

Detroit Diesel Engines

Series 53 Parts Catalog



Parts Catalog

Detroit Diesel Engines SERIES 53 MODELS

Sept., 1977



Detroit Diesel Allison
Division of General Motors Corporation
Detroit, Michigan 48228

NOTE:

This printed parts catalog is current as of date of issue. Interim revisions are available only on Microfiche. Either may be purchased from Detroit Diesel Allison Distributors. See your yellow pages—under Engines, Diesel.

GENERAL INFORMATION

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All engine components in this catalog are divided into twelve major groups of functionally related parts. A listing of the groups and their sub-groups appears under "Group Nomenclature" on page 4 of this section.

Within each sub-group different designs of similar equipment are shown, each being designated by a type number. The type number in one sub-group has no relationship to the same type number in another sub-group.

Each Engine Model is provided with a Model Index, which shows the Standard and Standard Option type numbers currently available on the model. All optional material type numbers are listed on the engine Option Plate, as shown in the illustration below.

The names and type numbers of optional equipment built into the unit at the factory are listed on this plate, along with the unit model, serial number and customer specification number (if any). Material not listed on the Option Plate is standard equipment and the type number is obtained from the model index. (Copies of the information, on the Option Plate Work Sheet, are furnished to distributors for their files.)

To locate a part, first, establish the group where the part is used (see the Alphabetical Index or Group Nomenclature page) then, determine the type number for the group from either the Option Plate or the Model Index. With this information, turn to the

proper group and locate the type number at the top of the page. All parts applicable to the type are indicated by the quantity indicated in the column. An AR in this column indicates an "as required" quantity.

EXAMPLE

For purposes of illustration, a model 5063-5000 unit will be used. The following examples cover the steps to be followed:

1. To determine the part number of the crankshaft, refer to the Option Plate and note there is no reference to it, indicating it is standard equipment. Next turn to the Model Index and establish that the crankshaft is type 44 in group 1.3000. Turn to group 1.3000 and locate type 44 at the top of the page. All items with a quantity in this column apply to this unit. In sub-group 1.3001 crankshaft assy., the quantity in type 44 column shows the crankshaft to be part number 5144616.
2. To determine the proper crankshaft pulley for this unit again refer to the Option Plate and note that Crankshaft Pulley type number is 171, consult the group nomenclature page to establish that crankshaft pulley is group 1.3000C. Now turn to group 1.3000C and find type 171 at the top of the page. The quantity shown in type 171 at sub-group 1.3280 shows the crankshaft pulley to be part number 5109638.

START-UP	INSPECTION	TAB	UNIT NO.	UNIT	ENGINE	SMOKE	EMISSION	CERTIFICATION
25000000	1	1	1	1	1	1	1	1
UNIT NO. 25000000 MODEL 5063-5000								ENGINE SMOKE EMISSION CERTIFICATION
								THIS ENGINE IS, IN ALL MATERIAL RESPECTS,
								OF SUBSTANTIALLY THE SAME CONSTRUCTION
								AS TEST ENGINE CERTIFIED BY THE U.S.
								ENVIRONMENTAL PROTECTION AGENCY AS
								CONFORMING TO FEDERAL REGULATIONS
								PERTAINING TO EXHAUST SMOKE EMISSION.
								ENG. FAMILY 5063-5000 MFG DATE 10/1/77
								SERIAL NO. 25000000 DETROIT DIESEL ALLISON DIV G.M.C. U.S.A.
								MAX RPM NL 1800 SO 1800

P 1131

ASSEMBLY BREAKDOWN

The Assembly Breakdown section is designed to eliminate repeating components of assemblies and sub-assemblies. When the Assembly Breakdown is used it is always found at the end of the group it pertains to. The pages are easily identified. They are numbered with an alphabetical prefix. Assemblies which make use of the Assembly Breakdown will have a note to that effect under the sub-group heading. The note will refer to the page on which the assembly is shown. The part number will appear in the first group of the Assembly Breakdown showing the quantity used in one of the alphabetically designated columns. All other items appearing in that column are components of the assembly.

ALPHABETICAL INDEX

The Alphabetical Index on page 5 is particularly helpful when only a part name is known and the group can not readily be determined. Parts are listed alphabetically by noun name, followed by a description of the application of the part and the final group location.

PARTS RELEASE

A Parts Release on Microfiche, is issued monthly to keep this catalog up-to-date. It consists of revised Fiche for insertion in the set. All new Fiche carry a date of issue. These should be inserted into the deck immediately upon receipt. Old Fiche may then be destroyed.

A checklist is included with each monthly Microfiche update. The checklist will indicate, by date, those Fiche revised and reissued.

MISCELLANEOUS

At the beginning of each of the sections of this catalog there are several pages of illustrations. In each section of the parts list figure numbers refer to illustrations within that section only unless otherwise noted. In the majority of cases illustrations are typical, that is, they may represent more than one part number. For example, in the case of the flywheel housing, figure 3B of section 1.0000, a single housing is shown to represent all housings. Key numbers on illustrations are final group numbers.

In many instances a part has more than one application. Wherever a part appears in its second or third application the basic group is shown in parentheses following the description.

Unless otherwise specified, standard bolts in the parts list are hexagon head. Other standard parts are described in detail.

The information and illustrations in this publication are based on the information in effect at the time of approval for printing. The right is reserved to make changes at any time without notice.

YOUR PARTS ORDER WILL BE HANDLED MORE EFFICIENTLY IF YOU—

1. Provide the following information for material ordered:
 - A. Group in parts book in which it is specified.
 - B. Quantity desired.
 - C. Part Number.
 - D. Complete Nomenclature.
 - E. The Type number for the model concerned.
 - F. Complete unit model identification and serial number.
 - G. "TYPE" rather than "WRITE" the above information.
2. Furnish complete shipping instruction. This is particularly important in case the order is not to be handled in the regular manner. Indicate whether shipment should be made via parcel post, express, air freight, etc.
3. Confirm all telegraph and telephone orders immediately, clearly marking any such orders "CONFIRMING" to avoid duplication of shipment of such orders.

GROUP NOMENCLATURE

1.0000	ENGINE (less major assemblies)
1.1000	Cylinder Block
1.1000A	Air Box Drains
1.2000	Cylinder Head
1.2000A	Engine Lifter Bracket
1.3000	Crankshaft, Oil Seals and stabilizers
1.3000A	Crankshaft Front Cover
1.3000B	Vibration Damper
1.3000C	Crankshaft Pulley
1.3000D	Crankshaft Pulley Belt
1.4000A	Flywheel
1.5000A	Flywheel Housing
1.5000B	Flywheel Housing Adaptor
1.6000	Connecting Rod and Piston
1.7000	Camshaft and Gear Train
1.7000A	Balance Weight Cover
1.7000B	Accessory Drive
1.8000	Valve and Injector Operating Mechanism
1.8000A	Rocker Cover

2.0000	FUEL SYSTEM
2.1000A	Fuel Injector
2.2000	Fuel Pump
2.2000A	Fuel Pump Drain
2.3000A	Fuel Filter
2.4000	Fuel Manifold and/or Connections
2.4000A	Dual Fuel System
2.5000A	Fuel Lines and Fuel Cooler
2.6000A	Fuel Tank
2.7000A	Mechanical Governor
2.8000A	Hydraulic Governor
2.9000	Injector Controls
2.9000A	Throttle Controls

3.0000	AIR SYSTEM
3.1000A	Air Cleaner and/or Adaptor
3.2000A	Air Silencer
3.3000A	Air Inlet Housing
3.4000	Blower
3.4000A	Blower Drive Shaft
3.4000B	Blower End Plate Cover
3.5000A	Turbocharger and Intercooler

4.0000	LUBRICATING SYSTEM
4.1000A	Oil Pump
4.1000B	Oil Distribution System
4.1000C	Oil Pressure Regulator
4.2000A	Oil Filter
4.3000A	Oil Filter Lines
4.4000A	Oil Cooler and Marine Gear Lines
4.5000A	Oil Filler
4.6000A	Dipstick
4.7000A	Oil Pan
4.8000A	Ventilating System

5.0000	COOLING SYSTEM
5.1000	Fresh Water Pump
5.1000A	Fresh Water Pump Cover
5.2000A	Water Outlet Manifold and/or Elbow
5.2000B	Thermostat
5.2000C	Water By-pass Tube
5.3000A	Radiator
5.3000B	Water Connections
5.4000A	Fan
5.4000B	Fan Shroud
5.5000A	Heat Exchanger or Keel Cooling
5.6000A	Raw Water Pump
5.7000A	Water Filter

6.0000	EXHAUST SYSTEM
6.1000A	Exhaust Manifold
6.2000A	Exhaust Muffler and/or Connections

7.0000	ELECTRICAL—INSTRUMENTS
7.1000A	Battery Charging Generator
7.2000A	Battery Cables
7.2000B	Automatic Starting
7.3000A	Starting Motor
7.4000A	Instruments
7.4000B	Tachometer Drive
7.4000C	Shut-off, Alarm and O.S. Governor
7.5000A	Power Generator
7.6000A	Control Cabinet
7.7000A	Wiring Harness
7.8000A	Air Heater
7.10000A	Hydraulic Governor Solenoid

8.0000	POWER TAKE-OFF
8.1000A	Power Take-off and/or Clutch
8.3000A	Torque Converter
8.3000B	Transmission Lines

9.0000	TRANSMISSION AND PROPULSION
9.1000A	Hydraulic Marine Gear
9.2000A	Reverse and Reduction Gear (mechanical)
9.3000A	Power Transfer Gear
9.4000	Transmission—Highway
9.7000	Transmission—Off-highway
9.9000	Transmission—Rail Car

10.0000	SHEET METAL
10.1000A	Engine Hood

11.0000	ENGINE MOUNTING
11.1000A	Engine Mounting and Base

12.0000	MISCELLANEOUS
12.2000A	Bilge Pump
12.3000A	Vacuum Pump
12.4000A	Air Compressor
12.5000A	Hydraulic Pump
12.6000A	Gasoline Starter
12.6000B	Air Starter
12.6000C	Cold Weather Starting Aid
12.6000D	Hydraulic Starter
12.6000E	Hydraulic Starter Accessories
12.8000A	Supplies
12.8000B	Fabrication Material
12.8000C	Service Kits

PART NAME	GROUP NO.	PART NAME	GROUP NO.
A			
ACCUMULATOR, AIR HEATER	7.8415A	BEARING, CAM AND BALANCE SHAFT	1.7010
ACCUMULATOR, HYDRAULIC STARTER	12.6570D	BEARING, CAM AND BALANCER SHAFT	1.7010
ADAPTOR, ACCESSORY DRIVE	1.7622B	BEARING, CLUTCH DRIVE SHAFT	8.1680A
ADAPTOR, AIR CLEANER MOUNTING	3.1085A	BEARING, CLUTCH PILOT	1.4040A
ADAPTOR, AIR COMPRESSOR	12.4020A	BEARING, CLUTCH PILOT	8.1450A
ADAPTOR, AIR INLET HOUSING	3.3004A	BEARING, CLUTCH RELEASE	8.1290A
ADAPTOR, AIR SILENCER	3.2015A	BEARING, CLUTCH SHAFT	9.1033A
ADAPTOR, CONVERTER OIL FILTER	8.3873B	BEARING, CRANKSHAFT FRONT SUPPORT	1.3165A
ADAPTOR, CYLINDER HEAD GOVERNOR CONTROL LINK	2.7830A	BEARING, FAN BELT IDLER PULLEY	5.4332A
ADAPTOR, CYLINDER HEAD GOVERNOR CONTROL LINK	2.8945A	BEARING, FAN SHAFT	5.4110A
ADAPTOR, DIPSTICK	4.6030A	BEARING, FRESH WATER PUMP	5.1070
ADAPTOR, FLYWHEEL HOUSING	1.5130B	BEARING, FRESH WATER PUMP IDLER PULLEY	5.1202
ADAPTOR, FRESH WATER PUMP	5.1005	BEARING, GENERATOR DRIVE	7.1535A
ADAPTOR, FUEL PUMP DRIVE	2.2280	BEARING, GOV. OPERATING SHAFT (LOWER)	2.7270A
ADAPTOR, HYDRAULIC PUMP	12.5020A	BEARING, GOV. OPERATING SHAFT (UPPER)	2.7260A
ADAPTOR, MARINE GEAR HOUSING	9.1007A	BEARING, GOV. PILOT VALVE PLUNGER THRUST	2.8610A
ADAPTOR, MARINE GEAR OIL PUMP	9.1477A	BEARING, GOV. THROTTLE SHAFT	2.7100A
ADAPTOR, OIL COOLER	4.4110A	BEARING, GOV. VARIABLE SPEED SPR.	
ADAPTOR, OIL FILLER TUBE	4.5005A	LVR. (ROLLER CONTR.)	2.7732A
ADAPTOR, OIL FILTER COVER	4.2291A	BEARING, GOVERNOR DRIVE THRUST	2.8830A
ADAPTOR, OIL FILTER TUBE (TO OIL COOLER ADAPTOR)	4.3025A	BEARING, GOVERNOR DRIVEN SHAFT	2.8810A
ADAPTOR, OVERSPEED TRIP GOVERNOR	7.4635C	BEARING, GOVERNOR OPERATING SHAFT	8.3410A
ADAPTOR, POWER TAKE-OFF TO CLUTCH	8.1905A	BEARING, GOVERNOR OPERATING SHAFT (LOWER)	2.7270A
ADAPTOR, TACHOMETER DRIVE	7.4457B	BEARING, GOVERNOR OPERATING SHAFT (UPPER)	2.7260A
ADAPTOR, TACHOMETER DRIVE CABLE	7.4420B	BEARING, GOVERNOR RISER THRUST	8.3425A
ADAPTOR, TACHOMETER MOUNTING	7.4061A	BEARING, GOVERNOR ROCKER SHAFT	8.3440A
ADAPTOR, TORQUE CONVERTER DIPSTICK	8.3841B	BEARING, GOVERNOR THROTTLE SHAFT	2.7100A
ADAPTOR, WATER TEMPERATURE GAGE	7.4084A	BEARING, GOVERNOR VARIABLE SPEED SPRING LEVER SHAFT	2.7712A
ADAPTOR, WATER TEMPERATURE SWITCH	7.4509C	BEARING, GOVERNOR WEIGHT CARRIER SHAFT	2.7470A
AIR CLEANER ASSY.	3.1001A	BEARING, GOVERNOR WEIGHT CARRIER SHAFT	2.7470A
AMMETER, BATTERY	7.4015A	BEARING, GOVERNOR WEIGHT RISER THRUST	2.7460A
AMMETER, BATTERY CHARGING	7.4015A	BEARING, HYDRAULIC ENGINE PUMP	12.6602D
ANTI-SQUEAK, ENGINE HOOD	10.1070A	BEARING, HYDRAULIC STARTER END	12.6540D
ARM ASSY., EXHAUST VALVE	1.8060	BEARING, HYDRAULIC STARTER ENGINE PUMP PISTON	12.6610D
ARM ASSY., INJECTOR ROCKER	1.8080	BEARING, IDLER GEAR	1.7225
ARM, FAN BELT IDLER PULLEY ADJUSTING	5.4343A	BEARING, MARINE GEAR INPUT SHAFT	9.1027A
ARM, IDLER PULLEY ADJUSTING	5.1201	BEARING, MARINE GEAR PLANETARY GEAR	9.1087A
B			
BAFFLE, AIR CLEANER	3.1045A	BEARING, OUTPUT SHAFT	9.1085A
BAFFLE, BREATHER	4.8025A	BEARING, OUTPUT SHAFT	9.1097A
BAFFLE, GENERATOR FAN	7.1470A	BEARING, OVERSPEED TRIP GOVERNOR OPERATING SHAFT	7.4647C
BAFFLE, MARINE GEAR HOUSING OIL	9.1380A	BEARING, PLANETARY GEAR	9.1087A
BAFFLE, MARINE GEAR OIL	9.1380A	BEARING, RAW WATER PUMP	5.6130A
BAFFLE, OIL PAN	4.7045A	BEARING, REDUCTION GEAR DRIVE SHAFT PILOT	9.1345A
BAFFLE, REDUCTION HOUSING OIL	9.1386A	BEARING, REDUCTION GEAR DRIVE SHAFT THRUST	9.1350A
BALL HEAD ASSY., GOV.	2.8560A	BEARING, REDUCTION GEAR OUTPUT SHAFT	9.1350A
BALLHEAD (HYDRAULIC) OVERSPEED TRIP GOVERNOR	7.4617C	BEARING, ROTOR ASSY. SHAFT	3.5027A
BASE, ENGINE	11.1001A	BEARING, THRUST CLUTCH HOUSING GEAR	9.1041A
BASE, GOV.	2.8690A	BELL CRANK, GOVERNOR TO INJECTOR LINK	2.7823A
BASE, GOVERNOR	8.3380A		
BEARING, ACCESSORY DRIVE	1.7655B		
BEARING, AIR COMPRESSOR DRIVE SHAFT	12.4048A		
BEARING, BILGE PUMP SHAFT	12.2100A		
BEARING, BLOWER ROTOR FRONT	3.4040		
BEARING, BLOWER ROTOR REAR	3.4060		

PART NAME	GROUP NO.	PART NAME	GROUP NO.
BRACKET, OIL FILLER TUBE CLAMP.	4.5004A	BUSHING, PISTON PIN	1.6145
BRACKET, OIL FILTER MOUNTING.	2.8995A	BUSHING, STARTING MOTOR CABLE	
BRACKET, OIL FILTER MOUNTING.	4.2440A	INSULATION.	11.1035A
BRACKET, OIL FILTER MTG..	4.2440A	BUSHING, THROTTLE CONTROL SHAFT	
BRACKET, OIL FILTER TUBE CLIP	4.3050A	BRACKET	2.9160A
BRACKET, OIL PAN DRAIN TUBE	4.7112A	BUSHING, VERNIER THROTTLE CONTROL	
BRACKET, OIL PRESSURE SWITCH.	4.2495A	WORM.	2.9142A
BRACKET, OIL PUMP SCREEN SUPPORT.	4.1540B	BUTTON, VERNIER THROTTLE CONTROL	
BRACKET, OVERSPEED VALVE MOUNTING	7.4742C	LOCK.	2.9145A
BRACKET, RADIATOR MOUNTING.	5.3260A		
BRACKET, RAW WATER PUMP MOUNTING.	5.6380A	C	
BRACKET, REVERSE GEAR MOUNTING.	9.1011A		
BRACKET, ROCKER SHAFT	1.8170	CABINET, POWER GENERATOR CONTROL	7.6001A
BRACKET, SOLENOID VALVE MOUNTING.	7.4670C	CABLE ASSY., TRANSMISSION CONTROL	2.9940A
BRACKET, STARTING CONTROL ROD	7.4567C	CABLE, FLEXIBLE SHAFT	12.8500B
BRACKET, THROTTLE BOOSTER SPRING.	2.7975A	CABLE, GENERATOR TO CONTROL CABINET	7.7220A
BRACKET, THROTTLE BOOSTER SPRING.	2.9344A	CABLE, TACHOMETER DRIVE (FLEXIBLE).	7.4408B
BRACKET, THROTTLE CONT CROSS SHAFT		CABLE, TACHOMETER DRIVE FLEXIBLE.	7.4408B
SUPPT (ENG. LIFTER)	2.9305A	CAGE, INJECTOR CHECK VALVE.	2.1205A
BRACKET, THROTTLE CONTROL CROSS		CAGE, INJECTOR VALVE.	2.1265A
SHAFT	2.9305A	CAGE, INJECTOR VALVE SPRING	2.1257A
BRACKET, THROTTLE CONTROL CROSS		CAM, AIR SHUTDOWN SHAFT	3.4424
SHAFT TUBE.	2.9305A	CAM, BLOWER DRIVE COUPLING.	3.4390
BRACKET, THROTTLE CONTROL CROSS SHF		CAM, HYDRAULIC STARTER HAND PUMP.	12.6643D
SUPT (ENG. LIFTER).	2.9305A	CAM, OVERSPEED VALVE ADJUSTING.	7.4740C
BRACKET, THROTTLE CONTROL KNOB SHAFT.	2.9150A	CAM, RAW WATER PUMP BODY OFFSET	5.6035A
BRACKET, THROTTLE CONTROL SHAFT		CAMSHAFT.	12.90060B
(TO HEAD)	2.9275A	CAMSHAFT ASSY..	1.7001
BRACKET, THROTTLE CONTROL SHAFT TO		CAP & SPACER, FAN HUB	5.4180A
HEAD.	2.9275A	CAP AND SPACER, FAN HUB	5.4180A
BRACKET, THROTTLE CONTROL SOLENOID.	2.9357A	CAP, CRANKSHAFT MAIN BEARING.	1.3110
BRACKET, THRRTL. CNTRL. CROSS SHFT.		CAP, EXHAUST PIPE	6.2093A
SUP. (ENG. LIFTER).	2.9305A	CAP, EXHAUST VALVE SPRING	1.8350
BRACKET, TORQUE CONVERTER OUTPUT		CAP, EXPANSION TANK FILLER.	5.5140A
SHAFT GOVERNOR.	8.3083A	CAP, FUEL TANK.	2.6030A
BRACKET, TRANSMISSION CABLE	2.9960A	CAP, GOV. LOW SPEED SPRING.	2.7580A
BRACKET, TURBOCHARGER SUPPORT	3.5002A	CAP, GOV. SPEED ADJUSTING SHAFT	
BRACKET, WATER FILTER MOUNTING.	5.7080A	SPACER.	2.8365A
BRACKET, WATER HEATER	12.6406C	CAP, GOV. WEIGHT HOUSING.	2.7510A
BREATHERR ASSY..	4.8045A	CAP, GOVERNOR LOW SPEED SPRING.	2.7580A
BREATHER, MARINE GEAR	9.1840A	CAP, GOVERNOR WEIGHT HOUSING.	2.7510A
BRIDGE, EXHAUST VALVE	1.8343	CAP, HYDRAULIC STARTER ACCUMULATOR.	12.6573D
BUSHING & SCREEN ASSY., STARTING AID		CAP, HYDRAULIC STARTER RESERVOIR.	12.6555D
TANK AND STRAINER	12.6363C	CAP, INJECTOR FILTER.	2.1130A
BUSHING, BILGE PUMP SHAFT	12.2090A	CAP, INJECTOR SHIPPING.	2.1150A
BUSHING, CONNECTING ROD PISTON PIN.	1.6040	CAP, OIL FILLER TUBE.	4.5010A
BUSHING, GOV. SPEED ADJUSTING		CAP, OVERSPEED TRIP GOVERNOR SPRING	7.4653C
TERMINAL.	2.8483A	CAP, OVERSPEED TRIP GOVERNOR SWITCH	
BUSHING, GOV. SPEED ADJUSTING SHAFT		HOUSING	7.4681C
SLEEVE.	2.8364A	CAP, RADIATOR FILLER.	5.3120A
BUSHING, GOV. TO INJECTOR LINK BELL		CAP, REDUCTION GEAR OIL FILLER.	9.1415A
CRANK	2.7825A	CAP, STARTING AID TANK PRESSURE	12.6360C
BUSHING, INJECTOR AND EXHAUST VALVE		CARRIER, FLYWHEEL PILOT BEARING	1.4055A
ROCKER ARM CLEVIS	1.8140	CARRIER, GOVERNOR WEIGHT.	2.7370A
BUSHING, INJECTOR ROCKER ARM-LARGE.	1.8110	CARTON, ENGINE PART	12.8050A
BUSHING, INJECTOR ROCKER ARM-SMALL.	1.8120	CASING, FLEXIBLE SHAFT.	12.8502B
BUSHING, MUFFLER PIPE	6.2005A	CATCH, ENGINE HOOD HOLD-DOWN CLAMP.	10.1050A
BUSHING, OIL PUMP BODY.	4.1050A	CATCH, ENGINE HOOD SIDE PANEL	10.1057A
BUSHING, OIL PUMP COVER	4.1240A	CHAIN, OIL FILLER TUBE.	4.5030A
BUSHING, OIL PUMP DRIVE SUPPORT	4.1230A	CLAMP, AIR INLET PIPE HOSE.	3.1280A
BUSHING, OIL PUMP DRIVEN GEAR	4.1210A	CLAMP, AIR SILENCER OUTLET ELBOW HOS	
BUSHING, OVERSPEED TRIP GOVERNOR		E	3.2024A
HOUSING	7.4615C	CLAMP, AMMETER.	7.4020A

PART NAME	GROUP NO.	PART NAME	GROUP NO.
BELL, ALARM SYSTEM.	7.4513C	BRACKET, ENGINE LIFTER REAR	1.2080A
BELLCRANK ASSY., GOVERNOR OPERATING	2.8965A	BRACKET, ENGINE LIFTER-FRONT.	1.2070A
BELLOWS ASSY., AIR SHUTDOWN	3.4414	BRACKET, ENGINE LIFTER-REAR	1.2080A
BELT, ACCESSORY DRIVE	1.7625B	BRACKET, ENGINE SUPPORT	11.1075A
BELT, AIR COMPRESSOR.	12.4045A	BRACKET, ETHER PUNCTURING TOOL	
BELT, AIR COMPRESSOR DRIVE.	12.4045A	MOUNTING.	12.6391C
BELT, CRANKSHAFT PULLEY	1.3320D	BRACKET, EXPANSION TANK INLET	
BELT, FRESH WATER PUMP DRIVE.	5.1215	CONNECTION.	5.3315B
BELT, GENERATOR DRIVE	7.1575A	BRACKET, FAN BELT IDLER PULLEY.	5.4337A
BELT, HYDRAULIC STARTER ENGINE PUMP		BRACKET, FAN BELT IDLER PULLEY	
DRIVE	12.6676D	ADJUSTING ARM STOP.	5.4346A
BELT, VACUUM PUMP DRIVE	12.3030A	BRACKET, FAN BELT IDLER PULLEY	
BLADE, FAN.	5.4010A	SPRING.	5.4355A
BLOCK ASSY., CYLINDER	1.1001	BRACKET, FAN SHAFT.	5.4090A
BLOCK ASSY., CYLINDER.	1.1001	BRACKET, FRESH WATER PUMP IDLER	
BLOCK, CYLINDER	1.1001	PULLEY.	5.1205
BLOCK, INSTRUMENT PANEL FUSE.	7.4135A	BRACKET, FUEL DRAIN TUBE.	2.5230A
BLOWER.	12.90140B	BRACKET, FUEL DRAIN TUBE CLIP	2.5230A
BLOWER ASSY.	3.4001	BRACKET, FUEL FILTER MOUNTING	2.3530A
BLOWER KIT, INSTALLATION.	3.4003	BRACKET, FUEL PRIMER.	12.6658D
BLOWER KIT, REPAIR.	3.4005	BRACKET, FUEL STRAINER MOUNTING	2.3260A
BODY ASSY., INJECTOR.	2.1020A	BRACKET, GENERATOR ADJ STRAP.	7.1582A
BODY ASSY., MASTER CYLINDER	12.6810E	BRACKET, GENERATOR ADJUSTING STRAP.	7.1582A
BODY, AIR CLEANER	3.1030A	BRACKET, GENERATOR DR BELT AND.	7.1587A
BODY, AIR HEATER.	7.8030A	BRACKET, GENERATOR DRIVE BELT AND	
BODY, BILGE PUMP.	12.2010A	PULLEY.	7.1587A
BODY, BREATHER.	4.8050A	BRACKET, GENERATOR DRIVE BELT AND	
BODY, FRESH WATER PUMP.	5.1030	PULLEY GUARD.	7.1587A
BODY, FUEL PUMP	2.2010	BRACKET, GENERATOR MOUNTING	7.1595A
BODY, GOVERNOR.	8.3370A	BRACKET, GENERATOR MTG.	7.1595A
BODY, HYDRAULIC STARTER CONTROL		BRACKET, GENERATOR VOLTAGE	
VALVE	12.6517D	REGULATOR MOUNTING.	7.1606A
BODY, HYDRAULIC STARTER ENGINE PUMP	12.6595D	BRACKET, GOV. SOLENOID VALVE	
BODY, HYDRAULIC STARTER HAND PUMP	12.6633D	MOUNTING.	2.7922A
BODY, OIL PUMP.	4.1040A	BRACKET, GOV. SPEED ADJUSTING LEVER	
BODY, RAW WATER PUMP.	5.6020A	(DROOP)	2.8440A
BODY, WATER FILTER.	5.7013A	BRACKET, GOV. TO INJECTOR LINK BELL	
BOLT, AIR CLEANER	3.1070A	CRANK	2.7821A
BOLT, CRANKSHAFT MAIN BEARING CAP	1.3140	BRACKET, GOVERNOR AND TRANSMISSION	
BOLT, CYLINDER HEAD	1.2030	CONTROL	2.9920A
BOLT, ROCKER COVER.	1.8460A	BRACKET, GOVERNOR CONTROL RETRACTING	
BOOT, GOV. TO INJECTOR LINK	2.7834A	SPRING	2.9406A
BOOT, GOVERNOR TO INJECTOR LINK	2.7834A	BRACKET, GOVERNOR CONTROL RETRACTING	
BOOT, HYDRAULIC STARTER HAND PUMP		SPRING.	2.9406A
CAM	12.6645D	BRACKET, GOVERNOR CONTROL SHAFT	
BOOT, INJECTOR CONTROL TUBE LINK.	2.8950A	REAR.	2.9220A
BRACKET ASSY., TURBOCHARGER MOUNTING.	3.5300A	BRACKET, GOVERNOR CONTROL SHAFT REAR.	2.9220A
BRACKET, GENERATOR DRIVE BELT.	7.1587A	BRACKET, GOVERNOR SOLENOID VALVE	
BRACKET, ACCESSORY DRIVE.	1.7607B	MOUNTING.	2.7922A
BRACKET, ACCESSORY MOUNTING	1.7609B	BRACKET, GOVERNOR SPEED ADJUSTING	
BRACKET, AIR CLEANER MOUNTING	3.1230A	SHAFT	8.3455A
BRACKET, AIR COMPRESSOR MOUNTING.	12.4010A	BRACKET, GOVERNOR THROTTLE SPEED	
BRACKET, AIR HEATER COIL.	7.8090A	ADJUSTING	2.7172A
BRACKET, AIR HEATER PUMP AND VALVE.	7.8203A	BRACKET, GOVERNOR THROTTLE SPEED	
BRACKET, AIR SHUT-OFF SOLENOID.	7.4530C	ADJUSTING SHAFT	2.7172A
BRACKET, AIR SHUT-OFF VALVE CONTROL	3.3280A	BRACKET, HEAT EXCHANGER MOUNTING.	5.5070A
BRACKET, AIR SHUTOFF SOLENOID	7.4530C	BRACKET, HEAT EXCHANGER RAW WATER	
BRACKET, BREATHER EXTENSION PIPE.	4.8183A	INLET TUBE CLIP	5.5405A
BRACKET, CONVERTER.	8.3880B	BRACKET, HYDRAULIC STARTER ENGINE	
BRACKET, CYLINDER THROTTLE DELAY		PUMP.	12.6670D
ROCKER SHAFT.	2.9030	BRACKET, HYDRAULIC STARTER HAND PUMP.	12.6684D
BRACKET, DRAIN TANK MOUNTING.	1.1240A	BRACKET, INJECTOR CONTROL TUBE.	2.9003
BRACKET, ENGINE LIFTER FRONT.	1.2070A	BRACKET, OIL COOLER HOUSING SUPPORT	4.4100A

PART NAME	GROUP NO.
COUPLING, THROTTLE CONTROL SHAFT.	2.9190A
COVER AIR BOX.	1.1040
COVER ASSY., DRIVE.	1.7700B
COVER ASSY., GOV. (LESS SHAFT AND LEVER).	2.7050A
COVER ASSY., GOVERNOR.	2.7045A
COVER ASSY., GOVERNOR (COMPLETE).	2.7045A
COVER ASSY., GOVERNOR (LESS SHAFTS AND LEVERS).	2.7050A
COVER ASSY., GOVERNOR COMPLETE.	2.7045A
COVER, ACCESSORY DRIVE HOLE.	1.7700B
COVER, AIR BOX.	1.1040
COVER, AIR CLEANER.	3.1020A
COVER, AIR SHUT-OFF CONTROL HOUSING.	7.4553C
COVER, AIR SHUTDOWN HOUSING.	3.4418
COVER, BLOWER HOUSING END PLATE.	3.4180
COVER, BREATHER HOLE.	4.8195A
COVER, CLUTCH HOUSING INSPECTION HOLE.	8.1060A
COVER, CLUTCH RELEASE YOKE LUBRICATION.	8.1318A
COVER, CRANKSHAFT.	1.3160A
COVER, CYL BLOCK WATER HOLE.	1.1060
COVER, CYLINDER BLOCK OIL HOLE.	1.1065
COVER, CYLINDER BLOCK WATER HOLE.	1.1060
COVER, CYLINDER BLOCK WATER HOLE COVER.	12.6409C
COVER, CYLINDER HEAD WATER HOLE.	1.2043
COVER, ENGINE FRONT-LOWER.	1.3162A
COVER, ENGINE FRONT-UPPER.	1.3161A
COVER, FAST IDLE AIR CYLINDER.	2.7855A
COVER, FLYWHEEL HOUSING INSPECTION HOLE.	1.5080A
COVER, FLYWHEEL HOUSING LARGE HOLE.	1.5030A
COVER, FLYWHEEL HOUSING SMALL HOLE.	1.5050A
COVER, FRESH WATER PUMP.	5.1031
COVER, FUEL FILTER (SECONDARY).	2.3390A
COVER, FUEL PUMP.	2.2030
COVER, FUEL STRAINER (PRIMARY).	2.3080A
COVER, GOV. WEIGHT HOUSING.	2.7520A
COVER, GOVERNOR.	2.8040A
COVER, GOVERNOR BREATHER HOLE.	2.7005A
COVER, GOVERNOR FUEL ROD SPRING.	2.8085A
COVER, GOVERNOR HIGH SPEED SPRING.	2.7630A
COVER, GOVERNOR WEIGHT HOUSING.	2.7520A
COVER, HEAT EXCHANGER.	5.5030A
COVER, HEAT EXCHANGER TANK OUTLET.	5.3333B
COVER, HYDRAULIC CONTROL VALVE.	9.1178A
COVER, HYDRAULIC STARTER END.	12.6543D
COVER, INSTRUMENT PANEL.	7.4012A
COVER, MASTER CYLINDER RESERVOIR.	12.6812E
COVER, OIL COOLER HOUSING.	4.4060A
COVER, OIL FILTER.	4.2290A
COVER, OIL FILTER (ADAPTOR).	4.2290A
COVER, OIL PAN.	4.7120A
COVER, OIL PUMP.	4.1220A
COVER, OUTPUT SHAFT BEARING.	9.1099A
COVER, OVERSPEED TRIP GOVERNOR HOUSING.	7.4630C
COVER, OVERSPEED VALVE.	7.4729C
COVER, RADIATOR FILLER CAP.	5.3151A
COVER, RAW WATER PUMP.	5.6090A
COVER, REDUCTION GEAR BEARING.	9.1365A

PART NAME	GROUP NO.
COVER, ROCKER.	1.8450A
COVER, SELECTOR VALVE.	9.1178A
COVER, TACHOMETER DRIVE.	7.4445B
COVER, THERMOSTAT HOUSING.	5.2120B
COVER, TRANSMISSION CABLE BRACKET.	2.9970A
COVER, VERNIER THROTTLE CONTROL.	2.9149A
COVER, WATER FILTER.	5.7034A
CRANKSHAFT.	12.90030B
CRANKSHAFT ASSY.	1.3001
CUP, AIR CLEANER.	3.1010A
CUP, AIR CLEANER OIL.	3.1010A
CUP, BILGE PUMP GREASE.	12.2130A
CUSHION, ENGINE MOUNTING BASE ISOLATION PAD.	11.1010A
CUTOUT ASSY., GENERATOR VOLTAGE REGULATOR.	7.1607A
CYLINDER ASSY., FAST IDLE AIR.	2.7850A
CYLINDER ASSY., MASTER REMOTE CONTROL.	12.6808E
CYLINDER ASSY., THROTTLE CONTROL AIR.	2.9860A
CYLINDER BLOCK.	12.90010B
CYLINDER HEAD.	12.90020B
CYLINDER KIT.	1.6182
CYLINDER, FORWARD CLUTCH PISTON.	9.1223A

D

DAMPER, VIBRATION.	1.3210B
DEFLECTOR, INJECTOR SPILL.	2.1050A
DIAPHRAGM, OVERSPEED VALVE PISTON.	7.4733C
DIPSTICK.	4.6001A
DIPSTICK, MARINE GEAR.	9.1395A
DIPSTICK, REDUCTION GEAR.	9.1395A
DIPSTICK, TORQUE CONVERTER.	8.3840B
DISC, FLYWHEEL FLEXIBLE COUPLING.	1.4075A
DISC, FUEL PUMP DRIVE.	2.2228
DRAINCOCK, FUEL FILTER.	2.3500A
DRIVE ASSY., GOVERNOR.	2.8750A
DRIVE GEAR & SHAFT ASSY., TACHOMETER DRIVE.	7.4423B
DRIVE UNIT, TACHOMETER.	7.4062A
DRIVE, HYDRAULIC STARTER ENGINE PUMP.	12.6594D

E

ELBOW, OIL COOLER WATER OUTLET.	5.3420B
ELBOW, THERMOSTAT HOUSING COVER OUTLET.	5.2122B
ELBOW, THERMOSTAT HOUSING OUTLET.	5.2092B
ELBOW, TURBOCHARGER AIR OUTLET.	3.5417A
ELBOW, WATER OUTLET.	5.2035A
ELBOW, WATER PUMP INLET.	5.3335B
ELECTRICAL SYSTEM.	12.90230B
ELECTRODE, AIR HEATER.	7.8120A
ELECTRODE, HEAT EXCHANGER.	5.5010A
ELEMENT, AIR CLEANER.	3.1050A
ELEMENT, AIR SILENCER.	3.2002A
ELEMENT, CONVERTER OIL FILTER.	8.3872B
ELEMENT, DRAIN TANK.	1.1180A
ELEMENT, FUEL FILTER (SECONDARY).	2.3320A
ELEMENT, FUEL STRAINER (PRIMARY).	2.3010A
ELEMENT, HYDRAULIC STARTER FILTER.	12.6805E
ELEMENT, INJECTOR FILTER.	2.1110A

PART NAME	GROUP NO.	PART NAME	GROUP NO.
CLAMP, BLOWER DRIVE COVER SEAL	3.4227	CLIP, TRANSMISSION CABLE	2.9950A
CLAMP, EXHAUST MANIFOLD FRESH WATER		CLIP, TURBOCHARGER OIL SUPPLY TUBE	3.5502A
INLET HOSE	5.3434B	CLIP, WATER BY-PASS TUBE	5.2190C
CLAMP, FUEL PRESSURE GAGE	7.4093A	CLIP, WIRE HARNESS	7.7010A
CLAMP, HEAT EXCHANGER FRESH WATER		CLUTCH ASSY.	8.1017A
INLET HOSE	5.3305B	CLUTCH, HYDRAULIC STARTER DRIVE	12.6506D
CLAMP, HEAT EXCHANGER TO WATER PUMP		COIL, AIR HEATER	7.8080A
HOSE	5.3341B	COLLAR, CLUTCH RELEASE	8.1295A
CLAMP, INJECTOR	2.1270A	COLLAR, GOV. DRIVE SHAFT	2.8620A
CLAMP, OIL COOLER WATER INLET	4.4214A	COLLAR, THROTTLE CONTROL CROSS SHAFT	2.9330A
CLAMP, OIL PRESSURE GAGE	7.4072A	COLLAR, TURBOCHARGER ROTOR THRUST	3.5034A
CLAMP, OIL TEMPERATURE GAGE	7.4078A	COMPRESSOR ASSY., AIR	12.4001A
CLAMP, RADIATOR INLET HOSE	5.3300B	CONE, CRANKSHAFT PULLEY	1.3295C
CLAMP, RADIATOR OUTLET HOSE	5.3340B	CONE, POWER TAKE-OFF ADAPTOR	8.1907A
CLAMP, TACHOMETER	7.4065A	CONE, RAW WATER PUMP CLUTCH	5.6600A
CLAMP, TACHOMETER DRIVE ADAPTOR		CONE, VIBRATION DAMPER FRONT	1.3240B
RETAINING	7.4433B	CONE, VIBRATION DAMPER REAR	1.3250B
CLAMP, WATER TEMPERATURE GAGE	7.4082A	CONNECTING ROD & PISTON	12.90050B
CLEVIS, INJECTOR AND EXHAUST VALVE		CONNECTING ROD ASSY.	1.6001
ROCKER ARM	1.8130	CONNECTION, EXPANSION TANK WATER	
CLIP, AIR BOX DRAIN	1.1145A	INLET	5.3313B
CLIP, AIR BOX DRAIN TUBE	1.1145A	CONNECTION, FLEXIBLE EXHAUST	6.2095A
CLIP, AIR COMPRESSOR BOOSTER INLET		CONNECTION, GOVERNOR TACHOMETER	
TUBE AND ELBOW ASSY.	12.4377A	SHAFT	8.3475A
CLIP, AIR COMPRESSOR LUBE OIL TUBE	12.4080A	CONNECTION, HEAT EXCHANGER FRESH	
CLIP, AIR COMPRESSOR WATER TUBE	12.4095A	WATER INLET	5.3314B
CLIP, AIR COMPRESSOR WATER TUBE HOSE	12.4097A	CONNECTION, HEAT EXCHANGER FRESH	
CLIP, AIR HEATER INLET AND OUTLET		WATER OUTLET	5.3312B
TUBE	7.8320A	CONNECTION, OIL COOLER WATER	5.3350B
CLIP, AIR INLET HOUSING SHUTDOWN		CONNECTION, OIL COOLER WATER INLET	
CONTROL WIRE	3.3270A	TUBE	4.4211A
CLIP, AIR INLET HOUSING SHUTDOWN CON		CONNECTION, RADIATOR INLET	5.3270B
TROL WIRE	3.3270A	CONNECTION, RADIATOR OUTLET	5.3310B
CLIP, BREATHER TUBE	4.8040A	CONNECTION, RAW WATER PUMP INLET	5.6500A
CLIP, CYLINDER HEAD INLET TUBE	2.5180A	CONNECTION, THERMOSTAT HOUSING	
CLIP, DIPSTICK	4.6040A	WATER OUTLET	5.3275B
CLIP, DIPSTICK TORQUE CONVERTER	8.3842B	CONNECTION, THERMOSTAT HOUSING WATER	
CLIP, EXPANSION TANK OVERFLOW TUBE	5.5200A	OUTLET	5.3275B
CLIP, FILTER OUTLET TUBE	2.5158A	CONNECTOR, EXHAUST MANIFOLD FRESH	
CLIP, FILTER TO CYLINDER HEAD TUBE	2.5180A	WATER INLET	5.3430B
CLIP, FLEXIBLE HOSE	12.8554B	CONNECTOR, FUEL PIPE	2.4030
CLIP, FUEL DRAIN TUBE	2.5220A	CONNECTOR, TURBOCHARGER EXHAUST	
CLIP, FUEL FILTER OUTLET TUBE	2.5156A	INLET	3.5305A
CLIP, FUEL PUMP DRAIN TUBE	2.2320A	CONTAINER, INJECTOR SHIPPING	2.1010A
CLIP, FUEL PUMP TO FILTER TUBE	2.5120A	CONTROL ASSY., VERNIER THROTTLE	2.9133A
CLIP, FUEL SUPPLY TO STRAINER TUBE	2.5020A	CONVERSION KIT, MARINE GEAR	9.1016A
CLIP, GOV. CONTROL WIRE TUBE	2.9428A	CONVERTER ASSY., TORQUE	8.3001A
CLIP, GOVERNOR CONTROL WIRE TUBE	2.9428A	COOLER ASSY., FUEL	2.5212A
CLIP, GOVERNOR THROTTLE LEVER RETURN		CORE ASSY., OIL COOLER	4.4001A
SPRING	2.7912A	CORE, HEAT EXCHANGER	5.5003A
CLIP, HEAT EXCHANGER RAW WATER		COUPLING ASSY., POWER TAKE-OFF	8.1910A
INLET TUBE	5.5390A	COUPLING, ACCESSORY DRIVE	1.7635B
CLIP, HEAT EXCHANGER RAW WATER INLET		COUPLING, AIR COMP. DRIVE	12.4050A
TUBE	5.5390A	COUPLING, AIR COMPRESSOR DRIVE	12.4050A
CLIP, OIL COOLER BY-PASS VALVE	4.4160A	COUPLING, BLOWER DRIVE	3.4370
CLIP, OIL COOLER LINES	4.4345A	COUPLING, ENGINE DRIVE SHAFT	
CLIP, OIL COOLER TO CONVERTER TUBE	8.3819B	FLEXIBLE	1.4060A
CLIP, OIL FILTER TUBE	4.3045A	COUPLING, FUEL PUMP DRIVE	2.2230
CLIP, OIL PAN DRAIN TUBE	4.7101A	COUPLING, GENERATOR DRIVE	7.1560A
CLIP, OIL PRESSURE GAGE TUBE	7.4076A	COUPLING, HYDRAULIC PUMP DRIVE	12.5010A
CLIP, SHUTDOWN RESET LEVER ROD	3.3127A	COUPLING, MARINE GEAR DRIVE	9.1006A
CLIP, SOLENOID VALVE TUBE	2.7928A	COUPLING, PROPELLER DRIVE SHAFT	9.1440A
CLIP, STRAINER TO FUEL PUMP TUBE	2.5070A	COUPLING, RAW WATER PUMP DRIVE	5.6420A

PART NAME	GROUP NO.	PART NAME	GROUP NO.
GASKET, EXHAUST MANIFOLD FRESH WATER INLET CONNECTION.	5.3431B	GASKET, HEAT EXCHANGER FRESH WATER INLET CONNECTION.	5.3323B
GASKET, EXHAUST MANIFOLD WATER OUTLET FLANGE	5.3461B	GASKET, HEAT EXCHANGER FRESH WATER OUTLET CONNECTION	5.3325B
GASKET, EXHAUST OUTLET.	6.2105A	GASKET, HEAT EXCHANGER MOUNTING BRACKET	5.5080A
GASKET, EXPANSION TANK FILLER NECK.	5.5130A	GASKET, HEAT EXCHANGER RAW WATER INLET TUBE.	5.5460A
GASKET, EXPANSION TANK WATER INLET CONNECTION.	5.3322B	GASKET, HEAT EXCHANGER RAW WATER OUTLET TUBE	5.5570A
GASKET, FLYWHEEL HOUSING.	1.5010A	GASKET, HYDRAULIC CONTROL VALVE COVER	9.1179A
GASKET, FLYWHEEL HOUSING BELL	1.5020A	GASKET, HYDRAULIC MARINE GEAR OIL PUMP.	9.1480A
GASKET, FLYWHEEL HOUSING LARGE HOLE COVER.	1.5040A	GASKET, HYDRAULIC PUMP.	12.5005A
GASKET, FLYWHEEL HOUSING LARGE HOLE COVER	1.5040A	GASKET, HYDRAULIC PUMP ADAPTOR.	12.5021A
GASKET, FLYWHEEL HOUSING SMALL HOLE COVER.	1.5060A	GASKET, HYDRAULIC STARTER	12.6502D
GASKET, FLYWHEEL HOUSING SMALL HOLE COVER	1.5060A	GASKET, HYDRAULIC STARTER ENGINE PUMP BODY	12.6598D
GASKET, FRESH WATER PUMP.	5.1010	GASKET, HYDRAULIC STARTER MOTOR HOUSING	12.6530D
GASKET, FRESH WATER PUMP ADAPTOR.	5.1006	GASKET, INJECTOR FILTER CAP	2.1140A
GASKET, FRESH WATER PUMP BODY COVER	5.1032	GASKET, LOWER OIL PAN	4.7040A
GASKET, FUEL FILTER COVER SCREW	2.3420A	GASKET, MARINE GEAR HOUSING	9.1008A
GASKET, FUEL FILTER COVER TO SHELL.	2.3400A	GASKET, MARINE GEAR HOUSING ADAPTOR	9.1008A
GASKET, FUEL FILTER MOUNTING BRACKET.	2.3570A	GASKET, MARINE GEAR HOUSING REAR.	9.1102A
GASKET, FUEL PUMP DRIVE ADAPTOR	2.2280	GASKET, MARINE GEAR OIL PUMP ADAPTOR.	9.1478A
GASKET, FUEL PUMP MOUNTING PLATE.	2.2237	GASKET, MARINE GEAR PUMP ADAPTOR.	9.1478A
GASKET, FUEL PUMP TO ENGINE	2.2007	GASKET, MASTER CYLINDER RESERVOIR COVER	12.6813E
GASKET, FUEL PUMP VALVE PLUG.	2.2180	GASKET, OIL COOLER ADAPTOR TO BLOCK	4.4115A
GASKET, FUEL STRAINER COVER	2.3090A	GASKET, OIL COOLER BY-PASS VALVE PLUG.	4.4170A
GASKET, FUEL STRAINER COVER SCREW	2.3130A	GASKET, OIL COOLER CORE - INNER	4.4030A
GASKET, FUEL STRAINER MOUNTING BRACKET	2.3270A	GASKET, OIL COOLER CORE INNER	4.4030A
GASKET, FUEL TANK CAP	2.6035A	GASKET, OIL COOLER CORE OUTER	4.4040A
GASKET, GENERATOR DRIVE BEARING AND OIL SEAL RETAINER	7.1525A	GASKET, OIL COOLER CORE-INNER	4.4030A
GASKET, GOV. HOUSING DUMMY HOLE PLUG.	2.8210A	GASKET, OIL COOLER CORE, INNER.	4.4030A
GASKET, GOV. RELIEF VALVE	2.8640A	GASKET, OIL COOLER CORE, OUTER.	4.4040A
GASKET, GOV. SPEED ADJUSTING SHAFT.	2.8363A	GASKET, OIL COOLER HOUSING.	4.4055A
GASKET, GOV. SPEED ADJUSTING SHAFT SPACER CAP.	2.8367A	GASKET, OIL COOLER HOUSING TO BLOCK	4.4055A
GASKET, GOV. VARIABLE SPEED SPRING HOUSING	2.7700A	GASKET, OIL COOLER WATER INLET CONNECTION.	4.4212A
GASKET, GOVERNOR BODY TO BASE	8.3390A	GASKET, OIL COOLER WATER INLET CONNECTION.	5.3360B
GASKET, GOVERNOR BREATHER HOLE COVER	2.7006A	GASKET, OIL COOLER WATER OUTLET ELBOW	5.3421B
GASKET, GOVERNOR BREATHER HOLE COVER.	2.7006A	GASKET, OIL COOLER WATER OUTLET FLANGE.	4.4244A
GASKET, GOVERNOR COVER.	2.7051A	GASKET, OIL FILLER TUBE	4.5050A
GASKET, GOVERNOR COVER.	2.8045A	GASKET, OIL FILTER ADAPTOR.	4.2350A
GASKET, GOVERNOR FUEL ROD SPRING COVER	2.8086A	GASKET, OIL FILTER BY-PASS HOUSING.	4.2389A
GASKET, GOVERNOR HIGH SPEED SPRING.	2.7650A	GASKET, OIL FILTER BY-PASS PLUG	4.2489A
GASKET, GOVERNOR HIGH SPEED SPRING COVER	2.7650A	GASKET, OIL FILTER BY-PASS VALVE PLUG.	4.2489A
GASKET, GOVERNOR TO ENGINE.	2.7010A	GASKET, OIL FILTER BY-PASS VALVE PLUG	4.2489A
GASKET, GOVERNOR TO ENGINE.	2.8035A	GASKET, OIL FILTER COVER.	4.2300A
GASKET, GOVERNOR VARIABLE SPEED SPRING HOUSING.	2.7700A	GASKET, OIL FILTER COVER ADAPTOR.	4.2293A
GASKET, GOVERNOR WEIGHT HOUSING COVER	2.7530A	GASKET, OIL FILTER COVER NUT.	4.2330A
GASKET, GOVERNOR WEIGHT HOUSING CAP	2.7515A	GASKET, OIL FILTER ELEMENT.	2.8987A
GASKET, HEAT EXCHANGER.	5.5050A	GASKET, OIL FILTER PRESSURE REGULATOR PLUG.	8.3890B

PART NAME	GROUP NO.
ELEMENT, OIL FILTER	2.8986A
ELEMENT, OIL FILTER	4.2250A
ELEMENT, WATER FILTER	5.7020A
EXHAUST MANIFOLD.	12.90220B
EXTENSION, BREATHER PIPE.	4.8010A
EYE, THROTTLE BOOSTER ADJUSTING	2.7982A
EYE, THROTTLE BOOSTER ADJUSTING	2.9348A

F

FACING, CLUTCH.	8.1030A
FAN GENERATOR.	7.1470A
FAN, GENERATOR.	7.1440A
FERRULE AND NUT, FLEXIBLE SHAFT	
CASING.	12.8514B
FILTER ASSY., CONVERTER OIL	8.3870B
FILTER ASSY., FUEL.	2.3310A
FILTER ASSY., HYDRAULIC STARTER	12.6801E
FILTER ASSY., OIL	2.8985A
FILTER ASSY., OIL	4.2240A
FILTER ASSY., WATER	5.7001A
FILTER KIT, CONVERSION.	2.1132A
FILTER UNIT, BREATHER OIL SEPARATOR	4.8060A
FILTER, AIR HEATER.	7.8060A
FILTER, HYDRAULIC STARTER RESERVOIR	12.6558D
FITTING, CLUTCH DRIVE SHAFT BEARING	
GREASE.	8.1685A
FITTING, CLUTCH PILOT BEARING GREASE.	8.1455A
FITTINGS KIT, HYDRAULIC STARTER	12.6825E
FITTINGS, AUXILIARY PUMP AND TANK	2.5004A
FITTINGS, FLEXIBLE HOSE END	12.8552B
FLANGE, EXHAUST	6.2085A
FLANGE, EXHAUST MANIFOLD WATER	
OUTLET.	5.3460B
FLANGE, MARINE GEAR DRIVE	9.1004A
FLANGE, OIL COOLER WATER OUTLET	4.4242A
FLANGE, PROPELLER DRIVE	9.1430A
FLYWHEEL.	1.4001A
FLYWHEEL.	12.90040B
FLYWHEEL, CASTING	12.8565B
FOLLOWER ASSY., CAM	1.8260
FOLLOWER, INJECTOR.	2.1060A
FORK, CLUTCH RELEASE.	8.1280A
FORK, FUEL PUMP COUPLING.	2.2220
FORK, GOV. OPERATING SHAFT.	2.7290A
FORK, GOV. SPEED ADJUSTING LINKAGE	
SPRING.	2.8435A
FORK, GOVERNOR OPERATING.	8.3430A
FORK, GOVERNOR OPERATING LEVER.	2.7290A
FORK, GOVERNOR OPERATING SHAFT.	2.7290A
FORK, HYDRAULIC STARTER CLUTCH.	12.6509D
FUEL FILTER	12.90110B
FUEL MANIFOLD	12.90120B
FUEL PUMP	12.90100B

G

GAGE, AIR HEATER PRESSURE	7.8342A
GAGE, FUEL PRESSURE	7.4091A
GAGE, HYDRAULIC STARTER PRESSURE.	12.6585D
GAGE, OIL PRESSURE.	7.4070A
GAGE, OIL PRESSURE (REVERSE GEAR OR	
TORQUE CONVERTER)	7.4071A

GAGE, OIL TEMPERATURE	7.4077A
GAGE, WATER TEMPERATURE	7.4080A
GASKET KIT, CYLINDER HEAD OVERHAUL.	1.2002
GASKET KIT, ENGINE OVERHAUL	1.1002
GASKET KIT, HYDRAULIC MARINE GEAR	
OVERHAUL.	9.1017A
GASKET SET, BILGE PUMP.	12.2030A
GASKET, ACCESSORY DRIVE	1.7604B
GASKET, ACCESSORY DRIVE ADAPTOR	1.7623B
GASKET, AIR BOOSTER INLET TUBE AND	
ELBOW TO AIR COMP.	12.4380A
GASKET, AIR BOOSTER INLET TUBE AND	
ELBOW TO AIR COMPSR.	12.4380A
GASKET, AIR BOX COVER	1.1050
GASKET, AIR CLEANER BOTTOM.	3.1060A
GASKET, AIR CLEANER COVER	3.1025A
GASKET, AIR CLEANER MOUNTING	
ADAPTOR	3.1087A
GASKET, AIR CLEANER MOUNTING ADAPTOR.	3.1087A
GASKET, AIR CLEANER SCREEN.	3.1055A
GASKET, AIR COMPRESSOR ADAPTOR.	12.4025A
GASKET, AIR COMPRESSOR MOUNTING	12.4005A
GASKET, AIR HEATER.	7.8020A
GASKET, AIR HEATER ELECTRODE.	7.8140A
GASKET, AIR INLET HOUSING	3.3010A
GASKET, AIR INLET HOUSING FLANGE.	3.3007A
GASKET, AIR SILENCER.	3.2012A
GASKET, BLOWER.	3.4010
GASKET, BLOWER DRIVE GEAR HUB	
SUPPORT	3.4360
GASKET, BLOWER HOUSING END PLATE	
COVER	3.4190
GASKET, BREATHER BODY	4.8070A
GASKET, BREATHER SEPARATOR.	4.8070A
GASKET, BREATHER SHELL COVER.	4.8057A
GASKET, BREATHER TUBE	4.8020A
GASKET, CLUTCH HOUSING INSPECTION	
HOLE COVER.	8.1070A
GASKET, CONTROL HOUSING MOUNTING.	2.7232A
GASKET, CONTROL VALVE PRESSURE	
REGULATOR	9.1191A
GASKET, CONVERTER OIL FILTER SHELL.	8.3875B
GASKET, CRANKSHAFT FRONT COVER.	1.3172A
GASKET, CRANKSHAFT FRONT COVER	
PLATE	1.3172A
GASKET, CYLINDER BLOCK END PLATE.	1.1030
GASKET, CYLINDER BLOCK OIL HOLE	
COVER	1.1066
GASKET, CYLINDER BLOCK WATER HOLE	
COVER	1.1070
GASKET, CYLINDER BLOCK. WATER HOLE.	1.1070
GASKET, CYLINDER HEAD COMPRESSION	1.2010
GASKET, CYLINDER HEAD WATER & OIL	1.2022
GASKET, CYLINDER HEAD WATER HOLE	
COVER	1.2044
GASKET, DRIVE TO GOVERNOR	2.8760A
GASKET, ENGINE FRONT COVER.	1.3170A
GASKET, EXHASUT MANIFOLD.	6.1010A
GASKET, EXHAUST MANIFOLD.	6.1010A
GASKET, EXHAUST MANIFOLD COVER	
PLATE	6.1110A
GASKET, EXHAUST MANIFOLD FRESH WATER	
INLET CONNECTION	5.3431B

PART NAME	GROUP NO.
GUARD, HYDRAULIC STARTER ENGINE PUMP DRIVE BELT	12.6672D
GUIDE, CAM FOLLOWER	1.8300
GUIDE, DIPSTICK	4.6020A
GUIDE, EXHAUST VALVE	1.8320
GUIDE, GOV. VARIABLE SPEED SPRING PLUNGER	2.7780A
GUIDE, GOVERNOR HIGH SPEED SPRING	2.7620A
GUIDE, GOVERNOR SPRING	2.7620A
GUIDE, GOVERNOR VARIABLE SPEED SPRING PLUNGER	2.7780A
GUIDE, OVERSPEED VALVE PISTON	7.4735C
GUIDE, REDUCTION GEAR DIPSTICK	9.1400A

H

HANDLE, HYDRAULIC STARTER CONTROL SHAFT	12.6514D
HANDLE, HYDRAULIC STARTER HAND PUMP	12.6646D
HANDLE, RAW WATER PUMP CLUTCH	5.6640A
HANGER, THROTTLE BOOSTER SPRING	2.9349A
HANGER, THROTTLE BOOSTER SUPPORT	2.9349A
HARNESS, AIR HEATER WIRING	7.8095A
HARNESS, AIR SHUT-OFF WIRING	7.4545C
HARNESS, ENGINE WIRING	7.7001A
HEAD ASSEMBLY, CYLINDER	1.2001
HEAD ASSY., CYLINDER	1.2001
HEATER ASSY., AIR	7.8001A
HOOD ASSY., ENGINE	10.1001A
HOSE, AIR INLET PIPE	3.1270A
HOSE, AIR SILENCER OUTLET ELBOW	3.2023A
HOSE, BREATHER EXTENSION PIPE	4.8175A
HOSE, CLUTCH RELEASE BEARING	8.1320A
HOSE, EXHAUST MANIFOLD FRESH WATER INLET	5.3432B
HOSE, FLEXIBLE (BULK)	12.8550B
HOSE, FLYWHEEL HOUSING DRAIN	1.5096A
HOSE, FUEL TANK FLEXIBLE	2.6005A
HOSE, HEAT EXCHANGER AUX. TANK	5.5195A
HOSE, HEAT EXCHANGER FRESH WATER INLET	5.3295B
HOSE, HEAT EXCHANGER RAW WATER INLET TUBE	5.5470A
HOSE, HEAT EXCHANGER RAW WATER INLET TUBE	5.5470A
HOSE, HEAT EXCHANGER TO FRESH WATER PUMP	5.3334B
HOSE, HEAT EXCHANGER WATER OUTLET TUBE	5.5580A
HOSE, HYDRAULIC STARTER (BULK) (LESS FITTINGS)	12.6827E
HOSE, HYDRAULIC STARTER ENGINE PUMP TO ACCUMULATOR	12.6850E
HOSE, HYDRAULIC STARTER FILTER TO ENGINE PUMP	12.6840E
HOSE, HYDRAULIC STARTER FILTER TO HAND PUMP	12.6845E
HOSE, HYDRAULIC STARTER FLEXIBLE (BULK)	12.8520B
HOSE, HYDRAULIC STARTER FUEL PRIMER	12.6950E
HOSE, HYDRAULIC STARTER RELIEF VALVE	12.6880E
HOSE, HYDRAULIC STARTER RESERVOIR TO FILTER	12.6830E

HOSE, HYDRAULIC STARTER RESERVOIR TO HAND PUMP	12.6832E
HOSE, HYDRAULIC STARTER TO RESERVOIR	12.6865E
HOSE, MAR GR OR TRNS. OIL INLET (OIL COOLER TO GEAR SUMP)	4.4335A
HOSE, MAR GR OR TRS OIL OTLET (SEL VALVE TO OIL COOLER)	4.4330A
HOSE, MAR GR OR TRS. OIL INLET (OIL COOLER TO GEAR SUMP)	4.4335A
HOSE, MAR GR OR TRS. OIL OTLET (SEL VALV TO OIL COOLER)	4.4330A
HOSE, MARINE GEAR OR TRANSMISSION OIL INLET	4.4335A
HOSE, MARINE GEAR OR TRANSMISSION OIL OUTLET	4.4330A
HOSE, MASTER CYLINDER TO REMOTE CONTROL VALVE	12.6875E
HOSE, OIL COOLER WATER INLET	4.4213A
HOSE, OIL COOLER WATER INLET CONNECTION	5.3365B
HOSE, OIL COOLER WATER OUTLET ELBOW	5.3422B
HOSE, RADIATOR INLET	5.3290B
HOSE, RADIATOR OUTLET	5.3330B
HOSE, ROCKER COVER DRAIN	1.1155A
HOSE, THERMOSTAT HOUSING COVER OUTLET ELBOW	5.2124B
HOSE, TURBOCHARGER AIR OUTLET CONNECTION	3.5420A
HOSE, WATER BY-PASS TUBE	5.2165C
HOSE, WATER FILTER INLET	5.7090A
HOSE, WATER FILTER OUTLET	5.7100A
HOUSING & BUSHING ASSY., TACHOMETER DRIVE CABLE ADAPTOR	7.4428B
HOUSING ASSY., AIR INLET	3.3001A
HOUSING ASSY., GOVERNOR	2.8190A
HOUSING ASSY., GOVERNOR VARIABLE SPEED SPRING	2.7680A
HOUSING ASSY., OVERSPEED TRIP GOVERNOR	7.4614C
HOUSING ASSY., REVERSE GEAR	9.1010A
HOUSING ASSY., TURBOCHARGER INTERMEDIATE	3.5018A
HOUSING, ACCESSORY DRIVE	1.7627B
HOUSING, AIR INLET	3.3003A
HOUSING, AIR SHUT-OFF CONTROL	7.4550C
HOUSING, AIR SHUTDOWN	3.4412
HOUSING, BILGE PUMP IMPELLER	12.2050A
HOUSING, BLOWER	3.4020
HOUSING, CLUTCH	8.1010A
HOUSING, FLYWHEEL	1.5001A
HOUSING, GOV. CONTROL	2.7230A
HOUSING, GOVERNOR CONTROL	2.7230A
HOUSING, GOVERNOR DRIVE	2.8780A
HOUSING, GOVERNOR HIGH SPEED SPRING ADJUSTING SCREW	2.7635A
HOUSING, GOVERNOR LIMITING SPEED SPRING	2.7635A
HOUSING, GOVERNOR VARIABLE SPEED SPRING	2.7690A
HOUSING, GOVERNOR WEIGHT	2.7340A
HOUSING, HYDRAULIC STARTER CLUTCH	12.6510D
HOUSING, HYDRAULIC STARTER DRIVE	12.6504D

PART NAME	GROUP NO.	PART NAME	GROUP NO.
GASKET, OIL FILTER TUBE ADAPTOR	4.3027A	GASKET, WATER TEMPERATURE SWITCH	
GASKET, OIL PAN COVER	4.7130A	ADAPTOR	7.4510C
GASKET, OIL PAN DRAIN PLUG	4.7090A	GEAR AND SHAFT ASSY., GOVERNOR	
GASKET, OIL PAN LOWER	4.7130A	DRIVE	2.8815A
GASKET, OIL PAN TO BLOCK	4.7030A	GEAR ASSEMBLY, HYDRAULIC MARINE	9.1001A
GASKET, OIL PRESSURE REGULATOR PLUG	4.1720C	GEAR ASSY., CLUTCH HUB	9.1036A
GASKET, OIL PUMP INLET PIPE	4.1520B	GEAR ASSY., HYDRAULIC MARINE	9.1001A
GASKET, OIL PUMP OUTLET PIPE	4.1590B	GEAR ASSY., IDLER	1.7220
GASKET, OIL PUMP RELIEF VALVE	4.1280A	GEAR ASSY., MARINE GEAR PLANETARY	9.1080A
GASKET, OIL PUMP TO BLOCK	4.1007A	GEAR ASSY., PLANETARY	9.1080A
GASKET, OVERSPEED TRIP GOVERNOR		GEAR ASSY., REDUCTION GEAR PLANETARY	9.1292A
ADAPTOR	7.4638C	GEAR, ACCESSORY DRIVE	1.7670B
GASKET, RADIATOR FILLER CAP	5.3130A	GEAR, BLOWER DRIVE	3.4300
GASKET, RAW WATER FLANGE (AT PUMP)	5.5378A	GEAR, BLOWER ROTOR	3.4080
GASKET, RAW WATER FLANGE (AT PUMP)	5.5410A	GEAR, CAMSHAFT AND BALANCE SHAFT	1.7200
GASKET, RAW WATER PUMP	5.6350A	GEAR, CRANKSHAFT TIMING	1.3145
GASKET, RAW WATER PUMP ADAPTOR	5.6012A	GEAR, FLYWHEEL RING	1.4010A
GASKET, RAW WATER PUMP COVER	5.6100A	GEAR, FORWARD CLUTCH	9.1028A
GASKET, RAW WATER PUMP INLET		GEAR, FUEL PUMP (DRIVE)	2.2087
CONNECTION	5.6510A	GEAR, FUEL PUMP DRIVE	2.2290
GASKET, REDUCTION GEAR ADAPTER	9.1283A	GEAR, FUEL PUMP DRIVEN	2.2088
GASKET, REDUCTION GEAR ADAPTOR PLATE	9.1283A	GEAR, GOV. OIL PUMP DRIVE	2.8720A
GASKET, REDUCTION GEAR BEARING COVER	9.1370A	GEAR, GOV. OIL PUMP DRIVEN	2.8730A
GASKET, REDUCTION GEAR DIPSTICK	9.1405A	GEAR, GOVERNOR DRIVE	2.7960A
GASKET, REDUCTION GEAR HOUSING	9.1286A	GEAR, GOVERNOR DRIVE	2.8855A
GASKET, ROCKER COVER	1.8455A	GEAR, GOVERNOR DRIVEN SHAFT	2.8805A
GASKET, SELECTOR VALVE COVER	9.1179A	GEAR, HYDRAULIC PUMP DRIVE	12.5030A
GASKET, STARTING FLUID STRAINER		GEAR, IDLER	1.7222
ASSY.	12.6390C	GEAR, INJECTOR	2.1180A
GASKET, STARTING MOTOR	7.3004A	GEAR, MARINE GEAR PLANETARY RING	9.1091A
GASKET, STARTING MOTOR HOLE	1.5075A	GEAR, OIL PUMP DRIVE	4.1090A
GASKET, TACHOMETER DRIVE ADAPTOR	7.4455B	GEAR, OIL PUMP DRIVE (ON CRANKSHAFT)	4.1310A
GASKET, TACHOMETER DRIVE CABLE		GEAR, OIL PUMP DRIVE (ON PUMP)	4.1380A
ADAPTOR	7.4421B	GEAR, OIL PUMP DRIVEN	4.1200A
GASKET, THERMOSTAT HOUSING	5.2110B	GEAR, RAW WATER PUMP DRIVE	5.6320A
GASKET, THERMOSTAT HOUSING COVER	5.2130B	GEAR, REDUCTION	9.1310A
GASKET, THERMOSTAT HOUSING WATER		GEAR, REDUCTION GEAR INPUT	9.1287A
OUTLET CONNECTION	5.3281B	GEAR, REDUCTION GEAR PLANETARY RING	9.1298A
GASKET, THROTTLE CONTROL CROSS		GEAR, REDUCTION GEAR SUN	9.1290A
SHAFT BRACKET	2.9306A	GEAR, REVERSE CLUTCH	9.1029A
GASKET, THROTTLE CONTROL CROSS SHAFT		GEAR, VERNIER THROTTLE CONTROL WORM	2.9141A
BRACKET TO HEAD	2.9306A	GENERATOR ASSY.	7.1001A
GASKET, THROTTLE CONTROL CROSS SHAFT		GENERATOR ASSY., POWER	7.5001A
BRACKET	2.9306A	GENERATOR, A. C. TACHOMETER	
GASKET, THROTTLE CONTROL CROSS SHAFT		(ELECTRIC)	7.4470B
BRACKET TO HEAD	2.9306A	GLAND, BILGE PUMP SHAFT PACKING	12.2070A
GASKET, TURBOCHARGER AIR OUTLET		GLAND, HEAT EXCHANGER SEAL RETAINER	5.5027A
ELBOW	3.5418A	GOVERNOR ASSY.	2.7001A
GASKET, TURBOCHARGER EXHAUST INLET		GOVERNOR ASSY.	2.8030A
CONNECTION	3.5307A	GOVERNOR, AIR COMPRESSOR	12.4305A
GASKET, TURBOCHARGER EXHAUST INLET C		GOVERNOR, OVERSPEED TRIP	7.4611C
ONNECTION	3.5307A	GOVERNOR, TORQUE CONVERTER OUTPUT	
GASKET, TURBOCHARGER EXHAUST OUTLET		SHAFT	8.3077A
CONNECTION	3.5325A	GUARD GENERATOR DRIVE BELT AND P	
GASKET, VACUUM PUMP	12.3005A	ULLEY	7.1585A
GASKET, WATER BY-PASS TUBE	5.2170C	GUARD, FAN	5.4580B
GASKET, WATER FILTER COVER	5.7035A	GUARD, FRESH WATER PUMP DRIVE BELT	5.1218
GASKET, WATER FILTER MOUNTING		GUARD, GEN. DRIVE BELT AND PULLEY	7.1585A
BRACKET	5.7081A	GUARD, GENERATOR DRIVE	7.1585A
GASKET, WATER OUTLET ELBOW	5.2037A	GUARD, GENERATOR DRIVE BELT AND	
GASKET, WATER PUMP INLET AND OUTLET		PULLEY	7.1585A
ELBOW	5.3337B	GUARD, HYDRAULIC ENGINE PUMP DRIVE	
		BELT	12.6672D

PART NAME	GROUP NO.
LEVER, GOVERNOR VARIABLE SPEED SPRING.	2.7740A
LEVER, INJECTOR CONTROL TUBE.	2.9009
LEVER, INJECTOR CONTROL TUBE (LOAD LIMIT ADJ.)	2.9017
LEVER, INJECTOR CONTROL TUBE (LOAD LIMIT ADJUSTING).	2.9017
LEVER, INJECTOR CONTROL TUBE RACK	2.9014
LEVER, MANUAL SHUTDOWN.	2.7827A
LEVER, SELECTOR VALVE	9.1175A
LEVER, SELECTOR VALVE OPERATING	9.1175A
LEVER, THROTTLE BOOSTER	2.9345A
LEVER, THROTTLE CONTROL CROSS SHAFT	2.9340A
LEVER, THROTTLE CONTROL ROD LOWER	2.9290A
LEVER, TRANSMISSION ACCELERATOR CONTROL	2.9910A
LINER, CYLINDER	1.6180
LINK, AIR SHUTDOWN.	3.4416
LINK, CLUTCH CONTROL HAND LEVER	8.1490A
LINK, CLUTCH RELEASE YOKE	8.1315A
LINK, GOVERNOR ACCELERATOR CONTROL	2.9930A
LINK, GOVERNOR CONTROL SHAFT LEVER.	2.9400A
LINK, GOVERNOR OPERATING LEVER CONNECTING.	2.7312A
LINK, GOVERNOR OPERATING LEVER TO BELLCRANK	2.8970A
LINK, INJECTOR CONTROL TUBE	2.8940A
LOCK RING, ACCESSORY DRIVE.	1.7650B
LOCK, CLUTCH ADJUSTING NUT.	8.1145A
LOCK, CLUTCH DRIVE SHAFT BEARING RETAINER.	8.1700A
LOCK, EXHAUST VALVE SPRING.	1.8370
LOCKNUT, GOV. HIGH SPEED SPRING RETAINER.	2.7615A
LOCKNUT, GOVERNOR HIGH SPEED SPRING	2.7615A
LOCKNUT, GOVERNOR HIGH SPEED SPRING RETAINER.	2.7615A
LOCKRING, ACCESSORY DRIVE	1.7650B
LOCKRING, GENERATOR DRIVE BEARING	7.1545A
LUBE OIL KIT.	12.8715C
LUBRICANT, FLEXIBLE SHAFT CABLE	12.8516B
LUBRICATING COMPOUND (THREAD)	12.8110A
M	
MANIFOLD, EXHASUT	6.1001A
MANIFOLD, EXHAUST	6.1001A
MEDALLION, INSTRUMENT PANEL	7.4099A
METER, HOUR	7.4118A
MOTOR ASSY., STARTING	7.3001A
MOUNTING ASSY., VOLTAGE REGULATOR	7.1612A
MOUNTING, ENGINE FRONT SUPPORT ELASTIC	11.1072A
MOUNTING, ENGINE REAR SUPPORT ELASTIC	11.1120A
MOUNTING, INSTRUMENT PANEL.	7.4010A
MOUNTING, TACHOMETER.	7.4064A
MUFFLER ASSY., EXHAUST.	6.2001A
N	
NAME PLATE (RADIATOR)	5.3268A
NAME PLATE, GOVERNOR.	2.7002A

NAME PLATE, RADIATOR.	5.3268A
NAMEPLATE	2.7002A
NECK ASSY., RADIATOR FILLER	5.3100A
NECK, EXPANSION TANK FILLER	5.5120A
NOZZLE, AIR HEATER SPRAY.	7.8050A
NOZZLE, CONNECTING ROD SPRAY.	1.6010
NOZZLE, CYLINDER HEAD WATER	1.2005
NOZZLE, STARTING AID PUMP TUBE.	12.6375C
NUT ASSY., MASTER CYLINDER (END).	12.6817E
NUT, AIR HEATER ELECTRODE	7.8150A
NUT, CLUTCH ADJUSTING	8.1144A
NUT, CYLINDER HEAD WATER.	1.2040
NUT, INJECTOR VALVE	2.1030A
NUT, OIL FILTER COVER	4.2350A
NUT, PROPELLER DRIVE FLANGE	9.1435A

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OIL COOLER - FILLER TUBE - DIPSTICK	12.90170B
OIL FILTER.	12.90160B
OIL PAN	12.90180B
OIL PUMP.	12.90150B
OIL SEAL, GOVERNOR BASE	8.3385A
OVERHAUL KIT, FUEL PUMP	2.2004
OVERHAUL KIT, INJECTOR.	2.1002A
OVERHAUL KIT, OIL PUMP.	4.1003A

P

PACKING, BILGE PUMP SHAFT	12.2060A
PACKING, GOVERNOR VARIABLE SPEED SPRING LEVER SHAFT.	2.7750A
PAINT, ENGINE TOUCH-UP.	12.8001A
PAN, OIL	4.7001A
PAN, OIL - LOWER.	4.7020A
PAN, OIL - UPPER.	4.7010A
PAN, OIL LOWER.	4.7020A
PAN, OIL UPPER.	4.7010A
PANEL, ENGINE HOOD SIDE	10.1100A
PANEL, INSTRUMENT	7.4005A
PANEL, REAR HOOD SUPPORT.	10.1035A
PEDAL ASSY., HYDRAULIC STARTER	
REMOTE CONTROL	12.6822E
PILOT, BLOWER DRIVE GEAR.	3.4082
PIN, BUSHING GUIDE.	2.1165A
PIN, GOV. CONTROL WIRE SWIVEL	2.9426A
PIN, GOV. DIFFERENTIAL LEVER.	2.7315A
PIN, GOVERNOR CONTROL WIRE SWIVEL	2.9426A
PIN, GOVERNOR DIFFERENTIAL LEVER.	2.7315A
PIN, GOVERNOR FULCRUM LEVER	2.7130A
PIN, GOVERNOR OPERATING SHAFT	2.7300A
PIN, GOVERNOR OPERATING SHAFT LEVER	2.7300A
PIN, GOVERNOR WEIGHT.	2.7430A
PIN, INJECTOR AND EXHAUST VALVE	
ROCKER ARM CLEVIS	1.8150
PIN, INJECTOR STOP.	2.1100A
PIN, PISTON	1.6140
PIN, RAW WATER PUMP BALL	5.6620A
PIN, VERNIER THROTTLE CONTROL	
LOCK BUTTON	2.9146A
PIPE, AIR CLEANER TO INLET HOUSING.	3.1260A
PIPE, AIR CLEANER TO INLET HSG.	3.1260A
PIPE, BLOWER DRIVE BEARING OIL	4.1660B

PART NAME	GROUP NO.	PART NAME	GROUP NO.
HOUSING, HYDRAULIC STARTER ENGINE PUMP BEARING.	12.6597D		
HOUSING, HYDRAULIC STARTER MOTOR.	12.6525D		
HOUSING, MARINE GEAR.	9.1010A		
HOUSING, MARINE GEAR DRIVE.	9.1003A		
HOUSING, OIL COOLER.	4.4050A		
HOUSING, OIL FILTER BY-PASS VALVE.	4.2388A		
HOUSING, OVERSPEED TRIP GOVERNOR SWITCH.	7.4677C		
HOUSING, OVERSPEED VALVE.	7.4727C		
HOUSING, POWER TAKE-OFF ADAPTOR.	8.1900A		
HOUSING, RAW WATER PUMP DRIVE.	5.6010A		
HOUSING, REDUCTION GEAR.	9.1285A		
HOUSING, REVERSE GEAR.	9.1010A		
HOUSING, SELECTOR VALVE.	9.1136A		
HOUSING, THERMOSTAT.	5.2090B		
HOUSING, TURBOCHARGER COMPRESSOR.	3.5022A		
HOUSING, TURBOCHARGER TURBINE.	3.5003A		
HOUSING, VERNIER THROTTLE CONTROL.	2.9136A		
HUB ASSY., REVERSE CLUTCH.	9.1096A		
HUB ASSY., VIBRATION DAMPER.	1.3230B		
HUB, AIR COMPRESSOR.	12.4040A		
HUB, AIR COMPRESSOR DRIVE.	12.4040A		
HUB, BLOWER DRIVE GEAR.	3.4310		
HUB, BLOWER ROTOR GEAR DRIVE.	3.4130		
HUB, CRANKSHAFT PULLEY.	1.3310C		
HUB, DRIVE PULLEY.	1.7610B		
HUB, FORWARD CLUTCH.	9.1242A		
HUB, FRESH WATER PUMP DRIVEN PULLEY.	5.1216		
HUB, FRONT POWER TAKE-OFF ADAPTOR.	8.1906A		
HUB, FUEL PUMP DRIVE GEAR.	2.2292		
HUB, GENERATOR DRIVE PULLEY.	7.1510A		
HUB, IDLER GEAR.	1.7250		
HUB, REDUCTION RING GEAR.	9.1299A		
I			
IDLER PULLEY ASSY., FAN BELT.	5.4325A		
IDLER PULLEY, FAN BELT.	5.4325A		
IDLER PULLEY, FAN BELT (WITH ADJUSTING ARM).	5.4325A		
IMPELLER AND SHAFT ASSY., BILGE PUMP.	12.2040A		
IMPELLER, FRESH WATER PUMP.	5.1110		
IMPELLER, RAW WATER PUMP.	5.6230A		
IMPELLER, RAW WATER PUMP.	5.6230A		
INDICATOR, AIR CLEANER RESTRICTION.	3.1002A		
INJECTOR.	12.90090B		
INJECTOR ASSY.	2.1001A		
INJECTOR CONTROLS.	12.90130B		
INSERT, EXHAUST VALVE.	1.8330		
INSULATION BLANKET, TURBOCHARGER.	3.5535A		
INSULATOR ASSY., CRANKSHAFT & PULLEY HUB.	1.3311C		
INSULATOR ASSY., CRANKSHAFT PULLEY HUB.	1.3311C		
INSULATOR, AIR HEATER.	7.8130A		
INSULATOR, POWER GENERATOR CONTROL CABINET.	7.6005A		
INSULATOR, TIME DELAY RELAY MOUNTING.	7.4713C		
INTERCOOLER, TURBOCHARGER.	3.5425A		
		K	
		KIT, HEATER CONVERSION.	7.8004A
		KNOB, RAW WATER PUMP HANDLE.	5.6630A
		KNOB, STARTING AID PUMP PLUNGER.	12.6330C
		KNOB, VERNIER THROTTLE CONTROL.	2.9135A
		L	
		LAMP, INSTRUMENT PANEL.	7.4100A
		LATCH, AIR SHUT-OFF RESET.	7.4557C
		LEAD, AIR HEATER COIL HIGH TENSION.	7.8110A
		LEVER ASSY., AIR SHUTDOWN RESET.	3.4428
		LEVER ASSY., GOVERNOR CONTROL OPERATION LINK.	2.7317A
		LEVER ASSY., GOVERNOR CONTROL LINK OPERATING.	2.7317A
		LEVER, ACCELERATOR LINKAGE.	2.9900A
		LEVER, AIR INLET HOUSING SHUTDOWN RESET.	3.3110A
		LEVER, AIR INLET HOUSING SHUTDOWN VALVE.	3.3090A
		LEVER, AIR INLET HOUSING SHUTDOWN RE SET.	3.3110A
		LEVER, AIR INLET HOUSING SHUTDOWN VA LVE.	3.3090A
		LEVER, AIR SHUT-OFF.	7.4536C
		LEVER, AIR SHUT-OFF RESET.	7.4532C
		LEVER, AIR SHUTDOWN VALVE.	3.4427
		LEVER, CLUTCH HAND CONTROL.	8.1470A
		LEVER, CLUTCH RELEASE YOKE.	8.1142A
		LEVER, GOV. CONTROL SHAFT.	2.9390A
		LEVER, GOV. DIFFERENTIAL.	2.7310A
		LEVER, GOV. OPERATING SHAFT.	2.7280A
		LEVER, GOV. SPEED ADJUSTING.	2.8420A
		LEVER, GOV. SPEED ADJUSTING FLOATING.	2.8410A
		LEVER, GOV. SPEED ADJUSTING TERMINAL.	2.8450A
		LEVER, GOV. TO INJECTOR LINK.	2.7820A
		LEVER, GOV. VARIABLE SPEED SPRING CONTROL.	2.7740A
		LEVER, GOVERNOR.	2.8410A
		LEVER, GOVERNOR ACCELERATOR CONTROL.	2.9915A
		LEVER, GOVERNOR CONTROL.	2.9410A
		LEVER, GOVERNOR CONTROL SHAFT.	2.9390A
		LEVER, GOVERNOR CONTROL SHAFT (AT REAR OF ENGINE).	2.9361A
		LEVER, GOVERNOR COVER SHUTDOWN SHAFT.	2.7165A
		LEVER, GOVERNOR COVER SHUTDOWN SHAFT.	2.7165A
		LEVER, GOVERNOR COVER THROTTLE SHAFT.	2.7170A
		LEVER, GOVERNOR COVER THROTTLE SHAFT.	2.7170A
		LEVER, GOVERNOR DIFFERENTIAL.	2.7310A
		LEVER, GOVERNOR OPERATING.	2.7280A
		LEVER, GOVERNOR OPERATING SHAFT.	2.7280A
		LEVER, GOVERNOR ROCKER SHAFT THROTTLE.	8.3450A
		LEVER, GOVERNOR SPEED ADJUSTING SPRING.	8.3460A
		LEVER, GOVERNOR SPEED ADJUSTING TERMINAL.	2.8975A
		LEVER, GOVERNOR VARIABLE SPEED SPRING.	2.7730A

PART NAME	GROUP NO.	PART NAME	GROUP NO.
PULLEY, FRESH WATER PUMP.	5.1214	RETAINER, CAM OR BALANCER GEAR.	1.7633B
PULLEY, FRESH WATER PUMP IDLER.	5.1200	RETAINER, CAM OR BALANCER GEAR.	5.6413A
PULLEY, FRONT BALANCE.	1.7130	RETAINER, CLUTCH DRIVE SHAFT BEARING.	8.1690A
PULLEY, GENERATOR.	7.1500A	RETAINER, CLUTCH PILOT BEARING.	1.4045A
PULLEY, GENERATOR DRIVE.	7.1505A	RETAINER, CRANKSHAFT PULLEY.	1.3290C
PULLEY, GENERATOR.	7.1500A	RETAINER, FAN SHAFT BEARING.	5.4140A
PULLEY, HYDRAULIC ENGINE PUMP DRIVE.	12.6673D	RETAINER, GENERATOR DRIVE BEARING	
PULLEY, VACUUM PUMP.	12.3010A	AND OIL SEAL.	7.1520A
PUMP ASSY.	5.1001	RETAINER, GOV. HIGH SPEED SPRING.	2.7610A
PUMP ASSY., AIR HEATER.	7.8200A	RETAINER, GOV. VARIABLE SPEED SPRING.	2.7790A
PUMP ASSY., BILGE.	12.2001A	RETAINER, GOVERNOR DRIVE SHAFT	
PUMP ASSY., FRESH WATER.	5.1001	BEARING.	2.8850A
PUMP ASSY., FUEL.	2.2001	RETAINER, GOVERNOR FUEL ROD SPRING.	2.8140A
PUMP ASSY., HYDRAULIC.	12.5001A	RETAINER, GOVERNOR HIGH SPEED	
PUMP ASSY., HYDRAULIC MARINE GEAR.	9.1475A	SPRING.	2.7610A
PUMP ASSY., HYDRAULIC MARINE GEAR		RETAINER, GOVERNOR HIGH SPEED SPRING.	2.7610A
OIL.	9.1475A	RETAINER, GOVERNOR SHUTDOWN SHAFT	
PUMP ASSY., HYDRAULIC STARTER ENGINE.	12.6590D	PACKING.	2.7155A
PUMP ASSY., HYDRAULIC STARTER HAND.	12.6630D	RETAINER, GOVERNOR THROTTLE SHAFT	
PUMP ASSY., OIL.	4.1001A	PACKING.	2.7150A
PUMP ASSY., RAW WATER.	5.6001A	RETAINER, GOVERNOR VARIABLE SPEED	
PUMP ASSY., STARTING AID.	12.6305C	SPRING.	2.7790A
PUMP ASSY., VACUUM.	12.3001A	RETAINER, HEAT EXCHANGER SEAL.	5.5025A
PUNCTURING TOOL ASSY., STARTING		RETAINER, IDLER GEAR BEARING.	1.7227
FLUID CAPSULE.	12.6380C	RETAINER, IDLER PULLEY SHAFT BEARING.	5.1208
R		RETAINER, INJECTOR GEAR.	2.1190A
RACK, INJECTOR.	2.1170A	RETAINER, OIL FILTER SPRING.	4.2315A
RADIATOR ASSY.	5.3001A	RETAINER, OIL FILTER TUBE ADAPTOR	
RAIL, ENGINE MOUNTING.	11.1050A	BY-PASS SPRING.	4.3060A
RECONDITIONING KIT, FRESH WATER		RETAINER, OIL FILTER TUBE ADAPTOR	
PUMP.	5.1002	BY-PASS VALVE SPRING.	4.3060A
RECONDITIONING KIT, FRESH WATER PUMP.	5.1002	RETAINER, OUTPUT SHAFT BEARING.	9.1098A
RECONDITIONING KIT, RAW WATER		RETAINER, PISTON PIN.	1.6150
PUMP.	5.6025A	RETAINER, PUSH ROD.	1.8250
RECONDITIONING KIT, RAW WATER PUMP.	5.6025A	RETAINER, SPIDER DRIVE.	9.1014A
REGULATOR, VOLTAGE.	7.1605A	RETAINER, TACHOMETER.	7.4063A
RELAY, ALARM BELL.	7.4514C	RETAINER, TACHOMETER (INCLUDES ITEMS	
RELAY, TIME DELAY.	7.4707C	IN 7.4064).	7.4063A
REPLACEMENT KIT, FRESH WATER PUMP		RING SET, PISTON.	1.6115
SEAL SEAT.	5.1115	RING, AIR COMPRESSOR DRIVE COUPLING.	12.4055A
REPLACEMENT KIT, FRESH WATER PUMP SE		RING, BLOWER DRIVE SHAFT.	3.4446A
AL SEAT.	5.1115	RING, BLOWER ROTOR OIL SEAL.	3.4044
REPLACEMENT KIT, RAW WATER PUMP		RING, CLUTCH DRIVING.	8.1018A
SEAL & IMPELLER.	5.6220A	RING, CLUTCH REACTION PLATE SNAP.	9.1065A
RESERVOIR ASSY., STARTING AID.	12.6410C	RING, ENGINE FRONT TRUNNION MOUNTING	
RESERVOIR, HYDRAULIC STARTER.	12.6551D	SUPPORT CUSHION.	11.1094A
RETAINER ASSY., ACCESSORY DRIVE.	1.7645B	RING, GOV. OIL PUMP HOUSING SEAL.	2.8700A
RETAINER ASSY., DRIVE PULLEY HUB		RING, HYDRAULIC STARTER ENGINE PUMP.	12.6611D
OIL SEAL.	1.7615B	RING, INJECTOR HOLE TUBE SEAL.	1.2046
RETAINER, BILGE PUMP SHAFT BEARING.	12.2120A	RING, INJECTOR SEAL.	2.1040A
RETAINER, BLOWER DRIVE COUPLING.	3.4420	RING, PISTON COMPRESSION.	1.6120
RETAINER, BLOWER DRIVE SHAFT.	3.4450A	RING, PISTON OIL CONTROL.	1.6130
RETAINER, BLOWER OIL SEAL.	3.4042	RING, RAW WATER PUMP BEARING	
RETAINER, BLOWER ROTOR FRONT		RETAINER.	5.6140A
BEARING.	3.4050	RING, RAW WATER PUMP SHAFT SEAL.	5.6176A
RETAINER, BLOWER ROTOR FRONT BEARING.	3.4050	FRICTION.	5.6175A
RETAINER, BLOWER ROTOR REAR BEARING.	3.4070	RING, SEAL CRANKSHAFT FRONT SUPPORT.	1.3163A
RETAINER, CAM AND BALANCE SHAFT		RISER, GOVERNOR.	2.7380A
GEAR NUT.	1.7207	RISER, GOVERNOR.	8.3420A
RETAINER, CAM AND BALANCE SHAFT GEAR		ROCKER COVER.	12.90080B
NUT.	1.7207	ROD AND CLEVIS ASSY., THROTTLE	
		CONTROL.	2.9280A

PART NAME	GROUP NO.	PART NAME	GROUP NO.
PIPE, BREATHER.	4.8001A	PLATE, REDUCTION GEAR PLANETARY	
PIPE, EXHAUST	6.2090A	RING GEAR	9.1288A
PIPE, FUEL.	2.4020	PLATE, REDUCTION GEAR PLANETARY RING	
PIPE, OIL PUMP INLET.	4.1510B	GEAR.	9.1288A
PIPE, OIL PUMP OUTLET	4.1580B	PLATE, REVERSE CLUTCH	9.1045A
PIPE, RADIATOR OVERFLOW	5.3160A	PLATE, REVERSE CLUTCH	9.1060A
PISTON ASSY.	1.6110	PLATE, REVERSE CLUTCH DISC.	9.1045A
PISTON ASSY., MASTER CYLINDER		PLATE, REVERSE CLUTCH REACTION.	9.1060A
OPERATING	12.6815E	PLATE, THROTTLE CONTROL INDICATOR	2.9170A
PISTON, FAST IDLE AIR CYLINDER.	2.7860A	PLATE, TIME DELAY RELAY MOUNTING.	7.4711C
PISTON, FORWARD CLUTCH.	9.1225A	PLATE, VOLTAGE REGULATOR MOUNTING	7.1610A
PISTON, GOV. SERVO MOTOR.	2.8510A	PLATE, VOLTAGE REGULATOR MTG.	7.1610A
PISTON, GOV. SPEED ADJUSTING.	2.7612A	PLATE, WATER FILTER LOWER	5.7045A
PISTON, GOVERNOR SPEED ADJUSTING.	2.7612A	PLATE, WATER FILTER SUMP.	5.7023A
PISTON, HYDRAULIC STARTER	12.6537D	PLATE, WATER FILTER UPPER	5.7043A
PISTON, HYDRAULIC STARTER		PLUG, AIR HEATER.	7.8010A
ACCUMULATOR	12.6580D	PLUG, BLOWER ROTOR SHAFT.	3.4037
PISTON, HYDRAULIC STARTER ENGINE		PLUG, CONTROL VALVE PRESSURE	
PUMP.	12.6607D	REGULATOR	9.1197A
PISTON, HYDRAULIC STARTER HAND PUMP	12.6638D	PLUG, FUEL FILTER	2.3480A
PISTON, OVERSPEED VALVE	7.4731C	PLUG, FUEL PUMP VALVE	2.2170
PISTON, REVERSE CLUTCH.	9.1030A	PLUG, FUEL STRAINER COVER	2.3100A
PLATE ASSY., ACCESSORY DRIVE.	1.7630B	PLUG, GOV. HOUSING DUMMY HOLE	2.8200A
PLATE, ACCESSORY DRIVE.	1.7630B	PLUG, GOV. RELIEF VALVE	2.8685A
PLATE, AIR COMP. DRIVE.	12.4037A	PLUG, GOV. SPEED ADJUSTING TERMINAL	2.8485A
PLATE, AIR COMPRESSOR DRIVE	12.4037A	PLUG, GOVERNOR SUB-CAP.	2.8165A
PLATE, AIR INLET HOUSING SHUTDOWN		PLUG, HEAT EXCHANGER TANK	5.3486B
CONTROL	3.3260A	PLUG, HYDRAULIC STARTER ENGINE PUMP	
PLATE, AIR INLET HOUSING SHUTDOWN CO		RELIEF VALVE.	12.6625D
NTROL	3.3260A	PLUG, MASTER CYLINDER FILLER.	12.6814E
PLATE, AIR SHUT-OFF CONTROL		PLUG, OIL FILTER BY-PASS VALVE.	4.2488A
INSTRUCTION	7.4529C	PLUG, OIL FILTER PRESSURE REGULATOR	8.3888B
PLATE, BLOWER HOUSING END	3.4140	PLUG, OIL PAN DRAIN	4.7080A
PLATE, BLOWER ROTOR GOVERNOR DRIVE.	3.4115	PLUG, OIL PRESSURE REGULATOR.	4.1710C
PLATE, BLOWER ROTOR THRUST.	3.4033	PLUG, OIL PUMP RELIEF VALVE	4.1270A
PLATE, BREATHER DEFLECTOR	4.8185A	PLUG, RAW WATER PUMP TUBE	5.6650A
PLATE, CAM OR BALANCER GEAR	12.5017A	PLUG, TACHOMETER DRIVE ADAPTOR	
PLATE, CLUTCH	9.1062A	BEARING	7.4432B
PLATE, CLUTCH DRIVEN.	8.1020A	PLUNGER AND BUSHING ASSY., INJECTOR	2.1160A
PLATE, CLUTCH PRESSURE.	8.1080A	PLUNGER ASSY., GOV. PILOT VALVE	2.8600A
PLATE, CRANKSHAFT FRONT COVER	1.3171A	PLUNGER, FAST IDLE AIR CYLINDER	2.7865A
PLATE, CYLINDER BLOCK END	1.1020	PLUNGER, GOV. HIGH SPEED SPRING	2.7563A
PLATE, CYLINDER BLOCK END.	1.1020	PLUNGER, GOV. VARIABLE SPEED SPRING	2.7770A
PLATE, ENGINE FRONT COVER	4.1227A	PLUNGER, GOVERNOR HIGH SPEED SPRING	2.7563A
PLATE, EXHAUST MANIFOLD COVER	6.1100A	PLUNGER, GOVERNOR LOW SPEED SPRING.	2.7560A
PLATE, FORWARD.	9.1235A	PLUNGER, GOVERNOR VARIABLE SPEED	
PLATE, FORWARD CLUTCH	9.1235A	SPRING.	2.7770A
PLATE, FUEL PUMP COUNTING	2.2235	PLUNGER, OVERSPEED TRIP GOVERNOR	
PLATE, FUEL PUMP MOUNTING	2.2235	PILOT VALVE	7.4620C
PLATE, GENERATOR DRIVE PULLEY SHAFT		POWER TAKE-OFF ASSY.	8.1001A
COUPLING.	7.1550A	PRE-CLEANER, AIR.	3.1100A
PLATE, HYDRAULIC PUMP DRIVE	12.5015A	PRIMER PUMP, FUEL	2.5490A
PLATE, HYDRAULIC STARTER ENGINE PUMP		PRIMER, FUEL.	12.6655D
DRIVE	12.6593D	PULLEY & HUB ASSY., FAN	5.4015A
PLATE, HYDRAULIC STARTER VALVE.	12.6520D	PULLEY AND HUB ASSY. (FAN).	5.4015A
PLATE, INJ. CONTROL TUBE LEVER (LOAD		PULLEY AND HUB ASSY., FAN	5.4015A
LIMIT ADJUSTING).	2.9019	PULLEY ASSY., BILGE PUMP DRIVEN	12.2140A
PLATE, INJECTOR CONTROL TUBE LEVER		PULLEY, ACCESSORY DRIVE	1.7605B
(LOAD LIMIT ADJ.)	2.9019	PULLEY, ACCESSORY DRIVEN.	1.7612B
PLATE, OIL FILTER MOUNTING.	4.2450A	PULLEY, AIR COMPRESSOR.	12.4015A
PLATE, OPTION & ACCESSORY NAME.	1.8500A	PULLEY, AIR COMPRESSOR DRIVE.	12.4017A
PLATE, RAW WATER PUMP DRIVE	5.6410A	PULLEY, CRANKSHAFT.	1.3280C
PLATE, REDUCTION GEAR ADAPTOR	9.1282A	PULLEY, FAN	5.4235A

PART NAME	GROUP NO.	PART NAME	GROUP NO.
SHAFT ASSY., TURBOCHARGER ROTOR	3.5033A	SHELL, FUEL FILTER (SECONDARY)	2.3380A
SHAFT, ACCESSORY DRIVE	1.7640B	SHELL, FUEL STRAINER (PRIMARY)	2.3050A
SHAFT, AIR COMPRESSOR DRIVE	12.4047A	SHELL, HYDRAULIC STARTER ACCUMULATOR	12.6572D
SHAFT, AIR INLET HOUSING SHUTDOWN VALVE	3.3050A	SHELL, OIL FILTER	4.2280A
SHAFT, AIR INLET HOUSING SHUTDOWN VALVE	3.3050A	SHIELD, GENERATOR	7.1005A
SHAFT, AIR SHUTDOWN VALVE	3.4422	SHIELD, GENERATOR HEAT	7.1005A
SHAFT, BALANCE	1.7080	SHIELD, HEAT	12.6401C
SHAFT, BLOWER DRIVE	3.4445A	SHIELD, RAW WATER PUMP CLUTCH	5.6610A
SHAFT, BLOWER ROTOR	3.4035	SHIELDING, FLEXIBLE HOSE	2.5255A
SHAFT, CLUTCH DRIVE	8.1670A	SHIM, BILGE PUMP SHAFT BEARING	12.2110A
SHAFT, CLUTCH FORWARD & REVERSE	9.1032A	SHIM, BLOWER ROTOR GEAR	3.4090
SHAFT, CLUTCH FORWARD AND REVERSE	9.1032A	SHIM, FLYWHEEL	1.5002A
SHAFT, CLUTCH RELEASE	8.1270A	SHIM, FLYWHEEL HOUSING TO END PLATE	1.5002A
SHAFT, CLUTCH RELEASED	8.1270A	SHIM, GOV. HIGH SPEED SPRING	2.7600A
SHAFT, FAN	5.4100A	SHIM, GOV. VAR. SPEED SPRING	2.7800A
SHAFT, FAN BELT IDLER PULLEY	5.4341A	SHIM, GOVERNOR HIGH SPEED SPRING	2.7600A
SHAFT, FRESH WATER PUMP	5.1050	SHIM, GOVERNOR VARIABLE SPEED SPRING	2.7800A
SHAFT, FUEL PUMP	2.2093	SHIM, GOVERNOR VARIABLE SPEED SPRING	2.7800A
SHAFT, FUEL PUMP DRIVEN	2.2089	SHIM, OIL PUMP	4.1030A
SHAFT, GENERATOR DRIVE	7.1530A	SHROUD, FAN	5.4560B
SHAFT, GOV. OPERATING	2.7255A	SILENCER, AIR	3.2001A
SHAFT, GOV. SPEED ADJUSTING	2.8280A	SLEEVE ASSY., OUTPUT SHAFT	9.1092A
SHAFT, GOV. SPEED ADJUSTING TERMINAL	2.8470A	SLEEVE, CLUTCH RELEASE	8.1285A
SHAFT, GOVERNOR CONTROL (REAR OF ENGINE TO GOVERNOR)	2.9362A	SLEEVE, CRANKSHAFT FRONT OIL SEAL	1.3056
SHAFT, GOVERNOR DRIVE	2.8820A	SLEEVE, CRANKSHAFT REAR OIL SEAL	1.3066
SHAFT, GOVERNOR DRIVEN	2.8795A	SLEEVE, GOV. SPEED ADJUSTING	2.8480A
SHAFT, GOVERNOR OPERATING	2.7255A	TERMINAL	2.8360A
SHAFT, GOVERNOR ROCKER	8.3435A	SLEEVE, GOV. SPEED ADJUSTING SHAFT	2.8800A
SHAFT, GOVERNOR SPEED ADJUSTING	8.3470A	SLEEVE, GOVERNOR DRIVEN SHAFT	2.8800A
SHAFT, GOVERNOR VARIABLE SPEED SPRING LEVER	2.7720A	SLEEVE, OVERSPEED VALVE ADJUSTING	7.4739C
SHAFT, GOVERNOR WEIGHT	2.7430A	SLINGER, CAM AND BALANCE SHAFT OIL	1.7061
SHAFT, GOVERNOR WEIGHT CARRIER	2.7360A	SLINGER, RAW WATER PUMP SHAFT	5.6200A
SHAFT, HYDRAULIC STARTER	12.6532D	SLINGER, TACHOMETER DRIVE SHAFT OIL	7.4440B
SHAFT, HYDRAULIC STARTER CONTROL	12.6512D	SOCKET, LAMP (INSTRUMENT PANEL)	7.4105A
SHAFT, HYDRAULIC STARTER ENGINE PUMP	12.6600D	SOLENOID, AIR SHUT-OFF	7.4519C
SHAFT, INJECTOR CONTROL TUBE END	2.9007	SOLENOID, AIR SHUTOFF	7.4519C
SHAFT, MARINE GEAR INPUT	9.1028A	SOLENOID, THROTTLE CONTROL	2.9355A
SHAFT, OIL PUMP DRIVE	4.1070A	SPACER, ACCESSORY DRIVE OIL SEAL	1.7665B
SHAFT, OIL PUMP DRIVEN GEAR	4.1080A	SPACER, BLOWER ROTOR GEAR	3.4100
SHAFT, OVERSPEED TRIP GOVERNOR OPERATING	7.4646C	SPACER, BLOWER ROTOR SHAFT OIL SEAL	3.4163
SHAFT, POWER TAKE-OFF ADAPTOR STUB	8.1904A	SPACER, CAM AND BALANCE SHAFT PULLEY	1.7062
SHAFT, RAW WATER PUMP	5.6120A	SPACER, CAMSHAFT GEAR	1.7202
SHAFT, REDUCTION GEAR DRIVE	9.1340A	SPACER, CLUTCH DRIVE SHAFT BEARING	8.1695A
SHAFT, ROCKER	1.8160	RETAINER	1.3055
SHAFT, TACHOMETER AND BLOWER DRIVE	7.4434B	SPACER, CRANKSHAFT FRONT OIL SEAL	1.3065
SHAFT, TACHOMETER DRIVE	7.4435B	SPACER, CRANKSHAFT REAR	5.4170A
SHAFT, THROTTLE CONTROL	2.9360A	SPACER, FAN SHAFT BEARING	7.1503A
SHAFT, THROTTLE CONTROL	2.9367A	SPACER, GEN. DRIVEN PULLEY	7.1581A
SHAFT, THROTTLE CONTROL (REAR OF ENGINE TO GOVERNOR)	2.9360A	SPACER, GENERATOR ADJ. STRAP	7.1581A
SHAFT, THROTTLE CONTROL CROSS	2.9310A	SPACER, GENERATOR ADJUSTING STRAP	7.1581A
SHAFT, VERNIER THROTTLE CONTROL	2.9140A	SPACER, GENERATOR AND MOUNTING BRACKET	7.1598A
SHELL ASSY., RADIATOR	5.3015A	SPACER, GENERATOR DRIVE BELT	7.1590A
SHELL, BREATHER	4.8055A	SPACER, GENERATOR DRIVE BELT AND PULLEY GUARD	7.1590A
SHELL, CONNECTING ROD BEARING	1.6100	SPACER, GENERATOR DRIVE PULLEY	7.1540A
SHELL, CONVERTER OIL FILTER	8.3874B	SHAFT BEARING	7.1540A
SHELL, CRANKSHAFT MAIN BEARING	1.3090	SPACER, GENERATOR DRIVE PULLEY SHAFT BEARING	7.1540A

PART NAME	GROUP NO.	PART NAME	GROUP NO.
ROD ASSY., GOV. TO INJECTOR LINK.	2.7819A	SEAL, FUEL PUMP OIL	2.2070
ROD ASSY., GOVERNOR TO INJECTOR	2.7819A	SEAL, GENERATOR DRIVE OIL	7.1515A
ROD ASSY., MASTER CYLINDER PISTON		SEAL, GOV. SPEED ADJUSTING SHAFT OIL.	2.8350A
PUSH.	12.6818E	SEAL, GOV. SPEED ADJUSTING TERMINAL	
ROD, AIR INLET HOUSING SHUTDOWN		SHAFT OIL	2.8472A
RESET LEVER	3.3115A	SEAL, GOVERNOR.	2.7945A
ROD, AIR INLET HOUSING SHUTDOWN RESE		SEAL, GOVERNOR OPERATING SHAFT OIL.	2.7265A
T LEVER	3.3115A	SEAL, GOVERNOR ROCKER SHAFT OIL	8.3445A
ROD, AIR SHUT-OFF SOLENOID CONTROL.	7.4538C	SEAL, HEAT EXCHANGER.	5.5026A
ROD, ENGINE HOOD TIE.	10.1080A	SEAL, HYDRAULIC MARINE GEAR OIL PUMP.	9.1505A
ROD, ENGINE MOUNTING RAIL TIE	11.1052A	SEAL, HYDRAULIC STARTER ACCUMULATOR	
ROD, GOVERNOR FUEL.	2.8070A	CAP	12.6574D
ROD, PUSH	1.8180	SEAL, HYDRAULIC STARTER ACCUMULATOR	
ROD, STARTING CONTROL	7.4564C	PISTON.	12.6582D
ROLLER SET, CAM FOLLOWER.	1.8265	SEAL, HYDRAULIC STARTER ENGINE PUMP	
ROTOR ASSY., OIL PUMP	4.1085A	OIL	12.6603D
ROTOR ASSY., TURBOCHARGER	3.5030A	SEAL, IDLER PULLEY SHAFT.	5.1207
ROTOR, BLOWER	3.4030	SEAL, MARINE GEAR INPUT SHAFT	9.1018A
ROTOR, HYDRAULIC STARTER.	12.6535D	SEAL, OVERSPEED TRIP GOVERNOR	
		HOUSING COVER OIL	7.4636C
		SEAL, OVERSPEED TRIP GOVERNOR	
		MOUNTING OIL.	7.4644C
		SEAL, RAW WATER PUMP BEARING.	5.6160A
		SEAL, RAW WATER PUMP SHAFT.	5.6170A
		SEAL, REDUCTION GEAR BEARING COVER	
		OIL	9.1375A
		SEAL, REVERSE CLUTCH PISTON	9.1035A
		SEAL, ROTOR ASSY. SHAFT OIL	3.5028A
		SEAL, SELECTOR VALVE OIL.	9.1160A
		SEAL, SELECTOR VALVE STEM	9.1139A
		SEAL, TACHOMETER DRIVE ADAPTOR.	7.4458B
		SEAL, TACHOMETER DRIVE COVER.	7.4450B
		SEAL, THERMOSTAT.	5.2060B
		SEAL, THERMOSTAT HOUSING OUTLET	
		ELBOW	5.2093B
		SEAT, EXHAUST VALVE SPRING.	1.8360
		SEAT, FUEL FILTER ELEMENT	2.3322A
		SEAT, GOV. LOW SPEED SPRING	2.7570A
		SEAT, GOVERNOR LOW SPEED SPRING	2.7570A
		SEAT, HYDRAULIC STARTER ENGINE PUMP	
		RELIEF VALVE SPRING	12.6623D
		SEAT, INJECTOR VALVE.	2.1247A
		SEAT, INJECTOR VALVE SPRING	2.1255A
		SEAT, PUSH ROD SPRING - UPPER	1.8200
		SEAT, PUSH ROD SPRING-LOWER	1.8210
		SEAT, PUSH ROD SPRING-UPPER	1.8200
		SEAT, RAW WATER PUMP SHAFT SEAL	5.6173A
		SEPARATOR, BREATHER OIL	4.8050A
		SHAFT & CARRIER ASSY., GOVERNOR	
		WEIGHT.	2.7350A
		SHAFT AND CARRIER ASSY., GOVERNOR	
		WEIGHT.	2.7350A
		SHAFT ASSY., GOV. OPERATING	2.7250A
		SHAFT ASSY., GOVERNOR CONTROL LINK	
		OPERATING	2.8811A
		SHAFT ASSY., GOVERNOR DRIVEN.	2.8790A
		SHAFT ASSY., GOVERNOR OPERATING	2.7250A
		SHAFT ASSY., GOVERNOR SHUTDOWN.	2.7115A
		SHAFT ASSY., GOVERNOR THROTTLE.	2.7095A
		SHAFT ASSY., PLANETARY OUTPUT	9.1089A
		SHAFT ASSY., TACHOMETER DRIVE	
		FLEXIBLE.	7.4405B
		SHAFT ASSY., TACHOMETER FLEXIBLE.	7.4405B

S

SCREEN, AIR CLEANER	3.1040A
SCREEN, BLOWER.	3.4025
SCREEN, OIL PUMP INLET.	4.1530B
SCREW ASSY., GOV. BUFFER.	2.7810A
SCREW ASSY., GOVERNOR BUFFER.	2.7810A
SCREW, ASSY., GOVERNOR BUFFER	2.7810A
SCREW, CONVERTER OIL FILTER COVER	8.3876B
SCREW, FAN BRACKET ADJUSTING.	5.4290A
SCREW, FUEL FILTER COVER.	2.3410A
SCREW, FUEL STRAINER COVER.	2.3120A
SCREW, GOV. HI-SPEED STOP	2.8520A
SCREW, GOV. LOW SPEED SPRING	
ADJUSTING	2.7590A
SCREW, GOVERNOR HIGH SPEED CONTROL.	2.7655A
SCREW, GOVERNOR LOAD LIMIT.	2.8180A
SCREW, GOVERNOR LOW SPEED SPRING	
ADJUSTING	2.7590A
SCREW, INJECTOR CONTROL TUBE LEVER	
PLATE	2.9021
SEAL RING, AIR HEATER PUMP.	7.8215A
SEAL RING, STARTING AID PUMP PLUNGER.	12.6312C
SEAL, ACCESSORY DRIVE OIL	1.7660B
SEAL, AIR CLEANER BOLT.	3.1075A
SEAL, AIR COMPRESSOR DRIVE.	12.4051A
SEAL, AIR INLET HOUSING SHUTDOWN	
VALVE SHAFT.	3.3055A
SEAL, AIR INLET HOUSING SHUTDOWN VAL	
VE SHAFT.	3.3055A
SEAL, BLOWER DRIVE COVER.	3.4220
SEAL, BLOWER HOUSING END PLATE.	3.4160
SEAL, BLOWER ROTOR RETAINER OIL	3.4041
SEAL, CAM AND BALANCE OIL	1.7060
SEAL, CRANKSHAFT OIL-FRONT.	1.3040
SEAL, CRANKSHAFT OIL-FRONT.	1.3166A
SEAL, CRANKSHAFT OIL-REAR	1.3060
SEAL, CYLINDER LINER.	1.6190
SEAL, DRIVE PULLEY HUB OIL.	1.7620B
SEAL, FAN SHAFT	5.4150A
SEAL, FLYWHEEL OIL.	1.4008A
SEAL, FORWARD CLUTCH PISTON	9.1230A
SEAL, FRESH WATER PUMP.	5.1130

PART NAME	GROUP NO.
STRAP, ACCUMULATOR MOUNTING	12.6682D
STRAP, AIR CLEANER MOUNTING	3.1220A
STRAP, AIR SILENCER MOUNTING	3.2014A
STRAP, ENGINE TO BASE GROUND	7.7110A
STRAP, FUEL TANK	2.6085A
STRAP, GEN. ADJUSTING STRAP	7.1581A
STRAP, GENERATOR ADJUSTING	7.1580A
STRAP, HYDRAULIC STARTER RESERVOIR	12.6552D
STRAP, STARTING MOTOR GROUND	7.3242A
STUD, BILGE PUMP BODY	12.2020A
STUD, BILGE PUMP SHAFT PACKING GLAND	12.2080A
STUD, EXHAUST MANIFOLD TO HEAD	6.1020A
STUD, EXHAUST OUTLET	6.2115A
STUD, GOV. OIL PUMP DRIVEN GEAR TO BASE	2.8740A
STUD, OIL FILTER CENTER	4.2410A
SUB-CAP ASSY., GOVERNOR	2.8050A
SUPPORT ASSY., CRANKSHAFT FRONT	1.3164A
SUPPORT ASSY., FAN BELT IDLER PULLEY	5.4347A
SUPPORT, AIR CLEANER MOUNTING BRACKET	3.1250A
SUPPORT, AIR SILENCER	3.2010A
SUPPORT, BLOWER DRIVE COUPLING	3.4380
SUPPORT, BLOWER DRIVE GEAR HUB	3.4350
SUPPORT, BREATHER TUBE CLIP	4.8042A
SUPPORT, ENGINE FRONT	11.1070A
SUPPORT, ENGINE FRONT TRUNNION MOUNTING	11.1090A
SUPPORT, ENGINE REAR	11.1100A
SUPPORT, ENGINE REAR HOOD	10.1025A
SUPPORT, EXHAUST PIPE	6.2091A
SUPPORT, FAN MOUNTING	5.4025A
SUPPORT, FUEL STRAINER MOUNTING BRACKET	2.3263A
SUPPORT, FUEL SYSTEM SHUT-OFF VALVE	2.5270A
SUPPORT, GENERATOR MTG.	11.1190A
SUPPORT, GOVERNOR WEIGHT CARRIER	
SHAFT BEARING	2.7502A
SUPPORT, GOVERNOR WEIGHT SHAFT BEARING	2.7502A
SUPPORT, INPUT SHAFT BEARING	9.1024A
SUPPORT, INSTRUMENT PANEL	7.4013A
SUPPORT, OIL FILTER MOUNTING	4.2470A
SUPPORT, OIL FILTER MOUNTING BRACKET	4.2470A
SUPPORT, OIL PUMP INLET	4.1512B
SUPPORT, OIL PUMP INLET PIPE	4.1512B
SUPPORT, POWER TAKE-OFF	8.1895A
SUPPORT, THROTTLE CONTROL BRACKET	2.9175A
SUPPORT, TORQUE CONVERTER	8.3270A
SUPPORT, VACUUM PUMP	12.3020A
SWITCH, ALARM SHUT-OFF (FUEL)	7.4598C
SWITCH, ENGINE STARTING	7.4115A
SWITCH, OIL PRESSURE	7.4125A
SWITCH, OIL PRESSURE	7.4586C
SWITCH, OVERSPEED TRIP GOVERNOR	7.4659C
SWITCH, TRANSMISSION OIL TEMPERATURE	4.4360A
SWITCH, WATER HEATER CONTROL	12.6405C
SWITCH, WATER TEMPERATURE	7.4128A
SWITCH, WATER TEMPERATURE	7.4505C

PART NAME	GROUP NO.
T	
TACHOMETER	7.4060A
TANK AND STRAINER ASSY., STARTING AID	12.6355C
TANK ASSY., AIR BOX AND FUEL PUMP DRAIN	1.1150A
TANK ASSY., FUEL	2.6001A
TANK, EXPANSION	5.5001A
THERMOSTAT	12.90210B
THERMOSTAT ASSY.	5.2050B
TIP ASSY., INJECTOR SPRAY	2.1235A
TIP KIT, INJECTOR SPRAY	2.1220A
TIP, FLEXIBLE SHAFT LOWER	12.8506B
TIP, FLEXIBLE SHAFT UPPER	12.8508B
TIP, INJECTOR SPRAY	2.1230A
TRUNNION, ENGINE FRONT	11.1088A
TUBE & ELBOW ASSY., AIR COMPRESSOR BOOSTER ASSY.	12.4375A
TUBE & ELBOW ASSY., AIR COMPRESSOR BOOSTER INLET	12.4375A
TUBE AND ELBOW ASSY., AIR COMPRESSOR BOOSTER INLET	12.4375A
TUBE AND LEVER ASSY., INJECTOR CONTROL	2.9001
TUBE ASSY., GOV. LUBRICATION	2.7890A
TUBE ASSY., GOVERNOR LUBRICATION	2.7890A
TUBE ASSY., OIL PRESSURE GAGE	7.4074A
TUBE, AIR BOX DRAIN	1.1100A
TUBE, AIR COMPRESSOR BOOSTER BOOSTER ASSY.	12.4375A
TUBE, AIR COMPRESSOR LUBE OIL DRAIN	12.4070A
TUBE, AIR COMPRESSOR BOOSTER	12.4375A
TUBE, AIR COMPRESSOR LUBE OIL DRAIN	12.4070A
TUBE, AIR COMPRESSOR LUBE OIL SUPPLY	12.4065A
TUBE, AIR COMPRESSOR WATER INLET	12.4085A
TUBE, AIR COMPRESSOR WATER OUTLET	12.4090A
TUBE, AIR HEATER FUEL RETURN	7.8313A
TUBE, AIR HEATER INLET	7.8310A
TUBE, AIR HEATER PUMP INLET	7.8300A
TUBE, BREATHER TUBE TO DRAIN TANK	4.8190A
TUBE, CONTROL VALVE TO HYDRAULIC PUMP HOUSING	9.1598A
TUBE, CONVERTER TO FILTER	8.3827B
TUBE, CYLINDER HEAD VENT	5.3480B
TUBE, EXHAUST MANIFOLD WATER INLET	7.4694C
TUBE, EXHAUST MANIFOLD WATER OUTLET	7.4699C
TUBE, EXPANSION TANK OVERFLOW	5.5190A
TUBE, FILTER OUTLET	2.5151A
TUBE, FILTER TO CYLINDER HEAD (FLEXIBLE)	2.5149A
TUBE, FILTER TO CYLINDER HEAD FLEXIBLE	2.5160A
TUBE, FILTER TO OIL COOLER	8.3828B
TUBE, FRESH WATER PUMP VENT	5.1003
TUBE, FUEL COOLER	2.5214A
TUBE, FUEL DRAIN	2.5210A
TUBE, FUEL DRAIN CROSSOVER	2.5205A
TUBE, FUEL DRAIN FLEXIBLE	2.5215A
TUBE, FUEL PUMP DRAIN	2.2300A
TUBE, FUEL PUMP INLET	2.5060A
TUBE, FUEL PUMP TO CYLINDER HEAD	2.5101A
TUBE, FUEL PUMP TO FILTER	2.5100A

PART NAME	GROUP NO.	PART NAME	GROUP NO.
SPACER, GENERATOR VOLTAGE REGULATOR PLATE	7.1615A	SPRING, HYDRAULIC STARTER ENGINE PUMP PISTON	12.6608D
SPACER, GOVERNOR DRIVE SHAFT BEARING	2.8840A	SPRING, HYDRAULIC STARTER ENGINE PUMP RELIEF VALVE	12.6622D
SPACER, GOVERNOR WEIGHT CARRIER SHAFT	2.7475A	SPRING, INJECTOR CONTROL TUBE	2.9012
SPACER, IDLER GEAR HOLE	1.7260	SPRING, INJECTOR FILTER	2.1120A
SPACER, IDLER PULLEY SHAFT BEARING	5.1209	SPRING, INJECTOR PLUNGER	2.1080A
SPACER, INJECTOR CONTROL TUBE LEVER	2.9010	SPRING, INJECTOR VALVE	2.1250A
SPACER, OIL FILTER	4.2270A	SPRING, OIL COOLER BY-PASS VALVE	4.4150A
SPACER, OIL PUMP BODY	4.1060A	SPRING, OIL FILTER	4.2310A
SPACER, RADIATOR MOUNTING	5.3250A	SPRING, OIL FILTER BY-PASS VALVE	4.2486A
SPACER, RAW WATER PUMP DRIVE	5.6450A	SPRING, OIL FILTER PRESSURE REGULATOR	8.3886B
SPACER, REDUCTION HOUSING OIL BAFFLE	9.1387A	SPRING, OIL FILTER TUBE ADAPTOR BY-PASS VALVE	4.3057A
SPACER, SELECTOR VALVE SPRING	9.1148A	SPRING, OIL PRESSURE REGULATOR	4.1690C
SPACER, TURBOCHARGER ROTOR THRUST SPIDER AND SHAFT ASSY., GOVERNOR OPERATING	8.3400A	SPRING, OIL PRESSURE RELIEF VALVE	4.1583B
SPIDER, MARINE GEAR DRIVE	9.1009A	SPRING, OIL PUMP RELIEF VALVE	4.1260A
SPRING, AIR HEATER PUMP	7.8265A	SPRING, OVERSPEED TRIP GOVERNOR	7.4651C
SPRING, AIR INLET HOUSING SHUTDOWN VALVE TENSION	3.3070A	SPRING, OVERSPEED VALVE PISTON	7.4737C
SPRING, AIR INLET HOUSING SHUTDOWN V ALVE	3.3070A	SPRING, PRESSURE REGULATOR RELIEF VALVE	9.1195A
SPRING, AIR INLET HOUSING SHUTDOWN V ALVE TENSION	3.3070A	SPRING, PUSH ROD	1.8190
SPRING, AIR SHUT-OFF RESET LATCH	7.4560C	SPRING, RAW WATER PUMP GUIDE TUBE	5.6660A
SPRING, AIR SHUTDOWN VALVE	3.4426	SPRING, RAW WATER PUMP SHAFT SEAL	5.6178A
SPRING, BLOWER DRIVE COUPLING	3.4400	SPRING, RESET LEVER ROD	3.3125A
SPRING, BLOWER ROTOR OIL SEAL	3.4043	SPRING, REVERSE CLUTCH RELEASE	9.1055A
SPRING, CLUTCH PRESSURE PLATE RETURN	8.1135A	SPRING, SELECTOR VALVE	9.1155A
SPRING, CLUTCH TOGGLE LEVER	8.1100A	SPRING, SELECTOR VALVE PRESSURE	9.1155A
SPRING, CONTROL ROD RETRACTING	7.4570C	SPRING, SELECTOR VALVE REGULATOR	9.1147A
SPRING, EXHAUST VALVE	1.8340	SPRING, SPEED ADJUSTING SHAFT TORSION	2.8355A
SPRING, FAN BELT IDLER PULLEY SUPPORT SHAFT	5.4353A	SPRING, STARTER HANDLE RETURN	12.6821E
SPRING, FAST IDLE AIR CYLINDER	2.7870A	SPRING, THROTTLE BOOSTER	2.7980A
SPRING, FLEXIBLE SHAFT CASING	12.8512B	SPRING, THROTTLE BOOSTER	2.9347A
SPRING, FORWARD CLUTCH RELEASE	9.1240A	SPRING, VERNIER THROTTLE CONTROL LOCK	2.9138A
SPRING, FUEL FILTER ELEMENT	2.3370A	SPRING, VERNIER THROTTLE CONTROL LOCK BUTTON PIN	2.9147A
SPRING, FUEL PUMP VALVE RETAINING	2.2160	SPRING, WATER FILTER	5.7026A
SPRING, FUEL STRAINER	2.3060A	STABILIZER, CRANKSHAFT MAIN BEARING CAP	1.3112
SPRING, GOV. RELIEF VALVE	2.8680A	STAKING AND SWAGING TOOL, FLEXIBLE SHAFT	12.8518B
SPRING, GOV. SPEEDER	2.8530A	STARTER ASSY., HYDRAULIC	12.6501D
SPRING, GOV. THROTTLE LEVER RETURN	2.7910A	STARTING AID KIT, COLD WEATHER	12.6301C
SPRING, GOV. THROTTLE SHAFT ARM RETURN	2.7093A	STEM, SELECTOR VALVE	9.1138A
SPRING, GOV. VARIABLE SPEED	2.7760A	STOP, GOV. VARIABLE SPEED SPRING RETAINER	2.7795A
SPRING, GOVERNOR CONTROL RETRACTING	2.9405A	STOP, GOVERNOR VARIABLE SPEED SPRING RETAINER	2.7795A
SPRING, GOVERNOR FUEL ROD SHORT	2.8120A	STOP, GOVERNOR VARIABLE SPEED SPRING RETAINER	2.7795A
SPRING, GOVERNOR HIGH SPEED	2.7550A	STOP, INJECTOR VALVE	2.1260A
SPRING, GOVERNOR LOW SPEED	2.7540A	STRAINER & PLUG ASSY., STARTING FLUID	12.6385C
SPRING, GOVERNOR OPERATING LEVER RETURN	2.8955A	STRAINER ASSY., FUEL	2.3001A
SPRING, GOVERNOR SHUTDOWN SHAFT	2.7117A	STRAINER, AIR COMPRESSOR	12.4300A
SPRING, GOVERNOR SPEED ADJUSTING	8.3465A	STRAINER, FUEL TANK HOSE	2.6007A
SPRING, GOVERNOR THROTTLE LEVER RETURN	2.7910A	STRAINER, MARINE GEAR OIL	9.1650A
SPRING, GOVERNOR THROTTLE SPEED ADJUSTING	2.7174A	STRAINER, OIL FILLER TUBE	4.5020A
SPRING, GOVERNOR VARIABLE SPEED	2.7760A		
SPRING, HYDRAULIC STARTER CONTROL SHAFT TORSION	12.6513D		

PART NAME

GROUP NO.

PART NAME

GROUP NO.

VALVE, SELECTOR	9.1137A
VALVE, STARTING AID PUMP INLET	12.6340C
VALVE, STARTING AID PUMP OUTLET	12.6345C
VENT, EXHAUST MANIFOLD WATER OUTLET	
FLANGE	5.3465B
VENTILATION	12.90190B

W

WASHER, BLOWER DRIVE GEAR HUB	
THRUST.	3.4320
WASHER, BLOWER DRIVE GEAR HUB THRUST. ...	3.4320
WASHER, BLOWER ROTOR SHAFT THRUST	3.4036
WASHER, CAM AND BALANCE SHAFT END	
BEARING THRUST.	1.7030
WASHER, CRANKSHAFT MAIN BEARING	
THRUST.	1.3100
WASHER, FLEXIBLE SHAFT TIP RETAINING.	12.8510B
WASHER, FORWARD CLUTCH CYLINDER	
THRUST.	9.1224A
WASHER, FUEL PIPE CONNECTOR	2.4050
WASHER, GOVERNOR SHUTDOWN SHAFT	
(PACKING)	2.7145A
WASHER, GOVERNOR THROTTLE SHAFT	
(PACKING)	2.7140A
WASHER, MARINE GEAR PLANETARY GEAR	
THRUST.	9.1085A
WASHER, REDUCTION GEAR PLANETARY	
GEAR THRUST	9.1293A
WASHER, THROTTLE CONTROL TUBE BRAKE	2.9105A
WATER HEATER.	12.6403C
WATER PUMP	12.90200B
WEIGHT AND CARRIER ASSY., OVERSPEED	
TRIP GOVERNOR	7.4623C
WEIGHT ASSY., GOVERNOR.	8.3405A
WEIGHT, FRONT BALANCE	1.7140
WEIGHT, GOVERNOR.	2.7390A
WEIGHT, OVERSPEED TRIP GOVERNOR	7.4625C
WEIGHT, REAR BALANCE.	1.7190
WHEEL, COMPRESSOR	3.5036A
WIRE ASSY., GEN. TO REGULATOR	7.1630A
WIRE ASSY., GENERATOR REGULATOR	7.1630A
WIRE ASSY., GENERATOR TO REGULATOR.	7.1630A
WIRE, AIR INLET HOUSING SHUTDOWN.	3.3250A
WIRE, AIR INLET HOUSING SHUTDOWN CON	
TROL	3.3250A
WIRE, AIR SHUT-OFF CONTROL	3.4430
WIRE, AIR SHUT-OFF CONTROL (RESET).	7.4525C
WIRE, GOVERNOR CONTROL	2.9422A
WIRE, MANUAL SHUTDOWN LEVER	2.7837A
WIRE, STARTING AID CONTROL	12.6378C
WORM, VERNIER THROTTLE CONTROL	2.9139A

Y

YOKE, CLUTCH RELEASE.	8.1275A
YOKE, HYDRAULIC STARTER CLUTCH.	12.6508D

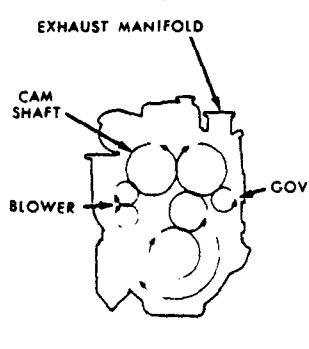
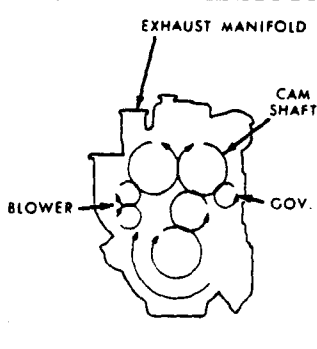
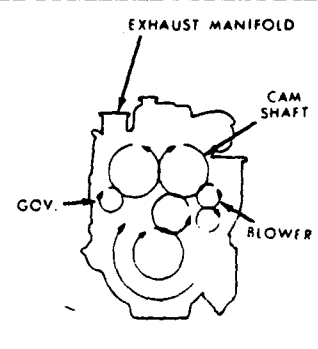
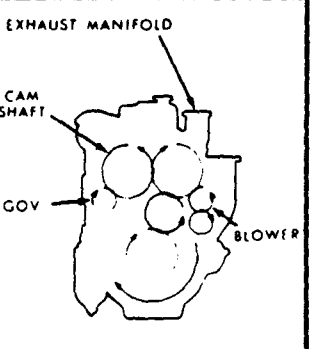
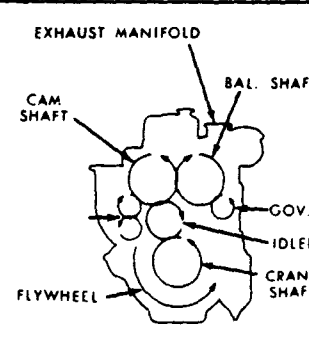
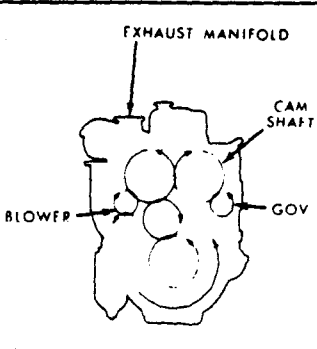
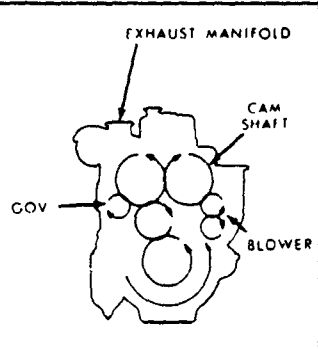
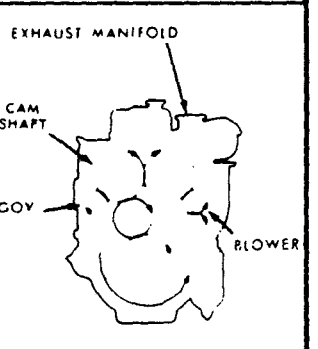
PART NAME	GROUP NO.	PART NAME	GROUP NO.
TUBE, FUEL PUMP TO FILTER FLEXIBLE.	2.5110A	TURBOCHARGER.	3.5001A
TUBE, FUEL SUPPLY CORSSOVER	2.5163A	TURBOCHARGER ASSY..	3.5001A
TUBE, FUEL SUPPLY CROSSOVER	2.5163A		
TUBE, FUEL SUPPLY TO STRAINER	2.5001A	V	
TUBE, FUEL SUPPLY TO STRAINER FLEXIBLE.	2.5010A	VALVE ASSY., FUEL PUMP CHECK.	2.2035
TUBE, FUEL TANK SUCTION	2.6095A	VALVE ASSY., GOV. RELIEF.	2.8630A
TUBE, GOV. OPERATING SHAFT.	2.7257A	VALVE ASSY., HYDRAULIC STARTER CONTROL	12.6516D
TUBE, GOVERNOR OPERATING PRESSURE	2.8910A	VALVE ASSY., INJECTOR	2.1240A
TUBE, GOVERNOR OPERATING SHAFT.	2.7257A	VALVE ASSY., MASTER CYLINDER CHECK.	12.6816E
TUBE, HEAD TO BLOWER BREATHER	4.8005A	VALVE ASSY., OVERSPEED.	7.4725C
TUBE, HEAT EXCHANGER RAW WATER INLET (INTERMEDIATE).	5.5430A	VALVE ASSY., SELECTOR	9.1135A
TUBE, HEAT EXCHANGER RAW WATER OUTLET.	5.5550A	VALVE KIT, GOV. RELIEF.	2.8635A
TUBE, HEAT EXCHANGER RAW WATER INLET. ...	5.5440A	VALVE KIT, INJECTOR	2.1238A
TUBE, HEAT EXCHANGER RAW WATER INLET (INTERMEDIATE).	5.5430A	VALVE MECHANISM	12.90070B
TUBE, HYDRAULIC PUMP TO CONTROL VALVE	9.1593A	VALVE, ACCUMULATOR FUEL SHUT-OFF.	7.8420A
TUBE, HYDRAULIC STARTER ACCUMULATOR TO HYDRAULIC STARTER.	12.6860E	VALVE, AIR CYLINDER CONTROL	2.9859A
TUBE, HYDRAULIC STARTER HAND PUMP TO ACCUMULATOR.	12.6855E	VALVE, AIR HEATER PUMP OUTLET	7.8280A
TUBE, INJECTOR HOLE	1.2045	VALVE, AIR HEATER PUMP SUPPLY SHUT-OFF.	7.8295A
TUBE, JUNCTION BLOCK INLET.	4.1581B	VALVE, AIR INLET HOUSING SHUTDOWN	3.3040A
TUBE, LOW OIL PRESSURE SWITCH	4.2497A	VALVE, AIR SHUTDOWN	3.4421
TUBE, MARINE GEAR OIL FILLER.	9.1410A	VALVE, AUTOMATIC SHUT-DOWN AND ALARM SOLENOID.	7.4652C
TUBE, MARINE GEAR OIL STRAINER TO PUMP.	9.1720A	VALVE, AUTOMATIC SHUTDOWN AND ALARM SOLENOID.	7.4652C
TUBE, OIL COOLER TO CONVERTER	8.3818B	VALVE, EXHAUST.	1.8310
TUBE, OIL FILLER.	4.5001A	VALVE, FUEL PUMP.	2.2130
TUBE, OIL FILTER INLET.	4.3001A	VALVE, FUEL SUPPLY CHECK.	2.5006A
TUBE, OIL FILTER OUTLET	4.3020A	VALVE, FUEL SYSTEM SHUT-OFF	2.5260A
TUBE, OIL PAN DRAIN	4.7100A	VALVE, FUEL TANK CHECK.	2.6090A
TUBE, OIL PRESSURE GAGE	4.1597B	VALVE, GOV. DUAL SPEED CONTROL SOLENOID.	2.7920A
TUBE, OIL PRESSURE GAGE	9.1775A	VALVE, GOVERNOR DUAL SPEED CONTROL SOLENOID.	2.7920A
TUBE, OIL PRESSURE SWITCH	7.4596C	VALVE, HYDRAULIC STARTER ACCUMULATOR. ...	12.6576D
TUBE, OIL PRESSURE SWITCH RETURN.	7.4597C	VALVE, HYDRAULIC STARTER CONTROL.	12.6518D
TUBE, OVERSPEED GOVERNOR OIL SUPPLY	7.4668C	VALVE, HYDRAULIC STARTER ENGINE PUMP CHECK	12.6615D
TUBE, OVERSPEED VALVE AIR PRESSURE.	7.4744C	VALVE, HYDRAULIC STARTER ENGINE PUMP RELIEF.	12.6620D
TUBE, OVERSPEED VALVE OIL DRAIN	7.4748C	VALVE, HYDRAULIC STARTER HAND PUMP CHECK	12.6640D
TUBE, OVERSPEED VALVE OIL SUPPLY.	7.4746C	VALVE, HYDRAULIC STARTER HAND PUMP RELIEF.	12.6635D
TUBE, RAW WATER PUMP GUIDE.	5.6670A	VALVE, HYDRAULIC STARTER HAND PUMP SHUT-OFF.	12.6650D
TUBE, RAW WATER PUMP INLET.	5.5377A	VALVE, INJECTOR	2.1245A
TUBE, RAW WATER PUMP OUTLET	5.5380A	VALVE, INJECTOR CHECK	2.1200A
TUBE, REDUCTION GEAR OIL FILLER	9.1410A	VALVE, MARINE GEAR PRESSURE REGULATOR	9.1021A
TUBE, SOLENOID VALVE DRAIN.	2.7930A	VALVE, OIL COOLER BY-PASS	4.4140A
TUBE, SOLENOID VALVE SUPPLY	2.7925A	VALVE, OIL COOLER PRESSURE REGULATOR.	9.1019A
TUBE, SOLENOID VALVE TO GOV..	2.7927A	VALVE, OIL FILTER BY-PASS	4.2400A
TUBE, SOLENOID VALVE TO GOVERNOR.	2.7927A	VALVE, OIL FILTER BY-PASS	4.2485A
TUBE, STARTING AID PUMP TO NOZZLE	12.6370C	VALVE, OIL FILTER PRESSURE REGULATOR.	8.3884B
TUBE, STARTING AID TANK TO PUMP	12.6365C	VALVE, OIL FILTER TUBE ADAPTOR BY-PASS	4.3055A
TUBE, STRAINER TO FUEL PUMP	2.5050A	VALVE, OIL PRESSURE REGULATOR	4.1700C
TUBE, THERMOSTAT HOUSING VENT	5.2135B	VALVE, OIL PRESSURE RELIEF.	4.1582B
TUBE, THROTTLE CONTROL CROSS SHAFT.	2.9312A	VALVE, OIL PUMP RELIEF.	4.1250A
TUBE, TURBOCHARGER OIL RETURN	3.5505A	VALVE, PRESSURE REGULATOR RELIEF.	9.1194A
TUBE, TURBOCHARGER OIL SUPPLY	3.5500A		
TUBE, VACUUM PUMP OIL DRAIN	12.3050A		
TUBE, VACUUM PUMP OIL SUPPLY.	12.3040A		
TUBE, WATER BY-PASS	5.2160C		
TUBE, WATER HEATER OUTLET	12.6408C		
TUBE, WATER HEATER SUPPLY	12.6407C		

**MODEL
INDEXES**

MODEL INDEXES

MODEL DESCRIPTION CHART IN-LINE ENGINES

5 0 4 3 - 5 1 0 0

SERIES 53	NUMBER OF CYLINDERS	APPLICATION DESIGNATION (see below)	BASIC ENGINE ARRANGEMENTS *(see below)	DESIGN VARIATION (see below)	SPECIFIC MODEL NUMBER AND STARTER-BLOWER ARRANGEMENT
APPLICATION DESIGNATION 5042-5100 MARINE 5043-5100 FAN TO F/W-INDUSTRIAL 5044-5100 POWER-BASE 5045-5100 GENERATOR 504Z-5100 FAN TO F/W-AUTOMOTIVE			DESIGN VARIATIONS 5043-5000 "N" ENGINE 5043-5100 2 VALVE HEAD 5043-5200 4 VALVE HEAD 5042-2302 TURBOCHARGER		
STARTER-BLOWER ARRANGEMENT Odd number in last digit designates starter opposite blower. Even number in last digit designates starter same side as blower.			*2, 3, 4-53 BASIC ENGINE ARRANGEMENTS Rotation: L (left) and R (right) designates rotation viewed from the <u>front</u> of the engine. Type: A-B-C-D designates location of exhaust manifold and blower as viewed from the <u>rear</u> (flywheel) end.		
 LA (XXXX-1XXX)		 LB (XXXX-2XXX)		 LC (XXXX-3XXX)	
 LD (XXXX-4XXX)		 RA (XXXX-5XXX)		 RB (XXXX-6XXX)	
 RC (XXXX-7XXX)		 RD (XXXX-8XXX)		ALL VIEWS FROM FLYWHEEL (REAR) END OF ENGINE ENGINE ROTATION DETERMINED BY VIEWING ENGINE FROM BALANCE WEIGHT COVER (FRONT) END	

GROUP NAME	GROUP NO.	TYPE
Cylinder Block	1.1000	30
Air Box Drains	1.1000A	78
Cylinder Head	1.2000	25
Engine Lifter Bracket	1.2000A	175
Crankshaft	1.3000	21
Crankshaft Front Cover	1.3000A	125
Crankshaft Pulley	1.3000C	111
Crankshaft Pulley Belt	1.3000D	229
Flywheel	1.4000A	493
Flywheel Housing	1.5000A	491
Connecting Rod and Piston	1.6000	61
Camshaft and Gear Train	1.7000	138
Valve Operating Mechanism	1.8000	122
Rocker Cover	1.8000A	120
Fuel Injector	2.1000A	76
Fuel Pump	2.2000	127
Fuel Filter	2.3000A	376
Fuel Manifold Connections	2.4000	48
Fuel Lines	2.5000A	1086
Governor, Mechanical	2.7000A	1122
Injector Controls	2.9000	284
Throttle Controls	2.9000A	595
Air Cleaner	3.1000A	211
Air Inlet Housing	3.3000A	596
Blower	3.4000	116
Blower Drive Shaft	3.4000A	17
Oil Pump	4.1000A	52
Oil Distribution System	4.1000B	249
Oil Pressure Regulator	4.1000C	9
Oil Filter	4.2000A	227
Oil Cooler	4.4000A	444
Oil Filler Tube	4.5000A	97
Dipstick	4.6000A	606
Oil Pan	4.7000A	510
Ventilating System	4.8000A	491
Fresh Water Pump	5.1000	180
Water Outlet Manifold	5.2000A	99
Thermostat	5.2000B	72
Water By-Pass Tube	5.2000C	346
Water Connections	5.3000B	278
Fan	5.4000A	637
Exhaust Manifold	6.1000A	218
Exhaust Muffler and/or Connections	6.2000A	243
Battery Charging Generator	7.1000A	1734
Starting Motor	7.3000A	298
Power Take-Off and/or Clutch	8.1000A	271
Air Compressor	12.4000A	1090
Cold Weather Starting Aid	12.6000C	56

GROUP NOMENCLATURE

1.0000

ENGINE (less major assemblies)

- 1.1000 Cylinder Block
- 1.1000A Air Box Drains
- 1.2000 Cylinder Head
- 1.2000A Engine Lifter Bracket
- 1.3000 Crankshaft, Oil Seals and stabilizers
- 1.3000A Crankshaft Front Cover
- 1.3000B Vibration Damper
- 1.3000C Crankshaft Pulley
- 1.3000D Crankshaft Pulley Belt
- 1.4000A Flywheel
- 1.5000A Flywheel Housing
- 1.5000B Flywheel Housing Adaptor
- 1.6000 Connecting Rod and Piston
- 1.7000 Camshaft and Gear Train
- 1.7000A Balance Weight Cover
- 1.7000B Accessory Drive
- 1.8000 Valve and Injector Operating Mechanism
- 1.8000A Rocker Cover

2.0000

FUEL SYSTEM

- 2.1000A Fuel Injector
- 2.2000 Fuel Pump
- 2.2000A Fuel Pump Drain
- 2.3000A Fuel Filter
- 2.4000 Fuel Manifold and/or Connections
- 2.4000A Dual Fuel System
- 2.5000A Fuel Lines and Fuel Cooler
- 2.6000A Fuel Tank
- 2.7000A Mechanical Governor
- 2.8000A Hydraulic Governor
- 2.9000 Injector Controls
- 2.9000A Throttle Controls

3.0000

AIR SYSTEM

- 3.1000A Air Cleaner and/or Adaptor
- 3.2000A Air Silencer
- 3.3000A Air Inlet Housing
- 3.4000 Blower
- 3.4000A Blower Drive Shaft
- 3.4000B Blower End Plate Cover
- 3.5000A Turbocharger and Intercooler

4.0000

LUBRICATING SYSTEM

- 4.1000A Oil Pump
- 4.1000B Oil Distribution System
- 4.1000C Oil Pressure Regulator
- 4.2000A Oil Filter
- 4.3000A Oil Filter Lines
- 4.4000A Oil Cooler and Marine Gear Lines
- 4.5000A Oil Filler
- 4.6000A Dipstick
- 4.7000A Oil Pan
- 4.8000A Ventilating System

5.0000

COOLING SYSTEM

- 5.1000 Fresh Water Pump
- 5.1000A Fresh Water Pump Cover
- 5.2000A Water Outlet Manifold and/or Elbow
- 5.2000B Thermostat
- 5.2000C Water By-pass Tube
- 5.3000A Radiator
- 5.3000B Water Connections
- 5.4000A Fan
- 5.4000B Fan Shroud
- 5.5000A Heat Exchanger or Keel Cooling
- 5.6000A Raw Water Pump
- 5.7000A Water Filter

6.0000

EXHAUST SYSTEM

- 6.1000A Exhaust Manifold
- 6.2000A Exhaust Muffler and/or Connections

7.0000

ELECTRICAL—INSTRUMENTS

- 7.1000A Battery Charging Generator
- 7.2000A Battery Cables
- 7.2000B Automatic Starting
- 7.3000A Starting Motor
- 7.4000A Instruments
- 7.4000B Tachometer Drive
- 7.4000C Shut-off, Alarm and O.S. Governor
- 7.5000A Power Generator
- 7.6000A Control Cabinet
- 7.7000A Wiring Harness
- 7.8000A Air Heater
- 7.10000A Hydraulic Governor Solenoid

8.0000

POWER TAKE-OFF

- 8.1000A Power Take-off and/or Clutch
- 8.3000A Torque Converter
- 8.3000B Transmission Lines

9.0000

TRANSMISSION AND PROPULSION

- 9.1000A Hydraulic Marine Gear
- 9.2000A Reverse and Reduction Gear (mechanical)
- 9.3000A Power Transfer Gear
- 9.4000 Transmission—Highway
- 9.7000 Transmission—Off-highway
- 9.9000 Transmission—Rail Car

10.0000

SHEET METAL

- 10.1000A Engine Hood

11.0000

ENGINE MOUNTING

- 11.1000A Engine Mounting and Base

12.0000

MISCELLANEOUS

- 12.2000A Bilge Pump
- 12.3000A Vacuum Pump
- 12.4000A Air Compressor
- 12.5000A Hydraulic Pump
- 12.6000A Gasoline Starter
- 12.6000B Air Starter
- 12.6000C Cold Weather Starting Aid
- 12.6000D Hydraulic Starter
- 12.6000E Hydraulic Starter Accessories
- 12.8000A Supplies
- 12.8000B Fabrication Material
- 12.8000C Service Kits

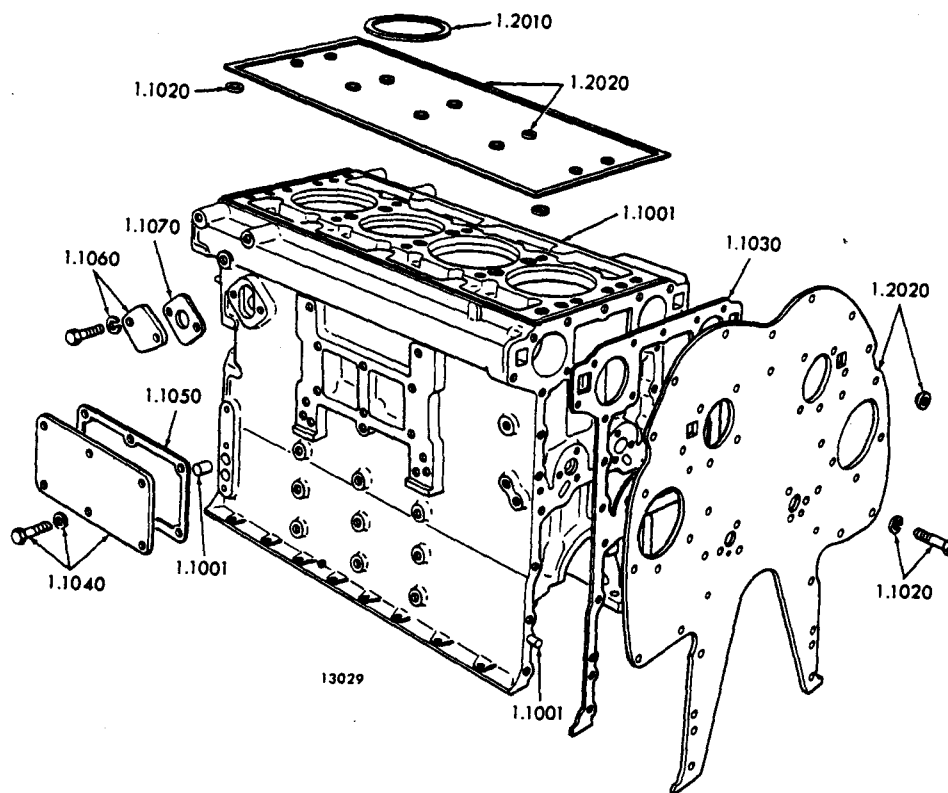


FIG. 1A - CYLINDER BLOCK (IN-LINE MODELS)

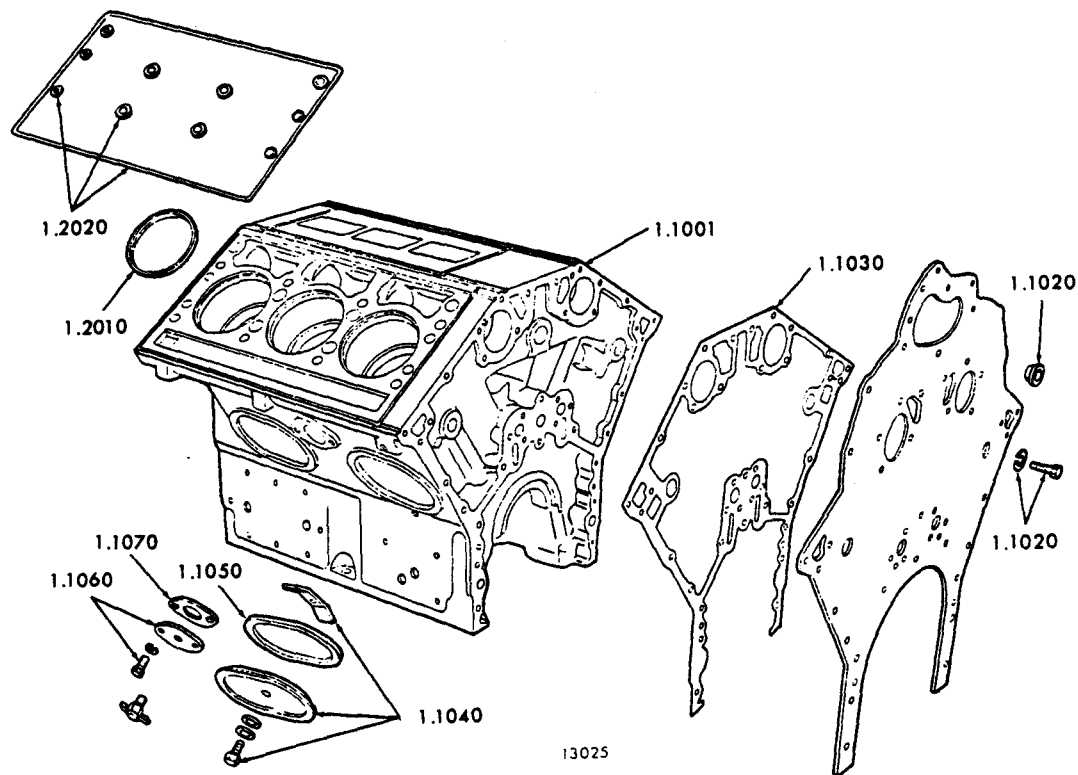


FIG. 1B - CYLINDER BLOCK (V-MODELS)

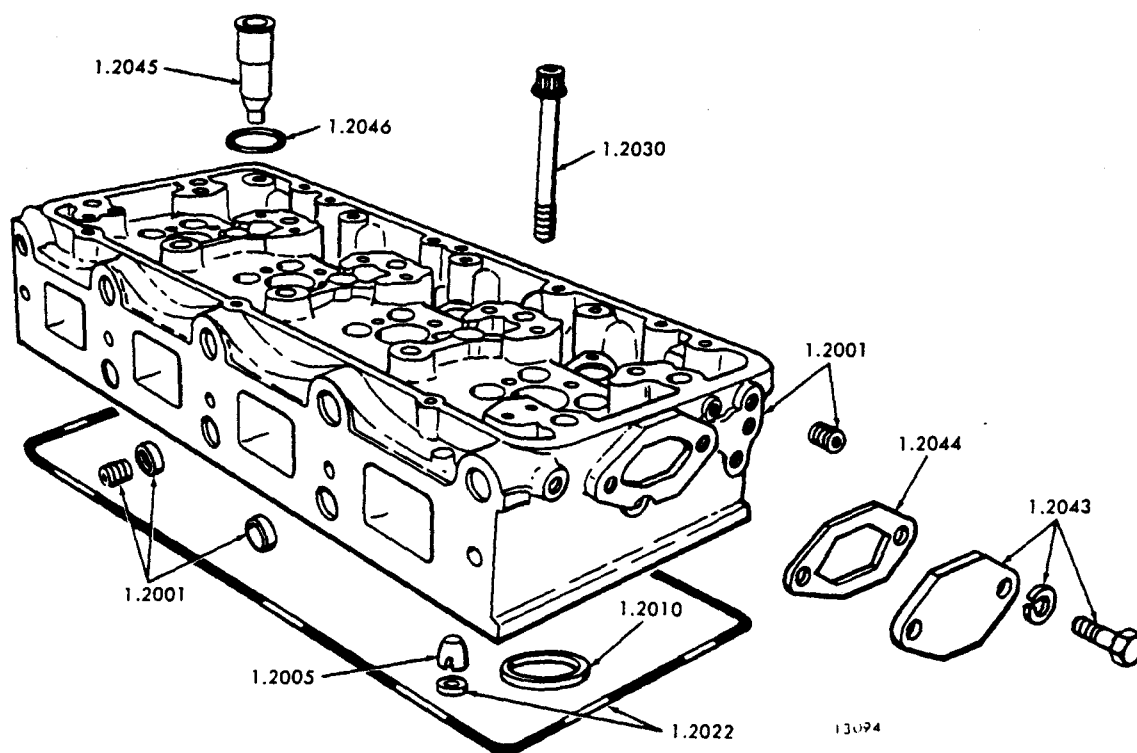


FIG. 2A - CYLINDER HEAD

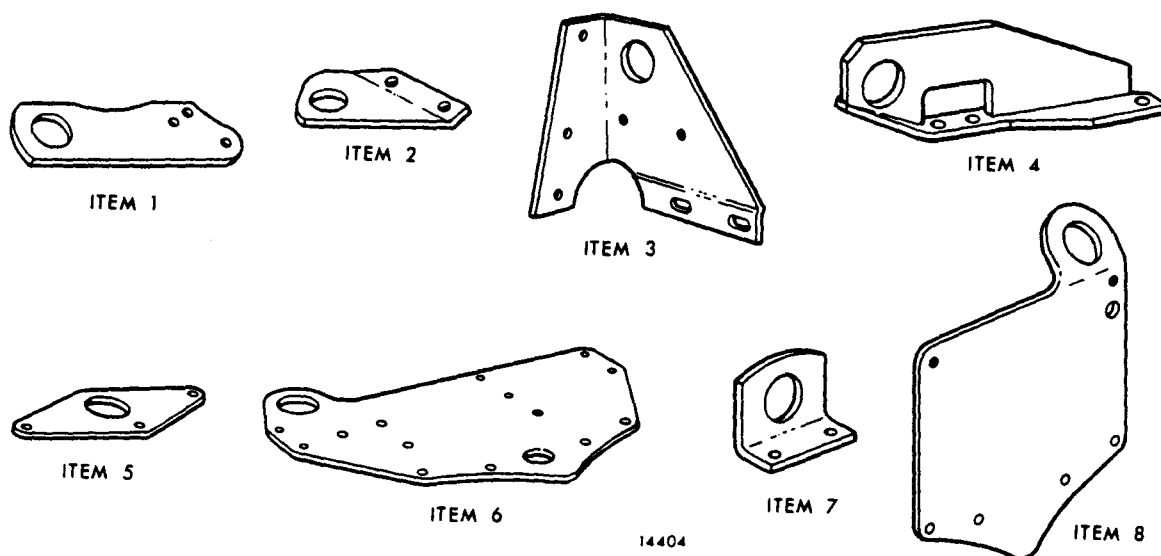


FIG. 2B - LIFTER BRACKETS

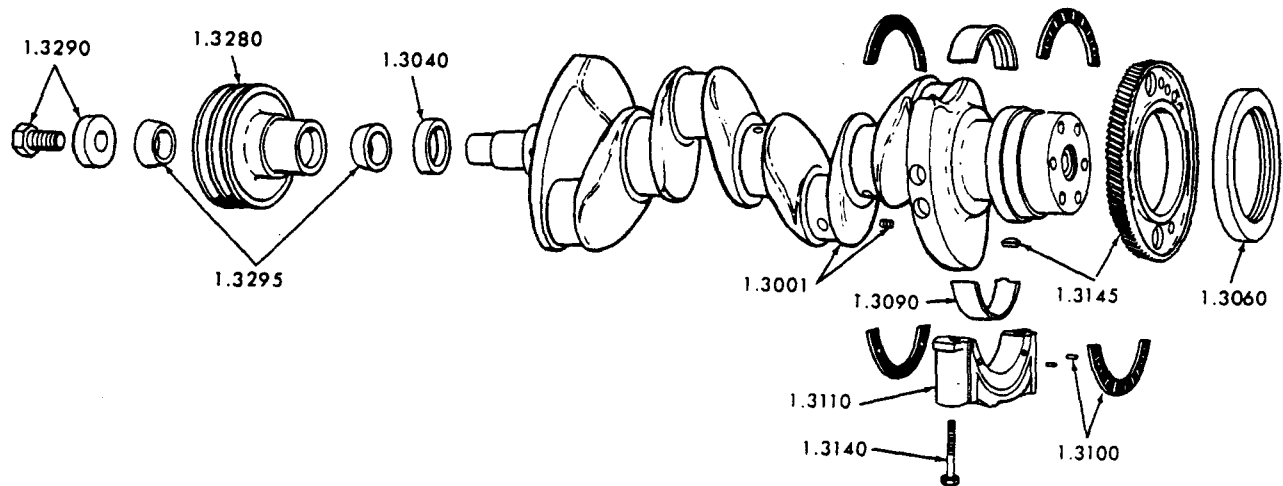


FIG. 3A - CRANKSHAFT (4-53)

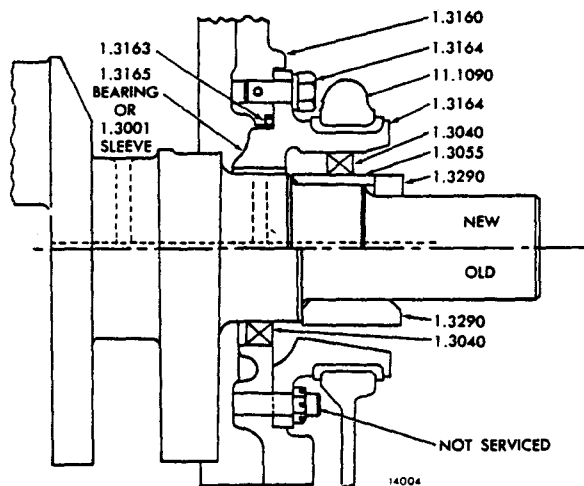


FIG. 3B-CRANKSHAFT (8V-53)

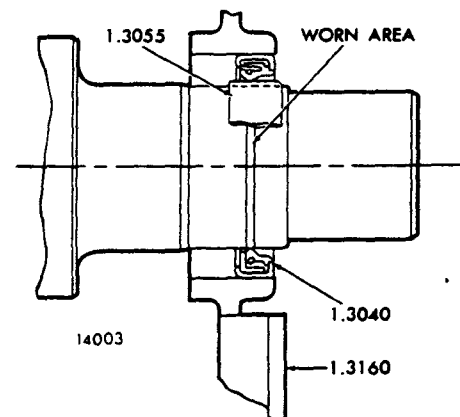


FIG. 3C-CRANKSHAFT(2-3-4-6V-53)

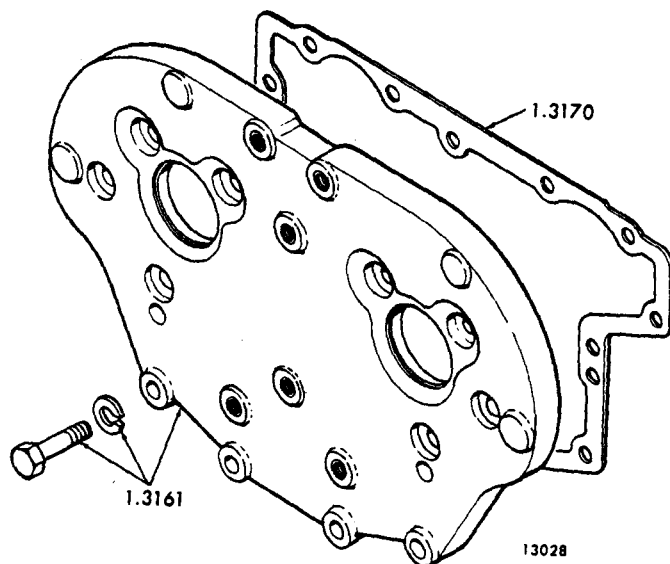


FIG. 4A - UPPER FRONT COVER (IN-LINE MODELS)

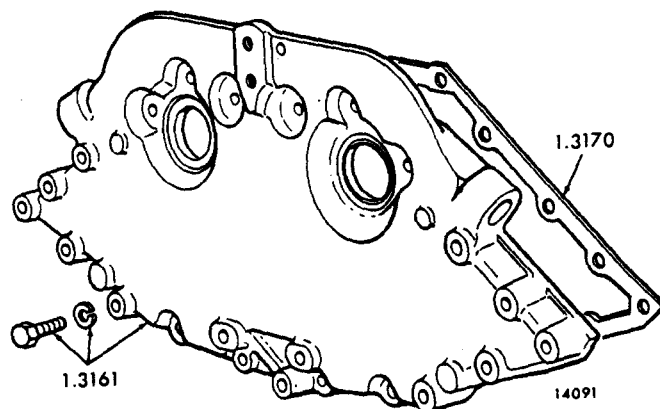


FIG. 4B - UPPER FRONT COVER (6V-MODELS)

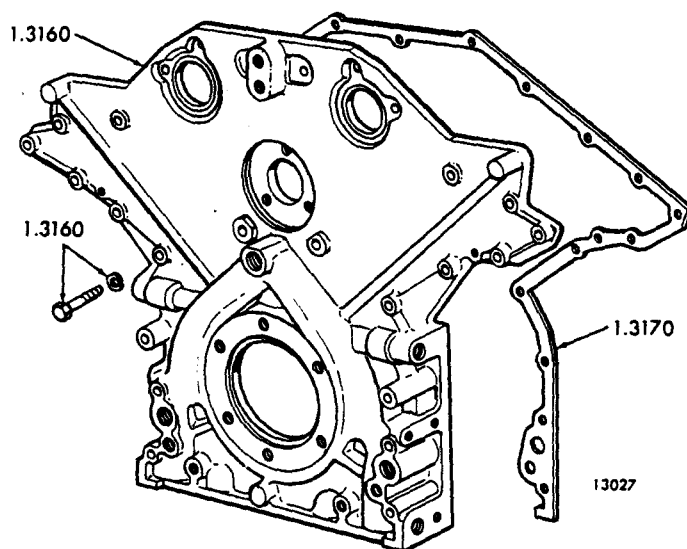


FIG. 4C - FRONT COVER (8V-MODELS)

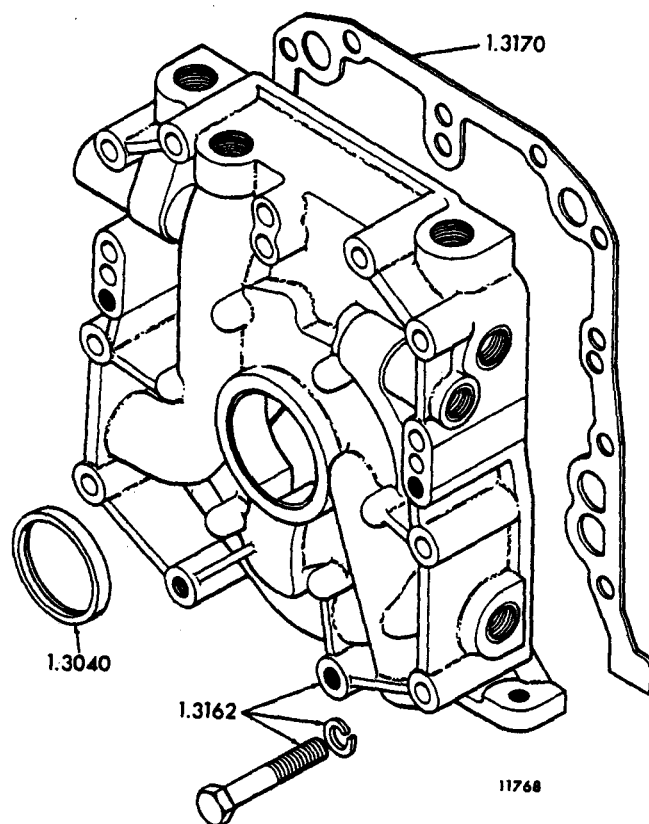


FIG. 4D - LOWER FRONT COVER (IN-LINE MODELS)

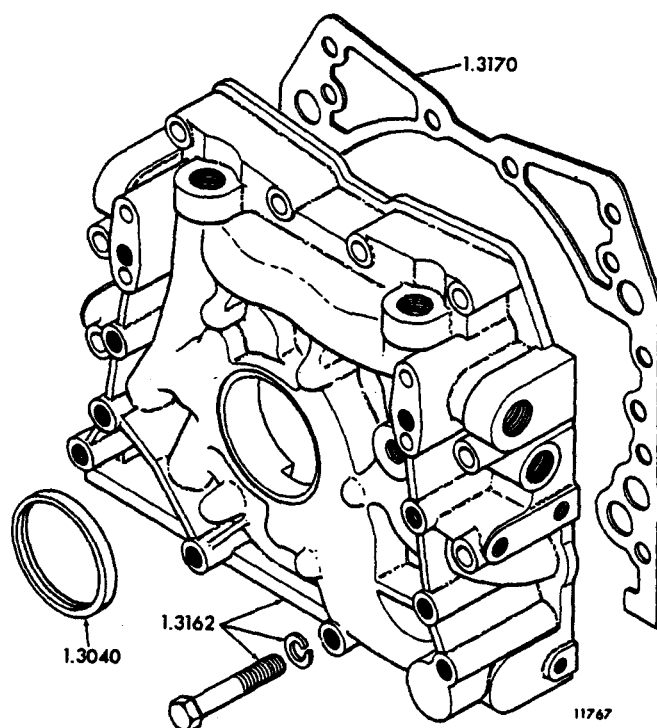


FIG. 4E - LOWER FRONT COVER (6V-MODELS)

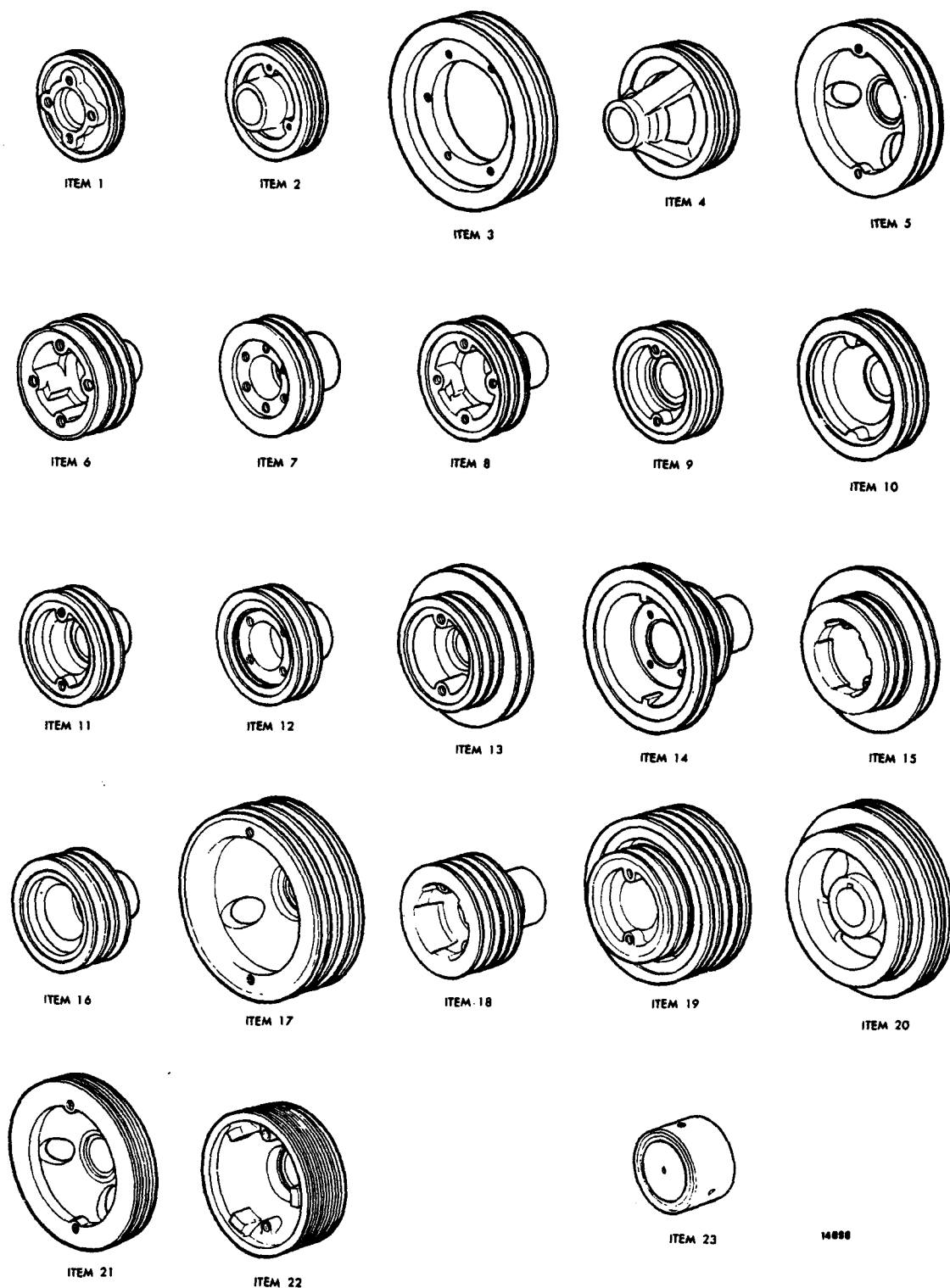


FIG. 4F - CRANKSHAFT PULLEYS

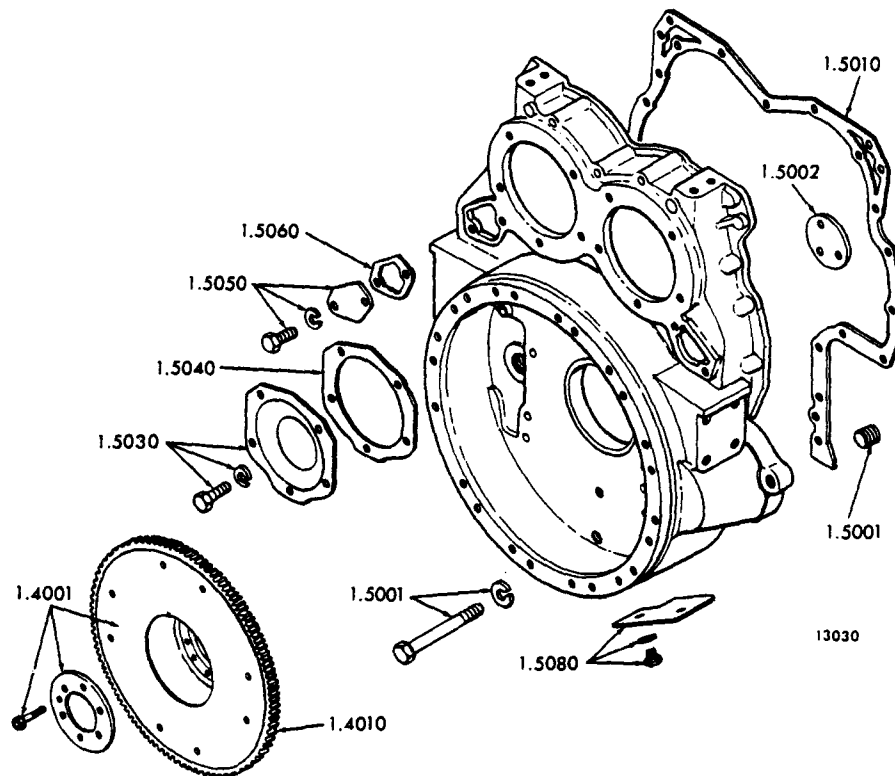


FIG. 5A - FLYWHEEL AND FLYWHEEL HOUSING (IN-LINE MODELS)

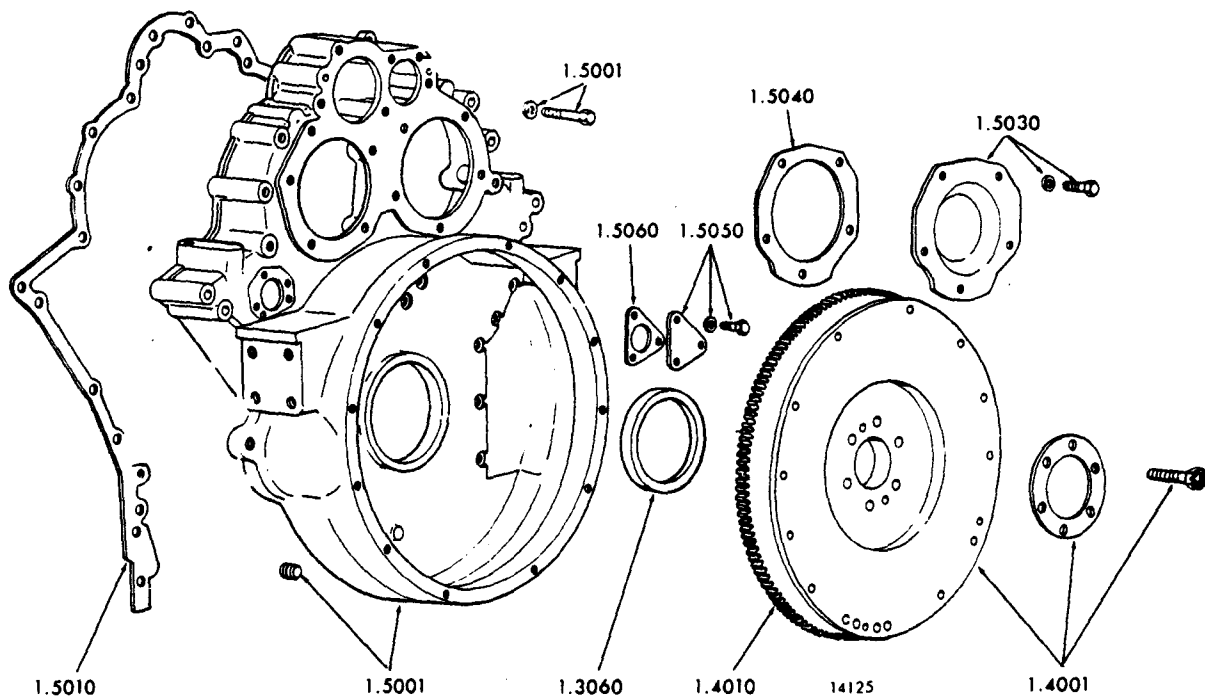


FIG. 5B - FLYWHEEL AND FLYWHEEL HOUSING (V-MODELS)

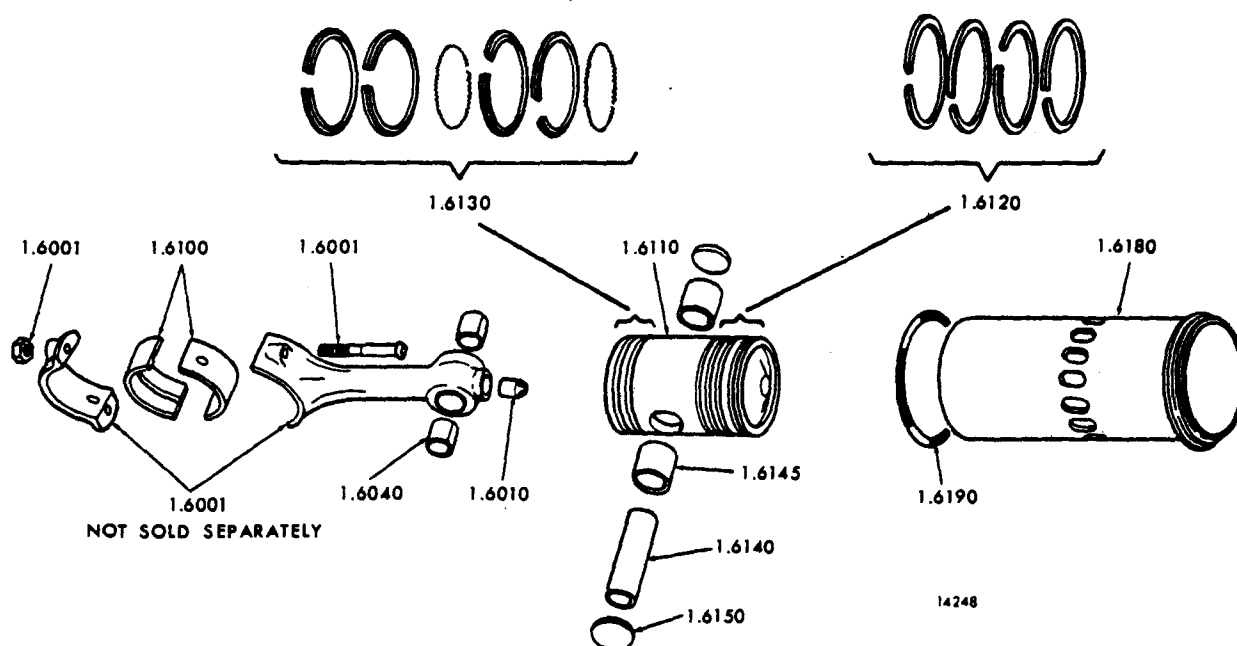


FIG. 6A - CONNECTING ROD, PISTON AND LINER

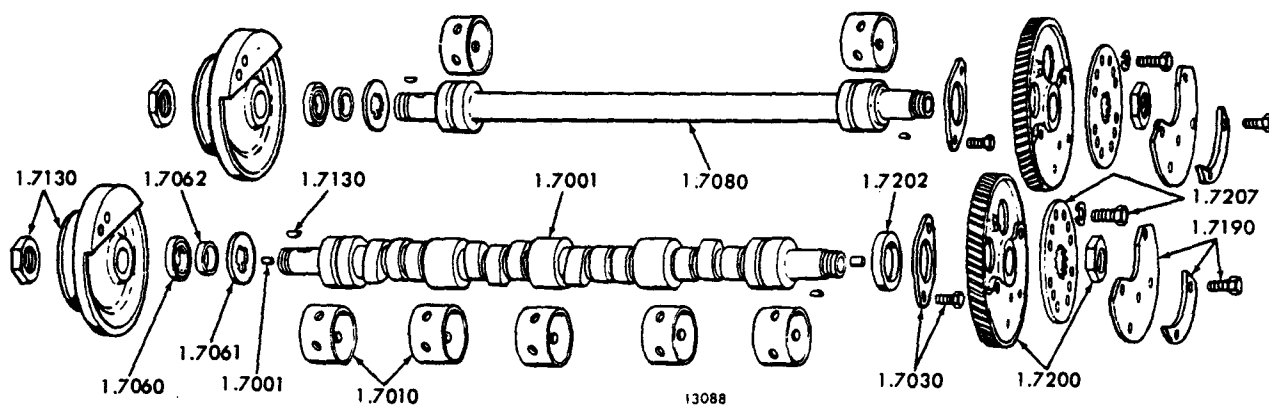


FIG. 7A - CAMSHAFT (IN-LINE MODELS)

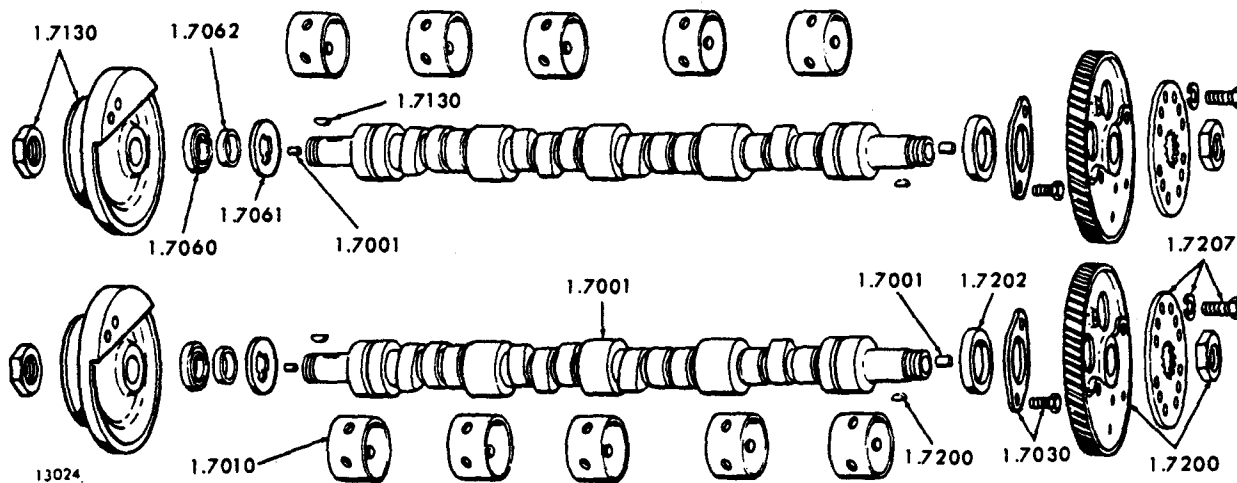


FIG. 7B - CAMSHAFT (V-MODELS)

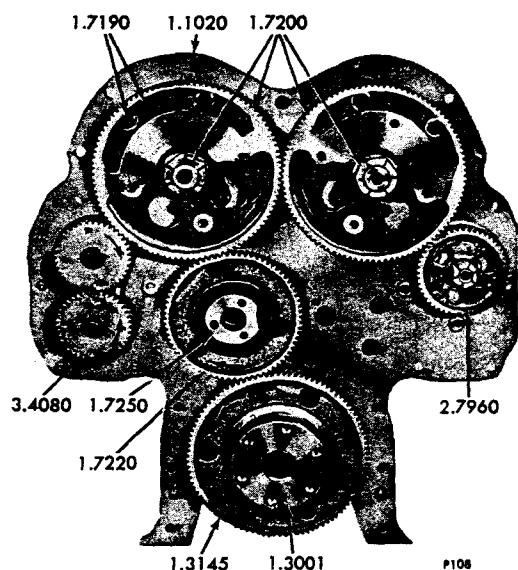


FIG. 7C-GEAR TRAIN (IN-LINE MODELS)

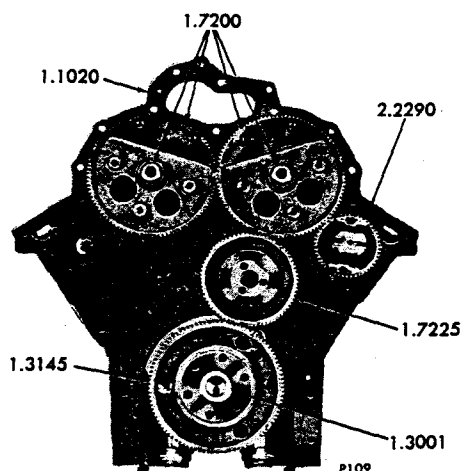


FIG. 7D-GEAR TRAIN (6V-MODELS)

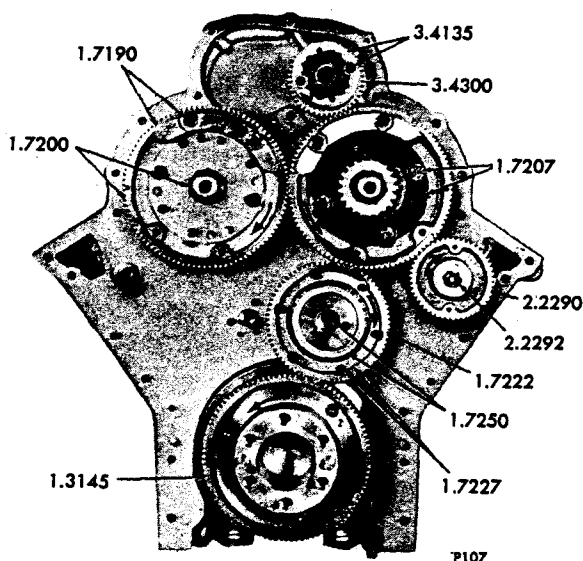


FIG. 7E - GEAR TRAIN (8V-MODELS)

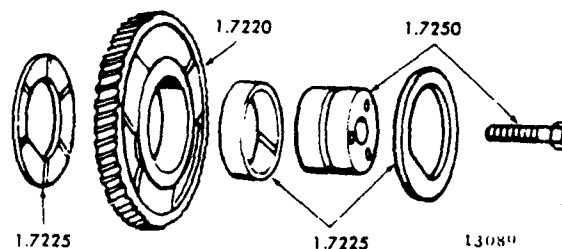


FIG. 7F - IDLER GEAR

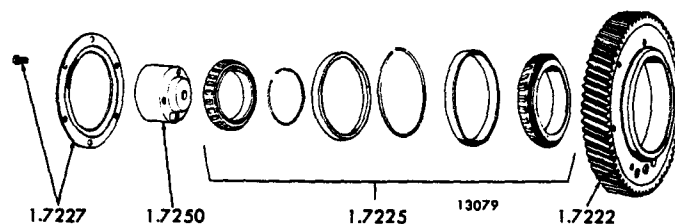


FIG. 7G - IDLER GEAR (8V-MODELS)

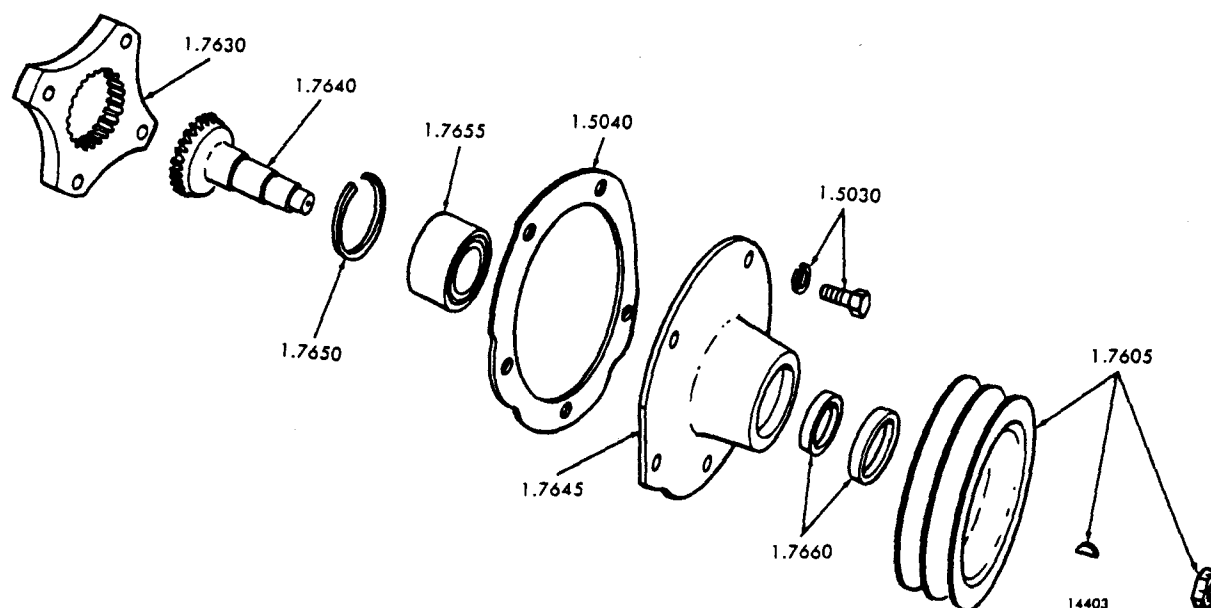


FIG. 8A - ACCESSORY DRIVE (DOUBLE BELT)

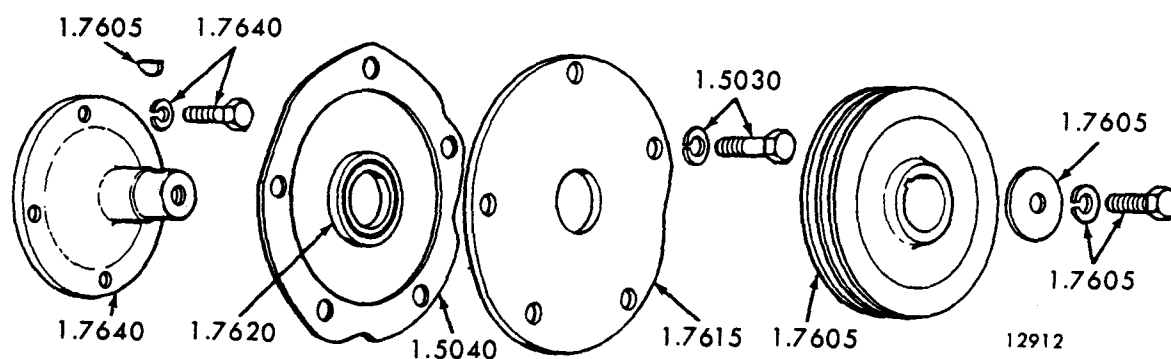


FIG. 8B - ACCESSORY DRIVE (SINGLE BELT)

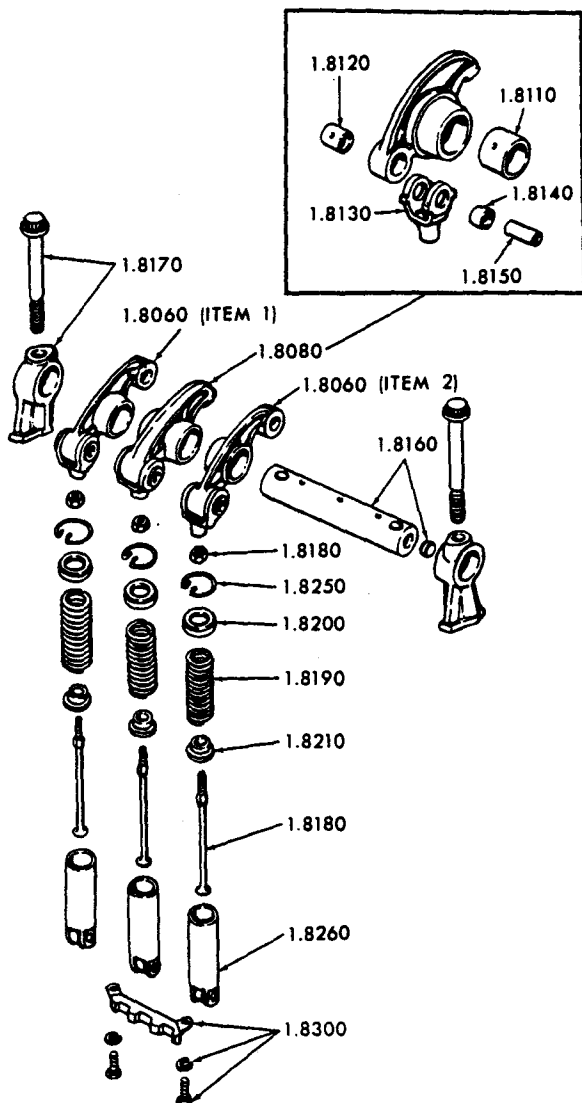


FIG. 9A
Valve and Injector
Operating Mechanism

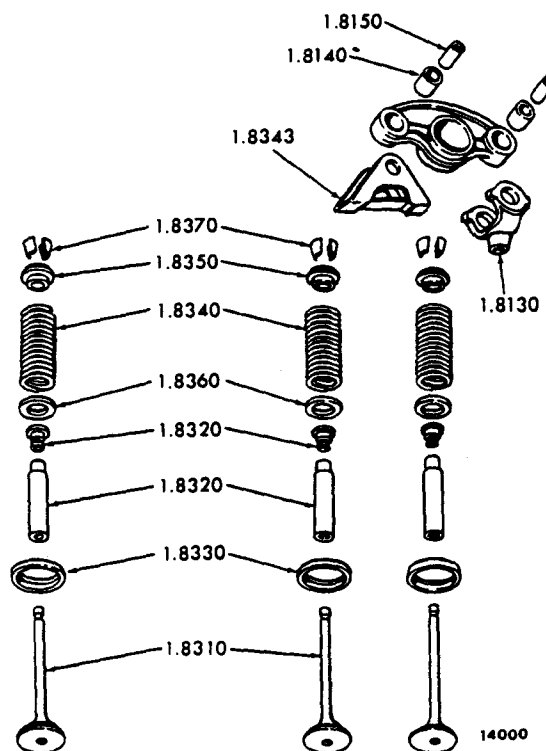


FIG. 9B
2 Valve

FIG. 9C
4 Valve
(with Bridge)

VALVE OPERATING MECHANISM

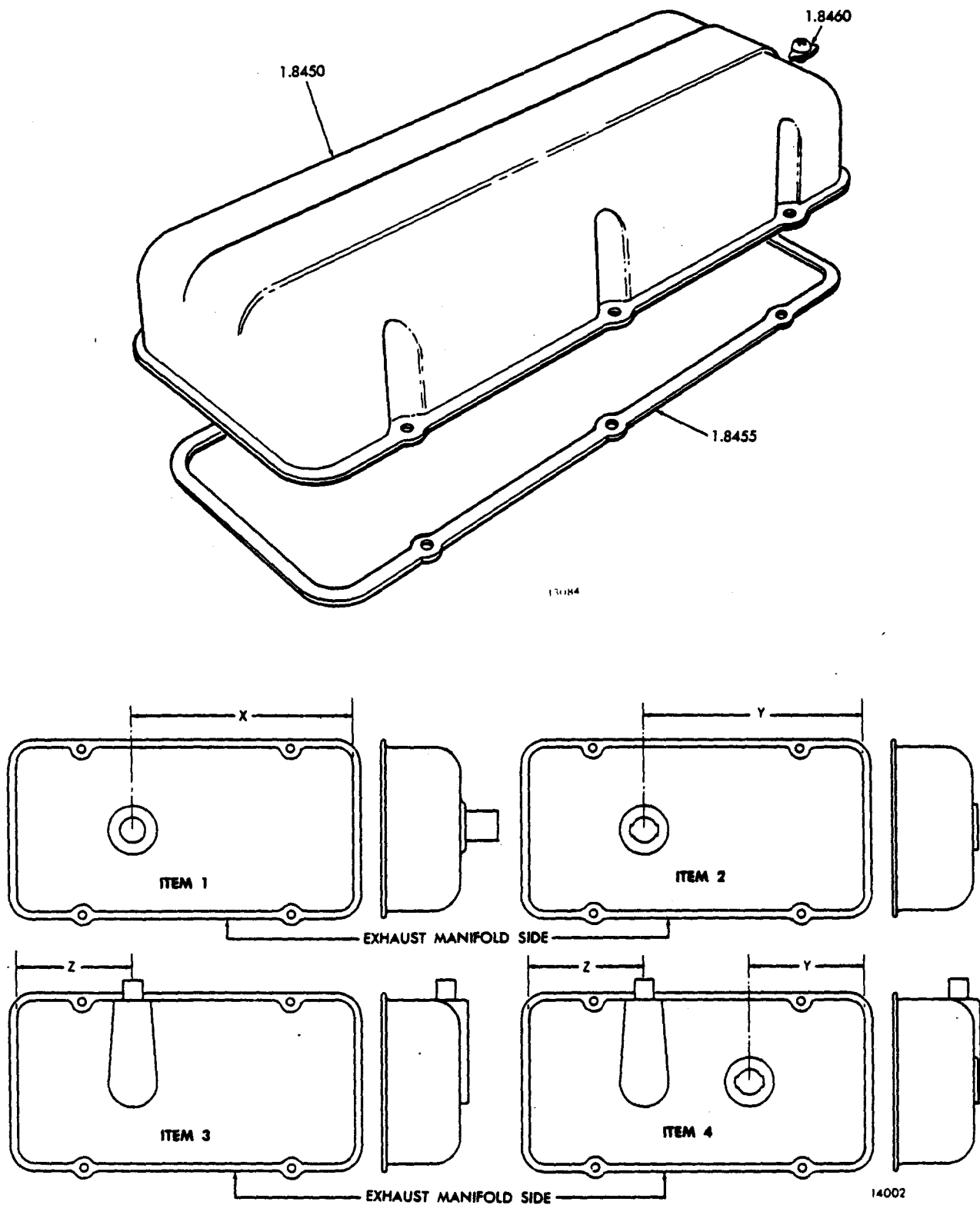


FIG. 9D - ROCKER COVER

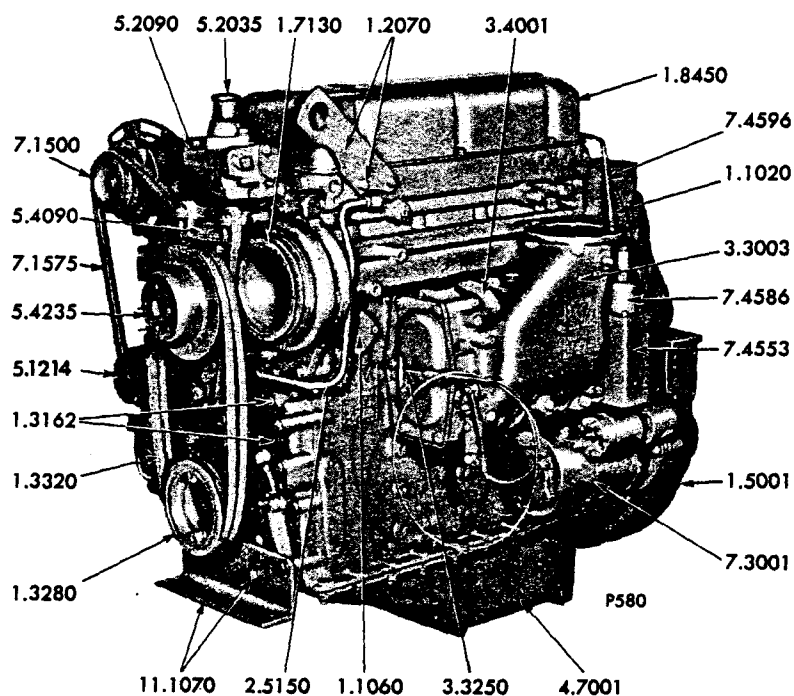


FIG. 10A TYPICAL FAN TO FLYWHEEL

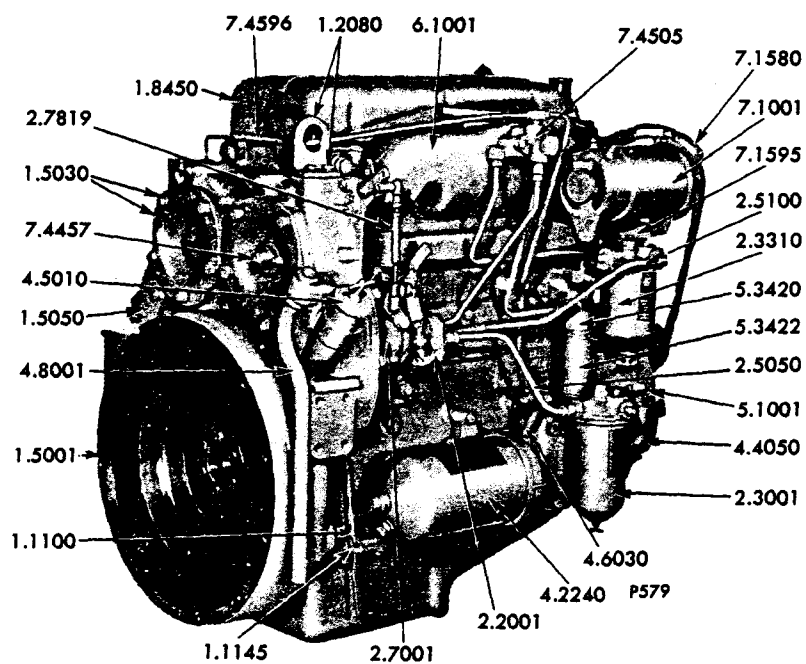


FIG. 10B TYPICAL FAN TO FLYWHEEL

1.1000 CYLINDER BLOCK

PART
..FIG .. NUMBER .. NAME AND DESCRIPTION ..

1.1001 - BLOCK ASSY., CYLINDER

FOR COMPONENTS OF SERVICE CYLINDER
BLOCK ASSEMBLIES REFER TO ASSEMBLY
BREAKDOWN PAGES AS INDICATED BELOW.

1A,B 5196489 BLOCK ASSY., 2-53 (PAGE A1)
1A,B 5196490 BLOCK ASSY., 3-53 (PAGE A1)
1A,B 5196491 BLOCK ASSY., 4-53 (PAGE A1)
1C 5196821 BLOCK ASSY., 6V53 (PAGE A1)
5145009 PLUG, 1/8" PIPE (12.9550)
5121182 PLUG, 1/4" PIPE (2.4015)
5132634 DECAL (DRAIN)

1.1002 - GASKET KIT, ENGINE OVERHAUL

CONSISTS OF NECESSARY GASKETS FOR
ONE ENGINE OVERHAUL.

5199790 GASKET KIT, 2-53
5199791 GASKET KIT, 3-53
5199792 GASKET KIT, 4-53
5199793 GASKET KIT, 6V53
5199789 GASKET KIT, 2-53 (JOHN DEERE)

1.1020 - PLATE, CYLINDER BLOCK END

A PLATE ASSY. INCLUDES PLUG NUTS.

1B,7C 5121365 PLATE ASSY., 2,3-53 RA-RB-LA-LB ENG.
1B,7C 5121366 PLATE ASSY., 2,3-53 RC-RD-LC-LD ENG.
1B,7C 5121367 PLATE ASSY., 4-53 (RA-RB-LA-LB ENG.)
1B,7C 5121368 PLATE ASSY., 4-53 (RC-RD-LC-LD ENG.)
1C 5126194 PLATE ASSY., 6V53
1B,7C 5121233 PLATE ASSY., 2-53 (RC ENG.)
1B,7C 5109795 PLATE ASSY., 4-53 (RA-RB-LA-LB ENG.)
5131699 COVER (GOVERNOR DRIVE HOLE)
5121459 NUT, PLUG 3/8"-24
180120 BOLT, 3/8"-16X3/4" (12.9001)
179838 454819 BOLT, 3/8"-16X7/8" (12.9001)
179839 BOLT, 3/8"-16X1" (12.9001)
181360 BOLT, 3/8"-24X3/4" (12.9001)
186725 BOLT, 1/2"-13X1 1/2" (12.9001)
5188274 WASHER (6.1020)
5152148 WASHER, 3/8" SEAL (2.4050)
103321 LOCKWASHER, 3/8" (12.9200)

1.1030 - GASKET, CYLINDER BLOCK END PLATE

1B 5116354 GASKET, 2,3,4-53
1C 5133397 GASKET, 6V53
5116336 GASKET (GOVERNOR HOLE) (2.7010)

TYPES										
2	3	3	4	4	5	5	5	5	5	5
8	0	1	3	8	5	3	6	3	6	6
1	1	1	1	1	1	1	1	1	1	1
		1	1	1	1	1	1	1	1	1
		6	1	1	1	1	1	1	1	1
			1	1	1	1	1	1	1	1
			AR	AR	AR	AR	AR	AR	AR	AR
AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
		AR	AR	AR	AR	AR	AR	AR	AR	AR
			AR	AR	AR	AR	AR	AR	AR	AR
1	1				1				1	1
1	1				1				1	1
		X		1	1			1		
		1		1	1					
			1							
							1			
8	8	9	2	6	9	9	8	7	9	8
13	13	13		13	13	13	13	13	13	13
			12						2	2
			2						3	3
			2							
AR	AR	AR	AR	AR	AR	AR	AR	AR	3	3
									AR	AR
1	1	1	1	1	1	1	1	1	1	1
			1						1	1

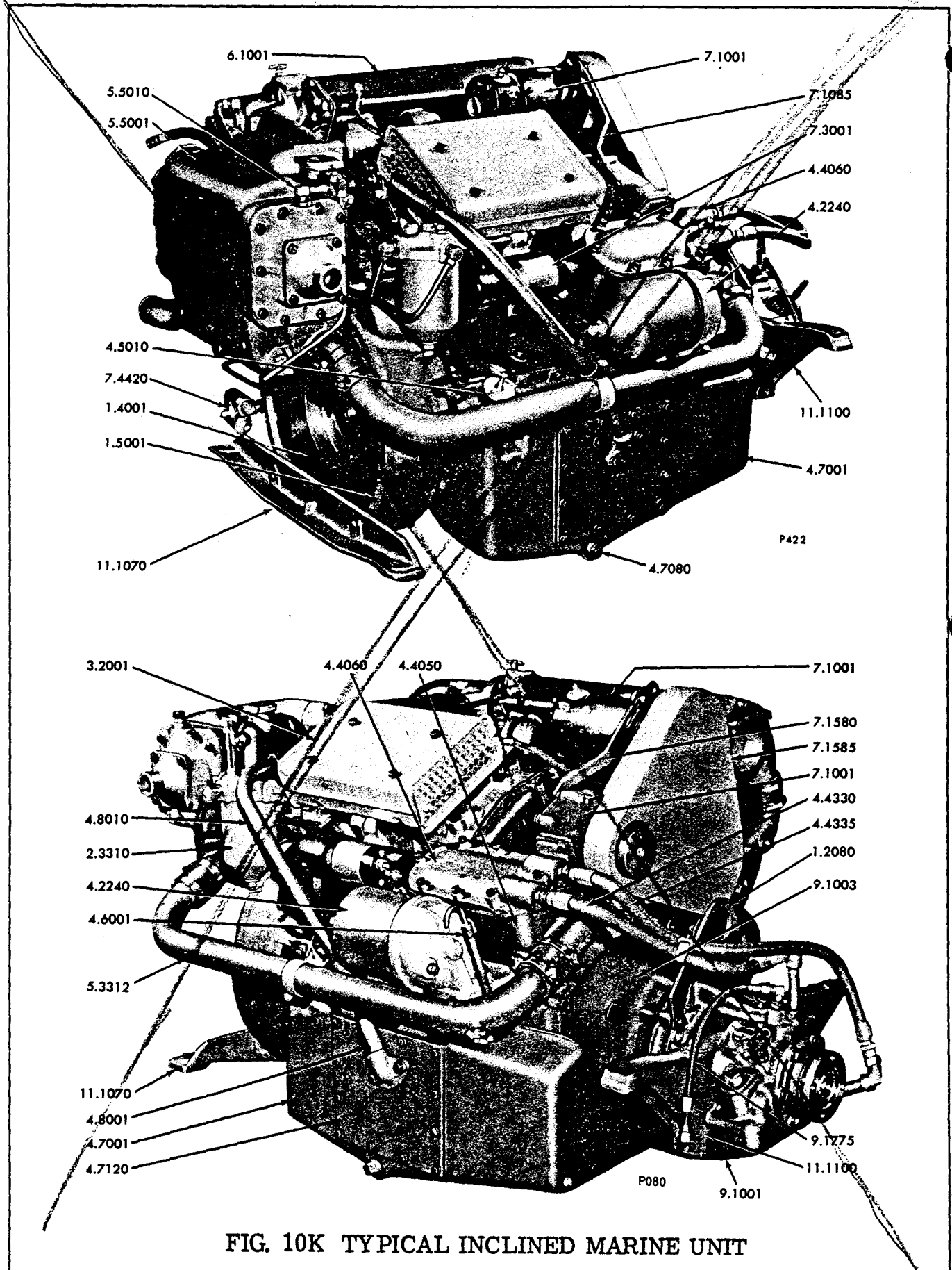


FIG. 10K TYPICAL INCLINED MARINE UNIT

DETROIT DIESEL

53 MPC ENGINES

1.1000 CYLINDER BLOCK

PART
FIG . . . NUMBER NAME AND DESCRIPTION

1.1070 - GASKET, CYLINDER BLOCK WATER HOLE
COVER

1A,C 5116357 GASKET

TYPES										
2 8	2 9	3 0	3 1	3 3	3 8	4 4	4 5	4 6	5 3	5 5
										5 6
1	1	1		1	1	1	1	1	1	1

1.1000 CYLINDER BLOCK

PAGE 2 OF 1.1000
SEP. 1977

1.1000 CYLINDER BLOCK

PART FIG NUMBER		NAME AND DESCRIPTION													
		COLUMN													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
1.1001 - BLOCK, CYLINDER (CONT'D)															
	5141701				8				8	8					
	5135523										16				
	5133981								8	8					
	5132715										16				
	THE FOLLOWING ITEMS ARE SHIPPED LOOSE WITH THE CYLINDER BLOCK.														
	5146437	1	1	1		1									
	5146331			1											
	5146332			1											
	3231135	1	1	1		1									
	5146620			1											
1A,B	141346	4	4	4		4		4	4	4					
	5146900	4	4	4		4		4	4						
	114981		1	1		2		1	3	2					
	5145009	4	7	7		7									
	5121182	1	1	1		1		1							
	5150131	3	2	2		2									
	5115214			1				3							
	5121316	2	2	2		2									
1A	5119218							1							
	186624			2											
	9409028			2											
	9414523			6											
	5133981			8											
	5108435			2											
	5125608			6											
	& NOT SERVICED.														
	% THRU 2D-4009 ON TYPE 28 AND 33.														
	+ OBSOLETE														

1.1000 CYLINDER BLOCK

PART			COLUMN												
FIG	NUMBER	NAME AND DESCRIPTION	A	B	C	D	E	F	G	H	I	J	K	L	M
		1.1001 - BLOCK, CYLINDER													
	5196489	* BLOCK ASSY., 2-53	1												
	5196490	* BLOCK ASSY., 3-53		1											
	5198692	* BLOCK ASSY., 3-53 (ALUM.)			1										
	5136343	# * BLOCK ASSY., 3-53 (MALLEABLE CAP)				1									
	5135252	* BLOCK ASSY., 3-53 (TURBO)					1								
	5196491	* BLOCK ASSY., 4-53						1							
	5134842	* BLOCK ASSY., 4-53 (MALLEABLE CAP)							1						
	5196821	@ BLOCK ASSY., 6V53								1					
	5197164	@ BLOCK ASSY., 6V53									1				
	5198292	@ BLOCK ASSY., 6V53 (ALUM.)										1			
		* PLUGGING CHART 18SP86., INLINE 53.													
		# NOT SERVICED.													
		@ PLUGGING CHART 18SP87., V53.													
3A	5116142	CAP, MAIN BEARING 2,3,4-53	3	4				5							
		(UNFINISHED) (1.3110)													
3A	5133620	CAP, MAIN BEARING 3-53			4										
		(UNFINISHED) (1.3110)													
3A	5130892	CAP, MAIN BEARING 3,4-53 (MALLEABLE				4	4		5						
		IRON) (1.3110)													
	5132479	CAP (INTERMEDIATE) 6V53 (UNFINISHED)								4	4				
		(1.3110)													
	5137937	CAP, MAIN BEARING 6V53 (UNFINISHED)										4			
		(1.3110)													
	5196965	& SPACER, MAIN BEARING CAP BOLT			8					8	8				
		(SHIPPING)													
	5136277	SPACER, MAIN BEARING SUPPORT										8			
		(1.3112)													
	5198431	BEARING SET, CAMSHAFT 2-53 (1.7010)	1												
	5198209	BEARING SET, CAMSHAFT 3-53 (1.7010)		1	1	1	1								
	5198984	BEARING SET, CAMSHAFT 4-53 (1.7010)						1	1						
	5197944	BEARING SET, CAMSHAFT 6V53 (1.7010)								1	1	1			
	5119022	% COVER, AIR BOX	1												
	5128482	+ COVER, AIR BOX (1/4" TAPPED HOLE)	1												
	141212	PIN, 5/16"X5/16" DOWEL (12.9290)								4	3	2			
		(12.9290)													
	5141263	PIN, 5/16"X5/16" DOWEL (PLATED)								2	2	2			
		(12.9290)													
	141214	PIN, 5/16"X7/8" DOWEL (12.9290)											1		
	5146900	PIN, 3/8"X1 1/8" DOWEL (12.9290)										4	2		
	5145009	PLUG, 1/8" PIPE (12.9550)								4	4	8			
	5121182	PLUG, 1/4" PIPE (2.4015)									2				
	5150130	PLUG, 5/16" CUP								1	1	1			
	5115214	PLUG, 1/2" PIPE (12.9550)								1	4	1			
	5119218	PLUG, 7/8" CUP (5.1030)									1				
	5109157	PLUG, 1 1/4" DIA. CUP (5.5001)								2		8			
	5117186	PLUG, 2" DIA. CUP										2			
	5138184	PLUG (.984/.980 CUP)										2			
	5138183	PLUG (1.580/1.576 CUP)										2			
	5116199	BOLT, MAIN BEARING CAP (1.3140)	6	8		8	8	10	10						

1.1000A AIR BOX DRAINS

FIG	PART NUMBER	NAME AND DESCRIPTION	TYPES										
			7 8	7 9	8 0	8 1	8 2	8 3	8 4	8 5	8 6	9 8	1 1 4
		1.1100 - TUBE, AIR BOX DRAIN											
10B	5132918	TUBE (DEV. L 3.62")		2			1	1	2	1	1	2	
10B	5134195	TUBE (DEV. L 7.08")											2
	5137968	TUBE (DEV. L 9.90")								1			
10B	5137692	TUBE (DEV. L 10.18")			1								
10B	5137728	TUBE (DEV. L 10.18")			1								
10B	5132917	TUBE (DEV. L 11.76")		1			2	1	2	1	1	2	
10B	5136320	TUBE (DEV. L 11.84") (WITH CLIP)	1										
10B	5132286	TUBE (DEV. L 12.00")										1	
10B	5134832	TUBE (DEV. L 12.06")								1			
10B	5136173	TUBE (DEV. L 12.74")		1			1	1		1			
10B	5137969	TUBE (DEV. L 14.76")					1	1	1	1	1		
442328	401558	CONNECTOR, 1/4" FL. TUBE (12.9380) (12.9460)	1		2								
	137405	CONNECTOR, 1/4" FL. TUBE (12.9380)							1	1			
	444052	ELBOW, 1/8"-45 DEG. STREET (12.9590)				1							
	5146437	ELBOW, 1/8" PIPE (12.9480)										1	
5197259	137421	ELBOW, 1/4" INV. FL. TUBE 90 DEG. (12.9480) (2.8180)		2	2	1	3	3	2	3		3	2
	125859	& ELBOW, 1/4" INV. FL. TUBE 45 DEG. (12.9480)		2									
	2140049	VENT ASSY.	1	1	1								
	5100136	ADAPTOR, 1/8" P.T. BR. (12.9570)		1			1	1	1	1	1		
	3231135	TEE, 1/4" INV. FL. TUBE										1	
	143482	TEE, 1/4" INV. FL. TUBE, 1/8" P.T. (12.9490)		2			1	3	2		1	2	
	5145009	PLUG, 1/8" PIPE (12.9550)	1				2	2		2	2	1	
	137397	NUT, 1/4" INV. FL. TUBE (12.9500) & THRU 6D-6339.										1	
		1.1145 - CLIP, AIR BOX DRAIN TUBE											
10B	5176668	CLIP (1.1100)	1	2			3	2	3	3	2	1	
10B	5163442	CLIP		1				1			1		
10B	3290442	CLIP							1				
		1.1150 - TANK ASSY., AIR BOX AND FUEL PUMP DRAIN											
	5134825	TANK											1
		1.1155 - HOSE, ROCKER COVER DRAIN											
	5145678	HOSE (54" L.)											1
	272853	CLAMP, HOSE											1
	5181415	CLIP											2

DETROIT DIESEL

	PART	
. . FIG . . .	NUMBER	NAME AND DESCRIPTION

5135721 ELEMENT

. TYPES

7	8	8	8	8	8	9
8	0	2	4	6	8	8
7	8	8	8	9	1	4
9	1	3	5	6	4	

1.1000A AIR BOX DRAINS

TYPES

PART
FIG. NUMBER NAME AND DESCRIPTION

1.1100 - TUBE, AIR BOX DRAIN

5137692 TUBE (DEV. L. 10.18") 1
5137728 TUBE (DEV. L. 10.18") 1
2140049 VENT ASSY. 2
191558 CONNECTOR, 1/4" FL. TUBE (12.9380) 2
137421 ELBOW, 1/4" INV. FL. TUBE 90 DEG. 2
(12.9480)
9432245 ELBOW, 90 DEG. 5/16" INV. FL. TUBE 4
(12.9480)
225815 ELBOW, 90 DEG. INV. FL. TUBE 2
179816 BOLT, 5/16"-18X3/4" (12.9001) 1
103320 LOCKWASHER, 5/16" (12.9200) 1

1.1145 - CLIP, AIR BOX DRAIN

140579 CLIP, 5/16" TUBE, 3/8" BOLT 1
(12.9630)

1.2000 CYLINDER HEAD

PART		TYPES										
FIG	NUMBER	NAME AND DESCRIPTION										
		2 1	2 3	2 4	2 5	2 6	3 0	5 7	6 1	6 2	6 8	7 5
	1.2001 - HEAD ASSY., CYLINDER											
	FOR COMPONENTS OF SERVICE CYLINDER HEAD ASSEMBLIES REFER TO ASSEMBLY BREAKDOWN PAGE A1.											
2A	5196033 HEAD ASSY. (2 VALVE) 2-53	1					1					
2A	5197949 HEAD ASSY. (2 VALVE) 3-53		1									
2A	5198203 HEAD ASSY. (4 VALVE) 3,6V53			1		2				1	2	
2A	5198204 HEAD ASSY. (2 VALVE) 4-53				1							
2A	5198202 HEAD ASSY. (4 VALVE) 4,8V53				1			1	2			
	5198438 HEAD ASSY. (4 VALVE MULTIFUEL) 3,6V53											1
	5135548 GASKET (1.1001)										8	
	5135663 GASKET (1.1001)										8	
	5135547 SLEEVE (1.1001)										8	
	5135662 SLEEVE (1.1001)										8	
	5112899 # STUD, 7/16"-14X2 3/32" (6.1020)										8	4
	5144425 ADAPTOR, FUSE PLUG	1	1	1	1	*	2	1	1	2	2	1
	5198655 PLUG, FUSE PLUG	1	1	1	1	*	1	1	1	1	1	1
2A	5145009 PLUG, 1/8" PIPE (12.9550)	1	2	2	2	2	4	1	2	4	4	2
2A	444687 PLUG, 1/8" PIPE (12.9550)											
2A	5121182 PLUG, 1/4" HEX. SKT. PIPE (2.4015)	7	7	7	7	X	9		7	9	7	1
2A	5125237 PLUG, 1/4" PIPE (1.2001)											5
2A	5154453 PLUG, 3/8"-16 SL. HDLS	3	3	3	3	3	8	3	3	8	4	4
2A	5151449 * PLUG, 13/16" CUP (1.1001)	3	3	3	3	3	6	3	3	6	3	3
2A	5151449 @ PLUG, 13/16" CUP (1.1001)							2				
	5139997 PLUG, 7/8" DIA. CUP (STAINLESS)			3								
	# NOT PART OF HEAD ASSY.											
	* EFFECTIVE WITH 2D-4010, TYPE 30.											
	@ THRU 2D-4009, TYPE 30.											
	1.2002 - GASKET KIT, CYLINDER HEAD OVERHAUL											
	CONSISTS OF ALL GASKETS NECESSARY TO REPLACE ONE CYLINDER HEAD.											
	5199809 GASKET KIT, 2-53	AR					AR					
	5199811 GASKET KIT, 3,6V53		AR	AR			AR					AR
	5199812 GASKET KIT, 4-53				AR	AR		AR				
	5199815 GASKET KIT, 8V53								AR			
	5199820 GASKET KIT, 3-53									AR		
	5199817 GASKET KIT, 6V53										AR	
	1.2005 - NOZZLE, CYLINDER HEAD WATER											
	5119293 NOZZLE			4	X	8		6	12	4	8	4

1.2000 CYLINDER HEAD

PART
..FIG .. NUMBER NAME AND DESCRIPTION

			TYPES									
			2	2	2	2	3	6	6	7		
			1	2	3	4	5	0	1	2	3	
			1	2	2	4	5	6	7	8	8	5
1.2010 - GASKET, CYLINDER HEAD COMPRESSION												
1B,C	5121254	GASKET	2	3	3	4	4	6	2	4	8	3
1.2022 - GASKET, CYLINDER HEAD WATER & OIL												
1A	5116291	RING, SEAL	1					1				
1A	5116290	RING, SEAL (END WATER HOLE)	4	4	4	4	4	8	4	8	4	4
1A,C	5121207	RING, SEAL (CENTER WATER HOLE)	2	4	4	6	6	8	2	6	12	4
1B,C	5116122	RING, SEAL (OIL HOLE)	1	2	2	2	2	4	1	2	4	2
1A,C	5116292	RING, SEAL		1	1			2			1	2
1A	5116293	RING, SEAL				1	1			1	2	1
1.2030 - BOLT, CYLINDER HEAD												
2A	5121263	BOLT, 5/8"-11X6 1/4" (12 PT. HD.)	6	8	8	10	10	16	6	10	20	8
	5130926	BOLT, 5/8"-11X6 1/2" (12 PT. HD.)										9
	5135954	BOLT, 5/8"-11X7.38" (12 PT. HD.)									8	7
1.2040 - NUT, CYLINDER HEAD WATER												
	5150013	NUT, 5/8"-18									4	
1.2043 - COVER, CYLINDER HEAD WATER HOLE												
2A	5136610	COVER (PLAIN) (USE 3/8"-16X1" BOLT)	1	1	1		XXX	2		2	2	1
10C	5123168	COVER (1/8" PIPE TAP, CENTERED)	1	1	1	1	XXX	2			1	
10C	5127837	COVER (1/8" PIPE TAP, OFF CENTER)	1	1	1	1	XXX	2		2		
10C	5139226	COVER (1/8"X3/8" PIPE TAP)			1							
	5129019	COVER (1/4" PIPE TAP)	1	1	1	1	X	2				
	5141136	COVER (1/4"X3/8" PIPE TAP)						2				
10C	5123352	COVER (3/8" PIPE TAP)	1	1	1	1	XX	2	1			
10C	5109707	COVER (1/4" AND 1/2" PIPE TAPS)	1	1	1	1	XX	2		1		
10C	5135525	COVER (1/2" PIPE TAP, BOSS)			1							
	5109916	COVER (1/2" PIPE TAP) (.38" THICK)						2				
10C	103877	PLUG, 1/8" PIPE SQ. HD. (12.9550)	1	1	1	1	XX	2		2	1	
10C	5121182	PLUG, 1/4" PIPE (2.4015)	1	1	2	1	XX	2		1		
10C	5145014	PLUG, 3/8" PIPE SQ. HD. (12.9550)	1	1	1	1	XXX	2				
10C	5145012	PLUG, 1/2" PIPE SQ. HD. (12.9550)	1	1	1	1	XXX	2				
	5146648	PLUG, 1/2" PIPE HEX. SOC. HD.				1						
2A	179838	BOLT, 3/8"-16X7/8" (12.9001)	2	2		2	X		2	4		
	179839	BOLT, 3/8"-16X1" (12.9001)		2	2	2	2	4	2	4	2	4
2A	103321	LOCKWASHER, 3/8" (12.9200)	2	2	2	2	2	4	2	2	4	2
1.2044 - GASKET, CYLINDER HEAD WATER HOLE COVER												
2A	5116242	GASKET	1	1	1	1	1	2	1	1	2	1

DETROIT DIESEL

53 MPC ENGINES

1.2000 CYLINDER HEAD

PART		NAME AND DESCRIPTION	TYPES											
FIG	NUMBER		2 1	2 2	2 3	2 4	2 5	2 6	3 0	5 7	6 1	6 2	6 8	7 5
1.2045 - TUBE, INJECTOR HOLE														
2A	5199527	TUBE KIT (INCLUDES SEAL RING IN 1.2046) (2.1290)	2	3	3	4	X	6	2	4	8		6	
1.2046 - RING, INJECTOR HOLE TUBE SEAL														
2A	5160037	RING (PART OF KIT IN 1.2045) (2.1300)	2	3	3	4	X	6	2	4	8		6	3

1.2000A ENGINE LIFTER BRACKET

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	3 0	4 0	4 1	4 2	4 3	4 4	4 6	4 8	5 1	5 2	5 3	5 6
1.2070 BRACKET, ENGINE LIFTER-FRONT														
2B	5129750	BRACKET (ITEM 1)	1	1					1					1
2B	5100428	BRACKET (LIFTER & GENERATOR MTG.) (ITEM 3)			1									
2B	5100429	BRACKET (LIFTER & GENERATOR MTG.) (ITEM 3)				1	1							
2B	5125488	BRACKET (LEFT BANK) (ITEM 3)						1		1				
2B	5127949	BRACKET (RIGHT BANK) (ITEM 2)						1						
	5128824	BRACKET									1			
	5128823	BRACKET										1		
	5129750	BRACKET											1	
	5164294	SPACER, 1/8" THICK (7.1581)	2	2	2	2	2		2				2	2
	180121	BOLT, 3/8"-16X7/8" (12.9001)								2				
	179839	BOLT, 3/8"-16X1" (12.9001)			3	3	3	4						
	186619	BOLT, 3/8"-16X1 1/8" (12.9001)	2	2					2				2	2
	180176	BOLT, 1/2"-13X1 3/8" (12.9001)									2	2		
	103321	LOCKWASHER, 3/8" (12.9200)	AR	AR	AR	AR	AR	AR	AR	AR			AR	AR
	103323	LOCKWASHER, 1/2" (12.9200)									2	2		
1.2080 - BRACKET, ENGINE LIFTER-REAR														
FOR ENGINES EQUIPPED WITH A THROTTLE CONTROL CROSS SHAFT, REFER TO 1.9305 FOR THE COMBINATION THROTTLE CONTROL CROSS SHAFT AND REAR ENGINE LIFTER BRACKET.														
	5119379	BRACKET (ITEM 7) (1.2070)	1		1	1								1
	5124985	BRACKET		1									1	
	5125227	BRACKET					1							
	5116474	BRACKET							1					
	5128068	BRACKET								1				
	5128091	BRACKET									1	1		
	5113850	SPACER, 5/8"					1							
	9409028	BOLT, 3/8"-16X1" LOCK (12.9001)	2		2	2								2
	179844	BOLT, 3/8"-16X1 5/8" (12.9001)					2							
	5170492	BOLT, 3/8"-24X2 29/32" LOCK (12.9001)							AR					
	5170490	BOLT, 3/8"-24X3 13/16" LOCK (12.9001)							1					
	186312	BOLT, 3/8"-24X4" (12.9001)							2					
	179872	BOLT, 7/16"-14X3 1/2" (12.9001)									2	2		
	180176	BOLT, 1/2"-13X1 3/8" (12.9001)		2						2			2	
	103321	LOCKWASHER, 3/8" (12.9200)					AR		AR					
	103322	LOCKWASHER, 7/16" (12.9200)									2	2		
	103323	LOCKWASHER, 1/2" (12.9200)		2						2			2	

1.2000A ENGINE LIFTER BRACKET

PART		TYPES									
FIG	NUMBER	NAME AND DESCRIPTION									
		1 4 4	1 4 5	1 5 9	1 6 3	1 7 5	1 8 7	1 8 8	1 8 9	1 9 0	
	1.2070 - BRACKET, ENGINE LIFTER FRONT										
2B	5137032 BRACKET				1						
	5124753 BRACKET (LIFTER AND GENERATOR MOUNTING) (ITEM 3)	1									
	5135500 BRACKET		1								
	5144998 BRACKET			3							
	5129750 BRACKET					1					
2B	5100428 * BRACKET (R.H.)						1	1		1	
2B	5100429 * BRACKET (L.H.)								1		
	5116242 GASKET (1.2044)		1								
	5164294 SPACER, 1/8" THICK (7.1581)	2				2	2	2	2	2	
	180121 BOLT, 3/8"-16X3/4" (12.9001)			6							
	179839 BOLT, 3/8"-16X1" (12.9001)	3					3	3	3	3	
	9409028 BOLT, 3/8"-16X1" AA LOCK (12.9001)					2					
	186619 BOLT, 3/8"-16X1 1/8" (12.9001)				3						
	427588 BOLT, 3/8"-16X2 1/2" (12.9001)		2								
	103341 WASHER, 3/8" FLAT (12.9190)									2	
	103321 LOCKWASHER, 3/8" (12.9200)	3		6	3		3	3	3	3	
	* INCLUDES GENERATOR MOUNTING.										
	1.2080 - BRACKET, ENGINE LIFTER REAR										
	FOR ENGINES EQUIPPED WITH A THROTTLE CONTROL CROSS SHAFT, REFER TO 2.9305 FOR THE COMBINATION THROTTLE CONTROL CROSS SHAFT AND REAR ENGINE LIFTER BRACKET.										
2B	5119379 BRACKET (ITEM 7) (1.2070)		1		1	1				1	
2B	5116474 BRACKET (ITEM 5)	1					1				
	5125488 BRACKET (ITEM 3)			2							
	5124985 BRACKET							1	1		
	454813 BOLT, 3/8"-16X7/8" (12.9001)			4							
	9409028 BOLT, 3/8"-16X1" (12.9001)		2		2	2				2	
	5170492 BOLT, 3/8"-24X29/32" LOCK (12.9001)	3					3				
	180176 BOLT, 1/2"-13X1 3/8" (12.9001)							2	2		
	103321 LOCKWASHER, 3/8" (12.9200)			4							

. TYPES

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1.3000 CRANKSHAFT

PART
..FIG ... NUMBER NAME AND DESCRIPTION

TYPES

1.3001 - CRANKSHAFT ASSY.

A CRANKSHAFT ASSY. INCLUDES PLUG AND DOWEL IN 1.3001. WHEN REPLACING A CRANKSHAFT ASSY. INCLUDE AN OIL PUMP DRIVE GEAR IN 4.1310 FOR A 2, 3, 4 & 6V.

3A	5116446	CRANKSHAFT ASSY; 2-53	1															
3A	5116447	CRANKSHAFT ASSY; 3-53		1														
3A	5116448	CRANKSHAFT ASSY; 4-53			1													
3A	5144616	CRANKSHAFT ASSY; 6V-53				1				1						1	1	
3A	5144617	CRANKSHAFT ASSY; 6V-53 (SPLINED)					1											
3A	5199320	CRANKSHAFT ASSY; 3-53 (5116447)						1										
3B	5198291 #	CRANKSHAFT ASSY; 8V-53 INCLS SLEEVE							1									
3B	5136592	CRANKSHAFT ASSY; 8V-53									1							
3B	5198290	BEARING, CRANKSHAFT FRONT SUPPORT							1									
	5177528	DOWEL							2									
3A	444687	PLUG, 1/8" PIPE (12.9550)	2	3	4	4	3	3		2						4	3	3
3A	444687	PLUG, 1/8" HEX. SOC. (12.9550)				5				5						5		
3A	141355	PLUG, 1/4" X 1/4" DRIVE								2								

* NOT SERVICED; USE CRANKSHAFT SHOWN IN PARENTHESES AND INCLUDE A 5142713 OIL PUMP DRIVE GEAR.
REQUIRES USE OF 5198289 SEAL AND 5136567 SPACER.

1.3040 - SEAL, CRANKSHAFT OIL-FRONT

3A,4B	5116224	SEAL	1	1	X	1	1			1		1				1		
	5115454	SEAL						1										
	5198289	SEAL, 8V-53, USE WITH SLEEVE BRG IN GRP 1.3001.							1									
	5138796	SEAL															1	
	5198503	SEAL, SINGLE LIP O.S.- USE WITH 5198502 SLEEVE IN 1.3001.	1	1	X	1	1									1	1	
	5148314	SEAL (W/EXCLUDER LIP)		1														

1.3055 - SPACER, CRANKSHAFT FRONT OIL SEAL

3B	5136567	SPACER (SLEEVE)							1		1							
	5138786	SPACER															1	
	5180291	RETAINER (WASHER) (1.3290)															1	
	271632	BOLT, 3/4"-16X1 3/4" (12.9001)															1	

1.3056 - SLEEVE, CRANKSHAFT FRONT OIL SEAL SPACER

3B	5198502	SLEEVE, 2,3,4,6V53 (USE WITH 5198503 SEAL IN GRP 1.3040)	1	1	X	1	1										1	1
	5138945	SLEEVE, 6V53								1							1	

TYPES

[illegible]

1.3000 CRANKSHAFT

PART		TYPES											
FIG	NUMBER	NAME AND DESCRIPTION											
	1.3090 - SHELL, CRANKSHAFT MAIN BEARING. (CONT'D)	1 9	2 0	2 1	2 2	3 0	3 5	3 6	3 9	4 0	4 1	4 3	4 4
3A	5196674 SHELL, UPPER (.030" U.S.)				AR	AR		AR		AR		AR	AR
3A	5196675 SHELL, LOWER (.030" U.S.)				AR	AR		AR		AR		AR	AR
3A	5137595 SHELL, UPPER (STD, 6,8V53-7 HOLE)												4
3A	5198415 SHELL, UPPER (.002" U.S.)												AR
3A	5198416 SHELL, UPPER (.010" U.S.)												AR
3A	5198417 SHELL, UPPER (.020" U.S.)												AR
3A	5198418 SHELL, UPPER (.030" U.S.)												AR
	5195928 SHELL SET (STD INLINE)	AR	AR	5			AR						
	5196680 SHELL SET (.002" U.S.)	AR	AR	AR			AR						
	5196661 SHELL SET (.010" U.S.)	AR	AR	AR			AR						
	5196662 SHELL SET (.020" U.S.)	AR	AR	AR			AR						
	5196663 SHELL SET (.030" U.S.)	AR	AR	AR			AR						
	5195927 SHELL SET (STD 6,8V53)				AR	AR		AR		AR		AR	
	5196684 SHELL SET (.002" U.S.)				AR	AR		AR		AR		AR	
	5196685 SHELL SET (.010" U.S.)				AR	AR		AR		AR		AR	
	5196686 SHELL SET (.020" U.S.)				AR	AR		AR		AR		AR	
	5196687 SHELL SET (.030" U.S.)				AR	AR		AR		AR		AR	
	5198410 SHELL SET (STD 6,8V53-7 HOLE)												AR
	5198411 SHELL SET (.002" U.S.)												AR
	5198412 SHELL SET (.010" U.S.)												AR
	5198413 SHELL SET (.020" U.S.)												AR
	5198414 SHELL SET (.030" U.S.)												AR
	1.3100 - WASHER, CRANKSHAFT MAIN BEARING THRUST												
3A	5116197 WASHER, STD. INLINE 53	4	4	4			4				4		
3A	5196755 WASHER (.005" O.S.)	AR	AR	AR			AR				AR		
3A	5196756 WASHER (.010" O.S.)	AR	AR	AR			AR				AR		
3A	5159353 WASHER, STD 6,8V53				4	4		4	4	4		4	4
3A	5160542 WASHER (.005" O.S.)				AR	AR		AR		AR		AR	AR
3A	5192111 WASHER (.010" O.S.)				AR	AR		AR		AR		AR	AR
3A	141346 PIN, 3/16"X1/2" DOWEL (12.9290)	4	4	4	4	4	4	4	4	4	4	4	4
3A	5149149 PIN, 7/32"X1/2" DOWEL (1/32" O.S.)	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
	1.3110 - CAP, CRANKSHAFT MAIN BEARING												
3A	5195935 CAP, 2,3,4-53	3	4	4									
	5116142 CAP, 2,3,4-53 (UNFINISHED)	AR	AR	AR									
1C	5195936 CAP			5	4	4		5		5		4	4
1C	5199506 CAP, 6,8V53 (MALLEABLE IRON)				4	4							
	5135258 CAP, 6,8V53-INTERMEDIATE UNFINISHED (MALLEABLE IRON)				AR	AR		AR		AR		AR	AR
	5132479 CAP, 6,8V53-INTERMEDIATE UNFINISHED				AR	AR		AR		AR		AR	AR
3A	5133620 CAP 3-53 (UNFINISHED)						AR						
3A	5197345 CAP, 3-53						4						

1.3000 CRANKSHAFT

TYPES

3A,7C	5116195	GEAR,2,3,4,6V53
3A,7C	5132848	GEAR,8V53
	138253	BOLT, 3/8"X3/4" HEX. SOC. HD.....

TYPES											
1 9	2 0	2 1	2 2	3 0	3 5	3 6	3 9	4 0	4 1	4 3	4 4
							4		AR		
			4	4	1	2		2			4
						1 1		1 1			
							8 4				1 1
			8	8	2 6 2	8		8			8
			8	8	6	8		8			8
6	8	10							8		
			8 8	8 8	8	10 10		10 10			8 8
			8	8	8	10	16	10		16	8
					8						
1	1	1	1	1	1	1 3	1	1 3	1	1	1

53 MPC ENGINES

PART	
.FIG	NUMBER NAME AND DESCRIPTION

127559 (12.9027)
KEY, 1/4"X3/4" WOODRUFF (12.9350)

[illegible]

1.3000 CRANKSHAFT

PART		TYPES									
FIG	NUMBER	NAME AND DESCRIPTION	4	5							
			7	9							
				8							
	1.3001	CRANKSHAFT ASSY.									
		A CRANKSHAFT ASSY. INCLUDES PLUG AND DOWEL IN 1.3001. WHEN REPLACING A CRANKSHAFT ASSY. INCLUDE AN OIL PUMP DRIVE GEAR IN 4.1310 FOR A 2, 3, 4&6V									
3A	5116448	CRANKSHAFT ASSY., 4-53		1							
3B	5136592	CRANKSHAFT ASSY., 8V53		1							
3A	5143305	CRANKSHAFT ASSY., 4-53 (SPLINED)	1								
3A	444687	PLUG, 1/8" PIPE (12.9550)	4	4							
3A	444687	PLUG, 1/8" HEX. SOC. (12.9550)		5							
	1.3040	SEAL, CRANKSHAFT OIL-FRONT									
	5198503	SEAL (SINGLE LIP O.S., USE WITH 5198502 SLEEVE)	1								
3A,4B	5116224	SEAL	1								
	5115454	SEAL		1							
	5148314	SEAL (W/EXCLUDER LIP)		1							
	1.3055	SPACER, CRANKSHAFT FRONT OIL SEAL									
3B	5136567	SPACER (SLEEVE)		1							
	1.3056	SLEEVE, CRANKSHAFT FRONT OIL SEAL SPACER									
	5198502	SLEEVE (USE WITH 5198503 SEAL)	1	1							
	1.3060	SEAL, CRANKSHAFT OIL-REAR									
3A,5A	5116229	SEAL (SINGLE LIP, STANDARD)	1	1							
3A,5A	5128917	SEAL (DOUBLE LIP, STANDARD)	1	1							
3A,5A	5196852	SEAL (SINGLE LIP, O.S., USE WITH 5196851 SLEEVE)	AR	AR							
3A,5A	5127821	SEAL (DOUBLE LIP, STANDARD)		1							
3A,5A	5199477	SEAL (DOUBLE LIP, O.S., USE WITH 5196851 SLEEVE)	AR	AR	AR						
		* USED ONLY ON UNITS WITH OIL IN FLYWHEEL HOUSING.									
	1.3066	SLEEVE, CRANKSHAFT REAR OIL SEAL									
	5196851	SLEEVE (WITH O.S. OIL SEAL)	AR	AR	AR						

1.3000A CRANKSHAFT FRONT COVER

PART			TYPES																
.FIG	NUMBER	NAME AND DESCRIPTION	1 1 8	1 1 9	1 2 0	1 2 3	1 2 5	1 2 6	1 2 7										
1.3161 - COVER, ENGINE FRONT-UPPER																			
AN UPPER COVER ASSY. INCLUDES PINS AND PLUGS IN 1.3161.																			
4B	5109807	COVER ASSY., 6V53	1			1		1	1										
	5101347	COVER ASSY., 3,4-53		1	1		1												
	5101391	PLUG	1																
	5150829	PLUG, 7/8" CUP (4.8001)	2						2	2									
	5157933	PIN, 5/16"x7/8" DOWEL (3.4140)							2	2									
	5146900	PIN, 3/8"x1 1/8" DOWEL (12.9290)		2				2											
	180078	BOLT, 5/16"-18X7/8" (12.9001)	3																
	186622	BOLT, 3/8"-16X1 1/4" (12.9001)		9	9			9											
	186628	BOLT, 3/8"-16X1 1/2" (12.9001)						4											
	179844	BOLT, 3/8"-16X1 5/8" (12.9001)		4	4		11		11	11									
	179848	BOLT, 3/8 -15X2 1/4" (12.9001)	12				12			12									
	427588	BOLT, 3/8"-16X2 1/2" (12.9001)							11										
	103341	WASHER, 3/8" FLAT (12.9190)	23				23		23	23									
	9414322	WASHER, 3/8" I.D. X .744 O.D. X .63 THICK (12.9190)		13	13			13											
	9414322	WASHER, 3/8"I.D.X.744O.D.X.63 THICK . (12.9190)		13															
	5155596	WASHER, 5/16" FLAT	3				3												
	103321	LOCKWASHER, 3/8" (12.9200)	23	13	13		23	13	23	23									
1.3162 - COVER, ENGINE FRONT-LOWER																			
A LOWER COVER ASSY. INCLUDES ITEMS IN 4.1690 THRU 4.7120.																			
4D	5109946	COVER ASSY., 6V53	1																
4D	5197415	COVER ASSY., 3,4-53		1	1			1											
	DX93397	COVER ASSY., 6V53																	
	5138830	COVER ASSY.					1		1										
	5136274	COVER ASSY.																	
	5119426	FLANGE (5.2120)								1									
	5126473	GASKET (4.1520)								1									
	138222	SCREW, 5/16"-18X1" (12.9027)								2									
	5145009	PLUG, 1/8" PIPE HEX. SOC. HD. (12.9550)		1	1			1											
	5145014	PLUG, 3/8" PIPE HEX. SOC. HD. (12.9550)			1									1					
	5145014	PLUG, 3/8" PIPE (12.9550)								1									
	444867	PLUG, 3/8" PIPE (12.9550)								1									
	5146648	PLUG, 1/2"-14 HEX. SOCKET		7			4	7		4									
	5146648	PLUG, 1/2" PIPE (1.3162)								4									
	5139988	PLUG, 1" CUP (1.1001)								1									
	427588	BOLT, 3/8"-16X2 1/2" (12.9001)	4																
	179849	BOLT, 3/8"-16X2 1/2" (12.9001)								4				4					
	186282	BOLT, 3/8"-16X3 1/4" (12.9001)		7	11		10												

1.3000A CRANKSHAFT FRONT COVER

.FIG . . .	PART NUMBER	NAME AND DESCRIPTION	TYPES						
			1 8	1 9	1 0	1 2 3	1 2 5	1 2 6	1 2 7
	1.3162 - COVER, ENGINE FRONT-LOWER (CONT'D)								
	186283	BOLT, 3/8"-16X3 1/2" (12.9001)	4			4		4	4
	272429	BOLT, 3/8"-16X4 1/8" (12.9001)	4			4		4	4
	103341	WASHER, 3/8" FLAT (12.9190)	12					12	12
	103320	LOCKWASHER, 5/16" (12.9200)						2	
	103321	LOCKWASHER, 3/8" (12.9200)	12	7	11	12	10	12	12
	1.3166 - SEAL, CRANKSHAFT OIL-FRONT								
	5109517	SEAL (7.8040)	1					1	
	5116476	SEAL (1.7060)						1	1
	5148314	SEAL (1.3040)				1			
	5138796	SEAL (1.3040)						1	
	5116224	SEAL (1.3040)							1
	1.3170 - GASKET, ENGINE FRONT COVER								
	5124055	GASKET, 6V53 (UPPER)	1			1		1	1
	5121082	GASKET, 3,4-53 (UPPER)		1	1		1		
	5119368	GASKET, 6V53 (LOWER)	1					1	1
	5116386	GASKET, 3,4-53 (LOWER)		1	1	1	1		
	1.3171 - PLATE, CRANKSHAFT FRONT COVER								
	5109517	SEAL RING, AIR HEATER BODY (7.8040)				1		1	1
	5101391	PLUG, AIRHEATER HOLE (1.3161)				1		1	1
	180078	BOLT, 5/16"-18X7/8" (12.9001)				3		3	3
	5155596	WASHER, 5/16" FLAT (4.7120)						3	3
	1.3172 - GASKET, CRANKSHAFT FRONT COVER								
	5109496	GASKET (7.8040)	1			1		1	1

. TYPES

FIG	PART NUMBER	NAME AND DESCRIPTION
	1.3210	DAMPER, VIBRATION
	5110306	DAMPER (HEAVY, VISCOUS)
	181394	BOLT, 7/16"-20X7/8" (12.9001)
	103322	LOCKWASHER, 7/16" (12.9200)
	1.3230	HUB ASSY., VIBRATION DAMPER
	5179243	HUB ASSY. (INCLUDES DOWELS)
	5156295	DOWEL
	1.3240	CONE, VIBRATION DAMPER FRONT
	5158641	CONE
	1.3250	CONE, VIBRATION DAMPER REAR
	5132653	CONE (1.3240)

The graph shows the number of types of plants and animals that have become extinct since 1600. The x-axis represents time in years from 1600 to 2000. The y-axis represents the number of types, with a scale from 0 to 66. Two lines are plotted: one for plants (starting at 0 in 1600 and rising to 66 in 2000) and one for animals (starting at 0 in 1600 and rising to 33 in 2000).

Year	Plants (Types)	Animals (Types)
1600	0	0
1700	11	5.5
1800	22	11
1900	33	16.5
2000	66	33

53 MPC ENGINES

TYPES

PAGE 1 OF 1.3000C
SEP., 1977

[illegible]

**SIZES GIVEN ARE EFFECTIVE LENGTH
AT WIDTH SHOWN.
ALL BELTS ARE "PREMIUM" POLYESTER
BELTS, UNLESS INDICATED (M.S.)
"MILITARY STANDARD".**

10A	5135298	BELT SET (2 BELTS) (31.00°L, .500°W.) (7.1575)
10A	5135299	BELT SET (2 BELTS) (36.00°L, .500°W.) (7.1575)
10A	5135880	BELT SET (2 BELTS) (37.00°L, .500°W.) (7.1575)
10A	5137300	BELT SET (2 BELTS) (39.00°L, .500°W.) (M.S.)
10A	5130523	BELT SET (2 BELTS) (39.38°L, .500°W.)
10A	5134742	BELT SET (2 BELTS) (41.00°L, .380°W.) (M.S.) (7.1575)
10A	5137457	BELT SET (2 BELTS) (41.00°L, .500°W.) (M.S.)
10A	5139026	BELT SET (2 BELTS) (42.00°L, .500°W.)
10A	5133319	BELT SET (2 BELTS) (48.00°L, .500°W.) (M.S.)
10A	5135655	BELT SET (2 BELTS) (58.00°L, .500°W.)
10A	5135883	BELT SET (2 BELTS) (63.00°L, .500°W.)
10A	5136266	BELT SET (2 BELTS) (68.00°L, .500°W.)

TYPES											
1 9 9	2 0 0	2 0 1	2 0 2	2 2 0	2 2 4	2 2 5	2 2 7	2 2 9	2 4 2	2 4 4	2 4 5
1	1	1			1		1	1	1	1	1

1.3000D CRANKSHAFT PULLEY BELT

PART
FIG NUMBER NAME AND DESCRIPTION

TYPES

1.3320 - BELT, CRANKSHAFT PULLEY

SIZES GIVEN ARE EFFECTIVE LENGTH
AT WIDTH SHOWN.
ALL BELTS ARE "PREMIUM" POLYESTER
BELTS, UNLESS INDICATED (M.S.)
"MILITARY STANDARD".

FIG	NUMBER	NAME AND DESCRIPTION	2 4 6	2 4 7	2 5 1	2 5 4	2 5 5	2 5 6	2 6 0	2 6 1	2 7 6	2 7 8	2 7 9
10A	5140186	BELT (50.00"L, 1.28"W.) (POLY-VEE)		1									
10A	5139212	BELT SET (2 BELTS) (59.00"L, .500"W.)	1										
10A	5135884	BELT SET (2 BELTS) (44.00"L, .500"W.) (7.1575)			1								
10A	5141154	BELT SET (2 BELTS) (50.00"L, .500"W.)				1							
10A	5135880	BELT SET (2 BELTS) (37.00"L, .500"W.) (7.1575)					1						
10A	5137108	BELT SET (2 BELTS) (46.00"L, .500"W.) (M.S.)						1					
10A	5121340	BELT SET (2 BELTS) (50.00"L, .500"W.) (M.S.) (12.4045)							1				
10A	5142322	BELT SET (2 BELTS) (44.00"L, .500"W.) (M.S.)								1			
10A	5146723	BELT SET (2 BELTS) (45.00"L, .500"W.)									1		
10A	5143240	BELT SET (2 BELTS) (34.00"L, .500"W.)										1	
10A	5147900	BELT SET (2 BELTS) (45.00"L, .500"W.) (M.S.)											1

DETROIT DIESEL

53 MPC ENGINES

1.4000A FLYWHEEL

TYPES

PART
FIG . . . NUMBER NAME AND DESCRIPTION

1.4001 - FLYWHEEL

FOR TYPE 447 USE TYPE 347.
INCLUDES GEAR IN 1.4010.
"C" INDICATES A CHAMFERED ASSY.
"NC" IS NON-CHAMFERED.

	4 4 5	4 4 8	4 4 9	4 5 1	4 5 3	4 5 4	4 5 8	4 5 9	4 6 0	4 6 3	4 6 6
5B 5100173 FLYWHEEL ASSY. (SAE #1) (NC)	1										
5B 5109023 FLYWHEEL ASSY. (SAE #3) (C)		1									
5B 5109042 FLYWHEEL ASSY. (SAE #1) (C) (SD-146)			1								
5A 5109238 FLYWHEEL ASSY. (SAE #3) (NC)				1							
5A 5109299 FLYWHEEL ASSY. (SAE #2) (NC)					1						
5A 5109029 + FLYWHEEL ASSY. (SAE #3) (NC)						1					
5B 5109429 FLYWHEEL ASSY. (SAE #2) (NC)							1				
5A 5109436 + FLYWHEEL ASSY. (SAE #2) (NC)								1			
5B 5109231 FLYWHEEL ASSY. (SAE #2) (NC)									1		
5B 5109628 FLYWHEEL ASSY. (SAE #3) (NC)										1	
5A 5109405 # FLYWHEEL ASSY. (SAE #1) (NC) (SD-197)											1
5A,B 5126671 PLATE, SCUFF (BOLT RETAINER)	1	1	1	1	1	1	1	1	1	1	1
5A,B 9409129 BOLT, LOCK (1 3/4" L) (12 9001)		6								6	
5A,B 9409512 BOLT, LOCK (2" L)							6	6	6		
5A,B 9412018 BOLT, LOCK (2 1/4" L)	6		6	6		6					6

+ OBSOLETE.
* NOT SERVICED; FOR SERVICE USE
1-5109023 FOR MODEL 5062-3000 OR
1-5130544 FOR MODEL 5062-7000.
* NOT SERVICED, USE 5149152 AND
5116302.
NOT SERVICED, USE 5149205 AND
5116302.

1.4010 - GEAR, FLYWHEEL RING

5A,B 5116302 GEAR (SAE #2 - 138 TEETH)	1		1		1	1		1	1		1
5A,B 5116301 GEAR (SAE #3 - 126 TEETH)				1			1				
5A,B 5109022 GEAR (SAE #3 - 93 TEETH) (L.H. BENDIX CHAMFER)		1								1	

1.4000A FLYWHEEL

PART
FIG ... NUMBER ... NAME AND DESCRIPTION

1.4001 - FLYWHEEL

INCLUDES GEAR IN 1.4010.
"C" INDICATES A CHAMFERED ASSY.
"NC" IS NON-CHAMFERED.

5B	5109460	+ FLYWHEEL ASSY. (SAE #2) (NC)(SD-196)	1																	
5A	5162720	FLYWHEEL ASSY. (SAE #3) (NC)		1																
5A	5109989	FLYWHEEL ASSY. (SAE #3) (NC)			1															
5B	5109821	FLYWHEEL ASSY. (SAE #3) (NC)(SD-236)				1														
5A,B	5170517	FLYWHEEL ASSY. (SAE #3) (NC)					1													
5B	5162984	FLYWHEEL ASSY. (SAE #2) (NC)						1												
5B	5109973	FLYWHEEL ASSY. (SAE #2) (NC)							1											
5A	5179194	+ FLYWHEEL ASSY. (SAE #3) (NC)								1										
5A	5136522	FLYWHEEL ASSY. (SAE #3) (C)									1									
5B	5109028	FLYWHEEL ASSY. (SAE #2) (NC)											1							
5A	5130802	FLYWHEEL ASSY. (SAE #3) (NC)(SD-235)													1					
5A	5179301	FLYWHEEL ASSY. (SAE #3) (NC)(SD-234)															1			
5A,B	5126671	PLATE, SCUFF (BOLT RETAINER)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9409129	BOLT, LOCK (1 3/4" L) (12.9001)											6							
5A,B	9409512	BOLT, LOCK (2" L) (12.9001)							6	6										
5A,B	9412018	BOLT, LOCK (2 1/4" L) (12.9001)	6		6	6									6	6	6			
5A,B	9412020	BOLT, LOCK (3" L) (12.9001)		6																
5A,B	9415174	BOLT, LOCK (3 1/2" L) (12.9001)										6								
5A,B	9409213	BOLT, LOCK (4" L) (12.9001)					6													
		+ OBSOLETE.																		
		* NOT SERVICED, USE 5149203 AND 5116301.																		
		+ NOT SERVICED, USE 5149205 AND 5116301.																		

1.4010 - GEAR, FLYWHEEL RING

5A,B	5116302	GEAR (SAE #2 - 138 TEETH)	1					1	1											
5A,B	5116301	GEAR (SAE #3 - 126 TEETH)		1	1	1	1	1												
	5136556	GEAR (SAE #3 - 126 TEETH)											1			1	1	1		

1.4075 - DISC, FLYWHEEL FLEXIBLE COUPLING

	5122072	DISC					1													
	5136910	DISC											1							
	5170518	DISC					3													
	9409079	BOLT, 3/8"-16X7/8" LOCK (12.9001)											8							
	6836873	PACKAGE, 3/8"-24 HEX. CONE LOCK NUT (6 NUTS PER PKG.) (9.4002)					1													

TYPES

1.5000A FLYWHEEL HOUSING

PART		TYPES												
FIG	NUMBER	NAME AND DESCRIPTION												
		4 1 6	4 2 4	4 2 6	4 3 3	4 4 6	4 4 7	4 5 1	4 5 4	4 6 7	4 7 0	4 8 9		
	1.5050	COVER, FLYWHEEL HOUSING SMALL HOLE (CONT'D)												
		6-186625 BOLTS AND 6-103320 LOCKWASHERS.												
	1.5060	GASKET, FLYWHEEL HOUSING SMALL HOLE COVER												
5116391	GASKET		2		2	2	2			2		2		
5135935	GASKET (TACHOMETER COVER) (1.4455)	1												
5133082	GASKET						1							
	1.5096	HOSE, FLYWHEEL HOUSING DRAIN												
5164194 @	HOSE, 3/8" I.D.X14' (1.1060)												1	
	(5124238)													
5120998	ELBOW, HOSE CONNECTOR 90 DEG. (1.1100)												1	
	@ NOT SERVICED, STANDARD LENGTH HOSE SHOWN IN PARENTHESES WILL BE PROVIDED.													

1.5000A FLYWHEEL HOUSING

PART		NAME AND DESCRIPTION	TYPES											
FIG	NUMBER		4	9	0	1	2	3	4	5	6	7	8	9
		1.5001 - HOUSING, FLYWHEEL												
5A	5146903	HOUSING, (SAE #3) 2,3,4-53	1	1										
15014 →	5145011	PLUG, 3/8" PIPE (12.9550)	1	1										
12549 →	5145013	PLUG, 3/4" PIPE (12.9550)	1	1										
	5146846	PLUG, 1 1/4" PIPE (12.9550)	1	1										
	427588	BOLT, 3/8"-16X2 1/2" (12.9001)	6	6										
	179838	BOLT, 3/8"-16X7/8" (12.9001)	5	5										
	9409126	BOLT, 5/16"-18X2 1/2" (12.9001)	2	2										
	9414215	BOLT, 3/8"-16X2 1/2" (12.9001)	4	4										
	5170489	BOLT, 3/8"-24X3 9/16" (12.9001)	3	3										
	5101779	BOLT, 3/8"-16X7/8" LOCK (12.9001)	1	1										
	103321	LOCKWASHER, 3/8" (12.9200)	AR	AR										
	103321	LOCKWASHER 3/8" (12.9200)		10										
		1.5002 - SHIM, FLYWHEEL												
	5123802	SHIM	1	1										
		1.5010 - GASKET, FLYWHEEL HOUSING												
	5121334	GASKET, 2,3,4-53	1	1										
		1.5020 - GASKET, FLYWHEEL HOUSING BELL												
	5127184	GASKET, 2,3,4-53	1	1										
		1.5030 - COVER, FLYWHEEL HOUSING LARGE HOLE												
	5122281	COVER	1	1										
	179857	BOLT, 7/16"-14X1" (12.9001)	2	2										
	100158	BOLT, 1/2"-13X1" (12.9001)	8	48										
15108 →	5150568	WASHER, 7/16" UPPER (2.4050)	2	2										
	103323	LOCKWASHER, 1/2" (12.9200)	8	8										
		1.5040 - GASKET, FLYWHEEL HOUSING LARGE HOLE COVER												
5104506	5117001	GASKET	2	2										
		1.5050 - COVER, FLYWHEEL HOUSING SMALL HOLE												
	5116411	COVER	2	2										
	186625	BOLT, 5/16"-18X7/8" (12.9001)	4	4										
	103320	LOCKWASHER, 5/16" (12.9200)	4	4										

1.5000A FLYWHEEL HOUSING

PART		TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	4	9	0	1	2	3	4	5	6	7	8
	1.5060	GASKET, FLYWHEEL HOUSING SMALL HOLE COVER											
	5116391	GASKET	2	2									

~~PART~~

FIG	NUMBER	NAME AND DESCRIPTION
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
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15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
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23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
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31	31	31
32	32	32
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68	68	68
69	69	69
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73	73	73
74	74	74
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76	76	76
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78	78	78
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81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

5175471	ADAPTOR (SAE #2 TO SAE #4)
5116113	ADAPTOR (SAE #4 TO WARNER GEAR)
5125207	ADAPTOR (SAE #3 TO WARNER GEAR)
5131388	+ ADAPTOR (SAE #3)
5131324	+ ADAPTOR (SAE #3)
179839	BOLT, 3/8"-16X7/8" (12.9001)
186679	BOLT, 3/8"-16X1 1/4" (12.9001)
103321	LOCKWASHER, 3/8" (12.9200)
	+ OBSOLETE

. TYPES

[illegible]

1.6000 CONNECTING ROD AND PISTON

PART
FIG NUMBER NAME AND DESCRIPTION

1.6001 - CONNECTING ROD ASSY.

QUANTITIES SHOWN ARE PER CYLINDER.
A ROD ASSY. INCLUDES CAP AND
ORIFICE WHICH ARE NOT SOLD
SEPARATELY, PLUS ITEMS IN 1.6001,
1.6010 AND 1.6040.

6A 5121262 ROD ASSY., 2,3,4-53 1 1 1 1 1 1 1 1 1 1
6A 5121381 ROD ASSY., 2-53 1 1 1 1 1 1 1 1 1 1
6A 5128517 # ROD ASSY., 6V53 1 1 1 1 1 1 1 1 1 1
6A 5133109 ROD ASSY., 6,8V53 1 1 1 1 1 1 1 1 1 1
6A 5121210 & BOLT, 5/16"-24X2.90"L 2 2 2 2 2 2 2 2 2 2
6A 5128339 % BOLT, 5/16"-24X2.81"L 2 2 2 2 2 2 2 2 2 2
6A 5197852 BOLT, 3/8"-24X2.76"L 2 2 2 2 2 2 2 2 2 2
6A 5121211 NUT, 5/16"-24 HEX. 2 2 2 2 2 2 2 2 2 2
6A 839103 NUT (3/8"-24 HEX.) 2 2 2 2 2 2 2 2 2 2

NOT SERVICED, REPLACE WITH
5133109.

& THRU 6D-306.

% EFFECTIVE WITH 6D-307.

1.6010 - NOZZLE, CONNECTING ROD SPRAY

6A 5150140 NOZZLE 2 2 2 2 2 2 2 2 2 2

1.6040 - BUSHING, CONNECTING ROD PISTON PIN

6A 5116181 BUSHING 2 2 2 2 2 2 2 2 2 2

1.6100 - SHELL, CONNECTING ROD BEARING

A SHELL SET CONSISTS OF ONE UPPER
AND ONE LOWER SHELL.

6A 5121247 SHELL, UPPER (STD.) 1 1 1 1 1 1 1 1 1 1
6A 5116187 SHELL, LOWER (STD.) 1 1 1 1 1 1 1 1 1 1
6A 5196652 SHELL, UPPER (.002"U.S.) AR AR AR AR AR AR AR AR AR AR
6A 5196653 SHELL, LOWER (.002"U.S.) AR AR AR AR AR AR AR AR AR AR
6A 5196654 SHELL, UPPER (.010"U.S.) AR AR AR AR AR AR AR AR AR AR
6A 5196655 SHELL, LOWER (.010"U.S.) AR AR AR AR AR AR AR AR AR AR
6A 5196656 SHELL, UPPER (.020"U.S.) AR AR AR AR AR AR AR AR AR AR
6A 5196657 SHELL, LOWER (.020"U.S.) AR AR AR AR AR AR AR AR AR AR
6A 5196658 SHELL, UPPER (.030"U.S.) AR AR AR AR AR AR AR AR AR AR
6A 5196659 SHELL, LOWER (.030"U.S.) AR AR AR AR AR AR AR AR AR AR
6A 5133101 SHELL, UPPER (STANDARD) 1 1 1 1 1 1 1 1 1 1
6A 5133098 SHELL, LOWER (STANDARD) 1 1 1 1 1 1 1 1 1 1
6A 5197963 SHELL, UPPER (.002"U.S.) AR AR AR AR AR AR AR AR AR AR

1.6000 CONNECTING ROD AND PISTON

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	2 5	2 6	2 7	2 9	3 5	5 3	5 6	5 8	5 9	6 0	6 1	6 2
1.6100 - SHELL, CONNECTING ROD BEARING (CONT'D)														
6A	5197964	SHELL, LOWER (.002"U.S.)					AR		AR	AR	AR	AR		AR
6A	5197965	SHELL, UPPER (.010"U.S.)					AR		AR	AR	AR	AR		AR
6A	5197966	SHELL, LOWER (.010"U.S.)					AR		AR	AR	AR	AR		AR
6A	5197967	SHELL, UPPER (.020"U.S.)					AR		AR	AR	AR	AR		AR
6A	5197968	SHELL, LOWER (.020"U.S.)					AR		AR	AR	AR	AR		AR
6A	5197969	SHELL, UPPER (.030"U.S.)					AR		AR	AR	AR	AR		AR
6A	5197970	SHELL, LOWER (.030"U.S.)					AR		AR	AR	AR	AR		AR
	5195929	SHELL SET (STANDARD)	AR	AR	AR	AR		AR					4 AR	
	5196664	SHELL SET (.002"U.S.)	AR	AR	AR	AR		AR					AR	
	5196665	SHELL SET (.010"U.S.)	AR	AR	AR	AR		AR					AR	
	5196666	SHELL SET (.020"U.S.)	AR	AR	AR	AR		AR					AR	
	5196667	SHELL SET (.030"U.S.)	AR	AR	AR	AR		AR					AR	
	5197975	SHELL SET (STANDARD)					AR		AR	AR	AR	AR		AR
	5197976	SHELL SET (.002"U.S.)					AR		AR	AR	AR	AR		AR
	5197977	SHELL SET (.010"U.S.)					AR		AR	AR	AR	AR		AR
	5197978	SHELL SET (.020"U.S.)					AR		AR	AR	AR	AR		AR
	5197979	SHELL SET (.030"U.S.)					AR		AR	AR	AR	AR		AR
1.6110 - PISTON ASSY.														
A PISTON ASSY. INCLUDES BUSHING IN 1.6145 AND RETAINER IN 1.6150. VAPOR BLASTED BUSHINGS (TYPES 58, 59, 94) NOT SERVICED SEPARATELY.														
6A	5195931	PISTON ASSY. (STANDARD) 2,3,4,6V53	1	1	1	1	1					1		
6A	5198877	PISTON ASSY. ("N" ENGINE) 3,4,6,8V53						1	1				1	1
6A	5198572	PISTON ASSY. (TURBO, VAP BLAST) 4,6V53								1	1			
1.6115 - RING SET, PISTON														
A PISTON RING SET CONSISTS OF SUFFICIENT RINGS FOR ONE (1) CYLINDER.														
	5198822	RING SET	AR	AR	AR	AR	AR					AR	AR	AR
	5198902	RING SET						AR	AR					
	5198901	RING SET (STANDARD TURBO)								AR	AR			
1.6120 - RING, PISTON COMPRESSION														
6A	5103382	RING (FIRE RING)	1	1	1	1	1	1	1	1	1	1	1	1
6A	5116184	RING (CHROMED) (2ND, 3RD AND 4TH)	3	3	3	3	3	3	3	3	3	3	3	3
6A	5127147	RING (CAST IRON) (3RD AND 4TH)	AR	AR	AR	AR	AR							

1.6000 CONNECTING ROD AND PISTON

PART FIG . . . NUMBER NAME AND DESCRIPTION			TYPES											
			2 5	2 6	2 7	2 9	3 5	5 3	5 6	5 8	5 9	6 0	6 1	6 2
		1.6120 - RING, PISTON COMPRESSION (CONT'D)												
		* OPTIONAL FOR SERVICE-USE FOR LOWER TWO COMPRESSION GROOVES ONLY.												
		1.6130 - RING, PISTON OIL CONTROL												
		AN OIL CONTROL RING SET CONSISTS OF RINGS FOR ONE (1) CYLINDER.												
		AN OIL CONTROL RING CONSISTS OF TWO (2) SCRAPERS AND ONE (1) EXPANDER.												
6A	5195933	RING	2	2	2	2	2	2	2	1	1	2	2	2
6A	5198092	RING SET												
		1.6140 - PIN, PISTON												
6A	5116189	PIN	1	1	1	1	1	1	1	1	1	1	1	1
		1.6145 - BUSHING, PISTON PIN												
6A	5116181	BUSHING (1.6040)	2	2	2	2	2	2	2			2	2	2
		1.6150 - RETAINER, PISTON PIN												
6A	5180250	RETAINER	2	2	2	2	2	2	2	2	2	2	2	2
		1.6180 - LINER, CYLINDER												
6A	5132803	LINER (STANDARD)	1	1	1	1	1	1	1	1	1	1	1	1
6A	5101016	LINER (.010" O.S., O.D.)	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
		1.6182 - CYLINDER KIT												
		A CYLINDER KIT CONSISTS OF ITEMS IN 1.6110, 1.6115, 1.6120, 1.6140, 1.6180 AND 1.6190 FOR ONE (1) CYLINDER.												
	5198903	CYLINDER KIT (STD., 17:1 RATIO)	AR	AR	AR	AR	AR					AR		
	5198899	CYLINDER KIT ("N" ENGINES)											AR	AR
	5197341	CYLINDER KIT (17.5:1 RATIO) 4.6V53								AR	AR			

1.6000 CONNECTING ROD AND PISTON

PART			TYPES											
..FIG ..	NUMBER	NAME AND DESCRIPTION	2 5	2 6	2 7	2 9	3 5	5 3	5 6	5 8	5 9	6 0	6 1	6 2
	1.6182	- CYLINDER KIT (CONT'D)												
	5198904	CYLINDER KIT (21:1, DEEP BOWL) 3,4,6V53						AR	AR					
	1.6190	- SEAL, CYLINDER LINER												
6A	5121256	# SEAL # FOR ALUMINUM CYLINDER BLOCKS DOUBLE THE QUANTITIES SHOWN.	1	1	1	1	1	1	1	1	1	1	1	1

1.7000 CAMSHAFT AND GEAR TRAIN

PART NUMBER NAME AND DESCRIPTION			TYPES											
			1 0 6	1 3 7	1 3 8	1 3 9	1 4 0	1 4 1	1 5 0	1 5 1	1 5 2	1 5 3	1 8 2	1 9 1
1.7001 - CAMSHAFT ASSY.														
A CAMSHAFT ASSY. INCLUDES PLUG IN 1.7001.														
	5149093	CAMSHAFT ASSY. 3-53 LB-LC-RA-RD ENG.							1		1			
	5149091	CAMSHAFT ASSY. 3-53 LA-LD-RB-RC ENG.								1				
	5149095	CAMSHAFT ASSY. 4-53 RA-RB-RC-RD ENG.		1	1	1	1	1				1	1	
	5199397	CAMSHAFT ASSY., 6V-53 V7L (R. BANK R.H. ENG., L. BANK L.H. ENG.)												1
	5199398	CAMSHAFT ASSY., 6V-53 V7L (L. BANK R.H. ENG., R. BANK L.H. ENG.)												1
7A,B	5132505	CAMSHAFT ASSY., 8V53 (R.H. ENG.)	2											
	5151277	PLUG (1/2" DRIVE)	4	2	2	2	2	2	2	1	2	2	2	4
1.7010 - BEARING, CAM AND BALANCER SHAFT														
A SET INCLUDES ALL END AND INTERMEDIATE BEARINGS WHICH ARE NOT SOLD SEPARATELY.														
7A	5198209	BEARING SET (STD. 3-53)							1 AR AR	1 AR AR	1 AR AR			
	5198980	BEARING SET (STD. I.D., O.D.)												
7A	5198470	BEARING SET (.010" U.S. I.D., STD., O.D.)												
7A	5198471	BEARING SET (.020" U.S. I.D. STD. O.D.)												
	5198984	BEARING SET (STD. 4-53)		1 AR AR	1 AR AR	1 AR AR	1 AR AR	1 AR AR						
	5198979	BEARING SET (STD. I.D. O.D.)												
	5198978	BEARING SET (.010" U.S. I.D. STD. O.D.)												
	5198981	BEARING SET (.020" U.S. I.D. STD. O.D.)												
	5197930	BEARING SET (STD. 8V-53)												
	5197931	BEARING SET (.010" U.S. I.D. STD. O.D.)	1 AR AR											
7B	5197932	BEARING SET (.020" U.S. I.D. STD. O.D.)												
	5199006	BEARING SET (STD I.D., O.D.)												
1.7030 - WASHER, CAM AND BALANCE SHAFT END BEARING THRUST														
7A,B	5116198	WASHER	2	2	2	2	2	2	2	2	2	2	2	2
7A,B	9409028	BOLT, 3/8"-16X1"(12.9001)	4	4	4	4	4	4	4	4	4	4	4	4

1.7000 CAMSHAFT AND GEAR TRAIN

PART		TYPES												
FIG	NUMBER	NAME AND DESCRIPTION	1 0 6	1 3 7	1 3 8	1 3 9	1 4 0	1 4 1	1 5 0	1 5 1	1 5 2	1 5 3	1 8 2	1 9 1
		1.7060 - SEAL, CAM AND BALANCER OIL												
4C	5118476	SEAL, OIL (FRONT 3,4,6-53)		2	X	2	2	2				2	2	
	5134338	SEAL, OIL (FRONT) (8V-53)	2											
	5106223	SEAL, OIL (FRONT)		2										
		1.7061 - SLINGER, CAM AND BALANCER SHAFT OIL												
7A,B	5134388	SLINGER	2	2	2	2	2	2	2	2	2	2	2	2
		1.7062 - SPACER, CAM AND BALANCER SHAFT PULLEY												
7A,B	5121071	SPACER	2	2	2	2	2	2	2	2	2	2	2	2
		1.7080 - SHAFT, BALANCER												
7A	5121074	SHAFT, 4-53		1	1	1	1	1				1	1	
	5121073	SHAFT, 3-53							1	1	1			
		1.7130 - PULLEY, FRONT BALANCE												
7B	5133305	PULLEY	2											
	5121095	PULLEY		2	2	1	1	2				2	1	
	5139572	PULLEY					1							
	5121108	PULLEY							2	1	2		1	
	5104254	PULLEY												
7B 7A,B	5121109	PULLEY												2
	218217	KEY, 3/16 X5/8 WOODRUFF (12.9350)	2	2	4	2	2	2	2	2	2	2	2	4
	5150087	NUT (1.7140)	2	2	4	2	2	2	2	2	2	2	2	4
		1.7140 - WEIGHT, FRONT BALANCER												
	5109504	WEIGHT (ON CAMSHAFT)				1								
	5162737	WEIGHT (ON CAMSHAFT)								1				
		1.7190 - WEIGHT, REAR BALANCER												
7C	5119277	WEIGHT (OUTER) .2391" THICK, 2 HOLES			2			2	2		1	2		
7C	5119278	WEIGHT (INNER) .2242" THICK, 5 HOLES	2	2	2	2	2				2	2		
7C	5109874	WEIGHT (.1345" THICK, 3 HOLES)		4		4	4			2	1		2	
7C	9409028	BOLT, 3/8"-16X1" LOCK (12.9001)							4	2				4
7C	9409131	BOLT, 3/8"-24X3/4" LOCK (12.9001)							4	2				
	9409035	BOLT, 3/8"-24X1" LOCK (12.9001)		4		4	4					4		
7C	9409215	BOLT, 3/8"-24X1 1/4" LOCK (12.9001)			4			4						

1.7000 CAMSHAFT AND GEAR TRAIN

PART			TYPES											
FIG	NUMBER	NAME AND DESCRIPTION	1 0 8	1 3 7	1 3 8	1 3 9	1 4 0	1 4 1	1 5 0	1 5 1	1 5 2	1 5 3	1 8 2	1 9 1
1.7200 - GEAR, CAMSHAFT AND BALANCER SHAFT														
7C	5135324	GEAR (R.H. HELIX)(R. BANK R.H. ENG.)	1											
7C	5135325	GEAR (L.H. HELIX)(L. BANK R.H. ENG.)	1											
	5133387	GEAR (R.H. HELIX) (R. BANK CAMSHAFT R.H. ENG., L. BANK CAMSHAFT L.H.ENG.)		1	1	1	1	1	1	1	2	1	1	
	5133388	GEAR (L.H. HELIX) (L. BANK CAMSHAFT, R.H. ENG., R. BANK CAMSHAFT L.H.ENG.)		1	1	1	1	1	1	1	2	1	1	
7A,B	218217	KEY, 3/16 X5/8 WOODRUFF (12.9350)	2	2	X	2	2	2	2	2	2	2	2	2
7A,B	5150087	NUT (1.7140)	2											
1.7202 - SPACER, CAMSHAFT GEAR														
7A,B	5121077	SPACER	2	1	1	1	1	1	1	1	1	1	1	2
1.7207 - RETAINER, CAM AND BALANCER SHAFT GEAR NUT														
7A,B	5172734	RETAINER	2		2		2	3			2	2		
7A,B	181360	BOLT, 3/8"-24X3/4" (12.9001)	4					4			4			
7A,B	103321	LOCKWASHER, 3/8 (12.9200)	4		4		4	4			4	4		
7A,B	181361	BOLT, 3/8"-24X7/8" (12.9001)			2		4					4		
1.7220 - GEAR ASSY., IDLER														
INCLUDES BEARING IN 1.7225. AN 8V-53 GEAR ASSY. ALSO INCLUDES ITEMS IN 1.7222, 1.7227 AND 1.7250.														
	5146899	GEAR ASSY. (L.H. HELIX)	1											
	5135227	GEAR ASSY.		1										
1.7222 - GEAR, IDLER														
7G	5132620	GEAR (L.H. HELIX)	1											
1.7225 - BEARING, IDLER GEAR														
7G	9433162	BEARING ASSY.	1											
7G	5196793	BEARING ASSY.		1	1	1	1	1	1	1	1	1	1	1
7G	5132504	WASHER		1	X	1	1	1	1	2	2	2	2	1
1.7227 - RETAINER, IDLER GEAR BEARING														
7G	5132621	RETAINER	1											
7G	5132708	BOLT, 1/4 -28X1 NYLON	6											

1.7000 CAMSHAFT AND GEAR TRAIN

PART		TYPES												
FIG	NUMBER	NAME AND DESCRIPTION	1 0 8	1 3 7	1 3 8	1 3 9	1 4 0	1 4 1	1 5 0	1 5 1	1 5 2	1 5 3	1 8 2	1 9 1
		1.7250 - HUB, IDLER GEAR												
7G	5132622	HUB	1											
	5124458	HUB		1	1	1	1	1	1	1	1	1	1	1
7F	5157244	BOLT (4.4190)	1	1	1	1	1	1	1	1	1	1	1	1
		1.7260 - SPACER, IDLER												
	5116220 *	SPACER						1						
	5157244 *	BOLT (4.4190)						1						
		* NOT REQUIRED IN ANY TYPE WITH FLYWHEEL HOUSING HAVING INTEGRAL IDLER GEAR HOLE SPACER.												

1.8000 VALVE OPERATING MECHANISM

			TYPES							
IG	PART NUMBER	NAME AND DESCRIPTION	6 2	6 5	7 2	7 4	7 6	1 2 2	1 2 9	1 4 5
	1.8060	ARM ASSY., EXHAUST VALVE INCLUDES ITEMS IN 1.8130, 1.8140, 1.8150 AND 1.8343.								
9A	5119307	ARM ASSY., 2,3,4-53 (LEFT)(ITEM 1) (2 VALVE)			3	4				
9A	5119308	ARM ASSY., 2,3,4-53 (RIGHT)(ITEM 2) (2 VALVE)			3	4				
	5135288	ARM ASSY., 3,4,6,8V53 (RIGHT) (4 VALVE)	4	6			3	4	3	3
	5135267	ARM ASSY., 3,4,6,8V53 (LEFT) (4 VALVE)	4	6			3	4	3	3
	1.8080	ARM ASSY., INJECTOR ROCKER INCLUDES ITEMS IN 1.8110 THRU 1.8150.								
9A	5179954	ARM ASSY.	4	6	3	4	3	4	3	3
	1.8110	BUSHING, INJECTOR ROCKER ARM-LARGE								
9A	5150318	BUSHING	4	6	3	4	3	4	3	3
	1.8120	BUSHING, INJECTOR ROCKER ARM-SMALL								
9A	5150311	BUSHING	4	6	3	4	3	4	3	3
	1.8130	CLEVIS, INJECTOR AND EXHAUST VALVE ROCKER ARM								
	5150312	CLEVIS	12	18	9	12	9	12	9	9
	1.8140	BUSHING, INJECTOR AND EXHAUST VALVE ROCKER ARM CLEVIS								
9A,C	5123700	BUSHING	20	30	9	12	15	20	15	15
	1.8150	PIN, INJECTOR AND EXHAUST VALVE ROCKER ARM CLEVIS								
9A	5150314	PIN (CLEVIS END)	12	18	9	12	9	12	9	9
9A,C	5123711	PIN (BRIDGE END)	8	12			6	8	6	6

1.8000 VALVE OPERATING MECHANISM

PART NUMBER		NAME AND DESCRIPTION	6 2	6 5	7 2	7 4	7 6	1 2 2	TYPES		1 2 9	1 4 5
1.8160 - SHAFT, ROCKER												
A SHAFT ASSY. INCLUDES PLUG IN 1.8160.												
9A	5116072	SHAFT ASSY.	4	6	3	4	3	4	3	3		
	5151272	PLUG	4	6	3	4	3	4	3	3		
1.8170 - BRACKET, ROCKER SHAFT												
9A	5116128	BRACKET	8	12	6	8	6	8	6	6		
9A	5119198	BOLT	8	12	6	8	6	8	6	6		
1.8180 - ROD, PUSH												
9A	5128640	ROD	12	18	9	12	9	12	9	9		
9A	5151601	LOCKNUT	12	18	9	12	9	12	9	9		
1.8190 - SPRING, PUSH ROD												
9A	5108918 *	@ SPRING (2 ORANGE STRIPES)(VALVE AND INJECTOR)	12	18	9	12	9	12	9	9		
		* EFFECTIVE WITH 2D-14188, 3D-6128, 4D-8549, 6D-2709.										
		@ MUST BE USED WITH 5108919 SEAT.										
1.8200 - SEAT, PUSH ROD SPRING-UPPER												
	5108919 *	SEAT (VALVE AND INJECTOR)	12	18	9	12	9	12	9	9		
		* EFFECTIVE WITH 2D-14188, 3D-6128, 4D-8549, 6D-2709.										
1.8210 - SEAT, PUSH ROD SPRING-LOWER												
9A	5123250	SEAT	12	18	9	12	9	12	9	9		
1.8250 - RETAINER, PUSH ROD												
9A	5150303	RETAINER (SNAP RING)	12	18	9	12	9	12	9	9		
1.8280 - FOLLOWER ASSY., CAM												
9A	5115087	FOLLOWER ASSY. (INCLUDES ROLLER SET)	12	18	9	12	9	12	9	9		