

P753K

For Models: M753K, NL753K,
M753W, and NL753W

PARTS MANUAL

Marine Generators | Marine Diesel Engines | Land-Based Generators



LUGGER





— CALIFORNIA —

Proposition 65 Warning:

*Diesel engine exhaust and some of its constituents
are known to the State of California to cause cancer,
birth defects, and other reproductive harm.*



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PARTS CATALOG

for Models
M753K, NL753K, M753W, AND NL753W

Please read thoroughly before attempting to use this manual:

| | |
|--|-----|
| Table of Contents | I |
| Model Designation & Serial Numbers | II |
| Reading a Parts Page | III |

Table of Contents

GROUP 1 - ENGINE

| | |
|-----------------------------|--------|
| Cylinder Block | 0 - 1 |
| Camshaft and Pistons | 2 - 3 |
| Oil Pump and Strainer | 4 |
| Camshaft | 5 |
| Timing Gear Case | 6 - 7 |
| Cylinder Head | 8 - 10 |

GROUP 2 - INTAKE & EXHAUST SYSTEM

| | |
|-------------------------------------|-------|
| Intake Air Filter | 1 - 2 |
| Intake and Air Filter, Marine | 3 |
| Muffler Assembly | 4 |

GROUP 3 - COOLING SYSTEM

| | |
|--|-------|
| Exhaust Manifold and Heat Exchanger with Raw Water Pump | 0 - 1 |
| Cooling Pump | 2 |
| Raw Water Pump Assembly | 3 |
| Radiator and Guard | 4 - 5 |

GROUP 4 - FUEL SYSTEM

| | |
|-------------------------------------|-------|
| Fuel Injection Pump and Lines | 0 - 1 |
| Fuel Filter and Piping | 2 - 3 |
| Fuel Line Connections | 4 - 5 |
| Injector | 6 |
| Fuel Feed Pump | 7 |

GROUP 5 - ELECTRICAL SYSTEM

| | |
|-------------------------------|--------|
| Engine Electrical: | |
| 12 Volt | 0 |
| 24 Volt | 1 |
| Alternator and Mounting | 2 |
| Starting Motor | 3 |
| Alternator | 4 |
| Control Panels | 5 - 10 |
| Belt Guard | 11 |

GROUP 6 - GASKET SETS

| | |
|-------------------|---|
| Gasket Sets | 0 |
|-------------------|---|

GROUP 8 - FRAME & MOUNTING

| | |
|--------------------------------------|---|
| Marine Base Frame Assembly | 1 |
| Industrial Base Frame Assembly | 2 |

GROUP 9 - ACCESSORIES & OPTIONAL EQUIPMENT

| | |
|---|-------|
| Oil Drain | 1 |
| Dry Exhaust Adapter - Keel Cooled | 2 |
| Remote Expansion Tank | 3 - 4 |
| Coolant Recovery Tank | 5 |

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Model Designation

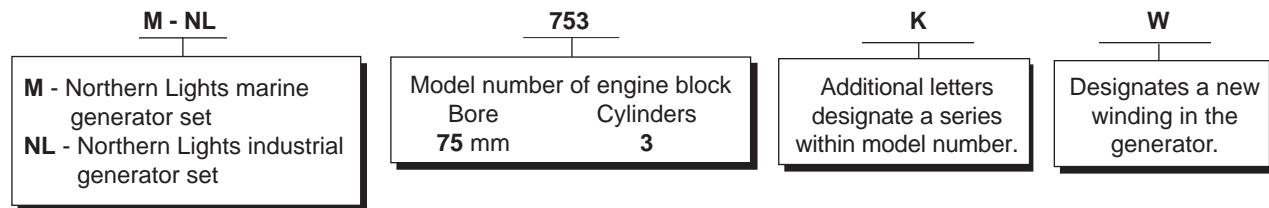
MODELS INCLUDED

This manual covers the operating instructions for:

M753k and NL753k, which both use the 753 engine and the PX308K1 generator end, and **M753w and NL753w**, which use the 753 engine and the PX308K2 generator end.

Model Numbers

Model numbers give the unit's application, block model, aspiration, and RPM:



M753k Northern Lights marine diesel generator set with a 753 engine and a PX-308K1 generator.

M753w Northern Lights marine diesel generator set with a 753 engine and a PX-308K2 generator.

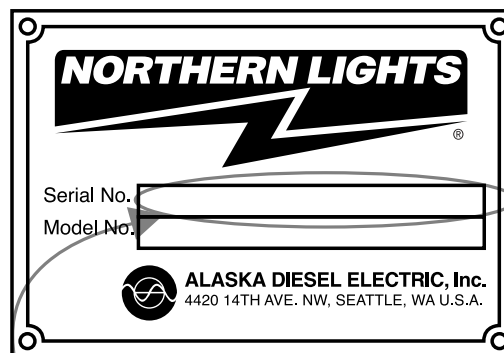
NL753k Northern Lights industrial diesel generator set with a 753 engine and a PX-308K1 generator.

NL753w Northern Lights industrial diesel generator set with a 753 engine and a PX-308K2 generator.

Serial Numbers

NORTHERN LIGHTS

Your set has three serial numbers: ① an engine number stamped on the block, ② a generator plate, and ③ a generator set plate. Use the serial number on the generator set plate when ordering parts or in correspondence. The generator set plate is found on the service side of the generator and resembles the drawing below.



*Generator Set Serial Number
for units with PXX generators*

Reading a Parts Page

IMPORTANT:

Before selecting parts, be sure that you are choosing parts from the correct page.
 Check the model designation at the page top.
Do not use this illustration for parts purchasing.

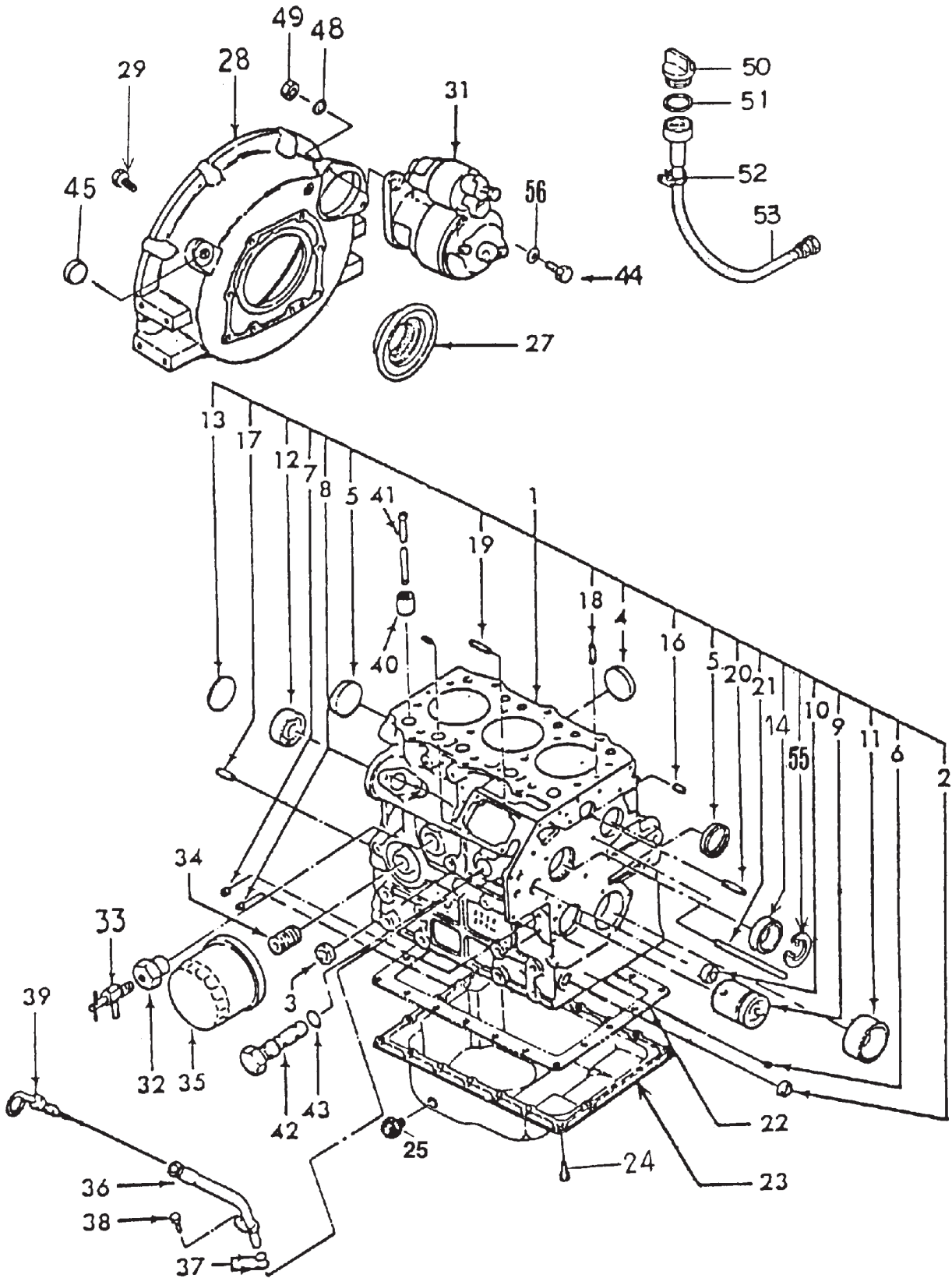
| KEY | PART NUMBER | QTY. | DESCRIPTION | SERIALNUMBER |
|-----|-------------|------|---------------------|--------------|
| 0 | 185046210 | 1 | Alternator Assembly | - |
| 1 | 185446219 | 1 | Flywheel, complete | - |
| 2 | 185446217 | 1 | Plate, complete | - |
| 3 | 185716200 | 1 | Plate | - |
| 4 | 185446218 | 1 | Stator, complete | - |
| 5 | 040126210 | 2 | Bearing | - |
| 6 | 020210010 | 1 | Nut | - |
| 7 | 027100010 | 1 | Spring washer | - |
| 8 | 026100010 | 1 | Washer | - |
| 9 | 185446220 | 1 | Clamp | - |
| 10 | 015140408 | 1 | Screw | - |
| 11 | 015140425 | 2 | Screw | - |
| 12 | 199236510 | 1 | Collar | - |

REFERENCES:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Grouping section title. 2. Model designation of equipment that uses parts listed on this page. 3. Title and description of assembly. 4. Drawing numbers that correspond to key column numbers for parts identification. 5. Key column for locating parts shown on drawing. 6. Part number. | <ol style="list-style-type: none"> 7. Quantity of parts used. 8. Description of each component part. 9. Serial number of unit the part fits. 10. Assembly or kit designated by Key 0 or ••/•. 11. Grouping index number. 12. Page number within the grouping index. 13. Manual title. 14. Page publication date. |
|--|--|

NOTE: ⇨ Arrows always point toward the front of the engine.

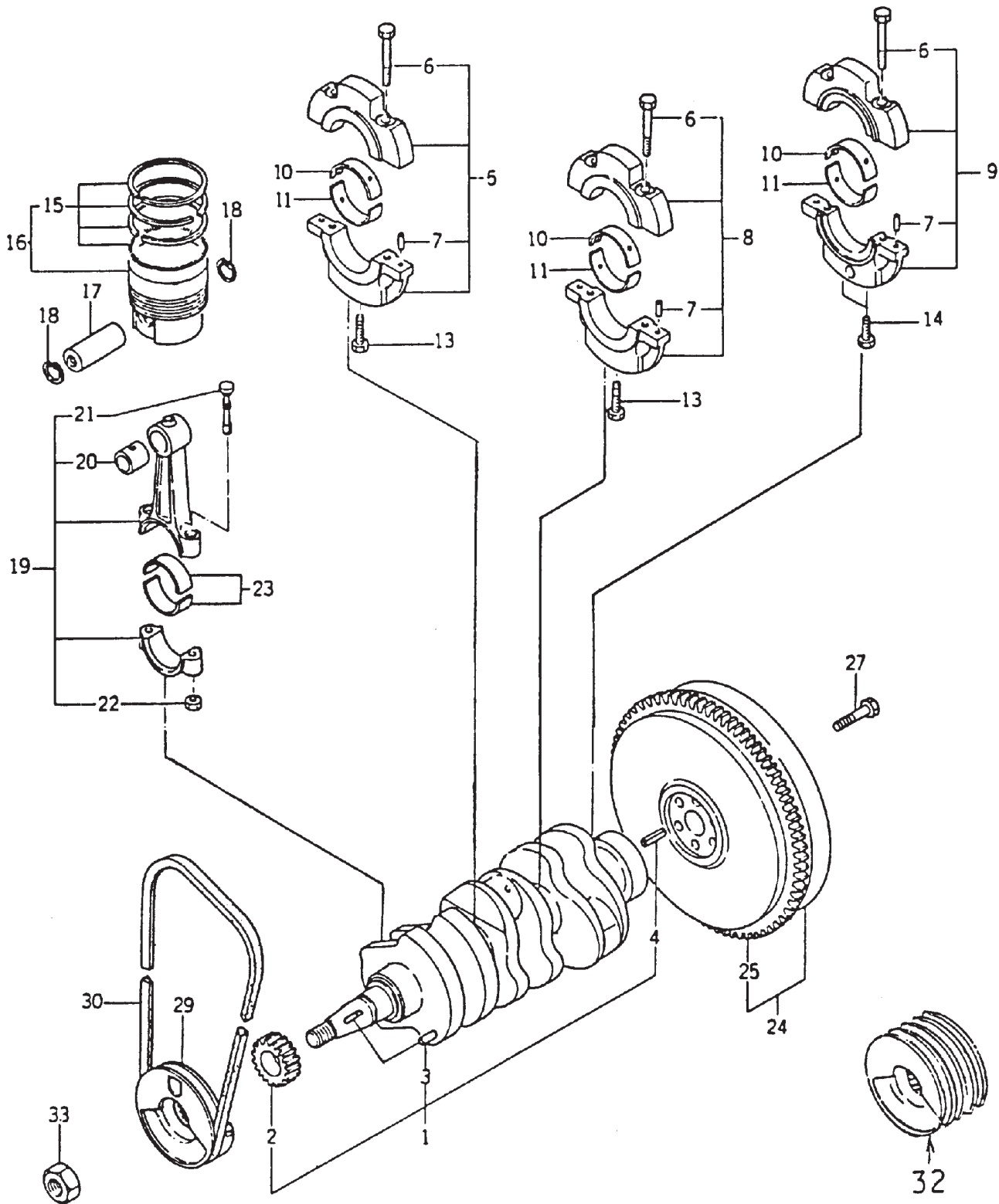
Cylinder Block



Cylinder Block

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 110107451 | 1 | Cylinder Block Assembly (Blue - Industrial) | - |
| | 110107461 | 1 | Cylinder Block Assembly (White - Marine) | - |
| 2 | 064200015 | 1 | Core Plug 15 mm | - |
| 3 | 064200025 | 1 | Core Plug 25 mm | - |
| 4 | 064200035 | 2 | Core Plug 35 mm | - |
| 5 | 064200040 | 2 | Core Plug 40 mm | - |
| 6 | 198466050 | 1 | Plug | - |
| 7 | 198466030 | 4 | Plug | - |
| 8 | 198466010 | 4 | Plug | - |
| 9 | 165296141 | 1 | Idler Gear Shaft Assembly | - |
| 10 | 198466060 | 1 | Blank Plug | - |
| 11 | 198517080 | 1 | Standard Bushing | - |
| | 198517084 | 1 | Bushing, Undersize 0.25 mm | - |
| | 198517087 | 1 | Bushing, Undersize 0.50 mm | - |
| 12 | 040106203 | 1 | Bearing | - |
| 13 | 064100045 | 1 | Expansion Plug | - |
| 14 | 042303015 | 1 | Bearing | - |
| 15 | 030500410 | 2 | Pin | - |
| 16 | 030500616 | 2 | Pin | - |
| 17 | 030501025 | 2 | Dowel Pin | - |
| 18 | 030309005 | 2 | Spring Pin | - |
| 19 | 012110620 | 2 | Stud Bolt | - |
| 20 | 012100635 | 1 | Stud Bolt | - |
| 21 | 012100660 | 1 | Stud Bolt | - |
| 22 | 110996491 | 1 | Gasket | - |
| 23 | 110707820 | 1 | Oil Pan (Blue - Industrial) | - |
| | 110707480 | 1 | Oil Pan (White - Marine) | - |
| 24 | 010109235 | 20 | Bolt with Washer, M6 x 1.0 x 14 mm | - |
| 25 | 010401212 | 2 | Plug, Hex Head M12 x 1.25 | - |
| 27 | 198636130 | 1 | Oil Seal Assembly (Oil Seal plus Sleeve) | - |
| | 198636080 | 1 | Oil Seal (Sleeveless) | - |
| 28 | 110446363 | 1 | Flywheel Housing (Blue - Industrial) | - |
| | 110446421 | 1 | Flywheel Housing (White - Marine) | - |
| 29 | 010111020 | 8 | Bolt | - |
| 31 | | 1 | Starting Motor (see Electrical Section) | - |
| 32 | 198486770 | 1 | Bushing (Marine) | - |
| 33 | 198736051 | 1 | Drain Cock (Marine) | - |
| | 198736120 | 1 | Drain Cock (Industrial, no longer available - use Marine type and #32) | - |
| 34 | 140546020 | 1 | Adapter | - |
| 35 | 24-02001 | 1 | Oil Filter | - |
| 36 | 110756070 | 1 | Dipstick Tube | - |
| 37 | 052100100 | 2 | O-Ring | - |
| 38 | 011150612 | 1 | Bolt | - |
| 39 | 198416270 | 1 | Dipstick | - |
| 40 | 120116100 | 6 | Tappet | - |
| 41 | 120456201 | 6 | Pushrod | - |
| 42 | 140036220 | 1 | Relief Valve Assembly (formerly #140036120) | - |
| 43 | 052100150 | 1 | O-Ring | - |
| 44 | 010101045 | 2 | Bolt | - |
| 45 | 398460091 | 1 | Plug | - |
| 46 | 064115200 | 1 | Tube | - |
| 47 | 195816100 | 1 | Lifting Eye (Industrial) | - |
| 48 | 027100010 | 2 | Spring Washer | - |
| 49 | 020110010 | 2 | Nut | - |
| 50 | 398430560 | 1 | Cap | - |
| 51 | 052100280 | 1 | O-Ring (formerly # 054109013) | - |
| 52 | 198756200 | 1 | Hose Clamp | - |
| 53 | 140606710 | 1 | Oil Drain Hose | - |
| 55 | 036509005 | 1 | Snap Ring | - |
| 56 | 026100010 | 2 | Washer | - |
| 57 | 025100012 | 2 | Sealing Washer | - |

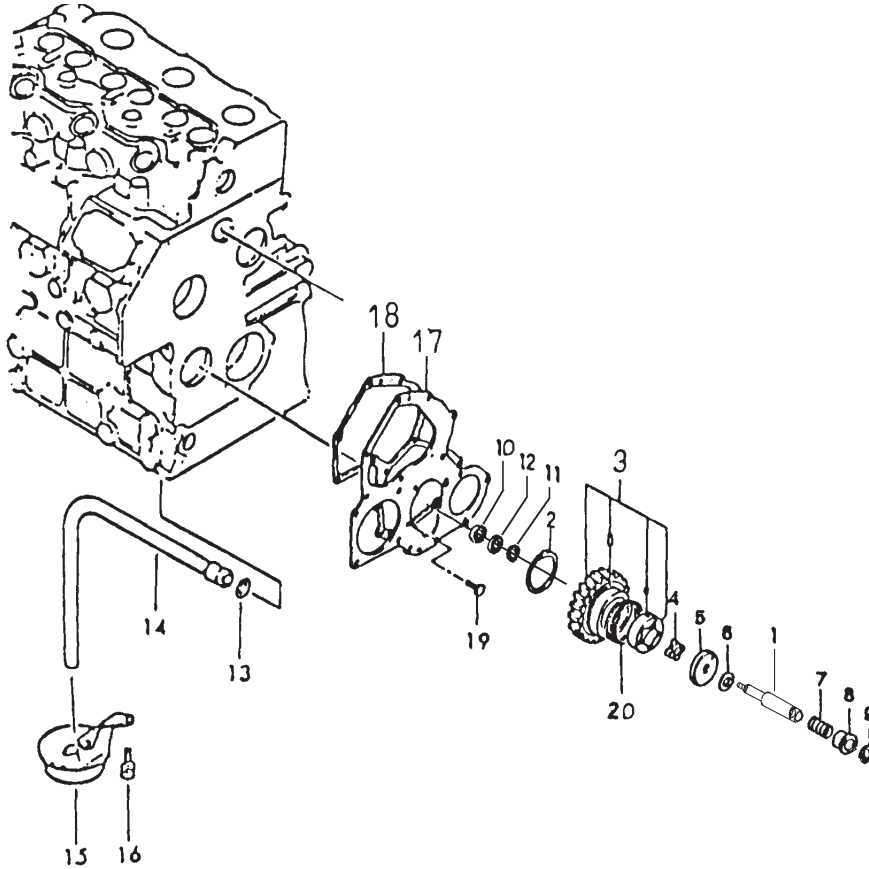
Camshaft and Pistons



Camshaft and Pistons

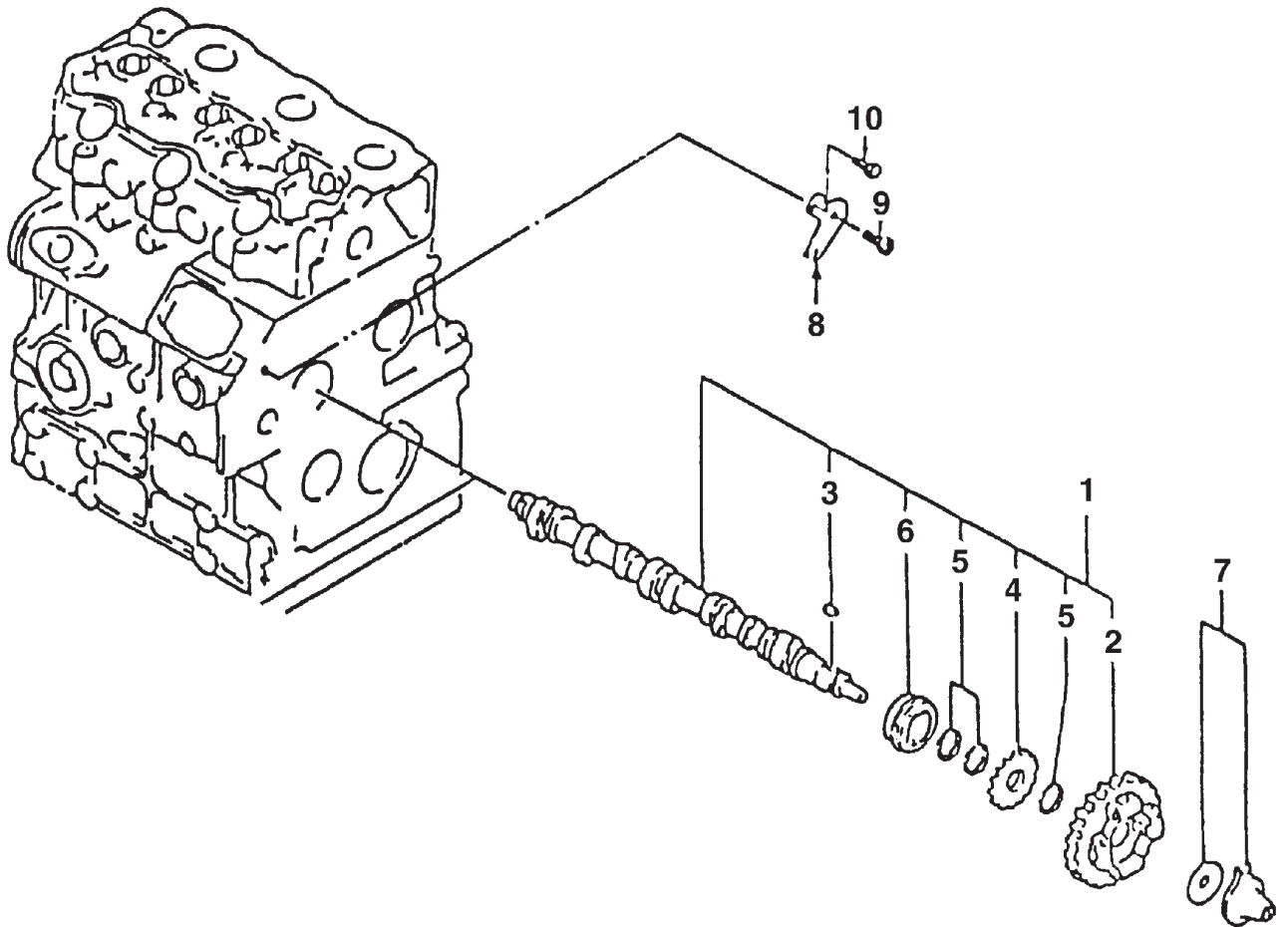
| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 115256600 | 1 | Crankshaft (includes keys #2 - #4) | - |
| 2 | 115276180 | 1 | Gear | - |
| 3 | 034100508 | 1 | Key (for Pulley #29 or #32 only) | - |
| | 030509020 | 1 | Dowel Pin (for Gear #2 only) | - |
| 4 | 030300816 | 1 | Spring Pin | - |
| 5 | 110156111 | 1 | Bearing Holder Assembly | - |
| 6 | 010810840 | 6 | Bolt | - |
| 7 | 030500612 | 6 | Dowel | - |
| 8 | 110156121 | 1 | Bearing Holder Assembly | - |
| 9 | 110156131 | 1 | Bearing Holder Assembly | - |
| | 110156330 | 1 | Bearing Holder with Integral Thrust Washers | - |
| 10 | 198517101 | 3 | Bearing, Standard | - |
| | 198517105 | 3 | Bearing, Undersize 0.25 mm | - |
| | 198517108 | 3 | Bearing, Undersize 0.50 mm | - |
| 11 | 198517110 | 3 | Bearing, Standard | - |
| | 198517114 | 3 | Bearing, Undersize 0.25 mm | - |
| | 198517117 | 3 | Bearing, Undersize 0.50 mm | - |
| 13 | 011310850 | 2 | Bolt | - |
| 14 | 010700845 | 1 | Bolt | - |
| 15 | 115107201 | 3 | Standard Ring Set | - |
| | 115107204 | 3 | Ring Set, Oversize 0.50 mm | - |
| | 115107206 | 3 | Ring Set, Oversize 1.0 mm | - |
| 16 | 115017140 | 3 | Piston Assembly, Standard | - |
| | 115017150 | 3 | Piston Assembly, Oversize 0.50 mm | - |
| | 115017160 | 3 | Piston Assembly, Oversize 1.0 mm | - |
| 17 | 115326231 | 3 | Piston Pin | - |
| 18 | 036500021 | 6 | Snap Ring | - |
| 19 | 115026191 | 3 | Rod Assembly | - |
| 20 | 198517125 | 3 | Bushing | - |
| 21 | 115176150 | 6 | Bolt | - |
| 22 | 020109075 | 6 | Nut | - |
| 23 | 198517130 | 6 | Rod Bearing, Std. | - |
| | 198517134 | 6 | Rod Bearing, Undersize 0.25 mm | - |
| | 198517137 | 6 | Rod Bearing, Undersize 0.50 mm | - |
| 24 | 115356720 | 1 | Flywheel Assembly SAE #6 1/2 (includes key #25) | - |
| 25 | 115376130 | 1 | Ring Gear (96 Teeth) | - |
| 27 | 010109340 | 6 | Bolt | - |
| 29 | 115396552 | 1 | Pulley (Blue) | - |
| | 115396650 | 1 | Pulley (White) | - |
| 30 | 40-08201 | 1 | V-Belt | - |
| 32 | 115396541 | 1 | Pulley (4 Groove, White) | - |
| 33 | 020800018 | 1 | Nut | - |

Oil Pump and Strainer



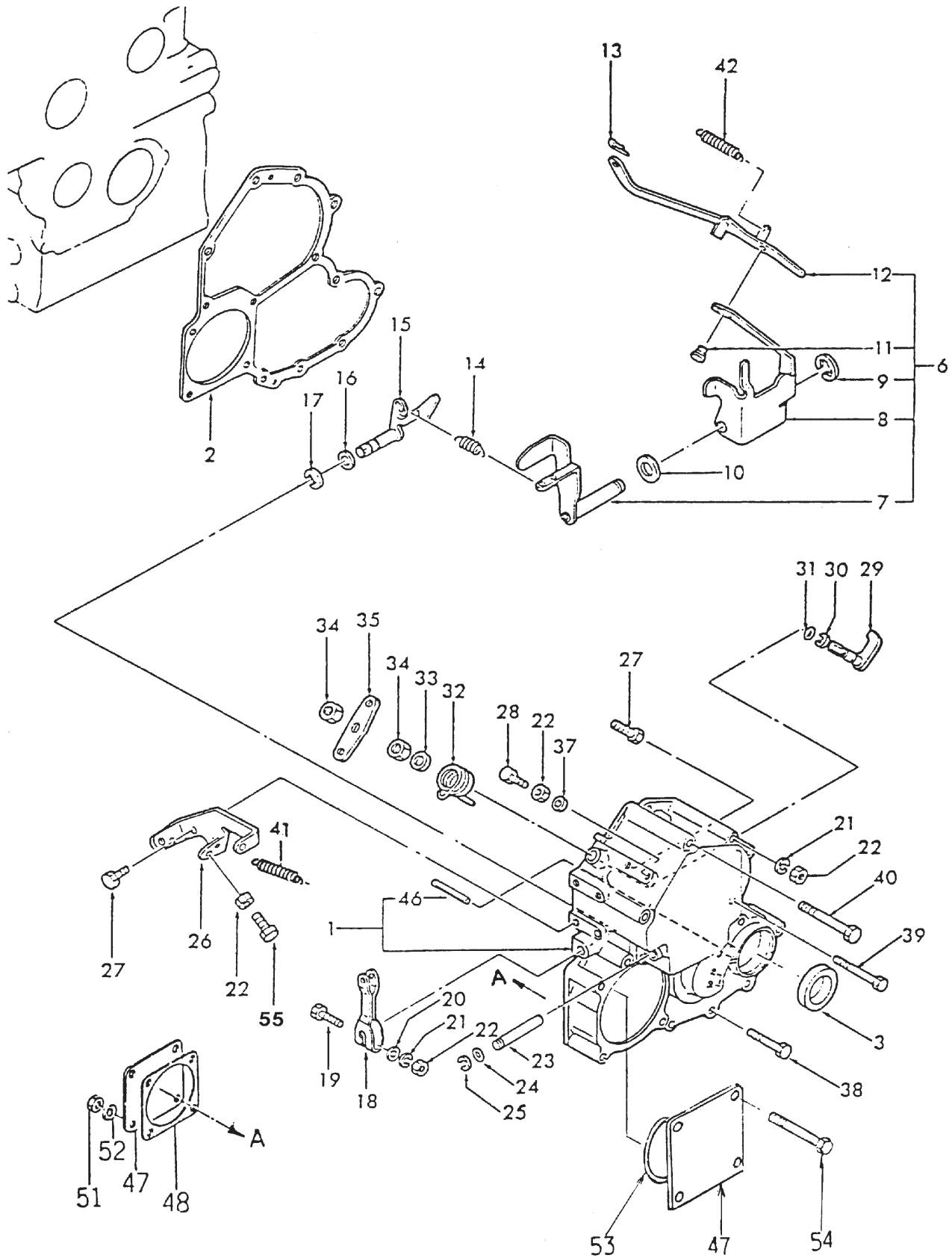
| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---------------------------|---------------|
| 1 | 140196061 | 1 | Shaft | - |
| 2 | 199266180 | 1 | Thrust Washer | - |
| 3 | 165026100 | 1 | Gear Assembly | - |
| 4 | 140166130 | 1 | Rotor | - |
| 5 | 140116140 | 1 | Cover | - |
| 6 | 199286150 | ** | Shim, t = 0.10 mm | - |
| | 199286160 | ** | Shim, t = 0.15 mm | - |
| | 199286170 | ** | Shim, t = 1.20 mm | - |
| | 199286180 | ** | Shim, t = 0.50 mm | - |
| 7 | 198216720 | 1 | Spring | - |
| 8 | 199236540 | 1 | Collar | - |
| 9 | 036800010 | 1 | Snap Ring | - |
| 10 | 020100008 | 1 | Nut | - |
| 11 | 026100008 | 1 | Washer | - |
| 12 | 027100008 | 1 | Spring Washer | - |
| 13 | 052109076 | 1 | O-Ring | - |
| 14 | 140986480 | 1 | Oil Pipe | - |
| 15 | 140406270 | 1 | Filter Assembly | - |
| 16 | 011310612 | 2 | Bolt | - |
| 17 | 165166191 | 1 | Plate (Blue - Industrial) | - |
| | 165166240 | 1 | Plate (White - Marine) | - |
| 18 | 165996300 | 1 | Gasket | - |
| 19 | 011140612 | 3 | Bolt | - |
| 20 | 198216821 | 1 | Spring | - |
| | | | **As required. | |

Camshaft



| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 120026081 | 1 | Camshaft Assembly (includes keys #3 - #6 & #19) | - |
| 2 | 120016021 | 1 | Cam Gear & Flyweight Assembly | - |
| 3 | 034100508 | 1 | Key | - |
| 4 | 120736081 | 1 | Gear | - |
| 5 | 199216230 | 3 | Spacer | - |
| 6 | 040109059 | 1 | Bearing | - |
| 7 | 125256120 | 1 | Slider Assembly | - |
| 8 | 199566651 | 1 | Plate | - |
| 9 | 011310612 | 1 | Bolt | - |
| 10 | 010700610 | 1 | Bolt | - |

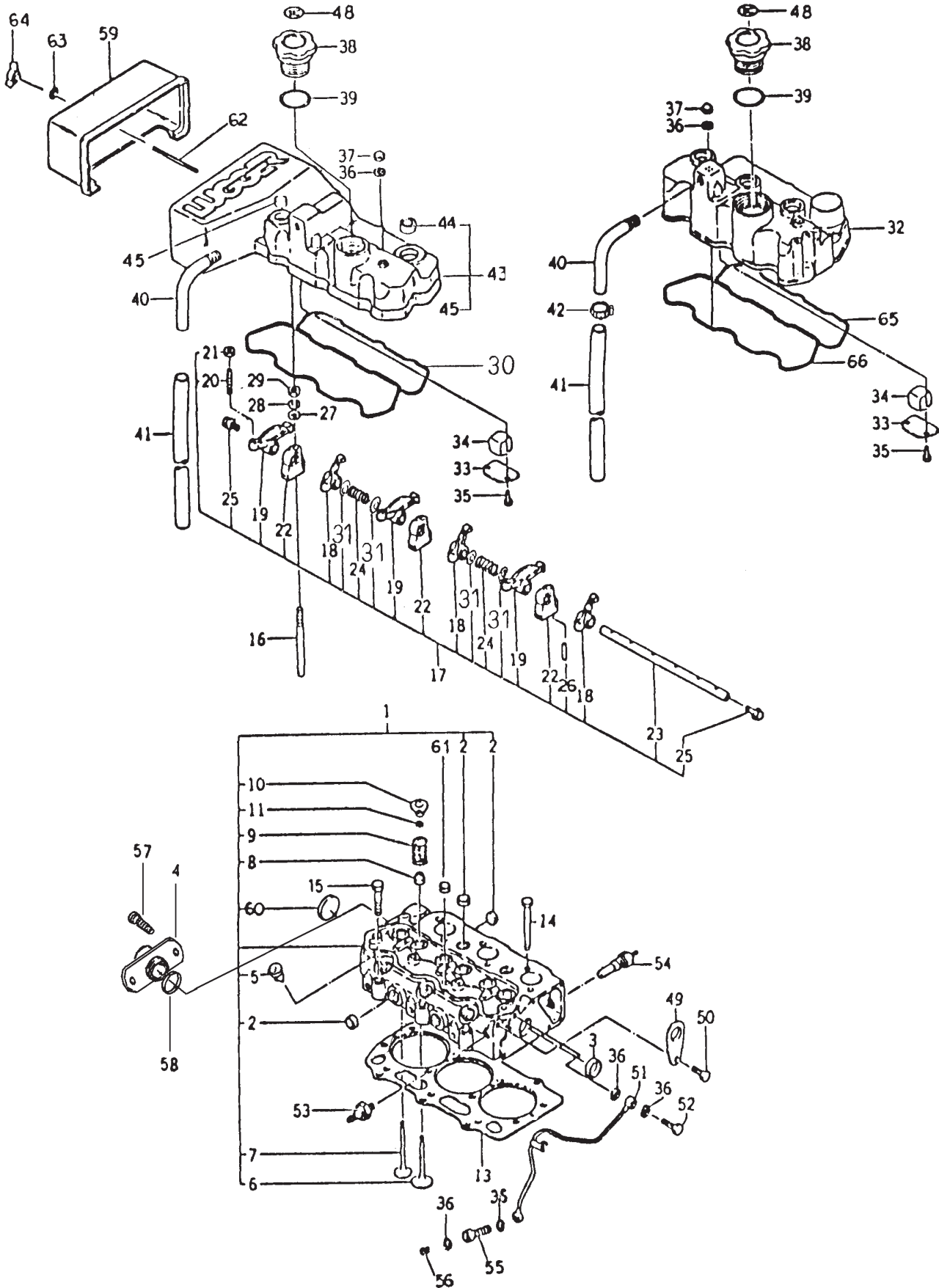
Timing Gear Case



Timing Gear Case

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 165106071 | 1 | Timing Gear Case (Blue - Industrial, includes key #46) | - |
| | 165106111 | 1 | Timing Gear Case (White - Marine, includes key #46) | - |
| 2 | 165996310 | 1 | Gasket | - |
| 3 | 198636140 | 1 | Oil Seal Assembly (Oil Seal and Sleeve) | - |
| | 198636090 | 1 | Oil Seal (Sleeveless) | - |
| 6 | 125046260 | 1 | Lever Assembly (includes keys #7 - #9, #11, #12) | - |
| 7 | 125406071 | 1 | Lever | - |
| 8 | 125416081 | 1 | Lever | - |
| 9 | 036800008 | 1 | Snap Ring | - |
| 10 | 026200010 | 1 | Washer | - |
| 11 | 199616170 | 1 | Pin | - |
| 12 | 125366040 | 1 | Link | - |
| 13 | 031110004 | 1 | Pin | - |
| 14 | 198217350 | 1 | Spring | - |
| 15 | 125156170 | 1 | Arm | - |
| 16 | 052100070 | 1 | O-ring | - |
| 17 | 036800008 | 1 | Snap Ring | - |
| 18 | 125416020 | 1 | Lever | - |
| 19 | 010100630 | 1 | Bolt | - |
| 20 | 026100006 | 1 | Washer | - |
| 21 | 027100006 | 2 | Spring Washer | - |
| 22 | 020100006 | 4 | Nut | - |
| 23 | 125116131 | 1 | Shaft (formerly #125116130, single O-ring) | - |
| 24 | 052100030 | ** | O-ring | - |
| 25 | 036800005 | 1 | Snap Ring | - |
| 26 | 125976120 | 1 | Bracket | - |
| 27 | 011140614 | 2 | Bolt | - |
| 28 | 010109264 | 1 | Bolt | - |
| 29 | 125156180 | 1 | Arm Assembly | - |
| 30 | 036800006 | 1 | Snap Ring | - |
| 31 | 052100050 | 1 | O-ring | - |
| 32 | 198216760 | 1 | Spring | - |
| 33 | 026100008 | 1 | Washer | - |
| 34 | 020700008 | 2 | Nut | - |
| 35 | 125176180 | 1 | Lever (formerly #s 125176071 & 125176080) | - |
| 37 | 025100006 | 1 | Sealing Washer | - |
| 38 | 011300640 | 5 | Bolt | - |
| 39 | 011300660 | 4 | Bolt | - |
| 40 | 011300680 | 2 | Bolt | - |
| 41 | 398210070 | 1 | Spring | - |
| 42 | 198216731 | 1 | Spring | - |
| 46 | 030300414 | 1 | Pin | - |
| 47 | 165206150 | 2 | Cover (Blue - Industrial) | - |
| | 165206320 | 1 | Cover (White - Marine) | - |
| 48 | 11-12005 | 1 | Gasket | - |
| 51 | 020100008 | 4 | Nut | - |
| 52 | 027100008 | 4 | Spring Washer | - |
| 53 | 052300700 | 1 | O-ring | - |
| 54 | 010100865 | 4 | Bolt | - |
| 55 | 012800640 | 1 | Setting Bolt | - |
| | | | **As required | |

Cylinder Head



Cylinder Head

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 111017070 | 1 | Cylinder Head Assembly, White (Marine) | - |
| | 111016622 | 1 | Cylinder Head Assembly, Blue (Industrial) | - |
| 2 | 064200018 | 6 | Plug | - |
| 3 | 064200025 | 1 | Plug | - |
| 4 | 185706320 | 1 | Holder | - |
| 5 | 111316201 | 3 | Seat | - |
| 6 | 120166240 | 3 | Intake Valve | - |
| 7 | 120176250 | 3 | Exhaust Valve | - |
| 8 | 120406050 | 3 | Valve Guide Seal - Exhaust | - |
| | 120406070 | 3 | Valve Guide Seal - Intake | - |
| 9 | 198216700 | 6 | Spring | - |
| 10 | 120186080 | 6 | Retainer | - |
| 11 | 120226070 | 12 | Retainer | - |
| 12 | 120216040 | 6 | Cap | - |
| 13 | 111146882 | 1 | Head Gasket t = 1.1 mm | - |
| | 111146892 | 1 | Head Gasket t = 1.2 mm | - |
| | 111146901 | 1 | Head Gasket t = 1.3 mm | - |
| 14 | 111136440 | 11 | Head Bolt (12 mm Hex) | - |
| 15 | 111136450 | 3 | Head Bolt (12 mm Hex) | - |
| 16 | 012109177 | 3 | Stud | - |
| 17 | 120036690 | 1 | Rocker Shaft Assembly | - |
| 18 | 120356200 | 3 | Intake Rocker Arm | - |
| 19 | 120356210 | 3 | Exhaust Rocker Arm | - |
| 20 | 199486220 | 6 | Screw | - |
| 21 | 020109076 | 6 | Nut | - |
| 22 | 120346170 | 3 | Bracket | - |
| 23 | 120316120 | 1 | Shaft | - |
| 24 | 198216780 | 2 | Spring | - |
| 25 | 064609006 | 2 | Plug | - |
| 26 | 030300325 | 1 | Pin | - |
| 27 | 026100008 | 3 | Washer | - |
| 28 | 027100008 | 3 | Spring Washer | - |
| 29 | 020500008 | 3 | Nut | - |
| 30 | 111996290 | 1 | Gasket (Marine) | - |
| 31 | 199280280 | 4 | Shim | - |
| 33 | 110666050 | 1 | Cover | - |
| 34 | 110666090 | 1 | Filter | - |
| 35 | 011150612 | 2 | Bolt | - |
| 36 | 140996260 | 7 | Sealing Washer | - |
| 37 | 024500008 | 3 | Nut | - |
| 38 | 198436010 | 1 | Cap | - |
| 39 | 052100400 | 1 | O-Ring | - |
| 40 | 110986500 | 1 | Pipe | - |
| 41 | 068122560 | 1 | Tube | - |
| 42 | 198346090 | 1 | Clip | - |
| 43 | 111026131 | 1 | Rocker Arm Cover (Industrial) | - |
| | 111206250 | 1 | Rocker Arm Cover/Intake Manifold (Marine) | - |
| 44 | 064200030 | 1 | Plug (Marine Only) | - |
| 45 | 064200020 | 1 | Plug (Marine Only) | - |
| 48 | 190196630 | 1 | Caution Plate | - |
| | | | (Continued Next Page) | |

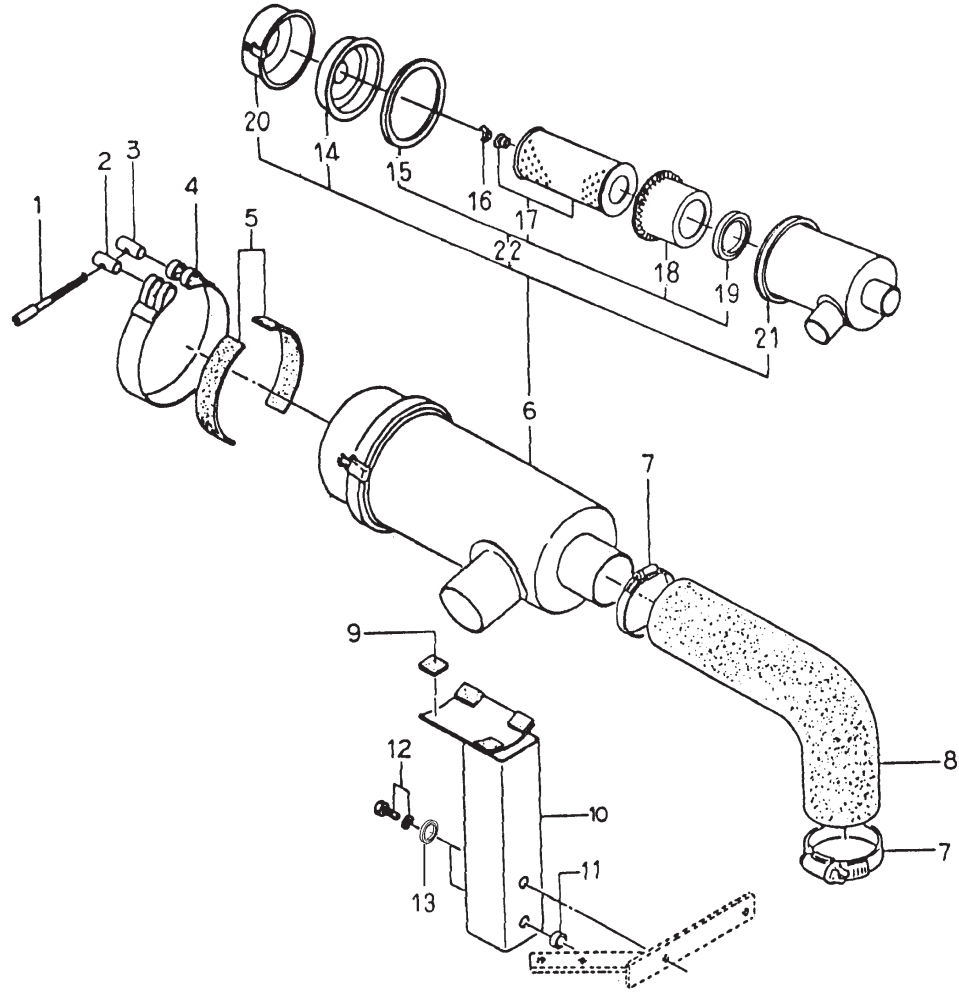
GROUP 1 – ENGINE

Cylinder Head

(Continued from previous page)

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 49 | 195816030 | 2 | Hanger (Blue) | - |
| | 195816340 | 2 | Hanger (White) | - |
| 50 | 011310816 | 2 | Bolt | - |
| 51 | 140606670 | 1 | Tube Assembly | - |
| 52 | 198486780 | 1 | Bolt | - |
| 53 | 185246011 | 1 | Oil Pressure Switch | - |
| 54 | 385720030 | 1 | Temperature Switch 110°C (Industrial) | - |
| | 385720110 | 1 | Temperature Switch 95°C (Marine) | - |
| 55 | 198487590 | 1 | Banjo Bolt with 1/8 NPT Female Thread | - |
| 56 | 064500010 | 1 | Plug | - |
| 57 | 011300814 | 2 | Bolt | - |
| 58 | 052300300 | 1 | O-Ring | - |
| 59 | 165366110 | 1 | Cover | - |
| 60 | 064200030 | 2 | Plug | - |
| 61 | 064200015 | 2 | Plug | - |
| 62 | 012109206 | 1 | Stud, 1/4-20 x 1/4-20 x 6-1/2 (6-7/8" LOA) | - |
| 63 | 026100006 | 1 | Flat Washer 1/4 | - |
| 64 | 024109002 | 1 | Wing Nut 1/4-20 Nylock | - |
| 65 | 111996271 | 1 | Gasket - Industrial | - |
| 66 | 052109061 | 1 | O-Ring - Industrial | - |

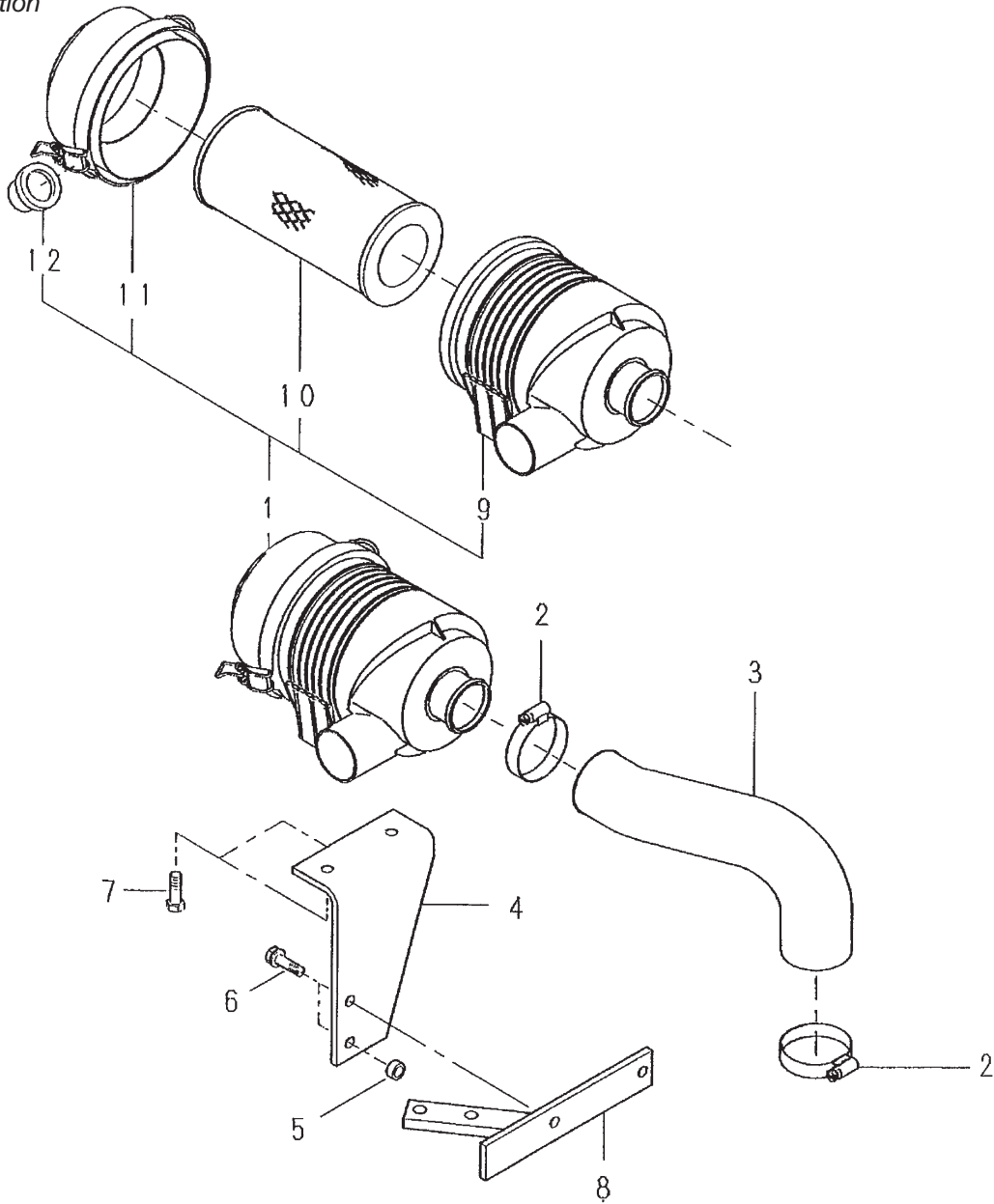
Intake Air Filter: Industrial Application



| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 399480070 | 1 | Screw | - |
| 2 | 399610100 | 1 | Pin | - |
| 3 | 399610110 | 1 | Pin | - |
| 4 | 314630030 | 1 | Hose Clamp | - |
| 5 | 398113190 | 2 | Rubber | - |
| 6 | 314500361 | 1 | Air Cleaner Assembly (includes keys #14 - #19) | - |
| 7 | 198756130 | 2 | Hose Clamp | - |
| 8 | 135597240 | 1 | Hose | - |
| 9 | 398113270 | 4 | Rubber | - |
| 10 | 135976470 | 1 | Holder | - |
| 11 | 199236730 | 1 | Collar | - |
| 12 | 011310825 | 2 | Bolt | - |
| 13 | 026109066 | 2 | Washer | - |
| 14 | 314531051 | 1 | End Cover | - |
| 15 | 314531052 | 1 | Gasket | - |
| 16 | 024100008 | 1 | Wing Nut | - |
| 17 | 314531124 | 1 | Element Assembly | - |
| 18 | 314531055 | 1 | Cyclone | - |
| 19 | 314531056 | 1 | Gasket | - |
| 20 | 314531067 | 1 | Case Sub-assembly | - |
| 21 | 314531053 | 1 | Case | - |
| 22 | 314531123 | 1 | Element Kit (includes keys #15, #17, #18, & #19) | - |

Intake Air Filter: Industrial Application

Late Production

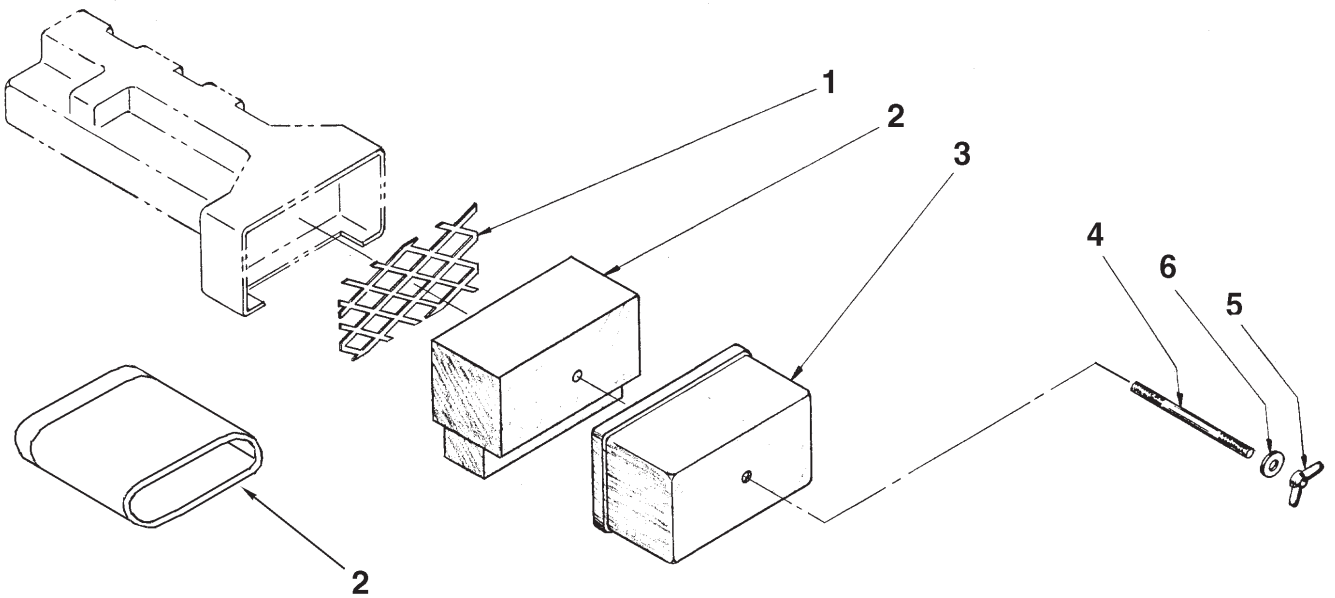


753airfilter

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 135016310 | 1 | Air Cleaner Assembly (Includes keys 9 ~ 12) | - |
| 2 | 198756130 | 2 | Hose Band | - |
| 3 | 135597690 | 1 | Hose | - |
| 4 | 135976610 | 1 | Stay | - |
| 5 | 199236730 | 1 | Collar | - |
| 6 | 011510825 | 2 | Bolt | - |
| 7 | 011510820 | 2 | Bolt | - |
| 8 | 131976050 | 1 | Filter Stay | - |
| 9 | 135326200 | 1 | Housing | - |
| 10 | 24-27301 | 1 | Element | - |
| 11 | 135326201 | 1 | Cover Assembly | - |
| 12 | 135326196 | 1 | Valve | - |

Intake and Air Filter

Marine Application

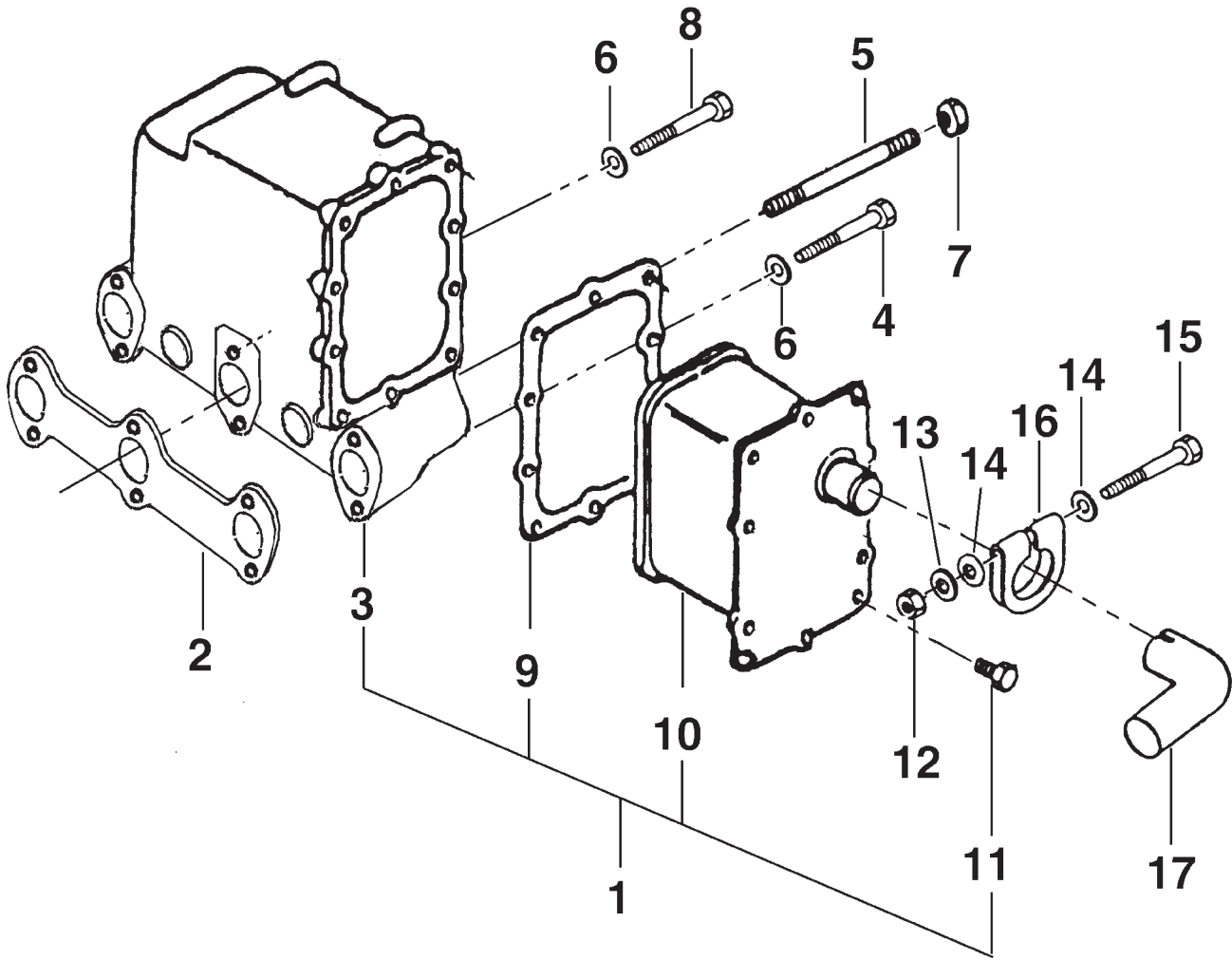


A-1461/ B-2297B

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| •• | 24-22005 | 1 | Air Filter Assembly (includes keys #1 - #2) | |
| 1 | 24-22002 | 1 | Screen (L-M Marine Application) | - |
| 2 | 24-22003 | 1 | Air Filter Element (Foam Type) | - |
| | 24-22001 | 1 | Air Filter Element (Paper Type - Alternate) | - |
| 3 | 165366110 | 1 | Intake Cover | - |
| 4 | 012109206 | 1 | Stud 1/4 - 20 x 6-1/2 (6-7/8" LOA) | - |
| 5 | 14-22000 | 1 | Wing Nut, Nylock 1/4 - 20 | - |
| 6 | 15-00111 | 1 | Flat Washer 1/4" USS | - |

Muffler Assembly

Industrial Application

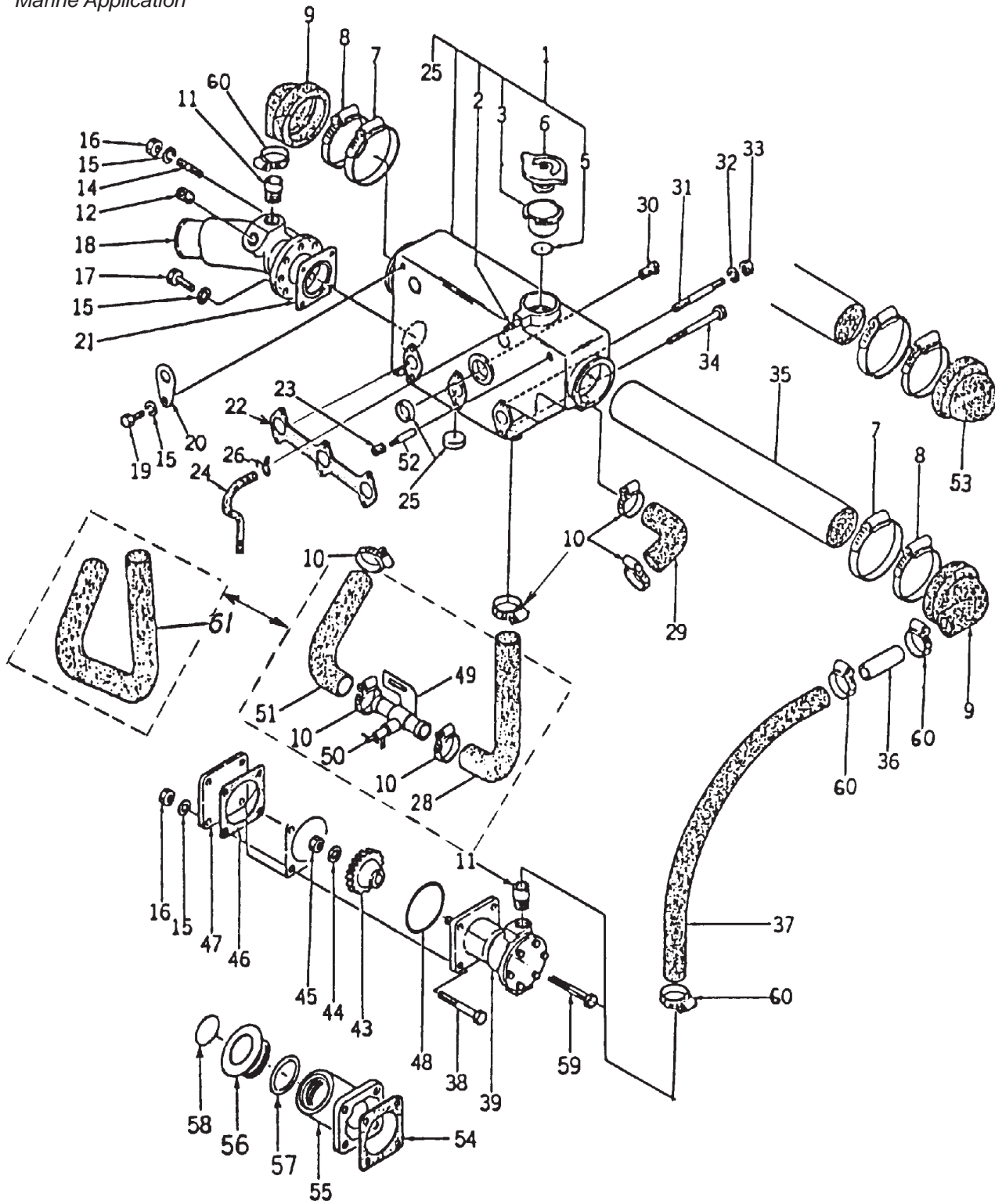


| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 135046212 | 1 | Muffler Assembly (includes keys #3, #9, #10 & #11, formerly #135046211) | - |
| 2 | 135996541 | 1 | Exhaust Gasket, Stainless Steel | - |
| 3 | 135616831 | 1 | Exhaust Manifold | - |
| 4 | 010109381 | 3 | Bolt | - |
| 5 | 012109215 | 2 | Stud M6 x 1.0 x 70 mm (78 mm LOA) | - |
| 6 | 027100006 | 4 | Spring Washer | - |
| 7 | 023100006 | 2 | Nut | - |
| 8 | 12-01125 | 1 | Capscrew, Hex Head M6 x 1.0 x 65 mm | - |
| 9 | 135996530 | 1 | Gasket | - |
| 10 | 135406170 | 1 | Muffler Element | - |
| 11 | 011300612 | 10 | Bolt | - |
| 12 | 020100008 | 1 | Nut | - |
| 13 | 027100008 | 1 | Spring Washer | - |
| 14 | 026100008 | 2 | Washer | - |
| 15 | 010110860 | 1 | Bolt | - |
| 16 | 408330011 | 1 | Clamp | - |
| 17 | 135606150 | 1 | Exhaust Elbow | - |
| | 27-38200 | 1 | Exhaust Elbow 1-1/4 NPT | - |

Notes

Exhaust Manifold & Heat Exchanger with Raw Water Pump

Marine Application

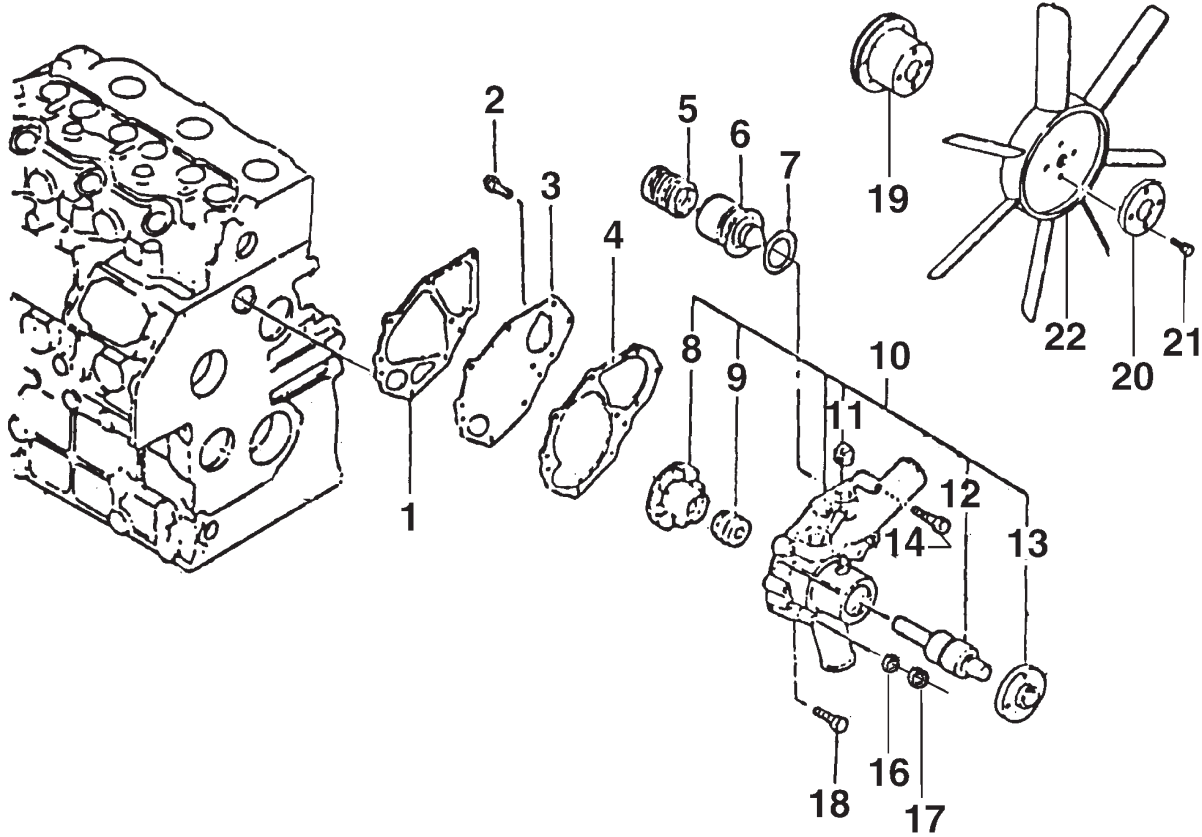


| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|----------------------------------|---------------|
| 1 | 135606130 | 1 | Exhaust Manifold/ Expansion Tank | - |
| 2 | 198480100 | 1 | Connector | - |
| 3 | 145546220 | 1 | Filter Neck | - |
| 5 | 052400300 | 1 | O-ring | - |

Exhaust Manifold & Heat Exchanger with Raw Water Pump*Marine Application*

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|-------------------|
| 6 | 310110040 | 1 | Filler Cap (Standard with Coolant Recovery) | - |
| 7 | 19-00048 | 2 | Hose Clamp #48 | - |
| 8 | 19-00040 | 2 | Hose Clamp #40 | - |
| 9 | 145536370 | 2 | Joint | - |
| 10 | 198756150 | 6 | Hose Clamp | - |
| 11 | 145986150 | 1 | Connector | - |
| 12 | 198436140 | 1 | Plug | - |
| 14 | 012100825 | 2 | Stud Bolt | - |
| 15 | 027100008 | 9 | Spring Washer | - |
| 16 | 020100008 | 6 | Nut | - |
| 17 | 011300825 | 2 | Bolt | - |
| 18 | 135616234 | 1 | Wet Exhaust Elbow (can use #27-32004) | - |
| 19 | 011310816 | 1 | Bolt | - |
| 20 | 195816340 | 1 | Hanger (White - Marine) | - |
| 21 | 314990030 | 1 | Gasket (can use #11-31902) | - |
| 22 | 135996541 | 1 | Gasket, Stainless Steel | - |
| 23 | 198436200 | 1 | Plug | - |
| 24 | 068115500 | 1 | Tube | - |
| 25 | 064200030 | 2 | Plug | - |
| 26 | 198343130 | 1 | Clip | - |
| 28 | 145536400 | 1 | Hose | - |
| 29 | 145536340 | 1 | Hose | - |
| 30 | 198436170 | 1 | Plug | - |
| 31 | 012110690 | 3 | Stud Bolt | - |
| 32 | 027100006 | 3 | Spring Washer | - |
| 33 | 020100006 | 3 | Nut | - |
| 34 | 010110690 | 3 | Bolt | - |
| 35 | 20-12002 | 1 | Heat Exchanger | - |
| 36 | 145986160 | 1 | Pipe | - |
| 37 | 145536361 | 1 | Hose | - |
| 38 | 010100870 | 3 | Bolt | - |
| 39 | 25-12057 | 1 | Raw Water Pump (see parts detail) | - |
| 43 | 340460141 | 1 | Gear | - |
| 44 | 027100010 | 1 | Washer | - |
| 45 | 020100010 | 1 | Nut | - |
| 46 | 11-12005 | 1 | Gasket (can use #165996110) | - |
| 47 | 165206150 | 2 | Cover (Industrial) | - |
| 48 | 052300700 | 1 | O-Ring | - |
| 49 | 198486912 | 1 | Connector | - |
| 50 | 198736050 | 1 | Drain Cock | - |
| 51 | 145536411 | 1 | Hose | - |
| 52 | 199616190 | ** | Zinc (**As required) | - |
| 53 | 145536390 | 1 | Joint | - |
| 54 | 11-12005 | 1 | Gasket (can use #165996110) | - |
| 55 | 110766200 | 1 | Holder | - |
| 56 | 198436010 | 1 | Cap | - |
| 57 | 052100400 | 1 | O-Ring | - |
| 58 | 190196630 | 1 | Caution Label | - |
| 59 | 010100865 | 1 | Bolt | - |
| 60 | 198756230 | 4 | Hose Clamp | - |
| 61 | 145536350 | 1 | Hose | - |
| 62 | 22-42014 | 1 | Switch, High Exhaust Temperature | up to xxxx-31895C |
| | 22-42070 | 1 | Switch, High Exhaust Temperature | from xxxx-31896C |
| 63 | 22-40482 | 1 | Harness, Exhaust Temperature Switch | from xxxx-31896C |

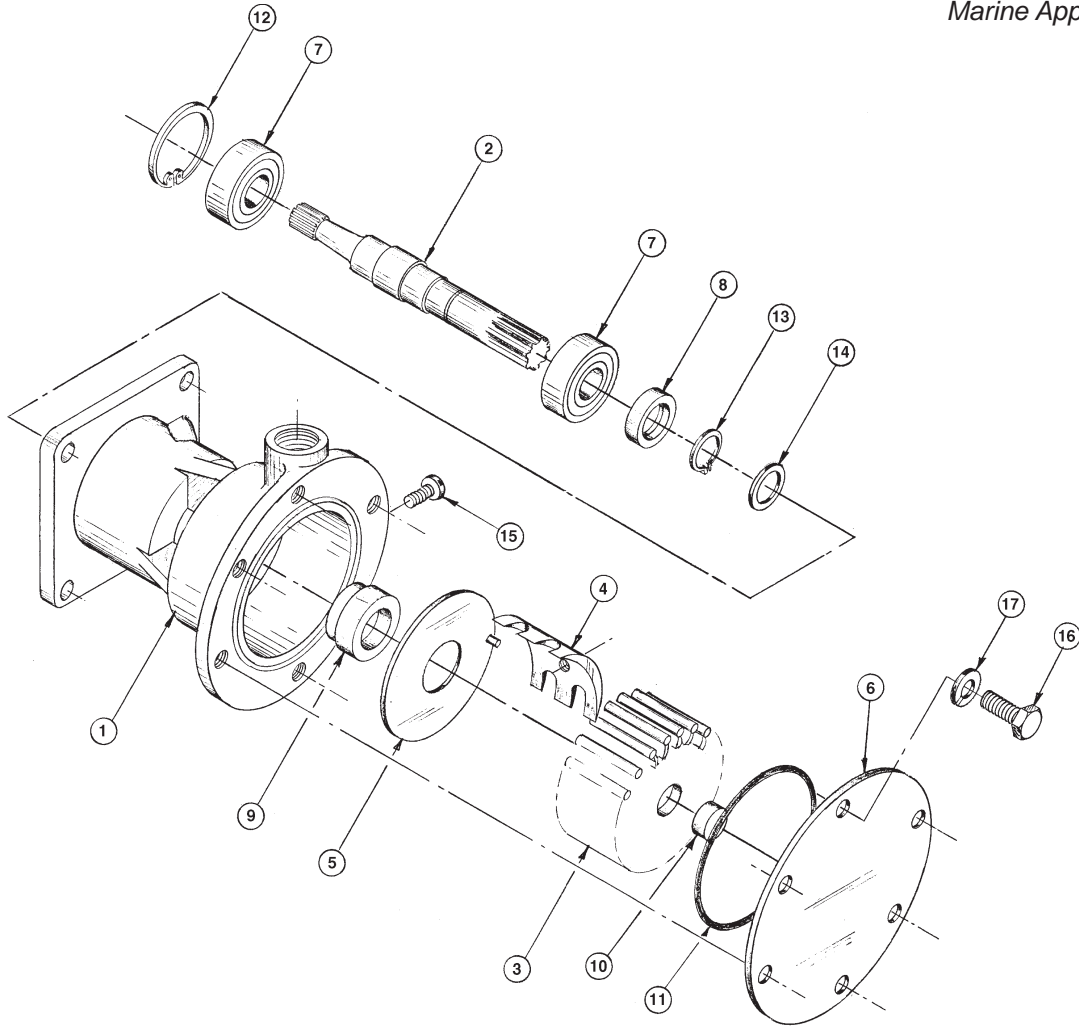
Coolant Pump



| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 145996270 | 1 | Gasket | - |
| 2 | 011140616 | 1 | Bolt | - |
| 3 | 145146480 | 1 | Backing Plate | - |
| 4 | 145996280 | 1 | Gasket | - |
| 5 | 198217400 | 1 | Spring | - |
| 6 | 145206022 | 1 | Thermostat 82°C | - |
| 7 | 145996590 | 1 | Gasket | - |
| 8 | 145116100 | 1 | Impeller | - |
| 9 | 145126010 | 1 | Seal | - |
| 10 | 145017300 | 1 | Coolant Pump Assembly (Blue - Industrial, includes keys #8, #9, #11 - #13) | - |
| | 145017320 | 1 | Coolant Pump Assembly (White - Marine, includes keys #8, #9, #11 - #13) | - |
| 11 | 064500030 | 2 | Plug | - |
| 12 | 198566010 | 1 | Shaft | - |
| 13 | 145386230 | 1 | Hub | - |
| 14 | 011300660 | 1 | Bolt | - |
| 15 | 011300630 | 2 | Bolt | - |
| 16 | 027100006 | 1 | Spring Washer | - |
| 17 | 020100006 | 1 | Nut | - |
| 18 | 011300635 | 4 | Bolt | - |
| 19 | 145336490 | 1 | Pulley, Circulating Pump Drive | - |
| 20 | 145386390 | 1 | Plate, Circulating Pump Drive Pulley (Marine only) | - |
| 21 | 011310614 | 4 | Bolt | - |
| 22 | 145306460 | 1 | Fan (Suction) | - |
| | 145306380 | 1 | Fan (Blower) | - |
| 23 | 011300650 | 2 | Bolt (not shown - See Alternator & Mounting Detail) | - |

Raw Water Pump Assembly

Marine Application

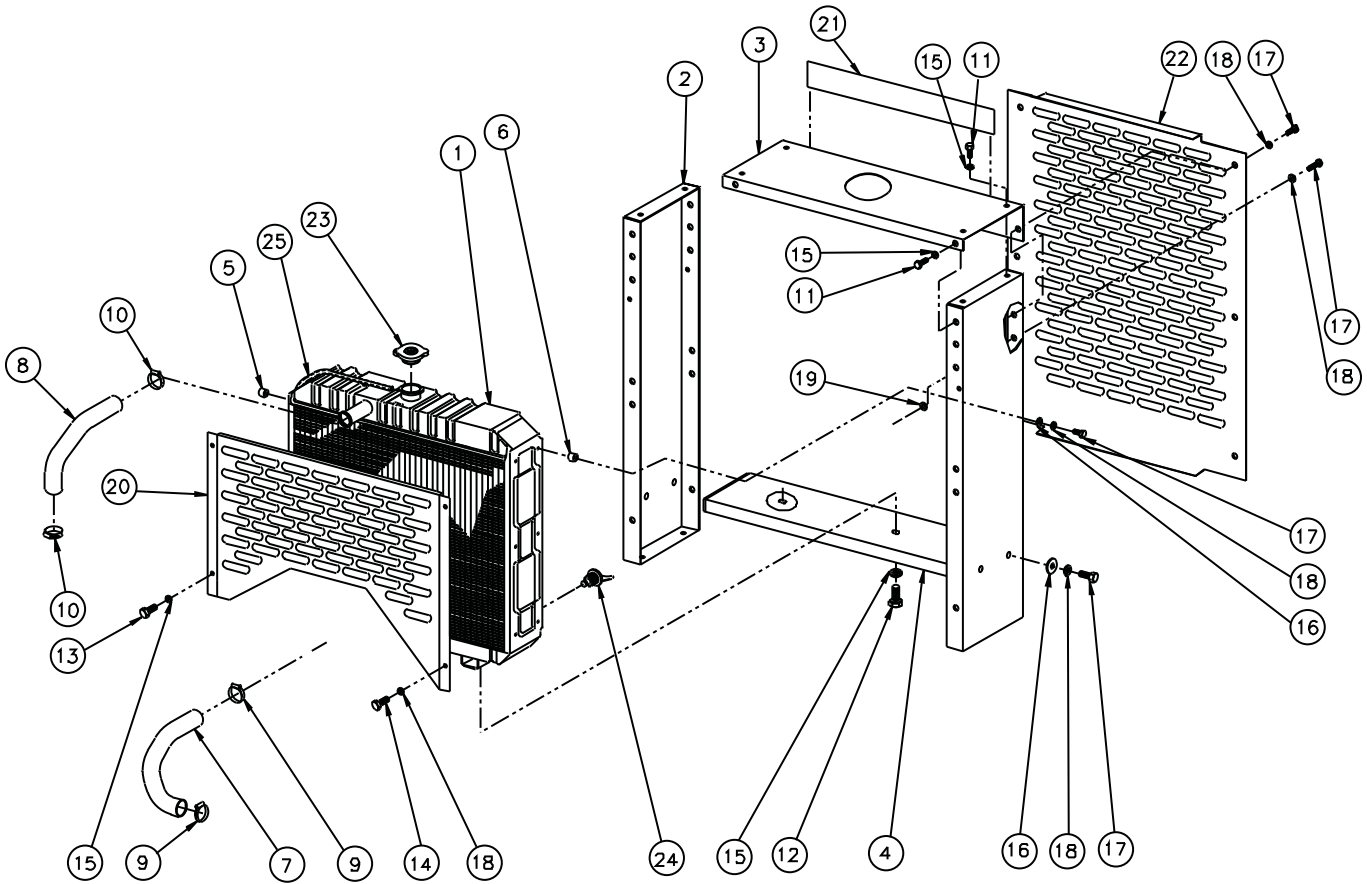


A-3706/ C-2204

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|--------------------|
| •• | 25-12057 | 1 | Raw Water Pump Assembly (includes keys #1 - #17) | from S/N xxxx-5824 |
| • | 25-12004 | 1 | Repair Kit (includes keys #3, #5, #6, #7, #8, #9, #11) | - |
| 1 | 25-12058 | 1 | Housing | - |
| 2 | 25-12059 | 1 | Shaft | - |
| 3 | 25-12060 | 1 | Impeller | - |
| 4 | 25-12061 | 1 | Cam | - |
| 5 | 25-12062 | 1 | Wear Plate | - |
| 6 | 25-12063 | 1 | End Cover | - |
| 7 | 25-12064 | 2 | Bearing | - |
| 8 | 25-12065 | 1 | Lip Seal | - |
| 9 | 25-12066 | 1 | Mechanical Seal | - |
| 10 | 25-12017 | 1 | Spline Seal | - |
| 11 | 25-12067 | 1 | O-Ring | - |
| 12 | 25-12068 | 1 | Retaining Ring | - |
| 13 | 25-12069 | 1 | Retaining Ring | - |
| 14 | 25-12070 | 1 | Washer | - |
| 15 | 25-12071 | 1 | Machine Screw, Pan Head #10-32 x 3/8 S/S | - |
| 16 | 25-12072 | 1 | Machine Screw, Hex Head #10-32 x 3/8 S/S | - |
| 17 | 25-12073 | 1 | Lock Washer #10 S/S | - |

Radiator and Guard

Industrial Application



A-6504A, A-6202 / D-3494

Radiator and Guard

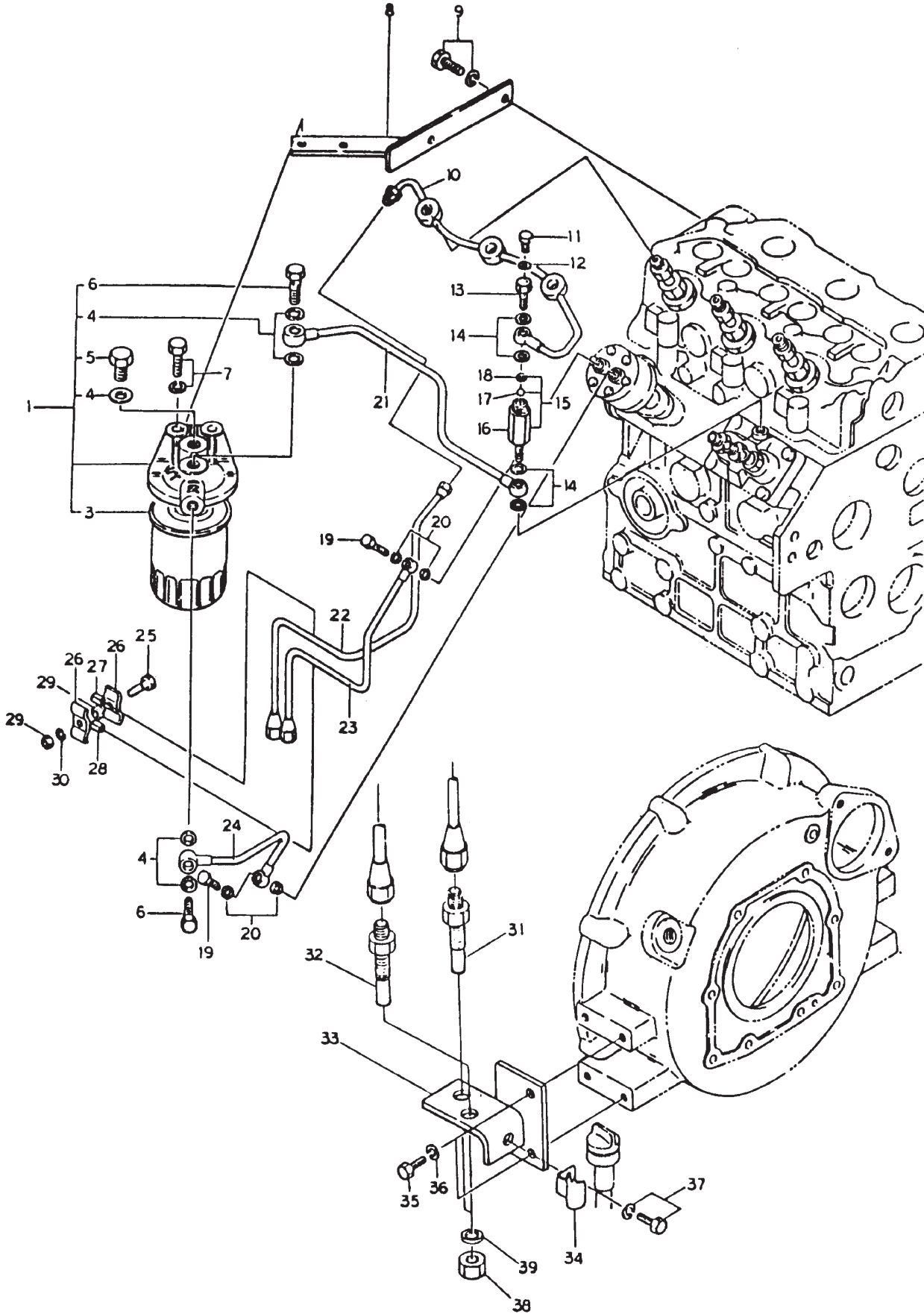
Industrial Application

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 145506531 | 1 | Radiator (Used with Blower Fan, formerly #145506530) | - |
| 2 | 39-18204 | 2 | Side Panel, Radiator Guard | - |
| 3 | 39-18205 | 1 | Top Panel, Radiator Guard | - |
| 4 | 39-18206 | 1 | Radiator Support | - |
| 5 | 21-41103 | 1 | Spacer | - |
| 6 | 21-74502 | 1 | Spacer | - |
| 7 | 145536310 | 1 | Hose, Outlet | - |
| 8 | 145536300 | 1 | Hose, Inlet | - |
| 9 | 19-00024 | 2 | Hose Clamp #24 | - |
| 10 | 19-00020 | 2 | Hose Clamp #20 | - |
| 11 | 12-00751 | 8 | Capscrew, Hex Head M8 x 1.25 x 16 mm | - |
| 12 | 12-00711 | 2 | Capscrew, Hex Head M8 x 1.25 x 20 mm | - |
| 13 | 12-00712 | 1 | Capscrew, Hex Head M8 x 1.25 x 25 mm | - |
| 14 | 12-00713 | 1 | Capscrew, Hex Head M8 x 1.25 x 35 mm | - |
| 15 | 15-00702 | 12 | Lock Washer | - |
| 16 | 15-00701 | 12 | Flat Washer | - |
| 17 | 12-00062 | 12 | Capscrew, Hex Head M6 x 1.0 x 10 mm | - |
| 18 | 15-01132 | 8 | Lock Washer | - |
| 19 | 15-00008 | 8 | Flat Washer | - |
| 20 | 39-18208 | 1 | Fan Guard | - |
| 21 | 00-70075 | 1 | Label, "Northern Lights Generators" | - |
| 22 | 39-18209 | 1 | Grille, Radiator Guard | - |
| 23 | 1455446060 | 1 | Cap Assembly | - |
| 24 | 310130030 | 1 | Drain Cock | - |
| 25 | 310120100 | 1 | Overflow Pipe | - |

Injection Pump and Lines

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---------------------------------|---------------|
| 1 | 131017640 | 1 | Injection Pump | - |
| 2 | 131426300 | 1 | Shim Kit | - |
| 3 | 020100006 | 2 | Nut | - |
| 4 | 027109010 | 2 | Spring Washer | - |
| 5 | 011300620 | 2 | Bolt | - |
| 6 | 198996050 | 3 | Gasket | - |
| 7 | 111316230 | 3 | Insert | - |
| 8 | 111346020 | 3 | Cap | - |
| 9 | 131406330 | 3 | Nozzle & Holder - see detail | - |
| 11 | 131606160 | 1 | Return Line (Industrial) | - |
| 14 | 131506650 | 1 | Pipe #1 | - |
| 15 | 131506660 | 1 | Pipe #2 | - |
| 16 | 131506670 | 1 | Pipe #3 | - |
| 17 | 199106020 | 4 | Clamp | - |
| 18 | 010100625 | 2 | Bolt | - |
| 19 | 020100006 | 2 | Nut | - |
| 20 | 027100006 | 2 | Spring Washer | - |
| 21 | 185366060 | 3 | 12 Volt Glow Plug | - |
| | 185366100 | 3 | 24 Volt Glow Plug | - |
| 22 | 185376110 | 1 | Connector | - |
| 23 | 130996070 | 1 | Gasket | - |
| 24 | 130506140 | 1 | Feed Pump - see detail | - |
| 25 | 011150616 | 2 | Bolt | - |
| 26 | 131466060 | 1 | Smoke Set | - |
| 28 | 025100010 | 2 | Sealing Washer | - |
| 29 | 023109002 | 2 | Nut | - |
| 30 | 010109271 | 1 | Speed Set Bolt | - |
| 31 | | 1 | Wire (not available separately) | - |
| 32 | 185206082 | 1 | 12 Volt Solenoid | - |
| | 185206200 | 1 | 24 Volt Solenoid | - |
| 33 | 025100016 | 1 | Sealing Washer | - |
| 34 | 131606250 | 1 | Return Line (Marine) | - |
| 35 | 131426010 | 3 | Sealing Washer | - |

Fuel Filter and Piping



Fuel Filter and Piping

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 130306190 | 1 | Fuel Filter Assembly (includes keys #3-6) | - |
| 3 | 24-52020 | 1 | Fuel Filter | - |
| 4 | 130326051 | 5 | Gasket | - |
| 5 | 130396030 | 1 | Plug | - |
| 6 | 130436011 | 2 | Joint Bolt | - |
| 7 | 011301025 | 2 | Bolt | - |
| 8 | 131976060 | 1 | Mounting Bracket | - |
| 9 | 011300816 | 2 | Bolt | - |
| 10 | 131606250 | 1 | Return Pipe | - |
| 11 | 131236200 | 1 | Screw | - |
| 12 | 131426190 | 1 | Washer | - |
| 13 | 131236190 | 1 | Bolt | - |
| 14 | 198996071 | 4 | Gasket | - |
| 15 | 140036140 | 1 | Valve Assembly | - |
| 16 | 198487001 | 1 | Connector | - |
| 17 | 048100010 | 1 | Steel Ball | - |
| 18 | 198116230 | 1 | Rubber | - |
| 19 | 130516092 | 2 | Joint Bolt | - |
| 20 | 198996060 | 4 | Gasket | - |
| 21 | 130556500 | 1 | Pipe | - |
| 22 | 130556510 | 1 | Pipe | - |
| 23 | 130556490 | 1 | Pipe | - |
| | 130556681 | ** | Banjo Fitting 5/16-37T (Fuel Pump Inlet) | - |
| 24 | 130556480 | 1 | Pipe | - |
| 25 | 011300825 | 1 | Bolt | - |
| 26 | 399110160 | 2 | Clamp | - |
| 27 | 198116320 | 1 | Rubber | - |
| 28 | 198116310 | 1 | Rubber | - |
| 29 | 020700008 | 2 | Nut | - |
| 30 | 027100008 | 1 | Spring Washer | - |
| 31 | 130226050 | 1 | Connector | - |
| 32 | 130226040 | 1 | Connector | - |
| 33 | 130976280 | 1 | Bracket | - |
| 34 | 140976040 | 1 | Clamp | - |
| 35 | 199436350 | 2 | Bolt 3/8-16 x 3/4" | - |
| 36 | 027100010 | 2 | Spring Washer 3/8 | - |
| 37 | 011300812 | 1 | Bolt 3/8-16 x 3/4" | - |
| 38 | 020100012 | 2 | Nut 3/8 | - |
| 39 | 027100012 | 2 | Spring Washer | - |

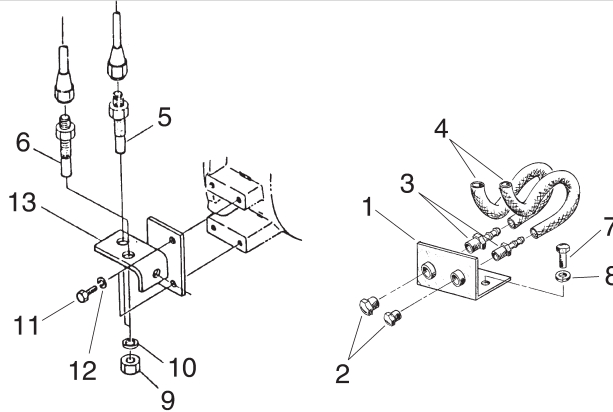
*Note: Fuel lines #22 & #23 & items #25 - #39 not used on marine units with U.S. Coast Guard fuel lines.

**As required.

GROUP 4 – FUEL SYSTEM

Fuel Line Connection

Marine Applications

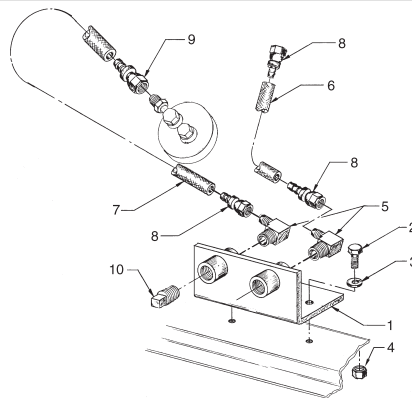


A-6136/ P753fuelpiping

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 10-51099 | 1 | Manifold | - |
| 2 | 21-00046 | 2 | Plug 1/4 NPT (for shipping) | - |
| 3 | 21-71030 | 2 | Male Connector, Brass 1/4 NPT x 3/8 HB | - |
| 4 | 18-71029 | 2 | Hose 3/8" ID x 12" | - |
| 5 | 130226050 | 1 | Bulkhead Fitting, Brass 1/4-45T x 3/8 HB | - |
| 6 | 130226040 | 1 | Bulkhead Fitting, Brass 3/8-45T x 3/8 HB | - |
| 7 | 12-01102 | 2 | Capscrew, Hex Head M6 x 1.0 x 16mm S/S | - |
| 8 | 15-00610 | 2 | Lock Washer M6 S/S | - |
| 9 | 020100012 | 2 | Hex Nut M12 x 1.75 | - |
| 10 | 027100012 | 2 | Lock Washer M12 | - |
| 11 | 199436350 | 2 | Bolt | - |
| 12 | 027100010 | 2 | Lock Washer M10 | - |
| 13 | 130976280 | 1 | Bracket | - |
| 14 | 19-00004 | 4 | Hose Clamp (not shown) | - |

Fuel Line Connection

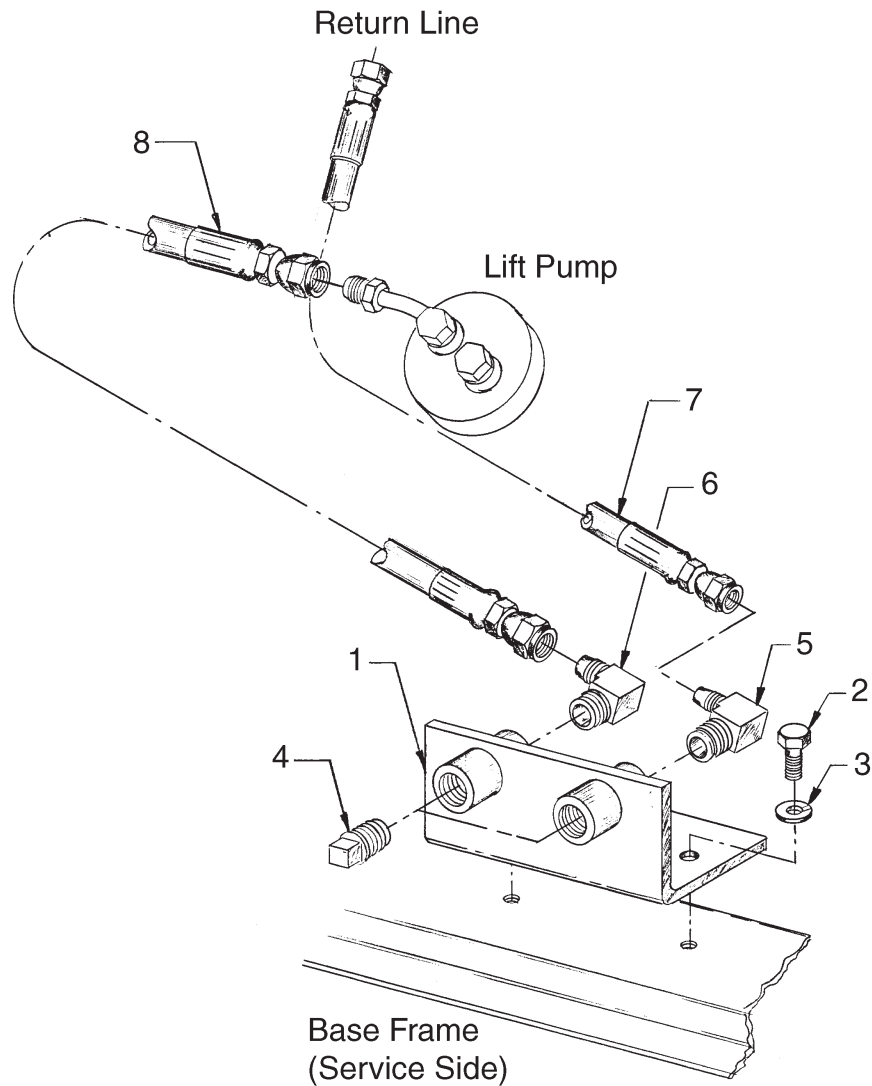
Industrial Applications



A-6705/ C-2920

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 10-51099 | 1 | Manifold | - |
| 2 | 12-01131 | 2 | Capscrew, Hex Head M6 x 1.0 x 20mm | - |
| 3 | 15-00008 | 2 | Flat Washer M6 | - |
| 4 | 14-04803 | 2 | Nylock Nut M6 x 1.0 | - |
| 5 | 21-71044 | 2 | Male Elbow, 90° Brass 1/4 NPT x 1/4-45T | - |
| 6 | 18-51002 | 1 | Hose 1/4" x 17" | - |
| 7 | 18-51902 | 1 | Hose 1/4" ID x 15" | - |
| 8 | 21-71045 | 3 | Female Swivel, Brass 1/4 HB x 1/4-45T | - |
| 9 | 21-71048 | 1 | Female Swivel, Brass 1/4 HB x 5/16-45T | - |
| 10 | 21-00046 | 2 | Plug, 1/4 NPT (for shipping) | - |

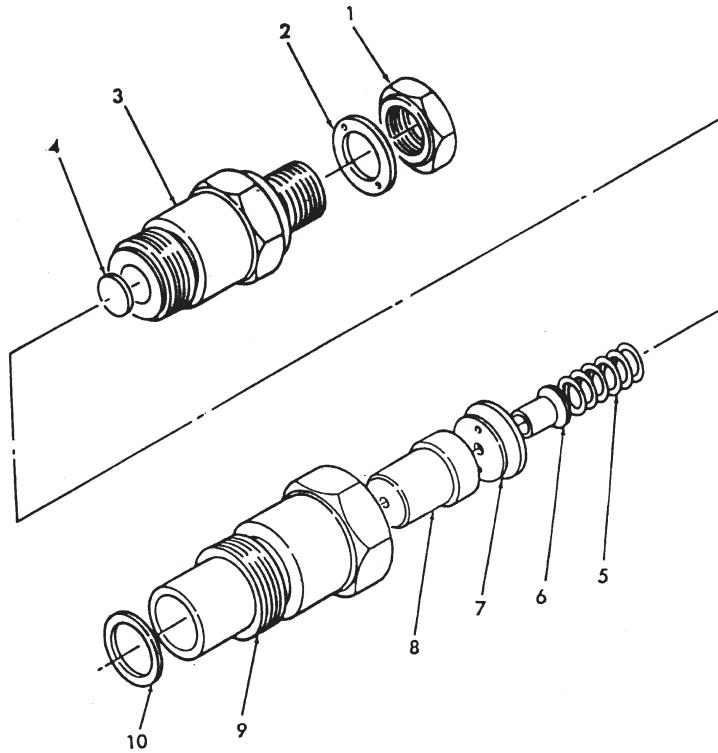
U.S. Coast Guard Fuel Line Connection



A-6705/ C-2936

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 10-51099 | 1 | Manifold | - |
| 2 | 12-01131 | 2 | Capscrew, Hex Head M6 x 1.0 x 20 mm | - |
| 3 | 15-01132 | 2 | Lock Washer M6 | - |
| 4 | 21-00046 | 2 | Plug, 1/4 NPT (for shipping) | - |
| 5 | 21-71049 | 1 | Male Elbow 90°, Steel 1/4 NPT x 1/4-37T | - |
| 6 | 21-74411 | 1 | Male Elbow 90°, Steel 1/4 NPT x 5/16-37T | - |
| 7 | 18-58204 | 1 | Hose Assembly 1/4" ID x 19" | - |
| 8 | 18-58203 | 1 | Hose Assembly 1/4" ID x 23" | - |

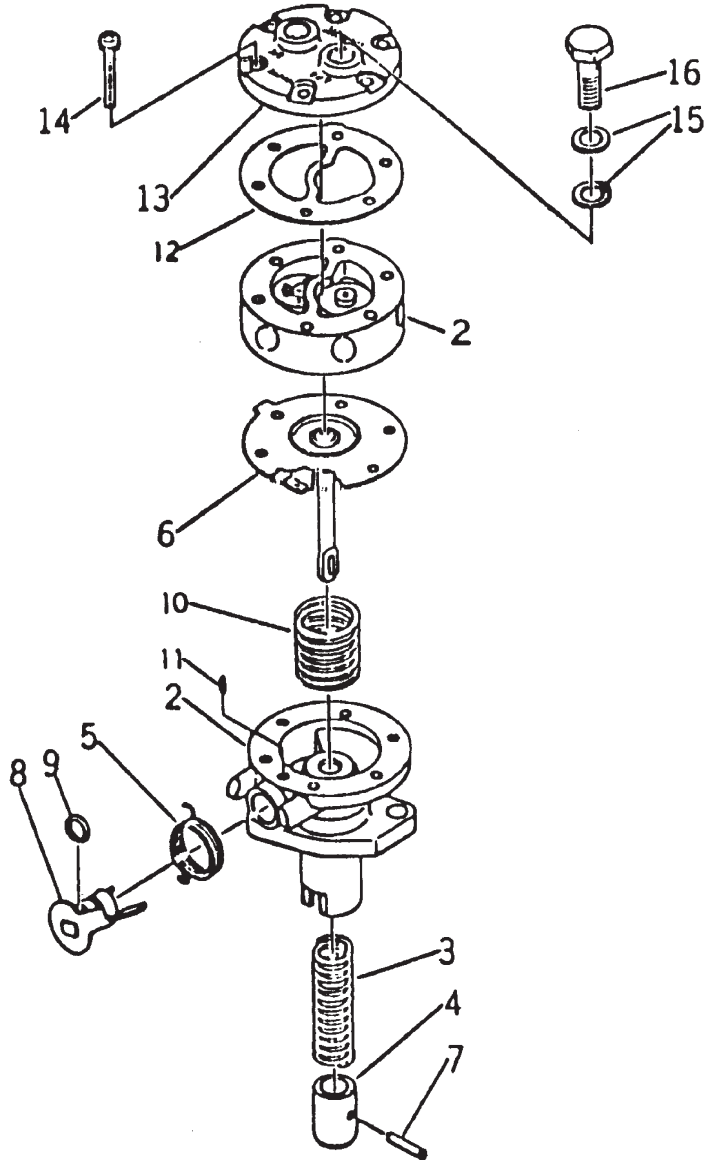
Injector



| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|----------------------------|--------------------|
| •• | 131406330 | | Injector Assembly | from S/N xxxx-8553 |
| 1 | 131446008 | | Nut | - |
| 2 | 131426120 | 1 | Washer | - |
| 3 | 131446054 | 1 | Body Assembly | - |
| 4 | 131436540 | ** | Washer; t = 1.00 mm | - |
| | 131436550 | ** | Washer; t = 1.05 mm | - |
| | 131436560 | ** | Washer; t = 1.10 mm | - |
| | 131436570 | ** | Washer; t = 1.15 mm | - |
| | 131436580 | ** | Washer; t = 1.20 mm | - |
| | 131436590 | ** | Washer; t = 1.25 mm | - |
| | 131436600 | ** | Washer; t = 1.30 mm | - |
| | 131436610 | ** | Washer; t = 1.35 mm | - |
| | 131436620 | ** | Washer; t = 1.40 mm | - |
| | 131436630 | ** | Washer; t = 1.45 mm | - |
| | 131436640 | ** | Washer; t = 1.50 mm | - |
| | 131436650 | ** | Washer; t = 1.55 mm | - |
| | 131436660 | ** | Washer; t = 1.60 mm | - |
| | 131436670 | ** | Washer; t = 1.65 mm | - |
| | 131436680 | ** | Washer; t = 1.70 mm | - |
| | 131436690 | ** | Washer; t = 1.75 mm | - |
| | 131436700 | ** | Washer; t = 1.80 mm | - |
| | 131436710 | ** | Washer; t = 1.85 mm | - |
| | 131436720 | ** | Washer; t = 1.90 mm | - |
| | 131436730 | ** | Washer; t = 1.95 mm | - |
| 5 | 131446011 | 1 | Spring | - |
| 6 | 131446012 | 1 | Pin | - |
| 7 | 131446058 | 1 | Distance Piece | - |
| 8 | 131416140 | 1 | Nozzle Assembly | - |
| 9 | 131446064 | 1 | Nut | - |
| 10 | 131426010 | 1 | Gasket (former #131426130) | - |

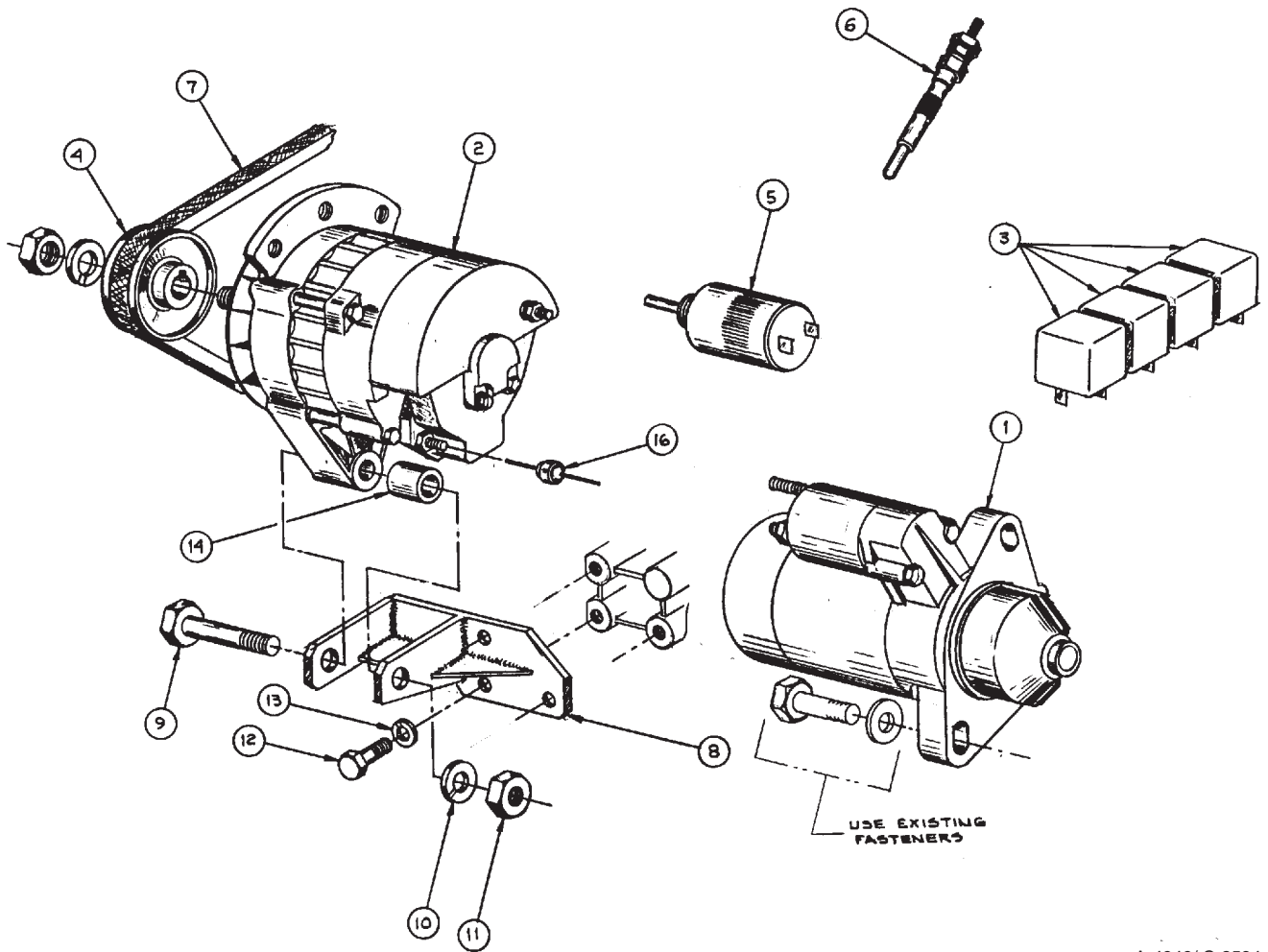
**As required.

Fuel Feed Pump



| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| •• | 130506140 | 1 | Fuel Feed Pump Assembly (includes keys #2 - #16) | - |
| 2 | | 1 | Housing (not available separately) | - |
| 3 | 130516081 | 1 | Spring | - |
| 4 | 130516082 | 1 | Piston | - |
| 5 | 130516083 | 1 | Spring | - |
| 6 | 130516084 | 1 | Diaphragm | - |
| 7 | 130516085 | 1 | Pin | - |
| 8 | 130516086 | 1 | Lever | - |
| 9 | 131226180 | 1 | O-Ring | - |
| 10 | 130516087 | 1 | Spring | - |
| 11 | 130516088 | 1 | Guide | - |
| 12 | 130516089 | 1 | Gasket | - |
| 13 | 130516090 | 1 | Cap | - |
| 14 | 130516091 | 6 | Screw | - |
| 15 | 130516069 | 4 | Gasket | - |
| 16 | 130516092 | 2 | Joint Bolt | - |

Engine Electrical - 24 Volt Standard Ground

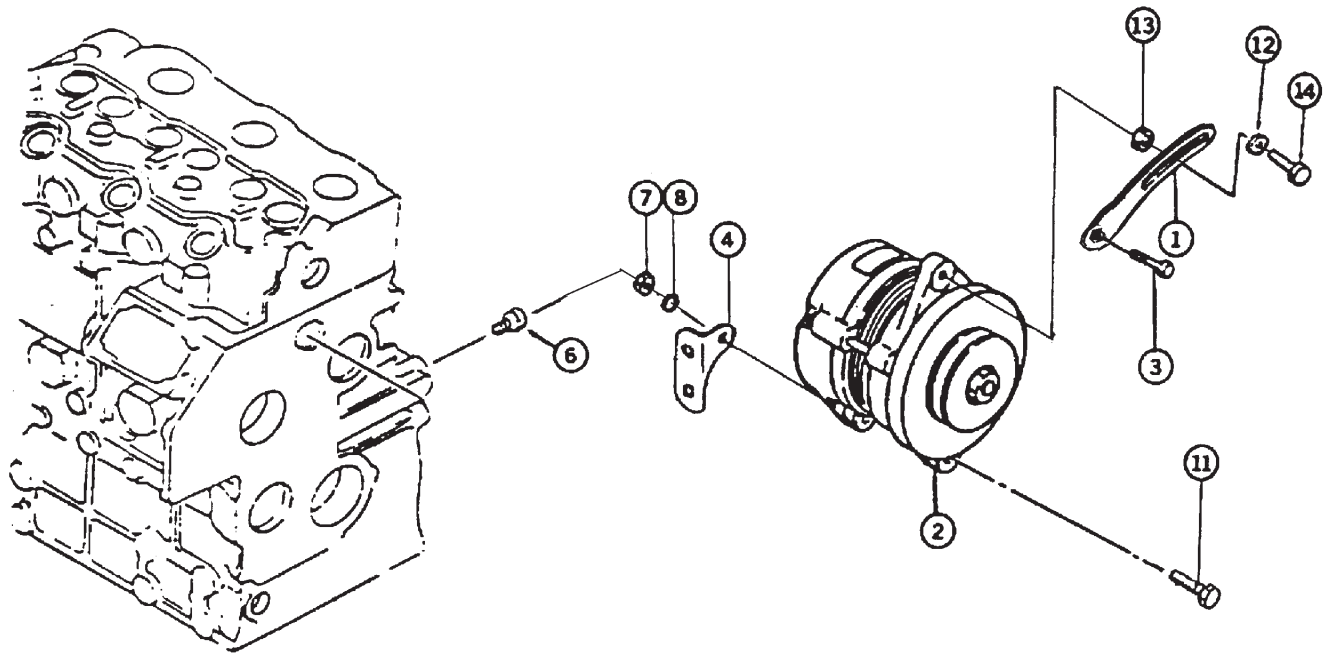


A-4949/ C-2534

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 22-48221 | 1 | 24V Starting Motor (Nippondenso) | - |
| | 22-95430 | 1 | S-1B 24 Volt Control Panel (see detail) | - |
| 2 | 22-71052 | 1 | 24V/35A Alternator | - |
| 3 | 22-40085 | 4 | 24V DC Relay SPDT | - |
| 4 | 34-41017 | 1 | Single Groove Pulley | - |
| 5 | 185206200 | 1 | 24V Stop Solenoid | - |
| 6 | 185366100 | 3 | 24V Glow Plug | - |
| 7 | 40-41900 | 1 | Drive Belt | - |
| 8 | 23-48202 | 1 | Alternator Mounting Bracket | - |
| 9 | 12-00552 | ** | Capscrew, Hex Head 1/2-13 x 3-1/2" | - |
| | 12-00515 | ** | Capscrew, Hex Head 1/2-13 x 1-3/4" | - |
| 10 | 15-00504 | 1 | Flat Washer 1/2 SAE | - |
| 11 | 14-00512 | 1 | Nylock Nut 1/2-13 | - |
| 12 | 12-00711 | 4 | Capscrew, Hex Head M8 x 1.25 x 20 mm | - |
| 13 | 15-00702 | 4 | Helical Lock Washer M8 | - |
| 14 | 21-48201 | ** | Spacer, BP 1/2" Schedule 40 x 1.25" | - |
| 15 | | 1 | Alternator Gound Wire (Required with #22-71052) | - |
| 16 | 22-41060 | 1 | Diode, 1 Amp 50 PIV | - |
| | | | **As required. | |

12 Volt Alternator Mounting

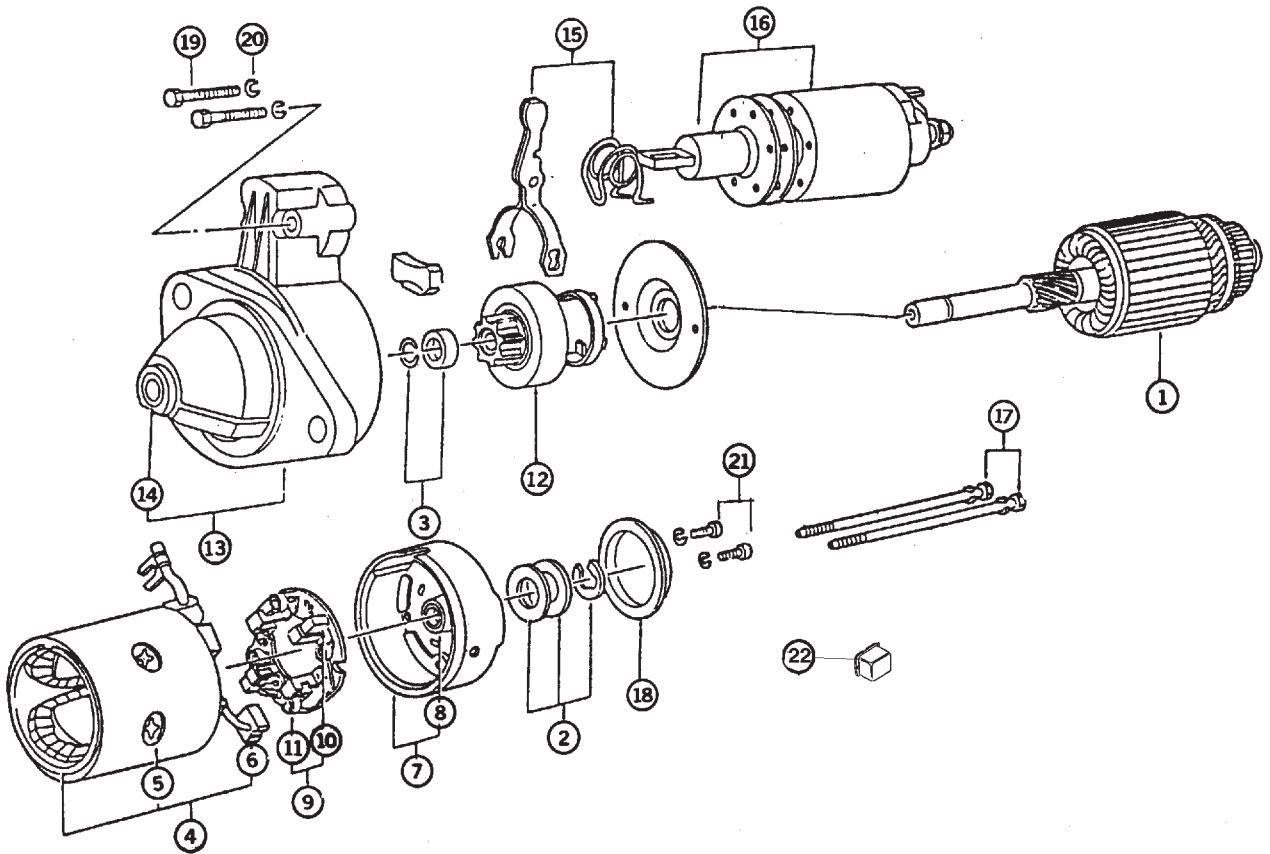
Standard and Isolated Ground



| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|----------------------------------|---------------|
| 1 | 185726971 | 1 | Tensioner | - |
| 2 | 185046220 | 1 | 12V Alternator (Standard Ground) | - |
| | 22-48206 | 1 | 12V Alternator (Isolated Ground) | - |
| 3 | 011300650 | 1 | Bolt | - |
| 4 | 185976220 | 1 | Bracket, Alternator | - |
| 5 | 010100830 | 1 | Bolt | - |
| 6 | 011300816 | 2 | Bolt | - |
| 7 | 020100010 | 1 | Nut | - |
| 8 | 027100010 | 1 | Washer | - |
| 11 | 010101045 | 1 | Bolt | - |
| 12 | 026100008 | 1 | Washer | - |
| 13 | 199236680 | 1 | Spacer | - |
| 14 | 011300840 | 1 | Bolt, Alternator | - |

12 Volt Starting Motor

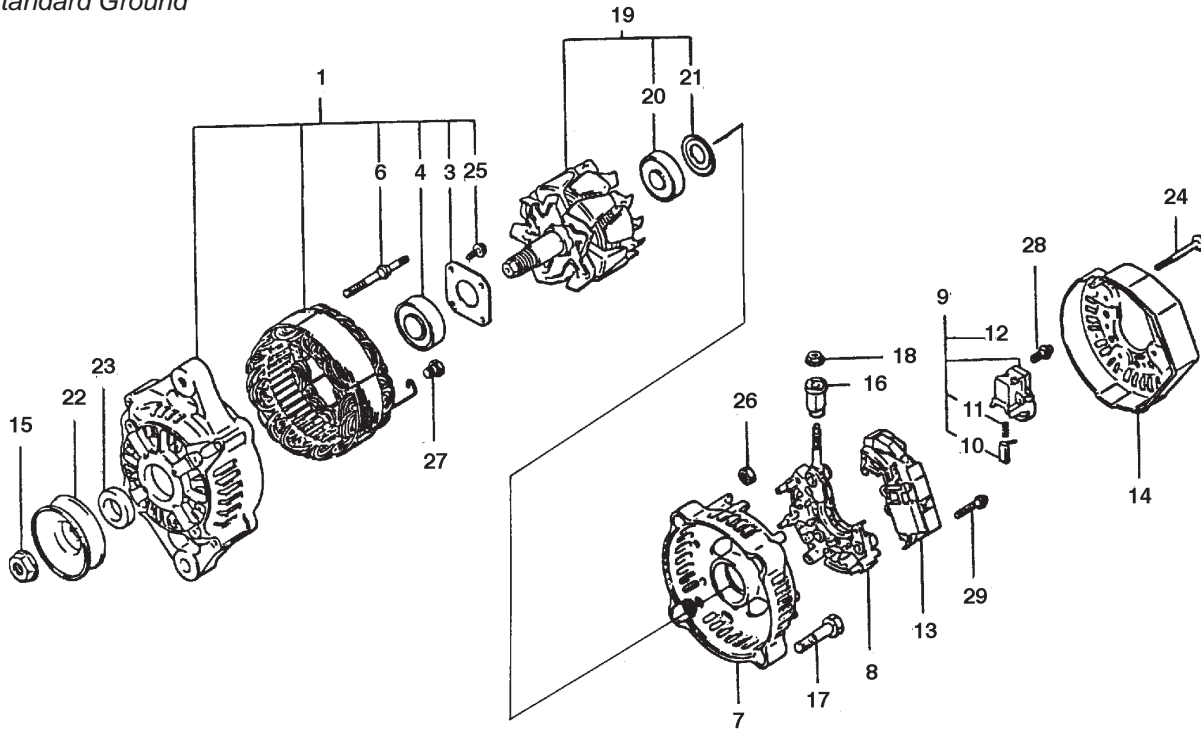
Standard Ground



| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| •• | 185086321 | 1 | Starting Motor Complete (includes all keys) | - |
| 1 | 185846159 | 1 | Armature Assembly | - |
| 2 | 185846126 | 1 | Thrust Washer Kit | - |
| 3 | 185846127 | 1 | Pinion Stopper Set | - |
| 4 | 185846160 | 1 | Field Coil Assembly (includes keys #5 & #6) | - |
| 5 | 185846161 | 4 | Set Screw | - |
| 6 | 185416130 | 2 | Brush | - |
| 7 | 185846449 | 1 | Rear Cover Assembly (includes key #8) | - |
| 8 | 185846131 | 1 | Rear Cover | - |
| 9 | 185416150 | 1 | Brush Holder Assembly (includes keys #10 & #11) | - |
| 10 | 185416141 | 2 | Brush | - |
| 11 | 185846119 | 3 | Spring | - |
| 12 | 185866050 | 1 | Pinion Assembly | - |
| 13 | 185846454 | 1 | Gear Case Assembly (includes key #14) | - |
| 14 | 185846134 | 1 | Bushing | - |
| 15 | 185846165 | 1 | Lever Kit | - |
| 16 | 185816180 | 1 | Switch Assembly | - |
| 17 | 185846166 | 2 | Bolt | - |
| 18 | 185846136 | 1 | Cover | - |
| 19 | 185846300 | 2 | Bolt | - |
| 20 | 027100006 | 2 | Washer | - |
| 21 | 015140412 | 2 | Screw Assembly | - |
| 22 | 285640030 | 1 | Plug Assembly with 3 Connectors | - |

12 Volt Alternator - Built-in Regulator

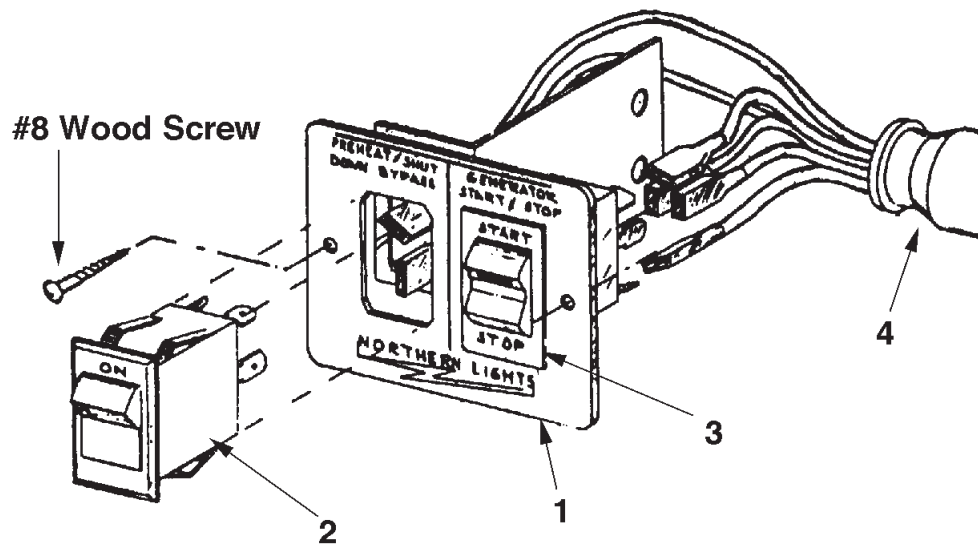
Standard Ground



| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| •• | 185046220 | 1 | Alternator with Regulator | - |
| 1 | 185446221 | 1 | Frame (includes keys #3, #4, #6 & #25) | - |
| 2 | | 1 | Drive End Frame (not available separately) | - |
| 3 | 185446223 | 1 | Retainer Plate | - |
| 4 | 185446224 | 1 | Ball Bearing | - |
| 5 | | 1 | Stator (not available separately) | - |
| 6 | 185446227 | 2 | Stud Bolt | - |
| 7 | 185446228 | 1 | Rear End Frame | - |
| 8 | 185446229 | 1 | Rectifier Holder | - |
| 9 | 185446230 | 1 | Brush Holder (includes keys #10 through #12) | - |
| 10 | 185446231 | 2 | Brush | - |
| 11 | 185446232 | 2 | Spring | - |
| 12 | | 1 | Seal (not available separately) | - |
| 13 | 185446234 | 1 | Regulator Assembly | - |
| 14 | 185446235 | 1 | Rear End Cover | - |
| 15 | 185446236 | 1 | Nut | - |
| 16 | 185446237 | 1 | Insulation Brush | - |
| 17 | 185446238 | 2 | Bolt | - |
| 18 | 185446239 | 1 | Nut | - |
| 19 | 185446240 | 1 | Rotor Assembly (includes keys #20 & #21) | - |
| 20 | 185446241 | 1 | Ball Bearing | - |
| 21 | 185446242 | 1 | Bearing Cover | - |
| 22 | 185446243 | 1 | Pulley | - |
| 23 | 185446244 | 1 | Collar | - |
| 24 | 185446245 | 3 | Bolt | - |
| 25 | 185446258 | 4 | Bolt | - |
| 26 | 185446259 | 2 | Nut | - |
| 27 | 185446260 | 6 | Bolt | - |
| 28 | 185446261 | 1 | Bolt | - |
| 29 | 185446262 | 2 | Bolt | - |

Series 1 Control Panel - 12 & 24 Volt

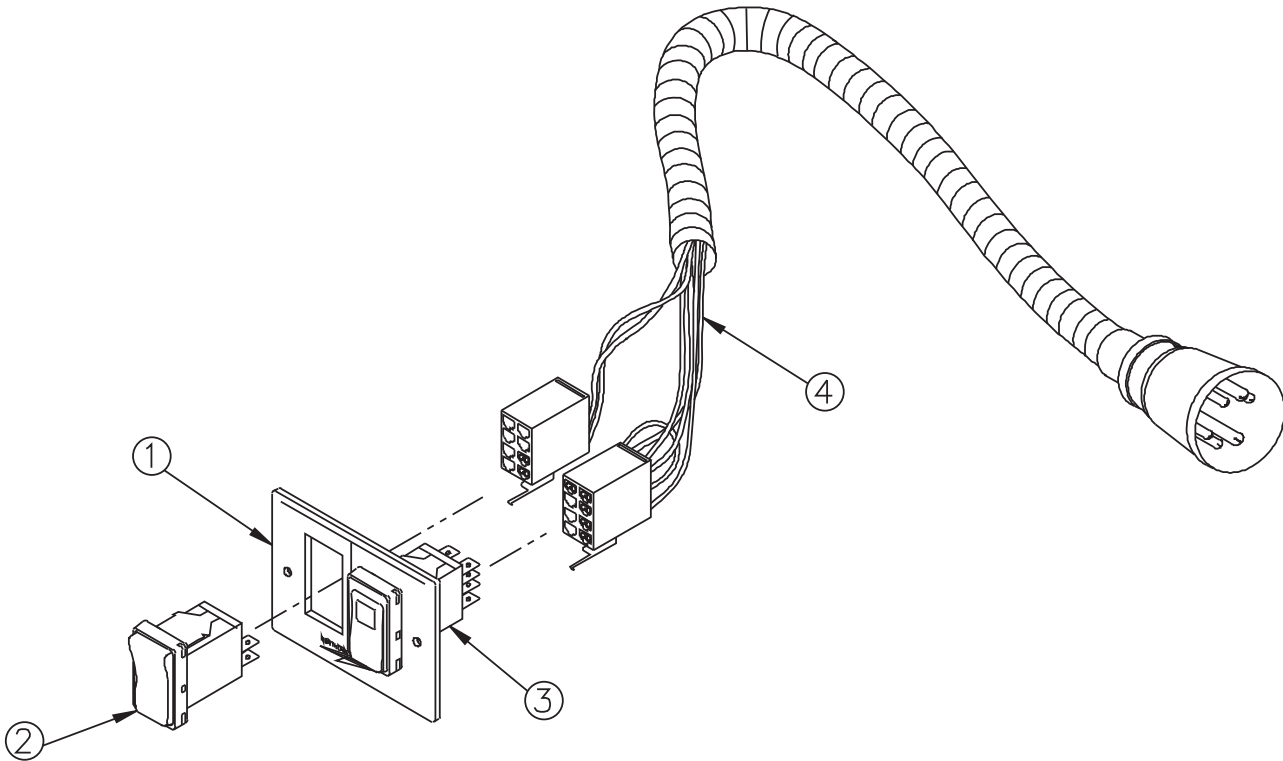
Marine Generator Application



A-2863 + A-4793 / B-2873

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| •• | | 1 | Series 1 Control Panel - 12 Volt (includes all keys) * | - |
| •• | | 1 | Series 1 Control Panel - 24 Volt (includes all keys) * | - |
| 1 | 00-40013 | 1 | Plate | - |
| 2 | | 1 | Preheat/Shutdown-Bypass Switch ** | - |
| 3 | | 1 | Engine Control Switch ** | - |
| 4 | 22-90009 | 1 | Wire Harness | - |
| 5 | 22-40012 | 1 | Resistor, 200 Ohm 2 Watt - 24 Volt Only (not shown) | - |
| | | | * Replaced by 22-90610 (12 Volt) or 22-90615 (24 Volt) as required. | |
| | | | ** Replaced by switch retrofit kit 22-90195. | |

S-1 Control Panel 12 & 24 Volt

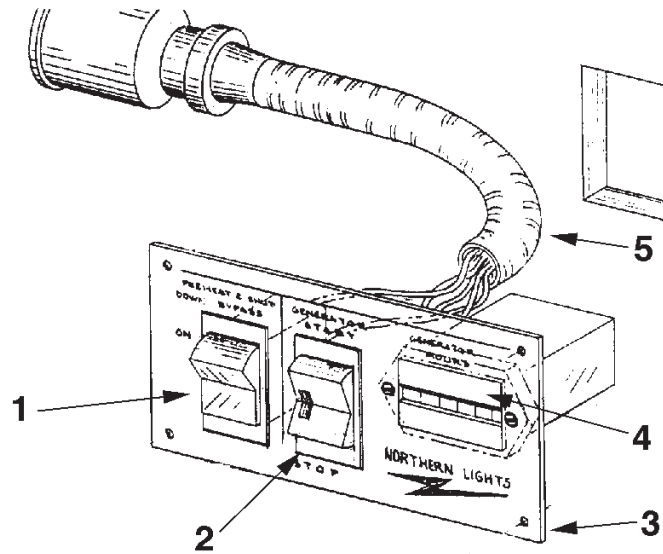


A-8551, A-8552 / B-5970

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| •• | 22-92110 | 1 | S-1 Start/Stop Control Panel Assembly, 12 Volt (includes all keys) | - |
| •• | 22-92115 | 1 | S-1 Start/Stop Control Panel Assembly, 24 Volt (includes all keys) | - |
| 1 | 00-40013 | 1 | Plate, S-1 Control Panel | - |
| 2 | 22-90167 | 1 | Rocker Switch | - |
| 3 | 22-90168 | 1 | Rocker Switch | - |
| 4 | 22-42066 | 1 | Wire Harness, 12 Volt | - |
| | 22-42067 | 1 | Wire Harness, 24 Volt | - |
| 5 | 00-00013 | 1 | Label "12 Volt" * | - |
| | 00-00014 | 1 | Label "24 Volt" * | - |
| 6 | 22-40012 | 1 | Resistor, 200 Ohm, 3 Watt (24 Volt Panel only) * | - |
| | | | * Not shown | |

Series 1-B Control Panel - 12 & 24 Volt

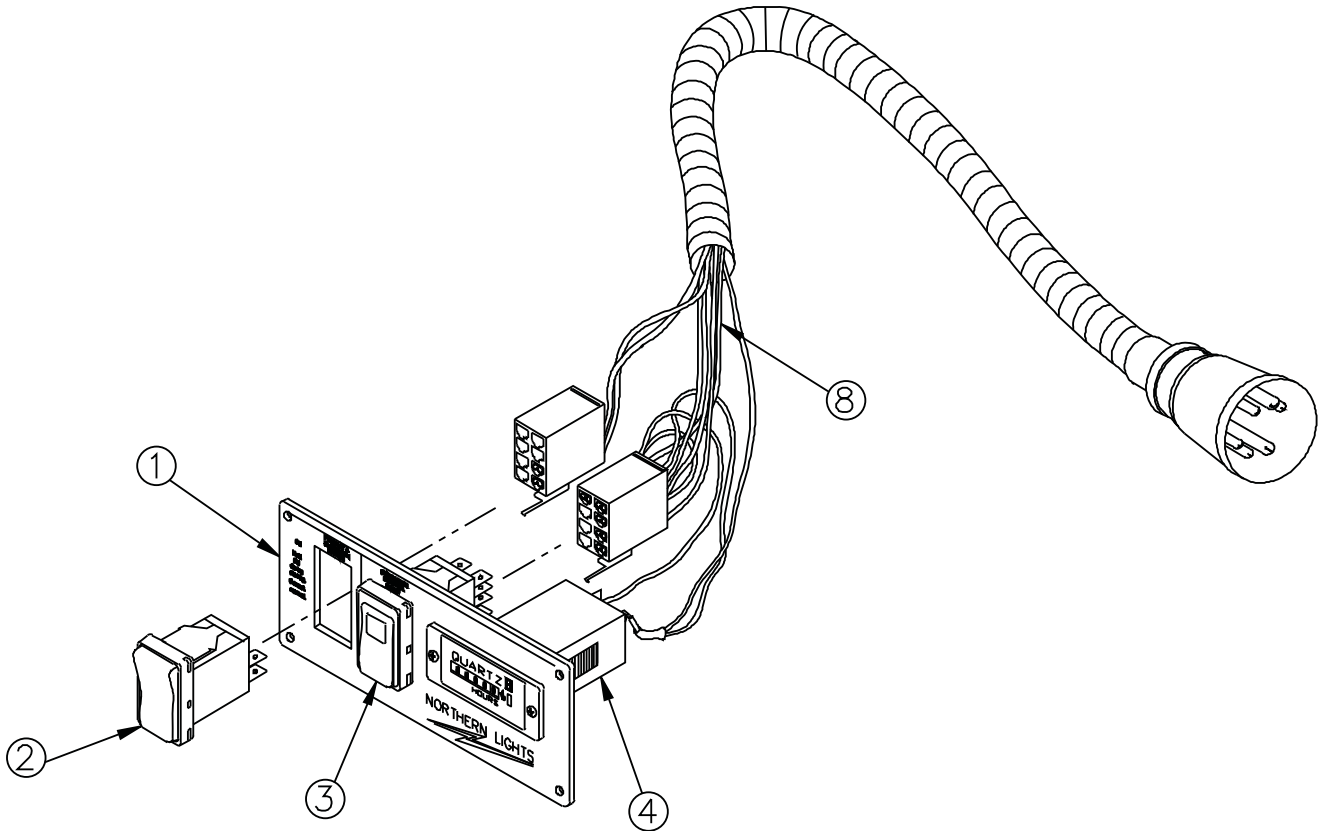
Marine Generator Application



A-4791 + A-3171 / C-1911

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| •• | | 1 | Series 1-B Control Panel - 12 Volt (includes all keys) * | - |
| •• | | 1 | Series 1-B Control Panel - 24 Volt (includes all keys) * | - |
| 1 | | 1 | Preheat/Shutdown-Bypass Switch ** | - |
| 2 | | 1 | Engine Control Switch ** | - |
| 3 | 28-90003 | 1 | Plate | - |
| 4 | 22-90009 | 1 | Hour Meter | - |
| 5 | 22-40019 | 1 | Wire Harness | - |
| 6 | 22-40012 | 1 | Resistor, 200 Ohm 2 Watt - 24 Volt Only (not shown) | - |
| | | | * Replaced by 22-92120 (12 Volt) or 22-92125 (24 Volt) | |
| | | | ** Replaced by switch retrofit kit 22-90195 | |

S-1B Control Panel 12 & 24 Volt

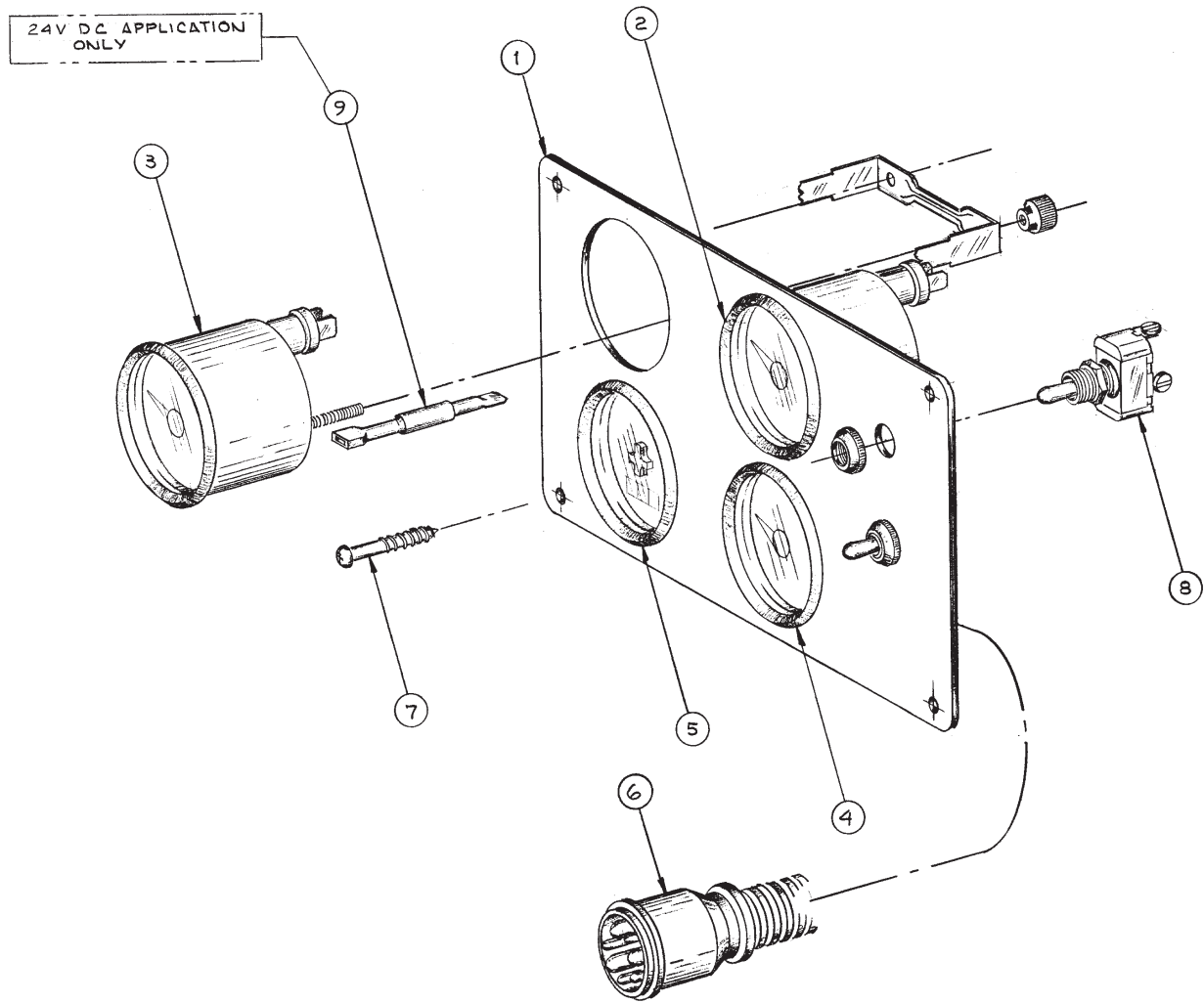


A-8553-4 / B-5971

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| •• | 22-92120 | 1 | S-1B Control Panel Assembly, 12 Volt (includes all keys) | - |
| •• | 22-92125 | 1 | S-1B Control Panel Assembly, 24 Volt (includes all keys) | - |
| 1 | 28-90003 | 1 | Panel, S-1B Control Panel | - |
| 2 | 22-90167 | 1 | Rocker Switch | - |
| 3 | 28-90168 | 1 | Rocker Switch | - |
| 4 | 22-90009 | 1 | Hourmeter | - |
| 5 | 12-00093 | 2 | Machine Screw, Round Head #6-32 x 1/2" S/S * | - |
| 6 | 15-00030 | 2 | Star Washer * | - |
| 7 | 14-00015 | 2 | Hex Nut * | - |
| 8 | 22-42063 | 1 | Wire Harness without Resistor 12 Volt | - |
| | 22-42064 | 1 | Wire Harness with Resistor 24 Volt | - |
| 9 | 00-00013 | 1 | Label "12 Volt" * | - |
| | 00-00014 | 1 | Label "24 Volt" * | - |
| 10 | 22-40012 | 1 | Resistor, 200 OHM ** | - |
| | | | * Not shown | |
| | | | **Note: Shown for spare parts reference, included in Harness Assembly. | |

Standard Line, Flush Mount, Dual Station Control Panel

12 Volt

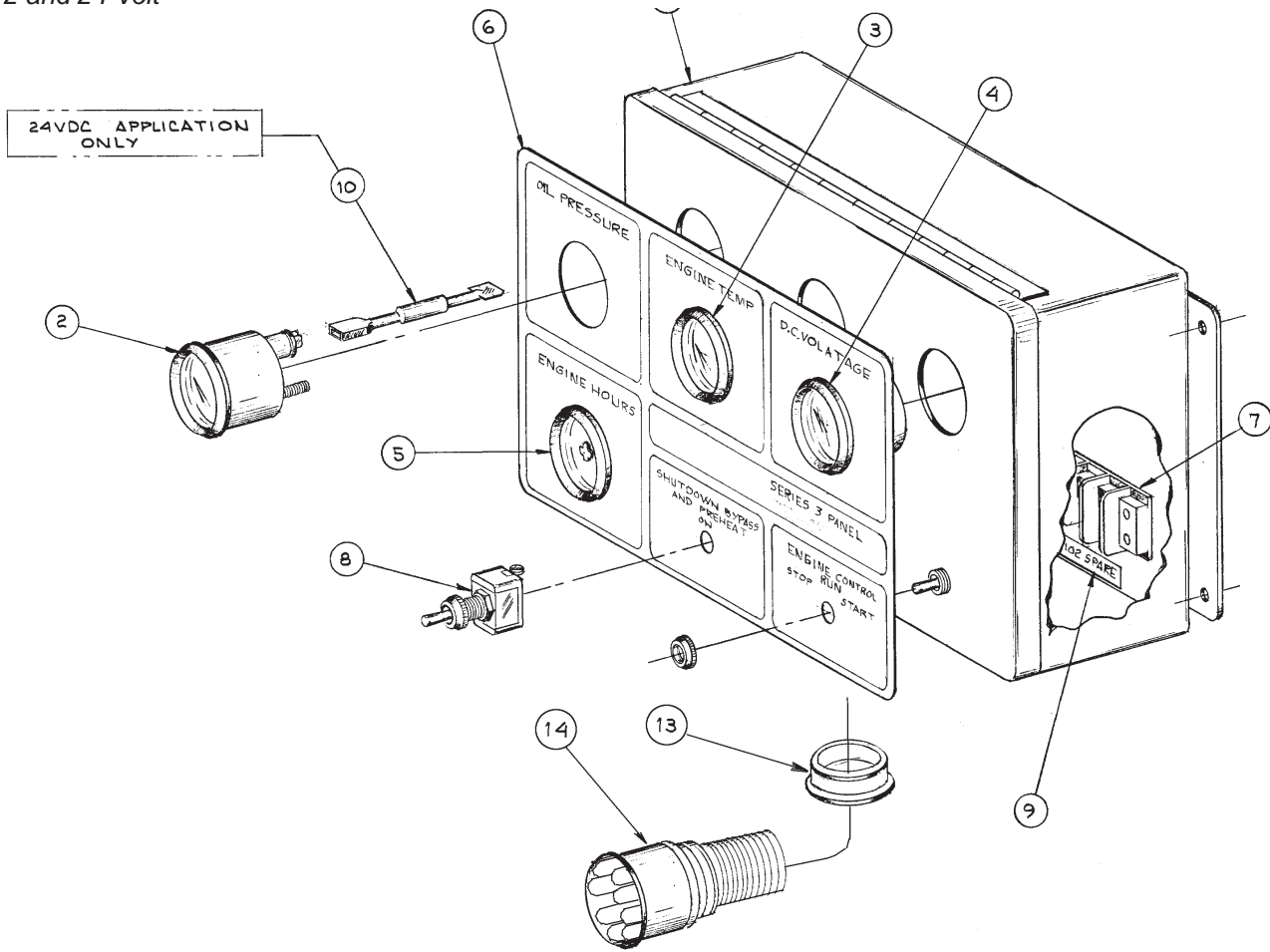


A-4732, A-4597/ C-2441

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| •• | 22-92015 | 1 | S-3C Control Panel, 12 Volt Flush Mount (includes all keys) | - |
| •• | 22-92014 | 1 | S-3C Control Panel, 24 Volt Flush Mount (includes all keys) | - |
| 1 | 28-90010 | 1 | Series 3 Control Panel Plate | - |
| 2 | 37-40010 | 1 | Oil Pressure Gauge 0 - 80 PSI | - |
| 3 | 37-40011 | 1 | Engine Temperature Gauge, 250°F | - |
| 4 | 37-40012 | 1 | DC Voltmeter, 12 Volt | - |
| | 37-40014 | 1 | DC Voltmeter, 24 Volt | - |
| 5 | 37-40013 | 1 | Hourmeter | - |
| 6 | 22-40062 | 1 | Panel Wire Harness (not shown) | - |
| 7 | 12-90007 | 4 | Self Tapping Screw, Oval Head Phillips # 6 x 3/4" | - |
| 8 | 22-41051 | 2 | SPDT Momentary Toggle Switch | - |
| 9 | 22-40004 | 2 | 24 Volt Resistor Kit | - |
| 10 | 22-44852 | ** | 12 Volt Bulb (not shown) | - |
| | 22-44853 | ** | 24 Volt Bulb (not shown) | - |
| | | | **As required. | |

Standard Line, Surface Mount, Dual Station Control Panel

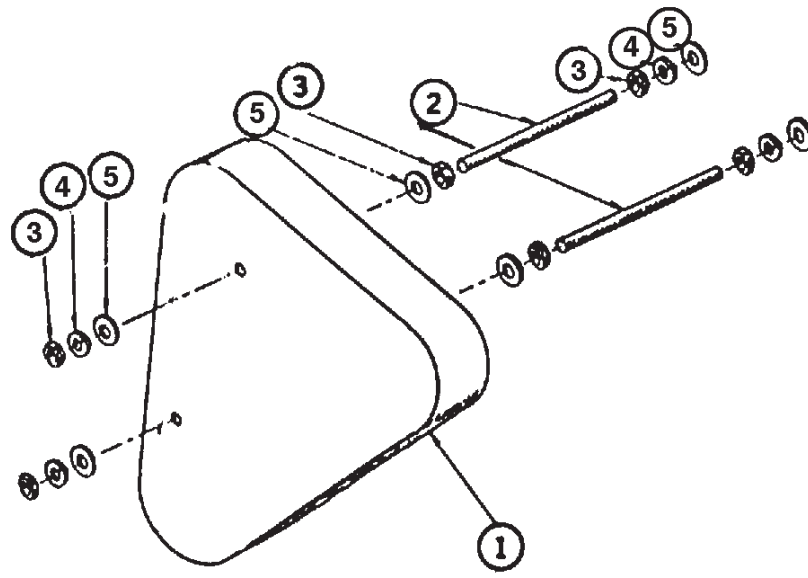
12 and 24 Volt



A-4721, A-4695, A-4722, A-4723/C-2470

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| •• | 22-92031 | 1 | S-3B Control Panel - 12 Volt (Includes all keys) | - |
| •• | 22-95420 | 1 | S-3B Control Panel - 24 Volt (Includes all keys) | - |
| 1 | 39-42005 | 1 | Enclosure 10" x 8" x 4" (white) | - |
| 2 | 37-40010 | 1 | Oil Pressure Gauge, Standard Line 0 - 80 PSI | - |
| 3 | 37-40011 | 1 | Engine Temperature Gauge, Standard Line 0 - 250° | - |
| 4 | 37-40012 | 1 | DC Voltmeter, 12 Volt, Standard Line | - |
| | 37-40014 | 1 | DC Voltmeter, 24 Volt, Standard Line | - |
| 5 | 37-40013 | 1 | Hourmeter, Standard Line | - |
| 6 | 00-91018 | 1 | Series 3 Control Panel Decal | - |
| 7 | 22-41077 | 1 | Terminal Board | - |
| 8 | 22-41051 | 2 | Toggle Switch, Momentary SPDT | - |
| 9 | 22-00052 | 1 | Number Strip | - |
| 10 | 22-40004 | 2 | Resistor Kit (24 Volt panel only) | - |
| 11 | 22-44852 | ** | Clear Bulb, 12 Volt (not shown) | - |
| | 22-44853 | ** | Clear Bulb, 24 Volt (not shown) | - |
| 12 | 22-40257 | 1 | Wire Harness (not shown) | - |
| 13 | 00-41015 | 1 | Plastic Bushing | - |
| 14 | 22-40062 | 1 | Connection Harness | - |
| | | | ** As required. | |

Belt Guard



A-6154

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|------------------------------------|---------------|
| 1 | 00-78202 | 1 | Belt Guard | - |
| 2 | 13-70003 | 3 | Stud, All-Thread M6 x 1.0 x 130 mm | - |
| 3 | 14-01131 | 9 | Nut, M6 x 1.0 | - |
| 4 | 15-01132 | 6 | Lock Washer M6 | - |
| 5 | 15-00008 | 6 | Flat Washer M6 | - |

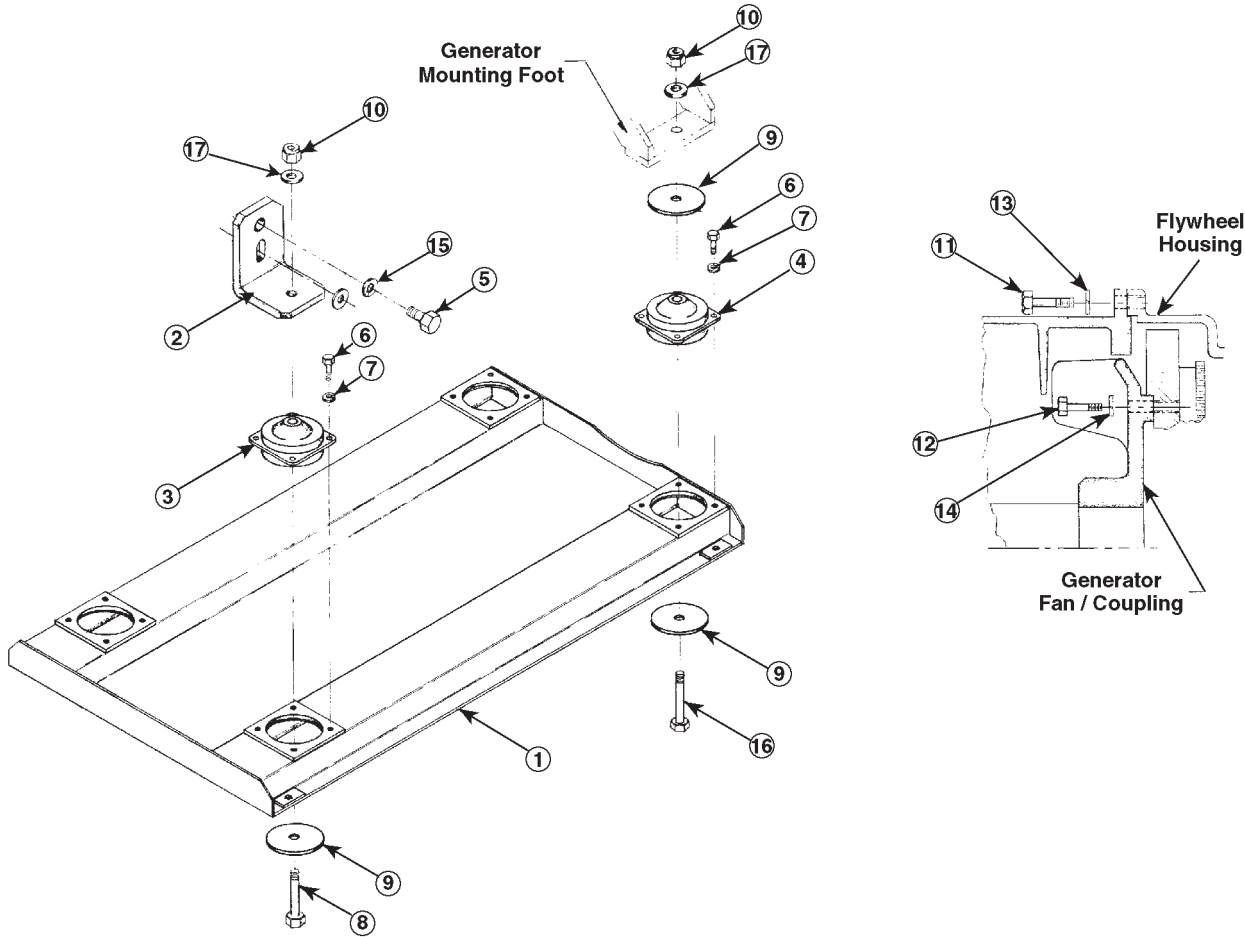
GROUP 6 – GASKET SETS

Gasket Sets

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| | 195906430 | 1 | Gasket Set (includes all items below) | - |
| | 165996300 | 1 | Front Plate Gasket, Cylinder Block | - |
| | 110996491 | 1 | Oil Pan Gasket | - |
| | 111146892 | 1 | Head Gasket, t = 1.2 | - |
| | 111146901 | 1 | Head Gasket, t = 1.3 | - |
| | 120406050 | 3 | Valve Guide Seal - Intake | - |
| | 120406070 | 3 | Valve Guide Seal Exhaust | - |
| | 198996050 | 3 | Prechamber Gasket | - |
| | 111996290 | 1 | Head Cover Gasket | - |
| | 135996541 | 3 | Exhaust Manifold Gasket | - |
| | 314990013 | 1 | Muffler Gasket (Industrial application) | - |
| | 314990030 | 1 | Exhaust Elbow Gasket (Marine application) | - |
| | 165996310 | 1 | Gear Case Gasket | - |
| | 165996050 | 2 | Water Pump Cover Gasket | - |
| | 131437150 | 2 | Injection Pump Gasket, t = 0.2 mm | - |
| | 131437160 | 2 | Injection Pump Gasket, t = 0.3 mm | - |
| | 130996070 | 1 | Feed Pump Gasket | - |
| | 131426130 | 3 | Injector Gasket | - |
| | 145996280 | 1 | Water Pump Case Gasket | - |
| | 145996270 | 1 | Set Plate Gasket | - |
| | 198996060 | 3 | Head Cover Gasket | - |
| | 025100010 | 2 | Smoke Set Gasket | - |
| | 025100016 | 1 | Solenoid Gasket | - |
| | 025100006 | 1 | Gear Case Gasket | - |
| | 198636140 | 1 | Front Oil Seal | - |
| | 198636130 | 1 | Rear Oil Seal | - |
| | 052109076 | 1 | O-Ring, Suction Filter Holder | - |
| | 052100400 | 1 | O-Ring, Oil Filter Cap | - |
| | 052100070 | 1 | O-Ring, Governor Arm Shaft | - |
| | 052100050 | 1 | O-Ring, Governor Arm Shaft | - |
| | 052100030 | 1 | O-Ring, Governor Arm Shaft | - |
| | 052100150 | 1 | O-Ring, Relief Valve | - |
| | 052100100 | 2 | O-Ring, Gauge Guide | - |
| | 052300700 | 1 | O-Ring Water Pump | - |
| | 052300300 | 1 | O-Ring, Temperature Sender Holder | - |
| | 111996271 | 1 | Rocker Cover Gasket | - |
| | 052109061 | 1 | Rocker Cover Gasket | - |

Base Frame Assembly

Marine Applications - 308 Frame Generators

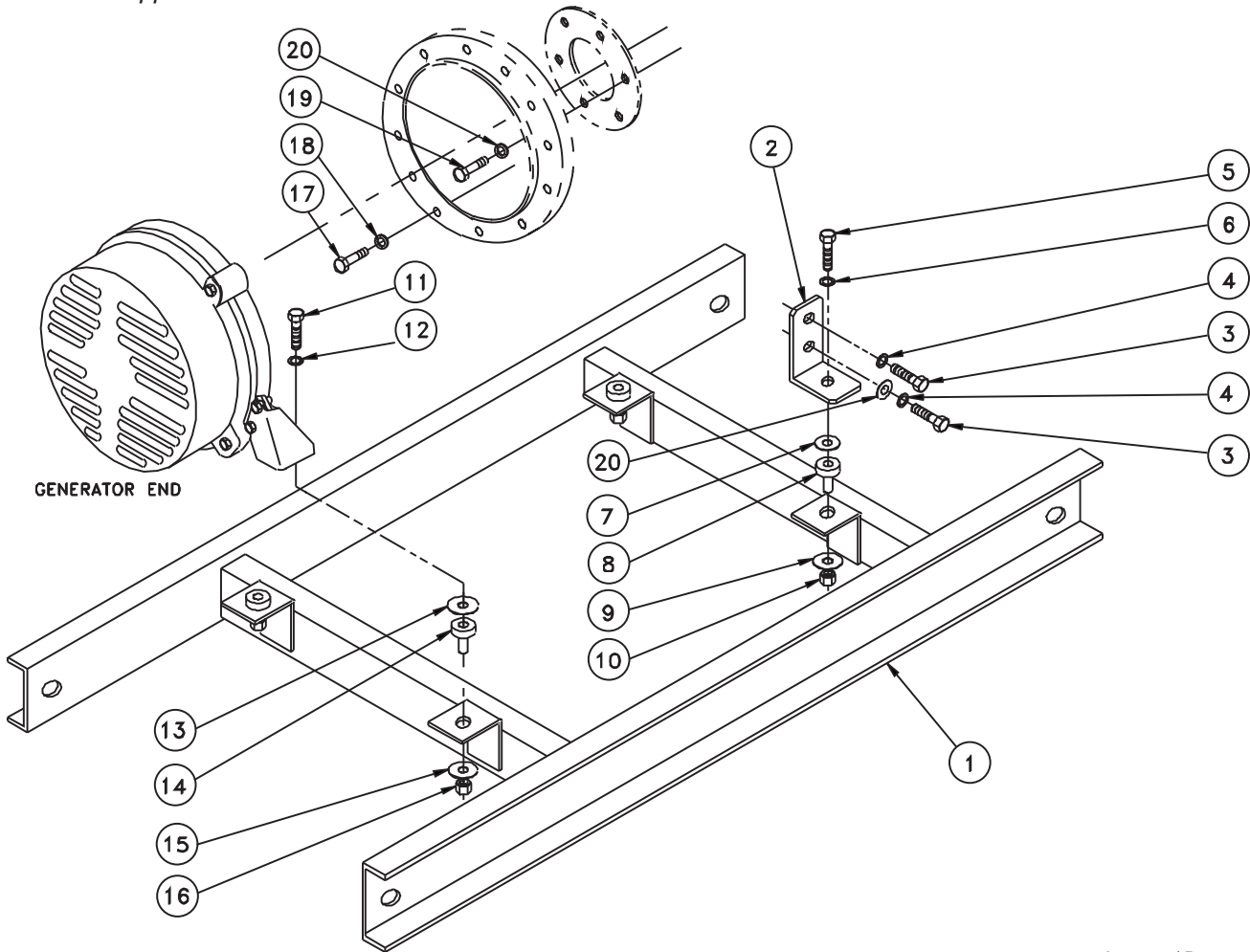


A-7844

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 39-88216 | 1 | Base Frame, Steel | - |
| 2 | 23-88211 | 2 | Bracket | - |
| 3 | 33-83104 | 2 | Platform Mount, 185 lbs. | - |
| 4 | 33-83104 | 2 | Platform Mount, 185 lbs. | - |
| 5 | 12-00943 | 4 | Capscrew, Hex Head M12 x 1.25 x 30 mm | - |
| 6 | 12-00776 | 16 | Capscrew, Hex Head M8 x 1.25 x 20 mm, Stainless Steel | - |
| 7 | 15-00705 | 16 | Lock Washer M8, Stainless Steel | - |
| 8 | 12-09519 | 2 | Capscrew, Hex Head 1/2-13 x 2-3/4", Stainless Steel | - |
| 9 | 15-00020 | 6 | Snubbing Washer | - |
| 10 | 14-00501 | 4 | Hex Nut, Nylock 1/2-13, Stainless Steel | - |
| 11 | 12-00313 | 8 | Capscrew, Hex Head 3/8-16 x 1-1/4" | - |
| 12 | 12-00212 | 6 | Capscrew, Hex Head 5/16-18 x 1" | - |
| 13 | 15-00302 | 8 | Lock Washer 3/8 | - |
| 14 | 15-00202 | 6 | Lock Washer 5/16 | - |
| 15 | 15-00912 | 4 | Lock Washer M12 | - |
| 16 | 12-00501 | 2 | Capscrew, Hex Head 1/2-13 x 3", Stainless Steel | - |
| 17 | 15-00505 | 4 | Flat Washer 1/2 Stainless | - |

Base Frame Assembly

Industrial Applications - 308 Frame Generators

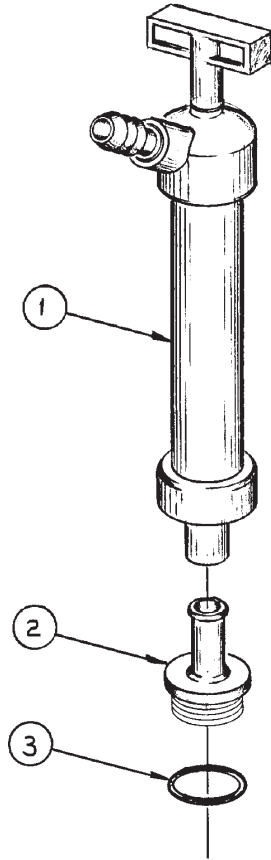


A-7929 / B-7017

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---------------------------------------|---------------|
| 1 | 39-88217 | 1 | Base Frame | - |
| 2 | 23-88208 | 2 | Bracket, Front Engine Mount | - |
| 3 | 12-00943 | 4 | Capscrew, Hex Head M12 x 1.25 x 30 mm | - |
| 4 | 15-00912 | 4 | Lock Washer | - |
| 5 | 12-00817 | 2 | Capscrew, Hex Head M10 x 1.5 x 55 mm | - |
| 6 | 15-00805 | 2 | Flat Washer | - |
| 7 | 15-00014 | 2 | Head/Tail Washer | - |
| 8 | 33-83100 | 2 | Centerbonded Mount, 100 lb. | - |
| 9 | 15-00014 | 2 | Head/Tail Washer | - |
| 10 | 14-00812 | 2 | Hex Nut, Nylock | - |
| 11 | 12-00048 | 2 | Capscrew, Hex Head M10 x 1.5 x 60 mm | - |
| 12 | 15-00805 | 2 | Flat Washer | - |
| 13 | 15-00014 | 2 | Head/Tail Washer | - |
| 14 | 33-83100 | 2 | Centerbonded Mount, 100 lb. | - |
| 15 | 15-00014 | 2 | Head/Tail Washer | - |
| 16 | 14-00812 | 2 | Hex Nut, Nylock | - |
| 17 | 12-00312 | 8 | Capscrew, Hex Head 3/8-16 x 1" | - |
| 18 | 15-00302 | 8 | Lock Washer | - |
| 19 | 12-00214 | 6 | Capscrew, Hex Head 5/16-18 x 1-1/2" | - |
| 20 | 15-00202 | 6 | Lock Washer | - |

Oil Drain Kit

Marine Application

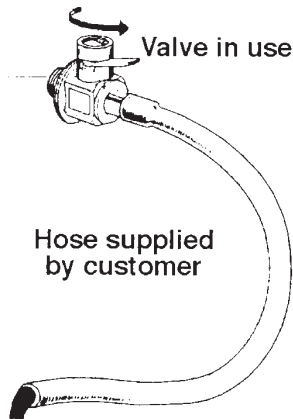


A-5024/ B-3990

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| •• | 34-70010 | | Oil Drain Kit Complete (includes all keys) | - |
| 1 | 36-72002 | 1 | Hand Pump | - |
| 2 | 31-70001 | 1 | Adapter, Oil Drain | - |
| 3 | 16-70001 | 1 | O-ring | - |

Oil Drain Kit

Industrial Application

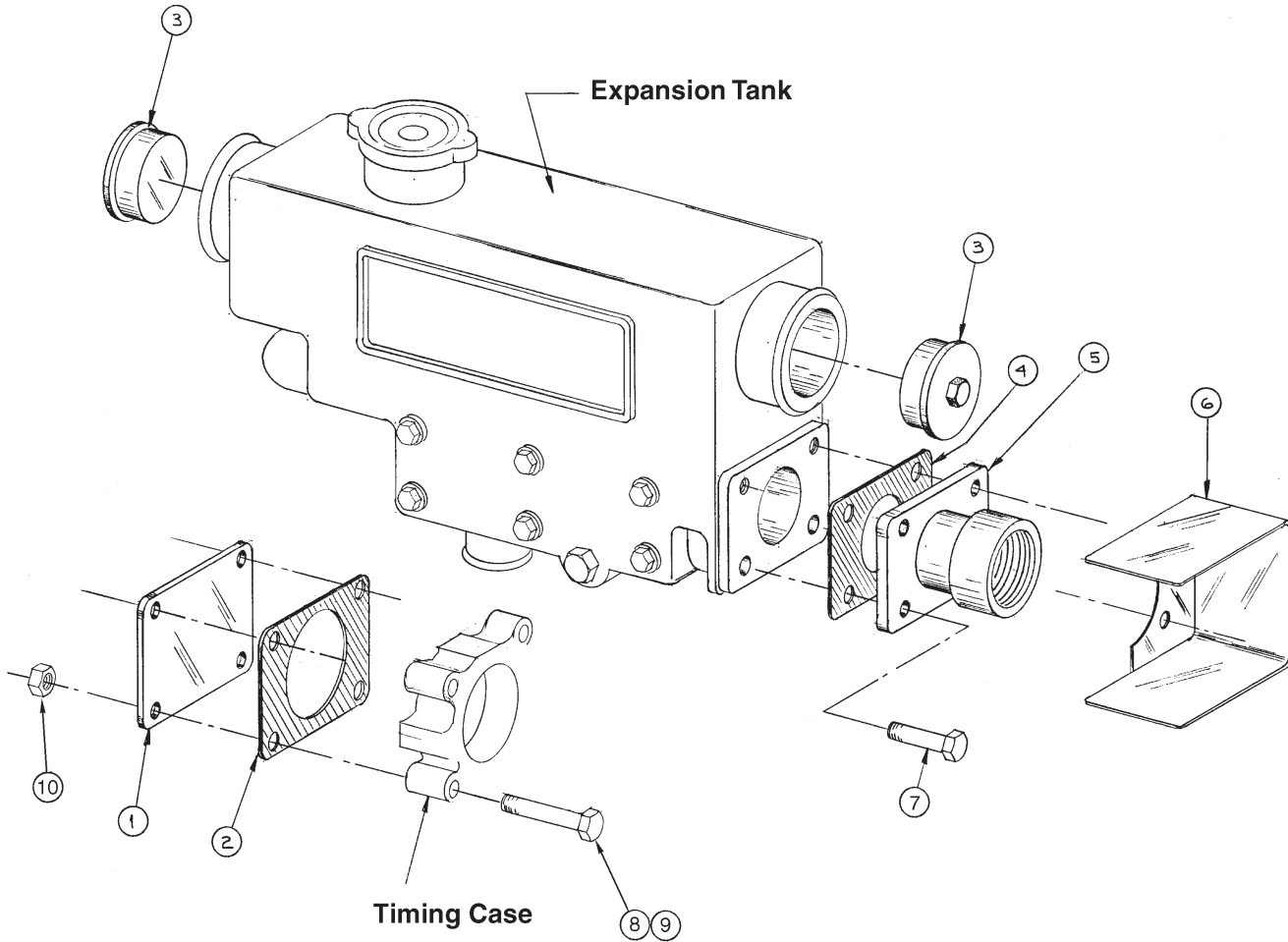


A-6480

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|-------------|---------------|
| 1 | 36-72003 | 1 | Drain Valve | - |

Dry Exhaust Adapter - Keel Cooled

Marine Application

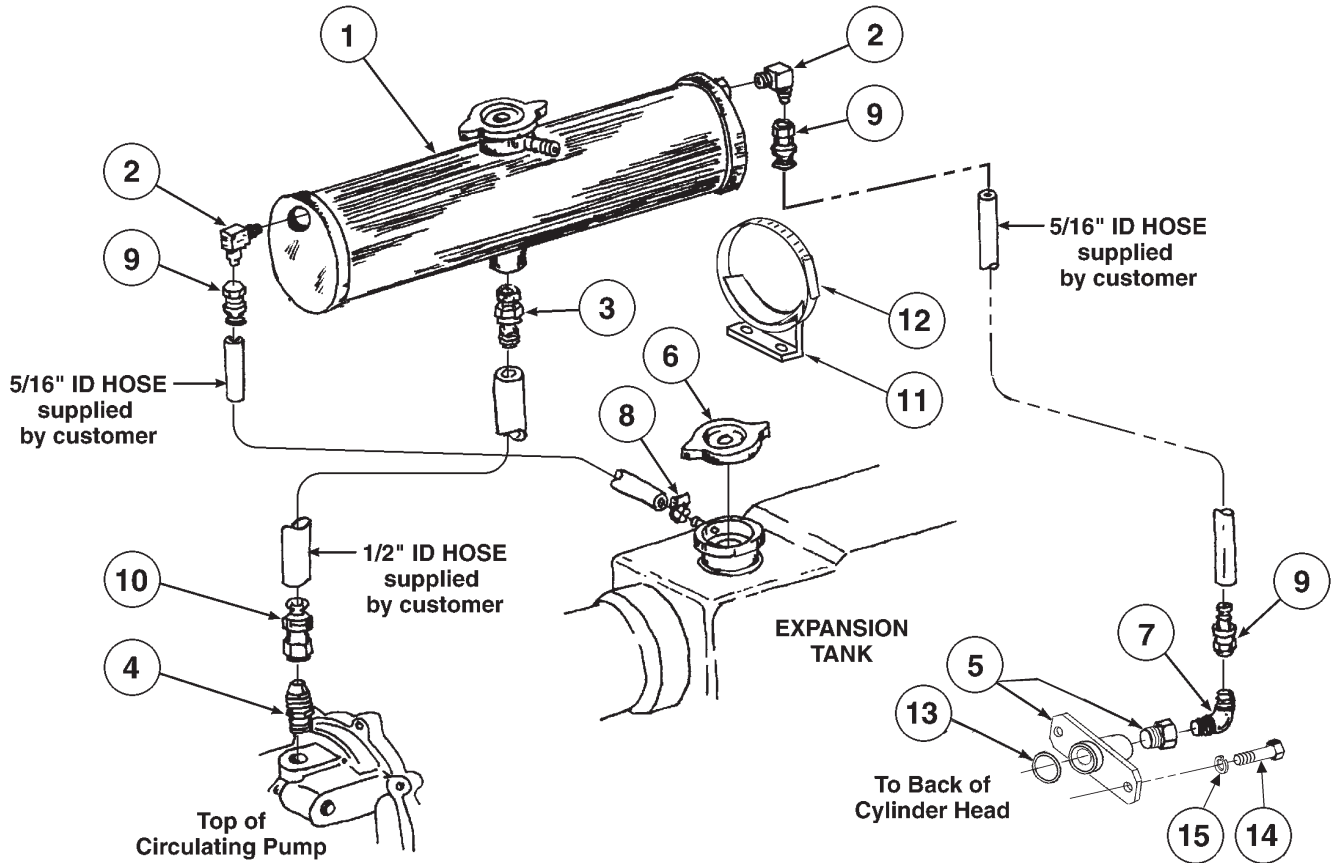


A-2169 / C-2276

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 165206320 | 1 | Cover Plate | - |
| 2 | 11-12005 | 1 | Gasket, Cover Plate | - |
| 3 | 20-11904 | 2 | End Cap (requires key #11) | - |
| 4 | 314990030 | 1 | Gasket, Exhaust Adapter | - |
| 5 | 27-31921 | 1 | Dry Exhaust Adapter | - |
| 6 | 00-12000 | 1 | Heat Shield | - |
| 7 | 12-00712 | 4 | Capscrew, Hex Head M8 x 1.25 x 25 mm | - |
| 8 | 12-00071 | 3 | Capscrew, Hex Head M8 x 1.25 x 70 mm | - |
| 9 | 12-00718 | 1 | Capscrew, Hex Head M8 x 1.25 x 65 mm | - |
| 10 | 14-00711 | 3 | Hex Nut M8 x 1.25 | - |
| 11 | 19-00058 | 2 | Hose Clamp #48 (used with #20-11904 - not shown) | - |

Remote Expansion Tank

Marine Application, Early Production

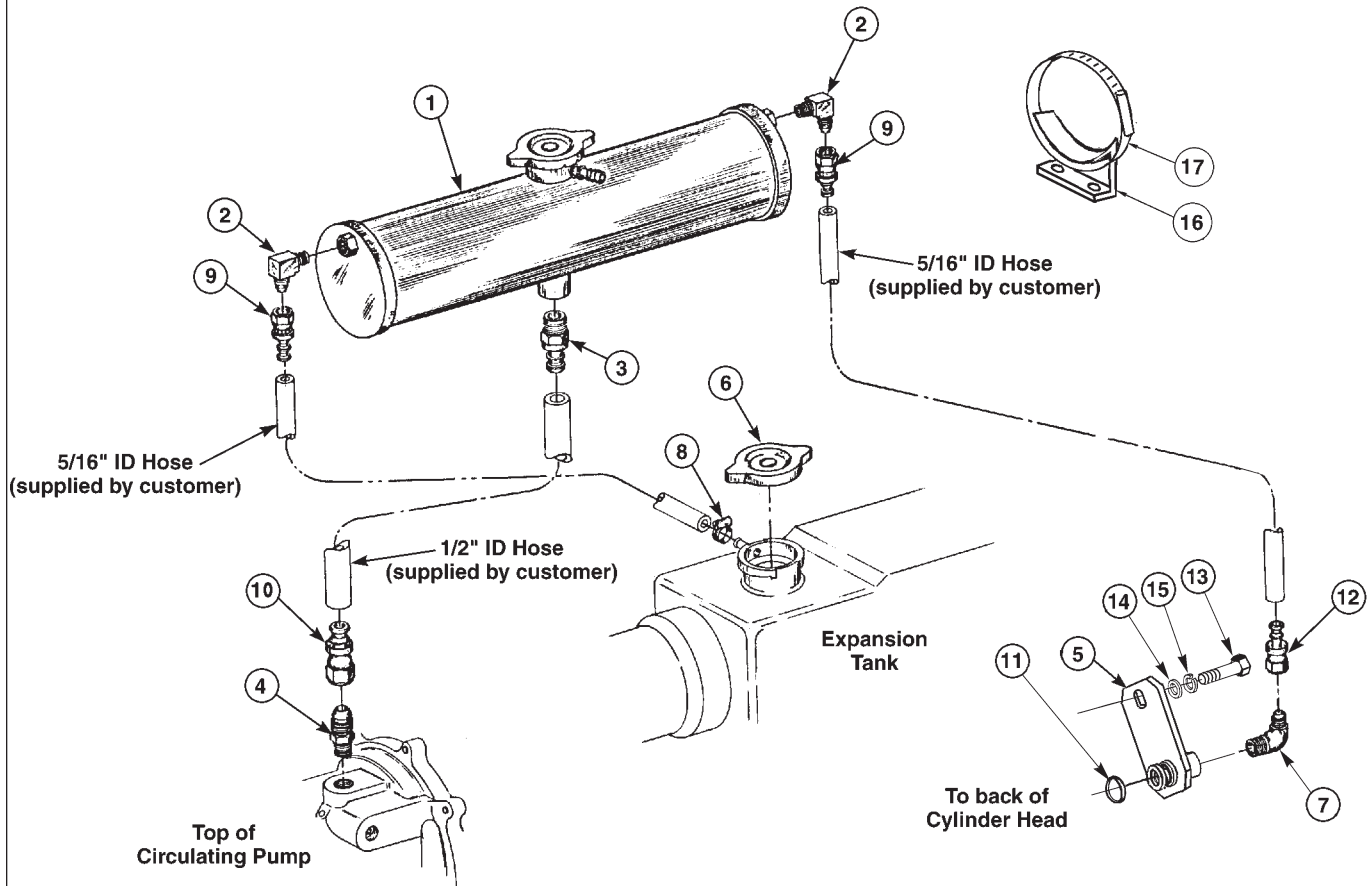


A-7463

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| 1 | 10-12002 | 1 | Tank Assembly (includes keys 11-12) | - |
| 2 | 21-52245 | 2 | Male Elbow, Brass 1/4 NPT x 5/16-45T | - |
| 3 | 21-51093 | 1 | Male Connector, Brass 1/2 NPT x 1/2 HB | - |
| 4 | 21-71093 | 1 | Male Connector, Brass 3/8 NPT x 1/2 HB | - |
| 5 | 185706320 | 1 | Port Adapter (requires #13) | - |
| | 21-60010 | 1 | Female Adapter, Steel 3/8 NPT x M16 x 1.5 (used with Port Adapter) | - |
| 6 | 21-12008 | 1 | Filler Cap | - |
| 7 | 21-01013 | 1 | Male Elbow, 90° Brass 3/8 NPT x 5/16-45T | - |
| 8 | 19-00004 | 1 | Hose Clamp #4 | - |
| 9 | 21-71056 | 3 | Female Swivel, Brass 5/16 HB x 5/16-45T | - |
| 10 | 21-71042 | 1 | Female Swivel, Brass 1/2 HB x 1/2-45T | - |
| 11 | 23-75404 | 2 | Bracket, Tank Mtg. | - |
| 12 | 19-00064 | 2 | Hose Clamp #64 | - |
| 13 | 052300300 | 1 | O-ring | - |
| 14 | 12-00707 | 2 | Capscrew, Hex Head M8 x 1.25 x 14mm | - |
| 15 | 15-00702 | 2 | Lock Washer M8 | - |

Remote Expansion Tank

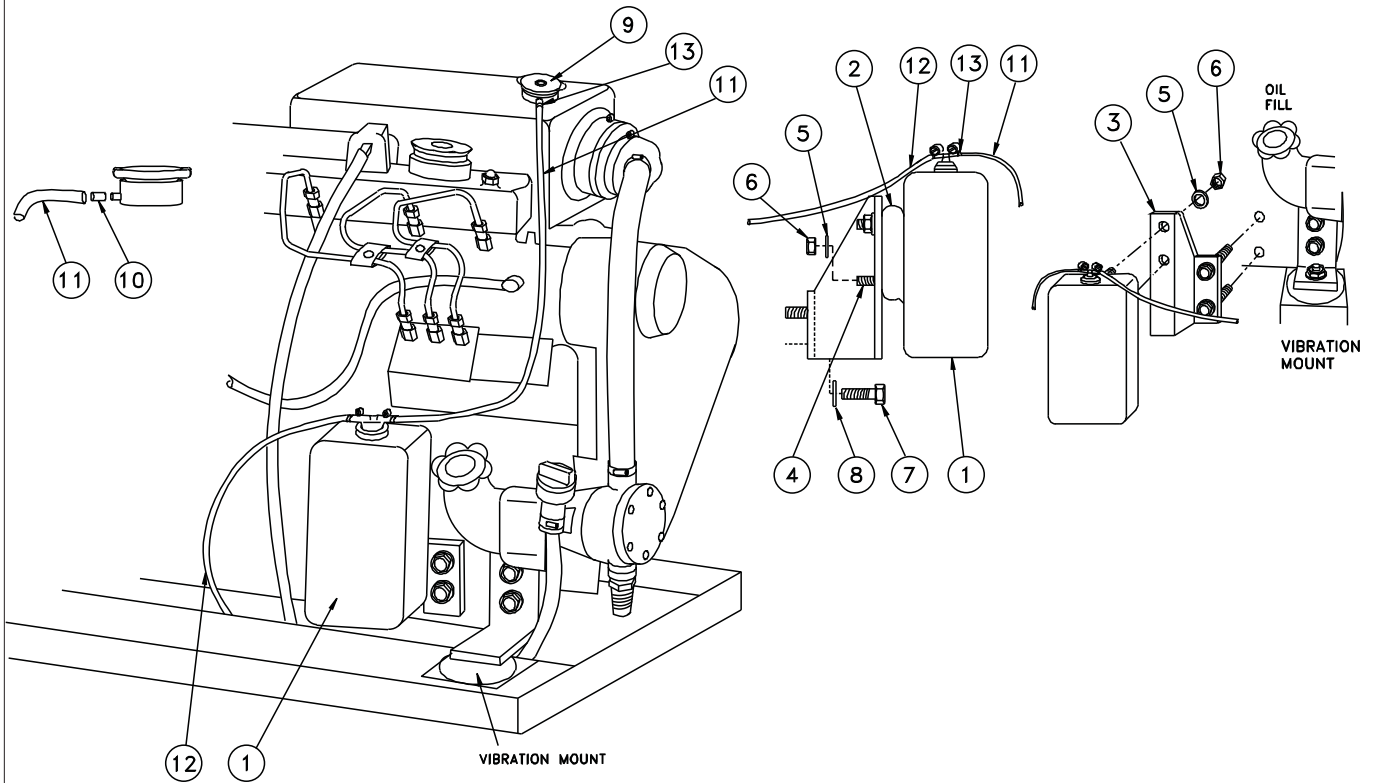
Marine Application, Late Production



A-5931A/ D-2345

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 10-12002 | 1 | Tank Assembly (includes keys #2 & #16 - #17) | - |
| 2 | 21-52245 | 2 | Male Elbow, Brass 1/4 NPT x 5/16-45T | - |
| 3 | 21-51093 | 1 | Male Connector, Brass 1/2 NPT x 1/2 HB | - |
| 4 | 21-71093 | 1 | Male Connector, Brass 3/8 NPT x 1/2 HB | - |
| 5 | 31-12001 | 1 | Port Adapter (requires key #11) | - |
| 6 | 21-12008 | 1 | Filler Cap | - |
| 7 | 21-10030 | 1 | Male Elbow, Steel 3/8 Port x 5/16-37T | - |
| 8 | 19-00004 | 1 | Hose Clamp | - |
| 9 | 21-71056 | 2 | Female Swivel, Brass 5/16 HB x 5/16-45T | - |
| 10 | 21-71042 | 1 | Female Swivel, Brass 1/2 HB x 1/2-45T | - |
| 11 | 16-90001 | 1 | O-ring (for Port Adapter) | - |
| 12 | 21-70007 | 1 | Female Swivel, Brass 5/16 HB x 5/16-37T | - |
| 13 | 12-00751 | 1 | Capscrew, Hex Head M8 x 1.25 x 16 mm | - |
| 14 | 15-00701 | 1 | Flat Washer M8 | - |
| 15 | 15-00702 | 1 | Lock Washer M8 | - |
| 16 | 23-75404 | 2 | Mounting Foot | - |
| 17 | 19-00064 | 2 | Hose Clamp #64 (for tank mounting) | - |

Coolant Recovery Tank



A-9147/ B-6397

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---------------------------------------|---------------|
| 1 | 310550130 | 1 | Coolant Recovery Tank | - |
| 2 | 222300090 | 1 | Bracket, Coolant Recovery Tank Mtg. | - |
| 3 | 23-18202 | 1 | Bracket, Coolant Recovery Tank Mtg. | - |
| 4 | 12-00097 | 2 | Capscrew, Hex Head M6 x 1.0 x 12 mm | - |
| 5 | 15-00008 | 2 | Flat Washer M6 | - |
| 6 | 14-04803 | 2 | Hex Nut, Nylock M6 x 1.0 | - |
| 7 | 12-00911 | 2 | Capscrew, Hex Head M12 x 1.75 x 20 mm | - |
| 8 | 15-00912 | 2 | Lock Washer | - |
| 9 | 310110040 | 1 | Filler Cap | - |
| 10 | 41-01010 | .5 | Hose, Polyvinyl 1/4" ID x 3/8" OD | - |
| 11 | 41-01013 | 18 | Hose, Polyvinyl 5/16" ID x 7/16" OD | - |
| 12 | 41-01013 | 10 | Hose, Polyvinyl 5/16" ID x 7/16" OD | - |
| 13 | 19-00002 | 3 | Hose Clamp #2 | - |



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