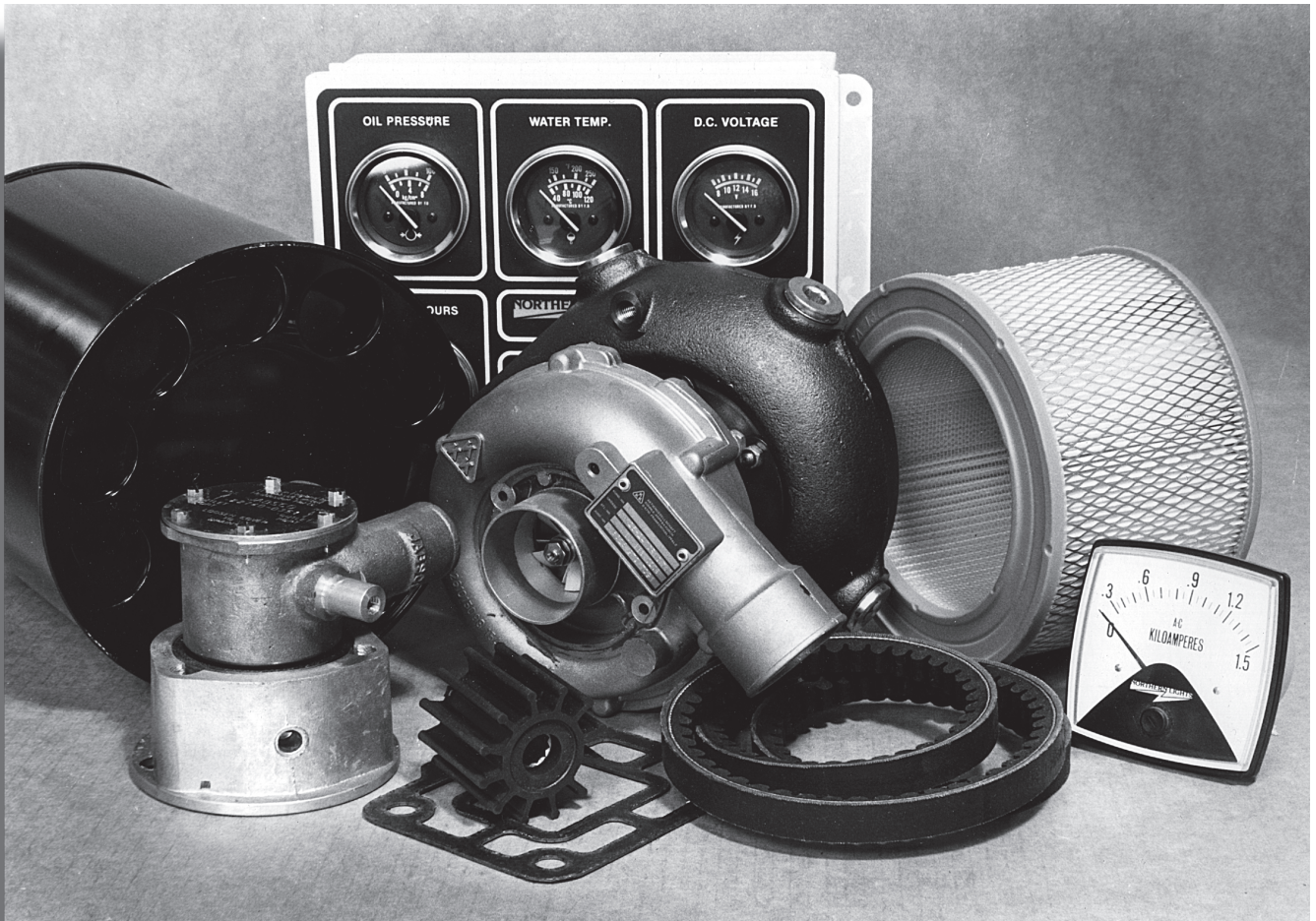


PARTS CATALOG

P484

for Model NL484



NORTHERN LIGHTS
®

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PARTS CATALOG

for Model
NL484

Please read thoroughly before attempting to use this manual:

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INTRODUCTION

MODEL DESIGNATION

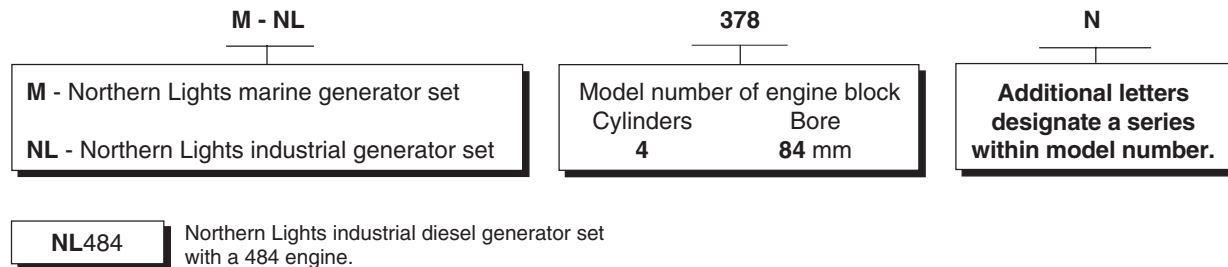
MODELS INCLUDED

This manual covers the operating instructions for:

NL484, which uses the Yanmar model 4TNE84-ADCL engine.

MODEL NUMBERS

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

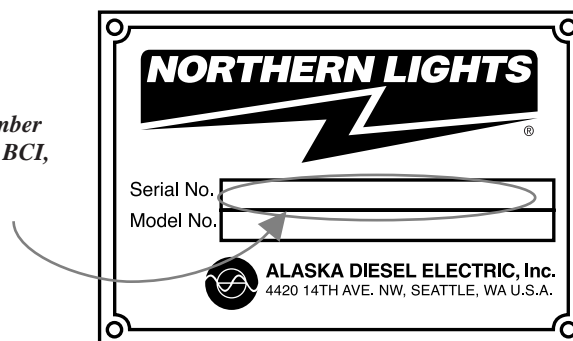


SERIAL NUMBERS

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 PXG, PXX, BCI,
and PSL 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

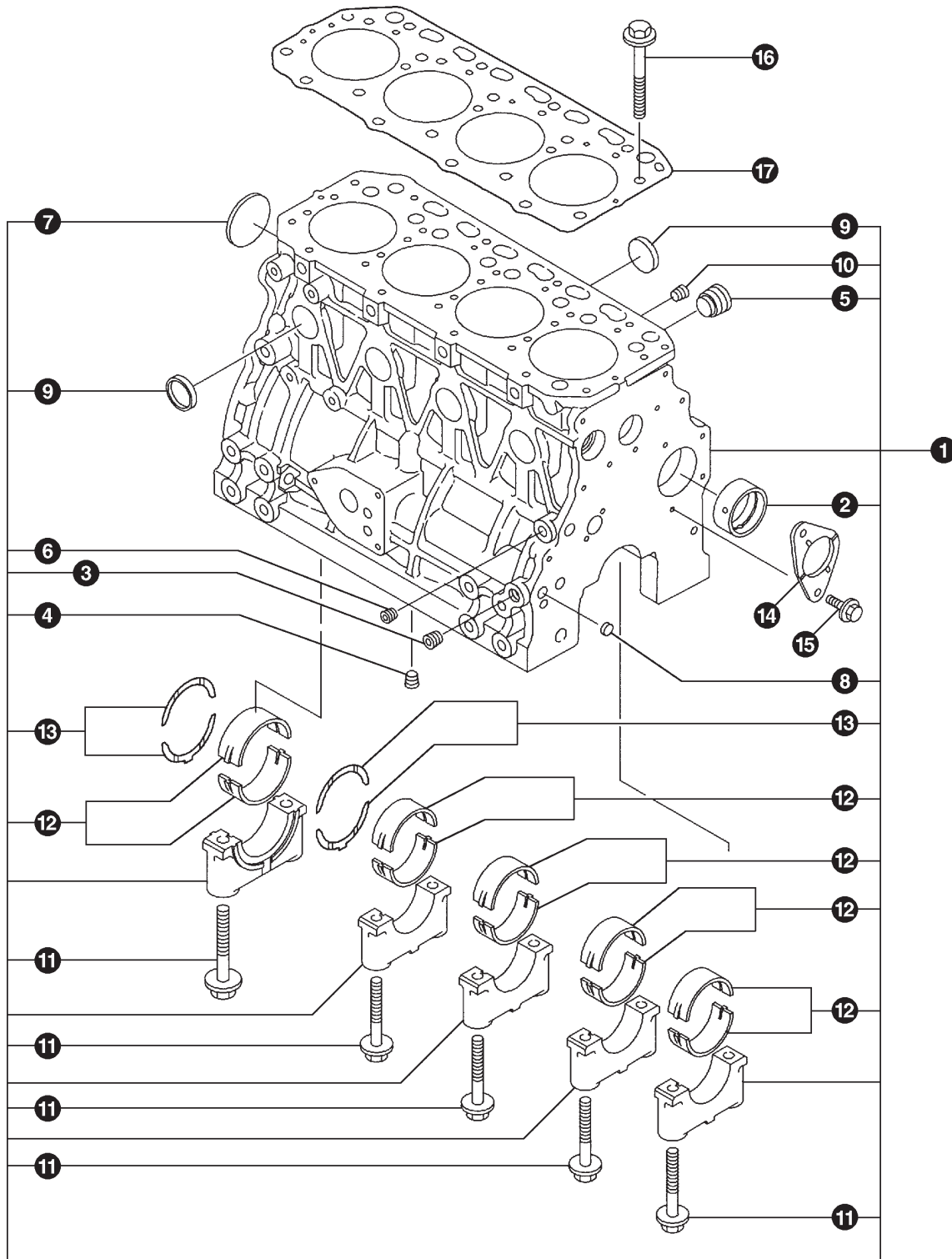


Figure 1

Cylinder Block

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|------------------------------------|---------------|
| 1 | 729408-01560 | 1 | Cylinder Block Assembly | - |
| 2 | 129795-02411 | 1 | Camshaft Bush | - |
| 3 | 124160-01910 | 2 | Plug, 1/4 BSPT | - |
| 4 | 124160-01910 | 1 | Plug, 1/4 BSPT | - |
| 5 | 171051-01921 | 1 | Plug | - |
| 6 | 23871-010000 | 1 | Screw Plug, 1/8 BSPT | - |
| 7 | 27231-500000 | 1 | Plug 50 mm | - |
| 8 | 27241-120000 | 2 | Plug 12 mm | - |
| 9 | 27241-300000 | 8 | Plug 30 mm | - |
| 10 | 23871-030000 | 1 | Screw Plug, 3/8 BSPT | - |
| 11 | 129150-02020 | 10 | Bearing Cap Bolt | - |
| 12 | 129001-02800 | 5 | Main Bearing, Standard | - |
| | 129150-02870 | 5 | Main Bearing, Under-sized 0.25 mm | - |
| 13 | 129150-02930 | 2 | Thrust Bearing, Standard | - |
| | 129150-02940 | 2 | Thrust Bearing, Over-sized 0.25 mm | - |
| 14 | 129150-02450 | 1 | Thrust Plate | - |
| 15 | 26106-080162 | 2 | Bolt, M8 x 16 Plated | - |
| 16 | 129150-01200 | 18 | Cylinder Head Bolt | - |
| 17 | 129408-01330 | 1 | Cylinder Head Gasket | - |

Flywheel Housing and Oil Sump

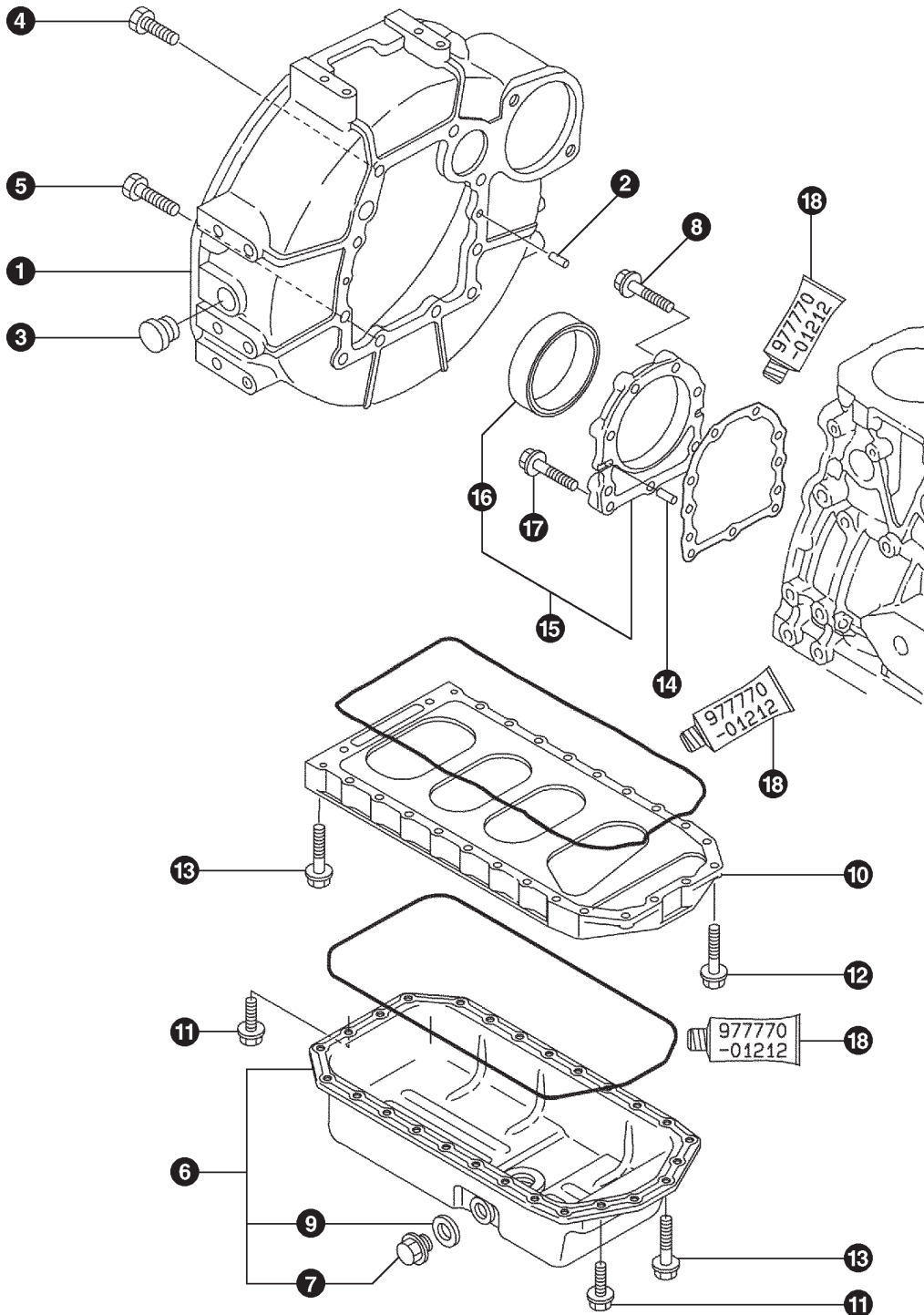


Figure 2

Flywheel Housing and Oil Sump

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|--|---------------|
| 1 | 171420-01600 | 1 | Flywheel Housing | - |
| 2 | 129100-01580 | 2 | Parallel Pin | - |
| 3 | 119620-01750 | 1 | Plug | - |
| 4 | 26206-100252 | 6 | Bolt, M10 x 25 | - |
| 5 | 26206-100302 | 4 | Bolt, M10 x 30 | - |
| 6 | 129400-01770 | 1 | Oil Sump Assembly (Includes Keys #7 - #8) | - |
| 7 | 119640-01640 | 1 | Drain Plug M22 x 1.5 | - |
| | 36-77300 | 1 | Oil Drain Valve with 5/8" Hose Barb (Optional - not shown) | - |
| 8 | 22190-220002 | 1 | Seal Washer | - |
| 9 | 26106-080302 | 6 | Bolt, M8 x 30 Plated | - |
| 10 | 129400-01730 | 1 | Oil Sump Spacer | - |
| 11 | 26106-080162 | 4 | Bolt, M8 x 16 Plated | - |
| 12 | 26106-080252 | 2 | Bolt, M8 x 25 Plated | - |
| 13 | 26106-080452 | 24 | Bolt, M8 x 45 Plated | - |
| 14 | 129100-01580 | 2 | Parallel Pin 8 x 16 | - |
| 15 | 129100-01640 | 1 | Rear Main Seal Retainer (Includes Key #16) | - |
| 16 | 129795-01780 | 1 | Rear Main Seal | - |
| 17 | 26106-080352 | 3 | Bolt, M8 x 35 Plated | - |
| 18 | 927770-01212 | ** | Liquid Gasket | - |

**As Required.

Crankshaft and Piston

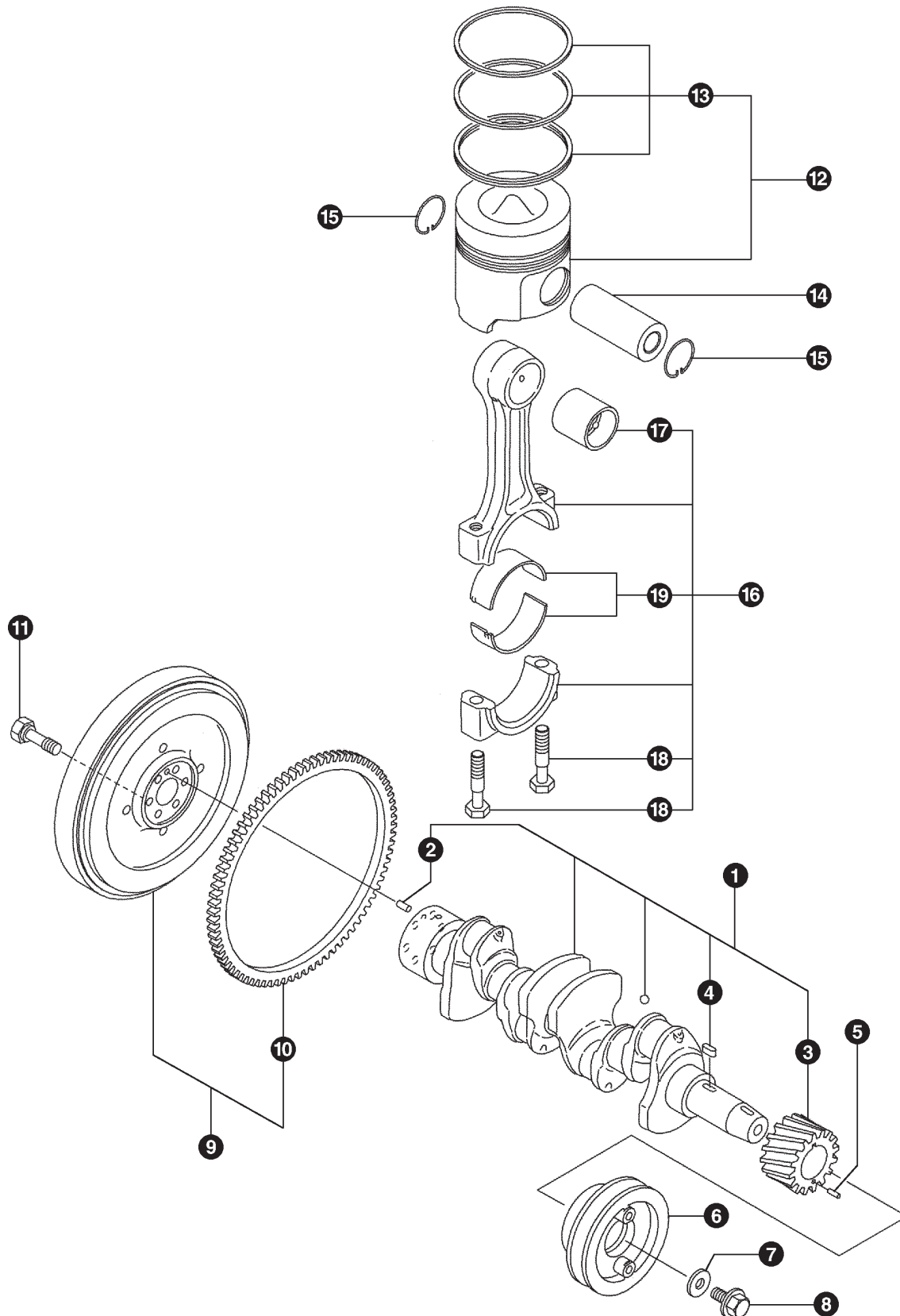


Figure 3

Crankshaft and Piston

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|---|---------------|
| 1 | 129407-21000 | 1 | Crankshaft Assembly (Includes Keys #2 - #4) | - |
| 2 | 129100-01580 | 1 | Pin | - |
| 3 | 129150-21200 | 1 | Crankshaft Gear | - |
| 4 | 22512-070140 | 1 | Key | - |
| 5 | 22351-040010 | 1 | Spring Pin | - |
| 6 | 129550-21650 | 1 | Crankshaft Pulley | - |
| 7 | 129795-21661 | 1 | Washer | - |
| 8 | 121850-21680 | 1 | Bolt | - |
| 9 | 171420-21590 | 1 | Flywheel Assembly (Includes Key #10) | - |
| 10 | 124550-21600 | 1 | Ring Gear (127 Teeth) | - |
| 11 | 121111-21501 | 6 | Bolt | - |
| 12 | 129002-22081 | 4 | Piston with Rings, Standard | - |
| | 129002-22900 | 4 | Piston with Rings, Over-sized 0.25 mm | - |
| 13 | 129002-22500 | 4 | Piston Ring Set, Standard | - |
| | 129002-22950 | 4 | Piston Ring Set, Over-sized 0.25 mm | - |
| 14 | 129202-22300 | 4 | Piston Pin | - |
| 15 | 22252-000260 | 8 | Snap Ring | - |
| 16 | 729402-23100 | 4 | Connecting Rod Assembly (Includes Keys #17 - #18) | - |
| 17 | 129100-23910 | 4 | Piston Pin Bushing | - |
| 18 | 121550-23200 | 8 | Connecting Rod Bolt | - |
| 19 | 129150-23600 | 4 | Bearing, Standard | - |
| | 129150-23610 | 4 | Bearing, Under-sized 0.25 mm | - |

Camshaft and Driving Gear

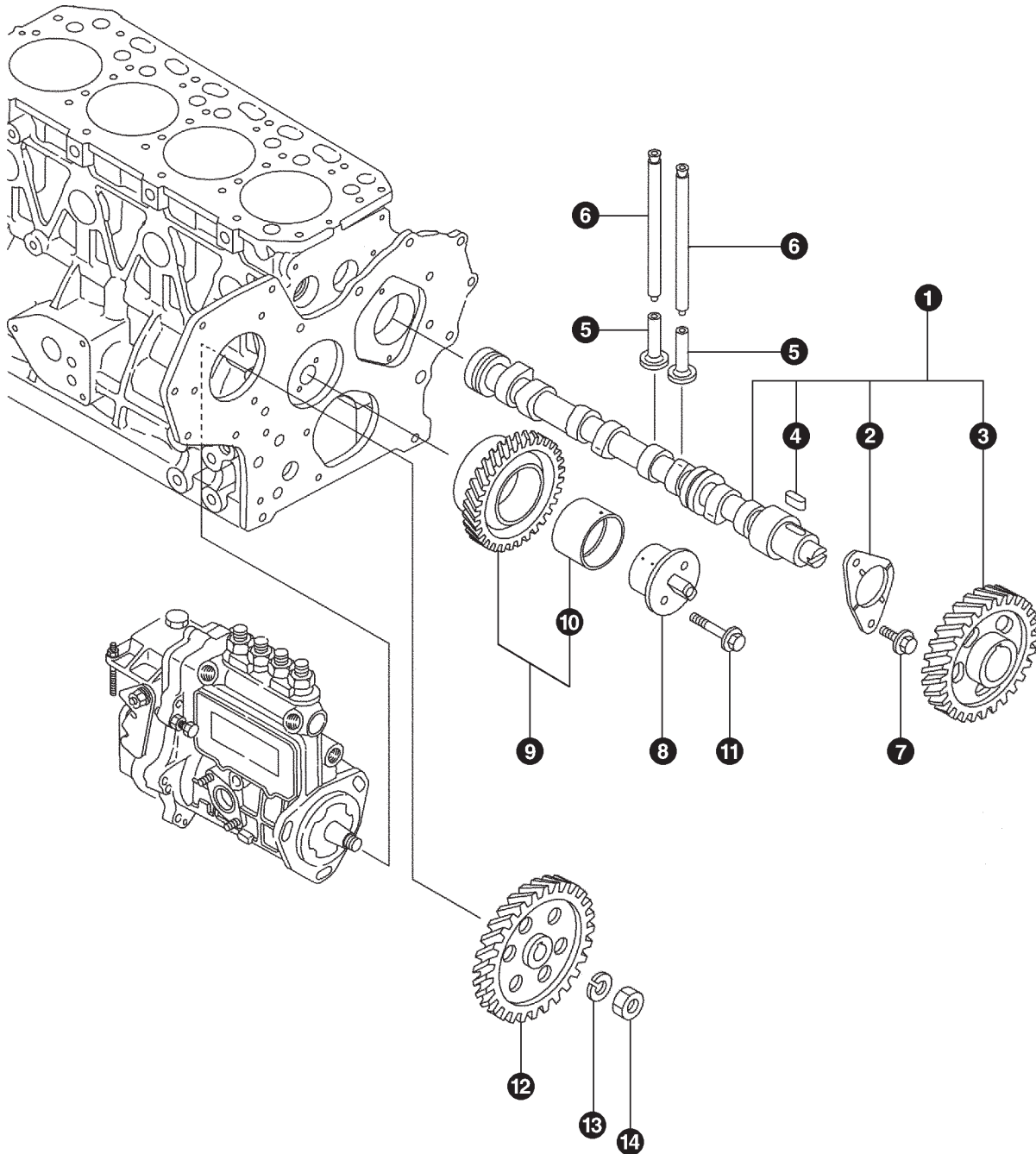


Figure 4

Camshaft and Driving Gear

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|---|---------------|
| 1 | 729402-14580 | 1 | Camshaft Assembly (Includes Keys #4 - #6) | - |
| 2 | 129150-02450 | 1 | Thrust Bearing | - |
| 3 | 129150-14101 | 1 | Camshaft Gear | - |
| 4 | 22512-070140 | 1 | Key, 7 x 14 | - |
| 5 | 129150-14200 | 8 | Tappet | - |
| 6 | 129150-14400 | 8 | Push Rod | - |
| 7 | 26106-080162 | 2 | Bolt, M8 x 16 | - |
| 8 | 129100-25061 | 1 | Idle Gear Shaft | - |
| 9 | 129150-25101 | 1 | Idle Gear (Includes Key #10) | - |
| 10 | 129150-25920 | 1 | Bushing | - |
| 11 | 26106-080452 | 2 | Bolt, M8 x 45 Plated | - |
| 12 | 129150-25900 | 1 | Gear, Injection Pump Drive | - |
| 13 | 22217-120000 | 1 | Spring Washer, M12 | - |
| 14 | 26716-120002 | 1 | Nut, M12 | - |

Timing Gear Housing

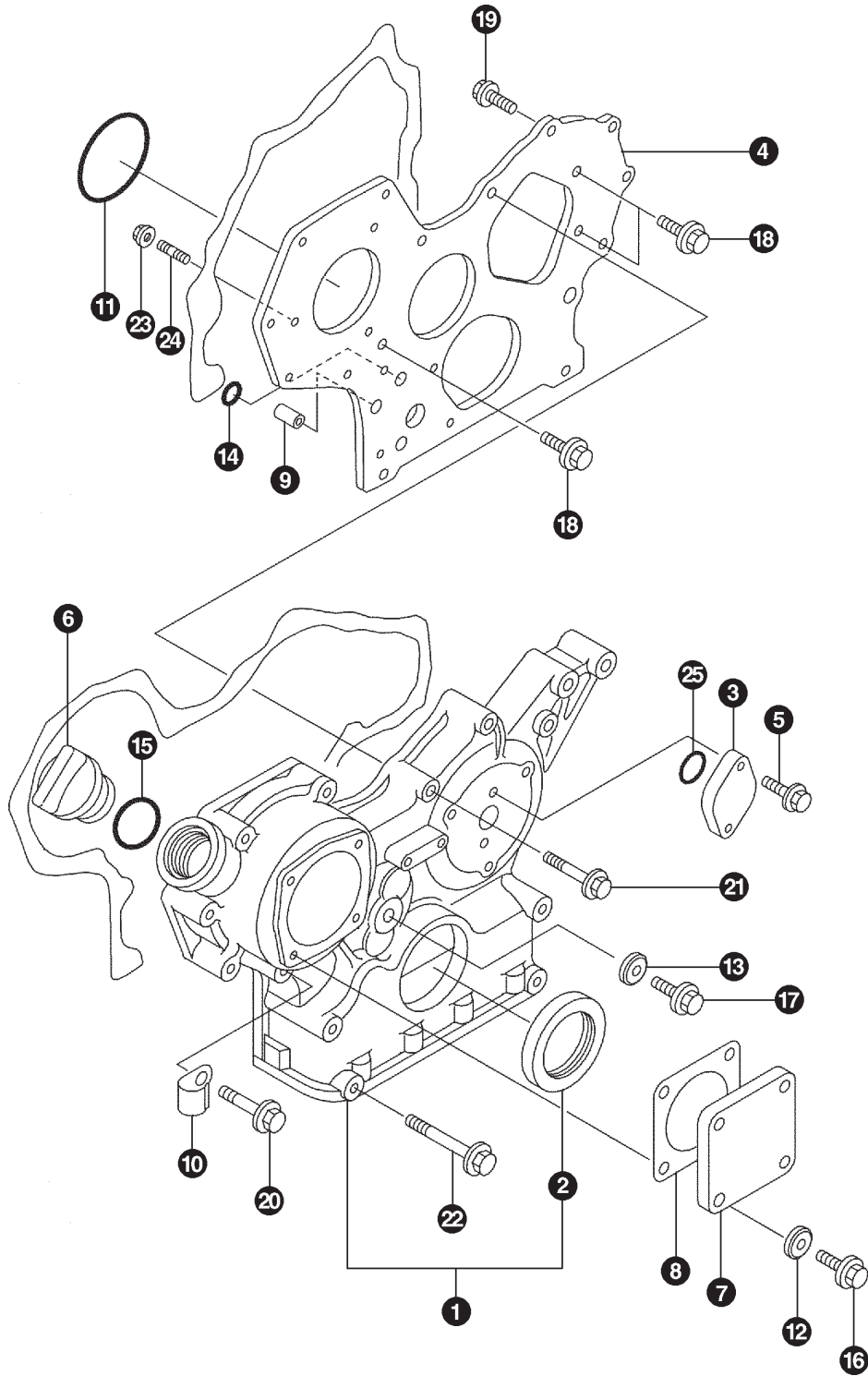


Figure 5

Timing Gear Housing

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|---|---------------|
| 1 | 719810-01500 | 1 | Timing Cover Assembly (Includes Key #2) | - |
| 2 | 129795-01800 | 1 | Oil Seal | - |
| 3 | 121023-01550 | 1 | Cover | - |
| 4 | 129400-01520 | 1 | Housing Flange | - |
| 5 | 26106-060122 | 2 | Bolt, M6 x 12 Plated | - |
| 6 | 124160-01751 | 1 | Oil Cap | - |
| 7 | 124240-01871 | 1 | Cover | - |
| 8 | 124240-01883 | 1 | Gasket | - |
| 9 | 129795-01950 | 2 | Knock Pipe | - |
| 10 | 129150-03100 | 1 | Retainer | - |
| 11 | 121850-51960 | 1 | O-Ring | - |
| 12 | 22190-080002 | 4 | Seal Washer | - |
| 13 | 22190-080002 | 1 | Seal Washer 8S | - |
| 14 | 24311-000160 | 2 | O-Ring | - |
| 15 | 24311-000320 | 1 | O-Ring | - |
| 16 | 26106-080122 | 4 | Bolt, M8 x 12 Plated | - |
| 17 | 26106-080162 | 1 | Bolt, M8 x 16 Plated | - |
| 18 | 26106-080162 | 3 | Bolt, M8 x 16 Plated | - |
| 19 | 26106-080202 | 2 | Bolt, M8 x 20 Plated | - |
| 20 | 26106-080452 | 6 | Bolt, M8 x 45 Plated | - |
| 21 | 26106-080552 | 3 | Bolt, M8 x 55 Plated | - |
| 22 | 26106-080852 | 4 | Bolt, M8 x 85 Plated | - |
| 23 | 26366-080002 | 3 | Nut, M8 | - |
| 24 | 121450-01560 | 3 | Stud, M8 x 22 | - |
| 25 | 24341-000240 | 1 | O-Ring | - |
| 26 | 977770-01212 | ** | Liquid Gasket | - |

**As Required.

Lubricating System

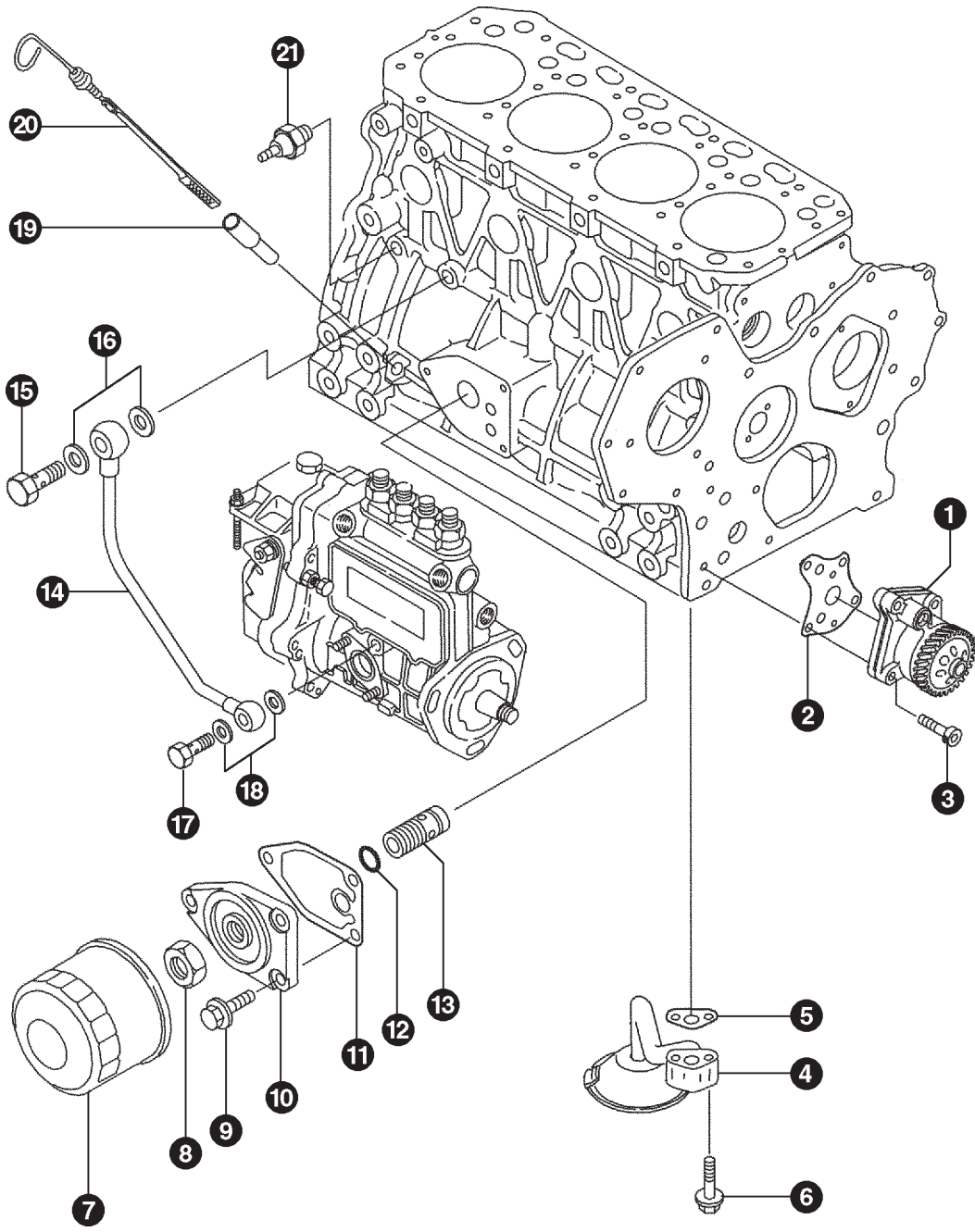


Figure 6

Lubricating System

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|--|---------------|
| 1 | 129407-32000 | 1 | Oil Pump Assembly (Parts not available separately) | - |
| 2 | 129150-32020 | 1 | Gasket | - |
| 3 | 26450-060252 | 4 | Bolt, M6 x 25 | - |
| 4 | 129436-35090 | 1 | Oil Pipe | - |
| 5 | 129150-35041 | 1 | Gasket | - |
| 6 | 26106-080352 | 2 | Bolt, M8 x 35 Plated | - |
| 7 | 24-07301 | 1 | Filter | - |
| 8 | 129150-35350 | 1 | Nut | - |
| 9 | 26106-080202 | 3 | Bolt, M8 x 20 Plated | - |
| 10 | 129150-35101 | 1 | Filter Adapter Plate | - |
| 11 | 129150-35111 | 1 | Gasket | - |
| 12 | 24311-000160 | 1 | O-Ring | - |
| 13 | 119865-35300 | 1 | Oil Filter Adapter/Pressure Relief Valve | - |
| 14 | 129550-39450 | 1 | Lubricating Oil Pipe Assembly | - |
| 15 | 124160-39140 | 1 | Banjo Bolt | - |
| 16 | 23414-100000 | 2 | Gasket | - |
| 17 | 124550-59820 | 1 | Banjo Bolt | - |
| 18 | 22190-080002 | 2 | Seal Washer | - |
| 19 | 121520-34810 | 1 | Dipstick Tube | - |
| 20 | 171420-34820 | 1 | Dipstick | - |
| 21 | 124160-39450 | 1 | Oil Pressure Switch (See Electrical System) | - |

Cylinder Head and Rocker Arm Cover

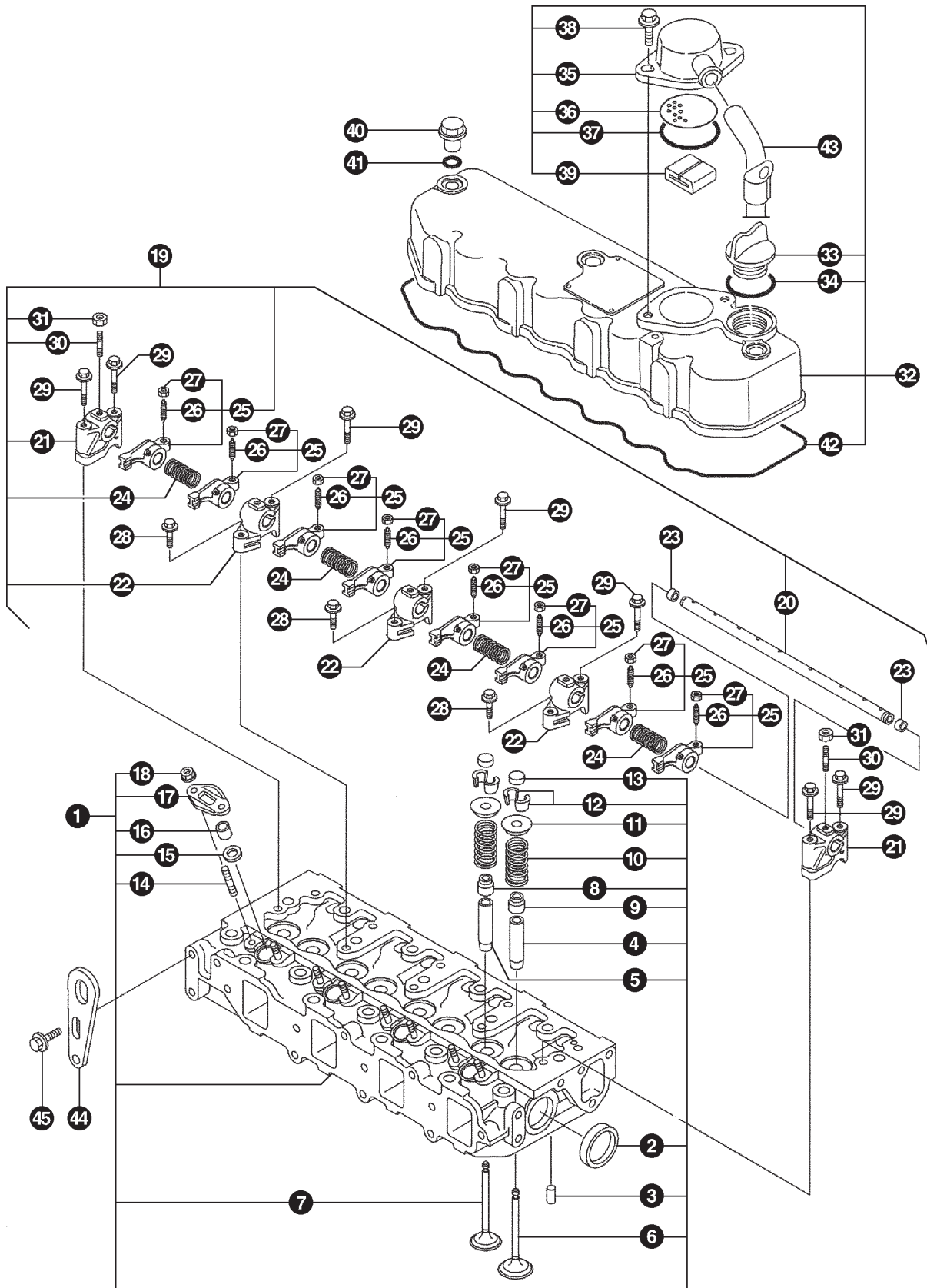


Figure 7

Cylinder Head and Rocker Arm Cover

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|---|---------------|
| 1 | 129407-11700 | 1 | Cylinder Head Assembly (Includes Keys #2 - #18) | - |
| 2 | 27241-400000 | 2 | Plug 40 mm | - |
| 3 | 22351-060012 | 2 | Spring Pin, 6 x 12 | - |
| 4 | 120130-11860 | 4 | Valve Guide, Intake | - |
| 5 | 129150-11810 | 4 | Valve Guide, Exhaust | - |
| 6 | 129100-11100 | 4 | Intake Valve | - |
| 7 | 129100-11110 | 4 | Exhaust Valve | - |
| 8 | 121400-11340 | 4 | Valve Stem Seal | - |
| 9 | 124460-11340 | 4 | Valve Stem Seal | - |
| 10 | 129795-11120 | 8 | Valve Spring | - |
| 11 | 129795-11180 | 8 | Spring Retainer | - |
| 12 | 27310-080000 | 8 | Keeper | - |
| 13 | 129150-11370 | 8 | Valve Cap | - |
| 14 | 26216-060202 | 8 | Stud, M6 x 20 Plated | - |
| 15 | 119625-11880 | 4 | Nozzle Seat | - |
| 16 | 119625-11871 | 4 | Nozzle Protector | - |
| 17 | 119625-11900 | 4 | Retainer | - |
| 18 | 26366-060002 | 8 | Nut, M6 | - |
| 19 | 129500-11240 | 1 | Rocker Arm Shaft Assembly (Includes Keys #20 - #27) | - |
| 20 | 129550-11290 | 1 | Rocker Arm Shaft (Includes Key #23) | - |
| 21 | 129155-11260 | 2 | Rocker Arm Support | - |
| 22 | 129155-11270 | 3 | Rocker Arm Support | - |
| 23 | 27241-100000 | 2 | Plug | - |
| 24 | 129150-11280 | 4 | Spring | - |
| 25 | 129100-11650 | 8 | Rocker Arm Assembly (Includes Keys #26 - #27) | - |
| 26 | 129150-11230 | 8 | Valve Screw | - |
| 27 | 129150-11750 | 8 | Nut, M8 x 1.0 | - |
| 28 | 26106-080252 | 3 | Bolt, M8 x 25 Plated | - |
| 29 | 26106-080502 | 7 | Bolt, M8 x 50 Plated | - |
| 30 | 26226-080182 | 3 | Stud, M8 x 18 Plated | - |
| 31 | 26756-080002 | 3 | Lock Nut, M8 Plated | - |
| 32 | 129400-11350 | 1 | Rocker Arm Cover Assembly (Includes Keys #33 - #39 & #42 - #43) | - |
| 33 | 124160-01751 | 1 | Lubricating Oil Supply Cap | - |
| 34 | 24311-000320 | 1 | O-Ring | - |
| 35 | 129150-03020 | 1 | Breather Cover | - |
| 36 | 129150-03080 | 1 | Shelter Plate | - |
| 37 | 24341-000500 | 1 | O-Ring, 1A S-50.0 | - |
| 38 | 26106-080162 | 2 | Bolt, M8 x 16 Plated | - |
| 39 | 129150-03070 | 1 | Breather Baffle | - |
| 40 | 124160-11360 | 3 | Knob | - |
| 41 | 24311-000120 | 3 | O-Ring | - |
| 42 | 129550-11310 | 1 | Gasket | - |
| 43 | 129150-03090 | 1 | Breather Hose | - |
| 44 | 124736-07900 | 2 | Lifting Eye | - |
| 45 | 26106-080142 | 4 | Bolt, M8 x 14 Plated | - |

Intake Manifold and Air Cleaner

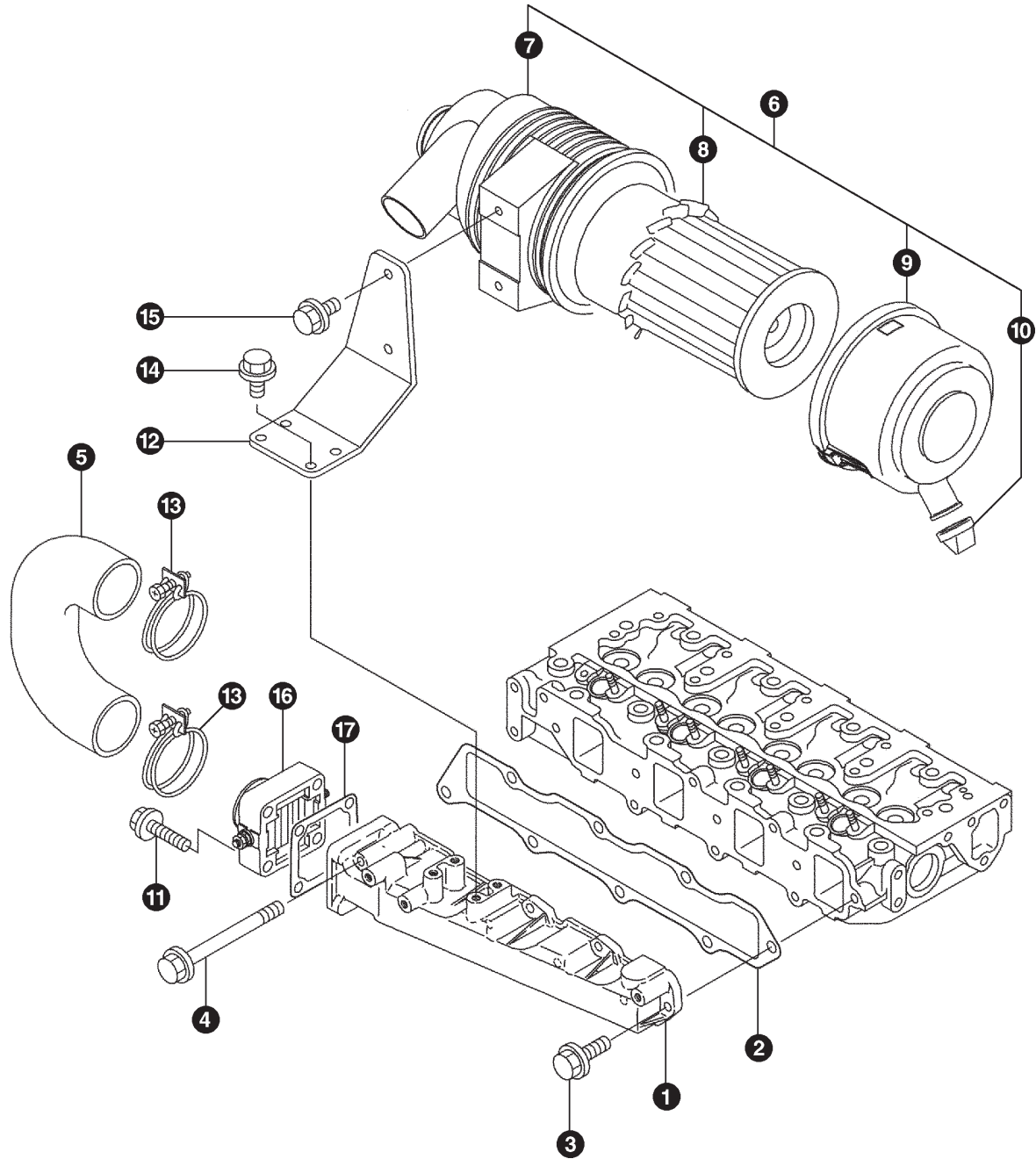


Figure 8

Intake Manifold and Air Filter

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|--|---------------|
| 1 | 129407-12100 | 1 | Intake Manifold | - |
| 2 | 129407-12110 | 1 | Gasket | - |
| 3 | 26106-080202 | 6 | Bolt, M8 x 20 Plated | - |
| 4 | 26106-080802 | 1 | Bolt, M8 x 80 Plated | - |
| 5 | 129619-12210 | 1 | Hose | - |
| 6 | 129619-12500 | 1 | Air Filter Assembly (Includes Keys #7 - #10) | - |
| 7 | 129619-12520 | 1 | Housing | - |
| 8 | 24-27302 | 1 | Element | - |
| 9 | 129619-12530 | 1 | Cover Assembly | - |
| 10 | 129619-12540 | 1 | Valve | - |
| 11 | 26106-080352 | 4 | Bolt, M8 x 35 Plated | - |
| 12 | 129619-12560 | 1 | Bracket | - |
| 13 | 23000-060000 | 2 | Hose Clamp | - |
| 14 | 26106-080182 | 4 | Bolt, M8 x 18 Plated | - |
| 15 | 26106-080182 | 2 | Bolt, M8 x 18 Plated | - |
| 16 | 129120-77501 | 1 | Air Heater | - |
| 17 | 129150-77511 | 1 | Gasket | - |

Exhaust Manifold and Muffler

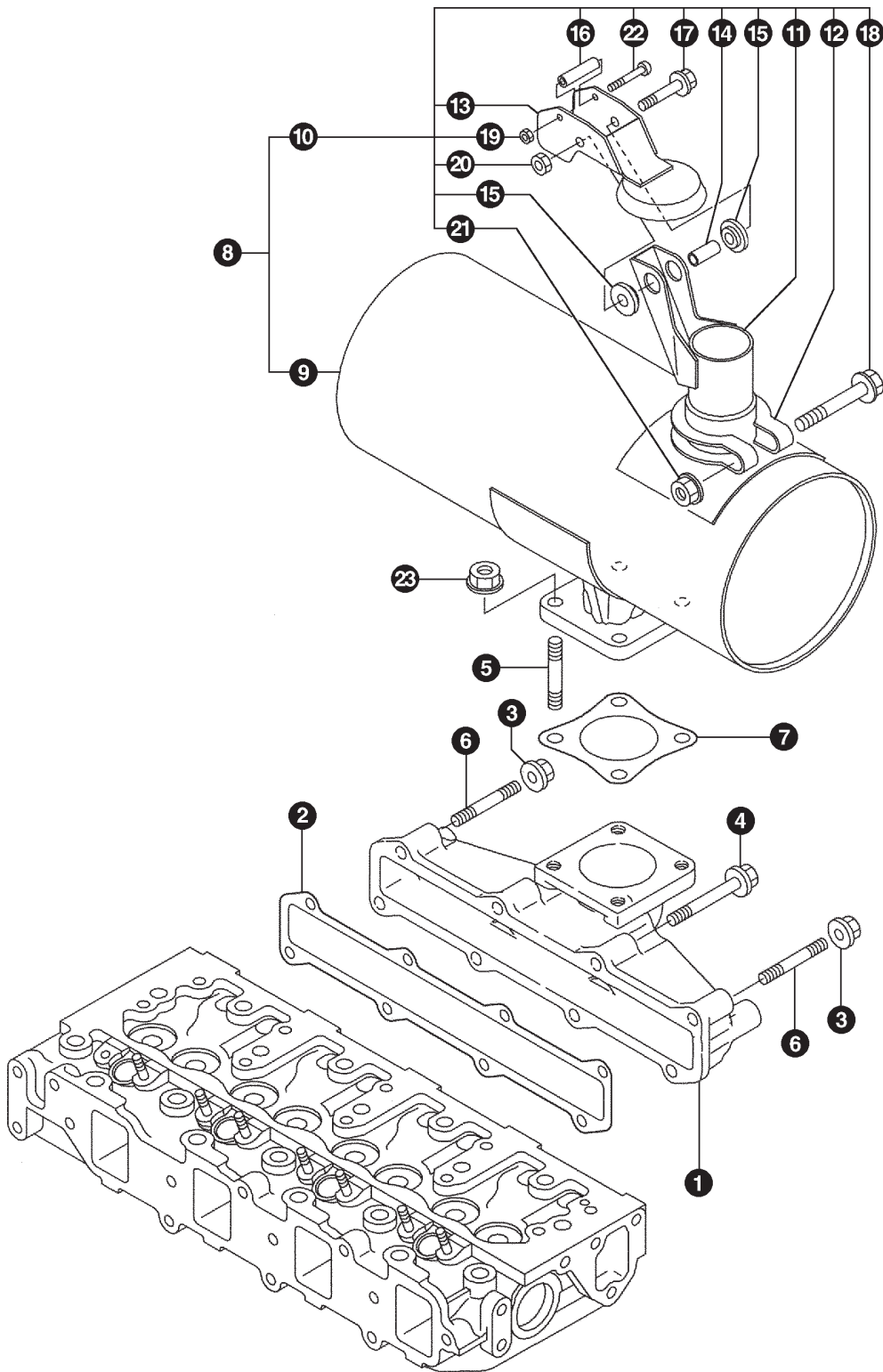


Figure 9

Exhaust Manifold and Muffler

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|-----------------------|---------------|
| 1 | 129407-13100 | 1 | Exhaust Manifold | - |
| 2 | 129407-13110 | 1 | Gasket | - |
| 3 | 194990-22050 | 2 | Nut with Washer 8 | - |
| 4 | 26106-080402 | 6 | Bolt, M8 x 40 Plated | - |
| 5 | 26216-080222 | 4 | Stud, M8 x 22 Plated | - |
| 6 | 26216-080402 | 2 | Stud, M8 x 40 Plated | - |
| 7 | 129400-13201 | 1 | Gasket | - |
| 8 | 129420-13501 | 1 | Silencer | - |
| 9 | 129420-13530 | 1 | Muffler Body Assembly | - |
| 10 | 129420-13540 | 1 | Tail Pipe Assembly | - |
| 11 | 129420-13550 | 1 | Tail Pipe | - |
| 12 | 121850-13580 | 1 | Clamp | - |
| 13 | 128300-13640 | 1 | Rain Cap | - |
| 14 | 121855-13821 | 1 | Spacer (A) | - |
| 15 | 121855-13830 | 2 | Spacer (B) | - |
| 16 | 123500-13840 | 1 | Spacer (C) | - |
| 17 | 26106-060402 | 1 | Bolt, M6 x 40 Plated | - |
| 18 | 26106-100602 | 1 | Bolt, M10 x 60 Plated | - |
| 19 | 26347-040002 | 1 | U-Nut, M4 | - |
| 20 | 26347-060002 | 1 | U-Nut, 6 | - |
| 21 | 26366-100002 | 1 | Nut, M10 | - |
| 22 | 26557-040352 | 1 | Screw, M4 x 35 | - |
| 23 | 194990-22050 | 4 | Nut with Washer 8 | - |

Cooling System - General Arrangement

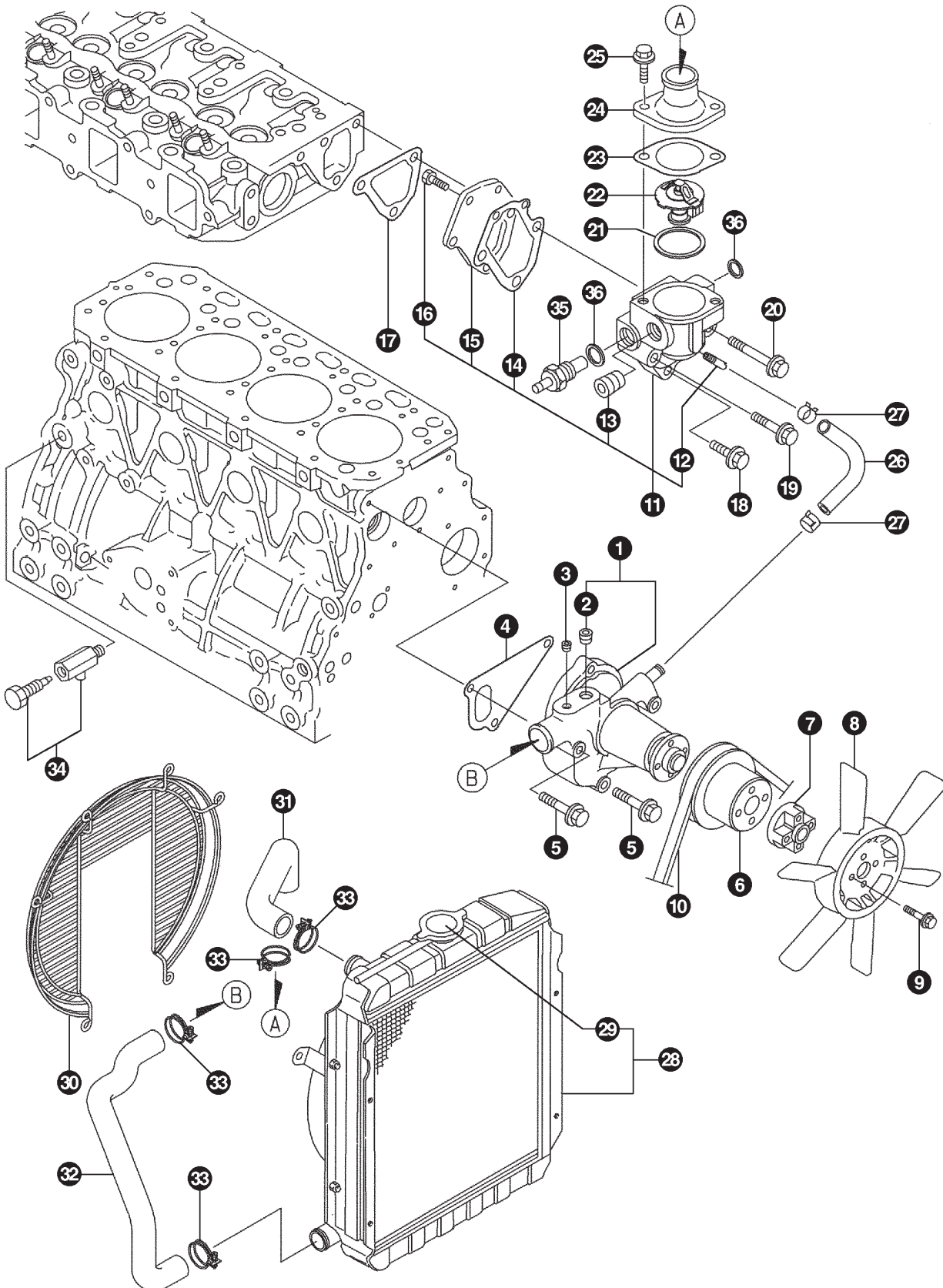


Figure 10

Cooling System - General Arrangement

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|--|---------------|
| 1 | 129100-42002 | 1 | Coolant Pump (Parts not available separately) | - |
| 2 | 23871-030000 | 1 | Screw Plug, 3/8 BPST | - |
| 3 | 121850-11860 | 1 | Plug, 1/4 BPST | - |
| 4 | 129100-42020 | 1 | Gasket | - |
| 5 | 26106-080602 | 3 | Bolt, M8 x 60 Plated | - |
| 6 | 129155-42350 | 1 | Pulley | - |
| 7 | 121267-44760 | 1 | Spacer | - |
| 8 | 129403-44740 | 1 | Cooling Fan (D = 370) | - |
| 9 | 26016-060302 | 4 | Bolt, M6 x 30 Plated | - |
| 10 | 124732-42290 | 1 | Drive Belt | - |
| 11 | 129100-49800 | 1 | Thermostat Housing | - |
| 12 | 124770-11770 | 1 | Hose Nipple | - |
| 13 | 23871-030000 | 1 | Screw Plug, 3/8 BPST | - |
| 14 | 129100-49820 | 1 | Cover Gasket | - |
| 15 | 129100-49830 | 1 | Thermostat Housing Cover | - |
| 16 | 26116-060162 | 2 | Bolt, M6 x 16 Plated | - |
| 17 | 129100-49840 | 1 | Gasket | - |
| 18 | 26106-080252 | 1 | Bolt, M8 x 25 Plated | - |
| 19 | 26106-080502 | 1 | Bolt, M8 x 50 Plated | - |
| 20 | 26106-080602 | 1 | Bolt, M8 x 60 Plated | - |
| 21 | 129150-49811 | 1 | Gasket | - |
| 22 | 129155-49800 | 1 | Thermostat | - |
| 23 | 129795-49551 | 1 | Gasket | - |
| 24 | 129350-49530 | 1 | Thermostat Cover | - |
| 25 | 26106-080202 | 2 | Bolt, M8 x 20 Plated | - |
| 26 | 129132-49050 | 1 | Hose | - |
| 27 | 23000-016000 | 2 | Hose Clamp | - |
| 28 | 129420-44500 | 1 | Radiator | - |
| 29 | 123682-44210 | 1 | Cap | - |
| 30 | 129420-44560 | 1 | Fan Guard | - |
| 31 | 171420-49010 | 1 | Hose, Radiator Inlet | - |
| 32 | 171420-49020 | 1 | Hose, Radiator Outlet | - |
| 33 | 19-00016 | 4 | Hose Clamp #16 | - |
| 34 | 119620-49290 | 1 | Drain Cock Assembly | - |
| 35 | 121250-44901 | 1 | Thermostat Switch (110° C) (See Electrical System) | - |
| 36 | 124465-44950 | 2 | Gasket 16 | - |

Radiator and Modular Guard

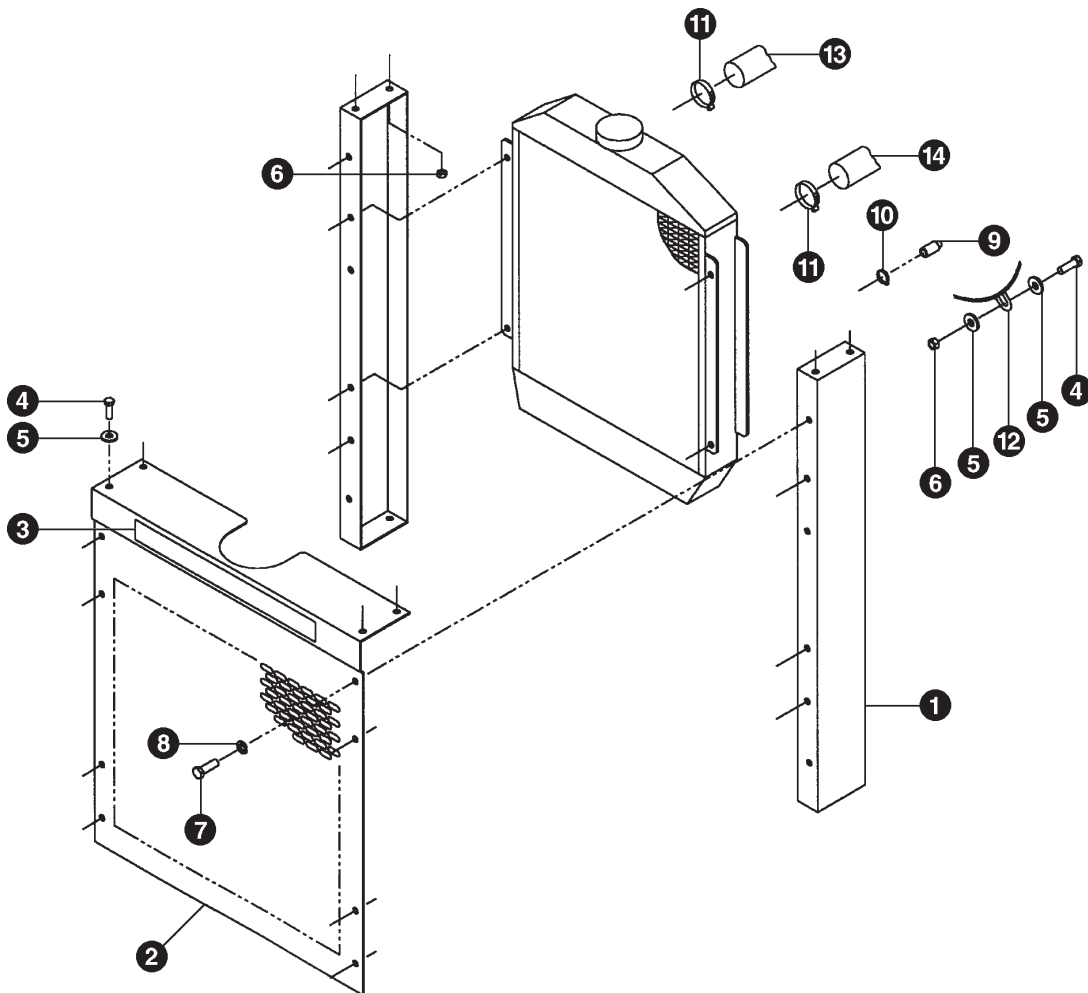


Figure 11: C-3086

Radiator and Modular Guard

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|--------------------------------------|---------------|
| 1 | 39-17307 | 2 | Side Panel | - |
| 2 | 39-17311 | 1 | Grill | - |
| 3 | 00-70075 | 1 | Label, "Northern Lights" | - |
| 4 | 12-00711 | 16 | Capscrew, Hex Head M8 x 1.25 x 20 mm | - |
| 5 | 15-00701 | 32 | Flat Washer M8 | - |
| 6 | 14-04802 | 16 | Hex Nut, Nylock M8 x 1.25 | - |
| 7 | 12-00751 | 4 | Capscrew, Hex Head M8 x 1.25 x 16 mm | - |
| 8 | 15-00702 | 4 | Lock Washer, Helical M8 | - |
| 9 | 20-17301 | 1 | Radiator Drain Cap, 1/4" ID | - |
| 10 | 19-50001 | 1 | Speedy Clamp, Size C | - |
| 11 | 19-00016 | 4 | Hose Clamp #16 | - |
| 12 | 129420-44560 | 1 | Fan Guard | - |
| 13 | 171420-49010 | 1 | Hose, Radiator Inlet | - |
| 14 | 171420-49020 | 1 | Hose, Radiator Outlet | - |

Fuel System - General Arrangement

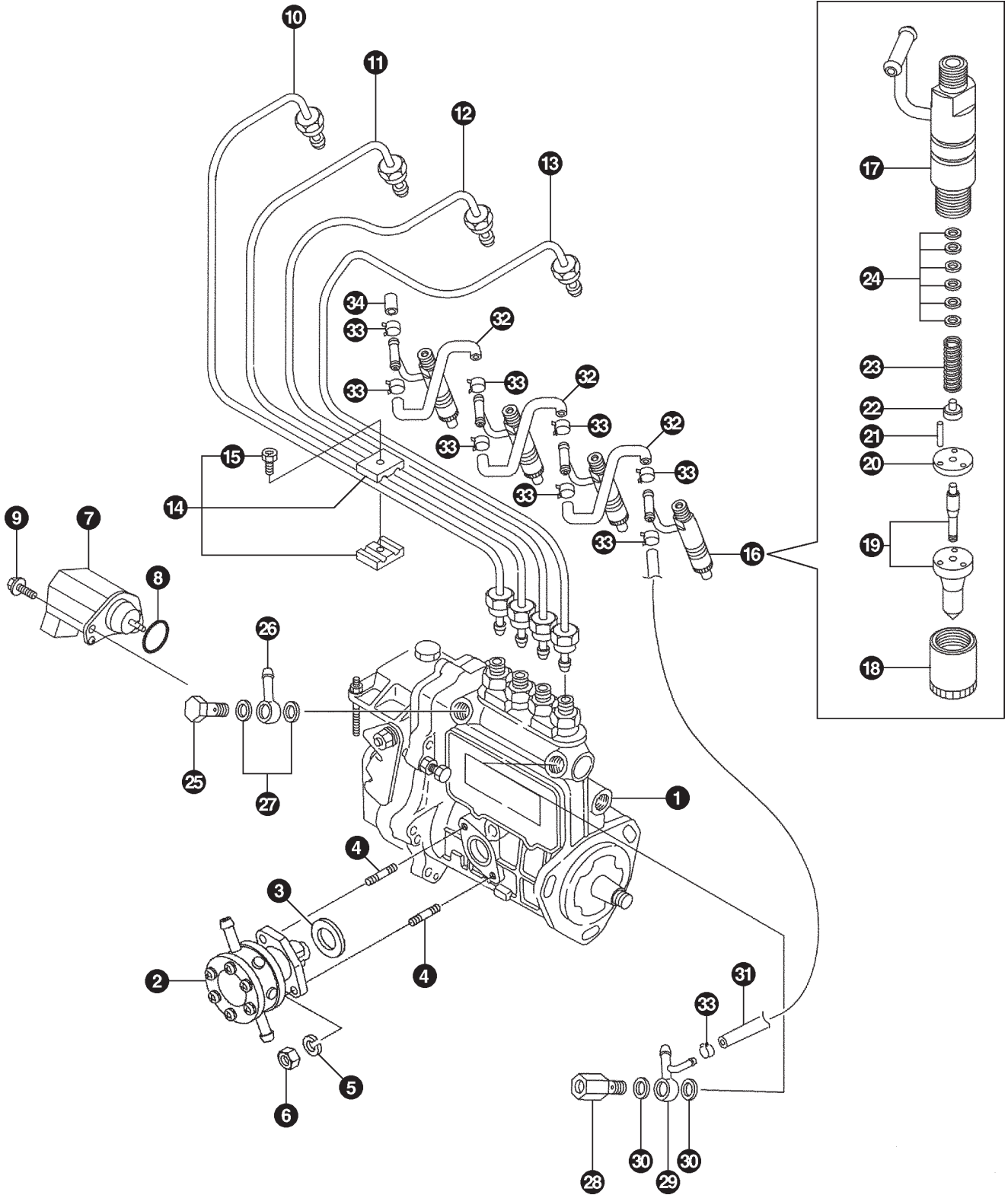


Figure 12

Fuel System - General Arrangement

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|---|---------------|
| 1 | 729618-51310 | 1 | Injection Pump Assembly | - |
| 2 | 129100-52100 | 1 | Fuel Feed Pump | - |
| 3 | 129155-52020 | 1 | Gasket | - |
| 4 | 129155-51020 | 2 | Stud | - |
| 5 | 15-01132 | 2 | Lock Washer M6 | - |
| 6 | 14-01131 | 2 | Hex Nut M6 x 1.0 | - |
| 7 | 119653-77950 | 1 | Stop Solenoid 12 Volt (Synchrostart) | - |
| | 119285-77950 | 1 | Stop Solenoid 12 Volt (Yanmar) | - |
| | 119285-77910 | 1 | Harness Connection (Yanmar Solenoid) | - |
| 8 | 24341-000280 | 1 | O-Ring | - |
| 9 | 26106-060142 | 2 | Bolt | - |
| 10 | 129408-59810 | 1 | Fuel Injection Pipe | - |
| 11 | 129408-59820 | 1 | Fuel Injection Pipe | - |
| 12 | 129408-59830 | 1 | Fuel Injection Pipe | - |
| 13 | 129408-59840 | 1 | Fuel Injection Pipe | - |
| 14 | 119305-59120 | 2 | Retainer | - |
| 15 | 129150-59131 | 2 | Bolt, M4 x 14 Hex Socket | - |
| 16 | 719810-53100 | 4 | Fuel Injector (Includes Keys #17 - #24) | - |
| 17 | 129100-53100 | 4 | Nozzle Holder Assembly | - |
| 18 | 114250-53080 | 4 | Nozzle Case Nut | - |
| 19 | 119810-53000 | 4 | Fuel Injection Nozzle Assembly | - |
| 20 | 114250-53140 | 4 | Stop Plate | - |
| 21 | 114250-53210 | 8 | Pin | - |
| 22 | 114250-53130 | 4 | Nozzle Spring Seat | - |
| 23 | 114250-53120 | 4 | Nozzle Spring | - |
| 24 | 114250-53400 | 4 | Shim Pack | - |
| 25 | 103854-39140 | 1 | Banjo Bolt | - |
| 26 | 101304-59020 | 1 | Pipe Joint 12 | - |
| 27 | 104200-59170 | 2 | Gasket | - |
| 28 | 129100-59951 | 1 | Check Valve Assembly | - |
| 29 | 119840-59570 | 1 | Joint | - |
| 30 | 23414-120000 | 2 | Gasket | - |
| 31 | 119840-59560 | 1 | Fuel Return Pipe | - |
| 32 | 121250-59550 | 3 | Fuel Pipe | - |
| 33 | 124066-59100 | 9 | Clamp 8 | - |
| 34 | 129150-59580 | 1 | Cap | - |

Fuel Lines and Filter Mounting

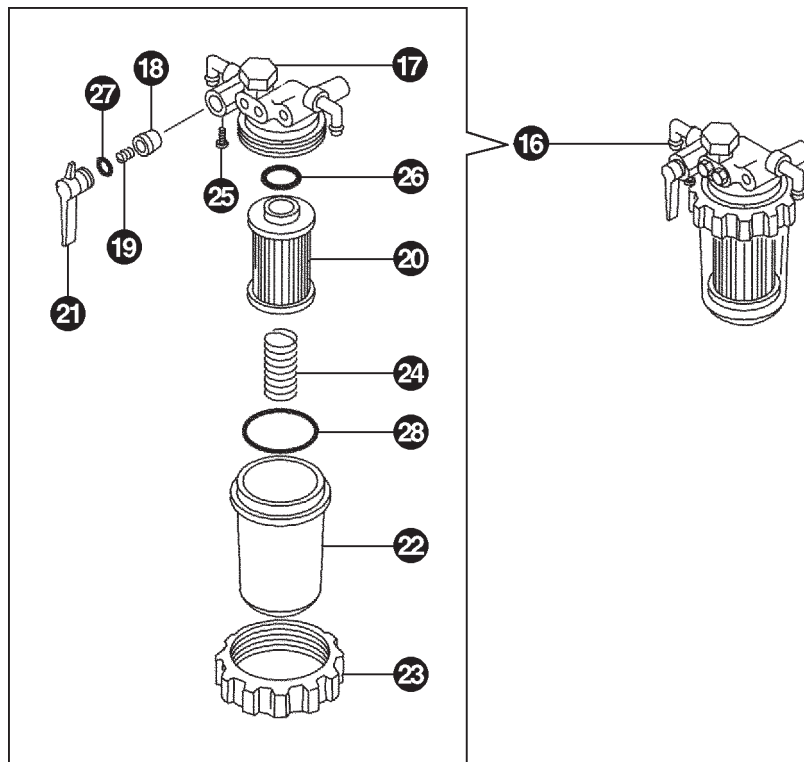


Figure 13

Fuel Lines and Filter Mounting

| 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, Helical M6 | - |
| 4 | 14-04803 | 1 | Hex Nut, Nylock M6 x 1.0 | - |
| 5 | 21-51098 | 2 | St. El. 90, Brs. 1/4 NPT x 1/4 NPT | - |
| 6 | 21-52016 | 2 | M. Conn. Brs. 1/4 NPT x 5/16 NPT | - |
| 7 | 41-01012 | 74" | Hose 5/16" ID | - |
| 11 | 19-50002 | 8 | Speedy Clamp, Size D | - |
| 12 | 12-00717 | 1 | Capscrew, Hex Head M8 x 1.25 x 60 mm | - |
| 13 | 15-00701 | 1 | Flat Washer M8 | - |
| 14 | 15-00702 | 1 | Lock Washer, Helical M8 | - |
| 15 | 21-00046 | 2 | Plug, Plastic 1/4 NPT | - |
| 16 | 24-57300 | 1 | Fuel Filter Assembly | - |
| 17 | 21-50027 | 1 | Plug, M12 x 1.5 | - |
| 18 | 104200-55321 | 1 | Taper Valve | - |
| 19 | 104200-55330 | 1 | Taper Valve Spring | - |
| 20 | 129100-55650 | 1 | Fuel Element | - |
| 21 | 129100-55670 | 1 | Lever | - |
| 22 | 129100-55680 | 1 | Strainer Cup | - |
| 23 | 129100-55690 | 1 | Retaining Ring | - |
| 24 | 129100-55700 | 1 | Spring | - |
| 25 | 104200-55750 | 1 | Screw, M4 | - |
| 26 | 24311-000160 | 1 | O-Ring | - |
| 27 | 24311-240100 | 1 | O-Ring | - |
| 28 | 24321-000650 | 1 | O-Ring | - |

Engine Electrical, 12 Volt

**DRAWING
NOT YET
AVAILABLE**

Engine Electrical, 12 Volt

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|---|---------------|
| 1 | 22-47302 | 1 | Wire Harness Assembly (Includes Key #11) | - |
| 2 | 21-00139 | 1 | Adapter, 1/8 BSPT x 1/8 NPT | - |
| 3 | 21-05400 | 1 | Street Tee, 1/8 NPT | - |
| 4 | 22-41016 | 1 | Pressure Sender 0 - 80 PSI Standard Ground | - |
| 5 | 121460-39450 | 1 | Pressure Switch | - |
| 6 | 22-45201 | 1 | Temperature Sender 250°F Standard Ground | - |
| 7 | 121250-44901 | 1 | Temperature Switch 110°C | - |
| 8 | 15-01001 | 2 | Sealing Washer | - |
| 9 | 129407-77010 | 1 | Starter (See parts detail) | - |
| 10 | 119620-77201 | 1 | Alternator (See parts detail) | - |
| 11 | 22-97310 | 1 | Control Panel / Relay Board Assembly (Units with 280-Series Generators - see parts detail) | - |
| 12 | 22-98405 | 1 | Control Panel / Relay Board Assembly (Units with 184-Series Generators - see parts detail) | - |

Starting Motor

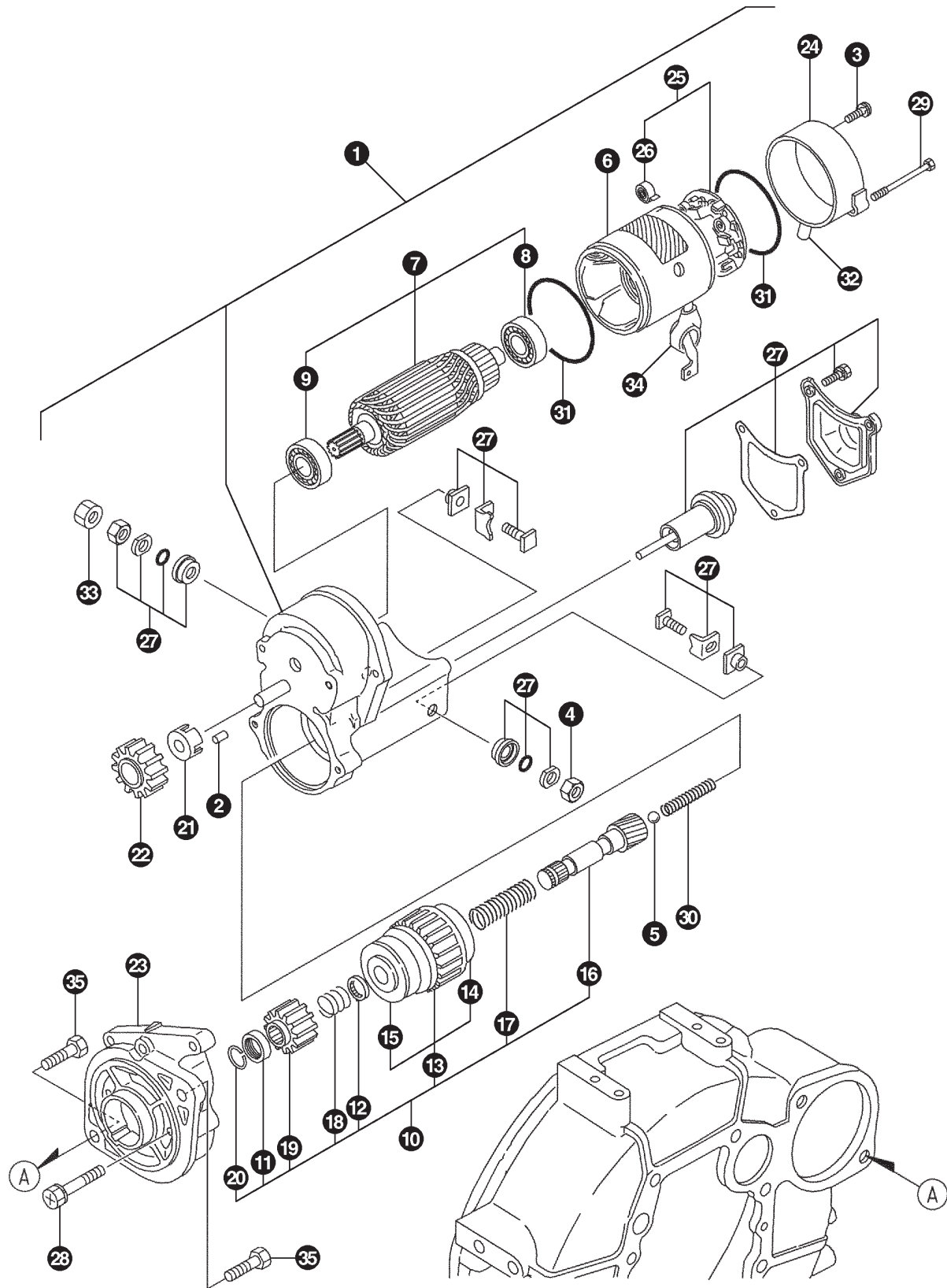


Figure 15

Starting Motor

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|-----------------------------|---------------|
| 1 | 129407-77010 | 1 | Starter (Includes all Keys) | - |
| 2 | X0283060061 | 5 | Roller | - |
| 3 | X0289030010 | 2 | Screw | - |
| 4 | X9490561370 | 1 | Nut | - |
| 5 | X9491200240 | 1 | Ball | - |
| 6 | 129407-77210 | 1 | Yoke | - |
| 7 | 129407-77220 | 1 | Armature Assembly | - |
| 8 | 129129-77230 | 1 | Bearing | - |
| 9 | 129129-77240 | 1 | Bearing | - |
| 10 | 129407-77250 | 1 | Starter Kit | - |
| 11 | X0280210230 | 1 | Nut | - |
| 12 | X0283270140 | 1 | Retainer | - |
| 13 | 129407-77390 | 1 | Starter Clutch | - |
| 14 | 129129-77440 | 1 | Bearing | - |
| 15 | 129129-77450 | 1 | Bearing | - |
| 16 | 129129-77400 | 1 | Shaft | - |
| 17 | 129129-77410 | 1 | Coil Spring | - |
| 18 | 129407-77410 | 1 | Spring | - |
| 19 | 129129-77420 | 1 | Pinion | - |
| 20 | 129129-77430 | 1 | Ring | - |
| 21 | 129129-77260 | 1 | Retainer | - |
| 22 | 129129-77270 | 1 | Pinion | - |
| 23 | 129407-77280 | 1 | Housing | - |
| 24 | 129129-77290 | 1 | Frame | - |
| 25 | 129407-77300 | 1 | Holder Assembly | - |
| 26 | X9491730461 | 4 | Spring | - |
| 27 | 129407-77310 | 1 | Switch Assembly | - |
| 28 | 129129-77320 | 2 | Bolt | - |
| 29 | 129407-77330 | 2 | Bolt with Washer | - |
| 30 | 129129-77340 | 1 | Spring | - |
| 31 | 129129-77350 | 2 | O-Ring | - |
| 32 | 129129-77361 | 1 | Drain Bush | - |
| 33 | 129129-77370 | 1 | Nut | - |
| 34 | 129129-77380 | 1 | Cap | - |
| 35 | 26116-120252 | 2 | Bolt, M12 x 25 Plated | - |

Alternator and Mounting

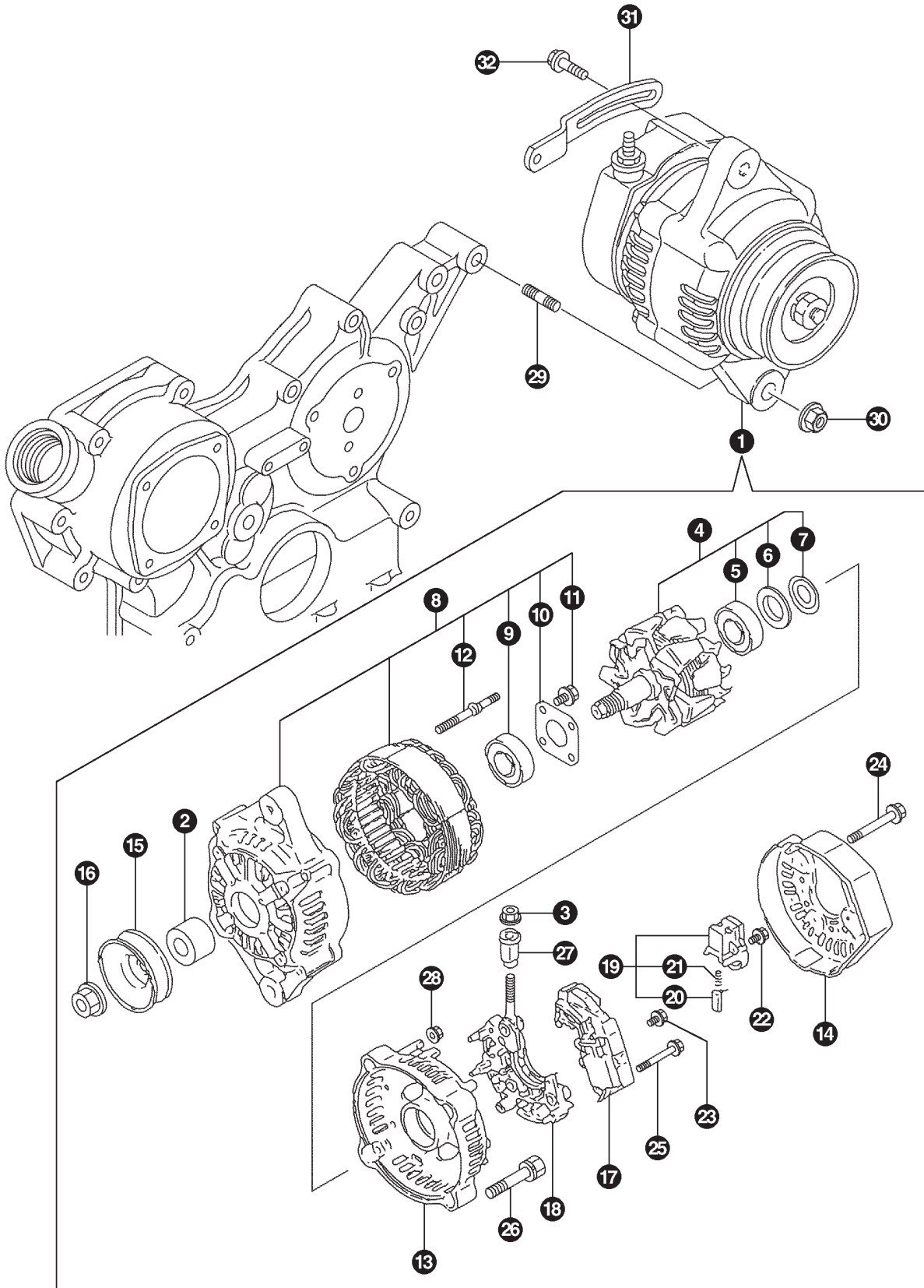


Figure 16

Alternator and Mounting

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|----------------------|---------------|
| 1 | 119620-77201 | 1 | Generator | - |
| 2 | 119620-77490 | 1 | Collar | - |
| 3 | X9490561001 | 1 | Nut | - |
| 4 | 119620-77380 | 1 | Rotor Assembly | - |
| 5 | 119620-79240 | 1 | Ball Bearing | - |
| 6 | 119620-79250 | 1 | Bearing Cover | - |
| 7 | 119620-79360 | 1 | Thrust Washer | - |
| 8 | 119620-77421 | 1 | Drive Flame Assembly | - |
| 9 | 119620-79200 | 1 | Ball Bearing | - |
| 10 | 119620-79210 | 1 | Plate | - |
| 11 | 119620-79220 | 4 | Screw | - |
| 12 | 119620-79230 | 2 | Stud Bolt | - |
| 13 | 119620-77440 | 1 | Rear Flame Assembly | - |
| 14 | 119620-77450 | 1 | Cover | - |
| 15 | 119620-77461 | 1 | Pulley | - |
| 16 | 119620-77471 | 1 | Nut | - |
| 17 | 119620-77710 | 1 | Regulator Assembly | - |
| 18 | 119620-79260 | 1 | Holder | - |
| 19 | 119620-79270 | 1 | Brush Holder | - |
| 20 | 119620-77480 | 2 | Brush Assembly | - |
| 21 | 119620-79280 | 2 | Spring | - |
| 22 | 119620-79290 | 6 | Screw | - |
| 23 | 119620-79300 | 1 | Screw | - |
| 24 | 119620-79310 | 3 | Bolt | - |
| 25 | 119620-79320 | 2 | Screw with Washer | - |
| 26 | 119620-79330 | 2 | Bolt | - |
| 27 | 119620-79340 | 1 | Insulation Bush | - |
| 28 | 119620-79350 | 2 | Nut | - |
| 29 | 121450-01570 | 1 | Stud | - |
| 30 | 26366-100002 | 1 | Nut, M10 | - |
| 31 | 129410-77330 | 1 | Tensioning Arm | - |
| 32 | 26014-080252 | 1 | Bolt, M8 x 25 | - |

Control Panel / Relay Board Assembly - 12 Volt

Units with 282 Frame Generators

**DRAWING
NOT YET
AVAILABLE**

Control Panel / Relay Board Assembly - 12 Volt

Units with 282 Frame Generators

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| •• | 22-97310 | 1 | Control Panel / Relay Board Assembly, 12 Volt (Includes all Keys) | - |
| 1 | 28-90007 | 1 | Plate | - |
| 2 | 00-40013 | 1 | Plate | - |
| 3 | 22-90007 | 1 | Rocker Switch | - |
| 4 | 22-90008 | 1 | Rocker Switch | - |
| 5 | 22-90009 | 1 | Hour Meter | - |
| 6 | 12-00093 | 4 | Screw, Round Head Phillips #6-32 x 1/2" | - |
| 7 | 15-00009 | 4 | Lock Washer, Helical #6 | - |
| 8 | 14-00002 | 4 | Hex Nut #6-32 | - |
| 9 | 22-41032 | 4 | Relay Base | - |
| 10 | 12-00004 | 4 | Screw, BH Slotted #8-32 x 3/8" | - |
| 11 | 15-00001 | 2 | Flat Washer #8 | - |
| 12 | 14-00000 | 2 | Hex Nut #8-32 | - |
| 13 | 22-42047 | 4 | Relay, SPDT 12 Volt 20/30 Amp | - |
| 14 | 22-40018 | 1 | Circuit Breaker 10 Amp | - |
| 15 | 12-00005 | 2 | Screw, BH Slotted #8-32 x 3/4" | - |
| 16 | 15-00000 | 2 | Lock Washer, Helical #8 | - |
| 17 | 22-40273 | 1 | Wire Harness | - |
| 18 | 22-41060 | 2 | Diode 6 Amp 50 Volt | - |
| 19 | 00-41015 | 1 | Bushing | - |

Control Panel / Relay Board Assembly - 12 Volt

Units with 184 Frame Generators

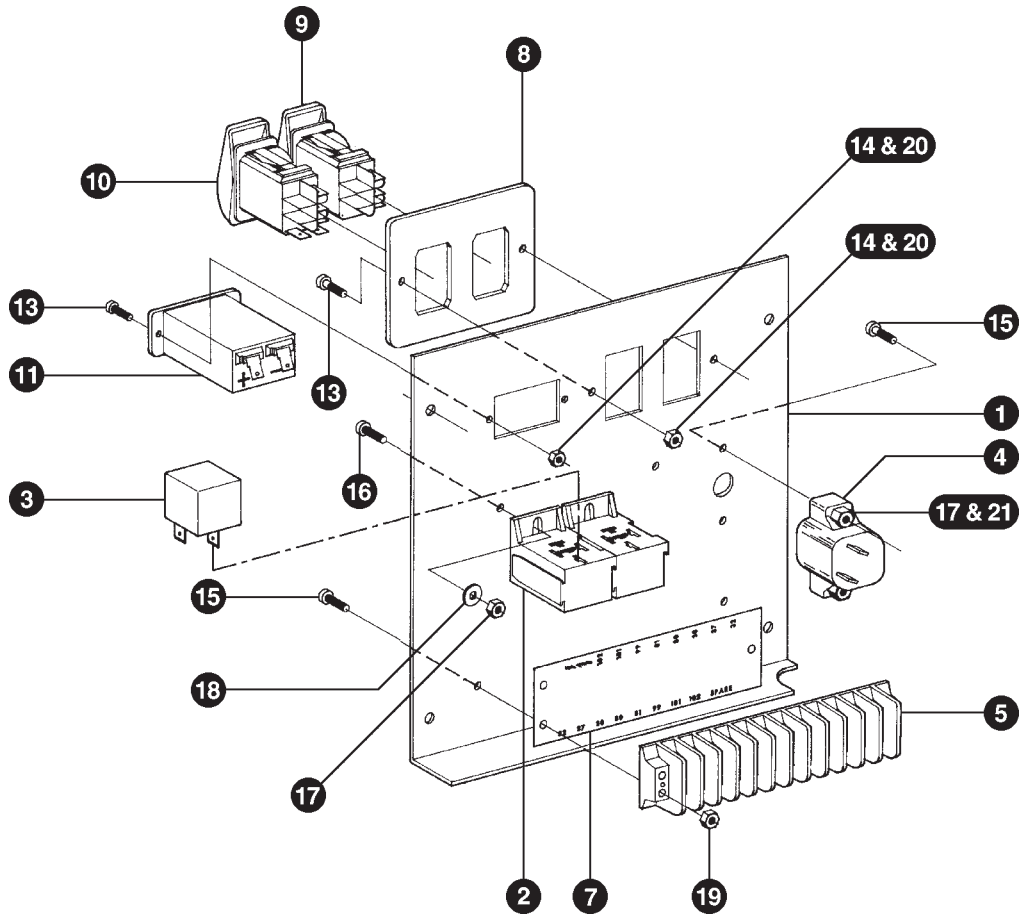


Figure 18: A-6432/C-2911

Control Panel / Relay Board Assembly - 12 Volt

Units with 184 Frame Generators

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|---|---------------|
| •• | 29-98405 | 1 | Control Panel / Relay Board (Includes all Keys) | - |
| 1 | 28-90004 | 1 | Plate | - |
| 2 | 22-41032 | 4 | Relay Base | - |
| 3 | 22-42047 | 4 | Relay, SPDT | - |
| 4 | 22-40018 | 1 | Circuit Breaker 10 Amp | - |
| 5 | 22-40193 | 1 | Terminal Board | - |
| 6 | 28-41060 | 1 | Diode | - |
| 7 | 22-00063 | 1 | Number Strip | - |
| 8 | 00-40013 | 1 | Label | - |
| 9 | 22-90007 | 1 | Preheat / Shutdown - Bypass Switch | - |
| 10 | 22-90008 | 1 | Engine Control Switch | - |
| 11 | 22-90009 | 1 | Hour Meter | - |
| 12 | 22-40019 | 1 | Wire Harness | - |
| 13 | 12-00093 | 2 | Machine Screw, Round Head, Phillips #6-32 x 1/2" | - |
| 14 | 14-00002 | 4 | Hex Nut #6-32 | - |
| 15 | 12-00005 | 4 | Machine Screw, Binding Head, Slotted #8-32 x 3/4" | - |
| 16 | 12-00004 | 2 | Machine Screw, Binding Head, Slotted #8-32 x 3/8" | - |
| 17 | 14-00000 | 4 | Hex Nut #8-32 | - |
| 18 | 15-00001 | 2 | Flat Washer #8 | - |
| 19 | 14-00003 | 2 | Hex Nut, Nylock #8-32 | - |
| 20 | 15-00009 | 4 | Lock Washer #6 | - |
| 21 | 15-00000 | 2 | Lock Washer #8 | - |

Gasket Set

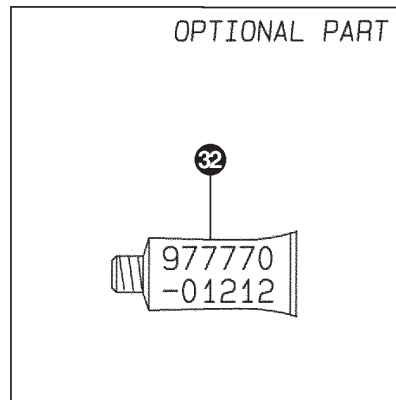
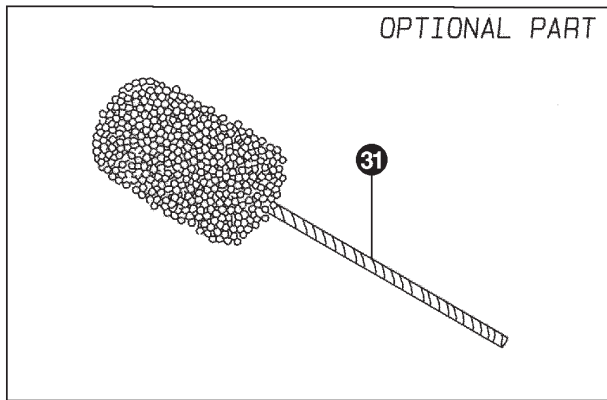
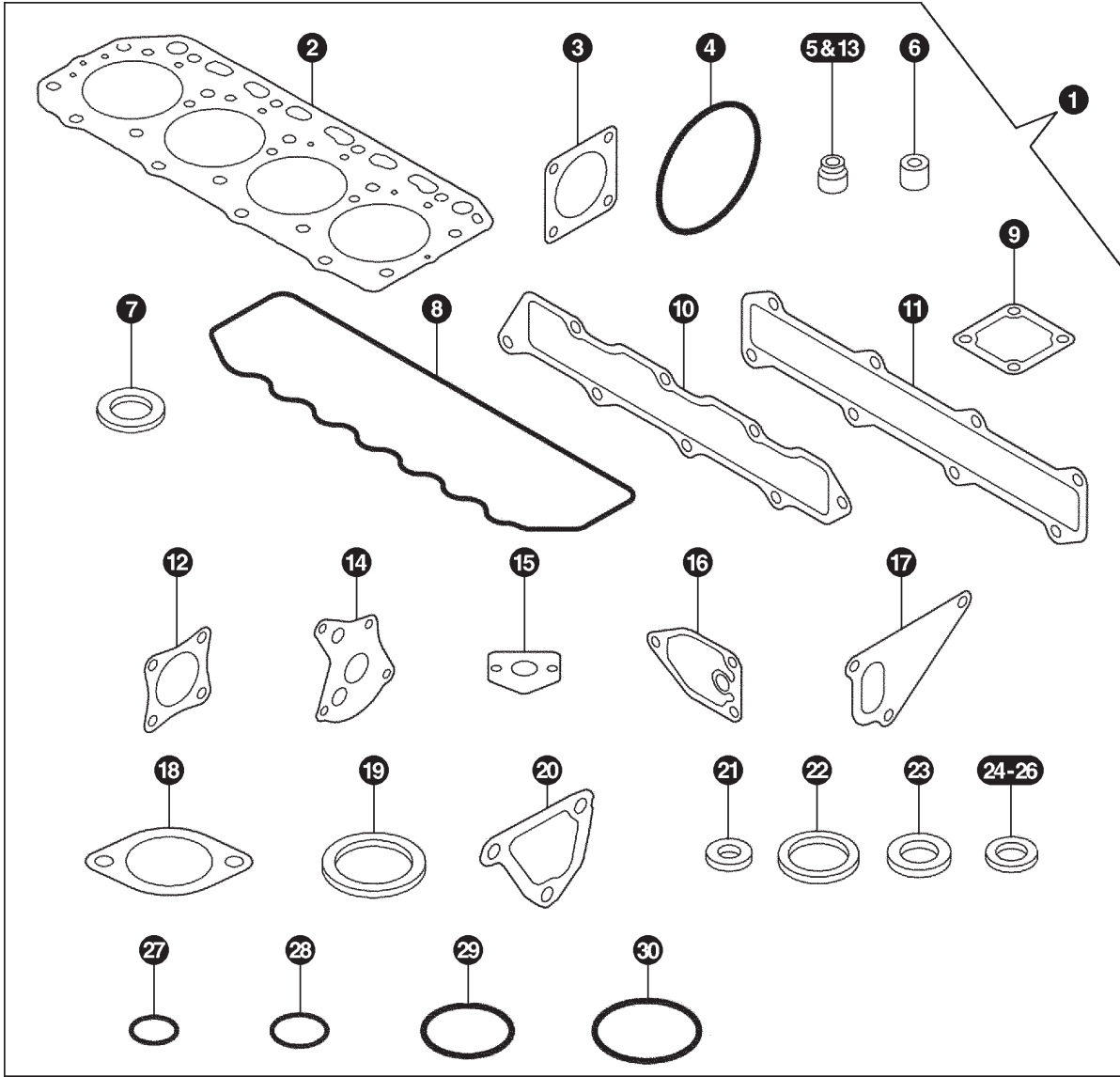


Figure 19

Gasket Set

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|--------------|-----|-------------------------------------|---------------|
| 1 | 729618-92600 | 1 | Gasket Set (Includes Keys #2 - #30) | - |
| 2 | 129408-01330 | 1 | Cylinder Head Gasket | - |
| 3 | 124240-01883 | 1 | Gasket (Non-ASB.) | - |
| 4 | 121850-51960 | 1 | Fuel Injection Pump O-Ring | - |
| 5 | 124460-11340 | 4 | Valve Stem Seal | - |
| 6 | 119625-11871 | 4 | Nozzle Protector | - |
| 7 | 117625-11880 | 4 | Nozzle Seat | - |
| 8 | 129550-11310 | 1 | Bonnet Gasket | - |
| 9 | 129150-77511 | 1 | Gasket (Non-ASB.) | - |
| 10 | 129407-12110 | 1 | Intake Manifold Gasket | - |
| 11 | 129407-13110 | 1 | Manifold Gasket | - |
| 12 | 129400-13201 | 1 | Gasket (Non-ASB.) | - |
| 13 | 121400-11340 | 4 | Valve Stem Seal | - |
| 14 | 129150-32020 | 1 | Lubricating Oil Pump Gasket | - |
| 15 | 129150-35041 | 1 | Gasket (Non-ASB.) | - |
| 16 | 129150-35111 | 1 | Gasket (Non-ASB.) | - |
| 17 | 129100-42020 | 1 | Cooling Water Pump Gasket | - |
| 18 | 129795-49551 | 1 | Gasket (Non-ASB.) | - |
| 19 | 129150-49811 | 1 | Gasket (Non-ASB.) | - |
| 20 | 129100-49840 | 1 | Thermostat Housing Gasket | - |
| 21 | 129155-52050 | 1 | Gasket | - |
| 22 | 104200-59171 | 2 | Gasket 12 | - |
| 23 | 22190-080002 | 7 | Seal Washer 8S | - |
| 24 | 22190-220002 | 1 | Seal Washer 22S | - |
| 25 | 23414-120000 | 2 | Round Gasket 12 | - |
| 26 | 23414-100000 | 2 | Round Gasket 10 | - |
| 27 | 24311-000120 | 3 | O-Ring, 1A P-12.0 | - |
| 28 | 24311-000160 | 3 | O-Ring, 1A P-16.0 | - |
| 29 | 24311-000320 | 2 | O-Ring, 1A P-32.0 | - |
| 30 | 24341-000500 | 1 | O-Ring, 1A S-50.0 | - |
| 31 | 129400-92420 | 1 | Flex Horn (Optional part) | - |
| 32 | 977770-01212 | 1 | Liquid Gasket (Optional part) | - |

Modular Base Frame - 282 Frame Generators

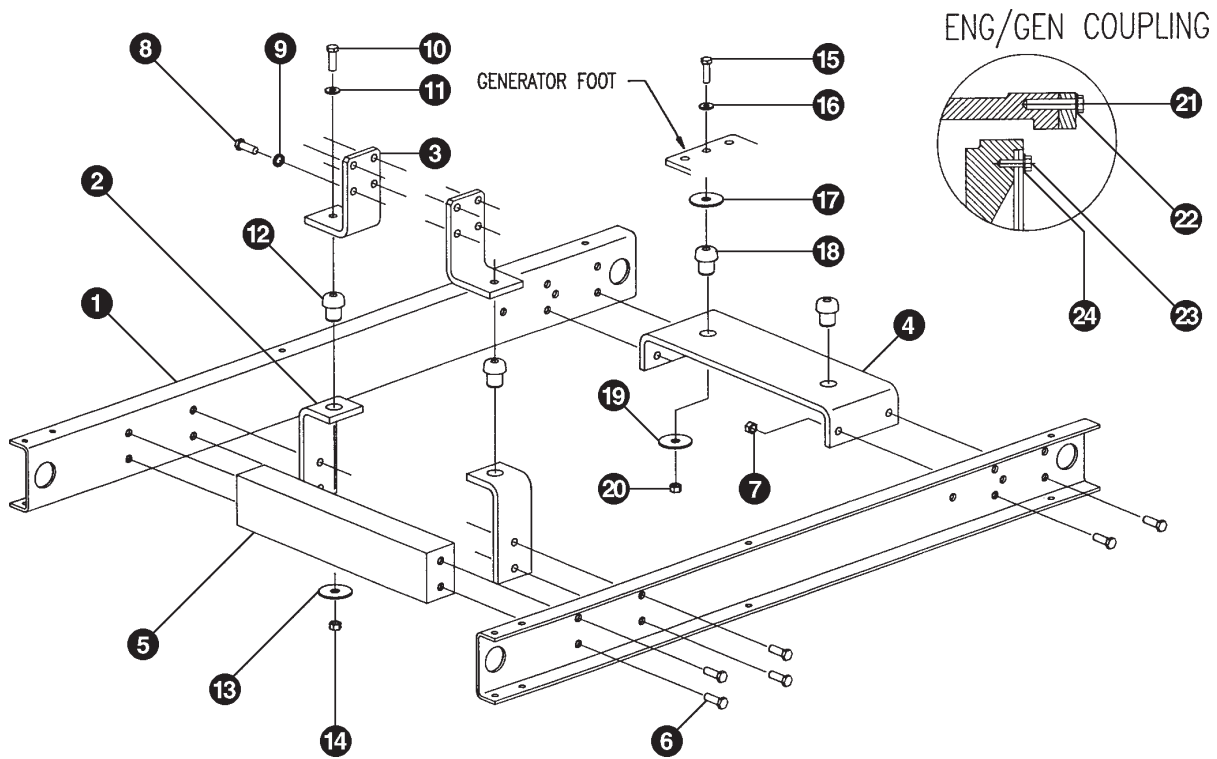


Figure 20: A-7027/B-4833

Modular Base Frame - 282 Frame Generators

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 39-87302 | 2 | Side Rail | - |
| 2 | 23-87301 | 2 | Bracket, Lower Engine Support | - |
| 3 | 23-87306 | 2 | Bracket, Upper Engine Mounting | - |
| 4 | 39-87312 | 1 | Generator Support | - |
| 5 | 39-87307 | 1 | Base Frame Support | - |
| 6 | 12-80313 | 12 | Capscrew, Hex Head Flanged 3/8-16 x 1-1/4" | - |
| 7 | 14-00302 | 12 | Lock Nut, Flanged 3/8-16 Prevailing Torque | - |
| 8 | 12-00831 | 8 | Capscrew, Hex Head M10 x 1.5 x 25 mm | - |
| 9 | 15-00802 | 8 | Lock Washer, Helical M10 | - |
| 10 | 12-00817 | 2 | Capscrew, Hex Head M10 x 1.5 x 55 mm | - |
| 11 | 15-00805 | 2 | Flat Washer M10 | - |
| 12 | 33-83151 | 2 | Mount, Centerbonded 200 lb | - |
| 13 | 15-00014 | 2 | Head/Tail Washer | - |
| 14 | 14-00812 | 2 | Hex Nut, Nylock M10 x 1.5 | - |
| 15 | 12-00965 | 2 | Capscrew, Hex Head M12 x 1.75 x 70 mm | - |
| 16 | 15-00007 | 2 | Flat Washer M12 | - |
| 17 | 15-00016 | 2 | Head Washer | - |
| 18 | 33-82254 | 2 | Mount, Centerbonded 300 lb | - |
| 19 | 15-00026 | 2 | Tail Washer | - |
| 20 | 14-00830 | 2 | Hex Nut, Nylock M12 x 1.75 | - |
| 21 | 12-00832 | 12 | Capscrew, Hex Head M10 x 1.5 x 30 mm | - |
| 22 | 15-00802 | 12 | Lock Washer, Helical M10 | - |
| 23 | 12-00751 | 8 | Capscrew, Hex Head M8 x 1.25 x 16 mm | - |
| 24 | 15-00702 | 8 | Lock Washer, Helical M8 | - |

Modular Base Frame - 184 Frame Generators

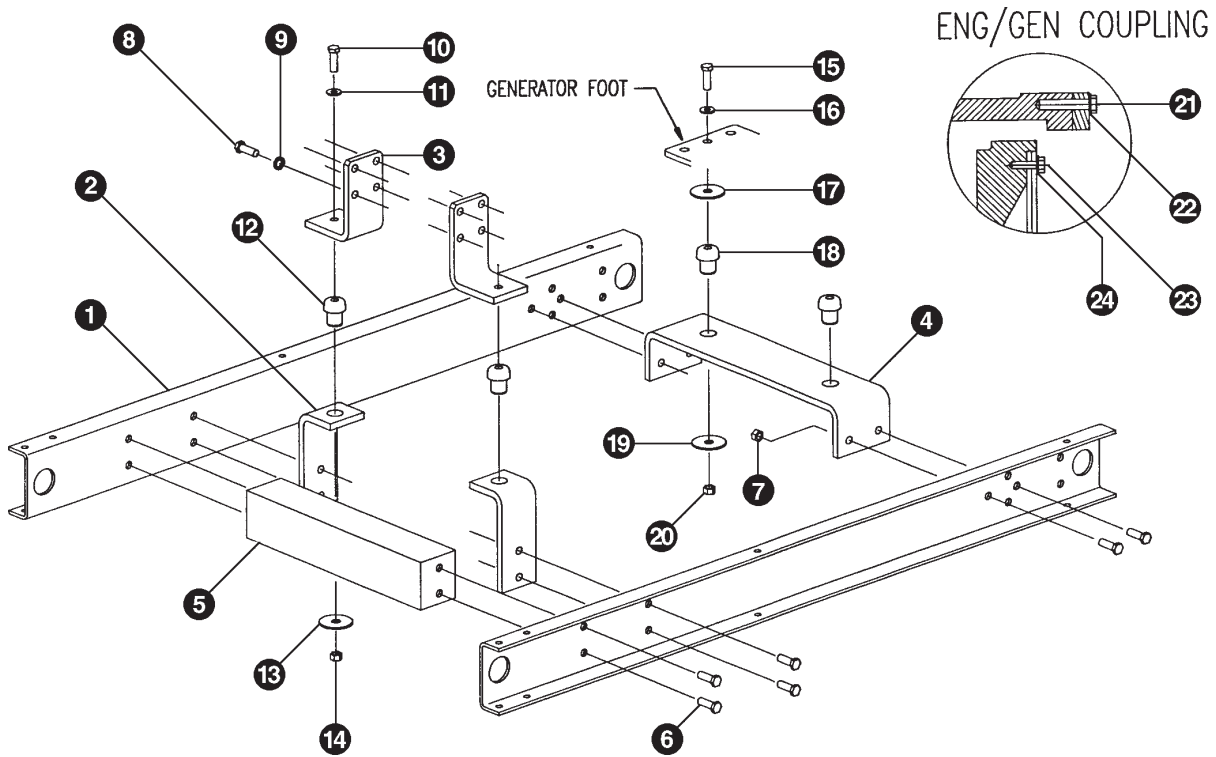


Figure 21: A-6913/B-4828

Modular Base Frame - 184 Frame Generators

| KEY | PART NUMBER | QTY | DESCRIPTION | SERIAL NUMBER |
|-----|-------------|-----|--|---------------|
| 1 | 39-87302 | 2 | Side Rail | - |
| 2 | 23-87301 | 2 | Bracket, Lower Engine Support | - |
| 3 | 23-87306 | 2 | Bracket, Upper Engine Mounting | - |
| 4 | 39-87304 | 1 | Generator Support | - |
| 5 | 39-87307 | 1 | Base Frame Support | - |
| 6 | 12-80313 | 12 | Capscrew, Hex Head Flanged 3/8-16 x 1-1/4 | - |
| 7 | 14-00302 | 12 | Lock Nut, Flanged 3/8-16 Prevailing Torque | - |
| 8 | 12-00831 | 8 | Capscrew, Hex Head M10 x 1.5 x 25 mm | - |
| 9 | 15-00802 | 8 | Lock Washer, Helical M10 | - |
| 10 | 12-00832 | 2 | Capscrew, Hex Head M10 x 1.5 x 30 mm | - |
| 11 | 15-00805 | 2 | Flat Washer M10 | - |
| 12 | 33-83151 | 2 | Mount, Centerbonded 200 lb | - |
| 13 | 15-00014 | 2 | Head/Tail Washer | - |
| 14 | 14-00812 | 2 | Hex Nut, Nylock M10 x 1.5 | - |
| 15 | 12-00965 | 2 | Capscrew, Hex Head M12 x 1.75 x 70 mm | - |
| 16 | 15-00007 | 2 | Flat Washer M12 | - |
| 17 | 15-00016 | 2 | Head Washer | - |
| 18 | 33-82254 | 2 | Mount, Centerbonded 300 lb | - |
| 19 | 15-00026 | 2 | Tail Washer | - |
| 20 | 14-00830 | 2 | Hex Nut, Nylock M12 x 1.75 | - |
| 21 | 12-00832 | 12 | Capscrew, Hex Head M10 x 1.5 x 30 mm | - |
| 22 | 15-00802 | 12 | Lock Washer, Helical M10 | - |
| 23 | 12-00751 | 8 | Capscrew, Hex Head M8 x 1.25 x 16 mm | - |
| 24 | 15-00702 | 8 | Lock Washer, Helical M8 | - |

Notes