V-DC30V, 800K RED
(G) LED G4-0002-A	50W 1 7/8" G4 Wafer DC10V-DC30V, 3000K Warm W
(H) LED G4-0002-B	50W 1 7/8" G4 Wafer DC10V-DC30V, 6000K Cool W
(I) LED G4-0002-C	50W 1 7/8" G4 Wafer DC10V-DC30V, 9000K Blue Fish
(J) LED G4-0003-E	15W 3/4" G4 Arrow Tip AC120, 3000K Warm

Part No.	Description
LED G4-0003-F	15W 3/4" G4 Arrow Tip AC120, 6000K Cool
(K) LED G4-0003-G	15W 3/4" G4 Arrow Tip DC10V-DC30V, 3000K Warm
(L) LED G4-0003-H	15W 3/4" G4 Arrow Tip DC10V-DC30V, 6000K Cool
(M) LED G4-0004-E	20W 1 1/8" G4 Arrow Tip DC10V-DC30V, 3000K W W
(N) LED G4-0004-F	20W 1 1/8" G4 Arrow Tip DC10V-DC30V, 6000K C W
(O) LED G8-0001-A	20W 180lm G8 Arrow Tip AC120, 3000K Warm
LED G8-0001-B	20W 180lm G8 Arrow Tip AC120, 6000K Cool
(P) LED G9-0001-A	30W 200lm G9 Arrow Tip AC120, 3000K Warm White
LED G9-0001-B	30W 200lm G9 Arrow Tip AC120, 3000K Cool White
(Q) LED GU5.3-0003-A	35W 320lm MR16 Spot Light DC100V-DC240V, W W 3000K
LED GU5.3-0003-B	35W 320lm MR16 Spot Light DC100V-DC240V, C W 6000K
(R) LED SL-0002-A	16' RGB Water Resistant Strip Light Kit DC100V-DC240V

**STARLED****NEW****LED Flat Panels - Drop Ceiling****Ideal For Multi-Use****Features:**

- Instant On To Full Brightness
- 100% Mercury Free
- 5 year Warranty
- UL/DLC/CE/RoHS
- Indoor (IP20)
- Dimmable
- Ultra Thin
- Flat Edge

**Benefits:**

- Fits most existing drop ceiling
- Fits most existing drop ceiling
- Low Heat
- No Ultraviolet
- Long Life



**PL-0001-C**  
1' x 2'



**PL-0003-A**  
2' x 2'

Part No.	Size	Power	CCT	Lumens	Equivalent	Input
LED PL-0001-C	1' x 2'	30 Watt	5000K	5200	160 Watt	AC 100-277V
LED PL-0002-B	1' x 4'	40 Watt	4000K	5200	160 Watt	AC 100-277V
LED PL-0002-C	1' x 4'	40 Watt	5000K	5200	160 Watt	AC 100-277V
LED PL-0003-A	2' x 2'	40 Watt	3500K	5200	160 Watt	AC 100-277V
LED PL-0003-B	2' x 2'	40 Watt	4000K	5200	160 Watt	AC 100-277V
LED PL-0003-C	2' x 2'	40 Watt	5000K	5200	160 Watt	AC 100-277V
LED PL-0004-A	2' x 4'	60 Watt	3500K	7800	240 Watt	AC 100-277V
LED PL-0004-B	2' x 4'	60 Watt	4000K	7800	240 Watt	AC 100-277V
LED PL-0004-C	2' x 4'	60 Watt	5000K	7800	240 Watt	AC 100-277V



**NEW**

## LED Above or Below the Water Line Lights

### Affordable and Totally Waterproof

Designed to be used above or below the water line. A broad flood light effect is created by the engineered optics of the convex light face.

Part No.	Description
(A) T/H LED-39055-DP	<b>High Intensity</b> 6 Red Underwater LEDs
(B) T/H LED-51866-DP	<b>High Intensity</b> 6 White Underwater LEDs
(C) T/H LED-51867-DP	<b>High Intensity</b> 6 Blue Underwater LEDs
(D) T/H LED-51868-DP	<b>High Intensity</b> 6 Green Underwater LEDs
(E) T/H LED-51823-DP	<b>Oblong Courtesy</b> 3 Blue LED Lights
(F) T/H LED-51824-DP	<b>Oblong Courtesy</b> 3 Red LED Lights
(G) T/H LED-51825-DP	<b>Oblong Courtesy</b> 3 White LED Lights
(H) T/H LED-51800-DP	<b>Slim Line Utility Strip</b> 6 White 4" LEDs
(I) T/H LED-51801-DP	<b>Slim Line Utility Strip</b> 6 Blue 4" LEDs
(J) T/H LED-51803-DP	<b>Slim Line Utility Strip</b> 6 Red 4" LEDs
(K) T/H LED-51805-DP	<b>Slim Line Utility Strip</b> 12 White 6" LEDs
(L) T/H LED-51806-DP	<b>Slim Line Utility Strip</b> 12 Blue 6" LEDs
(M) T/H LED-51810-DP	<b>Slim Line Utility Strip</b> 18 White 8" LEDs
(N) T/H LED-51811-DP	<b>Slim Line Utility Strip</b> 18 Blue 8" LEDs
(O) T/H LED-39060-DP	<b>Premium Underwater</b> 6 White 3.5" LEDs
(P) T/H LED-39061-DP	<b>Premium Underwater</b> 6 Blue 3.5" LEDs

## Super Spreader Flood LED

### Totally Waterproof Light

Waterproof, Super long life up to 30,000 hours. Die cast aluminum housing, powder coated white with Optical grade lens

#### Part No. Description

T/H LED-51914-DP	<b>Super High Intensity</b> 5 White LEDs 1150 Lumens. Color Temp 6000 Kelvin
------------------	---



## Flush Head LED Livewell Lights

### Totally Waterproof Light

Waterproof, super bright LED designed for livewells, lockers or compartments. Can be used above or below water level. 12V. Diameter - 1-1/4"

#### Part No. Description

T/H LED-51874-DP	White Livewell /Utility LED Light
T/H LED-51875-DP	Blue Livewell /Utility LED Light



## LED Rail Light

### Rotating Rail Light

Rotating axis design to adjust the light to any desired direction. Circuit board coated with conformal coating to resist moisture, corrosion and vibration. Powder coated aluminum extrusion rail with molded mounting ends.

#### Part No.

#### Description

T/H LED-51857-DP	12 White LEDs Rotating 6" L
T/H LED-51858-DP	24 White LEDs Rotating 12" L

**NEW**

## LED Flex Strip Lights

### Add Wow to Your Boat

Cut to lengths. Moisture & water resistant. Strong 3M mounting tape. Available in 1', 2', 4' & 6' strips. LED Colors: White, Blue, Red & Green or White/Blue Combo

#### Part No.

#### Description

T/H LED-51946-DP	Flex Strip LED Lights 12" White
T/H LED-51947-DP	Flex Strip LED Lights 12" Blue
T/H LED-51948-DP	Flex Strip LED Lights 12" Red
T/H LED-51950-DP	Flex Strip LED Lights 24" White
T/H LED-51951-DP	Flex Strip LED Lights 24" Blue
T/H LED-51952-DP	Flex Strip LED Lights 24" Red
T/H LED-51953-DP	Flex Strip LED Lights 48" White
T/H LED-51954-DP	Flex Strip LED Lights 48" Blue
T/H LED-51956-DP	Flex Strip LED Lights 72" White



LED



804213  
4" Spot



804113  
4" Flood



840313  
40" Spot/Flood Combo

## E Series

Versatile all-around lighting solution. Recent enhancements in LED technology delivering up to 111% more raw lumens than ever before with the E-Series PRO. Among RIGID's most popular product lines, the E-Series PRO has recently benefited from several upgrades to improve both looks and performance. Plus, new branding and new blacked-out circuit boards give the E-Series PRO a more refined look. Available with your choice of optics, the E-Series features a host of beam options, including Spot, Flood, Driving, Hyperspot, Diffused, and new Driving/Spot and Spot/Hyperspot combinations. These and other innovations make it one of the brightest and most efficient LED light bars on the market. The E-Series was born in off-road, but its versatility makes it well suited for use with power sports, marine, general automotive and even first responder applications.

Part No.	Description	Watts	Amp Draw	LEDs	Lumens
RGD 804113	4" Flood	61	4.36	8	6336
RGD 804213	4" Spot	61	4.36	8	6336
RGD 806113	6" Flood	80	5.71	12	9504
RGD 806213	6" Spot	85	6.07	12	9504
RGD 810113	10" Flood	185	13.21	20	15840
RGD 810213	10" Spot	168	12	20	15840
RGD 810313	10" Spot/Flood Combo	165	11.79	20	15840
RGD 820313	20" Spot/Flood Combo	214	15.29	40	25080
RGD 830313	30" Spot/Flood Combo	311	22.21	60	32700
RGD 840313	40" Spot/Flood Combo	299	21.36	80	35680

- Patented Hybrid Optics
- 50,000+ Hr LED Lifespan
- Instant On / Off - No Warm Up
- RoHS Compliant
- Over / Under Voltage Protection
- Durable Polycarbonate Lens
- Integrated Thermal Management
- GORE® Pressure Equalizing Vent
- Designed, Engineered, & Assembled in the USA



942113  
Hybrid/Flood/White



942513  
Hybrid/Diffusion  
Lens/White



952313  
Spector/Driving/  
White



952313  
Flush Mount/Spector/  
Diffusion Lens/White



962113  
Flush Mount/Hybrid/  
Flood/White



972313  
Flush Mount/Spector  
/Driving/White

## SR-M Series

High - powered LED lighting has never come in a smaller more efficient package. The SR-M draws as low as 0.63 amps and can run on any 7-36 volt system. The light comes with the Rigid Industries limited lifetime warranty and world famous customer service.

Part No.	Description	Watts	Amp Draw	LEDs	Lumens	Size
RGD 942113	Hybrid/Flood/White	15	1.07	2	1584	W 3" x H 1.8" x D 2.4"
RGD 942213	Hybrid/Spot/White	15	1.07	2	1584	W 3" x H 1.8" x D 2.4"
RGD 942513	Hybrid/Diffusion Lens/White	16	1.14	2	1584	W 3" x H 1.8" x D 2.4"
RGD 952313	Spector/Driving/White	23	1.64	3	2376	W 3" x H 1.8" x D 2.4"
RGD 952513	Flush Mount/Spector/Diffusion Lens/White	23	1.64	3	2376	W 3" x H 1.8" x D 2.4"
RGD 962113	Flush Mount/Hybrid/Flood/White	15	1.07	2	1584	W 3" x H 1.8" x D 2.4"
RGD 962213	Flush Mount/Hybrid/Spot/White	15	1.07	2	1584	W 3" x H 1.8" x D 2.4"
RGD 962513	Flush Mount/Hybrid/Diffusion Lens/White	16	1.14	2	1584	W 3" x H 1.8" x D 2.4"
RGD 972313	Flush Mount/Spector/Driving/White	23	1.64	3	2376	W 3" x H 1.8" x D 2.4"
RGD 972513	Flush Mount/Spector/Diffusion Lens/White	23	1.64	3	2376	W 3" x H 1.8" x D 2.4"

LED



## The Halo Flashlight

The cool white LED has four modes of operation (High, Medium, Low, and Strobe). The brightness can be adjusted to suit whatever situation is at hand. Tested against shock, vibration, sun, salt, and moisture, ensuring years of trouble-free operation. Rechargeable lithium ion batteries, along with both a 110 volt wall charger and an AC/DC car charger.

Part No.	Lumens
RGD 30130	680
RGD 30140	820
RGD 30150	1100
RGD 30160	1500

LED





Made in the U.S.A.



601113 Flood



601513 Flood/Diffused



701313 Driving



611113 Flood



611513 Flood/Diffused



711313 Driving

## D-Series Pro

Professional grade offers more light output than ever before thanks to recent advancements in LED technology. Available with a variety of mounting options, including surface, flush, or heavy-duty. Can be utilized for virtually any lighting application and packs a powerful punch up to 102% more raw lumens. RIGID lights are available with either a black or white finish. Includes new branding and blacked-out circuit boards for a more refined look. They feature the same superior build quality as the rest of lighting products, providing reliable and efficient lighting on demand.

### Surface Mounts

Part No.	Description	Watts	Amp Draw	LEDs	Lumens	Size
RGD 601113	Flood (Single)	30	2.14	4	3168	W 3.2" x H 3" x D 3.2"
RGD 602113	Flood (Pair)	30	2.14	4	3168	W 3.2" x H 3" x D 3.2"
RGD 601213	Spot (Single)	30	2.14	4	3168	W 3.2" x H 3" x D 3.2"
RGD 602213	Spot (Pair)	30	2.14	4	3168	W 3.2" x H 3" x D 3.2"
RGD 601513	Flood Diffused (Single)	30	2.14	4	3168	W 3.2" x H 3" x D 3.2"
RGD 602513	Flood Diffused (Pair)	30	2.14	4	3168	W 3.2" x H 3" x D 3.2"
RGD 701313	Driving (Single)	44	3.14	6	4752	W 3.2" x H 3" x D 3.2"
RGD 702313	Driving (Pair)	44	3.14	6	4752	W 3.2" x H 3" x D 3.2"
RGD 701113	Spot (Single)	34	2.50	6	3096	W 3.2" x H 3" x D 3.2"
RGD 702113	Spot (Pair)	34	2.50	6	3096	W 3.2" x H 3" x D 3.2"
RGD 701513	Driving Diffused (Single)	42	3	6	4752	W 3.2" x H 3" x D 3.2"
RGD 702513	Driving Diffused (Pair)	42	3	6	4752	W 3.2" x H 3" x D 3.2"

### Flush Mounts

Part No.	Description	Watts	Amp Draw	LEDs	Lumens	Size
RGD 611113	Flood (Single)	30	2.14	4	3168	W 4.9" x H 3.6" x D 3.2"
RGD 612113	Flood (Pair)	30	2.14	4	3168	W 4.9" x H 3.6" x D 3.2"
RGD 611213	Spot (Single)	30	2.14	4	3168	W 4.9" x H 3.6" x D 3.2"
RGD 612213	Spot (Pair)	30	2.14	4	3168	W 4.9" x H 3.6" x D 3.2"
RGD 611513	Flood Diffused (Single)	30	2.14	4	3168	W 4.9" x H 3.6" x D 3.2"
RGD 612513	Flood Diffused (Pair)	30	2.14	4	3168	W 4.9" x H 3.6" x D 3.2"
RGD 711313	Driving (Single)	44	3.14	6	4752	W 4.9" x H 3.6" x D 3.2"
RGD 712313	Driving (Pair)	44	3.14	6	4752	W 4.9" x H 3.6" x D 3.2"
RGD 711113	Spot (Single)	34	2.50	6	3096	W 4.9" x H 3.6" x D 3.2"
RGD 712113	Spot (Pair)	34	2.50	6	3096	W 4.9" x H 3.6" x D 3.2"
RGD 711513	Driving Diffused (Single)	42	3	6	4752	W 4.9" x H 3.6" x D 3.2"
RGD 712513	Driving Diffused (Pair)	42	3	6	4752	W 4.9" x H 3.6" x D 3.2"



944213 Spot



944113 Flood



944513 Diffused



954313 Driving



954513 Diffused



964213 Spot



964113 Flood



964513 Diffused



974313 Driving



974513 Diffused

## SR-Q Pro

A single row of LEDs and is available in multiple beam patterns, including Spot, Flood, Driving, Hyperspot, and Diffused. Other recent updates include updated RIGID branding and blacked out circuit boards for a more refined look. Both surface and flush mount options are available and there are multiple mounting capabilities, such as the Suction Cup Mount and Angled Flush Mounts, just to name a few. The SR-Q PRO is also a perfect back-up light and is available as a Back-Up Light Kit with a 25' harness and a three-position switch for ease of wiring and usage.

### Surface Mounts

Part No.	Description	Watts	Amp Draw	LEDs	Lumens	Size
RGD 944213	Spot	32	2.29	4	3168	W 5" x H 2"
RGD 944113	Flood	32	2.29	4	3168	W 5" x H 2"
RGD 944513	Diffused	31	2.21	4	3168	W 5" x H 2"
RGD 954313	Driving	41	2.93	6	4752	W 5" x H 2"
RGD 954513	Diffused	37	2.64	6	4752	W 5" x H 2"

### Flush Mounts

Part No.	Description	Watts	Amp Draw	LEDs	Lumens	Size
RGD 964213	Spot	32	2.29	4	3168	W 5" x H 2"
RGD 964113	Flood	32	2.29	4	3168	W 5" x H 2"
RGD 964513	Diffused	31	2.21	4	3168	W 5" x H 2"
RGD 974313	Driving	41	2.93	6	4752	W 5" x H 2"
RGD 974513	Diffused	37	2.64	6	4752	W 5" x H 2"

### Features:

- Patented Hybrid Optics
- 50,000+ Hr LED Lifespan
- Instant On / Off - No Warm Up
- RoHS Compliant
- Over / Under Voltage Protection
- Cast Aluminum Housing
- Durable Polycarbonate Lens
- Integrated Thermal Management
- GORE® Pressure Equalizing Vent
- Built in the USA



## A-Series

- Black, White or Tri-Plex cast aluminum housing
- Low Power: 2 amps / 10 - 28v / 3w Total Draw - 200 Lumen
- High Power: .3 amps / 10 - 28v / 4w Total Draw - 400 Lumen
- Polycarbonate lens with UV/Anti-Scratch coating
- Reverse voltage protected
- 38 Series Polyester powdercoat with Alodine undercoating for long life protection
- Includes adapters for radius tube or flat surface mounts
- Includes internal or external wiring options
- Choice of a Warm, Natural or Cool White light or Red, Blue, and Green colors

Part No.	Description
RGD 480013	Black - Low Power - Warm White
RGD 480023	Black - Low Power - Natural White
RGD 480033	Black - Low Power - Cool White
RGD 480343	Black - Low Power - Amber
RGD 480043	Black - Low Power - Red
RGD 480053	Black - Low Power - Blue
RGD 480063	Black - Low Power - Green
RGD 480133	White - Low Power - Warm White
RGD 480143	White - Low Power - Natural White
RGD 480153	White - Low Power - Cool White
RGD 480323	White - Low Power - Amber
RGD 480163	White - Low Power - Red
RGD 480173	White - Low Power - Blue
RGD 480183	White - Low Power - Green
RGD 480073	Black - High Power - Warm White
RGD 480083	Black - High Power - Natural White
RGD 480093	Black - High Power - Cool White
RGD 480333	Black - High Power - Amber
RGD 480103	Black - High Power - Red
RGD 480113	Black - High Power - Blue
RGD 480123	Black - High Power - Green
RGD 480193	White - High Power - Warm White
RGD 480203	White - High Power - Natural White
RGD 480213	White - High Power - Cool White
RGD 480313	White - High Power - Amber
RGD 480223	White - High Power - Red
RGD 480233	White - High Power - Blue
RGD 480243	White - High Power - Green
RGD 480253	Tri-Plex - High Power - Warm White
RGD 480263	Tri-Plex - High Power - Natural White
RGD 480273	Tri-Plex - High Power - Cool White
RGD 480353	Tri-Plex - High Power - Amber
RGD 480283	Tri-Plex - High Power - Red
RGD 480293	Tri-Plex - High Power - Blue
RGD 480303	Tri-Plex - High Power - Green

Tri-Plex

White

Black



LED

D-Series  
Small Covers

LED

Part No.	Description
RGD 32182	Translucent
RGD 32183	Amber
RGD 32184	Blue
RGD 32185	Red
RGD 32186	White
RGD 32187	Green
RGD 32188	Smoked



## E-Series Large Covers

Part No.	Description
RGD 110913	Black 10"
RGD 120913	Black 20" (2-10" Covers)
RGD 130913	Black 30" (3-10" Covers)
RGD 140913	Black 40" (4-10" Covers)
RGD 150913	Black 50" (5-10" Covers)
RGD 110923	Clear 10"
RGD 110933	Amber 10"
RGD 110943	Blue 10"
RGD 110953	Red 10"
RGD 110963	White 10"
RGD 110973	Green 10"
RGD 110983	Smoked 10"



LED

NEED MORE LEDs?

Give us a call!

FL 1-800-432-2231

SC 1-800-788-2231

Jerry's Marine has a wide  
selection of LED lights for both  
above and below the water line.





CELEBRATING  
10 YEARS OF  
INNOVATION



Made in the U.S.A.

### SeaBlaze Quattro

LED Underwater Light



Lumitec proudly introduces SeaBlaze Quattro. Built on the shoulders of the world's most popular underwater light, SeaBlaze3, and leveraging the technology of its big brother SeaBlazeX, SeaBlaze Quattro boasts more than 2000 lumens, multi-mode output including cross fade, and a marine grade bronze housing. SeaBlaze Quattro is the new standard for high-performance value in underwater lighting.

Part No.	Description
LUM 101511	Dual Color White/Blue
LUM 101510	Spectrum Full-color RGBW



### SeaBlazeX

LED Underwater Light



The underwater light used by more top tier OEMs than any other light in the world. SeaBlazeX offers exceptional performance, unfaltering quality, and simplicity of installation and use. The bronze alloy housing has a clean low profile, with a smaller footprint than other lights in its class. Driver and control circuitry is completely self-contained and tested to rigorous military standards for EMI, transient voltages, temperature extremes, and mechanical shock and vibration. SeaBlazeX can operate above water indefinitely without damage. Available with full RGBW Spectrum Color™ for nearly infinite color output options.

Part No.	Description
LUM 101140	White, Cross Fade, White Strobe
LUM 101141	White, Blue, Dual Color White/Blue
LUM 101142	Blue, Blue Cross Fade, Blue Strobe
LUM 101143	Green, Green Cross Fade, Green Strobe
LUM 101320	Spectrum Full-color RGBW



### SeaBlaze Mini

LED Underwater Light



SeaBlaze Mini packs a surprising punch! Leveraging many of the technologies utilized in the world's most popular underwater light, the SeaBlaze3, ensuring years of trouble free service. With an actual measured output of nearly 900 lumens, there is simply no better value in underwater lighting. Available with full RGBW Spectrum Color™ (670 lumens) and all of the features and dazzling output colors of the class-leading SeaBlazeX Spectrum. SeaBlaze Mini and Mini Spectrum are perfect for smaller trailer boats, skiffs, or dinghies. Single color lights are sold as a pair.

Part No.	Description
LUM 101245	White
LUM 101246	Blue
LUM 101436	Spectrum RGBW Full-color



### Zambezi Quattro

Pontoon Boat LED  
Underwater Light



Leveraging the SeaBlaze Quattro, Zambezi Quattro is the perfect match for larger pontoon boats, aluminum skiffs, and floating docks. Choose from white/blue dual color or the vivid Spectrum output, each delivering more than 2,000 lumens and stunning color. Completely sealed with no external drivers. Self-isolating from metallic mounting surfaces to prevent galvanic corrosion. Perfect for typical transducer/accessory brackets.

Part No.	Description
LUM 101459	Dual Color White/Blue, Cross Fade
LUM 101460	Spectrum RGBW Full-color



### Zambezi Mini

Pontoon Boat LED  
Underwater Light



Perfect for smaller pontoons and skiffs, Zambezi Mini is small, easy to mount, easy on the wallet, yet packs a visual punch. Choose single color output (white or blue), or the ever popular full-color RGBW Spectrum model. Both offer a versatile 3-screw mounting footprint only about 3" in diameter.

Part No.	Description
LUM 101456	White
LUM 101457	Blue
LUM 101458	Spectrum RGBW Full-color





CELEBRATING  
10 YEARS OF  
INNOVATION



Made in the U.S.A.

## Mirage

### Flush Mount Down Lights



Lumitec's Mirage line of Down Lights represents the next generation of LED illumination. Utilizing the most efficient emitters commercially available, Mirage boasts incredible output and a profile that is among the slimmest in the industry. In field studies Mirage exceeded the output of 20w halogens by up to 300%. Equally suited to elegant salons or no-nonsense T-tops. Light fixtures are IP67 rated.

- Industry leading CRI values exceeding 90
- Exceptional thermal design allows industry leading light output – up to TWICE the output of same-class competitors
- Industry's first down light compatible with all major third party controllers, including Imtra, Cantaloupe, i2, and InterVolt
- Available in high CRI warm white, 2-color, 3-color, and 4-color
- Control colors and dimming with Lumitec's proven two wire "Timed Toggle Protocol"

Part No.	Description
LUM 113190	Glass - 4-Color (W-B-R-P)
LUM 113193	Glass - White Only
LUM 113197	Glass - Full-color Spectrum
LUM 113198	Glass - Dimmable White + Blue + Red
LUM 113199	Glass - High CRI Dimmable Warm White Only
LUM 113110	Polished - 4-Color (W-B-R-P)
LUM 113113	Polished - White Only
LUM 113117	Polished - Full-color Spectrum
LUM 113118	Polished - Dimmable White + Blue + Red
LUM 113119	Polished - High CRI Dimmable Warm White Only
LUM 113197	Polished - Full-color Spectrum
LUM 113120	White - 4-Color (W-B-R-P)
LUM 113123	White - White Only
LUM 113127	White - Full-color Spectrum
LUM 113128	White - Dimmable White + Blue + Red
LUM 113129	White - High CRI Dimmable Warm White Only



## Orbit

### Flush Mount Down Lights



Small size, amazing output, super thin profile, innovative mounting system - Lumitec's Flush Mount Down Lights stand alone. The luminaires feature weatherproof construction suitable for interior or exterior installations, ideal for salons and staterooms, as well as helm stations, flybridges and hard tops. The lights are fully sealed and IP67 compliant. Intelligent circuitry enables advanced features like dimming and multi-color control without external control modules or specialized switches. This allows boat owners to use any existing on-off switches and eliminates the need for multiple wire runs necessary for other multi-colored lights. Choose white or brushed finish and 6 different output options.

Part No.	Description
LUM 112500	Brushed - 4-Color (W-B-R-P)
LUM 112503	Brushed - White Only
LUM 112507	Brushed - Full-color Spectrum
LUM 112508	Brushed - Dimmable White + Blue + Red
LUM 112509	Brushed - High CRI Dimmable Warm White Only
LUM 112520	White - 4-Color (W-B-R-P)
LUM 112523	White - White Only
LUM 112527	White - Full-color Spectrum
LUM 112528	White - Dimmable White + Blue + Red
LUM 112529	White - High CRI Dimmable Warm White Only



## Capri 2



What do you do to improve the industry's best selling LED flood light? Add features, improve the beam pattern, and increase the output! Lumitec's Capri2 flood light does just that - new two color technology provides amazing white output, night vision-preserving red, or elegant blue output. Our exclusive DeckSweep® technology puts the light where you need it most, providing for up to twice the useable light of competitors. Fully sealed, and as with all Lumitec products, proudly designed and manufactured in the USA. Light fixtures are IP67 rated.

## Caprera 2



Part No.	Description
LUM 101099	CAPRI2 - Dual Color Flood Light - Flush Mount - White/Blue
LUM 101100	CAPRI2 - Dual Color Flood Light - Flush Mount - White/Red

Part No.	Description
LUM 101102	CAPRERA2 - Dual Color Flood Light - Bracket Mount - White/Blue
LUM 101103	CAPRERA2 - Dual Color Flood Light - Bracket Mount - White/Red







CELEBRATING  
10 YEARS OF  
INNOVATION



Made in the U.S.A.

## Touch Dome



Brilliantly designed. That is what you will think when you use Lumitec's innovative new Touch Dome. Of course the light is completely sealed and has no o-rings, baffles, or switches to wear out. But more impressively, unlike old capacitive or e-field switch technology, the Touch Dome is reliable even when wet or with gloves. Proprietary Optical Field Sense technology provides on/off, color change and even dimming. Beautifully designed, elegantly functional. Certified as Ignition protected. Light fixtures are IP67 rated

Part No.	Description
LUM 101097	Touch Dome - Stainless Bezel - Dimmable White + Dimmable Blue output
LUM 101098	Touch Dome - Stainless Bezel - Dimmable White + Dimmable Red output



## Aurora & Stainless Steel Aurora Dome Lights



Our customers told us they wanted a high quality LED replacement for the ubiquitous dome light. It had to be bright, with wide even light. They wanted a clean look, an intuitive and reliable switch, and a notable level of quality. We delivered, then added IP67 immersion protection. We then raised the bar with multiple color output options and dimming. Lumitec's Aurora Dome light stands apart.

Part No.	Description
LUM 101138	Stainless Steel – Dimmable White + Dimmable Blue output
LUM 101139	Stainless Steel – Dimmable White + Dimmable Red output

Part No.	Description
LUM 101075	Dimmable White + Dimmable Blue output
LUM 101076	Dimmable White + Dimmable Red output



## Nevis 2



With more than 1,000 integrating sphere tested lumens, the Nevis2 and NevisLT douses hard to light areas with a 180-degree spread of bright even light. The Nevis2 is the world's FIRST two-color mechanical space and compartment light with 30% more usable light than our successful original Nevis line. Available in white/red or white/blue, certified as ignition protected. Completely sealed and compatible with most PWM\*\* LED dimmers. Light fixtures are IP67 rated

Part No.	Description
LUM 101147	NEVIS2 -High Intensity Engine Room/Utility Light - Dimmable White/ Dimmable Blue
LUM 101148	NEVIS2 -High Intensity Engine Room/Utility Light - Dimmable White/ Dimmable Red

Part No.	Description
LUM 101296	NEVISLT - High Intensity Engine Room/Utility Light - White Non-Dimming



## Ibiza Engine Room Light



As beautiful as it is brilliant, you may be surprised that Ibiza is tough enough for an engine room. But it is. And it's just as bright, reliable, and easy to install as it's sibling, the wildly popular Nevis. Delivering 1,000 integrating-sphere-measured lumens and dual-color output options, Ibiza is IP67 compliant, completely sealed and compatible with most PWM LED dimmers. And like Nevis, Ibiza's carefully engineered optical system delivers a nearly perfect 180-degree beam pattern to illuminate even the farthest, darkest corners. Ignition protected. Light fixtures are IP67 rated

Part No.	Description
LUM 101520	White Non-Dimming
LUM 101521	White/Red Dimming
LUM 101522	White/Blue Dimming

Also available with a black housing (ask for details).



## PREMIER PRO

A very popular OEM line, Premier features black dials with modern white and blue graphics. When lighted, white dial grads become red and pointer lights white. These instruments feature automotive type light-piping and a fog-resistant design for outstanding readability.



62718P



62722P

### FEATURES:

- Full automotive type lighting, no “halo” around dial edges. When lit, white dial grads become red, pointer lights white.
- Black dial, white graduations/numerals (metrics in blue), white pointer staff.
- Scratch resistant curved glass lenses, with black, near-flush bezels.
- U.S. and metric scales, with ISO symbols, where appropriate.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).
- Line includes standard ignition engine synchronizer kits including module.
- Fog-Resistant Design! Complies with SAE J-1810.



### SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Engine Synchronizer Gauge:	2"	PORT-STBD.	REQUIRES "L"	TEL 84730P
Hourmeter:	2"	10,000 Hrs.	NONE REQUIRED	TEL 62719P
Oil Pressure Gauge (Electric):				
Oil Pressure 80 PSI	2"	0-80 PSI	REQUIRES "C"	TEL 62720P
Speedometer Kits:				
65 MPH (Pitot type)	3"	10-65 MPH	INCLUDES "G"	TEL 62722P
80 MPH (Pitot type)	3"	20-80 MPH	INCLUDES "G"	TEL 62723P
80 MPH (Pitot type) Head Only	3"	20-80 MPH	INCLUDES "G"	TEL 62723PH
Tachometers (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-6000 RPM	O/B ALT./COIL	TEL 62724P
Trim Gauges (Outboard, I/O):				
Evinrude/Johnson Outboards	2"	UP-DOWN	BY ENG. MFR	TEL 62726P
Honda Outboards	2"	UP-DOWN	BY ENG. MFR	TEL 63531P
Mariner/Merc/Cobra/Volvo DP, SX,				
Yamaha 2001 and on	2"	UP-DOWN	BY ENG. MFR	TEL 62727P
Suzuki 4-Stroke, 2002 to date	2"	UP-DOWN	BY ENG. MFR	TEL 62726P
Yamaha Outboards, pre 2001	2"	UP-DOWN	BY ENG. MFR	TEL 62728P
Voltmeter-12 Volt:	2"	8-18 VDC	NONE REQUIRED	TEL 62730P
Water Pressure Kit (Outboard):**				
(Each kit includes fittings and 20 feet of tubing)	2"	30 PSI	INCLUDES "WP"	TEL 62721P
Water Temp. Kit (Outboard):**				
(For all electric-start outboards)	2"	COLD-HOT	INCLUDES "J"	TEL 62748P
6 Gauge Set, Fog Free				TEL 62715P



\* **Outboard kit** - Tachometer, Speedometer (with pitot tube), Fuel Gauge (compatible with common marine senders), and Voltmeter. Matching Trim Gauges, Hourmeters and Water Pressure or Temperature Kits are available separately. (Not for diesels.)

\* **Stern drive kit** - Tachometer, Speedometer (with pitot tube), Fuel Gauge, Water Temperature Gauge, Oil Pressure Gauge (all compatible with common marine senders), and Voltmeter. Matching Trim Gauges and Hourmeters are available separately for stern drive applications. (Not for diesels.)

\* Mariner 30 & 40 HP (2-cylinder) engines require a module (Mercury P/N 17461A2) when using any of these tachometers. Not tested for non-original-equipment (aftermarket) ignition systems. Not for diesels. \*\* Adapter (P/N 61886P) is required for Yamaha.

## WHITE PREMIER PRO

Ideal for inboards, including diesels, Premier White features polished stainless steel bezels and clean white dials with modern black and blue graphics. When illuminated, black dial grads become red and pointer lights red. Automotive type light-piping and fog-resistant design combine for outstanding readability.



62551P



62561P

### FEATURES:

- Full automotive type lighting, no “halo” around dial edges. When illuminated, white dial grads become red, pointer lights white.
- White dial, black graduations/numerals (metrics in blue), red pointer staff.
- Scratch resistant curved glass lenses, with polished stainless steel near-flush bezels.
- U.S. and metric scales, with ISO symbols, where appropriate.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).
- Complies with SAE J-1810.
- Fog-Resistant\* Design!



### SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Fuel Gauge:	2"	E-1/2-F	REQUIRES "F"	TEL 62551P
Hourmeter:	2"	10,000 Hrs.	NONE REQUIRED	TEL 62538P
Oil Pressure Gauges (Electric):				
Oil Pressure 100 PSI	2"	0-100 PSI	REQUIRES "C"	TEL 62543P
Speedometer Kits:				
65 MPH (Pitot type)	3"	10-65 MPH	INCLUDES "G"	TEL 62546P
65 MPH (Pitot type) Head Only	3"	10-65 MPH	INCLUDES "G"	TEL 62546PH
80 MPH (Pitot type)	3"	20-80 MPH	INCLUDES "G"	TEL 65626SSFP
Tachometer/Hourmeter (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 62565P
Tachometers (Electric):				
Diesel Alternator**	3"	0-4000 RPM	SEE "T"	TEL 62547P
Diesel Magnetic Pickup, 90-180 Teeth	3"	0-4000 RPM	REQUIRES "B"	TEL 62548P
Trim Gauges (Outboard, I/O):				
Evinrude/Johnson Outboards	2"	UP-DOWN	BY ENG. MFR	TEL 62550P
Mariner/Merc/Cobra/Volvo DP, SX,				
Yamaha 2001 and on	2"	UP-DOWN	BY ENG. MFR	TEL 62549P
Suzuki 4-Stroke, 2002 to date	2"	UP-DOWN	BY ENG. MFR	TEL 62550P
Voltmeters-12 & 24 Volt:				
24 Volt System	2"	20-32 VDC	NONE REQ'D	TEL 62539P
Water Temp. Gauge (I/O, I/B):	2"	120-240°F	REQUIRES "D"	TEL 62540P
Water Pressure Kit, O/B	2"	40 PSI		TEL 67657P

\* Mariner 30 & 40 HP (2-cylinder) engines require a module (Mercury P/N 17461A2) when using any of these tachometers. Not tested for non-original-equipment (aftermarket) ignition systems. Not for diesels. \*\* Adapter (P/N 61886P) is required for Yamaha.



## DRIFTWOOD

Driftwood features light gray dials, clean black numerals and a black pointer hub with white staff. These instruments lend a sophisticated look to any dash. Combination blue through-dial and white perimeter lighting are included for excellent readability at night.



61549P



61547P

### FEATURES:

- Light gray dial, black graduations/numerals, white pointer staff.
- Scratch resistant curved glass lenses, with black, near-flush bezels.
- White perimeter and blue thru-dial lighting.
- U.S. and metric scales, with ISO symbols, where appropriate.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).



### SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Fuel Gauge:	2"	E-1/2-F	REQUIRES "F"	TEL 61549P
Hourmeter:	2"	10,000 Hrs.	NONE REQ'D	TEL 62952P
Oil Pressure Gauge (Electric):	2"	0-80 PSI	REQUIRES "C"	TEL 61550P
Speedometer Kits:				
50 MPH (Pitot type)	3"	10-50 MPH	INCLUDES "G"	TEL 61547P
65 MPH (Pitot type)	3"	10-65 MPH	INCLUDES "G"	TEL 62372P
80 MPH (Pitot type)	3"	20-80 MPH	INCLUDES "G"	TEL 63516P
Tachometer (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 61546P
Systems Check – Evinrude/Johnson	3"	0-7000 RPM	O/B ALT./COIL	TEL 62698P
Tachometer/Hourmeter (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 63941P
Trim Gauges (Outboard, I/O):				
Evinrude/Johnson Outboard	2"	UP-DOWN	BY ENG. MFR.	TEL 62373P
Honda	2"	UP-DOWN	BY ENG. MFR.	TEL 62375P
Mariner/Merc/Cobra/Volvo DP, SX,				
Yamaha 2001 and on	2"	UP-DOWN	BY ENG. MFR.	TEL 61551P
Suzuki 4-Stroke, 2002 to date	2"	UP-DOWN	BY ENG. MFR.	TEL 62373P
Voltmeter-12 Volt:	2"	8-18 VDC	NONE REQ'D	TEL 61548P
Water Pressure Kit (Outboard):**				
(Kit includes fittings/20 feet of tubing)	2"	30 PSI	INCLUDES "WP"	TEL 62960P
Water Temp. Gauge (I/O, I/B):	2"	120-240°F	REQUIRES "D"	TEL 61552P

\* Mariner 30 & 40 HP (2-cylinder) engines require a module (Mercury P/N 17461A2) when using any of these tachometers. Not tested for non-original-equipment (aftermarket) ignition systems. Not for diesels. \*\* Adapter (P/N 61886P) is required for Yamaha.

## LIDO

Hottest selling white dial line!  
A comprehensive family of instruments for most engine types, Lido features crisp white dials and fire-orange pointer tips. Red through-dial and white perimeter lighting provide great night readability. Excellent inboard coverage with engine sync gauges\* and diesel alternator and magnetic pickup tachometers\*\*.

\*Module required, not included with gauge.

\*\*Magnetic Pickup sender available separately.



65496P



65129P

## FEATURES:

- White dial, black numerals, black pointer with fire-orange tip.
- Scratch resistant curved glass lenses, with polished stainless steel, near-flush bezels.
- U.S. and metric scales, with ISO symbols.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).
- White perimeter and red thru-dial lighting.
- Comprehensive line includes tachometers for diesel alternator and magnetic pickup PLUS synchronizer gauge (Suitable for gas or diesel engines with appropriate module. Module required, not included with gauge).



## SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Engine Sync (gauge only)	2"	PORT-STBD.	REQUIRES "L"	TEL 65495P
Fuel Gauge:	2"	E-1/2-F	REQUIRES "F"	TEL 65496P
Hourmeter:	2"	10,000 Hrs.	NONE REQ'D	TEL 65497P
Oil Pressure Gauges (Electric):				
Oil Pressure 80 PSI	2"	0-80 PSI	REQUIRES "C"	TEL 65501P
Oil Pressure 100 PSI	2"	0-100 PSI	REQUIRES "C"	TEL 65498P
Speedometer Kits:				
Low Speed Range (Pitot type)	3"	5-35 MPH	INCLUDES "G"	TEL 61751P
Low Speed Range (Pitot type) Head Only	3"	5-35 MPH	INCLUDES "G"	TEL 61751PH
50 MPH (Pitot type)	3"	10-50 MPH	INCLUDES "G"	TEL 61752P
50 MPH (Pitot type) Head Only	3"	10-50 MPH	INCLUDES "G"	TEL 61752PH
65 MPH (Pitot type)	3"	10-65 MPH	INCLUDES "G"	TEL 65510P
80 MPH (Pitot type)	3"	20-80 MPH	INCLUDES "G"	TEL 65670P
80 MPH (Pitot type) Head Only	3"	20-80 MPH	INCLUDES "G"	TEL 65670PH
Systems Check – Evinrude/Johnson:	2"	SYSTEM DATA	BY ENG. MFR.	TEL 65206SSP
Tachometer (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 65693P
Systems Check – Evinrude/Johnson	3"	0-7000 RPM	O/B ALT./COIL	TEL 64477FP
Tachometer/Hourmeters (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 65129P
Diesel Alternator**	3"	0-4000 RPM	SEE "T"	TEL 65671P
Diesel Magnetic Pickup, 90-180 Teeth	3"	0-4000 RPM	REQUIRES "B"	TEL 65692P
Trim Gauges (Outboard, I/O):				
Evinrude/Johnson Outboard	2"	UP-DOWN	BY ENG. MFR.	TEL 65502P
Honda Outboards	2"	UP-DOWN	BY ENG. MFR.	TEL 65503P
Mariner/Merc/Cobra/Volvo DP, SX,				
Yamaha 2001, and on	2"	UP-DOWN	BY ENG. MFR.	TEL 65504P
Suzuki 4-Stroke, 2002 to date	2"	UP-DOWN	BY ENG. MFR.	TEL 65502P
Yamaha Outboards, pre 2001	2"	UP-DOWN	BY ENG. MFR.	TEL 65505P
Voltmeter-12 Volt:	2"	8-18 VDC	NONE REQ'D	TEL 65506P
Warning Light Gauge – Suzuki:	2"	SYSTEM DATA	BY ENG. MFR.	TEL 65669SSP
Water Pressure Kit (Outboard):***				
Each kit includes fittings and 20 feet of tubing)	2"	30 PSI	INCLUDES "WP"	TEL 65507P
Water Temp. Kit (Outboard):***				
(For all electric-start outboards)	2"	COLD-HOT	INCLUDES "J"	TEL 65508P
Water Temp. Gauge (I/O, I/B):	2"	120-240°F	REQUIRES "D"	TEL 65509P

\* Mariner 30 & 40 HP (2-cylinder) engines require a module (Mercury P/N 17461A2) when using any of these tachometers. Not tested for non-original-equipment (aftermarket) ignition systems. Not for diesels. \*\* Adapter (P/N 61886P) is required for Yamaha.

## SAHARA

With crisp tan dials and fire-orange pointer tip, Sahara gives any dash the elegant OEM look. Combined red through-dial and white perimeter lighting provide great night readability. These aren't merely "close enough" — they're the real thing!



61908P



69704P

### FEATURES:

- Tan dial and retainer, black graduations and numerals, black pointer with fire-orange tip.
- Scratch resistant curved glass lenses, with black matte, near-flush bezels.
- White perimeter and red thru-dial lighting.
- U.S. and metric scales, with ISO symbols, where appropriate.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).



### SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Clock-Quartz:	2"	12 Hour	NONE REQ'D	TEL 61166P
Fuel Gauge:	2"	E-1/2-F	REQUIRES "F"	TEL 59707P
Oil Pressure Gauge (Electric):	2"	0-80 PSI	REQUIRES "C"	TEL 59705P
Speedometer Kits:				
Low Speed Range (Pitot type)	3"	5-35 MPH	INCLUDES "G"	TEL 61826P
Low Speed Range (Pitot type) Head Only	3"	5-35 MPH	INCLUDES "G"	TEL 61826PH
50 MPH (Pitot type)	3"	10-50 MPH	INCLUDES "G"	TEL 61163P
65 MPH (Pitot type)	3"	10-65 MPH	INCLUDES "G"	TEL 59704P
65 MPH (Pitot type) Head Only	3"	10-65 MPH	INCLUDES "G"	TEL 59704PH
80 MPH (Pitot type)	3"	20-80 MPH	INCLUDES "G"	TEL 63076P
80 MPH (Pitot type) Head Only	3"	20-80 MPH	INCLUDES "G"	TEL 63076PH
Systems Check – Evinrude/Johnson:	2"	SYSTEM DATA	BY ENG. MFR.	TEL 66956P
Tachometer (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 59703P
Systems Check – Evinrude/Johnson	3"	0-7000 RPM	O/B ALT./COIL	TEL 61901P
Trim Gauges (Outboard, I/O):				
Evinrude/Johnson Outboard	2"	UP-DOWN	BY ENG. MFR.	TEL 61908P
Honda Outboards	2"	UP-DOWN	BY ENG. MFR.	TEL 62369P
Mariner/Merc/Cobra/Volvo DP, SX, Yamaha 2001 and on	2"	UP-DOWN	BY ENG. MFR.	TEL 59709P
Suzuki 4-Stroke, 2002 to date	2"	UP-DOWN	BY ENG. MFR.	TEL 61908P
Voltmeter-12 Volt:	2"	8-18 VDC	NONE REQ'D	TEL 59708P
Water Pressure Kits (Outboard):** (Each kit includes fittings and 20 feet of tubing)	2"	15 PSI	INCLUDES "WP"	TEL 61902P
Water Temp. Gauge (I/O, I/B):	2"	120-240°F	REQUIRES "D"	TEL 59706P
6 Gauge Set				TEL 65485P



\* **Outboard kit** - Tachometer, Speedometer (with pitot tube), Fuel Gauge (compatible with common marine senders), and Voltmeter. Matching Trim Gauges, Hourmeters and Water Pressure or Temperature Kits are available separately. (Not for diesels.)

\* **Sterndrive kit** - Tachometer, Speedometer (with pitot tube), Fuel Gauge, Water Temperature Gauge, Oil Pressure Gauge (all compatible with common marine senders), and Voltmeter. Matching Trim Gauges and Hourmeters are available separately for stern drive applications. (Not for diesels.)

\* Mariner 30 & 40 HP (2-cylinder) engines require a module (Mercury P/N 17461A2) when using any of these tachometers. Not tested for non-original-equipment (aftermarket) ignition systems. Not for diesels. \*\* Adapter (P/N 61886P) is required for Yamaha.



## STERLING

Ideal for outboards and stern drives! With stainless steel bezels, brushed aluminum dials and black pointers, Sterling instruments give a bright, gleaming look to any dash. Perimeter lighting provided for night operation.



63477P



63475P

### FEATURES:

- Brushed aluminum dial, black graduations/numerals, black pointer.
- Scratch resistant curved glass lenses, with polished stainless steel, near-flush bezels.
- Perimeter lighting.
- U.S. and metric scales, with ISO symbols, where appropriate.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).



### SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Fuel Gauge:	2"	E-1/2-F	REQUIRES "F"	TEL 63477P
Oil Pressure Gauge (Electric):	2"	0-80 PSI	REQUIRES "C"	TEL 63479P
Speedometer Kits:				
65 MPH (Pitot type)	3"	10-65 MPH	INCLUDES "G"	TEL 63475P
65 MPH (Pitot type) Head Only	3"	10-65 MPH	INCLUDES "G"	TEL 63475PH
80 MPH (Pitot type)	3"	20-80 MPH	INCLUDES "G"	TEL 63476P
80 MPH (Pitot type) Head Only	3"	20-80 MPH	INCLUDES "G"	TEL 63476PH
Systems Check – Evinrude/Johnson:	2"	SYSTEM DATA	BY ENG. MFR.	TEL 63585P
Tachometer (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 63473P
Tachometer/Hourmeter (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 63474P
Trim Gauges (Outboard, I/O):				
Evinrude/Johnson Outboard	2"	UP-DOWN	BY ENG. MFR.	TEL 63483P
Honda	2"	UP-DOWN	BY ENG. MFR.	TEL 64475P
Mariner/Merc/Cobra/Volvo DP, SX,				
Yamaha 2001 and on	2"	UP-DOWN	BY ENG. MFR.	TEL 63482P
Suzuki 4-Stroke, 2002 to date	2"	UP-DOWN	BY ENG. MFR.	TEL 63483P
Voltmeter-12 Volt:	2"	8-18 VDC	NONE REQ'D	TEL 63478P
Water Pressure Kit (Outboard):**				
(Kit includes fittings/20 feet of tubing)	2"	30 PSI	INCLUDES "WP"	TEL 63481P
Water Temp. Gauge (I/O, I/B):	2"	120-240°F	REQUIRES "D"	TEL 63480P

\* Mariner 30 & 40 HP (2-cylinder) engines require a module (Mercury P/N 17461A2) when using any of these tachometers. Not tested for non-original-equipment (aftermarket) ignition systems. Not for diesels. \*\* Adapter (P/N 61886P) is required for Yamaha.

## AMEGA

Hottest selling black dial line!  
 Amega® Domed has clean-looking black dials with white and red graphics plus through-dial and perimeter lighting for great readability. Amega has been very popular, available in several styles since its debut in 1986.



57904P



57900P

### FEATURES:

- Black dial, red graduations, white numerals, vivid white pointer staff.
- Scratch resistant curved glass lenses, with black, near-flush bezels.
- U.S. and metric scales, with ISO symbols, where appropriate.
- Perimeter and thru-dial lighting.
- A comprehensive array of outboard water pressure instrument kits.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).



### SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Fuel Gauge:	2"	E-1/2-F	REQUIRES "F"	TEL 57902P
Hourmeter:	2"	10,000 Hrs.	NONE REQ'D	TEL 84760P
Oil Pressure Gauges (Electric):				
Oil Pressure 80 PSI	2"	0-80 PSI	REQUIRES "C"	TEL 57903P
Oil Pressure 100 PSI	2"	0-100 PSI	REQUIRES "C"	TEL 57929P
Speedometer Kits:				
Low Speed Range (Pitot type)	3"	5-35 MPH	INCLUDES "G"	TEL 58342P
Low Speed Range (Pitot type) Head Only	3"	5-35 MPH	INCLUDES "G"	TEL 58342PH
50 MPH (Pitot type)	3"	10-50 MPH	INCLUDES "G"	TEL 57898P
50 MPH (Pitot type) Head Only	3"	10-50 MPH	INCLUDES "G"	TEL 57898PH
65 MPH (Pitot type)	3"	10-65 MPH	INCLUDES "G"	TEL 57900P
65 MPH (Pitot type) Head Only	3"	10-65 MPH	INCLUDES "G"	TEL 57900PH
80 MPH (Pitot type)	3"	20-80 MPH	INCLUDES "G"	TEL 57899P
80 MPH (Pitot type) Head Only	3"	20-80 MPH	INCLUDES "G"	TEL 57899PH
Systems Check – Evinrude/Johnson:	2"	SYSTEM DATA	BY ENG. MFR.	TEL 65205P
Tachometer (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-7000 RPM	O/B ALT./COIL	TEL 58255P
Systems Check – Evinrude/Johnson	3"	0-7000 RPM	O/B ALT./COIL	TEL 58935P
Tachometer/Hourmeter (Electric):				
O/B & 4-Stroke Gas Engines*	3"	0-6000 RPM	O/B ALT./COIL	TEL 57897P
Trim Gauges (Outboard, I/O):				
Evinrude/Johnson Outboard	2"	UP-DOWN	BY ENG. MFR.	TEL 58431P
Mariner/Merc/Cobra/Volvo DP, SX,	2"	UP-DOWN	BY ENG. MFR.	TEL 57905P
Yamaha 2001 and on	2"	UP-DOWN	BY ENG. MFR.	TEL 61748P
Yamaha	2"	UP-DOWN	BY ENG. MFR.	TEL 58431P
Suzuki 4-Stroke, 2002 to date	2"	UP-DOWN	BY ENG. MFR.	TEL 57901P
Voltmeter-12 Volt:	2"	8-18 VDC	NONE REQ'D	TEL 57901P
Warning Light Gauge – Suzuki:	2"	SYSTEM DATA	BY ENG. MFR.	TEL 65668BMDP
Water Pressure Kits (Outboard):** (Each kit includes fittings and 20 feet of tubing)	2"	30 PSI	INCLUDES "WP"	TEL 61238P
Water Temp. Kit (Outboard):** (For all electric-start outboards)	2"	100-220°F	INCLUDES "J"	TEL 58862P
Water Temp. Gauge (I/O, I/B):	2"	120-240°F	REQUIRES "D"	TEL 57904P

\* Mariner 30 & 40 HP (2-cylinder) engines require a module (Mercury P/N 17461A2) when using any of these tachometers. Not tested for non-original-equipment (aftermarket) ignition systems. Not for diesels. \*\* Adapter (P/N 61886P) is required for Yamaha.

## ARCTIC

Stylish white bezel design, black on white graphics, accurate and reliable, these tough instruments look good on all types of boats. Domed glass sheds water and resists scratching.



69383P



68371P

## FEATURES:

- Instruments available for most outboards, stern drives and gasoline-powered inboards.
- Scratch-resistant domed glass lenses.
- Enhanced illumination: through-dial and perimeter lighting for excellent readability at night.
- Low-range speedometers.
- U.S. and metric scales, with ISO symbols, where appropriate.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).



## SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Ammeter	2"	60-0-60	F	TEL 68364P
Fuel Gauge	2"	(E-F)	N/R	TEL 68365P
Hourmeter	2"	10,000 hrs		TEL 68366P
Eng Oil Pressure gauge 0-80 PSI	2"	0-80 PSI	C	TEL 68367P
Water Pressure Kits (Outboard): (Each kit includes fittings and 20 feet of tubing).	2"	0-40 PSI	WP(included)	TEL 68369P
Speedo Kit 0-35 mph (inc Pitot and Hose)	3"	5-35 MPH	G (included)	TEL 68370P
Speedo Kit 0-65 mph (inc Pitot and Hose)	3"	10-65 MPH	G (included)	TEL 68371P
Speedo Kit 0-80 mph (inc Pitot and Hose)	3"	20-80 MPH	G (included)	TEL 68372P
Tachometer 0-4000 RPM Diesel Alt	3"	0-4000 RPM	ALTERNATOR	TEL 68373P
Tachometer 0-7000 RPM	3"	0-7000 RPM	O/B Alt or Coil	TEL 68374P
Tach/Hourmeter 0-7000 RPM Petrol/Gas	3"	0-7000 RPM	O/B Alt or Coil	TEL 68375P
I/O, I/B Water Temp Gauge	2"	120-240°F	D	TEL 68376P
Outboard Water Temp Kit (Cold-Hot) - includes "J"	2"	100-220°F	J (included)	TEL 68377P
Trim, Evinrude/Johnson O/B	2"	UP-DOWN	Eng Mfr supply	TEL 68378P
Trim, Honda	2"	UP-DOWN	Eng Mfr supply	TEL 68379P
Trim, Mariner/Merc, Yamaha 2001	2"	UP-DOWN	Eng Mfr supply	TEL 68380P
Trim, Yamaha Outboards, pre 2001	2"	UP-DOWN	Eng Mfr supply	TEL 68381P
12v Voltmeter, 8-18 Volts	2"	8-18 VDC	N/R	TEL 68383P
12 Battery Condition Indicator	2"		N/R	TEL 68384P
System Check - Evinrude/Johnson			Eng Mfr supply	TEL 68385P
Instrument Set "OUTBOARD"	4 Gauge set			TEL 68387P
Instrument Set "INBOARD/STERNDRIVE"	6 Gauge set			TEL 68388P



\* **Outboard kit** - Tachometer, Speedometer (with pitot tube), Fuel Gauge (compatible with common marine senders), and Voltmeter. Matching Trim Gauges, Hourmeters and Water Pressure or Temperature Kits are available separately. (Not for diesels.)

\* **Sterndrive kit** - Tachometer, Speedometer (with pitot tube), Fuel Gauge, Water Temperature Gauge, Oil Pressure Gauge (all compatible with common marine senders), and Voltmeter. Matching Trim Gauges and Hourmeters are available separately for stern drive applications. (Not for diesels.)



## ECLIPSE

Smart white and blue graphics on a black dial background, these very low profile bezels follow the curve of the lense to eliminate water trapping. Design with domed glass sheds water and resists scratching.



68390P



68397P

### FEATURES:

- Instruments available for most outboards, stern drives and gasoline-powered inboards.
- Scratch-resistant domed glass lenses.
- Perimeter lighting for excellent readability at night.
- U.S. and metric scales, with ISO symbols, where appropriate.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).



### SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Ammeter	2"	60-0-60	F	TEL 68389P
Fuel Gauge	2"	(E-F)	N/R	TEL 68390P
Hourmeter	2"	10,000 hrs		TEL 68391P
Eng Oil Pressure gauge 0-80 PSI	2"	0-80 PSI	C	TEL 68392P
Eng Oil Pressure gauge 0-100 PSI	2"	0-100 PSI	C	TEL 68393P
Water Pressure Kits (Outboard): (Each kit includes fittings and 20 feet of tubing).	2"	0-40 PSI	WP (included)	TEL 68394P
Speedo Kit 0-35 mph (inc Pitot and Hose)	3"	5-35 MPH	G (included)	TEL 68395P
Speedo Kit 0-65 mph (inc Pitot and Hose)	3"	10-65 MPH	G (included)	TEL 68396P
Speedo Kit 0-80 mph (inc Pitot and Hose)	3"	20-80 MPH	G (included)	TEL 68397P
Tachometer 0-4000 RPM Diesel Alt	3"	0-4000 RPM	ALTERNATOR	TEL 68398P
Tachometer 0-7000 RPM	3"	0-7000 RPM	O/B Alt or Coil	TEL 68399P
Tach/Hourmeter 0-7000 RPM Petrol/Gas	3"	0-7000 RPM	O/B Alt or Coil	TEL 68400P
I/O, I/B Water Temp Gauge	2"	120-240°F	D	TEL 68401P
Outboard Water Temp Kit (Cold-Hot) - includes "J"	2"	100-220°F	J (included)	TEL 68402P
Trim, Evinrude/Johnson O/B	2"	UP-DOWN	Eng Mfr supply	TEL 68403P
Trim, Honda	2"	UP-DOWN	Eng Mfr supply	TEL 68404P
Trim, Mariner/Merc, Yamaha 2001	2"	UP-DOWN	Eng Mfr supply	TEL 68405P
Trim, Yamaha Outboards, pre 2001	2"	UP-DOWN	Eng Mfr supply	TEL 68406P
12v Voltmeter, 8-18 Volts	2"	8-18 VDC	N/R	TEL 68408P
12 Battery Condition Indicator	2"		N/R	TEL 68409P
System Check - Evinrude/Johnson	2"		Eng Mfr supply	TEL 68410P
System Check - Suzuki	2"		Eng Mfr supply	TEL 68411P
Instrument Set "OUTBOARD"	4 Gauge set			TEL 68412P
Instrument Set "INBOARD/STERNDRIVE"	6 Gauge set			TEL 68413P



\* **Outboard kit** - Tachometer, Speedometer (with pitot tube), Fuel Gauge (compatible with common marine senders), and Voltmeter. Matching Trim Gauges, Hourmeters and Water Pressure or Temperature Kits are available separately. (Not for diesels.)

\* **Sterndrive kit** - Tachometer, Speedometer (with pitot tube), Fuel Gauge, Water Temperature Gauge, Oil Pressure Gauge (all compatible with common marine senders), and Voltmeter. Matching Trim Gauges and Hourmeters are available separately for stern drive applications. (Not for diesels.)

## HEAVY DUTY

A classic line for inboards including diesels, Heavy Duty includes mechanical water temperature and oil pressure gauges, ammeters, engine sync gauges\* and a range of diesel tachometers, including a programmable tach/hourmeter.

\*Module required, not included with gauge.



80150P



80514P

### FEATURES:

- Classic white graphics and pointer on deep black faces.
- Low-profile polished stainless steel bezels.
- Perimeter lighting and scratch resistant glass lenses.
- Tachometers for diesels available.
- Several temperature and mechanical oil pressure gauges available.
- Programmable tach/hourmeter offered.
- Ideal replacement for Stewart-Warner® "Deluxe" instruments.
- Optional add-on square bezels for modular appearance (See Gauge Accessories for details).



### SELECTION GUIDE:

GAUGE DESCRIPTION	SIZE	DIAL RANGE	SENDER CODE	PART NUMBER
Ammeters:				
Direct Reading 40 Amp Range	2"	40-0-40A	NONE REQ'D.	TEL 80712P
Direct Reading 60 Amp Range	2"	60-0-60A	NONE REQ'D.	TEL 80710P
Engine Synchronizer Gauge:	2"	Port-Starboard	REQUIRES "L"	TEL 80730P
Fuel Gauge:	2"	E-1/2-F	REQUIRES "F"	TEL 80150P
Fuel Gauge, Nylon, 24 Volt	2"			TEL 67346P
Hourmeter:	2"	10,000 Hrs.	NONE REQ'D.	TEL 82760P
Oil Pressure Gauges (Electric):				
Oil Pressure 80 PSI	2"	0-80 PSI	REQUIRES "C"	TEL 80180P
Oil Pressure 100 PSI	2"	0-100 PSI	REQUIRES "C"	TEL 80181P
Oil Pressure 100 PSI, Nylon, 24 Volt	2"	0-100 PSI	REQUIRES "C"	TEL 67353P
Oil Pressure Gauge (Mechanical, 1/8" NPT connection):				
Oil Pressure 100 PSI****	2"	0-100 PSI	****	TEL 82380P
Oil Temperature Gauge (Electric):				
Oil Temperature 320°F	2"	140-320° F	REQUIRES "E"	TEL 80596P
Speedometer Kit:				
60 MPH (Pitot Type)	3"	10-60 MPH	INCLUDES "G"	TEL 80514P
60 MPH (Pitot Type) Head Only	3"	10-60 MPH	INCLUDES "G"	TEL 80514PH
Tachometers (Electric):				
Diesel Alternator**	3"	0-3500 RPM	SEE "T"	TEL 82302P
Diesel Magnetic Pickup, 90-180 Teeth	3"	0-3500 RPM	REQUIRES "B"	TEL 82303P
Diesel Signaflex ***	3"	0-3500 RPM	REQUIRES "A"	TEL 82301P
O/B & 4-Stroke Gas Engines*	3"	0-6000 RPM	O/B ALT./COIL	TEL 82288P
Tachometer/Hourmeter (Electric, Programmable):				
Diesel, Low Frequency, 133-1248 HZ	3"	0-3500 RPM	"A", "B", OR "T"	TEL 82430P
Water Temp. Gauge (Electric):				
Water Temp 240°F	2"	120-240°F		TEL 80590P
Water Temp 280°F, Nylon	2"	100-280		TEL 80593P
Water Temp. Gauges (Mechanical):				
Water Temp 265°F, with 72" Tube	2"	100-265° F	INCLUDES "Q"	TEL 82418P
Voltmeters-12 & 24 Volt:				
12 Volt System	2"	10-16 VDC	NONE REQ'D.	TEL 80134P
24 Volt System	2"	20-32 VDC	NONE REQ'D.	TEL 80131P
Vacuum Gauge, Mechanical, Nylon	2"	0-30 Hg.		TEL 82410P

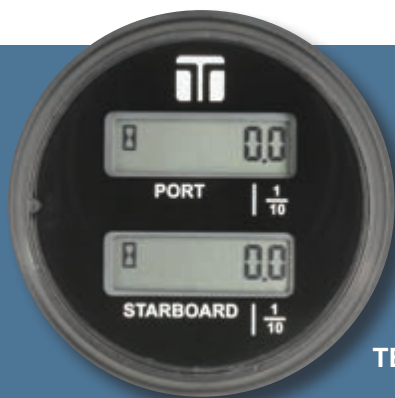
\* Mariner 30 & 40 HP (2-cylinder) engines require a module (Mercury P/N 17461A2) when using any of these tachometers. Not tested for non-original-equipment (aftermarket) ignition systems. Not for diesels.

\*\* May require alternator tap

\*\*\* Signaflex senders and drive tips are for domestic diesel engines only (not for Lehman, Renault, Volvo, Yanmar, etc.)

\*\*\*\* Use suitable hose or tubing. NOT available from SeaStar Solutions.

## GAUGE ACCESSORIES



TEL 67281P

TEL 59677P  
Box of 12

DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
Accessory, Gauge Blank	TEL 10860	Shunt, 60-0-60	TEL 56246P
Accessory, Fuel Sender Gasket	TEL 64082	Accessory, Pitot tubing, 30-80 mph, 100'	TEL 56353P
Accessory, Eng. Synch Harness	TEL 1471175	Sender, Fuel, Kit, w/Gauge, 4-24" Tank	TEL 56948P
Eng. Synch Module, Diesel Alternator	TEL 1504877	Hourmeter, Round	TEL 56966P
Eng. Synch Module,		Hourmeter, Rect	TEL 56967P
Diesel Mag. P.U., 159 Teeth	TEL 1507574	Pitot, 30-80 mph Speedometers	TEL 56973P
Mag. Prox. Sender	TEL 1507678P	Accessory, Pack O'Pitots	TEL 59677P
Eng Synch Module, 4-Cycle Gas	TEL 1508370P	Accessory, Dropping Resistor,	
Accessory, Bulb & Socket Kit	TEL 1827871P	24-12V, 2" Gauges	TEL 6219371P
Sender, Temp, Sgl Sta, 140-320F,		Dual Hourmeter - LCD	TEL 67281P
1/2" NPT	TEL 52320S002	Accessory, Pitot Hose Kit,	
Sender, Temp, Sgl Sta, 100-240F,		25' + Mnting Hdw.	TEL 67437P
3/8" NPT	TEL 52320S009	Sender, Fuel, 4-24" tankdepth	TEL 90424P
Sender, Temp, Sgl Sta, 100-280F,		Accessory, Lamp, Wedge Base, 24 volt	TEL 40102E007
3/8" NPT	TEL 52320S026	Accessory, Fuse Holder, Panel Mount	TEL IA17537
Accessory, Drive Tang - .104 Square	TEL 52776P	Bracket, O/B Temp Sender	TEL IA55009
Accessory, Ski/Elect. Speedo		Accessory, Drive Tip - .187 Diameter	TEL IA59335
Sender Complete	TEL 55907P	Accessory, Aircraft Bezel, 2"	TEL IA65476





Perimeter Lighted, White Dial with Blue & Black Graphics, Polished Stainless Steel Bezel, Black Pointer, Domed Glass Lens

GPS Speedometer



Instrument	Dial Range	Description	Sender	Size	Part No.
<b>Tachometer</b>	6000 RPM	For all 4, 6, & 8 cylinder inboard & I/O gas engines	Not Req'd.	4"	FAR 33807
	7000 RPM	Universal for all outboard engines (4,6,8,10,12, & 20 pole)	Not Req'd.	4"	FAR 33817
	4000 RPM	Diesel. Magnetic flywheel pickup	Not Req'd.	4"	FAR 33818
<b>Tach / Hourmeter</b>	6000 RPM	For all 4, 6, & 8 cylinder inboard & 1/0 gas engines	Not Req'd.	4"	FAR 33832
Integral Electronic	7000 RPM	Universal for all outboard engines (4,6,8,10,12, & 20 pole)	Not Req'd.	4"	FAR 33840
LCD Hourmeter	4000 RPM	Diesel Magnetic flywheel pickup	Not Req'd.	4"	FAR 33841
<b>Tach + System Check</b>	7000 RPM	Operator Warning System for '96 & newer electric start	OMC	4"	FAR 33850
Warning System		OMC outboards (Johnson & Evinrude)	System Check		
<b>Speedometer</b>	35 MPH	Speedometer	Requires pitot	4"	FAR 33810
	60 MPH	Speedometer	tube or connection	4"	FAR 33811
	80 MPH	Speedometer	to lower drive unit	4"	FAR 33819
<b>Pitot Kit</b>		Universal speedometer pickup tube kit with hardware			FAR 91109
		Same as above with 20' of tubing			FAR 91106
<b>Synchronizer</b>		All twin gas & diesel inboard, 1/0 & outboard engines	Not Req'd.	4"	FAR 33801
<b>Ammeter</b>	60 - 0 - 60	Indicates electrical charge / discharge rate	Not Req'd.	2"	FAR 13831
<b>Clock</b>		Quartz analog clock	Not Req'd.	2"	FAR 13891
<b>Cylinder Head Temp</b>	60 - 220° F	All water cooled outboard motors.	Included	2"	FAR 13806
Gauge Kit					
<b>Fuel Level Gauge</b>	E - 1/2 - F	Fuel Level Gauge	American	2"	FAR 13801
<b>Hourmeter</b>	10,000 Hours	Elapsed time in hours/tenths (12-32 volt) not illuminated	Not Req'd.	2"	FAR 13813
<b>Oil Pressure Gauge</b>	80 PSI	Oil Pressure Gauge	American	2"	FAR 13802
<b>Trim Gauge</b>	Up - Down	Mercury & Mariner outboards, MerCruiser, Volvo DP, '96 & newer Volvo & Yamaha EST stern drives.	Requires	2"	FAR 13807
		OMC outboards (Johnson & Evinrude)	sending unit	2"	FAR 13809
		OMC Cobra & Volvo SX stern drives	on outboard	2"	FAR 13808
<b>Voltmeter</b>	10 - 16 Volt	For all 12 volt electrical systems	Not Req'd.	2"	FAR 13805
<b>Water Press Gauge Kit</b>	30 PSI	All water cooled outboard & 1/0 engines.	Not Req'd.	2"	FAR 13812
<b>Water Temp Gauge</b>	100 - 250° F	Water Temp Gauge	American	2"	FAR 13804
<b>Gauge Specifications</b>	12 volt, negative ground, internally illuminated unless otherwise noted				
<b>Sending Unit Information</b>	American requires standard American or see SeaStar Solutions Sending Units				
<b>Cutouts</b>					
	4" Gauge = 3-12/32"				
	2" Gauge = 2-1/8"				

White <b>GPS Speedometer</b>	60 MPH	Premium LED back-lit dials. No external GPS antenna required. Speed Accuracy of +/- 1 MPH. Ideal replacement for speed sensing devices. 4" - Hole size: 3.375" (85mm). Stainless Steel.	4"	FAR 33826
------------------------------	--------	---	----	-----------

Part No.	Description
FAR SD0047	Beede Magnetic Sender for Tach Rev Counter
FAR HW0197	Connection Plug for Beede Gauge and Sender



### Chesapeake Stainless Steel White Combination Gauge Four in One Gauge



Faria's® 4" space saving combination gauges are available with style matched tachometers, speedometers and accessories. Fuel, Volts, Water Temperature & Oil Pressure.  
4" Gauge = 3-12/32" Cutout.

**Part No.**  
FAR 33851

### Chesapeake Stainless Steel White Box Sets



**6 Gauges Inboard or I/O** 6000 RPM Tach, 60 MPH Speedometer with Pitot & Tube, Fuel & Volt Meter, 80# Oil Pressure & Water Temperature.

**Part No.**  
FAR KTF001



**4 Gauges Outboard** 7000 RPM Tach, 60 MPH Speedometer with Pitot & Tube, Fuel & Volt Meter.

**Part No.**  
FAR KTF002

Perimeter Lighted, Black Dial with Blue & White Graphics, Polished Stainless Steel Bezel, White Pointer, Domed Glass Lens

GPS Speedometer



Instrument	Dial Range	Description	Sender	Size	Part No.
Tachometer	6000 RPM	For all 4, 6, & 8 cylinder inboard & 110 gas engines	Not Req'd.	4"	FAR 33710
Tach Hourmeter	6000 RPM	For all 4, 6, & 8 cylinder inboard & 1/0 gas engines	Not Req'd.	4"	FAR 33732
Integral Electronic LCD Hourmeter					
Speedometer	4000 RPM	Diesel Magnetic flywheel pickup	Not Req'd.	4"	FAR 33741
	35 MPH	Speedometer	Requires Pitot	4"	FAR 33703
	60 MPH	Speedometer	tube or connection	4"	FAR 33704
	80 MPH	Speedometer	to lower drive unit	4"	FAR 33705
Pitot Kit		Universal speedometer pickup tube kit with hardware.			FAR 91109
		Same as above with 20' of tubing			FAR 91106
Synchronizer		All twin gas & diesel inboard, I/O & outboard engines	Not Req'd.	4"	FAR 33701
Ammeter	60 - 0 - 60	Indicates electrical charge / discharge rate	Not Req'd.	2"	FAR 13736
Clock		Quartz analog clock	Not Req'd.	2"	FAR 13791
Cylinder Head Temp Gauge Kit	60 - 220° F	All water cooled outboard motors	Included	2"	FAR 13706
Fuel Level Gauge	E - 1/2 - F	Metric / international	American	2"	FAR 13701
Hourmeter	10,000 Hours	Elapsed time in hours / tenths (12-32 volt) not illuminated	American	2"	FAR 13701
Oil Pressure Gauge	80 PSI	Electric Oil Pressure Gauge	Not Req'd.	2"	FAR 13713
Trim Gauge	Up - Down	Mercury & Mariner Outboards, MerCruiser, Volvo DP, '96 & newer Volvo & Yamaha EST stern drives	American	2"	FAR 13702
		OMC outboards (Johnson & Evinrude)	Requires sending unit	2"	FAR 13707
		OMC Cobra & Volvo SX stern drives	on outboard	2"	FAR 13708
Voltmeter	10 - 16 Volt	For all 12 volt electrical systems	Not Req'd.	2"	FAR 13705
Water Press Gauge Kit	30 PSI	All water cooled outboard & I/O engines	Not Req'd.	2"	FAR 13712
Water Temp Gauge	100 - 250° F	Electric Water Temp Gauge	American	2"	FAR 13704
Gauge Specifications	12 volt, negative ground, internally illuminated unless otherwise noted				
Sending Unit Information	American requires standard American or see SeaStar Solutions Sending Units				
Cutouts					
4" Gauge = 3-12/32"					
2" Gauge = 2-1/8"					

Black GPS Speedometer 60 MPH	Premium LED back-lit dials. No external GPS antenna required. Speed Accuracy of +/- 1 MPH. Ideal replacement for speed sensing devices. 4" - Hole size: 3.375" (85mm). Stainless Steel.	4" FAR 33726
------------------------------	---	--------------

## Chesapeake Stainless Steel Black Box Sets



**6 Gauges Inboard or I/O** 6000 Tach, 60 MPH Speedometer with Pitot & Tube, Fuel & Volt Meter, 80# Oil Pressure & Water Temperature

Part No.  
FAR KTF003



**4 Gauges Outboard** 7000 RPM Tach, 60 MPH Speedometer with Pitot & Tube, Fuel & Volt Meter

Part No.  
FAR KTF004

Perimeter Lighted, Black Dial with White Graphics, Black Aluminum Bezel,  
White Pointer, Flat Glass Lens



## Part No.

Instrument	Dial Range	Description	Sender	Size	Tach	Tach/Hour
Tach &	6000 RPM	For all 4, 6, & 8 cyl inboard & I/O gas engines	Not Req'd.	4"	FAR 32804	FAR 32832
Tach / Hourmeter	7000 RPM	Universal for all O/B engines (4, 6, 8, 10, 12 & 20 pole)	Not Req'd.	4"	FAR 32805	FAR 32840
Integral Elect	4000 RPM	Diesel 0.5:1, 1:1, 1.5:1, 2:1 mechanical take-off	Not Req'd.	4"	FAR 32842	FAR 32834
LCD Hourmeter	4000 RPM	Diesel Variable Ratio, Alternator Diesel Magnetic flywheel pickup	Mag pickup	4"	FAR 32803	FAR 32841
Instrument	Dial Range	Description	Sender	Size	Part No.	
Speedometer	35 MPH	Speedometer	Requires pitot	4"	FAR 32808	
	55 MPH	Speedometer	tube or connection	4"	FAR 32810	
	80 MPH	Speedometer	to lower drive unit	4"	FAR 32812	
Pitot Kit		Universal speedometer pickup tube kit with hardware Same as above with 20' of tubing.			FAR 91109	
Synchronizer		All twin gas & diesel inboard, I/O & outboard engines	Not Req'd.	4"	FAR 32807	
Ammeter	60 - 0 - 60	Indicates electrical charge/discharge rate.	Not Req'd.	2"	FAR 12822	
Battery Condition Indicator	E - 1/2 - F	Indicates energy remaining in any 12 volt battery	Not Req'd.	2"	FAR 12823	
Clock		Quartz analog	Not Req'd.	2"	FAR 12825	
Cyl Head Temp	60 - 220° F	All water cooled outboard motors	Included	2"	FAR 12819	
Gauge Kit						
Fuel Level	E - 1/2 - F	US Fuel Gauge	US	2"	FAR 12801	
		International/Metric	European	2"	FAR 12802	
Hourmeter	10,000 Hours	Elapsed time in hours/tenths (12-32 volt) not illuminated	Not required	2"	FAR 12824	
Oil Press	80 PSI	Oil Pressure	US	2"	FAR 12803	
	100 PSI	Oil Pressure	US	2"	FAR 12845	
Trans Press	25 Bar /350 PSI	Metric/International	European	2"	FAR 12808	
Trim Gauge	Up - Down	Mercury & Mariner O/B, MerCruiser, Volvo DP, '96 & newer Volvo & Yamaha EST stern drives OMC outboards (Johnson & Evinrude)	By Engine Mfg.	2"	FAR 12828	
Voltmeter	10 - 16 Volt	For all 12 volt electrical systems	Not Req'd.	2"	FAR 12821	
Water Press Kit	30 PSI	All water cooled outboard & I/O engines	Not Req'd.	2"	FAR 12810	
Water Temp	100 - 250° F	US Water Temp Gauge	US	2"	FAR 12812	
	40 - 120° C	Metric/International Water Temp Gauge	European	2"	FAR 12814	
Gauge Specifications		12 volt, negative ground, internally illuminated unless otherwise noted				
Sending Unit Information		American requires standard American or see SeaStar Solutions Sending Units				
Cutouts						
		4" Gauge = 3-12/32"				
		2" Gauge = 2-1/8"				

## Euro Black Box Sets



**4 Gauges Outboard** 7000 RPM Tach,  
60 MPH Speedometer with Pitot & Tube, Fuel  
& Volt Meter

Part No.  
FAR KT9796



**6 Gauges Inboard or I/O** 6000 Tach, 60  
MPH Speedometer with Pitot & Tube, Fuel & Volt  
Meter, 80# Oil Pressure & Water Temperature

Part No.  
FAR KT9799

Euro Black Combination  
Gauge Four in One Gauge

Faria's® 4" space saving combination gauges  
are available with style matched tachometers,  
speedometers and accessories. Fuel, Volts,  
Water Temperature & Oil Pressure.

4" Gauge = 3-12/32" Cutout.

Part No.  
FAR 32851



Perimeter Lighted, White Dial with Black Graphics, Black Aluminum Bezel,  
Black Pointer, Flat Glass Lens



Instrument	Dial Range	Description	Sender	Size	Part No.
Tachometer	6000 RPM 7000 RPM 7000 RPM	For all 4, 6, & 8 cylinder inboard & I/O gas engines Universal for all O/B engines (4,6,8,10,12, & 20 pole) Operator Warning System for '96 & newer electric start OMC outboards (Johnson & Evinrude).	Not Req'd. Not Req'd. OMC System Check	4" 4" 4"	FAR 32904 FAR 32905 FAR 32950
Tach + System Check Operator Warning System Indicator Speedometer	35 MPH 55 MPH 80 MPH	Speedometer Speedometer Speedometer	Requires pitot tube or connection to lower drive unit	4" 4" 4"	FAR 32908 FAR 32909 FAR 32910
Pitot Kit		Universal speedometer pickup tube kit with hardware Same as above with 20' of tubing All water cooled outboard motors			FAR 91109 FAR 91106
Cylinder Head Temp	60 - 220° F		Included	2"	FAR 12910
Fuel Level Gauge	E- 1/2 - F	Fuel Level	American	2"	FAR 12901
Oil Pressure Gauge	80 PSI	Oil Pressure	American	2"	FAR 12902
System Check Operator Warning System Indicator	Temp - Oil	Operator Warning System for '96 & newer electric start OMC outboards (Johnson & Evinrude)	OMC System Check	2"	FAR 12953
Trim Gauge	Up - Down	Mercury & Mariner O/B's, MerCruiser, Volvo DP, 96 & newer Volvo & Yamaha EST stern drives OMC outboards (Johnson & Evinrude)	By engine mfg.	2" 2"	FAR 12916 FAR 12915
Voltmeter	10 - 16 Volt	For all 12 volt electrical systems.	Not Req'd.	2"	FAR 12911
Water Press Gauge Kit	60 PSI	All water cooled outboard & I/O engines.	Not Req'd.	2"	FAR 12975
Water Temp Gauge	100 - 250° F		American	2"	FAR 12904
Gauge Specifications	12 volt, negative ground, internally illuminated unless otherwise noted				
Sending Unit Information	American requires standard American or see SeaStar Solutions Sending Units				
Cutouts					
4" Gauge = 3-12/32"					
2" Gauge = 2-1/8"					

## Euro White Box Sets



**6 Gauges Inboard or I/O** 6000 Tach, 60 MPH Speedometer  
with Pitot & Tube, Fuel & Volt Meter, 80# Oil Pressure & Water  
Temperature

**Part No.**  
FAR KT9798



**4 Gauges Outboard** 7000 RPM Tach, 60 MPH Speedometer  
with Pitot & Tube, Fuel & Volt Meter

**Part No.**  
FAR KT9795



Perimeter Lighted, Black Dial with Blue & White Graphics, Black Aluminum Bezel with Burnished Leading Edge White Pointer, Flat Glass Lens



Instrument	Dial Range	Description	Sender	Size	Part No.
<b>Tachometer</b>	6000 RPM	For all 4, 6, & 8 cylinder inboard & I/O gas engines	Not Req'd.	4"	FAR 33004
	7000 RPM	Universal for all O/B engines (4, 6, 8, 10, 12, & 20 pole)	Not Req'd.	4"	FAR 33005
	4000 RPM	Diesel Magnetic flywheel pickup	Not Req'd.	4"	FAR 33003
<b>Tach / Hourmeter</b>	6000 RPM	For all 4, 6, & 8 cylinder inboard & I/O gas engines	Not Req'd.	4"	FAR 33032
Integral Electronic	7000 RPM	Universal for all O/B engines (4, 6, 8, 10, 12, & 20 pole)	Not Req'd.	4"	FAR 33040
LCD Hourmeter					
<b>Speedometer</b>	35 MPH	Speedometer	Requires pitot	4"	FAR 33008
	55 MPH	Speedometer	tube or	4"	FAR 33009
	80 MPH	Speedometer	connection to	4"	FAR 33010
			lower drive unit		
<b>Pitot Kit</b>		Universal speedometer pickup tube kit with hardware			FAR 91109
		Same as above with 20' of tubing			FAR 91106
<b>Synchronizer</b>		All twin gas & diesel inboard engines	Not Req'd.	4"	FAR 33007
<b>Ammeter</b>	60-0-60	Indicates electrical charge/discharge rate	Not Req'd.	2"	FAR 13011
<b>Battery Condition Indicator</b>	E-1/2-F	Indicates energy remaining in any 12 volt battery	Not Req'd.	2"	FAR 13012
<b>Cylinder Head Temp Kit</b>	60-220° F	All water cooled outboard	Included	2"	FAR 13009
<b>Fuel Level Gauge</b>	E-1/2-F	Fuel Level Gauge		2"	FAR 13001
<b>Hourmeter</b>	10,000 Hours	Elapsed time in hours/tenths (12-32 volt) not illuminated	Not Req'd.	2"	FAR 13013
<b>Oil Pressure</b>	80 PSI	Oil Pressure Gauge	American	2"	FAR 13002
<b>Trim Gauge</b>	Up-Down	Mercury & Mariner O/B's MerCruiser, Volvo DP	Requires	2"	FAR 13017
		'96 & newer Volvo & Yamaha EST stern drives	sending unit		
		OMC outboards (Johnson & Evinrude	on outboard	2"	FAR 13016
		OMC Cobra & Volvo SX Stern Drives	or stern	2"	FAR 13018
		OMC Sea Drives & OMC Stern Drives (Except Cobra)	drive	2"	FAR 13015
		Yamaha O/B's thru '96	Not Req'd.	2"	FAR 13088
		Yamaha O/B's '97 & Newer		2"	FAR 13090
<b>Voltmeter</b>	10-16 Volts	For all 12 volt electrical systems	Not Req'd.	2"	FAR 13010
<b>Water Pressure Kit</b>	30 PSI	All water cooled O/B engines	Not Req'd.	2"	FAR 13003
<b>Water Temp Gauge</b>	100-250° F	Water Temp Gauge	Not Req'd.	2"	FAR 13004

**Gauge Specifications** 12 volt, negative ground, internally illuminated unless otherwise noted  
**Sending Unit Information** American requires standard American or see SeaStar Solutions Sending Units

#### Cutouts

4" Gauge = 3-12/32"

2" Gauge = 2-1/8"



## Digital Instruments

Communicates directly with **YAMAHA**

Part No.	Description	Set Contains
FAR KTF059	Base Set	MG3000 - Tachometer (7000 RPM) MG1000 - Speedometer (60 MPH)

Part No.	Description	Set Contains
FAR KTF060	4 O/B Set	MG3000 - Tachometer (7000 RPM) MG1000 - Speedometer (60 MPH) Trim gauge Water Pressure Gauge (0-60 PSI)



Perimeter Lighted, White Dial with Black Graphics, White Aluminum Bezel, Black Pointer, Flat Glass Lens



				Part No.	
Instrument	Dial Range	Description	Sender	Size	Tach
Tach	6000 RPM	For all 4, 6, & 8 cyl inboard & I/O gas engines	Not Req'd.	4"	FAR 33103
	7000 RPM	Universal for all O/B engines (4, 6, 8, 10, 12 & 20 pole)	Not Req'd.	4"	FAR 33104
Integral Elect	4000 RPM	Diesel 0.5:1, 1:1, 1.5:1, 2:1 mechanical take-off	Not Req'd.	4"	FAR 33142
LCD Hourmeter	4000 RPM	Diesel Magnetic flywheel pickup	Mag pickup	4"	FAR 33121
				Part No.	
Instrument	Dial Range	Description	Sender	Size	Tach/Hour
Speedometer	35 MPH	Speedometer	Requires pitot	4"	FAR 33122
	55 MPH	Speedometer	tube or connection	4"	FAR 33112
	80 MPH	Speedometer	to lower drive unit	4"	FAR 33113
Pitot Kit		Universal speedometer pickup tube kit with hardware			FAR 91109
		Same as above with 20' of tubing.			FAR 91106
Synchronizer		All twin gas & diesel inboard, I/O & outboard engines	Not Req'd.	4"	FAR 33105
Ammeter	60 - 0 - 60	Indicates electrical charge/discharge rate.	Not Req'd.	2"	FAR 13149
Clock		Quartz analog	Not Req'd.	2"	FAR 13152
Cyl Head Temp	60 - 220° F	All water cooled outboard motors	Included	2"	FAR 13113
Gauge Kit					
Fuel Level	E - 1/2 - F	US Fuel Gauge	US	2"	FAR 13101
Hourmeter	10,000 Hours	Elapsed time in hours/tenths (12-32 volt) not illuminated	Not required	2"	FAR 13121
Oil Press	80 PSI	Oil Pressure	US	2"	FAR 13102
	100 PSI	Oil Pressure	US	2"	FAR 13145
Trans Press	25 Bar /350 PSI	Metric/International	European	2"	FAR 13107
Trim Gauge	Up - Down	Mercury & Mariner O/B, MerCruiser, Volvo DP, '96 & newer Volvo & Yamaha EST stern drives	By Engine	2"	FAR 13122
		OMC outboards (Johnson & Evinrude)	Mfg.	2"	FAR 13123
Voltmeter	10 - 16 Volt	For all 12 volt electrical systems	Not Req'd.	2"	FAR 13120
Water Press Kit	30 PSI	All water cooled outboard & I/O engines	Not Req'd.	2"	FAR 13108
Water Temp	100 - 250° F	US Water Temp Gauge	US	2"	FAR 13110
Gauge Specifications	12 volt, negative ground, internally illuminated unless otherwise noted				
Sending Unit Information	American requires standard American or see SeaStar Solutions Sending Units				
Cutouts					
4" Gauge	= 3-12/32"				
2" Gauge	= 2-1/8"				

## Dress White Box Sets



**6 Gauges Inboard or I/O** 6000 Tach, 60 MPH Speedometer with Pitot & Tube, Fuel & Volt Meter, 80# Oil Pressure & Water Temperature  
**Part No.**  
 FAR KT9797



**4 Gauges Outboard** 7000 RPM Tach, 60 MPH Speedometer with Pitot & Tube, Fuel & Volt Meter  
**Part No.**  
 FAR KT9794

## Dress White Combination Gauge Four in One Gauge



Faria's® New 4" space saving combination gauges are available with style matched tachometers, speedometers and accessories. Fuel, Volts, Water Temperature & Oil Pressure. 4" Gauge = 3-12/32" Cutout.  
**Part No.**  
 FAR 33151





### Illustration E Safety Shut-Off Switch

\*3-wire hookup to starter, pump and ignition. I/O and inboard units require a method to shut off the electronic fuel pump when the engine fails or is shut down. This switch senses low oil pressure and shuts the fuel pump off.

## HOURLMETERS



**56966P**  
HOURLMETER, ROUND  
(2")



**56967P**  
HOURLMETER, RECT.  
(Hole Size: 1.5" x 1")  
Outside dimensions: 2.1" x 1.2"



**56968P**  
SMALL ENGINE HOURLMETER (W/ 5' SENSOR WIRE)  
**Replaces:** Yamaha ENG-METER-2C-01  
2 or 4 Stroke Gasoline  
\* No power or ground required



**56969P**  
SMALL ENGINE TACH/HOURLMETER (W/ 5' SENSOR WIRE)  
**Fits:** 2 or 4 stroke, 2 Cylinders or Less  
-No power or ground required



## GAUGE ACCESSORIES

### BEZELS

**EYEBROW BEZELS** - Our Eyebrow Bezels give any boat that sporty race boat look. Durable and corrosion proof, these chrome plated bezels attach directly to the gauge. The bezels can be rotated to any angle allowing you to customize the look of your dash.



#### FEATURES:

- Directly attach to the gauge
- No extra holes to drill
- Can be set at any angle
- Corrosion proof ABC/PVC construction
- Buy individually or in 4 or 6 gauge sets.

**69380P**  
BEZEL KIT  
For: 4 Gauge Kit

**Contains:**  
69268P (x2) and 69269P (x2)



**69381P**  
BEZEL KIT  
For: 6 Gauge Kit

**Contains:**  
69268P (x4) and 69269P (x2)



**69268P**  
EYEBROW BEZEL  
(2")



**69269P**  
EYEBROW BEZEL (3")  
3 3/8" I.D.



**69270P**  
EYEBROW BEZEL  
(5")



**IA65476**  
ACCESSORY, AIRCRAFT BEZEL  
(2")



**IA65477**  
ACCESSORY, AIRCRAFT BEZEL (3")  
3 3/8" I.D.



KUS sensors can be used with all gauge brands that have compatible ohms. Stainless steel / Type 316 Standard Mounts SAE 5 Hole Pattern 1.5" NPT. 1.25" BSP 240-30 ohms. Constructed to meet and or exceed all applicable ISO, NMMA/ABYC and USCG standards

Fuel/Water tanks made of metal, the length of the sender should be 0.5" less than the depth of the tank. Tanks made of plastic, the length of the sender should be 1" less than the depth of the tank. For Grey/Black water holding tanks, the length of the sender should be 75% of the depth of the tank.

**Type SHS**  
6-Bolt or 1.5"  
NPT Waste  
Tank level  
sender



**Type SSS / SSL**  
SAE 5-Screw  
Fuel or Water  
level sender



**Type S3U**  
1.25" BSP  
Fuel or  
Water level  
sender



**Type S5U**  
1.50" NPT  
Fuel or  
Water level  
sender



Sending Unit Length	Type SHS * Part No.
6"	WEM SHS-6
8"	WEM SHS-8
12"	WEM SHS-12
16"	WEM SHS-16
18"	WEM SHS-18
20"	WEM SHS-20
24"	WEM SHS-24
28"	WEM SHS-28
38"	WEM SHS-38

\* SHS Series: Depth of Tank  
25% = Sender Length

Sending Unit Length	Type SSS / SSL Part No.	Type S3U Part No.	Type S5U Part No.
5.5"	WEM SSS-5.5	WEM S3U-5.5	WEM S5U-5.5
6.0"	WEM SSS-6	WEM S3U-6	WEM S5U-6
7.5"	WEM SSS-7.5	WEM S3U-7.5	WEM S5U-7.5
9.0"	WEM SSS-9	WEM S3U-9	WEM S5U-9
10.0"	WEM SSS-10	WEM S3U-10	WEM S5U-10
11.0"	WEM SSL-11	WEM S3U-11	WEM S5U-11
12.0"	WEM SSL-12	WEM S3U-12	WEM S5U-12
13.0"	WEM SSL-13	WEM S3U-13	WEM S5U-13
14.0"	WEM SSL-14	WEM S3U-14	WEM S5U-14
15.0"	WEM SSL-15	WEM S3U-15	WEM S5U-15
16.0"	WEM SSL-16	WEM S3U-16	WEM S5U-16
17.0"	WEM SSL-17	WEM S3U-17	WEM S5U-17
18.0"	WEM SSL-18	WEM S3U-18	WEM S5U-18
19.0"	WEM SSL-19	WEM S3U-19	WEM S5U-19
20.0"	WEM SSL-20	WEM S3U-20	WEM S5U-20
21.0"	WEM SSL-21	WEM S3U-21	WEM S5U-21
22.0"	WEM SSL-22	WEM S3U-22	WEM S5U-22
24.0"	WEM SSL-24	WEM S3U-24	WEM S5U-24
26.0"	WEM SSL-26	WEM S3U-26	WEM S5U-26
28.0"	WEM SSL-28	WEM S3U-28	WEM S5U-28
30.0"	WEM SSL-30	WEM S3U-30	WEM S5U-30

Models to 60" are available upon request. Some sizes in 1/2" increments



**Whitecap Tank  
Withdrawal Tube**

**Part No.**  
WHI F-7150  
WEM 7133-CWU

**Description**  
Tube Length: 22", Tank Fitting: 3/8"  
Cork Gasket



**Black Face with  
Black Bezel**



**Black Face with  
Stainless Bezel**



**White Face with  
White Bezel**



**White Face with  
Stainless Bezel**



**Gauge Type**  
Fuel Gauge  
Water Gauge  
Holding Tank Gauge

**Part No.**  
WEM UPFR-BB  
WEM UPWR-BB  
WEM HTG-BB

**Part No.**  
WEM UPFR-BS  
WEM HTG-BS

**Part No.**  
WEM UPFR-WW  
WEM UPWR-WW  
WEM HTG-WW

**Part No.**  
WEM UPFR-WS  
WEM UPWR-WS

WEMA's 2 Tank gauge panels are ideal for vessels having 2 of one type of tank. Using the center mounted momentary switch, you can quickly and easily check the fluid level in each tank.

**Gauge Type**      **Part No.**  
Fuel                  WEM UP2-F  
Water                WEM UP2-W  
Water/Holding      WEM UP2-WH



WEMA's 7 Tank gauge panels are ideal for vessels having multiple tanks. Simply push one of the momentary buttons shown on the boat silhouette to get a reading on a fuel, water or holding tank.

**Part No.**      WEM UP7-B

*Senders are not included.*





## Turbo ME Waterproof Battery Chargers

- 6 Amp - 12 Amp output
- 1 - 2 battery banks
- Epoxy potted for true long-term waterproofing
- Automatic 3-stage smart charge
- 3 selectable charge profiles - Lead acid/AGM, GEL, AGM+
- Allocate more amperage to the weaker bank automatically
- 2-year warranty

**POWERMANIA**

Part No.	Description For ME
PMI M106E	1-bank, 6 Amp, 12 VDC charger
PMI M108E	1-bank, 8 Amp, 12 VDC charger
PMI M208E	2-bank, 8 Amp, 12 VDC charger
PMI M212E	2-bank, 12 Amp, 12/24 VDC charger



## Turbo MV2 Waterproof Battery Chargers

**POWERMANIA**

- 12 Amp - 40 Amp output
- 2 - 4 battery banks
- Epoxy potted for true long-term waterproofing
- Automatic 3-stage smart charge
- 3 selectable charge profiles - Lead acid/AGM, GEL, AGM+
- Allocate more amperage to the weaker bank automatically
- 2-year warranty
- Waterproof cooling fan (available on select models)
- Universal 120 or 240 VAC, 50 or 60 Hz input
- 100% output @ 90 VAC
- Charges completely depleted healthy batteries
- Individual charge status light for each output
- Individual DC output warning lights for each output



Part No.	Description
PMI M212V2	12 Amp, 2 Bank, 12/24 VDC charger
PMI M220V2	20 Amp, 2 Bank, 12/24 VDC charger
PMI M230V2	30 Amp, 2 Bank, 12/24 VDC charger
PMI M320V2	20 Amp, 3 Bank, 12/24/36 VDC charger
PMI M330V2	30 Amp, 3 Bank, 12/24/36 VDC charger
PMI M430V2	30 Amp, 4 Bank, 12/24/36/48 VDC charger
PMI M240V2	40 Amp, 2 Bank, 12/24 VDC charger
PMI M340V2	40 Amp, 3 Bank, 12/24/36 VDC charger
PMI M440V2	40 Amp, 4 Bank, 12/24/36/48 VDC charger

## AC Plug Port

**POWERMANIA**

- Thru-hull AC connection
- Available in black and white

Part No.	Description
PMI 10501	Black AC plug port
PMI 10502	White AC plug port

10501 10502



## 10' DC Extension

Part No.	Description
PMI 10522	10' DC Wire Extension

10522



## Battery Holders with Stainless Steel Rods

- Meets all NMMA Specs
- Stainless Steel Mounting Rods & Lock Nuts
- Rugged Hi-Strength Poly Material
- Recessed Mounting Wells - No Tabs

Part No.	Description
T/H BH-24S-DP	24 Series Tray
T/H BH-27S-DP	27 Series Tray



## Performance Battery Holders

- Meets all NMMA specifications
- Non-corrosive
- Rugged Hi-Strength Poly Material

Part No.	Description
MOE 042215	24 Series Tray
MOE 042216	29, 30 and 31 Series Tray
MOE 042232	27 Series Tray
MOE 042214	27, 30 and 31 Series Box

**MOLLER**  
MARINE PRODUCTS



The *New* Powermania

# TURBOMV2

waterproof battery chargers



**Lighter**  
up to 25% lighter



**Cooler**  
up to 20°F cooler



**More Powerful**  
up to 40 Amp total output

- + Epoxy sealed for true, long-term waterproof
- + Charges 0-volt batteries
- + 100% power @ 90V AC
- + many more...





## Centaur Battery Chargers 12 and 24 VDC

Aluminum epoxy powder coated cases with drip shield and stainless steel hardware withstands the rigors of an adverse environment. Circuit boards are protected with an acrylic coating for maximum corrosion resistance. Universal 90-265 VAC input voltage range. Three outputs that can each supply the full rated output current. Provides three-stage charging with temperature compensation.

Part No.	Description
VIC CCH012020000	20 Amp, 12 VDC
VIC CCH012030000	30 Amp, 12 VDC
VIC CCH012040000	40 Amp, 12 VDC
VIC CCH012050000	50 Amp, 12 VDC
VIC CCH012060000	60 Amp, 12 VDC
VIC CCH012080000	80 Amp, 12 VDC
VIC CCH012100000	100 Amp, 12 VDC
VIC CCH024016000	16 Amp, 24 VDC
VIC CCH024030000	30 Amp, 24 VDC
VIC CCH024040000	40 Amp, 24 VDC
VIC CCH024060000	60 Amp, 24 VDC



NEW

## Phoenix Inverters 180 VA - 3000 VA, 120 VAC and 230 VAC

Superior engineering developed for professional duty. These inverters are suitable for the widest range of applications. A true sine wave inverter with optimized efficiency without compromising performance. Employing hybrid HF technology resulting in a top quality product with compact dimensions. Light weight and capable of supplying problem free power.

Part No.	Description
VIC PIN122510500	12 VDC, 250 VA, 120 VAC
VIC PIN123750500	12 VDC, 375 VA, 120 VAC
VIC PIN128010500	12 VDC, 800 VA, 120 VAC
VIC PIN121220500	12 VDC, 1,200 VA, 120 VAC
VIC PIN123020100	12 VDC, 3,000 VA, 120 VAC
VIC PIN242510500	24 VDC, 250 VA, 120 VAC
VIC PIN243750500	24 VDC, 375 VA, 120 VAC
VIC PIN245010500	24 VDC, 500 VA, 120 VAC
VIC PIN248010500	24 VDC, 800 VA, 120 VAC
VIC PIN241220500	24 VDC, 1,200 VA, 120 VAC
VIC PIN243020100	24 VDC, 3,000 VA, 120 VAC



Call for pricing and availability of 230 VAC inverters

Victron Energy has many more fine products being offered through JMS. Most Victron Energy products excluding batteries are covered by a 5 year manufacturer's warranty.

## Orion DC to DC Converters

These units are capable of converting input voltages of 18 to 35 VDC down to an output voltage of 10 to 15 VDC can convert an input voltage of 8 to 17 VDC up to an output voltage of 20 to 30 VDC or can be used to regulate the output voltage. These units are available with isolated and non-isolated outputs.



### Non-Isolated

Part No.	Description
VIC ORI241205200R	5 Amp, 24 VDC to 12 VDC
VIC ORI241210200R	10 Amp, 24 VDC to 12 VDC
VIC ORI241215200R	15 Amp, 24 VDC to 12 VDC
VIC ORI241220200R	20 Amp, 24 VDC to 12 VDC
VIC ORI241225020	25 Amp, 24 VDC to 12 VDC
VIC ORI241240020	40 Amp, 24 VDC to 12 VDC
VIC ORI241270020	70 Amp, 24 VDC to 12 VDC

### Isolated

Part No.	Description
VIC ORI121210110 (R)	9 Amp, 12 VDC to 12 VDC (110W)
VIC ORI121222110	18 Amp, 12 VDC to 12 VDC (220W)
VIC ORI121236100	30 Amp, 12 VDC to 12 VDC (360W)
VIC ORI122410110	5 Amp, 12 VDC to 24 VDC (120W)
VIC ORI122424110	10 Amp, 12 VDC to 24 VDC (240W)
VIC ORI122436100	15 Amp, 12 VDC to 24 VDC (360W)
VIC ORI241210110 (R)	9 Amp, 24 VDC to 12 VDC (110W)
VIC ORI241224110	20 Amp, 24 VDC to 12 VDC (240W)
VIC ORI241240110	30 Amp, 24 VDC to 12 VDC (360W)
VIC ORI242410110 (R)	5 Amp, 24 VDC to 24 VDC (120W)
VIC ORI242428110	12 Amp, 24 VDC to 24 VDC (280W)
VIC ORI242441110	17 Amp, 24 VDC to 24 VDC (400W)

## Argo Diode Battery Isolator

Argo diode battery isolators allow simultaneous charging of two or more batteries from one alternator without connecting the batteries together. Discharging the accessory battery will not result in also discharging the starter battery.



Part No.	Description
VIC ARG080201000R	80 Amp, 2 Battery Outputs
VIC ARG100301000R	100 Amp, 3 Battery Outputs
VIC ARG120201020R	120 Amp, 2 Battery Outputs
VIC ARG140301020R	140 Amp, 3 Battery Outputs
VIC ARG160201020	160 Amp, 2 Battery Outputs
VIC ARG180301020	180 Amp, 3 Battery Outputs

## Skylla-i Battery Chargers 24 VDC

Variable absorption time. Battery Safe mode prevents damage due to excessive gassing. Storage mode for less maintenance and aging when the battery is not in use. NMEA2000 Canbus connection. Li-ion (LiFePO<sub>4</sub>) ready.

Part No.	Description
VIC SKI024080000	24 VDC, 80 Amp, 1+1 Outputs
VIC SKI024080002	24 VDC, 80 Amp, 3 Outputs
VIC SKI024100000	24 VDC, 100 Amp, 1+1 Outputs
VIC SKI024100002	24 VDC, 100 Amp, 3 Outputs







## MultiPlus Inverter/Charger 2kVA & 3kVA, 120 VAC and 230 VAC

The MultiPlus is a powerful true sine wave inverter, a sophisticated battery charger that features adaptive charge technology, and a high-speed AC transfer switch in a single compact enclosure. Next to these primary functions, the MultiPlus has several advanced features, as outlined below. The MultiPlus takes over the supply to the connected loads in the event of a grid failure or when shore-/generator power is disconnected. This happens so fast (less than 20 milliseconds) that computers and other electronic equipment will continue to operate without disruption. Up to six Multis can operate in parallel to achieve higher power output. Two units can be configured for split phase 120/240 VAC output. The power assist feature allows the MultiPlus to supplement the capacity of the alternative source. Where peak power is so often required only for a limited period, the MultiPlus will make sure that insufficient shore or generator power is immediately compensated for by power from the battery.



**MultiPlus  
Compact  
12/2000/80**



**MultiPlus  
24/3000/70**

Part No.	Description
VIC CMP122020100	MultiPlus Compact 12/2000/80-50 120V
VIC CMP242020100	MultiPlus Compact 24/2000/50-50 120V
VIC PMP123021102	MultiPlus 12/3000/120-50 120V
VIC PMP243021102	MultiPlus 24/3000/70-50 120V

Call for pricing and availability of 230 VAC inverter/chargers



**BMV-700**



**BMV-702 Black**



**BMV-712 Smart  
Blue Tooth  
(Phone not included)**

## BMV-700 Series Battery Monitor Displays

**Features:** Battery voltage, current, power, ampere-hours consumed, state of charge and remaining time at the current rate of discharge. Programmable visual and audible alarm. Programmable relay, to turn off non critical loads or to run a generator when needed. 500 Amp quick connect shunt and connection kit

## BMV-702 Series

**Features:** The BMV-702 has the same features as the BMV-700, but adds an additional input to measure voltage (of a second battery), temperature or midpoint voltage capabilities, and corresponding alarm and relay settings.

## BMV-712 Series

**Features:** The BMV-712 Smart has the same features as the BMV-700 and the BMV 702 and additionally features built in Blue Tooth capabilities.

Part No.	Description
VIC BAM010700000R	BMV-700 Monitor Display
VIC BAM010702000R	BMV-702 Monitor Display
VIC BAM010702200R	BMV-702 Black Monitor Display
VIC BAM030712000	BMV-712 Smart Blue Tooth Monitor Display

## Color Control GX

The Color Control (CCGX) provides intuitive control and monitoring for all Victron power systems. The list of Victron products that can be connected is endless: Inverters, Multi Plus Skylla-i, Quattros, MPPT solar chargers, BMV battery monitors, Lynx Ion + Shunt and more.

Part No.	Description
VIC BPP000300100R	Control and monitoring for Power Systems



## Digital Multi Control 200/200A GX (90° RJ45)

This panel can be used with all Multi Plus & Quattro inverter/chargers

Part No.	Description
VIC DMC000200010R	200/200A GX (90° RJ45)



Cabling to connect the Color Control GX or the Digital Multi Control to your Victron Energy equipment will be needed. Please contact us to ensure the correct cable is ordered.

## AGM Deep Cycle Batteries

In these batteries the electrolyte is absorbed into a glass-fiber mat between the plates by capillary action. AGM batteries are more suitable for short-time delivery of very high currents (engine starting) than gel batteries.



Part No.	Ah	V	CCA @0°F	Dimensions
				l x w x h mm
VIC BAT406225084	240	6	1500	320x176x247
VIC BAT212070084	8	12		151x65x101
VIC BAT212120084	14	12		151x98x101
VIC BAT212200084	22	12		181x77x167
VIC BAT412350084	38	12		197x165x170
VIC BAT412550084	60	12	450	229x138x227
VIC BAT412600084	66	12	520	258x166x235
VIC BAT412800084	90	12	600	350x167x183
VIC BAT412101084	110	12	800	330x171x220
VIC BAT412121084	130	12	1000	410x176x227
VIC BAT412151084	165	12	1200	485x172x240
VIC BAT412201084	220	12	1400	522x238x240

## Gel Deep Cycle Batteries

In these batteries the electrolyte is immobilized as gel. Gel batteries generally have a longer service life and better cycle capacity than AGM batteries.

Part No.	Ah	V	CCA @0°F	Dimensions
				l x w x h mm
VIC BAT412550104	60	12	300	229x138x227
VIC BAT412600104	66	12	360	258x166x235
VIC BAT412800104	90	12	420	350x167x183
VIC BAT412101104	110	12	550	330x171x220
VIC BAT412121104	130	12	700	410x176x227
VIC BAT412151104	165	12	850	485x172x240
VIC BAT412201104	220	12	1100	522x238x240
VIC BAT412126101	265	12	650	520x268x223





### Inboard Instrument Panels

Instrument panel contains, 0-6000 tach, 0-80# oil pressure gauge, 120°-240° water temp, 0-18 voltmeter, ignition key switch, panel mount fuse holder and a rocker panel light switch. Gauges have domed lenses with black bezel and face, a white pointer and marking with blue highlights, wired to male 8 pin rectangular plug, 10 3/4" x 5 3/4".



**Part No.**  
CRU 22141

**Description**  
Complete Panel



### 19 Position AC/DC Circuit Breaker Panel with Main



6 position 120VAC + 12 position 12VDC combo panel with 30A main, battery test switch and analog meters. Size 13.75" W x 8-1/4"H x 3-1/2"D.

**Part No.**  
PTI 9973410B



### 7 Position 12VDC Circuit Breaker Panel with Main



7 position 12VDC panel backlit with a 50 amp main. Pre-loaded with 1-5A, 3-10A, 2-15A and 1-20A circuit breakers. Size: 5-1/2" W x 8-1/4" H x 3-1/2" D

**Part No.**  
PTI 9992203B



### 3 Position 12VDC Circuit Breaker Panel



3 position 12VDC backlit panel with pre-installed breakers (1-5A, 1-10A, 1-15A). Size: 5-1/2" W x 4-1/2" H x 3-1/2" D.

**Part No.**  
PTI 9972207B



### 6 Position 120VAC Circuit Breaker Panel



6 position 120VAC panel with optional back-lighting. Includes a 30A 3 pole main with reverse polarity protection, 4 pre-installed breakers (1-10A, 2-15A, 1-20A) and 2 blanks. Size: 5-1/2" W x 8-1/4" H x 3-1/2" D

**Part No.**  
PTI 9982305B



### 8 Position 12VDC Circuit Breaker Panel



8 position 12 VDC waterproof panel with hydraulic / magnetic trip free circuit breakers and rubber boots providing a waterproof seal. This panel is pre-loaded with 3-15A, 3-10A, 1-15A and 1-20A breakers. Size: 5-1/2" W x 8-1/4" H x 3-1/2" D

**Part No.**  
PTI 9952205



### 4 Position DC "Waterproof" Switch & Circuit Breaker Panel



Toggle switches rated at 15 amps @ 12VDC with circuit breaker protection & splash proof black silicone boots. Twenty interchangeable function labels are provided with each circuit breaker panel. Black Panel, Black Boots.. Size: 4-5/8" W x 5" H x 3" D

**Part No.**  
PTI 9960017



### 6 Position DC "Waterproof" Rocker Switch & Circuit Breaker Panel



Rocker switches rated at 20 amps @ 12VDC with circuit breaker protection & splash proof Black Silicone Boots. Twenty interchangeable function labels are provided with each circuit breaker panel. Black Panel, Black Silicone Boots. Size: 7-1/2" W x 5" H x 3" D

**Part No.**  
PTI 9960023B



### Inboard Instrument Panels



Contains the following Tachometer 0-7000 RPM, Oil Pressure 0-80 lbs., temperature 120°-240°F, volts 8-18 and water resistant key switch. Comes with one gauge blank, all mounted on a flat black panel with a 8 prong rectangular male plug. 11-3/4" x 5-3/4"

**Part No.**  
BBB 422100

**Description**  
Complete 12 Volt Panel

**In-Line, Waterproof****Fuse Holder**

Provides a way to install fused protection along the positive conductor of a circuit. Inline fuses can be rated below 2.5A and serve to protect sensitive electronic equipment that may only require one amp of protection. A waterproof cover with mounting hole can be securely fastened to eliminate vibration damage and damage caused by movement.

Part No.	Description
BSS 5065	Fuse Holder Accepts ATO or ATC fuses.

**Fuse Holders**

Part No.	Description
BSS 5021	Water Resistant Fuse Holder, Panel Mount, Rated IP66 on front, 20A Max. fuse amperage
BSS 5063	Heavy Duty In-Line Fuse Holder w/ tinned copper 12 AWG pigtails. 30A Max. fuse amperage <i>Fuses Sold Separately</i>

5021

5063

**AGC® – Fast-acting glass fuses**

Part No.	Amps	Volts	Quantity
BSS 5201	.25A	250V AC	5
BSS 5202	.5A	250V AC	5
BSS 5204	1A	250V AC	5
BSS 5205	1.5A	250V AC	5
BSS 5206	2A	250V AC	5
BSS 5207	2.5A	250V AC	5
BSS 5208	3A	250V AC	5
BSS 5209	4A	250V AC	5
BSS 5210	5A	250V AC	5
BSS 5211	6A	250V AC	5
BSS 5212	7A	250V AC	5
BSS 5213	7.5A	250V AC	5
BSS 5215	10A	250V AC	5
BSS 5217	15A	—	5
BSS 5218	20A	—	5
BSS 5219	25A	—	5
BSS 5220	30A	—	5

AGC

**MDL® – Slow Blow Glass Fuses**

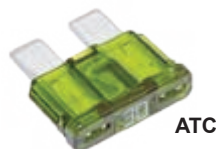
Part No.	Amps	Volts	Quantity
BSS 5226	3A	250V AC	2
BSS 5227	5A	250V AC	2
BSS 5229	7.5A	250V AC	2
BSS 5230	10A	—	2
BSS 5231	15A	—	2
BSS 5232	20A	—	2
BSS 5233	25A	—	2
BSS 5234	30A	—	2

MDL

**ATO® or ATC® Fuses**

Fast-acting blade fuse

- Color-coded for easy identification
- Visible indication of blown condition
- Corrosion resistance tin-plated blades



ATC

Part No.	Amps	Quantity	Part No.	Amps	Quantity
BSS 5235	1A	2	BSS 5241	10A	2
BSS 5236	2A	2	BSS 5242	15A	2
BSS 5237	3A	2	BSS 5243	20A	2
BSS 5238	4A	2	BSS 5244	25A	2
BSS 5239	5A	2	BSS 5245	30A	2
BSS 5240	7.5A	2	BSS 5246	40A	2

**MRBF Fuses**

Requires the use of Terminal Fuse Blocks PN 5191 or PN 2151. Interrupt rating satisfies ABYC requirements for DC Main circuit protection on large battery banks. Ignition protected safe for installation aboard gasoline powered boats. Clear window visual indication of blown condition. Color coded for each amperage.



Part No.	Amps	Color	Part No.	Amps	Color
BSS 5175	30A	LT Green	BSS 5183	100A	Yellow
BSS 5176	40A	LT Blue	BSS 5184	125A	Green
BSS 5177	50A	Red	BSS 5185	150A	Orange
BSS 5178	60A	Gold	BSS 5186	175A	White
BSS 5180	75A	Brown	BSS 5187	200A	Blue
BSS 5181	80A	Lime	BSS 5189	250A	Pink
BSS 5182	90A	Purple	BSS 5190	300A	Gray

**Battery Terminal Mount**

Part No.	Description	Stud Size	Mounting	Fuses
BSS 5191	Terminal Mount	M8 (5/16"-18)	3/8"	1
BSS 2151	Terminal Mount	M8 (5/16"-18)	3/8"	2

**ANL Fuse Blocks**

Accepts a wide range of ANL fuse amperages for versatile fusing



Swing out design allows replacement of the fuse without removing fasteners

Accepts 5/16" (M8) ring terminals. Insulating cover satisfies ABYC/USCG insulation requirements. Cover breakouts allow wire access in any direction. Insert molded studs ensure secure fuse mounting. Stainless steel studs provide resistance to corrosion and high torque. One-piece stainless flange nuts ensure safe and secure connections. UL 94-V0 base resists high heat. Fuse sold separately.

Specifications:

Voltage Max. Operating	32V DC
Terminal Stud Size	5 16"-18 (M8)
Fuse Mounting Blocks	Tin-Plated Copper

Part No.	Stud Size	Amp Max	Mounting Holes
BSS 5005	5 16"-18 (M8)	300A	#10 (M5) Screw
BSS 5503	5 16"-18 (M8)	750A	1/4" (M6) Screws

**ANL Fuses**

Ignition protected. Conforms to SAE J1171. Safe for installation aboard gasoline powered boats (35-500 Amp only). Silver-plated connector blades for corrosion resistance. Visible indication of blown condition. 6,000 Ampere Interrupt Capacity (AIC) satisfies ABYC requirements for main DC circuit protection on large battery banks.



Part No.	Amps	Quantity	Part No.	Amps	Quantity
BSS 5164	35A	1	BSS 5128	175A	1
BSS 5165	40A	1	BSS 5129	200A	1
BSS 5122	50A	1	BSS 5131	250A	1
BSS 5123	60A	1	BSS 5133	300A	1
BSS 5124	80A	1	BSS 5135	350A	1
BSS 5125	100A	1	BSS 5136	400A	1
BSS 5126	130A	1	BSS 5137	500A	1
BSS 5127	150A	1			



## Class T Fuse Blocks

Allows the use of Class T fuses for fast acting circuit protection of inverters and other electronics

- Four stud design provides ample access around connecting stud to install large cable lugs without obstruction from the fuse
- Insulating cover satisfies ABYC/USCG insulation requirements
- Cover breakouts allow wire access in any direction
- Stud design ensures secure fuse mounting even with high heat
- Stainless steel studs provide resistance to corrosion and high torque
- One-piece stainless flange nuts ensure safe and secure connections
- UL 94-V0 base resists high heat

### Specifications:

Voltage Max. Operating 160V DC. Cable Size Up to 4/0 AWG (120 mm<sup>2</sup>). Fuse Mounting Blocks Tin-Plated Copper. 5007100 and 5502100 Regulatory. Meets ISO 8846 and SAE J1171 external ignition protection requirements when cover is secure.

Part No.	Amperage	Terminal Stud Size	Mounting
BSS 5007100	110A–200A	1/4"-20 (M6)	1/4" (M6) Screws
BSS 5502100	225A–400A	5/16"-18 (M8)	1/4" (M6) Screws

## Class T fuses

JJN - Class T very fast-acting, current-limiting 300 VAC, 160 VDC

Amps	Bussman Part No.	Blue Sea Part No.
110	BUS JJN-110	BSS 5112
125	BUS JJN-125	BSS 5113
150	BUS JJN-150	BSS 5114
175	BUS JJN-175	BSS 5115
200	BUS JJN-200	BSS 5116
225	BUS JJN-225	BSS 5117
250	BUS JJN-250	BSS 5118
300	BUS JJN-300	BSS 5119
350	BUS JJN-350	BSS 5120
400	BUS JJN-400	BSS 5121



1 Fuse per pack

## MAXI™ Fuse Block

- The most economical fuse block for 30–80 Ampere fusing
- Snap-on terminal cover insulates all conductive parts, satisfying ABYC/USCG requirements
- Accepts wire size 18–4 AWG from sides or bottom
- For use on systems up to 32 Volts DC
- Terminal screws compress fuse blades within blocks for low resistance connections
- Accepts MAXI™ Fuses



### Specifications

Maximum Voltage  
Maximum Amperage

Fuse Type  
Fuse Rating  
Base Material

Part No.

BSS 5006100

### Description

32 Volts DC  
80 Amperes

MAXI™ Fuses

30–80 Amperes

Reinforced Polycarbonate

Amperage

30–80A

## MAXI® Fuses

Provides economical branch circuit protection

Features:

- Color-coded for easy identification
- Visible indication of blown condition
- Silver-plated connector blades for corrosion resistance



### Specifications:

Interrupting Capacity 1,000A  
Voltage Max. Operating 32V DC

PN	Amps
BSS 5138	30A
BSS 5139	40A
BSS 5140	50A
BSS 5141	60A
BSS 5142	70A
BSS 5143	80A



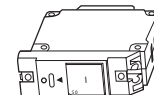
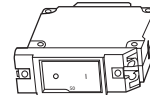
7403 Flat Rocker



7425 Restricted OFF Rocker



7574 Raised Rocker



## A-Series Rocker Circuit Breakers

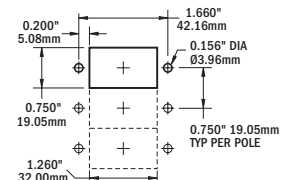
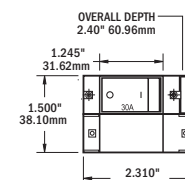
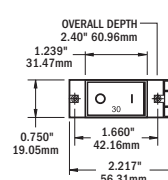
Maximum Operating Voltage is 32 VDC/250 VAC

### Single Pole Circuit Breakers

PN	Amps	Rocker Actuator
BSS 7399	2.5A	Flat
BSS 7400	5A	Flat
BSS 7425	5A	Restricted-OFF
BSS 7401	8A	Flat
BSS 7402	10A	Flat
BSS 7427	10A	Restricted-OFF
BSS 7403	15A	Flat
BSS 7428	15A	Restricted-OFF
BSS 7404	20A	Flat
BSS 7429	20A	Restricted-OFF
BSS 7405	25A	Flat
BSS 7430	25A	Restricted-OFF
BSS 7406	30A	Flat
BSS 7407	40A	Flat
BSS 7408	50A	Flat
BSS 7433	50A	Restricted-OFF

### Double Pole Circuit Breakers

PN	Amps	Rocker Actuator
BSS 7410	10A	Flat
BSS 7411	15A	Flat
BSS 7412	16A	Flat
BSS 7413	20A	Flat
BSS 7574	30A	Raised
BSS 7414	30A	Flat
BSS 7416	40A	Flat
BSS 7577	50A	Raised
BSS 7417	50A	Flat



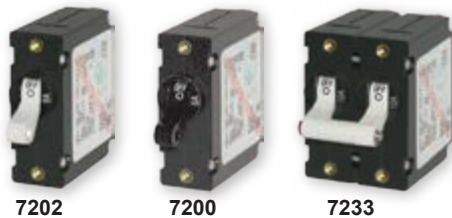
Cutout Dimensions



## A-Series Toggle Circuit Breakers



## C-Series Rocker Circuit Breakers



7202

7200

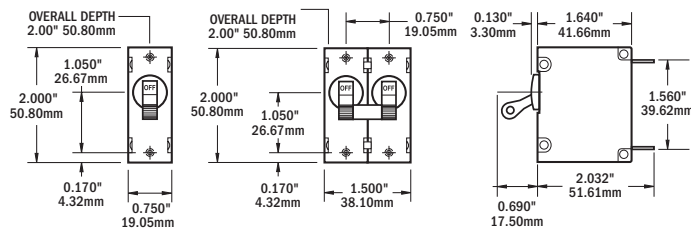
7233

## Single Pole Circuit Breakers

Part No.	Color	Amps
BSS 7197	White	2.5A
BSS 7200	Black	5A
BSS 7202	White	5A
BSS 7347	Black	8A
BSS 7299	White	8A
BSS 7204	Black	10A
BSS 7206	White	10A
BSS 7208	Black	15A
BSS 7210	White	15A
BSS 7212	Black	20A
BSS 7214	White	20A
BSS 7216	Black	25A
BSS 7218	White	25A
BSS 7220	Black	30A
BSS 7222	White	30A
BSS 7224	Black	40A
BSS 7226	White	40A
BSS 7228	Black	50A
BSS 7230	White	50A

## Double Pole Circuit Breakers

Part No.	Color	Amps
BSS 7232	Black	10A
BSS 7233	White	10A
BSS 7234	Black	15A
BSS 7235	White	15A
BSS 7236	Black	20A
BSS 7260	White	20A
BSS 7237	Black	30A
BSS 7238	White	30A
BSS 7239	Black	40A
BSS 7240	White	40A
BSS 7241	Black	50A
BSS 7242	White	50A



7540

7580

7568

## Single Pole Circuit Breakers

Part No.	DC Amps	AC Volts	Actuator
BSS 7540	5A DC	5A AC	Flat
BSS 7541	10A DC	10A AC	Flat
BSS 7542	15A DC	15A AC	Flat
BSS 7543	20A DC	20A AC	Flat
BSS 7545	30A DC	30A AC	Flat
BSS 7546	50A DC	50A AC	Flat
BSS 7547	60A DC	60A AC	Flat
BSS 7548	80A DC	80A AC	Flat
BSS 7549	100A DC	100A AC	Flat

## Double Pole Circuit Breakers

Part No.	DC Amps	AC Volts	Actuator
BSS 7560	—	30A AC	Flat
BSS 7580	—	30A AC	Raised
BSS 7561	—	50A AC	Flat
BSS 7581	—	50A AC	Raised
BSS 7563	—	80A AC	Flat
BSS 7583	—	80A AC	Raised
BSS 7564	—	100A AC	Flat
BSS 7584	—	100A AC	Raised
BSS 7475*	150A DC	—	Flat
BSS 7476*	200A DC	—	Flat

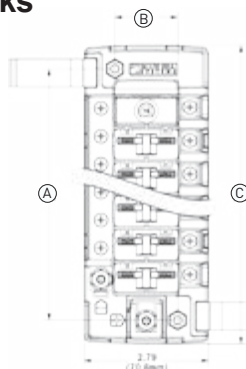
## Triple Pole Circuit Breakers

Part No.	DC Amps	AC Volts	Actuator
BSS 7565	—	50A AC	Flat
BSS 7585	—	50A AC	Raised
BSS 7568	—	100A AC	Flat
BSS 7588	—	100A AC	Raised
BSS 7477*	250A DC	—	Flat
BSS 7554*	300A DC	—	Flat

## ST CLB Circuit Breaker Blocks



5052



Compact surface mount solution providing secure screw termination where Push Button Reset-Only CLB Circuit Breakers are desired. Clear insulating cover w/ square format label recesses which satisfies ABYC/USCG requirements. Quick connect clips allow circuit breakers to snap easily into place. Tin-plated copper busses and screw terminals. Break-outs allow wire access in two directions. Accepts ring terminals. Optional push button waterproof boots or dress nuts can be installed over cover. Accepts square labels. Negative Bus #10-32 stud.

Circuit breakers sold separately.

Part No.	Positions	[A] Mounting Centers	[B] Mounting Centers	[C] Height
BSS 5052	6	5.63	1.40	6.69
BSS 5054	12	10.13	1.71	11.19

## Residual Current Circuit Breakers



3102100

3104

3093

ELCI Main Residual Current Devices (RCDs) respond to leakage of electrical current outside of the intended circuit path. Trips on short circuit, overload, or leakage to ground. ELCI Main – Provides overcurrent and leakage protection per ABYC E-11 for whole boat shore power protection. Flat rocker, ignition protected **Circuit Breakers**

Part No.	Series	Nominal Voltage	Poles	AC Amps
BSS 3102100	A-Series	120V AC per pole	2	30A
BSS 3104	C-Series	120/240V AC per pole	3	50A
BSS 3093	C-Series	240V AC per pole†	2	50A



## C-Series Toggle Circuit Breakers



### Single Pole Circuit Breakers

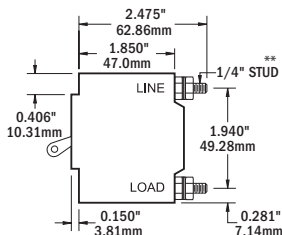
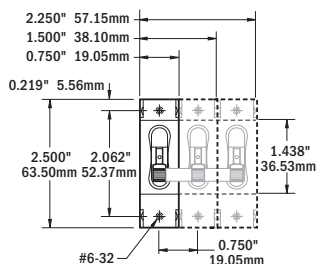
Part No.	Color	DC Amps	AC Amps
BSS 7350	White	5A DC	5A AC
BSS 7351	White	10A DC	10A AC
BSS 7352	White	15A DC	15A AC
BSS 7353	White	20A DC	20A AC
BSS 7354	White	25A DC	25A AC
BSS 7355	White	30A DC	30A AC
BSS 7244	White	50A DC	50A AC
BSS 7246	White	60A DC	60A AC
BSS 7248	White	80A DC	80A AC
BSS 7250	White	100A DC	100A AC
BSS 7250I	Red	100A DC	100A AC

### Double Pole Circuit Breakers

Part No.	Color	DC Amps	AC Amps
BSS 7365	White	—	30A AC
BSS 7251	White	—	50A AC
BSS 7254	White	—	60A AC
BSS 7256	White	—	80A AC
BSS 7258	White	—	100A AC
BSS 7267*	White	150A DC	—
BSS 7268*	White	175A DC	—
BSS 7269*	White	200A DC	—

### Triple Pole Circuit Breakers

Part No.	Color	DC Amps	AC Amps
BSS 7287	White	—	50A AC
BSS 7288	White	—	60A AC
BSS 7289	White	—	80A AC
BSS 7290	White	—	100A AC
BSS 7270*	White	250A DC	—
BSS 7271*	White	300A DC	—



## 285-Series Circuit Breaker

Self trimming molded rubber bezel.  
Use with 285-Series or 185-Series  
Panel Mount Circuit Breakers

Part No.	Description
BSS 7198	Panel Mount Adapter



## 285-Series Circuit Breaker

Drop in replacement for 185-Series Circuit Breakers. Visible reset lever shows open condition. Weather Resistant and Ignition protected. Safe for installation aboard gasoline powered boats. Meets SAE J1171 external ignition protection requirements. Combines switching and circuit breaker function into one unit. "Trip Free" cannot be held closed after trip.

Panel Mount Part No.	Surface Mount Part No.	Amps
BSS 7080	BSS 7180	25A DC
BSS 7081	BSS 7181	30A DC
BSS 7082	BSS 7182	40A DC
BSS 7083	BSS 7183	50A DC
BSS 7084	BSS 7184	60A DC
BSS 7085	BSS 7185	70A DC
BSS 7086	BSS 7186	80A DC
BSS 7087	BSS 7187	100A DC
BSS 7088	BSS 7188	120A DC
BSS 7089	BSS 7189	150A DC



Panel Mount



Surface Mount

## 187 Series Circuit Breakers

Provides circuit protection for 25 to 200 Amp loads when switching and circuit protection are both required.

### Features:

- Self-trimming case eliminates need for mounting panels or trim bezels
- Visible yellow reset lever shows open condition
- Trip-free design cannot be held closed after trip
- Large clearance around terminal studs accepts up to 1/0 AWG lugs
- Recessed mounting holes for clean appearance
- 5/16"-18 terminals provide high torque connections
- 5,000A AIC for large battery banks

### Specifications:

Interrupting Capacity 5,000A @ 12V DC  
3,000A @ 24V DC  
1,500A @ 42V DC

Voltage Max. Operating 48V DC

Amperage Trip Reference See table

Temperature Min. Operating -40°C

Temperature Max. Operating 85°C

Type Thermal

Class Type III—Switchable/Manual Reset—Trip Free

Terminal Stud 5/16"-18

Terminal Stud Torque 75 in-lb max.

Trip Time Delay See [www.bluesea.com](http://www.bluesea.com)

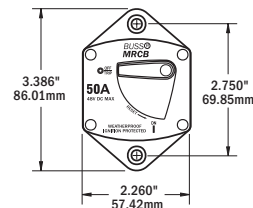
Mounting Hole Accepts #10 (M5) Screw

### Regulatory:

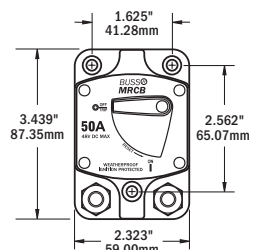
Meets SAE J1171 external ignition protection requirements IP66—protected against powerful water jets



Panel Mount



Surface Mount





## Medium Duty Push Button Reset-Only Circuit Breakers

Provides circuit protection for 15 to 60 Amp loads when switching is provided elsewhere is not required.

### Features:

- Weatherproof
- Can be used as Main or Branch
- Push-to-reset operation
- Trip Free design cannot be held ON during fault current condition
- Captive star lock washers meet requirements for anti-rotation and eliminate handling of small, easily dropped parts.

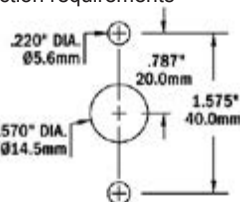
### Specifications:

Interrupting Capacity 5,000A @ 32V DC  
3,000A @ 120V AC  
Voltage Max. Operating 32V DC / 120V AC  
Temperature Min. Operating -54°C  
Temperature Max. Operating 74°C  
Type thermal trip, manual reset  
Terminal Stud #10-32 Stainless Steel  
Terminal Stud Torque 30 in-lb max.  
Trip Time Delay. See [www.blueseasystems.com](http://www.blueseasystems.com)  
Mounting Thread #8 -32:

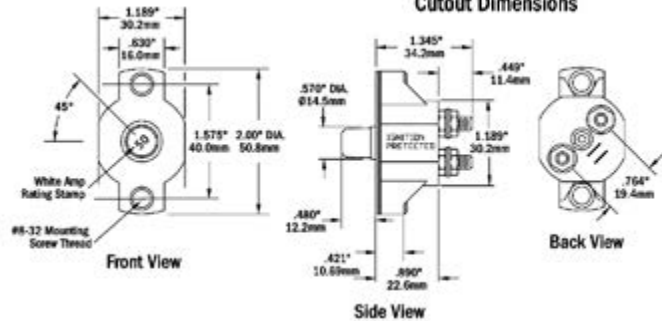
### Regulatory:

SAE J1428, SAE J553, UL 1077  
Meets UL 1500 external ignition protection requirements

Part No.	Amps
BSS 2138	15A DC
BSS 2139	20A DC
BSS 2140	30A DC
BSS 2141	40A DC
BSS 2142	50A DC
BSS 2143	60A DC



Cutout Dimensions



Screw Terminals



Quick Connect Terminals

## Push Button Reset-Only CLB Circuit Breakers

Provides economical circuit protection for 3 to 40 Amp loads when switching is provided elsewhere or not required

### Features Terminals

- Quick connect or screw terminal style
- Compact design enables high density circuit protection configurations
- Push-to-reset operation
- Trip Free design cannot be held ON during fault current condition
- Optional push button waterproof boot

### Specifications:

- Interrupting Capacity 3,000A @ 14.7V DC/2,500A @ 28V DC Voltage Max. Operating 32V DC.
- Temperature Min. Operating -10°C. Temperature Max. Operating 60°C. Type Thermal trip, manual reset. Terminals #8 Screw Terminals or Terminals Screw Terminal Torque 6 in-lb max. Trip Time Delay. See [www.blueseasystems.com](http://www.blueseasystems.com). Thread 8"-27 UNS

### Screw Term

#### Part No.

BSS 2129  
BSS 2130  
BSS 2131  
BSS 2132  
BSS 2133  
BSS 2134  
BSS 2135  
BSS 2136  
BSS 2137

### Quick Connect

#### Part No.

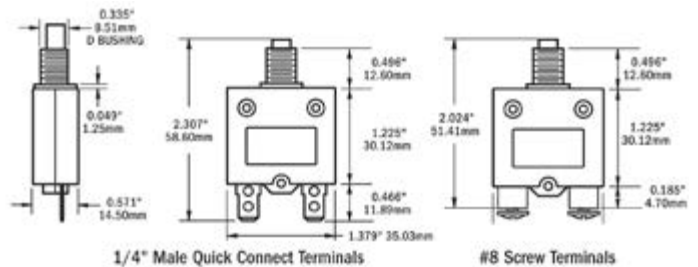
BSS 7050  
BSS 7052  
BSS 7053  
BSS 7054  
BSS 7056  
BSS 7057  
BSS 7058  
BSS 7059  
BSS 7061

### Amps

3A DC  
5A DC  
7A DC  
10A DC  
15A DC  
20A DC  
25A DC  
30A DC  
40A DC



Cutout Dimensions



## Push Button Reset-Only CLB Circuit Breaker Waterproof Boots

Protects push button circuit breakers in wet environments

### Features:

- Used on waterproof panels
- Protects circuit breaker in wet environments
- Replaces dress nut mounting on circuit breakers

### Specifications:

Thread Material Nickel-Plated Brass  
Thread 3/8"-27

### Regulatory:

IP67—protected against immersion up to 1 meter for 30 minutes

Part No.	Description	Retail Pack
BSS 4135	Clear	2
BSS 4136	White	2
BSS 4137	Black	2



## SMS Surface Mount System Panel Enclosure

Panel enclosure for ELCI Main circuit breakers and other large frame devices. Meets ABYC E-11 when used with an ELCI Main circuit breaker and mounted within 10 feet of the shore power inlet. Blank apertures for custom breaker loading. Clear cover allows easy view of circuit breaker status.



Part No.	Description	Exterior Dimensions
BSS 3113	6 blank circuit positions	7.6" x 7.4" x 4.7"





## WeatherDeck® Waterproof Panels

### Fuse Panel Specifications

Voltage Max. Operating	12V DC
Amperage Max. Operating	15A @ 12V DC (per circuit)
Amperage Operating Current (backlight)	10mA/Illuminated Circuit
Panel Cumulative Rating	2 Position—30A, 4 Position—60A 6 Position—90A, 8 Position—100A 15A Max.
Switch Rating	12V DC Nominal
Backlighting Voltage	12V DC
Fuses Available	1 —30A

### Switch Only Panel Specifications

Voltage Max. Operating	24 Volts DC
Amperage Max. Operating	15A @ 12V DC (per circuit)
Switch Rating	15A Max.

### Regulatory:

IP67—protected against immersion up to 1 meter for 30 minutes

Part No.	Description	Voltage	Dimensions
BSS 4374	4 Position Circuit Breaker	12V/24V DC	W 4.25" x H 4.30" x D 3.50"
BSS 4304	4 Position Fuse	12V DC	W 3.88" x H 4.30" x D 2.50"
BSS 4306	6 Position Fuse	12V DC	W 3.88" x H 6.00" x D 2.50"
BSS 4308	8 Position Fuse	12V DC	W 3.88" x H 7.70" x D 2.50"
BSS 4376	6 Position Circuit Breaker	12V DC	W 4.25" x H 6.00" x D 3.50"
BSS 4378	8 Position Circuit Breaker	12V DC	W 4.25" x H 7.70" x D 3.50"

Designed for open-cockpit and flybridge applications

### Features:

- Label Backlighting
- Fuse Model: Bicolored LEDs illuminate circuit labels to quickly identify OFF (Red), ON (Green), or Blown (No color) circuits
- Circuit Breaker Model: Green LEDs illuminate circuit labels
- Fuse and Circuit Breaker Models:
- Backlighting is compatible with DeckHand Dimmers
- Independent label backlighting allows switching and dimming
- Switch Only Model: No circuit protection or illuminated circuit labels
- Integrated switch guards reduce the risk of accidental switching
- Panels can be mounted in four different orientations including vertically or horizontally.
- Panel front rated IP67 when properly mounted with watertight mounting gasket
- UV stabilized weather-resistant faceplate snaps on and off providing access to components and concealing mounting screws
- Square Format Label Set 4215 included

### Circuit Breaker Panel Specifications

Voltage Max. Operating	12 or 24 Volts DC
Amperage Max. Operating	15A @ 12V DC (per circuit) 9A @ 24V DC (per circuit)
Amperage Operating Current (backlight)	10mA/Illuminated Circuit
Panel Cumulative Rating	45A
Switch Rating	15 Amps Maximum
Backlighting Voltage	12 or 24V DC
Backlighting Amperage Draw	10mA/Illuminated Circuit
Circuit Breaker Rating	15A

## AC Main Circuit Breaker Panels



Part No.	Description
BSS 8043	Main + 3 position 120VAC Panel. Main 30A (7238), 3 Branch, 15A (7210), 0—150V Meter 5.25 (133.35) x 7.50 (190.50) 2.50 (63.50)
BSS 8027	Main + 6 position 120VAC Panel, Main, 30A (7238) 3 Branch, 15A (7210) 5.25 (133.35) x 7.50 (190.50) 2.50 (63.50)

### CABIN LIGHTS

8031

### CABIN LIGHTS

8214



## Label Kits

Made of reinforced, weatherproof material.

Part No.	Color	Description	Size	Quantity
BSS 8030	Black	DC Panel Basic	W 1.438" x H .438"	30 Labels
BSS 8031	Black	AC Panel Basic	W 1.438" x H .438"	30 Labels
BSS 8214	Black	DC Panel Basic	W .625" x H .375"	60 Labels

## DC Branch Circuit Breaker Panels

8023



DC Branch panels distribute current from a high amperage input into lower amperage circuits. ON-indicating LEDs. Backlit label position.

Part No.	Description	Circuit Breakers
BSS 8023	12/24V DC, Metal 8 Positions W 5.25" x H 7.50" x D 2.50"	5 A-Series, 15A (7210)
BSS 8025	12/24V DC, 100A, 3 Positions W 5.25" x H 4.75" x D 2.50"	3 A-Series, 15A (7210)
BSS 8385	12/24V DC, Metal 8 Positions W 10.50" x H 4.50" x D 2.50"	6 A-Series, 15A (7210)

## ST-Blade Battery Terminal Mount Fuse Block Kit

Easy to install 4 ATO®/ATC® fused circuits. Mounts on the battery terminal stud. Screw terminals for securing wires. Four Nylon insulated ring terminals included. Insulating cover included. Accepts Small Format Circuit Labels  
Includes 1 fuse

Part No.	Description
BSS 5024	Covered Fuse Block with Labels & 1 Fuse





## ST Glass Fuse Blocks (Screw Terminals)

- Clear insulating cover with label recesses accepts Large Format Labels
- Cover satisfies ABYC/USCG insulation requirements
- Tin-plated copper buses & phosphor bronze fuse clips give 30 Amps rating per circuit
- Accepts AGC (Fast Acting), MDL (Time-Delay) and all other 3AG Glass Fuses



### Specifications

Maximum Voltage  
Maximum Amperage per circuit  
Maximum Amperage per block  
Fuse Type  
Fuse Rating  
Screw Terminal  
Lockwasher  
Base Material  
Cover Material

### Part No.

BSS 5015

### Description

32 Volts DC  
30 Amperes DC  
100 Amperes DC  
AGC/MDL Fuses  
1/8 to 30 Amperes DC  
#8-32 w/Captive Star

Reinforced Polycarbonate  
Polycarbonate

### Description

6 Circuit with Negative Bus



5025



5026



5029

## ST Blade Fuse Blocks Screw Terminal with Cover

Clear insulating cover with label recesses. Fits small format labels. Cover satisfies ABYC/USCG insulation requirements. Tin-plated copper buses and fuse clips give 30 Amperes rating per circuit. Accepts ATO and ATC fast acting blade fuses. Includes 20 write-on circuit labels.

### Specifications

Maximum Voltage  
Maximum Amperage per circuit  
Maximum Amperage per block  
Fuse Type  
Fuse Rating  
Screw Terminal  
Captive Star Lockwasher  
Base Material  
Cover Material  
Part No.  
BSS 5025  
BSS 5026  
BSS 5029

### Description

32 Volts DC  
30 Amperes DC  
100 Amperes DC  
ATO/ATC Fuses  
1 to 30 Amperes DC  
#8-32 Screws with

Reinforced Polycarbonate  
Polycarbonate

### Description

6 circuit with negative bus  
12 circuit with negative bus  
12 circuit without negative bus



1732

1733

## Mini OLED Meters

Monitors essential electrical system parameters on a bright, waterproof, daylight readable OLED screen

- Compact size enables mounting in any convenient location
- Reverse polarity protected
- Mounts in a common 1-1/8 in hole

Part No.	Description	Nominal Voltage	Input Voltage
BSS 1732	Ammeter	12 / 24V DC	8V-36V DC
BSS 1733	Voltmeter	12 / 24V DC	8V-36V DC

## Mini Clamp Multimeter



Clamp allows measurement of AC and DC current in wires without disturbing the circuits or contacting live terminals. Compact size allows comfortable hand operation, portability, and access to confined areas. Auto range simplifies operation by automatically selecting the range that best fits the data.

**Additional functions include:** Data Hold, Overload Display, and Auto Power-Off. True RMS AC measurement is accurate for normal sine waves and the modified sine wave outputs from inverters. Includes voltage test leads & carrying case

### Specifications:

	Amperage/Volts
AC Amperes- true RMS	0.01-400 Amperes
AC Voltage - true RMS	0.001-600 Volts
DC Amperes (Current)	0.01-400 Amperes
DC Voltage	0.001-600 Volts
Resistance/Continuity Alarm	0.1-40M Ω
Measurement Resolution	4300 counts

### Part No.

BSS 8110

### Description

Mini Clamp Multimeter

## Floyd Bell Turbo Series DC Audible Alarm

### Features:

- Rotating bezel adjusts alarm volume
- Threaded attachment ring
- Fits 1 inch round aperture

### Specifications:

Operating Voltage 5-30V DC

IP68 - Withstands water submergence and dust exposure



### Part No.

BSS 1070

### Description

Floyd Bell Turbo Series Alarm

## WeatherDeck® Toggle Switch

Specially manufactured by Carling Technologies for use in Blue Sea Systems' WeatherDeck® Panels. Nickel-plated brass and phenolic non-corrosive construction

Part No.	Pole/Throw	Action
BSS 4150	SPST	OFF-ON
BSS 4151	SPST	OFF-(ON)
BSS 4152	SPDT	ON-OFF-ON
BSS 4153	SPDT	(ON)-OFF-ON
BSS 4154	SPDT	(ON)-OFF-(ON)





## Contura Switch Water Resistant Panels

### Common Features:

- 15A Circuit breaker protection provided
  - Designed for 12 or 24V DC systems
  - Watertight mounting gasket
  - ON indicating LEDs embedded in all switches
  - Two-part polyurethane finish
- Available in white, gray & black

NOTE: Panel labels are not backlit

Specifications	Description
Operating Voltage	12 or 24 Volts DC
Switch Rating	20 Amperes @ 12 Volts DC 15 Amperes @ 24 Volts DC
Panel Cumulative Rating	45 Amperes

### Certifications and Agency Standards

- Rated IP66—withstands water from heavy seas per IEC60529-degree of protection provided by enclosure.

Part No.	Color	Circuit Breakers	Width	Height	Depth
BSS 8272	White	4 Push Buttons	5.25"	4.25"	3.25"
BSS 8273	White	6 Push Buttons	4.50"	7.50"	3.25"
BSS 8271	White	8 Push Buttons	9.37"	4.25"	3.25"
BSS 8372	Black	4 Push Buttons	5.25"	4.25"	3.25"
BSS 8373	Black	6 Push Buttons	4.50"	7.50"	3.25"
BSS 8371	Black	8 Push Buttons	9.37"	4.25"	3.25"

## Contura Switch Mounting Panels

Modular design permits assembly in groups of varying sizes



BSS 8267

BSS 8266

BSS 8268

BSS 8278

- Mounting panels available in 1, 3, and 6 fixed position models
- Designed for mounting in 6 different panel thicknesses:  
0.06 in (1.57 mm) 0.09 in (2.36 mm) 0.13 in (3.17 mm)  
0.19 in (4.75 mm) 0.25 in (6.35 mm) 0.38 in (9.52 mm)

Part No.	Description	Width in (mm)	Height in (mm)
BSS 8267	End Mounting Panel	1.19 (30.23)	2.30 (58.42)
BSS 8266	Center Mounting Panel	1.03 (26.16)	2.30 (58.42)
BSS 8268	1 Position Mounting Panel	1.34 (34.04)	2.30 (58.42)
BSS 8259	3 Position Mounting Panel	3.40 (86.36)	2.30 (58.42)
BSS 8260	6 Position Mounting Panel	6.49 (164.85)	2.30 (58.42)
BSS 8278	Single Mounting Panel Plug	0.960 (24.38)	1.910 (48.51)

BSS 7929  
Contura IIBSS 8230  
Contura IIIBSS 8282  
Contura III

## Water Resistant Contura Switches

Specially manufactured for use in Blue Sea Systems Contura Water Resistant Panels

Use of non Blue Sea Systems Contura Switches will not maintain the water resistant ingress protection rating of Blue Sea Systems panels.

- Vibration, shock, thermoshock, moisture and salt spray resistant
- Mounts in Blue Sea Systems Contura Water Resistant Panels (p. 89) and Contura Switch Mounting Panels

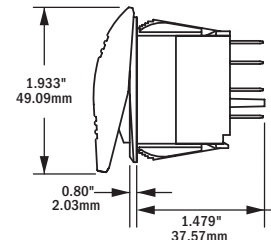
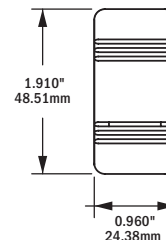
### Specifications:

Amperage Max. Operating	20A @ 12V DC, 15A @ 24V DC
Amperage Operating Current	18 Milliamps
Lighted	Internal and external gasket panel seal
Seals	Internal and external gasket panel seal
Temperature Rating	-40°C to 85°C
Mounting Hole	1.45 in x 0.83 in (36.83 mm x 21.08 mm)

### Regulatory

Meets UL 1500 and ISO 8846 external ignition protection requirements

Part No. Contura II Black	Part No. Contura III Gray	Part No. Contura III Black	Actuator Position to Light LED	Pole Throw	Action ( )=momentary	LEDs
BSS7929	BSS8230	BSS8282	ON	SPST	OFF-ON	1
BSS7930	BSS8231	BSS8292	-	SPST	OFF-(ON)	0
BSS7931	BSS8232	BSS8283	ON	SPDT	ON-OFF-ON	2
BSS7932	BSS8233	BSS8284	ON	SPDT	(ON)-OFF-ON	1
BSS7933	BSS8234	BSS8285	-	SPDT	(ON)-OFF-(ON)	0
BSS7943	BSS7944	BSS7945	(ON)	SPDT	(ON)-OFF-ON	1
BSS7934	BSS8218	BSS8287	ON	DPST	OFF-ON	1
BSS7935	BSS8219	BSS8288	-	DPST	OFF-(ON)	0
BSS7936	BSS8220	BSS8286	ON	DPDT	ON-OFF-ON	2
BSS7937	BSS8221	BSS8289	ON	DPDT	(ON)-OFF-ON	1
BSS7938	BSS8222	BSS8290	-	DPDT	(ON)-OFF-(ON)	0
BSS7939	BSS8275	-	ON	DPDT	ON-ON	2



## Contura Switch Actuator Removal Tool

Part No.	Description
BSS 8293	Actuator Removal Tool







3000

3002

11003

### HD-Series Heavy Duty Battery Switches

Made of reinforced polycarbonate 1/2" tin-plated copper studs. Accepts up to two 4/0 cables. Designed for panel or surface mount. Switches are ignition protected.

Size: 3-7/8" H x 3-7/8" W x 3-3/32" D

Part No.	Cont./Int./Cranking	Description
BSS 3000	600A/900A/1,750A	Single Circuit On/Off
BSS 3002	500A/700A/1,600A	Single Circuit 1/2/Both/Off
BSS 11003	500A/700A/1,600A	Single Circuit 1/2/Off



9001E

9003E

11001

### E-Series Compact Battery Switches

Made of reinforced polycarbonate with 350 amp continuous rating. Compact size for surface or flush mounting. Switches are Ignition Protected. Terminals 3/8". Size: 3-7/8" H x 3-7/8" W x 3-3/32" D

Part No.	Cont./Int./Cranking	Description
BSS 9001E	350A/600A/1,200A	Single Circuit 1/2/Both/Off
BSS 9003E	350A/600A/1,200A	Single Circuit On/Off
BSS 11001	350A/600A/1,200A	Single Circuit 1/2/Off



6005

6006

6007

### M-Series Mini Battery Switches

Made of reinforced polycarbonate designed for panel or surface mount. Switches are ignition protected. DC volts 48 max.

Size: 2-7/8" H x 2-7/8" W x 3-1/16" D

Part No.	Cont./Int./Cranking	Description
BSS 6005	300A/500A/900A	Single Circuit On/Off w/Key
BSS 6006	300A/500A/900A	Single Circuit On/Off w/Key
BSS 6007	300A/500A/900A	1/2/Both/Off with Knob



5511E

6011

### E-Series Dual Circuit Plus™ Battery Switch

Switch two battery banks simultaneously with one simple ON/OFF switch while maintaining battery bank isolation. The COMBINE BATTERIES function combines banks in the event of a low battery. Terminals 3/8". Ignition Protected.

Part No.	Cont./Int./Cranking	Description
BSS 5511E	350A/525A/1,000A	Dual Circuit, On/Off/Combine 3.85"H x 3.85"W x 3.097"D
BSS 6011	300A/450A/650A	Dual Circuit, On/Off/Combine, 2.83"H x 2.83"W x 2.18"D

### SI-Series Automatic Charging Relay

- Automatically combines batteries during charging
- Isolates batteries when discharging and starting engines.
- Protects sensitive electronics by temporary isolation of house loads from engine circuit during engine cranking.
- Designed for 12 or 24 Volt systems (auto ranging)
- Waterproof rated IP67 - temporary immersion for 30 minutes
- LED light indicates when batteries are combined
- Remote LED output indicates relay state away from ACR
- Supports high-output alternators up to 120 Amperes
- Ignition protected - safe for installation aboard gasoline-powered boats
- Terminals 3/8".
- DC 12 or 24 V
- Size: 3-1/2" H x 3-7/8" W x 2" D

Part No.	Cont./Intermittent	Description
BSS 7610	120 / 210 Amps	SI-Series ACR



Alternators  
up to **120A**



### Add A Battery (Dual Circuit System)

#### 5511e, Dual Circuit Plus Battery Switch

- Simplifies switching of two battery banks
- Isolates engine and house circuits
- Combines batteries for emergency starting

#### 7610, 120 Amp SI\* Automatic Charging Relay

- Automatically combines batteries during charging
- Isolates batteries when discharging and when starting engines

Part No.	Description
BSS 7650	Dual Circuit System (5511e and 7610)



## L Series Solenoid Switch

250 Amp switch is remotely activated using a low amp switch and smaller gauge wire

### Specifications:

Voltage Nominal 12/24V DC

### Contact Rating:

Continuous Rating 300A\*

Cranking Rating (30 sec.) 1,000A\*



Part No.	Description
BSS 9012	L Series Solenoid Switch

## ML Series Remote Battery Switches

### Specifications:

- 12V DC
- Control Circuit Voltage 9–16V DC
- Meets ISO 8846 and SAE J1171 external ignition protection requirements
- Rated IP66 IP66 - protected against powerful water jets (see inside back cover)

7700



9160

### Wire Size and Current Ratings

Wire Size	Cranking 30 sec.	Intermittent 5 min.	Continuous (UL 1107)
4/0 AWG (120 mm <sup>2</sup> )	1,100A	400A	300A

### Wire Harness Connections

Wire	7700	7713
Color	Circuit Function	Circuit Function
Red	+V DC, 24 Hour	Control +V DC, To Close
Black	Ground	Ground
Yellow	-V DC LED Output	-V DC LED Output
Brown	+V DC, To Close	--
Orange	+V DC, To Open	--

Part No.	Nominal Voltage	Cable End	Packaged
BSS 7700	12V DC	Stripped Wire	Retail
BSS 7713	12V DC	Stripped Wire	Retail
BSS 9160	Paralleling link bus		

## 12 Volt Socket and Plugs

Easy to use in common 12V DC in boats, cars, and recreational vehicles. Compatible with popular mobile devices. Protective Cap. Protected from overheating.

Designed to withstand the rigors of wet environments and constant vibration

- Corrosion resistant materials
- Twist lock system - plug locks securely into socket
- Internal strain relief and cord seal
- Nickel plated copper alloy used for all current carrying components
- Sealing ring keeps out spray and make it seat firmly in the socket
- Protective dust cap keeps debris and moisture out

### Part No. Description

BSS 1015 Plug & Socket Set (Also Sold Separately)

BSS 1045 12/24V Dual USB charger. 1 1/8" Hole Mount



## Fast Charge 4.8A Dual USB Charger, Switch Mount

A smart USB charger that will look at home next to Contura switches. Having a dedicated USB outlet is easier than using an adapter or the device's charger with an AC outlet. Make better use of the space at your helm by installing a practical USB charger.

### Key Features:

- Two USB 2.0 connections
- 8A output compatible with most mobile device; including Apple® products
- Features intelligent device recognition to tailor charging needs to different devices
- Charges at rate of traditional wall outlets
- Compatible with Contura switch panels and bezels
- Corrosion resistant materials Internal filtering to reduce electronic interference
- Protective dust cap keeps out dust and spray
- Conformal coated circuit board for the marine environment
- Reverse polarity protection
- Short circuit protection
- Thermal overload protection
- Lifetime warranty

### Part No. Description

BSS 1039 Rectangle 12/24V Dual USB charger

BSS 1045 Round 12/24V Dual USB charger.

1 1/8" Hole Mount



1039

1045

## Traditional Metal Panels



8367

8365

8357

8366

8363

8386

8369

8361

### Max Operating

Part No.	Voltage.	Fits Switch	Panel Size
BSS 8367	120V AC	BSS 9009	W 5.25" x H 3.75" x D 1.91"
BSS 8365	120V AC	BSS 9011	W 5.25" x H 3.75" x D 2.41"
BSS 8357	230V AC	BSS 9011	W 5.25" x H 3.75" x D 2.41"
BSS 8366	120V AC	BSS 9010	W 5.25" x H 3.75" x D 2.41"
BSS 8363	240V AC	BSS 9019	W 5.25" x H 3.75" x D 3.65"
BSS 8386	240V AC	BSS 6337	W 5.25" x H 3.75" x D 2.98"
BSS 8369	240V AC	BSS 9093	W 5.25" x H 3.75" x D 4.50"
BSS 8361	240V AC	BSS 9077	W 5.25" x H 3.75" x D 5.50"

## P12 Battery Chargers

Four stage, three output, dry mount design, for use in harsh environments. Battery Temperature Compensation - adjusts charge voltage based on battery temperature. Universal AC Input Voltage 90V–265V AC. Input Frequency Range 45–65 Hz. Ignition Protection per ISO 8846, and SAE J1171.



7532

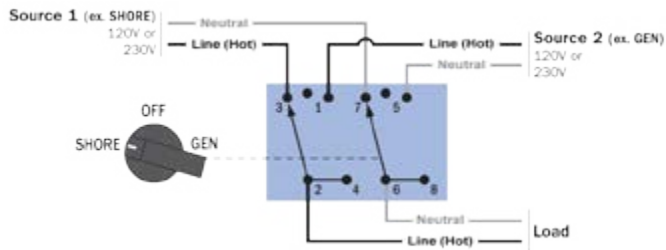
Part No.	Amps	Volts	Width	Height	Depth
BSS 7531	25A	12V DC	8.46"	13.00"	4.30"
BSS 7532	40A	12V DC	8.46"	13.00"	4.30"



### AC Source Selection Rotary Switches

#### 30 Amp 2 Positions + OFF, 2 Pole Rotary Switch

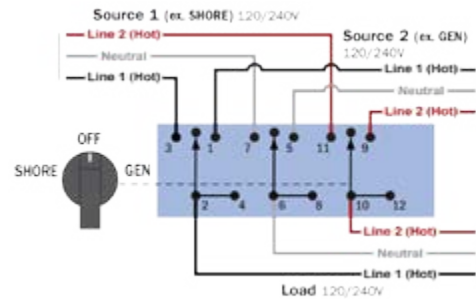
- Switches 2 sources
- Allows connecting one of two different AC sources to one circuit



Part No.	Voltage Max.	Wire Size	Panel Size
BSS 9009	600V AC	14–10 AWG	W 1.89" x H 1.89" x D 1.91"

#### 65 Amp 2 Positions + OFF, 3 Pole Rotary Switch

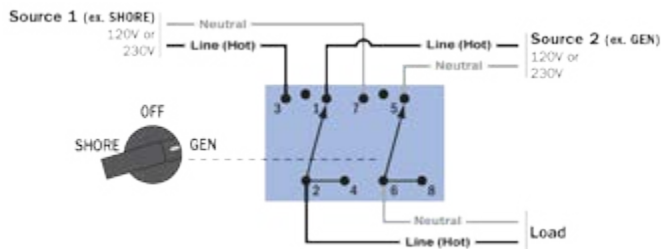
- Allows connecting one of two different AC sources to one circuit
- Switches 2–120/240 Volt AC sources
- Switches both lines (hots) and neutral



Part No.	Voltage Max.	Wire Size	Panel Size
BSS 9019	600V AC	12–6 AWG	W 2.52" x H 2.52" x D 3.65"

#### 65 Amp 2 Positions + OFF, 2 Pole Rotary Switch

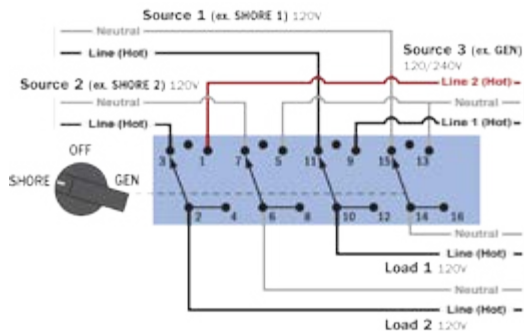
- Switches 2 sources
- Allows connecting one of two different AC sources to one circuit



Part No.	Voltage Max.	Wire Size	Panel Size
BSS 9011	600V AC	12–6 AWG	W 2.52" x H 2.52" x D 2.41"

#### 30 Amp 2 Positions + OFF, 4 Pole Rotary Switch

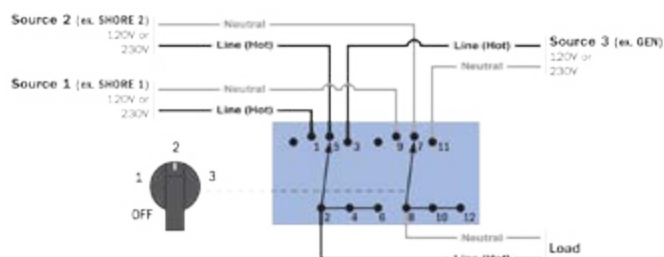
- Switches between 2–120 Volt AC shore power sources and 1–120/240 Volt AC source to 2–120 Volt AC load groups
- Switches both lines (hots) and neutral



Part No.	Voltage Max.	Wire Size	Panel Size
BSS 6337	600V AC	14–10 AWG	W 1.89" x H 1.89" x D 2.98"

#### 30 Amp 3 Positions + OFF, 2 Pole Rotary Switch

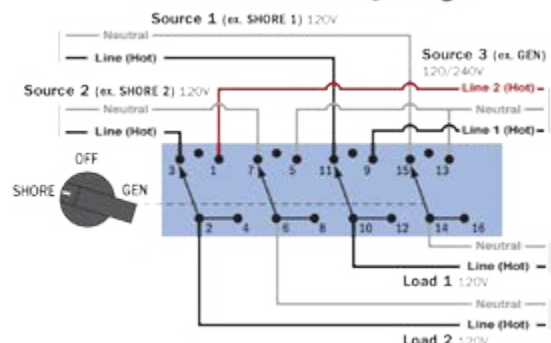
- Switches 3 sources
- Allows connecting one of three different AC sources to one circuit



Part No.	Voltage Max.	Wire Size	Panel Size
BSS 9010	600V AC	14–10 AWG	W 1.89" x H 1.89" x D 2.41"

#### 65 Amp 2 Positions + OFF, 4 Pole Rotary Switch

- Switches between 2–120 Volt AC shore power sources and 1–120/240 Volt AC source to 2–120 Volt AC load groups
- Switches both lines (hots) and neutral



Part No.	Voltage Max.	Wire Size	Panel Size
BSS 9093	600V AC	12–6 AWG	W 2.52" x H 2.52" x D 5.50"

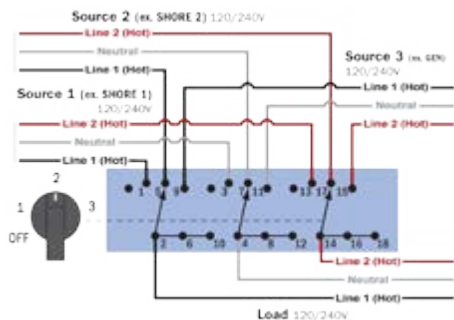




## AC Source Selection Rotary Switches

### 65 Amp 3 Positions + OFF, 3 Pole Rotary Switch

- Allows connecting one of three different AC sources to one circuit
- Switches 3—120/240 Volt AC sources
- Switches both lines (hot) and neutral



Part No.	Voltage Max.	Wire Size	Panel Size
BSS 9077	600V AC	12–6 AWG	W 2.52" x H 2.52" x D 5.50"



2701



2702

## DualBus 100 Ampere Common BusBars

Combines negative and positive buses on one block

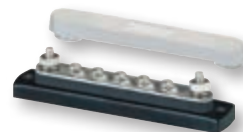
Specifications	Description
Continuous Rating	100 Amperes AC/DC
Maximum Voltage Rating	300 Volts AC/48 Volts DC
Bus Material	Tin-Plated Copper
Base and Cover Material	ABS
Part No.	Description
BSS 2701	5 x 8-32 Screw Terminal per bus
BSS 2702	10 x 8-32 Screw Terminal per bus
BSS 2709	Cover for 2701
BSS 2710	Cover for 2702



## 30 Ampere Terminal Blocks

- Closed back design completely insulates power from the mounting surface
- Each screw pair is 1 isolated circuit
- Jumpers allow creation of common circuits

Specifications	Description
Continuous Rating	30 Amperes AC/DC
Maximum Voltage Rating	600 Volts AC/DC Maximum
Bus Material	Tin-Plated Brass
Base Material	Phenolic
Part No.	Circuit/Description
BSS 2502	2 Gang
BSS 2504	4 Gang
BSS 2508	8 Gang
BSS 2510	10 Gang
BSS 9217	Terminal Block Jumpers



## Ampere Common BusBars

Specifications	Description
Maximum Voltage Rating	300 Volts AC/48 Volts DC
Bus Material	Tin-Plated Copper
Base Material	Reinforced Polycarbonate
Cover Material	Clear Polycarbonate

### Continuous Rating 100 Amperes AC/DC

Part No.	Terminal Studs	Terminal Screws
BSS 2304	2 x #10-32	5 x #8-32
BSS 2314	2 x #10-32	5 x #8-32
BSS 2305	4 x #10-32	—
BSS 2315	4 x #10-32	—
BSS 2306	—	6 x #8-32
BSS 2713	Cover For MiniBus 2304 and 2305	—

### Continuous Rating 150 Amperes AC/150 Amperes DC

Part No.	Terminal Studs	Terminal Screws
BSS 2301	2 x 1/4"-20	10 x #8-32
BSS 2300	2 x 1/4"-20	10 x #8-32
BSS 2302	2 x 1/4"-20	20 x #8-32
BSS 2312	2 x 1/4"-20	20 x #8-32
BSS 2303	4 x 1/4"-20	—
BSS	4 x 1/4"-20	—
BSS 2715	Cover For BusBar 2301 and 2303	—

### Continuous Rating 250 Amperes AC/DC

Part No.	Terminal Studs	Terminal Screws
BSS 2105	2 x 5/16" -18	12 x #10-24
BSS 2126	6 x 5/16" -18	—
BSS 2718	Cover 2105 & 2126	—
BSS 2127	4 x 5/16" -18	—
BSS 2128	2 x 5/16" -18	6 x #10-24
BSS 2719	Cover For 2127 & 2128	—

### Continuous Rating 600 Amperes AC/DC

Part No.	Terminal Studs	Terminal Screws
BSS 2104	4 x 3/8" -16 Studs	4 x #8-32
BSS 2107	8 x 3/8" -16	4 x #8-32
BSS 2108	Cover For 2104	—

## DualBus 150 Ampere Common BusBars

- Combines negative and positive buses on one block
- Clear polycarbonate cover snaps on to meet Coast Guard and ABYC insulation requirements

Specifications	Description
Continuous Rating	130 Amperes AC/150 Amperes DC
Maximum Voltage Rating	300 Volts AC/48 Volts DC
Bus Material	Tin-Plated Copper
	CDA 110/UNS11000
Base Material	Reinforced Polycarbonate
Cover Material	Clear Polycarbonate
Part No.	Description
BSS 2722	1/4" Stud, 5 x 10-32 Screw Terminal



## MiniBus - 100A Common BusBars

Provides convenient busging for limited space applications

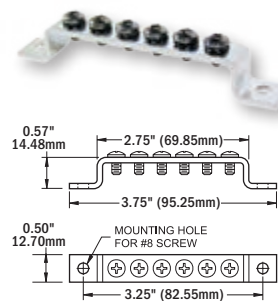
Features:

- One-piece serrated flange nut ensures correct and secure connections

### Specifications:

Continuous Rating 100A DC  
Voltage Max. Operating 48V DC  
Mounting Holes Accepts #10 (M5) Screws†  
Bus Material Tin-Plated Copper C11000

Part No.	Terminal Screw
BSS 2306	6 x #8-32





## PowerPost Cable Connectors

Insulated single stainless steel stud terminates multiple large conductors.

Features:

- One-piece serrated flange nuts ensure correct and secure connections
- Includes insulator

### Specifications:

Continuous Rating: Not rated—amperage flows between terminals stacked on post and is determined by wire and terminals used. Max Operating Voltage 48V DC

Part No.	Terminal Stud
BSS 2011	1/4" x 3/4"
BSS 2002	5/16" x 7/8" Stud
BSS 2003	3/8" x 7/8" Stud



## Dual PowerPost Cable Connectors



- 2016/2017 are designed for connecting high amperage conductors
- 2018 is designed for outboard engine installation when factory cables need to be extended
- Includes one black and one red insulating boot

### Specifications:

Continuous Rating	Not rated—amperage flows between terminals stacked on post and is determined by wire and terminals used
Maximum Voltage Rating	48 Volts DC
Mounting Holes	Accepts #10 (M5) Screws

Part No.	Terminal Studs	Weight Lb (Kg)
BSS 2016	2x5/16"	0.27 (0.12)
BSS 2017	2x3/8"	0.27 (0.12)
BSS 2018	1x5/16", 1x3/8"	0.27 (0.12)

## Terminal Feed Through Connectors

Eliminates chafe and provides strain relief when passing high current through hulls, decks and bulkheads

### Features:

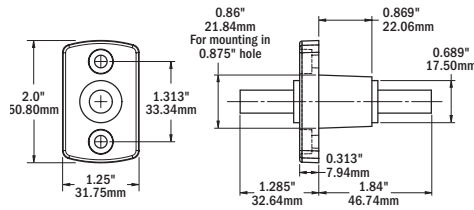
- Protects large cables that are subject to chafing when passed through holes.
- The large terminals have a mounting face that can be gasketed or bedded to provide a water tight installation.
- One-piece serrated flange nut ensures correct and secure connections.

### Specifications:

Stud Material Tin-Plated Copper Alloy  
Mounting Holes Accepts #10 (M5) Screws

Regulatory:

Rated IP66—protected against powerful water jets



Part No.	Description	Amps	Volts	Color
BSS 2201	5/16"-18 Stud	250A	48V	Black
BSS 2202	5/16"-18 Stud	250A	48V	Red



## Cable Clams

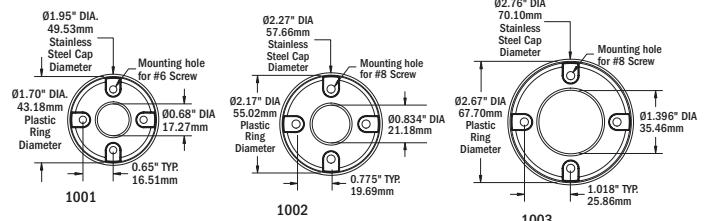
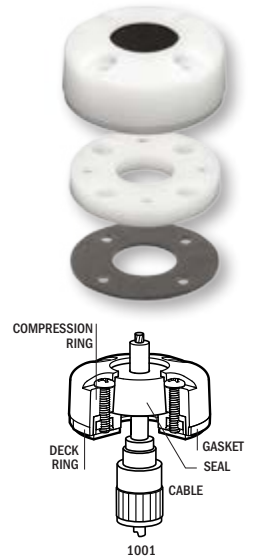
Provides a waterproof pass-through for antenna cables without requiring removal of the factory installed connector

### Features:

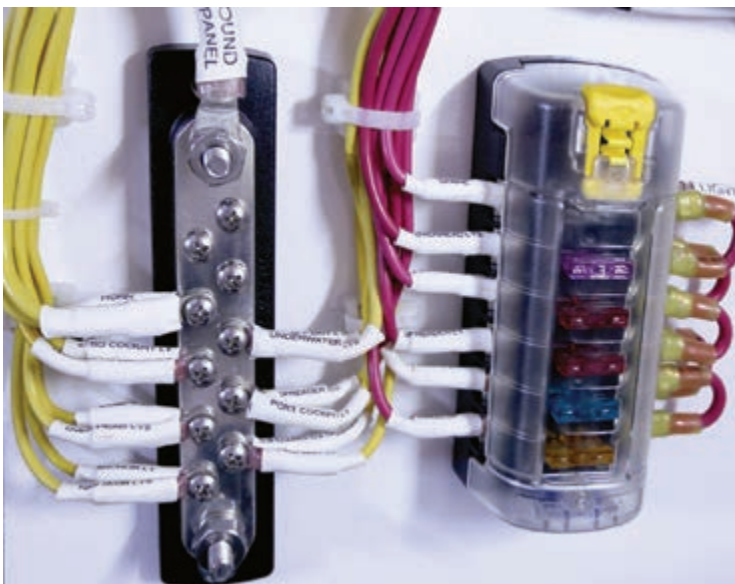
- Save the expense of removing and replacing connectors
- Avoid poor connections from removing factory connectors
- Use 1001 for GPS cables, 1002 for VHF cables and 1003 for radar cables
- Pre-drilled and slit rubber seals for easier installation
- Stainless steel fasteners included

### Specifications:

Ring Material UV-Stabilized Thermoplastic  
Seal Material UV-Stabilized Buna-N Rubber  
Stainless Steel Cap



Part No	Max. Connector Dia. in (mm)	Max. Cable Dia. in (mm)	Mounting Holes
BSS 1001	0.68 (17.0)	0.31 (8.0)	#6 x 7/8" screws
BSS 1002	0.83 (21.0)	0.44 (11.0)	#8 x 7/8" screws
BSS 1003	1.40 (35.0)	0.56 (14.0)	#8 x 7/8" screws
BSS 1001100	0.68 (17.0)	0.31 (8.0)	#6 x 7/8" screws
BSS 1002100	0.83 (21.0)	0.44 (11.0)	#8 x 7/8" screws
BSS 1003100	1.40 (35.0)	0.56 (14.0)	#8 x 7/8" screws







# BoatersBest™

Organize That Can of Worms with a  
**BoatersBest™**  
Wire Harness

## Engine Harness



**Part No.**  
BBB 062003

This engine harness features a round 9-Pin MerCruiser style female plug with square mount support and 6 foot leads.

## Engine Harness



**Part No.**  
BBB 062004

This engine harness features a round 9-Pin MerCruiser style female plug with 6 foot leads

## Instrument Panel Harness



**Part No.**  
BBB 062001

8 Prong male rectangular plug to individual wire end. Aprox 3'.

## Trim-Tilt Harness



**Part No.**  
BBB 062018

Mercury / MerCruiser Trim-Tilt Adaptor Harness. Converts early style Merc trim motors to Delphi style plug. Makes rigging as simple as plug-and-go.

## Trim-Tilt Harness



**Part No.**  
BBB 062017

Mercury / MerCruiser Trim-Tilt Harness Fits most all Mercury and MerCruiser trim and tilt pumps. 20' in length

## Y- Harness



**Part No.**  
BBB 062002

For dual station applications: 3 plugs, 1 male & 2 female, 8 prong rectangular plug. Aprox 3'.

## Engine Extension Harness



Part No.	Length
BBB 062008	1'
BBB 062009	3'
BBB 062010	10'
BBB 062011	13'
BBB 062012	16'
BBB 062013	19'
BBB 062014	22'
BBB 062015	25'
BBB 062016	28'

This engine extension harness features a round 9-Pin male MerCruiser style plug on one end and a rectangular 8-Pin female plug on the other end.

## Deutsch Connector



**Part No.**  
BBB 062019  
BBB 062020

**Description**  
01' blunt cut Pigtail  
18' Merc I/O Harness

One foot blunt cut wire leads and 14 pin deutsch connector to mate with female connector on Mercury Engines. Available in custom lengths. Full length Mercury I/O Harness available with 8 way female to connect Mercury Engine to Dash.

## Engine Extension Harness



**Part No.**  
BBB 062005  
BBB 062006  
BBB 062007

**Description**  
length 10'  
length 16'  
length 25'

This engine extension harness features an 8-Pin female plug on one end and an 8-Pin male plug on the other end.



**NEW****MARINCO****Power Cord Plus® Cordset**

Heavy duty, super flexible marine grade cable with watertight molded plugs and connectors. The boatside connector features a molded-in LED light for visual power indication.



Part No.	Desc.
MCO 199117	30A 125V, 25 ft (yellow)
MCO 199119	30A 125V, 50 ft (yellow)
MCO 199120	30A 125V, 50 ft (white)
MCO 6152SPP-25	50 Amp 125/250V (4-Wire) 25 ft (yellow)
MCO 6152SPP	50 Amp 125/250V (4-Wire) 50 ft (yellow)
MCO 6152SPPW-25	50 Amp 125/250V (4-Wire) 25 ft (white)
MCO 6152SPPW	50 Amp 125/250V (4-Wire) 50 ft (white)
MCO 6152SPPW-55.P/O	50 Amp 125/250V Plug Only Cordset 55 ft
MCO 6152SPPW-75.P/O	50 Amp 125/250V Plug Only Cordset 75 ft

**“Y” Adapters**

These adapters are equipped with covers, sealing collars and are for use in wet locations.

Part No.	Desc.
MCO 153AY	Male: 50A 125/250V Female: 2-30A 125V

**Reverse “Y” Adapter**

The reverse “Y” provides 50A 125/250V power when only two 30A 125V receptacles are available, and capable of being combined to give 240VAC

Part No.	Desc.
MCO RY504-2-30	Male: 2-30A 125V Female: 50A 125/250V

**Easily Engaged Lock Cordsets**

The EEL (Easily Engaged Lock) Shore Power Cordset has a patented jaw-clamp design providing one-handed operation and a secure waterproof seal which completely eliminates the need for a locking ring. The EEL connection is built for the harshest environments and is UL approved. This easy-to-use cordset features a built-in cord indicator light. Best of all, this cord works with your current inlet.



Part No.	Desc.
MCO CS30-25	30A 125V, (Yellow) 25'
MCO CS30-50	30A 125V, (Yellow) 50'
MCO CS30-50W	30A 125V, (White) 50'
MCO CS504-25	50A 125/250V, (Yellow) 25'
MCO CS504-50	50A 125/250V, (Yellow) 50'
MCO CS504-50W	50A 125/250V, (White) 50'

**One Piece Adapter**

Part No.	Desc.
MCO S15-30	Male: 15A 125V Straight Blade Plug Female: 30A 125V Locking Connector.
MCO S30-15	Male: 30A 125V Locking Plug Female: 15 or 20A 125V Straight Blade Connector

**NEW****Carrying Strap**

Bundle and organize your shore power cables or hoses with this durable and flexible nylon carrying strap. Its adjustable design fits around cord sets or hoses up to 9" in diameter while the ergonomic, rubber handle makes carrying even larger 50 amp cord sets easy on your hand. A metal, reinforced grommet allows for hanging and storage.

Part No.	Desc.
MCO STRAP	Carrying Strap

**Cable Not Included****Pigtail Adapters**

These adapters are equipped with covers and sealing collars. For use in wet locations. Features an LED power-on indicator

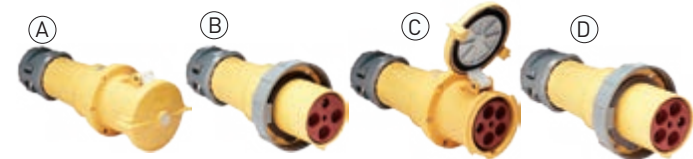
Part No.	Description.
(A) MCO 104SPP	Male: 15A 125V Straight Blade Female: 30A 125V Locking w/ Sealing Collar System
(B) MCO 117A	Male: 30A 125V Locking. Female: 50A 125/250V Locking w/ Sealing Collar System
(C) MCO 121A	Male: 50A 125/250V Locking. Female: 30A 125V Locking w/ Sealing Collar System
(D) MCO 150SPP	Male: 15A 125V Straight Blade Female: 50A 125V/250V Locking

**Shore Power Organizer Bag**

The organizer bag is made of heavy duty nylon. The zippered enclosure and handle make it ideal for storing or transporting Marinco cordsets and adapters.

Part No.	Desc.
MCO BAG	Store cordsets and adapters. Dimensions: 20" x 15" x 8"



**NEW****MARINCO****Female Connectors**

Part No.	Desc.
(A) MCO M4100C12	100A 125/250V, Mates with plugs on extension cords or adapters. Note: Does not mate with shore power inlet.
(B) MCO M4100C12R	100A 125/250V, Gasketed Locking Ring. Mates w/ M4100B12R inlet
(C) MCO M5100C9	100A 120/208V 3Ø, Mates with plugs on extension cords or adapters. Note: Does not mate with shore power inlet.
(D) MCO M5100C9R	100A 120/208V 3Ø, Mates with M5100B9R inlet.

**Male Plugs with Locking Ring**

Part No.	Desc.
MCO M4100P12	100A 125/250V, 3-Pole, 4-Wire, Male
MCO M5100P9	100-Amp, 120/208-Volt 3Ø, 4-Pole, 5-Wire, Male

**Power Inlets****Features:**

- Easy Lock™ system
- Soft touch cap design
- IP56 rated



Part No.	Desc.
MCO 301EL-B	30 Amp 125V, white plastic
MCO 303SSEL-B	30 Amp 125V, stainless steel
MCO 6373EL	50 Amp 125/250V, stainless steel. <b>Without</b> rear safety enclosure
MCO 6373EL-B	50 Amp 125/250V, stainless steel <b>With</b> rear safety enclosure

**Shore Power Inlet**

Gray inlet has a gasketed, spring-loaded cover providing an IP-67 watertight rating (withstands temporary immersion) when tightened.



Part No.	Desc.
MCO M4100B12R	100A, 125/250V, 3-Pole, 4-Wire, Male
MCO M5100B9R	100A, 120/208V 3Ø, 4-Pole, 5-Wire, Male

**Dockside Receptacle Spring loaded cover**

Part No.	Desc.
MCO M4100R12	100A 125/250V, 3-Pole, 4-Wire
MCO M5100R9	100A 120/208V 3Ø, 4-Pole, 5-Wire

**Male Plugs**

Male shore power plug features corrosion resistant contacts and terminals. The body is made of yellow nylon with a ribbed design for secure grip.

Part No.	Desc.
MCO 5266CR	Straight blade 15A 125V
MCO 305CRPN	Locking blade 30A 125V 2P 3W (L5-30R)
MCO 6365CRN	Locking blade 50A 125/250V 3P 4W

**Female Connectors**

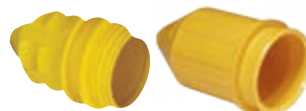
Ribbed nylon construction, color coded terminal pockets and screws.

Part No.	Desc.
MCO 5269CR	Straight Blade Connector 15A 125V
MCO 305CRCN	Locking Connector 30A 125V 2P 3W (L5-30R) Standard NEMA
MCO 6364CRN	Locking Connector 50A 125/250V 3P 4W

**Weatherproof Covers**

Heavy duty vinyl construction, use with plugs and connectors for superior seal.

Part No.	Desc.
MCO 102N	Use with 30A female cord connectors & plugs
MCO 7717N	Use with 50A female cord connectors & plugs

**Weatherproof Cover with Threaded Sealing Ring**

Part No.	Desc.
MCO 103RN	Use with 30A female cord connectors
MCO 7715CRN	Use with 50A female cord connectors

**Replacement Interior**

Part No.	Desc.
MCO 305CRMB	Fits: 303SSEL-B, 303SSI-B, 301EL-B 125V 30A boat inlets
MCO 6373ELMB	125/250V 50A Inlet Replacement Interior



**NEW****Marinco****561****MARINCO****Locking Receptacles**

These receptacles are made of corrosion resistant reinforced black nylon.



Part No.	Desc.
MCO 305CRRB	30A 125V 2P3W (L5-30R) Standard NEMA Locking Receptacle, Corrosion Resistant, Black
MCO 6369CR	50A 125/250V 3 pole, 4 Wire Dockside Receptacle

**HDTV/Internet Cable**

This 50 ft long 75 ohm, 3 GHz RG6 Quad Shield cable is gasket sealed and has weatherproof F-type connections on both ends.



Part No.	Desc.
MCO TVHD	50' Yellow

**Weatherproof Cover with Lift Lid**

Yellow LEXAN polycarbonate with lift lid is for use with Marinco receptacles.



Part No.	Desc.
MCO 7420CR	Fits: 20A & 30A single locking receptacles
MCO 7788CR	Fits: 50A female receptacles 6369CR & 6370CR

**Phone and Cable TV Inlet**

Part No.	Desc.
MCO PH6574TV	Plastic Phone & Cable TV Inlet
MCO TV6574	Plastic Cable TV Inlet Only

**Electrical Boxes**

FD Box with 3/4" or 1" K.O.  
Holes Accepts 15A, 20A, 30A & 50A receptacles and 7420CR & 7788CR covers



Part No.	Desc.
MCO 6083CR	3/4" knock-out holes provided.
MCO 6084CR	1" knock-out holes provided.

**Stainless Steel Phone and Cable TV Inlet**

Part No.	Desc.
MCO PH6592TV-SS	Phone & Cable TV Inlet
MCO TV6592	Cable TV Inlet Only

**Shore power Clips**

Part No.	Desc.
MCO CLIP-01	Set Of 6 Black, "S" Style clips

**Telephone and/or Cable TV Outlets**

Part No.	Desc.
MCO PH6597TV	Phone & Cable TV Outlet
MCO TV97	Cable TV Outlet Only

**NEW****Marine Antennas****BoatersBest™**

When the weather gets ugly and you're miles offshore you can rest a little easier knowing that the VHF antenna you installed will provide unsurpassed performance and reliability.

**Marine Fiberglass Whip Antennas**

Part No.	Description
AWM 150004	5' Antenna VHF White
AWM 150005	5' Antenna VHF Black
AWM 150009	5' Antenna VHF Dark Camo
AWM 150010	5' Antenna VHF Gray
AWM 150023	8' Antenna VHF White
AWM 150024	8' Antenna VHF Black
AWM 150401	8' Antenna AM/FM White
AWM 150402	8' Antenna AM/FM Black
AWM 150411	5' Antenna AM/FM White
AWM 150412	5' Antenna AM/FM Black
AWM 150414	5' Antenna AM/FM Dark Camo
AWM 150531	5' Antenna AM/FM/VHF White
AWM 150532	5' Antenna AM/FM/VHF Black
AWM 150901	White Nylon Antenna Mount
AWM 150902	Black Nylon Antenna Mount
BBB 370414	Stainless Antenna Mount



White      Gray      Black      Dark Camo

Made In The  
**USA**

LIMITED  
**LIFETIME**  
WARRANTY



White Nylon  
Antenna Mount



Black Nylon  
Antenna Mount



Stainless Steel  
Antenna Mount



## Push Button Switch



**Cole Hersee**

S.P.S.T. 2 Position, Mounting stem 5/8 dia. and 1" long for panels up to 3/4". Chrome plated button and face nut. Gasket sealed case. Rated 10A at 12 VDC. Screw Terminals 6-36 VDC



Part No.	Description
COL M-485	Normally "OFF" - "ON" with the button depressed; spring return to "OFF".
COL M-639	Normally "ON" - "OFF" with the button depressed; spring return to "ON".

## Pull Type Momentary Switch



**Cole Hersee**

Normally OFF-S.P.S.T. 2 Position; OFF-MON. ON. Pull to "ON", spring to "OFF" for starters, horns, & sirens. All brass construction, chrome embossed knob with "PULL" on the face. Mounting stem is 3/8" dia and 1-1/4" long, fits panel up to 1" thick. 10A at 12 VDC.



Part No.	Description	Volts
COL M-486	Screw Terminals	6-36 VDC

## Heavy Duty Push Button Switch



**Cole Hersee**

Normally "OFF" S.P.S.T. 2 Position: Off - Momentary On. "ON" with the button depressed; spring return to "OFF". Extra heavy duty molded plastic insulator with protective barrier between terminals. All brass construction and chrome plated button and face nuts. Mounting stem is 5/8" dia. and 1-3/8" long, fits panels up through 1" thick. 35A at 12 VDC.



Part No.	Description	Volts
COL M-490	Screw Terminals	6-36 DC

## Push Pull Switch



**Cole Hersee**

Normally OFF-S.P.S.T. 2 Position, OFF-ON. Chrome plate brass knob & face nut. 3/8" dia. stem, 1 1/4" long for panels up to 3/4" thick. 10A at 12 VDC.



Part No.	Description	Volts
COL M-628	Two Screw Terminals	6-36 VDC

## Threaded Black Cap



**Cole Hersee**

Rubber cap is fastened to the mounting nut. Embossed "PUSH". Fits push button switches with a 5/8" thread mounting stem.



Part No.	Description
COL 83280-03	Black Rubber

## Push Button Switch



**Cole Hersee**

Normally "OFF" S.P.S.T. 2 Position: Off - Momentary On. "ON" with the button depressed; spring return to "OFF". This switch has a molded plastic insulator with protective barrier between terminals. Has black moisture repellent rubber button cover. Mounting stem 5/8" dia and 1-3/8" long, fits panels up through 1" thick. 10A at 12 VDC.



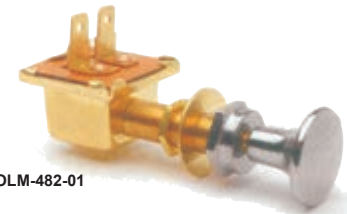
Part No.	Description	Volts
COL M-626	Screw Terminals	6-36 DC

## Push Pull Switch



**Cole Hersee**

Normally OFF-S.P.S.T. 2 Position, OFF-ON. Gasket sealed case protects against moisture & dirt. Chrome plated brass knob & face nut, mounting stem is 3/8" dia. and 1-1/4" long. Mounts in panels up through 3/4" thick. 10A at 12 VDC.



Part No.	Description	Volts
COL M-482	Screw Terminals	6-36 VDC
COL M-482-01	Male Blade Terminals	6-36 VDC

## Push Pull Switch



**Cole Hersee**

Normally OFF-S.P.S.T. 2 Position, OFF-ON. Plasticized body sealed against dirt and moisture. Two 18 gauge insulated copper wire leads, 12" long. Has chrome plated brass knob and nut. Mounts in panels up through 5/8" thick. 10A at 12 VDC.



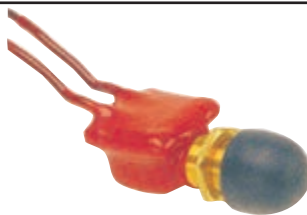
Part No.	Description	Volts
COL M-606	Wire Leads	6-36 VDC

## Push Button Switch



**Cole Hersee**

Normally "OFF" S.P.S.T. Positions: "OFF" - Momentary On. "ON" with button depressed; spring return to "OFF". Plasticized body seals against dirt & moisture. Has black moisture proof plunger cap. Two 12" - 16 gauge wire leads, mounting stem is 5/8" dia. and 15/16" long fits through panels 1/2" thick. 10A at 12 VDC.



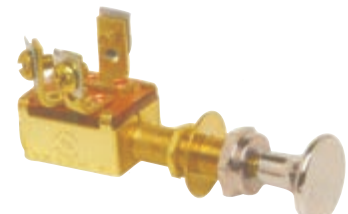
Part No.	Description	Volts
COL M-608	Wire Leads	6-36 VDC

## Push Pull Switch



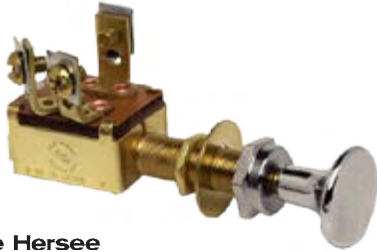
**Cole Hersee**

2 Position: ON-ON S.P.D.T. Brass housing three screw terminals, chrome plated brass knob and face nut. Brass mounting stem 3/8" thread, 1-1/4" long, fits panels up to 1" thick. 10A at 12 VDC.



Part No.	Description	Volts
COL M-630	3 Screws	6-36 VDC

### 3 Position - 2 Circuit Push Pull Switches



**CH** Cole Hersee

Normally "OFF" S.P.D.T. 3 Position: OFF - ON #1 - ON #1 & #2. Ideal for control of light circuits such as cabin & running lights. Energizes one circuit in first "ON" position. Energizes two or more circuits in second "ON" position. Chrome plated brass knob and face nut. Mounting stem is 3/8" dia. and 1-1/4" long. Mounts in panels up through 1" thick. 10A at 12 VDC.

Part No.	Description	Volts
COL M-476	3 Screw Terminals	6-36 VDC

### 3 Position - 2 Circuit Push Pull Switches



**CH** Cole Hersee

Normally "OFF" S.P.D.T. 3 Positions: OFF - ON #1 - ON #2 Permits two circuits (ex., running & anchor lights) to be operated independently with one switch. Chrome plated brass knob and face nut. Mounting stem is 3/8" dia. and 1-1/4" long. Mounts in panels up through 1" thick. 10A at 12 VDC.

Part No.	Description	Volts
COL M-531	3 Screw Terminals	6-36 VDC

### 3 Position - 3 Circuits Push Pull Switch



**CH** Cole Hersee

Normally "OFF" S.P.D.T. OFF-ON 1 & 2-ON 1 & 3. Brass housing, four brass screw terminals. Chrome plated knob 10-32" thread. Brass mounting stem. 3/8"-32" thread. 1-1/4" long fits panels up to 1" thick. 10A at 12 VDC.

Part No.	Description	Volts
COL M-532	4 Screw Terminals	6-36 D.C.

### Toggle Switches



**CH** Cole Hersee

2 Position, OFF-ON S.P.S.T. Chrome Plated Brass Bat, Stem & Nut. Stem dia. 5/32" fit panels to 1/4" 10A@12 VDC, 6A@125 VAC

Part No.	Bat Length	Connections
COL M-493	3/8"	Screw
COL M-484	11/16"	Screw
COL M-584	11/16"	6" Wire

### Heavy Duty Toggle Switches



**CH** Cole Hersee

Chrome Plated Brass Bat, Stem Dia. 15/32", Stem Length 15/32", fits panels to 9/32". 25A@12 Volt, 15A at 125 Vac.

Part No.	Circuitry	Terminals
COL 5582	ON-OFF S.P.S.T	2 Screws
COL 5584	ON-ON S.P.S.T	3 Screws
COL 5582-10*	ON-OFF S.P.S.T	2 Wires
COL 5586	ON-OFF-ON S.P.D.T	3 Screws
COL 5592	ON-OFF-OFF D.P.D.T	6 Screws
COL 55054	ON-OFF-MON. ON D.P.D.T	6 Screws

\*PVC Coated

### Toggle Boot Seal



**CH** Cole Hersee

Silicone rubber to a standard 15/32"-32 nickel plated brass hex nut.

Part No.	Description
COL 81264	Grey Full Boot Cover 11/16"
COL 81264-01	Black Full Boot Cover 11/16"
COL 81255	1/2 Boot, Handle Extends Beyond Boot

### Emergency Cut-Off Switch



Emergency cut-off switch developed to meet the needs of boaters everywhere. In an emergency, a quick pull on the 3 foot coil lanyard stops the engine preventing a runaway. All parts and complete instructions are included.

Part No.	Description
SIE MP40970-1	Emergency Cut-Off Switch
SIE MP40990	Spare Coil Lanyard

### Ignition & Starter Switches with Accessory Circuit

#### 4 Positions



**Cole Hersee**

4 POSITIONS - ACC. - OFF - IGNITION & ACCESSORY - IGNITION & START. Spring returns to Ignition & Accessory position. All brass case and mounting hardware, chrome plated face nut. Mounting stem is 13/16" dia and 1-7/32" long, fits panels up through 1" thick. Rated - 10A at 12 VDC.

**Part No.**  
COL M-712



### Battery Ignition Switch

#### 2 Positions



**Cole Hersee**

2 POSITIONS - OFF ON or OFF - IGNITION. All brass case & mounting hardware with chrome plated face nut. Mounting stem is 13/16" dia. and is 1-7/32" long, fit panels up through 1" thick. Rated 10A at 12 VDC.

**Part No.**  
COL M-489



### Ignition & Starter Switch Without Accessory Circuit

#### 3 Positions



**Cole Hersee**

Spring return to Ignition position and key removable only in "OFF" position. All brass case & mounting hardware with chrome plated face nut. Mounting stem is 13/16-24 dia. and 1-7/32" long, fits panels up through 1" thick. Rated - 10A at 12 VDC.

**Part No.**  
COL M-550



### Complete Audible Warning Kit



Audible warning system for engine temperature and pressure. Loud warning buzzer makes certain the operator is warned of dangerously high engine temperatures or low engine oil pressure. Kit includes instructions, oil pressure switch (set at 6 P.S.I.) and temperature switch (set at 200°F).

**Part No.**  
SIE MP41400

**Description**  
Complete Kit



### Sealed Key Switches



**Cole Hersee**

Fully sealed contact area includes a Deutsch connector, two booted keys, in a bubble package. Key is only removable in OFF position. Rated - 10A at 12 VDC., 5A at 24V DC.

**Part No.**  
COL 95060-60-BP

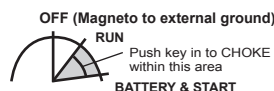
**Description**  
3 Pos. OFF-RUN-START  
for Outboards

COL 95060-50-BP

4 Pos. ACC-OFF-RUN-START  
for Inboards/I.O.

### Magneto Ignition & Battery Starter Switch with Push to Choke Feature

#### 3 Positions



Spring return to RUN position.  
Key removable in OFF position only.



**Cole Hersee**

All brass with noncorrosive interior and chrome plated face nut and combines a magneto or battery ignition with battery starter and push-in choke. Mounting stem has O-Ring seal & 2 keys. Mounting stem 13/16-24 dia. and 1-5/16" long, fits panels up through 15/16" thick. Rated - 10A at 12 VDC.

**Part No.**  
COL M-924



### Protective Boot & Cap



**Cole Hersee**

**Part No.**  
COL 83288  
COL 97298

**Description**  
Chrome Plated Rubber Boot  
Black Cap use with COL83295-A

### Dual Alarm



Rugged combination warning light and buzzer give audible and visible alert. Universal application: Use with any electrical switch. Red lens, long-life LED. 11/16" diameter mounting stem, 17/32" long. Body size: 1 - 7/8" L x 1" W x 1-11/32" H

**Part No.**  
COL 4112-RC

**Volts**  
12 VDC



**Buzzer Only**

**Part No.**  
COL 4099-BP

**Battery Selector Switches**

Four positions: OFF - ON Battery No. 1 - ON Battery No. 2 and ON both batteries. These dual battery selector & master disconnect switches permit current to be carried by either of the two batteries simultaneously, or cut off all current at the source. Ignition protected, vapor proof, waterproof, dust proof and corrosion resistant. Made of fracture resistant, high temp. engineered plastic case, knob and insulator. Can be operated through ON positions with engine(s) running. Engine(s) must be shut down before moving to OFF position. **No. COLM-752** has a alternator field disconnect circuit to prevent damage to the alternator if switch is turned to the "OFF" position with engine(s) running. Three 3/8" dia. heavy copper stud terminals with brass hex nuts, may be surface mounted or installed through panel with a 3-5/16" dia. clearance hole. Flange dia. 6", overall height 2-5/8". Electrical Ratings 310 Amps Continuous, 500 Amps Intermittent & 6-36 VDC

Part No.	Description
COL M-750	Switch without Key Lock
COL M-751	Switch with Key Lock
COL M-752	Switch without Key Lock & with Field Disconnect

**Master Disconnect Switches**

COL 82065

**1000A Intermittent****175A Continuous**

**No. COLM-284** is a S.P.S.T. (Single Pole Single Throw) 2 position:. Disconnects battery circuit only and does not disconnect alternator or generator field circuit. When used with an alternator, engine(s) should be stopped before switching to "OFF" position to prevent possible alternator diode damage.

**No. COLM-289 & COL M-290** D.P.S.T. (Double Pole Single Throw) 2 position:. Disconnects battery circuit & alternator or generator field circuit. Electrical contacts are arranged to interrupts field circuit before battery circuit is broken. Brass case with chrome plated lever. Mounting stem is 3/4" dia. x 1-13/32" long. Fits panels to 15/16" thick.

Part No.	Volts	Type
COL M-284-A	6-36 VDC (Silver Contacts)	S.P.S.T.
COL M-289	6-36 VDC	D.P.S.T.
COL M-290	6-36 VDC (Silver Contacts)	D.P.S.T.
COL 82065	Face Plate	

**Temperature Switches**

On at 200°F +/- 10°F. 3/8"-18 Thread  
Normally OFF

**Part No.**  
COL 84251



On at 200°F +/- 11°F. 1/2"-14 Thread  
Normally OFF

**Part No.**  
COL 84218

**Ball Switch - 3/4"-16 UNF-2A**

S.P.S.T. Off with ball depressed. Spring returns to on. Silver contacts 5A at 12 VDC, 3A at 24 VDC Mounting Stem 3/4"-16 UNF-2A Thread. Normally ON

**Part No.**  
COL 9224

**Pilot Lights**

Single contact plastic socket, insulated smooth lens. 17/32" dia. lens, chrome plated brass bezel, 7/8" dia., 3/4" dia. mounting stem 1-1/16" long. 12 VDC #53 bulb supplied.



Part No.	Lens Color
COL M-320-GC	Green
COL M-320-RC	Red

15/19" dia. lens, gasket sealed chrome plated brass bezel, 1 1/4" dia., 7/8" dia. mounting stem 1 1/4" long. 12 VDC #68 bulb supplied.



Part No.
COL M-326-GC
COL M-326-RC

Lens Color
Green
Red

**Circuit Breakers**

Type 1 - cycling circuit breaker cycles continuously "resets" until the overload is corrected. Circuit breaker with mounting bracket, two #10-32 stud terminals with hex nuts and lock washers supplied. Dimensions: 2.0" L x .78" W x 1.37" H. Two .22" mounting holes, 1.56" on center.



Part No.	Amps
COL 30055-10	10
COL 30055-20	20
COL 30055-30	30
COL 30055-40	40
COL 30055-50	50

## Solenoids



Cole Hersee

Continuous duty PVC coated insulated S.P.S.T. normally off. One circuit OFF-ON. Bracket mounting holes 5/16" x 19/32" on 2 13/64" centers

**Part No.**

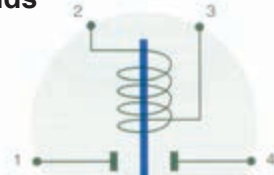
COL 24117

COL 24117-01

**Description**

Continuous Duty 85A

UL Continuous Duty 65A at 12 DC  
Intermittent Duty 75A make, 100A break.  
10 sec On 30 Min OFF



Cole Hersee

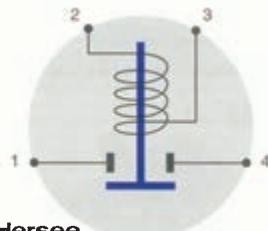
Continuous duty S.P.S.T. normally off. One circuit OFF-ON. Bracket mounting holes 5/16" x 19/32" on 2 13/64" centers

**Part No.**

COL 24059

**Description**

Continuous Duty 85A



## Circuit Breakers

Push button resettable circuit breakers. Replacement for popular panel mounted breakers used everywhere in the industry. Top quality and a wide range of amp ratings. Two 1/4" blade terminals, mounts in 1/2" hole. White reset button.

**Part No.**

SIE CB41200

SIE CB41210

SIE CB41220

SIE CB41230

**Description**

5 amp DC Breaker

10 amp DC Breaker

15 amp DC Breaker

20 amp DC Breaker



## Toggle type circuit breakers.

High quality exact replacements for the original breakers on many top manufactures production boats. Color coded handles allow quick identification of AC and DC circuits. White handles for DC black for AC. A wide selection of ratings for most applications. Every boat owner should keep a spare.

**Part No.**

SIE CB40200

SIE CB40210

SIE CB40220

SIE CB40230

SIE CB40240

SIE CB40250

SIE CB40190

SIE CB40260

SIE CB40270

SIE CB40280

SIE CB41240

**Description**

5 amp DC Breaker (White Toggle)

7.5 amp DC Breaker (White Toggle)

10 amp DC Breaker (White Toggle)

15 amp DC Breaker (White Toggle)

20 amp DC Breaker (White Toggle)

35 amp DC Breaker (White Toggle)

50 amp DC Breaker (White Toggle)

15 amp AC Breaker (Black Toggle)

20 amp AC Breaker (Black Toggle)

30 amp AC Breaker (Black Toggle)

40 amp AC Breaker (Black Toggle)

## Junction Blocks



## Bussmann®

Part No.	Description	Amps
BUS TB200-04B	4 Gang Block	20
BUS TB200-06B	6 Gang Block	20
BUS TB200-08B	8 Gang Block	20
BUS TB200-10B	10 Gang Block	20
BUS TB300-04B	4 Gang Block	30
BUS TB300-06B	6 Gang Block	30
BUS TB300-08B	8 Gang Block	30
BUS TB300-10B	10 Gang Block	30
BUS TB300-12B	12 Gang Block	30

## Junction Blocks



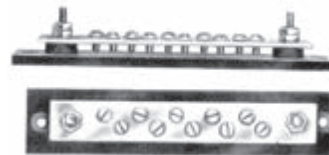
Bakelite insulator base with barrier strips. Nickel-plated brass terminal links and 8-32 binding head screws. Width: 1.31" height .67"

Part No.	Description	Length
COL M-426	4-Gang	3.22"
COL M-427	6-Gang	4.33"
COL M-429	10-Gang	6.59"

## Junction Blocks



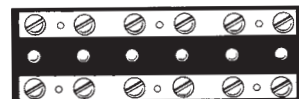
Part No.	Description
SIE FS45620	4 Gang, Overall Size 3-15/64" x 1-5/16" x 11/16"
SIE FS45640	8 Gang, Overall Size 5-31/64" x 1-5/16" x 11/16"

Terminal Block  
Common Hot Feed

Common conductor, solid brass buss bar, 1/4" thick bakelite base with ten #8-32 brass terminal screws. Rated - 60 Amp at 12V. Overall size 1-1/4" x 5-3/4".

Part No.	Gang
COL M-449	10

## Terminal Blocks



Black molded base with two solid brass bus bars. Screw terminals

Part No.	Description
SIE FS40670	Four Gang Junction Block
SIE FS40680	Six Gang Junction Block
SIE FS40690	Eight Gang Junction Block



## SFE/AGC Fuse Blocks

Heavy duty molded plastic base. Use with SFE or AGC fuses up to 20 amps. Brass fuse clips and 8-32 terminal screws.

## Part No.

SIE FS40510-1  
SIE FS40520-1  
SIE FS40530-1



## Description

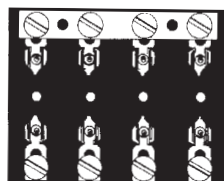
4 Gang Fuse Block  
6 Gang Fuse Block  
8 Gang Fuse Block

## Common Bus Fuse Blocks

Heavy duty black molded plastic base. Use with SFE or AGC fuses up to 20 amps. Brass fuse clips and 8-32 terminal screws. A common bus bar connects the hot side of the fuses for power feed. Bus bar has 8-32 stud terminal for main power connection.

## Part No.

SIE FS40590-1  
SIE FS40600-1



## Description

Four Gang Fuse Blocks  
Six Gang Fuse Blocks

## ATC/ATO Fuse Panels



## Bussmann®

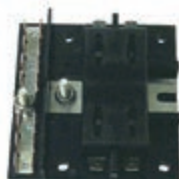
These fuse panels are for blade-type fuses and includes a negative bus. A single, common power input makes it simple to wire for multiple circuits - each rated at 30 amps. Recessed fuse contacts provide touch-safe protection.

## Part No.

BUS 15600-06-21  
BUS 15600-10-21

## Description

6 Gang Fuse Panel  
10 Gang Fuse Panel



SIEFS40430

These Patented ATO/ATC style fuse blocks allow you to design your own fuse panel. Interlocking modules in various sizes snap together to create any configuration needed.

## Part No.

SIE FS40430  
SIE FS40420  
SIE FS40740

## Description

4 Gang Fuse Block with Ground Bus Bar  
6 Gang Fuse Block with Ground Bus Bar  
10 Gang Fuse Block with Ground Bus Bar

## Panel Mount Fuse Holder

## Bussmann®

For AGC and MDL fuses. Mounts in up to 1/4" thick panel, require 1/2" hole (FUSE NOT INCLUDED).

## Part No.

BUS HKP-HH

## Description

Panel Mount Fuse Holder



## Weatherproof Fuse Holders



FS45440



FS35870

The unique construction of these fuse holders provides the best water resistance performance available.



Part No.	Max Amps	Wire Gauge	Fuse
SIE FS45440	20	14	AGC, MDL, SFE
SIE FS45470	30	10	AGC, MDL, SFE
SIE FS35870	30	12	ATO, ATC

## Waterproof In-Line Fuse Holder

## Bussmann®

Ideal for harsh marine environments: -40° to 150° temp range. Withstands many organic solvents & rigorous shock and vibration. High visibility yellow thermoplastic rubber body, accepts #12 to #18 wire leads (Not Supplied). Voltage Range 32V, 30 amp.

## Part No.

BUS BP/HFB



## ATO/ATC Fuse Holder

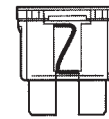
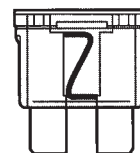
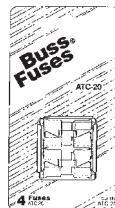
ATO plastic fuse holder for up to a 20 amp fuse. NO fuse included.

## Part No..

SIE FS45410



## ATC/ATO Style Fuses



## Bussmann®

Part No.	Description	Part No.	Description
BUS BP/ATC-1	1 Amp (Black)	BUS BP/ATC-10	10 Amp (Red)
BUS BP/ATC-2	2 Amp (Grey)	BUS BP/ATC-15	15 Amp (Blue)
BUS BP/ATC-3	3 Amp (Violet)	BUS BP/ATC-20	20 Amp (Yellow)
BUS BP/ATC-4	4 Amp (Pink)	BUS BP/ATC-25	25 Amp (Clear)
BUS BP/ATC-5	5 Amp (Tan)	BUS BP/ATC-30	30 Amp (Green)
BUS BP/ATC-7-1/2	7.5 Amp (Brown)	BUS BP/ATC-40	40 Amp (Amber)

5 Fuses Per Card

## Part No.

BUS AK-6

## Description

Assortment 1 each 5A, 10A, 15A, 20A, 25A & 30A



## SFE Glass Tube Fuses

**Bussmann®**

SFE 4 (5/8")	SFE 6 (3/4")	SFE 7-1/2 (7/8")	SFE 9 (1")	SFE 14 (1-1/16")	SFE 20 (1-1/4")	SFE 30 (1-7/16")
Part No.	Amps	Part No.	Amps	Part No.	Amps	Part No.
BUS BP/SFE-4	4	BUS BP/SFE-14	14			
BUS BP/SFE-6	6	BUS BP/SFE-20	20			
BUS BP/SFE-7-1/2	7.5	BUS BP/SFE-30	30			
BUS BP/SFE-9	9					

5 Fuses Per Card



## MDL Glass Tube Fuses

1/4" x 1-1/4" time-delay glass tube fuses

**Bussmann®**

MDL 1/2-30 (1/4" x 1 1/4")

Part No.	Amps	Part No.	Amps
BUS BP/MDL-1/2	1/2	BUS BP/MDL-6-1/4	6.25
BUS BP/MDL-1	1	BUS BP/MDL-8	8
BUS BP/MDL-1-1/2	1-1/2	BUS BP/MDL-10	10
BUS BP/MDL-2	2	BUS BP/MDL-15	15
BUS BP/MDL-3	3	BUS BP/MDL-20	20
BUS BP/MDL-4	4	BUS BP/MDL-25	25
BUS BP/MDL-5	5	BUS BP/MDL-30	30

2 Fuses Per Card

## AGA Glass Tube Fuses



AGA 1-30 (1/4" x 5/8")



Part No.	Amps	Part No.	Amps
BUS BP/AGA-3	3	BUS BP/AGA-15	15
BUS BP/AGA-5	5	BUS BP/AGA-20	20
BUS BP/AGA-7-1/2	7.5	BUS BP/AGA-30	30
BUS BP/AGA-10	10		

5 Fuses Per Card

**Bussmann®**

## GMA Glass Tube Fuses



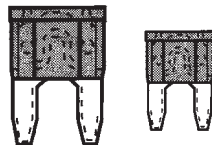
GMA UL 5x20 mm

Part No.	Amps	Part No.	Amps
BUS BP/GMA-250MA	250 mA	BUS BP/GMA-3A	3
BUS BP/GMA-500MA	500 mA	BUS BP/GMA-5A	5
BUS BP/GMA-600MA	600 mA	BUS BP/GMA-6A	6
BUS BP/GMA-750MA	750 mA	BUS BP/GMA-7A	7
BUS BP/GMA-1A	1	BUS BP/GMA-10A	10
BUS BP/GMA-2A	2		

## ATM Mini Style Fuses

Part No.	Description
BUS BP/ATM-5	5 Amp (Tan)
BUS BP/ATM-10	10 Amp (Red)
BUS BP/ATM-15	15 Amp (Blue)
BUS BP/ATM-20	20 Amp (Yellow)
BUS BP/ATM-25	25 Amp (Clear)

5 Fuses Per Card

**Bussmann®**

## AGC Glass Tube Fuses



AGC 1/2-40 (1/4" x 1 1/4")

**Bussmann®**

Part No.	Amps	Part No.	Amps
BUS BP/AGC-1/2-RP	0.5	BUS BP/AGC-6	6
BUS BP/AGC-1	1	BUS BP/AGC-7-1/2	7.5
BUS BP/AGC-1-1/2	1.5	BUS BP/AGC-10	10
BUS BP/AGC-2	2	BUS BP/AGC-15	15
BUS BP/AGC-2-1/2	2.5	BUS BP/AGC-20	20
BUS BP/AGC-3	3	BUS BP/AGC-25	25
BUS BP/AGC-4	4	BUS BP/AGC-30	30
BUS BP/AGC-5	5		

5 Fuses Per Card

## AGU Glass Tube Fuses



AGU 1-60 (13/32" x 1 1/4")

**Bussmann®**

Part No.	Amps	Part No.	Amps
BUS BP/AGU-10	10	BUS BP/AGU-35	35
BUS BP/AGU-15	15	BUS BP/AGU-40	40
BUS BP/AGU-20	20	BUS BP/AGU-50	50
BUS BP/AGU-25	25	BUS BP/AGU-60	60
BUS BP/AGU-30	30		

2 Fuses Per Card

## MDA Time-Delay



MDA 1-30A (1/4" x 1 1/4")

Part No.	Amps	Part No.	Amps
BUS MDA-1	1	BUS MDA-7	7
BUS MDA-1-1/2	1-1/2	BUS MDA-8	8
BUS MDA-2	2	BUS MDA-10	10
BUS MDA-2-1/2	2-1/2	BUS MDA-12	12
BUS MDA-3	3	BUS MDA-15	15
BUS MDA-4	4	BUS MDA-20	20
BUS MDA-5	5	BUS MDA-25	25
BUS MDA-6	6	BUS MDA-30	30

5 Fuses Per Card

Marine Fuses Accessory Kits  
(Assortment Cards)**Bussmann®**

Part No.	Description
BUS MA-5	Marine Kit, Containing Five AGC Glass Fuses, 1/2, 1, 1-1/2, 2 & 3
BUS MK-6	Marine Kit, Containing Six Glass Fuses, SFE-9, 14, 20; AGC-10, 15 & 30

## Marine Primary Wire

105°C, 600 Volt, Tinned Copper, adheres to and exceeds UL Standard 1426, ABYC:E11.16  
and Coast Guard:33 CFR Part 183

Multi Strand  
Extremely Flexible Cable



## 6 Gauge

Part No.	Length	Color
WIR 6GA/25B	25'	Black
WIR 6GA/25R	25'	Red
WIR 6GA/25G	25'	Green
WIR 6GA/25W	25'	White
WIR 6GA/50B	50'	Black
WIR 6GA/50R	50'	Red
WIR 6GA/50G	50'	Green
WIR 6GA/50W	50'	White
WIR 6GA/100B	100'	Black
WIR 6GA/100R	100'	Red
WIR 6GA/100G	100'	Green
WIR 6GA/100W	100'	White

## 4 Gauge

Part No.	Length	Color
WIR 4GA/25B	25'	Black
WIR 4GA/25R	25'	Red
WIR 4GA/25G	25'	Green
WIR 4GA/25W	25'	White
WIR 4GA/50B	50'	Black
WIR 4GA/50R	50'	Red
WIR 4GA/50G	50'	Green
WIR 4GA/50W	50'	White
WIR 4GA/100B	100'	Black
WIR 4GA/100R	100'	Red
WIR 4GA/100G	100'	Green
WIR 4GA/100W	100'	White

## 2 Gauge

Part No.	Length	Color
WIR 2GA/25B	25'	Black
WIR 2GA/25R	25'	Red
WIR 2GA/25G	25'	Green
WIR 2GA/25W	25'	White
WIR 2GA/50B	50'	Black
WIR 2GA/50R	50'	Red
WIR 2GA/50G	50'	Green
WIR 2GA/50W	50'	White
WIR 2GA/100B	100'	Black
WIR 2GA/100R	100'	Red
WIR 2GA/100G	100'	Green
WIR 2GA/100W	100'	White

## 1 Gauge

Part No.	Length	Color
WIR 1GA/50B	50'	Black
WIR 1GA/50R	50'	Red

## 1/0 Gauge

Part No.	Length	Color
WIR 1/0GA/25B	25'	Black
WIR 1/0GA/25R	25'	Red
WIR 1/0GA/25G	25'	Green
WIR 1/0GA/25W	25'	White
WIR 1/0GA/50B	50'	Black
WIR 1/0GA/50R	50'	Red
WIR 1/0GA/50G	50'	Green
WIR 1/0GA/50W	50'	White

## 2/0 Gauge

Part No.	Length	Color
WIR 2/0GA/25B	25'	Black
WIR 2/0GA/25R	25'	Red
WIR 2/0GA/50B	50'	Black
WIR 2/0GA/50R	50'	Red

## 4/0 Gauge

Part No.	Length	Color
WIR 4/0GA/25B	25'	Black
WIR 4/0GA/25R	25'	Red
WIR 4/0GA/50B	50'	Black
WIR 4/0GA/50R	50'	Red

Tin Plated  
Copper Lugs

Part No.	Ring Size	Wire
MIZ L810F	#10	8 Ga.
MIZ L814F	1/4"	8 Ga.
MIZ L8516F	5/16"	8 Ga.
MIZ L838F	3/8"	8 Ga.
MIZ L812F	1/2"	8 Ga.
MIZ LBC	Butt	8 Ga.
MIZ L610F	#10	6 Ga.
MIZ L614F	1/4"	6 Ga.
MIZ L6516F	5/16"	6 Ga.
MIZ L638F	3/8"	6 Ga.
MIZ L612F	1/2"	6 Ga.
MIZ L6BC	Butt	6 Ga.
MIZ L414	1/4"	4 Ga.
MIZ L4516F	5/16"	4 Ga.
MIZ L438F	3/8"	4 Ga.
MIZ L412	1/2"	4 Ga.
MIZ L4BC	Butt	4 Ga.
MIZ L214	1/4"	2 Ga.
MIZ L2516	5/16"	2 Ga.
MIZ L238	3/8"	2 Ga.
MIZ L212	1/2"	2 Ga.
MIZ L2BC	Butt	2 Ga.
MIZ L1516	5/16"	1 Ga.
MIZ L138	3/8"	1 Ga.
MIZ L112	1/2"	1 Ga.
MIZ L1056	5/16"	1/0 Ga.
MIZ L1038	3/8"	1/0 Ga.
MIZ L1012	1/2"	1/0 Ga.
MIZ L2056	5/16"	2/0 Ga.
MIZ L2038	3/8"	2/0 Ga.
MIZ L2012	1/2"	2/0 Ga.
MIZ L4056	5/16"	4/0 Ga.
MIZ L4038	3/8"	4/0 Ga.
MIZ L4012	1/2"	4/0 Ga.

Sold Each

Copper Battery  
Lugs

Part No.	Ring Size	Wire
MIZ CL810	#10	8 Ga.
MIZ CL8516	5/16"	8 Ga.
MIZ CL838	3/8"	8 Ga.
MIZ CL610	#10	6 Ga.
MIZ CL614F	1/4"	6 Ga.
MIZ CL6516	5/16"	6 Ga.
MIZ CL638	3/8"	6 Ga.
MIZ CL414	1/4"	4 Ga.
MIZ CL4516F	5/16"	4 Ga.
MIZ CL438F	3/8"	4 Ga.
MIZ CL412	1/2"	4 Ga.
MIZ CL2516F	5/16"	2 Ga.
MIZ CL238F	3/8"	2 Ga.
MIZ CL212F	1/2"	2 Ga.
MIZ CL138F	3/8"	1 Ga.
MIZ CL112F	1/2"	1 Ga.
MIZ CL1038F	3/8"	1/0 Ga.
MIZ CL1012F	1/2"	1/0 Ga.
MIZ CL2038F	3/8"	2/0 Ga.
MIZ CL2012F	1/2"	2/0 Ga.

Sold Each



Other Colors &amp; Lengths Are Rapidly Available

## Marine Primary Wire

105°C, 600 Volt, Tinned Copper, adheres to and exceeds UL Standard 1426, ABYC:E11.16, and Coast Guard:33 CFR Part 183

### 18 Gauge

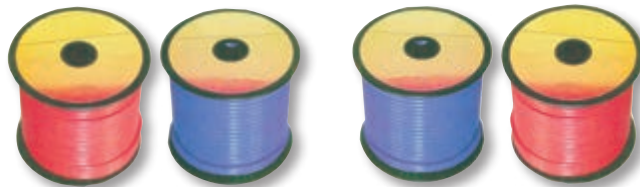
#### Part No.

WIR 18GA/100B  
WIR 18GA/100BLU  
WIR 18GA/100G  
WIR 18GA/100GRY  
WIR 18GA/100O  
WIR 18GA/100P  
WIR 18GA/100R  
WIR 18GA/100T  
WIR 18GA/100W  
WIR 18GA/100Y

#### Color

Black  
Blue  
Green  
Gray  
Orange  
Purple  
Red  
Tan  
White  
Yellow

100' Per Roll



### 16 Gauge

#### Part No.

WIR 16GA/100B  
WIR 16GA/100BLU  
WIR 16GA/100DBLU  
WIR 16GA/100BR  
WIR 16GA/100G  
WIR 16GA/100GRY  
WIR 16GA/100O  
WIR 16GA/100P  
WIR 16GA/100PNK  
WIR 16GA/100R  
WIR 16GA/100T  
WIR 16GA/100W  
WIR 16GA/100Y

#### Color

Black  
Blue  
Dark Blue  
Brown  
Green  
Gray  
Orange  
Purple  
Pink  
Red  
Tan  
White  
Yellow

100' Per Roll

### 14 Gauge

#### Part No.

WIR 14GA/100B  
WIR 14GA/100BLU  
WIR 14GA/100BLUTR  
WIR 14GA/100LBLU  
WIR 14GA/100BR  
WIR 14GA/100BRTR  
WIR 14GA/100G  
WIR 14GA/100GRY  
WIR 14GA/100O  
WIR 14GA/100P  
WIR 14GA/100PNK  
WIR 14GA/100PNKTR  
WIR 14GA/100R  
WIR 14GA/100T  
WIR 14GA/100W  
WIR 14GA/100Y  
WIR 14GA/100YR

#### Color

Black  
Blue  
Blue/w/tracer  
Light/Blue  
Brown  
Brown/White Tracer  
Green  
Grey  
Orange  
Purple  
Pink  
Pink/White Tracer  
Red  
Tan  
White  
Yellow  
Yellow/Red Tracer

100' Per Roll

### 12 Gauge

#### Part No.

WIR 12GA/100B  
WIR 12GA/100BLU  
WIR 12GA/100DBLU  
WIR 12GA/100BR  
WIR 12GA/100G  
WIR 12GA/100GRY  
WIR 12GA/100O  
WIR 12GA/100P  
WIR 12GA/100R  
WIR 12GA/100W  
WIR 12GA/100Y

#### Color

Black  
Blue  
Dark Blue  
Brown  
Green  
Gray  
Orange  
Purple  
Red  
White  
Yellow

100' Per Roll

### 10 Gauge

#### Part No.

WIR 10GA/100B  
WIR 10GA/100BR  
WIR 10GA/100G  
WIR 10GA/100R  
WIR 10GA/100W

#### Color

Black  
Brown  
Green  
Red  
White

100' Per Roll

### 8 Gauge

#### Part No.

WIR 8GA/100B  
WIR 8GA/100G  
WIR 8GA/100R  
WIR 8GA/100W

#### Color

Black  
Green  
Red  
White

100' Per Roll

### Speaker Wire

Clear PVC Jacket, One Copper & One Tinned Conductor.

#### Part No.

WIR 16GA/100SWC

#### Gauge

16

100' Per Roll

### Trailer Wire

Each wire is colored coded for identification. The wires are easily separated. Colored Coded: Green, Yellow, Brown, and White

#### Part No.

MIZ 416A

#### Gauge

16/4

100' Per Roll

## Multi Conductor Boat Cable

105°C, 600 Volt, Tinned Copper, adheres to and exceeds UL Standard 1426, ABYC:E11.16, and Coast Guard:33 CFR Part 183

### AC & DC Flat Boat Cable

2 Conductor White Jacket - White & Black Conductors

3 Conductor White Jacket - White, Black & Green Conductors

#### Part No. Size Conductors

WIR 18/2 18 2  
WIR 16/2 16 2  
WIR 16/3 16 3  
WIR 14/2 14 2  
WIR 14/3 14 3  
WIR 12/2 12 2  
WIR 12/3 12 3  
WIR 10/2 10 2  
WIR 10/3 10 3



100' Per Roll

### DC Flat Boat Cable

White Jacket Red & Black Conductors

#### Part No. Size Conductors

WIR 16/2DC 16 2  
WIR 14/2DC 14 2  
WIR 12/2DC 12 2  
WIR 10/2DC 10 2



100' Per Roll

### Round Boat Cable

2 Conductor Gray Jacket - Red & Black Conductors

3 Conductor Gray Jacket - White, Black & Green Conductors

4 Conductor Gray Jacket - White, Black, Red & Green Conductors

#### 16 AWG

Part No.	Length	Size	Conductors
WIR WR16/2DCG-C	16	2	
WIR WR16/3G-C	16	3	
WIR WR16/4G-C	16	4	

#### 14 AWG

Part No.	Length	Size	Conductors
WIR WR14/2DCG-C	14	2	
WIR WR14/3G-C	14	3	
WIR WR14/4G-C	14	4	

#### 12 AWG

Part No.	Length	Size	Conductors
WIR WR12/2DCG-C	12	2	
WIR WR12/3G-C	12	3	
WIR WR12/4G-C	12	4	

#### 10 AWG

Part No.	Length	Size	Conductors
WIR WR10/2DCG-C	10	2	
WIR WR10/3G-C	10	3	
WIR WR10/4G-C	10	4	



100' Per Roll





## F6 Woven Wrap

- ABYC Approved
- UV Resistant
- Flammability Rating - UL-94
- Recommended Cutting - Hot Knife
- Abrasion Resistance - Medium
- Moisture Absorption % (ASTM D-570) - .1-.2
- Overlap - 30%

Available  
in bulk

Part No.	Description	Feet
TFX F6W0-19BK	F6 Woven Wrap 3/16" Black	200
TFX F6W0-31BK	F6 Woven Wrap 5/16" Black	125
TFX F6W0-38BK	F6 Woven Wrap 3/8" Black	100
TFX F6W0-50BK	F6 Woven Wrap 1/2" Black	75
TFX F6W0-63BK	F6 Woven Wrap 5/8" Black	75
TFX F6W0-75BK	F6 Woven Wrap 3/4" Black	50
TFX F6W1-00BK	F6 Woven Wrap 1" Black	50
TFX F6W1-50BK	F6 Woven Wrap 1 1/2" Black	25

## F6 Self Wrap



Available  
in Bulk

- ABYC Approved
- UV Resistant
- Easy, Cost Effective Installation
- More Flexible than Split Convoluted or Spiral Wrap
- 25% Edge Overlap
- Cut and Abrasion Resistant
- Halogen Free
- Melt Temp 482°F

Part No.	Description	Feet
TFX F6N0-25BK	F6 Self Wrap 1/4" Black 100 ft Box	100
TFX F6N0-25BK20	F6 Self Wrap 1/4" Black 20 ft	20
TFX F6N0-38BK	F6 Self Wrap 3/8" Black 75 ft Box	75
TFX F6N0-38BK12	F6 Self Wrap 3/8" Black 12 ft	12
TFX F6N0-50BK	F6 Self Wrap 1/2" Black 75 ft Box	75
TFX F6N0-50BK10	F6 Self Wrap 1/2" Black 10 ft	10
TFX F6N0-75BK	F6 Self Wrap 3/4" Black 50 ft Box	50
TFX F6N0-75BK8	F6 Self Wrap 3/4" Black 8 ft	8
TFX F6N1-00BK	F6 Self Wrap 1" Black 50 ft Box	50
TFX F6N1-00BK8	F6 Self Wrap 1" Black 8 ft	8
TFX F6N1-50BK	F6 Self Wrap 1 1/2" Black 25 ft Box	25
TFX F6N2-00BK	F6 Self Wrap 2" Black 25 ft Box	25



## Flexo PET

- ABYC Approved
- UV Resistant
- Economical and Easy to Install
- Cut and Abrasion Resistant
- Expands up to 150%
- Halogen Free
- Resists Gasoline, Engine Chemicals and Cleaning Solvents
- UL94-VO rating

Available  
in Bulk

Part No.	Description	Feet
TFX PTN0-25BK200	1/4" Black	200'
TFX PTN0-38BK125	3/8" Black	125'
TFX PTN0-50BK100	1/2" Black	100'
TFX PTN0-75BK75	3/4" Black	75'
TFX PTN1-00BK50	1" Black	50'
TFX PTN1-50BK50	1 1/2" Black	50'
TFX PTN2-00BK50	2 Black	50'



## F6 Installation Tool



This simple tool makes installing long lengths of F6 sleeving a breeze. Just insert your bundle of wires into the shank of the tool and slide it along the split in the sleeving. As the tool travels along the sleeving, it deposits the wires and allows the split to close correctly.

Part No.	Description
TFX INN0-25OR	For Installing 1/4" F6 Sleeving
TFX INN0-50OR	For Installing 1/2" F6 Sleeving
TFX INN0-75OR	For Installing 3/4" F6 Sleeving
TFX INN1-00OR	For Installing 1" F6 Sleeving
TFX INN1-50OR	For Installing 1 1/2" F6 Sleeving

## Low Profile Cable Ties



These cable ties are safer, smoother and stronger than traditional cable ties. You can apply them to their bundle with side cutters or any industry installation tool. Manufactured from dependable 6/6 Nylon®, these unique cable ties are available in 7" and 14" lengths in either Natural (Clear) or UV stabilized Black.

Part No.	Description & Length
TFX LPR7-00BK	Black 7" (100 per bag)
TFX LPR14-0BK	Black 14" (100 per bag)
TFX LPR7-00CL	Natural 7" (100 per bag)
TFX LPR14-0CL	Natural 14" (100 per bag)

## Hot Knives



### Handheld Hot Knife

Perfect for individual projects or small volume production. The large knife blade heats quickly and easily cuts and seals most grades of braided sleeving.

### Hand Held Hot Knife

Part No. TFX HKH0-00BK

### Replacement Knife Blade

Part No. TFX RBH0-00SV



### Bench Mount Hot Knife

Heavy duty components and heavy gauge 2 1/2" blade make this tool ideal for use in production environments. Lighted power switch. Replaceable blades.

### Bench Mount Hot Knife

Part No. TFX HKB0-00WH

### Replacement Knife Blade

Part No. TFX RBB0-00SV



## Heat Shrink Kits



Part No.	Description
TFX HSK2-K	2:1 Shrink Multi Colored 6 sizes, 110 pcs 6"
TFX HSK2-BK-K	2:1 Shrink Black 6 sizes, 110 pcs 6"
TFX HSK2-BL-K	2:1 Shrink Blue 6 sizes, 110 pcs 6"
TFX HSK2-BR-K	2:1 Shrink Brown 6 sizes, 110 pcs 6"
TFX HSK2-CL-K	2:1 Shrink Clear 6 sizes, 110 pcs 6"
TFX HSK2-GN-K	2:1 Shrink Green 6 sizes, 110 pcs 6"
TFX HSK2-GY-K	2:1 Shrink Gray 6 sizes, 110 pcs 6"
TFX HSK2-OR-K	2:1 Shrink Orange 6 sizes, 110 pcs 6"
TFX HSK2-PP-K	2:1 Shrink Purple 6 sizes, 110 pcs 6"
TFX HSK2-RD-K	2:1 Shrink Red 6 sizes, 110 pcs 6"
TFX HSK2-WH-K	2:1 Shrink White 6 sizes, 110 pcs 6"
TFX HSK2-YL-K	2:1 Shrink Yellow 6 sizes, 110 pcs 6"
TFX HSK3-BK-K	3:1 Shrink Black 6 sizes, 110 pcs 6"
TFX HSK3-CL-K	3:1 Shrink Clear 6 sizes, 110 pcs 6"
TFX HSK3-RD-K	3:1 Shrink Red 6 sizes, 110 pcs 6"
TFX HSK3-WH-K	3:1 Shrink White 6 sizes, 110 pcs 6"
TFX HSK3-YL-K	3:1 Shrink Yellow 6 sizes, 110 pcs 6"
TFX HSA3-KS	3:1 Adhesive Lined Shrink Sizes 1/4, 3/8, 1/2, Black & Red 54 pcs 6"
TFX HSA3-KL	3:1 Adhesive Lined Shrink Sizes 1/2, 3/4, 1, Black & Red 42 pcs 6"

## Connector Individual Kits



Deutsch connectors are specifically designed for critical applications in harsh environments where dust, dirt, moisture, salt spray, and rough terrain can contaminate or damage electrical connections and systems. Deutsch Industrial electrical connectors have been performing with unsurpassed reliability in the off-highway, trucking, construction, agricultural and engine industries for over 40 years. Each "Kit" contains the Pins/Sockets/Receptacle/Plug/Receptacle Wedge/Plug Wedge

Part No.	Description
TFX DT02GY	Deutsch DT series 2 Pin Connector Kit Gray
TFX DT03GY	Deutsch DT series 3 Pin Connector Kit Gray
TFX DT04GY	Deutsch DT series 4 Pin Connector Kit Gray
TFX DT06GY	Deutsch DT series 6 Pin Connector Kit Gray
TFX DT08GY	Deutsch DT series 8 Pin Connector Kit Gray
TFX DT12GY	Deutsch DT series 12 Pin Connector Kit Gray

## Deutsch Connector Installers Kits



Over 250 pieces of genuine Deutsch DT Series connectors, ranging in size from 2 to 12 contacts, including Sealing Plugs, Extraction Tool and assorted Mounting Brackets in a strong steel divider case with plenty of room for additional products. The DT Series kits are an ideal way to quickly stock up on the most common and widely used Deutsch DT connector system products, and to have an on-hand connector assortment for a variety of harness construction and repair needs. The DT Series Kits are available with or without the crimping tool, and with either gray or black plugs and receptacles.



## Kit Contents

- 4 ea. 2 Contact Connector Sets with Wedgelocks
- 3 ea. 6 Contact Connector Sets with Wedgelocks
- 4 ea. 3 Contact Connector Sets with Wedgelocks
- 2 ea. 8 Contact Connector Sets with Wedgelocks
- 3 ea. 4 Contact Connector Sets with Wedgelocks
- 2 ea. 12 Contact Connector Set with Wedgelocks
- 100 ea. 16-18-20 gauge Nickel Plated Solid Sockets/Pins (50/50)
- 50 ea. 14-16 gauge Nickel Plated Solid Sockets/Pins (25/25)
- 20 ea. DT Series Sealing Plugs
- 1 ea. HDT-48-00 Deutsch Crimping Tool (Deluxe Kit Only)
- 8 ea. DT Series Screw Hole Mounting Clips
- 1 ea. DT/RT-1 Extraction Tool
- 1 ea. Illustrated User's Installation Guide
- 1 ea. Heavy Duty 12 x 18 x 3 Steel Divided Storage Case

Part No.	Description
DT-GY-K	DT Series Gray Kit
DT-GY-CK	DT Series Gray Kit with CRIMPER

## Nylon Cable Ties



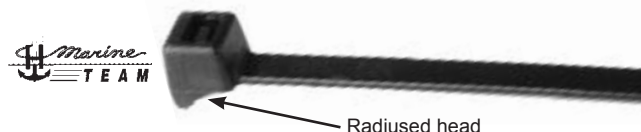
Part No.	Color	Strength	Overall Length	Usable Length	Width	Maximum Bundle	Quantity
MIZ NT4	Natural	18 lbs.	4"	2.75"	.098"	.750"	100
MIZ NT4-50	Black	18 lbs.	4"	2.75"	.098"	.750"	100
MIZ NT5	Natural	40 lbs.	5"	4"	.120"	1.37"	100
MIZ NT5-50	Black	40 lbs.	5"	4"	.120"	1.37"	100
MIZ NT7	Natural	50 lbs.	7.5"	5.75"	.180"	2"	100
MIZ NT7-50	Black	50 lbs.	7.5"	5.75"	.180"	2"	100
MIZ NT11	Natural	50 lbs.	12"	10.5"	.185"	3.5"	100
MIZ NT11-50	Black	50 lbs.	12"	10.5"	.185"	3.5"	100
MIZ NT14	Natural	50 lbs.	14.5"	12.62"	.185"	4"	100
MIZ NT14-50	Black	50 lbs.	14.5"	12.62"	.185"	4"	100
MIZ NT14W	Natural	120 lbs.	15"	12-5/8"	.300"	4"	100
MIZ NT14W-50	Black	120 lbs.	15"	12-5/8"	.300"	4"	100

## Nylon Cable Ties



Part No.	Color	Strength	Length	Usable Length	Width	Maximum Bundle	Quantity
MIZ NT7R	Natural	50 lbs.	8"	6-5/8"	.19"	2"	100
MIZ NT7R-50	Black	50 lbs.	8"	6-5/8"	.19"	2"	100
MIZ NT14R	Natural	50 lbs.	15"	12 3/4"	.19"	4"	100
MIZ NT14R-50	Black	50 lbs.	15"	12 3/4"	.19"	4"	100

## Nylon Radiused Cable Ties



Black 7 1/2" long. High tensile strength, light weight, flexible, all nylon and noncorrosive cable tie is an essential item for boat rigging.

Part No.	Description	Pack
T/H 075B-RAD-C-DP	7 1/2" Black	100

## Low Profile Cable Ties

These cable ties are safer, stronger and smoother than traditional cable ties. They install easily with side cutters or any standard installation tool. They are manufactured from durable 6/6 Nylon.

Part No.	Description	Pack
TFX LPR7-00BK	7" Black	100
TFX LPR14-0BK	14" Black	100
TFX LPR7-00CL	7" Natural	100
TFX LPR14-0CL	14" Natural	100



## Nylon Clamps

Part No.	I.D.	Std. Pkg.
MIZ NAC2	1/8"	100
MIZ NAC3	3/16"	100
MIZ NAC4	1/4"	100
MIZ NAC6	3/8"	100
MIZ NAC10	5/8"	100
MIZ NAC12	3/4"	100



## Heat Shrink



3 to 1 Adhesive Lined Flame Retardant (Length 4 Feet)

Part No.	Size	Color
WIR FIT300-3/16	3/16"	Black
WIR FIT300-1/4	1/4"	Black
WIR FIT300-3/8	3/8"	Black
WIR FIT300-1/2	1/2"	Black
WIR FIT300-3/4	3/4"	Black
WIR FIT300-1	1"	Black
WIR FIT300-3/16RD	3/16"	Red
WIR FIT300-1/4RD	1/4"	Red
WIR FIT300-3/8RD	3/8"	Red
WIR FIT300-1/2RD	1/2"	Red
WIR FIT300-3/4RD	3/4"	Red
WIR FIT300-1RD	1"	Red
WIR FIT300-1/4WH	1/4"	White
WIR FIT300-1/2WH	1/2"	White
WIR FIT300-3/4WH	3/4"	White
WIR FIT300-1/4GN	1/4"	Green
WIR FIT300-1/2GN	1/2"	Green
WIR FIT300-3/4GN	3/4"	Green

Spiral Wrap  
100' Spools

Part No.	Size	Color	Length
WIR NFP1/8B-100	1/8"	Black	100'
WIR NFP-1/4B-100	1/4"	Black	100'
WIR NFP3/8B-100	3/8"	Black	100'
WIR NFP1/2B-100	1/2"	Black	100'
WIR NFP3/4B-100	3/4"	Black	100'
WIR NFP1B-100	1"	Black	100'
WIR NFP1/8-100	1/8"	Neutral	100'
WIR NFP1/4-100	1/4"	Neutral	100'
WIR NFP1/2-100	1/2"	Neutral	100'
WIR NFP3/4-100	3/4"	Neutral	100'
WIR NFP1-100	1"	Neutral	100'



## Vinyl Insulated Spade Style Terminals



Part No.	Stud Size	Color	Wire Range
MIZ FESR6	6	Red	22-16
MIZ FESR8	8	Red	22-16
MIZ FESR10	10	Red	22-16
MIZ FESB6	6	Blue	16-14
MIZ FESB8	8	Blue	16-14
MIZ FESB10	10	Blue	16-14
MIZ FESY6	6	Yellow	12-10
MIZ FESY8	8	Yellow	12-10
MIZ FESY10	10	Yellow	12-10

Standard Package 100

## Vinyl Insulated Female Push On Terminals



Part No.	Tab Size	Color	Wire Range
MIZ FEFR	.250"	Red	22-16
MIZ FEFB	.250"	Blue	16-14
MIZ FEFY	.250"	Yellow	12-10

Standard Package 100

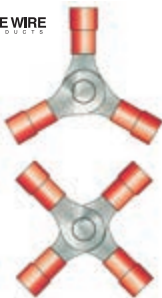
## Vinyl Insulated Male Push On Terminals



Part No.	Tab Size	Color	Wire Range
MIZ FEMR	.250"	Red	22-16
MIZ FEMB	.250"	Blue	16-14
MIZ FEMY	.250"	Yellow	12-10

Standard Package 100

## Vinyl Insulated 3 and 4 Way Connectors



Part No.	Connection	Color	Wire
MIZ 3 WCB	3	Blue	16-14
MIZ 3 WCY	3	Yellow	12-10
MIZ 4 WCR	4	Red	22-16
MIZ 4 WCB	4	Blue	16-14
MIZ 4 WCY	4	Yellow	12-10

Standard Package 100

## Vinyl Insulated Female Piggy Back Terminal



Part No.	Color	Wire
MIZ PBFB	Blue	16-14

Std. Pkg. 100

## Vinyl Insulated Butt Connectors



Part No.	Color	Wire Range
MIZ IBCR	Red	22-16
MIZ IBCB	Blue	16-14
MIZ IBCY	Yellow	12-10

Standard Package 100

## Vinyl Insulated Bullet Connectors



Part No.	Desc.	Color	Wire Range	Std. Pkg.
MIZ FEBB	Male	Blue	16-14	100
MIZ FIBB	Female	Blue	16-14	50

## Vinyl Insulated Ring Terminals



Part No.	Ring Size	Color	Wire Range	Std. Pkg.
MIZ FERR4	4	Red	22-16	100
MIZ FERB4	4	Blue	16-14	100
MIZ FERR6	6	Red	22-16	100
MIZ FERB6	6	Blue	16-14	100
MIZ FERY6	6	Yellow	12-10	100
MIZ FERR8	8	Red	22-16	100
MIZ FERB8	8	Blue	16-14	100
MIZ FERY8	8	Yellow	12-10	100
MIZ FERR10	10	Red	22-16	100
MIZ FERB10	10	Blue	16-14	100
MIZ FERY10	10	Yellow	12-10	100
MIZ FERR14	1/4"	Red	22-16	100
MIZ FERB14	1/4"	Blue	16-14	100
MIZ FERY14	1/4"	Yellow	12-10	100
MIZ FERR516	5/16"	Red	22-16	100
MIZ FERB516	5/16"	Blue	16-14	100
MIZ FERY516	5/16"	Yellow	12-10	100
MIZ FERR38	3/8"	Red	22-16	100
MIZ FERB38	3/8"	Blue	16-14	100
MIZ FERY38	3/8"	Yellow	12-10	100
MIZ FERY12	1/2"	Yellow	12-10	50

## Quick Splicers



Part No.	Color	Port	Wire
MIZ QSBI	Blue	Closed	14-18
MIZ QSWI	White	Open	14-18
MIZ QSYI	Yellow	Closed	12-10

Std. Pkg. 100

## Vinyl Insulated Terminal Kit

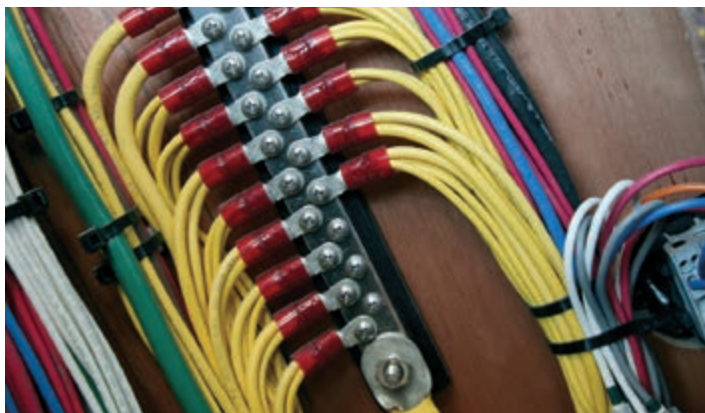


The TK180 Terminal Kit Contents are listed below, There are 180 assorted pieces per kit.

Part No.  
MIZ TK180

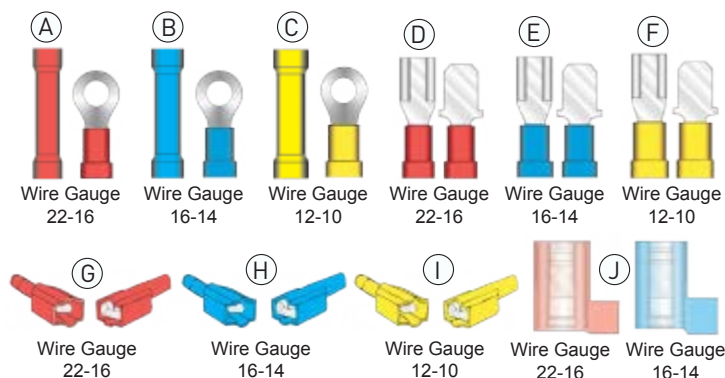


Part No.	Description	Stud Size	Wire Gauge
MIZ FERB10	10-32 Ring	10	16-14
MIZ FESB10	10-32 Spade	10	16-14
MIZ FERB14	1/4" Ring	1/2"	16-14
MIZ FEMB	Male	.250	18-14
MIZ FEFB	Female	.250	18-14
MIZ FEBCB	Blue Butt Conn.		16-14
MIZ FERY10	10-32 Ring	10	10
MIZ FESY10	10-32 Ring	10	10
MIZ FEBCY	Yellow Butt Conn.	10	10





## Nylon Insulated Wire Terminals



	Part No.	Color	Wire Gauge	Ring Size
A	MIZ NBCR	Red	22-16	Butt Conn.
	MIZ NRR6	Red	22-16	6-32"
	MIZ NRR8	Red	22-16	8-32"
	MIZ NRR10	Red	22-16	10-32"
	MIZ NRR14	Red	22-16	1/4"
	MIZ NRR516	Red	22-16	5/16"
	MIZ NRR38	Red	22-16	3/8"
B	MIZ NBCB	Blue	16-14	Butt Conn.
	MIZ NRB6	Blue	16-14	6-32"
	MIZ NRB8	Blue	16-14	8-32"
	MIZ NRR10	Blue	16-14	10-32"
	MIZ NRB14	Blue	16-14	1/4"
	MIZ NRB516	Blue	16-14	5/16"
	MIZ NRB38	Blue	16-14	3/8"
C	MIZ NBCY	Yellow	12-10	Butt Conn.
	MIZ NRY6	Yellow	12-10	6-32"
	MIZ NRY8	Yellow	12-10	8-32"
	MIZ NRY10	Yellow	12-10	10-32"
	MIZ NRY14	Yellow	12-10	1/4"
	MIZ NRY516	Yellow	12-10	5/16"
	MIZ NRY38	Yellow	12-10	3/8"
	MIZ NRY12	Yellow	12-10	1/2"

## Push-On Connectors

D	MIZ NFR	Red	22-16	Female Conn.
	MIZ NMR	Red	22-16	Male Conn.
E	MIZ NFB	Blue	16-14	Female Conn.
	MIZ NMB	Blue	16-14	Male Conn.
F	MIZ NFY	Yellow	12-10	Female Conn.
	MIZ NMY	Yellow	12-10	Male Conn.

## Fully Insulated Push-On Connectors

G	MIZ FIMR	Red	22-16	Male Conn.
	MIZ FIFR	Red	22-16	Female Conn.
H	MIZ FIMB	Blue	16-14	Male Conn.
	MIZ FIFB	Blue	16-14	Female Conn.
I	MIZ FIMY	Yellow	12-10	Male Conn.
	MIZ FIFY	Yellow	12-10	Female Conn.

## Female Flag Conn.

J	MIZ FIFFR	Red	22-16	Female Flag Conn.
	MIZ FIFFB	Blue	16-14	Female Flag Conn.

Standard Package 100

## Nylon Insulated Piggy Back Wire Terminals



Part No.	Wire Gauge	Tab Size	Bag Size
BSP 45391N-P100	16-14	250"	100
BSP 45491N-P50	12-10	250"	50



## Pin Terminals

Part No.	Wire Gauge	Pin Dia.	Bag Size
BSP 45165N-P100	22-18	.08"	100
BSP 45365N-P100	16-14	.08"	100
BSP 45465N-P50	12-10	.11"	50



## Nylon Insulated Wire Joint

Part No.	#Wires / #Gauge.	Bag Size
BSP JN224-318-C	(2) #24 - (2) #16	100
BSP JN314-412-C	(3) #14 - (4) #12	100
BSP JN418-212-C	(4) #18 - (2) #12	100



## Loose Piece Disconnects

Part No.	Wire Range	Tab Size	Bag Size
BSP DNF18-110-C	22 - 18 AWG	.11" x .032"	100
BSP DNF18-187-C	22 - 18 AWG	.187" x .032"	100
BSP DNF14-110-C	16 - 14 AWG	.11" x .032"	100
BSP DNF14-187-C	16 - 14 AWG	.187" x .032"	100



## Electrical Kit



An upgrade to our already popular 338 piece electrical kit. Same huge assortment as our 338 piece kit, but also includes a Butane Torch and a Wire Stripper to complete your electrical job. Clam pack.

Description	Color	Size	Qty
Butt Connectors	Blue	16-14	36
Butt Connectors	Yellow	12-10	22
Ring Connector #10	Blue	16-14	24
Ring Connector #10	Yellow	12-10	14
Ring Connector 1/4"	Blue	16-14	18
Ring Connector 3/8"	Blue	16-14	18
Flange Spade Connect	Blue	16-14	20
Disconnects Male	Blue	16-14	12
Disconnects Female	Blue	16-14	12
Wire Ties	Red	4"	40
Wire Ties	Green	4"	40
Wire Ties	Black	4"	40
Shrink Tubing	Black	3/8"	6
Shrink Tubing	Red	1/4"	6
Shrink Tubing	Black	1/4"	6
Cable Clamps	White	1/4"	12
Cable Clamps	White	1/2"	12

Part No.

SSE 50031117



## Heat Shrink Rings



Part No.	Wire	Stud Size	Color
BSP 31112	22-18	6	Red
BSP 31113	22-18	8	Red
BSP 31114	22-18	10	Red
BSP 31115	22-18	1/4"	Red
BSP 31312	16-14	6	Blue
BSP 31313	16-14	8	Blue
BSP 31314	16-14	10	Blue
BSP 31315	16-14	1/4"	Blue
BSP 31316	16-14	5/16"	Blue
BSP 31317	16-14	3/8"	Blue
BSP 31413	12-10	8	Yellow
BSP 31414	12-10	10	Yellow
BSP 31415	12-10	1/4"	Yellow
BSP 31416	12-10	5/16"	Yellow
BSP 31417	12-10	3/8"	Yellow
BSP 31419	12-10	1/2"	Yellow
BSP 31514	8	10	Red
BSP 31515	8	1/4"	Red
BSP 31516	8	5/16"	Red
BSP 31517	8	3/8"	Red
BSP 31519	8	1/2"	Red

## Black Electrical Tape



Black.  
JMS  
TAP 100

No. Size  
3/4" x 60'



## Starbrite Liquid Electrical Tape

Waterproofs and protects electrical connections. Prevents corrosion on wires and terminals. Forms a protective UV resistant dielectric coating. 100's of uses - bilge pumps, battery switches, terminals, connections. Fast drying. UL Tested. Black.

Part No.  
STB 84104



## Standard and Locking Heat Shrink Forks



Part No.		Wire	Stud Size	Color
Standard Fork	Locking Fork			
BSP 31122	BSP 31142	22-18	6	Red
BSP 31123	BSP 31143	22-18	8	Red
BSP 31124	BSP 31144	22-18	10	Red
BSP 31322	BSP 31342	16-14	6	Blue
BSP 31323	BSP 31343	16-14	8	Blue
BSP 31324	BSP 31344	16-14	10	Blue
BSP 31422	BSP 31442	12-10	6	Yellow
BSP 31423	BSP 31443	12-10	8	Yellow
BSP 31424	BSP 31444	12-10	10	Yellow

## Quick Disconnects Heat Shrink



Part No.	Wire	Desc.	Color
BSP 30187	22-18	Male	Red
BSP 30197	22-18	Female	Red
BSP 30387	16-14	Male	Blue
BSP 30397	16-14	Female	Blue
BSP 30487	12-10	Male	Yellow
BSP 30497	12-10	Female	Yellow

## Heat Shrink Bullets



Part No.	Wire	Desc.	Color
BSP 31369	16-14	Male	Blue
BSP 30379	16-14	Female	Blue

## Heat Shrink Butts



Part No.	Wire	Color
BSP 31030	24-22	Green
BSP 31130	22-18	Red
BSP 31330	16-14	Blue
BSP 31430	12-10	Yellow
BSP 31530	8	Red



## Bilge Water Level Warning System



- Loud Bell and red light panel signal HIGH WATER
- Includes red bell, bilge water level detector and red light warning panel
- 12 Volt



**Part No.**  
ALA 20131

## Exhaust Alarm Kit, Single Engine



- Activates warning panel if wet exhaust exceeds 200°F
- Adjustable aluminium band fits 2" to 8" exhaust
- Green power ON light and RED warning light
- Five feet of Marine Grade Tinned Wire
- 12 Volt



Part No.	Description
ALA 20245	Exhaust Overheat Alarm (Detector & Panel)
ALA 20250	Exhaust Overheat Alarm Detector (12, 24, 32 volts)

## Standard Red Bell Alarm and Alarm Buzzer

- Loud clanging alarm
- Weather proof enamel and stainless steel
- Ideal for marine environment
- 6" Diameter on 4½" base
- Loud 85 dB
- Flush or surface mount
- Can be used with any detector
- 12, 24, 32 volt



Part No.	Description
ALA 20100	Standard Red Bell Alarm
ALA 20106	Alarm Buzzer



## Engine Saver Kit

- Monitors Raw Water Flow. Sounds
- Sounds alarm and activates a red light if flow stops
- One Kit covers ½" thru 1½" hose size by using hose to barb adapters.
- 12 Volt



**Part No.**  
ALA 20064



## Cooling Water Flow Detector



- Monitors raw water flow
- Activates audible or visual alarm
- 12v, 24v & 32v

Part No.	Description
ALA 10231	2" Female Pipe
ALA 10271	1½" Female Pipe
ALA 10233	1" Female Pipe
ALA 13209	1" Female Pipe - Low Flow

**Normally Closed  
Open At**

8 to 10 GPM
6 to 8 GPM
3 to 5 GPM
1.5 GPM

## Low Oil Pressure Detector

- 1/8" male pipe thread
- Installs into pipe plug hole in engine block
- Activates alarm if oil pressure Drops below 10 psi
- 12v, 24v & 32v

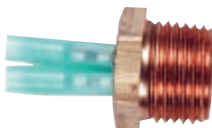


**Part No.**  
ALA 20111

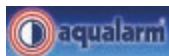


## Engine Overheat Detector

- ½" male pipe thread
- Installs into pipe plugged hole in engine block
- Activates alarm if water temperature exceeds 200° F
- 12, 24, 32v

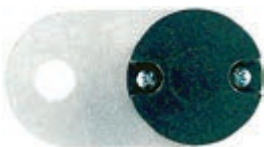


**Part No.**  
ALA 20118



## Engine Overheat Detector

- Bolt-on type
- Bolt to engine block or engine head
- Activates alarm if water temp. exceed 200° F
- 12v, 24v & 32v



**Part No.**  
ALA 20116



## Remote Fire Detector

- Available in 135° or 190° F
- 2½" Diameter
- 12, 24, 32 volt

Part No.	Description
ALA 20112	135° F
ALA 20114	190° F



## Bilge Pump Counter

- Electronically counts number of times bilge pump switches on
- Bright LED digital readout with RESET
- Retains count until reset
- Can be used with all types of water pumps
- 12v, 24v & 32v



**Part No.**  
ALA 20045



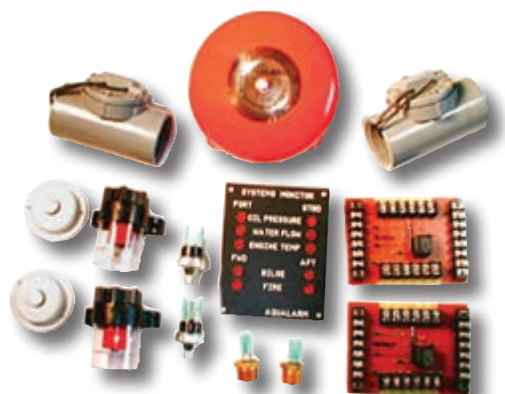
## Bilge Water Level Detector

- Monitors rising bilge water
- No mercury
- Made of rugged ABS and Lexan
- Resists oil, dirt and grease
- 12v, 24v & 32V.

**Part No.**  
ALA 20120



## Automatic Systems Twin Engine Monitoring Kit



- Bilge Water Level
- Engine Temperature.
- Cooling Water Flow
- Oil Pressure
- 12 Volt

Kit includes 10 detectors, 2 pc boards, 1 indicator panel, 1 bell



**Part No.**  
ALA 20003

## Smart Bilge Pump Switch



- Switches pump ON and OFF
- Pumps additional 15 seconds to completely clear the bilge
- Warns of excessive pumping
- Handles pumps up to 20 amps



**Part No.**  
ALA 20038

## Centrifugal Air Conditioning & Water Maker Pumps

Our longtime customers call this pump—LEGENDARY. Once you've owned one, you'll know why. Most manufacturers have given up making pumps out of stainless steel and bronze, but at Cal Pump we never give up on QUALITY. This pump will provide trouble free use in freshwater, saltwater or chlorinated water. You can even use it in hot water up to 120°F.

- *UL listed 115 Volt*
- *Stainless steel and bronze construction*
- *Motors are permanently sealed in a non-toxic biodegradable lubricant*
- *Power cords 6'*
- *MS320-6B, have 1/2" MNPT suction, 1/4" MNPT discharge*
- *MS580-6B, MS900-6B, MS1200-6B have 3/4" MNPT suction 1/2" MNPT discharge*
- *All thermally protected*
- *Extremely quiet operation*
- *Use in saltwater, chlorinated water, freshwater, hot water*
- *Corrosion-resistant*
- *Do not run dry*



CAL MS580-6B  
CAL MS900-6B  
CAL MS1200-6B  
Dimensions:  
4-1/2" x 6-1/4"

## 2 Year Warranty



CALMS320-6B  
Dimensions:  
3-3/4" x 4-1/2"

## Marine Cross-Reference

System Rating	Cal Pump Model	March Model
5,000-10,000 BTU	MS320-6B, PC400, PDS400	LC-2CP-MD, P400, PMP400
8,000-16,000 BTU	MS580-6B, PC500, PDS500	LC3CP-MD, P500, PMP500
12,000-24,000 BTU	MS900-6B, PDS900	LC-3CP-MD in 230 volt
16,000-30,000 BTU	MS1200-6B, PDS1200	AC-5C-MD in low head applications

[illegible]

## Chevy Small Block V-6 & V-8 262/283/305/327/350 C.I.D.



**Part No.**  
BBB 286232

**Description**  
New water pump features black powder coated finish, stainless steel backing plate, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gaskets.

BBB 286236 Without bypass holes

## Chevy Big Block V-8 409/427/454/502 C.I.D.



**Part No.**  
BBB 286231

**Description**  
New water pump features black powder coated finish, stainless steel backing plate, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gaskets.

## Chevy 8.1 Ltr. V-8 496 C.I.D.



**Part No.**  
BBB 286590

**Description**  
New water pump features black powder coated finish, stainless steel backing plate, stainless/ceramic seal, cast brass impeller heavy duty bearings & OE mounting gaskets.

## Chevy In-Line 4-6 Cylinder



**Part No.**  
BBB 286219

**Description**  
New water pump features black powder coated finish, stainless/ceramic seal, cast brass impeller heavy duty bearings & mounting gasket. Open back style.

## Ford Small Block V-8 302/351 C.I.D.



**Part No.**  
BBB 286225

**Description**  
New water pump features black powder coated finish, stainless steel backing plate, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gaskets.

## Ford 2.3 Ltr. In-line 4 Cylinder



**Part No.**  
BBB 286343

**Description**  
New water pump features black powder coated finish, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gasket.

## Chrysler V-8 Small Block 273/318/340/360 C.I.D.



**Part No.**  
BBB 286235

**Description**  
New water pump features black powder coated finish, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gasket.

## Chrysler V-8 Big Block 413/426/440 C.I.D.



**Part No.**  
BBB 286290

**Description**  
New water pump features black powder coated finish, stainless/ceramic seal, cast brass impeller, heavy duty bearings & mounting gasket.

## Chevy Raw Water Pump Conversion Kit



**Part No.**  
BBB 313350

**Description**  
Small Block Kit contains Pump, Bracket, Bushing & Three Mounting Bolts.  
Big Block Kit contains Pump, Bracket, Bushing & Six Mounting Bolts (Gen IV - Course Thread, Gen V & VI - Fine Threads)

## Small Block Ford Raw Water Pump Conversion Kit



**Part No.**  
BBB 313351

**Description**  
New Pump, Bracket, Bushing & Three Mounting Bolts.



## Caterpillar



**Part No. JMP JPR-CT3412**  
ENGINE MODEL: 3412  
PUMP P/N: 7C3613

Part No.	Desc.	Qty.
JMS JPR-CT3412	Pump Assy.	1
JMS IMP0026	Impeller	1

## Caterpillar



**Part No. JMP JPR-CT3508**  
ENGINE MODEL: 3508  
PUMP P/N: 7C3614

Part No.	Desc.	Qty.
JMS JPR-CT3508	Pump Assy.	1
JMS IMP0063	Impeller	1

## Caterpillar



**SHERWOOD**

**Part No. SHE G22012**  
Sea Water Pump fits 3412 Series engines.  
Replaces CAT #147-7850, 212-7264

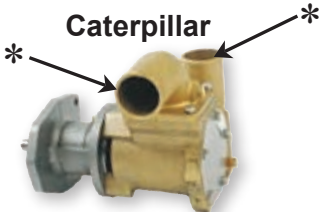
Part No.	Desc.	Qty.
SHE 22000K	Impeller Kit	1
SHE 23234	Minor Kit	1
SHE 23906/23088	Seal Assy.	1
SHE 24465	Shaft/Bearing Assy.	1
SHE 23112	Wearplate	1
SHE 24160	Cam	1
SHE 23111	Gasket/O-ring	2
SHE 1810-0012	Snap Ring	1
SHE 23091	Snap Ring	1
SHE 23115	Snap Ring	1

**Part No. SHE G-3001-X**

Part No.	Desc.	Qty.
SHE 25153	Shaft/Brg Assy*	1
SHE 23906	Mechanical Seal	1
SHE 21566	Pin	1
SHE 23091	Ret Ring	1
SHE 23111	Quad Ring	1
SHE 23112	Wearplate	1
SHE 23113	Cover Plate	1
SHE 19626	Cover Screw	5
SHE 15944	Lock Washer	5
SHE 23115	Ret Ring	1
SHE 23922	Shield	1
SHE 23924	Slinger	1
SHE 25072	Cam Half	2
SHE 25154	Major Service Kit	1

\*Parts Sold Separately

## Caterpillar



**SHERWOOD** \*Ports Not Included

**Part No. SHE G18061**

Sea Water Pump fits 3406 & 3406C Series engines. Replaces CAT #130-1160, 201-0956

Part No.	Desc.	Qty.
SHE 18000K	Impeller Kit	1
SHE 24004	Minor Kit	1
SHE 23837/19869	Seal Assy.	1
SHE 19836	Wearplate	1
SHE 21533	Cam	2
SHE 21561	Gasket/O-ring	2
SHE 19762	Snap Ring (SM)	2
SHE 19867	Snap Ring (LG)	1

## Caterpillar



**SHERWOOD**

**Part No. SHE G18082X**  
Sea Water Pump fits 3406E, C15 & C18 Series engines. Replaces CAT #131-8272, 196-8895

Part No.	Desc.	Qty.
SHE 18000K	Impeller Kit	1
SHE 24004	Minor Kit	1
SHE 24007	Major Kit	1
SHE 23837/23045	Seal Assy.	1
SHE 24463	Shaft/Bearing Assy.	1
SHE 19836	Wearplate	1
SHE 21533	Cam	2
SHE 21561	Gasket/O-ring	2
SHE 19762	Snap Ring (SM)	2
SHE 19867	Snap Ring (LG)	1

**Part No. SHE G-2902-X**

Part No.	Description	Qty.
SHE 29000K	Impeller	1
SHE 25145	Shaft/Brg Assy*	1
SHE 23837	Mechanical Seal	1
SHE 19762	Ret Ring	2
SHE 19836	Wearplate	1
SHE 19837	Cover Plate	1
SHE 19626	Cover Screw	5
SHE 15944	Lock Washer	5
SHE 19866	Washer	1
SHE 19867	Ret Ring	1
SHE 21172	Bolt	3
SHE 21533	Cam Liner-Half	2
SHE 21561	Quad Ring	2
SHE 21566	Pin	1
SHE 22791	Key	1
SHE 23425	Shield	1
SHE 25147	Major Service Kit	1

\*Parts Sold Separately

## Caterpillar



**SHERWOOD**

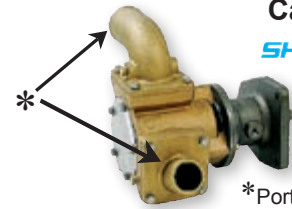
**Part No. SHE P176X**

Sea Water Pump fits 3208 Series engines. Replaces CAT #9Y1304, 7E4115

Part No.	Desc.	Qty.
SHE 17000K	Impeller Kit	1
SHE 23973	Minor Kit	1
SHE 23975	Major Kit	1
SHE 15951	Bearing Assy.	2
SHE 19620	Shaft	1
SHE 18441	Wearplate	1
SHE 18271	Cam	1
SHE 15945	Gasket/O-ring	1
SHE 15952	Snap Ring (SM)	3
SHE 15942	Snap Ring (LG)	1

## Caterpillar

**SHERWOOD**



\*Ports Not Included

**Part No. SHE G1807 / SHE G18071**

Replaced by G2904X  
CAT # 123-0471 / 197-1328

Part No.	Desc.	Qty.
SHE 18000K	Impeller	1
SHE 19878	Mechanical Seal	1
SHE 23837	Upgrade Mech. Seal	1
SHE 19866	Seal Washer	1
SHE 21561	Quad Ring Gasket	2
SHE 19837	End Cover	1
SHE 19626	Cover Screw	5
SHE 21106	Cam Liner	2
SHE 15944	Lock Washer	5
SHE 19869	Oil Seal	1
SHE 19835	Oil Seal Washer	1
SHE 19871	Lg. Ball Bearing	1
SHE 19872	Sm. Ball Bearing	1
SHE 19870	Bearing Spacer	1
SHE 19867	Lg. Snap Ring	1
SHE 19762	Sm. Snap Ring	2
SHE 19836	Wearplate	1
SHE 21566	Wearplate Pin	1
SHE 19868	Slinger	1
SHE 21526	Shaft	1
SHE 21172	Body Bolt	3
SHE 21845	Port O-Ring	2
SHE 339	Plug	2

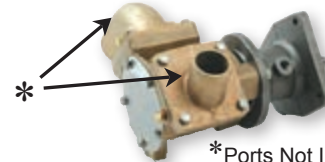
**Part No. SHE G2904X**

Part No.	Description	Qty.
SHE 29000K	Impeller	1
SHE 25112	Shaft/Brg Assy*	1
SHE 23837	Mechanical Seal	1
SHE 19837	End Cover	1
SHE 19626	Cover Screw	5
SHE 15944	Lock Washer	5
SHE 21561	Quad Ring	1
SHE 21106	Cam Half	2
SHE 19836	Wearplate	1
SHE 21566	Pin	1
SHE 19762	Ret Ring	2
SHE 19866	Washer	1
SHE 21172	Bolt	3
SHE 19867	Retaining Ring	1
SHE 19869	Lip Seal	1
SHE 25148	Major Service Kit	1

\*Parts Sold Separately

**SHERWOOD**

## Caterpillar



\*Ports Not Included

**Part No. SHE G1805**

Sea Water Pump fits 3176 Series engines. Replaces CAT #100-6441, 123-0500

Part No.	Desc.	Qty.
SHE 18000K	Impeller Kit	1
SHE 24023	Minor Kit	1
SHE 24024	Major Kit	1
SHE 23878/19869	Seal Assy.	1
SHE 19836	Wearplate	1
SHE 21106	Cam	2
SHE 21561	Gasket/O-ring	2
SHE 19762	Snap Ring (SM)	2
SHE 19867	Snap Ring (LG)	1

## Caterpillar



SHERWOOD®

**Part No. SHE P1710A**

Replaced by P1710C

Part No.	Desc.	Qty.
SHE 17000K	Impeller	1
SHE 25119	Shaft/Brg Assy*	1
SHE 25115	Seal Assy for use w/ 25119*	1
SHE 15952	Snap Ring (SM)	2
SHE 15942	Snap Ring (LG)	1
SHE 24156	Slinger	1
SHE 15959	Seal Washer	1
SHE 19667	Key	1
SHE 18441	Pin/Plate Assy	1
SHE 18271	Cam	1
SHE 19714	Cam Screw	1
SHE 19712	O-Ring (Cam Screw)	1
SHE 15945	O-Ring (Cover)	1
SHE 18742	End Cover	1
SHE 19626	Cover Bolt	3
SHE 15944	Lock Washer	3
SHE 21776	Bearing Seal	1
SHE 25121	Major Service Kit	1

**Part No. SHE P1710C**

Part No.	Desc.	Qty.
SHE 17000K	Impeller	1
SHE 25119	Shaft/Brg Assy*	1
SHE 25115	Mechanical Seal	1
SHE 15942	Ret Ring (Int)	1
SHE 24156	Slinger	1
SHE 25152	Key	1
SHE 24162	Pin/Plate Assy	1
SHE 18271	Cam	1
SHE 19714	Cam Screw	1
SHE 19712	O-Ring (Cam Screw)	1
SHE 15945	O-Ring (Cover)	1
SHE 18742	End Cover	1
SHE 19626	Cover Bolt	3
SHE 15944	Lock Washer	3
SHE 25121	Major Service Kit	1

\*Parts Sold Separately

## Caterpillar



SHERWOOD®

**Part No. SHE P172**

Sea Water Pump fits 3116 Series engines.  
Replaces CAT #7E3268 Pump is obsolete,  
replaced by SHE P1710A

Part No.	Desc.	Qty.
SHE 17000K	Impeller Kit	1
SHE 23972	Minor Kit	1
SHE 23974	Major Kit	1
SHE 15955/19674	Seal Assy.	1
SHE 15951	Bearing Assy.	2
SHE 18441	Wearplate	1
SHE 18271	Cam	1
SHE 15945	Gasket/O-ring	1
SHE 15952	Snap Ring (SM)	3
SHE 15942	Snap Ring (LG)	1

## Caterpillar



SHERWOOD®

**Part No. SHE P1732A  
JMP JPR57632**

Sea Water Pump fits: 3126 Series engines.  
Repl: CAT #113-1109, 152-8392  
Replaced by P1732C

Part No.	Desc.	Qty.
SHE 17000K	Impeller	1
SHE 25119	Shaft/Brg Assy*	1
SHE 25115	Seal Assy for 25119*	1
SHE 15942	Snap Ring (LG)	1
SHE 15959	Seal Washer	1
SHE 19667	Key	1
SHE 18441	Pin/Plate Assy	1
SHE 21318	Cam	1
SHE 19714	Cam Screw	1
SHE 19712	O-Ring (Cam Screw)	1
SHE 15945	O-Ring (Cover)	1
SHE 18742	End Cover	1
SHE 19626	Cover Bolt	3
SHE 15944	Lock Washer	3
SHE 21776	Bearing Seal	1
SHE 15952	Ret Ring (Ext)	1
SHE 24156	Slinger	1
SHE 21525	Flange O-Ring	2
SHE 25121	Major Service Kit	1

**Part No. SHE P1732C  
JMP JPR 57632**

Part No.	Desc.	Qty.
SHE 17000K	Impeller	1
SHE 25119	Shaft/Brg Assy *	1
SHE 25115	Seal Assy for use w/ 25119*	1
SHE 15942	Snap Ring (LG)	1
SHE 24156	Slinger	1
SHE 25152	Key	1
SHE 24162	Pin/Plate	1
SHE 21318	Cam	1
SHE 19714	Cam Screw	1
SHE 19712	O-Ring (Cam Screw)	1
SHE 15945	O-Ring (Cover)	1
SHE 18742	End Cover	1
SHE 19626	Cover Bolt	3
SHE 15944	Lock Washer	3
SHE 21525	Flange O-Ring	2
SHE 25121	Major Service Kit	1

\*Parts Sold Separately

## Caterpillar



JABSCO

**Part No. JAB 17970-0000**

Sea Water Pump fits 3406 Series engines.  
Replaces CAT #3N4851

Part No.	Desc.	Qty.
JAB 17370-0001	Impeller	1
JAB 96080-0371	Seal Assy.	1
JAB 18752-0000	Bearing Assy.	2
JAB 17372-1000	Wearplate	2
JAB 17365-1000	Gasket/O-ring	1
JAB 18721-0000	Snap Ring (LG)	1

## Caterpillar

JABSCO

**Part No. JAB 7420-1001**

Sea Water Pump fits 3208 Series engines.  
Replaces CAT #7W8019

Part No.	Desc.	Qty.
JAB 17935-0001	Impeller	1
JAB 6407-0010	Seal Assy.	1
JAB 92600-0040	Bearing Assy.	1
JAB 824-2001	Shaft	1
JAB 2574-0000	Wearplate	1
JAB 834-0001	Cam	1
JAB 816-0000	Gasket/O-ring	1
JAB 18711-0000	Snap Ring (SM)	1
JAB 18712-0000	Snap Ring (LG)	1

## Caterpillar



JABSCO

**Part No. JAB 17350-0001**

Replaced by JAB 17970-0000  
Sea Water Pump fits 3208 Series engines.  
Replaces CAT #3N4851

Part No.	Desc.	Qty.
JAB 17018-0001	Impeller	1
JAB 96080-0080	Seal Assy.	1
JAB 18753-0131	Snap Ring	1

## Caterpillar



JABSCO

**Part No. JAB 6400-1051**

Sea Water Pump fits 3208 Series engines.  
Replaces CAT #1W9046, 4L9070, 4L1919

Part No.	Desc.	Qty.
JAB 17935-0001	Impeller	1
JAB 6407-0010	Seal Assy.	1
JAB 92600-0040	Bearing Assy.	1
JAB 824-2001	Shaft	1
JAB 2574-0000	Wearplate	1
JAB 4156-0000	Cam	1
JAB 2553-0000	Gasket/O-ring	1
JAB 18711-0000	Snap Ring (SM)	1
JAB 18712-0000	Snap Ring (LG)	1

## Caterpillar



JABSCO

**Part No. JAB 777-9001**

Sea Water Pump fits 3208 Series engines.  
Replaces CAT #3N9009, 2N3984

Part No.	Desc.	Qty.
JAB 920-0001-P	Impeller	1
JAB 96080-0080	Seal Assy.	1
JAB 92600-0060	Bearing Assy.	1
JAB 6718-0000	Shaft	1
JAB 4156-0000	Wearplate	1
JAB 934-0000	Cam	1
JAB 890-0000	Gasket/O-ring	1

\*Parts Sold Separately

## Chris Craft



## SHERWOOD®

**Part No. SHE G45-1**

Chris Craft #16.80-18347  
Engine Model Number 454 1-1/4" Ports

**Part No. .... Desc. .... Qty.**

SHE 10615K	Impeller	1
SHE 12859	Seal Assy	1
SHE 12211	Ball Bearing	2
SHE 12612	Shaft	1
SHE 10944	Cam	1
SHE 12855	Gasket	1
SHE 12231	O-Ring	1
SHE 12856	Wearplate	1
SHE 04432	Key	1
SHE 12791	Pin	1
SHE 12615	Hub	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	2
SHE 12328	Brg Hzg.	1
SHE 10515C	Cam Screw	1
SHE 04264	Seal Washer	1
SHE 12857	Screw	3
SHE 12710	Washer	3
SHE 05133	Spacer	1

**Part No. SHE G30-2B**

Chris Craft Eng #16.80-18346  
Engine Model Number 350 1" Ports

**Part No. .... Desc. .... Qty.**

SHE 9959K	Impeller	1
SHE 12859	Seal Assy	1
SHE 12211	Ball Bearing	2
SHE 12855	Gasket	1
SHE 12231	O-Ring	1
SHE 12856	Plate	1
SHE 04432	Key	1
SHE 12791	Pin	1
SHE 12615	Hub	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	2
SHE 12328	Brg. Hzg.	1
SHE 10515C	Cam Screw	1
SHE 04264	Seal Washer	1
SHE 12857	Screw	3
SHE 12710	Washer	3
SHE 12303	Body	1
SHE 05133	Spacer	1

## Chrysler



## SHERWOOD®

**Part No. SHE G5, G7, G7B, G50**

Chrysler Eng Mfg #4142878 Engine Model  
Numbers 318, LM340X and 360 - 1-1/4" Ports

**Part No. .... Desc. .... Qty.**

SHE 10615K	Impeller	1
SHE 12859	Seal Assy	1
SHE 04264	Seal Washer	1
SHE 12211	Ball Bearing	2
SHE 12233	Shaft (G-5, G-50)	1
SHE 13363	Shaft (G-7, G-7B)	1
SHE 10944	Cam	1
SHE 10515C	Cam Screw	1
SHE 12855	Gasket	1
SHE 12231	O-Ring	1
SHE 12857	Cover Screw	3
SHE 12710	Lock Washer	3
SHE 12856	Wearplate	1
SHE 05133	Bearing Spacer	1
SHE 04432	Impeller Key	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	2
SHE 12323	Pulley 7 1/2" (G50)	1
SHE 12622	Key	1

## Crusader



## SHERWOOD®

**Part No. SHE P1014**

Crusader #40050 & RAOS7031

**Part No. .... Desc. .... Qty.**

SHE 10615K	Impeller	1
SHE 12859	Mechanical Seal	1
SHE 04264	Seal Washer	1
SHE 19251	Gasket	1
SHE 19291	End Cover	1
SHE 21381	Cover Screw	4
SHE 00343	Lock Washer	4
SHE 10944	Cam	1
SHE 10515C	Cam Screw	1
SHE 19295	Wearplate	1
SHE 12211	Ball Bearing	2
SHE 19293	Shaft	1
SHE 04432	Key	1
SHE 04258	Snap Ring (SM)	2
SHE 04259	Snap Ring (LG)	1
SHE 97176	Pulley Hub	1

## Chrysler



## SHERWOOD®

**Part No. SHE D55 (shown), D60, D65, D75**

Chrysler #2847630  
Engine Model M273X, LM318X - 1" Ports (all four)

**Part No. .... Desc. .... Qty.**

SHE 9959K	Impeller (Inner)	1
SHE 9959K	Impeller (Outer D-60, 65, 75)	1
SHE 10615K	Impeller (Outer D-55)	1
SHE 10927	Seal Assy	1
SHE 04257	Ball Bearing	1
SHE 11460	Shaft (D-55)	1
SHE 11459	Shaft (D-60, 65, 75)	1
SHE 15883	Cam (Inner)	1
SHE 10944	Cam (Outer D-55)	1
SHE 15883	Cam (Outer D-60, 65, 75)	1
SHE 10609	Gasket (Inner)	1
SHE 10612	Gasket (Outer D-55)	1
SHE 10609	Gasket (Outer D-60, 65, 75)	1
SHE 06333	Bushing	1
SHE 10625	Wearplate	1
SHE 04432	Impeller Key	2
SHE 11515	Drive Key	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	1
SHE 05771	Screw	6
SHE 00413	Pin	2
SHE 10515C	Screw	2
SHE 00343	Washer	4

## Crusader



## SHERWOOD®

**Part No. SHE E35**

Crusader #97179  
Engine Model Numbers 220, 270, 300, and  
350 1" NPT Ports

**Part No. .... Desc. .... Qty.**

SHE 10615K	Impeller	1
SHE 11744	Shaft	1
SHE 10927	Seal Assy	1
SHE 04257	Ball Bearing	1
SHE 10944	Cam	1
SHE 10515C	Cam Screw	1
SHE 10931	Gasket	1
SHE 06333	Carbon Bushing	1
SHE 17485	Cover Screw	4
SHE 10183	Cover	1
SHE 12710	Lock Washer	4
SHE 04432	Impeller Key	1
SHE 01311	Pin	2
SHE 0336	Plug	2
SHE 97176	Pulley Hub	1
SHE 04258	Snap Ring (SM)	2
SHE 04259	Snap Ring (LG)	1

**Jerry's  
Marine  
Service**

Give us a call!  
**FL 1-800-432-2231**  
**SC 1-800-788-2231**  
Our parts experts will be happy to  
assist you in finding the perfect fit.



## Cummins Diesel

**SHERWOOD®****Part No. SHE P1716A**

Sea Water Pump fits 6B Series engines.  
Replaces Cummins #3922590

Part No. ....	Desc. ....	Qty.
SHE 17000K.....	Impeller Kit .....	1
SHE 23974.....	Major Kit .....	1
SHE 24470.....	Shaft/Bearing Assy. ....	1
SHE 24162.....	Wearplate.....	1
SHE 18271.....	Cam.....	1
SHE 21570.....	Gasket.....	1
SHE 15945.....	O-Ring.....	1
SHE 15952.....	Snap Ring (SM).....	2

**Part No. SHE P1716C**

Part No. ....	Description .....	Qty
SHE 17000K.....	Impeller.....	1
SHE 25120.....	Shaft/Brg Assy*.....	1
SHE 25115.....	Mechanical Seal .....	1
SHE 24156.....	Slinger.....	1
SHE 19667.....	Key.....	1
SHE 19630.....	Slinger.....	1
SHE 18271.....	Cam.....	1
SHE 19714.....	Cam Screw.....	1
SHE 19712.....	O-Ring (Cam Screw).....	1
SHE 24250.....	Bearing Seal.....	1
SHE 15945.....	O-Ring (Cover).....	1
SHE 18742.....	End Cover.....	1
SHE 19626.....	Cover Bolt.....	3
SHE 15944.....	Lock Washer.....	3
SHE 24162.....	Pin/Plate Assy.....	1
SHE 25122.....	Major Service Kit.....	1

**Part No. SHE P1722A**

Sea Water Pump fits 6C Series engines.  
Replaces Cummins #3922589, 3964989

Part No. ....	Desc. ....	Qty.
SHE 17000K.....	Impeller Kit .....	1
SHE 23972.....	Minor Kit .....	1
SHE 23974.....	Major Kit .....	1
SHE 24470.....	Shaft/Bearing Assy. ....	1
SHE 18441.....	Wearplate.....	1
SHE 18271.....	Cam.....	1
SHE 21570.....	Gasket.....	1
SHE 15945.....	O-Ring.....	1
SHE 15952.....	Snap Ring (SM).....	2

**Part No. SHE P1722C**

Part No. ....	Desc. ....	Qty
SHE 17000K.....	Impeller.....	1
SHE 25120.....	Shaft/Brg Assy*.....	1
SHE 25115.....	Mechanical Seal .....	1
SHE 24250.....	Bearing Seal.....	1
SHE 18271.....	Cam.....	1
SHE 19714.....	Cam Screw.....	1
SHE 19712.....	O-Ring (Cam Screw).....	1
SHE 19667.....	Key.....	1
SHE 15945.....	O-Ring (Cover).....	1
SHE 18742.....	End Cover.....	1
SHE 19626.....	Cover Bolt.....	3
SHE 15944.....	Lock Washer.....	3
SHE 24162.....	Pin/Plate Assy.....	1
SHE 25122.....	Major Service Kit.....	1

## Cummins Diesel

**SHERWOOD®**

**Part No. SHE P1730A**  
**Part No. JMP JPR-S7630**

Sea Water Pump fits 6C Series engines.  
Replaces Cummins #3866493, 4003526, 3964765

Part No. ....	Desc. ....	Qty.
SHE 17000K.....	Impeller Kit .....	1
SHE 24579.....	Major Kit .....	1
SHE 24470.....	Shaft/Bearing Assy. ....	1
SHE 24162.....	Wearplate.....	1
SHE 18271.....	Cam.....	1
SHE 21570.....	Gasket.....	1
SHE 15945.....	O-Ring.....	1
SHE 15952.....	Snap Ring (SM).....	2

**Part No. SHE P1730C**

Part No. ....	Desc. ....	Qty
SHE 17000K.....	Impeller.....	1
SHE 25120.....	Shaft/Brg Assy*.....	1
SHE 25115.....	Mechanical Seal .....	1
SHE 24156.....	Slinger.....	1
SHE 24162.....	Pin/Plate Assy.....	1
SHE 18271.....	Cam.....	1
SHE 19714.....	Cam Screw.....	1
SHE 19712.....	O-Ring (Cam Screw).....	1
SHE 15945.....	O-Ring (Cover).....	1
SHE 18742.....	End Cover.....	1
SHE 19626.....	Cover Bolt.....	3
SHE 15944.....	Lock Washer.....	3
SHE 19667.....	Key.....	1
SHE 24250.....	Bearing Seal.....	1
SHE 21525.....	Flange O-Ring.....	2
SHE 25122.....	Major Service Kit.....	1

**Part No. SHE P1727A**

Sea Water Pump fits 6C Series engines.  
Replaces Cummins #3964767

Part No. ....	Desc. ....	Qty.
SHE 17000K.....	Impeller Kit .....	1
SHE 24578.....	Minor Kit .....	1
SHE 24579.....	Major Kit .....	1
SHE 24470.....	Shaft/Bearing Assy. ....	1
SHE 18742.....	Cover Plate.....	1
SHE 24162.....	Wearplate / Pin.....	1
SHE 18271.....	Cam.....	1
SHE 21570.....	Adaptor Gasket.....	1
SHE 15945.....	O-Ring.....	1
SHE 19885.....	Gear Assy / Hub.....	1
SHE 21525.....	Port O-Rings.....	2
SHE 24250.....	Oil Seal.....	1

## Cummins Diesel

**SHERWOOD®****Part No. SHE G1503**

Sea Water Pump fits 4B Series engines.  
Replaces Cummins #3349340

Part No. ....	Desc. ....	Qty.
SHE 15000K.....	Impeller Kit.....	1
SHE 23980.....	Minor Kit.....	1
SHE 23256.....	Major Kit.....	1
SHE 12859.....	Seal Assy.....	1
SHE 23448.....	Bearing Assy.....	2
SHE 23228.....	Shaft.....	1
SHE 22836.....	Wearplate.....	1
SHE 21173.....	End Cover.....	1
SHE 12231.....	O-Ring.....	1
SHE 04258.....	Snap Ring (SM).....	2
SHE 04259.....	Snap Ring (LG).....	1

## Cummins Diesel

**SHERWOOD®****Part No. SHEGC1**

Sea Water Pump fits 6B Series engines  
Replaces Cummins #3912962

Part No. ....	Desc. ....	Qty.
SHE 15000K.....	Impeller Kit .....	1
SHE 23980.....	Minor Kit.....	1
SHE 23981.....	Major Kit.....	1
SHE 12859.....	Seal Assy.....	1
SHE 23448.....	Bearing Assy.....	2
SHE 21069.....	Shaft.....	1
SHE 12856.....	Wearplate.....	1
SHE 18398.....	Cam.....	1
SHE 12855.....	Gasket.....	1
SHE 12231.....	O-Ring.....	1
SHE 04258.....	Snap Ring (SM).....	2
SHE 04259.....	Snap Ring (LG).....	2

**Part No. SHEGC5**

Sea Water Pump fits 6B Series engines.  
Replaces Cummins #3927684

Part No. ....	Desc. ....	Qty.
SHE 15000K.....	Impeller Kit .....	1
SHE 23980.....	Minor Kit.....	1
SHE 23981.....	Major Kit.....	1
SHE 12859.....	Seal Assy.....	1
SHE 23448.....	Bearing Assy.....	2
SHE 19843.....	Shaft.....	1
SHE 12856.....	Wearplate.....	1
SHE 18398.....	Cam.....	1
SHE 12855.....	Gasket.....	1
SHE 12231.....	O-Ring.....	1
SHE 04258.....	Snap Ring (SM).....	2
SHE 04259.....	Snap Ring (LG).....	1

## Cummins Diesel

**SHERWOOD®**

**Part No. SHEP1727X / P1727C**  
**Part No. JMP JPR-S7627**

Sea Water Pump fits 6C Series engines.  
Replaces Cummins #3897194

Part No. ....	Desc. ....	Qty.
SHE 17000K.....	Impeller Kit.....	1
SHE 23972.....	Minor Kit.....	1
SHE 23974.....	Major Kit.....	1
SHE 24470.....	Shaft/Bearing Assy....	1
SHE 18742.....	Cover Plate.....	1
SHE 18441.....	Wearplate / Pin.....	1
SHE 18271.....	Cam.....	1
SHE 21570.....	Adaptor Gasket.....	1
SHE 15945.....	O-Ring.....	1
SHE 19885.....	Gear Assy / Hub.....	1
SHE 21525.....	Port O-Rings.....	2
SHE 19674.....	Oil Seal.....	1

## Cummins Diesel



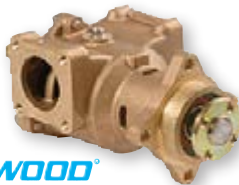
SHERWOOD®

**Part No. SHE M71  
JMP JPR-C1025**

Sea Water Pump fits 4B Series engines.  
Replaces Cummins #3907458

Part No. ....	Desc. ....	Qty.
SHE 10615K .....	Impeller Kit .....	1
SHE 23976 .....	Minor Kit .....	1
SHE 23977 .....	Major Kit .....	1
SHE 12859 .....	Seal Assy. ....	1
SHE 23448 .....	Bearing Assy. ....	2
SHE 14159 .....	Shaft .....	1
SHE 12856 .....	Wearplate .....	1
SHE 10944 .....	Cam .....	1
SHE 12855 .....	Gasket .....	1
SHE 12231 .....	O-Ring .....	1
SHE 04258 .....	Snap Ring (SM) .....	2
SHE 04259 .....	Snap Ring (LG) .....	2

## Cummins Diesel



SHERWOOD®

**Part No. SHE P2701X**

Sea Water Pump fits QSB 330-480 Series engines. Replaces Cummins #3922589, 3964989.

**Part No. JMP JPR-S7608**

ENGINE MODEL: QSB5.9, QSB6.9  
PUMP P/N: 5268375

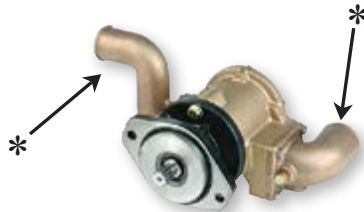
Part No. ....	Desc. ....	Qty.
SHE 27000K .....	Impeller Kit .....	1
SHE 24580 .....	Minor Kit .....	1
SHE 24581 .....	Major Kit .....	1
SHE 18742 .....	Cover Plate .....	1
SHE 24162 .....	Wearplate .....	1
SHE 18271 .....	Cam .....	1
SHE 15945 .....	O-Ring .....	1
SHE 21525 .....	Flanged Port O-ring .....	2

**Part No. SHE P2708X  
JMP JPR-S7608**

ENGINE MODEL: QSB5.9, QSB6.9,  
Fits: Cummins #QSB519HO355, 5268375

Part No. ....	Desc. ....	Qty.
SHE 27000K .....	Impeller .....	1
SHE 25100 .....	Shaft/Brg Assy* .....	1
SHE 25115 .....	Mechanical Seal .....	1
SHE 15945 .....	Cover O-Ring .....	1
SHE 18742 .....	End Cover .....	1
SHE 19626 .....	Cover Screw .....	3
SHE 15944 .....	Lock Washer .....	3
SHE 18271 .....	Cam .....	1
SHE 19714 .....	Cam Screw .....	1
SHE 19712 .....	Cam Screw O-Ring .....	1
SHE 24162 .....	Pin/Plate Assy .....	1
SHE 15952 .....	Ret Ring (Ext) .....	1
SHE 15942 .....	Ret Ring (Int) .....	1
SHE 25126 .....	Major Service Kit .....	1

## Cummins Diesel



SHERWOOD®

\* Ports Not Included

**Part No. SHE G1810X**

Replaced by SHE G2903X

**JMP JPR-C1100**

Sea Water Pump fits QSM11 Series engines.  
Replaces Cummins #3349392

Part No. ....	Desc. ....	Qty.
SHE 18000K .....	Impeller Kit .....	1
SHE 24005 .....	Minor Kit .....	1
SHE 24008 .....	Major Kit .....	1
SHE 23512/23045 .....	Seal Assy. ....	1
SHE 24003 .....	Shaft/Bearing Assy. ....	1
SHE 19836 .....	Wearplate .....	1
SHE 21106 .....	Cam .....	2
SHE 19837 .....	End Cover .....	1
SHE 1720-0212 .....	O-Ring .....	1
SHE 19762 .....	Snap Ring (SM) .....	2
SHE 19867 .....	Snap Ring (LG) .....	1

**Part No. SHE G2903X  
JMP JPR-C1100**

ENGINE MODEL: QSM11, Cummins #4929178

Part No. ....	Description .....	Qty
SHE 29000K .....	Impeller .....	1
SHE 25103 .....	Shaft/ Brg Assy* .....	1
SHE 24511 .....	Mechanical Seal .....	1
SHE 19762 .....	Ret Ring .....	2
SHE 19836 .....	Wearplate .....	1
SHE 19837 .....	End Cover .....	1
SHE 19626 .....	Cover Screw .....	5
SHE 15944 .....	Lock Washer .....	5
SHE 19866 .....	Washer .....	1
SHE 19867 .....	Ret Ring .....	1
SHE 21106 .....	Cam Half .....	2
SHE 21561 .....	Quad Ring .....	2
SHE 21566 .....	Pin .....	1
SHE 23425 .....	Shield .....	1
SHE 25045 .....	Major Service Kit .....	1

## Cummins Diesel

The Only One  
JMP**Part No. JMP JPR-C1900**

ENGINE MODEL: KT19M, KTA19M, KTA19M3/  
M6, KTA19-D(M), KTA19-D(M1)  
PUMP P/N: 3049158, 3074540

Part No. ....	Desc. ....	Qty.
JMP JPR-C1900 .....	Pump Assy .....	1
JMP IMP002601 .....	Impeller .....	1

## Cummins Diesel \*

\* Ports Not Included  
SHERWOOD®**Part No. SHE G2610X  
JMP JPR-C0830**

Sea Water Pump fits QSC Series engines.  
Replaces Cummins #3967246

Part No. ....	Desc. ....	Qty.
SHE 26000K .....	Impeller Kit .....	1
SHE 24841 .....	Minor Kit .....	1
SHE 24842 .....	Major Kit .....	1
SHE 23837/19869 .....	Seal Assy. ....	1
SHE 24223 .....	Shaft/Bearing Assy. ....	1
SHE 24075 .....	Cam .....	1
SHE 24790 .....	Wearplate .....	1
SHE 24074 .....	End Cover .....	1
SHE 19879 .....	Gasket /O-Ring .....	1
SHE 19762 .....	Snap Ring (SM) .....	2
SHE 19867 .....	Snap Ring (LG) .....	1

## Cummins Diesel

The Only One  
JMP**Part No. JMP JPR-C1040**

ENGINE MODEL: N855M, NT855M, NTA855M  
PUMP P/N: 3010336, 3278137

Part No. ....	Desc. ....	Qty.
JMP JPR-C1040 .....	Pump Assy .....	1
JMP 8001-01 .....	Impeller .....	1

## Cummins Diesel

The Only One  
JMP**Part No. JMP JPR-C1905**

ENGINE MODEL: QSK19

PUMP P/N: 3866609

Part No. ....	Desc. ....	Qty.
JPM 9001-01 .....	Impeller .....	1

## Cummins Diesel

The Only One  
JMP**Part No. JMP JPR-C3800**

ENGINE MODEL: KT38M, KTA38M, KTA50M  
PUMP P/N: 3049157, 3085649, 3897669

Part No. ....	Desc. ....	Qty.
JMP JPR-C3800 .....	Pump Assy .....	1
JMP IMP002603 .....	Impeller .....	1

## Detroit Diesel



**Part No. JMP JPR-G6500**  
ENGINE MODEL: Series 60  
PUMP P/N: 23535447, 23525200

Part No.	Desc.	Qty.
JMP JPR-G6500	Pump Assy	1
JMP 9000-01	Impeller	1

## Detroit Diesel



**Part No. JAB 17050-0001**  
**JMP JPR-G6000F**  
Sea Water Pump fits: 453/471 Series engines.  
Replaces Detroit #5145578 (17050),  
#5145577 (7260), #5145576 (17030)

Part No.	Desc.	Qty
JAB 920-0001	Impeller	1
JAB 890-0000	Gasket	1
JAB 7867-0000	Cam	1
JAB 91003-0020	Cam screw	1
JAB 11831-0000	Cover	1
JAB 91003-0010	Cover Screw	6
JAB 4156-0000	Wearplate	1
JAB 92700-0060	Lip Seal	1
JAB 3180-0000	Slinger	1
JAB 913-0000	Bearing Seal	1
JAB 18724-0000	Ret Ring	1
JAB 92600-0060	Bearing	1

## Detroit Diesel



**Part No. JAB 18760-Series**  
**JMP JPR-G6300**  
Sea Water Pump fits: Detroit Diesel 8V92TA  
/16V92TA Series engines. Replaces De-  
troit #8923363, #23507475, #23507476,  
#23507477, #23507973

Part No.	Desc.	Qty
JAB 91005-0040	Cover Screw	6
JAB 17374-1000	Cam Ring	1
JAB 96080-0371	Mechanical Seal	1
JAB 18754-1004	O-Ring	1
JAB 92701-0180	Bearing Seal	1
JAB 91402-0230	Key	1
DDA 23501662	Mounting Gasket	1
JAB 18725-0000	Snap Ring	1
JAB 17366-1000	Shaft	1
JAB 18752-0000	Ball Bearing	2
JAB 17372-1000	Wearplate	2
JAB 18721-0000	Seal Snap Ring	1
JAB 17370-0001	Impeller	1
JAB 17365-1000	Gasket	1
JAB 17378-1000	Cover	1
JAB 91112-0020	Pin (Wearplate)	1

## Detroit Diesel



**Part No. JAB 2570-3100**  
**JMP JPR-G6100**  
Sea Water Pump fits: 653/671/853 Series engines.  
Replaces Detroit #23507971, #5186250,  
#5107480, #23501083, #2313002, #5137208,  
#5115396

Part No.	Desc.	Qty
JAB 17935-0001	Impeller	1
JAB 816-0000	Gasket	1
JAB 91005-0040	Cover Screw	5
JAB 12062-0000	Cover	1
JAB 6408-0000	Mechanical Seal	1
JAB 2574-0000	Wearplate	1
JAB 92600-0040	Bearing	1
JAB 18711-0000	Snap Ring (SM)	1
JAB 18712-0000	Snap Ring (LG)	1
JAB 817-0000	Bearing Seal	1
JAB 3181-0000	Slinger	1
JAB 834-0001	Cam	1
JAB 91005-0040	Cam Screw	1
DDA 5193552	Shaft	1
DDA 23501662	Mounting Gasket	1
DDA 5115395	Port Gasket	2

## Detroit Diesel



**Part No. JAB 18780 / 18790**  
**JMP JPR-G6400**  
Sea Water Pump fits Detroit: 12V71TI/12V92TA  
Series engines. Replaces Detroit #8927296

Part No.	Desc.	Qty
JAB 91005-0040	Cover Screw	4
JAB 18785-0000	Cam Ring	1
JAB 96080-0371	Mechanical Seal	1
JAB 18754-1004	O-Ring	1
JAB 92701-0180	Bearing Seal	1
JAB 91402-0230	Key	1
DDA 23501662	Mounting Gasket	1
JAB 18725-0000	Snap Ring	1
JAB 17366-1000	Shaft	1
JAB 18752-0000	Ball Bearing	2
JAB 18787-0000	Wearplate	1
JAB 18721-0000	Seal Snap Ring	1
JAB 18786-0001	Impeller	1
JAB 18753-0434	O-Ring	1
JAB 18784-2000	Cover	1

## Detroit Diesel



**Part No. JAB 6980-0011**  
**JMP JPR-G6200**  
Sea Water Pump fits Detroit: 671TI/871/1271  
Series engines. Replaces Detroit #23507972,  
#5122599, #5106016, #8924265, #23501769

Part No.	Desc.	Qty
JAB 17936-0001	Impeller	1
JAB 91005-0040	Cover Screw	5
JAB 12062-0000	Cover	1
JAB 816-0000	Gasket	1
JAB 6408-0000	Mechanical Seal	1
JAB 2574-0000	Wearplate	1
JAB 6987-1010	Shaft	1
JAB 92600-0320	Ball Bearing	1
JAB 18718-0000	Snap Ring	1
JAB 91402-0230	Key	1
DDA 23501662	Mounting Gasket	1
JAB 817-0000	Bearing Seal	1
JAB 3181-0000	Slinger	1
JAB 6988-0000	Cam	1
JAB 91005-0040	Cam Screw	1
DDA 5112143	Round Port Gskt	2

## Detroit Diesel



**Part No. JAB 17360-1001**  
**JMP JPR-G6200**  
Sea Water Pump fits: Detroit Diesel 671TI / 871 / 1271  
Series engines. Replaces Detroit #23507475,  
23507476, 23507477 & 23507973

Part No.	Desc.	Qty
JAB 17370-0001	Impeller	1
JAB 17365-1000	Gasket	1
JAB 91005-0040	Cover Screw	6
JAB 17374-1000	Cam Ring	1
JAB 96080-0371	Mechanical Seal	1
JAB 18754-1004	O-ring	1
JAB 92701-0180	Bearing Seal	1
JAB 91402-0230	Key	1
JAB 18725-0000	Snap Ring	1
JAB 17366-1000	Shaft	1
JAB 18752-0000	Ball Bearing	2
JAB 17372-1000	Wearplate	2
JAB 18721-0000	Seal Snap Ring	1
JAB 17378-1000	Cover	1
JAB 91112-0020	Pin (Wearplate)	1

## Impeller & Cam Ring Cross Reference



### Impellers and Cams Detroit Diesel

Part No.	Part No.
5193553	JAB 836-0001
5193602	JAB 920-0001
5194205	JAB 1210-0001
5196168	JAB 17936-0001
5196628	JAB 17935-0001
5196629	JAB 920-0001
5198550	JAB 17936-0001
5199148	JAB 920-0001
8924838	JAB 17935-0001
8924839	JAB 17936-0001
8927570	JAB 17370-0001
8927571	JAB 17374-1000
23502086	JAB 18786-0001
23502089	JAB 18785-0000



## John Deere



> Johnson  
Pump

**Part No. JOH10-24398-01  
& JOH10-24398-02**

John Deere fits: RE47016

Part No	Desc.	Qty
JOH 09-1028BT-1	Impeller	1
JOH 0.2233.001	Lip Seal	2
JOH 01-45181	Seal Spacer	1
JOH 01-42445	Gasket	1
JOH 01-42441	End Cover	1
JOH 0.0279.033	Cover Screw	6
JOH 01-42679	Cam	1
JOH 01-46794-01	Cam Screw	1
JOH 0.2173.402	Slinger O-ring	1
JOH 03431.742	Ball Bearing	2
JOH 01-35670	Shaft	1
JOH 01-35213-2	Mounting Flange	1
JOH 01-45754	Pump Flange Gskt	1
JOH 0.0370.017	Sm. Snap Ring	1
JOH 0.0370.516	Sm. Snap Ring	1
JOH 0.0371.040	Lg. Snap Ring	1
JOH 0.0353.402	Washer	4

## John Deere



SHERWOOD®

**Part No. SHE P1719  
JMP JPR-S7619**

(Old # SHEP1711)

Sea Water Pump fits: RE45459 & RE45458 series engines.

Part No	Desc.	Qty
SHE 17000K	Impeller	1
SHE 15955	Mechanical Seal	1
SHE 15945	Cover O-ring	1
SHE 18742	End Cover	1
SHE 19626	Cover Screw	3
SHE 15944	Lock Washer	3
SHE 15951	Ball Bearing	2
SHE 19615	Bearing Spacer	1
SHE 19674	Lip Seal	1
SHE 18271	Cam	1
SHE 19714	Cam Screw	1
SHE 18441	Wearplate & Pin Assy	1
SHE 19209	Key (1711)	1
SHE 19667	Key (1719)	1
SHE 19712	Slinger (1719)	1
SHE 15952	Snap Ring	3
SHE 19345	Shaft	1
SHE 19614	Washer	2
SHE 15959	Washer	1

## Kohler



SHERWOOD®

**Part No. SHE G906 or SHE G907P  
JMP JPR-KL10IP2**

Sea Water Pump fits 4 & 6 cyl diesel generators and 12.5 kW Gas models

Replaces Kohler #267373, 246489, 344089

Part No	Desc.	Qty
SHE 9000K	Impeller	1
SHE 18570	Lip Seal (G-906P)	1
SHE 22546	Mech. Seal Assy. (G-907P)	1
SHE 12211	Ball Bearings	2
SHE 18569	Shaft (G-906P)	1
SHE 21861	Shaft (G-907P)	1
SHE 18663	Cam	1
SHE 19964	O-Ring	1
SHE 10195	Cam Screw	1
SHE 04258	Snap Ring (SM)	1
SHE 04259	Snap Ring (LG)	1
SHE 19967	Pulley (G-906P)	1
SHE 21859	Pulley (G-907P)	1
SHE 21858	Pulley Nut	1
SHE 19965	End Cover	1
SHE 12686	Cover Screws	4
SHE 13777	Impeller Key	1
SHE 00343	Lock Washer	4

## John Deere



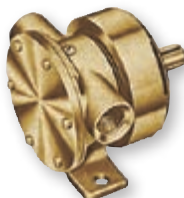
The Only One  
JMP

**Part No. JMP JPR-JD25UH**

fits: John Deere 4039, 4045, 4.5, 6068, 6068 Powertech. Johnson #10-24398-01, 10-24398-02, 10-24753-01. John Deere RE47016, RE503068, RE525263, RE535944.

Service Kit: JMP JSK0076

## Kohler



JABSCO

**Part No. JAB 1673-9001**

Replaced by **JAB 1673-1001 (see below)**  
Sea Water Pump (old style) fits 15 Hp engines Has 1/2" ports

Part No	Desc.	Qty.
JAB 1210-0001	Impeller - Neoprene	1
JAB 1210-0003	Impeller - Nitrile	1
JAB 11836-0000	End Cover	1
JAB 1835-0000	Gasket - Standard	1
JAB 2436-0000	Gasket - NLA	1
JAB 91003-0010	Screw (Cam) - Std	1
JAB 91003-0090	Screw (Cam) - 1/2 Cam	1
JAB 490-0000	Cam - Standard - Plastic	1
JAB 490-0001	Cam - Optional - Brass	1
JAB 2434-0000	Cam - NLA	1
JAB 3078-0000	Bearing Shield NLA	1
JAB 92600-0330	Ball Bearing	1
JAB 1161-0000	Rotating Shield	1
JAB 1554-0000	Stationary Slinger - NLA	1
JAB 1740-0000	Bearing Housing - NLA	1
JAB 91003-0010	Screw - End Cover	6
JAB 1737-0410	Shaft - NLA	1
JAB 9215-0010	Key	1
JAB 96080-0080	Seal - Mechanical	1

## Kohler



JABSCO

**Part No. JAB 2620-1001**

Sea Water Pump (new style) fits 5 Hp engines Has 3/8" ports.

Part No	Desc.	Qty.
JAB 18673-0001	Impeller - Neoprene	1
JAB 18673-0003	Impeller - Nitrile	1
JAB 90020-0001	Kit - Neoprene	1
JAB 90020-0003	Kit - Nitrile	1
JAB 11830-0000	End Cover	1
JAB 18753-0125	O-Ring	1
JAB 92700-0050	Seal - Shaft	1
JAB 18753-0121	Screw Kit (7) for Cam & End Cover	1
JAB 2907-0000	Cam	1
JAB 92600-0130	Ball Bearing	2
JAB 18715-0000	Retaining Ring (Bearing Position)	1
JAB 18753-0123	Retaining Ring (Bearing to Body)	1
JAB 18753-0124	Shaft	1
JAB 11847-0000	Key - Shaft Drive	1
JAB 879-0000	Slinger	1

## John Deere



> Johnson  
Pump

**Part No. JOH 10-24428-01**

John Deere fits: RE49556

Part No	Desc.	Qty
JOH 09-1028BT-1	Impeller	1
JOH 0.2233.001	Lip Seal	2
JOH 01-45181	Seal Spacer	1
JOH 01-42445	Gasket	1
JOH 01-42441	End Cover	1
JOH 0.0279.033	Cover Screw	6
JOH 01-42679	Cam	1
JOH 01-46794-01	Cam Screw	1
JOH 0.2173.402	Slinger O-ring	1
JOH 0.3431.742	Ball Bearing	2
JOH 01-45044	Shaft	1

Service Kit: 09-45592

Kohler



**Part No. JAB 1673-1001**

Sea Water Pump (new style) fits 15 Hp Kohler engines Has 1/2" ports

Part No. ....	Desc. ....	Qty. ....
JAB 1210-0001 .....	Impeller - Neoprene .....	1
JAB 1210-0003 .....	Impeller - Nitrile .....	1
JAB 90015-0001 .....	Kit - Neoprene .....	1
JAB 90015-0003 .....	Kit - Nitrile .....	1
JAB 18753-0134 .....	Screw Kit (7) (Cam & End Cover) .....	1
JAB 11836-0000 .....	End Cover .....	1
JAB 18753-0133 .....	O-Ring .....	1
JAB 92700-0060 .....	Seal .....	1
JAB 490-0001 .....	Cam - Full Thickness .....	1
JAB 2434-0000 .....	Cam - Half Thickness .....	1
JAB 18753-0131 .....	Retaining Ring .....	1
JAB 3286-0000 .....	Slinger .....	1
JAB 18753-0130 .....	Bearing .....	2
JAB 18753-0129 .....	Shaft .....	1
JAB 18753-0132 .....	Retaining Ring .....	1
JAB 9215-0010 .....	Key .....	1

Kohler



**Part No. SHE G907**

Sea Water Pump fits 4-6.5 kW gas generators Replaces Kohler #344371

Part No. ....	Desc. ....	Qty. ....
SHE 9000K .....	Impeller .....	1
SHE 22546 .....	Seal Assy .....	1
SHE 12211 .....	Ball Bearings .....	2
SHE 21861 .....	Shaft .....	1
SHE 18663 .....	Cam .....	1
SHE 19964 .....	O-Ring .....	1
SHE 10195 .....	Cam Screw .....	1
SHE 04258 .....	Snap Ring (SM) .....	1
SHE 04259 .....	Snap Ring (LG) .....	1
SHE 21858 .....	Pulley Nut .....	1
SHE 24125 .....	End Cover .....	1
SHE 12686 .....	Cover Screws .....	4
SHE 13777 .....	Impeller Key .....	1
SHE 00343 .....	Lock Washer .....	4
SHE 21974 .....	Spacer .....	1
SHE 04264 .....	Washer .....	1
SHE 21857 .....	Washer .....	2

Kohler



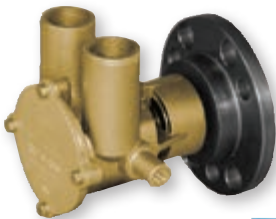
**Part No. SHE G8001, GP8001**

Sea Water Pump Kohler fits 5-7 kW diesel generators.

Replaces Kohler #359341

Part No. ....	Desc. ....	Qty. ....
SHE 8000K .....	Impeller .....	1
SHE 23447 .....	Cover O-Ring .....	1
SHE 23459 .....	Seal Assembly .....	1
SHE 23323 .....	Ball Bearing .....	2
SHE 23443 .....	Snap Ring (SM) .....	1
SHE 23325 .....	Snap Ring (LG) .....	1
SHE 23366 .....	Cover .....	1
SHE 23367 .....	Cover Screws .....	4
SHE 23445 .....	Shaft .....	1

Marine Power 8.1L



**Part No. JAB 50410-1401, JAB 22400-0201, M/P 810C-001, M/P 524555**

Part No. ....	Desc. ....	Qty. ....
JAB 18777-0001K .....	Impeller .....	1
JAB X3001-151K .....	Screw, End Cover .....	6
JAB 50416-0000 .....	End Cover .....	1
JAB 3298-0000 .....	Gasket, End Cover .....	1
JAB X3002-147K .....	Cam Screw .....	1
JAB 22318-0100 .....	Cam .....	1
JAB SP2701-21 .....	Seal, Lip .....	1
JAB 22113-6000 .....	Shaft .....	1

Not sure  
**WHICH  
PUMP**  
you need?

**Jerry's  
Marine  
Service**

Give us a call!  
**FL 1-800-432-2231**  
**SC 1-800-788-2231**

Our parts experts will be happy to assist you in finding the perfect fit.



## MerCruiser

**Part No. JAB 43210-0001**

Sea Water Pump fits GM gas engines with V-belt. Replacement pump is all brass.  
Replaces Merc #46-807151A12, 46-72774A32

**Part No. .... Desc. .... Qty.**

JAB 17954-0001	Impeller	1
JAB 43208-1000	End Plate	1
JAB 43205-1000	Gasket	1
JAB 43176-1000	Cam/Wearplate	1
JAB 18753-0328	Seal	1
JAB 92000-0540	O-Ring	1
JAB 43209-1000	Body	1
JAB 92000-0120	Slinger (O-Ring)	1
JAB 18753-0318	Bearings	2
JAB 43207-1000	Shaft	1
JAB 18753-0345	Retaining Ring	2
JAB 91401-0100	Woodruff Key	1
JAB 18753-0323	Retaining Ring	1
JAB 18753-0591	Key	1

**Part No. GLM 12115**

Sea Water Pump fits GM gas engines with mechanical fuel pump mounting.

**Part No. .... Desc. .... Qty.**

SIE 18-3150	Body Kit	1
SIE 18-3087	Impeller	1
SIE 18-3224	Impeller Svc Kit	1
SIE 18-3350	Wearplate	1
SIE 18-7474	Quad Ring	1
SIE 18-2011	Seal (Water & Bearing)	2
SIE 18-3089	Ball Bearing	2
MER 818366A-1	Shaft	1
SIE 18-2013	Oil Seal (Outer)	1
SIE 18-7163	Body O-ring	1
MER 807731	Pulley	1

### Popular MerCruiser Impeller Types

**Part No. BBB 136312**

Key drive Replaces  
Merc #47-59362

**Part No. BBB 136327**

Double Flat drive Replaces  
Merc #47-862232A2

**Part No. BBB 136312**

Flat drive Replaces  
Merc #47-59362



## MerCruiser

**Part No. GLM 12097**

Sea Water Pump fits GM gas engines with serpentine belt. Replacement pump is all brass.  
Replaces Merc #46-807151A19

**Part No. .... Desc. .... Qty.**

SIE 18-3150	Body Kit	1
SIE 18-3087	Impeller	1
SIE 18-3224	Impeller Svc Kit	1
SIE 18-3350	Wearplate	1
SIE 18-7474	Quad Ring	1
SIE 18-2011	Seal (Water & Bearing)	2
SIE 18-3089	Ball Bearing	2
GLM 22401	Shaft	1
SIE 18-2013	Oil Seal (Outer)	1
GLM 22213	Pulley	1



### MerCruiser - Cummins

**Part No. SHE P1505**

Sea Water Pump fits Mercury MerCruiser Cummins QSD4.2 Part # 897345016  
Inlet Port: 1-1/2" - Outlet Port: 1-1/2"

**Part No. .... Desc. .... Qty.**

SHE 336	Plug-Brs	2
SHE 4258	Retaining Ring	1
SHE 4264	Washer	1
SHE 4432	Key-Woodruff	1
SHE 12231	O-Ring	1
SHE 12314	Mech Seal/Seat Assy	1
SHE 15000	Impeller-Rubber	1
SHE 18314	Cam-Br	1
SHE 19295	Plate	1
SHE 19995	Screw	1
SHE 19996	Washer	1
SHE 2000-0008	Ball Bearing	2
SHE 24629	Slinger	1
SHE 24887	Cover Plate	1
SHE 24888	Capscrew	4
SHE 24889	Lock Washer	4
SHE 24935	Housing-Pump	1
SHE 24936	Shaft	1
SHE 24937	Bearing Spacer	1
SHE 24938	Pulley Hub	1
SHE 24939	Internal Retaining Ring	1
SHE 24940	External Retaining Ring	1

**SHE 25089 .... Kit-Major Service .... Qty**

SHE 4258	Retaining Ring	1
SHE 4264	Washer	1
SHE 4432	Key-Woodruff	1
SHE 12231	O-Ring	1
SHE 12314	Mech Seal/Seat Assy	1
SHE 15000	Impeller-Rubber	1
SHE 18314	Cam-Br	1
SHE 19295	Plate	1
SHE 19995	Screw	1
SHE 19996	Washer	1
SHE 24629	Slinger	1
SHE 24887	Cover Plate	1
SHE 24939	Internal Retaining Ring	1
SHE 24940	External Retaining Ring	1

MerCruiser -  
Cummins**Part No. SHE P1016**

Sea Water Pump fits Mercury MerCruiser Cummins QSD2.0 & 2.8 Part # 854179001  
Inlet Port: 1-1/2" - Outlet Port: 1-1/2"

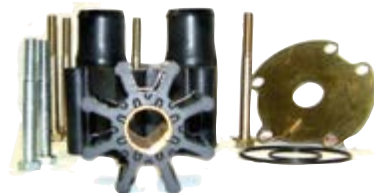
**Part No. .... Desc. .... Qty.**

SHE 336	Plug-Brs	2
SHE 4258	Retaining Ring	2
SHE 4259	Retaining Ring	1
SHE 4264	Washer	1
SHE 4432	Key-Woodruff	1
SHE 10615	Impeller-Rubber	1
SHE 10929	Cam-Br	1
SHE 12211	Bearing-Ball	1
SHE 12231	O-Ring	1
SHE 12314	Mech Seal/Seat Assy	1
SHE 19295	Plate	1
SHE 19996	Washer	1
SHE 24882	Housing	1
SHE 24883	Pulley Hub	1
SHE 24884	Cam Screw	1
SHE 24885	Shaft	1
SHE 24886	Bearing Spacer	1
SHE 24887	Cover Plate	1
SHE 24888	Capscrew	4
SHE 24889	Lock Washer	4
SHE 24930	Slinger Ring	1

**SHE 25009 .... Kit-Major Service .... Qty**

SHE 4258	Retaining Ring	1
SHE 4259	Retaining Ring	1
SHE 4264	Washer	1
SHE 4432	Key-Woodruff	1
SHE 10615	Impeller-Rubber	1
SHE 10929	Cam-Br	1
SHE 12231	O-Ring	1
SHE 12314	Mech Seal/Seat Assy	1
SHE 19295	Plate	1
SHE 19996	Washer	1
SHE 24884	Cam Screw	1
SHE 24887	Cover Plate	1

## MerCruiser

**Part No. BBB 136222**

NEW Style 2-Piece pump body assembly. This kit will replace impeller housings on earlier style 3-piece pumps.  
Replaces Merc #46-807151A14



## Northern Lights



### Part No. JAB 7420-0004

Sea Water Pump replaces Northern Lights #25-14801

Part No	Desc	Qty.
JAB 17935-0001	Impeller	1
JAB 816-0000	Gasket	1
JAB 6407-0010	Mechanical Seal	1
JAB 834-0001	Cam	1
JAB 91005-0040	Cam Screw	1
JAB 2574-0000	Wearplate	1
JAB 12062-0000	End Cover	1
JAB 91005-0040	Cover Screws	5
JAB 92600-0040	Ball Bearing	1
JAB 817-0000	Inner Bearing Seal	1
JAB 818-0000	Outer Bearings Seal	2
JAB 18711-0000	Snap Ring (SM)	1
JAB 18712-0000	Snap Ring (LG)	1
JAB 3181-0000	Slinger	1
JAB 824-0000	Shaft	1

## Northern Lights



### Part No. JAB 50310-1001

Sea Water Pump replaces Northern Lights #25-19501

Part No	Desc	Qty.
JAB 17937-0001	Impeller	1
JAB X3001-209F	Cover Screw	6
JAB 4156-0010	Wearplate	1
JAB 11831-0000	End Cover	1
JAB X4020-354A	Cover O'Ring	1
JAB 91004-0090	Cam Screw	1
JAB SP6080-0469	Mech Seal	1
JAB SP2600-0500	Ball Bearing	2
JAB SP2700-1027	Oil Seal	1
JAB 934-0000	Cam	1
JAB 50317-0000	Shaft	1

## Northern Lights



### Part No. JAB 30415-7001 JMP JPR-NL08IH

Sea Water Pump replaces Northern Lights #25-12007

Part No.	Desc.	Qty.
JAB 30415-7001	Pump is OEM only	
JAB 18673-0001	Impeller	1
JAB 96080-0080	Mechanical Seal	1
JAB 18753-0125	O-Ring	1
JAB 92601-0474	Ball Bearing	2
JAB 18753-0630	Bearing Seal	1
JAB 18753-0628	Snap Ring	1
JAB 30417-0000	Shaft	1
JAB 11830-0000	End Cover	1
JAB 30424-0000	Cam	1

## Northern Lights



### Part No. JMP JPR-NL10IP

Sea Water Pump replaces Northern Lights #25-12057

Part No.	Desc.	Qty.
JAB 1210-0001	Impeller	1
JAB 96080-0080	Mechanical Seal	1
JAB 11836-0000	End Cover	1
JAB 18753-0133	Cover O-Ring	1
JAB 7884-0000	Cam/Wearplate	1
JAB 92600-0120	Ball Bearings	2
JAB 92700-0060	Bearing Seal	1
JAB 3286-0000	Slinger	1
SHE 04258	Snap Ring (LG)	1
JAB 30414-0000	Shaft	1
JAB 18753-0134	Screw Kit	1
BRA 125-3/4 x 1/2	Hose Barb	2

## Northern Lights



### Part No. JMP JPR-NL20IP

Port size: 3/4" / PIPE  
Impeller: 7400-01

### ENGINE MODEL

Replaces Northern Lights Generators #25-11202

## Northern Lights



### Part No. NL 25-15405 JMP JPR-NL10IP2

Sea Water Pump replaces Northern Lights #25-15405

Part No	Desc	Qty.
JAB 1210-0001	Impeller	1
JAB 7884-0000	Cam /Wearplate	1
JAB 11836-0000	End Cover	1
JAB 92600-0120	Bearing	2
JAB 92700-0180	Bearing Seal	1
JAB 96080-0080	Mechanical Seal	1
JAB 18753-0133	O-Ring Cover	1

Service Kit: JMP JSK0074

## Northern Lights



### Part No. JOH 10-24335-01

Sea Water Pump replaces Northern Lights #25-18305

Part No	Desc	Qty.
JOH 09-810B-1	Impeller	1
JOH 0.2233.010	Lip Seal	2
JOH 01-45955	Seal Spacer	1
JOH 01-45284	Gasket	1
JOH 01-45282	End Cover	1
JOH 0.0279.300	Cover Screw	6
JOH 0.3431.441	Ball Bearing	2
JOH 0.0370.012	Snap Ring	1
JOH 01-42389	Cam	1
JOH 01-46794-03	Cam Screw	1
JOH 01-46790-01	Screw Washer	1
JOH 01-46046	Shaft	1
JOH 0.0185.310	Shaft Nut	1
JOH 0.0350.118	Shaft Washer	1
JOH 0.2173.468	Mounting O-Ring	1

Service Kit: 09-45587

## Northern Lights



**> Johnson Pump**

**Part No. JOH 10-24930-01**

Sea Water Pump replaces Crusader, Indmar, Marine Power, Northern Lights, Pleasurecraft, Volvo

**Part No. .... Desc. .... Qty.**

JOH 09-812B-1	..... Impeller	..... 1
JOH 01-45670	..... Cam (10-24232-1)	..... 1
JOH 0.0279.033	..... Screw for Above	..... 1
JOH 01-45687	..... Cam (10-24232-2)	..... 1
JOH 0.0279.032	..... Screw for Above	..... 1
JOH 01-45312-1	..... Cove	..... 1
JOH 01-45315	..... Gasket	..... 1
JOH 00.2233.252	..... Lip Seal	..... 1
JOH 01-45680	..... Seal Washer	..... 1
JOH 0.0141.502	..... Cover Screw	..... 4
JOH 0.2173.402	..... O-Ring	..... 1
JOH 0.3431.742	..... Ball Bearing	..... 2

## Northern Lights



**> Johnson Pump**

**Part No. JOH 10-24338-01**

Sea Water Pump replaces Northern Lights / Indmar #25-11624

**Part No. .... Desc. .... Qty.**

JOH 09-1028BT-1	..... Impeller	..... 1
JOH 01-42445	..... Gasket	..... 1
JOH 0.2233.001	..... Lip Seal	..... 2
JOH 01-42441	..... End Cover	..... 1
JOH 01-42679	..... Cam	..... 1
JOH 01-46469	..... Shaft	..... 1
JOH 0.0279.033	..... Screw	..... 6
JOH 0.2173.402	..... O-Ring	..... 1
JOH 0.3431.742	..... Ball Bearing	..... 2
JOH 0.0371.040	..... Retaining Ring	..... 1
JOH 01-46794-01	..... Screw	..... 1
JOH 01-45181	..... Washer	..... 1

## Northern Lights



\*Ports Not Included

**> Johnson Pump**

**Part No. JOH 10-24430-01**

Sea Water Pump replaces Northern Lights #25-15022

**Part No. .... Desc. .... Qty.**

JOH 09-814B	..... Impeller	..... 1
JOH 01-35698-1	..... Shaft	..... 1
JOH 01-45018	..... Cam	..... 1
JOH 01-42426	..... Pin	..... 1
JOH 01-42423	..... Wearplate	..... 1
JOH 01-42424	..... Gasket	..... 1
JOH 0.0370.525	..... Snap Ring (SM)	..... 1
JOH 0.0371.072	..... Snap Ring (LG)	..... 1
JOH 01-42422-1	..... End Cover	..... 1
JOH 01-42427-15	..... Slinger	..... 1
JOH 0.2233.016	..... Lip Seal	..... 1
JOH 09-0.2247.051	..... Mechanical Seal	..... 1
JOH 0.3431.648	..... Ball Bearing	..... 1
JOH 0.0353.309	..... Bolt Washer Housing	..... 4
JOH 0.0350.208	..... Bolt Washer Housing	..... 4
JOH 0.0144.002	..... Housing Bolt	..... 4
JOH 01-46794-02	..... Cam Screw	..... 1
JOH 0.0144.003	..... Cover Screw	..... 5
JOH 0.0383.500	..... Shaft Lock Nut	..... 1
JOH 0.0383.026	..... Shaft Washer	..... 1

## Onan



**JABSCO**

**Part No. JAB 18400-0050**

Sea Water Pump replaces Onan #132-0147

**JABSCO No. .... Desc. .... Qty.**

JAB 1210-0001	..... Impeller	..... 1
JAB 91002-0020	..... Screw (Cover)	..... 6
JAB 11830-0000	..... End Cover	..... 1
JAB 3166-0000	..... Seal-Spacer	..... 1
JAB 92700-0060	..... Seal	..... 1
JAB 92700-0060	..... Brg. Seal	..... 1
JAB 92600-0130	..... Ball Bearing	..... 2
JAB 18404-0000	..... Shaft	..... 1
JAB 3376-0000	..... Adaptor Ring	..... 1
JAB 3383-0000	..... Brg. Spacer	..... 1
JAB 3286-0000	..... Slinger	..... 1
JAB 92000-0210	..... O-Ring	..... 1
JAB 7884-0000	..... Cam & Wearplate	..... 1
JAB 91003-0090	..... Screw (Cam)	..... 1
JAB 3298-0000	..... Gasket	..... 1

## Onan



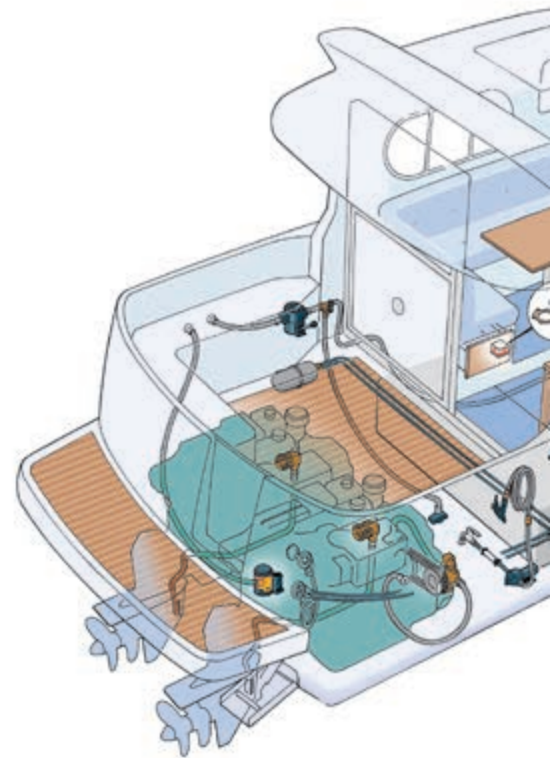
**SHERWOOD**

**Part No. SHE RP-G-C**

Sea Water Pump fits Onan #132-0115 / 132-0251

**SHE No. .... Desc. .... Qty.**

SHE 09959K	..... Impeller	..... 1
SHE 01482	..... Screw (Cover)	..... 4
SHE 04258	..... Ret. Ring (Seal)	..... 1
SHE 04306	..... Ball Bearing	..... 1
SHE 04358	..... Slinger	..... 1
SHE 04432	..... Key	..... 1
SHE 05484	..... Ret. Ring (Brg)	..... 1
SHE 06333	..... Bushing	..... 1
SHE 10515C	..... Screw (Cam)	..... 1
SHE 10072	..... Cam	..... 1
SHE 10103	..... Gasket	..... 1
SHE 10545	..... Seal Assy	..... 1
SHE 11409A	..... Shaft	..... 1
SHE 10096	..... Cover	..... 1



## Onan



> Johnson  
Pump

### Part No. JOH 10-35211-5

Sea Water Pump fits 5/6/7.5/9 MDKUB  
Replaces Onan #132-0336

Part No.	Desc.	Qty.
JOH 09-808B-1	Impeller	1
JOH 01-43240	Gasket	1
JOH 0.2233.010	Lip Seal	2
JOH 01-42910	Cam	1
JOH 01-46794-03	Cam Screw	1
JOH 01-46790-01	Cam Screw Washer	1
JOH 01-45087	Wearplate	1
JOH 01-42400	Wearplate Pin	1
JOH 0.3431.748	Ball Bearing	2
JOH 0.0371.028	Snap Ring	1
JOH 01-43239	Cover	1
JOH 0.0279.300	Cover Screws	4
JOH 01-45751	Shaft	1
JOH 0.2173.468	Mounting O-Ring	1
JOH 01-43238	Mounting Clamps	2

Service Kit: 09-45589

## Onan



> Johnson  
Pump

### Part No. JOH 10-35038-5E

Sea Water Pump fits Onan Johnson  
Replaces Onan #132-0284

Part No.	Description	Qty.
JOH 09-808B-1	Impeller	1
JOH 01-45069	Shaft	1
JOH 01-43239	End Cover	1
JOH 01-43240	Gasket	1
JOH 01-42415	Cam	1
JOH 01-45050	Washer	1
JOH 01-45049	Washer	1
JOH 01-46794-03	Cam Screw	1
JOH 0.2233.010	Lip Seal	1
JOH 0.2173.432	O-Ring	1
JOH 0.3431.748	Ball Bearings	2
JOH 0.0371.028	Snap Ring	1
JOH 01-46790-01	Washer	1
JOH 01-42400	Pin	1
JOH 01-45087	Wearplate	1
JOH 0.0370.012	Snap Ring	1

Service Kit: 09-45589

## Onan



SHERWOOD®

### Part No. SHE G1004 & G1005

Sea Water Pump  
Replaces Onan #132-0343 & 132-0347

Part No.	Desc.	Qty.
SHE 10615K	Impeller	1
SHE 12231	Cover O-Ring	1
SHE 21208	Lip Seal (Bearing)	1
SHE 21209	Lip Seal (Water)	1
SHE 10929	Cam	1
SHE 19995	Cam Screw	1
SHE 19996	Cam Screw Washer	1
SHE 21163	Wearplate	1
SHE 04432	Key	1
SHE 12211	Ball Bearing	2
SHE 04258	Snap Ring (SM)	1
SHE 04259	Snap Ring (LG)	2
SHE 21173	Cover	1
SHE 19297	Cover Bolts	3
SHE 12857	Body/Hsg Bolts	3
SHE 12710	Lock Washers	6
SHE 21207	Shaft	1

## Onan



SHERWOOD®

### Part No. SHE L-10(B)

1½" Ports • Sea Water Pump fits MDL6  
(30KW) Replaces Onan #132-0278

Part No.	Desc.	Qty.
SHE 10615K	Impeller	1
SHE 10929	Cam	1
SHE 13363	Shaft	1
SHE 13795	Hub	1
SHE 04259	Snap Ring	2
SHE 12211	Ball Bearing	2
SHE 05133	Spacer	1
SHE 12859	Seal Assy	1
SHE 12855	Gasket	1
SHE 12231	O-Ring	1
SHE 12856	Wearplate	1
SHE 04264	Washer	1
SHE 04258	Snap Ring	3
SHE 04432	Key	1
SHE 10515C	Cam Screw	1
SHE 12710	Lock Washer	3
SHE 13794	Screw	3

## Onan



SHERWOOD®

### Part No. SHE K-75(B)

1" Ports Sea Water Pump fits MDL3 (12/5  
and 15KW) MDL4 (20KW)  
Replaces Onan #132-0275/#132-0278

Part No.	Desc.	Qty.
SHE 09959K	Impeller	1
SHE 15883	Cam	1
SHE 13363	Shaft	1
SHE 13795	Hub	1
SHE 04259	Snap Ring	2
SHE 12211	Ball Bearing	2
SHE 05133	Spacer	1
SHE 12859	Seal Assy	1
SHE 12855	Gasket	1
SHE 12231	O-Ring	1
SHE 12856	Wearplate	1
SHE 04264	Washer	1
SHE 04258	Snap Ring	3
SHE 04432	Key	1
SHE 10515C	Cam Screw	1
SHE 12710	Lock Washer	3
SHE 13794	Screw	3

## Onan



SHERWOOD®

### Part No. SHE G-1006

Sea Water Pump  
Replaces Onan #132-0356

Part No.	Desc.	Qty.
SHE 10615K	Impeller	1
SHE 12231	Cover O-Ring	2
SHE 22117	Mech. Seal (Water)	1
SHE 04264	Seal Washer	1
SHE 21208	Lip Seal (Bearing)	1
SHE 10929	Cam	1
SHE 19995	Cam Screw	1
SHE 19996	Cam Screw Washer	1
SHE 22142	Wearplate	1
SHE 04432	Key	1
SHE 12211	Ball Bearing	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	2
SHE 22140	Cover	1
SHE 06333	Cover Bushing	1
SHE 19297	Bolts	6
SHE 12710	Lock Washers	6
SHE 21056	Dowel Pins	4
SHE 22143	Shaft	1
SHE 18073	Water Seal	1



## Onan



**SHERWOOD®**

**Part No. SHE G1010**

Sea Water Pump replaces G1004, G1005, G1006, G1008

**Part No. .... Desc. .... Qty.**

SHE 04258	Retaining ring	2
SHE 04264	Washer	1
SHE 04432	Key-Woodruff	1
SHE 10615	Impeller-Rubber	1
SHE 10929	Cam-Br	1
SHE 12211	Bearing-Ball	2
SHE 12231	O-Ring	1
SHE 12710	Washer-Lock	3
SHE 19295	Plate	1
SHE 19712	O Ring	1
SHE 19714	Cam Screw	1
SHE 22117	Seal & Seat Assy	1
SHE 24886	Bearing Spacer	1
SHE 24930	Slinger Ring	1
SHE 25065	Body	1
SHE 25066	Housing	1
SHE 25067	Lip Seal	1
SHE 25068	Shaft	1
SHE 25069	Cover Plate	1
SHE 25071	Tang	1
SHE 2210-0138	Cap Screw-Hex Head	6

## Onan



**SHERWOOD®**

**Part No. SHE G-1008**

Sea Water Pump replaces Onan #132-0413

**Part No. .... Desc. .... Qty.**

SHE 10615K	Impeller	1
SHE 12231	O-Ring	2
SHE 23801	Shaft	1
SHE 22142	Wearplate	1
SHE 04264	Washer	1
SHE 22117	Mechanical Seal (Water)	1
SHE 21208	Lip Seal (Bearing)	1
SHE 04258	Retaining Ring	1
SHE 22140	Cover	1
SHE 06837	Retaining Ring	1
SHE 08490	Bearing	1
SHE 05126	Retaining Ring	1
SHE 12857	Bolt	6
SHE 12710	Lock Washer	6
SHE 04432	Key	1
SHE 19995	Screw	1
SHE 19996	Washer	1
SHE 10929	Cam	1
SHE 06333	Bushing	1
SHE 10515C	Cam Screw	1
SHE 21056	Pin	4

Minor and Major Service Kits Available.

## Onan



**SHERWOOD®**

**Part No. SHE G-701/G-702**

Sea Water Pump replaces Onan #132-0358

**Part No. .... Desc. .... Qty.**

SHE 10077K	Impeller	1
SHE 22770	Cover O-Rin	2
SHE 18035	Seal Head (Water)	1
SHE 10389	Seal Seat (Water)	1
SHE 04264	Seal Washer	1
SHE 21751	Lip Sealing (Bearing)	1
SHE 22768	Wearplate (G701)	1
SHE 24526	Wearplate (G702)	1
SHE 21303	Wearplate O-Ring	1
SHE 10093	Key	1
SHE 12211	Ball Bearing (G701)	2
SHE 23448	Ball Bearing (G702)	2
SHE 04258	Snap Ring (SM)	1
SHE 04259	Snap Ring (LG)	1
SHE 22767	Cover (G701)	1
SHE 24524	Cover (G702)	1
SHE 19256	Cover bolt (G701)	3
SHE 22775	Bolt Nut (G701)	3
SHE 24537	Cover Screw (G702)	3
SHE 24538	Cover Washer (G702)	3
SHE 22769	Shaft	1

Minor and Major Service Kits Available.

## Impeller Pullers



**SHERWOOD®**

**Part No. .... Application**

SHE 25105 17000, 18000, 22000, 26000, 29000 & 30000 Series Threaded Impellers Only.

SHE 25106 27000

## Onan



**SHERWOOD®**

**Part No. SHE GP8002/G8002**

Sea Water Pump replaces Onan #132-0395

**Part No. .... Desc. .... Qty.**

SHE 8000K	Impeller	1
SHE 23447	O-Ring	1
SHE 23459	Mechanical Seal	1
SHE 12211	Bearing	2
SHE 04258	Retaining Ring	1
SHE 04259	Retaining Ring	1
SHE 21857	Retainer	1
SHE 21858	Nut	1
SHE 23366	Cover	1
SHE 23367	Bolt	4
SHE 23679	Shaft	1
SHE 23681	Seal Retainer	1
SHE 23680	Pulley	1

## Perkins



**JABSCO**

**Part No. JAB 29350-1001**

Sea Water Pump for Perkins M20

**Part No. .... Desc. .... Qty.**

JAB 4528-0001	Impeller	1
JAB 1126-0000	Gasket	1
JAB 92701-0140	Seal	1
JAB 91002-0010	Cover Screw	6
JAB 4271-0000	Cam & Wearplate	1
JAB 91002-0020	Cam Screw	1
JAB 92701-0140	Oil Sea	1
JAB SP2601-0459	Bearing	2
JAB 29357-0000	Shaft	1
JAB 11835-0000	Cover	1

## Perkins



### Part No. JAB 29450-1101/1201/1701

Sea Water Pump

Replaces Perkins #1450 16941

Part No.	Desc.	Qty.
JAB 18673-0001	Impeller	1
JAB 92700-0050	Water Seal	1
JAB 2995-0000	Gasket	1
JAB 11830-0000	End Cover	1
JAB 91002-0010	Cover Screws	6
JAB 2907-0001	Cam	1
JAB 91002-0020	Cam Screw	1
JAB SP2601-0457	Ball Bearing	2
JAB 92700-0050	Oil Seal	1
JAB 29457-0010	Shaft (1101)	1
JAB 29457-0020	Shaft (1201)	1
JAB X4020-210A	Slinger	1
JAB 18729-0000	Retaining Ring	2

## Perkins



### Part No. JAB 9970-200

Sea Water Pump

Replaces Perkins

Part No.	Desc.	Qty.
JAB 1210-0001	Impeller	1
JAB 3298-0000	Gasket	1
JAB 18753-0049	Mechanical Seal Assy	1
JAB 91002-0020	End Cover Screw	6
JAB 11830-0000	End Cover	1
JAB 490-0001	Cam	1
JAB 91003-0010	Cam Screw	1
JAB 7883-0000	Wearplate	1
JAB 3180-0000	Slinger	1
JAB 92700-0060	Lip Seal	1
JAB 92600-0130	Bearing	2
JAB 9977	Shaft	1
JAB 3376-0000	Adaptor Ring	1
JAB 3278-0000	Coupling	1

## Perkins



### Part No. JAB 9700-01 / JAB 9700-04

Sea Water Pump

Replaces Perkins #2488275 (9700-01)

Part No.	Desc.	Qty.
JAB 920-0001	Impeller	1
JAB 22645-0000	Seal Assy	1
JAB 92600-0060	Bearing	1
JAB 934-0000	Cam (9700-01)	1
JAB 91004-0090	Cam Screw (9700-01)	1
JAB 3255-0000	2/3 Cam (9700-04)	1
JAB 91004-0110	2/3 Cam Screw	1
JAB 91003-0010	Cover Screw	6
JAB 11831-0000	Cover	1
JAB 890-0000	Gasket	1
JAB 4156-0010	Wearplate	1
SHE 04258	Snap Ring (Seal)	1
JAB 913-0000	Bearing Seal	1
JAB 18724-000	Snap Ring (LG)	1
JAB 18713-0000	Snap Ring (SM)	1
JAB 9707	Shaft	1
JAB 3180-0000	Slinger	1

## Perkins



### Part No. JAB 29500-1001

Sea Water Pump

Replaces Perkins #2488A401

Part No.	Desc.	Qty.
JAB 1210-0001	Impeller	1
JAB 3298-0000	Gasket	1
JAB SP2700-1027	Seal	1
JAB 91002-0020	Cover Screw	6
JAB 490-0001	Cam	1
JAB 91003-0010	Cam Screw	1
JAB SP2700-1027	Oil Seal	1
JAB SP2601-0451	Bearing	2
JAB 29508-0000	Shaft (1001)	1
JAB 29518-0000	Shaft (1201)	1
JAB 7883-0000	Wearplate	1
JAB 11830-0000	Cover	1

## Perkins



### Part No. JAB 10970 / JAB 10970-21

Sea Water Pump

Replaces Perkins #2488322/2488324

Part No.	Desc.	Qty.
JAB 1210-0001	Impeller	1
JAB 11830-0000	Cover	1
JAB 18753-0049	Seal Assy	1
JAB 7883-0000	Wearplate	1
JAB 490-0001	Cam	1
JAB 91003-0010	Cam Screw	1
JAB 91002-0020	Cover Screw	6
JAB 3298-0000	Gasket	1
JAB 92600-0130	Ball Bearing	2
JAB 92700-0060	Bearing Seal	1
SHE 04258	Snap Ring	1
JAB 9977	Shaft (4 11/16")	1
JAB 9977-01	Shaft (5 1/4")	1
JAB 9977-21	Shaft (5 5/8")	1
JAB 3286-0000	Slinger	1

## Perkins



### Part No. JAB 9700-01 / JAB 9700-04

Sea Water Pump

Replaces Perkins #2488275(9700-01)

Part No.	Desc.	Qty.
JAB 920-0001	Impeller	1
JAB 22645-0000	Seal Assy	1
JAB 92600-0060	Bearing	1
JAB 934-0000	Cam (9700-01)	1
JAB 91004-0090	Cam Screw (9700-01)	1
JAB 3255-0000	2/3 Cam (9700-04)	1
JAB 91004-0110	2/3 Cam Screw	1
JAB 91003-0010	Cover Screw	6
JAB 11831-0000	Cover	1
JAB 890-0000	Gasket	1
JAB 4156-0010	Wearplate	1
SHE 04258	Snap Ring (Seal)	1
JAB 913-0000	Bearing Seal	1
JAB 18724-000	Snap Ring (LG)	1
JAB 18713-0000	Snap Ring (SM)	1
JAB 9707	Shaft	1
JAB 3180-0000	Slinger	1

# NEED A PUMP?

Give us a call!

FL 1-800-432-2231

SC 1-800-788-2231

Our parts experts will be happy to assist you in finding the perfect fit.

**Jerry's  
Marine  
Service**



## Perkins



SHERWOOD®

**Part No. SHE G-65**

Sea Water Pump replaces Perkins #NA003335

**Part No. .... Desc. .... Qty.**

SHE 9959K.....	Impeller .....	1
SHE 12444 .....	Shaft.....	1
SHE 12211 .....	Bearing.....	2
SHE 10514C.....	Seal.....	1
SHE 10515C.....	Cam Screw.....	1
SHE 11360A.....	Gasket.....	1
SHE 10072 .....	Cam.....	1
SHE 11389A.....	Cover.....	1
SHE 04432 .....	Key.....	1
SHE 11417A.....	Screw .....	4
SHE 11143.....	Mtg. Gasket.....	1

## Perkins



SHERWOOD®

**Part No. SHE H-5**

Sea Water Pump replaces Perkins #NA005576

**Part No. .... Desc. .... Qty.**

SHE 9959K.....	Impeller .....	1
SHE 13272 .....	Shaft.....	1
SHE 13270 .....	Nut for Shaft.....	1
SHE 13271 .....	Key for Pulley.....	1
SHE 04257 .....	Ball Bearing.....	2
SHE 06602 .....	Slinger.....	1
SHE 10514C.....	Water Seal.....	1
SHE 10515C.....	Cam Screw.....	1
SHE 12231 .....	O-Ring.....	1
SHE 11797 .....	Cover Screws.....	4
SHE 15883 .....	Cam.....	1
SHE 11795 .....	Cover.....	1
SHE 04432 .....	Impeller Key.....	1
SHE 12582 .....	Snap Ring (SM).....	1
SHE 04259 .....	Snap Ring (LG).....	1
SHE 13273 .....	Washer.....	1
SHE 03419 .....	Pulley.....	1

## Perkins



SHERWOOD®

**Part No. SHE RP-B-C**

Sea Water Pump replaces Perkins #NA001175

**Part No. .... Desc. .... Qty.**

SHE 10615.....	Impeller.....	1
SHE 10093 .....	Shaft Key.....	1
SHE 04432 .....	Impeller Key.....	1
SHE 04258 .....	Snap Ring (SM).....	3
SHE 04259 .....	Snap Ring (LG).....	1
SHE 04257 .....	Ball Bearing.....	1
SHE 10927 .....	Mechanical Seal.....	1
SHE 10515C.....	Cam Screw.....	1
SHE 10931 .....	Gasket.....	1
SHE 12710 .....	Lock Washer.....	4
SHE 01482 .....	Cover Screw.....	4
SHE 10944 .....	Cam.....	1
SHE 10183 .....	Cover.....	1
SHE 11374 .....	Shaft.....	1
SHE 06333 .....	Bushing.....	1
SHE 0336 .....	Drain Plug.....	2
SHE 01311 .....	Pin.....	2
SHE 10891 .....	Slinger.....	1



## Perkins



JABSCO®

**Part No. JAB 3270-0001  
(JAB 3270-200)**

Sea Water Pump replaces Perkins #35615

**Part No. .... Desc. .... Qty.**

JAB 210-0001.....	Impeller .....	1
JAB 91002-0020.....	Screw .....	6
JAB 11830-0000.....	End Cover .....	1
JAB 3298-0000.....	Gasket.....	1
JAB 92700-0060.....	Bearing Seal .....	1
JAB 92600-0070.....	Bearing.....	1
JAB 3276-0000.....	Adaptor Ring .....	1
JAB 3277-0000.....	Shaft.....	1
JAB 3278-0000.....	Coupling.....	1
JAB 3286-0000.....	Slinger.....	1
JAB 92700-0060.....	Seal.....	1
JAB 92000-0210.....	O-Ring.....	1
JAB 7884-0000.....	Cam & Wearplate.....	1
JAB 7883-0000.....	Wearplate.....	1
JAB 91003-0010.....	Cam Screw.....	1

## Perkins



JABSCO®

**Part No. JAB 9990-21/JAB 9990-41**

Sea Water Pump replaces Perkins #2488324

**Part No. .... Desc. .... Qty.**

JAB 1210-0001.....	Impeller.....	1
JAB 18753-0049.....	Mechanical Seal .....	1
JAB 3298-0000.....	Gasket.....	1
JAB 11830-0000.....	End Cover.....	1
JAB 91002-0020.....	Cover Screws.....	6
JAB 490-0001.....	Cam.....	1
JAB 91003-0010.....	Cam Screw.....	1
JAB 7883-0000.....	Wearplate.....	1
JAB 92600-0130.....	Ball Bearing.....	2
JAB 92700-0060.....	Oil Seal.....	1
JAB SP2701-15.....	Outer Brg Seal.....	1
JAB 9997-01.....	Shaft.....	1
JAB 18714-0000.....	Snap Ring (Large).....	1
JAB 18715-000.....	Snap Ring (Small).....	1
JAB 3286-0000.....	Slinger.....	1

Not sure  
**WHICH  
PUMP**  
you need?



**Jerry's  
Marine  
Service**

Give us a call!

**FL 1-800-432-2231**

**SC 1-800-788-2231**

Our parts experts will be happy to  
assist you in finding the perfect fit.



## Pleasurecraft



### Part No. SHE G-21

**SHERWOOD**

Sea Water Pump fits Pleasurecraft 302 / 351  
Ford Replaces #RA057007

Part No.	Desc.	Qty.
SHE 9959K	Impeller	1
SHE 12859	Mechanical Seal	1
SHE 04264	Seal Spacer	1
SHE 12231	Cover O-Ring	1
SHE 12855	Gasket	1
SHE 12856	Wearplate	1
SHE 15883	Cam	1
SHE 10515C	Cam Screw	1
SHE 04432	Key	1
SHE 12211	Ball Bearing	2
SHE 05133	Bearing Spacer	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	2
SHE 12857	Cover Bolts	3
SHE 12710	Lock Washers	3
SHE 12367	Shaft (G-20)	1
SHE 13363	Shaft (G-21)	1
SHE 12327	Pulley (G-20)	1
SHE 19729	Pulley (G-21)	1
SHE 12305	Snap Ring (G-20)	1
SHE 12368	Pulley Spacer (G-20)	1
SHE 11541	Pulley Pin (G-20)	1

## Pleasurecraft



### Part No. SHE G-55-2

**SHERWOOD**

Sea Water Pump fits Pleasurecraft 454 Chevy  
Replaces #RA057009

Part No.	Desc.	Qty.
SHE 10615K	Impeller	1
SHE 12859	Mechanical Seal	1
SHE 04264	Seal Spacer	1
SHE 12231	Cover O-Ring	1
SHE 12855	Gasket	1
SHE 12856	Wearplate	1
SHE 10944	Cam	1
SHE 10515C	Cam Screw	1
SHE 04432	Key	1
SHE 12211	Ball Bearing	2
SHE 05133	Bearing Spacer	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	2
SHE 12857	Cover Bolts	3
SHE 12710	Lock Washers	3
SHE 12596	Shaft	1
SHE 09420	Pin	1

## Pleasurecraft



### Part No. SHE P1014

**SHERWOOD**

Replaces #RA057031

Part No.	Desc.	Qty.
SHE 10615K	Impeller	1
SHE 12231	O-Ring	1
SHE 12859	Mechanical Seal	1
SHE 23448	Bearing	2
SHE 19293	Shaft	1
SHE 10944	Cam	1
SHE 10515C	Cam Screw	1
SHE 21120	Cover	1
SHE 19295	Wearplate	1
SHE 04432	Key	1
SHE 04258	Ret Ring	2
SHE 04259	Ret Ring	1
SHE 14184	Pulley Hub	1

# SHERWOOD®

## Pleasurecraft



### Part No. SHE G-22

**SHERWOOD**

Sea Water Pump fits Mitsubishi 4 Cylinder  
Replaces #RA057013

Part No.	Desc.	Qty.
SHE 9959K	Impeller	1
SHE 12231	O-Ring	1
SHE 12855	Gasket	1
SHE 12859	Mechanical Seal	1
SHE 04264	Washer (Seal)	1
SHE 15883	Cam	1
SHE 10515C	Cam Screw	1
SHE 19729	Pulley	1
SHE 13363	Shaft	1
SHE 04259	Snap Ring (LG)	2
SHE 04258	Snap Ring (SM)	3
SHE 05133	Bearing Spacer	1
SHE 12211	Ball Bearing	2
SHE 12857	Screw	3
SHE 12710	Lock Washers	3
SHE 12856	Wearplate	1
SHE 04432	Key	1

## Pleasurecraft



### Part No. SHE P1012

**SHERWOOD**

Sea Water Pump fits 5.7L V8 GM  
Replaces #RA057031 Replaced by P1014

Part No.	Desc.	Qty.
SHE 10615K	Impeller	1
SHE 12859	Mechanical Seal	1
SHE 04264	Seal Washer	1
SHE 19251	Gasket	1
SHE 13293	Cover Screw	4
SHE 01343	Lock Washers	4
SHE 10944	Cam	1
SHE 10515C	Cam Screw	1
SHE 01929	Wearplate	1
SHE 12211	Ball Bearing	2
SHE 19293	Shaft	1
SHE 04432	Key	1
SHE 04258	Snap Ring (SM)	2
SHE 04259	Snap Ring (LG)	1
SHE 97176	Pulley Hub	1

## Pleasurecraft



### Part No. SHE P109 / P110

**SHERWOOD**

Sea Water Pump fits 8.1L V8 GM  
Replaces #RA057028

Part No.	Desc.	Qty.
SHE 10615K	Impeller	1
SHE 12231	O-Ring	1
SHE 18652	Seal	1
SHE 08490	Bearing	2
SHE 19308	Shaft	1
SHE 06837	Snap Ring (Small)	1
SHE 05126	Snap Ring (Large)	1
SHE 04432	Key	1
SHE 10944	Cam	1
SHE 23912	Cover (P109)	1
SHE 21120	Cover (P110)	1
SHE 2220-0099	Screw (Cover)	4
SHE 00343	Washer (Cover)	4
SHE 10515C	Screw (Cam)	1
SHE 19996	Washer (Cam)	1

## Pleasurecraft



SHERWOOD®

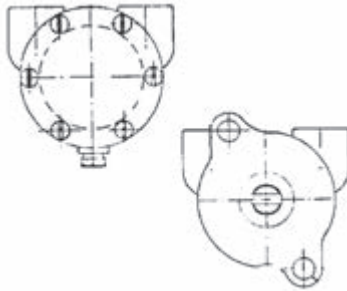
**Part No. SHE P105**

Sea Water Pump fits Pleasurecraft GM 5.7L  
Marine Power/Indmar Replaces #RA057026

**Part No. .... Desc. .... Qty.**

SHE 10615	Impeller	1
SHE 19275	Adaptor	1
SHE 19308	Shaft	1
SHE 05126	Int. Ret. Ring	1
SHE 08490	Ball Bearing	2
SHE 18652	Lip Seal	1
SHE 10944	Cam	1
SHE 10515C	Cam Screw	1
SHE 19251	Gasket	1
SHE 06837	Ext. Ret. Ring	1
SHE 19728	Body	1
SHE 00344	Screw	4
SHE 21120	Cover	1
SHE 04432	Key	1
SHE 00343	Lock Washers	4

## Universal



SHERWOOD®

**Part No. SHE H-80**

Universal #299805

**Part No. .... Desc. .... Qty.**

SHE 10077K	Impeller	1
SHE 11873	Shaft	1
SHE 10514C	Seal	1
SHE 11519	Bushing	1
SHE 00336	Plug	1
SHE 10286	Gasket	1
SHE 10593	Cover	1
SHE 00344	Screw	6
SHE 12863	Retaining Ring	1
SHE 10285	Cam	1
SHE 10822	Cam Screw	1
SHE 10093	Key	1
SHE 00336	Plug	1

## Universal



SHERWOOD®

**Part No. SHE G-903/SHE G-908**

Universal #302648/302837

Universal #42175 (Pump, Mounting Gasket,  
Mounting Clamps and Ports)

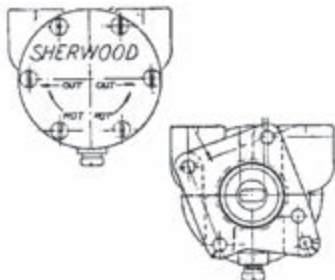
**Part No. .... Desc. .... Qty.**

SHE 9000K	Impeller	1
SHE 22796	Shaft (G-908)	1
SHE 18566	Shaft (G-903)	1
SHE 13315	Slinger	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	1
SHE 17485	Screw	3
SHE 12710	Lock Washer	3
SHE 10195	Cam Screw	1
SHE 18663	Cam	1
SHE 18576	Key	1
SHE 04264	Washer for Seal	1
SHE 12231	O-Ring	1
SHE 12856	Wearplate	1
SHE 12855	Gasket	1
SHE 12211	Ball Bearing	2
SHE 18806	Lip Seal	1
SHE 12859	Mech. Seal	1
SHE 302678	Mounting Gasket	1
SHE 302838	Pump Mtg Kt (G908)	1

Minor and Major Service Kits Available.

SHERWOOD®

## Universal



SHERWOOD®

**Part No. SHE M-5****Part No. .... Desc. .... Qty.**

SHE 10077K	Impeller	1
SHE 13833	Shaft	1
SHE 10514C	Seal	2
SHE 11519	Bushing	1
SHE 00336	Drain Plug	1
SHE 10286	Gaske	1
SHE 10593	Cover	1
SHE 00344	Cover Screw	6
SHE 12863	Retaining Ring	1
SHE 10093	Key	1
SHE 10285	Cam	1
SHE 10822	Cam Screw	1

## Universal



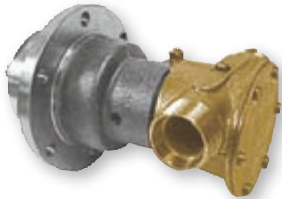
JABSCO

**Part No. JAB 17120-0001 NLA****Part No. .... Desc. .... Qty.**

JAB 4528-0001	Impeller	1
JAB 91002-0090	Screw (End Cover)	3
JAB 11833-0000	End Cover	1
JAB 9156-0010	Gasket	1
JAB 91009-0050	Screw (Impeller)	1
JAB 4538-0000	Cam	1
JAB 91002-0090	Screw (Cam)	1
JAB 91501-0010	Grease Cup	1
JAB 92700-0060	Lip Seal	2
JAB 17127-0000	Shaft	1
JAB 90178-0001	Service Kit	1



## Volvo



> Johnson  
Pump

**Part No. JOH 10-24017-3****Part No. JOH 10-24017-4**

Sea Water Pump fits 70 and 100 series engines.

JOH 10-24017-3. Replaces Volvo #837370, 837916

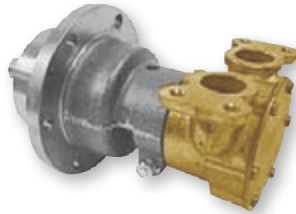
JOH 10-24017-4. Replaces Volvo #837371, 837915, 837922, 837923

**Part No. .... Desc. .... Qty.**

JOH 09-1028BT-1	Impeller	1
JOH 01-42445	Gasket	1
JOH 09-0.2247.050	Mechanical Seal	1
JOH 0.0370.516	Seal Snap Ring	1
JOH 0.3431.486	Ball Bearing	2
JOH 0.0371.062	Snap Ring	1
JOH 0.2233.002	Bearing Seal	1
JOH 01-42402	Slinger	1
JOH 01-42441	End Cover	1
JOH 01-46794-05	Cover Screws	6
JOH 01-42679	Full Cam	1
	Used with Pump	
	(10-24017-3)	
JOH 01-42442	2/3 Cam	1
	Used with Pump	
	(10-24017-3)	
JOH 01-46794-07	Cam Screw	1
JOH 01-42443	Wearplate	1
JOH 01-42400	Wearplate Pin	1
JOH 01-31964	Shaft	1
JOH 0.0144.001	Clamp Bolt	1
JOH 0.0194.001	Clamp Nut	1
JOH 0.0353.402	Clamp Washer	1

Service Kit: 09-45590

## Volvo



> Johnson  
Pump

**Part No. JOH 10-22335-3**

Sea Water Pump fits 30, 40, 60, 70 & 96 series engines. Replaces Volvo #836326

**Part No. .... Desc. .... Qty.**

JOH 09-1028BT-1	Impeller	1
JOH 01-42445	Gasket	1
JOH 09-0.2247.050	Mechanical Seal	1
JOH 0.0370.516	Seal Snap Ring	1
JOH 0.3431.486	Ball Bearing	2
JOH 0.0371.62	Snap Ring	1
JOH 0.2233.002	Bearing Seal	1
JOH 01-42402	Slinger	1
JOH 01-42441	End Cover	1
JOH 01-46794-05	Cover Screws	6
JOH 01-42679	Full Cam	1
	Used with Pump	
	(10-22335-3)	
JOH 01-42442	2/3 Cam	1
	Used with Pump	
	(10-22335-4)	
JOH 01-46794-07	Cam Screw	1
JOH 01-42443	Wearplate	1
JOH 01-42400	Wearplate Pin	1
JOH 01-31964	Shaft	1
JOH 0.0144.001	Clamp Bolt	1
JOH 0.0194.001	Clamp Nut	1
JOH 0.0353.402	Clamp Washer	1

## Volvo



JABSCO

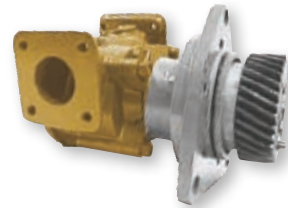
**Part No. JAB 50410-1201**

Sea Water Pump fits Volvo 5.7 - 7.4L engines  
Replaces Volvo #3860703

**Part No. .... Desc. .... Qty.**

JAB 18777-0001	Impeller	1
JAB 92000-1403	O-Ring	1
JAB 96080-0080	Mechanical Seal	1
JAB 92700-0060	Lip Seal	1
JAB 50416-0000	End Cover	1
JAB 22318	Cam (Full)	1

## Volvo



> Johnson  
Pump

**Part No. JOH 10-21915-2**

Sea Water Pump fits 100 & 120 series engines. Replaces Volvo #8227871, 837917, 837920

**Part No. .... Desc. .... Qty.**

JOH 09-819B-00	Impeller	1
JOH 01-42424	Gasket	1
JOH 09-0.2247.051	Mechanical Seal	1
JOH 0.0370.525	Seal Snap Ring	1
JOH 0.3431.486	Ball Bearing	2
JOH 0.0371.062	Snap Ring	1
JOH 0.2233.002	Bearing Seal	1
JOH 01-42427-15	Slinger	1
JOH 01-42422-1	End Cover	1
JOH 0.0144.200	Cover Screws	5
JOH 01-42425	Cam	1
JOH 01-46794-02	Cam Screw	1
JOH 01-42423	Wearplate	1
JOH 01-42426	Wearplate Pin	1
JOH 01-32020	Shaft	1
JOH 0.0144.002	Body Bolts	1

## Volvo



> Johnson  
Pump

**Part No. JOH 10-24061-3**

Sea Water Pump fits 31-41A and B Series engines.  
Replaces Volvo #838314, 842843

**Part No. .... Desc. .... Qty.**

JOH 09-1028B-1	Impeller	1
JOH 01-42679	Full Cam	1
JOH 01-46794-07	Full Cam Screw	1
JOH 01-42584	1/2 Cam	1
JOH 01-46794-06	1/2 Cam Screw	1
JOH 01-45044	Shaft	1
JOH 01-42441	Cover	1
JOH 01-42445	Gasket	1
JOH 0.0141.502	Cover Screw	6
JOH 0.2233.001	Seal	2
JOH 0.2173.402	O-Ring	1
JOH 0.3431.742	Ball Bearing	2
JOH 0.0371.040	Snap Ring	1
JOH 01-45181	Seal Spacer	1

Service Kit: 09-45592

Flexible Impeller  
Removal Tool

JABSCO

The Flexible Impeller Removal Tool is the easiest way to remove impellers, especially when the pump is mounted in tight and cramped conditions.  
Size: 6" x 1" x 8" max Weight: 1.1 lb.

**Part No. JAB50070-0040**

Suitable for impellers up to 2 1/2" diameter.

**Part No. JAB50070-0200**

Suitable for impellers from 2 1/2" to 4 1/2"



## Volvo



> Johnson  
Pump

**Part No. JOH 10-24130-3**

Sea Water Pump fits TAMD 40A and B Series engines. Replaces Volvo #838522

Part No.	Desc.	Qty.
JOH 09-819B-00	Impeller	1
JOH 01-45617	Seal Washer	1
JOH 0.0138.134	Cover Screw	5
JOH 01-46794-02	Cam Screw	1
JOH 0.2233.250	Lip Seal	1
JOH 0.3431.780	Ball Bearing	2
JOH 0.0958.700	Bearing Spacer	1
JOH 0.0371.062	Snap Ring	1
JOH 01-45354	Gasket	1
JOH 01-45316	Shaft	1
JOH 01-45634	Seal Spacer	1
JOH 01-42427-15	Slinger	1
JOH 01-42426	Pin	1
JOH 01-42423	Wearplate	1
JOH 01-45317	Cam	1
JOH 01-42422-1	Cover	1

Service Kit: 09-45705

## Volvo



> Johnson  
Pump

**Part No. JOH 10-24930-01**

Sea Water Pump fits 5.7L engines. Replaces Volvo #841640

Part No.	Desc.	Qty.
JOH 09-812B-1	Impeller	1
JOH 01-45670	Cam	1
JOH 0.0279.033	Cam Screw	1
JOH 01-45312-1	Cover	1
JOH 01-45315	Gasket	1
JOH 0.2233.001	Seal	1
JOH 01-45680	Seal Washer	1
JOH 0.3431.742	Ball Bearing	2
JOH 0.2173.402	O-Ring	1
JOH 0.0141.502	Screw	4

Service Kit: 09-45825

## Volvo



> Johnson  
Pump

**Part No. JOH 10-24277-3**

Sea Water Pump fits 31-41A and B Series engines. Replaces Volvo #858469, 858470

Part No.	Desc.	Qty.
JOH 09-1028B-1	Impeller	1
JOH 01-42679	Full Cam	1
JOH 01-46794-07	Full Cam Screw	1
JOH 01-42584	1/2 Cam	1
JOH 01-46794-06	1/2 Cam Screw	1
JOH 01-45844	Shaft	1
JOH 01-42441	Cover	1
JOH 01-42445	Gasket	1
JOH 0.0141.502	Cover Screw	6
JOH 0.2233.001	Seal	2
JOH 0.2173.402	O-Ring	1
JOH 0.3431.742	Ball Bearing	2
JOH 0.0371.040	Snap Ring	1
JOH 01-45181	Seal Spacer	1

Service Kit: 09-45592

## Volvo



SHERWOOD

**Part No. SHE G9901**

Sea Water Pump fits GM 4-Cyl gas engines. Has a 6-1/2" Dia pulley. Replaces Volvo #3852398

Part No.	Desc.	Qty.
SHE 9959K	Impeller	1
SHE 12859	Mechanical Seal	1
SHE 04264	Seal Spacer	1
SHE 12231	Cover O-Ring	1
SHE 12855	Gasket	1
SHE 12856	Wearplate	1
SHE 15883	Cam	1
SHE 10515C	Cam Screw	1
SHE 04432	Key	1
SHE 12211	Ball Bearing	2
SHE 05133	Bearing Spacer	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	2
SHE 12857	Cover Bolts	3
SHE 12710	Lock Washers	3
SHE 13363	Shaft	1
SHE 21154	Pulley	1

## Volvo



SHERWOOD

**Part No. SHE G9903**

Sea Water Pump fits GM 4-Cyl gas engines. Has a 4-1/2" Dia pulley. Replaces Volvo #3855079

Part No.	Desc.	Qty.
SHE 9959K	Impeller	1
SHE 12859	Mechanical Seal	1
SHE 04264	Seal Spacer	1
SHE 12231	Cover O-Ring	1
SHE 12855	Gasket	1
SHE 12856	Wearplate	1
SHE 15883	Cam	1
SHE 10515C	Cam Screw	1
SHE 04432	Key	1
SHE 12211	Ball Bearing	2
SHE 05133	Bearing Spacer	1
SHE 04258	Snap Ring (SM)	3
SHE 04259	Snap Ring (LG)	2
SHE 12857	Cover Bolts	3
SHE 12710	Lock Washers	3
SHE 13363	Shaft	1
SHE 21175	Pulley	1

## Volvo



JABSCO

**Part No. JAB 29500-1001**

Sea Water Pump fits MD22 Series engines. Replaces Volvo #859824-1

Part No.	Desc.	Qty.
JAB 1210-0001	Impeller	1
JAB 3298-0000	Gasket	1
JAB SP2700-1027	Water Seal	1
JAB 91002-0020	Cover Screw	6
JAB 490-0001	Cam	1
JAB 91003-0010	Cam Screw	1
JAB SP2700-1027	Oil Seal	1
JAB SP2601-0451	Bearing	2
JAB 29508-0000	Shaft	1
JAB 7883-0000	Wearplate	1
JAB 11830-0000	Cover	1

## Volvo

**Part No. JMP JPR-V1000**

Replaces: 860629, 3583115, 3581558. Port size: 1" / HOSE

Impeller: 7400K

**ENGINE MODEL**

VOLVO PENTA AD31, MD31, AD41

## Volvo



VOLVO PENTA


**Part No. VOL 21214596  
JMP JPR-VPG001**

Sea Water Pump fits GM 4.3, 5.0, 5.7 lt. engines, and has a V-Belt pulley.

Part No. ....	Desc. ....	Qty. ....
VOL 21213660 .....	Impeller kit .....	1
JMP JPR-VPG001 .....	Pump Assy .....	1
JMP 7100K .....	Impeller .....	1

## Volvo



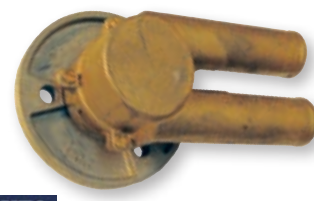
VOLVO PENTA


**Part No. VOL 21214599  
JMS JPR-VPG002**

Sea Water Pump fits GM 3.0, 4.3, 5.0, 5.7 lt. engines, and has a Serpentine Belt pulley.

Part No. ....	Desc. ....	Qty. ....
VOL 21213660 .....	Impeller kit .....	1
JMP JPR-VPG002 .....	Pump Assy .....	1
JMP 7100K .....	Impeller .....	1

## Volvo



VOLVO PENTA


**Part No. VOL 21214601  
JMP JPR-VPG003**

Sea Water Pump fits GM 8.1 lt. engines.

Part No. ....	Desc. ....	Qty. ....
VOL 21213660 .....	Impeller kit .....	1
JMP JPR-VPG003 .....	Pump Assy .....	1
JMP 7100K .....	Impeller .....	1

## Volvo



VOLVO PENTA


**Part No. VOL 21212799  
JMP JPR-VPG004**

Sea Water Pump fits GM 4.3, 5.0, 5.7, V6, V8, engines and has a Serpentine Belt pulley.

Part No. ....	Desc. ....	Qty. ....
VOL 21213664 .....	Impeller kit .....	1
JMP JPR-VPG004 .....	Pump Assy .....	1
JMP 7136K .....	Impeller .....	1

## Volvo


**Part No. VOL 21212800  
JMS JPR-VPG005**

Sea Water Pump fits GM 8.1 lt. engines.

Part No. ....	Desc. ....	Qty. ....
VOL 21213664 .....	Impeller Kit .....	1
JMP JPR-VP2800G .....	Pump Assy .....	1
JMP 7136K .....	Impeller .....	1

## Volvo

PHOTO NOT  
AVAILABLE


**Part No. VOL 21255096  
JMP JPR-VPG006**

Sea Water Pump fits GM 4.3, 5.0 lt. engines.

Part No. ....	Desc. ....	Qty. ....
VOL 21255096 .....	Impeller Kit .....	1
JMP JPR-VPG006 .....	Pump Assy .....	1
JMP 7136K .....	Impeller .....	1

## Volvo


**Part No. JMP JPR-VP0160D**

ENGINE MODEL: D16

PUMP P/N: 3589104

Part No. ....	Desc. ....	Qty. ....
JMP JPR-VP0160D .....	Pump Assy .....	1
JMP 8326K .....	Impeller .....	1

## Volvo


**Part No. JMP JPR-VP0130D**

ENGINE MODEL: D13

PUMP P/N: 3886848

Part No. ....	Desc. ....	Qty. ....
JMS JPR-VP0130D .....	Pump Assy .....	1
JMS 8326K .....	Impeller .....	1

## Volvo


**Part No. JMP JPR-V5000**

Port size: 2" / FLANGE

Impeller: 8301K

ENGINE MODEL

VOLVO PENTA - TAMD162/163/165

## Volvo


**Part No. JMP JPR-VP0120D**

ENGINE MODEL: D12

PUMP P/N: 3838207

Part No. ....	Desc. ....	Qty. ....
JMS JPR-VP0120D .....	Pump Assy .....	1
JMS 8326K .....	Impeller .....	1

## Volvo


**Part No. JMP JPR-VP0110DA**

ENGINE MODEL: D11

PUMP P/N: 21219723

Part No. ....	Desc. ....	Qty. ....
JMS JPR-VP0110DA .....	Pump Assy .....	1
JMS 8000K .....	Impeller .....	1

## Volvo


**Part No. JMP JPR-VP0110DB**

ENGINE MODEL: D11

PUMP P/N: 22063494

Part No. ....	Desc. ....	Qty. ....
JMS JPR-VP0110DB .....	Pump Assy .....	1
JMS 7446K .....	Impeller .....	1

## Volvo

**Part No. JMP JPR-VP0090D**

ENGINE MODEL: D9

PUMP P/N: 21380886

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0090D ..... Pump Assy ..... 1

JMS 7446K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-V2000**

Port size:

1½" / FLANGE

Impeller:

8100K

ENGINE MODEL

VOLVO PENTA

- TAMD61/71

**Part No. JMP JPR-V3000**

Port size:

2" / FLANGE

Impeller:

8301K

ENGINE MODEL

VOLVO PENTA

- TAMD120/121/122

## Volvo

PHOTO NOT  
AVAILABLE**Part No. JMP JPR-**

ENGINE MODEL: D6

PUMP P/N: 21380890

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0060DA ..... Pump Assy ..... 1

JMS 7446K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-VP0060DB**

ENGINE MODEL: D6

PUMP P/N: 21419376

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0060DB ..... Pump Assy ..... 1

JMS 7376K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-VP0050D**

ENGINE MODEL: D5/D7

PUMP P/N: 3838288

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0050D ..... Pump Assy ..... 1

JMS 7400K ..... Impeller ..... 1

## Volvo

PHOTO NOT  
AVAILABLE**Part No. JMP JPR-VP0040DA**

ENGINE MODEL: D4

PUMP P/N: 3584062

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0040DA ..... Pump Assy ..... 1

JMS 7426K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-VP0040DB**

ENGINE MODEL: D4

PUMP P/N: 21419374

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0040DB ..... Pump Assy ..... 1

JMS 7400K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-VP0030DA**

ENGINE MODEL: D3

PUMP P/N: 21141637

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0030DA ..... Pump Assy ..... 1

JMS 7136K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-VP0030DB**

ENGINE MODEL: D3

PUMP P/N: 21379102

**Part No. .... Desc. .... Qty.**

JMS PR-VP0030DB ..... Pump Assy ..... 1

JMS 7136K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-VP0020D**

ENGINE MODEL: D2

PUMP P/N: 3583089

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0020D ..... Pump Assy ..... 1

JMS 7100K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-VP0010DA**

ENGINE MODEL: D1(A)

PUMP P/N: 3593654

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0010DA ..... Pump Assy ..... 1

JMS 7051K ..... Impeller ..... 1

## Volvo

**Part No. JMP JPR-VP0010DB**

ENGINE MODEL: D1(B)

PUMP P/N: 3593655

**Part No. .... Desc. .... Qty.**

JMS JPR-VP0010DB ..... Pump Assy ..... 1

JMS 7051K ..... Impeller ..... 1



## Westerbeke



> Johnson Pump

### Part No. JOH 10-35038-5E

½ Cam • Westerbeke #32617

### Part No JOH 10-35038-5

Full Cam

Part No. ....	Desc. ....	Qty. ....
JOH 09-808B-1 .....	Impeller .....	1
JOH 01-45069 .....	Shaft .....	1
JOH 01-43239 .....	End Cover .....	1
JOH 01-43240 .....	Gasket .....	1
JOH 01-42415 .....	Cam .....	1
JOH 01-45050 .....	Inner Spacer .....	1
JOH 01-45049 .....	Outer Spacer .....	1
JOH 0.0279.300 .....	Cover Screw .....	4
JOH 01-46794-03 .....	Cam Screw .....	1
JOH 0.2233.010 .....	Seal .....	1
JOH 0.2173.432 .....	O-Ring .....	1
JOH 0.3431.748 .....	Ball Bearing .....	2
JOH 0.0371.028 .....	Snap Ring (LG) .....	1
JOH 01-45087 .....	Wearplate .....	1
JOH 01-46790-01 .....	Cam Screw Washer .....	1
JOH 0.0370.012 .....	Snap Ring (SM) .....	1

Service Kit: 09-45589

## Westerbeke



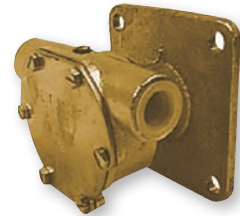
SHERWOOD

### Part No. SHE R30G-1

Westerbeke #24102

Part No. ....	Desc. ....	Qty. ....
SHE 10077K .....	Impeller .....	1
SHE 12686 .....	Cover Screw .....	6
SHE 11367 .....	Seal Assy .....	1
SHE 04306 .....	Ball Bearing .....	1
SHE 11854 .....	Shaft .....	1
SHE 10285 .....	Cam .....	1
SHE 10195 .....	Cam Screw .....	1
SHE 10197 .....	Housing Gasket .....	1
SHE 10286 .....	Cover Gasket .....	1
SHE 2075G .....	Carbon Bushing .....	1
SHE 10281 .....	Cover with Bushing .....	1
SHE 10198 .....	Ball Brg Hgz .....	1
SHE 04303 .....	Snap Ring (LG) .....	1
SHE 04304 .....	Snap Ring (SM) .....	3
SHE 01311 .....	Pin .....	2
SHE 00336 .....	Drain Plug .....	1

## Westerbeke



> Johnson Pump

### Part No. JOH 10-35216-1

Westerbeke #33636

Part No. ....	Desc. ....	Qty. ....
JOH 810B-1 .....	Impeller .....	1
JOH 0.3431.441 .....	Ball Bearing .....	2
JOH 05-04-114 .....	Cam Screw .....	1
JOH 05-01-120 .....	Cam Screw Washer .....	1
JOH 05-29-139 .....	Seal .....	2
JOH 01-45955 .....	Seal Space .....	1
JOH 01-42389 .....	Cam .....	1
JOH 01-45284 .....	Gasket .....	1
JOH 01-45282 .....	End Cover .....	1
JOH 05-04-642 .....	Cover Screw .....	6
JOH 01-45762 .....	Shaft .....	1
JOH 0.0371.028 .....	Snap Ring .....	1

## Westerbeke



> Johnson Pump

### Part No. JOH 10-24569-51

Westerbeke #46120

Part No. ....	Desc. ....	Qty. ....
JOH 09-808B-1 .....	Impeller .....	1
JOH 0.2173.440 .....	O-Ring .....	1
JOH 09-0.2247.02 .....	Mechanical Seal .....	1
JOH 01-46735-1 .....	Shaft .....	1
JOH 01-46739-2 .....	End Cover .....	1
JOH 01-42910 .....	Cam .....	1
JOH 01-45542 .....	Spacer .....	1
JOH 01-42400 .....	Pin .....	1
JOH 01-46676 .....	Wearplate .....	1
JOH 01-45049 .....	Plate .....	1
JOH 01-45659 .....	Washer .....	1
JOH 01-46790-01 .....	Washer .....	1
JOH 0.0279.300 .....	Screw .....	4
JOH 01-46794-01 .....	Cam Screw .....	1
JOH 0.2173.432 .....	O-Ring .....	1
JOH 0.3431.748 .....	Ball Bearing .....	2
JOH 0.0371.028 .....	Int. Snap Ring .....	1
JOH 0.0370.012 .....	Ext. Snap Ring .....	2

Service Kit: 09-46840

## Westerbeke



SHERWOOD

### Part No. SHE R10870G

Westerbeke #11353/38445

Part No. ....	Desc. ....	Qty. ....
SHE 9959K .....	Impeller .....	1
SHE 10927 .....	Seal Assy .....	1
SHE 04257 .....	Ball Bearing .....	1
SHE 10852 .....	Shaft .....	1
SHE 15883 .....	Cam .....	1
SHE 09919 .....	Cam Screw .....	1
SHE 10103 .....	Cover Gasket .....	1
SHE 10171 .....	Housing Gasket .....	1
SHE 6333G .....	Carbon Bushing .....	1
SHE 01482 .....	Cover Screws .....	4
SHE 12710 .....	Lock Washer .....	4
SHE 10096 .....	Cover with Bushing .....	1
SHE 04432 .....	Key .....	1
SHE 01311 .....	Pin .....	2
SHE 00336 .....	Drain Plug .....	1
SHE 04258 .....	Snap Ring (SM) .....	3
SHE 04259 .....	Snap Ring (LG) .....	1

## Westerbeke



The Only One  
JMP

### Part No. JOH 10-36006-01

JMP JPR-WB081P

Westerbeke #48080

Westerbeke #37431

Part No. ....	Desc. ....	Qty. ....
JOH 09-810B-1 .....	Impeller .....	1
Westerbeke 49170 .....	Shaft .....	1
JOH 01-46007-2 .....	End Cover .....	1
JOH 01-42389 .....	Cam .....	1
JOH 01-46737-2 .....	Wearplate .....	1
JOH 01-42400 .....	Pin .....	1
JOH 01-45659 .....	Seal Washer .....	1
JOH 05-04-632 .....	Cover Screw .....	6
Westerbeke 48359 .....	Cover O-Ring .....	1
JOH 05-06-513 .....	Slinger O-Ring .....	1
JOH 05-01-120 .....	Cam Washer .....	1
JOH 05-04-114 .....	Cam Screw .....	1
Westerbeke 48254 .....	Mechanical Seal .....	1
JOH 05-29139 .....	Bearing Seal .....	1
JOH 05-08-503 .....	Ball Bearing .....	2
JOH 05-34-131 .....	Snap Ring (SM) .....	1
JOH 05-34-501 .....	Snap Ring (LG) .....	1
Westerbeke 30326 .....	Mounting Gasket .....	1

## Westerbeke

SHERWOOD

**Part No. SHEH70**

Westerbeke #24143

Part No. ....	Desc.....	Qty.
SHE 10077K .....	Impeller .....	1
SHE 11628 .....	Lip Seal .....	2
SHE 11882 .....	Shaft .....	1
SHE 10285 .....	Cam .....	1
SHE 10286 .....	Gasket .....	1
SHE 11518 .....	Carbon Bushing .....	1
SHE 10093 .....	Impeller Key .....	1
SHE 07070 .....	Slinger.....	1
SHE 12863 .....	Snap Ring .....	2
SHE 10593 .....	Cover .....	1
SHE 10195 .....	Cam Screw .....	1
SHE 13293 .....	Cover Screws .....	6

## Westerbeke

SHERWOOD

**Part No. SHEF85**

Westerbeke #16423

Part No. ....	Desc.....	Qty.
SHE 9959K .....	Impeller .....	1
SHE 09919 .....	Cover Screw .....	4
SHE 12444 .....	Shaft .....	1
SHE 04432 .....	Key .....	1
SHE 12220 .....	Cover.....	1
SHE 10072 .....	Cam.....	1
SHE 10515C .....	Cam Screw.....	1
SHE 11360A .....	Gasket.....	1
SHE 10514C .....	Seal.....	1
SHE 12211 .....	Ball Bearing.....	2
SHE 12710 .....	Lock Washer .....	4
WB 11143 .....	Mtg Gasket.....	1

## Westerbeke

Johnson  
Pump**Part No. JOH10-35187-3**

Westerbeke #45765

Part No. ....	Desc.....	Qty.
JOH 09-808B-1.....	Impeller .....	1
JOH 0.2233.010 ...	Lip Seal .....	2
JOH 01-43240 .....	Gasket.....	1
JOH 01-43239 .....	End Cover.....	1
JOH 0.0279.300 ...	Cover Screw .....	4
JOH 01-45087 .....	Wearplate .....	1
JOH 01-42400 .....	Wearplate Pin.....	1
JOH 0.3431.748 ...	Ball Bearing.....	2
JOH 0.0371.028 ...	Snap Ring (LG).....	1
JOH 0.0370.012 ...	Snap Ring (SM).....	1
JOH 01-42910 .....	Cam .....	1
JOH 01-46794-03 ..	Cam Screw .....	1
JOH 01-46790-01 ..	Screw Washer .....	1
JOH 01-45669 .....	Shaft .....	1
JOH 0.2173.468 ...	Mounting O-Ring .....	1
JOH 01-43238 .....	Mounting Clamp.....	2
JOH 0.0502.003 ...	Key.....	1

## Westerbeke

JABSCO

**Part No. JAB 5320-0011**

Westerbeke #11830

Part No. ....	Desc.....	Qty.
JAB 5616-0001 .....	Impeller .....	1
JAB 91002-0020 .....	Cover Screw .....	6
JAB 11830-0000 .....	End Cover .....	1
JAB 2995-0000 .....	Gasket .....	1
JAB 7895-0001 .....	Cam & Wearplate .....	1
JAB 92700-0420 .....	Seal - Water .....	1
JAB 93000-0070 .....	Brg Seal Inner.....	1
JAB 92700-0310 .....	Brg Seal Outer.....	1
JAB 92000-0540 .....	O-Ring .....	1
JAB 879-0000 .....	Slinger .....	1
JAB 91002-0090 .....	Cam Screw .....	1
JAB 6020-0000 .....	Shaft & Brg .....	1
JAB 91701-0040 .....	Snap Ring .....	1
JAB 9215-0010 .....	Drive Key .....	1

## Westerbeke

**Part No. SHEF95**

Westerbeke #16432

SHERWOOD

Part No. ....	Desc.....	Qty.
SHE 10615K .....	Impeller .....	1
SHE 01482 .....	Cover Screw .....	4
SHE 12710 .....	Lock Washer .....	4
SHE 01311 .....	Pin.....	2
SHE 10931 .....	Gasket .....	1
SHE 10929 .....	Cam .....	1
SHE 10927 .....	Seal Assy .....	1
SHE 04259 .....	Snap Ring (LG) .....	1
SHE 04258 .....	Snap Ring (SM) .....	3
SHE 12226 .....	Shaft .....	1
SHE 04257 .....	Ball Bearing .....	1
SHE 07070 .....	Slinger.....	1
SHE 04432 .....	Key .....	1
SHE 00336 .....	Drain Plug .....	1
SHE 10183 .....	Cover with Bushing.....	1
SHE 06333 .....	Carbon Bushing .....	1
SHE 10515C .....	Screw.....	1

Westerbeke  
Impellers

SHERWOOD



Replacement Impeller  
Westerbeke & Universal  
Impeller Cross Reference

Westerbeke .....	Part No.
11418 .....	SHE 09959K
11764 .....	SHE 10077K
11907 .....	SHE 09959K
13930 .....	SHE 10615K
33100 .....	SHE 10077K
33104 .....	SHE 09959K
302875 .....	SHE 09000K

JABSCO

Johnson  
Pump

Replacement Impeller  
Westerbeke & Universal  
Impeller Cross Reference

Westerbeke .....	Part No.
18184 .....	JAB 5616-0001
32620 .....	JOH 09-808B
34440 .....	JOH 09-810B
302571 .....	JOH 09-1027B

## Yanmar Raw Water Pump

The Only One  
JMP**Part No. JMP JPR-YM08IH**

For Yanmar GMF, 3GMF, 2YM, 3YM Series  
Engines. Replaces Johnson 10-24509-01,  
10-13337, and Yanmar 128397-42500,  
128990-42500.

**Impeller Kit: JMP 7050K****Service Kit: JMP JSK0082**

When it comes to pumps, Jerry's Marine has you covered.

## Yanmar Engines



### Part No. JMP JPR-YM06LPA (with Gear) ENGINE MODEL

6LP(A)-DTZE(P), 6LP(A)-STE(P), 6LPASTP2/3)  
Replaces Yanmar #119773-42502 (Impeller  
119773-42600)

### Part No. .... Desc..... Qty.

JMS JPR-YM06LPA..... Pump Assy ..... 1  
JMS 7136K..... Impeller ..... 1



### Part No. JPR-YM04JHA (with Gear) ENGINE MODEL

4JH3-THE, 4JH3-DTE, 4JH3E, 4JH3CE, 4JH3CE1,  
4JH3-TE, 4JH3-TCE, 3JH3E, 3JH3E(EPA),  
3JH3CE, 4JH3-TE-YEU, 4JH3-DTE(YEU),  
3JH3E-YEU-E, 4JH4-TE, 4JH4-THE, 4JH4-HTE1  
Replaces Yanmar #129670-42513 (Impeller  
129670-42530)

### Part No. .... Desc..... Qty.

JMP JPR-YM04JHA ..... Pump Assy ..... 1  
JMP 7100K..... Impeller..... 1



### Part No. JMP JPR-YM06LY2 ENGINE MODEL

6LY2 SERIES (6LY2-ST, 6LY2-STVY, 6LY2-  
WST, 6LY2-WDT, 6LY2-WDTZY, 6LY2M-WDT,  
6LY2M-WST, 6LYA-STP, 6LYA-STE, 6LYA-  
UTE, 6LY2-STE, 6LY2A-STP, 6LY2A-UTP)  
Replaces Yanmar #119574-42502 (Impeller  
119574-42550)

### Part No. .... Desc. .... Qty.

JMS JPR-YM06LY2..... Pump Assy ..... 1  
JMS 7376K..... Impeller ..... 1



### Part No. JPR-YM04JHB (with Gear) ENGINE MODEL

4JH5E, 3JH4E, 4JH4E, 4JH4AE, 3JH5E, 4JH45  
4JH57, 4JH80, 4JH110)3JH53  
Replaces Yanmar #129671-42502 (Impeller  
129670-42531)

### Part No. .... Desc..... Qty.

JMP JPR-YM04JHB ..... Pump Assy ..... 1  
JMP 7100K..... Impeller..... 1



### Part No. JMP JPR-YM06LY3 ENGINE MODEL

6LY3-ETP, 6LY3-STP, 6LY3-UTP, 6LY3-STC,  
6LY3-UTC, 6LY3-ETP 24, 6LY3-STP 24, 6LY3-  
UTP 24, 6LY3-STC 24, 6LY3-UTC 24)  
Replaces Yanmar #119578-42501 (Impeller  
119578-42550)

### Part No. .... Desc. .... Qty.

JMS JPR-YM06LY3..... Pump Assy ..... 1  
JMS 7376K..... Impeller ..... 1



### Part No. JPR-YM06LPB (with Gear) ENGINE MODEL

6LP(A)-DTZE(P), 6LP(A)-STZE(P), 6LPASTZP2/3)  
Replaces Yanmar #119773-42650 (Impeller 119773-  
42600)

### Part No. .... Desc..... Qty.

JMP JPR-YM06LPB ..... Pump Assy ..... 1  
JMP 7136K..... Impeller..... 1

# NEED A PUMP?

Give us a call!

FL 1-800-432-2231

SC 1-800-788-2231

## Trac Impeller Puller Kit

A revolutionary precision puller for the professionals. It will pull all rubber impellers, gears, bearings etc. from 1" to 3" diameter. Pulls with up to 2 tons of torque!

- CNC machined from 45C tool steel treated with a Titanium Nitride coating to improve rust resistance
- Replaces most of your standard pullers in one compact, easy-to-use system
- Precise and secure gripping of any object to be pulled.
- Precision adjustment of arms and self-centering center block ensure even and parallel pulling from both sides.
- New vertical thumbscrew locking bolt quickly secures pulling arms for easy set-up.
- Horizontal locking bolt presses and secures the metal multi tooth pulling arms into the impeller surface – eliminating any slip.
- Unique groove system holds puller arms in perfect alignment.
- Truss head screw holds puller arms securely and allows for fast exchange of arms.

Part No.  
TRC 1290

TRAC  
ECOLOGICAL  
Green Products





**SPX FLOW Johnson Pump marine brand is one of the world's leading manufacturers of pumps for marine use. With close to 50 years of pump experience, we know the industry well.**

The devoted R&D work, experience and partnership with major marine engine manufacturers have brought the Johnson Pump brand to a front line position in cooling pumps world wide. Our self-priming **Flexible Impeller Pumps** are ideal for inboard engine cooling systems and designed to meet the demands of engine manufacturers and built to take rough treatment.

We supply engine cooling pumps to the world's leading marine motor manufacturers, not just because of our renowned pumps; but also because of the heart of an engine cooling pump: the impeller.

### DISCOVER OUR SUPPLY OF ENGINE COOLING PUMPS

- SKI BOAT ENGINES
- SMALL BLOCK GM/VOLVO PENTA
- JOHN DEERE/KOHLER PROPRIETARY PUMP
- AMERICAN DIESEL/BOMAC 4 CYLINDER
- AMERICAN DIESEL 6 CYL.
- MAN 2842



Pump: 10-24228-01  
Small Block GM, Volvo  
Impeller: 09-1027B-10



Pump: 10-24753-01  
John Deere 4.5L, 6.8L  
Kohler 40, 65, 80, 99, EOZ  
Impeller: 09-1028BT-1



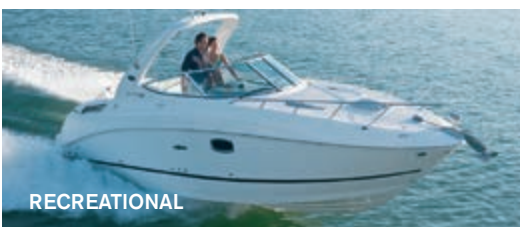
Pump: 10-24398-01  
John Deere  
RE47016/4039/4045  
Impeller: 09-1028BT-1



SPORT



CRUISING



RECREATIONAL

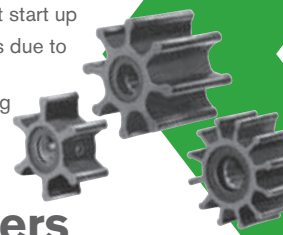


COMMERCIAL

Use original impellers from SPX FLOW Johnson Pump to enable the benefits:

- Stable pressure delivery over time
- Significantly longer service life
- Excellent self-priming capability
- Correct cooling flow & sufficient cooling directly at start up
- Minimized failures due to fatigue
- Minimized swelling

**Original Impellers**



## SPX'S JOHNSON PUMP MARINE BRAND ORIGINAL IMPELLERS KITS

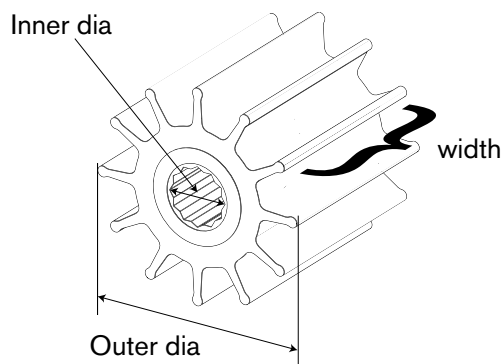
Ref.	Pump	Impeller	Material*	Outer dia		Inner dia		Width		Replaces Jabsco No	
				mm	inch	mm	inch	mm	inch	Europe	USA
1	F2	09-1077B-9	Nitrile	35,2	1.29	8.0 / Flat	0.31 / Flat	12,7	0.50		
2	F3	09-843S-9	Nitrile	45,2	1.78	8.0 / Flat	0.31 / Flat	12,8	0.50		
3	TA3P10	09-1052S-9	Nitrile	45,2	1.78	8.0 / Flat	0.31 / Flat	12,8	0.50		
4	F35	09-806B-1	MC97	40,0	1.58	9,5	0.37	19,0	0.75	4528-0001	
5	F35	09-808B-1	MC97	40,0	1.58	12,0	0.47	19,0	0.75	22405-0001	
6	F4	09-824P-1EZ	Polyurethane	50,8	2.00	8.0 / Flat	0.31 / Flat	22,0	0.87	6303-0007	
6	F4	09-824P-9	Nitrile	50,8	2.00	8.0 / Flat	0.31 / Flat	22,0	0.87	6303-0003	
7	F4	09-810B-1	MC97	50,8	2.00	12,0	0.47	22,0	0.87	18653-001	
7	F4	09-810B-9	Nitrile	50,8	2.00	12,0	0.47	22,0	0.87		
8	F4	09-1026B-1	MC97	50,8	2.00	12,7	0.50	22,0	0.87	673-0001	
8	F4	09-1026B-9	Nitrile	50,8	2.00	12,7	0.50	22,0	0.87	673-0003	
9	F5	09-801B	Neoprene	57,1	2.25	15.9 Key	0.63 / Key	31,5	1.24	4568-0001	
10	F5	09-1027B-1	MC97	57,1	2.25	Splines		31,5	1.24	1210-0001	
10	F5	09-1027B-10	MC97	57,1	2.25	Splines		31,85	1.24		
10	F5	09-1027B-9-00	Nitrile	57,1	2.25	Splines		31,5	1.24	1210-0003	
11	F6	09-812B-1	MC97	57,1	2.25	Splines		48,2	1.90	13554-0001	
12	F7	09-1028BT-1**	MC97	65	2.56	Splines		50,2	1.98	17937-0001	
12	F7	09-1028B-9	Nitrile	65	2.56	Splines		50,2	1.98	17937-0003	
13	F75	09-821BT-1**	MC97	65	2.56	Splines		80	3.15		
14	F8	09-819B-00	Neoprene	95	3.74	Splines		63	2.48	836-0001	17935-0001
14	F8	09-819B-9	Nitrile	95	3.74	Splines		63	2.48	836-0003	17935-0003
15	F8	09-1029B <sup>1)</sup>	Neoprene	95	3.74	Splines		63	2.48	836-0001	17935-0001
16	F9	09-802B	Neoprene	95	3.74	Splines		88,5	3.48	6760-0001	
17	F9	09-814B	Neoprene	95	3.74	Splines		88,5	3.48	21676-0001	17936-0001
18	F95	09-820B	Neoprene	95	3.74	Splines		130	5.12		
19	F98	09-842B	Neoprene	95	3.74	Splines		180	7.09		

\* MC97 and Neoprene - for cooling, Nitrile - oil resistant

<sup>1)</sup> Alternative impeller 09-819B

\*\* BT-1 replaces B

A		09-701B-1	MC97	62,3	2,45			31,8	1,25	18838-0001	
B		09-702B-1	MC97	65,4	2,57			41,4	1,63	18948-0001	
C		09-703B-1	MC97	66,7	2,63			51	2,01	17954-0001	
D		09-704BT-1	MC97	84,1	3,31			73,4	2,89	18958-0001	
E		09-705BT-1	MC97	94,5	3,72			101,6	4	-	

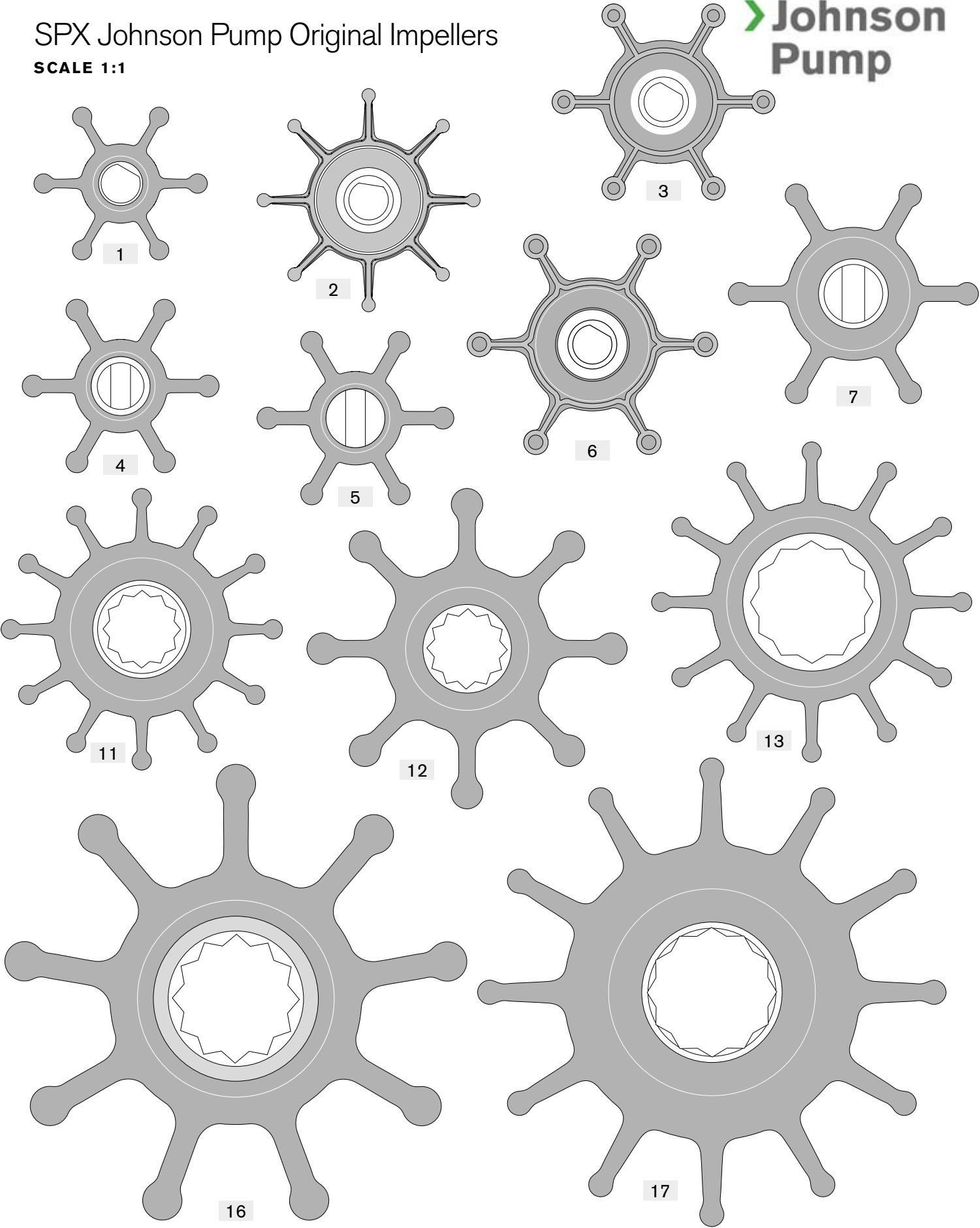


**Johnson  
Pump**

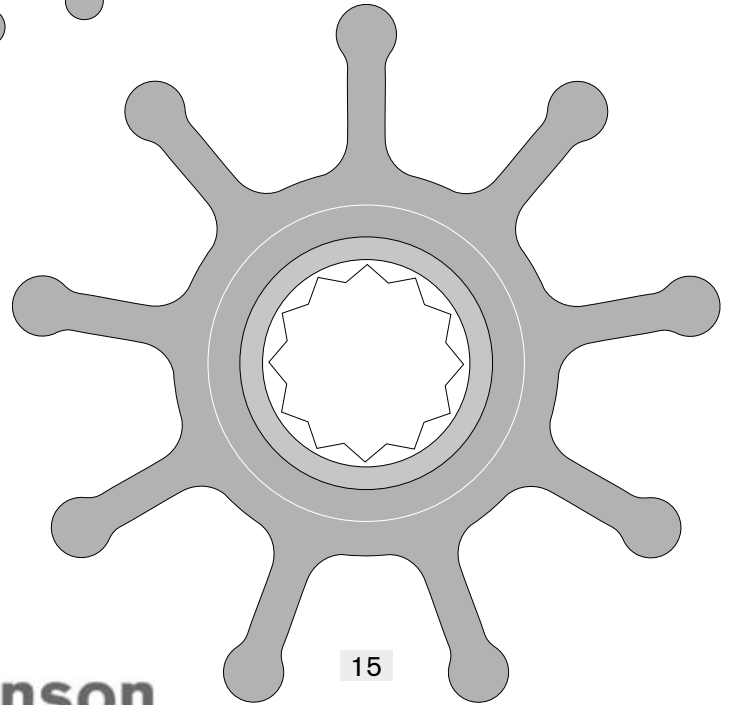
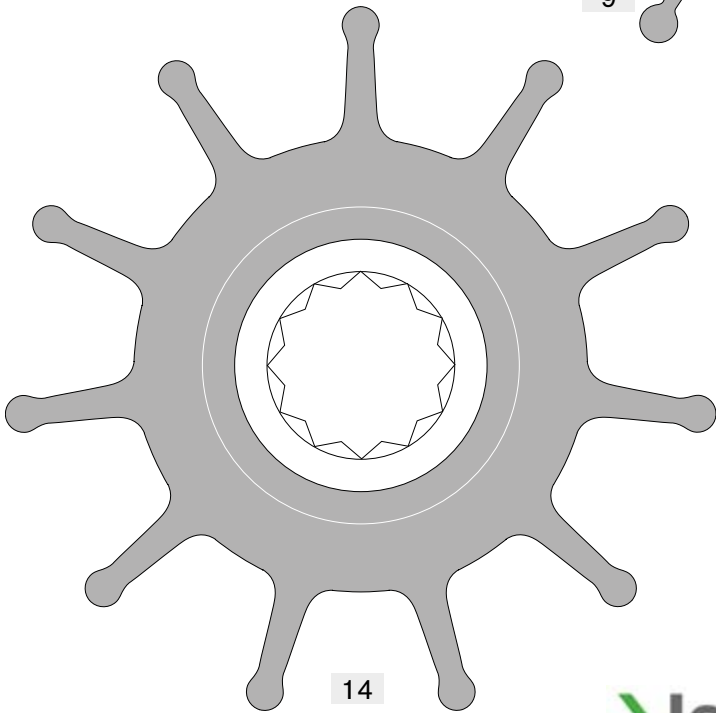
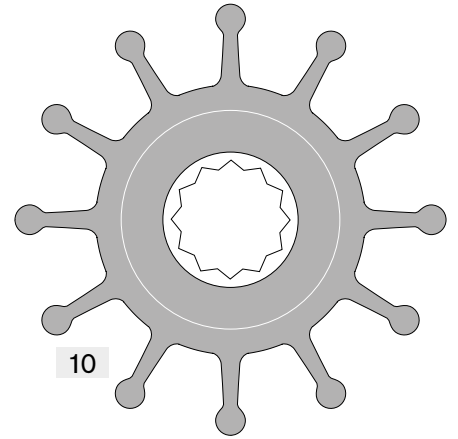
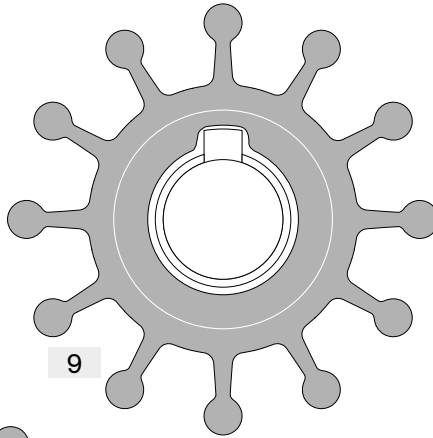
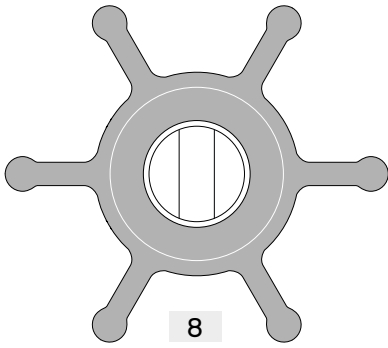


SPX Johnson Pump Original Impellers

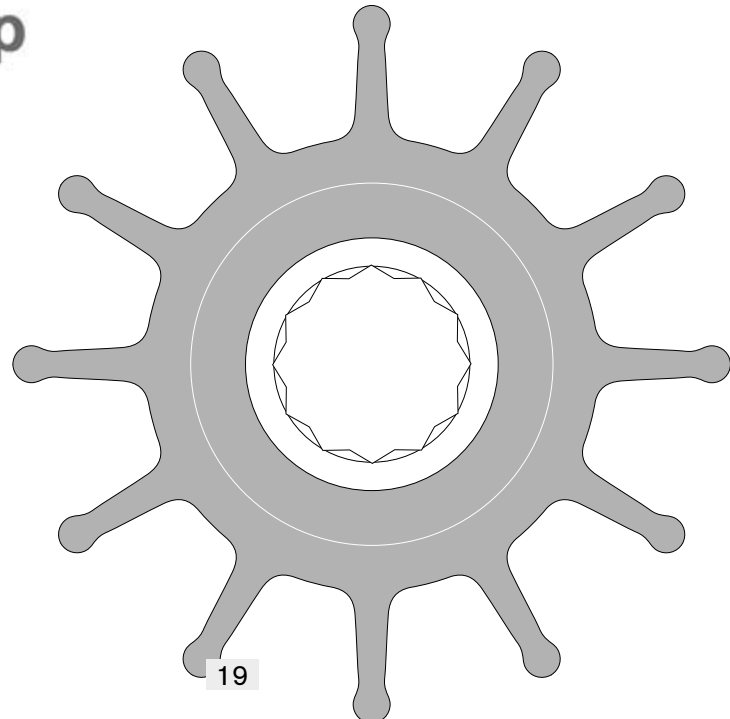
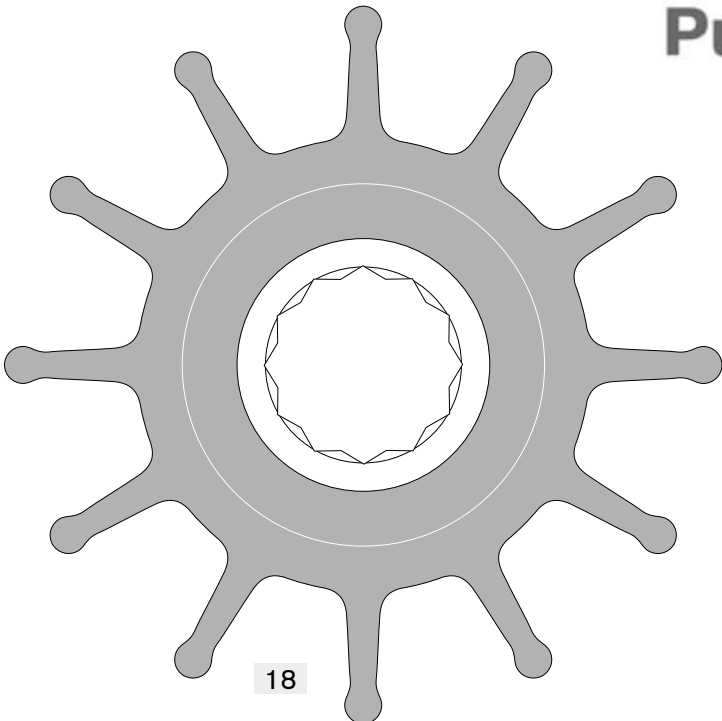
SCALE 1:1





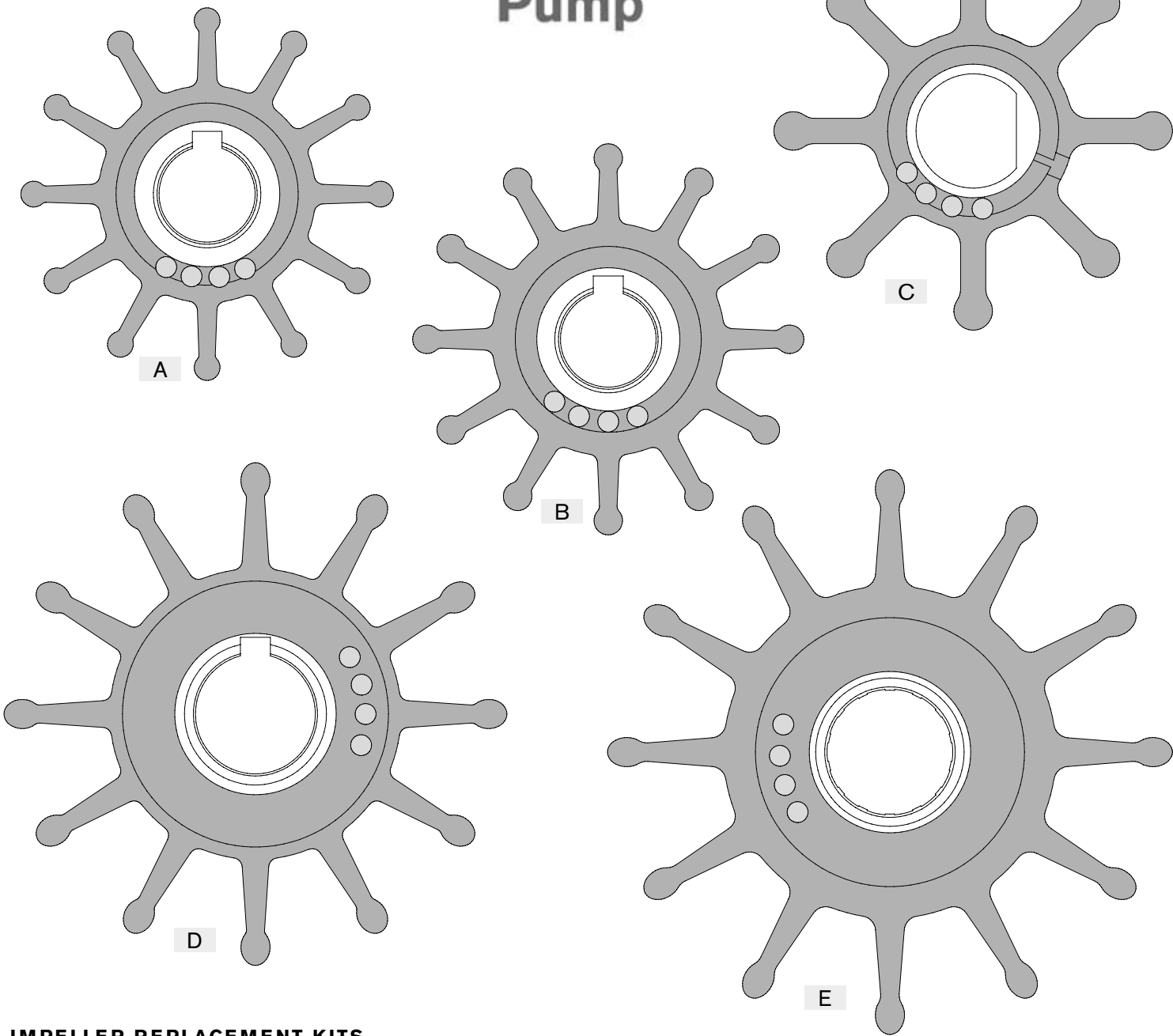


 **Johnson  
Pump**



Impeller Replacement Kits

SCALE 1:1

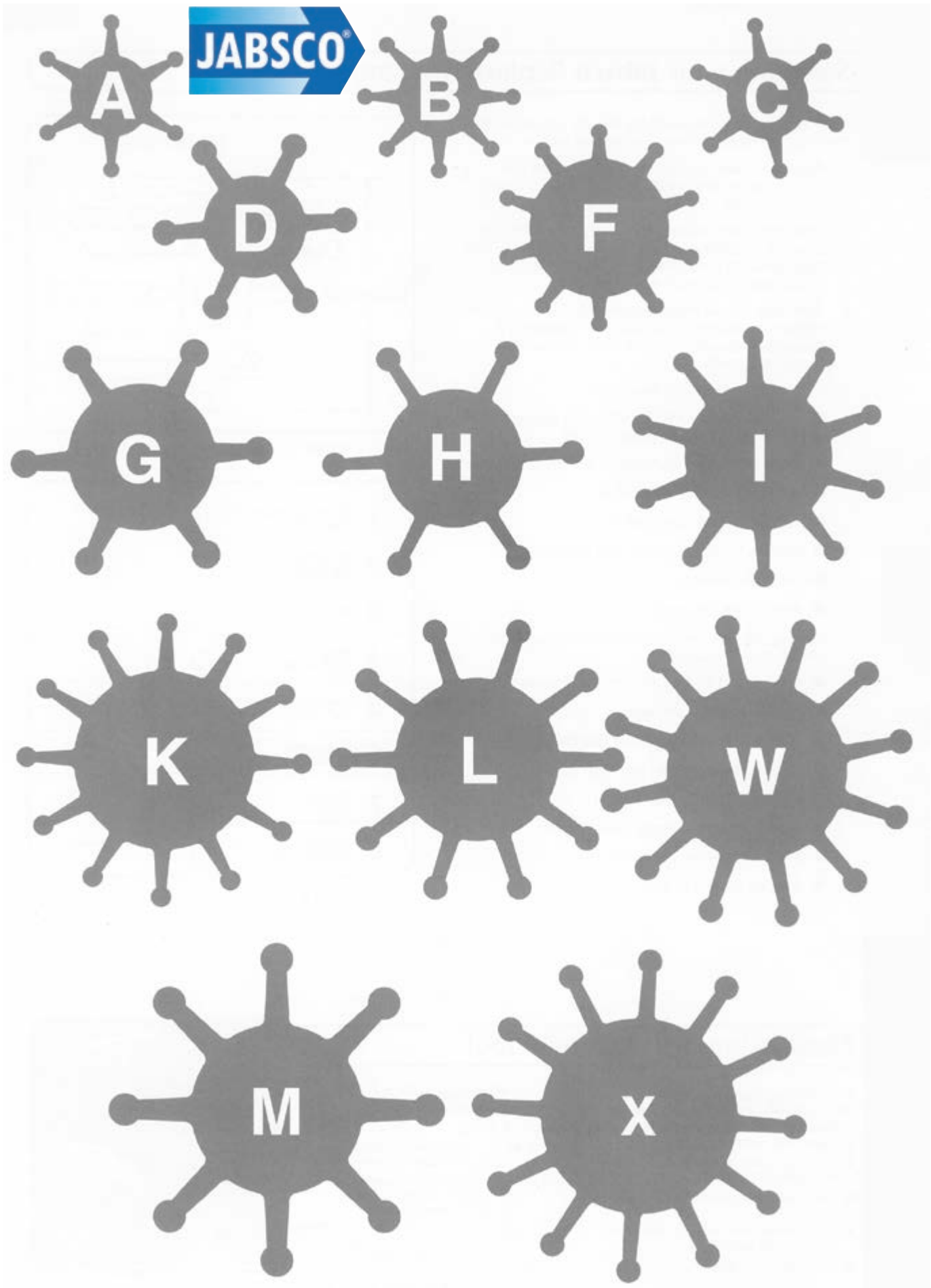


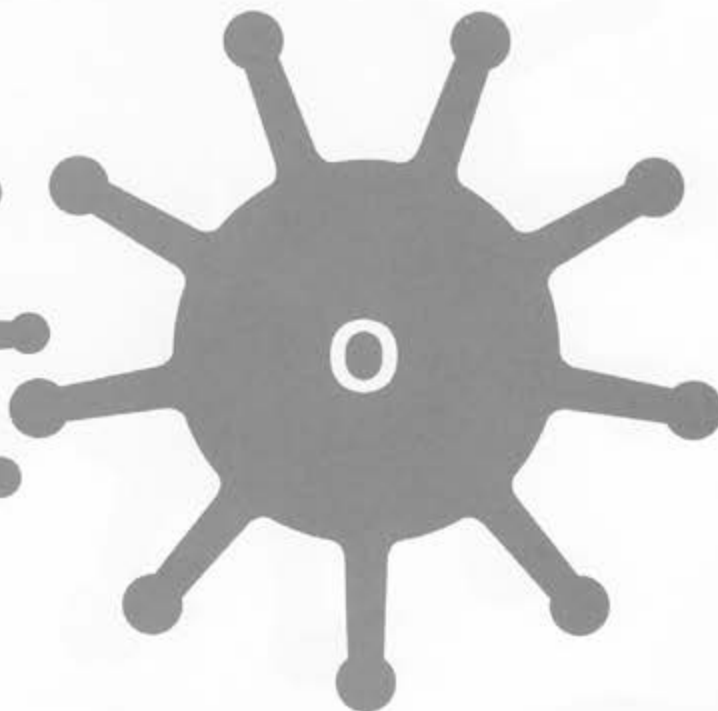
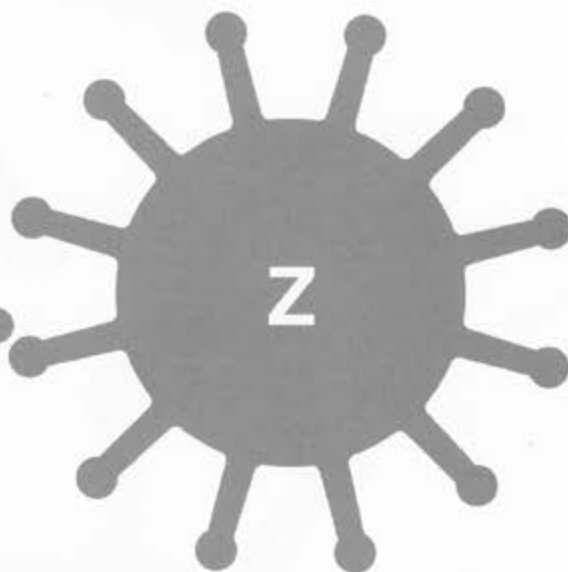
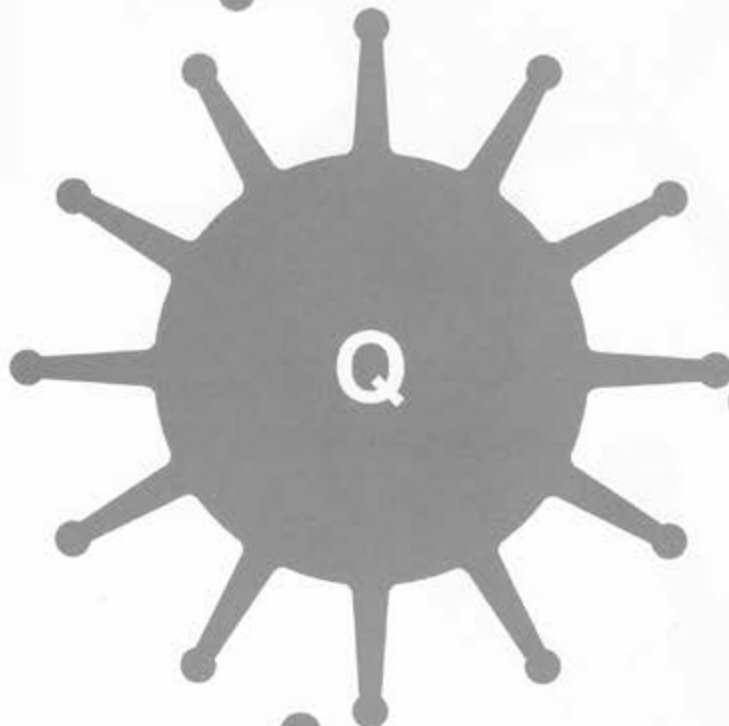
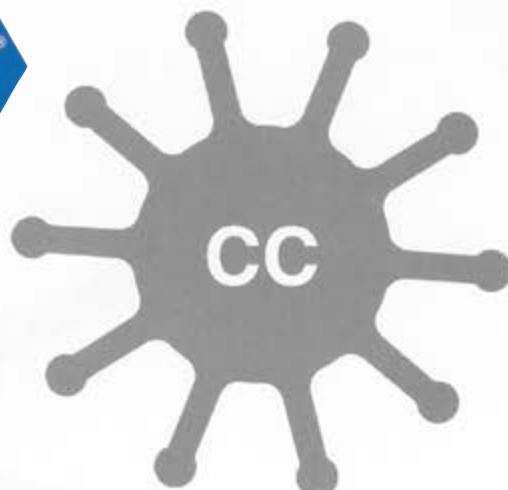
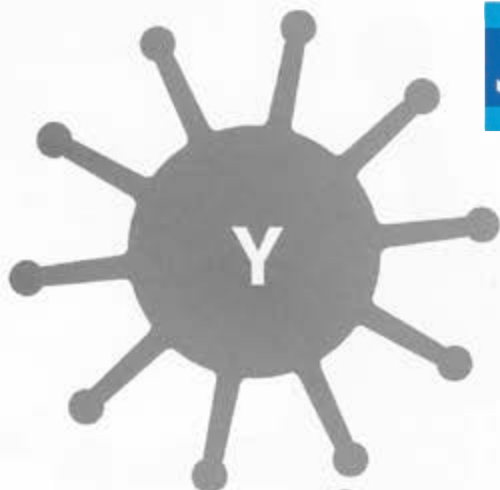
IMPELLER REPLACEMENT KITS

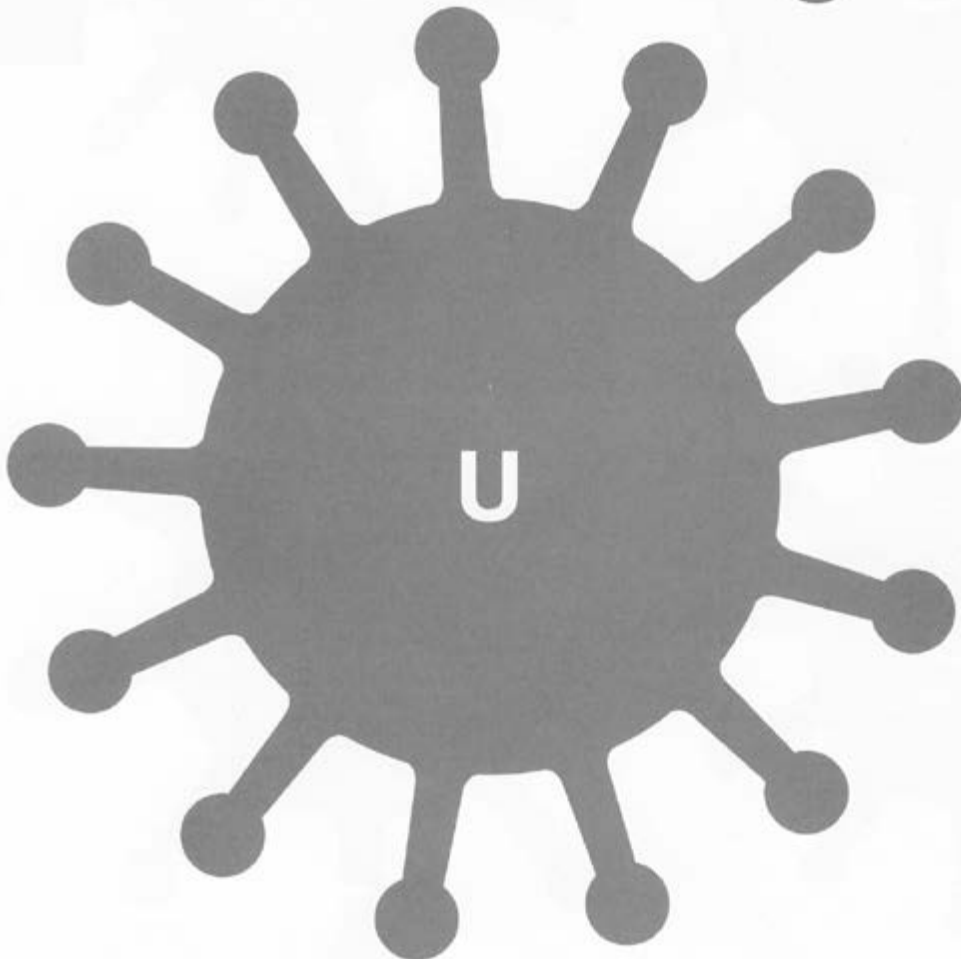
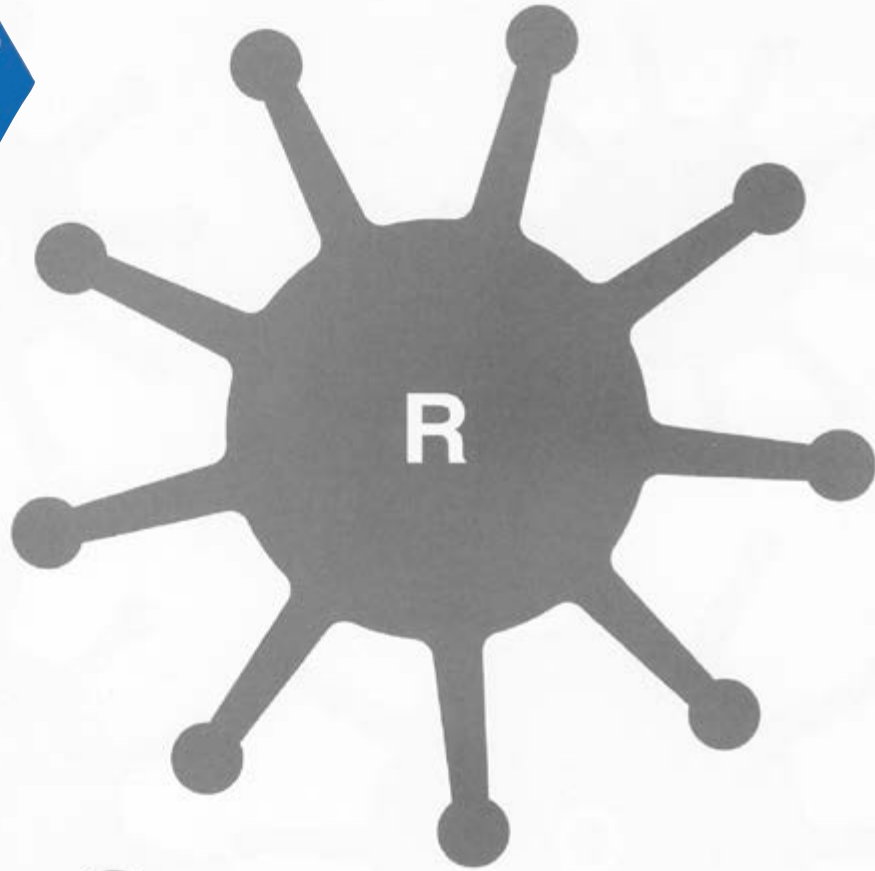
Ref.	SPX Johnson Pump part no.	Sherwood part no.	Mercuriser part no.	Jabsco part no.	Engines / Pumps
A	09-701B-1	9959K	-	18838-0001	Chris Craft; Chrysler Marine; Commander; Crusader; Glastron Boat Co.; Gray Marine; Interceptor; Onan; OMC; Pathfinder VolksWagon Eng.; Perkins Eng. U.S.; Plesurecraft Marine; Universal Medalist; Volvo Penta; Yamaha; Westerbeke 24102; Sherwood 11353; Pleasure Craft 302&351; Chris Craft 350; Onan MDL3,4
B	09-702B-1	10615K	-	18948-0001	Chris Craft; Chrysler Marine; Commander; Crusader; Escort (Skiltec); Gray Marine; Isuzu; Lenco; Marine Power; North American Engine; Onan; Osco Motors; OMC; Perkins Engine U.S.; Plesurecraft Marine; Volvo Penta; J.H. Westerbeke Corp; Crusader 97179; Chrysler 3675763; Chrysler 4142878; Cummins 4B; Onan MDL6; Chris Craft 454; Pleasure Craft 454
C	09-703B-1	-	47-59362T	17954-0001	Pump Quicksilver Model 46-72774 A32
D	09-704BT-1	17000K	-	18958-0001	Cummins 6B 300Hp B Series; Cummins C Series; CAT 3208; CAT 3116; CAT 3126; Deere 6076; Sherwood Pump P17 series
E	09-705BT-1	18000K	-	-	Sherwood Pump P18 Series
F	09-1028BT-1	18200K	-	17933-0001	

Silhouette	Impeller Depth	Drive Type	Shaft Diameter	Material	Part Number	Remarks	No of Blades	Impeller Diameter	Insert Material	
A	1 <sup>5</sup> / <sub>32</sub> " (12mm)	2	5/16" (8mm)	Neoprene	12104-0001	Onan (use 6-32x <sup>3</sup> / <sub>8</sub> " Headless Screw)	6	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Brass	
		4	5/16" (8mm)	Neoprene	1414-0001		6	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Brass	
					21414-0001	For Yanmar 1GM10 Engines	6	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Brass	
				Nitrile	1414-0003		6	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Brass	
B	1 <sup>5</sup> / <sub>32</sub> " (12mm)	4	5/16" (8mm)	Neoprene	14750-0001		8	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Brass	
		Nitrile	14750-0003		8	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Brass			
C	1 <sup>5</sup> / <sub>32</sub> " (12mm)	4	5/16" (8mm)	Neoprene	14609-0001		6	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Brass	
					14787-0001	Was SS Insert	6	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Plastic	
				Nitrile	14787-0003	Was SS Insert	6	1 <sup>1</sup> / <sub>4</sub> " (32mm)	Plastic	
CC	2 <sup>1</sup> / <sub>16</sub> " (68mm)	7	5/16" (8mm)	Neoprene	31130-0061	Mercuriser Replacement (HINO)	10	2 <sup>1</sup> / <sub>16</sub> " (66mm)	Brass	
D	3/4" (19mm)	None	n/a	Nitrile	17255-0003	Impeller Molded on Shaft	6	1 <sup>9</sup> / <sub>16</sub> " (40mm)	None	
		1	1 <sup>5</sup> / <sub>32</sub> " (12mm)	Neoprene	22405-0001		6	1 <sup>9</sup> / <sub>16</sub> " (40mm)	Brass	
		1 or 2	3/8" (9.5mm)	Neoprene	4528-0001	Was AL-24	6	1 <sup>9</sup> / <sub>16</sub> " (40mm)	Brass	
				Nitrile	4528-0003	Was AL-24-37	6	1 <sup>9</sup> / <sub>16</sub> " (40mm)	Brass	
F	3/4" (19mm)	4	5/16" (8mm)	Neoprene	9200-0001	Was Brass Insert	10	1 <sup>9</sup> / <sub>16</sub> " (40mm)	Plastic	
					9200-0021	High Pressure	10	1 <sup>9</sup> / <sub>16</sub> " (40mm)	Brass	
				Nitrile	9200-0003	Was Brass Insert	10	1 <sup>9</sup> / <sub>16</sub> " (40mm)	Plastic	
					9200-0023	High Pressure	10	1 <sup>9</sup> / <sub>16</sub> " (40mm)	Brass	
G	7/8" (22mm)	1	1 <sup>5</sup> / <sub>32</sub> " (12mm)	Neoprene	653-0001		6	2" (51mm)	Brass	
		1 or 2	1/2" (12.7mm)	Neoprene	673-0001		6	2" (51mm)	Brass	
				Nitrile	673-0003		6	2" (51mm)	Brass	
		2	5/16" (8mm)	Neoprene	4527-0001	Was B-12	6	2" (51mm)	Plastic	
			Nitrile	4527-0003	Was B-12-37	6	2" (51mm)	Plastic		
		3	1/2" (12.7mm)	Neoprene	22799-0001		6	2" (51mm)	Brass	
		4	5/16" (8mm)	Neoprene	7273-0001		6	2" (51mm)	Plastic	
				Nitrile	7273-0003		6	2" (51mm)	Plastic	
		6	1/2" (12.7mm)	Neoprene	5616-0001	Brass Extended Drive Cup	6	2" (51mm)	Brass	
			Nitrile	5616-0003	Brass Extended Drive Cup	6	2" (51mm)	Brass		
GG	2 <sup>57</sup> / <sub>64</sub> " (74mm)	3	2 <sup>5</sup> / <sub>32</sub> " (20mm)	Neoprene	18958-0001	Sherwood 17000	12	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Brass	
H	7/8" (22mm)	4	5/16" (8mm)	Neoprene	6303-0001	Also 6303-0007	6	2" (51mm)	Plastic	
			Nitrile	6303-0003		6	2" (51mm)	Plastic		
		6	1/2" (12.7mm)	Neoprene	17486-0001	Brass Extended Drive Cup	6	2" (51mm)	Brass	
HH	2" (51mm )	7	5/8" (16mm)	Neoprene	18777-0001	Replaces 22120-0001	10	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass	
I	7/8" (22mm)	1	1 <sup>5</sup> / <sub>32</sub> " (12mm)	Neoprene	18653-0001		10	2" (51mm)	Brass	
		1 or 2	1/2" (12.7mm)	Neoprene	18673-0001		10	2" (51mm)	Brass	
				Nitrile	18673-0003		10	2" (51mm)	Brass	
K	1 <sup>1</sup> / <sub>4</sub> " (31.5mm)	3	5/8" (16mm)	Neoprene	4568-0001	Was C-12	12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass	
				Nitrile	4568-0003	Was C-12-37	12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass	
		5	5/8" (16mm)	Neoprene	14281-0001		12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Plastic	
		6	1/2" (12.7mm)	Neoprene	5929-0001	SS Extended Drive Cup	12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass	
				Nitrile	5929-0003	SS Extended Drive Cup	12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass	
		7	5/8" (16mm)	Neoprene	1210-0001		12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass	
				Nitrile	1210-0003		12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass	
		1 <sup>29</sup> / <sub>32</sub> " (48.4mm)	7	5/8" (16mm)	Neoprene	13554-0001	Johnson 812B	12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass
		2" (51mm )	7	5/8" (16mm)	Neoprene	22120-0001	Replaced by 18777-0001	12	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass
		L	1 <sup>1</sup> / <sub>4</sub> " (31.5mm)	6	5/8" (16mm)	Neoprene	18815-0005		10	2 <sup>1</sup> / <sub>4</sub> " (57mm)
7	1/2" (12.7mm)			Neoprene	3085-0001	SS Extended Drive Cup	10	2 <sup>1</sup> / <sub>4</sub> " (57mm)	Brass	
M	1 <sup>1</sup> / <sub>16</sub> " (36.5mm)	7	5/8" (16mm)	Neoprene	11979-0001		8	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
	2" (51mm)	3	5/8" (16mm)	Neoprene	4598-0001	Was D-12	8	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
				Nitrile	4598-0003	Was D-12-37	8	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
	6	5/8" (16mm)	Nitrile	6056-0003	SS Extended Drive Cup	8	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass		
	7	5/8" (16mm)	Neoprene	920-0001		8	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass		
			Nitrile	920-0003		8	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass		
	3" (76.2 mm)	7	5/8" (16mm)	Neoprene	17018-0001		8	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
O	2 <sup>1</sup> / <sub>2</sub> " (63mm)	7	1" (25.4mm)	Neoprene	836-0001		9	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Brass	
				Nitrile	836-0003		9	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Brass	
	3 <sup>1</sup> / <sub>2</sub> " (88.9mm)	7	1" (25.4mm)	Neoprene	6760-0001		9	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Brass	
				Nitrile	6760-0003		9	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Brass	
Q	2 <sup>1</sup> / <sub>2</sub> " (63mm)	7	1" (25.4mm)	Neoprene	17935-0001		12	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Brass	
	3 <sup>1</sup> / <sub>2</sub> " (88.9mm)	5	1" (25.4mm)	Neoprene	17370-0001		12	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Plastic	
		7	1" (25.4mm)	Neoprene	17936-0001		12	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Brass	
					21676-0001	Use 17936-0001	12	3 <sup>3</sup> / <sub>4</sub> " (95mm)	Brass	
R	3 <sup>1</sup> / <sub>2</sub> " (88.9mm)	5	1" (25.4mm)	Neoprene	18786-0001		9	4 <sup>5</sup> / <sub>8</sub> " (118mm)	Plastic	
		7	1" (25.4mm)	Neoprene	17240-0001		9	4 <sup>5</sup> / <sub>8</sub> " (118mm)	Brass	
					18789-0001		9	4 <sup>5</sup> / <sub>8</sub> " (118mm)	Brass	
U	4" (101.6mm)	7	1 <sup>1</sup> / <sub>2</sub> " (38mm)	Neoprene	2999-0001		13	5" (127mm)	Brass	
W	1 <sup>1</sup> / <sub>4</sub> " (31.5mm)	3	5/8" (16mm)	Neoprene	18838-0001	Sherwood 9959	12	2 <sup>7</sup> / <sub>16</sub> " (62mm)	Brass	
X	1 <sup>5</sup> / <sub>8</sub> " (41.4mm)	3	5/8" (16mm)	Neoprene	18948-0001	Sherwood 10615	12	2 <sup>7</sup> / <sub>16</sub> " (65mm)	Brass	
Y	2" (51mm)	3	5/8" (16mm)	Neoprene	18327-0001	Sherwood 15000	10	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
		4	3/4" (19mm)	Neoprene	17954-0001	Mercuriser Replacement	10	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
		6	5/8" (16mm)	Neoprene	17956-0001	SS Extended Drive Cup	10	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
		7	5/8" (16mm)	Neoprene	17937-0001		10	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
				Nitrile	17937-0003		10	2 <sup>9</sup> / <sub>16</sub> " (65mm)	Brass	
Z	3" (76.2mm)	5	1 <sup>3</sup> / <sub>16</sub> " (20mm)	Neoprene	30919-0001		12	3 <sup>1</sup> / <sub>16</sub> " (77mm)	Brass	









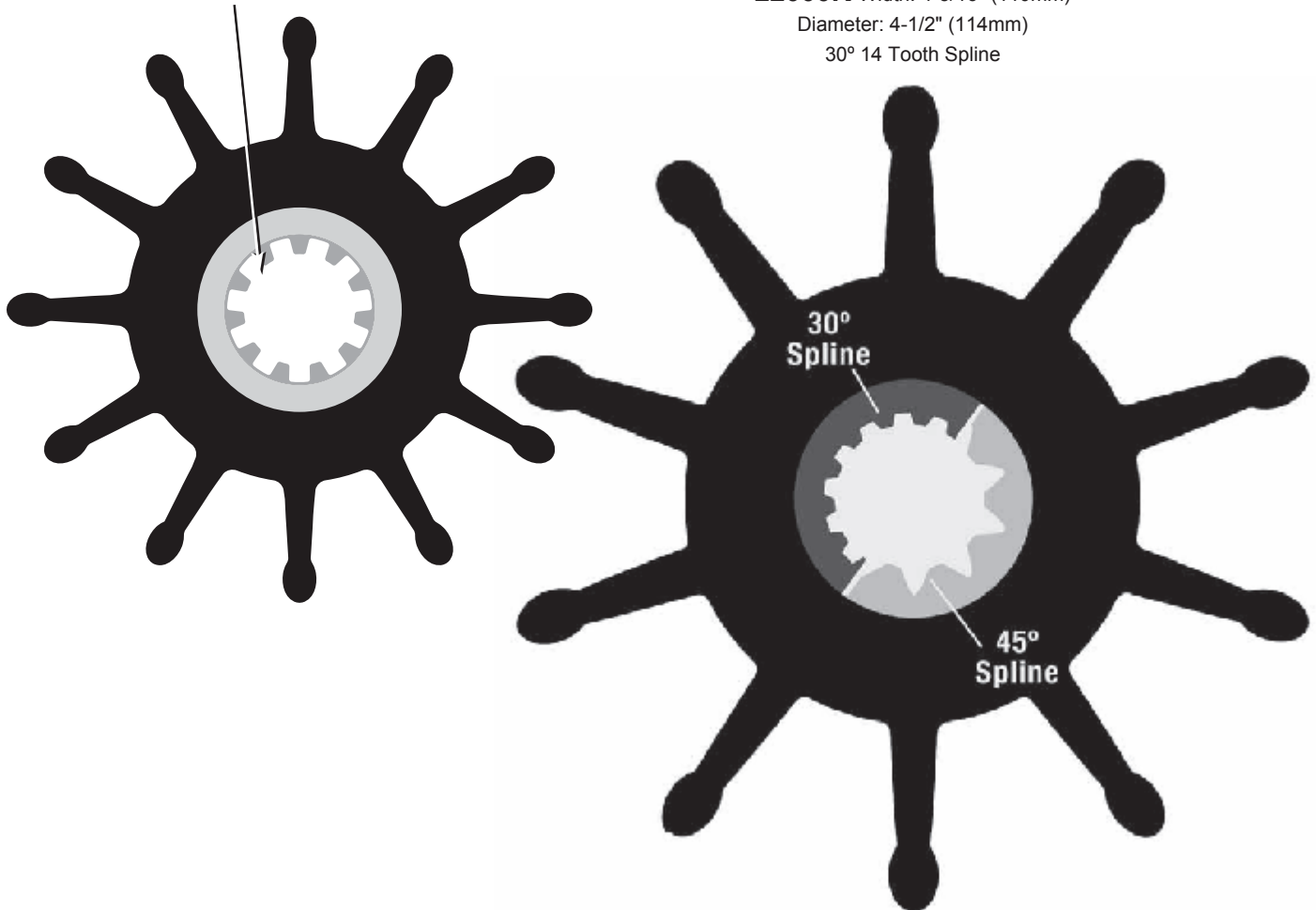


# SHERWOOD®

**27000K** Width: 2-7/8" (73mm)  
Diameter: 3-5/16" (84mm)  
Splined Impeller

**30000K** Width: 4-5/16" (110mm)  
Diameter: 4-1/2" (114mm)  
45° 10 Tooth Spline

**22000K** Width: 4-5/16" (110mm)  
Diameter: 4-1/2" (114mm)  
30° 14 Tooth Spline



## Additional Impellers

Part #	Diameter	Width	Shaft Diameter	Keyway	Number of Vanes
10187	2-19/32" (66mm)	1-31/32" (50mm)	5/8"	3/16"	9
10314	2-1/4" (57mm)	1-1/4" (32mm)	1/2"	1/8"	10

## Vane Impellers

Vane Assembly Number	Vane Description	Number of Vanes Per Set	Vane Pumps
09731	1-1/4"L x 13/16"W x 1/8"H	7 (08888)	K9615G, K9635G, K9740G
09745	1-1/4"L x 13/16"W x 1/8"H	14 (08888)	K9529G, K9820G, L9841G, L9850G, L9870G, L9875G
09924	25/32"L x 11/16"W x 1/8"H	16 (09915)	L9910G, M10080G, N10160G

Impeller vanes were used for raw water pump applications prior to the design of the flexible rubber impeller.  
Vanes are packaged in sets and must be ordered by assembly number.

\* When ordering please place **"SHE"** in front of part number

## Impeller Specifications

**SHERWOOD®****10615K** Width: 1-5/8" (41mm)

Diameter: 2-9/16" (65mm)

**15000K** Width: 2" (51mm)

Diameter: 2-9/16" (65mm)

**09959K** Width: 1-1/4" (32mm)

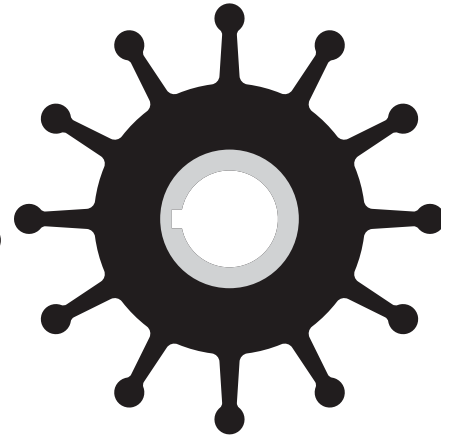
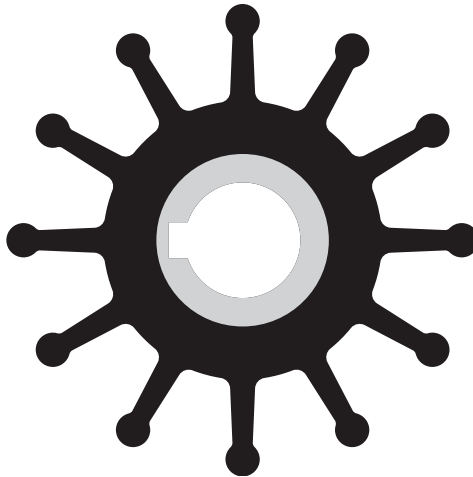
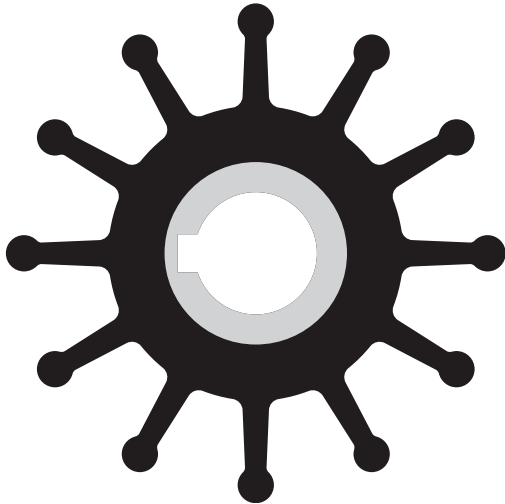
Diameter: 2-7/16" (62.5mm)

**09000K** Width: 7/8" (22mm)

Diameter: 2-7/16" (62.5mm)

**10077K** Width: 25/32" (20mm)

Diameter: 2-1/4" (57mm)

**17000K** Width: 2-7/8" (73mm)

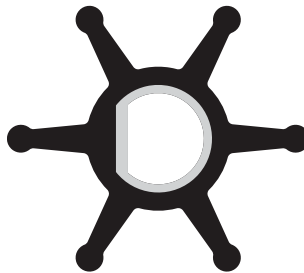
Diameter: 3-5/16" (84mm)

Threaded/Thru-key

Insert

**08000K** Width: 3/4" (19mm)

Diameter: 1-9/16" (40mm)

**29000K** Width: 4" (102mm)

Diameter: 3-3/4" (95mm) 45° 10 Tooth Spline

**18000K** Width: 4" (102mm)

Diameter: 3-3/4" (95mm)

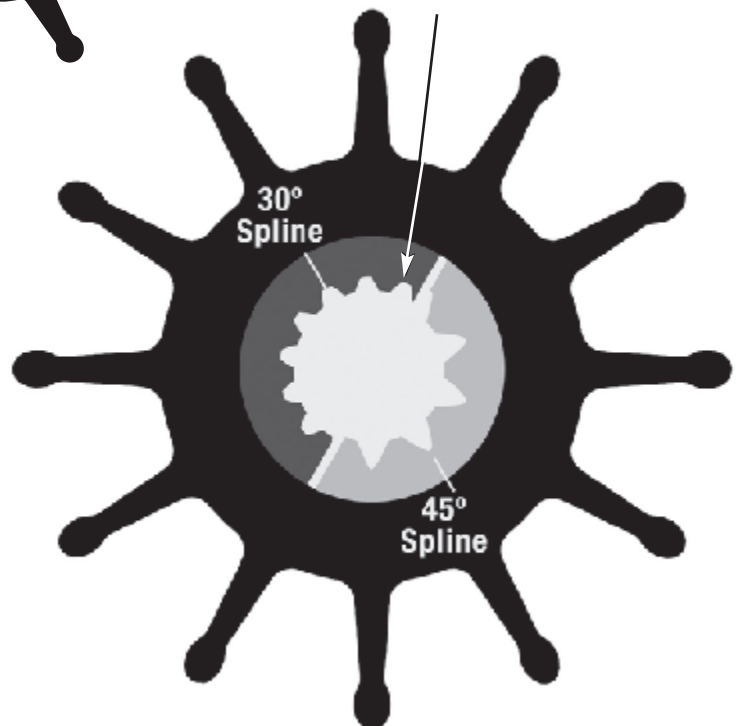
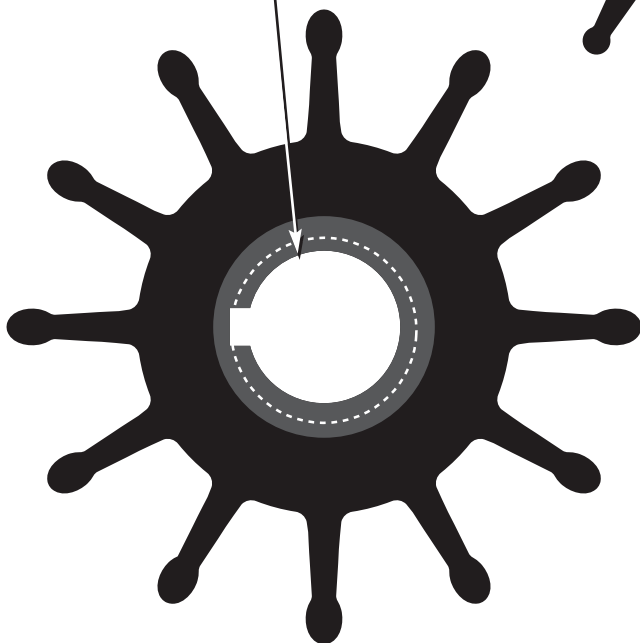
Note: 18000S is an 18000 impeller with a stainless steel insert.

30° 14 Tooth Spline

**26000K** Width: 3-1/8" (80mm)

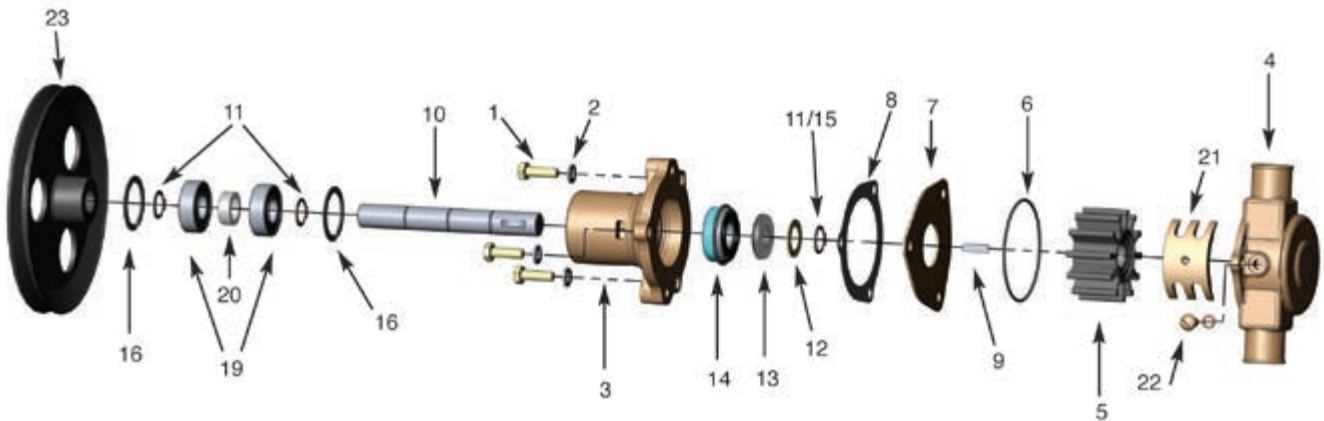
Diameter: 3-3/4" (95mm)

45° 10 Tooth Spline



\* When ordering please place "SHE" in front of part number

09959, 10615 & 15000 G Series Technical Guide



09959 Chart

Sherwood #			G15	G21	G30-2B	G30-2	G9901	G9903	J70	K75B
Engine Manufacturer			Chris Craft		Chris Craft	Chris Craft	Volvo/OMC	Volvo/OMC	Commander	
Engine Model			350		350	350	6&8 Cyl	4 Cyl	302&351	
ITEM		QTY			16.80-18346	16.80-18346	3852398	3855079	CM1-10-610	
1	Screw	3	12857	12857	12857	12857	12857	12857	12857	12857
2	Lockwasher	3	12710	12710	12710	12710	21757	21757	12710	12710
3	Body	1	12324	12328	19784	12328	21153	21759	12328	19948
4	Housing	1	12303	12303	12303	12303	21151	21151	12303	13793
5	Impeller	1	9959	9959	9959	9959	9959	9959	9959	9959
6	O-ring	1	12231	12231	12231	12231	12231	12231	12231	12231
7	End Plate	1	12856	12856	12856	12856	12856	12856	12856	12856
8	Gasket	1	12855	12855	12855	12855	12855	12855	12855	12855
9	Key	1	4432	4432	4432	4432	4432	4432	4432	4432
10	Shaft	1	12233	13363	12612	12612	13363	13363	13274	13363
11	Retaining Ring (Ext)	2/3	4258	4258	4258	4258	4258	4258	4258	4258
12	Washer	1	4264	4264	4264	4264	4264	4264	4264	4264
15	Retaining Ring (Ext)	1	12305							
16	Retaining Ring (Int)	2	4259	4259	4259	4259	4259	4259	4259	4259
17	Pin	1			12791	12791				
18	Key	1	12622						12622	
19	Ball Bearing	2	23448	23448	23448	23448	23448	23448	23448	23448
20	Spacer	1	5133	5133	5133	5133	5133	5133	5133	5133
21	Cam	1	15883	15883	15883	15883	15883	15883	15883	15883
22	Cam Screw	1	10515	10515	10515	10515	10515	10515	10515	10515
23	Drive Pulley or Gear	1	12323	19729			21154	21175	13429	
24	Hub	1			12615	12615				13795
13/14	Water Seal/Seat Assy	1	12859	12859	12859	12859	12859	12859	12859	12859
	Minor Repair Kit		23979	23979	23979	23979	23979	23979	23979	23979
	Major Repair Kit		12665	12665	12665	12665	12665	12665	12665	12665

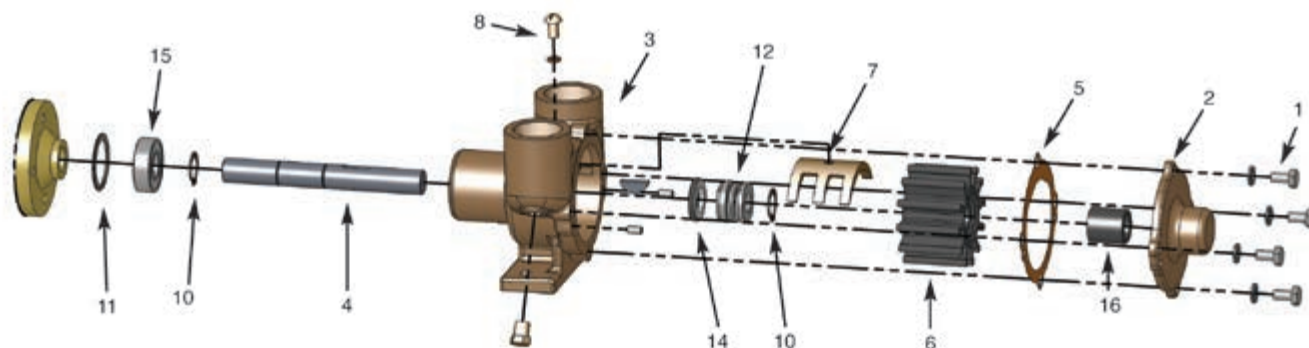
**SHERWOOD®**



**SHERWOOD®**

[illegible][illegible]

# R Series Technical Guide



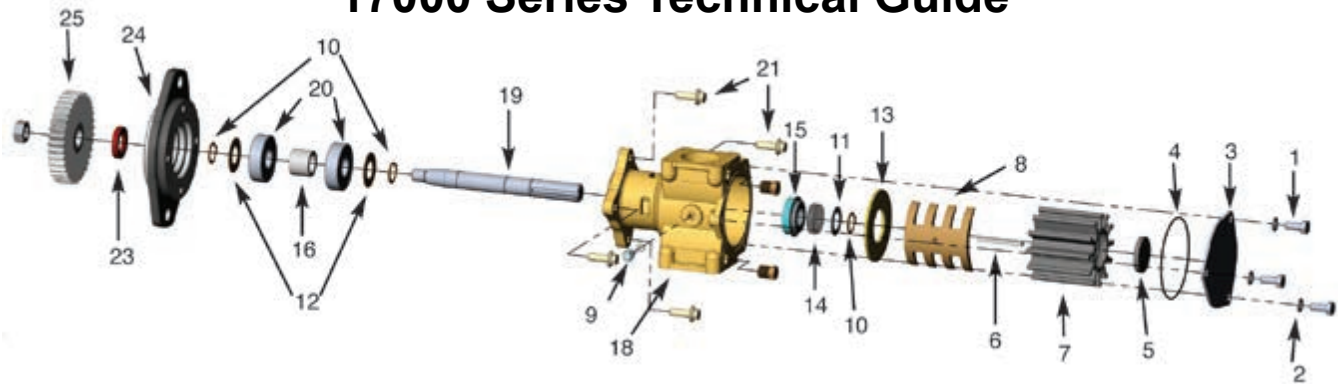
Sherwood #			R30G	R30G-1	R10870G	R50G	R102	E35
Port Size (NPT)			1/2"	1/2"	3/4"	3/4"	1"	1"
Shaft Drive Description			Flat	Keyed	Keyed	Flat	Keyed	Pulley Hub
ITEM		QTY						
1	Screw	4/6	12686	18999	01482	01482	01483	01483
2	Cover Assy	1	10281	10281	10096	10096	10183	10183
3	Body Assy	1	10597	10597	10177	10177	18503	11246
4	Shaft	1	10289	11854	10852	10175	18502	11744
5	Gasket, Cover	1	10286	10286	10103	10103	10931	10931
6	Impeller	1	10077	10077	09959	09959	10615	10615
7	Cam	1	10285	10285	10072	10072	10929	10929
8	Cam Screw	1	10195	10195	09919	09919	10515	10515
9	Bearing/Housing Assy	1	10198	10198	10172	10172		
10	Retaining Ring (Ext)	3	04304	04304	04258	04258	04258	04258
11	Retaining Ring (Int)	1	04303	04303	04259	04259	04259	04259
12	Seal	1	10522	10522	18743	18743	18743	18743
13	Seat	1	11361	11361	10926	10926	10926	10926
14	Seal/Seat Assy	1	11367	11367	10927	10927	10927	10927
15	Ball Bearing	1	04306	04306	04257	04257	04257	04257
16	Bushing	1	02075	02075	06333	06333	06333	06333
17	Gasket, Housing	1	10197	10197	10171	10171		
18	Screws	2	05437	05437	04265	04265		
	Key	1	10093	10093	04432	04432	04432	04432
	Dowel Pin	2	01311	01311	01311	01311	01311	01311
	Plug	1/2	00336	00336	00336	00336	00336	00336
	Hub	1						97176
	Minor Repair Kit		10996	10996	10997	10997	10999	10999
	Major Repair Kit		24025	24025	12937	12937	11068	11068



**SHERWOOD®**



## 17000 Series Technical Guide



Sherwood #		P176	P1710	P1716	P1719	P1722	P1726	P1727	P1730	P1731	P1732	P1733X	P2701X
		P176X	P1710X	P1716X	P1719X	P1722X	P1726X	P1727X	P1730X	P1731-01	P1732X	P1733F-01	P2701-01
		P176-02*	P1710-02*	P1716B-01	P1719-01	P1722B-01		P1727FB	P1730-01	P1731F-02*	P1732-01		
			P1710A**	P1716B-02*	P1719F-01	P1722B-02*		P1727FB-01	P1730-02*		P1732-02		
				P1716A****		P1722A****		P1727A***	P1730F-01		P1732A**		
									P1730F-02*				
									P1730A***				
Item	QTY												
1	Cap Screw	3	18029	19626	19626	19626	19626	19626	19626	19626	19626	19626	19626
2	Lockwasher	3	15944	15944	15944	15944	15944	21573	21573	21573	15944	15944	21573
3	Cover Plate	1	18742	18742	18742	18742	18742	18742	18742	18742	18742	18742	18742
4	O-ring	1	15945	15945	15945	15945	15945	15945	15945	15945	15945	15945	15945
5	Impeller Cap	1	19210	19210	19210	19210	19210	19210	19210	19210	19210	19210	19210
6	Key	1	19667	19667	19667	19667	19667	19667	19667	19667	19667	19667	19667
7	Impeller	1	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	27000
8	Cam	1	18271	18271	18271	18271	18271	18271	18271	18271	21318	18271	18271
9	Cam Screw	1	10515	19714	19714	19714	19714	19714	19714	19714	19714	19714	19714
10	Retaining Ring	2/3	15952	15952	15952	15952	15952	15952	15952	15952	15952	15952	15952
11	Washer	1	15959	15959	15959	15959	15959	15959	15959	15959	15959	15959	15959
12	Washer	2	19614	19614	19614	19614	19614	19614	19614	19614	19614	19614	19614
13	Wear Plate	1	18441	18441	18441	18441	18441	18441	18441	18441	18441	18441	24162
14/15	Water Seal Assy	1	15955	15955	15955	15955	15955	15955	15955	15955	23799	15955	23799
16	Spacer	1	15940	19707	19615	19615	19707	19615	19615	19615	19707	24014	24150
17	Retaining Ring	1	15942	15942			15942				15942		
18	Housing	1	19015	19683	19630	24409	19630	24161	24176	24176	24161	24409	24176
19	Shaft	1	19620		19345							24015	
19	Shaft/Brg Assy	1		24469	24470		24470	24469	24470	24470	24469		24306
20	Ball Bearing	2	15951		15951							15951	
21	Adaptor Bolts	4		19708	19708	19708	19708	19708	19708	19708	19708	19708	19708
23	Oil Lip Seal	1		21776	19674	19674	19674	21776	19674	19674	19674	21776	24017
24	Adaptor	1		19699	19727	19700	19955	19699	21205	21985	19699	24016	
	Gear Assy/Hub	1			19885		19885		19885	22495			24144
	Cam Screw O-ring	1		19712	19712	19712	19712	19712	19712	19712	19712	19712	19712
	Gear Nut	1			19730		19730		19730	19730	19730		
	Adaptor Gasket	1			21570		21570		21570	21570			
	Port O-rings	2						21525	21525	21525	21525	21525	21525
	Port Bolts	8							21484	21484	21484	21484	21484
	Minor Repair Kit		23973	23973	23972	23972	23972	23972	23972	23972	23972	23972	24580
	Major Repair Kit		23975	23975	23974	23974	23974	23974	23974	23974	23974	23974	24581

\* Denotes pump uses 23799 seal

\*\* Denotes pump uses 23799 seal, 24162 wearplate, 24150 spacer, 24161 housing, 24576 minor kit, and 24577 major repair kit

\*\*\* Denotes pump uses 23799 seal, 24162 wearplate, 24222 spacer, 24250 lip seal, 24576 minor kit, and 24579 major repair kit

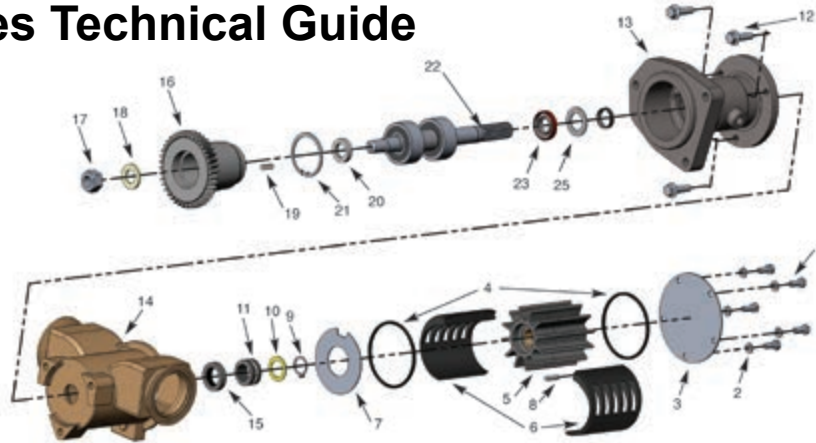
\*\*\*\* Denotes pump uses 23799 seal, 24222 spacer, 24250 lip seal, 24576 minor kit, and 24579 major repair kit



# SHERWOOD®



# 18000 Series Technical Guide



Vaness flipped to the left  
(viewed from cover).

## Models:

G1808, G18081-01,  
G18082, G18082X,  
G1810, G1810-01,  
G1814-01, G1814X,  
G1811-01 and G1816-01

**SHERWOOD**



Vaness flipped to the right  
(viewed from cover).

## Models:

G1801, G1804, G1805,  
G1806, G18061-01, G1807,  
G18071-01 and G1815-01

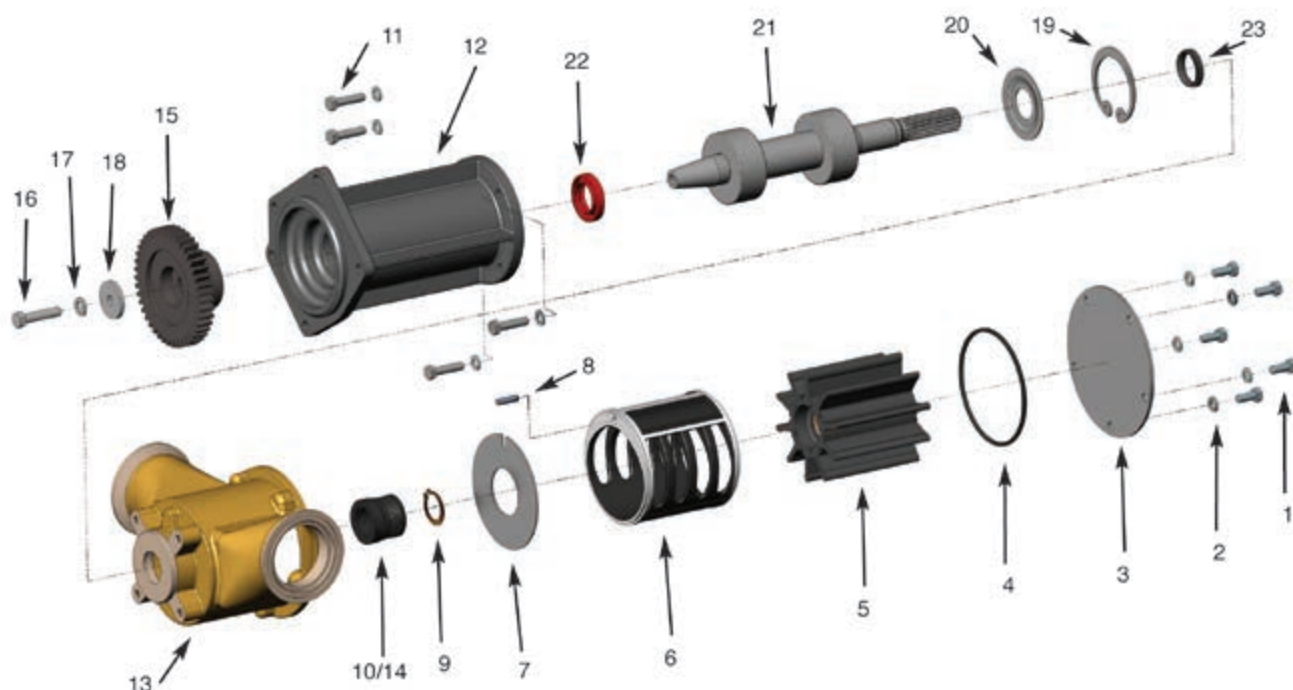
Sherwood #		G1801	G1804	G1805	G1806	G18061-01	G1807	G18071-01	G1808	G18081-01
Item	QTY									
1	Cap Screw	5	19626	19626	19626	19626	19626	19626	19626	19626
2	Lockwasher	5	15944	15944	15944	15944	15944	15944	15944	15944
3	Cover Plate	1	19837	19837	19837	19837	19837	19837	19837	19837
4	Quad Rings	2	19879	21561	21561	21561	21561	21561	21561	21561
5	Impeller	1	18000	18000	18000	18000	18000	18000	18000	18000
6	Cam Liner Halves	2	19829	21533	21106	21533	21533	21106	21533	21533
7	Wear Plate	1	19836	19836	19836	19836	19836	19836	19836	19836
8	Pin	1		21566	21566	21566	21566	21566	21566	21566
9	Retaining Ring	2	19762	19762	19762	19762	19762	19762	19762	19762
10	Washer	1	19866	19866	19866	19866	19866	19866	19866	19866
11/15	Mechanical Seal Assy	1	19878	19878	19878	19878	23837	19878	23837	23837
12	Bolt	3	21172	21172	21172	21172	21172	21172	21172	21172
13	Body	1	19827	21476	21920	21986	21986	21827	21827	22412
14	Housing	1	19828	21565	21829	21829	21829	21829	22762	22762
16	Gear	1							22789	22789
17	Nut	1							22790	22790
18	Washer	1							22788	22788
19	Key	1							22791	22791
20	Gear Spacer	1							22779	22779
21	Retaining Ring	1	19867	19867	19867	19867	19867	19867	19867	19867
22	Bearing and Shaft Assy	1	24000	24001	24000	24001	24001	24001	24002	24002
23	Lip Seal	1	19869	19869	19869	19869	19869	19869	23045	23045
24	Bearing Shield	1								
25	Washer	1	19835	19835	19835	19835	19835	19835	19835	19835
	Minor Repair Kit			24004	24023	24004	24004	24023	24023	24004
	Major Repair Kit			24006	24024	24006	24006	24024	24007	24007

**SHERWOOD**

Sherwood #		G18082-01	G18082X	G1810	G1810-01	G1810X	G1811-01	G1814-01	G1814X	G1815-01	G1816-01
Item	QTY										
1	Cap Screw	5	19626	19626	19626	19626	19626	19626	19626	19626	19626
2	Lockwasher	5	15944	15944	15944	15944	15944	15944	15944	15944	15944
3	Cover Plate	1	19837	19837	19837	19837	19837	19837	19837	19837	19837
4	Quad Rings	2	21561	21561	21561	21561	21561	21561	21561	21561	21561
5	Impeller	1	18000	18000	18000	18000	18000	18000	18000	18000	18000
6	Cam Liner Halves	2	21533	21533	21106	21106	21106	21106	21106	21533	21533
7	Wear Plate	1	19836	19836	19836	19836	19836	19836	19836	19836	19836
8	Pin	1	21566	21566	21566	21566	21566	21566	21566	21566	21566
9	Retaining Ring	2	19762	19762	19762	19762	19762	19762	19762	19762	19762
10	Washer	1	19866	19866	19866	19866	19866	19866	19866	19866	19866
11/15	Mechanical Seal Assy	1	23837	23837	23512	23512	23512	24511	24511	23512	23512
12	Bolt	3	21172	21172	23296	23296	23296	23296	23296	23296	23296
13	Body	1	23916	23916	23396	23396	23396	24174	23396	23396	24174
14	Housing	1	22762	22762	23523	23523	23523	23523	23523	23523	23523
16	Gear	1	22789	22789							
17	Nut	1	22790	22790							
18	Washer	1	22788	22788							
19	Key	1	22791	22791							
20	Gear Spacer	1	23926	23926							
21	Retaining Ring	1	19867	19867	19867	19867	19867	19867	19867	19867	19867
22	Bearing and Shaft Assy	1	24463	24463	24003	24003	24003	24003	24003	24003	24003
23	Lip Seal	1	23045	23045	23045	23045	23045	23045	23045	19869	23045
24	Bearing Shield	1	23425	23425	23425	23425	23425	23425	23425	23425	23425
25	Washer	1									
	Minor Repair Kit		24004	24004	24005	24005	24005			24753	24760
	Major Repair Kit		24007	24007	24008	24008	24008	24655	24655	24754	24761

\* When using these Shaft and Bearing Assemblies, replace the seal with the silicon carbide mechanical seal 23837 only. Use of the 19878 mechanical seal with these Shaft and Bearing Assemblies may cause pump damage.

## 22000 Series Technical Guide

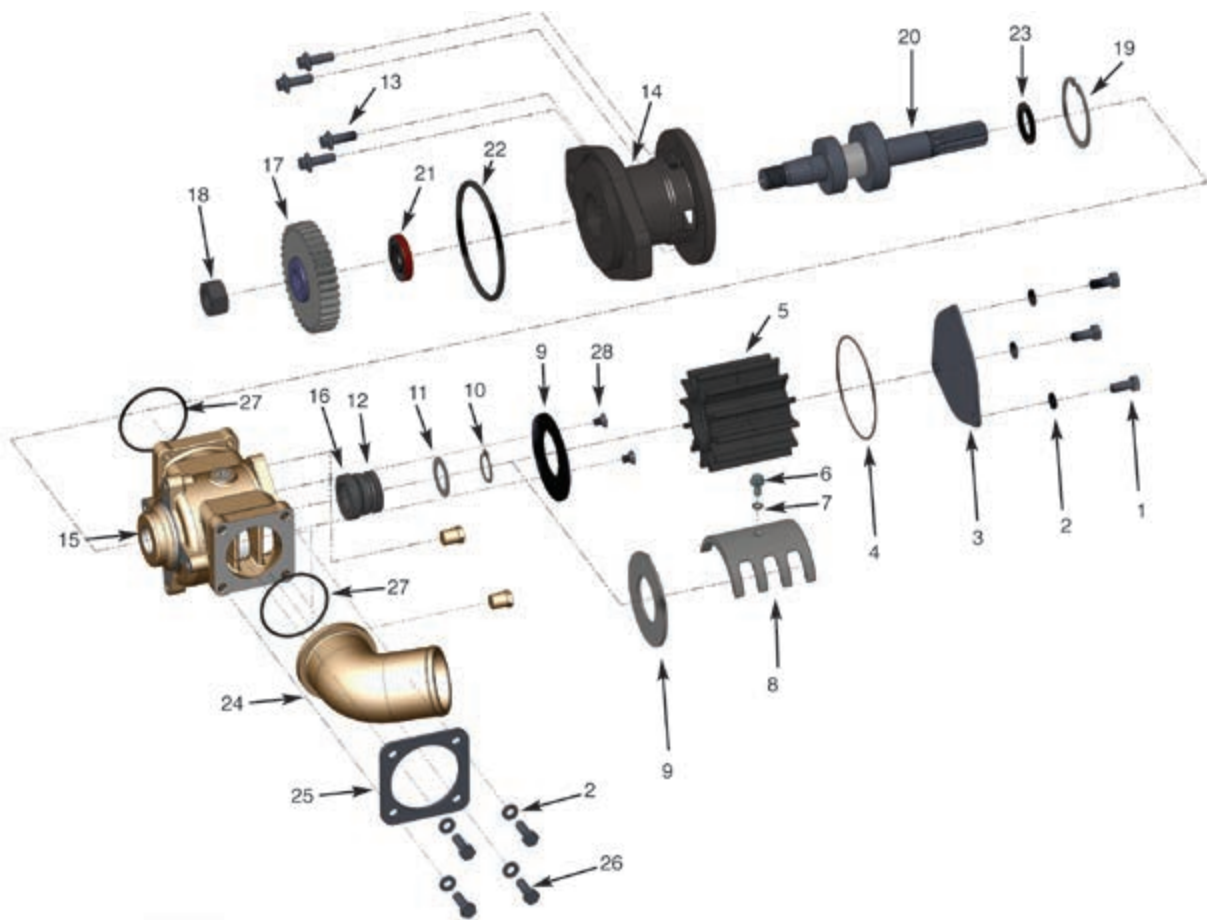


	Sherwood #		G2201	G22011-01	G22012-01	G22012X
Item	QTY					
1	Cap Screw	5	19626	19626	19626	19626
2	Lockwasher	9	15944	15944	15944	15944
3	Cover Plate	1	23113	23113	23113	23113
4	Quad Ring	1	23111	23111	23111	23111
5	Impeller	1	22000	22000	22000	22000
6	Cam	1	24160	24160	24160	24160
7	Wear Plate	1	23112	23112	23112	23112
8	Pin	1	21566	21566	21566	21566
9	Retaining Ring	1	23115	23115	23115	23115
10/14	Mechanical Seal Assy.	1	23087	23906	23906	23906
11	Bolt	4	23211	23211	23211	23211
12	Body	1	23056	23056	23919	23919
13	Housing	1	23057	24229	24159	24159
15	Gear	1	23181	23181	23181	23181
16	Bolt	1	23194	23194	23194	23194
17	Lockwasher	1	23196	23196	23196	23196
18	Thrust Washer	1	23195	23195	23195	23195
19	Retaining Ring	1	23091	23091	23091	23091
20	Bearing Shield	1			23922	23922
21	Bearing and Shaft Assy.	1	24464	24464	24465	24465
22	Lip Seal	1	23088	23088	23088	23088
23	Slinger	1			23924	23924
	Minor Repair Kit		24870	24870	24870	24870
	Major Repair Kit		24872	24872	24872	24872

**SHERWOOD®**



# 26000 Series Technical Guide



**SHERWOOD®**

	Sherwood #		G2601-01	G2601-02	G2601-03	G2601X	G2602-01
Item		QTY					
1	Cap Screw	3	19626	19626	19626	19626	19626
2	Lockwasher	3/7	21573	21573	21573	21573	21573
3	Cover Plate	1	24074	24074	24074	24074	24074
4	O-Ring	1	19879	19879	19879	19879	19879
5	Impeller	1	26000	26000	26000	26000	26000
6	Cam Screw	1	19714	19714	19714	19714	19714
7	O-Ring	1	19712	19712	19712	19712	19712
8	Cam	1	24075	24075	24075	24075	24075
9	Wear Plate	1	24073	24073	24073	24073	24073
10	Retaining Ring	1	19762	19762	19762	19762	19762
11	Washer	1	19866	19866	19866	19866	19866
12/16	Mechanical Seal Assy	1	23837	23837	23837	23837	23837
13	Bolt	4	19708	19708	19708	19708	19708
14	Body	1	24102	24102	24102	24102	24102
15	Housing	1	24072	24072	24072	24072	24072
17	Gear	1	24083	24083		24083	24083
18	Nut	1	24084	24084	24084	24084	24084
19	Retaining Ring	1	19867	19867	19867	19867	19867
20	Shaft & Bearing Assy	1	24223	24223	24223	24223	24223
21	Lip Seal	1	19869	19869	19869	19869	19869
22	O-Ring	1	1720-0212	1720-0212	1720-0212	1720-0212	1720-0212
23	Slinger	1	24079	24079	24079	24079	24079
24	Port Elbow	1	24076				24132
25	Bracket	1	24081				24081
26	Cap Screw	4	21484				21484
27	O-Ring	2	24052				24052
28	Screw	2					
	Minor Repair Kit		24227	24227	24227	24227	24227
	Major Repair Kit		24840	24840	24840	24840	24840



## 26000 Series Technical Guide (continued)

**SHERWOOD®**

Sherwood #			G2603-01	G2603-02	G2603-03	G2603X	G2604-01	G2605-01
Item		QTY						
1	Cap Screw	3	19626	19626	19626	19626	19626	19626
2	Lockwasher	3/7	21573	21573	21573	21573	21573	21573
3	Cover Plate	1	24074	24074	24074	24074	24074	24074
4	O-Ring	1	19879	19879	19879	19879	19879	19879
5	Impeller	1	26000	26000	26000	26000	26000	26000
6	Cam Screw	1	19714	19714	19714	19714	19714	19714
7	O-Ring	1	19712	19712	19712	19712	19712	19712
8	Cam	1						
9	Wear Plate	1	24790	24790	24790	24790	24790	24790
10	Retaining Ring	1	19762	19762	19762	19762	19762	19762
11	Washer	1	19866	19866	19866	19866	19866	19866
12/16	Mechanical Seal Assy	1	23837	23837	23837	23837	23837	23837
13	Bolt	4	19708	19708	19708	19708	19708	19708
14	Body	1	24102	24102	24102	24102	24102	24102
15	Housing	1	24789	24789	24789	24789	24789	24789
17	Gear	1	24083	24083			24083	24083
18	Nut	1	24084	24084		24084	24084	24084
19	Retaining Ring	1	19867	19867	19867	19867	19867	19867
20	Shaft & Bearing Assy	1	24223	24223	24223	24223	24223	24223
21	Lip Seal	1	19869	19869	19869	19869	19869	19869
22	O-Ring	1	1720-0212	1720-0212	1720-0212	1720-0212	1720-0212	1720-0212
23	Slinger	1	24079	24079	24079	24079	24079	24079
24	Port Elbow	1	24076				24132	24630
25	Bracket	1	24081		24081		24081	24081
26	Cap Screw	4	21484		21484		21484	21484
27	O-Ring	2	24052	24052	24052		24052	24052
28	Screw	2	24840	24840	24840	24840	24840	24840
	Minor Repair Kit		24841	24841	24841	24841	24841	24841
	Major Repair Kit		24842	24842	24842	24842	24842	24842

**SHERWOOD®**

## Elbows for Caterpillar &amp; Cummins Pumps

Pump Series	Part Number	Size	Angle	Bracket	Bolt
17000/27000	19236	2"	90° Swivel	21373	21484
17000/27001	21524	1.75"	Straight		19626
17000/27002	21987	1.75"	90°		19626
17000/27003	21988	2"	45° Swivel	21373	21484
17000/27004	24012	2"	45° S-Shaped Swivel	21373	21484
G1805-G1807	21830	2.5"	90°		21484
G1805-G1807	21844	2"	30°		21484
G1810-G1814	23524	2.5"	90°		21484
G1810-G1814	23525	2"	90° S-Shaped		21484
G1810-G1814	24172	2.5"	90°		21484
G1810-G1814	24173	2"	90°		21484
G1810-G1815	24744	2.5"	90° S-Shaped		21484
26000	24076	2.5"	60° Swivel	24081	21484
26000	24132	2.5"	90° Swivel	24081	21484
26000	24630	2.5"	Straight	24081	21484

Pump Codes:  
 "S" - Sherwood pump, available from JMS, "P" - Proprietary Pump, OEM purchase only, "O" - Obsolete Pump, no longer available

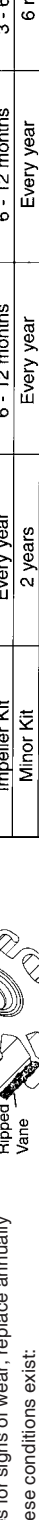
Engine Model	Engine Number	Sherwood Number	Impeller Kit	Minor Kit	Major Kit	Pump Code	New Pump	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam	Gasket & O-Ring	Bushing	Retaining Ring
CAT	3208	9Y1304	P171	17000K	23973	23975	P176X	15955	(2) 15951	16045	18271	15945		(3) 15952/15942(1)
	3208	7E4115	P176-02	17000K	23973	23975	P176X	23799	(2) 15951	19620	18271	15945		(3) 15952/15942(1)
	3116	7E3268	P172	17000K	23973	23975	P1710A	15955/15950	(2) 15951	19620	18693	15945		(3) 15952/15942(1)
	3116	4P7168	P1710-02	17000K	23973	23975	P1710A	23799/21776	24469 *		18271	15945		(3) 15952/15942(1)
	3116		P1710A	17000K	23973	23975		23799/21776	24469 *		18271	15945		(2) 15952/15942(1)
	3126	113-1109	P1726	17000K	23973	23975	P1732A	15955/21776	24469 *		21318	15945		(3) 15952/15942(1)
	3126	152-8392	P1726TC-02	17000K	23973	23975	P1726TCX	23799/21776	24469 *		22821	15945		(3) 15952/15942(1)
	3126	170-6116	P1732-02	17000K	23973	23975	P1732A	23799/21776	24469 *		21318	15945		(3) 15952/15942(1)
	3126		P1732A	17000K	23973	23975		23799/21776	24469 *		21318	15945		(2) 15952/15942(1)
	3176	100-6441	G1801	18000K	21351	21352	G1805	19878/19869	24000 *		19829	19879		(2) 19762/19867(1)
	3176	123-0500	G1805	18000K	24023	24024		19878/19869	24000 *		(2) 21106	(2) 21561		(2) 19762/19867(1)
	3196	123-0471	G1807	18000K	24023	24024	G18071X	19878/19869	24001 *		(2) 21106	(2) 21561		(2) 19762/19867(1)
	3196		G18071-01	18000K	24023	24024	G18071X	23837/19869	24001 *		(2) 21106	(2) 21561		(2) 19762/19867(1)
	3197		G18071X	18000K	24023	24024		23837/19869	24001 *		(2) 21533	(2) 21561		(2) 19762/19867(1)
	3406	112-6177	G1804	18000K	24004	24006	G1806	19878/19869	24001 *		(2) 21533	(2) 21561		(2) 19762/19867(1)
3406C	130-1160	G1806		18000K	24004	24006		19878/19869	24001 *		(2) 21533	(2) 21561		(2) 19762/19867(1)
3406C		G18061-01		18000K	24004	24006		23837/19869	24001 *		(2) 21533	(2) 21561		(2) 19762/19867(1)
3406E	131-8272	G1808		18000K	24004	24007		19878/23045	24002 *		(2) 21533	(2) 21561		(2) 19762/19867(1)
3406E		G18081-01		18000K	24004	24007		23837/23045	24002 *		(2) 21533	(2) 21561		(2) 19762/19867(1)
C18		G18082-01		18000K	24004	24007	G18082X	23837/23045	24002 *		(2) 21533	(2) 21561		(2) 19762/19867(1)
C18		G18082X		18000K	24004	24007		23837/23045	24002 *		(2) 21533	(2) 21561		(2) 19762/19867(1)
3412	147-7850	G2201-01		22000K	24870	24872		23087/23088	(2)23089	23058	22453	23111		1810-0012/23091/23115
3412		G22011-01		22000K	24870	24872		23906/23088	24464 *		24160	23111		1810-0012/23091/23115
C32		G22012-01		22000K	24870	24872	G22012X	23906/23088	24464 *		24160	23111		1810-0012/23091/23115
C32		G22012X		22000K	24870	24872		23906/23088	24464 *		24160	23111		1810-0012/23091/23115
CHRIS CRAFT	A	A16		09959K		*	*	10927	4257	11149	10072	10103	6333	(2) 4258/4259 (1)
	B	M10261G		10077K	*	*	*	10546	4306	*	10285	10286	2075	4304
	K	G8451		*	*	*	M10262G	10522	4306	5247	*	(4) 5248	17891/5747	
	K	M10262G		*	*	*		10546	4306	10312	*	10286	2075	4304
	M	M10263G		09959K	10685	12246	*	10545	4306	*	10072	10103	6333	4258
	W	M10264G		09959K	10685	*	*	10545	4257	10276	10072	10103	6333	4258
283	16.80-10009	M10095G		(2) 10077K	10244	*	O	10546	4306	10078	*	9917/9918	2075	4304
283	16.80-10003	N10360GX		(2) 10077K	10244	12301	N10360GX	10546	4306	10078	10134	9917/9918	2075	4304
283M		L9980G						10546	4306	*		*	2075/5747	4304
283F	16.80-27555	Q10780G		10557				10545	19988			10575	6333/*	4258
283F	16.80-27554	Q10825CC		10635		12249	S11095G	10545	14055			10575		10574
283F	16.80-18340	Q10830C		10635		12249	*	10577	14055			10931	6333	(2) 4258/4259 (1)
307-327Q	16.80-18342	D05		10615K	11430			10927	(2) 4257	11429	10944	10931		10574
307-327Q	16.80-28342	D10C		10635				10577	14055			15945		10574
307-327Q	16.80-28341	D15CC		10557				10577	14055	*		15945		10574
327F		Q10780G					S11095G	10545	19988	*		*	6333/*	(2) 4258

Engine Model	Engine Number	Sherwood Number	Impeller Kit	Minor Kit	Major Kit	Pump Code	New Pump	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam	Gasket & O-Ring	Bushing	Retaining Ring	
CHRIS CRAFT Cont.	327F	S11095G	10615K			S	*	10545	19988	14212	10944	10971	6333	(2) 4258/8781 (1)	
	327F	Q10825CC	10635			O	*	10577	14055			10575		10574	
	327F	Q10830C	10557			O	*	10577	14055			10575		10574	
	16.80-10010	S11095G	10615K	11102	12308	S	*	10545	19988	14212	10944	10971	6333	(2) 4258/8781 (1)	
	16.80-07808	S11110C	10635			O	*	10577	14055					10574	
	16.80-11007	S11115CC	10557			O	*	10577	14055					10574	
	430	N10200G	(2)10077			O	N10360GX	10546	4306	10078	10134	9917	2075	4304	
	430	N10370G	(2)10077			O	N10360GX	10546	4306	10078	10134	9917	2075	4304	
	430	N10360GX	(2)10077	10244	12301	S		10546	4306	10078	10134	9917/9918	2075	4304	
	16.80-10003	G15	09959K	23979	12665	S		12859	(2) 23448	12233	15883	12231/12855	6333	12305/(2),4258/4259(2)	
	16.80-18346	G30-2	09959K	23979	12665	S		12859	(2) 23448	12612	15883	12231/12855	6333	(3) 4258/4259 (2)	
	16.80-18346	G30-2B	09959K	23979	12665	S		12859	(2) 23448	12612	15883	12231/12855	6333	(3) 4258/4259 (2)	
	16.80-18347	G45-1	10615K	23976	23977	S		12859	(2) 23448	12612	10944	12231/12855	6333	(3) 4258/4259 (2)	
	CHRYSLER	4142878	G7	10615K	23976	23977	S		12859	(2) 23448	13363	10929	12231/12855		(3) 4258/4259 (2)
		4142878	G7B	10615K	23976	23977	S		12859	(2) 23448	13363	10929	12231/12855		(3) 4258/4259 (2)
2659553		A03	09959K	11145	12792	O	*	10545	4257	*	10072	*	6333	4258/4259	
E-8542-M		M225X	(2) 09959K	12818	12933	O	D75	10545	19988	10501	(2) 15883	(2) 10609	6333	4258/8781	
2847632		D75	(2) 09959K	10656	12793	S		10927	4257	11459	(2) 15883	(2) 10609	6333	(3) 4258/4259 (1)	
E-9327-M		R10935G	(2) 09959K	12818	12814	O	D60	10545	19988	10501	(2) 15883	(2) 10609	6333	4258	
2847630		D60	(2) 09959K	10656	12300	S		10927	4257	11459	(2) 15883	(2) 10609	6333	(3) 4258/4259 (1)	
E-7584-M		N10390G	(2) 09959K	12818	12814	O	D60	10545	19988	10501	(2) 15883	(2) 10609	6333	4258/8781	
2847631		D65	(2) 09959K	10656	12300	O	D60	10927	4257	11459	(2) 15883	(2) 10609	6333	(3) 4258/4259 (1)	
E-7592-M		P10550G	09959/10615K	12816	12816	O	D55	10545	19988	10617	15883/10944	10609/10612	6333	4258/8781	
2847629		D55	09959/10615K	10922	12299	S		10927	4257	11460	15883/10944	10609/10612	6333	(3) 4258/4259 (1)	
2846428		C-03	10615K	10999	11068	O	G7B	10927	4257	*	10944	10612	6333	(2) 4258/4259	
3675763		G5	10615K	23976	23977	O	G7B	12859	(2) 23448	12233	10944	12231/12855	6333	(2) 4258/4259 (2)	
3745511		G5-1	10615K	23976	23977	O	G7B	12859	(2) 23448	12233	10929	12231/12855	6333	(2) 4258/4259 (2)	
3619030		F10	10615K	10999	11068	O	G50	10927	4257	*	10944	10612	6333	(3) 4258/4259	
3619212	G50	10615K	23976	23977	S		12859	(2) 23448	12233	10944	12231/12855		(3)4258/4259,12305(2)		
COMMANDER	302 and 351	J70	09959K	23979	12665	S		12859	(2) 23448	13274	15883	12231/12855		(3) 4258/4259 (2)	
	302 and 351	L80	10615K	23976	23977	S		12859	(2) 23448	13274	10944	12231/12855		(3) 4258/4259 (2)	
CRUSADER	220,270,300,350	E35	10615K	10999	11068	S		10927	4257	11744	10944	10931	6333	(2) 4258/4259 (1)	
	Chevy RH	Q10785G	10187		12819	O	*	10758	4257	10748	10094	10752	6333	(2) 4258/4259	
	Chevy RH	S11090G	10187		12819	O	*	10758	4257	10748	10094	10752	6333	(2) 4258/4259	
	Interceptor	M10210G	09959K	10685	12252	O	P10700G	10545	4257	10256	10072	10103	6333	4258/4259	
	Interceptor	N10410G	09959K	10685	12252	O	P10700G	10545	4257	10256	10072	10103	6333	4258/4259	
	Interceptor	P10700G	09959K	10685	12252	S		10545	4257	10256	10072	10103	6333	4258/4259	
	Interceptor	F15	09959K	10999	11068	O	R50G	10927	4257	10852	10072	10103	6333	(3) 4258/4259	
	220,270,300,350	S11040G	10615K	10999	11068	O	E35	10927	4257	10948	10944	10931	6333	4258/4259	
	220,270,300,350	B04	10615K	10999	11068	O	E35	10927	4257	11744	10944	10931	6333	4258/4259	
	220,270,300,350	P102	10615K	19355	19354	S		18652	8490	19308	10944	12231	6333		
	220,270,300,350	R101	10615K	18654	18653	P		10927	4257	18466	10944	12231	6333		
	220,270,300,350	P101	10615K	19301	19300	P	*	12859	(2) 23448	19293	10944	19251	6333	(3) 4258/4259 (1)	
	220,270,300,350	H10	09959K	23979	12665	O		12859	(2) 23448	12596	15883	12231/12855		(2) 4258/4259 (2)	



Engine Model	Engine Number	Sherwood Number	Impeller Kit	Minor Kit	Major Kit	Pump Code	New Pump	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam	Gasket & O-Ring	Bushing	Retaining Ring	
CUMMINS	3912019	M71	10615K	23976	23977	S		12859/10514	(2) 23448	14159	10944	12231/12855		4258/14161/4259 (2)	
	3912962	GC1	15000K	23980	23981	S		12859/10514	(2) 23448	21069	18398	12231/12855		4258/14161/4259 (2)	
	3920298	GC4	15000K	23980	23981	S		12859/10514	(2) 23448	21069	18398	12231/12855		4258/14161/4259 (2)	
	3927684	GC5	15000K	23980	23981	S		12859/10514	(2) 23448	19843	18398	12231/12855		(2) 4258/4259	
	3349340	G1503-01	15000K	23980	23256	P		12859/12966	(2) 23448	23228				(2) 4258/4259 (1)	
		G1503-03	15000K			P		24054/12966	(2) 23449	23228				(2) 4258/4259 (1)	
	3919899	P1712	17000K	23972	23974	O	P1716A	15955/19674	(2) 15951	16046	18271	15945		(3) 15952/15942(1)	
	3922590	P1716B-01	17000K	23972	23974	P	P1716A	15955/19674	24470 *		18271	21570/15945		(3) 15952	
		P1716A	17000K	23972	23974			23799/24250	24470 *		18271	21570/15945		(3) 15952	
	3912139	P173	17000K	23972	23974	O	P1722A	15955/19674	(2) 15951	16046	18271	15945		(3) 15952/15942(1)	
	3922589	P1722B-01	17000K	23972	23974	P	P1722A	15955/19674	24470 *		18271	21570/15945		(3) 15952	
		P1722A	17000K	23972	23974			23799/24250	24471 *		18271	21570/15945		(3) 15952	
	3897194	P1727FB-01	17000K	23972	23974	P	P1727A	15955/19674	24472 *		18271	21570/15945		(3) 15952	
		P1727A	17000K	23972	23974	S		23799/24250	24473 *		18271	21570/15945		(3) 15952	
	3866493	P1730F-01	17000K	23972	23974	P	P1730A	15955/19674	24474 *		18271	21570/15945		(3) 15952	
		P1730-02	17000K	23972	23974	P	P1730A	15955/19674	24475 *		18271	21570/15945		(3) 15952	
		P1730A	17000K	23972	23974	S		23799/24250	24476 *		18271	21570/15945		(3) 15952	
	4003526	P1731F-01	17000K	23972	23974	P	P1730A	15955/19674	24477 *		18271	21570/15945		(3) 15952	
	3349392	G1810	18000K	24005	24008	O	G1810X	23512/23045	24003 *		(2) 21106		1720-0212/1720-0213		(2) 19762/19867(1)
		G1810-01	18000K	24005	24008	P	G1810X	23512/23045	24003 *				1720-0212/1720-0213		(2) 19762/19867(1)
	G1814-01	18000K	24655	24658	P	G1814X	24511/23045	24003 *				1720-0212/1720-0213		(2) 19762/19867(1)	
JOHN DEERE		G1814X	18000K	24655		S		24511/23045	24003 *			15945		(2) 19592/15942(1)	
		P2701-01	27000K	24581	24581	P	P2701X	23799	24306 *			15945		(2) 19592/15942(1)	
		P2701X	27000K	24581	24581	S		23799	24306 *			15945		(2) 19592/15942(1)	
		G2601-01	26000K	24227	24228	P	P2601X	23837/19869	24223 *			19879		(2) 19762/19867(1)	
		G2601X	26000K	24227	24228	S		23837/19869	24223 *			19879		(2) 19762/19867(1)	
	RE45458	P1711	17000K	23972	23974	O	P1719	15955/19674	(2) 15951	19345	18271	15945		(3) 15952	
	RE45459	P1719-01	17000K	23972	23974	P	P1719X	15955/19674	(2) 15951	19345	18271	15945		(3) 15952	
		P105	10615K	10615K	19354	S		18652	8490	19308	10944		12231	5126/6837	
	X-26230-1023	K90	10615K	23976	23977	S		12859	(2) 23448	12596	10944		12231/12855	(3) 4258/4259 (2)	
		G906P	09000K			O	**	18570	(2) 23448	18569	18663	19964		4258/4259	
KOHLER	246489	G907P	09000K			S		22546	(2) 23448	21861	18663	19964		(2) 4258/4259	
	344089	G907	09000K			P		18035/10926	(2) 23448	21861	18663	19964		(2) 4258/4259 (1)	
	344371	G910P-01	09000K			S		18035/10926	(2) 23448	24569	18663	19964		(2) 4258/4259 (1)	
	359341	GP8001	8000K			O	G8001	23459	(2) 23323	23445		23447		23325/23443	
		G8001-01	8000K			P	G8001	23459	(2) 23323	23445		23447		23325/23443	
		G8001	8000K			S		23459	(2) 23323	23445		23447		23325/23443	
	L90		10615K	23976	23977	O	G7	12859	(2) 23448	12233	10944		12231/12855	12305(2), 4258/4259	
	G157		15000K	23980	23981	S		12859	(2) 23448	21231	18314		12231/12855	(3) 4258/4259 (2)	
	P105	10615K	10615K	10615K	19354	S		18652	8490	19308	10944		12231	5126/6837	
	G151		15000K	23980	23981	S		12859	(2) 23448	19570	18314		12231/12855	(3) 4258/4259 (2)	
L/270	G155	15000K	23980	23981	S		12859	(2) 23448	19570	18314		12231/12855	(2) 4258/4259 (3)		
MERCURUISER	7.3 Diesel													(3) 4258/4259 (2)	
	7.3 Diesel													(2) 4258/4259 (3)	
NORTH AMERICAN ENGINE														(2) 4258/4259 (3)	
	L/2L Diesel													(2) 4258/4259 (3)	

Engine Model	Engine Number	Sherwood Number	Impeller Kit	Minor Kit	Major Kit	Pump Code	New Pump	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam	Gasket & O-Ring	Bushing	Retaining Ring
ONAN	12MDJC-15 MDJF	RPGC	09959K	10685	12246	O	*	10545	4306	11409	10072	10103	6333	4258/5484
	132-0275	K75	09959K	23979	12665	O	K75B	12859	(2) 23448	13363	15883	12231/12855		(3) 4258/4259 (2)
	132-0275	K75B	09959K	23979	12665	S		12859	(2) 23448	13363	15883	12231/12855		(3) 4258/4259 (2)
	132-0278	L10	10615K	23976	23977	O	L10B	12859	(2) 23448	13363	10929	12231/12855		(3) 4258/4259 (2)
	132-0278	L10B	10615K	23976	23977	S		12859	(2) 23448	13363	10929	12231/12855		(3) 4258/4259 (2)
	132-0271	G905	09000K			O		12859/18570	(2) 23448	*		(2)19964/19257		(3) 4258/4259
	132-0343	G1004	10615K		22014	O	G1006	21208/21209	(2) 23448	21207	10929	12231		4258/4259 (2)
	132-0347	G1005	10615K		22014	O	G1006	21208/21209	(2) 23448	21207	10929	12231		4258/4259 (2)
	132-0356	G1006-01	10615K		22276	P	G1006	22117/21208	23448	22143	10929	(2) 12231		(3) 4258/4259 (2)
		G1006	10615K		22276	S		22117/21208	23448	22143	10929	(2) 12231		4258/4259
		G1008-01	10615K		22276	P		22117/21209	08490	23801	10929	21303/22770		4258/4259
	132-0358	G701-01	10077K		22784	P	G702	10389/18035/21751	(2) 23448	22769		21303/22770		4258/4259
		G702-01	10077K			P	G702	10389/18035/21751	(2) 23448	22769		21303/22770		4258/4259
		G702	10077K		G702	S		10389/18035/21751	(2) 23448	22769		23447		4258/4259
		G8002-01	8000K		G8002	P		23459	(2) 23448	23679		23447		4258/4259
	G8002	8000K		S	S		23459	(2) 23448	23679		23447		4258/4259	
OMC														
PERKINS ENGINE U.S.	981939	G45-2	10615K	23976	23977	O	G46	12859	(2) 23448	12233	10929	12231/12855		(2) 4258/4259 (2)
	981937	H-85	10615K	23976	23977	O		12859	(2) 23448	12596	10929	12231/12855		(3) 4258/4259 (2)
	985096	G46	10615K	23976	23977	S		12859	(2) 23448	13363	10929	12231/12855		(3) 4258/4259 (2)
	3852398	G3901	09959K	23979	12665	S		12859	(2) 23448	13363	15883	12231/12855		(3) 4258/4259
	3852399	G9902	09959K	23979	12665	O	G9903	12859	(2) 23448	13363	15883	12231/12855		(3) 4258/4259
	3855079	G9903	09959K	23979	12665	S		12859	(2) 23448	13363	15883	12231/12855		(3) 4258/4259
	STARPOWER	40-107 Diesel	B06	09959K	09959K	11421	O	G65	11237/10514	*	*	10072	11360	
40-108 Diesel		G65	09959K	09959K	12221	S		10514	(2) 23448	12444	10072	11360		4259/12582
4-154 Diesel		H5	09959K	12981	12980	S		10514/06602	(2) 4257	13272	15883	12231	6333	(3) 4258/4259 (1)
6-354 Diesel		RPBC	10615K	10999	11088	S		10927	4257	11374	10944	10931		(3) 4258/4259 (1)
UNIVERSAL MEDALIST		454	G55-2	10615K	23976	23977	P		12859	(2) 23448	12596	10944	12231/12855	
	302 and 351	G20	09959K	23979	12665	O	G21	12859	(2) 23448	12367	15883	12231/12855		4259/4258/12305
	302 and 351	G21	09959K	23979	12665	S		12859	(2) 23448	13363	15883	12231/12855		(3) 4258/4259 (2)
	Mitsubishi 4 Cyl	G22	09959K	23979	12665	S		12859	(2) 23448	13363	15883	12231/12855		(3) 4258/4259 (2)
	7.3L Diesel	G26	10615K	23976	23977	S		12859	(2) 23448	13363	10944	12231/12855		(3) 4258/4259 (2)
	350 GM	P105	10615K	10615K	19354	S		18652	(2) 08490	19308	10944	12231		5126/6837
	UNIVERSAL MEDALIST	Inboard	G151	15000K	23980	23981	S		12859	(2) 23448	19570	18314	12231/12855	
Stern Drive		G155	15000K	23980	23981	S		12859	(2) 23448	19570	18314	12231/12855		(3) 4258/4259 (2)

<b>Tech Tips:</b>		
<ul style="list-style-type: none"> <li>• Store impeller in dark, cool place</li> <li>• Use non-petroleum lubricant to help installation</li> <li>• Inspect blades for signs of wear, replace annually or if any of these conditions exist:</li> </ul>		
	Maintenance Schedule	
	Pleasure Boating (Low Hours)	Commercial/Fishing Use (High Hours)
	Light Duty	Severe Duty (High RPM, Silt or Sand)
	Every year	6 - 12 months
	2 years	Every year
	4 years	2 years
	Impeller Kit	3 - 6 months
	Minor Kit	6 months
	Major Kit	Every year

**SHERWOOD®**



## R Series

Description	Qty	R-20-G	R-30-G	R-40-G	R-50-G	R-60-G	R-70-G	R-80-G
Body Assembly*	1	10287	10597	10174	10177	10181	10204	10204
Cover Assembly*	1	10281	10281	10096	10096	10183	10183	10183
Shaft	1	10289	10289	10175	10175	10184	10184	10184
Impeller	1	10077K	10077K	9959	9959	10187	10187	10187
Ball Bearing	1	4306	4306	4257	4257	4257	4257	4257
Ball Bearing Housing Assy.*	1	10198	10198	10172	10172	10172	10172	10172
Seal	1	11367	11367	10927	10927	10927	10927	10927
Cam	1	10285	10285	10162	10072	10186	10813	10295
Key	1	10093	10093	4432	4432	4432	4432	4432
Int. Retaining Ring	1	4303	4303	4259	4259	4259	4259	4259
Ext. Retaining Ring	3	4304	4304	4258	4258	4258	4258	4258
Dowel Pin	2	1311	1311	1311	1311	1311	1311	1311
Bushing	1	2075G	2075G	6333G	6333G	6333G	6333G	6333G
Basket, Cover	1	10286	10286	10103	10103	10185	10185	10185
Gasket, Housing	1	10197	10197	10171	10171	10171	10171	10171
Pipe Plug	1	336	336	336	336	336	336	336

\*Assembly Description: Body Assembly INCLUDES body and two dowel pins. Cover Assembly INCLUDES cover and bushing. Ball Bearing Housing Assembly INCLUDES ball bearing housing and floating seat.

### KIT BREAKDOWN by Part Number

KIT BREAKDOWN by Part Number		Kits Include the Following												
		Bushing	Ball Bearing	Seal Assy	O-Ring/Gasket	Impeller	Cam	Wear Plate	Key	Cover Assy	Lip Seal	Retaining Rings	Washer	Shaft
Kit #	For Model Numbers													
Minor Kits														
09959K	R991, B06, G65				2	1								
10244	N10360GX	1	1	1	2	2								
10615K	P102, P105, P109, G1004, G1005, G1006, G1008				2	1								
10656	D75, D60, D65			1	2	2								
10996	R30G-1, E05, R30G			1	2	1			1			1		
10997	R10870G, R10930G, R50G			1	2	1			1			1		
10999	E35, C-03, F10, S11040G, B04, R10970G, RPBC, F95, R102			1	1	1			1			1		
11430	D05	1	1	1	1	1								
12981	H5				2	1					1			
19301	P101, P1012			1	1	1								
23972	P1712, P1716B, P173, P1722B, P1727FB, P1730F, P1731F, P1711, P1719, P1719F			1	1	1		1	1			1		
23973	P171, P176, P172, P1710, P1726, P1726TC, P1732			1	1	1		1	1			1		
23976	G3, G4, G5, G5-1, G7, G7B, G8, G26, G45-1, G45-2, G46, G50, G55-2, G56, G85, H-85, K90, L10, L10B, L80, L90, M71			1	2	1			1			3	1	
23979	G1, G2, G15, G20, G21, G22, G30-2, G30-2B, G95-1, G9901, G9902, G9903, H10, J70, K75, K75B			1	2	1			1			3	1	
23980	GC1, GC4, GC5, G157, G151, G155, G1503			1	2	1			1			3	1	
24004	G1804, G1806, G18061, G1808, G18081			1	2	1	2					1	1	
24005	G1810			1	2	1	2					1	1	
24023	G1805, G1807, G18071			1	2	1	2					1	1	
Major Kits														
11068	E35, C-03, F10, S11040G, B04, RPBC, R102	1	1	1	1	1	1		1			3		
12221	G65, F85		2		1	1					1			
12300	D60, D65	1	1	1	2	2	2	1						
12665	G1, G2, G15, G20, G21, G22, G30-2, G30-2B, G95-1, G9901, G9902, G9903, H10, J70, K75, K75B		2	1	2	1	1	1	1			5	1	
12937	R10870G, R50G	1	1	1	2	1	1		1			4		
12980	H5		1		1	1	1		1		1			
13366	H70	1				1	1		1		1	2		
18655	R991	1	1	1	1	1	1					4		1
19300	P101, P1012		2	1	1	1						1		
19354	P102, P105, P109		2		2	1					1	1		1
22014	G1004, G1005				1	1	1	1	1		1			
22276	G1006, G1008				1	1	1	1	1	1		5		
23234	G2201, G22011				1	1	1	1		1		1		
23256	G1503		2	2	1	1		1	1	1		3	1	
23974	P1712, P1716B, P173, P1722B, P1727FB, P1730F, P1731F, P1711, P1719, P1719F	2	1	1	1	1	1	1	1	1	1	3	3	
23975	P171, P176, P172, P1710, P1726, P1726TC, P1732	2	1	1	1	1	1	1	1	1	1	3	3	
23977	G3, G4, G5, G5-1, G7, G7B, G8, G26, G45-1, G45-2, G46, G50, G55-2, G56, G85, H-85, K90, L10, L10B, L80, L90, M71	2	1	2	1	1	1	1	1			5	1	
23981	GC1, GC4, GC5, G157, G151, G155	2	1	2	1	1	1	1	1			5	1	
24006	G1804, G1806, G18061			1	2	1	2	1		1	1	2	2	
24007	G1808, G18081			1	2	1	2	1	1	1	1	2	4	
24008	G1810			1	2	1	2	1		1	1	2	1	
24024	G1805, G1807, G18071			1	2	1	2	1		1	1	2	2	
24025	R30G-1, E05, R30G	1	1	1	2	1	1		1			4		

# SHERWOOD®



## Impellers Engine and Generator Cross Reference



Part No.	Engine
<b>CATERPILLAR</b>	
GCS 630	3208T, TA with Sherwood pump
GCS 100	3208T with Jabsco pump
GCS 1113	3208TA with Jabsco pump
GCS 200DF	3406, 353
GCS 456	3412
<b>CHRIS CRAFT</b>	
GCS 075	Series K (95-120 h.p.)
GCS 075	Series M (131-158 h.p.)
GCS 625	Series F (283-327 h.p.)
<b>CHRYSLER MARINE</b>	
GCS 620	M-80 (CW) E5913M, M-80 (CCW) E5839M
GCS 620	Slant 6, M225X
GCS 620	M273X, LM318X (dual impeller system)
GCS 625	LM340X, LM318X (single impeller system)
GCS 620 & GCS 625	M383X, M413E, M440X
GCS 625	Current 360 engine production
<b>CRUSADER</b>	
GCS 620	270 h.p.
GCS 625	300 h.p.
GCS 625	350 h.p. (#454)
<b>CUMMINS</b>	
GCS 100	504M
GCS 125	VT903 & 555
GCS 625	4B210
GCS 630	4BT250, 6BT300 & 400
<b>DETROIT DIESEL</b>	
GCS 100	4-53, 8.2
GCS 1113	6-71, 6V53
GCS 456	6-92, 8V92
GCS 1213	8V71, 12V71, all Johnson & Towers 6-71

Part No.	Engine
<b>LEHMAN</b>	
GCS 075	85-135 h.p.
GCS 100	200 h.p. & greater
<b>MERCUISER</b>	
GCS 2000	Inboard 1981 to present (belt driven)
GCS 1000	Stern Drives & Outboards, 80 h.p. and greater
<b>ONAN</b>	
GCS 421	4.0kw generator
GCS 1014	6.5kw generator
GCS 815	8.0kw generator
GCS 075	10-12kw generator
GCS 620	20kw generator
<b>PERKINS</b>	
GCS 100	654
GCS 075	4107
GCS 075	4108 (with Jabsco pump)
GCS 620	4108 (with Sherwood pump)
<b>PLEASURE CRAFT</b>	
GCS 620	302 C.I.D. (225 h.p.)
GCS 620	351 C.I.D. (#270)
GCS 625	454 C.I.D.
<b>VOLVO</b>	
GCS 421	MD1, MD2B, MB10, MD6A
GCS 075	AQD21A, AQ200-225, AQ260-280
GCS 100	MD328, TAMD40, TND70
GCS 100V	AQ200, 225, 250, 290
GCS 620	AQ200A, B, C; AQ225A, B, C;
GCS 620	AQ255A
GCS 125	AQAD40A (TAMD 40A)
<b>MACERATOR PUMPS</b>	
GCS 025	Danforth
GCS 025	Jabsco
GCS 025	Raritan
GCS 025	Wilcox

**RUN DRY FOR 15 MINUTES  
DEMAND THE BLUE ONE !!**

## Cross Reference By Manufacturer or Engine Company Part Number

**JABSCO**

Model No.	Part No.
331-0001	GCS 125
673-0001	GCS 6541
702-0001	GCS 100
790-0001	GCS 125
807-0001	GCS 125
836-0001	GCS 125
920-0001	GCS 100
964-0001	GCS 100
1111-0001	GCS 100
1133-0001	GCS 6541
1210-0001	GCS 075
1414-0001	GCS 321
1427-0001	GCS 1101
2173-0001	GCS 1114
2820-0001	GCS 1114
2877-0001	GCS 1101
3085-0001	GCS 616
3255-0000	GCS 463
4527-0001	GCS 219

**JABSCO**

Model No.	Part No.
4528-0001	GCS 421
4568-0001	GCS 1101
5915-0001	GCS 100
5929-0001	GCS 050SS
6056-0001	GCS 100SS
6056-NITRILE	GCS 110SS
6303-0001	GCS 025
6760-0001	GCS 200
6988-0000	GCS 456
7273-0001	GCS 912
7614-0001	GCS 6862
8444-0001	GCS 318
8566-0001	GCS 6862
8840-0001	GCS 100DF
8980-0001	GCS 318
8981-0001	GCS 100DF
8984-0001	GCS 456
9200-0001	GCS 1016
11979-0001	GCS 090



## Cross Reference By Manufacturer or Engine Company Part Number

**Model No.****JABSCO**

12222-0001  
12326-0001  
12516-0001  
12946-0001  
12977-0001  
14281-0001  
14282-0001  
14346-0001  
14544-0001  
14545-0001  
14549-0001  
14556-0001  
14600-0001  
14601-0001  
14602-0001  
14603-0001  
14604-0001  
14605-0001  
14750-0001  
14792-0001  
14806-0001  
14874-0001  
17018-0001  
17222-0001  
17370-0001  
17374-0001  
17935-0001  
17936-0001  
17937-0001  
17992-0001  
18018-0001  
18021-0001  
18785-0000  
18786-0001  
18838-0001  
18948-0001  
22120-0001  
92700-0080  
114868-0001

**BEARCAT/HOMELITE**

90354-A

**CATERPILLAR**

1L4774  
3N1906  
3N4859  
3N4860  
3N5895  
3N9009  
4L8470  
4N6582  
5N9360  
6L8792  
7E0321  
PP1027  
PP1028

**CRUSADER**

20300  
1003026

**CUMMINS DIESEL**

B10615  
21601R  
136519  
166758  
177543  
556540  
650607

**Part No.**

GCS 125  
GCS 100SS  
GCS 912  
GCS 6862  
GCS 1014  
GCS 318  
GCS 100DF  
GCS 1019  
GCS 6862  
GCS 318  
GCS 100DF  
GCS 100DF  
GCS 6862  
GCS 318  
GCS 100DF  
GCS 100DF  
GCS 125  
GCS 1127  
GCS 321  
GCS 321  
GCS 318  
GCS 050DF  
GCS 1111  
GCS 1019  
GCS 200DF  
GCS 613  
GCS 1113  
GCS 1213  
GCS 110  
GCS 100  
GCS 125  
GCS 125  
GCS 457  
GCS 456  
GCS 620  
GCS 625  
GCS 100V  
GCS 92700  
GCS 100

GCS 223

GCS 125  
GCS 100  
GCS 200DF  
GCS 613  
GCS 1111  
GCS 100  
GCS 200  
GCS 1111  
GCS 1113  
GCS 6408  
GCS 630  
GCS 456  
GCS 457

GCS 625  
GCS 620

GCS 625  
GCS 125  
GCS 6408  
GCS 125  
GCS 773  
GCS 125  
GCS 100

**Model No.****CUMMINS DIESEL**

3008503  
3008505  
3908220  
3916852

**DETROIT DIESEL**

5193553  
5193562  
5193602  
5193603  
5196168  
5198419  
5198550  
8924838  
8924839  
8927570  
8927571  
23502086  
23502089

**FORD LEHMAN**

920  
1210

**HINO/KASHIYAMA**

16131-1300

**ISUZU**

N5-2623-60-06-0

**JOHNSON PUMP**

01-42424F8/F9  
01-42445F7  
08-804B-9  
08-810B  
08-812B  
08-1026S  
08-1029B  
09-801B  
09-802B  
09-806B  
09-808B  
09-814B  
09-1026B  
09-1027B  
09-1028B

**MERCURISER**

47-59362  
47-89984

**NORTHERN LIGHTS**

23-11031  
25-12002  
145116140  
145116180

**OBERDORFER**

B6593  
B6603  
B6620  
B86617  
C7054  
C7441

**ONAN**

131-0160  
131-0386  
131-02189KIT  
132-0117  
132-0162  
132-0316  
132-0317  
132B59

**Part No.**

GCS 200DF  
GCS 613  
GCS 620  
GCS 630

GCS 125  
GCS 773  
GCS 100  
GCS 772  
GCS 200  
GCS 6408  
GCS 200  
GCS 1113  
GCS 1213  
GCS 200DF  
GCS 613  
GCS 456  
GCS 457

GCS 100  
GCS 075

GCS 845

GCS 845

GCS 773  
GCS 772  
GCS 050SS  
GCS 6541  
GCS 100V  
GCS 025  
GCS 125  
GCS 110  
GCS 200  
GCS 421  
GCS 1112  
GCS 1213  
GCS 6541  
GCS 075  
GCS 100

GCS 2000  
GCS 1000

GCS 100V  
GCS 075  
GCS 075  
GCS 419

GCS 815  
GCS 1114  
GCS 1101  
GCS 025  
GCS 125  
GCS 100

GCS 1014  
GCS 1015  
GCS 1014  
GCS 620  
GCS 075  
GCS 815  
GCS 620  
GCS 421

**Model No.****PERKINS**

0460027  
0460038  
24880031  
NA900010  
NA900012

**PLEASURE CRAFT**

RO 061003  
RO 61003E  
RO 61015  
RO 61017

**PROVEN**

T100-4  
T100-8  
T100-12

**RARITAN**

CH13  
CH119D1  
G13

**SHERWOOD**

9000  
9959  
10077  
10187  
10615  
11843  
12336  
12337  
12338  
17000

**TEEL**

1R215  
1R216  
1R217

**UNIVERSAL**

287439  
295628  
302571  
302875

**VOLVO**

825941  
834794  
835512  
835874  
844683  
875575  
875583  
875593  
875660  
875697  
875807  
875808  
875811

**WESTERBEKE**

11418  
11764  
11907  
18184  
32620  
33100  
344407

**YANMAR**

104211-42072  
124223-42091  
128170-42070  
145410-46090

**Part No.**

GCS 125  
GCS 075  
GCS 100  
GCS 620  
GCS 625

GCS 075  
GCS 100  
GCS 620  
GCS 625

GCS 757  
GCS 100  
GCS 723

GCS 025  
GCS 726  
GCS 025

GCS 610  
GCS 620  
GCS 1130  
GCS 1114  
GCS 625  
GCS 625  
GCS 1130  
GCS 620  
GCS 1114  
GCS 630

GCS 1130  
GCS 620  
GCS 1114

GCS 1130  
GCS 815  
GCS 075  
GCS 610

GCS 100  
GCS 100V  
GCS 620  
GCS 625  
GCS 1213  
GCS 1101  
GCS 1112  
GCS 100  
GCS 125  
GCS 1213  
GCS 421  
GCS 6541  
GCS 075

GCS 620  
GCS 1130  
GCS 620  
GCS 032SS  
GCS 1112  
GCS 1130  
GCS 6541

GCS 421  
GCS 418  
GCS 321  
GCS 1101



## High Torque Change Pump

# REVERSO

### EASY TO USE....

- Open A Valve
- Flick the Switch
- Watch the Oil being Pumped Out
- Reverse the Process to Refill

### CONNECTS DIRECTLY TO....

- Engines
- Transmission
- Generators
- Hose for Utility Use

Designed for transferring lube oil. May be used for permanent or portable installations. All pumps have ignition protected motors, external fuse holder and reversing switch pump can be connected to engines, transmissions and gensets. **NOTE:** use Viton impeller to pump diesel fuel. Internally threaded for 3/8" IPS & externally threaded for 3/4" garden hose thread.

Part No.	Description
REV OP-7-12	12 Volt DC Reversing Oil Change Pump (3.0 GPM)
REV SRK-360	Repair Kit (Nitrile Impeller & Gaskets)
REV SRK-370	Repair Kit (Viton Impeller & Gaskets)
REV SRK-361	Rebuild Kit (Nitrile Impeller, Seal, Washer & Gaskets)
REV SRK371	Rebuild Kit (Viton Impeller, Seal, Washer & Gaskets)
REV 360010	Nitrile Impeller for Oil
REV 360014	Viton Impeller use for Diesel Fuel
REV 360120	Gasket
REV 36003	Three Way Toggle Switch
REV 10267	1/4" npt x 1/2" Flare for installation of Oil Drain Hose
REV 93814	1/4" npt x 3/8" jic Fitting for Installation of Dipstick Connector
REV 38-2315	Spare Cover Plate for the impeller pump OP-6 and OP-700 Series
REV 360060	Spare Cover Plate for OP- 6



<b>SRK-360</b> Repair Kit for Oil	<b>SRK-361</b> Repair Kit for Oil/Water	<b>SRK-371</b> Repair Kit for Diesel/Oil	<b>360010 (Oil)</b> <b>360014 (Diesel)</b> Impeller	<b>36003</b> 3 Way Switch	<b>10267</b> <b>93814</b> Fittings	<b>360120</b> Gasket	<b>38-2315</b> Cover Plate

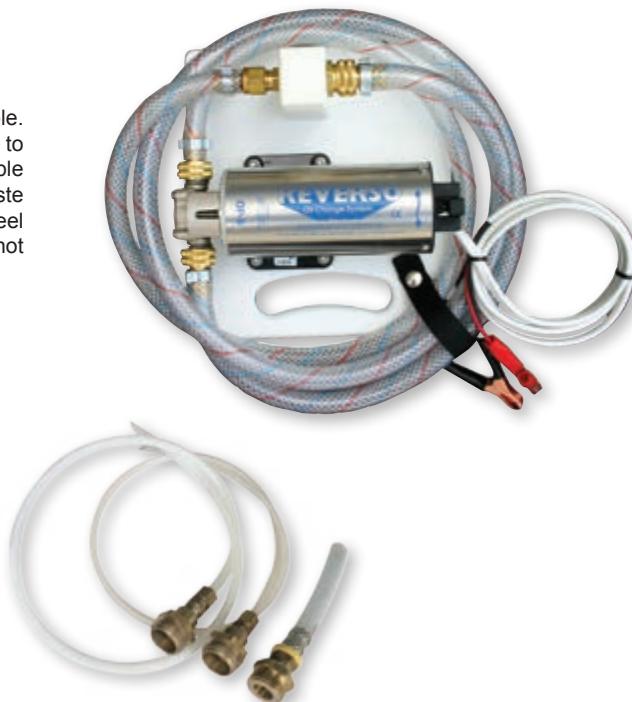
## Portable Oil Change with Quick and Easy Connections

This easy-to-install unit can be attached to a bulkhead or remain portable. Connect the pump to a DC power supply. All necessary hoses are affixed to the unit, so no plumbing work is necessary. The **OP-700** is a fully reversible pump that attaches to the dipstick tube. Place the discharge hose into a waste container and flip the switch. Featuring a poly mounting board, stainless steel cover plate, safety switch lock and heavy-duty motor that can pump both hot and cold oil.

Part No.	Description
REV OP-700	Oil Change Kit

**Oil Wand Set** Tubes for drawing oil from various size dipstick tubes includes: 5/16" & 1/4" tube for insertion into dipstick tube and 1/2" hose installation to clamp over dipstick tube.

Part No.	Description
REV OP-610-3	Wand Set





## Portable Oil Change System

This powerful gear pump is designed to remove the oil from most 4 cycle outboard engines quickly and with no mess. Simply hang the unit on the engine cowling, insert the nylon hose into the dipstick tube and attach the wire to 12V power source. Oil is drained into a container and can be removed from the vessel for proper disposal. No messy pans of oil to spill or catch basins to tip. Servicing can be done with engines on the boat in the water, on a stand or on the trailer. Heavy duty gear pump for quick reliable oil removal. Handy wire clips and simple controls with integral fuse for protection.

"NEW" Bucket System has all the same features listed above, however, the mounting base is designed to easily fit on top of most 5 gallon buckets. Base includes built-in carrying handle. (Bucket NOT Included)



Part No.	Description
REV GP-311P	Portable System
REV GP-311-BKT-01	Bucket System (Bucket NOT Included)

## GP-700 Series

### Heavy Duty Oil Transfer Systems for 500-1,500 Horsepower Engines

- Manifold system utilizing a gear pump with bronze helical gears and viton seals.
  - 2, 3, 4, 5, 6 & 7 valves models available.
  - Easy operation - Open valve, flick switch!
- The Only Manifold System on the market to use a gear pump to remove and fill oil. 1/2" NPT female thread fittings.
- 12/24 Volt

Part No.	Description
REV GP-705-12	5 Valve Manifold, 12 Volt System



**Simply the Best System  
on the Market**

## OP-700 Series

### Manifold oil change systems, service multiple engines, transmissions & generators 3, 4, 5 or 6 valve versions available in 12 or 24 Volts

This is great for twin gas or diesel engines, transmissions and gensets. Use with 5/8" ID type "B" fuel hose with 1/2" IPS male thread fittings.

- Full flow valves
- Easily changed impellers
- Built-in switch guard

Part No.	Description
REV OP-703	3 Valve Manifold 12 Volt DC System
REV OP-704	4 Valve Manifold 12 Volt DC System



OP-703 Three Manifold System

# REVERSO



## Fuel Polishing System-Keeps the Sludge Out of Your Tanks

Uses patented SEPAR filter technology, which creates an efficient separation of water and other contaminants from the fuel.

- Unique service filter alarm
- Eliminates the build-up of algae and water in your tanks
- Reduces cost of filter maintenance
- 99% water and particulate removal
- Optional fuel conditioner
- 7-Day Timer

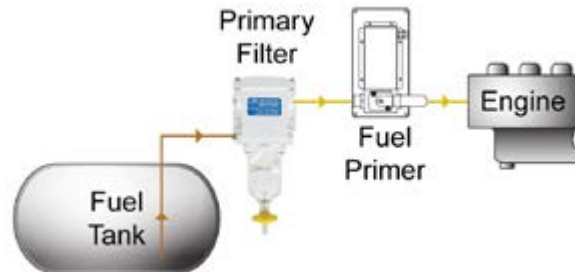
Part No.	Description
REV FPS-80S01	Reverso 12 Volt Separ System
REV FPS-80S02	Reverso 24 Volt Separ System



## Fuel Primer

- Easy Operation - open valve and switch: Fuel pumped into system
- Integrated fuse for safety
- Pressure relief valve to protect engine fuel system components

## Eliminates Hard Starts



**Part No.**  
REV FP-321

**Description**  
Standard (white base/white cover)

The Reverso FP-321 fuel priming system pumps fuel into the fuel lines, purging trapped air from primary filters, secondary filters and engines. Pressures available for all engine manufactures.



## GP-311 Series Gear Pump

- Transfer lube oil, diesel fuel, antifreeze and water.
- Bronze gears and stainless steel shafts.
- Transfers up to 3 gallons per minute.
- Momentary, reversing and On/Off switch options available.
- Available 12 or 24 Volts.

Part No.	Description
REV GP-311-12	3 GPM Gear Pump, 12 Volt



VA-2 Valve

## Valve Assemblies

2, 3, 4, 5 or 6 valve configuration available

Used like a "Y" valve, these manifolds allow multiple hoses to be connected to one pump. The assemblies can be mounted in any direction. The pump hose connects to either top or side. Mounting holes are pre-drilled for easy installation on stringers or bulkheads. This is for use with oil only.

Part No.	Description
REV VA-2	Valve Block (Converts 1 to 2 Hoses)
REV VA-3	Valve Block (Converts 1 to 3 Hoses)



## Little Pal Utility Pump

**JABSCO**

Compact polished brass multipurpose hand pump.

- Ideal for small engine and gearbox oil drain.
- Simply pump oil out with dipstick probe.
- Oil and corrosion resistant brass and neoprene construction with up to 1 gpm output.

Fitting: Connection for 1/2" ID hose.

Probes: 40" of 1/4" probe & 24" of 1/2" probe

Size: 10-1/4" L x 1-1/4" D

Weight: 1 lb

**Part No.**  
JAB 34060-0010



## Marine Engine Oil Drain Pump

**JABSCO**

The Jabsco Oil Drain Pump connects to current marine engine oil dipstick tube on OMC, MerCruiser and other marine engines with a threaded male garden hose fitting on the engine dipstick tube. Unique design allows one hand pumping for quick and easy oil draining. Kit includes pump with 3/4" brass fitting (female garden hose style) 3/4" NH Threaded Dip-Stick Tube and drain hose 1/2" x 2' (13mm x 610mm). Weight 1 lb.

**Part No.**  
JAB 34060-0130



## Run-Dry Macerator



**JABSCO**

The latest version of the Macerator pump now has a fully sealed motor and a new more powerful chopper blade. The sealed motor consists of O-ring sealed end bells, sealed bearings and a hard durable powder coating to prevent corrosion occurring both internally and externally. A new four-bladed chopper has been added to further reduce the possibility of clogging.

- Detects the absence of fluid then shuts-off pump before impeller is damaged.
- Sensor provides adequate run-dry period to allow initial priming of the pump.
- Flow rate to 12 gpm
- Self-priming to 4' vertical lift.

Fitting: Inlet Port: 1-1/2" Hose Barb plus 1-1/2" NPTM

Discharge Port: 1" Hose Barb.

Size: 11-3/8" L x 4-3/4" W x 3 x 5/8" H Weight: 5 lb

1 year warranty

**Part No.**  
JAB 18590-2092

**Volts/Amps**  
12 Volt / 16 Amp

## Oil Drain Kit



It's quick and easy to drain engine oil without a pump. Simply push the hose through the transom drain plug hole or place anywhere below oil pan. Assembly includes oil resistant hose with noncorrosive brass fittings. Available in sizes to fit most I/O marine engines.

<b>Part No.</b>	<b>Description</b>
MPI 305-0380	Engine model is Standard Chevy 1996 and prior. Oil pan thread size is 1/2"-20.
MPI 306-0380	Engine model is MerCruiser Inboard. Oil pan thread size is 3/8"-18.
MPI 307-0380	Engine model is Volvo Penta Inline. Oil pan thread size is 3/4"-16.
MPI 308-0380	Engine model is Metric Chevy 1996 and later. Oil pan thread size is 12mm x 1.75.
MPI 309-0380	Engine model is Metric Ford 302 & 351. Oil pan thread size is 14mm x 1.5.

## Drill Pumps & Kits

Versatile means of transferring fluid almost anywhere an electric drill with 1/4" to 3/8" chuck can be operated. Pumps up to 3.5 gpm. Self priming to 3'. Supplied with 3/4" garden hose thread port adapters. Fitting: Connection for 1/2" ID hose & 3/4" GHT female threaded fittings. Size: 13-5/16" L x 3-1/2" W x 2-1/16" H. Weight: 5 lb

<b>Part No.</b>	<b>Description</b>
JAB 17215-0000	Pump (poly bagged with header card) with Garden Hose Port Adapters and 1/4" x 40" Probe plus 3' of 1/2" Hose for changing oil through a dipstick tube.

**JABSCO**



## Run-Dry Macerator and Fish Box Pump

**PENTAIR  
SHURFLO**



Features a premium impeller design with run-dry capability and includes our E Coated seamless motor shell with O-ring sealed end bells and a sealed manual turn key. Unique double cut serrated stainless steel blades and housing construction ensures problem free pumping, providing superior performance in harsh marine environments. Thermally protected, ignition protected and Self Priming. 1 year warranty.

<b>Part No.</b>	<b>Description</b>
SHU 3200-001	13GPM, 12VDC, 17AMP, Dimensions 10.79" x 3.82" x 4.48" Port Size Inlet 1.5" Barb/1.5" NPT Outlet 1" Barb



## Fluid Extractors

Exclusively designed to handle larger fluid extraction applications and tackle the toughest jobs with ease. Suitable for all forms of fluid extractions. Suitable for removing engine oil, gear oil, brake fluid, coolant, water, bilge fluids in hard to reach areas, hobby, lawn & garden, agriculture, marine, automobiles, household, ATV & much more. Dual action vacuum pump works with both the upstroke & downstroke. Extracts warm or cold oil. No electric or air power required. Automatic shut-off float eliminates overflow. Includes 3 kinds of nylon tubes for extracting any non-corrosive fluid.



(Not for use with gasoline!)

Part No.	Description
MOE 035360	15L (4 Gal ) capacity.

## Portable Pump System

Unique base plate fits on most 5 gallon buckets NOT Included. Compact size with exceptional flow rate (3 gpm/11 lpm). Powerful reversible gear pump specially designed to be used with oils



Part No.
REV GP-311-BKT



## Oil Changer

Pump engine oil, automatic transmission, fluids, antifreeze solutions and low viscosity gear lubes. Dry Run Capable. Polypropylene pump body. Geolast oil resistant diaphragm. Buna-n valves. 12V DC motor with internal thermal protector. Plastic receiver with 3.5 gallon capacity. 8' battery leads with alligator clips. 8' suction tube oil and heat resistant. Dimensions: 16" h. Weight: 6.4 lb. 1 year warranty.



Part No.	Description
SHU 8050-305-426	Oil Changer 12 Volt/6 Amp



## Heavy Duty "Porta-Quick"® Oil Changer

Makes quick, clean and easy oil changes. 14 Quart container easily handles two engines. Sturdy bronze pump head. High-temperature resistant Teflon® dip-stick probe. Garden hose thread adapter included, for dip-sticks with GHT male thread. Compiles with USCG 183.410 and ISO 8846 Marine. (Ignition Protection). 1 year warranty.

**Size:** 15-5/8" H x 13-1/2" D. **Hose:** 1/2" ID x 48" L. **Probe:** 1/4" OD x 40" L. **Weight:** 9 lb

Part No.	Description
JAB 17800-2000	Oil Changer 12 Volt/7 Amp
JAB 9200-0023-P	Nitrile Impeller



# Need OIL?

Give us a call!

FL 1-800-432-2231

SC 1-800-788-2231

We have a wide selection of marine oils for all your boating needs.



## Magnetic Drive Centrifugal Pump



- Pump Must Be Primed
- Built-in Thermal Protection
- 3.3 GPM at 3 ft.
- 5/8" Hose Barbs
- 12 Volt
- .9 Amps

**Part No.**  
JOH 10-24486-11B

Replaces: Onan 132-0326

## Magnetic Drive Centrifugal Pump



**Johnson Pump**

- Pump Must Be Primed
- Built-in Thermal Protection
- 23.7 GPM
- 30 minute Run Dry
- 1-1/2" Hose Barbs

**Part No.**  
JOH 10-24664-01      12 Volt  
JOH 10-24664-02      24 Volt

**Johnson Pump**

## Aqua Jet Wash Down Pump Kit



Producing up to 70psi, this pumps offers plenty of pressure for faster washdowns. It features an efficient five-chamber design which reduces motor speed, noise and heat build-up. Kit includes pump, a trigger nozzle, built in PUMProtector inlet strainer and connections for 1/2" hose, BSP and NPT connections, a nozzle and integral strainer, an illuminated panel switch and 25' spiral coiled hose with brass end fittings and bulkhead fitting (with open/close valve) for hose connection.

3-Year Warranty

- Pump Type: Diaphragm
- Pressure Switch: 70psi
- Self Prime: Yes (8' max.)
- Material: PA/PPA body, nitrile valves, Santoprene diaphragm
- Port Sizes/Type: 1/2" NPT, 3/4" Hose, 3/4" GHT
- Power Requirements: 12V DC, 15A
- Capacity: 5.2gpm

**Part No.**      **Description**  
JOH 64534      Aqua Jet Wash Down Pump Kit

## Fresh Water Inlet Fitting



Standard female hose connector for obtaining fresh water under pressure at dock side. External portion has a swivel hose connector, standard size, with water tight black plastic plug and stainless steel beaded chain. Chrome plated brass.

Part No.	Pipe Size	Garden Hose	OD Flange
WHI P-2455	1/2"	3/4"	2 3/4"

## Water Outlet Fitting



Standard male hose connector made of chrome plated brass. Complete with a watertight black plastic cap and stainless steel beaded chain. For use with on-board wash down system.

Part No.	Pipe Size	Garden Hose	OD Flange
WHI P-2454	1/2"	3/4"	2 3/4"





# Quick Reference Guide



## STANDARD BILGE PUMPS

Capacity GPH (LPH)	Model No.	Volts	Fuse Size	Amps @12 v	Amps @13.6 v	Replacment Strainer	Height In. (mm)	Width In. (mm)	Hose Diameter In. (mm)	Panel Switches	Float Switches
360 (1363)	24DA	12DC	4	2.1	2.4	1231R	3 <sup>7</sup> / <sub>8</sub> (99)	2 <sup>7</sup> / <sub>8</sub> (74)	¾ (19)	41, 43, 45, 49	35A, 37A, 40A
500 (1893)	25DA-6	12DC	4	1.6	1.8					41, 43, 45, 49	
	25DA	12DC	4	1.6	1.8					42, 44, 45, 49	
	25DA-24	24DC	3	1.0 @ 24V	1.2 @ 27.2V					41, 43, 45, 49	
800 (3028)	20DA	12DC	7.5	3.4	4.3	1232R	4 <sup>3</sup> / <sub>8</sub> (111)	2 <sup>7</sup> / <sub>8</sub> (74)	Multiple	41, 43, 45, 49	
	20DA-24	24DC	4	1.7 @ 24V	2.0 @ 27.2V					42, 44, 45, 49	
	20F	12DC	5	2.8	4	Model 277	4.0 (102)	2 <sup>7</sup> / <sub>8</sub> (74)	Multiple	41, 43, 45, 49	
900 (3407)	LP900D	12DC	7.5	4	5	1230R	2.4 (61)	8.9 (226)	Multiple	41, 43, 45, 49	
1000 (3785)	20A	12DC	5	2.9	4	Model 277	4.0 (102)	2 <sup>7</sup> / <sub>8</sub> (74)	1 <sup>1</sup> / <sub>8</sub> (29)	41, 43, 45, 49	
1100 (4164)	27DA	12DC	7.5	3.7	4.7	1232R	4 <sup>3</sup> / <sub>8</sub> (111)	2 <sup>7</sup> / <sub>8</sub> (74)	1.0 (25) & 1 <sup>1</sup> / <sub>8</sub> (29)	41, 43, 45, 49	
	27DA-6	12DC	7.5	3.7	4.7					42, 44, 45, 49	
	27DA-24	24DC	4	1.9 @ 24V	2.2 @ 27.2V					41, 43, 45, 49	
1500 (5678)	02	12DC	10	4.8	7	Model 278	6 (152)	4 <sup>1</sup> / <sub>4</sub> (108)	1 <sup>1</sup> / <sub>8</sub> (29)	41, 43, 45, 49	
	02-6	12DC	10	4.8	7					41, 43, 45, 49	
	04 (Gold)	12DC	10	4.8	7					42, 44, 45, 49	
	03	24DC	4	2.3 @ 24V	3.5 @ 27.2V					41, 43, 45, 49	
2000 (7571)	10	12DC	15	8.4	12					41, 43, 45, 49	
	10-6UL (UL Listed)	12DC	15	8.4	12					42, 44, 45, 49	
	09 (Gold)	12DC	15	8.4	12					41, 43, 45, 49	
	12	24DC	7.5	4.0 @ 24V	6.0 @ 27.2V					42, 44, 45, 49	
	11	32DC	6	3.1 @ 32V	5.0 @ 36.3V					41, 43, 45, 49	
3700 (14010)	14A	12DC	25	15.5	20	Model 279	7 <sup>1</sup> / <sub>4</sub> (184)	4 <sup>7</sup> / <sub>8</sub> (124)	1 <sup>1</sup> / <sub>2</sub> (38)	41, 43, 45, 49	37A, 40A
	14A-6UL (UL Listed)	12DC	25	15.5	20					42, 44, 45, 49	
	13A (Gold)	12DC	25	15.5	20					41, 43, 45, 49	
	16A	24DC	15	6.9 @ 24V	10 @ 27.2V					42, 44, 45, 49	
	15A	32DC	10	5.0 @ 32V	7.5 @ 36.3V					41, 43, 45, 49	
4000 (15140)	56D	12DC	25	15.5	20				2 (51)	41, 43, 45, 49	
	56D-24	24DC	15	6.9 @ 24V	10 @ 27.2V					42, 44, 45, 49	
	56D-32	32DC	10	5.0 @ 32V	7.5 @ 36.3V					41, 43, 45, 49	

## FLOAT SWITCH SPECIFICATIONS

Model Number	Model Name	Volts (DC)	Max Amps	Wire Gauge	Size (height x length x width), inches (mm)
35A	Rule- A-Matic	12-24	14A (12v), 7A (24v)	16 AWG	2-1/4" x 5" x 1-3/4"
35FA	Rule- A-Matic with inline fuse holder	12-24	14A (12v), 7A (24v)		(57 x 127 x 58mm)
37A	Super Switch	12-24-32	20A (12v), 10A (24V), 6.5A (32v)	14 AWG	2-1/4" x 5" x 2"
37FA	Super Switch with inline fuse holder	12-24-32	20A (12v), 10A (24V), 6.5A (32v)		(57 x 127 x 51mm)
40A	Rule-A-Matic Plus with shield	12-24-32	20A (12v), 10A (24V), 6.5A (32v)	14 AWG	3" x 5-3/8" x 2-1/2"
40FA	Rule-A-Matic Plus with shield and inline fuse holder	12-24-32	20A (12v), 10A (24V), 6.5A (32v)		(76 x 137 x 64mm)
39	ECO-Switch 12 Volt	12	20A	14 AWG	1-7/8" x 6" x 2-3/4"
39-24	ECO-Switch 24Volt	24	10A		(48 x 152 x 70mm)

## RULE-MATE AUTOMATED BILGE PUMPS

Capacity GPH (LPH)	Model No.	Volts	Fuse Size	Amps @12 v	Amps @13.6 v	Replacment Strainer	Height In. (mm)	Width In. (mm)	Hose Diameter In. (mm)	Panel Switches
500 (1893)	RM500A	12DC	3	2	2.2	Model 1000864-26	4.5 (114)	6 (152)	3/4 (19.0)	41, 43, 45
	RM500A-24	24DC	1.5	1.0 @ 24v	1.3 @ 27.2v					42, 44, 45
750 (2839)	RM750A	12DC	5	2.8	3.1					41, 43, 45
	RM750A-24	24DC	3	1.4 @ 24v	2.0 @ 27.2v					42, 44, 45
900 (3407)	LP900S	12DC	7.5	4	5	Model 1230R	2.4 (60)	2.4 (60)	Multiple	41, 43, 45  42, 44, 45  41, 43, 45  42, 44, 45
1100 (4164)	RM1100A	12DC	5	3.4	4	Model 1000864-26	4.5 (114)	6 (152)	1-1/8 (29)	
	RM1100A-24	24DC	3	1.4 @ 24v	2.0 @ 27.2v					
1500 (5678)	RM1500A	12DC	10	4.8	7	Model 286	6 (152)	7.25 (185)		
2000 (7571)	RM2000A	12DC	15	8.4	12					
	RM2000A-24	24DC	7.5	4.0 @ 24v	6.0 @ 27.2v					

## ELECTRONIC SENSING SERIES BILGE PUMPS

Capacity GPH (LPH)	Model No.	Volts	Fuse Size	Amps @12 v	Amps @13.6 v	Replacment Strainer	Height In. (mm)	Width In. (mm)	Hose Diameter In. (mm)	Panel Switches
500 (1893)	25SA-6 (6' wires)	12DC	4	1.6	1.8	Model 1231R	4.1 (104)	2.9 (73)	3/4 (19.0)	41, 43, 45
	25SA	12DC	4	1.6	1.8					41, 43, 45
	25SA-24	24DC	3	1.0 @ 24v	1.2 @ 27.2v					42, 44, 45
800 (3028)	20SA	12DC	7.5	3.4	4.3	Model 1232R	4.7 (119)	2.9 (73)	1 (25) and 1-1/8 (29)	41, 43, 45
1100 (4164)	27SA	12DC	7.5	3.7	4.7					41, 43, 45
	27SA-24	24DC	4	1.9 @ 24V	2.2 @ 24V					42, 44, 45
2000 (7571)	53S	12DC	15	8.4	12	Model 278	7.75 (196.8)	4.75 (121)	1-1/8 (29)	41, 43, 45
3700 (14010)	55S	12DC	25	15.5	20	Model 279	8.25 (209.5)	4.9 (124)	1-1/2 (38)	41, 43, 45
4000 (15140)	56S	12DC	25	15.5	20	Model 279	9.25 (235)	4.9 (124)	2 (51.0)	41, 43, 45

## PANEL SWITCHES

Part Number	Description	Volts (DC)	Max Amps (DC)	Size (width x height), Inches (mm)
41	3 Way Panel Switch - Lighted	12	20	3-1/4 x 2 (83 x 51mm)
42	3 Way Panel Switch - Lighted	24-32	10 (24V), 6.5 (32V)	3-1/4 x 2 (83 x 51mm)
45	3 Way Panel switch	12-24-32	20 (12v), 10 (24v), 6.5 (32v)	2-1/4 x 2 (57 x 51mm)
43	3 Way Rocker Panel Switch- Lighted	12	20	2-7/8 x 2-3/8 (73 x 60mm)
44	3 Way Rocker Panel Switch- Lighted	24	10	2-7/8 x 2-3/8 (73 x 60mm)
49	2 Way Panel Switch	12-24-32	20 (12v), 10 (24v), 6.5 (32v)	2-1/4 x 2 (57 x 51mm)

## SuperSwitch™ Float Switch



37A

Backed by a five-year warranty, the non-mercury SuperSwitch™ is designed for the toughest applications. Design includes marine-grade, 14 gauge blocked wire, a larger float for increased buoyancy, removable base for easy servicing and a snap switch design capable of handling pumps drawing up to 20 amps at 12 volt DC. Models 37A and 37FA include a five-year warranty.

## Rule-A-Matic® Plus™ Float Switch



40A

Sleek and rugged, the Rule-a-Matic® Plus™ Float Switch has a strong, fully integrated and impact-resistant cover, which protects against debris and jamming. Design includes 14 gauge highly abrasive-resistant, marine-grade wire and a built-in test feature. Designed for pumps drawing up to 20 amps at 12 volt DC. Models 40A and 40FA include a two-year warranty.

## Rule-A-Matic® Float Switch



35A

Year after year, the Rule-a-Matic® has been the switch of choice for boaters the world over. Our latest design now includes a removable base for easy cleaning and servicing, a mercury-free snap switch tested to over one million cycles and marine-grade blocked wire. Designed for pumps drawing up to 14 amps at 12 volt DC. Models 35A and 35FA include a two-year warranty.

## ECO-Switch



39

The Rule ECO-Switch is an ecologically sound automatic bilge pump control switch. Featuring a non-mercury design, the pump operates with simple air pressure. As water rises in the bilge, air rises in the air tube that is attached to the switch. The air pressure activates the switch which controls your pump. All wiring is out of the water, and there are no submerged electrical connections at all. Offering complete reliability and outstanding performance, the Rule ECO-Switch offers a viable alternative to traditional float switches. For pumps drawing up to 20 amps.



MODEL NUMBER	DESCRIPTION	VOLTS (DC)	MAX AMPS (DC)	WIRE GAUGE	SIZE (HEIGHT X LENGTH X WIDTH) INCHES (mm)
35A	Rule-a-Matic®	12, 24	14A (12V), 7A (24V)	16 AWG	2-1/4 x 5 x 1-3/4 (57 x 127 x 58)
35FA	Rule-a-Matic® with in-line fuse holder	12, 24	14A (12V), 7A (24V)		
37A	SuperSwitch™	12, 24, 32	20A (12V), 10A (24V), 6.5A (32V)	14 AWG	2-1/4 x 5 x 2 (57 x 127 x 51)
37FA	SuperSwitch™ with in-line fuse holder	12, 24, 32	20A (12V), 10A (24V), 6.5A (32V)		
40A	Rule-a-Matic® Plus™ with shield	12, 24, 32	20A (12V), 10A (24V), 6.5A (32V)	14 AWG	3 x 5-3/8 x 2-1/2 (76 x 137 x 64)
40FA	Rule-a-Matic® Plus™ with shield and in-line fuse holder	12, 24, 32	20A (12V), 10A (24V), 6.5A (32V)		
39	ECO-Switch 12 volt	12	20A	14 AWG	1-7/8 x 6 x 2-3/4 (48 x 152 x 70)
39-24	ECO-Switch 24 volt	24	10A		



## Rule Bilge Pumps

Rule Submersible Bilge Pumps have set the standard for the industry for decades. They are the first choice of yachtsmen and fishermen throughout the world. More innovations in bilge pump design have come from Rule Industries than any other manufacturer, and we are proud to offer the broadest range of bilge pumps in the world. Rule Industries has taken the initiative to once again set the standard. We're moving forward to redesign our bilge pumps from the 360 to the 4000 GPH pumps. As we look into the future, you'll see new designs, more options and higher efficiencies.

### FEATURES AND BENEFITS

- Pump and switch are stand-alone products.
- Compact, efficient, long-life motors.
- Sizes: 360, 500, 800, 1000, 1100, 1500, 2000, 3700 and 4000 in 12, 24 and 32 volt versions.
- Limited three-year warranty.
- Ability to run dry for short periods.

### 3700 G.P.H. (14002 L.P.H.)



14A, 16A



13A

- 1½" Discharge Hose

Part No.	Description	Volt
RUL 14A	Non-Automatic • 1 Year Warranty	12
RUL 16A	Non-Automatic • 1 Year Warranty	24
RUL 13A	Gold Series • 5 Year Warranty	12
	Non-Automatic	

### 1500 G.P.H. (5678 L.P.H.)



02, 03



04



51S

- 1-1/8" Discharge Hose

Part No.	Description	Volt
RUL 02	Non-Automatic • 1 Year Warranty	12
RUL 02-6	Non-Automatic 6' wire leads • 1 Year Warranty	12
RUL 03	Non-Automatic • 1 Year Warranty	24
RUL 04	Gold Series • 5 Year Warranty	12
	Non-Automatic	
RUL 51S	Automatic • 1 Year Warranty	12
	Not Shown	

### 2000 G.P.H. (7568 L.P.H.)



09



10-6UL, 10, 12



53S

- 1-1/8" Discharge Hose • 1 Year Warranty

Part No.	Description	Volt
RUL 09	Non-Automatic	12
	Gold Series. 5 Year Warranty	
RUL 10	Non-Automatic	12
RUL 10-6UL	Non-Automatic (UL Listed)	12
RUL 12	Non-Automatic	24
RUL 53S	Automatic	12

### 4000 G.P.H. (15140 L.P.H.)



- 2" Discharge Hose • 1 Year Warranty

Part No.	Description
RUL 56D	12 Volt Non-Automatic

### 1100 G.P.H. (4164 L.P.H.)

27DA  
27DA-6

27S



RM1100A

- 1 Year Warranty

Part No.	Description	Volts	Hose Size
RUL 27DA	Non-Automatic	12	1" - 1-1/8"
RUL 27DA-6	Non-Automatic with 6' wire leads	12	1" - 1-1/8"
RUL 27SA	Automatic	12	1" - 1-1/8"
RUL RM1100A	Rule-mate® Automatic	12	1-1/8"



## Rule LoPro Bilge Pumps

Bring pumping power to tight spaces. The 900S model features two automated modes. The first one engages the pump when the water level reaches 2" or 1.3" (user choice); and the second one checks for water by briefly turning on the pump every 2.5 minutes. The 900D model requires a float and/or panel switch.

Part No.	Description
RUL LP900D	H: 2.3" x L: 7.6" x W: 2.3" (Float switch sold separately)
RUL LP900S	H: 2.3" x L: 9.3" x W: 2.3" (Fully automatic w/ multiple modes)



### 1000 G.P.H. (3785 L.P.H.)



1 Year Warranty

- Gas Resistant Strainer Base
- 36 Mounting Variations

Part No.	Description	Volts	Hose Size
RUL 20A	Non-Automatic	12	1-1/8"

### 800 G.P.H. (3028 L.P.H.)



20F

- Gas Resistant Strainer Base
- 36 Mounting Variations
- 1 Year Warranty



20DA

Part No.	Description	Volts	Hose Size
RUL 20F	Non-Automatic	12	3/4"
RUL 20R	Non-Automatic	12	3/4"
RUL 20DA	Non-Automatic	12	3/4"
RUL 20DA-24	Non-Automatic	24	3/4"

### Rule-mate® 750 G.P.H. (2839 L.P.H.)



1 Year Warranty

Part No.	Description	Volts	Hose Size
RUL RM750A	Automatic	12	3/4"

### Rule-mate® 500 G.P.H. (1893 L.P.H.)



1 Year Warranty

Part No.	Description	Volts	Hose Size
RUL RM500A	Automatic	12	3/4"

### 500 G.P.H. (1893 L.P.H.)

RUL 25DA  
RUL 25DA-6  
Non-Automatic



RUL 25SA  
Automatic



1 Year Warranty

Part No.	Description	Volts	Hose Size
RUL 25SA	Automatic	12	3/4"
RUL 25DA	Non-Automatic	12	3/4"
RUL 25DA-6	Non-Automatic with 6' wire leads	12	3/4"

### 360 G.P.H. (1363 L.P.H.)



1 Year Warranty

Part No.	Description	Volts	Hose Size
RUL 24DA	Non-Automatic	12	3/4"

## Aqua Jet Wash Down Pump

As a wash down pump the Aqua Jet offers much higher pressure (70 psi) than competitive models, making clean-up faster and easier than ever before. Complete with trigger nozzle, PUMPProtector inlet strainer and hose connections for 1/2" hose. Also includes both BSP and NPT connections. \*3-Year Warranty



Part No.	Description	Pressure Cut Off
JOH 10-13407-07	WD 5.2 GPH, 12V Pump	70 psi
JOH 10-13399-03	WD 3.5 GPH 12V Pump	70 psi

**Johnson Pump**

## Cartridge Bilge Pumps

With a cartridge pump cleaning and maintenance no longer require complete disassembly. Simply lift the locking tab on top, give the cartridge a twist – lift it out – clean or replace without the use of any tools. Pump includes easy to install Dura-Port discharge ports to eliminate stress from cracking caused by over tightened hose clamps. Pump includes both a straight and 90° smooth elbow Dura-Port and check valve. \*3-Year Warranty



Part No.	Description
JOH 32503	500 GPH, 12V
JOH 32903	1000 GPH, 12V

## Heavy Duty Submersible 1600 GPH Bilge Pump

Designed for the tough demands of commercial and recreational duty. This heavy duty pump features a 12-pole motor with double ball bearings, a stainless steel shaft and a tough thermoplastic body for extended service life. An impeller designed and tested to maximize head and flow, along with a snap-in base that can be easily removed to clear debris. With an automatic switch installed, this pump starts on when there is water in the bilge and shuts off when it is dry. \*3-Year Warranty



Part No.	Description
JOH 16004-00	1600 GPH 12V HD Bilge Pump

## 2200 G.P.H. Heavy Duty Bilge Pump



This fully submersible pump is directly interchangeable with most popular pumps in the industry. Cool running, heavy duty, extended life motor. Tin coated 6' wire leads prevent corrosion. Made of high impact plastic. 18 month warranty. Non-Automatic 12 VDC.



Part No.	GPH	Hose Size	Max Amps
JOH 22004	2200	1-1/8" & 1-1/2"	8.6

## Ultima Bilge Pump

Sleek, reliable and compact unit with integrated switch ready to install and run for years of continuous service. UltimaBilge™ 600, 800 & 100 have easy-to-install Dura-Port discharge ports to eliminate stress cracking caused by over-tightened hose clamps. All models include both a straight and a 90° smooth elbow Dura-Port and a removable check valve. \*3-Year Warranty



Part No.	Description
JOH 32-47258-003	600 GPH, 12V
JOH 32-47259-003	800 GPH, 12V
JOH 32-47260-003	1000 GPH, 12V
JOH 32-47261-002*	1250 GPH, 12V

\* Does not include Dura-Port connection

## High Performance First Mate Pump

Designed for Pontoon Livewell and PWC Bilge applications. Excellent where space is at a premium and ease of maintenance is desired. Easy to plumb 90 degree Dura-Port makes short work of challenging hose routing. \*3-Year Warranty



## First Mate Pump

Small, price-wise alternative designed for long life and high performance capacity. Low cost for boat owners who still look for quality.

Part No.	Description
JOH 21405HP	High Performance First Mate, 12V, 400 GPH
JOH 21405	First Mate, 12V, 400 GPH

## Proline Bilge Pumps

Proline Bilge Pumps are ignition protected and fully submersible. Made of 316 stainless steel shaft and hardware 16GA wire 30" long. .3/4" hose barb discharge port. Free and easy flow, non-clogging design. 100% factory tested. 12 volt pump. \*3-Year Warranty



Part No.	Description
JOH 22502	500 GPH 12V, Dura-Ports
JOH 22507	750 GPH 12V, Dura-Ports

## Pro Series 1600 GPH Livewell/Baitwell

This heavy-duty, double ball bearing pump features a larger motor stack and more windings than any pump on the market for long life and cooler running. Additional features include heavy duty bronze bottom inlet, 1600 GPH of pumping power, dual port capability, mega torque motor and a 1" NPY female intake. This quiet running design is built for the serious fisherman. Removable check valve included. \*3-Year Warranty



Part No.	Description
JOH 16004B	1600 GPH, 12V





Model 41



Model 43



Model 45

Part No.	Description	Volts	Max Amp	Size
RUL 41	3 Way Panel Switch - Lighted	12	20	3 1/4" x 2"
RUL 43	3 Way Rocker Panel Switch - Lighted	12	20	2-7/8" x 2-3/8"
RUL 45	3 Way Panel Switch	12-24-32	20	2 1/4" x 2"

## Automatic Electronic Float Switch



Automatic electronic float switch features solid state electronics, eliminates mercury, contacts and points. The **36152** Auto Switch guards against false starts, has no external moving components and is very compact. A special slide-on "T" slot allows for easy attachment to any Mayfair bilge pump. Not effected by floating debris. 6 to 32 Volt-15 amps.

**Part No.**  
JOH 36152

## Ultima Switch™



Uses the patented Mirus field effect detector cells producing, micro-electrical fields that detect disruptions caused by water and fluids. With no moving parts and totally sealed solid-state electronics, this mercury-free switch never corrodes or jams on debris. Activates/deactivates at 2" and 3/4" fluid levels. A three second delay prevents false starts. Rated to handle pumps up to 20 amps at 12V or 24V DC. \*3-Year Warranty

Part No.	Description	Max. Amp
JOH 36303	12/24V	20 A



**5 Year Warranty**

Sure Bail® comes in two versions. The first version is the Traditional Mercury Switch on at 1-3/4" and off at 7/8". Electrical Rating 15 Amps max at 6-32 VDC (5 Amps max at 110 VAC). The second version is the Electronic switch on at 2" and off at 1/2". Electrical ratings at 20 amps max at 6-32 VDC (5 amps max at 110 VAC) 2-7/8" x 2-1/2" x 5-1/2"

Part No.	Description
MPI 900-2000	Mercury Switch

## In-line Blower



RUL 140



RUL 240



Efficient high volume air flow, quiet operation low amp draw. Slip on inlet and outlet ducting connections, sealed motor shaft for moisture protection, nickel plated motor housing. ABYC-H2;ISO 9097, IMCI (CE) N.M.M.A. type accepted. USCG 183.410 Compliant: Ignition protected. 12 volts

Part No.	FMC	Amp	Dia	Lth	Hth
RUL 140	135	2.9	3"	5 1/4"	3-3/16"
RUL 240	235	4.3	4"	5 1/4"	4-3/16"

Not sure  
**WHICH PUMP**  
you need?

Give us a call!  
**FL 1-800-432-2231**  
**SC 1-800-788-2231**

Jerry's Marine parts experts will be happy to assist you in finding the perfect fit.

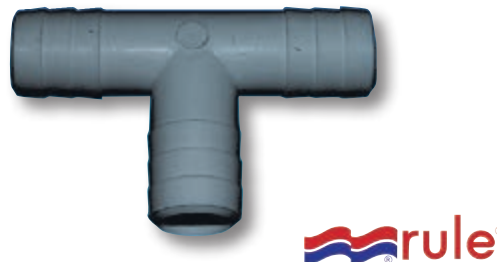
## Replacement Strainer Bases



Original replacement strainer base for your Rule Bilge Pump.

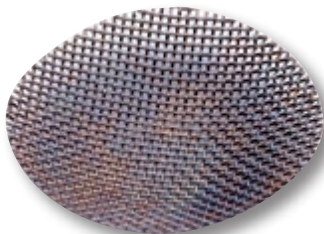
Part No.	Description
RUL 275	Round Rule 360 to 1100 GPH
RUL 277	Square Rule Pumps
RUL 278	Round Rule 1500 to 2000 GPH
RUL 279	Round Rule 2800 to 3700 GPH
RUL 285	Rule-Mate 500 to 1100 GPH
RUL 286	Rule-Mate 1500 to 2000 GPH
RUL 1230R	LP900D & LP900S
RUL 1231R	New Style 360 & 500 GPH
RUL 1232R	New Style 800 & 1100 GPH
RUL 1000864-26	500/750/1100 RuleMate pumps.

## 3-Way Fitting for Bilge Hose



Original replacement strainer base for your Rule Bilge Pump.

Part No.	Description
RUL 215	3/4" (19mm) Hose
RUL 216	1-1/8" (29mm) Hose

Stainless Steel  
Debris Strainer

Extra measure of protection for use on round based Rule pumps up to 3700 GPH (14010 LPH). Installs directly into existing strainer. Filters out excess debris and helps prevent jamming and failure.

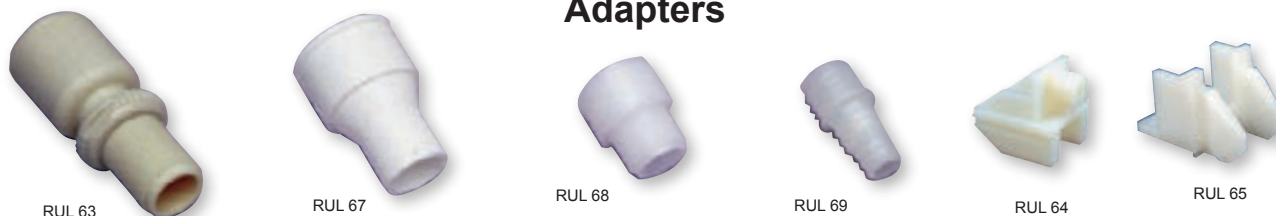
**Part No.**  
RUL 70

Universal Pump  
Adapter

Permits small Rule bilge pumps to be side mounted to a vertical stringer, a bulkhead or transom. Use this bracket when bottom mounting is inconvenient or impossible. Simply remove the strainer from the pump, put the bracket in place, and reassemble.

Part No.	Description
RUL 66	Round Pumps from 360 to 1100 GPH

## Adapters



Part No.	Description
RUL 63	Bulkhead adapter-adapts 1-1/2" (38mm) hose to standard garden hose fitting.
RUL 67	Hose adapter-adapts 1-1/2" (38mm) outlet to 1-1/8" (29mm) hose
RUL 68	Garden hose adapter-adapts 1-1/8" (29mm) outlet to standard garden hose fitting.
RUL 69	Double stepped straight adapter for adapting 1-1/8" (29mm) outlet to 3/4" (19mm) or 5/8" (16mm I.D. D. hose).
RUL 64	Adapter to attach Rule SuperSwitch to Rule 3700 (14002) and 4000 GPH (15137 LPH) Pumps.
RUL 65	Adapter to attach Rule SuperSwitch or Rule-A-Matic® mercury free float switch to Rule 1500 (5676), 2000 GPH (7568 LPH) and 5-Year Pumps



## Livewell Pumps



The Bait Sentry- livewell pumps are designed for easy installation and trouble-free operation. 12 VDC continuous duty, ignition protected ISO 8846. Magnetic Drive technology eliminates unnecessary failures. Motors keep running after ingesting debris or even when running dry. Patented anti-air-lock feature allows the pump to clear trapped air in rough water or when boat is anchored. Includes dual port for easy wash down pump connection. 3 year warranty. **1700-001-030** 30 Gallon Tank size, **1700 -011-030** 40 Gallon Tank & **1700-021-030** 60 Gallon Tank size. Dimensions 4.93" x 7.85"

Part No.	Port Size Inlet/Outlet	Amp Max	Flow Rate GPH
SHU 1700-001-030	3/4" inlet & Outlet NPTM 3/4" Outlet Barb	1.75	500
SHU 1700-011-030	3/4" inlet & Outlet NPTM 3/4" Outlet Barb	3.5	800
SHU 1700-021-030	3/4" inlet & Outlet NPTM 1-1/8" Outlet Barb	3.75	1100

### Heavy Duty Livewell Pumps



The SHURflo ProBaitmaster II Heavy Duty Livewell Pump is excellent for Livewell or washdown application. This pump is self priming, quiet, thermally protected, has a seamless motor shell that is E Coated to withstand the toughest marine environment, and can run dry without damage. For tank size 35 gallons and under. 4.0 GPM. Continuous Duty. Ignition protected. Strainer and fittings included. 2 Year Warranty.

Part No.	Dimensions	Amp Max	Shut-Off Pressure
SHU 4648-153-E07	10" x 5.0" x 4.75"	10	60 psi

### Tournament Series Livewell Pumps



Tournament Series livewell pumps are robust, high capacity, anti-air-locking pumps capable of delivering 1600 GPH. The highest capacity livewell pumps in today's market. These pumps have been developed to withstand the rigors of tournament fishing while supplying the volume of water required to keep bait and catch alive and healthy. 1 year warranty.

Part No.	Description
RUL 209FDP	1" NPTF Intake. 1-1/8" Hose & 1/2" NPTF Discharge Glass Filled Nylon Dual Port Base
RUL 209B	1" NPTF Intake 1-1/8" Hose Discharge Bronze Base

### Tournament Series Seacock Inlet



403FC has 3/4" NPTM Inlet, dual outlet the primary a 3/4" hose with 90° or straight adapters and a secondary 1/2" NPTF outlet. 405FC is the same except the primary is 1-1/8".

Part No.	Description
RUL 403FC	800 GPH / 12 Volt DC / 2.8 amp.
RUL 405FC	1100 GPH / 12 Volt DC / 3.9 amp.

### Oxygenator Spray Head



Rule's Oxygenator Spray head sprays streams of water back into the livewell tank enriching the water with oxygen. Adjustable spray head allows you to increase or decrease flow of water. For use with 3/4" (19mm) hose.

Part No.
RUL 78



## Thru Hull Fittings



High impact plastic will not rust, corrode or discolor. Specially designed for Rule pumps.

Part No.	Description
RUL 61S	¾" Straight
RUL 60	1-1/8" Straight
RUL 59	1½" Straight
RUL 72	2" Straight
RUL 74	3" Straight

## Poly Pro Thru Hulls



Part No.	Hose Size	Thread Lth.	Color
T/H TH-752	¾"	1¾"	White
T/H TH-1002	1"	1-5/8"	White
T/H TH-1202	1-1/8"	1¾"	White
T/H TH-1502	1½"	1¾"	White
T/H TH-750	¾"	1¾"	Black
T/H TH-1000	1"	1-5/8"	Black
T/H TH-1200	1-1/8"	1¾"	Black
T/H TH-1500	1½"	1¾"	Black

## Livewell Stainless Steel Debris Strainer



The Livewell Pump Debris Strainer attaches directly to any pickup tubes on Rule Livewell Pumps. Filters out trash and debris which could clog pump. Stainless steel wire mesh, 3/4" (19mm) female NPS threads.

Part No.  
RUL 73



## Bilge Alarm



The High Water Bilge Alarm consists of a float switch and an in-dash gauge that features both a visual and an audible 85 db alarm. This unit allows an unmanned compartment to be constantly monitored. For additional compartments add additional Rule Float Switches. Complies with CFR 182.530 which requires a visual and audible alarm in each unmanned space on commercial vessels at least 26' (7.9m) in length.

Part No.  
RUL 33ALA

## Shower Drain



Part No.	Description
RUL 98A	Multi-Port Inlet Pump 8¼" x 11¼" x 5½" • ¾" Discharge Hose • ¾", 1", 1-1/8", 1½" Inlet Ports 800 GPH (3028 LPH)

General Purpose Centrifugal Pump  
3800 GPH (14380 LPH)

• 1 Year Warranty

The Rule General Purpose Pump is designed for use as a wash down pump and/or to circulate water to your livewell tank(s). Heavy duty construction for use on commercial or pleasure boats. 1-1/2" (38mm) inlet and 1-1/2" (38mm) discharge outlet. The Rule General Purpose Pump must be mounted below the waterline. It does not deliver high pressure, nor is it self priming. It delivers lots of water but at low pressure. 12 volts DC.

Part No.  
RUL 17A

## 110 Volt Submersible Pump



Designed to remove water from boats and other utility applications. 24' cord with plug. 1-1/8" hose outlet. Adapters included garden hose and #57 rigid pipe.

Part No.	Description
RUL A53S-24	Automatic

## Electric Clutch Pump

This Manually Activated Clutch Pump Offers all the Benefits of Flexible Impeller Pumps with a High Capacity Flow Rate and Horizontally Oriented Ports.

- 4710 gph @ 10' total head @1750 rpm
- Self-Priming to 15' vertical lift
- Mechanical face type shaft seal
- Nitrile Impeller
- Two single-row shaft ball bearings

Fitting: 2" Internal NPT  
Size: 12-7/16" L x 5-15/16" W x 5-3/4" H  
Pulley Dia: 7"  
Weight: 24 lb  
12 Volt DC Pump with double A groove pulley

### Part No.

JAB 18330-0000



## Water System Controller

Variable Speed Drive converts everyday pumps into sensor-controlled pumps that automatically adjust in real time to changes in pressure.

### Specifications:

Voltage: 12 or 24 VDC input  
Amps: 12 amps at 12V 6 amps at 24V  
Flow Range: Depends on pump  
Size: 4.7" x 3.0"  
Weight: 8.2 oz

### Part No.

JAB 31777-000



## Cyclone Circulation Pump

High efficiency, long life circulation pumps. Applications include Hot & Cold water systems, livewell and bait tank.

- 31 GPM maximum flow rate.
- Stainless steel body and anti-clogging design impeller.
- 3 year warranty

Fitting: Connections for 3/4" NPT Internal  
Size: 4-1/2" L x 4-1/2" W x 6-5/6" H  
Weight: 15 lb. (6.8 kg)

### Part No.

JAB 50840-0012

### Description

12 Volt, 10 Amp.



## Par-Max 2.9 Water System Pump

Smooth flow. Three chamber diaphragm on-demand pumps with the performance to match the needs of a typical vessel with a shower, water heater and up to three faucets.

- Self priming up to 6', Dry running.
- Low noise, Less pulsation.
- 3 year warranty.

12 Volt/5.2 Amp  
Fitting: 1/2" hose barb or 1/2" NPT (both supplied)  
Size: 9" L x 4.5" W x 4.5" H  
Weight: 4 lbs  
Flow: 0-2.9 gpm

### Part No.

JAB 50840-0012

JAB 31395-0092

### Description

12 Volt, 10 Amp.

12 Volt



## Water Puppy



Continuously rated duty bilge/sump pump.

- 380 gph output at 10'. Total head
- Self-priming up to 4'. Vertical lift.
- 1 year warranty

**Fitting:** Connections for 1/2" NPT Internal and for 1" ID hose  
Size: 6-3/8" L x 4-3/4" W x 3-1/2" H

**Weight:** 6-1/2 lbs

### Part No.

JAB 18660-0121

JAB 6303-0001

### Description

12 Volt, 15 Amp (non CE).

Replacement Impeller.



## Par-Max 4 Washdown Pump Kit

- Powerful 4.3 gpm flow rate.
- Applications where continuous rating is required.
- Supplied with pump guard and nozzle.
- Runs dry.
- Self-priming.
- 1 year warranty.

Fitting: Connections for 3/4" ID hose threaded fittings, and for Size: 9.8" L x 4.2" W x 4.1" H  
Weight: 6-1/2 lbs

### Part No.

JAB 31700-0092

### Description

12 Volt, 15 Amp.



## Self-Priming Mini-Puppy Pump

Use for bilge pumping, livewell circulation, washdown and general pumping requirements. Body: Bronze, Impeller: Neoprene, Seal: Lip Type Motor: permanent magnet type, fully enclosed, stainless shaft Ports: 3/8" Pipe Thread Internal Plus an adaptor for 3/4" Garden Hose Thread Weight: 4-1/2 lbs. Size: 6-3/4" L x 3-3/4" W x 3-3/8" H

1 year warranty

### Part No.

JAB 8860-0001

JAB 14750-0001

### Description

12 Volt/4 Amp

Spare Impeller



## Electric Bilge Pump

- Pumpguard strainer included.
  - Self priming, Dry run.
  - 1 year warranty
- Open Flow: 4.0 GPM  
Vertical Dry Suction Lift: 7'  
Ports: 3/4" Slip-On Hose  
Weight: 7 lbs. (3.2 kg)  
12 Volt, 8 Amp.

### Part No.

JAB 36960-2000





SHU 4138-111-E65  
SHU 4128-110-E04



The Aqua King II pumps guarantee quiet operation and smooth performance while providing the ultimate in durability and reliability. Designed and built specifically for the harsh marine environment, the Generation II SHURflo pumps. This pump is self priming, quiet, thermally protected, has a seamless motor shell that is E Coated to withstand the toughest marine environment, and can run dry without damage Ignition Protected. Three year warranty.

Part No.	Description	Dimensions	GPM	Amp Max	Shut-Off Pressure
SHU 4138-111-E65	Multi-Fixture	8.2" x 4.9" x 4.1"	3	6.5	55 psi
SHU 4128-110-E04	1 & 2 Sinks, Shower	8.2" x 4.9" x 4.1"	2	3.5	30 psi

## Aqua King II Fresh Water Pump 5.0



These are designed for boats with multi-fixtures providing "Just like home" shower pressure, and can operate at lower flow conditions without cycling. A built in mechanical bypass function enables these pump to vary the flow rate for any on demand condition. No accumulator needed. Check Valve for superior life. This pump is self priming, quiet, thermally protected, has a seamless motor shell that is E Coated to withstand the toughest marine environment, and can run dry without damage Inlet strainer and fittings included. Ignition protected. Three year warranty

Part No.	Description	Dimensions	GPM	Amp Max	Shut-Off Pressure
SHU 4158-153-E75	Multi Fixture	10" x 5" x 4.75"	5	13	55 psi

## Wash Down Pumps

### BLASTER™ II



SHU 4238-121-E07

### PRO BLASTER™ II



SHU 4248-153-E09

### PRO BLASTER™ II



SHU 4258-153-E09

Perfect for tough wash down applications, such as fish box, scaling, and anchor chain cleaning, these rugged self-priming pumps deliver high lift, can run dry without damage, and won't overheat with extended use. Pumps are ignition protected and switches are sealed against water damage. Thermally protected. Ignition Protected. 2 Year Warranty 12 volt. Nozzle and 1/2" hose barb fittings included

Part No.	Dimensions	GPM	Amp Max	Shut-Off Pressure
SHU 4238-121-E07	9" x 4.9" x 4.1"	3.5	7.5	45 psi
SHU 4248-153-E09	10" x 5" x 4.75"	4	10	60 psi



## Pump Fittings



Part No.  
SHU 8-070-01  
SHU 8-034-00  
SHU 244-3946



Size  
1/2"-14 NPTF x 1/2" Hose  
1/2"-14 NPTF x 1/2" Hose  
1/2"-14 NPTF x 3/4" Hose



Desc.  
Straight  
90°  
90°

## Swivel Nut Strainer



Easy assembly to head of pump keeps debris out. Transparent, easy to see when strainer needs cleaning. 50 mesh stainless screen.

Part No.  
SHU 255-313

Pipe/Size  
1/2"





## TECHNICAL DATA

## A COMPLETE FAMILY OF CABLES:

CCX643XX  
6400/64CC type  
(5/16-24 threaded end)

**XTREME**

### FEATURES:

- Xtreme's unique design incorporates a patent-pending splined core which allows easy movement and minimum lost motion
- Designed for complex and/or long cable runs (or to simply create a superior feel)
- Available in several style options avoiding the need for adaptor kits
- All Xtreme cables are available in 1ft increments
- Gen II type suits Mercury 4000 series controls





### CC332 (33C) Cables



Standard universal 3300 or 33C style cables are designed to fit aftermarket engine controls as well as OEM units from BMW®, Chrysler®, Honda®, Nissan®, Suzuki®, Volvo®, Yamaha® & others. For use on Inboard, Sterndrive & Outboards with Appropriate kits.

**10/32" threads** - Stroke: 3." Red Jacket.

Part No.	Length	Part No.	Length
TEL CC33210	10'	TEL CC33218	18'
TEL CC33211	11'	TEL CC33219	19'
TEL CC33212	12'	TEL CC33220	20'
TEL CC33213	13'	TEL CC33221	21'
TEL CC33214	14'	TEL CC33222	22'
TEL CC33215	15'	TEL CC33223	23'
TEL CC33216	16'	TEL CC33224	24'
TEL CC33217	17'		

SeaStar Solutions No Longer Makes Standard Cables Over 24ft or below 10". See **XTREME** CCX633XX Cables



### CCX633 XTREME Cables



Premium TFXtreme Universal 3300 or 33C style cables are designed to fit aftermarket engine controls as well as OEM units from BMW®, Chrysler®, Honda®, Nissan®, Suzuki®, Volvo®, Yamaha® & others. This series features a heavy jacket and a splined coated core wire for maximum smoothness with minimal lost motion.

**10/32" threads** - Stroke: 3" Black Jacket.

Part No.	Length	Part No.	Length
TEL CCX63310	10'	TEL CCX63326	26'
TEL CCX63311	11'	TEL CCX63328	28'
TEL CCX63312	12'	TEL CCX63330	30'
TEL CCX63313	13'	TEL CCX63332	32'
TEL CCX63314	14'	TEL CCX63334	34'
TEL CCX63315	15'	TEL CCX63336	36'
TEL CCX63316	16'	TEL CCX63338	38'
TEL CCX63317	17'	TEL CCX63340	40'
TEL CCX63318	18'	TEL CCX63342	42'
TEL CCX63319	19'	TEL CCX63344	44'
TEL CCX63320	20'	TEL CCX63346	46'
TEL CCX63322	22'	TEL CCX63348	48'
TEL CCX63324	24'	TEL CCX63350	50'



### CCX433 Cables XTREME



Premium Xtreme replacement for 4300 or 43C this series features a splined coated core wire for maximum smoothness with minimal lost motion Stroke: 3" **1/4"-28 threads**. Black Jacket.

Part No.	Length	Part No.	Length
TEL CCX43308	8'	TEL CCX43320	20'
TEL CCX43309	9'	TEL CCX43322	22'
TEL CCX43310	10'	TEL CCX43326	26'
TEL CCX43312	12'	TEL CCX43328	28'
TEL CCX43314	14'	TEL CCX43330	30'
TEL CCX43316	16'	TEL CCX43332	32'
TEL CCX43317	17'	TEL CCX43338	38'
TEL CCX43318	18'	TEL CCX43350	50'



### CC170 Cables



Standard replacement for 400 or Type O cables. 1979 OMC®/Johnson®/Evinrude® with BPR/OMC Controls.

Stroke: 3.1" Black Jacket.

Part No.	Length	Part No.	Length
TEL CC17005	5'	TEL CC17016	16'
TEL CC17007	7'	TEL CC17017	17'
TEL CC17008	8'	TEL CC17018	18'
TEL CC17010	10'	TEL CC17019	19'
TEL CC17012	12'	TEL CC17020	20'
TEL CC17013	13'	TEL CC17022	22'
TEL CC17014	14'	TEL CC17023	23'
TEL CC17015	15'	TEL CC17024	24'



### CCX740 XTREME Cables



Premium TFXtreme for Volvo engines using top mount BRP/OMC controls. Stroke: 3.1" Black Jacket.

Length	Part No.	Part No.	Length
TEL CCX74008	8'	TEL CCX74019	19'
TEL CCX74009	9'	TEL CCX74020	20'
TEL CCX74010	10'	TEL CCX74022	22'
TEL CCX74011	11'	TEL CCX74024	24'
TEL CCX74012	12'	TEL CCX74025	25'
TEL CCX74013	13'	TEL CCX74026	26'
TEL CCX74014	14'	TEL CCX74027	27'
TEL CCX74015	15'	TEL CCX74028	28'
TEL CCX74016	16'		
TEL CCX74017	17'		



### CCX205 XTREME Cables



Standard OS or Type 479 replacement cable 1979-Date BRP®/OMC®/Johnson®/Evinrude®/Gale® with BRP/OMC controls. Stroke: 3" Black Jacket.

Part No.	Length	Part No.	Length
TEL CCX20506	6'	TEL CCX20517	17'
TEL CCX20507	7'	TEL CCX20518	18'
TEL CCX20508	8'	TEL CCX20519	19'
TEL CCX20510	10'	TEL CCX20520	20'
TEL CCX20512	12'	TEL CCX20521	21'
TEL CCX20513	13'	TEL CCX20522	22'
TEL CCX20514	14'	TEL CCX20524	24'
TEL CCX20515	15'	TEL CCX20526	26'
TEL CCX20516	16'	TEL CCX20528	28'



### CCX189 Cables *XTREME*



Premium TFXtreme Cable Mariner®/Mercury®/MerCruiser® & other engines using Mercury 2003-Date 4000 series controls. This series features a heavy jacket and a splined coated core wire for maximum smoothness with minimal lost motion.

Stroke: 3.3" Black Jacket.

Part No.	Length	Part No.	Length
TEL CCX18906	6'	TEL CCX18916	16'
TEL CCX18907	7'	TEL CCX18917	17'
TEL CCX18908	8'	TEL CCX18918	18'
TEL CCX18909	9'	TEL CCX18919	19'
TEL CCX18910	10'	TEL CCX18920	20'
TEL CCX18911	11'	TEL CCX18922	22'
TEL CCX18912	12'	TEL CCX18924	24'
TEL CCX18913	13'	TEL CCX18926	26'
TEL CCX18914	14'	TEL CCX18928	28'
TEL CCX18915	15'	TEL CCX18930	30'



### CC179 Cables



Standard replacement for KM or 600A cables for Mariner®/Mercury®/MerCruiser® (1965-Date) Force®/ (1993-Date) with Mercury controls. All Mariner engines with Mercury/Mariner controls (except pre-1993 40 HP & lower models) All 1993-Date Force (US Marine) with Force/US Marine/Mercury controls.

Stroke: 3.75" Black Jacket.

Part No.	Length	Part No.	Length
TEL CC17910	10'	TEL CC17918	18'
TEL CC17911	11'	TEL CC17919	19'
TEL CC17912	12'	TEL CC17920	20'
TEL CC17913	13'	TEL CC17921	21'
TEL CC17914	14'	TEL CC17922	22'
TEL CC17915	15'	TEL CC17923	23'
TEL CC17916	16'	TEL CC17924	24'
TEL CC17917	17'		



### DC Controls

#### DC Control (Shown with 3300C/33C Type Cable Attached)

#### Mounting Bracket

Coverts standard 3300/33C cable into a utility control. Install through a panel or mount nearly anywhere with optional bracket. For cable see 33C throttle cable for ends see throttle parts.

Part No.	Description
Ⓐ TEL 301916	DC Control
Ⓑ TEL 048210	Mounting Bracket S/S



# NEED A CABLE?

Give us a call!

FL 1-800-432-2231

SC 1-800-788-2231

Our parts experts will be happy to assist you in finding the perfect fit.



### C2 Cables 33C & 3300 Universal Replacement Cables



Standard replacement for universal 3300 or 33C style cables are designed to fit aftermarket engine controls as well as OEM units from BMW®, Chrysler®, Honda®, Nissan®, Suzuki®, Volvo®, Yamaha® & others. For use on Inboard, Sterndrive & Outboards with Appropriate fittings. 10/32" threads - Stroke: 3.4" Black Jacket.

Part No.	Length	Part No.	Length
UFL C2X05	5'	UFL C2X21	21'
UFL C2X06	6'	UFL C2X22	22'
UFL C2X07	7'	UFL C2X23	23'
UFL C2X08	8'	UFL C2X24	24'
UFL C2X09	9'	UFL C2X25	25'
UFL C2X10	10'	UFL C2X26	26'
UFL C2X11	11'	UFL C2X27	27'
UFL C2X12	12'	UFL C2X28	28'
UFL C2X13	13'	UFL C2X29	29'
UFL C2X14	14'	UFL C2X30	30'
UFL C2X15	15'	UFL C2X32	32'
UFL C2X16	16'	UFL C2X34	34'
UFL C2X17	17'	UFL C2X36	36'
UFL C2X18	18'	UFL C2X38	38'
UFL C2X19	19'	UFL C2X40	40'
UFL C2X20	20'		

### Mach Zero Premium 33C & 3300 Replacement Cables



**UFLEX**

Premium Universal 3300 or 33C style cables are designed to fit aftermarket engine controls as well as OEM units from BMW®, Chrysler®, Honda®, Nissan®, Suzuki®, Volvo®, Yamaha® & others. For use on Inboard, Sterndrive & Outboards with Appropriate kits. This series features super high efficiency and high flexibility. 10/32" threads - Stroke: 3.4" Blue Jacket.

Part No.	Length	Part No.	Length
UFL MC0X04	4'	UFL MC0X28	28'
UFL MC0X07	7'	UFL MC0X29	29'
UFL MC0X08	8'	UFL MC0X30	30'
UFL MC0X09	9'	UFL MC0X31	31'
UFL MC0X10	10'	UFL MC0X32	32'
UFL MC0X11	11'	UFL MC0X33	33'
UFL MC0X12	12'	UFL MC0X34	34'
UFL MC0X13	13'	UFL MC0X35	35'
UFL MC0X14	14'	UFL MC0X36	36'
UFL MC0X15	15'	UFL MC0X37	37'
UFL MC0X16	16'	UFL MC0X38	38'
UFL MC0X17	17'	UFL MC0X40	40'
UFL MC0X18	18'	UFL MC0X42	42'
UFL MC0X19	19'	UFL MC0X44	44'
UFL MC0X20	20'	UFL MC0X46	46'
UFL MC0X21	21'	UFL MC0X48	48'
UFL MC0X22	22'	UFL MC0X36	50'
UFL MC0X23	23'	UFL MC0X36	54'
UFL MC0X24	24'	UFL MC0X36	56'
UFL MC0X25	25'	UFL MC0X36	58'
UFL MC0X26	26'	UFL MC0X36	60'
UFL MC0X27	27'		



### HIGH PERFORMANCE

The PATENTED "high performance" MACH™ Cables are the result of our decades of experience in producing high quality, long lasting, flexible cables. The innovative core design maximizes efficiency and minimizes lost motion, while the exclusive design of the conduit provides extremely high level of flexibility.

### FEATURES AND PERFORMANCE

Available in the following configurations:

- MACHZero - Universal style (like C2, C8)
- MACH5 - Mercury® style (like C5)
- MACH14 - Current OMC® style (like C14)
- MACH36 - Gen II Mercury® style (like C36)

Suitable for outboard – inboard and sterndrive engines – High efficiency for smooth operation – High flexibility for reduced bend radius. Ideal for long complex cable routings – Maintenance free Stainless steel cables end fittings – High resistance blue outer jacket against abrasion, UV and chemicals

### C14 Cables OMC®/Johnson®/Evinrude® Replacement Cables



Standard OS or Type 479 replacement cable 1979-Date BPR®/ OMC®/Johnson®/Evinrude®/Gale® with BRP/OMC controls. Stroke: 3" Black Jacket.

Part No.	Length	Part No.	Length
UFL C14X08	8'	UFL C14X18	18'
UFL C14X09	9'	UFL C14X19	19'
UFL C14X10	10'	UFL C14X20	20'
UFL C14X11	11'	UFL C14X21	21'
UFL C14X12	12'	UFL C14X22	22'
UFL C14X13	13'	UFL C14X23	23'
UFL C14X14	14'	UFL C14X24	24'
UFL C14X15	15'	UFL C14X26	26'
UFL C14X16	16'	UFL C14X28	28'
UFL C14X17	17'	UFL C14X30	30'

### Mach 14 Premium OMC®/Johnson®/Evinrude® Replacement Cables



**UFLEX**

Standard OS or Type 479 replacement cable 1979-Date BRP®/ OMC®/Johnson®/Evinrude®/Gale® with BRP/OMC controls. Stroke: 3" Blue Jacket.

Part No.	Length	Part No.	Length
UFL MC14X10	10'	UFL MC14X17	17'
UFL MC14X11	11'	UFL MC14X18	18'
UFL MC14X12	12'	UFL MC14X19	19'
UFL MC14X13	13'	UFL MC14X20	20'
UFL MC14X14	14'	UFL MC14X22	22'
UFL MC14X15	15'	UFL MC14X24	24'
UFL MC14X16	16'		

### C36 Cables

#### Mariner®/Mercury®/MerCruiser® Replacement Cables


**UFLEX**

Standard replacement Mariner®/Mercury®/MerCruiser® engines using Mercury® 2003-date 4000 series controls. Stroke: 3.3" Black Jacket.

Part No.	Length	Part No.	Length
UFL C36X10	10'	UFL C36X18	18'
UFL C36X11	11'	UFL C36X19	19'
UFL C36X12	12'	UFL C36X20	20'
UFL C36X13	13'	UFL C36X21	21'
UFL C36X14	14'	UFL C36X22	22'
UFL C36X15	15'	UFL C36X23	23'
UFL C36X16	16'	UFL C36X24	24'
UFL C36X17	17'	UFL C36X25	25'



### Mach 36 Cables

#### Gen II/Mariner®/Mercury®/MerCruiser® Premium Replacement Cable


**UFLEX**

Premium replacement cable for Mariner®/Mercury®/MerCruiser® engine using Mercury 2003-Date 4000 series controls. This series features super high efficiency and high flexibility. Stroke: 3.4" Blue Jacket.

Part No.	Length	Part No.	Length
UFL MC36X10	10'	UFL MC36X19	19'
UFL MC36X11	11'	UFL MC36X20	20'
UFL MC36X12	12'	UFL MC36X21	21'
UFL MC36X13	13'	UFL MC36X22	22'
UFL MC36X14	14'	UFL MC36X23	23'
UFL MC36X15	15'	UFL MC36X24	24'
UFL MC36X16	16'	UFL MC36X25	25'
UFL MC36X17	17'	UFL MC36X26	26'
UFL MC36X18	18'		

### C5 Cables

#### Mariner®/Mercury®/MerCruiser®, Force® and US Marine® Replacement Cables


**UFLEX**

Standard replacement for KM or 600A Cables for Mariner®/Mercury®/MerCruiser® (1965-date); Force® (1993-date) with Mercury® controls. All Mariner® engines with Mercury®/Mariner® controls (except pre-1983 40 hp & lower models). All 1993-date Force® (US Marine®) with Force®/US Marine®/Mercury® controls. Stroke: 3.4" Black Jacket.

Part No.	Length	Part No.	Length
UFL C5X06	6'	UFL C5X19	19'
UFL C5X07	7'	UFL C5X20	20'
UFL C5X08	8'	UFL C5X21	21'
UFL C5X09	9'	UFL C5X22	22'
UFL C5X10	10'	UFL C5X23	23'
UFL C5X11	11'	UFL C5X24	24'
UFL C5X12	12'	UFL C5X25	25'
UFL C5X13	13'	UFL C5X26	26'
UFL C5X14	14'	UFL C5X27	27'
UFL C5X15	15'	UFL C5X28	28'
UFL C5X16	16'	UFL C5X29	29'
UFL C5X17	17'	UFL C5X30	30'
UFL C5X18	18'		

### Mach 5 Cables

#### Mariner®/Mercury®/MerCruiser®, Force® and US Marine® Premium Replacement Cables


**UFLEX**

Premium replacement for KM or 600A Cables for Mariner®/Mercury®/MerCruiser® (1965-date); Force® (1993-date) with Mercury® controls. All Mariner® engines with Mercury®/Mariner® controls (except pre-1983 40 hp & lower models). All 1993-date Force® (US Marine®) with Force®/US Marine®/Mercury® controls. This Series features super high efficiency and high flexibility. Stroke: 3.4" Blue Jacket.

Part No.	Length	Part No.	Length
UFL MC5X8	8'	UFL MC5X20	20'
UFL MC5X10	10'	UFL MC5X21	21'
UFL MC5X11	11'	UFL MC5X22	22'
UFL MC5X12	12'	UFL MC5X23	23'
UFL MC5X13	13'	UFL MC5X24	24'
UFL MC5X14	14'	UFL MC5X25	25'
UFL MC5X15	15'	UFL MC5X26	26'
UFL MC5X16	16'	UFL MC5X27	27'
UFL MC5X17	17'	UFL MC5X28	28'
UFL MC5X18	18'	UFL MC5X30	30'
UFL MC5X19	19'		

### Engine Connection Kits

#### Engine-Specific Connection Kits for O.E.M. Cables:

For 1973-1978 OMC O.E.M. ("400" type) cables with bare wire ends:

Part No.	Description
TEL CA27208P	Johnson/Evinrude O/B Kit (35 hp & Less)
TEL CA27247P	Johnson/Evinrude O/B Kit (Over 35 hp)
TEL CA27247P	OMC Stern Drive Kit (all)

(NOTE: included clip is not used on stern drives.)



TEL CA27208P

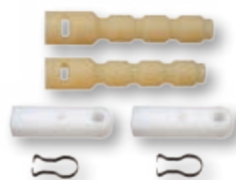


TEL CA27247P



#### Engine-Specific Connection Kits for 3300/33C cables:

Part No.	Description
TEL CA27320P	Evinrude/Johnson O/B Kit (1979-date)
TEL CA27321P	Evinrude/Johnson O/B Kit (pre-1979)



TEL CA27320P



TEL CA27321P

#### Engine Specific Connection Kits for 3300/33C Cables

Morse	SeaStar Solutions	Description
Part No.	Part No.	
TEL 301901	TEL CA27319P	Mercury Outboard Kit (1965-date)
	TEL CA27319P	Mercury Stern Drive Kit (all)
TEL 302123	TEL CA27373P	Mercury Inboard Kit (all)
TEL 300557	TEL CA27320P	OMC Stern Drive Kit (all)



TEL CA27319P



#### 3300/33C Series Cables

##### Morse

Part No.	Description
TEL CA27024P	Inboard Connection Kit
TEL 036680	Dual Connection Kit
TEL 036174	Connection Single Bracket Base Length 1-1/2"
TEL 031419	Connection Single Bracket Base Length 2"
TEL 035531	Dual Connection Bracket



TEL CA27024P



TEL 036680

TEL 036174  
TEL 031419

TEL 035531

#### 4300/43C Series Cables

TEL 040773	Dual Connection Kit
------------	---------------------



TEL 300665



TEL 040773





## Universal Parts



Eye Terminals



Clamp



Clamp & Shim Kit



Terminal Pin Kit



Terminal Pin

### 3300/33C Series: 10/32" Thread

Part No.	Description
TEL 317413	Eye Terminal (Metal) - (10-32, 5/16" pin) (1)
TEL 300646	Eye Terminal (Red Nylon) - (10-32, 5/16" pin) (1)
TEL CA28020P	Clamp & Shim Kit (1) 1-1/8" Center to Center
TEL 032010	Clamp (1) 7/8" Center to Center
TEL 031509	Clamp (1) 1" Center to Center
TEL 035777	Clamp Shim for 032010 (1)

### 4300/43 Series: 1/4" x 28 Thread

TEL 041134	Eye Terminal - (Metal) - (1/4-28, 5/16" pin) (1)
TEL CA28018P	Clamp & Shim Kit (1) 1" Center to Center
TEL 031532	Clamp - 2 Holes (1) 1" Center to Center
TEL 031538	Clamp Shim for 031532

### Terminal Pins

TEL 300965	Terminal Pin (1.5", 5/16" dia.) (pin only)
TEL 047383	Terminal Pin (1.687", 5/16" dia.) (pin only)
TEL 301456	Terminal Pin Kit (300965, clutch, nut, washer)



Clevis

### 3300/33C Series: 10/32" Thread

Part No.	Description
TEL 031800	3/16" Pin/Clevis (3/16" Gap)
TEL 031125	1/4" Pin/Clevis (9/32" Gap)
TEL 033395	5/16" Pin/Clevis (11/32" Gap)

### 4300/43 Series: 1/4" x 28 Thread

TEL 029025	1/4" Pin/Clevis (9/32" Gap)
------------	-----------------------------



## Ball Joints



QR Type

(QR has internal spring)



ST Type

(ST has no spring)

### 3300/33C Series: 10/32" Thread

Part No.	Description
TEL 031799-001	Ball Joint (10-32) QR (1)
TEL CA37701P	Ball Joint (1/4-28) ST (1)
TEL 031126	Ball Joint (1/4-28) QR (1)
TEL 035242	Ball Joint (5/16-24) QR (1)

### 4300/43 Series: 1/4" x 28 Thread

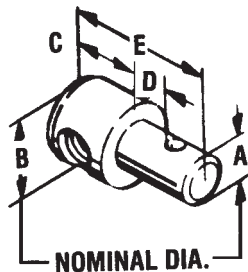
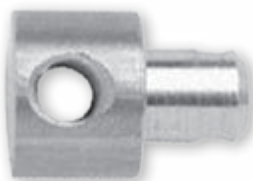
TEL CA28014P	Ball Joint (1/4-28) ST (1)
TEL 029104	Ball Joint (1/4-28) QR (1)
TEL 032267	Ball Joint (5/16-24) QR (1)

### 6400/64 Series: 5/16" x 24 Thread

TEL CA28021P	Ball Joint (5/16-24) ST (1)
TEL 029108	Ball Joint (5/16-24) QR (1)



## Pivots



### 3300/33C Series: 10/32" Thread

Part No.	A	B	C	D	E
TEL 045583	3/16	7/16	3/8	9/64	11/16
TEL 031029	1/4	7/16	21/64	9/64	5/8
TEL 031539	1/4	7/16	3/8	.191	23.32
TEL 032392	1/4	7/16	21/64	.295	25/32
TEL 043939	1/4	1/2	3/8	.376	15/16
TEL 037691	5/16	7/16	3/8	13/32	1-1/16
TEL 039471	5/16	7/16	3/8	7/16	1



## Control Box Kits



301074



304939

### Part No. Description

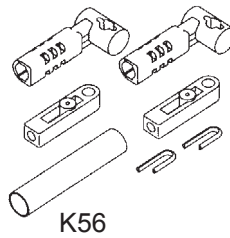
#### For 3300/33C Cables:

TEL 301074	Mercury/Mariner Control Adapter
TEL 304939	Johnson/Evinrude Control Adapter

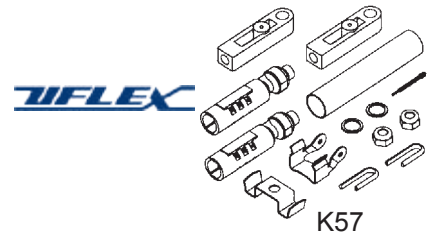
## Engine Connection Kits

Engine Specific Connection Kits for 3300/33C Cables

Part No.	Description
UFL K56	Adapts C2, C8, MACHZero and all 33C type cables for use with Mercury Engines.
UFL K57	Adapts C2, C8, MACHZero and all 33C type cables for use with Johnson/Evinrude Engines.

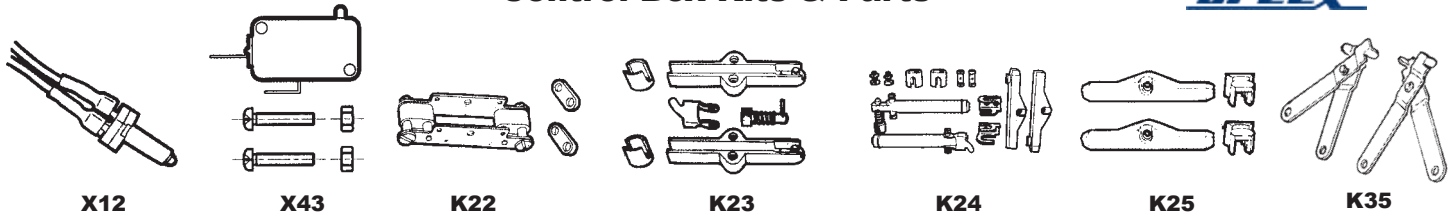


K56

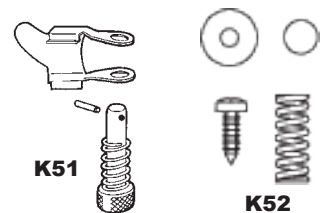


K57

## Control Box Kits &amp; Parts



Part No.	Description
UFL X12	Neutral safety switch to prevent in-gear starting.
UFL X43	Neutral safety switch to prevent in-gear starting, suitable for B103 and B104 controls.
UFL K22	Kit to connect C22 and 4300 series cables to top mount two lever control boxes, B46, B50, B58, B59, B203, B204, B207, B208, B322, B324.
UFL K23	Kit to connect C14, MACH14 and OMC® type "OS" cables to B47 and B49 control boxes.
UFL K24	Kit to connect C4 and OMC® type "O" cables to B47 and B49 control boxes.
UFL K25	Kit to connect C2, C8, MACHZero and all 33C style cables to B47 and B49 control boxes.
UFL K35	Kit to connect C5, C16, MACH5 and Mercury' style cables to single lever control boxes, except B301, B302, B103 and B104.
UFL K51	Kit to connect C14, MACH14 and OMC® type "OS" cables to engine for use with B89 and B90.
UFL K52	Adjustable ratchet for B203, B204, B207, B208 controls.



K51

K52

## Engine Connection Parts



L2

L3

L7

L12

L13

L14

L25

Part No.	Description	Part No.	Description
UFL L2	Cable clamp block	UFL L13	Stop collar. Fits C4 and B14 cables.
UFL L3	Shim and clamp block.	UFL L14	Cable clamp block.
	Fits C2, C8, MACHZero and all 33C style cables.		Fits C2, C8, MACHZero and all 33C style cables.
UFL L7	Ball joint 10-32 UNF. Stainless Steel.	UFL L25	Clevis 10-32 UNF.
	Fits C2, C8, MACHZero and all 33C style cables.		Fits C2, C8, MACHZero and all 33C style cables.
	For use with all 10-32 cables.		
UFL L12	Cable end fitting.		
	Fits C2, C8, MACHZero and all 33C style cables.		



### Top Mount Control



#### TWIN SR (CH5400P):

Ideal for single and dual station boats, SR Twin is rugged and made with the finest marine grade materials. Removable cover enables easy access to the mechanism. Includes adjustable brakes and stops. Accepts universal control cables. Optional detent kits and neutral safety switch available. Additional hardware is required for twin station use.

Part No.	Description
TEL CH5400P	Twin SR
TEL 036774	Clutch Detent Kit (Main Station Only)
TEL 039490-002	In-Series Dual Station Kit, 30 Series (2 required for twin lever control)
TEL 041117	Neutral Safety Switch Kit
TEL 4009912**	Nylon Ball Knob Red
TEL 4009819**	Nylon Ball Knob Black
TEL 061371	Dual Station Transfer Unit
TEL 060991	Mounting Hardware Kit, Twin
TEL 047682	Replacement Dome cover, Twin

\*\* Fits most controls with 3/8-24 threaded levers



### Flush Mount Controls



Single function (each lever controls shift or throttle). Stylish low profile flush mount design available in two style options. For single or dual station applications with single or twin engines. Suits 33C type cables.

Part No.	Description
TEL CH4451P	Chrome Finish, Straight Handles, Smooth Friction (Throttle Friction/Shift Detent)
TEL CH4481P	Chrome Finish, Raked Handles, Smooth Friction (Throttle Friction/Shift Detent)
TEL 061371	Dual Station Transfer Unit
TEL CA68075P	Optional Neutral Safety Switch
TEL CA68065P	CH4400 Cable Hardware Kit for Single or Dual Station
TEL CA68057P	CH4400 Hardware Kit
TEL 6800611	CH4400 Cover (Black Plastic)
TEL 6800618	CH4400 Cover (Stainless Steel)
TEL 6800612	CH4400 Knob (Chrome Zinc Alloy)
TEL 6801811	CH4400 Knob (Black Aluminum)
TEL 6801815	CH4400 Knob (Red Aluminum)



### Top Mount Controls



#### SLT (CH5600P):

There's nothing else like it! Patented Self Locking Throttle technology makes the SLT the only control that stops cable creep and works flawlessly in single or in series multi-station applications. SLT stops unwanted throttle cable movement without the need for cable brakes or other friction devices that cause poor feel at the lever and negate the performance advantages of *xtreme* cables. Additional hardware is required for twin station use.

Part No.	Description
TEL CH5600P	SLT Twin Lever Control
TEL CA69009P	Optional Neutral Safety Switch
TEL CA69022P	3300/33C Dual Station Cable Attachment Kit
TEL CA27563P	3300/33C Brass Pivot Kit
TEL 4009912	Nylon Ball Knob Red
TEL 4009819	Nylon Ball Knob Black

Fits most controls with 3/8-24 threaded levers



### Top Mount Controls



#### SINGLE S (CH5210P)

#### TWIN S (CH5200P):

This classic control is great for inboards, single or dual station. The time-proven design of Twin S means years of reliable operation. Accepts universal control cables. Optional lever extension, detent kits and neutral safety switch available. Additional hardware is required for twin station use.

Part No.	Description
TEL CH5210P	Single S
TEL CH5200P	Twin S
TEL 022328	Clutch Detent Kit (Main Station Only)
TEL 039489 002	In-Series Dual Station Kit, 3300/33C (2 required for twin)
TEL 042152	40 Series (2 required for twin)
TEL 047307	Neutral Safety Switch Kit
TEL 036773	Lever Extension
TEL 306997	Throttle Hold Kit (one per lever, prevents throttle creep)
TEL 035232-001	Nylon Ball Knob Red
TEL 035232-004	Nylon Ball Knob Black
TEL 061001	Cable Mounting Hardware Kit 3300, Twin



## Top Mount Controls



**CH7500 Series**  
(Lever on right):

CH7500 series controls offer options that most top mount controls in the market do not. Options include trim (most outboards) or trim and tilt (most stern drives) or the neutral lock out button. The lock out button is great for center console boats where there is a possibility the control can be bumped while passing by knocking it into gear. The standard items on these controls are the shapely and balanced hand grips that give you a very smooth, yet solid feel, the neutral safety switch and the neutral warm up button. These controls can not only use the 3300/33C style control cables they can also use Mercury style cables from 1965 to date including the Gen II, OMC/Johnson/ Evinrude/BRP control cables from 1979 to date. This makes it one of the most desirable replacement controls in the market today.

Part No.	Description
TEL CH7540P	Black Handle Chrome & Black Cover No Tilt, Trim, or Neutral Interlock. (without trim)
TEL CH7541P	Black Handle Chrome & Black Cover Tilt & Trim Standard. No neutral Interlock, with trim
TEL CH7550P	Chrome Handle, Chrome Cover, Chrome and Black inserts included. Standard with I/O and O/B neutral interlock (without Trim on grip)
TEL CH7551P	Chrome Handle, Chrome Cover, Chrome and Black inserts included. Standard with I/O and O/B neutral interlock (with Trim on grip)
TEL CH7552P	Chrome Handle, Chrome Cover, Chrome and Black inserts included. Standard with I/O and O/B neutral interlock (with Trim and tilt on grip)



## Dual Top Mount Controls



The ergonomics and features of our CH7800 Series controls are the most advanced available and are suitable for most kinds of boat/dual engine applications. The shapely, balanced handle provides a very comfortable feel and the state of the art mechanism guarantees a smooth yet solid action, assuring you have maximum control at all times. This control is designed for twin engine applications. CH7800 series of controls are suitable for use with both universal type (3300) or OEM type control cables without the need for adaptation.

- All controls include start in gear protection
- Designed for use with both universal and OEM shift and throttle cable connections
- Suitable for most boat/dual engine combinations
- Dual action levers (throttle and shift control in each handle)
- Trim, Tilt, options available
- Drag adjustment on all models
- Easy installation and set up
- Includes both chrome and black cover inserts that allow a choice of styling to ensure a perfect aesthetic fit in every application
- Can be used in a dual station application with the DS unit and XTREME control cables

Part No.	Description
TEL CH7840P	Dual Top-Mount, Chrome Handles, Chrome Cover, Chrome and Black Inserts (without trim)
TEL CH7841P	Dual Top-Mount, Chrome Handles, Chrome Cover, Chrome and Black Inserts with Trim

## MV3 Series:



## Side Mount Controls

The MV-3 offers style and incredible versatility in a dual-function, single-lever control. Several models are offered for outboards, stern drives, inboards, ski boats and jet boats, including versions with a lanyard type emergency cut-off switch.

### FEATURES:

- Specially styled for today's integrated cockpit.
- Fits most popular outboards, inboards and stern drives.
- Emergency cut-off feature available.
- Crisp, positive detents.
- Pullout clutch disengagement feature for engine warm-up with automatic disengagement.
- Neutral interlock feature to prevent accidental shifting.
- Mechanical advantage - Shift 2.9:1 / Throttle 3.20:1.
- Uses 3300 and 4300 type cables.
- Can be used for Berkeley Jet (with 4300 type cables) and Mercury 175 HP Sport Jet (with special cable).
- Meets/exceeds all applicable industry standards.
- SeaStar Solutions Recommends Using Cables With This Control

Part No.	Description
TEL CH2920P	Standard Control for Outboard, I/O and Inboard
TEL CH2900P	Neutral Safety, R/H Oriented
TEL CH2900P	Standard Control for Competition Ski Boats

## CH1700 Series:



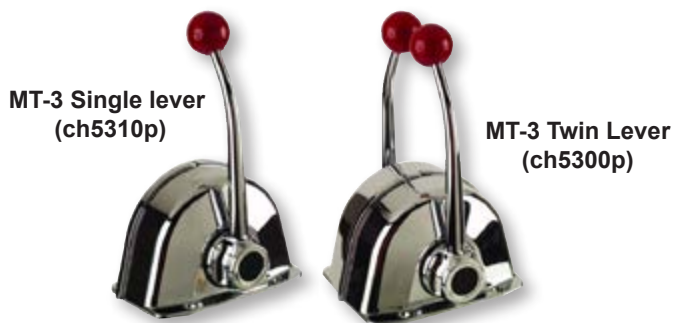
## Side Mount Control

CH1700 series of controls are the most sure handling and comfortable you can buy. The shapely, balanced grip provides a very smooth yet solid feel. This side mount control is designed for Starboard (right side) gunwale mounting only. These controls come with the standard features of neutral safety switch, neutral lock out, neutral warm up and the safety stop switch with lanyard. You can also get the optional trim switch (most outboards) or trim and tilt (most stern drives). These controls can not only use the 3300/33C style control cables, they can also use Mercury style cables from 1965 to date, including the Gen II, OMC/Johnson/ Evinrude/BRP control cables from 1979 to date. This makes it one of the most desirable replacement controls in the market today.

Part No.	Description
TEL CH1750P	Side Mount, Chrome Handle, Black Cover, Chrome and Black Inserts, I/O and O/B stop switch <i>(without trim)</i>
TEL CH1751P	Side Mount, Chrome Handle, Black Cover, Chrome and Black Inserts I/O and O/B stop switch <i>(with trim)</i>
TEL CH1752P	Side Mount Chrome Handle, Black Cover, Chrome and Black Inserts, I/O and O/B stop switch <i>(with trim &amp; tilt)</i>



## Top Mount Controls



Ideal for inboards, stern drives and outboards, MT-3 combines classic binnacle control styling with dual function levers, a neutral safety switch and an engine warm-up feature! Control throttle and shift with one lever instead of two. MT-3 Twin can control two engines using the 3300/33C cables.

Part No.	Description
TEL CH5310P	MT-3 Single (Single Engine)
TEL CH5300P	MT-3 Twin (Twin Engines)
Accessories	
TEL 305499	Neutral Safety Switch
TEL 4009912	Nylon Ball Knob Red
TEL 308727	Spare Mtg. Hardware Twin
TEL 308742	Heavy Duty Conversion Kit for 43C - Single
	Will Not work on Twin Controls



## Side Mount Controls



The ST & STB controls are economical and durable, with a simple, classic design. Single-function lever moves one cable only. Versions are available for 3300/33C and 4300/43C type cables, with or without external, adjustable throttle brake.

Part No.	Description
TEL CH2400P	ST Control (3300/33C & 4300/43C Series Cables)
TEL CH2410P	STB with external brake (3300/33C & 4300/43C Series Cables)

Accessories & Parts	
TEL 4009819	Ball Knob, Black
TEL 044386	Cable Brake, Throttle

## Throttle & Shift Control Arms & Knobs



Part No.	Description
ONG 50010	(1) Handle NO Knob
ONG 50050	(2) Handles, (1) S/S Knob with Red Stripe
	(1) All S/S Knob
ONG 50020	1½" Throttle Knob S/S with Red Stripes
ONG 50025	1½" Throttle Knob S/S with Gold Stripes
ONG 50030	1½" Shift Knob All S/S
ONG 50040	1-7/8" Shift Knob All S/S
ONG 50048	1-7/8" Throttle Knob S/S with Gold Stripes

Ongaro high quality 316 cast stainless steel replacement arms and knobs. The arms fit the SR & CH5600P controls. The 1½" knobs fit SR, S, ST, STB, MT, CH5600P, MV-2, MJB, CSB or any control with a 3/8" x 24 thread. 1-7/8" knobs fit Hynautic Controls.



**Jerry's Marine Service**

Give us a call!

**FL 1-800-432-2231**

**SC 1-800-788-2231**

Our parts experts will be happy to assist you in finding the perfect fit.

### Single Lever Side Mount Control

Single lever / dual action control to operate both throttle and shift.

Essential and modern design, with no protrusions: being great to apply on sailing boats. 316 stainless steel lever and flange. Can be installed horizontally or vertically. Push-in button for throttle operation in Neutral (ENGINE WARM UP). Neutral safety switch.

**Part No.**

UFL B400

**UFLEX**



### Top Mount Controls

**UFLEX**



Single function control: each lever operates separately either the throttle or shift. Suitable for use with outboard, inboard or I/O power plants. Throttle lever is provided with adjustable brake tension release system and shift lever with forward, reverse and neutral detents. Neutral safety switch X12 prevents in gear starting. For use with Ultraflex engine control cables C2, C8, MACHZero & all 33C style engine control cables. Ultraflex C22 & all 43C Style cable requires K22 connection kit.

**Part No.**

UFL B46

UFL B46T

UFL B46S

**Description/Bent Levers**

Throttle and Shift

Throttle Only

Shift Only

**Part No.**

UFL B50

UFL B50T

UFL B50S

**Description/Straight Levers**

Throttle and Shift

Throttle Only

Shift Only

**NEW!**

**UFLEX**



B501BT/L

B501CHT/L

B502BT/L

B502CHT/L

Available with and without lock in neutral and with and without trim switches. In the twin engine installation a single switch will operate both trims. With a focus on efficiency these controls have been specifically designed to improve the functionality of control systems, making the boat easier to control. Single lever / dual action control to operate both with throttle and shift. Suitable for any type of boats with outboard, inboard or I/O power plants. Chrome plated high resistance ABS housing control with die cast chrome plated levers. Push in button disengages shift for warm-up. For use with all Ultraflex control cables except C4.

**Part No.**

UFL B501BT/L

UFL B501CHT/L

UFL B502BT/L

UFL B502CHT/L

**Description**

Black, Single Lever, Single Engine, w/Lock & Trim.

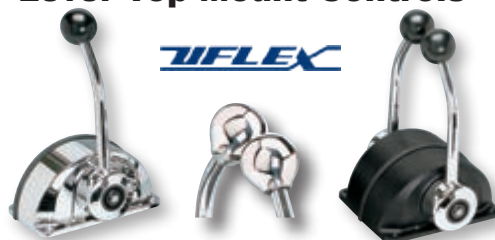
Chrome, Single Lever, Single Engine, w/Lock & Trim.

Black, Twin Lever, Double Engine, w/Lock & Trim.

Chrome, Twin Lever, Double Engine, w/Lock & Trim.

### "Low Profile" Single Lever Top Mount Controls

**UFLEX**



Dual Function Compact single lever controls offering a unique low profile style compared to other controls available on the market. Enables easy and safe shifting by preventing accidental gear engagement unless engine is idling. Made of marine aluminum, chrome plated or powder coat finish. Push in button disengages shift for warm-up. Neutral safety switch X12 (optional) prevents in-gear starting.

Exceeds EN ISO 11547 standards when X12 safety switch is installed

**Part No.**

UFL B301CR

UFL B302CR

UFL B301B

**Description**

Single lever control for one engine, chrome plated.

Twin lever control for two engines, chrome plated.

Single lever control for one engine, black dome, chrome plated lever.

UFL B302B

Twin lever control for two engines, black dome, chrome plated lever.

UFL X75

Silver Knob

### Top Mount Controls

**UFLEX**



Dual function each lever operates clutch & throttle. Suitable for any type of boat with outboard, inboard or I/O power plants, single station only. Single station only. Enables easy and safe shifting by preventing accidental gear engagement unless engine is idling. Made of marine aluminium, pull-out handle disengages shift for warm-up. Neutral safety switch X43 prevents in-gear starting built-in friction to avoid throttle creep. Uses Ultraflex C2, C8, MACHZero and all 33C cables.

**Part No.**

UFL B103

UFL B104

**Description**

Single Control

Twin Control

### Side Mount Controls

**UFLEX**



Single function control: each lever operates separately either the throttle or shift. Made of nylon fiberglass with anodized aluminium levers left or right side mount installation. For use with Ultraflex engine control cables, C14 & MACH14 with K23 connection kit. C4 with K24 connection kit, C2, C8, MACHZero & all 33C style cables with K25 connection kit. C5 & MACH5 & Mercury® without connection kit needed OMC® pre 1979 with K24, OMC® post 1979 with K23. Yamaha® with K25, Suzuki® with K25.

**Part No.**

UFL B47

UFL B49

**Description**

Light Grey Side Mount Control

Black Side Mount Control



## Side Mount Controls



Dual function control operates both throttle and shift. Suitable for any type of boats with outboard, inboard or I/O power plants. Enables easy and safe shifting by preventing accidental gear engagement unless engine is idling. Can be installed horizontally or vertically, on the starboard or port side of the boat. Made of painted marine aluminum. Pull-out handle disengages shift for warm-up. Neutral safety switch X12 prevents in-gear starting. Provided with a positive lock-in neutral to prevent accidental gear engagement. For use with all Uflex engine control cables except C22, C36 & MACH36. Uflex C5, C16, MACH5 & Mercury cables require K35 connection kit. To connect C14, C4 & MACH4 cable to engine, use K51 connection kit.

UFL B89	White Finish with Positive Lock-in Neutral
UFL B90	Black Finish with Positive Lock-in Neutral

## Side Mount Controls

B85



B183



B184



Dual function control operates both throttle and shift. Suitable for any type of boats with outboard, inboard or I/O power plants. Enables easy and safe shifting by preventing accidental gear engagement unless engine is idling. Can be installed horizontally or vertically, on the starboard or port side of the boat. The lever assembly is made of painted marine aluminum. Provided with a brake tension release system adjustable from outside. Pull-out handle disengages shift for warm-up. Neutral safety switch X12 (for B183, B184, B85) or X50 prevents in-gear starting. All models are provided with a positive lock-in neutral to prevent accidental gear engagement. B184 model is provided with a power trim switch conveniently tilting of the engine.

Part No.	Description
UFL B183	Provided with a Positive Lock-In Neutral
UFL B184	Provided with a Positive Lock-In Neutral and Trim
UFL B184MERC	Same as B184 but for Mercury & MerCruiser engines, includes connection kit
UFL B85	Standard Model, Smooth Design for use on sailboats. Provided with a Positive Lock-in Neutral

## Single Lever Side Mount Control



Dual Function with chrome, burl or soft touch control levers, the B310 series can be used on outboards, sterndrives and inboard applications. The universal control design allows for the connection of 33C Universal style cable and OMC (Johnson/Evinrude) cables with adapters included. Mercury Gen I cables can be easily connected with the addition of the K35 connection kit. Can be installed horizontally or vertically, pull-out handle disengages shift for warm-up. Neutral safety switch UFL X12 (optional) prevents in-gear starting. All models are provided with a power trim switch conveniently located in the handle.

Part No.	Description
UFL B310CH	Chrome Handle Grip
UFL B310BR	Brown Handle Grip
UFL B310B	Black Handle Grip



The PowerA single or dual control system adds remarkable precision and performance for a range of nautical applications, from sport boats and yachts to commercial vessels and more.

- LCD menu programming for quick & accurate setup
- Applicable to 2 or 4 stroke outboard engines, gas or diesel inboards and sterndrives
- CAN bus technology with NMEA cables
- Docking Assist mode with reduced throttle sensitivity for enhanced dockside handling
- Built-in engine synchronization for increased fuel economy
- Plug 'n Play connectivity for easy installation
- Available with or without Power Trim switches

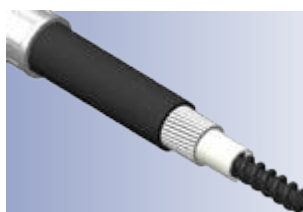
CONTROL KITS Include everything needed for installation based on application;

Part No.	Description
UFL PWA MM11	1 ENG/1 STATION MECH T/S KIT
UFL PWA MM11T	1 ENG/1 STA THR/SHFT W/TRIM
UFL PWA MM21	2 ENG/1 STATION MECH T/S KIT
UFL PWA MM21T	2 ENG/1 STA THR/SHFT W/TRIM
UFL PWA SS1T	PWA KIT-ADD ST SGL W-TRIM-TILT
UFL PWA SS2T	PWA KIT-ADD ST TWIN W-TRIM-TLT

## Precision Performance PowerA



Power A Mark II™

**XTREME™ Our highest degree mechanical steering****New Helm****New Bezel****New XTREME™ Cable****FEATURES:**

- Smoothest and lowest steering effort mechanical helm offered in the market place yet still offers easy installation.
- Complete steering system including new helm, high efficiency XTREME™ steering cable design and new style bezel.
- Quick connect feature on both steering cable and spent travel tube for easy quick installation.
- Installs in same mounting pattern and bracket location as current SeaStar Solutions Marine steering systems.
- Smallest footprint possible to accommodate small/tight dash helm stations.
- Made, designed and assembled in the USA.

This complete new steering system includes new helm, high efficiency XTREME™ cable and new-style bezel. It is also available with Sport or Sport Plus tilt mechanism.



Small installation footprint and fits all existing installations

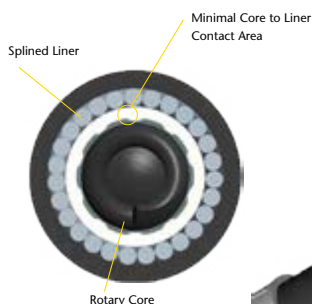
Reliable Zamac casting and zinc plated steel construction

Improved high efficiency custom gear train

Improved NFB function for smoother release

Backward compatible mounting pattern

Dual quick connect for rapid installation

**STANDARD SYSTEM NFB – KIT PART NUMBER SSX176**

PART NO.	DESCRIPTION
TEL SHX7606	XTREME™ NFB Helm, Bezel and Hardware Kit
TEL SSCX64XX	XTREME™ QC Steering Cable

**TILT SYSTEM NFB – Kit part number SSX177**

TEL SHX97606	XTREME™ Tilt NFB Helm
TEL SH91800	Sport Tilt Mechanism
TEL SSCX64XX	XTREME™ QC Steering Cable

**COMPONENTS**

TEL SHX7606	XTREME™ NFB Helm, Bezel and Hardware Kit
TEL SHX97606	XTREME™ Tilt NFB Helm
TEL SSCX64XX	XTREME™ QC Steering Cable
TEL SBX76061	XTREME™ Bezel and Hardware Kit NFB
TEL SBX76261	XTREME™ Bezel and Hardware Kit Non-NFB
TEL SSX176XX	XTREME™ NFB Steering Kit
TEL SSX177XX	XTREME™ Tilt NFB Steering Kit

## NFB Safe-T II No Feed Back Rotary Steering

NFB Safe-T II single-cable systems are suitable for most single-station boats with a single non-power-assisted outboard engine up to V-4 with minimal engine flutter or steering instability. Safe-T II accepts wheels up to 16" diameter. Not for use with Power Assist or Autopilots. (NFB Safe-T II is available in single cable configuration only). Replaces nearly all standard Safe-T® steering without dash modifications. Patented No FeedBack™ Steering mechanism. Quick response of 3 turns lock-to-lock. Stainless steel cable output ends.

### Steering System in a Box

#### Steering System in a Box

##### The Kit Contains the Following

- 1-SH5150P ..... No Feedback Helm
- 1-SB27150P ..... 90° Bezel Kit
- 1-SSC62XX ..... Steering Cable
- Hardware & Instruction Sheets



Part No.	Length	Part No.	Length
TEL SS13210	10'	TEL SS13216	16'
TEL SS13211	11'	TEL SS13217	17'
TEL SS13212	12'	TEL SS13218	18'
TEL SS13213	13'	TEL SS13219	19'
TEL SS13214	14'	TEL SS13220	20'
TEL SS13215	15'		

#### NFB Safe-T II Helm



**Part No.**  
TEL SH5150P

#### Safe-T QC Bezel (20°)



**Part No.**  
TEL SB27483P

#### Rotary NFB Bezel (90°)



**Part No.**  
TEL SB27150P

See Bottom of this Page for Replacement Cables ONLY

## NFB 4.2, No Feed Back Rotary Steering, Parts & Cables

NFB 4.2 single-cable systems are suitable for most single-station boats with a single non power-assisted outboard engine up to V-6 with minimal engine flutter or steering instability NFB is not for use with power assisted steering or autopilots. 4.2 accepts wheels up to 16" diameter. Replaces nearly all SeaStar Solutions Safe-T steering systems without dash modification. Patented No FeedBack™ Steering mechanism. Comfortable 4.2 turns from lock-to-lock, stainless steel cable output ends

### Steering System in a Box

#### Steering System in a Box

##### The Kit Contains the Following

- 1-SH4910P ..... No Feedback Helm
- 1-SB27150P ..... 90° Bezel Kit
- 1-SSC62XX ..... Steering Cable
- Hardware & Instruction Sheets
- 4.2 Steering wheel turns lock-to-lock



Part No.	Length	Part No.	Length
TEL SS14710	10'	TEL SS14716	16'
TEL SS14711	11'	TEL SS14717	17'
TEL SS14712	12'	TEL SS14718	18'
TEL SS14713	13'	TEL SS14719	19'
TEL SS14714	14'	TEL SS14720	20'
TEL SS14715	15'		

#### NFB 4.2 Helm



**Part No.**  
TEL SH4910P

#### Bezel (90°)



**Part No.**  
TEL SB27150P

#### Bezel (20°)



**Part No.**  
TEL SB27483P

#### NFB 4.2 Single Tilt Helm



**Part No.**  
TEL SH91526P\*

#### Sport Tilt Mechanism



**Part No.**  
TEL SH91800P

\* Requires SH91800P Tilt Mechanism to Complete Tilt Steering system installation.

Replacement Cables ONLY Below



SA27620P  
(Adaptor)

### Cables SSC62 (Includes TELSA27620P Adaptor)

Cable Includes Quick Adaptor



Part No.	Length	Part No.	Length	Part No.	Length	Part No.	Length
TEL SSC6106	6'	TEL SSC6111	11'	TEL SSC6116	16'	TEL SSC6122	22'
TEL SSC6107	7'	TEL SSC6112	12'	TEL SSC6117	17'	TEL SSC6124	24'
TEL SSC6108	8'	TEL SSC6113	13'	TEL SSC6118	18'	TEL SSC6126	26'
TEL SSC6109	9'	TEL SSC6114	14'	TEL SSC6119	19'	TEL SSC6128	28'
TEL SSC6110	10'	TEL SSC6115	15'	TEL SSC6120	20'		



# 664 SeaStar Solutions Mechanical Steering Systems, Parts & Cables

## Safe-T QC, Rotary Steering System

Safe-T QC fits virtually all power-assisted stern drive boats with wheels up to 16" diameter & Outboards to 80 hp. Replaces all SeaStar Solutions Safe-T helms made since 1968 with little or no dash modifications. (Requires use of SSC61 QC steering cable.)

### Steering System in a Box

Quick-response of 3 turns lock-to-lock. Stainless steel cable output ends. Fast, easy installation: uses simple snap-in cable connection, SeaStar Solutions Quick Connect (QC) cable, and industry-standard Safe-T mounting hardware.



#### The Kit Contains the Following

- (1) TEL SH5094-1P.....Helm
- (1) TEL SB27484P.....90° Bezel Kit
- Hardware & Instruction Sheets

3 Steering wheel turns  
lock-to-lock



Part No.	Length	Part No.	Length
TEL SS13708	8'	TEL SS13715	15'
TEL SS13709	9'	TEL SS13716	16'
TEL SS13710	10'	TEL SS13717	17'
TEL SS13711	11'	TEL SS13718	18'
TEL SS13712	12'	TEL SS13719	19'
TEL SS13713	13'	TEL SS13720	20'
TEL SS13714	14'		

#### Safe-T QC Single Helm



**Part No.**  
TEL SH5094-1P

#### Safe T "TS" Helm



This is the old helm with two threaded spigots. Requires SSC61XX cable, NOT SSC62XX cable  
**Part No.** TEL SH5023P

#### Safe-T QC Dual Helm



For dual cable steered stern drives. If steering is NOT power assisted, upgrading to NFB 4.2 Dual Cable is recommended.

**Part No.** TEL SH5294P

#### Safe-T QC Single Tilt



\*Requires SH91800P tilt mechanism to complete Tilt Steering system installation.

**Part No.**  
TEL SH91523P

#### Sport Tilt Mechanism



**Part No.**  
TEL SH91800P

#### Safe-T QC Black Bezel (20°)



**Part No.**  
TEL SB27483P

#### Safe-T QC Black Bezel (90°)



**Part No.**  
TEL SB27484P

#### QC II Threaded Helm Converter



**Part No.**  
TEL SA27620P

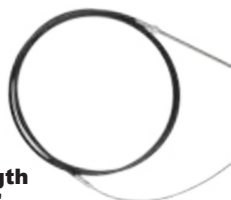
#### Steering Wheel Hardware Kit



**Part No.**  
TEL SA27454P

### Cable SSC61XX (Includes TELSA27620P Adapter) Same as SSC62 Cable Includes Quick Adaptor

Part No.	Length	Part No.	Length
TEL SSC6106	6'	TEL SSC6115	15'
TEL SSC6107	7'	TEL SSC6116	16'
TEL SSC6108	8'	TEL SSC6117	17'
TEL SSC6109	9'	TEL SSC6118	18'
TEL SSC6110	10'	TEL SSC6119	19'
TEL SSC6111	11'	TEL SSC6120	20'
TEL SSC6112	12'	TEL SSC6122	22'
TEL SSC6113	13'	TEL SSC6124	24'
TEL SSC6114	14'	TEL SSC6126	26'
		TEL SSC6128	28'



SA27620P  
(Adaptor)



## The Rack for Stern Drive, Inboards and Other Power Assisted Application



Virtually all power-assisted stern drive boats with wheels up to 16" diameter. Back Mount Rack Replaces 1984-date SeaStar Solutions "The Rack" and Morse Command 200® steering without dash modification. (Requires use of SSC134XX Back Mount Rack cable). For single station use only. Note SeaStar Solutions rack cables SSC134XX, SSC135XX & SSC154XX DO NOT replace the SSC124XX or any Morse rack & pinion cables and can only be used with current generation SeaStar Solutions rack & pinion helms. Precise, easy 4 turns lock-to-lock. Stainless steel cable output ends.

### Steering System in a Box

#### Rack System in a Box

#### The Kit Contains the Following

- 1-SH5210P ..... Helm
- 1-SB39526P ..... 90° Bezel Kit
- Hardware & Instruction Sheets
- 4 Steering wheel turns lock-to-lock



Part No.	Length	Part No.	Length
TEL SS14108	8'	TEL SS14115	15'
TEL SS14109	9'	TEL SS14116	16'
TEL SS14110	10'	TEL SS14117	17'
TEL SS14111	11'	TEL SS14118	18'
TEL SS14112	12'	TEL SS14119	19'
TEL SS14113	13'	TEL SS14120	20'
TEL SS14114	14'		

#### Back Mount Rack Helm (single/dual)



**Part No.**  
TEL SH5210P

#### Back Mount Bezel (90°)



**Part No.**  
TEL SB39526P

#### BM Rack Tilt Helm (single/dual)



**Part No.**  
TEL SHT91610P\*

#### Sport Tilt Mechanism



**Part No.**  
TEL SH91800P

#### Dash Wedge Kit (20°)



**Part No.**  
TEL SB27449P

\* Requires SH91800P Tilt Mechanism to Complete Tilt Steering system installation.

### Cables



Part No.	Length
TEL SSC13414	14"
TEL SSC13415	15"
TEL SSC13416	16"
TEL SSC13417	17"
TEL SSC13418	18"
TEL SSC13420	20"
TEL SSC13421	21"

### Jet Boat Steering



SeaStar Solutions JBS is recommended for use in all jet boat applications powered by Mercury® Sport Jet or OMC® Turbo Jet drives **up to 175 HP**. This steering system is sold by components. Select helm, bezel and cable from items listed below. Ultra-compact helm with stylish 4.4" bezel is easy to install and very rugged, 270° turning arc lock-to-lock. Uses a true steering cable (increased cable strength with stainless steel inner core and output ends). 90° dash mount. 90° or 180° cable entry into helm allows alternate cable routing. (Looking at dash, options are 9:00, 12:00 or 3:00 routing positions). Built-in steering stops prevent additional cable stress in hard over positions. Standard 3/4" round tapered steering shaft, 3.5" total allowable cable travel. Mercury® & OMC® nozzle/gate connection kits.



#### JBS Helm (270° turning arc)



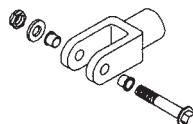
**Part No.**  
TEL SH5088P

#### JBS Bezel & Mounting Hardware Kit



**Part No.**  
TEL SB39452P

#### Nozzle Connection Kit (OMC)



**Part No.**  
TEL SA27590P

#### Nozzle Connection Kit (Mercury)



**Part No.**  
TEL SA27591P

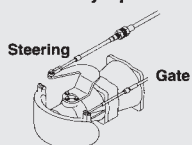
#### Steering Wheel Hardware Kit



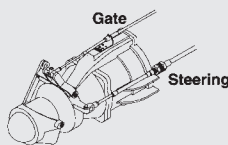
**Part No.**  
TEL SA27454P

#### TYPICAL CONNECTIONS AT NOZZLE:

##### Mercury Sport Jet



##### OMC Turbo Jet



### Cables



Part No.	Length	Part No.	Length
TEL SSC21910	10'	TEL SSC21913	13'
TEL SSC21911	11'	TEL SSC21914	14'
TEL SSC21912	12'	TEL SSC21915	15'



## FourTech® Rotary Steering

### Features and Specs:

- Designed for high performance & high efficiency applications
- M90 MACH Cable (patented)
- Fast connect, simple installation, patented end fitting
- Stainless steel cable output end featuring patented gasket, engine side
- Optional 90° or 20° installation
- Standard 3/4" tapered shaft
- Lock-to-lock steering wheel turns: approx. 4.2
- Stroke: 9" (228 mm)
- Minimum steering cable bend radius: 5.9" (150 mm)
- Centered helm shaft allows for compact mounting under dash
- Exceeds ABYC P17 safety standards

Part No.	Length
UFL FOURTECH10	10'
UFL FOURTECH11	11'
UFL FOURTECH12	12'
UFL FOURTECH13	13'
UFL FOURTECH14	14'
UFL FOURTECH15	15'
UFL FOURTECH16	16'
UFL FOURTECH17	17'
UFL FOURTECH18	18'
UFL FOURTECH19	19'
UFL FOURTECH20	20'



## Rotech® Rotary Steering

Fits outboards to thirty feet, inboards to thirty five feet and all power assisted stern drives. Use twin cable for boats that exceed 50 mph. All stainless steel cable output ends. Lock-to lock steering wheel turns: approx. 3.8. with a 9" Stroke. Rotary Steering System are packed in a box convenient kit form, especially suitable as replacement steering

### Rotech® System in a Box

#### The Kit Contains the Following

UFL T71FC ..... Helm  
UFL X34 ..... 90° Bezel Kit  
UFL M66X ..... Steering Cable

Part No.	Length	Part No.	Length
UFL ROTECH06	6'	UFL ROTECH14	14'
UFL ROTECH07	7'	UFL ROTECH15	15'
UFL ROTECH08	8'	UFL ROTECH16	16'
UFL ROTECH09	9'	UFL ROTECH17	17'
UFL ROTECH10	10'	UFL ROTECH18	18'
UFL ROTECH11	11'	UFL ROTECH19	19'
UFL ROTECH12	12'	UFL ROTECH20	20'
UFL ROTECH13	13'		



## Accura® & Rotech® Replacement Cables

"M66 Universal Steering Cable" A direct replacement for all Uflex FC, Teleflex and Morse quick connect style steering systems. Features solid stainless steel engine output end for peak corrosion resistance and longevity.



Part No.	Length	Part No.	Length	Part No.	Length	Part No.	Length
UFL M66X07	7'	UFL M66X11	11'	UFL M66X15	15'	UFL M66X19	19'
UFL M66X08	8'	UFL M66X12	12'	UFL M66X16	16'	UFL M66X20	20'
UFL M66X09	9'	UFL M66X13	13'	UFL M66X17	17'	UFL M66X21	21'
UFL M66X10	10'	UFL M66X14	14'	UFL M66X18	18'	UFL M66X22	22'
						UFL M66X24	24'

### Rotech® Single Cable Helm

Featuring the Planetary Gear Design for smooth and easy steering.



**Part No.**  
UFL T71FC

### Rotech® Dual Cable Helm

Featuring the Planetary Gear Design for smooth and easy steering.



**Part No.**  
UFL T72FC

### Accura® Single Cable Helm

Featuring a torque neutralizing clutch and the Planetary Gear Design for smooth and easy steering.



**Part No.**  
UFL T73FC

### Back Mount Bezel (90°) Black



**Part No.**  
UFL X34

### Back Mount Bezel (20°) Black



**Part No.**  
UFL X35

## Tilt Helms

X52 tilt mechanism fits all UFL tilt helms. NOTE: Two M66 are needed with the T82FC. Tilt range of 48° and five locking positions.



### Rotech® Tilt Single Cable Helm



**Part No.**  
UFL T81FC\*  
\* Use UFL X52 to complete

### Rotech® Tilt Dual Cable Helm



**Part No.**  
UFL T82FC\*  
\* Use UFL X52 to complete

### Rotech® Tilt Mechanism



**Part No.**  
UFL X52



## Splashwell Mount Kits



## Support Tube



## OMC Tube with Ball



Thru transom sterndrive steering kit applicable for OMC° sterndrives manufactured from 1968-1982. Connects standard mechanical steering cable to the transom and sterndrive.

**Part No. UFL OMCTT**

## Support Tube

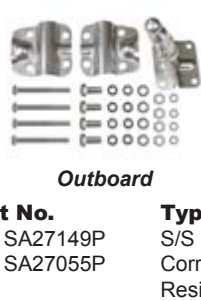


**Type**  
Alum.  
S/S

## Clamp Blocks



## Clamp Blocks



**Outboard**

**Type**  
S/S  
Corrosion Resistant



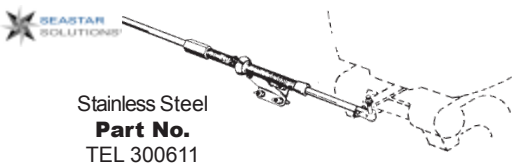
## QC II Helm Converter For Helms with Threaded Spigots



(Upgrades older SeaStar Solutions rotary helms to Quick-Connect cable interface, allowing use of SSC61/SSC62 QC cables).

**Part No. TEL SA27620P**

## Front Hookup, Outboard Transom Mount



## Inboard Stand-Off Short Bracket

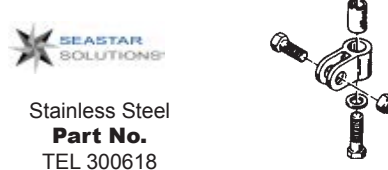
2" Short Bracket  
Corrosion Resistant  
**Part No. TEL 300617**



## Clevis Kit with Short Bolt



## Swivel Assembly



## Cable Adapters



**UFL K66**  
Adapts M66 cable to threaded helms  
**Part No. UFL K66**

## Rod End Kit 1/2"-20

**Part No. TEL SA27276P TEL SA27277P**

**Type**  
Steel  
Stainless Steel



## Clevis



Adapts M47 cable to Morse® D290 Helm & Uflex FC Helm  
**Part No. UFL K46**



### Stainless Steel Tie Bar Kits



Part No.  
TEL SA27252P

Maximum Length  
25½"

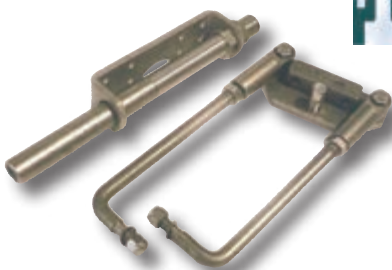
### Stainless Steel Link Arm



Part No.  
UFL A73  
UFL A74

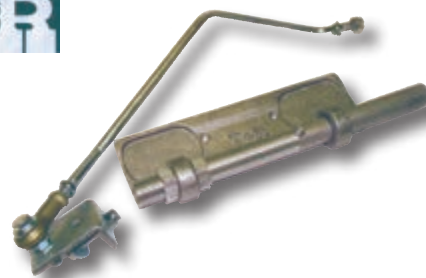
Adjusting Size  
Mercury®  
OMC®

### Dual Cable Kit



Dual cable kit for cables installed down each side of the boat (1 port, 1 starboard). Steering tube is provided with grease fitting and O-ring. All parts provided for simple hook up. Stainless steel and aluminum makes this kit corrosion resistant.

### Clamp Mount Kit



This kit fits under engine clamps and is designed to prevent the motor from jumping off the transom. Also prevents damage to the transom by the clamps. All parts furnished for simple hook up. Constructed of aluminum and plated steel. Johnson-Evinrude 9.9, 15, 25, 30, 35, 40 HP, 1977 and newer Mariner 9.9, 15 HP, 1982 and newer. Suzuki 9.9, 15, 16, 25 HP, 1982 and newer Yamaha 9.9, 15 HP, 1984 and newer

### Stainless Steel Ball Joints



Part No.  
T/R SBJ-0001  
T/R SBJ-0002  
T/R SBJ-0003

Size  
3/8" x 24  
7/16" x 20  
1/2" x 20

Part No. T/R OSM-3680

### Steering Tube Brush



8" Shaft

Part No. T/R TB-10

Part No. T/R FWK-3475

### Steering Boot



Part No. T/R SB-34

## Steersman™ Steering Tube Guard

- Lubricates, Cleans and Seals Steering Systems
- Extends the Life of New Steering Cables
- Instantly Smooths Out Old Sticky Steering Systems
- Stainless Steel or Black Anodized Aluminum Construction
- Stainless Steel Grease Fitting
- Pre-applied Teflon Thread Sealant
- Easy to Replace Buna-N O- Ring
- Fits Most Outboards with 7/8" or 1" Tilt Tubes

Part No.	Description
BUD 00278	7/8" Aluminum
BUD 00178	7/8" Stainless Steel
BUD 00201	1" Aluminum
BUD 00101	1" Stainless Steel



### Steering Tube Reamer



Part No.  
VIK VTTR-500

## Viking Marine "STAINLESS STEEL" Steering Tilt Tubes

Part No.  
VIK STT-1

### Application

7/8" OD for Two Cylinder Mercury, Mariner, Nissan, Honda, Suzuki, OMC, Chrysler & Tohatsu  
For 3, 4 & 6 Cylinder OMC  
1.035 OD for 3, 4 & 6 Cylinder Mercury & Mariner  
1973-1978, 3 & 4 Cylinder OMC  
Force Steering Guide Tube with Lube Nut  
For V4 & V6 Yamaha & Suzuki  
For V4 & V6 Yamaha & Suzuki with Fixed Nut  
For 2 & 3 Cylinder Yamaha 40-90 hp (Except 1993 40 hp)  
Stainless Steel Nut, 7/8"-14 with Nylon Insert  
Stainless Steel Nut, 1"-14 Thin Jam Nut  
Stainless Steel Nut, 7/8"-14 Thin Jam Nut  
OMC Bushing (STT-2)  
OMC Washer (STT-2)



VIK STT-2  
VIK STT-3  
VIK STT-4  
VIK STT-F  
VIK STT-Y  
VIK STT-YN  
VIK STT-4YN  
VIK SLN-1  
VIK SLN-2  
VIK SLN-3  
VIK VTT-B  
VIK VTT-TW

## BayStar Front Mount Outboard Steering

### Applications

BayStar is for single-outboard powered boats rated up to 150 HP, including runabouts and inflatables and outboard engines with ABYC standard engine tilt tubes up to 150 HP (total). For single station, single engine use only.

BayStar is not intended for high speed, high performance type boats, such as Bass Boats.

# BAYSTAR™



### Complete Systems:

BayStar kits come complete with everything needed for an install: helm, cylinder, tubing, fittings and fluid. For your convenience, enough cut-to-fit tubing for a 20' run is supplied with the kit.

These kits include Compact Cylinder **TELHC4645H**. If your application requires the use of a cylinder other than you will need to purchase all components separately (helm hoses, cylinder, etc.)

Part No.	Description
TEL HK4200A-3	BayStar Steering Kit (2-20' tubing)

### Components

Part No.	Description
TEL HH4314-3	BayStar Front Mount Helm
TEL HC4645H	BayStar Compact Cylinder
TEL HC4647H	BayStar Compact Cylinder
TEL HC4648H	BayStar Compact Cylinder
TEL HC4658H	BayStar Compact Cylinder
TEL HT4420H	HK4200 Tubing (2 x 20' lengths)
TEL HA5430 (x2)	SeaStar Solutions Oil (1 Quart)
TEL HA5438	BayStar Filler Kit

Use only genuine BayStar tubing kits and oil

### Features

- 4.5 turns from lock-to-lock.
- Balanced cylinder, featuring a compact design that fits most splashwells and provides full engine movement.



### Application Guide

Engine	Year	Model	Part No.	Notes
<b>Force</b>	1985 to Date	90-150 hp	TEL HC4645H	
<b>Honda</b>	1992 to Date	30-90 hp	TEL HC4645H	
	1998 to Date	115-130 hp	TEL HC4647H	
	2001 to Date	150 hp	TEL HC4645H	
	2003 to Date	BF135 hp	TEL HC4645H	
<b>Johnson/Evinrude</b>	1977 to 1989	65-150 hp	TEL HC4648H	
<b>Note:</b> Johnson 115 hp	1991 to Date	40-150hp	TEL HC4645H	
2 Stroke engines require	1997 to Date	115 hp Ficht	TEL HC4658H	See Note 4
that the cylinder's pivot be flipped	1997 to Date	75-150 hp Ficht	TEL HC4645H	
	1998 to Date	40-140 hp 4-Stroke	TEL HC4658H	See Note 1 & 4
<b>Mercury/Mariner</b>	1984 to Date	75-150 hp	TEL HC4645H	
<b>Nissan</b>	1990 to Date	120-140 hp	TEL HC4645H	
<b>Suzuki</b>	1986 to Date	150 hp	TEL HC4645H	
	1996 Only	115-140 hp	N/A	
	1987 to 2002	115-140 hp	TEL HC4645H	See Note 1
	1990 to 2000	90-100 hp	TEL HC4645H	
	1998 to Date	40-70 hp 4 Stroke	TEL HC4645H	See Note 1
	2001 to Date	115-140 hp 4 Stroke	TEL HC4558H	See Note 1 & 4
<b>Tohatsu</b>	1990 to Date	140 hp	TEL HC4645H	
<b>Yamaha</b>	1998 to Date	40-50 hp	TEL HC4645H	See Note 2
	1998 to Date	60 hp	TEL HC4645H	See Note 3
	1986 to Date	70-90 hp	TEL HC4645H	See Note 1
	1997 to Date	80-150 hp 4 Stroke	TEL HC4645H	
	2000 to Date	25 & 70 hp 4 Stroke	TEL HC4648H	See Note 1
<b>Yanmar</b>	1990 to Date	27-36 hp	TEL HC4645H	



### NOTES:

1. Requires Spacer Kit Part No. TELHO5090.
2. Engine clamp brackets must be cut or ground, and the engine through bolted onto the transom, or interference will occur, restricting engine trim and tilt.
3. Steering hook Yamaha Part No. 63D-48511-00-4D must be installed.
4. Cylinder TELHC4645H may be used in these applications. The pivot plate will need to be flipped before installation. Instructions provided with Owner's Manual.





## SeaStar Solutions Front Mount Outboard Steering

**SEASTAR****BAYSTAR SINGLE ENGINE APPLICATION GUIDE:  
CYLINDERS (HC4645H/47H/48H/58H)**

ENGINE MAKER/ BRAND	YEAR	MODEL	CYLINDER PART NUMBER	NOTES
FORCE	1985–DATE	90–150 HP	HC4645H	
HONDA	1992–DATE	30–90 HP	HC4645H	
	1998–2009	115–130 HP	HC4647H	
	2001–DATE	150 HP	HC4645H	
	2003–DATE	BF135 HP	HC4645H	
	2010–DATE	115–150 HP	HC4645H	
JOHNSON / EVINRUDE	1977–1989	65–150 HP	HC4648H	
Note: Johnson 115 HP 2-stroke engines require that the cylinder's pivot be flipped. See note #4 below.	1991–DATE	40–150 HP	HC4645H	
	1997–DATE	115 HP FICHT	HC4658H	SEE NOTES 4, 5
	1997–DATE	75–150 HP FICHT	HC4645H	
	1998–DATE	40–140 HP 4-STROKE	HC4658H	SEE NOTES 1, 4
MERCURY/MARINER	1984–DATE	75–150 HP	HC4645H	
NISSAN	1990–DATE	120–140 HP	HC4645H	
SUZUKI	1986–DATE	150 HP	HC4645H	
	1996 ONLY	115–140 HP	N/A	
	1987–2002	115–140 HP	HC4645H	SEE NOTE 1
	1990–2000	90–100 HP	HC4645H	
	1998–DATE	40–70 4-STROKE	HC4645H	SEE NOTE 1
	2001–DATE	115–140 HP 4-STROKE	HC4658H	SEE NOTES 1, 4
TOHATSU	1990–DATE	140–140 HP	HC4645H	
YAMAHA	1998–DATE	40–50 HP	HC4645H	SEE NOTE 2
	1998–DATE	60 HP	HC4645H	SEE NOTE 3
	1986–DATE	70–90 HP	HC4645H	SEE NOTE 1
	1997–DATE	80–150 HP 4-STROKE	HC4645H	
	2000–DATE	25–70 HP 4-STROKE	HC4648H	SEE NOTE 1
	2010–DATE	115A & B	HC4648H	
YANMAR	1990–DATE	27–36 HP	HC4645H	

**NOTES:**

1. Requires Spacer Kit TELHO5090
2. May Require Extensive Cowling Modifications
3. Must use High Strength Tiller bolt. TELHA5822. Refer to the NOTICE on this page identifying the high strength bolt
4. Optional cylinder TELHC5358. Slight interference may occur when using the TELHC5358 with the engine in the full tilt position
5. Cylinder TELHC 5358 may also be used in these single engine applications.

NOTICE: Front Mount Cylinder part# TELHC5345 is included in the SeaStar Solutions Outboard Steering Kits TELHK6400/63XX and TELHK7400/73XX. If your engine requires the use of a cylinder other than the HC5345 (see application guides on this page through 3-5) you will need to purchase the individual components (helm, cylinder, hoses, etc.) separately.

**NOTICE**

High Strength Tiller bolt, TELHA5822. All cylinder shipped after June 15th 2007 will have this bolt included in the cylinder package.

**CAUTION**

**SeaStar PRO Helms require the use of SeaStar PRO (1500 psi) Kevlar steering hoses.**

## SeaStar Solutions Front Mount Outboard Steering

### Applications

Single and dual non-power-assisted outboard engines up to 300 HP (600 combined HP for counter-rotating duals) that have ABYC standard engine tilt tube.

Ideal for cruisers, runabouts, center console boats, offshore fishing boats and many more.

Suitable for speeds up to 60 MPH and dual station use (with purchase of extra helm, hose & fittings).

### Features

Allows independent engine tilt in dual engine installations. Dual engines require purchase of a tie bar kit and extra hardware. 5 Turns from lock-to-lock (single cylinder).

# SEASTAR

### Complete Systems:

Part No.	Description
TEL HK6400-3	SeaStar Solutions 1.7 Steering Kit (no Hoses)

### Components

Part No.	Description
TEL HH5271-3	SeaStar Solutions 1.7 Helm
TEL HC5345-3*	Pivot Mount Outboard Cylinder (Black)
TEL HA5430 (x2)	SeaStar Oil (1 Quart)

(See application guide for some engines which may require TELHC5347, TELHC5348 or TELHC5358.)

### Options

Part No.	Description
TEL HH5272-3	SeaStar Solutions 2.4 Helm (see ordering guide)
TEL HH5741	SeaStar Solutions 1.7 Classic Tilt Helm
TEL HH6192-3	SeaStar Solutions 2.4 Sport Tilt Helm
TEL HH5261-3	SeaStar Solutions 1.7 Rear Mount Helm
TEL HA5478	SeaStar Solutions Round Bezel Kit (Reduces helm protrusion by 3.75")
TEL HA5418	SeaStar Solutions Backplate Kit (Reduces helm protrusion by thickness of dash and allows clean retrofit of SeaStar Solutions helm where following helms were previously installed: pre-1991 SeaStar Solutions, SyTen, and mechanical rotary steering)
TEL HA5419	SeaStar Solutions 20° Dash Wedge Kit Allows installation through a bulkhead without additional fittings
TEL HF5501	Add-A-Station/Autopilot Fitting Kit
TEL HA5477	Grounding Strap



TEL HH5271-3

TEL HC5345-3

TEL HC5347-3  
(Some Honda)

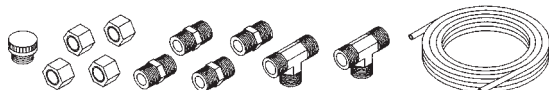
TEL HC5348-3  
(Some OMC)



TEL H081\_\_



TEL H051\_\_



TEL HF5501



TEL HA5477



TEL HA5430

## SINGLE &amp; DUAL ENGINE APPLICATION GUIDE:

ENGINE MANUF.	YEAR	MODEL	CYLINDER	TIE BAR KITS		NOTES
				Twin Engine Single Cyl.	Twin Engine Dual Cyl.	
Force	1985 TO DATE	90-150HP	HC5345-3	HO5008A	HO5008A	
Honda	1996 TO DATE	75-90HP	HC5345-3	HO6001	HO6002	See Note 3
	1998 TO 2009	115-130HP	HC5347-3	HO5063	HO5064	See Note 5
	1998 TO DATE	30-50HP	HC5345-3	HO6001	HO6002	See Note 2
	2001 TO DATE	150HP 4-STROKE	HC5345-3	N/A	HO6002	See Note 7
	2001 TO DATE	225-250HP 4-STROKE	HC5445-3	HO6001	HO6002	
	2003 TO DATE	BF135HP	HC5345-3	HO6003	HO6002	
	2010 TO DATE	115HP	HC5345-3	HO6003	HO6002	See Note 7
Johnson / Evinrude	1977 TO 1990	65-300HP	HC5348-3	HO6003	HO6002	
	1988 TO 1997	250-300HP V8	HC5342-3	HO5001A	HO5030	See Note 5
	1991 TO DATE	40-300HP	HC5345-3	HO6003	HO6002	Inc. ETech Engines
	1996 TO DATE	75-250HP FICHT	HC5345-3	HO6003	HO6002	
	1998 TO DATE	40-140HP 4-STROKE	HC5358-3	HO6003	HO6002	See Note 2
	2000 TO DATE	115HP FICT	HC5358-3	HO6003	HO6002	See Note 2
	2002 TO DATE	200-225HP 4-STROKE	HC5345-3	HO6003	HO6002	
	2005 TO DATE	E250 DPX VINDICATOR	HC5348-3	HO6003	HO6002	
	2007 TO DATE	3.3L/3.4L 200-250HP	HC5345-3	HO6003	HO6002	Inc. H.O. Models.
Mercury	1984 TO 1994	2.4/2.5HP EFI	HC5345-3	HO6001	HO6002	See Note 4
	1989 TO DATE	75-300HP	HC5345-3	HO6001	HO6002	See Note 3
	1996 TO DATE	75-200HP 2 & 4-STROKE	HC5345-3	HO6001	HO6002	
	1998 TO DATE	30-60HP	HC5345-3	HO6001	HO6002	See Note 2
	2002 TO DATE	225HP 4-STROKE	HC5358-3	HO6001	HO6002	See Note 1
	2003 TO DATE	250-300HP XS	HC6345-3 **			
	2004 TO DATE	150-200HP VERADO	HC5345-3	HO6001	HO6002	
Nissan	1990 TO DATE	90-140HP	HC5345-3	HO6001	HO6002	
Suzuki	1986 TO DATE	100HP	HC5345-3	HO6003	HO6002	
	1986 TO DATE	200-300 2 & 4 STROKE	HC5345-3	HO6003	HO6002	
	1986 TO 2002	115-140HP	HC5345-3	HO6001	HO6002	NOT 1996
	1996 ONLY	115-140HP	HC5348-3	HO6001	HO6002	
	1998 TO DATE	40-140HP 4-STROKE	HC5358-3	HO6003	HO6002	See Note 2
	2003 TO DATE	90HP 4-STROKE	HC5358-3	HO6003	HO6002	See Note 2
	2012 To DATE	150 - 175 HP	HC5345-3	HO6001	HO6002	
Yamaha	1990 TO 2007	40-90HP	HC5345-3	HO6003	HO6002	
	1986 TO DATE	100-250HP 2-STROKE	HC5345-3	HO6001	HO6002	
	1997 TO DATE	80-225HP 4-STROKE	HC5358-3	HO6001	HO6002	See Note 1
	2000 TO DATE	150-250 HPDI	HC5358-3	HO6001	HO6002	See Note 1
	2002 TO DATE	300 HPDI	HC5358-3	HO6001	HO6002	
	2003 TO DATE	25-70HP 4-STROKE	HC5348-3	HO6003	HO6002	See Note 2
	2007 TO DATE	F300-F350 HP 5.3V8	**			
Yanmar	1994 TO DATE	90-120HP	HC5345-3	HO6001	HO6002	

**Notes:**

1. TEL HC5345 is optional for **SINGLE ENGINE ONLY** applications.  
**DO NOT** use TEL HC5345 for twin engine applications as operational interference may occur.

2. Requires Kit TEL H05090 per engine
3. Minimum Engine Center = 27"
4. May Require Extensive Cowling Modifications
5. TEL H05030 and TEL H05064 comes without Tie Bar
6. One cylinder per engine.

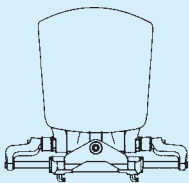
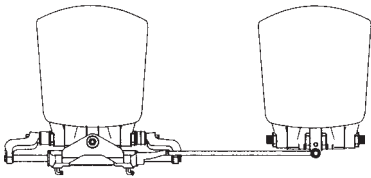
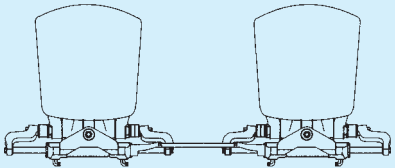


These recommendations apply to factory stock outboards only. Modified installations may require a higher capacity steering system. (Cylinder volume / helm displacement = number of turns.) if in doubt, contact SeaStar Solutions technical service for assistance. For single, dual and triple engine installations, refer to SeaStar Solutions Manual #1.1 for detailed instructions, applications information and parts diagrams. Some applications vary from what is depicted in this catalog. Always consult SeaStar manual for diagrams specific to your application. Use only SeaStar Solutions/ SeaStar Solutions PRO Hose or 3/8" Copper Tubing + Hose to plumb the system. NOTE: Interface between the cylinder and boat can occur under certain conditions. Check installation thoroughly throughout the full range of movement for engine tilt and trim ( and jack plate, if present).



## Single & Dual Engine Ordering Guide Front Pivot Mount System



Engine/Cylinder Configuration	Component Description	Qty Req'd	Model	Part No.
<b>Single Engine</b> <b>(Single Cylinder)</b> <b>Applications up to 300 hp Max</b> <b>Number of Turns: 5</b> 	Cylinder See Application Guide	1	Pivot Mount	TEL HC_3__-3
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Fitting Kit	1	Add a Station	TEL HF5501-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430
<b>Dual Engines</b> <b>(Single Cylinder)</b> <b>Non Counter Rotating Applications to 450 hp Max; Counter Rotating Application to 600 hp Max</b> <b>Number of Turns: 5</b> 	Cylinder See Application Guide	1	Pivot Mount	TEL HC_3__-3
	Tie Bar Kit	1	See Application Guide	TEL HO60__
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271
	Fitting Kit	1	Add a Station	TEL HF5501
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430
<b>Dual Engines</b> <b>(Dual Cylinder)</b> <b>Non Counter Rotating Applications to 450 hp Max; Counter Rotating Application to 600 hp Max</b> <b>Number of Turns: 7</b> 	Cylinder See Application Guide	2	Pivot Mount	TEL HC_3__-3
	Tie Bar Kit	1	See Application Guide	TEL HO60__
	Helm	1	SeaStar Solutions 2.4	TEL HH5272-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Hose Kit	1	Outboard Hose	TEL HO51__
	Hose Kit	1	Outboard Hose	TEL HO51__
	Fitting Kit	1	Tee Fitting	TEL HF5530
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 2.4	TEL HH5272-3
	Fitting Kit	1	Add a Station	TEL HF6007
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430

## Options

Backing Plate Kit	For Standard Helms	TEL HA5418
20° Wedge	For Standard Helms	TEL HA5419
Autopilot Fitting Kit	For All Helms	TEL HF6007
Tilt Helm SeaStar Solutions 1		TEL HH5741-3
Rear Mount Helm SeaStar Solutions 1		TEL HH5261-3
Tilt Helm SeaStar Solutions II		TEL HH5742-3
Rear Mount Helm SeaStar Solutions II		TEL HH5262-3
Pro Cylinders		TEL HC63__-3
Power Assist Steering		TEL PA1200-2



## SeaStar Solutions Pro Engine Front Mount Outboard Steering

In a traditional hydraulic system, the propeller feedback load will try to turn the steering wheel. Since hydraulic helms have lock valves, the wheel doesn't turn but pressure in that hydraulic line will increase as the pressure in the other line drops. When the wheel is turned *with* the load, there is a dead spot, which makes handling difficult in high speed boats. SeaStar Solutions PRO's unique valve system keeps pressures in the two hydraulic lines about equal, so the wheel feels solid and sure at all times. SeaStar Solutions Pro is for high-performance boats with single non-power-assisted outboards up to 300 HP, especially those capable of speeds over 60 MPH, which demand maximum steering control and comfort. It is suitable for use with high-performance propellers and jack plates.

### Complete Systems:

Part No.	Description
TEL HK7500A	SeaStar Solutions PRO Steering Kit (no Hoses)
<b>PLEASE NOTE WHEN ORDERING:</b> SeaStar Solutions PRO steering kits come with cylinder # TEL HC5345. If your application requires the use of a cylinder other than TEL HC5345, you will need to purchase all components separately (helm, hoses, cylinder, etc.)	

**SEASTAR**  
**PRO**



### Components:

Part No.	Description
TEL HH5770-3	SeaStar Solutions PRO Helm
TEL HO57_	Hoses
TEL HC6345-3	Pivot Mount Outboard Cylinder (Black)
(See application guide for some engines which may require TEL HC5347, TELHC5348 or TELHC5358.)	
TEL HO57_	SeaStar Solutions PRO Hose Kit (2 hoses)
TEL HA5430	SeaStar Solutions Oil (2-1 Quart)

• 4.25 turns from lock-to-lock.



TEL HH5770-3



TEL HC5345-3



TEL HA5430



TEL HO57\_

### Options:

Part No.	Description
TEL HS5478	SeaStar Solutions Round Bezel Kit (Reduces helm protrusion by 3.75")
TEL HA5418	SeaStar Solutions Backplate Kit (Reduces helm protrusion by thickness of dash and allows clean retrofit of SeaStar Solutions helm where following helms were previously installed: pre-1991 SeaStar, SyTen, and mechanical rotary steering.)
TEL HA5419	SeaStar Solutions 20° Dash Wedge Kit

## SeaStar Solutions Pro Series Application Guide

Engine	Year	Model	Part No.	Notes
Force	1985 to Date	90-150 hp	TEL HC5345-3	
Honda	1996 to Date	150-300 hp	TEL HC5345-3	
Johnson/Evinrude	1977 to 1990	150-300 hp	TEL HC5348-3	
	2002 to Date	150-250 hp 4-Stroke	TEL HC5345-3	
	2003 to Date	150-300 hp ETech	TEL HC5345-3	
	2005 to Date	E250 hp Vindicator	TEL HC5348-3	
Mercury/Mariner	1989 to Date	150-300 2 Stroke, 4 Stroke	TEL HC5345-3	XS engine requires Mercury Supplied Tiller Bolt an Install
Suzuki	1986 to Date	150-250 hp 2 & 4 Stroke	TEL HC5345-3	
Yamaha	1986 to Date	150-250 hp 2 Stroke	TEL HC5345-3	
	2002 to Date	300 hp HPDI	TEL HC5358-3	

## SeaStar Solutions Pro Ordering Guide

Engine/ Cylinder	Component Description	Qty Req'd	Model	Part No.
Single Engine (Single Cylinder) Applications up to 300 hp Max	Cylinder See Application Guide	1	Pivot Front Mount	TEL HC_3_-3
	Helm	1	SeaStar Solutions 1.7	TEL HH5770-3
	Hose Kit	1	Outboard Hose	TEL HO57_
	Number of Turns: 4.25	Oil	3 SeaStar Solutions Oil (Qt)	TEL HA5430

### Options:

**SEASTAR**  
**PRO**

Backing Plate	Front Mount Helms	TEL HA5418
20° Wedge	Front Mount Helms	TEL HA5419
Sport Tilt Helm	SeaStar Solutions Pro 2.0	TEL HH5290-3
Traditional Tilt Helm	SeaStar Solutions Pro 2.0	TEL HH5774-3
Bulkhead Hose KIT	SeaStar Solutions Pro Hose	TEL HO82_
Pro Cylinders (available in red, silver or black)		TEL HC63_
Power Assist Pro Steering		TEL PA1315-2

### NOTES:

SeaStar Solutions PRO is for single engine applications only.

The recommendations shown above apply to factory stock outboards only. Modified installations may require a higher capacity steering system. (Cylinder volume / helm displacement = number of turns.) If in doubt, contact SeaStar Solutions Canada technical service for assistance. Some applications vary from what is depicted in this catalog. Always consult SeaStar Solutions manual for diagrams specific to your application. Interference between the cylinder and boat can occur under certain conditions. Check installation thoroughly throughout the full range of movement for engine tilt and trim (and jack plate, if present). For all SeaStar Solutions PRO outboard systems: use only SeaStar Solutions PRO Hose Kit Part No. TELH057 or TELH082, where last two digits equal length in feet.

## Tournament Series Cylinders & Tiebars



With the power and speed increasing for performance orientated fishing boats, SeaStar Solutions felt it prudent to set up a dedicated application for these types of boats. If your application calls for a dual or triple Outboard Engine configuration, is capable of speeds exceeding 55 mph and runs in open water, please refer to the Tournament Tie Bar Cylinders to achieve performance, durability and safety.

**For Helms See SeaPro or SeaStar Solutions Selection Application Guide**

### NOTICE

Maximum Engine Centers for Single Cylinder = 41" - Twin Cylinder = 32-1/8"

## APPLICATION GUIDE: TOURNAMENT SERIES CYLINDERS & TIE BARS

CONFIGURATION	CYLINDER		HARDWARE KIT		TIE BAR				NOTES
	PART NO.	QTY.	PART NO.	QTY.	PART NO.	QTY.	CENTER TO CENTER (IN.)	CENTER TO CENTER (MM)	
Single Engine	HC6845S	1	Included			N/A	N/A	N/A	1
Twin Engine - Single Cylinder (STBD)	HC6845	1	HA6802	1	HO6821 HO6822 HO6823	1	25.0 - 25.6 25.7 - 30.6 30.7 - 39.0	635 - 650 653 - 777 780 - 991	1, 3, 4, 5 HA6802 Drive Bracket Availability - TBD
Twin Engine - Dual Cylinder	HC6845	2	HA6804	1	HO6820 HO6821 HO6822 HO6823	1	25.0 - 26.5 26.6 - 29.3 29.4 - 34.2 34.3 - 43.0	635 - 673 676 - 744 747 - 869 871 - 1092	1, 3, 4, 5
Triple Engine - Dual Cylinder	HC6845	2	HA6806	1	HO6822 HO6823	2	25.0 - 27.9 28.0 - 36.0	635 - 709 711 - 914	1-5 Maximum drop: ≤ 3 inches (76mm)
Quad Engine - Dual Cylinder	HC6845	2	HA6811	1	Consult SeaStar Solutions technical service				1,3,4,5
Quintuplet Engine (Plus)	Consult SeaStar Solutions technical service								1,3,4,5

\*All triple engine applications excluding the Mercury XS line can use a twin cylinder set up with an engine adapter plate installed on the center engine. TELHA6701 Center Plate Kit. All kits include the two outboard plates as well.

## Power Purge JR



**Power Purge Jr. is the quickest way to bleed a SeaStar Solutions® or BayStar® system and assure a rock-solid steering feel every time!**

Power Purge systems reduce installation and warranty costs while enhancing the quality of the boat for the end user. A typical manual fill and purge takes the average, **experienced** installer about 30 minutes per boat — **by using Power Purge this can be reduced to 10 minutes or less.**

Power Purge, Jr. is available to any business at which SeaStar **Solutions®** is installed by qualified marine hydraulic steering technicians.

- Fast and efficient set-up; easy to operate. Screens contaminants from oil.
- Quick connect fittings. (Will Not fit Power Steering Cylinders)
- Extended portability for **use in the field** weighs only 29 pounds.
- Convenient electrical hook-up utilizing an available 12-volt boat battery.

**Part No.**  
TEL HA5445-2  
TEL HA5461  
TEL HA5462

**Description**  
12 Volt SeaStar Solutions Power Purge, Jr  
Dual Cylinder Adapter  
50' Extension Kit



**Rental Units Available to Qualified Technicians**



## SeaStar Solutions Side Mount Outboard Steering

## Applications

Single and dual non-power-assisted outboard engines up to 300 HP (600 combined HP for counter-rotating duals) that have standard engine tilt tube.

Suitable for speeds up to 60 MPH and dual station use (with purchase of extra helm, hose & fittings).

Dual engines require purchase of a tie bar kit and extra hardware.

- Drag link design fits most engines with threaded tilt tubes. Fast, easy installation.
- Alternative to front mount cylinder where space allows, especially useful in boats with shallow splashwells.
- Suitable for use on engines with power steering.

## Features

4.8/5.7 turns lock-to-lock\* (unbalanced cylinder).

**SEASTAR**



TEL HH5271-3



TEL HC5370-3

TEL HO51

## Complete Systems:

System components sold separately. See application and ordering guides to select appropriate components.

## Components:

Part No.	Description
TEL HH5271-3	SeaStar Solutions 1.7 Helm
TEL HC5370-3	Side Mount Outboard Cylinder
TEL HA5430	SeaStar Solutions Oil (1 Quart Mil Spec H5006)

## Options:

Part No.	Description
TEL HH5272-3	SeaStar Solutions 2.4 Helm (see ordering guide)
TEL HH5261-3	SeaStar Solutions 1.7 Rear Mount Helm
<b>WARNING:</b> Do NOT use SeaStar Solutions PRO helms with the unbalanced side mount cylinder. Doing so may cause steering wheel to lock up leading to possible loss of steering causing property damage and/or personal injury.	

Part No.	Description
TEL HA5417	SeaStar Solutions Round Bezel Kit (Reduces helm protrusion by 3.75)
TEL HA5418	SeaStar Solutions Backplate Kit (Reduces helm protrusion by thickness of dash and allows clean retrofit of SeaStar Solutions helm where following helms were previously installed: pre-1991 SeaStar Solutions, SyTen, and mechanical rotary steering).

Part No.	Description
TEL HA5419	SeaStar Solutions 20° Dash Wedge Kit

Part No.	Description
TEL HO5009	SeaStar Solutions Twin Engine Tie Bar Kit (See Application Guides)
TEL HF5501	Add-A-Station/Autopilot Fitting Kit



TEL HO81



TEL HA5430



TEL HH5261-3



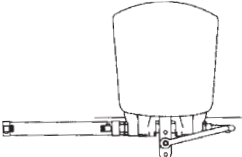
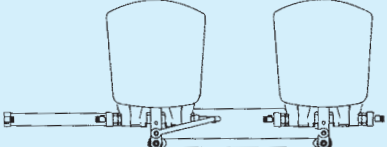
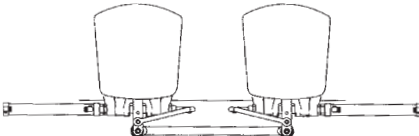
TEL HF5501

TEL HH5741-3 / TEL HH5742-3  
(Includes Tilt Helm)

Tilt Helm



## Ordering Guide: SeaStar Solutions Side Mount Outboard Steering System

Engine/Cylinder Configuration	Component Description	Qty Req'd	Model	Part No.
<b>Single Engine (Single Cylinder)</b> Applications up to 300 hp Max Number of Turns: 4.8/5.7 	Cylinder	1	Side Mount	TEL HC5370-3
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Fitting Kit	1	Add a Station	TEL HF6007
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430
<b>Dual Engines (Single Cylinder)</b> Non Counter Rotating Applications to 300 hp Max; Counter Rotating Application to 600 hp Max Number of Turns: 4.8/5.7 	Cylinder	1	Side Mount	TEL HC5370-3
	Tie Bar Kit	1	See Application Guide	TEL HO5009
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Fitting Kit	1	Add a Station	TEL HF6007
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430
<b>Dual Engines (Dual Cylinder)</b> Non Counter Rotating Applications to 600 hp Max; All Counter Rotating Engine Application Number of Turns: 7.5 	Cylinder	2	Side Mount	TEL HC5370-3
	Tie Bar Kit	1	See Application Guide	TEL HO5009
	Helm	1	SeaStar Solutions 2.4	TEL HH5272-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Hose Kit	1	Outboard Hose	TEL HO51__
	Hose Kit	1	Outboard Hose	TEL HO51__
	Fitting Kit	1	Tee Fitting	TEL HF5530
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 2.4	TEL HH5272-3
	Fitting Kit	1	Add a Station	TEL HC6007
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430
<b>Options:</b>	Backing Plate		For Standard Helms	TEL HA5418
	20° Wedge		For Standard Helms	TEL HA5419
	Autopilot Fitting Kit		For All Helms	TEL HF5501
	Tilt Helm SeaStar Solutions 1.7			TEL HH5741-3
	Rear Mount Helm SeaStar Solutions 1.7			TEL HH5261-3
	Tilt Helm SeaStar Solutions 2.4			TEL HH5742-3
	Rear Mount Helm SeaStar Solutions 2.4			TEL HH5262-3
	Power Assist Steering			TEL PA1200-2

### NOTES:

These recommendations apply to factory stock outboards only. Modified installations may require a higher capacity steering system. If in doubt, contact our SeaStar Solutions Canada technical service for assistance. (Cylinder volume / helm displacement = number of turns.) For dual engines, use SeaStar Solutions or engine manufacturer's tie bar.

For all SeaStar Solutions outboard systems: Use following option A or B:

A) Outboard hose: order standard lengths (cannot be cut to length.) Part No. TELH051\_\_ / TELH057\_\_, where last two digits = length in feet.

B) Copper tube: 3/8" diameter copper tube and hose kit part No. TELHF5508.

### WARNING:

Do NOT use SeaStar Solutions PRO helms with the unbalanced side mount cylinder. Doing so may cause steering wheel to lock up leading to possible loss of steering causing property damage and/or personal injury.

## SeaStar Solutions Splashwell Mount Outboard Steering

**Applications**

An ideal hydraulic steering solution for engines without tilt tubes.

Single and dual non-power-assisted outboard engines up to 300 HP (600 combined HP for counter-rotating duals).

Suitable for speeds up to 60 MPH and dual station use (with purchase of extra helm, hose & fittings). Dual engines require purchase of a tie bar kit and extra hardware. *Not suitable for engines fitted with factory power steering.*

**Features**

- Ideal for outboard engines which do not have a tilt tube.
- Light duty alternative to front mount cylinder where space allows.
- Suitable for installation in shallow splashwells.
- 5.5/6.5 turns lock-to-lock\* (unbalanced cylinder).

**SEASTAR**

TEL HH5271-3



TEL HC5380-3

**Complete Systems:**

System components sold separately. See application and ordering guides to select appropriate components.

**Components:**

Part No.	Description
TEL HH5271-3	SeaStar Solutions 1.7 Helm
TEL HC5380-3	Splashwell Mount Outboard Cylinder
TEL HA5430	SeaStar Solutions Oil (1 Quart Mil Spec H5006)



TEL HC5380

**Options:**

Part No.	Description
TEL HH5261-3	SeaStar Solutions 1.7 Rear Mount Helm
<b>WARNING: Do NOT use SeaStar Solutions PRO helms with the unbalanced splashwell cylinder. Doing so may cause steering wheel to lock up leading to possible loss of steering causing property damage and/or personal injury.</b>	

Part No.	Description
TEL HA5478	SeaStar Solutions Round Bezel Kit (Reduces helm protrusion by 3.75)
TEL HA5418	SeaStar Solutions Backplate Kit (Reduces helm protrusion by thickness of dash and allows clean retrofit of SeaStar Solutions helm where following helms were previously installed: pre-1991 SeaStar Solutions, SyTen, and mechanical rotary steering).

Part No.	Description
TEL HA5419	SeaStar Solutions 20° Dash Wedge Kit

Part No.	Description
TEL HO5010	SeaStar Solutions Twin Engine Tie Bar Kit (See Application Guides on next pages.)
TEL HF6007	Add-A-Station/Autopilot Fitting Kit



TEL HC5380



TEL HA5430



TEL HH5261-3



TEL HF5501

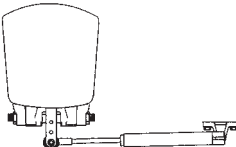
TEL HH5741-3  
(Includes Tilt Helm)


Tilt Helm



# SEASTAR

## Splashwell Single & Dual Engine Ordering Guide Mount System

Engine/Cylinder Configuration	Component Description	Qty Req'd	Model	Part No.
Single Engine (Single Cylinder) Applications up to 300 hp Max	Cylinder	1	Splashwell Mount	TEL HC5380-3
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Number of Turns: 5.5/6.5	Oil	3 SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Fitting Kit	1	Add a Station	TEL HF6007
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430

Dual Engines (Single Cylinder) Non Counter Rotating Applications to 300 hp Max; Counter Rotating Application to 600 hp Max Number of Turns: 5.5/6.5	Cylinder	1	Splashwell Mount	TEL HC5380-3
	Tie Bar Kit	1	Tie Bar Only	TEL HO5010
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Fitting Kit	1	Add a Station	TEL HF6007
	Hose Kit	1	Outboard Hose	TEL HO51__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430

### Options:

Backing Plate	For Standard Helms	TEL HA5418
20° Wedge	For Standard Helms	TEL HA5419
Autopilot Fitting Kit	For All Helms	TEL HF6007
Tilt Helm SeaStar Solutions 1.7		TEL HH5741-3
Rear Mount Helm SeaStar Solutions 1.7		TEL HH5261-3
Power Assist Steering		TEL PA1200-2

**NOTES:** These recommendations apply to factory stock outboards only. Modified installations may require a higher capacity steering system. If in doubt, contact our SeaStar Solutions Canada technical service for assistance. (Cylinder volume / helm displacement = number of turns.) The splashwell mount cylinder can be used on all engines complying with ABYC P17/NMMA/BIA standards provided they have a threaded attachment hole (3/8"-24 UNF thread) in the steering arm. **The splashwell mount cylinder (part no. TELHC5380) is not suitable for use on engines fitted with factory power steering.** For dual engines, use SeaStar Solutions or engine manufacturer's tie bar. For all SeaStar Solutions outboard systems: Use following option A or B:

A) Outboard hose: order standard lengths (cannot be cut to length.)

Part No. TELHO51\_\_ / TELHO57\_\_, where last two digits = length in feet.

B) Copper tube: 3/8" diameter copper tube and hose kit part No. TELHF5508.

**WARNING:** Do NOT use SeaStar Solutions PRO helms with the unbalanced splashwell cylinder. Doing so may cause steering wheel to lock up leading to possible loss of steering causing property damage and/or personal injury.



## SeaStar Sterndrive Steering

## Applications

Ideal for most stern drives, especially non-power-assisted units, SeaStar Solutions is suitable for single and multiple drives and dual stations.

## Features

• Best and Most Economical autopilot interface for stern drives! • Easy installation. Simple multiple steering station connection.



SEASTAR



TEL HH5271-3



TEL HC53-3



TEL HO51

## Complete Systems:

System components sold separately. See application and ordering guides to select appropriate components.

## Components:

Part No.	Description
TEL HH5271-3	SeaStar Solutions 1.7 Helm (See Ordering Guide to Select Helm)
(See Application Guide to Select Cylinder)	
TEL HA5430	SeaStar Solutions Oil (1 Quart Mil Spec H5006)

## Options:

Part No.	Description
TEL HH5273-3	SeaStar Solutions 2.0 Helm
TEL HH5272-3	SeaStar Solutions 2.4 Helm
TEL HH5261-3	SeaStar Solutions 1.7 Rear Mount Helm
TEL HH5262-3	SeaStar Solutions 2.4 Rear Mount Helm
TEL HA5478	SeaStar Solutions Round Bezel Kit (Reduces helm protrusion by 3.75")
TEL HA5418	SeaStar Solutions Backplate Kit (Reduces helm protrusion by thickness of dash and allows clean retrofit of SeaStar Solutions helm where following helms were previously installed: pre-1991 SeaStar Solutions, SyTen, and mechanical rotary steering).

Part No.	Description
TEL HA5419	SeaStar Solutions 20° Dash Wedge Kit
TEL HF6007	Add-a-Station/Autopilot Fitting Kit
TEL HT5095	3/8" x 50' Tubing (See Ordering Guide)
TEL HT5100	3/8" x 100' Tubing (See Ordering Guide)
	Nylon tube intended for use on Sterndrives and inboard steering using the SeaStar Solutions 1.7 helm ONLY.



TELHA5430



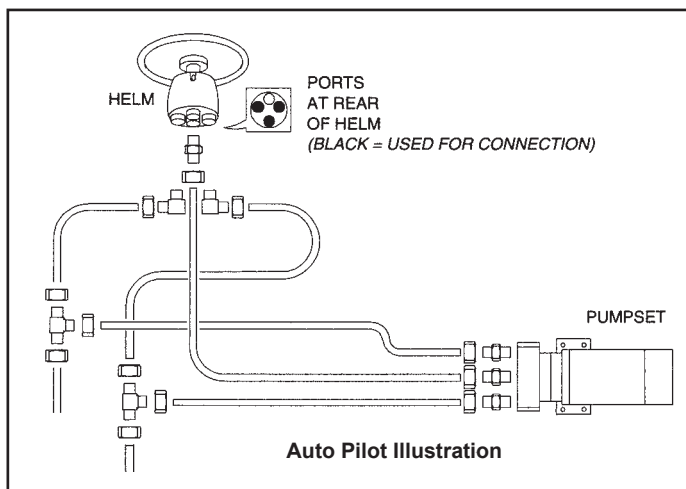
TEL HH5261-3

TEL HT5095  
TEL HT5100

TEL HF5502

TEL HH5741-3  
(Includes Tilt Helm)

Tilt Helm



## Application Guide: Stern Drive Steering

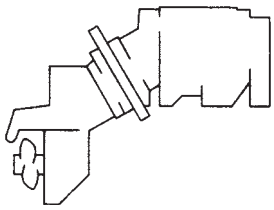
Engine	Steering Config	Engine/Drive Model	Year	Model	Cylinder JMS No	Seastar (1.7 cu. in.)	Seastar (2.4 cu. in.)	Notes
BMW	Non Power	All	to Date	BAI25-8EMV	TEL HC5330-3	4.9	N/A	1
	Power Assist	All	to Date	125-8EM	TEL HC5328-3	4.9/5.8	3.4/4.1	
MerCruiser	Non Power	MerCruiser 1	1983 & Prior	BAI25-8EMV	TEL HC5330-3	4.9	N/A	1.7
	Non Power	Alpha 1	1984 to Date	BA135-7EM	TEL HC5332-3	5.0	3.5	1.5, 6, 7
	Non Power	Bravo I, II, III	1984 to Date	BA135-7EM	TEL HC5332-3	5.0	3.5	1.5, 6, 7
	Power Assist	MerCruiser 1	to 1983	125-8EM	TEL HC5328-3	4.9/5.8	3.4/4.1	2
	Power Assist	Alpha 1	1984 to Date	125-8EM	TEL HC5328-3	4.9/5.8	3.4/4.1	2
	Power Assist	Bravo I, II	1984 to Date	125-8EM	TEL HC5328-3	4.9/5.8	3.4/4.1	2
	Power Assist	Bravo III	1984 to Date	125-8EM	TEL HC5328-3	4.9/5.8	3.4/4.1	2.8
OMC	Non Power	400/800 Series	1985 & Prior	N/A	N/A	N/A	N/A	
	Non Power	Cobra	1986 to Date	BA150-7EM	TEL HC5326-3	6.0	N/A	1.4
	Non Power	King Cobra	1986 to Date	BA150-7EM	TEL HC5326-3	6.0	N/A	1.4
	Power Assist	400/800 Series	1985 & Prior	N/A	N/A	N/A	N/A	
	Power Assist	Cobra	1986 to Date	125-8EM	TEL HC5328-3	4.9/5.8	3.4/4.1	2
	Power Assist	King Cobra	1986 to Date	125-8EM	TEL HC5328-3	4.9/5.8	3.4/4.1	2
Volvo	Non Power	275	to Date	BA150-7ATM	TEL HC5314-3	6.0	N/A	1.7
	Non Power	280, 290	to Date	BA135-7ATM	TEL HC5330-3	5.0	3.5	1.5, 6, 7
	Non Power	Diesel	to Date	BA135-7EM	TEL HC5332-3	5.0	3.5	1.5, 6, 7
	Power Assist	275	to Date	N/A	N/A	N/A	N/A	
	Power Assist	280, 290	to Date	125-8EM	TEL HC5328-3	4.8/5.8	3.4/4.1	2
	Power Assist	Diesel	to Date	125-8VEM	TEL HC5329-3	4.9/5.8	3.4/4.1	2
	Power Assist	32, Diesel	1997 to Date	92-VPS	TEL HC5331-3	4.8/5.5	3.4/4.1	2
	Power Assist	41-42 Diesel	1992 to Date	92-VPS	TEL HC5331-3	4.8/5.8	3.4/4.1	2
	Power Assist	DPS & SX	1996 to Date	92-VPS	TEL HC5331-3	4.9/5.5	3.4/4.1	2
	Power Assist	DPS & SX	1996 to Date	92-VPS	TEL HC5331-3	4.9/5.5	3.4/4.1	2
Yamaha	Non Power	All	1989 to Date	N/A	N/A	N/A	N/A	
	Power Assist	All	1989 to Date	125-8EM	TEL HC5328-3	4.9/5.8	3.4/4.1	2

### NOTES:

N/A = Not Available.

1. Balanced system - number of steering wheel turns lock-to-lock is equal port to starboard or vice-versa.
2. Unbalanced system - number of steering wheel turns lock-to-lock is unequal port to starboard or vice-versa.
3. Requires additional clevis supplied by engine manufacturer. Reference Quicksilver Part No. B98735A1. See TEL HC5326 cylinder diagram.
4. Requires cylinder rod end adapter TEL HA5424 from SeaStar Solutions Canada. Refer to the TEL HC5326 cylinder diagram.
5. **TEL HC5332 replaces TELHC5326 as of January 2000.** If installing TEL HC5326 additional clevis supplied by engine manufacturer required (part number B987 35A 1).
6. The installation of the TEL HC5332 sterndrive cylinder requires the use of SeaStar Outboard hose only. Do not use 3/8" copper or nylon tube.
7. If engine outdrive is NOT equipped with a torque tab on the underside of the lower leg one must be installed to reduce prop torque.
8. Yanmar Engines using the Bravo III drives require the use of cylinder TEL HC5326.

## Ordering Guide: Stern Drive Steering

Engine/ Cylinder Configuration	Component Description	Qty Req'd	Model	Part No.
Single & Dual Sterndrives (Number of Turns varies) for dual Sterndrive application use engine manufactures supplied tie bar	Cylinder	1	See Application Guide	
	Helm	1	SeaStar Solutions 1.7 (see note 1)	TEL HH5271-3
	Helm (Optional)		SeaStar Solutions 2.4 (see note 2)	TEL HH5272-3
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	Extra Tube/Hose		(See Note 3)	
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7 (see note 1)	TEL HH5271-3
		1	SeaStar Solutions 2.4 (see note 2)	TEL HH5272-3
	Fitting Kit	1	Add a Station	
			For SeaStar Solutions 1.7 Helms	TEL HF6010
			For SeaStar Solutions 1.7 Helms	TEL HF6007
	Oil	1	SeaStar Solutions Oil	
	Extra Tube/Tube		(See Notes 3)	
	<b>Options:</b>			
	Backing Plate		For Standard Helms	TEL HA5418
	20° Wedge		For Standard Helms	TEL HA5419
	Autopilot Fitting Kit		For All Helms	TEL HF6007
	Rear Mount Helm SeaStar Solutions 1.7			TEL HH5261-3
	**Tilt Helm SeaStar Solutions 2.4			TEL HH5742-3
	Rear Mount Helm SeaStar Solutions 1.7			TEL HH5262-3
	Power Assist Steering			TEL PA1200-2



**NOTE:** These recommendations apply to factory stock sterndrives only. Modified installations may require a higher capacity Steering system\_ if in doubt, contact our technical service for assistance.

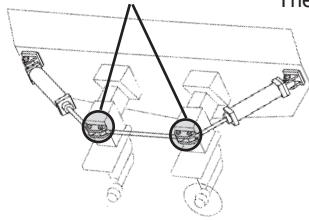
1. SeaStar Solutions 1.7 helms are the standard recommendation for both non-power and power steered applications.
2. SeaStar Solutions 2.4 helms can be specified for power steered applications where faster steering response is desired. Review the Application Guide on the previous page for recommendations.
3. **\*For SeaStar Solutions 1.7 systems, use 3/8" diameter nylon tubing (Part No. TELHT5\_ \_).**  
**\*\*For SeaStar Solutions 2.4 systems or any system using the TELHC5332 cylinder, use the following option A or B:**
  - A. **Outboard Hose:** hoses must be ordered in standard lengths. They cannot be out to length.
  - B. **Copper tube:** 3/8" diameter copper tube and hose kit (Part No. TELHF5508).
4. **For dual stern drives;** use the tie bar supplied by the engine manufacturer



## Hynautic/Capilano Stern Drive Steering

This system is designed for stern drive, outboard and inboard boats requiring external cylinders of substantial size and strength. The TEL K-5 cylinders are nickel plated for aesthetics and protection against the elements.

Systems can be selected using either the easy-to-install Capilano 2-line systems (with variable-displacement helm) or the traditional Hynautic 3-line configurations. These System components are sold separately.



The required wing plates and hardware are not available from SeaStar Solutions.



TEL K-5-B  
Cylinders  
(Used in Pairs)



The Capilano version is a two line system which consists of a Helm (s) TEL HH5275 and pair of cylinders TEL K-5-B.

TEL HH5275

Helm



VARIABLE  
DISPLACEMENT  
ADJUSTING KNOB



## Capilano Components:

Part No.	Description
TEL HH5275	Capilano 1275V Helm 3/4" taper (Systems with Capilano helms require the use of Dexron II. type Automatic Transmission Fluid, NOT Sea Star oil.)
TEL K-5-B	External Stern Drive Cylinder (2-required)
*1/2" Copper Tubing	Local Supplier
TEL HF5590	Fitting Kit (for 1/2" Copper Tubing)

These fitting kits are for one steering station (purchase add-a-station kit for 2nd station). \*High pressure hose (P/HMSH-6) must be used to connect to the cylinders. Also see bulkhead tee kits.

## Options:

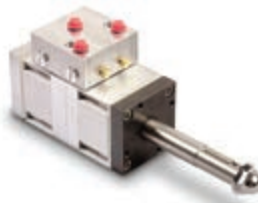
Part No.	Description
TEL HF5591	Add-A-Station Fitting Kit (1/2" tubing)
TEL HA5450	Helm Remote Fill Kit (through-dash)

# capilano

The Hynautic version is a three line system which consists of a Helm (s), a pair of TELK-5-B cylinders and a reserve valve or a reservoir and a relief valve.



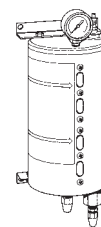
Hynautic Heavy Duty System



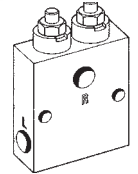
TEL H-41/TELH-42  
Helm



TEL RV-60  
Reservoir/Relief Valve



TEL R-06  
Reservoir



TEL MSV-21  
Relief Valve

## Hynautic Components:

Part No.	Description
TEL H-42	Hynautic 4.0 cu. in. helm (1" straight shaft)
TEL H-42-02	Hynautic 4.0 cu. in. helm (3/4" tapered shaft)
TEL H-41	Hynautic 5.5 cu. in. helm (1" straight shaft)
TEL H-41-02	Hynautic 5.5 cu. in. helm (3/4" tapered shaft) (See application guide.)
TEL HF-21	H-40 Fittings Kit for Main Station
TEL HF-22	H-40 Fittings Kit for Second Station
TEL K-5-B	External Stern Drive Cylinder (2 required)

Part No.	Description
TEL HP5810HY	Reservoir - Standard (2 quart)
TEL MSV-21	Relief Valve (950 PSI)
TEL MSVF-13	Relief Valve Fittings
*1/2" Copper Tubing	Local Supplier
TEL HF5590	Fitting Kit (for 1/2" Copper Tubing)
These fitting kits are for one steering station (purchase add-a-station kit for 2nd station).	
TEL HA5430	SeaStar Oil (1 Quart Mil Spec H5606)

## Options:

Part No.	Description
TEL HF5591	Add-A-Station Fitting Kit (1/2" tubing)

\*High pressure hose (P/HMSH-6) must be used to connect to the cylinders. Also see bulkhead tee kits.

## SeaStar Solutions Inboard Steering

### Applications

Most inboard powered boats with single or dual engines: single engine planing/displacement hull craft from 26-44 feet; dual engine planing hull craft from 26-50 feet; dual engine displacement hull & sail craft from 26-44 feet. Suitable for dual station use with purchase of extra hardware.

### Complete Systems:

System components sold separately. See application and ordering guides to select appropriate components.

### Components:

Part No.	Description
TEL HH5271-3	SeaStar Solutions 1.7 Helm
TEL HH5272-3	SeaStar Solutions 2.4 Helm
(See ordering guide.)	
TEL HC5313-3	Inboard Cylinder
(See ordering guide.)	
TEL HT5095	50' x 3/8" Tubing
TEL HT5100	100' x 3/8" Tubing
TEL HF5507	Fitting Kit (for 3/8" Copper/Tubing)
TEL HF5508	Hose Kit for Copper Tubing (2 hoses)
TEL HA5430	SeaStar Solutions Oil (1 Quart Mil Spec H5606)

### Options:

Part No.	Description
TEL HH5261-3	SeaStar Solutions 1.7 Rear Mount Helm
TEL HA5418	SeaStar Solutions Backplate Kit
<i>(Reduces helm protrusion by dash thickness and allows clean retrofit of SeaStar Solutions helm where following helms were installed: pre-1991 SeaStar Solutions, SyTen, and mechanical rotary steering.)</i>	
Part No.	Description
TEL HA5419	SeaStar Solutions 20° Dash Wedge Kit
TEL HC5322-3	Ball Joint Mount Cylinder (7 cu. in.)
TEL HC5323-3	Ball Joint Mount Cylinder (9 cu. in.)
TEL K-22	Fixed Mount Cylinder (13.3 cu. in.)
	(one ball joint end)
TEL HF5502	Add-A-Station/Autopilot Fittings Kit
TEL HF6007	SeaStar Solutions Hose Kit (2 hoses)

### Features

- Easy installation on single or dual rudders.
- Cylinders supplied with bleeder fittings.
- Regular duty aluminum or heavy duty brass cylinders.
- Two-axis articulation.



Inboard System



TEL HH5271-3 / TEL HH5272-3



TEL HH5261-3



TEL HH5292-3  
(Includes Tilt Helm)

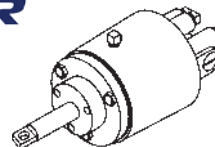


TEL HH5741  
(Includes Tilt Helm)



TEL HF5502

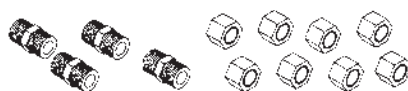
**SEASTAR**



Tilt Helm



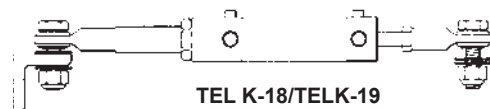
TEL HA5430



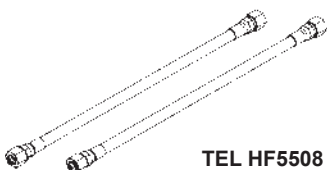
TEL HF5507



TEL HT5095



TEL K-18/TELK-19



TEL HF5508



TEL HC5313-3  
(ATM or TM)  
ATM=Aluminum  
TM=Brass



TEL K-22 / TEL K-27



SEASTAR  
SOLUTIONS®

## Inboard Cylinder Dimensions

2-Line Inboard Steering  
Application Guide

Use "System Numbers" in chart below to select the components from ordering guide on next page.

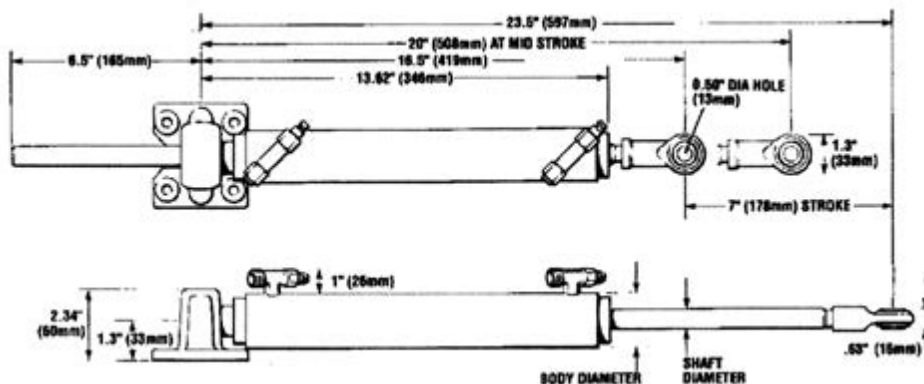
System Numbers		
Boat Type/ Length	1 Engine Pleasure	Work
<b>PLANNING HULL</b>		
To 26 Feet	1	4
To 32 Feet	2	4
To 38 Feet	3	5
To 44 Feet	5	-
To 50 Feet	-	-
<b>DISPLACEMENT HULL</b>		
To 26 Feet	2	4
To 32 Feet	3	4
To 38 Feet	5	5
To 44 Feet	-	-
To 50 Feet	-	-
<b>Sail</b>		
To 26 Feet	4	4
To 32 Feet	4	4
To 38 Feet	4	5
To 44 Feet	5	-
To 50 Feet	-	-

System Numbers		
Boat Type/ Length	2 Engines Pleasure	Work
<b>PLANNING HULL</b>		
To 26 Feet	1	4
To 32 Feet	1	4
To 38 Feet	2	5
To 44 Feet	3	5
To 50 Feet	5	-
<b>DISPLACEMENT HULL</b>		
To 26 Feet	2	4
To 32 Feet	3	4
To 38 Feet	3	5
To 44 Feet	5	-
To 50 Feet	-	-
<b>Sail</b>		
To 26 Feet	-	-
To 32 Feet	-	-
To 38 Feet	-	-
To 44 Feet	-	-
To 50 Feet	-	-

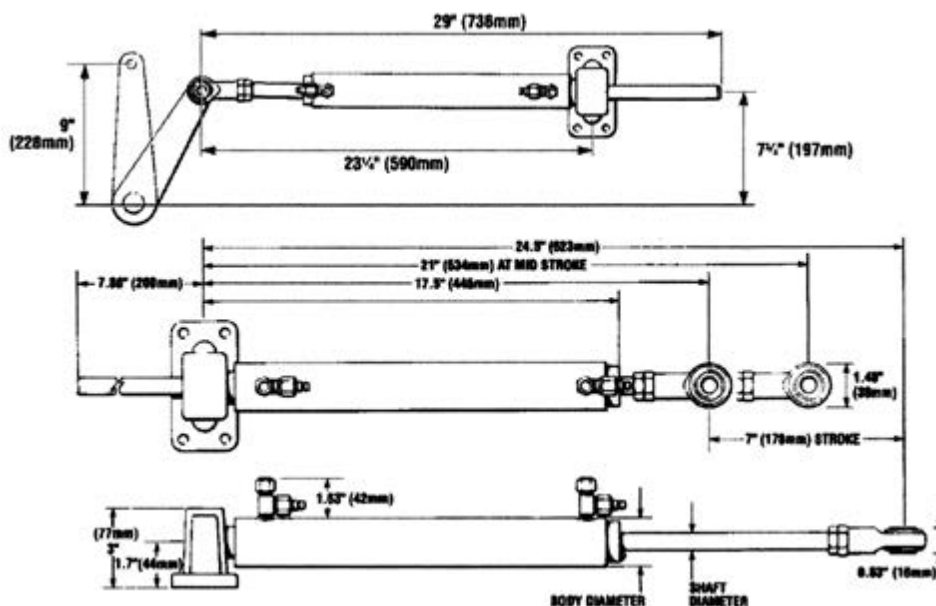
## ATM (ALUMINUM BODY) INBOARD CYLINDERS

P/N TELHC5312/TELHC5313/TELHC5314 (MODEL BA1 -7ATM):



## TM (BRASS BODY) INBOARD CYLINDERS

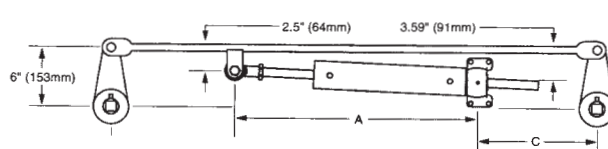
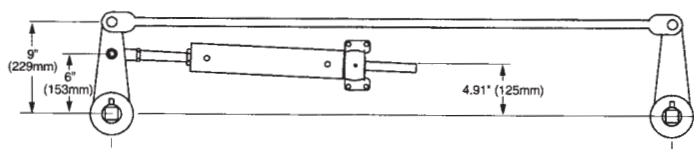
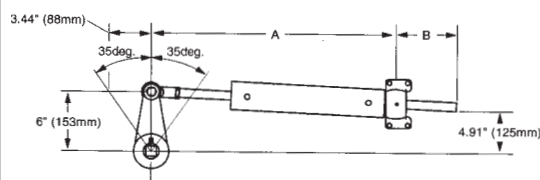
P/N HC5318/HC5319 (MODEL BA1 \_\_-7TM):



*Planing Hull:* maximum hull speed normally exceeds 18 knots. *Displacement Hull:* maximum hull speed does not normally exceed 18 knots.

## Cylinder Dimensions &amp; Mounting Configurations Specific to Model

Cylinder Model	Part No.	Body Diameter	Shaft Diameter	Dim. A	Dim. B	Dim. C
TEL BA125-7ATM	TEL HC5312-3	1.375"	.500"	20"	6.5"	8.5"
TEL BA135-7ATM	TEL HC5313-3	1.50"	.625"	20"	6.5"	8.5"
TELBA150-7ATM	TELHC5314-3	1.75"	.625"	20"	6.5"	8.5"
TELBA150-7TM	TELHC5318	1.75"	.625"	21"	8"	10"
TELBA150-9TM	TELHC5369	1.75"	.625"	21"	8"	10"
TELBA175-7TM	TELHC5319	2."	.750"	21"	8"	10"





## 2-Line Inboard Steering Ordering Guide



Engine/Cylinder Configuration	Component Description	Qty Req'd	Model	Part No.
<b>System #1</b> Number of Turns: 4 Applications up to 300 hp Max	Cylinder	1	TELBA125-7ATM	TEL HC5312-3
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Hose Kit	1	3/8" Dia. Nylon	TEL HT5__
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Fitting Kit	1	Add a Station	TEL HF6007
	Extra Tubing (See Notes 1 & 3)	1	3/8" Dia. Nylon	TEL HT5__
	Oil	1	SeaStar Solutions Oil (Qt)	TELHA5430
<b>System #2</b> Number of Turns: 5	Cylinder	1	TELBA135-7ATM	TEL HC5313-3
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Tubing (See Notes 1 & 3)	1	3/8" Dia. Nylon	TEL HT5__
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Fitting Kit	1	Add a Station	TEL HF6007
	Extra Tubing (See Notes 1 & 3)	1	3/8" Dia. Nylon	TEL HT5__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430
<b>System #3</b> Number of Turns: 6	Cylinder	1	TELBA150-7ATM	TEL HC5314-3
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Tubing (See Notes 1 & 3)	1	3/8" Dia. Nylon	TEL HT5__
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 1.7	TEL HH5271-3
	Fitting Kit	1	Add a Station	TEL HF6007
	Extra Tubing (See Notes 1 & 3)	1	3/8" Dia. Nylon	TEL HT5__
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430
<b>System #4</b> Number of Turns: 4.25	Cylinder	1	TELBA150-7TM	TEL HC5318
	Helm	1	SeaStar Solutions 2.4	TEL HH5272-3
	Tubing (See Notes 1 & 3)	1	3/8" Dia. Copper	
	Hose Kit	1	SeaStar Solutions Hose Kit	TEL HF5508
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 2.4	TEL HH5272-3
	Fitting Kit	1	Add a Station	TEL HF5502
	Extra Tubing (See Notes 1 & 3)	1	3/8" Dia. Copper	
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430
<b>System #5</b> Number of Turns: 5.5	Cylinder	1	TELBA175-7TM	TEL HC5319
	Helm	1	SeaStar Solutions 2.4	TEL HH5272-3
	Tubing (See Notes 1 & 3)	1	3/8" Dia. Copper	
	Hose Kit	1	SeaStar Solutions Hose Kit	TEL HF5508
	Oil	3	SeaStar Solutions Oil (Qt)	TEL HA5430
	<b>For Extra Steering Station Add:</b>			
	Helm	1	SeaStar Solutions 2.4	TEL HH5272-3
	Fitting Kit	1	Add a Station	TEL HF5502
	Extra Tubing (See Notes 1 & 3)	1	3/8" Dia. Copper	
	Oil	1	SeaStar Solutions Oil (Qt)	TEL HA5430

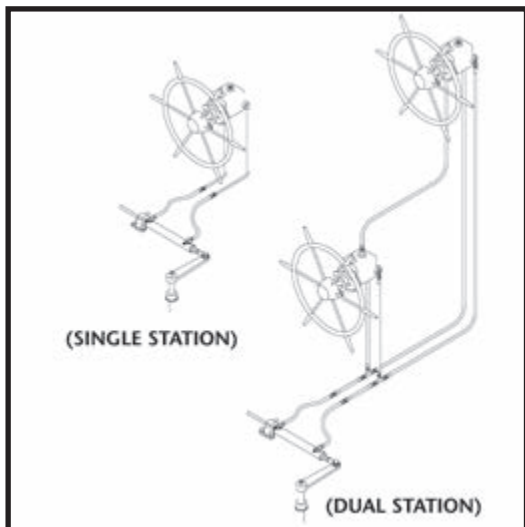
### Options:

Backing Plate	For Standard Helms	TEL HA5418
20° Wedge	For Standard Helms	TEL HA5419
Autopilot Fitting Kit	For All Helms	TEL HF6007
Tilt Helm SeaStar Solutions 1.7		TEL HH5741-3
Rear Mount Helm SeaStar Solutions 1.7		TEL HH5261-3
Tilt Helm SeaStar Solutions 2.4		TEL HH5742-3
Rear Mount Helm SeaStar Solutions 2.4		TEL HH5262-3
Power Assist Steering		TEL PA1200-2

**For systems 1, 2, & 3,** nylon tubing (3/8" diameter) is the standard requirement for plumbing the system. Copper tubing (3/8" diameter) can be substituted by Fitting Kit TEL HF5507 is required. **For systems 4 & 5,** copper tubing (3/8" diameter) is the standard requirement for plumbing the system. Fitting Kit TEL HF5508 is required. **For systems 1, 2, 3, 4, & 5,** SeaStar Solutions outboard hose can be substituted for nylon or copper tube. These hoses must be ordered in standard lengths. They cannot be cut to length.

**OTHER CYLINDER OPTIONS:** The following cylinders are also offered for use with SeaStar Solutions inboard systems: ball joint mount cylinders TEL K-18 (7 cu. in. displacement) and TEL K-19 (9 cu. in.) as well as fixed mount cylinders TEL K-22/TELK-27 (13.3 cu. in.). TEL HC5369 (similar to TELHC5318, except has a 9" stroke) is also available. See cylinder specifications and dimensions, later in this catalog, for more information. Number of steering wheel turns for a given system is based on total cylinder displacement divided by helm displacement.

## Capilano Inboard Steering



# capilano

## Features

- Variable displacement helms for adjustable number of steering wheel turns.
- Heavy duty brass cylinders with bleed fittings; chrome-plated stainless steel rods.
- Systems are not air-pressurized; no air leaks or pressure drops; separate reservoir not needed.
- Built-in pressure relief in helm protects system from effects of thermal expansion.
- Meets ABS/Lloyd/Det Norske Veritas specifications.

## Applications

Most inboard powered boats with single or dual engines including planing/displacement hull craft from 30-55 feet in length. Suitable for dual station use with the purchase of extra helm, tubing/hose & fittings. Capilano systems use Dexron II® type ATF fluid.

## Complete Systems:

System components sold separately.

See application guide to select appropriate items.

## Capilano Components:

Part No.	Description
TEL HH5250	Capilano 1250V Helm
or	
TEL HH5275	Capilano 1275V Helm

(See application guide.)

TEL HF5590	Fitting Kit (for 1/2" Copper Tubing)
or	
TEL HF5592	Fitting Kit (for 5/8" Copper Tubing)

(See application guide.)

These fitting kits are for one steering station (purchase add-a-station kit for 2nd station).

TEL HA5731	Hose Kit for Copper Tubing (2 hoses)
------------	--------------------------------------

This hose kit contains two 18" hoses for single-cylinder installations.

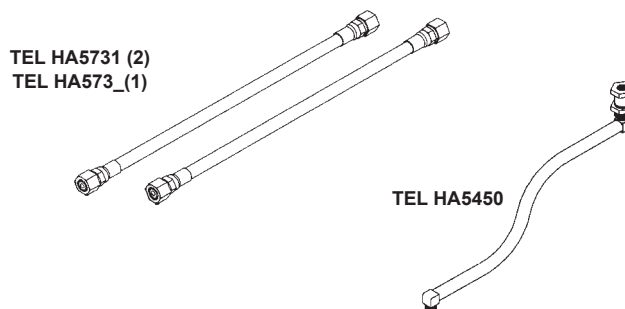
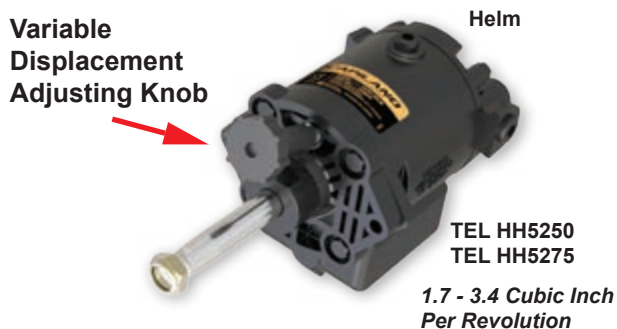
**Capilano Steering Fluid Dexron II® ATF Do Not use SeaStar Solutions Fluid**

## Options:

Part No.	Description
TEL HA5732	Dual Cylinder Hose 2'
TEL HA5733	Dual Cylinder Hose 3'
TEL HA5734	Dual Cylinder Hose 4'
TEL HA5735	Dual Cylinder Hose 5'
TEL HA5736	Dual Cylinder Hose 6'

These hoses are sold individually (four are required for dual cylinder installations).

TEL K-22	Fixed Mount Cylinder (13.3 cu. in.) (one ball joint end)
TEL K-31	Pivot Mount Cylinder (25.5 cu. in.)
TEL K-9	Universal Mount Cylinder (55 cu. in.)
TEL HF5591	Add-A-Station Fitting Kit (1/2" tubing)
TEL HF5593	Add-A-Station Fitting Kit (5/8" tubing)
TEL HA5450	Helm Remote Fill Kit (through-dash).



## Capilano Inboard Steering

### Application Guide: Capilano 2-Line Inboard Steering

This application guide should be used with discretion. The chart below is only a guide to selecting a steering system.

A steering system manufacturer cannot anticipate all the variables in boat-rudder design that affect steering loads. It is the final responsibility of the boat designer/builder to specify maximum expected steering loads.

If the required information is not available, contact our customer service department with rudder dimensions, vessel size and anticipated maximum vessel speed.

#### Definitions of terms used in the charts on these pages:

*Planing Hull:* maximum hull speed normally exceeds 18 knots.

*Displacement Hull:* maximum hull speed does not normally exceed 18 knots.

*Diameters:* Copper tubing diameter shown is O.D. Hose diameter shown is I. D.

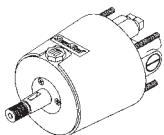


## capilano

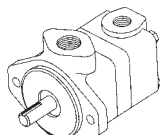
For Vessel Sizes Up To:	Helm Pump Model	Steering Wheel Turns Adjust. Range Min.-Max.	Requires Cylinder Model (2x=2 cylinders)	Tubing/Hose Diameters when distance from Cylinder to farthest Helm is:		Maximum Torque Torque From Cylinder (s) In.-Lb.
				40 Feet or Less	40 Feet or More	
PLANNING HULL						
35'	1250V	3 - 6	TEL BA150-7TM_	1/2"	N/A	6,548
40'	1250V	4 - 8	TEL BA175-7TM_	1/2"	N/A	8,795
50'	1250V	5.5 -11	TEL BA200-7TM_	1/2"	5/8"	12,134
50'	1275V	3.5 - 7	TEL BA200-7TM_	1/2"	5/8"	12,134
50'	1275V	4 - 8	TEL 2xBA150-7TM_	1/2"	5/8"	14,766
55'	1275V	5.5 -11	TEL BA200-11TM_	1/2"	5/8"	19,900
55'	1275V	5.5 -11	TEL 2xBA175-7TM_	1/2"	5/8"	19,902
60'	1275V	7.5 - 15	TEL 2xBA200-7TM_	1/2"	5/8"	26,322
DISPLACEMENT HULL						
30'	1250V	3 - 6	TEL BA150-7TM_	1/2"	N/A	6,548
38'	1250V	4 - 8	TEL BA175-7TM_	1/2"	N/A	8,795
45'	1250V	5.5 -11	TEL BA200-7TM_	1/2"	5/8"	12,134
45'	1275V	3.5 - 7	TEL BA200-7TM_	1/2"	5/8"	12,134
45'	1275V	4 - 8	TEL 2x BA150-7TM_	1/2"	5/8"	14,766
50'	1275V	5.5 -11	TEL BA200-11TM_	1/2"	5/8"	19,900
50'	1275V	5.5 -11	TEL 2x BA175-7TM_	1/2"	5/8"	19,902
50'	1275V	7.5 - 15	TEL 2x BA200-7TM_	1/2"	5/8"	26,322

**NOTE:** Theoretical torque about pivot point at 35° articulation with 1,000 PSI (70 BAR) system pressure.

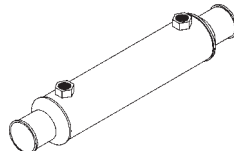
## SeaStar Solutions Inboard Power Steering



SeaStar Solutions  
Helm



Pump

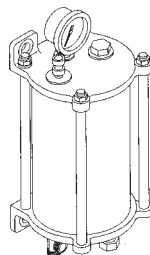


Oil Cooler

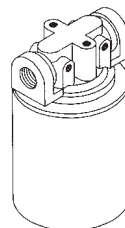


Cylinder

**SEASTAR**



Reservoir



Filter



### Applications

Vessels up to 120 feet (planing hulls using twin 2.5" bore cylinders).

### Features

- Effortless steering at any speed.
- Responsive 3-1/2 turns lock-to-lock. (Number of turns can be varied by helm.)
- Multiple steering stations can be installed.
- Standard 3/4" tapered steering shaft (1" straight or tapered versions available).
- Easy autopilot interface.
- Automatic manual back-up steering.

Part No.	Description
TEL HH5271	SeaStar Solutions 1.7 Helm
TEL HP_	Pump (Specify Model)
TEL HC_	Cylinder (Specify Model)
TEL HP5825	1" Oil Cooler

Part No.	Description
TEL HP5826	2" Oil Cooler
TEL HP5810	Reservoir
TEL HP5815	Filter
FRA P1653A	Replacement Filter Element





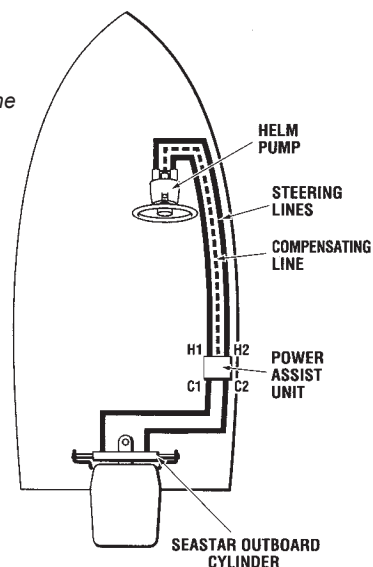
## SeaStar Solutions Hydraulic Power Assist Steering

### Steering for your boat that's as easy as the power steering in your car!

This is the perfect upgrade for your outboard, stern drive or inboard powered boat that is already equipped with hydraulic steering. SeaStar Solutions P/A easily ties into the existing Sea Star hydraulic steering system.

#### Features

- Dramatically increases steering comfort by reducing effort at the steering wheel.
- Easily-installed upgrade to existing SeaStar Solutions or SeaStar Solutions PRO manual system
- Number of turns lock to lock remains the same as existing manual hydraulic system.
- Compatible with autopilots.



### SeaStar Solutions P/A: Power Assist

Part No.	Description.
TEL PA1200-2	P/A (12V) 15' harness
TEL PA1315-2	P/A PRO (12V) 15' harness

#### NOTES:

System requires a set of hoses from helm to P/A and a set from P/A to cylinder plus a compensation line from P/A to helm.

For the pressurized/drive lines, SeaStar Solutions Power Assist systems **MUST** use SeaStar Solutions Outboard Hoses and SeaStar Solutions PRO Power Assist systems **MUST** use SeaStar Solutions PRO Steering Hoses. Only the compensating line can be Nylon Tubing. (TELHT50\_ \_).

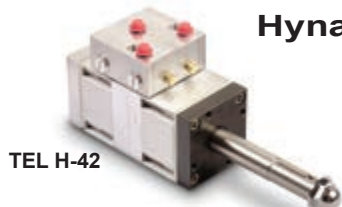
SeaStar Solutions P/A is recommended for SeaStar Solutions 1.7 and 2.0 standard helms only (1,000 PSI systems)

SeaStar Solutions P/A PRO version is for SeaStar Solutions PRO helms only and requires use of PRO hose (1,500 PSI systems). Use only the recommended genuine SeaStar Solutions components and oil with SeaStar Solutions P/A systems.

# SEASTAR

Part No.	Application
TEL HA1201	Dual Ignition Kit (Connects P/A's wire to 2 engines ignition circuits so P/A unit stays on if one engine is switched off.)

## Hynautic 3 - Line Components



### Helms

Part No.	Description.
TEL H-21	Hynautic 2.75 cu. in. helm (1" straight shaft)
TEL H-25	Hynautic 2.75 cu. in. helm (3/4" tapered shaft)
TEL H-42	Hynautic 4.0 cu. in. helm (1" straight shaft)
TEL H-42-02	Hynautic 4.0 cu. in. helm (3/4" tapered shaft)
TEL H-41	Hynautic 5.5 cu. in. helm (1" straight shaft)
TEL H-41-02	Hynautic 5.5 cu. in. helm (3/4" tapered shaft)

\*Contains Extra Bearings for use with a sprocket for auto pilot.

### Relief Valves

TEL MSV-19	Relief Valve (500 PSI)
TEL MSV-21	Relief Valve (950 PSI)

### Reservoir

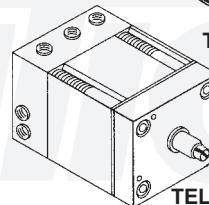
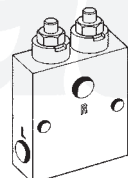
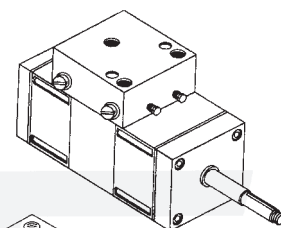
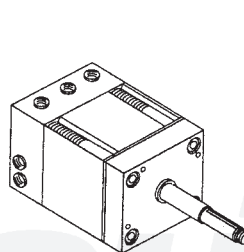
TEL HP5810	Reservoir - Standard (2 Quart)
------------	--------------------------------

### Reservale

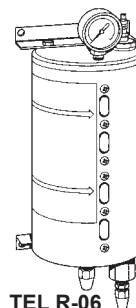
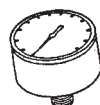
TEL RV-55	Reservale (500 PSI, top read, 3/8)
TEL RV-60	Reservale (950 PSI, top read, 5/16)

### Gauges

TEL HP6004	Bottom Mount Gauge 0-60# with 1/8" NPT
TEL HP6005	Back Mount Gauge 0-60# with 1/8" NPT



TEL 160012



## SeaStar Solutions & Parker - Tubing, Hose & Fittings

### SEASTAR

#### SeaStar Solutions Outboard Hose Kit

Includes two hoses - can be used with all SeaStar Solutions systems, except SeaStar Solutions PRO, Capilano and 3-line inboard systems. 1000 psi. Do Not Cut.

Part No.	Length	Part No.	Length
TEL HO5102	2'	TEL HO5116	16'
TEL HO5103	3'	TEL HO5118	18'
TEL HO5104	4'	TEL HO5120	20'
TEL HO5106	6'	TEL HO5122	22'
TEL HO5108	8'	TEL HO5124	24'
TEL HO5110	10'	TEL HO5126	26'
TEL HO5114	14'		



#### Nylon Tubing

Can be used with SeaStar Solutions 1.7 helms on stern drive: (except with TELHC5332 cylinder) and small inboards with fitting kit: Do Not use on outboard systems. Do Not Exceed 100' run.

Part No.	Length x OD
TEL HT5092	25' x 3/8"
TEL HT5095	50' x 3/8"
TEL HT5100	100' x 3/8"

SEASTAR

#### SeaStar Pro SEASTAR Outboard Hose Kit

Includes two hoses - can be used with all SeaStar Solutions systems, except Capilano systems. 1500 psi. Do Not Cut.

Part No.	Length	Part No.	Length
TEL HO5714	14'	TEL HO5722	22'
TEL HO5716	16'	TEL HO5724	24'
TEL HO5718	18'	TEL HO5726	26'
TEL HO5720	20'		



### BAYSTAR

#### BayStar Tubing Kits

Includes two lengths of tubing with swagged fitting with a bend restricter on one end.

Part No	.Length
TEL HT4420H	20' kit
TEL HT4430H	30' kit



### SEASTAR

#### SeaStar Bulkhead Hose Kit

Includes two Bulkhead Hoses with integral bulkhead fittings. Can be used with all SeaStar Solutions systems, except SeaStar Solutions PRO, Capilano and 3-line inboard systems. 1000 psi. Do Not Cut.

Part No.	Length	Part No.	Length
TEL HO8114	14'	TEL HO8122	22'
TEL HO8116	16'	TEL HO8124	24'
TEL HO8118	18'	TEL HO8126	26'
TEL HO8120	20'		

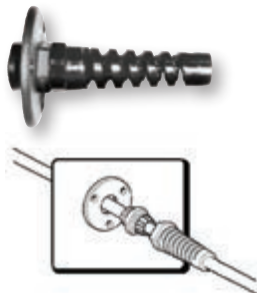


#### Bulkhead Strain Relief



- Eliminates Hose Kinking
- Distributes Hose Strain
- Water Tight Gripper Fitting
- Great for Hydraulic Hoses
- Bulkhead Flange for Protection

Part No.  
T/H BSR-1K



#### Reusable

#### Swage



#### Do it Yourself Reusable Fittings

Part No.	Description
(A) P/H 2TFMS-6-5B	9/16"-24 x 5/16" Hose (Fitting #1) Used by SeaStar Solutions & UFlex
(B) P/H 208MS-6-5B	3/8" 45° SAE Flare x 5/16" Hose (Fitting #2) Used by Hynautic
(C) P/H 208MS-6-6B	3/8" 45° SAE Flare x 3/8" Hose (Fitting #3) Used by Hynautic

#### Machine Swage Fittings

Part No.	Description
(D) P/H 1TFMS-6-5B	9/16"-24 x 5/16" Hose (Fitting #4) Used by SeaStar Solutions & UFlex
(E) P/H 108MS-6-5B	3/8" 45° SAE Flare x 5/16" Hose (Fitting #5) Used by Hynautic
(F) P/H 108MS-6-6B	3/8" 45° SAE Flare x 3/8" Hose (Fitting #6) Used by Hynautic

#### Reinforced Hose



Part No.	Description
P/H MSH-5	5/16" I.D. - 1000 PSI
P/H MSH-6	3/8" I.D. - 1000 PSI

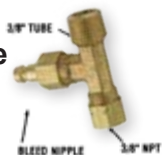


**SeaStar Solutions Tubing & Fittings**

All SeaStar Solutions Manual Hydraulic steering systems utilize the same style of fittings for all applications. These are 3/8" compression fittings which utilize a 9/16"-24 extra fine thread.

**Vertical Bleeder Tee**

Part No.  
TEL HF5518  
(2 per kit)

**Bleed Tee (TM Cylinders)**

Part No.  
TEL HF5519  
(2 per kit)

**Bleed Nipple**

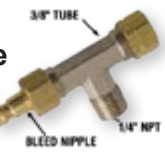
Part No.  
TEL HF5548  
(2 per kit inc. 'O' Ring) *For use with Front Mount Cylinders ONLY*

**Union Coupling Fitting**

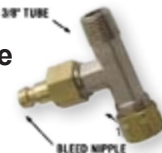
Part No.  
TEL HF5527  
(3 per kit)

**Horizontal Bleeder Tee**

Part No.  
TEL HF5520  
(2 per kit)

**Vertical Bleeder Tee**

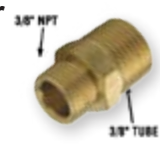
Part No.  
TEL HF5521  
(2 per kit)

**Straight Fitting**

Part No.  
TEL HF5528  
(3 per kit)

**Connector Fitting**

Part No.  
TEL HF5532  
(3 per kit)

**Elbow Fitting**

Part No.  
TEL HF5529  
(3 per kit)

**Elbow Fitting**

Part No.  
TEL HF5534  
(3 per kit)

**Street Elbow Fitting**

Part No.  
TEL HF5538  
(3 per kit)

**45° Elbow Fitting**

Part No.  
TEL HF5540  
(2 per kit)

**Tee Fitting**

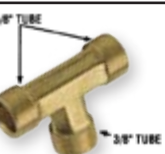
Part No.  
TEL HF5533  
(3 per kit)

**Tee Fitting**

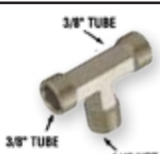
Part No.  
TEL HF5531  
(3 per kit)

**Tee Fitting**

Part No.  
TEL HF5530  
(3 per kit)

**Tee Fitting**

Part No.  
TEL HF5536  
(3 per kit)

**Adapter Fitting**

Part No.  
TEL HF5566  
(2 per kit)

**Cap Plug Nut**

Part No.  
TEL HF5524  
(3 per kit)

**Tube Nut**

Part No.  
TEL HF5526  
(6 per kit) *For use with 3/8" Nylon and/or 3/8" copper tubing*

**ORB Hydraulic Fittings**

For use with -3 helms and cylinders only.

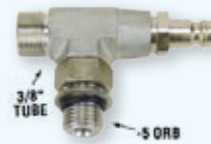
Positionable O-ring hose fittings (ORB)

NOT for use in an NPT helm/cylinder hose fitting port.

These fittings are made of corrosion resistant stainless steel and now thread into the cylinders/helms via Positionable O-ring hose ports. Fittings can be easily orientated in any direction to accommodate tube routing.

**Horizontal Bleeder Tee**

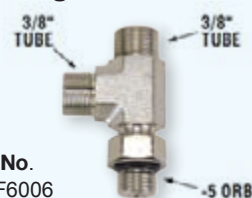
Part No.  
TEL HF6002  
(2 per kit)

**Elbo Fitting**

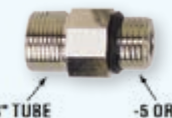
Part No.  
TEL HF6004  
(2 per kit)

**Tee Fitting**

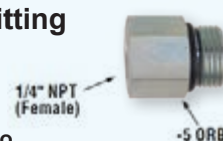
Part No.  
TEL HF6006  
(2 per kit)

**Straight Fitting**

Part No.  
TEL HF6009  
(2 per kit)

**-5 ORB (M)-1/4 NPT(F) Hose Fitting**

Part No.  
TEL HF6012  
(3 per kit)

**3/4" Bulkhead Fitting Kit**

Single Cylinder Installations  
2 Assemblies per Kit

Part No. TEL HF5512

**3" Bulkhead Fitting Kit**

Single Cylinder Installations  
2 Assemblies per Kit

Part No. TEL HF5513

**3/4" Bulkhead Fitting Kit**

Dual Cylinder Installations  
2 Assemblies of each per Kit

Part No. TEL HF5514

**3" Bulkhead Fitting Kit**

Dual Cylinder Installations  
2 Assemblies of each per Kit

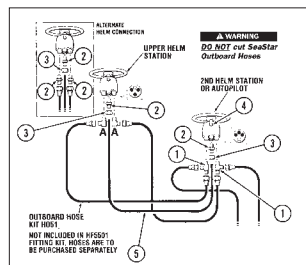
Part No. TEL HF5515



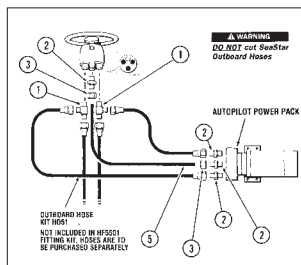


	Part No.	Description/Application	Thread Size
	UFL AF45	45 DEGREE ADJUSTABLE FITTING	"ORB, Size #6 to 3/8 COMP FITTING"
		Fitting for the back of the UP series helms	Helm Side = 9/16 - 18 UNF 2A
			Hose Side = 9/16 - 24 UNEF 2A
	UFL AF90	90 DEGREE ADJUSTABLE FITTING	"ORB, Size #6 to 3/8 COMP FITTING"
		Fitting for the back of the UP series helms	Helm Side = 9/16 - 18 UNF 2A
			Hose Side = 9/16 - 24 UNEF 2A
	UFL 71928P	BRASS PLUG W/ORING FOR PUMPS	"1/4 NPT PLUG"
		Compensating line brass plug of the UP series helms	Helm Side = 1/4 NPT
	UFL SF38	STRAIGHT HELM FITTING 1/4 NPT	"1/4 NPT to 3/8 COMP FITTING"
		Fitting for the compensating line in the	Helm Side = 1/4 NPT
		UP series helms or autopilot return line	Hose Side = 9/16 - 24 UNEF 2A
	UFL EF38	90° HELM FITTING FOR UP SERIES	"1/4 NPT to 3/8 COMP FITTING"
		Fitting for port / starboard line in the UP	Helm Side = 1/4 NPT
		series helms prior to the boss fittings	Hose Side = 9/16 - 24 UNEF 2A
	UFL 71955T	BOSS STYLE T-FITTING NICKEL	"ORB, Size #6 to 3/8 COMP FITTING"
		Fitting for back of helm in a dual station installation	Cylinder/Helm Side = 9/16 - 18 UNF 2A
			Hose Side = 9/16 - 24 UNEF 2A
	UFL T-FITTING	1/4 NPT TO 3/8 T-FITTING	"1/4 NPT to 3/8 COMP FITTING"
		Fitting used in the back of the previous	Helm Side = 1/4 NPT
		version of the UP series helms before the boss fitting	Hose Side = 9/16 - 24 UNEF 2A
	UFL VFNO38-40868Y	COMPLETE BOSS FITTING UC128OBF	"ORB, Size #6 to 3/8 COMP FITTING"
		Bleed fitting for all outboard cylinders	Cylinder Side = 9/16 - 18 UNF 2A
			Hose Side = 9/16 - 24 UNEF 2A
	UFL 71861H	T-FITTING ASSEMBLY -ORF HOSE	"ORB, Size #6 to 3/8 COMP FITTING"
		Used to replace the boss fitting in new	Cylinder Side = 9/16 - 18 UNF 2A
		outboard cylinders when trying to	Hose Side = 9/16 - 24 UNEF 2A
		connect to 'O' ring face seal hoses	
	UFL VFN38	TEE FITTING WITH BLEED NIPPLE	"1/4 NPT to 3/8 COMP FITTING"
		Bleed fitting for all inboard and stern drive cylinders	Cylinder Side = 1/4 NPT
			Hose Side = 9/16 - 24 UNEF 2A
	UFL TF38	UNION T-FITTING FOR 3/8" TUBE	"3/8 COMP FITTING"
		T-Fitting for 3 standard 3/8" compression	ALL Sides = 9/16 - 24 UNEF 2A
		thread hose fittings	
	UFL 71004K	BRASS NUT W/SLEEVE #61CA-6	"3/8 COMP NUT" Fitting
		3/8" Compression Nut with ferrule for cut	Side = 9/16 - 24 UNEF 2B Hose Side =
		to lenth nylon tubing	3/8 Compression Ferrule
	UFL UNION-62CA-6	UNION 3/8IN COMPRESSION	"3/8 COMP FITTING"
		Used to connect 2 standard 3/8"	Both Sides = 9/16 - 24 UNEF 2A
		compression hoses	
	UFL MD-38-NI-COM-FT	90° 3/8 NI PLATE COMP FITTING	"3/8 COMP FITTING"
		90° fitting from bulkhead fitting to 3/8"	Fitting Side = 9/16 - 24 UNEF 2B Hose
		compression hose	Side = 9/16 - 24 UNEF 2A
	UFL Q22-898366	Tapered helm fitting to Merc 'O'ring	1/4 NPT to ORFS
		Fitting for the back of the Merc UP series	Fitting Side = 1/4 NPT
		helms to 'O' ring face seal hoses	Hose Side = ORFS ('O'ring Face)
	UFL UPS-11/16-ELBOW	POWERTECH 11/16, 90 DEG ELBOW	
		90°fitting for the pressure and tank line	
		on a powertech helm	
	UFL UPS-90-DEG-ELB	POWERTECH 90 DEGREE ELBOW	
		90° fitting for the two high pressure	
		for connection from a bulkhead	
	UFL UPS-BLKHD-T-FIT	POWERTECH BULKHEAD T-FITTING	
		T-Fitting used on bulkhead fittings or	
		helm high pressure lines on powertech helm	
	UFL UPS-T-FITTING	POWERTECH T-FITTING	
		3-wat ORF fitting for mercury style ORF hoses	
	UFL UPS-UNION	POWERTECH UNION FOR KITPS/PSDS	
		11/16" union to extend a KITPS/KITPSDS hose	
	UFL UPS-UNION-OB	POWERTECH UNION FOR KITOBPS	
		ORF to ORF union for connection of high	
		pressure ORF styl hoses	
	UFL UPS-4-4 FLO-SS	POWERTECH MALE CONNECTOR	
		Used when connecting an Autopilot to	
		Powertech System - Autopilot to ORF Hose	

### Outboard Hose Fitting Kit Second Station or Auto Pilot



Tubing Kit

Autopilot Powerpack  
Connection

#### CAUTION

DO NOT cut SeaStar Solutions Outboard Steering hose. Once cut there is no means to field swage fittings to the ends of the hoses.

#### Fitting Kit to add a second station or autopilot to an inboard or sterndrive system

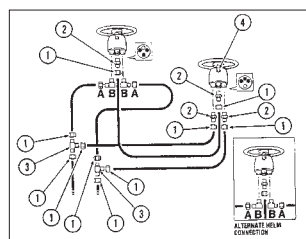
Item	Description	Qty.	Part No.
1	Tee Fittings	2	TEL 600603
	1 End - 3/8" NPT (M)		
	1 End - 1/4" NPT (M)		
	Center - 3/8" Tube (M)		
2	Connector Fitting	4	TEL 600602
	3/8" Tube (M)		
	1/4" NPT (F)		
3	Tube Nut - 3/8"	4	TEL 280327
4	Non-Vented Filler Plug	1	TEL HA5432
5	SeaStar Solutions Nylon Tube 25'		TEL HT5092
A*	Elbow 3/8" Tube (M)	2	
	1/4 NPT (M)		

\* Supplied with Helm

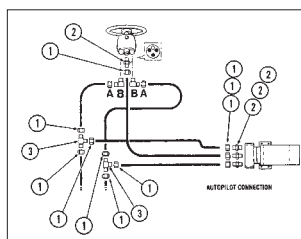
NOTE: TELHF5501 fitting kit is to be used when the system has been plumbed with SeaStar Solutions outboard steering hose only.

Part No. TELHF5501

### Tubing Kit Second Station or Auto Pilot



Tubing Kit

Autopilot Powerpack  
Connection

#### Fitting Kit to add a second station or autopilot to an inboard or sterndrive system

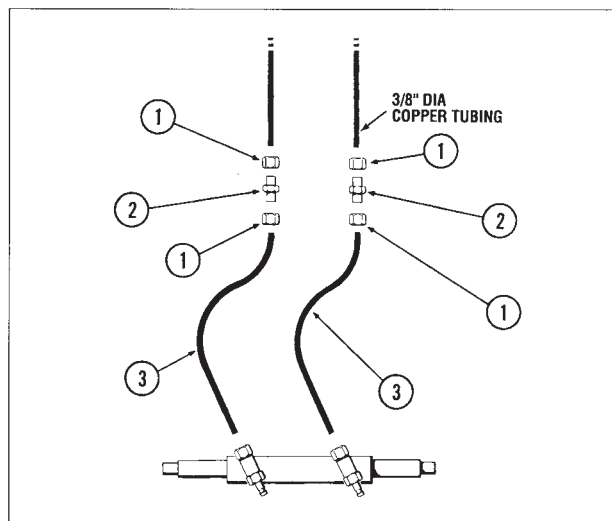
Item	Description	Qty.	Part No.
1	Tube Nut	10	TEL 280327
2	Connector Fitting	4	TEL 600602
	3/8" Tube (M)		
	1/4" NPT (F)		
3	Tee Fittings	2	TEL 600605
	3 Ends - 3/8" Tube		
4	Non-Vented Filler Plug	1	TEL HA5432
A*	Tube Nut - 3/8" + Dia.	2	
B*	3/8" Elbow - 1/4" NPT (M)	2	

\* Supplied with Helm

NOTE: Used in systems plumbed with 3/8" diameter nylon or copper tube.

Part No. TEL HF5502

### Cylinder Tubing Kit Copper to Nylon



#### Fitting Kit to connect 3/8" Dia. copper tubing to SeaStar Solutions cylinders (using 3/8" Dia. nylon tubing)

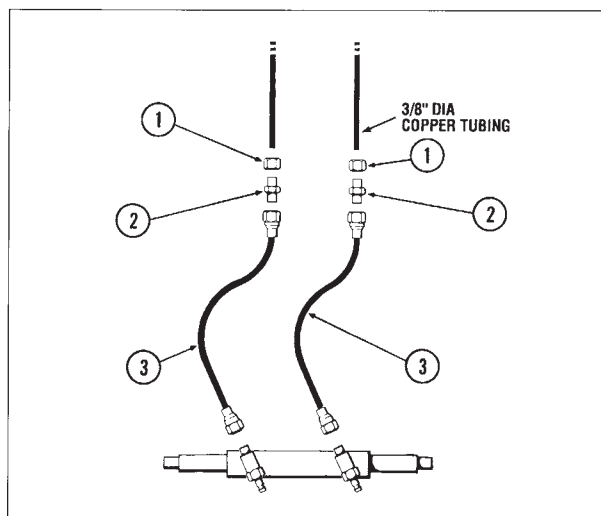
Item	Description	Qty.	Part No.
1	Tube Nut 3/8"	4	TEL 280327
2	Connector Fitting	4	TEL 280929
	3/8" Tube (M)		
	3/8" NPT (M)		
3	Nylon Tubing	6'	TEL 795628

Part No.  
TEL HF5507

#### CAUTION

DO NOT cut SeaStar Solutions Outboard Steering hose. Once cut there is no means to field swage fittings to the ends of the hoses.

### Cylinder Tubing Kit Copper to Hoses Outboard

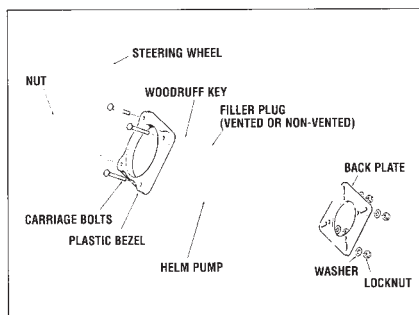


#### Fitting Kit to connect 3/8" Dia. copper tubing to SeaStar Cylinders (using SeaStar Outboard Hose)

Item	Description	Qty.	Part No.
1	Tube Nut 3/8"	4	TEL 280327
2	Connector Fitting	4	
	3/8" Tube (M)		
	3/8" NPT (M)		
3	18" - Hose	2	

Part No. TEL HF5508

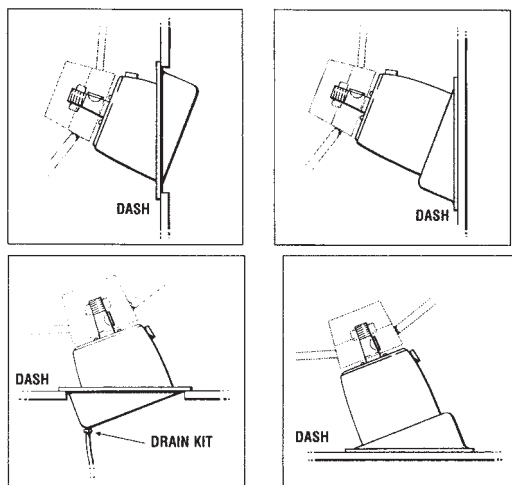
## Backplate Kit



- Used to retrofit a new SeaStar Solutions standard helm in the old 4.5" diameter hole, or
- reduce the helm protrusion from the dash by the thickness of the dash, or
- retrofit new SeaStar Solutions standard helm into hole cutouts for mechanical and hydraulic steering as per chart.

**Part No.**  
TEL HA5418

## Dash 20° Wedge

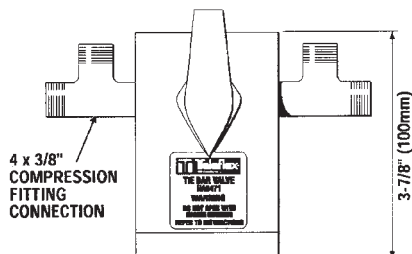


▲ For this configuration use **HA5408**

These kits are designed to mount the helm at a 20° angle to the mounting surface. Four possible mounting configurations are available.

**Part No.**      **Description**  
TEL HA5419

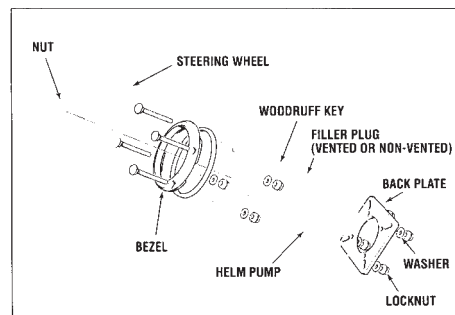
## Alignment Valve



SeaStar Solutions® Cylinder Alignment Valve will allow for the periodic required realignment of two outboard motors or rudders that are linked together with a Hydraulic Tie Bar as opposed to a solid link or a Mechanical Tie Bar. Boats exceeding 55 MPH must use the SeaStar Solutions Pro Helm Pump and SeaStar Solutions Pro Kevlar® Hoses.

**Part No.**  
TEL HA5471-2

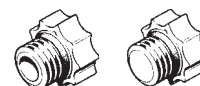
## Round Bezel



Reduces the distance the helm protrudes from the front of the dash to 3.75"

**Part No.**  
TEL HA5478

## Vent Plug & Non-Vent Plug



- | <b>Part No.</b> | <b>Description</b>   |
|-----------------|--|
| TEL HP6126      | Vent Plug, Supplied with SeaStar Solutions Helm Pump. Must be used with Helm Pump on all single steering station systems. Must be used on uppermost Helm Pump on multi steering station systems. |
| TEL HA5432      | Non Vent Plug, Must be used on all Helm Pumps other than uppermost Helm Pump on multi steering station systems. This Non-Vent Plug is supplied with additional                                   |

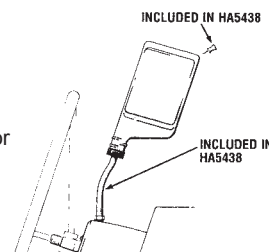
## SeaStar Oil Mil Spec H5606



- | <b>Part No.</b> | <b>Description</b> |
|-----------------|--------------------|
| TEL HA5430      | Quart              |
| TEL HA5440      | Gallon             |

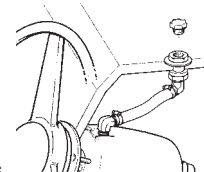
## SeaStar Bleed Hose

- This Kit is needed to properly bleed a SeaStar Solutions System
- Screw, onto the SeaStar Solutions or equivalent fluid to bleed the SeaStar Solutions System
- Makes for a clean bleed when used properly



**Part No.**  
TEL HA5438

## SeaStar Remote Fill



- Can be used with ALL SeaStar Solutions Helms
- Relocate your fill plug to a more convenient or hidden location

**Part No.**  
TEL HA5450



## SeaStar, BayStar, Capilano &amp; Hynautic Seals for Helms &amp; Reservoirs

Description	Helm Part No.		Seal Kit Part No.
BayStar - Front Mount	TEL HH4016	<b>BAYSTAR</b>	TEL HS5147
BayStar - Sport Tilt	TEL HH4015		TEL HS5147
BayStar Plus - Front Mount	TEL HH4514		TEL HS5176*1
BayStar Plus - Sport Tilt	TEL HH4513		TEL HS5176*1
Capilano 1250V	TEL HH5250	<b>capilano</b>	TEL HS5161
Capilano 1275V	TEL HH5275		TEL HS5161
Hynautic H-20 (3/4" Shaft)	TEL H-26	<b>Hynautic</b>	TEL HS-01/02*2
Hynautic H-20 (3/4" Shaft)	TEL H-25		TEL HS-01/02*2
Hynautic H-20 (1" Shaft)	TEL H-21		TEL HS-01/02*2
Hynautic H-40 (3/4" Shaft)	TEL H-42-02		TEL HS-03/04*3
Hynautic H-40 (1" Shaft)	TEL H-42		TEL HS-03/04*3
Hynautic H-40 (3/4" Shaft)	TEL H-41-02		TEL HS-03/04*3
Hynautic H-40 (1" Shaft)	TEL H-41		TEL HS-04
SeaStar Solutions 1.4 - Front Mount	TEL HH5269	<b>SEASTAR</b>	TEL HS5176
SeaStar Solutions 1.4 - Rear Mount	TEL HH5260		TEL HS5176*1
SeaStar Solutions 1.4 - Rear Mount Full Feedback	TEL HH5231		TEL HS5176
SeaStar Solutions 1.4 - Rear Mount 1" Straight Shaft	TEL HH5279		TEL HS5151
SeaStar Solutions 1.4 - Rear Mount 1" Taper Shaft	TEL HH5280		TEL HS5151
SeaStar Solutions 1.4 - Tilt	TEL HH5744		TEL HS5176
SeaStar Solutions 1.7 - Front Mount	TEL HH5271	<b>SEASTAR</b>	TEL HS5176*1
SeaStar Solutions 1.7 - Front Mount Commercial	TEL HH5217		TEL HS5176*1
SeaStar Solutions 1.7 - Front Mount Full Feedback	TEL HH5761		TEL HS5176
SeaStar Solutions 1.7 - Rear Mount	TEL HH5261		TEL HS5176*1
SeaStar Solutions 1.7 - Rear Mount 1" Taper Shaft	TEL HH5281		TEL HS5151
SeaStar Solutions 1.7 - Sport Tilt	TEL HH5291		TEL HS5176*1
SeaStar Solutions 1.7 - Traditional Tilt	TEL HH5741		TEL HS5176*1
SeaStar Solutions 2.0 - Front Mount	TEL HH5273	<b>SEASTAR</b>	TEL HS5176*1
SeaStar Solutions 2.0 - Front Mount Full Feedback	TEL HH5760		TEL HS5176
SeaStar Solutions 2.0 - Sport Tilt	TEL HH5745		TEL HS5176*1
SeaStar Solutions 2.0 - Traditional Tilt	TEL HH5743		TEL HS5176*1
SeaStar Solutions 2.4 - Front Mount	TEL HH5272	<b>SEASTAR</b>	TEL HS5176*1
SeaStar Solutions 2.4 - Front Mount Commercial	TEL HH5224		TEL HS5176*1
SeaStar Solutions 2.4 - Front Mount Full Feedback	TEL HH5762		TEL HS5176
SeaStar Solutions 2.4 - Rear Mount	TEL HH5262		TEL HS5176*1
SeaStar Solutions 2.4 - Rear Mount 1" Taper Shaft	TEL HH5282		TEL HS5151
SeaStar Solutions 2.4 - Sport Tilt	TEL HH5292		TEL HS5176*1
SeaStar Solutions 2.4 - Traditional Tilt	TEL HH5742		TEL HS5176*1
SeaStar Solutions Pro 1.4 - Traditional Tilt	TEL HH5775		TEL HS5176
SeaStar Solutions Pro 1.7 - Front Mount	TEL HH5779	<b>SEASTAR</b>	TEL HS5176
SeaStar Solutions Pro 1.7 - Front Mount Commercial	TEL HH5218		TEL HS5176
SeaStar Solutions Pro 1.7 - Rear Mount	TEL HH5778		TEL HS5176
SeaStar Solutions Pro 1.7 - Sport Tilt	TEL HH5289		TEL HS5176
SeaStar Solutions Pro 1.7 - Traditional Tilt	TEL HH5773		TEL HS5176
SeaStar Solutions Pro 2.0 - Front Mount	TEL HH5770	<b>SEASTAR</b>	TEL HS5176
SeaStar Solutions Pro 2.0 - Rear Mount	TEL HH5771		TEL HS5176
SeaStar Solutions Pro 2.0 - Sport Tilt	TEL HH5290		TEL HS5176
SeaStar Solutions Pro 2.0 - Traditional Tilt	TEL HH5774		TEL HS5176
SeaStar Solutions Pro 2.4 - Front Mount	TEL HH5772		TEL HS5176

Seal Kits for  
Obsolete Hynautic Helms

Part No.	Helms
TEL HS-05	TEL H-50 Series Helms
TEL HS-06	TEL H-60 Series Helms
TEL HS-08	TEL H-80 Series Helms, Before Date Code 8000
TEL HS-09	TEL H-80 Series Helms, After Date Code 8000
TEL HS-10	TEL H-100 & TELH-200 Series Helm Pumps

Seal Kits for  
Hynautic Reservoirs

Part No.	Reservoirs
TEL RS-01	TEL R-4/TELR-04, TELR-10, TEL R-13, TELR-14 models



\*1 SeaStar Solutions helm pumps manufactured from 1984 through 1990 require Seal Kit TEL HS5151 or Individual Shaft Seal TEL HS6038.

\*2 TEL H-20 and TEL H-30 helms produced in 1978 and earlier use Seal Kit TEL HS-01. 1979-date TEL H-20 and TEL H-30 helms use Seal Kit TEL HS-02.

\*3 TEL H-40 helms produced in 1978 and earlier use Seal Kit TEL HS-03. 1979-date TEL H-40 Helms use Seal Kit TEL HS-04.

## SeaStar Solutions, BayStar, Capilano & Hynautic Cylinder Seals

Cylinder Model	Cylinder Part No.		Seal Kit Part No.
<b>BayStar Units</b>			
Compact Front Mount	TEL HC4645/TELHC4647 TEL HC4648/TELHC4658 TEL HC4600	<b>BAYSTAR</b>	TEL HP4600  TEL HP5607 + TELHP5608
Old Style			
<b>Capilano Inboard Units:</b>			
TELBA150-7 (TMB/TMC)	TEL HC5349//TELHC5355	<b>capilano</b>	TEL HS5182
TELBA175-7 (TMB/TMC)	TEL HC5350/TELHC5356		TEL HS5183
TELBA-175-9TMB	TEL HC5373		TEL HS5183
TELBA200-7 (TMB/TMC)	TEL HC5351/TELHC5357		TEL HS5184
TELBA200-11 (TMB/TMC)	TEL HC5378/TELHC5379		TEL HS5185
<b>Hynautic Inboard Units (Used in SeaStar Solutions, Capilano &amp; Hynautic System):</b>			
Hynautic Ball Joint Mount	TEL K-18	<b>Hynautic</b>	TEL KS-02
Hynautic Ball Joint Mount	TEL K-19		TEL KS-02
Hynautic Fixed Mount	TEL K-22		TEL KS-04
Hynautic Fixed Mount	TEL K-27		TEL KS-04
Hynautic Ball Joint Mount	TEL K-5		TEL KS-15
Hynautic Pivot Mount	TEL K-31		TEL KS-05
Hynautic Ball Joint Mount	TEL K-8		TEL KS-18
Hynautic Ball Joint Mount	TEL K-9		TEL KS-18
<b>SeaStar Solutions Inboard Units:</b>			
TELBA125-6.25ATM	TEL HC5311	<b>SEASTAR</b>	TEL HS5154*1
TELBA125-7ATM	TEL HC5312		TEL HS5154*1
TELBA135-7ATM	TEL HC5313		TEL HS5155
TELBA150-7ATM	TEL HC5314		TEL HS5156
TELBA150-7TM	TEL HC5318		TEL HS5182
TELBA150-9TM	TEL HC5369		TEL HS5182
TELBA175-7TM	TEL HC5319		TEL HS5183
<b>SeaStar Solutions Inboard Power Steering Units:</b>			
TELBA200	TEL HC5801/TELHC5802/TELHC5803/TELHC5804		TEL HS5198
TELBA250	TEL HC5805/TELHC5806		N/A at this time
<b>SeaStar Solutions and Hynautic Stern Drive Units:</b>			
TELBA150-7EM	TEL HC5326	<b>SEASTAR</b>	TEL HS5156
TELBA135-8EM	TEL HC5327		TEL HS5155
TEL125-8EM	TEL HC5328		TEL HS5154
TEL125-8VEM	TEL HC5329		TEL HS5154
TEL92-VPS	TEL HC5331		TEL HS5153
TELBA-125-EMV	TEL HC5330		TEL HS5154
TELBA-135-7EM	TEL HC5332		TEL HS5155
Hynautic Universal Mount	TEL K-5		<b>hynautic</b>
<b>SeaStar Solutions Outboard Units:</b>			
Pivot Front Mount	TEL HC5345/TELHC5347/TELHC5348/TELHC5358	<b>SEASTAR</b>	TELHS5157*2 (with Wrench)
Pivot Front Mount (Pro)	TEL HC6345/TELHC6347/TELHC6348/TELHC6358		N/A at this time
Catamaran O/B (Fixed Mount)	TEL HC5343		TEL HS5157
Catamaran O/B (Fixed Mount)	TEL HC5374		TEL KS-06
Side Mount	TEL HC5370		TEL HS5153
Splashwell Mount	TEL HC5380		TEL HS5155
Front Mount Std. (OBS)	TEL HC5340/TELHC5342		TEL HS5157
Front Mount Compact (OBS)	TEL HC5365		TEL HS5157
<b>SeaStar Solutions Jet Drive Units:</b>			
TELBA125-3ATM	TEL HC5303		TEL HS5154

\*1 Also TELHS5162 Gland with Seal

\*2 Also TELHS5167 Seal Kit without Wrench

## Seal Kit Reference for Hynautic Cylinders

Part No.	Cylinders
TEL KS-01	TEL K-11 through TELK-17
TEL KS-02	TEL K-18 through TELK-20
TEL KS-03	TEL K-2, TELH1010 (old style)
TEL KS-04	TEL K-21 through TELK-29 (before August, 1983)
TEL KS-05	TEL K-31 through TELK-33
TEL KS-06	TEL K-21 through TELK-29 (after August, 1983)
TEL KS-07	TEL K-10
TEL KS-08	TEL K-7
TEL KS-09	TEL K-8 & TELK-9 (before April 15, 1984)
TEL KS-11	TEL K-1, PSK-10
TEL KS-12	TEL K-2 (newer style)
TEL KS-13	TEL K-3, TELK-04, TELPSK-11/TELPSK-12 (before April 15, 1984)
TEL KS-14	TEL K-51
TEL KS-15	TEL K-5/TELK-5-B
TEL KS-17	TEL K-3, TELK-4, TELPSK-11/TELPSK-12 (after April 15, 1984)
TEL KS-18	TEL K-8 & TELK-9 (after April 15, 1984)
TELKS-19	TEL K-6



**Our service department repairs non warranty Hydraulic helms and cylinders from Hynautic, SeaStar Solutions and Uflex.**

# New Products

**U-FLEX**

## Complete Kit with 30' nylon tubing



GoTech Low HP Outboard Steering Kit is specifically designed for 115 HP and under. Mid mount composition helm. Port or Starboard link assembly mounting option. 4.5 turns lock to lock. Perfect for low HP / high torque applications i.e. pontoon boats.

Kit Part No.	Description
UFL GOTECH-1.0	GoTech™ - Kit

### GoTech™ - Kit Package Contains:

Part No.	Description
UFL UP18	Intermediate mount helm pump
UFL UC81-OBF	Front mount outboard cylinder
UFL OIL15	Hydraulic oil - 2 quarts
UFL TU95	Hose kit dia, 3/8" 30 ft length



## GoTech Low HP Outboard Steering Kit

**70 – 115hp**
**GoTECH**

- Most Affordable Hydraulic Steering Solution on the Market
- Ideal for Low Horsepower/High Torque Four-Stroke Outboards
- Mid-Mount Helm for Optimal Steering Wheel Placement
- Kit Includes 30' Nylon Cut-to-Length Tubing


**U-FLEX**

The **HYTECH** is an easy and affordable outboard hydraulic steering solution **FOR BOATS WITH 150 HORSEPOWER AND UNDER**. The **HYTECH** steering kit featuring the unique split tilt tube rod that allows for installation of the UC94 cylinder without removing the engine. Coupled with the composite UP20 helm, the **HYTECH** offers effortless steering with 5 turns lock to lock. And, it is applicable to almost all 2 and 4 stroke outboard engines. This kit includes the UP20 helm, UC94 cylinder, two quarts of OIL 15, and 40' of cut to length tubing.


**115 – 150hp**
**HYTECH**

Part No.	
UFL HYTECH-1.0	Kit

Kit Contains:	
UFL UP20FM	(1) Helm
UFL UC94-OBF1	(1) Cylinder
UFL OIL-15	(2) Hydraulic Oil

Part No.	
UFL HYTECH-3.0	Kit

Kit Contains:	
UFL UP20FM	(1) Helm
UFL UC94-OBF3	(1) Cylinder
UFL OIL-15	(2) Hydraulic Oil

- Smooth & Efficient Steering for 150hp & Under
- Split Tilt Tube Rod for Easy Installation on Boats with Narrow Transom Wells
- Adjustable Boss-Style Fittings for Easy Installation
- Composite Tank for Peak Corrosion Resistance
- Anodized Aluminum Cylinder Body & Electropolished Linkage for Peak Corrosion Resistance

## Hyco Front Mount Helm



For use with UFL UC94-OBF, UFL UC68-OBS & UFL UC69-1 Cylinders only. 3/4" Standard Taper.

Part No.	Displacement Revolution	Relief Valve Setting	Max Wheel Dia
UFL UP20FM	1.2 cu. in.	1000 PSI	20"

## Hyco Front Mount Cylinder



UFL UC94-OBF - Balanced: the number of turns lock-to-lock is equal to starboard or vice-versa 21.5" overall length

Volume	5.7 cu. in.
Output force	613 lbs
Inside diameter	1.18"
Stroke	7.3"
3/8" Fittings	For high pressure flex hose
Bleed fittings	DNS Quick connect

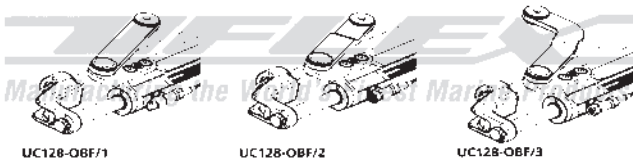
Part No.	
UFL UC94-OBF1	Most models
UFL UC94-OBF3	Merc 75, 90, 115 & 125 Optimax Honda BF130A & BF115B





## UFL UC128-OBF Front Mount Cylinder Application Guide

UFL UC128-OBF - Balanced: the number of turns lock-to-lock is equal to starboard or vice-versa 21.43" overall length Depending on the applications on the outboard engines, the UFL UC128-OBF is available in 3 versions:



In the applications with dual UFL UC128-OBF cylinder it is necessary to order a standard UFL UC128-OBF cylinder (link arm attached to the starboard side of the cylinder) and a port UFL UC128P-OBF cylinder (link arm attached to the port side of the cylinder). Depending on the applications on the outboard engines, the UFL UC128P-OBF port cylinder is available in 2 versions: 1 & 2.

## Front Mount Cylinders



Part No.	Description
UFL UC128-OBF1	Starboard Cylinder 1
UFL UC128-OBF2	Starboard Cylinder 2
UFL UC128-OBF3	Starboard Cylinder 3
UFL UC128P-OBF-1	Port Cylinder 1
UFL UC128P-OBF-2	Port Cylinder 2

Ordering & Application Guide on the Following Pages.

## Seal Kits for UC128 Cylinders New Product



Part No.	Description
UFL UC128-ENDCAP	Includes ALL SEALS Preloaded

## Protech Front Mount Outboard Hydraulic Kit

The Protech Front Mount Outboard Hydraulic Kit delivers unmatched performance and durability. Featuring the UP28FM helm with a stainless steel shaft and heavy duty seals, this system offers an incredibly efficient 4.25 turns lock to lock. The UC128 cylinder completes the system with a heavy duty cylinder rod, and a 304 electropolished and passivated stainless steel link assembly.

**Kit includes:** UP28FM Helm, UC128 cylinder and 2 quarts of oil.

(Hoses Not Included in Kit)

For system selection see cylinder guide and application guide located next two pages

Part No.	Description
<b>UFL PROTECH1</b>	Kit
Package kit Contains:	
UFL UP28FM	(1) Helm
UFL UC128-OBF1	(2) Cylinder
<b>Part No.</b>	<b>Description</b>
<b>UFL PROTECH2</b>	Kit
Package kit Contains:	
UFL UP28FM	(1) Helm
UFL UC128-OBF2	(1) Cylinder
UFL OIL-15	(2) Hydraulic Oil
<b>Part No.</b>	<b>Description</b>
<b>UFL PROTECH3</b>	Kit
Package kit Contains:	
UFL UP28FM	(1) Helm
UFL UC128-OBF3	(1) Cylinder
UFL OIL-15	(2) Hydraulic Oil



(Hoses Not Included in Kit)



Hose Kits SOLD Separately in Pairs.

Part No. KIT-OB-06 thru KIT-OB-30

Part No.	Hose Lengths	Part No.	Hose Lengths
UFL KIT-OB-06	6'	UFL KIT-OB-20	20'
UFL KIT-OB-08	8'	UFL KIT-OB-22	22'
UFL KIT-OB-10	10'	UFL KIT-OB-24	24'
UFL KIT-OB-12	12'	UFL KIT-OB-26	26'
UFL KIT-OB-14	14'	UFL KIT-OB-28	28'
UFL KIT-OB-16	16'	UFL KIT-OB-30	30'
UFL KIT-OB-18	18'		

## Uflex helms are built to last.

Uflex helms feature stainless steel, double sealed helm shafts and carbon steel rotors. They come standard with adjustable fittings for easy installation and are compatible with competing helms, hoses cylinders and oils. The front mount helms are direct "drop in" replacements for competing helms.

	Part No.	Mounting	Displacement/ Revolutions	Relief Valve Setting	Max. Wheel Dia.
A	UFL UP25FM	Front Mount	1.5 cu.in	1000 PSI	28"
	UFL UP28FM	Front Mount	1.7 cu.in	1000 PSI	28"
	UFL UP33FM	Front Mount	2.0 cu.in	1000 PSI	28"
	UFL UP39FM	Front Mount	2.4 cu.in	1000 PSI	28"
B	UFL UP28R	Rear Mount	1.7 cu.in	1000 PSI	28"
	UFL UP33R	Rear Mount	2.0 cu.in	1000 PSI	28"
	UFL KITF	Remote Filling Kit			
C	UFL UP28T-X52	Tilt	1.7 cu.in	1000 PSI	16"
	UFL UP33T-X52	Tilt	2.0 cu.in	1000 PSI	16"
	UFL UP39T-X52	Tilt	2.4 cu.in	1000 PSI	16"
	UFL KITF	Remote Filling Kit			



## HIGH PERFORMANCE OUTBOARD STEERING SYSTEMS PACKAGED IN A BOX

Specifically designed for **High-Performance Steering rated Up to 350hp for Single Engines & 700hp for Twin Engine** and high torque applications, the SilverSteer features a 1500 Psi helm and keyed bullhorn on the cylinder for maximum durability and minimal lost motion. Whether a bass boat, flats boat or tournament style offshore fishing boat, the SilverSteer will deliver smooth, responsive and precise steering. Adjustable boss style fittings allow precise hose routing without the risk of breaking the fittings by overtightening or leaking fittings from loosening during installation, a common problem on competing cylinders. 4.9 turns hardover to hardover. Not intended for speeds over 50 knots on single cylinder applications or 60 knots on dual cylinder, dual engine counter rotating applications.



### 150 – 350hp

#### SILVERSTEER

- High-Performance Steering rated Up to 350hp for Single Engines & 700hp for Twin Engine
- 1500psi Relief Valve for the Most Demanding, High-Torque Applications
- 4.5 Turns Lock to Lock
- Adjustable Boss-Style Fittings for Easy Installation
- Stainless Steel Shaft for Peak Corrosion Resistance & Shaft Seal Longevity
- Triple Seal Cartridges for Maximum Longevity
- Anodized Aluminum Cylinder Body & Electropolished Linkage for Peak Corrosion Resistance

Part No.	Description
UFL Silver-steer-1.0	Kits
UFL Silver-steer-2.0	Kits

**No wheel or hoses in kit**

#### Package kit Contains:

UFL UP25F-SVS	(1) Front mount helm pump
UFL UC128-SVS-1	(1) Cylinder
or	
UFL UC128-SVS-2	(1) Cylinder
UFL OIL-15	(2) Quarts Hydraulic Oil



Use only UFL KIT OB-SVS or UFL KIT OBBHBR-SVS Hoses 2 Pages later

## HIGH PERFORMANCE FRONT MOUNT HELM PUMPS

Specifically designed for boats with high horsepower and high rudder torque. The SilverSteer helms feature 1500 Psi check valves for optimal control at peak torque loads. These helms also feature stainless steel double sealed helm shafts and carbon steel rotors for maximum longevity.

#### FEATURES

- Available in three different displacement sizes
- Compact design
- Ball bearing piston race
- Built-in lock valve for positive rudder lock
- Integral relief valve for over-pressure protection 105 bar (1500 psi)
- 3/4" tapered stainless steel shaft
- Easily accessible lock valve and shaft seal for replacement
- Cast iron rotor for greater durability and longer life
- Complete with fittings adjustable at 45° for 3/8" tube

### UFLEX



Part No.	MOUNTING	DISPLACEMENT REVOLUTION	No. OF PISTONS	RELIEF VALVE SETTING	MAXIMUM WHEEL DIA.
UFL UP25F-SVS	Front Mount	28 cc - 1.5 cu.in	5	105 bar - 1500 PSI	710 mm - 28"
UFL UP33F-SVS	Front Mount	33 cc - 2.0 cu.in	7	105 bar - 1500 PSI	710 mm - 28"
UFL UP39F-SVS	Front Mount	39 cc - 2.4 cu.in	7	105 bar - 1500 PSI	710 mm - 28"

## HIGH PERFORMANCE OUTBOARD TILT MOUNT HELM PUMPS

#### FEATURES

- Available in three different displacement sizes
- Compact design
- Ball bearing piston race
- Built-in lock valve for positive rudder lock (patented)
- Stainless steel shaft
- Easily accessible lock valve and shaft seal for replacement
- Cast iron rotor for greater durability and longer life
- Complete with fittings adjustable at 45° for 3/8" tube
- Tilt range of 48° and five locking positions

### UFLEX



**Warning:** X52 standard tilt mechanism cannot be used on UFL SilverSteer high performance helm pumps. Use X70-SVS

#### UFL Kit F Optional Remote Fill Kit

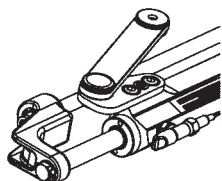
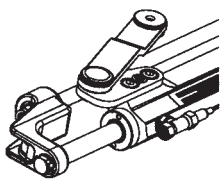
Part No.	DISPLACEMENT REVOLUTION	No. OF PISTONS	RELIEF VALVE SETTING	MAXIMUM WHEEL DIA.
UFL UP25T-SVS	28 cc - 1.5 cu.in	5	105 Bar - 1500 PSI	406 mm - 16"
UFL UP33T-SVS	33 cc - 2.0 cu.in	7	105 Bar - 1500 PSI	406 mm - 16"
UFL UP39T-SVS	39 cc - 2.4 cu.in	7	105 Bar - 1500 PSI	406 mm - 16"

## HIGH PERFORMANCE OUTBOARD FRONT MOUNT CYLINDER

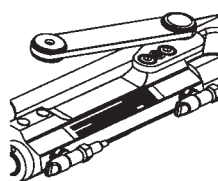
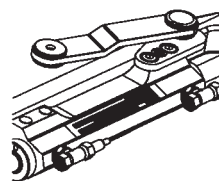
**UFLEX**


UFL UC128-SVS Is Balanced: the number of turns lock-to-lock is equal port to starboard or vice-versa  
Adjustable boss style fittings for easy and leak free installation  
High resistance stainless steel connection bolt (ULTRABOLT)

### Standard Single Cylinder


**UFL UC128-SVS-1**

**UFL UC128-SVS-2**

### Port Cylinder for Dual Cylinders


**UFL UC128P-SVS-1**

**UFL UC128P-SVS-2**

In the applications with dual UFL UC128-SVS cylinder it is necessary to order a standard UFL UC128-SVS cylinder (link arm attached to the starboard side of the cylinder) and a port UFL UC128P-SVS cylinder (link arm attached to the port side of the cylinder).






Volume  
Output force  
Inside diameter  
Stroke  
Bleed fittings

#### SPECIFICATIONS

120 cc - 7.3 cu. in  
450 kg - 992 lbs  
35 mm - 1.37"  
185 mm - 7.28"  
DN5 Quick connect

### UFL UC128-SVS CYLINDER ORDER GUIDE:

**UFLEX**

	System	Application	Turn	Components	Models	Qty
	Single Engine Single Cylinder		4.5 (UFL UP28)	Cylinder Helm Pump Hose Kit Oil Steering Wheel	UFL UC128-SVS-_ UFL UP28F-SVS or UFL UC33F-SVS UFL KITOB-SVS-__ UFL OIL-15 Wheel Selection	1 1 1 1 1
For a second station add: UFL UP28F-SVS or UFL UP33F-SVS helm pump, UFL KIT-95-2S, UFL KITOB-SVS-__, UFL OIL-15, 1 steering wheel						
	Dual Engine Single Cylinder	Up to 350 hp max non counter rotating engine	4.5 (UFL UP28)	Cylinder Helm Pump Hose Kit Oil Tie Bar	UFL UC128-SVS-_ UFL UP28F-SVS or UFL UC33F-SVS UFL KITOB-SVS-__ UFL OIL-15 UFL A94	1 1 1 2 1
		Up to 600 hp max counter rotating engine	3.6 (UFL UP33)	Steering Wheel	Wheel Selection	1
For a second station add: UFL UP28F-SVS or UFL UP33F-SVS helm pump, UFL KIT-95-2S, UFL KITOB-SVS-__, UFL 1OIL-15, 1 steering wheel						
	Dual Engine Dual Cylinder	Up to 600 hp max non counter rotating engine		Cylinder Cylinder Port Helm Pump Hose Kit Oil Tie Bar	UFL UC128-SVS-_ UFL UC128P-SVS-_ UFL UP39-SVS UFL KITOB-SVS-__ UFL OIL-15 UFL A94	1 1 1 1 2 1
		Up to 600 hp max counter rotating engine	3.6 (UFL UP33)	Steering Wheel	Steering Wheel	1
For a second station add: UFL UP33F-SVS, UFL KIT-95-2S, UFL KITOB-SVS-__, UFL OIL-15, 1 steering wheel						

#### WARNING

The UFL UC128SVS front mount cylinder is not recommended for use in installations where the boat speed exceeds (50 knots); (60 knots) in dual engine, dual cylinder and counter rotating engines application). Not intended for use in racing application.

#### ATTENTION:

The SilverSteer™ helm pumps are always to be installed in conjunction with the UFL UC128SVS cylinder and the Kevlar reinforced hose kit UFL KITOBVS.

For triple outboard engines, dual cylinder applications, please refer to tie-bar section.

#### NOTE:

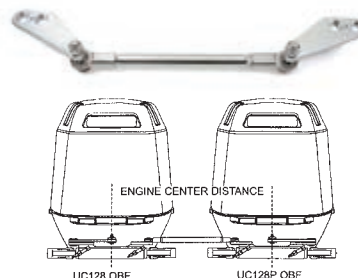
Three outboard engine applications are available with UFL UC128SVS cylinder. For any further and detailed information, please contact our Technical Service.





### Tie Bar for Twin Outboard Engines with Dual UC128-OBF OR UC128-SVS Cylinders

Part No.	Center To Center
UFL A90-X-26	26"

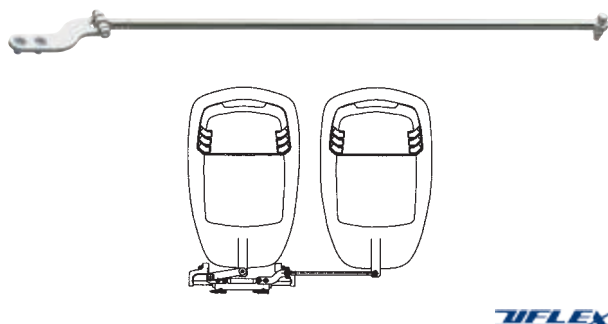



Suitable for applications with dual UC128-OBF (or UC128-SVS) front mount cylinder **NOTE:** in applications with single cylinder use A94 tie bar Allows to tilt the engines independently Electropolished/passivated stainless steel components

Other Spacing Available From 26" - 37.4" From the Factory

**WARNING:** In the applications with dual UC128-OBF (or UC128-SVS) cylinders it is necessary to order a standard UC128-OBF (or UC128-SVS) cylinder (link arm attached to the starboard side of the cylinder) and a UC128P-OBF (or UC128P-SVS) port cylinder (link arm attached to the port side of the cylinder).

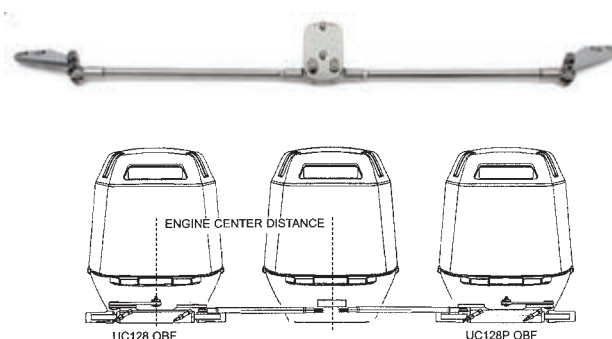
### Tie Bars for Twin Outboard Engines with Single UC128-OBF or UC128-SVS Cylinders



Suitable for applications with single UC128-OBF (or UC128-SVS) front mount cylinder. Allows to tilt the engines independently. Electropolished/passivated stainless steel components.

Part No.	Description
UFL A94	Adjustable from 660 mm (26") to 950 mm (37.4") engine centers (Must Be Cut)

### Tie Bars for Triple Outboard Engines with Dual UC128-OBF or UC128-SVS Cylinders



Suitable for applications with triple outboard engines and dual cylinders

Part No.	Center To Center
UFL A93X26	26"
UFL A93X28	28"



Other Spacing Available From 26" - 37.4" From the Factory

## Side Mount Hydraulic Steering

Part No.	UFL UC132-OBS
Volume	8/9.95 cu. in.
Output force	1023/1260 lbs
Inside diameter	1.25"
Stroke	8"
3/8" Fittings	For high pressure flex hose
Bleed fittings	DNS Quick connect

UFL UC132-OBS - Unbalanced: the number of turns lock-to lock is not equal port to starboard or vice-versa 13.39" body length. Side mount cylinder features a turning nut for a fast and easy installation to the engine tube (Patented) Clearance required at engine tube side: 14.76"

For Helms See Second Page of Uflex Steering Section



Outboard Side Mount Cylinder



## Side Mount Hydraulic Steering Application Guide

System	Application	Wheel Turns	Components	Model	Qty.
Single Engine	Up to 300 hp max	5.3/6.5	Cylinder	UFL UC132-OBS	1
Single Cylinder		(UP25)	Helm Pump	UFL UP25FM or UFL UP28FM	1
		4.7/5.8	Hose Kit	UFL KIT-OB-__	1
		(UP28)	Oil	UFL OIL-15	2
			Steering wheel		1

For a second station add: 1 UFL UP25FM or UFL UP28FM helm pump, 1 UFL KITOB-2S fitting kit, 1 UFL KIT-OB-\_\_ Hoses, 1 UFL OIL-15, 1 steering wheel

## HIGH PERFORMANCE OUTBOARD STEERING HOSES

Std. Hose Kits Part No.	Bulk Head Hose Kits Part No.	Length
UFL KITOBVS-02	UFL KITOBHBRVS-02	2'
UFL KITOBVS-04	UFL KITOBHBRVS-04	4'
UFL KITOBVS-06	UFL KITOBHBRVS-06	6'
UFL KITOBVS-08	UFL KITOBHBRVS-08	8'
UFL KITOBVS-10	UFL KITOBHBRVS-10	10'
UFL KITOBVS-12	UFL KITOBHBRVS-12	12'
UFL KITOBVS-14	UFL KITOBHBRVS-14	14'
UFL KITOBVS-16	UFL KITOBHBRVS-16	16'
UFL KITOBVS-18	UFL KITOBHBRVS-18	18'
UFL KITOBVS-20	UFL KITOBHBRVS-20	20'
UFL KITOBVS-22	UFL KITOBHBRVS-22	22'
UFL KITOBVS-24	UFL KITOBHBRVS-24	24'
UFL KITOBVS-26	UFL KITOBHBRVS-26	26'
UFL KITOBVS-30	UFL KITOBHBRVS-30	30'
UFL KITOBVS-28	UFL KITOBHBRVS-28	28'
<b>2 Hoses per Kit</b>		



UFL KITOBVS



UFL KITOBHBRVS

### UFL KITOBVS : HOSE KIT FOR SINGLE STATION FOR SILVERSTEER™ SYSTEMS

It consists of a pair of 1500 psi rated flexible, high performance hoses with nickel plated fittings. stranded flexible hoses, supplied with preassembled stainless steel fittings and bend restrictors on one end.



### UFL KITOBHBRVS BULKHEAD HOSE KIT FOR SINGLE STATION FOR SILVERSTEER™ SYSTEMS

It consists of a pair of 1500 psi rated flexible, high performance hoses with nickel plated fittings, supplied with one set of thru-hull hose kit, preassembled stainless steel fittings and bend restrictors on one end.

### UFL KITOBDBRSVS: DUAL CYLINDER/ DUAL ENGINE CONNECTION KIT FOR SILVERSTEER™ SYSTEMS

It consists of a pair of high pressure Kevlar stranded flexible hoses, supplied with preassembled fittings and bend restrictors on both ends.

Three lengths available: 2', 3', 4'

Part No.	Length
UFL KITOBDBRSVS-02	2'
UFL KITOBDBRSVS-03	3'
UFL KITOBDBRSVS-04	4'



## Hose Kits High Pressure

Pair of 1500 Psi Rated flexible hoses with pre-swaged brass fittings, and bend restrictors. Applicable to all Uflex hydraulic systems and competing systems.



Part No.	Length	Part No.	Length
UFL KIT-OB-02*	2'	UFL KIT-OB-18	18'
UFL KIT-OB-04*	4'	UFL KIT-OB-20	20'
UFL KIT-OB-06	6'	UFL KIT-OB-22	22'
UFL KIT-OB-08	8'	UFL KIT-OB-24	24'
UFL KIT-OB-10	10'	UFL KIT-OB-26	26'
UFL KIT-OB-12	12'	UFL KIT-OB-28	28'
UFL KIT-OB-14	14'	UFL KIT-OB-30	30'
UFL KIT-OB-16	16'		

\* Have Bend Resistors on Both Ends

## High Performance Hoses with nickel plated fittings.

Pair of 1500 Psi Rated flexible hoses with pre-swaged nickel plated fittings, thru hull bulkhead adapters and bend restrictors. Applicable to all Uflex hydraulic systems and competing systems.



Part No.	Length	Part No.	Length
UFL KITOBVS-04*	4'	UFL KITOBVS-18	18'
UFL KITOBVS-06	6'	UFL KITOBVS-20	20'
UFL KITOBVS-08	8'	UFL KITOBVS-22	22'
UFL KITOBVS-10	10'	UFL KITOBVS-24	24'
UFL KITOBVS-12	12'	UFL KITOBVS-26	26'
UFL KITOBVS-14	14'	UFL KITOBVS-28	28'
UFL KITOBVS-16	16'	UFL KITOBVS-30	30'

\* Have Bend Resistors on Both Ends

## Bulkhead Hose Kits High Pressure

Pair of 1500 Psi Rated flexible hoses with pre-swaged brass fittings, thru hull bulkhead adapters and bend restrictors. Applicable to all Uflex hydraulic systems and competing systems.

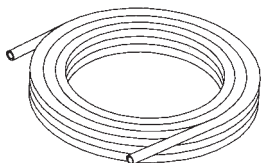


Part No.	Length	Part No.	Length
UFL KITOBHBR-06	6'	UFL KITOBHBR-20	20'
UFL KITOBHBR-08	8'	UFL KITOBHBR-22	22'
UFL KITOBHBR-10	10'	UFL KITOBHBR-24	24'
UFL KITOBHBR-12	12'	UFL KITOBHBR-26	26'
UFL KITOBHBR-14	14'	UFL KITOBHBR-28	28'
UFL KITOBHBR-16	16'	UFL KITOBHBR-30	30'
UFL KITOBHBR-18	18'		

## 3/8" O.D. Tubing Kit for Second Station or Autopilot

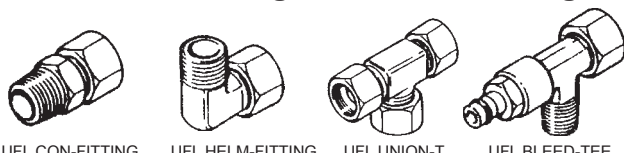


Part No.	Description
UFL KITOB-2S	It includes a non-vented plug, all necessary fittings and 25' of 3/8" dia nylon tube for the compensating line.

**3/8" O.D. Tubing**

**Part No.**  
UFL TU95-LL

**Description**  
3/8" nylon tubing sold by the foot. Its is not recommended in the applications where the total tubing run exceeds 50'.

**Connector Fitting for 3/8" O.D. Tubing**

**Part No.**  
UFL CON-FITTING

**Description**  
3/8" Connector fitting, helm and tube

UFL HELM-FITTING

3/8" Elbow fitting, helm and tube

UFL UNION-T

3/8" Union T for tube

UFL BLEED-TEE

3/8" Bleed T for cylinder, nickel plated

**Hydraulic Tie Bar**

For twin engine / twin cylinder applications where a mechanical tie bar is not feasible. Engine centers must be at least 38" wide as engine can periodically misaligned. It connects using UFL KIT-OB-XX Hose Kit.



**Part No.**  
UFL LTB1

**Remote Fill Adapter for Rear Mount & Tilt Mount Pumps**

**Part No.**  
UFL KITF

**Hydraulic Fluid**

**UFL**

Oil ISO VG 15 (Quart)  
Military Spec 5606

**Part No.**  
UFL OIL-15

**3/8" O.D. Tube Fitting Kit for Second Station**

Fitting kit for a second steering station or for an autopilot installation. It includes a non vented plug and all necessary fittings for 3/8" nylon or copper tube.

**Part No.**  
UFL KIT-95-2S

**Helm Caps**

**Part No.**  
UFL 40800L

**Description**  
Non-Vented Cap for lower station (s) in a multiple helm system



**UFL**

**Bulkhead Kit for Hose**

**Part No.**  
UFL R9B  
UFL R9W



**Description**  
Black  
White

**UFL**

**Helm Shaft Seal Kit**

For all UP Helms

**Part No.**  
UFL 40875V

**UFL**





Engine	Power	Year	Packaged Kits				GoTech Cylinder
HP			Up to 115	Up to 150	Up to 300	Up to 350	Up to 115
Evinrude	E75-E90 2 Stroke	2004-to date	GoTech 1.0	Hytech 1.0	Protech 2.0	SilverSteer 2.0	UC81
	E115 2 Stroke V3 & V4	2004-to date	GoTech 1.0	Hytech 1.0	Protech 2.0	SilverSteer 2.0	UC81
	E130-E135 2 Stroke V4	1995-to date		Hytech 1.0	Protech 2.0	SilverSteer 2.0	
	E150 2 Stroke V5	1995-to date		Hytech 1.0	Protech 2.0	SilverSteer 2.0	
	E175-E200 2 Stroke V6	1995-to date			Protech 2.0	SilverSteer 2.0	
	E200 HO-E225-E250 2 Stroke V6	1995-to date			Protech 2.0	SilverSteer 2.0	
	E250 HO-E300 2 Stroke V6				Protech 2.0	SilverSteer 2.0	
Honda	BF75-90 4 Stroke	1995- to date	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	BF115D	1998 - 2009		Hytech 3.0	Protech 3.0		UC81
	BF115A	2009-to date	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	BF130A	1998 - 2005		Hytech 3.0	Protech 3.0		
	BF135-150 4 Stroke	2005-to date		Hytech 1.0	Protech 1.0	SilverSteer 1.0	
	BF90 V-TEC 4 Stroke	2008-to date	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	BF150 V-TEC 4 Stroke	2008-to date		Hytech 1.0	Protech 1.0	SilverSteer 1.0	
Johnson	BF175-200-225 4 Stroke	2001-to date			Protech 1.0	SilverSteer 1.0	
	BJ90-115-140 4 Stroke	2001 - 2007	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	BJ60-70 4 Stroke	2001 - 2007	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	J90-115 V4 2 Stroke	1995 - 2007	GoTech 1.0	Hytech 1.0	Protech 2.0	SilverSteer 2.0	UC81
	J150 V6 2 Stroke	1995 - 2007		Hytech 1.0	Protech 2.0	SilverSteer 2.0	
	J175 V6 2 Stroke	1995 - 2007			Protech 2.0	SilverSteer 2.0	
	J200-225 V6 4 Stroke	2004 - 2007			Protech 2.0	SilverSteer 2.0	
Mercury	75-90-115 Optimax 2 Stroke	2004-to date		Hytech 3.0	Protech 3.0		UC81
	125 Optimax 2 Stroke	2004-to date		Hytech 3.0	Protech 3.0		
	132-150 Optimax 2 Stroke	1999-to date		Hytech 1.0	Protech 1.0	SilverSteer 1.0	
	175 Optimax 2 Stroke	1999-to date			Protech 1.0	SilverSteer 1.0	
	200-225-250 Optimax 2 Stroke	1999-to date			Protech 1.0	SilverSteer 1.0	
	Racing 300 Optimax 2 Stroke	1999 - 2011			Protech 1.0	SilverSteer 1.0	
	100-115-EFI 4 Stroke	2007-to date	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	115 EFI 2 Stroke	1990 - 2007	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	125-150 EFI 2 Stroke	1990 - 2007		Hytech 1.0	Protech 1.0	SilverSteer 1.0	
	225-250 EFI 2 Stroke	2000 - 2007			Protech 1.0	SilverSteer 1.0	
	250 Saltwater EFI 4 Stroke	2007 - 2011			Protech 1.0	SilverSteer 1.0	
	135-150 Verado L4 4 Stroke	2004 - 2006		Hytech 1.0	Protech 1.0	SilverSteer 1.0	
	175-200 Verado L4 4 Stroke	2004-to date			Protech 1.0	SilverSteer 1.0	
Selva	80 Portofino/Tigershark 2 Stroke	1995-to date	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	100EFI Marlin - 115 EFI Narwhal	2001 - 2007	GoTech 1.0	Hytech 1.0	Protech 2.0	SilverSteer 2.0	UC81
	150EFI Killer Whale 4 Stroke	2000-to date		Hytech 1.0	Protech 1.0	SilverSteer 1.0	
Suzuki	DF70-80-90-100-115 4 Stroke	1998-to date	GoTech 1.0	Hytech 1.0	Protech 2.0	SilverSteer 2.0	UC81
	DF140-150 4 Stroke	1998-to date		Hytech 1.0	Protech 1.0	SilverSteer 1.0	
	DF175 4 Stroke	2006-to date			Protech 1.0	SilverSteer 1.0	
	DF200-DF225-DF250-DF300				Protech 2.0	SilverSteer 2.0	
Tohatsu	115 2 Stroke	2004-to date	GoTech 1.0	Hytech 1.0	Protech 2.0	SilverSteer 2.0	UC81
	120-140 2 Stroke	2004-to date		Hytech 1.0	Protech 2.0	SilverSteer 2.0	
	70-90-115 TLDI 4 Stroke	2004-to date	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
Yamaha	75C-90 2 Stroke	1998-2008	GoTech 1.0	Hytech 1.0	Protech 2.0	SilverSteer 2.0	UC81
	115C 2 Stroke	1990-2008	GoTech 1.0	Hytech 1.0	Protech 2.0	SilverSteer 2.0	UC81
	130B -150F 2 Stroke	1990-2008		Hytech 1.0	Protech 2.0	SilverSteer 2.0	
	200F-250G 2 Stroke	1996-2007			Protech 2.0	SilverSteer 2.0	
	150 HPDI VMAX 2 Stroke	2000-2008		Hytech 1.0	Protech 2.0	SilverSteer 2.0	
	175-200-225-250-300 HPDI VMAX 2 St	2000-2008			Protech 2.0	SilverSteer 2.0	
	F70	2010-to date	GoTech 1.0				UC81
	F90-F100-F115 EFI 4 Stroke	1999-2007	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	F150 EFI 4 Stroke	1999-2007		Hytech 1.0	Protech 1.0	SilverSteer 1.0	
	F200-F225-F250- F300 4 Stroke	2002-to date			Protech 2.0	SilverSteer 2.0	
	F115	2004-to date	GoTech 1.0	Hytech 1.0	Protech 1.0	SilverSteer 1.0	UC81
	F150	2004-to date		Hytech 1.0	Protech 1.0	SilverSteer 1.0	

**WARNING:** These recommendations should be used as a general reference only. Final selection should be made with the assistance of a qualified installation technician. For any further information please contact our technical service.

A94 : Tie bars are also available in fixed lengths specific for your engine center. Available for engine centers of 26", 27", 28", 28.5", 29", 30", 31", and 34"

A90X\_\_ : Please enter your engine centers in the \_\_ space. Available for engine centers of 26", 27", 28", 28.5", 29", 30", 32", 34", 36", and 39.5"

UC1280BF-1 + A94



UC1280BF-1 + UC1280BF-1P + A90X\_\_



Engine	HyTech Cylinder	Protech Cylinder	SilverSteer Cylinder	Twin Cylinder Protech Cylinder	Twin Cylinder SilverSteer Cylinder	Twin Engine / Single Cylinder Tie Bar	Twin Engine / Twin Cylinder Tie Bar	Triple Engine / Twin Cylinder Tie Bar
HP	Up to 150	Up to 300	Up to 350	Up to 500	Up to 700	Up to 500	Up to 700	Up to 1050
Evinrude	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
		UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
		UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
Honda	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-3	UC1280BF-3				A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-3	UC1280BF-3				A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
Johnson	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P			
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
		UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
		UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
Mercury	UC940BF-3	UC1280BF-3				A94		
	UC940BF-3	UC1280BF-3				A94		
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
		UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
		UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
		UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
		UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
		UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
Selva	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
Suzuki	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
		UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
		UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
Tohatsu	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
Yamaha	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
		UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
		UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
		UC1280BF-1P				A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__
		UC1280BF-2	UC128SVS-2	UC1280BF-2P	UC128SVS-2P	A94	A90X__	A93X__
	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X__	A93X__	
	UC940BF-1	UC1280BF-1	UC128SVS-1	UC1280BF-1P	UC128SVS-1P	A94	A90X	A93X





## Sterndrive Cylinders



**UFL UC133-IOB** - Balanced: the number of turns lock-to lock is equal port to starboard or vice-versa 23 3/4" body length.

**UFL UC132-OBS** - Unbalanced: the number of turns lock-to lock is not equal port to starboard or vice-versa 13.39" body length.

### Specifications

Aluminum  
Volume  
Torque  
Output Force  
Inside Diameter  
Stroke  
3/8" Fittings

### UFL UC133-IOB

Balanced  
8 cu. in.  
5738 lbs  
1023 lbs  
1.25"  
8"

### UFL UC132-OBS

Unbalanced  
8/9.95 cu. in.  
  
1265 lbs  
1.25"  
8"

For High Pressure Flex Hose

## Sterndrive Cylinder Applications

Engine	Year	Model	Non Power Assist engine	See Notes	Power Assist engine	See Notes
	To Date	Alpha	UFL UC133-IOB	1, 3	UFL UC132-OBS	2
	To Date	Bravo One	UFL UC133-IOB	1, 3	UFL UC132-OBS	2
<b>MerCruiser®</b>	To Date	Bravo Two	UFL UC133-IOB	1, 3	UFL UC132-OBS	2
	To Date	Bravo Three	UFL UC133-IOB	1, 3	UFL UC132-OBS	2
	To Date	275	UFL UC168-I		N/A	
	To Date	280	UFL UC133-IOB	1, 3, 4	UFL UC132-OBS	2
	To Date	290	UFL UC133-IOB	1, 3, 4	UFL UC132-OBS	2
<b>Volvo®</b>	To Date	DP-E	UFL UC133-IOB	1, 3, 5	N/A	
	To Date	DP-G	N/A		N/A	
	To Date	DPS/SX	N/A		UFL UC132-OBS	2

1. Balanced cylinder the number of turns lock to lock is equal port to starboard or vice-versa.
2. Unbalanced cylinder the number of turns lock to lock is not equal port to starboard or vice-versa.
3. Clearance required at the engine tube side: 21.2". UFL UC132-OBS cylinder can be installed as an alternative cylinder.
4. ULTRAFLEX hydraulic cylinder can be installed as an alternative to a mechanical steering system only.
5. The Volvo P. No. 872388 adaptor fitting is required for the installation.

NOTE: For applications with sterndrive engines not listed above, please contact our Technical Service.

WARNING These recommendations should be used as general reference only and they apply to factory stock sterndrives only. In doubt, contact a qualified installation technician.

## Sterndrive Ordering Guide

Max Rudder Torque:  
5738 lbs. in  
Turns lock to lock:  
Balanced 4.7 - Unbalanced 4.7/5.8

Components	Part No.	Qty
Helm Pump	UFL UP28FM	1
Cylinder	see applications	1
Hose Kit	UFL KIT-OB-__	1
Oil	UFL OIL-15	2
Steering Wheel	See Wheels	1
or additional station add:		1
Helm Pump	UFL UP28FM	1
Fitting Kit	UFL KITOB-2S	1
Oil	UFL OIL-15	1
Hose Kit	UFL KIT-OB-__	1
Steering Wheel	See Wheels	1

Max Rudder Torque:  
5738 lbs. in  
Turns lock to lock:  
Balanced 4 • Unbalanced 4/5

Components	Part No.	Qty
Helm Pump	UFL UP33FM	1
Cylinder	see applications	1
Hose Kit	UFL KIT-OB-__	1
Oil	UFL OIL-15	1
Steering Wheel	See Wheels	1
for additional station add:		
Helm Pump	UFL UP 33FM	1
Fitting Kit	UFL KITOB-2S	1
Oil	UFL OIL-15	1
Hose Kit	UFL KIT-OB-__	1
Steering Wheel	See Wheels	1

NOTE: 3/8" diameter copper tubing can be used as an alternative tubing for plumbing the systems.  
For these applications a fitting kit - UFL KIT 95





### Balanced Inboard Cylinder

Part No.	UFL UC116-I	UFL UC168-I	UFL UC215-I
Volume	Aluminum 7 cu. in.	Aluminum 10.25 cu. in.	Aluminum 13.12 cu. in.
Torque	5043 lbs	7565 lbs	9652 lbs
Outside Force	1023 lbs	1483 lbs	1483 lbs
Inside Diameter	1.25"	1.57"	1.57"
Stroke	7"	7"	9"
3/8" Fittings	For High Pressure	For High Pressure	For High Pressure
Flex Hose	Flex Hose	Flex Hose	
Length from back of rod to center	22.3"	24.3"	28.3"



UFL UC116-I, UFL UC168-I, UFL UC215-I  
Balanced: the number of turns lock-to lock is equal port to starboard & vice-versa.

Part No.	UFL UC293-I	UFL UC378-I
Volume	Brass 17.8 cu. in.	Brass 22.94 cu. in.
Torque	12,816 lbs	16,347 lbs
Output Force	2,545 lbs	2,454 lbs
Inside Diameter	1.97"	1.9"
Stroke	7"	9"
Fittings	3/8" for High Pressure	1/2" for High Pressure
Flex Hose	Flex Hose	Flex Hose
Length from back of rod to center of eye	24.1"	27.7"



UFL UC293-I, UFL UC378-I Balanced: the number of turns lock-to lock is equal port to starboard & vice-versa.

### Inboard Cylinder Applications

Part No.	Max Boat Length	Hull Type	Number of Engines	Max Torque	How to Order
UFL UC69-I	26'	Displacement	1 or 2	2783 lbs in	System 1A
UFL UC116-I	28'	Planing / Displacement	1	5043 lbs in	System 1
	31'	Planing / Displacement	2	5043 lbs in	System 1
UFL UC168-I	38'	Planing	1	7565 lbs in	System 2 or 3
	44'	Planing	2	7565 lbs in	System 3
	32'	Displacement	1	7565 lbs in	System 2 or 3
	38'	Displacement	2	7565 lbs in	System 3
UFL UC215-I	44'	Planing	1	9652 lbs in	System 4 or 5
	50'	Planing	2	9652 lbs in	System 5
	38'	Displacement	2	9652 lbs in	System 4 or 5
	44'	Displacement	2	9652 lbs in	System 5
UFL UC293-I	58'	Planing	1	12816 lbs in	System 6 or 7
	60'	Planing	2	12816 lbs in	System 6 or 7
	46'	Displacement	2	12816 lbs in	System 6 or 7
	60'	Displacement	2	12816 lbs in	System 6 or 7
UFL UC378-I	62'	Planing	1	16347 lbs in	System 8
	65'	Planing	2	16347 lbs in	System 8
	62'	Displacement	2	16347 lbs in	System 8
	65'	Displacement	2	16347 lbs in	System 8

**WARNING:** These recommendations should be used as a general reference only. Final selection should be made with the assistance of a qualified installation technician. For any further information please contact our Technical Service.





UFL V45W



UFL V32N



UFL V33N



UFL V60



UFL V60W

**UFLEX**



UFL V42 - UFL V43 - UFL V48



UFL V43GFC

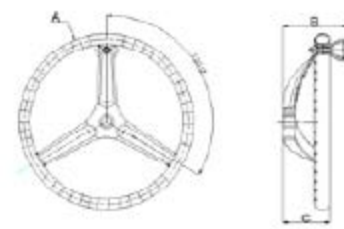


UFL V43BFC

*All Wheels have Standard 3/4" Taper. Stainless Steel Wheels are High Grade Non-Magnetic*

Part No.	Dimension	Description
UFL V45W	13.2"	White Plastic with Soft Grip
UFL V32N	13.2"	Black Plastic
UFL V33N	13.4"	Black Plastic
UFL V60	13.8"	Black Plastic with Soft Grip Easy Hub Assembly
UFL V60W	13.8"	White Plastic with Soft Grip Easy Hub Assembly
UFL V48	13.5"	Stainless Steel 25° Dish
UFL V42	15.5"	Stainless Steel 10° Dish
UFL V43	15.5"	Stainless Steel 25° Dish
UFL V43GFC	15.5"	Stainless Steel with Grey Poly Grip 25° Dish
UFL V43BFC	15.5"	Stainless Steel with Black Poly Grip 25° Dish

## 316 Stainless Steel Heavy Duty Cast Wheel with Power Knob



Part No..	A	B	C
WWM 7319SRK	13½"	5"	3½"
WWM 7320SRK	15½"	5"	3½"

**The NUT is not included. It is sold separately to fit proper application.**

WWM 7327NT	5/8-18 Nut for SeaStar Solutions Hyd. Steering
WWM 7328NT	1/2-20 Nut for SeaStar Solutions Mech. Steering
WWM 7329NT	M12 Nut for UFL Steering System Mechanical or Hydraulic

**UFLEX**



**UFLEX**

## GRIMANI STEERING WHEELS

"VERO VOLANTE ITALIANO" is the registered trademark which distinguishes the steering wheels for pleasure boats produced by Ultraflex. They are conceived by Italian designers, engineered and manufactured in Italy by employing genuine Italian components and technologies according to Ultraflex quality management system.

- Standard 3/4" taper
- Hub included
- Meet with the EN 28848 and ABYC P22 standards



Grimani BL/S - Ø 13.8" (350 mm)



Grimani R/S - Ø 13.8" (350 mm)



Grimani O/S - Ø 13.8" (350 mm)



Grimani Y/S - Ø 13.8" (350 mm)



Grimani PL/S - Ø 13.8" (350 mm)



Grimani W/S - Ø 13.8" (350 mm)

### POLYURETHANE GRIP SILVER SPOKES WITH INSERTS

GRIMANI BL/S - 69480 G, GRIMANI R/S - 69481 J, GRIMANI Y/S - 69482 L, GRIMANI PL/S - 69483 N, GRIMANI , O/S - 20671 P, GRIMANI W/S - 20600 P

## THE PADDLE TRIM SYSTEM

Adaptable to existing Uflex front mount hydraulic and tilt helms, the **Paddle Trim** system is ergonomically designed to allow the driver to make precise adjustments to the attitude of the boat or other systems **without removing their hands from the steering wheel.**



Available both in single and dual versions.

Max load 5 Amp @ 12VDC.

Suitable for any kind of steering wheel dish.  
Max wheel dia. 400 mm (15.7").

Easy-to-Install

Part Numbers: PTS1 - Single Paddle Trim and PTS2 - Twin Paddle Trim



\*\* Paddle Trim shown on optional Uflex tilt mechanism with Grimani steering wheel



## LOREDAN STEERING WHEELS

"VERO VOLANTE ITALIANO" is the registered trademark which distinguishes the steering wheels for pleasure boats produced by Ultraflex. They are conceived by Italian designers, engineered and manufactured in Italy by employing genuine Italian components and technologies according to Ultraflex quality management system.

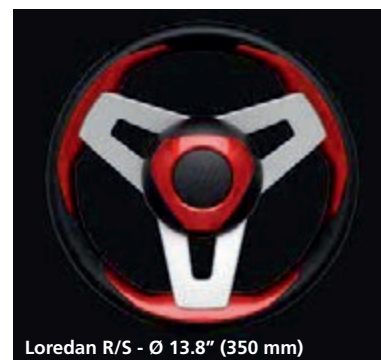
- Standard 3/4" taper
- Hub included
- Meet with the EN 28848 and ABYC P22 standards



Loredan BL/S - Ø 13.8" (350 mm)



Loredan G/S - Ø 13.8" (350 mm)



Loredan R/S - Ø 13.8" (350 mm)



Loredan O/S - Ø 13.8" (350 mm)



Loredan PL/S - Ø 13.8" (350 mm)



Loredan W/S - Ø 13.8" (350 mm)

### POLYURETHANE GRIP ALUMINUM SPOKES

LOREDAN BL/S - 20039 T, LOREDAN G/S - 20837 Y, LOREDAN O/S - 20673 U,  
LOREDAN PL/S - 20342 U, LOREDAN R/S - 20041 D, LOREDAN W/S - 20601 S

## THE ULTIMATE HANDS-ON EXPERIENCE.

### ANNOUNCING THE NEXT GENERATION FROM UFLEX

True innovators are constantly improving and ever evolving.  
We display these qualities in everything we design and build.



GRIMANI  
Formerly Spargi

LOREDAN  
Formerly Ponza

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Chrysler Engines</b>								
<b>Chrysler 50HP</b> <i>Must use bearing kit part #W5216</i> <i>* Limited to available stock</i>	1981-83	2	3.187"/Std. 3.207"/.020 3.217"/.030	<b>3167PS</b> <b>*3167P2</b> <b>3167P3</b>	3187KD 3207KD 3217KD	S589	W5414	W5216
<b>Chrysler 55HP</b> <i>Must use bearing kit part #W5216</i>	1970-76	2	3.187"/Std. 3.207"/.020 3.217"/.030	<b>3167PS</b> <b>3167P2</b> <b>3167P3</b>	3187KD 3207KD 3217KD	S589	W5414	W5216
<b>Chrysler 70HP</b> <i>Must use bearing kit part #W5216</i>	1970-73 & 1979	3	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 75HP</b> <i>Must use bearing kit part #W5216</i>	1974-84	3	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 85HP</b> <i>Must use bearing kit part #W5216</i>	1970-73 1978-84	3	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 90HP</b> <i>Must use bearing kit part #W5216</i>	1974-77 1983-84	3	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 100HP</b> <i>Must use bearing kit part #W5216</i>	1980-81 1984	4	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 105HP</b> <i>Must use bearing kit part #W5216</i>	1970-78 1982-83	4	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 115HP</b> <i>Must use bearing kit part #W5216</i>	1978-80	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216
<b>Chrysler 115HP</b> <i>Must use bearing kit part #W5216</i>	1983-84	4	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 120HP</b> <i>Must use bearing kit part #W5216</i>	1970-77	4	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 125HP</b> <i>Must use bearing kit part #W5216</i>	1982	4	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 130HP</b> <i>Must use bearing kit part #W5216</i>	1972-73	4	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Chrysler 135HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1974-77	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216
<b>Chrysler 140HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1978-84	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Force Engines</b>								
<b>Force 40HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1992-95	2	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216
<b>Force 40HP</b>	1996-99	2	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Force 50HP</b> <i>Must use bearing kit part #W5216</i>	1984-88	2	3.187"/Std. 3.207"/.020 3.217"/.030	<b>3167PS</b> <b>3167P2</b> <b>3167P3</b>	3187KD 3207KD 3217KD	S589	W5414	W5216
<b>Force 50HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1989-90	2	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Force 50HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1991-95	2	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216
<b>Force 50HP</b>	1996-99	2	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Force 70HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1991-95	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216
<b>Force 75HP</b>	1996-99	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Force 85HP</b> <i>Must use bearing kit part #W5216</i>	1984-89	3	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Force 90HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1991-95	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216
<b>Force 90HP</b>	1996-99	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Force 120HP</b> <i>Must use bearing kit part #W5216</i>	1990	4	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Force 120HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1991-95	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216



When ordering please place "WIS" in front of part number



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Force 120HP</b>	1996-99	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Force 125HP</b> <i>Must use bearing kit part #W5216</i>	1984-89	4	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Force 150HP</b> <i>Must use bearing kit part #W5216</i>	1989-90	5	3.312"/Std. 3.332"/.020 3.342"/.030 3.352"/.040	<b>3129PS</b> <b>3129P2</b> <b>3129P3</b> <b>3129P4</b>	3312KD 3332KD 3342KD 3352KD	S509	W5414	W5216
<b>Force 150HP</b> Crossflow <i>Must use bearing kit part #W5216</i>	1991-94	5	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216



When ordering please place **"WIS"** in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>OMC 9.9HP</b> Crossflow <i>Must use bearing kit part #W5215</i>	1974-80	2	2.188"/Std. 2.208"/.020 2.218"/.030	<b>3136PS</b> <b>3136P2</b> <b>3136P3</b>	2188KD 2208KD 2218KD	S510	W5413	W5215
<b>OMC 9.9HP</b> Crossflow	1981-92	2	2.188"/Std. 2.208"/.020 2.218"/.030	<b>3136PS</b> <b>3136P2</b> <b>3136P3</b>	2188KD 2208KD 2218KD	S510	W5413	W5215
<b>OMC 15HP</b> Crossflow <i>Must use bearing kit part #W5215</i>	1974-80	2	2.188"/Std. 2.208"/.020 2.218"/.030	<b>3136PS</b> <b>3136P2</b> <b>3136P3</b>	2188KD 2208KD 2218KD	S510	W5413	W5215
<b>OMC 15HP</b> Crossflow	1981-92	2	2.188"/Std. 2.208"/.020 2.218"/.030	<b>3136PS</b> <b>3136P2</b> <b>3136P3</b>	2188KD 2208KD 2218KD	S510	W5413	W5215
<b>OMC 18, 20HP Jet</b> Crossflow  <i>* Limited to available stock</i>	1995-00	2	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3127PS</b> <b>3127P2</b> <b>3127P3</b> <b>*3127P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 20HP</b> Crossflow  <i>* Limited to available stock</i>	1985-98	2	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3127PS</b> <b>3127P2</b> <b>3127P3</b> <b>*3127P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 25HP</b> Crossflow  <i>* Limited to available stock</i>	1977-80	2	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3128PS</b> <b>3128P2</b> <b>*3128P3</b> <b>*3128P4</b>	3000KD 3020KD 3030KD 3040KD	S502	CW16	
<b>OMC 25HP</b> Crossflow  <i>* Limited to available stock</i>	1981-05	2	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3127PS</b> <b>3127P2</b> <b>3127P3</b> <b>*3127P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 25HP</b> Crossflow  <i>* Limited to available stock</i>	1986-96	2	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3127PS</b> <b>3127P2</b> <b>3127P3</b> <b>*3127P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 28HP Jet</b> Loop Charge	1996-97	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 30HP</b> Crossflow  <i>* Limited to available stock</i>	1984-05	2	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3127PS</b> <b>3127P2</b> <b>3127P3</b> <b>*3127P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 35HP</b> Crossflow  <i>* Limited to available stock</i>	1976-80	2	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3128PS</b> <b>3128P2</b> <b>*3128P3</b> <b>*3128P4</b>	3000KD 3020KD 3030KD 3040KD	S502	CW16	
<b>OMC 35HP</b> Crossflow  <i>* Limited to available stock</i>	1981-90	2	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3127PS</b> <b>3127P2</b> <b>3127P3</b> <b>*3127P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 35HP</b> Loop Charge	1986-87	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 35HP</b> Jet Pump	1990-00	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 40HP</b> Loop Charge	1984-05	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>Evinrude 40HP</b> <i>NEW</i> DI & E-Tec	2004-07	2	3.601"/Std. 3.621"/.020 3.631"/.020 3.641"/.030	<b>3211PS</b> <b>3211P2</b> <b>3211P3</b> <b>3211P4</b>	3600KD 3620KD 3630KD 3640KD	S473	W5263	TBA



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>OMC 45HP</b> Loop Charge	1986-97	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 48HP</b> Loop Charge	1987-96	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 50HP</b> Loop Charge	1981-05	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 50HP</b> Loop Charge	1995-98	3	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3172PS</b> <b>3172P2</b> <b>3172P3</b> <b>3172P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>Evinrude 50HP</b> <i>NEW</i> DI & E-Tec	2004-07	2	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	<b>3211PS</b> <b>3211P2</b> <b>3211P3</b> <b>3211P4</b>	3600KD 3620KD 3630KD 3640KD	S473	W5263	TBA
<b>OMC 55HP</b> Loop Charge  * Limited to available stock	1976-78	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>*3125PS</b> <b>3125P2</b> <b>*3125P3</b> <b>*3125P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 55HP Commercial</b> Loop Charge	1980-00	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 60HP</b> Loop Charge	1980-85	2	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3111PS</b> <b>3111P2</b> <b>3111P3</b> <b>3111P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>Evinrude 60HP</b> <i>NEW</i> DI & E-Tec	2004-07	2	3.601"/Std. 3.631"/.020 3.641"/.030	<b>3211PS</b> <b>3211P2</b> <b>3211P3</b> <b>3211P4</b>	3600KD 3620KD 3630KD 3640KD	S473	W5263	TBA
<b>OMC 60HP</b> Loop Charge	1986-88	3	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3115PS</b> <b>3115P2</b> <b>3115P3</b> <b>3115P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 60HP</b> Loop Charge	1989-01	3	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3172PS</b> <b>3172P2</b> <b>3172P3</b> <b>3172P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 65HP</b> Loop Charge  Must use bearing kit part #B1029	1972-73	3	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3115PS</b> <b>3115P2</b> <b>3115P3</b> <b>3115P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	B1029
<b>OMC 65HP Commercial</b> Loop Charge	1984-86	3	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3115PS</b> <b>3115P2</b> <b>3115P3</b> <b>3115P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 65HP</b> Loop Charge	1986-93	3	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3172PS</b> <b>3172P2</b> <b>3172P3</b> <b>3172P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC V4 65HP Jet</b> Crossflow	1992-97	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC 70HP</b> Loop Charge  Must use bearing kit part #B1029	1974-75	3	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3115PS</b> <b>3115P2</b> <b>3115P3</b> <b>3115P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	B1029



When ordering please place "WIS" in front of part number



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>OMC 70HP</b> Loop Charge	1976-85	3	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3115PS</b> <b>3115P2</b> <b>3115P3</b> <b>3115P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>OMC 70HP</b> Loop Charge	1986-01	3	3.1875"/Std. 3.2075"/.020 3.2175"/.030 3.2275"/.040	<b>3172PS</b> <b>3172P2</b> <b>3172P3</b> <b>3172P4</b>	3187KD 3207KD 3217KD 3227KD	S474	W5263	W5217
<b>OMC 75HP</b> Loop Charge <i>Must use bearing kit part #B1029</i>	1975	3	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3115PS</b> <b>3115P2</b> <b>3115P3</b> <b>3115P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	B1029
<b>OMC 75HP</b> Loop Charge	1976-88	3	3.000"/Std. 3.020"/.020 3.030"/.030 3.040"/.040	<b>3115PS</b> <b>3115P2</b> <b>3115P3</b> <b>3115P4</b>	3000KD 3020KD 3030KD 3040KD	S479	W5263	W5217
<b>Evinrude 75HP</b> <i>NEW</i> DI & E-Tec	2004-07	3	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	<b>3211PS</b> <b>3211P2</b> <b>3211P3</b> <b>3211P4</b>	3600KD 3620KD 3630KD 3640KD	S473	W5263	TBA
<b>Evinrude Johnson Ficht V4 75HP</b> <i>* Limited to available stock</i>	2000-03	4	3.601"/Std.  3.621"/.020  3.631"/.030  3.641"/.040	<b>3177PS</b> (Port) <b>3177SS</b> (Starb) <b>3177P2</b> (Port) <b>3177S2</b> (Starb) <b>3177P3</b> (Port) <b>3177S3</b> (Starb) <b>*3177P4</b> (Port) <b>*3177S4</b> (Starb)	3600KD  3620KD  3630KD  3640KD	S473	W5263	W5217
<b>OMC V4 80HP Jet</b> Crossflow	1991-97	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>Crossflow V4 85HP</b>	1974-78	4	3.375"/Std. 3.395"/.020 3.405"/.030	<b>3176PS</b> <b>3176P2</b> <b>3176P3</b>	3375KD 3395KD 3405KD	S474	W5263	W5217
<b>OMC V4 85HP</b> Crossflow	1979-80, 1991-95	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V4 88HP</b> Crossflow	1988-96	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>Evinrude 90HP</b> <i>NEW</i> DI & E-Tec	2004-07	3	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	<b>3211PS</b> <b>3211P2</b> <b>3211P3</b> <b>3211P4</b>	3600KD 3620KD 3630KD 3640KD	S473	W5263	TBA
<b>OMC V4 90HP</b> Crossflow	1981-98	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V4 60° 90HP</b> Eagle Series	1995-06	4	3.601"/Std.  3.621"/.020  3.631"/.030  3.641"/.040	<b>3133PS</b> (Port) <b>3133SS</b> (Starb) <b>3133P2</b> (Port) <b>3133S2</b> (Starb) <b>3133P3</b> (Port) <b>3133S3</b> (Starb) <b>3133P4</b> (Port) <b>3133S4</b> (Starb)	3600KD  3620KD  3630KD  3640KD	S473	W5263	W5217

## Stainless Steel Powerhead Mounting Bolt Kits

Includes bolts , studs, lock nuts and washers necessary for mounting powerheads for listed application.

### Part No.

VIKXFLOV4-6  
VIKSFLOV-4  
VIKSFLOV-6T  
VIKSFLOV-6FB

### Application

All OMC V-4 Crossflow ( No Studs)  
All OMC V-4 Crossflow ( With Studs)  
OMC V-6 Crossflow with Tuned Exhaust  
OMC V-6 Crossflow 150, 175, 185, & 235 HP  
with Flat Back Design



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Evinrude Johnson Ficht V4 90HP</b> <i>* Limited to available stock</i>	2000-02	4	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	<b>3177PS</b> (Port) <b>3177SS</b> (Starb) <b>3177P2</b> (Port) <b>3177S2</b> (Starb) <b>3177P3</b> (Port) <b>3177S3</b> (Starb) <b>*3177P4</b> (Port) <b>*3177S4</b> (Starb)	3600KD 3620KD 3630KD 3640KD	S473	W5263	W5217
<b>OMC V4 100HP</b> Crossflow	1979-80 & 1992-97	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V4 100HP Commercial</b> Crossflow	1979-80 & 1984-97	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V4 60° 105HP Jet</b> Eagle Series	1995-00	4	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	<b>3133PS</b> (Port) <b>3133SS</b> (Starb) <b>3133P2</b> (Port) <b>3133S2</b> (Starb) <b>3133P3</b> (Port) <b>3133S3</b> (Starb) <b>3133P4</b> (Port) <b>3133S4</b> (Starb)	3600KD 3620KD 3630KD 3640KD	S473	W5263	W5217
<b>OMC V4 100HP</b> Crossflow	1986-89	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V4 110HP</b> Crossflow	1986-89	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V4 112HP</b> Crossflow	1994-96	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V4 115HP</b> Crossflow	1974-85, 1990-98	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V4 60° 115HP</b> Eagle Series	1995-06	4	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	<b>3133PS</b> (Port) <b>3133SS</b> (Starb) <b>3133P2</b> (Port) <b>3133S2</b> (Starb) <b>3133P3</b> (Port) <b>3133S3</b> (Starb) <b>3133P4</b> (Port) <b>3133S4</b> (Starb)	3600KD 3620KD 3630KD 3640KD	S473	W5263	W5217
<b>Evinrude Johnson Ficht V4 115HP</b> <i>* Limited to available stock</i>	2000-06	4	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	<b>3177PS</b> (Port) <b>3177SS</b> (Starb) <b>3177P2</b> (Port) <b>3177S2</b> (Starb) <b>3177P3</b> (Port) <b>3177S3</b> (Starb) <b>*3177P4</b> (Port) <b>*3177S4</b> (Starb)	3600KD 3620KD 3630KD 3640KD	S473	W5263	W5217
<b>Evinrude 115HP</b> <i>NEW</i> E-Tec	2007-08	4	3.583"/Std. 3.604"/.020 3.624"/.030	<b>3209PS</b> (Port) <b>3209SS</b> (Starb) <b>3209P2</b> (Port) <b>3209S2</b> (Starb) <b>3209P4</b> (Port) <b>3209S4</b> (Starb)	3584KD 3604KD 3625KD	S473	W5263	TBA



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>OMC V4 120HP</b> Loop Charge	1985-87	4	3.500"/Std.	<b>3118PS</b> (Port)	3500KD	S493	CW24	W5218
			3.520"/.020	<b>3118SS</b> (Starb)	3520KD			
			3.530"/.030	<b>3118P2</b> (Port)	3530KD			
			3.544"/.044	<b>3118S2</b> (Starb)	3544KD			
				<b>3118P3</b> (Port)	3544KD			
<b>OMC V4 120HP</b> Loop Charge	1988-94	4	3.685"/Std.	<b>3119PS</b> (Port)	3685KD	S493	CW24	W5218
			3.705"/.020	<b>3119SS</b> (Starb)	3705KD			
			3.715"/.030	<b>3119P2</b> (Port)	3715KD			
			3.725"/.040	<b>3119S2</b> (Starb)	3725KD			
				<b>3119P3</b> (Port)	3725KD			
<b>OMC V4 90° 125HP</b> Loop Charge	1988-94	4	3.685"/Std.	<b>3119PS</b> (Port)	3685KD	S493	CW24	W5218
			3.705"/.020	<b>3119SS</b> (Starb)	3705KD			
			3.715"/.030	<b>3119P2</b> (Port)	3715KD			
			3.725"/.040	<b>3119S2</b> (Starb)	3725KD			
				<b>3119P3</b> (Port)	3725KD			
<b>OMC V4 90° 125HP</b> Commercial Loop Charge	1989-94	4	3.685"/Std.	<b>3119PS</b> (Port)	3685KD	S493	CW24	W5218
			3.705"/.020	<b>3119SS</b> (Starb)	3705KD			
			3.715"/.030	<b>3119P2</b> (Port)	3715KD			
			3.725"/.040	<b>3119S2</b> (Starb)	3725KD			
				<b>3119P3</b> (Port)	3725KD			
<b>OMC V4 130HP</b> Loop Charge	1994-04	4	3.685"/Std.	<b>3119PS</b> (Port)	3685KD	S493	CW24	W5218
			3.705"/.020	<b>3119SS</b> (Starb)	3705KD			
			3.715"/.030	<b>3119P2</b> (Port)	3715KD			
			3.725"/.040	<b>3119S2</b> (Starb)	3725KD			
				<b>3119P3</b> (Port)	3725KD			
<b>OMC V4 135HP</b> Crossflow	1974-76	4	3.500"/Std.	<b>3173PS</b>	3500KD	S473	W5263	W5217
			3.520"/.020	<b>3173P2</b>	3520KD			
			3.530"/.030	<b>3173P3</b>	3530KD			
			3.544"/.044	<b>3173P4</b>	3544KD			
			3.564"/.064	<b>3173P6</b>	3564KD			
<b>Evinrude Johnson Ficht V6 135HP</b> <i>* Limited to available stock</i>	1999 "O" Suffix, and all 2000-06	6	3.601"/Std.	<b>3177PS</b> (Port)	3600KD	S473	W5263	W5217
			3.621"/.020	<b>3177SS</b> (Starb)	3620KD			
			3.631"/.030	<b>3177P2</b> (Port)	3630KD			
			3.641"/.040	<b>3177S2</b> (Starb)	3640KD			
				<b>3177P3</b> (Port)	3640KD			
<b>OMC V4 140HP</b> Crossflow	1977-84	4	3.500"/Std.	<b>3173PS</b>	3500KD	S473	W5263	W5217
			3.520"/.020	<b>3173P2</b>	3520KD			
			3.530"/.030	<b>3173P3</b>	3530KD			
			3.544"/.044	<b>3173P4</b>	3544KD			
			3.564"/.064	<b>3173P6</b>	3564KD			
<b>OMC V4 140HP</b> Loop Charge	1985-87	4	3.500"/Std.	<b>3118PS</b> (Port)	3500KD	S493	CW24	W5218
			3.520"/.020	<b>3118SS</b> (Starb)	3520KD			
			3.530"/.030	<b>3118P2</b> (Port)	3530KD			
			3.544"/.044	<b>3118S2</b> (Starb)	3544KD			
				<b>3118P3</b> (Port)	3544KD			

## Stainless Steel Powerhead Mounting Bolt Kits

Includes bolts, studs, lock nuts and washers necessary for mounting powerheads for listed application.

Part No.	Application
VIKXFLOV4-6	All OMC V-4 Crossflow (No Studs)
VIKSFLOV-4	All OMC V-4 Crossflow (With Studs)
VIKSFLOV-6T	OMC V-6 Crossflow with Tuned Exhaust
VIKSFLOV-6FB	OMC V-6 Crossflow 150, 175, 185, & 235 HP with Flat Back Design



When ordering please place **"WIS"** in front of part number



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
OMC V4 90° 140HP Loop Charge	1988-94	4	3.685"/Std. 3.705"/.020 3.715"/.030 3.725"/.040	3119PS (Port) 3119SS (Starb) 3119P 2 (Port) 3119S2 (Starb) 3119P3 (Port) 3119S3 (Starb) 3119P4 (Port) 3119S4 (Starb)	3685KD 3705KD 3715KD 3725KD	S493	CW24	W5218
OMC V6 150HP Crossflow	1978-91	6	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	3173PS 3173P2 3173P3 3173P4 3173P6	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
OMC V6 60° 150HP Eagle Series	1991-06	6	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	3133PS (Port) 3133SS (Starb) 3133P2 (Port) 3133S2 (Starb) 3133P3 (Port) 3133S3 (Starb) 3133P4 (Port) 3133S4 (Starb)	3600KD 3620KD 3630KD 3640KD	S473	W5263	W5217
Evinrude Johnson Ficht V6 150HP <i>* Limited to available stock</i>	1999 "O" Suffix, and all 2000-06	6	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	3177PS (Port) 3177SS (Starb) 3177P2 (Port) 3177S2 (Starb) 3177P3 (Port) 3177S3 (Starb) *3177P4 (Port) *3177S4 (Starb)	3600KD 3620KD 3630KD 3640KD	S473	W5263	W5217
Evinrude 150HP & 150 HO E-Tec <b>NEW</b>	2007-08	6	3.583"/Std. 3.604"/.020 3.624"/.030	3209PS (Port) 3209SS (Starb) 3209P2 (Port) 3209S2 (Starb) 3209P4 (Port) 3209S4 (Starb)	3584KD 3604KD 3625KD	S473	W5263	TBA
OMC V6 175HP Crossflow	1977-85	6	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	3173PS 3173P2 3173P3 3173P4 3173P6	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
OMC V6 175HP Crossflow	1986-91	6	3.625"/Std. 3.645"/.020 3.655"/.030 3.665"/.040	3121PS 3121P2 3121P3 3121P4	3625KD 3645KD 3655KD 3665KD	S473	W5263	W5217
OMC V6 60° 175HP Eagle Series	1991-06	6	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	3133PS (Port) 3133SS (Starb) 3133P2 (Port) 3133S2 (Starb) 3133P3 (Port) 3133S3 (Starb) 3133P4 (Port) 3133S4 (Starb)	3600KD 3620KD 3630KD 3640KD	S473	W5263	W5217
Evinrude Johnson Ficht V6 175HP <i>* Limited to available stock</i>	1999 "O" Suffix, and all 2000-06	6	3.601"/Std. 3.621"/.020 3.631"/.030 3.641"/.040	3177PS (Port) 3177SS (Starb) 3177P2 (Port) 3177S2 (Starb) 3177P3 (Port) 3177S3 (Starb) *3177P4 (Port) *3177S4 (Starb)	3600KD 3620KD 3630KD 3640KD	S473	W5263	W5217
Evinrude 175 E-Tec <b>NEW</b>	2007-08	6	3.583"/Std. 3.604"/.020 3.624"/.030	3209PS (Port) 3209SS (Starb) 3209P2 (Port) 3209S2 (Starb) 3209P4 (Port) 3209S4 (Starb)	3584KD 3604KD 3625KD	S473	W5263	TBA
OMC V6 185HP Crossflow	1985	6	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	3173PS 3173P2 3173P3 3173P4 3173P6	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>OMC V6 200HP</b> Crossflow	1976-83	6	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044 3.564"/.064	<b>3173PS</b> <b>3173P2</b> <b>3173P3</b> <b>3173P4</b> <b>3173P6</b>	3500KD 3520KD 3530KD 3544KD 3564KD	S473	W5263	W5217
<b>OMC V6 200HP</b> Loop Charge	1986-87	6	3.500"/Std.  3.520"/.020  3.530"/.030  3.544"/.044	<b>3118PS</b> (Port) <b>3118SS</b> (Starb) <b>3118P2</b> (Port) <b>3118S2</b> (Starb) <b>3118P3</b> (Port) <b>3118S3</b> (Starb) <b>3118P4</b> (Port) <b>3118S4</b> (Starb)	3500KD  3520KD  3530KD  3544KD	S493	CW24	W5218
<b>OMC V6 200HP</b> Loop Charge	1988-92	6	3.685"/Std.  3.705"/.020  3.715"/.030  3.725"/.040	<b>3119PS</b> (Port) <b>3119SS</b> (Starb) <b>3119P2</b> (Port) <b>3119S2</b> (Starb) <b>3119P3</b> (Port) <b>3119S3</b> (Starb) <b>3119P4</b> (Port) <b>3119S4</b> (Starb)	3685KD  3705KD  3715KD  3725KD	S493	CW24	W5218
<b>OMC V6 200HP Commercial</b> Loop Charge	1990	6	3.685"/Std.  3.705"/.020  3.715"/.030  3.725"/.040	<b>3119PS</b> (Port) <b>3119SS</b> (Starb) <b>3119P2</b> (Port) <b>3119S2</b> (Starb) <b>3119P3</b> (Port) <b>3119S3</b> (Starb) <b>3119P4</b> (Port) <b>3119S4</b> (Starb)	3685KD  3705KD  3715KD  3725KD	S493	CW24	W5218
<b>OMC V6 200HP</b> Loop Charge <i>Finger Ported</i>	1993-00	6	3.685"/Std.  3.705"/.020  3.715"/.030  3.725"/.040	<b>3143PS</b> (Port) <b>3143SS</b> (Starb) <b>3143P2</b> (Port) <b>3143S2</b> (Starb) <b>3143P3</b> (Port) <b>3143S3</b> (Starb) <b>3143P4</b> (Port) <b>3143S4</b> (Starb)	3685KD  3705KD  3715KD  3725KD	S493	CW24	W5218
<b>Evinrude Johnson Ficht 200HP</b>  <i>* Limited to available stock</i>	1999-01	6	3.685"/Std.  3.705"/.020  3.715"/.030  3.725"/.040	<b>3178PS</b> (Port) <b>3178SS</b> (Starb) <b>3178P2</b> (Port) <b>3178S2</b> (Starb) <b>3178P3</b> (Port) <b>3178S3</b> (Starb) <b>3178P4</b> (Port) <b>*3178S4</b> (Starb)	3685KD  3705KD  3715KD  3725KD	S493	CW24	TBA
<b>Evinrude Johnson 200HP</b> 3.3 Liter, F Model Loop Charged	2000-05	6	3.854"/Std.  3.874"/.020  3.884"/.030  3.894"/.040	<b>3180PS</b> (Port) <b>3180SS</b> (Starb) <b>3180P2</b> (Port) <b>3180S2</b> (Starb) <b>3180P3</b> (Port) <b>3180S3</b> (Starb) <b>3180P4</b> (Port) <b>3180S4</b> (Starb)	3854KD  3874KD  3884KD  3894KD	S493	W6045	
<b>Evinrude 200</b> <i>NEW</i> E-Tec Small bore 60°	2007-08	6	3.583"/Std. 3.604"/.020 3.624"/.030	<b>3209PS</b> (Port) <b>3209SS</b> (Starb) <b>3209P2</b> (Port) <b>3209S2</b> (Starb) <b>3209P4</b> (Port) <b>3209S4</b> (Starb)	3584KD  3604KD  3625KD	S473	W5263	TBA
<b>Evinrude 200</b> <i>NEW</i> E-Tec Big bore 90°	2005-08	6	3.854"/Std. 3.874"/.020 3.884"/.030 3.894"/.040	<b>3210PS</b> (Port) <b>3210SS</b> (Starb) <b>3210P2</b> (Port) <b>3210S2</b> (Starb) <b>3210P3</b> (Port) <b>3210S3</b> (Starb) <b>3210P4</b> (Port) <b>3210S4</b> (Starb)	3854KD  3874KD  3884KD  3894KD	S493	W6045	TBA



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
OMC V6 225HP Loop Charge	1986-87	6	3.500"/Std.	3118PS (Port)	3500KD	S493	CW24	W5218
			3.520"/.020	3118SS (Starb)	3520KD			
			3.530"/.030	3118P2 (Port)	3530KD			
			3.544"/.044	3118S2 (Starb)	3544KD			
				3118P3 (Port)	3544KD			
OMC V6 225HP Loop Charge	1988-92	6	3.685"/Std.	3118S3 (Starb)	3544KD	S493	CW24	W5218
			3.705"/.020	3118P4 (Port)	3544KD			
			3.715"/.030	3118S4 (Starb)	3544KD			
			3.725"/.040	3119PS (Port)	3685KD			
				3119SS (Starb)	3685KD			
OMC V6 225HP Loop Charge Finger Ported	1993-00	6	3.685"/Std.	3119P2 (Port)	3705KD	S493	CW24	W5218
			3.705"/.020	3119S2 (Starb)	3705KD			
			3.715"/.030	3119P3 (Port)	3715KD			
			3.725"/.040	3119S3 (Starb)	3715KD			
				3119P4 (Port)	3725KD			
Evinrude Johnson Ficht 225HP	1999-01	6	3.685"/Std.	3119S4 (Starb)	3725KD	S493	CW24	W5218
			3.705"/.020	3143PS (Port)	3685KD			
			3.715"/.030	3143SS (Starb)	3685KD			
			3.725"/.040	3143P2 (Port)	3705KD			
				3143S2 (Starb)	3705KD			
Evinrude Johnson 225HP 3.3 Liter, F Model Loop Charged	2000-05	6	3.685"/Std.	3143P3 (Port)	3715KD	S493	CW24	W5218
			3.705"/.020	3143S3 (Starb)	3715KD			
			3.715"/.030	3143P4 (Port)	3725KD			
			3.725"/.040	3143S4 (Starb)	3725KD			
				3178PS (Port)	3685KD			
Evinrude 225HP <i>NEW</i> E-Tec	D Model 2005	6	3.685"/Std.	3178SS (Starb)	3705KD	S493	CW24	TBA
			3.705"/.020	3178P2 (Port)	3705KD			
			3.715"/.030	3178S2 (Starb)	3715KD			
			3.725"/.040	3178P3 (Port)	3715KD			
				3178S3 (Starb)	3715KD			
Evinrude 225HP <i>NEW</i> E-Tec	2006-08	6	3.685"/Std.	3178P4 (Port)	3725KD	S493	CW24	TBA
			3.705"/.020	3178S4 (Starb)	3725KD			
			3.715"/.030	3180PS (Port)	3685KD			
			3.725"/.040	3180SS (Starb)	3685KD			
				3180P2 (Port)	3685KD			
OMC V6 235HP Crossflow	1978-79	6	3.854"/Std.	3180S2 (Starb)	3685KD	S493	W6045	TBA
			3.874"/.020	3180P3 (Port)	3685KD			
			3.884"/.030	3180S3 (Starb)	3685KD			
			3.894"/.040	3180P4 (Port)	3685KD			
				3180S4 (Starb)	3685KD			
OMC V6 235HP Crossflow	1980-85	6	3.854"/Std.	3210PS (Port)	3854KD	S493	W6045	TBA
			3.874"/.020	3210SS (Starb)	3854KD			
			3.884"/.030	3210P2 (Port)	3874KD			
			3.894"/.040	3210S2 (Starb)	3874KD			
				3210P3 (Port)	3884KD			
OMC V6 235HP Crossflow	1978-79	6	3.500"/Std.	3210S3 (Starb)	3884KD	S493	W6045	TBA
			3.520"/.020	3210P4 (Port)	3894KD			
			3.530"/.030	3210S4 (Starb)	3894KD			
			3.544"/.044	3173PS	3500KD			
			3.564"/.064	3173P2	3520KD			
OMC V6 250HP Loop Charge	1999-01	6	3.500"/Std.	3173P3	3530KD	S473	W5263	W5217
			3.520"/.020	3173P4	3544KD			
			3.530"/.030	3173P6	3564KD			
			3.544"/.044	3121PS	3625KD			
			3.564"/.064	3121P2	3645KD			
OMC V6 250HP Loop Charge	1980-85	6	3.625"/Std.	3121P3	3655KD	S473	W5263	W5217
			3.645"/.020	3121P4	3665KD			
			3.655"/.030	3143PS (Port)	3685KD			
			3.665"/.040	3143SS (Starb)	3685KD			
				3143P2 (Port)	3705KD			
OMC V6 250HP Loop Charge	1999-01	6	3.685"/Std.	3143S2 (Starb)	3705KD	S493	CW24	W5218
			3.705"/.020	3143P3 (Port)	3715KD			
			3.715"/.030	3143S3 (Starb)	3715KD			
			3.725"/.040	3143P4 (Port)	3725KD			
				3143S4 (Starb)	3725KD			



When ordering please place "WIS" in front of part number



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Evinrude Johnson 250HP</b> 3.3 Liter, F Model Loop Charged	2000-05	6	3.854"/Std. 3.874"/.020 3.884"/.030 3.894"/.040	<b>3180PS</b> (Port) <b>3180SS</b> (Starb) <b>3180P2</b> (Port) <b>3180S2</b> (Starb) <b>3180P3</b> (Port) <b>3180S3</b> (Starb) <b>3180P4</b> (Port) <b>3180S4</b> (Starb)	3854KD 3874KD 3884KD 3894KD	S493	W6045	
<b>Evinrude 250HP</b> <i>NEW</i> E-Tec	D Model 2005 2006-08	6	3.854"/Std. 3.874"/.020 3.884"/.030 3.894"/.040	<b>3210PS</b> (Port) <b>3210SS</b> (Starb) <b>3210P2</b> (Port) <b>3210S2</b> (Starb) <b>3210P3</b> (Port) <b>3210S3</b> (Starb) <b>3210P4</b> (Port) <b>3210S4</b> (Starb)	3854KD 3874KD 3884KD 3894KD	S493	W6045	TBA
<b>Evinrude 250HP</b> <i>NEW</i> E-Tec 3.4 Liter	2008	6	3.854"/Std. 3.874"/.020 3.884"/.030 3.894"/.040	<b>3210PS</b> (Port) <b>3210SS</b> (Starb) <b>3210P2</b> (Port) <b>3210S2</b> (Starb) <b>3210P3</b> (Port) <b>3210S3</b> (Starb) <b>3210P4</b> (Port) <b>3210S4</b> (Starb)	3854KD 3874KD 3884KD 3894KD	S493	W6045	TBA
<b>OMC V8 250HP</b> Loop Charge	1991-98	8	3.685"/Std. 3.705"/.020 3.715"/.030 3.725"/.040	<b>3119PS</b> (Port) <b>3119SS</b> (Starb) <b>3119P2</b> (Port) <b>3119S2</b> (Starb) <b>3119P3</b> (Port) <b>3119S3</b> (Starb) <b>3119P4</b> (Port) <b>3119S4</b> (Starb)	3685KD 3705KD 3715KD 3725KD	S493	CW24	W5218
<b>OMC V8 275HP</b> Loop Charge	1985-87	8	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044	<b>3118PS</b> (Port) <b>3118SS</b> (Starb) <b>3118P2</b> (Port) <b>3118S2</b> (Starb) <b>3118P3</b> (Port) <b>3118S3</b> (Starb) <b>3118P4</b> (Port) <b>3118S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S493	CW24	W5218
<b>OMC V8 275HP</b> Loop Charge	1988	8	3.685"/Std. 3.705"/.020 3.715"/.030 3.725"/.040	<b>3119PS</b> (Port) <b>3119SS</b> (Starb) <b>3119P2</b> (Port) <b>3119S2</b> (Starb) <b>3119P3</b> (Port) <b>3119S3</b> (Starb) <b>3019P4</b> (Port) <b>3119S4</b> (Starb)	3685KD 3705KD 3715KD 3725KD	S493	CW24	W5218
<b>OMC V8 300HP</b> Loop Charge	1985-87	8	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044	<b>3118PS</b> (Port) <b>3118SS</b> (Starb) <b>3118P2</b> (Port) <b>3118S2</b> (Starb) <b>3118P3</b> (Port) <b>3118S3</b> (Starb) <b>3118P4</b> (Port) <b>3118S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S493	CW24	W5218
<b>OMC V8 90° 300HP</b> Loop Charge	1988-95	8	3.685"/Std. 3.705"/.020 3.715"/.030 3.725"/.040	<b>3119PS</b> (Port) <b>3119SS</b> (Starb) <b>3119P2</b> (Port) <b>3119S2</b> (Starb) <b>3119P3</b> (Port) <b>3119S3</b> (Starb) <b>3119P4</b> (Port) <b>3119S4</b> (Starb)	3685KD 3705KD 3715KD 3725KD	S493	CW24	W5218
<b>Evinrude 300HP</b> <i>NEW</i> E-Tec 3.4 Liter	2008	6	3.854"/Std. 3.874"/.020 3.884"/.030 3.894"/.040	TBA				



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Mercury 15 HP</b> B238464 to G202749 <i>Requires resleeving</i>	1988-94	2	2.562"/Std. 2.582"/.020 2.602"/.040	<b>3182PS</b> <b>3182P2</b> <b>3182P4</b>	2559CD 2579CD 2598CD	S679	CW18	
<b>Mercury 15HP</b> , 15 Sea Pro, 15 Marathon Mercosil Block G202750 to G437999	1994-06	2	2.562"/Std. 2.582"/.020 2.602"/.040	<b>3183PS</b> <b>3183P2</b> <b>3183P4</b>	2559CD 2579CD 2598CD	S679	CW18	
<b>Mercury 20HP Jet</b> G044027 to G202749 <i>Requires resleeving</i>	1988-94	2	2.562"/Std. 2.582"/.020 2.602"/.040	<b>3182PS</b> <b>3182P2</b> <b>3182P4</b>	2559CD 2579CD 2598CD	S679	CW18	
<b>Mercury 20HP</b> B238464 to G202749 <i>Requires resleeving</i>	1988-94	2	2.562"/Std. 2.582"/.020 2.602"/.040	<b>3182PS</b> <b>3182P2</b> <b>3182P4</b>	2559CD 2579CD 2598CD	S679	CW18	
<b>Mercury 20HPJet</b> Mercosil Block G202750 and Up	1994-06	2	2.562"/Std. 2.582"/.020 2.602"/.040	<b>3183PS</b> <b>3183P2</b> <b>3183P4</b>	2559CD 2579CD 2598CD	S679	CW18	
<b>Mercury 20HP</b> Mercosil Block G202750 and Up	1994-06	2	2.562"/Std. 2.582"/.020 2.602"/.040	<b>3183PS</b> <b>3183P2</b> <b>3183P4</b>	2559CD 2579CD 2598CD	S679	CW18	
<b>Mercury 25HP</b> B238464 to G202749 <i>Requires resleeving</i>	1988-94	2	2.562"/Std. 2.582"/.020 2.602"/.040	<b>3182PS</b> <b>3182P2</b> <b>3182P4</b>	2559CD 2579CD 2598CD	S679	CW18	
<b>Mercury 25HP</b> Mercosil Block G202750 and Up	1994-06	2	2.562"/Std. 2.582"/.020 2.602"/.040	<b>3183PS</b> <b>3183P2</b> <b>3183P3</b> <b>3183P4</b>	2559CD 2579CD 2598CD	S679	CW18	
<b>Mercury 30HP Jet</b>	1998-07	2	2.993"/Std. 3.013"/.020 3.023"/.030 3.033"/.040	<b>3179PS</b> <b>3179P2</b> <b>3179P3</b> <b>3179P4</b>	2992KD 3012KD 3020KD 3032KD	S476	W4958	
<b>Mercury 30HP</b>	1994-07	2	2.993"/Std. 3.013"/.020 3.023"/.030 3.033"/.040	<b>3179PS</b> <b>3179P2</b> <b>3179P3</b> <b>3179P4</b>	2992KD 3012KD 3020KD 3032KD	S476	W4958	
<b>Mercury 35HP</b> Crossflow <i>With boost port high dome.</i> <i>For low dome use 3123 Series.</i>	1984-89	2	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury 40HP</b> Crossflow <i>With boost port high dome</i> <i>For low dome use 3123 Series.</i>	1972-83	2	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury 40HP</b>	1994-07	2	2.993"/Std. 3.013"/.020 3.023"/.030 3.033"/.040	<b>3179PS</b> <b>3179P2</b> <b>3179P3</b> <b>3179P4</b>	2992KD 3012KD 3020KD 3032KD	S476	W4958	
<b>Mercury Inline-4 40HP</b> Crossflow Classic	1990-97	4	2.565"/Std. 2.585"/.020 2.595"/.030 2.605"/.040	<b>3144PS</b> <b>3144P2</b> <b>3144P3</b> <b>3144P4</b>	2565KD 2585KD 2595KD 2605KD	S518	CW18	
<b>Mercury Inline-4 45HP</b> Crossflow Classic	1986-89	4	2.565"/Std. 2.585"/.020 2.595"/.030 2.605"/.040	<b>3144PS</b> <b>3144P2</b> <b>3144P3</b> <b>3144P4</b>	2565KD 2585KD 2595KD 2605KD	S518	CW18	
<b>Mercury Inline-4 50HP</b> Crossflow Classic	1970-85	4	2.565"/Std. 2.585"/.020 2.595"/.030 2.605"/.040	<b>3144PS</b> <b>3144P2</b> <b>3144P3</b> <b>3144P4</b>	2565KD 2585KD 2595KD 2605KD	S518	CW18	
<b>Mercury 50HP</b> Crossflow <i>With boost port low dome</i>	1984-90	3	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3123PS</b> <b>3123P2</b> <b>3123P3</b> <b>3123P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury 50HP</b> Loop charged	1991-97	3	2.955"/Std. 2.975"/.020 2.985"/.030 2.995"/.040	<b>3147PS</b> <b>3147P2</b> <b>3147P3</b> <b>3147P4</b>	2955KD 2975KD 2985KD 2995KD	S476	W4958	B1026
<b>Mercury 50HP</b>	1998-07	3	2.993"/Std. 3.013"/.020 3.023"/.030 3.033"/.040	<b>3179PS</b> <b>3179P2</b> <b>3179P3</b> <b>3179P4</b>	2992KD 3012KD 3020KD 3032KD	S476	W4958	



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Mercury 55HP</b>	1998-07	3	2.993"/Std. 3.013"/.020 3.023"/.030 3.033"/.040	<b>3179PS</b> <b>3179P2</b> <b>3179P3</b> <b>3179P4</b>	2992KD 3012KD 3020KD 3032KD	S476	W4958	
<b>Mercury 60HP</b> Crossflow With boost port high dome For low dome use 3123 Series.	1984-90	3	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury 60HP</b> Loop charged	1991-97	3	2.955"/Std. 2.975"/.020 2.985"/.030 2.995"/.040	<b>3147PS</b> <b>3147P2</b> <b>3147P3</b> <b>3147P4</b>	2955KD 2975KD 2985KD 2995KD	S476	W4958	B1026
<b>Mercury 60HP</b>	1998-07	3	2.993"/Std. 3.013"/.020 3.023"/.030 3.033"/.040	<b>3179PS</b> <b>3179P2</b> <b>3179P3</b> <b>3179P4</b>	2992KD 3012KD 3020KD 3032KD	S476	W4958	
<b>Mercury 65HP</b> Crossflow With boost port high dome For low dome use 3123 Series.	1973-76	3	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury 70HP</b> Crossflow With boost port high dome For low dome use 3123 Series.	1977-83	3	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury 70HP</b> Loop charged With boost port Bottom guided rod	1987-89	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3120PS</b> <b>3120P1</b> <b>3120P2</b> <b>3120P3</b> <b>3120P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S437	W4958	B1032
<b>Mercury 75HP</b> Crossflow With boost port high dome For low dome use 3123 Series.	1984-86	4	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury 75HP</b> Loop charged 1990-91 With boost port Bottom guided rod	1990-91	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3120PS</b> <b>3120P1</b> <b>3120P2</b> <b>3120P3</b> <b>3120P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S437	W4958	B1032
<b>Mercury 75HP</b> Loop charged Top guided rod  * Limited to available stock	1992-93	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030	<b>3142PS</b> <b>*3142P1</b> <b>3142P2</b> <b>*3142P3</b>	3375KD 3385KD 3395KD 3405KD	S437	W4958	B1033
<b>Mercury Inline-3 75HP</b> Loop charged Top guided rod	1994-04	3	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044	<b>3162PS</b> <b>3162P2</b> <b>3162P3</b> <b>3162P4</b>	3500KD 3520KD 3530KD 3544KD	S476	W4958	B1033
<b>Mercury 75HP</b> <b>1.5 OptiMax</b> OT980000 & up		3	3.6255"/Std. 3.6455"/.020 3.6555"/.030 3.6655"/.040	<b>3199PS</b> <b>3199P2</b> <b>3199P3</b> <b>3199P4</b>	3625KD 3645KD 3655KD 3665KD	S536	W5487	
<b>Mercury 80HP</b> Crossflow With boost port high dome For low dome use 3123 Series.	1978-83	4	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury 80HP</b> Loop charged With boost port Bottom guided rod	1987-89	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3120PS</b> <b>3120P1</b> <b>3120P2</b> <b>3120P3</b> <b>3120P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S437	W4958	B1032
<b>Mercury Inline-4 85HP</b> Crossflow With boost port high dome For low dome use 3123 Series.	1973-77	4	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury Inline-6 90HP</b> Crossflow High dome	1978-80 & 1982-96	6	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026



When ordering please place "WIS" in front of part number



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Mercury 90HP</b> Loop charged With boost port Bottom guided rod	1987-91	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3120PS</b> <b>3120P1</b> <b>3120P2</b> <b>3120P3</b> <b>3120P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S437	W4958	B1032
<b>Mercury 90HP</b> Loop charged Top guided rod  * Limited to available stock	1992-93	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030	<b>3142PS</b> <b>*3142P1</b> <b>3142P2</b> <b>*3142P3</b>	3375KD 3385KD 3395KD 3405KD	S437	W4958	B1033
<b>Mercury Inline-3 90HP</b> Loop charged Top guided rod	1994-04	3	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044	<b>3162PS</b> <b>3162P2</b> <b>3162P3</b> <b>3162P4</b>	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1033
<b>Mercury 90HP</b> <b>1.5 OptiMax</b> OT801000 & up		3	3.6255"/Std. 3.6455"/.020 3.6555"/.030 3.6655"/.040	<b>3199PS</b> <b>3199P2</b> <b>3199P3</b> <b>3199P4</b>	3625KD 3645KD 3655KD 3665KD	S536	W5487	
<b>Mercury Inline-4 100HP</b> Loop charged With boost port Bottom guided rod	1989-91	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3120PS</b> <b>3120P1</b> <b>3120P2</b> <b>3120P3</b> <b>3120P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S437	W4958	B1032
<b>Mercury Inline-4 100HP</b> Loop charged Top guided rod  * Limited to available stock	1992-93	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030	<b>3142PS</b> <b>*3142P1</b> <b>3142P2</b> <b>*3142P3</b>	3375KD 3385KD 3395KD 3405KD	S437	W4958	B1033
<b>Mercury Inline-4 100HP</b> Loop charged Top guided rod	1994-01	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044	<b>3162PS</b> <b>3162P2</b> <b>3162P3</b> <b>3162P4</b>	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1033
<b>Mercury Inline-6 115HP</b> Crossflow High dome For low dome use 3123 Series.	1970-83	6	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury Inline-6 115HP</b> Crossflow Low dome	1984-88	6	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3123PS</b> <b>3123P2</b> <b>3123P3</b> <b>3123P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury Inline-4 115HP</b> Loop charged With boost port Bottom guided rod	1989-91	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3120PS</b> <b>3120P1</b> <b>3120P2</b> <b>3120P3</b> <b>3120P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S437	W4958	B1032
<b>Mercury Inline-4 115HP</b> Loop charged Top guided rod  * Limited to available stock	1992-93	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030	<b>3142PS</b> <b>*3142P1</b> <b>3142P2</b> <b>*3142P3</b>	3375KD 3385KD 3395KD 3405KD	S437	W4958	B1033
<b>Mercury Inline-4 115HP</b> Loop charged Top guided rod	1994-04	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044	<b>3162PS</b> <b>3162P2</b> <b>3162P3</b> <b>3162P4</b>	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1033
<b>Mercury 115HP</b> <b>1.5 OptiMax</b> OT801000 & up		3	3.6255"/Std. 3.6455"/.020 3.6555"/.030 3.6655"/.040	<b>3199PS</b> <b>3199P2</b> <b>3199P3</b> <b>3199P4</b>	3625KD 3645KD 3655KD 3665KD	S536	W5487	
<b>Mercury V6 115HP</b> <b>OptiMax</b> 2.5 Liter SN OG960500 to OT178499  Must use top guided rod #644-818141		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3197PS (Port)</b> <b>3197SS (Starb)</b> <b>3197P2 (Port)</b> <b>3197S2 (Starb)</b> <b>3197P3 (Port)</b> <b>3197S3 (Starb)</b> <b>3197P4 (Port)</b> <b>3197S4 (Starb)</b>	3500KD 3520KD 3530KD 3544KD	S501	W4958	
<b>Mercury Inline-4 125HP</b> Loop charged Top guided rod	1994-04	4	3.500"/Std. 3.520"/.020 3.530"/.030 3.544"/.044	<b>3162PS</b> <b>3162P2</b> <b>3162P3</b> <b>3162P4</b>	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1033



When ordering please place "WIS" in front of part number

# Wiseco Pistons Mercury

725

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Mercury Inline-6 135HP</b> Crossflow High dome <i>For low dome use 3123 Series.</i>	1970-71	6	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3109PS</b> <b>3109P2</b> <b>3109P3</b> <b>3109P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury V6 135HP</b> 2 Liter, With boost port Bottom guided rod	1986-91	6	3.125"/Std. 3.145"/.020 3.155"/.030 3.165"/.040 3.185"/.060	<b>3108PS</b> (Port) <b>3108SS</b> (Starb) <b>3108P2</b> (Port) <b>3108S2</b> (Starb) <b>3108P3</b> (Port) <b>3108S3</b> (Starb) <b>3108P4</b> (Port) <b>3108S4</b> (Starb) <b>3108P6</b> (Port) <b>3108S6</b> (Starb)	3125KD 3145KD 3155KD 3165KD 3187KD	S437	W4958	B1025
<b>Mercury V6 135HP</b> 2 Liter, With boost port Top guided rod	1992-00	6	3.125"/Std. 3.145"/.020 3.155"/.030 3.165"/.040	<b>3140PS</b> (Port) <b>3140SS</b> (Starb) <b>3140P2</b> (Port) <b>3140S2</b> (Starb) <b>3140P3</b> (Port) <b>3140S3</b> (Starb) <b>3140P4</b> (Port) <b>3140S4</b> (Starb)	3125KD 3145KD 3155KD 3165KD	S437	W4958	B1027
<b>Mercury V6 135HP OptiMax</b> 2.5 Liter SN OG960000 to OG960499  <i>Must use top guided rod #644-818141 Models with head gaskets</i>		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3192PS</b> (Port) <b>3192SS</b> (Starb) <b>3192P2</b> (Port) <b>3192S2</b> (Starb) <b>3192P3</b> (Port) <b>3192S3</b> (Starb) <b>3192P4</b> (Port) <b>3192S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1027
<b>Mercury V6 135HP OptiMax</b> 2.5 Liter SN OG960500 to OT178499  <i>Must use top guided rod #644-818141 Models with O-Ring Heads</i>		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3197PS</b> (Port) <b>3197SS</b> (Starb) <b>3197P2</b> (Port) <b>3197S2</b> (Starb) <b>3197P3</b> (Port) <b>3197S3</b> (Starb) <b>3197P4</b> (Port) <b>3197S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	
<b>Mercury V6 135HP <span style="color: green;">NEW</span> OptiMax</b> 2.5 Liter SN OT178500 to OT800999 .920" OD wrist pin		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3198PS</b> (Port) <b>3198SS</b> (Starb) <b>3198P2</b> (Port) <b>3198S2</b> (Starb) <b>3198P3</b> (Port) <b>3198S3</b> (Starb) <b>3198P4</b> (Port) <b>3198S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S535	W5487	TBA
<b>Mercury Inline-6 140HP</b> Crossflow With boost port Low dome	1978-80	6	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3123PS</b> <b>3123P2</b> <b>3123P3</b> <b>3123P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury V6 140 Jet</b> SN OG960500 to OT178499 2.5 Liter Top guided rod		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1027
<b>Mercury Inline-6 150HP</b> Crossflow With boost port Low dome	1973-78	6	2.875"/Std. 2.895"/.020 2.905"/.030 2.915"/.040	<b>3123PS</b> <b>3123P2</b> <b>3123P3</b> <b>3123P4</b>	2875KD 2895KD 2905KD 2915KD	S476	W4958	B1026
<b>Mercury V6 150HP</b> XR2 2 Liter, With boost port  <i>1991 must Use Rod #636-8118 only</i>	1979-90	6	3.125"/Std. 3.145"/.020 3.155"/.030 3.165"/.040 3.185"/.060	<b>3108PS</b> (Port) <b>3108SS</b> (Starb) <b>3108P2</b> (Port) <b>3108S2</b> (Starb) <b>3108P3</b> (Port) <b>3108S3</b> (Starb) <b>3108P4</b> (Port) <b>3108S4</b> (Starb) <b>3108P6</b> (Port) <b>3108S6</b> (Starb)	3125KD 3145KD 3155KD 3165KD 3187KD	S437	W4958	B1025



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Mercury V6 150HP</b> 2 Liter, With boost port <i>Top guided rod</i>  1991 (Must Use Rod #644-818141 only)	1992-00	6	3.125"/Std. 3.145"/.020 3.155"/.030 3.165"/.040	<b>3140PS</b> (Port) <b>3140SS</b> (Starb) <b>3140P2</b> (Port) <b>3140S2</b> (Starb) <b>3140P3</b> (Port) <b>3140S3</b> (Starb) <b>3140P4</b> (Port) <b>3140S4</b> (Starb)	3125KD 3145KD 3155KD 3165KD	S437	W4958	B1027
<b>Mercury V6 XR6</b> SN OG052595 to OG960500 & up 2.5 Liter <i>Top guided rod</i>		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1027
<b>Mercury V6 150HP</b> SN OG760300 to OG960500 & up 2.5 Liter <i>Top guided rod</i>		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1027
<b>Mercury V6 150XRI</b> SN OD08200 to OG303045 2.5 Liter, EFI <i>Top guided rod</i>		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1027
<b>Mercury V6 150EFI</b> SN OG303046 to OT408999 2.5 Liter, EFI <i>Top guided rod</i>		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1027
<b>Mercury V6 150HP OptiMax</b> 2.5 Liter SN OG590000 to OG960499  <i>Must use top guided rod</i> #644-818141 <i>Models with head gaskets</i>		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3192PS</b> (Port) <b>3192SS</b> (Starb) <b>3192P2</b> (Port) <b>3192S2</b> (Starb) <b>3192P3</b> (Port) <b>3192S3</b> (Starb) <b>3192P4</b> (Port) <b>3192S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1027
<b>Mercury V6 150HP OptiMax</b> 2.5 Liter SN OG960500 to OT178499  <i>Must use top guided rod</i> #644-818141 <i>Models with O-Ring Heads</i>		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3197PS</b> (Port) <b>3197SS</b> (Starb) <b>3197P2</b> (Port) <b>3197S2</b> (Starb) <b>3197P3</b> (Port) <b>3197S3</b> (Starb) <b>3197P4</b> (Port) <b>3197S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	
<b>Mercury V6 150HP OptiMax</b>  <b>NEW</b> 2.5 Liter SN OT178500 to OT800999 .920" OD wrist pin		6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3198PS</b> (Port) <b>3198SS</b> (Starb) <b>3198P2</b> (Port) <b>3198S2</b> (Starb) <b>3198P3</b> (Port) <b>3198S3</b> (Starb) <b>3198P4</b> (Port) <b>3198S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S535	W5487	TBA
<b>XR4 2.4 Liter,</b> SN OB242885 to OD081999 Rod #636-8118  <i>Must request standard size piston be shipped with KD rings for cast iron bore.</i>	1988-91	6	3.377"/Std. 3.395"/.020 3.405"/.030	<b>3102PS</b> (Port) <b>3102SS</b> (Starb) <b>3102P2</b> (Port) <b>3102S2</b> (Starb) <b>3102P3</b> (Port) <b>3102S3</b> (Starb)	3375KDM 3395KD 3405KD	S437	W4958	B1025



When ordering please place "WIS" in front of part number



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Mercury V6 175HP</b> 2 Liter, Loop charge With boost port Bottom guided rod	1976-80	6	3.125"/Std.	<b>3108PS</b> (Port)	3125KD	S437	W4958	B1025
			3.145"/.020	<b>3108SS</b> (Starb)	3145KD			
			3.155"/.030	<b>3108P2</b> (Port)	3155KD			
			3.165"/.040	<b>3108S2</b> (Starb)	3165KD			
			3.185"/.060	<b>3108P3</b> (Port)	3187KD			
<b>Mercury V6 175HP</b> SN 6618751 to OD081999 Rod #644-818141  <i>Must request standard size piston be shipped with KD rings for cast iron bore.</i>	1983-91	6	3.377"/Std.	<b>3108S3</b> (Starb)	3108PS (Port)	S437	W4958	B1025
			3.397"/.020	<b>3108P2</b> (Port)	3145KD			
			3.407"/.030	<b>3108S2</b> (Starb)	3155KD			
				<b>3108P3</b> (Port)	3165KD			
				<b>3108S3</b> (Starb)	3187KD			
<b>Mercury V6 175HP</b> SN OG052595 to OG960499 2.5 Liter, Top guided rod	1992-99	6	3.501"/Std.	<b>3102PS</b> (Port)	3375KDM	S437	W4958	B1025
			3.521"/.020	<b>3102SS</b> (Starb)	3395KD			
			3.531"/.030	<b>3102P2</b> (Port)	3405KD			
			3.545"/.044	<b>3102S2</b> (Starb)				
				<b>3102P3</b> (Port)				
<b>Mercury V6 175HP</b> SN OG052595 to OG960499 2.5 Liter, Top guided rod	1992-99	6	3.501"/Std.	<b>3137PS</b> (Port)	3500KD	S501	W4958	B1027
			3.521"/.020	<b>3137SS</b> (Starb)	3520KD			
			3.531"/.030	<b>3137P2</b> (Port)	3530KD			
			3.545"/.044	<b>3137S2</b> (Starb)	3544KD			
				<b>3137P3</b> (Port)				
<b>Mercury V6 175XRI</b> SN OD000750 to OD081999 2.5 Liter, EFI Top guided rod		6	3.501"/Std.	<b>3137S3</b> (Starb)	3500KD	S501	W4958	B1027
			3.521"/.020	<b>3137P2</b> (Port)	3520KD			
			3.531"/.030	<b>3137S2</b> (Starb)	3530KD			
			3.545"/.044	<b>3137P3</b> (Port)	3544KD			
				<b>3137S3</b> (Starb)				
<b>Mercury V6 175EFI</b> SN OG303046 to OT408999 2.5 Liter, EFI Top guided rod		6	3.501"/Std.	<b>3137P4</b> (Port)	3500KD	S501	W4958	B1027
			3.521"/.020	<b>3137S4</b> (Starb)	3520KD			
			3.531"/.030		3530KD			
			3.545"/.044		3544KD			
<b>Mercury V6 175Ski</b> SN OG052595 to OG303045 2.5 Liter Top guided rod		6	3.501"/Std.	<b>3137PS</b> (Port)	3500KD	S501	W4958	B1027
			3.521"/.020	<b>3137SS</b> (Starb)	3520KD			
			3.531"/.030	<b>3137P2</b> (Port)	3530KD			
			3.545"/.044	<b>3137S2</b> (Starb)	3544KD			
				<b>3137P3</b> (Port)				
<b>Mercury V6 175HP OptiMax</b> 2.5 Liter SN OG590000 to OG960499  <i>Must use top guided rod #644-818141 Models with head gaskets</i>		6	3.501"/Std.	<b>3137P4</b> (Port)	3500KD	S501	W4958	B1027
			3.521"/.020	<b>3137S4</b> (Starb)	3520KD			
			3.531"/.030		3530KD			
			3.545"/.044		3544KD			
<b>Mercury V6 175HP OptiMax</b> 2.5 Liter SN OG960500 to OT178499  <i>Must use top guided rod #644-818141 O-Ring Heads</i>	<b>NEW</b>	6	3.501"/Std.	<b>3192PS</b> (Port)	3500KD	S501	W4958	B1027
			3.521"/.020	<b>3192SS</b> (Starb)	3520KD			
			3.531"/.030	<b>3192P2</b> (Port)	3530KD			
			3.545"/.044	<b>3192S2</b> (Starb)	3544KD			
				<b>3192P3</b> (Port)				
<b>Mercury V6 175HP OptiMax</b> 2.5 Liter SN OT178500 to OT800999  <i>.920" OD wrist pin and 600- rod</i>	<b>NEW</b>	6	3.501"/Std.	<b>3192S3</b> (Starb)	3500KD	S535	W5487	TBA
			3.521"/.020	<b>3192P4</b> (Port)	3520KD			
			3.531"/.030	<b>3192S4</b> (Starb)	3530KD			
			3.545"/.044		3544KD			



When ordering please place "WIS" in front of part number

## Wiseco Pistons Mercury

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Mercury V6 200HP</b> 2.4 Liter <i>With finger ports</i>  • Cylinder re-sleeving required for oversizes. • Std. bore pistons are supplied with KDM ring unless otherwise ordered.	1978-90	6	3.377"/Std.  3.397"/.020  3.407"/.030	<b>3102PS</b> (Port) <b>3102SS</b> (Starb) <b>3102P2</b> (Port) <b>3102S2</b> (Starb) <b>3102P3</b> (Port) <b>3102S3</b> (Starb)	3375KDM  3395KD  3405KD	S437	W4958	B1025
<b>Mercury V6 200HP</b> 2.5 Liter Loop charge	1991	6	3.501"/Std.  3.521"/.020  3.531"/.030  3.545"/.044	<b>3124PS</b> (Port) <b>3124SS</b> (Starb) <b>3124P2</b> (Port) <b>3124S2</b> (Starb) <b>3124P3</b> (Port) <b>3124S3</b> (Starb) <b>3124P4</b> (Port) <b>3124S4</b> (Starb)	3500KD  3520KD  3530KD  3544KD	S501	W4958	B1025
<b>Mercury V6 200HP</b> 2.5 Liter, Offshore Loop charge	1991	6	3.501"/Std.  3.521"/.020  3.531"/.030  3.545"/.044	<b>3124PS</b> (Port) <b>3124SS</b> (Starb) <b>3124P2</b> (Port) <b>3124S2</b> (Starb) <b>3124P3</b> (Port) <b>3124S3</b> (Starb) <b>3124P4</b> (Port) <b>3124S4</b> (Starb)	3500KD  3520KD  3530KD  3544KD	S501	W4958	B1025
<b>Mercury V6 200HP</b> SN OD08200 to OG960500 & up 2.5 Liter <i>Top guided rod</i>	1992-04	6	3.501"/Std.  3.521"/.020  3.531"/.030  3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD  3520KD  3530KD  3544KD	S501	W4958	B1027
<b>Mercury V6 200EFI</b> SN OG303046 to OT408999 2.5 Liter, EFI <i>Top guided rod</i>		6	3.501"/Std.  3.521"/.020  3.531"/.030  3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD  3520KD  3530KD  3544KD	S501	W4958	B1027
<b>Mercury V6 200 Pro Max</b> SN OD935000 to OG857000 & up 2.5 Liter, EFI <i>Top guided rod</i>	1996-04	6	3.501"/Std.  3.521"/.020  3.531"/.030  3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD  3520KD  3530KD  3544KD	S501	W4958	B1027
<b>Mercury V6 200XRI</b> SN OG052595 & up EFI 2.5 Liter <i>Top guided rod</i>		6	3.501"/Std.  3.521"/.020  3.531"/.030  3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD  3520KD  3530KD  3544KD	S501	W4958	B1027
<b>Mercury V6 200HP OptiMax</b> 3.0 Liter	2000-04	6	3.6265"/Std.  3.6465"/.020  3.6565"/.030  3.6665"/.040	<b>3191PS</b> (Port) <b>3191SS</b> (Starb) <b>3191P2</b> (Port) <b>3191S2</b> (Starb) <b>3191P3</b> (Port) <b>3191S3</b> (Starb) <b>3191P4</b> (Port) <b>3191S4</b> (Starb)	3625KD  3645KD  3655KD  3665KD	S536	W5487	
<b>Mercury 225HP OptiMax</b> OT599000-OT800999, OT801000 & up 3.0 Liter		6	3.6265"/Std.  3.6465"/.020  3.6565"/.030  3.6665"/.044	<b>3203PS</b> (Port) <b>3203SS</b> (Starb) <b>3203P2</b> (Port) <b>3203S2</b> (Starb) <b>3203P3</b> (Port) <b>3203S3</b> (Starb) <b>3203P4</b> (Port) <b>3203S4</b> (Starb)	3625KD  3645KD  3655KD  3665KD	S536	W5487	B1027



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Mercury V6 225HP</b> 2.4 Liter, Loop charge • Cylinder re-sleeving required for oversizes. • Std. Bore pistons are supplied with KDM rings unless otherwise ordered.	1980	6	3.377"/Std. 3.397"/.020 3.407"/.030	<b>3102PS</b> (Port) <b>3102SS</b> (Starb) <b>3102P2</b> (Port) <b>3102S2</b> (Starb) <b>3102P3</b> (Port) <b>3102S3</b> (Starb)	3375KDM 3395KD 3405KD	S437	W4958	B1025
<b>Mercury V6</b> 3.0 Liter	1994-99	6	3.625"/Std. 3.645"/.020 3.655"/.030	<b>3170PS</b> (Port) <b>3170SS</b> (Starb) <b>3170P2</b> (Port) <b>3170S2</b> (Starb) <b>3170P3</b> (Port) <b>3170S3</b> (Starb)	3625KD 3645KD 3655KD	S536	W5487	
<b>Mercury V6 225HP OptiMax</b> 3.0 Liter OG590000 to OT5989999 Round pocket • The 3203 Series can be used if replacing all 6 pistons	1998-04	6	3.6265"/Std. 3.6465"/.020 3.6565"/.030 3.6665"/.040	<b>3191PS</b> (Port) <b>3191SS</b> (Starb) <b>3191P2</b> (Port) <b>3191S2</b> (Starb) <b>3191P3</b> (Port) <b>3191S3</b> (Starb) <b>3191P4</b> (Port) <b>3191S4</b> (Starb)	3625KD 3645KD 3655KD 3665KD	S536	W5487	
<b>Mercury 225/250HP OptiMax</b> OT599000-OT800999, OT801000 & up 3.0 Liter Oval pocket		6	3.6265"/Std. 3.6465"/.020 3.6565"/.030 3.6665"/.040	<b>3203PS</b> (Port) <b>3203SS</b> (Starb) <b>3203P2</b> (Port) <b>3203S2</b> (Starb) <b>3203P3</b> (Port) <b>3203S3</b> (Starb) <b>3203P4</b> (Port) <b>3203S4</b> (Starb)	3625KD 3645KD 3655KD 3665KD	S536	W5487	
<b>Mercury 225 Pro XS</b> <b>NEW</b> 1B104549 & up 3.0 Liter DFI		6		<b>TBA</b>				
<b>Mercury 250 Pro XS</b> <b>NEW</b> 1B426561 & up 3.0 Liter DFI		6		<b>TBA</b>				
<b>Mercury 250 XB</b> <b>NEW</b> OG980600 & OT800999 3.0 Liter EFI		6	3.625"/Std. 3.645"/.020 3.655"/.030	<b>3170PS</b> (Port) <b>3170SS</b> (Starb) <b>3170P2</b> (Port) <b>3170S2</b> (Starb) <b>3170P3</b> (Port) <b>3170S3</b> (Starb)	3625KD 3645KD 3655KD	S536	W5487	
<b>Mercury Sport Jet 90HP</b> Must use bearing kit #W5216	1993-95	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216
<b>Mercury Sport Jet 90HP</b>	1996	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Mercury Sport Jet 95XR 95HP</b>	1997	3	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Mercury Sport Jet 120HP</b> Must use bearing kit #W5216	1995	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3151PS</b> <b>3151P1</b> <b>3151P2</b> <b>3151P3</b> <b>3151P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S509	W5414	W5216
<b>Mercury Sport Jet 120HP</b>	1996	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Mercury Sport Jet 120XR</b>	1997-00	4	3.375"/Std. 3.385"/.010 3.395"/.020 3.405"/.030 3.415"/.040	<b>3164PS</b> <b>3164P1</b> <b>3164P2</b> <b>3164P3</b> <b>3164P4</b>	3375KD 3385KD 3395KD 3405KD 3415KD	S501	W4958	
<b>Mercury Sport Jet 175XR2 175HP</b> 2.5 Liter Top guided rod	1997-04	6	3.501"/Std. 3.521"/.020 3.531"/.030 3.545"/.044	<b>3137PS</b> (Port) <b>3137SS</b> (Starb) <b>3137P2</b> (Port) <b>3137S2</b> (Starb) <b>3137P3</b> (Port) <b>3137S3</b> (Starb) <b>3137P4</b> (Port) <b>3137S4</b> (Starb)	3500KD 3520KD 3530KD 3544KD	S501	W4958	B1027

When ordering please place "WIS" in front of part number



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Suzuki IL 4 115HP</b>	1986-01	4	3.307"/Std. .3.327"/.020 3.337"/.030 3.347"/.040	<b>3185PS</b> <b>3185P2</b> <b>3185P3</b> <b>3185P4</b>	3307KD 3327KD 3332KD 3347KD	S662	CW22	
<b>Suzuki IL 4 140HP</b>	1986-01	4	3.307"/Std. .3.327"/.020 3.337"/.030 3.347"/.040	<b>3185PS</b> <b>3185P2</b> <b>3185P3</b> <b>3185P4</b>	3307KD 3327KD 3332KD 3347KD	S662	CW22	
<b>Suzuki V6 150HP "S"</b> <i>Requires resleeving</i>	1987-03	6	3.307"/Std. 3.327"/.020 3.337"/.030 3.347"/.040	<b>3186PS (Port)</b> <b>3186SS (Starb)</b> <b>3186P2 (Port)</b> <b>3186S2 (Starb)</b> <b>3186P3 (Port)</b> <b>3186S3 (Starb)</b> <b>3186P4 (Port)</b> <b>3186S4 (Starb)</b>	3307KD 3327KD 3332KD 3347KD	S488	CW22	
<b>Suzuki V6 200HP EFI</b> <i>Requires resleeving</i>	1994-00	6	3.307"/Std. 3.327"/.020 3.337"/.030 3.347"/.040	<b>3186PS (Port)</b> <b>3186SS (Starb)</b> <b>3186P2 (Port)</b> <b>3186S2 (Starb)</b> <b>3186P3 (Port)</b> <b>3186S3 (Starb)</b> <b>3186P4 (Port)</b> <b>3186S4 (Starb)</b>	3307KD 3327KD 3332KD 3347KD	S488	CW22	
<b>Suzuki V6 225HP EFI</b> <i>Requires resleeving</i>	1987-03	6	3.307"/Std. 3.327"/.020 3.337"/.030	<b>3187PS (Port)</b> <b>3187SS (Starb)</b> <b>3187P2 (Port)</b> <b>3187S2 (Starb)</b> <b>3187P3 (Port)</b> <b>3187S3 (Starb)</b>	3307KD 3327KD 3332KD	S488	CW22	



## Tohatsu Nissan



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Tohatsu/Nissan 25HP</b> Loop charge M25C2 <i>* Limited to available stock</i>		2	2.677"/Std. 2.697"/.020 2.707"/.030 2.717"/.040	<b>*3157PS</b> <b>3157P2</b> <b>*3157P3</b> <b>*3157P4</b>	2678KD 2697KD 2707KD 2717KD	S540	CW17	
<b>Tohatsu/Nissan 30HP</b> Loop charge M30A3 <i>* Limited to available stock</i>		2	2.677"/Std. 2.697"/.020 2.707"/.030 2.717"/.040	<b>*3157PS</b> <b>3157P2</b> <b>*3157P3</b> <b>*3157P4</b>	2678KD 2697KD 2707KD 2717KD	S540	CW17	
<b>Tohatsu/Nissan 40HP</b> Loop charge M40C <i>* Limited to available stock</i>		2	2.755"/Std. 2.775"/.020 2.785"/.030 2.795"/.040	<b>3155PS</b> <b>3155P2</b> <b>*3155P3</b> <b>*3155P4</b>	2755KD 2775KD 2785KD 2795KD	S523	CW17	
<b>Tohatsu/Nissan 40HP</b> Loop Charge M40D <i>* Limited to available stock</i>		3	2.677"/Std. 2.697"/.020 2.707"/.030 2.717"/.040	<b>3156PS</b> <b>3156P2</b> <b>3156P3</b> <b>*3156P4</b>	2678KD 2697KD 2707KD 2717KD	S540	CW17	
<b>Tohatsu/Nissan 50HP</b> Loop Charge M50D <i>* Limited to available stock</i>		3	2.677"/Std. 2.697"/.020 2.707"/.030 2.717"/.040	<b>3156PS</b> <b>3156P2</b> <b>3156P3</b> <b>*3156P4</b>	2678KD 2697KD 2707KD 2717KD	S540	CW17	
<b>Tohatsu/Nissan 60HP</b> Loop Charge M60A		2	3.385"/Std. 3.405"/.020 3.415"/.030 3.425"/.040	<b>3153PS</b> <b>3153P2</b> <b>3153P3</b> <b>3153P4</b>	3385KD 3405KD 3415KD 3425KD	S544	CW20	B1004
<b>Tohatsu/Nissan 70HP</b> Loop Charge M70A		2	3.385"/Std. 3.405"/.020 3.415"/.030 3.425"/.040	<b>3153PS</b> <b>3153P2</b> <b>3153P3</b> <b>3153P4</b>	3385KD 3405KD 3415KD 3425KD	S544	CW20	B1004
<b>Tohatsu/Nissan 90HP</b> Loop Charge M90A		3	3.385"/Std. 3.405"/.020 3.415"/.030 3.425"/.040	<b>3153PS</b> <b>3153P2</b> <b>3153P3</b> <b>3153P4</b>	3385KD 3405KD 3415KD 3425KD	S544	CW20	B1004

When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Yamaha 25HP</b> <i>1 piece crank</i>	1996-02	3	2.373"/.030 2.383"/.040	<b>3189P3</b> <b>3189P4</b>	2374KD 2384KD	S676		
<b>Yamaha 30HP</b>	1987-02	3	2.373"/.030 2.383"/.040	<b>3189P3</b> <b>3189P4</b>	2374KD 2384KD	S676		
<b>Yamaha 40HP</b> Loop charge	1984-08	3	2.638"/Std. 2.658"/.020 2.668"/.030 2.678"/.040	<b>3130PS</b> <b>3130P2</b> <b>3130P3</b> <b>3130P4</b>	2638KD 2658KD 2668KD 2678KD	S391	CW18	B1034
<b>Yamaha 50HP</b> Loop charge	1984-08	3	2.638"/Std. 2.658"/.020 2.668"/.030 2.678"/.040	<b>3130PS</b> <b>3130P2</b> <b>3130P3</b> <b>3130P4</b>	2638KD 2658KD 2668KD 2678KD	S391	CW18	B1034
<b>Yamaha 55HP</b> Loop charge	1992-96	2	3.228"/Std. 3.248"/.020 3.258"/.030 3.268"/.040	<b>3131PS</b> <b>3131P2</b> <b>3131P3</b> <b>3131P4</b>	3228KD 3248KD 3258KD 3268KD	S503	CW20	B1028
<b>Yamaha 60HP</b> Loop charge	1984-08	3	2.834"/Std. 2.854"/.020 2.864"/.030	<b>3132PS</b> <b>3132P2</b> <b>3132P3</b>	2834KD 2854KD 2864KD	S504	CW20	B1035
<b>Yamaha 70HP</b> Loop charge	1984-08	3	2.834"/Std. 2.854"/.020 2.864"/.030	<b>3132PS</b> <b>3132P2</b> <b>3132P3</b>	2834KD 2854KD 2864KD	S504	CW20	B1035
<b>Yamaha F75 IL4</b> <i>NEW</i> 4-stroke	2003-04	4	79mm Std. 79.50mm	<b>3207PS</b> <b>3207P2</b>	7900XX 7950XX	S524	CW28	
<b>Yamaha F75 IL4</b> <i>NEW</i> 4-stroke <i>No rod</i>	2005-08	4	79mm Std. 79.50mm	<b>3208PS</b> <b>3208P2</b>	7900XX 7950XX	S524	CW28	
<b>Yamaha F80 IL4</b> <i>NEW</i> 4-stroke <i>No rod</i>	1999-03	4	79mm Std. 79.50mm	<b>3208PS</b> <b>3208P2</b>	7900XX 7950XX	S524	CW28	
<b>Yamaha 85HP</b> Loop charge	1992-93	3	3.228"/Std. 3.248"/.020 3.258"/.030 3.268"/.040	<b>3131PS</b> <b>3131P2</b> <b>3131P3</b> <b>3131P4</b>	3228KD 3248KD 3258KD 3268KD	S503	CW20	B1028
<b>Yamaha 90HP</b> Loop charge	1984-08	3	3.228"/Std. 3.248"/.020 3.258"/.030 3.268"/.040	<b>3131PS</b> <b>3131P2</b> <b>3131P3</b> <b>3131P4</b>	3228KD 3248KD 3258KD 3268KD	S503	CW20	B1028
<b>Yamaha F90 IL4</b> <i>NEW</i> 4-stroke	2003-04	4	79mm Std. 79.50mm	<b>3207PS</b> <b>3207P2</b>	7900XX 7950XX	S524	CW28	
<b>Yamaha F90 IL4</b> <i>NEW</i> 4-stroke <i>No rod</i>	2005-08	4	79mm Std. 79.50mm	<b>3208PS</b> <b>3208P2</b>	7900XX 7950XX	S524	CW28	
<b>Yamaha F100 IL4</b> <i>NEW</i> 4-stroke <i>No rod</i>	1999-03	4	79mm Std. 79.50mm	<b>3208PS</b> <b>3208P2</b>	7900XX 7950XX	S524	CW28	
<b>Yamaha V4 115HP</b> 2-stroke 6E5 rod 21.5mm piston pin	1984-92	4	3.544"/Std.  3.564"/.020  3.584"/.040  3.604"/.060	<b>3116PS</b> (Port) <b>3116SS</b> (Starb) <b>3116P2</b> (Port) <b>3116S2</b> (Starb) <b>3116P4</b> (Port) <b>3116S4</b> (Starb) <b>3116P6</b> (Port) <b>3116S6</b> (Starb)	3544KD  3564KD  3584KD  3604KD	S487	CW22	B1028
<b>Yamaha V4 115HP</b> 2-stroke 6R5 rod 23mm piston pin	1993-08	4	3.544"/Std.  3.564"/.020  3.584"/.040	<b>3146PS</b> (Port) <b>3146SS</b> (Starb) <b>3146P2</b> (Port) <b>3146S2</b> (Starb) <b>3146P4</b> (Port) <b>3146S4</b> (Starb)	3544KD  3564KD  3584KD	S519	CW23	W5839



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Yamaha IL4 115HP</b> 4-stroke Use OE rings: 6D8-11603-01-00 (Std.) 6D8-11604-01-00 (0.25mm)	1984-08	4	79.00mm 79.25mm	<b>3205PS</b> (Std.) <b>3205P1</b> (.25mm) (No rings or connecting rod)		S524	CW18	
<b>Yamaha V4 130HP</b> 6E5 rod 21.5mm piston pin	1988-92	4	3.544"/Std. 3.564"/.020 3.584"/.040 3.604"/.060	<b>3116PS</b> (Port) <b>3116SS</b> (Starb) <b>3116P2</b> (Port) <b>3116S2</b> (Starb) <b>3116P4</b> (Port) <b>3116S4</b> (Starb) <b>3116P6</b> (Port) <b>3116S6</b> (Starb)	3544KD 3564KD 3584KD 3604KD	S487	CW22	B1028
<b>Yamaha V4 130HP</b> 6R5 rod 23mm piston pin	1993-04	4	3.544"/Std. 3.564"/.020 3.584"/.040	<b>3146PS</b> (Port) <b>3146SS</b> (Starb) <b>3146P2</b> (Port) <b>3146S2</b> (Starb) <b>3146P4</b> (Port) <b>3146S4</b> (Starb)	3544KD 3564KD 3584KD	S519	CW23	W5839
<b>Yamaha V6 150HP</b> 2-stroke 6E5 rod 21.5mm piston pin	1985-92	6	3.544"/Std. 3.564"/.020 3.584"/.040 3.604"/.060	<b>3116PS</b> (Port) <b>3116SS</b> (Starb) <b>3116P2</b> (Port) <b>3116S2</b> (Starb) <b>3116P4</b> (Port) <b>3116S4</b> (Starb) <b>3116P6</b> (Port) <b>3116S6</b> (Starb)	3544KD 3564KD 3584KD 3604KD	S487	CW22	B1028
<b>Yamaha V6 150HP</b> 2-stroke 6R5 rod 23mm piston pin	1993-08	6	3.544"/Std. 3.564"/.020 3.584"/.040	<b>3146PS</b> (Port) <b>3146SS</b> (Starb) <b>3146P2</b> (Port) <b>3146S2</b> (Starb) <b>3146P4</b> (Port) <b>3146S4</b> (Starb)	3544KD 3564KD 3584KD	S519	CW23	W5839
<b>Yamaha 150HP</b> 2.6 HPDI	2000-05	6	3.544"/Std. 3.564"/.020 3.584"/.040	<b>3200PS</b> (Port) <b>3200SS</b> (Starb) <b>3200P2</b> (Port) <b>3200S2</b> (Starb) <b>3200P4</b> (Port) <b>3200S4</b> (Starb)	3544KD 3564KD 3584KD			
<b>Yamaha IL4 150HP</b> 4-stroke Use OE rings: 63P-11603-01-00 (Std.) 63P-11604-00-00 (0.25mm)	2004-08	4	94.00mm 94.25mm	<b>3204PS</b> (Std.) <b>3204P1</b> (.25mm) (No rings or connecting rod)		S527	CW21	
<b>Yamaha V6 175HP</b> 6E5 rod 21.5mm piston pin	1985-92	6	3.544"/Std. 3.564"/.020 3.584"/.040 3.604"/.060	<b>3116PS</b> (Port) <b>3116SS</b> (Starb) <b>3116P2</b> (Port) <b>3116S2</b> (Starb) <b>3116P4</b> (Port) <b>3116S4</b> (Starb) <b>3116P6</b> (Port) <b>3116S6</b> (Starb)	3544KD 3564KD 3584KD 3604KD	S487	CW22	B1028
<b>Yamaha V6 175HP</b> 2-stroke 6R5 rod 23mm piston pin	1993-00	6	3.544"/Std. 3.564"/.020 3.584"/.040	<b>3146PS</b> (Port) <b>3146SS</b> (Starb) <b>3146P2</b> (Port) <b>3146S2</b> (Starb) <b>3146P4</b> (Port) <b>3146S4</b> (Starb)	3544KD 3564KD 3584KD	S519	CW23	W5839
<b>Yamaha 175HP</b> 2.6 HPDI	2001-08	6	3.544"/Std. 3.564"/.020 3.584"/.040	<b>3200PS</b> (Port) <b>3200SS</b> (Starb) <b>3200P2</b> (Port) <b>3200S2</b> (Starb) <b>3200P4</b> (Port) <b>3200S4</b> (Starb)				



When ordering please place "WIS" in front of part number



Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
<b>Yamaha V6 200HP</b> 6E5 rod 21.5mm piston pin	1984-91	6	3.544"/Std. 3.564"/.020 3.584"/.040 3.604"/.060	<b>3116PS</b> (Port) <b>3116SS</b> (Starb) <b>3116P2</b> (Port) <b>3116S2</b> (Starb) <b>3116P4</b> (Port) <b>3116S4</b> (Starb) <b>3116P6</b> (Port) <b>3116S6</b> (Starb)	3544KD 3564KD 3584KD 3604KD	S487	CW22	B1028
<b>Yamaha V6 200HP</b> Loop Charge 2-stroke 6R5 rod 23mm piston pin	1992-00	6	3.544"/Std. 3.564"/.020 3.584"/.040	<b>3146PS</b> (Port) <b>3146SS</b> (Starb) <b>3146P2</b> (Port) <b>3146S2</b> (Starb) <b>3146P4</b> (Port) <b>3146S4</b> (Starb)	3544KD 3564KD 3584KD	S519	CW23	W5839
<b>Yamaha V6 200HP 76°</b> 61A rod 26mm piston pin <i>Dish dome</i>  <i>* Limited to available stock</i>	1994-05	6	3.544"/Std. 3.564"/.020 3.584"/.040 3.604"/.060	<b>3168PS</b> (Port) <b>3168SS</b> (Starb) <b>3168P2</b> (Port) <b>3168S2</b> (Starb) <b>*3168P4</b> (Port) <b>*3168S4</b> (Starb) <b>*3168P6</b> (Port) <b>*3168S6</b> (Starb)	3544KD 3564KD 3584KD 3604KD	S584	CW26	
<b>Yamaha 200HP</b> <b>2.6 HPDI</b>	2000-08	6	3.544"/Std. 3.564"/.020 3.584"/.040	<b>3200PS</b> (Port) <b>3200SS</b> (Starb) <b>3200P2</b> (Port) <b>3200S2</b> (Starb) <b>3200P4</b> (Port) <b>3200S4</b> (Starb)	3544KD 3564KD 3584KD	S519	CW28	W5839
<b>Yamaha F200 IL4</b> <b>NEW</b> 4-stroke 63P-11603-01-00 (Std.) 63P-11604-00-00 (0.25mm) <i>Must use OE rings</i>	2002-07	6	94mm/Std. 94.25mm	<b>3206PS</b> <b>3206P1</b>		S656	CW28	
<b>Yamaha V6 225HP</b> 6R5 rod 21.5mm piston pin	1990-91	6	3.544"/Std. 3.564"/.020 3.584"/.040 3.604"/.060	<b>3116PS</b> (Port) <b>3116SS</b> (Starb) <b>3116P2</b> (Port) <b>3116S2</b> (Starb) <b>3116P4</b> (Port) <b>3116S4</b> (Starb) <b>3116P6</b> (Port) <b>3116S6</b> (Starb)	3544KD 3564KD 3584KD 3604KD	S487	CW22	B1028
<b>Yamaha V6 225HP</b> 2-stroke 6R5 rod 23mm piston pin	1992-93	6	3.544"/Std. 3.564"/.020 3.584"/.040	<b>3146PS</b> (Port) <b>3146SS</b> (Starb) <b>3146P2</b> (Port) <b>3146S2</b> (Starb) <b>3146P4</b> (Port) <b>3146S4</b> (Starb)	3544KD 3564KD 3584KD	S519	CW23	W5839
<b>Yamaha V6 225HP 76°</b> 61A rod 26mm piston pin <i>Dish top</i>  <i>* Limited to available stock</i>	1994-04	6	3.544"/Std. 3.564"/.020 3.584"/.040 3.604"/.060	<b>3168PS</b> (Port) <b>3168SS</b> (Starb) <b>3168P2</b> (Port) <b>3168S2</b> (Starb) <b>*3168P4</b> (Port) <b>*3168S4</b> (Starb) <b>*3168P6</b> (Port) <b>*3168S6</b> (Starb)	3544KD 3564KD 3584KD 3604KD	S584	CW26	
<b>Yamaha 225HP</b> <b>NEW</b> <b>3.3 HPDI</b>	2003-08	6	3.6615"/Std. 3.6815"/.020 3.7015"/.040	<b>3201PS</b> (Port) <b>3201SS</b> (Starb) <b>3201P2</b> (Port) <b>3201S2</b> (Starb) <b>3201P4</b> (Port) <b>3201S4</b> (Starb)				
<b>Yamaha F225 IL4</b> <b>NEW</b> 4-stroke 63P-11603-01-00 (Std.) 63P-11604-00-00 (0.25mm) <i>Must use OE rings</i>	2005-07	6	94mm/Std. 94.25mm	<b>3206PS</b> <b>3206P1</b>		S656	CW28	



When ordering please place "WIS" in front of part number

Model	Years	No. of Cyl.	Bore Size	Piston Part No.	Repl. Ring Part No.	Repl. Piston Pin Part No.	Repl. Retainer Part No.	Piston Pin Bearing Part No.
Yamaha V6 250HP 61A rod 26mm piston pin Dish top  * Limited to available stock	1995-04	6	3.544"/Std. 3.564"/.020 3.584"/.040 3.604"/.060	3168PS (Port) 3168SS (Starb) 3168P2 (Port) 3168S2 (Starb) *3168P4 (Port) *3168S4 (Starb) *3168P6 (Port) *3168S6 (Starb)	3544KD 3564KD 3584KD 3604KD	S584	CW26	
Yamaha 250HP <b>NEW</b> 3.3 HPDI	2003-08	6	3.6615"/Std. 3.6815"/.020 3.7015"/.040	3201PS (Port) 3201SS (Starb) 3201P2 (Port) 3201S2 (Starb) 3201P4 (Port) 3201S4 (Starb)	3661KD 3681KD 3701KD	S584	CW26	TBA
Yamaha 300HP <b>NEW</b> 3.3 HPDI	2004-08	6	3.6615"/Std. 3.6815"/.020 3.7015"/.040	3201PS (Port) 3201SS (Starb) 3201P2 (Port) 3201S2 (Starb) 3201P4 (Port) 3201S4 (Starb)	3661KD 3681KD 3701KD	S584	CW26	TBA

## Inboard & I/O Piston Kits

### 3.0 Ltr. / 183 cubic inch • 4-Cylinder • Flat Top

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT076H3	5076H3	4.030	3.600		1.635	0.0	9.2:1	4030H	S424	CS24	No valve pockets
PT076H4	5076H4	4.040	3.600		1.635	0.0	9.2:1	4040H	S424	CS24	

### 4.3 Ltr. / 262 cubic inch • 6-Cylinder • Flat Top

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/68cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
Order 6 for kit	5028H3	4.030	3.480	5.700	1.560	-8.7	9.5:1	4030H	S424	CS24	Only need 6 singles
6 for kit	5028H6	4.060	3.480	5.700	1.560	-8.7	9.6:1	4060H	S424	CS24	4 valve pockets

### 5.0 Ltr. / 305 cubic inch • Flat Top

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/64cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT024H3	5024H3	3.766	3.480	5.700	1.560	-8.7	8.5:1	3766H	S424	CS24	4 valve pockets
PT024H6	5024H6	3.796	3.480	5.700	1.560	-8.7	8.6:1	3796H	S424	CS24	4 valve pockets
PT014H3	5014H3	3.766	3.480	5.700	1.560	-5.4	8.8:1	3766H	S424	CS24	2 valve pockets
PT014H6	5014H6	3.796	3.480	5.700	1.560	-5.4	8.9:1	3796H	S424	CS24	2 valve pockets

### 5.7 Ltr. / 350 cubic inch • Flat Top

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/64cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT028H3	5028H3	4.030	3.480	5.700	1.560	-8.7	9.4:1	4030H	S424	CS24	4 valve pockets
PT028H6	5028H6	4.060	3.480	5.700	1.560	-8.7	9.5:1	4060H	S424	CS24	4 valve pockets

\* Compression ratios are based on .038 gasket and .010 deck height.



When ordering please place "WIS" in front of part number

## 6.2 Ltr. / 377 cubic inch • Reverse Dome

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/67cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT004H3	5004H3	4.030	3.750	5.700	1.425	-20.0	9.0:1	4030H	S424	CS24	
PT004H6	5004H6	4.060	3.750	5.700	1.425	-20.0	9.2:1	4060H	S424	CS24	

## 7.4 Ltr. / 454 cubic inch • Mini Dome

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/119cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT010H3	5010H3	4.280	4.000	6.135	1.645	21.0	9.4:1	4280H	S460	CS25	
PT010H6	5010H6	4.310	4.000	6.135	1.645	21.0	9.5:1	4310H	S460	CS25	

## 7.4 Ltr. / 454 cubic inch • Blower • Flat Top

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/119cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT072H3	5072H3	4.280	4.000	6.135	1.645	-2.4	8.0:1	4280H	S460	CS25	
PT072H6	5072H6	4.310	4.000	6.135	1.645	-2.4	8.1:1	4310H	S460	CS25	
PT072H7	5072H7	4.320	4.000	6.135	1.645	-2.4	8.1:1	4320H	S460	CS25	
PT073HS	5073HS	4.500	4.000	6.135	1.645	-2.4	8.7:1	4500H	S460	CS25	
PT073H3	5073H3	4.530	4.000	6.135	1.645	-2.4	8.7:1	4530H	S460	CS25	

## 8.2 Ltr. / 502 cubic inch • Mini Dome

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/119cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT077H 04	5077H04	4.470	4.000	6.135	1.645	3.8	8.9:1	4470H	S460	CS25	
PT077H3	5077H3	4.500	4.000	6.135	1.645	3.8	9.0:1	4500H	S460	CS25	

## 540 cubic inch • Mini Dome

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/119cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT078HS	5078HS	4.500	4.250	6.135	1.520	4.5	9.5:1	4500H	S460	CS25	
PT078H3	5078H3	4.530	4.250	6.135	1.520	4.5	9.6:1	4530H	S460	CS25	
PT078H6	5078H6	4.560	4.250	6.135	1.520	4.5	9.9:1	4560H	S460	CS25	

## 8.1 Ltr. 496 New style • Flat Top

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio W/119cc Head	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT075H3	5075H3	4.280	4.370		1.363	-2.4	8.7:0	4280H	S497	W5314	
PT075H6	5075H6	4.310	4.370		1.363	-2.4	8.8:1	4310H	S497	W5314	

## 460 cubic inch • Ford • Flat Top (Will not fit M6049-SJ heads)

Kit Part #	Repl. Piston	Bore Size	Stroke	Rod	Comp. Height	Dome Volume	Comp. Ratio	Repl. Ring Part #	Repl. Piston Pin Part #	Repl. Spiro Lox Part #	Misc. Notes
PT074H3	5074H3	4.3900	3.850	6.605	1.756	-5.4	Stock	4390H	S497	W5314	

• Compression ratios are based on .038 gasket and .010 deck height.



When ordering please place "WIS" in front of part number



Do you have the latest CDI/Jerry's Marine catalog?  
Ask your salesman for details.



# PART NUMBER QUICK REFERENCE



Need Technical Assistance? Call Us at 954-525-0311 or Toll Free: 1-800-432-2231

## CHRIS CRAFT

16.60-00031	VR407
16.61-00026	40115
16.61-00042	50142
16.61-00043	50141
16.61-00044	50160
16.61-00045	50161
16.61-00048	50141
16.61-00050	50160
16.61-00051	50161
16.61-00053	VR406

## CHRYSLER

177917	SW774
2095509	50110
2098300	VR405
2847527	VR405
2855927	50110
2875927	50110
2875928	50109
3527501	40112
3527502	40112
449541-1	6216
455541	6216
460917-1	SW295
480955	5393
490955	5393
575955	5382
F6169551	5393

## CRUSADER

22611	SW295
39049	60104
39064	60104
39200	60075
42016	SW975
42090	30456
42091	30457
42150	30457
9006320	SW774
RU0050	SW456
RU0050A	SW463
RU0050B	SW463
R130014	SW295

## DELCO

8400027	20822
8600514	20850
8600515	20840
8000500	5400
9000735	30470 & MBK450
9000762	30470 & MBK450
9000763	30460
9000768	30470 & MBK450
9000789	30470 & MBK450
9000819	30470 & MBK450
9000820	30460
9000821	30470 & MBK450

## DELCO

9000822	30460
9000839	30470 & MBK450
9000840	30470 & MBK450
9000849	30470 & MBK450
9000884 S/P	30433
9000884 H/P	30470 & MBK450
9000885	30470 & MBK450
9000887	30462
9000888	30459
9000940	30470 & MBK450
9000974	5400
19010612	30457
19010615	30457
19010617	30456
19020600	20810
19020601	20800
19020604	20810
19020606	20820
19020608	20825
19020609	20800
19020611	20815
19020612	20815
19020616	20830
19020617	20821
19020618	20860
19020703	20840
19020704	20850
19020706	20840
19020707	20850

## FORCE

811902	DV394
819222	DV393
819479A1	6276
819480A1	6276
820595	SR394
50-819085	5393
50-819968-1	7325
50-820193	5394
50-F616955-1	5393
827675A1	6255
87-F660917	R040
89-F460917-1	SW295
F15189	SR393
F15190	BK900
F177917	SW774
F575955	5382
F616955	5393

## HITACHI

S106-07B	3421
S106-07E	3421
S106-07F	3421
S106-12B	3421
S108-80	3420
S108-80A	3420
S108-80B	3420
S108-87A	3423
S108-94	3412
S108-94A	3412
S108-94B	3412
S108-94C	3412

## HITACHI

S108-97	3422
S108-97A	3422
S108-99B	3425
S108-112	3412
S108-120	3412
S114-221	3424
S114-221E	3424
S114-221F	3424
S114-221G	3424
S114-221H	3424
S114-221J	3424
S114-263B	3427
S114-303	98180
S114-303A	98180
S114-323	3426
S114-323A	3426
S114-323B	3426
S114-323C	3426
S114-407	3440
S114-415	3410
S114-415A	3410
S114-437	3444
S114-483	98185
S114-551	3442
S114-551A	3442
S114-552	3428
S114-552A	3428
S114-555	3440
S114-559B	3429
S114-561	3446
S114-571	3410
S114-571A	3410
S114-660	3428
S114-660A	3428
S114-660B	3428
S114-667	3410
S114-673	3444
S114-674	3442
S114-677	3446
S114-815	98185
S114-817A	98185
S114-828B	3430
S114-836A	3431
S114-838A	3432
S114-867	3433
S114-867A	3433

## HONDA

31200-ZV5-013	3446
31200-ZV5-003	3446
31200-ZW5-003	3447
36120-ZV5-821	6239
36120-ZW4-H12	6237
36120-ZY3-013	6234
36120-ZY6-013	6235
36120-ZY9-003	6236

## KAWASAKI

13101-3701	DV750
13101-3703	DV750
13101-3705	DV750
13101-3706	DV750
59051-3005	DV440
59051-5007	DV440

## MARINE PWR

471200	20830
471201	20830
4711210	20830
1210-000	60050
0170-000	30459
0171-000	30457
0172-000	30460
0174-000	30470 & MBK450

## MARINER

50-97072M	3424
50-97072T	3424
50-97693M	3420
50-804312T1	3430

## MERCURY

12449	60050
13037	SW975
13310	DV380
13310-1	DV380
13310T1	DV380
14336A6	6275
14336A8	6275
14336A9	6275
14336A15	6275
14336A17	6275
14336A20	6275
15382	SW975
15386	SR380
15386001	SR380
17631	TR218
17631A1	TR218
17649	6218
17649A1	6218
17649A02	6218
17649T	6218
18525A1	M525
25661	SW661
25661-1	SW661
25661T1	SW661
25942	5374-6
32082	SW082
32701	20102
33261	SW975
43076	DV385
43076T	DV385
47456A1	20102
47886	SW622
47886T	SW622
514995	5551
54981	SW981
54293A5	SW925
54293A10	SW926
54293A11	SW925
54293A13	SW926
56045	20102
57380	DV366
59755	20102
62351A1	AR351
62351A2	AR351
63292	BK900
65057	SW981
65057A1	SW981





## PART NUMBER QUICK REFERENCE

Need Technical Assistance? Call Us at 954-525-0311 or Toll Free: 1-800-432-2231

### MERCURY



65057T1	SW981
68571-1	DV362
68575	DV377
68575-3	DV396
68575T2	DV365
69729	20102
75383	SR379
75384	BK900
75384-1	BK900
75661	DV380
78403A1	60050
78403A2	60050
78477	20104
79215	SR380
8M0007971	3432
8M0031551	6250
8M0058226	AR351
8M0064020	20850
8M6000803	20850
8M6000804	20840
802587	DV393
802587T	DV393
802587T01	DV393
802639	DV380
802639T	DV380
802640	DV325
802640T	DV325
802665T	DV394
803822T	SW774
805447T	60065
805884T	60065
807057	R202
807057T	R202
807652T	60055
807653T	60060
809155	M874
809162	M875
809463	SW463
809463-1	SW463
809463A1	SW463
809885A1	6276
809885A2	6276
809885T2	6276
811628	6279
811674	6276
811874	M874
811874T	M874
811875	M875
811875T	M875
811883	M883
811883T	M883
811888	M888
811902	DV394
813447	6276
816770	AR351
816770T	AR351
817119A1	60050
817119A4	60050
819222	DV393
819222A1	DV393
820583	DV325
820586	SR325
820586T	SR325
821509	R509
823653A5	6270
823653A9	6270

### MERCURY



825096T01	SW945
827675A1	6255
828151	R151
828151A1	R151
828506	20850
828708	6250
828708A1	6279
828708T	6250
850402	DV457
86177-1	DV381
862030T	20810
862030T01	20810
862031T	20800
862031T1	20800
863077T	20815
865202T	R202
865380A13	6275
875285T1	20840
875286A-1	20850
87828	6218
878265A1	6250
878265A4	6250
881247A1	20850
881248T	20840
88183A5	6275
88183A6	6275
88183A11	6275
88183A12	6275
882751A1	R151
882751A04	R751
883166A2	M532
889274	SW925
889955	20840
889955T01	20840
889956	20850
891736T	6218
891754T	DV365
892940T	20860
892940T01	20860
892940T02	20860
893907A02	6276
898265015	DV381
898265016	BK900
89902	SW975
92459A3	6270
92459A4	6270
92459A8	6270
92497A3	60050
96562	DV367
96564T	SR367
98555	60050
98555A1	60050
50-F514955	5551
50-F575955	5382
50-12121A2	30470 & MBK450
50-12177A2	30470 & MBK450
50-12872	50169
50-17251A3	30457
50-29105	5374X
50-30829	5366
50-30842	5374X
50-30955	5374 W/ DV370
50-31976	5374
50-32403	5374-6
50-32411	5374X

### MERCURY



50-32703	30460
50-37274A4	5374
50-37345A1	5366
50-38890A1	5366
50-41583	5385
50-41583T	5385
50-44369A1	5388
50-44415	5380
50-45120	30460
50-45822	5374
50-46282	30460
50-47454	30456
50-47455	30457
50-48643A1	5374
50-514955	5551
50-55601A2	5366
50-56886	70200
50-57465A1	5377
50-575955	5382
50-57867A1	5374
50-58059	90105
50-58788	5374
50-58788A3	5374
50-59799	30460
50-60315	5375
50-60594A1	5384
50-60594T01	5384
50-64975	5378X
50-65436	5375
50-65784A1	30457
50-65785A1	30456
50-66015	5375
50-66015-1	5392
50-66015-2	5375
50-66015-3	5392
50-66015-T	5392
50-66015T1	5375
50-67341	5374
50-69863A1	30460
50-69864A1	30460
50-69865	50169
50-69865A1	50169
50-72467	5377
50-72550	50143
50-72550A1	50143
50-72550A2	50143
50-72550R2	50143
50-73521	5379
50-73521T	5379
50-76965A1	30457
50-76965A3	30457
50-76965A4	30457
50-77141	5380
50-77328A1	30460
50-77328A3	30460
50-79472	5380
50-79472-1	5380
50-79472T2	5380
50-79604A1	30456
50-79604A3	30456
50-79821A2	30460
50-79822A1	30460
50-79822A2	30460

### MERCURY



50-79823A1	30460
50-8M0033984	5367
50-8M6001043	5400
50-8M8021116	30470
50-803835T02	3421
50-803900T	5551
50-803903T	5382
50-804312T1	3430
50-805991	12213
50-806963A2	30460
50-806963A4	30460
50-806964A2	30470 & MBK450
50-806964A3	30470 & MBK450
50-806964A4	30470 & MBK450
50-806965A2	30460
50-806965A4	30460
50-807904A1	30433
50-808011A1	30457
50-808011A4	30459
50-808011A05	30459
50-812428A3	30470 & MBK450
50-812429A2	30460
50-812604A2	30470 & MBK450
50-81490M	3424
50-818445-2	5395
50-818445-3	5395
50-818445-5	5395
50-819085	5393
50-819085-1	5393
50-819085T1	5393
50-819271	5397
50-819968-1	7325
50-819968-2	7325
50-819968-3	7325
50-819968-4	7325
50-819968T4	7325
50-820193	5394
50-820193-1	5394
50-820193A1	5397
50-820193T1	5394
50-820193003	5394
50-822330A2	30470 & MBK450
50-822462	5396
50-822462-1	5396
50-822462T1	5396
50-825095	3426
50-830308	5364
50-830308T	5364
50-832997	7326
50-832997-1	7326
50-832997-2	7326
50-832997003	7326
50-833153	5381
50-833153-1	5381
50-833153-2	5381
50-833153-3	5381
50-833153-5	5381
50-833153T4	5381
50-834749	5362
50-84917M	3420
50-852570T	5359
50-853329T	5400
50-853869	5393



# PART NUMBER QUICK REFERENCE



Need Technical Assistance? Call Us at 954-525-0311 or Toll Free: 1-800-432-2231

## MERCURY



50-853869T	5393
50-854636T	5365
50-856996T	5381X
50-859168T	5359
50-859169T	5364
50-859170T	5365
50-859170T1	5365
50-859171T	5362
50-859377T	5360
50-863007A1	30433
50-864340A2	30470 & MBK450
50-86976	5381X
50-881368T1	3432
50-881368T2	3432
50-884044T	5360
50-884045T	5365
50-884238T	5380
50-888151T	5364
50-888160T	5365
50-888161T	5360
50-892339T	5400
50-892339T01	5400
50-893886T	5364
50-893887T	5365
50-893888T	5360
50-893889T	5367
50-893890T	5396
50-893891T	5375
50-893892T	5392
50-893893	5380
50-893894	5359
50-898265001	5362
50-898265002	5393
50-898265003	7325
50-898265005	5379
50-898265006	5366
50-898265007	5385
50-898265008	5381
50-898265009	5395
50-898265010	5377
50-898265011	5382
50-898265012	5388
50-898265013	5381X
50-90983A1	5367
50-90983T1	5367
50-92669M	3424
50-96359M	3420
50-97072M	3424
50-97072T	3424
50-97499A2	30456
50-97499A3	30456
50-97499R2	30456
50-97499R4	30456
50-97693M	3420
50-99417A2	30460
50-99418A2	30470 & MBK450
50-99419A3	30457
86-865202T	R202
87-18211	R211
87-61053	SW275
87-803632T	SW295
89-15857	SW275
89-18080	SW984
89-F460917-1	SW295

## MERCURY



89-F654924-1	SW924
89-68258	SW275
89-68258A4	SW275
89-76416A1	SW394
89-76545	SW275
89-76545T	SW275
89-803629T	SW924
89-817109A1	SW109
89-817109A2	SW109
89-817109A3	SW109
89-818864	SW064
89-818864T	SW064
89-818997A1	SW097
89-818997A2	SW097
89-818997T1	SW097
89-818998A1	SW097
89-818998A2	SW097
89-818999A1	SW099
89-818999A2	SW099
89-825096	SW945
89-825096T	SW945
89-846070	SW058
H/D VERSION	SW058HD
89-850187A1	SW097
89-850187T1	SW097
89-850188A1	SW099
89-850188T1	SW099
89-850189	SW054
89-850189T	SW054
89-850408	SW456
89-853654A1	SW275
89-889273	SW924
89-889274	SW925
89-91975	SW054
89-94318	SW058
H/D VERSION	SW058HD
89-96054	SW054
89-96054T	SW054
89-96158	SW058
89-96158T	SW058
392-2940	TR217
392-8262	TR217
392-9250	TR217
F391926	PA924
F391926-1	PA924
FK460917	SW295

## B.R.P. - O.M.C.



172588	6228
172853	TR208
172869	SW340
173692	AR104
173944	6228
174942	5376
175019	5376
277628	SW081
321648	DV376
328381	SR372
378444	SW081
380095	SW622
380361	6209
380973	VR404

## B.R.P. - O.M.C.



381166	40152
381519	40152
381781	30460
382138	6209
382220	6209
383440	VR404
383443	40152
383575	5372X
383622	SW622
383691	5370
384163	5371
384198	30460
384233	40152
384777	5370
384781	DV371
384914	5372X
385401	5376
385529	5372
385844	SR371
385949	DV372
385952	BK900
386430	5369
386591	5376
386657	5370
386678	SR369
387094	5373
387277	6206
387683	DV373
387684	5371
387768	SR376
388955	AR103
389275	5371
389398	SW622
389493	SW622
389954	5372
390124	AR103
391264	6220
391511	5387
391735	5370
392133	5376
393259	6220
393570	5386
393988	6220
394176	6220X
395207	5373
395419	SW622
395840	6220
396235	5387
397023	5387
432925	5363
433226	6243
433850	BK900
433852	SR363
434495	6241
434496	6241
434517	JSA517
434795	6220
435532	6242
435548	6244

## B.R.P. - O.M.C.



437666	6244
437801	6242
438529	6241
438531	6241
438786	6238
438878	5363
439937	6238
580841	AR103
581305	AR103
581366	AR104
581528	SW340
581603	AR103
581778	AR104
582048	6206
582155	6206
582195	R473
582304	AR104
582307	AR103
582399	AR103
582472	R473
582473	R473
582708	SW622
583408	AR103
583473	5390
583482	5389
583940	AR104
584107	6206
584128	SW268
584416	R473
584580	SW580
584608	5368
584613	5361
584799	5387
584818	5398
584980	5399
585050	5370
585051	5372
585056	5389
585057	5372
585058	5370
585059	5390
585060	5386
585061	5376
585062	5373
585063	5371
585197	5370
585265	SR376
585266	SR372
585267	DV372
586100	DV372
586101	DVK89
586102	DVK76
586147	R473
586180	SW622
586224	R473
586274	5361
586275	5368



## PART NUMBER QUICK REFERENCE

Need Technical Assistance? Call Us at 954-525-0311 or Toll Free: 1-800-432-2231

### B.R.P - O.M.C.

586276	5369
586277	5398
586278	5376
586279	5389
586280	5371
586281	5370
586283	5372
586284	5399
586285	5386
586286	5363
586287	5363
586288	5373
586289	5387
586392	DV387
586411	5387
586730	SW730
586731	5387
586767	R767
586768	5358
586774	SW590
586842	SW394
586890	5387
586897	5387
586957	5387
587020	SW595
587045	5358
587078	5357
587291	5357
763454	5369
778991	5390
778992	5373
778993	5371
778994	5386
778995	5361
778996	5398
979768	6211
979774	SW774
979937	6211
980801	SW394
981074	30460
981078	30160
981186	40152
981187	40152
981410	SW268
981638	6211
981703	SW394
981821	70200
982058	6204
982069	6211
982073	6211
982107	30460
982121	30460
982151	TR211
982187	SW268
982189	SW394
982200	30460
982311	TR204
982364	20104
982706	6204
983019	6220
983248	30460
983195	6214
983318	6211
983424	60125
983444	30460
983446	6220

### B.R.P - O.M.C.

983790	30460
984356	6206
984456	30470 & MBK450
984536	70212
984565	60125
984628	70216
985063	SW268
985064	SW730
985237	6220
985465	60125
985466	60125
985799	SW984
985964	40152
985966	30460
986008	60125
986280	6245
986505	30470 & MBK450
987774	60070
987811	70125
987883	SW125
987969	70200
988012	70125
988013	70212
988217	30460
988247	60125
0586767	R767
3850216	SW463
3850525	30470 & MBK450
3850526	30460
3853839	SW394
3853853	60125
3853869	SW984
3853945	6245
3853982	30470 & MBK450
3853998	SW984
3854182	60125
3854190	70125
3854194	SW125
3854750	30460
3854751	30470 & MBK450
3854809	60125
3855177	30470 & MBK450
3855882	30460
3856600	60070
3857298	60125
3857533	R473
3857561	60070
3857747	30470 & MBK450
3858463	30460
3860566	30470 & MBK450
3860769	60125
5004518	JSA518
5005254	6238
5005374	6241
5005376	6241
5005831	6248
5006319	6247
5009214	SW590
5036732	6240

### PLSRCRAFT

R13001	SW394
R130013	SW125
R130014	SW295
R200000	70201
RA097002	40147
RA097006	60108
RA097006A	60108
RA097007	20815
RA097007A	20821
RA097007B	20825
RA097007C	20822
RA097009	20826
RA122001	70200
RA122002	70201
RA122004	70108
RA122008	30456
RA122009	30459
RA122014	70125
RA122015	30433
RA122016	30460
RA122019	30462
RU0050	SW456
RU0050A	SW463
RU0050B	SW463

### POLARIS

3240120	DV744
---------	-------

### SEA DOO

29550089	DV650
----------	-------

### SIERRA

18-5600	5373
18-5601	5366
18-5602	5374
18-5603	30459
18-5604	5375
18-5605	5379
18-5606	5388
18-5608	5380
18-5609	5381X
18-5610	5392
18-5611	5367
18-5612	5363
18-5613	5393
18-5614	5397
18-5617	5361
18-5618	7325
18-5619	5387
18-5620	5395
18-5621	5396
18-5622	5394
18-5623	5368
18-5624	5389
18-5626	5370
18-5627	5390
18-5628	5386
18-5629	5376
18-5630	5371

### SIERRA

18-5631	5398
18-5632	5399
18-5634	5372
18-5635	5370
18-5636	5377
18-5639	5367
18-5640	5373
18-5641	5366
18-5642	5375
18-5643	5380
18-5644	5393
18-5645	5376
18-5646	5371
18-5647	5372
18-5648	5370
18-5649	5377
18-5650	DV366
18-5651	DV385
18-5655	DV376
18-5656	DV377
18-5658	DV381
18-5659	DV325
18-5671	DV390
18-5673	DV393
18-5674	DV380
18-5675	DV387
18-5677	DV394
18-5678	DV389
18-5679	DVK72
18-5680	DVK76
18-5682	DV396
18-5697	BK900
18-5700	R809
18-5702	R952
18-5704	R832
18-5705	R473
18-5707	AR351
18-5708	AR103
18-5709	AR104
18-5710	VR405
18-5711	VR404
18-5712	VR407
18-5714	VR095
18-5727	VR406
18-5728	VR405
18-5729	R211
18-5800	R012
18-5801	SW394
18-5802	SW981
18-5803	SW774
18-5804	SW975
18-5807	SW081
18-5808	SW622
18-5811	SW463
18-5812	SW268
18-5813	SW268
18-5814	SW340
18-5815	SW275
18-5816	SW054
18-5817	SW058
18-5818	SW064
18-5819	SW097
18-5820	SW099
18-5821	SW945

# PART NUMBER QUICK REFERENCE



Need Technical Assistance? Call Us at 954-525-0311 or Toll Free: 1-800-432-2231

## SIERRA



18-5822	SW926
18-5823	SW580
18-5833	SW590
18-5834	SW109
18-5835	SW295
18-5836	SW661
18-5837	SW984
18-5838	SW975
18-5841	SW774
18-5842	SW412
18-5843	SW424
18-5882	60073
18-5900	30460
18-5901	30456
18-5902	30457
18-5903	70200
18-5904	70201
18-5905	30470 & MBK450
18-5906	10113
18-5907	30456
18-5908	30457
18-5910	30470 & MBK450
18-5911	30460
18-5913	30470 & MBK450
18-5914	70200
18-5915	70201
18-5916	70216
18-5917	70216
18-5918	10113
18-5919	30460
18-5920	70125
18-5923	70200
18-5927	70216
18-5929	20860
18-5936	12412
18-5938	12420
18-5939	80108
18-5943	80108
18-5945	65055
18-5950	20102
18-5951	20104
18-5954	40112
18-5956	20102
18-5957	60050
18-5959	80108
18-5960	60060
18-5963	40152
18-5964	40152
18-59640	40152
18-5965	60065
18-5966	60050
18-5967	60055
18-5972	60124
18-5979	60072
18-5982	60160
18-5983	20810
18-5984	20820
18-6250	SR102
18-6251	SR104
18-6252	TR208
18-6253	TR217
18-6254	TR217
18-6257	6214
18-6258	6239
18-6259	6267

## SIERRA



18-6260	60125
18-6261	60070
18-6262	60122
18-6263	60108
18-6264	R036
18-6265	60071
18-6266	R040
18-6267	R211
18-6268	R177
18-6269	SW340
18-6270	70212
18-6271	R670
18-6273-1	6278
18-6274	6224
18-6275	30433
18-6276	70212
18-6277	6244
18-6278	84150
18-6280	6242
18-6281	6238
18-6282	7326
18-6283	5381
18-6284	84135
18-6285	6243
18-6286	6255
18-6287	SW450
18-6288	20825
18-6291	SW125
18-6292	10113
18-6293	20800
18-6298	20815
18-6299	20830
18-6410	3420
18-6411	3422
18-6412	3424
18-6413	3426
18-6414	3440
18-6415	3428
18-6416	3444
18-6417	3442
18-6418	3410
18-6420	3421
18-6421	3423
18-6422	3425
18-6423	3427
18-6424	3429
18-6425	3430
18-6426	3431
18-6427	3432
18-6430	3421
18-6432	3412
18-6433	3446
18-6434	5369
18-6435	5360
18-6436	5362
18-6437	5364
18-6438	5365
18-6439	5382
18-6440	5400
18-6441	5551
18-6443	30462
18-6450	20821
18-6451	20827

## SIERRA



18-6452	20826
18-6453	20822
18-6454	20840
18-6455	20850
18-6754	6209
18-6755	6204
18-6756	6228
18-6758	6223
18-6759	6220
18-6760	6265
18-6761	6206
18-6762	6216
18-6763	6217
18-6764	6211
18-6765	6270
18-6767	6208
18-6767-1	6208
18-6769	6275
18-6769-1	6275
18-6770	6227
18-6771	M525
18-6772	6218
18-6773	6250
18-6774	6279
18-6775	6274
18-6777	6276
18-6778	M532
18-6780	6241
18-6781	6260
18-6783	6240
18-6785	6269
18-6786	6268
18-6787	6261
18-6788	6264
18-6789	6266
18-6798	6263
18-6804	6233
18-6805	6232
18-6811	6259
18-6812	6266
18-6813	6275
18-6814	6206
18-6815	6248
18-6816	6228
18-6817	6232
18-6821	6267
18-6824	5384
18-6825	5381X
18-6826	5358
18-6827	3444
18-6828	5385
18-6829	5359
18-6838	6225
18-6841	20102
18-6842	60125
18-6843	60075
18-6845	60073
18-6847	60076
18-6848	60074
18-6851	BI-1203
18-6852	BI-1602
18-6854	BI-1603
18-6855	BI-0702
18-6860	WH800
18-6861	3429
18-6863	5368

## SIERRA



18-6864	5397
18-6925	84135
18-6932	98185
18-6937	98180
18-6943	5359
18-6946	30470
18-6947	12213
18-6952	60150
18-6955	60170
18-18409	6259
18-56001	SR410
18-56002	SR446
18-56003	SR420
18-56004	SR424
18-56005	SR426
18-56006	SR428
18-56007	SR429
18-56008	SR440
18-56009	SR444
23-5900	86050

## SUZUKI



31100-87D00	3442
31100-87D10	3442
31100-92E00	3442
31100-94400	3412
31100-94401	3412
31100-94402	3412
31100-94500	3444
31100-94510	3444
308-76010-10	3412
31100-94511	3444
31100-94512	3444
31100-94600	3444
31100-94601	3444
31100-94610	3444
31100-95600	3440
31100-95601	3440
31100-96310	3412
31100-96311	3412
38100-87D01	6269
38100-87E20-OED	6268
38100-92E00-OED	6268
38100-92E00-OEP	6268
38410-94540	R950/951

## TOHATSU



FM5900	3410
353-76010-1A0	3410
353-76010-04	3410
353-76010-300	3410

## UNIVERSAL



275753	40112
277584	40145
288182	60108
288759	60108

## VOLVO



1214764	R040
1324492	R670





## PART NUMBER QUICK REFERENCE

Need Technical Assistance? Call Us at 954-525-0311 or Toll Free: 1-800-432-2231

### VOLVO



1501832.....	R832
1504952-1.....	R952
241812.....	R670
3581774.....	97225
3586765.....	6227
3587625.....	30470 & MBK450
3803113.....	97225
3850216-7.....	SW463
3850525-1.....	30470 & MBK450
3850526.....	30460
3850927-9.....	60125
3853839-3.....	SW394
3853853-4.....	60125
3853869-0.....	SW984
3853982-1.....	30470 & MBK450
3853998-7.....	SW984
3854182-7.....	60125
3854190-0.....	70125
3854194-2.....	SW125
3854750-1.....	30460
3854751-9.....	30470 & MBK450
3854809-5.....	60125
3855177-6.....	30470 & MBK450
3856600.....	60070
3856003-3.....	30460
3856004-1.....	30470 & MBK450
3856596.....	6227
3857298.....	60125
3857265-7.....	6224
3857561.....	60070
3857747.....	30470 & MBK450
3857813.....	60071
3858071.....	6232
3858077.....	M533
3858081.....	R809
3858809.....	R809
3859054.....	SW463
3860082.....	60072
3860171.....	60070
3860173.....	60125
3860566.....	30470 & MBK450
3860764.....	30470 & MBK450
3860769.....	60070
3860798.....	60071
3861575.....	6233
3862308.....	30460
3862612.....	60074
3862613.....	60076
3862665.....	60073
3862985.....	30459
3885317.....	30470 & MBK450
3884950.....	60073
594043.....	DV225
594054.....	SW225
6643474-7.....	R670
818721.....	SW975
829029-8.....	SW814
829527-1.....	97225
831725-7.....	R952
834625-6.....	80108
834804-7.....	SW814
834852-6.....	SW814
834893-0.....	50142
835121-5.....	50142
835334-4.....	50141

### VOLVO



835635-4.....	70200
839367-0.....	R832
839586-5.....	TR222
841066-4.....	70200
841177-9.....	R177
841377-5.....	30456
841378-3.....	80108
841656-2.....	SW975
841762-8.....	80108
841765-1.....	80108
841766-9.....	80108
847308.....	97308
847561-8.....	80200
849561-6.....	80200
849747-1.....	60160
849748-9.....	60175
850834-3.....	6223
851126-3.....	TR223
852565-1.....	SW565
852928-1.....	6224
853083-4.....	6224
853084-2.....	6224
853544-5.....	R670
853545-2.....	R670
854346-4.....	6227
854357-1.....	R040
854437.....	6227
854525-3.....	6232
854531-1.....	M531
855326-5.....	30460
855332-3.....	SW975
855334.....	30459
857298.....	60125
858838-6.....	80108
858839-4.....	80108
859252-9.....	97225
859618-1.....	SW225
859623-1.....	DV225
860334-2.....	95949
870670-7.....	R670
872018-7.....	80108
872235-7.....	80108
872241-5.....	10113
872272-0.....	R177
872300-9.....	R670
872449-4.....	6224
872720-8.....	VR135
872926-1.....	80108
873051-7.....	6224
873120-0.....	BI-0702
873549-0.....	10113
875356-8.....	TR221
876037-3.....	R832
876038-1.....	R670
876039-9.....	R952
876040-7.....	R040

### WESTERBEKE



16762.....	12101
23953.....	12104
31227.....	12101
30594.....	86050

### WESTERBEKE



33486.....	30456
34552.....	98175
39790.....	60075
21129980.....	30459
42847.....	60104

### YAMAHA



CS3-43880-00.....	6259
19-1400-10.....	60075
6BR-81800-00.....	3433
6BR-81800-01.....	3433
6CJ-81800-00.....	3432
6C5-43880-00.....	6257
6C5-43880-01.....	6257
6C5-81800-00.....	3432
6D8-43880-00.....	6258
6D8-43880-01.....	6258
6D8-43880-09.....	6258
6E5-43880-01.....	6267
6E5-43880-02.....	6267
6E5-81840-10.....	SR426
6E5-81800-11.....	3426
6E5-81800-12.....	3426
6E5-81941-10.....	SW941
6E5-81941-11.....	SW941
6E5-81950-01.....	R950
6E5-8195A-01.....	R951
6F5-81800-10.....	3423
6F5-81800-11.....	3423
6G1-8194A-10.....	SW945
6G1-81940-00.....	SW945
6G1-81941-10.....	SW945
6G5-43880-00.....	6265
6G5-43880-01.....	6265
6G5-43880-02.....	6265
6H1-43880-00.....	6267
6H1-43880-02.....	6260
6H3-81800-10.....	3422
6H3-81800-11.....	3422
6H4-81800-10.....	3425
6H4-81800-11.....	3425
6H4-81800-12.....	3425
6H5-43880-02.....	6264
6H5-43880-09.....	6264
6J4-81800-00.....	3423
6J4-81800-01.....	3423
6K7-81800-10.....	3428
6K8-81807-10.....	DV500
6L2-81800-10.....	3421
6L2-81800-11.....	3421
6L2-81800-20.....	3421
6M6-8183E-00.....	DV700
6M6-8183E-01.....	DV700
6N7-81800-00.....	3428
6N7-81800-01.....	3428
6N7-81800-10.....	3428
6N7-81840-00.....	SR428
6N7-VS818-01.....	3428
61A-81800-00.....	3429
61A-81800-01.....	3429
61A-81840-00.....	SR429
61A-81941-00.....	SW941
61H-81800-00.....	3428
61H-81800-01.....	3428
61H-81800-10.....	3428
62X-43880-00.....	6266
62X-43880-01.....	6266
62X-43880-09.....	6266

### YAMAHA



62Y-43880-01.....	6259
62Y-43880-02.....	6259
63P-81800-00.....	3433
64E-43880-00.....	6240
64E-43880-01.....	6240
64E-43880-03.....	6240
64E-43880-04.....	6240
65W-81800-00.....	5364
65W-81800-01.....	5364
65W-81800-02.....	5364
65W-81800-03.....	5364
65W-81941-00.....	SW099
66M-81800-01.....	5359
66M-81800-02.....	5359
663-81840-11.....	SR424
67C-81800-00.....	5365
67C-81800-01.....	5365
67C-81800-02.....	5365
67F-43880-00.....	6261
67F-81800-00.....	3430
67F-81800-01.....	3430
67F-81800-02.....	3430
67F-81800-03.....	3430
67H-43880-00.....	6240
67H-43880-01.....	6240
67H-43880-04.....	6240
68F-81800-00.....	3431
68F-81800-01.....	3431
68F-81800-03.....	3431
68V-43880-00.....	6240
68V-43880-01.....	6240
68V-43880-03.....	6240
68V-81800-00.....	3432
68V-81800-01.....	3432
682-81800-11.....	3421
682-81800-12.....	3421
688-43880-10.....	6267
688-81800-10.....	3427
688-81800-11.....	3427
688-81800-12.....	3427
688-81950-10.....	SW950
689-81800-11.....	3420
689-81800-12.....	3420
689-81800-13.....	3420
69J-43880-01.....	6263
69L-81800-00.....	3429
69W-43880-00.....	6259
69W-43880-01.....	6259
69W-81800-01.....	3429
697-81800-10.....	3424
697-81800-11.....	3424
697-81800-12.....	3424
697-81800-13.....	3424
99999-03249.....	3424
99999-03938.....	3428

### YANMAR



128170-77010.....	98180
128170-77010D.....	98180
128270-77200.....	84135
129608-77010.....	98185
129698-77010.....	98185
129772-77200.....	84150
171008-77010.....	98185
X211447009.....	SW487

## TECH TIPS



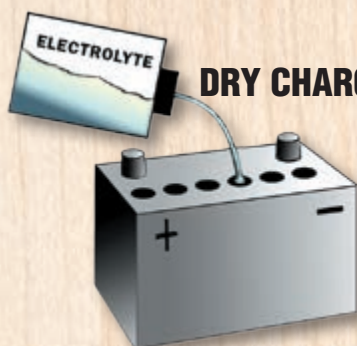
### IMPORTANT BATTERY FACTS

A good battery can provide four or five years of worry-free service with the right kind of care.

**Bigger is better!** The battery you are replacing does not have to be the same size as the original. **IT IS ALWAYS BETTER TO HAVE EXTRA BATTERY CAPACITY.**

### POINTS TO REMEMBER

- ➡ **The battery is the heart of the electrical system**
- ➡ **Always start troubleshooting at the battery**
- ➡ **Never store a battery in a discharged state**
- ➡ **Never add anything except distilled water to a battery**



### DRY CHARGED BATTERIES MUST BE CHARGED BEFORE USING

Many small batteries are supplied with the electrolyte in a separate container. If you have to fill a new battery with electrolyte, **YOU MUST PLACE THE BATTERY ON A QUICK CHARGER.** The charging system will never bring the battery to a fully charged state. **THE BATTERY CAPACITY WILL NEVER BE ABOVE 80%.** Pulling the battery out later and trying to charge it will not work. **THE BATTERY'S CAPACITY HAS BEEN PERMANENTLY CUT BY 20% AND THERE IS NOTHING YOU CAN DO ABOUT IT.**

### BATTERIES WILL SELF DISCHARGE WHEN STORED

Batteries will self discharge when stored for long periods of time. This is a normal process with all lead acid batteries. **Always charge the battery to full charge before storing.** Also disconnect the negative battery cable. This will keep the small system drains from accelerating the discharge process. The best way to avoid shortened battery life is **use a SMART CHARGER (not a trickle charger)** on the battery when it's not being used. A smart charger is a charging device that will maintain the battery at a full state of charge by only charging the battery when the voltage drops to a specified level without overcharging.



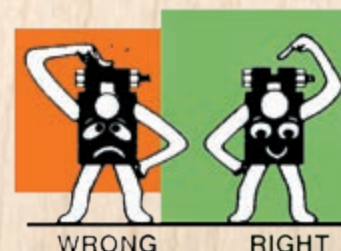
### ELECTROLYTE BECOMES WATER IN A DISCHARGED BATTERY



As a battery becomes discharged the percentage of sulfuric acid in the electrolyte becomes less. The sulfuric acid combines with the lead plates producing lead sulfate. As this happens **the electrolyte solution becomes pure water.** A discharged battery will freeze in cold climates, which will destroy the insulators and plates inside it.

### LOOSE BATTERY TERMINAL ENDS CAN DESTROY A BATTERY

Loose or corroded battery cable lugs can cause all sorts of problems. When the starter is engaged the loose or corroded connection can cause a heavy arc which will melt the post right out of the battery. If the battery is gassing, the arc can cause the battery to explode. Never use the temporary type battery ends. These are only good for emergency use and will become corroded in a short period of time. **Always use a crimped and sealed battery cable end or replace the battery cable.**



Make sure there is a gap between the ends of the terminal when tight.



## BATTERY TESTING PROCEDURES

**WARNING!** Batteries give off hydrogen gas constantly. Hydrogen gas is highly explosive. Always wear safety glasses or goggles and use caution when working with batteries.

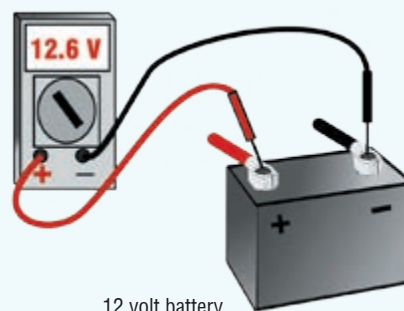
### OPEN CIRCUIT VOLTAGE TEST

**Before you can properly test any battery it must be at FULL CHARGE.**

You can verify the state of charge with the use of a **digital multimeter**.

Connect the digital multimeter to the battery terminals. A fully charged 12 volt battery will read at least 12.6 volts (2.1 volts per cell) on the multimeter. **If your reading is 12.4 OR BELOW you must recharge the battery before testing.**

Open Circuit Volts	Percent of Charge
11.7 volts or less	0%
12.0	25%
12.2	50%
12.4	75%
12.6 or more	100%



12 volt battery

### LOAD TESTING THE BATTERY

**Before you can properly test any battery it must be at FULL CHARGE.**

The only way you can thoroughly test a battery is to place a high amperage load across the battery terminals.

**Starter motors have very high amperage requirements which can exceed 300 amps on certain engine applications.** If the battery has to be recharged you must first remove the surface charge. This can be done by using the starter. Disable the ignition spark (consult manufacturer's method to avoid electronic ignition) and crank the engine for 10-15 seconds. Once you have removed the surface charge, disconnect the battery cables and connect the battery load tester to the battery posts.

**Determine the cold cranking amperage rating of the battery you are testing.**  
**If the cold cranking amp rating (CCA) is not known, use 450 CCA for four cylinder engines, 550 CCA for six cylinder engines and 650 CCA for V-8 engines.**

Adjust current draw on the load tester to 50% of the CCA rating. Continue this for 15 seconds while viewing the voltage reading on the battery tester. The voltage should stay above the specified reading (see chart below) without falling off. If the voltage remains at the specified level or above, the battery would be considered good. If the voltage reading drops below the specified level, replace the battery.

Load Test Chart		
Minimum Voltage	Temperature (degrees)	
9.6	70 F	21C and above
9.5	60F	16C
9.4	50F	10C
9.3	40F	-1C
9.1	30F	-7C
8.9	20F	-12C
8.7	10F	-18C
8.5	0F	-18C



## TECH TIPS



## Tech Tip

*Rust, Corrosion or Submersions are  
NOT COVERED BY WARRANTY*

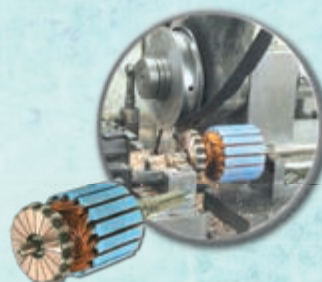
# The best offense is a great defense

Moisture is the number one "killer" of marine starters. That is why, from start to finish, we design and manufacture our starters with corrosion protection in mind. In fact, over three million dollars has been invested in totally computerized production and testing machinery. Follow along as we show you how we not only go to war against corrosion, but build quality into each and every ARCO part.

First, we start with nickel-plated armature shafts and silicon steel lamination stacks. Add a layer of powder coating, the best insulation and corrosion preventative available, and you are ahead in the battle.

Next, the commutator is attached, computer-wound copper windings are added, and a ground fault test is made on each armature. Strategic testing during the early stages of assembly is an essential maneuver for uncovering and correcting potential weaknesses. The commutator tabs are then crimped and hot stacked. On the lathe, the commutator face is smoothed and polished ensuring the brushes run as friction-free as possible. A computerized 18 point armature check is made at this time.

Now the armature goes onto our automated, state-of-the-art assembly line. The first stop is the polyester trickle varnish "carousel". The varnish not only assists in holding the windings in place during peak performance, but also dissipates heat—another of the starter's enemies. Moving along, the armatures are now inserted into the epoxy coated shell. The shells have been previously prepared with high performance magnets bonded to the interior. Nuts, bolts, gaskets, a spring, drive gear, brush kit and end cap are added to complete the assembly of the starter. The high performance magnets are now fully charged. Last, but not least, a computerized full load performance test is conducted on each and every starter. Only by passing this final inspection is an ARCO starter certified as ready for battle.





## REPLACEMENT OUTBOARD STARTERS

### 3410 (NEW)

**FITS: TOHATSU** 45-140 HP, **2 Stroke**

Replaces: Hitachi S114-415A,  
S114-415, S114-571A,  
S114-667

**9-tooth drive gear**



**DV510\***

**9-tooth  
drive gear**



**SR410\***

**Brush holder  
assembly**



**\*Will Fit These Starters Only:**

**ARCO** 3410, Hitachi S114-667, Tohatsu FM 5900

### 3412 (NEW)

**FITS: SUZUKI, TOHATSU,  
NISSAN** 30-40 HP, **2 Stroke**

Replaces: Hitachi S108-94,  
S108-112, S108-120

**9-tooth drive gear**



**DV512\***

**9-tooth  
drive gear**



**SR412\***

**Brush holder  
assembly**



**\*Will Fit These Starters Only:**

**ARCO** 3412, Hitachi S108-120, Tohatsu 3C8-76010-100

### 3420 (NEW)

**FITS: YAMAHA** 25-40 HP, **2 Stroke**

**MARINER** 20-40 HP, **2 Stroke**

Replaces: Hitachi S108-80,  
S108-80A, S108-80B

**11-tooth drive gear**



**DV520\***

**11-tooth  
drive gear**



**SR420\***

**Brush holder  
assembly**



**\*Will Fit These Starters Only:**

**ARCO** 3420, Hitachi S108-80B, Yamaha 689-81800-13

### 3421 (NEW)

**FITS: YAMAHA**

**1984-1997** 9.9-15 HP

**1988-1998** 25 HP

**MERCURY** 9.9 HP, **4 Stroke**

**15 HP, 4 Stroke**

Replaces: Hitachi

S106-07B,

S106-07E,

S106-07F

**10-tooth drive gear**



### 3422 (NEW)

**FITS: YAMAHA**

**1984-UP** 70 HP

**1991-UP** 60 HP, **2 Stroke**

Replaces: Hitachi S108-97A

**9-tooth drive gear**



**DV522\***

**9-tooth  
drive gear**



**SR422\***

**Brush holder  
assembly**



**\*Will Fit These Starters Only:**

**ARCO** 3422, Hitachi S108-97A, Yamaha 6H3-81800-11

### 3423 (NEW)

**FITS: YAMAHA**

**1987-Up** 30 HP

**1989-Up** 40-50 HP

Replaces: Hitachi S108-87A

**11-tooth drive gear**



**DV523\***

**11-tooth  
drive gear**



**SR423\***

**Brush holder  
assembly**



**\*Will Fit These Starters Only:**

**ARCO** 3423, Hitachi S108-87A, Yamaha 6F5-81800-11



## REPLACEMENT OUTBOARD STARTERS



### 3424 (NEW)

**FITS: YAMAHA, MARINER**

55-60 HP 2-Cyl, 2 Stroke Engines

Replaces: Hitachi S114-221

9-tooth drive gear



**DV524\***  
9-tooth  
drive gear



**SR424\***  
Brush holder  
assembly



**\*Will Fit These Starters Only:**

**ARCO** 3424, Hitachi S114-221J, Yamaha 697-81800-13

### 3427 (NEW)

**FITS: YAMAHA**

1994-1999 75 HP;

1991-1996 85 HP;

1984-UP 90 HP

Replaces: Hitachi S114-263B,

9-tooth drive gear



**DV527\***  
9-tooth  
drive gear



**SR427\***  
Brush holder  
assembly



**\*Will Fit These Starters Only:**

**ARCO** 3427, Hitachi S114-263B, Yamaha 688-81800-12

### 3425 (NEW)

**FITS: YAMAHA**

1984-1988 40-50 HP

Replaces: Hitachi S108-99B

9-tooth drive gear



**DV525\***  
9-tooth  
drive gear



**SR425\***  
Brush holder  
assembly



**\*Will Fit These Starters Only:**

**ARCO** 3425, Hitachi S108-99B, Yamaha 6H4-81800-12

### 3428 (NEW)

**FITS: YAMAHA** 115-225 HP, 2 Stroke

Replaces: Hitachi S114-552, S114-660

9-tooth drive gear



**DV528\***  
9-tooth  
drive gear



**SR428\***  
Brush holder  
assembly



**\*Will Fit These Starters Only:**

**ARCO** 3428, Hitachi S114-660B, Yamaha 6N7-81800-10

### 3426 (NEW)

**FITS: YAMAHA**

1984-1996 115-200 HP, 2 Stroke

1995-2000 40-50 HP, 4 Stroke

MERCURY 40-50 HP, 4 Stroke

S/N OG472132 & BELOW

Replaces: Hitachi S114-323

9-tooth drive gear



**DV526\***  
9-tooth  
drive gear



**SR426\***  
Brush holder  
assembly



**\*Will Fit These Starters Only:**

**ARCO** 3426, Hitachi S114-323C, Yamaha 6E5-81800-12

### 3429 (NEW)

**FITS: YAMAHA**

1998-UP V200;

1994-UP 225 HP

1990-UP 250 HP

Replaces: Hitachi S114-559B

9-tooth drive gear



**DV529\***  
9-tooth  
drive gear



**SR429\***  
Brush holder  
assembly



**\*Will Fit These Starters Only:**

**ARCO** 3429, Hitachi S114-559B, Yamaha 61A-81800-01





## REPLACEMENT OUTBOARD STARTERS

### 3430 (NEW)

**FITS: YAMAHA**  
**1999-Up 80 HP, 4 Stroke**  
**1999-Up 100 HP, 4 Stroke**  
**MERCURY/MARINER**  
 75 HP, **4 Stroke**  
 90 HP, **4 Stroke**  
 Replaces: Hitachi S114-828B  
**13-tooth drive gear**



### 3431 (NEW)

**FITS: YAMAHA**  
**2000-Up LZ 150-175 HP**  
**2000-Up VZ 150-175 HP**  
**2000-Up Z 150-175 HP**  
**2000-Up LZ 200-Z200 HP**  
 Replaces: Hitachi S114-836A  
**13-tooth drive gear**



### 3432 (NEW)

**FITS: YAMAHA**  
**2000-Up F115, 4 Stroke**  
**2000-Up LF115, 4 Stroke**  
**MERCURY 90-115 HP EFI, 4 Stroke**  
 Replaces: Hitachi S114-838A  
**13-tooth drive gear**



### 3433 (NEW)

**FITS: YAMAHA**  
**2004-Up 150 HP, 4 Stroke**  
**2005-Up 250 HP, 4 Stroke**  
**2006-Up 225 HP, 4 Stroke**  
 Replaces: Hitachi S114-867  
**13-tooth drive gear**



### 3440 (NEW)

**FITS: SUZUKI 75/85 HP,**  
**1988-2000 2 Stroke**  
 Replaces: Hitachi S114-555  
**9-tooth drive gear**



**DV540\***  
**9-tooth**  
**drive gear**



**SR440\***  
**Brush holder**  
**assembly**



**\*Will Fit These Starters Only:**

**ARCO** 3440, Hitachi S114-555, Suzuki 31100-95601

### 3442 (NEW)

**FITS: SUZUKI 90/100,**  
**150-225 HP, 2 Stroke**  
 Replaces: Hitachi S114-551, S114-674  
**8-tooth drive gear**



**DV542\***  
**8-tooth**  
**drive gear**



**SR442\***  
**Brush holder**  
**assembly**



**\*Will Fit These Starters Only:**

**ARCO** 3442, Hitachi S114-674, Suzuki 31100-92E00

### 3444 (NEW)

**FITS: SUZUKI**  
**115-140 HP, 2 Stroke**  
 Replaces: Hitachi S114-437, S114-673  
**9-tooth drive gear**



**DV544\***  
**9-tooth**  
**drive gear**



**SR444\***  
**Brush holder**  
**assembly**



**\*Will Fit These Starters Only:**

**ARCO** 3444, Hitachi S114-673, Suzuki 31100-94610

## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.



### “DO NOT”

#### SPRAY OIL OR OTHER LUBRICANTS ON O/B STARTER DRIVES

The O/B Starter Drives are Rubber Cushioned Drives. If any oil gets between the compression nut and the rubber grip surface, drive failure will result.



### “DO”

#### REMOVE THE DRIVE ASSEMBLY WHEN APPLYING LUBE TO THE SHAFT

Always remove the drive assembly before applying lube to the shaft. Only apply a thin film of water resistant grease to the shaft. Make sure to wipe off any excess.

### 3446 (NEW)

**FITS: HONDA**

35,40,45 & 50HP, 4 Stroke

Replaces: Hitachi S114-677,  
S114-561

Honda 31200-ZV5-013,  
31200-ZV5-003

**9-tooth drive gear**  
**CW Rotation**



**SR446\***  
**Brush holder**  
**assembly**



**Starter To be  
discontinued  
when present  
stock is exhausted.**

**\*Will Fit These Starters Only:**

**ARCO** 3446, Hitachi S114-677

### 3447 (NEW)

**FITS: HONDA**

2002 - UP 115 & 130 HP

Replaces: Mitsubishi MOT 60381

Honda: 31200-ZW5-003

**13-tooth drive gear**



### 5357 (NEW)

**FITS: EVINRUDE G2 ENGINES**

Replaces: BRP 587078 & 587291

**14-tooth drive gear**

**SW357**

**Replacement solenoid**



### 5358 (NEW)

**FITS: EVINRUDE**

40, 50, 75, 90 HP

E-Tec Models

**9-tooth drive gear**



**DV358**  
**9-tooth**  
**drive gear**



**SR358**  
**Brush holder**  
**assembly**



### 5359 (NEW)

**FITS: MERCURY/MARINER**

8, 9.9, 13.5, 15 HP, 4 Stroke

**YAMAHA 15 HP, 4 Stroke**

**9-tooth drive gear**



**DV359**  
**9-tooth**  
**drive gear**



**SR359**  
**Brush holder**  
**assembly**



### 5360 (NEW)

**FITS: MERCURY**

2001-UP 40, 50, 60 HP

4-cyl, 4 Stroke

**9-tooth drive gear**



**DV360**  
**9-tooth**  
**drive gear**



**SR360**  
**Brush holder**  
**assembly**







## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.

### 5361 (NEW)

FITS: O.M.C.

1993-UP 9.9-15 HP

Small 10-tooth drive gear

2" casing



### DV361

Small 10-tooth drive gear



### SR361

Brush holder assembly



### 5362 (NEW)

FITS: MERCURY 40-50 HP

1997-UP 4-Stroke

9-tooth metric drive gear



### DV362

9-tooth metric drive gear



### SR362

Brush holder assembly



### 5363 (NEW)

FITS: O.M.C.

1991-UP 150-175 HP

V6 Eagle-Series

1997-UP V4 and V6

2003 75/90/115 HP

2003-UP 90/105/115

60° Engine

2004-UP 100-175 HP

Direct Injection



### SR363

Brush holder assembly

### DV517

9-tooth drive gear



### DV518

10-tooth drive gear



### JSA517

Jack shaft assembly/9-tooth drive gear

Fits Johnson Evinrude carbureted engines



### JSA518

Jack shaft assembly/10-tooth drive gear

Fits Johnson Evinrude direct injection engines



### 5364 (NEW)

FITS: MERCURY

1998-UP 25 HP, 4 Stroke

Yamaha 25HP, 4 Stroke

9-tooth drive gear



### DV364

9-tooth drive gear



### SR364

Brush holder assembly



### 5365 (NEW)

FITS: MERCURY

30/40/50/60 HP

1999-UP 3-cyl, 4 Stroke

2000-UP Yamaha

40HP, 4 Stroke

9-tooth drive gear



### DV365

9-tooth drive gear



### SR365

Brush holder assembly



### 5366 (NEW)

FITS: MERCURY

35-50 HP

9-tooth drive gear



### DV366

9-tooth drive gear



### SR366

Brush holder assembly





## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.



### NOTE

When ordering drive assemblies for B.R.P./O.M.C. starters, be aware that some B.R.P./O.M.C. outboard starters use a 2-piece drive assembly; older B.R.P./O.M.C. starters use a 1-piece drive assembly.

**ORDER THE  
CORRECT DRIVE.  
THEY ARE NOT  
INTERCHANGEABLE!**

### 5367 (NEW)

**FITS: MERCURY/MARINER**

1986-1996 6-15 HP

1980-2003 18-25 HP

10-tooth drive gear

2½" motor casing



**DV367**  
10-tooth  
drive gear



**SR367**  
Brush holder assembly



### 5368 (NEW)

**FITS: O.M.C.**

1997-2000

9.9/15 HP, 4-stroke

10-tooth drive gear



**DVK68\***  
2-pc drive kit  
\*See NOTE



**SR368**  
Brush holder assembly

### 5369 (NEW)

**FITS: O.M.C.**

8/9.9-11 HP

1997-1998 4 stroke

1977-1992 9.9-15 HP

10-tooth drive gear

2" motor casing



**DV369**  
10-tooth  
drive gear



**SR369**  
Brush holder assembly



## Save Time With **ARCO** SR107 - BRUSH LOADING TOOL

Makes brush loading as simple as 1-2-3

The "perfect tool" for loading outboard starter brushes.

Strong stainless steel construction.



(1) Depress Brushes and Slide End Cap In Tool



(2) Insert Armature



(3) Remove Tool Leaving Brushes Loaded For Assembly



**One Tool Fits  
All These Caps!**





## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.

### NOTE

When ordering drive assemblies for B.R.P./O.M.C. starters, be aware that some B.R.P./O.M.C. outboard starters use a 2-piece drive assembly; older B.R.P./O.M.C. starters use a 1-piece drive assembly.

**ORDER THE  
CORRECT DRIVE.  
THEY ARE NOT  
INTERCHANGEABLE!**

### 5370 (NEW)

FITS: O.M.C.  
55-75 HP 3-cyl  
9-tooth drive gear



**DV370\***  
9-tooth drive gear  
\*See NOTE

**DVK70\***  
2-pc drive kit  
\*See NOTE



**SR370**  
Brush holder assembly



### 5371 (NEW)

FITS: O.M.C.  
50-60 HP 2-cyl  
9-tooth drive gear



**DV371\***  
9-tooth drive gear  
\*See NOTE

**DVK71\***  
2-pc drive kit  
\*See NOTE



**SR371**  
Brush holder assembly



### 5372 (NEW)

FITS: O.M.C.  
85-140 HP; Late-model V4  
Small 10-tooth drive gear



**DV372\***  
Small 10-tooth  
drive gear  
\*See NOTE



**DVK72\***  
2-pc drive kit  
\*See NOTE



**SR372**  
Brush holder assembly

### 5372X (NEW)

FITS: O.M.C.  
1969-1970 85-115 HP  
1971-1972 85-125 HP  
Large 10-tooth drive gear



**DV372X**  
Large  
10-tooth  
drive gear



**SR372**  
Brush holder assembly



### 5373 (NEW)

FITS: O.M.C.  
150-235 HP V6  
8-tooth drive gear



**DV373**  
8-tooth  
drive gear



**SR373**  
Brush holder assembly





## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.



### NOTE

When ordering drive assemblies for B.R.P./O.M.C. starters, be aware that some B.R.P./O.M.C. outboard starters use a 2-piece drive assembly; older B.R.P./O.M.C. starters use a 1-piece drive assembly.

**ORDER THE  
CORRECT DRIVE.  
THEY ARE NOT  
INTERCHANGEABLE!**

### 5374 (NEW)

**FITS: MERCURY**

65-85 HP 4-cyl

10-tooth drive gear



**DV374**  
10-tooth  
drive gear



**SR374**  
Brush holder assembly



### 5374X (NEW)

**FITS: MERCURY**

1956-1957 25-30 HP

1957 55 HP

1958 30-55 HP

1959 35 & 55 HP

Large 10-tooth  
drive gear



**DV374X**  
Large  
10-tooth  
drive gear



**SR374**  
Brush holder assembly



### 5375 (NEW)

**FITS: MERCURY/MARINER**

50-90 HP/65 HP Jet

10-tooth drive gear



**DV375**  
10-tooth  
drive gear



**SR375**  
Brush holder assembly



### 5376 (NEW)

**FITS: O.M.C.**

18-40 HP

11-tooth drive gear



**DVK76\***  
2-pc drive gear kit  
\*See NOTE

**DV376\***  
11-tooth  
drive gear  
\*See NOTE



**SR376**  
Brush holder assembly



### 5377 (NEW)

**FITS: MERCURY/MARINER**

90-175 HP Inline

150 HP V6

10-tooth drive gear



**DV377**  
10-tooth  
drive gear



**SR377**  
Brush holder assembly







## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.

### NOTE

When ordering drive assemblies for B.R.P./O.M.C. starters, be aware that some B.R.P./O.M.C. outboard starters use a 2-piece drive assembly; older B.R.P./O.M.C. starters use a 1-piece drive assembly.

**ORDER THE  
CORRECT DRIVE.  
THEY ARE NOT  
INTERCHANGEABLE!**

### 5378X (NEW)

**FITS: MERCURY/MARINER**

V150 HP, V175 HP

**Large 10-tooth  
drive gear**



**DV378X**

**Large  
10-tooth  
drive gear**



**SR380**

**Brush holder assembly**



### 5379 (NEW)

**FITS: MERCURY/MARINER**

40-50 HP

**10-tooth drive gear**



**DV379**

**10-tooth  
drive gear**



**SR379**

**Brush holder assembly**



### 5380 (NEW)

**FITS: MERCURY/MARINER**

135-200 HP V6

105 HP Jet

**8-tooth drive gear**



**DV380**

**8-tooth  
drive gear**



**SR380**

**Brush holder assembly**



### 5381 (NEW)

**FITS: MERCURY**

1999-UP 2.5 DFI

1996-1999 200 HP V6 DFI

1998-Up 225 HP V6 DFI

1999-Up 3.0L V6

**9-tooth drive gear**



**DV381**

**9-tooth  
drive gear**



**SR381**

**Brush holder assembly**



### 5381X (NEW)

**FITS: MERCURY/MARINER**

150-225 HP

**9-tooth drive gear**



**DV381**

**9-tooth  
drive gear**



**SR380**

**Brush holder assembly**



## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.



### NOTE

When ordering drive assemblies for B.R.P./O.M.C. starters, be aware that some B.R.P./O.M.C. outboard starters use a 2-piece drive assembly; older B.R.P./O.M.C. starters use a 1-piece drive assembly.

**ORDER THE  
CORRECT DRIVE.  
THEY ARE NOT  
INTERCHANGEABLE!**

### 5382 (NEW)

**FITS: CHRYSLER/FORCE**  
35-50 HP  
11-tooth drive gear



**DV382**  
11-tooth  
drive gear



**SR382**  
Brush holder assembly



### 5384 (NEW)

**FITS: MERCURY/MARINER**  
2.0L, 2.4L, 2.5L V6,  
**COUNTER-ROTATING,  
RACING OUTBOARDS**  
10-tooth drive gear



**DV384**  
10-tooth  
drive gear



**SR384**  
Brush holder assembly



### 5385 (NEW)

**FITS: MERCURY**  
35-40 HP, 2-cyl  
10-tooth drive gear



**DV385**  
10-tooth  
drive gear



**SR385**  
Brush holder assembly



### 5386 (NEW)

**FITS: O.M.C.**  
1985-Up  
120-140 HP V4  
10-tooth drive gear



**DV386\***  
10-tooth  
drive gear  
\*See NOTE

**DVK86\***  
2-pc drive kit  
\*See NOTE



**SR386**  
Brush holder assembly

### 5387 (NEW)

**FITS: O.M.C.**  
V6, V8 loop  
10-tooth drive gear



**DV387**  
10-tooth  
drive gear



**SR387**  
Brush holder  
assembly





## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.

### NOTE

When ordering drive assemblies for B.R.P./O.M.C. starters, be aware that some B.R.P./O.M.C. outboard starters use a 2-piece drive assembly; older B.R.P./O.M.C. starters use a 1-piece drive assembly.

**ORDER THE  
CORRECT DRIVE.  
THEY ARE NOT  
INTERCHANGEABLE!**

### 5388 (NEW)

**FITS: MERCURY**

50-60 HP, 3-cyl,  
1991-1996 45 HP Jet  
10-tooth drive gear



**DV388**  
10-tooth  
drive gear



**SR388**  
Brush holder assembly



### 5389 (NEW)

**FITS: O.M.C.**

1989-Up 25, 40, 50 HP; 2-cyl  
1990-Up 48-50 HP  
9-tooth drive gear



**DV389\***  
9-tooth drive gear  
\*See NOTE

**DVK89\***  
2-pc drive kit  
\*See NOTE



**SR389**  
Brush holder assembly

### 5390 (NEW)

**FITS: O.M.C.**

1987-1993 20-35 HP; 2-cyl  
9-tooth drive gear



**DV390\***  
9-tooth drive gear  
\*See NOTE

**DVK90\***  
2-pc drive kit  
\*See NOTE



**SR390**  
Brush holder assembly

### 5392 (NEW)

**FITS: MERCURY/MARINER**

100-125 HP Inline 4-cyl;  
80 HP Jet  
8-tooth drive gear



**DV392**  
8-tooth  
drive gear



**SR392**  
Brush holder assembly



### 5393 (NEW)

**FITS: CHRYSLER/FORCE**

70-150 HP  
9-tooth drive gear



**DV393**  
9-tooth  
drive gear



**SR393**  
Brush holder assembly





## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.



### NOTE

When ordering drive assemblies for B.R.P./O.M.C. starters, be aware that some B.R.P./O.M.C. outboard starters use a 2-piece drive assembly; older B.R.P./O.M.C. starters use a 1-piece drive assembly.

**ORDER THE  
CORRECT DRIVE.  
THEY ARE NOT  
INTERCHANGEABLE!**

### 5394 (NEW)

Determine location of the battery stud on starter being replaced before ordering - See 5397

**FITS: FORCE**

1996-1999 40-50 HP  
13-tooth drive gear



Battery stud exits  
**BOTTOM**  
of starter

**DV394**  
13-tooth  
drive gear



**SR394**

Brush holder assembly



### 5395 (NEW)

**FITS: MERCURY/MARINER**

1994-Up 225 HP  
8-tooth drive gear



**DV395**  
8-tooth  
drive gear



**SR395**

Brush holder assembly



### 5396 (NEW)

**FITS: MERCURY**

1994-1996 30-40 HP,  
2-cyl, 55-60 HP

1997-Up 45 HP Jet  
10-tooth drive gear



**DV396**

10-tooth  
drive gear



**SR396**

Brush holder assembly



### 5397 (NEW)

Determine location of the battery stud on starter being replaced before ordering - See 5394

**FITS: FORCE**

1992-1995 40 HP  
1992-1995 50 HP  
13-tooth drive gear



Battery stud exits  
**SIDE**  
of starter

**DV397**

13-tooth  
drive gear



**SR397**

Brush holder assembly



### 5398 (NEW)

**FITS: O.M.C.**

1997-1999  
25-35 HP 3-cyl  
10-tooth drive gear



**DVK98\***

2-pc 10-tooth drive gear  
\*See Note



**SR398**

Brush holder assembly





## REPLACEMENT OUTBOARD STARTERS

*Tech Tip*

- Excess oil or grease may cause drive failure.
- Be sure to follow all lubrication directions.

### NOTE

When ordering drive assemblies for B.R.P./O.M.C. starters, be aware that some B.R.P./O.M.C. outboard starters use a 2-piece drive assembly; older B.R.P./O.M.C. starters use a 1-piece drive assembly.

**ORDER THE  
CORRECT DRIVE.  
THEY ARE NOT  
INTERCHANGEABLE!**

### 5399 (NEW)

**MOTOR ONLY**

**FITS: O.M.C.**

90-115 HP

1997-UP 60° V4

1998-2000 80 HP

1998-2000 100 HP



**DV517**  
9-tooth  
drive gear



**SR399**  
Brush holder assembly



### JSA517

Jack shaft assembly/9-tooth drive gear

Fits Johnson Evinrude carbureted engines



### 5400 (NEW)

**FITS: MERCURY**

2001-UP

135-250 HP

200-250 Sport Jet

2005-UP

VERADO 4 STROKE

200-275 HP

14-tooth drive gear



### SW463

Replacement solenoid

### 5551 (NEW)

**FITS: CHRYSLER**

25-35 HP

Large 10-tooth drive gear



### DV551

Large 10-tooth  
drive gear



### SR551

Brush holder assembly



### 7325 (NEW)

**FITS: MERCURY/FORCE**

90-120 HP Sport Jet

9-tooth drive gear



### DV325

9-tooth  
drive gear



### SR325

Brush holder assembly



### 7326 (NEW)

**FITS: MERCURY**

1996-UP V6 Sport Jet

8-tooth drive gear



### DV326

8-tooth  
drive gear



### SR326

Brush holder assembly





## TECH TIPS



# We could tell you why your starter failed, but we thought you might like to see for yourself.

If left unchecked, these problems will result in premature starter failure **REGARDLESS** of the **STARTER MANUFACTURER**.



Although the outside of the starter (at bottom right) looks fine, the flywheel picked up water from the bilge and pumped it inside the starter causing the corrosion shown here.

**WATER INTRUSION IS THE #1 CAUSE OF STARTER FAILURE.** If water gets pumped into the motor portion of the starter from the flywheel, it will not drain out. As you can see, rust and corrosion will destroy the inside components of the starter.



Shown here are damaged starter mounting pads. Water ingested into the engine stresses the mounting bolts beyond normal conditions. The bolts stretch and cause the starter to become loose. This could eventually lead to damage to the ring gear, starter casting and possibly the entire engine block.

**THE #2 CAUSE OF STARTER FAILURE IS WATER INGESTED INTO THE ENGINE.** Leaking exhaust manifolds, gaskets and risers are often the source. Damage to the mounting pads, as shown above, indicate the starter has been loose on the engine; possibly caused by water ingestion into the cylinder. Although the engine may not experience a complete hydro lock, if enough water is on top of the piston to raise the compression to a high level, the starter bolts and mounting pads will be stressed beyond normal load conditions.

**DON'T BE FOOLED BY OUTWARD APPEARANCES.** As shown here, the outside condition of the starter appears to be fine, but by removing and inspecting the lower starter case bolt, it is obvious water has gotten inside the starter.

**These problems are not the fault of the starter.** Simply replacing the starter without first locating and correcting the source of water intrusion will only result in more starter failures.

**If you have questions call  
Jerry's Marine Service  
1-800-432-2231**



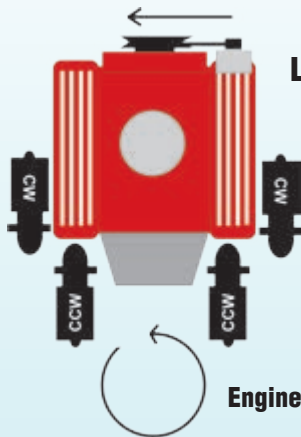
*Tech Tip*

*These types of damage are  
NOT COVERED BY WARRANTY*



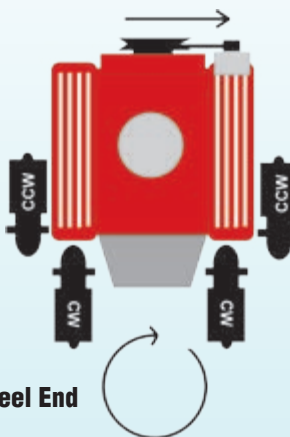


## How To Determine The Correct Starter Rotation



### Left Hand Engine Rotation

This is the most common engine rotation found on today's marine engines. This is the same rotation as automotive engines. Use these charts to determine the correct starter rotation needed.



### Right Hand Engine Rotation

This is not very common on today's marine engines. This is the opposite rotation of automotive engines.

Engine Rotation Viewed From The Flywheel End

Another way to determine the starter rotation is to inspect the chamfer on the starter drive gear. The bevel will always be on the trailing edge.



Clockwise Rotation



Counter Clockwise Rotation

## Important Check Points



### Worn Out Battery

Batteries cause more trouble than any other component in a marine electrical system.

**Always make sure the battery is completely charged and load tested before replacing other components.**



### Loose Connections

Be sure to check all the terminals and connections and make sure they are clean and tight.

## Important Check Points



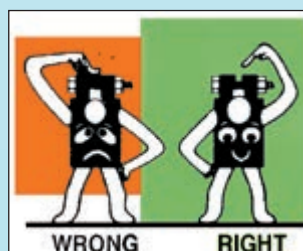
### High Resistance

This is a very common problem found in marine electrical systems. Corrosion, undersized wire, or bad connections will cause low voltage to the electrical components. Low voltage causes high heat and will destroy electrical devices. Be sure to check for voltage drops.



### Incorrect Wiring

Incorrect wiring can cause burnouts. Always tag the wires when removing an electrical component. **If you are not sure how to connect the wires call our technical department toll free at 800-432-2231.**



### Loose Battery Clamps

Cable terminals must be tight. If the ends of the clamps touch at the top, disconnect the cable clamps and shave the ends of the clamp jaws with a file so there is a gap.

## TECH TIPS



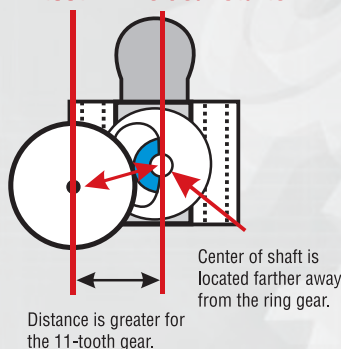
## DRIVE GEARS

**DID YOU KNOW...**

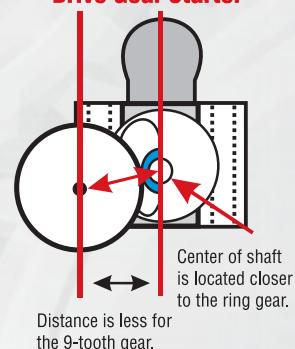
Did you know the gear profile for the 9-tooth O.E.M. gear reduction starter and the 11-tooth ARCO High Performance gear reduction starter are the same?

The only difference is the diameter of the drive gear. Since the 11-tooth drive gear has two more teeth it is naturally larger in diameter. To compensate for its smaller diameter, the center of the 9-tooth drive gear is located closer to the flywheel. Both starters are thus completely interchangeable. These are powerful starters and we are able to take advantage of a better gear ratio using this 11-tooth gear.

**ARCO 30470  
11-tooth Drive Gear Starter**

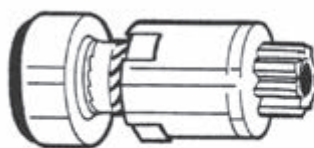


**O.E.M. 9-tooth  
Drive Gear Starter**

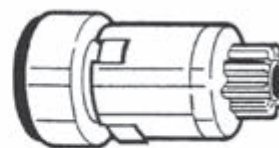


## INERTIA DRIVES GEARS

As shown here, spinning the drive with a wire wheel in the direction it clicks will disengage the locks.



ENGAGED POSITION



DISENGAGED POSITION

### Do not condemn a drive until it has been tried in actual operation and proven faulty.

The Folo-Thru type drive currently used on many starting motors has brought about difficulty due to a misunderstanding of operating and lack of information on proper servicing. This fact has been reflected by the number of drives returned for warranty which are fully operative.

The Folo-Thru drive is designed to lock and remain in the extended or engaged position until the engine starts and reaches approximately 400 to 500 RPM. The drive to flywheel rotation is fifteen to one. When the engine is turning at 400 RPM, the starter drive gear is turning 6,000 RPM. If the drive is locked in the extended position it has to be reinstalled on the engine and the engine started or the drive must be turned in excess of 6,000 RPM by a wire wheel mounted on an electric bench grinder to make it disengage.

The reason the pinion locks in the engaged position is to assure the starter continues to crank until the engine has started, thus preventing false starts. This is accomplished by using a spring loaded pin which rides on one of the pinion screw threads and drops into a hole when the pinion is in the fully engaged position. This locks the pinion in the engaged position. When the engine starts, the flywheel of the engine drives the starter pinion. A clutch mechanism is built into the pinion to protect the starter from excessive RPM.

The clutch allows the pinion to turn faster or overrun the armature shaft. When the engine reaches 400-500 RPM, the pinion spins fast enough to create the needed centrifugal force to throw the spring loaded pin out of the hole in the shaft and allow the pinion to disengage.



## REPLACEMENT INBOARD STARTERS

*Tech Tip*

Rust, Corrosion or Submersions are

**NOT COVERED BY WARRANTY**

**ARCO** treats every component with special rust and corrosion resistant coatings to prevent water damage. However, it is impossible to protect the unit from direct contact with water. Therefore, a failure directly caused by rust, corrosion or submersion is not covered by warranty.

### 30433 (NEW)

**VALUE PRICED!  
STANDARD DUTY**

**Direct O.E.M. replacement  
Gear-reduction starter.**

**FITS: ALL GM ENGINES**

with 14" flywheel using a  
staggered bolt pattern.

Recommended for late model 3.0 Liter  
with 14" flywheel using tail bracket.



Can also be used in place of 10MT with two long bolt staggered  
pattern or 30470!

\*Mounting bolt kit MBK450 required if replacing 10MT.

**SW463** Replacement Solenoid

### 30456 (NEW)

**HIGH-PERFORMANCE**

**FITS: MERCUISER, CRUSADER, MARINE POWER,  
PLEASURECRAFT, AND OTHERS.**

14MT, CW Rotation



### 30457 (NEW)

**HIGH-PERFORMANCE**

**FITS: MERCUISER,  
CRUSADER, MARINE POWER,  
PLEASURECRAFT, AND OTHERS.**

14MT, CCW Rotation



**Replaces this 10 MT style starter**

### DV456

**CW Rotation Replacement Drive**

**Fits: Delco 14 MT, ARCO 30456 starter**



### DV457

**CCW Rotation Replacement Drive**

**Replaces: Mercury 850402**

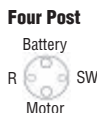
**Fits: Delco 14 MT, ARCO 30457 starter**



### SW456

**14 MT Replacement Solenoid**

**4 Post, 3-Bolt Mount**



### 30459 (NEW)

**HIGH-PERFORMANCE**

**FITS: MERCUISER,  
CRUSADER,  
MARINE POWER,  
AND OTHERS.**

Light weight and compact;

**Permanent magnet, Gear-reduction.**

**CCW Rotation**



**SW463** Replacement Solenoid

### 30460 (NEW)

**HIGH-PERFORMANCE**

**Permanent magnet  
Gear-reduction starter**

**FITS: MERCUISER,  
COBRA, YAMAHA,  
VOLVO PENTA**

**CW Rotation**

12 3/4" flywheel



**INCLUDES  
MOUNTING  
BOLTS & GASKET**



**Replaces this  
10 MT style  
starter**

**30460 Will Replace all CW Rotating 10MT Starters with  
One Long and One Short Bolt Straight Across Pattern.**

### SW450

**Replacement solenoid**

**For ARCO 30460 & 30470 only!**

**Does not include  
plunger; see below.**

**Order plungers separately.**



### PA450S

**1 3/4" Plunger for ARCO SW450**

**Fits 30460**

### PA450L

**2 1/4" Plunger for ARCO SW450**

**Fits 30470**





## REPLACEMENT INBOARD STARTERS

*Tech Tip*

Rust, Corrosion or Submersions are  
**NOT COVERED BY WARRANTY**



**ARCO** treats every component with special rust and corrosion resistant coatings to prevent water damage. However, it is impossible to protect the unit from direct contact with water. Therefore, a failure directly caused by rust, corrosion or submersion is not covered by warranty.

### 30462 (NEW)

**FITS: 6.0L GM ENGINES**

Permanent magnet  
Gear-reduction starter  
with two long bolt  
slight offset bolt pattern



**SW463** Replacement Solenoid

### 30470 (NEW)

**HIGH-PERFORMANCE**

Permanent magnet  
Gear-reduction starter  
**FITS: VOLVO PENTA,  
MERCUISER,  
MARINE POWER, ETC.**

Two long bolt staggered pattern  
14" flywheel, **CW Rotation**  
Will also replace 9-tooth OEM version.



**30470 Will Replace  
all CW Rotating 10MT  
Starters with Two Long Bolt  
Staggered Pattern. DOES  
NOT INCLUDE MOUNTING  
BOLT KIT - SEE BELOW.**



**Replaces this  
10 MT style  
starter**

### MBK450

**MOUNTING BOLT KIT REQUIRED  
if replacing 10MT style starters.**



### DV450

Replacement **11-tooth drive gear**



### SW450

Replacement solenoid

For **ARCO** 30460, & 30470 only!  
Does not include plunger; see below.  
Order plungers separately.



### PA450S

1 3/4" Plunger for **ARCO** SW450  
Fits 30460



### PA450L

2 1/4" Plunger for **ARCO** SW450  
Fits 30470



### 50109

**HEAVY-DUTY**

**FITS: CHRYSLER**

318 Marine V8

**Two-bolt mount,  
1 threaded hole**

12 Volt, **CW rotation**



### 50110

12 Volt, **CCW Rotation**

### 50134

**HEAVY-DUTY**

**FITS: CHRIS CRAFT, HARMAN MARINE**

**Three-bolt mount** (two 3/8"

holes, one 5/16"

threaded hole) 12 Volt,  
**CW Rotation**



### 50135

12 Volt, **CCW rotation**

Electrical Technical Manual  
Published by Mechanics for Mechanics

### TM001

Electrical Technical Manual

**Order Your  
Copy Today!**





## REPLACEMENT INBOARD STARTERS

*Tech Tip*

Rust, Corrosion or Submersions are

NOT COVERED BY WARRANTY

ARCO treats every component with special rust and corrosion resistant coatings to prevent water damage. However, it is impossible to protect the unit from direct contact with water. Therefore, a failure directly caused by rust, corrosion or submersion is not covered by warranty.

### 50137

HEAVY-DUTY

FITS: CHRIS CRAFT AND OTHERS

Three-bolt mount, (two 3/8"

holes, one 5/16"

threaded hole)

12 Volt, CW Rotation



### 50138

12 Volt, CCW rotation

### 50141

HEAVY-DUTY

12 Volt, CCW rotation



### 50142

HEAVY-DUTY

FITS: CHRIS CRAFT,

VOLVO PENTA V8

Two-bolt mount

12 Volt, CW rotation



### 50143

HEAVY-DUTY

FITS: MERCURISER 470

Threaded mounting

stud in case

12 Volt, CW rotation



### 50160

HEAVY-DUTY

FITS: CHRIS CRAFT

Three-bolt housing

12 Volt, CW rotation



### 50161

HEAVY-DUTY

FITS: CHRIS CRAFT

12 Volt, CCW rotation

### 50169

HEAVY-DUTY

FITS: MERCURISER

888, 302, 351 FORDS

Two-bolt mount

12 Volt, CW rotation



### 70106

FITS: CRUSADER AND OTHERS W/FORD ENGINES

Nose extends 2" into flywheel

Two-bolt mount

12 Volt, CW rotation

Side battery terminal



### 70107

12 Volt, CCW rotation

Side battery terminal

### SW394

Replacement solenoid

To be discontinued when present stock is exhausted.

## REPLACEMENT INBOARD STARTERS

*Tech Tip*

Rust, Corrosion or Submersions are  
**NOT COVERED BY WARRANTY**



**ARCO** treats every component with special rust and corrosion resistant coatings to prevent water damage. However, it is impossible to protect the unit from direct contact with water. Therefore, a failure directly caused by rust, corrosion or submersion is not covered by warranty.

### 70108

**FITS: 460 FORDS**  
**Heavy Duty**  
12 Volt, CW rotation



To be discontinued  
when present stock is  
exhausted.

### 70117

**FITS: MANY LATE MODEL FORDS**  
Mod II style;  
4 1/2" diameter case  
Nose extends 2 3/8" into flywheel  
Two-bolt mount  
12 Volt, CW rotation  
Rear battery terminal



**SW394** Replacement solenoid

To be discontinued  
when present stock is  
exhausted.

### 70125 (NEW)

Permanent magnet  
Gear-reduction starter  
**FITS: MANY LATE MODEL**  
**5.0L, 5.8L FORDS**  
12 Volt, CW rotation



**SW125**

Replacement solenoid

### 70200 (NEW)

**HIGH PERFORMANCE**  
Permanent magnet  
Gear-reduction starter  
**FITS: 302, 351 FORDS**  
12 Volt, CW rotation  
Kit includes wiring  
harness to replace  
conventional starter.



### 70201 (NEW)

**HIGH PERFORMANCE**  
**CCW ROTATION**  
Same as above except **CCW** rotation.



Will also replace  
conventional style starter

**SW125** Replacement solenoid

### 70212 (NEW)

**HIGH PERFORMANCE**  
Permanent magnet  
Gear-reduction starter  
**FITS: 460 FORD ENGINES**  
**Replaces: O.M.C. 988013**  
12 Volt, CW rotation  
Two-bolt mount with 3/8" x 18  
threaded mounting ear.  
Kit includes wiring harness  
to replace conventional starter.



Will also replace  
conventional style starter

**SW125** Replacement solenoid





## REPLACEMENT INBOARD STARTERS

*Tech Tip*

Rust, Corrosion or Submersions are

**NOT COVERED BY WARRANTY**

**ARCO** treats every component with special rust and corrosion resistant coatings to prevent water damage. However, it is impossible to protect the unit from direct contact with water. Therefore, a failure directly caused by rust, corrosion or submersion is not covered by warranty.

### 70216 (NEW)

**HIGH PERFORMANCE**

**Permanent magnet  
Gear-reduction starter**

**FITS: 2.3L FORD ENGINES**

**Replaces: O.M.C. 988012**

**12 Volt, CW rotation**

**Three-bolt mount.**

**Kit includes wiring harness**

**to replace conventional starter.**



**SW125** Replacement solenoid



**Will also replace  
conventional style starter**

### 97225 (NEW)

**Gear-reduction starter**

**FITS: VOLVO PENTA TMD40,  
TMD41, KAD42 and others.**

**Replaces: PARIS RHONE/VALEO**

**D9R116, D9R144, D11E167T**

**Three-bolt mount, 12 Volt, CW  
rotation**



**SW225** Replacement solenoid

**DV225** Replacement drive gear

### 98170

**Lucas M45G starter**

**FITS: PERKINS 4-108VA**

**propulsion**

**13-tooth drive gear**

**12 volt, CW rotation**



**To be discontinued  
when present stock is  
exhausted.**

### 98180 (NEW)

**FITS: YANMAR**

**GM, GM2, GM3,  
GM10, GM20/2-20F,  
GM30, GMF, 1GM,  
2GM, 3GM**

**Replaces: HITACHI S114-303,  
S114-303A**



### 98185 (NEW)

**FITS: YANMAR**

**3JH and 4JH, engines**

**Replaces: HITACHI S114-483,  
S114-815**



### 10113 (NEW)

**Gear-reduction starter**

**FITS: VOLVO PENTA**

**4 cyl, 6 cyl gas**

**Aluminum pinion housing  
w/2 threaded mounting holes**

**Permanent magnet,**

**12 volt, CW rotation**



### 12213 (NEW)

**FITS: CUMMINS 6BT,**

**PENINSULAR,**

**6.2L DIESEL, ETC.**

**10-tooth drive gear**

**12 Volt, CW rotation**



## TECH TIPS



### REVERSIBLE TILT-TRIM MOTORS

Today's tilt-trim motors use wire wound or permanent magnet fields.

**BEFORE YOU CAN ACCURATELY TEST THE MOTOR YOU MUST KNOW WHAT TYPE IT IS.**

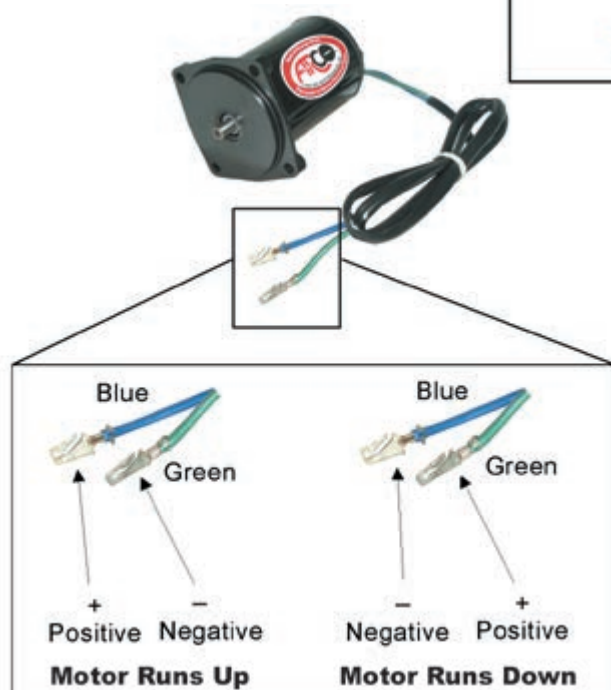
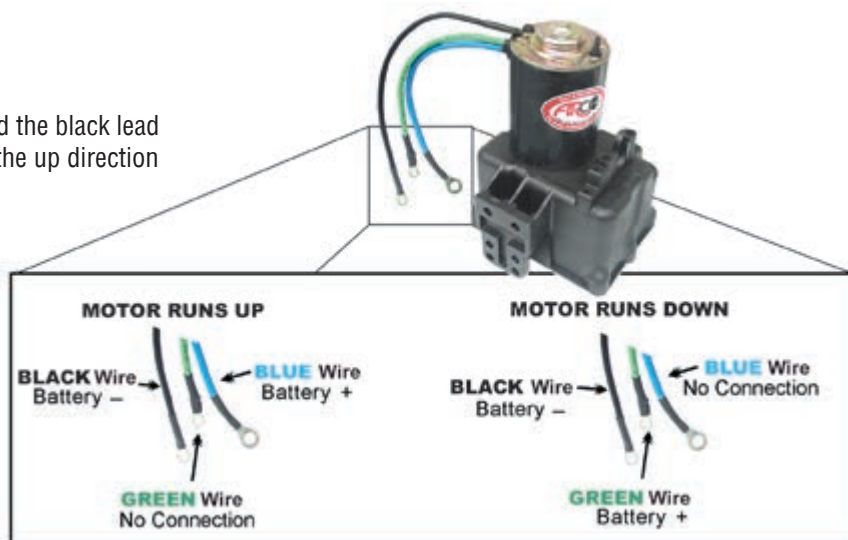
Wire wound field motors will normally have three wires and will usually have four screws placed around the perimeter of the motor case. If the motor has only two wires; it is usually a permanent magnet field motor. However, some older Mercury Marine wire wound field motors have only two wires and use an external ground that is attached to the motor housing. Since wire wound field motors have a higher current draw, solenoids are used to relay battery current to the motor. Permanent magnet field motors draw much less current and miniature relays are used to relay the battery current.

**REMEMBER - BLUE SKY (UP) WIRE TO POSITIVE MAKES THE MOTOR RUN IN THE UP DIRECTION**  
**GREEN GRASS (DOWN) WIRE TO POSITIVE MAKES THE MOTOR RUN IN THE DOWN DIRECTION**

#### Wire Wound Field Motor

Connecting the blue lead to battery positive and the black lead to battery negative will make the motor run in the up direction and will raise the outdrive or outboard motor.

Connecting the green wire to battery positive and the black wire to battery negative will make the motor run in the down direction. This will lower the outdrive or outboard motor.



#### Permanent Magnet Field Motor

Connecting the blue lead to battery positive and the green lead to battery negative will make the motor run in the up direction. This will raise the outdrive or outboard motor.

Connecting the green lead to battery positive and the blue lead to battery negative will make the motor run in the down direction. This will lower the outdrive or outboard motor.



## TILT-TRIM MOTOR REVERSING RELAYS

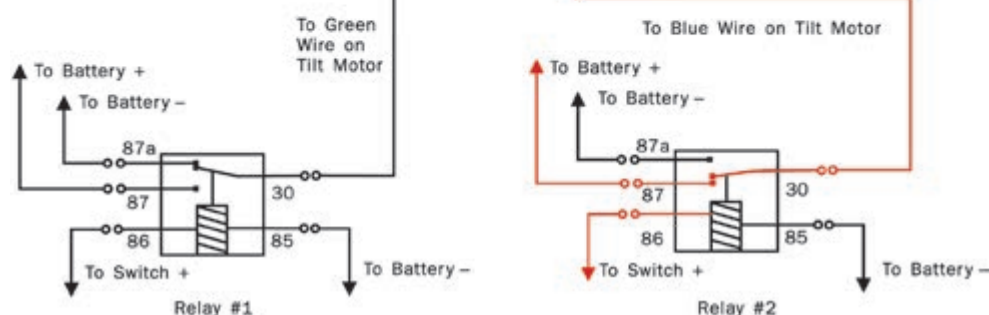
### PERMANENT MAGNET FIELD MOTORS



#### Motor Running In The Up Direction

When the tilt-trim switch is moved to the up position, relay #2 activates supplying positive voltage to the blue wire by connecting terminal #87 to terminal #30.

Relay #1 remains in the off position. Terminal #87a and #30 are connected when the relay is in the off position. This allows the green wire to be connected to battery negative.

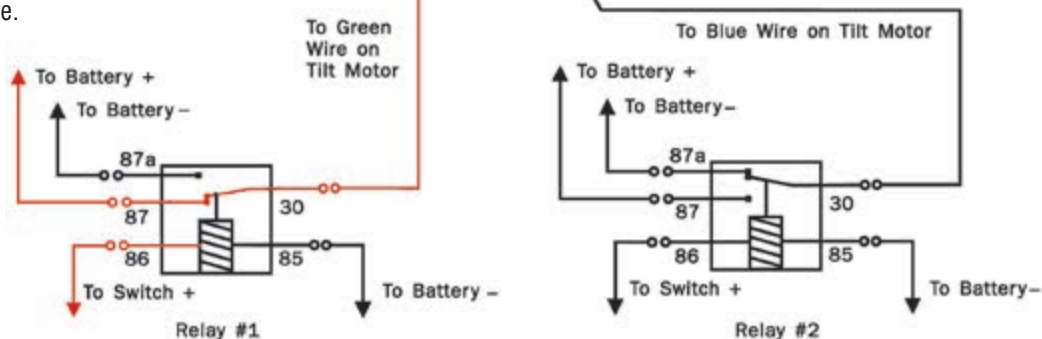


#### Motor Running In The Down Direction



When the tilt-trim switch is moved to the down position, relay #1 activates supplying positive voltage to the green wire by connecting terminal #87 to terminal #30.

Relay #2 remains in the off position. Terminal #87a and #30 are connected when the relay is in the off position. This allows the blue wire to be connected to battery negative.





## TECH TIPS



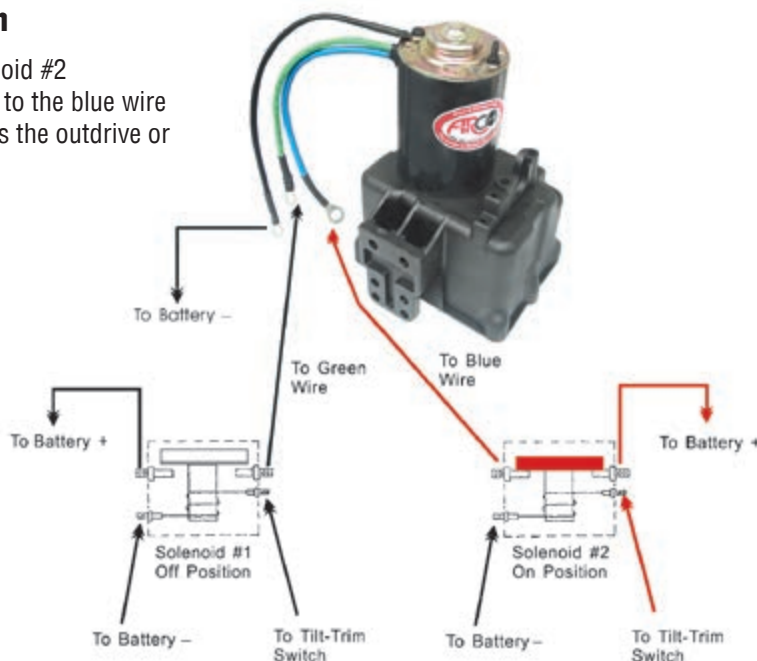
### TILT-TRIM MOTOR SOLENOIDS

#### WIRE WOUND FIELD MOTORS



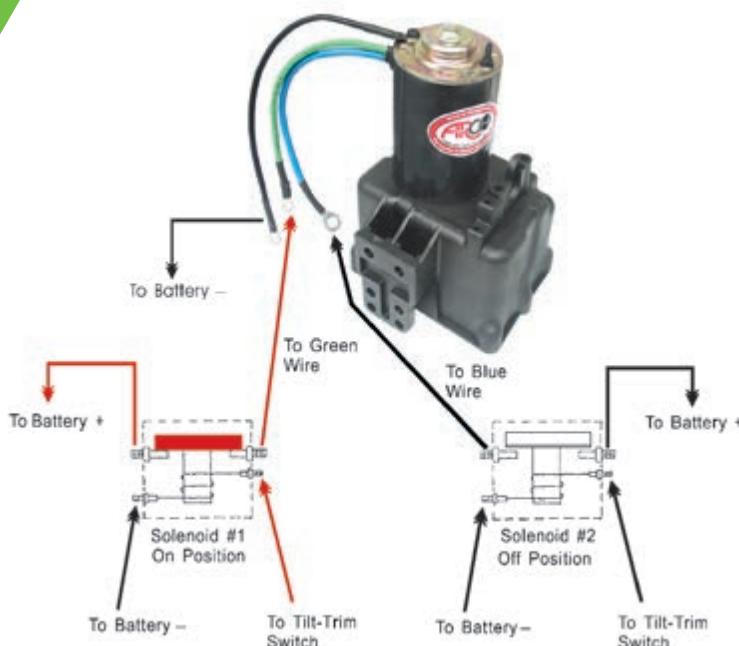
##### Motor Running In The Up Direction

When the tilt-trim switch is in the up, position solenoid #2 is energized and battery positive voltage is supplied to the blue wire making the motor run in the up direction. This raises the outdrive or outboard motor.



##### Motor Running In The Down Direction

When the tilt-trim switch is in the down position, solenoid #1 is energized and battery positive voltage is supplied to the green wire making the motor run in the down direction. This lowers the outdrive or outboard motor.





## REPLACEMENT TILT/TRIM MOTORS & REPAIR KITS



### DO NOT CUT WIRES OR DISMANTLE UNITS

Cutting a unit's wires or dismantling a unit immediately voids the manufacturer's warranty. Water can easily seep into the motor through cut wiring. In addition, taking a motor off the reservoir and trying to install it on an old reservoir usually damages the brushes in the motor. Disassembled parts are not covered by warranty.

**6204** (NEW)  
FITS: O.M.C.  
3-wire connection  
2-bolt mount

**TR204**  
Repair kit



CATCH US ON THE WEB AT:  
[www.arcomarine.com](http://www.arcomarine.com)

**6206** (NEW)  
FITS: O.M.C.  
3-wire connection  
3-bolt mount

**TR206**  
Repair kit



**6209** (NEW)  
FITS: O.M.C.  
2-wire connection

**TR209**  
Repair kit



**6211** (NEW)  
FITS: O.M.C.  
stern-drive 1979-1985  
2.5L, 3.0L  
3-wire connection  
Ring Terminal Ends

**TR211**  
Repair kit  
(Cast Aluminum)



**TR210**  
Repair kit  
(Stamped Steel)



# REPLACEMENT TILT/TRIM MOTORS & REPAIR KITS



**6213 (NEW)**  
**FITS: GOOD AUTOMATIC**  
**WINDLASS**  
 Ring Terminal Ends



Will also replace  
 units with  
 this style shaft



**6216 (NEW)**  
**(MOTOR/RESERVOIR ONLY)**  
**FITS: CHRYSLER, O.M.C.**  
 3-wire connection



**6217 (NEW)**  
**(MOTOR/RESERVOIR ONLY)**  
**FITS: B.M.W., MERCURISER,**  
**VOLVO PENTA**  
 Includes: Screws,  
 gasket & adapter  
 Ring Terminal Ends

**TAK217**  
 Screws, gasket, adapter



**TR217**  
 Repair kit



To be discontinued when present  
 stock is exhausted

**6218 (NEW)**  
**(MOTOR ONLY)**  
**FITS: MERCURISER I/O'S AND**  
**MERCURY OUTBOARDS**  
**W/OILDYNE PUMP**  
 12 Volt  
 Ring Terminal Ends



**TR218**

Brush kit →



**6219**

24 Volt  
 Slow speed motor  
 Fits Jack lift for racing  
 outboards

Replaces early  
 square-style  
 motor



**6220 (NEW)**  
**HEAVY-DUTY**  
**FITS: O.M.C.**  
 2-wire connection  
**Includes O-ring**  
**3-bolt mount**  
 Male Spade Terminal Ends  
**96" Leads**



**R473**

Relay available



**6220X (NEW)**  
**HEAVY-DUTY, FITS: O.M.C.**  
 2-wire connection, **Includes O-ring, 3-bolt mount**  
 Male Spade Terminal Ends  
**62" Leads**

**6223 (NEW)**  
**HEAVY-DUTY**  
**FITS: VOLVO PENTA**  
 Female Spade Terminal Ends







## REPLACEMENT TILT/TRIM MOTORS & REPAIR KITS

### 6224 (NEW) (COMPLETE)

**FITS: VOLVO PENTA**

Includes: Hydraulic valve body  
Ring Terminal Ends

### 6225 (NEW) (MOTOR/ RESERVOIR ONLY)

**Fits: PRESTOLITE**

To be discontinued  
when present stock  
is exhausted



← Replaces this style  
Prestolite Pump



### 6227 (NEW) (COMPLETE)

**FITS: VOLVO PENTA - THRU 1999  
W/OILDYNE PUMP**



### 6232 (MOTOR ONLY)

### M531 (NEW) RESERVOIR KIT

**FITS: ARCO 6227**

Includes: Reservoir,  
cap, and O-ring

**Fits Oildyne Pump ONLY**

For new style 4 screw  
mount see M533 in  
miscellaneous section



### 6231 (NEW) (MOTOR ONLY)

**FITS: U.S. MARINE  
W/OILDYNE PUMP**

2-wire connection  
Female Spade Terminal  
Ends



### 6232 (NEW) (MOTOR ONLY)

**FITS: ARCO 6227,**

**LATE MODEL**

**VOLVO PENTA**

**W/OILDYNE PUMP**

2-wire connection



#### NOTE:

Distance between  
mounting bolts: 2.5"  
Bolt size: 10x32 fine thread

### 6233 (NEW)

**FITS: LATE MODEL  
VOLVO PENTA SX  
MODELS.**

Replaces Teleflex  
Motor and Volvo part  
number 3861575



#### NOTE:

Distance between  
mounting bolts: 2.3"  
Bolt size: 10x24 coarse thread

**NEED  
TECHNICAL  
ASSISTANCE?**

**FL 1.800.432.2231  
SC 1.800.788.2231**

## REPLACEMENT TILT/TRIM MOTORS & REPAIR KITS



### 6234 (NEW)

**HEAVY-DUTY**

**FITS: HONDA**

**2002-Up** BF175, BF200, BF225

**4-bolt mount,**

Round Plug-In

Connector

**Includes O-ring**

Replaces Honda

part number

36120-ZY3-013



### 6238 (NEW)

**HEAVY-DUTY**

**Fits: O.M.C.**

**1998-Up**

75 HP-250 HP FFI

Outboard Engines

**4-bolt mount,**

Female Sealed

Terminal Ends

**Includes O-ring**



### 6235 (NEW)

**HEAVY-DUTY**

**FITS: HONDA**

**2004-Up** BF135, BF150

**4-bolt mount,**

Round Plug-In

Connector

**Includes O-ring**

Replaces Honda

part number

36120-ZY6-013



### 6239 (NEW)

**HEAVY-DUTY**

**FITS: HONDA**

**1992-2002** 35-50 HP

2-wire connection

**Includes O-ring**

**4-bolt mount**

**Hollow-hex shaft**

Female Spade

Terminal Ends



### 6236 (NEW)

**HEAVY-DUTY**

**FITS: HONDA**

**2007-Up** BF75, BF90

**4-bolt mount,**

Round Plug-In

Connector

**Includes O-ring**

Replaces Honda

part number

36120-ZY9-003



### 6240 (NEW)

**HEAVY-DUTY**

**FITS: YAMAHA**

**1997-UP** 115 HP

**2000-UP** 115 HP 4-Stroke

**1997-2000** 130 HP

**1997-UP** 150-200 HP

**1998-UP** 225 HP

2-wire connection

**4-bolt mount,**

Ring Terminal Ends

**Includes O-ring**



### 6237 (NEW)

**HEAVY-DUTY**

**FITS: HONDA**

**2004-Up** BF40, BF50

**4-bolt mount,**

Round Plug-In

Connector

**Includes O-ring**

Replaces Honda

part number

36120-ZW4-H12





## REPLACEMENT TILT/TRIM MOTORS & REPAIR KITS

### 6241 (NEW)

#### HEAVY-DUTY

**FITS: O.M.C.** 60, 70, 90, 115, 150, 175 HP

**1991-Up** 200, 225 HP,

**1991-94** 120, 140 HP

**1995-Up** 50 HP 3-cyl, 60 HP, V4 130 HP

**1997-Up** 115-200 HP

**1998-99** 225 HP 2-wire connection

**4-bolt mount, Flat-blade shaft**

Female Spade Terminal Ends



#### R473

Relay available

**Includes O-ring and adaptor to replace motors with hollow hex shafts**

**ALSO REPLACES OEM MOTORS WITH HOLLOW HEX SHAFT**



### 6242 (NEW)

#### HEAVY-DUTY

**FITS: O.M.C.**

**1992-Up** J-suffix 40, 48, 50 HP

2-wire connection

**Includes O-ring, 4-bolt mount**

**Hollow-hex shaft**

Female Spade Terminal Ends



#### R473

Relay available

### 6243 (NEW)

#### HEAVY-DUTY

**FITS: O.M.C.**

**1989-1992** M-suffix 40, 48, 50 HP

2-wire connection;

**4-bolt mount, Includes O-ring**

**Hollow-hex shaft**

Male Spade Terminal Ends



#### R473

Relay available

### 6244 (NEW)

#### HEAVY-DUTY

**FITS: O.M.C.**

**1993 V6**

**1993-Up** Commercial V8

2-wire connection;

**3-bolt mount,**

**Includes O-ring**

**Flat-blade shaft**

Female Spade Terminal Ends



#### R473

Relay available

### 6247 (NEW)

#### HEAVY-DUTY

**FITS: EVINRUDE ETEC**

**2005-2009** 70-90 HP

**2007-2009** 115 HP

**2009-** 130 HP

2-wire connection

**4-bolt mount, Includes**

**TAK247 mounting kit,**

**Flat-blade shaft**



### TAK247

Mounting bolts, flat washers, O-ring and couplers



### 6248 (NEW)

#### HEAVY-DUTY

**FITS: EVINRUDE ETEC**

**2005-2009** 40-50 HP

**2006-2009** 60 HP

**2009-** 25-30 HP

2-wire connection

**4-bolt mount, Includes**

**TAK247 mounting kit,**

**Flat-blade shaft**



### TAK247

Mounting bolts, flat washers, O-ring and couplers



**NEED  
TECHNICAL  
ASSISTANCE?**

**WE ARE HERE TO HELP  
FL 1.800.432.2231  
SC 1.800.788.2231**



# REPLACEMENT TILT/TRIM MOTORS & REPAIR KITS



## 6250 (NEW)

### HEAVY-DUTY

#### FITS: Late model MERCURY

135, 150 XR6, Magnum III,  
175, 200, 225, 250 HP,  
105-140 HP Jet

2-wire connection,

**2-bolt mount**

**Includes O-ring ,**

**Flat-blade shaft**

Bullet Connector Terminal Ends



**This motor will NOT replace an early model Mercury cartridge pump motor!**

## 6255 (NEW)

### HEAVY-DUTY

#### FITS: Late model

#### MERCURY/FORCE

25-50 HP outboards

2-wire connection

**4-bolt mount**

**Flat-blade shaft**

Bullet Connector

Terminal Ends



## 6257 (NEW)

### HEAVY-DUTY

#### FITS: YAMAHA

2004-2015 50/60HP

**4 Stroke**, 2-wire

connection

**3-bolt mount**, ring

terminal ends

**Includes O-ring**

Replaces Yamaha part numbers

6C5-43880-01 & 6C5-43880-00



1 3/8"  
Shaft  
Length

## 6258 (NEW)

### HEAVY-DUTY

#### FITS: YAMAHA

2005-UP 75 HP 4 Stroke

2005-UP 90 HP 4 Stroke

2-wire connection

**4-bolt mount**

**Includes O-ring & Coupler**

Ring Terminal Ends



5/8"  
Shaft Length

1 5/8"  
Coupler Length

## 6259 (NEW)

### HEAVY-DUTY

#### FITS: YAMAHA

2001-2004 50 HP 4 Stroke

2002-2004 60 HP 4 Stroke

2001-2006 40 HP 2 Stroke (TLR)

2003-2009 50 HP 2 Stroke (TLR)

2-wire connection

**3-bolt mount**

**Includes O-ring**

Ring Terminal Ends

OEM unit pictured  
ARCO Replacement  
will look different



1 1/16"  
Shaft Length

## 6260 (NEW)

### HEAVY-DUTY

#### FITS: YAMAHA

1992-2002 90 HP

1992-1995 50-90 HP

1994 40 HP

1996 70-90 HP

1997-Up 60, 70, 90 HP

2-wire connection,

**3-bolt mount**

**Includes O-ring**

**Flat-blade shaft**

Ring Terminal Ends



## 6261 (NEW)

### HEAVY-DUTY

#### FITS: YAMAHA

1999-2004 75, 80, 90 &

100 HP 4 Stroke O/B Engines

2-wire connection

**4-bolt mount**,

Ring Terminal Ends

**Includes O-ring**



1"  
Shaft  
Length

## 6263 (NEW)

### HEAVY-DUTY

#### FITS: YAMAHA

2002-2009 200, 225,

250 HP 4 Stroke

2002-2009 200-300 HP

**2 Stroke**

2-wire connection

**3-bolt mount**

**Includes O-ring**

Ring Terminal Ends





## REPLACEMENT TILT/TRIM MOTORS & REPAIR KITS

### 6264 (NEW)

**HEAVY-DUTY**  
**FITS: YAMAHA**  
**1985-1992**  
 40-50 HP  
 2-wire connection  
**4-bolt mount,**  
**Includes O-ring**  
 Ring Terminal Ends



### 6265 (NEW)

**HEAVY-DUTY**  
**FITS: YAMAHA**  
**1987-1995**  
 115-200 HP Outboards  
**1990-1993** 225 HP  
 2-wire connection  
**3-bolt mount**  
**Includes O-ring**  
**Flat-blade shaft**  
 Ring Terminal Ends



### 6266 (NEW)

**FITS: YAMAHA**  
**1995-Up** 40/50 HP  
 2-wire connection  
**3-bolt mount**  
**Includes O-ring**  
 Ring Terminal Ends



### 6267 (NEW)

**FITS: YAMAHA**  
 Early 70, 90, 115,  
 150-200 HP  
 3-wire connection  
**3-bolt mount**  
 Ring Terminal Ends  
 4-mm thick shaft  
 blade with 68.3-mm  
 mounting collar.  
**Includes O-ring**



### 6268 (NEW)

**FITS: SUZUKI ONLY**  
**1991-1997** DT90,  
**1991-2000** DT100,  
**1991-2003** DT150,  
**1991-1992** DT175,  
**1991-2000** DT200,  
**1991-2003** DT225  
**WILL NOT FIT TOHATSU OR**  
**NISSAN.** 2-wire connection  
**3-bolt mount**  
**Includes O-ring and adaptor**  
 Ring Terminal Ends



### 6269 (NEW)

**FITS: SUZUKI** DT 150/200  
 3-wire connection  
**3-bolt mount**  
**Includes O-ring**  
 Ring Terminal Ends



### 6270 (NEW) (COMPLETE)

**FITS: Late model MERCURY**  
 225-275 HP Outboards w/Oilydyne pump  
 Ring Terminal Ends



### 6271 (NEW) (COMPLETE)

Slow speed unit used for racing applications

### 6274 (NEW)

**HEAVY-DUTY**  
**FITS: Late model**  
**MERCURY/MARINER**  
**& FORCE** 75-125 HP  
 outboards w/single  
 ram 3-wire connection;  
**4-bolt mount**  
 Hollow-hex shaft  
 (Motor/Reservoir Only for Trim  
 Pump Assembly 824051)  
**Includes stainless steel**  
**mounting screws,**  
**shaft adaptor, O-ring**  
**and fill plug.**  
 Ring Terminal Ends





# REPLACEMENT TILT/TRIM MOTORS & REPAIR KITS



## 6275 (NEW) (COMPLETE)

**FITS:** Late model MERCUISER  
w/Oildyne pump  
Ring Terminal Ends

## 6218 MOTOR ONLY

## M525 (NEW)

Reservoir kit  
**FITS:** ARCO 6275  
**Includes:** Reservoir, cap, O-ring,  
mounting screw

For new style 4 screw mount  
Mercruiser 883166A2 see M532  
in miscellaneous section



## 6277 (NEW)

**HEAVY-DUTY  
(MOTOR ONLY)**

**FITS:** ARCO  
cartridge pump 6278 only!  
**2-bolt mount**  
Ring Terminal Ends



## TR277 Repair kit

Fits ARCO style  
cartridge pump only



Motor WILL NOT fit original Mercury pump.

## 6276 (NEW)

**HEAVY-DUTY**

**FITS:** Late model  
MERCURY/MARINER, FORCE

40-125 HP outboards  
w/single ram  
2-wire connection

**4-bolt mount**

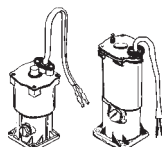
Hollow-hex shaft  
(Motor/Reservoir Only)

**Includes stainless  
steel mounting screws, shaft adaptor,  
O-ring and fill plug.**

Bullet Connector Terminal Ends



Will also replace these style units



## TAK276

Mounting bolts, O-ring, fill cap and  
shaft adapters for tilt/trim motors



## 6279 (NEW)

**HEAVY-DUTY**

**FITS:** MERCURY/MARINER

outboards w/Design II  
3 ram, three-wire trim units  
Hollow-hex shaft

**W/AFT FILL RESERVOIR**

3-wire connection

**2-bolt mount**

**Shaft adaptor and  
O-ring included.**

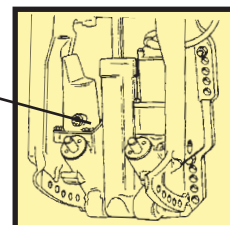
Ring Terminal Ends



Replaces this  
square motor



AFT FILL RESERVOIR



## TR279 Repair kit







## CHARGING SYSTEMS

### NOTE: ALTERNATORS ARE NOT BATTERY CHARGERS



#### \* ENGINE HORSEPOWER REQUIRED FOR ALTERNATORS

**For every 23 AMPS of alternator output about one horsepower is required.**

FOR EXAMPLE: A 12 volt, 115 AMP alternator requires 5 horsepower.

(115 divided by 23 = 5 horsepower). A 24 volt unit requires twice the horsepower.



#### \* ALTERNATORS ARE NOT BATTERY CHARGERS

Alternators are designed to supply current for the accessory load and maintain the charge of the battery.

**Most alternators can safely charge at only two-thirds of their maximum rated output.** When trying to recharge a dead battery, the alternator will charge at maximum output for extended periods of time causing the alternator to overheat. **High heat destroys** transistors, diodes and windings.



#### \* ONE-WIRE ALTERNATORS CAN NOT BE USED WITH BATTERY ISOLATORS

One-wire alternators, sometimes referred to as self-exciting alternators, require battery voltage at the output terminal in order to charge. Since battery isolators eliminate the battery voltage to the alternator, you must use a battery isolator with an ignition excite capability or modifications must be made to the alternator to allow ignition excitation.



#### \* ALTERNATORS MUST TURN THE PROPER RPM IN ORDER TO FUNCTION

Just because the alternator looks like it's turning, doesn't mean it's turning fast enough to charge. **Most alternators do not start charging until they reach 1,000 RPM** alternator shaft speed. 5,000 RPM alternator shaft speed is normally required to reach maximum output. If you're not sure what the alternator shaft speed is, you can determine this with the pulley ratio. Measure the diameter of the crank shaft or drive pulley and the alternator pulley. Divide the crank shaft pulley diameter by the alternator pulley diameter. This figure would be the engine-to-alternator RPM ratio. A normal ratio would be 2.5 to 1. For example, let's say we have a 7 inch diameter crank shaft pulley and a 2.75 inch alternator pulley. We would divide 7 inches by 2.75 which equals 2.54 to 1. If the engine was turning 1,000 RPM we would multiply 1,000 by 2.54 which would give us 2,540 alternator RPM.

**Again, with today's high amperage alternators, belt condition and tension are critical in proper alternator performance.**

Alternator  
Pulley



Crankshaft  
Pulley

**IF YOU ARE ABLE TO TURN THE ALTERNATOR FAN BY HAND, YOU DO NOT HAVE THE BELT TIGHT ENOUGH.**



#### \* ALTERNATORS WILL CHARGE WHEN TURNING IN EITHER DIRECTION

#### \* NEVER DISCONNECT THE BATTERY CABLE WHEN THE ALTERNATOR IS CHARGING

A common practice with the old generator system was to disconnect the battery cable while the engine was running to see if the generator was working. If this procedure is done on today's transistorized alternator systems, severe damage to the internal components of the alternator usually will be the end result. **This includes using a battery selector switch while the engine is running.**



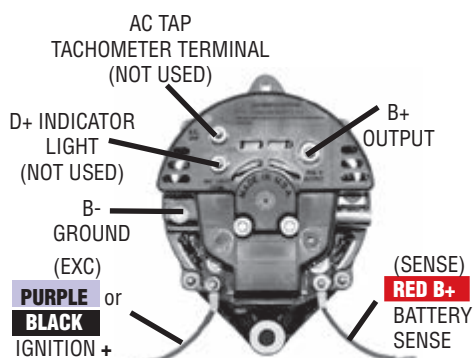
## TECH TIPS



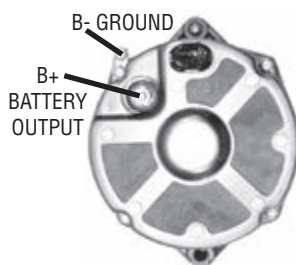
## ALTERNATOR CIRCUITS

Many alternators require ignition voltage to initiate charging. You must verify that all required connections are connected to the proper terminal and have the correct voltage in order for the alternator to operate properly. Below you will find the most common alternator circuits used on marine applications.

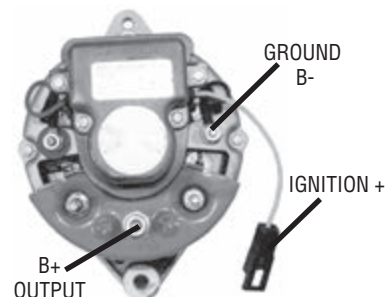
## COMMON MARINE ALTERNATOR CIRCUITS



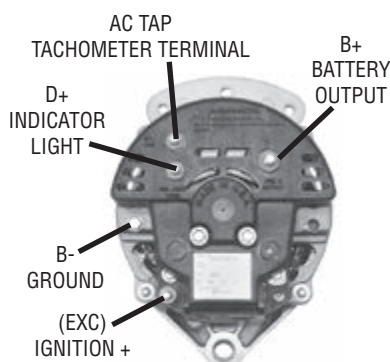
**LATE MOTOROLA/PRESTOLITE STYLE  
FITS MERCUISER & OMC**



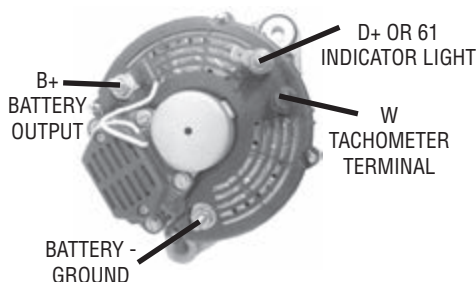
**DELCO SELF EXCITING STYLE  
FITS MERCUISER AND OMC**



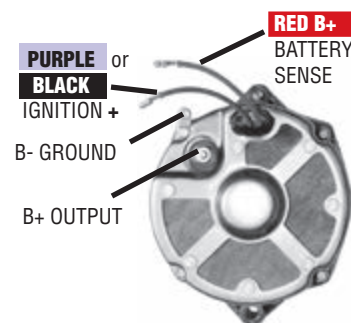
**EARLY MOTOROLA STYLE  
FITS WESTERBEKE AND OTHERS**



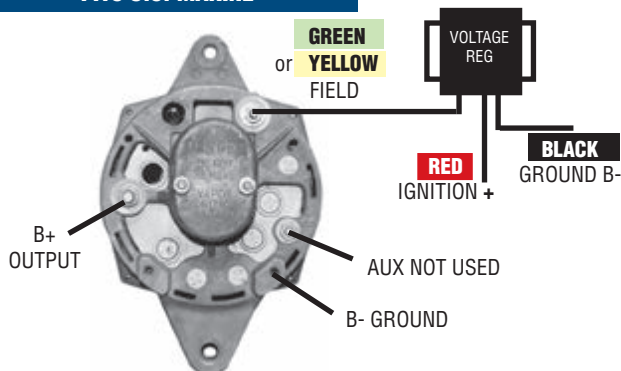
**LATE MOTOROLA/PRESTOLITE STYLE  
FITS U.S. MARINE**



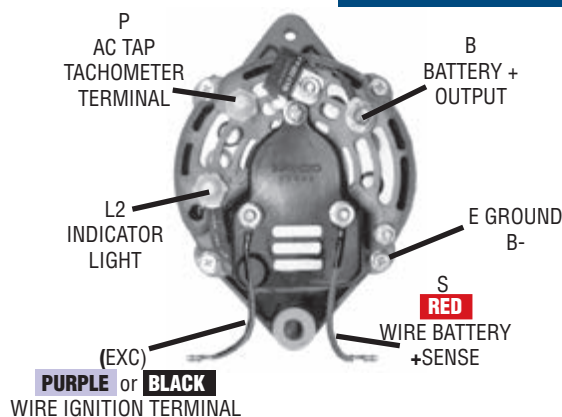
**VALEO/PARIS RHONE  
FITS VOLVO PENTA**



**DELCO STYLE  
FITS MERCUISER & OMC**



**EARLY PRESTOLITE STYLE  
FITS OMC**



**LATE MANDO STYLE  
FITS MERCUISER AND OTHERS**



## REPLACEMENT INBOARD ALTERNATORS

### 20100

**FITS: MANY DIESEL ENGINES**

**12 Volt, 70 AMP**

Self exciting internal regulator

Negative ground

1-wire connection

**2-inch mounting foot**

**Single groove pulley included**

**For high-amp (12 Volt, 105 Amp) replacement alternator, see 60122 on page 785.**



### 20102

**FITS: MERCUISER, O.M.C.**

**12 Volt, 70 AMP**

Self exciting

Ignition protection screens

Internal regulator

Negative ground

1-wire connection

**2-inch mounting foot**

**Single groove pulley included**

**For high-amp (12 Volt, 105 Amp) replacement alternator, see 60122 on page 785.**



### 20104

**FITS: MERCUISER, O.M.C.**

**12 Volt, 70 AMP**

Ignition protection screens

Internal regulator

Negative ground

2-wire plug

**2-inch mounting foot**

**Single groove pulley included**

**For high-amp (12 Volt, 105 Amp) replacement alternator, see 60122 on page 785.**



### 20500

Universal-mount alternator

**12 Volt, 70 AMP**

Self exciting

Ignition protection screens

1-wire connection

**Single groove pulley included**

**1-inch mounting foot**

Adaptors available for 2" and 3" mounting configurations



### 20800 (NEW)

**FITS: MERCUISER**

4.3L - 8.2L

**1998-Up**

**12 Volt, 70 AMP**

Internal Fan

**65-mm multi-groove**

**serpentine pulley included**



### 20810 (NEW)

**FITS: MERCUISER 3.0L**

**1999-UP**

**12 Volt, 70 AMP**

Internal Fan

**Single groove pulley included**



### 20815 (NEW)

**FITS: MERCUISER 4.3L-6.2L**

**12 Volt, 70 AMP**

Internal Fan

**50-mm multi-groove**

**serpentine pulley included**



### 20820 (NEW)

**FITS: INDMAR,**

**PLEASURECRAFT,**

**CRUSADER, AND OTHERS**

**12 Volt, 70 AMP**

Internal Fan

**2-inch mounting foot**

**65-mm multi-groove**

**serpentine pulley included**





## REPLACEMENT INBOARD ALTERNATORS



**20821** (NEW)  
**FITS: PLEASURECRAFT & MARINE POWER**  
 12 Volt, 70 AMP  
 Internal Fan  
 2-inch mounting foot  
 50-mm serpentine pulley included



**20827** (NEW)  
**HIGH AMP**  
**FITS: INDMAR**  
 12 Volt, 95 AMP  
 Internal Fan  
 2-inch mounting foot  
 65-mm serpentine pulley included



**95 AMP**

**20822** (NEW)  
**FITS: PLEASURECRAFT**  
 12 Volt, 70 AMP  
 Internal Fan  
 2-inch mounting foot  
 65-mm serpentine pulley included



**20828** (NEW)  
**HIGH AMP**  
**FITS: MARINE POWER**  
 12 Volt, 95 AMP  
 Internal Fan  
 2-inch mounting foot  
 Double pulley included



**95 AMP**

**20825** (NEW)  
**FITS: INDMAR, PLEASURECRAFT, CRUSADER, AND OTHERS**  
 12 Volt, 70 AMP  
 Internal Fan  
 2-inch mounting foot  
 Single groove pulley included



**20830** (NEW)  
**FITS: MARINE POWER**  
 12 Volt, 70 AMP  
 Internal Fan  
 2-inch mounting foot  
 Double pulley included  
 Includes wire/plug connector



**20826** (NEW)  
**HIGH AMP**  
**FITS: PLEASURECRAFT**  
 12 Volt, 95 AMP  
 Internal Fan  
 2-inch mounting foot  
 65-mm serpentine pulley included



**95 AMP**

**20840** (NEW)  
**FITS: 2.5L MERCURY OUTBOARD**  
 12 Volt, 50 AMP  
 Internal Fan  
 2-inch mounting foot  
 Multi-groove serpentine pulley included  
 Includes wire/plug connector





## REPLACEMENT INBOARD ALTERNATORS

### 20850 (NEW)

**FITS: 1.5L & 3.0L  
MERCURY OUTBOARD  
12 Volt, 50 AMP**  
Internal Fan  
Multi-groove serpentine  
pulley included  
Includes wire/plug  
connector



**\*Will not replace  
Mercury # 821663A-1**

### 20860 (NEW)

**FITS: All Mercury  
Verado Outboards  
12 Volt, 70 AMP**  
Internal Fan  
Multi-groove  
serpentine  
pulley included



### 40112

**FITS: CHRYSLER MARINE  
12 Volt, 70 AMP**  
Internal regulator  
Negative ground  
Single groove  
pulley included



#### VR405

**Replacement Regulator  
for Prestolite alternator  
Not required for ARCO  
replacement alternator.**



Replaces this  
◀ style unit

### 40115 (NEW)

**FITS: CHRIS CRAFT  
12 Volt, 55 AMP**  
Negative ground  
1-inch mounting foot  
Single groove  
pulley included



#### VR407

**Replacement Regulator  
for Prestolite alternator  
Not required for ARCO  
replacement alternator.**



Replaces this  
◀ style unit

### 40147 (NEW)

**FITS: PLEASURECRAFT, WAUKESHA  
12 Volt, 55 AMP**  
Negative ground  
2-inch mounting foot  
Single groove  
pulley included



#### VR406

**Replacement Regulator  
for Prestolite alternator  
Not required for ARCO  
replacement alternator.**



Replaces this  
◀ style unit

### 40152

**FITS: O.M.C.  
12 Volt, 70 AMP**  
Internal regulator  
Negative ground  
Single groove  
pulley included



#### VR404

**Replacement Regulator  
for Prestolite alternator  
Not required for ARCO  
replacement alternator.**



Replaces this  
◀ style unit



## REPLACEMENT INBOARD ALTERNATORS



### 60050 (NEW)

MANDO

FITS: LATE MODEL  
MERCURISER

12 Volt, 55 AMP

Internal regulator

2-inch mounting foot

Single groove

pulley included



### M883

Replacement Regulator

### 65050 (NEW)

75 Amp high-output  
also available

### 60065 (NEW)

MANDO

FITS: LATE MODEL  
MERCURISER

12 Volt, 65 AMP

Internal regulator

2-inch mounting foot

Single groove

pulley included



### 65050 (NEW)

75 Amp high-output  
also available

### 60055 (NEW)

MANDO

FITS: LATE MODEL  
MERCURISER

12 Volt, 55 AMP

Internal regulator

2-inch mounting foot

Multi-groove serpentine

pulley included



### M883

Replacement Regulator

### 65055 (NEW)

75 Amp high-output also available

### 60070 (NEW)

MANDO

FITS: LATE MODEL  
VOLVO PENTA

12 Volt, 65 AMP

Internal Regulator

2-inch mounting foot

Single groove

pulley included



### 60071 (NEW)

MANDO

FITS: LATE MODEL  
VOLVO PENTA

12 Volt, 65 AMP

Internal Regulator

2-inch mounting foot

Multi-groove serpentine

pulley included



### 60060 (NEW)

MANDO

FITS: LATE MODEL  
MERCURISER

12 Volt, 65 AMP

Internal Regulator

2-inch mounting foot

Multi-groove serpentine

pulley included



### 65055 (NEW)

75 Amp high-output  
also available

### 60072 (NEW)

MANDO

FITS: LATE MODEL  
VOLVO PENTA

12 Volt, 65 AMP

Multi-groove

serpentine

pulley included

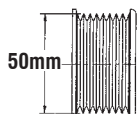






## REPLACEMENT INBOARD ALTERNATORS

**60073 (NEW)**  
**VOLVO PENTA**  
**FITS: LATE MODEL VOLVO PENTA**  
**12 Volt, 75 AMP**  
**50-mm multi-groove**  
**serpentine pulley included**



**60074 (NEW)**  
**VOLVO PENTA**  
**FITS: LATE MODEL**  
**VOLVO PENTA**  
**12 Volt, 75 AMP**  
**2-inch mounting foot**  
**Single groove**  
**pulley included**

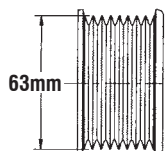


**60075 (NEW)**  
**UNIVERSAL ALTERNATOR W/ MANY APPLICATIONS**  
**FITS: YAMAHA, MARINE POWER, CRUSADER**  
 Replaces Motorola  
**12 Volt, 55 AMP**  
 Internal regulator Includes:  
 Tachometer terminal, indicator  
 light terminal, remote battery  
 sensing terminal, excite terminal  
**1-inch mounting foot**  
**with 3-ear adjustment**  
**Single groove pulley included**



**M883**  
**Replacement Regulator**

**60076 (NEW)**  
**VOLVO PENTA**  
**FITS: LATE MODEL VOLVO PENTA**  
**12 Volt, 75 AMP**  
**63-mm multi-groove**  
**serpentine pulley included**



**60104 (NEW)**  
**REPLACES: MOTOROLA**  
**12 Volt, 55 AMP**  
 Internal regulator  
 Negative ground  
**1-inch mounting foot**  
**Single groove**  
**pulley included**



Replaces this  
 ◀ style unit



**60108 (NEW)**  
**FITS: UNIVERSAL AND OTHERS**  
**12 Volt, 55 AMP**  
 Internal regulator  
 Negative ground  
**2-inch mounting foot**  
**Single groove**  
**pulley included**



**65108 (NEW)**  
**75 Amp high-output**  
**also available**



Replaces this  
 ◀ style unit

**60125 (NEW)**  
**FITS: O.M.C. COBRA**  
 Replaces: Prestolite/Motorola  
**12 Volt, 55 AMP**  
 Internal regulator  
 Negative ground  
**2-inch mounting foot**  
**Single groove**  
**pulley included**



Replaces this  
 ◀ style unit



## REPLACEMENT INBOARD ALTERNATORS



### 12 VOLT, 105 AMP - HIGH AMP ALTERNATORS

Today's increased electrical loads and more sophisticated electronics demand improved performance, greater reliability, and higher output from the electrical generating system. ARCO's creative engineering offers a **105 AMP** series as the means to a totally efficient electrical system. For comparison, just look at the Performance Chart at the bottom of the page!

#### **60121** (NEW)

##### **HIGH-AMP 12 Volt, 105 AMP**

Self exciting  
integral regulator  
Isolated ground  
Includes: Tachometer  
terminal. External  
voltage adjustment.  
**1-inch mounting foot,  
1/2" hole**  
**Single groove  
pulley included**



#### **60126** (NEW)

##### **HIGH-AMP**

**FITS: Late Model VOLVO PENTA  
w/warning panel connection  
12 Volt, 105 AMP**

Integral regulator  
Isolated ground  
Includes: Tachometer terminal  
**2-inch mounting foot,  
10mm hole**  
**Single groove  
pulley included**



**For applications WITHOUT warning panel connection, use 60124**

#### **60122** (NEW)

##### **HIGH-AMP 12 Volt, 105 AMP**

Self exciting integral  
regulator. Isolated  
ground. Includes:  
Tachometer terminal.  
External voltage  
adjustment.  
**2-inch mounting foot,  
3/8" hole**  
**Single groove pulley included**



#### **60498** (NEW)

##### **HIGH-AMP**

**FITS: CATERPILLAR  
DIESEL 6T1396  
12 Volt, 105 AMP**

Integral regulator  
Isolated ground  
Heavy duty bearings  
**1-inch mounting foot  
PULLEY NOT INCLUDED**



#### **60124** (NEW)

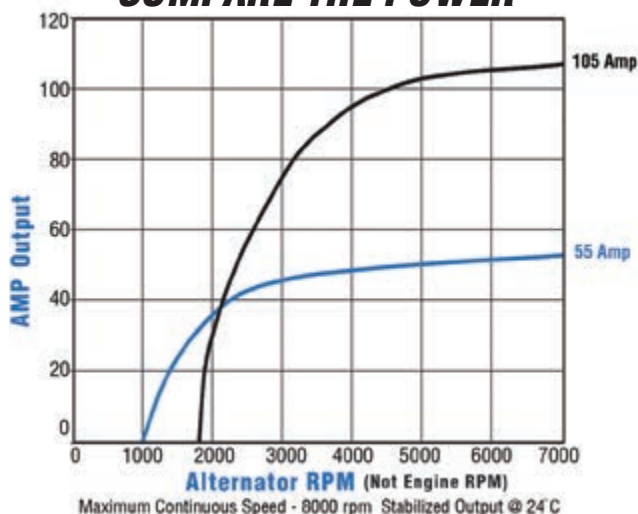
##### **HIGH-AMP FITS: VOLVO PENTA 12 Volt, 105 AMP**

Self exciting  
integral regulator  
Isolated ground  
Includes: Tachometer  
terminal  
External voltage  
adjustment  
**2-inch mounting foot,  
10mm hole**  
**Single groove pulley included**



**For applications WITH warning panel connection, use 60126**

### COMPARE THE POWER





## REPLACEMENT INBOARD ALTERNATORS

### 60150 (NEW)

Prestolite/Motorola  
**24 Volt, 75 AMP**  
 Integral regulator  
 Isolated ground  
**7" casing**  
**PULLEY NOT INCLUDED**

To be discontinued  
 when present stock  
 is exhausted



### 60180 (NEW)

Prestolite/Motorola  
**32 Volt, 100 AMP**  
 Integral regulator  
 Isolated ground  
**7" casing**  
**PULLEY NOT INCLUDED**

To be discontinued  
 when present stock  
 is exhausted



### 60170 (NEW)

Prestolite/Motorola  
**24 Volt, 175 AMP**  
 Integral regulator  
 Isolated ground  
**7" casing**  
**PULLEY NOT INCLUDED**

To be discontinued  
 when present stock  
 is exhausted



### 60195 (NEW)

Prestolite/Motorola  
**FITS: CUMMINS DIESEL**  
**12 Volt, 65 AMP**  
 Integral regulator  
**2-inch mounting foot**  
**PULLEY NOT INCLUDED**  
**Poly-V pulley**  
**available separately**

To be discontinued  
 when present stock  
 is exhausted



### 60175 (NEW)

Prestolite/Motorola  
**24 Volt, 100 AMP**  
 Integral regulator  
 Isolated ground  
**7" casing**  
**PULLEY NOT INCLUDED**

To be discontinued  
 when present stock  
 is exhausted



### 60198 (NEW)

**FITS: CATERPILLAR DIESEL 6T1396**  
**12 Volt, 51 AMP**  
 Integral Regulator  
 Isolated ground  
 Heavy duty bearings  
**1-inch mounting foot**  
**PULLEY NOT INCLUDED**

For high-amp  
 (12 Volt, 105 Amp)  
 replacement alternator  
 see 60498 on page 785





## REPLACEMENT INBOARD ALTERNATORS



### 80108 (NEW)

**FITS: LATE MODEL VOLVO PENTA  
DIESEL ENGINES**  
12 Volt, 55 AMP  
Internal regulator  
2-inch mounting foot  
**PULLEY NOT INCLUDED**



For high-amp  
(12 Volt, 105 Amp)  
replacement alternator  
see 60124/60126  
on page 785.

### 80200 (NEW)

**PARIS RHONE/VALEO**  
**FITS: BAUDOIN, BUKH,  
VOLVO PENTA**  
**DIESEL ENGINES**  
24 Volt, 30 AMP  
Integral regulator  
2-inch mounting foot  
**PULLEY NOT INCLUDED**



**To be discontinued when present  
stock is exhausted.**

### 84135

**HITACHI MARINE**  
**FITS: YANMAR DIESEL**  
12 Volt, 35 AMP  
Internal regulator  
**Single groove  
pulley included**



### 84150

**HITACHI MARINE**  
**FITS: YANMAR DIESEL**  
12 Volt, 50 AMP  
Internal regulator  
**Single groove  
pulley included**



### 86050

**FITS: WESTERBEKE**  
**DIESEL ENGINES**  
12 Volt, 50 AMP  
Internal regulator  
**Single groove  
pulley included**



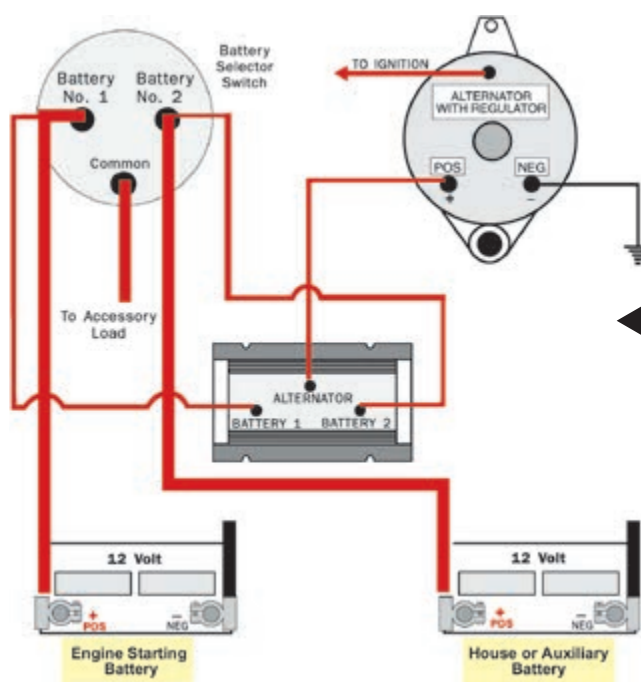
**TECH TIP: ALTERNATORS ARE NOT  
BATTERY CHARGERS. ALTERNATORS  
ARE DESIGNED TO PROVIDE POWER  
FOR THE ACCESSORIES AND  
REPLACE THE BATTERY POWER  
USED DURING CRANKING.**



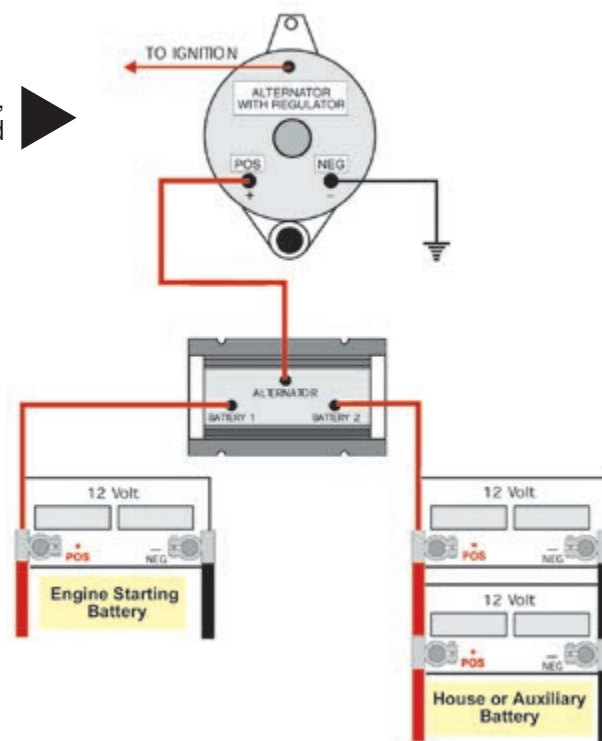
## TYPICAL BATTERY ISOLATOR CIRCUITS

The most common battery isolator is the one alternator, two battery unit. It doesn't matter how many batteries are connected in parallel to the battery 1 or 2 terminal.

**Remember, when batteries are connected in parallel, they become one large battery.**

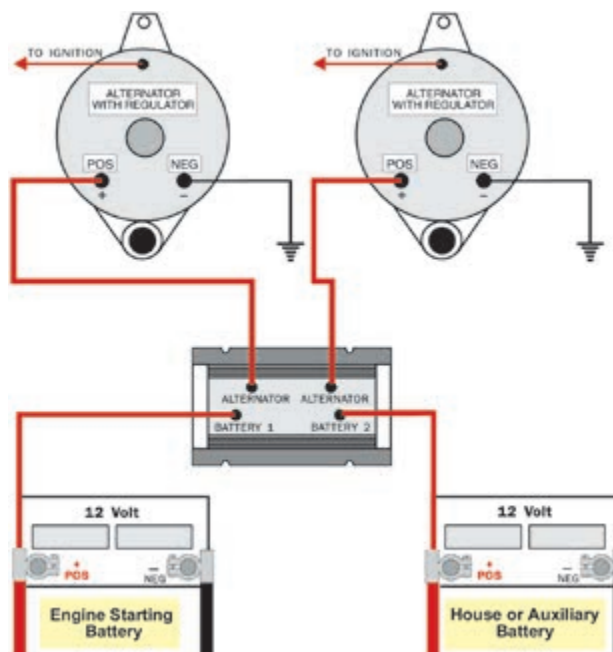


The one alternator, two battery isolator with a battery selector switch will allow both banks of batteries to be charged regardless of what position the battery selector switch is in.



The two alternator, two battery isolator allows both alternators to charge both batteries.

**In the event of one alternator failure, both batteries would be maintained by the working alternator.**



## INBOARD/OUTBOARD BATTERY ISOLATORS



Battery isolators are solid-state devices which allow electrical current to flow in one direction only, thus permitting the alternator to be connected directly to two batteries without fear of one higher charged battery discharging into the lower charged battery. Both batteries are always being charged automatically, in proportion, to their needs, whenever the engine is running. When battery isolators are used in conjunction with selector switches, it is not necessary to change the switch position to provide for charging of both batteries. Isolators provide proportioning of the output or charging current on the alternator to the batteries as required, regardless of switch position. Rated for use with 10 to 350 amp alternators on 12, 24, or 32 volt negative ground systems.

**Note** *Battery Isolators cannot be used on 12 volt charging systems with 24 volt trolling motors or newer outboard engines with rectifier-regulator charging systems.*

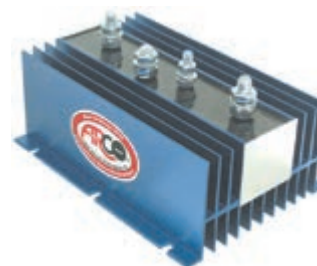
### BI-0702

1 Alternator, 2 Batteries  
70 AMP max



### BI-1202-3A

1 Alternator,  
2 Batteries  
120 AMP max  
Includes: Exciter Terminal



### BI-0702-4

1 Alternator, 2 Batteries  
70 AMP max  
Includes: Regulator  
sensing terminal



### BI-1203

1 Alternator,  
3 Batteries  
120 AMP max



### BI-0703

1 Alternator, 2 Batteries  
70 AMP max



### BI-1203-3A

1 Alternator,  
3 Batteries  
120 AMP max  
Includes Exciter Terminal



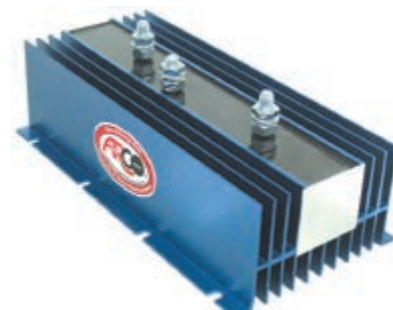
### BI-1202

1 Alternator,  
2 Batteries  
120 AMP max



### BI-1602

1 Alternator,  
2 Batteries  
160 AMP max







## INBOARD/OUTBOARD BATTERY ISOLATORS

**Note** *Battery Isolators cannot be used on 12 volt charging systems with 24 volt trolling motors or newer outboard engines with rectifier-regulator charging systems.*

### BI-1603

1 Alternator,  
3 Batteries  
160 AMP max



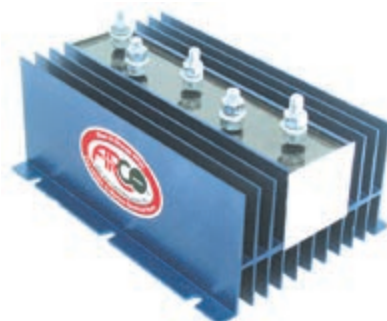
### BI-2702

2 Alternators,  
2 Batteries  
70 AMP max



### BI-2703

2 Alternators,  
3 Batteries  
70 AMP max



### BI-2703-4

2 Alternators,  
3 Batteries  
70 AMP max  
Includes: Regulator  
sensing terminal



### BI-3202

2 Alternators,  
2 Batteries  
120 AMP max



### BI-3203

2 Alternators,  
3 Batteries  
120 AMP max



Need a technical  
question answered?

**Call 1-800-432-2231**

Monday - Friday  
7:30 a.m - 5:00 p.m.  
Eastern time.

## TECH TIPS



## WIRING

**Wiring is just as important as any other component in the starting and charging system. It must be capable of delivering the amount of current that the load is demanding.**

When electrical systems are designed, the wire size is calculated for the specific requirements of the electrical components being used. **When electrical components are added or upgraded, the wire size has to be upgraded also. For example, replacing a low torque starter with a high torque starter will normally require the battery cables and possibly the battery to be upgraded.**  
**WHEN IN DOUBT, ALWAYS USE A BIGGER WIRE.**

**A word about wire gauge.**

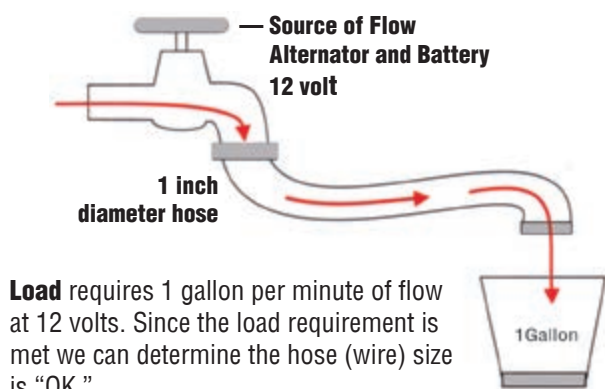
**The size of a wire (gauge) is expressed in terms of a standard American Wire Gauge (AWG) measurement.**

**The higher the AWG number, the smaller the wire. For example, a 14 gauge wire is smaller than a 10 gauge wire.** The smaller the wire, the greater its resistance to the flow of electrons and the greater the heat generated when the wire is conducting electricity. The heat can destroy insulation and even kindle a fire. **THE LARGER THE AMPERAGE OF A CIRCUIT, THE LARGER THE WIRE THAT IS NEEDED.**

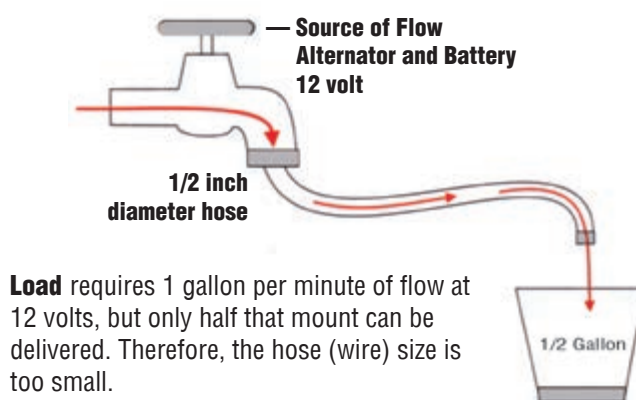
**Think of wiring as a water hose.**

**The electrical current is like water flowing through the hose.** The source or supply of this water would be the battery and alternator. Look at the diagrams below. The first diagram shows a one inch diameter hose which allows one gallon per minute of flow. Since the load requires only a gallon per minute of flow, we can say that this hose (wire size) is of sufficient size to carry the supply of water (current) to the load. This all changes when we reduce the water hose (wire size) to one half inch as shown in the second diagram. The hose (wire) can only deliver half the current needed by the load— this hose (wire) is NOT of sufficient size to carry the needed supply of water (current) to the load.

### Adequate Wire Size (gauge)



### Inadequate Wire Size (gauge)



**BIGGER (LARGER) IS BETTER!**

**The higher the AWG Number, the smaller the wire.**

**The larger the amperage of a circuit, the larger the wire that is needed.**



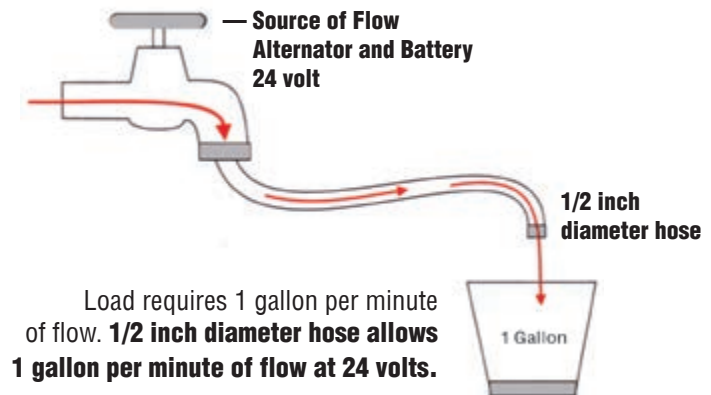
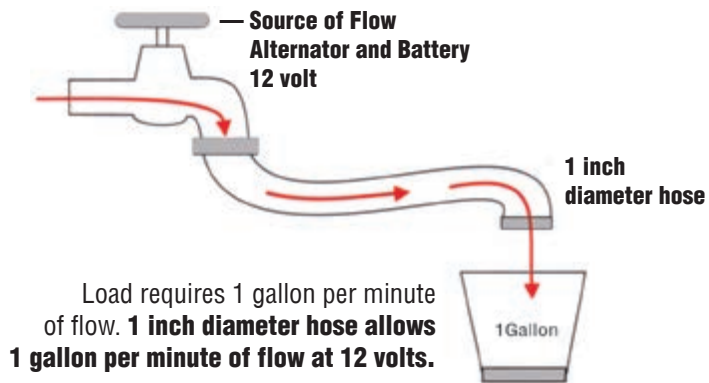
## WIRING AND VOLTAGE

### VOLTAGE IS MUCH LIKE WATER PRESSURE.

When calculating proper wire sizing, voltage plays a very important role. Voltage is much like water pressure. The higher the voltage, the faster the current flows.

**A 24 volt system can move the same amount of current through a wire one half the size required for a 12 volt system.**

This is also shown in the charging cable size chart on the following page. Notice that the 24 volt cable size requirements are much less than that of the 12 volt.



**The higher the voltage, the faster the current flows.**



## REPLACEMENT SOLENOIDS



### SW054

**FITS: MERCUISER, MERCURY**

Isolated base  
12 Volt



### SW058

**STANDARD-DUTY**

**FITS: MERCUISER, MERCURY**

Isolated base  
12 Volt



### SW058HD

**HEAVY-DUTY**

**FITS: MERCUISER, MERCURY**

Isolated base  
12 Volt



**SW058 OEM STYLE  
COIL & CONTACT ASSEMBLY**



**ARCO SW058HD  
COIL & CONTACT ASSEMBLY**

High Temp Housing  
for Less Distortion

Studs are Molded  
in the Housing for  
More Precise  
Contacting

One Piece  
Moving Core  
with Solid  
Brass Stem

Heavy Duty  
High Temp  
Coil Assembly

Solid Copper  
Moving Contact  
Covers Stud  
Contacts for More  
Contact Area

### SW064

**FITS: MERCUISER, MERCURY**

Isolated base  
12 Volt  
**White housing**



### SW081

**FITS: MANY APPLICATIONS; O.M.C.**

Isolated base  
12 Volt



### SW097

**FITS: MERCUISER, MERCURY**

Isolated base  
12 Volt  
**White housing**



### SW099

**FITS: MERCUISER, MERCURY &  
YAMAHA 4 STROKE**

Isolated base  
12 Volt



### SW109

**FITS: MERCURY/FORCE**

Isolated base  
12 Volt





## REPLACEMENT SOLENOIDS

### SW125

**HEAVY-DUTY**

**FITS: FORD**

**ARCO 70125, 70200,  
70201, 70212, 70216**  
gear reduction starters  
on late model 5.0L, 5.8L



### SW225

**HEAVY-DUTY**

**FITS: VOLVO PENTA,**

**VALEO** gear reduction



### SW268

**FITS: O.M.C.**

Grounded base  
12 Volt



### SW275

**FITS: MERCURY**

Isolated base  
12 Volt



### SW288

**FITS: O.M.C.**

Isolated base  
12 Volt



### SW295

**FITS: CHRYSLER**

Isolated base  
12 Volt



### SW340

**FITS: O.M.C.**

Isolated base  
12 Volt



### SW357

**HEAVY-DUTY**

**FITS: ARCO STARTER PART  
NUMBER 5357.**

Used on Evinrude G2  
engines.



### SW394

**FITS: MERCURUISER & O.M.C.**

Grounded base  
12 Volt



**If you have questions about  
any of our products, please  
don't hesitate to call!**

**FL 1.800.432.2231**

**SC 1.800.788.2231**

## REPLACEMENT SOLENOIDS



### SW450

**FITS:** ARCO 30460, 30470

4 terminals

12 Volt

**Plungers to fit these units  
MUST BE ORDERED  
SEPARATELY-SEE BELOW**



### PA450L

2 1/4" Plunger for

ARCO SW450



Fits late model 30470.

### PA450S

1 3/4" Plunger for

ARCO SW450



Will also fit early  
model 30450 & all 30460.

### SW456

**FITS:** 14 MT

ARCO 30456, 30457

4 Post, 3-Bolt Mount



### SW463

**HEAVY-DUTY**

**FITS:** O.E. DELCO PG 260,  
MERCUISER, OMC, VOLVO PENTA

This solenoid will not fit

ARCO 30460, 30470!



### SW486

**FITS:** MANY HITACHI STARTERS  
on YANMAR diesels

12 Volt



### SW565

**FITS:** VOLVO PENTA

Isolated base

12 Volt



### SW580

**FITS O.M.C.**

**1993-UP,**

9.9 -15 HP Outboard

Isolated base

12 Volt



### SW590

Starter Solenoid

**FITS:** LATE MODEL

**EVINRUDE E-TEC ENGINES**

Isolated base



### SW595

**FITS EVINRUDE E-TEC**

**2010-UP** 15 HP-300 HP



### SW622

**FITS O.M.C.**

Isolated base

12 Volt



### SW661

**FITS:** MERCURY

Isolated base

12 Volt







## REPLACEMENT SOLENOIDS

### SW730

**FITS: O.M.C.**  
Grounded base  
12 Volt



### SW774

**FITS: CHRYSLER, O.M.C.**  
Replaces Chrysler 177917  
Grounded base  
12 Volt



### SW814

**FITS: PARIS RHONE**  
D11E167T, ETC.  
12 Volt



To be discontinued when present stock is exhausted.

### SW865

**HEAVY-DUTY**  
12 VOLT, 1000 AMP  
Parallel/solenoid  
Isolated ground



### SW866

24 VOLT, 1000 AMP

### SW924

**FITS: FORCE OUTBOARDS**  
Choke solenoid  
Order plunger (below) separately



### PA924

Plunger to fit ARCO SW924

### SW925

**FITS: MERCURY OUTBOARDS**  
Choke solenoid



### SW926

**FITS: 75 HP-V200 HP**  
MERCURY OUTBOARDS  
Choke solenoid



### SW941

**FITS: YAMAHA**  
Solenoid



### SW945

**FITS: YAMAHA 2 & 4 STROKE,**  
MERCURY 4 STROKE  
Starter solenoid



### SW950

**FITS: YAMAHA**  
Solenoid



### SW975

**FITS: DELCO**  
Standard solenoid  
12 Volt



### SW981

**FITS: MERCURY**  
Grounded base  
12 Volt



### SW984

**FITS: DELCO**  
Metric solenoid  
12 Volt



# OUTBOARD RECTIFIERS & REPLACEMENT RELAYS



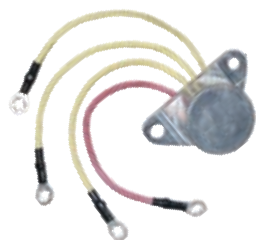
## AR103

**FITS: O.M.C.**  
3-lead Rectifier



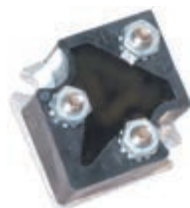
## AR104

**FITS: O.M.C.**  
4-lead Rectifier



## AR351

**HEAVY-DUTY**  
**FITS: MERCURY**  
3-post Rectifier



**R012** Continuous duty relay;  
12 Volt, 85 Amp

**R024** 24 Volt, 85 Amp

**R036** 32-36 Volt, 85 Amp



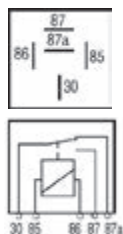
## R038

S.P.D.T. normally closed,  
continuous duty relay  
used w/many winch motors  
Isolated ground, 12 Volt, 85 Amp



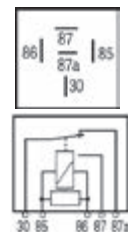
## R040

**FITS: VOLVO PENTA**  
12 Volt, 30 Amp



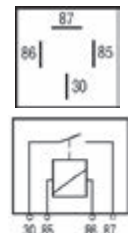
## R151

**FITS: MERCURY & MARINER OUTBOARDS**  
12 Volt, 30 Amp



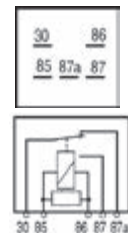
## R177

**FITS: VOLVO PENTA**  
12 Volt, 30 Amp



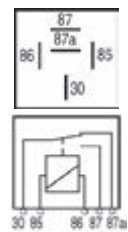
## R202

**FITS: MERCURUISER**  
12 Volt, 30 Amp



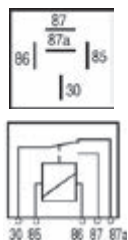
## R211

**FITS: MERCURY**  
12 Volt, 30 Amp



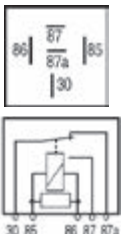
## R473

**FITS: O.M.C.**  
12 Volt, 30 Amp



## R509

**FITS: MERCURY, MARINER & FORCE, OUTBOARDS**  
12 Volt, 30 Amp

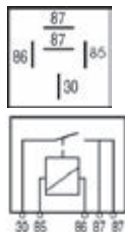




## REPLACEMENT RELAYS & VOLTAGE REGULATORS

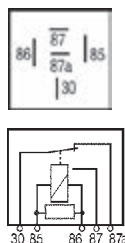
### R670

**FITS: VOLVO PENTA**  
12 Volt, 30 Amp



### R751

**FITS: MERCURISER & MERCURY VERADO OUTBOARDS**  
12 Volt, 30 Amp



### R767

**EVINRUDE E-TEC O/B TILT/TRIM RELAY**  
**REPLACES EVINRUDE 0586767**

**2011-2012 E-TEC** 25, 30, 40, 50, 60, 75, 90, 115, 130, 150, 175, 200, 225, 250, 300

**2008-2010 E-TEC** 30, 40, 50, 60, 75, 90, 115, 130, 150, 175, 200, 225, 250, 300

**2007 E-TEC** 40, 50, 60, 75, 90, 115, 150, 175, 200, 225, 250

**2006 E-TEC** 40, 50, 60, 75, 90, 200, 225, 250

**2005 E-TEC** 40, 50, 75, 90, 200, 225, 250

**2004 E-TEC** 40, 50, 75, 90



### R809

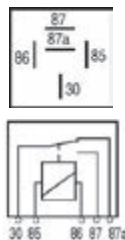
**VOLVO PENTA**  
**REPLACES: VOLVO PENTA 3858081,**

3858809

**1998 SX-M-MAC,** (MDA, MLT), 3.0GLP-D, 4.3GL-E, 4.3GL-EF, 4.3GXl-F, 4.3GXl-FF, 4.30Si-F, 4.30Si-FF,

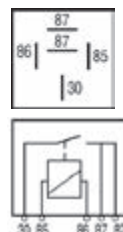
5.0GL-F, 5.0GL-FF, 5.0GXl-F, 5.0GXl-FF, 5.0Si-F, 5.0Si-FF, 5.7Gi-F/FF, 5.7GXl-G/GF, 5.70Si-E/EF, 5.70Xi-E/EF, 5.7Gil-F, 5.7GXl-G, 8.1Gi-G/GF, 8.1GXl-F/FF, 8.10Si-C/CF, 8.1Gil-G, 8.1GXl-F, DPH-A, DPH-B, DPR-A, DPH-B, EF drives, SX-M TSKs

**1998-2005 SX-M, DP-SM,** (WT drives, PJX-C, PJX-S SX-M, -MA-CLT, -MDA, -MDB, -MHP, -MTD, DP-E, DP-S, -S1, -S2, DP-SM, -SM) XDP-B, O.M.C. COBRAS WITH TELEFLEX PUMPS



### R832

**FITS: VOLVO PENTA**  
12 Volt, 30 Amp



### R950

**YAMAHA O/B TILT/TRIM RELAY**

**REPLACES: YAMAHA 6E5 81950-01**

**1991 & Up** 115 HP,

**1991 - 2004** 130 HP,

**1991 & Up** 150 HP,

**1991 - 2000** 175 HP,

**1991 - 1999** 200 HP

**SUZUKI 38410-94540**



### R951

**YAMAHA O/B TILT/TRIM RELAY**

**REPLACES: YAMAHA 6E5 8195A-01**

**1991 & Up** 115 HP,

**1991 - 2004** 130 HP,

**1991 & Up** 150 HP,

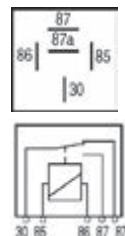
**1991 - 2000** 175 HP,

**1991 - 1999** 200 HP



### R952

**FITS: VOLVO PENTA**  
12 Volt, 30 Amp



### VR095

**LATE MODEL S.E.V. MARCHAL,**

**REPLACES: VOLVO PENTA 841688-5**

Plastic case, 12 Volt





## VOLTAGE REGULATORS & MISCELLANEOUS ITEMS



### VR404

**PRESTOLITE MARINE**  
**REPLACES: O.M.C. 383440**  
 12 Volt



### VR405

**PRESTOLITE MARINE**  
**FITS: CRUSADER, PALMER,**  
**UNIVERSAL, ETC.**  
**REPLACES: CHRYSLER 2847527**  
 12 Volt



### VR406

**PRESTOLITE MARINE**  
**REPLACES: PLEASURECRAFT**  
 R098002, etc.  
 12 Volt



### VR407

**PRESTOLITE MARINE**  
**FITS: OWENS YACHT, ETC.**  
**REPLACES: CHRIS CRAFT**  
 16.60-00031  
 12 Volt



### M883

Regulator assembly  
**FITS: LATE MODEL MANDO**  
**REPLACES MERCUISER 811883**



### BH450

Brush Holder Assembly  
**FITS: ARCO 30460, 30470**  
 High performance starters



### BK899

Replacement brushes  
**FITS: Most HITACHI** jet ski,  
 small outboard and  
 snowmobile starters



### BK900

Replacement brushes  
**FITS: AMERICAN-MADE**  
 permanent magnet outboard starters



### DV225

**Fits: VALEO** starter nos. D9R116, D9R144  
 used on **VOLVO PENTA** diesel engines,  
**ARCO** starter No. 97225



### DV450

CW Rotation, 11 tooth gear  
**FITS: ARCO High Performance**  
 Gear Reduction Starter 30470





## MISCELLANEOUS ITEMS

### DV456

**FITS:** DELCO 14MT, ARCO 30456  
Starters w/CW Rotation  
9-tooth gear



### DV457

**FITS:** DELCO 14MT, ARCO 30457  
Starters w/CCW Rotation  
9-tooth gear

### M525

Reservoir kit  
**FITS:** ARCO 6275  
**Replaces:** MERCURISER  
**Includes:** Reservoir, cap, O-rings, mounting screw



### M531

Reservoir kit  
**FITS:** ARCO 6227  
**Replaces:** Volvo  
**Includes:** Reservoir, cap, O-rings



### M532

**REPLACES MERCURISER**  
883166A2

### M533

**REPLACES VOLVO-PENTA 3858077**  
New style reservoir kit,  
heavy duty 4-screw mount.  
Improved design, will only fit  
late model OILDYNE pumps  
equipped with 4 mounting ears.  
**Includes:** Reservoir, screws, cap, O-rings.



### MBK450

Mounting bolt kit for gear reduction starters  
**FITS:** ARCO 30470 starter,  
2 long mounting bolts, 3/8"-16 N.C. threads  
This kit will also fit all DELCO gear  
reduction starters w/staggered bolt mounting pattern



**Required when replacing a 10MT Starter with a GearReduction Starter. Will NOT FIT metric engines or 10MT starters.**

### MBK460

Mounting bolt kit  
**FITS:** ARCO 30460 starter,  
3/8"-16 N.C. threads  
This kit will also fit DELCO 10MT style  
starters w/1 short & 1 long mounting bolt



**Will NOT FIT metric engines**

### PA450S

1 1/4" Plunger for ARCO SW450  
**Fits** 30460



### PA450L

2 1/4" Plunger for ARCO SW450  
**Fits** 30470



### PA924

Plunger to fit ARCO SW924  
**Replaces:** Force 839126-1



## MISCELLANEOUS ITEMS



### SR102

Prestolite repair kit  
**FITS: PRESTOLITE**  
 2-brush outboard starters



### SR104

Prestolite repair kit  
**FITS: PRESTOLITE**  
 4-brush outboard starters



### SR107

**ARCO BRUSH LOADING TOOL**

Makes brush loading as simple as 1-2-3  
 Perfect tool for loading outboard starter  
 brushes. Fits most all size and shape caps.



### TM001

**Electrical Technical Manual**

This easy-to-understand technical  
 reference is written by Mechanics for  
 Mechanics. Procedures are explained  
 in basic terms with illustrated  
 examples.



### TAK217

Screws, O-ring,  
 and adapter for tilt/trim motors  
**FITS: ARCO 6217,**  
**PRESTOLITE ERH4102**



### TAK247

Mounting bolts, flat washers,  
 O-ring and couplers for  
 tilt/trim motors  
**FITS: ARCO 6247 & 6248**



### TAK276

Mounting bolts, O-ring, fill cap  
 and shaft adapters for  
 tilt/trim motors  
**FITS: ARCO 6274 & 6276**



### WH800

**Wire connector.**

**Fits ARCO alternators**

20800, 20810, 20815, 20840, 20850,  
 65050 & 65055



### WH826

**Wire connector.**

**Fits ARCO alternators**

20826, 20827 & 20828



### WH830

**Wire connector.**

**Fits ARCO alternators**

20820, 20821, 20822, 20825 & 20830  
 60073, 60074 & 60076







### Electronic Ignition Kit



Repl. for DELCO® Carbureted or Injected (TBI) LH or RH Rotation. Note: NOT for use with Right Hand roller cam. Kit Contains: HEI Distributor, Gasket, High Energy Ignition Coil, Premium Silicon Spark Plug Wire Set, Wiring Harness for Ignition Coil to Distributor, Tachometer & 12 volt Supply to Ignition Coil, Shift Interrupt for MerCruiser or OMC Sterndrive Applications, Timing Tool and Instruction Sheets.

Part No.	Description
BBB 122001	GM V-6 High Energy EST

### Electronic Ignition Kit



Fits: Small or Big Block Chevy's. Repl. DELCO® Carbureted or Injected (TBI). LH or RH Rotation. Note: Can NOT be used with Right Hand roller cam. **Kit Contains:** HEI Distributor & Gasket, High Energy Ignition Coil, Premium Silicon Spark Plug Wire Set, Wiring Harness for Ignition Coil to Distributor, Tachometer & 12 volt Supply to Ignition Coil, Shift Interrupt for MerCruiser or OMC Sterndrive Applications, Timing Tool and Instruction Sheets.

Part No.	Description
BBB 122002	GM V-8 High Energy EST

### Electronic Ignition Kit



Fits: all Standard Rotation Small & Big Block Carbureted Chevys. SAE J1171 Marine certified Distributor. Hi-Energy 45,000 volt ignition coil with mount bracket. Hi-Energy 8mm silicone wire set.

Part No.	Description
BBB 112001	GM V-8 High Performance
BBB 112122	Cap & Rotor - Only

### Distributor



Machined Aluminum Housings, Bronze Oil-Lite Bushing, Hardened Ground Shaft for Con-centricity. High Performance Engineered with O.E.M. Fit. Complete with Heavy Duty Cap & Rotor. Brass Contacts.  
Repl: Crusader #RA107044. Merc #884794A02, VOL #3861987 & Others

Part No.	Description
BBB 032951	GM V-8 HVS

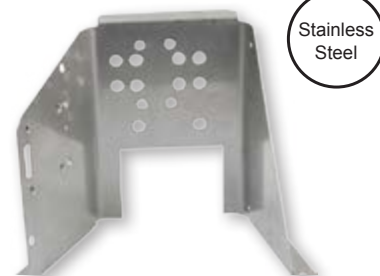
### Distributor



Machined Aluminum Housings, Bronze Oil-Lite Bushing, Hardened Ground Shaft for Con-centricity. High Performance Engineered with O.E.M. Fit. Complete with Heavy Duty Cap & Rotor. Brass Contacts.  
Repl: MerCruiser #888751A02, Marine Power #480335 & Volvo #400058334

Part No.	Description
BBB 032952	GM V-6 HVS

### Mercury Power Tilt/Trim Mounting Bracket



Fits many MerCruiser Trim Motor Assembly's  
Replaces Merc #42419A1

Part No.
BBB 013601

### Propeller Puller



Removes most propellers that are frozen on propeller shaft. Heat treated jaws to withstand pressure and rough treatment. Propeller puller will pay for itself quickly. Fits standard exhaust thru hub propellers for Johnson, Evinrude, Mercury, Suzuki, Yamaha and Mariner outboards.

Part No.	Description
T/R PP-6000	Thru - Hub Prop Puller

### Propeller Puller



Adjustable chain allows you to pull any 3 bladed propeller. Hardened bolt to withstand torque. This unit features a removable arm to hold when turning thrust bolt. Very easy and quick to use.

Part No.	Description
T/R PP-6600	Propeller Puller - Chain Type

### Outdrive/Lower Unit Stand



The perfect "mechanic's helper" holds any outdrive. The stand has a unique design that enables it to hold and store any individual outdrive, keeping the weight of the outdrive off of the skag. Made of a very durable, lightweight, weather resistant polymer. This stand is extremely space efficient, neat and professional. The perfect "mechanics helper" for boat owners, marine mechanics or service marinas. The six pieces are easily assembled. All hardware included. Made in the U.S.A.



Part No.
BBB 190444

**Distributor Caps**



**Part No. BBB 032041**  
Used with 4.3L  
MER 850484T2 &  
VOL 3854331



**Part No. BBB 032039**  
Used with 4.1L IL-6 cyl  
MER 33765T



**Part No. BBB 032042**  
Used with 5.0, 5.7, 7.4  
& 8.2L  
MER 808483T3 &  
VOL 3854548



**Part No. BBB 032043**  
Used with Ford 5.0 & 5.8L  
OMC/ VOL 33854217



**Part No. BBB 032034**  
Used with 2.5, 3.0 & 4.1L  
IL-6 cyl  
MER 898253008



**Part No. BBB 032038**  
Used with 5.0, 5.7 & 8.2L  
MER 898253013 &  
VOL 3858977



**Part No. BBB 032035**  
Used with 4.3L  
MER 898253012



**Part No. BBB 032037**  
Used with 3.0L  
MER 898253011 &  
VOL 3854261



**Part No. BBB 032036**  
Used with 5.0, 5.7, 7.4 &  
8.2L  
CRU 38071



**Part No. BBB 032044**  
Used with Ford 5.0 & 5.8L  
VOL 3854218

**Fuel Injector**



**Part No. BBB 032006**  
Used with 4.3L  
Replaces: MER 885176



**Part No. BBB 340691**  
For 350 MAG, 6.2L MPI, 454  
MPI, 502 MAG MPI, 8.2L MPI  
- 8 Cylinder.  
Replaces: MER 861260T



**Part No. BBB 094003**  
Used with 6.0L GM  
Replaces: MER 12580681



**Part No. BBB 094006**  
Used with 8.1L GM  
Replaces: MER #12575073



**Part No. BBB 032017**

**Pig-Tail for Fuel Injector**



**Part No. BBB 032015**



**Part No. BBB 032016**



**Part No. BBB 032008**  
Used with 4.3, 5.0, 5.7,  
7.4 & 8.2L  
Replaces: VOL 3855184  
& MER 805226A1



**Part No. BBB 032009**  
Used with 5.7, 6.2 & 7.4L  
Replaces: VOL 3855296 &  
MER 803148



**Part No. BBB 032010**  
Used with 5.0, 5.7, 6.2, 7.4,  
8.1 & 8.2L  
Replaces: VOL 3857487 &  
MER 853678T

**Throttle Body Injectors**



**Part No. BBB 032045**  
Used with 4.3, 5.7L  
Replaces: VOL 3858941  
& MER 852956A1

**Oil Pressure Switch**



**Part No. BBB 032049**  
Activates electric fuel  
pump on Marine Power  
engines  
Replaces: M/P 0303-  
017F3 and 457007

**Pig-Tail for Temp Switch**



**Part No. BBB 032014**

**Fuel Pressure Regulator**



**Part No. BBB 032013**  
Used with 4.3, 5.0, 5.7,  
6.2 & 7.4  
Replaces: MER 885174



**Part No. BBB 032020**  
Used with 7.4L  
MER 802630T01



<b>Knock Sensor</b>  <b>Part No. BBB 032029</b> Used with 7.4L Replaces: VOL #3854478	<b>Knock Sensor</b>  <b>Part No. BBB 032030</b> Used with 8.1L Replaces: VOL #3861301	<b>Knock Sensor</b>  <b>Part No. BBB 032028</b> Used with 4.3, 5.0, 5.7 Replaces: OMC, VOL #3854905	<b>Crank Sensor</b>  <b>Part No. BBB 032019</b> Used with 8.1L MER #892617, VOL #3808516	<b>Cam Sensor</b>  <b>Part No. BBB 032031</b> Used with 8.1L Replaces: VOL #3861323 & MER #881666
<b>Cam Sensor</b>  <b>Part No. BBB 032032</b> Used with 8.1L Replaces: PCM #R020035A & MER #892615001	<b>Idle Air Control</b>  <b>Part No. BBB 032004</b> Used with 5.0, 5.7, 6.2, 8.1 & 8.2L Replaces: MER #862998	<b>Idle Air Control</b>  <b>Part No. BBB 032007</b> Used with 4.3, 5.0, 5.7, 7.4 & 8.2L Replaces: MER#805224A1	<b>Coolant Temp Sensor</b>  <b>Part No. BBB 032026</b> Used with 5.0 & 5.8L Replaces: VOL #3854159	<b>Coolant Temp Sensor</b>  <b>Part No. BBB 032027</b> Used with 3.0, 4.3, 5.0, 5.7, 6.2, 7.4, 8.1 & 8.2L Replaces: VOL #3850397 & MER #805218T
<b>Map Sensor</b>  <b>Part No. BBB 032003</b> Used with 5.0, 5.7, 7.4 & 8.1L Replaces: MER#861249A1, 881731, VOL #3861321	<b>Air Charge Temp Sensor</b>  <b>Part No. BBB 032005</b> Used with 4.3, 5.0L Replaces: VOL #3854527 & MER #805223T	<b>Oil Pressure Switch</b>  <b>Part No. BBB 032021</b> Used with 4.3, 5.0, 5.7, 7.4, 8.1 & 8.2L VOL #3852215	<b>Distributor Pick-up</b>  <b>Part No. BBB 032002</b> Used with 5.0 & 5.7L Replaces: VOL #3863130	<b>Ignition Coil</b>  <b>Part No. BBB 032001</b> Used with 5.0L Replaces: VOL #3854161
<b>Distributor Reluctor</b>  <b>Part No. BBB 032018</b> Used with 3.0, 4.3, 5.0, 5.7, 7.4 & 8.2L MER #811639 T, VOL #3854001	<b>Ignition Coil</b>  <b>Part No. BBB 032023</b> Used with 4, 6 & 8 cyl MER #898253T24	<b>Ignition Coil</b>  <b>Part No. BBB 032024</b> Used with 8.1L MER #392881732, VOL #3861267	<b>Ignition Coil</b>  <b>Part No. BBB 032025</b> Used with 8.1L MER #392889925, VOL #3859078	<b>Ignition Coil</b>  <b>Part No. BBB 032033</b> Used with 3.0, 5.0, 5.7, 7.4 & 8.2L MER #806673T1, 898253T27





Seloc tune-up and repair manuals provide the most comprehensive, authoritative information available for outboard, inboard and stern-drive engines, as well as personal watercraft.

## Every Manual Features:

- Simple-to-follow, step-by-step illustrated procedures • Hundreds of exploded drawings, photographs and tables
- Troubleshooting sections, accurate specifications and wiring diagrams

### Chrysler Outboards Tune-up & Repair Manual

Covers ALL 3.5-150 Hp, 1 to 4-cylinder models. 1962 thru 1984. Over 550 pages, 1, 263 illustrations.

**Part No.**  
SIE 18-01000



### Johnson/Evinrude Tune-up & Repair Manual

Covers ALL 1.25-60 Hp, 1 and 2-cylinder models. 1971 thru 1989. Over 1,720 illustrations.

**Part No.**  
SIE 18-01302



### Force Outboards Tune-up & Repair Manual

Covers ALL 3-150 Hp, 1 to 5-cylinder models. 1984 thru 1999. Over 544 pages, 1,260 illustrations.

**Part No.**  
SIE 18-01100



### Johnson/Evinrude Tune-up & Repair Manual

Covers ALL 50-125 Hp, 3-cylinder models and V4 engines models. 1958 thru 1972. Over 530 pages, 1, 508 illustrations.

**Part No.**  
SIE 18-01306



### Honda Outboards Tune-up & Repair Manual

Covers ALL 2-130 Hp, 1 to 4-cylinder, 4-stroke models. 1978 thru 1999. Nearly 400 illustrations.

**Part No.**  
SIE 18-01200



### Johnson/Evinrude Tune-up & Repair Manual

Covers ALL 60-235 Hp, 3-cylinder, V4 and V6 engines models. 1973 thru 1991. Over 392 pages, 1,015 illustrations.

**Part No.**  
SIE 18-01308



### Honda Outboards 2002-08 Covers all 2 - 225 Hp,

1 to 4-cylinder & V6, 4-stroke models.

**Part No.**  
SIE 18-01202



### Johnson/Evinrude Tune-up & Repair Manual

Covers ALL 65 -300 Hp., V4, V6 and V8 engines (all V-engines). Includes Jet Drives. 1992 thru 2001.

**Part No.**  
SIE 18-01311



### Johnson/Evinrude Tune-up & Repair Manual

Covers ALL 1.5-40 Hp, 1 and 2-cylinder models. 1956 thru 1970. Over 430 pages, 1,282 illustrations.

**Part No.**  
SIE 18-01300



### Johnson/Evinrude Tune-up & Repair Manual

Covers ALL 2-70 Hp, 1 to 4-cylinder models. 2 and 4-stroke models (including 1995 4-stroke). 1996 thru 2001. Over 1,000 illustrations.

**Part No.**  
SIE 18-01312



### Johnson/Evinrude O/B

1958-72 1 - 3 Cyl, V4 Covers all 1.5 - 125 Hp, 1-3 cylinder and V4, 2-stroke models.

**Part No.**  
SIE 18-01301



### Evinrude Outboards Tune-up & Repair Manual

Covers ALL 40-250 HP fuel-injected engines 2002-2006.

**Part No.**  
SIE 18-01313





Seloc tune-up and repair manuals provide the most comprehensive, authoritative information available for outboard, inboard and stern-drive engines, as well as personal watercraft.

### Every Manual Features:

- Simple-to-follow, step-by-step illustrated procedures • Hundreds of exploded drawings, photographs and tables
- Troubleshooting sections, accurate specifications and wiring diagrams

#### Johnson Outboards Tune-up & Repair Manual

Covers ALL 3.5-250 HP engines.  
2002-2007.

**Part No.**  
SIE 18-01314



#### Mercury/Mariner O/B Tune-up & Repair Manual

Covers ALL 2.5-275 Hp, 1 to 4-cylinder models and V6, 2-stroke models, including fuel injected units and Jet Drives. 1990 thru 2000. Over 350 pages, 1400 illustrations.

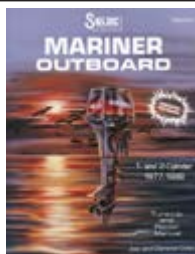
**Part No.**  
SIE 18-01416



#### Mariner Outboards Tune-up & Repair Manual

Covers ALL 2-60 Hp, 1 and 2-cylinder models. 1977 thru 1989. Over 456 pages, 1,187 illustrations.

**Part No.**  
SIE 18-01400



#### Mercury Tune-up & Repair Manual

Covers ALL 2.5-250 Hp, 2-stroke models  
Includes Jet Drives. 2001-2005

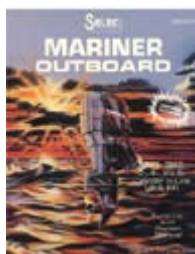
**Part No.**  
SIE 18-01418



#### Mariner Outboards Tune-up & Repair Manual

Covers ALL 3 and 4-cylinder models, in-line 6 and V6 models, including fuel injected units. 1977 thru 1989. Over 616 pages, 1,521 illustrations.

**Part No.**  
SIE 18-01402



#### Mercury Outboards

4-Stroke 2005-2011  
Covers all 2.5-350 Hp, 1-4 Cylinder, V6 & V8 4-Stroke Engines. Including Jet Drives

**Part No.**  
SIE 18-01422



#### Mercury Outboards Tune-up & Repair Manual

Covers ALL 2-40 Hp, 1 and 2-cylinder model. 1965 thru 1989. Over 528 pages, 1,390 illustrations.

**Part No.**  
SIE 18-01404



#### Nissan Outboards

2 & 4-Stroke 1992-09 Covers all 2.5-140 Hp, 2 & 4-stroke models; includes Electronic Fuel Injection and TLDI.

**Part No.**  
SIE 18-01500



#### Mercury / Mariner Outboards Tune-up & Repair Manual

Covers ALL 40-115 Hp, 3 and 4-cylinder models. 1965 thru 1989. Over 575 pages, 1,729 illustrations.

**Part No.**  
SIE 18-01406



#### Suzuki Outboards Tune-up & Repair Manual

Covers ALL 2-225 Hp, 1 to 3-cylinder models, in-line 4, V4 and V6, 2-stroke models. Including fuel injected units and Jet Drives. 1988 thru 1999. Nearly 1000 illustrations.

**Part No.**  
SIE 18-01600



#### Mercury / Mariner Outboards Tune-up & Repair Manual

Covers ALL 90-300 Hp, in-Line 6 and V6, including fuel injected units. Also includes MR drive info. 1965 thru 1989. Over 640 pages, 1,630 illustrations.

**Part No.**  
SIE 18-01408



#### Suzuki Outboards

1996-2007 - 4-Stroke Covers all 2-300 Hp, 1 to 4-cylinder and V6, 4-stroke models; includes Fuel Injection and Jet Drives.

**Part No.**  
SIE 18-01602







Seloc tune-up and repair manuals provide the most comprehensive, authoritative information available for outboard, inboard and stern-drive engines, as well as personal watercraft.

## Every Manual Features:

- Simple-to-follow, step-by-step illustrated procedures • Hundreds of exploded drawings, photographs and tables
- Troubleshooting sections, accurate specifications and wiring diagrams

### Yamaha

#### Tune-up & Repair Manual

Covers ALL 2-250 HP, 2 and 4-stroke  
Includes Jet Drives. 1984-1996

**Part No.**

SIE 18-01701



### MerCruiser Stern Drive

#### Tune-up & Repair Manual

Covers ALL Gasoline engines.  
Includes Inboards. 2001-2006.

**Part No.**

SIE 18-03208



### Yamaha

#### Tune-up & Repair Manual

Covers ALL 2-250 HP, 2-stroke  
Includes Jet Drives. 1997-2003

**Part No.**

SIE 18-01703



### OMC Stern Drive

#### Tune-up & Repair Manual

Covers ALL models powered by Ford and GM  
4-cylinder models, V6 & V8 engines. 1964  
thru 1986. Over 580 pages 1,400 illustrations.

**Part No.**

SIE 18-03400



### Yamaha / Mercury Mariner Outboards

#### Tune-up & Repair Manual

Covers ALL 2.5-225 HP, ALL 4-stroke  
models Includes Jet Drives, 1995-2004

**Part No.**

SIE 18-01705



### OMC Stern Drive

#### Tune-up & Repair Manual

Covers ALL gas engines & Cobra/  
King Cobra Sterndrives. 1986-1998.

**Part No.**

SIE 18-03404



### Yamaha

OB All 4-Stroke Models 2005-  
10 Covers all 2.5-350 Hp, 1 to  
4-cylinder, V6 and V8 4-stroke  
engines. Included Jet Drives.

**Part No.**

SIE 18-01707



### Volvo Penta Stern Drive

#### Tune-up & Repair Manual

Covers ALL Single (SP) and Duo Prop (DP)  
models powered by Ford, GM or Volvo 4-cylinder  
models, V6 and  
V8 engines. 1968 thru 1991. Over 535 pages,  
1,380 illustrations.

**Part No.**

SIE 18-03600



### MerCruiser Stern Drive

#### Tune-up & Repair Manual

Covers Type 1, Alpha/MR and Bravo I,  
and II units powered by Ford and GM 4-cylinder  
models, in-line 6, V6 and V8 engines. 1964  
thru 1991. Over 1,430 illustrations.

**Part No.**

SIE 18-03200



### Volvo Penta Stern Drive

#### Tune-up & Repair Manual

Cover ALL Single (SP) and Duo Prop (DP)  
models powered by Volvo 4-cylinder engines.  
1992 thru 1993. More than 750 illustrations.

**Part No.**

SIE 18-03602



### MerCruiser Stern Drive

#### Tune-up & Repair Manual

Covers ALL Gasoline engines. Includes  
Alpha, Bravo, Blackhawk and all inboard  
transmissions. 1992-2001. Over 1,000  
illustrations.

**Part No.**

SIE 18-03206



### Volvo/Penta Stern Drive

#### Tune-up & Repair Manual

Covers ALL gasoline engines and drive  
systems. 1992 thru 2003.

**Part No.**

SIE 18-03606







Seloc tune-up and repair manuals provide the most comprehensive, authoritative information available for outboard, inboard and stern-drive engines, as well as personal watercraft.

### Every Manual Features:

- Simple-to-follow, step-by-step illustrated procedures • Hundreds of exploded drawings, photographs and tables
- Troubleshooting sections, accurate specifications and wiring diagrams

#### Volvo/Penta Stern Drive

**Tune-up & Repair Manual**  
Covers ALL gasoline engines and drive systems. 2004 thru 2008.

**Part No.**  
SIE 18-03608



#### Personal Watercraft / Kawasaki

**Tune-up & Repair Manual**  
Covers ALL 550 to 1100 series personal watercraft. 1992 thru 1997.  
Over 700 Illustrations.

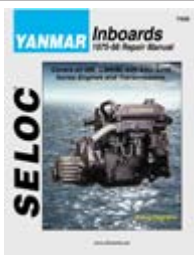
**Part No.**  
SIE 18-09202



#### Yanmar Inboards Tune-up & Repair Manual

Covers ALL QM, GM/HM, JH and JH2 dieSEL models. 1975 thru 1998.

**Part No.**  
SIE 18-07400



#### Personal Watercraft Sea-Doo Bombardier

**Tune-up & Repair Manual**  
Covers ALL Bombardier Sea-Doo personal watercraft. 1988 thru 1991.  
Over 260 pages, 575 illustrations.

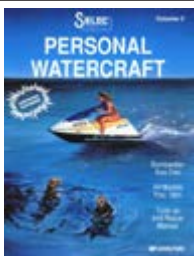
**Part No.**  
SIE 18-09000



#### Personal Watercraft / Polaris

**Tune-up & Repair Manual**  
Covers ALL 650 to 1050 Series Personal Watercraft Including the Hurricane and All Fuji or Polaris Powered Models, 1992 thru 1997. Nearly 650 Illustrations.

**Part No.**  
SIE 18-09400



#### Personal Watercraft / Yamaha

**Tune-up & Repair Manual**  
Covers ALL Yamaha, Jet-NCat, and other Cuyuna-powered PWC models. 1987 thru 1991. Over 300 pages, 650 illustrations.

**Part No.**  
SIE 18-09600



#### Personal Watercraft / Sea-Doo / Bombardier

**Tune-up & Repair Manual**  
Covers ALL GS, GSI, GSX, GTI, GTS, GTX, HX, SP, SPI, SPX and XP Models. 1992 thru 1997.  
Over 685 Illustrations.

**Part No.**  
SIE 18-09002



#### Personal Watercraft / Yamaha

**Tune-up & Repair Manual**  
Covers ALL Aqua-Jet, Faze II, Fazer, Jet-n-Cat, Scram-Jet, Tide Rider, Super Jet, Wave Jammer, Wave Runner, Wet Jet and other Cuyuna-powered models. 1992 thru 1997. Over 475 Illustrations.

**Part No.**  
SIE 18-09602



#### Personal Watercraft / Kawasaki

**Tune-up & Repair Manual**  
Covers ALL 300 to 650 series personal watercraft models. 1988 thru 1991. Over 300 pages, 600 illustrations.

**Part No.**  
SIE 18-09200



SELOC Publishing has been an innovator in helping boaters maintain and repair their outboard and inboard engines for over 30 years now. From performing actual tear down procedures to digital photography, SELOC has been there all the way. Now SELOC takes repair into the 21st century by allowing users to access our electronic database via the internet for up-to-the-minute information on your engine. All the quality and content you've come to expect from our print manuals is there plus quick access buttons for Repair, Specifications, Maintenance Intervals and Wiring Diagrams. Information retrieval is easy--Quick Access tabs, Explorer-style Table of Contents or a hyper-linked Search Index. We're also creating a growing parts offered by a major aftermarket parts supplier.



## Ouch!

It can happen to anyone....

An encounter with a rock, coral head or debris that damages your skeg and propeller.

Until Skeggard, skeg damage meant expensive repairs, such as welding on a new skeg, which could put your boat out of commission for days, or even weeks.

## Repairs Skegs Quickly, with No Welding!

Now there's a better way to repair lower unit Skeg damage. Simply bolt on Skeggard right over the damaged skeg. It's quick, it's easy and it's stronger than the original, so it protect your skeg and propeller from future damage.

## Protects Your Skeg and Prop, Before Damage Occurs

Why wait for trouble, when you can protect your skeg and propeller from costly damage with Skeggard. Compare the cost of Skeggard with the cost to repair a broken Skeg or damages propeller.

Which one would you rather pay for? Skeggard mounting bolts are designed to shear off in the event of severe impact, to further help protect your lower unit.

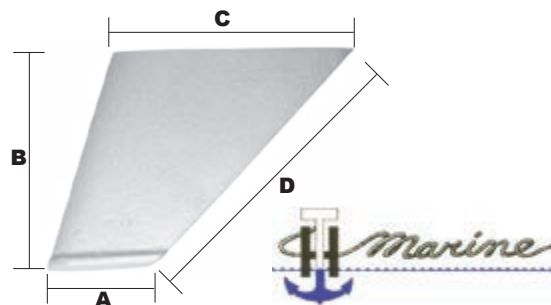
# SKEGGARD™

Part No.	Evinrude/Johnson	Stroke	Year
SKE 99014	40 & 50 HP	2 Stroke	1986 thru 1998
SKE 99013	40-50 & 60 HP & (E-TEC)	2 Stroke	1984 thru 2008
SKE 99010	90-100-120-115-140 HP	2 Stroke	1980 thru 2001
SKE 99023	225 & 250 HP (E-TEC)	2 Stroke	2004 thru 2008
OMC Stern Drives			
SKE 99010	Cobra 4 Cylinder Drives		1986 thru 1994
SKE 99008	Cobra V6 & V8 Cylinder Drives		1986 thru 1994
Volvo Penta Stern Drives			
SKE 99022	SX Drives Single Prop		1995 thru 2006
SKE 99019	DP Drives Dual Prop		1996 thru 2007
SKE 99019	SX Drives Single Prop		2007 thru 2008
Force Outboard			
SKE 99017	70 & 75 HP	2 Stroke	1991 thru 1997
SKE 99007	70 & 90 HP (By Mercury)	2 Stroke	1998 thru 2002
SKE 99018	85 & 90 HP	2 Stroke	1988 thru 1996
SKE 99018	90-120-150 HP L Drive	2 Stroke	1988 thru 1991
SKE 99018	120-125-150 HP	2 Stroke	1988 thru 1996
Honda Outboard			
SKE 99017	35-40-45-50 HP	4 Stroke	1991 thru 2007
SKE 99007	75-90-115 HP	4 Stroke	1995 thru 2007
SKE 99017	90 HP	4 Stroke	2008
Nissan/Tohatsu Outboards			
SKE 99017	35-40-50 HP	2 Stroke	1993 to Date
SKE 99007	70-90-115-120-140 HP	2 Stroke	1993 to Date
Mercury/Mariner Outboards			
SKE 99016	40-50-60-65-70 HP	2 Stroke	1980 thru 1985
SKE 99017	40-50-60 HP	2 Stroke	1986 thru 2002
SKE 99007	50-60 HP (big foot)	2 & 4 Stroke	2003 thru 2008
SKE 99007	70-75-80 HP	2 Stroke	1984 thru 2008
SKE 99007	*90-100-115-125 HP	2 & 4 Stroke	1983 thru 2008
SKE 99006	135-150-175-200-225 HP	2 & 4 Stroke	1978 thru 2004
SKE 99021	*150-175-200 HP	4 Stroke	2005 thru 2008
SKE 99021	*225-250-275 HP	4 Stroke	2005 thru 2008
*Includes Verado & Optimax			
MerCruiser Stern Drives			
SKE 99001	Pre- Alpha # 1 Drives		1973 thru 1984
SKE 99002	Alpha 1 Drives		1985 thru 1990
SKE 99003	Alpha 1 Generation 2 Drives		1991 thru 2008
Suzuki Outboards			
SKE 99017	40-50-60-70 HP	4 Stroke	2003 thru 2008
Yamaha Outboards			
SKE 99017	40- 48 & 50-85CV HP	2 Stroke	1984 thru 2000
SKE 99033	40 & 50 HP	2 & 4 Stroke	2001 thru 2008
SKE 99007	60-70-90-100 HP	2 Stroke	1998 thru 2001
SKE 99032	60-70-80-90-100 HP	2 & 4 Stroke	2002 thru 2008
SKE 99016	70-90 HP	2 Stroke	1984 thru 1998
SKE 99015	115-130 HP	2 Stroke	1984 thru 2002
SKE 99029	115-130 HP	2 Stroke	2003 thru 2008
SKE 99029	115-130 HP	4 Stroke	2000 thru 2008
SKE 99015	150 HP	2 & 4 Stroke	1984 thru 2008
SKE 99015	175-200-220-250 HP	2 Stroke	1984 thru 2002
SKE 99030	200-225-250-300 HP	2 & 4 Stroke	2003 thru 008
Yamaha Inboard/Outboard			
SKE 99015	3.0 L Thru 5.7 L		1989 thru 1993

## Replacement Skegs

- Solid Cast Aluminum
- Welds to Lower Units
- Easily Cut to Shape

Part No.	A	B	C	D
T/H RS-1	5-1/2"	6"	10-1/4"	9"
T/H RS-2	4-1/2"	5-3/4"	9-1/2"	10"
T/H RS-3	4"	4-1/4"	7-1/2"	7"
T/H RS-4	3-1/2"	6-1/2"	9-1/4"	10-1/2"





**PERKO®**  
Shaping the Wave of Excellence™

Now flush your boat engine or generator safely and easily. Flusher valves are transparent so you can monitor water flow. A durable check valve system activated by water pressure from a garden hose and the check valve automatically shuts off hull intake when water pressure is applied. Check valve prevents water from entering boat even if you forget to replace the flusher cap after flushing.

Part No.	Description
SHE 01058F	Valve with 5/8" Hose Barb
SHE 01000F	Valve with 1" Hose Barb
SHE 01025F	Valve with 1-1/4" Hose Barb

### Outboard Motor Flusher



Universal motor flusher allows the cooling system to be flushed out using a garden hose from both intakes. Works on most outboards. Also a great way to test run your boat before heading for the water. Display Pack

**Part No.**  
SSE 50073750

### Replacement Skegs

Solid Cast aluminum replacement skegs for outboard and sterndrive (I/O) lower units. Welds to existing lower unit to bring back original performance, handling, and appearance. Easily cut to shape.

Part No.	Description
T/H RS-1-DP	Repl: Bombardier, Evinrude, Johnson, OMC, Yamaha V6 O/B
T/H RS-4-DP	Repl: Merc V6 O/B and Merc S/D (I/Os)



### Torque Tab

- Counters Torque Pressure on Wheel
- Inexpensive and Easy to Install
- Cast Aluminum
- Stainless Steel Hardware

**Part No.**  
T/H TAB-1



### Nose Cone

- Reduces Drag
- Cast Aluminum
- Weld on or Epoxy

**Part No.**  
T/H NC-1



### Quick Flush™



**QF-1K**  
**QF-2K**

- Snaps On - Quickly Flushes Salt or Sand from outboard
- Slide Valve Stays on Engine Permanently - "O" Ring Sealed
- No More Fighting Garden Hose to Connect to Engine
- Kit Contains; Slide Valve - Quick Connect - Rubber Washer
- Fits All Outboards with Flushing Port

Part No.	Description
T/H QF-1K	OMC
T/H QF-2K	Merc / Yamaha / Other
T/H DFMK-1-DP	Double Flusher® Twin Engine Flush Kit

### Inboard Motor Flusher



For inboard engine flushing or running an inboard engine out of the water for maintenance. Place plunger over flush port and extend handle till supports it firmly against the hull adjust from 15½" to 30"

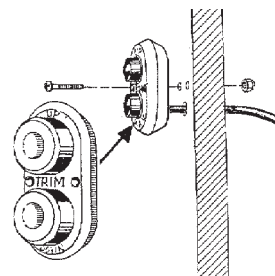
**Part No.**  
SSE 50073761

### Transom Trim Control

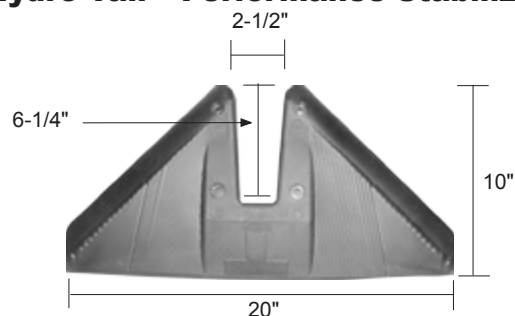


- Puts Trim & Tilt Control Anywhere
- Weatherproof Control Switches
- Can Also Operate Jack Plates
- 50 AMP

**Part No.**  
T/H TTC-1



### Hydro-Tail™ Performance Stabilizer



- Planes Quicker - Reduces Cavitations
- One Piece Unit For Strength
- Fits Most Outboards & Stern Drives

**Part No.**  
T/H HYD-1





## T-H Marine's ATLAS™ Hydraulic Jack Plates



Built for the heaviest and most powerful V6 and big four strokes. Polymer rod and slot lifting design guarantees trouble free action. This pump will lift the heaviest outboard from bottom to top in less than 8 seconds. Self Contained Hydraulic Pump System with no Reservoir or lines to install. Self lubricating material needs no grease. Can be used for most outboards - 350hp Max



Part No.	Description
T/H AHJM-4-DP	Micro 4" Hydrolic Jack Plate
T/H AHJ-4V-DP	4" Hydrolic Jack Plate Merc Verado 6 Cyl
T/H AHJ-6V-DP	6" Hydrolic Jack Plate Merc Verado 6 Cyl
T/H AHJ-8V-DP	8" Hydrolic Jack Plate
T/H AHJ-10V-DP	10" Hydrolic Jack Plate Merc Verado 6 Cyl

## Emergency Reboarding Ladder

Permits Easy and Convenient Re-entry into Boat in Emergencies Permanently Attaches to Engine or Jack Plate. Easily Rotates and Drops Into Position When Needed. Non Corrosive All Aluminum Design. Meets ABYC Regs for Reboarding Device. Mounts to Any Engine with Bracket Or Directly to Pre-Drilled Atlas Jack Plates. Non-Slip Material on Both Steps. Snaps Securely into Slot When Not in Use.

Part No.	Description
T/H EBL-1-DP	Fits All O/Bs Port Side
T/H EBL-2-DP	Fits All O/Bs Starboard Side
T/H EBL-3-DP	Fits All O/BS Port Side Dual Power Pole Apply



## Atlas™ Series Digital Position Gauge Kit



- All Digital Readout
- Each Number Indicates 1/4" Rise
- Number from 0 to 20
- All Atlas™ Jacks are Pre-Drilled to Fit
- Black Face & White Face Gauge Available

Part No.	Description
T/H FAGK-1-DP	Gauge Kit Black Bezel Fits 4" & 8"
T/H FAGK-1SS-DP	Gauge Kit Stainless Bezel Fits 4" & 8"
T/H FAGK-2-DP	Gauge Kit Black Bezel Fits 6, 10" & 12"
T/H FAGK-2SS-DP	Gauge Kit Stainless Bezel 6, 10" & 12"

## Engine Mounting Kit for Jack Plates

Contains 4 each of 1/2"-13 x 3" stainless steel bolts, 1/2"-13 lock nuts - brass with nylon insert and 1/2" stainless steel flat washers.

**Part No.**  
T/H BK-1



## Transom Wedges

Add 5 Degrees of Tuck. These transom wedges fit all standard outboard engines. Cast aluminum construction allows for full, positive contact between engine bracket and transom. Improves performance for boats with insufficient transom angle.



Part No.	Description
T/H TW-2-DP	2-1/4" Wide, 11-1/4" Long.



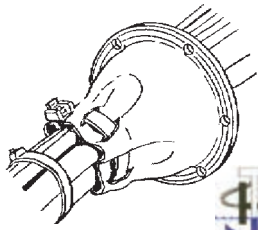
## Zippered Rigging Sleeve

Protect your cables and hoses with this easy to remove rigging sleeve. Made of rugged Sunbrella® fabric, this sleeve will withstand the elements and resist fading. Easily zips on and off to access cables of hoses when needed. Ends are secured with cable ties sewn into pockets.



Part No.	Description
T/H ZRS-1-DP	48" sleeve





Ring



Grommet

### Cable Boots Reinforcing Rings & Mounting Grommets

- Finishes & Protects Pass Thru Hole for Wires & cables
- Boot is Rugged Marine Vinyl - Resists UV, Gasoline and Oil
- Cable Tie on Boot Snugs Around Cables, Hose and Wires
- Grommet Protects Cables, Hose and Wires from Chafing
- Boot snaps into Grommet and Finished with Reinforcing Ring
- All are Black and Individually Bulk Packaged

Part No. Boot Only	Part No. Ring Only	Part No. Grommet Only	Size
T/H CB-2	T/H CBR-2	T/H CBG-2	2"
T/H CB-1	T/H CBR-1	T/H CBG-1	3"
T/H CB-4	T/H CBR-4	T/H CBG-4	4-1/2"

### 3/4 inch Straight Thru-Hull Fitting

These molded Thru-Hull fittings are used by more OEM boat builders than any other brand. Made of the highest quality material to insure consistent size, durability and attractive appearance.



Part No.	Description
T/H TH-752-DP	3/4 inch



### Transom Mounting Flange



Ideal for securing outboard hose and cable conduit to transom. Threaded molded plastic grips conduit securely.

Part No.	I. D.	Color
MPI 747-2000	2"	Black
MPI 747-3000	3"	Black
MPI 748-2000	2"	White
<b>Hose End Cap</b>		
MPI 740-2000		Black

### Fuel Hose Port & Hose Union



RFHU-1



RFFHP-1

- Completes professional Rigging Installation
- Complies with ABYC-NMMA Specs
- Split design of Union Allows Installation on Pre-Rigged Boats
- Fuel Hose Port Fits type "A" Hose and Hose
- Union Fits Type "A" and "B" Hose
- Installs with T-H Marine Rigging Hose

Part No.	Description
T/H RFHU-1	Black Rigging Flange Hose Union
T/H RFFHP-1	Black Flange with Fuel Hose Port

### Rigging Flange & Hose Kits

- Protects Cables, Hoses and Wiring from Elements.
- Molded Polypropylene Flange Threaded to Retain Hose.
- Vinyl Cap Provides Closure for the Engine End of Hose.



Part No.	Description
T/H RFK-1-DP	4' Black Rig Hose/Black Flange (Kit)
T/H RFK-1CP-DP	4' Black Rig Hose/Chrome Flange (Kit)

### Garboard Drain Plug Kit



Threaded Brass Drain Plug 1/2" NPT

**Part No.**  
SSE 50032282

### Transom Protector



Two piece plate aluminum transom protector fits all transoms for added protection and strength. Easy to install and prevents mounting bolts from working into transom.

**Part No.**  
T/R TP-30



### Turn-Tite® Bailer Plugs

Known for their durability and ease of use, these plugs provide boaters a lasting seal on the water.

Part No.	Description
MOE 020899-001	1" Brass Turn-Tite (Bulk Pack of 50)
MOE 020899-50	1" Brass Turn-Tite Display (50 pcs. in Bucket)

## Armstrong Swing Ladders

All Armstrong ladders are made of 304 stainless steel with plastic steps, lightweight (under 10 pounds). Available in four sizes and are easily attached and removed for storage from either the transom or swim platforms. The ladders are designed to allow easy access to the platform and have open-ended steps for convenience to divers wearing fins. Three - Year Limited warranty and it Floats!



**The Original Center Pole Ladder Now Swings!**



### Part No.

ARM SL2-28  
ARM SL3-34  
ARM SL3-40  
ARM SL4-48  
ARM LSC  
ARM SLM

### Description

2 Step 28" Tall Ladder.  
3 Step 34" Tall Ladder.  
3 Step 40" Tall Ladder.  
4 Step 48" Tall Ladder.  
Ladder Storage Clips (Pair)  
Swing Ladder Mount (Mount only)

### To Install

Simply insert the ladder into the Mounting Bracket and twist the Ladder to lock it in Place

### To Remove

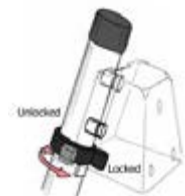
Just flip the Ladder up to its storage position in the Mounting Bracket then twist the Ladder to remove it from the Bracket



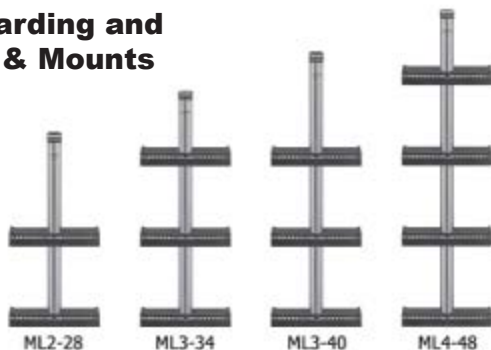
Designed to mount directly to the Transom of your Boat. Complete with Mount, Storage Clips & Mounting Hardware.



## Standard Boarding and RIB Ladders & Mounts



(ML Series Does Not Include Mount)



### Ladders

#### Part No.

ARM ML2-28  
ARM ML3-34  
ARM ML3-40  
ARM ML4-48

#### Description

2 Step 28" Tall Ladder, ideal for smaller boats.  
3 Step 34" Tall Ladder, perfect for most boats  
3 Step 40" Tall Ladder, extra length for large boats.  
4 Step 48" Tall Ladder, extra length for larger boats.



### Ladders

#### Part No.

ARM RL3-37SM  
  
ARM RL3-37LG  
  
ARM RL4-48SM  
  
ARM RL4-48LG

#### Description

RIB ladder 3 step 37" length - tube dia. approx 17" - 24" x 24" x 9"  
RIB ladder 3 step 37" length - tube dia. approx 22" - 24" x 24" x 9"  
RIB ladder 4 step 48" length - tube dia. approx 17" - 24" x 24" x 9"  
RIB ladder 4 step 48" length - tube dia. approx 22" - 24" x 24" x 9"

### Transom Mounts

ARM TLM-S  
ARM TLM-SXL  
ARM TLM-U  
ARM RLM-H RIB  
ARM RLM-P RIB

Stainless Steel Mount.  
Stainless Steel Mount with extra 2" clearance.  
Solid Plastic Block with stainless face plate.  
ladder mounting for Hypalon tubes 10" x 7" x 7"  
ladder mounting for PVC tubes 10" x 7" x 7"

### Platform Mounts

ARM RM-S

Slotted Retrofit Mount installs underneath existing platforms.  
ARM SB1.00 1" Starboard™ Spacer Block with 4-1/2" Bolts.  
Mounts 1" away from Transom.

ARM SB2.00

(2-1") Starboard™ Spacer Block with 5-1/2" Bolts.  
Mounts 2" away from Transom.

ARM LLC

Ladder Spare Locking Clip.

ARM LSC

Ladder Storage Clips (Pair).



LLC



LSC



TLM-SXL & TLM-S  
Standard Mount



TLM-U Adapts to  
Specific Transom Angles



RM-S  
Retrofit Mount



PLM  
Platform Mount



## Phillips Head Self Tapping Screws



PAN HEAD



OVAL HEAD



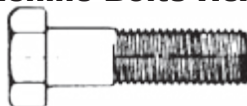
FLAT HEAD

Part No. Pan Head	Part No. Oval Head	Part No. Flat Head	Size
FAS 802806	802506	802306	6 x 3/8"
FAS 802807	802507	802307	6 x 1/2"
FAS 802808	802508	802308	6 x 5/8"
FAS 802809	802509	802309	6 x 3/4"
FAS 802810	802510	802310	6 x 1"
FAS 802811	802511	802311	6 x 1-1/4"
FAS 802812	802512	802312	6 x 1-1/2"
FAS 802813	802513	802313	6 x 2"
FAS 802814	802514	802314	8 x 3/8"
FAS 802815	802515	802315	8 x 1/2"
FAS 802816	802516	802316	8 x 5/8"
FAS 802817	802517	802317	8 x 3/4"
FAS 802818	802519	802318	8 x 1"
FAS 802819	802520	802319	8 x 1-1/4"
FAS 802820	802521	802320	8 x 1-1/2"
FAS 802821	802522	802321	8 x 1-3/4"
FAS 802822	802523	802322	8 x 2"
FAS 802823	802524	802323	8 x 2-1/2"
FAS 802824	802525	802324	8 x 3"
FAS 802825	802526	802325	10 x 1/2"
FAS 802826	802527	802326	10 x 5/8"
FAS 802827	802528	802327	10 x 3/4"
FAS 802828	802529	802328	10 x 1"
FAS 802829	802530	802329	10 x 1-1/4"

Part No. Pan Head	Part No. Oval Head	Part No. Flat Head	Size
FAS 802830	802531	802330	10 x 1-1/2"
FAS 802831	802532	802331	10 x 1-3/4"
FAS 802832	802533	802332	10 x 2"
FAS 802833	802534	802333	10 x 2-1/2"
FAS 802834	802535	802334	10 x 3"
FAS 802835	802536	802335	12 x 1/2"
FAS 802836	802537	802336	12 x 3/4"
FAS 802837	802538	802337	12 x 1"
FAS 802838	802539	802338	12 x 1-1/4"
FAS 802839	802540	802339	12 x 1-1/2"
FAS 802840	802541	802340	12 x 1-3/4"
FAS 802841	802542	802341	12 x 2"
FAS 802842	802543	802342	12 x 2-1/2"
FAS 802843	802544	802343	12 x 3"
FAS 802844	802545	802344	14 x 1/2"
FAS 802845	802546	802345	14 x 3/4"
FAS 802846	802547	802346	14 x 1"
FAS 802847	802548	802347	14 x 1-1/4"
FAS 802848	802549	802348	14 x 1-1/2"
FAS 802849	802550	802349	14 x 1-3/4"
FAS 802850	802551	802350	14 x 2"
FAS 802851	802552	802351	14 x 2-1/2"
FAS 802852	802553	802352	14 x 3"

## Standard Box 100

## Stainless Steel Machine Bolts Hex Head Cap Screws



Part No.	Std. Size	Pkg.
FAS 800001	1/4"-20 x 1/2"	100
FAS 800002	1/4"-20 x 5/8"	100
FAS 800003	1/4"-20 x 3/4"	100
FAS 800005	1/4"-20 x 1"	100
FAS 800006	1/4"-20 x 1-1/4"	100
FAS 800007	1/4"-20 x 1-1/2"	100
FAS 800009	1/4"-20 x 2"	100
FAS 800011	1/4"-20 x 2-1/2"	100
FAS 800013	1/4"-20 x 3"	100
FAS 800015	1/4"-20 x 3-1/2"	25
FAS 800016	1/4"-20 x 4"	25
FAS 800021	5/16"-18 x 1/2"	50
FAS 800022	5/16"-18 x 5/8"	50
FAS 800023	5/16"-18 x 3/4"	50
FAS 800025	5/16"-18 x 1"	50
FAS 800026	5/16"-18 x 1-1/4"	50
FAS 800027	5/16"-18 x 1-1/2"	50
FAS 800029	5/16"-18 x 2"	50
FAS 800031	5/16"-18 x 2-1/2"	50
FAS 800033	5/16"-18 x 3"	50
FAS 800035	5/16"-18 x 3-1/2"	50
FAS 800036	5/16"-18 x 4"	25

Part No.	Size	Std. Pkg.
FAS 800041	3/8"-16 x 1/2"	50
FAS 800042	3/8"-16 x 5/8"	50
FAS 800043	3/8"-16 x 3/4"	50
FAS 800045	3/8"-16 x 1"	50
FAS 800046	3/8"-16 x 1-1/4"	50
FAS 800047	3/8"-16 x 1-1/2"	100
FAS 800049	3/8"-16 x 2"	50
FAS 800051	3/8"-16 x 2-1/2"	50
FAS 800053	3/8"-16 x 3"	50
FAS 800055	3/8"-16 x 3-1/2"	25
FAS 800057	3/8"-16 x 4"	25
FAS 800059	3/8"-16 x 5"	25
FAS 800060	3/8"-16 x 5-1/2"	25
FAS 800061	3/8"-16 x 6"	25
FAS 800064	7/16"-14 x 1"	50
FAS 800065	7/16"-14 x 1-1/4"	50
FAS 800066	7/16"-14 x 1-1/2"	50
FAS 800068	7/16"-14 x 2"	25
FAS 800070	7/16"-14 x 3"	25
FAS 800079	1/2"-13 x 2"	25
FAS 800083	1/2"-13 x 3"	25
FAS 800086	1/2"-13 x 4"	25

Stainless Steel  
Flat Washers

Part No.	Size
FAS 806405	1/4"
FAS 806406	5/16"
FAS 806407	3/8"
FAS 806408	7/16"
FAS 806409	1/2"

Stainless Steel  
Hex Nuts

Part No.	Size	Std. Pkg.
FAS 805901	1/4"-20	100
FAS 805902	5/16"-18	100
FAS 805903	3/8"-16	100
FAS 805904	7/16"-14	50
FAS 805905	1/2"-13	50

Stainless Steel  
Lock Washers

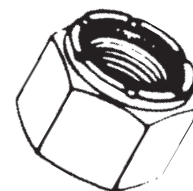
Part No.	Size
FAS 806605	1/4"
FAS 806606	5/16"
FAS 806607	3/8"
FAS 806608	7/16"
FAS 806609	1/2"



## Standard Box 100

Stainless Steel  
Stop Nuts

Part No.	Size
FAS 806304	1/4"-20
FAS 806305	5/16"-18
FAS 806306	3/8"-16
FAS 806307	7/16"-14
FAS 806308	1/2"-13



## Standard Box 100

## MEET MARINE POWER

**WHETHER YOU'RE DEALING WITH A RESTORATION, A REPOWER, OR A NEW BOAT, MARINE POWER IS THE ONLY CHOICE TO COVER ALL YOUR ENGINE NEEDS.**

**OUR BRAND NEW GM MARINE ENGINES ARE AVAILABLE IN CONFIGURATIONS THAT CAN ACCOMODATE ANY APPLICATION AND MEET OR SURPASS OE SPECIFICATIONS.**



## OUR ENGINES

**WE OFFER ENGINES RANGING FROM 140HP TO 550HP AND INCLUDE FEATURES SUCH AS WATER COOLED HIGH AND LOW PRESSURE FUEL PUMPS, MP2K PERFORMANCE EXHAUST MANIFOLDS, AND WEATHER PROOF FUSE AND RELAY BOXES.**

**UTILIZING THE LATEST MEFI CONTROLLED MULTIPORT AND DIRECT INJECTION SYSTEMS WE NOW OFFER BLUETOOTH TECHNOLOGY TO DIGITALLY DISPLAY ENGINE DATA AND GAUGES.**



### STANDARD WARRANTY

**BASE ENGINE | 1 YEAR**

**COMPLETE ENGINE | 2 YEAR**

### 3.0L/181CID



#### Available Configurations

##### Long Block Replacement

**EnPac** (Mercruiser, OMC, Volvo Replacement)

**SportPac** (Inboard Replacement)

**ParPac** (Partial Engine Package)

#### Long Block Features

Delco EST Ignition System

Circulating Water Pump

14" Flywheel for Bottom Mount Starter

Oil Pan, Valve, and Timing Cover

Harmonic Balancer

Electronic Distributor

#### Complete Engine Features

Merc Style Intake/Exhaust Manifold

2 Barrel Merc Style Carburetor

Starter and Alternator

Bellhousing and Damper Plate

Available Raw or Fresh Water Cooled

#### Specifications

DISPLACEMENT	181 C.I.D. (2966.59 CC) / 3.0L
CYLINDERS	INLINE 4 CYLINDER
COMPRESSION RATIO	9.25:1 (HIGH FLOW VORTEC HEAD)
VALVE CONFIG.	PUSHROD ACTUATED / OVERHEAD VALVES
VALVE LIFTERS	HYDRAULIC FLAT TAPPET
BORE X STROKE	4.00" x 3.6" (101.6 x 91.44 MM)
MAIN BEARING CAPS	2 BOLT CAST IRON
IGNITION	DELCO EST (ELECTRONIC)
FLYWHEEL DIAMETER	14" (RING GEAR TOWARDS ENGINE)
FIRING ORDER	1-3-4-2
OIL PAN CAPACITY	4 QUARTS (WITHOUT FILTER)
HORSEPOWER	140 H.P. @ 4800 RPM
TORQUE	177 LB-FT @ 3600 RPM

### 4.3L/262CID V6 (REMAN)



#### Available Configurations

##### Long Block Replacement

**EnPac** (Mercruiser, OMC, Volvo Replacement)

**SportPac** (Inboard Replacement)

**ParPac** (Partial Engine Package)

#### Complete Engine Features

4 Barrel Edelbrock Carburetor

Starter and Alternator

Bellhousing and Damper Plate

Available Raw or Fresh Water Cooled

Available with Power Steering

#### Specifications

DISPLACEMENT	181 C.I.D. (2966.59 CC) / 3.0L
CYLINDERS	INLINE 4 CYLINDER
COMPRESSION RATIO	9.25:1 (HIGH FLOW VORTEC HEAD)
VALVE CONFIG.	PUSHROD ACTUATED / OVERHEAD VALVES
VALVE LIFTERS	HYDRAULIC FLAT TAPPET
BORE X STROKE	4.00" x 3.6" (101.6 x 91.44 MM)
MAIN BEARING CAPS	2 BOLT CAST IRON
IGNITION	DELCO EST (ELECTRONIC)
FLYWHEEL DIAMETER	14" (RING GEAR TOWARDS ENGINE)
FIRING ORDER	1-3-4-2
OIL PAN CAPACITY	4 QUARTS (WITHOUT FILTER)
HORSEPOWER	140 H.P. @ 4800 RPM
TORQUE	177 LB-FT @ 3600 RPM



## 5.3L/325CID DI V8



### Available Configurations

#### Long Block Replacement

**EnPac** (Mercruiser, OMC, Volvo Replacement)

**SportPac** (Inboard Replacement)

**JetPac** (Jet Boat)

### Complete Engine Features

MEFI 7 Controlled Direct Injection

Full System Fresh Cooling

Power Steering

MP2K Aluminum Performance Exhaust

EZ Oil Drain

Remote Mount Oil Filter

Gloss Black Poly Urethane Paint

### Specifications

DISPLACEMENT	5328cc (325 CI)
CYLINDERS	V8 CYLINDER
COMPRESSION RATIO	11.0:1
VALVE CONFIG.	OVERHEAD VALVES
VALVE LIFTERS	HYDRAULIC ROLLER
BORE X STROKE	96.01 x 92 MM
MAIN BEARING CAPS	POWDER METAL
FUEL SYSTEM	SIDI
FLYWHEEL DIAMETER	14" (RING GEAR TOWARDS ENGINE)
FIRING ORDER	1 - 8 - 7 - 2 - 6 - 5 - 4 - 3
OIL PAN CAPACITY	7 QUARTS (WITH FILTER)
HORSEPOWER	355 H.P. @ 5600 RPM
TORQUE	382 LB-FT @ 4100 RPM

## 5.7L/350CID V8



### Long Block Features

High Flow Cylinder Heads

Circulating Water Pump

14" Flywheel

Marine Cam Shaft

Marine Plastisol Coated Oil Pan

Harmonic Balancer

### Available Configurations

#### Longblock Replacement

**EnPac** (Mercruiser, OMC, Volvo Replacement)

**SportPac** (Inboard Replacement)

**JetPac** (Jet Boat)

**AirPac** (Air Boat)

**ParPac** (Partial Engine Package)

### Complete Engine Features

New Authentic GM Base Engine

Multi Port Fuel Injection or Carb

95 Amp Alternator

EZ Oil Drain Hose

Water Cooled Low and High Pressure Fuel Pumps

### Specifications

DISPLACEMENT	350 C.I.D. (5736 CC) / 5.7L
CYLINDERS	90 DEGREE V8 CYLINDER
COMPRESSION RATIO	9.4:1
VALVE CONFIG.	OVERHEAD VALVES
VALVE LIFTERS	HYDRAULIC LIFTERS
BORE X STROKE	4.00" x 3.48" (101.6 x 88.39 MM)
MAIN BEARING CAPS	CAST IRON GM232-M
IGNITION	NOT INCLUDED
FLYWHEEL DIAMETER	14" (RING GEAR TOWARDS ENGINE)
FIRING ORDER	1-8-4-3-6-5-7-2
OIL PAN CAPACITY	5.5 QUARTS (WITH FILTER)
HORSEPOWER	292 H.P. @ 4800 RPM
TORQUE	370 LB-FT @ 3200 RPM

## 6.0L V8 VVT L96



### Available Configurations

**Long Block Replacement**

**SportPac (Inboard Replacement)**

**JetPac (Jet Boat)**

### Long Block Features

New Authentic GM Base Engine  
Intake Manifold with Fuel Rails  
Injectors and Throttle Body  
Flywheel and Harmonic Balancer  
Oil Pan, Valve, and Timing Cover  
Circulating Water Pump

### Complete Engine Features

Fresh Water Cooling System  
Remote Mount Oil Filter  
Bellhousing and Damper Plate  
MP2K Aluminum Exhaust Manifolds  
MEFI 6 Controlled Multi Port Fuel Injection

### Specifications

DISPLACEMENT	364 CID (5967 cc)
CYLINDERS	V8 CYLINDER
COMPRESSION RATIO	9.6:1
VALVE CONFIG.	OVERHEAD VALVES
VALVE LIFTERS	HYDRAULIC ROLLER
BORE X STROKE	101.6 X 92 MM
MAIN BEARING CAPS	POWDER METAL
FUEL SYSTEM	PORT FUEL INJECTION
FUEL SHUTOFF	5600 RPM
FIRING ORDER	1 - 8 - 7 - 2 - 6 - 5 - 4 - 3
EMISSIONS CONTROLS	POSITIVE CRANKCASE VENTILATION
HORSEPOWER	385 H.P. @ 5600 RPM
TORQUE	400 LB-FT @ 4400 RPM

## 6.2L/376CID DI V8



### Available Configurations

**Long Block Replacement**

**EnPac (Mercruiser, OMC, Volvo Replacement)**

**SportPac (Inboard Replacement)**

**JetPac (Jet Boat)**

**AirPac (Air Boat)**

### Complete Engine Features

MEFI 7 Controlled Direct Injection  
Full System Fresh Cooling  
Power Steering  
MP2K Aluminum Performance Exhaust  
EZ Oil Drain  
Remote Mount Oil Filter  
Gloss Black Poly Urethane Paint

### Specifications

DISPLACEMENT	6162 CC
CYLINDERS	V8 CYLINDER
COMPRESSION RATIO	11.5:1
VALVE CONFIG.	OVERHEAD VALVES
VALVE LIFTERS	HYDRAULIC ROLLER
BORE X STROKE	103.25 x 92 MM
MAIN BEARING CAPS	CAST NODULAR IRON
FUEL SYSTEM	DIRECT INJECTED
CYLINDER HEAD	CAST ALUMINUM
FIRING ORDER	1 - 8 - 7 - 2 - 6 - 5 - 4 - 3
EMISSION CONTROLS	CATALYTIC CONVERTER / 3-WAY CATALYST
HORSEPOWER	420 H.P. @ 5600 RPM
TORQUE	460 LB-FT @ 4100 RPM

## 6.2L LSA/376CID



### Available Configurations

#### Long Block Replacement

**EnPac** (Mercruiser, OMC, Volvo Replacement)

**SportPac** (Inboard Replacement)

**JetPac** (Jet Boat)

**AirPac** (Air Boat)

### Long Block Features

New Authentic GM Base Engine

Circulating Water Pump

Flywheel & Harmonic Balancer

Super Charger, Intercooler

Oil Pan, Valve, and Timing Cover

Throttle Body, Fuel Rail & Injectors

### Complete Engine Features

MEFI 6 Controlled Multiport Fuel Injection

Aeromotive Fuel System

Fresh Water Cooling

MP2K Performace Aluminum Exhaust

Remote Mounted Oil Filter

### Specifications

DISPLACEMENT	6162 cc (373 ci)
COMPRESSION RATIO	9.1:1
VALVE CONFIG.	OVERHEAD VALVES
VALVE LIFTERS	HYDRAULIC ROLLER
BORE X STROKE	103.25 x 92 mm
MAIN BEARING CAPS	NODULAR IRON
FIRING ORDER	1 - 8 - 7 - 2 - 6 - 5 - 4 - 3
HORSEPOWER	551 H.P. @ 6100 RPM
TORQUE	556 LB-FT @ 3800 RPM
FUEL SYSTEM	SEQUENTIAL FUEL INJECTION
EMISSIONS CONTROLS	CATALYTIC CONVERTER / 3-WAY CATALYST
CYLINDER HEAD	A356-T6 CAST ALUMINUM
BLOCK	CAST ALUMINUM

## 7.4L/454CID



### Available Configurations

#### Long Block Replacement

**EnPac** (Mercruiser, OMC, Volvo Replacement)

**SportPac** (Inboard Replacement)

### Long Block Features

New Authentic GM Base Engine

Oil Pan, Valve, and Timing Cover

Harmonic Balancer

One Piece Rear Main Seal

### Complete Engine Features

New Authentic GM Base Engine

Edelbrock 4 Barrel Marine Carb

Electric Fuel Pump

Cast Iron Intake Manifold

Delco Electronic Ignition

EZ Oil Drain Line

Gloss Black Poly Urethane Paint



### Specifications

DISPLACEMENT	454 C.I.D. / 7.4L
CYLINDERS	90 DEGREE V8 CYLINDER
COMPRESSION RATIO	8:6:1
VALVE CONFIG.	OVERHEAD VALVES
VALVE LIFTERS	HYDRAULIC ROLLER
FIRING ORDER	1-8-4-3-6-5-7-2
OIL PAN CAPACITY	8 QUARTS (WITH FILTER)



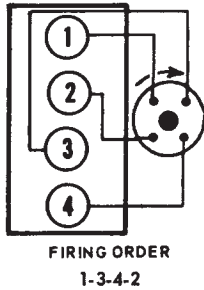
# Joe's Tech Tips

and Information

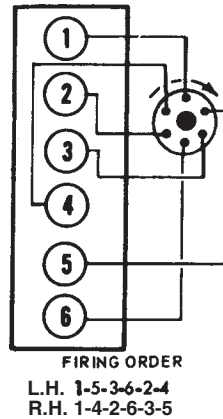
## Marine Engine Firing Order

### Chevy

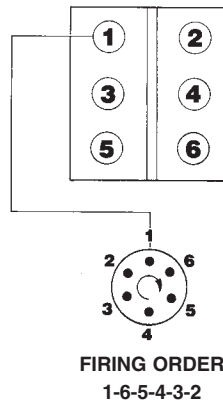
L.H. Rotation  
Front



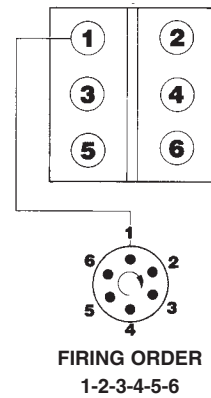
Front



L.H. Rotation  
Front



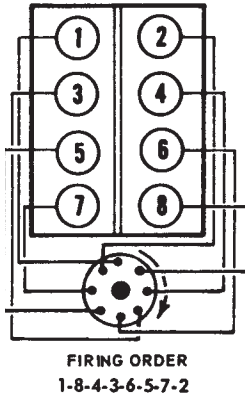
R.H. Rotation  
Front



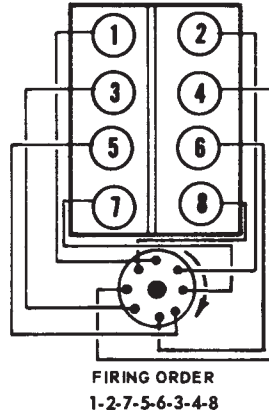
### Chevy

### Ford

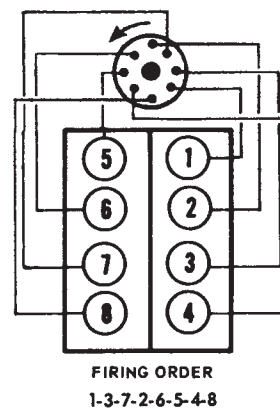
L.H. Rotation  
Front



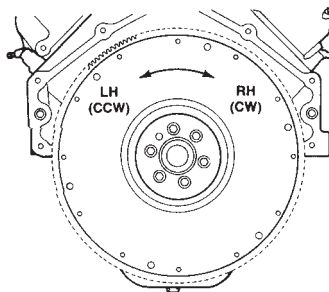
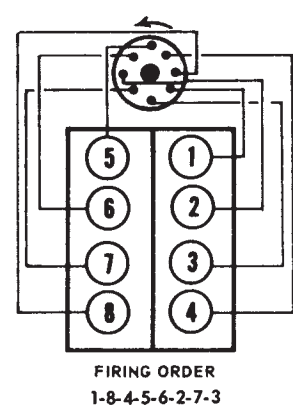
R.H. Rotation  
Front



L.H. Rotation  
Front



R.H. Rotation  
Front



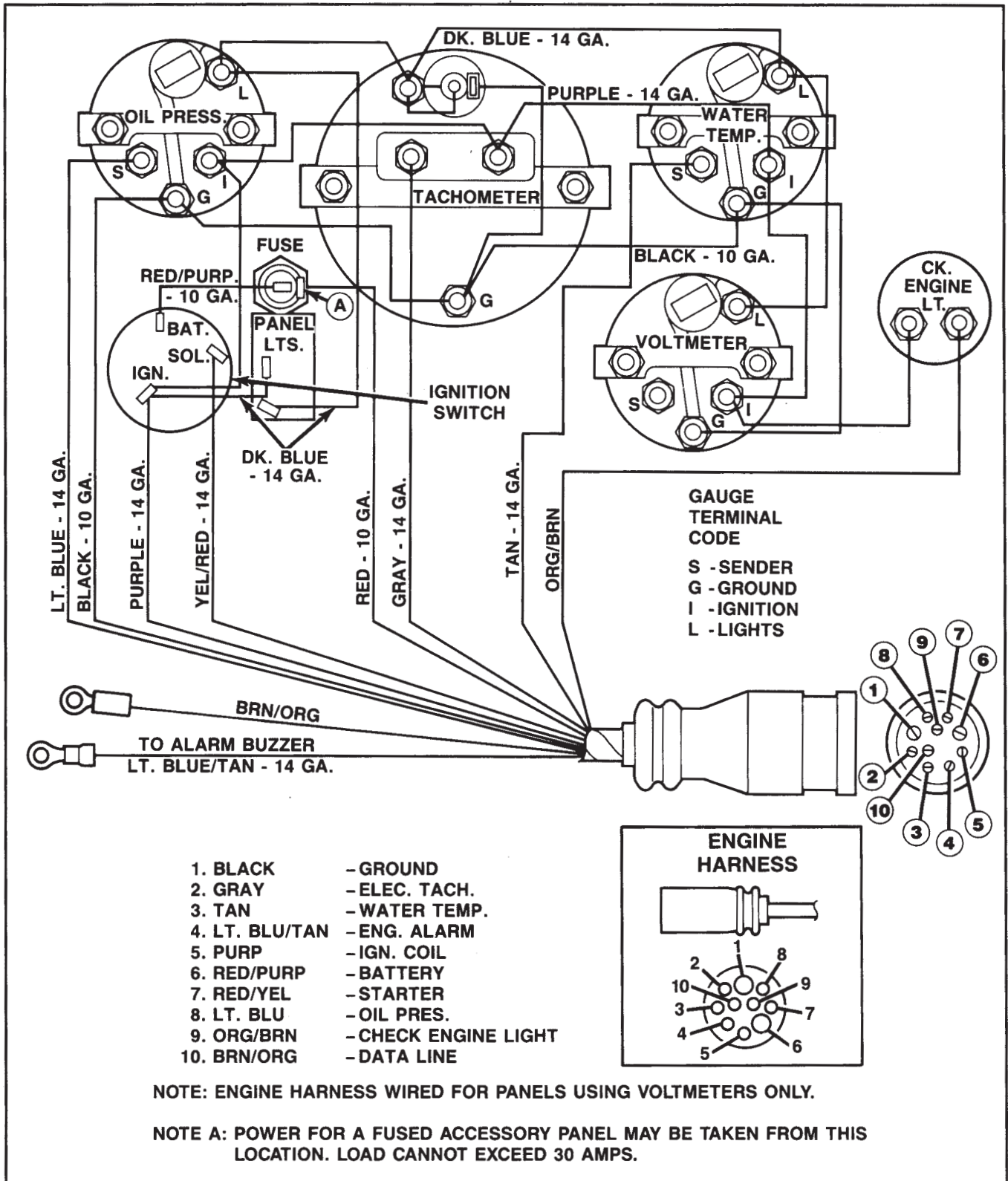
## Engine Rotation

Engine rotation is identified as "RH" (right-hand) or "LH" (left-hand) by the model number. Rotation always is determined from the flywheel end of the engine. In some instances, propeller shaft rotation may be opposite to that of the engine. Always refer to engine model number for engine rotation. When ordering a replacement engine, short blocks or parts for an engine, be certain to check engine rotation. Do not rely on propeller rotation in determining engine rotation.

# Joe's Tech Tips

and Information

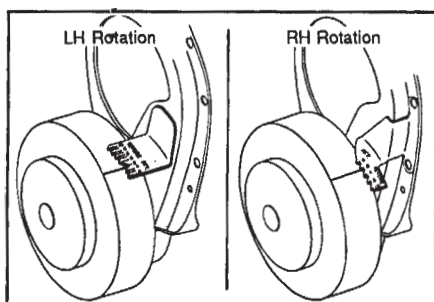
## Typical Instrumentation Wiring Diagram



### **Rocker Arm/Push Rod Adjustment - Engine Stopped: GM V-8 & V-6**

With valve cover removed, adjust valves when lifter is on low part of camshaft lobe, as follows:

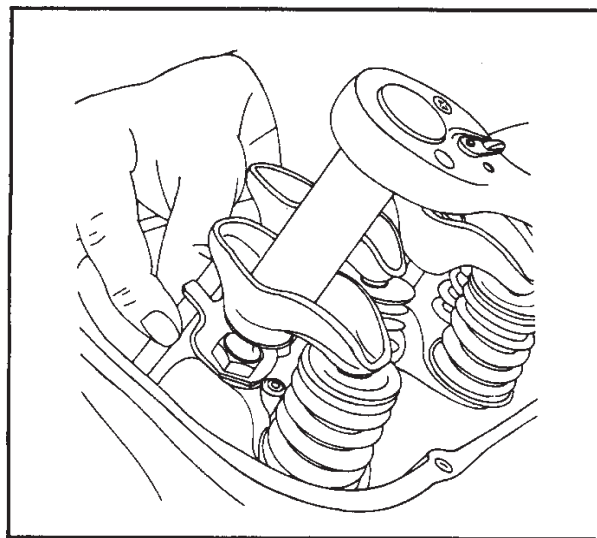
1. Crank engine with starter, or turn over in normal direction of rotation until mark on torsional damper lines up with "TDC" mark on timing tab, and engine is in No. 1 firing position. This may be determined by placing fingers on No. 1 valve as mark on damper comes near "TDC" mark on timing mark. If valves move as mark comes up to timing tab, engine is in No. 6 firing position on V-8 and No. 4 firing position on V-6 and should be turned over once more to reach the No. 1 position.



Engine in No. 1 Firing Position

2. With engine in No. 1 firing position, as determined above, the following valves may be adjusted (See Figure 1).

3. Back out adjusting nut until lash is felt at push rod, then turn in adjusting nut until all lash is removed. This can be determined by moving push rod up and down while turning adjusting nut until all play is removed.



4. Hydraulic lifters now can be adjusted by tightening adjustment nut 3/4 of an additional turn. No other adjustment is required.

5. Crank engine one revolution until "TDC" pointer mark and torsional damper mark are again in alignment. This is No. 6 firing position on V-8 and No. 4 firing position on V-6. With engine in this position, the following valves may be adjusted (See Figure 2).

### **FOR V-8**

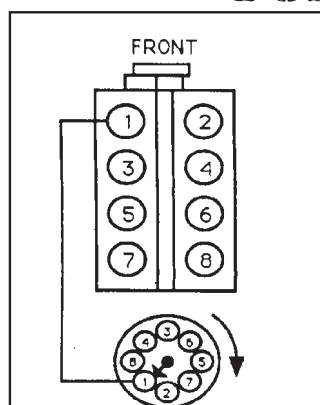


FIG. 1

With number ONE cylinder at TDC of compression stroke, adjust the following rocker arms.

LEFT-HAND (NORMAL) ROTATION ENGINE	RIGHT-HAND ROTATION ENGINE
Exhaust 1, 3, 4, 8	Exhaust 1, 2, 5, 7
Intake 1, 2, 5, 7	Intake 1, 3, 4, 8

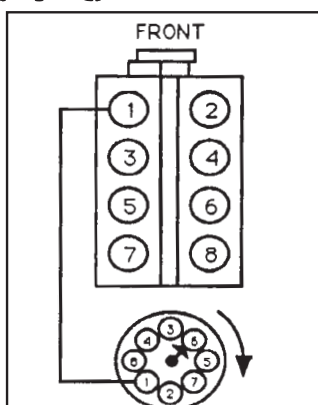


FIG. 2

With number SIX cylinder at TDC of Compression stroke, adjust the following rocker arms.

LEFT-HAND (NORMAL) ROTATION ENGINE	RIGHT-HAND ROTATION ENGINE
Exhaust 2, 5, 6, 7	Exhaust 3, 4, 6, 8
Intake 3, 4, 6, 8	Intake 2, 5, 6, 7

### **FOR V-6**

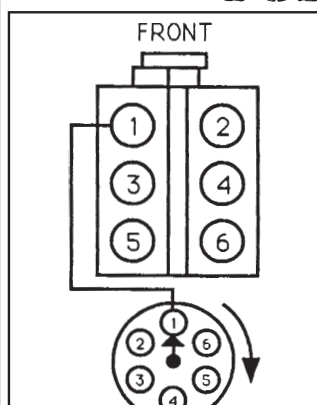


FIG. 1

With number ONE cylinder at TDC of compression stroke, adjust the following rocker arms.

LEFT-HAND (NORMAL) ROTATION ENGINE	RIGHT-HAND ROTATION ENGINE
Exhaust 1, 5, 6	Exhaust 1, 2, 3
Intake 1, 2, 3	Intake 1, 5, 6

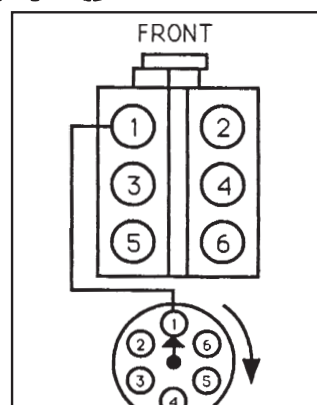


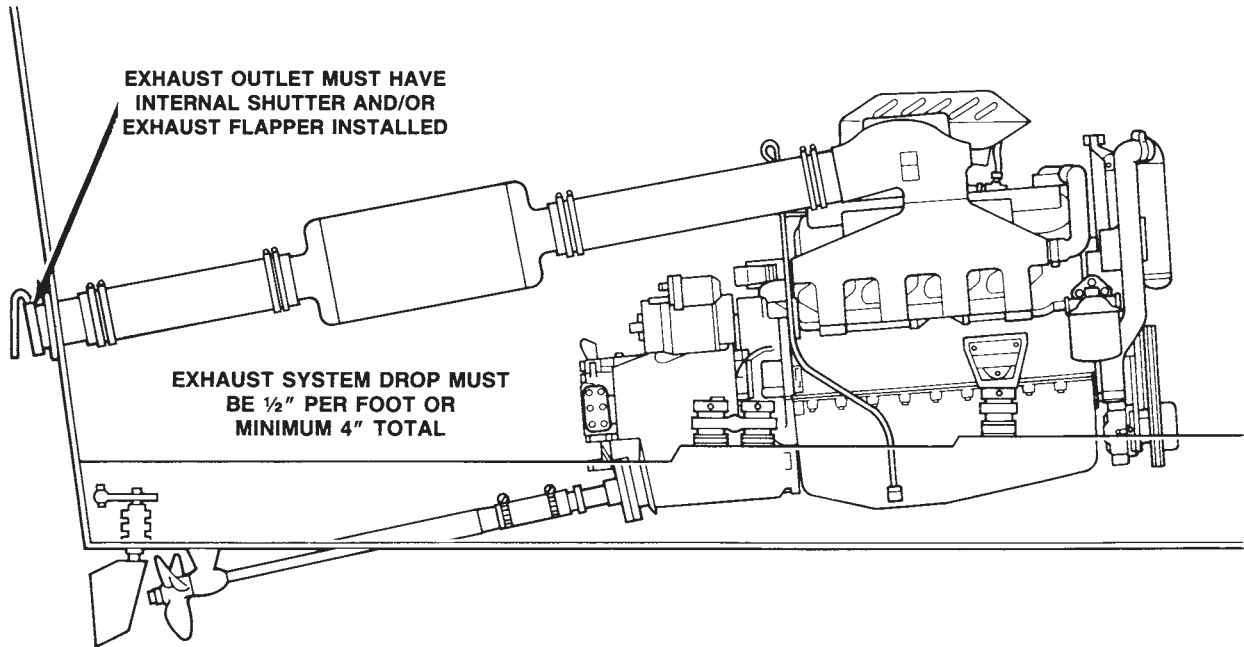
FIG. 2

With number FOUR cylinder at TDC of Compression stroke, adjust the following rocker arms.

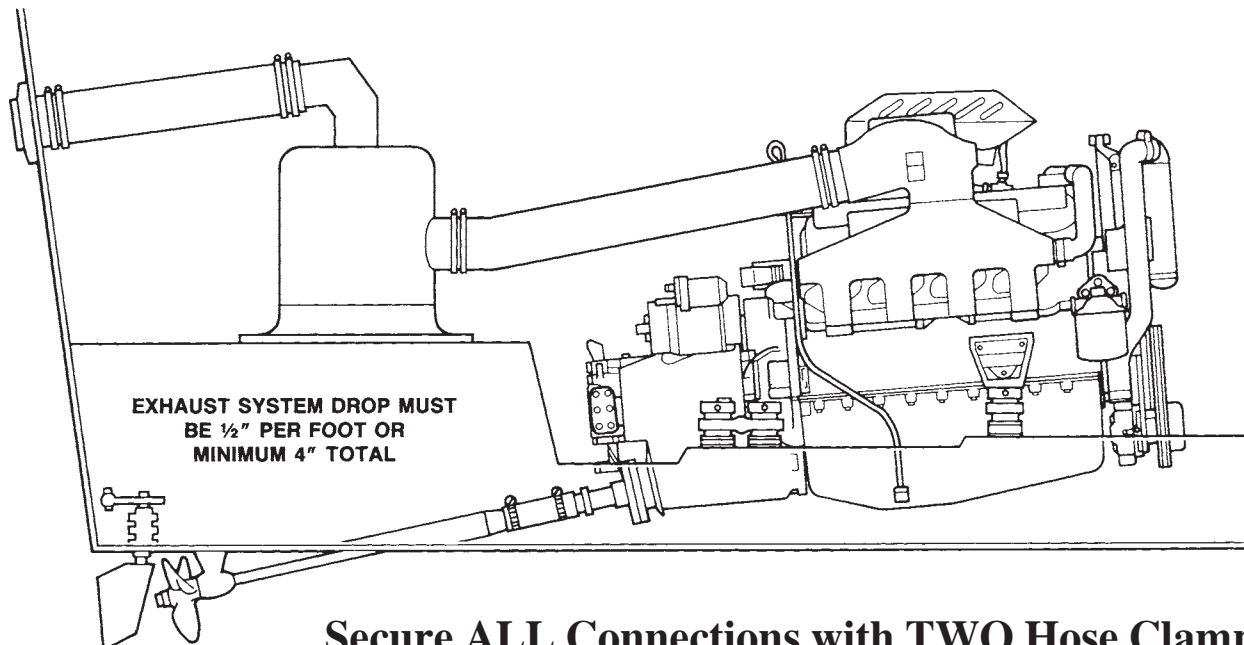
LEFT-HAND (NORMAL) ROTATION ENGINE	RIGHT-HAND ROTATION ENGINE
Exhaust 2, 3, 4	Exhaust 4, 5, 6
Intake 4, 5, 6	Intake 2, 3, 4



## Typical In-Line Muffler Exhaust Layout



## Typical Water-Lift Muffler Exhaust Layout



**Secure ALL Connections with TWO Hose Clamps**

## Engine Alignment for I/O Applications

Proper engine alignment is a crucial part of extending engine coupler life. Periodic inspection of the engine and outdrive should be done at least once a year and after each engine or drive R & R.

Most outdrives are coupled to the engine via an "engine coupler". This is an internally splined receptacle mounted in a rubber hub that aids in protecting the engine from outdrive impact and vibration. The coupler bolts to the flywheel and accepts the outdrive "Yoke Assembly". It is very important that these two items are centered exactly on the engine crankshaft center line (fig. 1). This will insure that there isn't any excessive force being applied in a lateral direction causing premature wearing of the coupler splines, yoke assemble splines or the coupler.

Proper alignment can be achieved with the use of an "Alignment Tool" using the following guidelines:

Insert the tiered end into the gimbal bearing and move the tool to center with the engine coupler splines. If the tool enters the coupler freely and is fully seated in the coupler without any pressure (fig 2.), the engine is properly aligned.

If this is not the case, remove the tool and coat the end with a small amount of grease. Carefully reinsert the tool and fully seat the

tool in the coupler. "Careful - Do Not Rotate Tool Upon Installation Or Removal". Remove the tool and inspect the greased end.

The following should be noted:

A: Deep grooves on top of tool and shallow grooves on bottom, then FRONT of engine is too HIGH.

B: Shallow grooves on top of tool and Deep grooves on bottom, then FRONT of engine is too LOW.

In either case the front of the engine must be adjusted up or down to allow the tool to slide freely into the coupler.

Loosen lock tabs and nuts on front mount(s). Thread all adjustment nut(s) equally. This will help prevent "cocking" the front of the engine. After proper alignment is achieved, tighten all nut and replace locking tabs.

If alignment can not be achieved, check for:

- Worn or bad mounts
- Rotten stringers
- Bad or weak transom

Reinstall the outdrive by coating the yoke assembly with grease and using the proper gas-ket set. Torque all nut and bolt to factory specs and your customer should receive years of boating pleasure.

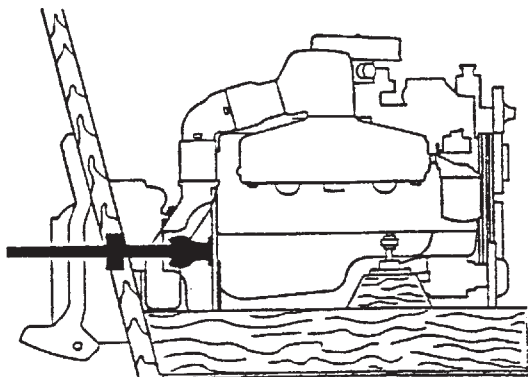


Fig. 1

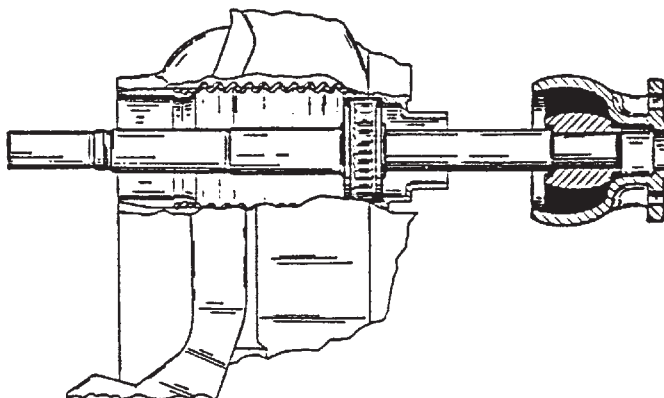


Fig. 2

# Joe's Tech Tips

## and Information

MAINTENANCE SCHEDULE					
Location and Service	Check Daily	After 1st 25 Hrs of Operation	Every 50 Hours of Operation	Every 100 Hours of Operation	Once Each Year
Check coolant level – Fresh-water-cooled Models Only	X				
Check oil level – Engine Crankcase	X				
Check oil level – Transmission	X				
Engine Assembly (complete) – Check for obvious leaks (water, fuel, oil, and exhaust)	X				
Remote Control and Steering System – Check for proper operation	X				
Sea Strainer – Check (if equipped)	X				
Cooling System – Check condition and tightness of all hose clamps		X		X <sup>1</sup>	X
Drive Belts – Inspect condition and check tension		X		X	X
Exhaust System – Inspect condition and check hose clamps for adequate tightness		X		X <sup>1</sup>	X
Ignition System and Spark Plugs – Clean and inspect condition		O		O	O
Engine Assembly (complete) – Check for loose, missing, or damaged parts (especially engine mounts, starter, and alternator-mounting fasteners)		X		X	X
Change engine oil and filter		X	X		X
Engine Alignment – Check and adjust if necessary		O			O
Ignition Timing – Check and adjust if necessary		O			O
Battery – Check electrolyte level and specific gravity. Inspect case for damage. Check battery cables and connections		X	X		X
Electrical System (complete) – Check for loose or dirty connections and damaged wiring			X <sup>2</sup>		X
Flame Arrestor and Crankcase Ventilation System – Clean and inspect				X	X
Hoses (all) – Inspect for cracks, swelling, weather checking or other signs of deterioration				X	X
Shift and Throttle Cable Linkage – Inspect and lubricate				X <sup>1</sup>	X
Water-separating Filter – Replace					X
Secondary Fuel Filter – Replace					X
Transmission and "V"-Drive – Change fluid and clean strainer if equipped.		O Hurth Only			O



# Joe's Tech Tips

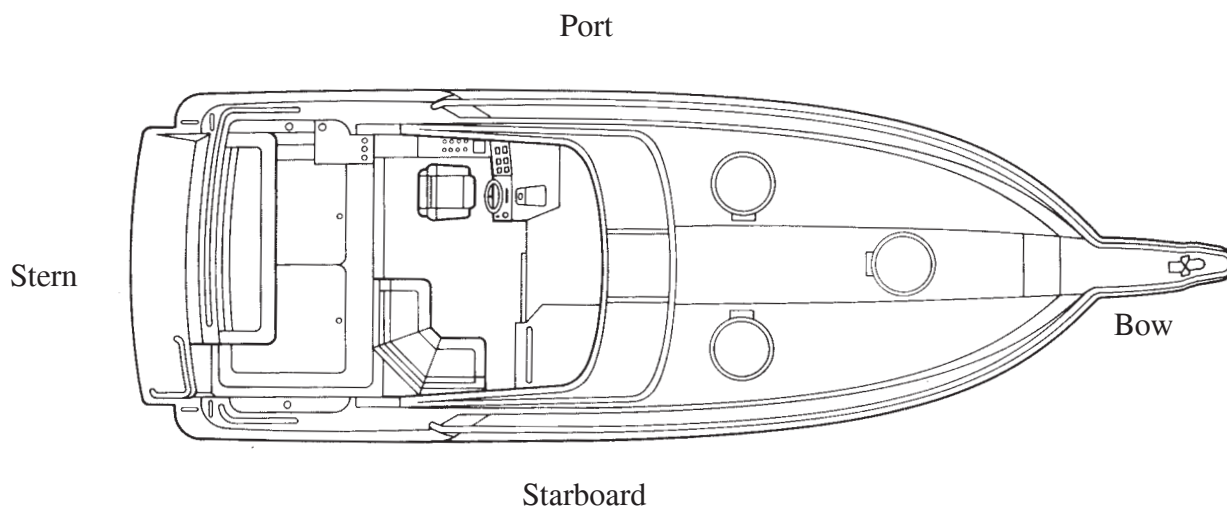
## and Information

MAINTENANCE SCHEDULE					
Location and Service	Check Daily	After 1st 25 Hrs of Operation	Every 50 Hours of Operation	Every 100 Hours of Operation	Once Each Year
Fresh-water-cooled Models – Clean closed cooling section	As Required <sup>3</sup> (X)				
Fresh-water-cooled Models – Check coolant for alkalinity	At Least Once Each Year (X)				
Fresh-water-cooled Models – Change coolant	Every Two Years (X)				
Zinc Anodes – Heat Exchanger and Oil Cooler – Check condition	Every 30 Days <sup>3</sup> (X)				
Engine Assembly Exterior Surfaces – Spray with rust-preventative oil	Fresh-water Areas – Every 60 Days (X) Salt-water Areas – Every 30 Days (X)				
Cooling System (SALT-WATER AREAS ONLY) – Flush sea-water section	After Use Each Day (X)				

### NOTES:

- (O) Denotes service to be performed by authorized Engine Dealer
- (X) Denotes service to be performed by Owner/Operator

- <sup>1</sup> In fresh-water areas, every 100 hours of operation or 120 days (whichever occurs first). In salt-water areas, every 50 hours of operation or 60 days (whichever occurs first).
- <sup>2</sup> In fresh-water areas, every 50 hours of operation or 60 days (whichever occurs first). In salt-water areas, every 25 hours of operation or 30 days (whichever occurs first).
- <sup>3</sup> Requires more frequent inspection if used in extremely salty, polluted or mineral-laden waters.



### Directional References

The front of the boat is the bow and the rear is the stern. The starboard side is the right side; the port side is the left side. In this maintenance manual, all directional references are given as they appear when viewing boat from the stern, looking toward the bow.



BRANDING  
EXPERTS DEDICATED  
TO CREATIVE DIRECTION  
AND BRAND BUILDING  
TECHNIQUES

# SEA MOVEMENT

DESIGN CONSULTANTS

GRAPHIC DESIGN

LOGO AND BUSINESS CARDS

SHIRTS, WEBSITES AND MORE!!!



# CREATIVE DESIGN EXPERTS

office: 888-810-4296  
email: info@inletville.com

WWW.INLETVILLE.COM







# JERRY'S MARINE SERVICE



## ONLINE ORDERING

A Step-by-Step Guide to Ordering Products at [WWW.JERRYSMARINE.COM](http://WWW.JERRYSMARINE.COM)

### 1 Sign-In

**A** Go to [www.jerrysmarine.com](http://www.jerrysmarine.com). **B** Click on **Sign-In**. **C** In the next screen, enter your customer ID and password. (Contact your sales rep or call 1-800-434-2231 if you don't have one).

The screenshot shows a web browser window with the address bar displaying [jms.qwik-order.com](http://jms.qwik-order.com). The website header includes the "Qwik Order" logo, the "Jerry's Marine Service" logo, and the tagline "Your Repower Superstore". A navigation menu on the left lists: Sign-In, Order Parts, Order Status, Billing Status, Service Desk, About Us, and Home. A callout box labeled **B** points to the "Sign-In" link. The main content area features a large banner for "Real Experts for all your boating needs!" with an image of a boat. Below the banner is a "Please Sign-In" form with fields for "Customer ID" (containing "DEALERFL") and "Password" (containing "\*\*\*\*\*"). A callout box labeled **C** points to the "Sign-In" button. Other elements include a "Need Help? 1-800-432-2231" link, a "1-800 432-2231" phone number, an "Online Catalog" button, and a "Our Weekly Deals" section.



## 2 If you know the exact part number

A Enter the exact part number in the **Item** box. B Enter **Quantity**. C Press **Add Item**

Navigation bar: SAVED ORDERS, Categories CATALOG, DEALS, PROMOTIONS, Mfg. LINKS

Search bar: Item 30470, Quantity 1

Buttons: Add Item, Search, Check Stock, Stock Order, Cancel Order, Check Out

D If multiple manufacturers are found, select the desired one from the list.

Please Select Item

Cancel

Mfg	Item	Description
<input checked="" type="radio"/>	ARC 30470	STARTER-I/B NEW
<input type="radio"/>	DAY 30470	MEMO - REFERENCE ONL
<input type="radio"/>	GLM 30470	GASKET
<input type="radio"/>	PRS 30470	WEDGE
<input type="radio"/>	SEP 30470	30470 - MOUNTING BRA

E Item will be added to your **Shopping Cart**. F Continue adding items or click G **Check Out**

Shopping Cart

Item, Quantity 1

Buttons: Add Item, Search, Check Stock, Stock Order, Cancel Order, Check Out

Edit	Order	Ship	B/O	Mfr	Item Number	Description	List Price	Item Price	Core Price	Ext Price
<input type="radio"/>	1	1		ARC	30470	STARTER-I/B NEW	214.95	134.96		134.96

Order Total 134.96

## 3 Search with a partial part number

A Enter a partial part number under the **Item** box. B Press **Search**.

Item YR5, Quantity 1

Buttons: Add Item, Search, Check Stock, Stock Order, Cancel Order, Check Out

A list of parts containing the partial name will display. C Add **Quantity**. D Press **Order**.

Order Previous Next Cancel

Quantity	Manufacturer	Item Number	Description	On Hand	List	Price	Core
<input type="text" value="5"/>	NGK	YR5	7052 SPARK PLUG	121	4.77	1.43	
<input type="text" value=""/>	NGK	YR5IX	7516 SPARK PLUG	12	19.42	5.81	

Item will be added to the other parts in your shopping cart. E Click on **Edit** to delete items or to update quantities. F Press **Check Out** when ready to finalize the order.

Shopping Cart

Item, Quantity 1

Buttons: Add Item, Search, Check Stock, Stock Order, Cancel Order, Check Out

Edit	Order	Ship	B/O	Mfr	Item Number	Description	List Price	Item Price	Core Price	Ext Price
<input type="radio"/>	5	5		NGK	YR5	7052 SPARK PLUG	4.77	1.56		7.80
<input type="radio"/>	4	4		BAR	50-525-018	ELBOW 1/2X3/4 90	20.00	14.20		56.80
<input type="radio"/>	2	2		BRA	2128-3/4X1/2	BARB-HOSE 90	26.67	13.40		26.80

Order Total 91.40

Click here to Edit Quantities or Delete Items in the shopping cart

## 4 Insufficient On-Hand

Item **2128-3/4X1/2** Quantity **6**

Add Item Search Check Stock Stock Order Cancel Order Check Out

When entering a quantity larger than the current amount in stock, an **Insufficient On-Hand** window comes up with the following choices:

Note: Entering **Quantity** and pressing **Enter** or clicking on the **Order** button adds selected items to the Cart.

### Insufficient On-Hand

Mfg	Item	Description
BRA	2128-3/4X1/2	BARB-HOSE 90

Quantity requested: **6**  
Quantity available: **2**

- Your choices are
- A** ☐ CANCEL REMAINING QTY
  - B** ☐ B/O REMAINING QTY
  - C** ☐ CHECK OTHER LOCATIONS
  - D** ☐ CHOOSE SUBSTITUTE
  - E** ☐ CANCEL ITEM
  - F** ☐ LOG LOST SALE

**A Cancel Remaining Qty:** adds **only** the quantity in stock to shopping cart.

Edit	Order	Ship	B/O	Mfr	Item Number	Description	List Price	Item Price	Core Price	Ext Price
<input type="radio"/>	6	2		BRA	2128-3/4X1/2	BARB-HOSE 90	26.67	13.40		26.80

**B B/O Remaining Qty:** quantity in stock is added to the cart. The remaining quantity is placed in back-order.

Edit	Order	Ship	B/O	Mfr	Item Number	Description	List Price	Item Price	Core Price	Ext Price
<input type="radio"/>	6	2	Y	BRA	2128-3/4X1/2	BARB-HOSE 90	26.67	13.40		26.80

**C Check other locations:** it accesses the inventory for both FL and SC stores.

Mfg	Item	Description	List	Price		
BRA	2128-3/4X1/2	BARB-HOSE 90	26.67	13.40		
Quantity	Location	On Hand	On Order	ETA	Rank	Stocking
2	JERRYS MARINE SERVICE FL (JMS FL)	2	0	-	A	Stocked
4	JERRYS MARINE SERVICE SC (JMS SC)	4	0	-	W	Stocked

**D Choose Substitutes:** shows substitutes for current part.

Quantity	Manufacturer	Item Number	Description	On Hand	List	Price	Core
Alternates							
<input type="text"/>	GLM	13970	ELBOW FITTING	2	40.28	24.41	
2	BRA	2128-3/4X1/2	BARB-HOSE 90	2	26.67	13.40	
4	BAR	50-525-018	ELBOW 1/2X3/4 90	6	20.00	14.20	

**E Cancel Item:** cancels the item and goes back to the main screen.

**F Log Lost Sale:** does not affect your order. It lets us know about a lost sale and helps us identify which parts we may need to add to our current inventory.

## 5 Substitutes/Related items/Components

A **\*** symbol next to a part number means there are substitutes/related items/components available for that item. **A** To access the list, click on the **\*** symbol.

Edit	Order	Ship	B/O	Mfr	Item Number	Description	List Price	Item Price	Core Price	Ext Price
<input type="radio"/>	1	1		BRA	2128-3/4X1/2	BARB-HOSE 90	26.67	13.40		13.40

**B** Type quantity and hit **C Order**. Item will be added to your shopping cart.

Quantity	Manufacturer	Item Number	Description	On Hand	List	Price	Core
Alternates							
<input type="text"/>	GLM	13970	ELBOW FITTING	2	40.28	24.41	
<input type="text"/>	BRA	2128-3/4X1/2	BARB-HOSE 90	2	26.67	13.40	
<b>B</b> <input type="text" value="6"/>	BAR	50-525-018	ELBOW 1/2X3/4 90	6	20.00	14.20	



## 6 Finalizing an order

**A Place Order:** finalizes the order. A message indicating your order has been accepted is displayed.

If you have items from both, FL and SC locations, the system will display two order numbers when the order is placed.

Your Order has been ACCEPTED # 621584  
Your Order has been ACCEPTED # 621585

Close

You will also receive an e-mail confirming the order was placed. (See image below)

**Note:** Please make sure all options are properly selected and filled out before pressing the **Place Order** button

**B Save Order:** by selecting this option, you can return to this order later to complete it.

**C Back to Order Entry:** to continue shopping.

**D Cancel Order:** if you want to cancel the order. Click **YES** on the following screen when asked ARE YOU SURE?, or **NO** to return back to your cart.

**E Print Icon:** prints a copy of your cart.

**F Order Notes:** Special instructions can be enter in this box

**G Drop-Ship Address:** account password is required in order to enter a drop-ship address.

DEALERFL

**A** Finalize Order **B** **C** **D**

Place Order Save Order Back to Order Entry Cancel the Order

Customer DEALERFL (#12345)  
123 NE 56 AVE  
FORT LAUDERDALE, FL 33315

P.O. # (Optional) **E**  Print

E-Mail: dealerfl@gmail.com **F** An email confirmation will be sent to this address.

☐ Do NOT send Confirmation eMails

Shipping Method: UPS - 2ND DAY **G** Select shipping method.

☐ Pay with Credit Card

### Order Summary

	Amount	Line Items
Ordered	91.40	3
Shipping	91.40	3
Back Ordered	0.00	0
Core	.00	
Shipping & Handling	0.00	
<b>Total</b>	<b>91.40</b>	

Order Notes Enter Order Notes **F**

Drop-Ship Address **G**

Password:

Drop Ship to:

Name:

PO Box:

Street:

City:

State:  Zip:

Country:

Phone:

Order Ship B/O	Mfr	Item Number	Description	List Price	Item Price	Core Price	Ext Price
5	5	NGK YR5	7052 SPARK PLUG	4.77	1.56		7.80
4	4	BAR 50-525-018	ELBOW 1/2X3/4 90	20.00	14.20		56.80
2	2	BRA 2128-3/4X1/2	BARB-HOSE 90	26.67	13.40		26.80

Order Total 91.40

### Sample of email confirmation

**From:** JERRY-S MARINE SERVICE  
**Date:** August 28, 2017 at 3:41:55 PM EDT  
**To:** DEALERFL <DEALERFL@GMAIL.COM>  
**Subject:** JERRY-S MARINE SERVICE Qwik-Order Confirmation for order #: 621584

Thank you for your Qwik-Order Internet Order!  
It was received at our warehouse and is now being processed subject to inventory availability.  
If you have any questions about this order please reply to this email.

#### Order Summary

Order Number: 621584; JERRY-S MARINE SERVICE  
Received on: 08/28/2017  
Received from: DEALERFL  
Shipping Method: UPS 2ND DAY  
Line Items: 3  
Order Amount: \$91.40

#### Message:

#### Order detail

Qty	Av'l	B/O	Mfg.	Part #	Description	Price	Core	Total
5	5	0	NGK	YR5	7052 SPARK PLUG	4.77	0.00	7.80
4	4	0	BAR	50-525-018	ELBOW 1/2X3/4 90	20.00	0.00	56.80
2	2	0	BRA	2128-3/4X1/2	BARB-HOSE 90	26.67	0.00	26.80

Thanks for your business and using our Qwik-Order service!

JERRY-S MARINE SERVICE



## 7 Returning a product

Follow the procedure below to return all or part of an order.

**A** Click on the **Service Desk** button on the left side. (You must be signed into your account).

**B** Click on the **Returns** button right below Sign-Out.

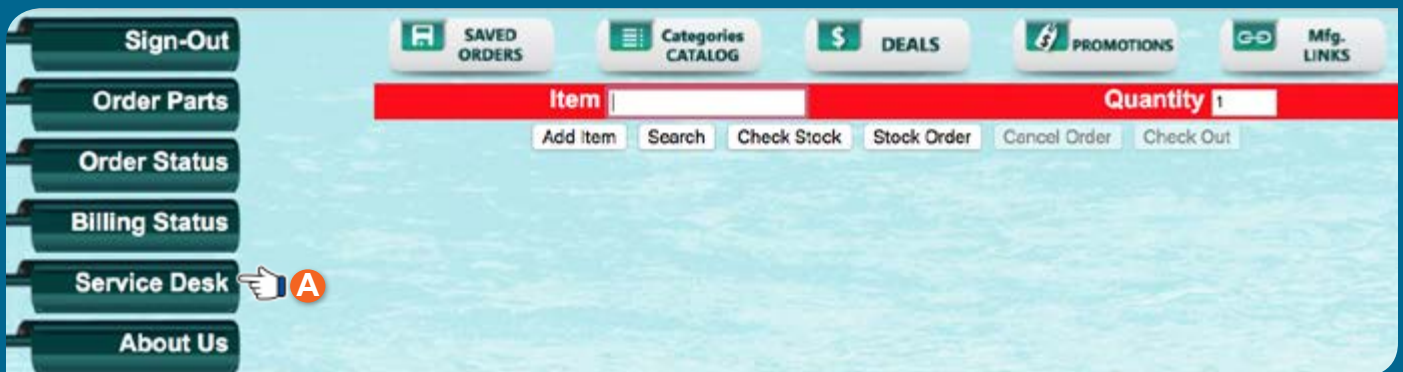
Once inside the Merchandise Return section:

**C** Enter **Quantity**. You can return only a partial quantity, i.e. you bought 5 plugs but only want to return 3.

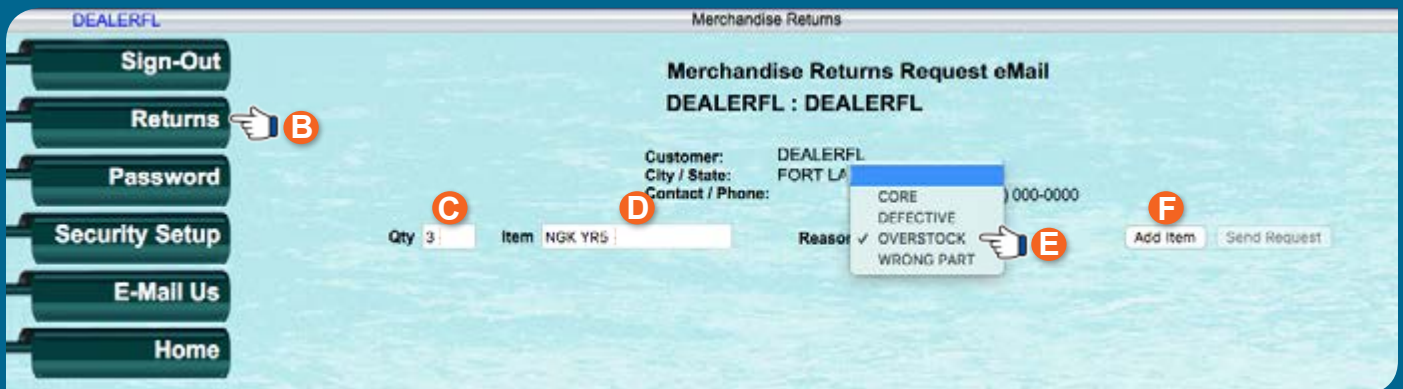
**D** Enter **Item** Part Number exactly as it appears on your invoice including the 3-letter manufacturer code.

**E** Select **Reason** for returning the product.

**F** Click on **Add Item** to add the part to your list of returned items.



This screenshot shows the 'Service Desk' button highlighted with a hand icon and a red 'A' callout. The left sidebar contains buttons for Sign-Out, Order Parts, Order Status, Billing Status, Service Desk, and About Us. The top navigation bar includes links for Saved Orders, Categories Catalog, Deals, Promotions, and Mfg. Links. Below this is a red header with 'Item' and 'Quantity' input fields, and a row of buttons: Add Item, Search, Check Stock, Stock Order, Cancel Order, and Check Out.



This screenshot shows the 'Merchandise Returns Request eMail' form for 'DEALERFL'. The left sidebar has buttons for Sign-Out, Returns (highlighted with a hand icon and red 'B' callout), Password, Security Setup, E-Mail Us, and Home. The form fields include Customer (DEALERFL), City / State (FORT LA), and Contact / Phone (000-0000). Below these are input fields for Qty (3, with red 'C' callout), Item (NGK YR5, with red 'D' callout), and Reason (CORE DEFECTIVE, OVERSTOCK, WRONG PART, with a dropdown menu open and 'OVERSTOCK' selected, indicated by a hand icon and red 'E' callout). A red 'F' callout points to the 'Add Item' button. A 'Send Request' button is also visible.

**G** If needed, add other items following the steps above, pressing **Add Item** after each one to add to the return list.

**H** Press **Send Request** when ready to submit the request.

A pop-up message will let you know **YOUR RETURN REQUEST HAS BEEN SENT**. You will receive a Returned Goods Authorization number (RGA #) within 24 hours.



This screenshot shows the 'Merchandise Returns Request eMail' form after adding items. The left sidebar is the same as the previous screenshot. The form fields are the same, but the 'Reason' dropdown is now closed. A red 'G' callout with a hand icon points to the 'Add Item' button. A red 'H' callout with a hand icon points to the 'Send Request' button. Below the form fields is a table with the following data:

	Quantity	Mfr	Item	Description	Reason
2	2 BAR	50-525-018	ELBOW 1/2X3/4 90	OVERSTOCK	
3	3 NGK	YR5	7052 SPARK PLUG	OVERSTOCK	

# Jerry's Marine Service • Index

## A

ABA Hose Clamps .....	273
AC Spark Plugs .....	58
AC/DC Breaker Panels .....	544-549
Accura Helm & Steering Packages .....	Call
Acme Trailer Accessories .....	Call
Acorn Zinc .....	212
Actuator Bennett Marine Trim Tabs .....	186-189
Adapt-A-Ball .....	Call
Adaptor Harness .....	558
Groco .....	559-561
Pigtail Adaptors .....	559
Power Adaptors .....	559
"1" Piece Adaptors .....	559
"Y" Adaptors .....	559
Adapter Trailer Plug .....	Call
Additives .....	467-475
Air Conditioning Pumps .....	578
Air Filter Cleaning Kit .....	491
Air Filters, Racor .....	491-492
Air Purifier .....	466
Air/Sep .....	491-492
Air Vent / Blower Hose MPI .....	277
Airboat Trim Tab .....	181, Call
Alarms .....	488, 565, 577-578
Alternators .....	
Arco .....	778-787
Belts .....	309-339
Brackets .....	60, 63-137
Continental by Application .....	309-339
Kit For MerCruiser .....	Call
Alto Products .....	141-148
Aluminum Anodes .....	195-214
Amphenol Tool & Pins, OMC .....	CDI Supplement, Call
Anodes .....	195-214
Anti-Freeze .....	469
Anti-Fouling Paint .....	477
Anti-Siphon Valves .....	280
Anti-Seize .....	464
Aqualarm .....	577-578
Arco .....	737-801
Alternators .....	778-792
Battery Isolators .....	788-792
Cross Reference Chart .....	737-742
Rectifiers .....	797
Regulators .....	798-799
Relays .....	797-798
Solenoids .....	793-796
Starters .....	
Outboard .....	745-758
Inboard - I/O .....	760766
Trim Pumps & Motors .....	767-777
Areospace Protectant .....	467
Arm Link, Steering .....	668
Arm Shift & Throttle .....	659
Armstrong Ladders .....	813
Auto Trim Tabs .....	181-191
Automatic Float Switches .....	639-643
Axle Related Trailer Parts .....	Call

## B

Backing Blocks - Groco .....	295
Bailer / Drain Plug .....	812
Bait Well Accessories .....	647-648
Balancer, Harmonic .....	58
Bolt Kit .....	304
Puller .....	Call

Sleeve Repair Kit .....	304
Ball Joints .....	659-656
Ball Valves .....	280, 284, 287-288, 290, 293,-294, 296,-297
Balls, Trailer .....	Call
Ballast Resistors Prestolite .....	Call
Barco / Globe Impellers .....	629-630
Barnacle Buster .....	299
Barr Marine Products .....	171, 219-253
Bolts Manifolds .....	219-253
Housings, Bell .....	63-134, 253
Housing, Thermostat .....	219-253
Manifolds/Risers .....	219-252
Mounts, Motor .....	171
Studs, Manifolds .....	219-252
Barrel Zincs .....	207
Battery Related Products .....	
Batteries .....	542-543
Box .....	541
Cable .....	569
Chargers .....	541-543
Powermania .....	541
Victron .....	542-543
Displays .....	543
Holders .....	541
Isolators .....	
Arco .....	788-792
Victron .....	542-543
Lugs .....	569
Selector Switches .....	553, 565
Trays .....	541
Bearing Grease .....	474
Bearing Kits, Trailer .....	Call
Bearing Protectors .....	Call
Bearing, Engine .....	340-359
Bearings, Pump .....	
Crusader .....	63--134
Jabsco Pumps .....	580-603
Johnson Pumps .....	580-603
Sherwood Pumps .....	580-603
Volvo by Engine Model .....	Call
Bearing , Shaft .....	177-180
Bell, Alarm .....	577-578
Bell Housings .....	63-134, 253
Belt, Dressing .....	Call
Belts .....	
Crusader .....	63-339
Contental .....	309-339
Belts Specs & Dimentions .....	309-339
Bel-Ray Lubricants .....	478-479
Bend-A-Light .....	Call
Bennett Marine Trim tabs .....	186-189
Berkly Jet Drives .....	Call
Bilge .....	
Alarm .....	477
Blowers .....	643
Hose .....	276
Pump Switches .....	637-643
Pumps .....	637
Vac Hoses MPI .....	276
Blaster Pumps Shurflo .....	635, 645, 648
Blowers .....	643
Blower Hoses .....	277
Boarding Ladder .....	813
BoatLIFE .....	481
Boat Cable 2/3/4 Wire .....	570
Boater's Best BBB .....	
Circulation Pumps .....	138, 579
Distributors & Components .....	802-804
Fuel Injectors .....	803
Fuel Lines .....	303

# Jerry's Marine Service • Index

Fuel Pumps.....	306-308
Harmonic Balancers .....	58
Oil Pads .....	508
Outdrive Stand .....	802
Protective Film .....	480
Pulleys .....	58
Raw Water Pumps .....	130, 579
Regulators .....	305
Return T .....	58
Sensors.....	803
Spark Plug .....	58
Spark Plug Wires .....	447
Timing Covers.....	58
Volvo Trim Kits .....	58
Water Pumps .....	138, 579
Bolt, Kits	
Balancer-Harmonic .....	304
Barr Marine Manifold .....	219-252
Connecting Rod .....	288
Cylinder Head .....	304
Flywheel.....	304
Intake Manifold .....	Call
Oil Pan .....	304, 63-134
Powerhead.....	717
Starter .....	304 672-673
Timing Cover.....	304
Timing Gear .....	304
Trailer Spring Suspension.....	Call
Borg Warner / Velvet Drive	
Transmission Parts .....	139-155
Couplers.....	154, 173
Damper Plates .....	154-155, 130-134
Parts Breakdowns	
71C & 72C.....	139-155
5000 Series .....	159-167
Specifications	
72C Inline .....	139
5000 Series.....	140, 159-167
V-Drive .....	139, 156-158
Velvet Drive Transmission.....	139-155
Bow Guards/Rollers.....	Call
Bow Thruster .....	20
Brackets, Alternator	
Barr Marine .....	219-253
Crusader .....	63-134
Marine Power.....	60
Pleasurecraft Marine.....	135-137
Brackets, Outboard.....	811
Brackets, Trailer.....	Call
Brass Fittings.....	Also See Bronze
Compression Tees .....	284
Couplers Gaden Hose .....	284
Elbows .....	280-284
Rare Fittings .....	283
Hose Splices.....	280
MSH Fitting .....	689
Plugs.....	281
Push Lock Fittings .....	280
Unions.....	283
Valves Fuel /Drain.....	280
Brass Freeze Plug Kits.....	304
Breaker Panels .....	544
Breakers, Circuit .....	545-551
Briggs & Stratton	
Generators.....	51
Parrell Kit .....	51
Power Washers.....	51
Bright Eyes (Eyelights) Steelman.....	Call
Bronze Valves & Fittings.....	Also See Brass
Ball Valves .....	287-288

Fuel Valves .....	280, 296-297
Intake Strainers.....	284-286, 291-292
Pipe to Hose Adapter .....	289
Seacocks .....	286
Thru Hulls .....	288-289
Brush Loader Tool, Outboard .....	801
Brush Kits - Arco O/B.....	801
Brush - Steering Tube Cleaner .....	668
BSP Heat Shrink Connectors .....	575-576
Buck Algonquin.....	173-174, 284, 286
Bulbs, StarLED.....	513
Bunk Brackets, Trailer .....	Call
Bushings Inc. Engine Mounts.....	168-170
Bushings, Trailer Springs.....	Call
Buzzer Alarm .....	551-565, 577-578

## C

Cable Battery.....	569-570
Cable Lugs Battery .....	569
Cable Boots Steering.....	668
Cable Boots & Rings .....	503
Cable Buddy Steering.....	668
Cable Control	
Seastar Solutions.....	649-651
Uflex .....	652-653
Cable Cover, Outboard Rigging.....	277, 503, 812
Cable Clamps .....	654-656
Cable Steering	
Seastar Solutions.....	663-665
Uflex.....	666-667
Cable Ties.....	573
Cable Trailer Winch .....	Call
Cal Pumps .....	578
Camp Zincs	
Acorn .....	212
Barrel .....	207
Caterpillar .....	208
Donut .....	207
Force.....	209
GM Diesel.....	208
Grouper.....	213
Honda .....	209
Hull Plates.....	209
Isuzu .....	209
Johnson / Evinrude / BRP.....	209
Mercruiser.....	210
Mercury / Mariner.....	210
Nissan .....	210
OMC .....	211
Pencil .....	208
Plates .....	214
Propeller .....	213
Rudder .....	207
Sea Strainer .....	213
Suzuki .....	210
Tear Drop .....	207
Tohatsu .....	210
Trim Tabs .....	212
Volvo .....	211
Yamaha.....	211
Yanmar.....	208
Camshafts & Bearing.....	340-359
Caulk .....	481
Caps Distributor	
Boater's Best .....	802-803
Crusader .....	63-134
Marine Power.....	55-56
Volvo .....	Call



# Jerry's Marine Service • Index

Caps, Heat Exchanger Fill / End		T-Bolts.....	272
Crusader .....	63-164	Cleaners	
Marine Power.....	56	Carb & Choke .....	47, 464, 470
Sen-Dure .....	217	Cleaners/Degreaser.....	47, 464-470
Captian's Choice® Engines		Hand .....	465
Crusader .....	5	Parts .....	464, 467
Carburetor Related Parts & Kits		Suzuki .....	37
Carb Kits .....	300-302	Z-Tuff .....	480
Carb & Choke Cleaner .....	47, 464, 470	Clear PVC Hose MPI.....	277
Flame Arrestors .....	303	Clearance Lights Trailer.....	Call
Flange Adaptor .....	300-301	Clymer Service Manuals.....	Call
Gaskets .....	300-301	Code-Mate, Rinda .....	58
Holley Parts .....	300	Cold Weld .....	466
Kits by Carburetor Number .....	300-302	Coil Resistors .....	Call
Spacer Holley .....	300	Coil Ignition.....	55, 70-71
Suzuki .....	37	Cole Hersee	
Carburetors		Breakers .....	566
Crusader .....	63-107	Buzzers .....	565
Edelbrock.....	302	Fuse Block / Holders.....	567
Holley .....	300	Switches .....	
Marine Power.....	Call	Battery Master .....	565
Pleasurecraft.....	136	Ignition / Key .....	564
Carpet.....	Call	Push Button .....	562-563
Carter Fuel Pump .....	305-306	Push Pull.....	562-563
Caterpillar		Toggle .....	562-563
Raw Water Pumps .....	580-581	Commander Marine Engines.....	Call
CCV .....	491-492	Compression Tees Brass.....	284
CDI Electronics.....	Call	Compression Tester.....	Call
Ceiling Panels, LED.....	513	Continental Elite Belts & Hoses .....	280, 309-339
Centek Mufflers .....	262-269	Conbraco	
Chargers.....	541-543	Ball Valves .....	287-288
Charging Port .....	554	Bronze Fittings.....	289
Champion Spark Plugs.....	446	Condensers Distributor.....	Call
Check Valves		Connecting Rod Bearings & Bolts .....	340-359
Centek .....	262-264	Connection Kits Steering.....	667-668
Fuel .....	280	Connectors, 2/3/4 Prong.....	572
Groco .....	296	Connectors, Water Inlet/Outlet .....	636
Chemical/Sealant		Contact Sets, Distributor.....	Call
Boeshield T-9.....	467	Control Cables & Connectors.....	663-667
CRC .....	464, 467-472, 474, 476	Control Knobs.....	659
Honda .....	47-50	Controls	
PenRay .....	467, 469	Electronic .....	660-661
Permatex .....	282, 288-289, 463-465	Trim-Tab.....	181-191
Suzuki .....	37, 39	Engine.....	657-661
Choke, Carburetor.....	301	Conversion Kits , Alternators	
Chris-Craft Engine Parts		Mercruiser 470 .....	Call
Barr Marine .....	222	Conversion Kits, Distributors .....	56, 802
Carter Fuel Pump .....	Call	Constant Torque Clamps .....	272
Champion Plugs .....	446	Converters, Victron.....	542-543
Continental Elite Belts.....	311-312	Cooling System & Related Parts	
Fel-Pro Gaskets.....	360-390	Barr Marine .....	219-253
Sherwood Pumps .....	582	Boater's Best .....	138, 579
Water Pumps .....	138-579	Crusader .....	63-134
Chrysler/Force Outboard .....	Call	Marine Power.....	54-56
Circuit Breakers		Osco .....	Call
Blue Sea .....	546-550	Pleasurecraft.....	Call
Cole Hersee.....	566	Sen-Dure .....	215-217
Crusader .....	70	Corrosion Control .....	467-469
Sierra .....	566	Corrosion Inhibitor, CRC.....	467
Marine Power.....	55	Corsa Performance Exhaust .....	58, 270-271
Panels .....	550	Couplers, Trailer .....	Call
Circulating Water Pumps .....	63-134, 138, 579	Covers, Valve .....	303
Clamp Aid .....	273	Covers, Lights.....	515-517
Clamps		Crab Trap Zinc.....	Call
Constant Torque .....	272	Crankcase Emission Control .....	492
Heat Exchanger .....	217	Crankshaft Bearings.....	340359
Rubber Lined .....	273	CRC Products.....	464, 467-472, 474, 476
Screwdrivers .....	272-273	Crossover Kits, Exhaust .....	271
Snapper .....	501	Crusader Marine	
Stainless Steel.....	272	Engines.....	5

# Jerry's Marine Service • Index

Parts & Breakdowns .....	63-134
Crush Sleeves .....	262
Cummins Diesel Engine Parts .....	261, 583-584
Cut-Off Switches, Emergency .....	563
Cylinder Head Gasket Sets .....	63-134, 340-359
Cylinder Head Bolt Kits .....	304
Cylinder Heads .....	Call
Crusader .....	63-134
First Mate .....	13-18
Honda .....	Call
Suzuki .....	Call
Cylinder Liners, Wiseco .....	Call
Cylinders, Hydraulic Steering	
Seastar Solutions .....	669-690, 692-695
Uflex .....	691, 696-706

## D

Damper Plates	
Crusader .....	130-134, 154
PCM .....	137
Velvet Drive .....	155
Damper, FloScan .....	538
DC Breaker Panels .....	544, 546-549
DC Controls, Seastar Solutions .....	651
Deck Protectant Film .....	480
Deckplate Key .....	295
Degreaser / Cleaner .....	47, 464-470
Delco EST Ignition .....	55-56, 802
Deutsch Connectors & Kits .....	572
Detroit Diesel Engine Parts .....	252, 585
Diesel Additives .....	467-470
Engine Flusher .....	299, 466, 810
Engines, New .....	Call
Fuel Primer .....	489
Generators Mase .....	52-53
Hi Temp Hose .....	274-275
Volvo Penta .....	Call
Dip Sticks	
Crusader .....	63-134
Marine Power .....	57
Pleasurecraft .....	136
Distributor & Related Parts	
Boater's Best Conversion Kit .....	802
Crusader .....	63-134
Marine Power .....	55-56
Prestolite .....	Call
Volvo Penta .....	Call
Donut Zincs .....	207
Dome Lights .....	513-520
Drag Links .....	35, 668
Drain for Oil Pan, I/O & I/B .....	303, 635
Drain Plugs - Brass .....	281, 812
Drive Stand .....	802
Drives, Starter .....	746-758, 762-763
Drives, Replacement .....	Call
Drivesaver .....	629-630
Drums, Trailer Brakes .....	Call
Dry Joint Exhaust Parts	
Barr Marine .....	240-241
GLM .....	258
H. G. E. ....	58, 215, 218
Dual Cooler, Marine Power .....	58, 215, 218
DuraSafe Locks .....	Call
Dust Caps .....	Call
DVA Test Harness .....	CDI Supplement, Call

## E

Ecstar by Suzuki .....	37, 39
Edelbrock .....	302
EFI Code Reader .....	58
EFI Engines	
Crusader .....	5
Honda .....	42, Call
Marine Power .....	54
Pleasurecraft .....	Call
Suzuki .....	21-25
Volvo .....	Call
Elbow, Exhaust	
Barr Marine .....	219-253
Boater's Best .....	261
Buck Algonquin .....	264
Centek .....	262-269
Corsa .....	270-271
Crusader .....	63-134
GLM .....	257-260
H. G. E. ....	254-256
Osco .....	219-253
PCM .....	135-136
Trident Rubber .....	274
Electrical Components	
BSP .....	575-576
Blue Sea .....	545-557
CDI .....	736, Call
Cole Hersee .....	562-566
Faria Gauges .....	532-537
Honda .....	43-50
Marinco .....	559-561
Mize Wire Connectors .....	569-575
Paneltronics .....	544
Sierra Switches .....	563-564, 566-567
Seastar Solutions Gauges / Wiring .....	521-531
Suzuki .....	27-29
Trailer Wiring .....	Call
Electrical Tape .....	576
Electronic Ignition Conv. Kits .....	56, 802
Elements, Filter .....	36, 39, 47, 482-490, 494-500
Emergency Kill	
Switches & Lanyards .....	563, Call
End Plates/Caps	
Crusader .....	63-134
Osco .....	Call
Sen-Dure .....	215-217
Engine Control .....	26, 28, 44, 649-709
Engine Cooling .....	63-134, 215-253
Engine Couplers .....	131-134, 154, 173
Engine Paints .....	50, 476-477
Engine Jack Plate .....	811
Engine Mounts	
Barr Marine .....	171
Bushings Inc .....	168-170
Crusader .....	65
IsoFlex .....	172
Pleasurecraft .....	136
Marine Power .....	Call
Vetus .....	Call
Volvo Penta .....	Call
Engines, Remanufactured .....	9-19
Engine Oils .....	38-39, 47-48, 468-473, 478-479
Engine Overhaul Gasket Sets	
Fel Pro by Application .....	360-390
Engine Rotation Terminology .....	9-10, 362
Engine Treatments .....	467-479
Engine Wiring	
Boater's Best .....	558

# Jerry's Marine Service • Index

Crusader .....	63-134
Honda .....	44-46
Marine Power.....	Call
Suzuki .....	27-29
Epoxy .....	466, 481
Exhaust Collectors, T, V, Y-Type.....	262-264
Exhaust Cut-Outs, Corsa.....	270-271
Exhaust System & Related Parts .....	262-269
Barr Marine .....	219-253
Boater's Best .....	261
Centek Exhaust .....	262-269
Corsa Performance.....	270-271
Fiberglass .....	262-269
GLM Marine .....	257-260
H. G. E. Marine .....	254-256
Marine Muffler.....	Call
Osco .....	Call
Pleasurecraft Marine.....	135-136
T-Bolt Clamps .....	272
Thru Transom .....	271
Tips .....	271
Expansion Plugs, Brass Engine .....	304
Extension Harness, Engine .....	558
Extractor, Oil & Fluid.....	50, 835

## F

Faria Gauges.....	532-537
Fast Orange Hand Cleaner .....	465
Federal Mogul Engine Components	
Listed by Applications .....	340-359
Feed Hoses,	
MPI Fuel .....	278-279
Shields.....	Call
Fel Pro Gaskets	
Listed by Engine Manufacturer .....	360-390
Filler Caps, Oil .....	303, Call
Filter	
Air/Breather.....	491-492
Fram .....	504-508
Fuel .....	36, 39, 47, 494-500
Honda .....	47
Racor .....	482-493
Suzuki .....	36, 39
Village Water Makers.....	510-512
Yamaha .....	509 Call
Flushmount Lights .....	515-520
Filter Wrench .....	508
Fire Detector.....	577-578
Fittings	
Brass.....	280-284
Forespar .....	290
Groco .....	295
Hynautic Steering .....	690-691
Parker/Hydraulics .....	689
Racor .....	484
Stainless Steel .....	285
Water Inlet/Outlet .....	636
Flame Arrestors .....	303
Flappers Exhaust.....	Call, 264
Flare Fittings, Brass.....	283
Flat Ceiling Panels.....	513
Flat Head Screws, Self Tap S/S .....	814
Flat Washers S/S.....	814
Flex Plate.....	130-134, 137, 154-155
Flexible Hose Clamp Screwdriver .....	272-273
Flexo Wrap .....	571
Float Switch, Bilge Pump.....	637-643
Fluid Extractor .....	50, 835
Fluid, Trim & Tilt.....	48, 468, 470-471

Fluid, Hydraulic Steering .....	468-473, 693, 702
Fluke Meters, Probes .....	CDI Supplement, Call
Flush Kits.....	299, 466
Flush Muffs .....	810
Flusher Fittings Water Inlet/Outlet .....	636
Flushing Systems .....	810
Flywheel Bell Housing	
Barr Marine .....	253
Crusader .....	63-134
Pioneer .....	304
Pleasurecraft.....	137
Flywheel Bolt Kits .....	304
Fogging Oil .....	468
Ford Engine Parts	
Federal Mogul.....	347-349, 354-356
Carburetors.....	136, 300, 302
Circulating Pumps.....	138, 579
Pleasurecraft.....	136
Filters	
Fram by Application .....	504-508
Honda .....	47, 509
Suzuki .....	36, 39, 509
Volvo by Engine Model .....	Call
Yahama.....	509
Freeze Plugs .....	304
Fresh Water Cooling	
Crusader .....	63-134
Seakamp .....	218
Sen-Dure Kits .....	215-217
Fuel Flow Meters .....	Call
Fuel Injection Parts.....	63-134, 803-804
Fuel Line.....	60, 279
Fuel Monitoring	
Faria.....	532-537
Honda .....	44
Suzuki .....	30-33
Seastar Solutions.....	521-531
Fuel Lines, Crusader .....	63-154
Fuel Pumps	
Boater's Best .....	305-308
Carter by Application.....	305-308
Crusader .....	63-1134
Crusader .....	63-134
Holley by Application.....	300
Volvo by Engine Application.....	Call
Walbro.....	305
Fuel Senders .....	540
Fuel Stabilizer.....	467-475
Fuel Tank .....	36
Fuel Tank Selector, Remote .....	280, 296-297
Fulton Trailer Parts .....	Call
Funnels.....	474, 491
Fuse & Accessories .....	545-551

## G

Galvanize, Instant Spray .....	476
Gas Engines	
Inboard.....	1-8
Outboard	
Honda.....	42-43
Suzuki .....	21-25
Remanufactured .....	9-19
Gas Siphon.....	491
Gas Tank .....	36
Gauge Panels.....	544
Gauges	
Crusader .....	544
Faria.....	532-537
Honda .....	44-45



# Jerry's Marine Service • Index

Hynautic Pressure .....	688
Paneltronics .....	544
Seastar Solutions.....	521-532
Suzuki .....	30-33
Vacuum .....	488, 494
Gear Oils .....	468-473
Gearcase Seal Kit Suzuki.....	37
Gears, Ring .....	304
Gear Lube.....	468-473
Gear Sets, Federal Mogul Timing.....	340-359
Gears, Timing .....	304
Gears, Transmission	
Hurth / ZF.....	159-161
Velvet Drive.....	139-155
Walter V Drive.....	156-158
Generator Set	
Briggs & Stratton.....	51
Mase .....	52-53
Generator Control Panel.....	Call
GFO Shaft Packing.....	176
Glass Fuses.....	545-551
GLM Marine Exhaust	
Dry Joint.....	257-260
Elbows .....	257-260
Manifolds .....	257-260
Risers.....	257-260
Globe Impellers .....	629-630
Gloves - Mechanics .....	465
Glue, Super .....	436
Goodyear Belts.....	See Continental Elite
GPS Speedometers.....	532-533
Grease & Related Items	
Caps, Trailer .....	Call
Dielectric .....	49, 464, 469
Fittings .....	474
LanoCote .....	467
Lubrimatic .....	467, 470-471, 474
Seals, Trailer.....	Call
Groco Marine.....	291-299
Grouper Zinc.....	213
Guide-On's, Trailer .....	Call

## H

Hand Cleaner .....	465
Hand, Pumps.....	472
Handles, Trailer Winch .....	Call
Hangers, Trailer Spring.....	Call
Hanging Moisture Absorbent Bags .....	Call
Hardwall Hose .....	278 Call
Harmonic Balancer.....	58, 63-134
Bolt Kit .....	304
Sleeve Repair .....	304
Harnesses .....	
Bennett Marine Trim Tabs .....	186
Boat Leveler .....	190-191
Engine	
Inboard .....	63-134
Outboard .....	CDI Supplement
Extension .....	558
Lenco .....	181-186
Marine Power.....	55
Panel.....	558
Trailer.....	Call
Suzuki .....	26-41
Hatch Lifters	
Bennett Marine .....	186-189
Lenco .....	181-186
Uflex.....	191
Head Bolt Kits.....	304

Head Gaskets.....	360-390
Head Gasket Specifications .....	363
Heads Remanufactured.....	9-19
Heat Exchangers	
Crusader .....	63-134
Gasket/End Caps .....	217
SeaKamp .....	218
Sen-Dure .....	215-217
Heat Shrink Wire Connectors.....	576
Heat Shrink Tubing.....	573
Helms, Steering .....	662-666, 669-688
Hex Head Bolts & Nuts S/S.....	814
Hi-Temp Silicone Hose .....	274-275
Holley.....	300
Hooks Trailer Winch .....	Call
Horn Buttons.....	562
Hornet Spray .....	469
Hose	
Crusader .....	63-136
MPI .....	275-279
Oil Drain.....	303, 635
Rigging.....	277,811-812,503
Shields .....	Call
Strain Relief .....	689
Syphon.....	491
Trident.....	274
Vetus.....	20
Hose Barbs Brass.....	280-284, SS 285
Hose Fitting Inlet/Outlet.....	636
Hose Splicers, Brass .....	282-281
Hose, Hydraulic Steering.....	280, 669-706
Hourmeters	
Faria.....	532-535
Honda .....	44-45
Suzuki .....	30-33
Seastar Solutions.....	521-531, 539
Housing Bell / Flywheel	
Barr Marine .....	253
Crusader .....	130
Pleasurecraft Marine.....	137
Housing Thermostat	
Barr Marine .....	230
Crusader .....	63-134
Pleasurecraft.....	135-137
Hub Assembly Trailer.....	Call
Hull Plate, Zinc .....	213-214
Hurth Transmission.....	130, 133-134
Also see ZF Marine.....	159-161
Hydraulic	
Bulkhead Fittings .....	689
Cylinders, Steering .....	669-706
Fittings .....	690-691
Fluid Steering.....	693, 702
Hose Strain Reliever.....	689
Hoses, Steering .....	669-706
Remote Fill.....	693
Reservelaves .....	682, 687
Seal Kits	
SeaStar Solutions .....	694-695
Steering Systems.....	669-706
Tie Bar .....	702
Uflex.....	702
Hydraulic Steering Oil.....	693, 702
Hydro Flo Livewell Systems .....	646-648
Hynautic Steering & Controls .....	Call
Hydro Tail Stabilizer .....	810

# Jerry's Marine Service • Index

## I

Ideal Hose Clamps .....	272
Idler Hubs, Trailer .....	Call
Ignition Related Components	
CDI.....	CDI Supplement
Chrysler .....	Call
Crusader .....	63-134
Delco E.S.T. ....	802
Force.....	CDI Supplement
Gap Tester .....	CDI Supplement
Honda .....	44-50, CDI Supplement
Key / Ignition Switches.....	34, 43, 564
Key's Replacement .....	Call
Marine Power.....	55-56
Mercury.....	CDI Supplement
Nissan.....	CDI Supplement
OMC .....	CDI Supplement
Prestolite.....	Call
Spark Plugs .....	58, 391-445
Suzuki .....	27-29, 39
Suzuki .....	34
Tohatsu .....	CDI Supplement
Tune Up Parts	
Points / Condenser / Cap / Rotor .....	Call
Wire Sets	
Boater's Best.....	447
Crusader .....	63-134
Magstar .....	447
Marine Power.....	56
Mega Mag.....	448-460
Impeller, Parts & Charts	
Globe .....	629-630
Honda .....	43-50
Jabsco Pumps .....	580-603, 609-612, 635, 647
Johnson Pumps .....	580-608, 636, 642-643
Puller, Impeller .....	592, 597, 603
Reverso .....	631
Sherwood Pumps .....	580-603, 612-628
Suzuki .....	37-58
In-Line Fuse Holder .....	567
Intake Strainers, Water .....	284-289, 291-292
Intake Manifold & Bolt Kit .....	302-304
Intake Valves, Engine .....	340-359
Inverters.....	542-543
Isolators.....	542, 789-790
IsoFlex.....	172

## J

JB-Weld .....	466
Jabsco Pumps .....	580-603, 609-612, 635, 647
Jack Plates, Outboard Engine .....	812
Jacks, Trailer .....	Call
Johnson / Evinrude / OMC / BRP	
Arco .....	739-740
CDI Electronics .....	CDI Supplement
Champion Spark Plugs .....	446
Clymer Manual.....	Call
Cole Hersee Key Switches .....	562-566
NGK Spark Plugs.....	391-445
Seloc Manuals .....	805-808
Viking Marine .....	668, 713-724
Wiseco Piston / Sleeves .....	710-735
Zincs .....	209-211
Johnson Pumps.....	580-603, 604-608, 636, 642-643

## K

Kamberra.....	466
Kawasaki .....	Call
Keel Cooler Zinc.....	Call
Keel Rollers, Trailer .....	Call
Key / Ignition Switches .....	34, 43, 564
Keys, Woodruff.....	Call
Kill Switches, Emergency .....	27, 43, 34, 563
Kits	
Alternator Mercruiser .....	Call
Carburetor.....	300-302
Crusader .....	63-134
Electronic Distributor.....	56, 802
Heat Exchanger	
FWC Kits .....	Call
Powerhead Mtg. Bolts.....	304, 715-717
Zinc .....	195-199
Kiwi Grip .....	480
Kohler Pumps .....	586-587

## L

Ladders, Armstrong .....	813
LanoCote .....	467
Lanyard, Kill Switch .....	27, 34, 43, 563
LED Lights	
Lumitec .....	518-520
Rigid.....	515-517
StarLED .....	513
T/H Marine .....	514
Trailer.....	Call
Lenco Trim Tabs .....	181-186
Lifters, Valves .....	340-359
Lights .....	514-520
Link Arm, Steering .....	35, 668
Lip Seal, Tides .....	176
Lithium Grease, White.....	464
Liquid Sealant.....	481
Livewell Pumps.....	645
Lock Nuts & Washers S/S .....	814
Lower Unit lube.....	468, 470-473
Lower Unit Stand.....	802
Lubricants.....	467-474, 478-479
Lubrimatic.....	467, 470-471, 474

## M

Macerator Pumps .....	634
Magstar Ignition Wires.....	447
Main Bearings Engine .....	340-359
Maintenance Kits, Suzuki .....	38
Manifolds	
Barr Marine .....	220-252
Boater's Best, Diesel .....	261
Crusader .....	63-134
GLM .....	
H.G.E. ....	294-256
Osco .....	Call
Pleasurecraft / Ford .....	136
Manuals	
Clymer .....	Call
Crusader Part / Owner / Service .....	63
Honda .....	Call
Marine Power.....	58
Seloc.....	805-808
Suzuki .....	Call
Volvo-Penta .....	Call
Marlin-Velox Paint.....	477

# Jerry's Marine Service • Index

Marine Bearings, Trellex Morse.....	177-180
Marine Muffler Corp.	
Marine Power	
Coolers .....	215
Engines .....	1-4
Parts .....	54-62, 215
Marine Shaft Bearing / Seals.....	176-180
MarineWeld .....	466
Mase Generators.....	52-53
Parts .....	Call
Master Disconnect Switch, Battery	
Blue Sea Systems .....	553
Cole Hersee.....	565
Mayfair Pumps.....	
Mechanics Wire .....	Call
Mechanical Steering .....	649-653
MegaMag Wires .....	448-460
Mercury Oils & Lubricants .....	468
Meter Panels .....	542-544, 554
Mildew Remover.....	466
Mixing Bottle.....	471
Mize Wire.....	569-575
Moeller.....	475-476, 491, 541, 635, 812
Mold Remover .....	466
Molded Hoses	
Crusader.....	63-134
Continental Elite.....	Call
Marine Power .....	59
Marinco Power.....	559-561
Momo Steering Wheels .....	Call
Morse Controls .....	Call
Motor Flushes.....	299, 466, 810
Motor Mounts	
Barr Marine .....	171
Bushings Inc. ....	168-170
Crusader .....	65
Isoflex .....	172
Marine Power.....	61-62
Pleasantcraft.....	136
Mounting Brackets, Outboard	
T & H Marine.....	811
MPI Products Inc. ....	272, 275-279, 303, 635, 643, 812
Muffler	
Corsa .....	58, 270-271
Centek .....	262-269
Multimeters .....	CDI Supplement
Multi-Port Valves.....	280, 296-297

## N

Nalcool.....	457, 469
Naqualift Mufflers.....	262-269
Needle Bearings Wiseco Piston .....	710-735
NGK Spark Plugs .....	39, 391-445
No Damp Dehumidifier .....	Call
No Feed Back Steering - Mechanical	
Seastar Solutions.....	662-665
Uflex Zero Torque .....	666-667
Non-Skid.....	480
Nose Cones, Gearcase .....	810
Nylon Clamps .....	573
Nylon Wire Ties .....	571-573

## O

O/B Cable Cover Hose.....	277, 503, 654-656, 812
Octane Booster.....	468, 470, 473
Oil Changing Pumps.....	50

Oil Coolers	
Crusader .....	63-134
Marine Power.....	58, 215
Seakamp.....	218
Sen-Dure .....	215-217, 286
Oil Drain Kit Hoses .....	303, 634-635
Oil Extractor.....	50, 635
Oil Filter Adaptor.....	56
Oil Filter Wrench.....	47, 508
Oil Filters	
Crusader .....	63-141
Fram .....	504-508
Honda .....	47, 509
Marine Power.....	56
Suzuki .....	39, 509
Volvo.....	Call
Yahama.....	509
Oil Hoses	
Crusader .....	63-134
Marine Power.....	58
Oil Mix Bottle .....	471
Oil Pads.....	508
Oil Pan Bolts.....	57, 303-304
Oil Pan Fittings.....	57, 303-304
Oil Pans & Gaskets .....	57, 136
Crusader .....	63-134
Fel Pro .....	360-390
Marine Power.....	57
Oil Pick Ups.....	56, 340-359
Oil Pressure / Temp. Gauges	
Senders & Switches	
Faria.....	532-537
Honda .....	45, Call
Suzuki .....	30-33
Seastar Solutions.....	538
Oil Pumps	
Crusader .....	63, 734
Federal Mogul.....	340-359
Honda .....	50
Jabsco .....	634-635
Marine Power.....	56
Moeller .....	635
Reverso .....	493, 634-635
Oil, Motor E 2-Cycle .....	39, 47, 468-479
OMC Thru Transom Steering .....	667
Onan Pumps.....	590-592
Ongaro Control Knobs.....	659
Outboard Brackets - Jack Plates .....	811
Outboard	
Arco .....	737-801
Champion .....	446
Flushers .....	810
Harnesses.....	26-46
Honda .....	43-46
Ignition Leads .....	448-460
Motor Oil .....	39, 47, 470, 478
NGK .....	391-445
Paint.....	50, 475-477
Pistons .....	710-735
Powerhead Mtg. Bolts.....	717-719
Spark Plugs	
Stabilizer .....	810
Stand .....	802
Starters	
Suzuki .....	26-34
Test Equipment .....	CDI Supplement
Outboards	
Honda .....	42
Suzuki .....	21-25
Outdrive Stand.....	802



# Jerry's Marine Service • Index

Oval Head Tapping Screws S/S .....	814
Overhaul Gaskets Sets	
Crusader .....	63-134
Fel Pro .....	360-390
Marine Power.....	Call
Volvo Penta.....	Call
Overhead Lights .....	513-520
Owners Manuals	
Crusader .....	63
Honda .....	Call
Marine Power.....	58
Seloc.....	805-809
Suzuki .....	Call
Volvo .....	Call

## P

Packing Shaft .....	176
Pail/Barrel Pumps .....	474
Paint .....	50, 475-477
Pal Nuts & Trailer Pins.....	Call
Pan Head Tapping Screws S/S .....	814
Panel Bracket Assy. Trailer .....	Call
Panel, Circuit Breaker.....	544-549
Panel, Instrument .....	27, 34, 43, 544, 550-552, 554, 643
Parallel Switch .....	51
Parts Cleaner.....	464, 467, 470
Parts Cleaning Brushes.....	Call
Parts Manual	
Clymer .....	Call
Crusader .....	63
Honda .....	Call
Seloc.....	805-808
Marine Power.....	58
PCM, See Pleasurecraft	
Pencil Zinc .....	208, 217
Performance Metals .....	195-197
Perkins.....	170, 252, 592-594, 608, 629-630, 766
Permatex Products .....	282, 288-289, 463-465
Personal Watercraft - Starters .....	737-801
Phone Connectors.....	561
Piercing Probe Set.....	CDI Supplement
Pigtail-Adaptor .....	559
Pilot Lights .....	565
Pins, Dowel.....	Call
Pioneer Products.....	303-304
Pipe Fittings, Brass.....	280-284
Pipe Joint Compound .....	282
Pipe Plug - Brass.....	280-284
Pipe Sealant, Loctite.....	282, 288, 463
Pipe Tape, Teflon .....	282
Pipe to Hose Adapters.....	280-281, 289, 290, 295, 299
Pistons, Rings & Related Parts	
Crusader .....	63-134
Federal Mogul.....	340-359
Volvo .....	Call
Wiseco .....	710-735
Pitot Tubes, Speedometer .....	30, 32, 36, 45, 521-537
Plastic Fuel Tanks.....	36
Plastic Weld .....	466
Plate - Zinc .....	214
Plates - Transom .....	196, 812
Pleasurecraft Engines & Parts.....	135-137, 303
Plugs	
Bilge / Drain .....	812
Brass.....	281-283, SS 285
Champion Spark Plugs.....	446
NGK Spark Plugs.....	39, 391-445
Points, Ignition .....	Call
Polyurethane sealant.....	481

Potable Water Hose, MPI .....	276, Call
Power Assist.....	688
Power Cords & Accessories .....	559-561
Power Packs, CDI .....	CDI Supplement
Power Post .....	545, 557
Power Purge.....	676
Power Steering.....	58, 687-688, 695
Power Steering Coolers.....	215-218
Power Trim Fluid.....	48, 468, 470-472
Power Trim Pumps - Arco.....	767-777
Power Trim Relays .....	797-798
Power Washers .....	51
Powerhead Mtg. Bolts .....	715, 717
Powermania Chargers.....	541
Pressure Caps - Heat Exchangers	
Crusader .....	63-134
Marine Power.....	56
Sen-Dure .....	217
Pressure Senders - Oil	
Crusader .....	63-134
Marine Power.....	55
Seastar Solutions.....	538
Primary Wire.....	569-570
Primer Bulbs .....	501
Paint .....	467-477
Primer	
Non-Skid .....	480
Oxide / Chromate .....	476
Running Gear.....	477
Propellers	
Honda .....	Call
Puller.....	802
Quicksilver .....	193-194
Suzuki .....	40-41
Volvo Penta.....	192
Protector, Transom .....	812
Protectant	
Aerospace.....	467
Deck Film.....	480
Pullers Impeller.....	592, 597,603
Pulleys	
Boater's Best .....	58
Crusader Engines .....	63-134
Pleasurecraft.....	137
Pumps & Related Parts	
A/C.....	578
Circulating Water Pumps .....	138, 579
Fresh Water Pumps .....	645-648
Fuel Pumps.....	63-134, 305-308
Hand .....	634
Impeller Chart .....	604-608
Impeller Puller.....	597
Impellers Chart .....	609-612
Jabsco Pumps .....	580-603, 609-612,635, 647
JMP .....	580-603
Johnson Pumps .....	580-608, 636, 642-643
Livewell .....	642, 645-647
Lower Unit Oil Pump.....	50, 635
Macerator.....	634
Oil Change Pumps.....	50, 493, 635
Oil Pumps, Engine .....	63-134, 340-359
Boater's Best.....	138, 579
Caterpillar.....	580-581
Chris Craft.....	582
Chrysler.....	582
Crusader .....	582
Detroit.....	585
Impeller Kits	
Jabsco Pumps.....	580-603, 609-612, 635, 647
JMP .....	580-603

# Jerry's Marine Service • Index

John-Deere .....	586
Johnson Pumps .....	580-608, 636, 642-643
Kohler .....	586-587
Mercuriser .....	588
Northern Lights .....	589-590
Onan .....	590-592
PCM .....	137, 594
Perkins .....	592-594
Sherwood Pumps .....	137, 286, 580-603, 613-628, 810
Universal .....	596
Volvo .....	597-600
Westerbeke .....	601-602
Yanmar .....	602-603
Salt Water Washdown .....	636, 645, 647
Shurflo Pumps .....	635, 645, 648
Tilt & Trim - Arco .....	767-777
Push Rods, Engine .....	
Federal Mogul .....	340-359
Push-Pull Switches .....	562-563
Push to Choke Key Switch .....	564 Call
Pyramid Washers .....	Call

## Q

Quick Connect Flusher .....	810
Quick Connect Steering .....	
Seastar .....	662-665
Uflex .....	666-667
Quicksilver Propellers .....	193-194
Quick Splicer .....	574

## R

Racing Oil .....	478-479
Racor .....	482-493
Crankcase Ventilation Filters .....	491-492
Filter Bowl Wrench .....	491
Raw Water .....	
Boater's Best .....	138, 579
Caterpillar .....	580-581
Chris Craft .....	582
Chrysler .....	582
Crusader .....	582
Detroit .....	585
Impeller Kits .....	580-629
Jabsco Pumps .....	580-603, 609-612, 635, 647
JMP .....	580-603
John-Deere .....	586
Johnson Pumps .....	580-608, 636, 642-643
Kohler .....	586-587
Mercuriser .....	588
Northern Lights .....	589-590
Onan .....	590-592
PCM .....	137, 594
Perkins .....	592-594
Sherwood Pumps .....	137, 286, 580-603, 613-628, 810
Universal .....	596
Volvo .....	597-600
Westerbeke .....	601-602
Yanmar .....	602-603
Rebuilt Engines .....	
First Mate Marine .....	9-19
Receiver Hitch Locks .....	Call
Rectifiers .....	
Arco .....	797
CDI .....	CDI Supplement
Reducers Exhaust .....	
Fiberglass .....	262-269
Insert Sleeves .....	262

Regulators .....	
Arco .....	799
CDI .....	CDI Supplement
Reinforced PVC Hose MPI .....	276
Relays - Arco .....	797-798
Remote Oil Filter Adaptors .....	
Crusader .....	63-134
Marine Power .....	56
Renew Kits .....	
by Carburetor Number .....	301
Royce .....	302
Repair Kit, Trailer Winch .....	Call
Reservoir Trim .....	800
Retractors Auto Trim Tab .....	181-191
Reverse Osmosis .....	510-512
Reverso .....	493, 631-635
Rigging Flange/Hose .....	277, 503, 812
Rinda Code Mate .....	58
Ring Gears .....	304
Risers, Exhaust .....	
Barr Marine .....	219-253
Crusader .....	63-134
GLM Marine .....	257-260
Pleasurecraft Marine .....	135-136
Rocker Switch Control .....	
Bennett Marine .....	187-189
Blue Sea .....	546-547
Boat Leveler .....	190-191
Lenco .....	181-185
Paneltronics .....	544
Rod Bolts, Connecting .....	340-359
Roller & Shaft, Trailer .....	Call
Rotary Steering Systems .....	
Seastar Solutions .....	662-665
Uflex .....	666-667
Rotella .....	469, 471
Rubber Lined Clamps ABA .....	273
Rudder Zincs .....	207
Rule Pumps .....	637-646
Rust Inhibitor .....	464, 468, 476, 478
Rust remover .....	480
Royal Purple .....	473
Royze Carb (Volvo) Repair Kits .....	302
Running Gear Paint .....	477

## S

Safety Chains Trailer .....	Call
Salt Water Washdown Pump .....	636, 645, 647
Screw - S/S .....	814
Scoop Strainers .....	217, 286, 289, 298
Seacocks .....	284, 287, 290, 293-296
Sea Strainers .....	217, 284, 286, 289, 291-292, 298
Sea Strainers Zinc .....	213
Seastar Solutions .....	
Cable Controls .....	649-651, 654-655, 657-659
Electronic Controls .....	Call
Gauges .....	521-531, 538-539
Steering .....	662-665, 667, 669-690, 692-695
Sealant .....	
2-Part .....	481
Liquid .....	481
Polyurethane .....	481
Rubber .....	481
Seals and Seal Kits .....	
Crusader .....	63-134
Honda .....	Call
Hurth Transmission .....	166
Jabsco Pumps .....	580-603
Johnson Pumps .....	580-608

# Jerry's Marine Service • Index

Racor Filter Seals .....	489-490	Spare Tire Carrier, Trailer .....	Call
Suzuki .....	37	Spark Plug Wire Kits .....	
Pumps .....	580-628	Boater's Best .....	447
Tides .....	176	Crusader .....	63-134
Velvet Drive .....	139-154	Mega Mag .....	448-460
Walter V Drive .....	156-158	Marine Power .....	56
Seawall Cleaner .....	299, 466, 480	Spark Plugs .....	
Seloc Service Manuals .....	805-808	Champion .....	446
Self Tapping Screws .....	814	NGK .....	39, 391-445
Sen-Dure Products .....	215-217, 286	Spark Plug Gap Tester .....	CDI Supplement
Senders, Fuel Tank .....	540	Speedometers .....	
Senders, Oil Pressure & Water Temp .....		Faria .....	532-537
Crusader .....	63-134	Pitot Tube .....	30, 32, 45, 521-537
Marine Power .....	55	Suzuki .....	21-41
Seastar Solutions/Sierra .....	538	Seastar Solutions .....	521-531
Suzuki .....	29	Spidles Trailer .....	Call
Sensors, Water Filters .....	488, 494	Spiral Wrap Wire & Cable .....	593
Separ Filters .....	494	Splicers Quick .....	574
Separators .....	Fuel/Water	Spline Grease .....	474
GLM .....	495	Split Roller Bracket .....	Call
Racor Fuel /Water .....	482-493	Split Conduit Wire Loom .....	277
Separ .....	494	Sport Tabs .....	181-191
Sierra .....	495	Spray Lubricant .....	46, 49, 464, 467
Serpentine Belts .....	309-339	Spray Paint .....	50, 79, 475-477
Service Manuals .....		Spring Bushings, Trailer .....	Call
Clymer .....	Call	Spring Hangers .....	Call
Crusader .....	63	Spring Seat, Trailer .....	Call
Seloc .....	805-808	Spring Shackles .....	Call
Marine Power .....	58	Spring, Trailer .....	Call
Scrubber Pads .....	480	Sta-Bil, Gas Stabilizer .....	467, 470
Shackles .....	Call	Stabilizer, Gas .....	48, 467, 470
Shaft Rollers .....	Call	Stabilizer, HydroTail .....	810
Shaft Bearings, Trellex Morse .....	177-180	Stand, Outdrive .....	802
Shaft Coupling .....	154, 156, 173-174	Strainers, Sea Water .....	217, 284, 286, 289, 291-292, 298
Shaft Seals, Tides .....	176	Stainless Steel Clamps .....	272
Shaft Keys, Water Pump .....	See Pumps	Stainless Steel Fasteners .....	814
Shaft Packing .....	176	Stainless Tilt Tubes & Nuts .....	668
Shaft Paint .....	477	Star-tron Fuel Additive .....	475, 576
Shell Coolant and Rotella .....	469-471	StarLED Products .....	513
Sherwood Marine .....	137, 286, 580-603, 613-628, 810	Stainless Steel Fasteners .....	285
Shore-Power .....	559-561	Starters & Related Parts .....	
Shunt .....	531	Bolt Kit .....	800
Shurflo Pumps .....	635, 654, 648	Crossover Chart .....	737-742
Shut-Off Valves .....	280, 284, 287-290, 293-297	Crusader .....	63-134
Sierra Products .....	57, 60, 279, 303, 306-308, 467, 470-474, 495-503, 563-567	Inboard Starters .....	762-766
Side Markers, Trailer .....	Call	Outboard Starters .....	746-758
Silencers, Exhaust .....	262-268	PWC .....	740
Silicone Hi-Temp Hose .....	274	Solenoids .....	794-796
Silicone Sealant .....	481	Starting Fluid .....	469
Silicone Spray .....	49-50, 464, 467-468, 478	Stators .....	CDI Supplement
Siphon Hose .....	491	Steering Systems & Related Parts .....	
Skeg .....	810	Cable Buddy .....	668
Skegguard .....	809	Cables .....	649-653
Ski Boat Mufflers/Silencers .....	262-268	Connection Kit .....	654-656
Sleeve Repair, Harmonic Balancer .....	304	Hydraulic .....	
Snap-Tite Drain Plugs .....	812	Link Arms .....	668, 697, 699-700
SNAPP Fuel Filters .....	483	Systems .....	
Solvent, Cleaner .....	481	Hydraulic .....	669-706
Softwall Hoses .....		Mechanical .....	662-666
MPI .....	278-279	Tube Cleaning Brush .....	668
Shields .....	Call	Tube, Stainless .....	668
Solenoids .....		Steering Wheels .....	707-709
Arco, Trim/Starter .....	793	Stoltz Rollers .....	Call
Blue Sea .....	554	Stop Nuts .....	Call
Cole Hersee .....	566	Strainers .....	
Crusader .....	63-134	Buck .....	284, 286
Marine Power .....	Call	Conbraco Intake .....	289
Parker Hannifin .....	Call	Groco .....	291-292, 295, 298
Spanner Wrench .....	295	Sen-Dure .....	217
		Sherwood Sea Strainers .....	286



# Jerry's Marine Service • Index

Shurflo .....	645, 648
Straps	
Shorepower Carring.....	559
Trailer.....	Call
Superlube Hub Kits.....	Call
Surge Chamber .....	263
Suspension Bolts, Trailer.....	Call
Suspension Kit, Trailer.....	Call
Suzuki	
Anodes.....	38
Carb Kits .....	37
Controls .....	26
Filters .....	39
Fuel Conditioning.....	39
Fuel Injector Cleaner .....	39
Fuel Tanks.....	36
Gauges .....	31-33
Gear Case Seal Kits .....	37
Instruments .....	31-33
Keys.....	34
Maintenance Kits .....	38
Modular Instruments.....	27
Outboards .....	21-25
Propellers & Hardware.....	40-41
Rigging.....	26-36
Water Pump Kits .....	37
Sweep Collector .....	262
Switches	
Battery Selector .....	553, 565
Bilge Pump/Float .....	637-643
Cole Hersee.....	562-566
Emergency Kill.....	27, 34, 563
Ignition Key .....	34, 564
Kill .....	27, 34, 563
Master Disconnect .....	553, 565
Panels	
Covers Boots .....	549, 562-564
Push Button .....	562, 563
Push to Choke Key.....	34, 564
Push Pull.....	562
Rocker .....	552
Sealed.....	551, 552, 563
Toggle .....	544, 548, 551, 563
Trim Tab.....	181-191
Synthetic Oil .....	471-473

## T

2-Part Sealant.....	481
2 thru 6 Way Valves .....	280, 296-297
T & H Marine	
Cable Boot.....	812
Hydro Tail.....	810
Jack Plate & Hardware .....	811
Nose Cone.....	810
Quick Flush.....	810
Skeg.....	810
Torque Tab .....	810
Transom Protector .....	812
Transom Trim Control .....	810
T & R Marine .....	608, 802
T-Bolts Clamps .....	272, 274
Tabs, Trim	
Bennett Marine .....	186-189
Boat Leveler.....	190-191
Lenco .....	181-186
Uflex.....	191
Tachometers	
Faria Instruments.....	532-537
Honda .....	44

Suzuki .....	21-41
Seastar Solutions.....	521-531
Tail Light, Trailer .....	Call
Tail Light Wire.....	570
Tank Selector Valves .....	280, 296-297
Tape	
Electrical .....	576
Liquid Electrical.....	576
PTFE.....	282
TC-W3, 2-Cycle Oil.....	468, 470, 473
Tear Drop Zinc .....	207
Tech Manuals	
Clymer .....	Call
Crusader .....	63
Honda .....	Call
Marine Power.....	58
Seloc.....	805-808
Suzuki .....	Call
Temperature Sender	
Crusader .....	63-134
Marine Power.....	55
Seastar Solutions.....	538
Terminal Blocks .....	556, 566-567
Terminal Kit Wire .....	575
Testers.....	CDI Supplement
Thermostats & Related Parts	
Crusader .....	63-134
Marine Power.....	54
Pleasurecraft.....	135
Thread Sealant.....	282
Three (3) Way Valve.....	280, 296-297
Three-Sixty Fuel Treatment .....	467
Throttle Brackets, Holley .....	300-301
Throttle Cables .....	649-653
Thru Hull Fittings .....	262, 271, 288, 299
Thru Hull Step Wrench .....	288
Thrusters, Bow .....	20
Tie Bars .....	35, 668-704
Tie Down Engineering .....	Call
Tie Wraps .....	571, 573
Tides Marine.....	176
Tiller Handle Kits .....	35
Tilt Latch, Trailer .....	Call
Tilt Helms .....	666
Tilt Motors	
Arco .....	768-77
Honda .....	Call
Suzuki .....	Call
Tilt Tubes, Stainless Steel .....	668
Timing Belts.....	Call
Timing Covers	
Boater's Best .....	58
Crusader .....	63-134
Marine Power.....	57
Pleasurecraft.....	137
Silver Seal.....	303
Timing Cover Bolt Kit.....	304
Timing Gears .....	340-359
Timing Gear Bolt Kit .....	304
Timing Tool .....	55
Tips, Exhaust.....	58, 262, 271
Toggle Switches.....	551
Torque Tab, Gearcase .....	810
Tools	
Amphenol R/R .....	CDI Supplements
Brush Loading Tools .....	801
CDI Test Equipment.....	CDI Supplements
Coupling Flange Puller .....	173
Crimping Tool.....	572
Deutsch Installation .....	CDI Supplements

# Jerry's Marine Service • Index

EFI Tester.....	CDI Supplements
Filter Wrench.....	508
Flexable Screwdriver .....	272-273
Gearcase Filler .....	50
Grease Guns .....	474
Honda Filter Tool.....	47
Hot Knives .....	571
Impeller Puller.....	592-597
M.E.D.S. ....	CDI Supplements
Multi-Meters .....	CDI Supplements
Outdrive Stand.....	802
Propeller Pullers .....	Call
Racor Bowl Wrench .....	491
Siphon Hose .....	491
Spanner .....	295
Steering Tube Cleaner.....	668
Suzuki Bowl .....	36
Thru Hull Wrench.....	288
Timing Tool.....	55, CDI Supplements
Tournament Livewell Pump .....	645
Tournament cylinder .....	675, 698
Trac Ecogolical .....	299, 461, 603
Trailer Parts & Accessories .....	Call
Brake Flush Kit .....	Call
Spare Tire Locks .....	Call
Trailer Locks .....	Call
Transmission / Oil Cooler	
Crusader .....	63-134
Marine Power.....	58, 215
Seacamp.....	218
Sen-Dure .....	215-217, 286
Transmission & Related Items	
Buck Algonquin .....	173-174
Crusader .....	130-134
Drive Saver .....	175
Hurth.....	See ZF
Velvet Drive.....	139-155
Walters.....	156-158
ZF Marine .....	159-137
Transom Exhaust Tips.....	58,262,271
Trays - Battery .....	541
Trellex Morse.....	177-180
Trident	
Constant Torque Clamps .....	272
Hi-Temp Silicone Hose .....	274-275
Trim Gauges	
Faria Instruments.....	532-537
Honda .....	Call
Suzuki .....	28-34
Seastar Solutions.....	521-531
Trim Pumps/Motors .....	767-777
Trim Switches/Trim Tabs	
Bennett Marine .....	186-189
Boat Leveler/Insta-Trim.....	190-191
Honda .....	44
Lenco .....	181-186
Suzuki .....	34
Uflex.....	191
Tube Cleaning Brush, Steering .....	668
Tube, Fiberglass.....	263
Tubes, Stainless Steering.....	668
Turn-Tite Plugs .....	812
Two Cycle Oil, TC-W3 .....	468, 470, 473, 478
Tygon Tubing .....	303
Tyme.....	467

## U

U-Bolts, Trailer.....	Call
U-Pod (see BBB).....	802
USB Charging Port.....	554
Uflex .....	652-653, 660-661, 666-667, 691, 696-709
Ultra Marine Mufflers .....	266-269, Call
Underwater Lights .....	514-520
Unions .....	SS 285
United Mega Mag .....	448-460

## V

V-Belts	
Crusader .....	63-134
Continental Elite.....	309-339
Marine Power.....	54
Vacuum Gauges .....	54
CDI.....	CDI Supplements
Racor .....	488
Seastar Solutions.....	530
Suzuki .....	Call
Valve Spring Inserts.....	340-359
Valve Covers/Gaskets	
Crusader .....	63-134
Fel-Pro .....	360-390
Silver Seal Products .....	303
Valve Grind Compound .....	464
Valve Grind Gasket Sets .....	102, 340-359
Valves & Related Parts - Engine .....	340-359
Valve - Fuel	
3-Way, 4-Way .....	280, 297
Velox - Marlin Running Gear Paint .....	477
Velvet Drive Transmission .....	139-155
Couplers .....	131-134, 173, 154, 154-155
Damper Plates .....	131-134, 137, 154-155
Parts Breakdowns.....	131-155
5000 Series.....	149-153
Vent Hose, Fuel .....	60, 279
Victron Products .....	542-543
Viking Marine	
Powerhead Mounting Bolts.....	717, 719
S/S Tilt Tubes.....	668
Village Water Makers.....	510-512
Voltage Regulators .....	798-799
Voltmeters	
Crusader .....	544
Faria Instruments.....	532-537
Honda .....	45
Suzuki .....	30-31
Seastar Solutions.....	521-532
Volvo-Penta Diesel Engines & Parts .....	Call
Volvo-Penta Diesel Filters .....	507-508, 482-490, 494-496

## W

Wagner Alternator Kits.....	Call
Walbro Fuel Pumps .....	305
Walter V-Drives Transmission .....	156-158
Warning Kit - Engine.....	564-565
Washdown Inlet/Outlet .....	636
Washdown Pumps.....	636, 645, 647
Wash Brushes-Parts.....	Call
Washers, Flat / Lock S/S .....	814
Wasp & Hornet Spray .....	468-469
Water Hose.....	272-279
Water Circulating, Pump.....	63-134, 138, 579
Water Flow Detector.....	577-578
Water Inlet/Outlet.....	636

# Jerry's Marine Service • Index

Water Pressure Gauges	
Faria Instruments.....	44, 532-537
Honda .....	44
Seastar Solutions.....	521-531
Suzuki.....	30-33
Waterproof Lights .....	514-520
Water Pump, Mercruiser Raw	
Water Pump Components & Parts .....	138-579
Crusader .....	63-134
Globe .....	629-630
Honda Outboard .....	43
Jabsco .....	580-603, 609-612, 647
Johnson .....	580-603, 604-608, 636, 642-643
Pleasurecraft.....	135-137
Sherwood.....	137, 286, 580-603, 613-628, 810
Sierra .....	Call
Suzuki .....	57
Volvo .....	597-600
Water Puppy .....	647
Water Separators .....	34, 486-489, 495
Water Strainers.....	217, 284, 286, 289-295
Water Temperature Senders	
Crusader .....	63-134
Marine Power.....	55
Seastar Solutions/Sierra .....	538
Suzuki .....	29
WaterWeld .....	466
Waterproof Lights, Trailer .....	Call
Weatherhead Hose.....	280
Wedge Transom .....	811
Wedge Plates, Carburetor.....	63-134, 301
Wesbar Trailer Products .....	Call
Westerbeke Replacement Parts.....	601-602
Wet Exhaust System, Trident .....	272, 274, 277, 279
Wheel Bearing Grease .....	474
Wheel Nuts, Trailer.....	Call
Whitecap Industries .....	636
White Lithium Grease .....	48, 464, 468, 474
Winch.....	Call
Wire .....	569-570
Wire Sets	
Boater's Best .....	447
Magstar Ignition .....	447
Marine Power.....	55-56
Mega-Mag.....	448-460
Wire Terminal	
BSP w/Shrink .....	575-576
Mize .....	569-575
Wire Ties.....	571, 573
Wiretec/Magstar Plug Wires.....	447
Wiring Harness .....	
Boat Instrument to Engine .....	558
Crusader Engine.....	63-134
Dual Station Y .....	558
Trailer Light .....	Call
Wiseco Pistons & Sleeves.....	710-735
Wobble Rollers & Rings.....	Call
Wood Epoxy .....	466
Work Lights.....	Call
Woven Wrap .....	571
Wraps	
Flex .....	571
Self Wrap & Tool .....	571
Spiral Wire Wrap.....	573
Tie .....	571, 573
Wrench	
Filter Bowl.....	36, 47, 491, 508
Oil Filter .....	508
Spanner .....	295
Wrist Pin Bearing Kits - Wiseco.....	710-735

## Y

Y Adaptors, Marincos .....	559
Y Connectors, Exhaust	
Buck Algonquin .....	264
Centek .....	262-264
Corsa, Diverters .....	270-271
Y Harness.....	558
Yamaha Oils & Filters .....	470, 477, 509
Yanmar .....	Call

## Z

Z-Tuff Cleaners & Chemicals.....	480
Zero .....	
Torque Helm .....	662-667
Friction Cables.....	650-658
ZF Marine	
Transmissions.....	159-161
Zincs & Anodes	
Acorn .....	212
Ameson .....	212
BRP.....	200
Barrel Collars .....	207
Bennett Marine Trim Tabs.....	212
Caterpillar .....	199, 208
Commercial Hull .....	213-214
Crusader .....	Call
Diver Plates .....	213-214
Donut .....	207
Detroit .....	208
Force.....	201, 209
GM Diesel .....	208
Grouper.....	213
Honda .....	195, 201, 209
Hull Plates.....	213
Isuzu .....	209
Johnson / Evinrude .....	See OMC
Kits.....	195-199
Mercury / Mariner / Mercruiser.....	195, 198, 202, 209-210
Nissan.....	203, 210
OMC .....	195, 199, 209-210
Pencil .....	208
Plates.....	213-214
Prop .....	213
Prowell Prop .....	213
Rudder .....	207
Sea Strainer.....	213
Suzuki .....	203, 210
Tear Drop .....	207
Trim Tabs, Bennett Marine .....	212
Tohatsu .....	203, 210
Vetus.....	Call
Volvo .....	195, 199, 206, 210
Yamaha.....	195, 198, 204-205, 210
Yanmar.....	208
Zinc Coating	
Galvanized Coating .....	476-477
Primer .....	476-477



# NEW PRODUCT LINE FOR 2018-2019

## CAPTAINS CHOICE



**albin.pump**  
**marine** since 1928

# **BARR**

## **MARINE BY EDM**

[www.barrmarine.net](http://www.barrmarine.net)

**MADE IN THE U.S.A.**  
**QUALITY SINCE 1933**



**THERE ARE NONE BETTER**



# WE'RE SERIOUS ABOUT STEERING



High-horsepower/high-speed boating is here and steering systems must perform at maximum capacity. The SeaStar Hydraulic Steering System is designed to provide that extra margin of muscle when needed and easily handles Outboard, Sterndrive and Inboard engines.

SeaStar hydraulic steering is a total commitment to quality, performance and simplicity.

## A STEERING SYSTEM THAT IS:

- Easy to install
- Easy to fill & purge
- Easy to turn
- Designed to provide many years of service



**SEASTAR! SIMPLY THE BEST!**

[www.seastarsolutions.com](http://www.seastarsolutions.com)



**SEASTAR  
SOLUTIONS®**