

CATALOG NO.
CA0040
JANUARY 2010



DETROIT DIESEL TWO-CYCLE ENGINES

Replacement Parts Catalog

GLOBAL TECHNOLOGY behind every part

 **FEDERAL
MOGUL**

RELY ON US TO PROTECT YOUR INVESTMENT.



Maximizing your equipment investment means finding the best replacement components. That's why OTR fleets choose FP Diesel®

FP Diesel components and kits help fleets of all sizes maximize their capital investment by rebuilding rather than replacing their hardest-working engines. They're designed using the latest in computer-aided design (CAD) and computer-aided engineering (CAE) technology, and are thoroughly researched to meet the most demanding specifications. And they're proven to perform.

With FP Diesel you're getting a better solution in the form of premium technologies engineered to address the unique demands and operating environments of each engine. It's an investment you can make with confidence.



Complete Overhaul and In-frame kits | Cylinder kits | Pistons
Piston rings | Cylinder liners | Gaskets | Engine bearings
Crankshafts | Camshafts | Water pumps | Thermostats
Oil pumps | Fuel pumps | Fuel injectors | Valves
Valvetrain components

***Call us today for the complete range of
FP Diesel replacement engine components!***





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How To Use This Catalog

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The header for each block listed is designed to help you identify the correct engine application. Special information regarding a specific part is located to the right of the part number listing. Also included for help in finding the correct parts are engine illustrations that include reference numbers corresponding to the reference numbers located next to the part number listings. If available, ENGINE KIT listings are located at the back of the catalog.

Engine components are grouped in the following order:

- 1st. Engine Block and Parts
- 2nd. Cylinder Head and Parts
- 3rd. Crankshaft/Oil Pump and Related Parts
- 4th. Cylinder Components (incl. Rod Bearings, Cylinder Sleeves, Pistons, Piston Rings)
- 5th. Camshaft Group
- 6th. Valve Train Components
- 7th. Fuel System, Fuel Injectors, Governors and Parts
- 8th. Intake & Exhaust Manifolds incl. Blowers and Parts
- 9th. Oil Pump and Related Parts
- 10th. Cooling System incl. Raw, Fresh Water Pumps and Parts
- 11th. Intake & Exhaust Manifolds

The catalog is sorted by ENGINE SERIES with serial number identification charts in front of each section. Many of the part descriptions will include serial numbers listings to provide absolute assurance that the correct part is being used.

General Information

This catalog is designed to identify the major components, assemblies and kits used in Detroit Diesel 2-cycle engines including the 53, 71, 71V, 92 and 149 Series engines and their respective variants.

The catalog includes all of the parts and kits available from FP Diesel for the Detroit Diesel 2-cycle engines. For reference purposes, the illustrations and tables in this catalog may also include parts and assemblies not currently available from FP Diesel, so that you can identify other parts as needed.

The catalog is organized by engine model. Each section is subdivided into groups that coincide the various engine assemblies and components.

FP Diesel uses a part numbering system similar to Detroit Diesel's OEM number. In most instances, the number is the same except that the suffix of the Detroit Diesel number is omitted (when it serves no applicable purpose). For example:

Detroit Diesel OEM Part Number 5109409

FP Diesel Part Number FP-5109409

All manufacturers numbers, names, symbols and descriptions are used for reference purposes only. It is not implied that any part listed is the product of any specific manufacturer.

All information contained in this catalog is based on the latest data available at the time of printing. Although care has been taken to ensure the accuracy of the data compiled in this catalog, Federal Mogul does not assume liability for errors or omissions.

IMPORTANT NOTICE

This catalog does not replace the Detroit Diesel parts catalogs or service materials. If in doubt, reference your Detroit Diesel OEM publications.





FP Diesel Philosophy

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FP Diesel – part of the Federal-Mogul Engine Systems group – is the industry's leading brand of premium heavy-duty replacement engine parts and gaskets, providing total engine system solutions for such well-known brands as Case®, Caterpillar®, Cummins®, Detroit Diesel®, International®, John Deere®, Komatsu®, Mack®, Waukesha® and White Superior®.

Federal-Mogul maintains a steadfast commitment to unsurpassed product quality and customer service. We serve construction, marine, agricultural, mining, gas compression, trucking and industrial markets around the globe. As the global leader in heavy-duty powertrain systems, Federal-Mogul is instrumental in the development of every new generation of gasoline and diesel engine technology. When you choose FP Diesel, you get unparalleled global engineering and manufacturing resources built into every product.

Today's heavy duty market demands performance. Performance means precision-engineered parts that meet your demanding specifications; and are backed by a team of knowledgeable customer service representatives who can provide technical information and assistance; computerized order and inventory tracking for fast and accurate order fill; unprecedented warranty programs and a company-wide commitment to customer satisfaction.



Construction



Agriculture



On-Highway



Marine

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Manufacturing

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Precise manufacturing and fabricating techniques, rigorous quality control procedures, utilization of the latest CAD technology and innovative solutions to industry challenges – coupled with Federal-Mogul's global manufacturing capabilities – have established FP Diesel as the industry leader in the heavy duty market.

FP Diesel applies stringent quality control procedures with expertly skilled technicians supervising the manufacturing process in all phases to ensure that our parts will perform and last.

FP Diesel is a military approved supplier for the 53 Series Detroit Diesel engine. But the parts we supply for the 53 aren't the only ones that go through government testing. Every FP Diesel part must pass through high-level quality control. Plus, every part is tracked throughout the entire distribution process.

Customer service

FP Diesel customer service representatives are among the most experienced and knowledgeable in the industry, with hands-on heavy-duty experience and in-depth knowledge of engine parts and applications. With one call to your representative you'll have answers to any product, technical,

order processing, billing, warranty, pricing, order tracking or availability questions you may have. Customer service that goes the extra mile also means you not only get the parts you need, but expert assistance from a person who knows the heavy duty market.

Plus, our computerized inventory system allows us to ship your order promptly anywhere in the world, while our easy-to-use cataloging system makes ordering FP Diesel parts fast and simple. For the parts and information you need, count on FP Diesel to go the extra mile.





Coverage

The FP Diesel product offering is a comprehensive line of diesel and natural gas engine replacement parts that provides all the coverage necessary to meet your heavy-duty engine rebuilding needs. FP Diesel also offers a full line of gaskets and elastomeric products. For more specific information, please refer to our full-line catalogs, which are engine and machine specific and follow OEM format. To ensure exact part number replacement, these catalogs reference OEM part numbers and features technical information related to the specific engine being serviced.



Products

Caterpillar

Replacement Caterpillar products cover 3200, 3300, 3400, 3500, D Series and G Series engines. This coverage extends from cylinder heads, fuel injection, cam and crankshafts, cylinder kits, valvetrain and electrical to engine bearings, transmission, hydraulic gasket sets and more. Refer to FP Diesel catalog No. CA0010 (parts) and CA0020 (gaskets).

Cummins

FP Diesel provides replacement parts coverage for V378, V504, V555, Small Vee Engines, V/VT 903, 855 Series, N14, L10, B Series, C Series, V/VT1710, N743 and K/KTA 18-, 38- and 50-liter engines, as well as components for Jacobs® brakes. Refer to FP Diesel catalog No. CA0030.

Detroit Diesel

FP Diesel offers the most complete coverage in the replacement parts industry for Detroit Diesel, with an extensive line of components and kits for the 8.2-liter, 53 Series, 60 Series, 71 Series, 92 Series and 149 Series engines. Refer to FP Diesel catalog No. CA0040 for 2-cycle engines or FP Diesel catalog No. CA0045 for 4-cycle engines.

John Deere

FP Diesel offers a broad range of in-frame and complete overhaul kits and related components for 300 Series, 400 Series, 500 Series and Powertech engines is available from FP Diesel. Refer to FP Diesel catalog No. CA0085.

Komatsu

Extensive coverage for Komatsu S6D 155 and SA6D155 engines, as well as a full line of replacement parts for Komatsu machines using Cummins N743, KT/KTA 19-, 38- and 50-liter engines, and the Cummins 855. Refer to FP Diesel catalog No. CA0085.

Mack

FP Diesel has a broad line for Mack, early ENDT 675 and 676 engines, as well as parts for later EM6 with both two- and four-valve head configurations. Refer to FP Diesel catalog No. CA0060.

International

International coverage extends from the 6.9 and 7.3 liter, DT-360 and DT-466 through the 9.0 liter engine. Refer to FP Diesel catalog No. CA0050. For agricultural applications, FP Diesel also services the DT-414 and DT-436 Case/I.H. engines. For industrial and agricultural applications, refer to FP Diesel catalog No. SP188.

Case

FP Diesel has a complete range of kits and components for the 188, 207, 301, 366, 451 and 504-Case engines along with the 4-390 & 4T-390, 6-590 & 6T-590, 6T-830 & 6TA-830, LTA 10 and NTA 855 B/C III Cummins engines. Refer to FP Diesel catalog No. CA0095.

Commercial, Ag, Industrial Engines

The FP Diesel SP188 catalog contains all the engine manufacturers that are not covered in the other FP Diesel name-plate specific catalogs listed. These engine manufacturers include Allis-Chalmers, Bedford, Bendix-Westinghouse, Briggs & Stratton, Buda, Case Tractor, Chevrolet MD Truck, Climax, Continental, Dodge MD Truck, Ford Tractor, GMC MD Truck, Hercules, IHC Tractor, Isuzu Forklift, KHD, Kohler, LeRoi, Massey Ferguson, Mercedes, Mazda Forklift, Minneapolis-Moline, Mitsubishi, Novo, Oliver, Perkins, Superior, Thermo-King, Volvo, Waukesha, White and Wisconsin. All of the replacement engine components offered for each of these manufacturers is included in this catalog.





Engine Kits

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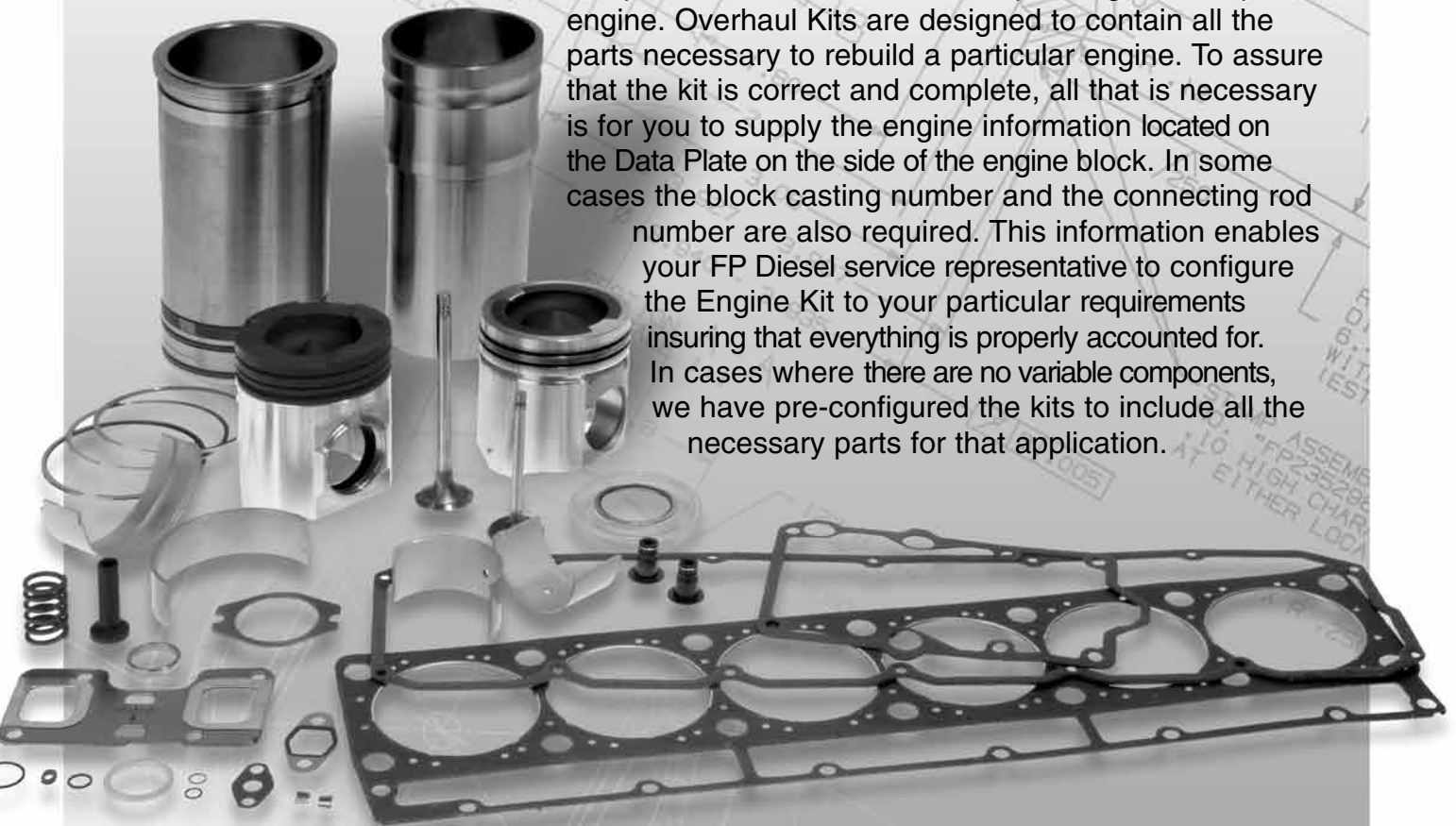
The FP Diesel Engine Kit program allows you to select a kit tailored to the job at hand. Whether performing a complete overhaul, or in-frame repair, our engine kits contain all the necessary components to complete the rebuild job. This comprehensive program provides you with the following:

- Concise application information
- One price look-up
- A full complement of oversizes and undersizes
- Master kits that include full gasket sets

Engine kits are listed at the back of this catalog and under the In-Frame and Overhaul specific sections.

How To Specify FP Diesel Engine Kits

Many FP Diesel engine kits have several variations in components that are available depending on the specific engine. Overhaul Kits are designed to contain all the parts necessary to rebuild a particular engine. To assure that the kit is correct and complete, all that is necessary is for you to supply the engine information located on the Data Plate on the side of the engine block. In some cases the block casting number and the connecting rod number are also required. This information enables your FP Diesel service representative to configure the Engine Kit to your particular requirements insuring that everything is properly accounted for. In cases where there are no variable components, we have pre-configured the kits to include all the necessary parts for that application.





Engine Bearings

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Engine Bearing Material Selection

When selecting engine bearings, most rebuilders concentrate on getting the proper clearances and maintaining adequate oil pressure. Durability is expected from any bearing chosen, and the advantages of different bearing materials may not be considered. If engine operating conditions are considered and bearing materials chosen accordingly, the likelihood of engine longevity is greater. No single material can be correct for every application. FP Diesel engine bearings are equal to or better than the

original equipment specifications for material and design. We also provide alternatives to address unique problems and special needs.

In heavy duty applications there are a number of materials that will do an excellent job. Each alloy has advantages in terms of resistance to corrosion, rate of wear and fatigue strength. The latter characteristic is critical in engines that operate under high loads, generate considerable heat and may be subjected to occasional detonation.

Bi-Metal Aluminum Alloys – Plated and Unplated

Diesel fuels, moisture, and engine “blow-by” introduce many contaminants into the crankcase. Aluminum engine bearing materials provide outstanding resistance to the corrosive effects of these substances, and are the product of choice for most current original equipment vehicle manufacturers. The modern bi-metal aluminum engine bearing contains silicon. As a result of using silicon, the alloy resists seizure and dramatically

reduces or eliminates bearing wear. This contributes to today's extended engine life. Aluminum is often the best material for a daily driven vehicle. Adding an overplate to an aluminum engine bearing will further enhance embedability and conformability. Continued efforts to remove lead from our environment guarantee that aluminum will become the preferred engine bearing material for most applications.





Engine Bearings

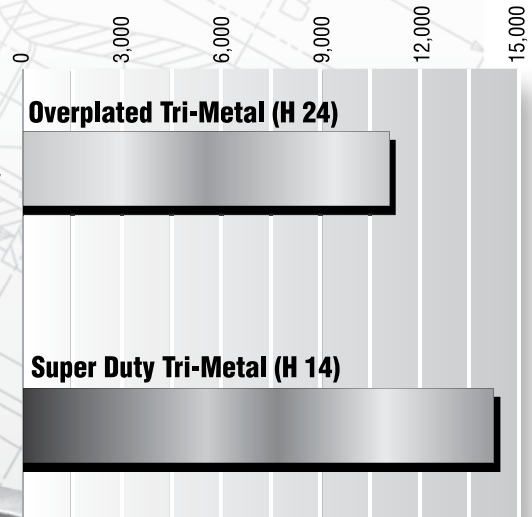
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Tri-Metal Alloys

Tri-Metal engine bearings, such as our H-14 and H-24 alloys, have excellent fatigue resistance, but are less resistant to corrosion damage than aluminum bearings. These bearing materials are accepted by engine builders worldwide, and are proven to be reliable in a wide range of uses. While OE manufacturers are moving to aluminum for their needs, many rebuilders still specify the tri-metal bearings for older engines.

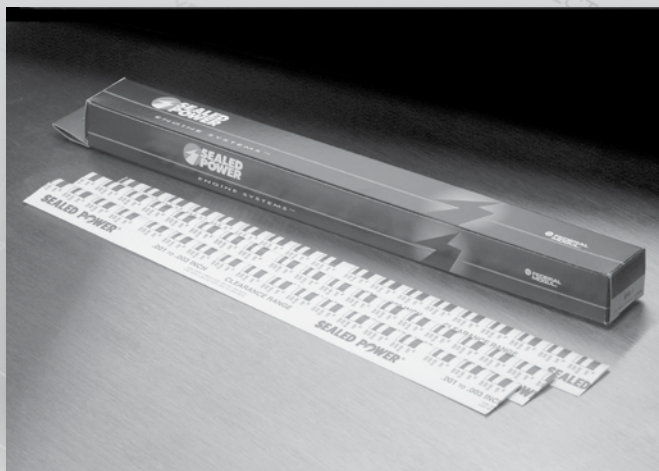
Typical Commercial Engine

Maximum Peak Load (PSI)



PLASTIGAGE

Sealed Power PLASTIGAGE® for High Performance Precision



A Quick and Accurate Method for Measuring Main and Connecting Rod Bearing Clearances.

Federal-Mogul offers Sealed Power Plastigage. It ends the guessing game when measuring clearances of main and connecting rod bearings. Specially formulated and oil soluble, Plastigage strips flatten precisely for accurate reading. Plastigage strips are available in four size ranges, packaged 12 to a carton, (enough to do 12 engines). Part number SPG-1 cartons contain strips in the .001-.003 inch range. Part number SPR-1 cartons hold strips in the .002-.006 inch range. SPB-1 cartons include strips in the .004-.009 inch range. SPY-1 cartons contain strips in the .009-.020 inch range. This complete range of sizes will fit every heavy duty engine.

SPG-1 .001-.003 in.

SPR-1 .002-.006 in.

SPB-1 .004-.009 in.

SPY-1 .009-.020 in.

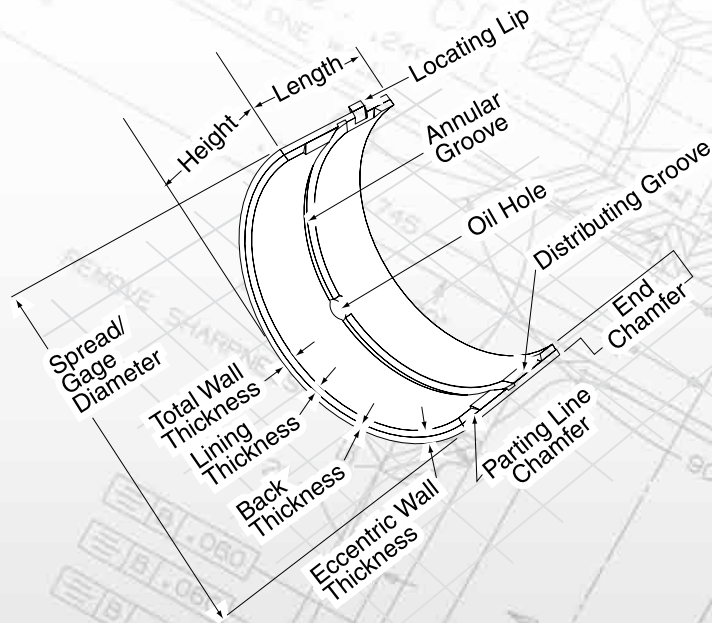




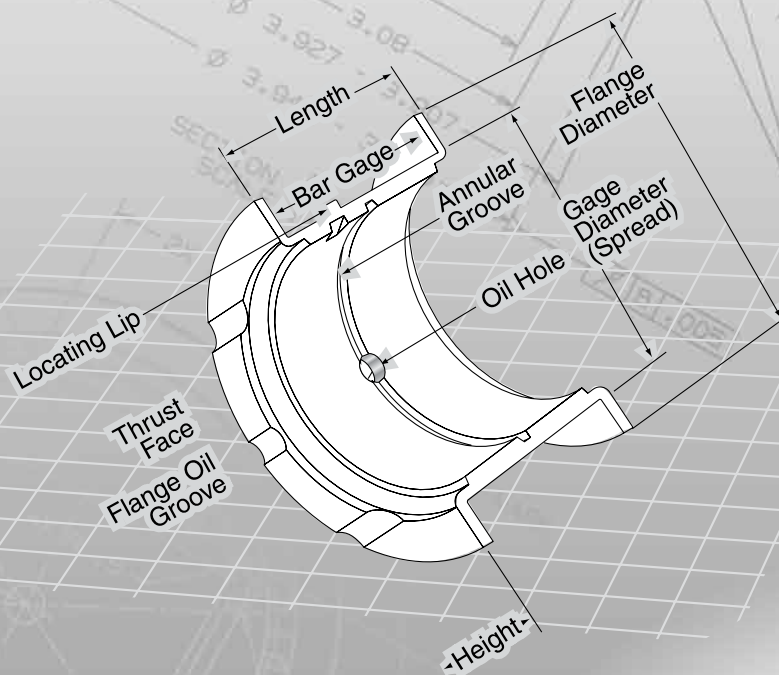
Engine Bearings

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Rod and Main Bearing



Thrust Bearing





Heavy Duty Pistons

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FP Diesel heavy duty pistons are designed and produced for severe operating conditions. Federal-Mogul is one of the world's leading manufacturers of heavy duty pistons offering one and two-piece designs including aluminum articulated, cast iron and steel materials. For severe and high load applications, FP Diesel pistons include a metallurgically bonded NI-resist insert in the top and in some cases, the second ring groove. The NI-resist insert minimizes groove wear and reduces pound-out from the compression ring. Anodized heads and graphite-coated skirts offer additional durability in severe applications. Federal-Mogul also utilizes an in-house, patented magnesium-phosphate coating to reduce the piston

corrosion caused by high-sulfate diesel fuels and break-in wear on problematic applications.

We design our heavy duty pistons using the latest in computer aided design (CAD) software. Each application is thoroughly researched to ensure the proper dimensional and metallurgical requirements. And since we also design and manufacture cylinder liners and piston rings, our engineers can make sure each piston we develop provides optimum performance as part of the "power-cylinder" system.





Sleeves and Assemblies

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Cylinder sleeves are produced by Federal-Mogul in a QS9000 registered facility complete with casting, induction hardening, machining, measurement and design capabilities. We start with raw castings produced on a state-of-the-art molding line specifically designed for the manufacture of static cast cylinder liners. The static castings produced by our foundry have a very consistent microstructure and superior scuffing resistance.

Certain applications are induction hardened or thru-hardened to enhance the wear characteristics and strength of the liner. Hardened liners are typically used in engines highly susceptible to dirt contamination, such as construction or agricultural applications.

Machining is performed on modern CNC equipment to ensure dimensional stability and exacting tolerances. Cylinder liners are typically finish honed to generate a plateau finish. The plateau finish promotes rapid ring seating

during break-in while providing a long-wearing sealing surface.

FP Diesel offers sleeves for wet, dry and repair applications. Sleeve assemblies or kits include the sleeve, piston, piston pin and lock rings, piston rings and sealing rings.





Abbreviations Used

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ABBREVIATION	DESCRIPTION
&	And
2WD	Two Wheel Drive
4WD	Four Wheel Drive
A.I.R.	Air Injector Reactor
A/C	Air Conditioning
A/R	As Required
A/T	Automatic Transmission
ABS	Anti-lock Brake System
AC	Alternating Current
Acc.	Accessory
Adj.	Adjustable
Adv.	Advance
Aft.	After
Alt.	Altitude
Alum.	Aluminum
Amp	Ampere
AOD	Automatic Overdrive
Appl.	Application
Approx.	Approximately
Asst.	Assist
Assy.	Assembly
ATV	All Terrain Vehicle
Auto.	Automatic
Auto. Trans.	Automatic Transmission
Aux.	Auxiliary
Avail.	Available
Avg.	Average
AWD	All Wheel Drive
Bal.	Balance
Batt.	Battery
Bbl.	Barrel
Bbl. Carb.	Barrel Carburetor
Bef.	Before
Brg.	Bearing
Brkt.	Bracket
C	Celsius
C.I.	Cast Iron
C.R.	Compression Ratio
C/L	Centerline
Calib.	Calibration
Calif.	California
Cam	Camshaft
Can.	Canada
Carb.	Carburetor
Cat.	Catalytic
cc	Cubic Centimeter
CCW	Counter Clockwise
CD	Compression Distance
CFFI	Cross Fire Injection
CFI	Central Fuel Injection
CFM	Cubic Feet per Minute
CID	Cubic Inch (Displacement)
Cld.	Cooled
Clg.	Cooling
Clr.	Cooler
cm	Centimeter

ABBREVIATION	DESCRIPTION
Cntr. Bore	Counter Bore
Compl.	Complete
Con. Rod	Connecting Rod
Cruise	Cruise Control
Ctr.	Center
CW	Clockwise
Cyl.	Cylinder
Cyl. Hd.	Cylinder Head
DC	Direct Current
Deg.	Degree
DFI	Digital Fuel Injection
DI	Direct Injection
Dia.	Diameter
Dim.	Dimension
Dir. Inj.	Direct Injection
Disc.	Discontinued
Dist.	Distributor
DOHC	Dual Overhead Camshaft
Dr.	Door or Drive
E.E.C.	Electronic Engine Control
E.I.S.	Electronic Ignition System
Ea.	Each
Ecc.	Eccentric
ECM	Electronic Computer Module
ECM	Electronic Control Module
ECM	Engine Control Module
Econ.	Economy
ECS	Electronic Controlled Spark
EFI	Electronic Fuel Injection
Elec.	Electric
Emis.	Emission
Eng.	Engine
Equip.	Equipment
Etc.	Et Cetera
Exc.	Except
Exh.	Exhaust
Exp.	Export
Ext.	Exterior
Ext.	External
F	Fahrenheit
Fed.	Federal
FI	Fuel Injection
Flex.	Flexible
Flg.	Flange
Flwr.	Follower
Frg.	Forged or Forging
Frt.	Front
FWD	Front Wheel Drive
Gal.	Gallon
Gas	Gasoline
GPH	Gallons Per Hour
GPM	Gallons Per Minute
Grv(s)	Groove(s)
Gskt.	Gasket
GVW	Gross Vehicle Weight
H/D	Heavy Duty
Hd.	Head
HEI	High Energy Ignition
Hi	High



Abbreviations Used

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ABBREVIATION	DESCRIPTION
Hi Alt.	High Altitude
Hi-Perf.	High Performance
Hi-Temp.	High Temperature
HO	High Output
Horiz.	Horizontal
HP	Horsepower
HSC	High Swirl Combustion
Hyd.	Hydraulic
I/C	Intercooler
I.D.	Identification
ID	Inside Diameter
IDI	Indirect Injection
In. Frm.	In Frame
in.	Inch
Incl.	Includes
Ind.	Industrial
Inj.	Injection
Int.	Intake
Inter.	Intermediate
L	Liter
L.H.	Left Hand
L/D	Light Duty
Lgth.	Length
LPG	Liquid Propane Gas
M/D	Medium Duty
M/T	Manual Transmission
Man.	Manual
Man. Trans.	Manual Transmission
Max.	Maximum
Mech.	Mechanical
MFI	Multi-Port Fuel Injection
Min.	Minimum
mm	Millimeters
MPH	Miles Per Hour
Mtl.	Material
N/A	Not Available
N/R	Not Required
Nat.	Natural
Nat. Asp.	Naturally Aspirated
Neg.	Negative
Neut.	Neutral
No.	Number
Nom.	Nominal
Norm.	Normal
O.A.L.	Overall Length
O.E.	Original Equipment
O/D	Overdrive
O/S	Oversize
Obs.	Obsolete
OD	Outside Diameter
OEM	Original Equipment Manufacturer
OHC	Overhead Cam
OHV	Overhead Valve
Opt.	Optional
Orig.	Original
oz.	Ounce
P. T.O.	Power Take Off
P/S	Power Steering
Pass.	Passenger

ABBREVIATION	DESCRIPTION
Pc(s)	Piece(s)
PCV	Positive Crankcase Ventilation
Perf.	Performance
Pkg.	Package
Pos.	Positive
Prem.	Premium
Pri.	Primary
PSI	Pound Per Square Inch
Pwr.	Power
Qtr.	Quarter
Qty.	Quantity
R.B.P.	Ring Below Pin
R.H.	Right Hand
Ref.	Reference
Reg.	Regular
Reman.	Remanufactured
Req'd	Required
Rev.	Revision
Rev. Rot.	Reverse Rotation
Rlr.	Roller
RMB	Rear Main Bearing
Rot.	Rotatiovn
RPM	Revolutions Per Minute
Rr.	Rear
RWD	Rear Wheel Drive
S/C	Supercharged
Seal. Rings	Sealing Rings
Ser.	Serial or Series
Ser. No.	Serial Number
SFI	Sequential Fuel Injection
Slv.	Sleeve
SOHC	Single Overhead Cam
Spd.	Speed
Spec.	Special
Sta.	Station
Std.	Standard
Sys.	System
T/C	Turbocharged
Tach	Tachometer
TBI	Throttle Body Injection
Temp.	Temperature
TPI	Tuned Port Injection
Trans.	Transmission
Trk.	Truck
TTY	Torque-to-Yield
TURBO	Turbocharged
U/S	Under Size
Veh.	Vehicle
VIN	Vehicle Identification Number
VIV	Valve
VSS	Valve Stem Seal
w/	With
w/o	Without
Wagon	Station Wagon
Wt.	Weight



Global Technology Behind Every Part

The products listed in this catalog are warranted to be free from defects in material and workmanship, under normal use and service, for two years from date of installation in an engine, without mileage or hour qualification in accordance with the following limited warranty. This warranty is the sole and exclusive warranty for failure of the above parts. This exclusive remedy shall not be deemed to have failed of its essential purpose so long as Federal-Mogul is willing and able to provide the remedy provided below.

WARRANTY LIMITATIONS

Federal-Mogul agrees to only pay for parts and labor needed to repair engine damages that result from the defined warranty failure. The costs are limited to parts and labor necessary for restoring the engine to its condition immediately prior to the failure. Labor costs are determined by current published rates and standards in the geographic area in which repairs are performed. Overtime or holiday rate charges are not allowed. We will also pay for maintenance products such as oil, antifreeze, belts, hoses and filter elements that are damaged because of a defined warranty failure.

Federal-Mogul is not responsible for engine failure resulting from owner, operator or third party neglect or abuse, improper installation or repair procedures, alteration or misapplication of parts, failure to properly service or maintain the engine and vehicle in accordance with applicable OEM operation and maintenance manuals or use in engine modified for competition purposes or used in competition.

OTHER THAN AS EXPRESSLY PROVIDED HEREBY, FEDERAL-MOGUL SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, DAMAGE OR LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, TRANSPORTATION AND TOWING COSTS, COST OF PURCHASED OR REPLACED GOOD, OR CLAIMS OF CUSTOMERS OF THE PURCHASER, WHICH MAY ARISE OR RESULT FROM THE SALE, INSTALLATION, OR USE OF THESE PARTS. Some jurisdictions do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the limitations or exclusions contained herein may or may not apply to you. This warranty gives you specific legal rights. You may also have other rights depending on the state or province in which you reside.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS AND/OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE AND THEY ARE EXCLUDED TO THE EXTENT THEY EXCEED THE WARRANTY COVERAGE DESCRIBED BY THIS WARRANTY.

This warranty and remedy apply to new FP Diesel engine parts from Federal-Mogul sold directly to our authorized aftermarket customers as evidenced by completed claim documentation.

No agent or sales representative of Federal-Mogul Corporation has the authority to modify this warranty. Other Federal-Mogul parts may carry different warranties.

CLAIM PROCEDURES

Federal-Mogul must be notified by the customer: (i) before filing a warranty claim, (ii) within one year of the date that the claim accrues, and (iii) before any work has been performed. All claims must be submitted in writing and Federal-Mogul reserves the right to examine all parts, systems and related information associated with the claim. (Note all shipping charges are the responsibility of the end-user or distributor, Federal-Mogul will not accept collect shipments). See your sales representative for detailed claim submission procedures and forms.

WARNING

Use parts only for applications and interchanges in this catalog.

Failure to heed this warning could result in reduced life or failure of the part. All parts listed in this catalog are not for use in space program, atomic energy/nuclear reactor equipment, medical or aircraft applications. Federal-Mogul reserves the right to make product improvements/changes, with respect to similar products previously manufactured, without notice and without incurring liability.





Global Technology Behind Every Part

Les produits indiqués dans ce catalogue sont garantis contre toute défectuosité de matériel et de fabrication, dans des conditions d'utilisation et d'entretien normales, sur une période de deux ans à partir de la date d'installation dans un moteur, sans qualification de kilométrage ou horaire, conformément à la garantie limitée suivante.

Cette garantie est la garantie unique et exclusive pour la défaillance des pièces précitées.
Ce recours exclusif ne doit pas être présumé comme ayant échoué à son objectif essentiel, tant que Federal-Mogul approuve et est capable de fournir le recours fourni ci-dessous.

LIMITATIONS DE GARANTIE

Federal-Mogul accepte uniquement de payer les pièces et la main-d'œuvre nécessaires pour réparer les dommages de moteur qui résultent de la défaillance de la garantie définie. Les coûts sont limités aux pièces et à la main-d'œuvre nécessaires pour la restauration du moteur à l'état auquel il se trouvait juste avant la défaillance.

Les frais de main-d'œuvre sont déterminés par les prix et normes publiés à l'heure actuelle dans la zone géographique dans laquelle les réparations sont effectuées. Les heures supplémentaires ou les frais de jours fériés ne sont pas permis. Nous payons également les produits d'entretien, tels que l'huile, l'antigel, les courroies, les tuyaux et les éléments de filtre qui sont endommagés en raison d'une défaillance de garantie définie.

Federal-Mogul décline toute responsabilité pour une défaillance de moteur découlant d'une négligence ou d'un abus infligés par le propriétaire, l'opérateur ou une tierce partie, de procédures d'installation ou de réparations incorrectes, de l'altération ou d'une application incorrecte de pièces, d'un manque de réparation ou d'entretien adéquat du moteur et du véhicule conformément aux manuels d'utilisation et d'entretien OEM applicables, ou de l'utilisation dans un moteur modifié à des fins de compétition ou utilisé en compétition.

SAUF SUR SPÉCIFICATION EXPRESSE DANS LA PRÉSENTE, FEDERAL-MOGUL NE SERA RESPONSABLE, EN AUCUNE CIRCONSTANCE, POUR DES DOMMAGES SPÉCIAUX, INDIRECTS, ACCESSOIRES OU CONSÉCUTIFS, Y COMPRIS, SANS S'Y LIMITER, DES DOMMAGES OU LA PERTE D'UNE AUTRE PROPRIÉTÉ OU D'UN AUTRE ÉQUIPEMENT, LA PERTE DE PROFITS OU DE REVENUS, LES FRAIS DE TRANSPORT ET DE REMORQUAGE, LES FRAIS DE BIENS ACHETÉS OU REMPLACÉS, OU LES DEMANDES DE CLIENTS DE L'ACHETEUR, QUI PEUVENT SE PRÉSENTER OU RÉSULTER DE LA VENTE, DE L'INSTALLATION OU DE L'UTILISATION DE CES PIÈCES.

Certaines juridictions ne permettent pas les limites sur la durée d'une garantie implicite, ni l'exclusion ou la limitation de dommages accessoires ou consécutifs, et, par conséquent, les limitations ou exclusions ci-incluses peuvent s'appliquer ou non pour votre cas. Cette garantie vous octroie des droits légaux spécifiques.

Vous disposez également d'autres droits en fonction de l'état ou de la province de votre résidence.

LA PRÉSENTE GARANTIE REMPLACE TOUTES AUTRES GARANTIES, EXPRESSES ET/OU IMPLICITES, Y COMPRIS, SANS S'Y LIMITER, LES GARANTIES DE QUALITÉ MARCHANDE OU D'ADAPTATION À UN USAGE PARTICULIER, ET ELLES SONT EXCLUES SI ELLES DEVAIENT DÉPASSER LA COUVERTURE DE GARANTIE DÉCRITE PAR LA PRÉSENTE GARANTIE.

Cette garantie et le recours s'appliquent aux nouvelles pièces du moteur diesel FP de Federal-Mogul vendu directement à nos clients de pièces de rechange autorisés, tel qu'attesté par les documents de demande dûment remplis. Aucun agent ou représentant de ventes de Federal-Mogul Corporation ne dispose du droit de modifier la présente garantie. D'autres pièces de Federal-Mogul peuvent être couvertes par des garanties différentes.

PROCÉDURES DE DEMANDE

Le client doit notifier Federal-Mogul : (i) avant de remplir une demande au titre de la garantie, (ii) en l'espace d'un an à partir de la date à laquelle la demande est exercée, et (iii) avant l'exécution d'un travail quelconque.

Toutes les demandes doivent être soumises par écrit et Federal-Mogul se réserve le droit d'examiner toutes les pièces, tous les systèmes et toutes les informations associées à la demande.

(Veuillez noter que l'utilisateur final ou le distributeur est responsable pour tous les frais d'expédition; Federal-Mogul n'accepte aucun envoi en port-dû). Veuillez consulter votre représentant des ventes pour les formulaires et les procédures de soumission de demande détaillés.

AVERTISSEMENT

Utilisez uniquement les pièces pour les applications et les échanges de ce catalogue.

Un manque de respect de cet avertissement pourrait résulter en une durée de vie réduite ou une défaillance de la pièce. Aucune des pièces indiquées dans ce catalogue n'est destinée à être utilisée dans un programme d'espace, pour du matériel de réacteur nucléaire/d'énergie atomique, ou des applications médicales ou d'aéronefs.

Federal-Mogul se réserve le droit d'effectuer des améliorations/changements de produits, en ce qui concerne des produits similaires fabriqués auparavant, sans avis et sans assumer de responsabilité.



Global Technology Behind Every Part

Se garantiza que todos los productos presentados en este catálogo no presentaran defecto alguno, ya sea en su material ni en su fabricación, bajo condiciones de uso y servicio normales. La garantía es de dos años de la fecha de la instalación en el motor, sin límites en el kilometraje o en las horas de funcionamiento. Esta es la única y exclusiva garantía si alguna de las partes listadas fuese a fallar. Este recurso exclusivo no se tomará como una falta, siempre y cuando Federal Mogul pueda remediarlo con las provisiones enumeradas mas abajo.

LIMITACIONES DE LA GARANTIA

Federal-Mogul pagará solo por las partes y la mano de obra necesarias para reparar daños al motor que resulten de una falla definida sobre la parte vendida. Los costos quedarán limitados a las partes y la mano de obra necesarias para restaurar el motor a la condición en la cual se encontraba inmediatamente antes de la falla. Los costos de la mano de obra se determinarán por medio de precios publicados y estándares del área geográfica en la cual las reparaciones se lleven a cabo. No se permitirá agregar costos de tiempo extra ni por trabajo durante días festivos. Pagaremos por productos de mantenimiento tales como aceite, anti-congelantes, correas, mangueras y filtros dañados debido a alguna falla definida del producto vendido.

Federal-Mogul no se hará responsable por una falla de motor causada por el dueño, operador o un tercero, ya sea por su propia negligencia, abuso o instalación inadecuada o procedimientos de reparación inadecuados, por alteración o aplicación incorrecta de las partes, falta de servicio necesario o mantenimiento del motor o de el vehículo de acuerdo a los manuales de operación y mantenimiento de acuerdo fabricante original, o por la modificación de un motor para su uso en competencias o por haber sido usado en competencias.

FEDERAL-MOGUL NO SERÁ RESPONSABLE, BAJO NINGUNA CIRCUMSTANCIA, OTRO QUE NO SEA LO QUE SE HA MENCIONADO EXPLÍCITAMENTE EN ÉSTA GARANTÍA, POR CUALQUIER DAÑO INDIRECTO, ESPECIAL, ACCIDENTAL O CÓMO CONSECUENCIA DE OTROS DAÑOS, INCLUYENDO, PERO SIN QUE QUÉDE LIMITADO A DAÑOS O PÉRDIDAS DE BIENES O DE EQUIPO, PÉRDIDA DE GANANCIAS O INGRESOS, COSTOS DE GRÚA O TRANSPORTACIÓN, DE PARTES REEMPLAZADAS, O RECLAMOS DE CLIENTES DEL COMPRADOR, QUE PUEDAN RESULTAR DE LA VENTA, INSTALACIÓN, O USO DE ÉSTAS PARTES.

Algunas jurisdicciones no permiten limitaciones con respecto a la duración de garantías implícitas, o a la exclusión o limitación de daños accidentales, por lo tanto puede que las limitaciones o exclusiones contenidas en el presente no le apliquen a Ud. Esta garantía le ofrece derechos específicos. Ud. puede gozar de derechos adicionales dependiendo del estado o provincia en la cual viva.

ÉSTA GARANTIA REEMPLAZARA CUALQUIER Y TODA OTRA GARANTÍA, YA SEA EXPLÍCITA U IMPLÍCITA, INCLUYENDO, PERO NO LIMITÁNDOSE A GARANTÍAS PARA LA MERCANCÍA Y USO DE LA MISMA CON UN PROPÓSITO EN PARTICULAR, Y ESAS MISMAS QUEDARAN EXCLUIDAS SI EXCEDEN LA COBERTURA DESCRITA EN ÉSTA GARANTÍA.

Ésta garantía y recurso aplican a partes nuevas de motores de FP Diésel, vendidas directamente a nuestros clientes autorizados del mercado de reposición, lo cual será corroborado por medio de documentación usada en el reclamo.

Ningún agente o representante de la empresa Federal-Mogul tiene autoridad para modificar ésta garantía.

Otras partes de Federal-Mogul pueden tener garantías diferentes.

PROCEDIMIENTO PARA PRESENTAR UN RECLAMO

Federal-Mogul debe ser notificado por el cliente: (i) antes de presentar un reclamo cubierto en la garantía, (ii) dentro del plazo de un año de ocurrida la falla, y (iii) antes de que se haya hecho algún trabajo.

Todo reclamo debe ser entregado por escrito y Federal-Mogul reserva el derecho a examinar todas las partes, sistemas e información relacionados y asociados al reclamo. (Todo cargo de envío será responsabilidad del usuario final o distribuidor, Federal-Mogul no aceptará envíos a cobrar). Contacte a su representante de ventas para conseguir el formulario de reclamos con el procedimiento detallado.

ADVERTENCIA

Las partes deben ser usadas sólo para las aplicaciones mencionadas en éste catálogo. El no seguir ésta advertencia puede que resulte en que le falle la parte o a que su vida quede reducida. Todas las partes listadas en éste catálogo no están hechas para el uso en programas espaciales, para equipos de energía atómica, o reactores nucleares, o para aplicaciones médicas ni en naves aéreas. Federal-Mogul se reserva el derecho de hacerle mejoras y cambios a los productos, con respecto a productos similares que se hayan fabricado previamente, sin notificación o responsabilidad legal alguna.





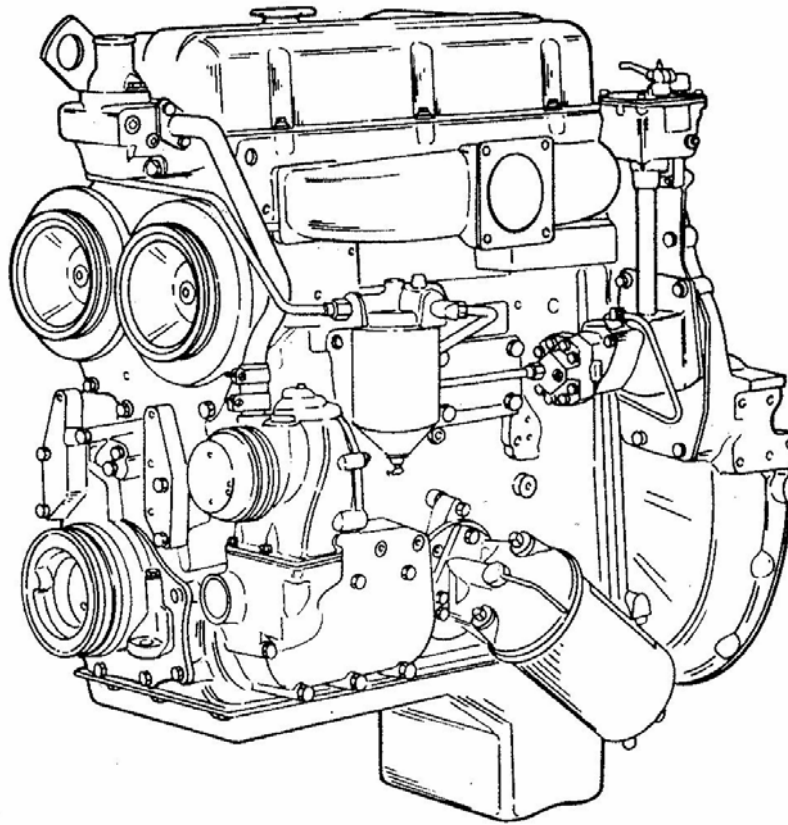
Detroit Diesel Two Cycle Engine Catalog Index

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53 IL SERIES ENGINE





53 IL SERIES ENGINE

Model Description Chart

Application, Rotation Design Variations

5	0	4	3	-	5	1	0	0
Series 53	Number of Cylinders	Application Designation (see below)	Basic Engine Arrangement (see below)			Design Variation (see below)		Specific Model Number

APPLICATION DESIGNATION:

5042 - 5100 Marine
 5043 - 5100 Fan to F/W-Industrial
 5044 - 5100 Power Base
 5045 - 5100 Generator

DESIGN VARIATION:

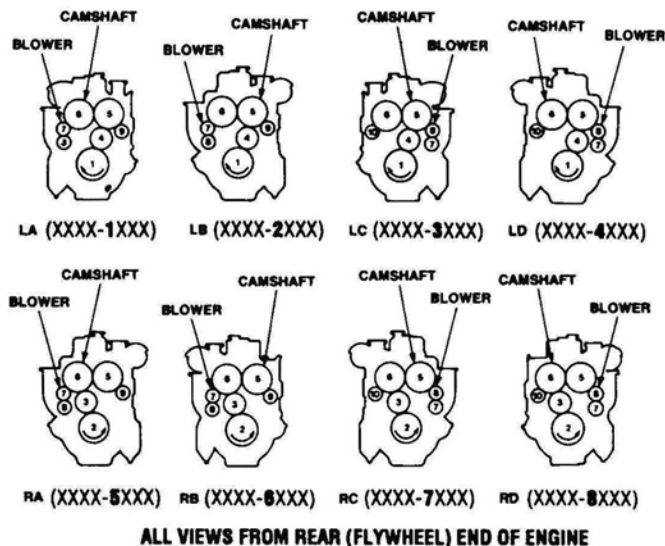
5043 - 5000 "N" ENGINE
 5043 - 5100 2 VALVE HEAD
 5043 - 5200 4 VALVE HEAD
 5043 - 2302 TURBOCHARGED

SPECIFIC MODEL NUMBER:

If last digit is an odd number: Starter is located opposite blower.
 If last digit is even number: Starter located on same side of engine.

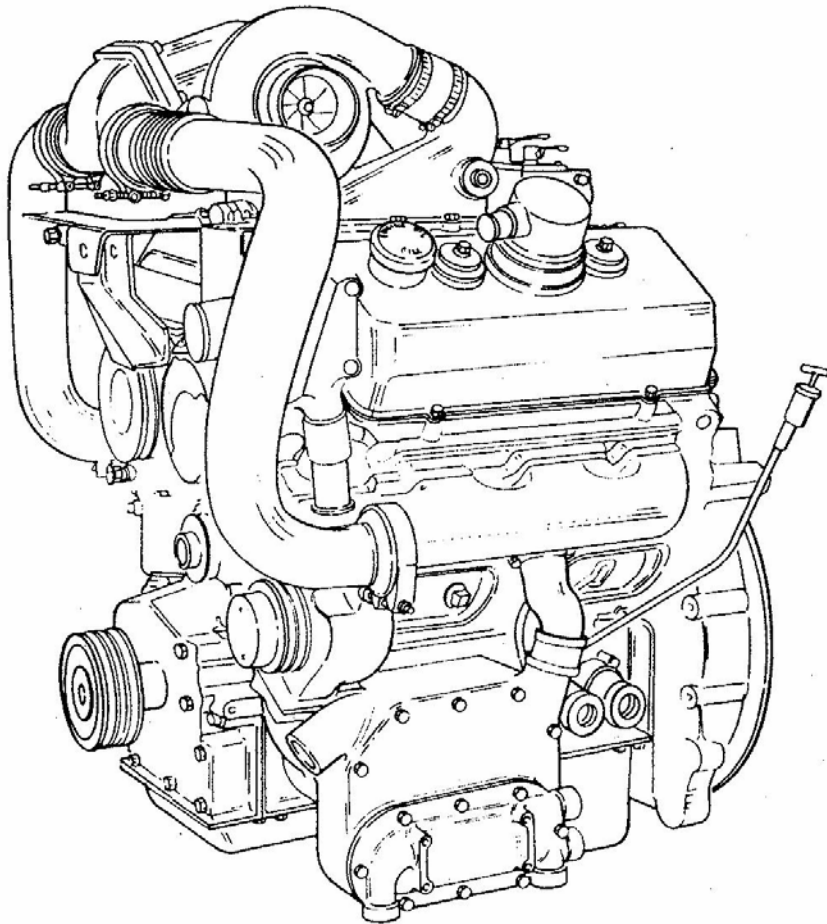
Basic Engine Arrangements

Rotation: R (right) and L (left) designates rotation as viewed from the front end of the engine (not the flywheel end)
 Type: A-B-C-D designates location of exhaust manifold and blower as viewed from the flywheel end of the engine.





53V SERIES ENGINE





53V SERIES ENGINE

Model Description Chart

Application, Rotation Design Variations

5	0	6	2	-	7	2	0	0
Series 53	Number of Cylinders	Application Designation (see below)	Basic Engine Arrangement (see below)		Design Variation (see below)		Specific Model Number	

APPLICATION DESIGNATION:

5062 - 7200 Marine
 5063 - 7200 Fan to F/W-Industrial
 5064 - 7200 Power Base
 5065 - 7200 Generator
 5067 - 7200 Fan to F/W Automotive
 5069 - 7200 Special

DESIGN VARIATION:

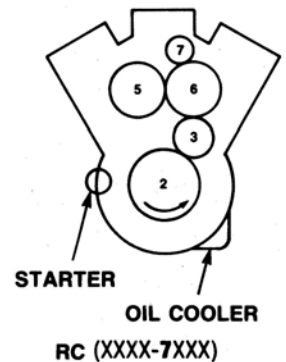
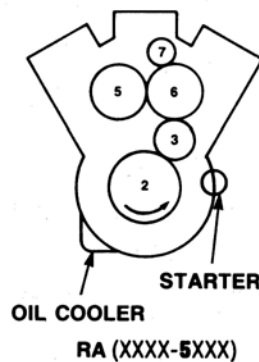
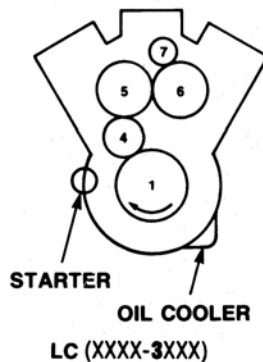
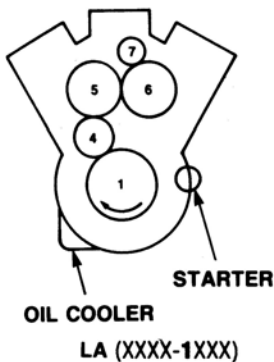
5062 - 7000 "N" Engine
 5062 - 7200 4 V Head
 5043 - 7300 4 Turbocharged
 5067 - 7500 Customer Spec. Engine

Basic Engine Arrangements

Rotation: R (right) and L (left) designates rotation as viewed from the front end of the engine (not the flywheel end)

Type: A and D designates location of starter and oil cooler as viewed from the rear (flywheel) end.

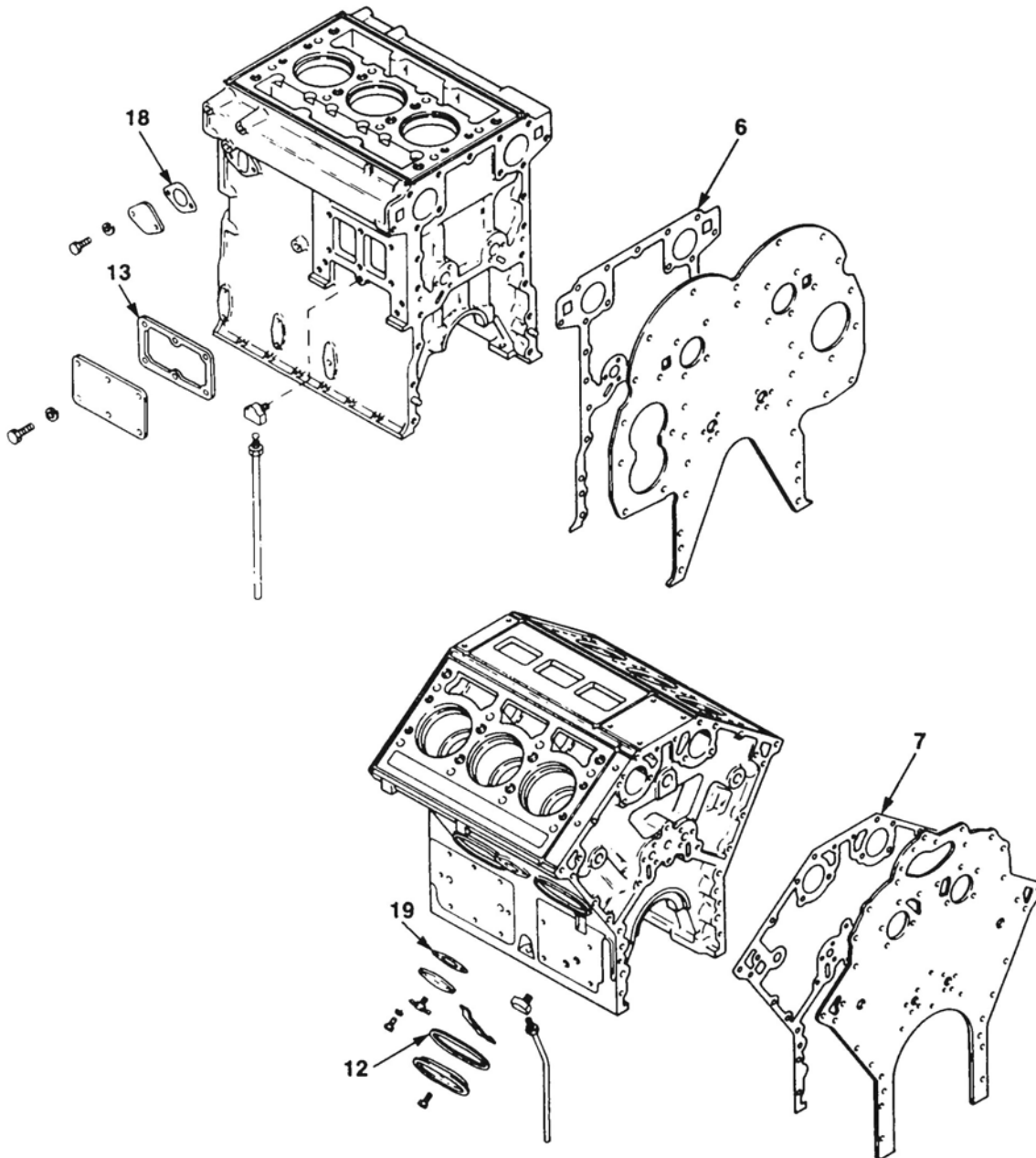
Cylinder Bank: Left and right cylinder banks are determined from rear of engine (from flywheel end).





Cylinder Block

(Figure 1.1)





Cylinder Block

(Figure 1.1)

Groups:

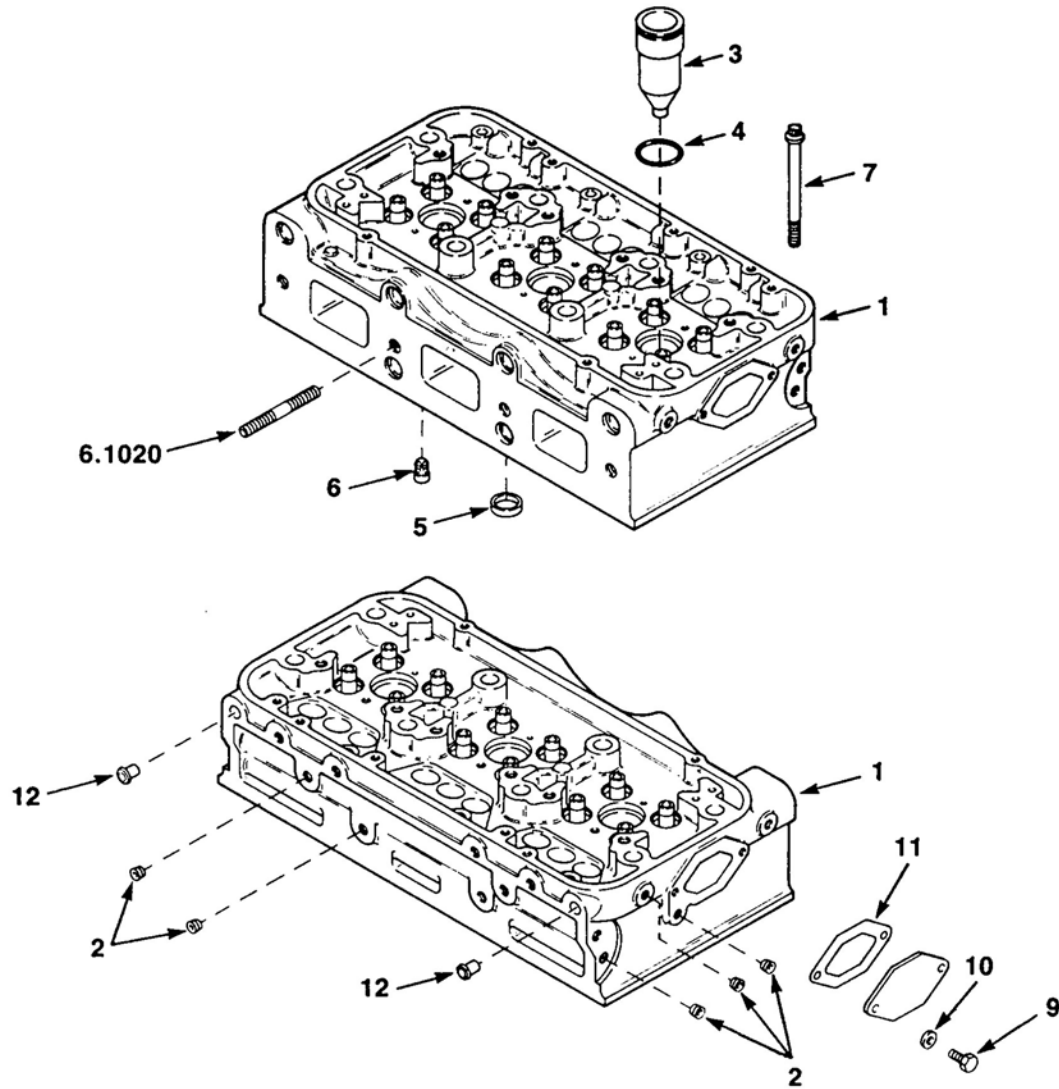
1.1001 - 1.1155

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.1001	0	FP-5133981	Washer, Crankshaft Main Bearing Cap Bolt	6	8	10	10
1.1001	0	FP-8924380	Plug, 1/8" Pipe (w/Seal), (12.9550)	4	8	8	10
1.1001	0	FP-5135547	Sleeve, Cylinder Block (.434)	2	3	4	6
1.1001	0	FP-5135548	Insert, Cylinder Block (.800)	2	3	4	6
1.1001	0	FP-5135662	Sleeve, Cylinder Block (.299)	2	3	4	6
1.1001	0	FP-5135663	Insert, Cylinder Block (.455)	2	3	4	6
1.1001	0	FP-5121182	Plug, 1/4" Pipe (2.4015)	1	2	2	1
1.1001	0	FP-141346	Pin, 3/16" x 1/2" Dowel (12.9290)	-	4	4	4
1.1002	0	FP-23517625	Gasket Set, Engine Overhaul	1	-	-	-
1.1002	0	FP-23517625WS	Gasket Set, Engine Overhaul (w/Front & Rear Seals)	1	-	-	-
1.1002	0	FP-23517623	Gasket Set, Engine Overhaul	-	1	-	-
1.1002	0	FP-23517623WS	Gasket Set, Engine Overhaul (w/Front & Rear Seals)	-	1	-	-
1.1002	0	FP-23517624	Gasket Set, Engine Overhaul	-	-	1	-
1.1002	0	FP-23517624WS	Gasket Set, Engine Overhaul (w/Front & Rear Seals)	-	-	1	-
1.1002	0	FP-23512690	Gasket Set, Engine Overhaul	-	-	-	1
1.1002	0	FP-23512690WS	Gasket Set, Engine Overhaul (w/Front & Rear Seals)	-	-	-	1
1.1002	0	FP-5199816	Gasket Set, Engine Overhaul (Aluminum)	-	-	-	1
1.1002	0	FP-8927743	Gasket Set, Engine Overhaul (Military), (CIB)	-	-	-	1
1.1020	0	FP-103321	Lockwasher, 3/8" (12.9200)	13	15	15	10
1.1020	0	FP-5152148	Washer, 3/8" Seal (Copper), (Fuel Stand Pipe), (12.9001)	-	6	8	12
1.1020	0	FP-8927581	Bolt, 3/8" -16 x 1" (w/Seal Patch), (12.9001)	-	-	-	10
1.1030	0	FP-5116336	Gasket, Cylinder Block End Plate (Front), (Governor Hole), (2.7010)	1	1	1	-
1.1030	6	FP-5116354	Gasket, Cylinder Block End Plate (Front)	1	1	1	-
1.1030	7	FP-5133397	Gasket, Cylinder Block End Plate (Front)	-	-	-	1
1.1040	0	FP-23505525	Gasket, 3/8" Copper (12.9360)	-	-	-	4
1.1050	0	FP-5116379	Gasket, Cylinder Block Hand Hole Cover	1	-	-	-
1.1050	13	FP-5106629	Gasket, Cylinder Block Hand Hole Cover (Turbo)	-	1	-	-
1.1050	13	FP-5116380	Gasket, Cylinder Block Hand Hole Cover	-	1	-	-
1.1050	0	FP-5116381	Gasket, Cylinder Block Hand Hole Cover	-	-	1	-
1.1050	12	FP-5132117	Gasket, Cylinder Block Hand Hole Cover	-	-	-	4
1.1050	12	FP-8923792	Gasket, Cylinder Block Hand Hole Cover	-	-	-	4
1.1070	18	FP-5116357	Gasket, Cylinder Block Water Hole	1	1	1	1
1.1070	19	FP-5132474	Gasket, Cylinder Block Water Hole	-	-	-	1
1.1155	0	FP-5181415	Clip, Rocker Cover Drain Hose (1 1/8" Tube - 7/16" Bolt)	1	1	1	1



Cylinder Head

(Figure 2.1)





Cylinder Head

(Figure 2.1)

Groups:

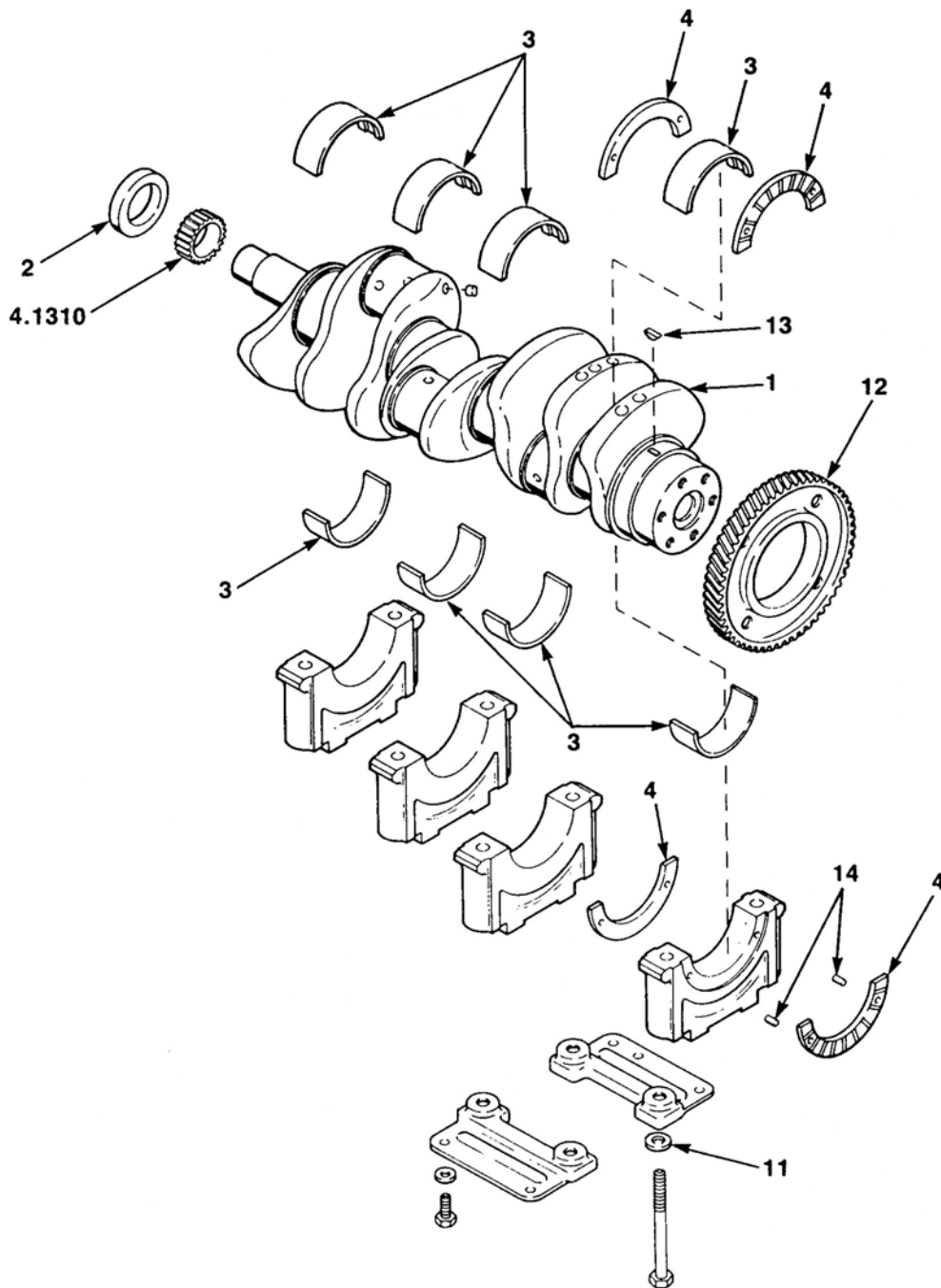
1.2001 - 1.2920

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.2001	0	FP-5121182	Plug, 1/4" Pipe	5	6	6	6
1.2001	2	FP-8923847	Plug, 1/4" Pipe (4.7001)	5	6	6	6
1.2001	0	FP-5154453	Plug, 3/8"-16 Cylinder Head	3	4	3	4
1.2001	0	FP-5151449	Plug, 13/16" Cup	3	3	3	3
1.2001	4	FP-5104701	Ring, Seal, Injector Hole Tube (Viton)	2	3	4	6
1.2001	3	FP-8925981	Tube Kit, Injector Hole (w/Viton Seal Ring), (1.2045)	2	3	4	6
1.2001	0	FP-8924380	Plug, 1/8"-27 (12.9550)	1	2	2	2
1.2001	12	FP-5116262	Adapter, Cylinder Head To Governor (2.7830)	1	1	1	1
1.2001	12	FP-5121252	Adapter, Cylinder Head To Governor (2.7830)	1	1	1	1
1.2001	0	FP-5144425	Plug, Adapter Fuse	1	1	1	1
1.2001	0	FP-5111467	Seat, Valve Spring (1.8360)	-	6	8	8
1.2001	0	FP-5131961	Guide, Exhaust Valve (4 Valve Head), (1.8320)	-	6	8	6
1.2001	5	FP-8921501	Insert, Exhaust Valve (30°), (N/A), (1.8330)	-	6	8	6
1.2001	5	FP-8921502	Insert, Exhaust Valve (30°), (Turbo), (1.8330)	-	6	8	6
1.2001	0	FP-5139997	Plug, 7/8" Diameter Cup Head	-	3	5	3
1.2001	0	FP-8926347	Plug, Fuse Cylinder Head	-	1	1	1
1.2002	0	FP-5199809	Gasket Set, Cylinder Head (Services One Head)	1	-	-	-
1.2002	0	FP-5199811	Gasket Set, Cylinder Head (Services One Head)	-	1	-	2
1.2002	0	FP-5199820	Gasket Set, Cylinder Head (Services One Head), (Military)	-	1	-	2
1.2002	0	FP-5199812	Gasket Set, Cylinder Head (Services One Head)	-	-	1	-
1.2005	6	FP-5119293	Nozzle, Cylinder Head Water	-	4	6	8
1.2010	0	FP-5121254	Gasket, Cylinder Head Compression	2	3	4	6
1.2020	0	FP-5116290	Ring End, Water Hole Seal	4	4	4	8
1.2020	0	FP-5121207	Ring, Center Water Hole Seal	2	4	6	8
1.2020	0	FP-5116122	Ring, Oil Hole Seal	1	2	2	4
1.2022	0	FP-5116291	Cylinder Head Sealing Ring	1	-	-	-
1.2022	0	FP-5116292	Cylinder Head Sealing Ring	-	1	-	2
1.2022	0	FP-5116293	Cylinder Head Sealing Ring	-	-	1	-
1.2030	7	FP-5121263	Bolt, 5/8"-11 x 6 1/4" (12 Pt. Hd.)	6	8	10	16
1.2040	0	FP-5150013	Nut, 5/8"-018 Cylinder Head Water (Option Type #62)	-	4	-	-
1.2043	9	FP-8927580	Bolt, 3/8" -16 x 7/8"	2	2	2	4
1.2043	9	FP-8927581	Bolt, 3/8" -16 x 1"	2	2	2	4
1.2044	11	FP-5116242	Gasket, Cover	1	1	1	2
1.2920	10	FP-103321	Lockwasher	2	2	2	4



Crankshaft

(Figure 3.1)





Crankshaft

(Figure 3.1)

Groups:

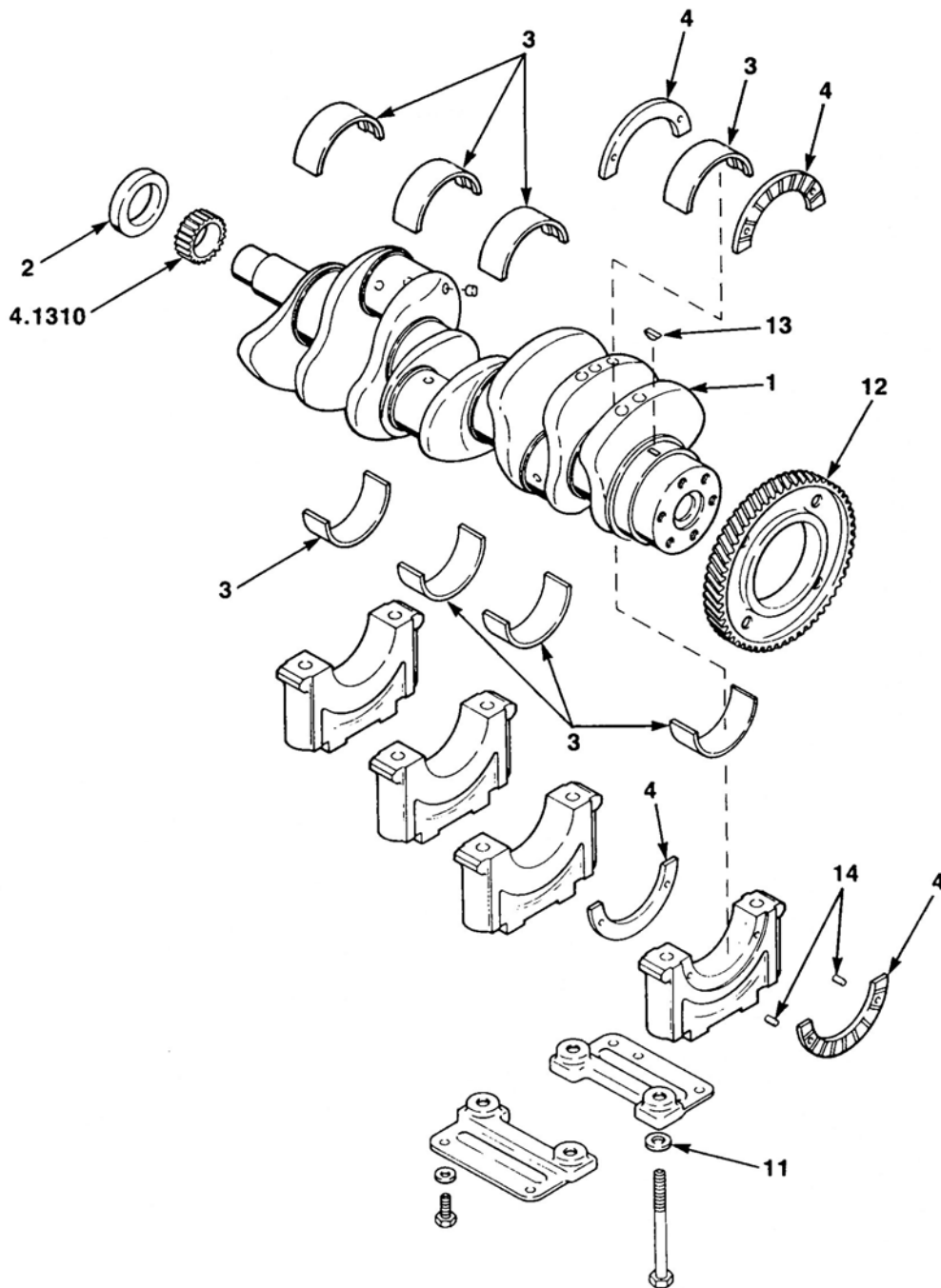
1.3040 - 1.3090

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.3040	2	FP-5198503	Seal, Crankshaft Oil (Front), (Single Lip O.S.)	1	1	1	1
1.3040	2	FP-5148314	Seal, Crankshaft Oil (Front), (w/Excluder Lip)	-	1	1	-
1.3040	2	FP-5115454	Seal, Crankshaft Oil (Front), (8V53)	-	-	-	-
1.3040	2	FP-5116224	Seal, Crankshaft Oil (Front)	-	-	-	-
1.3040	2	FP-5138796	Seal, Crankshaft Oil (Front)	-	-	-	1
1.3040	2	FP-5198289	Seal, Crankshaft Oil (Front), (8V53), (Use w/5138945 Sleeve)	-	-	-	-
1.3056	0	FP-5198502	Sleeve, Crankshaft Front Seal (Use w/Seal FP-5198503)	1	1	1	1
1.3060	0	FP-5116229	Seal, Crankshaft Oil (Rear)	1	1	1	1
1.3060	0	FP-5127821	Seal, Crankshaft Oil (Rear), (8V53 Only), (Double Lip), (Std.)	1	1	1	1
1.3060	0	FP-5128917	Seal, Crankshaft Oil (Rear), (Double Lip), (Wet Only)	1	1	1	1
1.3060	0	FP-5196852	Seal, Crankshaft Oil (Rear), (Single Lip O.S.)	1	1	1	1
1.3060	0	FP-8924374	Seal, Crankshaft Oil (Rear), (Single Lip O.S.), (Use w/Sleeve FP-23516636)	1	1	1	1
1.3060	0	FP-5114335	Seal, Crankshaft Oil (Rear), (8V53 Only)	-	-	-	-
1.3060	0	FP-5197860	Seal, Crankshaft Oil (Rear), (Single Lip O.S.), (8V53 Only)	-	-	-	-
1.3060	0	FP-8926902	Seal & Sleeve Kit, Crankshaft (Rear), (R.H.. Rotation Only), (Teflon)	-	-	-	1
1.3065	0	FP-5192496	Spacer, Crankshaft (Rear), (w/Single Lip Seal Only), (8V53 Only)	-	-	-	-
1.3066	0	FP-23516636	Sleeve, Rear Oil Seal (Use w/O.S. Oil Seals Only)	1	1	1	1
1.3066	0	FP-5198908	Sleeve, Rear Oil Seal (Use w/O.S. Oil Seals Only), (8V53 Only)	-	-	-	-
1.3090	3	FP-8924357	Shell Set, Crankshaft Main Bearing (IL), (Std.), (Naturally Aspirated)	3	4	5	-
1.3090	3	FP-8924358	Shell Set, Crankshaft Main Bearing (IL), (.002), (Naturally Aspirated)	3	4	5	-
1.3090	3	FP-8924359	Shell Set, Crankshaft Main Bearing (IL), (.010), (Naturally Aspirated)	3	4	5	-
1.3090	3	FP-8924360	Shell Set, Crankshaft Main Bearing (IL), (.020), (Naturally Aspirated)	3	4	5	-
1.3090	3	FP-8924361	Shell Set, Crankshaft Main Bearing (IL), (.030), (Naturally Aspirated)	3	4	5	-
1.3090	3	FP-5149447	Shell Set, Crankshaft Main Bearing (IL), (Std.), (Turbo)	-	4	5	-
1.3090	3	FP-5149449	Shell Set, Crankshaft Main Bearing (IL), (.010), (Turbo)	-	4	5	-
1.3090	3	FP-5149450	Shell Set, Crankshaft Main Bearing (IL), (.020), (Turbo)	-	4	5	-
1.3090	3	FP-5149451	Shell Set, Crankshaft Main Bearing (IL), (.030), (Turbo)	-	4	5	-
1.3090	0	FP-5195927	Shell Set, Crankshaft Main Bearing (V), (Std.), (1 Hole Upper)	-	-	-	4
1.3090	0	FP-5196685	Shell Set, Crankshaft Main Bearing (V), (.010), (1 Hole Upper)	-	-	-	4
1.3090	0	FP-5196686	Shell Set, Crankshaft Main Bearing (V), (.020), (1 Hole Upper)	-	-	-	4
1.3090	0	FP-5196687	Shell Set, Crankshaft Main Bearing (V), (.030), (1 Hole Upper)	-	-	-	4
1.3090	3	FP-5198410	Shell Set, Crankshaft Main Bearing (V), (Std.), (7 Hole Upper)	-	-	-	4
1.3090	3	FP-5198410S	Shell Set, Crankshaft Main Bearing (V), (Std.), (1 Hole Upper), (Set of 4)	-	-	-	1
1.3090	3	FP-5198411	Shell Set, Crankshaft Main Bearing (V), (.002), (7 Hole Upper)	-	-	-	4
1.3090	3	FP-5198412	Shell Set, Crankshaft Main Bearing (V), (.010), (7 Hole Upper)	-	-	-	4
1.3090	3	FP-5198412S	Shell Set, Crankshaft Main Bearing (V), (.010), (1 Hole Upper), (Set of 4)	-	-	-	1
1.3090	3	FP-5198413	Shell Set, Crankshaft Main Bearing (V), (.020), (7 Hole Upper)	-	-	-	4
1.3090	3	FP-5198414	Shell Set, Crankshaft Main Bearing (V), (.030), (7 Hole Upper)	-	-	-	4



Crankshaft

(Figure 3.2)





Crankshaft

(Figure 3.2)

Groups:

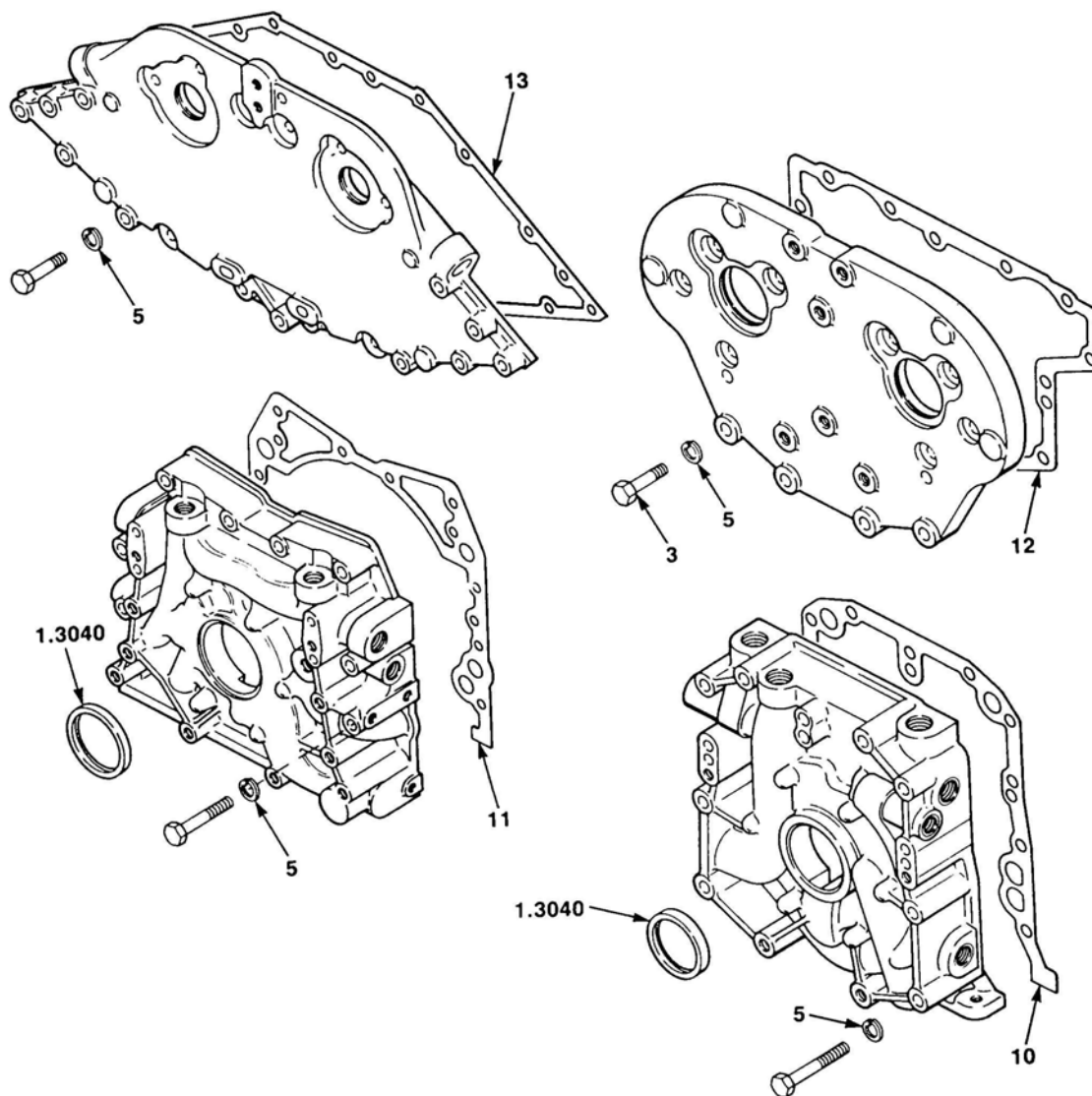
1.3100 - 1.3165

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.3100	14	FP-141346	Pin, 3/16" x 1/2" Dowel	4	4	4	4
1.3100	4	FP-5116197	Washer, Main Bearing Thrust (IL), (Std.)	4	4	4	-
1.3100	4	FP-5196755	Washer, Main Bearing Thrust (IL), (.005")	4	4	4	-
1.3100	4	FP-5196756	Washer, Main Bearing Thrust (IL), (.010".)	4	4	4	-
1.3100	4	FP-5116197S	Washer, Main Bearing Thrust (IL), (Std.), (Set of 4)	1	1	1	-
1.3100	0	FP-5159353	Washer, Main Bearing Thrust (V), (Std.)	-	-	-	4
1.3100	0	FP-5159353S	Washer, Main Bearing Thrust (V), (Std.), (Set of 4)	-	-	-	1
1.3100	0	FP-5160542	Washer, Main Bearing Thrust (V), (.005")	-	-	-	4
1.3100	0	FP-5192111	Washer, Main Bearing Thrust (V), (.010".)	-	-	-	4
1.3140	11	FP-5133981	Washer, Crankshaft Main Bearing Cap Bolt	-	8	-	8
1.3145	13	FP-8926247	Key, 1/4" x 3/4" Woodruff	1	1	1	1
1.3161	0	FP-103321	Lockwasher, 3/8"	13	13	13	23
1.3165	0	FP-5136097	Bearing, Front Crankshaft Support	-	-	-	1



Crankshaft Front Cover

(Figure 3.3)





Crankshaft Front Cover

(Figure 3.3)

Groups:

1.3170 - 1.5010

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.3170	10	FP-5116386	Gasket, Lower Front Cover	1	1	1	-
1.3170	12	FP-5121082	Gasket, Upper Front Cover	1	1	1	-
1.3170	11	FP-5119368	Gasket, Lower Front Cover	-	-	-	1
1.3170	13	FP-5124055	Gasket, Upper Front Cover	-	-	-	1
1.3172	0	FP-5109496	Gasket, Crankshaft Front Cover Plate	-	-	-	1
1.3210	0	FP-8922491	Damper, Vibration (Heavy Viscous), (8V53 Only)	-	-	-	-
1.3240	0	FP-5134917	Cone, Vibration Damper Front (.531"), (8V53 Only)	-	-	-	-
1.3290	0	FP-5180629	Bolt, Crank Pulley (3/4" - 16x1.74")	8	8	8	8
1.4040	0	FP-23503707	Bearing, Clutch Pilot	-	1	1	1
1.4040	0	FP-23504892	Bearing, Clutch Pilot (FP-904983)	-	1	1	1
1.4040	0	FP-23503709	Bearing, Clutch Pilot (8V53 Only)	-	-	-	-
1.4060	0	FP-5133530	Coupling, Engine Drive Shaft	-	-	-	1
1.4075	0	FP-8927580	Bolt, 3/8" - 16 x 7/8"	-	-	8	-
Rear Housing							
1.5002	0	FP-5123802	Gasket Shim, Flywheel Housing To End Plate (2.38" Dia. x .015" Thick)	-	-	-	1
1.5010	0	FP-23506158	Gasket, Flywheel Housing	1	1	1	-
1.5010	0	FP-5121234	Gasket, Flywheel Housing	1	-	-	-
1.5010	0	FP-23506082	Gasket, Flywheel Housing (0.40 x 0.88 x 0.015 Thick)	-	-	-	1
1.5010	0	FP-5137470	Gasket, Flywheel Housing	-	-	-	1



Cylinder Kits

Cylinder Kit	Description	C/R	Option Type Numbers	Piston
53IL Series				
FP-5149315	Turbo, Trunk Type	17.5:1	110,181,205	FP-5198572
FP-5149315 10	Turbo, Trunk Type .010 OS	17.5:1	110,181,205	FP-5198572
FP-5149315 20	Turbo, Trunk Type .020 OS	17.5:1	110,181,205	FP-5198572
FP-5149734	Turbo, Trunk Type, 1.5" Pin Diameter	18.7:1	204,206,207	FP-8920717
FP-5149734 10	Turbo, Trunk Type, 1.5" Pin Diameter .010	18.7:1	204,206,207	FP-8920717
FP-5149734 20	Turbo, Trunk Type, 1.5" Pin Diameter .020	18.7:1	204,206,207	FP-8920717
FP-5198903	Non Turbo, Trunk Type	17:01	25,26,27,29,35,60,83	FP-5195931
FP-5198903 10	Non Turbo, Trunk Type .010 OS	17:01	25,26,27,29,35,60,83	FP-5195931
FP-5198903 20	Non Turbo, Trunk Type .020 OS	17:01	25,26,27,29,35,60,83	FP-5195931
FP-23503810	Turbo, Cross-Head	18:01	268	
FP-23503810 10	Turbo, Cross-Head .010 OS	18:01	268	
FP-23503810 20	Turbo, Cross-Head .020 OS	18:01	268	
FP-5198904	Non Turbo, Trunk Type	21:01	53,56,65,66,77,236,249	FP-5198877
FP-5198904 10	Non Turbo, Trunk Type .010 OS	21:01	53,56,65,66,77,236,249	FP-5198877
FP-5198904 20	Non Turbo, Trunk Type .020 OS	21:01	53,56,65,66,77,236,249	FP-5198877
FP-5198899	Non Turbo, Trunk Type	21:01	61,62,64,68,96,97,98,118,238,241	FP-5198877
FP-5198899 10	Non Turbo, Trunk Type .010 OS	21:01	61,62,64,68,96,97,98,118,238,241	FP-5198877
FP-5198899 20	Non Turbo, Trunk Type .020 OS	21:01	61,62,64,68,96,97,98,118,238,241	FP-5198877
FP-23501863	Non Turbo, Trunk Type	21.0:1	Non Turbo, Trunk Type	FP-5198877
FP-LCK-8899	Linerless Cylinder Kit	21:01	Non Turbo, Trunk Type	FP-5198877
FP-LCK-8903	Linerless Cylinder Kit	17:01	Non Turbo, Trunk Type	FP-5195931
FP-LCK-8904	Linerless Cylinder Kit	21:01	Non Turbo, Trunk Type	FP-5198877
FP-LCK-9116	Linerless Cylinder Kit	21:01	Non Turbo, Trunk Type, Military	FP-5198877
FP-LCK-9315	Linerless Cylinder Kit	18.7:1	Turbo, Trunk Type	FP-5198572
FP-LCK-9734	Linerless Cylinder Kit	18.7:1	Turbo, Trunk Type, 1.5" Pin Diameter	FP-8920717
53V Series				
FP-23503811	Turbo, Cross-Head	18:01		
FP-23503811 10	Turbo, Cross-Head .010 OS	18:01		
FP-23503811 20	Turbo, Cross-Head .020 OS	18:01		
FP-23512732	Turbo, Cross-Head	18.0:1		
FP-5149734	Turbo, Trunk Type, 1.5" Pin Diameter	18.7:1	204,206,207	FP-8920717
FP-5149734 10	Turbo, Trunk Type, 1.5" Pin Diameter .010	18.7:1	204,206,207	FP-8920717
FP-5149734 20	Turbo, Trunk Type, 1.5" Pin Diameter .020	18.7:1	204,206,207	FP-8920717
FP-5198903	Non Turbo, Trunk Type	17:01	25,26,27,29,35,60,83	FP-5195931
FP-5198903 10	Non Turbo, Trunk Type .010 OS	17:01	25,26,27,29,35,60,83	FP-5195931
FP-5198903 20	Non Turbo, Trunk Type .020 OS	17:01	25,26,27,29,35,60,83	FP-5195931
FP-23503778	Turbo, Cross-Head	18:01	269,270	
FP-23503778 10	Turbo, Cross-Head .010 OS	18:01	269,270	
FP-23503778 20	Turbo, Cross-Head .020 OS	18:01	269,270	
FP-5198904	Non Turbo, Trunk Type	21:01	53,56,65,66,77,236,249	FP-5198877
FP-5198904 10	Non Turbo, Trunk Type .010 OS	21:01	53,56,65,66,77,236,249	FP-5198877
FP-5198904 20	Non Turbo, Trunk Type .020 OS	21:01	53,56,65,66,77,236,249	FP-5198877
FP-5198899	Non Turbo, Trunk Type	21:01	61,62,64,68,96,97,98,118,238,241	FP-5198877
FP-5198899 10	Non Turbo, Trunk Type .010 OS	21:01	61,62,64,68,96,97,98,118,238,241	FP-5198877
FP-5198899 20	Non Turbo, Trunk Type .020 OS	21:01	61,62,64,68,96,97,98,118,238,241	FP-5198877
FP-5199116	Non Turbo, Trunk Type, Military	21:01	63,67	FP-5198877
FP-5199116 10	Non Turbo, Trunk Type, Military .010	21:01	63,67	FP-5198877
FP-5199116 20	Non Turbo, Trunk Type, Military .020	21:01	63,67	FP-5198877
FP-23501863	Non Turbo, Trunk Type	21.0:1	Non Turbo, Trunk Type	FP-5198877
FP-LCK3810	Linerless Cylinder Kit	18.0:1	Turbo, Cross-Head	



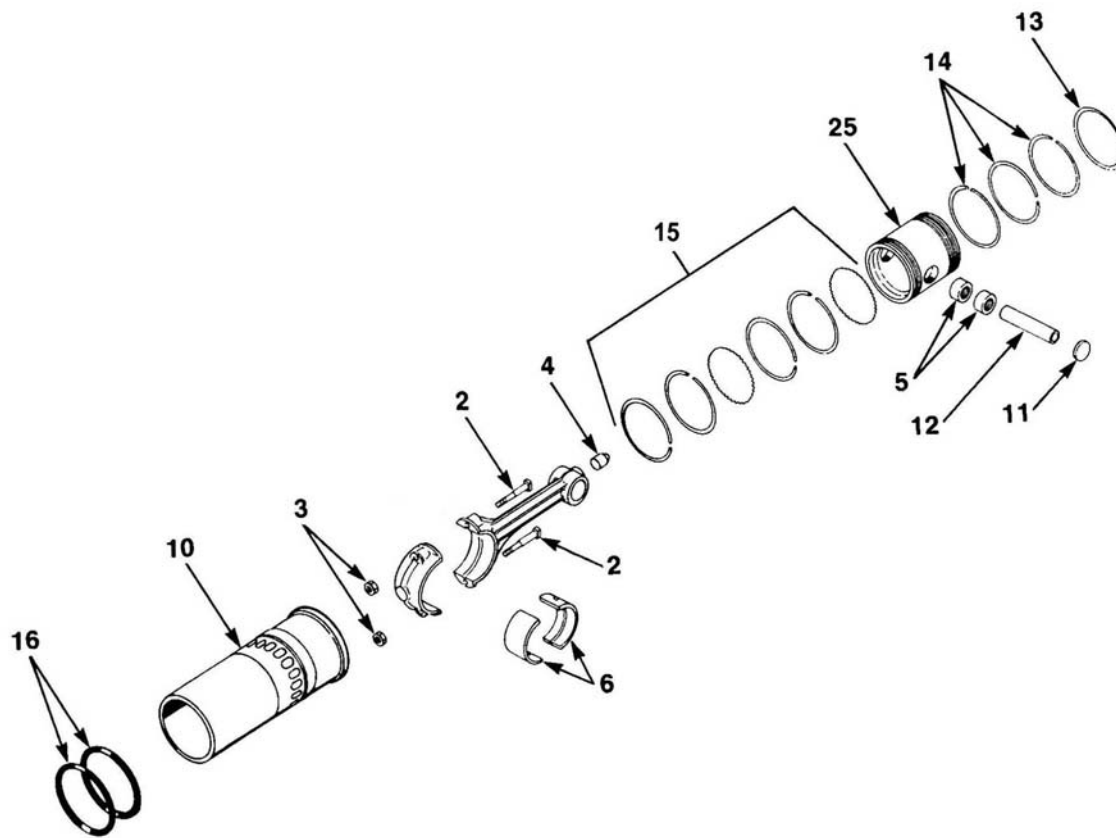
Cylinder Kits

Dome	Seal, Dome	Skirt	Slipper Brg	Liner	Port Ht	Ring Set	Pin	Retainer
53IL Series								
FP-23503948 FP-23503948 FP-23503948 <								



Connecting Rod & Piston

(Figure 4.1)





Connecting Rod & Piston

(Figure 4.1)

Groups:

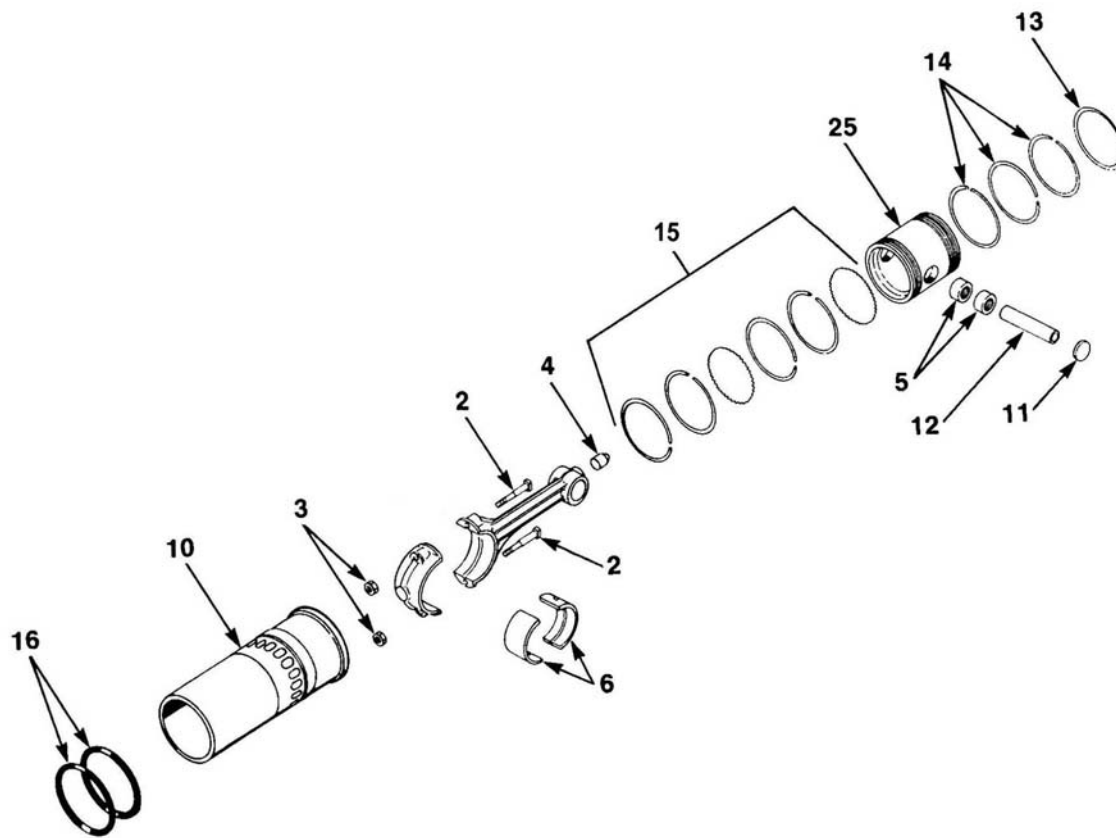
1.6001 - 1.6140

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.6001	2	FP-5197852	Bolt, Connecting Rod Cap (3/8" x 24 x 2.76")	4	6	8	12
1.6001	3	FP-839103	Nut, Connecting Rod Cap (3/8" x 24)	4	6	8	12
1.6100	6	FP-5149452	Shell Set, Connecting Rod Bearing (Std.)	2	3	4	-
1.6100	6	FP-514945240	Shell Set, Connecting Rod Bearing (.040" U.S.)	2	3	4	-
1.6100	6	FP-5149454	Shell Set, Connecting Rod Bearing (.010" U.S.)	2	3	4	-
1.6100	6	FP-5149455	Shell Set, Connecting Rod Bearing (.020" U.S.)	2	3	4	-
1.6100	6	FP-5149456	Shell Set, Connecting Rod Bearing (.030" U.S.)	2	3	4	-
1.6100	6	FP-5197975	Shell Set, Connecting Rod Bearing (Std.), (V)	-	-	-	6
1.6100	6	FP-5197976	Shell Set, Connecting Rod Bearing (.002" U.S.), (V)	-	-	-	6
1.6100	6	FP-5197977	Shell Set, Connecting Rod Bearing (.010" U.S.), (V)	-	-	-	6
1.6100	6	FP-5197978	Shell Set, Connecting Rod Bearing (.020" U.S.), (V)	-	-	-	6
1.6100	6	FP-5197979	Shell Set, Connecting Rod Bearing (.030" U.S.), (V)	-	-	-	6
1.6140	5	FP-5116181	Bushing, Piston Pin (Trunk Type)	4	6	8	12



Connecting Rod & Piston

(Figure 4.2)





Connecting Rod & Piston

(Figure 4.2)

Groups:

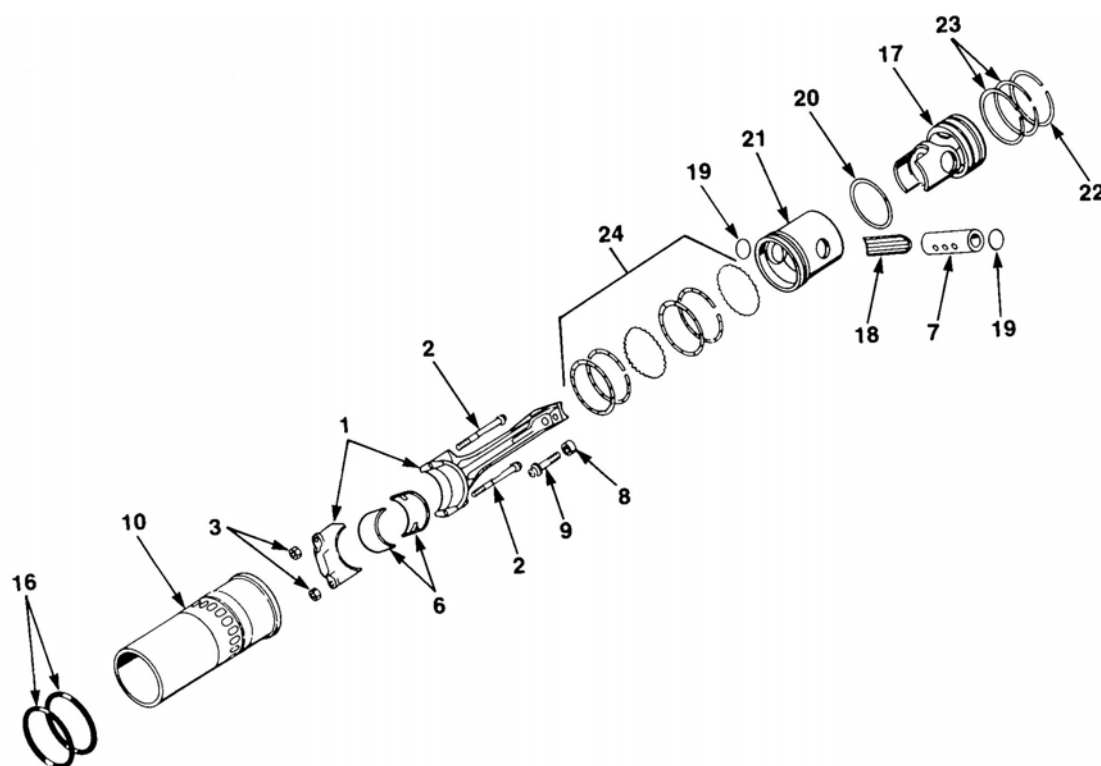
1.6110 - 1.6150

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.6110	0	FP-5195931	Piston Assembly, Std. (2 Valve Head)	2	3	4	6
1.6110	25	FP-5198877	Piston Assembly, Naturally Aspirated (4 Valve Head)	-	3	4	6
1.6110	0	FP-5198572	Piston Assembly, Turbo Trunk (Drilled 1.38" Diameter Pin)	-	-	4	-
1.6110	25	FP-8920717	Piston Assembly, Turbo Trunk	-	-	4	6
1.6110	25	FP-5198877	Piston Assembly, Naturally Aspirated (4 Valve Head), (Military)	-	-	-	6
1.6140	12	FP-5116189	Pin, Piston (Naturally Aspirated Trunk)	2	3	4	6
1.6140	0	FP-5104651	Pin, Piston (Turbo Trunk), (Drilled 1.38" Diameter)	-	-	4	-
1.6140	12	FP-5106902	Pin, Piston (Turbo Trunk), (Drilled 1.50" Diameter)	-	-	4	6
1.6150	11	FP-5108131	Retainer, Piston Pin (1.38" Diameter)	2	3	8	6
1.6150	11	FP-5108175	Retainer, Piston Pin (1.50" Diameter)	-	-	8	12
1.6115	0	FP-5149314	Ring Set, Turbo	-	-	4	-
1.6120	13	FP-5103382	Ring, Compression (Top Fire)	-	-	4	-
1.6120	14	FP-5116184	Ring, Compression (2nd, 3rd & 4th Grooves)	-	-	12	-
1.6130	15	FP-5149313	Ring Set, Oil Control (For One Piston)	-	-	4	-
1.6115	0	FP-5149359	Ring Set, Turbo Trunk	-	-	4	6
1.6120	13	FP-5103382	Ring, Compression (Top Fire)	-	-	4	6
1.6120	14	FP-5116184	Ring, Compression (2nd, 3rd & 4th Grooves)	-	-	12	18
1.6130	15	FP-5149378	Ring Set, Oil Control (For One Piston)	-	-	4	6
1.6115	0	FP-5149942	Ring Set, Naturally Aspirated (4 Valve Head)	-	3	4	6
1.6120	13	FP-8923328	Ring, Compression (Top Fire)	-	3	4	6
1.6120	14	FP-5116184	Ring, Compression (2nd, 3rd & 4th Grooves)	-	9	12	18
1.6130	15	FP-5195933	Ring Set, Oil Control (For One Groove)	-	6	8	12
1.6115	0	FP-5198822	Ring Set, Naturally Aspirated	2	3	4	6
1.6120	13	FP-5103382	Ring, Compression (Top Fire)	2	3	4	6
1.6120	14	FP-5116184	Ring, Compression (2nd, 3rd & 4th Grooves)	6	9	12	18
1.6130	15	FP-5195933	Ring Set, Oil Control (For One Groove)	4	6	8	12
1.6110	25	FP-5198877	Piston Assembly, Naturally Aspirated (4 Valve Head)	-	3	4	6
1.6140	12	FP-5116189	Pin, Piston (Naturally Aspirated Trunk)	-	3	4	6
1.6150	11	FP-5108131	Retainer, Piston Pin (1.38" Diameter)	-	6	8	12
1.6115	0	FP-5198901	Ring Set, Naturally Aspirated (Military)	-	-	-	6
1.6120	13	FP-5103382	Ring, Compression (Top Fire)	-	-	-	6
1.6120	14	FP-5116184	Ring, Compression (2nd, 3rd & 4th Grooves)	-	-	-	18
1.6130	15	FP-5198092	Ring Set, Oil Control (For One Piston)	-	-	-	6
1.6115	0	FP-5198902	Ring Set, Naturally Aspirated	-	3	4	6
1.6120	13	FP-5103382	Ring, Compression (Top Fire)	-	3	4	6
1.6120	14	FP-5116184	Ring, Compression (2nd Groove)	-	9	12	18
1.6120	14	FP-5127147	Ring, Compression (3rd & 4th Grooves)	-	6	8	12
1.6130	15	FP-5195933	Ring Set, Oil Control (For One Groove)	-	6	8	12



Connecting Rod & Piston

(Figure 4.3)





Connecting Rod & Piston

(Figure 4.3)

Groups:

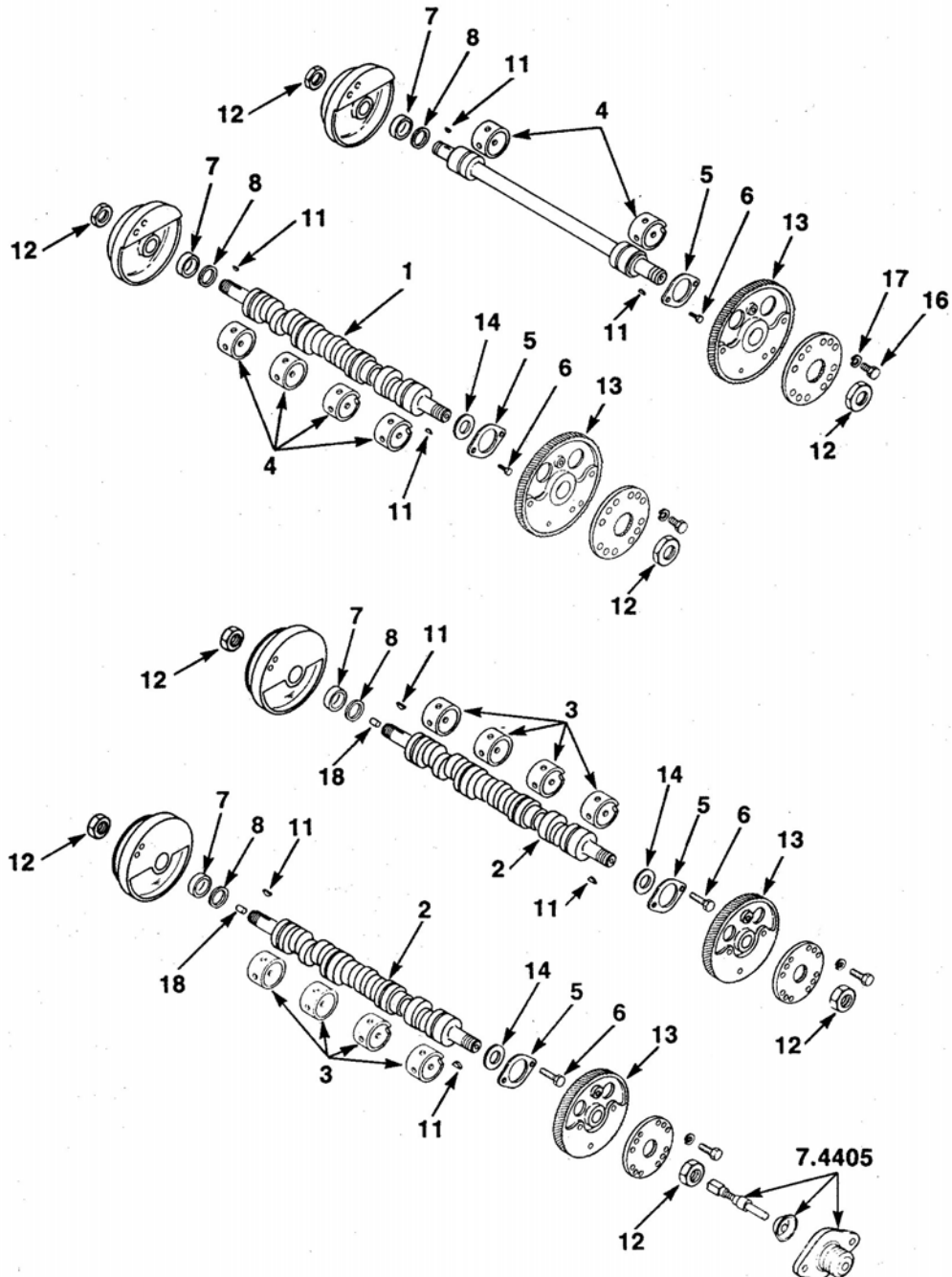
1.6106 - 1.6190

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.6110	21	FP-8924002	Skirt, All	-	3	4	6
1.6140	8	FP-8924732	Spacer, Piston Pin Bolt (Crosshead)	-	6	8	12
1.6180	10	FP-5101016	Liner, Cylinder (.84" Port Height), (.010)	2	3	4	6
1.6180	10	FP-5132803	Liner, Cylinder (.84" Port Height), (Std.)	2	3	4	6
1.6180	10	FP-5132803WS	Liner Cylinder (.84" Port Height), (Std.), (Kit w/Liner Seals)	2	3	4	6
1.6180	10	FP-5149944	Liner, Cylinder (.84" Port Height), (.020)	2	3	4	6
1.6180	10	FP-8926088	Liner, Cylinder (.74" Port Height), (Std.)	-	3	4	6
1.6180	10	FP-8926090	Liner, Cylinder (.74" Port Height), (.020 O.S.)	-	3	4	6
1.6185	0	FP-29610	Shim, Cylinder Liner .001"	2	3	4	6
1.6185	0	FP-29611	Shim, Cylinder Liner .002"	2	3	4	6
1.6190	16	FP-5121256	Seal Ring, Cylinder Liner (Std.), (.010 O.S.)	4	6	8	12
1.6190	16	FP-5149945	Seal Ring, Cylinder Liner (.020 O.S.)	4	6	8	12
1.6115	0	FP-23501520	Ring Set, Naturally Aspirated (High Sulfur), (Trunk Piston)	2	3	4	6
1.6120	13	FP-8923328	Ring, Compression (Top Fire)	2	3	4	6
1.6120	14	FP-8925779	Ring, Compression (2nd, 3rd & 4th Grooves)	6	9	12	18
1.6130	15	FP-5116188	Ring, Oil Control	4	6	8	12
1.6130	15	FP-8925781	Ring, Expander	4	6	8	16
1.6115	0	FP-23501521	Ring Set, Naturally Aspirated & Turbo (High Sulfur), (Trunk Piston)	-	3	4	6
1.6120	13	FP-5103382	Ring, Compression (Top Fire)	-	3	4	6
1.6120	14	FP-8925779	Ring, Compression (2nd, 3rd & 4th Grooves)	-	9	12	18
1.6130	15	FP-5103765	Ring, Oil Control	-	6	8	12
1.6130	15	FP-5116188	Ring, Oil Control	-	6	8	12
1.6130	15	FP-8925781	Ring, Expander	-	6	8	12
1.6110	0	FP-23503779	Dome Kit, 18:1 (Turbo), (All Crosshead)	-	3	4	6
1.6110	17	FP-23503948	Crown, Piston 18:1	-	3	4	6
1.6150	19	FP-8924731	Retainer, Piston Pin (Crosshead)	-	6	8	12
1.6106	20	FP-8924733	Seal Ring, Piston Crown & Skirt	-	3	4	6
1.6140	7	FP-8924735	Pin, Piston (Crosshead)	-	3	4	6
1.6142	18	FP-23504946	Bearing, Piston Pin (Slipper Type)	-	3	4	6
1.6115	0	FP-23503780	Ring Set, Crosshead (Turbo), (Military)	-	-	-	6
1.6120	13	FP-23503718	Ring, Compression (Top Fire), (Wide Gap)	-	-	-	6
1.6120	14	FP-8925779	Ring, Compression (2nd & 3rd Grooves)	-	-	-	18
1.6130	15	FP-8927224	Ring Set, Oil Control (For One Piston)	-	-	-	6
1.6115	0	FP-23512731	Ring Set, Crosshead (Turbo)	2	3	4	6
1.6120	22	FP-23512730	Ring, Compression (Barrel Face)	4	6	8	12
1.6120	23	FP-8925780	Ring, Compression	2	3	4	6
1.6130	24	FP-5116188	Ring, Oil Control	4	6	8	12
1.6130	24	FP-8925831	Ring, Oil Control	2	3	4	6
1.6130	24	FP-8925781	Ring, Expander	4	6	8	12
1.6115	0	FP-8927223	Ring Set, Crosshead (Turbo)	-	3	4	6
1.6120	22	FP-8925780	Ring, Compression (Top Fire)	-	3	4	6
1.6120	23	FP-8925779	Ring, Compression (2nd & 3rd Grooves)	-	6	8	12
1.6130	24	FP-8927224	Ring Set, Oil Control (For One Piston)	-	3	4	6



Camshaft

(Figure 5.1)





Camshaft

(Figure 5.1)

Groups:

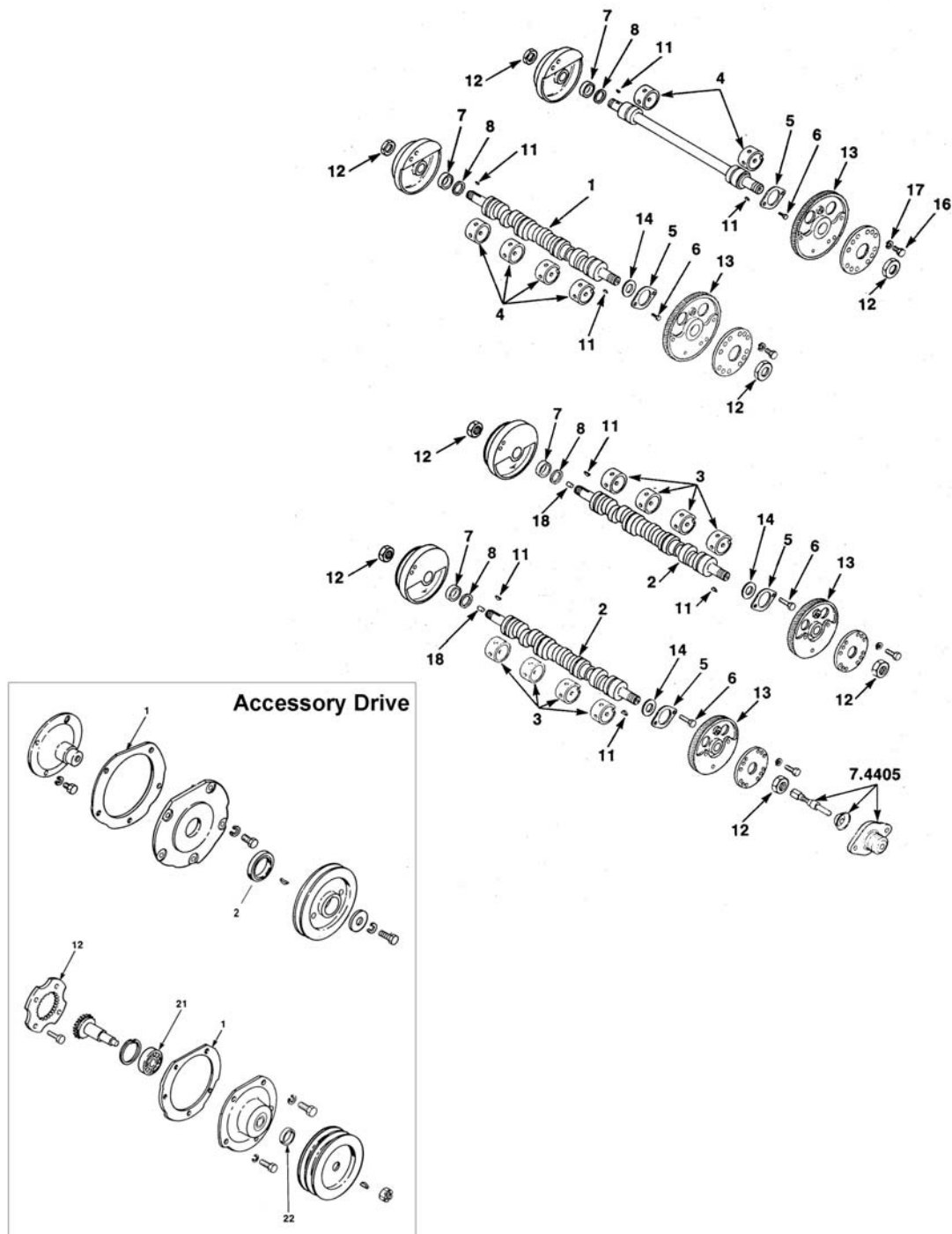
1.7001 - 1.7060

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.7001	18	FP-5151277	Plug, Camshaft (1/2" Drive)	2	2	2	2
1.7001	1	FP-5126929	Camshaft (RB,RC,LA,LD), (Stamped FP-5126745; V7), (Use w/FP-5144019 Spring On 4 Valve Head), (Types 31,50,57,96,266,278)	-	1	-	-
1.7001	1	FP-5149093	Camshaft (RA,RD,LB,LC), (Stamped FP-5101272; V7L), (3-53T), (Types 150,152,252,267,280,281,387,415)	-	1	-	-
1.7001	1	FP-5126932	Camshaft (RA,RB,RC,RD), (Stamped FP-5126748; V7), (Use w/FP-5144019 Spring On 4 Valve Head), (Types 34,51,55,77,78,85,272)	-	-	1	-
1.7001	1	FP-5149095	Camshaft (RA,RB,RC,RD), (Stamped FP-5101273; V7L), (Use w/FP-5147424 Spring 4 Valve Head), (Types 137,138,139,140,140,141,153,182,219,269,270,271,274,275,308,309,311,427,556)	-	-	1	-
1.7001	2	FP-5126934	Camshaft (R.Bank, R.H.. Engine/ L.Bank, L.H.. Engine), (Stamped FP-5126834; V7), (Use w/FP-5144019 Spring), (Types 60,277,297,299)	-	-	-	1
1.7010	4	FP-5198431	Bearing Set, Camshaft (Std.)	1	-	-	-
1.7010	4	FP-5198468	Bearing Set, Camshaft (.010" U.S.I.D.)	1	-	-	-
1.7010	4	FP-5198469	Bearing Set, Camshaft (.020" U.S.I.D.)	1	-	-	-
1.7010	4	FP-5198209	Bearing Set, Camshaft (Std.)	-	1	-	-
1.7010	4	FP-5198470	Bearing Set, Camshaft (.010" U.S.I.D.)	-	1	-	-
1.7010	4	FP-5198471	Bearing Set, Camshaft (.020" U.S.I.D.)	-	1	-	-
1.7010	4	FP-5198978	Bearing Set, Camshaft (.010" U.S.I.D.)	-	-	1	-
1.7010	4	FP-5198981	Bearing Set, Camshaft (.020" U.S.I.D.)	-	-	1	-
1.7010	4	FP-5198984	Bearing Set, Camshaft (Std.)	-	-	1	-
1.7010	0	FP-5197930	Bearing Set, Camshaft (Std.), (8V53 Only)	-	-	-	-
1.7010	0	FP-5197931	Bearing Set, Camshaft (.010" U.S.I.D.), (8V53 Only)	-	-	-	-
1.7010	3	FP-5197944	Bearing Set, Camshaft (Std.)	-	-	-	1
1.7010	3	FP-5197945	Bearing Set, Camshaft (.010" U.S.I.D.)	-	-	-	1
1.7010	3	FP-5197946	Bearing Set, Camshaft (.020" U.S.I.D.)	-	-	-	1
1.7030	5	FP-5116198	Washer, Camshaft End Bearing Thrust	2	2	2	2
1.7060	7	FP-23516871	Seal, Camshaft Front Oil	2	2	2	2



Camshaft

(Figure 5.2)





Camshaft

(Figure 5.2)

Groups:

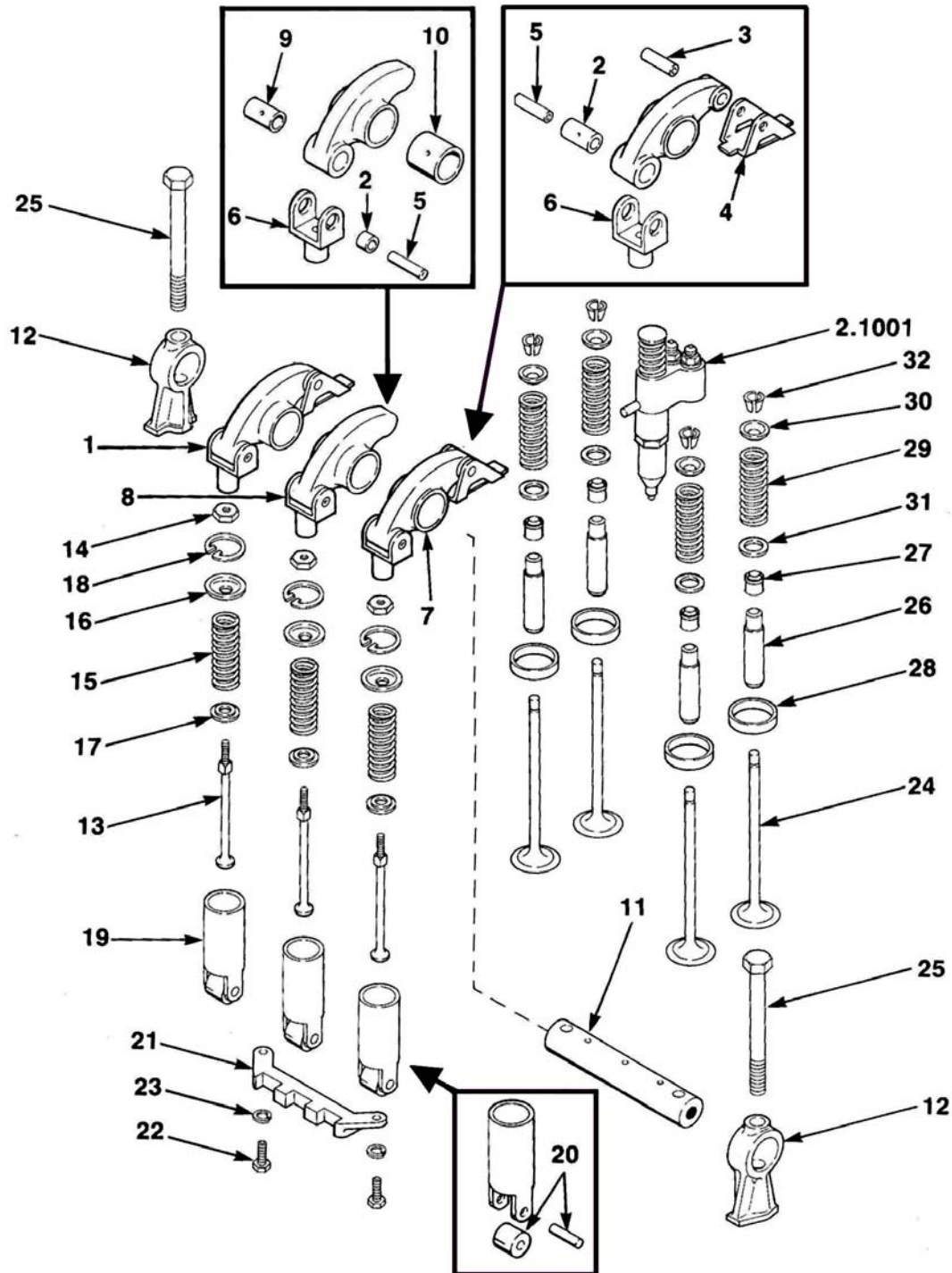
1.7062 - 1.7700

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.7062	8	FP-5106360	Spacer, Camshaft Pulley (Front)	2	2	2	2
1.7062	8	FP-5121071	Spacer, Camshaft Pulley (Front)	2	2	2	2
1.7130	11	FP-8926248	Key, 3/16" x 5/8" Woodruff	2	2	2	2
1.7200	13	FP-5107073	Gear, Camshaft & Balance Shaft (L.H. Helix), (111 Teeth)	1	1	1	1
1.7202	0	FP-5132504	Washer, Thrust Idler Gear	2	2	2	2
1.7202	0	FP-5196793	Bearing, Idler Gear	1	1	1	1
1.7250	0	FP-5124458	Hub Assembly, Idler Gear	1	1	1	1
Accessory Drive							
1.7604	1	FP-23515145	Gasket, Accessory Drive (FP-5104506)	1	1	1	1
1.7623	1	FP-23515145	Gasket, Accessory Drive Adapter To Flywheel Housing (FP-5104506)	-	-	1	-
1.7623	0	FP-5188755	Gasket, Hydraulic Pump To Adapter	-	-	1	-
1.7627	0	FP-5150568	Washer, 7/16"	-	1	1	-
1.7630	12	FP-5170450	Plate, Accessory Drive	-	1	1	2
1.7635	0	FP-5102257	Fork, Accessory Drive Coupling	-	1	1	-
1.7640	0	FP-103320	Lockwasher, 5/16"	-	3	3	3
1.7645	21	FP-23504528	Bearing, Accessory Drive (FP-23503726), (FP-907191)	1	1	1	1
1.7645	22	FP-5131131	Spacer, Accessory Drive Seal	1	1	1	1
1.7645	2	FP-5131329	Seal, Accessory Drive	1	1	1	1
1.7700	0	FP-5150193	Gasket, Fuel Pump To Engine	-	1	-	-



Valve Train

(Figure 6.1)





Valve Train

(Figure 6.1)

Groups:

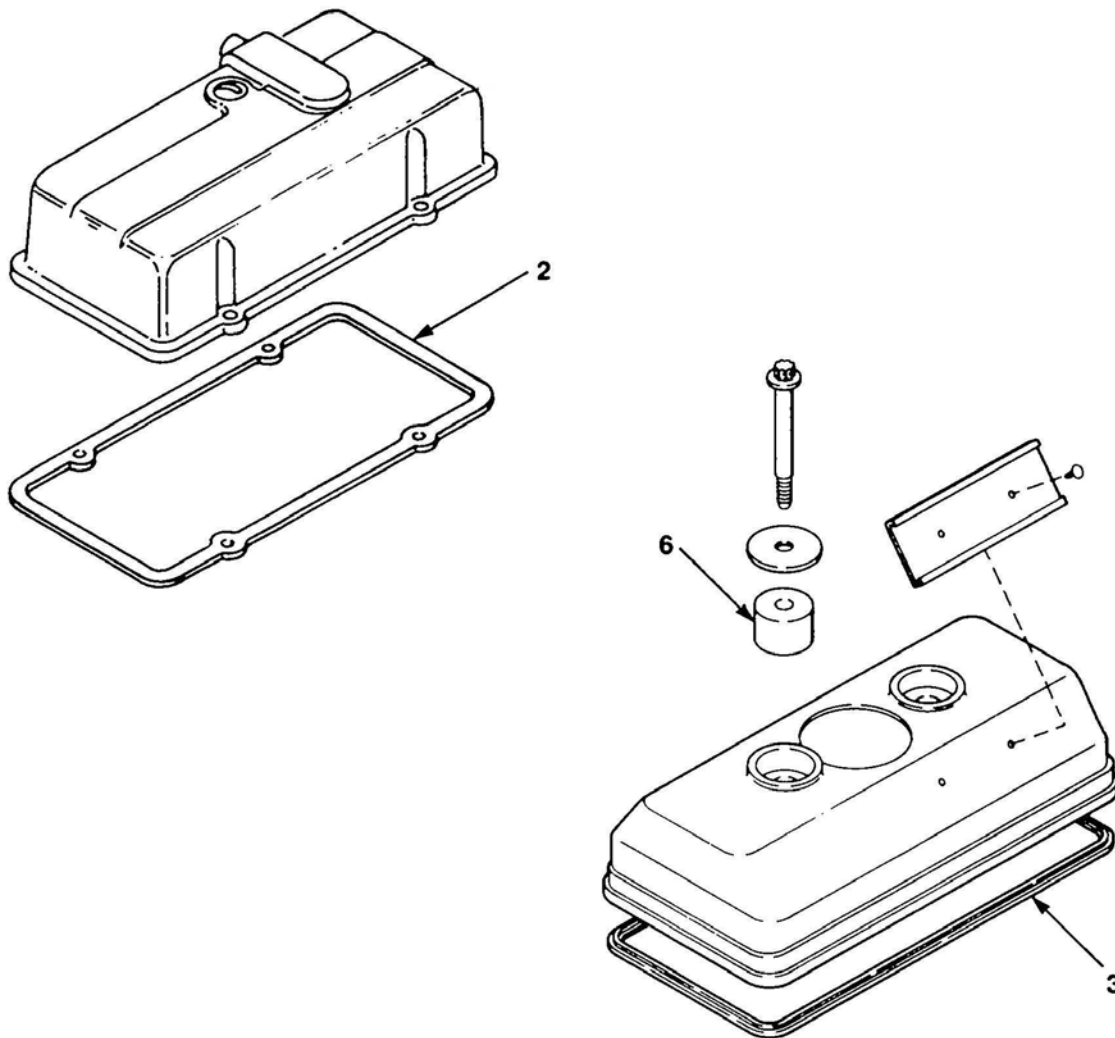
1.8060 - 1.8370

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.8060	6	FP-5150312	Clevis, Rocker Arm	6	9	12	18
1.8060	5	FP-5150314	Pin, Rocker Arm Clevis	6	9	12	18
1.8060	3	FP-5123711	Pin, Push Rod Clevis	-	6	8	12
1.8060	4	FP-5135262	Bridge, Exhaust Valve	-	6	8	12
1.8060	1	FP-5135267	Arm Assembly, Exhaust Rocker (Left), (4 Valve Head)	-	3	4	6
1.8060	7	FP-5135268	Arm Assembly, Exhaust Rocker (Right), (4 Valve Head)	-	3	4	6
1.8060	2	FP-5123700	Bushing, Rocker Arm Clevis	-	15	20	30
1.8080	8	FP-8923554	Arm Assembly, Injector Rocker (4 Valve Head)	2	3	4	6
1.8080	9	FP-8924354	Bushing, Injector Rocker Arm (Small)	2	3	4	6
1.8080	10	FP-8924355	Bushing, Injector Rocker Arm (Large)	2	3	4	6
1.8160	11	FP-5116072	Shaft, Rocker Arm	2	3	4	6
1.8170	12	FP-5116128	Bracket, Rocker Arm Shaft	4	6	8	12
1.8180	13	FP-5128640	Rod, Push	6	9	12	18
1.8180	14	FP-5151601	Nut, Push Rod	6	9	12	18
1.8190	15	FP-5108918	Spring, Push Rod (.192 W.D.), (2 Orange Stripes)	6	9	12	18
1.8190	15	FP-5186858	Spring, Push Rod (.177 W.D.), (Valve & Injector)	6	9	12	18
1.8200	16	FP-5108919	Seat, Push Rod Spring Upper	6	9	12	18
1.8200	16	FP-5150302	Seat, Push Rod Spring Upper	6	9	12	18
1.8210	17	FP-5123250	Seat, Push Rod Spring Lower	6	9	12	18
1.8250	18	FP-5150303	Retainer, Push Rod (Naturally Aspirated Ring)	6	9	12	18
1.8260	19	FP-8924439	Follower Assembly, Camshaft	6	9	12	18
1.8265	20	FP-8923814	Roller Set, Follower Assembly	6	9	12	18
1.8300	23	FP-103319	Lockwasher, 1/4"	4	6	8	12
1.8300	22	FP-443603	Bolt, 1/4"(-20 x 3/4")	4	6	8	12
1.8300	21	FP-5116125	Guide, Camshaft Follower	2	3	4	6
1.8310	0	FP-5195948	Valve Kit, Exhaust (30°), (2 Valve Head)	4	6	8	12
1.8310	24	FP-5197176	Valve Kit, Exhaust (30°), (4 Valve Head), (Turbo)	-	12	16	24
1.8310	24	FP-5199323	Valve Kit, Exhaust (30°), (4 Valve Head), (Naturally Aspirated)	-	12	16	24
1.8320	27	FP-8921209	Seal, Exhaust Valve Guide (2 Valve Head)	4	6	8	-
1.8320	26	FP-5129919	Guide, Exhaust Valve (2 Valve Head)	4	12	16	24
1.8330	28	FP-5116196	Insert, Exhaust Valve Seat (30°), (2 Valve Head), (Std.)	4	6	8	-
1.8330	28	FP-5196752	Insert, Exhaust Valve Seat (30°), (4 Valve Head), (.010 O.S.)	-	12	16	24
1.8330	28	FP-8921501	Insert, Exhaust Valve Seat (30°), (4 Valve Head), (Std.)	-	12	16	24
1.8330	28	FP-8921502	Insert, Exhaust Valve Seat (30°), (Turbo), (Std.)	-	-	16	-
1.8340	29	FP-5116140	Spring, Exhaust Valve (2 Valve Head)	4	6	8	-
1.8340	29	FP-5144019	Spring, Exhaust Valve (4 Valve Head), (.135" W.D.)	-	12	16	24
1.8340	29	FP-5147424	Spring, Exhaust Valve (4 Valve Head), (.148" W.D.), (Red Paint), (V7L)	-	12	16	24
1.8343	4	FP-5135262	Bridge, Exhaust Valve	-	6	8	12
1.8350	30	FP-5123330	Cap, Exhaust Valve Spring (4 Valve Head)	-	12	16	24
1.8360	31	FP-5111467	Seat, Exhaust Valve Spring (.063" Thick), (4 Valve Head)	-	12	16	24
1.8370	32	FP-5111337	Lock Half, Exhaust Valve (2 Valve Head)	8	12	16	-
1.8370	32	FP-5116341	Lock Half, Exhaust Valve (4 Valve Head)	-	24	32	48
1.8320	0	FP-5198529	Kit, Valve Guide & Seal	-	12	16	24
1.8320	26	FP-5131961	Guide, Exhaust Valve (4 Valve Head)	-	6	12	-
1.8320	27	FP-8921741	Seal, Exhaust Valve Guide (4 Valve Head)	-	12	16	24



Rocker Cover

(Figure 6.2)





Rocker Cover

(Figure 6.2)

Groups:

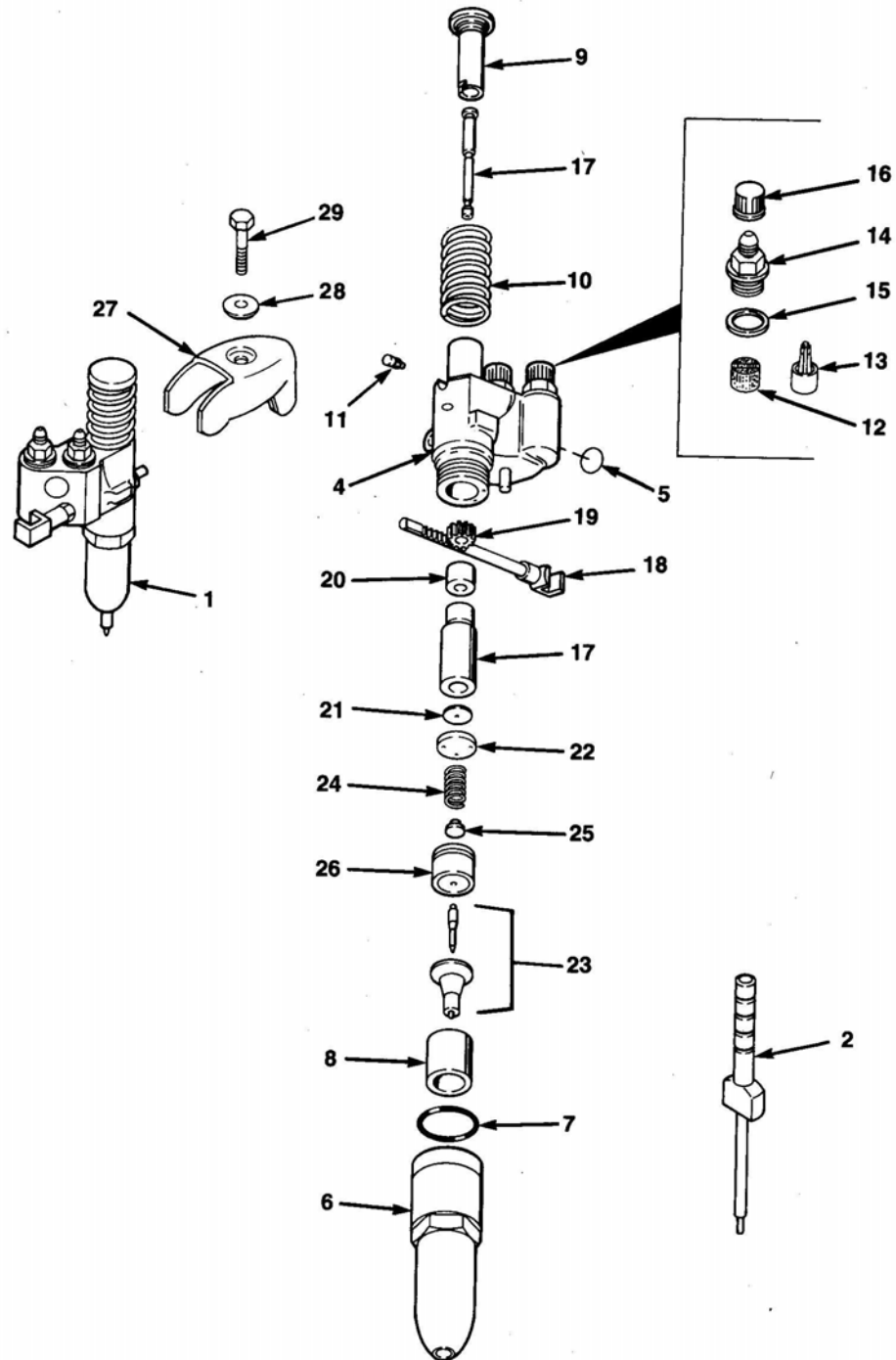
1.8455 - 1.8461

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.8455	0	FP-5147993	Gasket, Rocker Cover	1	-	-	-
1.8455	2	FP-5147994	Gasket, Rocker Cover (Stamped Steel)	-	1	-	2
1.8455	3	FP-8925273	Gasket, Rocker Cover (Cast Aluminum)	-	1	-	2
1.8455	2	FP-5147506	Gasket, Rocker Cover (Stamped Steel)	-	-	1	-
1.8455	3	FP-8925274	Gasket, Rocker Cover (Cast Aluminum)	-	-	1	-
1.8460	0	FP-5104514	Washer, .47" x 2.00" x .20"	-	2	2	4
1.8461	6	FP-5104515	Isolator, Rocker Cover Bolt	-	2	2	4



Fuel Injector

(Figure 7.1)





Fuel Injector

(Figure 7.1)

Groups:

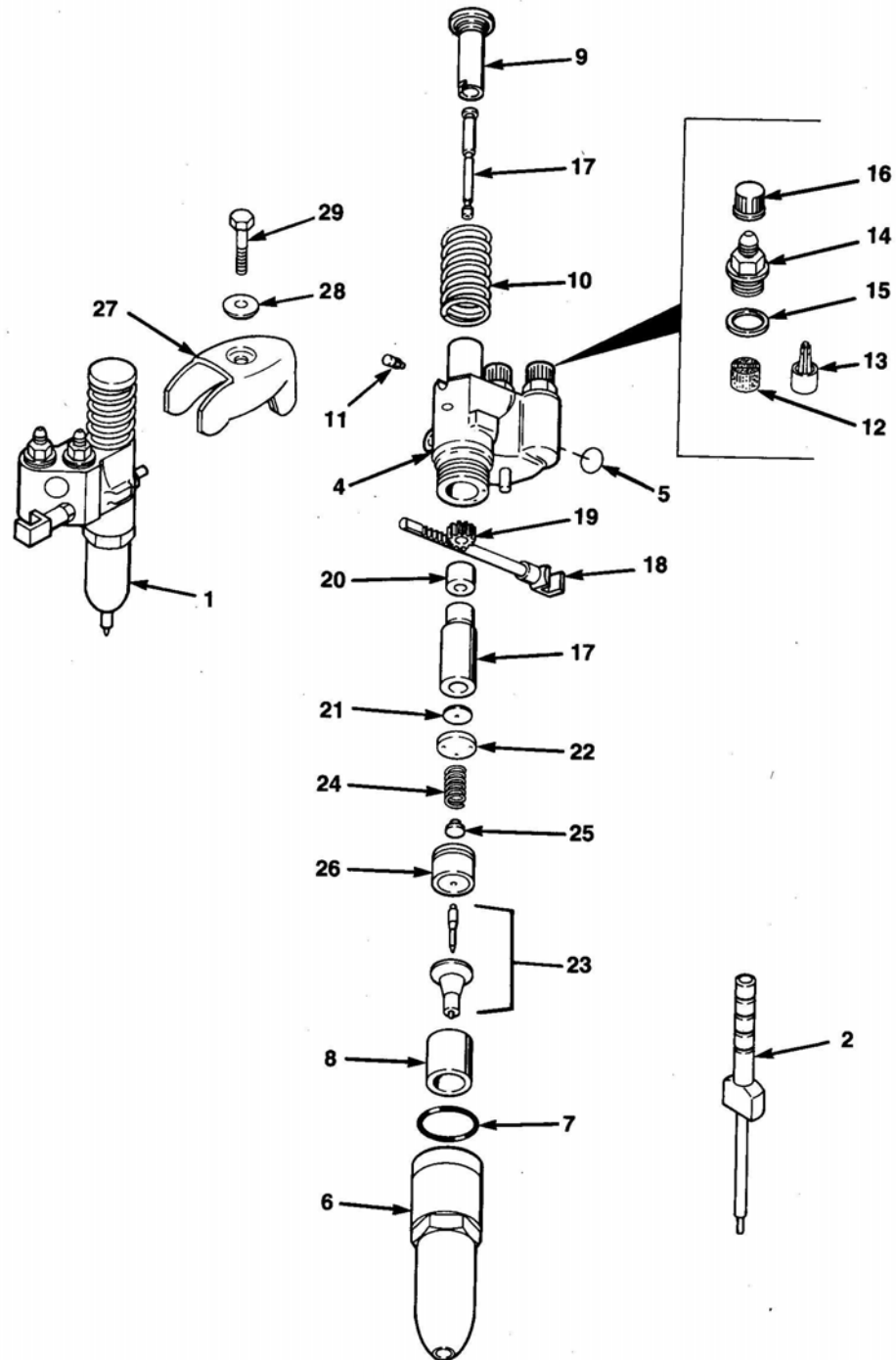
2.1001 - 2.1220

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.1001	1	FP-5229345	Injector Assembly C45	2	3	4	6
2.1020	4	FP-5228583	Body Assembly, Injector	2	3	4	6
2.1020	5	FP-5229191	Tag, Blank Injector	2	3	4	6
2.1030	6	FP-5228601	Nut, Injector (NV)	2	3	4	6
2.1050	8	FP-5228109	Deflector, Injector Spill	2	3	4	6
2.1060	9	FP-5228104	Follower, Injector	2	3	4	6
2.1080	10	FP-5229518	Spring, Injector Follower	2	3	4	6
2.1100	11	FP-5228608	Pin, Injector Stop	2	3	4	6
2.1110	12	FP-5228587	Element, Injector Filter	2	3	4	6
2.1130	14	FP-5228588	Cap, Injector Filter	2	3	4	6
2.1132	0	FP-5228882	Kit, Filter Conversion	2	3	4	6
2.1140	15	FP-5226186	Gasket, Injector Filter	2	3	4	6
2.1150	16	FP-5226414	Cap, Injector Shipping	2	3	4	6
2.1170	18	FP-5226719	Rack, Injector	2	3	4	6
2.1180	19	FP-5226400	Gear, Injector	2	3	4	6
2.1190	20	FP-5228586	Retainer, Injector Gear	2	3	4	6
2.1200	21	FP-5226411	Valve, Injector Check	2	3	4	6
2.1200	21	FP-5228694	Valve, Injector Check	2	3	4	6
2.1205	22	FP-5228696	Valve, Gage & Check	2	3	4	6
2.1220	0	FP-5228491	Tip Kit, Injector Spray (S45,S50,S60)	2	3	4	6
2.1002	0	FP-5229649	Service Kit, Injector	2	3	4	6
2.1002	15	FP-5226186	Gasket, Injector Filter	2	3	4	6
2.1002	16	FP-5226414	Cap, Injector Shipping	2	3	4	6
2.1002	12	FP-5228587	Element, Injector Filter	2	3	4	6
2.1002	7	FP-5234281	Ring, Injector Seal	2	3	4	6



Fuel Injector

(Figure 7.2)





Fuel Injector

(Figure 7.2)

Groups:

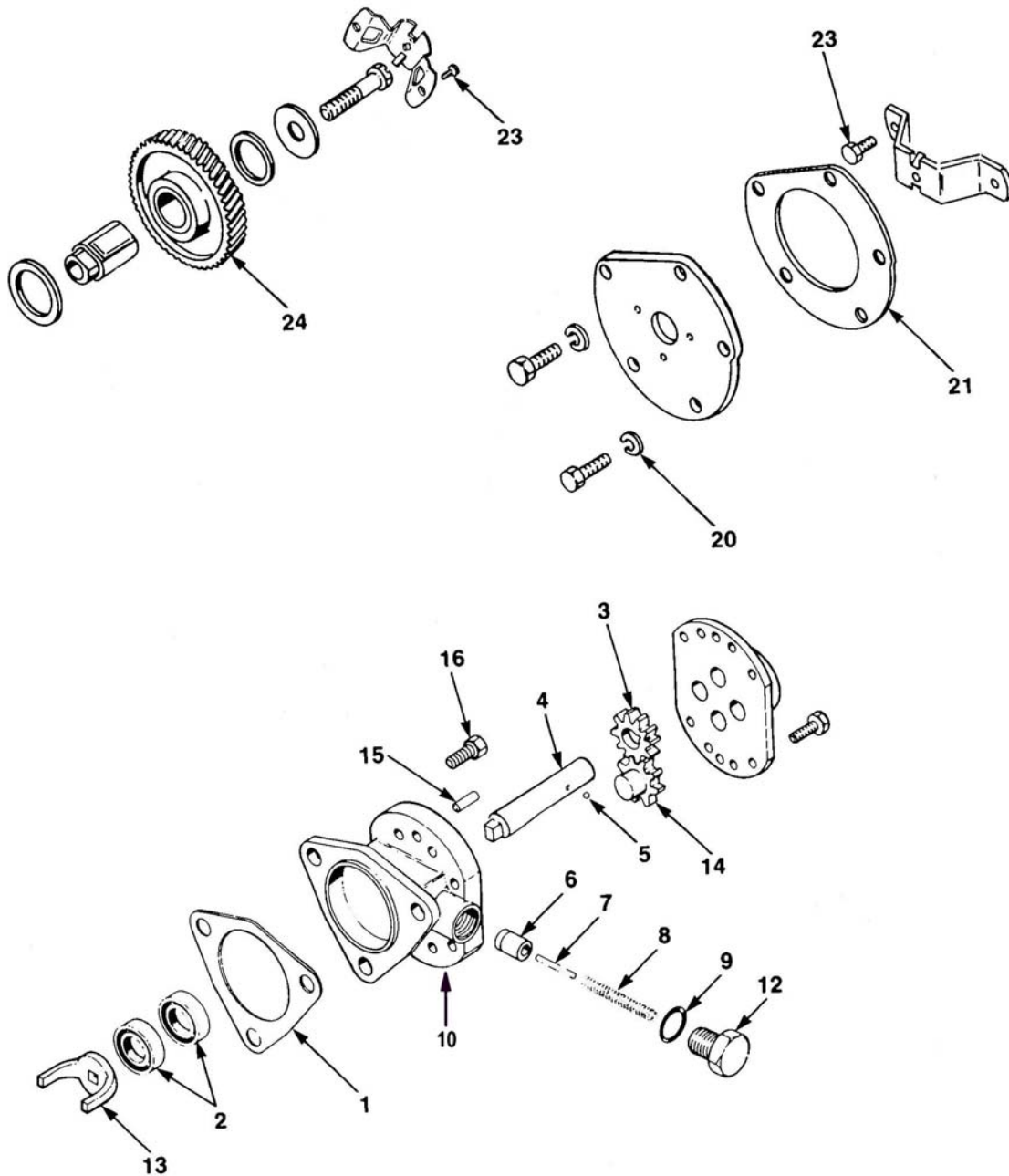
2.1160 - 2.1270

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.1160	17	FP-5228495	Plunger & Barrel (S45)	2	3	4	6
2.1160	17	FP-5228656	Plunger & Barrel (5A60)	2	3	4	6
2.1160	17	FP-5228684	Plunger & Barrel (N45), (5N45)	2	3	4	6
2.1160	17	FP-5228749	Plunger & Barrel (N50)	2	3	4	6
2.1160	17	FP-5229342	Plunger & Barrel (C40)	2	3	4	6
2.1160	17	FP-5229346	Plunger & Barrel (C45)	2	3	4	6
2.1160	17	FP-5229354	Plunger & Barrel (C50)	2	3	4	6
2.1235	23	FP-5229026	Spray Tip (5N45)	2	3	4	6
2.1235	23	FP-5229030	Spray Tip (5A50)	2	3	4	6
2.1235	23	FP-5229030	Spray Tip (5A55)	2	3	4	6
2.1235	23	FP-5229030	Spray Tip (5A60)	2	3	4	6
2.1235	23	FP-5229034	Spray Tip (C40)	2	3	4	6
2.1235	23	FP-5229034	Spray Tip (N45)	2	3	4	6
2.1235	23	FP-5229034	Spray Tip (N50)	2	3	4	6
2.1235	23	FP-5229034	Spray Tip (N40)	2	3	4	6
2.1235	23	FP-5229034	Spray Tip (C45)	2	3	4	6
2.1235	23	FP-5229034	Spray Tip (C50)	2	3	4	6
2.1235	23	FP-5229034	Spray Tip (N35)	2	3	4	6
2.1250	0	FP-5228676	Spring, Valve Injector	2	3	4	6
2.1270	27	FP-5121259	Clamp, Injector Hold Down	2	3	4	6
2.1270	28	FP-5150250	Washer, Injector Hold Down	2	3	4	6
2.1238	0	FP-5228313	Kit, Injector Valve	2	3	4	6
2.1238	24	FP-5227210	Spring, Injector	2	3	4	6
2.1238	0	FP-5228308	Valve, Injector	2	3	4	6
2.1238	0	FP-5228769	Kit, Injector Valve	2	3	4	6
2.1238	24	FP-5228596	Spring, Injector Valve	2	3	4	6
2.1238	25	FP-5228766	Seat, Injector	2	3	4	6



Fuel Pump

(Figure 8.1)





Fuel Pump

(Figure 8.1)

Groups:

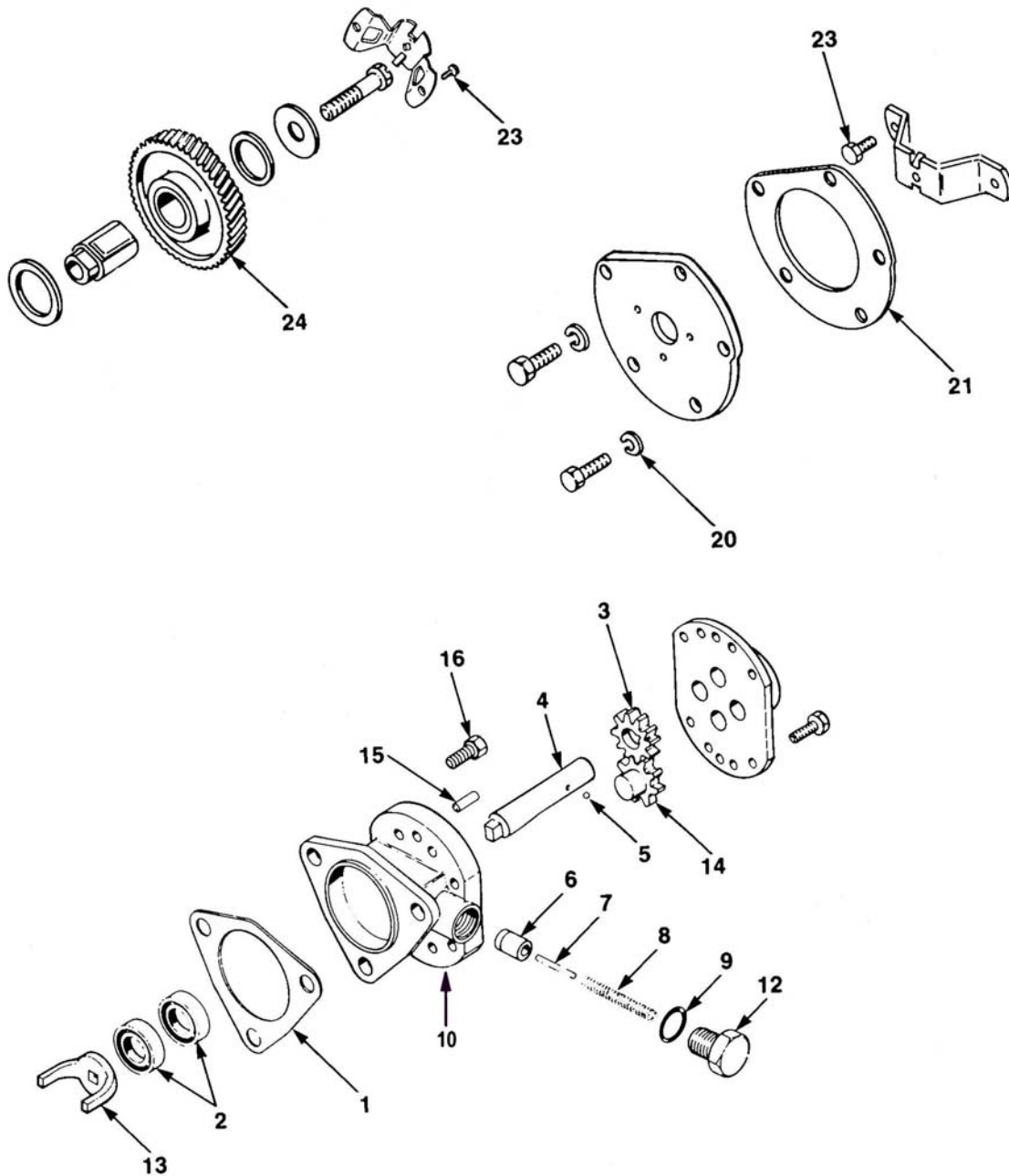
2.2001 - 2.2004

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.2001	16	FP-8925603	Bolt, Fuel Pump Mounting (5/16" - 18 x 3/4"), (FP-5131685)	3	3	3	3
2.2001	0	FP-8924380	Plug, Pipe 1/8" - 27	2	2	2	2
2.2001	0	FP-5198558	Bushing, 3/8" x 1/4"	1	1	1	1
2.2001	0	FP-5199560	Kit, Fuel Pump (Standard Output L.H..)	1	1	1	1
2.2001	0	FP-5199561	Kit, Fuel Pump (Standard Output R.H..)	1	1	1	1
2.2001	0	FP-5199734	Kit, Fuel Pump (High Output R.H..)	1	1	1	1
2.2001	0	FP-5199735	Kit, Fuel Pump (High Output L.H..)	1	1	1	1
2.2004	0	FP-5100313	Shaft Assembly, Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	14	FP-5100312	Shaft, Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	3	FP-5118915	Gear, Fuel Pump Drive (.374" W.), (High Output)	1	1	1	1
2.2004	5	FP-147481	Ball, 1/8" Steel	1	1	1	1
2.2004	0	FP-5146705	Shaft Assembly, Fuel Pump Driven (3.09" L), (High Output)	1	1	1	1
2.2004	4	FP-5178700	Shaft, Fuel Pump Drive (3.09" L), (High Output)	1	1	1	1
2.2004	3	FP-5128217	Gear, Fuel Pump Drive (.374" W.), (High Output)	1	1	1	1
2.2004	0	FP-5149599	Overhaul Kit, High Output Fuel Pump	1	1	1	1
2.2004	7	FP-103709	Pin, 5/32" x 1" Straight	1	1	1	1
2.2001	1	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	1
2.2004	0	FP-5136240	Plug, Cap Fuel Pump Body 1/4"	2	2	2	2
2.2004	0	FP-5136241	Plug, Cap Fuel Pump Body 3/8"	1	1	1	1
2.2004	6	FP-5174973	Valve, Fuel Pump	1	1	1	1
2.2004	4	FP-5146705	Shaft Assembly, Fuel Pump Drive (3.09" L), (High Output)	1	1	1	1
2.2004	14	FP-5100313	Shaft Assembly, Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	2	FP-23512243	Seal, Fuel Pump Oil (FP-5107223)	2	2	2	2
2.2004	8	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1	1
2.2004	9	FP-5161003	Gasket, Fuel Pump Valve Plug	1	1	1	1
2.2004	0	FP-5181746	Shaft & Gear, Fuel Pump Drive (3.09"L), (Std. Output)	1	1	1	1
2.2004	4	FP-5178700	Shaft, Fuel Pump Drive (3.09" L), (Std. Output)	1	1	1	1
2.2004	3	FP-5174975	Gear, Fuel Pump Drive (.294" W.), (Std. Output)	1	1	1	1
2.2004	0	FP-5181747	Shaft & Gear, Fuel Pump Drive (.838" L), (Std. Output)	1	1	1	1
2.2004	14	FP-5181749	Shaft, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	3	FP-5181748	Gear, Fuel Pump Driven (.294" W.)	1	1	1	1
2.2004	0	FP-5195078	Overhaul Kit, Standard Output Fuel Pump	1	1	1	1
2.2004	7	FP-103709	Pin, 5/32" x 1" Straight	1	1	1	1
2.2001	1	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	1
2.2004	0	FP-5136240	Plug, Cap Fuel Pump Body 1/4"	2	2	2	2
2.2004	0	FP-5136241	Plug, Cap Fuel Pump Body 3/8"	1	1	1	1
2.2004	6	FP-5174973	Valve, Fuel Pump	1	1	1	1
2.2004	4	FP-5181746	Shaft & Gear, Fuel Pump Drive (3.09"L), (Std. Output)	1	1	1	1
2.2004	14	FP-5181747	Shaft & Gear, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	2	FP-23512243	Seal, Fuel Pump Oil (FP-5107223)	2	2	2	2
2.2004	8	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1	1
2.2004	9	FP-5161003	Gasket, Fuel Pump Valve Plug	1	1	1	1



Fuel Pump

(Figure 8.2)





Fuel Pump

(Figure 8.2)

Groups:

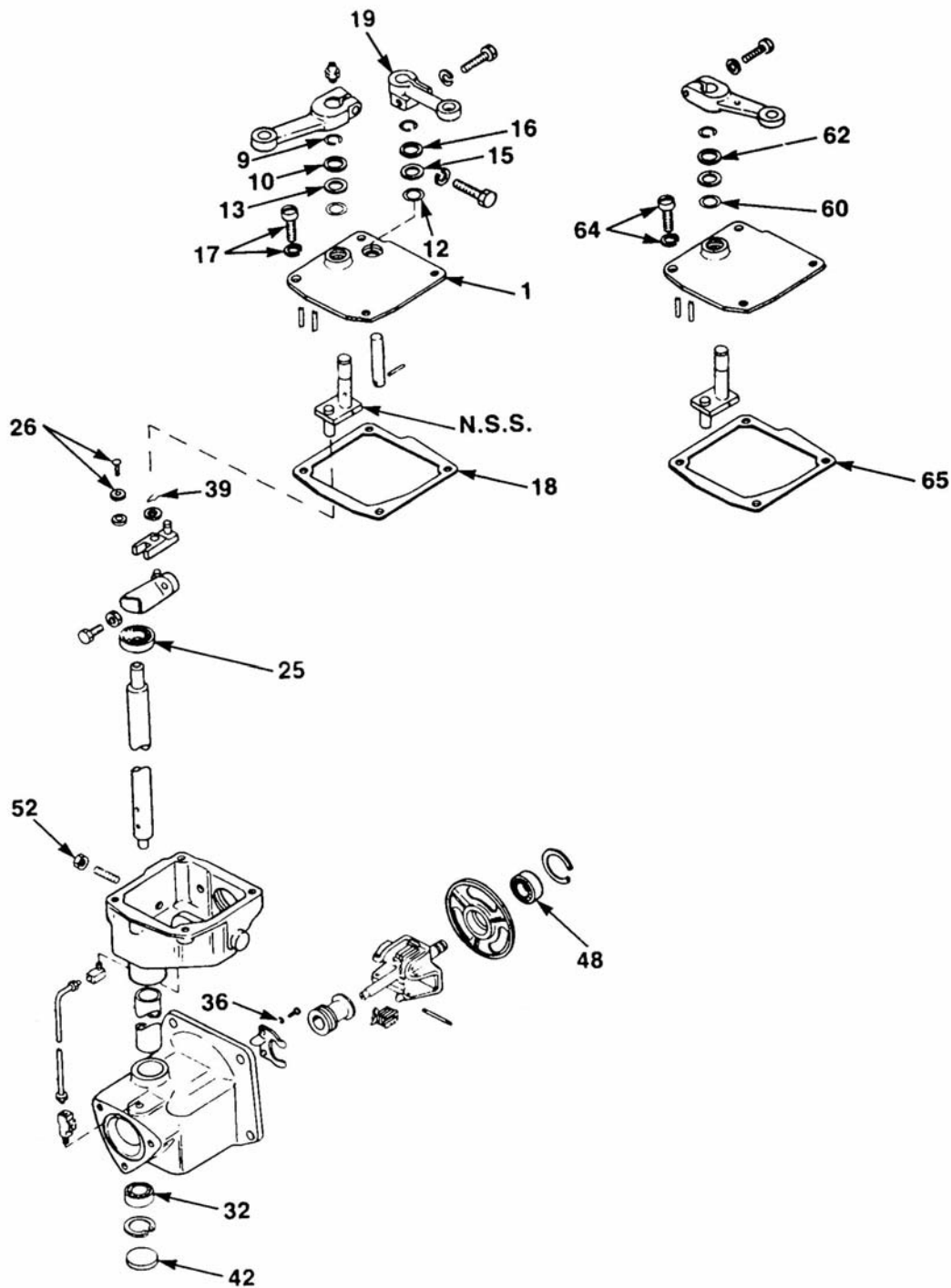
2.2170 - 2.6090

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.2170	12	FP-5174971	Plug, 1/2"-20 Fuel Pump Valve	1	1	1	1
2.2237	21	FP-23515145	Gasket, FP Mounting Plate	1	1	1	1
2.2290	24	FP-5107088	Gear, Fuel Pump Drive (L.H.. Helix)	1	1	1	1
2.3310	0	FP-5136207	Bracket, Fuel Filter Support	1	1	1	1
2.4015	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
2.4020	0	FP-23511852	Fuel Pipe Assembly, Injector To Stand Pipe (FP-5116204)	4	6	8	12
2.4030	0	FP-8925644	Washer, Fuel Pipe Connector	4	6	8	12
2.4030	0	FP-8926992	Connector, Fuel Pipe	4	6	8	12
2.4050	0	FP-5150568	Washer, 7/16" x 3/4" x 1/16"	4	6	8	12
2.4050	0	FP-5152148	Washer, 25/64" x 9/16" x 1/16"	4	6	8	12
2.4225	0	FP-5179232	Seal Ring, .424" x .103" (2.7045)	1	1	1	1
2.5006	0	FP-5135308	Valve, Fuel Check 3/8" (Swing Type)	1	1	1	1
2.5006	0	FP-5174924	Valve, Fuel Check 1/4" (Swing Type)	1	1	1	1
2.5210	0	FP-8924195	Connector, .080" Restrictor	-	-	-	1
2.5215	0	FP-8925325	Bushing, Fuel Drain Hose (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1
2.6005	0	FP-8925325	Bushing, Fuel Tank Hose (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1
2.6090	0	FP-8925325	Bushing, Fuel Tank Check Valve (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1



Limiting Speed Governor

(Figure 9.1)





Limiting Speed Governor

(Figure 9.1)

Groups:

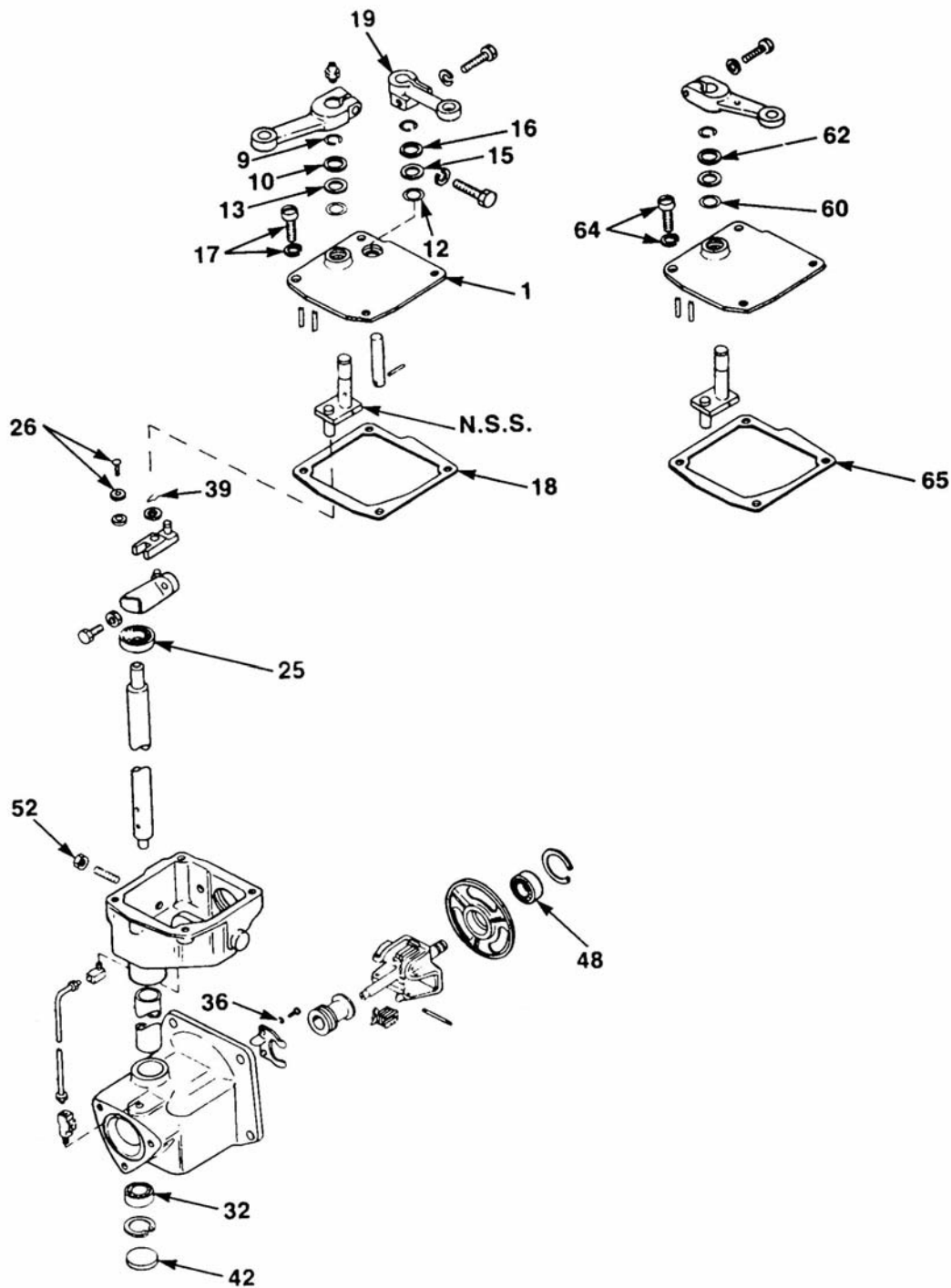
2.7010 - 2.7819

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.7010	0	FP-5116336	Gasket, Governor To Engine	1	1	1	-
2.7010	0	FP-5121315	Gasket, Governor To Engine	1	-	-	-
2.7045	17	FP-9417926	Screw, 1/4" - 20 x 3/4" Phillips Hd.	4	4	4	-
2.7045	10	FP-5153060	Retainer, Governor Throttle Shaft (2.7150)	3	3	3	-
2.7045	0	FP-5179232	Ring, .424" x .106" Seal (2.7130), (2.7140)	3	3	3	-
2.7045	13	FP-5144177	Retainer, Governor Throttle Shaft (2.7150)	2	2	2	-
2.7045	15	FP-5144178	Retainer, Governor Cover Shutdown Shaft (2.7155)	2	2	2	-
2.7045	16	FP-5151487	Washer, (2.7155)	2	2	2	-
2.7045	14	FP-5178581	Ring, Retainer (2.7155)	2	2	2	-
2.7045	12	FP-5101691	Ring, .362" x .113" Seal	1	1	1	-
2.7045	9	FP-5174429	Ring, Governor Throttle Retaining	1	1	1	-
2.7045	12	FP-5176557	Ring, Governor Throttle Shaft Packing Seal (2.7140)	1	1	1	-
2.7051	18	FP-5122742	Gasket, Governor Cover	1	1	1	-
2.7230	0	FP-5116262	Adapter, Injector Control Link Boot (2.7830)	1	1	1	-
2.7230	0	FP-8924380	Plug, 1/8" - 27 Pipe	1	1	1	-
2.7230	25	FP-9431894	Bearing, Governor Operating Shaft (Upper), (2.7260)	1	1	1	-
2.7260	25	FP-9431895	Bearing, Governor Operating Shaft (Upper)	1	1	1	-
2.7270	32	FP-9431887	Bearing, Governor Operating Shaft (Lower)	1	1	1	-
2.7310	39	FP-142583	Retainer, 3/16" Governor Differential Lever (Spring)	1	1	1	-
2.7340	42	FP-9428477	Plug, 15/16" Cup Pipe	1	1	1	-
2.7470	48	FP-23506244	Bearing, Governor Weight Carrier Shaft (FP-907045)	1	1	1	-
2.7520	0	FP-103320	Lockwasher, 5/16"	3	3	3	-
2.7530	0	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	-
2.7580	0	FP-5103975	Cap, Governor Low Speed Spring (2.7590)	1	1	1	-
2.7650	0	FP-8922593	Gasket, Governor High Speed Spring Cover	1	1	1	-
2.7655	0	FP-5156768	Gasket, 21/32" (Copper)	1	1	1	-
2.7819	0	FP-142583	Retainer, 3/16" Spring	1	1	1	-
2.7819	0	FP-5122798	Link, Governor To Injector	1	1	1	-



Variable Speed Governor

(Figure 9.2)





Variable Speed Governor

(Figure 9.2)

Groups:

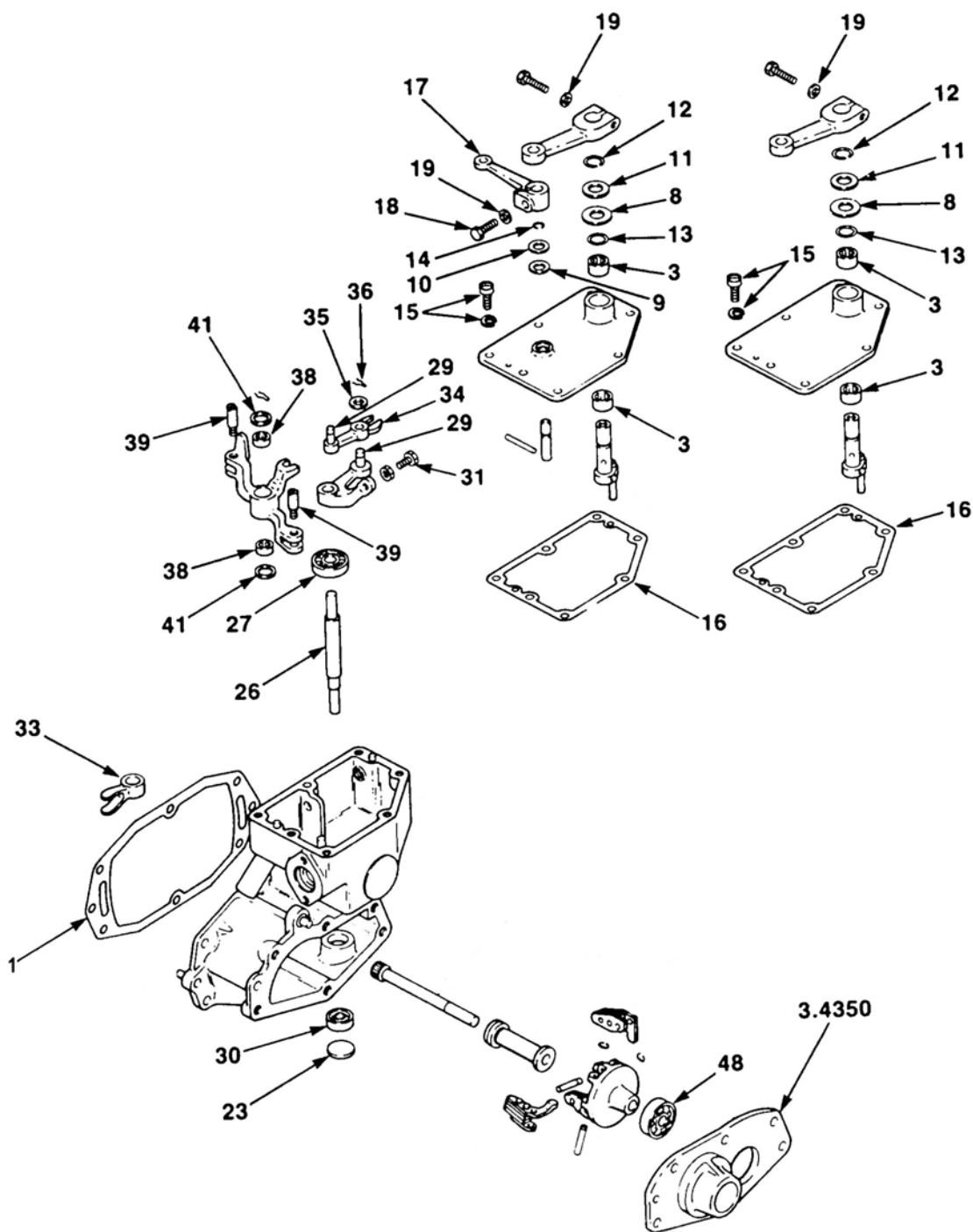
2.7010 - 2.7834

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.7010	0	FP-5116336	Gasket, Governor to Engine	1	1	1	-
2.7045	64	FP-9417926	Screw, 1/4" - 20 x 3/4" Phillips. Head	4	4	4	-
2.7045	60	FP-5179232	Ring, Governor Throttle Shaft Seal (2.7140)	1	1	1	-
2.7051	65	FP-5122742	Gasket, Governor Cover	1	1	1	-
2.7230	0	FP-5116262	Adapter, Injector Control Link Boot (2.7830)	1	1	1	-
2.7230	25	FP-9431894	Bearing, Governor Operating Shaft (Upper), (2.7260)	1	1	1	-
2.7270	0	FP-9428477	Plug, Governor Operating Shaft Bearing Retaining Cup (2.7340)	1	1	1	-
2.7270	32	FP-9431887	Bearing, Governor Operating Shaft (Lower)	1	1	1	-
2.7650	0	FP-8922593	Gasket, Governor High Speed Spring Cover	1	1	1	-
2.7800	0	FP-5136590	Shim, Governor Variable Speed Spring (.010")	6	6	6	-
2.7800	0	FP-5136591	Shim, Governor Variable Speed Spring (.078")	3	3	3	-
2.7810	0	FP-5155596	Washer, Copper	2	2	2	-
2.7810	52	FP-5174286	Nut, 3/8" -24	1	1	1	-
2.7819	0	FP-142583	Retainer, Governor To Injector Link Spring	1	1	1	-
2.7819	0	FP-5122798	Link, Governor To Injector (B&D Engine)	1	1	1	-
2.7830	0	FP-5116262	Adapter, Cylinder Head Governor Control Link	1	1	1	-
2.7830	0	FP-5121252	Adapter, Cylinder Head Governor Control Link	1	1	1	-
2.7834	0	FP-5129705	Hose, 7/8" I.D. x .75" L. (B & D Engine)	1	1	1	-
2.7834	0	FP-5129707	Hose, 7/8" I.D. x 1.26" L. (A & C Engine)	1	1	1	-
2.7834	0	FP-5186840	Clamp, 1 3/16" Diameter Hose	1	1	1	-



Limiting Speed Governor

(Figure 9.3)





Limiting Speed Governor

(Figure 9.3)

Groups:

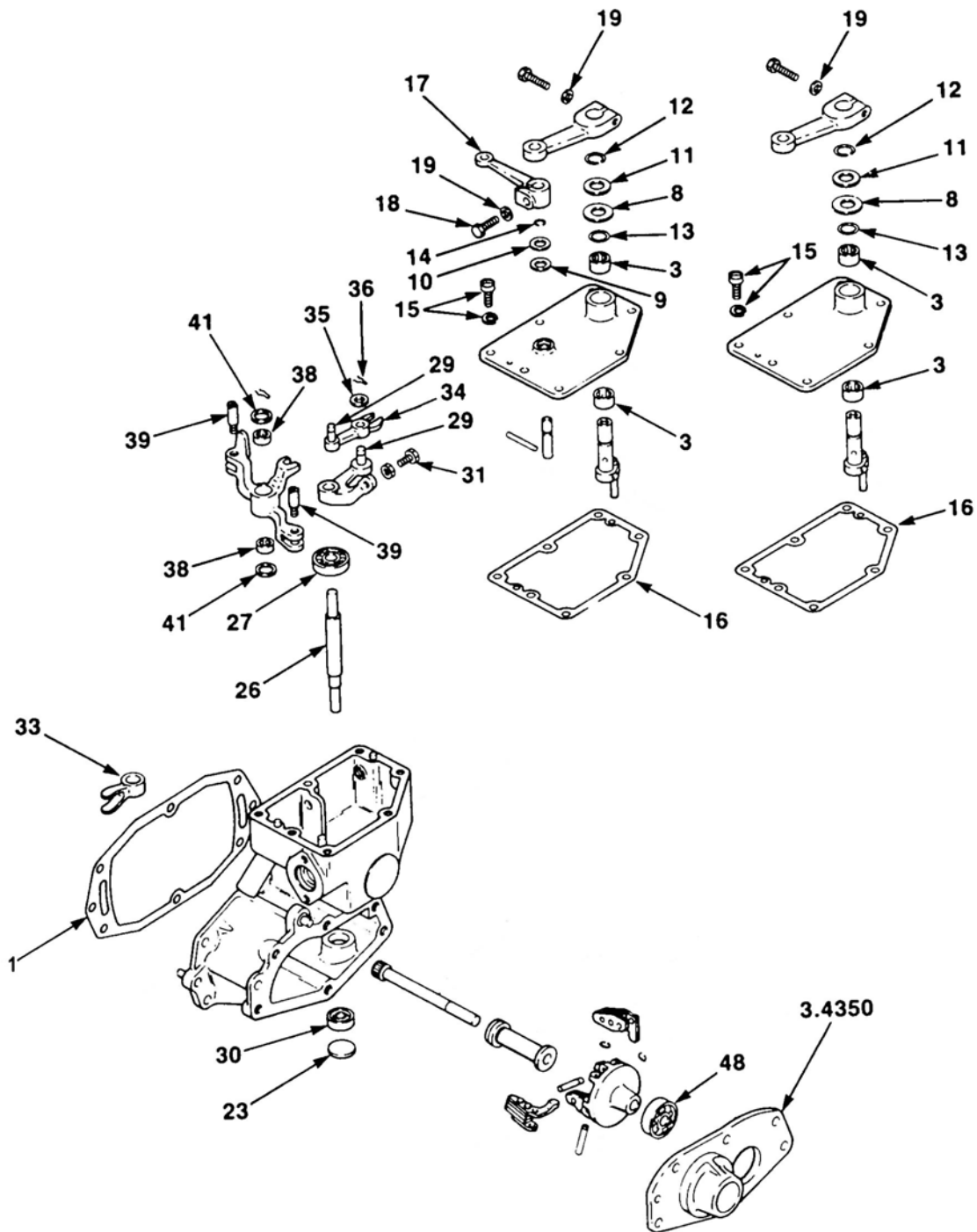
2.7010 - 2.7580

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.7010	1	FP-5121345	Gasket, Governor To Engine (To End Plate)	-	-	-	1
2.7045	0	FP-5101691	Washer, Governor Throttle Shaft	-	-	-	1
2.7045	8	FP-5144177	Retainer, Governor Throttle	-	-	-	1
2.7045	9	FP-5144178	Retainer, Governor Shutdown	-	-	-	1
2.7045	10	FP-5151487	Washer, 3/8" x 11/16" .033" (2.7430)	-	-	-	1
2.7045	11	FP-5153060	Retainer, Governor Throttle	-	-	-	1
2.7045	12	FP-5174429	Retainer, Governor Throttle	-	-	-	1
2.7045	13	FP-5176557	Washer, Governor Throttle Shaft	-	-	-	1
2.7045	14	FP-5178581	Retainer, Governor Shutdown	-	-	-	1
2.7045	3	FP-8921472	Bushing, Governor Throttle	-	-	-	2
2.7045	15	FP-9417926	Screw, 1/4" - 20 x 3/4" Phillips. Head	-	-	-	6
2.7050	3	FP-8921472	Bushing, Governor Throttle Shaft (2.7100)	-	-	-	2
2.7051	16	FP-5121342	Gasket, Governor Cover	-	-	-	1
2.7140	0	FP-5101691	Ring, Governor Throttle Shaft Seal	-	-	-	1
2.7140	13	FP-5176557	Ring, Governor Throttle Shaft Seal	-	-	-	1
2.7150	8	FP-5144177	Ring, Governor Throttle Shaft Packing Retaining	-	-	-	1
2.7150	11	FP-5153060	Retainer, Governor Throttle Shaft Packing	-	-	-	1
2.7155	9	FP-5144178	Ring, Governor Shutdown Shaft Packing Retainer	-	-	-	1
2.7155	10	FP-5151487	Washer, Governor Shutdown Shaft Packing Retainer	-	-	-	1
2.7155	14	FP-5178581	Ring, Governor Shutdown Shaft Packing Retainer	-	-	-	1
2.7165	19	FP-103319	Lockwasher, 1/4" (2.7170)	-	-	-	1
2.7165	18	FP-443603	Bolt, 1/4" - 20 x 3/4"	-	-	-	1
2.7230	23	FP-116337	Plug, 1 1/16" Expansion	-	-	-	1
2.7230	0	FP-5116262	Adapter, Injector Control Link Boot	-	-	-	2
2.7250	26	FP-5121339	Shaft, Governor Operating (2.7255)	-	-	-	2
2.7250	29	FP-5150943	Pin, Governor Operating Shaft (2.7280)	-	-	-	2
2.7250	27	FP-9431894	Bearing Governor Operating Shaft (2.7260)	-	-	-	2
2.7270	30	FP-9436682	Bearing, Governor Operating Shaft (Lower)	-	-	-	1
2.7280	31	FP-5132962	Screw, Governor Operating Shaft (Gap Adjusting)	-	-	-	1
2.7300	29	FP-5150943	Pin, Governor Operating Shaft (2.7310), (2.7315)	-	-	-	3
2.7310	36	FP-142583	Retainer, Governor Differential Lever Spring	-	-	-	1
2.7317	38	FP-447196	Bearing, Governor Control Operating Link Needle	-	-	-	4
2.7317	41	FP-5151487	Washer, Governor Control Operating Link Lever Assembly	-	-	-	3
2.7470	48	FP-9424121	Bearing, Governor Weight Carrier Shaft	-	-	-	1
2.7580	0	FP-5103975	Cap, Governor Low Speed Spring	-	-	-	1



Variable Speed Governor

(Figure 9.4)





Variable Speed Governor

(Figure 9.4)

Groups:

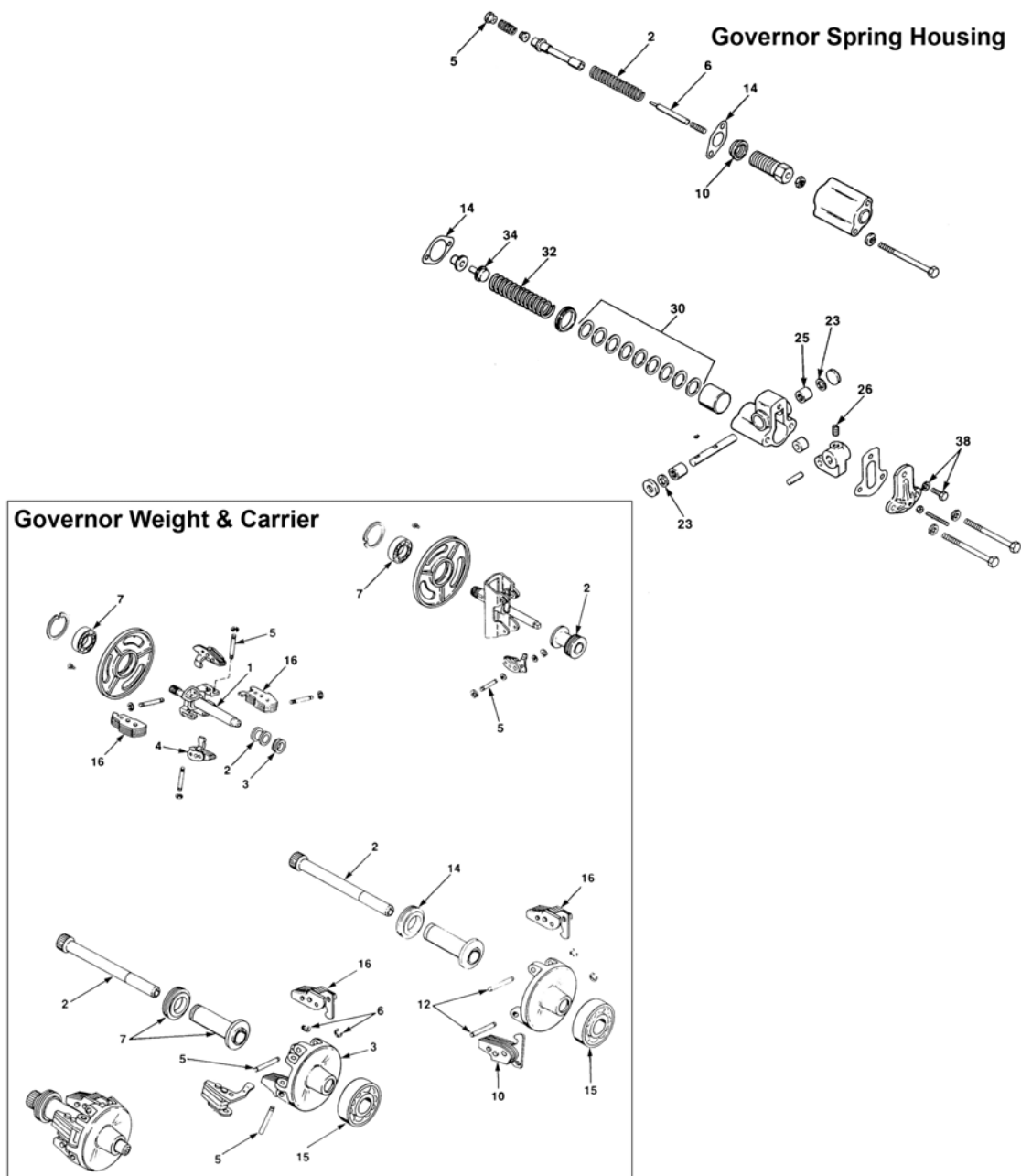
2.7050 - 2.7834

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.7050	29	FP-5150943	Pin, Governor Operating Shaft (2.7300) (2.7315)	-	-	-	3
2.7051	16	FP-5121342	Gasket, Governor Cover	-	-	-	1
2.7080	31	FP-5132962	Screw, Governor Operating Shaft (Gap Adjusting)	-	-	-	1
2.7230	23	FP-116337	Plug, 1 1/16" Expansion	-	-	-	1
2.7230	31	FP-5132962	Screw, Governor Gap Adjusting	-	-	-	1
2.7230	29	FP-5150943	Bearing Governor Operating Shaft (2.7230) (2.7310)	-	-	-	2
2.7230	27	FP-9431894	Bearing Governor Operating Shaft (Upper)	-	-	-	1
2.7230	30	FP-9436682	Bearing, Governor Operating Shaft	-	-	-	1
2.7310	36	FP-142583	Retainer, Governor Differential Lever Spring (13/64")	-	-	-	1
2.7317	38	FP-447196	Bearing, Needle	-	-	-	2
2.7317	39	FP-5117693	Pin, Governor Control Operation Link (1")	-	-	-	2
2.7317	10	FP-5151487	Washer, Governor Control Operation Link	-	-	-	2
2.7470	48	FP-9424121	Bearing, Governor Weight Carrier & Shaft	-	-	-	1
2.7590	0	FP-5102270	Screw, Governor Low Speed Spring Adjusting	-	-	-	1
2.7630	0	FP-5155596	Washer, 5/16" Copper	-	-	-	2
2.7650	0	FP-8922593	Gasket, Governor High Speed Spring	-	-	-	1
2.7810	0	FP-5172383	Screw Assembly, Governor Buffer (Includes Spring)	-	-	-	1
2.7810	0	FP-5174286	Nut, 3/8" - 24	-	-	-	1
2.7819	0	FP-5122797	Link, Governor To Injector	1	1	1	-
2.7819	0	FP-142583	Retainer, Governor To Injector Spring	-	-	-	1
2.7819	0	FP-5121472	Link, Governor To Injector (Lower)	-	-	-	2
2.7819	0	FP-5150941	Washer, 21/64"	-	-	-	2
2.7830	0	FP-5116262	Adapter, Cylinder Head Governor Control Link (In Head), (Plain End)	-	-	-	2
2.7830	0	FP-5116262	Adapter, Cylinder Head Governor Control Link (In Head), (Plain End)	-	-	-	1
2.7834	0	FP-5129705	Hose, Governor To Injector Link (7/8" I.D. x .75" L.), (Left Bank)	-	-	-	2
2.7834	0	FP-5129706	Hose, Governor To Injector Link (7/8" I.D. x 1.62" L.), (Right Bank)	-	-	-	1
2.7834	0	FP-5186840	Clamp, Hose (1 3/16")	-	-	-	4
2.7834	0	FP-5186840	Clamp, Hose (1 3/16")	-	-	-	1



Governor

(Figure 9.5)





Governor

(Figure 9.5)

Groups:

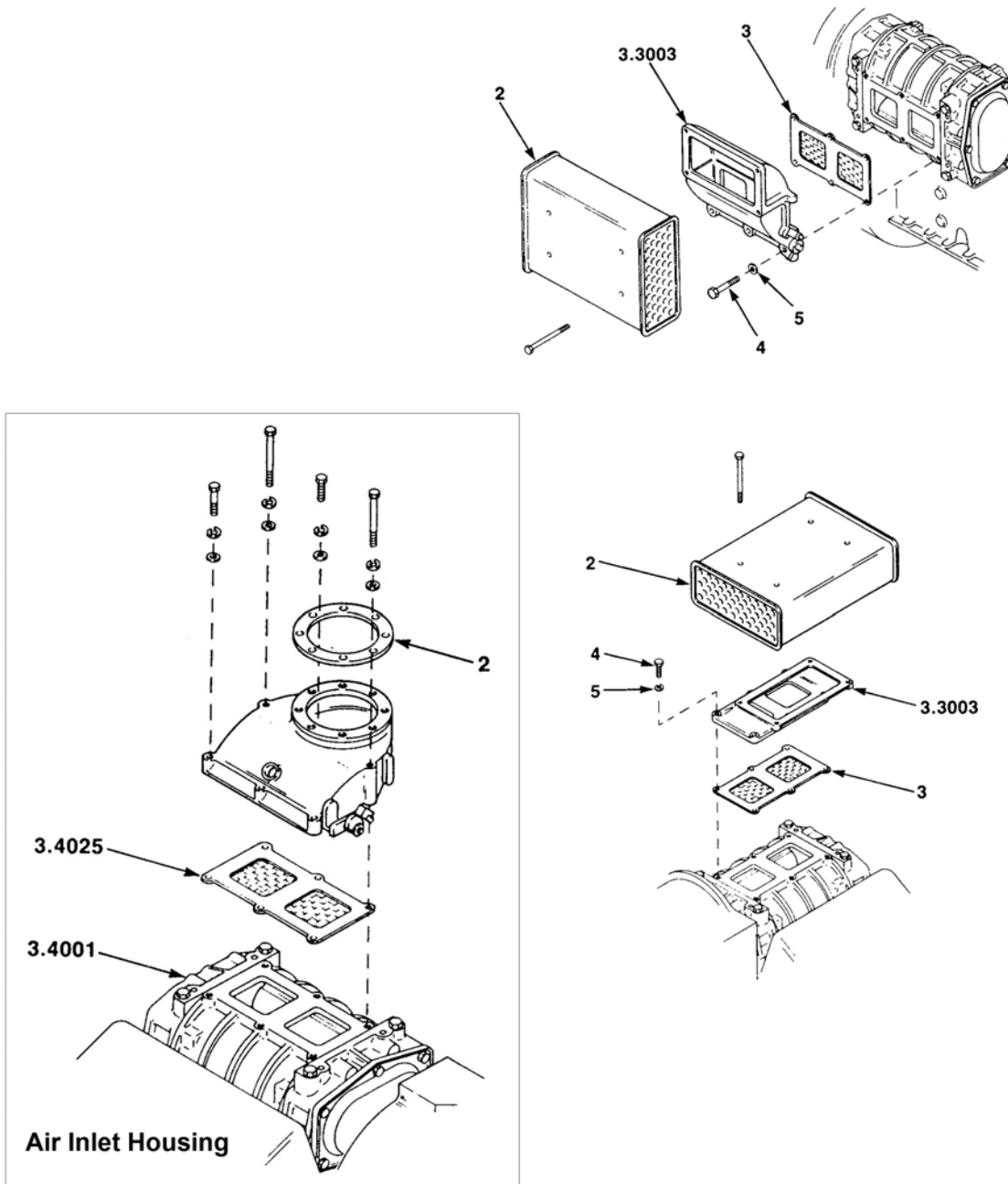
2.7350 - 2.9410

Group	Ref	Part No.	Description	2l	3l	4l	6l
Spring Housing							
2.7540	1	FP-5122165	Spring, Governor Low Speed (1 Blue Stripe)	1	1	1	1
2.7540	1	FP-5183704	Spring, Governor Low Speed (2 Yellow Stripes)	1	1	1	1
2.7580	5	FP-5103975	Cap, Governor Low Speed Spring	1	1	1	1
2.7630	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
2.7630	0	FP-5155596	Washer, 5/16" Copper	2	2	2	2
2.7650	14	FP-8922593	Gasket, Governor High Speed Spring Cover	1	1	1	1
2.7680	23	FP-5176557	Seal Ring, Viton (.477" x .113")	2	2	2	2
2.7680	38	FP-9417926	Screw & Lockwasher Assembly (1/4" -20 x 3/4" Hex Head)	1	1	1	1
2.7680	0	FP-9425166	Needle Bearing, Variable Speed Spring Lever	1	1	1	1
2.7690	0	FP-123390	Nut, 1/4" -20	1	1	1	1
2.7690	0	FP-5121182	Plug, Pipe (1/4" -18)	1	1	1	1
2.7712	25	FP-148402	Bearing, Governor Variable Speed Spring	2	2	2	2
2.7735	30	FP-5136590	Shim, Governor Variable Speed Spring (.010")	-	-	-	-
2.7735	30	FP-5136591	Shim, Governor Variable Speed Spring (.078")	-	-	-	-
2.7750	23	FP-5176557	Seal Ring, Governor Variable Speed Spring Lever Shaft	2	2	2	2
2.7760	32	FP-5122270	Spring, Governor Variable Speed (2 Red Stripes)	1	1	1	1
2.7770	14	FP-8922593	Gasket, Governor High Speed Spring Cover	1	1	1	1
Weight & Carrier							
2.7350	7	FP-23506244	Bearing, Governor Weight Riser Thrust (2.7460)	1	1	1	-
2.7350	2	FP-5109544	Riser, Assembly Governor (Small Flange)	1	1	1	1
2.7350	3	FP-9437108	Bearing, Governor Weight Riser Thrust (2.7460)	1	1	1	-
2.7350	7	FP-5125367	Riser Assembly, Governor (Small Flange)	-	-	-	1
2.7350	16	FP-5133662	Weight Assembly, Governor Low Speed	-	-	-	2
2.7350	3	FP-5133707	Carrier, Governor Weight	-	-	-	1
2.7350	14	FP-9438907	Bearing, Governor Weight Riser Thrust (2.7460)	-	-	-	1
2.8030	0	FP-5194069	Washer, Governor 1/4" Copper (5108290)	2	2	2	2
2.8030	0	FP-5197065	Seal, Governor Shaft (For These Governors Only - 5108290, 5108291, 5136998, 5141046, 5142346, 5143657, 5143957, 5146121)	1	1	1	1
2.8260	0	FP-3249110	Hydraulic, Governor Assy Gasket	1	1	1	1
2.8410	0	FP-5194069	Washer, Governor 1/4" Copper (5108291)	2	2	2	2
2.9003	0	FP-5116264	Bracket, Injector Control Tube	1	1	1	1
2.9011	0	FP-5147407	Spring, Injector Control Tube Throttle (L.H. Helix)	1	1	1	1
2.9012	0	FP-5116265	Spring, Injector Control Tube (L.H. Helix)	1	1	1	1
2.9012	0	FP-5138737	Spring, Injector Control Tube (R.H. Helix)	1	1	1	1
2.9410	0	FP-5176810	Clevis Pin, Governor Control Lever (1/4" x 1 1/4")	1	1	1	1



Silencer & Air Intake

(Figure 10.1)





Silencer & Air Intake

(Figure 10.1)

Groups:

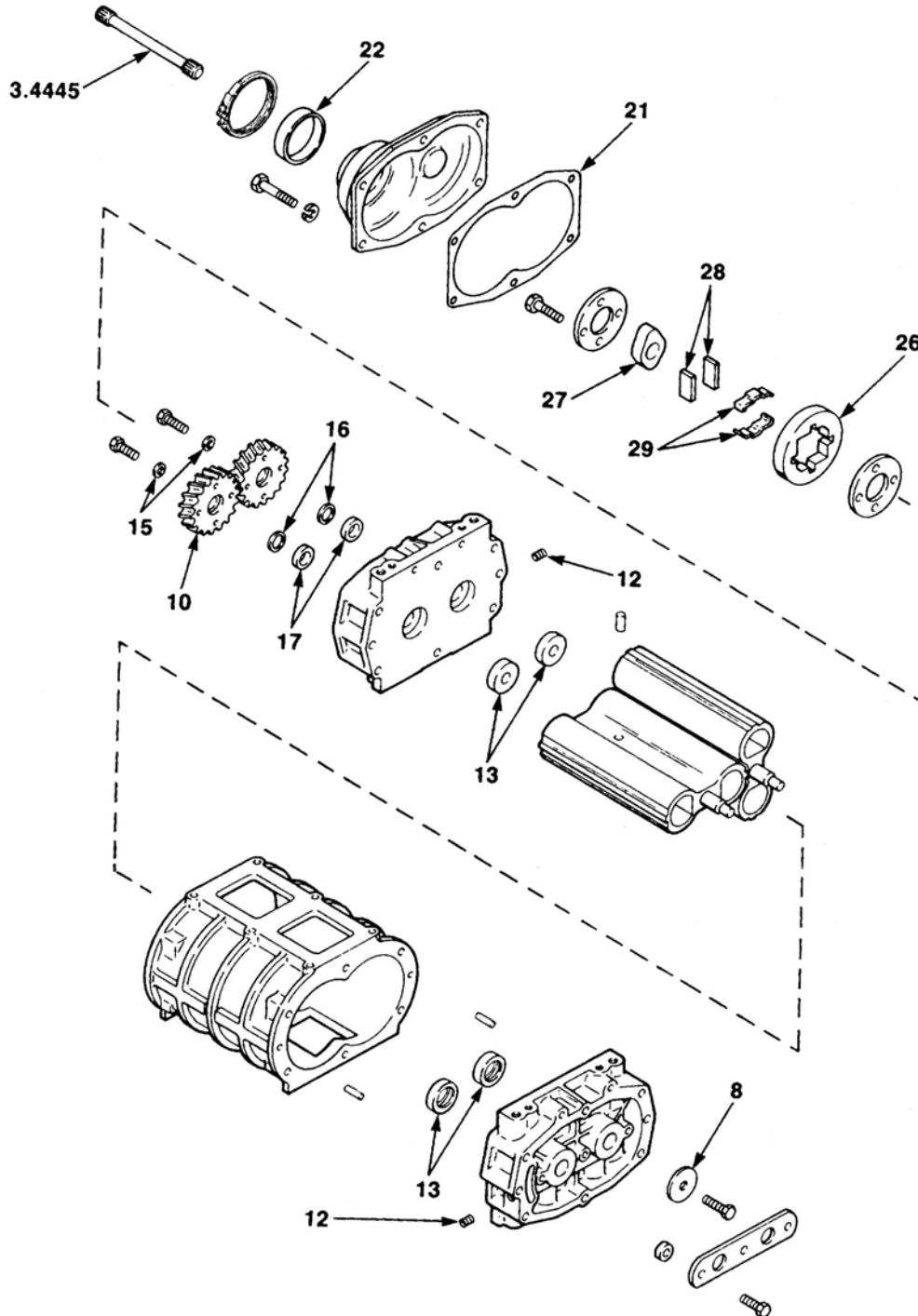
3.2001 - 3.3280

Group	Ref	Part No.	Description	2l	3l	4l	6l
3.2010	0	FP-103320	Lockwasher, 5/16"	-	-	2	-
3.2010	0	FP-5159714	Washer, 11/16" - 24 Lock	-	-	2	-
3.2012	3	FP-5196053	Gasket, Air Silencer	-	1	-	-
3.2015	5	FP-103321	Lockwasher, 3/8"	-	-	1	-
3.2015	4	FP-8927581	Bolt, 3/8" - 16 x 1"	-	-	-	6
Air Inlet Housing							
3.3001	0	FP-103321	Lockwasher, 3/8"	4	4	4	6
3.3007	2	FP-5124405	Gasket, Air Inlet Housing	-	1	1	1
3.3007	2	FP-5127247	Gasket, Air Inlet Housing	-	-	-	2
3.3010	2	FP-5123703	Gasket, Air Inlet Housing	-	-	-	1
3.3010	2	FP-8924563	Gasket, Air Inlet Housing	-	-	-	1
3.3055	0	FP-5182977	Seal, Air Inlet Housing Shutdown Valve Shaft	2	2	2	2
3.3115	0	FP-142583	Retainer, Spring	1	1	1	-
3.3127	0	FP-5103534	Bolt, 5/16" - 24 x 1/2"	-	1	1	-
3.3127	0	FP-103320	Lockwasher, 5/16"	-	-	1	-
3.3280	0	FP-103319	Lockwasher, 1/4" (3.3270)	1	1	2	-



Blower

(Figure 10.2)





Blower

(Figure 10.2)

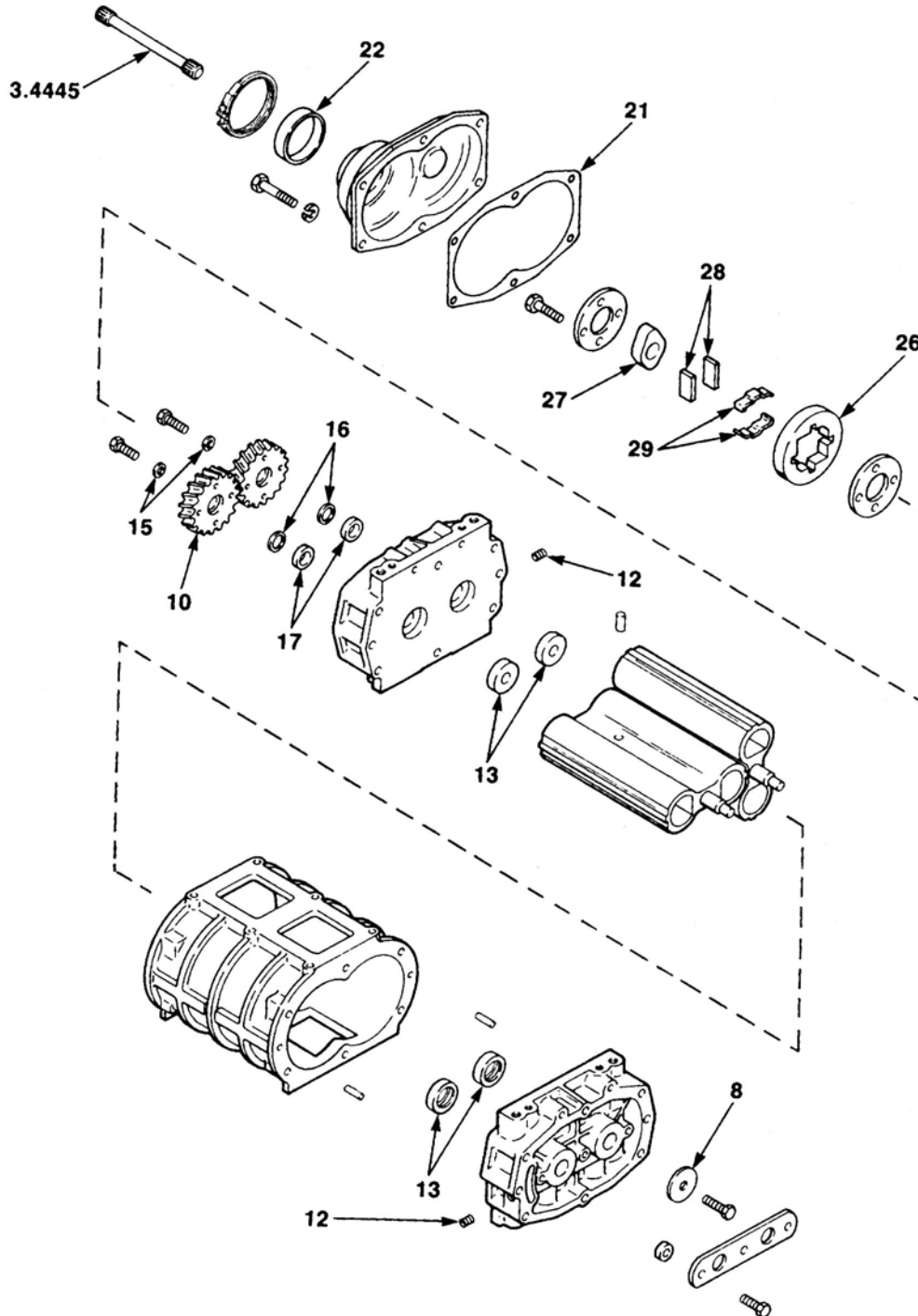
Groups:
3.4001 - 3.4277

Group	Ref	Part No.	Description	2l	3l	4l	6l
3.4001	0	FP-5136323	Bolt, Blower (7/16" - 14 x 7")	6	6	6	6
3.4003	0	FP-5197857	Gasket Kit, Blower Installation	1	-	-	-
3.4003	0	FP-5198041	Gasket Kit, Blower Installation	-	1	-	-
3.4003	0	FP-5198042	Gasket Kit, Blower Installation	-	-	1	-
3.4003	0	FP-5198043	Gasket Kit, Blower Installation	-	-	-	1
3.4010	21	FP-5119433	Gasket, Blower To End Plate (3.4190)	1	1	-	-
3.4010	0	FP-5116294	Gasket, Blower To Engine	1	-	-	-
3.4010	0	FP-5116295	Gasket, Blower To Engine	-	1	-	-
3.4010	0	FP-5116296	Gasket, Blower To Engine	-	-	1	-
3.4010	0	FP-5119438	Gasket, Blower To Engine	-	-	-	1
3.4010	0	FP-5127963	Ring, Seal To 6V53 Block	-	-	-	1
3.4010	0	FP-8923566	Gasket, Blower To Engine	-	-	-	2
3.4025	0	FP-5196052	Screen, Blower	1	-	-	-
3.4025	0	FP-5196053	Screen, Blower	-	1	-	-
3.4025	0	FP-5196054	Screen, Blower	-	-	1	-
3.4025	0	FP-5122610	Screen, Blower	-	-	-	1
3.4036	8	FP-5127077	Washer, Thrust Blower Shaft	2	2	2	2
3.4040	0	FP-23518811	Bearing, Blower Front (8V53), (2)	-	-	-	-
3.4080	15	FP-5121403	Washer, Blower Rotor Gear	2	2	-	-
3.4080	15	FP-5116316	Washer, Blower Rotor Gear	-	-	1	-
3.4082	0	FP-5132799	Blower Drive Cam Pilot (8V53 Only)	-	-	-	-
3.4090	0	FP-5154226	Shim, Blower Rotor Gear (.002" Thick)	1	1	1	1
3.4090	0	FP-5154227	Shim, Blower Rotor Gear (.005" Thick)	1	1	1	1
3.4090	0	FP-5154228	Shim, Blower Rotor Gear (.010" Thick)	1	1	1	1
3.4140	12	FP-8924380	Plug, Pipe (1/8" -27)	2	2	2	2
3.4160	13	FP-5142266	Seal, Blower End Plate (Use w/New Counterbored End Plates)	4	4	4	4
3.4160	13	FP-5138710	Seal, Blower End Plate	-	-	-	4
3.4190	21	FP-8924554	Gasket, Blower Housing End Plate Cover (Mini By-Pass)	-	1	1	-
3.4220	22	FP-8926647	Seal, Blower Drive Cover	-	-	1	-
3.4227	0	FP-5144768	Clamp, Blower Drive Cover (3")	1	1	1	1
3.4277	0	FP-451220	Clamp, Blower Drive Packing Cover (2 1/2")	1	1	1	1
3.4005	0	FP-5198683	Kit, Blower Repair (Turbo & Non-Turbo)	-	1	1	1
3.4005	16	FP-5116164	Shim, Blower Rotor Gear (.002"), (3.4090)	3	3	3	3
3.4005	16	FP-5116165	Shim, Blower Rotor Gear (.003"), (3.4090)	3	3	3	3
3.4005	16	FP-5116166	Shim, Blower Rotor Gear (.004"), (3.4090)	3	3	3	3
3.4005	16	FP-5116167	Shim, Blower Rotor Gear (.005"), (3.4090)	3	3	3	3
3.4005	15	FP-5116316	Washer, Blower Rotor Gear	1	1	1	1
3.4005	0	FP-5119285	Washer, Blower Drive Thrust	1	1	1	1
3.4005	15	FP-5121403	Washer, Blower Rotor Gear	2	2	2	2
3.4005	0	FP-5126236	Pilot, Blower Drive Gear	2	2	2	2
3.4005	0	FP-5126237	Spacer, Blower Drive	1	1	1	1
3.4005	13	FP-5199366	Seal, Blower End Plate (Lip Type), (O.S.), (Use w/FP-5199368)	4	4	4	4
3.4005	0	FP-5199368	Sleeve, Blower Rotor Shaft Oil Seal (O.S.), (Use w/FP-5199366)	4	4	4	4
3.4005	0	FP-8923959	Seal, Blower By-Pass Valve (3.4145)	1	1	1	1
3.4005	17	FP-8928695	Spacer, Blower Rotor	2	2	2	2
3.4005	0	FP-9411765	Ring, Blower Drive Retaining	1	1	1	1



Blower

(Figure 10.3)





Blower

(Figure 10.3)

Groups:

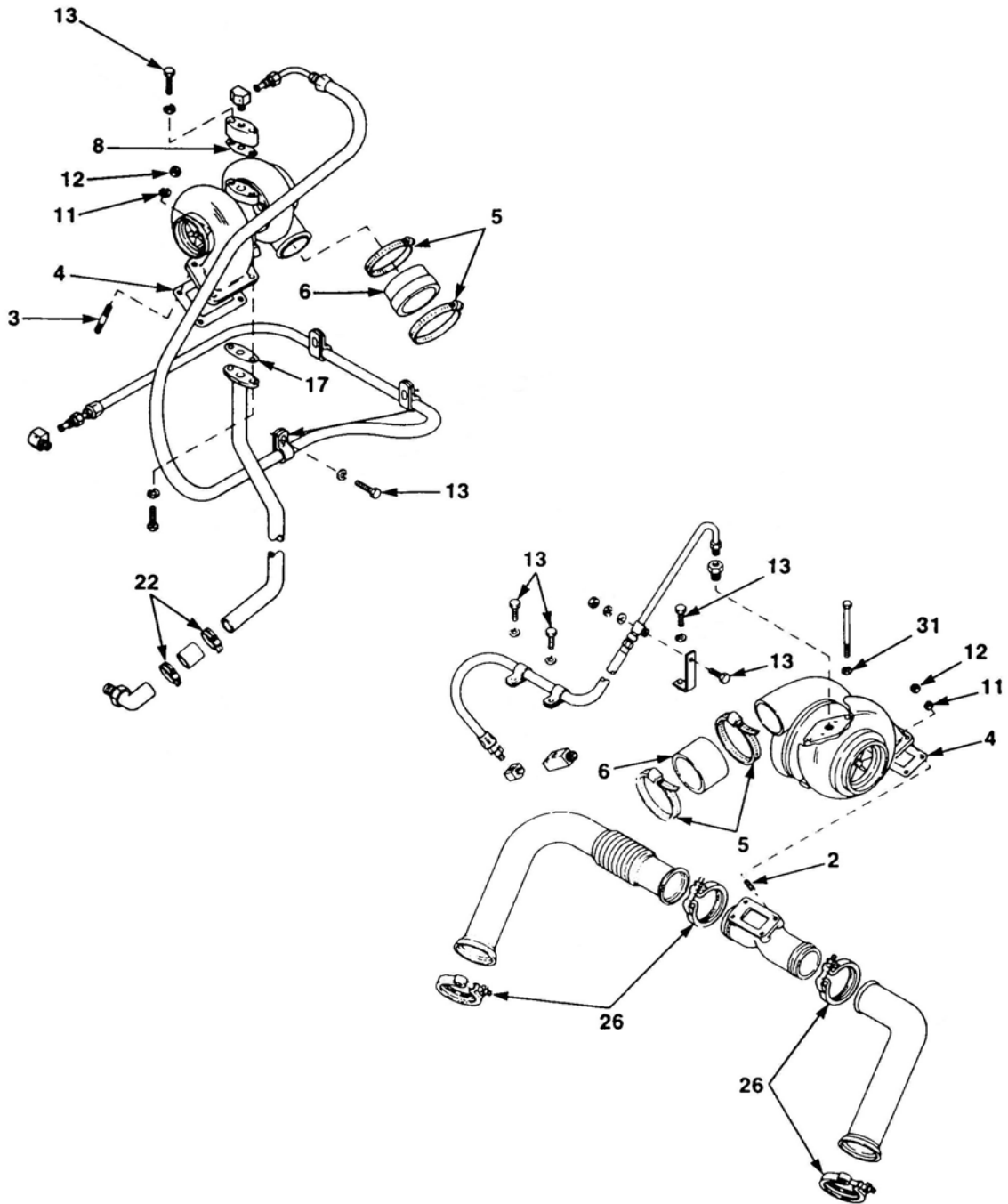
3.4300 - 3.4446

Group	Ref	Part No.	Description	2l	3l	4l	6l
3.4300	0	FP-124546	Key, Woodruff (5/32" x 5/8")	-	-	1	1
3.4300	0	FP-5107079	Gear, Blower Drive (R.H.. Helix), (45 Teeth)	-	-	1	-
3.4310	0	FP-5119284	Shaft, Hub Blower Gear Drive	-	-	1	-
3.4310	0	FP-5116418	Shaft, Hub Blower Gear Drive	-	-	-	1
3.4320	0	FP-5119285	Washer, Blower Drive Thrust	-	-	1	1
3.4320	0	FP-9414847	Ring, Blower Drive Retaining	-	-	1	1
3.4350	0	FP-103321	Lockwasher, 3/8"	-	-	2	-
3.4350	0	FP-5152148	Washer, 3/8" Copper	-	-	2	-
3.4350	0	FP-5124519	Ring, Blower Seal (8V53)	-	-	-	-
3.4360	0	FP-5116336	Gasket, Blower Drive Gear Hub Support	-	-	1	-
3.4360	0	FP-5103474	Gasket, Blower Drive Gear Hub Support	-	-	-	1
3.4360	0	FP-5121344	Gasket, Blower Drive Gear Hub Support	-	-	-	1
3.4445	0	FP-5135876	Shaft, Blower Drive (6.43" L.), (Heavy Duty)	-	-	-	1
3.4445	0	FP-8922967	Shaft, Blower Drive (6.43" L.), (Heavy Duty), (.500" Diameter)	-	-	-	1
3.4446	0	FP-9414044	Ring, Blower Drive	-	-	1	3
3.4370	0	FP-8922969	Coupling, Blower Drive	-	-	1	1
3.4370	26	FP-5119412	Support, Blower Drive Coupling	-	-	1	1
3.4370	27	FP-8922970	Cam, Blower Drive Coupling	-	-	1	1
3.4370	0	FP-5126237	Spacer, Blower Drive	-	-	1	1
3.4370	0	FP-5196614	Spring Pack, Blower Drive Coupling	-	-	1	1
3.4370	28	FP-5180322	Spring, Blower Drive Coupling	-	-	30	30
3.4370	29	FP-5180321	Seat, Blower Drive Coupling	-	-	2	2



Turbocharger

(Figure 11.1)





Turbocharger

(Figure 11.1)

Groups:

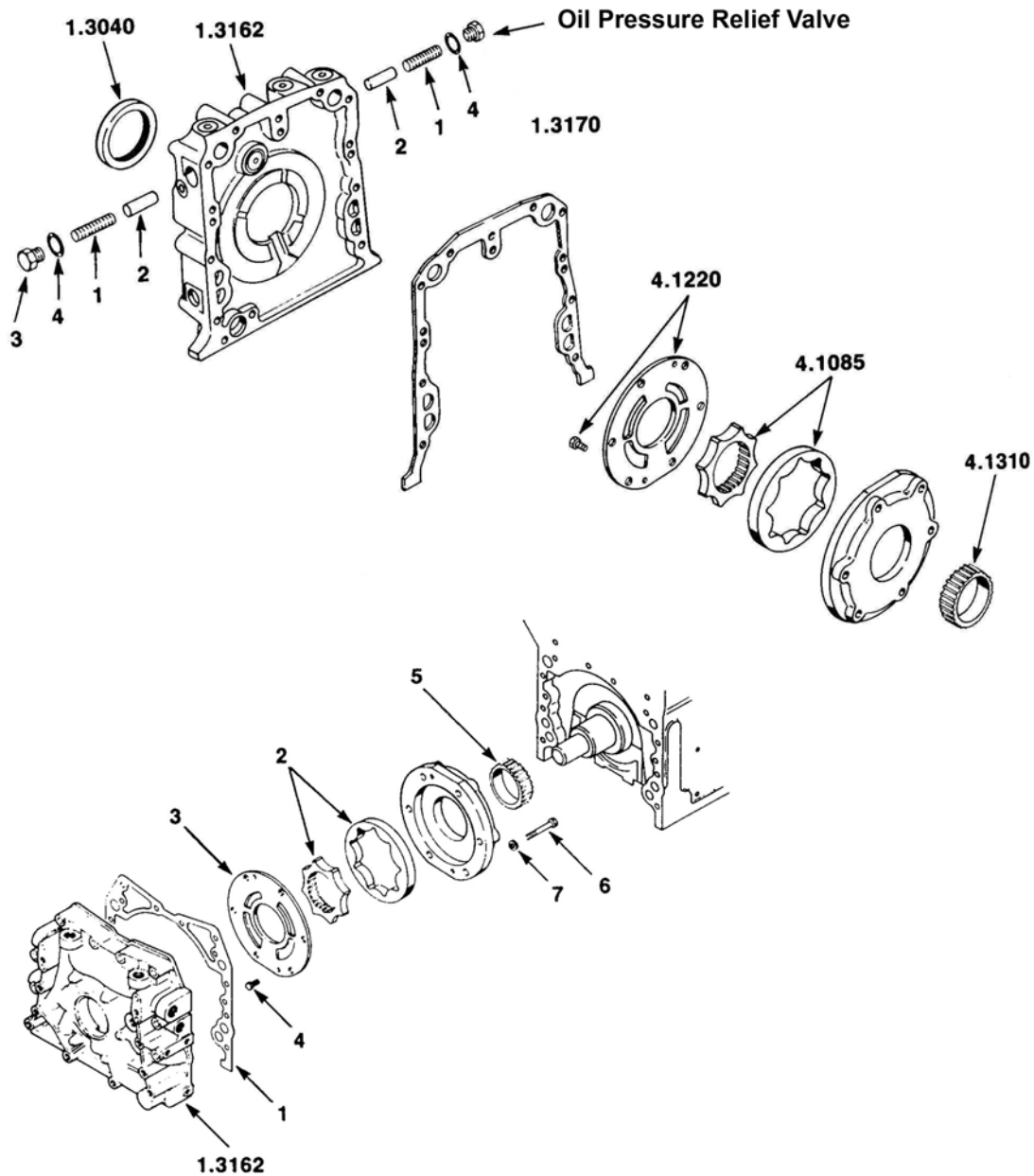
3.5001 - 3.5505

Group	Ref	Part No.	Description	2l	3l	4l	6l
3.5001	4	FP-5149158	Plate, Turbocharger Bolt Locking	1	1	1	1
3.5001	0	FP-5198227	Seal Ring, Turbo Charger (3.5022), (Fits Turbochargers 5132530, 5141322, 5143099)	1	1	1	-
3.5001	3	FP-8927270	Stud, 3/8" -16/24 x 1 5/8"	-	4	4	8
3.5001	0	FP-5104978	Ring, Turbocharger Seal	-	-	-	1
3.5300	12	FP-103026	Nut, 3/8" - 24	-	-	4	8
3.5300	11	FP-103321	Lockwasher, 3/8"	-	-	4	8
3.5300	0	FP-5175882	Spacer, Turbocharger Mounting Bracket (8V53 Only)	-	-	-	-
3.5305	26	FP-5137620	Clamp, 3.82"	-	4	4	4
3.5307	4	FP-8929529	Gasket, Turbocharger Exhaust Inlet	-	-	-	1
3.5417	0	FP-103320	Lockwasher, 5/16"	-	-	4	-
3.5417	0	FP-5124405	Gasket, Turbocharger Air Outlet	-	-	1	-
3.5420	5	FP-5147912	Clamp, Hose (3.50" Diameter)	-	-	4	4
3.5420	6	FP-5162888	Hose, Turbocharger Air Outlet (3.5" I.D. x 2 3/4" L.)	-	-	1	1
3.5425	0	FP-8927580	Bolt, 3/8" - 16 x 7/8"	-	-	2	-
3.5500	0	FP-8924380	Plug, Pipe (1/8")	-	1	1	1
3.5500	13	FP-8927581	Bolt, 3/8" -16 x 1"	-	1	1	1
3.5500	8	FP-5170466	Gasket, Turbocharger Oil Supply	-	-	1	1
3.5500	8	FP-5133425	Gasket, Turbocharger Oil Supply (Aluminum Eng.)	-	-	-	1
3.5505	22	FP-5186840	Clamp, Hose (1")	-	2	2	2
3.5505	17	FP-5170468	Gasket, Turbocharger Oil Return	-	-	-	1



Oil Pump

(Figure 12.1)





Oil Pump

(Figure 12.1)

Groups:

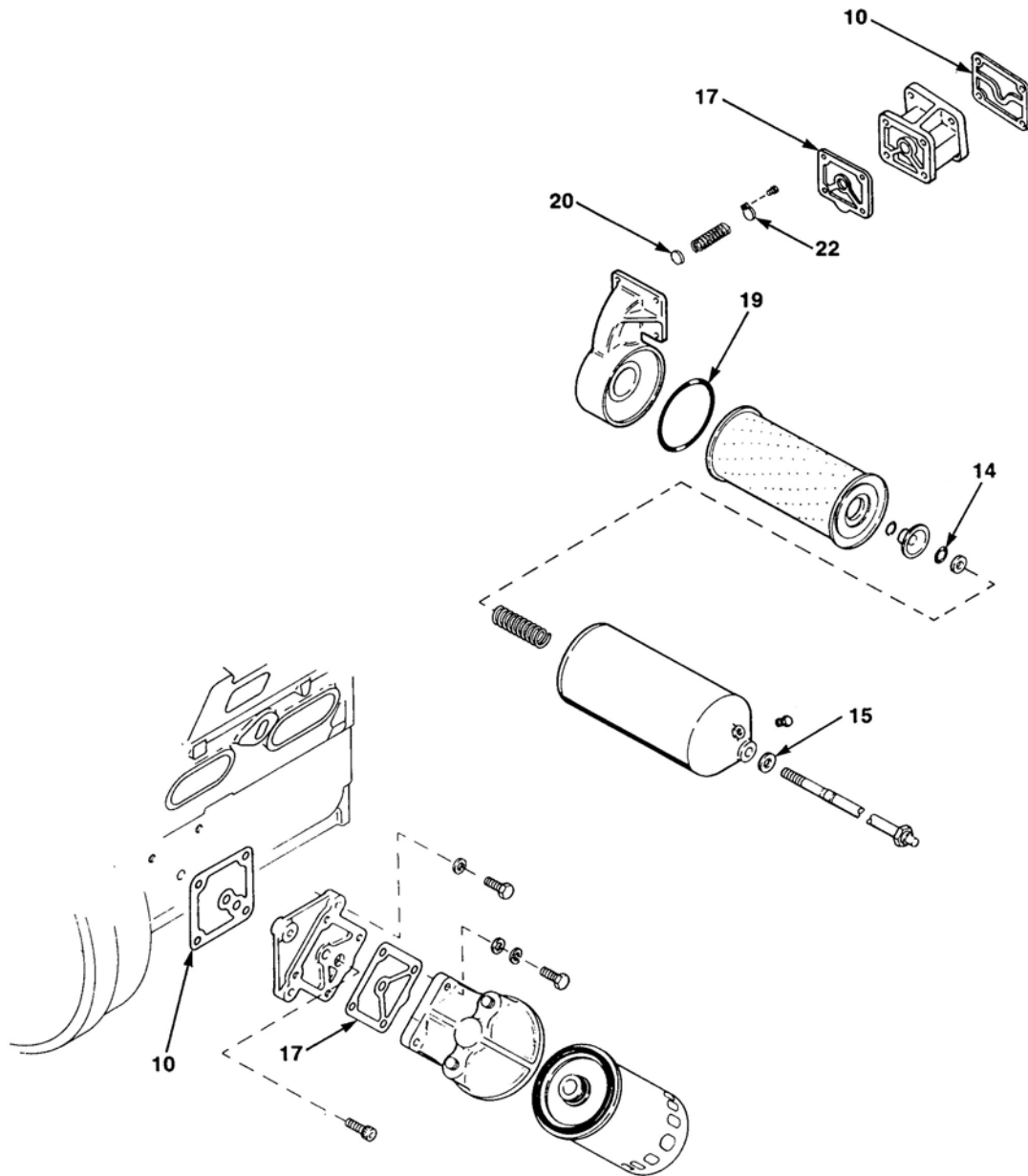
4.1001 - 4.1720

Group	Ref	Part No.	Description	2l	3l	4l	6l
4.1001	7	FP-103320	Lockwasher, 5/16"	6	6	6	6
4.1001	0	FP-5121042	Pump Assembly, Oil (Option Type 50,52,170,171,172,173)	-	1	1	-
4.1001	0	FP-5116110	Pump Assembly, Oil (Option Type 49,166,167,168,169)	-	1	-	-
4.1001	0	FP-5116070	Pump Assembly, Oil (Option Type 51,163,164,165,174)	-	-	-	1
4.1007	1	FP-5116386	Gasket, Oil Pump To Block	1	1	1	-
4.1007	0	FP-5115454	Seal, Oil Pump to Block	-	1	-	-
4.1007	1	FP-5119368	Gasket, Oil Pump To Block	-	-	-	1
4.1050	0	FP-5153147	Bushing, Oil Pump Body	1	1	1	1
4.1070	0	FP-5153309	Shaft, Oil Pump Drive	1	1	1	1
4.1080	0	FP-5153146	Shaft, Oil Pump Driven Gear	1	1	1	1
4.1080	0	FP-5153310	Shaft, Oil Pump Driven Gear	1	1	1	1
4.1085	2	FP-5134968	Rotor Assembly, Oil Pump (w/FP-5135032 Pump)	1	-	-	-
4.1085	2	FP-5195714	Rotor Assembly, Oil Pump (w/FP-5116110 Pump)	-	1	-	-
4.1085	2	FP-5103900	Rotor Assembly, Oil Pump (w/FP-5103847 Pump), (4-53T)	-	-	1	-
4.1085	2	FP-5195957	Rotor Assembly, Oil Pump (w/FP-5121042 Pump)	-	-	1	-
4.1085	2	FP-5195687	Rotor Assembly, Oil Pump (w/FP-5116070 Pump)	-	-	-	1
4.1090	0	FP-5153260	Gear, Oil Pump Drive (8V-53)	-	-	-	-
4.1200	0	FP-5153617	Gear, Oil Pump Driven (6V & 8V-53)	-	-	-	1
4.1210	0	FP-5166840	Bushing, Oil Pump Driven Gear	1	1	1	1
4.1210	0	FP-5153154	Bushing, Oil Pump Driven Gear (8V-53)	-	-	-	-
4.1220	4	FP-145067	Screw, #6 x 3/8"	2	2	2	2
4.1220	3	FP-5195685	Cover, Oil Pump	1	1	1	1
4.1227	0	FP-8927581	Bolt, 3/8" -16 x 1"	-	1	-	-
4.1230	0	FP-5142712	Gasket, Oil Pump Drive Support (Cover Plate)	-	1	-	-
4.1240	0	FP-5136097	Bushing, Oil Pump Cover	-	-	-	1
4.1250	0	FP-5177777	Valve, Oil Pump Relief	-	2	-	-
4.1260	0	FP-5126436	Spring, Oil Pump Relief Valve	-	2	-	-
4.1260	0	FP-5155765	Spring, Oil Pump Relief Valve	-	1	-	-
4.1280	0	FP-5177773	Gasket, Oil Pump Relief Valve	-	2	-	-
4.1310	5	FP-8921172	Gear, Oil Pump Drive (On Crankshaft)	1	1	1	1
4.1380	0	FP-8928540	Key, Woodruff (1/8" x 5/8")	1	1	1	1
4.1510	3	FP-5127175	Seal Ring, Oil Pump Inlet	1	1	1	-
4.1510	7	FP-103320	Lockwasher, 5/16"	-	-	2	-
4.1510	0	FP-5126492	Seal Ring, Oil Pump Inlet	-	-	-	1
4.1512	0	FP-103321	Lockwasher, 3/8"	-	-	2	-
4.1512	0	FP-5138619	Washer, 25/64"	-	-	-	4
4.1520	0	FP-23504449	Gasket, Oil Pump Inlet Pipe (Elbow To Pump)	1	1	1	-
4.1520	0	FP-5180273	Gasket, Oil Pump Inlet Pipe	1	1	1	-
4.1520	0	FP-5153902	Gasket, Oil Pump Intake	1	-	-	-
4.1520	0	FP-5126473	Gasket, Oil Pump Inlet Pipe (Elbow To Pump)	-	-	-	1
4.1520	0	FP-5135877	Gasket, Oil Pump Inlet Tube (6V53T Only)	-	-	-	1
4.1530	0	FP-103319	Lockwasher, 1/4"	-	-	-	2
4.1530	0	FP-5155830	Screen, Oil Pump Inlet	-	-	-	1
Oil Pressure Relief Valve							
4.1690	1	FP-5126436	Spring, Oil Pressure Regulator (Orange Stripe)	2	2	2	2
4.1700	2	FP-5177777	Valve, Oil Pressure Regulator (Types 8,9,12,15,29)	2	2	2	2
4.1720	4	FP-5177773	Gasket, Oil Pressure Regulator	2	2	2	2



Oil Filter

(Figure 12.2)





Oil Filter

(Figure 12.2)

Groups:

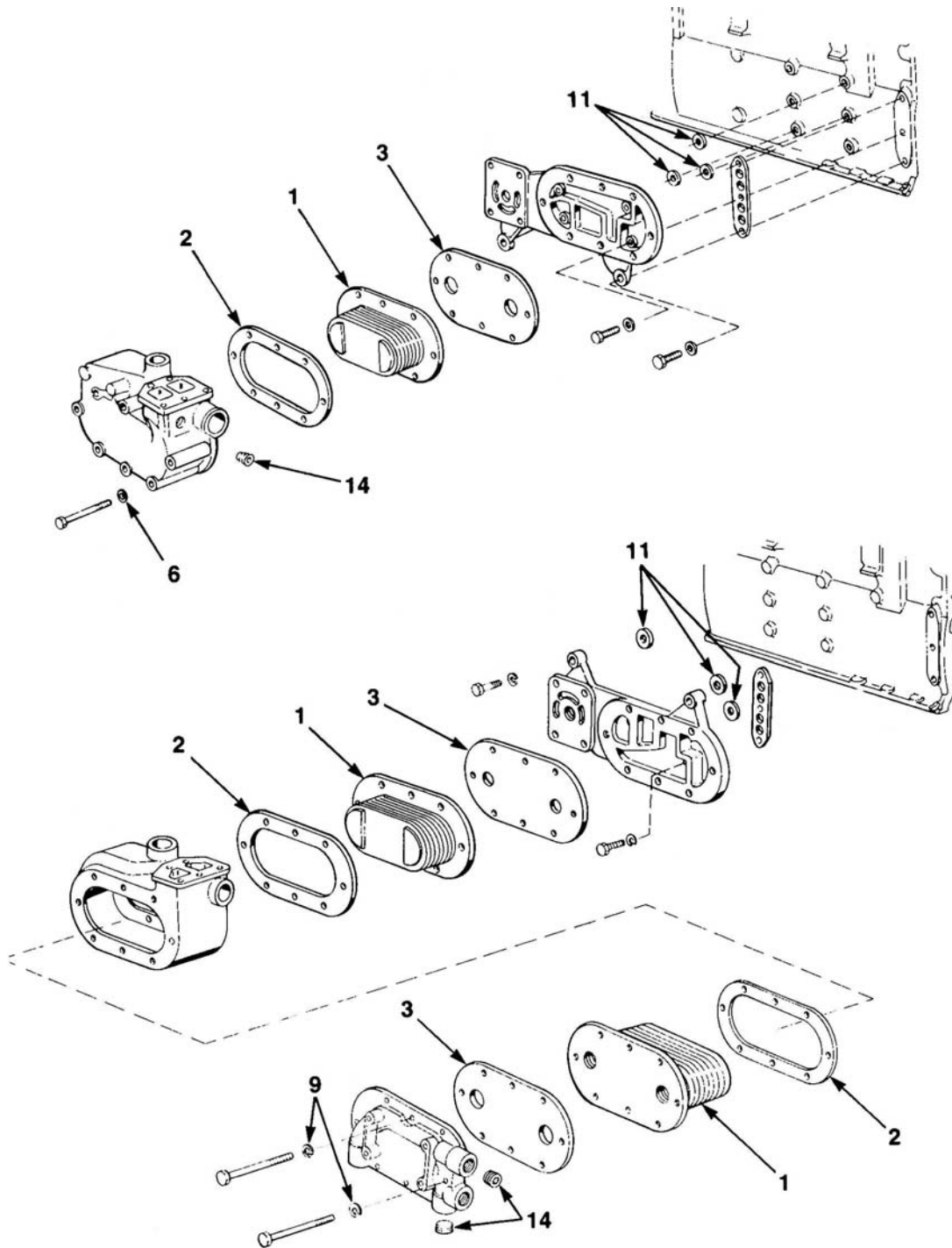
4.2290 - 4.3045

Group	Ref	Part No.	Description	2l	3l	4l	6l
4.2290	0	FP-103321	Lockwasher, 3/8"	-	4	-	-
4.2290	0	FP-5121182	Plug, Pipe (1/4")	-	1	-	-
4.2293	10	FP-5121205	Gasket, Oil Filter Cover Adapter	1	1	1	1
4.2293	0	FP-5133263	Gasket, Oil Filter Adapter To Oil Cooler Adapter	1	1	1	-
4.2293	0	FP-5108828	Gasket, Oil Filter Adapter To Oil Cooler Adapter	-	-	-	1
4.2293	10	FP-5128486	Gasket, Oil Filter Cover Adapter	-	-	-	1
4.2300	19	FP-1595620	Gasket, Oil Filter Cover	-	1	-	-
4.2315	0	FP-114498	Nut, 5/8" -18 Hex	-	1	1	1
4.2330	14	FP-5187310	Gasket, Oil Filter Cover Nut Retainer	1	1	1	1
4.2330	15	FP-6437298	Gasket, Oil Filter Cover Nut	-	1	1	1
4.2350	17	FP-5104866	Gasket, Oil Filter Adapter	1	1	1	-
4.2350	17	FP-5121205	Gasket, Oil Filter Adapter	1	1	1	1
4.2350	17	FP-5128439	Gasket, Oil Filter Adapter	1	-	-	1
4.2350	17	FP-8924412	Gasket, Oil Filter Adapter	-	1	1	1
4.2350	17	FP-5128039	Gasket, Oil Filter Adapter	-	-	-	1
4.2485	20	FP-5133431	Valve, Oil Filter By-Pass	-	1	1	1
4.3027	0	FP-5137549	Gasket, Oil Filter Adapter	-	-	-	1
4.3045	0	FP-5181415	Clip, Oil Filter Line (1 1/8" Tube - 7/16" Bolt)	1	1	1	1



Oil Cooler

(Figure 13.1)





Oil Cooler

(Figure 13.1)

Groups:

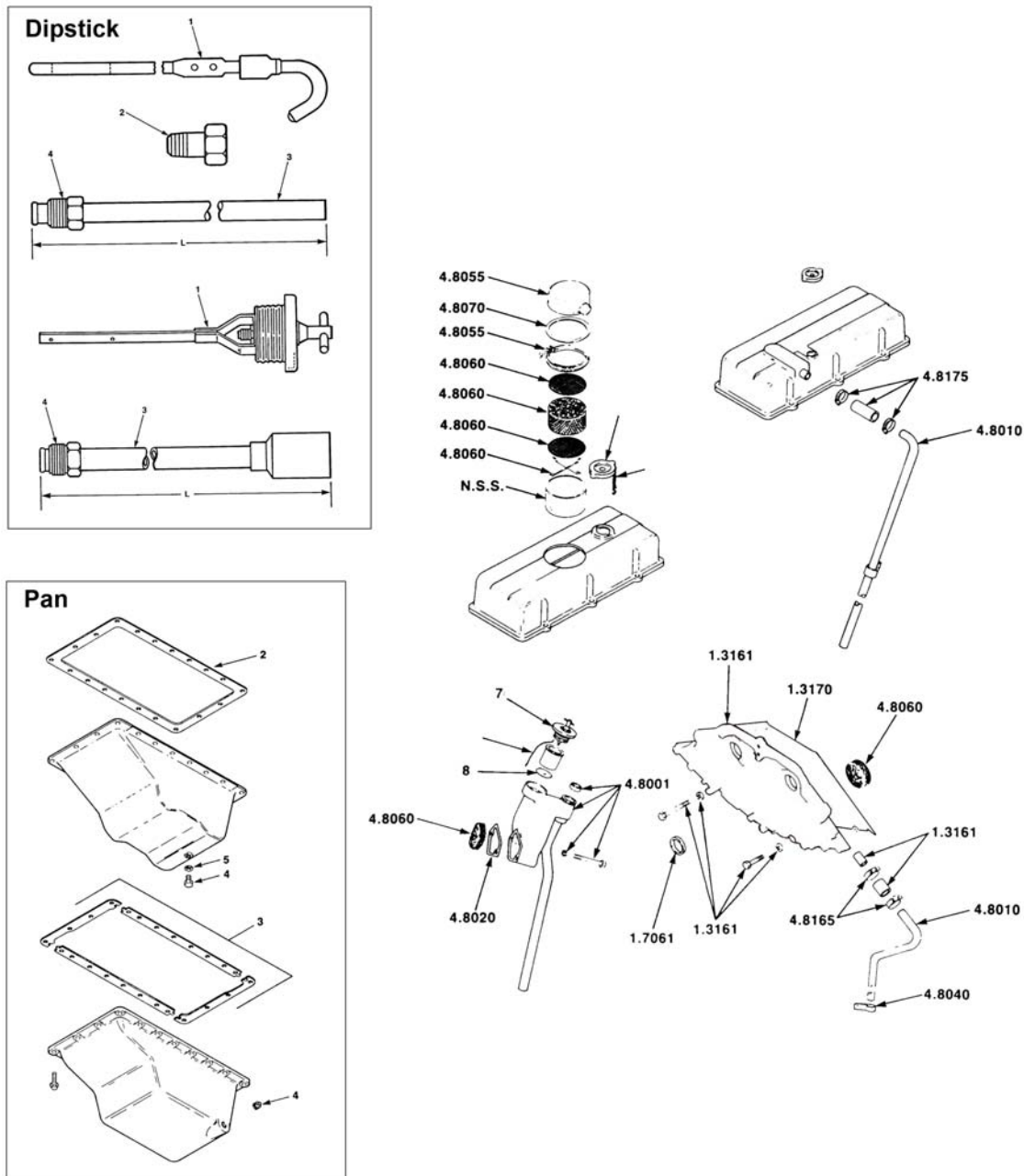
4.2350 - 4.4244

Group	Ref	Part No.	Description	2l	3l	4l	6l
4.4000	0	FP-5121205	Gasket, Oil Cooler Adapter (4.2350)	1	1	1	-
4.4001	1	FP-8547194	Core Assembly, Oil Cooler (4 Plate)	1	1	1	-
4.4001	1	FP-8547563	Core Assembly, Oil Cooler (8 Plate)	-	1	1	1
4.4001	1	FP-8547548	Core Assembly, Oil Cooler (6 Plate)	-	1	-	1
4.4001	1	FP-8547236	Core Assembly, Oil Cooler (13 Plate)	-	-	1	1
4.4001	1	FP-8547581	Core Assembly, Oil Cooler (13 Plate)	-	-	1	1
4.4001	1	FP-8547547	Core Assembly, Oil Cooler (16 Plate)	-	-	-	1
4.4001	1	FP-8547551	Core Assembly, Oil Cooler (8 Plate), (8V-53)	-	-	-	-
4.4030	0	FP-5104868	Gasket, Oil Cooler Core - Inner	1	1	1	1
4.4030	0	FP-5104881	Gasket, Oil Cooler Core - Inner	1	1	1	1
4.4030	2	FP-23501591	Gasket, Oil Cooler Inlet	-	-	-	1
4.4030	2	FP-5133619	Gasket, Oil Cooler Inlet	-	-	-	1
4.4040	0	FP-5104868	Gasket, Oil Cooler Core - Outer	1	1	1	1
4.4040	3	FP-8923223	Gasket, Oil Cooler Outlet	-	1	2	2
4.4040	3	FP-5133537	Gasket, Oil Cooler Outlet	-	-	-	1
4.4040	3	FP-5134818	Gasket, Oil Cooler Outlet	-	-	-	1
4.4050	6	FP-103320	Lockwasher 5/16"	7	7	8	8
4.4050	14	FP-5121182	Plug, 1/4" Socket Head (4.4050)	2	2	2	2
4.4050	14	FP-5142549	Plug, 3/4" Socket Head Pipe	2	2	2	2
4.4055	0	FP-5116357	Gasket, Oil Cooler Housing To Block	1	1	1	1
4.4060	6	FP-103320	Lockwasher, 5/16"	-	8	8	12
4.4110	0	FP-103321	Lockwasher, 3/8"	4	4	4	-
4.4110	0	FP-8927581	Bolt, 3/8" -16 x 1"	4	4	4	-
4.4115	0	FP-5116416	Gasket, Oil Cooler Adapter	1	1	-	-
4.4115	0	FP-5119329	Gasket, Oil Cooler Adapter To Cylinder Block	1	-	-	-
4.4115	0	FP-8923738	Gasket, Oil Cooler Adapter To Block	-	1	1	-
4.4115	0	FP-5104846	Gasket, Oil Cooler Adapter	-	-	-	1
4.4001	0	FP-PG3453OC	Installation Kit, Oil Cooler	-	1	1	-
4.4030	2	FP-5150155	Gasket, Oil Cooler Inlet	1	1	1	2
4.4040	3	FP-5102506	Gasket, Oil Cooler Outlet	1	2	2	2
4.4115	11	FP-5175882	Gasket, Oil Cooler Adapter	2	3	4	-
4.4115	15	FP-5103906	Gasket, Oil Cooler Adapter	1	1	1	-
4.2350	0	FP-5121205	Gasket, Oil Filter	1	1	1	-



Pan, Filler & Dipstick

(Figure 13.2)





Pan, Filler & Dipstick

(Figure 13.2)

Groups:

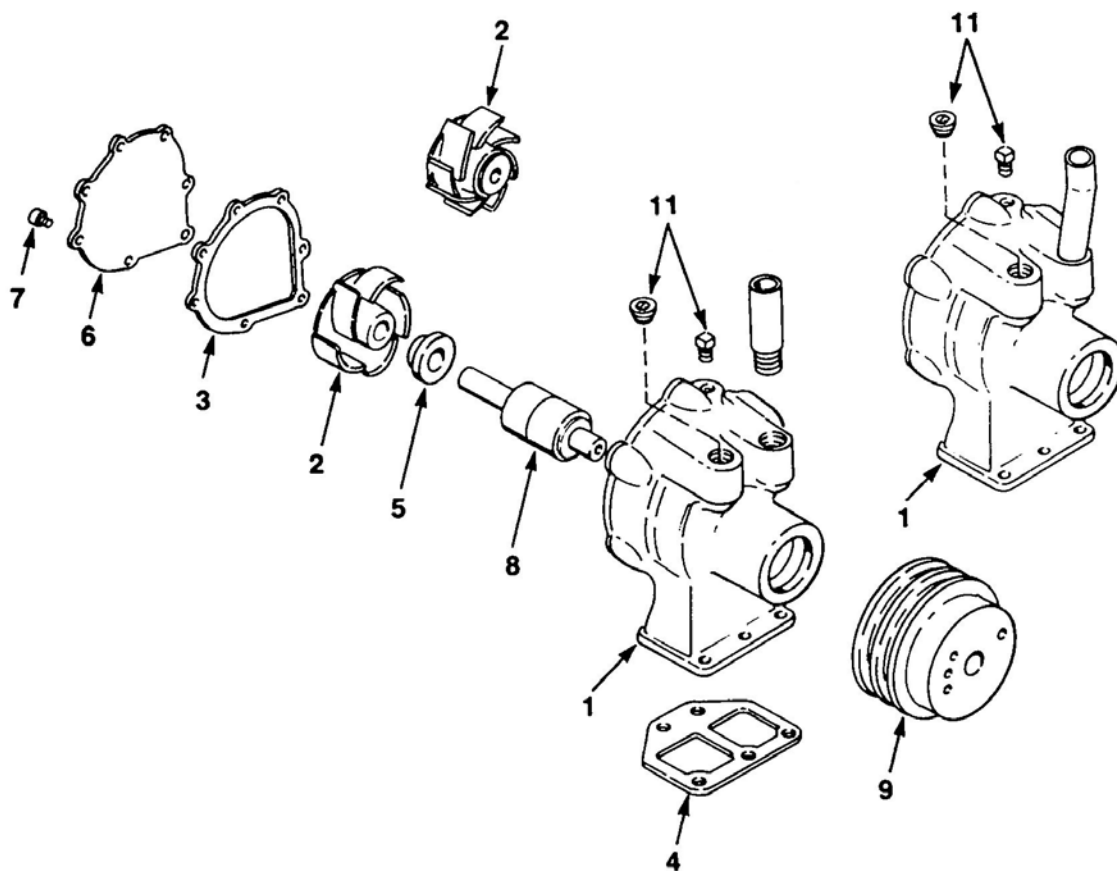
4.5010 - 4.8180

Group	Ref	Part No.	Description	2l	3l	4l	6l
Dipstick							
4.6001	1	FP-5146679	Dipstick, Unmarked	1	1	1	1
4.6001	1	FP-5146680	Dipstick, Unmarked	1	1	1	1
4.6001	6	FP-5151430	Guide, Dipstick (1.50" L.)	1	1	1	1
Filler							
4.5010	0	FP-5107106	Cap Assembly, Oil Filler Tube (1.50" Diameter), (Expansion Type)	1	1	1	1
4.5010	7	FP-5108474	Cap Assembly, Oil Filler Tube (Twist Type)	1	1	1	1
4.5010	7	FP-5120098	Cap Assembly, Oil Filler (1.75" Diameter)	1	1	1	-
4.5010	7	FP-5117362	Cap Assembly, Oil Filler (2" Diameter)	-	1	-	1
4.5010	11	FP-5140259	Cap Assembly, Oil Filler Tube (w/Chain & Hook)	-	1	-	1
4.5020	8	FP-5150147	Strainer, Oil Filler Tube	1	1	1	-
4.5030	0	FP-23515145	Gasket, Oil Filler Tube	1	1	1	1
4.5030	0	FP-5116391	Gasket, Oil Filler Tube	1	1	1	1
Pan							
4.7030	2	FP-5116255	Gasket, Oil Pan (Stamped)	1	-	-	-
4.7030	3	FP-5196058	Gasket, Oil Pan (Cast Iron)	1	-	-	-
4.7030	2	FP-5116256	Gasket, Oil Pan (Stamped)	-	1	-	-
4.7030	0	FP-5143271	Gasket, Oil Pan (Aluminum Eng.)	-	1	-	-
4.7030	3	FP-5196059	Gasket, Oil Pan (Cast Iron)	-	1	-	-
4.7030	2	FP-5116257	Gasket, Oil Pan (Stamped)	-	-	1	-
4.7030	3	FP-5196060	Gasket, Oil Pan (Cast Iron)	-	-	1	-
4.7030	2	FP-5119266	Gasket, Oil Pan (Stamped)	-	-	-	1
4.7030	0	FP-5137847	Gasket, Oil Pan (Aluminum Eng.)	-	-	-	1
4.7030	3	FP-5196061	Gasket, Oil Pan (Cast Iron)	-	-	-	1
4.7080	4	FP-5115214	Plug, 1/2" Pipe Square Head	3	3	5	5
4.7080	0	FP-5121182	Plug, 1/4" Pipe	2	2	2	2
4.7080	4	FP-5142549	Plug, 3/4" Pipe Square Head	1	1	1	1
4.7080	5	FP-840277	Washer, 18mm	-	1	1	1
4.7120	0	FP-5155596	Gasket, 5/16" Copper	-	2	2	2
4.8180	0	FP-5181415	Clip, Breather Extension Pipe Hose (1 1/8" Tube - 7/16" Bolt)	1	1	1	1



Fresh Water Pump

(Figure 14.1)





Fresh Water Pump

(Figure 14.1)

Groups:

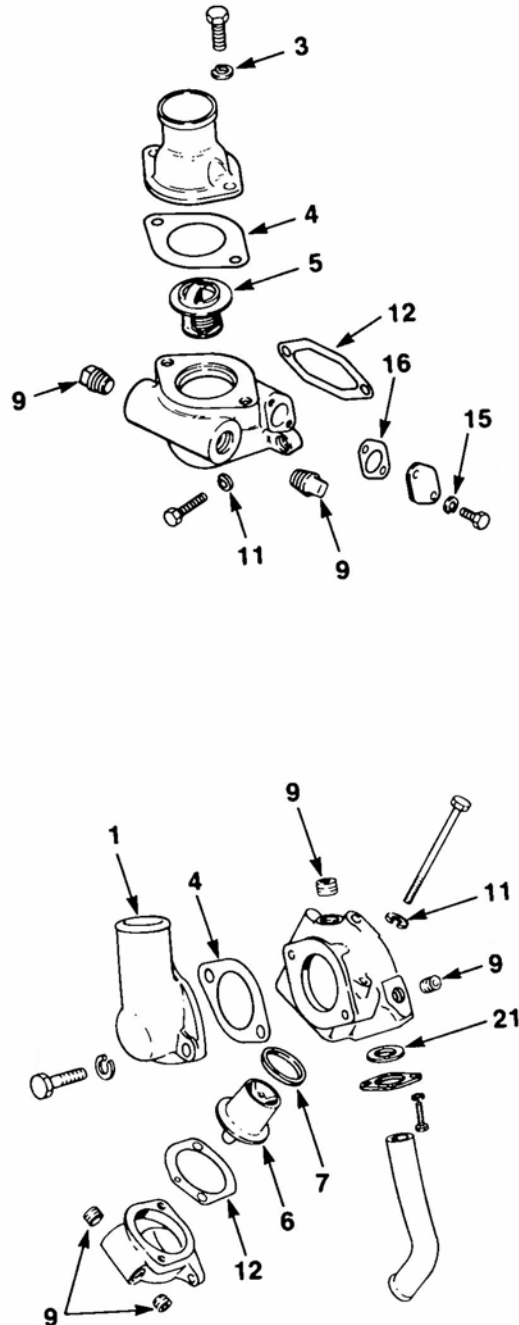
5.1001 - 5.1214

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.1001	0	FP-23506003	Pump Assembly, Water (L.H.), (FP-5144685)	1	1	1	1
5.1001	0	FP-23506007	Pump Assembly, Water (R.H.), (FP-5144686)	1	1	1	1
5.1001	0	FP-23506009	Pump Assembly, Water (R.H.), (FP-8920868)	1	1	1	-
5.1001	0	FP-23506011	Pump Assembly, Water (L.H.), (Aluminum Housing), (Military)	-	-	-	1
5.1006	0	FP-5119329	Gasket, Water Pump Adapter	1	-	-	-
5.1030	11	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
5.1030	1	FP-5144688	Body, Fresh Water Pump	1	1	1	-
5.1030	1	FP-5144689	Body, Fresh Water Pump	1	1	1	1
5.1030	11	FP-8924380	Plug, 1/8" Pipe	1	1	1	1
5.1030	1	FP-5104391	Body, Fresh Water Pump (Aluminum), (Military)	-	-	-	1
5.1031	7	FP-5104293	Bolt, 5/16" - 8 x 3/4" (Std.)	7	7	7	7
5.1031	7	FP-8925603	Bolt, 5/16" (Vibratite)	7	7	7	7
5.1031	6	FP-5119283	Cover, Fresh Water Pump	1	1	1	1
5.1200	9	FP-5139237	Pulley Assembly, Fresh Water Pump Idler	1	1	1	1
5.1202	0	FP-907394	Bearing, Idler Pulley	1	1	1	1
5.1207	0	FP-5108219	Seal, Idler Pulley Shaft	-	1	-	-
5.1214	9	FP-5144503	Pulley Assembly, Fresh Water Pump	1	1	1	1
5.1002	0	FP-23506863	Repair Kit, Fresh Water Pump (L.H.)	1	1	1	1
5.1002	8	FP-904827	Shaft & Bearing	1	1	1	1
5.1002	2	FP-23506605	Impeller, Fresh Water Pump	1	1	1	1
5.1002	3	FP-5119282	Gasket, Fresh Water Pump	1	1	1	1
5.1002	4	FP-5133107	Gasket, Fresh Water Pump	1	1	1	1
5.1002	5	FP-23506248	Seal, Fresh Water Pump	1	1	1	1
5.1002	0	FP-23506864	Repair Kit, Fresh Water Pump (R.H.)	1	1	1	1
5.1002	8	FP-904827	Shaft & Bearing	1	1	1	1
5.1002	2	FP-23506606	Impeller, Fresh Water Pump	1	1	1	1
5.1002	3	FP-5119282	Gasket, Fresh Water Pump	1	1	1	1
5.1002	4	FP-5133107	Gasket, Fresh Water Pump	1	1	1	1
5.1002	5	FP-23506248	Seal, Fresh Water Pump	1	1	1	1
5.1002	0	FP-23506865	Repair Kit, Fresh Water Pump (R.H.)	1	1	1	1
5.1002	8	FP-904827	Shaft & Bearing	1	1	1	1
5.1002	2	FP-23505994	Impeller, Fresh Water Pump	1	1	1	1
5.1002	3	FP-5119282	Gasket, Fresh Water Pump	1	1	1	1
5.1002	4	FP-5133107	Gasket, Fresh Water Pump	1	1	1	1
5.1002	5	FP-23506248	Seal, Fresh Water Pump	1	1	1	1
5.1002	0	FP-23506869	Repair Kit, Fresh Water Pump (L.H.)	1	1	1	1
5.1002	8	FP-904827	Shaft & Bearing	1	1	1	1
5.1002	2	FP-23505993	Impeller, Fresh Water Pump	1	1	1	1
5.1002	3	FP-5119282	Gasket, Fresh Water Pump	1	1	1	1
5.1002	4	FP-5133107	Gasket, Fresh Water Pump	1	1	1	1
5.1002	5	FP-23506248	Seal, Fresh Water Pump	1	1	1	1
5.1115	0	FP-5197279	Insert Kit, Ceramic Seal	1	1	1	1
5.1115	0	FP-5117342	Insert, Ceramic Seal	1	1	1	1
5.1115	0	FP-5197310	Washer, Adhesive	2	2	2	2



Thermostat

(Figure 15.1)





Thermostat

(Figure 15.1)

Groups:

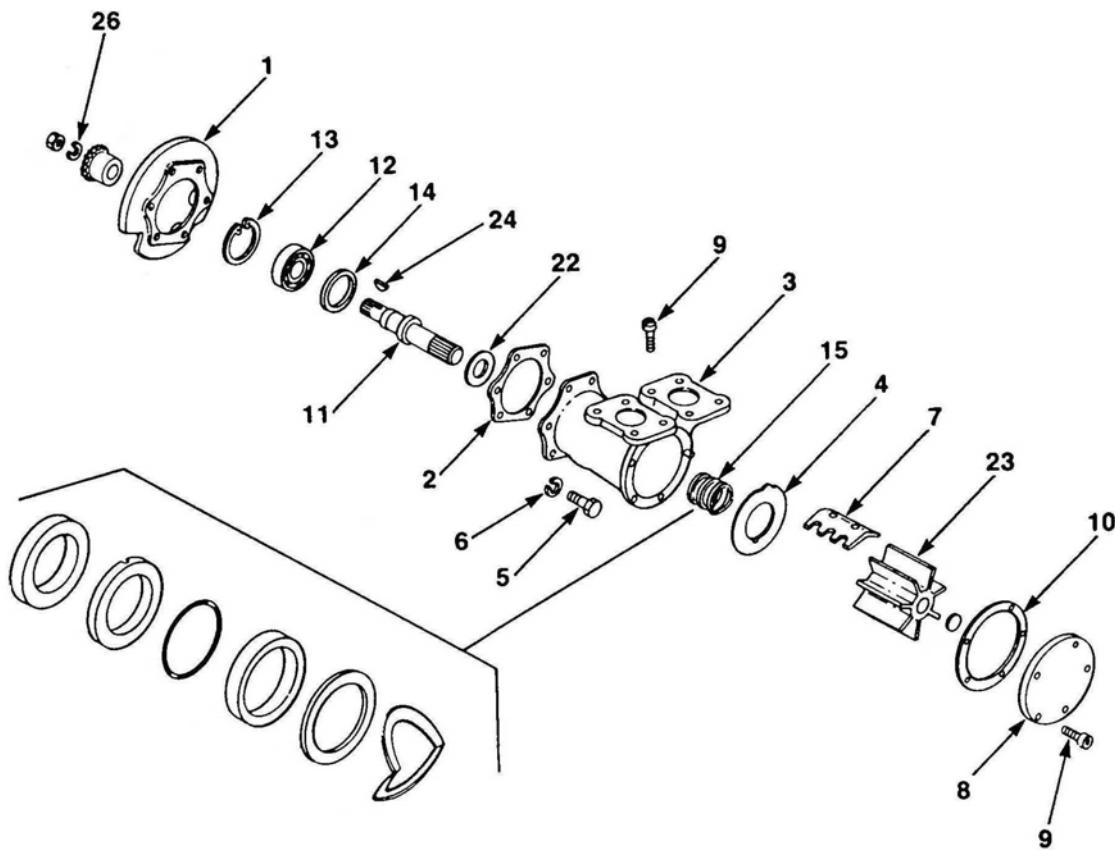
5.2037 - 5.4170

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.2037	4	FP-5116092	Gasket, Water Outlet Elbow	2	2	2	4
5.2037	4	FP-5116242	Gasket, Water Outlet Elbow	1	1	1	2
5.2037	0	FP-5121257	Gasket, Water Outlet Manifold Elbow	1	-	-	-
5.2037	4	FP-2206783	Gasket, Water Outlet Elbow	-	1	-	-
5.2050	5	FP-8927465	Thermostat Assembly, 170°	1	1	1	-
5.2050	5	FP-8927466	Thermostat Assembly, 180° (w/Rapid Start Up)	1	1	1	-
5.2050	5	FP-5143210	Thermostat Assembly, 170°	-	1	1	2
5.2050	6	FP-23503828	Thermostat Assembly, 165° (Weir Type), (8V-53)	-	-	-	2
5.2050	5	FP-3041379	Thermostat Assembly, 170°	-	-	-	1
5.2050	5	FP-5104462	Thermostat Assembly, 180°	-	-	-	2
5.2050	5	FP-5124872	Thermostat Assembly, 175°	-	-	-	2
5.2060	7	FP-5132155	Seal, Thermostat (8V53)	-	-	-	1
5.2060	7	FP-5134269	Seal, Thermostat (8V53)	-	-	-	2
5.2090	9	FP-5115214	Plug, 1/2" Pipe	2	3	3	6
5.2090	11	FP-103321	Lockwasher, 3/8"	2	2	2	4
5.2090	9	FP-8923847	Plug, 1/4" Pipe	2	2	2	4
5.2090	9	FP-8924517	Plug, 3/8" Pipe	2	2	2	2
5.2090	9	FP-8924380	Plug, 1/8" Pipe	-	1	-	-
5.2093	0	FP-5117786	Seal, Thermostat Housing Outlet Elbow	-	-	-	1
5.2110	12	FP-5124997	Gasket, Thermostat Housing (To Base)	-	-	-	2
5.2120	15	FP-103320	Lockwasher, 5/16"	2	2	2	4
5.2130	16	FP-5126473	Gasket, Thermostat Housing Cover (5.2170)	1	1	1	1
5.2130	16	FP-5117786	Gasket, Thermostat Housing Cover (8V53)	-	-	-	1
5.2130	16	FP-5125024	Gasket, Thermostat Housing Cover (5.2170)	-	-	-	1
5.2130	16	FP-5133450	Gasket, Thermostat Housing Cover (8V53)	-	-	-	1
5.2160	0	FP-5181415	Clip, Water By-Pass Tube (1 1/8" Tube - 7/16" Bolt)	1	1	1	1
5.2160	0	FP-5184301	Seal Ring, Water By-Pass Tube	1	1	1	-
5.2160	21	FP-5125150	Seal Ring, Water By-Pass Tube	-	-	-	3
5.2170	0	FP-5116357	Gasket, Water By-Pass Tube	-	1	1	1
5.3120	0	FP-5197822	Radiator Cap	1	1	1	-
5.3283	0	FP-8925325	Bushing, De-Aeration Hose (Piper Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1
5.3322	0	FP-5165808	Gasket, Expansion Tank Inlet Connection	1	-	-	-
5.4025	0	FP-103321	Lockwasher, 3/8"	4	4	4	2
5.4025	0	FP-8927581	Bolt, 3.8" -16 x 1"	4	4	4	-
5.4100	0	FP-8922500	Shaft & Bearing Assembly, Fan	1	1	1	1
5.4100	0	FP-23503727	Bearing, Fan Shaft Outer	-	-	-	1
5.4110	0	FP-7450630	Bearing, Inner Fan Shaft (Rear)	1	1	1	1
5.4110	0	FP-23503535	Bearing, Outer Fan Shaft	-	1	1	1
5.4110	0	FP-9415132	Bearing, Outer Fan Shaft (Front)	-	1	1	1
5.4110	0	FP-23503796	Bearing, Inner Fan Shaft	-	-	1	1
5.4140	0	FP-274746	Ring, Fan Shaft Bearing Retainer Lock	1	1	1	1
5.4140	0	FP-9409060	Bolt, 1/2" -20 x 1 1/2"	1	1	1	1
5.4150	0	FP-5100408	Seal, Fan Shaft	1	1	1	1
5.4150	0	FP-5103951	Seal, Fan Shaft	1	1	1	1
5.4150	0	FP-5108219	Seal, Fan Shaft	1	1	1	1
5.4170	0	FP-5131122	Spacer, Fan Shaft Bearing	1	1	1	1



Raw Water Pump

(Figure 16.1)





Raw Water Pump

(Figure 16.1)

Groups:

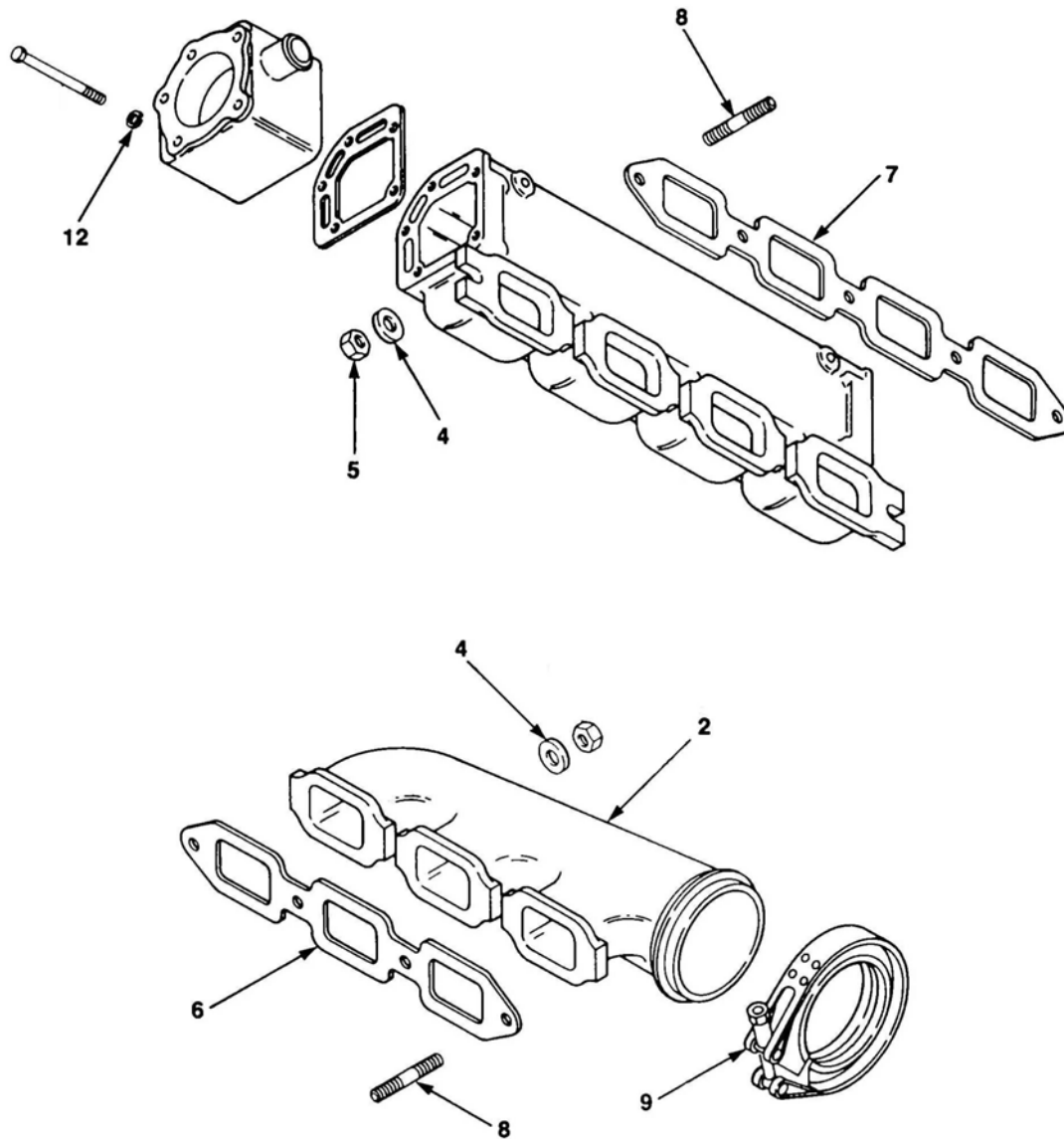
5.5050 - 5.7100

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.5050	0	FP-5156147	Gasket, Heat Exchanger Cover	1	-	-	-
5.5460	0	FP-5153902	Gasket, Heat Exchanger Raw Water Pump Inlet Tube	1	-	-	-
5.6001	0	FP-23507971	Pump Assembly, Raw Water (Options 40,48,54,55,74)	-	-	1	1
5.6001	0	FP-5195198	Seal, Raw Water Pump Spline (1.06 Dia Spline)	-	-	-	1
5.6010	1	FP-5193551	Adapter, Raw Water Pump Drive Flange	-	-	1	1
5.6010	0	FP-23501660	Screw, 3/8" - 16 x 1"	-	-	-	-
5.6012	2	FP-5196513	Gasket, Raw Water Pump Adapter	1	1	1	1
5.6020	0	FP-5197597	Pin, 3/16" x 5/16" Dowel	-	-	-	-
5.6025	23	FP-5193602	Impeller, Raw Water Pump (Synthetic)	1	1	1	1
5.6025	0	FP-5197597	Pin, Dowel .183" x 11/32"	1	1	1	1
5.6320	26	FP-103325	Lockwasher, 5/8"	1	1	1	1
5.6320	22	FP-5193576	Gear, Raw Water Pump Drive	1	1	1	1
5.6350	0	FP-23515145	Gasket, Raw Water Pump	1	1	1	1
5.6410	0	FP-5145092	Bolt, 3/8" - 24 x 1.20"	4	4	4	4
5.6410	0	FP-5170450	Plate, Raw Water Pump Drive (21 Teeth), (1.7630)	1	1	1	1
5.6500	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
5.6500	0	FP-103321	Lockwasher, 3/8"	2	2	2	2
5.6500	0	FP-8517473	Electrode Assembly (1 1/4")	1	1	1	1
5.6510	0	FP-5115395	Gasket, Raw Water Pump Inlet Connection	-	-	1	1
5.7090	0	FP-8925325	Bushing, Water Filter Inlet Hose (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1
5.7100	0	FP-8925325	Bushing, Water Filter Outlet Hose (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1
5.6025	0	FP-23504615	Minor Water Pump Repair Kit (For Pump # 23501083)	-	-	-	1
5.6025	10	FP-5193562	Components Pickup Description Above	-	-	-	1
5.6025	23	FP-8924838	Components Pickup Description Above	-	-	-	1
5.6025	15	FP-5198419	Components Pickup Description Above	-	-	-	1
5.6025	0	FP-23504236	Components Pickup Description Above	-	-	-	5
5.6220	0	FP-5194860	Kit, Impeller & Seal Raw Water Pump	-	-	-	1
5.6025	10	FP-5193562	Gasket, Raw Water Pump Cover	-	-	-	1
5.6025	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	-	-	-	1
5.6025	23	FP-8924838	Impeller, Raw Water Pump (5.6220)	-	-	-	1
5.6025	0	FP-5197224	Repair Kit, Raw Water Pump	-	-	-	1
5.6025	9	FP-114366	Screw, 1/4" - 20 x 1/2"	-	-	-	6
5.6025	24	FP-5161024	Key, 5/32" x 7/8"	-	-	-	1
5.6025	11	FP-5193552	Shaft, Raw Water Pump	-	-	-	1
5.6025	7	FP-5193554	Cam, Raw Water Pump (5.6035)	-	-	-	1
5.6025	8	FP-5193555	Cover, Raw Water Pump End	-	-	-	1
5.6025	4	FP-5193556	Plate, Wear (5.6025)	-	-	1	1
5.6025	10	FP-5193562	Gasket, Raw Water Pump Cover	-	-	-	1
5.6025	13	FP-5193569	Ring, Raw Water Pump Bearing Retainer	-	-	-	1
5.6025	22	FP-5193676	Slinger, Raw Water Pump Shaft	-	-	-	1
5.6025	14	FP-5195101	Seal, Raw Water Pump Bearing	-	-	-	1
5.6025	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	-	-	-	1
5.6025	23	FP-8924838	Impeller, Raw Water Pump (5.6220)	-	-	-	1
5.6025	2	FP-23501662	Gasket, Raw Water Pump Adapter	-	-	1	1
5.6025	0	FP-23504236	Screw, Hex	-	-	-	5
5.6025	12	FP-23504426	Bearing, Raw Water Pump	-	-	-	1
5.6025	0	FP-9415285	Ring, Retaining	-	-	-	1



Exhaust Manifold

(Figure 17.1)





Exhaust Manifold

(Figure 17.1)

Groups:

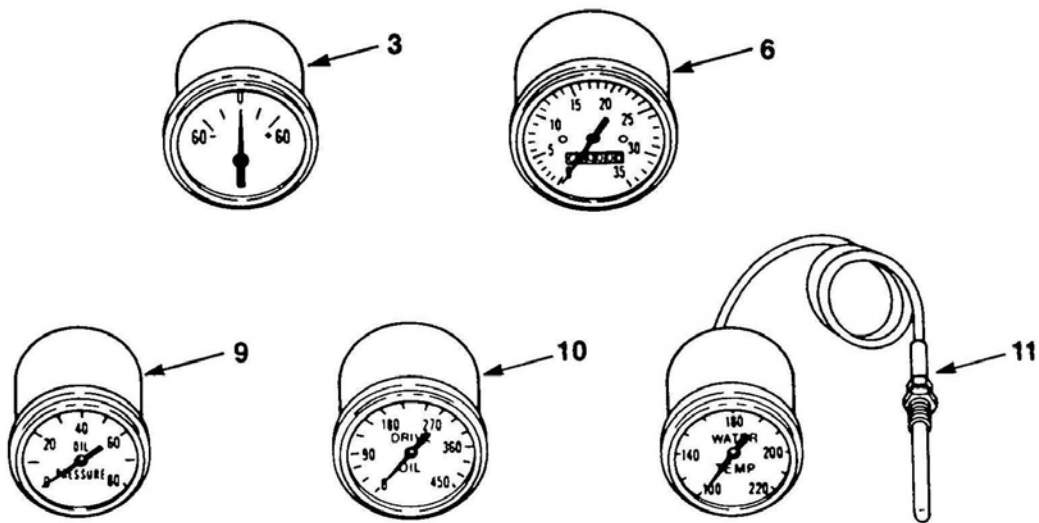
6.1001 - 6.2105

Group	Ref	Part No.	Description	2l	3l	4l	6l
6.1001	4	FP-5104439	Washer, 7/16"	3	4	5	8
6.1001	0	FP-5121182	Plug, 1/4" Pipe	2	2	2	4
6.1001	0	FP-8924380	Plug, 1/8" Pipe	1	1	1	-
6.1001	0	FP-5135016	Exhaust Manifold	-	-	-	2
6.1010	0	FP-5116306	Gasket, Exhaust Manifold	1	-	-	-
6.1010	6	FP-5116205	Gasket, Exhaust Manifold	-	1	-	2
6.1010	7	FP-5119006	Gasket, Exhaust Manifold	-	-	1	-
6.1020	8	FP-8925804	Stud, 7/16" -14/20 x 2 3/32"	1	1	1	-
6.1110	0	FP-5113412	Gasket, Exhaust Manifold Cover Plate	1	1	1	-
6.2085	12	FP-103321	Lockwasher, 3/8"	-	5	5	10
6.2085	9	FP-23506306	Clamp, Exhaust Manifold (4.55" Diameter)	-	1	1	2
6.2085	0	FP-5164146	Flange, Exhaust Manifold (4" Pipe Thread w/ 5 3/8" B.C.)	-	1	1	1
6.2085	9	FP-5137620	Clamp, Exhaust Manifold (3.66" Diameter)	-	-	-	2
6.2085	9	FP-5146165	Clamp, Exhaust Manifold (3.88" Diameter)	-	-	-	2
6.2105	0	FP-3221863	Gasket, Exhaust Outlet (3 1/4" Diameter Opening)	1	1	1	1
6.2105	0	FP-5108377	Gasket, Exhaust Outlet	1	1	1	4
6.2105	0	FP-5100147	Gasket, Exhaust Outlet	-	1	1	-



Instruments

(Figure 18.1)





Instruments

(Figure 18.1)

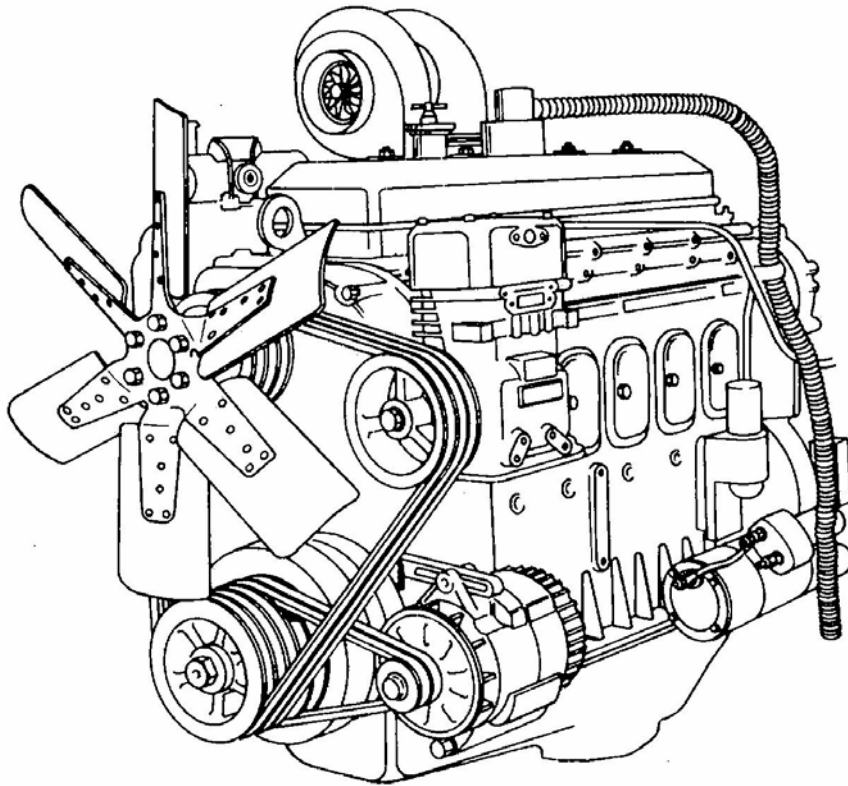
Groups:

7.3001 - 12.6860

Group	Ref	Part No.	Description	2l	3l	4l	6l
7.3001	0	FP-9418228	Bolt, Starter Mounting (12 Point), (5/8" - 11 x 1 3/4")	3	3	3	3
7.4015	3	FP-6474479	Ammeter, (60 Amp)	1	1	1	1
7.4077	0	FP-6490569	Gage, Oil Temperature (4' Capillary)	1	1	1	1
7.4080	11	FP-6490565	Gage, Water Temperature (10' Capillary)	1	1	1	1
7.4080	11	FP-8993092	Gage, Water Temperature (4' Capillary)	1	1	1	1
7.4080	11	FP-8993093	Gage, Water Temperature (6' Capillary)	1	1	1	1
7.4080	11	FP-8993253	Gage, Water Temperature (15' Capillary)	1	1	1	1
7.4435	0	FP-3224992	Shaft, Tachometer Drive (.061" Key)	-	1	1	1
7.4445	0	FP-5150568	Washer, 7/16" Copper	1	1	1	1
7.4450	0	FP-3202615	Seal, Tachometer Drive Cover	1	1	1	1
7.4455	0	FP-23515145	Gasket, Tachometer Drive	1	1	1	1
7.4455	0	FP-5116391	Gasket, Tachometer Drive	1	1	1	1
7.4455	0	FP-5135935	Gasket, Tachometer Drive	1	1	1	1
7.4457	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4457	0	FP-5107931	Washer, Adapter Cap	1	1	1	1
7.4458	0	FP-5135820	Seal, Tachometer Drive Adapter	-	1	1	1
7.4505	0	FP-103320	Lockwasher, 5/16"	2	2	2	-
7.4505	0	FP-5146080	Water Temperature Switch	1	1	1	1
7.4505	0	FP-5163830	Gasket, Water Temperature Switch	1	1	1	-
7.4505	0	FP-5121182	Plug, 1/4" Pipe	-	1	1	1
7.4510	0	FP-5113412	Gasket, Water Temperature Switch Adapter	1	1	1	-
7.4519	0	FP-23504196	Fuel Solenoid 12V (Supersede 1118128)	1	1	1	1
7.4525	0	FP-103319	Lockwasher, 1/4"	2	2	2	-
7.4525	0	FP-103320	Lockwasher, 3/8 "	2	2	2	-
7.4598	9	FP-23520023	Switch, Oil Pressure (#5 Break)	1	1	1	1
7.4598	9	FP-23520024	Switch, Oil Pressure (#10 Break)	1	1	1	1
7.4598	9	FP-23520025	Switch, Oil Pressure (#20 Make)	1	1	1	1
7.4598	9	FP-23520026	Switch, Oil Pressure (#27 Make/ Break)	1	1	1	1
7.4699	0	FP-8925325	Bushing, Exhaust Manifold Water Outlet Tube (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1
7.8040	0	FP-5109496	Gasket, Air Heater	1	1	1	1
7.8040	0	FP-5109517	Seal, Air Heater (1 3/4")	1	1	1	1
7.8090	0	FP-5136207	Bracket Air Heater Coil	1	1	1	1
7.8110	0	FP-5142056	Air Heater Coil High Tension Lead	1	1	1	1
7.8110	0	FP-5142328	Air Heater Coil High Tension Lead	1	1	1	1
7.8110	0	FP-5147163	Air Heater Coil High Tension Lead (14" Long)	1	1	1	1
7.8310	0	FP-5139965	Solenoid To Air Heater Inlet Tube (5.58" Dev.L.)	1	1	1	1
9.1001	0	FP-9421745	Plug, Hydraulic Gear Assy (1/2" Cup Type)	1	1	1	1
9.1430	0	FP-9421745	Plug, Propeller Drive Flange (1/2" Cup Type)	1	1	1	1
9.1553	0	FP-5145282	Coupling, Hydraulic Pump Drive	1	1	1	1
11.1094	0	FP-5166864	Ring Cushion, Front Trunnion Support	1	1	1	1
12.3005	0	FP-5131939	Gasket, Vacuum Pump	1	1	1	1
12.4005	0	FP-5131939	Gasket, Air Compressor Mounting	1	1	1	1
12.4025	0	FP-5131939	Gasket, Air Compressor Adapter	1	1	1	1
12.4090	0	FP-8925325	Bushing, Air Compressor Water Outlet (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1
12.6827	0	FP-8925325	Bushing, Hydraulic Starter Hose (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1
12.6860	0	FP-8925325	Bushing, Hydraulic Starter To Hydraulic Starter Accumulator Hose (Pipe Red - 3/8" PTF - 1/4 Zinc)	1	1	1	1



71 IL SERIES ENGINE





71 IL SERIES ENGINE

Model Description Chart

Application, Rotation Design Variations

1	0 6	5	—	7	0	0	1
SERIES 71	NUMBER OF CYLINDERS	APPLICATION DESIGNATION (see below)	BASIC ENGINE ARRANGEMENT (see below)	DESIGN VARIATION (see below)	SPECIFIC MODEL NUMBER		

APPLICATION DESIGNATION:

1062 - 7001 MARINE
1063 - 7001 INDUSTRIAL F-F
1064 - 7001 POWER-BASE
1065 - 7001 GENERATOR
1067 - 7001 VEHICLE F-F
1068 - 7001 SPECIAL

CRANKSHAFT ROTATION:

1062 - 3001 LEFT-HAND
1062 - 7001 RIGHT-HAND

DESIGN VARIATIONS:

1062 - 7001 4 VALVE HEAD ("N" ENGINE)
1062 - 7101 2 VALVE HEAD ENGINE
1062 - 7201 4 VALVE HEAD ("E" ENGINE)
1062 - 7301 TURBOCHARGED ENGINE
1062 - 7501 CUSTOMER SPECIAL ENGINE
1067 - 8601 TURBO AFTERCOOLED
1067 - 8701 CONSTANT HORSEPOWER
TURBOCHARGED
1067 - 8901 CONSTANT HORSEPOWER
TURBOCHARGED AFTERCOOLED

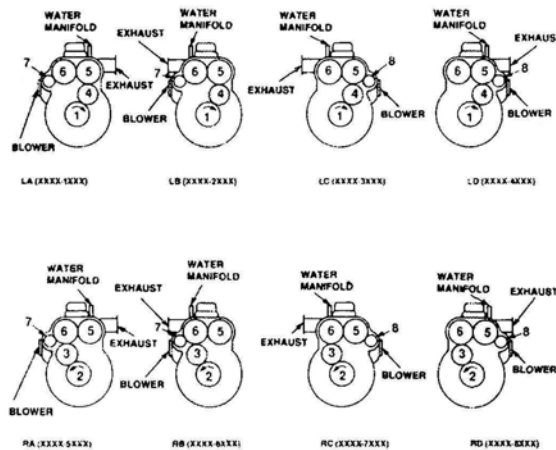
Basic Engine Arrangements

Rotation: L (left) and R (right) designates rotation viewed from the front of the engine (not flywheel end).

Type: A - B - C - D designates location of starter and oil cooler as viewed from the rear (flywheel) end.

Cylinder Bank: left and right cylinder banks are determined from rear of engine (flywheel end).

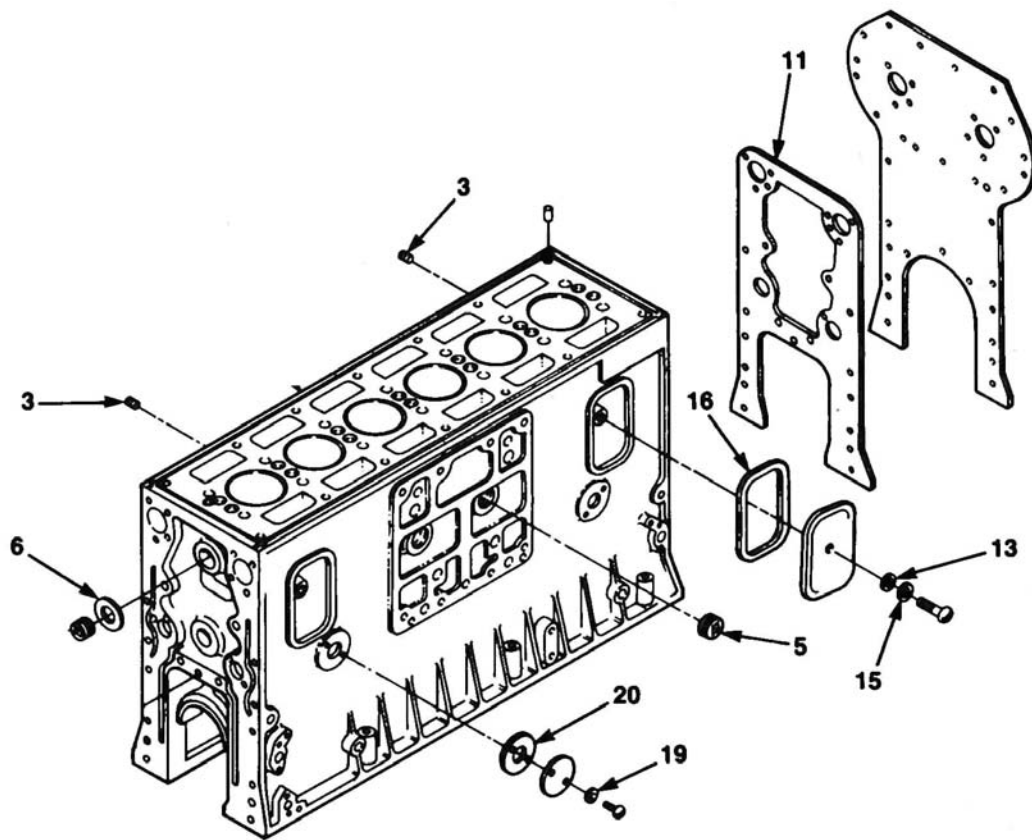
ALL BELOW VIEWS FROM REAR OF ENGINE





Cylinder Block

(Figure 1.1)





Cylinder Block

(Figure 1.1)

Groups:

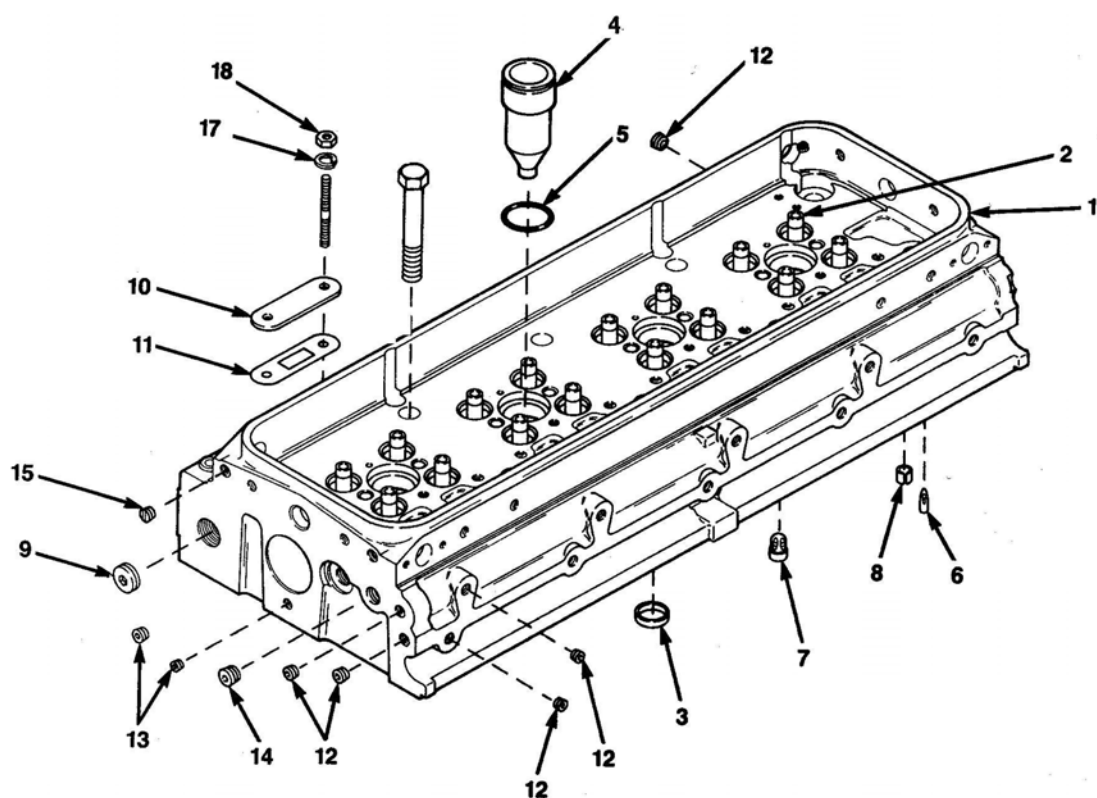
1.1001 - 1.1100

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.1001	0	FP-5115214	Plug, 1/2" Pipe	2	2	2	2
1.1001	6	FP-5178997	Seal Ring, Cylinder Block Core Plug	-	4	4	4
1.1001	3	FP-8924380	Plug, 1/8" - 27 Pipe	-	2	4	9
1.1001	5	FP-5142549	Plug, 3/4" Pipe	-	-	2	2
1.1001	0	FP-5121182	Plug, 1/4" Pipe	-	-	-	8
1.1002	0	FP-5192434	Gasket Set, Engine Overhaul (Low Block)	1	-	-	-
1.1002	0	FP-5192434WS	Gasket Set, Engine Overhaul (Low Block), (w/Seals)	1	-	-	-
1.1002	0	FP-23512674	Gasket Set, Engine Overhaul (High Block)	-	1	-	-
1.1002	0	FP-23512674WS	Gasket Set, Engine Overhaul (High Block), (w/Seals)	-	1	-	-
1.1002	0	FP-5192921	Gasket Set, Engine Overhaul (Low Block)	-	1	-	-
1.1002	0	FP-23512675	Gasket Set, Engine Overhaul (High Block)	-	-	1	-
1.1002	0	FP-23512675WS	Gasket Set, Engine Overhaul (High Block), (w/Seals)	-	-	1	-
1.1002	0	FP-5192922	Gasket Set, Engine Overhaul (Low Block)	-	-	1	-
1.1002	0	FP-23512676	Gasket Set, Engine Overhaul (High Block)	-	-	-	1
1.1002	0	FP-23512676WS	Gasket Set, Engine Overhaul (High Block), (w/Seals)	-	-	-	1
1.1002	0	FP-5192923	Gasket Set, Engine Overhaul (Low Block)	-	-	-	1
1.1002	0	FP-5194807	Gasket Set (64HN9 Supplemental), (Marine Only)	-	-	-	1
1.1010	0	FP-103321	Lockwasher, 3/8"	-	6	6	6
1.1010	0	FP-8927581	Bolt, 3/8" - 16 x 1" (w/Seal Patch)	-	6	6	6
1.1030	11	FP-23505518	Gasket, Cyl. Block End Plate (Front & Rear)	-	2	2	2
1.1040	13	FP-23505525	Gasket, 3/8" Copper	4	4	4	8
1.1040	15	FP-5152148	Washer, 3/8" Flat	-	6	8	12
1.1050	16	FP-5152288	Gasket, Cylinder Block Hand Hole Cover	2	-	-	-
1.1050	16	FP-5132117	Gasket, Cyl. Block Water Hole Cover	-	4	4	4
1.1060	19	FP-103320	Bolt, 5/16" - 18 x 3/4" (w/Lockwasher)	-	2	2	2
1.1060	0	FP-5148436	Bolt, Cyl. Block Water Hole Cover 5/16" - 18 x 3/4" (w/Lockwasher)	-	2	2	2
1.1070	20	FP-5116357	Gasket, Cyl. Block Water Hole Cover	-	1	1	1
1.1100	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1



Cylinder Head

(Figure 2.1)





Cylinder Head

(Figure 2.1)

Groups:

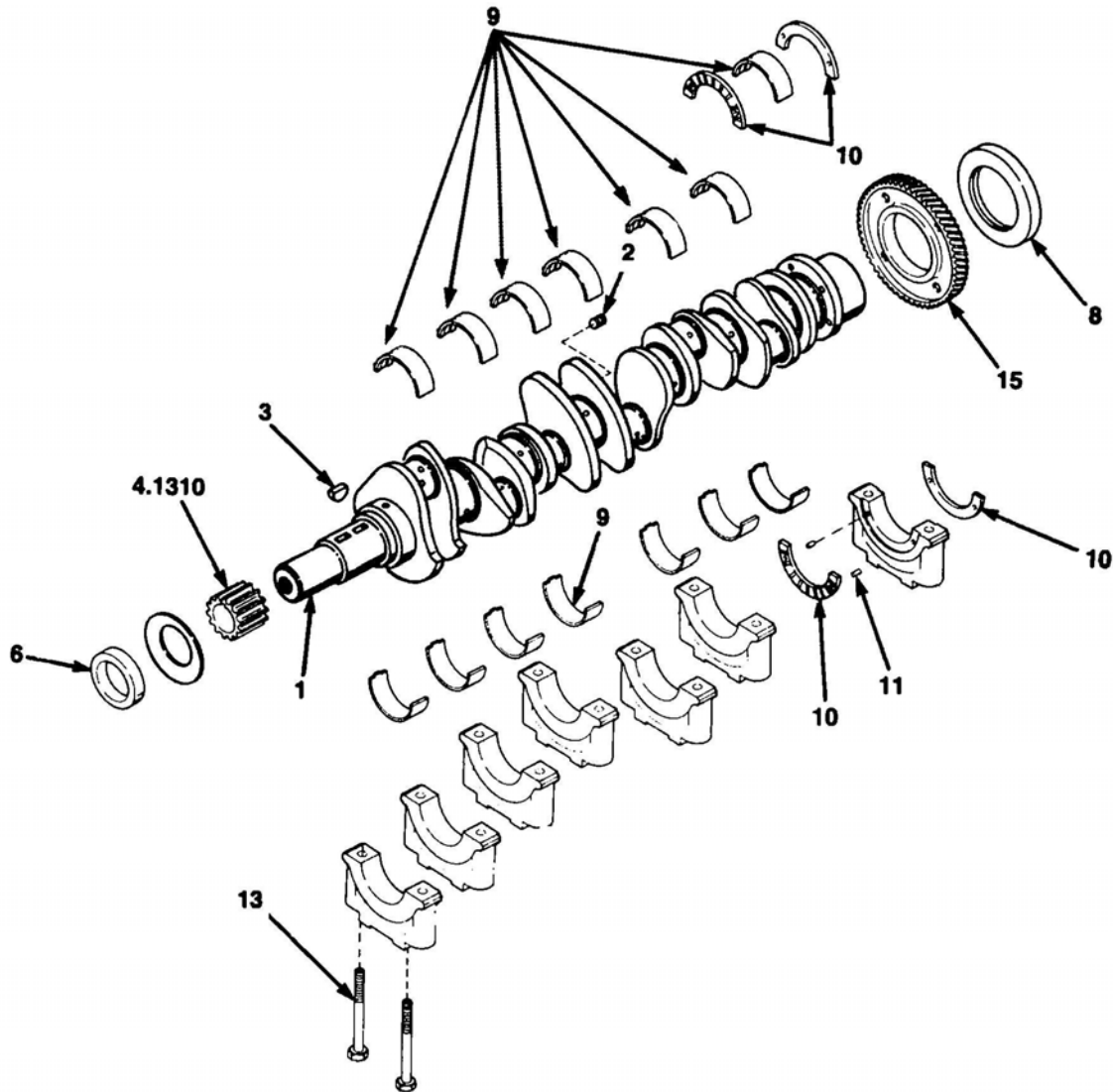
1.2001 - 1.2090

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.2001	0	FP-5120930	Guide, Exhaust Valve (2 Valve Head), (1.8320)	4	6	8	12
1.2001	0	FP-8927920	Insert, Exhaust Valve Seat (Std.), (2 Valve Head), (1.8330)	4	6	8	12
1.2001	5	FP-5104701	Seal Ring, Injector Hole Tube (Viton)	2	3	4	6
1.2001	4	FP-8925981	Tube Kit, Injector Hole (w/Seal Ring), (Viton)	2	3	4	6
1.2001	0	FP-5121182	Plug, 1/4" Pipe	-	7	9	13
1.2001	18	FP-103026	Nut, 3/8" Hex	-	6	8	12
1.2001	17	FP-103321	Lockwasher, 3/8"	-	6	8	12
1.2001	0	FP-5117564	Guide, Exhaust Valve Bridge	-	6	8	12
1.2001	0	FP-5125108	Washer, Fuel Stand (.443" x .75" x .060")	-	6	8	12
1.2001	0	FP-8927270	Stud, 3/8" - 16 x 1 11/16" Water Manifold	-	6	8	12
1.2001	12	FP-8923847	Plug, 1/4" Hex Socket Head	-	5	5	5
1.2001	7	FP-5111332	Nozzle, Water (Dual Outlet)	-	4	6	10
1.2001	0	FP-8925804	Stud, 7/16" - 14 x 2 3/32" Exhaust Manifold	-	4	5	7
1.2001	13	FP-5154453	Plug, 3/8" - 16 Headless Special	-	4	4	4
1.2001	6	FP-5172874	Nozzle, Water (Single Outlet)	-	4	4	4
1.2001	15	FP-5178976	Plug, 7/16" - 14 Special	-	4	4	4
1.2001	11	FP-23506469	Gasket, Water Outlet Cover Plate	-	3	4	-
1.2001	10	FP-5117344	Plate, Water Outlet Cover	-	3	4	-
1.2001	8	FP-5113773	Sleeve, Pilot .70" L	-	2	2	2
1.2001	9	FP-5142549	Plug, 3/4" Pipe	-	2	2	4
1.2001	0	FP-5150132	Plug, 3/4" Diameter Cup	-	2	2	2
1.2001	3	FP-5101101	Insert, Exhaust Valve Seat (Std.), (2 Valve Head), (1.8330)	-	12	16	24
1.2001	0	FP-5117562	Washer, Exhaust Valve Spring Seat	-	12	16	24
1.2001	2	FP-5129919	Guide, Exhaust Valve (1.8320)	-	12	16	24
1.2001	14	FP-8924517	Plug, 3/8" Hex Socket Head	-	1	2	3
1.2001	0	FP-8926993	Plug, Cylinder Head Fuse 1/4"	-	1	1	1
1.2001	0	FP-5117186	Plug, 2" Diameter Cup Stainless	-	-	2	2
1.2002	0	FP-5192432	Gasket Set, Cylinder Head Oil (Low Block)	1	-	-	-
1.2002	0	FP-5192433	Gasket Set, Cylinder Head Overhaul (Low Block)	1	-	-	-
1.2002	0	FP-5192918	Gasket Set, Cylinder Head Oil (Low Block)	-	1	-	-
1.2002	0	FP-5192924	Gasket Set, Cylinder Head Overhaul (Low Block)	-	1	-	-
1.2002	0	FP-5192919	Gasket Set, Cylinder Head Oil (Low Block)	-	-	1	-
1.2002	0	FP-5192925	Gasket Set, Cylinder Head Overhaul (Low Block)	-	-	1	-
1.2002	0	FP-5193116	Gasket Set, Cylinder Head Overhaul	-	-	1	-
1.2002	0	FP-5198676	Gasket Set, Cylinder Head	-	-	1	-
1.2002	0	FP-5192920	Gasket Set, Cylinder Head Oil (Low Block)	-	-	-	1
1.2002	0	FP-5192926	Gasket Set, Cylinder Head Overhaul (Low Block)	-	-	-	1
1.2002	0	FP-5195742	Gasket Set, Cylinder Head Overhaul (Metal Clad)	-	-	-	1
1.2010	0	FP-5174782	Gasket, Cylinder Head (1.2020)	1	-	-	-
1.2010	0	FP-5150043	Gasket, Cylinder Head	-	1	-	-
1.2010	0	FP-5150044	Gasket, Cylinder Head	-	-	1	-
1.2010	0	FP-5150045	Gasket, Cylinder Head	-	-	-	1
1.2090	0	FP-5154290	Gasket, Engine Lifter Bracket	1	-	-	-
1.2090	0	FP-5150052	Gasket, Engine Lifter Bracket	-	1	1	1



Crankshaft

(Figure 3.1)





Crankshaft

(Figure 3.1)

Groups:

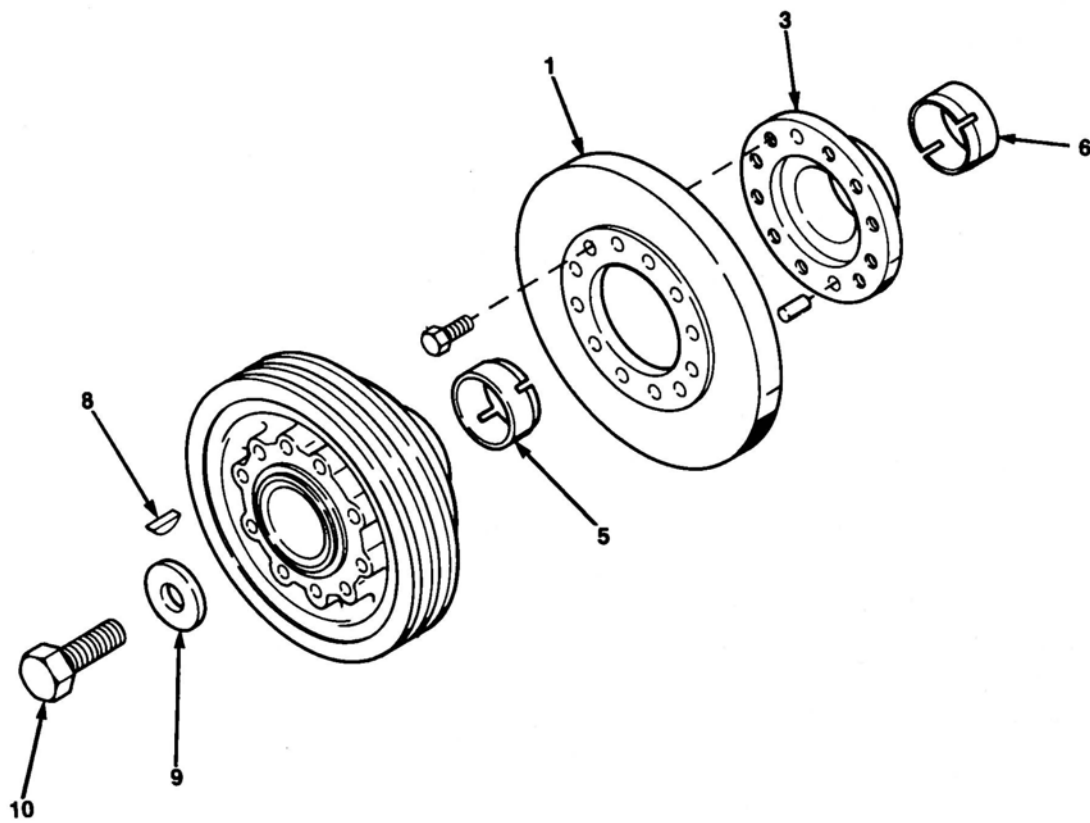
1.3040 - 1.3170

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.3040	6	FP-5154314	Seal, Crankshaft Oil (Front), (Single Lip), (2-71 Only)	1	-	-	-
1.3040	6	FP-5115454	Seal, Crankshaft Oil (Front), (Single Lip)	-	1	1	1
1.3040	6	FP-5143108	Seal, Crankshaft Oil (Front), (Submersible)	-	-	1	1
1.3040	6	FP-5103071	Seal, Crankshaft Oil (Front), (Gray Marine)	-	-	-	1
1.3060	0	FP-23507225	Sleeve, Wear Rear Crankshaft Seal (O.S. Only), (FP-5197159)	1	1	1	1
1.3090	9	FP-5192874	Shell Set, Crankshaft Main Bearing (Std.)	3	4	5	7
1.3090	9	FP-5192875	Shell Set, Crankshaft Main Bearing (.002")	3	4	5	7
1.3090	9	FP-5192876	Shell Set, Crankshaft Main Bearing (.010")	3	4	5	7
1.3090	9	FP-5192877	Shell Set, Crankshaft Main Bearing (.020")	3	4	5	7
1.3090	9	FP-5192878	Shell Set, Crankshaft Main Bearing (.030")	3	4	5	7
1.3090	9	FP-5193738	Shell Set, Crankshaft Main Bearing (.040")	3	4	5	7
1.3090	9	FP-5193739	Shell Set, Crankshaft Main Bearing (.050")	3	4	5	7
1.3100	11	FP-141346	Pin, Dowel 3/16" x 1/2" (12.9290)	4	4	4	4
1.3100	10	FP-5159353	Washer, Crankshaft Main Bearing Thrust (Std.)	4	4	4	4
1.3100	10	FP-5160542	Washer, Crankshaft Main Bearing Thrust (.005" O.S.)	4	4	4	4
1.3100	10	FP-5192111	Washer, Crankshaft Main Bearing Thrust (.010" O.S.)	4	4	4	4
1.3140	0	FP-103325	Lockwasher 5/8"	6	8	10	14
1.3145	0	FP-103321	Lockwasher 3/8"	-	6	6	6
1.3160	8	FP-23504821	Seal, Crankshaft Oil (Rear), (Double Lip O.S.), (Uni Directional), (1.5004)	1	1	1	1
1.3160	8	FP-23507411	Seal, Crankshaft Oil (Rear), (Double Lip Std.), (Uni Directional), (1.5004)	1	1	1	1
1.3160	8	FP-5114335	Seal, Crankshaft Oil (Rear), (Single Lip), (Std.)	1	1	1	1
1.3160	0	FP-5192496	Spacer, Crankshaft Rear Oil Seal (Not For Double Lip Seal)	1	1	1	1
1.3160	8	FP-5197860	Seal, Crankshaft Oil (Rear), (Single Lip O.S.)	1	1	1	1
1.3160	0	FP-5154316	Spacer, Crankshaft Oil Seal (Front), (1-11/32" L)	1	-	-	-
1.3160	0	FP-5157930	Retainer, Crankshaft Cap	1	-	-	-
1.3160	8	FP-5127821	Seal, Crankshaft Oil (Rear), (Double Lip Std.)	-	1	1	1
1.3160	8	FP-5196927	Seal, Crankshaft Oil (Rear), (Double Lip O.S.)	-	1	1	1
1.3160	6	FP-23503769	Seal, Front Crankshaft Spacer	-	-	1	1
1.3160	0	FP-23507306	Spacer, Crankshaft Oil Seal (Front), (2-13/16" L)	-	-	1	1
Front Cover							
1.3170	0	FP-5156192	Gasket, Front Cover	1	-	-	-
1.3170	0	FP-5150181	Gasket, Crankshaft Front Cover	-	1	1	1
1.3170	0	FP-5112641	Gasket, Front Cover	-	-	-	1



Damper

(Figure 3.2)





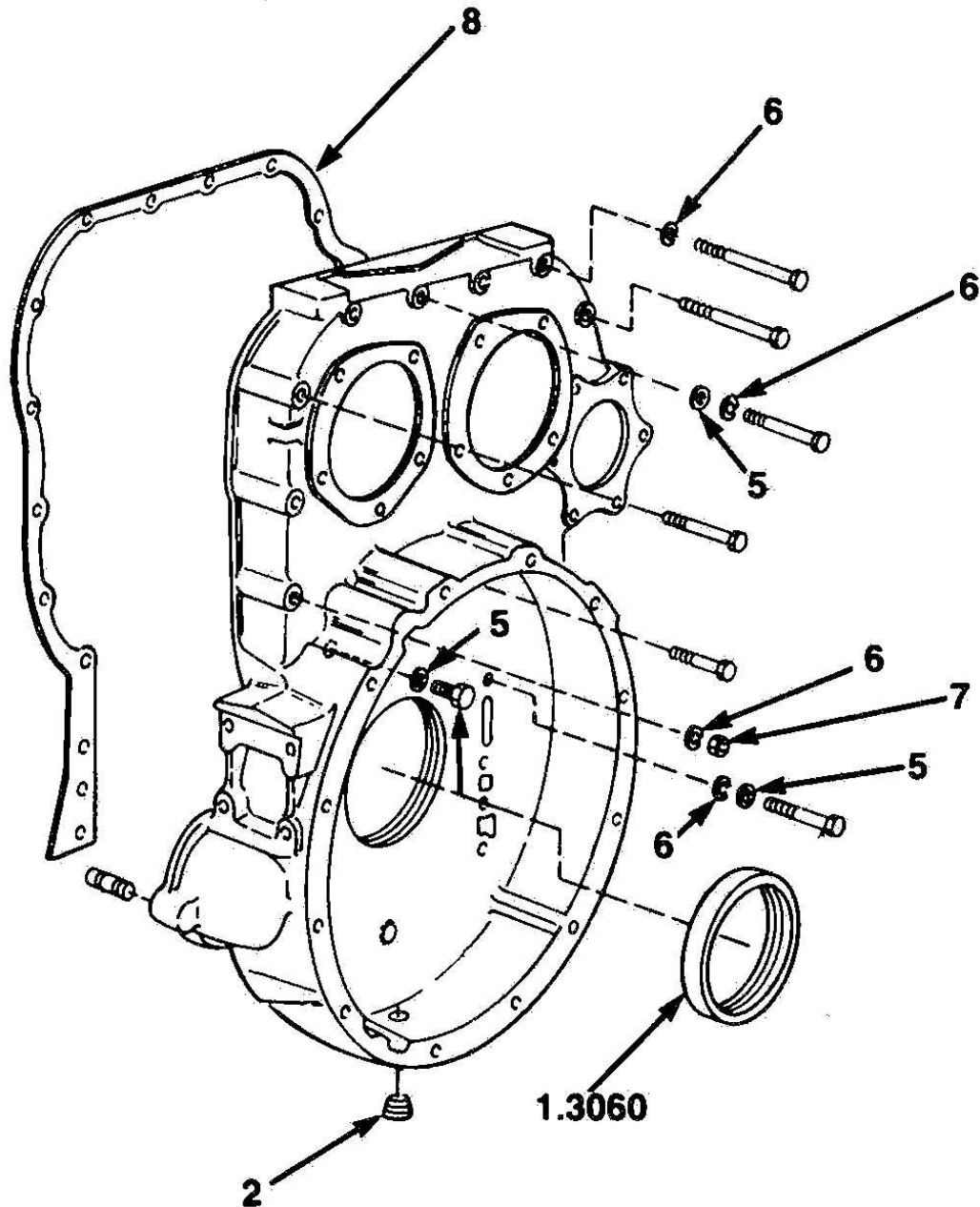
Damper

(Figure 3.2)

Groups:
1.3210 - 1.3310

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.3210	1	FP-5100553	Damper, Vibration (Light Rubber)	-	-	1	-
1.3210	1	FP-5177763	Damper, Vibration (Light Viscous)	-	-	1	1
1.3210	1	FP-8922491	Damper, Vibration (Heavy Viscous)	-	-	1	1
1.3210	1	FP-8928951	Damper, Vibration (Heavy Viscous), (12 Inch)	-	-	1	1
1.3210	1	FP-5100421	Damper, Vibration (Heavy Rubber)	-	-	-	1
1.3240	6	FP-23502705	Cone, Vibration Damper Rear (2.12")	-	-	1	1
1.3240	0	FP-23503769	Seal, Front Crankshaft Spacer	-	-	1	1
1.3240	5	FP-23506876	Cone, Vibration Damper Front (1.40")	-	-	1	1
1.3240	5	FP-5134917	Cone, Vibration Damper Front (.531")	-	-	1	1
1.3240	5	FP-5151344	Cone, Vibration Damper Front (.687")	-	-	1	1
1.3240	6	FP-23507296	Cone, Vibration Damper Rear (3.094")	-	-	-	1
1.3240	6	FP-8928674	Cone, Vibration Damper Rear (2.43")	-	-	-	1
1.3280	8	FP-5131724	Key, Front Crankshaft Pulley (3/8" x 1 1/4")	2	2	2	2
1.3290	10	FP-23501143	Bolt, 1" - 14 x 2 3/4" (1 1/2" Hex Head)	1	1	1	1
1.3290	9	FP-5157930	Retainer, Crankshaft Pulley (2 3/8" O.D.)	1	1	1	1
1.3310	0	FP-5131724	Key, 3/8" x 1" Woodruff	-	2	2	2

(Figure 3.3)





Bell Housing

(Figure 3.3)

Groups:

1.4001 - 1.5120

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.4001	0	FP-5103250	Bolt, 9/16" - 18 x 2.75" (B/H)	6	6	6	6
1.4001	0	FP-9410925	Bolt, 9/16" - 18 x 2 1/4"	6	6	6	6
1.4001	0	FP-9412015	Bolt, 9/16" - 18 x 2 1/2"	6	6	6	6
1.4008	0	FP-5173384	Seal, Flywheel (1 3/8")	-	-	-	1
1.4040	5	FP-23503707	Bearing, Clutch Pilot	-	1	1	1
1.4040	5	FP-23503709	Bearing, Clutch Pilot	-	1	1	1
1.4040	5	FP-23504892	Bearing, Clutch Pilot	-	1	1	1
1.5001	7	FP-103026	Lockwasher, 7/16"	11	-	-	-
1.5001	0	FP-5115214	Plug, 1/2" Pipe	1	2	2	2
1.5001	5	FP-5131755	Washer, 17/32" x .88" x .1345"	1	1	1	1
1.5001	2	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
1.5001	5	FP-5138619	Washer, 25/64" x 3/4" x .086"	-	6	6	6
1.5001	0	FP-8927581	Bolt, 3/8" - 16 x 1"	-	6	6	6
1.5001	6	FP-103321	Lockwasher, 3/8"	-	16	16	16
1.5001	5	FP-5131978	Washer, .53" I.D. x 1" O.D.	-	-	-	6
1.5010	8	FP-5152525	Gasket, Flywheel Housing	1	-	-	-
1.5010	8	FP-5150055	Gasket, Flywheel Housing	-	2	2	2
1.5010	8	FP-8928967	Gasket, Flywheel Housing	-	1	1	1
1.5030	0	FP-5125108	Washer, 7/16" x 3/4"	-	2	2	2
1.5040	0	FP-23515145	Gasket, Flywheel Housing Large Hole Cover	-	2	2	2
1.5050	0	FP-5152148	Washer, 3/8" x 9/16" Copper	2	2	2	2
1.5050	0	FP-8927580	Bolt, 3/8" - 16 x 7/8"	-	2	2	2
1.5060	0	FP-5104507	Gasket, Flywheel Housing Small Hole Cover	-	1	1	1
1.5075	0	FP-5130995	Gasket, Starting Motor Hole Cover	-	1	1	1
1.5090	0	FP-5170895	Gasket, Flywheel Housing Inspection Cover	-	1	1	1
1.5115	0	FP-103319	Lockwasher, 1/4"	-	-	-	2
1.5116	0	FP-5123812	Gasket, Flywheel Housing Vent Cover	-	-	-	1
1.5120	0	FP-5158741	Gasket, Flywheel Housing Water Hole Cover	-	2	2	2



Cylinder Kits

Cylinder Kit	Description	C/R	Option Type Numbers	Piston
71IL Series Trunk Type Only				
FP-20014	Non-Turbo, Trunk 2V Hd #1 Bore	17.5:1	1,2,3,4,14,15,135	FP-5189054
FP-23505308	Non-Turbo, Trunk 2V Hd #2 Bore	17.5:1	1,2,3,4,14,15,135	FP-5189054
FP-23505309	Non-Turbo, Trunk 2V Hd #3 Bore	17.5:1	1,2,3,4,14,15,135	FP-5189054
FP-23505309 1	Non-Turbo, Trunk 2V Hd #4 Bore	17.5:1	1,2,3,4,14,15,135	FP-5189054
FP-23505309 10	Non-Turbo, Trunk 2V Hd .010 OS	17.5:1	1,2,3,4,14,15,135	FP-5189054
FP-23505309 20	Non-Turbo, Trunk 2V Hd .020 OS	17.5:1	1,2,3,4,14,15,135	FP-5189054
FP-23505309 30	Non-Turbo, Trunk 2V Hd .030 OS	17.5:1	1,2,3,4,14,15,135	FP-5189054
FP-23505309 5	Non-Turbo, Trunk 2V Hd .005 OS	17.5:1	1,2,3,4,14,15,135	FP-5189054
FP-20012	Turbo, Trunk, 4V Hd #1 Bore	17.1	18,19,37,71,75,93	FP-5149236
FP-20013	Turbo, Trunk, 4V Hd #2 Bore	17.1	18,19,37,71,75,93	FP-5149236
FP-23505307	Turbo, Trunk, 4V Hd #3 Bore	17.1	18,19,37,71,75,93	FP-5149236
FP-23505307 1	Turbo, Trunk, 4V Hd #4 Bore	17.1	18,19,37,71,75,93	FP-5149236
FP-23505307 10	Turbo, Trunk, 4V Hd .010 OS	17.1	18,19,37,71,75,93	FP-5149236
FP-23505307 20	Turbo, Trunk, 4V Hd .020 OS	17.1	18,19,37,71,75,93	FP-5149236
FP-23505307 30	Turbo, Trunk, 4V Hd .030 OS	17.1	18,19,37,71,75,93	FP-5149236
FP-23505307 5	Turbo, Trunk, 4V Hd .005 OS	17.1	18,19,37,71,75,93	FP-5149236
FP-20011	Non-Turbo, Trunk 4V Hd #1 Bore	18.7:1	20,43,46,47,48,69,72,74,85,87,89,90,101,103	FP-5149234
FP-23505305	Non-Turbo, Trunk 4V Hd #2 Bore	18.7:1	20,43,46,47,48,69,72,74,85,87,89,90,101,103	FP-5149234
FP-23505306	Non-Turbo, Trunk 4V Hd #3 Bore	18.7:1	20,43,46,47,48,69,72,74,85,87,89,90,101,103	FP-5149234
FP-23505306 30	Non-Turbo, Trunk 4V Hd .030 OS	18.7:1	20,43,46,47,48,69,72,74,85,87,89,90,101,103	FP-5149234
FP-23505306 5	Non-Turbo, Trunk 4V Hd .005 OS	18.7:1	20,43,46,47,48,69,72,74,85,87,89,90,101,103	FP-5149234
FP-5149261	Non-Turbo, Trunk 4V Hd #4 Bore	18.7:1	20,43,46,47,48,69,72,74,85,87,89,90,101,103	FP-5149234
FP-5149263	Non-Turbo, Trunk 4V Hd .010 OS	18.7:1	20,43,46,47,48,69,72,74,85,87,89,90,101,103	FP-5149234
FP-5149264	Non-Turbo, Trunk 4V Hd .020 OS	18.7:1	20,43,46,47,48,69,72,74,85,87,89,90,101,103	FP-5149234
FP-LCK-5309	Linerless Cylinder Kit, N/A 2V Head	17.5:1	Trunk Piston (2V)	FP-5189054
FP-LCK-5306	Linerless Cylinder Kit, Non-Turbo	18.7:1	Trunk Piston (4V)	FP-5149234
FP-LCK-5307	Linerless Cylinder Kit, Turbo	17.1	Trunk Piston (4V)	FP-5149236



Cylinder Kits

Dome	Seal, Dome	Skirt	Slipper Brg	Liner	Port Ht	Ring Set	Pin	Retainer
71IL Series Trunk Type Only								
				FP-23504931	.81"	FP-5193477	FP-5188406	FP-5188405
				FP-23504932	.81"	FP-5193477	FP-5188406	FP-5188405
				FP-23504933	.81"	FP-5193477	FP-5188406	FP-5188405
				FP-23504934	.81"	FP-5193477	FP-5188406	FP-5188405
				FP-5102317	.81"	FP-5193477	FP-5188406	FP-5188405
				FP-5102318	.81"	FP-5193477	FP-5188406	FP-5188405
				FP-5102319	.81"	FP-5193477	FP-5188406	FP-5188405
				FP-5102316	.81"	FP-5193477	FP-5188406	FP-5188405
				FP-23502020	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-23502021	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-23502022	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-23504936	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-5193733	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-5193734	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-5193735	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-5193732	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-23502020	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-23502021	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-23502022	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-5193735	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-5193732	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-23504936	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-5193733	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-5193734	1.05"	FP-23514970	FP-5188406	FP-5188405
						FP-5193477	FP-5188406	FP-5188405
						FP-23514970	FP-5188406	FP-5188405
						FP-23514971	FP-5144495	FP-5188405



Cylinder Kits

Cylinder Kit	Description	C/R	Option Type Numbers
71IL Series Cross-Head Type Only			
FP-23522946	Turbo, Cross-Head #3	18.7:1	
FP-23522948	Turbo, Cross-Head #2	18.7:1	
FP-23522950	Turbo, Cross-Head .010	18.7:1	
FP-23522949	Non-Turbo, Cross-Head #2 Bore	18.7:1	139,141,234,235,'360 Original P/N (23505312), (5199822)
FP-23522947	Non-Turbo, Cross-Head #3 Bore	18.7:1	139,141,234,235,'360 Original P/N (23505313)
FP-23522951	Non-Turbo, Cross-Head .010 OS	18.7:1	139,141,234,235,360 Original P/N (5149300)
FP-23522525	Non-Turbo, Cross-Head .020 OS	18.7:1	139,141,234,235,360 Original P/N (5149301)
FP-23522949 5	Non-Turbo, Cross-Head .005 OS	18.7:1	139,141,234,235,360 Original P/N (5199822-005)
FP-23522949 30	Non-Turbo, Cross-Head .030 OS	18.7:1	139,141,234,235,360 Original P/N (5199822-030)
FP-23522521	Non-Turbo, Cross-Head #4 Bore	18.7:1	139,141,234,235,360 Original P/N (5199956)
FP-20022	Non-Turbo, Cross-Head #1 Bore	18.7:1	139,141,234,235,'360 Original P/N (23505312), (5199822)
FP-23522473 30	TA, X-Hd .030 N75 & Above, High Output Marine	17.1	191,282
FP-23522473 5	TA, X-Hd .005 N75 & Above, High Output Marine	17.1	191,282
FP-23522479	TA, X-Hd #4 N75 & Above, High Output Marine	17.1	191,282
FP-23522481	TA, X-Hd .010 N75 & Above, High Output Marine	17.1	191,282
FP-23522483	TA, X-Hd .020 N75 & Above, High Output Marine	17.1	191,282
FP-20019	TA, X-Hd #1 N75 & Above, High Output Marine	17.1	191,282 (23505425)
FP-23522473	TA, X-Hd #2 N75 & Above, High Output Marine	17.1	191,282 (23505425)
FP-23522477	TA, X-Hd #3 N75 & Above, High Output Marine	17.1	191,282 (23505426)
FP-20021	TA, Cross-Head #1 Bore Auto & City Coach	18.7:1	256,290,327
FP-23522507	TA, Cross-Head #2 Bore Auto & City Coach	18.7:1	256,290,327
FP-23522507 5	TA, Cross-Head .005 Bore Auto & City Coach	18.7:1	256,290,327
FP-23522509	TA, Cross-Head #3 Bore Auto & City Coach	18.7:1	256,290,327
FP-23522511	TA, Cross-Head #4 Bore Auto & City Coach	18.7:1	256,290,327
FP-23522513	TA, Cross-Head .010 OS Auto & City Coach	18.7:1	256,290,327
FP-23522515	TA, Cross-Head .020 OS Auto & City Coach	18.7:1	256,290,327
FP-20020	TA, Cross-Head #1 Bore N75 & Below	17.1	28,124,140,175,289,292,'294,301,305,326,359 (23505314)
FP-23522485	TA, Cross-Head #2 Bore N75 & Below	17.1	28,124,140,175,289,292,'294,301,305,326,359 (23505314)
FP-23522953	TA, Cross-Head #3 Bore N75 & Below	17.1	28,124,140,175,289,292,'294,301,305,326,359 (23505315)
FP-23522485 5	TA, Cross-Head .005 OS N75 & Below	17.1	28,124,140,175,289,292,'294,301,305,326,359 (8927766-005)
FP-23522485 30	TA, Cross-Head .030 OS N75 & Below	17.1	28,124,140,175,289,292,'294,301,305,326,359 (8927766-030)
FP-23522489	TA, Cross-Head #4 Bore N75 & Below	17.1	28,124,140,175,289,292,'294,301,305,326,359 (8927767)
FP-23522491	TA, Cross-Head .010 OS N75 & Below	17.1	28,124,140,175,289,292,'294,301,305,326,359 (8927768)
FP-23522493	TA, Cross-Head .020 OS N75 & Below	17.1	28,124,140,175,289,292,'294,301,305,326,359 (8927769)
FP-23522952	Turbo, Cross-Head #3	17.1	N80 Injector & Above (23505424)
FP-LCK-22507	Linerless Cylinder Kit	18.7:1	Non-Turbo Cross-Head
FP-LCK-22949	Linerless Cylinder Kit	18.7:1	Non-Turbo Cross-Head
FP-LCK-22473	Linerless Cylinder Kit	17.1	Turbo A/C Cross-Head
FP-LCK-22485	Linerless Cylinder Kit	17.1	Turbo A/C Cross-Head



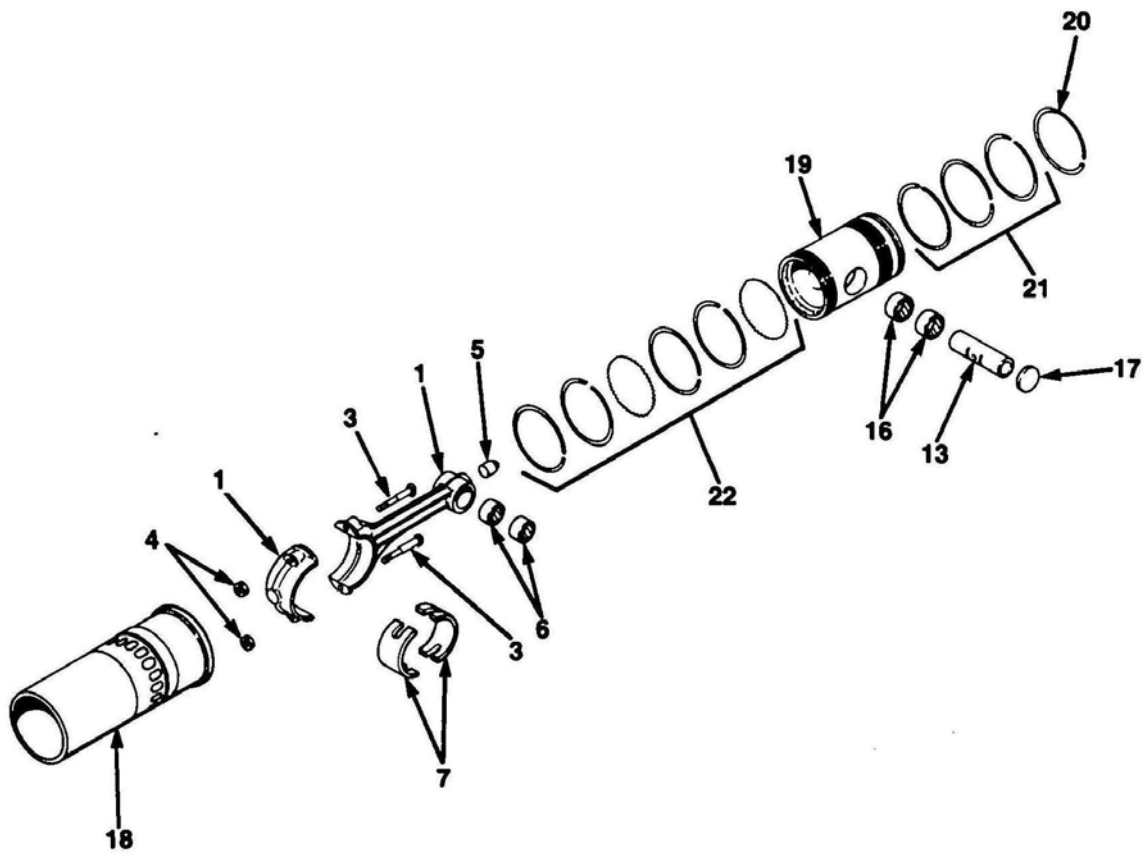
Cylinder Kits

Dome	Seal, Dome	Skirt	Slipper Brg	Liner	Port Ht	Ring Set	Pin	Retainer
71IL Series Cross-Head Type Only								
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502022	1.05"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502021	1.05"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193733	1.05"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502021	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502022	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193733	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193734	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193732	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193735	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23504936	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502020	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221		FP-23501687		.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5107448	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23504935	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5107449	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5107450	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502023	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502024	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502025	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502023	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502024	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5107448	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502025	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23504935	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5107449	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5107450	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502020	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502021	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502022	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5193732	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5193735	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23504936	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5193733	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5193734	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502022	1.05"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687			FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687			FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687			FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687			FP-23522954	FP-5101120	FP-5180250



Connecting Rod & Piston

(Figure 4.1)





Connecting Rod & Piston

(Figure 4.1)

Groups:

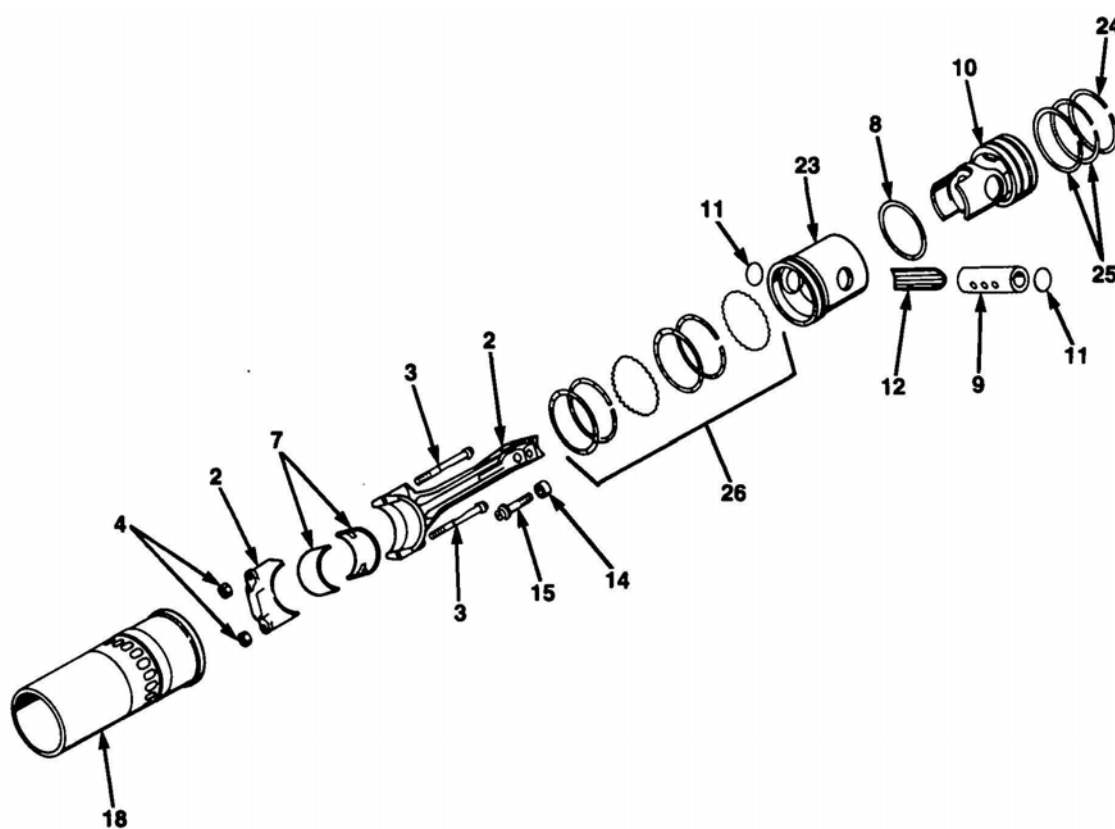
1.6001 - 1.6182

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.6001	4	FP-5117629	Nut, Rod Bolt 7/16" x 20	4	6	8	12
1.6001	3	FP-5132383	Bolt, C/R 7/16" 20 x 3.52"	4	6	8	12
1.6040	6	FP-5157274	Bushing, Connecting Rod Piston Pin	4	6	8	12
1.6100	7	FP-23511129	Shell Set, Connecting Rod (Standard)	2	3	4	6
1.6100	7	FP-23511131	Shell Set, Connecting Rod (.002 U.S.)	2	3	4	6
1.6100	7	FP-23511133	Shell Set, Connecting Rod (.010 U.S.)	2	3	4	6
1.6100	7	FP-23511135	Shell Set, Connecting Rod (.020 U.S.)	2	3	4	6
1.6100	7	FP-23511137	Shell Set, Connecting Rod (.030 U.S.)	2	3	4	6
1.6100	7	FP-5193741	Shell Set, Connecting Rod (.040 U.S.)	2	3	4	6
1.6106	0	FP-23501676	Ring Seal, Crosshead Piston (Former Style)	-	3	4	6
1.6130	0	FP-23514967	Ring Set, Oil Control (Set For One Piston)	-	2	3	6
1.6145	16	FP-5155839	Bushing, Piston Pin (Trunk Type), (In Piston)	-	6	8	12
1.6182	17	FP-5188405	Retainer, Piston Pin (1.6150)	4	6	8	12
1.6182	13	FP-5188406	Pin, Piston Trunk (1.6140), (Non-Turbo)	2	3	4	6
1.6182	19	FP-5189054	Piston Assembly (17.5:1), (Trunk), (2 Valve Head)	2	3	4	6
1.6182	13	FP-5130881	Pin, Piston Trunk (Turbo Non-Drilled), (Military), (1.6140)	-	3	4	6
1.6182	13	FP-5144495	Pin, Piston Trunk (Drilled), (1.6140)	-	3	4	6
1.6182	0	FP-5149234	Piston Assembly (Trunk), (4 Valve Head), (18.7:1)	-	3	4	6
1.6182	0	FP-5149236	Piston Assembly, Trunk Turbo (17:1)	-	3	4	6
1.6115	0	FP-23514970	Ring Set (Trunk), (Non-Turbo), (4 Valve Head)	-	3	4	6
1.6120	20	FP-5102648	Ring, Fire & Compression (First 4 Grooves)	-	9	12	18
1.6130	22	FP-23514965	Ring Set, Oil Control (Set For One Piston)	-	3	4	6
1.6115	0	FP-23514971	Ring Set (Trunk), (Turbo), (4 Valve Head)	-	3	4	6
1.6120	20	FP-5102648	Ring (Top Groove, Fire)	-	3	4	6
1.6120	21	FP-5185325	Ring, Compression (2nd, 3rd & 4th Grooves)	-	9	12	18
1.6130	22	FP-23514968	Ring Set, Oil Control (Set For One Piston)	-	2	3	6
1.6115	0	FP-5193477	Ring Set (Trunk), (2 Valve Head)	2	3	4	6
1.6120	20	FP-5185325	Ring, Compression (Top 4 Grooves)	8	12	16	24
1.6130	22	FP-5179824	Ring, Oil Control	8	12	16	24
1.6130	22	FP-5130780	Ring, Expander	4	6	8	12



Connecting Rod & Piston

(Figure 4.2)





Connecting Rod & Piston

(Figure 4.2)

Groups:

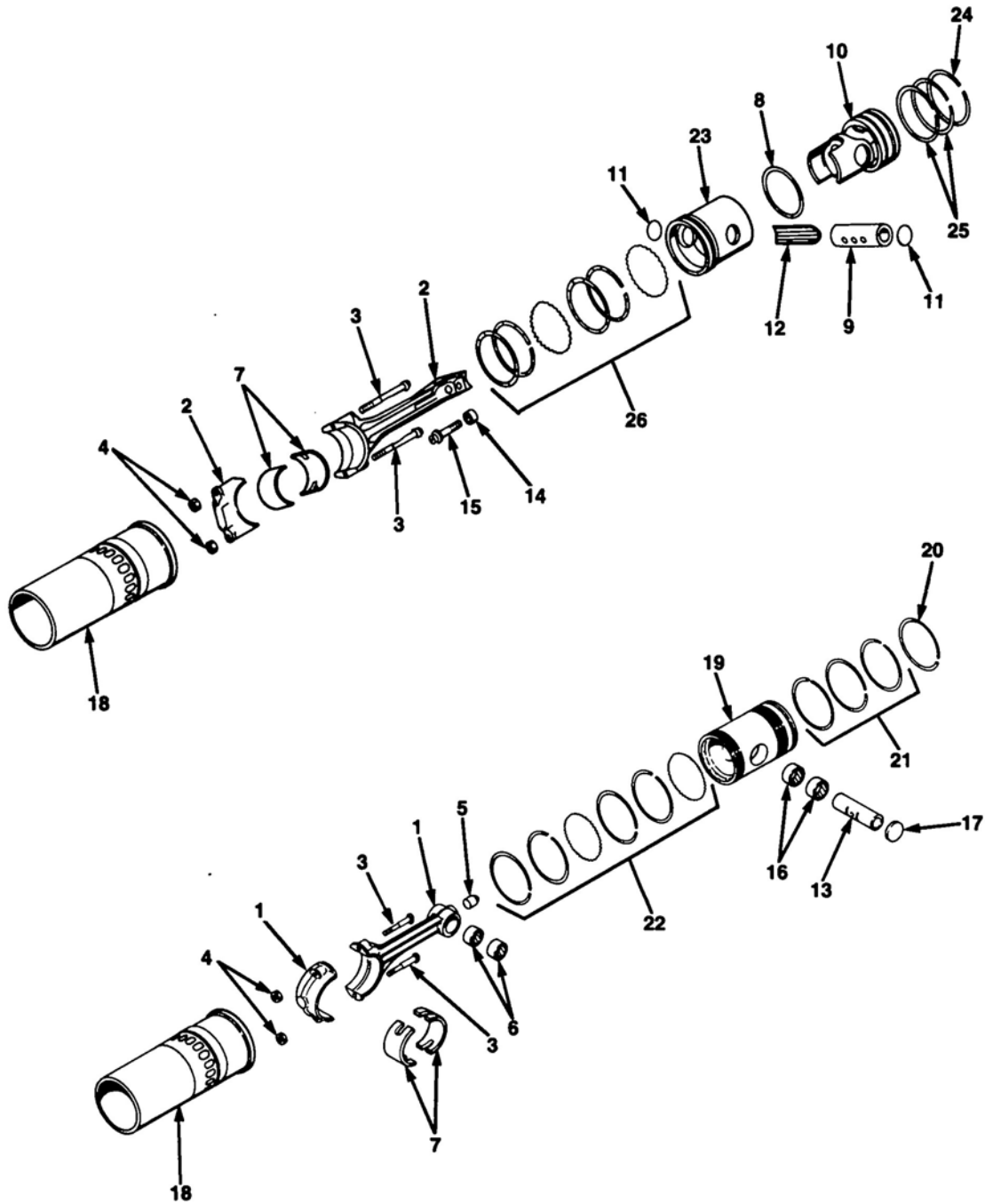
1.6110 - 1.6150

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.6140	14	FP-5144846	Spacer, Piston Pin Bolt (Crosshead)	-	6	8	12
1.6140	15	FP-5148373	Bolt, 7/16" 20 x 2.00" L (Connecting Rod To Pin)	-	6	8	12
1.6140	9	FP-5101120	Pin, Piston Crosshead (Turbo, Solid)	-	3	4	6
1.6140	9	FP-5144744	Pin, Piston Crosshead (Nut Plate Type)	-	3	4	6
1.6142	12	FP-23501687	Bearing, Piston Pin (Slipper Type)	-	3	4	6
1.6150	11	FP-5180250	Retainer, Piston Pin Crosshead	-	6	8	12
1.6110	0	FP-23522475	Dome Kit, Piston	-	3	4	6
1.6110	10	FP-23521992	Coupling, Raw Water Pump Drive (21 External Teeth)	-	3	4	6
1.6110	12	FP-23501687	Bearing, Piston Pin (Slipper Type)	-	3	4	6
1.6110	8	FP-8922221	Ring, Seal Crosshead Piston	-	3	4	6
1.6110	9	FP-5101120	Pin, Piston	-	3	4	6
1.6110	11	FP-5180250	Retainer, Piston Pin	-	3	4	6
1.6110	23	FP-23522070	Skirt, Piston Crosshead (All)	-	3	4	6
1.6110	0	FP-23522535	Dome Kit, Piston	-	3	4	6
1.6110	10	FP-23522026	Crown, Piston (18.7:1)	-	3	4	6
1.6110	12	FP-23501687	Bearing, Piston Pin, (Slipper Type)	-	3	4	6
1.6110	8	FP-8922221	Ring, Seal Crosshead Piston	-	3	4	6
1.6110	9	FP-5101120	Pin, Piston	-	3	4	6
1.6110	11	FP-5180250	Retainer, Piston Pin	-	3	4	6
1.6115	0	FP-23522954	Ring Set, Crosshead (Wide Gap Fire Ring)	-	3	4	6
1.6120	24	FP-8924083	Ring (Top Groove, Fire)	-	3	4	6
1.6120	25	FP-8926351	Ring, Compression (2nd & 3rd Grooves)	-	6	8	12
1.6130	26	FP-23522534	Ring Set, Oil Control (For One Groove)	-	6	8	12
1.6115	0	FP-23522955	Ring Set, Crosshead (Std. Gap Fire Ring)	-	3	4	6
1.6120	24	FP-8924084	Ring (Top Groove, Fire)	-	3	4	6
1.6120	25	FP-8926351	Ring, Compression (2nd & 3rd Grooves)	-	6	8	12
1.6130	26	FP-23522534	Ring Set, Oil Control (For One Groove)	-	6	8	12



Connecting Rod & Piston

(Figure 4.3)





Connecting Rod & Piston

(Figure 4.3)

Groups:

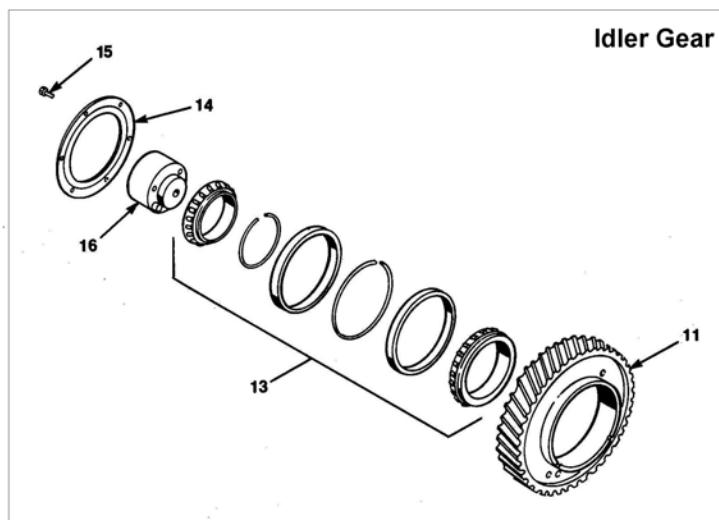
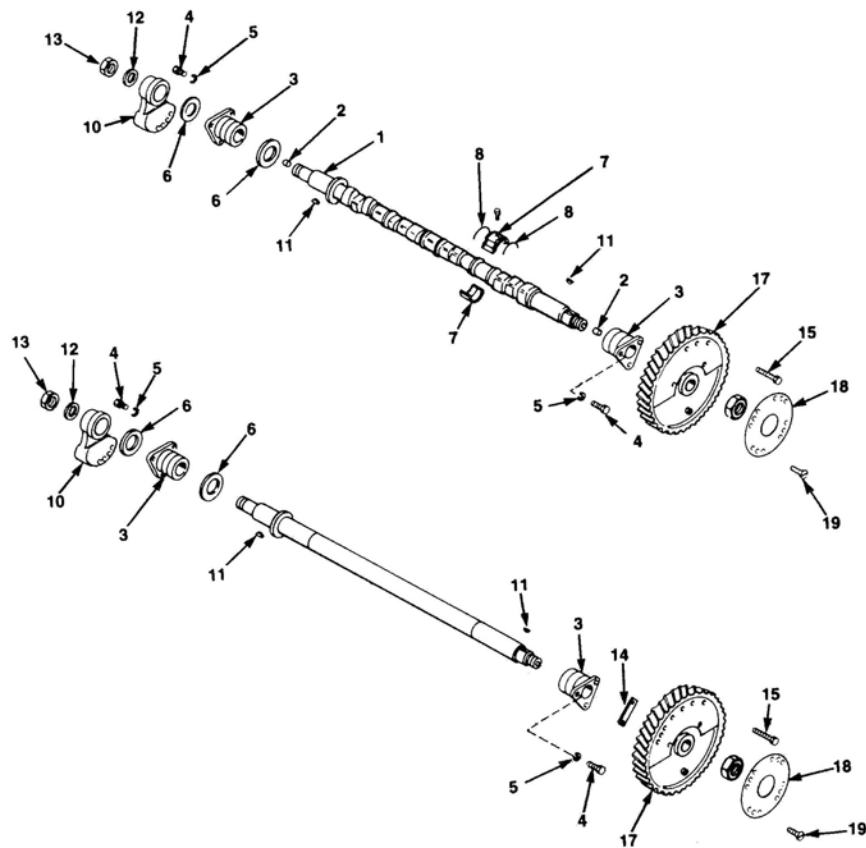
1.6180 - 1.6187

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.6180	18	FP-23504931	Liner, Cylinder (.81" Port Ht.), (#1 Bore)	2	3	4	6
1.6180	18	FP-23504932	Liner, Cylinder (.81" Port Ht.), (#2 Bore)	2	3	4	6
1.6180	18	FP-23504933	Liner, Cylinder (.81" Port Ht.), (#3 Bore)	2	3	4	6
1.6180	18	FP-23504934	Liner, Cylinder (.81" Port Ht.), (#4 Bore)	2	3	4	6
1.6180	18	FP-5102316	Liner, Cylinder (.81" Port Ht.), (.005" O.S.)	2	3	4	6
1.6180	18	FP-5102317	Liner, Cylinder (.81" Port Ht.), (.010" O.S.)	2	3	4	6
1.6180	18	FP-5102318	Liner, Cylinder (.81" Port Ht.), (.020" O.S.)	2	3	4	6
1.6180	18	FP-5102319	Liner, Cylinder (.81" Port Ht.), (.030" O.S.)	2	3	4	6
1.6180	18	FP-23502020	Liner, Cylinder (1.05" Port Ht.), (#1 Bore)	-	3	4	6
1.6180	18	FP-23502021	Liner, Cylinder (1.05" Port Ht.), (#2 Bore)	-	3	4	6
1.6180	18	FP-23502022	Liner, Cylinder (1.05" Port Ht.), (#3 Bore)	-	3	4	6
1.6180	18	FP-23502023	Liner, Cylinder (.95" Port Ht.), (#1 Bore)	-	3	4	6
1.6180	18	FP-23502024	Liner, Cylinder (.95" Port Ht.), (#2 Bore)	-	3	4	6
1.6180	18	FP-23502025	Liner, Cylinder (.95" Port Ht.), (#3 Bore)	-	3	4	6
1.6180	18	FP-23504935	Liner, Cylinder (.95" Port Ht.), (#4 Bore)	-	3	4	6
1.6180	18	FP-23504936	Liner, Cylinder (1.05" Port Ht.), (#4 Bore)	-	3	4	6
1.6180	18	FP-5107448	Liner, Cylinder (.95" Port Ht.), (.005" O.S.)	-	3	4	6
1.6180	18	FP-5107449	Liner, Cylinder (.95" Port Ht.), (.010" O.S.)	-	3	4	6
1.6180	18	FP-5107450	Liner, Cylinder (.95" Port Ht.), (.020" O.S.)	-	3	4	6
1.6180	18	FP-5193732	Liner, Cylinder (1.05" Port Ht.), (.005" O.S.)	-	3	4	6
1.6180	18	FP-5193733	Liner, Cylinder (1.05" Port Ht.), (.010" O.S.)	-	3	4	6
1.6180	18	FP-5193734	Liner, Cylinder (1.05" Port Ht.), (.020" O.S.)	-	3	4	6
1.6180	18	FP-5193735	Liner, Cylinder (1.05" Port Ht.), (.030" O.S.)	-	3	4	6
1.6185	0	FP-2190595	Shim, Cyl Liner .002" Thick (Low Block)	2	3	4	6
1.6185	0	FP-5192226	Shim, Cyl Liner .003" Thick (Low Block)	2	3	4	6
1.6185	0	FP-5199569	Shim, Cyl Liner .002" Thick (High Block)	-	3	4	6
1.6187	0	FP-5148399	Insert, Cyl Liner (.1810"-.1815" Thick For Std. Through .005" O.S. Liner)	2	3	4	6
1.6187	0	FP-5184484	Insert, Cyl Liner (.1795"-.1800" Thick For Std. Through .005" O.S. Liner)	2	3	4	6
1.6187	0	FP-5193316	Insert, Cyl Liner (.1795"-.1800" Thick For .010",.020",.030 O.S. O.D.Liner)	2	3	4	6
1.6187	0	FP-5199871	Insert, Cyl Liner (.1810"-.1815" Thick For .010,.020,.030 O.S. O.D. Liner)	2	3	4	6
1.6187	0	FP-5148440	Insert, Cyl Liner (.1780"-.1785" Thick For Std. Through .005" O.S. Liner)	-	3	4	6
1.6187	0	FP-5194073	Insert, Cyl Liner (.1760"-.1755" Thick For Std. Through .005" O.S. O.D. Liner)	-	3	4	6
1.6187	0	FP-5194163	Insert, Cyl Liner (.1755"-.1760" Thick For .010,.020,.030 O.S. O.D. Liner)	-	3	4	6
1.6187	0	FP-5194164	Insert, Cyl Liner (.1715"-.1720" Thick For .010,.020,.030 O.S. O.D. Liner)	-	3	4	6



Camshaft

(Figure 5.1)





Camshaft

(Figure 5.1)

Groups:

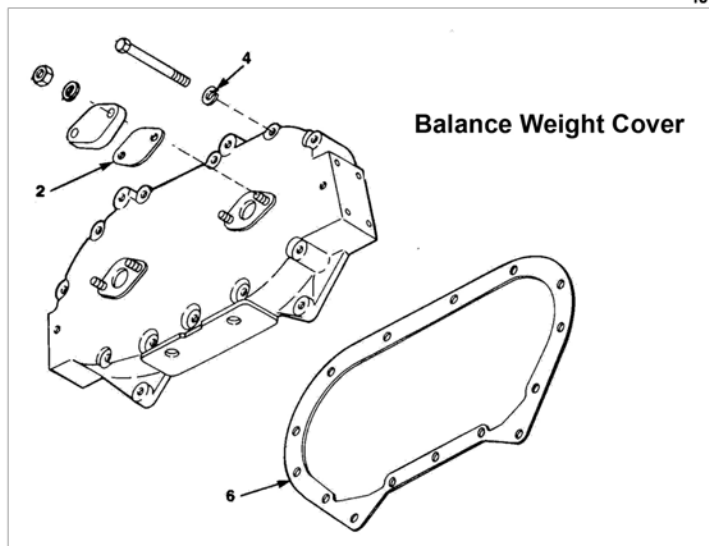
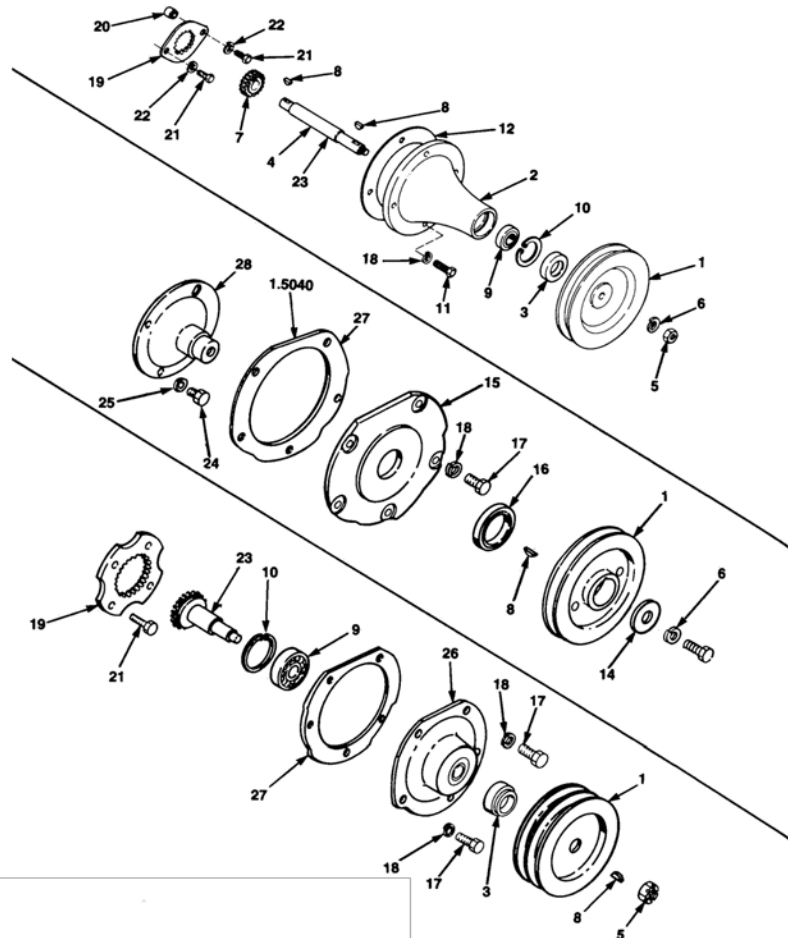
1.7001 - 1.7260

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.7001	2	FP-5151277	Plug, Camshaft (15/32" x 1/2")	-	2	2	2
1.7001	1	FP-5149391	Camshaft Assembly, R.H.. Rot. Adv. Timing (Stamped 5102663), (4l), (Type 16,28,45,48,71,432,489,492,499,500,522,530,531,567)	-	-	1	-
1.7001	1	FP-5149393	Camshaft Assembly, R.H.. Rot. Adv. Timing (Stamped 5102665), (6l), (Type 17,27,93,166,193,399,463,532,552,558,565)	-	-	-	1
1.7010	0	FP-5194609	Bearing, Camshaft & Balance Shaft (Std.), (1.52" Wide)	5	-	-	-
1.7010	0	FP-5111423	Bushing, Camshaft & Balance Shaft (Grooved)	-	8	8	8
1.7010	3	FP-5111422	Bearing, Camshaft (Std.)	-	4	4	4
1.7010	3	FP-5194858	Bearing, Camshaft (.010" U.S. I.D.)	-	4	4	4
1.7010	5	FP-103321	Lockwasher, 3/8"	-	12	12	12
1.7015	0	FP-5194825	Bushing, Camshaft & Balance Shaft (Grooved), (.020" U.S. Unfinished)	-	8	8	8
1.7030	6	FP-5111424	Washer, Camshaft & Balance Shaft End Bearing Thrust (Std.)	-	4	4	4
1.7030	6	FP-5194826	Washer, Camshaft & Balance Shaft End Bearing Thrust (.005" O.S.)	-	4	4	4
1.7030	6	FP-5194827	Washer, Camshaft & Balance Shaft End Bearing Thrust (.010" O.S.)	-	4	4	4
1.7040	7	FP-5196022	Bearing, Camshaft (diameter), (Std.)	-	2	3	5
1.7040	7	FP-5196023	Bearing, Camshaft (diameter), (.010" U.S. I.D.)	-	2	3	5
1.7040	7	FP-5196024	Bearing, Camshaft (diameter), (.020" U.S. I.D.)	-	2	3	5
1.7040	7	FP-5196026	Bearing, Camshaft (diameter), (Std.), (Aluminum Blocks Only)	-	-	-	5
1.7040	7	FP-5196027	Bearing, Camshaft (diameter), (.010" U.S. I.D.), (Aluminum Blocks Only)	-	-	-	5
1.7050	8	FP-5115572	Ring, Camshaft diameter Bearing Lock	-	4	6	10
1.7050	20	FP-5123383	Bolt, Camshaft Bearing Lock 1/4" - 28 x 45/64"	-	2	3	5
1.7140	12	FP-5177769	Lockwasher, Front Balance Weight	2	2	2	2
1.7225	13	FP-7451948	Bearing, Idler Gear	-	1	1	1
1.7227	15	FP-5103534	Bolt, 5/16" - 24 x 1/2" (Vibrate Coated)	-	6	6	6
1.7227	14	FP-5176998	Retainer, Idler Gear Bearing	-	1	1	1
1.7250	7	FP-454992	Bolt, 1/2" - 13 x 2 1/2"	-	1	1	1
1.7250	16	FP-5130135	Hub Assembly Idler Gear	-	1	1	1
1.7250	8	FP-5167714	Washer, 17/32" x 7/8" x 3/32"	-	1	1	1
1.7260	0	FP-5101150	Spacer, Idler Gear Hole (w/Integral Dowel)	-	1	1	1



Camshaft Accessory Drive

(Figure 5.2)





Camshaft Accessory Drive

(Figure 5.2)

Groups:

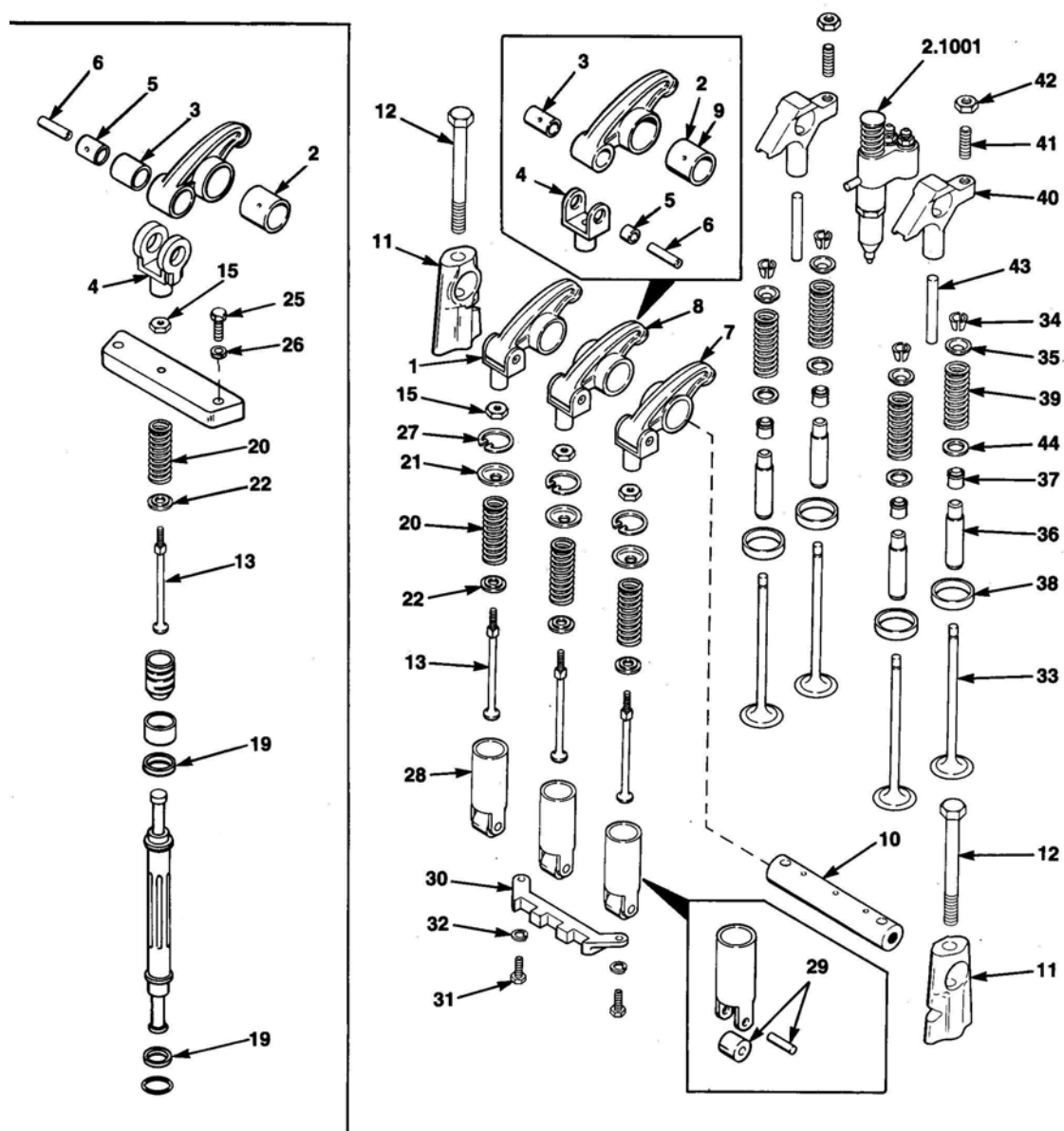
1.7470 - 1.7750

Group	Ref	Part No.	Description	2l	3l	4l	6l
Balance Weight Cover							
1.7470	0	FP-103026	Nut, 3/8" - 24 Hex	-	20	20	23
1.7480	6	FP-5121753	Gasket, Balance Weight Cover (All Option Types)	-	1	1	1
1.7490	0	FP-103320	Lockwasher, 5/16"	-	20	20	23
1.7490	4	FP-103321	Lockwasher, 3/8"	-	2	2	2
1.7500	2	FP-5135935	Gasket, Balance Weight Hole Cover	-	2	2	2
1.7510	0	FP-8925804	Stud, 7/16" - 14/20 x 2 3/32"	-	4	4	4
Coupling, Raw Water Pump Drive (21 External Teeth)							
1.7600	11	FP-8927581	Bolt, 3/8" - 16 x 1" (w/Seal Patch)	4	3	3	3
1.7600	0	FP-103026	Nut, 3/8" - 24	14	13	13	13
1.7600	1	FP-103321	Lockwasher, 3/8"	14	13	13	13
1.7600	0	FP-5152148	Washer, 3/8" Copper	14	13	13	13
1.7600	17	FP-8927580	Bolt, 3/8" - 16 x 7/8" (w/Seal Patch)	10	10	10	10
1.7602	0	FP-5133682	Spacer, Accessory Drive Oil Seal (1.7665)	-	1	1	1
1.7602	0	FP-5198174	Sleeve, Accessory Drive Oil Seal	-	1	1	1
1.7602	0	FP-5198175	Seal Kit, Accessory Drive (Type 123,143)	-	1	1	1
1.7610	0	FP-5144866	Hub, Drive Pulley	-	1	1	1
1.7615	0	FP-5150568	Washer, 7/16" Copper	5	5	5	5
1.7615	16	FP-5102456	Seal, Drive Pulley Hub Oil	-	-	1	1
1.7620	16	FP-5102456	Seal, Drive Pulley Hub Oil	-	-	1	1
1.7622	0	FP-103026	Nut, 3/8" -24	1	1	1	1
1.7622	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
1.7622	0	FP-8927270	Stud, 3/8" - 16/24 x 1 9/16"	1	1	1	1
1.7623	27	FP-23515145	Gasket, Accessory Drive (Adapter To Housing)	-	1	1	1
1.7623	0	FP-5188755	Gasket, Accessory Drive (Pump To Adapter)	-	1	1	1
1.7630	22	FP-103321	Lockwasher, 3/8"	-	4	4	4
1.7630	21	FP-5145092	Bolt, 3/8" - 24 x 1.20" Self Locking	-	4	4	4
1.7630	19	FP-5170450	Plate, Accessory Drive	-	1	1	1
1.7635	0	FP-5139545	Coupling, Accessory Drive (Fiber w/o Hole)	-	1	1	1
1.7635	0	FP-5141773	Coupling, Accessory Drive	-	1	1	1
1.7640	25	FP-103320	Lockwasher 5/16"	-	4	4	4
1.7645	9	FP-23504528	Bearing, Accessory Drive	-	1	2	1
1.7645	0	FP-5131131	Spacer, Accessory Drive Oil Seal	-	1	1	1
1.7645	3	FP-5131329	Seal, Accessory Drive Oil	-	1	1	1
1.7645	10	FP-9415285	Lockring, Accessory Drive (1.7650)	-	1	1	1
1.7655	9	FP-23506244	Bearing, Accessory Drive	1	-	-	-
1.7655	9	FP-23504528	Bearing, Accessory (23503726)	-	1	2	1
1.7655	9	FP-23503727	Bearing, Accessory Drive	-	1	1	1
1.7660	3	FP-5131329	Seal, Accessory Drive Oil	-	1	1	1
1.7660	0	FP-5138710	Seal, Accessory Drive Oil	-	1	1	1
1.7665	0	FP-5131131	Spacer, Accessory Drive Seal	-	1	1	1
1.7665	0	FP-5133682	Spacer, Accessory Drive Seal	-	1	1	1
1.7750	0	FP-5185793	Screw, Internal Gear Mount	-	-	-	6



Valve Train

(Figure 6.1)





Valve Train

(Figure 6.1)

Groups:

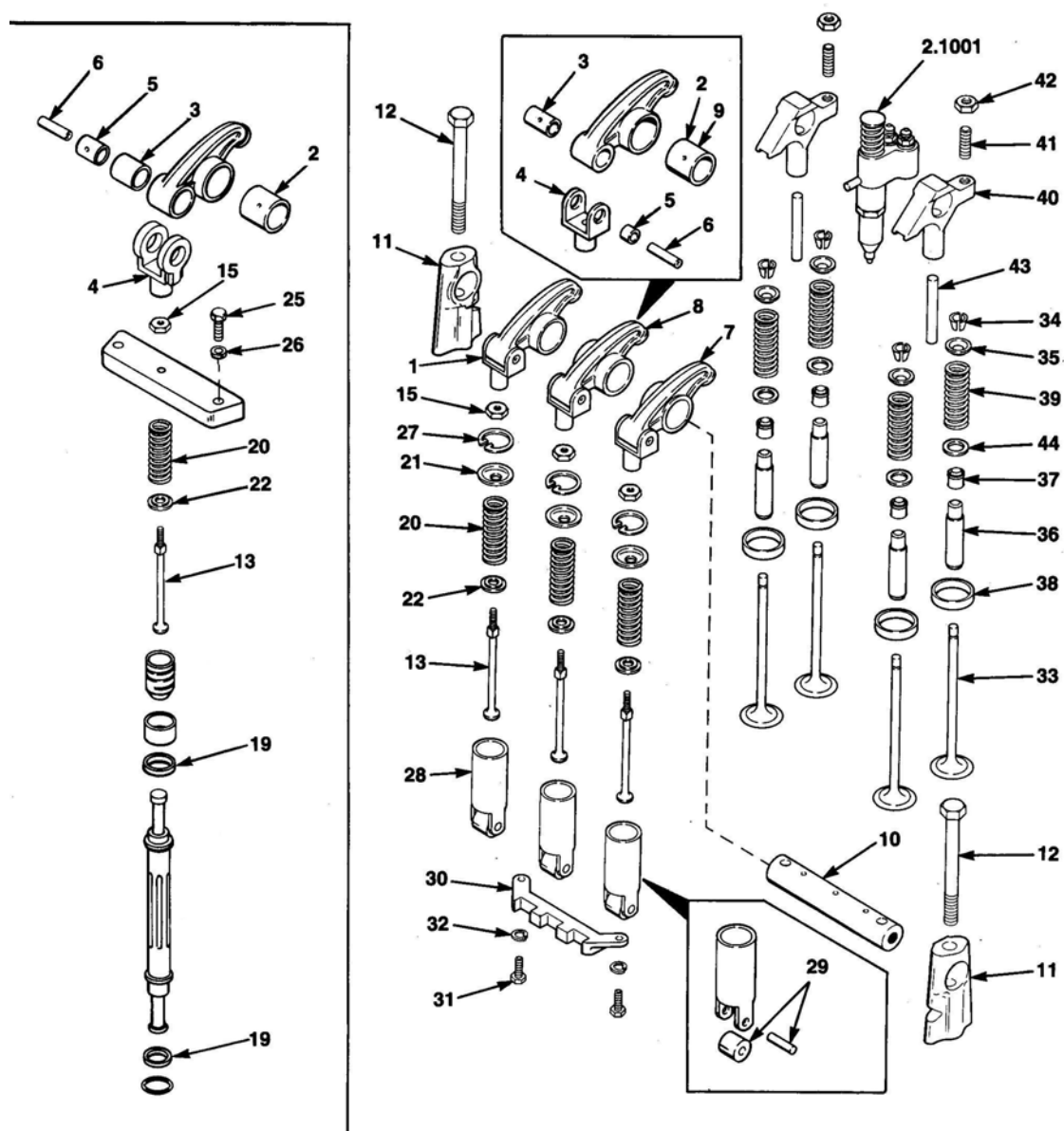
1.8060 - 1.8360

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.8060	1	FP-5148472	Rocker Arm Assembly, Exhaust Valve L.H..	-	3	4	6
1.8060	7	FP-5148475	Rocker Arm Assembly, Exhaust Valve R.H..	-	3	4	6
1.8060	8	FP-8923554	Racker Arm Assembly, Injector (Unbushed Clevis)	-	3	4	6
1.8110	2	FP-23517217	Bushing, Rocker Arm Exhaust Valve (Large)	-	6	8	12
1.8110	9	FP-8924355	Bushing, Rocker Arm Injector (Large)	-	3	4	6
1.8120	3	FP-8924354	Bushing, Rocker Arm Exhaust Valve (Small)	-	6	8	12
1.8120	3	FP-8924354	Bushing, Rocker Arm (Small)	-	3	4	6
1.8130	4	FP-5150312	Clevis, Rocker Arm Exhaust Valve	-	6	8	12
1.8130	4	FP-5150312	Clevis, Rocker Arm, Injector	-	3	4	6
1.8140	5	FP-5123700	Bushing, Rocker Arm Exhaust Valve Clevis	-	6	8	12
1.8140	5	FP-5123700	Bushing, Clevis .5625" O.D.	-	3	4	6
1.8150	6	FP-5150314	Pin, Clevis, Rocker Arm	-	6	8	12
1.8150	6	FP-5150314	Pin, Clevis, Rocker Arm	-	3	4	6
1.8160	10	FP-23500714	Shaft Assembly, Rocker (FP-5150322)	2	3	4	6
1.8170	11	FP-5103903	Bracket, Rocker Shaft	4	6	8	12
1.8170	12	FP-5150325	Bolt, Rocker Shaft Bracket	4	6	8	12
1.8180	13	FP-5128640	Rod, Push	6	9	12	18
1.8180	15	FP-5151601	Nut, Push Rod 5/16" -24 Lock	6	9	12	18
1.8183	19	FP-5154472	Seal, Push Rod	6	-	-	-
1.8190	20	FP-5186858	Spring, Push Rod	6	9	12	18
1.8200	21	FP-5150302	Seat, Push Rod Spring (Upper)	6	9	12	18
1.8210	22	FP-5123250	Seat, Push Rod Spring (Lower)	6	9	12	18
1.8240	26	FP-103321	Lockwasher 3/8"	4	-	-	-
1.8240	25	FP-8927580	Bolt, 3/8" - 16 x 1	4	-	-	-
1.8250	27	FP-5150303	Retainer, Push Rod	6	9	12	18
1.8260	29	FP-8923814	Pin & Roller, Follower Assembly	6	9	12	18
1.8260	28	FP-8924439	Follower Assembly, Camshaft	6	9	12	18
1.8300	32	FP-103319	Lockwasher 1/4"	4	6	8	12
1.8300	0	FP-103320	Lockwasher 5/16"	4	6	8	12
1.8300	31	FP-443603	Bolt, 1/4" - 20 x 3/4"	4	6	8	12
1.8310	34	FP-23507238	Lock, Valve (2 Valve Head)	8	12	16	24
1.8310	0	FP-5192718	Valve Kit (45°), (2 Valve Head), (w/Locks)	4	6	8	12
1.8310	0	FP-5193197	Valve Kit (30°), (2 Valve Head), (w/Locks)	4	6	8	12
1.8310	0	FP-5193666	Valve Kit (30°), (2 Valve Head), (Jet Blade), (w/Locks)	4	6	8	12
1.8310	0	FP-5194829	Valve Kit (45°), (2 Valve Head), (Jet Blade), (w/Locks)	4	6	8	12
1.8310	34	FP-5111337	Lock, Valve (4 Valve Head)	-	24	32	48
1.8310	33	FP-23500501	Valve Kit, Exhaust (w/Locks), (4 V Hd), (N & T)	-	12	16	24
1.8310	33	FP-5149386	Valve Kit, Exhaust (w/Locks), (4 V Hd), (Hi-Output)	-	12	16	24
1.8320	37	FP-23500480	Seal, Exhaust Valve (2 Valve Head)	4	6	8	12
1.8320	36	FP-5120930	Guide, Exhaust Valve (2 Valve Head)	4	6	8	12
1.8320	36	FP-5192717	Guide, Exhaust Valve (2 Valve Head), (.016" O.S.O.D.)	4	6	8	12
1.8320	0	FP-5199914	Installer, Exhaust Valve Seal (Clear), (2 Valve)	4	6	8	12
1.8320	36	FP-5129919	Guide, Exhaust Valve (4 Valve Head)	-	12	16	24
1.8320	0	FP-5199913	Installer, Exhaust Valve Seal (Green Stripe), (4 Valve)	-	12	16	24
1.8320	37	FP-8921209	Seal, Exhaust Valve (4 Valve Head)	-	12	16	24
1.8330	38	FP-5198230	Insert, Exhaust Valve (.010 O.S. 30°), (2 Valve)	4	6	8	12
1.8330	38	FP-8927920	Insert, Exhaust Valve (Std. 30°), (2 Valve)	4	6	8	12
1.8330	38	FP-5101101	Insert, Exhaust Valve (Std. 30°), (4 Valve)	-	12	16	24
1.8330	38	FP-5197167	Insert, Exhaust Valve (.010 O.S. 30°), (4 Valve)	-	12	16	24
1.8340	39	FP-5150289	Spring, Exhaust Valve (2 Valve Head), (.177" Wire Diameter)	4	6	8	12
1.8340	39	FP-5111339	Spring, Exhaust Valve (4 Valve Head), (.135" Wire Diameter)	-	12	16	24



Valve Train

(Figure 6.1)





Valve Train

(Figure 6.1)

Groups:

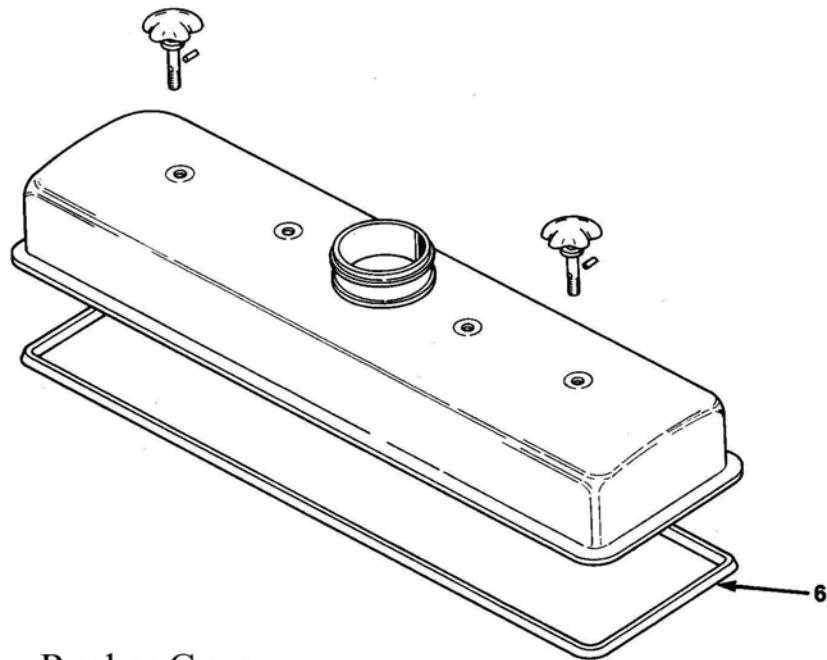
1.8060 - 1.8360

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.8340	39	FP-5147347	Spring, Exhaust Valve (4 Valve Head), (.148" Wire Diameter)	-	12	16	24
1.8343	40	FP-5117565	Bridge, Exhaust Valve	-	6	8	12
1.8343	41	FP-5129101	Screw, 5/16" - 24 x 1	-	6	8	12
1.8343	42	FP-5151601	Nut, 5/16" - 24	-	6	8	12
1.8345	43	FP-5117564	Guide, Exhaust Valve Bridge (Press Fit)	-	6	8	12
1.8345	43	FP-51175646	Guide, Exhaust Valve Bridge .006 O.S. (Press Fit)	-	6	8	12
1.8345	43	FP-5196843	Guide, Exhaust Valve Bridge (Threaded Type)	-	6	8	12
1.8350	35	FP-5150291	Cap, Exhaust Valve Spring (2 Valve Head)	4	6	8	12
1.8350	35	FP-5117563	Cap, Exhaust Valve Spring (4 Valve Head)	-	12	16	24
1.8360	44	FP-5150292	Seat, Exhaust Valve Spring (2 Valve Head)	4	6	8	12
1.8360	0	FP-5111467	Washer, Exhaust Valve Spring	-	6	16	24
1.8360	44	FP-5117562	Seat, Exhaust Valve Spring (4 Valve Head)	-	12	16	24
1.8343	0	FP-5103099	Valve Bridge Kit (Exhaust)	-	6	8	12
1.8343	40	FP-5117565	Bridge, Exhaust Valve	-	6	8	12
1.8343	41	FP-5129101	Scron, 5/10" - 24 x 1	-	6	8	12
1.8343	42	FP-5151601	Nut, 5/16 - 24	-	6	8	12

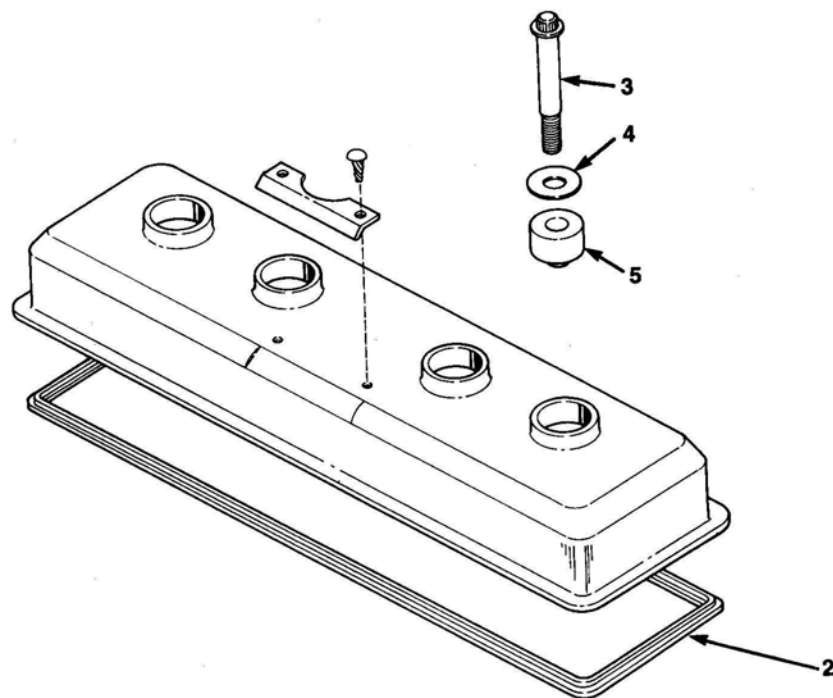


Rocker Cover

(Figure 6.2)



Rocker Cover





Rocker Cover

(Figure 6.2)

Groups:

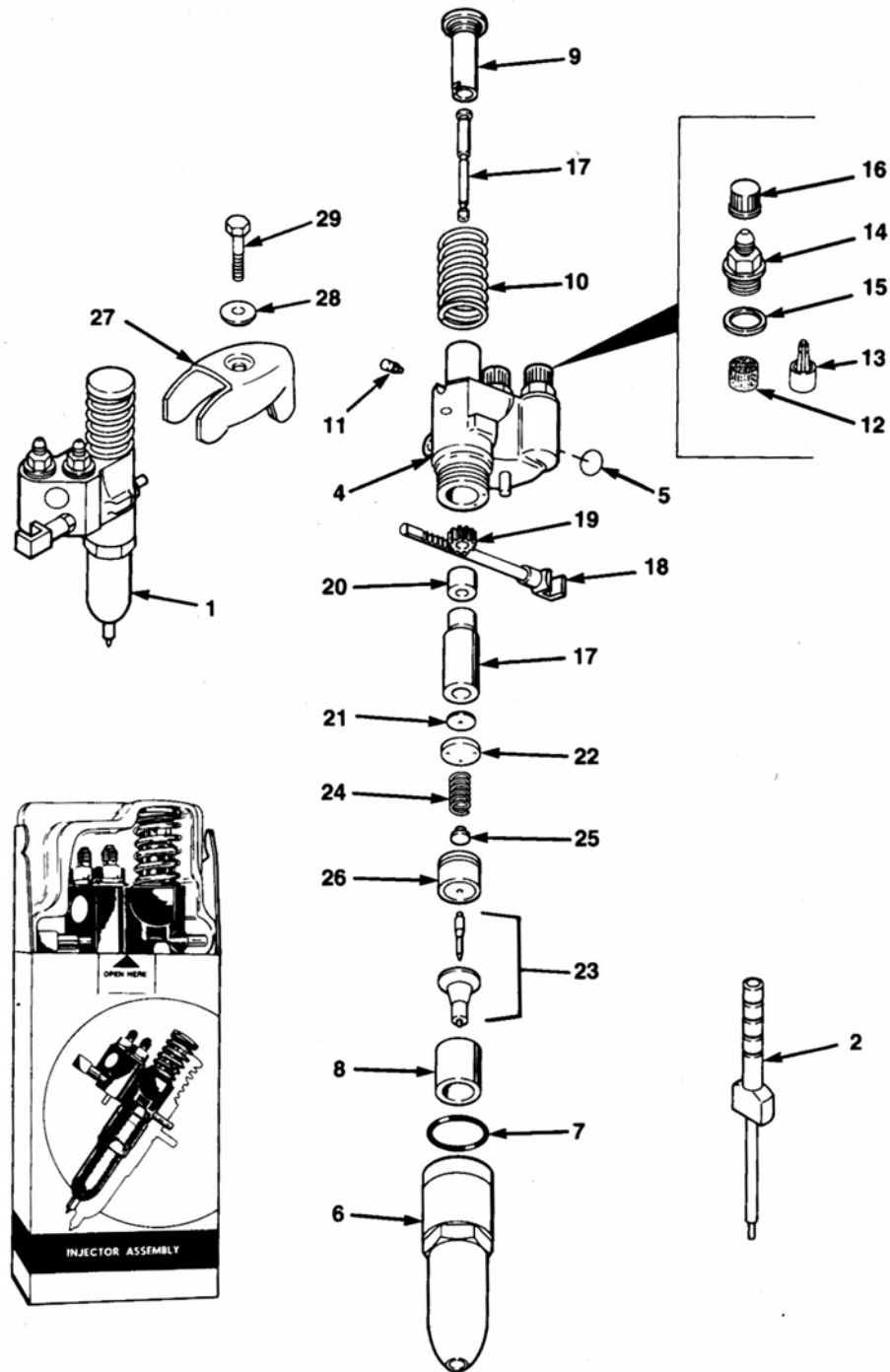
1.8451 - 3.8455

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.8451	3	FP-5104015	Bolt, Rocker Cover 3/8" - 16 x 6.57" L 12 Pt	-	2	2	4
1.8451	5	FP-5104515	Isolator, Rocker Cover Bolt	-	2	2	4
1.8451	0	FP-5103635	Bolt, Throttle Delay 3/8" - 16 x 2.90"	-	1	1	1
1.8451	0	FP-5149510	Installation Kit, Aluminum Rocker Cover	-	1	-	-
1.8451	0	FP-5149511	Installation Kit, Aluminum Rocker Cover	-	-	1	-
1.8451	0	FP-5149512	Installation Kit, Aluminum Rocker Cover	-	-	-	1
1.8455	2	FP-5104018	Gasket, Silicone, Aluminum Rocker Cover	-	1	-	-
1.8455	2	FP-5104081	Gasket, Silicone, Aluminum Rocker Cover	-	-	1	-
1.8455	2	FP-5104019	Gasket, Silicone, Aluminum Rocker Cover	-	-	-	1
1.8475	0	FP-5148504	Stud, 3/8" - 16 x 4.32" L Rocker Cover	-	2	2	4
2.8455	6	FP-5144484	Gasket, Rocker Cover, Stamped	1	-	-	-
3.8455	6	FP-5143405	Gasket, Neoprene, Stamped Rocker Cover	-	1	-	-
3.8455	6	FP-5143406	Gasket, Neoprene, Stamped Rocker Cover	-	-	1	-
3.8455	6	FP-5143407	Gasket, Neoprene, Stamped Rocker Cover	-	-	-	1



Fuel Injector

(Figure 7.1)





Fuel Injector

(Figure 7.1)

Groups:

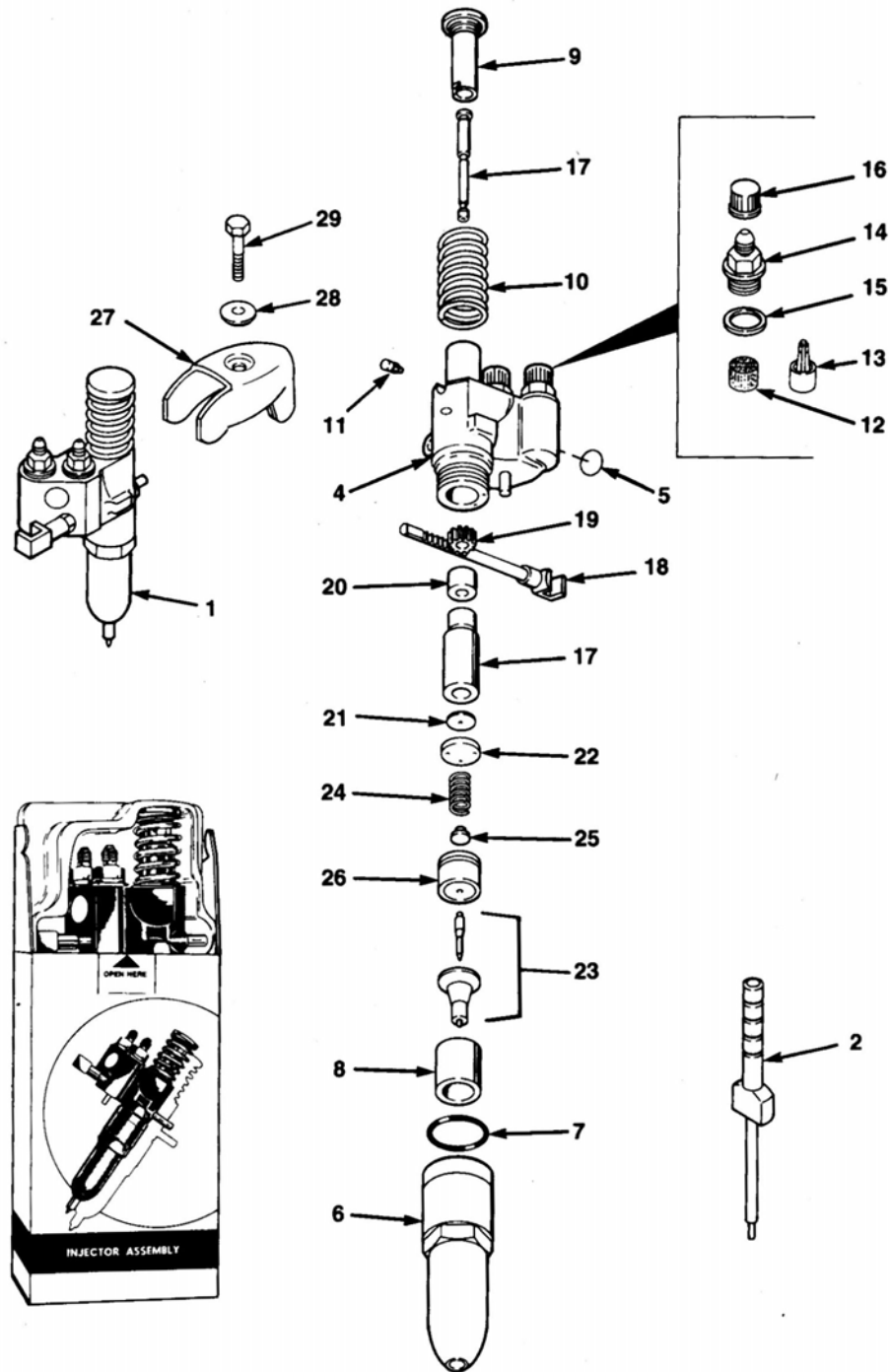
1.1080 - 2.1180

Group	Ref	Part No.	Description	2l	3l	4l	6l
1.1080	10	FP-5229518	Spring, Injector Plunger	2	3	4	6
2.1001	1	FP-5226440	Injector Assembly, 7N65 (Option Type 242)	-	3	4	6
2.1001	1	FP-5227015	Injector Assembly, M95 (Option Type 155)	-	3	4	6
2.1001	1	FP-5228760	Injector Assembly, N60 (Option Type 53,78)	-	3	4	6
2.1001	1	FP-5228770	Injector Assembly, N70 (Option Type 57,80)	-	3	4	6
2.1001	1	FP-5228777	Injector Assembly, N75 (Option Type 81)	-	3	4	6
2.1001	1	FP-5228780	Injector Assembly, N80 (Option Type 14,54,82)	-	3	4	6
2.1001	1	FP-5228785	Injector Assembly, N55 (Option Type 60,77)	-	3	4	6
2.1001	1	FP-5228900	Injector Assembly, N65 (Option Type 97) BT	-	3	4	6
2.1001	1	FP-5229355	Injector Assembly, C55 (Option Type 111)	-	3	4	6
2.1001	1	FP-5229360	Injector Assembly, C60 (Option Type 113)	-	3	4	6
2.1001	1	FP-5229365	Injector Assembly, C65 (Option Type 115)	-	3	4	6
2.1001	1	FP-5229695	Injector Assembly, 7C75 (Option Type 153)	-	3	4	6
2.1001	1	FP-5229790	Injector Assembly, 7E55 (Option Type 163)	-	3	4	6
2.1001	1	FP-5229795	Injector Assembly, 7E60 (Option Type 164)	-	3	4	6
2.1001	1	FP-5229800	Injector Assembly, 7E65 (Option Type 165)	-	3	4	6
2.1001	1	FP-5229895	Injector Assembly, 7G65 (Option Type 180)	-	3	4	6
2.1007	0	FP-5228333	Conversion Kit, Injector - High Valve (70)	-	3	4	6
2.1020	5	FP-5229191	Tag, Injector Blank	2	3	4	6
2.1020	4	FP-5227279	Fuel Injector Body (Tag # 90)	-	3	4	6
2.1020	4	FP-5228298	Fuel Injector Body (Tag # HV6)	-	3	4	6
2.1020	4	FP-5228299	Fuel Injector Body (Tag # HV7)	-	3	4	6
2.1020	4	FP-5228583	Body Assembly, Injector NV Offset	-	3	4	6
2.1020	4	FP-5228787	Fuel Injector Body (Tag # N80)	-	3	4	6
2.1030	6	FP-5228601	Nut, Injector Valve, NV	-	3	4	6
2.1050	8	FP-5228109	Deflector, Injector Spill	2	3	4	6
2.1060	9	FP-5228104	Follower, Injector, All	2	3	4	6
2.1100	11	FP-5228608	Pin, Injector Stop	2	3	4	6
2.1130	14	FP-5228588	Cap, Injector Filter	4	6	8	12
2.1170	18	FP-5226719	Rack, Injector	2	3	4	6
2.1180	19	FP-5226400	Gear, Injector	2	3	4	6
2.1180	19	FP-5228802	Gear, M95 Injector	2	3	4	6
2.1002	0	FP-5229649	Service Kit, Injector	4	6	8	12
2.1002	15	FP-5226186	Gasket, Injector Filter	4	6	8	12
2.1002	16	FP-5226414	Cap, Injector Shipping	4	6	8	12
2.1002	12	FP-5228587	Element, Injector Filter	4	6	8	12
2.1002	7	FP-5234281	Ring, Injector Seal	2	3	4	6



Fuel Injector

(Figure 7.2)





Fuel Injector

(Figure 7.2)

Groups:

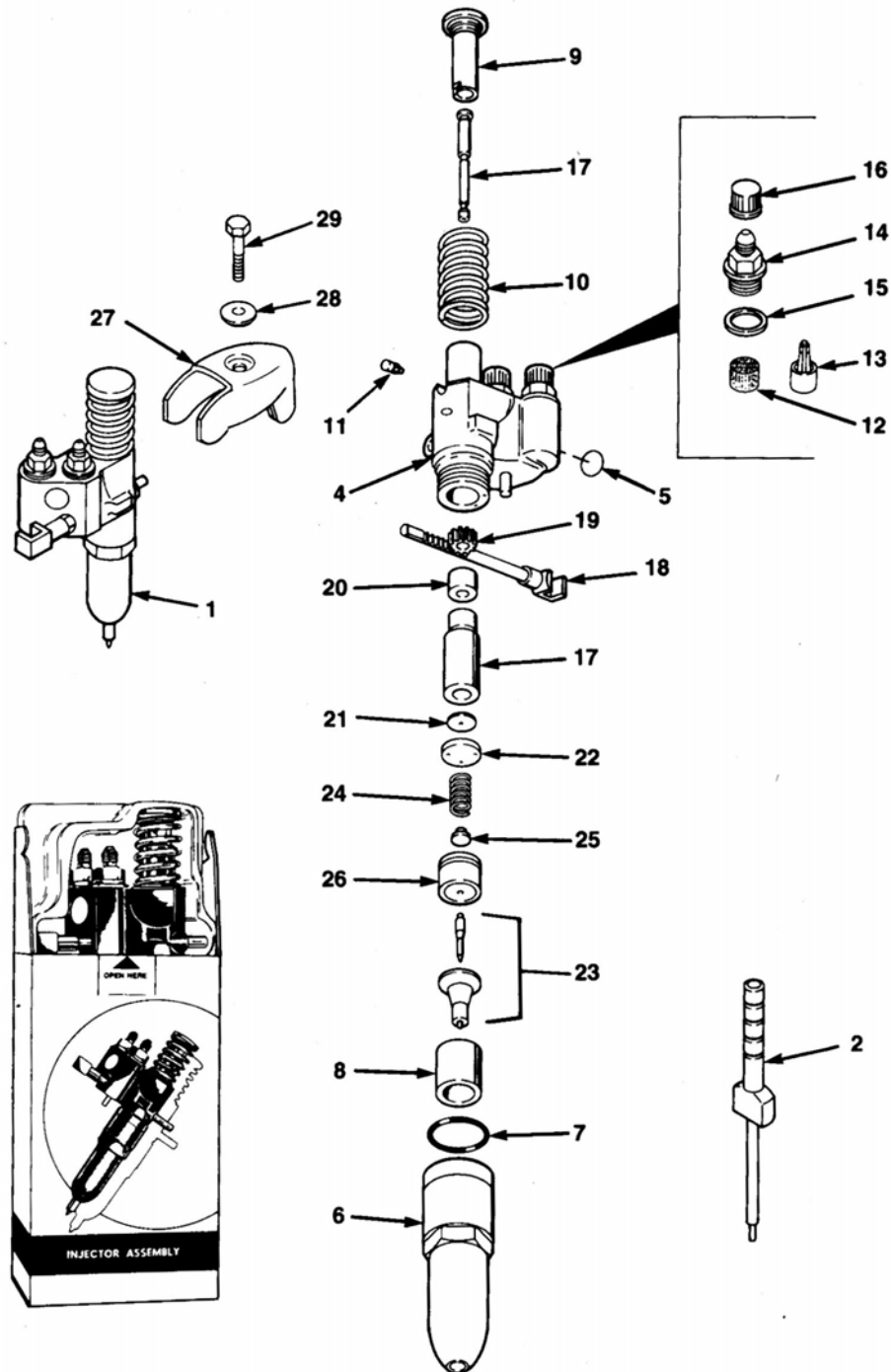
2.1160 - 3.1238

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.1160	17	FP-5228304	Plunger & Bushing, HV7	2	3	4	6
2.1160	17	FP-5228306	Plunger & Bushing, HV6	2	3	4	6
2.1160	17	FP-5226338	Plunger & Bushing Assy (S235655 Inj.)	-	3	4	6
2.1160	17	FP-5228656	Plunger & Bushing, N60	-	3	4	6
2.1160	17	FP-5228658	Plunger & Bushing, N65 WT	-	3	4	6
2.1160	17	FP-5228658	Plunger & Bushing, N75	-	3	4	6
2.1160	17	FP-5228661	Plunger & Bushing, N80	-	3	4	6
2.1160	17	FP-5228668	Plunger & Bushing, N55	-	3	4	6
2.1160	17	FP-5228682	Plunger & Bushing, N70	-	3	4	6
2.1160	17	FP-5228928	Plunger & Bushing, N65 BT	-	3	4	6
2.1190	20	FP-5228586	Retainer, Injector Gear	2	3	4	6
2.1200	21	FP-5226411	Valve, Injector Check	2	3	4	6
2.1200	21	FP-5228694	Valve, Injector Check	2	3	4	6
2.1205	22	FP-5228696	Cage, Injector Check Valve	2	3	4	6
2.1220	0	FP-5228554	Tip, Injector Spray, HV8	2	3	4	6
2.1220	0	FP-5228554	Tip, Injector Spray, HV9	2	3	4	6
2.1220	0	FP-5228554	Tip, Injector Spray, HV7, S70, S80	2	3	4	6
2.1220	0	FP-5228301	Tip Kit, Injector Spray (HV6 & HV55), (5235655 Inj.)	-	3	4	6
2.1220	23	FP-5229026	Tip, Injector Spray, N60	-	3	4	6
2.1220	23	FP-5229026	Tip, Injector Spray, N65 WT	-	3	4	6
2.1220	23	FP-5229026	Tip, Injector Spray, N55	-	3	4	6
2.1220	23	FP-5229030	Tip, Injector Spray, N65BT	-	3	4	6
2.1220	23	FP-5229192	Tip, Injector Spray, N70	-	3	4	6
2.1220	23	FP-5229192	Tip, Injector Spray, N75	-	3	4	6
2.1220	23	FP-5229256	Tip, Injector Spray, N80	-	3	4	6
2.1230	23	FP-5227321	Tip, Fuel Injector Spray (Tag # 60)	-	3	4	6
2.1230	23	FP-5228296	Tip, Fuel Injector Spray (HV6 & HV55)	-	3	4	6
2.1238	0	FP-5228769	Valve Kit, Injector	2	3	4	6
2.1245	0	FP-5227319	Valve, Fuel Injector	-	3	4	6
2.1248	0	FP-5228321	Guide, Fuel Injector Valve Seat	-	3	4	6
2.1250	24	FP-5228596	Spring, Injector Valve	2	3	4	6
2.1255	25	FP-5228766	Seat, Injector Spring	2	3	4	6
2.1257	26	FP-5228594	Cage, Injector Spring	2	3	4	6
2.1270	27	FP-5121259	Clamp, Injector Hold Down (Low Crab)	2	3	4	6
3.1238	0	FP-5228313	Valve Kit, Injector	2	3	4	6
2.1220	0	FP-5228312	Tip Kit, Injector Spray (HV7,HV8,HV9,S70,S80,S90)	2	3	4	6
2.1220	0	FP-5227210	Spring, Injector Valve	2	3	4	6
2.1220	0	FP-5227318	Stop, Injector Valve	2	3	4	6
2.1220	0	FP-5228308	Valve, Injector	2	3	4	6
2.1220	0	FP-5228554	Tip, Injector	2	3	4	6
2.1220	0	FP-5228491	Tip Kit, Injector Spray (S55,S60,S65)	-	3	4	6
2.1220	0	FP-5227210	Spring, Injector Valve	-	3	4	6
2.1220	0	FP-5227318	Stop, Injector Valve	-	3	4	6
2.1220	0	FP-5228308	Valve, Injector	-	3	4	6
2.1220	0	FP-5228473	Tip, Injector	-	3	4	6



Fuel Injector

(Figure 7.3)





Fuel Injector

(Figure 7.3)

Groups:

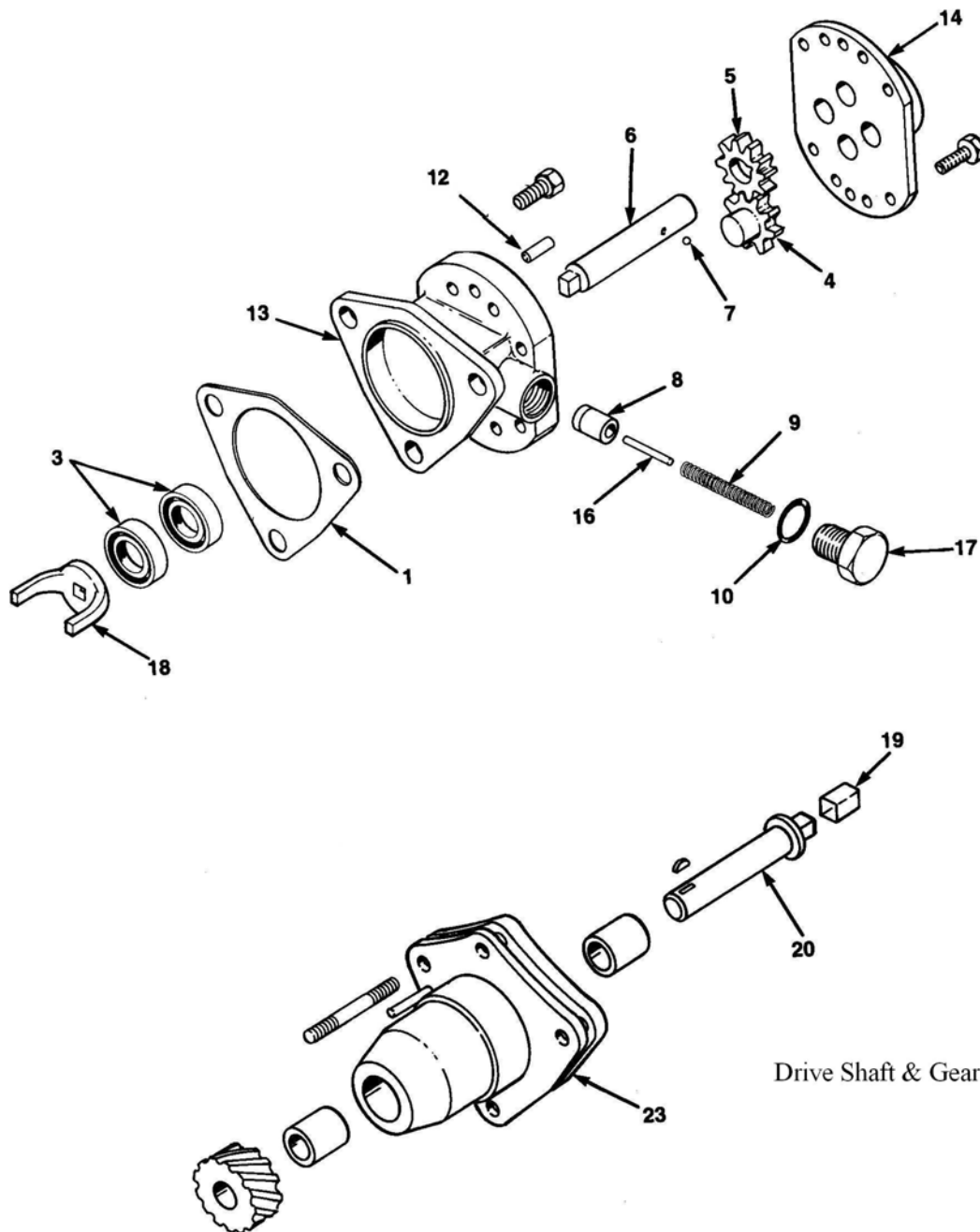
2.1160 - 2.1220

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.1160	17	FP-5228658	Plunger & Bushing, 7C75	2	3	4	6
2.1160	17	FP-5228682	Plunger & Bushing, 7C70	2	3	4	6
2.1160	17	FP-5228804	Plunger & Bushing, M95	2	3	4	6
2.1160	17	FP-5229354	Plunger & Bushing, 71C5	2	3	4	6
2.1160	17	FP-5229366	Plunger & Bushing, C65	2	3	4	6
2.1160	17	FP-5229372	Plunger & Bushing, C70	2	3	4	6
2.1160	17	FP-5229808	Plunger & Bushing, 7G75	2	3	4	6
2.1160	17	FP-5229808	Plunger & Bushing, 7E75	2	3	4	6
2.1160	17	FP-5229814	Plunger & Bushing, 7E60	2	3	4	6
2.1160	17	FP-5229823	Plunger & Bushing, 7E55	2	3	4	6
2.1160	17	FP-5229912	Plunger & Bushing, 7G70	2	3	4	6
2.1160	17	FP-5229916	Plunger & Bushing, 7G65	2	3	4	6
2.1160	17	FP-5228878	Plunger & Bushing, N90	-	3	4	6
2.1160	17	FP-5229356	Plunger & Bushing, C55	-	3	4	6
2.1160	17	FP-5229362	Plunger & Bushing, C60	-	3	4	6
2.1220	23	FP-5229026	Tip, Injector Spray, 7E60	2	3	4	6
2.1220	23	FP-5229026	Tip, Injector Spray, 71C5	2	3	4	6
2.1220	23	FP-5229026	Tip, Injector Spray, 7E55	2	3	4	6
2.1220	23	FP-5229030	Tip, Injector Spray, 7E65	2	3	4	6
2.1220	23	FP-5229192	Tip, Injector Spray, C65	2	3	4	6
2.1220	23	FP-5229192	Tip, Injector Spray, C70	2	3	4	6
2.1220	23	FP-5229192	Tip, Injector Spray, 7N65	2	3	4	6
2.1220	23	FP-5229256	Tip, Injector Spray, M95	2	3	4	6
2.1220	23	FP-5229026	Tip, Injector Spray, C55	-	3	4	6
2.1220	23	FP-5229026	Tip, Injector Spray, C60	-	3	4	6
2.1220	23	FP-5229256	Tip, Injector Spray, N90	-	3	4	6



Fuel Pump

(Figure 8.1)



Drive Shaft & Gear



Fuel Pump

(Figure 8.1)

Groups:

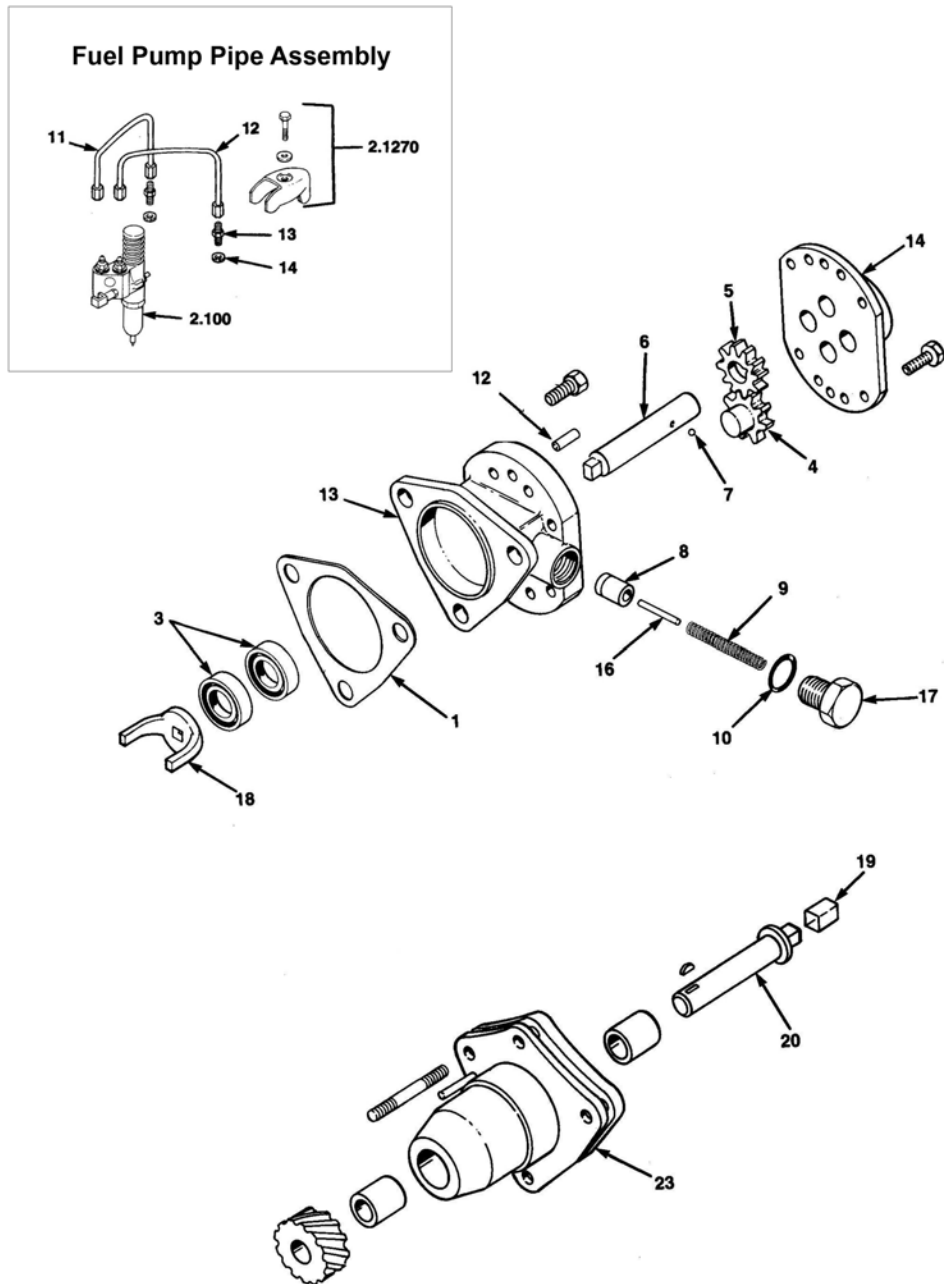
2.2001 - 2.2004

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.2001	0	FP-5199560	Kit, Fuel Pump (Standard Output L.H..)	1	1	1	1
2.2001	0	FP-5199561	Kit, Fuel Pump (Standard Output R.H..)	1	1	1	1
2.2001	0	FP-5199734	Kit, Fuel Pump (High Output R.H..)	1	1	1	1
2.2001	0	FP-5199735	Kit, Fuel Pump (High Output L.H..)	1	1	1	1
2.2004	7	FP-147481	Ball, 1/8" Steel	1	1	1	1
2.2004	4	FP-5100312	Shaft, Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	0	FP-5100313	Shaft Assembly Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	4	FP-5118915	Gear, Fuel Pump Driven (.374" W.), (High Output)	1	1	1	1
2.2004	5	FP-5128217	Gear, Fuel Pump Drive (.374" W.), (High Output)	1	1	1	1
2.2004	0	FP-5146705	Shaft Assembly Fuel Pump Drive (3.09" L), (High Output)	1	1	1	1
2.2004	5	FP-5174975	Gear, Fuel Pump Drive (.294" W.), (Std. Output)	1	1	1	1
2.2004	6	FP-5178700	Shaft, Fuel Pump Drive (3.09" L), (High. Output)	1	1	1	1
2.2004	6	FP-5178700	Shaft, Fuel Pump Drive (3.09" L), (Std. Output)	1	1	1	1
2.2004	0	FP-5181746	Shaft & Gear, Fuel Pump Drive (.3.09"L), (Std. Output)	1	1	1	1
2.2004	4	FP-5181747	Shaft & Gear, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	3	FP-5181748	Gear, Fuel Pump Driven (.294" W.)	1	1	1	1
2.2004	4	FP-5181749	Shaft, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	0	FP-5149599	Overhaul Kit, High Output Fuel Pump	1	1	1	1
2.2004	12	FP-103709	Pin, 5/32" x 1" Straight	1	1	1	1
2.2004	1	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	1
2.2004	0	FP-5136240	Plug, Cap Fuel Pump Body 1/4"	2	2	2	2
2.2004	0	FP-5136241	Plug, Cap Fuel Pump Body 3/8"	1	1	1	1
2.2004	8	FP-5174973	Valve, Fuel Pump	1	1	1	1
2.2004	4	FP-5146705	Shaft Assembly Fuel Pump Drive (3.09" L), (High Output)	1	1	1	1
2.2004	4	FP-5100313	Shaft Assembly Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	3	FP-23512243	Seal, Fuel Pump Oil (FP-5107223)	2	2	2	2
2.2004	9	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1	1
2.2004	10	FP-5161003	Gasket, Fuel Pump Valve Plug	1	1	1	1
2.2004	0	FP-5195078	Overhaul Kit, Standard Output Fuel Pump	1	1	1	1
2.2004	7	FP-103709	Pin, 5/32" x 1" Straight	1	1	1	1
2.2004	1	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	1
2.2004	0	FP-5136240	Plug, Cap Fuel Pump Body 1/4"	2	2	2	2
2.2004	0	FP-5136241	Plug, Cap Fuel Pump Body 3/8"	1	1	1	1
2.2004	8	FP-5174973	Valve, Fuel Pump	1	1	1	1
2.2004	4	FP-5181746	Shaft & Gear, Fuel Pump Drive (.3.09"L), (Std. Output)	1	1	1	1
2.2004	14	FP-5181747	Shaft & Gear, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	3	FP-23512243	Seal, Fuel Pump Oil (5107223)	2	2	2	2
2.2004	9	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1	1
2.2004	10	FP-5161003	Gasket, Fuel Pump Valve Plug	1	1	1	1



Fuel Pump

(Figure 8.2)





Fuel Pump

(Figure 8.2)

Groups:

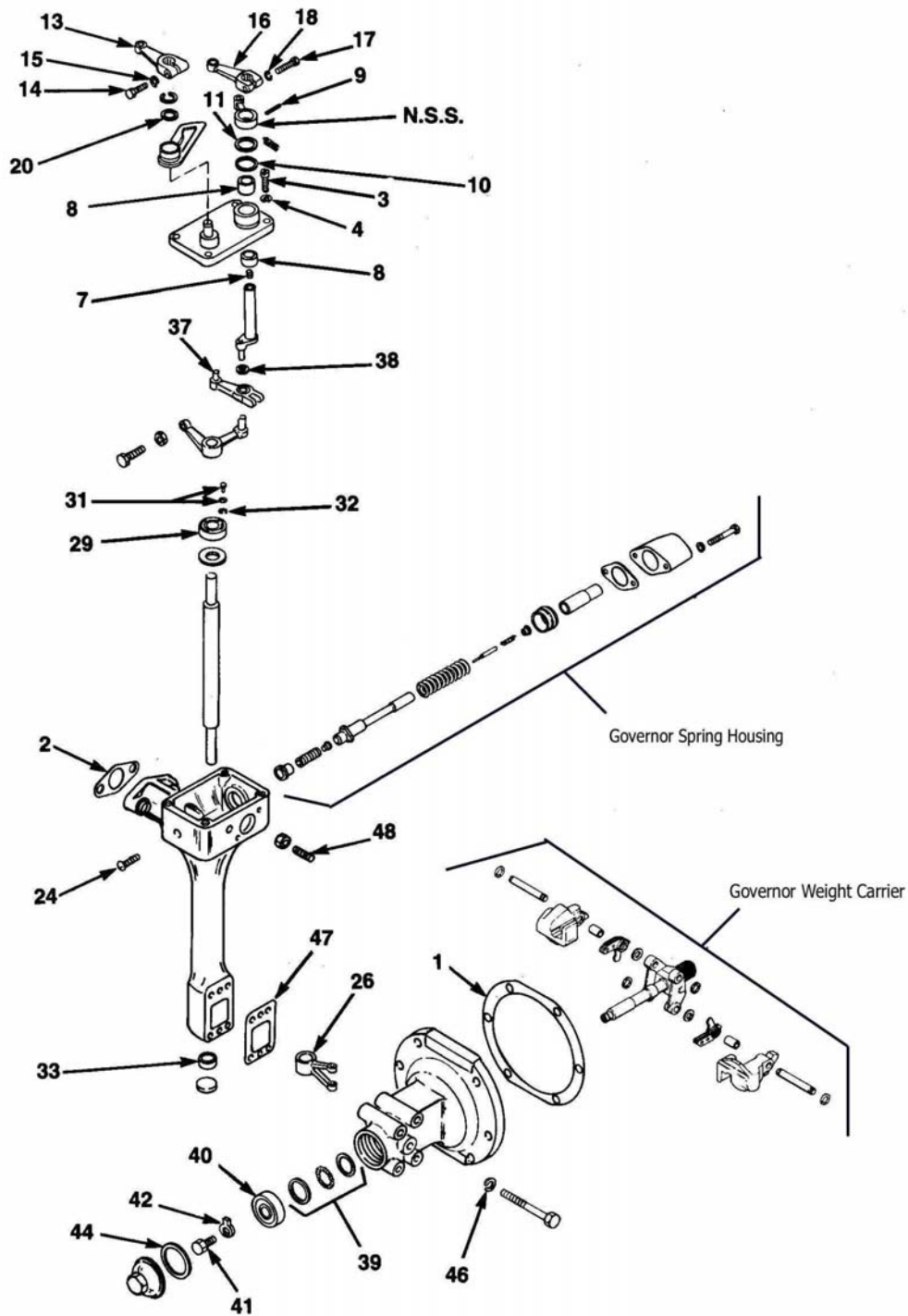
2.2170 - 2.5006

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.2170	17	FP-5174971	Plug, 1/2" - 20 Fuel Pump Valve	1	1	1	1
2.2220	18	FP-5102257	Fork, Fuel Pump Coupling	-	1	1	1
2.2230	11	FP-5154216	Coupling, Fuel Pump Drive	1	-	-	-
2.2237	0	FP-23515145	Gasket, Fuel Pump Mounting Plate	-	-	-	1
2.2280	23	FP-5152122	Gasket, Fuel Pump Drive Adapter	1	-	-	-
2.4015	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
2.4020	11	FP-23511850	Fuel Pipe Assembly, Injector To Stand Pipe (Short)	6	8	12	16
2.4020	12	FP-23511851	Fuel Pipe Assembly, Injector To Stand Pipe (Long)	6	8	12	16
2.4020	0	FP-23511854	Tube Assy, Cylinder Head To Injector	6	8	12	16
2.4020	12	FP-23511856	Fuel Pipe Assembly, Injector To Stand Pipe (Std. Body Injectors)	6	8	12	16
2.4030	13	FP-8926992	Connector, Fuel Pipe	4	-	-	-
2.4030	13	FP-5117369	Connector, Fuel Pipe	-	6	8	12
2.4050	0	FP-5152148	Washer, 25/64" x 9/16" x 1/16"	4	-	-	-
2.4050	0	FP-5125108	Washer, 7/16" x 3/4" x 1/16"	-	6	8	12
2.5006	0	FP-8925325	Bushing Pipe, Fuel Supply Check Valve (3/8" PTF - 1/4" Zinc)	AR	AR	AR	AR
2.5006	0	FP-5135308	Valve, Fuel Check 3/8" (Swing Type)	1	1	1	1
2.5006	0	FP-5174924	Valve, Fuel Check 1/4" (Swing Type)	1	1	1	1
2.5006	0	FP-5179938	Seal Ring, 3/8" Sealastic	-	-	1	1



Limiting Speed Governor

(Figure 9.1)





Limiting Speed Governor

(Figure 9.1)

Groups:

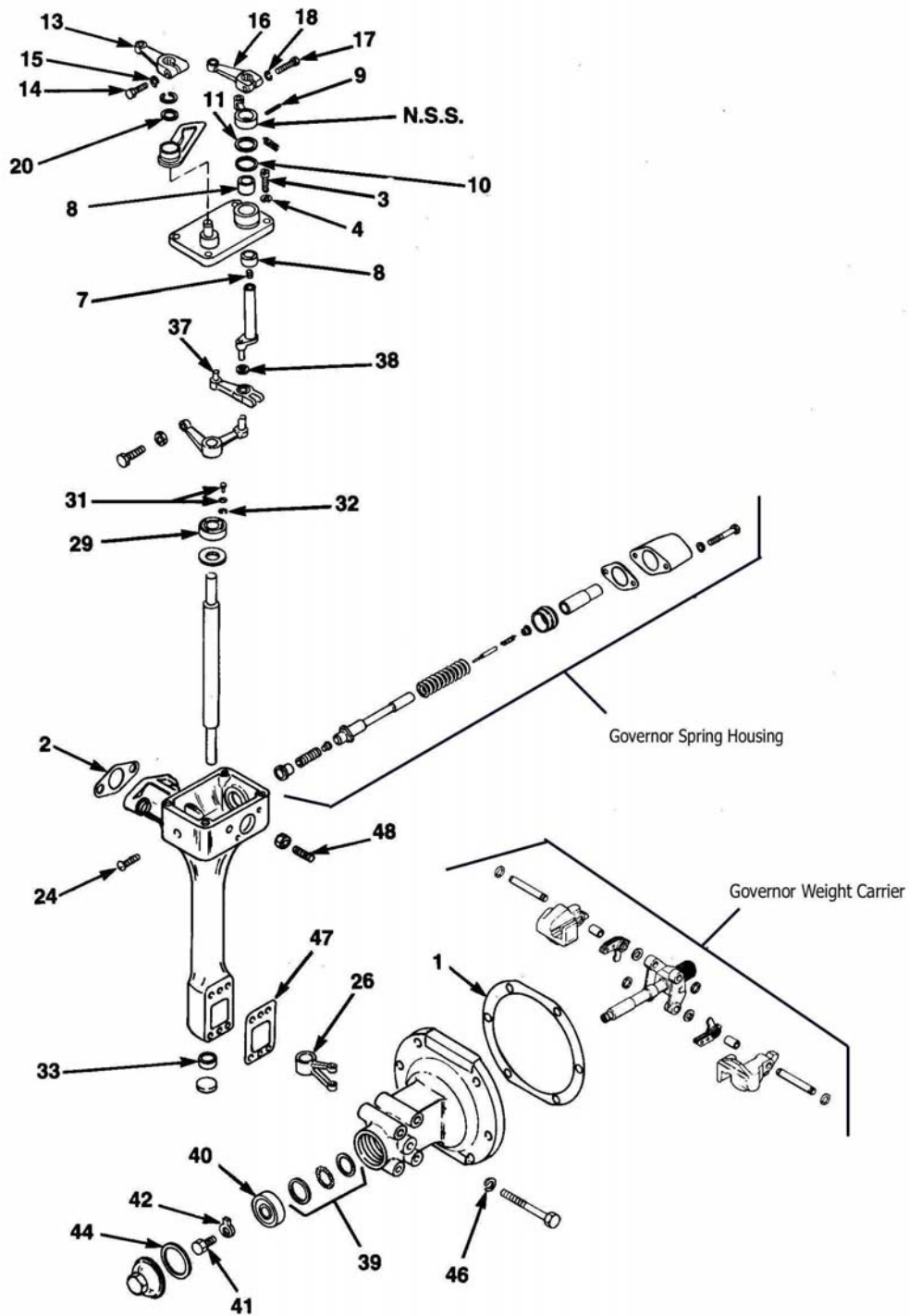
2.7001 - 2.7650

Group	Ref	Part No.	Description	2l	3l	4l	6l
2.7001	0	FP-5155596	Washer, 5/16" (Copper)	3	3	3	3
2.7001	0	FP-5179709	Washer, 1/4" (Copper)	3	3	3	3
2.7001	0	FP-5179709	Washer, 1/4" (Copper)	-	2	2	2
2.7001	0	FP-5155596	Washer, 5/16" (Copper)	-	1	1	1
2.7006	0	FP-5150900	Gasket, Governor Breather Hole Cover	-	1	1	1
2.7010	8	FP-148402	Bearing, 1/2" x 1/2" Diameter Needle	2	2	2	2
2.7010	1	FP-5152465	Gasket, Governor To Blower	1	-	-	-
2.7010	1	FP-5150246	Gasket, Governor To Blower	-	1	1	1
2.7020	2	FP-5152464	Gasket, Governor To Cylinder Head	1	-	-	-
2.7020	2	FP-5123812	Gasket, Governor To Cylinder Head	-	1	1	1
2.7045	4	FP-103319	Lockwasher, 1/4"	3	3	3	3
2.7045	0	FP-9417926	Bolt Assembly, 1/4" -20 x 3/4", Governor Cover	3	3	3	3
2.7051	0	FP-5150889	Gasket, Governor Cover	1	1	1	1
2.7051	0	FP-5183693	Gasket, Governor Cover	-	-	1	1
2.7095	7	FP-8924380	Plug, 1/8" -27	1	1	1	1
2.7120	9	FP-141195	Pin, 1/4" x 5/8"	1	1	1	1
2.7140	10	FP-5176557	Seal Ring, .477" ID x .113" Thick	1	1	1	1
2.7140	0	FP-5182977	Seal Ring, Governor Cover Throttle Shaft	1	1	1	1
2.7150	0	FP-5153060	Retainer, Governor Cover Throttle Shaft Seal Ring	1	1	1	1
2.7150	11	FP-5144177	Retainer, Governor Cover Throttle Shaft Seal Ring	-	2	2	2
2.7150	11	FP-5174429	Retainer, Governor Cover Throttle Shaft Seal Ring	-	1	1	1
2.7165	0	FP-5150894	Pin, Governor Shut Down Shaft	-	1	1	1
2.7170	0	FP-103319	Lockwasher, 1/4"	1	1	1	1
2.7170	0	FP-142583	Retainer, 13/64" Spring	1	1	1	1
2.7170	0	FP-5167714	Washer, Flat	-	1	1	1
2.7175	20	FP-5151487	Washer, Governor Cover	-	1	1	1
2.7175	0	FP-5178581	Ring, Retainer	-	1	1	1
2.7250	28	FP-5150943	Pin, Governor Operating Shaft Lever	-	1	1	1
2.7250	29	FP-9431894	Bearing, Governor Operating Shaft (Upper)	-	1	1	1
2.7270	33	FP-148402	Bearing, Governor Operating Shaft (Lower), (1/2" Wide)	1	1	1	1
2.7270	33	FP-148403	Bearing, Governor Operating Shaft (Lower), (3/4" Wide)	-	1	1	1
2.7310	0	FP-5150990	Link, Throttle Control To Governor (A, C Engines), (Mechanical Governor)	1	1	1	1
2.7460	39	FP-9437108	Bearing, .354" W., Governor Weight Riser Thrust	-	1	1	1
2.7470	40	FP-9424121	Bearing, Governor Weight Shaft End	-	1	1	1
2.7515	44	FP-5165221	Gasket, Governor Weight Housing	-	1	1	1
2.7520	46	FP-103319	Lockwasher, 1/4"	-	4	4	4
2.7590	0	FP-5102270	Screw, 1/4" - 28 x 1"	1	1	1	1
2.7630	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
2.7635	0	FP-5155596	Washer, 5/16" Copper	-	2	2	2
2.7650	0	FP-8922593	Gasket, Governor High Speed Spring Adjusting	1	1	1	1



Limiting Speed Governor

(Figure 9.2)





Limiting Speed Governor

(Figure 9.2)

Groups:

2.7006 - 2.7910

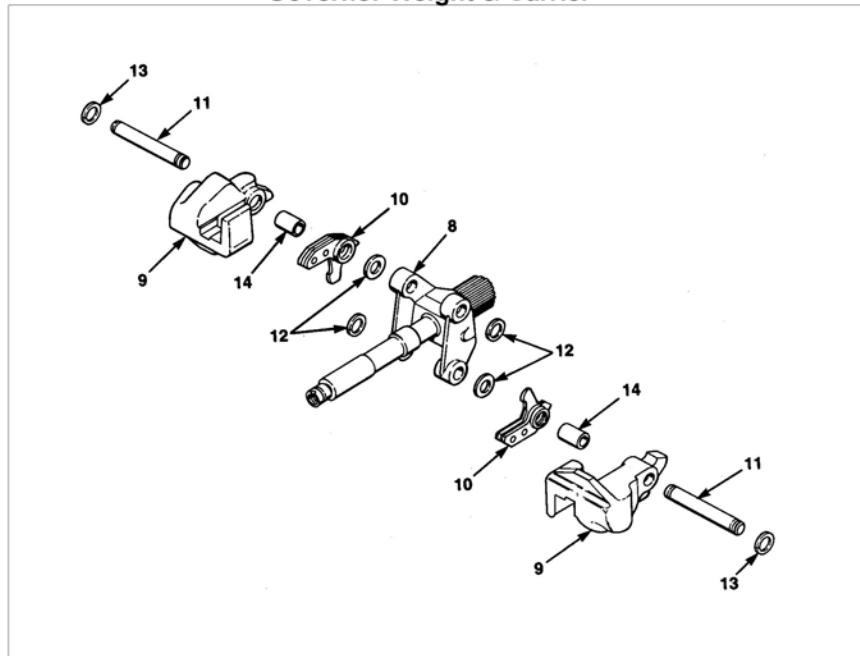
Group	Ref	Part No.	Description	2l	3l	4l	6l
2.7006	0	FP-5150900	Gasket, Governor Breather Hole Cover	-	1	1	1
2.7010	1	FP-5152465	Gasket, Governor To Blower	1	-	-	-
2.7010	1	FP-5150246	Gasket, Governor To Blower	-	1	1	1
2.7020	2	FP-5152464	Gasket, Governor To Cylinder Head	1	-	-	-
2.7020	2	FP-5123812	Gasket, Governor To Cylinder Head	-	1	1	1
2.7045	3	FP-9417926	Bolt Assembly, Governor Cover (1/4" -20 x 3/4")	3	3	3	3
2.7051	0	FP-5150889	Gasket, Governor Cover	1	1	1	1
2.7100	6	FP-148402	Bearing, Needle (1/2" x 1/2" Diameter)	2	2	2	2
2.7140	8	FP-5176557	Seal Ring (.477" ID x .113" Thick)	1	1	1	1
2.7150	0	FP-5153060	Retainer, Governor Cover Throttle Shaft Seal Ring	1	1	1	1
2.7150	9	FP-5144177	Retainer, Governor Cover Throttle Shaft Seal Ring	-	2	2	2
2.7150	10	FP-5174429	Retainer, Governor Cover Throttle Shaft Seal Ring	-	1	1	1
2.7170	13	FP-103319	Lockwasher, 1/4"	1	1	1	1
2.7170	0	FP-142583	Retainer, 13/64" Spring	1	1	1	1
2.7260	18	FP-9431894	Bearing, Governor Operating Shaft (Upper)	-	1	1	1
2.7270	22	FP-148402	Bearing, Governor Operating Shaft (Lower), (1/2" Wide)	1	1	1	1
2.7270	22	FP-148403	Bearing, Governor Operating Shaft (Lower), (3/4" Wide)	-	1	1	1
2.7305	0	FP-23504196	Solenoid, Mechanical Governor Operating (12V)	1	1	1	1
2.7305	0	FP-103319	Lockwasher, 1/4"	-	4	4	4
2.7310	0	FP-142583	Retainer, 13/64" Spring	1	1	1	1
2.7310	29	FP-5150894	Pin, Governor Differential (25/32" L.)	1	1	1	1
2.7315	29	FP-5150894	Pin, Governor Differential (25/32" L.)	1	1	1	1
2.7460	31	FP-9437108	Bearing, Governor Weight Riser Thrust (.354" W.)	-	1	1	1
2.7470	32	FP-9424121	Bearing, Governor Weight Shaft End	-	1	1	1
2.7515	36	FP-5165221	Gasket, Governor Weight Housing	-	1	1	1
2.7520	38	FP-103319	Lockwasher, 1/4"	1	1	1	1
2.7530	47	FP-5150890	Gasket, Governor Weight Housing Cover	-	1	1	1
2.7580	0	FP-5103975	Cap, Governor Low Speed Spring	-	1	1	1
2.7590	0	FP-5102270	Screw, Governor Low Speed Spring Adjusting	-	1	1	1
2.7650	0	FP-8922593	Gasket, Governor High Speed Spring Adjusting	1	1	1	1
2.7740	0	FP-103319	Lockwasher, 1/4"	1	1	1	1
2.7800	0	FP-5136590	Shim, Governor Variable Speed Spring (.010")	-	-	-	-
2.7800	1	FP-5136591	Shim, Governor Variable Speed Spring (.078")	-	-	-	-



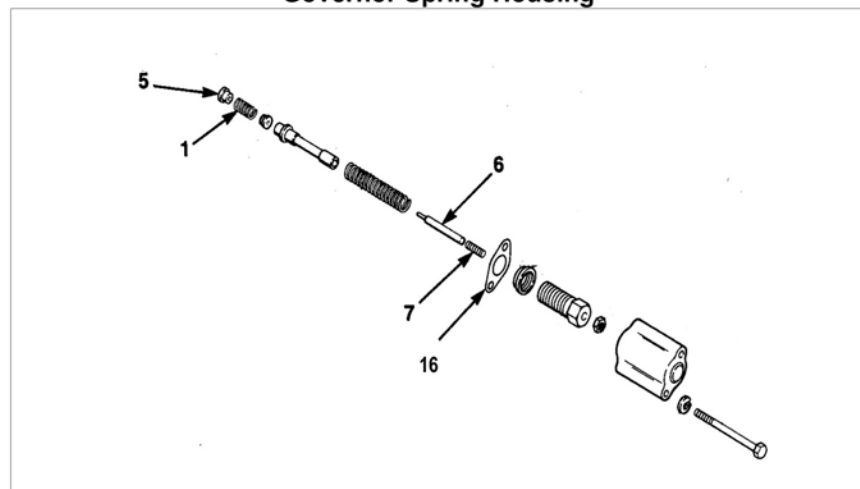
Limiting Speed Governor

(Figure 9.3)

Governor Weight & Carrier



Governor Spring Housing





Limiting Speed Governor

(Figure 9.3)

Groups:

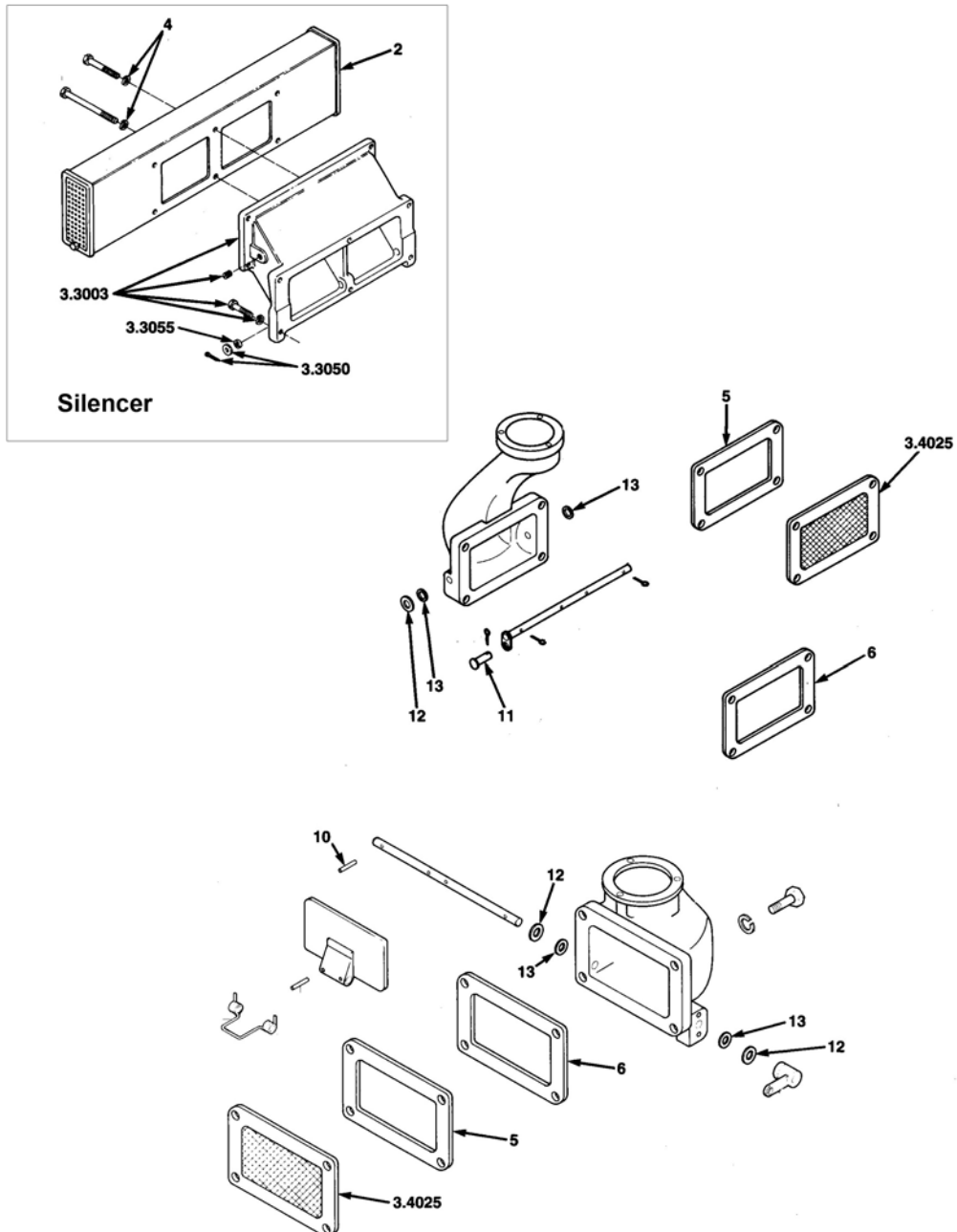
2.7330 - 2.9361

Group	Ref	Part No.	Description	2l	3l	4l	6l
Spring Housing							
2.7540	1	FP-5122165	Spring, Governor Low Speed (One Blue Stripe)	1	1	1	1
2.7540	1	FP-5183704	Spring, Governor Low Speed (Two Yellow Stripes)	1	1	1	1
2.7580	5	FP-5102968	Cap, Governor Low Speed Spring	1	1	1	1
2.7580	5	FP-5103975	Cap, Governor Low Speed Spring	1	1	1	1
2.7590	7	FP-5102270	Screw, 1/4" -28 x 1" (Hex Socket)	1	1	1	1
2.7612	0	FP-5126623	Ring, Governor Speed Adjusting Piston Seal	1	1	1	1
2.7635	1	FP-103320	Lockwasher, 5/16"	1	1	1	1
2.7635	0	FP-5155596	Washer, 5/15" Copper	1	1	1	1
2.7650	16	FP-8922593	Gasket, Governor High Speed Spring Adj. Cover	1	1	1	1
2.8030	0	FP-5197065	Seal, Governor Assy	1	1	1	1
2.8040	0	FP-5194069	Washer, Governor Cover (1/4" Copper)	AR	AR	AR	AR
2.8795	0	FP-23503717	Bearing, Governor Drive Shaft	1	1	1	1
2.8830	0	FP-23503717	Bearing, Governor Drive Thrust	1	1	1	1
2.9012	0	FP-5115923	Spring, Injector Control Tube (Blue Stripe)	1	1	1	1
2.9022	0	FP-5154414	link, Injector Control Tube To Governor (Mechanical Governor)	1	-	-	-
2.9022	0	FP-5150990	Link, Throttle Control To Governor (A, C Engine), (Mechanical Governor)	-	1	1	1
2.9022	0	FP-5150996	Link, Throttle Control To Governor (D Engine), (Mechanical Governor)	-	1	1	1
2.9063	0	FP-5122266	Gasket, Shut Off Solenoid Adapter (7.1597)	1	1	1	1
2.9353	0	FP-3249110	Gasket, Hydraulic Governor Assy	1	1	1	1
2.9355	0	FP-23504196	Solenoid, Throttle Control (12V)	1	1	1	1
2.9357	0	FP-5122266	Gasket, Throttle Control Solenoid	1	1	1	1
2.9361	0	FP-5176810	Clevis Pin, Governor Control Shaft (1/4" x 1 1/4")	1	1	1	1
Weight & Carrier							
2.7330	13	FP-5151487	Washer, Governor Weight Shaft (2.7430)	8	12	20	24
2.7330	12	FP-5178581	Retaining Ring, Governor Weight (2.7430)	4	8	8	16
2.7330	0	FP-447196	Bearing, Governor Weight (2.7440)	4	4	4	4
2.7330	11	FP-5185153	Shaft, Governor Weight (2.7430)	2	2	2	2
2.7330	0	FP-9424121	Bearing Assembly, Governor Weight Shaft End (2.7470)	1	-	-	-
2.7330	0	FP-9437108	Bearing Assembly, Governor Weight Riser Thrust (2.7460)	1	-	-	-
2.7330	9	FP-5154613	Weight Assembly, Governor (High Speed), (2.7390)	-	4	4	4
2.7330	11	FP-5185154	Shaft, Governor Weight (2.7430)	-	4	4	4
2.7330	0	FP-5150923	Shaft, Governor Weight Carrier (2.7360)	-	3	-	-
2.7330	14	FP-5147866	Bushing, .520" L. Governor Weight (2.7390)	-	2	2	4
2.7330	0	FP-5150885	Washer, Governor Weight Pin (2.7430)	-	2	2	4
2.7330	10	FP-5154614	Weight Assembly, Governor (Low Speed), (2.7400)	-	2	2	2
2.7330	0	FP-5150932	Carrier, Governor Weight Shaft (2.7370)	-	1	1	1
2.7330	8	FP-5183624	Shaft & Carrier Assembly (2.7350)	-	1	-	-



Silencer & Air Intake

(Figure 10.1)





Silencer & Air Intake

(Figure 10.1)

Groups:

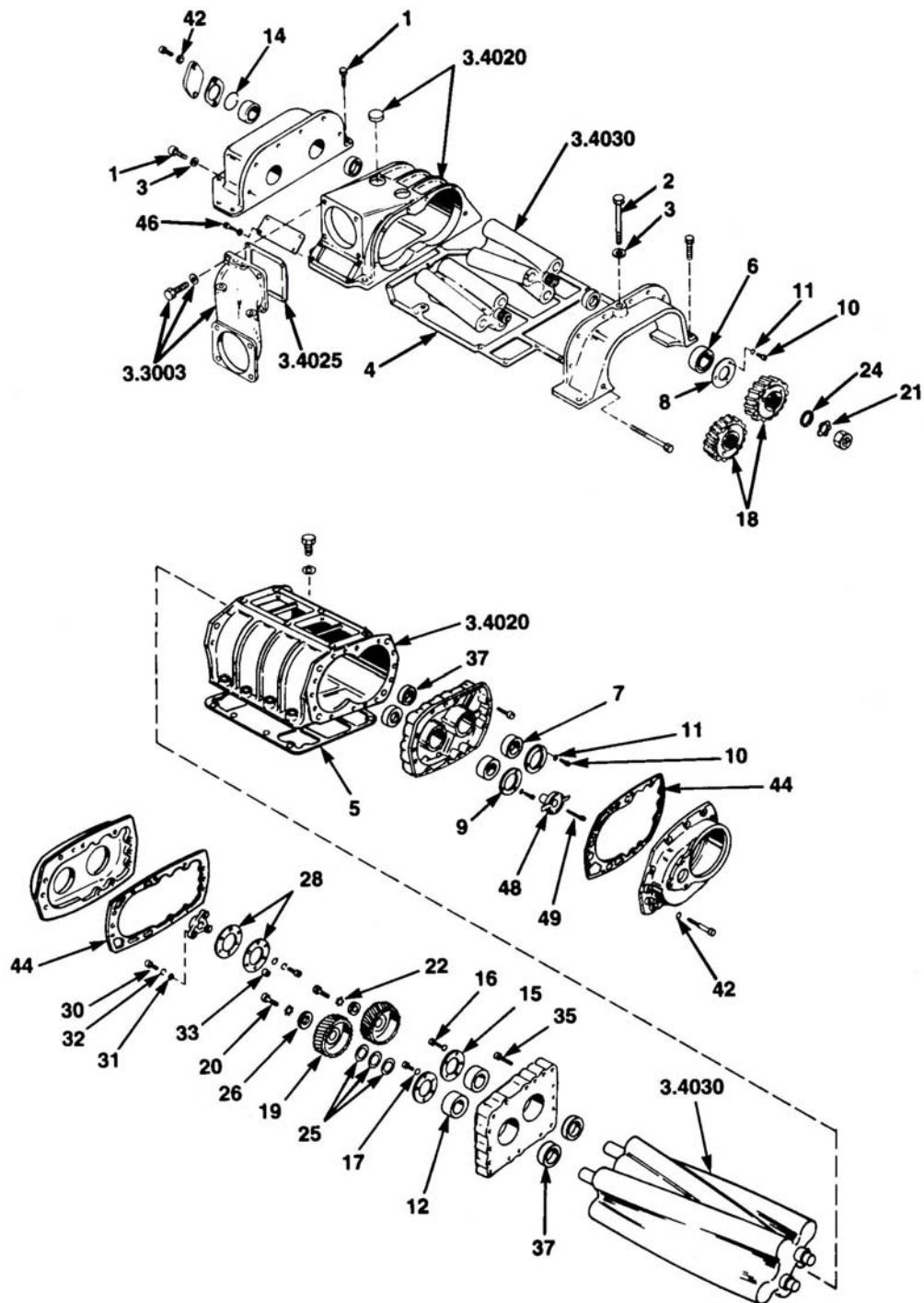
3.2001 - 3.3086

Group	Ref	Part No.	Description	2l	3l	4l	6l
3.2001	0	FP-103321	Lockwasher, 3/8"	-	4	4	4
3.2001	2	FP-5189848	Silencer, Air (Option Type #1)	-	1	-	-
3.2001	0	FP-5187177	Silencer, Air (Option Type #2)	-	-	1	-
3.2014	0	FP-103320	Lockwasher, 5/16"	-	-	-	1
Air Inlet Housing							
3.3007	0	FP-5124405	Gasket, Air Cleaner Mounting	-	2	2	2
3.3030	6	FP-3290577	Gasket, Air Inlet Housing Striker Plate	-	1	-	-
3.3030	6	FP-3290612	Gasket, Air Inlet Housing Striker Plate	-	-	1	-
3.3030	6	FP-3290572	Gasket, Air Inlet Housing Striker Plate	-	-	-	1
3.3055	13	FP-5182977	Seal, Air Inlet Housing Shutdown Valve	2	2	2	2
3.3055	13	FP-5179232	Seal, Air Inlet Housing Shutdown Valve	-	-	-	2
3.3086	0	FP-8926938	Gasket, Air Inlet Housing By-Pass Blower Cover	-	1	1	1



Blower

(Figure 10.2)





Blower

(Figure 10.2)

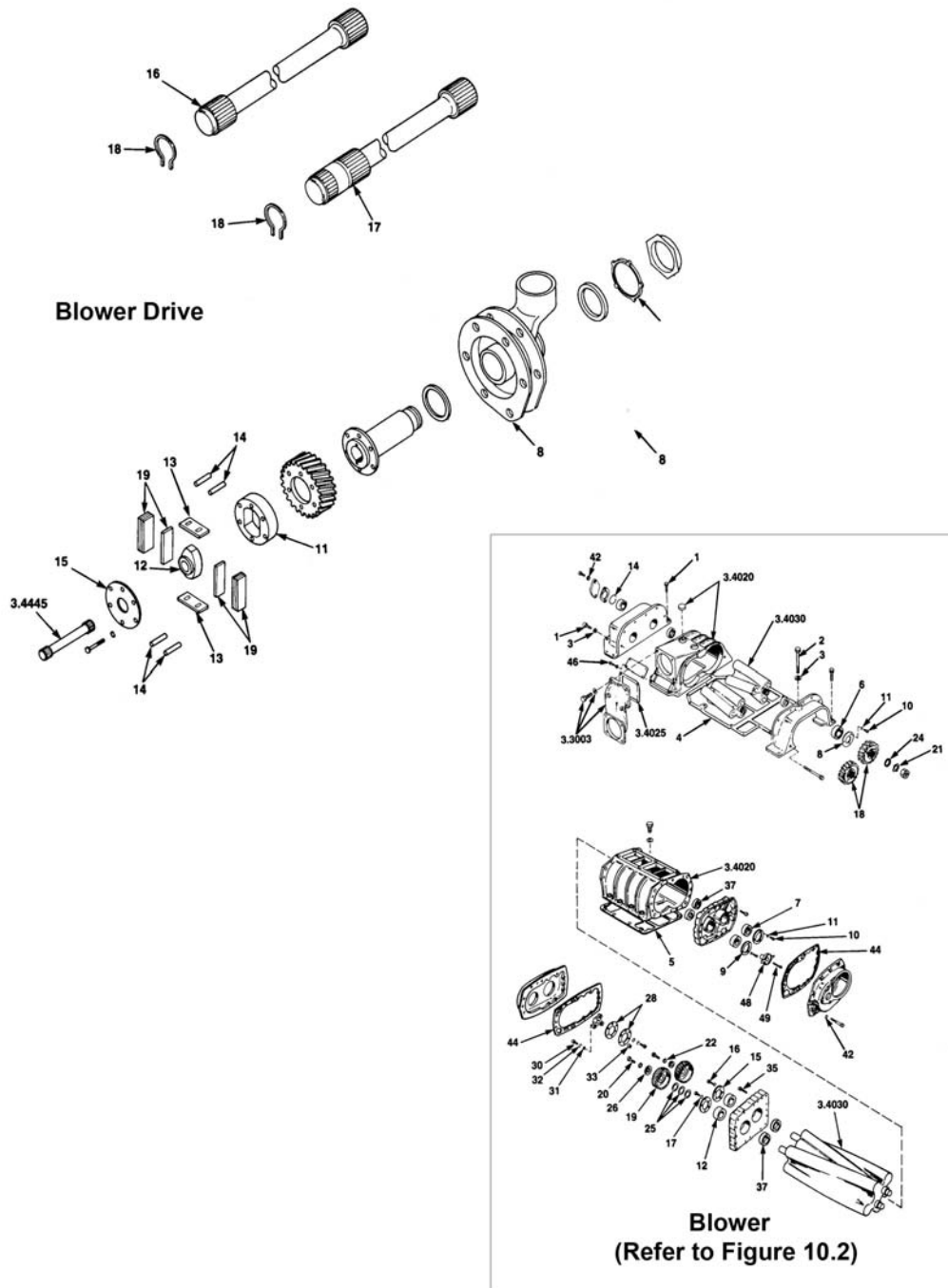
Groups:
3.4003 - 3.4025

Group	Ref	Part No.	Description	2l	3l	4l	6l
3.4003	0	FP-5192320	Gasket Kit, Blower Installation	1	-	-	-
3.4003	0	FP-5192752	Gasket Kit, Blower Installation	-	1	-	-
3.4003	0	FP-5192753	Gasket Kit, Blower Installation	-	-	1	-
3.4003	0	FP-23514286	Kit, Blower Installation By-Pass (6-71TA)	-	-	-	1
3.4003	0	FP-5192754	Gasket Kit, Blower Installation	-	-	-	1
3.4010	4	FP-5154133	Gasket, Blower To Block	1	-	-	-
3.4010	0	FP-23520019	Gasket, Blower Housing	-	1	1	1
3.4010	5	FP-5150235	Gasket, Blower To Block	-	1	-	-
3.4010	5	FP-5115657	Gasket, Blower To Block	-	-	1	-
3.4010	5	FP-23505517	Gasket, Blower To Block (8926341)	-	-	-	1
3.4010	0	FP-23505529	Gasket, Adapter To Blower Housing (8926337)	-	-	-	1
3.4010	5	FP-5115656	Gasket, Blower To Block	-	-	-	1
3.4025	0	FP-5103557	Gasket, Blower Screen	1	-	-	-
3.4025	0	FP-5103558	Gasket, Blower Screen	-	1	-	-
3.4005	0	FP-23514204	Kit, Blower Repair, Small Bearing Turbo	-	1	1	1
3.4005	25	FP-5150372	Shim, Blower Rotor Gear (.002")	-	1	1	1
3.4005	25	FP-5153938	Shim, Blower Rotor Gear (.003")	-	1	1	1
3.4005	25	FP-5150855	Shim, Blower Rotor Gear (.005")	-	1	1	1
3.4005	25	FP-5150856	Shim, Blower Rotor Gear (.010")	-	1	1	1
3.4005	22	FP-5154398	Lockwasher, 1/2" Special	-	2	2	2
3.4005	37	FP-5192439	Sleeve, Blower End Plate Seal	-	4	4	4
3.4005	37	FP-8924453	Seal Assembly, Blower Rotor	-	4	4	4
3.4005	0	FP-23503539	Bearing, Blower Rotor Reduction Gear	-	1	1	1
3.4005	7	FP-23503543	Bearing, Blower Rotor (Front)	-	2	2	2
3.4005	12	FP-23504305	Bearing, Blower Rotor (Rear)	-	2	2	2
3.4005	0	FP-5108120	Kit, Blower Repair (N/A)	-	1	1	1
3.4005	44	FP-5114726	Gasket, Blower End Plate	-	2	2	2
3.4005	44	FP-5150234	Gasket, Blower End Plate	-	2	2	2
3.4005	25	FP-5150372	Shim, Blower Rotor Gear (.002")	-	1	1	1
3.4005	25	FP-5150855	Shim, Blower Rotor Gear (.005")	-	1	1	1
3.4005	25	FP-5150856	Shim, Blower Rotor Gear (.010")	-	1	1	1
3.4005	25	FP-5153938	Shim, Blower Rotor Gear (.003")	-	1	1	1
3.4005	22	FP-5154398	Lockwasher, 1/2" Special	-	2	2	2
3.4005	37	FP-5192438	Seal, Blower End Plate O.S.	-	4	4	4
3.4005	0	FP-5192439	Sleeve, Blower End Plate Seal	-	4	4	4
3.4005	44	FP-8924266	Gasket, Blower End Plate	-	2	2	2
3.4005	12	FP-23504305	Bearing, Blower Rotor (Rear)	-	2	2	2
3.4005	7	FP-23503543	Bearing, Blower Rotor (Front)	-	2	2	2
3.4005	0	FP-5192324	Kit, Blower Repair	1	-	-	-
3.4005	6	FP-23518811	Bearing, Blower (Front)	2	-	-	-
3.4005	0	FP-5103557	Screen Assembly, Blower	1	-	-	-
3.4005	0	FP-5152438	Gasket, Blower Pad	1	-	-	-
3.4005	21	FP-5154115	Lockwasher, Blower Gear (11/16")	2	-	-	-
3.4005	43	FP-5154223	Gasket, Blower End Plate	1	-	-	-
3.4005	43	FP-5154226	Shim, Blower Rotor Gear (.002")	4	-	-	-
3.4005	24	FP-5154227	Shim, Blower Rotor Gear (.005")	2	-	-	-
3.4005	24	FP-5154228	Shim, Blower Rotor Gear (.010")	6	-	-	-
3.4005	36	FP-5125427	Seal, Blower End Plate O.S.	4	-	-	-
3.4005	0	FP-5125428	Sleeve, Blower End Plate Sleeve	4	-	-	-
3.4005	13	FP-23503687	Bearing, Blower Rotor (Rear)	2	-	-	-



Blower

(Figure 10.3)





Blower

(Figure 10.3)

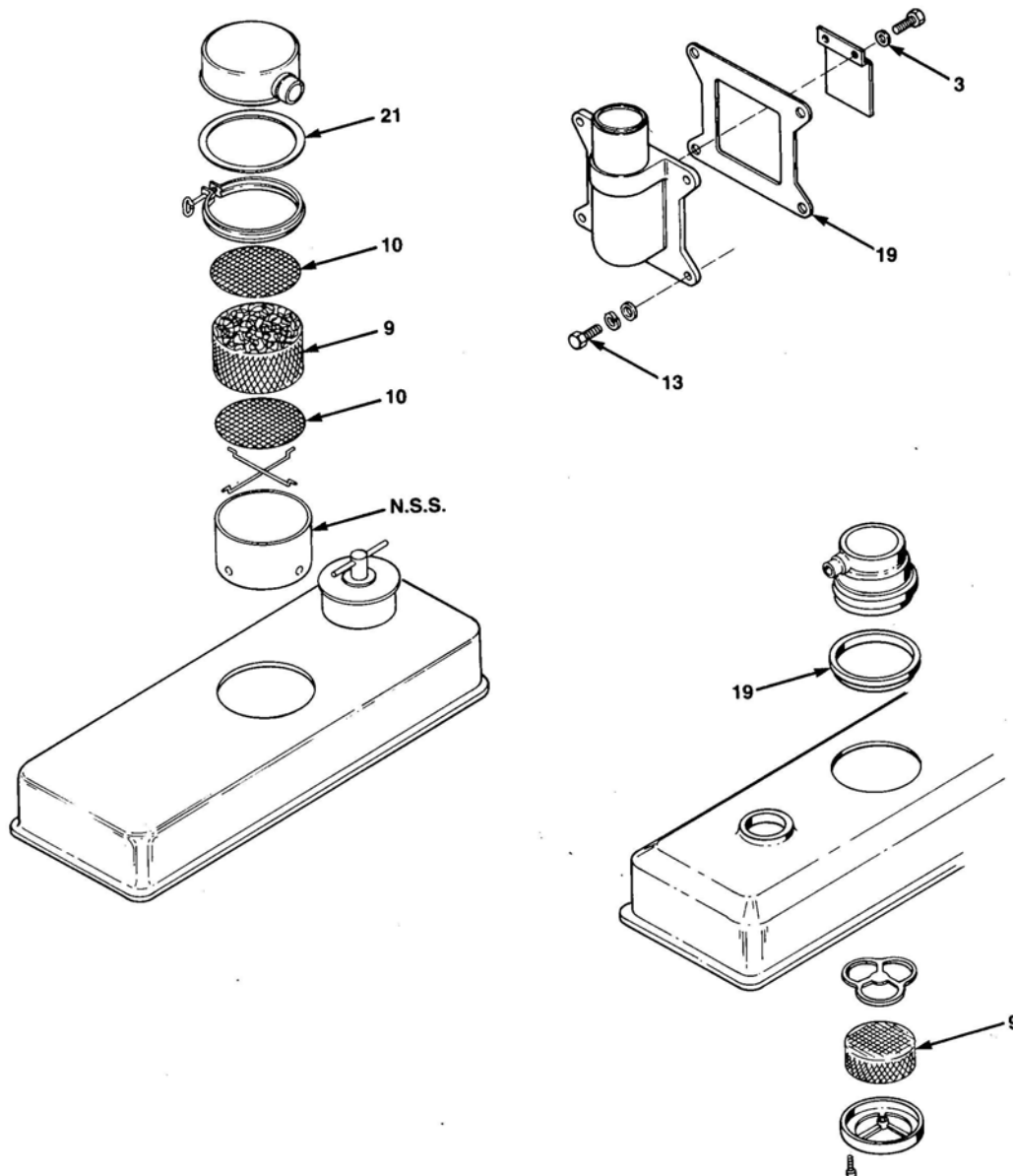
Groups:
3.4025 - 12.7150

Group	Ref	Part No.	Description	2l	3l	4l	6l
3.4025	0	FP-5103557	Blower Screen	1	-	-	-
3.4025	0	FP-5103558	Blower Screen	-	1	-	-
3.4025	0	FP-5103559	Blower Screen	-	-	1	-
3.4025	0	FP-5103601	Blower Screen	-	-	-	1
3.4050	46	FP-443603	Bolt, 1/4" - 20 x 3/4"	6	6	6	6
3.4137	33	FP-5173364	Spacer, Rotor Gear Hub	-	3	3	3
3.4160	37	FP-5192439	Sleeve, Blower Rotor Seal	-	4	4	4
3.4160	37	FP-8924453	Seal, Blower Rotor	-	4	4	4
3.4160	0	FP-23500533	Seal Kit, Blower End Plate	-	1	1	1
3.4180	42	FP-103320	Lockwasher 5/16"	2	20	20	20
3.4290	48	FP-5122069	Coupling, Blower to Water Pump Drive	-	1	1	1
Blower Drive							
3.4210	0	FP-5150246	Gasket, Blower Drive Cover	-	1	1	1
3.4220	0	FP-23515630	Seal, Blower Drive Cover (w/Flanged & Strut Covers)	-	1	2	2
3.4220	0	FP-5172864	Seal, Blower Drive Cover (w/Sand Cast Covers)	-	1	1	1
3.4220	0	FP-5115375	Seal, Blower Drive Cover	-	-	2	-
3.4225	0	FP-5192248	Seal Kit, Blower Drive Cover	-	1	1	1
3.4240	0	FP-5152438	Gasket, Blower Housing Air Heater Pad Cover	1	-	-	-
3.4320	0	FP-8926293	Washer, Blower Drive Gear Hub Thrust	-	1	1	1
3.4340	5	FP-8926285	Lockwasher, Blower Drive Gear Hub Thrust	-	1	1	1
3.4340	5	FP-8926286	Lockwasher, Blower Drive Gear (17/32 External Teeth)	-	1	1	1
3.4350	0	FP-8924380	Plug, 1/8" - 27 Pipe	-	1	1	1
3.4360	8	FP-5148810	Gasket, Blower Drive Gear Hub Support	-	1	1	1
3.4370	0	FP-5103377	Coupling, Blower Drive	-	1	1	1
3.4380	11	FP-5150345	Support, Blower Drive Coupling	-	1	1	1
3.4390	12	FP-5103365	Cam, Blower Drive Coupling	-	1	1	1
3.4400	0	FP-5123859	Spring, Blower Drive Coupling	-	42	42	42
3.4400	13	FP-5123860	Seat, Blower Drive Coupling	-	2	2	2
3.4400	19	FP-5196314	Spring Pack, Blower Drive Coupling (Includes Ref #13)	-	1	1	1
3.4410	14	FP-5150346	Seat, Blower Drive Coupling Spring (Pin Half)	-	4	4	4
3.4420	15	FP-5150349	Retainer, Blower Drive Coupling	-	1	1	1
3.4445	17	FP-5168129	Shaft, Blower Drive (7 1/16" L.), (Long)	-	1	1	1
3.4445	16	FP-5154638	Shaft, Blower Drive (6 3/16" L.), (Short)	-	1	-	-
3.4445	16	FP-5154639	Shaft, Blower Drive (7 13/16" L.), (Short)	-	-	1	-
3.4445	17	FP-5168130	Shaft, Blower Drive (8 11/16" L.), (Long)	-	-	1	-
3.4445	17	FP-5110799	Shaft, Blower Drive (10 13/16" L.), (Long)	-	-	-	1
3.4445	16	FP-5154640	Shaft, Blower Drive (11 1/16" L.), (Short)	-	-	-	1
3.4445	17	FP-5193476	Shaft, Blower Drive (11 15/16" L.), (Long)	-	-	-	1
3.4446	18	FP-5154637	Ring, Blower Drive Shaft Retaining	-	1	1	1
4.4350	0	FP-103321	Lockwasher, 3/8"	-	2	2	2
Turbocharger							
3.5001	0	FP-5149158	Lock Plate, Turbo Charger Bolt	-	4	4	4
3.5001	0	FP-5198257	Ring Seal, Turbocharger (3.5022)	-	1	1	1
3.5001	0	FP-5199622	Spacer, Turbocharger (.5165" L)	-	1	1	1
3.5307	0	FP-5118793	Gasket, Turbo Charger Exhaust Inlet Connection	-	2	2	2
3.5500	0	FP-5128964	Gasket, Cover To Turbocharger	-	AR	AR	AR
12.7150	0	FP-5149460	Bearing Kit, Turbocharger	-	AR	AR	AR



Breathers

(Figure 11.1)





Breathers

(Figure 11.1)

Groups:

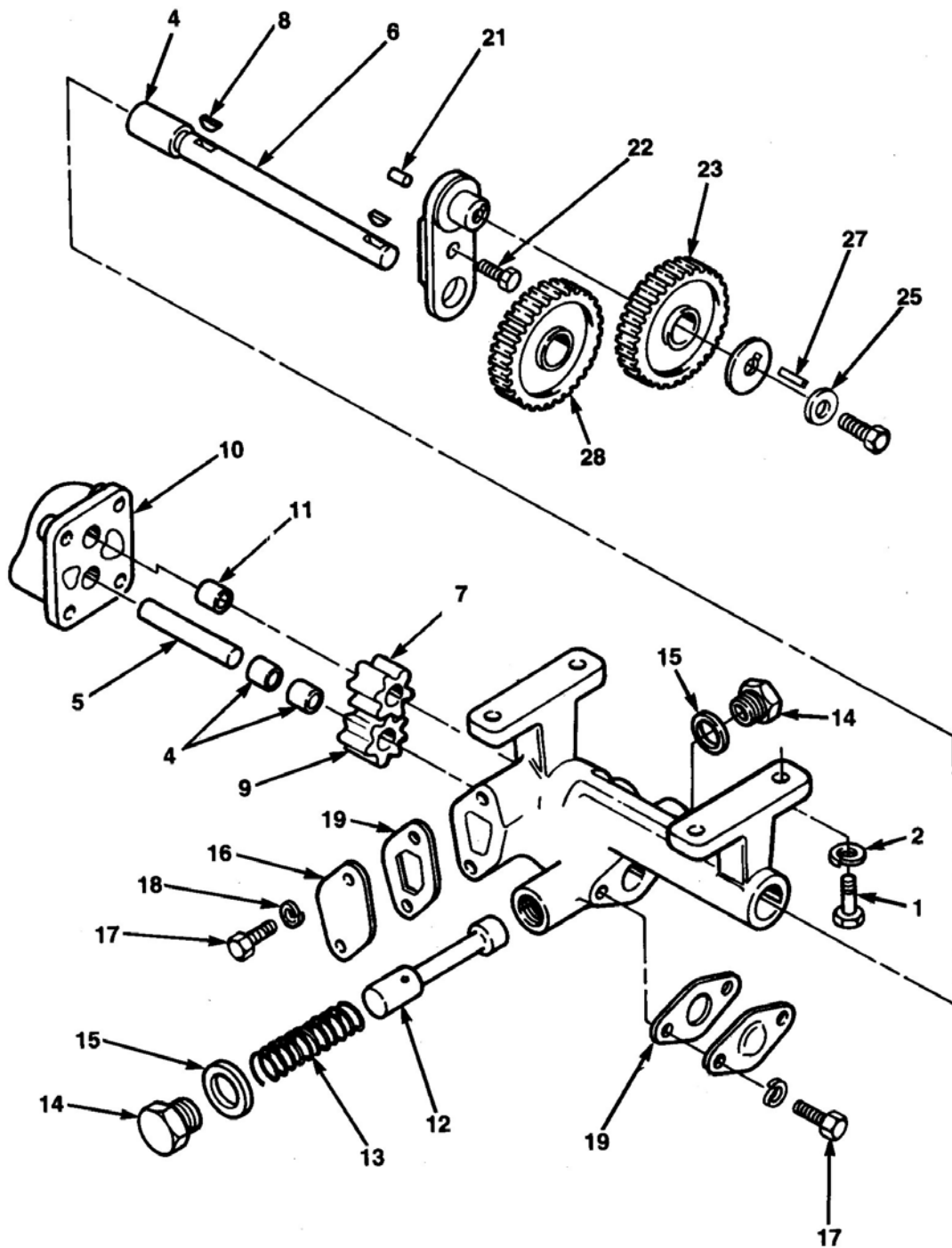
4.8001 - 4.8193

Group	Ref	Part No.	Description	2l	3l	4l	6l
4.8001	0	FP-103319	Lockwasher, 1/4"	2	-	-	-
4.8001	0	FP-179803	Bolt, 1/4" - 20 x 1 3/4"	2	-	-	-
4.8001	0	FP-103320	Lockwasher, 5/16"	-	2	2	2
4.8020	0	FP-5150900	Gasket, Breather Pipe (At Governor)	1	1	1	1
4.8020	0	FP-5123812	Gasket, Breather Pipe	-	1	1	1
4.8025	3	FP-103320	Lockwasher, 5/16"	-	-	2	2
4.8040	0	FP-5181415	Clip, Oil Breather Tube (1 1/8" Tube, 7/16" Bolt)	1	1	1	1
4.8040	0	FP-103321	Lockwasher, 3/8"	-	1	1	2
4.8040	0	FP-8927580	Bolt, 3/8" - 16 x 7/8"	-	1	1	1
4.8042	0	FP-103320	Lockwasher, 5/16"	-	1	1	1
4.8045	13	FP-179803	Bolt, 1/4" - 20 x 1 3/4"	2	-	-	-
4.8045	10	FP-5132042	Screen, Breather Oil Separator Filter Unit	1	2	-	-
4.8045	9	FP-5101760	Element, Breather Oil Separator Filter Unit	1	1	1	1
4.8045	0	FP-5150900	Gasket, Breather Pipe	1	-	-	-
4.8045	0	FP-5130349	Gasket, Breather Pipe	-	1	1	1
4.8045	0	FP-5110393	Gasket, Breather Pipe	-	-	-	1
4.8045	0	FP-5173482	Gasket, Breather Pipe	-	-	-	1
4.8050	0	FP-5150568	Washer, 7/16" Copper	-	1	1	1
4.8050	0	FP-103321	Lockwasher, 3/8"	-	-	4	4
4.8055	0	FP-5103642	Screw, #10 - 24 x .375" Lock	-	1	1	1
4.8057	19	FP-5173482	Gasket, Breather Shell Cover	-	1	1	2
4.8060	0	FP-5132042	Screen, Breather Oil Separator Filter Unit	1	2	-	-
4.8060	9	FP-5101760	Element, Breather Oil Separator Filter Unit	1	1	1	1
4.8060	0	FP-5130750	Pad, Breather Oil Separator	-	1	1	1
4.8070	21	FP-5144038	Gasket, Breather Body Or Separator	1	1	1	1
4.8070	21	FP-5130349	Gasket, Breather Body Or Separator (To Block)	-	1	1	1
4.8070	21	FP-23515145	Gasket, Breather Body Or Separator	-	-	1	1
4.8070	21	FP-5173482	Gasket, Breather Body Or Separator	-	-	1	1
4.8175	0	FP-5186840	Clamp, 1 5/8" Diameter Hose	-	1	1	1
4.8193	0	FP-5104507	Gasket, Breather Hole Cover	-	1	1	1



Oil Pump

(Figure 12.1)





Oil Pump

(Figure 12.1)

Groups:

4.1001 - 5.1090

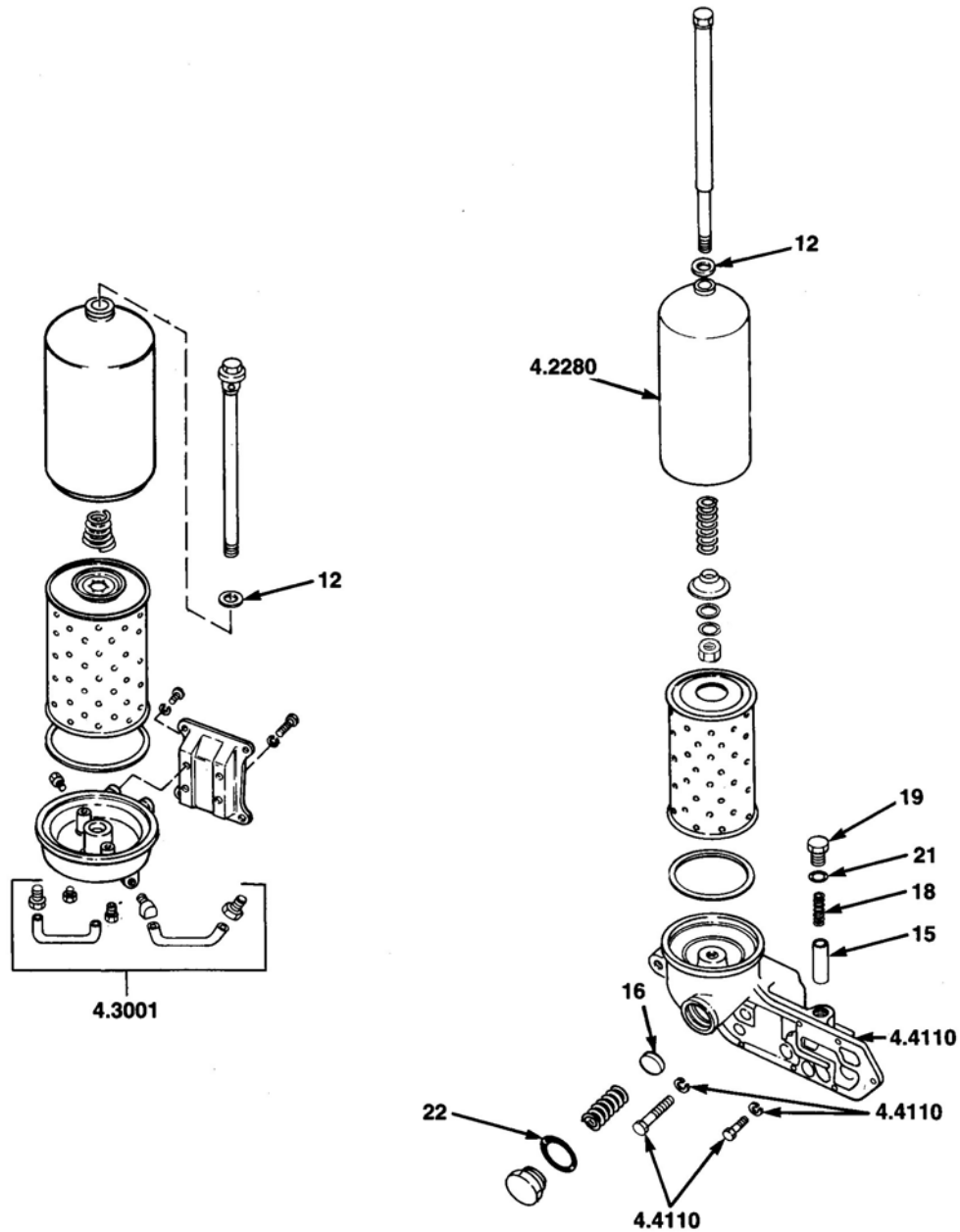
Group	Ref	Part No.	Description	2l	3l	4l	6l
4.1001	2	FP-103320	Lockwasher, 5/16"	4	4	4	4
4.1001	2	FP-103321	Lockwasher, 3/8"	-	4	4	4
4.1002	0	FP-5192106	Gasket Set, Oil Pump Overhaul	-	1	-	-
4.1002	0	FP-5192107	Gasket Set, Oil Pump Overhaul	-	-	1	-
4.1002	0	FP-5192108	Gasket Set, Oil Pump Overhaul	-	-	-	1
4.1003	0	FP-5194800	Kit, Lube Oil Pump Overhaul	-	1	1	-
4.1003	1	FP-5194801	Kit, Lube Oil Pump Overhaul	-	-	-	1
4.1050	4	FP-5153154	Bushing, Oil Pump Shaft & Gear	1	1	1	1
4.1050	4	FP-5153147	Bushing, Oil Pump Body	-	2	2	2
4.1070	6	FP-5153309	Shaft, Oil Pump Drive (8 31/32" L.)	-	1	1	1
4.1080	5	FP-5153310	Shaft, Oil Pump Driven Gear (3 7/32" L.)	-	1	1	1
4.1080	5	FP-5153146#	Shaft, Oil Pump Driven Gear (5 5/32" L.)	-	-	-	1
4.1090	7	FP-5166650	Gear, Oil Pump Drive (1 1/4" Wide), (Pressure)	-	1	1	-
4.1090	7	FP-5153260	Gear, Oil Pump Drive	-	-	-	1
4.1090	7	FP-5153260#	Gear, Oil Pump Drive (1 3/4" Wide)	-	-	-	2
4.1200	9	FP-5166649	Gear, Oil Pump Driven (1 1/4" Wide), (Pressure)	-	1	1	-
4.1200	9	FP-5153617	Gear, Oil Pump Driven	-	-	-	1
4.1200	9	FP-5153617#	Gear, Oil Pump Driven (1 3/4" Wide)	-	-	-	2
4.1210	4	FP-5153154	Bushing, Oil Pump Body	1	4	4	4
4.1210	4	FP-5166840	Bushing, Oil Pump Driven Gear	-	2	2	2
5.1090	8	FP-8928540	Key, 1/8" x 5/8" Woodruff	-	3	3	3
Oil Pressure Relief Valve							
4.1250	12	FP-5153247	Valve, Oil Pump Relief	-	1	1	1
4.1260	13	FP-5155765	Spring, Oil Pump Relief Valve	-	1	1	1
4.1280	15	FP-105456	Gasket, 7/8" Copper	-	2	2	2
4.1290	17	FP-5148436	Bolt, 5/16" x 3/4"	-	2	2	2
4.1300	19	FP-5151370	Gasket, Oil Pump Pad Cover (1 7/8" B.C.)	-	1	1	1
4.1300	19	FP-5153313	Gasket, Oil Pump Pad Cover (2 1/8" B.C.)	-	1	1	1
4.1310	0	FP-8928540	Key, 1/8" x 5/8" Woodruff	-	-	-	1
4.1340	25	FP-5175944	Washer, Oil Pump Idler (Small)	-	1	1	1
4.1460	0	FP-5153310	Shaft, Oil Pump Drive (Support)	-	-	1	1
4.1520	0	FP-5150144	Gasket, Oil Pump Inlet Pipe	1	-	-	-
4.1590	19	FP-5156922	Gasket, Oil Pump Outlet Pipe (2 5/64" B.C.)	-	-	-	1
4.1620	0	FP-5156815	Spring, Oil Pump Outlet Pipe By-Pass Valve	1	1	1	1

Indicates for Pumps FP-5177349, FP-5175987, FP-5175988 only.



Oil Filter

(Figure 12.2)





Oil Filter

(Figure 12.2)

Groups:

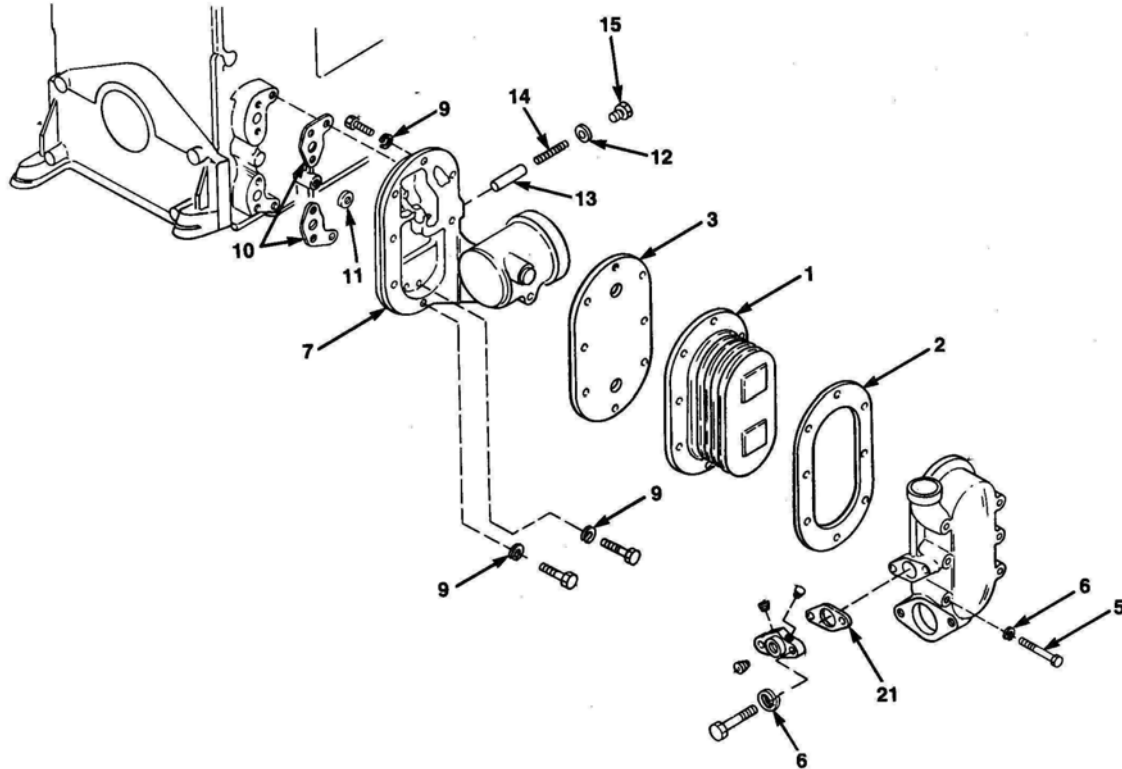
4.1520 - 4.4320

Group	Ref	Part No.	Description	2l	3l	4l	6l
4.1520	8	FP-5150144	Gasket, Oil Pump Inlet Pipe	2	-	-	-
4.1520	4	FP-5153627	Gasket, Oil Pump Inlet Pipe (At Pump), (2 9/16" B.C.), (1 3/16" x 15/32" Dia.)	-	1	1	1
4.1520	7	FP-5153313	Gasket, Oil Pump Inlet Pipe (2 1/8" B.C.)	-	-	-	4
4.1520	4	FP-5153902	Gasket, Oil Pump Inlet Pipe (2 1/4" B.C.)	-	-	-	2
4.1520	6	FP-5167380	Gasket, Oil Pump Inlet Pipe (At Pump), (2 9/16" B.C.)	-	-	-	1
4.1550	12	FP-5118302	Cover, Oil Pump Inlet Screen	-	1	1	2
4.1590	4	FP-5151370	Gasket, Oil Pump Outlet Pipe (1 7/8" B.C.)	-	1	1	1
4.1590	4	FP-5153313	Gasket, Oil Pump Outlet Pipe (2 1/8" B.C.)	-	1	1	2
4.1590	4	FP-5156922	Gasket, Oil Pump Outlet Pipe (2 5/64" B.C.)	-	-	-	1
4.1641	0	FP-5123812	Gasket, Cyl. HD. Oil Drain Tube (Inclined Engines)	-	-	-	2
4.1642	0	FP-5179709	Washer, 1/4" Copper	-	1	1	-
4.1660	18	FP-8925732	Pipe, Blower Drive Bearing Oil (10.53" L)	-	1	1	1
4.1670	6	FP-103320	Washer, 5/16"	-	2	2	2
4.1690	2	FP-5156815	Spring, Oil Pressure Regulator	-	1	1	1
4.1730	7	FP-5104381	Gasket, Oil Pressure Regulator Body (Type # 1,2,21), (5154199)	-	1	1	1
4.1730	7	FP-5104381	Gasket, Oil Pressure Regulator Body (Type # 23)	-	1	1	1
4.1730	7	FP-5156831	Gasket, Oil Pressure Regulator Body (Type # 3)	-	1	1	1
4.2040	0	FP-64444	Gasket, Lube Oil Strainer Cover	-	1	1	1
4.2100	0	FP-5150568	Gasket, Lube Oil Strainer Center Stud	-	1	1	1
4.2100	0	FP-64446	Gasket, Lube Oil Strainer Center Stud	-	1	1	1
4.2240	0	FP-103321	Lockwasher, 3/8"	4	4	4	4
4.2240	0	FP-8927580	Bolt, 3/8"- 16 x 7/8"	-	4	4	4
4.2240	0	FP-5121182	Plug, 1/4" Pipe (2.4015)	-	2	2	2
4.2240	0	FP-8927581	Bolt, 3/8"- 16 x 1"	-	-	4	4
4.2250	0	FP-1595620	Gasket, Oil Filter (Rectangular Section)	1	1	1	1
4.2293	0	FP-5152413	Gasket, Oil Filter Adapter To Oil Cooler Adapter	1	1	1	1
4.2293	0	FP-5188028	Gasket, Oil Filter Adapter To Oil Cooler Adapter	-	2	1	1
4.2315	10	FP-114498	Nut, 5/8" - 18 Jam	1	1	1	1
4.2330	11	FP-5187310	Gasket (Seal), Oil Filter Cover Stud	1	1	1	1
4.2330	12	FP-6437298	Gasket, Oil Filter Cover Nut	1	1	1	1
4.2485	15	FP-5177777	Valve, Oil Filter By-pass	1	1	1	1
4.2485	16	FP-5133431	Valve, Oil Filter By-pass	-	1	1	1
4.2486	18	FP-5177778	Spring, Oil Filter By-pass Valve	1	1	1	1
4.2489	21	FP-5177773	Gasket, Oil Filter By-pass Valve Plug	1	1	1	1
4.2489	22	FP-5187316	Gasket, Oil Filter By-pass Valve Plug	-	1	1	1
4.2489	22	FP-5575086	Gasket, Oil Filter By-pass Valve Plug	-	1	1	1
4.3045	0	FP-5181415	Clip, Oil Filter Line (1 1/8" Tube, 7/16 Bolt)	1	1	1	1
4.4212	0	FP-5167762	Gasket, Oil Cooler Water Inlet	-	-	1	1
4.4212	0	FP-5163760	Gasket, Oil Cooler Water Inlet (5.5390)	-	-	-	1
4.4320	17	FP-8924517	Plug, 3/8" Pipe	-	2	2	2
4.4320	18	FP-5115214	Plug, 1/2" Square Socket Head Pipe	-	1	1	1



Oil Cooler

(Figure 13.1)





Oil Cooler

(Figure 13.1)

Groups:

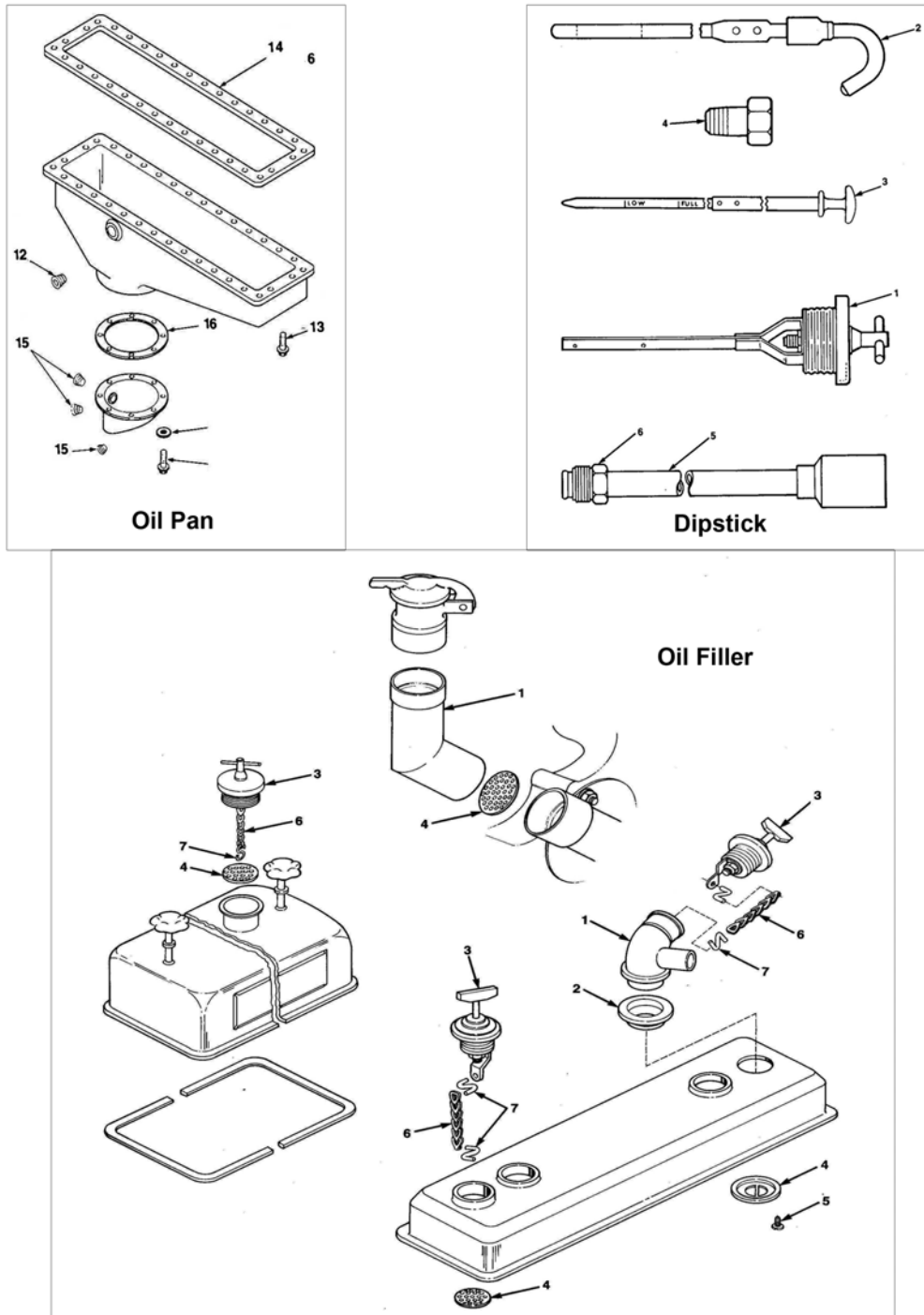
4.4001 - 4.4211

Group	Ref	Part No.	Description	2l	3l	4l	6l
4.4001	1	FP-8547563	Core Assembly, Oil Cooler-Engine (8 Plate)	-	1	1	1
4.4001	1	FP-8547581	Core Assembly, Oil Cooler-Engine (13 Plate)	-	1	1	1
4.4001	1	FP-8547548	Core Assembly, Oil Cooler-Engine (6 Plate)	-	1	-	-
4.4001	1	FP-8547236	Core Assembly, Oil Cooler-Engine (13 Plate)	-	-	1	1
4.4001	1	FP-8547551	Core Assembly, Oil Cooler-Engine (8 Plate)	-	-	1	-
4.4030	2	FP-5154214	Gasket, Oil Cooler Core Inner (H E Cooling)	1	-	-	-
4.4030	2	FP-5165803	Gasket, Oil Cooler Core Inner (Diameter Cooling)	1	-	-	-
4.4030	2	FP-5150155	Gasket, Oil Cooler Core Inner	-	1	1	1
4.4030	2	FP-8926782	Gasket, Oil Cooler Core Inner	-	1	1	1
4.4040	3	FP-5154208	Gasket, Oil Cooler Core Outer (H E Cooling)	1	-	-	-
4.4040	3	FP-5165801	Gasket, Oil Cooler Core Outer (Diameter Cooling)	1	-	-	-
4.4040	3	FP-23501589	Gasket, Oil Cooler Core Outer	-	1	1	1
4.4040	3	FP-5102506	Gasket, Oil Cooler Core Outer	-	1	1	1
4.4040	3	FP-8923223	Gasket, Oil Cooler Core Outer	-	1	1	1
4.4050	0	FP-5150052	Gasket, Oil Cooler Housing	1	1	1	1
4.4050	6	FP-103320	Lockwasher, 5/16"	-	2	2	4
4.4050	0	FP-5155596	Washer, 5/16" Copper	-	2	2	4
4.4050	0	FP-5121182	Plug, 1/4" Pipe (2.4015)	-	1	1	1
4.4055	0	FP-5154213	Gasket, Oil Cooler Housing To Block	1	-	-	-
4.4060	0	FP-5155596	Washer, 5/16" Copper	-	8	8	16
4.4060	0	FP-8924517	Plug, 3/8" Pipe	-	2	2	8
4.4060	0	FP-5121182	Plug, 1/4" Pipe (2.4015)	-	1	1	1
4.4060	0	FP-8923847	Plug, 1/4" Pipe (1.2001)	-	1	1	1
4.4090	0	FP-5112401	Gasket, Oil Cooler Housing Pad Cover (4.4200)	-	1	1	-
4.4090	21	FP-5153902	Gasket, Oil Cooler Housing Pad Cover (4.1520)	-	1	1	1
4.4090	0	FP-5151190	Gasket, Oil Cooler Housing Pad Cover	-	1	-	-
4.4100	9	FP-103321	Lockwasher, 3/8"	-	1	1	1
4.4110	0	FP-5152148	Washer, 3/8" Copper	-	1	1	1
4.4115	0	FP-5112401	Gasket, Oil Cooler Adapter To Block (4.4200)	-	2	2	2
4.4115	10	FP-5150154	Gasket, Oil Cooler Adapter To Block	-	2	2	2
4.4115	0	FP-5159430	Gasket, Oil Cooler Adapter To Block (4.4180)	-	1	1	1
4.4115	11	FP-5175882	Gasket, Oil Cooler Adapter To Block (Spacer)	-	1	1	1
4.4140	13	FP-5133431	Valve, Oil Cooler By-pass (Oil Filter Relief)	-	1	1	1
4.4140	13	FP-5177777	Valve, Oil Cooler By-pass	-	1	1	1
4.4140	14	FP-5177778	Spring, Oil Cooler By-pass Valve (4.1260)	-	1	1	1
4.4170	0	FP-105456	Gasket, Oil Cooler By-Pass Valve Plug	1	1	1	1
4.4170	12	FP-5156768	Gasket, Oil Cooler By-pass Plug	-	1	1	1
4.4170	12	FP-5575086	Gasket, Oil Cooler By-pass Plug (4.2489)	-	1	1	1
4.4180	0	FP-5153945	Gasket, Oil Cooler By-Pass Tube	1	-	-	-
4.4180	0	FP-5159430	Gasket, Oil Cooler By-pass Tube	-	1	1	1
4.4200	0	FP-5159447	Gasket, Oil Cooler Inlet & Outlet Tube	-	1	1	1
4.4211	0	FP-8927581	Bolt, 3/8" - 16 x 1"	-	4	4	4
4.4211	0	FP-5115214	Plug, 1/2" Pipe	-	1	1	1
4.4211	0	FP-8923313	Plug, 3/4" Pipe	-	1	1	1



Oil filler, Dipstick & Pan

(Figure 13.2)





Oil filler, Dipstick & Pan

(Figure 13.2)

Groups:

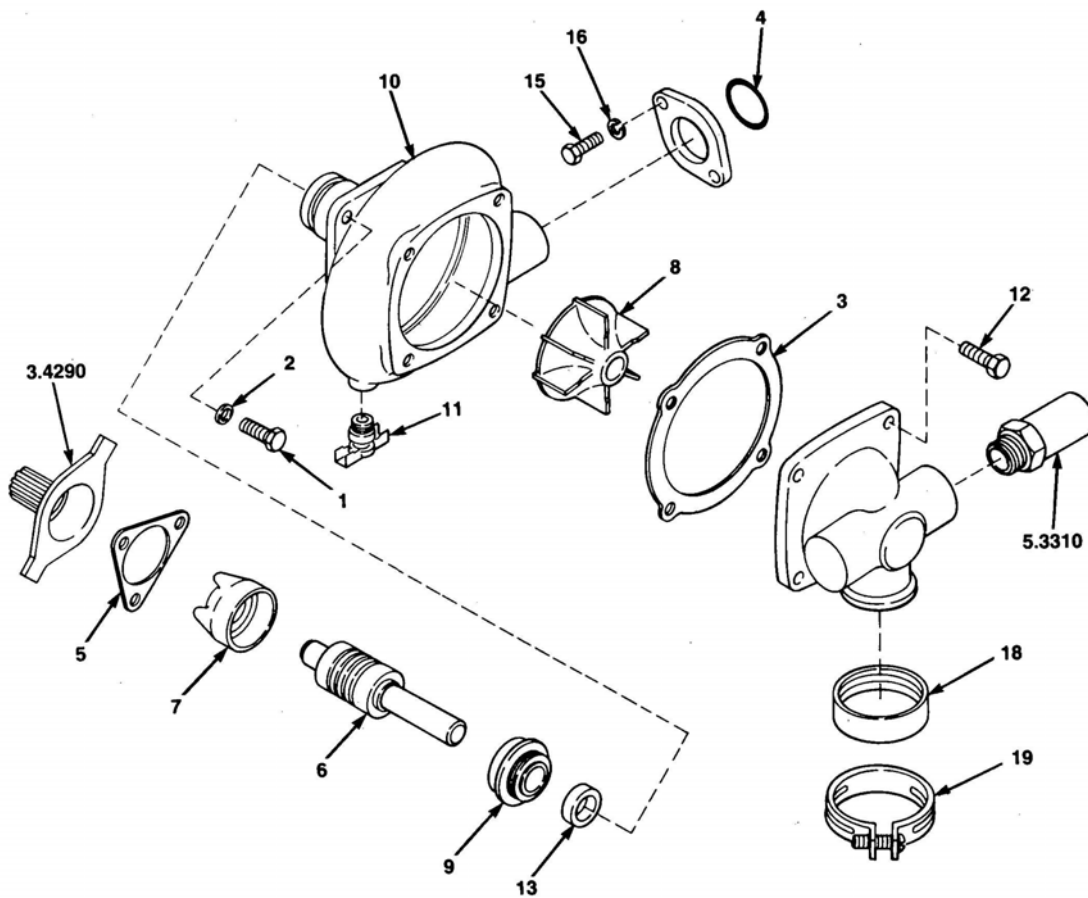
4.5001 - 4.8250

Group	Ref	Part No.	Description	2l	3l	4l	6l
4.5001	9	FP-5145087	Tube, Oil Filler	1	1	1	1
4.5001	10	FP-5150147	Strainer, Oil Filler Tube	1	1	1	1
4.5001	0	FP-5103534	Bolt, 5/16" - 24 x 1/2"	-	1	1	1
4.5001	8	FP-5117362	Cap, Oil Filler (2" Diameter), (Thermos Bottle Type)	-	1	1	1
4.5001	0	FP-5155596	Washer, 5/16" Flat	-	1	1	1
4.5005	0	FP-8923847	Plug, 1/4" Pipe	1	1	1	1
4.5005	0	FP-103321	Lockwasher, 3/8"	-	2	2	2
4.5007	0	FP-5173482	Gasket, Oil Filler Tube Adapter	-	-	1	1
4.5020	5	FP-5103642	Screw, #10 - 24 x 3.75" Lock (4.8055)	-	3	3	3
4.5050	0	FP-5117636	Gasket, Oil Filler Tube (4.8020)	-	1	1	1
Oil Dipstick							
4.6001	3	FP-5101884	Dipstick, Oil (24 Y 1.38)	1	1	1	1
4.6001	3	FP-5108895	Dipstick, Oil (X 26.32 Y 1.46)	1	1	1	1
4.6001	3	FP-5115162	Dipstick, Oil 18.88" Long	1	1	1	1
4.6001	1	FP-5146679	Dipstick, Oil 61" Long	1	1	1	1
4.6001	2	FP-5146680	Dipstick, Oil 72" Long	1	1	1	1
4.6001	3	FP-5147080	Dipstick, Oil (x 44.25"), (Unmarked)	1	1	1	1
4.6010	0	FP-5150475	Gasket, Dipstick	1	1	1	1
4.6020	4	FP-5151430	Guide, Dipstick (1 1/2" L)	-	1	1	1
Oil Pan							
4.7001	13	FP-5148436	Bolt, 5/16" - 18 x 3/4" (w/Lock Washer)	20	22	26	34
4.7001	12	FP-5115214	Plug, Oil Pan 1/2" Pipe	1	1	1	1
4.7001	12	FP-5121182	Plug, Oil Pan 1/4" Pipe	1	1	1	1
4.7001	12	FP-5142549	Plug, Oil Pan 3/4" Pipe	1	1	1	1
4.7001	13	FP-8923313	Plug, Oil Pan 3/4" Pipe	1	1	1	1
4.7010	0	FP-103320	Lockwasher, 5/16"	20	22	26	34
4.7030	14	FP-5154198	Gasket, Oil Pan To Block (Stamped Pan)	1	-	-	-
4.7030	14	FP-5150115	Gasket, Oil Pan To Block	-	1	-	-
4.7030	14	FP-5150116	Gasket, Oil Pan To Block	-	-	1	-
4.7030	14	FP-5150117	Gasket, Oil Pan To Block	-	-	-	1
4.7040	0	FP-5153256	Gasket, Lower Oil Pan	-	-	1	1
4.7080	15	FP-5115214	Plug, Oil Pan Drain 1/2" Pipe	1	1	1	1
4.7080	15	FP-5121182	Plug, Oil Pan Drain 1/4" Pipe	1	1	1	1
4.7080	15	FP-5142549	Plug, Oil Pan Drain 3/4" Pipe	1	1	1	1
4.7080	15	FP-8924517	Plug, Oil Pan Drain 3/8" Pipe	1	1	1	1
4.7090	0	FP-840277	Gasket, Oil Pan Drain Plug (18 MM., Nylon)	1	1	1	1
4.7100	15	FP-8924517	Plug, Oil Pan 3/8" Pipe	1	1	1	1
4.7101	0	FP-5181415	Clip, Oil Pan Drain Tube (1 1/8" Tube, 7/16" Bolt)	1	1	1	1
4.7130	0	FP-5153788	Gasket, Oil Pan Cover	-	1	1	1
4.7130	0	FP-5120540	Gasket, Oil Pan Cover	-	-	1	-
4.7140	15	FP-5115214	Plug, Oil Pan Sump 1/2" Pipe	-	-	2	2
4.7150	19	FP-5153986	Gasket, Oil Pan Sump	-	-	1	1
4.8020	0	FP-5150900	Gasket, Oil Breather Tube	1	1	1	1
4.8250	0	FP-10019739	Clamp, Vent Collector (Snap Type)	1	1	1	1



Fresh Water Pump

(Figure 14.1)





Fresh Water Pump

(Figure 14.1)

Groups:

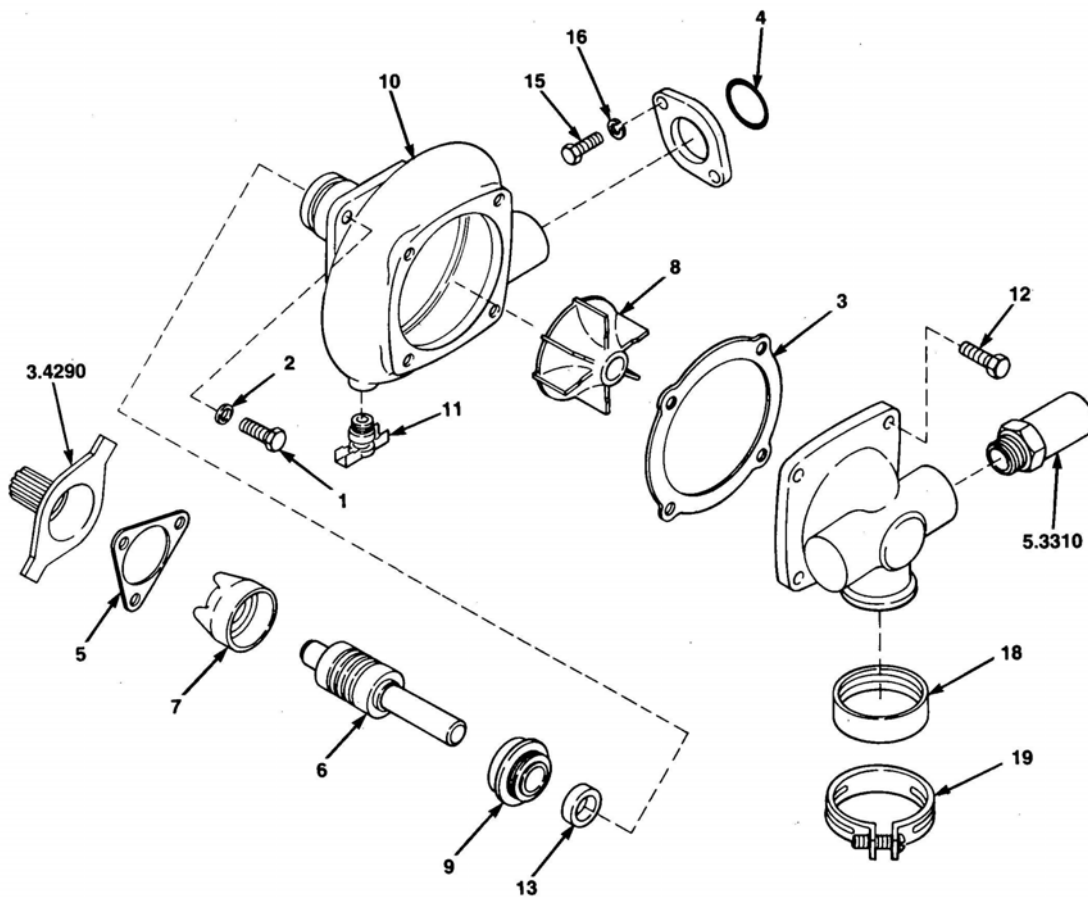
5.1001 - 5.1002

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.1001	0	FP-23506704	Pump Assembly, Fresh Water (L.H.. Hi-Capacity)	-	1	1	1
5.1001	0	FP-23506711	Pump Assembly, Fresh Water (R.H.. Hi-Capacity)	-	1	1	1
5.1001	0	FP-23506723	Pump Assembly, Fresh Water (L.H..)	-	1	1	1
5.1001	0	FP-23506735	Pump Assembly, Fresh Water (R.H..)	-	1	1	1
5.1002	0	FP-23506851	Kit, Fresh Water Pump Reconditioning (Std.), (Old No. FP-5149985)	-	1	1	1
5.1002	3	FP-5150188	Gasket, Fresh Water Pump Body Cover (5.1032)	-	1	1	1
5.1002	4	FP-5150191	Packing, Fresh Water Pump Outlet (5.1220)	-	1	1	1
5.1002	5	FP-5150193	Gasket, Fresh Water Pump (Pump To Engine)	-	1	1	1
5.1002	6	FP-908337	Shaft & Bearing Assembly, Fresh Water Pump (5.1050)	-	1	1	1
5.1002	7	FP-5114011	Thrower, Fresh Water Pump (5.1210)	-	1	1	1
5.1002	0	FP-23505997	Impeller Assembly, Fresh Water Pump (5.1110)	-	1	1	1
5.1002	9	FP-23506248	Seal, Fresh Water Pump (5.1130)	-	1	1	1
5.1002	0	FP-23506870	Kit, Fresh Water Pump Reconditioning (Hi-Capacity)	-	1	1	1
5.1002	3	FP-5178273	Gasket, Fresh Water Pump (Hi-Capacity), (5.1236)	-	1	1	1
5.1002	4	FP-5150191	Packing, Fresh Water Pump Outlet (5.1220)	-	1	1	1
5.1002	5	FP-5150193	Gasket, Fresh Water Pump (Pump To Engine), (5.1010)	-	1	1	1
5.1002	6	FP-908337	Shaft & Bearing Assembly, Fresh Water Pump (5.1050)	-	1	1	1
5.1002	7	FP-5114011	Thrower, Fresh Water Pump (5.1210)	-	1	1	1
5.1002	8	FP-23505998	Impeller Assembly, Fresh Water Pump (5.1110)	-	1	1	1
5.1002	9	FP-23506248	Seal, Fresh Water Pump (5.1130)	-	1	1	1
5.1002	0	FP-5149918	Kit, Fresh Water Pump Seals & Bearing	-	1	1	1
5.1002	3	FP-5178273	Gasket, Fresh Water Pump (Hi-Capacity), (5.1236)	-	1	1	1
5.1002	3	FP-5150188	Gasket, Fresh Water Pump Body Cover (5.1032)	-	1	1	1
5.1002	4	FP-5150191	Packing, Fresh Water Pump Outlet (5.1220)	-	1	1	1
5.1002	5	FP-5150193	Gasket, Fresh Water Pump (Pump To Engine), (5.1010)	-	1	1	1
5.1002	6	FP-908337	Shaft & Bearing Assembly, Fresh Water Pump (5.1050)	-	1	1	1
5.1002	0	FP-5117342	Ceramic Insert, Fresh Water Pump (5.1115)	-	1	1	1
5.1002	0	FP-5197310	Washer, Adhesive Ceramic Insert Fresh Water Pump (5.1115)	-	2	2	2
5.1002	9	FP-23506248	Seal, Fresh Water Pump (5.1130)	-	1	1	1
5.1002	0	FP-5196935	Kit, Fresh Water Pump Reconditioning	1	-	-	-
5.1002	0	FP-23503819	Bearing, Fresh Water Pump (5.4332)	2	-	-	-
5.1002	0	FP-2082031	Ring, Fresh Water Pump Bearing (5.1070)	2	-	-	-
5.1002	0	FP-2104593	Ring, Fresh Water Pump Bearing (5.1070)	1	-	-	-
5.1002	0	FP-5151227	Spacer, Fresh Water Pump Bearing (5.1060)	1	-	-	-
5.1002	0	FP-5170626	Impeller Assembly, Fresh Water Pump (5.1110)	1	-	-	-
5.1002	0	FP-5151226	Shaft, Fresh Water Pump (5.1080)	1	-	-	-
5.1002	0	FP-2082032	Slinger, Fresh Water Pump Shaft (5.1090)	1	-	-	-
5.1002	0	FP-23505397	Nut, 9/16" - 1" Hex	1	-	-	-
5.1002	0	FP-5178319	Insert, Seal (5.1035)	1	-	-	-
5.1002	0	FP-5166130	Gasket, Fresh Water Pump Body Cover (5.1032)	1	-	-	-



Fresh Water Pump

(Figure 14.2)





Fresh Water Pump

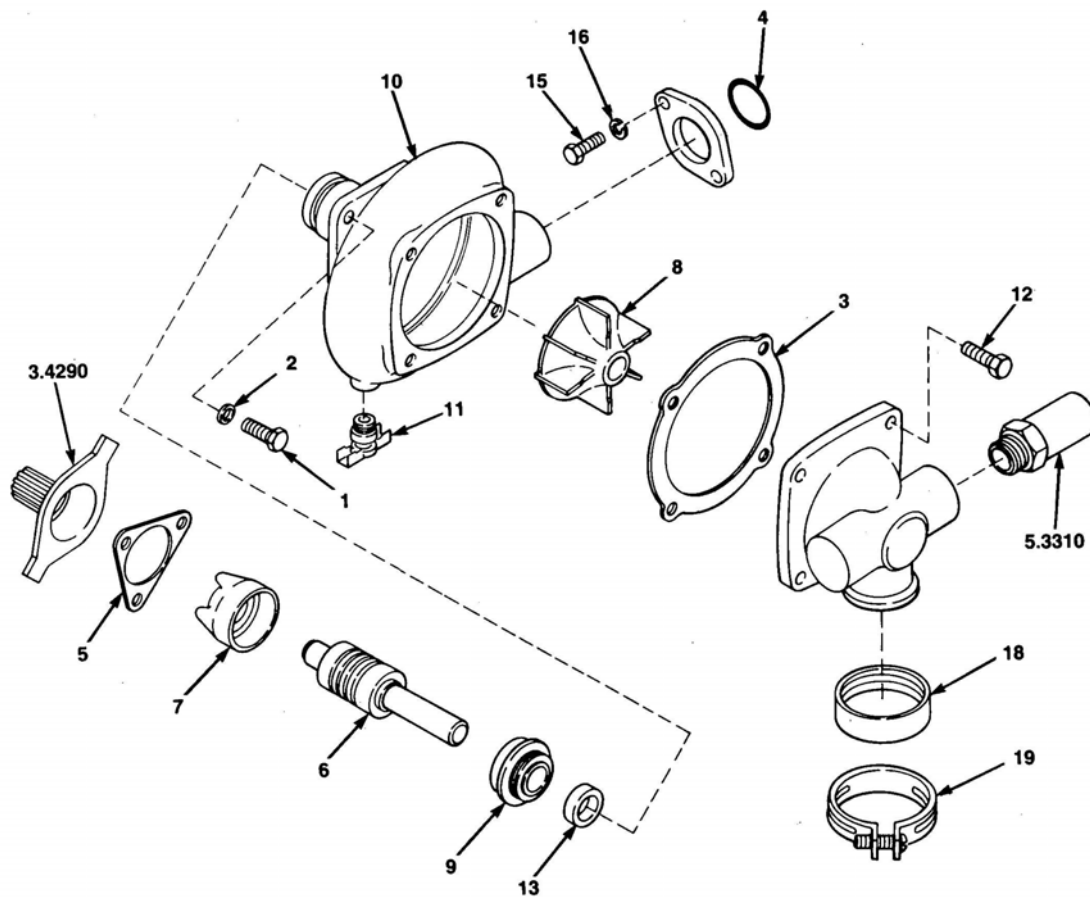
(Figure 14.2)

Groups:

5.1002 - 5.1110

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.1010	0	FP-5153898	Gasket, Fresh Water Pump (Tank Cooling)	1	-	-	-
5.1030	10	FP-8920915	Body, Fresh Water Pump (FP-23506704)	-	1	1	1
5.1030	10	FP-8920916	Body, Fresh Water Pump (FP-23506711)	-	1	1	1
5.1030	10	FP-8920924	Body, Fresh Water Pump (FP-23506723)	-	1	1	1
5.1030	10	FP-8920925	Body, Fresh Water Pump (FP-23506735)	-	1	1	1
5.1031	0	FP-5179709	Lockwasher, 5/16"	6	-	-	-
5.1032	0	FP-5166130	Gasket, Fresh Water Pump Body Cover	6	-	-	-
5.1040	12	FP-8921930	Bolt, Fresh Water Pump Body (1/4" -20 x 3/4")	-	4	4	4
5.1110	0	FP-5118468	Pin, 3/16" x 7/8" Groove	-	1	1	1
5.1002	0	FP-23506851	Ceramic Seal Kit, Fresh Water Pump Reconditioning (Std.)	-	1	1	1
5.1002	3	FP-5150188	Gasket, Fresh Water Pump Body Cover (5.1032)	-	1	1	1
5.1002	4	FP-5150191	Packing, Fresh Water Pump Outlet (5.1220)	-	1	1	1
5.1002	5	FP-5150193	Gasket, Fresh Water Pump Mounting (5.1010)	-	1	1	1
5.1002	6	FP-908337	Shaft & Bearing Assembly, Fresh Water Pump (5.1050)	-	1	1	1
5.1002	7	FP-5114011	Thrower, Fresh Water Pump (5.1210)	-	1	1	1
5.1002	7	FP-23505997	Impeller Assembly, Fresh Water Pump (5.1110)	-	1	1	1
5.1002	9	FP-23506248	Seal, Fresh Water Pump (5.1130)	-	1	1	1
5.1002	0	FP-23506858	Kit, Fresh Water Pump Seals & Bearing	-	1	1	1
5.1002	3	FP-5150188	Gasket, Fresh Water Pump Body Cover (5.1032)	-	1	1	1
5.1002	4	FP-5150191	Packing, Fresh Water Pump Outlet (5.1220)	-	1	1	1
5.1002	5	FP-5150193	Gasket, Fresh Water Pump Mounting (5.1010)	-	1	1	1
5.1002	6	FP-908337	Shaft & Bearing Assembly, Fresh Water Pump (5.1050)	-	1	1	1
5.1002	9	FP-23506248	Seal, Fresh Water Pump (5.1130)	-	1	1	1
5.1002	3	FP-5178273	Gasket, Fresh Water Pump (Hi-Capacity), (5.1236)	-	1	1	1
5.1002	0	FP-23506870	Kit, Fresh Water Pump Reconditioning (Hi-Cap)	-	1	1	1
5.1002	4	FP-5150191	Packing, Fresh Water Pump Outlet (5.1220)	-	1	1	1
5.1002	5	FP-5150193	Gasket, Fresh Water Pump Mounting (5.1010)	-	1	1	1
5.1002	3	FP-5178273	Gasket, Fresh Water Pump (Pump To Engine)	-	1	1	1
5.1002	6	FP-908337	Shaft & Bearing Assembly, Fresh Water Pump (5.1050)	-	1	1	1
5.1002	7	FP-5114011	Thrower, Fresh Water Pump (5.1210)	-	1	1	1
5.1002	8	FP-23505998	Impeller Assembly, Fresh Water Pump (5.1110)	-	1	1	1
5.1002	9	FP-23506248	Seal, Fresh Water Pump (5.1130)	-	1	1	1
5.1002	0	FP-5198307	Kit, Fresh Water Pump Reconditioning (Std.)	-	1	1	1
5.1002	3	FP-5150188	Gasket, Fresh Water Pump Body Cover (5.1032)	-	1	1	1
5.1002	4	FP-5150191	Packing, Fresh Water Pump Outlet (5.1220)	-	1	1	1
5.1002	5	FP-5150193	Gasket, Fresh Water Pump Mounting (5.1010)	-	1	1	1
5.1002	6	FP-5136671	Shaft & Bearing Assembly, Fresh Water Pump (5.1050)	-	1	1	1
5.1002	7	FP-5114011	Thrower, Fresh Water Pump (5.1210)	-	1	1	1
5.1002	8	FP-5126911	Impeller, Fresh Water Pump (5.1110)	-	1	1	1
5.1002	0	FP-5186571	Seal & Spring, Fresh Water Pump	-	1	1	1
5.1002	0	FP-5186572	Insert, Fresh Water Pump Body (5.1035)	-	1	1	1

(Figure 14.3)





Fresh Water Pump

(Figure 14.3)

Groups:

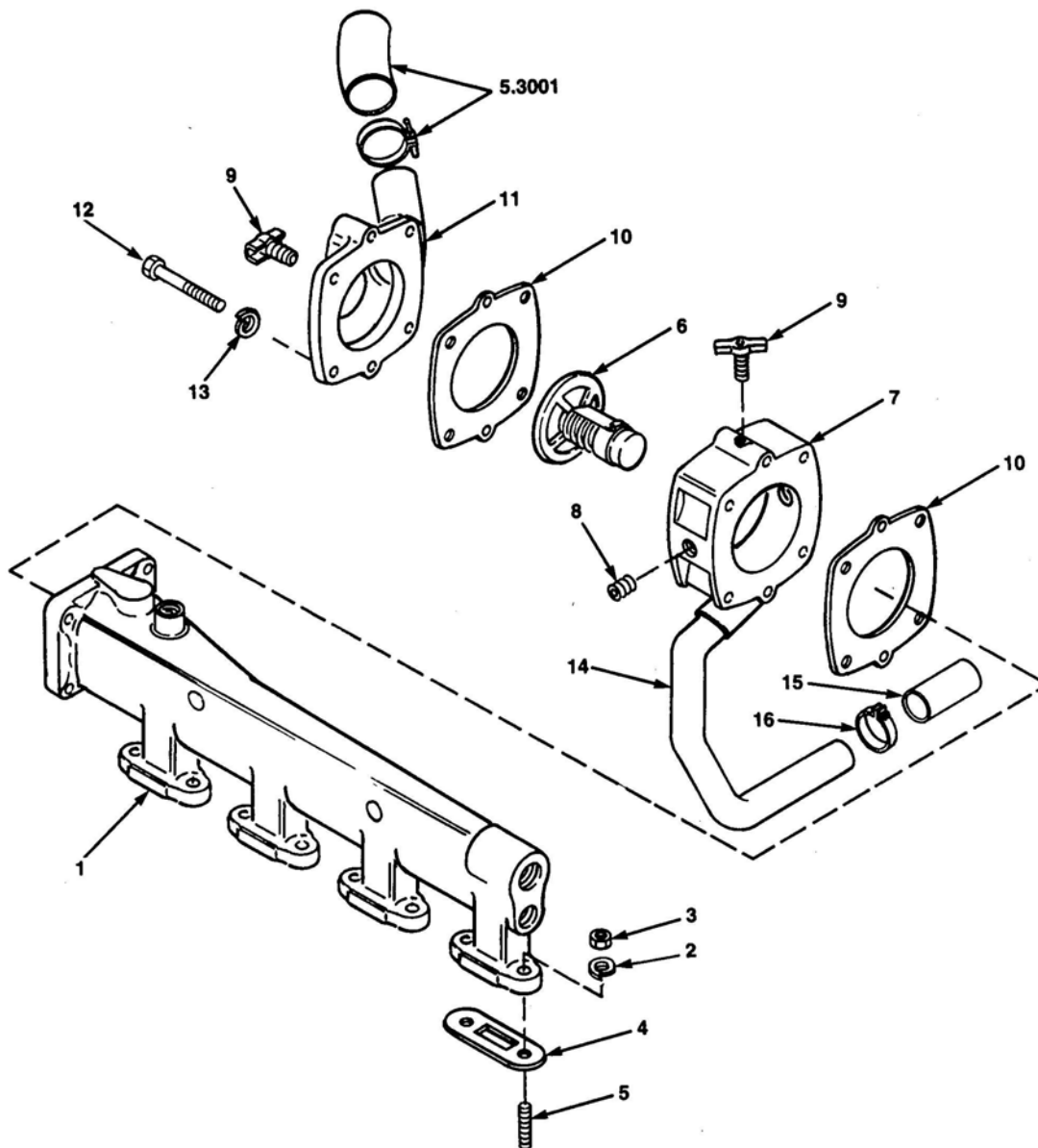
5.1001 - 5.2165

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.1001	2	FP-5155596	Washer, 5/16" Water Pump Mounting	-	3	3	3
5.1070	0	FP-2082031	Ring, Fresh Water Pump Bearing Shoulder	1	1	1	1
5.1070	0	FP-2104593	Snap Ring, Fresh Water Pump Bearing	1	1	1	1
5.1070	0	FP-23503819	Bearing, Fresh Water Pump (Single Row Ball Bearing)	1	1	1	1
5.1090	0	FP-2082032	Slinger, Fresh Water Pump Shaft	1	-	-	-
5.1090	0	FP-5189041	Slinger, Fresh Water Pump Shaft	-	1	1	1
5.1115	0	FP-5193605	Fresh Water Pump Seal Seat Replacement Kit	-	1	1	1
5.1130	0	FP-1307479	Seal, Fresh Water Pump	1	-	-	-
5.1130	0	FP-5186571	Seal Assy, Fresh Water Pump (Includes FP-5186570 Spring)	-	1	1	1
5.1140	0	FP-1307480	Spring, Fresh Water Pump	1	-	-	-
5.1140	0	FP-5186570	Spring, Fresh Water Pump Seal	-	1	1	1
5.1150	0	FP-1307481	Guide, Fresh Water Pump Seal Spring	1	-	-	-
5.1160	0	FP-2007105	Ring, Fresh Water Pump Seal Retaining	1	-	-	-
5.1175	0	FP-1307368	Retainer, Fresh Water Pump Seal	1	-	-	-
5.1180	0	FP-5155555	Washer, Fresh Water Pump Seal	1	-	-	-
5.1220	0	FP-23508431	Seal Ring, Fresh Water Pump (1.475" I.D. x .21")	-	1	1	1
5.1235	0	FP-8925325	Bushing Pipe, Water Pump Cover (3/8" PTF - 1/4" Zinc)	AR	AR	AR	AR
5.1235	0	FP-5142549	Plug, 3/4" Pipe	-	1	1	1
5.1235	0	FP-8924517	Plug, 3/8" Pipe	-	1	1	1
5.1235	0	FP-5121182	Plug, 1/4" Pipe	-	-	-	1
5.1236	3	FP-5153902	Gasket, Water Pump Cover	-	-	-	1
5.1240	18	FP-5153560	Seal, Water Pump Inlet (2 3/16" O.D.)	-	1	1	1
5.1240	18	FP-5159457	Seal, Water Pump Inlet (2 1/2" O.D.)	-	1	1	-
5.1240	18	FP-5156770	Seal, Water Pump Inlet (2 3/4" O.D.)	-	-	1	1
5.1250	19	FP-5188036	Clamp, Water Pump Inlet Seal (2 3/4" Diameter Hose)	-	-	1	2
5.1270	0	FP-5186840	Clamp, Water By-pass Tube Connecting Hose	-	2	2	2
5.2165	0	FP-23512684R1	Water Pump Gasket Kit	-	-	-	1
5.1115	0	FP-5197279	Replacement Kit, Water Pump Ceramic Seal	-	1	1	1
5.1115	0	FP-5197310	Adhesive Washer, Fresh Water Pump Ceramic Insert	-	2	2	2
5.1115	13	FP-5117342	Ceramic Insert, Fresh Water Pump	-	1	1	1



Thermostat

(Figure 15.1)





Thermostat

(Figure 15.1)

Groups:

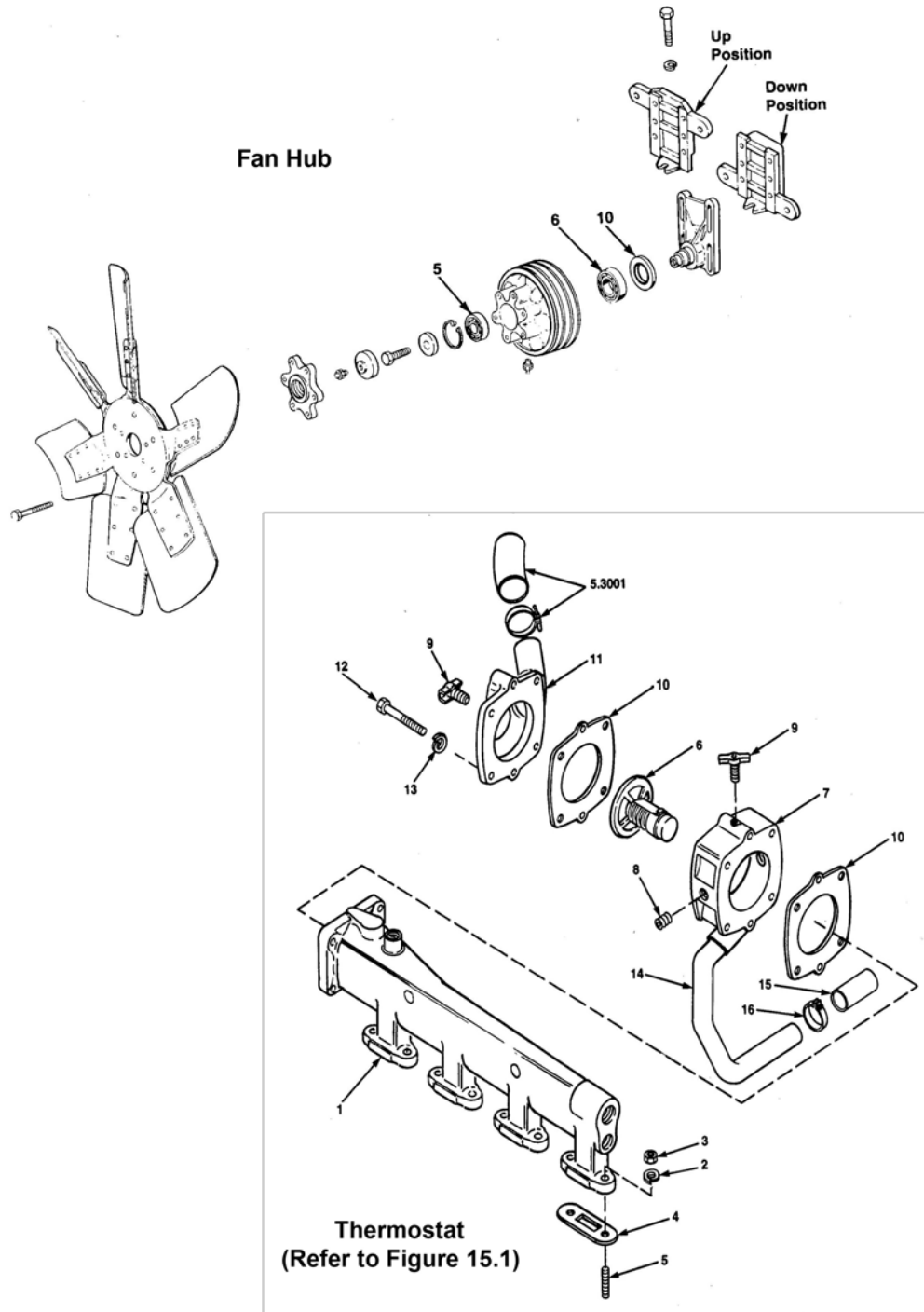
5.2001 - 5.2161

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.2001	2	FP-103321	Lockwasher, 3/8"	-	6	8	12
5.2001	0	FP-5115214	Plug, 1/2" Pipe	-	1	1	1
5.2001	0	FP-5142549	Plug, 3/4" Pipe	-	1	1	1
5.2020	5	FP-8927270	Stud, Water Outlet Manifold (3/8" - 16/24 x 1 11/16")	-	6	8	12
5.2030	0	FP-103320	Lockwasher, 5/16"	-	2	2	2
5.2030	0	FP-5121182	Plug, 1/4" Pipe	-	1	1	1
5.2037	0	FP-5169478	Gasket, Water Outlet Manifold Elbow	-	-	-	1
5.2043	0	FP-5156770	Seal, Water Outlet Manifold	-	1	1	1
5.2043	0	FP-5188036	Clamp, Water Outlet Manifold (2 9/16" - 3 1/2")	-	1	1	1
5.2043	0	FP-9139809	Clamp, Water Outlet Manifold (3")	-	1	1	1
5.2050	6	FP-5149423	Thermostat Assy (180° - 197°)	1	1	1	2
5.2050	6	FP-3041379	Thermostat Assembly (170°), (Vent Hole)	1	1	-	-
5.2050	6	FP-23503826	Thermostat Assembly (170°)	-	1	1	2
5.2050	6	FP-23503827	Thermostat Assembly (160°)	-	1	1	2
5.2050	6	FP-5172141	Thermostat Assembly (170°), (Ford Applications)	-	1	1	2
5.2050	6	FP-5184475	Thermostat Assembly (173°), (Ford Applications)	-	-	1	1
5.2050	6	FP-5186383	Thermostat Assembly (173°), (Vented)	-	-	1	-
5.2050	6	FP-23503828	Thermostat Assembly (165°), (Weir Type)	-	-	-	2
5.2050	6	FP-5104238	Thermostat Assembly (173°), (Choke & Shield)	-	-	-	1
5.2050	6	FP-5133357	Thermostat Assy (180°)	-	-	-	2
5.2060	0	FP-5132155	Seal, Thermostat	1	1	1	2
5.2090	8	FP-8924517	Plug, 3/8" Pipe	1	-	-	-
5.2090	8	FP-5115214	Plug, 1/2" Pipe	-	1	1	1
5.2090	8	FP-5121182	Plug, 1/4" Pipe	-	1	1	1
5.2090	8	FP-5142549	Plug, 3/4" Pipe	-	1	1	1
5.2090	8	FP-8924380	Plug, 1/8" Pipe	-	1	1	1
5.2092	0	FP-103320	Lockwasher, 5/16"	-	-	4	4
5.2092	0	FP-103321	Lockwasher, 3/8"	-	-	4	4
5.2092	0	FP-8927581	Bolt, 3/8" - 16 x 1"	-	-	4	4
5.2092	0	FP-5159457	Seal, Thermostat Housing Outlet Elbow	-	-	1	1
5.2093	0	FP-9139809	Clamp, Water Outlet Manifold (3")	-	-	1	1
5.2110	10	FP-5154271	Gasket, Thermostat Housing	1	-	-	-
5.2110	10	FP-5167761	Gasket, Thermostat Housing (At Expansion Tank)	-	1	1	1
5.2110	10	FP-5169478	Gasket, Thermostat Housing	-	-	1	1
5.2120	0	FP-5121182	Plug, 1/4" Pipe	-	1	1	1
5.2120	0	FP-5142549	Plug, 3/4" Pipe	-	1	1	1
5.2130	10	FP-5135935	Gasket, Thermostat Housing Cover	-	1	1	-
5.2130	10	FP-5175989	Gasket, Thermostat Housing Cover	-	-	-	1
5.2130	10	FP-8922593	Gasket, Thermostat Housing Cover	-	-	-	1
5.2160	6	FP-5149422	Thermostat Assy (170°)	1	1	1	2
5.2160	0	FP-8924517	Plug, 3/8" Pipe	-	2	2	2
5.2161	0	FP-5186840	Clamp, Hose (13/16" x 1 1/2")	2	2	2	2



Thermostat & Fan Hub

(Figure 15.2)





Thermostat & Fan Hub

(Figure 15.2)

Groups:

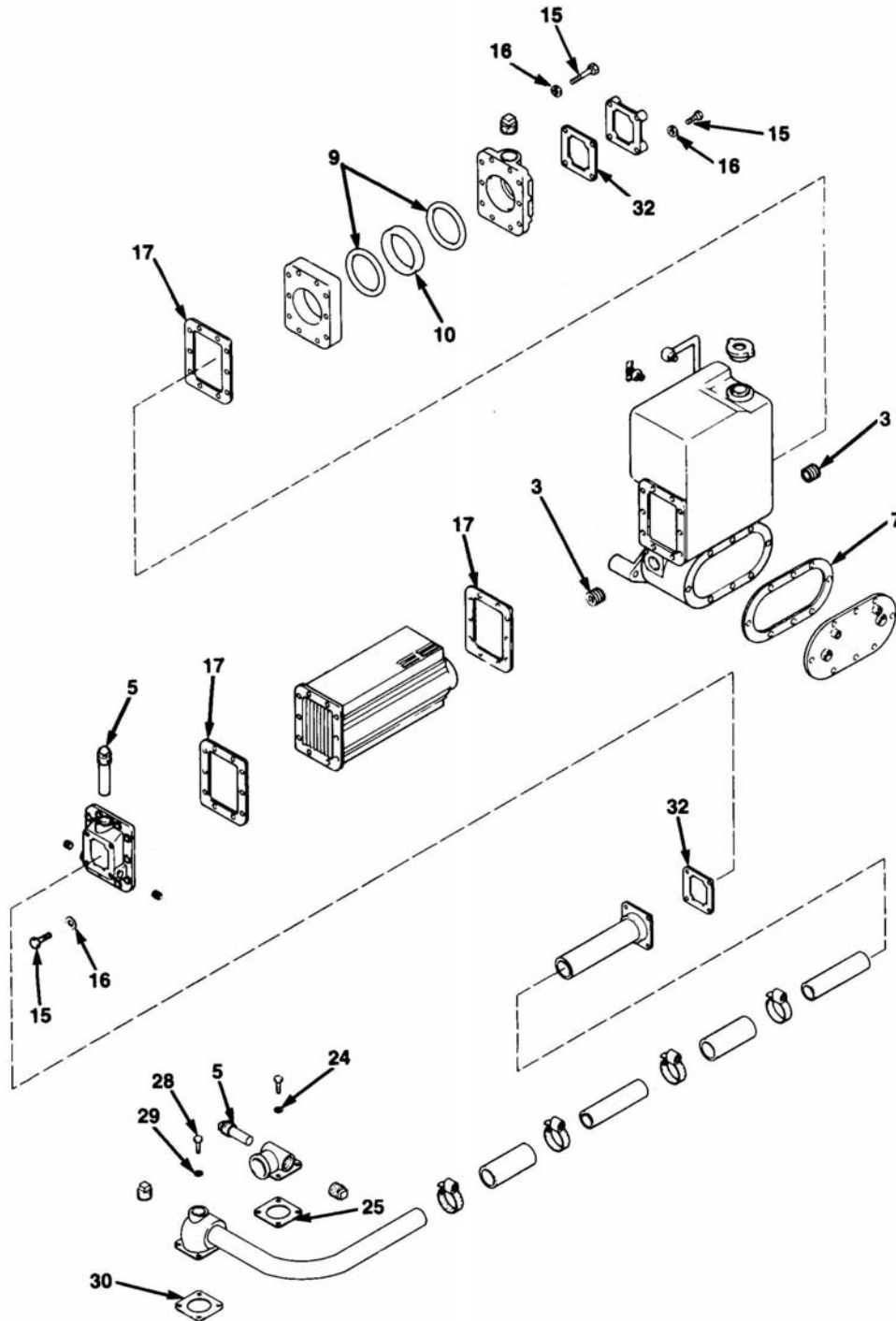
5.2163 - 5.4341

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.2163	0	FP-5156319	Gasket, Water By-pass Tube To Exhaust Manifold	2	2	2	2
5.2165	0	FP-5186840	Clamp, Hose (13/16" x 1 1/2")	-	2	2	2
5.2170	10	FP-5169478	Gasket, Thermostat Housing (Upper)	-	2	2	2
5.2180	0	FP-5151190	Gasket, Water By-pass Tube (Lower), (To Cooler Housing)	-	1	1	1
5.2180	0	FP-5153902	Gasket, Water By-pass Tube (Lower)	-	1	1	1
5.2210	0	FP-5121182	Plug, 1/4" Pipe	-	-	1	1
5.2215	0	FP-5169478	Gasket, Water By-pass Tube Elbow	-	2	2	2
5.2240	0	FP-8924517	Plug, 3/8" Pipe	-	-	2	1
Fan Hub							
5.4025	0	FP-103320	Lockwasher, 3/8"	-	3	3	3
5.4025	0	FP-8927581	Bolt, 3/8" - 16 x 1"	-	3	3	3
5.4025	0	FP-454992	Bolt, 1/2" - 13 x 2 1/2"	-	1	1	1
5.4025	0	FP-103026	Nut, 3/8" - 24 Hex	-	-	-	2
5.4025	0	FP-5131978	Spacer, Fan Mounting Support	-	-	-	1
5.4110	5	FP-23503535	Bearing, Fan Shaft (Outer)	-	1	1	1
5.4110	6	FP-23503821	Bearing, Fan Shaft (Inner)	-	1	1	1
5.4110	6	FP-903205	Bearing, Fan Shaft (Inner)	-	1	1	1
5.4110	6	FP-9415132	Bearing, Fan Shaft (Inner)	-	1	1	1
5.4110	5	FP-7450630	Bearing, Fan Shaft (Outer)	-	-	1	1
5.4150	10	FP-5103951	Seal, Fan Shaft	-	1	1	1
5.4150	10	FP-5108219	Seal, Fan Shaft (Felt)	-	1	1	1
5.4150	10	FP-5100408	Seal, Fan Shaft (Rubber Lip)	-	-	1	1
5.4170	0	FP-5131122	Spacer, Fan Shaft Bearing	-	1	1	1
5.4235	0	FP-8924380	Plug, 1/8" - 27 Pipe	-	1	1	1
5.4341	0	FP-908337	Shaft Assembly, Fan Belt Idler Pulley	1	-	-	-



Heat Exchanger

(Figure 16.1)





Heat Exchanger

(Figure 16.1)

Groups:

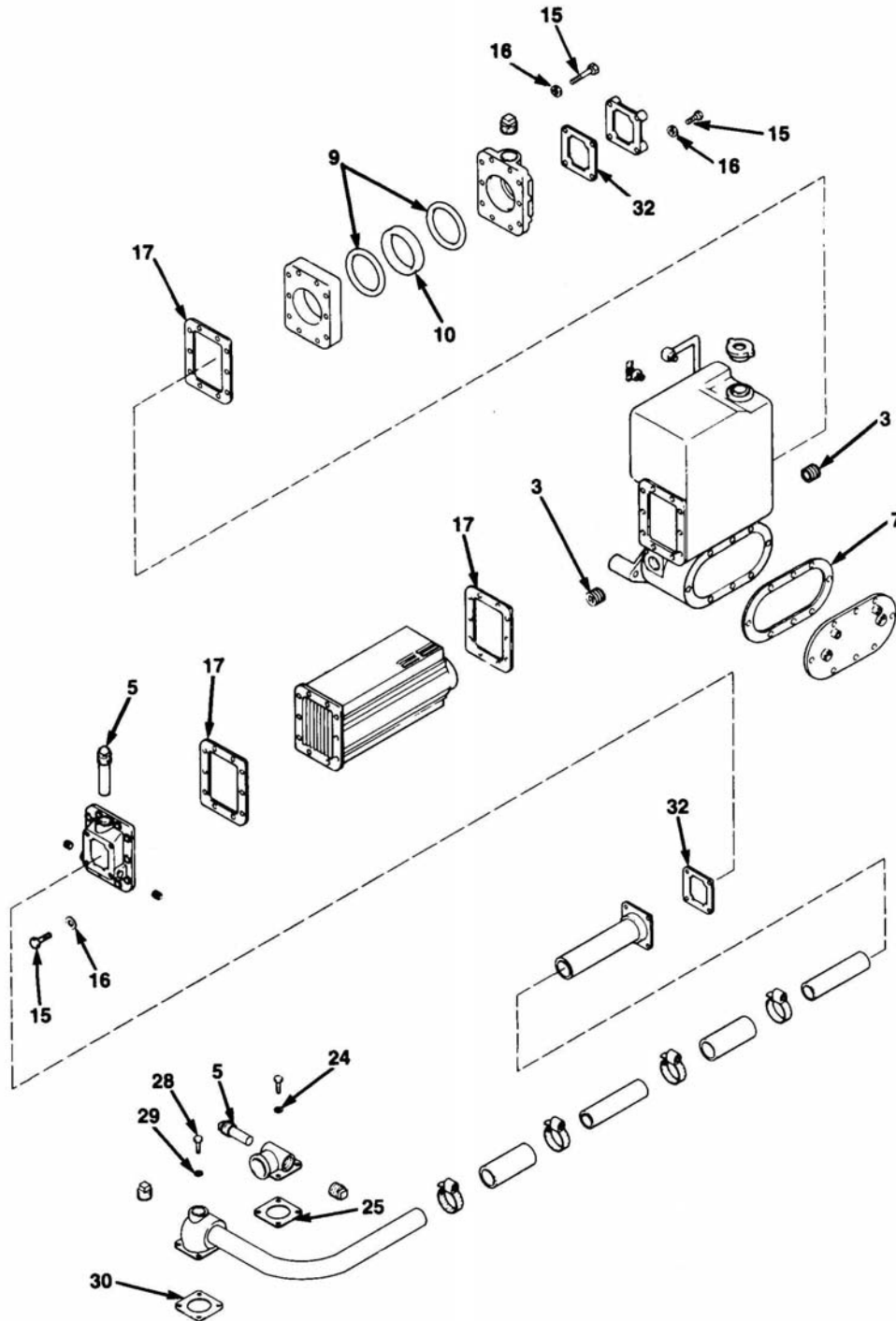
5.5001 - 5.5377

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.5001	3	FP-5142549	Plug, 3/4" Pipe	-	2	2	2
5.5001	0	FP-454992	Bolt, 1/2" - 13 x 2 1/2"	-	1	1	1
5.5001	0	FP-5117186	Plug, 2" Cup	-	1	1	1
5.5001	0	FP-5121182	Plug, 1/4" Pipe	-	1	1	1
5.5001	0	FP-8924380	Plug, 1/8" Pipe	-	1	1	1
5.5001	0	FP-103321	Lockwasher, 3/8"	-	-	-	2
5.5005	5	FP-8517479	Electrode Assembly, Heat Exchanger (1 1/4" L)	2	-	-	-
5.5005	17	FP-5167764	Gasket, Heat Exchanger	-	3	3	3
5.5005	0	FP-5112401	Gasket, Oil Cooler	-	2	2	2
5.5005	5	FP-8515850	Electrode Assembly, Heat Exchanger (3.375" L)	-	2	2	2
5.5005	7	FP-23501591	Gasket, Oil Cooler	-	1	1	1
5.5005	0	FP-5102506	Gasket, Oil Cooler Outlet	-	1	1	1
5.5005	0	FP-5156319	Gasket, Cover Plate	-	1	1	1
5.5005	0	FP-5156768	Gasket, Oil Cooler Valve	-	1	1	1
5.5005	30	FP-5158741	Gasket, Water Flange	-	1	1	1
5.5005	32	FP-5158747	Gasket, Heat Exchanger Water Inlet	-	1	1	1
5.5005	0	FP-5159430	Gasket, Oil Cooler By-pass	-	1	1	1
5.5005	0	FP-5159447	Gasket, Oil Cooler	-	1	1	1
5.5005	10	FP-5167745	Gland, Heat Exchanger Seal Retainer	-	1	1	1
5.5005	0	FP-5167761	Gasket, Thermostat	-	1	1	1
5.5005	0	FP-5167762	Gasket, Oil Cooler Water	-	1	1	1
5.5005	0	FP-5192637	Gasket Kit, Heat Exchanger Overhaul	-	1	1	1
5.5017	0	FP-443603	Bolt, 1/4" - 20 x 3/4" Hex	-	4	4	4
5.5020	0	FP-103321	Lockwasher, 3/8"	8	-	-	-
5.5020	0	FP-103026	Nut, 3/8" -24 Hex	4	-	-	-
5.5020	0	FP-8927581	Bolt, 3/8" - 16 x 1"	4	-	-	-
5.5020	0	FP-103320	Lockwasher, 5/16"	-	8	-	-
5.5020	0	FP-5115214	Plug, 12" Pipe	-	2	-	-
5.5021	9	FP-5167746	Seal, Heat Exchanger	-	2	2	2
5.5021	7	FP-23501591	Gasket, Expansion Tank Cover	-	1	1	1
5.5021	10	FP-5167745	Gland, Heat Exchanger Seal Retainer	-	1	1	1
5.5021	7	FP-5150155	Gasket, Expansion Tank Cover	-	1	-	-
5.5030	16	FP-103320	Lockwasher, 5/16"	-	20	20	20
5.5030	16	FP-103321	Lockwasher, 3/8"	-	-	-	2
5.5030	15	FP-8927581	Bolt, 3/8" - 16 x 1"	-	-	-	2
5.5050	17	FP-5156147	Gasket, Heat Exchanger (Tank To Water Pump)	2	-	-	-
5.5050	17	FP-5123660	Gasket, Heat Exchanger Cover	-	-	-	1
5.5050	17	FP-5167764	Gasket, Heat Exchanger Cover	-	-	-	2
5.5070	0	FP-5131978	Washer, .53" x .177"	-	-	-	2
5.5090	0	FP-103320	Lockwasher, 5/16"	8	-	-	-
5.5090	0	FP-5142549	Plug, 3/4" Pipe	1	-	-	-
5.5200	0	FP-443603	Bolt, 1/4" - 20 x 3/4"	2	-	-	-
5.5200	0	FP-103321	Lockwasher, 3/8"	-	1	1	1
5.5377	0	FP-8927580	Bolt, 3/8" - 16 x 7/8"	2	2	2	2



Heat Exchanger

(Figure 16.2)





Heat Exchanger

(Figure 16.2)

Groups:

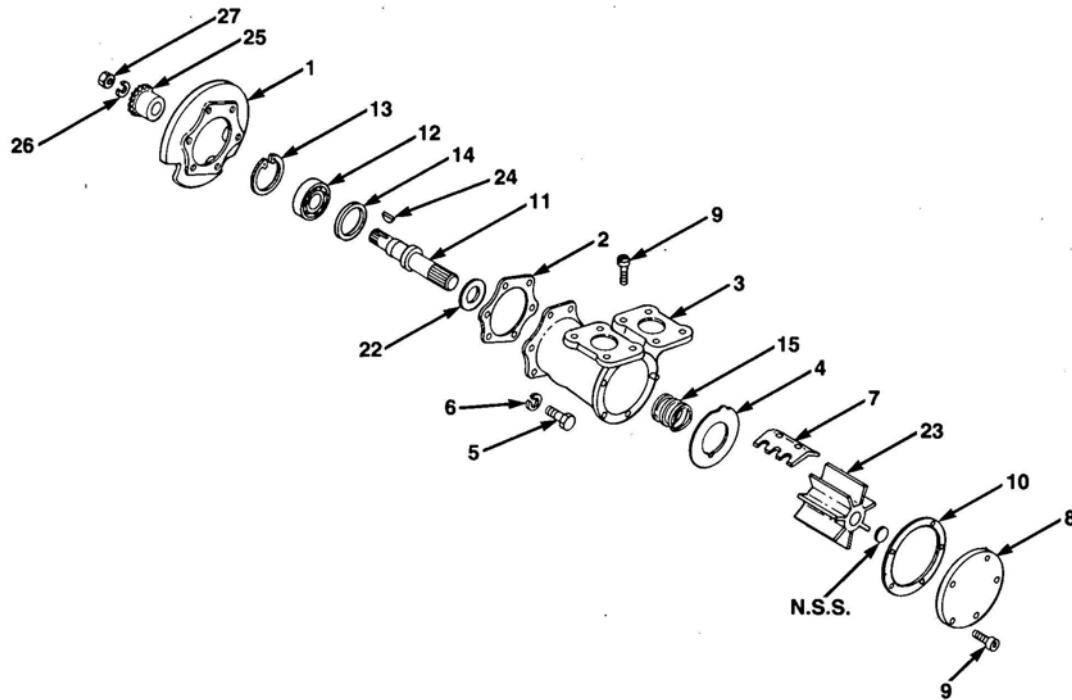
5.5377 - 5.5685

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.5377	24	FP-103321	Lockwasher, 3/8"	-	-	2	2
5.5378	0	FP-5156319	Gasket, Water Flange At Gear &/or Raw Water Pump	1	-	-	-
5.5378	25	FP-5158741	Gasket, Water Flange At Gear &/or Raw Water Pump	-	1	1	1
5.5378	25	FP-5115395	Gasket, Water Flange At Gear &/or Raw Water Pump	-	-	2	1
5.5378	25	FP-5112143	Gasket, Water Flange At Gear &/or Raw Water Pump	-	-	-	2
5.5380	28	FP-8927580	Bolt, 3/8" - 16 x 7/8"	2	2	2	2
5.5380	29	FP-103320	Lockwasher, 5/16"	2	-	-	-
5.5380	0	FP-103321	Lockwasher, 3/8"	-	-	2	2
5.5380	28	FP-8927581	Bolt, 3/8" - 16 x 1"	-	-	2	1
5.5410	30	FP-5156319	Gasket, Raw Water Flange	1	-	-	-
5.5410	30	FP-5112143	Gasket, Raw Water Flange	-	1	1	1
5.5410	30	FP-5115395	Gasket, Raw Water Flange	-	1	1	1
5.5410	30	FP-5158741	Gasket, Raw Water Flange	-	1	1	1
5.5427	0	FP-103320	Lockwasher, 5/16"	-	-	-	8
5.5428	0	FP-5102506	Gasket, Oil Cooler Outlet	-	1	1	1
5.5460	0	FP-5158747	Gasket, Heat Exchanger Raw Water Inlet Tube	-	1	1	1
5.5460	0	FP-5167764	Gasket, Heat Exchanger Raw Water Inlet Tube	-	-	-	1
5.5470	0	FP-9139809	Clamp, Heat Exchanger Raw Water Inlet Tube Hose	-	-	6	6
5.5470	0	FP-5186841	Clamp, Heat Exchanger Raw Water Inlet Tube Hose	-	-	-	4
5.5570	32	FP-5158747	Gasket, Heat Exchanger Raw Water Outlet Tube	-	1	1	1
5.5610	0	FP-5156319	Gasket, Exhaust Manifold Flange & Plate	2	2	2	2
5.5685	0	FP-103320	Lockwasher, 5/16"	-	10	10	10



Raw Water Pump

(Figure 17.1)





Raw Water Pump

(Figure 17.1)

Groups:

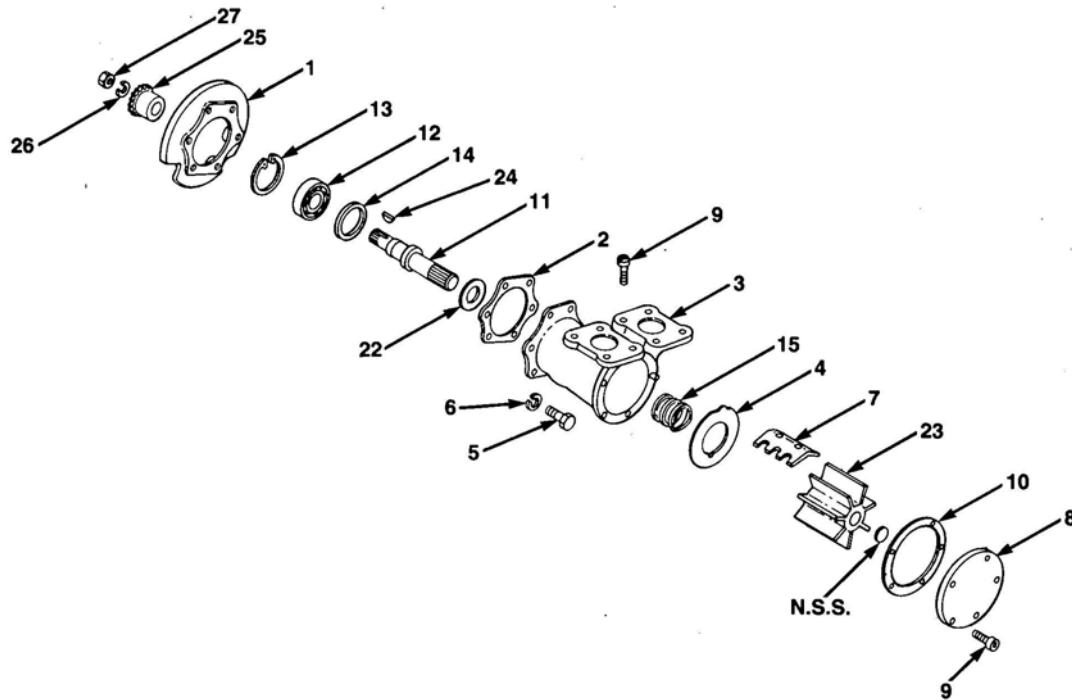
5.6001 - 5.6320

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.6001	0	FP-23507971	Pump Assembly, Raw Water (Option Types: 1,2,3,28, 31,62,69,70,71,72,73,75,76,77,78,80,83), (Old No. 5122599)	-	1	1	1
5.6001	0	FP-5186250	Pump Assembly, Raw Water (Option Type 13)	-	1	1	1
5.6001	0	FP-23507972	Pump Assembly, Raw Water (Option Types 49,50,51,82), (Old No. 5115396)	-	-	-	1
5.6001	0	FP-5195198	Seal, Raw Water Pump (1.06" Dia. Spline - JABSCO), (For 23507972 Pump)	-	-	-	1
5.6010	1	FP-5193551	Adapter, Raw Water Pump Body	-	1	1	1
5.6020	0	FP-5197597	Pin, 3/16" x 5/16" Dowel (Wearplate Locating)	-	1	1	1
5.6080	0	FP-5161020	Gasket Set, Raw Water Pump Housing Outer	-	1	1	1
5.6200	22	FP-5161026	Slinger, Raw Water Pump Shaft	1	-	-	-
5.6230	0	FP-5193602	Impeller (Synthetic), (Option Type 14), (Obsolete Pump)	-	1	1	1
5.6220	0	FP-5194860	Impeller & Seal Kit For Pumps FP-5115396, FP-5186250	-	1	1	1
5.6230	23	FP-8924838	Impeller, Raw Water Pump	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly Raw Water Pump Shaft	-	1	1	1
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	-	1	1	1
5.6220	0	FP-5196846	Impeller & Seal Kit For Pump FP-5122599, 23507972	-	1	1	1
5.6230	23	FP-8924839	Impeller, Raw Water Pump	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	-	1	1	1
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	-	1	1	1
5.6025	0	FP-5197222	Reconditioning Kit For Pump FP-5122599, 23507972	-	-	-	1
5.6012	0	FP-23514265	Seal Ring	-	1	1	1
5.6012	2	FP-23501662	Gasket, Raw Water Pump Body To Adapter	-	1	1	1
5.6020	4	FP-5193556	Plate, Wear	-	1	1	1
5.6025	9	FP-114366	Screw, 1/4" - 20 x 1/2" Raw Water Pump Cam (Brass)	-	1	1	1
5.6035	7	FP-5196167	Cam, Raw Water Pump Body Offset	-	1	1	1
5.6090	8	FP-5193555	Cover, Raw Water Pump (End)	-	1	1	1
5.6090	9	FP-23504236	Screw, 1/4" - 20 x 1/2" Raw Water Pump Cover (Stainless)	-	5	5	5
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	-	1	1	1
5.6120	11	FP-5196169	Shaft, Raw Water Pump	-	1	1	1
5.6130	12	FP-23505479	Bearing, Raw Water Pump	-	1	1	1
5.6140	13	FP-5196171	Ring, Raw Water Pump Bearing Retainer	-	1	1	1
5.6160	14	FP-5195101	Seal, Raw Water Pump Bearing	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	-	1	1	1
5.6200	22	FP-5193676	Slinger, Raw Water Pump Shaft	-	1	1	1
5.6230	23	FP-8924839	Impeller, Raw Water Pump	-	1	1	1
5.6320	24	FP-103462	Key, Woodruff Raw Water Pump Shaft	-	1	1	1



Raw Water Pump

(Figure 17.2)





Raw Water Pump

(Figure 17.2)

Groups:

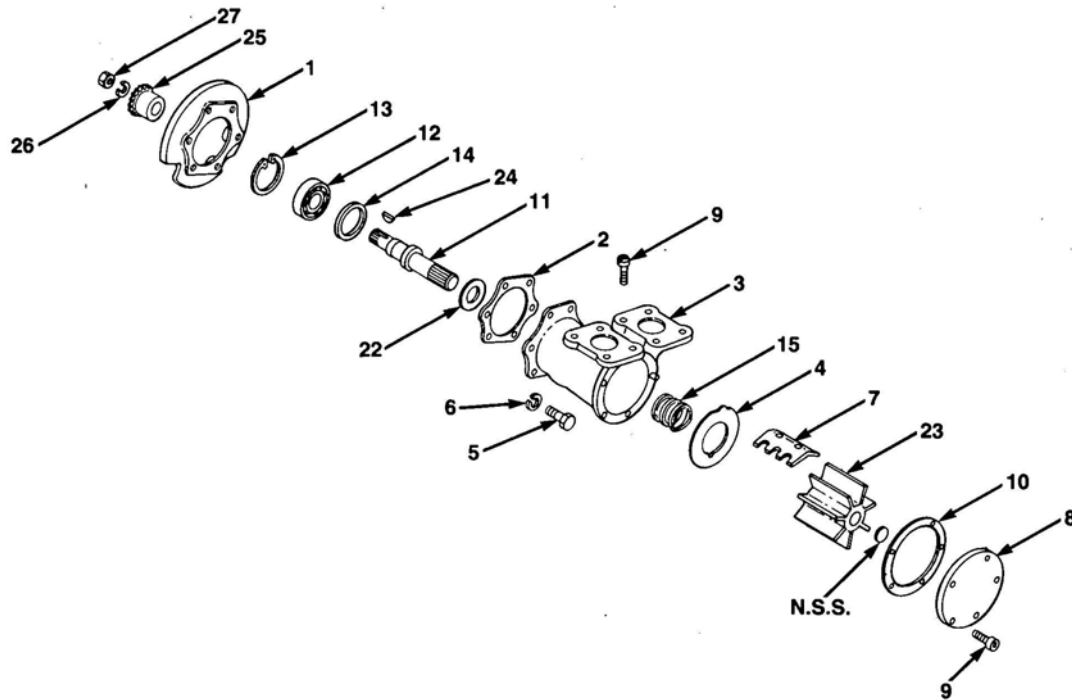
5.6012 - 6.6025

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.6025	0	FP-5197223	Reconditioning Kit (For Pumps FP-5115800, FP-5115396, FP-5187140)	-	1	1	1
5.6090	8	FP-5193555	Cover, Raw Water Pump (End)	-	1	1	1
5.6090	9	FP-23504236	Screw, 1/4" - 20 x 1/2" Raw Water Pump Cover (Stainless)	-	5	5	5
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	-	1	1	1
5.6120	11	FP-5193552	Shaft, Raw Water Pump	-	1	1	1
5.6130	12	FP-23504426	Bearing, Raw Water Pump	-	1	1	1
5.6140	13	FP-9415285	Ring, Raw Water Pump Bearing Retainer (Large)	-	1	1	1
5.6140	13	FP-5193569	Ring, Raw Water Pump Bearing Retainer (Small)	-	1	1	1
5.6160	14	FP-5195101	Seal, Raw Water Pump Bearing	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	-	1	1	1
5.6200	22	FP-5193676	Slinger, Raw Water Pump Shaft	-	1	1	1
5.6230	23	FP-8924838	Impeller, Raw Water Pump	-	1	1	1
5.6320	24	FP-5161024	Key, Woodruff Raw Water Pump Shaft	-	1	1	1
5.6012	2	FP-23501662	Gasket, Raw Water Pump Body To Adapter	-	1	1	1
5.6020	4	FP-5193556	Plate, Wear	-	1	1	1
6.6025	0	FP-23514265	Seal Ring,	-	1	1	1
5.6025	0	FP-5193684	Seal, Raw Water Pump (Outboard)	-	1	1	1
5.6035	9	FP-114366	Screw, 1/4" - 20 x 1/2" Raw Water Pump Cam (Brass)	-	1	1	1
5.6035	7	FP-5193554	Cam, Raw Water Pump Body Offset	-	1	1	1
5.6025	0	FP-5197224	Reconditioning Kit For Pump FP-5186250	-	1	1	1
5.6012	2	FP-23501662	Gasket, Raw Water Pump Body To Adapter	-	1	1	1
5.6020	4	FP-5193556	Plate, Wear	-	1	1	1
5.6025	9	FP-114366	Screw, 1/4" - 20 x 1/2" Raw Water Pump Cam (Brass)	-	1	1	1
6.6025	9	FP-23504236	Screw, 1/4" - 20 x 1/2" Raw Water Pump Cover (Stainless)	-	5	5	5
5.6025	0	FP-23514265	Seal Ring,	-	1	1	1
5.6035	7	FP-5193554	Cam, Raw Water Pump Body	-	1	1	1
5.6090	8	FP-5193555	Cover, Raw Water Pump (End)	-	1	1	1
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	-	1	1	1
5.6120	11	FP-5193552	Shaft, Raw Water Pump	-	1	1	1
5.6130	12	FP-23504426	Bearing, Raw Water Pump	-	1	1	1
5.6140	13	FP-5193569	Ring, Raw Water Pump Bearing Retainer (Small)	-	1	1	1
5.6140	13	FP-9415285	Ring, Raw Water Pump Bearing Retainer	-	1	1	1
5.6160	14	FP-5195101	Seal, Raw Water Pump Bearing	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	-	1	1	1
5.6200	22	FP-5193676	Slinger, Raw Water Pump Shaft	-	1	1	1
5.6230	23	FP-8924838	Impeller, Raw Water Pump	-	1	1	1
5.6320	24	FP-5161024	Key, Woodruff, Raw Water Pump Shaft	-	1	1	1



Raw Water Pump

(Figure 17.3)





Raw Water Pump

(Figure 17.3)

Groups:

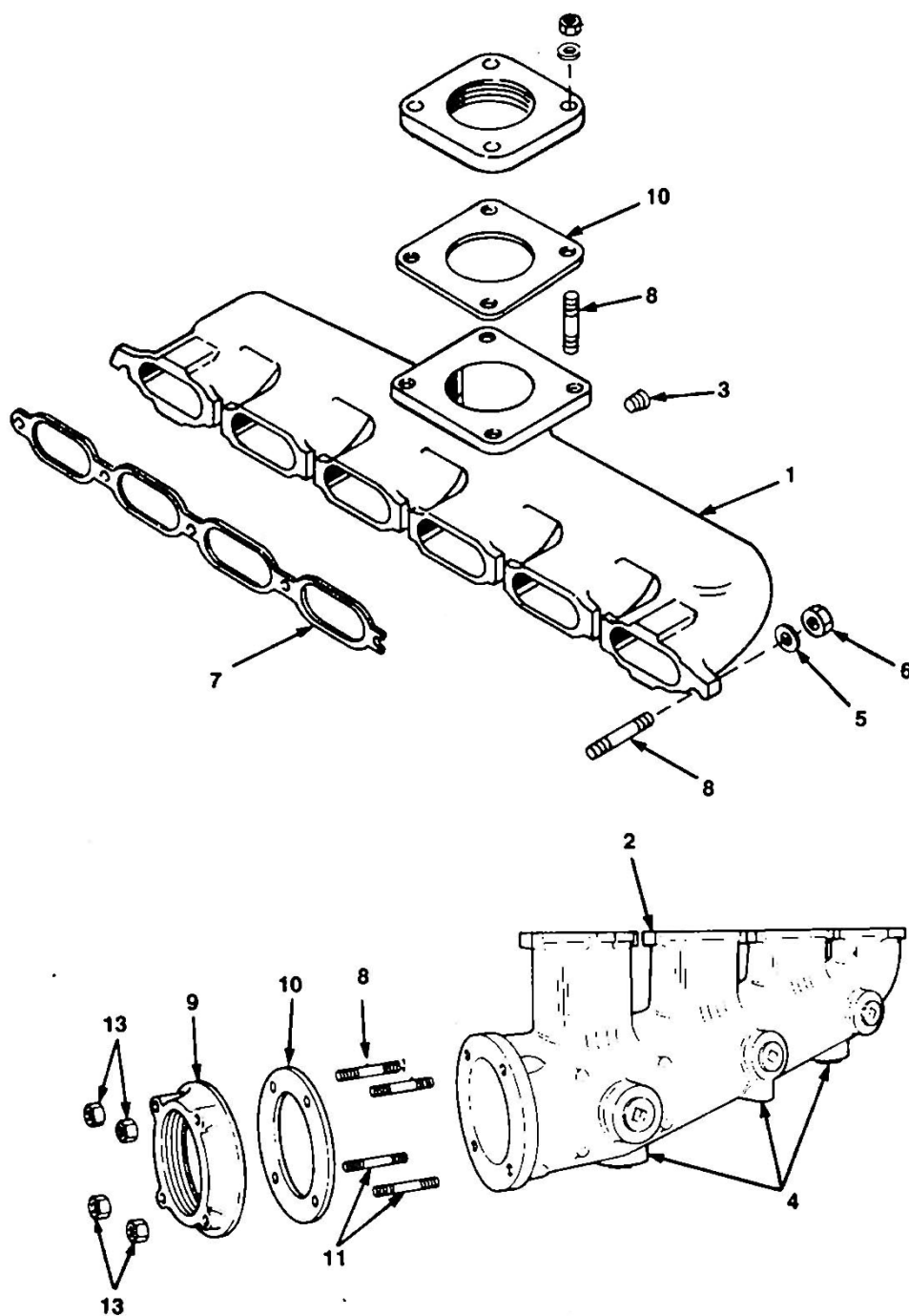
5.6320 - 5.6587

Group	Ref	Part No.	Description	2l	3l	4l	6l
5.6320	26	FP-103325	Lockwasher, 5/8"	1	1	1	1
5.6320	25	FP-5193576	Gear, Raw Water Pump Drive	1	1	1	1
5.6350	0	FP-23515145	Gasket, Raw Water Pump	-	1	1	1
5.6350	0	FP-5150057	Gasket, Raw Water Pump	-	1	1	1
5.6410	0	FP-5145092	Bolt, 3/8" - 24 x 1.20"	-	4	4	4
5.6410	0	FP-5170450	Plate, Raw Water Pump Drive (21 Teeth)	-	1	1	1
5.6574	0	FP-5115395	Gasket, Raw Water Pump Inlet Elbow	-	1	1	1
5.6574	0	FP-5158741	Gasket, Raw Water Pump Inlet Elbow	-	-	-	1
5.6575	0	FP-8517479	Electrode Assembly, Raw Water Pump (2 1/8" L.)	-	-	-	1
5.6581	0	FP-5115395	Gasket, Raw Water Pump Outlet Tube	-	1	1	1
5.6581	0	FP-5158741	Gasket, Raw Water Pump Outlet Tube	-	-	-	1
5.6586	0	FP-5186841	Clamp, Heat Exchanger Raw Water Inlet Tube	-	4	4	4
5.6587	0	FP-5158747	Gasket, Heat Exchanger Inlet Tube	-	1	1	1



Exhaust Manifold

(Figure 18.1)





Exhaust Manifold

(Figure 18.1)

Groups:

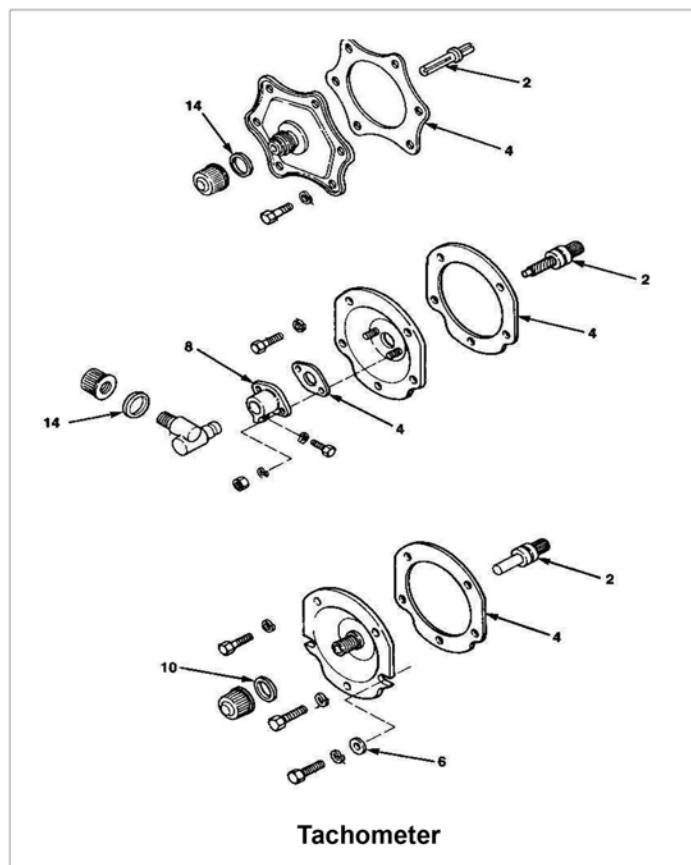
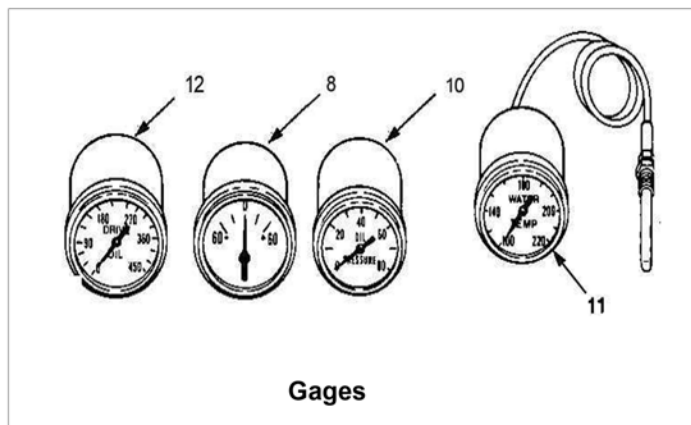
6.1001 - 6.2105

Group	Ref	Part No.	Description	2l	3l	4l	6l
6.1001	0	FP-5115214	Plug, 1/2" Pipe	1	-	-	1
6.1001	6	FP-23505398	Nut, 7/16" - 20 Lock	-	4	5	7
6.1001	5	FP-5104439	Washer, 7/16" x 1 1/4"	-	4	5	7
6.1001	2	FP-8921706	Manifold Assembly, Exhaust (Water Cooled)	-	-	1	-
6.1001	0	FP-5137618	Clamp, Exhaust Manifold	-	-	-	1
6.1001	2	FP-8921704	Manifold Assembly, Exhaust (Water Cooled)	-	-	-	1
6.1010	7	FP-5154210	Gasket, Exhaust Manifold	1	-	-	-
6.1010	7	FP-5150194	Gasket, Exhaust Manifold	-	1	-	-
6.1010	7	FP-5120224	Gasket, Exhaust Manifold (Ends)	-	-	2	2
6.1010	7	FP-5150195	Gasket, Exhaust Manifold (Ends)	-	-	2	2
6.1010	7	FP-5113954	Gasket, Exhaust Manifold	-	-	1	-
6.1010	7	FP-5120223	Gasket, Exhaust Manifold (Diameter)	-	-	1	1
6.1010	7	FP-5150196	Gasket, Exhaust Manifold (Diameter)	-	-	-	1
6.1020	8	FP-8927270	Stud, Exhaust Manifold to Head (3/8" - 16/24 x 1 11/16")	6	4	4	4
6.1020	8	FP-8925804	Stud, Exhaust Manifold to Head (7/16" - 14/20 x 2 3/32")	-	4	5	7
6.1100	0	FP-103320	Lockwasher, 5/16"	1	4	4	4
6.1100	0	FP-5156319	Gasket, Exhaust Manifold Cover Plate	1	4	4	4
6.1100	0	FP-5113412	Gasket, Exhaust Manifold Cover Plate	-	-	-	1
6.1130	0	FP-8925325	Bushing Pipe, Exhaust Manifold (3/8" PTF - 1/4" Zinc)	AR	AR	AR	AR
6.1150	0	FP-5156319	Gasket, Exhaust Manifold Water Outlet Flange	-	1	1	1
6.2085	9	FP-5164146	Flange, Exhaust (4" P.T., 4 3/8" B.C.)	-	1	1	1
6.2085	0	FP-103321	Lockwasher, 3/8"	-	-	4	4
6.2085	0	FP-5132650	Clamp, Exhaust Flange (5.25" Diameter)	-	-	1	1
6.2105	10	FP-3221863	Gasket, Exhaust Outlet	-	3	3	-
6.2105	10	FP-5108377	Gasket, Exhaust Outlet	-	1	1	1
6.2105	10	FP-5163811	Gasket, Exhaust Outlet	-	1	1	1
6.2105	10	FP-5166486	Gasket, Exhaust Outlet (4 3/8" B.C.)	-	1	1	-
6.2105	10	FP-5145238	Gasket, Exhaust Outlet	-	-	1	-
6.2105	10	FP-5108989	Gasket, Exhaust Outlet	-	-	-	3



Instruments

(Figure 19.1)





Instruments

(Figure 19.1)

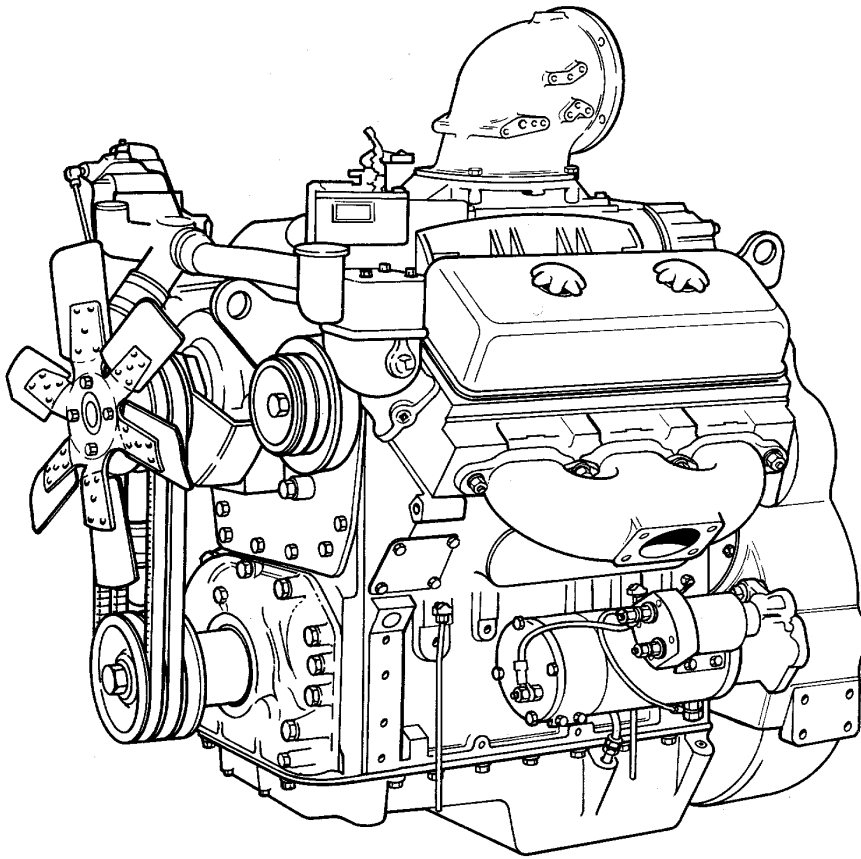
Groups:

7.1589 - 12.4005

Group	Ref	Part No.	Description	2I	3I	4I	6I
7.1589	0	FP-5150057	Gasket, Flange Mounted Alternator Adapter	1	1	1	1
7.1597	0	FP-5122266	Gasket, Generator Mounting Bracket	1	1	1	1
7.3001	0	FP-9418228	Bolt, Starter Motor Mounting (5/8" - 11 x 1 3/4" - 12 Point)	2	2	2	2
7.4015	8	FP-6474479	Ammeter (60 Amp)	1	1	1	1
7.4071	10	FP-6462554	Gage, Oil Pressure 400 PSI	1	1	1	1
7.4077	12	FP-6490569	Gage, Oil Temperature (4' Capillary)	1	1	1	1
7.4080	11	FP-6490565	Gage, Water Temperature (10' Capillary)	1	1	1	1
7.4080	11	FP-8993092	Gage, Water Temperature (4' Capillary)	1	1	1	1
7.4080	11	FP-8993093	Gage, Water Temperature (6' Capillary)	1	1	1	1
7.4080	11	FP-8993253	Gage, Water Temperature (15' Capillary)	1	1	1	1
7.4435	2	FP-3224992	Shaft, Tachometer Drive (.061" Key)	-	1	1	1
7.4435	2	FP-5135936	Shaft, Tachometer Drive	-	1	1	1
7.4445	6	FP-5150568	Washer, 7/16" Copper	1	1	1	1
7.4445	4	FP-23515145	Gasket, Tachometer Drive Cover Assembly,	-	1	1	1
7.4445	4	FP-5104507	Gasket, Tachometer Drive Cover Assembly	-	1	1	1
7.4445	5	FP-8927580	Bolt, 3/8" - 16 x 7/8"	-	-	2	2
7.4450	0	FP-3202615	Seal, Tachometer Drive Cover	-	2	2	2
7.4455	4	FP-5135935	Gasket, Tachometer Drive Cover Adapter	1	1	1	1
7.4455	4	FP-5104507	Gasket, Tachometer Drive Cover Adapter	-	1	1	1
7.4455	4	FP-23515145	Gasket, Tachometer Drive Cover Adapter	-	-	-	1
7.4457	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4457	0	FP-103319	Lockwasher, 1/4"	1	1	1	1
7.4457	14	FP-5107931	Gasket, Tachometer Drive Cover Cap	1	1	1	1
7.4457	0	FP-8924380	Plug, 1/8" Pipe	-	-	-	1
7.4458	0	FP-5135820	Seal, Tachometer Drive Adapter	-	1	1	1
7.4505	0	FP-5146080	Switch, Water Temperature	AR	AR	AR	AR
7.4505	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4505	0	FP-5163830	Gasket, Water Temperature Switch	1	1	1	1
7.4505	0	FP-5179913	Switch, Water Temperature (Option Type 90,140,224,547)	1	-	1	-
7.4505	0	FP-5186948	Switch, Water Temperature (Option Type 237,314)	-	1	-	-
7.4505	0	FP-5121665	Switch, Water Temperature (Option Type 436,711,830)	-	-	1	1
7.4509	0	FP-5166486	Gasket, Manifold Flange	2	2	2	2
7.4509	0	FP-8923847	Plug, 1/4" Pipe	2	2	2	2
7.4509	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
7.4510	0	FP-5113412	Gasket, Water Temperature Switch	1	1	1	1
7.4519	0	FP-103319	Lockwasher, 1/4"	4	4	4	4
7.4519	0	FP-179803	Bolt, 1/4" - 20 x 1 3/4"	1	1	1	1
7.4519	0	FP-23504196	Solenoid, Air Shut Off (12V)	1	1	1	1
7.4519	0	FP-443603	Bolt, 1/4" - 20 x 3/4"	1	1	1	1
7.4593	0	FP-5118527	Switch, Oil Temperature (7.4586)	1	1	1	1
7.4598	0	FP-23520023	Switch, Oil Pressure (# 5 Break)	1	1	1	1
7.4598	0	FP-23520024	Switch, Oil Pressure (# 10 Break)	1	1	1	1
7.4598	0	FP-23520025	Switch, Oil Pressure (# 20 Make)	1	1	1	1
7.4598	0	FP-23520026	Switch, Oil Pressure (# 27 Make / Break)	1	1	1	1
Miscellaneous Parts							
8.3820	0	FP-5140881	Gasket, Converter Tank To Pump Tube	AR	AR	AR	AR
9.1001	0	FP-23010125	Plate, Hydraulic Gear Assy (Marine)	AR	AR	AR	AR
9.1001	0	FP-6700157	Seal, Hydraulic Marine Gear Assy	AR	AR	AR	AR
9.1235	0	FP-5101603	Plate Assy, Forward Clutch - 14", 510HP	-	-	AR	AR
9.1580	0	FP-5112401	Gasket, Hydraulic Pump Oil Inlet Tube	-	2	2	2
12.4005	0	FP-5131939	Gasket, Air Compressor Mounting	AR	AR	AR	AR



71V SERIES ENGINE





71V SERIES ENGINE

Model Description Chart

Application, Rotation Design Variations

7	0	8	2	-	7	2	0	1
SERIES 71 V ENGINES	NUMBER OF CYLINDERS	APPLICATION DESIGNATION (SEE BELOW)	BASIC ENGINE ARRANGEMENT AND DRIVE SHAFT ROTATION (SEE BELOW)	DESIGN VARIATION (SEE BELOW)	SPECIFIC MODEL NUMBER			

APPLICATION DESIGNATION:

7082 - 7200 MARINE
7083 - 7200 INDUSTRIAL F-F
7084 - 7200 POWER-BASE
7085 - 7200 GENERATOR
7087 - 7200 AUTOMOTIVE F-F
7088 - 7200 SPECIAL

DESIGN VARIATION:

7082 - 7000 V-71 "N" ENGINE
7082 - 7100 2 VALVE HEAD
7082 - 7200 4 VALVE HEAD
7082 - 7300 TURBOCHARGER
7082 - 7400 TURBOCHARGER
AFTERCOOLED
7082 - 7500 CUSTOMER SPEC.
7087 - 7600 CONSTANT HORSEPOWER
ECONOMY (TAE) (CA CERT.)
7087 - 7700 CONSTANT HRSEPWR. (TI)
7087 - 7800 CONSTANT HRSEPWR. (TTA)
(CALIFORNIA CERTIFIED)
7087 - 7900 CONSTANT HRSEPWR. ECON.
(TTAE) (CALIF. CERTIFIED)

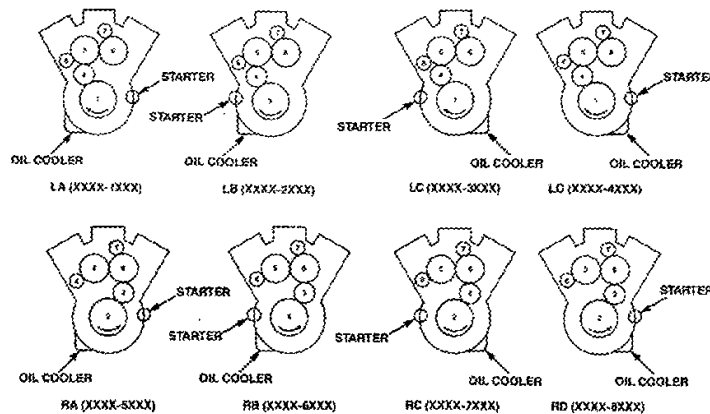
DRIVESHAFT ROTATION:

7242 - 0200 LEFT-HAND
7242 - 9200 RIGHT-HAND
Driveshaft rotation: shaft rotation
on multiple units is determined
from the rear of the unit.

Basic Engine Arrangements

Rotation: L (left) and R (right) designates rotation viewed from the front of the engine (not flywheel end).
Type: A - B - C - D designates location of starter and oil cooler as viewed from the rear (flywheel) end.
Cylinder Bank: left and right cylinder banks are determined from rear of engine (flywheel end).

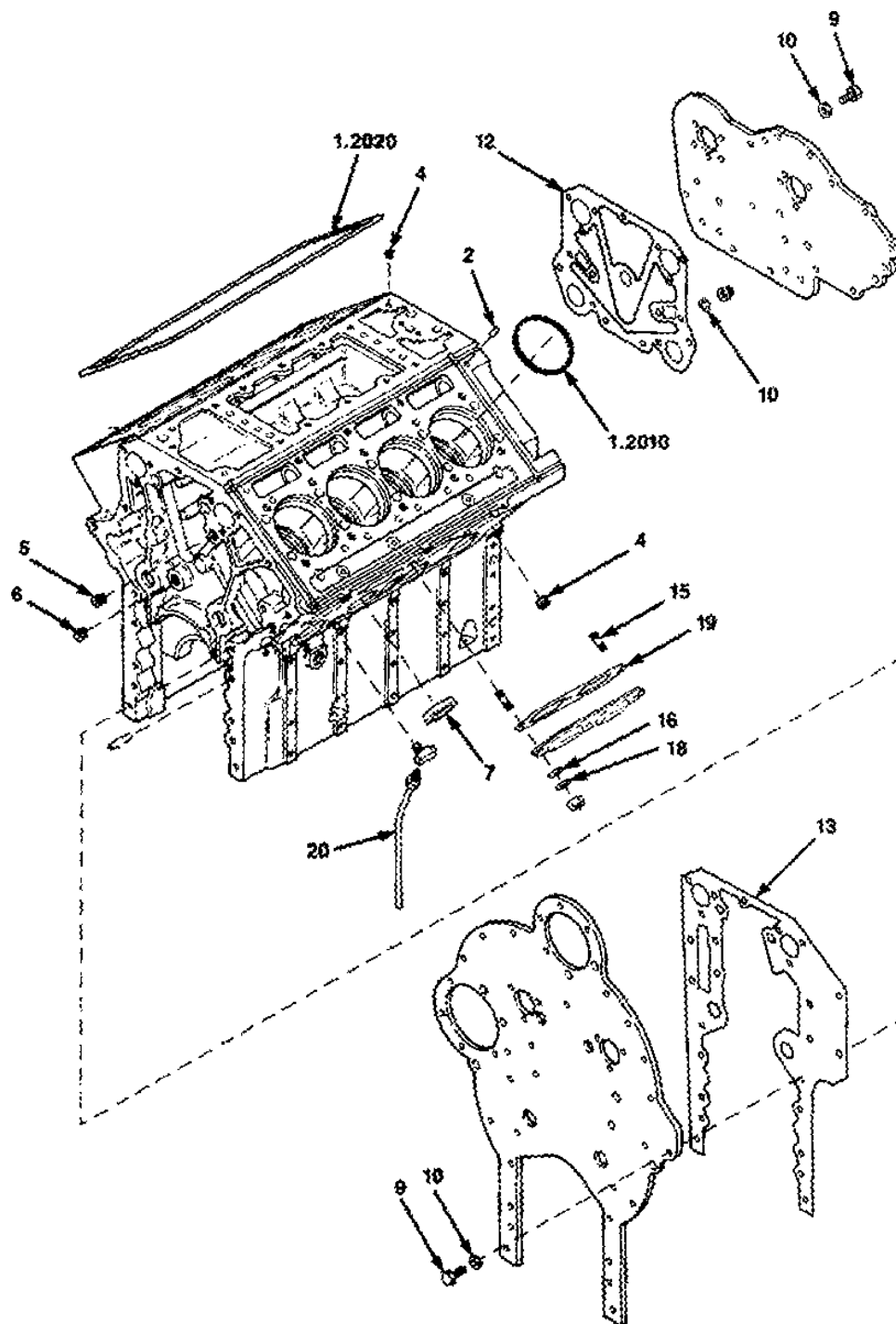
ALL BELOW VIEWS FROM REAR OF ENGINE





Cylinder Block

(Figure 1.1)





Cylinder Block

(Figure 1.1)

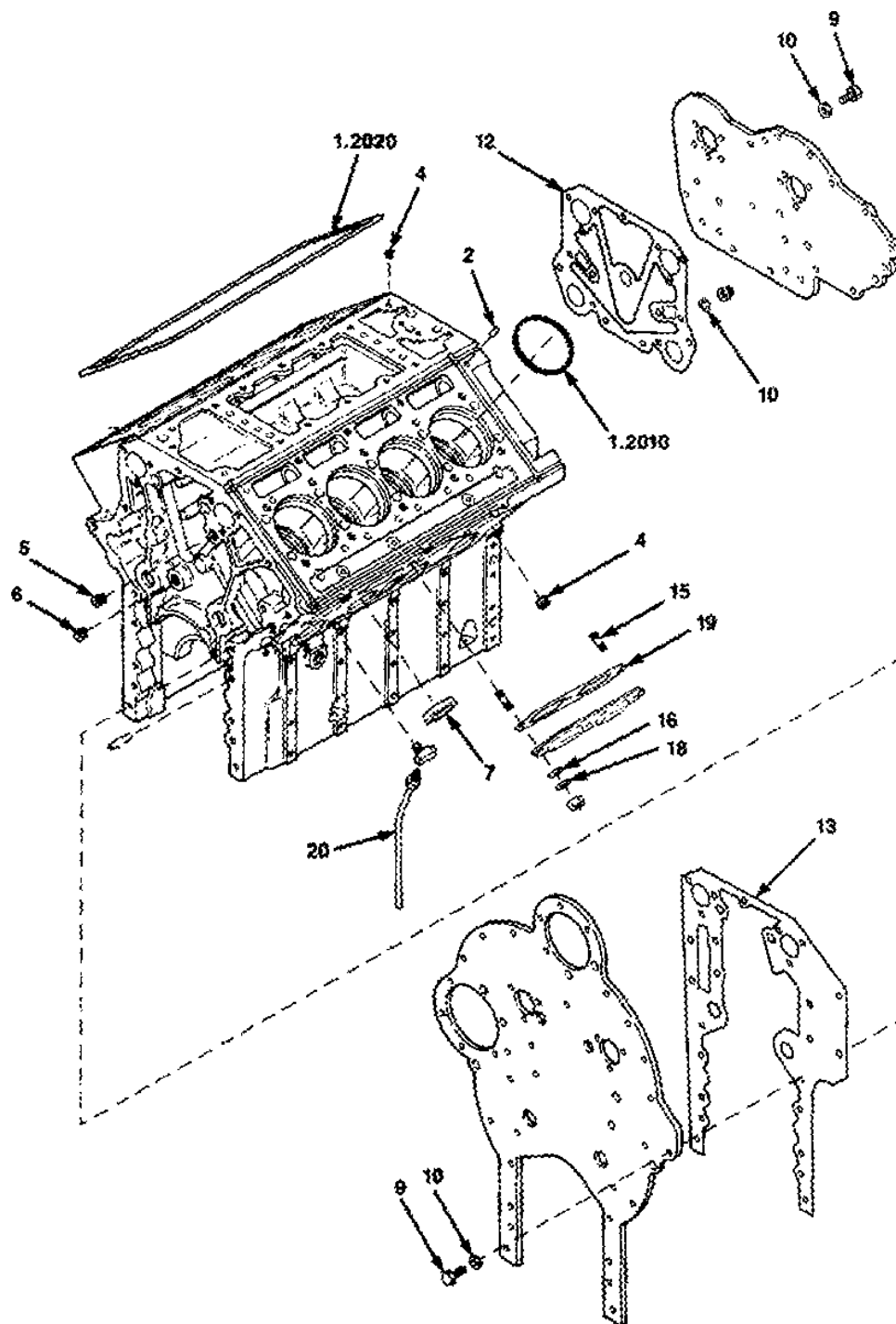
Groups:
1.1001 - 1.1060

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.1001	0	FP-5133981	Washer, Main Bearing Bolt	8	10	14	20
1.1001	5	FP-5115214	Plug, 3/4" Pipe	6	6	12	12
1.1001	2	FP-141346	Pin, 3/16" X 1/2"	4	4	4	-
1.1001	6	FP-5142549	Plug, 1/2" Pipe	3	4	8	6
1.1001	0	FP-5138659	Gasket, Cylinder Block Plug	3	2	4	4
1.1001	0	FP-8923847	Plug, 1/4" Pipe	3	2	-	-
1.1001	0	FP-5101033	Plug, 2 1/2" Cup (Special), (Aftercooler Plug)	2	2	4	4
1.1001	0	FP-5130750	Pad, Breather	2	2	2	4
1.1001	7	FP-5132410	Plug, 1 5/8" Cup (Stainless Steel)	2	2	2	4
1.1001	0	FP-8924380	Plug, 1/8" - 27 Pipe	2	2	4	18
1.1001	4	FP-5121182	Plug, 1/4" Pipe	-	-	2	10
1.1002	0	FP-5196376	Gasket Kit, Supplement (Marine)	1	1	-	-
1.1002	0	FP-23512677	Gasket Kit, Engine Overhaul (Coach)	1	-	-	-
1.1002	0	FP-23512678	Gasket Kit, Engine Overhaul	1	-	-	-
1.1002	0	FP-23512678WS	Gasket Kit, Engine Overhaul (w/Seals)	1	-	-	-
1.1002	0	FP-23512679	Gasket Kit, Engine Overhaul (Coach)	-	1	-	-
1.1002	0	FP-23512680	Gasket Kit, Engine Overhaul	-	1	-	-
1.1002	0	FP-23512680WS	Gasket Kit, Engine Overhaul (w/Seals)	-	1	-	-
1.1002	0	FP-23512681	Gasket Kit, Engine Overhaul	-	-	1	-
1.1002	0	FP-23512681WS	Gasket Kit, Engine Overhaul (w/Seals)	-	-	1	-
1.1002	0	FP-23512682	Gasket Kit, Engine Overhaul	-	-	-	1
1.1002	0	FP-23512682WS	Gasket Kit, Engine Overhaul (w/Seals)	-	-	-	1
1.1002	0	FP-5109346	Seal Ring, Inter-Block	-	-	1	1
1.1002	0	FP-5186579	Seal Ring	-	-	2	2
1.1002	0	FP-5196378	Gasket Kit, Supplement (Marine)	-	-	1	-
1.1002	0	FP-5196379	Gasket Kit, Supplement (Industrial)	-	-	1	-
1.1003	0	FP-5146433	Seal Ring (.147" x 1.143")	AR	AR	AR	AR
1.1010	10	FP-103320	Lockwasher, 3/8"	5	5	8	8
1.1010	9	FP-8927581	Bolt, 3/8" - 16 X 1"	5	5	8	8
1.1020	0	FP-5152148	Washer, 3/8" X 9/16" (Copper)	2	2	2	2
1.1030	12	FP-5121835	Gasket, Cylinder Block End Plate (Front)	1	1	1	-
1.1030	12	FP-5144901	Gasket, Cylinder Block End Plate (Front)	1	1	1	-
1.1032	12	FP-5104507	Gasket, Cylinder Block End Plate (Small Hole Cover)	1	1	1	1
1.1032	13	FP-5102551	Gasket, Cylinder Block End Plate (Rear)	-	-	-	1
1.1040	0	FP-5155596	Gasket, 5/16" Copper (Dry Block Only)	4	8	12	16
1.1040	0	FP-8924380	Plug, 1/8" Pipe (W.B.P.)	2	3	-	-
1.1040	15	FP-5152121	Stud, 5/16" - 18 X 1 1/2"	10	14	22	28
1.1050	19	FP-5117016	Gasket, Cylinder Block Hand Hole Cover (Non-Turbo)	2	4	6	8
1.1050	19	FP-8923792	Gasket, Cylinder Block Hand Hole Cover (Small)	2	4	8	4
1.1050	19	FP-8923791	Gasket, Cylinder Block Hand Hole Cover (Large)	2	2	4	-
1.1050	19	FP-5108401	Gasket, Cylinder Block Hand Hole Cover (Turbo)	-	-	6	6
1.1060	0	FP-8927580	Bolt, 3/8"-16 X 7/8"	4	4	4	4
1.1060	0	FP-8927581	Bolt, 3/8"-16 X 1"	4	-	-	8
1.1060	0	FP-5152148	Washer, 3/8" X 9/16" (Copper)	-	-	-	2



Cylinder Block

(Figure 1.2)





Cylinder Block

(Figure 1.2)

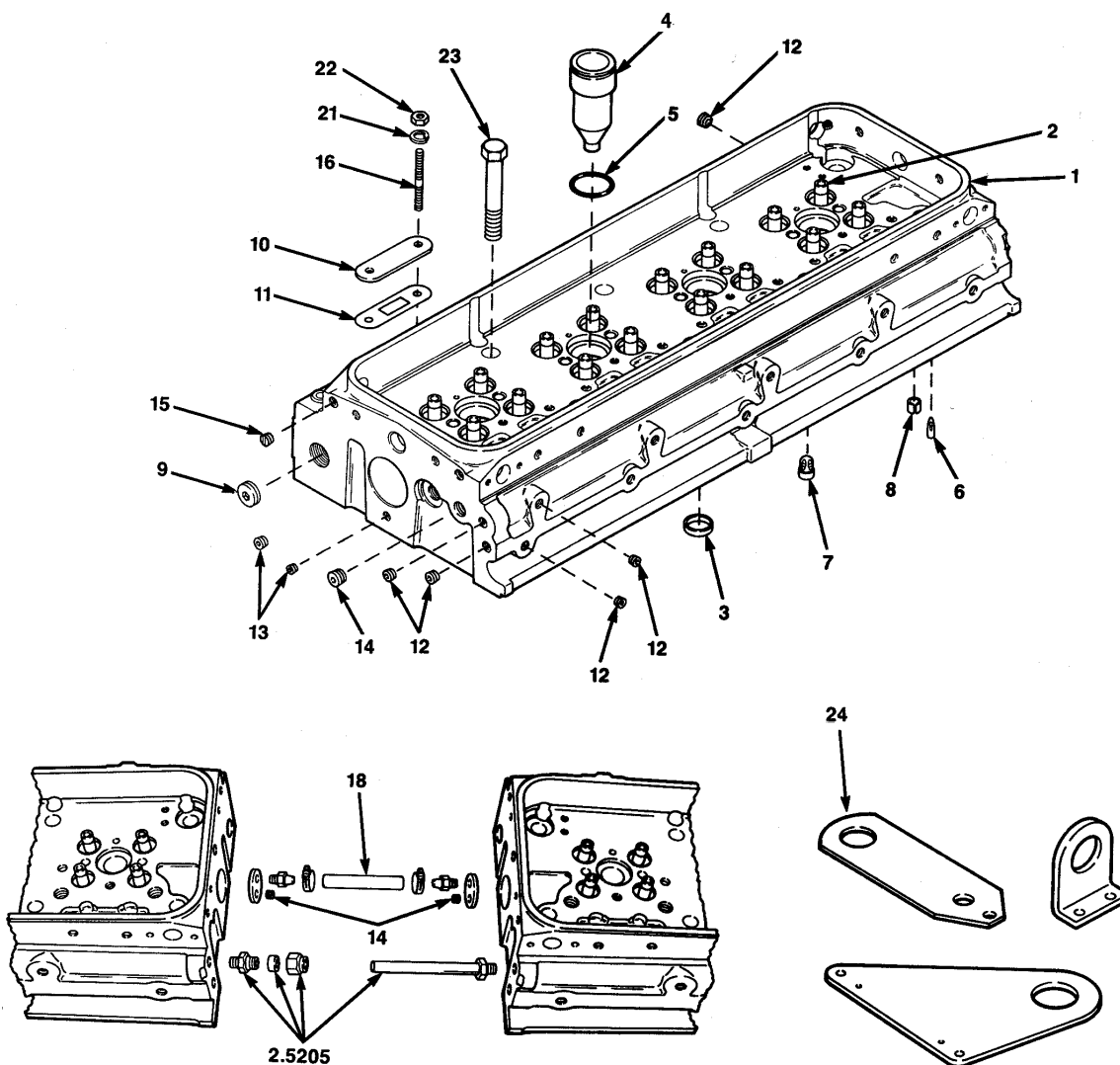
Groups:
1.1065 - 1.1100

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.1065	0	FP-5117535	Gasket, Cylinder Block Oil Hole Cover	-	-	-	2
1.1070	0	FP-5117254	Gasket, Cylinder Block Water Hole Cover	1	1	1	1
1.1070	0	FP-5117734	Gasket, Cylinder Block Water Hole Cover	1	1	1	1
1.1070	0	FP-103321	Lockwasher, 3/8"	-	-	-	4
1.1100	20	FP-5117907	Tube, Air Box Drain (10.76"L)	1	1	1	1
1.1100	4	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
1.1100	20	FP-5144327	Tube, Air Box Drain (15.60"L)	1	1	1	1
1.1100	20	FP-5144772	Tube, Air Box Drain (19.25"L)	1	1	1	1



Cylinder Head

(Figure 2.1)





Cylinder Head

(Figure 2.1)

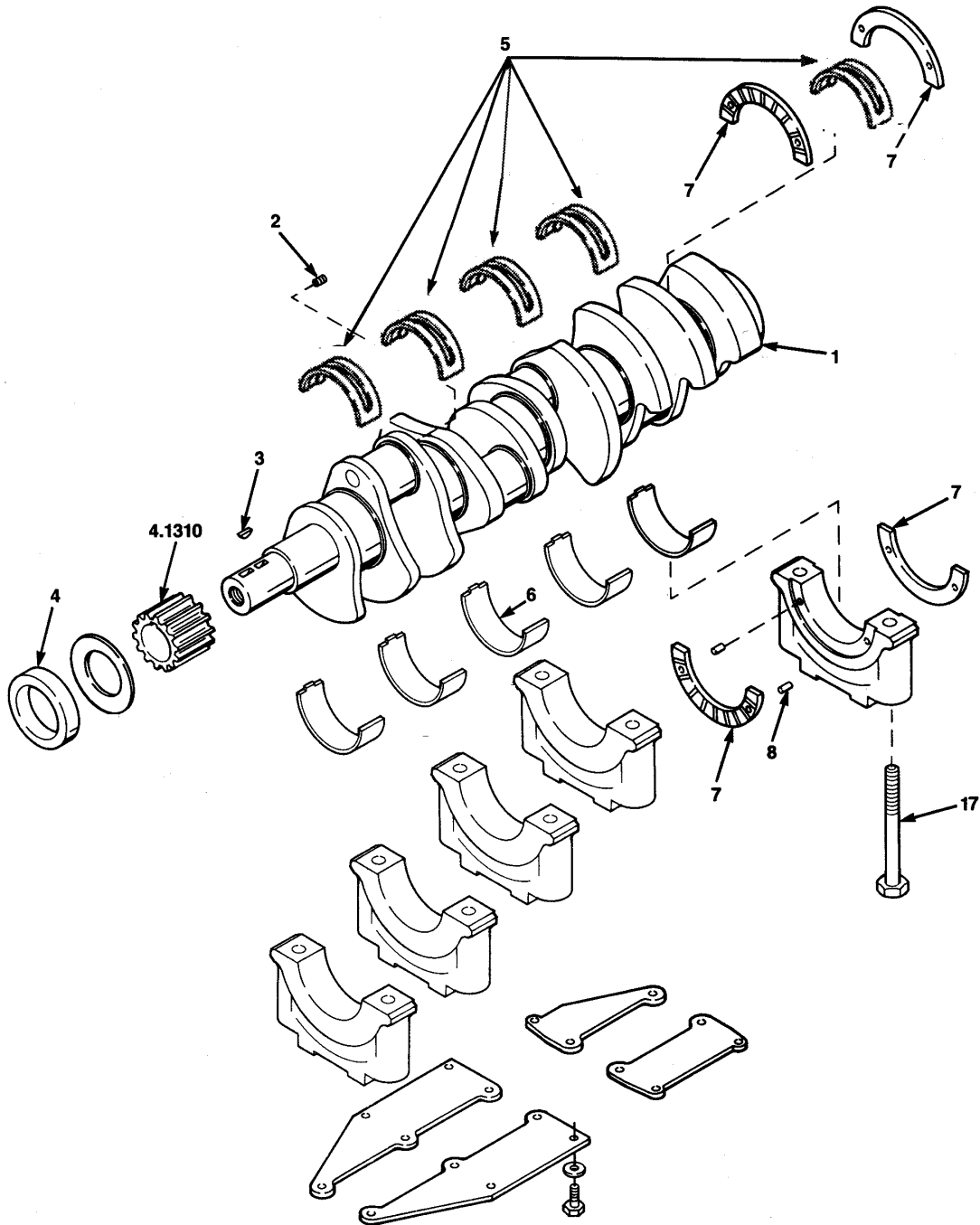
Groups:
1.2001 - 1.2090

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.2001	0	FP-8924809	Fuse Plug, 1/8" Pipe, Slotted Head (Early Units)	AR	AR	AR	AR
1.2001	0	FP-5121182	Plug, 1/4" Pipe	7	9	7	9
1.2001	22	FP-103026	Nut, 3/8" -24	6	8	6	8
1.2001	21	FP-103321	Lockwasher, 3/8"	6	8	6	8
1.2001	5	FP-5104701	Seal Ring, Injector Hole Tube (Viton)	6	8	12	16
1.2001	0	FP-5117564	Guide, Exhaust Valve Bridge	6	8	6	8
1.2001	0	FP-5125108	Washer, Fuel Stand Pipe .443" X .75" X .060"	6	8	6	8
1.2001	4	FP-8925981	Tube Kit, Injector Hole (w/Seal Ring)	6	8	12	16
1.2001	0	FP-8927270	Stud, 3/8" -16/24 X 1 11/16" (Water Manifold)	6	8	12	16
1.2001	0	FP-8927580	Bolt, 3/8" -16 X 7/8"	6	8	6	8
1.2001	13	FP-5154453	Plug, 3/8" -16 Headless Special	6	6	6	6
1.2001	7	FP-5111332	Nozzle, Water (Dual Outlet)	4	6	4	6
1.2001	16	FP-8925804	Stud, 7/16" -14 X 2 3/32" (Exhaust Manifold)	4	5	4	5
1.2001	0	FP-5150132	Plug, 3/4" Dia. Cup	4	4	4	8
1.2001	15	FP-5178976	Plug, 7/16" -14 Special	4	4	4	4
1.2001	11	FP-23506469	Gasket, Water Outlet Cover Plate	3	4	3	4
1.2001	10	FP-5117344	Plate, Water Outlet Cover	3	4	3	4
1.2001	14	FP-8924517	Plug, 3/8" Hex Socket Head	3	3	3	3
1.2001	3	FP-5101101	Insert, Exhaust Valve Std.	24	32	48	64
1.2001	2	FP-5129919	Guide, Exhaust Valve	24	32	48	64
1.2001	8	FP-5113773	Sleeve, Pilot .70" L	2	2	2	2
1.2001	9	FP-5142549	Plug, 3/4" Pipe	2	2	2	2
1.2001	6	FP-5172874	Nozzle, Water (Single Outlet)	2	2	2	2
1.2001	12	FP-8923847	Plug, 1/4" Hex Socket Head	15	17	15	17
1.2001	0	FP-5117562	Washer, Exhaust Valve Spring Seat	12	16	12	16
1.2001	0	FP-5117186	Plug, 2" Dia. Cup Stainless	1	1	1	1
1.2001	18	FP-5127843	Hose, 3/8" ID X 1.48"	-	-	-	2
1.2001	0	FP-5152148	Washer, 3/8" X 9/16" Copper	-	-	-	-
1.2002	0	FP-5196380	Gasket Set, Cylinder Head (Accommodates One Head)	2	-	-	-
1.2002	0	FP-5196381	Gasket Set, Cylinder Head (Accommodates One Head)	-	2	-	4
1.2002	0	FP-5196382	Gasket Set, Cylinder Head (Accommodates One Head)	-	-	2	-
1.2010	0	FP-5103659	Gasket, Cylinder Head Compression	6	8	12	16
1.2020	0	FP-5186579	Ring, Cylinder Head Oil Seal (Water Seal)	8	12	20	24
1.2020	0	FP-5186577	Ring, Cylinder Head Oil Seal (End Water Seal)	6	6	6	12
1.2020	0	FP-5119972	Ring, Cylinder Head Oil Seal (Head To Block)	2	-	-	-
1.2020	0	FP-5119973	Ring, Cylinder Head Oil Seal (Head To Block)	-	2	-	4
1.2020	0	FP-5119974	Ring, Cylinder Head Oil Seal (Head To Block)	-	-	2	-
1.2022	0	FP-5183305	Gasket, Cylinder Head Water & Oil (Figure 8)	2	2	2	4
1.2030	23	FP-5117003	Bolt, 5/8" -X 5 3/8" (Cylinder Head)	10	14	22	28
1.2040	0	FP-5150013	Nut, Cylinder Head Stud (5/8" -18)	6	6	6	12
1.2060	0	FP-5123812	Gasket, Cylinder Head Governor Hole Cover	6	6	6	12
1.2090	0	FP-5117332	Gasket, Engine Lifting Bracket	2	2	2	-
1.2090	0	FP-5175882	Spacer, Engine Lifting Bracket	-	-	-	6



Crankshaft

(Figure 3.1)





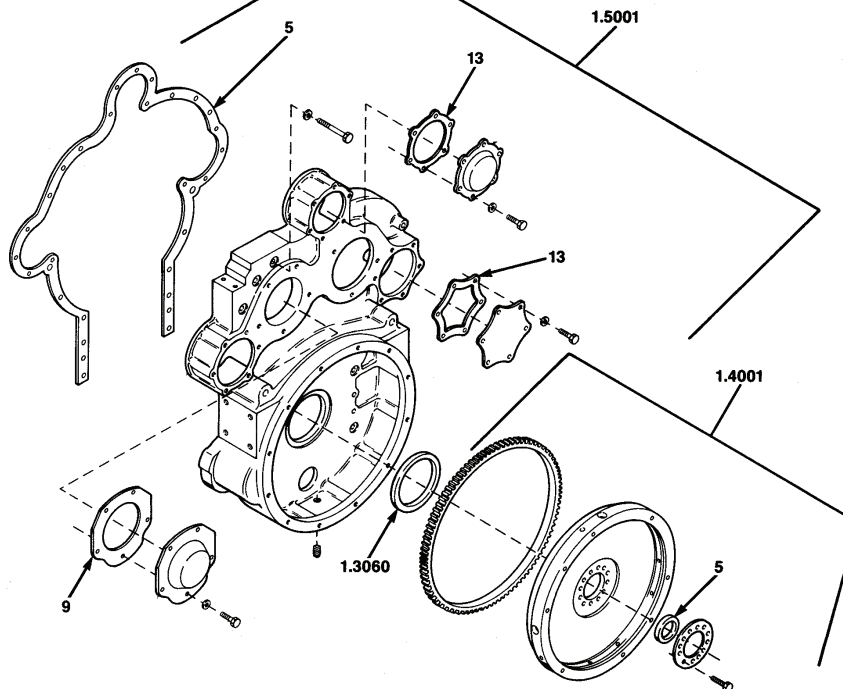
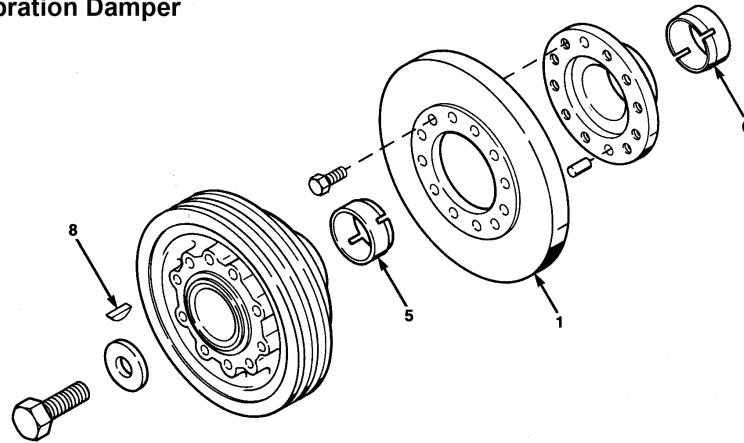
Crankshaft

(Figure 3.1)

Groups:
1.3001 - 1.5004

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.3001	2	FP-8924380	Plug, 1/8" Pipe (12.9550)	3	4	6	8
1.3001	3	FP-8928545	Key, 3/16" x 7/8" (12.9350)	2	2	2	2
1.3001	1	FP-5146733	Crankshaft Assembly	1	-	-	-
1.3001	1	FP-5103264	Crankshaft Assembly	-	1	-	-
1.3001	1	FP-23502165	Crankshaft Assy	-	-	1	-
1.3040	4	FP-5115454	Seal, Crankshaft Oil (Front), (Single Lip), (Std.)	1	1	1	-
1.3040	4	FP-8922045	Seal, Crankshaft Oil (Front), (LH Rotation), (-25 Degree F)	1	1	-	-
1.3040	4	FP-5143108	Seal, Crankshaft Oil (Front), (Submersible)	-	1	-	-
1.3040	4	FP-5114335	Seal, Crankshaft Oil (Front), (Single Lip), (Std.)	-	-	-	1
1.3040	4	FP-5197860	Seal, Oil (Front), (Single Lip O.S.), (Use w/Front Trunnion Mount)	-	-	1	1
1.3055	0	FP-23503766	Spacer, Crankshaft 2.5" I.D. X 2" (Front)	1	1	1	1
1.3055	0	FP-23503767	Spacer, Crankshaft 2.5" I.D. X 2.55" (Front)	1	1	1	1
1.3055	0	FP-23503769	Seal, Crankshaft (Front), (Use With Above Spacers)	1	1	1	1
1.3055	0	FP-23507306	Spacer, Crankshaft 2.5" I.D. X 2.81" (Front)	1	1	1	1
1.3060	0	FP-23501545	Seal, Crankshaft Oil (Rear), (Double Lip O.S.), (L/H Engine)	1	1	1	1
1.3060	0	FP-23501610	Seal, Crankshaft Oil (Rear), (Double Lip Std.), (L/H Engine)	1	1	1	1
1.3060	0	FP-5114335	Seal, Crankshaft Oil (Rear), (Single Lip Std.), (Non Directional)	1	1	1	-
1.3060	0	FP-5127821	Seal, Crankshaft Oil (Rear), (Double Lip Std.), (Non Directional)	1	1	1	-
1.3060	0	FP-5194462	Seal, Crankshaft Oil (Rear), (Single Lip O.S.), (L/H Engine)	1	1	1	1
1.3060	0	FP-5196927	Seal, Crankshaft Oil (Rear), (Double Lip O.S.), (Non Directional)	1	1	1	-
1.3060	0	FP-5197860	Seal, Crankshaft Oil (Rear), (Single Lip O.S.), (Non Directional)	1	1	1	-
1.3060	0	FP-8926761	Seal, Crankshaft Oil (Rear), (Single Lip Std.), (R/H Engine)	1	1	1	1
1.3060	0	FP-8926762	Seal, Crankshaft Oil (Rear), (Single Lip Std.), (L/H Engine)	1	1	1	1
1.3060	0	FP-5106329	Seal, Crankshaft Oil (Rear), (Double Lip Std.), (Non Directional)	-	-	-	1
1.3060	0	FP-5198159	Seal, Crankshaft Oil (Rear), (Double Lip O.S.), (Non Directional)	-	-	-	1
1.3060	0	FP-8923654	Seal, Crankshaft Oil (Rear), (Single Lip O.S.), (R/H Engine)	-	-	-	1
1.3065	0	FP-5192496	Spacer, Crankshaft Rear Oil Seal (Single Lip Seals Only)	1	1	1	-
1.3066	0	FP-23507225	Sleeve, Crankshaft Oil Seal (Rear), (Use w/O.S. Seals)	1	1	1	-
1.3066	0	FP-23507226	Sleeve, Crankshaft Oil Seal (Rear), (Use w/O.S. Seals)	-	-	-	1
1.3066	0	FP-5198908	Sleeve, Crankshaft Oil Seal (Use w/FP-5197860), (Front Trunnion Mount)	-	-	1	1
1.5004	0	FP-23504821	Seal, Crankshaft Oil (Rear), (Double Lip O.S.), (Non Directional)	1	1	1	1
1.5004	0	FP-8926135	Seal, Crankshaft Oil (Rear), (Single Lip .500" Wide - Use w/8926134 Sleeve)	1	1	1	1
1.5004	4	FP-8927746	Seal, Crankshaft Oil (Front), (1 Dust Lip), (1 Seal Lip Teflon), (R/H Engine)	1	1	1	-
1.5004	4	FP-8927746	Seal, Crankshaft Oil (Rear), (Double Lip Std. Teflon), (R/H Engine)	1	1	1	1
1.5004	4	FP-8927747	Seal, Crankshaft Oil (Rear), (Double Lip Std. Teflon), (L/H Engine)	1	1	1	1
1.5004	4	FP-8927747	Seal, Crankshaft Oil, (Front), (1 Dust Lip), (1 Seal Lip Teflon), (L/H Engine)	1	1	1	-
1.5004	4	FP-8927748	Seal, Crankshaft Oil (Front), (1 Dust Lip), (1 Seal Lip O.S. Teflon), (R/H Engine)	1	1	1	-
1.5004	4	FP-8927748	Seal, Crankshaft Oil (Rear), (Double Lip O.S. Teflon), (R/H Engine)	1	1	1	1
1.5004	4	FP-8927749	Seal, Crankshaft Oil (Front), (1 Dust Lip), (1 Seal Lip O.S. Teflon), (L/H Engine)	1	1	1	-
1.5004	4	FP-8927749	Seal, Crankshaft Oil (Rear), (Double Lip O.S. Teflon), (L/H Engine)	1	1	1	1
1.5004	0	FP-8929750	Seal Crankshaft Oil (Rear), (Teflon)	1	1	1	1

(Figure 3.2)





Damper & Flywheel Housing

(Figure 3.2)

Groups:
1.3090 - 1.5090

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.3090	6	FP-5149556	Shell Set, Crankshaft Main (Std.), (Non-Slotted Upper)	4	5	7	10
1.3090	6	FP-5149557	Shell Set, Crankshaft Main (.002"), (Non-Slotted Upper)	4	5	7	10
1.3090	6	FP-5149559	Shell Set, Crankshaft Main (.010"), (Non-Slotted Upper)	4	5	7	10
1.3090	6	FP-5149561	Shell Set, Crankshaft Main (.020"), (Non-Slotted Upper)	4	5	7	10
1.3090	6	FP-5149563	Shell Set, Crankshaft Main (.030"), (Non-Slotted Upper)	4	5	7	10
1.3090	5	FP-5149565	Shell Set, Crankshaft Main (Std.), (Slotted Upper), (Turbo)	4	5	7	10
1.3090	5	FP-5149566	Shell Set, Crankshaft Main (.002"), (Slotted Upper), (Turbo)	4	5	7	10
1.3090	5	FP-5149567	Shell Set, Crankshaft Main (.010"), (Slotted Upper), (Turbo)	4	5	7	10
1.3090	5	FP-5149568	Shell Set, Crankshaft Main (.020"), (Slotted Upper), (Turbo)	4	5	7	10
1.3090	5	FP-8922118	Shell Set, Crankshaft Main (.030"), (Slotted Upper), (Turbo)	4	5	7	10
1.3100	8	FP-141346	Pin, 3/16" X 1/2" Dowel	4	4	4	4
1.3100	7	FP-5117005	Washer, Crankshaft Main Bearing Thrust (Std.)	4	4	4	4
1.3100	7	FP-5196753	Washer, Crankshaft Main Bearing Thrust (.005)	4	4	4	4
1.3100	7	FP-5196754	Washer, Crankshaft Main Bearing Thrust (.010)	4	4	4	4
1.3140	0	FP-5102373	Washer, .694" ID X 1.125" O.D. X .180" Thick	8	10	14	20
1.3140	17	FP-5102374	Bolt, 5/8" - 11 X 6.60" Main Bearing Cap	8	10	14	8
1.3140	17	FP-5116353	Bolt, 5/8" - 11 X 6.00" Main Bearing Cap	8	10	14	20
1.3145	0	FP-8926631	Gear, Crankshaft Timing (R.H. Helix, R.H. Engine), (Rear on 16V)	1	1	1	1
Flywheel Housing							
1.4001	0	FP-5103248	Bolt, Flywheel (9/16 - 18 x 2.00"), (12.9001)	AR	AR	AR	AR
1.4001	0	FP-5103250	Bolt, Flywheel (B/H Flywheel), (9/16 - 18 x 2.75")	AR	AR	AR	AR
1.4040	5	FP-23503706	Bearing, Clutch Pilot	1	1	1	1
1.4040	5	FP-23503707	Bearing, Clutch Pilot	1	1	1	1
1.4040	5	FP-23503709	Bearing, Clutch Pilot	1	1	1	1
1.5010	5	FP-5144875	Gasket, Flywheel Housing	1	1	1	1
1.5010	5	FP-5144875R1	Gasket, Flywheel Housing	1	1	1	1
1.5010	5	FP-5147246	Gasket, Flywheel Housing	1	1	1	1
1.5040	9	FP-23515145	Gasket, Flywheel Housing Large Hole Cover (5104506)	2	2	2	2
1.5060	13	FP-5104507	Gasket, Flywheel Housing Small Hole Cover	3	3	3	3
1.5075	0	FP-5130995	Gasket, Starting Motor Hole Cover	1	1	1	1
1.5090	0	FP-5170895	Gasket, Flywheel Housing Inspection Hole Cover (9.1610)	1	1	1	1
Vibration Damper							
1.3210	1	FP-5100421	Damper, Vibration (Heavy, Rubber)	AR	AR	AR	AR
1.3210	1	FP-5147600	Damper, Vibration (Heavy, Viscous)	AR	AR	AR	AR
1.3210	0	FP-23512418	Seal, Pulley Drive Shaft (Camshaft Damper), (2.8810)	-	1	-	-
1.3210	1	FP-5106222	Damper, Vibration (Heavy Viscous), (15")	-	1	1	1
1.3210	1	FP-8922491	Damper, Vibration (Heavy Viscous), (12.3" Dia.)	-	1	1	-
1.3210	1	FP-8922492	Damper, Vibration (Heavy Viscous), (12.3" Dia.)	-	1	1	1
1.3210	1	FP-8928951	Damper, Vibration (Heavy Viscous), (12.3"), (Use w/8925443 Crank)	-	1	1	1
1.3240	5	FP-5102957	Cone, Vibration Damper Front (.937")	-	1	1	1
1.3240	6	FP-5104475	Cone, Vibration Damper Rear (1.701"), (w/Seal Groove)	-	1	1	1
1.3240	5	FP-5134917	Cone, Vibration Damper Front (.531")	-	1	1	1
1.3240	5	FP-23502705	Cone, Vibration Damper Front (.212")	-	-	1	-
1.3240	6	FP-23507296	Cone, Vibration Damper Rear (3.094"), (w/Front PTO Only)	-	-	1	-
1.3240	6	FP-23507297	Cone, Vibration Damper Rear (2.22")	-	-	1	-
1.3250	0	FP-23503769	Seal O-Ring, Vibration Damper Rear Cone (5104471)	-	1	1	1
1.3250	6	FP-23506876	Cone, Vibration Damper Rear (1.40"), (5153144)	-	1	1	1
1.3250	6	FP-23507299	Cone, Vibration Damper Rear (.531")	-	-	1	-
1.3250	6	FP-8928674	Cone, Vibration Damper Rear (2.43")	-	-	1	-



Cylinder Kits

Cylinder Kit	Description	C/R	Option Type Numbers	Piston
71V Series Trunk Type Only				
FP-20011	Non-Turbo, Trunk 4V Hd #1 Bore	18.7:1	30,31,32,36,40,42,45,50,52,78,81,88,92,112,164,171	FP-5149234
FP-23505305	Non-Turbo, Trunk 4V Hd #2 Bore	18.7:1	30,31,32,36,40,42,45,50,52,78,81,88,92,112,164,171	FP-5149234
FP-23505306	Non-Turbo, Trunk 4V Hd #3 Bore	18.7:1	30,31,32,36,40,42,45,50,52,78,81,88,92,112,164,171	FP-5149234
FP-23505306 30	Non-Turbo, Trunk 4V Hd .030 OS	18.7:1	30,31,32,36,40,42,45,50,52,78,81,88,92,112,164,171	FP-5149234
FP-23505306 5	Non-Turbo, Trunk 4V Hd .005 OS	18.7:1	30,31,32,36,40,42,45,50,52,78,81,88,92,112,164,171	FP-5149234
FP-5149261	Non-Turbo, Trunk 4V Hd #4 Bore	18.7:1	30,31,32,36,40,42,45,50,52,78,81,88,92,112,164,171	FP-5149234
FP-5149263	Non-Turbo, Trunk 4V Hd .010 OS	18.7:1	30,31,32,36,40,42,45,50,52,78,81,88,92,112,164,171	FP-5149234
FP-5149264	Non-Turbo, Trunk 4V Hd .020 OS	18.7:1	30,31,32,36,40,42,45,50,52,78,81,88,92,112,164,171	FP-5149234
FP-20012	Turbo, Trunk, 4V Hd #1 Bore	17:1	38,51,111	FP-5149236
FP-20013	Turbo, Trunk, 4V Hd #2 Bore	17:1	38,51,111	FP-5149236
FP-23505307	Turbo, Trunk, 4V Hd #3 Bore	17:1	38,51,111	FP-5149236
FP-23505307 1	Turbo, Trunk, 4V Hd #4 Bore	17:1	38,51,111	FP-5149236
FP-23505307 10	Turbo, Trunk, 4V Hd .010 OS	17:1	38,51,111	FP-5149236
FP-23505307 20	Turbo, Trunk, 4V Hd .020 OS	17:1	38,51,111	FP-5149236
FP-23505307 30	Turbo, Trunk, 4V Hd .030 OS	17:1	38,51,111	FP-5149236
FP-23505307 5	Turbo, Trunk, 4V Hd .005 OS	17:1	38,51,111	FP-5149236
FP-LCK-5306	Linerless Cylinder Kit, Non-Turbo	18.7:1	Trunk Piston (4V)	FP-5149234
FP-LCK-5307	Linerless Cylinder Kit, Turbo	17:1	Trunk Piston (4V)	FP-5149236



Cylinder Kits

Dome	Seal, Dome	Skirt	Slipper Brg	Liner	Port Ht	Ring Set	Pin	Retainer
71V Series Trunk Type Only								
				FP-23502020	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-23502021	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-23502022	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-5193735	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-5193732	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-23504936	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-5193733	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-5193734	1.05"	FP-23514970	FP-5188406	FP-5188405
				FP-23502020	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-23502021	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-23502022	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-23504936	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-5193733	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-5193734	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-5193735	1.05"	FP-23514971	FP-5144495	FP-5188405
				FP-5193732	1.05"	FP-23514971	FP-5144495	FP-5188405
						FP-23514970	FP-5188406	FP-5188405
						FP-23514971	FP-5144495	FP-5188405



Cylinder Kits

Cylinder Kit	Description	C/R	Option Type Numbers
71V Series Cross-Head Type Only			
FP-23522946	Turbo, Cross-Head #3	18.7:1	
FP-23522948	Turbo, Cross-Head #2	18.7:1	
FP-23522950	Turbo, Cross-Head .010 OS	18.7:1	
FP-23522952	Turbo, Cross-Head #3	17:1	(Original Part Number FP-23505424)
FP-20022	Non-Turbo, Cross-Head #1 Bore	18.7:1	129,137,167,169,'170,173,219,353 (23505312) (5199822)
FP-23522949	Non-Turbo, Cross-Head #2 Bore	18.7:1	129,137,167,169,'170,173,219,353 (23505312) (5199822)
FP-23522947	Non-Turbo, Cross-Head #3 Bore	18.7:1	129,137,167,169,'170,173,219,353 (23505313)
FP-23522951	Non-Turbo, Cross-Head .010 OS	18.7:1	129,137,167,169,'170,173,219,353 (5149300)
FP-23522525	Non-Turbo, Cross-Head .020 OS	18.7:1	129,137,167,169,'170,173,219,353 (5149301)
FP-23522949 5	Non-Turbo, Cross-Head .005 OS	18.7:1	129,137,167,169,'170,173,219,353 (5199822-005)
FP-23522949 30	Non-Turbo, Cross-Head .030 OS	18.7:1	129,137,167,169,'170,173,219,353 (5199822-030)
FP-23522521	Non-Turbo, Cross-Head #4 Bore	18.7:1	129,137,167,169,'170,173,219,353 (5199956)
FP-20020	TA, Cross-Head #1 Bore N75 & Below	17:1	138,143,174,186,201,210,211,212,213,214,286 (23505314)
FP-23522485	TA, Cross-Head #2 Bore N75 & Below	17:1	138,143,174,186,201,210,211,212,213,214,286 (23505314)
FP-23522953	TA, Cross-Head #3 Bore N75 & Below	17:1	138,143,174,186,201,210,211,212,213,214,286 (23505315)
FP-23522485 5	TA, Cross-Head .005 OS N75 & Below	17:1	138,143,174,186,201,210,211,212,213,214,286 (8927766-005)
FP-23522485 30	TA, Cross-Head .030 OS N75 & Below	17:1	138,143,174,186,201,210,211,212,213,214,286 (8927766-030)
FP-23522489	TA, Cross-Head #4 Bore N75 & Below	17:1	138,143,174,186,201,210,211,212,213,214,286 (8927767)
FP-23522491	TA, Cross-Head .010 OS N75 & Below	17:1	138,143,174,186,201,210,211,212,213,214,286 (8927768)
FP-23522493	TA, Cross-Head .020 OS N75 & Below	17:1	138,143,174,186,201,210,211,212,213,214,286 (8927769)
FP-23522473 30	TA, X-Hd .030 N75 & Above Wide Gap Fire Ring	17:1	177,287,297,307,308
FP-23522473 5	TA, X-Hd .005 N75 & Above Wide Gap Fire Ring	17:1	177,287,297,307,308
FP-23522479	TA, X-Hd #4 N75 & Above Wide Gap Fire Ring	17:1	177,287,297,307,308
FP-23522481	TA, X-Hd .010 N75 & Above Wide Gap Fire Ring	17:1	177,287,297,307,308
FP-23522483	TA, X-Hd .020 N75 & Above Wide Gap Fire Ring	17:1	177,287,297,307,308
FP-20019	TA, X-Hd #1 N75 & Above High Output Marine	17:1	177,287,297,307,308 (23505425)
FP-23522473	TA, X-Hd #2 N75 & Above High Output Marine	17:1	177,287,297,307,308 (23505425)
FP-23522477	TA, X-Hd #3 N75 & Above High Output Marine	17:1	177,287,297,307,308 (23505426)
FP-20021	TA, TAB Cross-Head #1 Bore Auto & City Coach	18.7:1	285
FP-23522507	TA, TAB Cross-Head #2 Bore Auto & City Coach	18.7:1	285
FP-23522509	TA, TAB Cross-Head #3 Bore Auto & City Coach	18.7:1	285
FP-23522511	TA, TAB Cross-Head #4 Bore Auto & City Coach	18.7:1	285
FP-23522513	TA, TAB Cross-Head .010 OS Auto & City Coach	18.7:1	285
FP-23522515	TA, TAB Cross-Head .020 OS Auto & City Coach	18.7:1	285
FP-LCK-22507	Linerless Cylinder Kit	18.7:1	Non-Turbo Cross-Head
FP-LCK-22949	Linerless Cylinder Kit	18.7:1	Non-Turbo Cross-Head
FP-LCK-22473	Linerless Cylinder Kit	17:1	Turbo A/C Cross-Head
FP-LCK-22485	Linerless Cylinder Kit	17:1	Turbo A/C Cross-Head



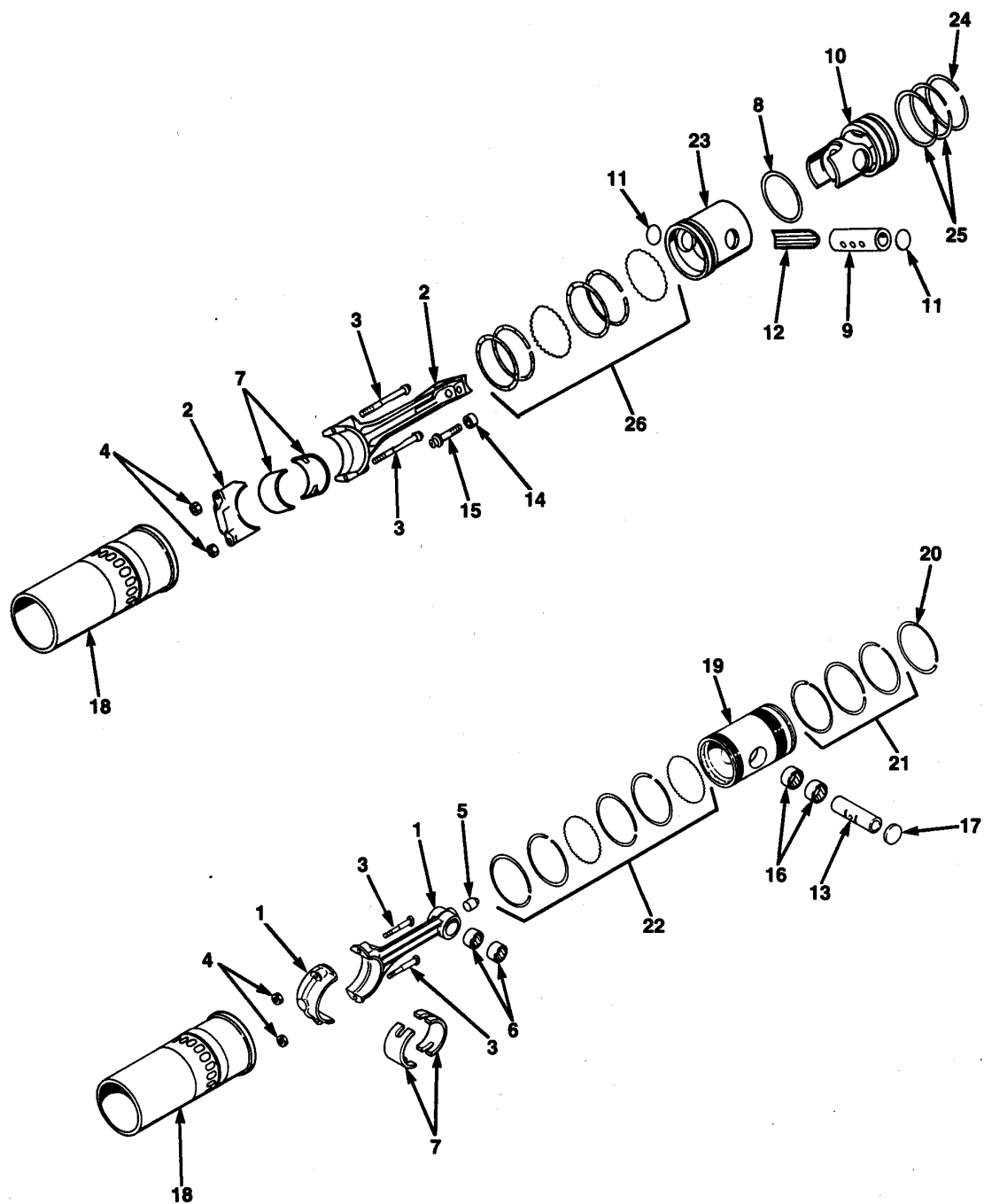
Cylinder Kits

Dome	Seal, Dome	Skirt	Slipper Brg	Liner	Port Ht	Ring Set	Pin	Retainer
71V Series Cross-Head Type Only								
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502022	1.05"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502021	1.05"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193733	1.05"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502022	1.05"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502020	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502021	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502022	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193733	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193734	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193732	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5193735	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23504936	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502020	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502021	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502022	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5193732	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5193735	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23504936	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5193733	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5193734	1.05"	FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502024	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502024	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23504935	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5107449	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-5107450	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502023	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502024	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687	FP-23502025	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502023	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502024	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23502025	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-23504935	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5107449	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687	FP-5107450	.95"	FP-23522954	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687			FP-23522955	FP-5101120	FP-5180250
FP-23522026	FP-8922221	FP-23522070	FP-23501687			FP-23522955	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687			FP-23522954	FP-5101120	FP-5180250
FP-23521992	FP-8922221	FP-23522070	FP-23501687			FP-23522954	FP-5101120	FP-5180250



Connecting Rod & Piston

(Figure 4.1)





Connecting Rod & Piston

(Figure 4.1)

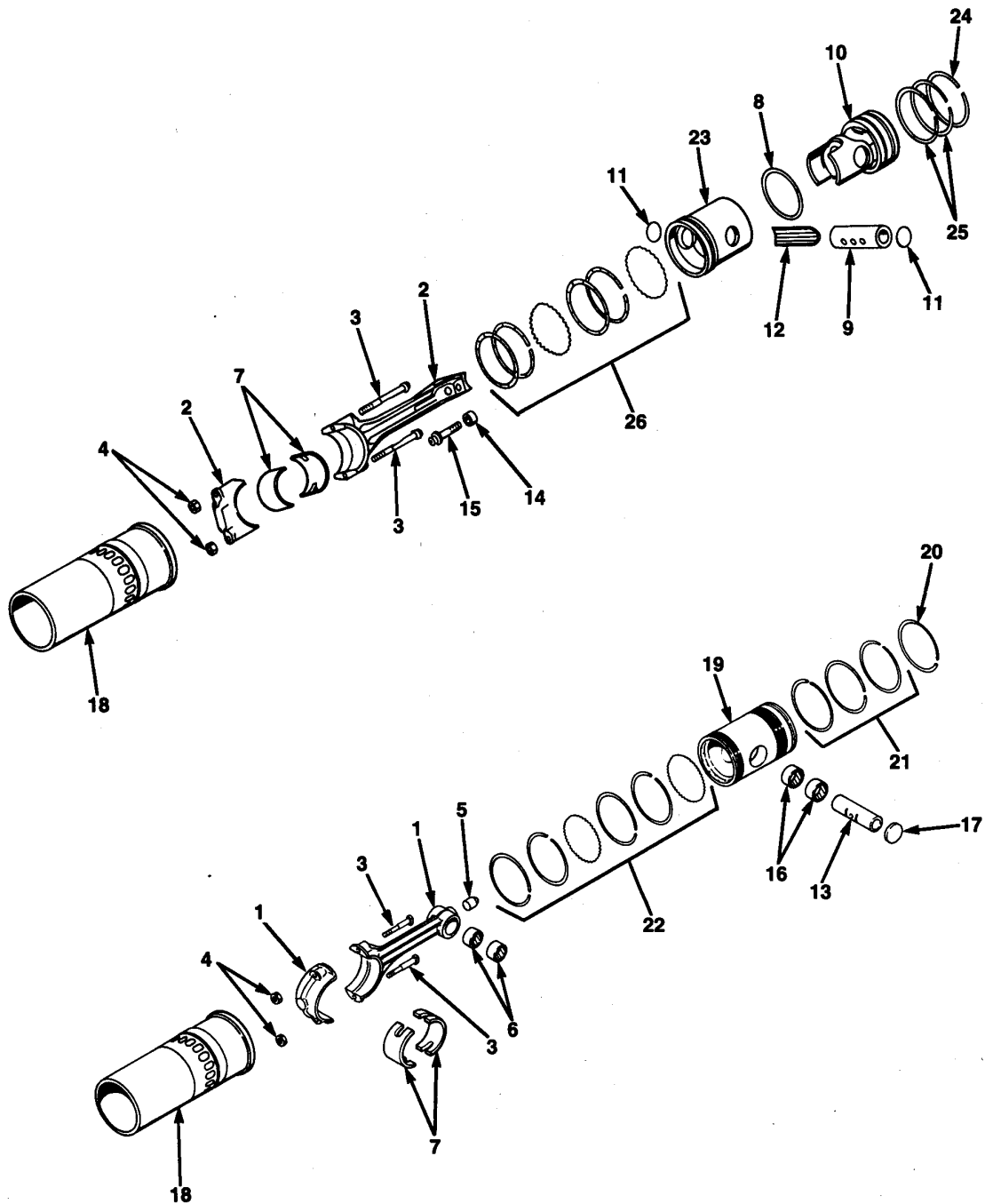
Groups:
1.6001 - 1.6182

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.6001	3	FP-5117629	Nut, Rod Bolt 7/16"x 20	12	16	24	32
1.6001	2	FP-5132383	Bolt, C/R 7/16" 20x3.52"	12	16	24	32
1.6040	0	FP-5157274	Bushing, Connecting Rod Piston Pin	12	16	24	32
1.6100	5	FP-23501026	Shell Set, Connecting Rod (.002 U.S.), (Air/Air & ALCC)	6	8	12	16
1.6100	5	FP-23501029	Shell Set, Connecting Rod (.030 U.S.), (Air/Air & ALCC)	6	8	12	16
1.6100	5	FP-5149572	Shell Set, Connecting Rod (Std.)	6	8	12	16
1.6100	5	FP-5149573	Shell Set, Connecting Rod (.002 U.S.)	6	8	12	16
1.6100	5	FP-5149575	Shell Set, Connecting Rod (.010 U.S.)	6	8	12	16
1.6100	5	FP-5149577	Shell Set, Connecting Rod (.020 U.S.)	6	8	12	16
1.6100	5	FP-5149579	Shell Set, Connecting Rod (.030 U.S.)	6	8	12	16
1.6106	8	FP-23501676	Ring Seal, Crosshead Piston (Former Style)	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6130	16	FP-23514967	Ring Set, Oil Control (For One Piston), (Chrome), (V71T & TA Only)	6	8	12	16
1.6182	7	FP-5130881	Pin, Piston Trunk (Turbo), (Non-Drilled), (Military)	6	8	12	16
1.6182	7	FP-5144495	Pin, Piston Trunk (Drilled), (1.6140)	6	8	12	16
1.6182	12	FP-5149234	Piston Assembly (18.7:1), (Trunk N/A), (4 Valve Head)	6	8	12	16
1.6182	12	FP-5149236	Piston Assembly (17:1), (Trunk Turbo)	6	8	12	16
1.6182	7	FP-5188406	Pin, Piston Trunk (Non-Turbo), (1.6140)	6	8	12	16
1.6182	11	FP-5188405	Retainer, Piston Pin (1.6150)	12	16	24	32
1.6115	0	FP-23514970	Ring Set (Trunk Non-Turbo), (4 Valve Head)	6	8	12	16
1.6120	14	FP-5102648	Ring, Fire & Compression (First 4 Grooves)	24	32	48	64
1.6130	16	FP-23514965	Ring Set, Oil Control (For One Piston)	6	8	12	16
1.6115	0	FP-23514971	Ring Set (Trunk Turbo), (4 Valve Head)	6	8	12	16
1.6120	14	FP-5102648	Ring, Fire (Top Groove)	6	8	12	16
1.6120	15	FP-5185325	Ring, Compression (2nd, 3rd & 4th Grooves)	18	24	36	48
1.6130	16	FP-23514968	Ring Set, Oil Control (For One Piston)	6	8	12	16
1.6110	0	FP-23522497	Dome Kit, Piston	6	8	12	16
1.6110	18	FP-23522026	Dome, Piston (18.7:1), (Crosshead)	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	7	FP-5101120	Pin, Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32
1.6110	19	FP-23522070	Skirt, Piston Crosshead (All)	6	8	12	16
1.6110	0	FP-23522497NP	Dome Kit, Piston (Without Pin)	6	8	12	16
1.6110	18	FP-23522026	Dome, Piston (18.7:1), (Crosshead)	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32
1.6110	19	FP-23522070	Skirt, Piston Crosshead (All)	6	8	12	16
1.6110	0	FP-23522535	Dome Kit, Piston	6	8	12	16
1.6110	18	FP-23522026	Dome, Piston (18.7:1), (Crosshead)	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	7	FP-5101120	Pin, Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32



Connecting Rod & Piston

(Figure 4.2)





Connecting Rod & Piston

(Figure 4.2)

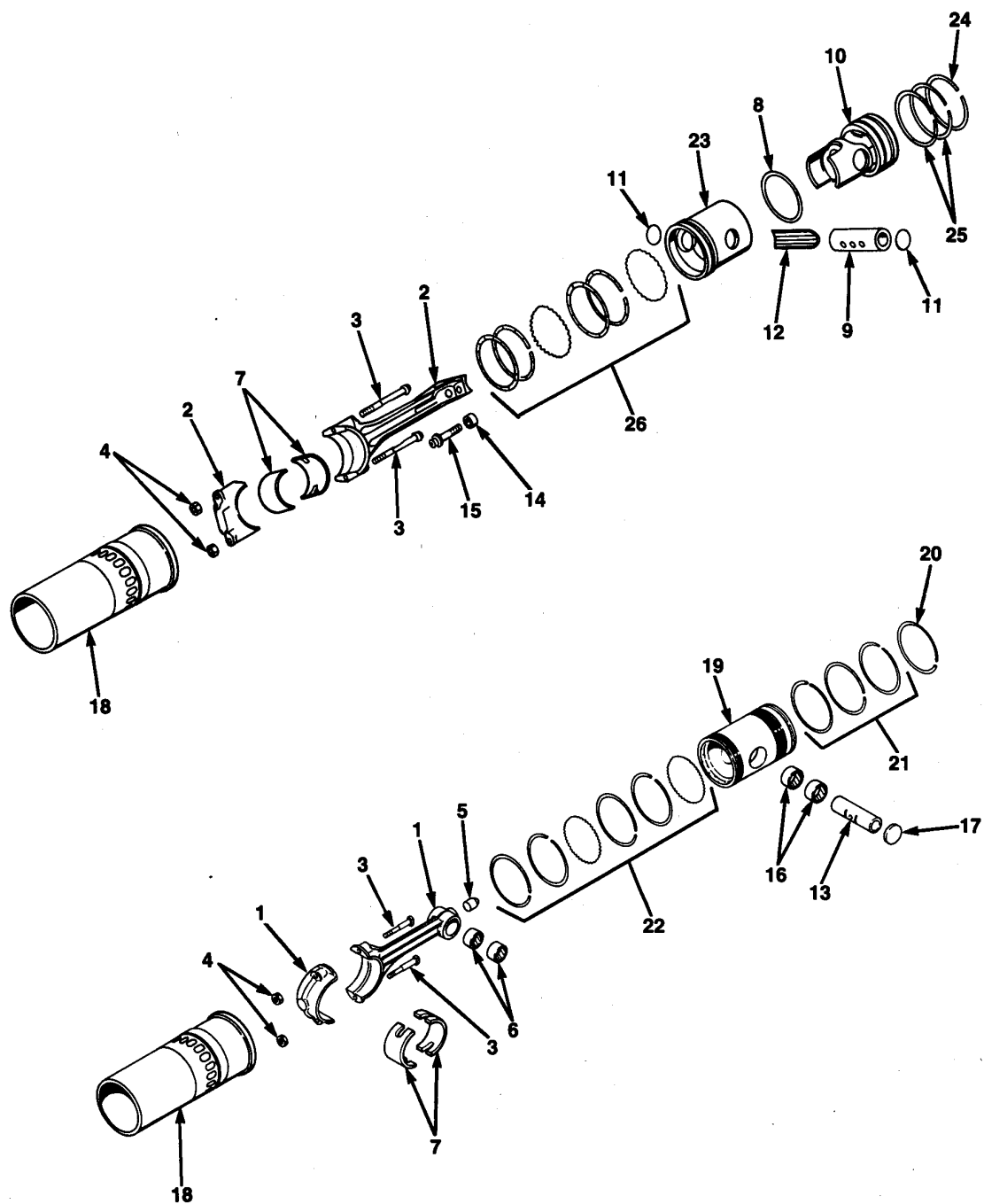
Groups:
1.6110 - 1.6110

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.6110	0	FP-23522475	Dome Kit, Piston	6	8	12	16
1.6110	18	FP-23521992	Dome, Piston (17:1), (Crosshead)	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	7	FP-5101120	Pin, Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	7	FP-5101120	Pin, Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32
1.6110	0	FP-23522495	Piston Kit	6	8	12	16
1.6110	18	FP-23521992	Dome, Piston (17:1), (Crosshead)	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	7	FP-5101120	Pin, Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32
1.6110	19	FP-23522070	Skirt, Piston Crosshead, All	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	7	FP-5101120	Pin, Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32
1.6110	19	FP-23522070	Skirt, Piston Crosshead, All	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	7	FP-5101120	Pin, Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32
1.6110	19	FP-23522070	Skirt, Piston Crosshead (All)	6	8	12	16
1.6110	10	FP-23501687	Bearing, Piston Pin (Slipper Type)	6	8	12	16
1.6110	6	FP-8922221	Ring, Seal Crosshead Piston	6	8	12	16
1.6110	7	FP-5101120	Pin, Piston	6	8	12	16
1.6110	11	FP-5180250	Retainer, Piston Pin	12	16	24	32



Connecting Rod & Piston

(Figure 4.3)





Connecting Rod & Piston

(Figure 4.3)

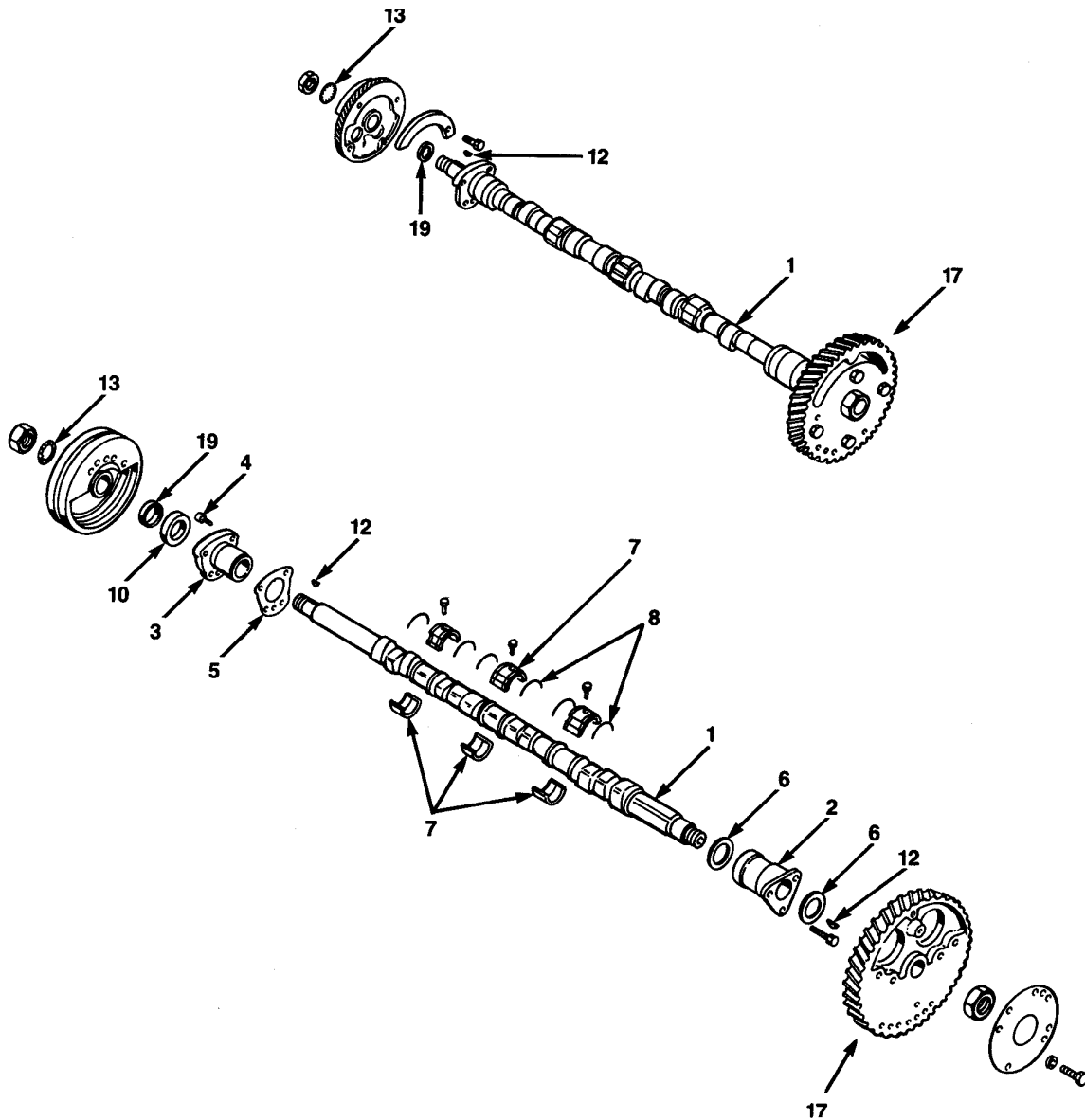
Groups:
1.6115 - 1.6187

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.6140	7	FP-5101120	Pin, Piston Crosshead (Turbo, Solid)	6	8	12	16
1.6140	7	FP-5144744	Pin, Piston Crosshead (Nut Plate Type)	6	8	12	16
1.6140	8	FP-5144846	Spacer, Piston Pin Bolt (Crosshead)	12	16	24	32
1.6140	9	FP-5148373	Bolt, Piston Pin 7/16" 20 x 2.00" L	12	16	24	32
1.6142	10	FP-23501687	Bearing, Piston Pin (Slipper)	6	8	12	16
1.6145	13	FP-5155839	Bushing, Piston Pin (Trunk Type), (In Piston)	12	16	24	32
1.6180	23	FP-23502020	Liner, Cylinder (1.05" Port Ht.), (#1 Bore)	6	8	12	16
1.6180	23	FP-23502021	Liner, Cylinder (1.05" Port Ht.), (#2 Bore)	6	8	12	16
1.6180	23	FP-23502022	Liner, Cylinder (1.05" Port Ht.), (#3 Bore)	6	8	12	16
1.6180	23	FP-23502023	Liner, Cylinder (.95" Port Ht.), (#1 Bore)	6	8	12	16
1.6180	23	FP-23502024	Liner, Cylinder (.95" Port Ht.), (#2 Bore)	6	8	12	16
1.6180	23	FP-23502025	Liner, Cylinder (.95" Port Ht.), (#3 Bore)	6	8	12	16
1.6180	23	FP-23504935	Liner, Cylinder (.95" Port Ht.), (#4 Bore), (.001")	6	8	12	16
1.6180	23	FP-23504936	Liner, Cylinder (1.05" Port Ht.), (#4 Bore), (.001")	6	8	12	16
1.6180	23	FP-5107448	Liner, Cylinder (.95" Port Ht.), (.005" O.S.)	6	8	12	16
1.6180	23	FP-5107449	Liner, Cylinder (.95" Port Ht.), (.010" O.S.)	6	8	12	16
1.6180	23	FP-5107450	Liner, Cylinder (.95" Port Ht.), (.020" O.S.)	6	8	12	16
1.6180	23	FP-5193732	Liner, Cylinder (1.05" Port Ht.), (.005" O.S.)	6	8	12	16
1.6180	23	FP-5193733	Liner, Cylinder (1.05" Port Ht.), (.010" O.S.)	6	8	12	16
1.6180	23	FP-5193734	Liner, Cylinder (1.05" Port Ht.), (.020" O.S.)	6	8	12	16
1.6180	23	FP-5193735	Liner, Cylinder (1.05" Port Ht.), (.030" O.S.)	6	8	12	16
1.6185	0	FP-5199569	Shim, Cylinder Liner .002" Thick	6	8	12	16
1.6187	0	FP-5148399	Insert, Cylinder Liner (.1810"-.1815" Thick For Std. Thru .005" O.S. Liner)	6	8	12	16
1.6187	0	FP-5148440	Insert, Cylinder Liner (.1780"-.1785" Thick For Std. Thru .005" O.S. Liner)	6	8	12	16
1.6187	0	FP-5184484	Insert, Cylinder Liner (.1795"-.1800" Thick For Std. Thru .005" O.S. Liner)	6	8	12	16
1.6187	0	FP-5193316	Insert, Cylinder Liner (.1795"-.1800" Thick For .010",.020",.030 O.S. O.D.Liner)	6	8	12	16
1.6187	0	FP-5194073	Insert, Cylinder Liner (.1760"-.1755" Thick For Std. Thru .005" O.S. O.D.Liner)	6	8	12	16
1.6187	0	FP-5194163	Insert, Cylinder Liner (.1755"-.1760" Thick For .010,.020,.030 O.S. O.D.Liner)	6	8	12	16
1.6187	0	FP-5194164	Insert, Cylinder Liner (.1715"-.1720" Thick For .010,.020,.030 O.S. O.D.Liner)	6	8	12	16
1.6187	0	FP-5199871	Insert, Cylinder Liner (.1810"-.1815" Thick For .010,.020,.030 O.S. O.D.Liner)	6	8	12	16
1.6115	0	FP-23522954	Ring Set, Crosshead (Wide Gap Fire Ring)	6	8	12	16
1.6120	20	FP-8924083	Ring (Top Fire)	6	8	12	16
1.6120	21	FP-8926351	Ring, Compression (2nd & 3rd Grooves)	12	16	24	32
1.6130	22	FP-23522534	Ring Set, Oil Control (For One Groove)	12	16	24	32
1.6115	0	FP-23522955	Ring Set, Crosshead (Std. Gap Fire Ring)	6	8	12	16
1.6120	20	FP-8924084	Ring, (Top Fire)	6	8	12	16
1.6120	21	FP-8926351	Ring, Compression (2nd & 3rd Grooves)	12	16	24	32
1.6130	22	FP-23522534	Ring Set, Oil Control (For One Groove)	12	16	24	32



Camshaft

(Figure 5.1)





Camshaft

(Figure 5.1)

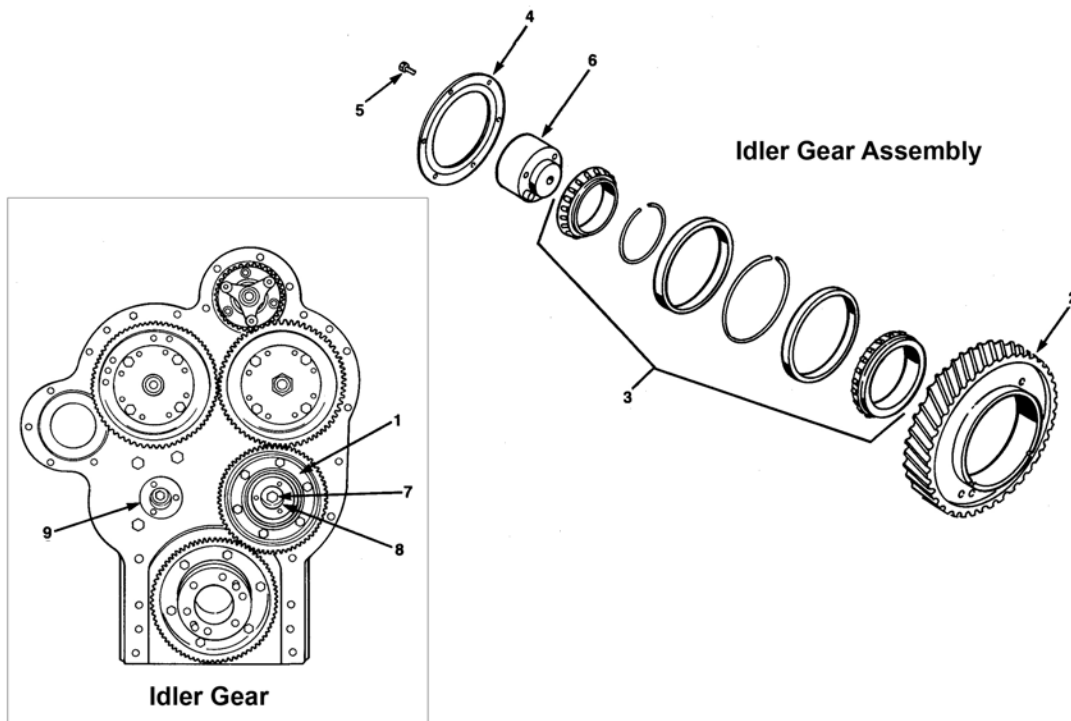
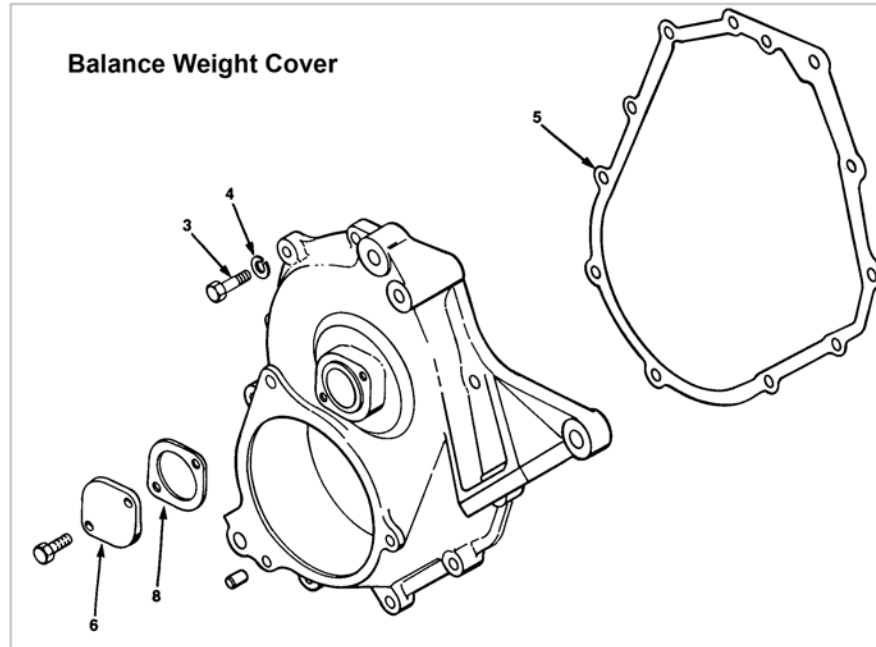
Groups:
1.7001 - 1.7207

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.7001	0	FP-9421745	Plug, Cup Type (1/2")	AR	AR	AR	AR
1.7001	0	FP-5151277	Plug, Camshaft (15/32" X 1/2")	4	4	4	8
1.7001	1	FP-5108111	Camshaft Assembly, Left Bank R/H Rot. (Stamped 5108113), (Type 407,419)	1	-	-	-
1.7001	1	FP-5117853	Camshaft Assembly, Rt Bank R/H Rot. (Stamped 5117872) (Types 40,59,90,92,100,101,135,142,180,184,264,417,421,424,425,428,430,51 6,563,619)	-	1	-	-
1.7010	2	FP-5111422	Bearing, Camshaft Rear (Std.)	2	2	2	4
1.7010	3	FP-5117984	Bearing, Camshaft Front (Std.)	2	2	2	-
1.7010	2	FP-5194858	Bearing, Camshaft Rear (.010" U.S.I.D.)	2	2	2	4
1.7010	3	FP-5197569	Bearing, Camshaft Front (.010" U.S.I.D.)	2	2	2	-
1.7012	5	FP-5117243	Gasket, Camshaft Front End Bearing	1	1	1	-
1.7015	0	FP-5111423	Bushing, Camshaft End Bearings	8	8	8	8
1.7015	0	FP-5194825	Bushing, Camshaft End Bearings (.020" U.S. Unfinished)	8	8	8	8
1.7030	6	FP-5111424	Washer, Camshaft Thrust (Std.)	4	4	4	8
1.7030	6	FP-5194826	Washer, Camshaft Thrust (.005".)	4	4	4	8
1.7030	6	FP-5194827	Washer, Camshaft Thrust (.010".)	4	4	4	8
1.7040	7	FP-5196026	Bearing, Camshaft Intermediate (Std.)	4	6	10	12
1.7040	7	FP-5196027	Bearing, Camshaft Intermediate (.010" U.S.I.D.)	4	6	10	12
1.7050	8	FP-5115572	Ring, Camshaft Intermediate Bearing Lock	8	12	20	24
1.7060	10	FP-23516871	Seal, Camshaft Oil (Front Left Bank)	1	1	1	-
1.7130	13	FP-5177769	Lockwasher, 1 1/8"	1	1	1	-
1.7130	12	FP-8926247	Key, 1/4" X 3/4" Woodruff	1	1	1	-
1.7190	0	FP-5145092	Bolt, 3/8" -24 X 1.20" Self Lock	-	4	-	-
1.7200	12	FP-8926247	Key, 1/4" X 3/4" Woodruff	3	3	4	4
1.7200	13	FP-5177769	Lockwasher, 1 1/8"	1	1	-	-
1.7200	0	FP-9412015	Bolt, 9/16" -18 X 2 1/2" (For Cam's FP-5146163 & FP-5146074)	1	1	1	1
1.7202	19	FP-5116485	Spacer, (.64" L Front) Camshaft Gear	2	2	2	-
1.7207	22	FP-103321	Lockwasher, 3/8"	8	8	8	16



Camshaft

(Figure 5.2)





Camshaft

(Figure 5.2)

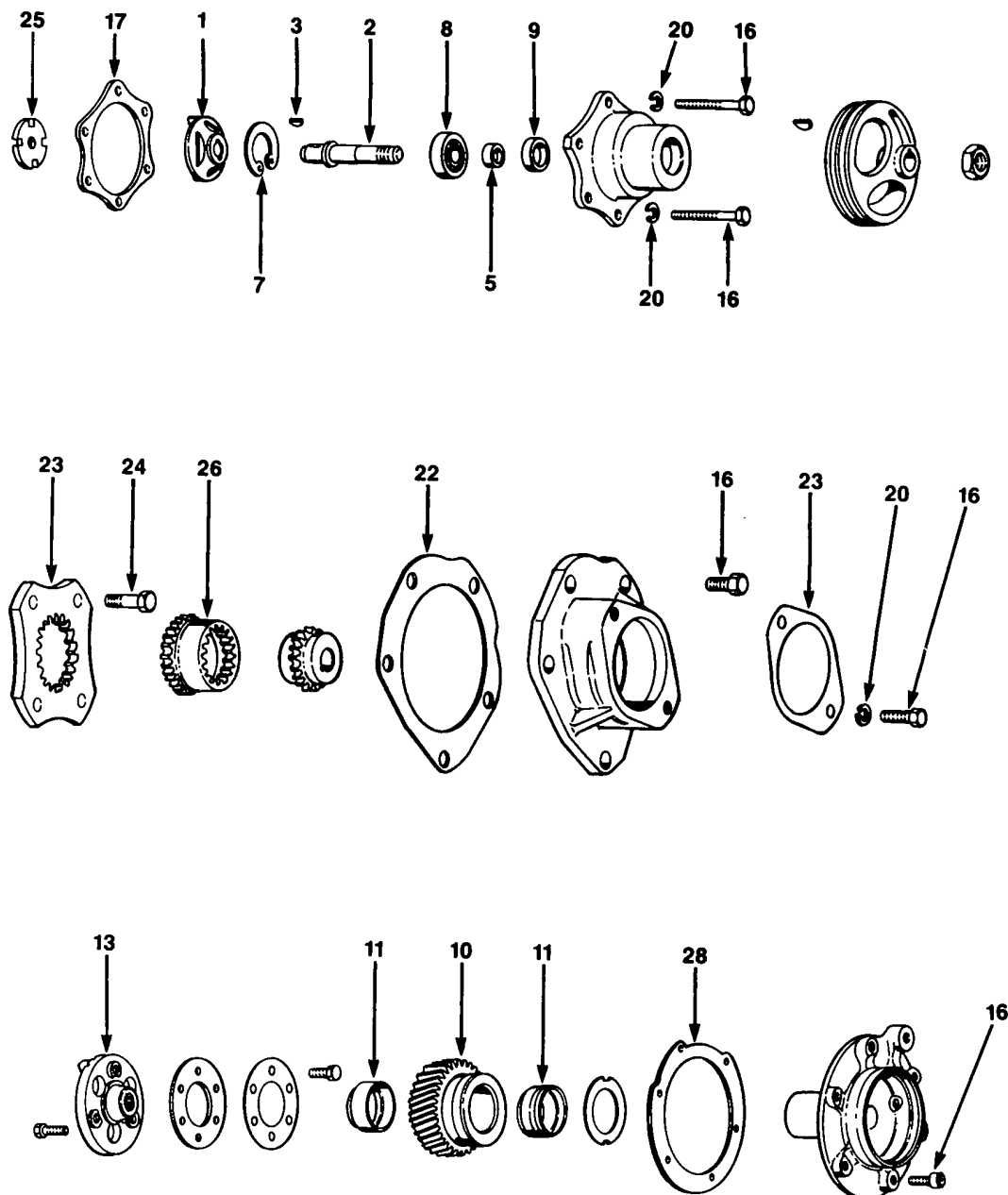
Groups:
1.7250 - 1.7500

Group	Ref	Part No.	Description	6V	8V	12V	16V
Balance Weight Cover							
1.7470	0	FP-103026	Nut, 3/8"-24	-	-	-	-
1.7470	4	FP-103321	Lockwasher, 3/8"	-	-	-	-
1.7480	5	FP-5117905	Gasket, Balance Weight Cover (Type 18,19,20)	1	1	1	-
1.7480	5	FP-5123638	Gasket, Balance Weight Cover (Type 27,28,44,45)	1	1	1	-
1.7480	5	FP-5123639	Gasket, Balance Weight Cover (Type 29,49)	1	1	1	-
1.7500	8	FP-5123123	Gasket, Balance Weight Cover Hole (Type 19,27,44,45,49,)	1	1	1	-
Idler Gear							
1.7225	13	FP-7451948	Bearing, Idler Gear	1	1	1	2
1.7227	15	FP-5103534	Bolt, 5/16" - 24 x 1/2" (Vibrate Coated)	6	6	6	6
1.7227	14	FP-5176998	Retainer, Idler Gear Bearing	1	1	1	1
1.7250	7	FP-454992	Bolt, 1/2" -13 X 2 1/2"	2	2	4	4
1.7250	16	FP-5130135	Hub Assembly Idler Gear	1	1	1	1
1.7250	8	FP-5167714	Washer, 17/32" X 7/8" X 3/32"	1	1	2	2
1.7260	9	FP-5101150	Spacer, Idler Gear Hole	1	1	2	2



Accessory Drive

(Figure 5.3)





Accessory Drive

(Figure 5.3)

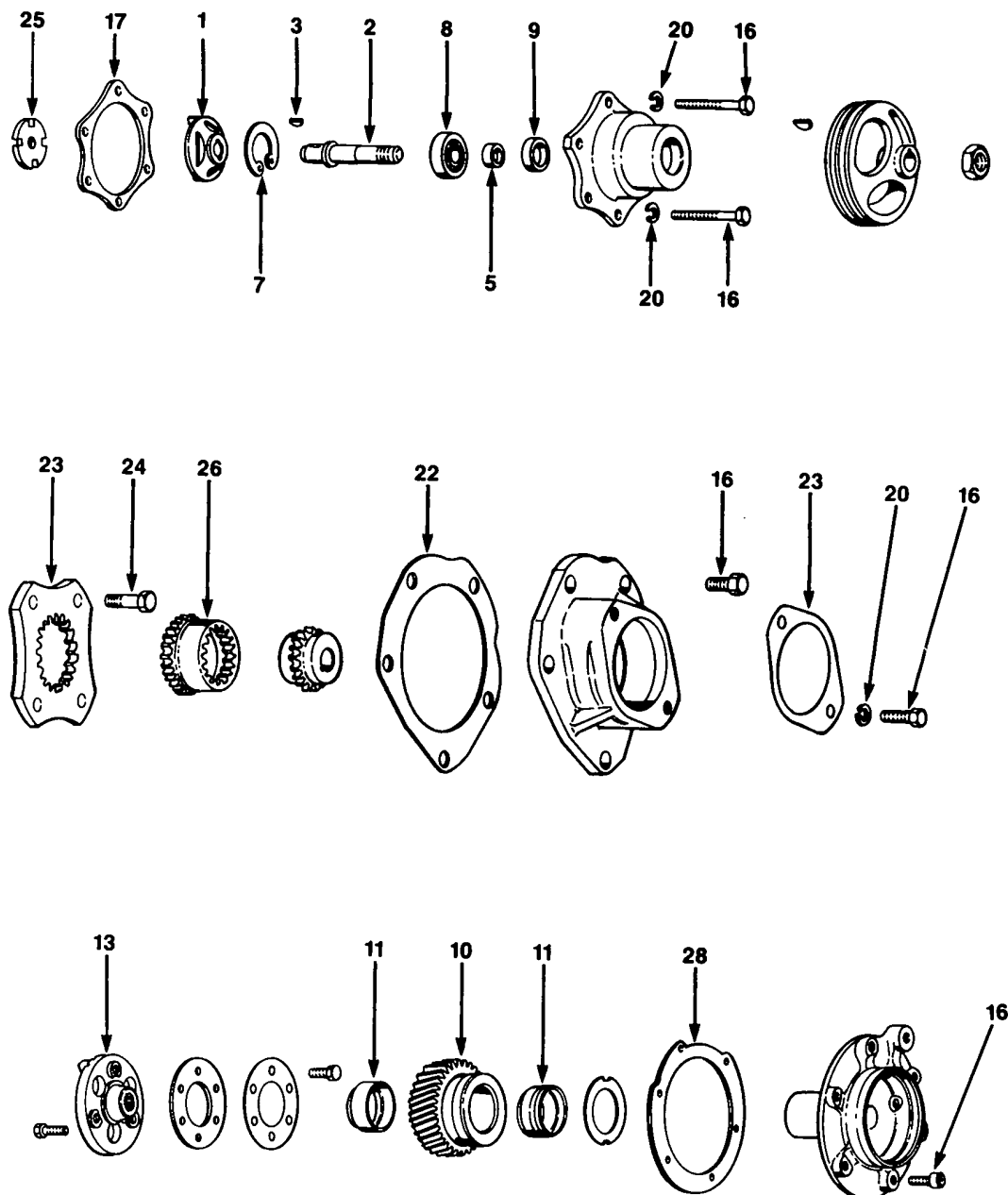
Groups:
1.7600 - 1.7635

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.7600	0	FP-8927580	Bolt, 3/8" -16 X 7/8"	6	6	6	6
1.7600	0	FP-103026	Nut, 3/8" -24	4	4	4	6
1.7600	11	FP-5120501	Bushing, Accessory Drive Gear	2	2	2	2
1.7600	0	FP-8920764	Plate, Blower Drive Gear Hub Spring	2	2	4	4
1.7600	0	FP-8926293	Washer, Accessory & Blower Drive Gear Thrust	2	2	2	2
1.7600	16	FP-8927581	Bolt, 3/8" -16 X 1"	14	14	14	14
1.7600	0	FP-5198174	Sleeve, Accessory Drive Oil Seal	1	1	1	1
1.7600	0	FP-8926285	Lockwasher, Accessory & Blower Drive Gear	1	1	1	1
1.7604	22	FP-23515145	Gasket, Accessory Drive (Type 9,40,47,55,59,62,64,66,68,70,71,77,144,229,230,232,236,237,265,273,276,284,288)	1	1	1	1
1.7604	17	FP-5104507	Gasket, Accessory Drive (Type 45,46,84,89,90,91,102,121,130,143,164,281,296,344,366)	1	1	1	1
1.7604	28	FP-5148810	Gasket, Accessory Drive (Type 35,39,44,83,115,122,135,154,155,254,278,297,300,302,348,360,367), (1.7623)	1	1	1	1
1.7610	1	FP-5144866	Hub, Drive Pulley (Type 229,230,232,236,237, 283)	1	1	1	1
1.7615	0	FP-5102456	Seal, Drive Pulley Hub Oil (Type 1,69)	1	1	1	1
1.7622	0	FP-103026	Nut, 3/8" -24	2	2	2	2
1.7622	0	FP-8927270	Stud, 3/8" -16/24 X 1 9/16"	2	2	2	2
1.7622	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
1.7623	0	FP-5124926	Gasket, Accessory Drive Adapter (Type 135)	1	1	1	1
1.7623	0	FP-5188755	Gasket, Accessory Drive Adapter (Type 136,144,166,167,171,172,179,180,254,255,284,289,331)	1	1	1	1
1.7623	0	FP-5196962	Gasket, Accessory Drive Adapter (Type 99,122,153,297,300,302,336)	1	1	1	1
1.7630	24	FP-5145092	Bolt, 3/8" -24 X 1.20"	4	4	4	4
1.7630	11	FP-5120501	Bushing, Accessory Drive Gear	2	2	2	2
1.7630	23	FP-5170450	Plate, Accessory Drive (21 Teeth)	1	1	1	1
1.7630	10	FP-5193576	Gear, Accessory Drive (Type 108)	1	1	1	1
1.7635	0	FP-5139545	Coupling, Accessory Drive (Type 44,45,46,84,85,90,91,96,100,102,105,121,130,143,164,195,232,280,281,310,312,344,348,366,367)	1	1	1	1
1.7635	0	FP-5141773	Coupling, Accessory Drive Compressor Drive	1	1	1	1
1.7635	26	FP-5144866	Hub, Accessory Drive (Type 183,229,230)	1	1	1	1
1.7635	25	FP-5145282	Coupling, Accessory Drive (Type 89,254,349)	1	1	1	1
1.7602	0	FP-5198175	Kit, Accessory Drive Seal & Bearing	1	1	1	1
1.7600	8	FP-23503727	Bearing, Accessory Drive (1.7655)	1	1	1	1
1.7600	5	FP-5133682	Spacer, Accessory Drive Oil Seal (1.7660)	1	1	1	1
1.7600	9	FP-5138710	Seal, Accessory Drive Oil (1.7660)	1	1	1	1



Accessory Drive

(Figure 5.4)





Accessory Drive

(Figure 5.4)

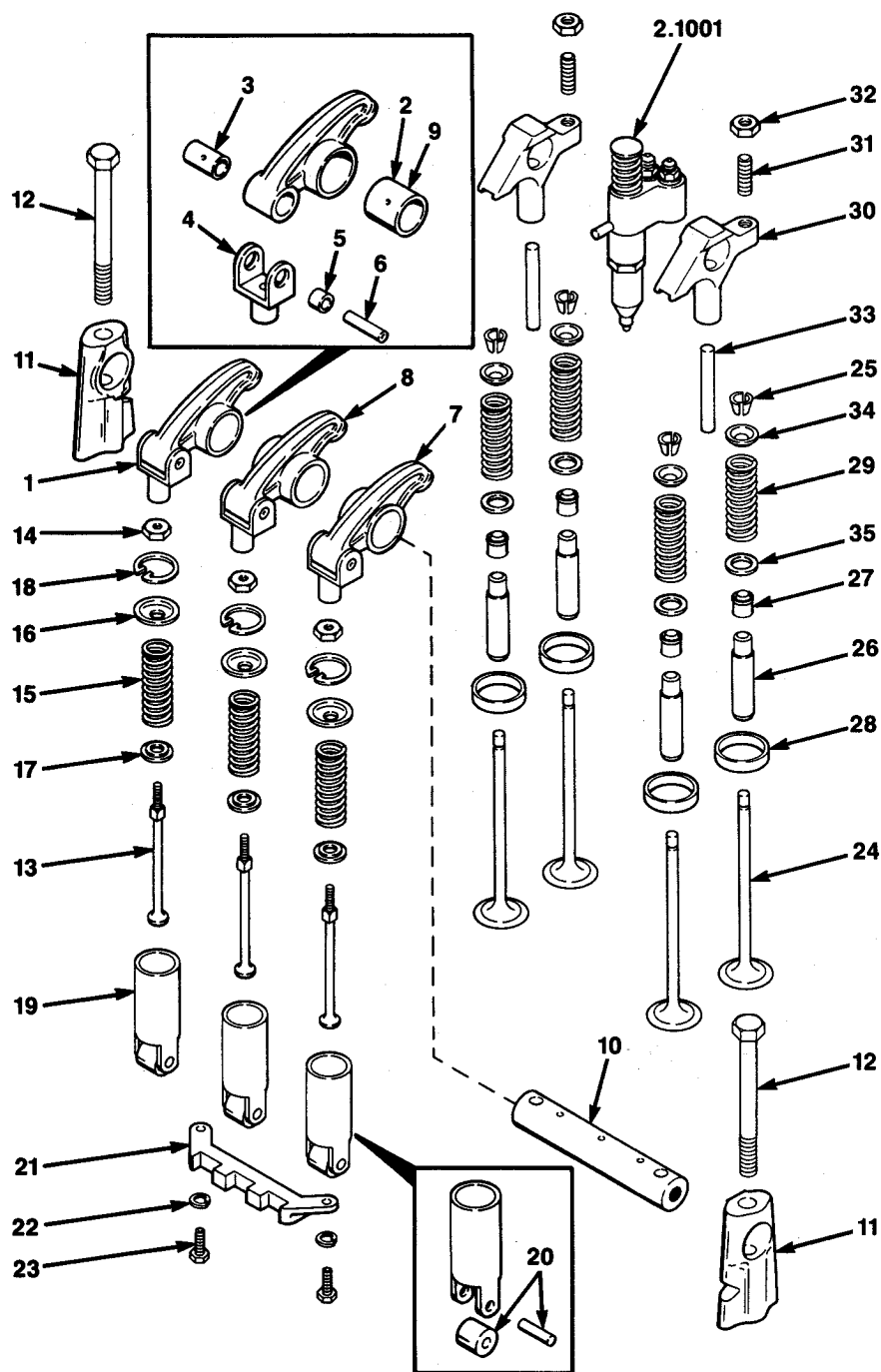
Groups:
1.7643 - 1.7750

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.7643	13	FP-5123081	Hub, Accessory Drive Gear (Type 96)	1	1	1	1
1.7645	5	FP-5131131	Spacer, Accessory Drive Seal	1	1	1	1
1.7645	9	FP-5131329	Seal, Accessory Drive	1	1	1	1
1.7645	0	FP-5152148	Washer, 3/8" X 9/16" Copper	1	1	1	1
1.7645	7	FP-9415285	Lockring, Accessory Drive Retainer Bearing	1	1	1	1
1.7645	0	FP-9428477	Plug, 15/16" Cup	1	1	1	1
1.7647	0	FP-8924380	Plug, 1/8" Pipe	1	1	1	1
1.7650	7	FP-9415285	Lockring, Accessory Drive	1	1	1	1
1.7700	0	FP-5124926	Gasket, Accessory Drive Adapter Cover (Type 122,153,154,297,300,302,336,348,349,381,384)	1	1	1	1
1.7750	0	FP-5185793	Screw, Internal Gear Mount	6	6	6	6



Valve Train

(Figure 6.1)





Valve Train

(Figure 6.1)

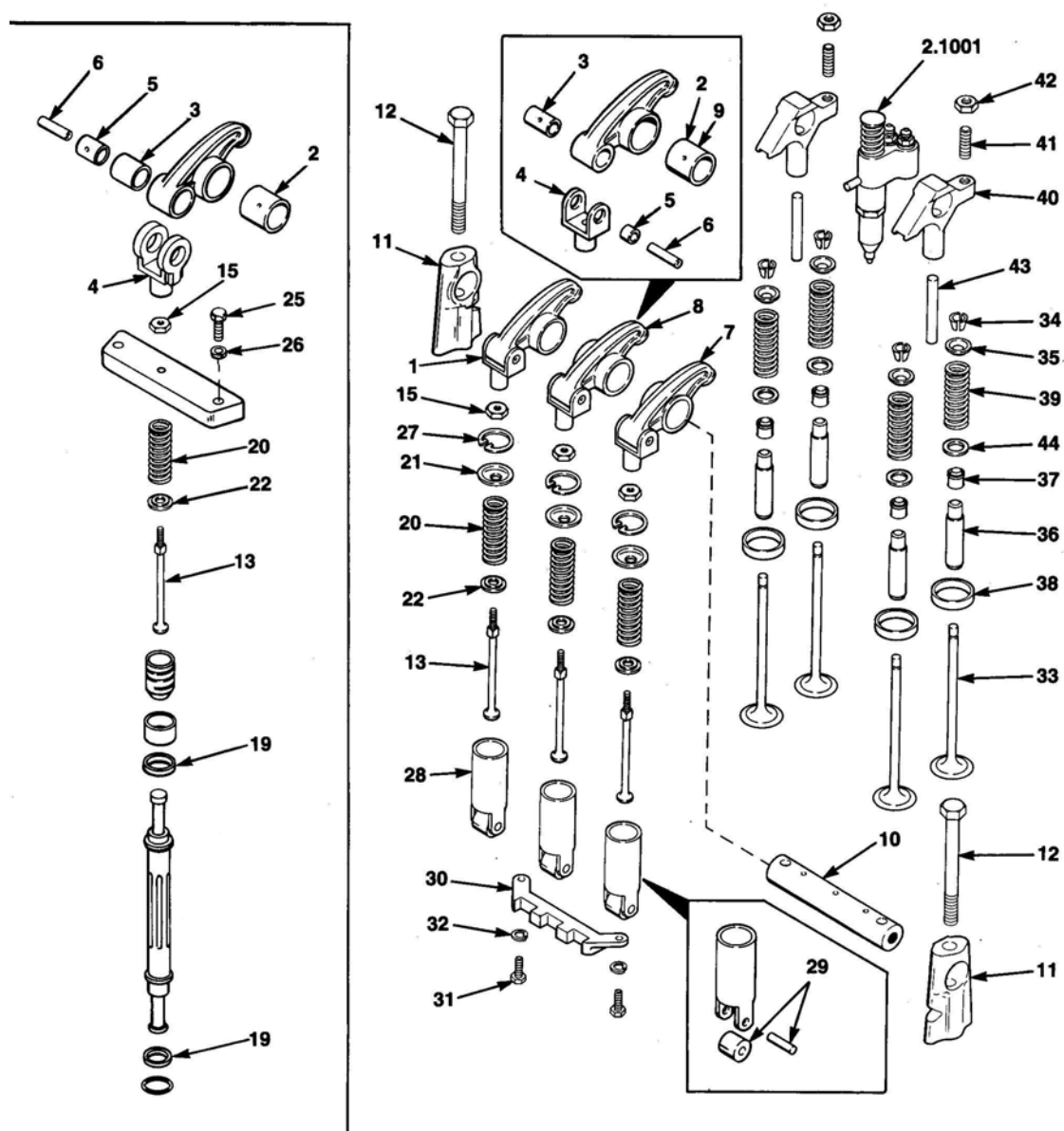
Groups:
1.8060 - 1.8360

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.8060	8	FP-23502616	Arm Assembly, Injector (DDEC COACH), (Blue Paint)	6	8	-	-
1.8060	1	FP-5148472	Rocker Arm Assembly (Exhaust Valve L.H.)	6	8	12	16
1.8060	7	FP-5148475	Rocker Arm Assembly (Exhaust Valve R.H.)	6	8	12	16
1.8060	8	FP-8923554	Arm Assembly, Injector (Unbushed Clevis), (Orange Ink)	6	8	12	16
1.8060	11	FP-5103903	Bracket, Rocker Shaft	12	16	24	32
1.8060	12	FP-5150325	Bolt, Rocker Shaft Bracket	12	16	24	32
1.8110	9	FP-8924355	Bushing, Rocker Arm (Large)	6	8	12	16
1.8110	9	FP-8924355	Bushing, Rocker Arm (Large)	6	8	12	16
1.8110	2	FP-23517217	Bushing, Rocker Arm Exhaust Valve (Large)	12	16	24	32
1.8120	3	FP-8924354	Bushing, Rocker Arm (Small)	6	8	12	16
1.8120	3	FP-8924354	Bushing, Rocker Arm (Small)	6	8	12	16
1.8120	3	FP-8924354	Bushing, Rocker Arm Exhaust Valve (Small)	12	16	24	32
1.8130	4	FP-5150312	Clevis, Rocker Arm	6	8	12	16
1.8130	4	FP-5150312	Clevis, Rocker Arm Exhaust Valve	12	16	24	32
1.8130	4	FP-5150312	Clevis, Rocker Arm	-	-	-	-
1.8140	5	FP-23502615	Bushing, Clevis .6295" O.D.	6	8	12	16
1.8140	5	FP-5123700	Bushing, Clevis .5625" O.D.	6	8	12	16
1.8140	5	FP-5123700	Bushing, Rocker Arm Exhaust Valve Clevis	12	16	24	32
1.8150	6	FP-5150314	Pin, Clevis, Rocker Arm	6	8	12	16
1.8150	6	FP-5150314	Pin, Clevis, Rocker Arm	6	8	12	16
1.8150	6	FP-5150314	Pin, Clevis, Rocker Arm	12	16	24	32
1.8160	10	FP-23500714	Shaft Assembly, Rocker (FP-5150322)	6	8	12	16
1.8180	13	FP-5128640	Rod, Push	18	24	36	48
1.8180	15	FP-5151601	Nut, Push Rod 5/16" -24 Lock	18	24	36	48
1.8190	20	FP-5186858	Spring, Push Rod	18	24	36	48
1.8200	21	FP-5150302	Seat, Push Rod Spring-Upper	18	24	36	48
1.8210	22	FP-5123250	Seat, Push Rod Spring-Lower	18	24	36	48
1.8250	27	FP-5150303	Retainer, Push Rod	18	24	36	48
1.8260	29	FP-8923814	Pin & Roller, Follower Assembly	18	24	36	48
1.8260	28	FP-8924439	Follower Assembly, Camshaft	18	24	36	48
1.8300	32	FP-103319	Lockwasher 1/4"	12	16	24	32
1.8300	31	FP-443603	Bolt, 1/4" -20 X 3/4"	12	16	24	32
1.8320	36	FP-5129919	Guide, Exhaust Valve (4 Valve Head)	24	32	48	64
1.8320	0	FP-5199913	Installer, Exhaust Valve Seal (Green Stripe), (4 Valve)	24	32	48	64
1.8320	37	FP-8921209	Seal, Exhaust Valve (4 Valve Head)	24	32	48	64
1.8320	37	FP-23500480	Seal, Exhaust Valve (2 Valve Head)	12	16	24	32
1.8320	36	FP-5120930	Guide, Exhaust Valve (2 Valve Head)	12	16	24	32
1.8320	36	FP-5192717	Guide, Exhaust Valve (2 Valve Head), (.016" O.S.O.D.)	12	16	24	32
1.8320	0	FP-5199914	Installer, Exhaust Valve Seal (Clear), (2 Valve)	12	16	24	32
1.8330	38	FP-5101101	Insert, Exhaust Valve (Std.), (30°), (4 Valve)	24	32	48	64
1.8330	38	FP-5197167	Insert, Exhaust Valve (.010 O.S. 30°), (4 Valve)	24	32	48	64
1.8330	38	FP-5198230	Insert, Exhaust Valve (.010 O.S. 30°), (2 Valve)	12	16	24	32
1.8330	38	FP-8927920	Insert, Exhaust Valve (Std. 30°), (2 Valve)	12	16	24	32
1.8340	39	FP-5111339	Spring, Exhaust Valve (4 Valve Head), (.135" Wire Dia.)	24	32	48	64
1.8340	39	FP-5147347	Spring, Exhaust Valve (4 Valve Head), (.148" Wire Dia.)	24	32	48	64
1.8340	39	FP-5150289	Spring, Exhaust Valve (2 Valve Head), (.177" Wire Dia.)	12	16	24	32
1.8343	0	FP-5103099	Bridge Assy, Exhaust Valve	12	16	24	32
1.8343	40	FP-5117565	Bridge, Exhaust Valve	12	16	24	32
1.8343	41	FP-5129101	Screw, 5/16" -24 X 1	12	16	24	32
1.8343	42	FP-5151601	Nut, 5/16" -24	12	16	24	32
1.8345	43	FP-5117564	Guide, Exhaust Valve Bridge (Press Fit)	12	16	24	32



Valve Train

(Figure 6.1)





Valve Train

(Figure 6.1)

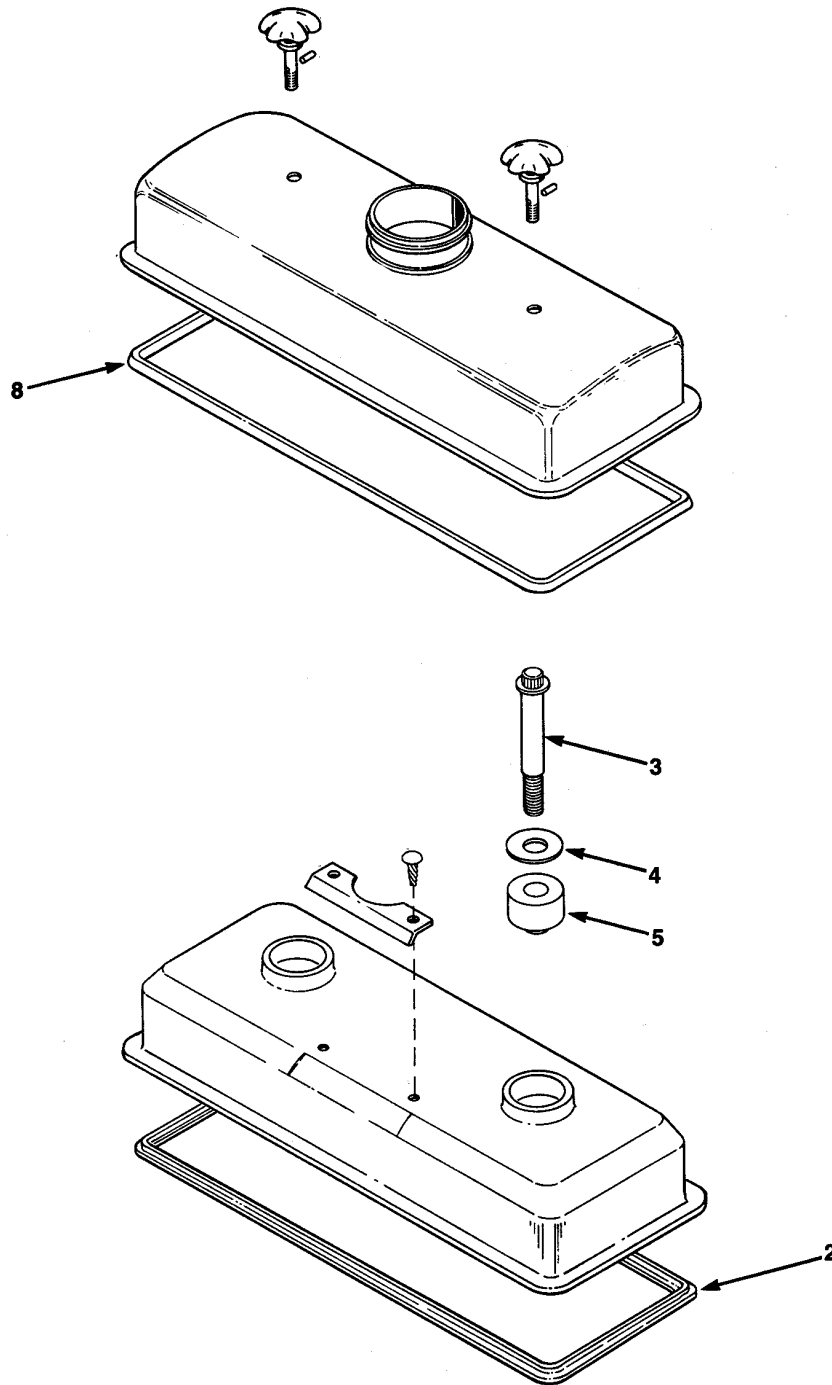
Groups:
1.8060 - 1.8360

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.8345	43	FP-51175646	Guide, Exhaust Valve Bridge .006 O.S. (Press Fit)	12	16	24	32
1.8345	43	FP-5196843	Guide, Exhaust Valve Bridge (Threaded Type)	12	16	24	32
1.8350	35	FP-5117563	Cap, Exhaust Valve Spring (4 Valve Head)	24	32	48	64
1.8350	35	FP-5150291	Cap, Exhaust Valve Spring (2 Valve Head)	12	16	24	32
1.8360	0	FP-5111467	Washer, Exhaust Valve Spring	24	32	48	64
1.8360	44	FP-5117562	Seat, Exhaust Valve Spring (4 Valve Head)	24	32	48	64
1.8360	44	FP-5150292	Seat, Exhaust Valve Spring (2 Valve Head)	12	16	24	32
1.8310	0	FP-23500501	Valve Kit, Exhaust (w/Locks), (4 V Hd), (N & T)	24	32	48	64
1.8310	34	FP-5111337	Lock, Valve (4 Valve Head)	48	64	96	128
1.8310	24	FP-8922516	Valve, Exhaust (Code U, Pyromet 31), (4V Hd), (N & T)	24	32	48	64
1.8310	0	FP-5149386	Valve Kit, Exhaust (w/Locks), (4 V Hd), (High Output)	24	32	48	64
1.8310	34	FP-5111337	Lock, Valve (4 Valve Head)	48	64	96	128
1.8310	0	FP-5193666	Valve Kit (30 Deg), (2 Valve Head), (Jet Blade), (w/Locks)	12	16	24	32
1.8310	34	FP-23507238	Lock, Valve (2 Valve Head)	24	32	48	64



Valve Train

(Figure 6.2)





Valve Train

(Figure 6.2)

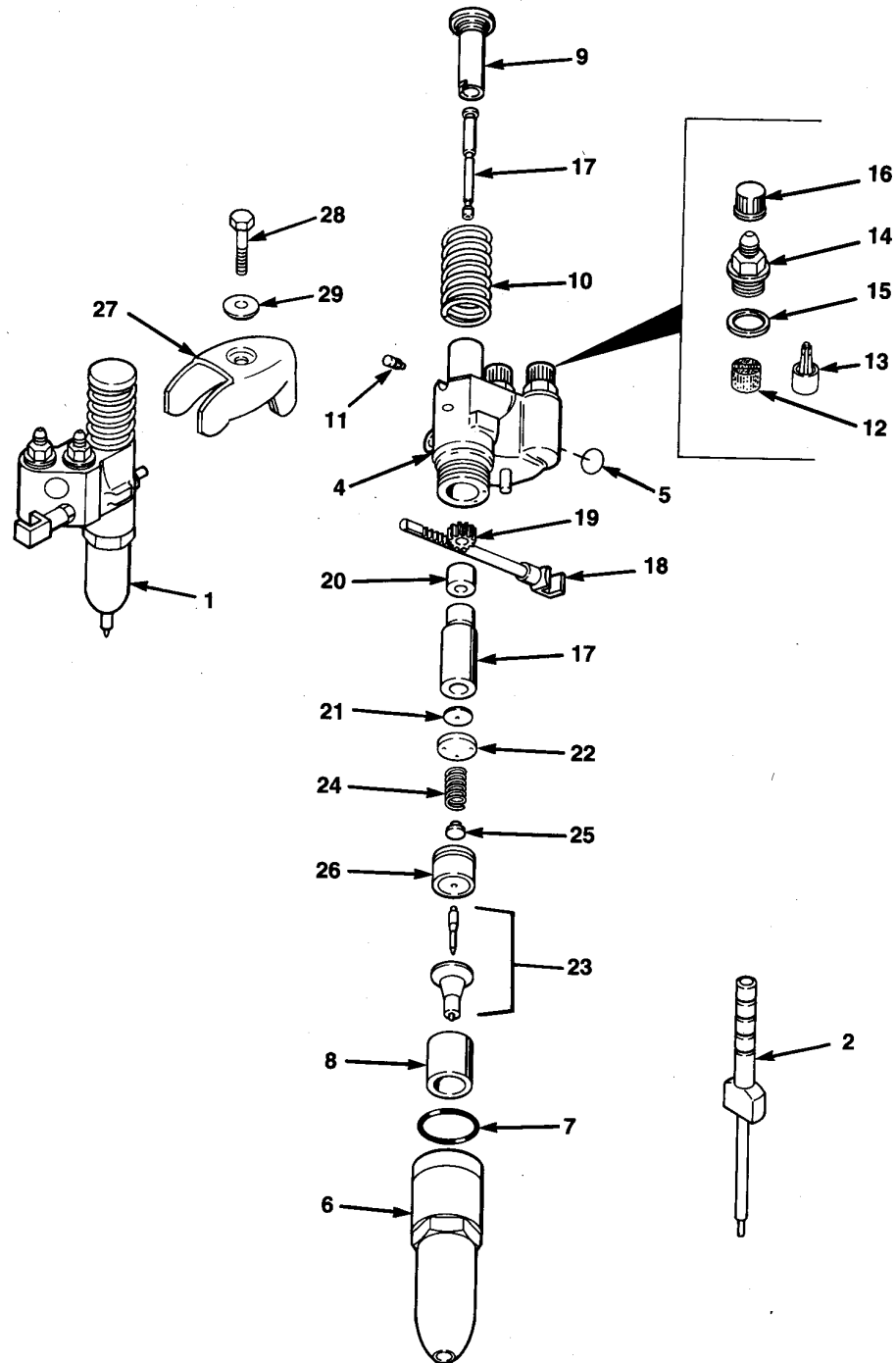
Groups:
1.8451 - 1.8475

Group	Ref	Part No.	Description	6V	8V	12V	16V
Rocker Cover							
1.8451	3	FP-5104015	Bolt, Rocker Cover 3/8" -16 X 6.57" L 12 Pt	4	4	4	16
1.8451	4	FP-5104514	Washer, Isolator .47" X 2.00"	4	4	4	8
1.8451	5	FP-5104515	Isolator, Rocker Cover Bolt	4	4	4	8
1.8451	0	FP-5149510	Installation Kit, Aluminum Rocker Cover	2	-	-	-
1.8451	0	FP-5103635	Bolt, Throttle Delay 3/8" -16 X 2.90"	1	1	1	1
1.8451	0	FP-5149511	Installation Kit, Aluminum Rocker Cover	-	2	-	4
1.8451	0	FP-5149512	Installation Kit, Aluminum Rocker Cover	-	-	2	-
1.8455	2	FP-5104018	Gasket, Silicone, Aluminum Rocker Cover (3 Cyl)	2	-	-	-
1.8455	8	FP-5143405	Gasket, Neoprene, Stamped Rocker Cover (3 Cyl)	2	-	-	-
1.8455	2	FP-5104081	Gasket, Silicone, Aluminum Rocker Cover (4 Cyl)	-	2	-	4
1.8455	8	FP-5143406	Gasket, Neoprene, Stamped Rocker Cover (4 Cyl)	-	2	-	4
1.8455	2	FP-5104019	Gasket, Silicone, Aluminum Rocker Cover (6 Cyl)	-	-	2	-
1.8455	8	FP-5143407	Gasket, Neoprene, Stamped Rocker Cover (6 Cyl)	-	-	2	-
1.8475	0	FP-5148504	Stud, 17/32"	-	4	4	4



Fuel Injector

(Figure 7.1)





Fuel Injector

(Figure 7.1)

Groups:
2.1001 - 2.1220

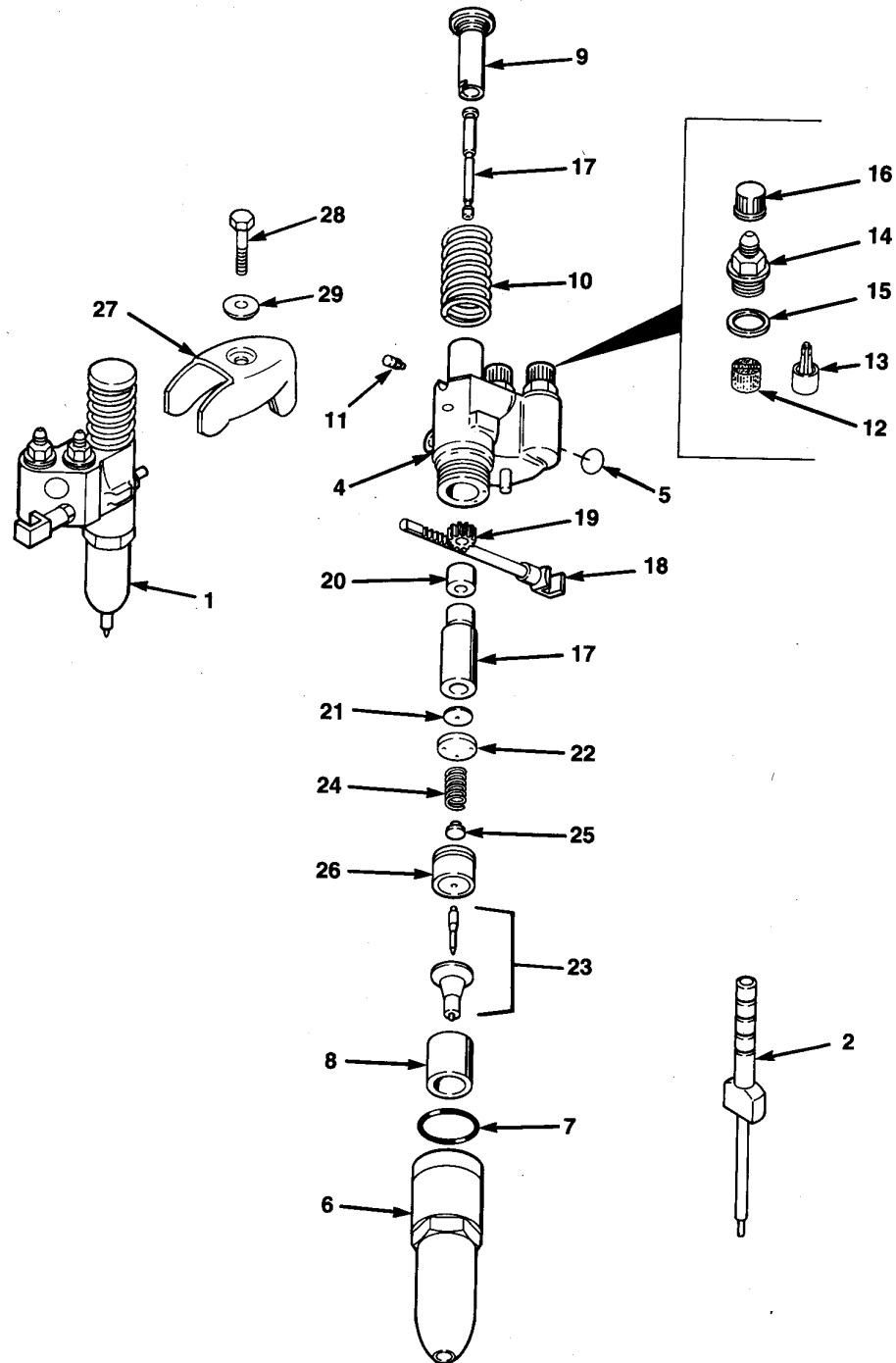
Group	Ref	Part No.	Description	6V	8V	12V	16V
2.1001	0	FP-5226272	Tip Assy, Injector (For 5227425, 5227495 Inj.)	6	8	12	16
2.1001	1	FP-5226440	Injector Assembly, 7N65 (Option Types 242,247)	6	8	12	16
2.1001	1	FP-5227015	Injector Assembly, M95 (Option Type 64)	6	8	12	16
2.1001	1	FP-5228760	Injector Assembly, N60 (Option Types 53,78)	6	8	12	16
2.1001	1	FP-5228770	Injector Assembly, N70 (Option Types 57,71,80,83)	6	8	12	16
2.1001	1	FP-5228777	Injector Assembly, N75 (Option Types 73, 81)	6	8	12	16
2.1001	1	FP-5228780	Injector Assembly, N80 (Option Type 82)	6	8	12	16
2.1001	1	FP-5228785	Injector Assembly, N55 (Option Types 60,77)	6	8	12	16
2.1001	1	FP-5228900	Injector Assembly, N65 BT (Option Type 97)	6	8	12	16
2.1001	1	FP-5229355	Injector Assembly, C55 (Option Type 111)	6	8	12	16
2.1001	1	FP-5229360	Injector Assembly, C60 (Option Type 113)	6	8	12	16
2.1001	1	FP-5229365	Injector Assembly, C65 (Option Types 115,192)	6	8	12	16
2.1001	1	FP-5229695	Injector Assembly, 7C75 (Option Types 153,199)	6	8	12	16
2.1001	1	FP-5229715	Injector Assy, 9215	6	8	12	16
2.1001	1	FP-5229790	Injector Assembly, 7E55 (Option Type 163)	6	8	12	16
2.1001	1	FP-5229795	Injector Assembly, 7E60 (Option Type 164)	6	8	12	16
2.1001	1	FP-5229800	Injector Assembly, 7E65 (Option Type 165)	6	8	12	16
2.1001	1	FP-5229895	Injector Assembly, 7G65 (Option Type 246)	6	8	12	16
2.1020	0	FP-5228787	Number Tag, Fuel Injector (N80)	6	8	12	16
2.1160	17	FP-5228304	Plunger & Bushing (S70)	6	8	12	16
2.1160	17	FP-5228306	Plunger & Bushing (S60, 658)	6	8	12	16
2.1160	17	FP-5228656	Plunger & Bushing, N60	6	8	12	16
2.1160	17	FP-5228658	Plunger & Bushing, N65 WT	6	8	12	16
2.1160	17	FP-5228658	Plunger & Bushing, N75	6	8	12	16
2.1160	17	FP-5228661	Plunger & Bushing, N80	6	8	12	16
2.1160	17	FP-5228668	Plunger & Bushing, N55	6	8	12	16
2.1160	17	FP-5228682	Plunger & Bushing, N70	6	8	12	16
2.1160	17	FP-5228928	Plunger & Bushing, N65 BT	6	8	12	16
2.1160	17	FP-5229513	Plunger & Bushing (140)	6	8	12	16
2.1220	23	FP-5228312	Tip, Injector Spray	6	8	12	16
2.1220	23	FP-5229026	Tip, Injector Spray, N55	6	8	12	16
2.1220	23	FP-5229026	Tip, Injector Spray, N60	6	8	12	16
2.1220	23	FP-5229026	Tip, Injector Spray, N65 WT	6	8	12	16
2.1220	23	FP-5229030	Tip, Injector Spray, N65 BT	6	8	12	16
2.1220	23	FP-5229192	Tip, Injector Spray, N70	6	8	12	16
2.1220	23	FP-5229192	Tip, Injector Spray, N75	6	8	12	16
2.1220	23	FP-5229256	Tip, Injector Spray, N80	6	8	12	16

* Injectors are available in rebuilt exchange by using the suffix 'R'. Refer to Section II of FP Diesel's Distributor Price List for core charges.



Fuel Injector

(Figure 7.2)





Fuel Injector

(Figure 7.2)

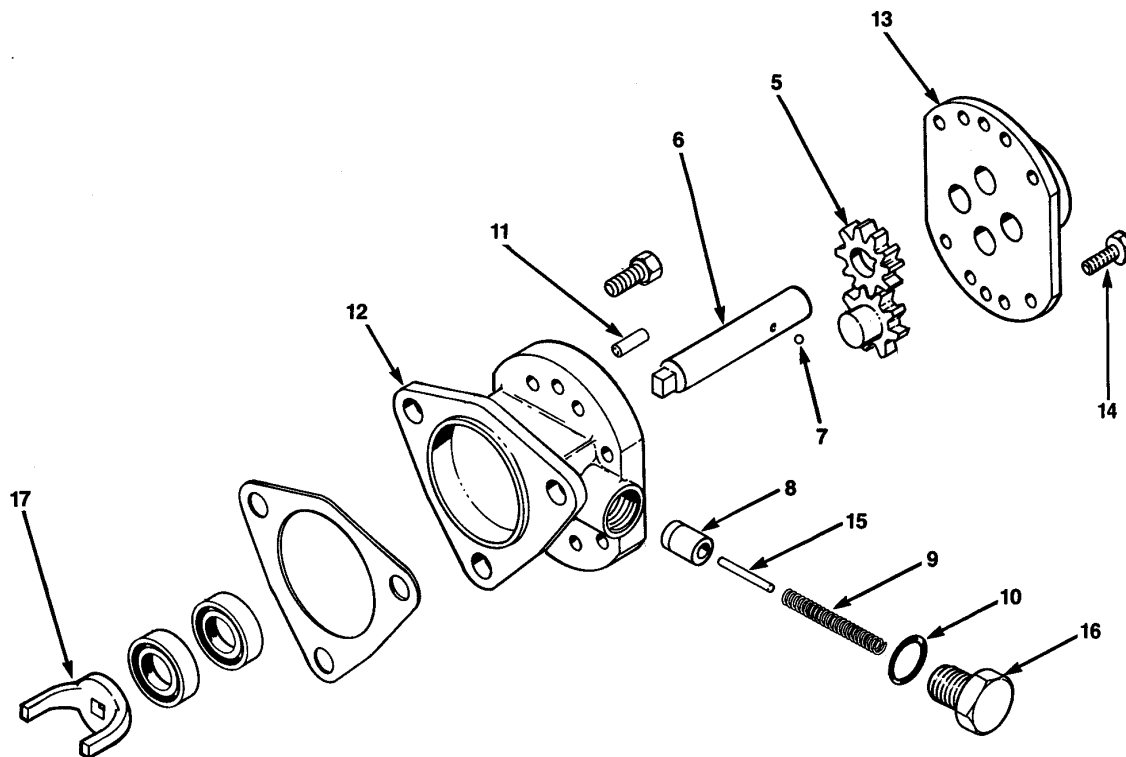
Groups:
2.1160 - 2.2130

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.1160	17	FP-5228658	Plunger & Bushing, 7C75	6	8	12	16
2.1160	17	FP-5228682	Plunger & Bushing, 7C70	6	8	12	16
2.1160	17	FP-5228804	Plunger & Bushing, M95	6	8	12	16
2.1160	17	FP-5228878	Plunger & Bushing, N90	6	8	12	16
2.1160	17	FP-5229354	Plunger & Bushing, 71C5	6	8	12	16
2.1160	17	FP-5229356	Plunger & Bushing, C55	6	8	12	16
2.1160	17	FP-5229362	Plunger & Bushing, C60	6	8	12	16
2.1160	17	FP-5229366	Plunger & Bushing, C65	6	8	12	16
2.1160	17	FP-5229372	Plunger & Bushing, C70	6	8	12	16
2.1160	17	FP-5229808	Plunger & Bushing, 7E75	6	8	12	16
2.1160	17	FP-5229808	Plunger & Bushing, 7G75	6	8	12	16
2.1160	17	FP-5229814	Plunger & Bushing, 7E60	6	8	12	16
2.1160	17	FP-5229823	Plunger & Bushing, 7E55	6	8	12	16
2.1160	17	FP-5229912	Plunger & Bushing, 7G70	6	8	12	16
2.1160	17	FP-5229916	Plunger & Bushing, 7G65	6	8	12	16
2.1220	23	FP-5229026	Tip, Injector Spray, 71C5	6	8	12	16
2.1220	23	FP-5229026	Tip, Injector Spray, 7E55	6	8	12	16
2.1220	23	FP-5229026	Tip, Injector Spray, 7E60	6	8	12	16
2.1220	23	FP-5229026	Tip, Injector Spray, C55	6	8	12	16
2.1220	23	FP-5229026	Tip, Injector Spray, C60	6	8	12	16
2.1220	23	FP-5229030	Tip, Injector Spray, 7E65	6	8	12	16
2.1220	23	FP-5229192	Tip, Injector Spray, 7N65	6	8	12	16
2.1220	23	FP-5229192	Tip, Injector Spray, C65	6	8	12	16
2.1220	23	FP-5229192	Tip, Injector Spray, C70	6	8	12	16
2.1220	23	FP-5229256	Tip, Injector Spray, M95	6	8	12	16
2.1220	23	FP-5229256	Tip, Injector Spray, N90	6	8	12	16
2.1600	0	FP-8925325	Bushing, Pipe - Fuel System (Red 3/8 PTF, 1/4" Zinc)	AR	AR	AR	AR
2.2001	0	FP-5199560	Kit, Fuel Pump Standard Output L.H.	1	1	1	1
2.2001	0	FP-5199561	Kit, Fuel Pump Standard Output R.H.	1	1	1	1
2.2001	0	FP-5199734	Kit, Fuel Pump (High Output R.H.)	1	1	1	1
2.2001	0	FP-5199735	Kit, Fuel Pump (High Output L.H.)	1	1	1	1
2.2130	23	FP-5228554	Tip, Injector Spray (S70, S80)	6	8	12	16



Fuel Pump

(Figure 8.1)





Fuel Pump

(Figure 8.1)

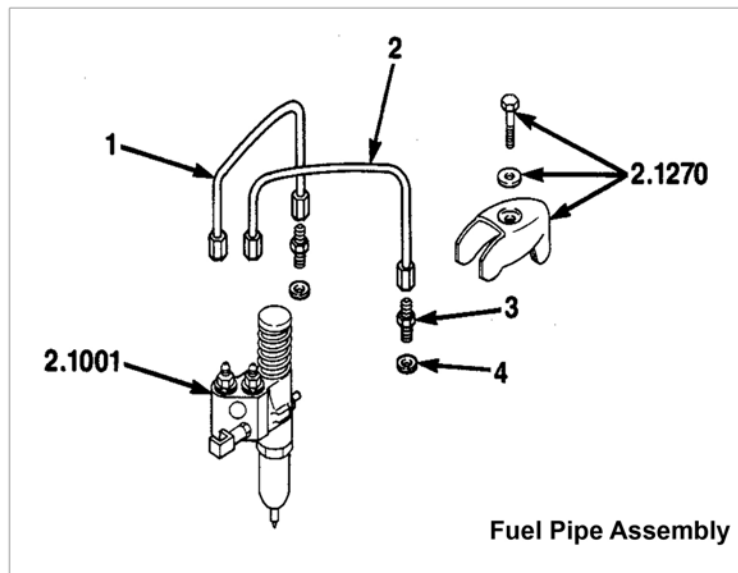
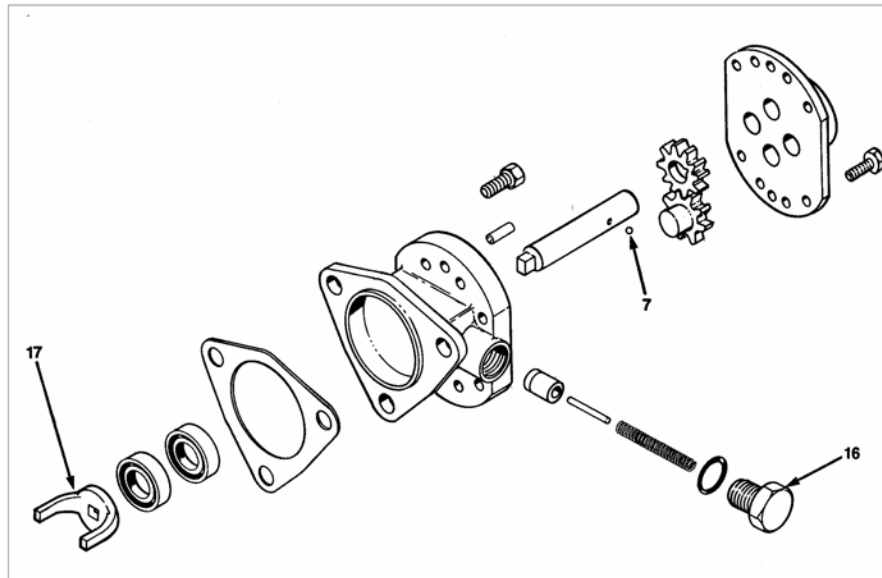
Groups:
2.2001 - 2.2180

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.2001	0	FP-5199560	Kit, Fuel Pump (Standard Output L.H.)	1	1	1	1
2.2001	0	FP-5199561	Kit, Fuel Pump (Standard Output R.H.)	1	1	1	1
2.2001	0	FP-5199734	Kit, Fuel Pump (High Output R.H.)	1	1	1	1
2.2001	0	FP-5199735	Kit, Fuel Pump (High Output L.H.)	1	1	1	1
2.2004	0	FP-5100313	Shaft Assembly Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	4	FP-5100312	Shaft, Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	0	FP-5118915	Gear, Fuel Pump Driven (.374" W.), (High Output)	1	1	1	1
2.2004	0	FP-5146705	Shaft Assembly Fuel Pump Drive (3.09" L), (High Output)	1	1	1	1
2.2004	6	FP-5178700	Shaft, Fuel Pump Drive (3.09" L), (High. Output)	1	1	1	1
2.2004	5	FP-5128217	Gear, Fuel Pump Drive (.374" W.), (High Output)	1	1	1	1
2.2004	0	FP-5149599	Overhaul Kit, Fuel Pump (High Output)	1	1	1	1
2.2007	1	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	1
2.2010	0	FP-5136240	Plug, Cap Fuel Pump Body 1/4"	1	1	1	1
2.2010	0	FP-5136241	Plug, Cap Fuel Pump Body 3/8"	2	2	2	2
2.2070	3	FP-23512243	Seal, Fuel Pump Oil (5107223)	1	1	1	1
2.2093	6	FP-5146705	Shaft Assembly Fuel Pump Drive (3.09" L), (High Output)	1	1	1	1
2.2093	4	FP-5100313	Shaft Assembly Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2130	8	FP-5174973	Valve, Fuel Pump	1	1	1	1
2.2130	11	FP-103709	Pin, 5/32" X 1" Straight	2	2	2	2
2.2160	9	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1	1
2.2180	10	FP-5161003	Gasket, Fuel Pump Valve Plug	1	1	1	1
2.2004	0	FP-5181746	Shaft & Gear, Fuel Pump Drive (.3.09"L), (Std. Output)	1	1	1	1
2.2004	6	FP-5178700	Shaft, Fuel Pump Drive (3.09" L), (Std. Output)	1	1	1	1
2.2004	5	FP-5174975	Gear, Fuel Pump Drive (.294" W.), (Std. Output)	1	1	1	1
2.2004	0	FP-5181747	Shaft & Gear, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	0	FP-5181749	Shaft, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	0	FP-5181748	Gear, Fuel Pump Driven (.294" W.)	1	1	1	1
2.2004	0	FP-5195078	Overhaul Kit, Fuel Pump (Standard Output)	1	1	1	1
2.2007	1	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	1
2.2010	0	FP-5136240	Plug, Cap (.420" Dia., Outlet)	2	2	2	2
2.2010	0	FP-5136241	Plug, Cap (.580" Dia., Outlet)	1	1	1	1
2.2070	3	FP-23512243	Seal, Fuel Pump Oil (FP-5107223)	2	2	2	2
2.2093	6	FP-5181746	Shaft & Gear, Fuel Pump Drive (3.09"L), (Std. Output)	1	1	1	1
2.2093	4	FP-5181747	Shaft & Gear, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2130	11	FP-103709	Pin, 5/32" X 1" Straight	1	1	1	1
2.2130	8	FP-5174973	Valve, Fuel Pump	1	1	1	1
2.2160	9	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1	1
2.2180	10	FP-5161003	Gasket, Fuel Pump Valve Plug	1	1	1	1



Fuel Pump

(Figure 8.2)





Fuel Pump

(Figure 8.2)

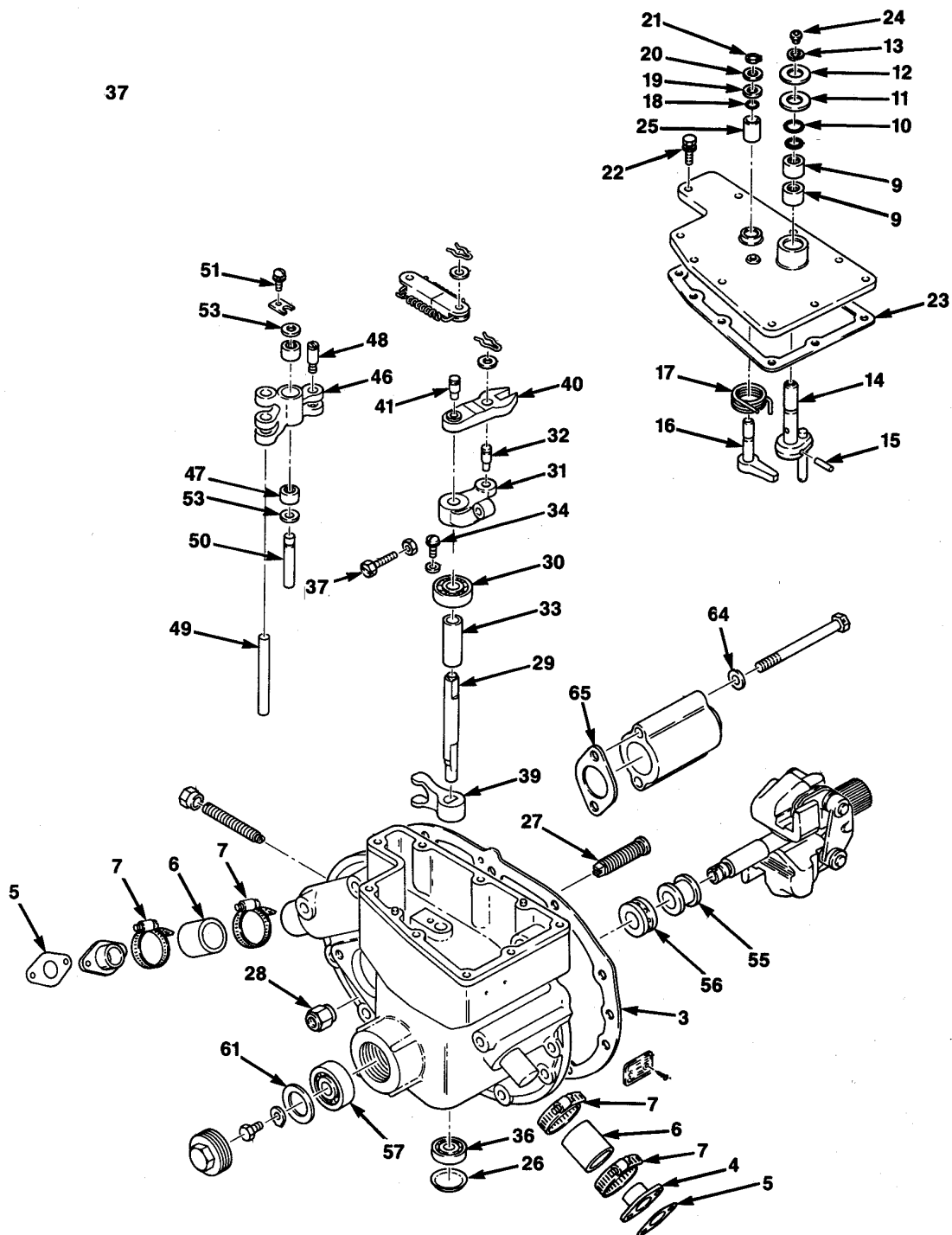
Groups:
2.2004 - 4.4020

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.2004	7	FP-147481	Ball, 1/8" Steel	1	1	1	1
2.2170	16	FP-5174971	Plug, 1/2" -20 Fuel Pump Valve	1	1	1	1
2.2220	17	FP-5102257	Fork, Fuel Pump Coupling	-	1	1	1
2.2230	0	FP-5154216	Coupling, Fuel Pump Drive	1	-	-	-
2.2237	0	FP-23515145	Gasket, Fuel Pump Mounting Plate	-	-	-	1
2.2280	0	FP-5152122	Gasket, Fuel Pump Drive Adapter	1	-	-	-
2.4015	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
2.4020	11	FP-23511850	Fuel Pipe Assembly, Injector To Stand Pipe (Short)	6	8	12	16
2.4030	13	FP-8926992	Connector, Fuel Pipe	4	-	-	-
2.4030	13	FP-5117369	Connector, Fuel Pipe	-	6	8	12
2.4050	0	FP-5152148	Washer, 25/64" X 9/16" X 1/16"	4	-	-	-
2.4050	0	FP-5125108	Washer, 7/16" X 3/4" X 1/16"	-	6	8	12
2.5006	0	FP-5135308	Valve, Fuel Check 3/8" (Swing Type)	1	1	1	1
2.5006	0	FP-5174924	Valve, Fuel Check 1/4" (Swing Type)	1	1	1	1
2.5006	0	FP-5179938	Seal Ring, 3/8" Sealastic	-	-	1	1
3.4020	12	FP-23511851	Fuel Pipe Assembly, Injector To Stand Pipe (Long)	6	8	12	16
4.4020	0	FP-23511856	Fuel Pipe Assembly, Injector To Stand Pipe (Std. Body)	6	8	12	16



Governor

(Figure 9.1)





Governor

(Figure 9.1)

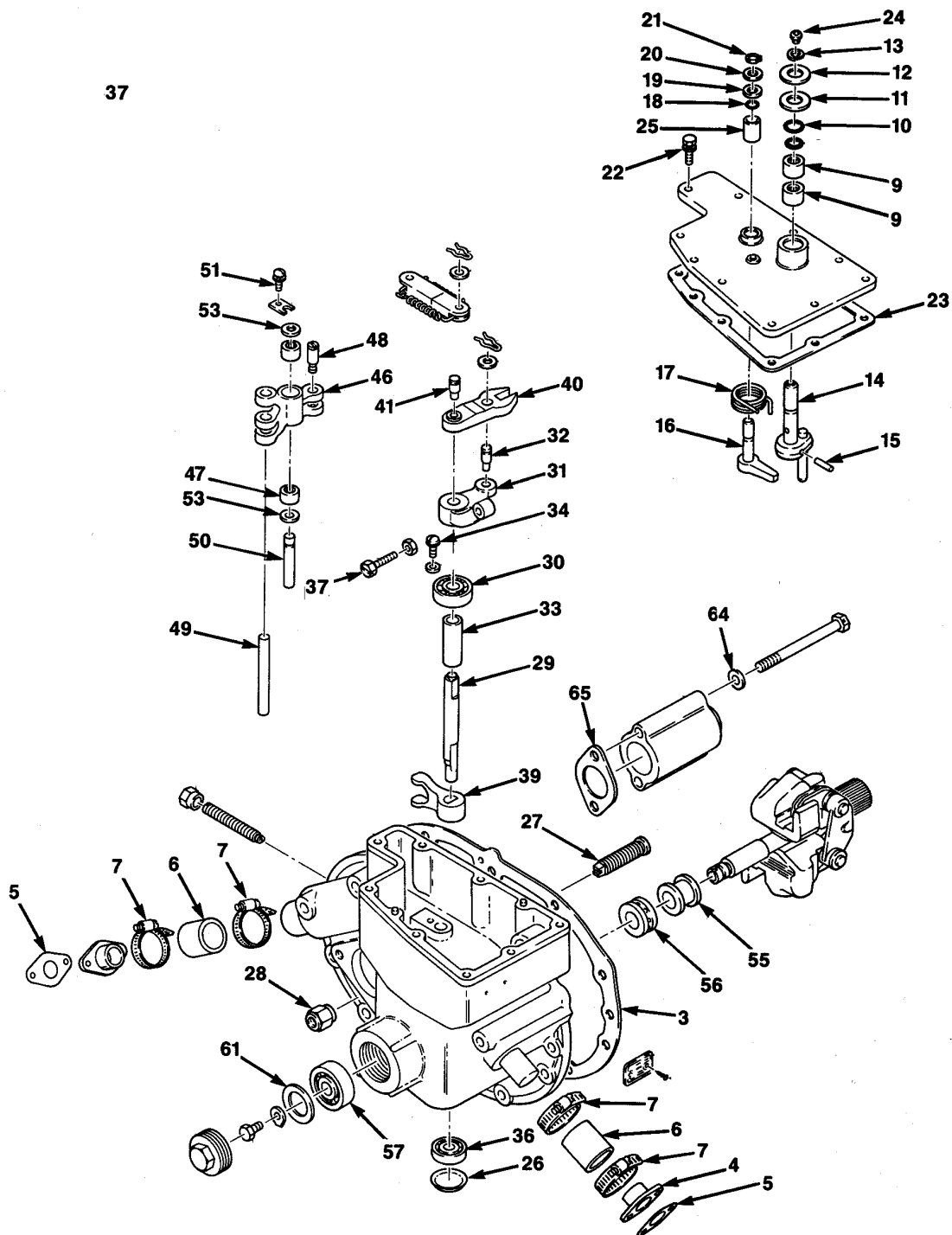
Groups:
2.7001 - 2.7045

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.6545	0	FP-8927412	Gasket, Governor Actuator Control Housing Mounting	1	1	1	1
2.6561	0	FP-10019739	Clamp, Governor Actuator Tube (Snap Type)	AR	AR	AR	AR
2.7001	49	FP-5127375	Pin, .309" Dia. X 3.12" (L. Control Link Lever), (2.7317)	1	1	2	2
2.7001	0	FP-5155596	Washer, 5/16" (Copper)	1	1	1	2
2.7001	0	FP-5179709	Washer, 1/4" (Copper)	1	1	1	2
2.7010	0	FP-5152465	Gasket, Governor To Blower, Governor Drive	1	1	1	1
2.7020	0	FP-5152464	Gasket, Governor To Cylinder Head	1	1	1	1
2.7030	0	FP-8921930	Bolt, 1/4" -20 X 3/4" Governor Fuel Rod Cover	8	8	16	16
2.7030	7	FP-5104592	Clamp, Governor Fuel Rod To Cylinder Head Hose	4	4	8	8
2.7030	5	FP-5123812	Gasket, Governor Fuel Rod Cover	2	2	4	4
2.7030	6	FP-8924267	Hose, Governor Fuel Rod Cover To Cylinder Head	2	2	4	4
2.7030	0	FP-443603	Bolt, 1/4" -20 X 3/4" Steel	1	1	1	1
2.7045	9	FP-8921472	Bushing, Throttle Shaft (Split), (2.7100)	2	2	4	4
2.7045	18	FP-5101691	Seal Ring, Governor Shutdown Shaft (2.7145)	1	1	2	2
2.7045	17	FP-5127213	Spring, Governor Shutdown Shaft (2.7117)	1	1	2	2
2.7045	11	FP-5144177	Retainer, Throttle Shaft Seal Ring (2.7150)	1	1	2	2
2.7045	12	FP-5153060	Retainer, Throttle Shaft Seal Ring (Flat), (2.7150)	1	1	2	2
2.7045	13	FP-5174429	Retainer Ring, Throttle Shaft Seal Ring (2.7150)	1	1	2	2
2.7045	10	FP-5176557	Seal Ring, .477" ID x .113" Thk. Throttle Shaft (Yellow), (2.7140)	1	1	2	2
2.7001	0	FP-20001	Kit, Rebuild, Mechanical Governor	-	-	-	-
2.7001	26	FP-116337	Plug, Expansion, Operating Shaft	1	1	1	1
2.7001	0	FP-148402	Bearing, 1/2"X1/2" Dia. Needle Cover Throttle Shaft	2	2	4	4
2.7001	47	FP-447196	Bearing, Shutdown and Control Lever Shafts	4	4	4	4
2.7001	48	FP-5117693	Pin, 5/16" X 1" (Governor Control Link Lever), (2.7317)	1	1	2	2
2.7001	49	FP-5127375	Pin, Governor Control Link Lever	1	1	1	1
2.7001	50	FP-5143866	Pin, .375" Dia. X 2" (L. Control Link Lever), (2.7317)	1	1	2	2
2.7001	18	FP-5101691	Seal Ring, Shutdown Shaft	1	1	1	1
2.7001	11	FP-5144177	Retainer, Throttle Shaft Seal Ring	1	1	1	1
2.7001	19	FP-5144178	Retainer, Shutdown Shaft Seal	1	1	1	1
2.7001	0	FP-5147866	Bushing, High Speed Weight	2	2	2	2
2.7001	53	FP-5150885	Washer, Governor Weight Pin	2	2	2	2
2.7001	10	FP-5176557	Seal Ring, Throttle Shaft	1	1	1	1
2.7001	12	FP-5153060	Retainer, Throttle Shaft Seal Ring	1	1	1	1
2.7001	13	FP-5174429	Ring Retainer, Throttle Shaft	1	1	1	1
2.7001	28	FP-5174286	Nut, Buffer Screw Seal (2.7230)	1	1	1	1
2.7001	61	FP-5165221	Gasket, Weight Shaft End Cap	1	1	1	1
2.7001	20	FP-5151487	Retainer Washer, Shutdown Shaft & Weight Pin	3	3	3	3
2.7001	21	FP-5178581	Ring Retainer, Shutdown Shaft & Weight Pin	5	5	5	5
2.7001	0	FP-5185153	Pin, Governor Weight	2	2	2	2
2.7001	65	FP-8922593	Gasket, High Speed Spring Cover	1	1	1	1
2.7001	23	FP-8924869	Gasket, Governor Cover	1	1	1	1
2.7001	30	FP-9431896	Bearing, Operating Shaft (Upper)	1	1	1	1
2.7001	36	FP-9436682	Bearing, Operating Shaft (Lower)	1	1	1	1
2.7001	56	FP-9437108	Bearing, Weight Riser Thrust	1	1	1	1
2.7001	57	FP-9424121	Bearing, Weight Shaft End	1	1	1	1
2.7001	3	FP-8924266	Gasket, Governor To Blower	1	1	1	1



Governor

(Figure 9.2)





Governor

(Figure 9.2)

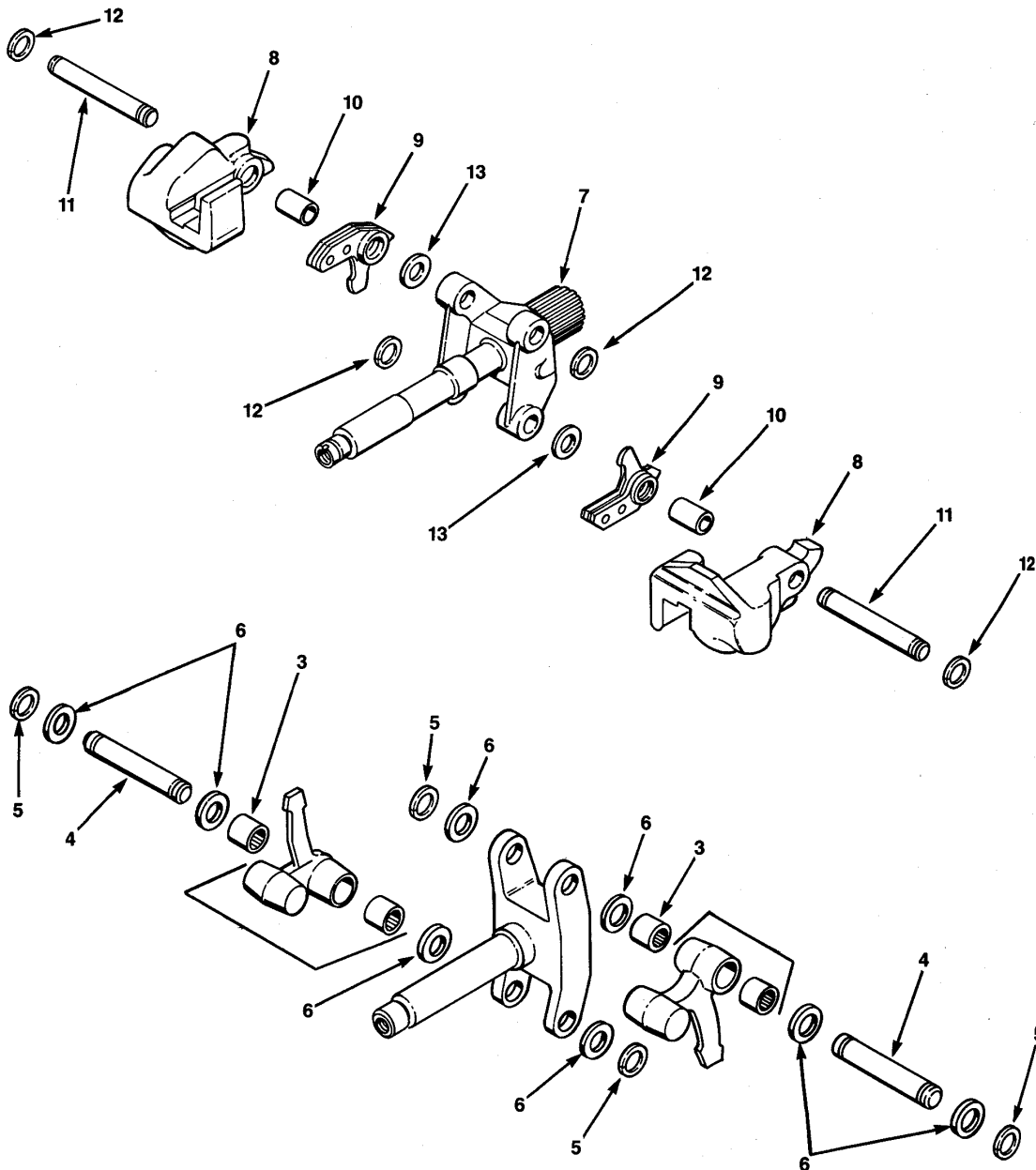
Groups:
2.7045 - 2.9355

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.7045	0	FP-103319	Lockwasher, 1/4"	8	8	16	16
2.7045	22	FP-9417926	Bolt Assembly, 1/4" -20 X 3/4" Governor Cover	8	8	16	16
2.7045	19	FP-5144178	Retainer, Governor Shutdown Shaft Seal Ring	1	1	1	1
2.7045	20	FP-5151487	Retainer, Throttle Shaft Seal Ring (Flat), (2.7145)	1	1	2	2
2.7045	21	FP-5178581	Retainer Ring, Governor Shutdown Shaft Seal	1	1	1	1
2.7051	23	FP-5150889	Gasket, Governor Cover	1	1	2	2
2.7051	23	FP-8924869	Gasket, Governor Cover	1	1	2	2
2.7095	14	FP-5117928	Shaft Assembly, Governor Cover Throttle	1	1	1	1
2.7095	24	FP-8924380	Plug, 1/8" -27 Pipe	1	1	1	1
2.7100	0	FP-8921472	Bushing, Bearing Governor Throttle Shaft (Split)	2	2	2	2
2.7111	25	FP-5127267	Bushing Split, Governor Cover Shutdown Shaft	1	1	2	2
2.7117	0	FP-5127213	Spring, Governor Shutdown Shaft	1	1	2	2
2.7117	17	FP-5131368	Spring, 3 3/4" Coils R/H Helix .077" Wire Dia. (Red)	1	1	2	2
2.7140	18	FP-5101691	Seal Ring, .362" ID X .113" Thk. (Green)	1	1	2	2
2.7145	0	FP-5151487	Washer, Governor Shutdown Shaft	1	1	1	1
2.7145	0	FP-5182977	Seal Ring, 3/32" X 3/8" X 3/8" Thk.	1	1	2	2
2.7165	0	FP-142583	Retainer, 13/64" Spring	1	1	2	2
2.7210	0	FP-5108775	Spring, Governor Lever Retracting	1	1	2	2
2.7230	26	FP-116337	Plug Expansion, Governor Operating Shaft Bearing (1 1/16"), (Lower)	1	1	2	2
2.7230	28	FP-5174286	Nut, Lock Governor Starting Aid Screw (3/8" -24 Hex.)	1	1	2	2
2.7250	31	FP-5132747	Lever, Governor Operating Shaft	1	1	1	1
2.7250	29	FP-5133680	Shaft, Governor Operating (2.7255)	1	1	1	1
2.7250	0	FP-5133795	Shaft Assembly, Governor Operating	1	1	1	1
2.7250	32	FP-5150943	Pin, Governor Operating Shaft Lever (2.7300)	1	1	1	2
2.7250	30	FP-9431896	Bearing, Governor Operating Shaft (Upper)	1	1	1	1
2.7255	30	FP-9431894	Bearing, Governor Operating Shaft (Upper)	1	1	1	2
2.7260	30	FP-9431896	Bearing, Governor Operating Shaft (Upper)	1	1	1	1
2.7270	36	FP-9436682	Bearing, Governor Operating Shaft (Lower)	1	1	1	2
2.7280	0	FP-5132747	Lever, Governor Operating Shaft	1	1	1	2
2.7280	37	FP-5132962	Screw, Governor Operating Shaft Lever (Gap Adjusting)	1	1	1	2
2.7290	0	FP-5159714	Washer, Governor Fork	1	1	1	2
2.7300	0	FP-5150943	Pin, Governor Operating Shaft Lever	1	1	1	2
2.7310	0	FP-142583	Retainer, 13/64"	1	1	1	1
2.7310	41	FP-5150894	Pin, L. Governor Differential (25/32"), (2.7315)	1	1	1	2
2.7317	53	FP-5150885	Washer, Governor Control Link Lever Pin (2.7340)	2	2	2	2
2.7317	46	FP-5127373	Lever Assembly, Governor Control Link Operating	1	1	1	2
2.7317	0	FP-5127375	Pin, .309" X 3.12" L	-	-	-	-
2.8035	3	FP-5150246	Gasket, Governor To Blower	1	1	1	1
2.8810	0	FP-23503717	Bearing, Governor Driven Shaft	AR	AR	AR	AR
2.8830	0	FP-23503717	Bearing, Governor Drive Shaft	AR	AR	AR	AR
2.8973	0	FP-5197065	Seal, Governor Operating Shaft Hub	1	1	1	1
2.8976	0	FP-5131232	Gasket, Governor Plate(2.7051)	AR	AR	AR	AR
2.9355	0	FP-23504196	Solenoid, Throttle Control (12V)	1	1	1	1



Governor Weight & Carrier

(Figure 9.3)





Governor Weight & Carrier

(Figure 9.3)

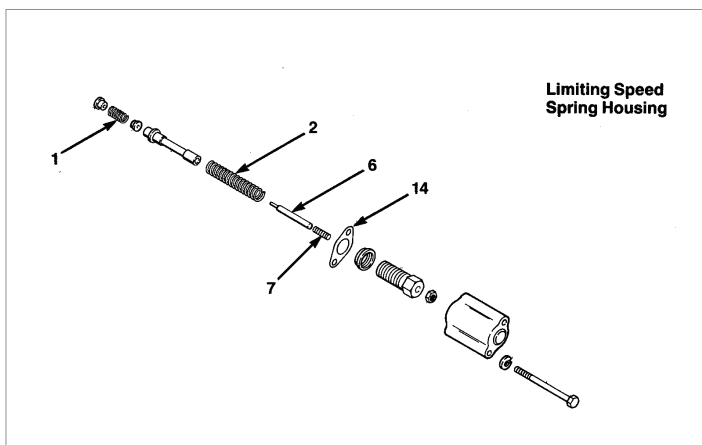
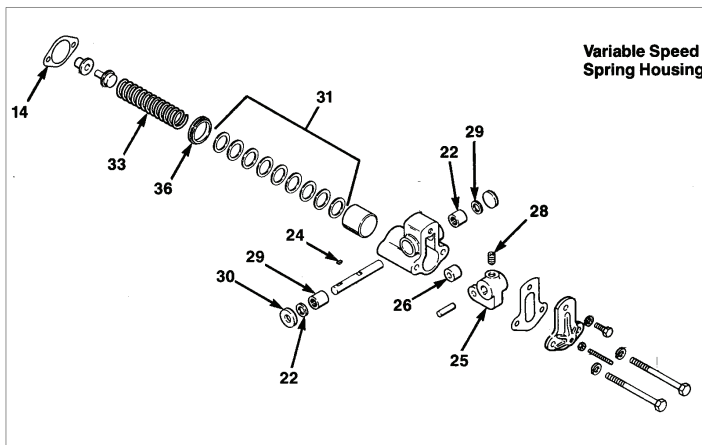
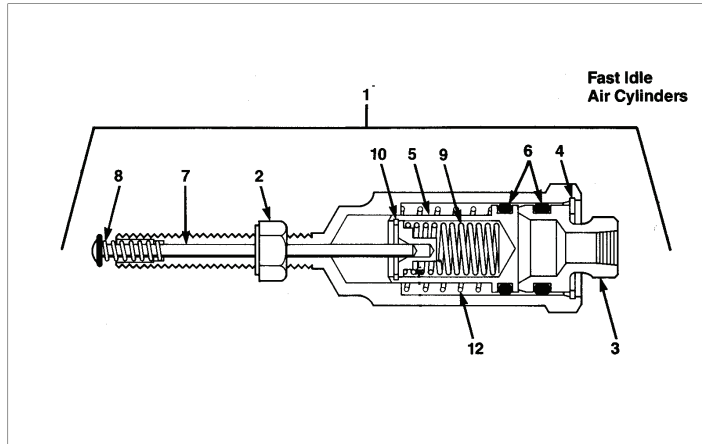
Groups:
2.7380 - 2.7635

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.7380	55	FP-5117193	Riser 1.062" L. Governor Weight Bearing	1	1	1	1
2.7380	55	FP-5147910	Riser 1.865" L. Governor Weight Bearing	1	1	1	1
2.7430	11	FP-5183632	Pin, Governor Weight (Drilled For Set Screw)	2	2	2	2
2.7430	4	FP-5185154	Pin, Governor Weight (Ring Groove)	2	2	2	2
2.7440	3	FP-447196	Bearing, Governor Weight	4	4	4	4
2.7460	56	FP-9437108	Bearing, .352" -.356" W., Governor Weight Riser Thrust	1	1	1	1
2.7460	56	FP-9438907	Bearing, .551" W., Governor Weight Riser Thrust	1	1	1	1
2.7470	57	FP-9424121	Bearing, Governor Weight Shaft End	1	1	1	1
2.7515	61	FP-5165221	Gasket, Governor Weight Housing Cap	1	1	1	1
2.7540	1	FP-5122165	Spring, Governor Low Speed (One Blue Stripe)	1	1	1	1
2.7550	2	FP-5136160	Spring, Governor High Speed (Two Pink Stripes)	1	1	1	1
2.7580	0	FP-5102968	Cap, Governor Low Speed Spring	1	1	2	2
2.7590	7	FP-5102270	Screw, 1/4" -28 X 1"	1	1	2	2
2.7620	0	FP-5126623	Ring, Governor Spring Guide	1	1	1	2
2.7635	0	FP-5155596	Washer, 5/16" Copper	2	2	2	4
2.7635	14	FP-8922593	Gasket, Governor High Speed Spring Adjusting Cover	1	1	1	1



Governor Spring Housing

(Figure 9.4)





Governor Spring Housing

(Figure 9.4)

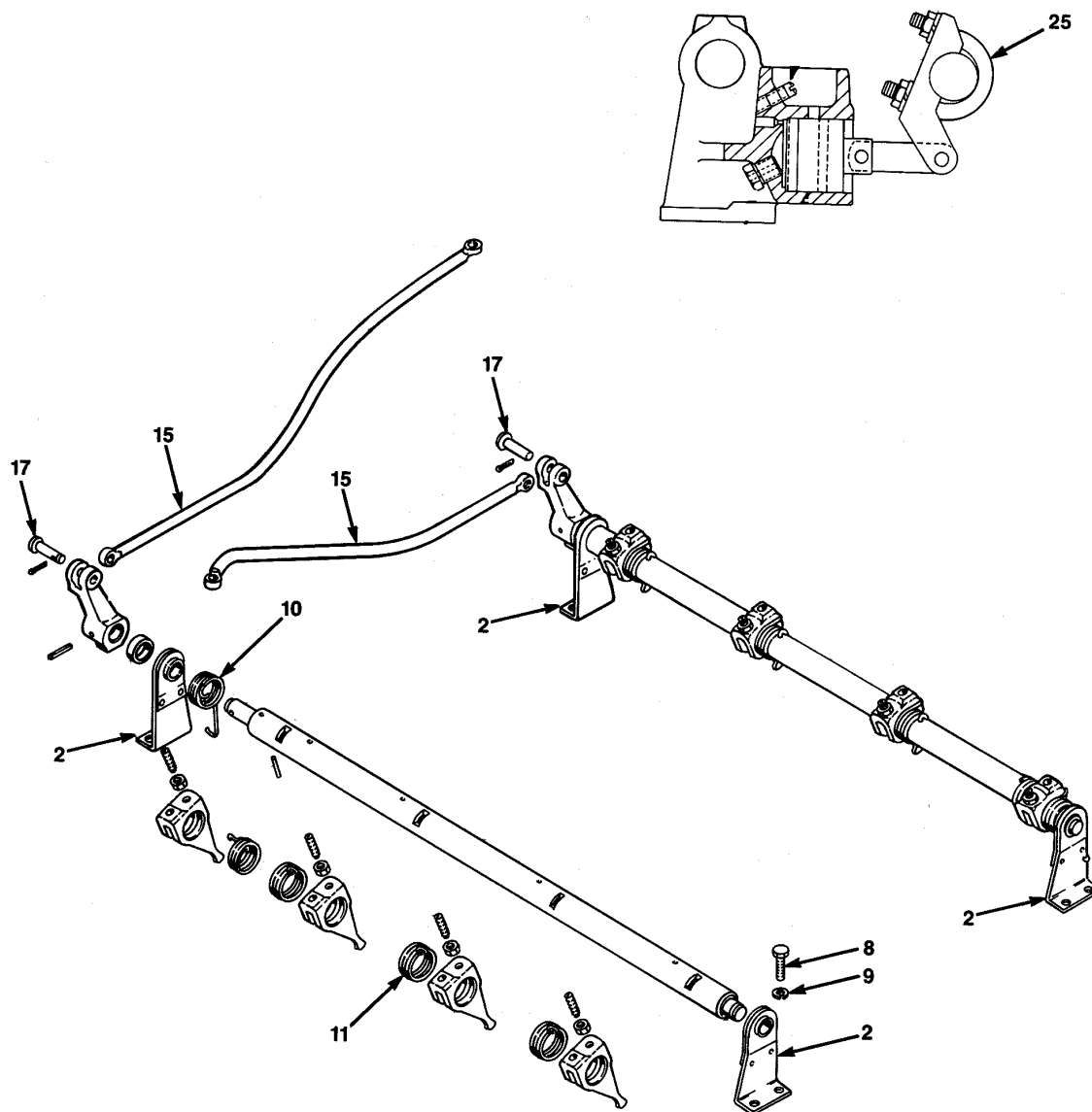
Groups:
2.7690 - 2.8030

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.7690	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
2.7690	0	FP-9417926	Bolt Assembly 1/4" -20 X 3/4"	1	1	1	1
2.7694	0	FP-5101710	Ring Seal .070" X .114" I.D.	1	1	1	1
2.7700	14	FP-8922593	Gasket, Governor Variable Speed Spring Housing	1	1	1	2
2.7712	22	FP-148402	Bearing 1/2" X 1/2" Dia. Governor Variable Speed Spring	2	2	2	2
2.7735	31	FP-5136590	Shim, .010" Governor Variable Speed Spring	6	6	6	12
2.7735	31	FP-5136591	Shim, .078" Governor Variable Speed Spring	3	3	3	6
2.7736	0	FP-5101711	Ring, .139" X .859"	1	1	1	1
2.7741	0	FP-5101710	Seal Ring, .070" X .114" I.D.	1	1	1	1
2.7750	29	FP-5176557	Seal O-Ring, Governor Variable Speed Spring	1	1	1	2
2.7760	33	FP-5122270	Spring, (Two Red Stripes) Governor Variable Speed Spring	1	1	1	2
2.7800	31	FP-5136590	Shim, .010" Governor Variable Speed Spring	6	6	6	6
2.7800	31	FP-5136591	Shim, .078" Governor Variable Speed Spring	3	3	3	3
2.7810	0	FP-5117952	Screw Assembly, Governor Buffer	1	1	1	1
2.7810	0	FP-5152929	Spring, Governor Buffer	1	1	1	1
2.7810	0	FP-5174286	Nut, 3/8" -24 Lock	1	1	1	1
2.7810	0	FP-8925664	Button, Buffer Screw	1	1	1	1
2.7829	0	FP-5104556	Hose, Governor Housing (1" I.D. x .56" L)	AR	AR	AR	AR
2.7850	1	FP-5129010	Cylinder Assembly, Fast Idle Air	1	1	-	-
2.7850	1	FP-5131807	Cylinder Assembly, Fast Idle Air	1	1	-	-
2.7850	2	FP-5174286	Nut Assembly, 3/8" -24	1	1	-	-
2.7860	6	FP-5103072	Seal Ring, Fast Idle Air Cylinder Piston	2	2	-	-
2.7860	0	FP-5101419	Ring Seal, Fast Idle Air Cylinder	1	1	1	1
2.7865	8	FP-5152929	Spring, Fast Idle Air Cylinder Plunger	1	1	-	-
2.7870	12	FP-5112908	Spring (Outer) Fast Idle Air Cylinder	1	1	-	-
2.7870	9	FP-5129009	Spring, (Inner) Fast Idle Air Cylinder (FP-5129010 Assembly)	1	1	-	-
2.7892	0	FP-443603	Bolt, 1/4" -20 X 3/4" Governor Control Link	8	4	-	-
2.7892	0	FP-23507896	Clamp, 1" Hose	1	1	1	1
2.7892	0	FP-5123812	Gasket, Governor Housing Control Link	1	1	1	1
2.7892	7	FP-5104592	Clamp, 1 1/2" L. Hose, Governor Fuel Rod Cover	-	-	4	4
2.7892	6	FP-8924267	Hose, 1" X 1.16" L. Governor Fuel Rod Cover	-	-	2	2
2.7898	22	FP-9417926	Bolt Assembly, 1/4" -20 X 3/4" Link Housing Cover	1	1	1	2
2.7900	0	FP-5133698	Gasket, Governor Control Link Housing Cover	-	-	-	-
2.8030	0	FP-3249110	Gasket, Hydraulic Governor Assy	AR	AR	AR	AR
2.8030	0	FP-5194069	Washer, Governor Assy (1/4 Copper)	1	1	1	2



Injector Control

(Figure 9.5)





Injector Control

(Figure 9.5)

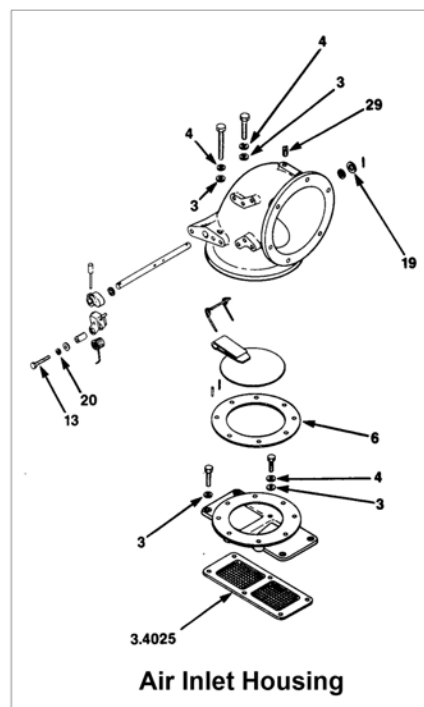
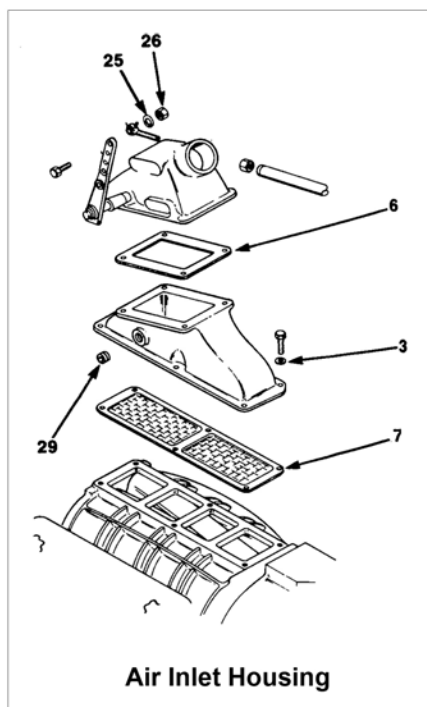
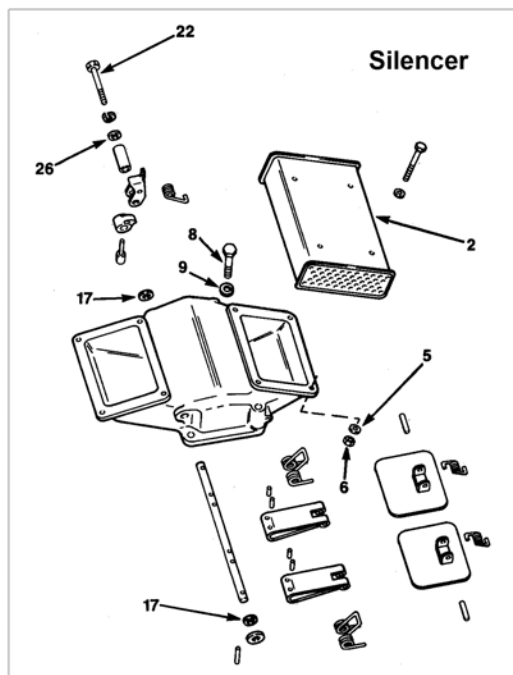
Groups:
2.9001 - 2.9360

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.9001	2	FP-5130509	Bracket, Injector Control Tube	4	4	8	8
2.9003	9	FP-103319	Lockwasher, 1/4"	4	4	8	8
2.9003	8	FP-9422203	Bolt, 1/4" -20 X 5/8"	4	4	8	8
2.9012	11	FP-5101258	Spring, Injector Control Tube (L.H. Helix)	2	2	2	2
2.9012	10	FP-5124142	Spring, Injector Control Tube Return (Green)	2	2	2	2
2.9022	15	FP-5117942	Link, Injector Control Tube To Governor (Long), (R/Bank) (R/Bank Rear On 16V), (Type # 95,96,137,150,215,216,218,233,234,244,246,251,253,288,292,295,296,298,299,308,311,312,314,315,324,325)	4	4	8	8
2.9022	0	FP-142583	Retainer, 13/64" Plain Spring	2	2	4	4
2.9022	15	FP-5117191	Link, Injector Control Tube To Governor (Short), (L/Bank) (Type # 95,96,216,218,233,234,241,244,246,251,288,292,295,296,298,299,308,309,310,311,312,326,327,328,329,330,331,332,333,334,335,336,337,338,341,344,353,362,363,370,371,383,386)	1	1	1	1
2.9022	15	FP-5127415	Link, Injector Control Tube To Governor (Long), (L/Bank) (Left Bank Rear on 16V), (Type # 116,117,119,241,243,289,313)	1	1	1	1
2.9022	15	FP-5127417	Link, Injector Control Tube To Governor (Short), (R/Bank Rear) (Type # 116,117,119,241,243,289,313)	1	1	1	1
2.9022	15	FP-5133699	Link, Injector Control Tube To Governor (Long), (R/Bank Front) (Type # 137,150,215,253,314,315,379,388)	1	1	1	1
2.9022	15	FP-5133700	Link, Injector Control Tube To Governor (Short), (L/Bank Rear) (Type # 137,150,215,253,314,315,379,388)	1	1	1	1
2.9022	15	FP-5134026	Link, Injector Control Tube To Governor (Short), (L/Bank Front) (Type # 137,150,215,253,314,315,379,388)	1	1	1	1
2.9030	0	FP-5150325	Bolt, 1/2" -13 X 4 1/4"	1	1	1	1
2.9030	25	FP-5180116	Bolt, "U" 1/4" -20	1	1	1	1
2.9087	0	FP-5131433	Washer, .41" X .81" X .1345"	1	1	1	1
2.9087	0	FP-8927580	Bolt, 3/8" X 7/8"	1	1	1	1
2.9090	0	FP-5103635	Bolt, 3/8" -16 X 2.70"	2	2	2	2
2.9230	0	FP-148403	Bearing, Governor Control Shaft	AR	AR	AR	AR
2.9360	0	FP-5122797	Link, Throttle Control Shaft (Engine To Governor)	AR	AR	AR	AR



Silencer & Air Intake

(Figure 10.1)





Silencer & Air Intake

(Figure 10.1)

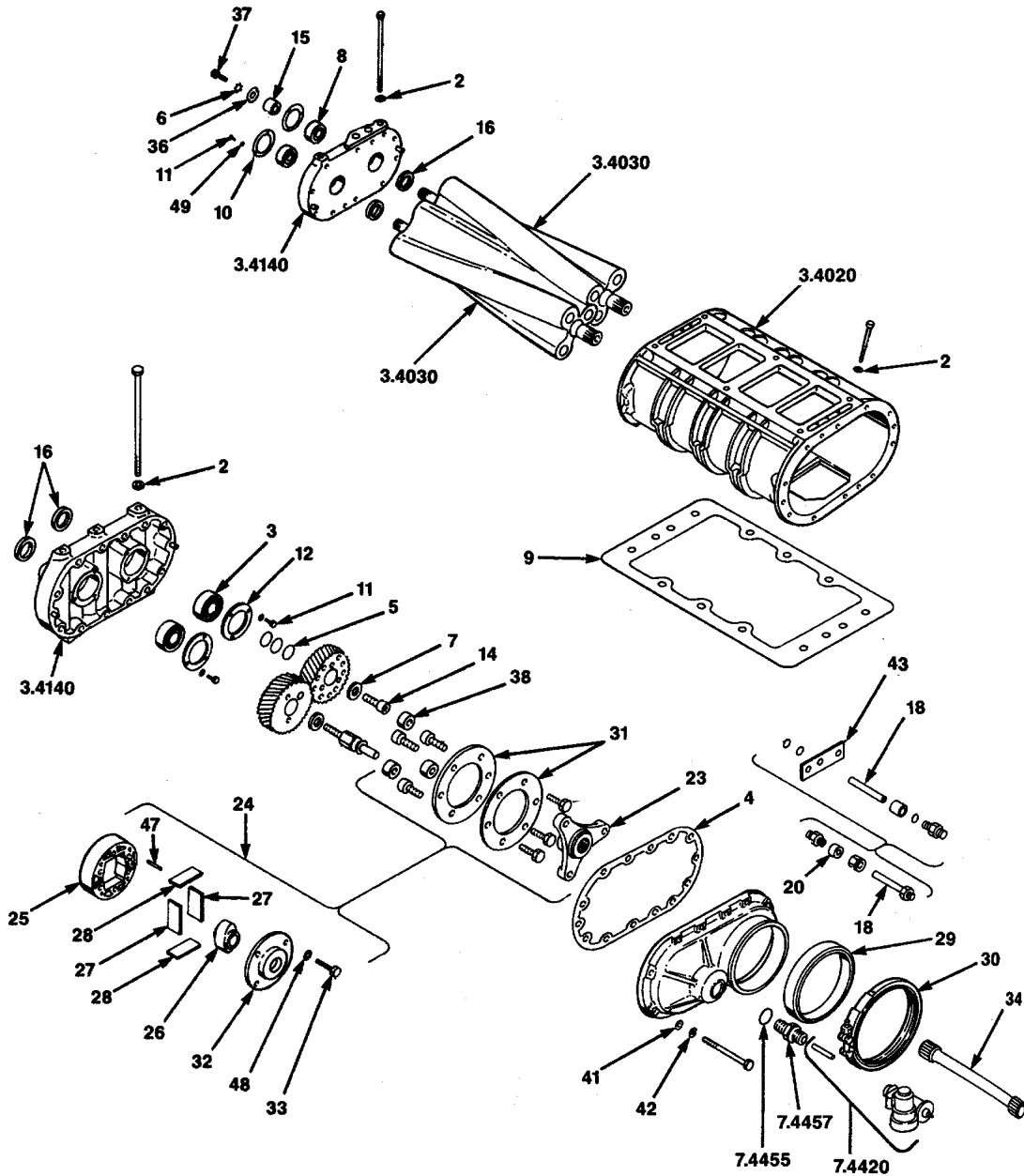
Groups:
3.1087 - 3.3095

Group	Ref	Part No.	Description	6V	8V	12V	16V
3.1087	0	FP-5123750	Gasket, Air Cleaner Mounting Adapter	AR	AR	AR	AR
3.1261	0	FP-5123750	Gasket, Air Cleaner To Inlet Housing Pipe	AR	AR	AR	AR
3.2001	5	FP-103320	Lockwasher, 5/16"	8	8	8	8
3.2001	2	FP-5189848	Silencer, Air (Option # 21,24,26)	2	-	4	-
3.2001	2	FP-5187177	Silencer, Air (Option # 22,25,36)	-	2	-	4
3.3001	0	FP-23506396	Ring Seal, Blower By-Pass Valve	2	2	2	2
3.3003	9	FP-103321	Lockwasher, 3/8"	8	8	8	16
3.3003	8	FP-8927580	Bolt, 3/8" -16 X 7/8"	8	8	8	16
3.3003	0	FP-5142549	Plug, 3/4" Pipe	1	1	1	2
3.3004	29	FP-5115214	Plug, 1/2" Pipe	1	1	1	2
3.3004	29	FP-5121182	Plug, 1/4" Pipe	1	1	1	2
3.3004	29	FP-5142549	Plug, 3/4" Pipe	1	1	1	2
3.3004	29	FP-8923847	Plug, 1/4" Pipe	1	1	1	2
3.3010	0	FP-5101408	Gasket, Air Inlet Housing (15.48" I.D. w/Ten 15/32" Holes)	2	2	2	4
3.3010	0	FP-5101412	Gasket, Air Inlet Housing (11.60" I.D. w/Eight 15/32" Holes)	2	2	2	4
3.3010	0	FP-5103515	Gasket, Air Inlet Housing (w/Screen)	2	2	2	4
3.3010	0	FP-5103602	Gasket, Air Inlet Housing (w/Screen)	2	2	2	4
3.3010	0	FP-5122692	Gasket, Air Inlet Housing (7.88" I.D. w/Eight 13/32" Holes)	2	2	2	4
3.3010	0	FP-5123703	Gasket, Air Inlet Housing (5.68" I.D. w/Eight 13/32" Holes)	2	2	2	4
3.3010	0	FP-5134838	Gasket, Air Inlet Housing (8" L. w/Four 13/32" Holes)	2	2	2	4
3.3010	0	FP-5145086	Gasket, Air Inlet Housing	2	2	2	4
3.3010	6	FP-5101408	Gasket, Air Inlet Housing (15.48" I.D. w/Ten 15/32" Holes)	1	1	1	2
3.3010	6	FP-5101412	Gasket, Air Inlet Housing (11.60" I.D. w/Eight 15/32" Holes)	1	1	1	2
3.3010	7	FP-5103515	Gasket, Air Inlet Housing (w/Screen)	1	1	1	2
3.3010	6	FP-5103602	Gasket, Air Inlet Housing (8" L. w/Four 13/32" Holes)	1	1	1	2
3.3010	6	FP-5122692	Gasket, Air Inlet Housing (7.88" I.D. w/Eight 13/32" Holes)	1	1	1	2
3.3010	6	FP-5123703	Gasket, Air Inlet Housing (5.68" I.D. w/Eight 13/32" Holes)	1	1	1	2
3.3010	6	FP-5134838	Gasket, Air Inlet Housing	1	1	1	2
3.3010	7	FP-5145086	Gasket, Air Inlet Housing (w/Screen)	1	1	1	2
3.3030	0	FP-3290572	Gasket, Air Inlet Housing	AR	AR	AR	AR
3.3030	0	FP-5145086	Gasket, Air Inlet Housing Striker Plate	2	2	2	4
3.3030	0	FP-5145235	Gasket, Air Inlet Housing Striker Plate	2	2	2	4
3.3030	0	FP-5145086	Gasket, Air Inlet Housing Striker Plate	1	1	1	2
3.3030	0	FP-5145235	Gasket, Air Inlet Housing Striker Plate	1	1	1	2
3.3035	13	FP-179803	Bolt, 1/4" -20 X 1 3/4"	1	1	1	2
3.3035	26	FP-5159714	Washer, 11/16" X 1/8"	1	1	2	2
3.3055	17	FP-5179232	Seal, Air Inlet Housing Shutdown Valve	2	2	4	4
3.3055	19	FP-5179232	Seal, Air Inlet Housing Shutdown Valve	1	1	1	2
3.3070	22	FP-179803	Bolt, 1/4" -20 X 1 3/4"	2	2	4	4
3.3090	26	FP-5159714	Washer, 11/16" X 1/8"	1	1	2	2
3.3095	26	FP-103026	Nut, 3/8" -24	1	1	1	2
3.3095	25	FP-103320	Lockwasher, 5/16"	1	1	1	2



Blower

(Figure 10.2)





Blower

(Figure 10.2)

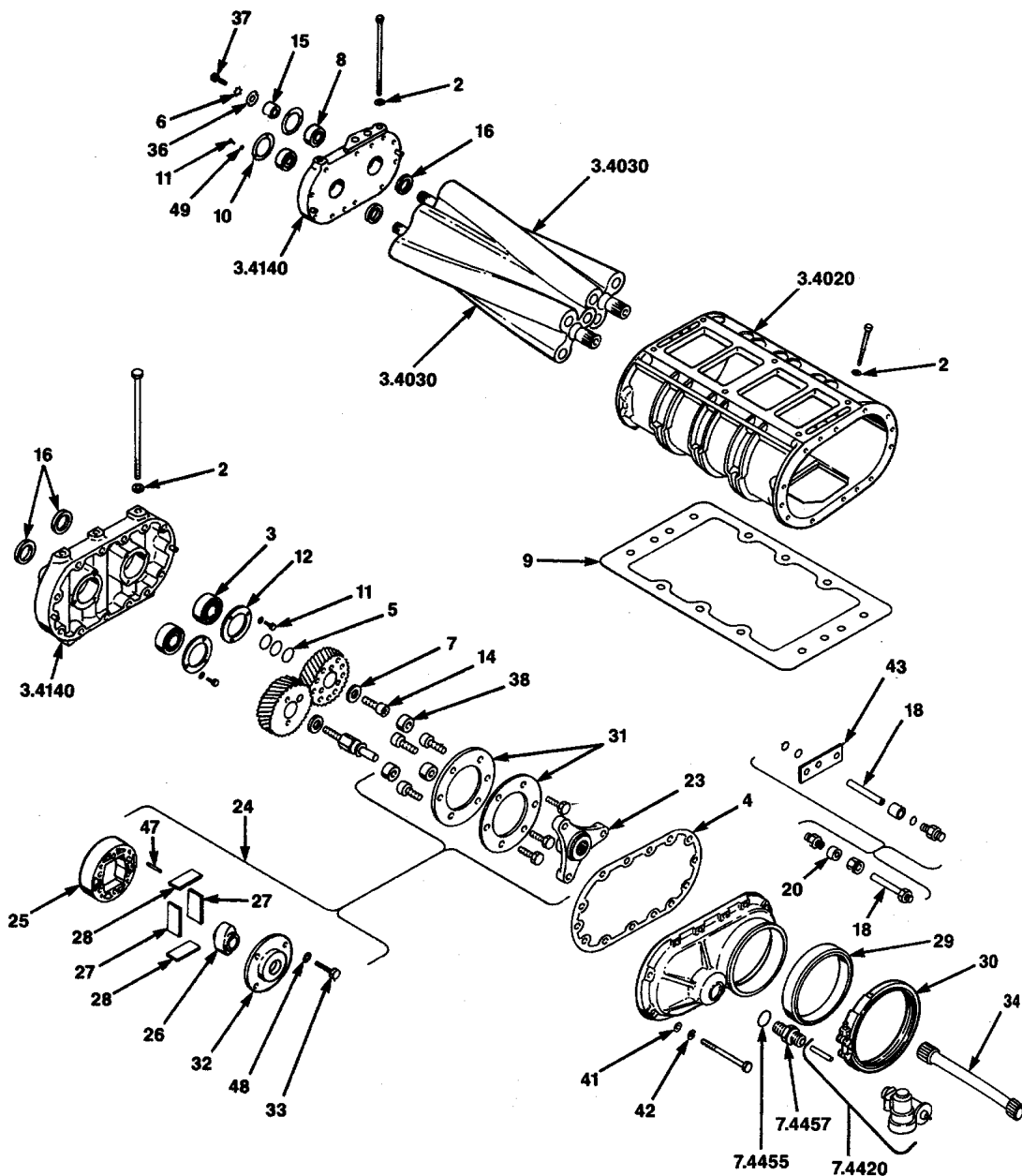
Groups:
3.4001 - 3.4010

Group	Ref	Part No.	Description	6V	8V	12V	16V
3.4001	0	FP-5101419	Seal Ring, Round .139" X .734" I.D.	2	2	4	4
3.4001	2	FP-5121905	Washer, 15/32" I.D. X 7/8" O.D. X 5/32" L	2	2	4	4
3.4003	0	FP-5149641	Gasket Kit, Blower Installation (Turbo)	1	-	-	-
3.4003	0	FP-5149646	Gasket Kit, Blower Installation (N/A)	1	-	-	-
3.4003	0	FP-5149643	Gasket Kit, Blower Installation (Turbo)	-	1	-	-
3.4003	0	FP-5149644	Gasket Kit, Blower Installation (N/A)	-	1	-	-
3.4003	0	FP-5149642	Gasket Kit, Blower Installation (N/A), (Turbo)	-	-	2	-
3.4003	0	FP-5149645	Gasket Kit, Blower Installation (N/A), (Turbo)	-	-	-	2
3.4010	0	FP-5115656	Gasket, Blower	AR	-	-	-
3.4010	9	FP-23520019	Gasket, Blower To Block (Supersedes 23513179)	1	-	2	-
3.4010	9	FP-5145235	Gasket, Blower To Block (Less Screen)	1	-	2	-
3.4010	9	FP-23520012	Gasket, Blower To Block	-	1	-	2
3.4010	9	FP-5145086	Gasket, Blower To Block (Less Screen)	-	1	-	2
3.4005	0	FP-23514202	Kit, Blower Repair (Large Bearing), (Turbo)	1	1	2	2
3.4005	5	FP-5150372	Shim, Blower Rotor Gear (.002")	1	1	1	1
3.4005	5	FP-5153938	Shim, Blower Rotor Gear (.003")	1	1	1	1
3.4005	5	FP-5150855	Shim, Blower Rotor Gear (.005")	1	1	1	1
3.4005	5	FP-5150856	Shim, Blower Rotor Gear (.010")	1	1	1	1
3.4005	6	FP-5154398	Lockwasher, 1/2" Special	2	2	2	2
3.4005	0	FP-5192439	Sleeve, Blower End Plate Seal	4	4	4	4
3.4005	16	FP-8924453	Seal Assembly, Blower Rotor	4	4	4	4
3.4005	3	FP-23504304	Bearing, Roller, Blower Rotor (Rear)	2	2	2	2
3.4005	8	FP-23503542	Bearing, Ball, Blower Rotor (Front)	2	2	2	2
3.4005	0	FP-23514203	Kit, Blower Repair (Small Bearing), (Turbo)	1	1	2	2
3.4005	5	FP-5150372	Shim, Blower Rotor Gear (.002")	1	1	1	1
3.4005	5	FP-5153938	Shim, Blower Rotor Gear (.003")	1	1	1	1
3.4005	5	FP-5150855	Shim, Blower Rotor Gear (.005")	1	1	1	1
3.4005	5	FP-5150856	Shim, Blower Rotor Gear (.010")	1	1	1	1
3.4005	6	FP-5154398	Lockwasher, 1/2" Special	1	1	1	1
3.4005	0	FP-5192439	Sleeve, Blower End Plate Seal	4	4	4	4
3.4005	16	FP-8924453	Seal Assembly, Blower Rotor	4	4	4	4
3.4005	3	FP-23504305	Bearing, Roller, Blower Rotor (Rear)	1	1	2	2
3.4005	8	FP-23503543	Bearing, Ball, Blower Rotor (Front)	2	2	4	4
3.4005	0	FP-23514204	Kit, Blower Repair (w/Reduction Blower Gear Set)	1	1	2	2
3.4005	5	FP-5150372	Shim, Blower Rotor Gear (.002")	1	1	1	1
3.4005	5	FP-5153938	Shim, Blower Rotor Gear (.003")	1	1	1	1
3.4005	5	FP-5150855	Shim, Blower Rotor Gear (.005")	1	1	1	1
3.4005	5	FP-5150856	Shim, Blower Rotor Gear (.010")	1	1	1	1
3.4005	6	FP-5154398	Lockwasher, 1/2" Special	2	2	4	4
3.4005	0	FP-5192439	Sleeve, Blower End Plate Seal	4	4	8	8
3.4005	16	FP-8924453	Seal Assembly, Blower Rotor	4	4	8	8
3.4005	3	FP-23504305	Bearing, Roller, Blower Rotor (Rear)	2	2	4	4
3.4005	8	FP-23503543	Bearing, Ball, Blower Rotor (Front)	2	2	4	4



Blower

(Figure 10.2)





Blower

(Figure 10.2)

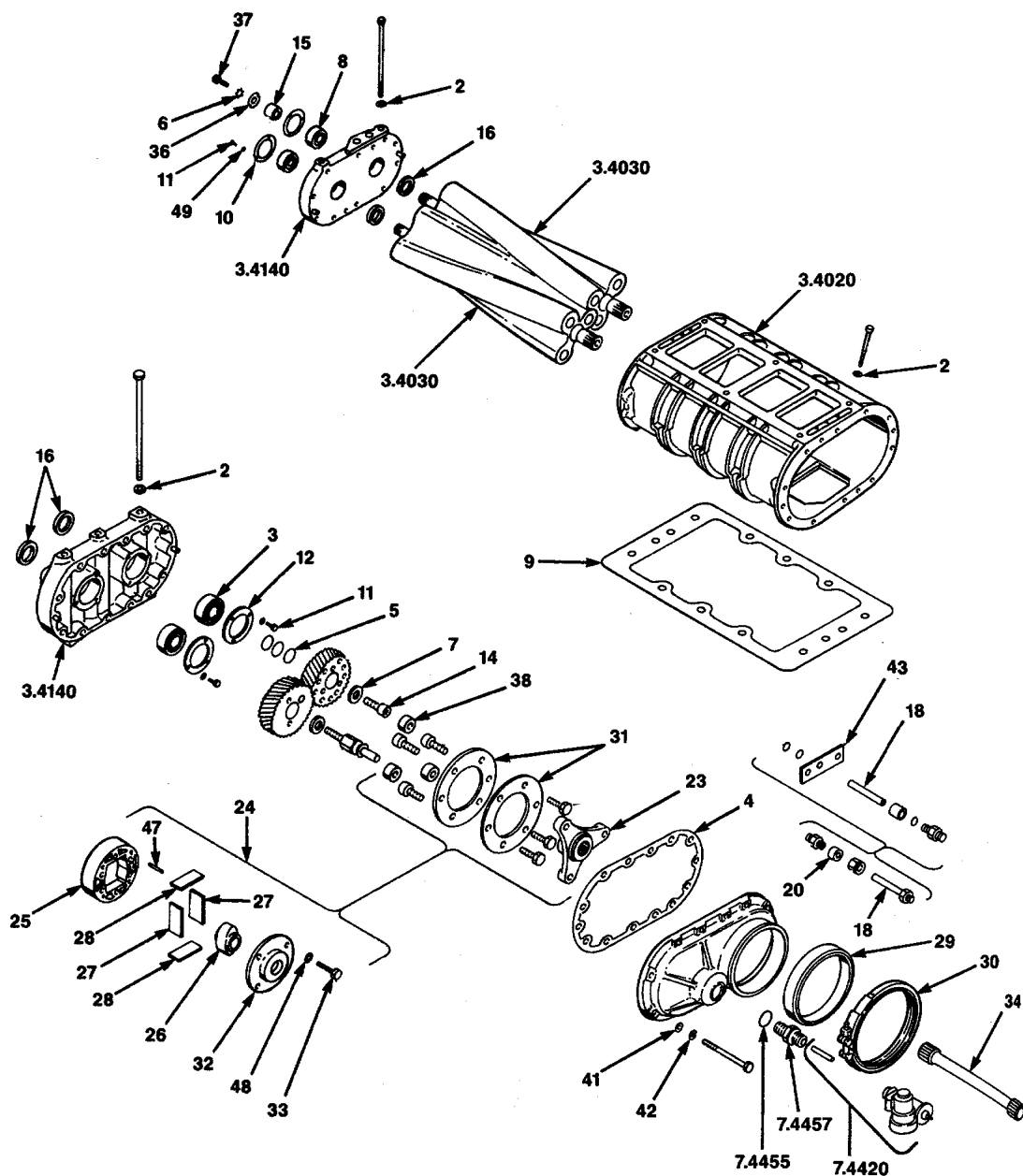
Groups:
3.4001 - 3.4010

Group	Ref	Part No.	Description	6V	8V	12V	16V
3.4005	0	FP-5108120	Kit, Blower Repair (Small Bearing), (N/A)	1	1	1	1
3.4005	4	FP-5114726	Gasket, Blower End Plate	2	2	2	2
3.4005	4	FP-5150234	Gasket, Blower End Plate	2	2	2	2
3.4005	5	FP-5150372	Shim, Blower Rotor Gear (.002")	1	1	1	1
3.4005	5	FP-5153938	Shim, Blower Rotor Gear (.003")	1	1	1	1
3.4005	5	FP-5150855	Shim, Blower Rotor Gear (.005")	1	1	1	1
3.4005	5	FP-5150856	Shim, Blower Rotor Gear (.010")	1	1	1	1
3.4005	6	FP-5154398	Lockwasher, 1/2" Special	1	1	1	1
3.4005	0	FP-5192439	Sleeve, Blower End Plate Seal	4	4	4	4
3.4005	16	FP-5192438	Seal, Blower End Plate O.S.	4	4	4	4
3.4005	4	FP-8924266	Gasket, Blower End Plate	2	2	2	2
3.4005	3	FP-23504305	Bearing, Roller, Blower Rotor (Rear)	2	2	2	2
3.4005	8	FP-23503543	Bearing, Ball, Blower Rotor (Front)	2	2	2	2



Blower & Blower Drive

(Figure 10.3)





Blower & Blower Drive

(Figure 10.3)

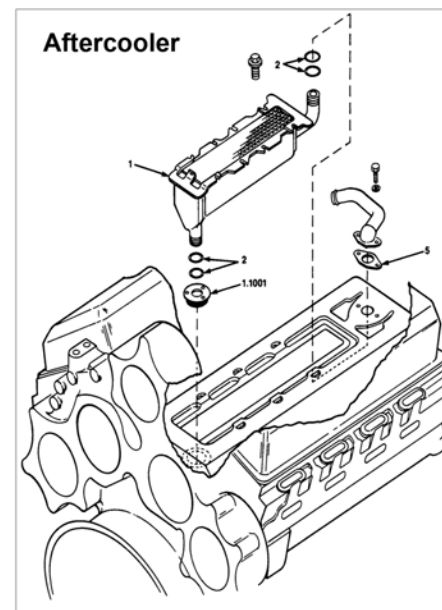
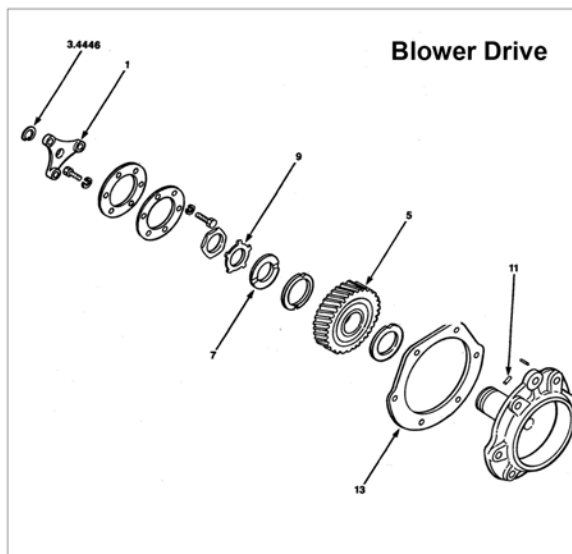
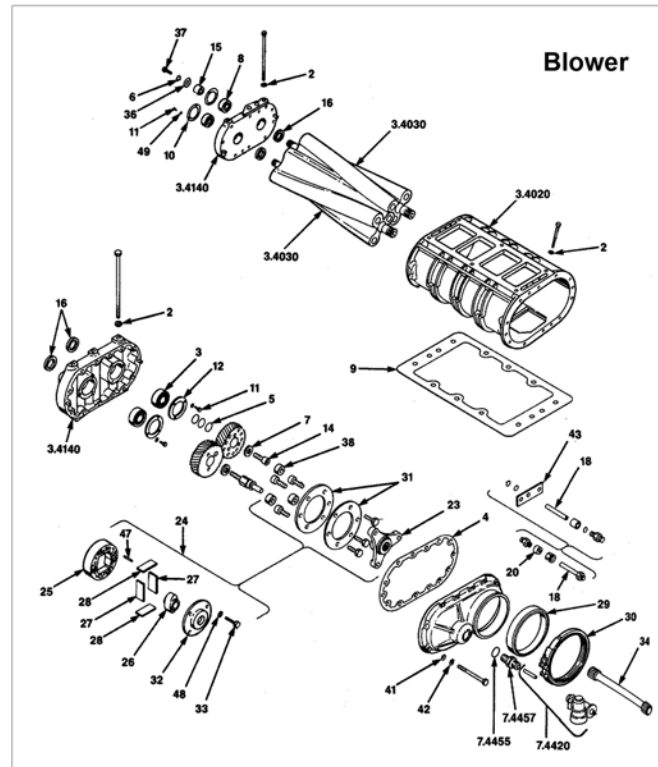
Groups:
3.4025 - 3.4390

Group	Ref	Part No.	Description	6V	8V	12V	16V
3.4025	0	FP-5103515	Gasket, Blower (w/Screen)	1	-	2	-
3.4025	0	FP-5103602	Gasket, Blower (w/Screen)	-	1	-	2
3.4025	0	FP-5102062	Gasket, Blower	-	-	-	-
3.4050	49	FP-103319	Lockwasher, 1/4"	6	6	12	12
3.4050	11	FP-5148794	Bolt, 1/4" -20 X 5/8"	12	12	24	24
3.4080	6	FP-5154398	Lockwasher, Special 1/2"	1	1	1	1
3.4080	14	FP-9409060	Bolt, 1/2" -20 X 1 1/2" Lock	1	1	1	1
3.4080	0	FP-5103364	Bolt, 1/2" -20 X 1.10" 12 Pt Head	-	-	3	-
3.4107	0	FP-5117091	Chain, Blower Rotor Gear Sprocket Coupling	-	-	1	-
3.4135	31	FP-8920764	Plate, Rotor Gear Hub (Rear of Front Blower)	2	2	4	4
3.4135	31	FP-8920765	Plate, Rotor Gear Hub (Front of Rear Blower)	-	-	2	2
3.4137	0	FP-8920763	Spacer, Blower Gear Hub	3	3	3	3
3.4137	38	FP-5173364	Spacer, Blower Gear	-	-	3	3
3.4160	16	FP-5138710	Seal, Blower End Plate (Std.)	4	4	8	8
3.4180	42	FP-103320	Lockwasher, 5/16"	28	28	56	56
3.4180	41	FP-5159714	Washer, 11/16" X 1/8"	28	28	56	56
3.4180	0	FP-105456	Gasket, Blower Housing End Plate	1	1	2	2
3.4190	4	FP-8924266	Gasket, Blower End Plate Cover	1	1	2	2
3.4192	18	FP-5117717	Tube, Blower Oil Supply 5/16" X 4.20"	1	1	1	1
3.4192	43	FP-5124519	O-Ring, Blower Oil Supply Tube	1	1	1	1
3.4192	20	FP-5144424	Seal Ring, 5/16" Tube	1	1	1	1
3.4192	0	FP-8927414	Ring Seal, Blower Oil Supply (1/4" I.D.)	1	1	1	1
3.4200	0	FP-5103601	Screen, Blower Cover Drive	1	-	-	-
3.4220	29	FP-23515630	Seal Ring, Blower Drive Cover	AR	AR	AR	AR
3.4220	29	FP-8922140	Seal, Blower Drive Cover (4.32" X 4.88" X .77")	1	1	1	1
3.4220	29	FP-5146040	Seal, Blower Drive Cover (4.32" X 5.091" X 2.86")	-	1	-	2
3.4227	30	FP-5106219	Clamp, Blower Drive Cover Seal	1	1	1	1
3.4370	23	FP-5141473	Coupling, Blower Drive (48 Spline), (Spider)	1	1	1	1
3.4370	23	FP-8922517	Coupling, Blower Drive (29 Spline), (Spider)	1	1	1	1
3.4160	0	FP-23500533	Seal Kit, Blower End Plate	1	1	2	2
3.4160	16	FP-8924453	Seal, Blower End Plate	4	4	8	8
3.4160	0	FP-5192439	Sleeve, Blower End Plate Seal	4	4	8	8
3.4370	24	FP-5103377	Coupling, Blower Drive	1	1	1	1
3.4370	25	FP-5150345	Support, Blower Drive Coupling	1	1	1	1
3.4370	26	FP-5103365	Cam, Blower Drive Coupling	1	1	1	1
3.4370	0	FP-5196314	Spring Pack, Blower Drive Coupling	1	1	1	1
3.4370	27	FP-5123859	Spring, Blower Drive Coupling	42	42	42	42
3.4370	28	FP-5123860	Seat, Blower Drive Coupling	2	2	2	2
3.4370	32	FP-5150349	Retainer, Blower Drive Coupling	1	1	1	1
3.4370	47	FP-5150346	Seat, Blower Drive Coupling Spring (Pin Half)	2	2	2	2



Blower Drive & Aftercooler

(Figure 10.4)





Blower Drive & Aftercooler

(Figure 10.4)

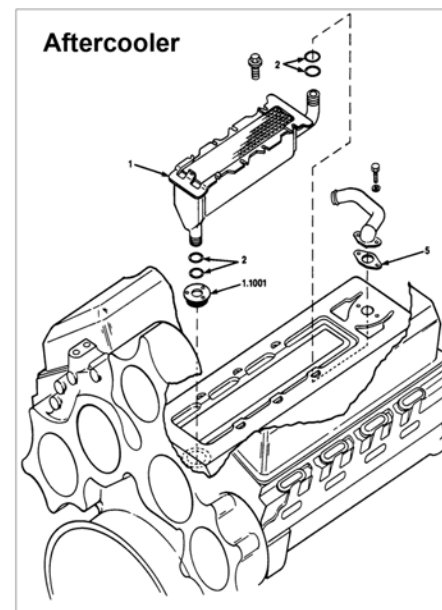
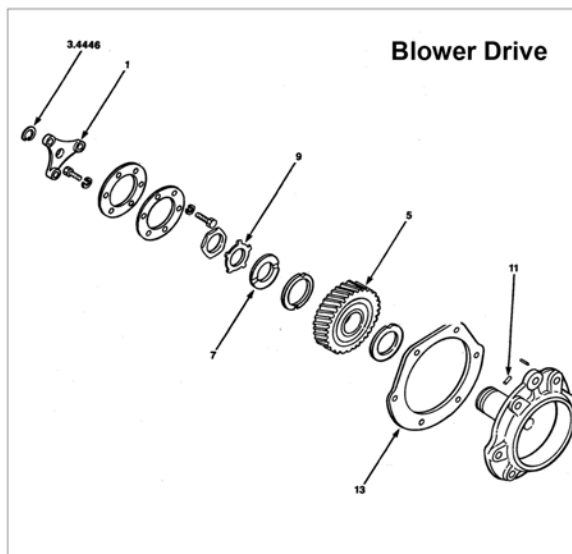
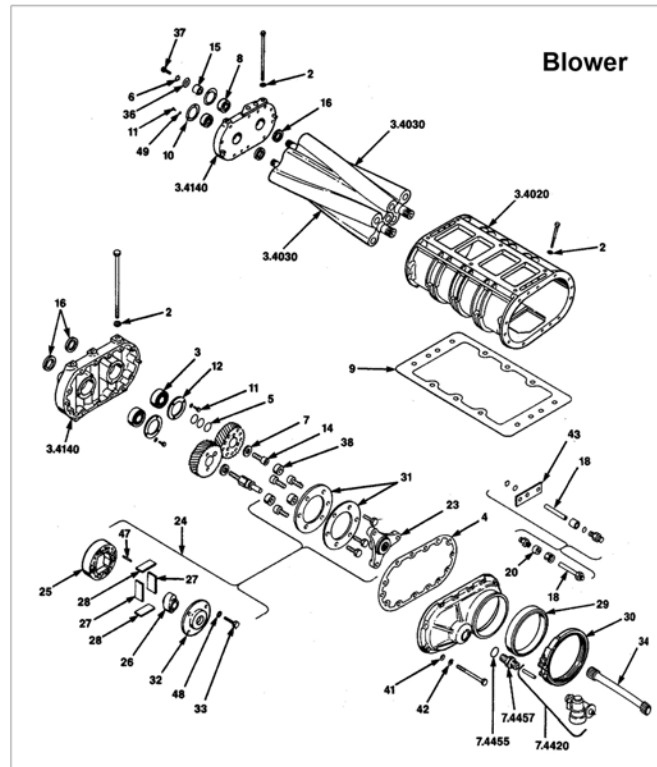
Groups:
3.4130 - 3.5505

Group	Ref	Part No.	Description	6V	8V	12V	16V
3.4130	1	FP-5122914	Hub, Blower Drive (48 Spline), (w/o Lugs)	1	1	1	1
3.4130	1	FP-5123081	Hub, Blower Drive (48 Spline), (w/ Lugs)	1	1	1	1
3.4130	1	FP-8922518	Hub, Blower Drive (29 Spline), (w/o Lugs)	1	1	1	1
3.4130	1	FP-8922519	Hub, Blower Drive (29 Spline), (w/ Lugs)	1	1	1	1
3.4300	0	FP-5120501	Bushing, Blower Drive Gear	1	1	1	1
3.4300	5	FP-5122920	Gear, Blower Drive Assembly (L.H. Helix 40 Teeth)	1	1	1	1
3.4320	7	FP-8926293	Washer, Blower Drive Gear Thrust	1	1	1	1
3.4340	9	FP-8926285	Lockwasher	1	1	-	-
3.4350	0	FP-5152148	Washer, 3/8" X 9/16"	2	2	4	4
3.4355	0	FP-5120501	Bushing, Blower Drive Gear	2	2	4	4
3.4360	13	FP-5148810	Gasket, Blower Drive Support	1	1	2	2
3.4370	0	FP-5103364	Bolt, 1/2" -20 X 1.10" 12 Pt Head	3	3	3	3
3.4370	0	FP-5173364	Spacer, Blower Drive Coupling	3	3	3	3
3.4370	0	FP-8920763	Spacer, Blower Drive Coupling	3	3	3	3
3.4420	48	FP-103320	Washer, 5/16"	3	3	3	3
3.4420	33	FP-9409077	Bolt, 5/16" -24 X 1 5/8"	3	3	3	3
3.4420	32	FP-5150349	Retainer, Blower Drive Coupling	1	1	1	1
3.4445	34	FP-5117724	Shaft, Blower Drive (5.22" L)	1	1	-	-
3.4445	34	FP-5162860	Shaft, Blower Drive (5.22" L)	1	-	-	-
3.4445	34	FP-8922634	Shaft, Blower Drive (6.67" L), (29 Spline)	1	-	1	-
3.4445	34	FP-8922666	Shaft & Spring, Blower Drive (4.89" L), (29 Spline)	1	-	1	-
3.4445	34	FP-5117725	Shaft, Blower Drive (7" L)	-	1	-	1
3.4445	34	FP-5124095	Shaft, Blower Drive (7.86" L)	-	1	-	2
3.4445	34	FP-8923053	Shaft & Spring, Blower Drive (6.67" L), (48 Spline), (Carbonitride)	-	1	-	2
3.4445	34	FP-5130295	Shaft, Blower Drive (7" L)	-	-	1	-
3.4445	34	FP-5148253	Shaft, Blower Drive (5" L), (Nitrided)	-	-	1	-
3.4445	34	FP-5148255	Shaft, Blower Drive (5.86" L), (Nitrided)	-	-	1	-
3.4446	0	FP-5154637	Ring, Blower Drive Shaft Retaining	1	1	1	1
3.4370	0	FP-23503682	Assembly, Blower Drive Coupling	1	1	1	1
3.4370	25	FP-5150345	Support, Blower Drive Coupling	1	1	1	1
3.4370	26	FP-23503681	Cam, Blower Drive Coupling	1	1	1	1
3.4370	27	FP-5123859	Spring, Blower Drive Coupling	42	42	42	42
3.4370	28	FP-5123860	Seat, Blower Drive Coupling	2	2	2	2
3.4370	47	FP-5150346	Seat, Blower Drive Coupling Spring (Pin Half)	4	4	4	4
Aftercooler							
3.5436	2	FP-5101138	Seal Ring, .984" X .139"	4	4	8	8
3.5437	0	FP-5186840	Clamp, 13/16" X 1 1/2"	4	4	8	8
3.5438	0	FP-103320	Lockwasher, 5/16"	1	1	2	2
3.5438	5	FP-5145581	Gasket, Aftercooler Water Outlet	1	1	2	2



Blower Drive & Aftercooler

(Figure 10.4)





Blower Drive & Aftercooler

(Figure 10.4)

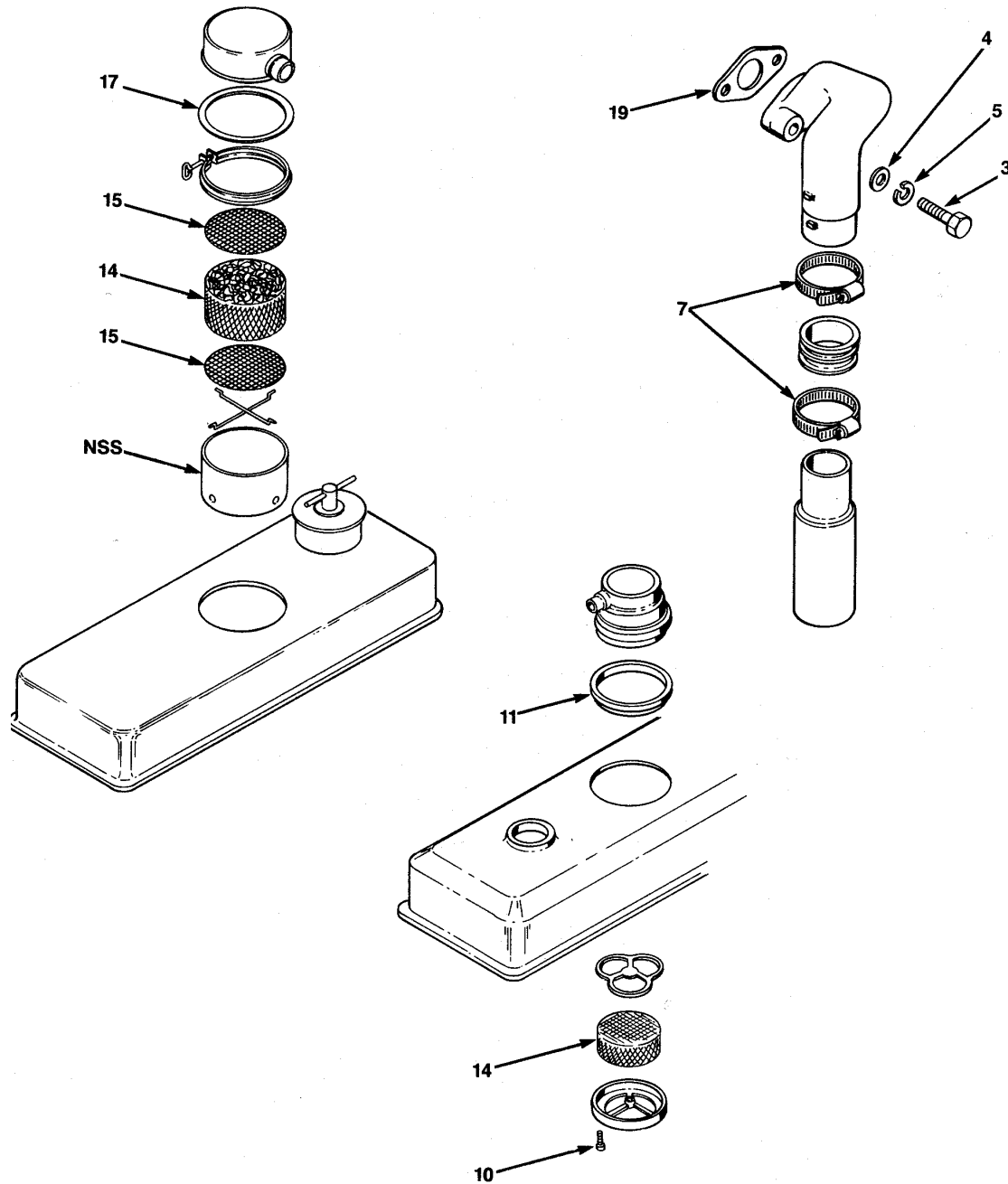
Groups:
3.4130 - 3.5505

Group	Ref	Part No.	Description	6V	8V	12V	16V
Turbocharger							
3.5001	0	FP-5198257	Seal Ring, Turbocharger (3.5022)	AR	AR	AR	AR
3.5001	0	FP-5198988	Spacer, Turbocharger (.665" x .975" x .18")	2	2	2	2
3.5305	0	FP-5108715	Seal, Turbo Charger Exhaust Inlet (3.62" I.D. x 4.08" O.D.)	AR	AR	AR	AR
3.5307	0	FP-23511492	Gasket, Turbocharger Exhaust Inlet Connection	AR	AR	AR	AR
3.5307	0	FP-23512114	Gasket, Turbocharger Exhaust Inlet Connection	AR	AR	AR	AR
3.5307	0	FP-5118793	Gasket, Turbo Charger Exhaust Inlet Connection	AR	AR	AR	AR
3.5307	0	FP-5181415	Clip, Turbo Charger Oil Return Tube (1 1/8" Tube, 7/16" Bolt)	AR	AR	AR	AR
3.5325	0	FP-23512114	Gasket, Turbocharger Exhaust Outlet	AR	AR	AR	AR
3.5418	0	FP-23511492	Gasket, Turbocharger Air Outlet Elbow	AR	AR	AR	AR
3.5418	0	FP-5123750	Gasket, Turbo Charger Air Outlet Elbow	AR	AR	AR	AR
3.5500	0	FP-5128964	Gasket, Cover To Turbo Charger	AR	AR	AR	AR
3.5500	0	FP-5133425	Gasket, Turbo Charger Oil Supply Tube	AR	AR	AR	AR
3.5505	0	FP-5143618	Hose, Turbo Charger Oil Return (#16 x 31.00")	AR	AR	AR	AR
3.5505	0	FP-5176532	Seal Ring, Turbo Charger Oil Return Tube (7/8" Tube - Sealastic)	AR	AR	AR	AR
3.5705	0	FP-5109635	Gasket, Turbocharger Pressure Controller	AR	AR	AR	AR



Breather

(Figure11.1)





Breather

(Figure 11.1)

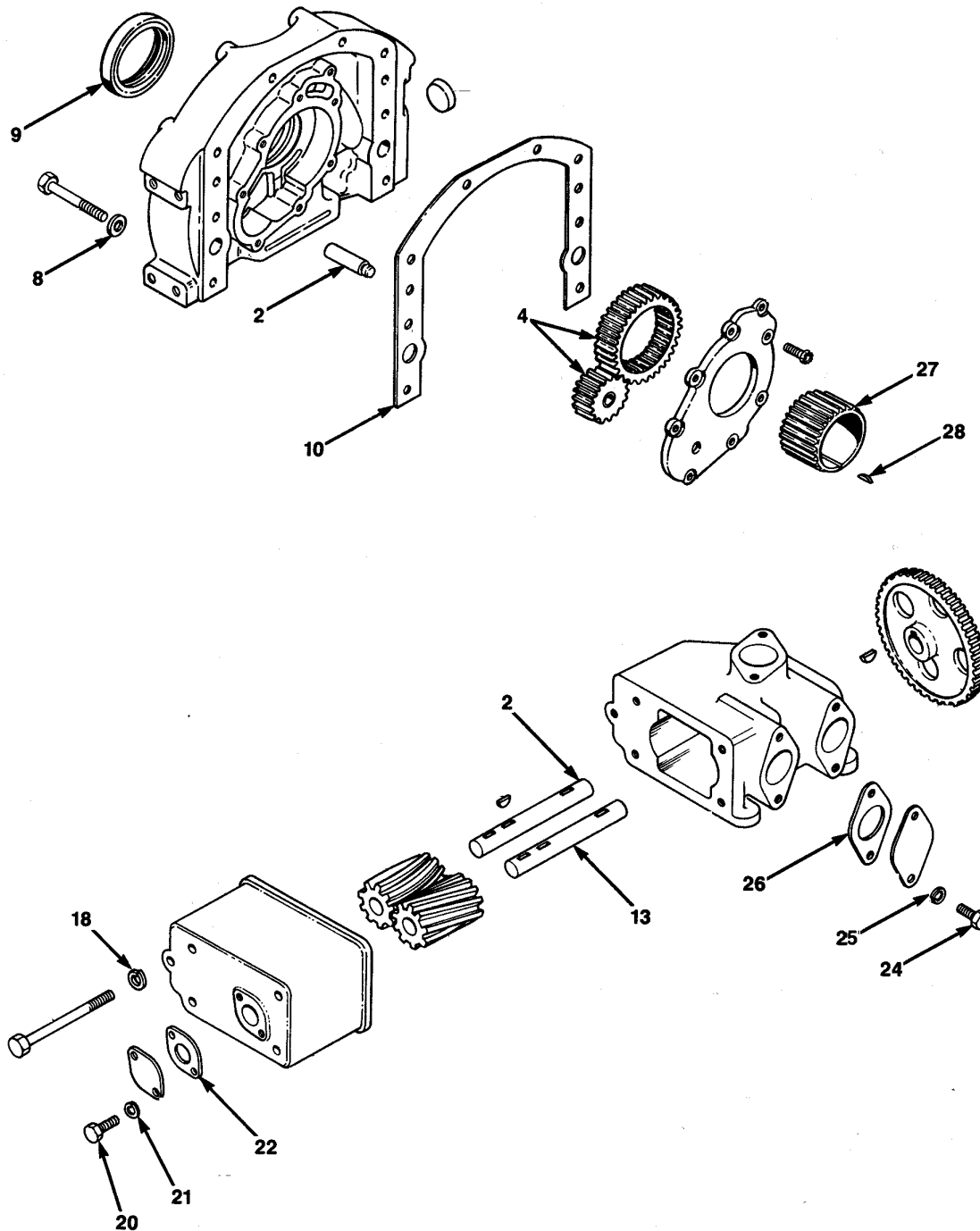
Groups:
4.8001 - 4.8170

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.8001	5	FP-103319	Lockwasher, 1/4"	2	2	2	2
4.8001	5	FP-103321	Lockwasher, 3/8"	2	2	2	2
4.8001	0	FP-443603	Bolt, 1/4" -20 X 3/4"	2	2	2	2
4.8001	19	FP-5123812	Gasket, Breather Elbow	2	2	4	4
4.8001	0	FP-5180314	Seal Ring, Breather	2	2	4	4
4.8001	0	FP-8921930	Bolt, 1/4" -20 X 1.25"	2	2	4	4
4.8001	3	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	2
4.8010	7	FP-10019739	Clamp, Breather Tube (Snap Type)	AR	AR	AR	AR
4.8010	7	FP-5104592	Clamp, Breather (2 1/2" Dia. Hose)	2	2	2	2
4.8010	7	FP-5186840	Clamp, Breather (13/16" -1 1/2" Clamping Range)	2	2	2	2
4.8013	3	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	2
4.8020	0	FP-5117636	Gasket, Breather Pipe	1	1	1	1
4.8020	0	FP-5132331	Gasket, Breather Pipe	1	1	1	-
4.8040	0	FP-5186840	Clamp, Breather (13/16" -1 1/2" Clamping Range)	2	2	2	2
4.8040	0	FP-103321	Lockwasher, 3/8"	1	1	1	1
4.8040	0	FP-106261	Washer, 5/16" X 3/4"	1	1	1	1
4.8040	0	FP-5131433	Washer, .41" X .81" X .1345"	1	1	1	1
4.8040	0	FP-8927580	Bolt, 3/8" -16 X 7/8"	1	1	1	1
4.8040	0	FP-8927581	Bolt, 3/8" -16 X 1"	1	1	1	1
4.8042	0	FP-103319	Lockwasher, 1/4"	1	1	1	1
4.8043	11	FP-5103646	Gasket, Breather Hole Plug	1	1	1	1
4.8045	15	FP-5132042	Screen, Filter Unit Breather	2	2	2	2
4.8045	14	FP-5101760	Element, Breather Oil Separator Filter Unit	1	1	1	1
4.8045	0	FP-5110393	Gasket, Breather Pipe	1	1	1	1
4.8045	0	FP-5130349	Gasket, Breather Pipe	1	1	1	1
4.8055	10	FP-5103642	Screw, # 10 -24 X .375" Lock	1	1	1	1
4.8057	11	FP-5103646	Gasket, Breather Shell Cover	1	1	1	1
4.8060	15	FP-5132042	Screen, Filter Unit Breather	2	2	2	2
4.8060	14	FP-5101760	Element, Breather Oil Separator Filter Unit	1	1	1	1
4.8070	17	FP-5144038	Gasket, Breather Body Or Separator	2	2	2	2
4.8070	17	FP-5130349	Gasket, Breather Body Or Separator	1	1	1	1
4.8120	0	FP-5180273	Gasket, Cylinder Head Air Inlet Tube	1	1	1	1
4.8170	0	FP-103320	Lockwasher, 5/16"	1	1	1	1



Oil Pump

(Figure 12.1)





Oil Pump

(Figure 12.1)

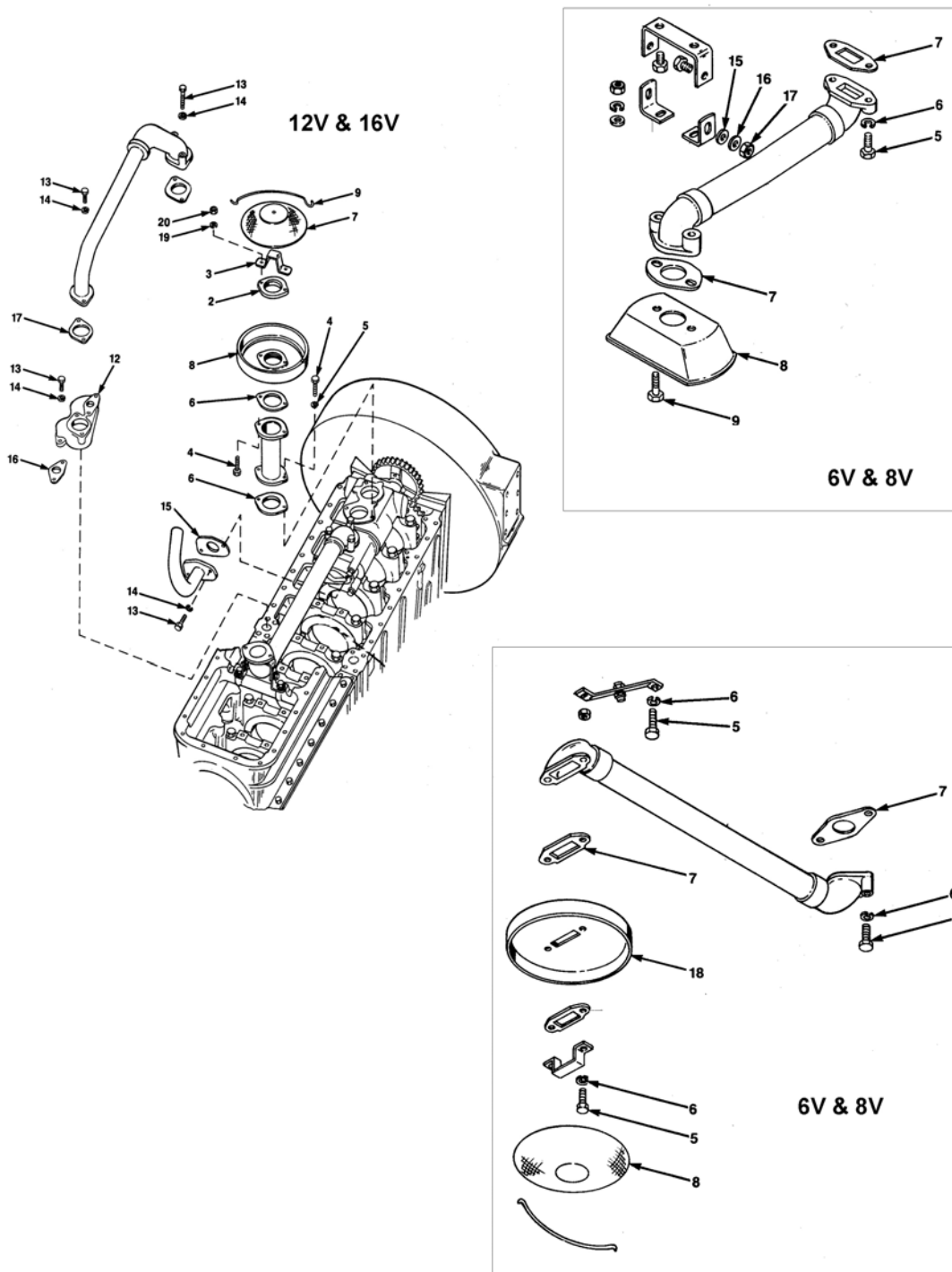
Groups:
4.1001 - 4.1380

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.1001	8	FP-103321	Lockwasher, 3/8"	2	2	4	4
4.1001	0	FP-5136240	Plug Cap, .420" Dia.	1	1	1	1
4.1001	0	FP-5115214	Plug, 1/2" Pipe	1	-	-	-
4.1001	0	FP-103026	Nut, 3/8" -24	-	-	4	4
4.1001	0	FP-8927270	Stud, 3/8" -16/24 X 1 11/16"	-	-	-	-
4.1004	9	FP-5115454	Seal, Crankshaft Oil (Front), (Single Lip)	1	1	-	-
4.1007	10	FP-5121714	Gasket, Oil Pump To Cylinder Block	1	1	-	-
4.1080	2	FP-5126350	Shaft, Oil Pump Driven Gear (4.1070)	1	1	1	1
4.1200	0	FP-5123303	Bushing, Oil Pump Driven Gear	1	1	1	1
4.1220	0	FP-8924517	Plug, 3/8" Pipe	1	1	1	1
4.1220	18	FP-103321	Lockwasher, 3/8"	-	-	4	4
4.1220	0	FP-8927581	Bolt, 3/8" -16 X 1"	-	-	4	4
4.1222	21	FP-103321	Lockwasher, 3/8"	2	2	2	2
4.1222	20	FP-8927580	Bolt, 3/8" -16 X 1"	2	2	2	2
4.1232	22	FP-29503153	Gasket, Oil Pump Cover Flange (2.40" B.C.)	1	1	1	1
4.1232	22	FP-5123235	Gasket, Oil Pump Cover Flange (2.44" B.C.)	1	1	1	1
4.1290	25	FP-103321	Lockwasher, 3/8"	2	2	2	2
4.1290	24	FP-8927580	Bolt, 3/8" -16 X 1"	2	2	2	2
4.1300	26	FP-29503153	Gasket, Oil Pump Cover Flange (2.40" B.C.)	2	2	2	2
4.1300	26	FP-5123241	Gasket, Oil Pump Pad Cover (2.88" B.C.)	2	2	2	2
4.1300	26	FP-5123660	Gasket, Oil Pump Pad Cover (2.76" B.C.)	2	2	2	2
4.1310	28	FP-8928545	Key, 3/16" X 7/8" Woodruff	1	1	1	1
4.1310	27	FP-8927135	Gear, Oil Pump Drive (On Crankshaft 37 Teeth)	1	-	1	1
4.1380	0	FP-5104439	Washer, (Dished 1 1/4" O.D.)	1	1	1	1
4.1001	4	FP-5196602	Gear Set, Oil Pump (1.302" Wide)	1	1	-	-
4.1001	0	FP-5117587	Gear, Oil Pump Drive (1.302" Wide), (4.1090)	1	1	-	-
4.1001	0	FP-5117588	Gear, Oil Pump Driven (1.302" Wide), (4.1200)	1	1	-	-



Oil Distribution

(Figure 12.2)





Oil Distribution

(Figure 12.2)

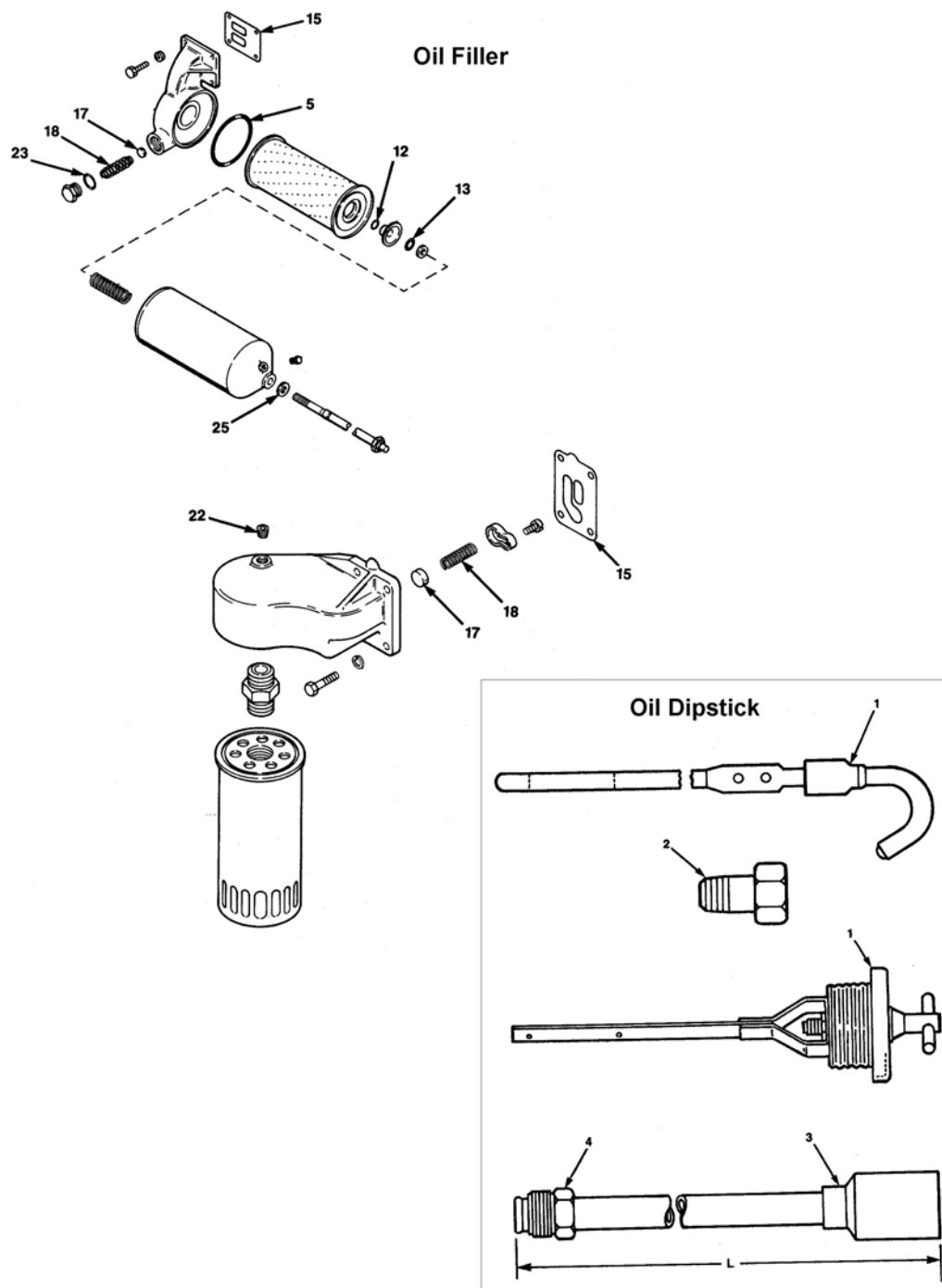
Groups:
4.1510 - 4.1597

Group	Ref	Part No.	Description	6V	8V	12V	16V
6V71 & 8V71							
4.1510	6	FP-103321	Lockwasher, 3/8"	6	6	-	-
4.1510	6	FP-103320	Lockwasher, 5/16"	2	2	-	-
4.1520	7	FP-5117242	Gasket, Oil Pump Inlet Pipe (At Pump), (3" B.C.)	1	1	-	-
4.1520	7	FP-5126160	Gasket, Oil Pump Inlet Pipe (1.80" B.C.)	1	1	-	-
4.1540	16	FP-103321	Lockwasher, 3/8"	2	2	-	-
4.1540	0	FP-5148436	Bolt, 5/16" -18 X 3/4"	2	2	-	-
4.1540	0	FP-8927581	Bolt, 3/8"-16 X 1"	2	2	-	-
4.1540	0	FP-8927580	Bolt, 3/8"-16 X 7/8"	1	1	-	-
4.1550	18	FP-5118302	Cover, Oil Pump Inlet Pipe Screen	1	1	-	-
12V71 & 16V71							
4.1510	20	FP-103026	Nut, 3/8" -24	-	-	2	2
4.1510	19	FP-103321	Lockwasher, 3/8"	-	-	4	4
4.1510	4	FP-8927580	Bolt, 3/8"-16 X 7/8"	-	-	4	4
4.1520	6	FP-5128891	Gasket, Oil Pump Inlet Pipe (Pump To Screen), (2.88" B.C.)	-	-	-	3
4.1521	6	FP-5128875	Gasket, Oil Pump Inlet Pipe (Scavenging Pump), (3 Hole)	-	-	1	1
4.1522	6	FP-5123241	Gasket, Oil Pump Inlet Pipe (At Pump)	-	-	1	-
4.1523	6	FP-5167380	Gasket, Oil Pump Inlet Pipe (At Screen Cover)	-	-	2	-
4.1524	6	FP-5123660	Gasket, Oil Pump Inlet Pipe (4.1300)	-	-	2	-
4.1525	6	FP-5124798	Gasket, Oil Pump Inlet Pipe (4.4184)	-	-	1	-
4.1526	6	FP-5123235	Gasket, Oil Pump Inlet Pipe (4.1232)	-	-	2	-
4.1550	8	FP-5118302	Cover, Oil Pump Inlet Screen	-	-	2	-
4.1550	8	FP-5128886	Cover, Oil Pump Inlet Screen	-	-	-	2
4.1580	14	FP-103321	Lockwasher, 3/8"	-	-	8	8
4.1580	0	FP-5121182	Plug, 1/2" Pipe	-	-	-	-
4.1580	0	FP-8924380	Plug, 1/8" -27 Pipe	-	-	1	1
4.1580	13	FP-8927581	Bolt, 3/8" -16 X 1" (4.1540)	-	-	8	8
4.1581	0	FP-8923847	Plug, 1/4" Pipe	-	-	1	1
4.1581	0	FP-8924380	Plug, 1/8" -27 Pipe	-	-	1	1
4.1590	0	FP-5112401	Gasket, Oil Pump Outlet Pipe (Oil Cooler)	AR	AR	AR	AR
4.1590	17	FP-2206783	Gasket, Oil Pump Outlet Pipe (Junction Outlet)	-	-	1	1
4.1590	16	FP-5117269	Gasket, Oil Pump Outlet Pipe (Junction Block)	-	-	2	2
4.1597	0	FP-5121182	Plug, 1/4" Pipe	-	-	1	1
4.1597	0	FP-8923847	Plug, 1/4" Pipe	-	-	1	1



Lubrication

(Figure 12.3)





Lubrication

(Figure 12.3)

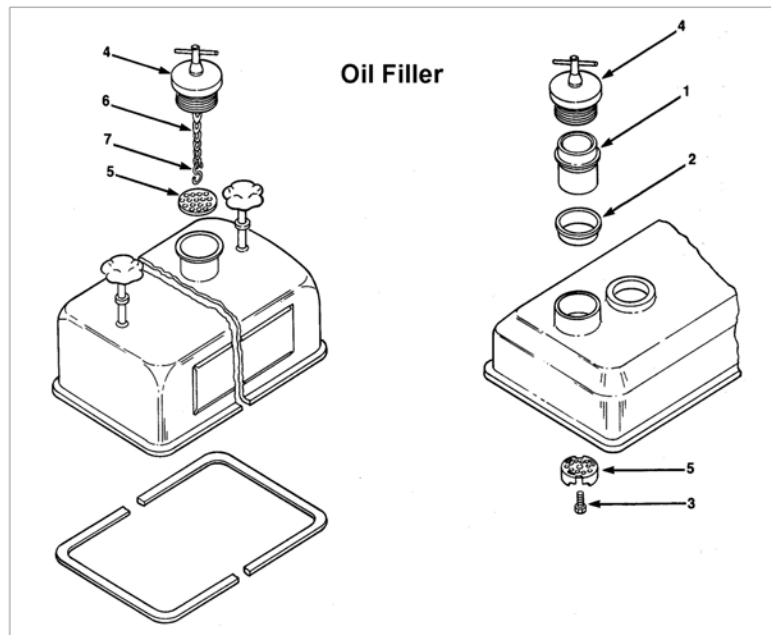
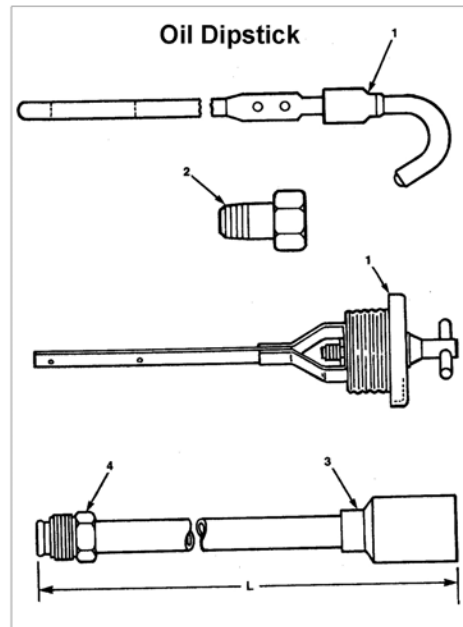
Groups:
4.1232 - 4.3020

Group	Ref	Part No.	Description	6V	8V	12V	16V
Oil Filter							
4.2250	5	FP-1595620	Gasket, Oil Filter (Rectangular Section), (4.2300)	1	1	1	1
4.2250	0	FP-5142549	Plug, 3/4" Pipe (4.2291)	1	1	1	1
4.2290	0	FP-5155596	Washer, 5/16" Copper (4.2291)	4	4	4	4
4.2290	0	FP-5121182	Plug, 1/4" Pipe (4.2488)	1	1	1	1
4.2291	0	FP-103320	Lockwasher, 5/16"	4	4	4	4
4.2291	0	FP-103321	Lockwasher, 3/8"	4	4	4	4
4.2291	0	FP-8923391	Bolt, 3/8" -16 X 1.88"	4	4	4	4
4.2291	22	FP-8923847	Plug, 1/4" Pipe (4.2488)	1	1	1	1
4.2315	12	FP-114498	Nut, 5/8" -18 Jam	1	1	1	1
4.2330	13	FP-5187310	Gasket, (Seal) Oil Filter Cover Stud	1	1	1	1
4.2330	25	FP-6437298	Gasket, Oil Filter Cover Nut	1	1	1	1
4.2350	15	FP-23501590	Gasket, Oil Filter Adaptor	1	1	1	1
4.2350	15	FP-5121205	Gasket, Oil Filter Adaptor (4.2389)	1	1	1	1
4.2350	15	FP-5122533	Gasket, Oil Filter Adaptor	1	1	1	1
4.2350	15	FP-5136701	Gasket, Oil Filter Adaptor	1	1	1	1
4.2389	15	FP-8924412	Gasket, Oil Filter By-Pass Valve Housing	1	1	1	1
4.2389	15	FP-8924413	Gasket, Oil Filter By-Pass Valve Housing (4.2350)	1	1	1	1
4.2485	17	FP-5133431	Valve, Oil Filter By-Pass (Disc)	1	1	1	1
4.2485	17	FP-5136358	Valve, Oil Filter By-Pass	1	1	1	1
4.2489	23	FP-5187316	Gasket, Oil Filter By-Pass Valve Plug	1	1	1	1
4.2489	23	FP-5575086	Gasket, Oil Filter By-Pass Valve Plug	1	1	1	1
4.3001	0	FP-5176532	Seal Ring, Oil Filter Inlet Tube (7/8" Tube - Sealastic)	AR	AR	AR	AR
4.3020	0	FP-5176532	Seal Ring, Oil Filter Outlet Tube (7/8" Tube - Sealastic)	AR	AR	AR	AR
Oil Pressure Relief & Regulator Valve							
4.1232	0	FP-29503153	Gasket, Relief Valve To Oil Pump	-	-	1	-
4.1670	2	FP-5126327	Spring, Oil Pressure Regulator (.790" Dia., 2.96" L), (4.1690)	2	2	2	3
4.1670	0	FP-5131433	Washer, .41" X .81" X .14" (1.5001)	2	2	2	2
4.1670	12	FP-8927580	Bolt, 3/8" -16 X 7/8"	2	2	2	2
4.1670	12	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	2
4.1670	5	FP-457008	Pin, 3/16" X 1 1/2" Spring	1	1	1	1
4.1670	7	FP-5126326	Spring, Oil Pressure Regulator (.520" Dia., 2.57" L), (4.1690)	1	1	1	1
4.1670	3	FP-8922740	Valve, Oil Pressure Regulator (4.1700)	1	1	1	1
4.1730	14	FP-5117269	Gasket, Oil Pressure Regulator Body	2	2	3	3
4.1730	14	FP-5125497	Gasket, Oil Pressure Regulator Body	1	1	-	-



Oil Filler & Dipstick

(Figure 12.4)





Oil Filler & Dipstick

(Figure 12.4)

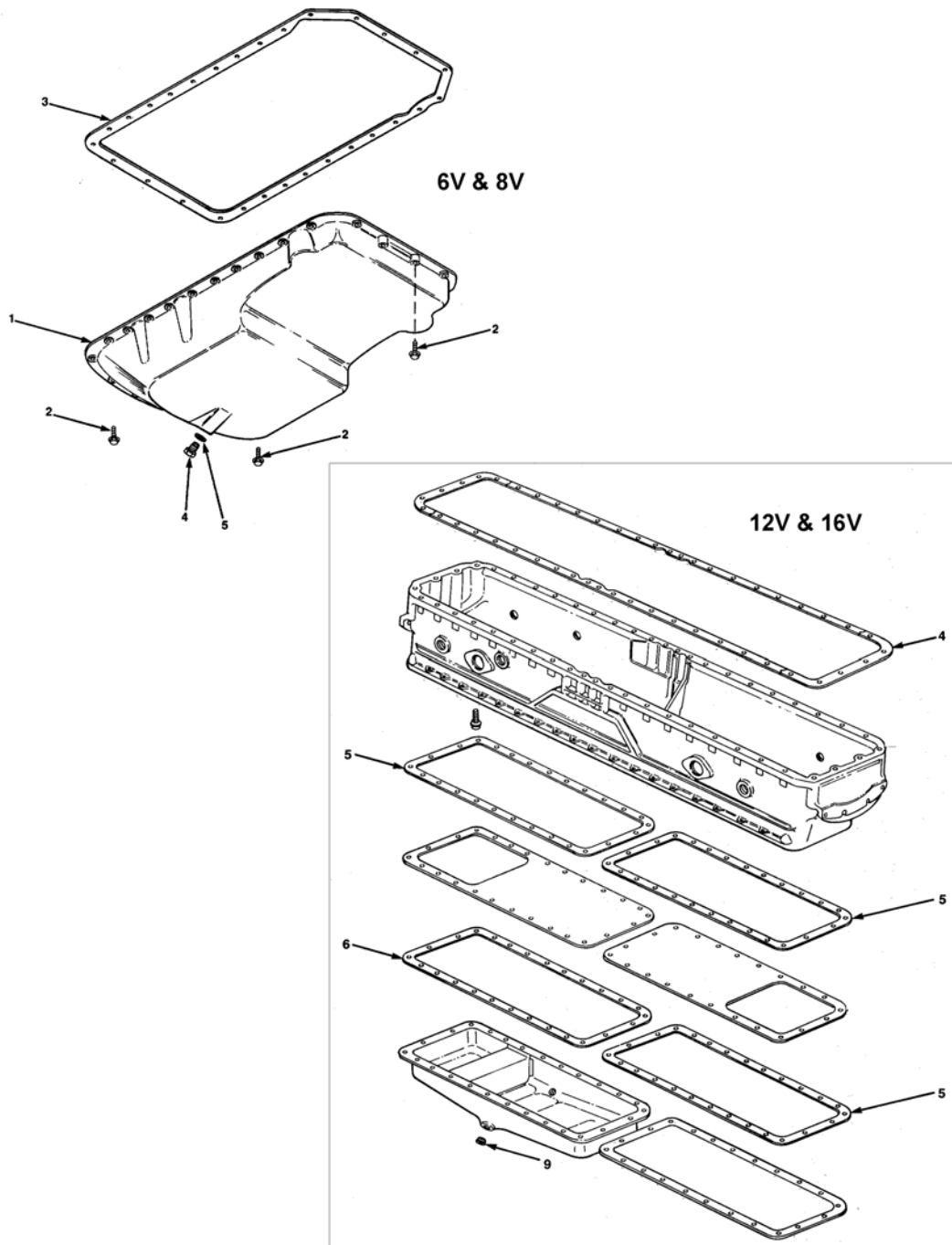
Groups:
4.5001 - 4.8020

Group	Ref	Part No.	Description	6V	8V	12V	16V
Dipstick							
4.6001	1	FP-5101885	Dipstick, Marked	1	1	1	1
4.6001	1	FP-5102092	Dipstick, Marked	1	1	1	1
4.6001	1	FP-5115162	Dipstick (18 7/8" L), (8921991)	1	1	1	1
4.6001	1	FP-5146679	Kit, Unmarked Dipstick	1	1	1	1
4.6001	1	FP-5146680	Dipstick, Unmarked	1	1	1	1
4.6001	1	FP-5147080	Dipstick, Unmarked (44.25")	1	1	1	1
4.6001	1	FP-5147185	Dipstick, Marked	1	1	1	1
4.6001	1	FP-5162667	Dipstick, Marked	1	1	1	1
4.6020	2	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
4.6020	2	FP-5151430	Guide, Dipstick (1 1/2" L.)	1	1	1	1
4.6040	0	FP-103319	Lockwasher, 1/4"	2	2	2	2
4.6040	0	FP-5152148	Washer, 3/8" Copper Seal	2	2	2	2
4.6040	0	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	2
4.6040	0	FP-103026	Nut, 3/8" -24	1	1	-	-
4.6040	0	FP-103320	Lockwasher, 5/16"	1	1	-	-
4.6040	0	FP-103321	Lockwasher, 3/8"	-	-	1	-
4.6040	0	FP-106261	Washer, 5/16"	-	-	-	-
4.8020	0	FP-23507249	Gasket, Breather Tube	AR	AR	AR	AR
Oil Filler							
4.5001	0	FP-103321	Lockwasher, 3/8"	2	2	2	2
4.5001	3	FP-5103642	Screw, # 10 -24 X 3.75" Lock	2	2	2	2
4.5001	0	FP-5117362	Cap, Oil Filler (Squeeze Type)	1	1	1	1
4.5005	0	FP-103321	Lockwasher, 3/8"	1	1	1	1
4.5005	0	FP-8923847	Plug, 1/4" Pipe	1	1	1	1
4.5005	0	FP-8927581	Bolt, 3/8" -16 X1"	1	1	1	1
4.5007	0	FP-23515145	Gasket, Oil Filler Tube Adaptor	1	1	2	2
4.5007	0	FP-5104507	Gasket, Oil filler Tube Adaptor	1	1	2	2
4.5007	0	FP-5120540	Gasket, Oil filler Tube Adaptor	1	1	2	2
4.5010	4	FP-5107106	Cap, Oil Filler (1.50" Dia.), (Bottle Type)	1	1	2	2
4.5010	4	FP-5117362	Cap, Oil Filler (2" Dia.), (Bottle Type)	1	1	2	2
4.5020	3	FP-5103642	Screw, #10 -24 X 3.75" Lock	1	1	2	2
4.5020	5	FP-5150147	Strainer, Oil Filler Tube	1	1	2	2
4.5050	0	FP-5117636	Gasket, Oil Filler Tube	1	1	2	2



Oil Pan

(Figure 12.5)





Oil Pan

(Figure 12.5)

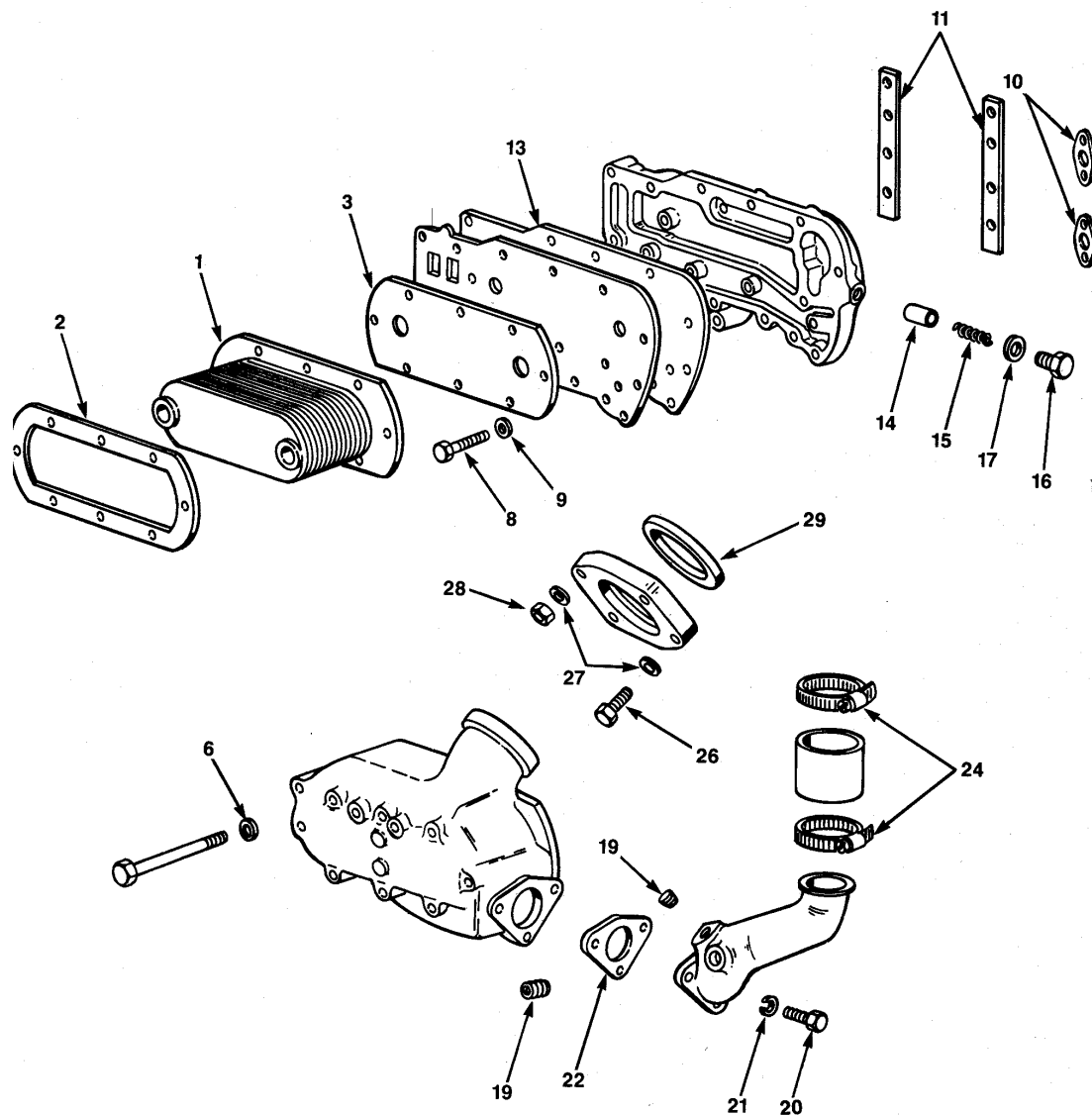
Groups:
4.7001 - 7.7040

Group	Ref	Part No.	Description	6V	8V	12V	16V
6V & 8V							
4.7001	2	FP-8927581	Bolt, 3/8" -16 X 1"	24	28	-	-
4.7001	0	FP-5115214	Plug, Oil Pan 1/2" Pipe	1	1	-	-
4.7001	0	FP-5121182	Plug, Oil Pan 1/4" Pipe	1	-	-	-
4.7001	4	FP-8923313	Plug, Oil Pan 3/4" Pipe (4.7010)	1	-	-	-
4.7001	4	FP-5142549	Plug, Oil Pan 3/4" Pipe (4.7010)	-	1	-	-
4.7020	0	FP-5148436	Bolt, 5/16" -18 X 3/4"	24	28	-	-
4.7030	3	FP-23503588	Gasket, Oil Pan To Block (Stamped Pan)	1	-	-	-
4.7030	3	FP-5117231	Gasket, Oil Pan To Block (Stamped Pan)	-	1	-	-
4.7040	0	FP-5124796	Gasket, Lower Oil Pan	1	1	-	-
4.7040	0	FP-5150115	Gasket, Lower Oil Pan	1	1	-	-
4.7040	0	FP-5150116	Gasket, Lower Oil Pan	1	1	-	-
4.7040	0	FP-8920557	Gasket, Lower Oil Pan	1	-	-	-
4.7040	0	FP-5153256	Gasket, Lower Oil Pan	-	1	-	-
4.7080	4	FP-5115214	Plug, Oil Pan Drain (1/2" Pipe)	1	1	-	-
4.7080	4	FP-5121182	Plug, Oil Pan Drain (1/4" Pipe)	1	1	-	-
4.7080	4	FP-8923847	Plug, Oil Pan Drain (1/4" Pipe)	1	1	-	-
4.7080	4	FP-8924517	Plug, Oil Pan Drain (3/8" Pipe)	1	1	-	-
4.7090	5	FP-840277	Gasket, Oil Drain Plug (18MM., Nylon)	1	1	-	-
4.7100	0	FP-8924517	Plug, 3/8" Pipe	1	-	-	-
4.7120	0	FP-5194069	Washer, Oil Pan Cover Bolt (1/4" Copper)	AR	AR	-	-
4.7130	0	FP-5170049	Gasket, Oil Pan Cover	1	1	-	-
4.7130	0	FP-5139862	Gasket, Oil Pan Cover	-	1	-	-
4.7140	0	FP-5115214	Plug, Oil Pan Sump (1/2" Pipe)	1	1	-	-
12V & 16V							
4.7010	0	FP-103321	Lockwasher, 3/8"	-	-	40	56
4.7010	0	FP-5142549	Plug, Oil Pan 3/4" Pipe (4.7010)	-	-	-	2
4.7010	0	FP-8923313	Plug, Oil Pan 3/4" Pipe (4.7010)	-	-	2	-
4.7020	0	FP-5148436	Bolt, 5/16" -18 X 3/4"	-	-	40	56
4.7021	0	FP-103320	Lockwasher 5/16"	-	-	40	56
4.7030	4	FP-5109915	Gasket, Oil Pan To Block	-	-	1	-
4.7030	4	FP-5126562	Gasket, Oil Pan To Block	-	-	-	1
4.7030	4	FP-5150115	Gasket, Lower Oil Pan (Front Pan)	-	-	-	1
4.7030	4	FP-8926461	Gasket, Oil Pan To Block	-	-	1	-
4.7080	9	FP-5115214	Plug, Oil Pan Drain (1/2" Pipe)	-	-	-	1
4.7120	0	FP-5142549	Plug, Oil Pan (3/4" Pipe)	-	-	1	1
4.7120	0	FP-5148436	Bolt, 5/16" -18 X 3/4"	-	-	-	21
4.7120	0	FP-8923313	Plug, Oil Pan (3/4" Pipe)	-	-	1	1
4.7130	0	FP-5139862	Gasket, Oil Pan Cover	-	-	-	1
4.7130	0	FP-5150115	Gasket, Oil Pan Cover	-	-	1	-
4.7140	0	FP-5115214	Plug, Oil Pan Sump (1/2" Pipe)	-	-	-	1
7.7040	5	FP-5125635	Gasket, Lower Oil Pan	-	-	1	-
7.7040	6	FP-5150116	Gasket, Lower Oil Pan (Rear Pan)	-	-	-	1
7.7040	5	FP-5153256	Gasket, Lower Oil Pan	-	-	1	-
7.7040	5	FP-8920557	Gasket, Lower Oil Pan	-	-	1	-



Oil Cooler - Single

(Figure 13.1)





Oil Cooler - Single

(Figure 13.1)

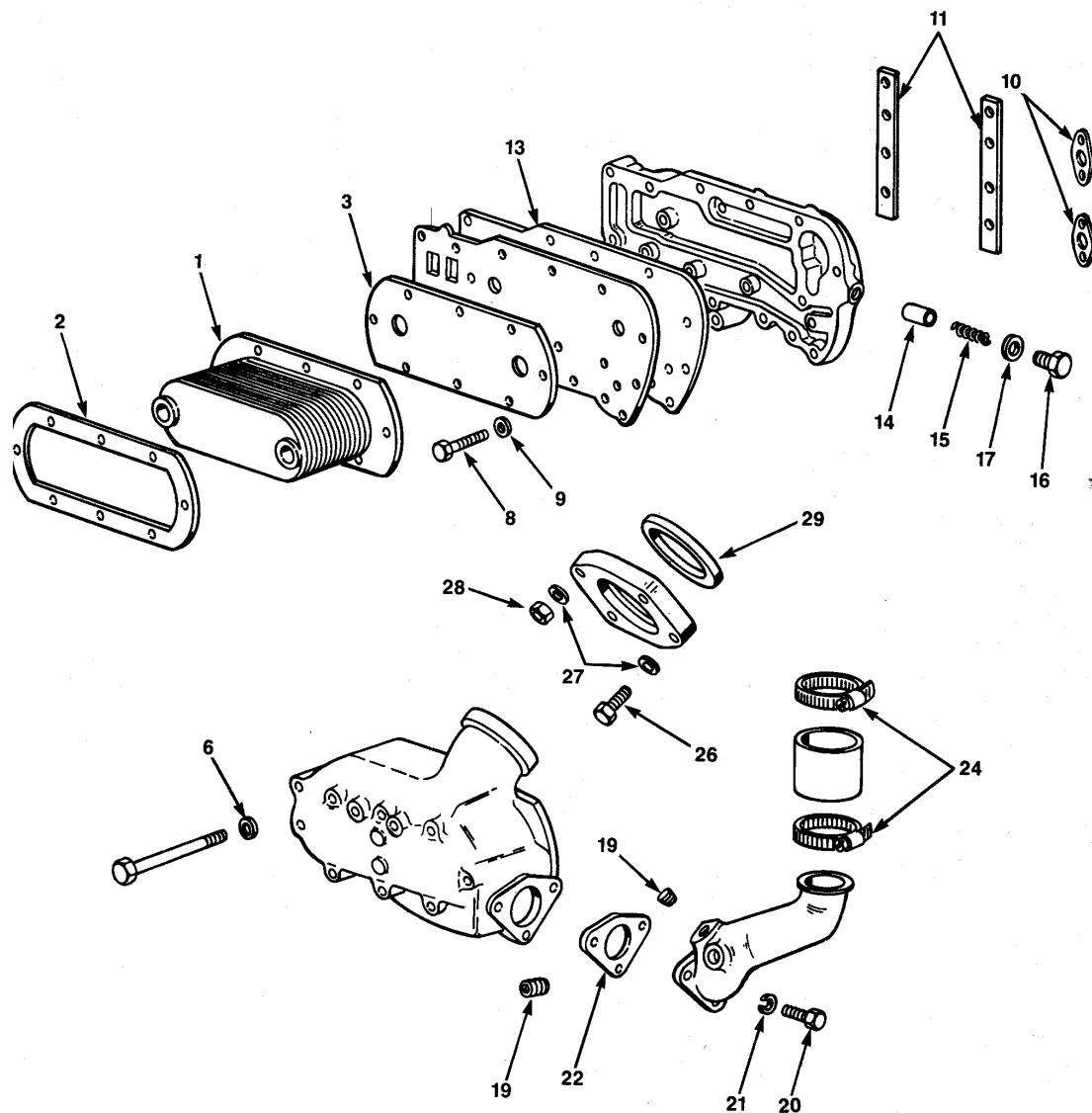
Groups:
4.4001 - 4.4150

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.4001	1	FP-8547236	Core Assembly, Oil Cooler, Engine (13 Plate)	1	1	1	-
4.4001	1	FP-8547547	Core Assembly, Oil Cooler, Engine (16 Plate)	1	1	-	-
4.4001	1	FP-8547551	Core Assembly, Oil Cooler, Engine (8 Plate)	1	1	1	-
4.4001	1	FP-8547581	Core Assembly, Oil Cooler, Engine (13 Plate)	1	-	1	-
4.4001	1	FP-8547195	Core Assembly, Oil Cooler, Engine (18 Plate)	-	1	-	-
4.4030	2	FP-5150155	Gasket, Oil Cooler Core Inner	1	1	1	-
4.4040	3	FP-5102506	Gasket, Oil Cooler Core Outer	1	1	-	-
4.4040	3	FP-8923223	Gasket, Oil Cooler Core Outer	1	1	-	-
4.4050	6	FP-103320	Lockwasher, 5/16"	6	6	6	8
4.4050	0	FP-5155596	Washer, 5/16" Copper	6	6	6	8
4.4050	0	FP-5142549	Plug, 3/4" Pipe	1	1	1	2
4.4050	0	FP-8923313	Plug, 1/4" Pipe (w/Seal)	1	1	1	2
4.4050	0	FP-8923847	Plug, 1/4" Pipe	1	1	1	2
4.4060	0	FP-8927580	Bolt, 3/8" -16 X 7/8"	12	12	12	16
4.4060	0	FP-5155596	Washer, 5/16" Copper	10	10	10	12
4.4060	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	2
4.4060	0	FP-5133431	Valve, Oil Cooler Housing	1	1	1	1
4.4060	0	FP-5575086	Gasket, Oil Cooler Housing	1	1	1	2
4.4060	0	FP-8923847	Plug, 1/4" Pipe	1	1	1	2
4.4060	0	FP-8924517	Plug, 3/8" Pipe	1	1	1	2
4.4061	0	FP-5117734	Gasket, Oil Cooler Housing Cover	1	1	1	2
4.4061	0	FP-5150155	Gasket, Oil Cooler Housing Cover	1	1	1	2
4.4110	8	FP-8923391	Bolt, 3/8" -16 X 1.88"	6	6	6	8
4.4110	0	FP-8927581	Bolt, 3/8" -16 X 1"	6	6	6	8
4.4110	0	FP-5152148	Washer, 3/8" Copper	12	12	12	16
4.4110	0	FP-103320	Lockwasher, 5/16"	10	10	10	12
4.4110	0	FP-5131433	Washer, .41" X .81" X .1345" (1.5001)	1	1	1	2
4.4115	11	FP-8920763	Gasket, Oil Cooler Adaptor To Block (.385" I.D. x 1" O.D. x .013" Thk.)	3	3	-	-
4.4115	11	FP-5102793	Spacer, Oil cooler Adaptor To Block (5.70" X 1" X .012" L)	2	2	2	2
4.4115	10	FP-5117535	Gasket, Oil Cooler Adaptor To Block	2	2	-	-
4.4115	11	FP-5126280	Spacer, Oil cooler Adaptor To Block (8.20" L)	2	2	-	-
4.4115	10	FP-8923512	Gasket, Oil Cooler Adaptor To Block	2	2	-	-
4.4117	0	FP-5131433	Washer, Oil Cooler Adaptor	2	2	-	-
4.4117	0	FP-8923391	Bolt, 3/8" -16 X 1 7/8"	2	2	-	-
4.4117	0	FP-5149946	Gasket Set, Oil Cooler Adaptor Cover	1	1	1	2
4.4117	0	FP-5150155	Gasket, Oil Cooler Core-Inner	1	1	-	-
4.4117	13	FP-8923222	Gasket, Oil Cooler Plate	1	1	-	-
4.4117	0	FP-8923223	Gasket, Oil Cooler Core-Outer	1	1	-	-
4.4117	13	FP-8923512	Gasket, Oil Cooler Adaptor Cover	1	1	1	2
4.4117	0	FP-8924412	Gasket, Oil Filter Adaptor	1	1	-	-
4.4140	14	FP-5133431	Valve, Oil Cooler By-Pass	1	1	-	-
4.4140	14	FP-5177777	Valve, Oil Cooler By-Pass	1	1	-	-
4.4150	15	FP-5177778	Spring, Oil Cooler By-Pass Valve	1	1	-	-



Oil Cooler - Single

(Figure 13.2)





Oil Cooler - Single

(Figure 13.2)

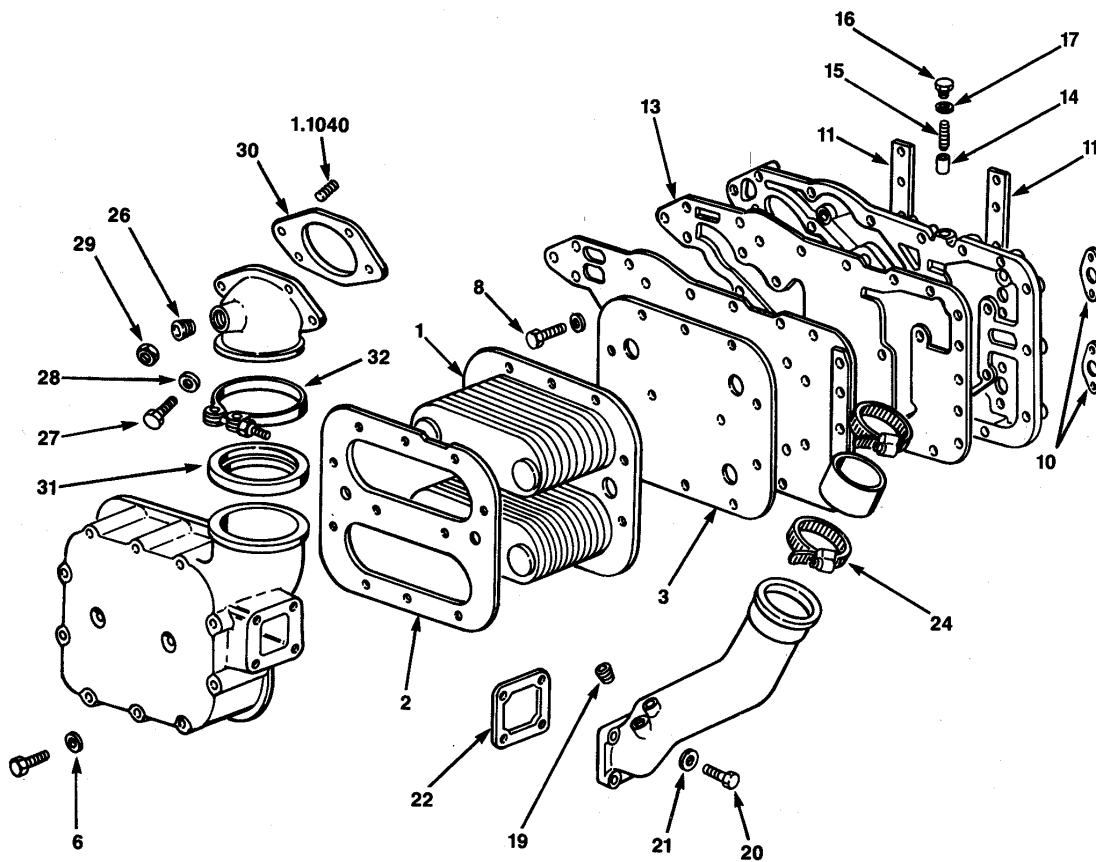
Groups:
4.4170 - 4.4250

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.4170	17	FP-5134920	Gasket, Oil Cooler By-Pass Plug	1	1	-	-
4.4170	17	FP-5177773	Gasket, Oil Cooler By-Pass Plug	1	1	-	-
4.4170	17	FP-5575086	Gasket, Oil Cooler By-Pass Plug	1	1	-	-
4.4211	20	FP-8927580	Bolt, 3/8" -16 X 7/8"	8	8	8	16
4.4211	21	FP-5155596	Washer, 5/16" Copper	6	6	6	12
4.4211	21	FP-103321	Lockwasher, 3/8"	10	10	10	20
4.4211	19	FP-5115214	Plug, 1/2" Pipe	1	1	1	2
4.4211	19	FP-5142549	Plug, 3/4" Pipe	1	1	1	2
4.4211	19	FP-8923313	Plug, 3/4" Pipe	1	1	1	2
4.4211	19	FP-8923847	Plug, 1/4" Pipe	1	1	1	2
4.4212	0	FP-5117317	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4212	22	FP-5117476	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4214	0	FP-5188036	Clamp, Oil Cooler Water Inlet Hose (2 3/4" Hose)	2	2	2	2
4.4214	24	FP-9139809	Clamp, Oil Cooler Water Inlet Hose (2 1/16" -3")	2	2	2	2
4.4220	0	FP-103320	Lockwasher, 5/16"	1	1	1	1
4.4220	0	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
4.4220	0	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
4.4220	0	FP-5152148	Washer, 3/8"	1	1	1	1
4.4220	0	FP-8923313	Plug, 3/4" Pipe	1	1	1	1
4.4220	0	FP-8923847	Plug, 1/4" Pipe	1	1	1	1
4.4242	28	FP-103026	Nut, 3/8" -24	4	4	4	4
4.4242	27	FP-103321	Lockwasher, 3/8"	4	4	4	4
4.4242	26	FP-8927581	Bolt, 3/8" -16 X 1"	4	4	4	4
4.4242	29	FP-23501837	Seal Ring, Oil Cooler Water Outlet Flange	1	1	1	1
4.4250	0	FP-5143999	Clamp, Oil Cooler Water Outlet	1	1	1	1



Oil Cooler - Double

(Figure 13.3)





Oil Cooler - Double

(Figure 13.3)

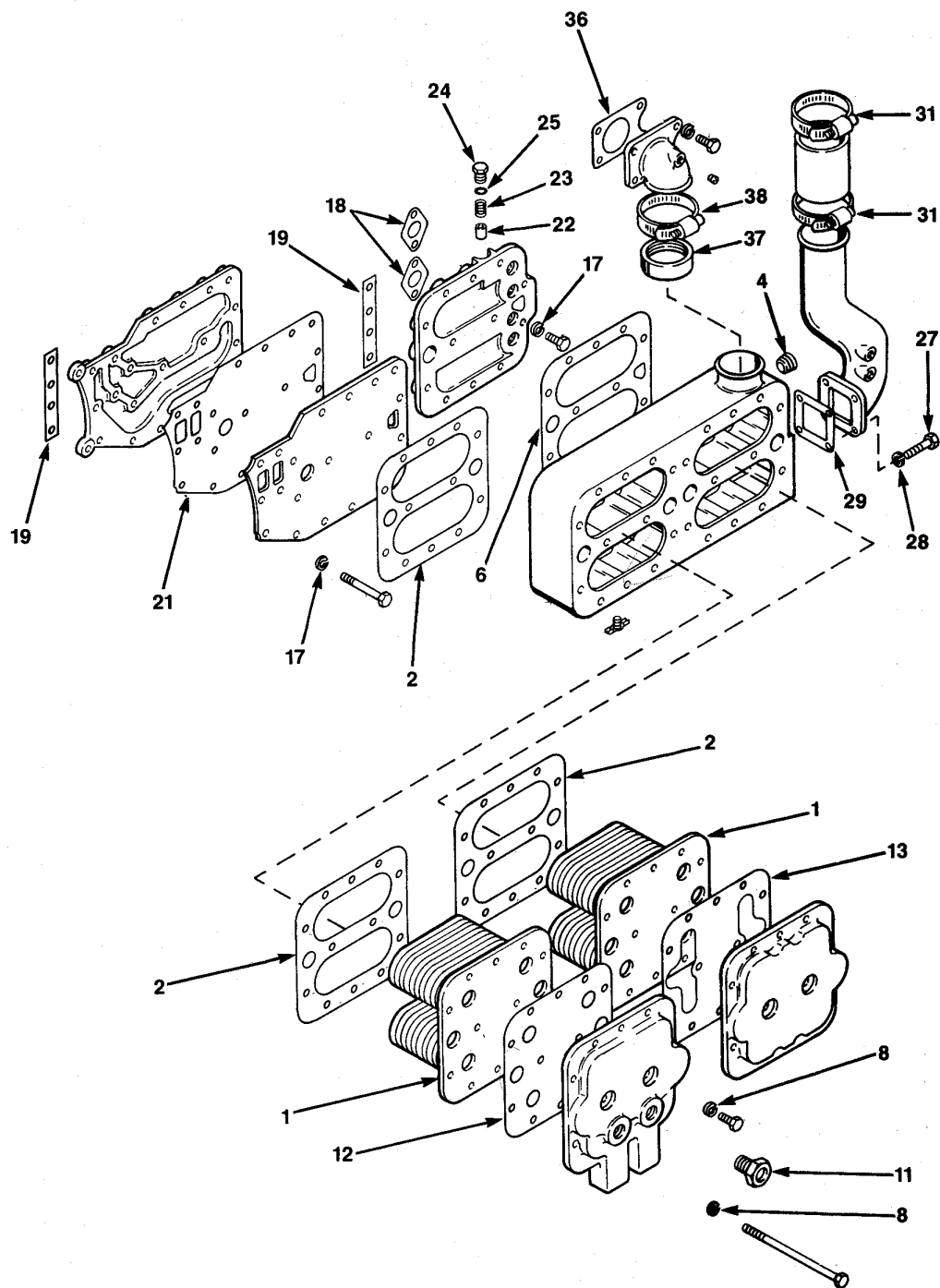
Groups:
4.4001 - 4.4250

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.4001	1	FP-8547237	Core Assembly, Oil Cooler Engine (24 Plate)	1	1	1	1
4.4001	1	FP-8547553	Core Assembly, Oil Cooler Engine (16 Plate)	1	1	-	-
4.4030	2	FP-8926782	Gasket, Oil Cooler Core Inner	1	1	1	-
4.4040	3	FP-23501584	Gasket, Oil Cooler Core Outer	1	1	1	-
4.4040	3	FP-23501587	Gasket, Oil Cooler Core (Element To Block)	1	1	1	-
4.4040	3	FP-23501589	Gasket, Oil Cooler Core Outer	1	1	1	-
4.4050	6	FP-103320	Lockwasher, 5/16" (4.4110)	6	6	6	-
4.4060	0	FP-5155596	Washer, 5/16" Copper	6	6	6	-
4.4060	0	FP-8923847	Plug, 1/4" Pipe	2	2	2	-
4.4061	3	FP-23501589	Gasket, Oil Cooler Housing Cover	1	1	-	-
4.4110	0	FP-8927581	Bolt, 3/8" -16 X 1"	6	6	6	-
4.4110	0	FP-103321	Lockwasher, 3/8"	4	4	4	-
4.4110	9	FP-5131433	Washer, .41" X .81" X .1345	1	1	1	-
4.4112	22	FP-5117317	Gasket, Oil Cooler Water Inlet	1	2	-	-
4.4112	22	FP-5100638	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4112	22	FP-5124822	Gasket, Oil Cooler Water Inlet	-	-	1	1
4.4115	11	FP-5102793	Spacer, Oil Cooler Adaptor To Block (5.70" x 1" x .012") L)	2	2	2	-
4.4115	10	FP-5117535	Gasket, Oil Cooler Adaptor To Block	2	2	-	-
4.4115	11	FP-5126280	Spacer, Oil Cooler Adaptor To Block (8.20" L)	2	2	-	-
4.4116	0	FP-103320	Lockwasher, 5/16" (4.4110)	6	6	6	-
4.4117	0	FP-5175882	Gasket, Oil Cooler Adaptor Cover	2	2	2	2
4.4117	13	FP-23501594	Gasket, Oil Cooler Adaptor Cover	1	1	-	-
4.4117	13	FP-23501596	Gasket, Oil Cooler Adaptor Cover	1	1	1	1
4.4117	13	FP-8923512	Gasket, Oil Cooler Adaptor Cover	1	1	1	-
4.4140	14	FP-5177777	Valve, Oil Cooler By-Pass	1	2	-	-
4.4150	15	FP-5177778	Spring, Oil Cooler By-Pass Valve	1	2	-	-
4.4170	17	FP-5177773	Gasket, Oil Cooler By-Pass Plug	1	2	-	-
4.4211	20	FP-8927580	Bolt, 5/16" -16 X 7/8"	6	6	6	8
4.4211	21	FP-103321	Lockwasher, 3/8"	2	2	2	-
4.4211	0	FP-8923847	Plug, 1/4" Pipe	2	2	2	-
4.4211	20	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	-
4.4211	19	FP-5115214	Plug, 1/2" Pipe	1	1	1	-
4.4214	24	FP-5188036	Clamp, Oil Cooler Water Inlet Hose (2 3/4" Hose)	2	2	-	-
4.4214	24	FP-9139809	Clamp, Oil Cooler Water Inlet Hose (2 1/16" -3")	2	2	-	-
4.4220	29	FP-103026	Nut, 3/8" -24	1	1	-	-
4.4220	26	FP-5142549	Plug, 3/4" Pipe	1	1	-	-
4.4220	0	FP-5152148	Washer, 3/8"	1	1	-	-
4.4220	0	FP-8923313	Plug, 3/4" Pipe	1	1	-	-
4.4220	27	FP-8927581	Bolt, 3/8" -16 X 1"	1	1	-	-
4.4230	30	FP-5117254	Gasket, Oil Cooler Water Elbow	1	1	-	-
4.4230	30	FP-5117734	Gasket, Oil Cooler Water Elbow (Front)	-	1	-	-
4.4240	31	FP-5102098	Seal, Oil Cooler Water Outlet Hose (3.60" O.D. X .62" W)	1	2	-	-
4.4250	32	FP-5143999	Clamp, Oil Cooler Water Outlet Hose (3 1/2" T-Bolt)	1	2	-	-



Oil Cooler - Dual/Double

(Figure 13.4)





Oil Cooler - Dual/Double

(Figure 13.4)

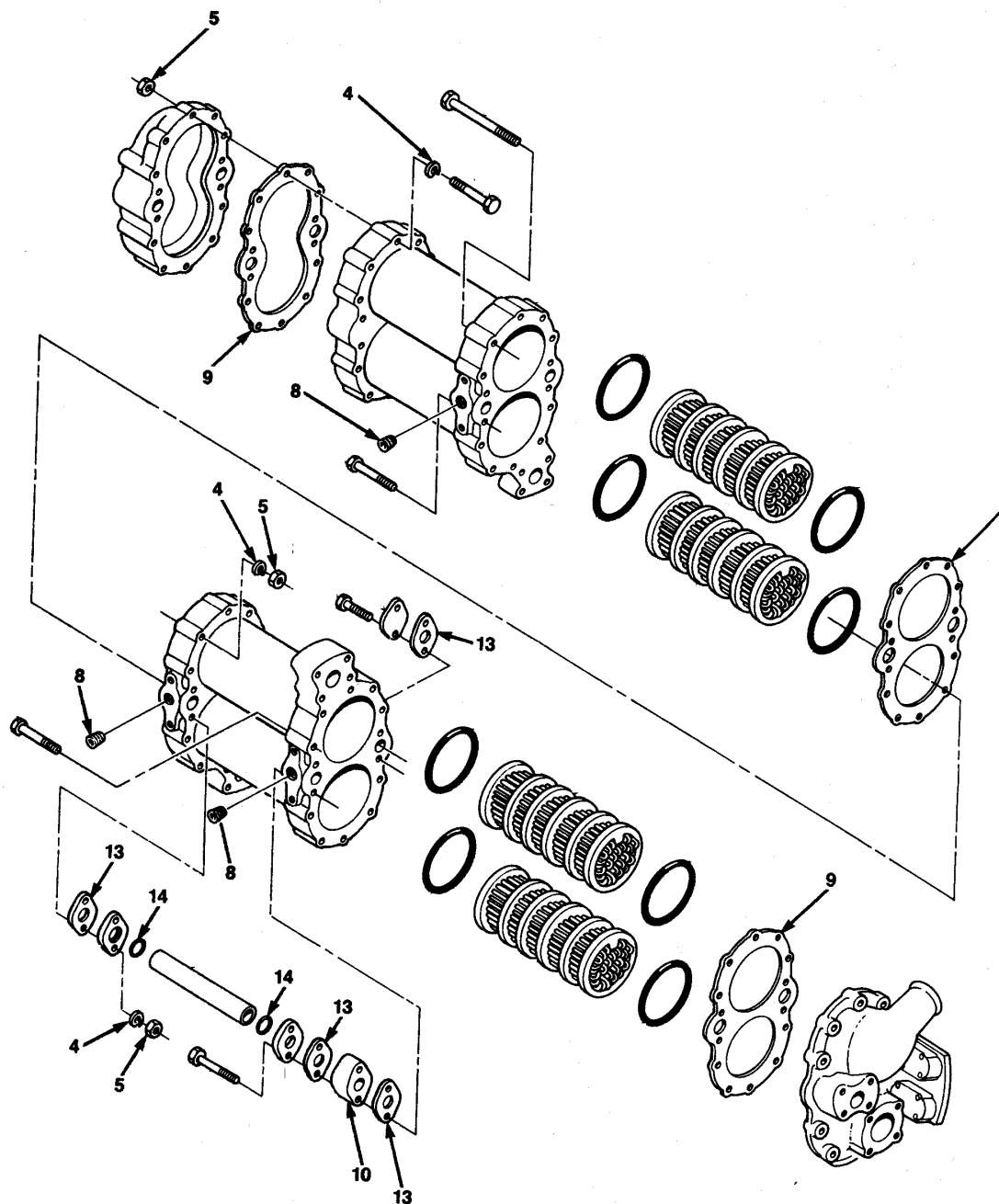
Groups:
4.4001 - 4.4220

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.4001	1	FP-8547237	Core Assembly, Oil Cooler-Engine (24 Plate)	-	2	2	2
4.4030	2	FP-23501590	Gasket, Oil Cooler Core Inner	-	3	3	3
4.4030	2	FP-8926782	Gasket, Oil Cooler Core Inner	-	3	3	3
4.4030	0	FP-23511304	Gasket, Oil Cooler Housing	-	1	1	1
4.4040	6	FP-23501584	Gasket, Oil Cooler Core Outer	-	1	1	1
4.4040	6	FP-23501587	Gasket, Oil Cooler Core Outer	-	1	1	1
4.4040	6	FP-23501589	Gasket, Oil Cooler Core Outer	-	1	1	1
4.4040	13	FP-23506522	Gasket, Oil Cooler Core Cover	-	1	1	1
4.4040	6	FP-8926782	Gasket, Oil Cooler Core Outer	-	1	1	1
4.4050	0	FP-103320	Lockwasher, 5/16"	-	8	8	12
4.4050	0	FP-8923847	Plug, 1/4" Pipe	-	4	4	6
4.4050	4	FP-5142549	Plug, 3/4" Pipe	-	1	1	1
4.4060	8	FP-103320	Lockwasher, 5/16"	-	8	8	12
4.4060	0	FP-5155596	Washer, 5/16" Copper	-	8	8	12
4.4060	11	FP-5142549	Plug, 3/4" Pipe	-	2	2	4
4.4060	0	FP-8923847	Plug, 1/4" Pipe	-	2	2	4
4.4061	0	FP-23501584	Gasket, Oil Cooler Housing Cover	-	2	2	2
4.4061	0	FP-8924623	Gasket, Oil Cooler Housing Cover	-	2	2	2
4.4061	12	FP-23501589	Gasket, Oil Cooler Housing Cover (4.4040), (Front)	-	-	1	-
4.4061	0	FP-23501590	Gasket, Oil Cooler Housing Cover	-	-	1	-
4.4110	17	FP-103321	Lockwasher, 3/8"	-	-	24	-
4.4110	0	FP-5152148	Washer, 3/8"	-	-	24	-
4.4115	18	FP-5117535	Gasket, Oil cooler Adaptor To Block	-	2	4	4
4.4115	2	FP-8926782	Gasket, Oil cooler Adaptor To Block	-	-	3	-
4.4116	0	FP-103320	Lockwasher, 5/16"	-	8	8	12
4.4117	21	FP-23501594	Gasket, Oil Cooler By-Pass	-	-	1	-
4.4140	22	FP-5136358	Valve, Oil Cooler By-Pass	-	1	1	-
4.4140	22	FP-5177777	Valve, Oil Cooler By-Pass	-	1	1	2
4.4150	23	FP-5177778	Spring, Oil Cooler By-Pass Valve	-	1	1	2
4.4170	25	FP-5134920	Gasket, Oil Cooler By-Pass Plug	-	1	1	2
4.4170	25	FP-5177773	Plug, Oil Cooler By-Pass Valve (18MM X 1.5MM SL. HD.)	-	1	1	2
4.4170	25	FP-5575086	Gasket, Oil Cooler By-Pass Plug	-	1	1	2
4.4211	28	FP-103321	Lockwasher, 3/8"	-	4	4	4
4.4211	0	FP-5115214	Plug, 1/2" Pipe	-	1	1	-
4.4211	29	FP-5117317	Gasket, Oil Cooler Water Inlet	-	1	1	2
4.4211	29	FP-5117476	Gasket, Oil Cooler Water Inlet	-	1	-	-
4.4211	0	FP-8927580	Bolt, 3/8" -16 X 7/8"	-	-	-	-
4.4211	0	FP-8927581	Bolt, 3/8" -16 X 1"	-	-	-	-
4.4214	31	FP-9139809	Clamp, Oil Cooler Water Inlet (2 1/16" -3")	-	2	2	2
4.4214	0	FP-5188036	Clamp, Oil Cooler Water Inlet (2 3/4" Hose)	-	1	1	1
4.4220	0	FP-5152148	Washer, 3/8"	-	4	4	4
4.4220	0	FP-8927581	Bolt, 3/8" -16 X 1"	-	4	4	4
4.4220	0	FP-5115214	Plug, 1/2" Pipe	-	1	1	1
4.4220	33	FP-5142549	Plug, 3/4" Pipe	-	1	1	1
4.4220	0	FP-103026	Nut, 3/8" -24	-	-	-	-
4.4220	0	FP-8923313	Plug, 3/4" Pipe	-	-	-	-
4.4230	36	FP-5117254	Gasket, Oil Cooler Water Elbow	-	1	1	1
4.4230	0	FP-5117317	Gasket, Oil Cooler Water Elbow	-	1	1	-
4.4230	0	FP-5117734	Gasket, Oil Cooler Water Elbow (Front)	-	-	-	1
4.4240	37	FP-5102098	Seal, Oil Cooler Water Outlet Hose (3.60" O.D. X .62" W)	-	1	2	2
4.4242	0	FP-8927581	Bolt, 3/8" -16 X 1"	-	-	-	-
4.4250	38	FP-5143999	Clamp, Oil Cooler Water Outlet Hose (3 1/2" T-Bolt)	-	1	2	4



Oil Cooler

(Figure 13.5)





Oil Cooler

(Figure 13.5)

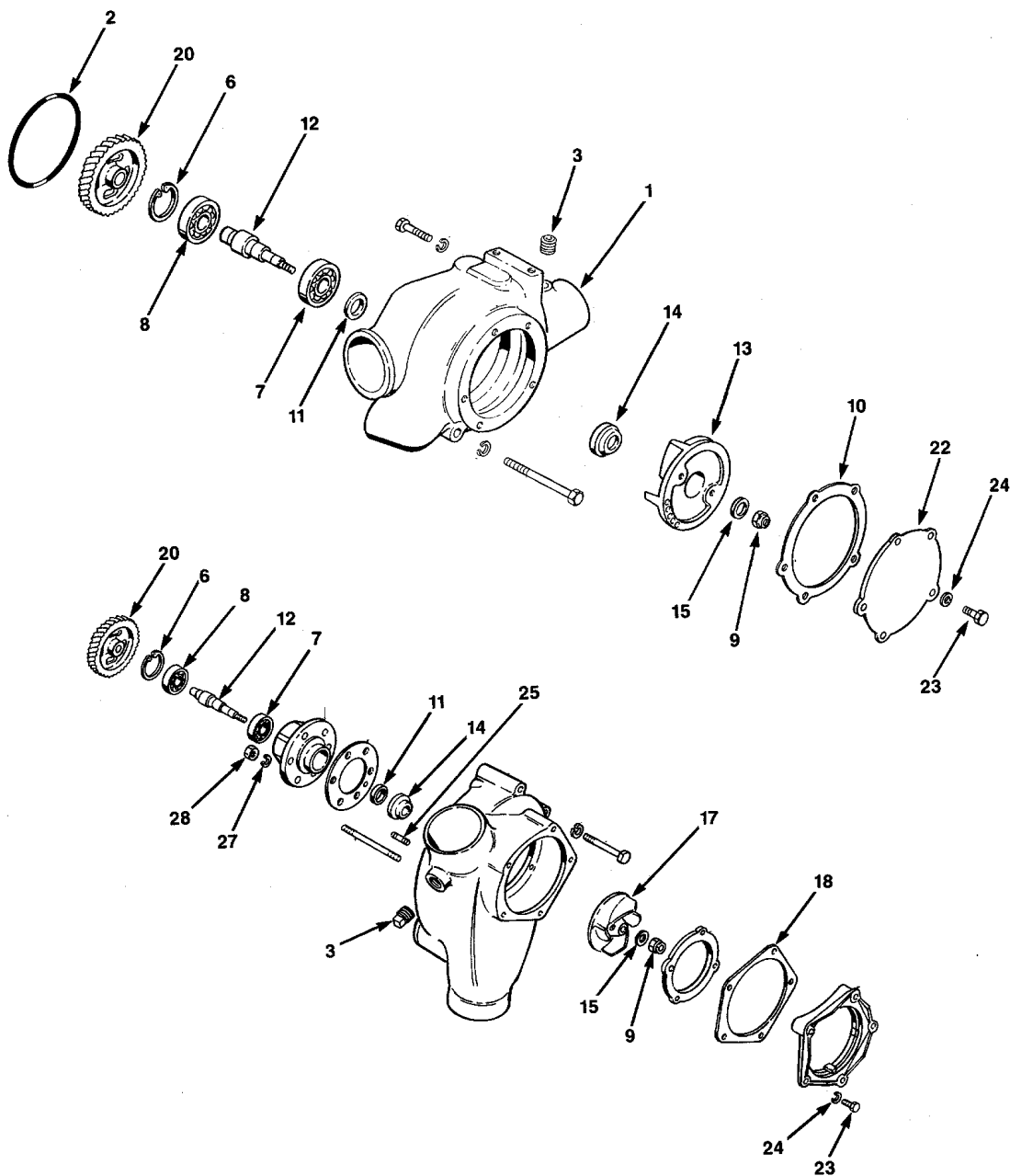
Groups:
4.4001 - 4.4345

Group	Ref	Part No.	Description	6V	8V	12V	16V
Tube Type							
4.4001	5	FP-103026	Nut, 3/8" -24 Hex.	28	28	28	28
4.4001	4	FP-103321	Lockwasher, 3/8"	28	28	28	28
4.4030	0	FP-5117535	Gasket, Oil Cooler Core Inner	1	1	1	1
4.4030	0	FP-5124806	Gasket, Oil Cooler Core Inner	1	1	1	1
4.4030	0	FP-5124822	Gasket, Oil Cooler Core Inner	1	1	1	1
4.4030	0	FP-5150155	Gasket, Oil Cooler Core Inner	1	1	1	1
4.4030	0	FP-8926782	Gasket, Oil Cooler Core Inner	1	1	1	1
4.4040	0	FP-5102506	Gasket, Oil Cooler Core Outer	1	1	1	1
4.4040	0	FP-5124806	Gasket, Oil Cooler Core Outer	1	1	1	1
4.4040	0	FP-5126618	Gasket, Oil Cooler Core Outer	1	1	1	1
4.4040	0	FP-5136701	Gasket, Oil Cooler Core Outer	1	1	1	1
4.4060	4	FP-103320	Lockwasher, 5/16"	8	8	8	8
4.4060	4	FP-103321	Lockwasher, 3/8"	28	28	28	28
4.4060	0	FP-5152148	Washer, 3/8" Flat	28	28	28	28
4.4060	0	FP-5126321	Gasket, Oil Cooler Hosing Front Cover Plate	1	1	1	1
4.4060	0	FP-5121182	Plug, 1/4" Socket Head	-	-	-	-
4.4061	9	FP-5124806	Gasket, Oil Cooler Cover	1	1	1	1
4.4064	0	FP-5130995	Gasket, Oil Cooler Cover Bracket To FW Hsg.	1	1	1	1
4.4115	0	FP-8920763	Spacer, Oil Cooler Adaptor To Block	1	1	1	1
4.4140	1	FP-5133431	Valve, Oil Cooler By-Pass	1	1	1	1
4.4178	13	FP-5124798	Gasket, Oil Cooler By-Pass Tube Flange	2	2	2	2
4.4178	14	FP-5193598	Seal Ring, Oil Cooler By-Pass Tube Flange	2	2	2	2
4.4182	5	FP-103026	Nut, 3/8" -24 Hex	28	28	28	28
4.4182	4	FP-103321	Lockwasher, 3/8"	28	28	28	28
4.4184	13	FP-5124798	Gasket, Oil Cooler By-Pass Hole Cover	3	3	3	3
4.4200	0	FP-5117535	Gasket, Oil Cooler Inlet and Outlet Tube	2	2	2	2
4.4230	0	FP-5124822	Gasket, Oil Cooler Water Elbow	1	1	1	1
4.4345	0	FP-5181415	Clip, Oil Cooler Lines (1 1/8" Tube - 7/16 Bolt)	AR	AR	AR	AR



Fresh Water Pump

(Figure 14.1)





Fresh Water Pump

(Figure 14.1)

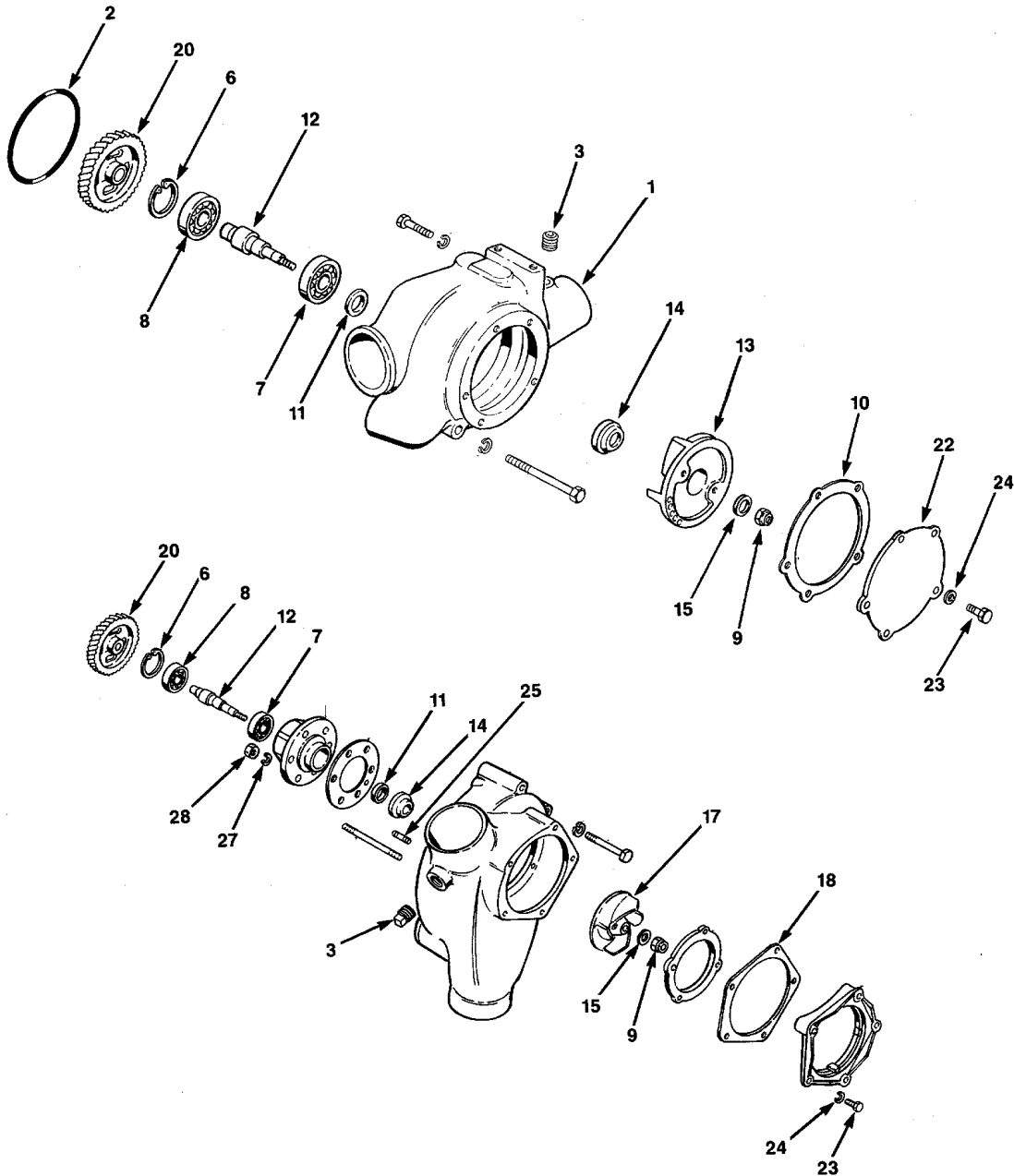
Groups:
5.1001 - 5.1002

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.1001	0	FP-23506604	Assy, Fresh Water Pump	AR	AR	AR	AR
5.1001	0	FP-23518811	Bearing Assy, Fresh Water Pump (DBL Row, Angular Contact), (For 5108449, 5108487, 5108723, 5109590, 5126785, 5132081, 5132083 Pumps)	AR	AR	AR	AR
5.1001	28	FP-103026	Nut, 3/8" -24 (5.1071)	5	5	5	5
5.1001	27	FP-103321	Lockwasher, 3/8" (5.1071)	5	5	5	5
5.1001	2	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	1
5.1001	0	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
5.1001	3	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
5.1001	3	FP-8923313	Plug, 3/4" Pipe	1	1	1	1
5.1002	0	FP-23506366	Kit, Fresh Water Pump Reconditioning	1	1	-	-
5.1002	0	FP-221436	Washer, Flat	1	1	-	-
5.1002	6	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	-	1
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	-	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	-	1
5.1002	2	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	-	-
5.1002	9	FP-5117972	Nut, 7/16" -20 Lock	1	1	-	-
5.1002	10	FP-5117975	Gasket, Fresh Water Pump Body Cover	1	1	-	-
5.1002	11	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	-
5.1002	12	FP-5123150	Shaft, Fresh Water Pump	1	1	1	-
5.1002	13	FP-23505999	Impeller, Fresh Water Pump (Hi-Capacity)	1	1	-	-
5.1002	14	FP-8924297	Seal, Fresh Water Pump	1	1	1	1
5.1002	0	FP-23506852	Kit, Fresh Water Pump	1	1	-	-
5.1002	0	FP-221436	Washer, Flat	1	1	-	-
5.1002	6	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	1	1
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	1	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	1	1
5.1002	0	FP-5101160	Seal Ring, Fresh Water Pump Body	1	1	-	-
5.1002	2	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	-
5.1002	9	FP-5117972	Nut, 7/16" -20 Lock	1	1	1	-
5.1002	11	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	1
5.1002	17	FP-23505995	Impeller, Fresh Water Pump	1	1	-	-
5.1002	12	FP-23506053	Shaft, Fresh Water Pump	1	1	-	-
5.1002	14	FP-23506248	Seal, Fresh Water Pump	1	1	-	-
5.1002	0	FP-5197279	Replacement Kit, Water Pump Ceramic Seal	1	1	-	-
5.1002	0	FP-5197310	Washer, Adhesive, Ceramic Insert Fresh Water Pump	2	2	-	-
5.1002	0	FP-5117342	Ceramic Insert, Fresh Water Pump	1	1	-	-



Fresh Water Pump

(Figure 14.2)





Fresh Water Pump

(Figure 14.2)

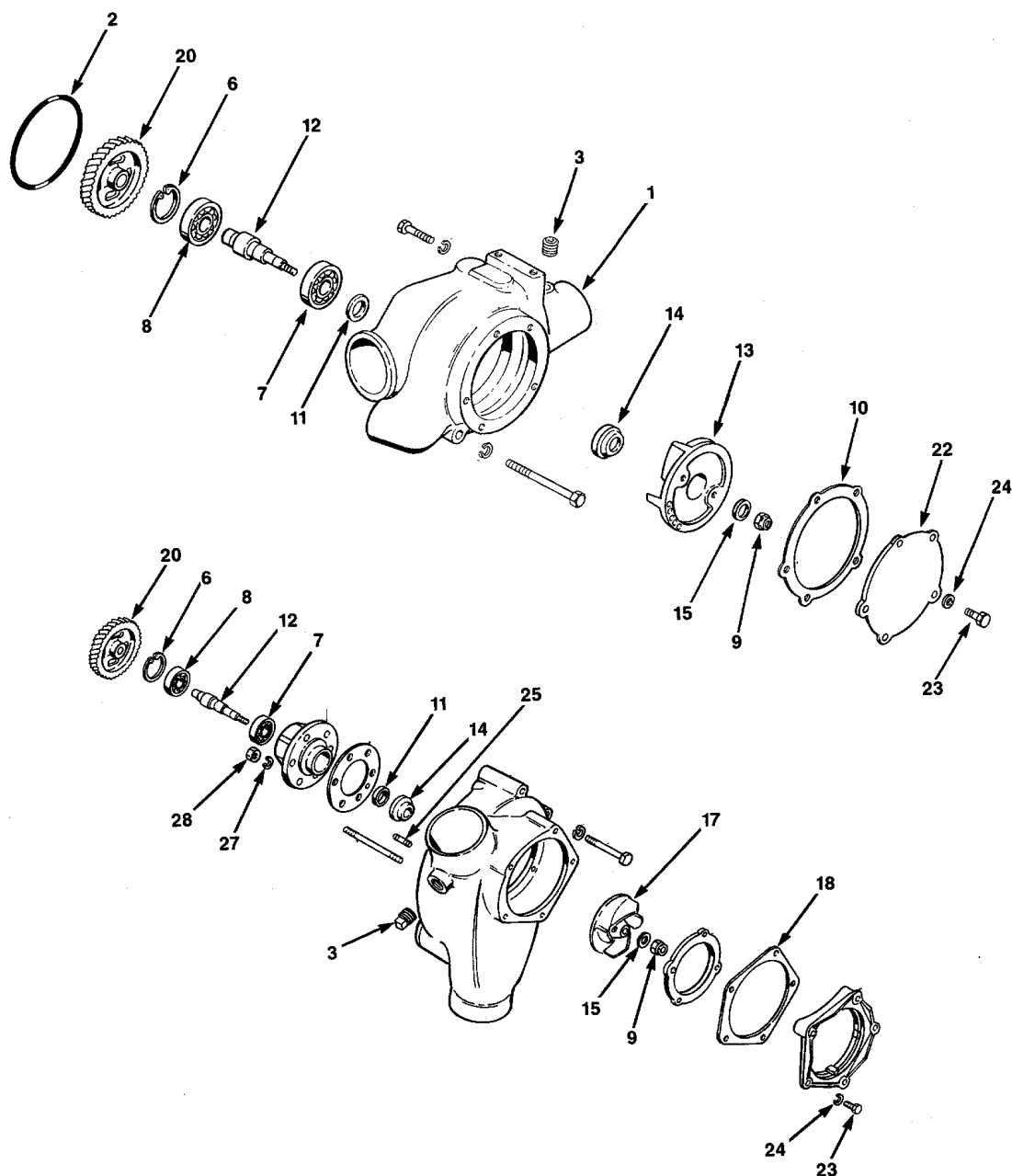
Groups:
5.1002 - 5.1002

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.1002	0	FP-23506367	Kit, Fresh Water Pump (Long Vane), (12V71)	-	-	1	-
5.1002	15	FP-221436	Washer, Flat	1	1	1	-
5.1002	6	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	1	-
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	1	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	1	1
5.1002	18	FP-5117976	Gasket, Fresh Water Pump Body Cover	-	-	1	-
5.1002	11	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	-	-	1	-
5.1002	2	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	-
5.1002	12	FP-5123150	Shaft, Fresh Water Pump	1	1	1	-
5.1002	12	FP-23506000	Impeller, Fresh Water Pump (Long Vane)	1	1	1	-
5.1002	9	FP-5117972	Nut, 7/16" -20 Lock	1	1	1	-
5.1002	0	FP-8924297	Seal, Fresh Water Pump	1	1	1	-
5.1002	0	FP-23506368	Kit, Fresh Water Pump Reconditioning (Short Vane)	-	-	1	-
5.1002	15	FP-221436	Washer, Flat	1	1	1	1
5.1002	6	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	1	1
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	1	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	1	1
5.1002	18	FP-5117976	Gasket, Fresh Water Pump Body Cover	-	-	1	-
5.1002	9	FP-5117972	Nut, 7/16" -20 Lock	1	1	1	-
5.1002	11	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	1
5.1002	12	FP-23506053	Shaft, Fresh Water Pump	-	-	-	1
5.1002	14	FP-23506248	Seal, Fresh Water Pump	1	1	1	1
5.1002	17	FP-23506001	Impeller, Fresh Water Pump	-	-	1	-
5.1002	2	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	-
5.1002	0	FP-23506871	Kit, Fresh Water Pump Reconditioning (16V)	-	-	1	1
5.1002	15	FP-221436	Washer, Flat	1	1	1	1
5.1002	6	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	1	1
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	1	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	1	1
5.1002	0	FP-5109515	Gasket, Fresh Water Pump	-	-	1	1
5.1002	9	FP-5117972	Nut, 7/16" -20 Lock	1	1	1	-
5.1002	11	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	-	-	1	-
5.1002	12	FP-23506053	Shaft, Fresh Water Pump	1	1	1	1
5.1002	0	FP-23506248	Seal, Fresh Water Pump	-	-	1	-
5.1002	17	FP-23506002	Impeller, Fresh Water Pump	-	-	-	1
5.1002	18	FP-23505239	Gasket, Fresh Water Pump	-	-	1	1
5.1002	0	FP-5149711	Kit, Fresh Water Pump Repair	1	1	-	-
5.1002	15	FP-221436	Washer, Flat	1	1	1	-
5.1002	0	FP-5101160	Seal Ring, Fresh Water Pump	1	1	1	-
5.1002	2	FP-5103544	Seal Ring, Fresh Water Pump (.139" X 5.109" I.D.)	1	1	1	-
5.1002	9	FP-5117972	Nut, 7/16" -20 Lock	-	-	1	1
5.1002	11	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	-
5.1002	0	FP-5197310	Washer, Adhesive, Fresh Water Pump	2	2	-	-
5.1002	0	FP-5117342	Insert, Ceramic Seal, Fresh Water Pump	1	1	-	-
5.1002	0	FP-8922407	Ring, Retainer	1	1	-	-
5.1002	0	FP-8924297	Seal, Fresh Water Pump	-	-	1	-



Fresh Water Pump

(Figure 14.3)





Fresh Water Pump

(Figure 14.3)

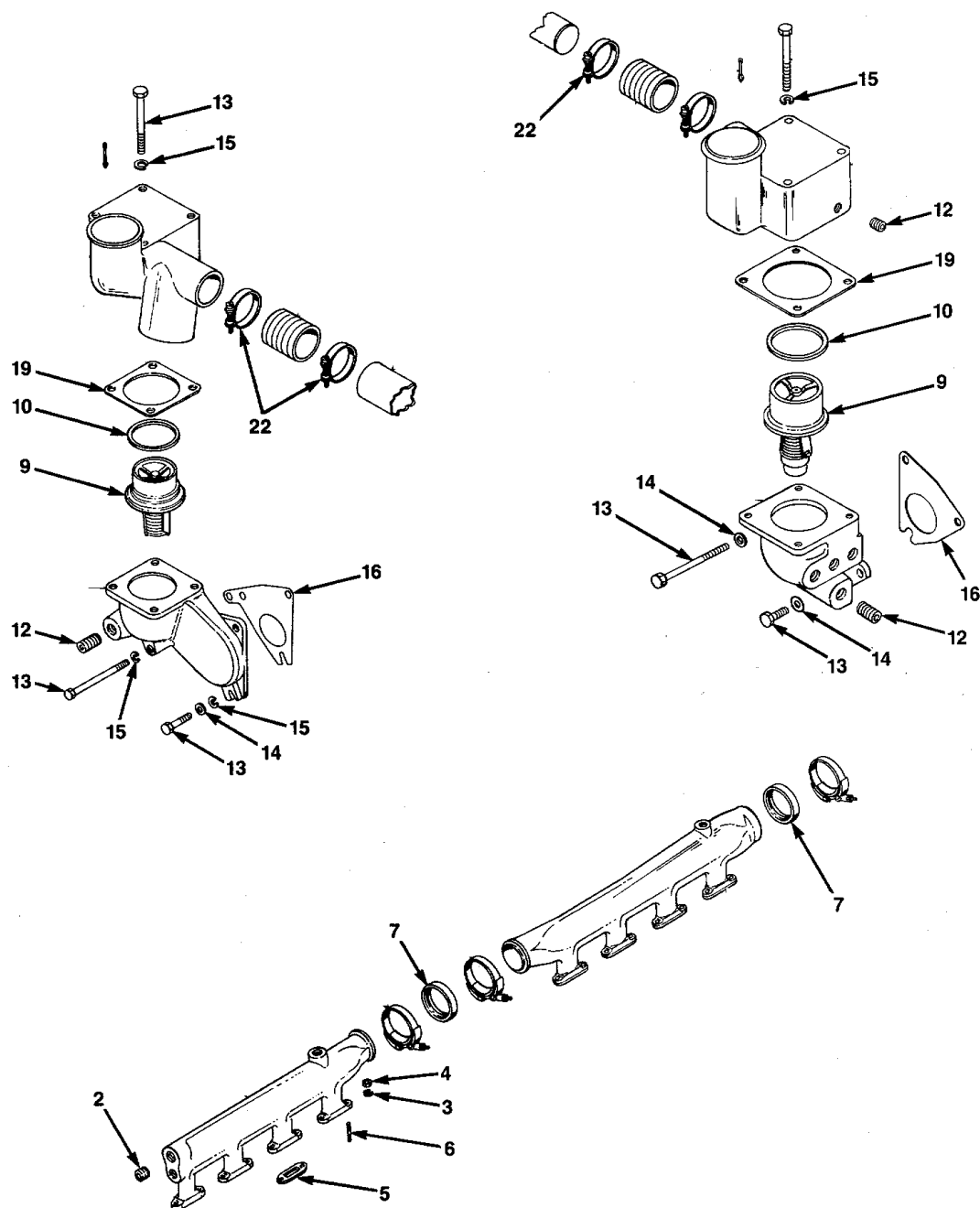
Groups:
5.1002 - 5.1190

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.1010	0	FP-5109515	Gasket, Fresh Water Pump	-	-	1	1
5.1010	0	FP-5128220	Gasket, Fresh Water Pump	-	-	-	1
5.1030	3	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
5.1031	24	FP-103321	Lockwasher, 5/16"	5	5	5	5
5.1031	23	FP-8925603	Bolt, 5/16" -18 X 3/4" (5.1040)	5	5	5	5
5.1031	22	FP-5117950	Cover, Fresh Water Pump Body	1	1	-	-
5.1031	22	FP-8922383	Cover, Fresh Water Pump Body (Non-Metallic)	1	1	-	-
5.1031	22	FP-5117961	Cover, Fresh Water Pump Body	-	1	-	-
5.1032	0	FP-5101160	Seal Ring, Fresh Water Pump Body Cover	1	1	-	-
5.1032	10	FP-5117975	Gasket, Fresh Water Pump Body Cover	1	1	-	-
5.1032	10	FP-5117976	Gasket, Fresh Water Pump Body Cover	-	1	-	-
5.1032	0	FP-5128222	Gasket, Fresh Water Pump Body (Dr. Gr. Cover)	-	-	-	1
5.1032	18	FP-5128224	Gasket, Fresh Water Pump Body (Cover To Pump)	-	-	-	1
5.1040	25	FP-8927270	Stud, Fresh Water Pump Body (3/8" -16 X 1 5/8")	3	3	-	-
5.1040	0	FP-5154453	Plug, 3/8" -16	1	1	1	1
5.1115	13	FP-23505995	Impeller, Fresh Water Pump	1	1	-	-
5.1115	13	FP-23505999	Impeller, Fresh Water Pump (Hi-Capacity)	1	1	-	-
5.1115	17	FP-23506000	Impeller, Fresh Water Pump (Long Vane)	-	-	1	-
5.1115	17	FP-23506001	Impeller, Fresh Water Pump (Short Vane)	-	-	1	-
5.1115	17	FP-23506002	Impeller, Fresh Water Pump	-	-	-	1
5.1190	20	FP-5146254	Gear, Fresh Water Pump Drive(42 Teeth), (L.H. Helix)	1	1	-	-
5.1002	0	FP-23500517	Kit, Fresh Water Pump Seal	1	1	-	-
5.1002	15	FP-221436	Washer, Flat	1	1	-	-
5.1002	2	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	-
5.1002	0	FP-5117342	Insert, Ceramic Seal, Fresh Water Pump	1	1	-	-
5.1002	9	FP-5117972	Nut, 7/16" -20 Lock	1	1	1	-
5.1002	10	FP-5117975	Gasket, Fresh Water Pump Body Cover	1	1	-	-
5.1002	11	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	-
5.1002	0	FP-5197310	Washer, Adhesive, Fresh Water Pump	2	2	-	-
5.1002	0	FP-8924297	Seal, Fresh Water Pump	1	1	1	-
5.1002	0	FP-8925603	Bolt, 5/16" -18 X 3/4"	5	5	-	-



Thermostat

(Figure 15.1)





Thermostat

(Figure 15.1)

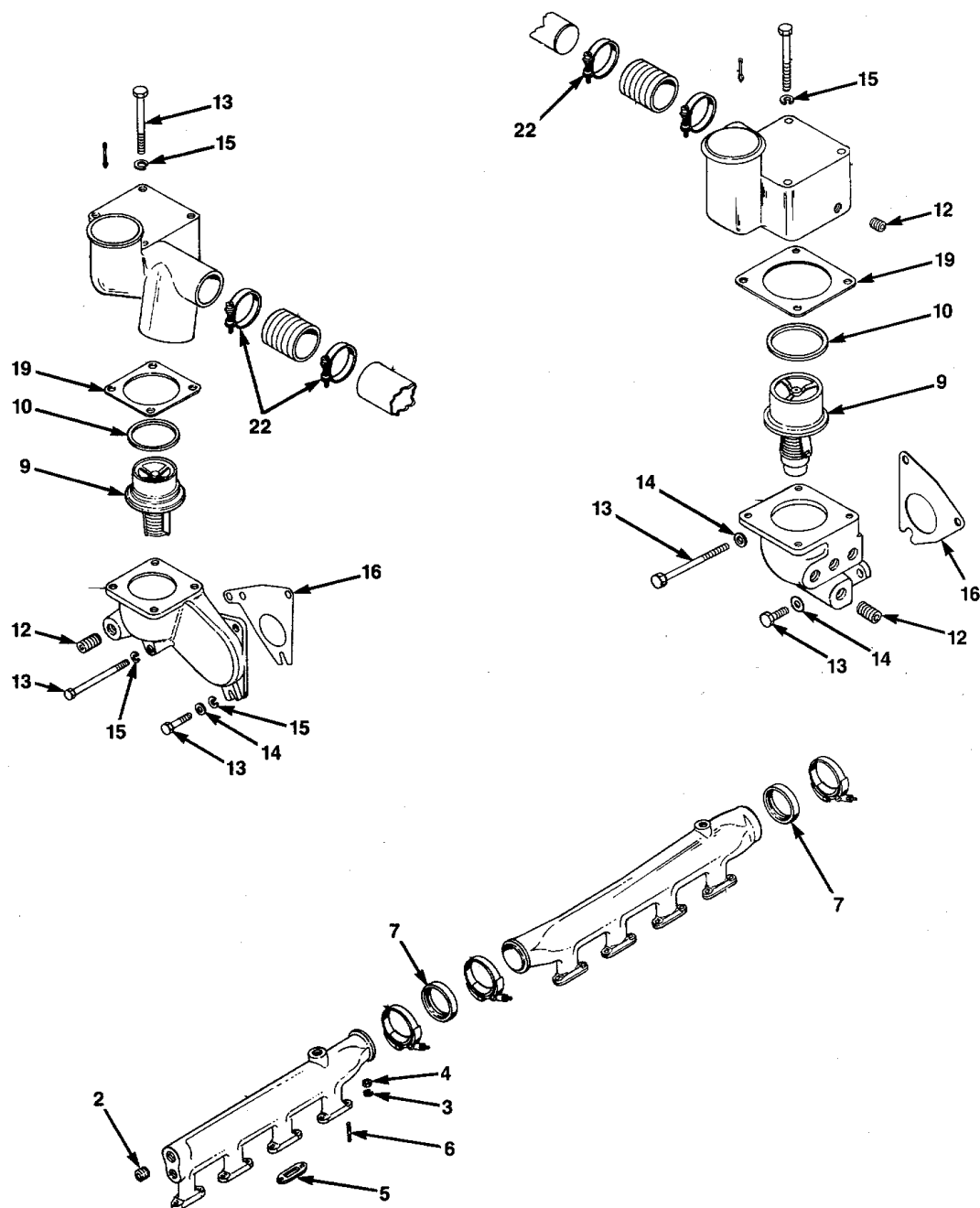
Groups:
5.2001 - 5.2120

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.2001	2	FP-5142549	Plug, 3/4" Pipe	2	2	2	2
5.2001	0	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
5.2001	3	FP-103321	Lockwasher, 3/8"	-	16	24	32
5.2020	6	FP-8927270	Stud, Water Outlet Manifold (3/8" -16/24 X 1 11/16")	-	16	24	32
5.2030	0	FP-5117344	Plate, Water Outlet Manifold Hole	-	1	1	1
5.2037	0	FP-5169478	Gasket, Water Outlet Manifold Elbow	-	2	-	-
5.2043	7	FP-5122439	Seal, Water Outlet Manifold	-	2	2	2
5.2043	0	FP-5188036	Clamp, Water Outlet Manifold (2 9/16" -3 1/2")	-	2	-	-
5.2043	0	FP-5144768	Clamp, Water Outlet Manifold (2 15/16" -2 7/8")	-	-	2	2
5.2043	7	FP-5156770	Seal, Water Outlet Manifold	-	-	2	2
5.2050	9	FP-23503825	Thermostat Assembly (180°)	2	2	2	2
5.2050	9	FP-23503826	Thermostat Assembly (170°)	2	2	4	4
5.2050	9	FP-5102112	Thermostat Assembly (160 °)	2	2	-	-
5.2050	9	FP-5104096	Thermostat Assembly (180 °)	2	2	-	-
5.2050	9	FP-23503828	Thermostat Assembly (165°) (Weir Type)	-	2	-	-
5.2050	9	FP-5104238	Thermostat Assembly (173°)	-	2	-	-
5.2060	10	FP-5132155	Seal, Thermostat	2	2	4	4
5.2090	15	FP-103321	Lockwasher, 3/8"	2	2	2	2
5.2090	0	FP-5152148	Washer, 3/8" Copper	2	2	2	2
5.2090	13	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	2
5.2090	12	FP-23511574	Plug, 1" Pipe	1	1	1	1
5.2090	12	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
5.2090	12	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
5.2090	14	FP-5125108	Washer, 7/16"	1	1	1	1
5.2090	12	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
5.2090	12	FP-8924380	Plug, 1/8" Pipe	1	1	1	1
5.2110	16	FP-5117993	Gasket, Thermostat Housing (Left & Right Bank)	2	2	-	-
5.2110	16	FP-5144277	Gasket, Thermostat Housing (Left & Right Bank)	2	2	2	2
5.2110	16	FP-5123570	Gasket, Thermostat Housing (Right Bank)	1	1	-	-
5.2110	16	FP-5123715	Gasket, Thermostat Housing (Right Bank)	1	1	-	-
5.2110	16	FP-5123716	Gasket, Thermostat Housing (Left Bank)	1	1	-	-
5.2110	16	FP-5133254	Gasket, Thermostat Housing (Left Bank)	-	-	-	-
5.2120	12	FP-5121182	Plug, 1/4" Pipe	2	2	-	-
5.2120	12	FP-8924380	Plug, 1/8" Pipe	2	2	-	-
5.2120	15	FP-103321	Lockwasher, 3/8"	1	1	1	1
5.2120	12	FP-23511574	Plug, 1" Pipe	-	-	-	1
5.2120	12	FP-5115214	Plug, 1/2" Pipe	-	-	-	2
5.2120	12	FP-8924517	Plug, 3/8" Pipe	-	-	2	-



Thermostat

(Figure 15.2)





Thermostat

(Figure 15.2)

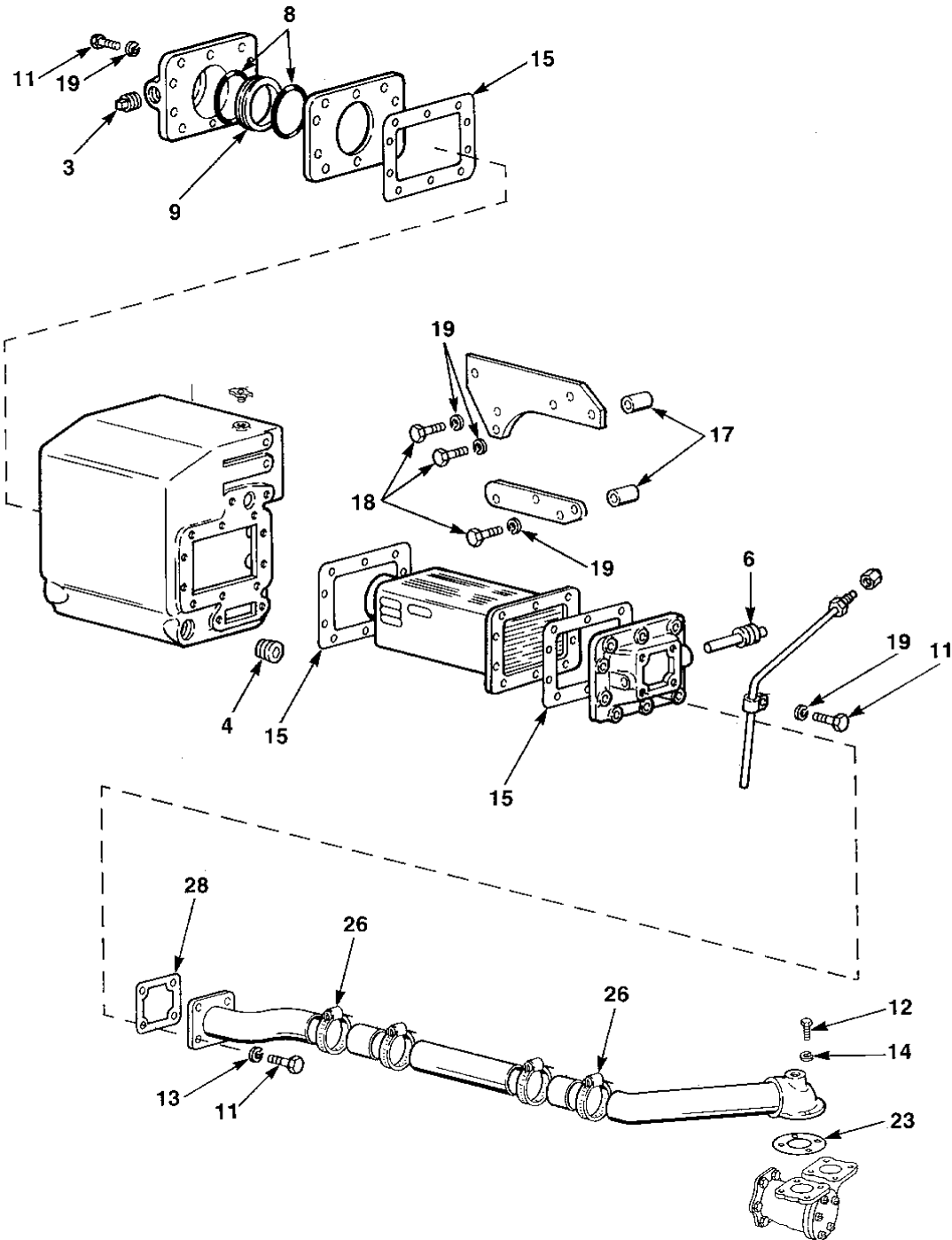
Groups:
5.2122 - 5.3120

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.2122	0	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	2
5.2122	0	FP-5120540	Gasket, Elbow Thermostat Housing	1	1	1	1
5.2124	0	FP-5188036	Clamp, Water Outlet Manifold (2 9/16" -3 1/2")	2	2	4	4
5.2124	0	FP-9139809	Clamp, Water Outlet Manifold (2 1/16" -3")	1	1	1	1
5.2128	0	FP-5122454	Gasket, Heat Exchanger Water Manifold	1	1	1	1
5.2128	0	FP-5124029	Gasket, Heat Exchanger Water Manifold	1	1	1	1
5.2130	19	FP-5100860	Gasket, Thermostat Housing Cover	2	2	-	-
5.2130	19	FP-5117786	Gasket, Thermostat Housing Cover	2	2	-	-
5.2130	19	FP-5117993	Gasket, Thermostat Housing Cover	2	2	-	-
5.2130	19	FP-5123575	Gasket, Thermostat Housing Cover	1	1	-	-
5.2130	19	FP-5133450	Gasket, Thermostat Housing Cover	1	1	2	2
5.2130	19	FP-5175989	Gasket, Thermostat Housing Cover	1	1	2	2
5.2135	0	FP-5179938	Seal Ring, 3/8" Tube Sealastic	1	1	-	-
5.2160	0	FP-5121182	Plug, 1/4"	2	2	-	-
5.2160	0	FP-8927581	Bolt, 3/8" -16 X 1"	1	1	2	2
5.2160	0	FP-8924517	Plug, 3/8" Pipe	-	-	2	2
5.2165	22	FP-5186841	Clamp, 1 9/16" -2 1/2"	2	2	2	2
5.2165	22	FP-9139809	Clamp, 2 1/16" -3"	2	2	2	2
5.2215	0	FP-5169478	Gasket, Water By-Pass Tube Elbow	1	1	1	1
5.3120	0	FP-5197822	Cap, Radiator Filler (23533127)	1	1	1	1



Heat Exchanger

(Figure 16.1)





Heat Exchanger

(Figure 16.1)

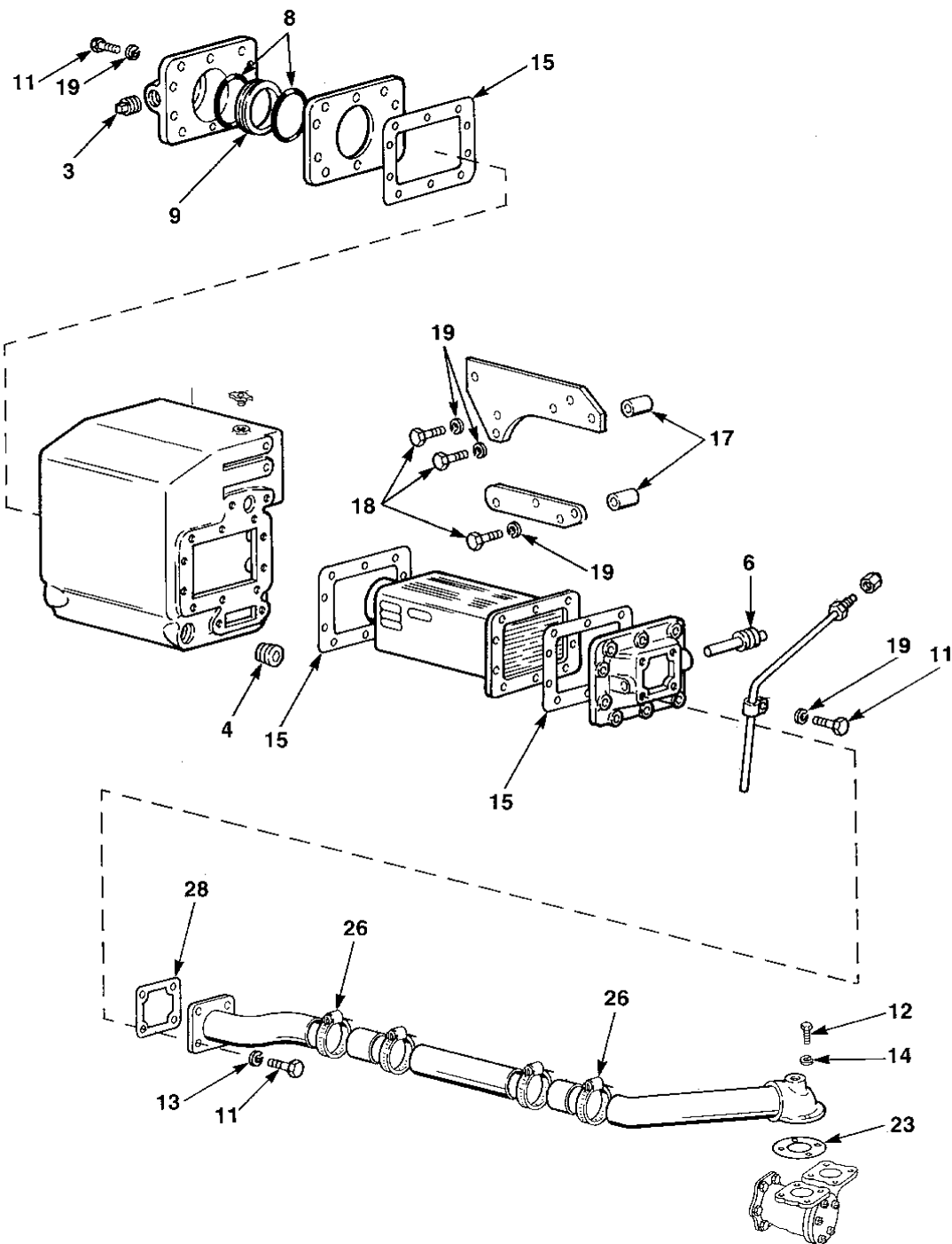
Groups:
5.5001 - 5.5380

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.5001	0	FP-103321	Lockwasher, 3/8"	4	4	4	4
5.5001	0	FP-454992	Bolt, 1/2" -13 X 2 1/2"	2	2	2	2
5.5001	0	FP-5117186	Plug, 2" Cup	2	2	2	2
5.5001	0	FP-8515850	Electrode Assembly, Heat Exchanger	2	2	2	2
5.5001	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
5.5001	4	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
5.5001	3	FP-8924380	Plug, 1/8" Pipe	1	1	1	1
5.5010	6	FP-8517479	Electrode Assembly, Heat Exchanger	2	2	2	2
5.5021	0	FP-5150155	Gasket, Expansion Tank Cover	1	1	1	1
5.5025	13	FP-103320	Lockwasher, 5/16"	4	4	4	4
5.5028	8	FP-5167746	Seal Ring, Heat Exchanger	2	2	4	4
5.5028	9	FP-5167745	Gland, Heat Exchanger	1	1	1	1
5.5030	14	FP-103321	Lockwasher, 3/8"	4	4	-	-
5.5030	12	FP-8927581	Bolt, 3/8" -16 X 1"	4	4	-	-
5.5030	13	FP-103320	Lockwasher, 5/16"	10	10	-	-
5.5050	15	FP-5167764	Gasket, Heat Exchanger Cover	3	3	3	3
5.5050	15	FP-5117406	Gasket, Heat Exchanger Cover	2	2	2	2
5.5050	15	FP-5122975	Gasket, Heat Exchanger Cover	2	2	2	2
5.5050	15	FP-5123660	Gasket, Heat Exchanger Cover	2	2	2	2
5.5070	19	FP-103325	Lockwasher, 5/8"	8	8	8	8
5.5070	18	FP-454992	Bolt, 1/2" -13 X 2 1/2"	4	4	4	4
5.5070	0	FP-5125108	Washer, .75" O.D. x .453 " I.D.	4	4	4	4
5.5070	17	FP-5131978	Spacer, 17/32" X 1" X .164"	4	4	4	4
5.5070	19	FP-103321	Lockwasher, 3/8"	10	10	10	10
5.5290	13	FP-103320	Lockwasher, 5/16"	-	-	14	14
5.5362	0	FP-103026	Nut, 3/8" -24	2	2	2	2
5.5362	0	FP-103321	Lockwasher, 3/8"	2	2	2	2
5.5378	23	FP-5112143	Gasket, Water Flange At Gear and RWP	1	1	1	1
5.5378	23	FP-5115395	Gasket, Water Flange At Gear and RWP	1	1	1	1
5.5380	0	FP-8927580	Bolt, 3/8" -16 X 7/8"	4	4	4	4
5.5380	0	FP-8927581	Bolt, 3/8" -16 X 1"	4	4	4	4



Heat Exchanger

(Figure 16.2)





Heat Exchanger

(Figure 16.2)

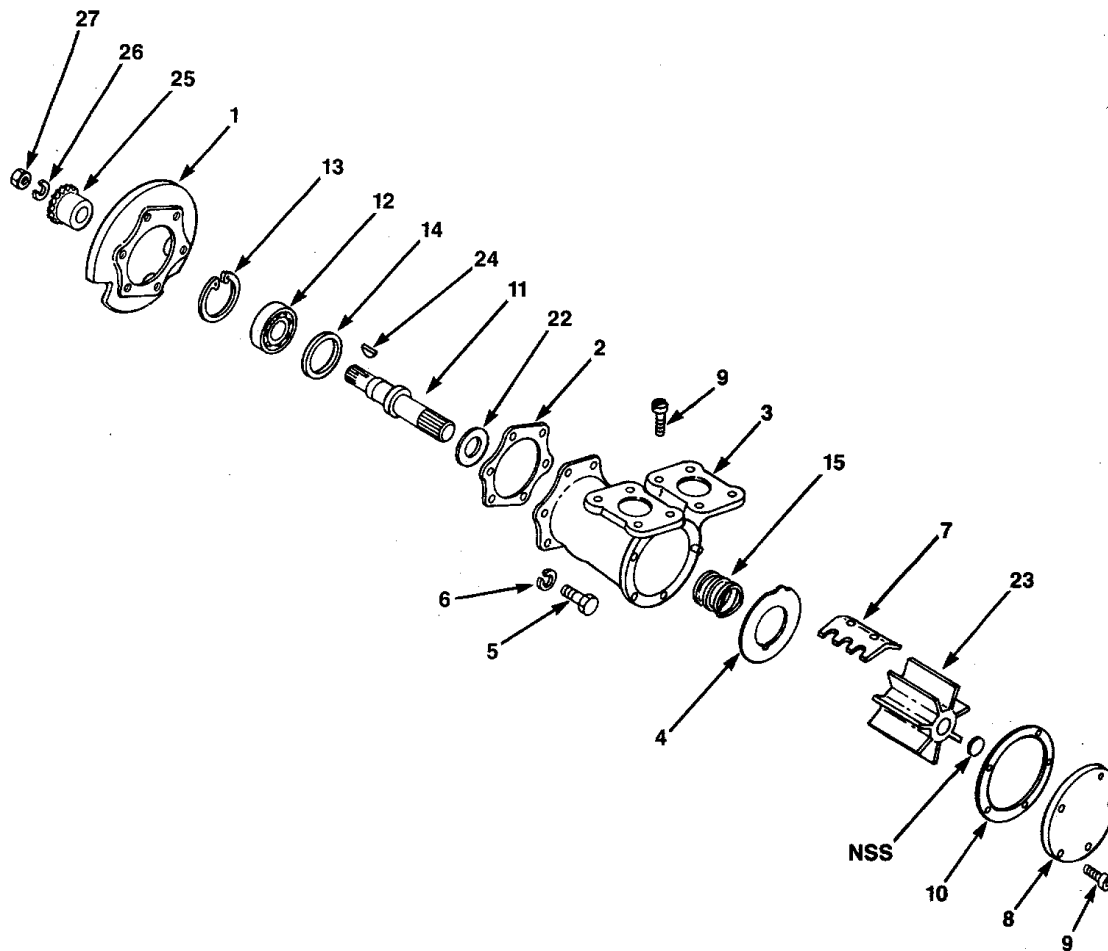
Groups:
5.3280 - 5.5741

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.3280	0	FP-5163760	Gasket, Radiator Inlet Connection	1	1	1	1
5.3321	0	FP-5167762	Gasket, Expansion Tank Outlet Connection	1	1	1	1
5.3323	0	FP-5163760	Gasket, Heat Exchanger Tank Inlet Connection	1	1	1	1
5.3325	0	FP-5167762	Gasket, Heat Exchanger Tank Outlet Connection	1	1	1	1
5.5385	0	FP-5186841	Clamp, Raw Water Pump Outlet Tube	1	1	1	1
5.5430	26	FP-9139809	Clamp, Hose (2 1/16" -3")	4	4	4	4
5.5441	28	FP-5158747	Gasket, Heat Exchanger Raw Water Inlet Tube	1	1	1	1
5.5441	26	FP-5186841	Clamp, Heat Exchanger Raw Water Inlet	1	1	1	1
5.5441	28	FP-8926293	Gasket, Heat Exchanger Raw Water Inlet Tube	1	1	1	1
5.5480	26	FP-5188036	Clamp, Heat Exchanger Raw Water Inlet	4	4	4	4
5.5480	26	FP-9139809	Clamp, Hose (2 1/16" -3")	4	4	4	4
5.5550	13	FP-103320	Lockwasher, 3/8"	4	4	4	4
5.5570	28	FP-5158747	Gasket, Heat Exchanger Water Outlet Tube	1	1	1	1
5.5732	26	FP-5186841	Clamp, Intercooler Inlet Hose	4	4	4	4
5.5732	26	FP-5188036	Clamp, Intercooler Inlet Hose	4	4	4	4
5.5732	26	FP-9139809	Clamp, Intercooler Inlet Hose	4	4	4	4
5.5736	26	FP-5188036	Clamp, Intercooler Outlet Tube Hose	4	4	4	4
5.5736	26	FP-9139809	Clamp, Intercooler Outlet Tube Hose	4	4	4	4
5.5741	0	FP-5186841	Clamp, Intercooler By-Pass Tube	1	1	1	1



Raw Water Pump

(Figure 17.1)





Raw Water Pump

(Figure 17.1)

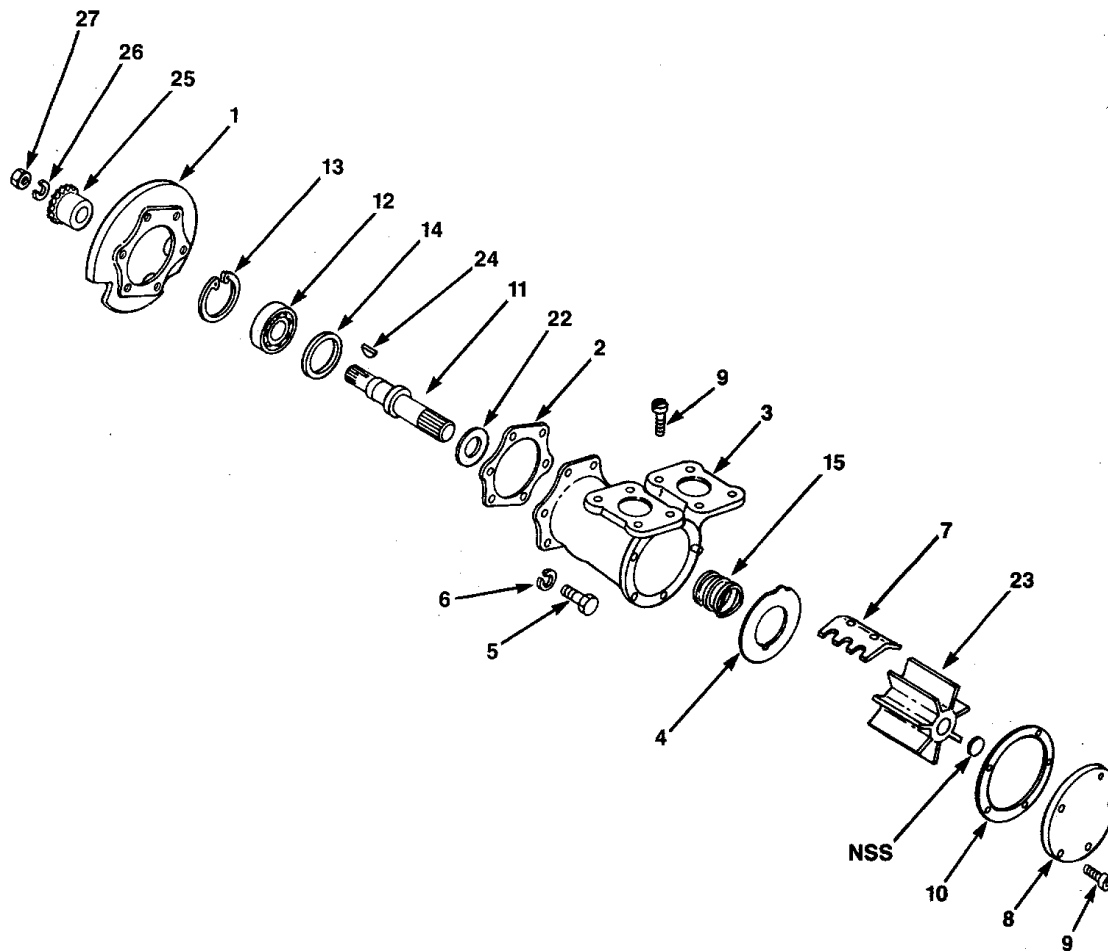
Groups:
5.6001 - 5.6320

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.6001	0	FP-23507971	Pump Assembly, Raw Water (Option Type 28,62,66)	1	-	-	-
5.6001	0	FP-23507972	Pump Assembly, Raw Water (Option Type 37,63,64,65,67,87)	-	1	1	1
5.6010	5	FP-23501660	Bolt, 3/8" -16 X 1" (Adapter To Pump Body)	6	6	6	6
5.6010	1	FP-5193551	Adapter, Raw Water Pump Body	1	1	1	1
5.6020	2	FP-23515145	Gasket, Raw Water Pump Adapter	1	1	1	1
5.6020	4	FP-5193556	Plate, Wear	1	1	1	1
5.6020	2	FP-5196513	Gasket, Raw Water Pump Adapter	1	1	1	1
5.6020	0	FP-5197597	Dowel Pin, Warplane Locating (3/16" X 5/16")	1	1	1	1
5.6170	15	FP-5195198	Seal, Raw Water Pump (1.06 D Spline, Jabsco)	-	1	1	1
5.6230	0	FP-5193602	Impeller, (Synthetic), (Option Type 14), (Obsolete Pump)	-	1	1	1
5.6220		FP-5194860	Impeller & Seal Kit Pump (FP-5115396)	1	-	-	-
5.6230	23	FP-8924838	Impeller, Raw Water Pump	1	-	-	-
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	1	1	1	1
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	1	1	1	1
5.6025	9	FP-23504236	Screw, Hexagon	6	6	6	6
5.6220	0	FP-5196846	Impeller & Seal Kit Pump (FP-5122599)	-	1	1	1
5.6230	23	FP-8924839	Impeller, Raw Water Pump	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	1	1	1	1
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	1	1	1	1
5.6025	9	FP-23504236	Screw, Hexagon	6	6	6	6
5.6025	0	FP-5197222	Reconditioning Kit, Raw Water Pump (FP-5122599)	-	1	1	1
5.6012	0	FP-23514265	Seal Ring,	-	1	1	1
5.6012	2	FP-23501662	Gasket, Raw Water Pump Body To Adapter	-	1	1	1
5.6020	4	FP-5193556	Plate, Wear	-	1	1	1
5.6025	9	FP-114366	Screw, 1/4" -20 X 1/2" RWP Cam (Brass)	-	1	1	1
5.6035	7	FP-5196167	Cam, Raw Water Pump Body Offset	-	1	1	1
5.6090	8	FP-5193555	Cover, Raw Water Pump (End)	-	1	1	1
5.6090	9	FP-23504236	Screw, 1/4" -20 X 1/2" RWP Cover (Stainless)	-	5	5	5
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	-	1	1	1
5.6120	11	FP-5196169	Shaft, Raw Water Pump	-	1	1	1
5.6130	12	FP-23505479	Bearing, Raw Water Pump	-	1	1	1
5.6140	13	FP-5196171	Ring, Raw Water Pump Bearing Retainer	-	1	1	1
5.6160	14	FP-5195101	Seal, Raw Water Pump Bearing	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	-	1	1	1
5.6200	22	FP-5193676	Slinger, Raw Water Pump Shaft	-	1	1	1
5.6230	23	FP-8924839	Impeller, Raw Water Pump	-	1	1	1
5.6320	24	FP-103462	Key, Woodruff Raw Water Pump Shaft	-	1	1	1



Raw Water Pump

(Figure 17.2)





Raw Water Pump

(Figure 17.2)

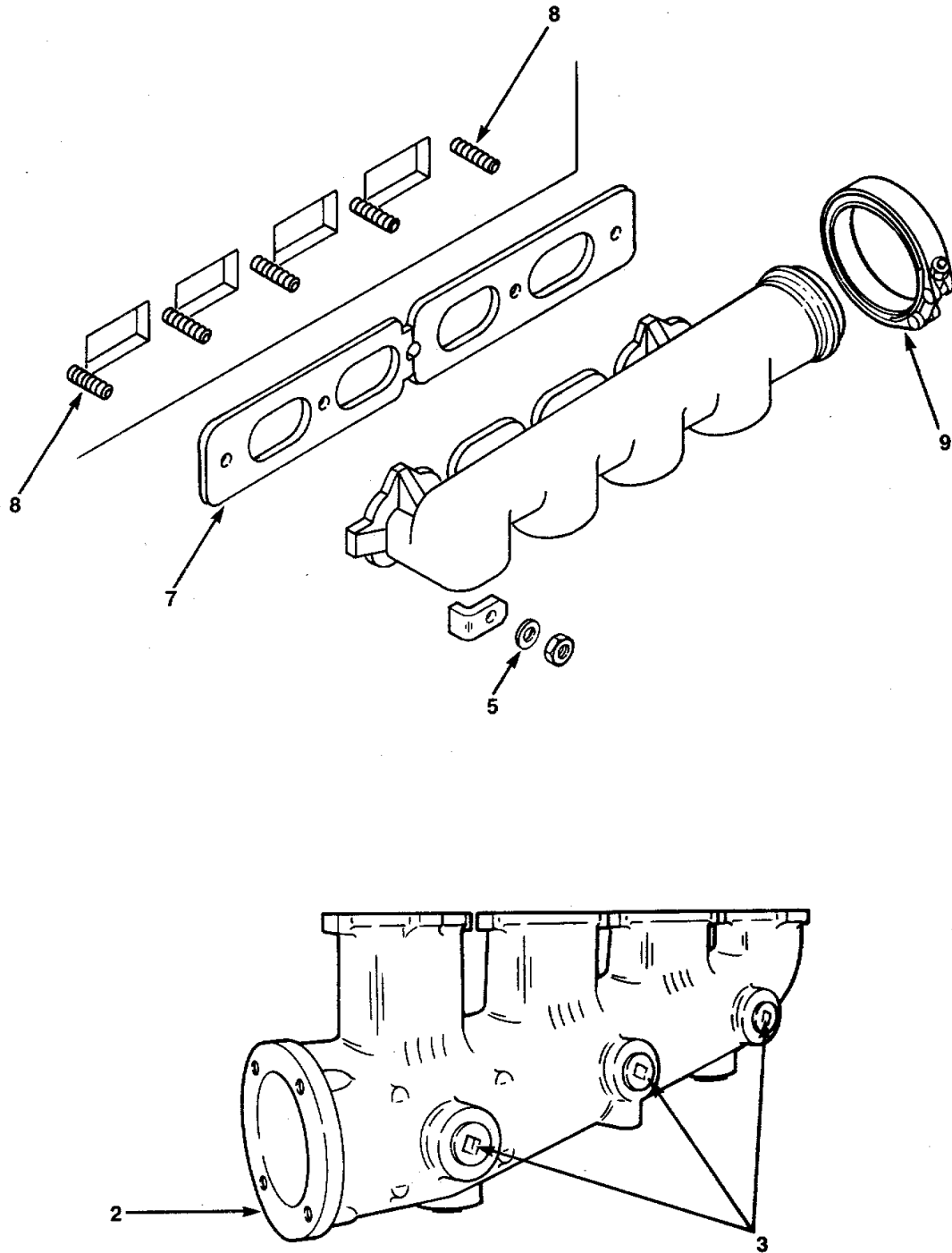
Groups:
5.6012 - 6.6025

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.6320	26	FP-103325	Lockwasher, 5/8"	1	1	1	1
5.6320	24	FP-5161024	Key, Woodruff RWP Shaft	1	-	-	-
5.6320	25	FP-5193576	Gear, Raw Water Pump Drive	1	-	-	-
5.6320	24	FP-103462	Key, 3/16" X 1"	-	1	1	1
5.6330	0	FP-9415285	Ring, External Retainer	2	2	2	2
5.6350	0	FP-23515145	Gasket, Raw Water Pump	1	1	1	1
5.6410	0	FP-5145092	Bolt, 3/8" -24 X 1.20"	4	4	4	4
5.6410	0	FP-5170450	Plate, Raw Water Pump Drive (21 Teeth)	1	1	1	1
5.6574	0	FP-5112143	Gasket, Raw Water Pump Inlet Elbow	1	1	1	1
5.6574	0	FP-5115395	Gasket, Raw Water Pump Inlet Elbow	1	1	1	1
5.6575	0	FP-8517479	Electrode Assembly, Raw Water Pump (2 1/8" L.)	1	1	-	1
5.6575	0	FP-8517473	Electrode Assembly, Raw Water Pump (1 1/4" L.)	1	-	-	-
5.6575	0	FP-8515850	Electrode Assembly, Raw Water Pump (3 3/8" L.)	-	1	2	-
5.6581	0	FP-5115395	Gasket, Raw Water Pump Outlet Tube	1	-	1	1
5.6581	0	FP-5112143	Gasket, Raw Water Pump Outlet Tube	-	-	-	1
5.6586	0	FP-5186841	Clamp, Heat Exchanger Raw Water Inlet Tube	4	4	4	4
5.6590	0	FP-9139809	Clamp, Heat Exchanger Raw Water Outlet Tube	4	4	4	4
5.6025	0	FP-5197223	Reconditioning Kit, Raw Water Pump (FP-5115396)	1	-	-	-
5.6012	2	FP-23501662	Gasket, Raw Water Pump Body To Adapter	1	1	1	1
5.6020	4	FP-5193556	Plate, Wear	1	1	1	1
6.6025	0	FP-23514265	Seal Ring,	1	1	1	1
5.6025	0	FP-5193684	Seal, Raw Water Pump (Outboard)	1	-	-	-
5.6035	9	FP-114366	Screw, 1/4" -20 X 1/2" RWP Cam (Brass)	1	1	1	1
5.6035	7	FP-5193554	Cam, Raw Water Pump Body Offset	1	-	-	-
5.6090	8	FP-5193555	Cover, Raw Water Pump (End)	1	1	1	1
5.6090	9	FP-23504236	Screw, 1/4" -20 X 1/2" RWP Cover (Stainless)	5	5	5	5
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	1	1	1	1
5.6120	11	FP-5193552	Shaft, Raw Water Pump	1	-	-	-
5.6130	12	FP-23504426	Bearing, Raw Water Pump	1	-	-	-
5.6140	13	FP-9415285	Ring, Raw Water Pump Bearing Retainer (Large)	1	-	-	-
5.6140	13	FP-5193569	Ring, Raw Water Pump Bearing Retainer (Small)	1	-	-	-
5.6160	14	FP-5195101	Seal, Raw Water Pump Bearing	1	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	1	1	1	1
5.6200	22	FP-5193676	Slinger, Raw Water Pump Shaft	1	1	1	1
5.6230	23	FP-8924838	Impeller, Raw Water Pump	1	-	-	-
5.6320	24	FP-5161024	Key, 5/32" X 7/8"	1	-	-	-



Exhaust Manifold

(Figure 18.1)





Exhaust Manifold

(Figure 18.1)

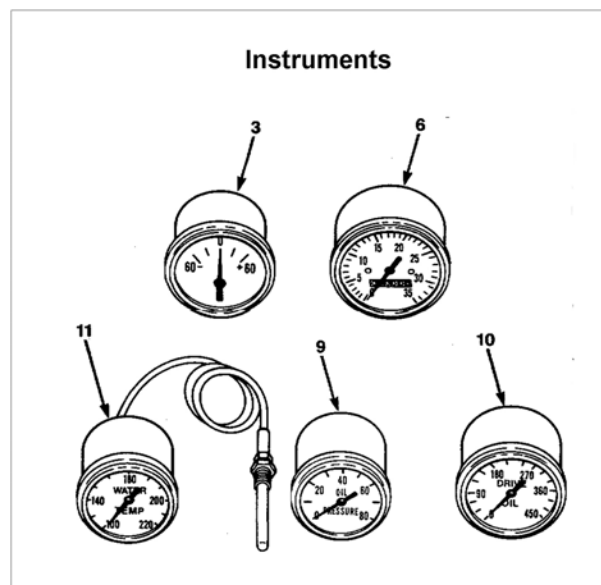
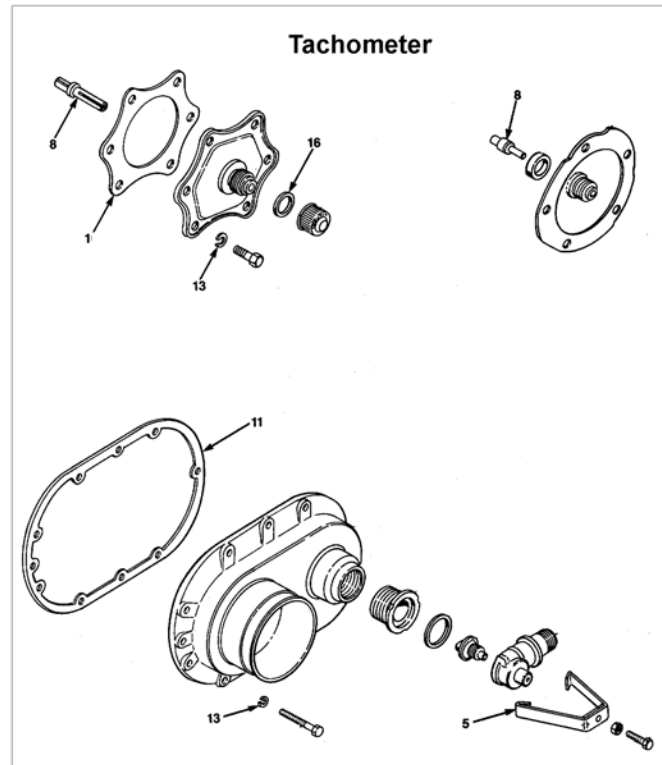
Groups:
6.1001 - 6.2105

Group	Ref	Part No.	Description	6V	8V	12V	16V
6.1001	5	FP-5104439	Washer, 7/16" X 1 1/4" (Dished)	8	10	14	16
6.1001	9	FP-5146165	Clamp, 3.88" Dia. (Marmon)	2	2	2	2
6.1001	0	FP-5115214	Plug, 1/2" Pipe	2	-	2	-
6.1001	0	FP-5142549	Plug, 3/4" Pipe	-	4	-	8
6.1001	2	FP-8921706	Manifold Assembly, Exhaust (Horizontal), (Water Cooled)	-	2	-	4
6.1001	3	FP-23511574	Plug, 1" Pipe	-	-	-	-
6.1001	2	FP-8921704	Manifold Assembly, Exhaust (Horizontal), (Water Cooled)	-	-	2	-
6.1003	0	FP-9411981	Nut, 3/8" -24 Lock	12	14	16	24
6.1010	7	FP-5122866S	Gasket, Exhaust Manifold (3 Ports), (Metal Clad)	2	-	-	-
6.1010	7	FP-5150194	Gasket, Exhaust Manifold (Composition), (3 Ports)	2	-	-	-
6.1010	7	FP-5120224	Gasket, Exhaust Manifold (Ends), (Metal Clad)	-	4	4	8
6.1010	7	FP-5150195	Gasket, Exhaust Manifold (Composition), (End)	-	4	4	8
6.1010	7	FP-5113954	Gasket, Exhaust Manifold	-	-	-	-
6.1010	7	FP-5120223	Gasket, Exhaust Manifold (Intermediate), (Metal Clad)	-	-	2	4
6.1010	7	FP-5150196	Gasket, Exhaust Manifold (Composition), (Intermediate)	-	-	2	-
6.1012	0	FP-5145238	Gasket, Exhaust Manifold Adapter	2	2	2	4
6.1020	8	FP-8925804	Stud, Exhaust Manifold To Head (7/16" -14/20 X 2 3/32")	12	16	24	32
6.1050	0	FP-8925804	Stud, Exhaust Manifold To Head (7/16" -14/20 X 2 3/32")	12	12	16	16
6.1060	0	FP-5100147	Gasket, Exhaust Manifold Outlet	-	2	-	-
6.1100	0	FP-103320	Lockwasher, 5/16"	12	12	12	24
6.1110	0	FP-5156319	Gasket, Exhaust Manifold Cover Plate	4	4	4	16
6.1110	0	FP-5113412	Gasket, Exhaust Manifold Cover Plate	1	1	2	4
6.1120	0	FP-8925603	Stud, Exhaust Manifold Cover Plate (5/16" -18 X 3/4")	12	12	12	24
6.1150	0	FP-5156319	Gasket, Exhaust Manifold Water Outlet Flange	2	2	2	8
6.2085	0	FP-5132650	Clamp, Exhaust Flange	2	2	-	-
6.2085	0	FP-5164146	Flange, Exhaust Manifold	2	2	2	4
6.2085	0	FP-5137620	Clamp, Exhaust Flange	-	-	2	-
6.2085	0	FP-5146165	Clamp, Exhaust Flange	-	-	-	4
6.2105	0	FP-23512114	Gasket, Exhaust Outlet	AR	AR	AR	AR
6.2105	0	FP-3221863	Gasket, Exhaust Outlet (3 1/4" I.D.)	AR	AR	AR	AR
6.2105	0	FP-5100147	Gasket, Exhaust Outlet	2	2	2	4
6.2105	0	FP-5108377	Gasket, Exhaust Outlet	2	2	2	4
6.2105	0	FP-5108989	Gasket, Exhaust Outlet	2	2	-	-
6.2105	0	FP-5166486	Gasket, Exhaust Outlet (3 1/8" I.D.)	2	2	-	-
6.2105	0	FP-5163811	Gasket, Exhaust Outlet (4 3/8" I.D.)	-	2	2	8



Instruments

(Figure 19.1)





Instruments

(Figure 19.1)

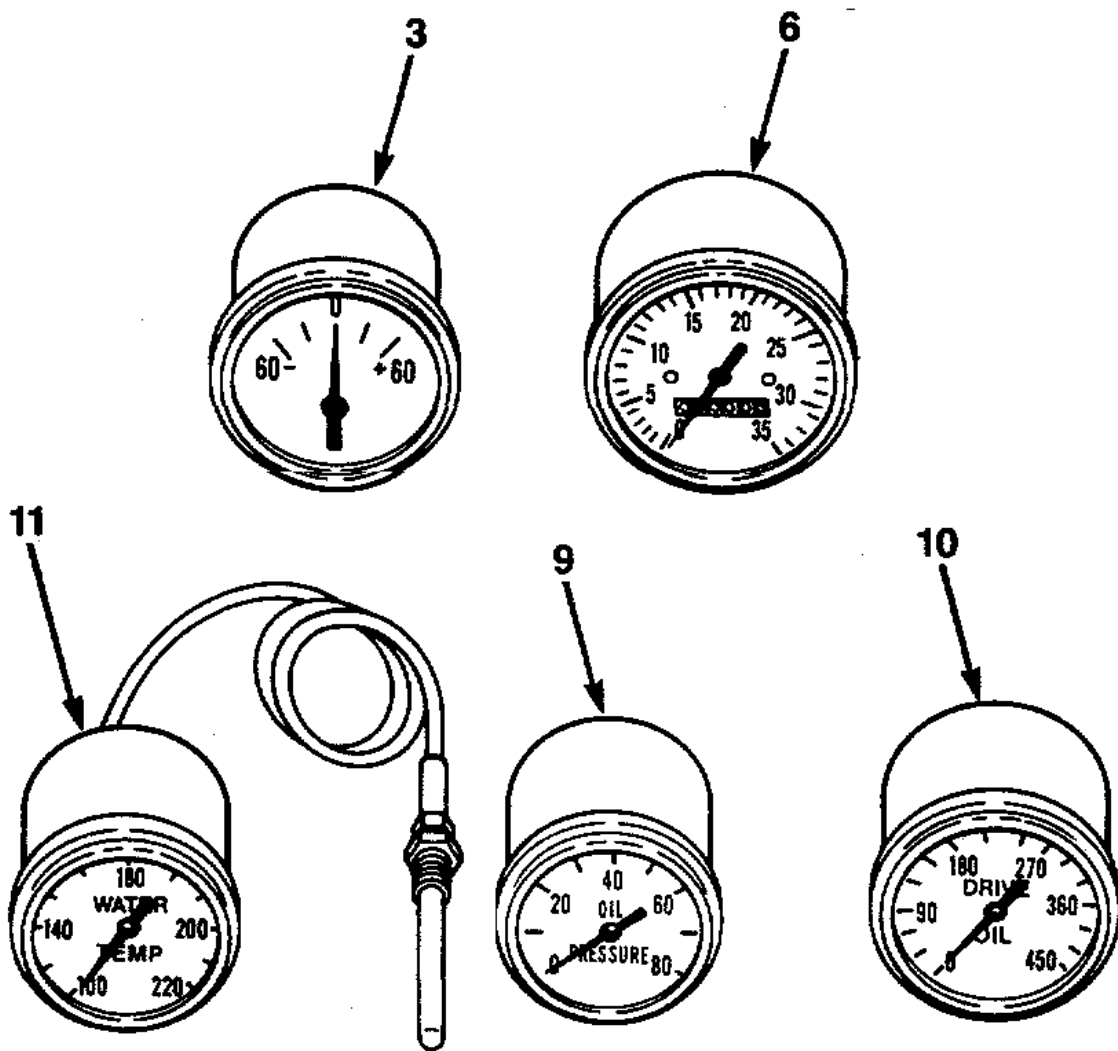
Groups:
7.4013 - 7.4458

Group	Ref	Part No.	Description	6V	8V	12V	16V
7.4013	0	FP-103321	Lockwasher, 3/8"	2	2	2	2
7.4013	0	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	2
7.4015	3	FP-6474479	Ammeter (60 Amp)	1	1	1	1
7.4070	9	FP-12361169	Gage, Oil Pressure (0-100 PSI)	1	1	1	1
7.4077	0	FP-6490569	Gage, Oil Temperature (6' Capillary)	1	1	1	1
7.4080	11	FP-6490565	Gage, Water Temperature (10' Capillary)	1	1	1	1
7.4080	11	FP-8993092	Gage, Water Temperature (4' Capillary)	1	1	1	1
7.4080	11	FP-8993093	Gage, Water Temperature (6' Capillary)	1	1	1	1
7.4080	11	FP-8993253	Gage, Water Temperature (15' Capillary)	1	1	1	1
7.4435	8	FP-3224992	Shaft, Tachometer Drive (.061" Key)	-	1	1	1
7.4435	8	FP-5135936	Shaft, Tachometer Drive	-	1	1	1
7.4445	6	FP-5150568	Washer, 7/16" Copper	1	1	1	1
7.4445	1	FP-8924266	Gasket, Tachometer Drive Cover Assembly	1	1	1	1
7.4445	1	FP-23515145	Gasket, Tachometer Drive Cover Assembly	-	1	1	1
7.4445	1	FP-5104507	Gasket, Tachometer Drive Cover Assembly	-	1	1	1
7.4445	0	FP-103321	Lockwasher, 3/8"	-	-	6	6
7.4445	5	FP-8927580	Bolt, 3/8" -16 X 7/8"	-	-	2	2
7.4450	0	FP-3202615	Seal, Tachometer Drive Cover	-	2	2	2
7.4455	4	FP-5135935	Gasket, Tachometer Drive Cover Adapter	1	1	1	1
7.4455	4	FP-5104507	Gasket, Tachometer Drive Cover Adapter	-	1	1	1
7.4455	4	FP-23515145	Gasket, Tachometer Drive Cover Adapter	-	-	-	1
7.4457	13	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4457	0	FP-103319	Lockwasher, 1/4"	1	1	1	1
7.4457	16	FP-5107931	Gasket, Tachometer Drive Cover Cap	1	1	1	1
7.4457	0	FP-8924380	Plug, 1/8" Pipe	-	-	-	1
7.4458	0	FP-5135820	Seal, Tachometer Drive Adapter	-	1	1	1



Instruments

(Figure 19.2)





Instruments

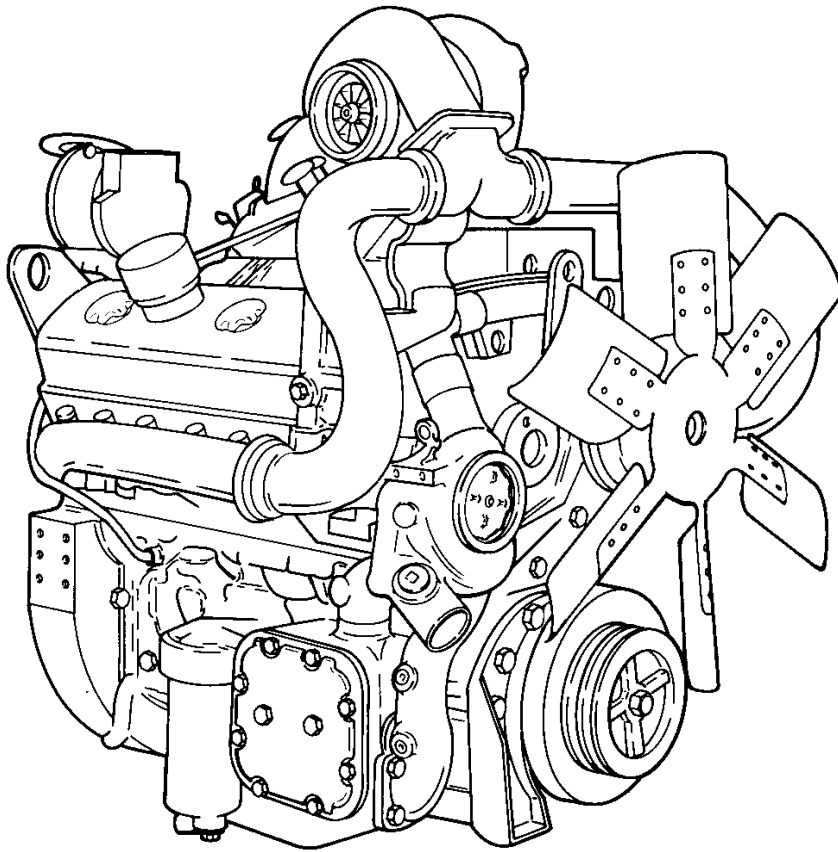
(Figure 19.2)

Groups:
1.3320 - 12.4380

Group	Ref	Part No.	Description	6V	8V	12V	16V
7.4505	0	FP-5146080	Switch, Water Temperature	AR	AR	AR	AR
7.4505	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4505	0	FP-5163830	Gasket, Water Temperature Switch	1	1	1	1
7.4505	0	FP-5179913	Switch, Water Temperature (Option Type 90,140,224,547)	1	-	1	-
7.4505	0	FP-5186948	Switch, Water Temperature (Option Type 237,314)	-	1	-	-
7.4505	0	FP-5121665	Switch, Water Temperature (Option Type 436,711,830)	-	-	1	1
7.4509	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4509	0	FP-5166486	Gasket, Manifold Flange	2	2	2	2
7.4509	0	FP-8923847	Plug, 1/4" Pipe	2	2	2	2
7.4509	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
7.4510	0	FP-5113412	Gasket, Water Temperature Switch	1	1	1	1
7.4519	0	FP-103319	Lockwasher, 1/4"	4	4	4	4
7.4519	0	FP-179803	Bolt, 1/4" -20 X 1 3/4"	1	1	1	1
7.4519	0	FP-23504196	Solenoid, Air Shutoff Or Governor (12V)	1	1	1	1
7.4519	0	FP-443603	Bolt, 1/4" -20 X 3/4"	1	1	1	1
7.4538	0	FP-5176810	Pin, Air Shutoff Solenoid Control Rod (1/4" x 1 1/4" Clevis)	AR	AR	AR	AR
7.4598	0	FP-23520023	Switch, Oil Pressure (# 5 Break)	1	1	1	1
7.4598	0	FP-23520024	Switch, Oil Pressure (# 10 Break)	1	1	1	1
7.4598	0	FP-23520025	Switch, Oil Pressure (# 20 Make)	1	1	1	1
7.4598	0	FP-23520026	Switch, Oil Pressure (# 27 Make / Break)	1	1	1	1
7.8110	0	FP-5147163	Wire Assy, Air Heater Coil High Tension (14" L)	AR	AR	AR	AR
Miscellaneous Parts							
1.3320	0	FP-5133761	Belt Set (3 Belts - 54" L x .500" W)	AR	AR	AR	AR
7.1597	0	FP-5122266	Gasket, Compressor Mounting Bracket	AR	AR	AR	AR
7.3001	0	FP-9418228	Bolt, Starting Motor (5/8" - 11 x 1 3/4" - 12 Point)	AR	AR	AR	AR
9.1001	0	FP-23010125	Plate, Hydraulic Gear Assy (Marine)	AR	AR	AR	AR
9.1001	0	FP-5150475	Gasket, Hydraulic Marine Gear Assy (4.6010)	1	1	1	1
9.1035	0	FP-6700157	Seal, Reverse Clutch Piston	2	2	2	2
9.1187	0	FP-5150144	Gasket, Oil Line Flange Cover (4.1520)	AR	AR	AR	AR
9.1207	0	FP-5173384	Seal, Flywheel Oil (1 3/8")	1	1	1	1
9.1235	0	FP-5101603	Plate Assy, Forward Clutch (14" 510HP)	-	AR	AR	AR
9.1270	0	FP-5156815	Spring, Forward Clutch Dump Valve (4.1690)	1	1	1	1
9.1480	0	FP-5150057	Gasket, Hydraulic Gear Oil Pump To Adapter (1.5060)	AR	AR	AR	AR
12.4005	0	FP-5131939	Gasket, Air Compressor Mounting	AR	AR	AR	AR
12.4380	0	FP-5150144	Gasket, Air Compressor Booster Tube	AR	AR	AR	AR
12.4380	0	FP-5180273	Gasket, Air Compressor Booster Tube	AR	AR	AR	AR



92 SERIES ENGINE





92 SERIES ENGINE

Model Description Chart

Application, Rotation Design Variations

8	0	8	3	-	7	0	0	0
Series 92 V Engines	Number of Cylinders	Application Designation (see below)	Basic Engine Arrangement and Drive Shaft Rotation (see below)	Design Variation (see below)	Specific Model Number			

APPLICATION DESIGNATION:

8082 - 7000 Marine
8083 - 7000 Industrial F-F*
8085 - 7000 Generator
8087 - 7000 Vehicle F-F*

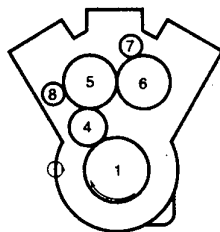
* F-F — Fan to Flywheel

DESIGN VARIATION:

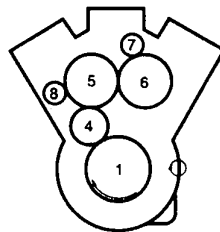
8083 - 7000 4 Valve Head Engine
8083 - 7300 Turbocharged Engine
8083 - 7400 Aftercooled Engine
8083 - 7500 Customer Special Engine
8083 - 7700 Turbo Torque
8083 - 7800 Aftercooled Turbo Torque
8083 - 7T60 Turbocharged Electronic Controls

Basic Engine Arrangements

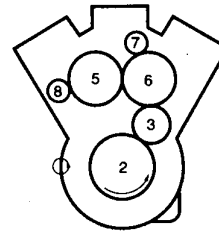
Rotation: L (Left) and R (right) designates rotation viewed from the front of the engine. (Not the Flywheel end)
Type: A-B-C-D designates location of starter and oil cooler as viewed from the rear (Flywheel end) of the engine.
Cylinder Bank: Left and right cylinder banks are determined from rear of the engine. (Flywheel end)



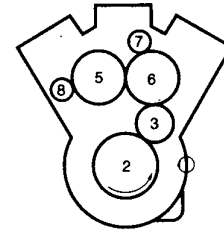
LC (XXXX-3XXX)



LD (XXXX-4XXX)



RC (XXXX-7XXX)



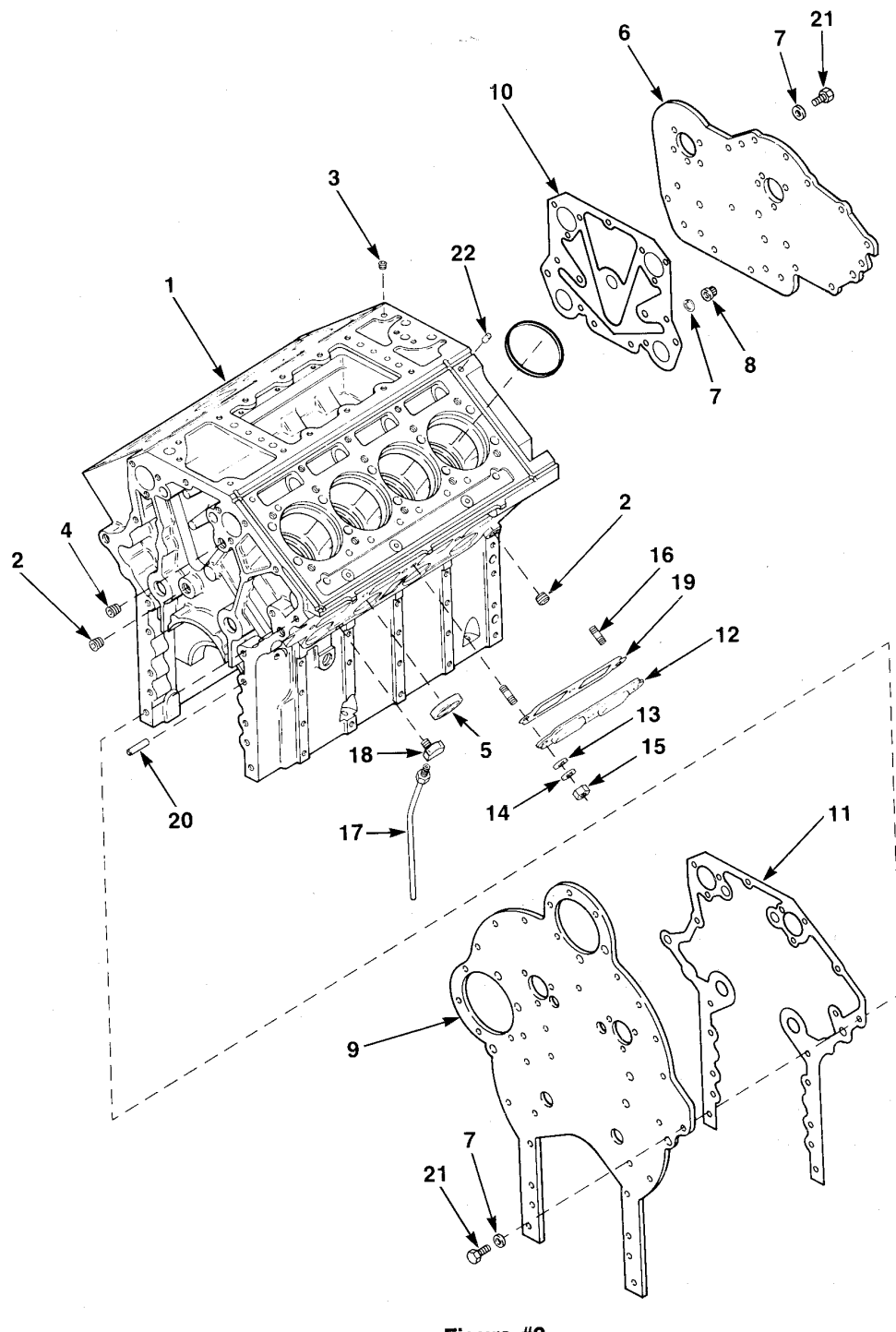
RD (XXXX-8XXX)

ALL VIEWS FROM REAR (FLYWHEEL) END OF ENGINE



Cylinder Block

(Figure 1.1)





Cylinder Block

(Figure 1.1)

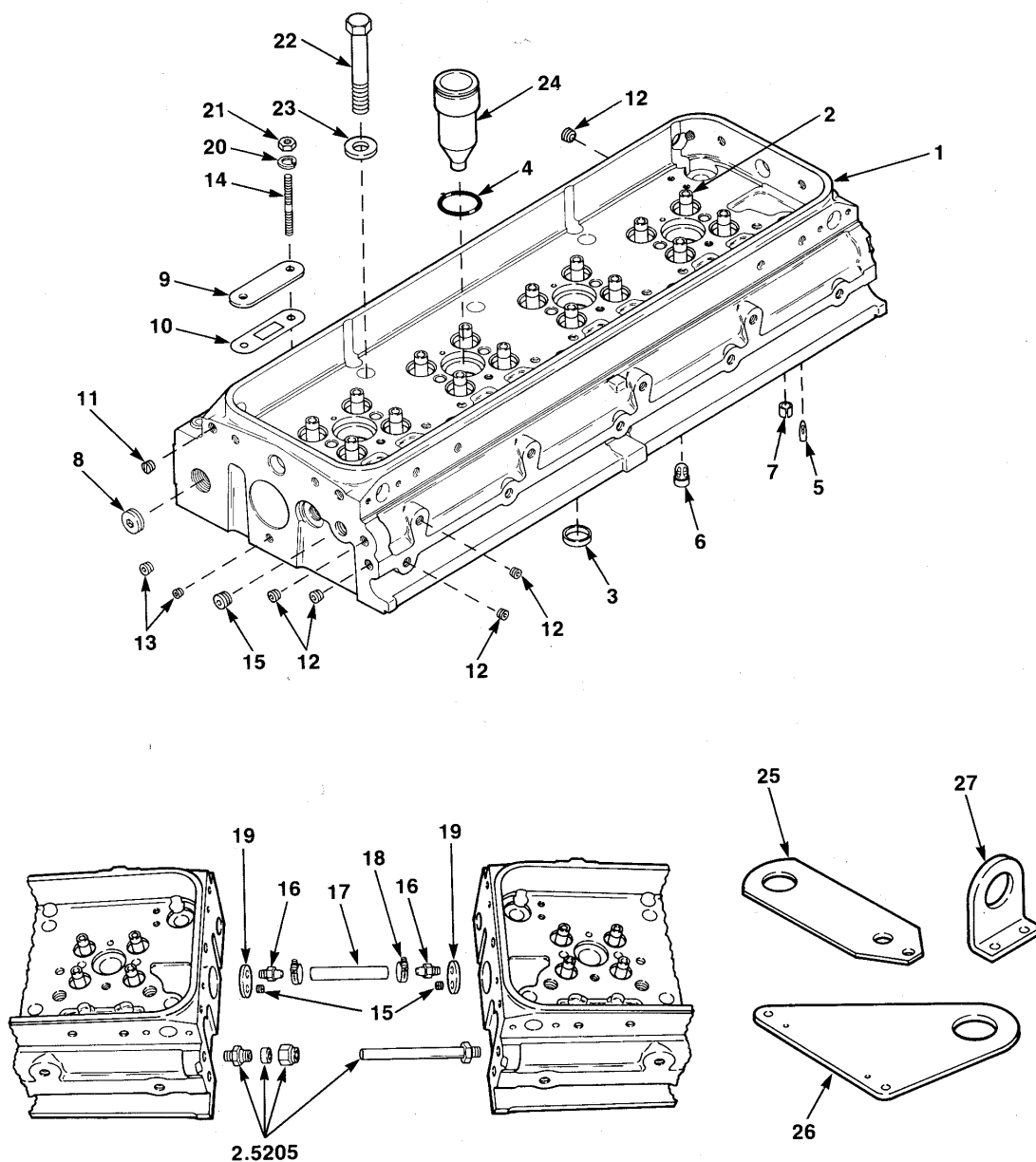
Groups:
1.1001 - 1.1100

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.1001	4	FP-5115214	Plug, 3/4" Pipe	6	6	12	12
1.1001	2	FP-5142549	Plug, 1/2" Pipe	6	6	12	12
1.1001	0	FP-141346	Pin, 3/16" X 1/2"	4	4	4	4
1.1001	0	FP-8923847	Plug, 1/4" Pipe	3	2	-	-
1.1001	0	FP-5132410	Plug, 1 5/8" Cup (Stainless Steel)	2	2	2	2
1.1001	0	FP-8924380	Plug, 1/8"- 27 Pipe	1	2	-	-
1.1001	3	FP-5121182	Plug, 1/4" Pipe	-	-	2	10
1.1001	0	FP-5140082	Gasket, Cylinder Block	-	-	1	1
1.1002	0	FP-23512683	Gasket Kit, Engine Overhaul (6V92), (Tilt Coach)	1	-	-	-
1.1002	0	FP-23512684	Gasket Kit, Engine Overhaul (6V92)	1	-	-	-
1.1002	0	FP-23512684WS	Gasket Kit, Engine Overhaul w/Seals (6V92)	1	-	-	-
1.1002	0	FP-2351684R1	Gasket Kit, Engine Overhaul (6V92)	1	-	-	-
1.1002	0	FP-23512685	Gasket Kit, Engine Overhaul (8V92)	-	1	-	-
1.1002	0	FP-23512685WS	Gasket Kit, Engine Overhaul w/Seals (8V92)	-	1	-	-
1.1002	0	FP-23512686	Gasket Kit, Engine Overhaul (12V92)	-	-	1	-
1.1002	0	FP-23512686WS	Gasket Kit, Engine Overhaul w/Seals (12V92)	-	-	1	-
1.1002	0	FP-23512687	Gasket Kit, Engine Overhaul (16V92)	-	-	-	1
1.1003	0	FP-5109346	Seal Ring, Inter-Block	-	-	1	1
1.1003	0	FP-5146433	Seal Ring, Cylinder Block (.147" x 1.143")	-	-	2	2
1.1003	0	FP-5186579	Seal Ring	-	-	2	2
1.1020	0	FP-5152148	Washer, 3/8" X 9/16" (Copper)	2	2	2	2
1.1030	0	FP-5121835	Gasket, Cylinder Block End Plate (Front), (Corner)	1	1	1	1
1.1030	10	FP-5144901	Gasket, Cylinder Block End Plate (Front)	1	1	1	1
1.1032	11	FP-23506157	Gasket, Cylinder Block End Plate (Rear)	1	1	1	2
1.1032	10	FP-5104507	Gasket, Cylinder Block End Plate (Small Hole Cover)	1	1	-	-
1.1040	0	FP-8924380	Plug, 1/8" Pipe	2	2	4	4
1.1040	16	FP-5152121	Stud, 5/16"-18 X 1 1/2"	10	14	10	-
1.1040	14	FP-103320	Lockwasher, 5/16" Flat	-	-	-	20
1.1050	0	FP-8923792	Gasket, Cylinder Block Hand Hole Cover (Small)	2	4	8	4
1.1050	19	FP-8923791	Gasket, Cylinder Block Hand Hole Cover (Large)	2	2	4	4
1.1060	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	4	4	4	4
1.1060	0	FP-5152148	Washer, 3/8" X 9/16" (Copper)	-	-	4	4
1.1065	0	FP-103321	Lockwasher, 3/8"	-	-	4	4
1.1066	0	FP-5117535	Gasket, Cylinder Block Oil Hole Cover	-	-	2	2
1.1070	0	FP-5117734	Gasket, Cylinder Block Water Hole Cover (Rear)	1	1	1	1
1.1070	0	FP-5117254	Gasket, Cylinder Block Water Hole Cover (Front)	-	-	1	1
1.1100	3	FP-5121182	Plug, 1/4" Pipe	2	2	1	1
1.1100	17	FP-5144327	Tube, Air Box Drain (15.60" L.)	2	2	-	-



Cylinder Head

(Figure 2.1)





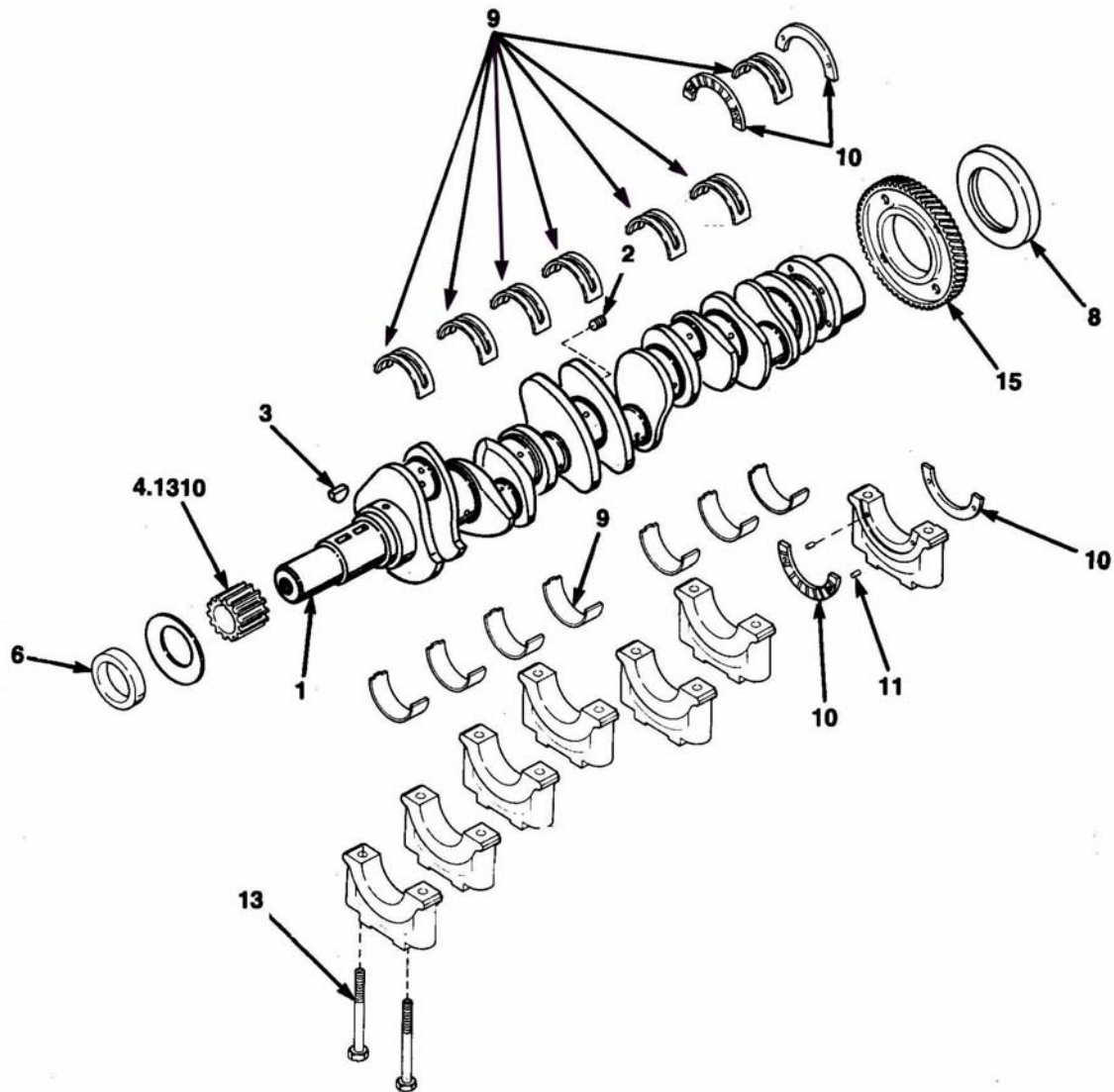
Cylinder Head

(Figure 2.1)

Groups:
1.2001 - 1.2090

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.2001	0	FP-8924809	Plug, Fuse (1/8" Pipe - Slotted Head), (Early Units)	AR	AR	AR	AR
1.2001	0	FP-5121182	Plug, 1/4" Pipe	7	9	7	9
1.2001	5	FP-5104701	Seal Ring, Injector Hole Tube (Viton)	6	8	12	16
1.2001	0	FP-5117564	Guide, Exhaust Valve Bridge	6	8	6	8
1.2001	0	FP-5125108	Washer, Fuel Stand .446" X .75" X .060"	6	8	6	8
1.2001	4	FP-8925981	Tube Kit, Injector Hole (w/Seal Ring)	6	8	12	16
1.2001	14	FP-8927580	Bolt, 3/8" - 16 X 7/8"	6	8	6	8
1.2001	13	FP-5154453	Plug, 3/8" -16 Headless Special	6	6	6	6
1.2001	0	FP-8925804	Stud, 7/16" - 14 X 2 3/32"	4	5	4	5
1.2001	0	FP-5100703	Shim, Cylinder Head Support	4	4	8	8
1.2001	8	FP-5142549	Plug, 3/4" Pipe	4	4	4	4
1.2001	7	FP-5148615	Sleeve, Pilot .70" L.	4	4	4	4
1.2001	11	FP-5178976	Plug, 7/16" - 14 Special	4	4	4	4
1.2001	10	FP-23506469	Gasket, Water Outlet Cover Plate	3	4	3	4
1.2001	10	FP-5117344	Plate, Water Outlet Cover	3	4	3	4
1.2001	15	FP-8924517	Plug, 3/8" Hex. Socket Head	3	3	3	3
1.2001	2	FP-5129919	Guide, Exhaust Valve	24	32	48	64
1.2001	3	FP-5148490	Insert, Exhaust Valve Std.	24	32	48	64
1.2001	21	FP-103026	Nut, 3/8" -24	2	2	4	6
1.2001	20	FP-103321	Lockwasher, 3/8"	2	2	4	6
1.2001	0	FP-5150132	Plug, 3/4" Dia. Cup	2	2	2	2
1.2001	5	FP-5172874	Nozzle, Water (Single Outlet)	2	2	2	2
1.2001	0	FP-8926993	Plug, Cylinder Head Fuse 1/4"	2	2	2	2
1.2001	0	FP-8927270	Stud, 3/8" - 16/24 X 1 11/16"	2	2	24	32
1.2001	12	FP-8923847	Plug, 1/4" Hex Socket Head	15	17	15	17
1.2001	0	FP-5117562	Washer, Exhaust Valve Spring Seat	12	16	12	16
1.2001	0	FP-5152148	Washer, 3/8" X 9/16" (Copper)	12	16	-	-
1.2001	0	FP-5117186	Plug, 2" Dia. Cup Stainless	1	1	1	1
1.2001	17	FP-5127843	Hose, 3/8" ID X 1.48" L. (Vent)	-	-	2	2
1.2002	0	FP-5199673	Gasket Set, Cylinder Head (Services One Head)	2	-	4	-
1.2002	0	FP-5199674	Gasket Set, Cylinder Head (Services One Head)	-	2	-	4
1.2010	0	FP-5100404	Gasket, Cylinder Head Compression	6	8	12	16
1.2020	0	FP-5148502	Ring, Cylinder Head Oil Seal	26	34	52	68
1.2020	0	FP-5119972	Gasket, Cylinder Head Oil Seal	2	-	4	-
1.2020	0	FP-5119973	Gasket, Cylinder Head Oil Seal	-	2	-	4
1.2030	23	FP-5148310	Washer, 11/16" Cylinder Head	16	20	32	40
1.2030	22	FP-5148324	Bolt, 11/16" - 11 X 5.50' L. Cylinder Head	16	20	32	40
1.2045	24	FP-8925981	Kit, Injector Hole Tube w/Seal Ring	6	8	12	16
1.2046	4	FP-5104701	Ring, Injector Hole Tube Seal	6	8	12	16
1.2060	0	FP-5123812	Gasket, Cylinder Head Governor Hole Cover	8	8	16	16
1.2090	0	FP-5117332	Gasket, Engine Lifting Bracket	1	1	1	1
1.2090	0	FP-5175882	Spacer, Engine Lifting Bracket	1	1	1	1

(Figure 3.1)





Crankshaft

(Figure 3.1)

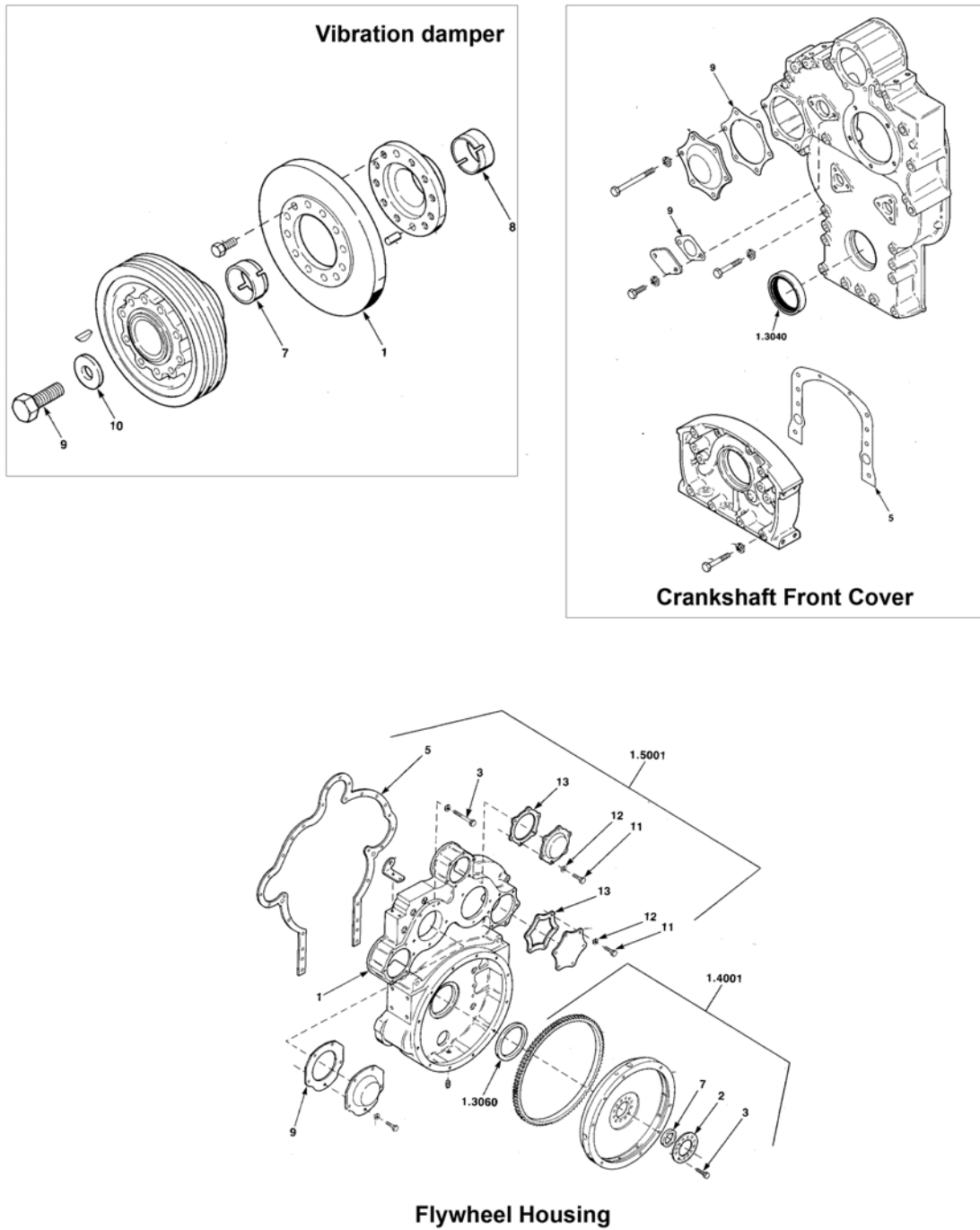
Groups:
1.3001 - 1.5004

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.3001	2	FP-8924380	Plug, 1/8" Pipe (12.9550)	3	4	6	8
1.3001	3	FP-8928545	Key, 3/16" x 7/8" (12.9350)	2	2	2	2
1.3001	1	FP-8926921	Crankshaft Assembly, 6V92 (RH Rotation)	1	-	-	-
1.3001	1	FP-8926922	Crankshaft Assembly, 6V92 (LH Rotation)	1	-	-	-
1.3001	1	FP-8926923	Crankshaft Assembly, 8V92 (RH Rotation)	-	1	-	-
1.3001	0	FP-8926925	Crankshaft Assembly, 12V92 (RH Rotation), (Front)	-	-	1	-
1.3001	0	FP-8926926	Crankshaft Assembly, 12V92 (RH Rotation), (Rear)	-	-	1	-
1.3040	6	FP-5115454	Seal, Crankshaft Oil (Front), (Single Std.)	1	1	-	-
1.3040	6	FP-5143108	Seal, Crankshaft Oil (Front), (Submersible)	1	1	-	-
1.3040	6	FP-8922045	Seal, Crankshaft Oil (Front), (RH Rotation)	1	1	-	-
1.3040	6	FP-5114335	Seal, Crankshaft Oil (Front), (Single Lip Std.)	-	-	1	1
1.3055	0	FP-23503766	Spacer, Crankshaft 2" (Front)	1	1	1	1
1.3055	0	FP-23503767	Spacer, Crankshaft 2.55" (Front)	1	1	1	1
1.3055	0	FP-23503769	Seal, Crankshaft Spacer	1	1	1	1
1.3055	0	FP-23507306	Spacer, Crankshaft 2.81" (Front)	1	1	1	1
1.3060	8	FP-23501545	Seal, Crankshaft Oil, LH (Rear), (Double Lip Teflon O.S.)	1	1	1	1
1.3060	8	FP-23501610	Seal, Crankshaft Oil, LH (Rear), (Double Lip Teflon)	1	1	1	1
1.3060	8	FP-5106329	Seal, Crankshaft Oil (Rear), (Double Lip Std.)	1	1	1	1
1.3060	8	FP-5194462	Seal, Crankshaft Oil LH (Rear), (Single Lip O.S.)	1	1	1	1
1.3060	8	FP-5198159	Seal, Crankshaft Oil (Rear), (Double Lip O.S.)	1	1	1	1
1.3060	8	FP-8923654	Seal, Crankshaft Oil RH (Rear), (Single Lip O.S.)	1	1	1	1
1.3060	8	FP-8926761	Seal, Crankshaft Oil RH (Rear), (Single Lip Std.)	1	1	1	1
1.3060	8	FP-8926762	Seal, Crankshaft Oil LH (Rear), (Single Lip Std.)	1	1	1	1
1.3066	0	FP-23507226	Sleeve, Crankshaft Oil Seal (Rear), (Use with O.S. Seals.)	1	1	1	1
1.3066	0	FP-23507225	Sleeve, Crankshaft Oil Seal (Rear), (Use with O.S. Seals.)	-	-	1	1
1.3090	9	FP-5149565	Shell Set, Crankshaft Main Bearing (Std.)	4	5	8	10
1.3090	9	FP-5149566	Shell Set, Crankshaft Main Bearing (.002")	4	5	8	10
1.3090	9	FP-5149567	Shell Set, Crankshaft Main Bearing (.010")	4	5	8	10
1.3090	9	FP-5149568	Shell Set, Crankshaft Main Bearing (.020")	4	5	8	10
1.3090	9	FP-8922118	Shell Set, Crankshaft Main Bearing (.030")	4	5	8	10
1.3100	11	FP-141346	Pin, 3/16" X 1/2" Dowel	4	4	4	4
1.3100	10	FP-5117005	Washer, Crankshaft Main Bearing Thrust (Std.)	4	4	4	4
1.3100	10	FP-5196753	Washer, Crankshaft Main Bearing Thrust (.005)	4	4	4	4
1.3100	10	FP-5196754	Washer, Crankshaft Main Bearing Thrust (.010)	4	4	4	4
1.3145	15	FP-8926631	Gear, Crankshaft Timing (R.H. Helix, R.H. Engine), (Rear On 16V)	1	1	1	1
1.5004	8	FP-23501544	Seal, Crankshaft Oil, RH (Rear), (Double Lip O.S.), (.500" Wide)	1	1	1	1
1.5004	8	FP-8926135	Seal, Crankshaft Oil (Rear), (Single Lip), (.500" Wide), (Use w/8926134 Sleeve)	1	1	1	1
1.5004	8	FP-8929750	Seal, Crankshaft Oil (Rear), (Teflon)	1	1	1	1
1.5004	6	FP-8927746	Seal, Crankshaft Oil, RH (Front), (Double Lip Teflon)	-	-	1	1
1.5004	6	FP-8927747	Seal, Crankshaft Oil, LH (Front), (Double Lip Teflon)	-	-	1	1
1.5004	6	FP-8927748	Seal, Crankshaft Oil, RH (Front), (Double Lip O.S. Teflon)	-	-	1	1
1.5004	6	FP-8927749	Seal, Crankshaft Oil, LH (Front), (Double Lip O.S. Teflon)	-	-	1	1



Damper & Flywheel

(Figure 3.2)





Damper & Flywheel

(Figure 3.2)

Groups:
1.3170 - 1.5999

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.3170	5	FP-5121714	Gasket, Crankshaft Front Cover	1	1	-	-
1.3170	0	FP-5144875	Gasket, Crankshaft Front Cover (1.5010)	-	-	1	1
1.3196	9	FP-3222141	Gasket, Crankshaft Front Cover Small Hole (5.3280)	-	-	1	1
1.3196	9	FP-5104507	Gasket, Crankshaft Front Cover Small Hole (1.5060)	-	-	1	1
1.3198	0	FP-23515145	Gasket, Crankshaft Front Cover Large Hole (1.5040)	-	-	1	1
1.3210	0	FP-23512418	Seal, Pulley Drive Shaft (Camshaft Damper), (2.8810)	-	1	-	-
1.3210	1	FP-5106222	Damper, Vibration (Heavy Viscous), (15")	-	1	1	1
1.3210	1	FP-8922492	Damper, Vibration (Heavy Viscous), (12.3" Dia.)	-	1	1	1
1.3210	1	FP-8924435	Damper, Vibration (Heavy Viscous), (12.3" Dia.)	-	1	1	1
1.3210	1	FP-8920653	Damper, Vibration (Heavy Viscous)	-	-	-	-
1.3240	7	FP-5151344	Cone, Vibration Damper Front (.687" L)	AR	AR	AR	AR
1.3240	7	FP-5102957	Cone, Vibration Damper Front (.937")	-	1	1	1
1.3240	8	FP-5104475	Cone, Vibration Damper Rear (1.701"), (w/Seal Groove)	-	1	1	1
1.3240	7	FP-5134917	Cone, Vibration Damper Front (.531")	-	1	1	1
1.3250	0	FP-23503769	Seal O-Ring, Vibration Damper Rear Cone	-	1	1	1
1.3250	8	FP-23506876	Cone, Vibration Damper Rear (1.40")	-	1	1	1
1.3290	9	FP-23501143	Bolt, 1" -14 x 2 3/4	1	1	1	1
1.3290	10	FP-5157930	Retainer, Pulley Bolt	1	1	1	1
Flywheel & Housing							
1.4001	3	FP-5103250	Bolt, Flywheel (9/16" - 18 x 2.75")	12	12	12	12
1.4001	3	FP-5103280	Bolt, 9/16" - 18 X 2 1/4" Lock	12	12	12	12
1.4001	3	FP-9410925	Bolt, 9/16" - 18 X 2 1/4" Lock	12	12	12	12
1.4001	3	FP-9412015	Bolt, 9/16" - 18 X 2 1/2" Lock	12	12	12	12
1.4040	7	FP-23503706	Bearing, Clutch Pilot (907084)	1	1	1	1
1.4040	7	FP-23503709	Bearing, Clutch Pilot (907594)	1	1	1	1
1.5001	0	FP-5138619	Washer, 25/64" X 3/4" X .083"	3	3	3	3
1.5001	0	FP-103026	Nut, 3/8" - 24	2	2	2	2
1.5001	0	FP-5131755	Washer, 17/32" X .88" X .1345"	2	2	2	2
1.5001	0	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
1.5010	5	FP-5144875	Gasket, Flywheel Housing (All Types Not Listed Below)	1	1	1	1
1.5010	5	FP-5147246	Gasket, Flywheel Housing (Types 504,506,528,533,535,540,546,581,582,594,602,646,657,658,659,660,661,662,663,670,674,686,687,727)	1	1	1	1
1.5022	0	FP-5141017	Seal Ring, Crankshaft Rear Support (Type 727)	1	1	1	1
1.5030	0	FP-5125108	Washer, 7/16" X 3/4"	2	2	2	2
1.5040	9	FP-23515145	Gasket, Flywheel Housing Large Hole Cover	2	2	2	2
1.5050	12	FP-103321	Lockwasher, 3/8"	6	6	6	6
1.5050	11	FP-8927580	Bolt, 3/8" - 16 X 7/8" (1.3210)	6	6	6	6
1.5050	0	FP-5152148	Washer, 3/8" X 9/16" (Copper)	12	12	12	12
1.5050	0	FP-103026	Nut, 3/8" -24	1	1	1	1
1.5050	0	FP-5138619	Washer, 25/64" X 3/4" X .083	1	1	1	1
1.5060	13	FP-5104507	Gasket, Flywheel Housing Small Hole Cover	3	3	3	3
1.5999	3	FP-9418228	Bolt, Flywheel Housing (5/8" - 11 x 1 3/4" - 12 Point)	AR	AR	AR	AR



Cylinder Kits

Cylinder Kit	Description	C/R	Option Type Numbers
92 Series			
FP-23522161	Turbo	17.1	
FP-23523101	Turbo	17.1	
FP-23524494	Turbo	17.1	
FP-23524345	N/A Original P/N (8923346)	18.1	146,147,148,222,226,259,264,304,315,317
FP-23524345 1	N/A Original P/N OR	18.1	146,147,148,222,226,259,264,304,315,317
FP-23524345 10	N/A Original P/N (8927450)	18.1	146,147,148,222,226,259,264,304,315,317
FP-23524345 20	N/A Original P/N	18.1	146,147,148,222,226,259,264,304,315,317
FP-23524339	Turbo, Original P/N (8923342)	17.1	149,150,202,221,228,250,255, 262,275,277,278,279,299,409
FP-23524339 1	Turbo, Original P/N (23500879)	17.1	149,150,202,221,228,250,255, 262,275,277,278,279,299,409
FP-23524339 10	Turbo, Original P/N (23500880)	17.1	149,150,202,221,228,250,255, 262,275,277,278,279,299,409
FP-23524339 20	Turbo, Original P/N (23500881)	17.1	149,150,202,221,228,250,255, 262,275,277,278,279,299,409
FP-23524341	Turbo A/C, Original P/N (8923348)	17.1	153,190,223,225,247,248,251,252,259,260,263,272,273,274,276,'3 20,323,331,380
FP-23524341 1	Turbo A/C, Original P/N (8923804)	17.1	153,190,223,225,247,248,251,252,259,260,263,272,273,274,276,'3 20,323,331,380
FP-23524341 10	Turbo A/C, Original P/N (8924108)	17.1	153,190,223,225,247,248,251,252,259,260,263,272,273,274,276,'3 20,323,331,380
FP-23524341 20	Turbo A/C, Original P/N (8927449)	17.1	153,190,223,225,247,248,251,252,259,260,263,272,273,274,276,'3 20,323,331,380
FP-23524341 20	Turbo A/C, Original P/N (8927451)*	17.1	153,190,223,225,247,248,251,252,259,260,263,272,273,274,276,'3 20,323,331,380
FP-23524346	N/A Ind. & Marine, Original P/N (8924626)	18.1	215,224,227,316,
FP-23524346 1	N/A Ind. & Marine, Original P/N (8924626)	18.1	215,224,227,316,
FP-23524346 10	N/A Ind. & Marine, Original P/N (8924626)	18.1	215,224,227,316,
FP-23524346 20	N/A Ind. & Marine, Original P/N (8924626)	18.1	215,224,227,316,
FP-23523100	Turbo A/C Original P/N (23500752)	18.1	295,378
FP-23524344	T/ALCC Original P/N (23500753)	18.1	310,324,375,419,420
FP-23524340	Turbo, HO Original P/N (23503830)	17.1	395,396,407,458
FP-23524340 1	Turbo, HO Original P/N (23503830)	17.1	395,396,407,458
FP-23524340 10	Turbo, HO Original P/N (23503830)	17.1	395,396,407,458
FP-23524340 20	Turbo, HO Original P/N (23503830)	17.1	395,396,407,458
FP-23524342	Turbo, Original P/N (23518009)	17.1	410
FP-23524342 1	Turbo, Original P/N (23518009)	17.1	410
FP-23524342 10	Turbo, Original P/N (23518009)	17.1	410
FP-23524342 20	Turbo, Original P/N (23518009)	17.1	410
FP-23524337	Turbo Original P/N (23514260)	15.1	411
FP-23524337 1	Turbo Original P/N (23514260)	15.1	411
FP-23524337 10	Turbo Original P/N (23514260)	15.1	411
FP-23524337 20	Turbo Original P/N (23514260)	15.1	411
FP-23524343	Turbo/A/C Original P/N (23518011)	17.1	430,431,432,452
FP-LCK-24346	Linerless Cylinder Kit	18.1	Non-Turbo
FP-LCK-24337	Linerless Cylinder Kit	15.1	Turbo
FP-LCK-24342	Linerless Cylinder Kit	17.1	Turbo
FP-LCK-24340	Linerless Cylinder Kit	17.1	Turbo, HO



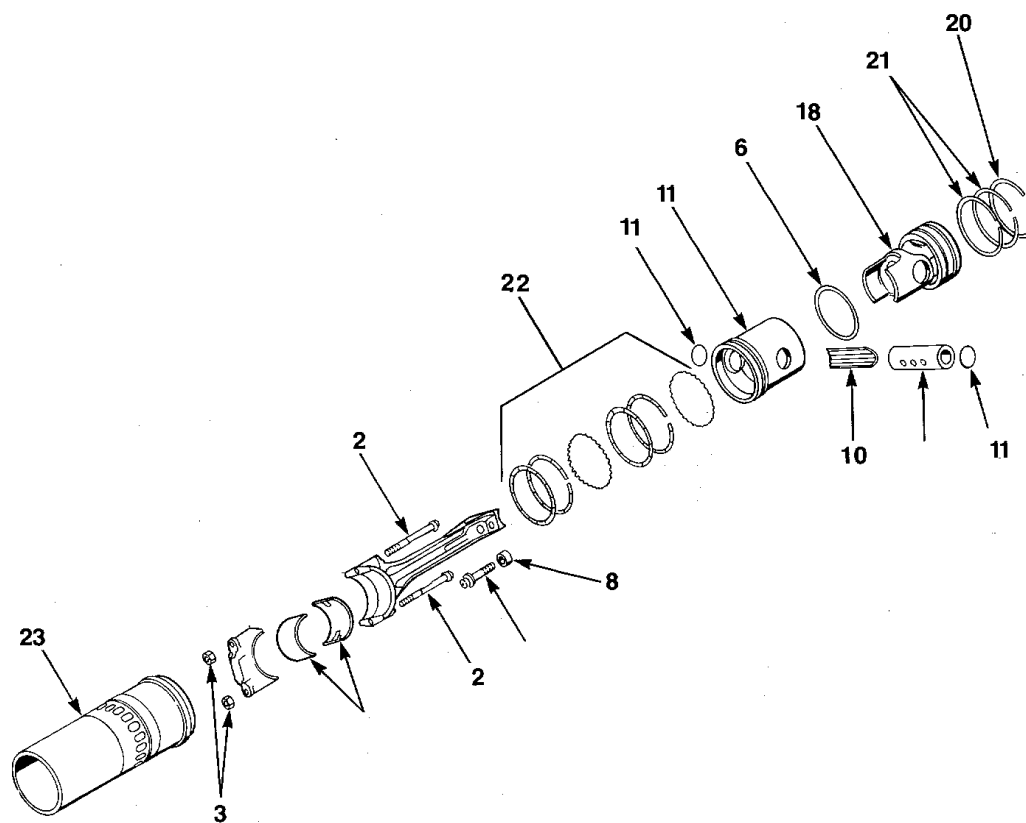
Cylinder Kits

Dome	Seal, Dome	Skirt	Slipper Brg	Liner	Port Ht	Ring Set	Pin	Retainer
92 Series								
FP-5144872	FP-8923709	FP-23508986	FP-23501687	FP-23508383	.85"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP-23508383	.85"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP-23508383	.85"	FP-23524542	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP-5148505	1.05"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP51485051	1.05"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP514850510	1.05"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP514850520	1.05"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP-5148505	1.05"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP51485051	1.05"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP514850510	1.05"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP514850520	1.05"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP-5107176	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP51071761	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP510717610	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP510717620	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872*	FP-8923729	FP-23508986	FP-23501687	FP510717620	.95"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP-5107176	.95"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP51071761	.95"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP510717610	.95"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP510717620	.95"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP-8927078	.75"	FP-23524349	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687	FP-23508383	.85"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP-23507231	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP235072311	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP2350723110	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP2350723120	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP-23507231	.95"	FP-23524542	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP235072311	.95"	FP-23524542	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP2350723110	.95"	FP-23524542	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP2350723120	.95"	FP-23524542	FP-5101120	FP-5180250
FP-23504353	FP-8923729	FP-23508986	FP-23501687	FP-23507231	.95"	FP-23524349	FP-5101120	FP-5180250
FP-23504353	FP-8923729	FP-23508986	FP-23501687	FP235072311	.95"	FP-23524349	FP-5101120	FP-5180250
FP-23504353	FP-8923729	FP-23508986	FP-23501687	FP2350723110	.95"	FP-23524349	FP-5101120	FP-5180250
FP-23504353	FP-8923729	FP-23508986	FP-23501687	FP2350723120	.95"	FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687	FP-23508383	.85"	FP-23524542	FP-5101120	FP-5180250
FP-8926480	FP-8923729	FP-23508986	FP-23501687			FP-23524349	FP-5101120	FP-5180250
FP-23504353	FP-8923729	FP-23508986	FP-23501687			FP-23524349	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687			FP-23524542	FP-5101120	FP-5180250
FP-5144872	FP-8923729	FP-23508986	FP-23501687			FP-23524349	FP-5101120	FP-5180250



Connecting Rod & Piston

(Figure 4.1)





Connecting Rod & Piston

(Figure 4.1)

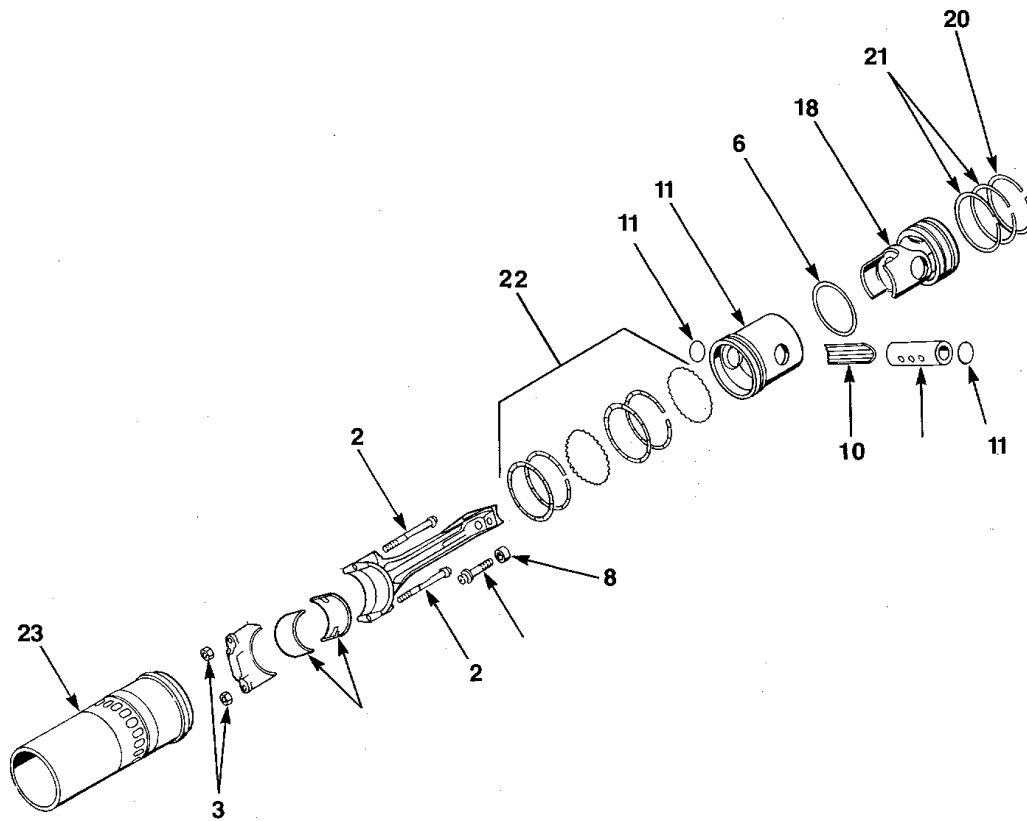
Groups:
1.6001 - 1.6150

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.6001	3	FP-5117629	Nut, Rod Bolt 7/16" x 20	12	16	24	32
1.6001	2	FP-5132383	Bolt, C/R 7/16" 20 x 3.52"	12	16	24	32
1.6100	4	FP-23501026	Shell Set, Connecting Rod (.002 U.S.), (Air/Air & ALCC)	6	8	12	16
1.6100	4	FP-23501029	Shell Set, Connecting Rod (.030 U.S.), (Air/Air & ALCC)	6	8	12	16
1.6100	4	FP-5149572	Shell Set, Connecting Rod (Std.)	6	8	12	16
1.6100	4	FP-5149573	Shell Set, Connecting Rod (.002 U.S.)	6	8	12	16
1.6100	4	FP-5149575	Shell Set, Connecting Rod (.010 U.S.)	6	8	12	16
1.6100	4	FP-5149577	Shell Set, Connecting Rod (.020 U.S.)	6	8	12	16
1.6100	4	FP-5149579	Shell Set, Connecting Rod (.030 U.S.)	6	8	12	16
1.6130	0	FP-23503268	Expander, Piston Oil Ring (9.00 - 15.00 Lbs.)	6	8	12	16
1.6140	9	FP-5101120	Pin, Piston Crosshead (Turbo, Solid)	6	8	12	16
1.6140	9	FP-5144744	Pin, Piston Crosshead (Nut Plate Type)	6	8	12	16
1.6140	5	FP-5144846	Spacer, Piston Pin Bolt	12	16	24	32
1.6140	6	FP-5148373	Bolt, Piston Pin To Rod 7/16" 20 x 2.00" L	12	16	24	32
1.6142	10	FP-23501687	Bearing, Piston Pin (Slipper)	6	8	12	16
1.6150	12	FP-5180250	Retainer, Piston Pin (All)	12	16	24	32
1.6100	0	FP-23500883	Dome Kit, Piston (18:1), (Turbo)	6	8	12	16
1.6100	8	FP-8926480	Crown, Piston (18:1), (Turbo)	6	8	12	16
1.6110	13	FP-23508986	Skirt, Piston Crosshead (All)	6	8	12	16
1.6110	11	FP-8923729	Seal, Piston Dome (All), (1.6106)	6	8	12	16
1.6100	0	FP-23505052	Dome Kit, Piston (15:1), (Turbo)	6	8	12	16
1.6100	8	FP-23504353	Crown, Piston (15:1), (Turbo)	6	8	12	16
1.6110	13	FP-23508986	Skirt, Piston Crosshead (All)	6	8	12	16
1.6110	11	FP-8923729	Seal, Piston Dome (All), (1.6106)	6	8	12	16
1.6115	0	FP-23524349	Ring Set, Piston (Wide Gap Fire Ring)	6	8	12	16
1.6120	14	FP-23524192	Ring (Top Fire)	6	8	12	16
1.6120	15	FP-8923113	Ring, Compression (2nd & 3rd Groove)	12	16	24	32
1.6130	16	FP-23524350	Ring Set (Oil Control For One Piston)	6	8	12	16
1.6115	0	FP-23524502	Ring Set, Piston (Special Incomplete)	6	8	12	16
1.6120	14	FP-23524191	Ring (Top Fire)	6	8	12	16
1.6130	16	FP-5144622	Ring Set (Oil Control For One Piston)	6	8	12	16
1.6115	0	FP-23524542	Ring Set, Piston (Std. Gap Fire Ring)	6	8	12	16
1.6120	14	FP-23524191	Ring (Top Fire)	6	8	12	16
1.6120	15	FP-8923113	Ring, Compression (2nd & 3rd Groove)	12	16	24	32
1.6130	16	FP-23524350	Ring Set (Oil Control For One Piston)	6	8	12	16
1.6100	0	FP-5149963	Dome Kit, Piston (17:1), (Turbo)	6	8	12	16
1.6100	8	FP-5144872	Crown, Piston (17:1), (Turbo)	6	8	12	16
1.6110	13	FP-23508986	Skirt, Piston Crosshead (All)	6	8	12	16
1.6110	11	FP-8923729	Seal, Piston Dome (All), (1.6106)	6	8	12	16



Connecting Rod & Piston

(Figure 4.2)





Connecting Rod & Piston

(Figure 4.2)

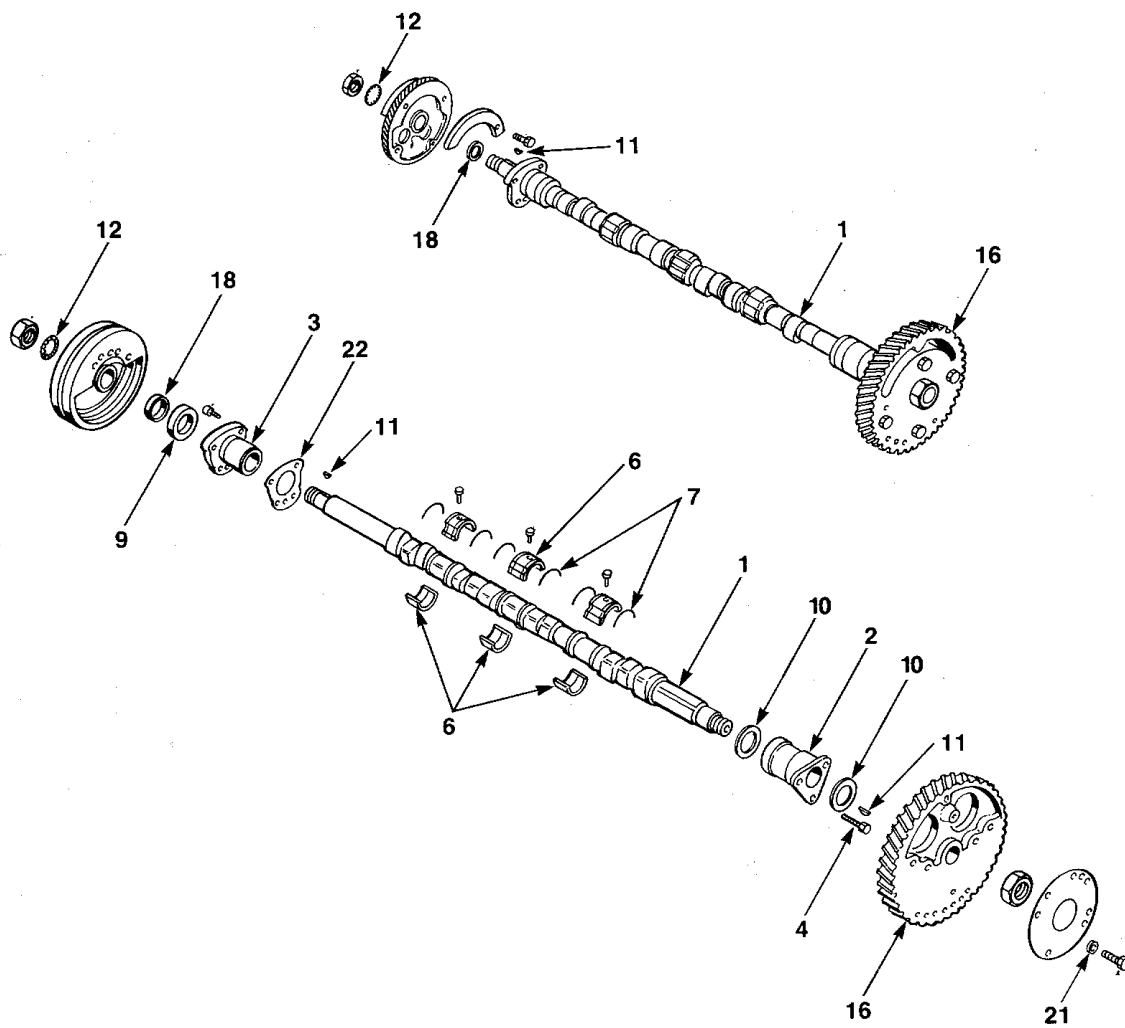
Groups:
1.6180 - 1.6190

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.6180	17	FP-23507231	Liner, Cylinder Std. .95" Brushed	6	8	12	16
1.6180	17	FP-235072311	Liner, Cylinder OS .001 In Lower Receiver Bore Area	6	8	12	16
1.6180	17	FP-2350723110	Liner, Cylinder OS .010 In Lower Receiver Bore Area	6	8	12	16
1.6180	17	FP-23508383	Liner, Cylinder Std. .85" (20 Degree Port)	6	8	12	16
1.6180	17	FP-5107176	Liner, Cylinder Std. .95"	6	8	12	16
1.6180	17	FP-510717610	Liner, Cylinder OS .010 In Lower Receiver Bore Area	6	8	12	16
1.6180	17	FP-510717620	Liner, Cylinder OS .020 In Lower Receiver Bore Area	6	8	12	16
1.6180	17	FP-5107176WS	Liner, Cylinder Std. .95" w/Seals	6	8	12	16
1.6180	17	FP-5148505	Liner, Cylinder Std. 1.05" (30 Degree Port)	6	8	12	16
1.6180	17	FP-51485051	Liner, Cylinder OS .001 In Lower Receiver Bore Area	6	8	12	16
1.6180	17	FP-514850510	Liner, Cylinder OS .010 In Lower Receiver Bore Area	6	8	12	16
1.6180	17	FP-514850520	Liner, Cylinder OS .020 In Lower Receiver Bore Area	6	8	12	16
1.6180	17	FP-5148505SH	Liner, Cylinder Std. (Without Ports)	6	8	12	16
1.6180	17	FP-5148505WS	Liner, Cylinder Std. 1.05" (30 Degree Port) w/Seals	6	8	12	16
1.6180	17	FP-8927078	Liner, Cylinder Std. .75" (20 Degree Port)	6	8	12	16
1.6187	7	FP-5101533	Insert, Cylinder .015" I.D. (.1350"-.1355"), (1.1038)	6	8	12	16
1.6187	7	FP-5101723	Insert, Cylinder .015" I.D. (.1338"-.1343"), (1.1038)	6	8	12	16
1.6187	7	FP-5101727	Insert, Cylinder .015" I.D. (.1362"-.1367"), (1.1038)	6	8	12	16
1.6187	7	FP-5148501	Insert, Cylinder Liner (Std.), (.1200"-.1205"), (1.1038)	6	8	12	16
1.6187	7	FP-5148611	Insert, Cylinder Liner (.1212"-.1217"), (1.1038)	6	8	12	16
1.6187	7	FP-5148612	Insert, Cylinder Liner (.1188"-.1193"), (1.1038)	6	8	12	16
1.6190	18	FP-8927189	Seal Ring, Cylinder Liner	12	16	24	32



Camshaft

(Figure 5.1)





Camshaft

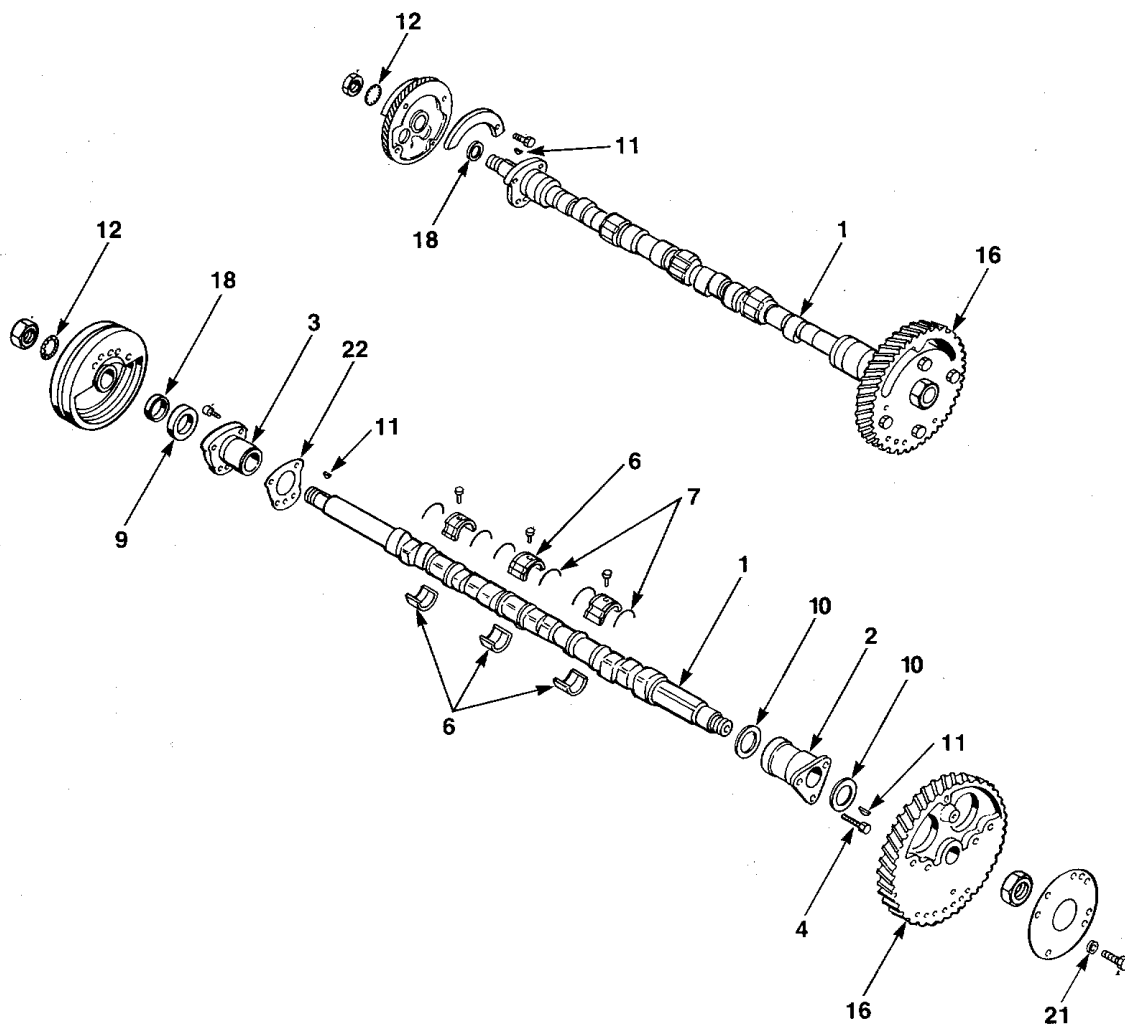
(Figure 5.1)

Groups:
1.7001 - 1.7001

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.7001	1	FP-5108111	Camshaft Assembly, Left Bank R/H Rotation (Stamped 5108113) (Type 245,249,303,316,338,349,359,360,380,381,408,411,439,440, 478,517,580,581,598,603,609,633,635,644,649,650,667)	1	-	-	-
1.7001	1	FP-5108111	Camshaft Assembly, Left Bank R/H Rotation (Stamped 5108113) (Type 494,497,518,519,573,574,613,616,629)	1	-	-	-

Camshaft

(Figure 5.2)





Camshaft

(Figure 5.2)

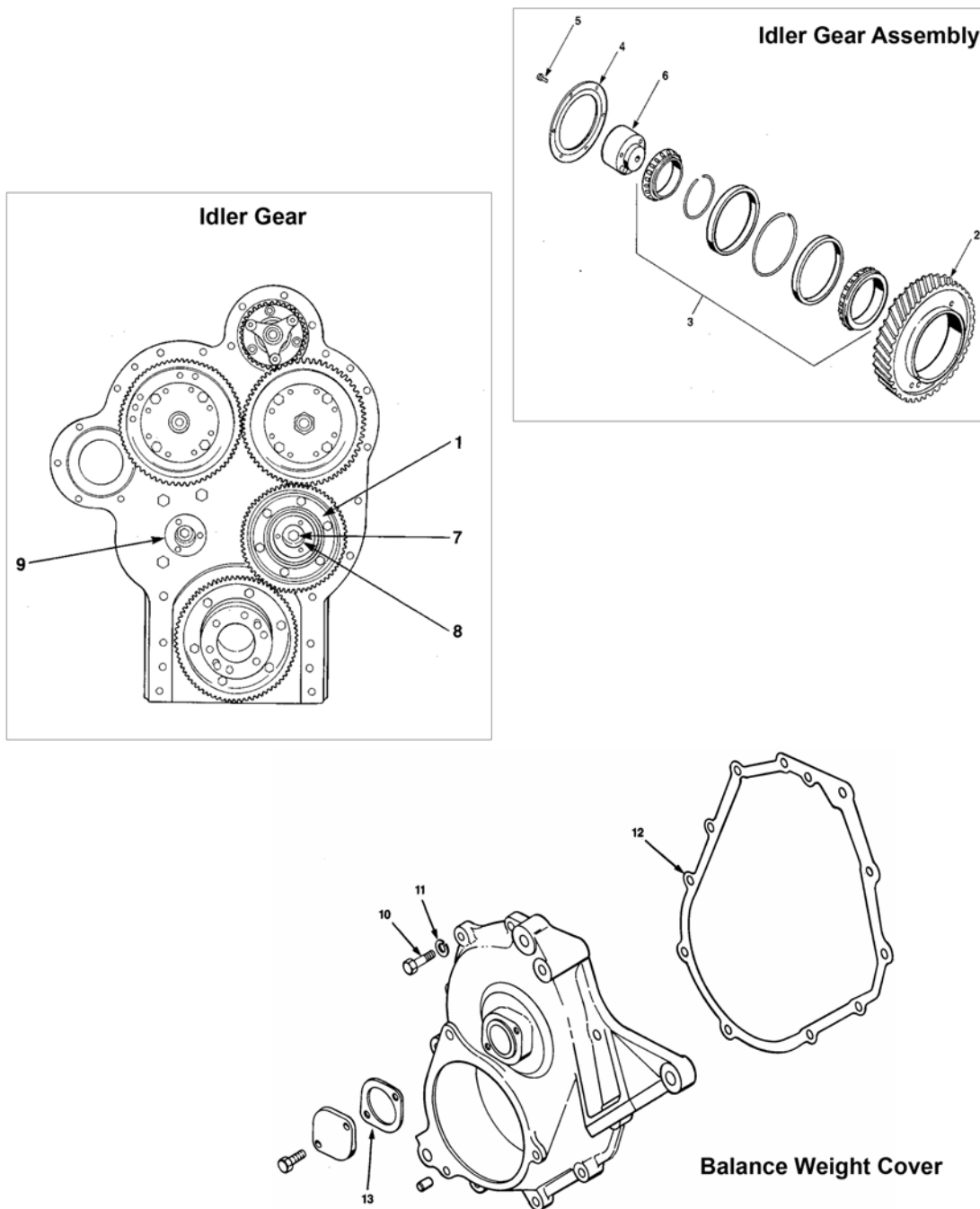
Groups:
1.7010 - 1.7207

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.7010	2	FP-5111422	Bearing, Camshaft Rear (Std.)	2	2	4	4
1.7010	3	FP-5117984	Bearing, Camshaft Front (Std.)	2	2	-	-
1.7010	2	FP-5194858	Bearing, Camshaft Rear (.010" U.S.I.D.)	2	2	4	4
1.7010	3	FP-5197569	Bearing, Camshaft Front (.010" U.S.I.D.)	2	2	-	-
1.7010	0	FP-103321	Lockwasher, 3/8"	12	12	12	12
1.7012	22	FP-5117243	Gasket, Camshaft Front End Bearing	1	1	-	-
1.7015	0	FP-5111423	Bushing, Camshaft End Bearing	8	8	8	8
1.7015	0	FP-5194825	Bushing, Camshaft End Bearing (.020" U.S. Unfinished)	8	8	8	8
1.7030	10	FP-5111424	Washer, Camshaft Thrust (Std.)	4	4	8	8
1.7030	10	FP-5194826	Washer, Camshaft Thrust (.005".)	4	4	8	8
1.7030	10	FP-5194827	Washer, Camshaft Thrust (.010".)	4	4	8	8
1.7040	6	FP-5196026	Bearing, Camshaft Intermediate (Std.)	4	6	10	12
1.7040	6	FP-5196027	Bearing, Camshaft Intermediate (.010" U.S.I.D.)	4	6	10	12
1.7050	0	FP-5123383	Bolt, Camshaft Lock (1/4" - 28 x .715")	AR	AR	AR	AR
1.7050	7	FP-5115572	Ring, Camshaft Intermediate Bearing Lock	8	12	20	24
1.7060	9	FP-23516871	Seal, Camshaft Oil (Front Left Bank)	1	1	-	-
1.7130	12	FP-5177769	Lockwasher, 1 1/8"	1	1	-	-
1.7130	11	FP-8926247	Key, 1/4" X 3/4" Woodruff	1	1	-	-
1.7200	11	FP-8926247	Key, 1/4" X 3/4" Woodruff	3	3	4	4
1.7200	12	FP-5177769	Lockwasher, 1 1/8"	1	1	-	-
1.7202	18	FP-5116485	Spacer, Cam & Balance Shaft Gear (.64" L. Front)	2	2	-	-
1.7207	21	FP-103321	Lockwasher, 3/8"	8	8	16	16



Camshaft

(Figure 5.3)





Camshaft

(Figure 5.3)

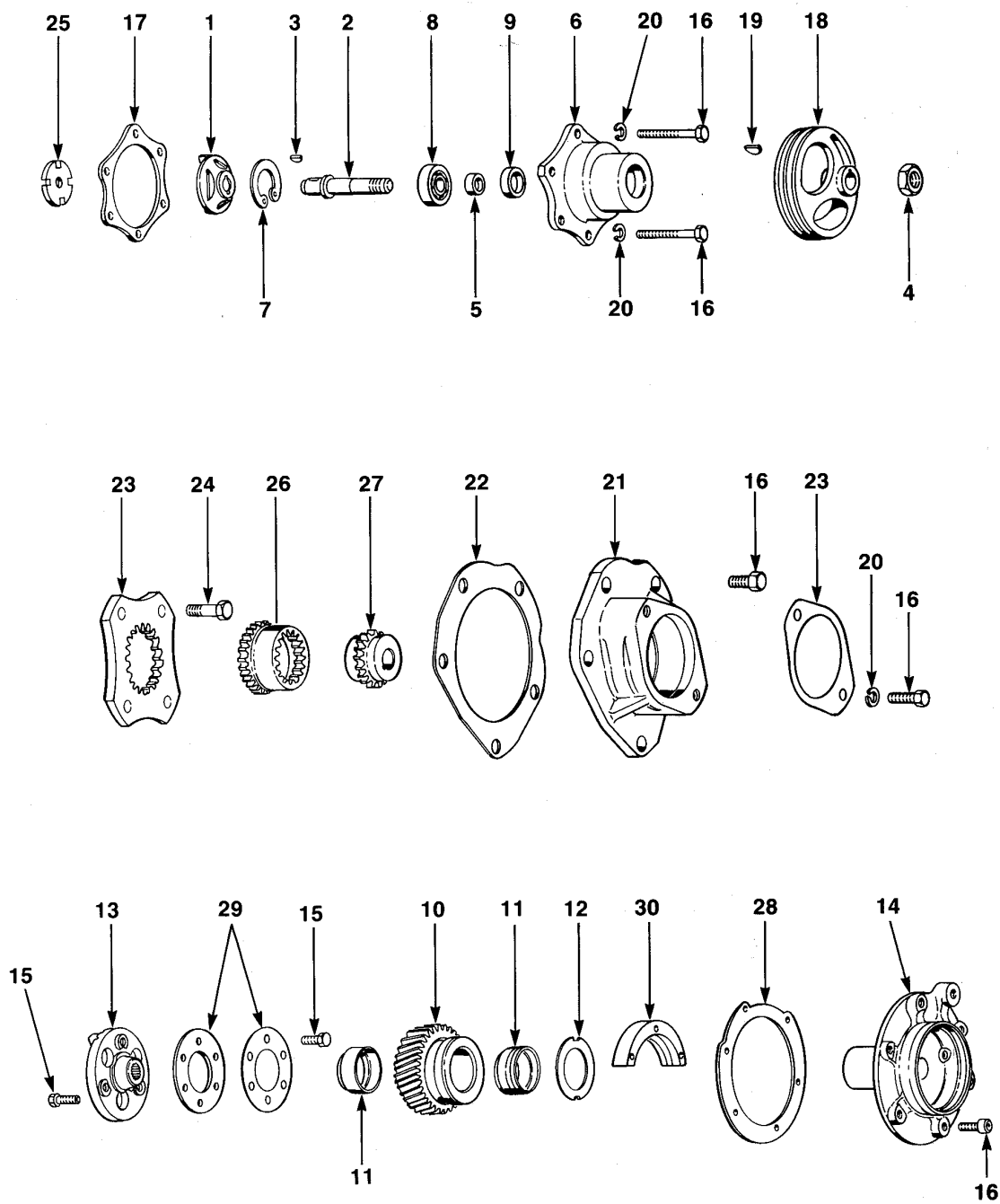
Groups:
1.7225 - 1.7500

Group	Ref	Part No.	Description	6V	8V	12V	16V
Balance Weight Cover							
1.7470	0	FP-103026	Nut, 3/8" - 24	10	10	10	10
1.7470	4	FP-103321	Lockwasher, 3/8"	1	1	1	1
1.7480	5	FP-5121753	Gasket, Balance Weight Cover (Type 25)	1	1	1	-
1.7480	5	FP-5123638	Gasket, Balance Weight Cover (Type 42,44,48)	1	1	1	-
1.7480	5	FP-5123639	Gasket, Balance Weight Cover (Type 29,49,50)	1	1	1	-
1.7500	8	FP-5123123	Gasket, Balance Weight Cover Hole	1	1	1	-
Idler Gear Assembly							
1.7225	13	FP-7451948	Bearing, Idler Gear	1	1	1	2
1.7227	15	FP-5103534	Bolt, 5/16" - 24 x 1/2" (Vibrate Coated)	6	6	6	6
1.7227	14	FP-5176998	Retainer, Idler Gear Bearing	1	1	1	1
1.7250	7	FP-454992	Bolt, 1/2" - 13 X 2 1/2"	2	2	2	2
1.7250	8	FP-5167714	Washer, 17/32" X 7/8" X 3/32"	2	2	2	2
1.7250	16	FP-5130135	Hub Assembly Idler Gear	1	1	1	1
1.7260	9	FP-5101150	Spacer, Idler Gear Hole	1	1	1	1



Accessory Drive

(Figure 5.4)





Accessory Drive

(Figure 5.4)

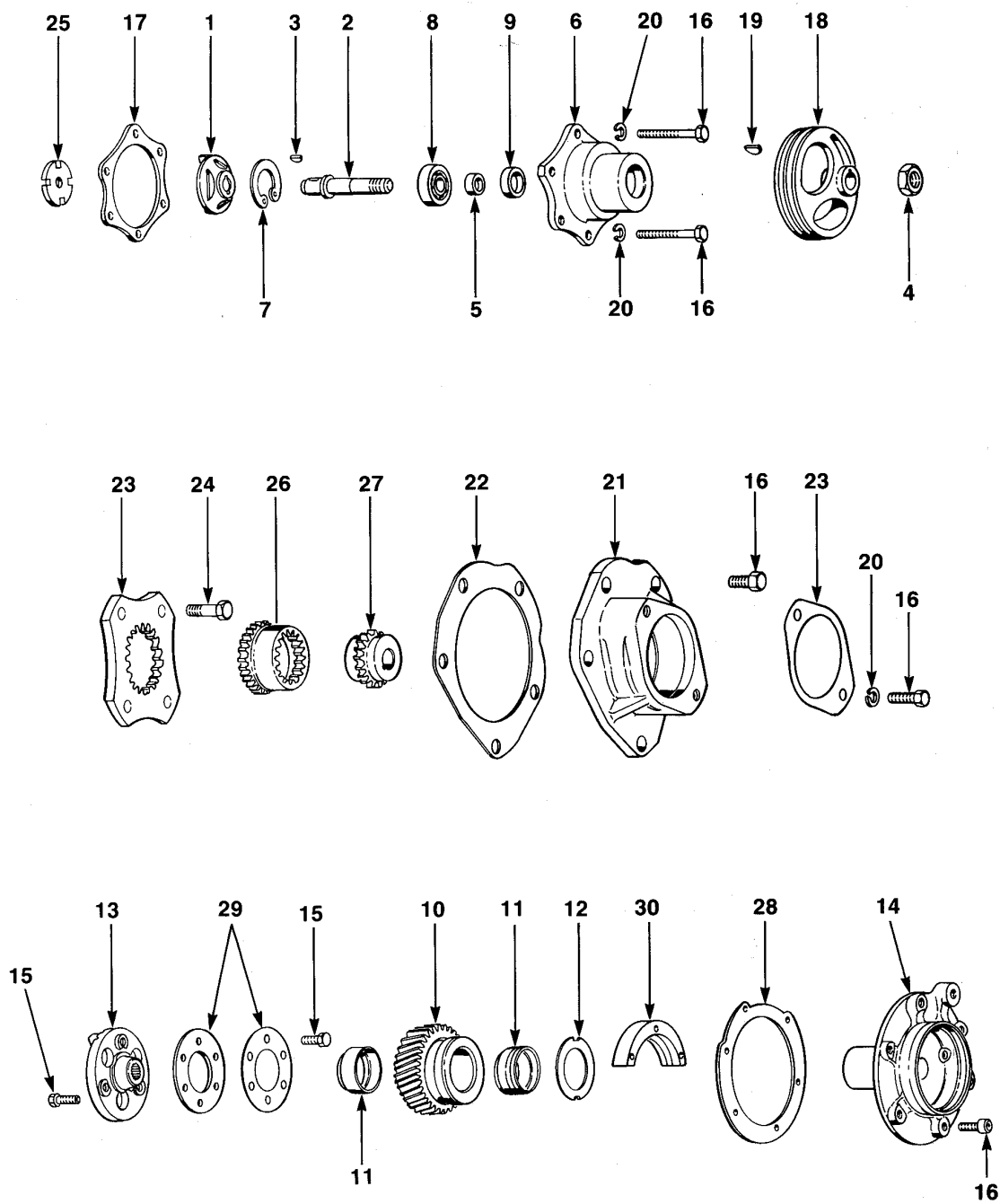
Groups:
1.7600 - 2.7600

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.7600	11	FP-5120501	Bushing, Accessory Drive Gear	2	2	2	2
1.7600	8	FP-23504528	Bearing, Accessory Drive	1	1	1	1
1.7600	9	FP-5131329	Seal, Accessory Drive Oil	1	1	1	1
1.7600	5	FP-5133682	Spacer, Accessory Drive Oil Seal	1	1	1	1
1.7600	0	FP-5198174	Sleeve, Accessory Drive Oil Seal	1	1	1	1
1.7600	0	FP-8926285	Lockwasher, Accessory & Blower Drive Gear	1	1	1	1
1.7600	0	FP-8926293	Washer, Accessory & Blower Drive Gear Thrust	1	1	1	1
1.7600	7	FP-9415285	Lockring, Accessory Drive	1	1	1	1
1.7600	0	FP-9428477	Plug, 15/16" Cup	1	1	1	1
1.7604	17	FP-5104507	Gasket, Accessory Drive (Type 91,92,100,139,143,232,278,281,283,320,321,330,344,349,350,351,366,373,375)	1	1	1	1
1.7604	28	FP-5148810	Gasket, Accessory Drive (Type 233,277,302,304,320,321,326,340,350,366,375)	1	1	1	1
1.7604	17	FP-5188755	Gasket, Accessory Drive (Type 389)	1	1	1	1
1.7604	17	FP-5196962	Gasket, Accessory Drive (Type 299,302,325,326)	1	1	1	1
1.7615	0	FP-5102456	Seal, Drive Pulley Hub Oil (Type 324)	1	1	1	1
1.7622	0	FP-103026	Nut, 3/8" - 24	2	2	2	2
1.7622	0	FP-8927270	Stud, 3/8" - 16/24 X 1 9/16"	2	2	2	2
1.7622	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
1.7623	22	FP-5124926	Gasket, Accessory Drive Adaptor (Type 135)	1	1	1	1
1.7623	0	FP-5188755	Gasket, Accessory Drive Adaptor (Type 136,144,166,167,171,172,179,180,254,255,284,289,331)	1	1	1	1
1.7623	22	FP-5196962	Gasket, Accessory Drive Adaptor (Type 299)	1	1	1	1
1.7630	24	FP-5145092	Bolt, 3/8" -24 X 1.20"	4	4	4	4
1.7630	11	FP-5120501	Bushing, Accessory Drive Gear	2	2	2	2
1.7630	23	FP-5170450	Plate, Accessory Drive (21 Teeth)	1	1	1	1
1.7630	10	FP-5193576	Gear, Accessory Drive (Type 108)	1	1	1	1
1.7635	0	FP-5139545	Coupling, Accessory Drive (Type 91,92,138,139,143,230,320,321,344,350,351,366,375)	1	1	1	1
1.7635	25	FP-5145282	Coupling, Accessory Drive (Type 89,254,349)	1	1	1	1
2.7600	0	FP-103026	Nut, 3/8" - 24	6	6	6	6
2.7600	16	FP-8927581	Bolt, 3/8" - 16 X 1"	6	6	6	6
2.7600	29	FP-8920764	Plate, Blower Drive Gear Hub Spring	2	2	4	4
2.7600	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	2	2	2	2
1.7600	0	FP-5198175	Kit, Accessory Drive Seal & Bearing	1	1	1	1
1.7600	8	FP-23503727	Bearing, Accessory Drive (1.7655)	1	1	1	1
1.7600	5	FP-5133682	Spacer, Accessory Drive Oil Seal (1.7660)	1	1	1	1
1.7600	9	FP-5138710	Seal, Accessory Drive Oil (1.7660)	1	1	1	1



Accessory Drive

(Figure 5.5)





Accessory Drive

(Figure 5.5)

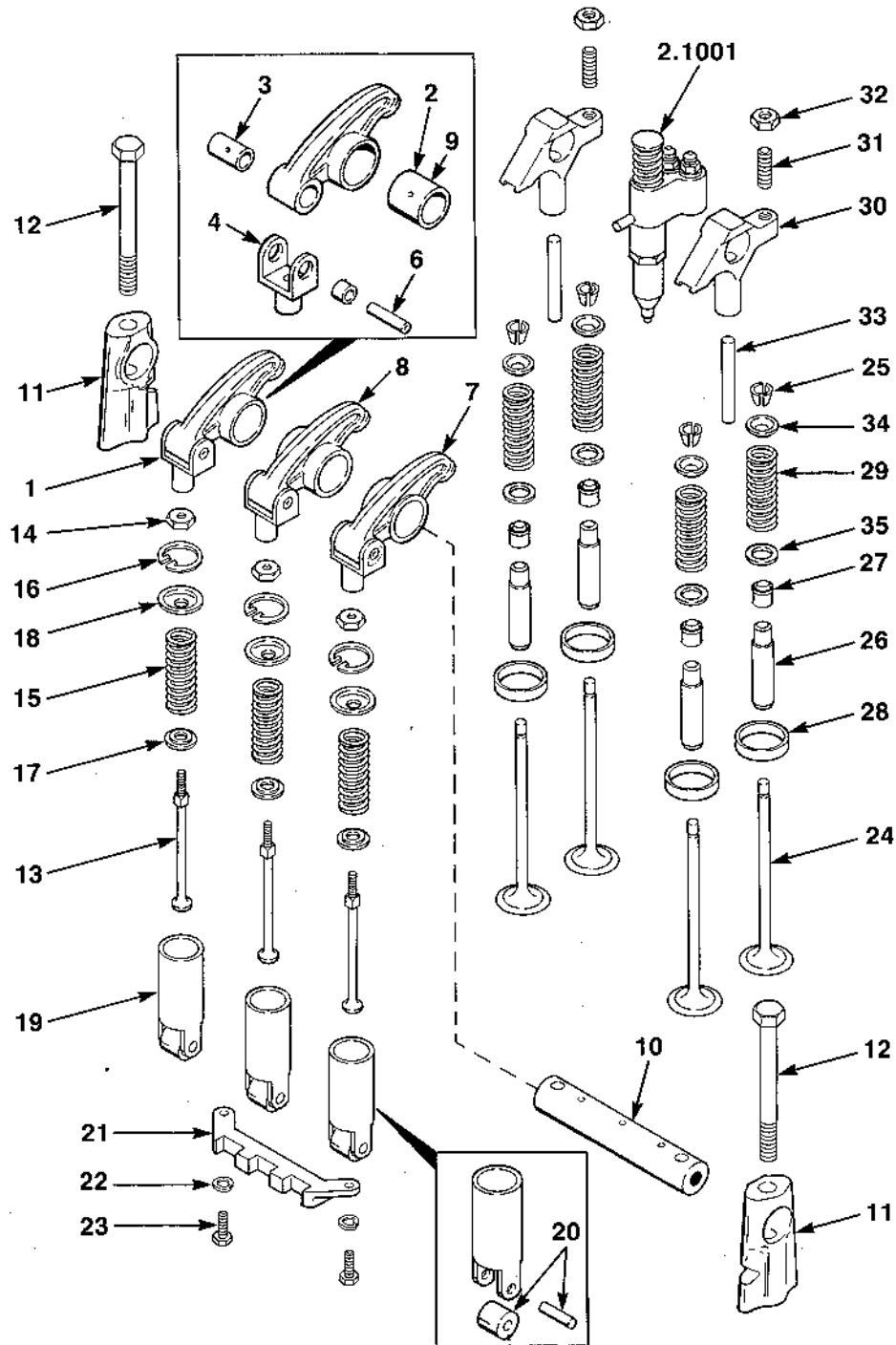
Groups:
1.7635 - 1.7750

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.7635	0	FP-5141773	Coupling, Accessory Drive Compressor Drive (Type 226,230,330,378,384)	1	1	1	1
1.7635	26	FP-5144866	Hub, Accessory Drive (Type 226,230,283,286,298,301,330,384)	1	1	1	1
1.7642	0	FP-8926285	Lockwasher, Blower & Accessory Drive Gear	1	1	1	1
1.7642	0	FP-8926293	Washer, Blower & Accessory Drive Gear Hub	1	1	1	1
1.7645	0	FP-5152148	Washer, 3/8" X 9/16" Copper	1	1	1	1
1.7645	7	FP-9415285	Lockring, Accessory Drive Retainer Bearing	1	1	1	1
1.7645	0	FP-9428477	Plug, 15/16" Cup	1	1	1	1
1.7646	28	FP-5148810	Gasket, Accessory Drive Support (Type 233,277,302,304,320,321,326,350,366,375,389)	1	1	1	1
1.7647	0	FP-8924380	Plug, 1/8" Pipe	1	1	1	1
1.7650	7	FP-9415285	Lockring, Accessory drive	1	1	1	1
1.7655	8	FP-23503727	Bearing, Accessory Drive	1	1	1	1
1.7660	9	FP-5131329	Seal, Accessory Drive	1	1	1	1
1.7660	9	FP-5138710	Seal, Accessory Drive	1	1	1	1
1.7660	0	FP-5198174	Sleeve, Accessory Drive Oil Seal	1	1	1	1
1.7665	5	FP-5131131	Spacer, Accessory Drive Seal	1	1	1	1
1.7665	5	FP-5133682	Spacer, Accessory Drive Seal	1	1	1	1
1.7670	27	FP-5144866	Gear, Accessory Drive (Type 226)	1	1	1	1
1.7670	27	FP-5193576	Gear, Accessory Drive (Type 304)	1	1	1	1
1.7700	0	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	2	2
1.7700	0	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
1.7700	0	FP-5124926	Gasket, Accessory Drive Adaptor Cover (Type 302,325,326,336,349,382,384,387,388)	1	1	1	1
1.7750	0	FP-5185793	Screw, Internal Gear Mount	6	6	6	6



Valve Train

(Figure 6.1)





Valve Train

(Figure 6.1)

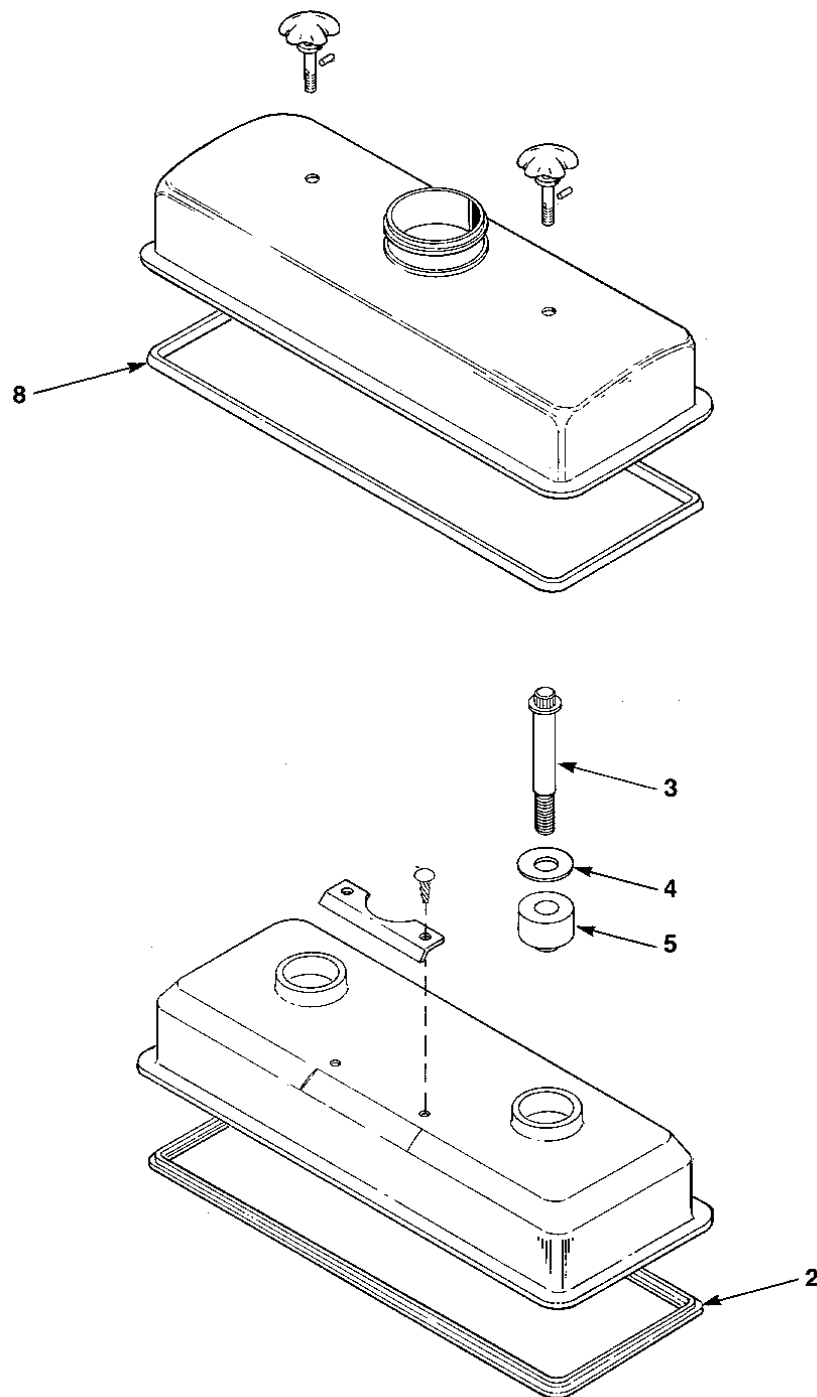
Groups:
1.8060 - 1.8370

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.8060	8	FP-23502616	Arm Assembly, Injector (Blue Paint), (DDEC Coach)	6	8	-	-
1.8060	1	FP-5148472	Rocker Arm Assembly, Exhaust Valve L.H.	6	8	12	16
1.8060	7	FP-5148475	Rocker Arm Assembly, Exhaust Valve R.H.	6	8	12	16
1.8060	8	FP-8923554	Rocker Arm Assembly, Injector (Orange Paint)	6	8	12	16
1.8110	9	FP-8924355	Bushing, Rocker Arm (Large)	6	8	12	16
1.8110	9	FP-8924355	Bushing, Rocker Arm Injector (Large)	6	8	12	16
1.8110	2	FP-23517217	Bushing, Rocker Arm Exhaust Valve (Large)	12	16	24	32
1.8120	3	FP-8924354	Bushing, Rocker Arm (Small)	6	8	12	16
1.8120	3	FP-8924354	Bushing, Rocker Arm (Small)	6	8	12	16
1.8120	3	FP-8924354	Bushing, Rocker Arm Exhaust Valve (Small)	12	16	24	32
1.8130	4	FP-5150312	Clevis, Rocker Arm	6	8	12	16
1.8130	4	FP-5150312	Clevis, Rocker Arm, Injector	6	8	12	16
1.8130	4	FP-5150312	Clevis, Rocker Arm Exhaust Valve	12	16	24	32
1.8140	5	FP-23502615	Bushing, Clevis .6295" O.D.	6	8	12	16
1.8140	5	FP-5123700	Bushing, Clevis .5625" O.D.	6	8	12	16
1.8140	5	FP-5123700	Bushing, Rocker Arm Exhaust Valve Clevis	12	16	24	32
1.8150	6	FP-5150314	Pin, Clevis, Rocker Arm	6	8	12	16
1.8150	6	FP-5150314	Pin, Clevis, Rocker Arm	6	8	12	16
1.8150	6	FP-5150314	Pin, Clevis, Rocker Arm	12	16	24	32
1.8160	10	FP-23500714	Shaft Assembly, Rocker (FP-5150322)	6	8	12	16
1.8170	11	FP-5103903	Bracket, Rocker Shaft	12	16	24	32
1.8170	12	FP-5150325	Bolt, Rocker Shaft Bracket	12	16	24	32
1.8180	13	FP-5128640	Rod, Push	18	24	36	48
1.8180	14	FP-5151601	Nut, Push Rod 5/16" -24 Lock	18	24	36	48
1.8190	15	FP-5108918	Spring, Push Rod	18	24	36	48
1.8200	16	FP-5108919	Seat, Push Rod Spring (Upper)	18	24	36	48
1.8210	17	FP-5123250	Seat, Push Rod Spring (Lower)	18	24	36	48
1.8250	18	FP-5150303	Retainer, Push Rod	18	24	36	48
1.8260	20	FP-8923814	Pin & Roller, Follower Assembly	18	24	36	48
1.8260	19	FP-8924439	Follower Assembly, Camshaft	18	24	36	48
1.8300	22	FP-103319	Lockwasher 1/4"	12	16	24	32
1.8300	23	FP-443603	Bolt, 1/4" - 20 X 3/4"	12	16	24	32
1.8310	24	FP-5106136	Valve, Exhaust (Code V Or Blank, Pyromet 31)	24	32	48	64
1.8310	0	FP-5149771	Valve Kit, Exhaust Turbo & N/A (w/Locks)	24	32	48	64
1.8320	26	FP-5129919	Guide, Exhaust Valve	24	32	48	64
1.8320	27	FP-8921209	Seal, Exhaust Valve Guide	24	32	48	64
1.8330	28	FP-5101315	Insert, Exhaust Valve (.010" O.S. O.D.)	24	32	48	64
1.8330	28	FP-5148490	Insert, Exhaust Valve	24	32	48	64
1.8340	29	FP-5147347	Spring, Exhaust Valve	24	32	48	64
1.8340	29	FP-8927794	Spring, Exhaust Valve (DDEC Coach), (Type 281,283)	24	32	-	-
1.8343	31	FP-5129101	Screw, 5/16" - 24 X 1"	12	16	24	32
1.8343	30	FP-5148491	Bridge, Exhaust Valve	12	16	24	32
1.8343	32	FP-5151601	Nut, 5/16" -24	12	16	24	32
1.8345	33	FP-5117564	Guide, Exhaust Valve Bridge	12	16	24	32
1.8345	0	FP-51175646	Guide, Exhaust Valve Bridge .006 O.S. (Press Fit)	12	16	24	32
1.8345	0	FP-5196843	Guide, Exhaust Valve Bridge (Threaded Type)	12	16	24	32
1.8350	34	FP-5117563	Cap, Exhaust Valve Spring	24	32	48	64
1.8360	35	FP-5117562	Seat, Exhaust Valve Spring	24	32	48	64
1.8370	25	FP-5111337	Lock Half, Exhaust Valve	48	64	96	128



Valve Train Rocker Cover

(Figure 6.2)





Valve Train Rocker Cover

(Figure 6.2)

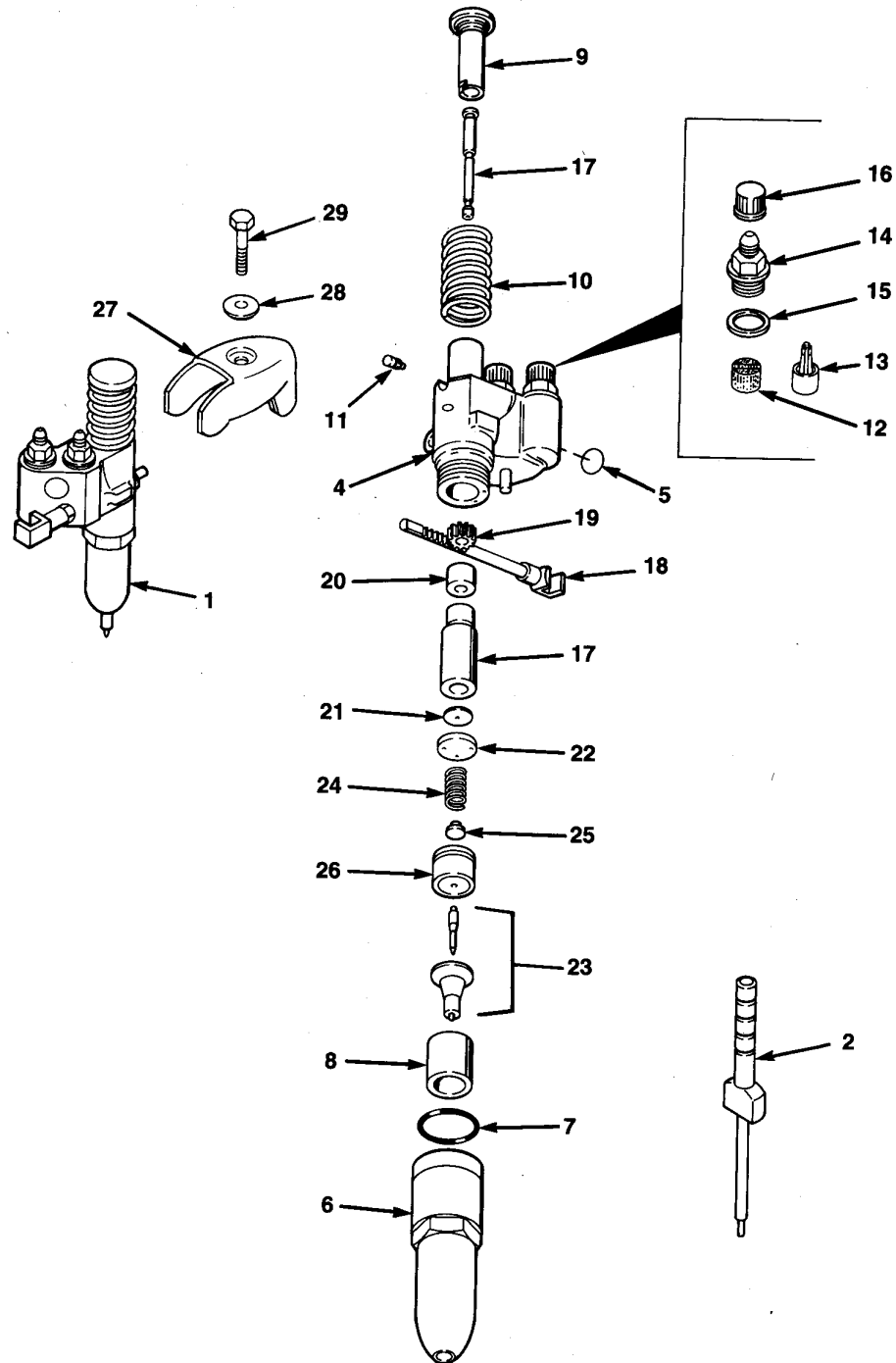
Groups:
1.8451 - 3.8455

Group	Ref	Part No.	Description	6V	8V	12V	16V
1.8451	3	FP-5104015	Bolt, Rocker Cover 3/8" - 16 X 6.57" L 12 Pt	4	4	4	8
1.8451	5	FP-5104515	Isolator, Rocker Cover Bolt	4	4	4	8
1.8451	0	FP-5149510	Installation Kit, Aluminum Rocker Cover	2	-	4	-
1.8451	0	FP-5103635	Bolt, Throttle Delay 3/8" - 16 X 2.90"	1	1	1	1
1.8451	0	FP-5149511	Installation Kit, Aluminum Rocker Cover	-	2	-	4
1.8455	2	FP-5104018	Gasket, Silicone, Aluminum Rocker Cover (3 Cyl)	2	-	4	-
1.8455	2	FP-5104081	Gasket, Silicone, Aluminum Rocker Cover (4 Cyl)	-	2	-	4
1.8475	0	FP-5148504	Stud, 17/32"	-	4	4	4
2.8451	4	FP-5104514	Washer, Isolator .47" X 2.00" X .20"	4	4	4	8
3.8455	8	FP-5143405	Gasket, Neoprene, Stamped Rocker Cover (3 Cyl)	2	-	4	-
3.8455	8	FP-5143406	Gasket, Neoprene, Stamped Rocker Cover (4 Cyl)	-	2	-	4



Fuel Injector

(Figure 7.1)





Fuel Injector

(Figure 7.1)

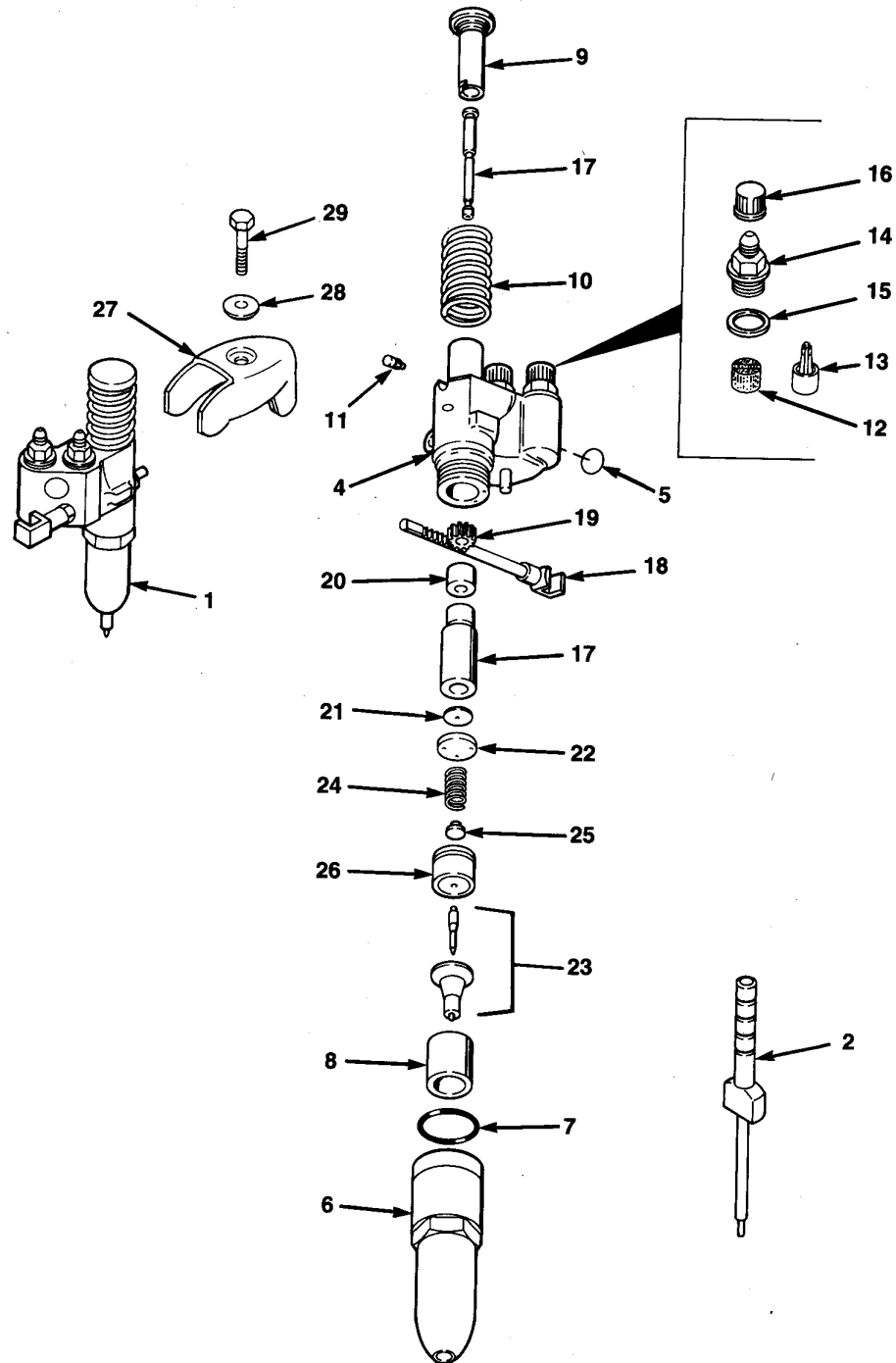
Groups:
2.1001 - 2.1235

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.1001	1	FP-5229380	Injector Assembly 9275 (Type 123)	6	8	12	16
2.1001	1	FP-5229526	Tag, Number (9285), (Inj. # 5229400)	6	8	12	16
2.1001	1	FP-5229630	Injector Assembly 9A90 (Type 135)	6	8	12	16
2.1001	1	FP-5229715	Injector Assembly (9215)	6	8	12	16
2.1001	1	FP-5229890	Injector Assembly 9C90 (Type 188)	6	8	12	16
2.1001	1	FP-5229895	Injector Assembly 7G65 (Type 180)	6	8	12	16
2.1001	2	FP-J1242	Timing Gage Injector (1.484)	1	1	1	1
2.1001	2	FP-J1853	Timing Gage Injector (1.460)	1	1	1	1
Plunger & Bushings							
2.1160	17	FP-5226248	Plunger & Bushing Assembly (Use w/Inj. 5226555, 5227045, 5227105)	6	8	12	16
2.1160	17	FP-5226338	Plunger & Bushing Assembly (Use w/Inj. 5226410, 5226525)	6	8	12	16
2.1160	17	FP-5226474	Plunger & Bushing Assembly (Use w/Inj. 5226405, 5226420, 5226635)	6	8	12	16
2.1160	17	FP-5229298	Plunger & Bushing Assembly F10 9200	6	8	12	16
2.1160	17	FP-5229657	Plunger & Bushing Assembly 115 9215	6	8	12	16
2.1160	17	FP-5229657	Plunger & Bushing Assembly 115 9225	6	8	12	16
2.1160	17	FP-5229912	Plunger & Bushing Assembly 7G70 7G70	6	8	12	16
2.1160	17	FP-5229912	Plunger & Bushing Assembly 7G70 9E65	6	8	12	16
2.1160	17	FP-5229916	Plunger & Bushing Assembly 7G65 7G65	6	8	12	16
2.1235	23	FP-5229184	Tip Assembly, 115 9215	6	8	12	16
2.1235	23	FP-5229184	Tip Assembly, F10 9200	6	8	12	16
2.1235	23	FP-5229516	Tip Assembly, 115 9225	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, F7 7E70	6	8	12	16



Fuel Injector

(Figure 7.2)





Fuel Injector

(Figure 7.2)

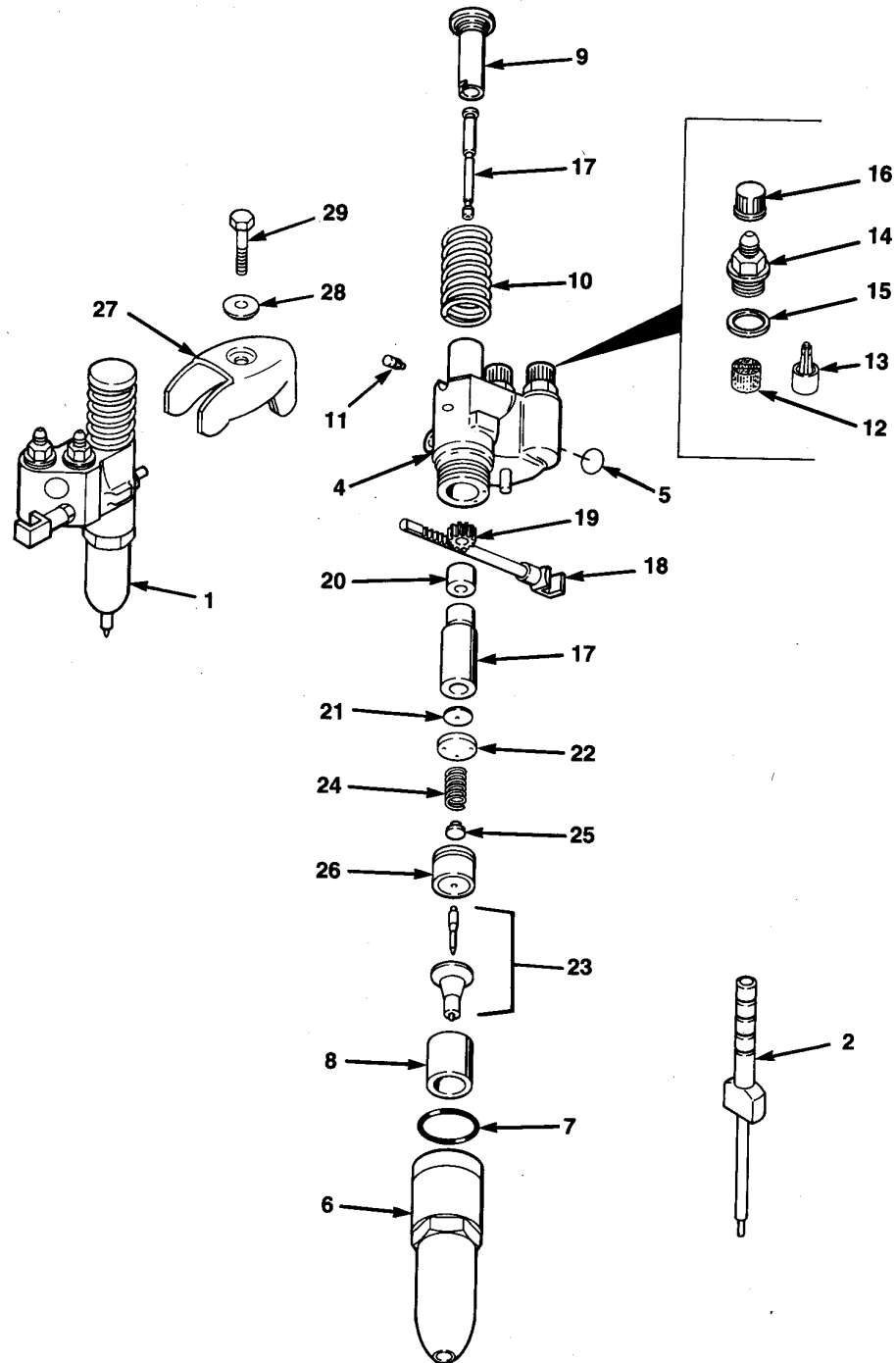
Groups:
2.1160 - 2.1235

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.1160	17	FP-5229181	Plunger & Bushing Assembly F8 7E80	6	8	12	16
2.1160	17	FP-5229181	Plunger & Bushing Assembly F8 9280	6	8	12	16
2.1160	17	FP-5229181	Plunger & Bushing Assembly F8 9A80	6	8	12	16
2.1160	17	FP-5229268	Plunger & Bushing Assembly F95 9295	6	8	12	16
2.1160	17	FP-5229278	Plunger & Bushing Assembly F85 7E85	6	8	12	16
2.1160	17	FP-5229278	Plunger & Bushing Assembly F85 9285	6	8	12	16
2.1160	17	FP-5229278	Plunger & Bushing Assembly F85 9A85	6	8	12	16
2.1160	17	FP-5229292	Plunger & Bushing Assembly F9 7E90	6	8	12	16
2.1160	17	FP-5229292	Plunger & Bushing Assembly F9 9290	6	8	12	16
2.1160	17	FP-5229292	Plunger & Bushing Assembly F9 9A90	6	8	12	16
2.1235	23	FP-5226272	Tip Assembly (Use w/Inj. 5227030, 5227495, 5235905)	6	8	12	16
2.1235	23	FP-5226438	Tip Assembly (Use w/Inj. 5226410, 5226420)	6	8	12	16
2.1235	23	FP-5229184	Tip Assembly, F7 9270	6	8	12	16
2.1235	23	FP-5229184	Tip Assembly, F75 9275	6	8	12	16
2.1235	23	FP-5229184	Tip Assembly, F8 9280	6	8	12	16
2.1235	23	FP-5229184	Tip Assembly, F85 9285	6	8	12	16
2.1235	23	FP-5229184	Tip Assembly, F9 9290	6	8	12	16
2.1235	23	FP-5229184	Tip Assembly, F95 9295	6	8	12	16
2.1235	23	FP-5229622	Tip Assembly, F8 9A80	6	8	12	16
2.1235	23	FP-5229622	Tip Assembly, F85 7E85	6	8	12	16
2.1235	23	FP-5229622	Tip Assembly, F9 9A90	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, F7 7E70	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, F75 7E75	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, F8 7E80	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, F85 9A85	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, F9 7E90	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, G7 9C70	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, G75 9C75	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, G8 9C80	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, G85 9C85	6	8	12	16
2.1235	23	FP-5229806	Tip Assembly, G9 9C90	6	8	12	16



Fuel Injector

(Figure 7.3)





Fuel Injector

(Figure 7.3)

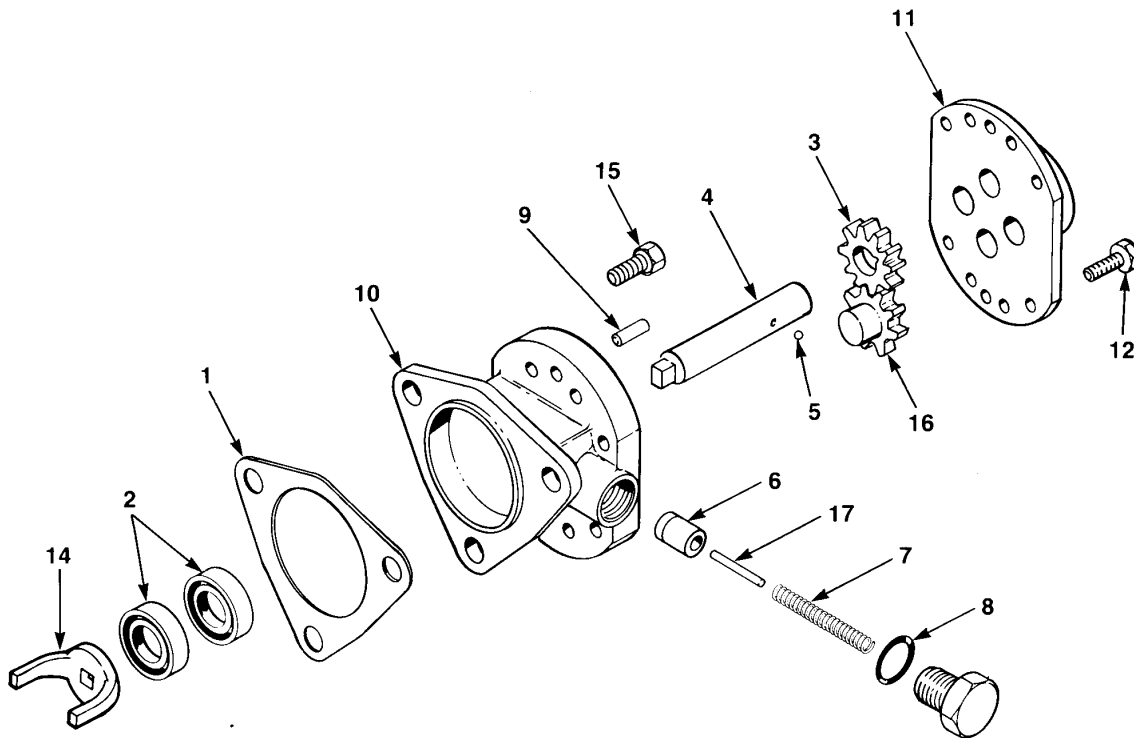
Groups:
2.1002 - 2.1270

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.1020	4	FP-5228583	Body Assembly, Injector	6	8	12	16
2.1020	5	FP-5229191	Tag, Injector Blank	6	8	12	16
2.1030	6	FP-5228601	Nut, Injector Valve	6	8	12	16
2.1050	8	FP-5228109	Deflector, Injector Spill	6	8	12	16
2.1060	9	FP-5228104	Follower, Injector	6	8	12	16
2.1080	10	FP-5229518	Spring, Injector Plunger (1.574" L.)	6	8	12	16
2.1080	10	FP-5229518	Spring, Injector Plunger (6 Coils)	6	8	12	16
2.1100	11	FP-5228608	Pin, Injector Stop	6	8	12	16
2.1130	14	FP-5228588	Cap, Injector Filter	6	8	12	16
2.1170	18	FP-5226719	Rack, Injector	6	8	12	16
2.1180	19	FP-5226400	Gear, Injector	6	8	12	16
2.1180	19	FP-5228802	Gear, Injector	6	8	12	16
2.1190	20	FP-5228586	Retainer, Injector Gear	6	8	12	16
2.1200	21	FP-5228694	Valve, Injector Check	6	8	12	16
2.1205	22	FP-5228696	Cage, Injector Check Valve	6	8	12	16
2.1257	26	FP-5228594	Cage, Injector Spring	6	8	12	16
2.1270	27	FP-5121259	Clamp, Injector Hold Down	6	8	12	16
2.1270	28	FP-5150250	Washer, Injector Hold Down Clamp	6	8	12	16
2.1238	0	FP-5228769	Valve Kit, Injector	6	8	12	16
2.1250	24	FP-5228596	Spring, Injector Valve	6	8	12	16
2.1250	25	FP-5228766	Seat, Injector Seat	6	8	12	16
2.1002	0	FP-5229649	Service Kit	6	8	12	16
2.1040	7	FP-5234281	Ring, Injector Seal	6	8	12	16
2.1110	12	FP-5228587	Element, Injector Filter	6	8	12	16
2.1140	15	FP-5226186	Gasket, Injector Filter	6	8	12	16
2.1150	16	FP-5226414	Cap, Injector Shipping	6	8	12	16



Fuel Pump

(Figure 8.1)





Fuel Pump

(Figure 8.1)

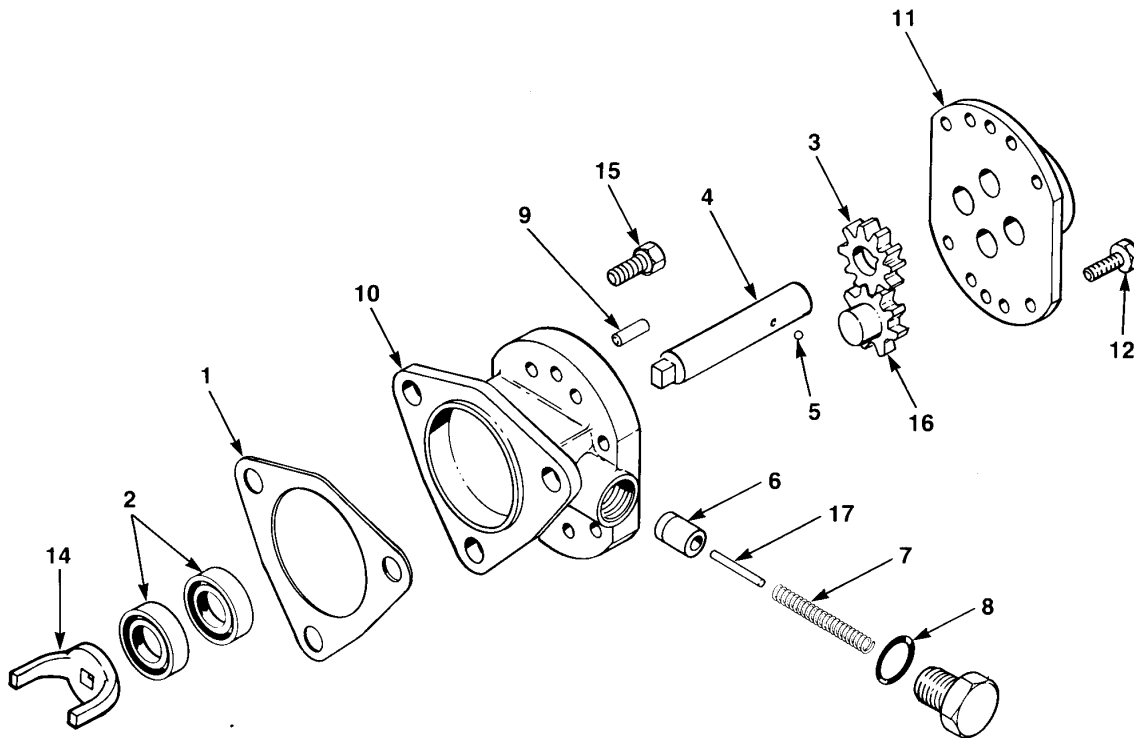
Groups:
2.2001 - 2.2180

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.1600	0	FP-8925325	Bushing, Pipe Red (3/8" PTF - 1/4" Zinc)	AR	-	-	-
2.2001	0	FP-5199560	Kit, Fuel Pump (1/4" Gear), (Std. Output L.H.), (Type 126,150,174)	1	1	1	1
2.2001	0	FP-5199735	Kit, Fuel Pump (3/8" Gear), (High Output L.H.), (Type 56,146,177)	1	1	1	1
2.2010	9	FP-141195	Pin, 1/4" X 5/8" Dowel	2	2	2	2
2.2010	0	FP-8924380	Plug, 1/8"-27 Pipe	2	2	2	2
2.2030	12	FP-179803	Bolt, 1/4" -20 X 1 3/4"	4	4	4	4
2.2030	0	FP-5198558	Bushing, 3/8" - 1/4"	1	1	1	1
2.2004	0	FP-5146705	Shaft Assembly, Fuel Pump Drive (3.09" L), (High Output)	1	1	1	1
2.2004	4	FP-5178700	Shaft, Fuel Pump Drive (3.09" L), (High. Output)	1	1	1	1
2.2004	3	FP-5128217	Gear, Fuel Pump Drive (.374" W.), (High Output)	1	1	1	1
2.2004	0	FP-5149599	Overhaul Kit, Fuel Pump (High Output), (Short Shaft)	1	1	1	1
2.2007	1	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	1
2.2010	0	FP-5136240	Plug, Cap Fuel Pump Body 1/4"	2	2	2	2
2.2010	0	FP-5136241	Plug, Cap Fuel Pump Body 3/8"	1	1	1	1
2.2070	2	FP-23512243	Seal, Fuel Pump Oil (FP-5107223)	2	2	2	2
2.2093	4	FP-5146705	Shaft Assembly, Fuel Pump Drive (3.09" L), (High Output)	1	1	1	1
2.2093	14	FP-5100313	Shaft Assembly, Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2130	6	FP-5174973	Valve, Fuel Pump	1	1	1	1
2.2130	17	FP-103709	Pin, 5/32" X 1" Straight	1	1	1	1
2.2160	7	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1	1
2.2180	8	FP-5161003	Gasket, Fuel Plump Valve Plug	1	1	1	1
2.2004	0	FP-5181746	Shaft & Gear, Fuel Pump Drive (.3.09"L), (Std. Output)	1	1	1	1
2.2004	4	FP-5178700	Shaft, Fuel Pump Drive (3.09" L), (Std. Output)	1	1	1	1
2.2004	3	FP-5174975	Gear, Fuel Pump Drive (.294" W.), (Std. Output)	1	1	1	1
2.2004	16	FP-5181747	Shaft & Gear, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	0	FP-5181749	Shaft, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2004	0	FP-5181748	Gear, Fuel Pump Driven (.294" W.)	1	1	1	1
2.2004	0	FP-5195078	Overhaul Kit, Fuel Pump (Std. Output)	1	1	1	1
2.2007	1	FP-5150193	Gasket, Fuel Pump Mounting	1	1	1	1
2.2010	0	FP-5136240	Plug, Cap (.420" Dia., Outlet)	2	2	2	2
2.2010	0	FP-5136241	Plug, Cap (.580" Dia., Outlet)	1	1	1	1
2.2070	2	FP-23512243	Seal, Fuel Pump Oil (FP-5107223)	2	2	2	2
2.2093	4	FP-5181746	Shaft & Gear, Fuel Pump Drive (.3.09"L), (Std. Output)	1	1	1	1
2.2093	14	FP-5181747	Shaft & Gear, Fuel Pump Driven (.838" L), (Std. Output)	1	1	1	1
2.2130	0	FP-103709	Pin, 5/32" X 1" Straight	1	1	1	1
2.2130	6	FP-5174973	Valve, Fuel Pump	1	1	1	1
2.2160	7	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1	1
2.2180	8	FP-5161003	Gasket, Fuel Pump Valve Plug	1	1	1	1



Fuel Pump

(Figure 8.2)





Fuel Pump

(Figure 8.2)

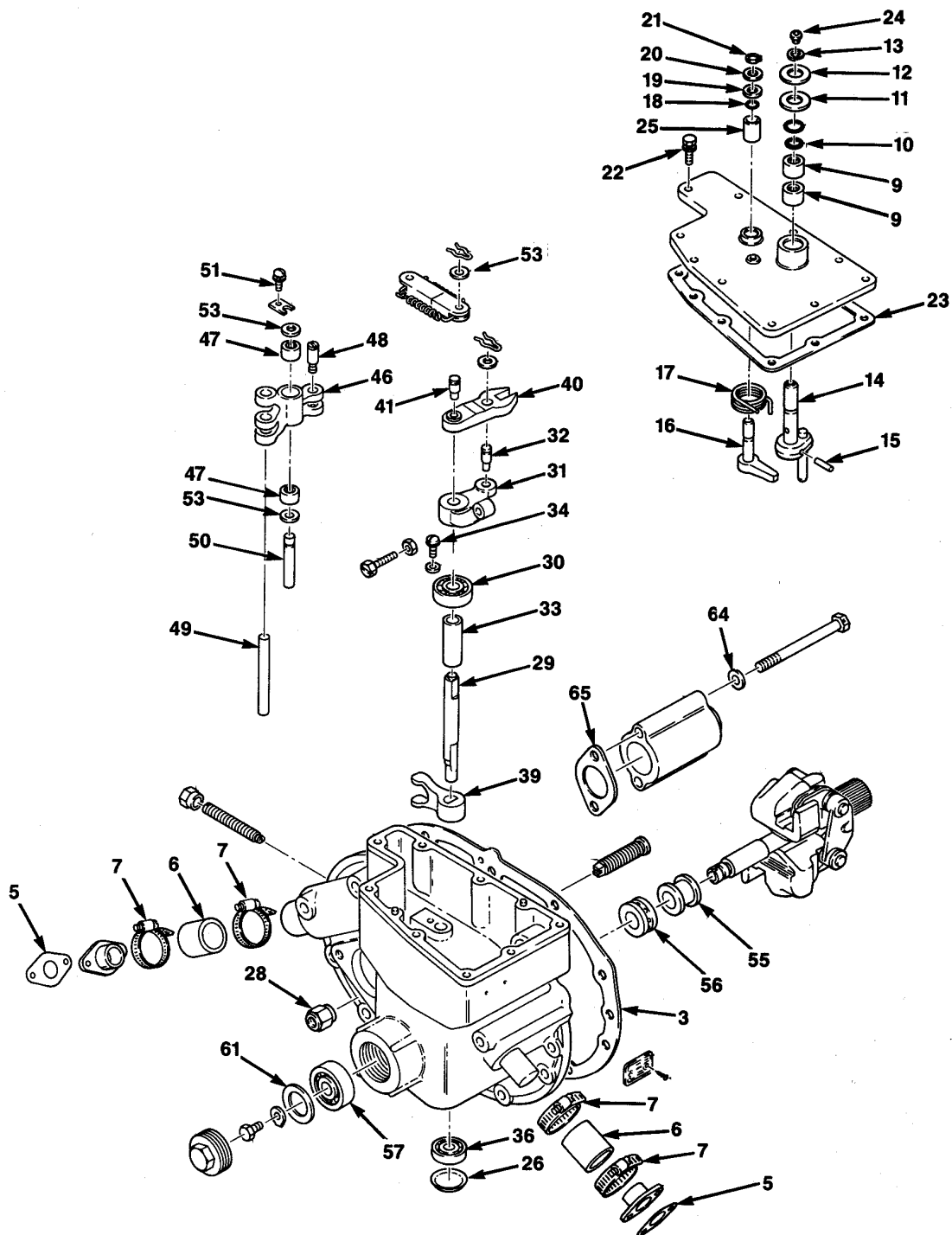
Groups:
2.2007 - 3.4020

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.2007	0	FP-23515145	Gasket, Fuel Pump Mounting Plate	1	1	1	1
2.2087	5	FP-147481	Ball, 1/8" Steel	1	1	1	1
2.2170	18	FP-5174971	Plug, 1/2" - 20 Fuel Pump Valve	1	1	1	1
2.2220	14	FP-5102257	Fork, Fuel Pump Coupling	-	1	1	1
2.4020	0	FP-23511854	Fuel Pipe Tube, Cylinder Head To Injector	AR	AR	AR	AR
2.4020	1	FP-23511850	Fuel Pipe Assembly, Injector To Stand Pipe (Short)	6	8	12	16
2.4030	3	FP-8926992	Connector, Fuel Pipe	4	-	-	-
2.4030	2	FP-5117369	Connector, Fuel Pipe	-	6	8	12
2.4050	0	FP-5152148	Washer, 25/64" X 9/16" X 1/16"	4	-	-	-
2.4050	0	FP-5125108	Washer, 7/16" X 3/4" X 1/16"	-	6	8	12
2.5006	0	FP-5135308	Valve, Fuel Check 3/8" (Swing Type)	1	1	1	1
2.5006	0	FP-5174924	Valve, Fuel Check 1/4" (Swing Type)	1	1	1	1
2.5006	0	FP-5179938	Seal Ring, 3/8" Sealastic	-	-	1	1
3.4020	2	FP-23511851	Fuel Pipe Assembly, Injector To Stand Pipe (Long)	6	8	12	16
2.2004	0	FP-5100313	Shaft Assembly, Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	14	FP-5100312	Shaft, Fuel Pump Driven (.963"L), (High Output)	1	1	1	1
2.2004	3	FP-5118915	Gear, Fuel Pump Driven (.374" W.), (High Output)	1	1	1	1



Governor

(Figure 9.1)





Governor

(Figure 9.1)

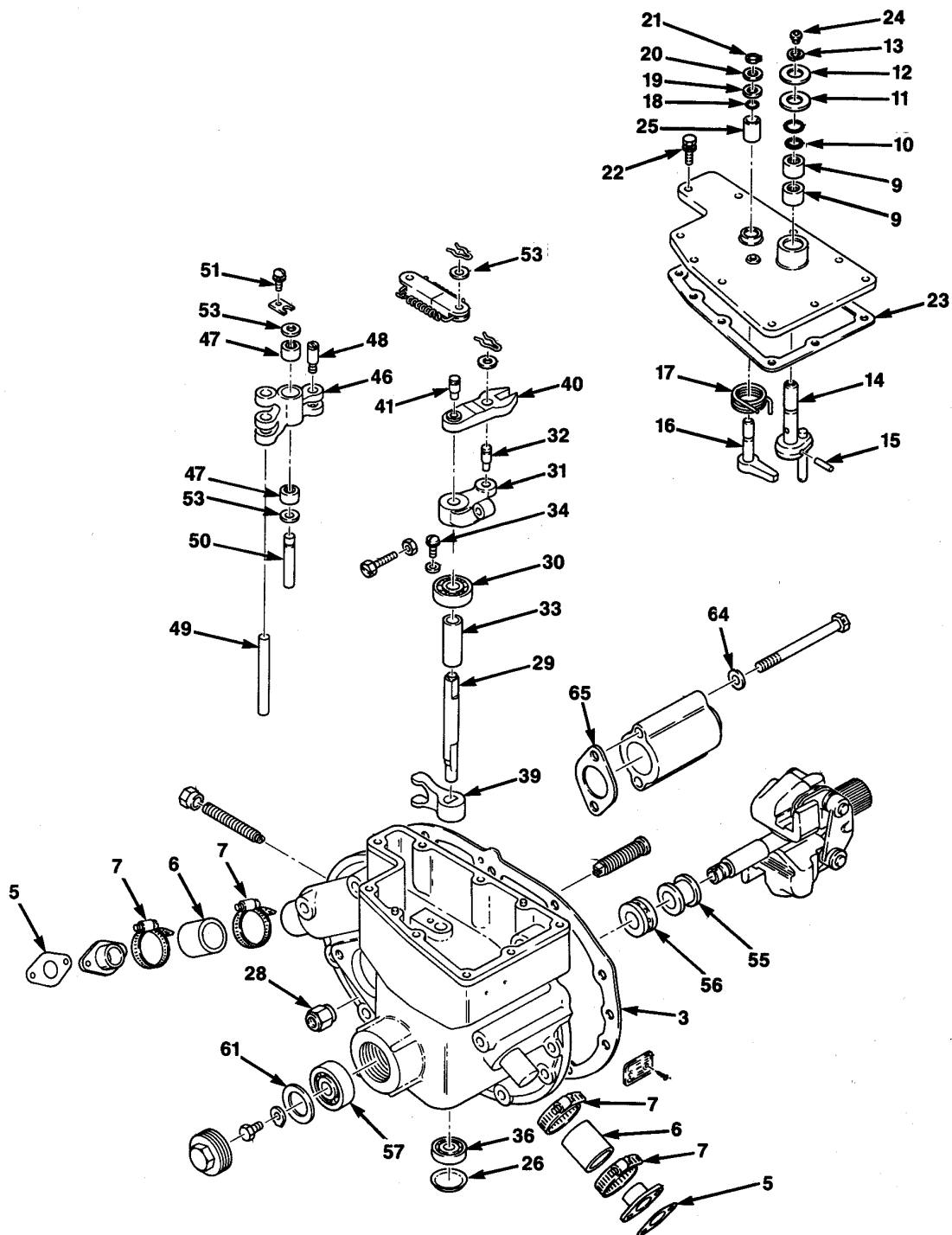
Groups:
2.6545 - 2.7045

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.6545	0	FP-8927412	Gasket, Governor Control Housing Mounting	1	1	1	1
2.7001	49	FP-5127375	Pin, Governor Control Link Lever	1	1	1	1
2.7001	0	FP-5155596	Washer, 5/16" (Copper)	1	1	1	2
2.7001	0	FP-5179709	Washer, 1/4" (Copper)	1	1	1	2
2.7030	0	FP-5104556	Hose, Governor Assy (1" I.D. x .56" L), (12.9001)	AR	AR	AR	AR
2.7030	0	FP-8921930	Bolt, 1/4" -20 X 3/4" Governor Fuel Rod Cover	8	8	16	16
2.7030	7	FP-5104592	Clamp, Governor Fuel Rod To Cylinder Head Hose	4	4	8	8
2.7030	5	FP-5123812	Gasket, Governor Fuel Rod Cover	2	2	4	4
2.7030	6	FP-8924267	Hose, Governor Fuel Rod Cover To Cylinder Head	2	2	4	4
2.7030	0	FP-443603	Bolt, 1/4" - 20 X 3/4" Steel	1	1	1	1
2.7045	9	FP-8921472	Bushing, Split, Throttle Shaft (2.7100)	2	2	4	4
2.7045	17	FP-5127213	Spring, Governor Shutdown Shaft (2.7117)	1	1	2	2
2.7045	11	FP-5144177	Retainer, Throttle Shaft Seal Ring (2.7150)	1	1	2	2
2.7045	12	FP-5153060	Retainer, (Flat) Throttle Shaft Seal Ring (2.7150)	1	1	2	2
2.7045	13	FP-5174429	Retainer Ring, Throttle Shaft Seal Ring (2.7150)	1	1	2	2
2.7045	10	FP-5176557	Seal Ring, .477" ID x .113" Thk. (Yellow) Throttle Shaft (2.7140)	1	1	2	2
2.7001		FP-20001	Kit, Rebuild, Mechanical Governor	-	-	-	-
2.7001	26	FP-116337	Plug, Expansion, Operating Shaft	1	1	1	1
2.7001	0	FP-148402	Bearing, 1/2"X1/2" Dia. Needle Cover Throttle Shaft	2	2	4	4
2.7001	47	FP-447196	Bearing, Shutdown and Control Lever Shafts	4	4	4	4
2.7001	48	FP-5117693	Pin, 5/16" X 1" Governor Control Link Lever (2.7317)	1	1	2	2
2.7001	49	FP-5127375	Pin, .309" Dia. X 3.12" L. Control Link Lever (2.7317)	1	1	2	2
2.7001	50	FP-5143866	Pin, .375" Dia. X 2" L. Control Link Lever (2.7317)	1	1	2	2
2.7001	18	FP-5101691	Seal Ring, Shutdown Shaft	1	1	1	1
2.7001	11	FP-5144177	Retainer, Throttle Shaft Seal Ring	1	1	1	1
2.7001	19	FP-5144178	Retainer, Shutdown Shaft Seal	1	1	1	1
2.7001	0	FP-5147866	Bushing, High Speed Weight	2	2	2	2
2.7001	53	FP-5150885	Washer, Governor Weight Pin	2	2	2	2
2.7001	10	FP-5176557	Seal Ring, Throttle Shaft	1	1	1	1
2.7001	12	FP-5153060	Retainer, Throttle Shaft Seal Ring	1	1	1	1
2.7001	13	FP-5174429	Ring Retainer, Throttle Shaft	1	1	1	1
2.7001	28	FP-5174286	Nut, Buffer Screw Seal (2.7230)	1	1	1	1
2.7001	61	FP-5165221	Gasket, Weight Shaft End Cap	1	1	1	1
2.7001	20	FP-5151487	Retainer Washer, Shutdown Shaft & Weight Pin	3	3	3	3
2.7001	21	FP-5178581	Ring Retainer, Shutdown Shaft & Weight Pin	5	5	5	5
2.7001	0	FP-5185153	Pin, Governor Weight	2	2	2	2
2.7001	65	FP-8922593	Gasket, High Speed Spring Cover	1	1	1	1
2.7001	23	FP-8924869	Gasket, Governor Cover	1	1	1	1
2.7001	30	FP-9431896	Bearing, Operating Shaft (Upper)	1	1	1	1
2.7001	36	FP-9436682	Bearing, Operating Shaft (Lower)	1	1	1	1
2.7001	56	FP-9437108	Bearing, Weight Riser Thrust	1	1	1	1
2.7001	57	FP-9424121	Bearing, Weight Shaft End	1	1	1	1
2.7001	3	FP-8924266	Gasket, Governor To Blower	1	1	1	1



Governor

(Figure 9.2)





Governor

(Figure 9.2)

Groups:
2.7045 - 2.7317

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.7045	0	FP-103319	Lockwasher, 1/4"	8	8	16	16
2.7045	22	FP-9417926	Bolt Assembly, 1/4" -20 X 3/4" Governor Cover	8	8	16	16
2.7045	18	FP-5101691	Seal Ring, Governor Shutdown Shaft (2.7145)	1	1	2	2
2.7045	19	FP-5144178	Retainer, Governor Shutdown Shaft Seal Ring	1	1	1	1
2.7045	20	FP-5151487	Retainer, Throttle Shaft Seal Ring (2.7145), (Flat)	1	1	2	2
2.7045	21	FP-5178581	Retainer Ring, Governor Shutdown Shaft Seal	1	1	1	1
2.7051	23	FP-8924869	Gasket, Governor Cover	1	1	2	2
2.7095	14	FP-5117928	Shaft Assembly, Governor Cover Throttle	1	1	1	1
2.7095	24	FP-8924380	Plug, 1/8" - 27 Pipe	1	1	1	1
2.7100	0	FP-8921472	Bushing, Bearing Governor Throttle Shaft (Split)	2	2	2	2
2.7111	25	FP-5127267	Bushing, Governor Cover Shutdown Shaft (Split)	1	1	2	2
2.7117	0	FP-5127213	Spring, Governor Shutdown Shaft	1	1	2	2
2.7117	17	FP-5131368	Spring 3 3/4" Coils R/H Helix .077" Wire Dia. (Red)	1	1	2	2
2.7140	18	FP-5101691	Seal Ring, .362" ID X .113" Thk. (Green)	1	1	2	2
2.7145	0	FP-5151487	Washer, Governor Shutdown Shaft	1	1	1	1
2.7145	0	FP-5182977	Seal Ring, 3/32" X 3/8" X 3/8"	1	1	2	2
2.7165	0	FP-103319	Lockwasher, 1/4"	1	1	2	2
2.7165	0	FP-142583	Retainer, 13/64" Spring	1	1	2	2
2.7210	0	FP-5108775	Spring, Governor Lever Retracting	1	1	2	2
2.7230	26	FP-116337	Plug 1 1/16" Expansion, Governor Operating Shaft Bearing (Lower)	1	1	2	2
2.7230	28	FP-5174286	Nut, 3/8" - 24 Hex. Lock Governor Starting Aid Screw	1	1	2	2
2.7250	31	FP-5132747	Lever, Governor Operating Shaft	1	1	1	1
2.7250	29	FP-5133680	Shaft, Governor Operating (2.7255)	1	1	1	1
2.7250	0	FP-5133795	Shaft Assembly, Governor Operating	1	1	1	1
2.7250	32	FP-5150943	Pin, Governor Operating Shaft Lever (2.7300)	1	1	1	2
2.7250	30	FP-9431896	Bearing, Governor Operating Shaft (Upper)	1	1	1	1
2.7255	30	FP-9431894	Bearing, Governor Operating Shaft (Upper)	1	1	1	2
2.7260	30	FP-9431896	Bearing, Governor Operating Shaft (Upper)	1	1	1	1
2.7270	36	FP-9436682	Bearing, Governor Operating Shaft (Lower)	1	1	1	2
2.7280	0	FP-5132747	Lever, Governor Operating Shaft	1	1	1	2
2.7280	37	FP-5132962	Screw, Governor Operating Shaft Lever (Gap Adjusting)	1	1	1	2
2.7290	0	FP-5159714	Washer, Governor Fork	1	1	1	2
2.7300	0	FP-5150943	Pin, Governor Operating Shaft Lever	1	1	1	2
2.7310	0	FP-142583	Retainer, 13/64"	1	1	1	1
2.7310	41	FP-5150894	Pin 25/32" L. Governor Differential (2.7315)	1	1	1	2
2.7317	53	FP-5150885	Washer, Governor Control Link Lever Pin (2.7340)	2	2	2	2
2.7317	46	FP-5127373	Lever Assembly, Governor Control Link Operating	1	1	1	2
2.7317	0	FP-5127375	Pin, .309" X 3.12" L	-	-	-	-



Governor

(Figure 9.3)

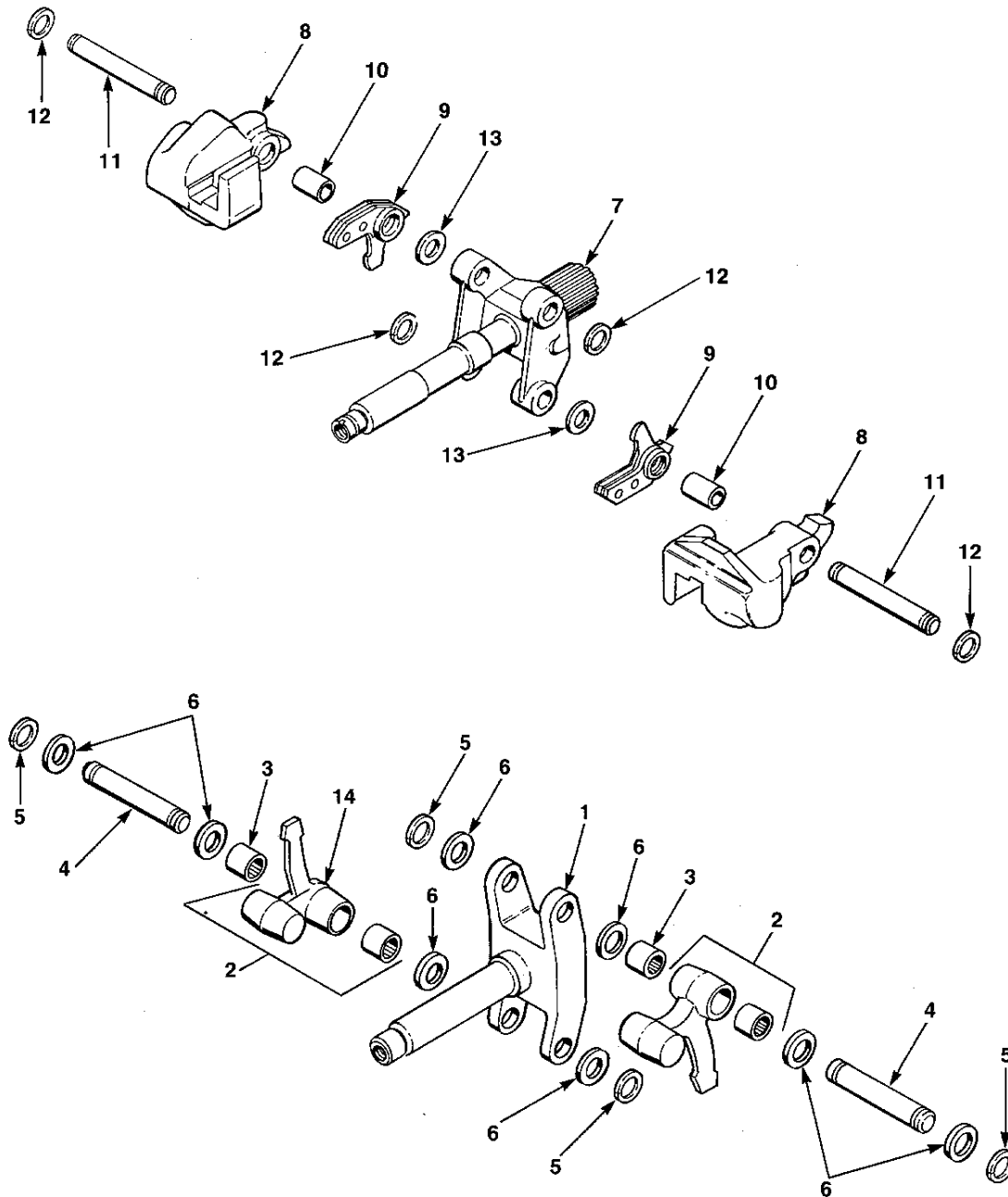


FIGURE 9.3



Governor

(Figure 9.3)

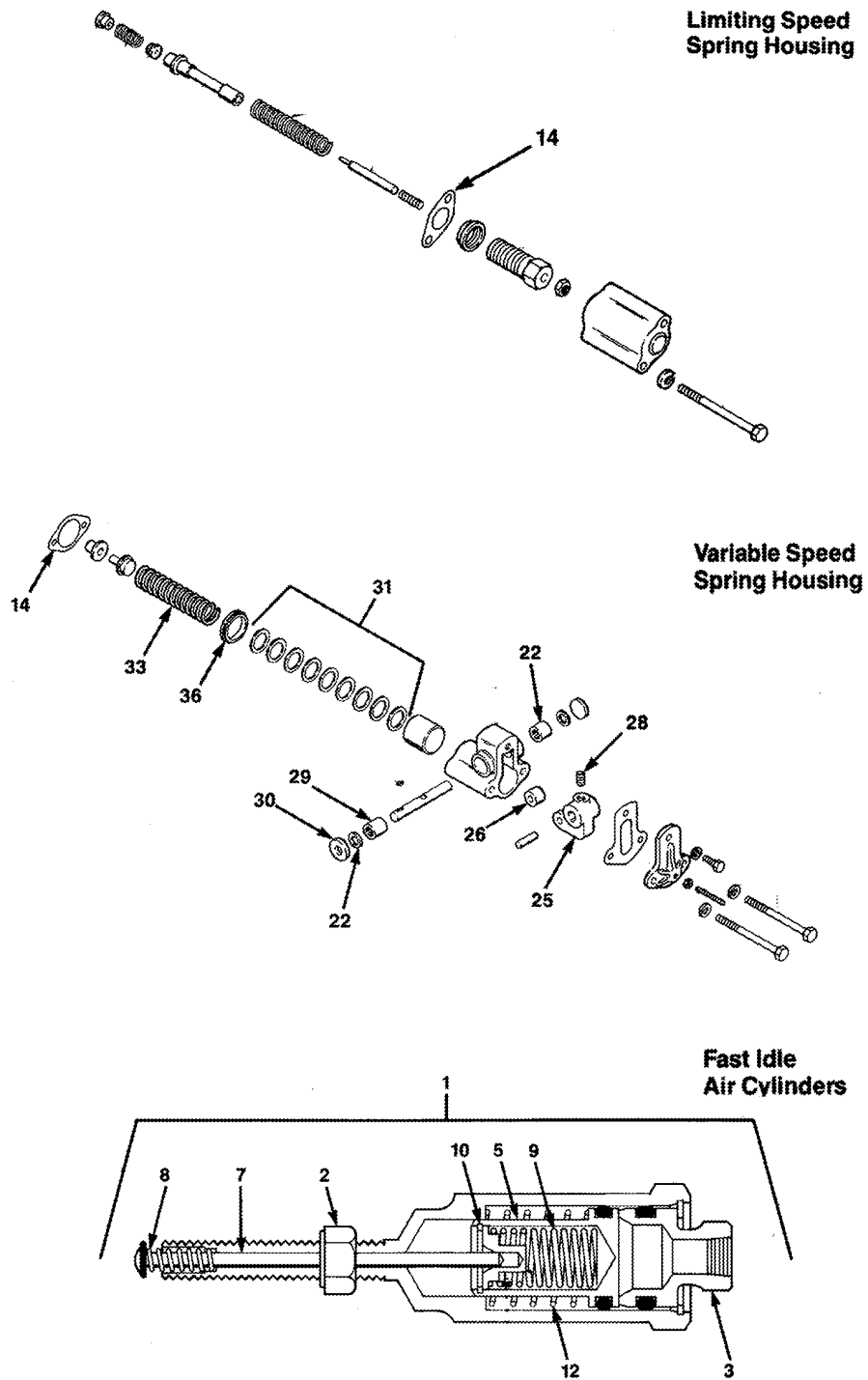
Groups:
2.7330 - 2.7635

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.7330	13	FP-5151487	Washer, Governor Weight Shaft (2.7430)	1	1	1	1
2.7330	14	FP-5147866	Bushing, .520" L. Governor Weight (2.7390)	-	2	2	4
2.7380	55	FP-5117193	Riser 1.062" L. Governor Weight Bearing	1	1	1	1
2.7380	55	FP-5147910	Riser 1.865" L. Governor Weight Bearing	1	1	1	1
2.7430	11	FP-5183632	Pin, Governor Weight (Drilled For Set Screw)	2	2	2	2
2.7430	4	FP-5185154	Pin, Governor Weight (Ring Groove)	2	2	2	2
2.7430	22	FP-5178581	Ring, Retainer	1	1	1	1
2.7440	3	FP-447196	Bearing, Governor Weight	4	4	4	4
2.7460	56	FP-9437108	Bearing, .352" - .356" W., Governor Weight Riser Thrust	1	1	1	1
2.7460	56	FP-9438907	Bearing, .551" W., Governor Weight Riser Thrust	1	1	1	1
2.7470	57	FP-9424121	Bearing, Governor Weight Shaft End	1	1	1	1
2.7515	61	FP-5165221	Gasket, Governor Weight Housing Cap	1	1	1	1
2.7540	0	FP-5122165	Spring, (One Blue Stripe) Governor Low Speed #	1	1	1	1
2.7550	0	FP-5136160	Spring, (Two Pink Stripes) Governor High Speed	1	1	1	1
2.7580	0	FP-5102968	Cap, Governor Low Speed Spring	1	1	2	2
2.7590	0	FP-5102270	Screw, 1/4" -28 X 1"	1	1	2	2
2.7620	0	FP-5126623	Ring, Governor Spring Guide	1	1	1	2
2.7635	64	FP-5155596	Washer, 5/16" Copper	2	2	2	4
2.7635	65	FP-8922593	Gasket, Governor High Speed Spring Adjusting Cover	1	1	1	1



Governor

(Figure 9.4)





Governor

(Figure 9.4)

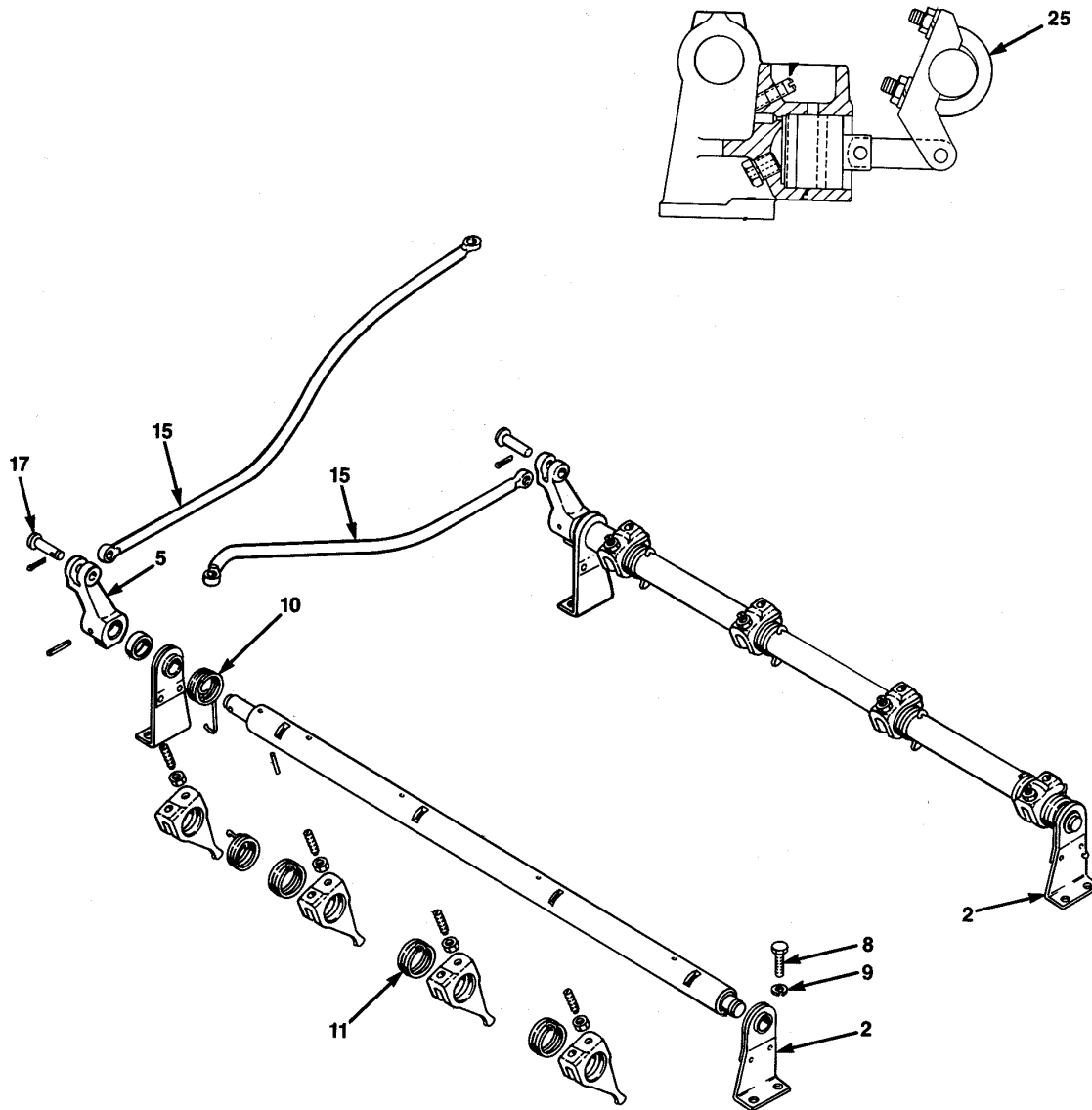
Groups:
2.7690 - 2.8950

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.7690	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
2.7690	0	FP-9417926	Bolt Assembly, 1/4" - 20 X 3/4"	1	1	1	1
2.7694	0	FP-5101710	Ring Seal .070" X .114" I.D.	1	1	1	1
2.7700	14	FP-8922593	Gasket, Governor High Speed Spring Housing	1	1	1	2
2.7712	22	FP-148402	Bearing 1/2" X 1/2" Dia. Governor Variable Speed Spring	2	2	2	2
2.7735	31	FP-5136590	Shim, .010" Governor Variable Speed Spring	6	6	6	12
2.7735	31	FP-5136591	Shim, .078" Governor Variable Speed Spring	3	3	3	6
2.7736	0	FP-5101711	Ring, .139" X .859"	1	1	1	1
2.7741	0	FP-5101710	Seal Ring, .070" X .114" I.D.	1	1	1	1
2.7750	29	FP-5176557	Seal O-Ring, Governor Variable speed Spring	1	1	1	2
2.7760	33	FP-5122270	Spring, (Two Red Stripes) Governor Variable Speed Spring	1	1	1	2
2.7800	31	FP-5136590	Shim, .010" Governor Variable Speed Spring	6	6	6	6
2.7800	31	FP-5136591	Shim, .078" Governor Variable Speed Spring	3	3	3	3
2.7810	0	FP-5117952	Screw Assembly, Governor Buffer	1	1	1	1
2.7810	0	FP-5152929	Spring, Governor Buffer	1	1	1	1
2.7810	0	FP-5174286	Nut, 3/8" - 24 Lock	1	1	1	1
2.7810	0	FP-8925664	Button, Buffer Screw	1	1	1	1
2.7850	1	FP-5129010	Cylinder Assembly, Fast Idle Air	1	1	-	-
2.7850	1	FP-5131807	Cylinder Assembly, Fast Idle Air	1	1	-	-
2.7850	2	FP-5174286	Nut Assembly, 3/8" -24	1	1	-	-
2.7860	6	FP-5103072	Seal Ring, Fast Idle Air Cylinder Piston	2	2	-	-
2.7860	0	FP-5101419	Ring Seal, Fast Idle Air Cylinder	1	1	1	1
2.7865	8	FP-5152929	Spring, Fast Idle Air Cylinder Plunger	1	1	-	-
2.7870	12	FP-5112908	Spring (Outer) Fast Idle Air Cylinder	1	1	-	-
2.7870	9	FP-5129009	Spring, (Inner) Fast Idle Air Cylinder (FP-5129010 Assembly)	1	1	-	-
2.7892	0	FP-443603	Bolt, 1/4" - 20 X 3/4" Governor Control Link	8	4	-	-
2.7892	0	FP-23507896	Clamp, 1" Hose	1	1	1	1
2.7892	0	FP-5123812	Gasket, Governor Housing Control Link	1	1	1	1
2.7892	7	FP-5104592	Clamp, 1 1/2" L. Hose, Governor Fuel Rod Cover (F16.9.2)	-	-	4	4
2.7892	6	FP-8924267	Hose, 1" X 1.16" L. Governor Fuel Rod Cover (F16.9.2)	-	-	2	2
2.7898	22	FP-9417926	Bolt Assembly, 1/4" - 20 X 3/4" Link Housing Cover	1	1	1	2
2.7900	0	FP-5133698	Gasket, Governor Control Link Housing Cover	-	-	-	-
2.8030	0	FP-5194069	Washer, Governor Assembly (1/4" Copper)	AR	AR	AR	AR
2.8030	0	FP-5197065	Seal, Governor Assembly	AR	AR	AR	AR
2.8260	0	FP-3249110	Gasket, Governor Assy (For 23509533 Governor)	2	2	2	2
2.8810	0	FP-23503717	Bearing, Governor Driven Shaft	AR	AR	AR	AR
2.8830	0	FP-23503717	Bearing, Governor Drive Thrust	AR	AR	AR	AR
2.8950	7	FP-10019739	Clamp, Injector Control Tube Link Boot (F16.9.2)	AR	AR	AR	AR



Injector Controls

(Figure 9.5)





Injector Controls

(Figure 9.5)

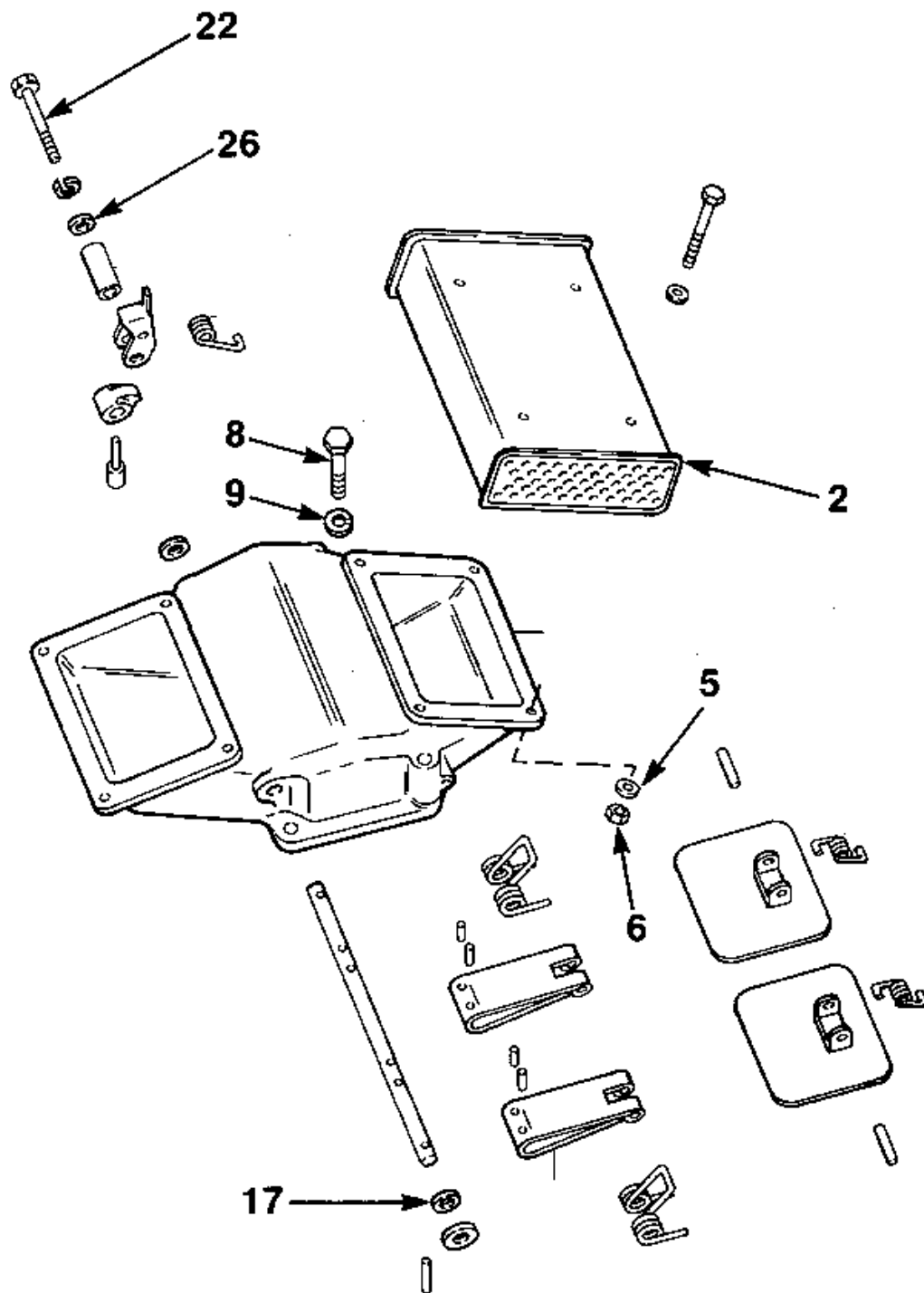
Groups:
2.9001 - 2.9410

Group	Ref	Part No.	Description	6V	8V	12V	16V
2.9001	2	FP-5130509	Bracket, Injector Control Tube	4	4	8	8
2.9003	9	FP-103319	Lockwasher, 1/4"	4	4	8	8
2.9003	8	FP-9422203	Bolt, 1/4" - 20 X 5/8"	4	4	8	8
2.9012	11	FP-5101258	Spring, Injector Control Tube (L.H. Helix)	2	2	2	2
2.9012	10	FP-5124142	Spring, Injector Control Tube Return (Green)	2	2	2	2
2.9022	15	FP-5117942	Link, Injector Control Tube To Governor (Long), (R/Bank) (R/Bank Rear On 16V), (Type # 95,96,137,150,215,216,218,233,234,244,246,251,253,288,292,295,296,298,299,308,311,312,314,315,324,325)	4	4	8	8
2.9022	0	FP-142583	Retainer, 13/64" Plain Spring	2	2	4	4
2.9022	15	FP-5117191	Link, Injector Control Tube To Governor (Short), (L/Bank) (Type # 95,96,216,218,233,234,241,244,246,251,288,292,295,296,298,299,308,309,310,311,312,326,327,328,329,330,331,332,333,334,335,336,337,338,341,344,353,362,363,370,371,383,386)	1	1	1	1
2.9022	15	FP-5127415	Link, Injector Control Tube To Governor (Long), (L/Bank) (Left Bank Rear on 16V), (Type # 116,117,119,241,243,289,313)	1	1	1	1
2.9022	15	FP-5127417	Link, Injector Control Tube To Governor (Short), (R/Bank Rear) (Type # 116,117,119,241,243,289,313)	1	1	1	1
2.9022	15	FP-5133699	Link, Injector Control Tube To Governor (Long), (R/Bank Front) (Type # 137,150,215,253,314,315,379,388)	1	1	1	1
2.9022	15	FP-5133700	Link, Injector Control Tube To Governor (Short), (L/Bank Rear) (Type # 137,150,215,253,314,315,379,388)	1	1	1	1
2.9022	15	FP-5134026	Link, Injector Control Tube To Governor (Short), (L/Bank Front) (Type # 137,150,215,253,314,315,379,388)	1	1	1	1
2.9030	0	FP-5150325	Bolt, 1/2" -13 X 4 1/4"	1	1	1	1
2.9030	25	FP-5180116	Bolt, "U" 1/4" - 20	1	1	1	1
2.9087	0	FP-5131433	Washer, .41" X .81" X .1345"	1	1	1	1
2.9087	0	FP-8927580	Bolt, 3/8" X 7/8"	1	1	1	1
2.9090	0	FP-5103635	Bolt, 3/8" - 16 X 2.70"	2	2	2	2
2.9355	0	FP-23504196	Solenoid, Throttle Control (12V)	1	1	1	1
2.9360	0	FP-5122797	Link, Throttle Control	1	1	1	1
2.9410	0	FP-5176810	Pin, Clevis, Governor Control Lever (1/4" x 49/64")	AR	AR	AR	AR



Silencer & Air Intake

(Figure 10.1)





Silencer & Air Intake

(Figure 10.1)

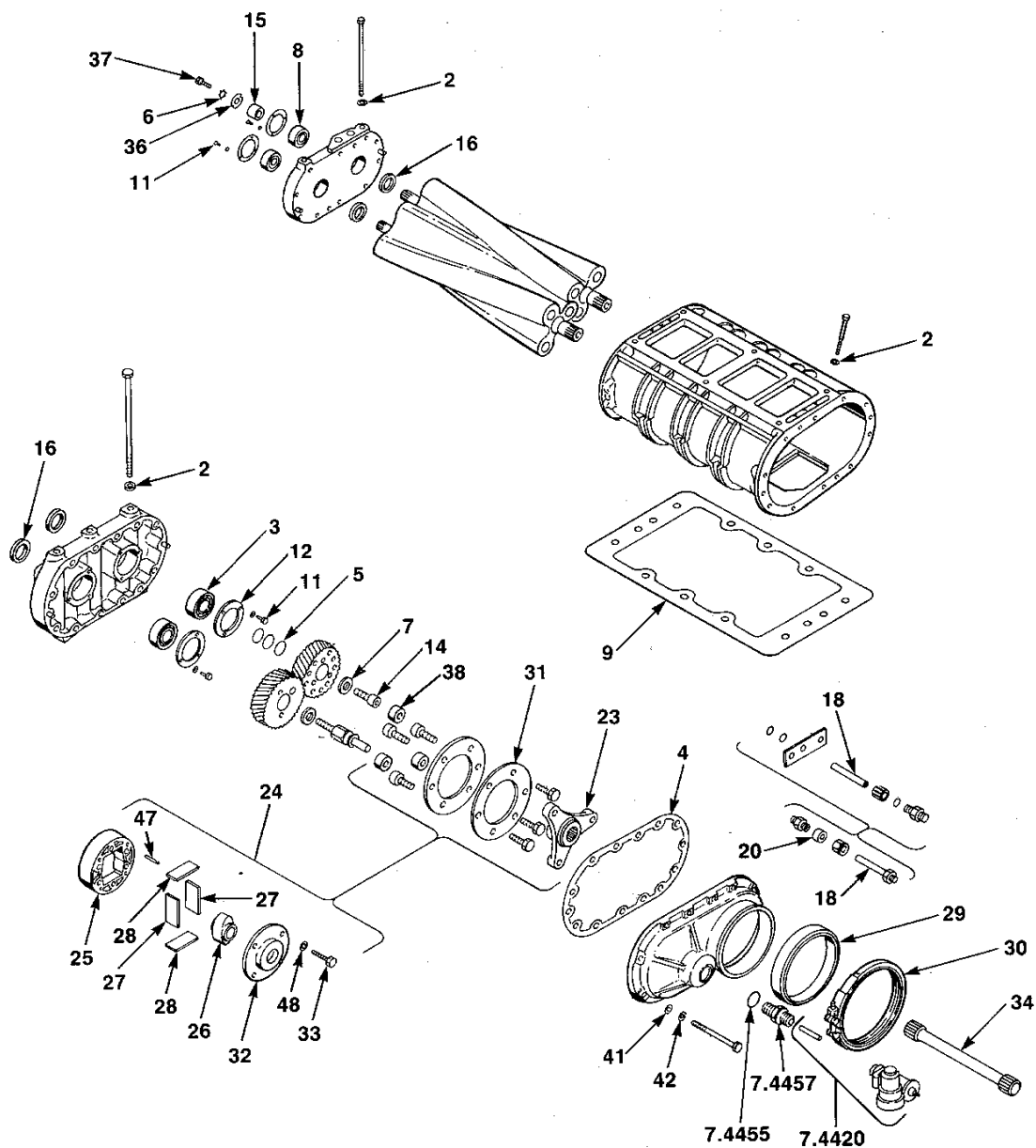
Groups:
3.1261 - 3.3270

Group	Ref	Part No.	Description	6V	8V	12V	16V
3.1261	0	FP-5123750	Gasket, Air Cleaner To Inlet Housing Pipe	AR	AR	AR	AR
3.2001	5	FP-103320	Lockwasher, 5/16"	8	8	8	8
3.2001	5	FP-103321	Lockwasher, 3/8"	8	8	8	8
3.2001	2	FP-5189848	Silencer, Air (Option # 24)	2	-	-	-
3.2001	2	FP-5187177	Silencer, Air (Option # 36)	-	-	-	4
3.3003	9	FP-103321	Lockwasher, 3/8"	8	8	8	16
3.3003	8	FP-8927580	Bolt, 3/8" - 16 X 7/8"	8	8	8	16
3.3003	0	FP-5142549	Plug, 3/4" Pipe	1	1	1	2
3.3010	0	FP-23511492	Gasket, Air Inlet Housing (Old # 5133245)	2	2	2	4
3.3010	0	FP-5101408	Gasket, Air Inlet Housing (15.48" I.D. w/Ten 15/32" Holes)	2	2	2	4
3.3010	0	FP-5101412	Gasket, Air Inlet Housing (11.60" I.D. w/Eight 15/32" Holes)	2	2	2	4
3.3010	0	FP-5103515	Gasket, Air Inlet Housing (w/Screen)	2	2	2	4
3.3010	0	FP-5103602	Gasket, Air Inlet Housing (w/Screen)	2	2	2	4
3.3010	0	FP-5123703	Gasket, Air Inlet Housing (5.68" I.D. w/Eight 13/32" Holes)	2	2	2	4
3.3010	0	FP-5134838	Gasket, Air Inlet Housing (8" L. w/Four 13/32" Holes)	2	2	2	4
3.3010	0	FP-5145086	Gasket, Air Inlet Housing	2	2	2	4
3.3030	0	FP-5145086	Gasket, Air Inlet Housing Striker Plate	2	2	2	4
3.3030	0	FP-5145235	Gasket, Air Inlet Housing Striker Plate	2	2	2	4
3.3035	22	FP-179803	Bolt, 1/4" - 20 X 1 3/4"	1	1	1	2
3.3035	26	FP-5159714	Washer, 11/16" X 1/8"	1	1	2	2
3.3055	17	FP-5179232	Seal, Air Inlet Housing Shutdown Valve	2	2	4	4
3.3067	0	FP-23506396	Ring Seal, Blower By-Pass Valve CI	2	2	2	2
3.3070	22	FP-179803	Bolt, 1/4" - 20 X 1 3/4"	2	2	4	4
3.3090	26	FP-5159714	Washer, 11/16" X 1/8"	1	1	2	2
3.3270	0	FP-103321	Lockwasher, 3/8"	1	1	2	2
3.3270	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	1	1	2	2



Blower

(Figure 10.2)





Blower

(Figure 10.2)

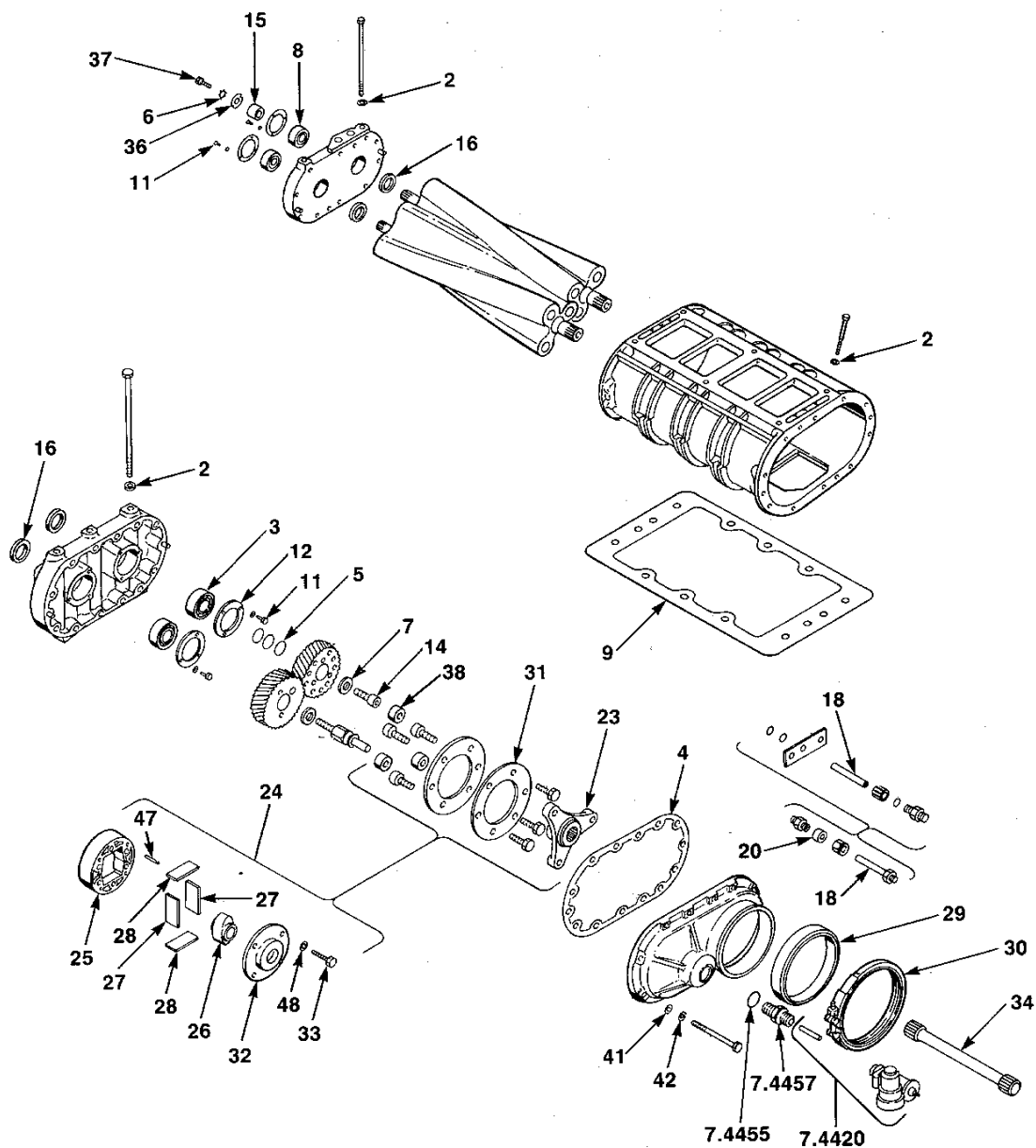
Groups:
3.4001 - 3.4192

Group	Ref	Part No.	Description	6V	8V	12V	16V
3.4001	0	FP-5101419	Seal Ring, Round .139" X .734" I.D.	2	2	4	4
3.4001	2	FP-5121905	Washer, 15/32" I.D. X 7/8" O.D. X 5/32" L	2	2	4	4
3.4003	0	FP-5149641	Gasket Kit, Blower Installation (6V92 Turbo)	1	-	-	-
3.4003	0	FP-5149646	Gasket Kit, Blower Installation (6V92 N/A)	1	-	-	-
3.4003	0	FP-5149643	Gasket Kit, Blower Installation (8V92 Turbo)	-	1	-	-
3.4003	0	FP-5149644	Gasket Kit, Blower Installation (8V92 N/A)	-	1	-	-
3.4003	0	FP-5149642	Gasket Kit, Blower Installation (12V92 N/A & Turbo)	-	-	2	-
3.4003	0	FP-5149645	Gasket Kit, Blower Installation (16V92 N/A & Turbo)	-	-	-	2
3.4005	6	FP-5154398	Lockwasher, 1/2" Special	1	1	1	1
3.4010	9	FP-23520019	Gasket, Blower To Block (Old # 23513179)	1	-	2	-
3.4010	9	FP-5145235	Gasket, Blower To Block (Less Screen)	1	-	2	-
3.4010	9	FP-23520012	Gasket, Blower To Block	-	1	-	2
3.4010	9	FP-5145086	Gasket, Blower To Block (Less Screen)	-	1	-	2
3.4025	0	FP-5103515	Gasket, Blower (w/Screen)	1	-	2	-
3.4025	0	FP-5102062	Gasket, Blower	-	1	-	2
3.4025	0	FP-5103602	Gasket, Blower (w/Screen)	-	1	-	-
3.4025	0	FP-5104323	Gasket, Blower (Less Screen)	-	-	2	-
3.4050	11	FP-5148794	Bolt, 1/4" - 20 X 5/8"	12	12	24	24
3.4080	14	FP-9409060	Bolt, 1/2" - 20 X 1 1/2" Lock	1	1	1	1
3.4080	0	FP-5103364	Bolt, 1/2" - 20 X 1.10" 12 Pt Head	-	-	3	-
3.4135	31	FP-8920764	Plate, Rotor Gear Hub (Rear of Front Blower)	-	-	4	4
3.4135	31	FP-8920765	Plate, Rotor Gear Hub (Front of Rear Blower)	-	-	2	2
3.4137	38	FP-5173364	Spacer, Blower Gear	-	-	3	3
3.4137	0	FP-8920763	Spacer, Blower Gear Hub	-	-	3	3
3.4160	16	FP-5138710	Seal, Blower End Plate Std.	4	4	8	8
3.4180	42	FP-103320	Lockwasher, 5/16"	28	28	56	56
3.4180	41	FP-5159714	Washer, 11/16" X 1/8"	28	28	56	56
3.4190	4	FP-8924266	Gasket, Blower End Plate Cover	1	1	2	2
3.4192	18	FP-5117717	Tube, Blower Oil Supply 5/16" X 4.20"	1	1	1	1
3.4160	0	FP-23500533	Seal Kit, Blower End Plate	1	1	2	2
3.4160	16	FP-8924453	Seal, Blower End Plate	4	4	8	8
3.4160	0	FP-5192439	Sleeve, Blower End Plate Seal	4	4	8	8
3.4005	0	FP-23514202	Kit, Blower Repair, Large Bearing (All)	1	1	2	2
3.4005	5	FP-5150372	Shim, Blower Rotor Gear (.002")	1	1	1	1
3.4005	5	FP-5153938	Shim, Blower Rotor Gear (.003")	1	1	1	1
3.4005	5	FP-5150855	Shim, Blower Rotor Gear (.005")	1	1	1	1
3.4005	5	FP-5150856	Shim, Blower Rotor Gear (.010")	1	1	1	1
3.4110	36	FP-5154398	Lockwasher, 1/2" Ext. Tooth	1	1	2	2
3.4005	0	FP-5192439	Sleeve, Blower End Plate Seal	4	4	4	4
3.4005	7	FP-8924453	Seal Assembly, Blower Rotor	4	4	4	4
3.4005	3	FP-23504304	Bearing, Roller, Blower Rotor (Rear)	2	2	2	2
3.4005	8	FP-23503542	Bearing, Ball, Blower Rotor (Front)	2	2	2	2



Blower

(Figure 10.2)





Blower

(Figure 10.2)

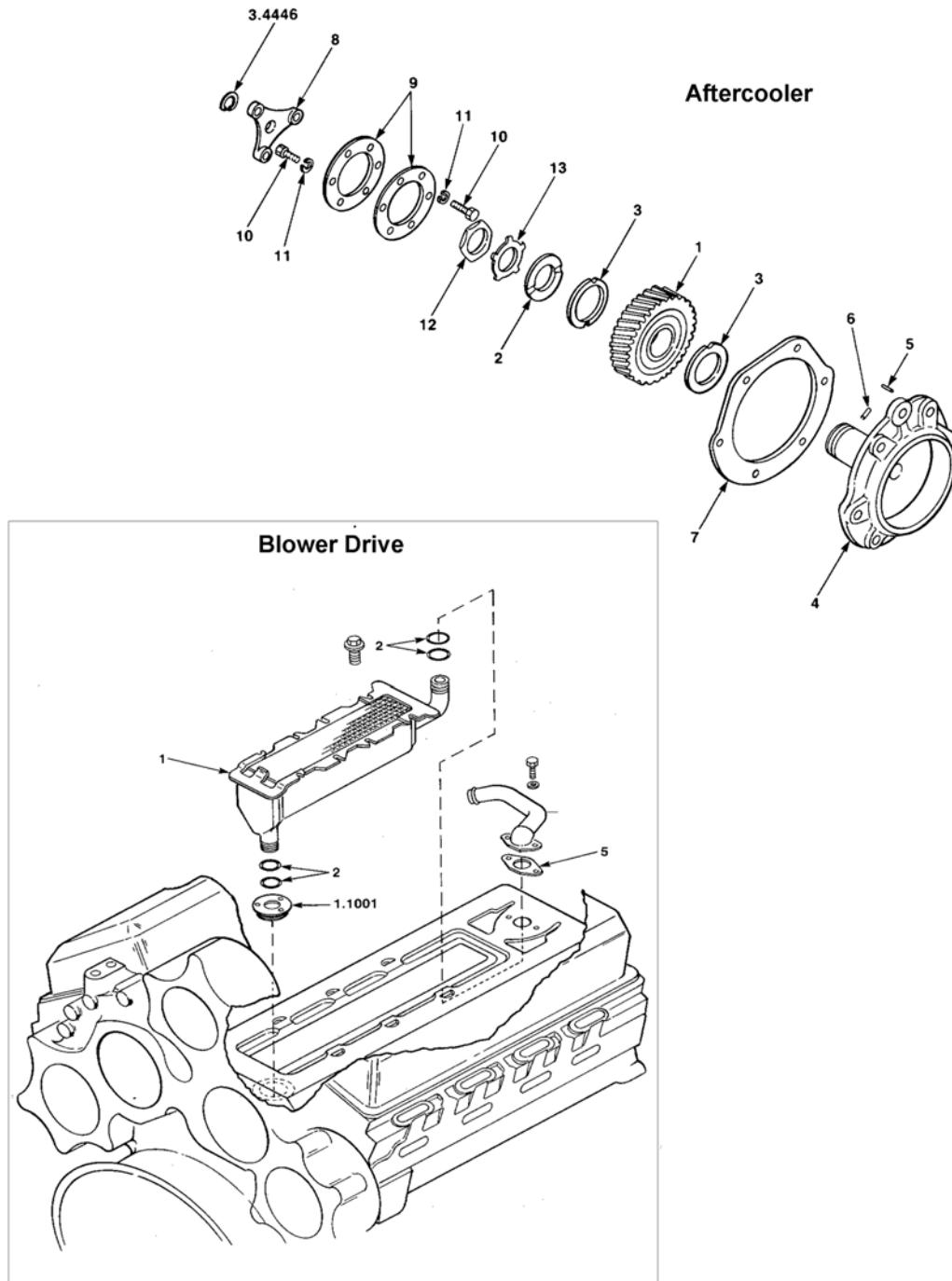
Groups:
3.4001 - 3.4192

Group	Ref	Part No.	Description	6V	8V	12V	16V
3.4005	0	FP-23514202WG	Kit, Blower Repair, Large Bearing (All)	1	1	2	2
3.4005	0	FP-5114726	Blower End Plate Gasket	2	2	4	4
3.4005	0	FP-5150234	Blower End Plate Gasket	1	1	2	2
3.4005	5	FP-5150372	Shim, Blower Rotor Gear (.002")	1	1	1	1
3.4005	5	FP-5153938	Shim, Blower Rotor Gear (.003")	1	1	1	1
3.4005	5	FP-5150855	Shim, Blower Rotor Gear (.005")	1	1	1	1
3.4005	5	FP-5150856	Shim, Blower Rotor Gear (.010")	1	1	1	1
3.4110	36	FP-5154398	Lockwasher, 1/2" Ext. Tooth	1	1	2	2
3.4005	0	FP-5192439	Sleeve, Blower End Plate Seal	4	4	4	4
3.4005	0	FP-8924266	Blower End Plate Gasket	2	2	4	4
3.4005	7	FP-8924453	Seal Assembly, Blower Rotor	4	4	4	4
3.4005	3	FP-23504304	Bearing, Roller, Blower Rotor (Rear)	2	2	2	2
3.4005	8	FP-23503542	Bearing, Ball, Blower Rotor (Front)	2	2	2	2



Blower Drive & Aftercooler

(Figure 10.3)





Blower Drive & Aftercooler

(Figure 10.3)

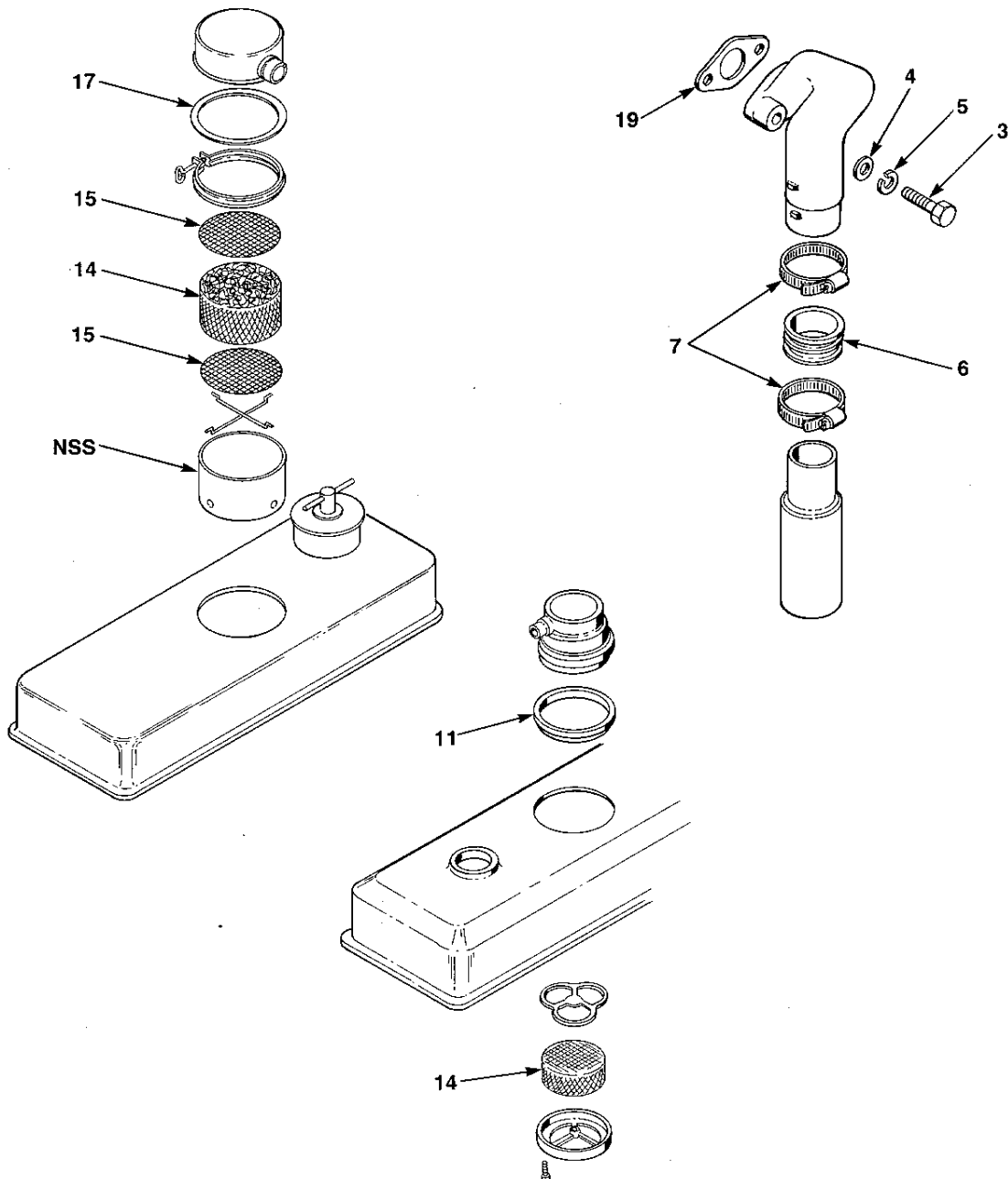
Groups:
3.4192 - 3.5520

Group	Ref	Part No.	Description	6V	8V	12V	16V
Aftercooler							
3.5436	2	FP-5101138	Seal Ring, .984" X .139"	4	4	8	8
3.5437	0	FP-5186840	Clamp, 13/16" X 1 1/2"	4	4	8	8
3.5438	0	FP-103320	Lockwasher, 5/16"	1	1	2	2
3.5438	5	FP-5145581	Gasket, Aftercooler Water Outlet	1	1	2	2
Blower							
3.4192	43	FP-5124519	O-Ring, Blower Oil Supply Tube	1	1	1	1
3.4192	43	FP-8927414	Seal, Ring Blower Oil Supply Tube (1/4" I.D. - Violet Color)	1	1	1	1
3.4220	29	FP-8922140	Seal, Blower Drive Cover (4.32" X 4.88" X .77")	1	1	1	1
3.4227	30	FP-5106219	Clamp, Blower Drive Cover Seal	1	1	1	1
3.4370	0	FP-5103364	Bolt, 1/2" - 20 X 1.10" 12 Pt Head	3	3	3	3
3.4370	0	FP-5173364	Spacer, Blower Drive Coupling	3	3	3	3
3.4370	0	FP-8920763	Spacer, Blower Drive Coupling	3	3	3	3
3.4370	0	FP-5196314	Spring Pack, Blower Drive Coupling	1	1	1	1
3.4370	23	FP-8922517	Coupling, Blower Drive (29 Spline), (Spider)	1	1	1	1
3.4370	23	FP-5141473	Coupling, Blower Drive (48 Spline), (Spider)	1	-	-	-
3.4420	48	FP-103320	Washer, 5/16"	3	3	3	3
3.4420	33	FP-9409077	Bolt, 5/16" - 24 X 1 5/8"	3	3	3	3
3.4420	32	FP-5150349	Retainer, Blower Drive Coupling	1	1	1	1
3.4420	32	FP-5150349	Retainer, Blower Drive Coupling	1	1	1	1
3.4445	34	FP-8922634	Shaft, Blower Drive (w/Spring), (6.67" L), (29 Spline)	1	-	2	-
3.4445	34	FP-8922666	Shaft, Blower Drive (w/Spring), (4.89" L), (29 Spline)	1	-	2	-
3.4445	34	FP-8923052	Shaft, Blower Drive (w/Spring), (4.89" L), (48 Teeth)	1	-	2	-
3.4445	34	FP-8923053	Shaft, Blower Drive (w/Spring), (6.67" L), (48 Spline), (Carbonitride)	-	1	-	2
3.4446	0	FP-5154637	Ring, Blower Drive Shaft Retaining	1	1	1	1
3.4370	0	FP-23503682	Coupling Assembly, Blower Drive	1	1	1	1
3.4380	25	FP-5150345	Support, Blower Drive Coupling	1	1	1	1
3.4390	26	FP-23503681	Cam, Blower Drive Coupling	1	1	1	1
3.4400	27	FP-5123859	Spring, Blower Drive Coupling	-	42	42	42
3.4400	28	FP-5123860	Seat, Blower Drive Coupling	2	2	2	2
3.4410	47	FP-5150346	Seat, Blower Drive Coupling Spring (Pin Half)	4	4	4	4
3.4370	24	FP-5103377	Coupling, Blower Drive	1	1	1	1
3.4380	25	FP-5150345	Support, Blower Drive Coupling	1	1	1	1
3.4390	26	FP-5103365	Cam, Blower Drive Coupling	1	1	1	1
3.4400	27	FP-5123859	Spring, Blower Drive Coupling	42	42	42	42
3.4400	28	FP-5123860	Seat, Blower Drive Coupling	2	2	2	2
3.4410	47	FP-5150346	Seat, Blower Drive Coupling Spring (Pin Half)	2	2	2	2
Turbocharger							
3.5001	0	FP-5198257	Seal Ring, Turbocharger (3.5022)	AR	AR	AR	AR
3.5001	0	FP-5149158	Lock Plate, Turbocharger Mounting	4	4	4	4
3.5305	0	FP-5108715	Seal, Turbocharger Exhaust Inlet Connector (3.62" I.D. x 4.08" O.D.)	1	1	1	1
3.5307	0	FP-23523346	Gasket, Turbocharger Exhaust Inlet Elbow (Coach)	1	-	-	-
3.5402	0	FP-23511492	Gasket, Turbocharger Inlet Elbow	1	1	1	AR
3.5418	0	FP-23511492	Gasket, Turbocharger Outlet Elbow	1	1	1	AR
3.5505	0	FP-5143618	Hose, Turbocharger Oil Return (# 16 x 31.00")	AR	AR	AR	AR
3.5505	0	FP-5176532	Seal Ring, Turbocharger Oil Return Tube (7/8" Tube, Sealastic)	1	1	1	1
3.5520	0	FP-5181415	Clip, Turbocharger Water Supply Tube (1 1/8" Tube, 7/16" Bolt)	AR	AR	AR	AR



Breathers

(Figure 11.1)





Breathers

(Figure 11.1)

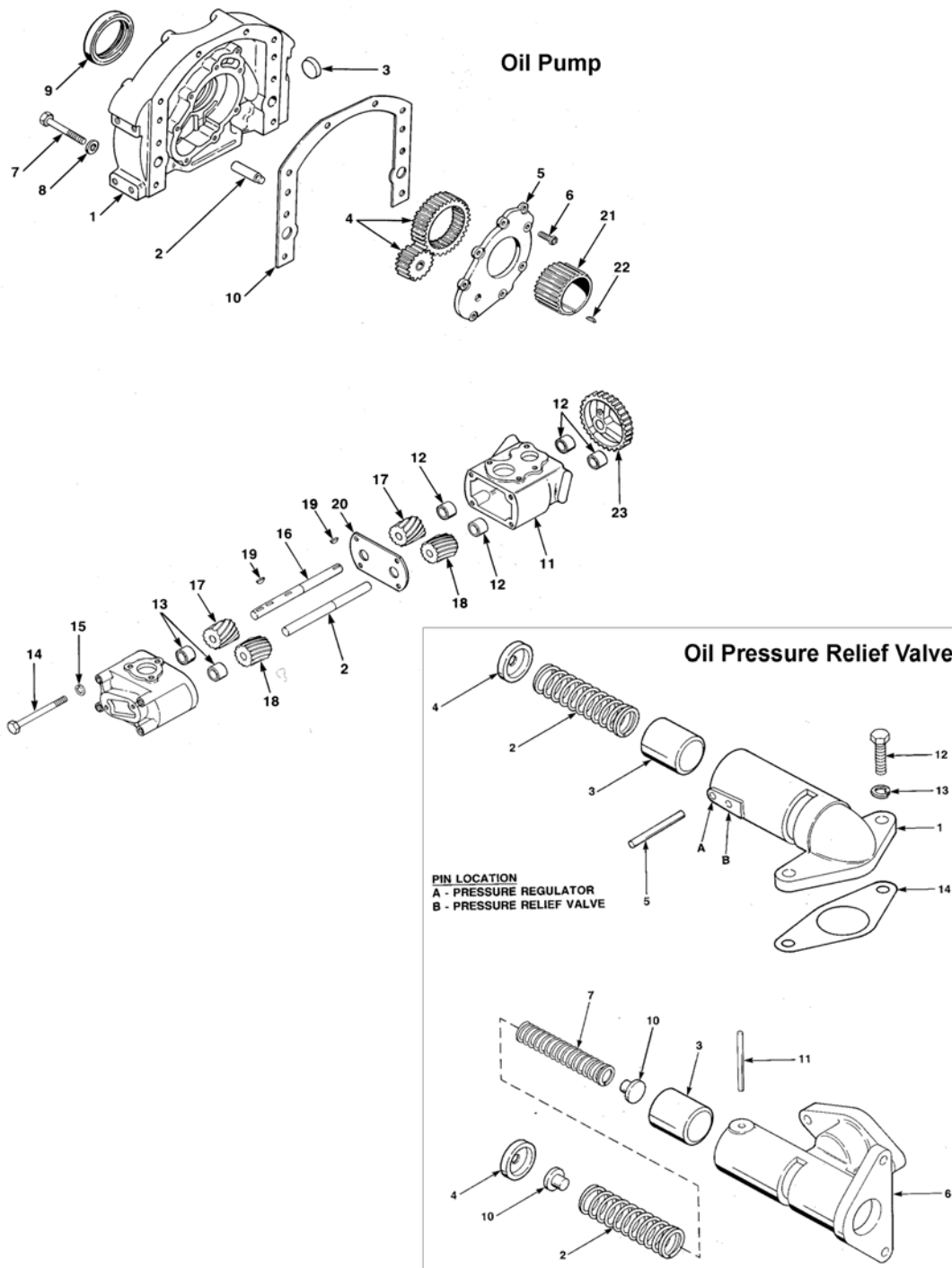
Groups:
4.8001 - 4.8170

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.8001	5	FP-103319	Lockwasher, 1/4"	2	2	2	2
4.8001	5	FP-103321	Lockwasher, 3/8"	2	2	2	2
4.8001	0	FP-443603	Bolt, 1/4" - 20 X 3/4"	2	2	2	2
4.8001	19	FP-5123812	Gasket, Breather Elbow	2	2	4	4
4.8001	0	FP-5180314	Seal Ring, Breather	2	2	4	4
4.8001	0	FP-8921930	Bolt, 1/4" - 20 X 1.25"	2	2	4	4
4.8001	3	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	2	2
4.8010	7	FP-5104592	Clamp, Breather (2 1/2" Dia. Hose)	2	2	2	2
4.8010	7	FP-5186840	Clamp, Breather (13/16" - 1 1/2" Clamping Range)	2	2	2	2
4.8010	6	FP-8924267	Hose, Breather Tube Extension (1" L.)	1	1	1	1
4.8013	3	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	2	2
4.8020	0	FP-23507249	Gasket, Breather Tube	AR	AR	AR	AR
4.8020	0	FP-5117636	Gasket, Breather Pipe	1	1	1	1
4.8020	0	FP-5132331	Gasket, Breather Pipe	1	1	1	-
4.8040	0	FP-5186840	Clamp, Breather (13/16" - 1 1/2" Clamping Range)	2	2	2	2
4.8040	0	FP-103321	Lockwasher, 3/8"	1	1	1	1
4.8040	0	FP-106261	Washer, 5/16" X 3/4"	1	1	1	1
4.8040	0	FP-5131433	Washer, .41" X .81" X .1345"	1	1	1	1
4.8040	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	1	1	1	1
4.8040	0	FP-8927581	Bolt, 3/8" - 16 X 1"	1	1	1	1
4.8042	0	FP-103319	Lockwasher, 1/4"	1	1	1	1
4.8043	11	FP-5103646	Gasket, Breather Hole Plug	1	1	1	1
4.8045	15	FP-5132042	Screen, Filter Unit Breather	2	2	2	2
4.8045	14	FP-5101760	Element, Breather Oil Separator Filter Unit	1	1	1	1
4.8045	0	FP-5130349	Gasket, Breather Pipe	1	1	1	1
4.8055	10	FP-5103642	Screw, # 10 - 24 X .375" Lock	1	1	1	1
4.8057	11	FP-5103646	Gasket, Breather Shell Cover	1	1	1	1
4.8060	15	FP-5132042	Screen, Filter Unit Breather	2	2	2	2
4.8060	14	FP-5101760	Element, Breather Oil Separator Filter Unit	1	1	1	1
4.8070	17	FP-5144038	Gasket, Breather Body Or Separator	2	2	2	2
4.8070	17	FP-5130349	Gasket, Breather Body Or Separator	1	1	1	1
4.8170	0	FP-103320	Lockwasher, 5/16"	1	1	1	1



Oil Pump

(Figure 12.1)





Oil Pump

(Figure 12.1)

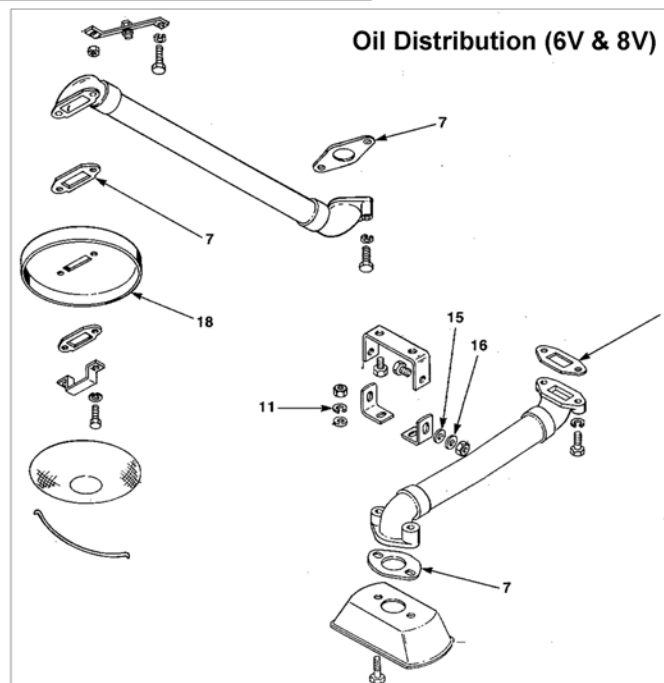
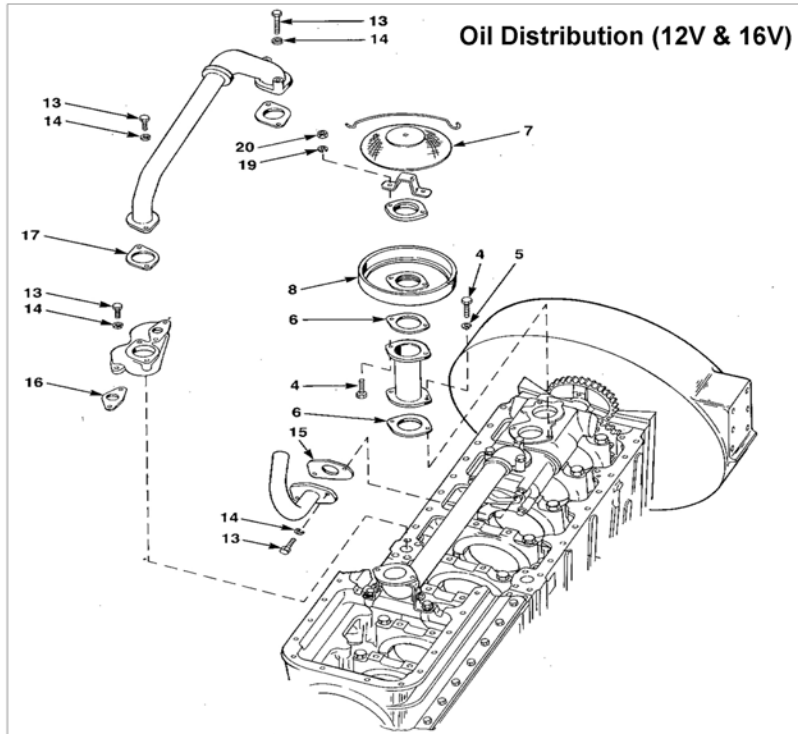
Groups:
4.1001 - 4.1380

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.1001	8	FP-103321	Lockwasher, 3/8"	2	2	-	-
4.1001	0	FP-5136240	Plug Cap, .420" Dia.	1	1	-	-
4.1001	0	FP-103026	Nut, 3/8" - 24	-	-	-	-
4.1001	0	FP-8927270	Stud, 3/8" - 16/24 X 1 11/16"	-	-	-	-
4.1004	9	FP-23514608	Seal, Crankshaft Oil (Front), (R.H. Rotation), (Red)	1	1	-	-
4.1004	9	FP-23514609	Seal, Crankshaft Oil (Front), (L.H. Rotation), (Blue)	1	1	-	-
4.1004	9	FP-5115454	Seal, Crankshaft Oil (Front), (Single Lip)	1	1	-	-
4.1004	9	FP-8922045	Seal, Crankshaft Oil (Front), (R.H. Rotation)	1	1	-	-
4.1004	9	FP-5143108	Seal, Crankshaft Oil (Front)	-	1	-	-
4.1007	10	FP-5121714	Gasket, Oil Pump To Cylinder Block	1	1	-	-
4.1008	0	FP-23503766	Spacer, 2.50" I.D. x 2" L.	1	1	-	-
4.1008	0	FP-23503769	Seal, Crankshaft Spacer	1	1	-	-
4.1008	0	FP-23503767	Spacer, 2.55" L.	1	-	-	-
4.1040	0	FP-5142549	Plug, 3/4" Pipe	1	1	-	-
4.1090	0	FP-5117587	Gear, Oil Pump Drive (1.302" Wide)	1	1	-	-
4.1095	4	FP-5196602	Gear Set, Oil Pump (1.302" Wide)	1	1	-	-
4.1095	4	FP-5196603	Gear Set, Oil Pump (.981" Wide)	1	1	-	-
4.1200	0	FP-5117588	Gear, Oil Pump Driven (1.302" Wide)	1	1	-	-
4.1200	0	FP-5123303	Bushing, Oil Pump Driven Gear	1	1	-	-
4.1220	0	FP-8924517	Plug, 3/8" Pipe	1	1	1	1
4.1220	18	FP-103321	Lockwasher, 3/8"	-	-	4	4
4.1220	0	FP-8927581	Bolt, 3/8" - 16 X 1"	-	-	4	4
4.1222	21	FP-103321	Lockwasher, 3/8"	2	2	2	2
4.1222	20	FP-8927580	Bolt, 3/8" - 16 X 1"	2	2	2	2
4.1260	0	FP-5126326	Spring, Oil Pressure Relief Valve	1	1	1	1
4.1260	0	FP-5126327	Spring, Oil Pressure Relief Valve	1	1	1	1
4.1300	26	FP-29503153	Gasket, Oil Pump Cover Flange (2.40" B.C.)	2	2	2	2
4.1310	28	FP-8928545	Key, 3/16" X 7/8" Woodruff	1	1	1	1
4.1310	27	FP-8927135	Gear, Oil Pump Drive (On Crankshaft 37 Teeth)	1	-	1	1
4.1380	0	FP-5104439	Washer, (Dished 1 1/4" O.D.)	1	1	1	1



Oil Distribution

(Figure 12.2)





Oil Distribution

(Figure 12.2)

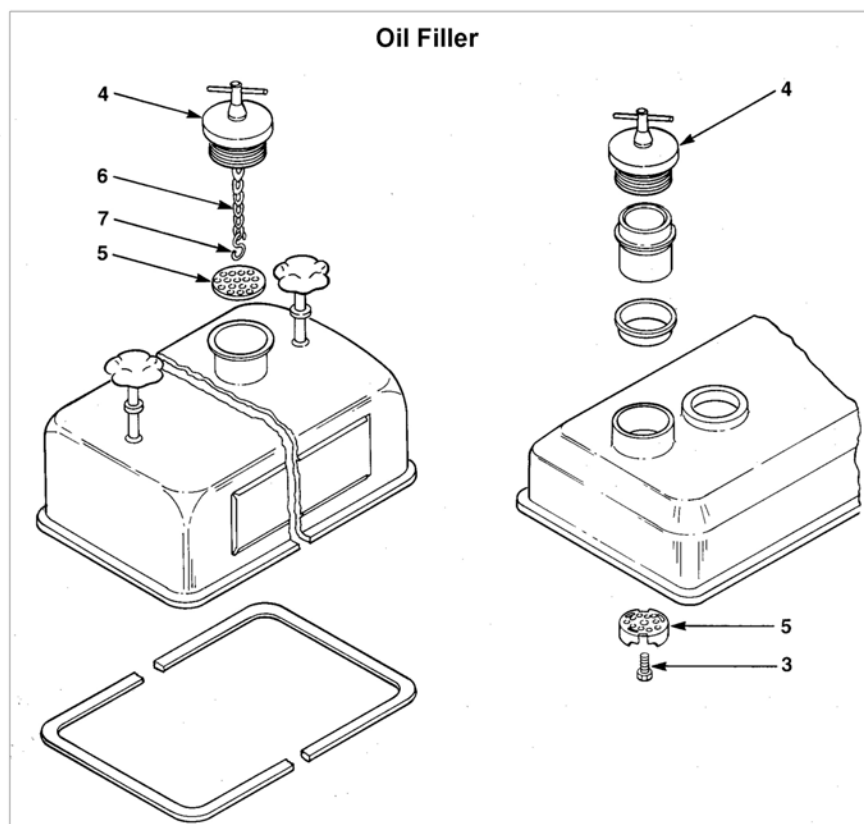
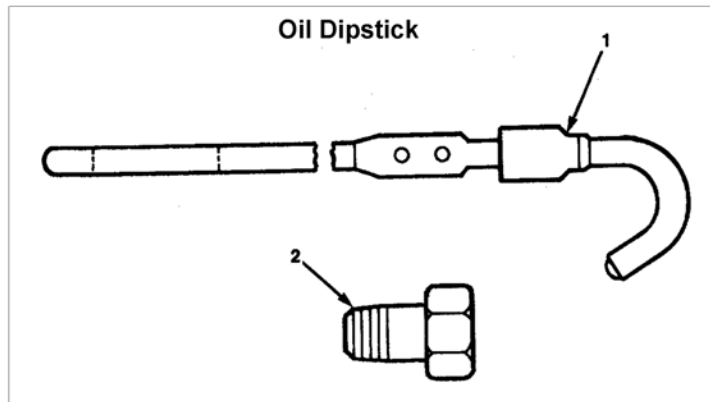
Groups:
4.1510 - 4.2350

Group	Ref	Part No.	Description	6V	8V	12V	16V
Oil Distribution 6V92 & 8V92							
4.1520	7	FP-5117242	Gasket, Oil Pump Inlet Pipe (At Pump), (3" B.C.)	1	1	-	-
4.1520	7	FP-5126160	Gasket, Oil Pump Inlet Pipe (1.80" B.C.)	1	1	-	-
4.1520	7	FP-5167380	Gasket, Oil Pump Inlet Pipe (2 21/32" B.C.)	1	1	-	-
4.1530	11	FP-103320	Lockwasher, 5/16"	2	2	-	-
4.1540	16	FP-103321	Lockwasher, 3/8"	2	2	-	-
4.1540	0	FP-5104293	Bolt, Oil Pump Screen Support (5/16" - 18 x 3/4")	2	2	-	-
4.1540	0	FP-5148436	Bolt, 5/16" - 18 X 3/4"	2	2	-	-
4.1540	0	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	-	-
4.1540	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	1	1	-	-
4.1550	18	FP-5118302	Cover, Oil Pump Inlet Pipe Screen	1	1	-	-
4.1550	18	FP-5128886	Cover, Oil Pump Inlet Pipe Screen	1	1	-	-
4.1590	0	FP-5112401	Gasket, Oil Pump Outlet Pipe To Oil Cooler	1	1	-	-
4.2350	0	FP-5140881	Gasket, Oil Filter Adapter	1	-	-	-
Oil Distribution 12V92 & 16V92							
4.1510	20	FP-103026	Nut, 3/8" - 24	-	-	2	2
4.1510	19	FP-103321	Lockwasher, 3/8"	-	-	4	4
4.1510	4	FP-8927580	Bolt, 3/8" - 16 X 7/8"	-	-	4	4
4.1520	6	FP-5128891	Gasket, Oil Pump Inlet Pipe (Pump To Screen), (2.88" B.C.)	-	-	-	3
4.1521	6	FP-5128875	Gasket, Oil Pump Inlet Pipe (Scavenging Pump), (3 Hole)	-	-	1	1
4.1550	8	FP-5118302	Cover, Oil Pump Inlet Screen	-	-	2	-
4.1550	8	FP-5128886	Cover, Oil Pump Inlet Screen	-	-	-	2
4.1580	14	FP-103321	Lockwasher, 3/8"	-	-	8	8
4.1580	0	FP-5121182	Plug, 1/2" Pipe	-	-	-	-
4.1580	0	FP-8924380	Plug, 1/8" - 27 Pipe	-	-	1	1
4.1580	13	FP-8927581	Bolt, 3/8" - 16 X 1" (4.1540)	-	-	8	8
4.1581	0	FP-8923847	Plug, 1/4" Pipe	-	-	1	1
4.1581	0	FP-8924380	Plug, 1/8" - 27 Pipe	-	-	1	1
4.1590	17	FP-2206783	Gasket, Oil Pump Outlet Pipe (Junction Outlet)	-	-	1	1
4.1590	16	FP-5117269	Gasket, Oil Pump Outlet Pipe (Junction Block)	-	-	2	2
4.1590	18	FP-5123660	Gasket, Oil Pump Outlet	-	-	1	1
4.1597	0	FP-5121182	Plug, 1/4" Pipe	-	-	1	1
4.1597	0	FP-8923847	Plug, 1/4" Pipe	-	-	1	1



Oil Filler & Dipstick

(Figure 12.3)





Oil Filler & Dipstick

(Figure 12.3)

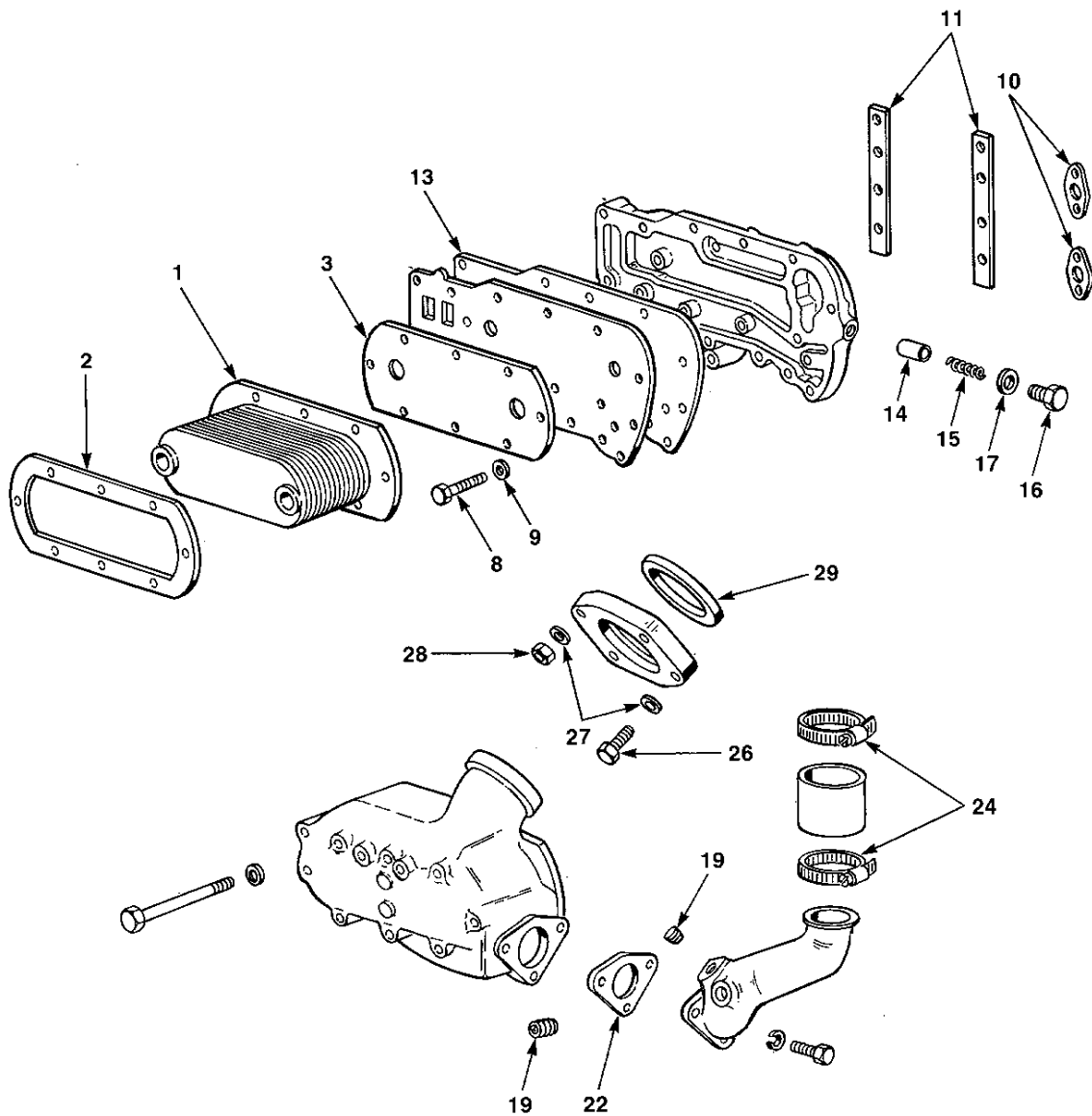
Groups:
4.5001 - 4.6040

Group	Ref	Part No.	Description	6V	8V	12V	16V
Dipstick							
4.6001	1	FP-5101885	Dipstick, Marked	1	1	1	1
4.6001	1	FP-5102092	Dipstick, Marked	1	1	1	1
4.6001	1	FP-5146680	Dipstick, Unmarked	1	1	1	1
4.6020	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
4.6020	2	FP-5151430	Guide, Dipstick (1 1/2" L.)	1	1	1	1
4.6040	0	FP-103026	Nut, 3/8"-24	1	1	1	1
4.6040	0	FP-106261	Washer, 5/16"	1	1	1	1
4.6040	0	FP-5152148	Washer, 3/8" Copper	1	1	1	1
4.6040	0	FP-8927581	Bolt, 3/8" - 16 X 1"	1	1	1	1
Oil Filler							
4.5001	3	FP-5103642	Screw, #10 - 24 X 3.75" Lock	3	3	3	3
4.5001	0	FP-103321	Lockwasher, 3/8"	2	2	2	2
4.5005	0	FP-103321	Lockwasher, 3/8"	2	2	2	2
4.5005	0	FP-8923847	Plug, 1/4" Pipe	1	1	1	1
4.5005	0	FP-8927581	Bolt, 3/8" - 16 X 1"	1	1	1	1
4.5007	0	FP-5104507	Gasket, Oil Filler Tube Adaptor	1	1	2	2
4.5007	0	FP-5120540	Gasket, Oil Filler Tube Adaptor	1	1	2	2
4.5010	4	FP-5107106	Cap, Oil Filler (1 1/2" Dia.), (Bottle Type)	2	2	2	2
4.5010	4	FP-5117362	Cap, Oil Filler (2" Dia.), (Bottle Type)	2	2	2	2
4.5020	3	FP-5103642	Screw, #10 - 24 X 3.75" Lock	2	2	2	2
4.5020	5	FP-5150147	Strainer, Oil Filler Tube	2	2	2	2



Oil Cooler - Single

(Figure 13.1)





Oil Cooler - Single

(Figure 13.1)

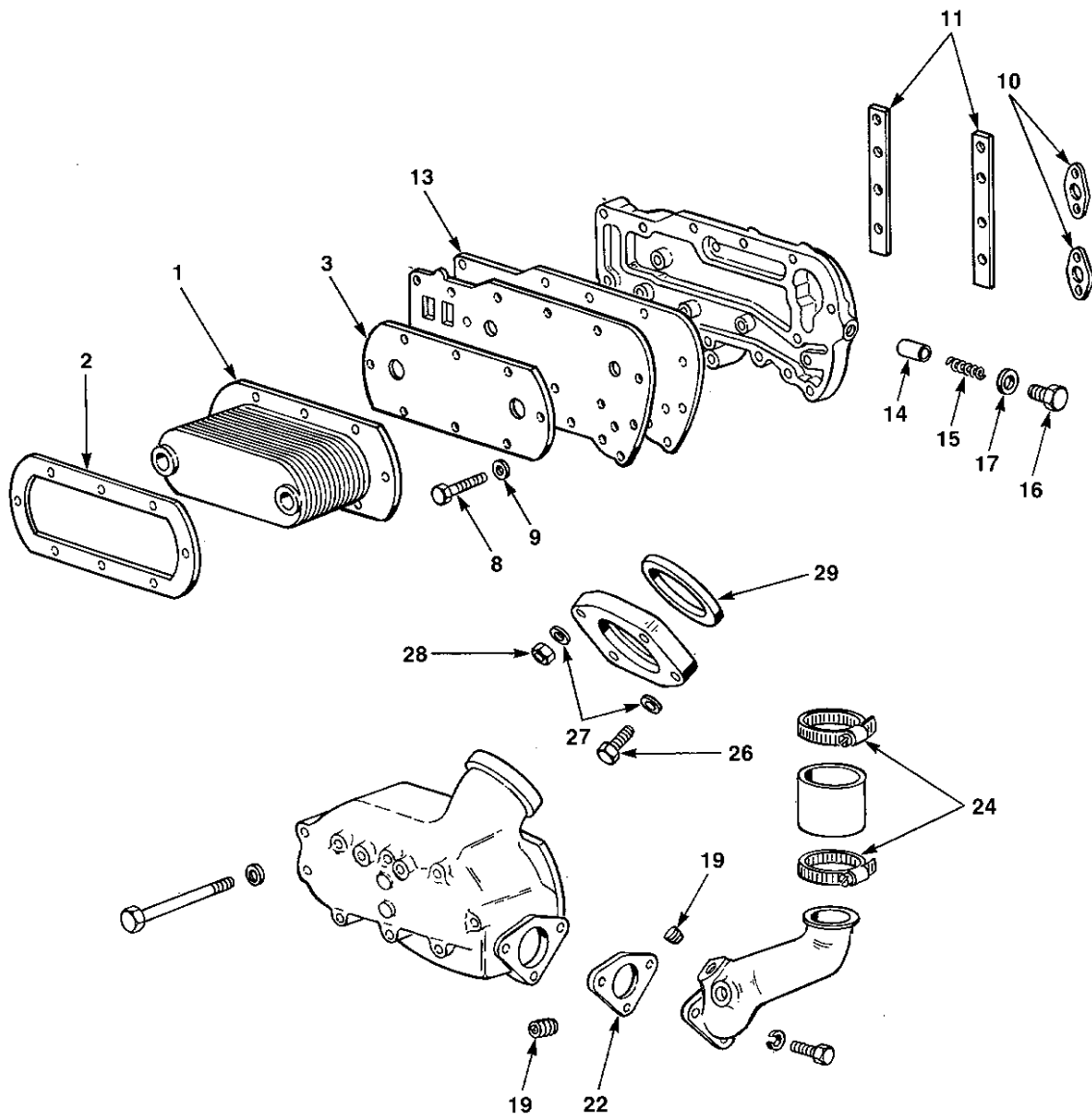
Groups:
4.4001 - 4.4116

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.4001	1	FP-8547195	Core Assembly, Oil Cooler, Engine (18 Plate)	1	1	-	-
4.4001	1	FP-8547581	Core Assembly, Oil Cooler, Marine Gear (13 Plate)	1	1	-	-
4.4001	1	FP-8547547	Core Assembly, Oil Cooler, Engine (16 Plate)	1	-	-	-
4.4001	1	FP-8547551	Core Assembly, Oil Cooler, Engine (8 Plate)	1	-	1	-
4.4001	1	FP-8547236	Core Assembly, Oil Cooler, Engine (13 Plate)	-	-	1	-
4.4002	2	FP-5150155	Gasket, Oil Cooler Core (Inner)	1	1	-	-
4.4002	1	FP-8547551	Core Assembly, Oil Cooler, Marine Gear (8 Plate)	1	-	1	-
4.4030	3	FP-5102506	Gasket, Oil Cooler Core (Outer)	1	1	-	-
4.4040	0	FP-5142549	Plug, 3/4" Pipe	2	2	-	-
4.4040	3	FP-8923223	Gasket, Oil Cooler Core (Outer)	1	1	-	-
4.4050	6	FP-103320	Lockwasher, 5/16"	8	8	-	-
4.4050	0	FP-5155596	Washer, 5/16" Copper	1	1	-	-
4.4050	0	FP-5575086	Gasket, Oil Cooler Housing	1	1	-	-
4.4050	0	FP-8923313	Plug, 3/4" Pipe	1	1	-	-
4.4050	0	FP-8923847	Plug, 1/4" Pipe	1	1	-	-
4.4060	0	FP-8923847	Plug, 1/4" Pipe	2	2	-	-
4.4060	0	FP-5121182	Plug, 1/4" Pipe	1	1	-	-
4.4060	0	FP-5133431	Valve, Oil Cooler Housing	1	1	-	-
4.4060	0	FP-5155596	Washer, 5/16" Copper	1	1	-	-
4.4060	0	FP-8924517	Plug, 3/8" Pipe	1	1	-	-
4.4060	0	FP-8924623	Gasket, Oil Cooler Housing Cover	1	1	-	-
4.4060	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	1	1	-	-
4.4061	8	FP-8927581	Bolt, 3/8" - 16 X 1"	3	3	-	-
4.4061	0	FP-5117734	Gasket, Oil Cooler Housing Cover	1	1	-	-
4.4061	0	FP-5150155	Gasket, Oil Cooler Housing Cover	1	1	-	-
4.4110	0	FP-103320	Lockwasher, 5/16"	1	1	-	-
4.4110	0	FP-5131433	Washer, .41" X .81" X .1345"	1	1	-	-
4.4110	0	FP-5152148	Washer, 3/8" Copper	1	1	-	-
4.4110	8	FP-8923391	Bolt, 3/8" - 16 X 1.88"	1	1	-	-
4.4110	0	FP-8926782	Gasket, Adaptor To Oil Cooler Housing	1	1	-	-
4.4112	10	FP-5117535	Gasket, Oil Cooler Adaptor To Block	2	1	-	-
4.4115	0	FP-103320	Lockwasher, 5/16"	2	2	-	-
4.4115	11	FP-5126280	Spacer, Oil Cooler Adaptor To Block (8.20" L.)	2	2	-	-
4.4115	11	FP-5102793	Spacer, Oil Cooler Adaptor To Block (5.70" X 1" X .012")	1	1	-	-
4.4115	11	FP-8920763	Spacer, Oil Cooler Adaptor To Block (.385" I.D. X 1" O.D. x .013" Thk)	1	1	-	-
4.4115	10	FP-8923512	Gasket, Oil Cooler Adaptor To Block	1	1	-	-
4.4116	13	FP-8923512	Gasket, Oil Cooler Adaptor Cover	1	1	-	-



Oil Cooler - Single

(Figure 13.2)





Oil Cooler - Single

(Figure 13.2)

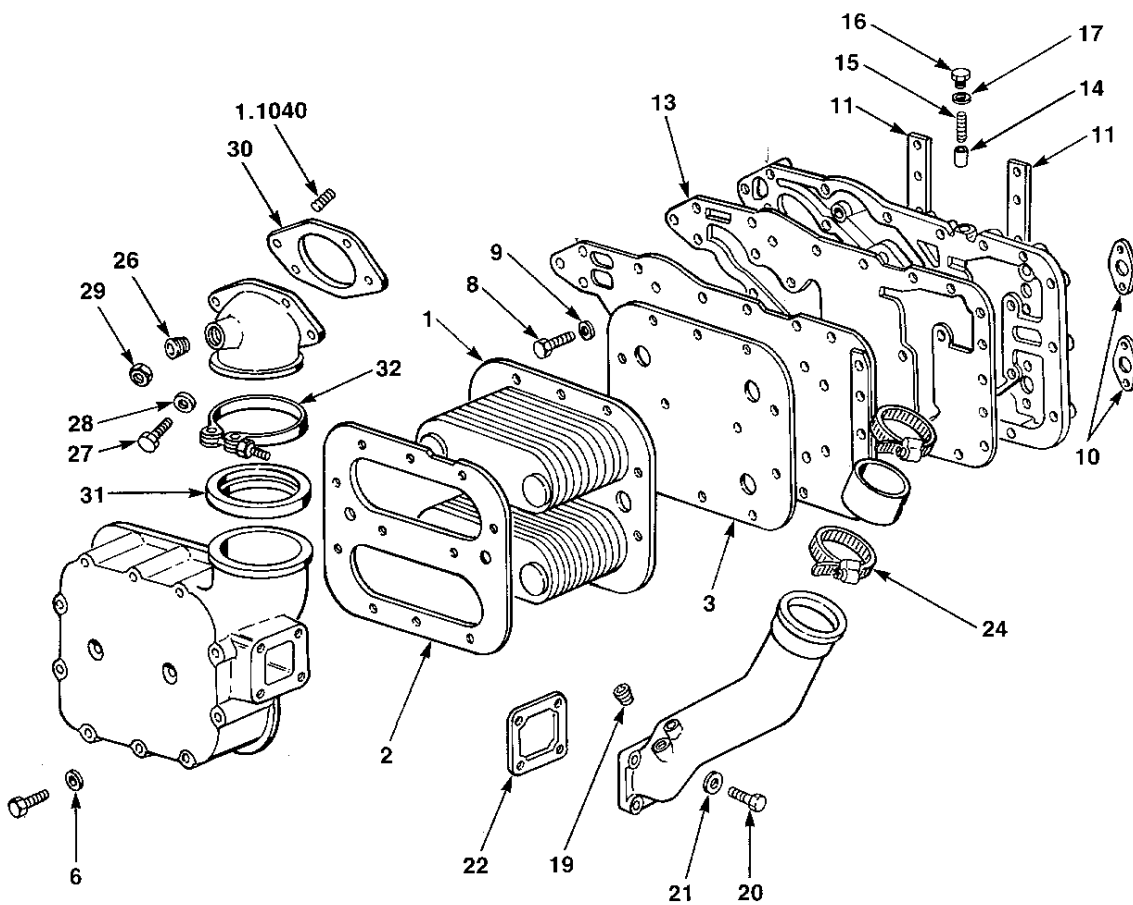
Groups:
4.4117 - 4.4244

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.4117	0	FP-5131433	Washer, Oil Cooler Adaptor	2	2	-	-
4.4117	0	FP-8923391	Bolt, 3/8" X 1 7/8"	2	2	-	-
4.4117	13	FP-5117535	Gasket, Oil Cooler Adaptor Cover	1	1	-	-
4.4117	0	FP-5149946	Gasket, Oil Cooler Adaptor Cover	1	1	-	-
4.4117	0	FP-5150155	Gasket, Oil Cooler Core	1	1	-	-
4.4117	13	FP-8923222	Gasket, Oil Cooler Adaptor Cover	1	1	-	-
4.4117	0	FP-8923222	Gasket, Oil Cooler Plate	1	1	-	-
4.4117	0	FP-8923223	Gasket, Oil Cooler Core	1	1	-	-
4.4117	0	FP-8924412	Gasket, Oil Filter Adaptor	1	1	-	-
4.4140	14	FP-5133431	Valve, Oil Cooler By-Pass	1	1	-	-
4.4140	14	FP-5177777	Valve, Oil Cooler By-Pass	1	1	-	-
4.4150	15	FP-5177778	Spring, Oil Cooler By-Pass Valve	1	1	-	-
4.4170	17	FP-5134920	Gasket, Oil Cooler By-Pass Plug	1	1	-	-
4.4170	17	FP-5177773	Gasket, Oil Cooler By-Pass Plug	1	1	-	-
4.4170	17	FP-5575086	Gasket, Oil Cooler By-Pass Plug	1	1	-	-
4.4211	19	FP-8923847	Plug, 1/4" Pipe	2	2	-	-
4.4211	19	FP-5115214	Plug, 1/2" Pipe	1	1	-	-
4.4211	19	FP-5142549	Plug, 3/4" Pipe	1	1	-	-
4.4211	0	FP-5155596	Washer, 5/16" Copper	1	1	-	-
4.4211	19	FP-8923313	Plug, 3/4" Pipe	1	1	-	-
4.4211	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	1	1	-	-
4.4212	0	FP-5117317	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4212	22	FP-5117476	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4212	0	FP-5122454	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4212	0	FP-5124822	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4214	0	FP-5188036	Clamp, Oil Cooler Water Inlet Hose (2 3/4" - 3")	2	2	-	-
4.4214	24	FP-9139809	Clamp, Oil Cooler Water Inlet Hose (2 1/16" - 3")	2	2	-	-
4.4220	0	FP-103026	Nut, 3/8" - 24	2	2	-	-
4.4220	0	FP-103321	Lockwasher, 3/8"	2	2	-	-
4.4220	0	FP-5152148	Washer, 3/8"	2	2	-	-
4.4220	0	FP-8923847	Plug, 1/4" Pipe	2	2	-	-
4.4220	0	FP-103320	Lockwasher, 5/16"	1	1	-	-
4.4220	0	FP-5115214	Plug, 1/2" Pipe	1	1	-	-
4.4220	0	FP-5142549	Plug, 3/4" Pipe	1	1	-	-
4.4220	0	FP-8923313	Plug, 3/4" Pipe	1	1	-	-
4.4242	28	FP-103026	Nut, 3/8" - 24	2	2	-	-
4.4242	27	FP-103321	Lockwasher, 3/8"	2	2	-	-
4.4242	26	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	-	-
4.4244	29	FP-23501837	Seal Ring, Oil Cooler Water Outlet Flange	1	1	-	-



Oil Cooler - Double

(Figure 13.3)





Oil Cooler - Double

(Figure 13.3)

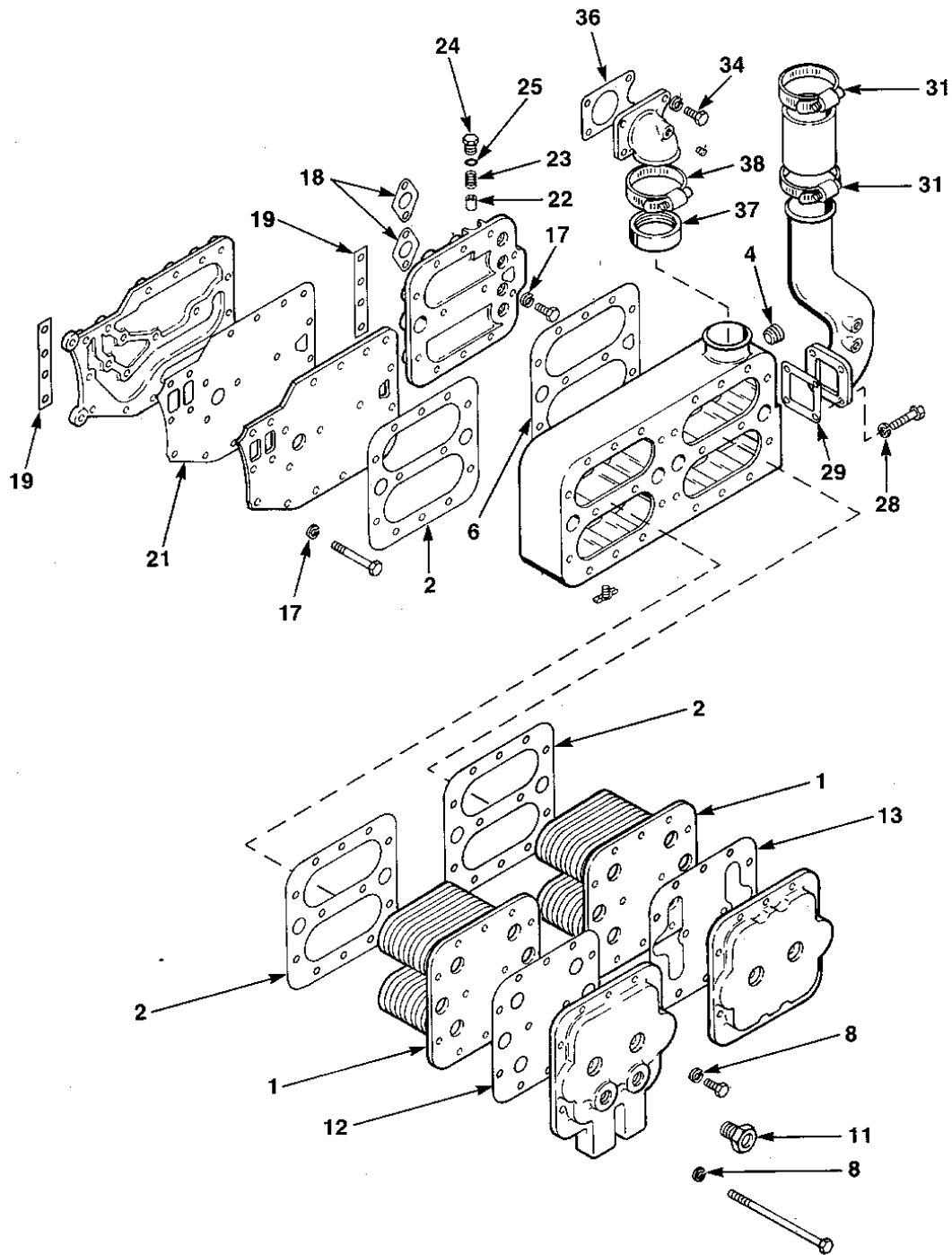
Groups:
4.4001 - 4.4250

Group	Ref	Part No.	Description	6V	8V	12V	16V
4.4001	1	FP-8547237	Core Assembly, Oil Cooler, Engine (24 Plate)	1	1	-	-
4.4001	1	FP-8547552	Core Assembly, Oil Cooler, Engine (32 Plate)	1	1	-	-
4.4001	1	FP-8547553	Core Assembly, Oil Cooler Engine (16 Plate)	1	1	-	-
4.4001	1	FP-8547581	Core Assembly, Oil Cooler, Engine (13 Plate)	1	1	-	-
4.4030	2	FP-5150155	Gasket, Oil Cooler Core (Inner)	1	1	-	-
4.4030	2	FP-8926782	Gasket, Oil Cooler Core (Inner)	1	1	-	-
4.4040	3	FP-23501587	Gasket, Oil Cooler Core (Outer), (Element To Plate)	1	1	-	-
4.4040	3	FP-8925731	Gasket, Oil Cooler Core (Outer)	-	1	-	-
4.4050	6	FP-103320	Lockwasher, 5/16"	8	8	-	-
4.4060	0	FP-5155596	Washer, 5/16" Copper	8	8	-	-
4.4060	0	FP-8923847	Plug, 1/4" Pipe	2	2	-	-
4.4061	0	FP-23501589	Gasket, Oil Cooler Housing Cover	1	1	-	-
4.4061	0	FP-23511304	Gasket, Oil Cooler Housing Cover	1	1	-	-
4.4110	9	FP-5131433	Washer, .41" X .81" X .1345"	8	8	-	-
4.4110	0	FP-103320	Lockwasher, 5/16"	2	2	-	-
4.4110	0	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	-	-
4.4115	10	FP-5117535	Gasket, Oil Cooler Adaptor To Block	2	2	-	-
4.4115	11	FP-5126280	Spacer, Oil Cooler Adaptor To Block (8.20")	2	2	-	-
4.4115	11	FP-5102793	Spacer, Oil Cooler Adaptor To Block (5.70" X 1" X .012")	1	1	-	-
4.4117	13	FP-23501594	Gasket, Oil Cooler Adaptor Cover	1	1	-	-
4.4117	13	FP-8923512	Gasket, Oil Cooler Adaptor Cover	1	1	-	-
4.4140	14	FP-5177777	Valve, Oil Cooler By-Pass	1	1	-	-
4.4150	15	FP-5177778	Spring, Oil Cooler By-Pass Valve	1	1	-	-
4.4170	17	FP-5177773	Plug, Oil Cooler By-Pass Valve (18MM X 1.5 MM SL HD.)	1	1	-	-
4.4211	21	FP-103321	Lockwasher, 3/8"	2	2	-	-
4.4211	19	FP-5115214	Plug, 1/2" Pipe	2	2	-	-
4.4211	0	FP-8923847	Plug, 1/4" Pipe	2	2	-	-
4.4211	20	FP-8927580	Bolt, 3/8" - 16 X 7/8"	2	2	-	-
4.4211	20	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	-	-
4.4212	22	FP-5117317	Gasket, Oil Cooler Water Inlet	2	2	-	-
4.4212	22	FP-5100638	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4212	22	FP-5124822	Gasket, Oil Cooler Water Inlet	1	1	-	-
4.4214	24	FP-5188036	Clamp, Oil Cooler Water Inlet Hose (2 3/4" Hose)	2	2	-	-
4.4214	24	FP-9139809	Clamp, Oil Cooler Water Inlet Hose (2 1/16" - 3")	2	2	-	-
4.4220	29	FP-103026	Nut, 3/8"	2	2	-	-
4.4220	0	FP-5152148	Washer, 3/8"	2	2	-	-
4.4220	27	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	-	-
4.4220	26	FP-5142549	Plug, 3/4" Pipe	1	1	-	-
4.4220	0	FP-8923313	Plug, 3/4" Pipe	1	1	-	-
4.4230	30	FP-5117254	Gasket, Oil Cooler Water Elbow	1	1	-	-
4.4230	30	FP-5117734	Gasket, Oil Cooler Water Elbow (Front)	1	1	-	-
4.4240	31	FP-5102098	Seal, Oil Cooler Water Outlet Hose (3.60" O.D.X .62" W.)	1	1	-	-
4.4250	32	FP-5143999	Clamp, Oil Cooler Water Outlet Hose (3 1/2" T-Bolt)	1	1	-	-



Oil Cooler - Dual/Double

(Figure 13.4)





Oil Cooler - Dual/Double

(Figure 13.4)

Groups:
4.4001 - 4.4250

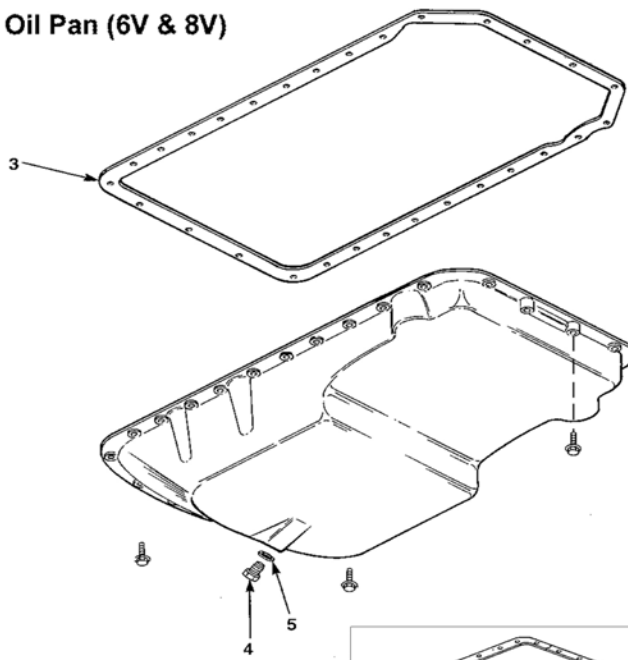
Group	Ref	Part No.	Description	6V	8V	12V	16V
4.4001	1	FP-8547237	Core Assembly, Oil Cooler, Engine (24 Plate)	1	-	2	-
4.4001	1	FP-8547552	Core Assembly, Oil Cooler, Engine (32 Plate)	-	2	-	-
4.4030	2	FP-8926782	Gasket, Oil Cooler Core (Inner)	3	1	3	-
4.4030	0	FP-23501595	Gasket, Oil Cooler Core (Inner)	-	4	-	-
4.4040	6	FP-23511304	Gasket, Oil Cooler Core (Inner)	1	2	2	-
4.4050	4	FP-5142549	Plug, 3/4" Pipe	1	1	1	-
4.4050	0	FP-8923847	Plug, 1/4" Pipe	1	1	1	-
4.4060	8	FP-103320	Lockwasher, 5/16"	22	22	22	-
4.4060	11	FP-5142549	Plug, 3/4" Pipe	1	1	-	-
4.4060	0	FP-5155596	Washer, 5/16" Copper	1	1	1	-
4.4060	0	FP-8923847	Plug, 1/4" Pipe	1	1	1	-
4.4061	0	FP-5117734	Gasket, Oil Cooler Housing Cover	1	1	-	-
4.4061	0	FP-23501584	Gasket, Oil Cooler Housing Cover	-	2	2	-
4.4061	12	FP-23501589	Gasket, Oil Cooler Housing Cover	-	-	1	-
4.4061	0	FP-23501590	Gasket, Oil Cooler Housing Cover	-	-	1	-
4.4061	0	FP-8924623	Gasket, Oil Cooler Housing Cover	-	-	1	-
4.4110	0	FP-5152148	Washer, 3/8"	1	1	-	-
4.4115	18	FP-5117535	Gasket, Oil Cooler Adaptor To Block	2	4	4	-
4.4115	19	FP-5126280	Spacer, Oil Cooler Adaptor To Block (8.20" L.)	2	2	-	-
4.4115	2	FP-8926782	Gasket, Oil Cooler Adaptor To Block	1	1	-	-
4.4117	21	FP-23501594	Gasket, Oil Cooler Adaptor Cover	1	1	-	-
4.4140	22	FP-5177777	Valve, Oil Cooler By-Pass	1	2	2	-
4.4140	22	FP-5136358	Valve, Oil Cooler By-Pass	1	1	-	-
4.4150	23	FP-5177778	Spring, Oil Cooler By-Pass Valve	1	2	2	-
4.4170	25	FP-5177773	Gasket, Oil Cooler By-Pass Plug	1	2	2	-
4.4170	25	FP-5134920	Gasket, Oil Cooler By-Pass Plug	-	-	1	-
4.4178	0	FP-5131185	Gasket, Oil Cooler By-Pass Tube Flange	-	-	1	1
4.4211	0	FP-8927580	Bolt, 3/8" -16 X 7/8"	6	6	6	-
4.4211	28	FP-103321	Lockwasher, 3/8"	2	2	2	-
4.4211	0	FP-8927581	Bolt, 3/8" -16 X 1"	2	2	2	-
4.4211	0	FP-5115214	Plug, 1/2" Pipe	1	1	1	-
4.4212	29	FP-5117317	Gasket, Oil Cooler Water Inlet	1	2	2	-
4.4214	0	FP-5188036	Clamp, Oil Cooler Water Inlet Hose (2 3/8" Hose")	2	2	2	-
4.4214	31	FP-9139809	Clamp, Oil Cooler Water Inlet Hose (2 1/16" -3")	2	2	2	-
4.4220	0	FP-103026	Nut, 3/8" -24	2	2	2	-
4.4220	0	FP-5115214	Plug, 1/2" Pipe	1	1	1	-
4.4220	33	FP-5142549	Plug, 3/4" Pipe	1	1	1	-
4.4220	0	FP-5152148	Washer, 3/8"	1	1	1	-
4.4220	0	FP-8923313	Plug, 3/4" Pipe	1	1	1	-
4.4220	34	FP-8927581	Bolt, 3/8" -16 X 1"	1	1	1	-
4.4230	36	FP-5117254	Gasket, Oil Cooler Water Elbow	1	1	1	-
4.4230	0	FP-5117317	Gasket, Oil Cooler Water Elbow	1	1	1	-
4.4230	0	FP-5117734	Gasket, Oil Cooler Water Elbow (Front)	1	1	1	-
4.4240	37	FP-5102098	Seal, Oil Cooler Water Outlet Hose (3.60" O.D. X .62' W)	1	1	1	-
4.4250	38	FP-5143999	Clamp, Oil Cooler Water Outlet Hose (3 1/2" T - Bolt)	2	2	2	-



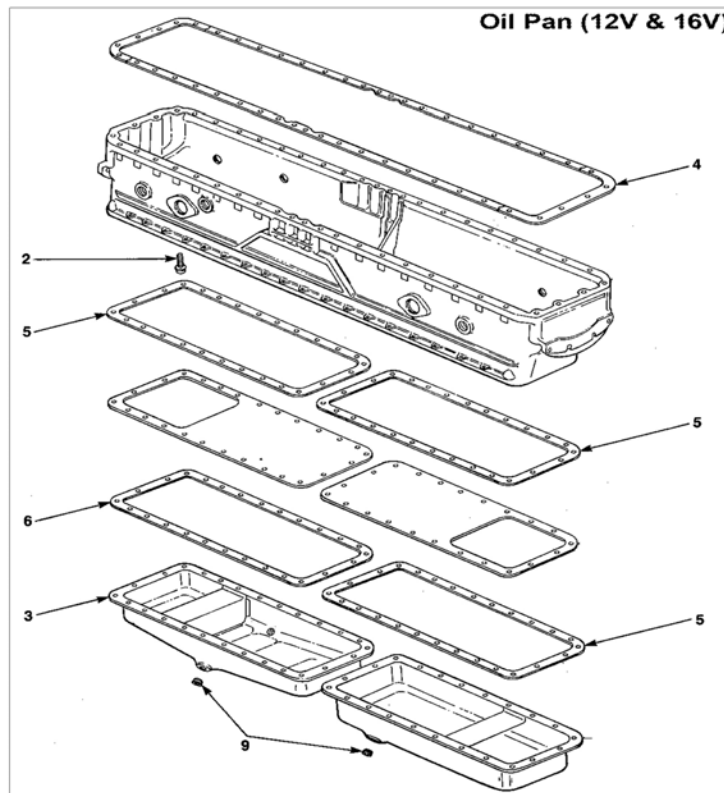
Oil Pan

(Figure 13.6)

Oil Pan (6V & 8V)



Oil Pan (12V & 16V)





Oil Pan

(Figure 13.6)

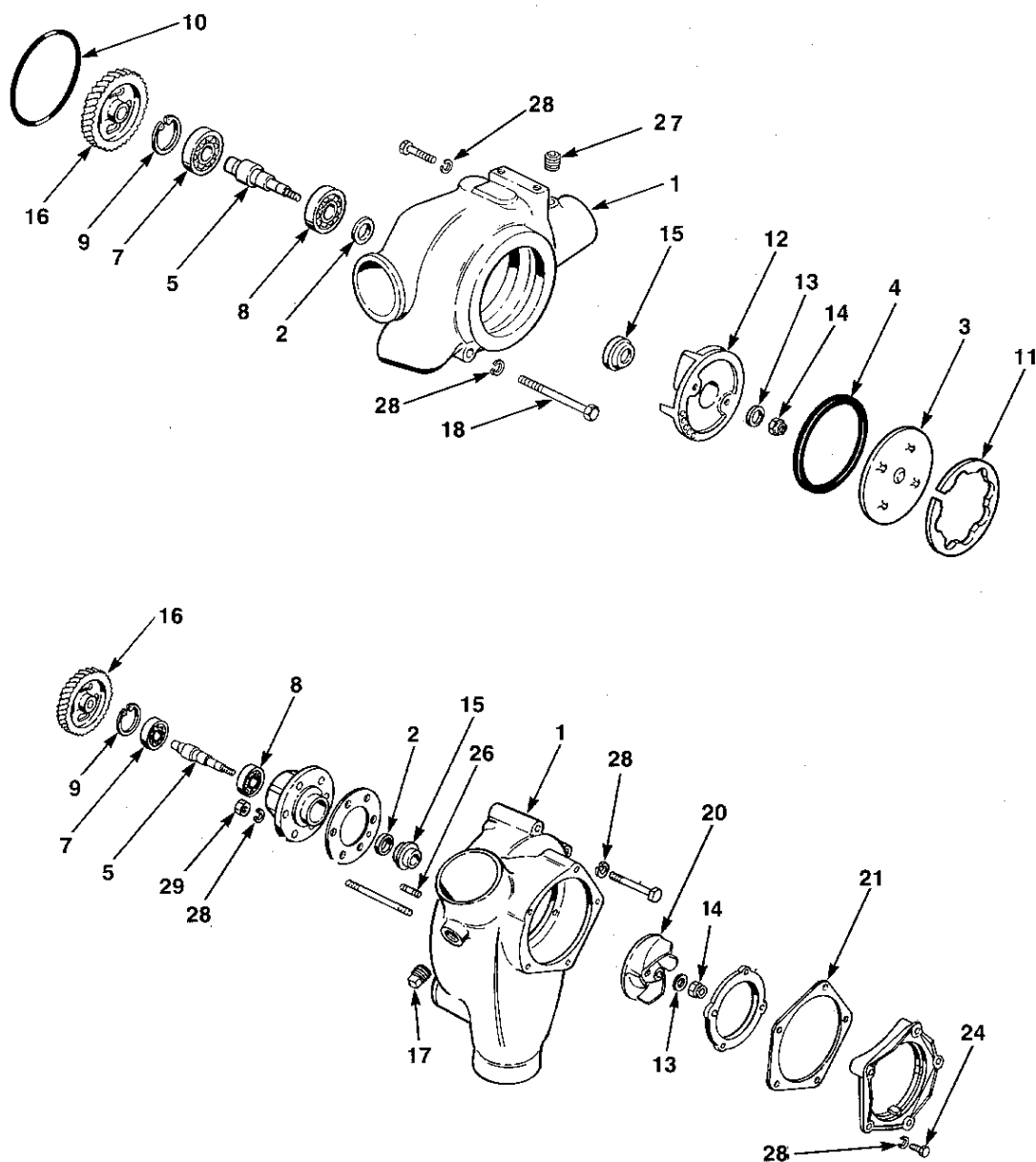
Groups:
4.7001 - 7.7040

Group	Ref	Part No.	Description	6V	8V	12V	16V
6V & 8V							
4.7001	2	FP-8927581	Bolt, 3/8" - 16 X 1"	24	28	-	-
4.7001	0	FP-5115214	Plug, Oil Pan 1/2" Pipe	1	1	-	-
4.7001	0	FP-5121182	Plug, Oil Pan 1/4" Pipe	1	-	-	-
4.7001	4	FP-8923313	Plug, Oil Pan 3/4" Pipe (4.7010)	1	-	-	-
4.7001	4	FP-5142549	Plug, Oil Pan 3/4" Pipe (4.7010)	-	1	-	-
4.7020	0	FP-8927581	Bolt, 3/8" - 16 X 1"	4	4	-	-
4.7020	0	FP-5148436	Bolt, 5/16" - 18 X 3/4"	24	28	-	-
4.7030	3	FP-23503588	Gasket, Oil Pan To Block (Stamped Pan)	1	-	-	-
4.7030	3	FP-5117231	Gasket, Oil Pan To Block (Stamped Pan)	-	1	-	-
4.7040	0	FP-5150115	Gasket, Lower Oil Pan	1	1	-	-
4.7040	0	FP-5150116	Gasket, Lower Oil Pan	1	1	-	-
4.7040	0	FP-8920557	Gasket, Lower Oil Pan	1	-	-	-
4.7040	0	FP-5153256	Gasket, Lower Oil Pan	-	1	-	-
4.7080	4	FP-5115214	Plug, Oil Pan Drain (1/2" Pipe)	1	1	-	-
4.7080	4	FP-5121182	Plug, Oil Pan Drain (1/4" Pipe)	1	1	-	-
4.7080	4	FP-8923847	Plug, Oil Pan Drain (1/4" Pipe)	1	1	-	-
4.7080	4	FP-8924517	Plug, Oil Pan Drain (3/8" Pipe)	1	1	-	-
4.7090	5	FP-840277	Gasket, Oil Drain Plug (18MM., Nylon)	1	1	-	-
4.7100	0	FP-8924517	Plug, 3/8" Pipe	1	-	-	-
4.7120	0	FP-5194069	Washer, Oil Pan Cover (1/4" Copper)	AR	AR	-	-
4.7130	0	FP-5170049	Gasket, Oil Pan Cover	1	1	-	-
4.7130	0	FP-5163760	Gasket, Oil Pan Cover (5.5090) Tilt Coach	1	-	-	-
4.7130	0	FP-5139862	Gasket, Oil Pan Cover	-	1	-	-
4.7140	0	FP-5115214	Plug, Oil Pan Sump (1/2" Pipe)	1	1	-	-
12V & 16V							
4.7010	0	FP-103321	Lockwasher, 3/8"	-	-	40	56
4.7010	0	FP-5142549	Plug, Oil Pan 3/4" Pipe (4.7010)	-	-	-	2
4.7010	0	FP-8923313	Plug, Oil Pan 3/4" Pipe (4.7010)	-	-	2	-
4.7020	0	FP-5148436	Bolt, 5/16" - 18 X 3/4"	-	-	40	56
4.7021	0	FP-103320	Lockwasher 5/16"	-	-	40	56
4.7030	4	FP-5109915	Gasket, Oil Pan To Block (12V)	-	-	1	-
4.7030	4	FP-5126562	Gasket, Oil Pan To Block (16V)	-	-	-	1
4.7030	4	FP-5150115	Gasket, Lower Oil Pan (Front Pan)	-	-	-	1
4.7030	4	FP-8920608	Gasket Set, Oil Pan	-	-	1	1
4.7040	4	FP-5125635	Gasket, Lower Oil Pan	-	-	1	-
4.7080	9	FP-5115214	Plug, Oil Pan Drain (1/2" Pipe)	-	-	-	1
4.7120	0	FP-5142549	Plug, Oil Pan (3/4" Pipe)	-	-	1	1
4.7120	0	FP-5148436	Bolt, 5/16" - 18 X 3/4"	-	-	-	21
4.7120	0	FP-8923313	Plug, Oil Pan (3/4" Pipe)	-	-	1	1
4.7130	0	FP-5124796	Gasket, Oil Pan Cover (4.7040)	-	-	1	-
4.7130	0	FP-5150115	Gasket, Oil Pan Cover	-	-	1	-
4.7130	0	FP-5153788	Gasket, Oil Pan Cover	-	-	-	1
4.7130	0	FP-8920520	Gasket, Oil Pan Cover	-	-	1	-
4.7140	0	FP-5115214	Plug, Oil Pan Sump (1/2" Pipe)	-	-	-	1
4.7141	0	FP-103320	Lockwasher, 5/16"	-	-	-	21
7.7040	6	FP-5150116	Gasket, Lower Oil Pan (Rear Pan)	-	-	-	1
7.7040	5	FP-8920557	Gasket, Lower Oil Pan	-	-	1	-



Fresh Water Pump

(Figure 14.1)





Fresh Water Pump

(Figure 14.1)

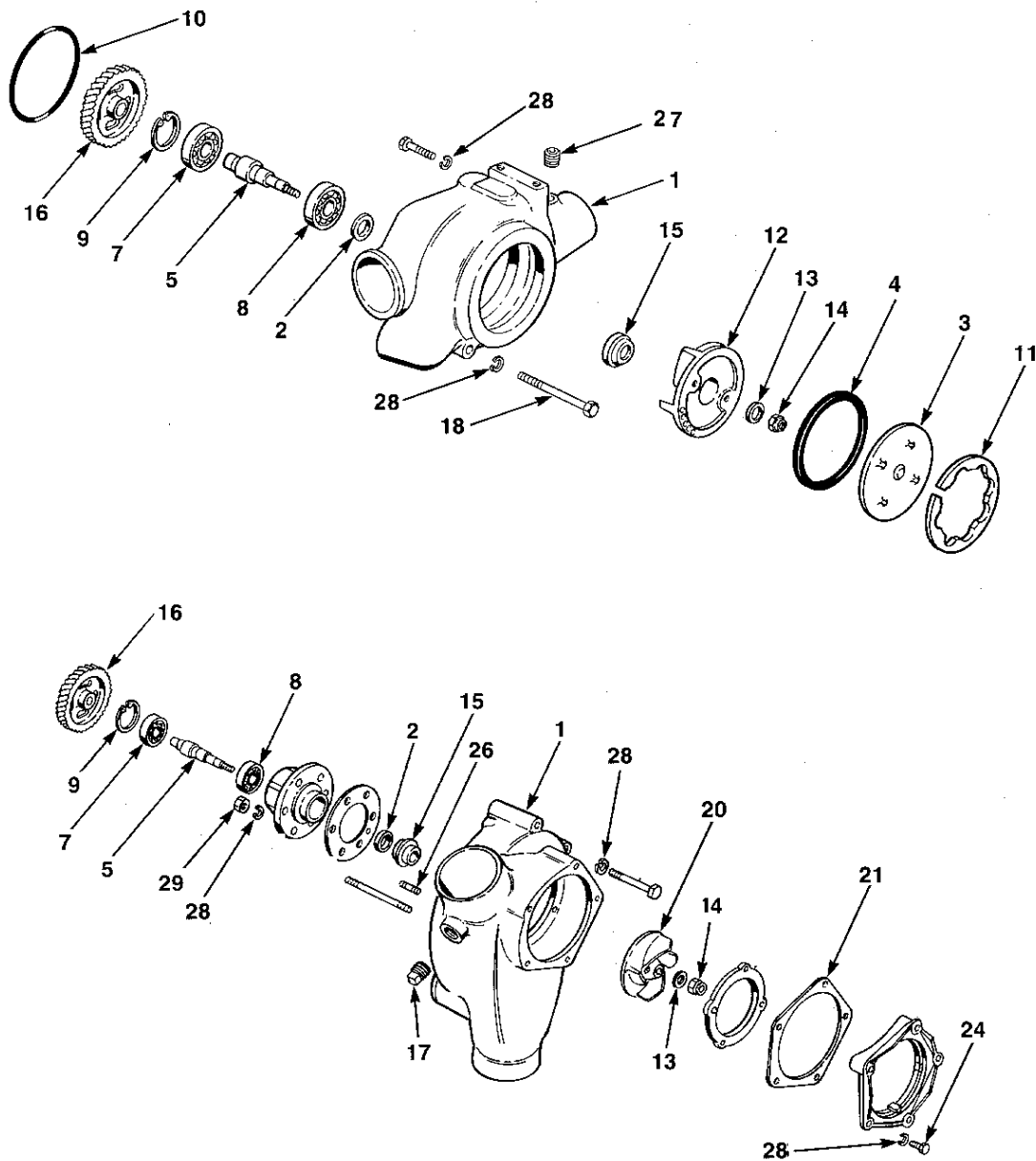
Groups:
5.1001 - 5.1002

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.1001	29	FP-103026	Nut, 3/8" - 24 (5.1071)	5	5	5	5
5.1001	28	FP-103321	Lockwasher, 3/8" (5.1071)	5	5	5	5
5.1001	0	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
5.1001	17	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
5.1001	27	FP-8923313	Plug, 3/4" Pipe	1	1	1	1
5.1001	0	FP-23506602	Pump Assembly, Fresh Water (Walking)	1	-	-	-
5.1002	13	FP-221436	Washer, Flat	1	1	1	-
5.1002	13	FP-221436	Washer, Flat	1	1	-	-
5.1002	10	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	-
5.1002	0	FP-23506366	Kit, Fresh Water Pump Reconditioning	1	1	-	-
5.1002	13	FP-221436	Washer, Flat	1	1	-	-
5.1002	9	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	-	1
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	-	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	1	1
5.1002	10	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	-	-
5.1002	14	FP-5117972	Nut, 7/16" - 20 Lock	1	1	-	-
5.1002	0	FP-5117975	Gasket, Fresh Water Pump Body Cover	1	1	-	-
5.1002	2	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	1
5.1002	5	FP-23506053	Shaft, Fresh Water Pump	1	1	1	-
5.1002	12	FP-23505999	Impeller, Fresh Water Pump (Hi-Capacity)	1	1	-	-
5.1002	0	FP-23506248	Seal, Fresh Water Pump	1	1	1	1
5.1002	0	FP-23506367	Kit, Fresh Water Pump (Long Vane), (12V71)	-	-	1	-
5.1002	9	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	1	-
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	1	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	-	1
5.1002	14	FP-5117972	Nut, 7/16" - 20 Lock	1	1	1	-
5.1002	18	FP-5117976	Gasket, Fresh Water Pump Body Cover	-	-	1	-
5.1002	2	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	-	-	1	-
5.1001	10	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	1
5.1002	12	FP-23506053	Shaft, Fresh Water Pump	1	1	1	-
5.1002	0	FP-23506000	Impeller, Fresh Water Pump(Long Vane)	-	-	1	-
5.1002	0	FP-23506248	Seal, Fresh Water Pump	-	-	1	-
5.1002	0	FP-23506852	Kit, Fresh Water Pump	1	1	-	-
5.1002	9	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	1	1
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	1	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	1	1
5.1002	10	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	-
5.1002	14	FP-5117972	Nut, 7/16" - 20 Lock	1	1	1	-
5.1002	4	FP-5101160	Seal Ring, Fresh Water Pump Body	1	1	-	-
5.1002	2	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	-
5.1002	5	FP-23506053	Shaft, Fresh Water Pump	1	1	-	-
5.1002	12	FP-23505995	Impeller, Fresh Water Pump	1	1	-	-
5.1002	0	FP-23506248	Seal, Fresh Water Pump	1	1	-	-
5.1002	0	FP-5197279	Replacement Kit, Water Pump Ceramic Seal	1	1	-	-
5.1002	0	FP-5197310	Washer, Adhesive, Ceramic Insert Fresh Water Pump	2	2	-	-
5.1002	0	FP-5117342	Ceramic Insert, Fresh Water Pump	1	1	-	-



Fresh Water Pump

(Figure 14.2)





Fresh Water Pump

(Figure 14.2)

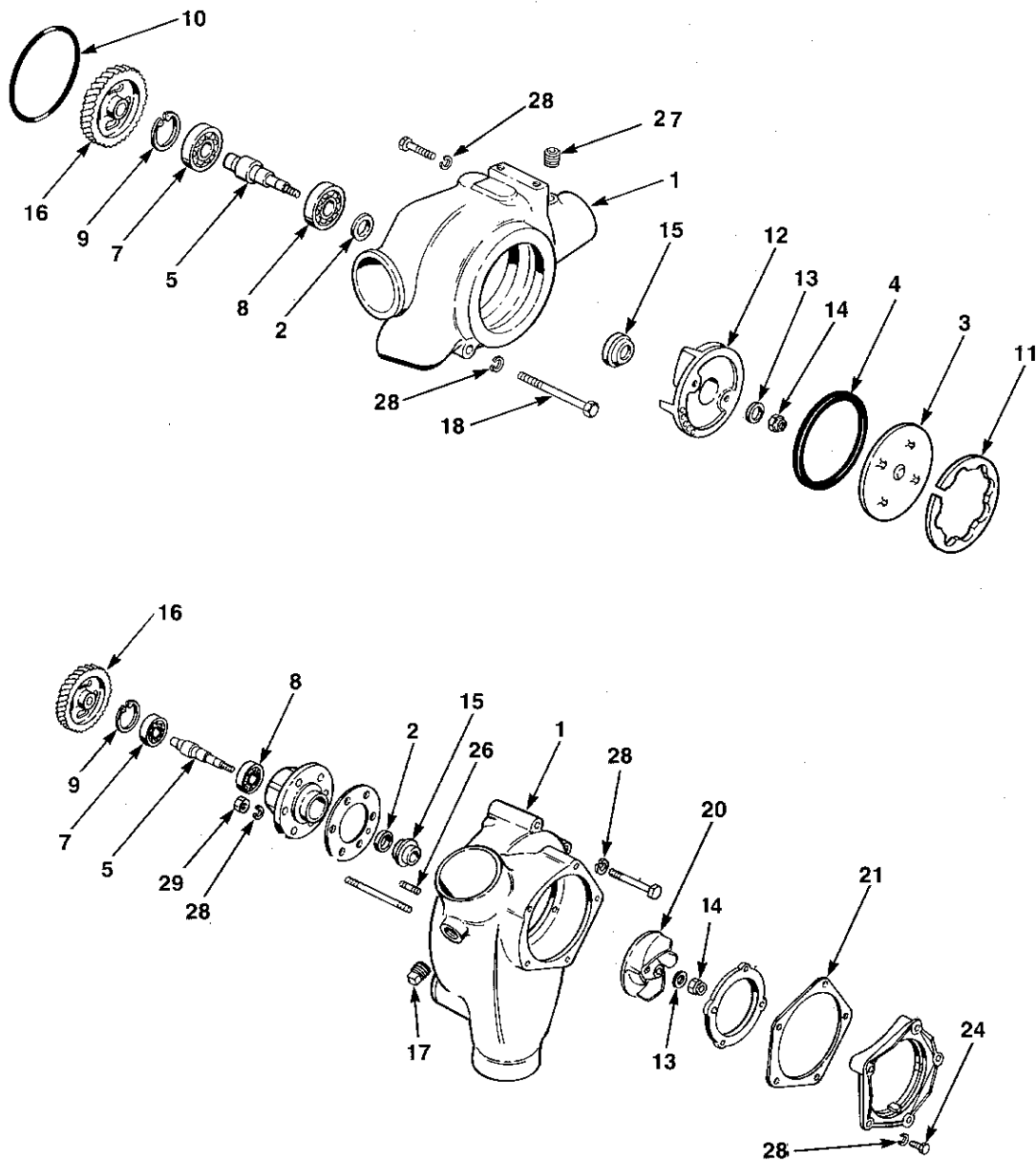
Groups:
5.1002 - 5.1032

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.1010	0	FP-5109515	Gasket, Fresh Water Pump	-	-	1	1
5.1010	0	FP-5128220	Gasket, Fresh Water Pump	-	-	-	1
5.1030	17	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
5.1031	28	FP-103321	Lockwasher, 5/16"	5	5	5	5
5.1031	24	FP-8925603	Bolt, 5/16" - 18 X 3/4" (5.1040)	5	5	5	5
5.1031	3	FP-5117950	Cover, Fresh Water Pump Body	1	1	-	-
5.1031	3	FP-8922383	Cover, Fresh Water Pump Body (Non-Metallic)	1	1	-	-
5.1031	3	FP-5117961	Cover, Fresh Water Pump Body	-	1	-	-
5.1032	10	FP-5117975	Gasket, Fresh Water Pump Body Cover	1	1	-	-
5.1032	0	FP-5128222	Gasket, Fresh Water Pump Body (Dr. Gr. Cover)	-	-	-	1
5.1032	0	FP-5128224	Gasket, Fresh Water Pump Body (Cover To Pump)	-	-	-	1
5.1002	0	FP-23500517	Kit, Fresh Water Pump Seal	1	1	-	-
5.1002	0	FP-221436	Washer, Flat	1	1	-	-
5.1002	10	FP-5103544	Ring Seal (.139" X 5.109" I.D.)	1	1	1	-
5.1002	0	FP-5117342	Insert, Ceramic Seal, Fresh Water Pump	1	1	-	-
5.1002	14	FP-5117972	Nut, 7/16" - 20 Lock	1	1	1	-
5.1002	10	FP-5117975	Gasket, Fresh Water Pump Body Cover	1	1	-	-
5.1002	2	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	-
5.1002	0	FP-5197310	Washer, Adhesive, Fresh Water Pump	2	2	-	-
5.1002	0	FP-23506248	Seal, Fresh Water Pump	1	1	1	-
5.1002	0	FP-8925603	Bolt, 5/16" - 18 X 3/4"	5	5	-	-
5.1002	0	FP-23506871	Kit, Fresh Water Pump Reconditioning (16V)	-	-	1	1
5.1002	13	FP-221436	Washer, Flat	1	1	1	1
5.1002	9	FP-274746	Lock Ring, Fresh Water Pump Bearing	1	1	1	1
5.1002	7	FP-23503649	Bearing, Fresh Water Pump (Outer)	1	1	1	1
5.1002	8	FP-23503687	Bearing, Fresh Water Pump (Inner)	1	1	1	1
5.1002	0	FP-5109515	Gasket, Fresh Water Pump	-	-	1	1
5.1002	14	FP-5117972	Nut, 7/16" - 20 Lock	-	-	1	1
5.1002	2	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	1
5.1002	5	FP-23506053	Shaft, Fresh Water Pump	-	-	-	1
5.1002	0	FP-23506248	Seal, Fresh Water Pump	1	1	1	1
5.1002	20	FP-23506002	Impeller, Fresh Water Pump	-	-	-	1
5.1002	21	FP-23505239	Gasket, Fresh Water Pump	-	-	1	1
5.1002	0	FP-5149711	Kit, Fresh Water Pump Repair	1	1	-	-
5.1002	13	FP-221436	Washer, Flat	1	1	1	-
5.1002	4	FP-5101160	Seal Ring, Fresh Water Pump	1	1	1	-
5.1002	10	FP-5103544	Seal Ring, Fresh Water Pump (.139" X 5.109" I.D.)	1	1	1	-
5.1002	14	FP-5117972	Nut, 7/16" - 20 Lock	1	1	1	-
5.1002	2	FP-5117983	Seal, Fresh Water Pump Shaft Bearing	1	1	1	-
5.1002	0	FP-5197310	Washer, Adhesive, Fresh Water Pump	2	2	-	-
5.1002	0	FP-5117342	Insert, Ceramic Seal, Fresh Water Pump	1	1	-	-
5.1002	11	FP-8922407	Ring, Retainer	1	1	-	-
5.1002	0	FP-23506248	Seal, Fresh Water Pump	1	1	1	-



Fresh Water Pump

(Figure 14.3)





Fresh Water Pump

(Figure 14.3)

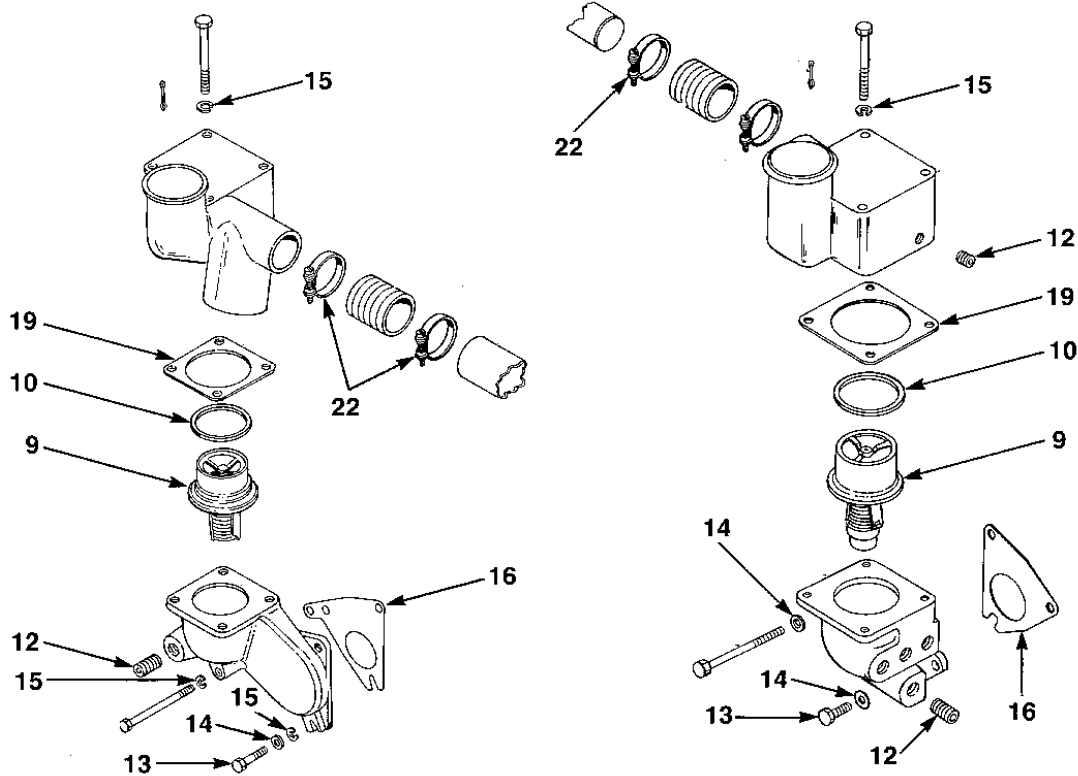
Groups:
5.1032 - 5.1190

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.1032	4	FP-5101160	Seal Ring, Fresh Water Pump Body Cover	1	1	-	-
5.1032	10	FP-5117976	Gasket, Fresh Water Pump Body Cover	-	1	-	-
5.1040	26	FP-8927270	Stud, Fresh Water Pump Body (3/8" - 16 X 1 5/8")	3	3	-	-
5.1040	0	FP-5154453	Plug, 3/8" - 16	1	1	1	1
5.1115	12	FP-23505995	Impeller, Fresh Water Pump	1	1	-	-
5.1115	12	FP-23505999	Impeller, Fresh Water Pump (Hi-Capacity)	1	1	-	-
5.1115	20	FP-23506000	Impeller, Fresh Water Pump (Long Vane)	-	-	1	-
5.1115	20	FP-23506002	Impeller, Fresh Water Pump	-	-	-	1
5.1130	15	FP-8924297	Seal, Water Pump Coolant	1	1	1	1
5.1190	16	FP-5146254	Gear, Fresh Water Pump Drive (42 Teeth), (L.H. Helix)	1	1	-	-



Thermostat

(Figure 15.1)



Thermostat



Thermostat

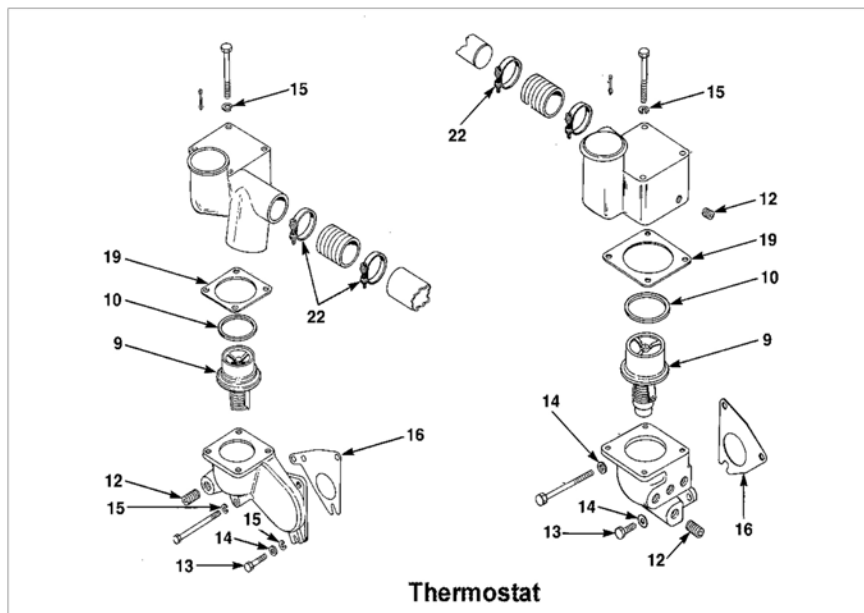
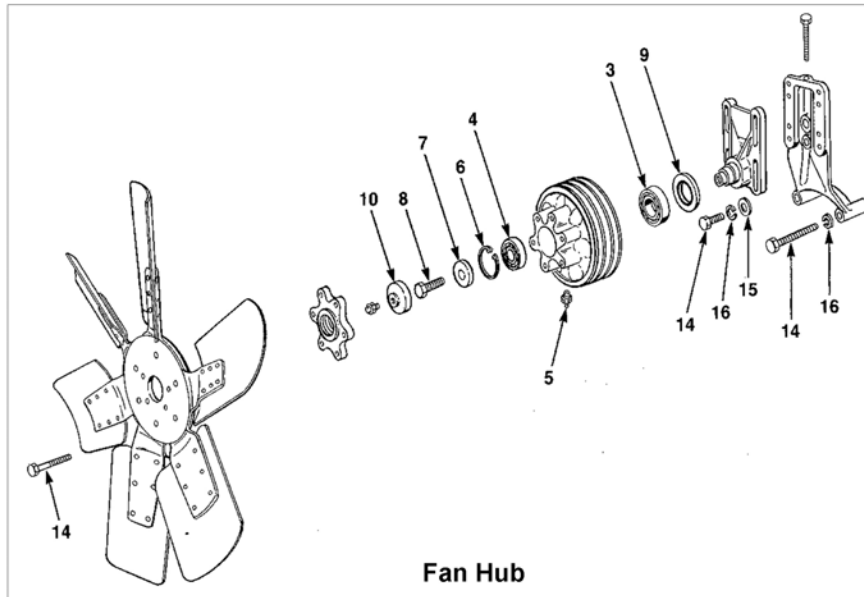
(Figure 15.1)

Groups:
5.2001 - 5.2130

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.2001	12	FP-5142549	Plug, 3/4" Pipe	2	2	2	2
5.2001	0	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
5.2001	15	FP-103321	Lockwasher, 3/8"	-	16	24	32
5.2043	7	FP-5122439	Seal, Water Outlet Manifold	-	2	2	2
5.2043	0	FP-5188036	Clamp, Water Outlet Manifold (2 9/16" - 3 1/2")	-	2	-	-
5.2043	0	FP-5144768	Clamp, Water Outlet Manifold (2 15/16" - 2 7/8")	-	-	2	2
5.2043	7	FP-5156770	Seal, Water Outlet Manifold	-	-	2	2
5.2050	9	FP-23503825	Thermostat Assembly (180 Degree)	2	2	2	2
5.2050	9	FP-23503826	Thermostat Assembly (170 Degree)	2	2	4	4
5.2050	9	FP-23504473	Thermostat Assembly (190 Degree Opening Temp)	2	2	4	4
5.2050	9	FP-5102112	Thermostat Assembly (160 Degree)	2	2	-	-
5.2050	9	FP-5104096	Thermostat Assembly (180 Degree)	2	2	-	-
5.2050	9	FP-5106232	Thermostat Assembly (180 Degree)	2	2	-	-
5.2060	10	FP-5132155	Seal, Thermostat	2	2	4	4
5.2090	15	FP-103321	Lockwasher, 3/8"	2	2	2	2
5.2090	0	FP-5152148	Washer, 3/8" Copper	2	2	2	2
5.2090	13	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	2	2
5.2090	12	FP-5115214	Plug, 1/2" Pipe	1	1	1	1
5.2090	12	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
5.2090	14	FP-5125108	Washer, 7/16"	1	1	1	1
5.2090	12	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
5.2090	12	FP-8924380	Plug, 1/8" Pipe	1	1	1	1
5.2110	16	FP-5117786	Gasket, Thermostat Housing (Left & Right Bank)	2	2	-	-
5.2110	16	FP-5117993	Gasket, Thermostat Housing (Left & Right Bank)	2	2	-	-
5.2110	16	FP-5144277	Gasket, Thermostat Housing (Left & Right Bank)	2	2	2	2
5.2110	16	FP-5123570	Gasket, Thermostat Housing (Right Bank)	1	1	-	-
5.2110	16	FP-5123715	Gasket, Thermostat Housing (Right Bank)	1	1	-	-
5.2110	16	FP-5123716	Gasket, Thermostat Housing (Left Bank)	1	1	-	-
5.2110	16	FP-5133254	Gasket, Thermostat Housing (Left Bank)	1	1	-	-
5.2120	12	FP-5121182	Plug, 1/4" Pipe	2	2	-	-
5.2120	12	FP-8924380	Plug, 1/8" Pipe	2	2	-	-
5.2120	15	FP-103321	Lockwasher, 3/8"	1	1	1	1
5.2120	12	FP-5115214	Plug, 1/2" Pipe	-	-	-	2
5.2120	12	FP-8924517	Plug, 3/8" Pipe	-	-	2	-
5.2122	0	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	2	2
5.2122	0	FP-5120540	Gasket, Elbow Thermostat Housing	1	1	1	1
5.2124	0	FP-5188036	Clamp, Water Outlet Manifold (2 9/16" - 3 1/2")	2	2	4	4
5.2124	0	FP-9139809	Clamp, Water Outlet Manifold (2 1/16" - 3")	1	1	1	1
5.2128	0	FP-5122454	Gasket, Heat Exchanger Water Manifold	1	1	1	1
5.2128	0	FP-5124029	Gasket, Heat Exchanger Water Manifold	1	1	1	1
5.2130	19	FP-5100860	Gasket, Thermostat Housing Cover	2	2	-	-
5.2130	19	FP-5117786	Gasket, Thermostat Housing Cover	2	2	-	-
5.2130	19	FP-5117993	Gasket, Thermostat Housing Cover	2	2	-	-
5.2130	19	FP-5123575	Gasket, Thermostat Housing Cover	1	1	-	-
5.2130	19	FP-5175989	Gasket, Thermostat Housing Cover	1	1	2	2

Thermostat & Fan Hub

(Figure 15.2)





Thermostat & Fan Hub

(Figure 15.2)

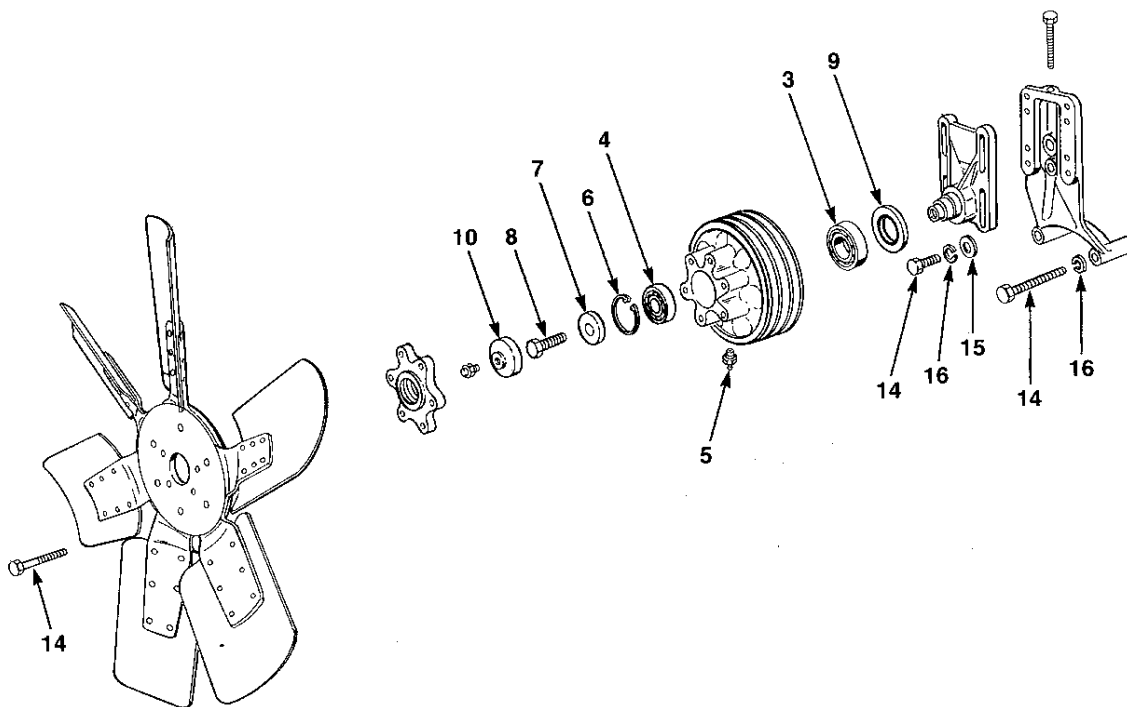
Groups:
4.4025 - 5.4110

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.2130	19	FP-8924018	Gasket, Thermostat Housing Cover	1	1	-	-
5.2135	0	FP-5179938	Seal Ring, 3/8" Tube Sealastic	1	1	-	-
5.2160	0	FP-5121182	Plug, 1/4"	2	2	-	-
5.2160	0	FP-8927581	Bolt, 3/8" - 16 X 1"	1	1	2	2
5.2160	0	FP-8924517	Plug, 3/8" Pipe	-	-	2	2
5.2165	22	FP-5186841	Clamp, 1 9/16" - 2 1/2"	2	2	2	2
5.2165	22	FP-9139809	Clamp, 2 1/16" - 3"	2	2	2	2
5.3120	0	FP-5197822	Cap, Radiator Filler (23533127)	1	1	1	1
5.3321	0	FP-5167762	Gasket, Expansion Tank Outlet Connection (4.4230)	1	1	1	1
Fan Hub							
4.4025	16	FP-103325	Lockwasher, 5/8"	4	4	4	4
4.4025	15	FP-5131978	Washer, .53" X 1"	4	4	4	4
4.4025	15	FP-5133981	Washer, 19/32" I.D. X 1.00" O.D.	4	4	4	4
4.4025	14	FP-454992	Bolt, 1/2" - 13 X 2 1/2"	2	2	2	2
4.4025	0	FP-5133981	Spacer, .122" Thick	1	1	1	1
4.4090	0	FP-103325	Lockwasher, 5/8"	1	1	1	1
4.4090	0	FP-5131978	Washer, .53" X 1"	1	1	1	1
5.4015	4	FP-23503535	Bearing, Fan Shaft (Outer)	1	1	1	1
5.4015	4	FP-23503537	Bearing, Fan Shaft (Outer)	1	1	1	1
5.4015	3	FP-23503550	Bearing, Fan Shaft (Inner)	1	1	1	1
5.4015	3	FP-23503704	Bearing, Fan Shaft (Inner)	1	1	1	1
5.4015	9	FP-5103623	Seal, Fan Shaft	1	1	1	1
5.4015	7	FP-5103624	Washer, Fan Shaft Bearing Retainer (.50" Thk)	1	1	1	1
5.4015	9	FP-5103951	Seal, Fan Shaft	1	1	1	1
5.4015	0	FP-5131978	Washer, .53" X 1.00"	1	1	1	1
5.4015	8	FP-9409060	Bolt, 1/2" - 20 X 1 1/2" Self Lock	1	1	1	1
5.4015	8	FP-9409129	Bolt, 1/2" - 20 X 1 3/4" Self Locking	1	1	1	1
5.4100	4	FP-23503727	Bearing, Fan Shaft (Outer)	1	1	1	1
5.4100	0	FP-5131978	Washer, .53" X 1"	1	1	1	1
5.4100	0	FP-5133981	Washer, 19/32" I.D. X 1.00" O.D.	1	1	1	1
5.4110	4	FP-23503535	Bearing, Fan Shaft (Outer)	1	1	1	1
5.4110	4	FP-23503537	Bearing, Fan Shaft (Outer)	1	1	1	1
5.4110	3	FP-23503550	Bearing, Fan Shaft (Inner)	1	1	1	1
5.4110	3	FP-23503704	Bearing, Fan Shaft (Inner)	1	1	1	1
5.4110	3	FP-23503796	Bearing, Fan Shaft (Inner)	1	1	1	1
5.4110	3	FP-7450630	Bearing, Fan Shaft (Inner)	1	1	1	1
5.4110	4	FP-9415132	Bearing, Fan Shaft (Outer)	1	1	1	1



Fan Hub

(Figure 15.3)





Fan Hub

(Figure 15.3)

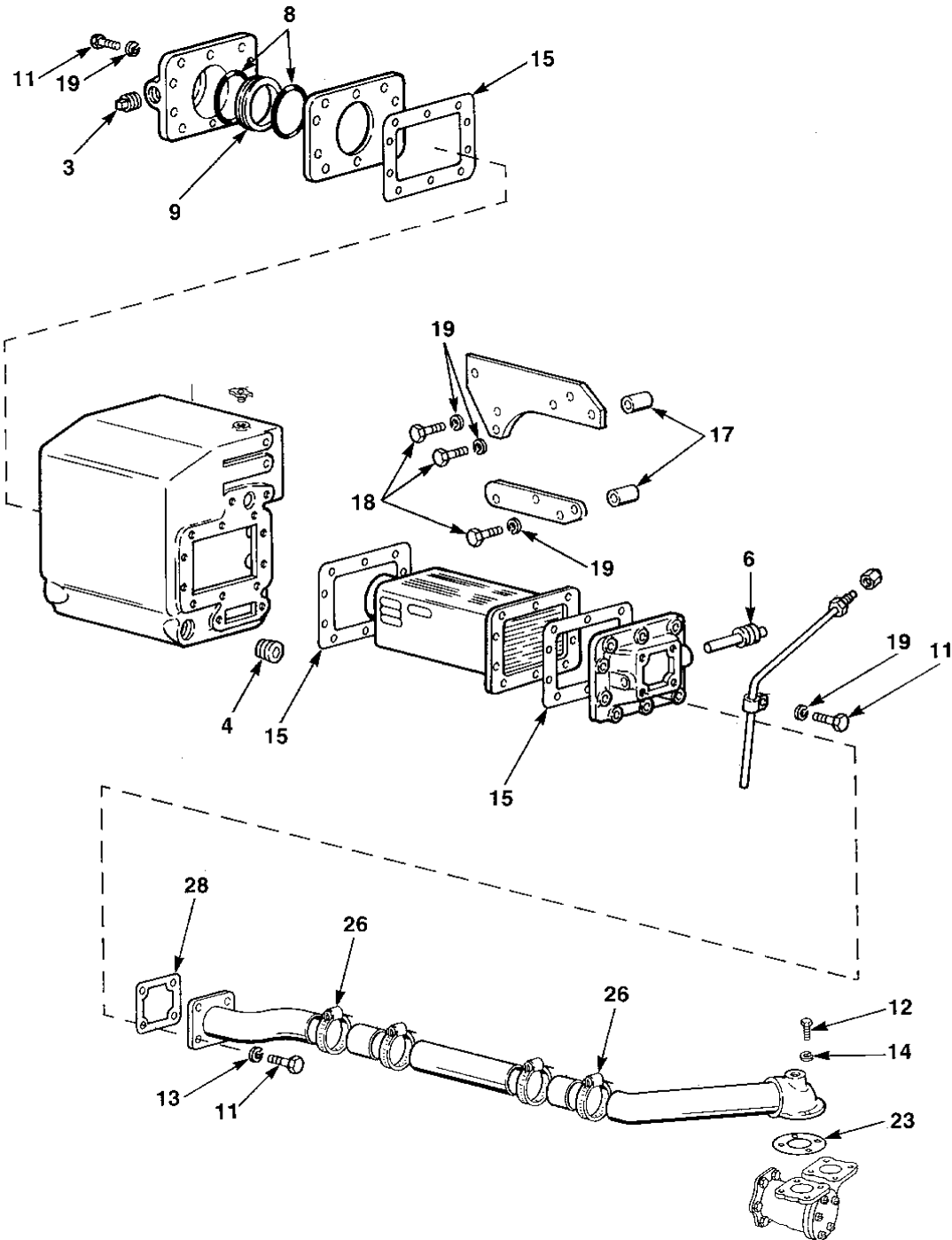
Groups:
5.4140 - 5.4235

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.4140	6	FP-274746	Lock Ring, Fan Shaft Bearing Retainer	1	1	1	1
5.4140	7	FP-5103624	Washer, Fan Shaft Bearing Retainer (.50" Th)	1	1	1	1
5.4140	8	FP-9409060	Bolt, 1/2" - 20 X 1 1/2" Self Lock	1	1	1	1
5.4140	8	FP-9409129	Bolt, 1/2" - 20 X 1 3/4" Self Lock	1	1	1	1
5.4150	9	FP-5100408	Seal, Fan Shaft	1	1	1	1
5.4150	9	FP-5103623	Seal, Fan Shaft	1	1	1	1
5.4150	9	FP-5103951	Seal, Fan Shaft	1	1	1	1
5.4150	9	FP-5108219	Seal, Fan Shaft	1	1	1	1
5.4170	0	FP-5131122	Spacer, Fan Shaft Bearing	1	1	1	1
5.4180	0	FP-103320	Lockwasher, 5/16"	1	1	1	1
5.4235	0	FP-8924380	Plug, 1/8" - 27 Pipe	1	1	1	1



Heat Exchanger

(Figure 16.1)





Heat Exchanger

(Figure 16.1)

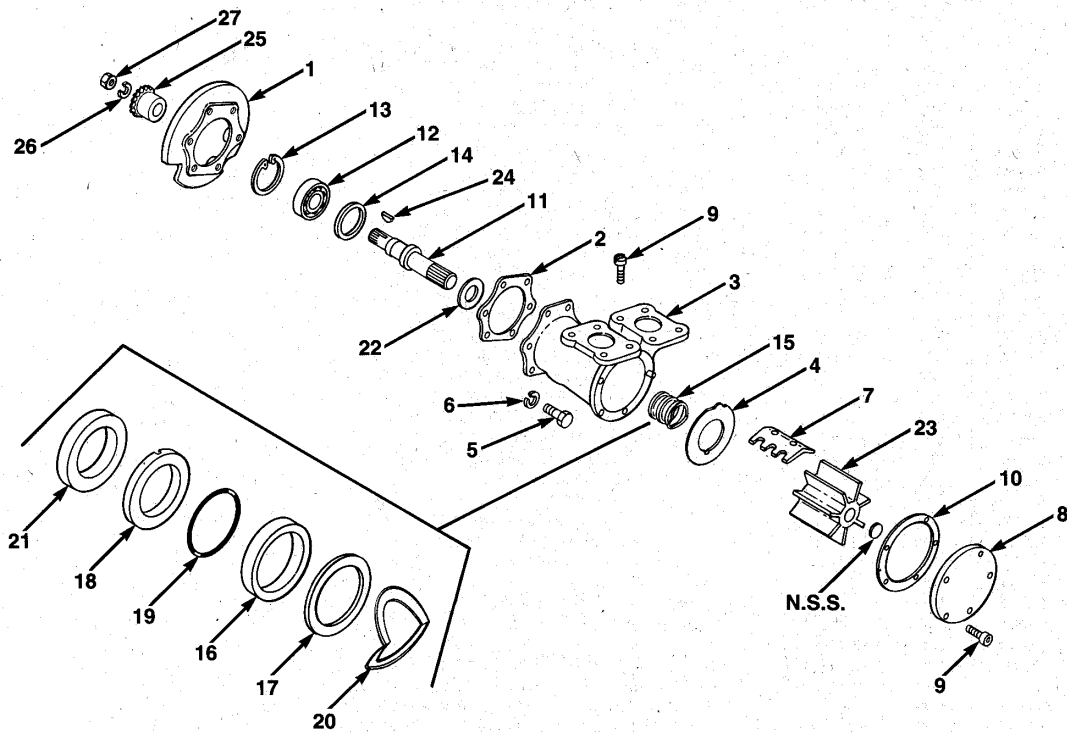
Groups:
5.5001 - 5.5570

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.5001	0	FP-103321	Lockwasher, 3/8"	4	4	4	4
5.5001	0	FP-454992	Bolt, 1/2" -13 X 2 1/2"	2	2	2	2
5.5001	0	FP-5117186	Plug, 2" Cup	2	2	2	2
5.5001	6	FP-8515850	Electrode Assembly, Heat Exchanger	2	2	2	2
5.5001	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
5.5001	4	FP-5142549	Plug, 3/4" Pipe	1	1	1	1
5.5001	3	FP-8924380	Plug, 1/8" Pipe	1	1	1	1
5.5010	6	FP-8517479	Electrode Assembly, Heat Exchanger	2	2	2	2
5.5021	0	FP-5150155	Gasket, Expansion Tank Cover	1	1	1	1
5.5025	13	FP-103320	Lockwasher, 5/16"	4	4	4	4
5.5028	8	FP-5167746	Seal Ring, Heat Exchanger	2	2	4	4
5.5028	9	FP-5167745	Gland, Heat Exchanger	1	1	1	1
5.5030	14	FP-103321	Lockwasher, 3/8"	4	4	-	-
5.5030	12	FP-8927581	Bolt, 3/8" -16 X 1"	4	4	-	-
5.5030	13	FP-103320	Lockwasher, 5/16"	10	10	-	-
5.5050	15	FP-5167764	Gasket, Heat Exchanger Cover	3	3	3	3
5.5050	15	FP-5117406	Gasket, Heat Exchanger Cover	2	2	2	2
5.5050	15	FP-5122975	Gasket, Heat Exchanger Cover	2	2	2	2
5.5050	15	FP-5123660	Gasket, Heat Exchanger Cover	2	2	2	2
5.5070	19	FP-103325	Lockwasher, 5/8"	8	8	8	8
5.5070	18	FP-454992	Bolt, 1/2" - 13 X 2 1/2"	4	4	4	4
5.5070	0	FP-5125108	Washer, .75" O.D. x .453 " I.D.	4	4	4	4
5.5070	17	FP-5131978	Spacer, 17/32" X 1" X .164"	4	4	4	4
5.5070	19	FP-103321	Lockwasher, 3/8"	10	10	10	10
5.5290	13	FP-103320	Lockwasher, 5/16"	-	-	14	14
5.5362	0	FP-103026	Nut, 3/8" - 24	2	2	2	2
5.5362	0	FP-103321	Lockwasher, 3/8"	2	2	2	2
5.5378	23	FP-5112143	Gasket, Water Flange At Gear and RWP	1	1	1	1
5.5380	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	4	4	4	4
5.5380	0	FP-8927581	Bolt, 3/8" - 16 X 1"	4	4	4	4
5.5385	0	FP-5186841	Clamp, Raw Water Pump Outlet Tube	1	1	1	1
5.5430	26	FP-9139809	Clamp, Hose (2 1/16" - 3")	4	4	4	4
5.5480	26	FP-5188036	Clamp, Heat Exchanger Raw Water Inlet	4	4	4	4
5.5550	13	FP-103320	Lockwasher, 3/8"	4	4	4	4
5.5570	28	FP-5158747	Gasket, Heat Exchanger Water Outlet Tube	1	1	1	1



Raw Water Pump

(Figure 17.1)





Raw Water Pump

(Figure 17.1)

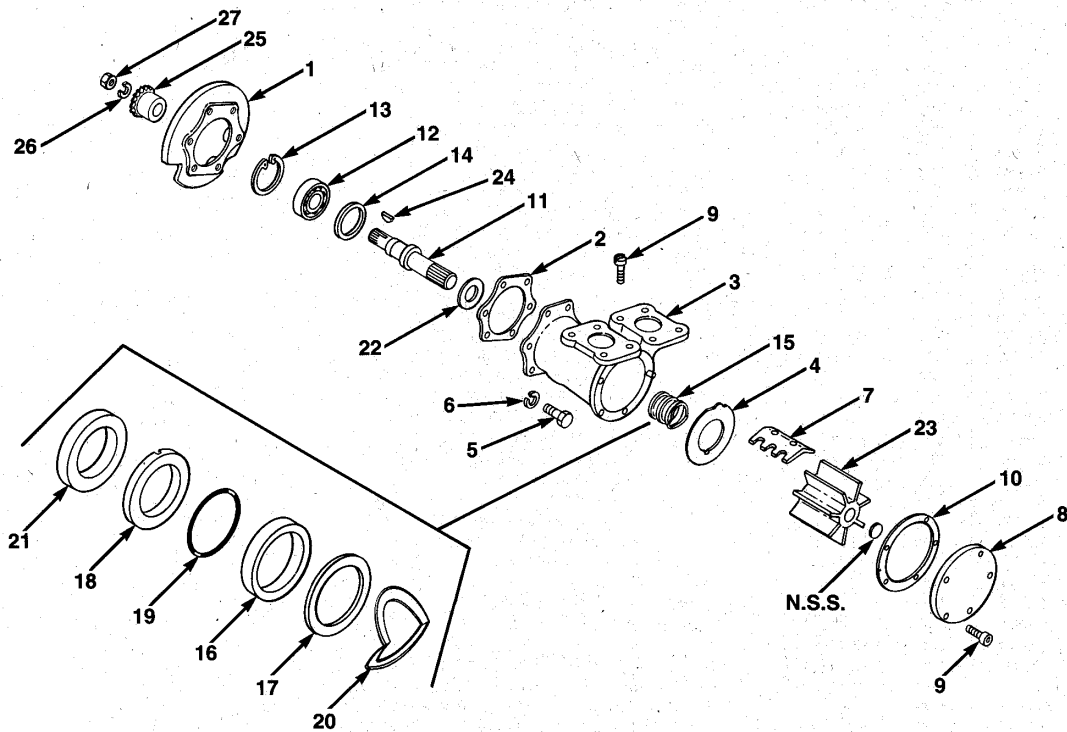
Groups:
5.6001 - 5.6320

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.6001	0	FP-23507971	Pump Assembly, Raw Water (Option Type 62)	1	-	-	-
5.6001	0	FP-23507972	Pump Assembly, Raw Water (Option Type 63,65,90,100)	-	1	1	-
5.6010	5	FP-23501660	Bolt, 3/8" - 16 X 1" (Adaptor To Pump Body)	6	6	6	6
5.6010	1	FP-5193551	Adaptor, Raw Water Pump Body	1	1	1	1
5.6012	2	FP-23501662	Gasket, Raw Water Pump Adaptor	1	1	1	1
5.6012	2	FP-5196513	Gasket, Raw Water Pump Adaptor	1	1	1	1
5.6020	4	FP-5193556	Plate, Wear	1	1	1	1
5.6020	0	FP-5197597	Pin, 3/16" X 5/16" Dowel (Wearplate Locating)	1	1	1	1
5.6230	0	FP-5193602	Impeller (Synthetic), (Option Type 14), (Obsolete Pump)	-	1	1	1
5.6220		FP-5194860	Impeller & Seal Kit (For Pump FP-5115396)	1	-	-	-
5.6230	23	FP-8924838	Impeller, Raw Water Pump	1	-	-	-
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	1	1	1	1
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	1	1	1	1
5.6025	9	FP-23504236	Screw, Hexagon	6	6	6	6
5.6220		FP-5196846	Impeller & Seal Kit (For Pump FP-5122599)	-	1	1	1
5.6230	23	FP-8924839	Impeller, Raw Water Pump	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	1	1	1	1
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	1	1	1	1
5.6025	9	FP-23504236	Screw, Hexagon	6	6	6	6
5.6025	0	FP-5197222	Reconditioning Kit, Raw Water Pump (For FP-5122599)	-	1	1	1
5.6012	0	FP-23514265	Seal Ring,	-	1	1	1
5.6012	2	FP-23501662	Gasket, Raw Water Pump Body To Adaptor	-	1	1	1
5.6020	4	FP-5193556	Plate, Wear	-	1	1	1
5.6025	9	FP-114366	Screw, 1/4" - 20 X 1/2" RWP Cam (Brass)	-	1	1	1
5.6035	7	FP-5196167	Cam, Raw Water Pump Body Offset	-	1	1	1
5.6090	8	FP-5193555	Cover, Raw Water Pump (End)	-	1	1	1
5.6090	9	FP-23504236	Screw, 1/4" - 20 X 1/2" RWP Cover (Stainless)	-	5	5	5
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	-	1	1	1
5.6120	11	FP-5196169	Shaft, Raw Water Pump	-	1	1	1
5.6130	12	FP-23505479	Bearing, Raw Water Pump	-	1	1	1
5.6140	13	FP-5196171	Ring, Raw Water Pump Bearing Retainer	-	1	1	1
5.6160	14	FP-5195101	Seal, Raw Water Pump Bearing	-	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	-	1	1	1
5.6200	22	FP-5193676	Slinger, Raw Water Pump Shaft	-	1	1	1
5.6230	23	FP-8924839	Impeller, Raw Water Pump	-	1	1	1
5.6320	24	FP-103462	Key, Woodruff RWP Shaft	-	1	1	1



Raw Water Pump

(Figure 17.2)





Raw Water Pump

(Figure 17.2)

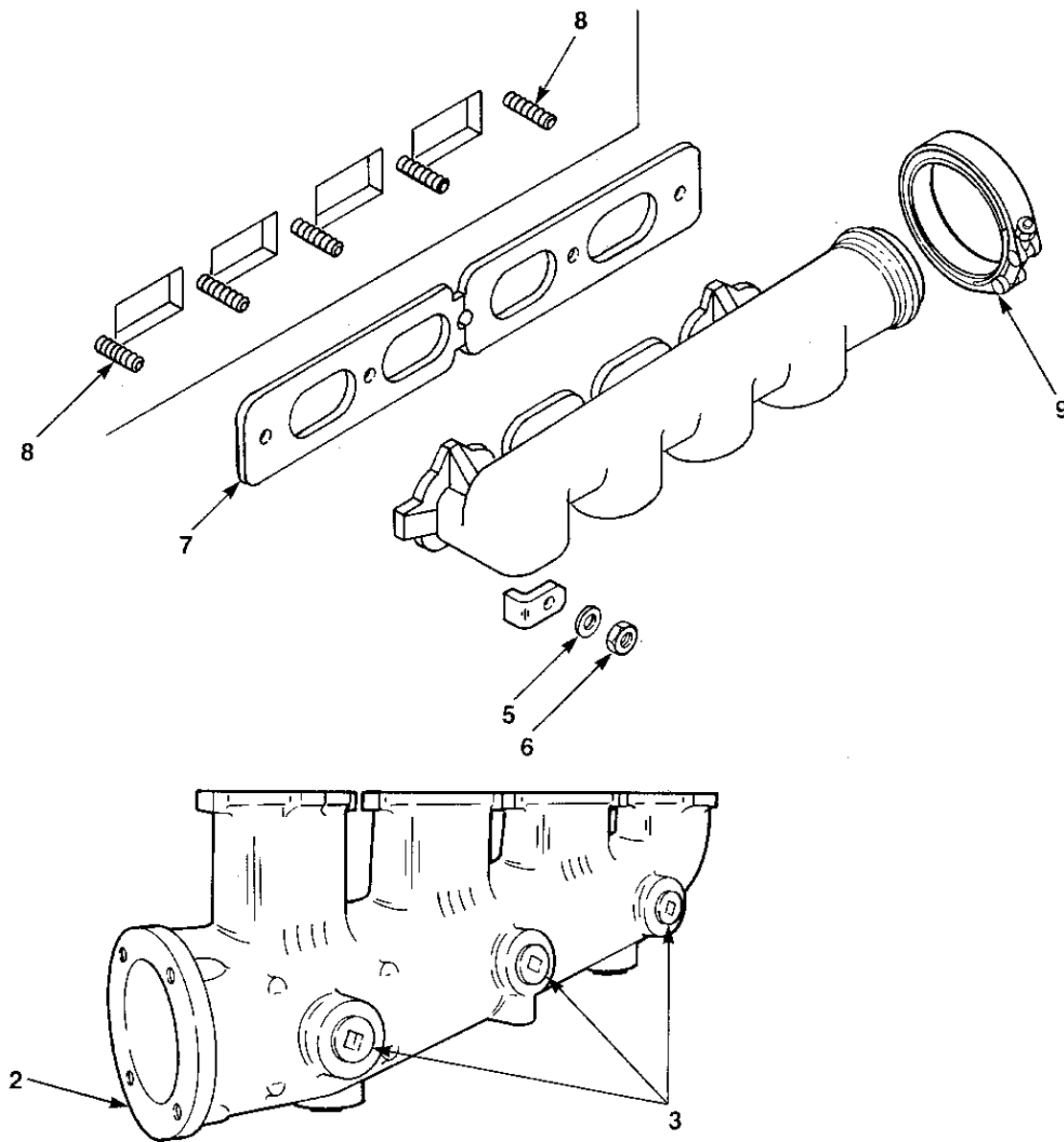
Groups:
5.6012 - 6.6025

Group	Ref	Part No.	Description	6V	8V	12V	16V
5.6320	26	FP-103325	Lockwasher, 5/8"	1	1	1	1
5.6320	24	FP-5161024	Key, 5/32" X 7/8"	1	-	-	-
5.6320	25	FP-5193576	Gear, Raw Water Pump Drive	1	-	-	-
5.6320	24	FP-103462	Key, 3/16" X 1"	-	1	1	1
5.6330	0	FP-9415285	Ring, External Retainer	2	2	2	2
5.6350	0	FP-23515145	Gasket, Raw Water Pump	1	1	1	1
5.6410	0	FP-5145092	Bolt, 3/8" -24 X 1.20"	4	4	4	4
5.6410	0	FP-5170450	Plate, Raw Water Pump Drive (21 Teeth)	1	1	1	1
5.6574	0	FP-5112143	Gasket, Raw Water Pump Inlet Elbow	1	1	1	1
5.6574	0	FP-5115395	Gasket, Raw Water Pump Inlet Elbow	1	1	1	1
5.6575	0	FP-8517479	Electrode Assembly, Raw Water Pump (2 1/8" L.)	1	1	-	1
5.6575	0	FP-8517473	Electrode Assembly, Raw Water Pump (1 1/4" L.)	1	-	-	-
5.6575	0	FP-8515850	Electrode Assembly, Raw Water Pump (3 3/8" L.)	-	1	2	-
5.6581	0	FP-5115395	Gasket, Raw Water Pump Outlet Tube	1	-	1	1
5.6581	0	FP-5112143	Gasket, Raw Water Pump Outlet Tube	-	-	-	1
5.6586	0	FP-5186841	Clamp, Heat Exchanger Raw Water Inlet Tube	4	4	4	4
5.6590	0	FP-9139809	Clamp, Heat Exchanger Raw Water Outlet Tube	4	4	4	4
5.6025	0	FP-5197224	Reconditioning Kit, Raw Water (For Pump FP-5115396)	1	-	-	-
5.6012	2	FP-23501662	Gasket, Raw Water Pump Body To Adaptor	1	1	1	1
5.6020	4	FP-5193556	Plate, Wear	1	1	1	1
6.6025	0	FP-23514265	Seal Ring,	1	1	1	1
5.6035	9	FP-114366	Screw, 1/4" - 20 X 1/2" RWP Cam (Brass)	1	1	1	1
5.6035	7	FP-5193554	Cam, Raw Water Pump Body Offset	1	-	-	-
5.6090	8	FP-5193555	Cover, Raw Water Pump (End)	1	1	1	1
5.6090	9	FP-23504236	Screw, 1/4" - 20 X 1/2" RWP Cover (Stainless)	5	5	5	5
5.6100	10	FP-5193562	Gasket, Raw Water Pump Cover	1	1	1	1
5.6120	11	FP-5193552	Shaft, Raw Water Pump	1	-	-	-
5.6130	12	FP-23504426	Bearing, Raw Water Pump	1	-	-	-
5.6140	13	FP-9415285	Ring, Raw Water Pump Bearing Retainer (Large)	1	-	-	-
5.6140	13	FP-5193569	Ring, Raw Water Pump Bearing Retainer (Small)	1	-	-	-
5.6160	14	FP-5195101	Seal, Raw Water Pump Bearing	1	1	1	1
5.6170	15	FP-5198419	Seal Assembly, Raw Water Pump Shaft	1	1	1	1
5.6200	22	FP-5193676	Slinger, Raw Water Pump Shaft	1	1	1	1
5.6230	23	FP-8924838	Impeller, Raw Water Pump	1	-	-	-
5.6320	24	FP-5161024	Key, Woodruff RWP Shaft	1	-	-	-



Exhaust Manifold

(Figure 18.1)





Exhaust Manifold

(Figure 18.1)

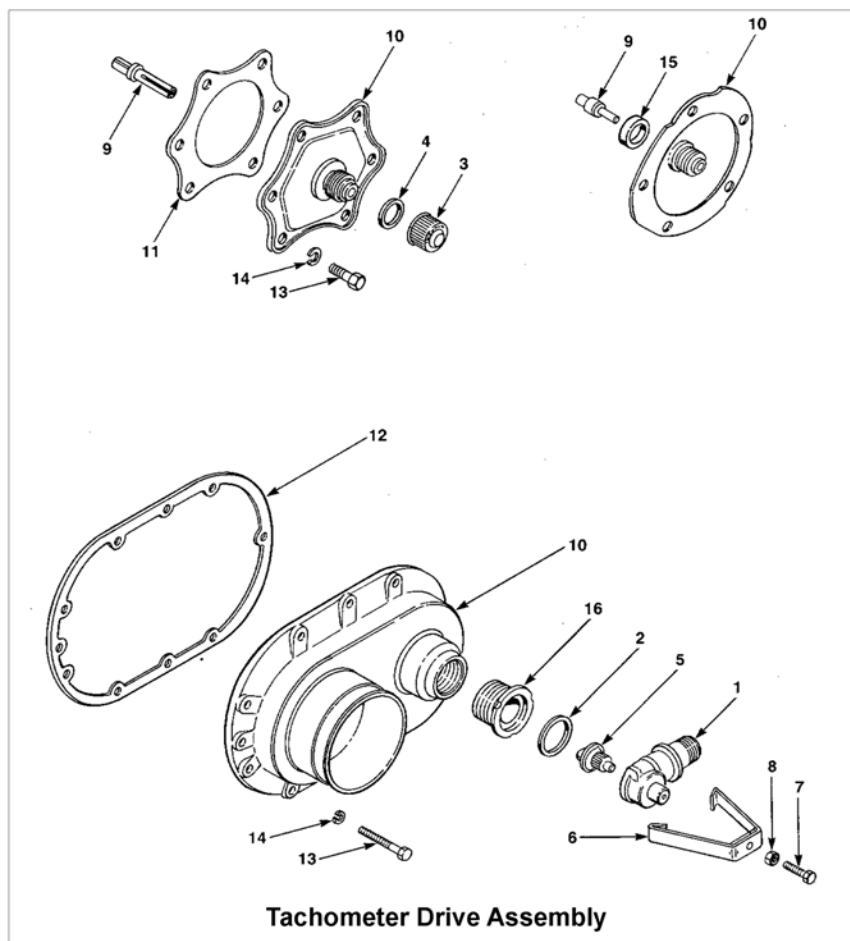
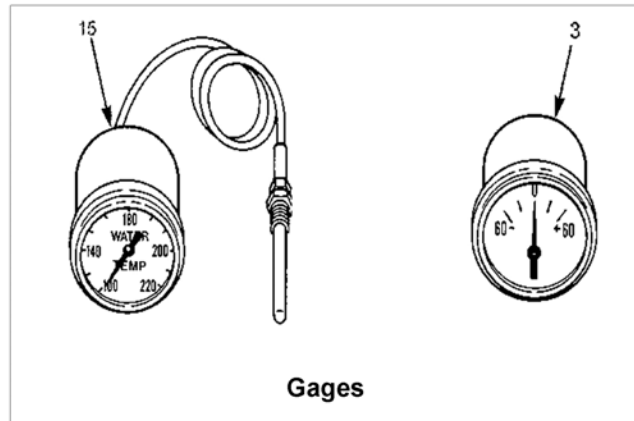
Groups:
6.1001 - 6.2105

Group	Ref	Part No.	Description	6V	8V	12V	16V
6.1001	5	FP-5104439	Washer, 7/16" X 1 1/4" (Dished)	8	10	14	16
6.1001	3	FP-23511574	Plug, Drain	6	8	10	16
6.1001	9	FP-5146165	Clamp, 3.88" Dia. (Marmon)	2	2	2	2
6.1001	0	FP-5115214	Plug, 1/2" Pipe	2	-	2	-
6.1001	6	FP-23505398	Nut, Lock 7/16" -20	12	16	24	32
6.1001	0	FP-5142549	Plug, 3/4" Pipe	-	4	-	8
6.1001	2	FP-8921706	Manifold Assembly, Exhaust (Horizontal), (Water Cooled)	-	2	-	4
6.1003	0	FP-9411981	Nut, 3/8" - 24 Lock	12	14	16	24
6.1010	7	FP-5113954	Gasket, Exhaust Manifold	AR	AR	AR	AR
6.1010	7	FP-5122866S	Gasket, Exhaust Manifold (3 Ports), (Metal Clad)	2	-	-	-
6.1010	7	FP-5150194	Gasket, Exhaust Manifold (Composition), (3 Ports)	2	-	-	-
6.1010	7	FP-5120224	Gasket, Exhaust Manifold (Ends), (Metal Clad)	-	4	4	8
6.1010	7	FP-5150195	Gasket, Exhaust Manifold (Composition), (End)	-	4	4	8
6.1010	7	FP-5120223	Gasket, Exhaust Manifold (Intermediate), (Metal Clad)	-	-	2	4
6.1010	7	FP-5150196	Gasket, Exhaust Manifold (Composition), (Inter.)	-	-	2	-
6.1012	0	FP-23512114	Gasket, Exhaust Manifold Adaptor (Old # 5148029)	2	2	2	4
6.1012	0	FP-5145238	Gasket, Exhaust Manifold Adaptor	2	2	2	4
6.1020	8	FP-8925804	Stud, Exhaust Manifold To Head (7/16" -14/20 X 2 3/32")	12	16	24	32
6.1050	0	FP-8925804	Stud, Exhaust Manifold To Head (7/16" -14/20 X 2 3/32")	12	12	16	16
6.1060	0	FP-5100147	Gasket, Exhaust Manifold Outlet	-	2	-	-
6.1100	0	FP-103320	Lockwasher, 5/16"	12	12	12	24
6.1110	0	FP-5156319	Gasket, Exhaust Manifold Cover Plate	4	4	4	16
6.1110	0	FP-5113412	Gasket, Exhaust Manifold Cover Plate	1	1	2	4
6.1120	0	FP-8925603	Stud, Exhaust Manifold Cover Plate (5/16" - 18 X 3/4")	12	12	12	24
6.1150	0	FP-5156319	Gasket, Exhaust Manifold Water Outlet Flange	2	2	2	8
6.2085	0	FP-5132650	Clamp, Exhaust Flange	2	2	-	-
6.2085	0	FP-5164146	Flange, Exhaust Manifold	2	2	2	4
6.2085	0	FP-23506306	Clamp, Exhaust Flange	-	2	-	-
6.2085	0	FP-5137620	Clamp, Exhaust Flange	-	-	2	-
6.2085	0	FP-5146165	Clamp, Exhaust Flange	-	-	-	4
6.2105	0	FP-23504701	Gasket, Exhaust Outlet	2	2	-	8
6.2105	0	FP-23512114	Gasket, Exhaust Manifold Adaptor (Old # 5148029)	2	2	2	4
6.2105	0	FP-5100147	Gasket, Exhaust Outlet	2	2	2	4
6.2105	0	FP-5108377	Gasket, Exhaust Outlet	2	2	2	4
6.2105	0	FP-5108989	Gasket, Exhaust Outlet	2	2	-	-
6.2105	0	FP-5145238	Gasket, Exhaust Outlet	2	2	-	8
6.2105	0	FP-5166486	Gasket, Exhaust Outlet (3 1/8" I.D.)	2	2	-	-
6.2105	0	FP-5163811	Gasket, Exhaust Outlet (4 3/8" I.D.)	-	2	2	8



Instruments

(Figure 19.1)





Instruments

(Figure 19.1)

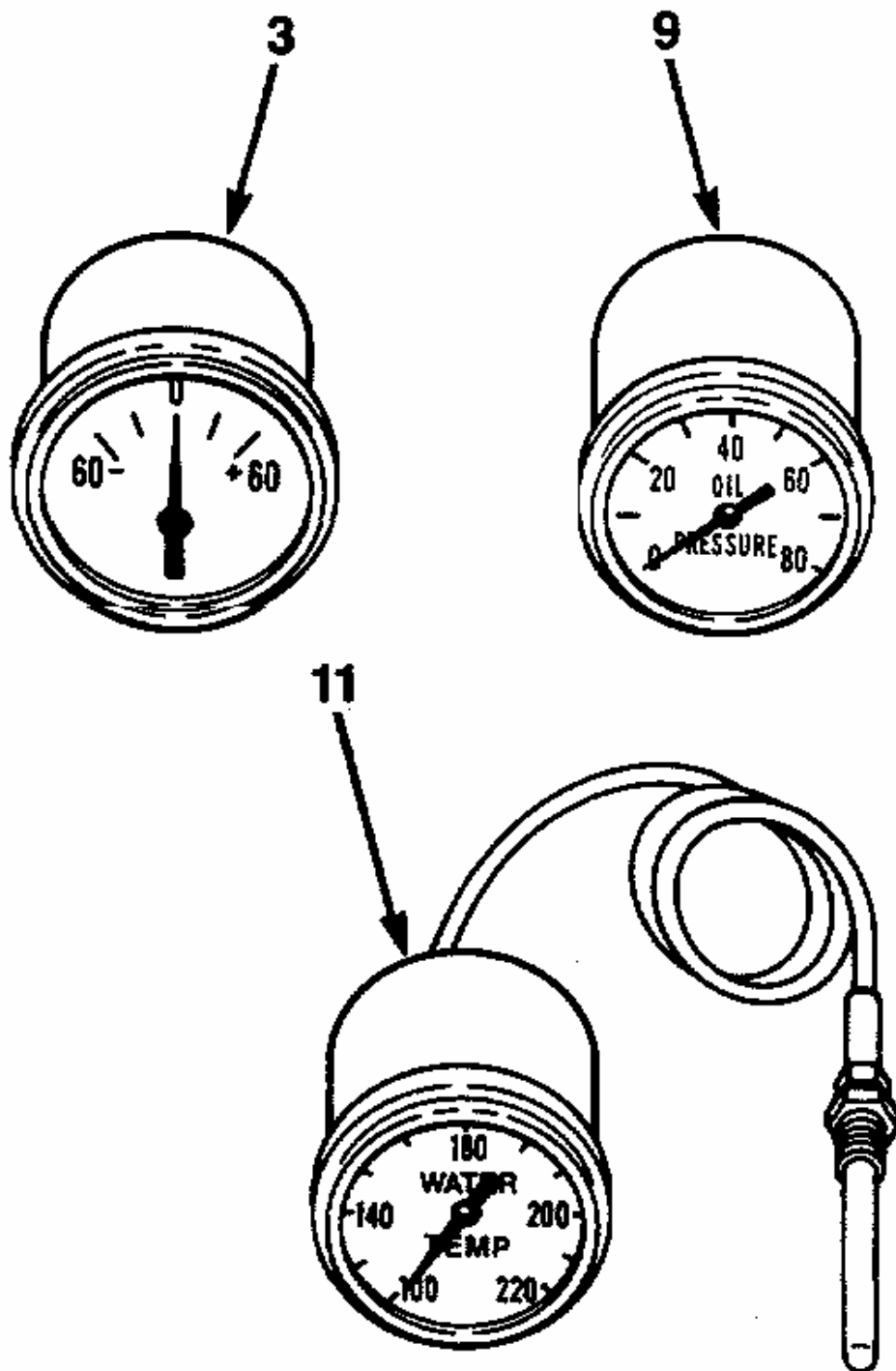
Groups:
7.4013 - 7.4505

Group	Ref	Part No.	Description	6V	8V	12V	16V
7.4013	0	FP-103321	Lockwasher, 3/8"	2	2	2	2
7.4013	0	FP-8927581	Bolt, 3/8" - 16 X 1"	2	2	2	2
7.4015	3	FP-6474479	Ammeter (60 Amp)	1	1	1	1
7.4070	9	FP-12361169	Gage, Oil Pressure, 0-100 PSI	1	1	1	1
7.4077	0	FP-6490569	Gage, Oil Temperature (6' Capillary)	1	1	1	1
7.4080	15	FP-6490565	Gage, Water Temperature (10' Capillary)	1	1	1	1
7.4080	15	FP-8993092	Gage, Water Temperature (4' Capillary)	1	1	1	1
7.4080	15	FP-8993093	Gage, Water Temperature (6' Capillary)	1	1	1	1
7.4080	15	FP-8993253	Gage, Water Temperature (15' Capillary)	1	1	1	1
7.4421	0	FP-5136678	Gasket, Tachometer Drive Cable Adaptor	1	1	1	1
7.4435	2	FP-3224992	Shaft, Tachometer Drive (.061" Key)	-	1	1	1
7.4435	2	FP-5135936	Shaft, Tachometer Drive	-	1	1	1
7.4445	0	FP-5150568	Washer, 7/16" Copper	1	1	1	1
7.4445	0	FP-5190566	Gasket, Tachometer Drive Cover Assembly	1	1	1	1
7.4445	13	FP-8924266	Gasket, Tachometer Drive Cover Assembly	1	1	1	1
7.4445	11	FP-23515145	Gasket, Tachometer Drive Cover Assembly	-	1	1	1
7.4445	11	FP-5104507	Gasket, Tachometer Drive Cover Assembly	-	1	1	1
7.4445	0	FP-103321	Lockwasher, 3/8"	-	-	6	6
7.4445	0	FP-8927580	Bolt, 3/8" - 16 X 7/8"	-	-	2	2
7.4450	0	FP-3202615	Seal, Tachometer Drive Cover	-	2	2	2
7.4455	11	FP-5123123	Gasket, Tachometer Drive Cover Adaptor	1	1	1	1
7.4455	11	FP-5135935	Gasket, Tachometer Drive Cover Adaptor	1	1	1	1
7.4455	11	FP-5135935	Gasket, Tachometer Drive Cover Adaptor	1	1	1	1
7.4455	11	FP-5136678	Gasket, Tachometer Drive Cover Adaptor	1	1	1	1
7.4455	11	FP-5104507	Gasket, Tachometer Drive Cover Adaptor	-	1	1	1
7.4455	11	FP-23515145	Gasket, Tachometer Drive Cover Adaptor	-	-	-	1
7.4457	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4457	14	FP-103319	Lockwasher, 1/4"	1	1	1	1
7.4457	0	FP-5107931	Gasket, Tachometer Drive Cover Cap	1	1	1	1
7.4457	0	FP-8924380	Plug, 1/8" Pipe	-	-	-	1
7.4458	0	FP-5135820	Seal, Tachometer Drive Adaptor	-	1	1	1
7.4505	0	FP-5146080	Switch, Water Temperature	AR	AR	AR	AR
7.4505	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4505	0	FP-5163830	Gasket, Water Temperature Switch	1	1	1	1
7.4505	0	FP-5179913	Switch, Water Temperature (Option Type 90,140,224,547)	1	-	1	-
7.4505	0	FP-5186948	Switch, Water Temperature (Option Type 237,314)	-	1	-	-
7.4505	0	FP-5121665	Switch, Water Temperature (Option Type 436,711,830)	-	-	1	1



Instruments

(Figure 19.2)





Instruments

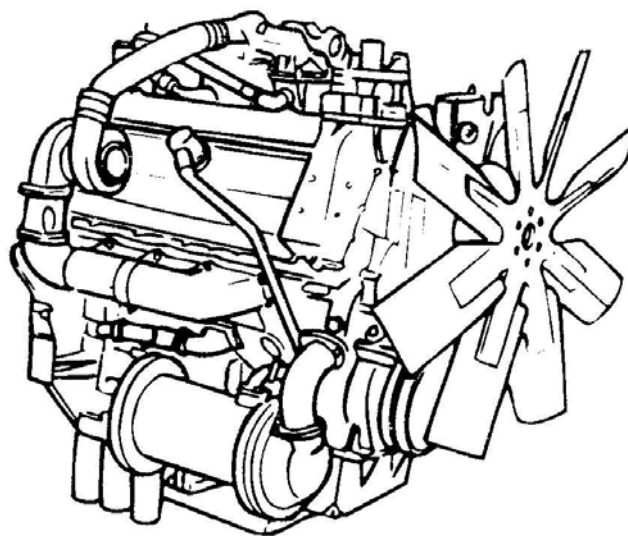
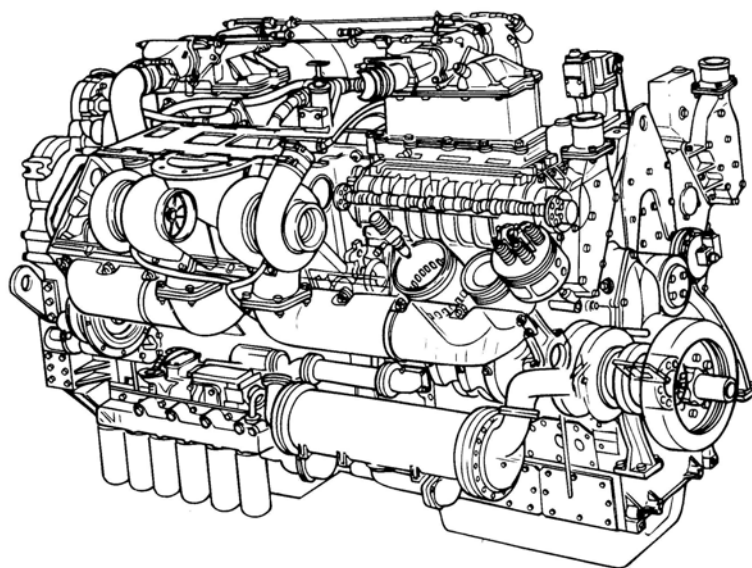
(Figure 19.2)

Groups:
1.3320 - 12.5020

Group	Ref	Part No.	Description	6V	8V	12V	16V
7.4509	0	FP-103320	Lockwasher, 5/16"	2	2	2	2
7.4509	0	FP-5166486	Gasket, Manifold Flange	2	2	2	2
7.4509	0	FP-8923847	Plug, 1/4" Pipe	2	2	2	2
7.4509	0	FP-5121182	Plug, 1/4" Pipe	1	1	1	1
7.4510	0	FP-5113412	Gasket, Water Temperature Switch	1	1	1	1
7.4519	5	FP-103319	Lockwasher, 1/4"	4	4	4	4
7.4519	3	FP-179803	Bolt, 1/4" - 20 X 1 3/4"	1	1	1	1
7.4519	0	FP-23504196	Solenoid, Air Shutoff Or Governor (12V)	1	1	1	1
7.4519	3	FP-443603	Bolt, 1/4" - 20 X 3/4"	1	1	1	1
7.4538	0	FP-5176810	Pin, Clevis, Air Shutoff Control Rod (1/4" x 49/64")	AR	AR	AR	AR
7.4598	0	FP-23520023	Switch, Oil Pressure (# 5 Break)	1	1	1	1
7.4598	0	FP-23520024	Switch, Oil Pressure (# 10 Break)	1	1	1	1
7.4598	0	FP-23520025	Switch, Oil Pressure (# 20 Make)	1	1	1	1
7.4598	0	FP-23520026	Switch, Oil Pressure (# 27 Make / Break)	1	1	1	1
Miscellaneous Parts							
1.3320	0	FP-5133761	Belt Set, 3 Belts (53" L - .500" W)	AR	AR	AR	AR
7.1597	0	FP-5122266	Gasket, Generator Mounting Gasket	1	1	1	1
7.3001	0	FP-9418228	Bolt, Starter Motor (5/8" - 11 x 1 3/4" - 12 Point)	AR	AR	AR	AR
9.1001	0	FP-6700157	Seal, Hydraulic Gear Assembly	2	2	2	2
9.1001	0	FP-5150475	Gasket, Hydraulic marine Gear Assy (4.6010)	1	1	1	1
9.1035	0	FP-6700157	Seal, Reverse Clutch Piston	2	2	2	2
9.1045	0	FP-23010125	Plate Assy, Reverse Clutch Disc	1	1	1	1
9.1207	0	FP-5173384	Seal, Flywheel Oil (1 3/8")	1	1	1	1
9.1235	0	FP-5101603	Plate Assy, Forward Clutch (14" 510HP)	1	1	1	1
9.1245	0	FP-5103250	Bolt, Flywheel (9/16" - 18 x 2.75" B/H)	12	12	12	12
9.1270	0	FP-5156815	Spring, Forward Clutch Dump Valve (4.1690)	1	1	1	1
11.1100	0	FP-9418228	Bolt, Rear Engine Support Bracket (5/8" - 11 x 1 3/4" - 12 Point)	AR	AR	AR	AR
12.4005	0	FP-5131939	Gasket, Air Compressor Mounting	1	1	1	1
12.5020	0	FP-23505523	Gasket, Hydraulic Pump Adaptor (1.5060)	1	1	1	1



149 SERIES ENGINE



Typical 8V-149



149 SERIES ENGINE

Model Description Chart

Application, Rotation Design Variations

9 1 2 2 - 7 0 0 0

SERIES 149 ENGINE	NUMBER OF CYLINDERS	APPLICATION DESIGNATION (see below)	BASIC ENGINE ARRANGEMENT (see below)	DESIGN VARIATION (see below)	SPECIFIC MODEL NUMBER
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APPLICATION DESIGNATION

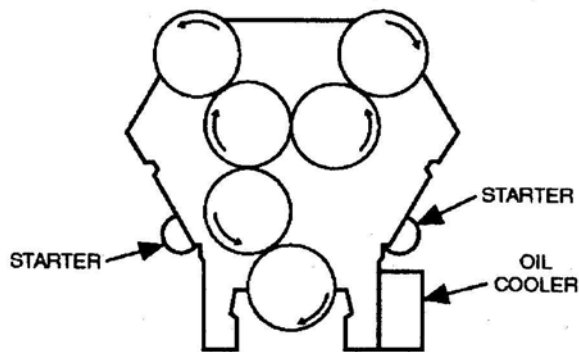
9122 - 7000 MARINE
9123 - 7000 FAN TO FW - INDUSTRIAL

DESIGN VARIATIONS

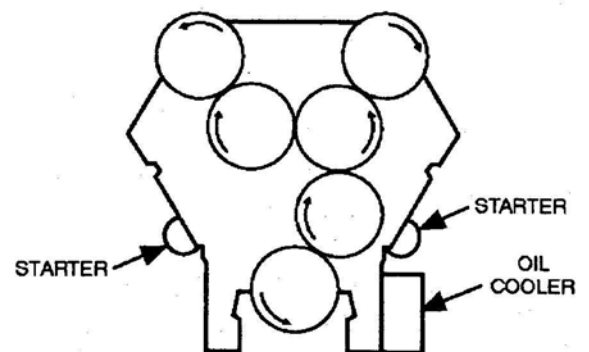
9123 - 7000 NON-TURBOCHARGED
9123 - 7300 TURBOCHARGED

Basic Engine Arrangements

ALL VIEWS FROM FLYWHEEL (REAR) END OF ENGINE
ENGINE ROTATION DETERMINED BY VIEWING ENGINE FROM FRONT END



LC (XXXX-3XXX)

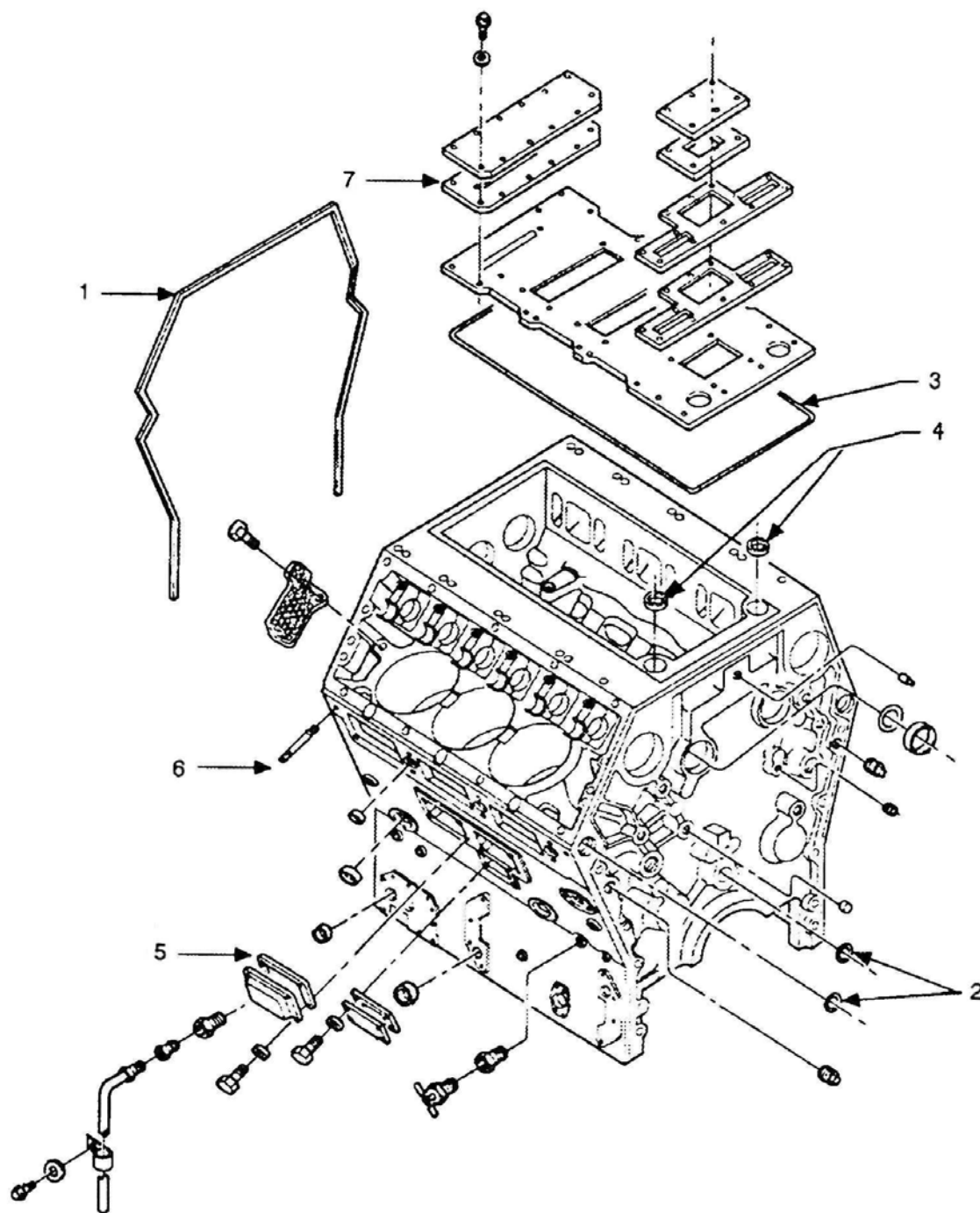


RC (XXXX-7XXX)



Cylinder Block

(Figure 1.1)





Cylinder Block

(Figure 1.1)

Groups:

1.1001 - 1.1077

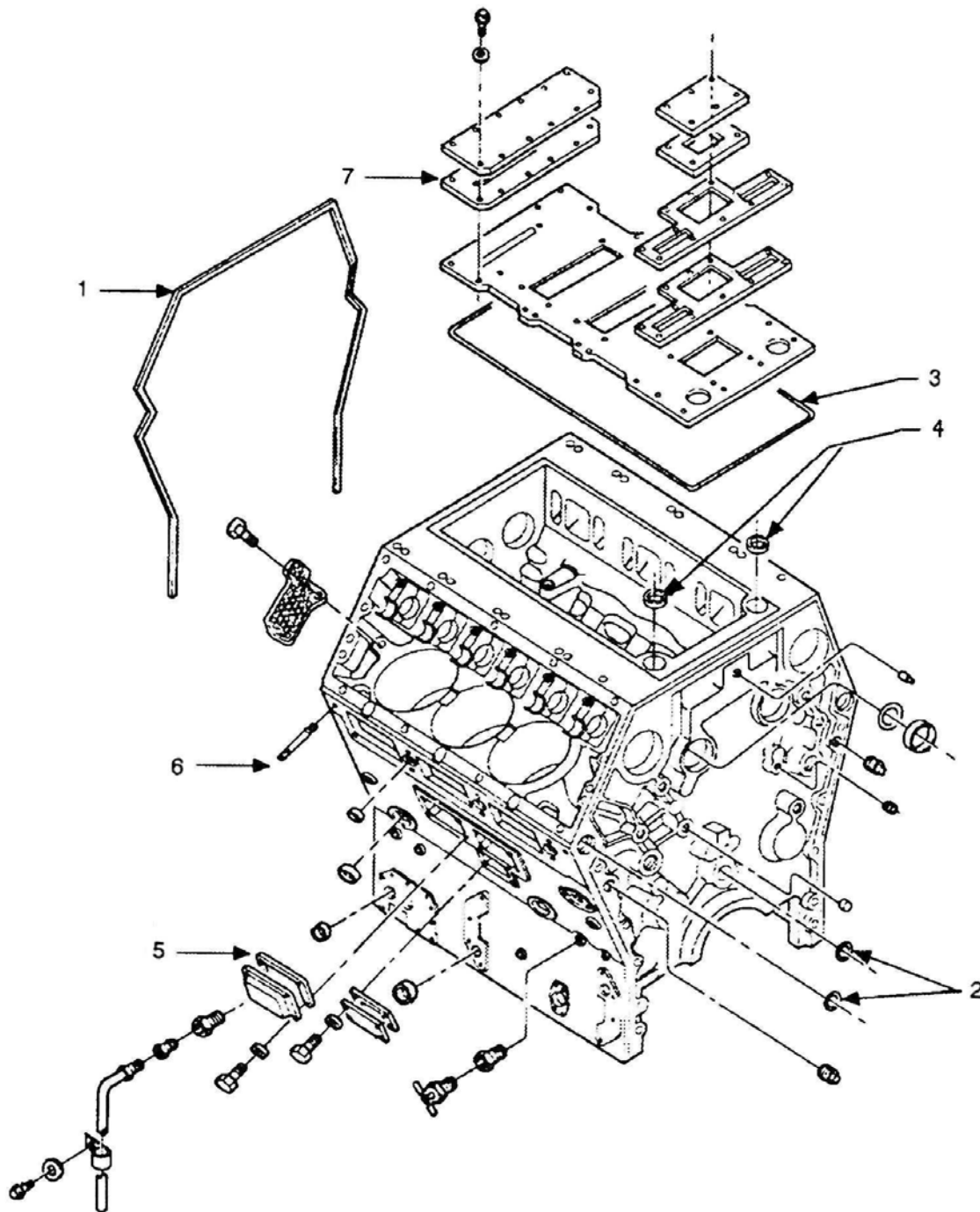
Group	Ref	Part No.	Description	8V	12V	16V
1.1001	2	FP-5141037^	Seal Ring, (.880" I.D.), (Water)	2	2	2
1.1001	0	FP-103321^	Lockwasher, 3/8"	8	8	8
1.1001	0	FP-103320^	Lockwasher, 5/16"	8	8	8
1.1001	0	FP-5146279^	Seal Ring, Rear Block	-	1	1
1.1001	0	FP-5140261^	Seal, Ring (Oil Gallery)	1	1	1
1.1001	1	FP-5140157^	Seal, Strip Inter-Block	1	1	1
1.1001	0	FP-5139853^	Bar, Bolting	2	2	2
1.1001	0	FP-5139509^	Seal Ring, Cylinder Head (7.987" I.D.), (1.2022)	8	12	16
1.1001	0	FP-5107182^	Seal, Sleeve Water Hole (1.2022)	-	168	224
1.1001	0	FP-5144943^	Sleeve, Water Hole Seal (1.2021)	-	84	112
1.1001	0	FP-5169866^	Washer, 17/64" (Copper), (2.8810)	1	1	1
1.1001	0	FP-8924517^	Plug, 3/8"- 18 SQ. SOC. VIBRA SEAL	4	10	10
1.1001	0	FP-8923313^	Plug, 3/4" Pipe	-	12	12
1.1001	0	FP-5154453^	Plug, 3/8" - 16	4	4	4
1.1001	6	FP-8925804^	Stud, 7/16" - 14/20 X 2 3/32"	2	2	2
1.1001	0	FP-5140843^	Dowel, Special (1.1003)	1	1	1
1.1001	0	FP-454992^	Bolt, 1/2" - 13 X 2 1/2"	12	16	16
1.1001	0	FP-5178997^	Gasket, Plug (Aluminum)	3	4	4
1.1001	0	FP-5138659^	Gasket, 2.75" X .063" Plug	3	4	4
1.1001	0	FP-5144211^	Insert, 5/8" O.D. X 3/8" I.D. X 1 1/4" L.	2	2	2
1.1001	0	FP-5131755^	Washer, 17/32" X .88" X .1345"	3	3	3
1.1001	0	FP-5107182^	Seal Sleeve, Counterbored Block Repair	-	-	-
1.1001	0	FP-8923847^	Plug, Pipe 1/4 - 18" NPTF	4	4	4
1.1002	0	FP-23516493CO^	Gasket Set, Overhaul (w/Crank Seals)	-	-	1
1.1002	0	FP-23516878^	Gasket Set, Complete Overhaul (20V149)	-	-	-
1.1002	0	FP-23516642^	Gasket Set, Complete Overhaul	1	-	-
1.1002	0	FP-23516494^	Gasket Set, Complete Overhaul	-	1	-
1.1002	0	FP-23516494CO^	Gasket Set, Overhaul (w/Crank Seals)	-	1	-
1.1002	0	FP-23516493^	Gasket Set, Complete Overhaul	-	-	1
1.1003	0	FP-5139853	Bar, Bolting	2	2	2
1.1003	0	FP-5131755	Washer, 17/32" X .88" X .1345" (1.7250)	3	3	3
1.1003	5	FP-8927618	Gasket, Cylinder Block Hand Hole Cover	8	12	16
1.1003	0	FP-5146279	Seal Ring, Rear Block	2	2	2
1.1003	0	FP-5141037	Seal Ring, (.880" I.D.), (Water Holes)	2	2	2
1.1003	0	FP-5140157	Seal Strip, Inter-Block	1	1	1
1.1003	0	FP-23504737	Seal Strip, Inter-Block	1	1	1
1.1003	0	FP-5140843	Dowel, Special	1	1	1
1.1003	0	FP-5140261	Seal Ring, (Oil Gallery)	1	1	1
1.1040	0	FP-8927581	Bolt, 3/8" - 16 X 1.135" Hand Hole Cover	24	32	48
1.1050	5	FP-8927618	Gasket, Cylinder Block Hand Hole Cover	8	12	16
1.1070	0	FP-23506132	Gasket, Cylinder Block Water Hole Cover	2	6	6
1.1077	0	FP-5152148	Washer, 3/8" X 9/16" (Copper)	10	12	14
1.1077	0	FP-8924517	Plug, 3/8"- 18 SQ. SOC. VIBRA SEAL	1	-	-
1.1077	0	FP-5155596	Washer, 21/64" (Special Copper)	5	5	5

^ Gasket sets are less head gasket components, oil cooler gaskets and air inlet blower gaskets.



Cylinder Block

(Figure 1.2)





Cylinder Block

(Figure 1.2)

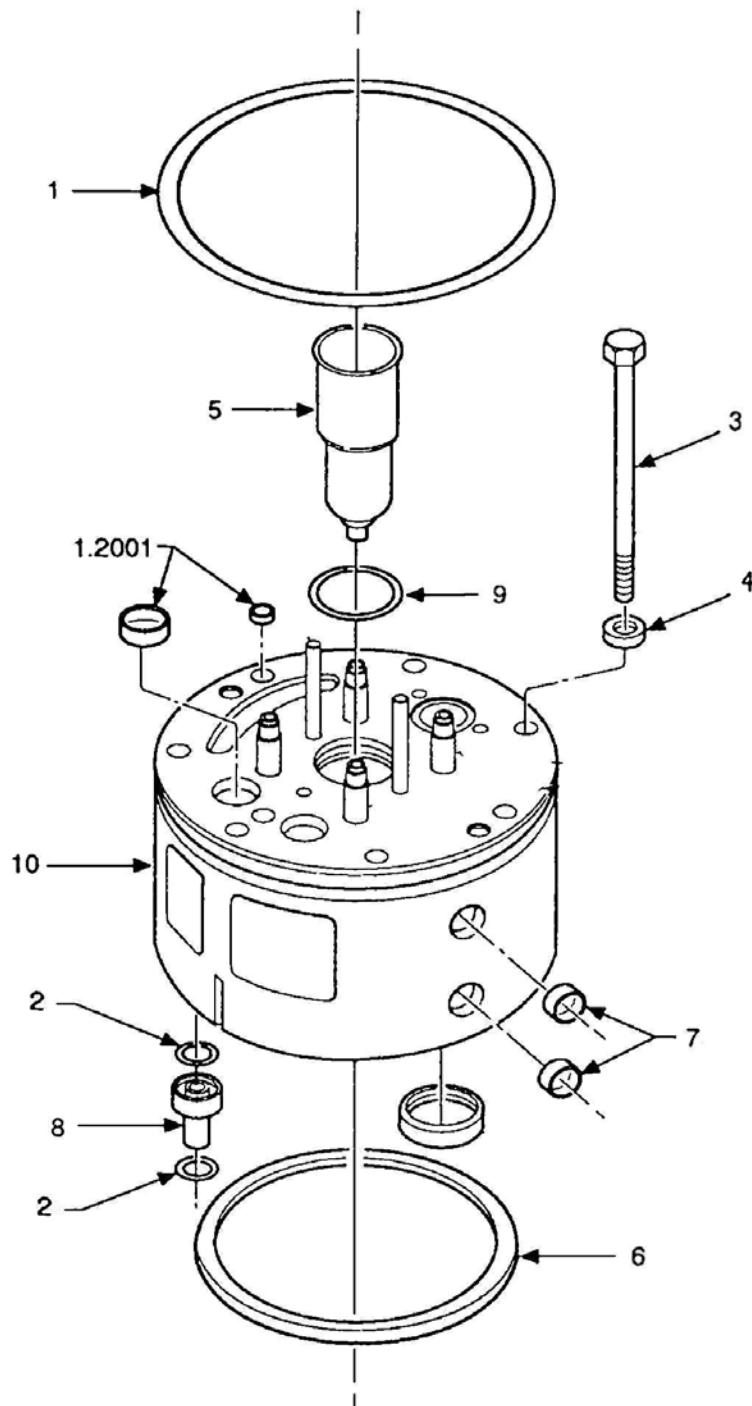
Groups:
1.1087 - 1.1087

Group	Ref	Part No.	Description	8V	12V	16V
1.1087	3	FP-5139918	Ring Seal, Air Box Cover	2	2	2
1.1087	0	FP-8927618	Gasket, Air Box Cover	8	8	12
1.1087	4	FP-5144035	Ring Seal, Air Box Cover (.139" X 1.609" I.D.)	4	4	4
1.1087	4	FP-5139696	Ring Seal, Air Box Cover	2	2	2
1.1087	4	FP-5140956	Ring Seal, Air Box Cover	2	2	2
1.1087	7	FP-5143686	Gasket, Inspection Hole (Front)	1	2	2
1.1087	0	FP-5145623	Gasket, Governor Hole	1	1	1



Cylinder Head

(Figure 2.1)





Cylinder Head

(Figure 2.1)

Groups:

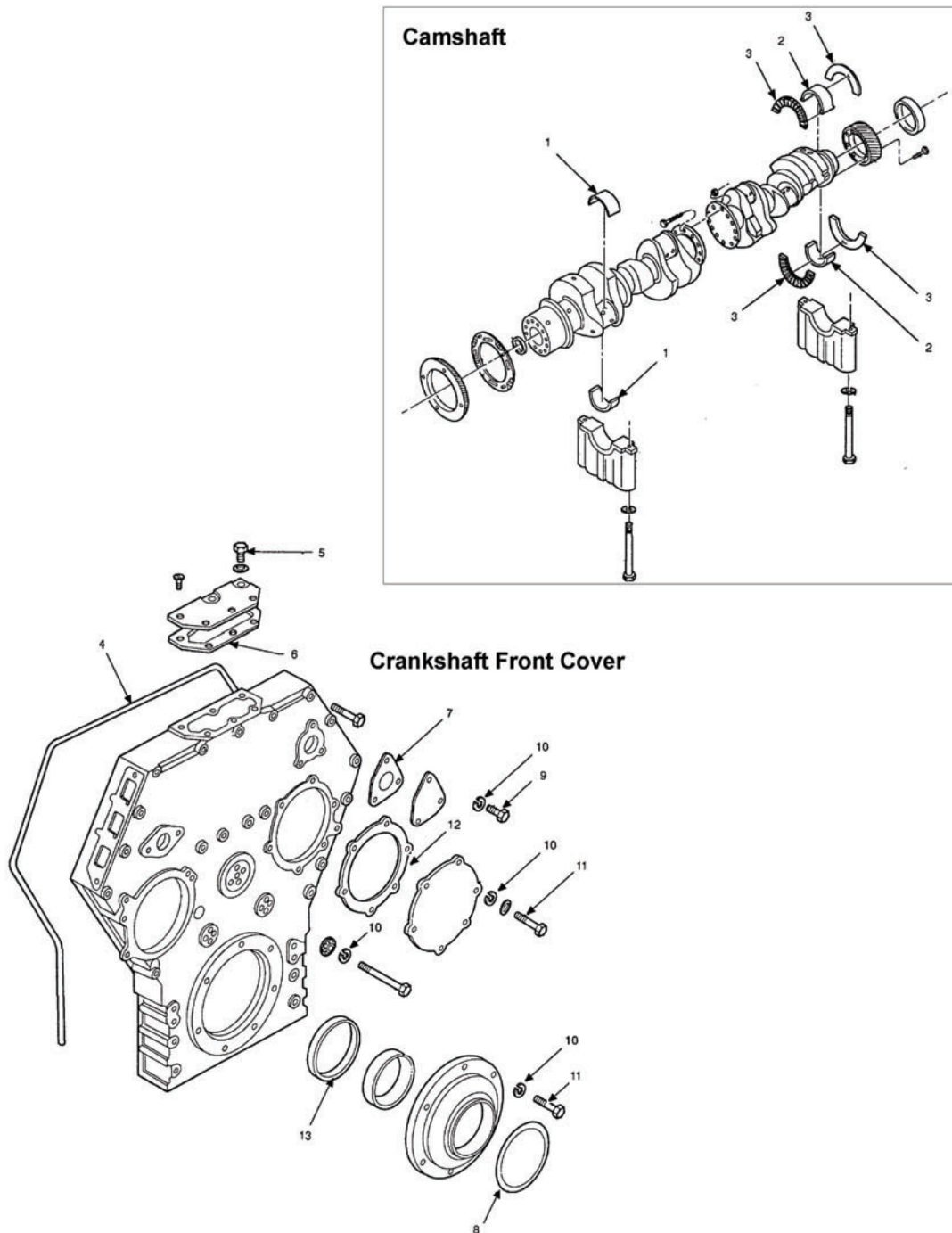
1.2001 - 1.2070

Group	Ref	Part No.	Description	8V	12V	16V
1.2001	10	FP-8924760	Head Assembly (Short Slot)	8	12	16
1.2001	7	FP-5139997	Plug, 7/8" Cup	6	6	6
1.2001	0	FP-8926993	Plug, Fuse (1/4" - 18 Recessed Socket)	1	1	1
1.2002	0	FP-5149597	Gasket Kit, Cylinder Head Installation	8	12	16
1.2010	6	FP-23515231	Gasket, Cylinder Compression	8	12	16
1.2021	8	FP-5144943	Sleeve Assembly, Water Hole Seal	56	84	112
1.2022	2	FP-5107182	Seal, Sleeve, Cylinder Water & Oil	112	168	224
1.2022	1	FP-5139509	Ring Seal, (7.987" I.D.)	1	1	1
1.2030	3	FP-23509593	Bolt, 9/16" - 18 X 7.156"	7	7	7
1.2030	4	FP-5139850	Washer, Cylinder Head Bolt	7	7	7
1.2045	5	FP-5199528	Tube Kit, Injector Hole (Includes ring seal reference # 09.)	1	1	1
1.2046	9	FP-5146539	Ring, Seal (1.609" I.D.) White Dot	1	1	1
1.2061	0	FP-5139436	Tube (Elbow to Block)	1	1	1
1.2061	0	FP-106261	Washer, 5/16" X 3/4"	2	2	2
1.2062	0	FP-5139457	Ring Seal, (.862" I.D.)	2	2	2
1.2062	0	FP-5126623	Seal, Ring	1	1	1
1.2070	0	FP-5107175	Washer, 1/2" Seal	2	2	2
1.2070	0	FP-5132715	Washer, .53" X .94" X .12"	2	2	2
1.2070	0	FP-103321	Lockwasher, 3/8"	1	1	1
1.2030	3	FP-HBS149	Cylinder Head Bolt & Washer Set (Includes 7 Bolts & 7 Washers)	1	1	1



Crankshaft

(Figure 3.1)





Crankshaft

(Figure 3.1)

Groups:

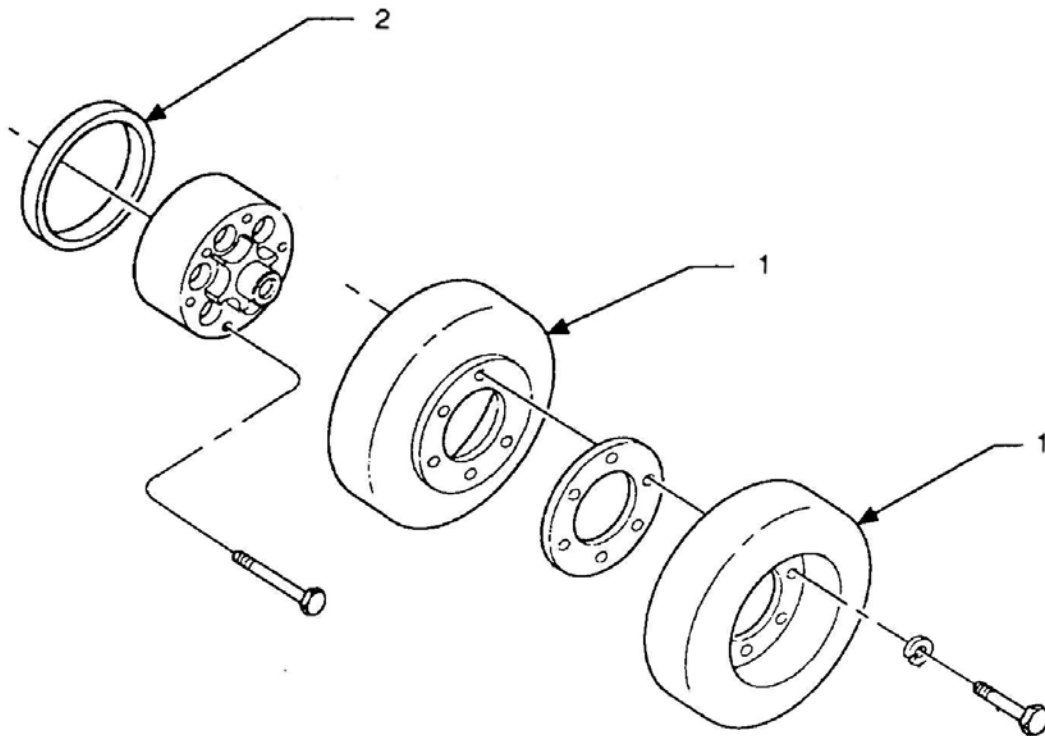
1.3001 - 1.3198

Group	Ref	Part No.	Description	8V	12V	16V
1.3001	0	FP-5115214	Plug, 1/2" Pipe	1	1	1
1.3001	0	FP-5145528	Bolt, 7/16" - 20 X 1 1/2"	1	1	1
1.3090	1	FP-5149113	Shell Set, Intermediate Main Bearing .020" U.S. (Narrow), (1.80")	4	6	8
1.3090	2	FP-5199114	Shell Set, End Main Bearing .030" U.S. (Wide), (2.70")	1	2	2
1.3090	2	FP-5199112	Shell Set, End Main Bearing .020" U.S. (Wide), (2.70")	1	2	2
1.3090	2	FP-5199110	Shell Set, End Main Bearing .010" U.S. (Wide), (2.70")	1	2	2
1.3090	2	FP-5199108	Shell Set, End Main Bearing .002" U.S. (Wide), (2.70")	1	2	2
1.3090	1	FP-5149115	Shell Set, Intermediate Main Bearing .030" U.S. (Narrow), (1.80")	4	6	8
1.3090	1	FP-5149111	Shell Set, Intermediate Main Bearing .010" U.S. (Narrow), (1.80")	4	6	8
1.3090	1	FP-5149109	Shell Set, Intermediate Main Bearing .002" U.S. (Narrow), (1.80")	4	6	8
1.3090	1	FP-5149096	Shell Set, Intermediate Main Bearing (Std.), (Narrow), (1.80")	4	6	8
1.3090	2	FP-5198615	Shell Set, End Main Bearing (Std.), (Wide), (2.70")	1	2	2
1.3100	3	FP-5138992	Washer, Thrust Crankshaft (Std.)	4	4	4
1.3100	3	FP-5199248	Washer, Thrust Crankshaft (.005 O.S.)	4	4	4
1.3100	3	FP-5199249	Washer, Thrust Crankshaft (.010 O.S.)	4	4	4
Crankshaft Front Cover						
1.3160	0	FP-116337	Plug, 1 1/16"	4	4	4
1.3160	0	FP-103345	Washer, 5/8"	11	11	11
1.3160	0	FP-103321	Lockwasher, 3/8"	1	1	1
1.3160	0	FP-103026	Nut, 3/8" - 24	1	1	1
1.3160	0	FP-5102373	Washer (Generator Shaft)	12	12	12
1.3160	0	FP-5180539	Gasket	2	2	2
1.3160	0	FP-5154453	Plug 3/8" - 16	1	1	1
1.3160	0	FP-5107175	Washer, 1/2" Seal	8	10	10
1.3160	0	FP-5132715	Washer, .53" X .94" X .12"	8	10	10
1.3160	0	FP-5121182	Plug, 1/4" Pipe	1	1	1
1.3163	8	FP-5139584	Seal Ring	1	1	1
1.3164	0	FP-23515534	Seal Kit, w/Wear Sleeve (Teflon), (Front L.H. Rot.)	1	1	1
1.3164	0	FP-5132715	Washer, .53" X .94" X .12"	7	7	7
1.3164	13	FP-23505760	Seal, Oil With Dust Lip (Single Lip Teflon), (Front R.H. Rot.)	1	1	1
1.3170	0	FP-5141037	Seal Ring (.880" I.D.) Water Holes	2	2	2
1.3170	4	FP-5141245	Seal (Strip)	1	1	1
1.3175	5	FP-8927580	Bolt, 3/8" - 16 X 1.015"	5	5	5
1.3177	6	FP-5140419	Gasket, Front Cover Governor	1	1	1
1.3195	10	FP-103321	Lockwasher, 3/8"	3	3	3
1.3195	9	FP-8927581	Bolt, 3/8" - 16 X 1.035"	3	3	3
1.3195	5	FP-8927580	Bolt, 3/8" - 16 X 1.015"	3	3	3
1.3196	7	FP-5141878	Gasket, Front Cover Small Hole	1	1	1
1.3197	10	FP-103321	Lockwasher, 3/8"	6	6	6
1.3197	0	FP-103026	Nut, 3/8" - 24	1	1	1
1.3197	0	FP-8923847	Plug, Pipe 1/4" - 18 NPTF	1	1	1
1.3197	0	FP-8924380	Plug, 1/8" -27 Pipe	1	1	1
1.3197	11	FP-8927581	Bolt, 3/8" - 16 X 1.035"	5	5	5
1.3198	12	FP-5139583	Gasket, Front Cover Hole	1	1	1



Vibration Damper

(Figure 3.2)





Vibration Damper

(Figure 3.2)

Groups:

1.3210 - 1.5075

Group	Ref	Part No.	Description	8V	12V	16V
1.3210	1	FP-8922492	Damper (Heavy Viscous)	2	2	2
1.3210	1	FP-5107312	Damper (18" Dia.)	-	-	2
1.3232	2	FP-23506511	Sleeve, Vibration Damper Hub	1	1	1
1.3280	0	FP-5131724	Key, 3/8" X 1" Woodruff (Crankshaft Pulley)	2	2	2
Flywheel Housing						
1.5004	0	FP-23505760	Seal, Oil With Dust Lip (Single LipTeflon), (Rear L.H. Rot.)	1	1	1
1.5004	0	FP-23515534	Seal Kit, w/Wear Sleeve (Teflon), (Rear R.H. Rot.)	1	1	1
1.5004	0	FP-23501875	Seal, Crankshaft O.S. (R.H.ROT.), (Use w/ FP-5198553 Sleeve) (Above Seal for Types 418,419,428,771,800 Only)	1	1	1
1.5010	0	FP-5141245	Seal (Strip)	1	1	1
1.5010	0	FP-5180539	Gasket	2	2	2
1.5012	0	FP-5198553	Sleeve, Rear Crankshaft Oil Seal (Use w/ FP-23501875 Seal) (Above Sleeve for Types 418,419,428,771,800 Only)	1	1	1
1.5021	0	FP-5132715	Washer, .53" X .94" X .12"	7	7	7
1.5022	0	FP-5139584	Seal Ring, Rear Support	1	1	1
1.5061	0	FP-23511917	Seal Ring, Flywheel Housing Accessory Hole	1	1	1
1.5062	0	FP-5141021	Gasket, Flywheel Housing Accessory Hole (At # 1)	1	1	1
1.5062	0	FP-5140620	Gasket, Flywheel Housing Accessory Hole (At # 4)	2	2	2
1.5065	0	FP-5150568	Washer, 7/16"	2	2	2
1.5065	0	FP-5125108	Washer, 7/16" x 3/4"	2	2	2
1.5065	0	FP-8927581	Bolt, 3/8" - 16 X 1.135"	12	12	12
1.5066	0	FP-5140035	Gasket, Flywheel Housing Cam Gear Hole Cover (At # 2)	2	2	2
1.5066	0	FP-23515145	Gasket, Flywheel Housing Cam Gear Hole Cover	2	2	2
1.5075	0	FP-5130995	Gasket, Starting Motor Hole Cover	1	1	1



Cylinder Kits

Cylinder Kit	Description	C/R	Option Type Numbers
149 Series			
FP-5149715	Cylinder Kit, Narrow Fire Ring T & NA, Above Kit Replaces (5149526), (5149647), (5199883), (5199884)	17:01	(106,114,130,136,159,160,193,198,199,358,404,456)
FP-5149527	Cylinder Kit, Narrow Fire Ring T & TI, Above Kit Replaces (5149648), (5199885)	16:01	(145,192,195,196,197,200,220,257,354,379,382,383,384,391)
FP-5149934	Cylinder Kit, Wide Fire Ring T & TI	17:01	(216,218,281,352,364)
FP-8924890	Cylinder Kit, Wide Fire Ring T & TI, Above Kit Replaces (5149714), (8926907)	16:01	(217,267,284,371,385)
FP-CK23502389	Cylinder Kit, Narrow Fire Ring	15:01	(309,357,374,381,386,392)
FP-23502389 - Crown			
FP-23523189 - Cyl Inst. Kit			
FP-5138135 - Liner			
FP-8928932 - Ring Set			
FP-CK23502393	Cylinder Kit, Wide Fire Ring		(335,366,367,390)
FP-23502393 - Crown			
FP-23523189 - Cyl Inst. Kit			
FP-5138135 - Liner			
FP-23501524 - Ring set			
FP-CK23502389	Turbo & Turbo-Intercooled Narrow Fire Ring		(373,393,400)
FP-23502389 - Crown			
FP-23523189 - Cyl Inst. Kit			
FP-23502356 - Liner			
FP-8928932 - Ring Set			
FP-CK23502390	Turbo & Non-Aspirated Narrow Fire Ring	16:01	(399,438,447)
FP-23502390 - Crown			
FP-23523189 - Cyl Inst. Kit			
FP-23502356 - Liner			
FP-8928932 - Ring Set			
FP-CK23502393	Turbo & Turbo-Intercooled Wide Fire Ring	15:01	(412)
FP-23502393 - Crown			
FP-23523189 - Cyl Inst. Kit			
FP-23502356 - Liner			
FP-23501524 - Ring Set			
FP-CK23502671	Cylinder Kit, Narrow Fire Ring	17:01	(483)
FP-23502671 - Crown			
FP-23523189 - Cyl Inst. Kit			
FP-23502356 - Liner			
FP-8928932 - Ring Set			
FP-CK23502388	Cylinder Kit, Wide Fire Ring	16:01	(500)
FP-23502388 - Crown			
FP-23523189 - Cyl Inst. Kit			
FP-23502356 - Liner			
FP-23501524 - Ring Set			
FP-23523189	Cylinder Installation Kit		All Types



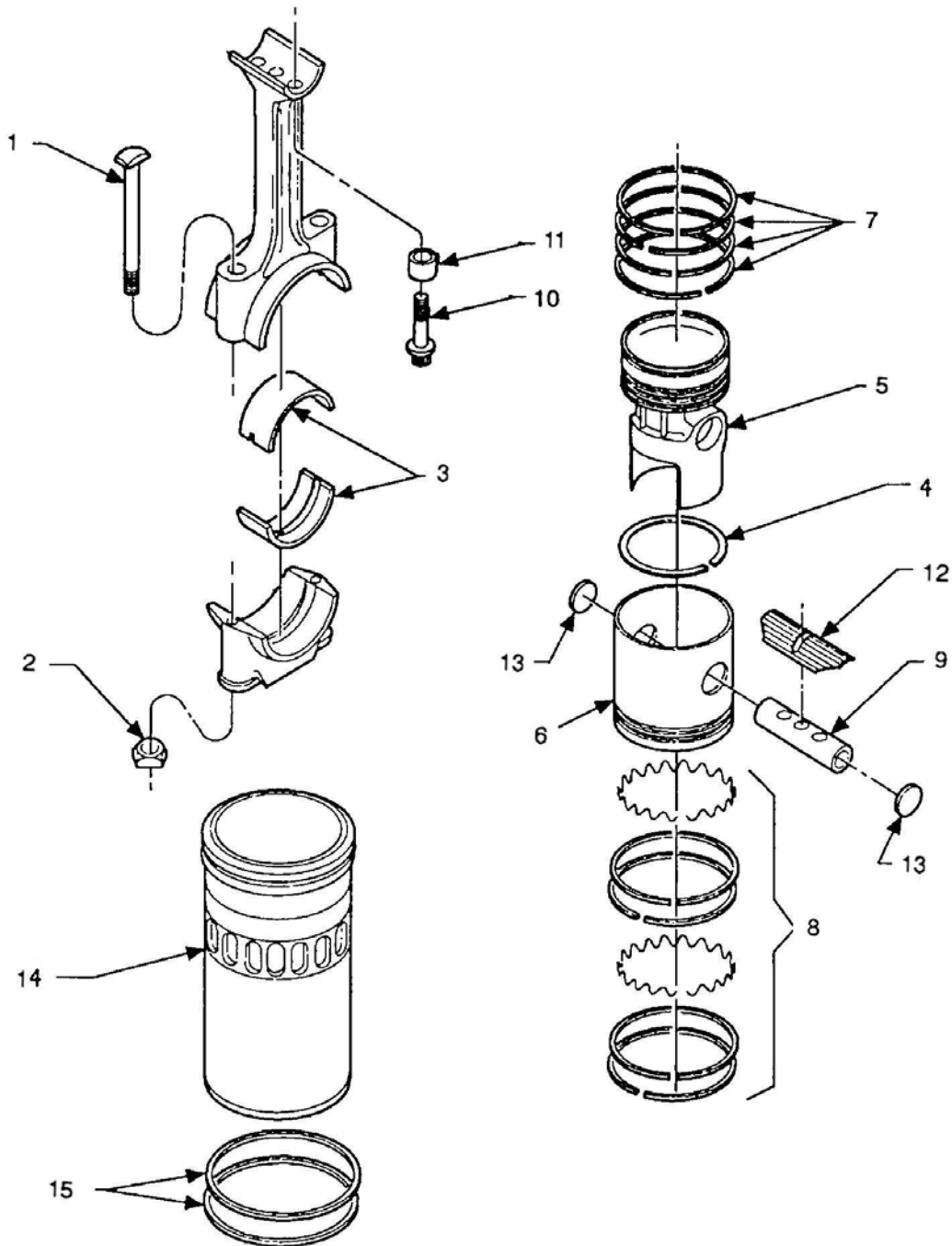
Cylinder Kits

Dome	Seal, Dome	Skirt	Slipper Brg	Liner	Port Ht	Ring Set	Pin	Retainer
149 Series								
FP-23502671	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-5138135 FP-5101198	1.15"	FP-8928932	FP-8926002	FP-5101323
FP-23502390	FP-8924099	FP-5144912	FP-5141126 Spacer FP-23504149 Bolt	FP-5138135 FP-5101198	1.15"	FP-8928932	FP-8926002	FP-5101323
FP-23502672	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-5138135 FP-5101198	1.15"	FP-23501524	FP-8926002	FP-5101323
FP-23502388	FP-8924099	FP-5144912	FP-5141126 Spacer FP-23504149 Bolt	FP-5138135 FP-5101198	1.15"	FP-23501524	FP-8926002	FP-5101323
FP-23502389	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-5138135 FP-5101198	1.15"	FP-8928932	FP-8926002	FP-5101323
	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-5138135 FP-5101198	1.15"	FP-23501524	FP-8926002	FP-5101323
FP-23502389	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-23502356 FP-5101198	.85"	FP-8928932	FP-8926002	FP-5101323
FP-23502390	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-23502356 FP-5101198	.85"	FP-8928932	FP-8926002	FP-5101323
	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-23502356 FP-5101198	.85"	FP-23501524	FP-8926002	FP-5101323
FP-23502671	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-23502356 FP-5101198	.85"	FP-8928932	FP-8926002	FP-5101323
FP-23502388	FP-8924099	FP-5144912	FP-23504149 Bolt FP-5141126 Spacer	FP-23502356 FP-5101198	.85"	FP-23501524	FP-8926002	FP-5101323
	FP-8924099	FP-5144912	FP-5141126 Spacer, Bolt				FP-8926002	FP-5101323



Connecting Rod & Piston

(Figure 4.1)





Connecting Rod & Piston

(Figure 4.1)

Groups:

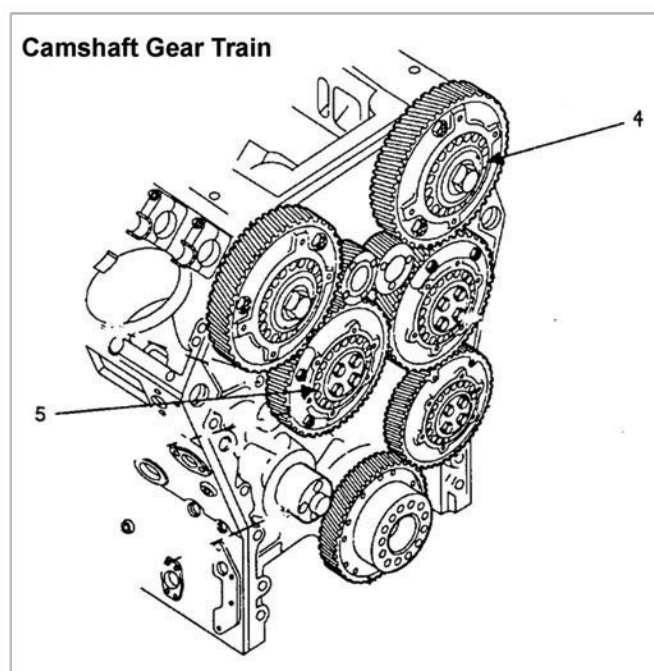
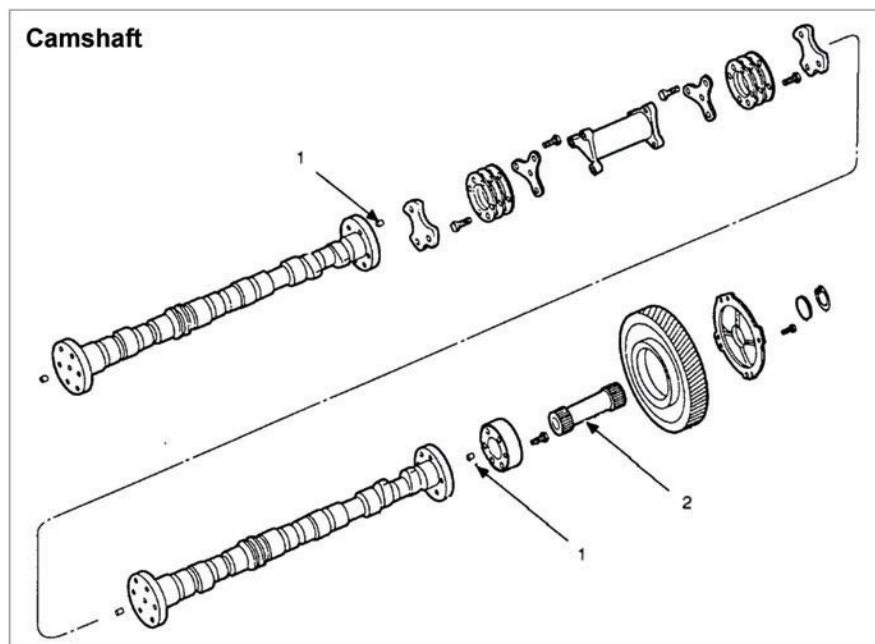
1.6001 - 1.6190

Group	Ref	Part No.	Description	8V	12V	16V
1.6001	2	FP-5139553	Nut, Connecting Rod	16	24	32
1.6001	1	FP-5139552	Bolt, Connecting Rod	16	24	32
1.6100	3	FP-5198547	Shell Set (Std.)	8	12	16
1.6100	3	FP-5199104	Shell Set, (.002" U.S.)	8	12	16
1.6100	3	FP-5199105	Shell Set, (.010" U.S.)	8	12	16
1.6100	3	FP-5199106	Shell Set, (.020" U.S.)	8	12	16
1.6100	3	FP-5199107	Shell Set, (.030" U.S.)	8	12	16
1.6106	4	FP-8924099	Ring Seal, Dome	8	12	16
1.6110	5	FP-23502393	Crown, Piston (15:1) Wide Fire Ring	8	12	16
1.6110	6	FP-5144912	Skirt, Piston (w/Drain Holes)	8	12	16
1.6110	5	FP-23502671	Crown, Piston (17:1) Narrow Fire Ring	8	12	16
1.6110	5	FP-23502390	Crown, Piston (16:1) Narrow Fire Ring	8	12	16
1.6110	5	FP-23502389	Crown, Piston (15:1) Narrow Fire Ring	8	12	16
1.6110	5	FP-23502388	Crown, Piston (16:1) Wide Fire Ring	8	12	16
1.6110	5	FP-23502672	Crown, Piston (17:1) Wide Fire Ring	8	12	16
1.6140	9	FP-8926002	Pin, Piston	8	12	16
1.6140	11	FP-5141126	Spacer, Bolt	16	24	32
1.6140	10	FP-23504149	Bolt, 1/2" Pin To Rod	16	24	32
1.6142	12	FP-8926153	Bearing, Rod (Slipper)	8	12	16
1.6150	13	FP-5101323	Retainer, Piston Pin	16	24	32
1.6180	14	FP-5149060	Liner, (.002" O.S.O.D.), (1.15" Ports Ht.)	8	12	16
1.6180	14	FP-5138135	Liner (Std.), (1.15" Ports Ht.)	8	12	16
1.6180	14	FP-23502356	Liner (Std.), (.85" Ports Ht.)	8	12	16
1.6190	15	FP-5101198	Seal, Cylinder Liner (Std.), (Black)	16	24	32
1.6115	7	FP-23501524	Ring Set, Piston (Wide)	8	12	16
1.6115	0	FP-8925989	Ring, Fire (Wide), (Plasma Coated)	8	12	16
1.6115	0	FP-5148277	Ring, Compression (2nd Groove)	8	12	16
1.6115	0	FP-5140256	Ring, Compression (3rd & 4th Groove)	16	24	32
1.6130	8	FP-8926909	Ring Set, Oil Control (For One Piston)	8	12	16
1.6183	0	FP-23504149	Bolt, Rod To Pin	2	2	2
1.6183	0	FP-23523189	Cylinder Installation Kit(All Applications)	-	-	-
1.6183	0	FP-5144912	Skirt, Cross Head	1	1	1
1.6183	0	FP-8924099	Seal Ring, Dome	1	1	1
1.6183	0	FP-5101198	Seal Ring, Liner	2	2	2
1.6183	0	FP-8926153	Bearing, Slipper	1	1	1
1.6183	0	FP-5141126	Spacer, Bolt	2	2	2
1.6183	0	FP-8926002	Pin, Piston	1	1	1
1.6183	0	FP-5101323	Retainer	2	2	2
1.6115	7	FP-8928932	Ring Set, Piston (Narrow Fire Ring)	8	12	16
1.6115	0	FP-5148334	Ring, Fire (Narrow), (Top Groove)	8	12	16
1.6115	0	FP-5148277	Ring, Compression (2nd Groove)	8	12	16
1.6115	0	FP-5140256	Ring, Compression (3rd & 4th Grooves)	16	24	32
1.6130	8	FP-8926909	Ring Set, Oil Control (For One Piston)	8	12	16



Camshaft

(Figure 5.1)





Camshaft

(Figure 5.1)

Groups:

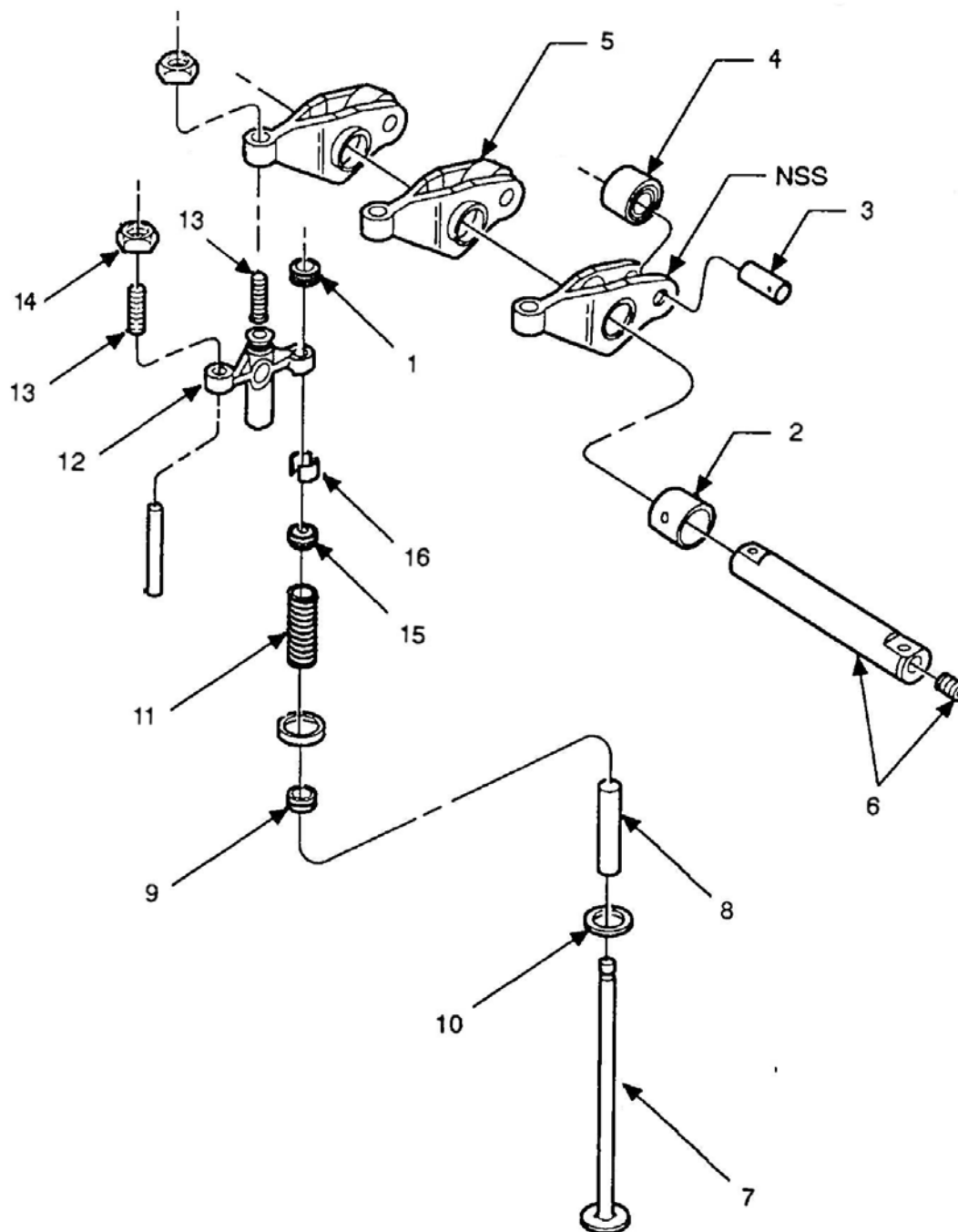
1.7001 - 1.7725

Group	Ref	Part No.	Description	8V	12V	16V
1.7001	1	FP-5151277	Plug, Drive	4	4	4
1.7003	2	FP-5139244	Shaft (R.Bank, Rear), (9.92" L.)	1	1	1
1.7003	2	FP-5139245	Shaft (L.Bank, Rear), (8.42" L.)	1	1	1
1.7004	0	FP-9427996	Bolt, 7/16" - 20 1 1/4" (12 PT.)	-	30	10
1.7006	0	FP-141346	Pin, 3/16" X 1/2" Dowel (1.7007)	1	1	1
1.7040	0	FP-5140203	Bearing, Camshaft Intermediate	32	48	64
1.7042	0	FP-5131755	Washer, 17/32" X .88" X .1345" (1.7250)	16	24	32
1.7042	0	FP-454992	Bolt, 1/2" - 13 X 2 1/2"	16	24	32
1.7042	0	FP-5138638	Dowel, .626" X .37" Hollow (1.7200)	16	24	32
Camshaft Gear Train						
1.7204	4	FP-9424926	Bearing, Camshaft Gear	2	2	2
1.7225	5	FP-9424929	Bearing, Idler Gear (Rear)	3	3	3
1.7431	0	FP-5139143	Bushing, Blower Drive Gear	2	2	2
1.7435	0	FP-274889	Pin, 1/8" X 1/4" Spring	1	1	1
1.7435	0	FP-9426895	Bolt, 3/8" - 16 X 1 1/4"	3	3	3
1.7436	0	FP-5143840	Seal Ring (.2.98" I.D.)	1	1	1
1.7436	0	FP-5180352	Seal Ring (.31" I.D.)	1	1	1
1.7437	0	FP-8926293	Washer, Blower Drive Support Thrust	1	1	1
1.7438	0	FP-8926285	Lockwasher, 1 15/32" I.D. Ext.	1	1	1
1.7441	0	FP-5138964	Plate, Flex.	3	3	3
1.7600	0	FP-9426895	Bolt, 3/8" - 16 X 1 1/4"	-	-	-
1.7600	0	FP-103321	Lockwasher, 3/8"	4	4	4
1.7604	0	FP-23515145	Gasket, Accessory Drive	1	1	1
1.7604	0	FP-5141021	Gasket, Accessory Drive (At # 1)	1	1	1
1.7604	0	FP-5188755	Gasket, Accessory Drive	1	1	1
1.7620	0	FP-5143840	Seal Ring (2.98" I.D.)	1	1	1
1.7620	0	FP-5180352	Seal Ring (.31" I.D.)	1	1	1
1.7623	0	FP-5140620	Gasket, Accessory Drive Adaptor (At # 4)	1	1	1
1.7623	0	FP-23515145	Gasket, Accessory Drive	1	1	1
1.7623	0	FP-5140035	Gasket, Accessory Drive Adaptor (At # 2)	1	1	1
1.7630	0	FP-5139143	Bushing, Accessory Drive Gear	1	1	1
1.7645	0	FP-274889	Pin, 1/8" X 1/4" Spring	1	1	1
1.7645	0	FP-5125108	Washer, 7/16" X 3/4"	1	1	1
1.7645	0	FP-5150568	Washer, 7/16"	1	1	1
1.7646	0	FP-23515145	Gasket, Accessory Drive	1	1	1
1.7655	0	FP-8926293	Washer	1	1	1
1.7655	0	FP-9415285	Ring, 2 7/16" Dia. Lock Retaining	1	1	1
1.7655	0	FP-23504528	Bearing, Accessory Drive	1	1	1
1.7655	0	FP-23503727	Bearing, Accessory Drive	1	1	1
1.7655	0	FP-9424929	Bearing, Idler Gear (Rear)	1	1	1
1.7660	0	FP-5131329	Seal, Accessory Drive	1	1	1
1.7660	0	FP-5138710	Seal, Accessory Drive	1	1	1
1.7665	0	FP-5131131	Spacer, Seal Accessory Drive Oil Seal	1	1	1
1.7725	0	FP-23515145	Gasket, Accessory Drive	1	1	1



Valve Train

(Figure 6.1)





Valve Train

(Figure 6.1)

Groups:

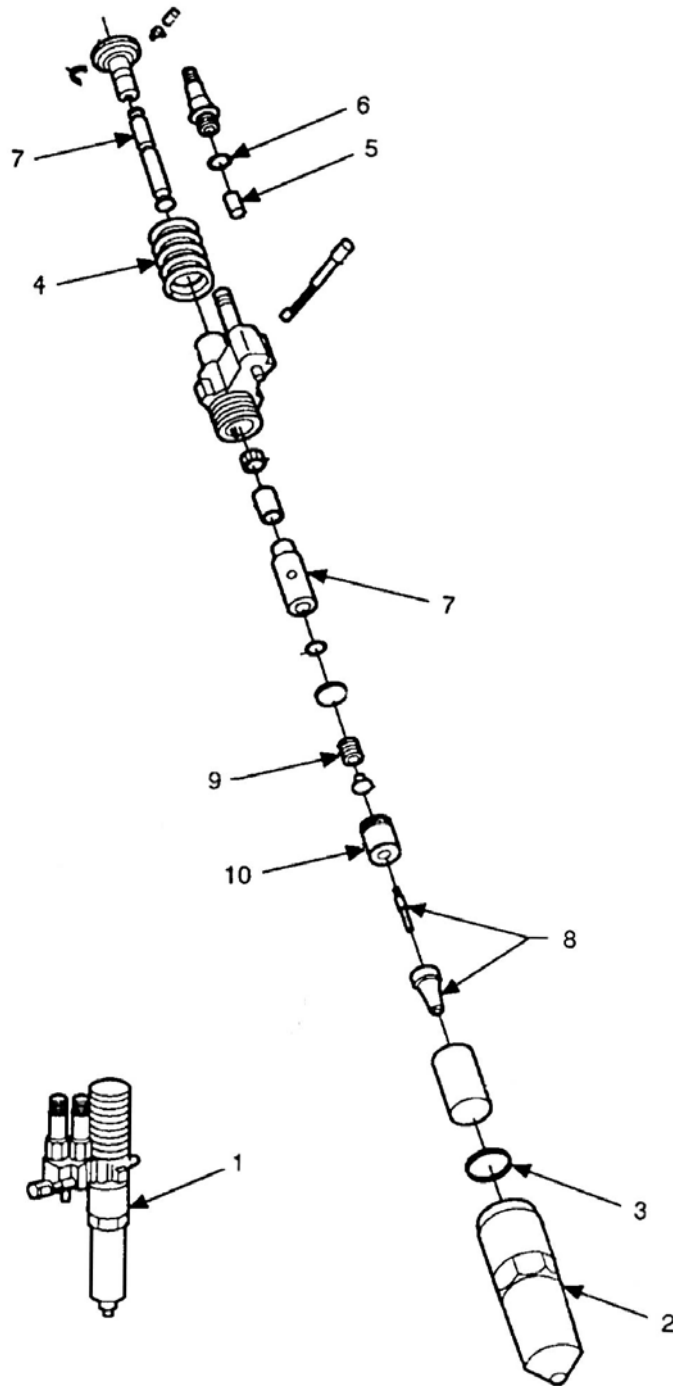
1.8090 - 1.8460

Group	Ref	Part No.	Description	8V	12V	16V
1.8090	1	FP-5138643	Button, Ball & Seat Assembly	16	36	48
1.8110	2	FP-5138644	Bushing, Injector Rocker Arm-Large	8	12	16
1.8112	3	FP-5138513	Pin, Valve & Injector Cam Roller	16	24	32
1.8112	0	FP-5138656	Pin, Injector Cam Roller	8	12	16
1.8113	4	FP-5138651	Roller and Bushing Assembly (Valve), (w/ FP-5138649 Bushing)	16	24	32
1.8113	5	FP-5138378	Roller and Bushing Assembly (Injector), (w/ FP-5138376 Bushing)	8	12	16
1.8160	6	FP-5139747	Shaft Assembly, Rocker (w/Plugs)	8	12	16
1.8310	7	FP-8921205	Valve Kit, Exhaust (Stellite-Faced), (Turbo/IC), (w/ Locks), (Valve Spring Retainers Not Incl.)	32	48	64
1.8310	7	FP-8928729	Valve Kit, Exhaust (NA/Turbo-Pyromet 31), (w/Cap & Locks), (Valve Spring Retainers Incl.)	32	48	64
1.8310	7	FP-8926328	Valve Kit, Exhaust (Stellite-Faced), (Turbo/IC), (w/Cap & Locks), (TI), (Valve Spring Retainers Incl.)	32	48	64
1.8320	8	FP-23505104	Guide, Exhaust Valve (3.156" L.)	32	48	64
1.8320	8	FP-23515391	Guide, Exhaust Valve (2.94" L.), (Use w/Ceramic Coated Valve)	32	48	64
1.8320	9	FP-5144008	Seal, Exhaust Valve Guide	32	48	64
1.8320	9	FP-23523930	Seal, Exhaust Valve Guide (Ceramic Coated Valve)	32	48	64
1.8330	10	FP-5139982	Insert, Exhaust Valve	32	48	64
1.8340	11	FP-23512120	Spring, Exhaust Valve (FP-5144379)	32	48	64
1.8343	12	FP-5104243	Bridge, Exhaust Valve	16	24	32
1.8343	13	FP-5129101	Screw, 5/16" - 24 X 1" (Adjusting)	16	24	32
1.8343	14	FP-5151601	Nut, 5/16" - 24 Lock (Bridge Adjusting Screw)	16	24	32
1.8350	15	FP-8925202	Cap, Exhaust Valve Spring (Yellow Dye I.D.)	16	24	32
1.8370	16	FP-8925203	Lock Halves, (Yellow Dye I.D.)	64	96	128
1.8370	16	FP-8929573	Lock, Key Exhaust Valve Spring	48	64	80
1.8455	0	FP-23507344	Gasket, Rocker Cover	-	4	-
1.8455	0	FP-23507345	Gasket, Rocker Cover	2	-	4
1.8455	0	FP-23508779	Gasket, Rocker Cover	2	-	4
1.8455	0	FP-23508780	Gasket, Rocker Cover	-	4	-
1.8460	0	FP-5104015	Bolt, Rocker Cover 3/8" - 16 X 6.57"	8	12	16
1.8460	0	FP-5104514	Washer, 3/8"	8	12	16
1.8112	0	FP-5138649	Bushing, Valve Arm Roller	16	24	32
1.8112	0	FP-5138376	Bushing, Injector Rocker Arm Roller	8	12	16



Fuel Injector

(Figure 7.1)





Fuel Injector

(Figure 7.1)

Groups:

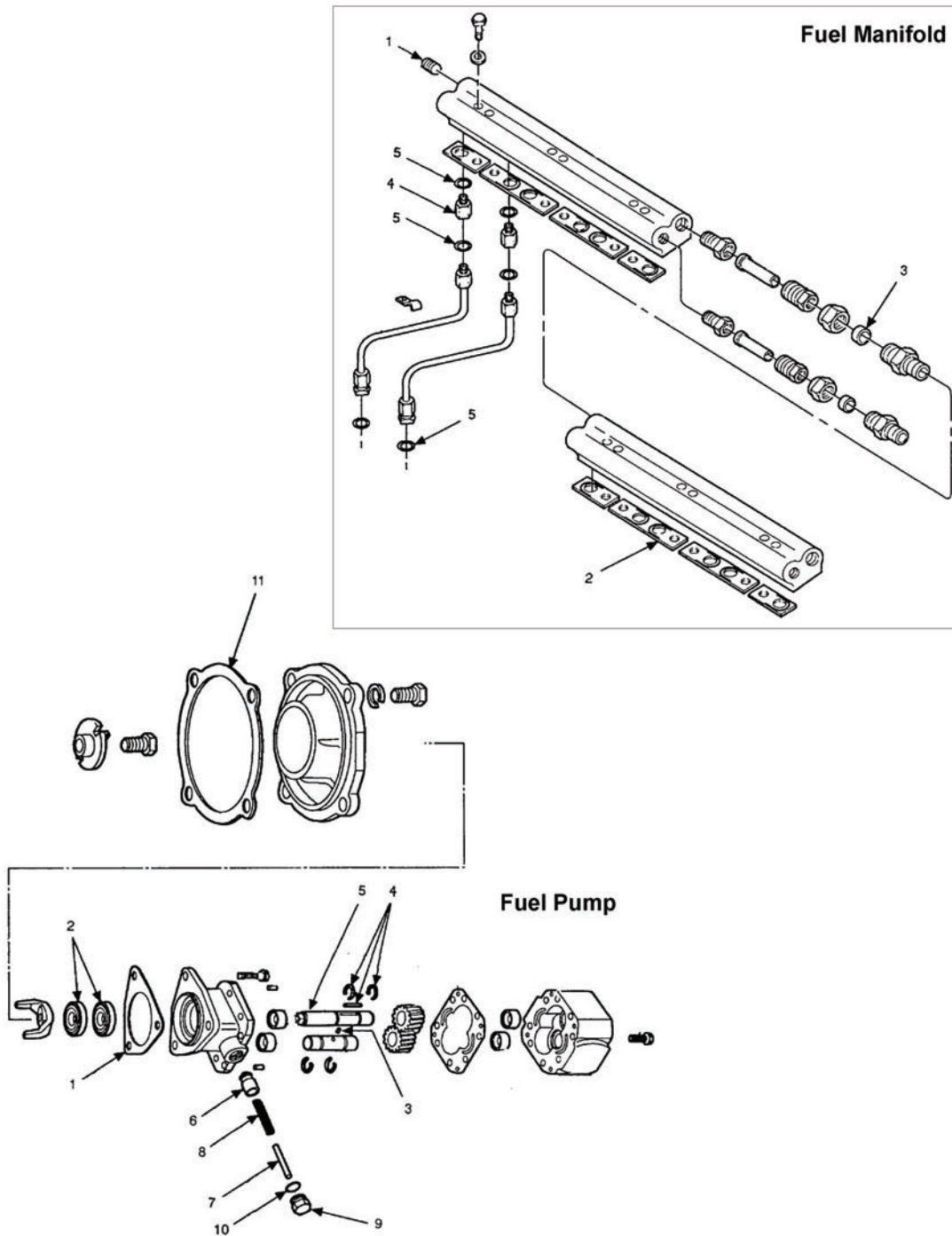
2.1001 - 2.1257

Group	Ref	Part No.	Description	8V	12V	16V
2.1001	1	FP-5229650	Injector Assembly 150 (Type 144, 222, 358)	8	12	16
2.1001	1	FP-5226130R	Injector Assembly 190 (Type 201), (Available In Rebuilt Only)	8	12	16
2.1001	1	FP-5229910	Injector Assembly 170 (Type 189)	8	12	16
2.1001	1	FP-5229635	Injector Assembly 120 (Type 143)	8	12	16
2.1001	1	FP-5229645	Injector Assembly 140 (Type 145, 221)	8	12	16
2.1001	1	FP-5229640	Injector Assembly 130 (Type 142)	8	12	16
2.1001	1	FP-5229655	Injector Assembly 165 (Type 146)	8	12	16
2.1001	1	FP-5229660	Injector Assembly 180 (Type 141)	8	12	16
2.1002	0	FP-5229169	Service Kit, Injector	8	12	16
2.1030	2	FP-5229628	Nut, Injector Valve	8	12	16
2.1030	0	FP-5229629	Seal, Copper (Nut, Injector Valve)	8	12	16
2.1040	3	FP-5228003	Ring, Injector Seal	8	12	16
2.1080	4	FP-5228921	Spring, Injector Plunger (Orange Stripe)	8	12	16
2.1105	0	FP-5227992	Spring, Injector Stop Pin	8	12	16
2.1105	0	FP-5227993	Retainer	8	12	16
2.1110	5	FP-5228905	Element, Injector Filter	16	24	32
2.1140	6	FP-5226186	Gasket, Injector Filter Cap	16	24	32
2.1150	0	FP-5228317	Cap, Injector Shipping	16	24	32
2.1160	7	FP-5228870	Plunger & Bushing, Injector (Types 95,96,98,99,101,105,141,142,143,144,145,146,189,190,201,202,203,204,220,221,222,223,224,271,306,319,323,334,339,342,347,348,353,358)	8	12	16
2.1160	7	FP-5229828	Plunger & Bushing, Injector (Types 176,225,278,283,294,308,311,317,318,321,337,338,340,350,351)	8	12	16
2.1235	8	FP-5227142	Tip Assembly, Injector (Types 95,96,98,99,101,105,141,142,143,144,145,146,189,190,201,203,204,221,222,223,278,283,306,311,318,319,323,339,342,347,350,353,358)	8	12	16
2.1235	8	FP-5227152	Tip Assembly, Injector (Types 202, 220, 224, 271, 334, 348, 351)	8	12	16
2.1250	9	FP-5234981	Spring, Injector Valve	8	12	16
2.1257	10	FP-5234928	Cage, Injector Valve Spring	8	12	16



Fuel Pump & Manifold

(Figure 8.1)





Fuel Pump & Manifold

(Figure 8.1)

Groups:

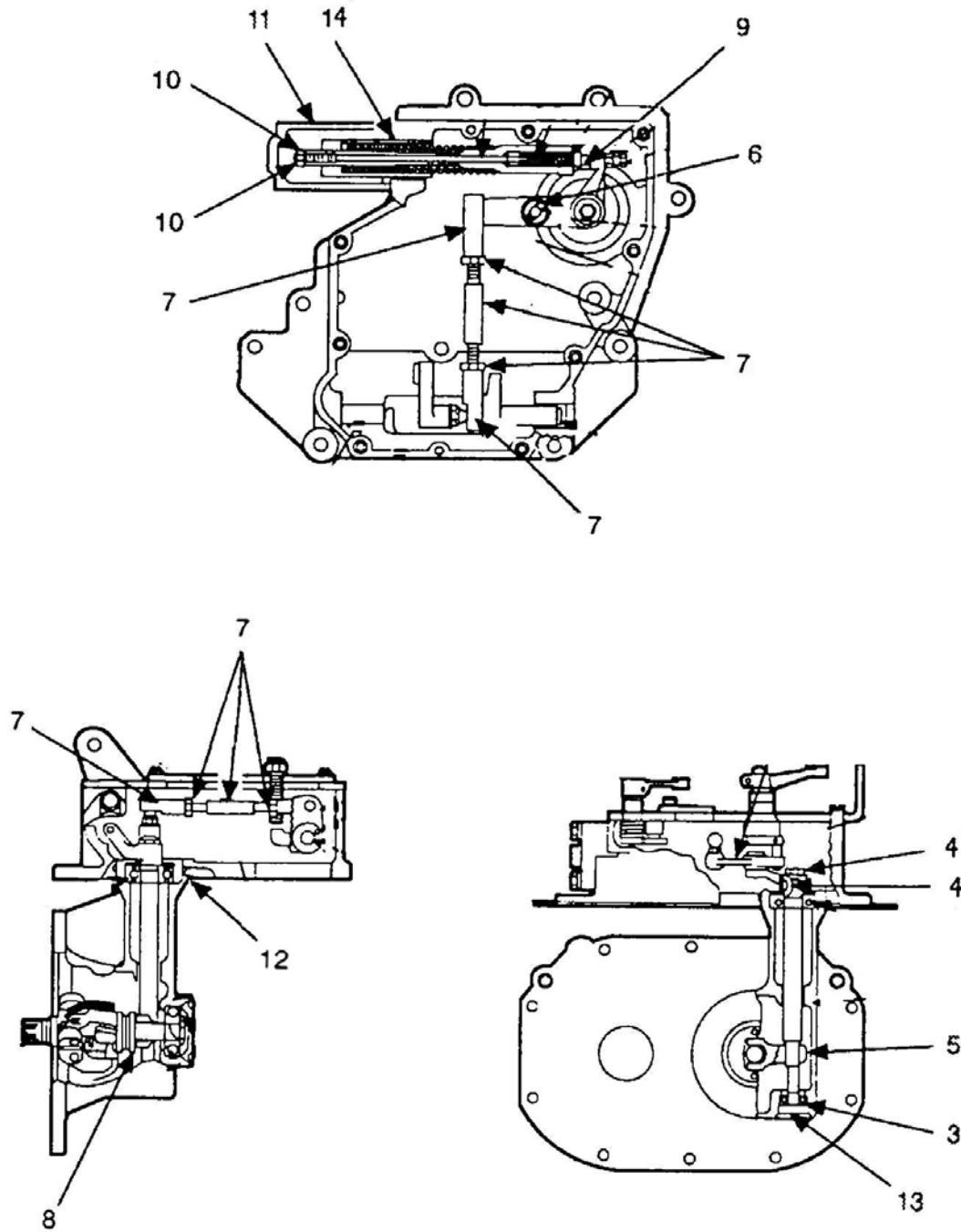
2.2007 - 2.5170

Group	Ref	Part No.	Description	8V	12V	16V
2.2007	1	FP-5150193	Gasket, Fuel Pump To Drive Assembly	1	1	1
2.2070	2	FP-23512243	Seal, Fuel Pump Oil	2	2	2
2.2087	3	FP-147481	Ball 1/8" Dia. Steel	1	1	1
2.2087	4	FP-8923522	Ring, Gear Retaining (2.2088)	2	2	2
2.2093	5	FP-5138683	Shaft, Fuel Pump Drive	1	1	1
2.2130	6	FP-5174973	Valve, Fuel Pump	1	1	1
2.2130	7	FP-103709	Pin, .15" X 1" Straight	1	1	1
2.2160	8	FP-5184530	Spring, Fuel Pump Valve Retaining	1	1	1
2.2170	9	FP-5174971	Plug, Fuel Pump Valve	1	1	1
2.2180	10	FP-5161003	Gasket, Fuel Pump Valve Plug	1	1	1
2.2228	0	FP-5170450	Plate (21 Teeth)	1	1	1
2.2237	11	FP-5139159	Gasket, Fuel Mounting Plate	1	1	1
2.2237	0	FP-23511917	Seal Ring, Fuel Pump Mounting Plate	1	1	1
Fuel Manifold						
2.4001	1	FP-8923847	Plug, Pipe 1/4 - 18" NPTF	2	2	2
2.4001	1	FP-8924517	Plug, 3/8" - 18 Sq. Soc. Vibra Seal	2	2	2
2.4013	2	FP-5147430	Gasket, Fuel Manifold	8	12	16
2.4015	3	FP-5176524	Seal Ring, 1/2" Tube Sealastic	2	2	2
2.4015	3	FP-5179938	Seal Ring, 3/8" Tube Sealastic	2	2	2
2.4020	0	FP-103320	Lockwasher, 5/16"	16	24	32
2.4030	4	FP-5141485	Connector, Fuel Pipe	16	24	32
2.4030	0	FP-23504350	Seal Ring, .414" I.D. X .072"	16	24	32
2.4030	0	FP-23504352	Seal Ring, .070" X .301" I.D.	32	48	64
2.4050	5	FP-5161003	Gasket, Fuel Pipe Connector	16	24	32
2.5006	0	FP-5104978	Seal Ring, 1.102" X 1.138"	1	1	1
2.5006	0	FP-5137201	Washer, Plug 1.09" X 1.38" X .032" Copper	1	1	1
2.5148	0	FP-103321	Lockwasher, 3/8"	1	1	1
2.5170	0	FP-103321	Lockwasher, 3/8"	1	1	1
2.5170	0	FP-103026	Nut, 3/8" - 24	1	1	1
2.5170	0	FP-186624	Bolt, 5/16" - 18 X 1 1/4"	1	1	1
2.5170	0	FP-8927581	Bolt, 3/8" - 16 X 1.135"	1	1	1
2.5170	0	FP-103320	Lockwasher, 5/16"	1	1	1
2.5170	0	FP-5155596	Washer, 5/16" Copper	1	1	1



Mechanical Governor

(Figure 9.1)





Mechanical Governor

(Figure 9.1)

Groups:

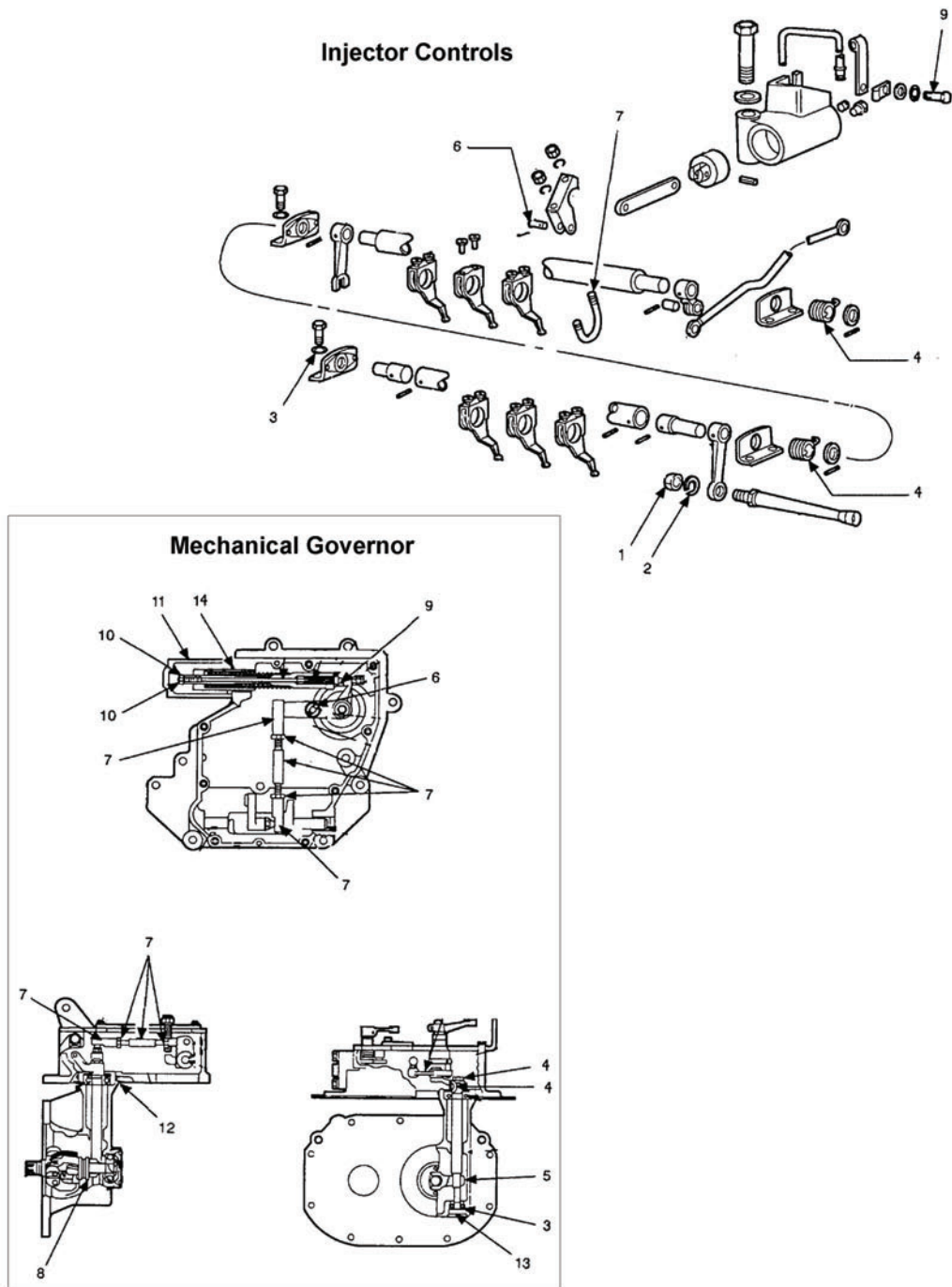
2.7001 - 2.7380

Group	Ref	Part No.	Description	8V	12V	16V
2.7001	0	FP-5154453	Plug, 3/8" - 16	1	1	1
2.7001	0	FP-186624	Bolt, 5/16" - 18 X 1 1/4"	1	1	1
2.7001	0	FP-103026	Nut, 3/8" - 24	2	2	2
2.7001	0	FP-8927581	Bolt, 3/8" - 16 X 1.135"	2	2	2
2.7001	0	FP-5155596	Washer, 21/64" Special Copper	2	4	5
2.7001	0	FP-103321	Lockwasher, 3/8"	2	4	5
2.7007	0	FP-5140419	Gasket, Governor To Front Cover	1	1	1
2.7010	0	FP-23506090	Gasket, Governor To Blower-Governor Drive	1	2	2
2.7011	0	FP-5139892	Gasket, Governor To Air Box Cover	1	1	1
2.7011	0	FP-5143152	Gasket, Governor To Air Box	1	1	1
2.7013	0	FP-142583	Retainer, 13/64" Spring	2	2	2
2.7015	0	FP-103319	Lockwasher, .062" 1/4"	3	3	3
2.7015	0	FP-103320	Lockwasher, 5/16"	1	1	1
2.7016	0	FP-5104592	Clamp, 1" - 1 1/2" Clamping Range	1	1	1
2.7020	0	FP-5143134	Seal Ring (1.64" I.D.)	2	2	2
2.7040	0	FP-120217	Lockwasher, # 10	2	2	2
2.7045	0	FP-9417926	Bolt Assembly, 1/4" - 20 X 3/4"	2	2	2
2.7045	0	FP-5183701	Screw, 1/4" - 20 X 5/8"	2	2	2
2.7045	0	FP-9422203	Bolt, 1/4" - 20 X 5/8" (Governor Cover)	4	4	4
2.7051	0	FP-5143148	Gasket, Governor Cover	1	1	1
2.7051	0	FP-5143132	Gasket, Governor Cover Plate	1	1	1
2.7100	0	FP-148402	Bearing, 1/2" X 1/2" Dia. Needle	2	2	2
2.7111	0	FP-5127267	Bushing, 3/8" I.D. x 7/8" L. (Governor Shut Down Shaft)	1	1	1
2.7165	0	FP-5183042	Lever, Governor Cover Shutdown Shaft	1	1	1
2.7166	0	FP-103319	Lockwasher, .062" 1/4"	1	1	1
2.7170	0	FP-103320	Lockwasher, 5/16"	1	1	1
2.7232	12	FP-6525206	Seal Ring, 2 1/4" I.D.	1	1	1
2.7270	3	FP-9436682	Bearing, Governor Operating Shaft-Lower	1	1	1
2.7280	4	FP-5145007	Screw, 1/4"-28 X.745" (Hardened), (Gap Adj.)	1	1	1
2.7280	4	FP-5132962	Screw, Gap Adjusting	1	1	1
2.7290	5	FP-5138335	Fork, Governor Operating Shaft-Lower	1	1	1
2.7305	0	FP-103319	Lockwasher, 1/4"	1	1	1
2.7305	0	FP-23504197	Solenoid, Governor Operating (24/32 Volt)	1	1	1
2.7310	6	FP-5150885	Washer, Governor Differential	1	1	1
2.7312	7	FP-5199709	Rod, Governor Operating Shaft (Spring Loaded)	1	1	1
2.7312	7	FP-5140204	Joint, Ball Link, Governor Operating Lever	1	1	1
2.7312	0	FP-142583	Retainer, 13/64" Spring	2	2	2
2.7312	0	FP-103320	Lockwasher, 5/16"	2	2	2
2.7318	0	FP-9426895	Bolt, 3/8" - 16 X 1 1/4" (Electronic Limiter)	2	2	2
2.7340	13	FP-8924380	Plug, 1/8" - 27 Pipe (Governor Weight)	1	1	1
2.7380	0	FP-5117193	Riser, Governor	1	1	1
2.7380	0	FP-5147910	Riser, Governor	1	1	1



Mechanical Governor

(Figure 9.2)





Mechanical Governor

(Figure 9.2)

Groups:

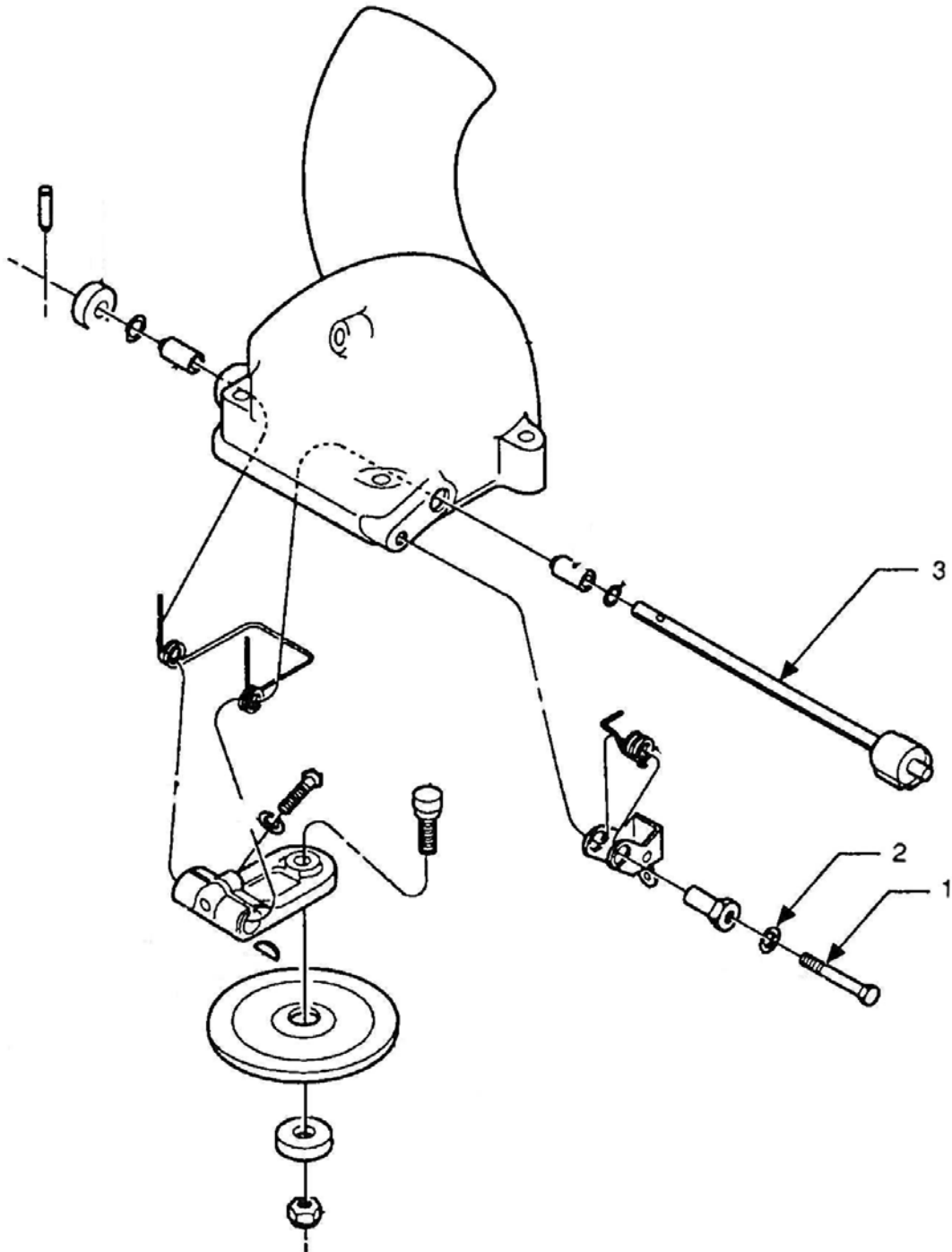
2.7440 - 2.9096

Group	Ref	Part No.	Description	8V	12V	16V
2.7440	0	FP-447196	Bearing, Governor Weight	6	6	6
2.7460	8	FP-9437108	Bearing, .352"-.356 W. (Governor Weight, Riser Thrust)	1	1	1
2.7460	8	FP-9438907	Bearing, .551 W. (Governor Weight, Riser Thrust)	1	1	1
2.7460	8	FP-9440384	Bearing (Governor Weight, Riser Thrust)	1	1	1
2.7580	9	FP-5103975	Cap, Governor Low Speed Spring	1	1	1
2.7590	10	FP-5102270	Screw, Governor Low Speed Spring Adjustment	1	1	1
2.7635	11	FP-5155596	Washer, 21/64" Special Copper	1	1	1
2.7650	14	FP-8922593	Gasket, High Speed Spring Cover	1	1	1
2.7680	0	FP-103320	Lockwasher, 5/16"	2	2	2
2.7700	0	FP-8922593	Gasket, High Speed Spring Cover	1	1	1
2.7732	0	FP-5139468	Bearing, Roller Variable Speed Spring	1	1	1
2.7750	0	FP-5176557	Seal Ring, .477" I.D.x.113" Thick (Yellow Paint)	1	1	1
2.7800	0	FP-5136591	Shim, .078" (Variable Speed Spring)	3	3	3
2.7800	0	FP-5136590	Shim, .010" (Variable Speed Spring)	6	6	6
2.7810	0	FP-103026	Nut, 3/8" - 24	1	1	1
2.7905	0	FP-142583	Retainer, 13/64" Spring	2	2	2
2.7905	0	FP-103320	Lockwasher, 5/16"	2	2	2
Injector Control						
2.9002	1	FP-103026	Nut, 3/8" - 24	2	2	2
2.9002	2	FP-103321	Lockwasher, 3/8"	-	-	-
2.9003	3	FP-103320	Lockwasher, 5/16"	16	16	16
2.9012	4	FP-5101258	Spring, (L.H. Helix), (Green)	8	12	16
2.9022	0	FP-142583	Retainer, 13/64" Spring	4	4	4
2.9095	7	FP-5180116	Bolt, "U" 1.4 - 20	1	1	1
2.9095	0	FP-103319	Lockwasher, 1/4"	2	2	2
2.9095	6	FP-5147345	Pin, 1/4" X 49/64" Clevis	1	1	1
2.9096	9	FP-186624	Bolt, 5/16" - 18 X 1 1/4"	1	1	1



Air Inlet Housing

(Figure 10.1)





Air Inlet Housing

(Figure 10.1)

Groups:

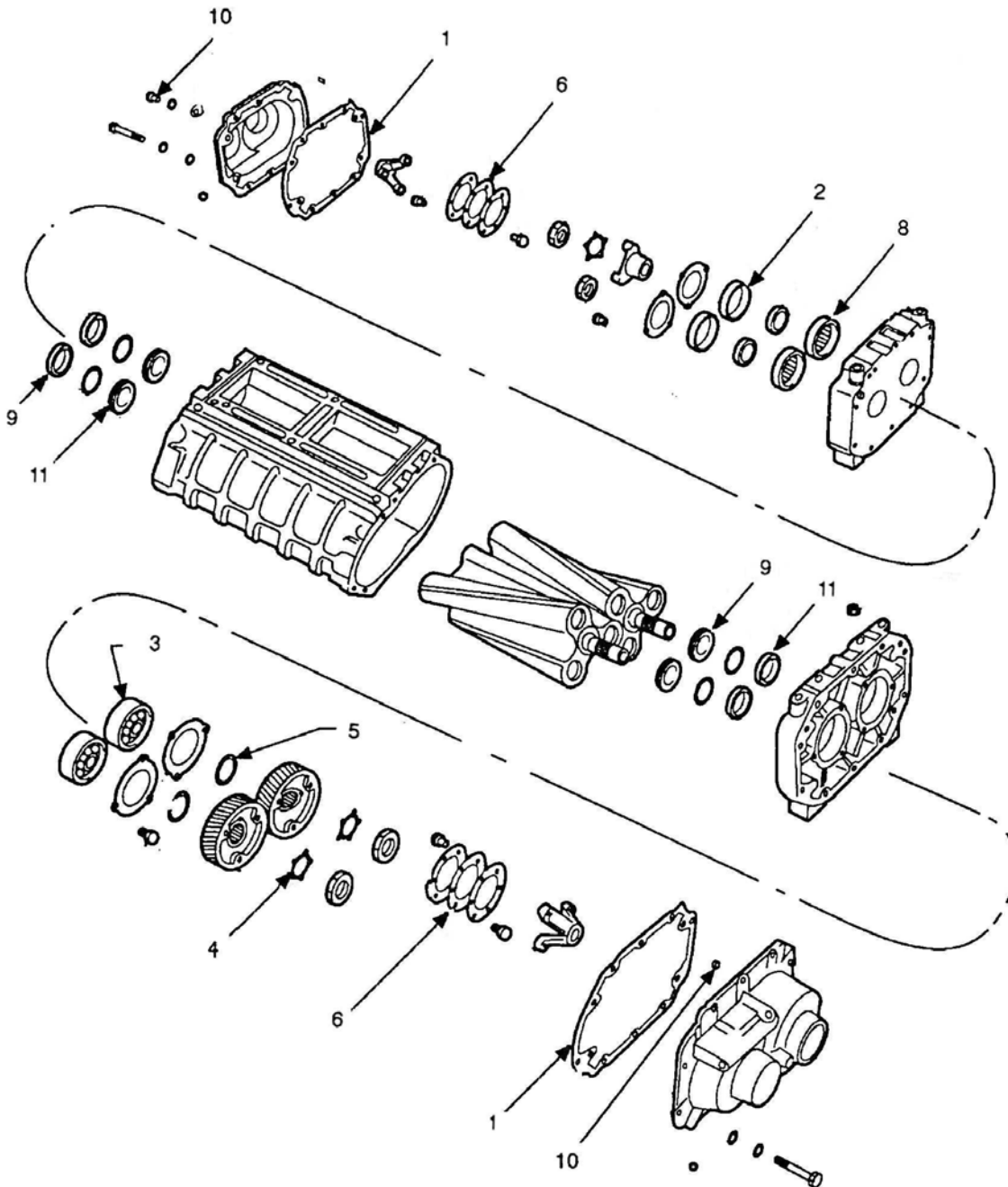
3.3001 - 3.3095

Group	Ref	Part No.	Description	8V	12V	16V
3.3001	0	FP-5155596	Washer, 21/64" Special Copper	4	4	4
3.3001	0	FP-103321	Lockwasher, 3/8"	-	20	36
3.3003	0	FP-5121182	Plug, 1/4" Pipe	2	2	2
3.3003	7	FP-103321	Lockwasher, 3/8"	16	24	36
3.3003	0	FP-8927581	Bolt, 3/8" - 16 x 1.135"	32	32	32
3.3003	0	FP-5142549	Plug, 3/4" Pipe Sq. Soc.	2	2	2
3.3003	0	FP-8924517	Plug, 3/8" - 18 Sq. Soc. Vibra Seal	2	2	2
3.3003	0	FP-8923847	Plug, 1/4" - 18 NPTF	3	3	3
3.3003	0	FP-5155596	Washer, 21/64" Special Copper	4	4	4
3.3004	0	FP-103321	Lockwasher, 3/8"	32	32	32
3.3004	0	FP-8927581	Bolt, 3/8" - 16 1.135"	32	32	32
3.3010	0	FP-23511894	Seal, Air Inlet Housing	2	2	2
3.3010	0	FP-23511897	Ring Seal (Orange Stripe)	-	1	1
3.3010	0	FP-23511896	Ring Seal (Orange Stripe)	2	2	2
3.3010	0	FP-23511895	Ring Seal	1	1	1
3.3010	0	FP-5187576	Gasket (Screen)	-	-	2
3.3010	0	FP-5141256	Screen (Gasket)	-	2	-
3.3010	0	FP-5141838	Gasket, Air Inlet Housing (8 Drill Holes)	-	-	2
3.3010	0	FP-23509405	Gasket, Air Inlet Housing (4 Drill Holes)	4	4	4
3.3010	0	FP-5142907	Gasket, Air Inlet Housing (8 Drill Holes)	-	2	-
3.3010	0	FP-23509404	Gasket, Air Inlet Housing (5 Drill Holes)	4	4	4
3.3030	0	FP-5145457	Gasket, Air Inlet Striker Plate 12V	-	2	-
3.3030	0	FP-5145459	Gasket, Air Inlet Striker Plate 16V	-	-	2
3.3040	0	FP-103320	Lockwasher, 5/16"	4	4	4
3.3050	3	FP-5146483	Shaft (8.60" L.)	2	2	2
3.3090	1	FP-179803	Bolt, 1/4" - 20 X 1 3/4"	1	2	2
3.3090	2	FP-103319	Lockwasher, 1/4"	1	1	1
3.3095	4	FP-186624	Bolt, 5/16" - 18 X 1 1/4"	4	10	12
3.3095	6	FP-103320	Lockwasher, 5/16"	4	10	12
3.3095	5	FP-8921527	Rod (12.86" L.)	2	2	2



Blower

(Figure 10.2)





Blower

(Figure 10.2)

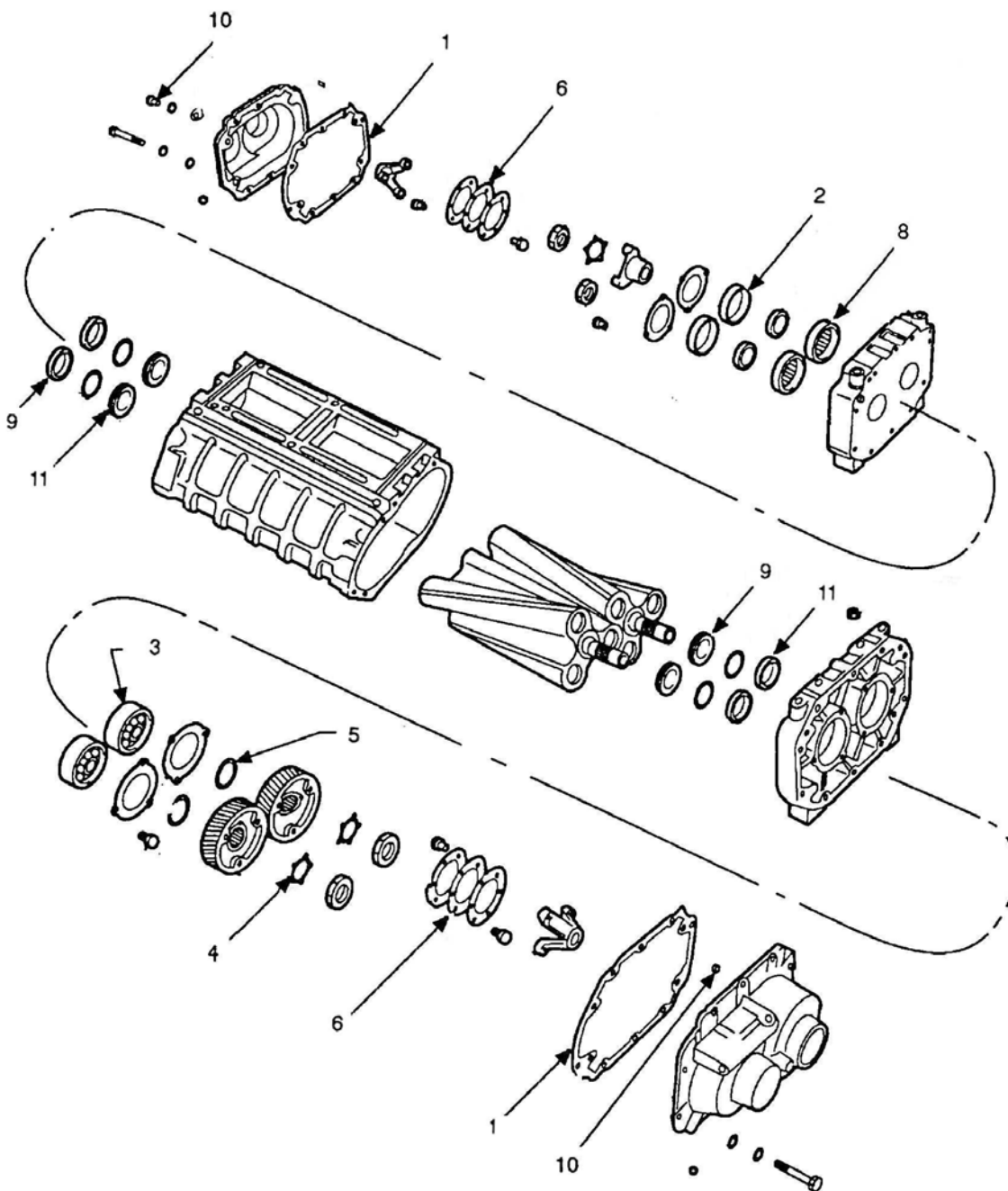
Groups:
3.4003 - 2.7232

Group	Ref	Part No.	Description	8V	12V	16V
3.4003	0	FP-23500485	Blower Kit, Installation (Types 454,544,652,674,720,725,743)	1	-	2
1.1087	0	FP-5139918	Seal Ring	1	2	2
1.1087	0	FP-5140957	Seal Ring	2	4	4
2.7011	0	FP-5143152	Gasket	1	2	2
2.7020	0	FP-5143134	Seal Ring	2	4	4
2.7232	0	FP-6525206	Seal Ring	1	2	2
2.8760	0	FP-23509675	Gasket	1	2	2
3.3010	0	FP-23509404	Gasket	1	2	2
3.3010	0	FP-23509405	Gasket	2	4	4
3.4025	0	FP-5187576	Screen	2	4	4
3.4143	0	FP-5116290	Seal Ring	2	4	4
3.4143	0	FP-5141452	Seal Ring	2	4	4
3.4190	1	FP-23506090	Gasket	2	4	4
3.4220	0	FP-5139480	Seal Ring	4	8	8
3.5785	0	FP-8924873	Seal Ring	1	2	2
3.4003	0	FP-5199524	Blower Kit, Installation (Types 124,163,533,562,582,665)	-	2	-
1.1087	0	FP-5139696	Seal Ring	-	2	-
1.1087	0	FP-5140956	Seal Ring	-	2	-
1.1087	0	FP-5144035	Seal Ring	-	4	-
1.1087	0	FP-5145623	Gasket	-	2	-
2.7011	0	FP-5139892	Gasket	-	2	-
2.7011	0	FP-5143152	Gasket	-	2	-
2.7020	0	FP-5143134	Seal Ring	-	4	-
2.8039	0	FP-5140419	Gasket	-	2	-
2.8760	0	FP-23509675	Gasket	-	2	-
3.3010	0	FP-5142907	Gasket	-	2	-
3.3030	0	FP-5145457	Gasket	-	2	-
3.4025	0	FP-5141256	Screen Assembly	-	2	-
3.4143	0	FP-5116290	Seal Ring	-	4	-
3.4143	0	FP-5141452	Seal Ring	-	4	-
3.4190	1	FP-23506090	Gasket	-	2	-
3.4200	0	FP-23506601	Hose	-	2	-
3.4220	0	FP-5139480	Seal Ring (3.4229)	-	12	-
4.8015	0	FP-5143682	Gasket	-	2	-
4.8015	0	FP-5143683	Gasket	-	2	-
3.4003	0	FP-5199526	Blower Kit, Installation (Types 126,464,527,529,531,532,583)	-	-	2
1.1087	0	FP-5139918	Seal Ring	-	-	2
1.1087	0	FP-5140957	Seal Ring	-	-	2
1.1087	0	FP-5144035	Seal Ring	-	-	4
1.1087	0	FP-5145623	Gasket	-	-	2
2.7011	0	FP-5143152	Gasket	-	-	2
2.7020	0	FP-5143134	Seal Ring	-	-	4
2.7232	0	FP-6525206	Seal Ring	-	-	2



Blower

(Figure 10.3)





Blower

(Figure 10.3)

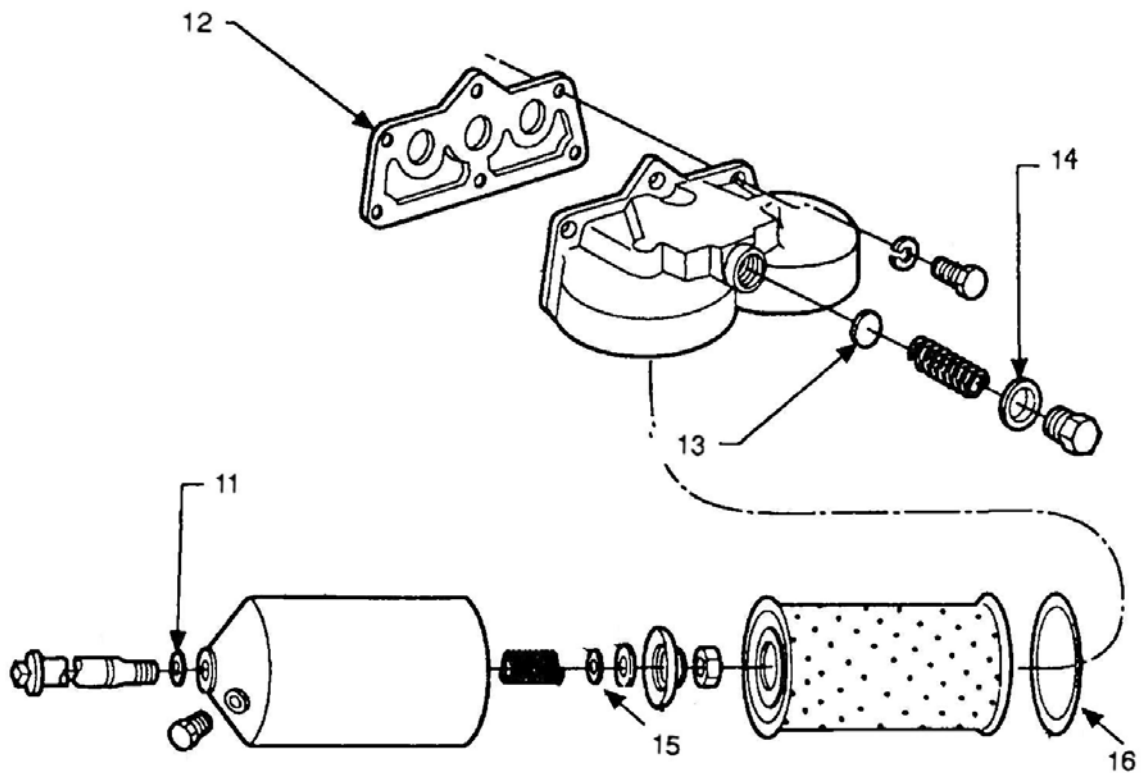
Groups:
3.4003 - 3.5001

Group	Ref	Part No.	Description	8V	12V	16V
3.4135	6	FP-5138964	Plate, Flex Blower Rotor Gear Hub	6	18	24
3.4140	8	FP-5109389	Strainer, Oil	2	4	4
3.4143	0	FP-5141452	Seal Ring	2	4	4
3.4143	0	FP-5116290	Seal Ring, .440X.121" (Supply)	2	4	4
3.4180	0	FP-103321	Lockwasher, 3/8"	10	30	30
3.4180	0	FP-9425668	Pin, 1/2" X 2 3/4" Dowel	2	2	2
3.4180	10	FP-8924380	Plug, 1/8" - 27 Pipe	6	9	18
3.4200	0	FP-103320	Lockwasher, 5/16"	1	1	1
3.4200	0	FP-23506601	Hose, 2.88" I.D. X 1.75"L.	1	1	1
3.4227	0	FP-5188036	Clamp, 2 9/16" - 3 1/2" Clamping Range	2	2	2
3.4445	0	FP-5139043	Shaft, Blower Drive (Rear), (9.90"L.)	1	-	2
3.4445	0	FP-5139232	Shaft, Blower Drive (Rear), (8.10" L.)	-	2	-
3.4445	0	FP-5139233	Shaft, Blower Drive (Center), (7.10"L.)	-	1	-
3.5001	0	FP-5103838	Turbocharger Assembly (T18A40), (Type 167,168,340,350,359)	-	-	4
3.4005	0	FP-23509236	Blower Kit, Repair	1	2	2
3.4040	2	FP-23503627	Bearing, Blower Rotor Front (Roller Single Row)	2	4	4
3.4060	3	FP-23504210	Bearing, Blower Rotor Rear (Ball Double Row)	2	4	4
3.4080	4	FP-5139588	Lockwasher, 1.39" I.D.x1.750" (3.4130)	3	6	6
3.4090	5	FP-5139368	Shim, .010	2	4	4
3.4090	5	FP-5139369	Shim, .005	2	4	4
3.4090	5	FP-5139370	Shim, .002	2	4	4
3.4135	6	FP-5138964	Plate, Flex Drive	6	12	12
3.4160	7	FP-23506798	Seal Assembly	4	8	8
3.4163	0	FP-23509000	Sleeve, Blower Seal .640	4	8	8
3.4190	1	FP-23506090	Gasket, Blower Housing End Plate Cover	3	6	6
3.4160	0	FP-23509313	Seal Kit (Contains 4 ea. Next Two Items)	1	2	2
3.4160	9	FP-23506798	Seal, Blower End Plate	4	8	8
3.4163	11	FP-23509000	Sleeve, Blower End Plate Seal	4	8	8
3.4003	0	FP-5199526	Blower Kit, Installation (Type 126,464,527,529,531,532,583)	-	-	2
1.1087	0	FP-5139918	Seal Ring	-	-	2
1.1087	0	FP-5140957	Seal Ring	-	-	2
1.1087	0	FP-5144035	Seal Ring	-	-	4
1.1087	0	FP-5145623	Gasket	-	-	2
2.7011	0	FP-5143152	Gasket	-	-	2
2.7020	0	FP-5143134	Seal Ring	-	-	4
2.7232	0	FP-6525206	Seal Ring	-	-	2
2.8760	0	FP-23509675	Gasket	-	-	2
3.3030	0	FP-5145459	Gasket	-	-	2
3.4025	0	FP-5187576	Screen Assembly	-	-	2
3.4143	0	FP-5116290	Seal Ring	-	-	4
3.4143	0	FP-5141452	Seal Ring	-	-	4
3.4190	1	FP-23506090	Gasket	-	-	6
3.4220	0	FP-5139480	Seal Ring (3.4229)	-	-	20
3.5423	0	FP-5141838	Gasket	-	-	2
4.8015	0	FP-5143682	Gasket	-	-	2
4.8015	0	FP-5143683	Gasket	-	-	2



Oil Distribution

(Figure 11.1)





Oil Distribution

(Figure 11.1)

Groups:

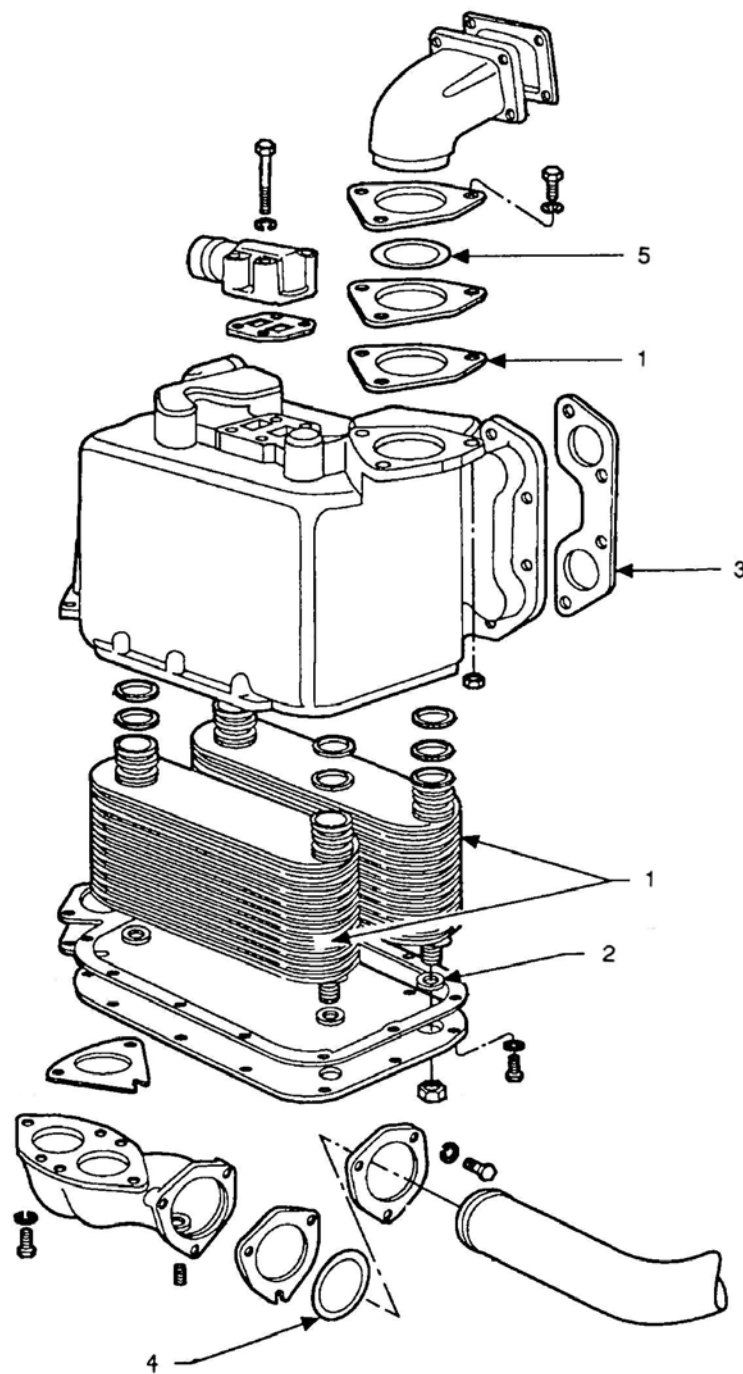
4.1510 - 4.3023

Group	Ref	Part No.	Description	8V	12V	16V
4.1510	0	FP-5140889	Seal Ring (1.48" I.D.)	1	1	1
4.1510	0	FP-5141459	Seal Ring (2.61" I.D.)	1	1	1
4.1510	0	FP-5142718	Seal Ring (1.98" I.D.)	1	1	1
4.1510	0	FP-103321	Lockwasher, 3/8" (4.1512), (4.1522), (4.1580)	8	8	8
4.1512	2	FP-8927580	Bolt, 3/8" -16 X 1.015"	2	2	2
4.1512	2	FP-8927581	Bolt, 3/8" -16 X 1.135"	2	2	2
4.1520	5	FP-5139880	Gasket (Scavenging)	1	2	1
4.1520	6	FP-5141020	Gasket (Pressure)	1	1	2
4.1520	3	FP-5141457	Gasket (Pressure)	1	1	1
4.1580	4	FP-5142718	Seal Ring (1.98" I.D.)	1	2	1
4.1580	4	FP-8927581	Bolt, 3/8" -16 X 1.135"	4	4	4
4.1580	4	FP-5140889	Seal Ring (1.48" I.D.)	1	1	1
4.1580	4	FP-5140096	Seal Ring (1.609" I.D.)	1	1	1
4.1590	6	FP-5141020	Gasket (Pressure)	1	1	1
4.1590	5	FP-5139880	Gasket (Scavenging)	2	2	2
Oil Filter						
4.2242	0	FP-23503738	O-Ring (1.504" O.D.)	2	2	2
4.2290	0	FP-5121182	Plug, 1/4" Pipe	2	2	2
4.2300	16	FP-1595620	Gasket, Oil Filter Cover	2	2	2
4.2330	15	FP-6437298	Gasket, Oil Filter Cover Nut	2	2	2
4.2330	11	FP-5187310	Gasket, Oil Filter Cover Nut (Rear)	2	2	2
4.2350	12	FP-8927620	Gasket, Oil Filter Adaptor	1	2	3
4.2350	12	FP-23506133	Gasket, Oil Filter Adaptor	1	1	1
4.2350	12	FP-23506133	Gasket, Oil Filter Adaptor	1	1	1
4.2350	12	FP-8925654	Gasket, Oil Filter Adaptor	1	1	1
4.2350	12	FP-5130995	Gasket, Oil Filter Adaptor	2	2	2
4.2350	12	FP-8927619	Gasket, Oil Filter Adaptor	1	1	1
4.2350	12	FP-5141031	Gasket, Oil Filter Adaptor	1	1	1
4.2350	12	FP-8927620	Gasket, Oil Filter Adaptor	1	2	3
4.2350	12	FP-8925654	Gasket, Oil Filter Adaptor	1	1	1
4.2350	12	FP-8927619	Gasket, Oil Filter Adaptor	1	1	1
4.2400	12	FP-8922740	Valve, Oil Filter By-Pass	2	3	3
4.2485	0	FP-5136358	Valve, Oil Filter By-Pass	1	1	4
4.2485	13	FP-5133431	Valve, Disc Oil Filter By-Pass	1	2	2
4.2489	14	FP-5134920	Gasket, Oil Filter By-Pass Plug	1	2	2
4.2489	14	FP-5575086	Gasket, Oil Filter By-Pass Plug	2	2	2
4.2489	0	FP-5137201	Washer, Plug 1.09" X 1.38" X .032"	2	2	5
4.3023	0	FP-5141031	Gasket (Split Flange)	2	2	2
Oil Pressure Relief						
4.1671	0	FP-8927581	Bolt, 3/8" -16 X 1.135"	2	2	2
4.1690	0	FP-5126327	Spring, Oil Pressure Regulator	1	2	3
4.1700	0	FP-8922740	Valve, Oil Pressure Regulator	1	2	3
4.1701	0	FP-457008	Pin, 3/16" X 1 1/2" Spring	2	2	3
4.1730	0	FP-5117269	Gasket, Oil Pressure Regulator Body	1	1	1
4.1730	0	FP-5140831	Seal Ring, 1.234" X .139"	2	2	2



Oil Cooler

(Figure 11.2)





Oil Cooler

(Figure 11.2)

Groups:

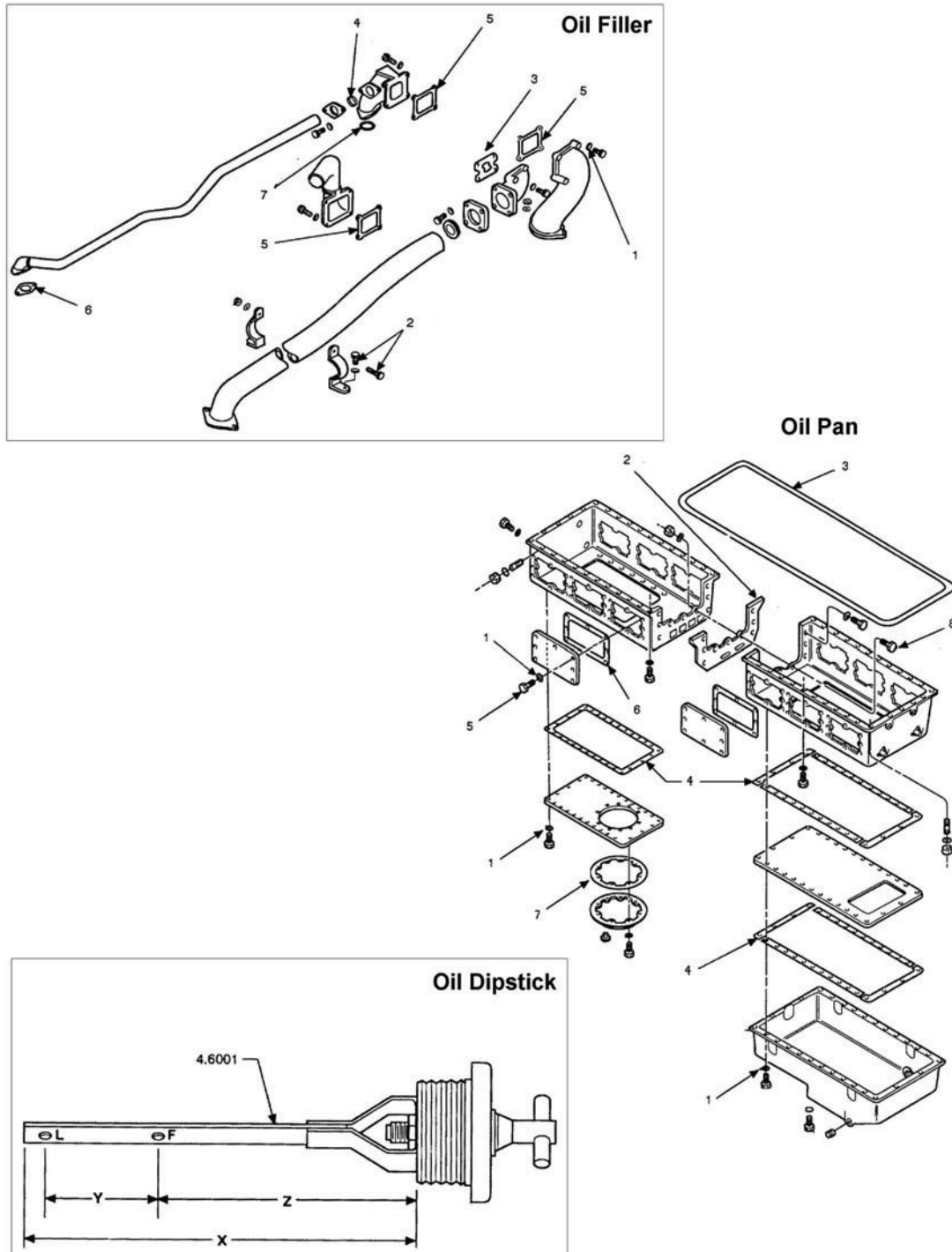
4.4001 - 4.4244

Group	Ref	Part No.	Description	8V	12V	16V
4.4001	1	FP-8535369	Core, 28 Plates Oil Cooler	-	5	-
4.4001	1	FP-8547543	Core, 30 Plates Oil Cooler	-	4	-
4.4040	2	FP-5150155	Gasket, Oil Cooler Core-Outer	1	1	1
4.4055	3	FP-23506470	Gasket, Oil Cooler Housing	8	8	8
4.4060	0	FP-5121182	Plug, 1/4" Pipe	2	2	2
4.4060	0	FP-103320	Lockwasher, 5/16"	22	22	22
4.4107	0	FP-23509170	Gasket, Oil Cooler Inlet & Outlet-Oil (4.4200), (4.4244)	1	1	1
4.4107	0	FP-23509110	Gasket (Outlet Between Elbows)	1	1	1
4.4107	3	FP-23506470	Gasket (Outlet At Block), (4.4200)	1	1	1
4.4107	0	FP-5145411	Ring, Seal (Inlet Between Elbows)	1	1	1
4.4170	0	FP-5137201	Washer, Plug 1.09" X 1.38" X .032"	2	2	2
4.4176	0	FP-8927581	Bolt, 3/8" -16 X 1.135"	2	4	4
4.4176	0	FP-103321	Lockwasher, 3/8"	2	4	4
4.4178	0	FP-23506133	Gasket, Oil Cooler By-Pass Tube Flange (4.4184)	1	1	1
4.4212	4	FP-5145409	Seal Ring, 3.80" X .45" (4.4230), (4.4244)	2	2	2
4.4219	4	FP-5145409	Seal Ring, 3.80" X .45" (4.4230)	2	2	2
4.4219	0	FP-5119660	Ring, Seal (Adaptor), (3.975" I.D.)	2	2	2
4.4244	5	FP-5145411	Ring Seal (Inlet Between Elbows)	2	2	2



Oil Filler, Dipstick & Pan

(Figure 11.3)





Oil Filler, Dipstick & Pan

(Figure 11.3)

Groups:

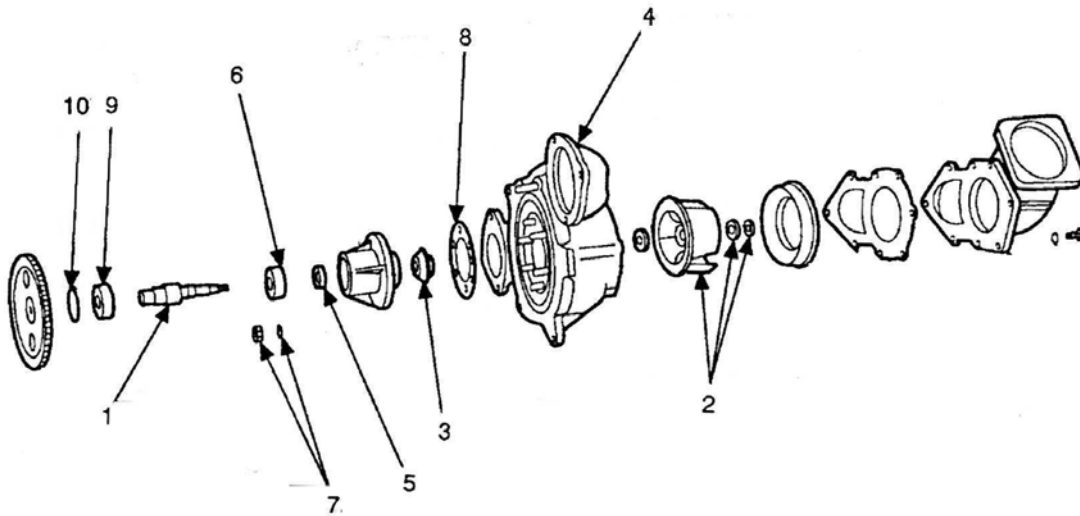
4.5007 - 4.8070

Group	Ref	Part No.	Description	8V	12V	16V
Breather						
4.8015	0	FP-5143682	Gasket, Breather Elbow (R.Bank)	1	2	2
4.8015	0	FP-5143683	Gasket, Breather Elbow (L.Bank)	1	2	2
4.8045	0	FP-5110393	Gasket, Breather Assembly	1	1	1
4.8050	0	FP-5130349	Gasket, Breather Or Separator	1	1	1
4.8057	0	FP-5106703	Gasket, Breather Shell Cover	1	1	1
4.8057	0	FP-5103646	Gasket, Breather Shell Cover	1	1	1
4.8057	0	FP-23505521	Gasket, Breather Shell Cover	1	1	1
4.8060	0	FP-5132042	Screen, Filter Unit, Breather	-	-	2
4.8060	0	FP-5101760	Element, Round	-	-	1
4.8070	0	FP-5144038	Gasket, Breather Or Separator	-	-	1
Dipstick						
4.6001	0	FP-5146679	Dipstick, Cut To Length	1	1	1
4.6061	0	FP-8927620	Gasket, Dipstick Adaptor Plate	1	1	1
Filler						
4.5007	0	FP-5139583	Gasket, Oil Filler Tube Adaptor	1	2	2
4.5010	0	FP-5117362	Cap, Oil Filler	1	2	2
4.5020	0	FP-5150147	Strainer, Oil Filler Tube	1	2	2
4.5030	0	FP-5113825	Chain, 20" L.	1	2	2
4.5030	0	FP-5146248	Hook, Oil Filler Cap	1	2	2
Pan						
4.7010	8	FP-454992	Bolt, 1/2" - 13 X 2 1/2"	7	7	7
4.7020	0	FP-23511574	Plug, 1" Pipe Sq. Soc.	2	2	2
4.7020	1	FP-8927581	Bolt, 3/8" - 16 X 1.135"	12	30	30
4.7020	0	FP-5142549	Plug, 3/4" Pipe Sq. Soc.	4	4	4
4.7020	0	FP-103026	Nut, 3/8" - 24	-	-	-
4.7020	0	FP-5115214	Plug, 1/2" - 14 Pipe	2	2	2
4.7020	0	FP-8923847	Plug, Pipe 1/4" - 18" NPTF	2	2	2
4.7027	2	FP-23515447	Gasket, Upper Oil Pan	-	-	1
4.7030	3	FP-5117231	Gasket, Oil Pan	1	2	4
4.7030	0	FP-5141595	Seal Ring, (100.60" I.D.)	-	-	1
4.7030	0	FP-8925313	Ring Seal, Oil Pan To Block	1	-	-
4.7030	0	FP-5141594	Seal Ring, (83.60" I.D.)	-	1	-
4.7040	4	FP-5131100	Gasket, Lower Oil Pan	1	2	-
4.7040	4	FP-5125635	Gasket, Lower Oil Pan	-	1	-
4.7040	4	FP-5117231	Gasket, Lower Oil Pan	-	2	-
4.7040	4	FP-23503588	Gasket, Lower Oil Pan	-	1	-
4.7040	4	FP-5125643	Gasket, Lower Oil Pan	1	2	4
4.7050	0	FP-8927580	Bolt, 3/8" - 16 X 1" X 1.015"	1	2	6
4.7050	9	FP-103026	Nut, 3/8" - 24 (117049)	-	-	6
4.7050	1	FP-8927581	Bolt, 3/8" - 16 X 1" X 1.135"	-	-	98
4.7050	0	FP-103321	Lockwasher, 3/8"	-	-	6
4.7060	6	FP-8927619	Gasket, Oil Pan Hand Hole	2	3	4
4.7060	6	FP-8927620	Gasket, Oil Pan Hand Hole	8	11	12
4.7130	0	FP-5139862	Gasket, Oil Pan Cover	1	1	1
4.7150	7	FP-5153986	Gasket, Oil Pan Sump	-	1	-



Fresh Water Pump

(Figure 12.1)





Fresh Water Pump

(Figure 12.1)

Groups:

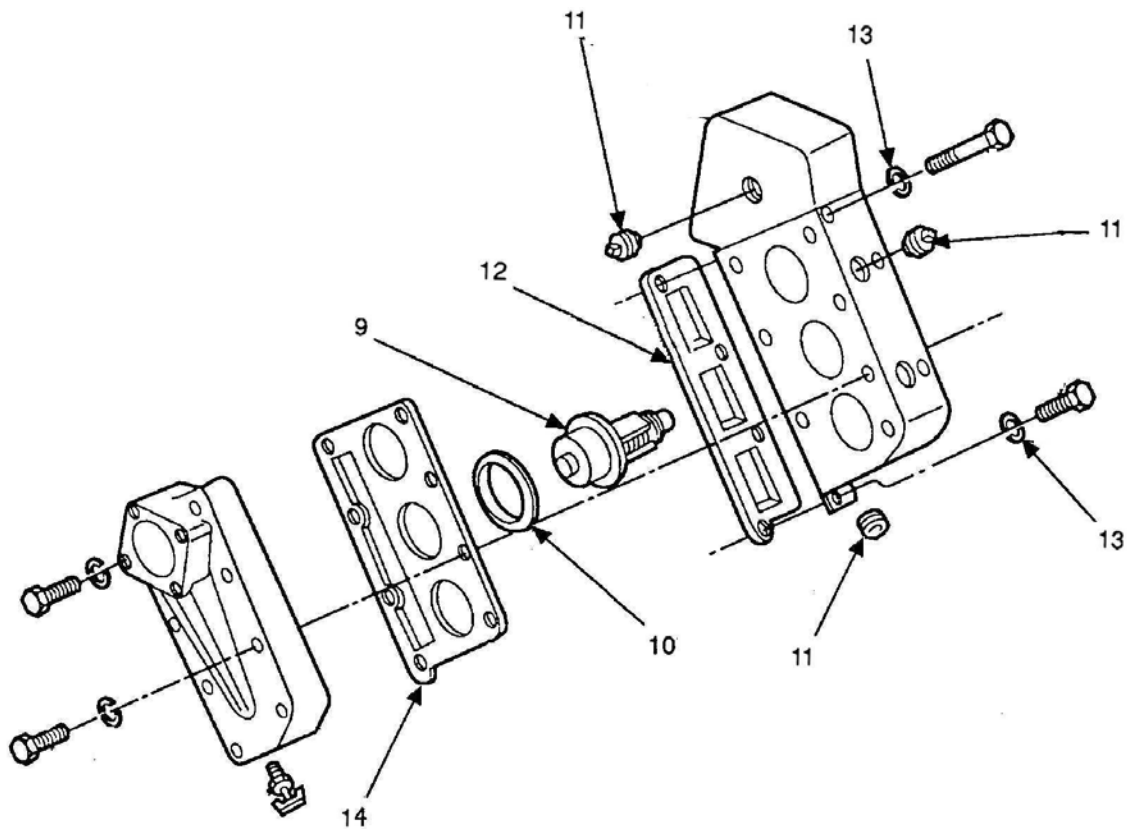
5.1000 - 5.2043

Group	Ref	Part No.	Description	8V	12V	16V
5.1000	0	FP-23506704	Pump Assembly (L.H. Hi-Capacity), (Type 283)	1	-	-
5.1030	4	FP-8920915	Body, Fresh Water Pump (L.H. Hi-Capacity)	1	-	-
5.1050	0	FP-908337	Shaft & Bearing	1	-	-
5.1050	1	FP-8922201	Shaft, Fresh Water Pump	1	-	-
5.1050	1	FP-5123150	Shaft, Fresh Water Pump	1	-	-
5.1065	5	FP-5117983	Seal, Fresh Water Pump Shaft	1	-	-
5.1070	10	FP-274746	Lockring	1	-	-
5.1070	6	FP-23503687	Bearing, Fresh Water Pump	1	-	-
5.1070	9	FP-23503649	Bearing, Fresh Water Pump	1	-	-
5.1071	7	FP-9415285	Ring, 2 7/16" Dia. Lock Retaining	1	-	-
5.1071	7	FP-103321	Lockwasher, 3/8"	1	-	-
5.1071	7	FP-103026	Nut, 3/8" - 24	1	-	-
5.1074	8	FP-5127922	Gasket, Pump Bearing Support	1	-	-
5.1110	2	FP-221436	Washer, 7/16"	1	-	-
5.1110	2	FP-5117972	Nut, 7/16" - 20 Lock	1	-	-
5.1110	2	FP-120395	Washer, 7/16"	1	-	-
5.1110	2	FP-23505998	Impeller, Fresh Water Pump	1	-	-
5.1130	3	FP-8924297	Seal, Fresh Water Pump	1	-	-
5.1130	3	FP-23506248	Seal, Unitized	1	-	-
5.1210	0	FP-5114011	Thrower, Fresh Water Pump	1	-	-
5.2001	0	FP-23511574	Plug, 1" Pipe Sq. Soc.	1	-	-
5.2001	0	FP-103321	Lockwasher, 3/8"	1	-	-
5.2001	0	FP-5142549	Plug, 3/4" Pipe Sq. Soc.	1	-	-
5.2001	0	FP-5115214	Plug, 1/2" - 14 Pipe	1	-	-
5.2010	0	FP-5139745	Gasket, Water Outlet Manifold	1	-	-
5.2035	0	FP-103321	Lockwasher, 3/8"	1	-	-
5.2037	0	FP-23518859	Gasket, Water Outlet Manifold Elbow	1	-	-
5.2043	0	FP-5121182	Plug, 1/4" Pipe	1	-	-
5.2043	0	FP-5141445	Gasket, Plate	1	-	-
5.2043	0	FP-5139724	Seal (Front To Rear)	1	-	-
5.2043	0	FP-5142549	Plug, 3/4" Pipe Sq. Soc.	1	-	-
5.2043	0	FP-5145410	Seal (Outlet)	1	-	-
5.2043	0	FP-23515899	Seal, (Outlet)	1	-	-
5.2043	0	FP-103321	Lockwasher, 3/8"	1	-	-
5.1000	0	FP-23506870	Reconditioning Kit (High Capacity), (Type 283)	1	-	-
5.1050	0	FP-908337	Shaft & Bearing, Fresh Water Pump	1	-	-
5.1110	2	FP-23505998	Impeller, Fresh Water Pump	1	-	-
5.1130	3	FP-23506248	Seal, Fresh Water Pump	1	-	-
5.1210	0	FP-5114011	Thrower, Fresh Water Pump	1	-	-
5.1210	0	FP-5150191	Seal, Fresh Water Pump	1	-	-
5.1210	0	FP-5150193	Gasket, Fresh Water Pump	1	-	-
5.1210	0	FP-5178273	Gasket, Fresh Water Pump	1	-	-



Thermostat Housing

(Figure 12.2)





Thermostat Housing

(Figure 12.2)

Groups:

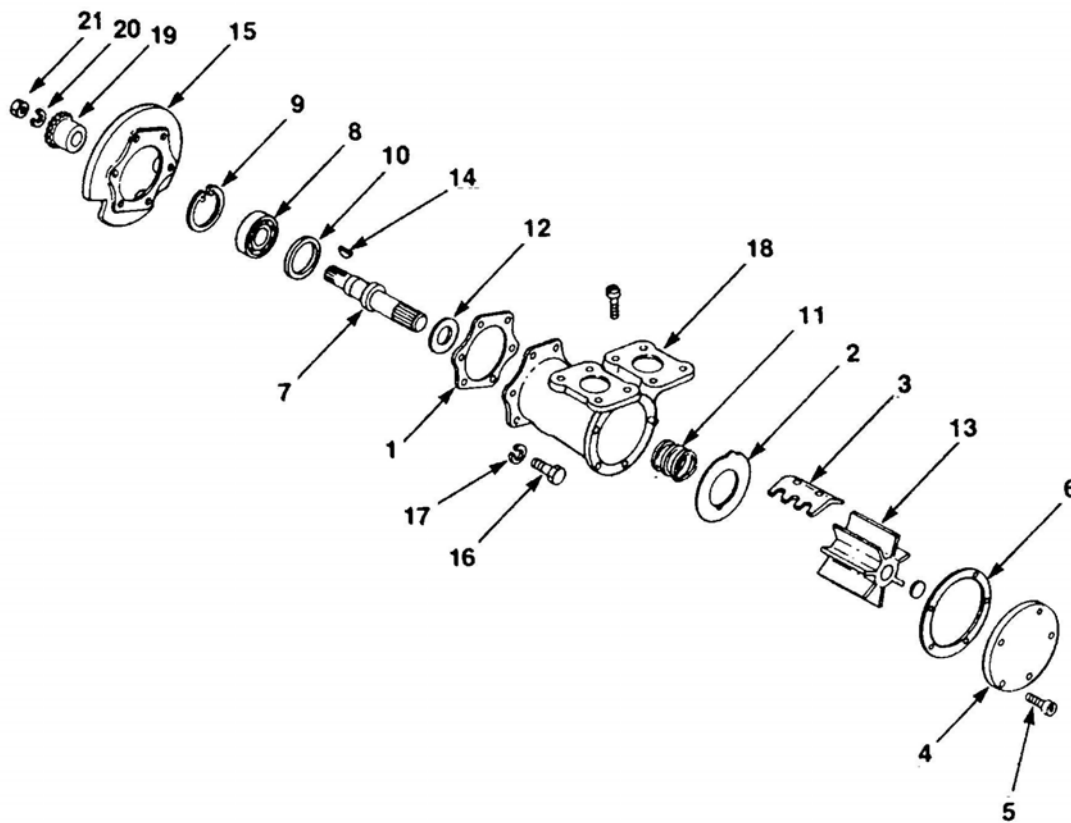
5.2050 - 5.4017

Group	Ref	Part No.	Description	8V	12V	16V
5.2050	9	FP-23503826	Thermostat 170 °	2	-	-
5.2050	9	FP-23503827	Thermostat 160 °	2	-	-
5.2060	10	FP-5132155	Seal, Thermostat	2	-	-
5.2090	11	FP-5115214	Plug, 1/2" - 14 Pipe	2	-	-
5.2090	0	FP-103321	Lockwasher, 3/8"	1	-	-
5.2090	0	FP-5121182	Plug, 1/4" Pipe	1	-	-
5.2090	0	FP-5142549	Plug, 3/4" Pipe Sq. Soc.	1	-	-
5.2110	12	FP-5139501	Gasket, Thermostat Housing	1	-	-
5.2120	0	FP-5131433	Washer, .41" X .81" X .1345"	1	-	-
5.2120	13	FP-103321	Lockwasher, 3/8"	1	-	-
5.2130	14	FP-5141437	Gasket, Thermostat Housing Cover	1	-	-
5.4017	0	FP-3041379	Thermostat, 170 Deg. (Fan Control)	2	-	-



Raw Water Pump

(Figure 13.1)





Raw Water Pump

(Figure 13.1)

Groups:

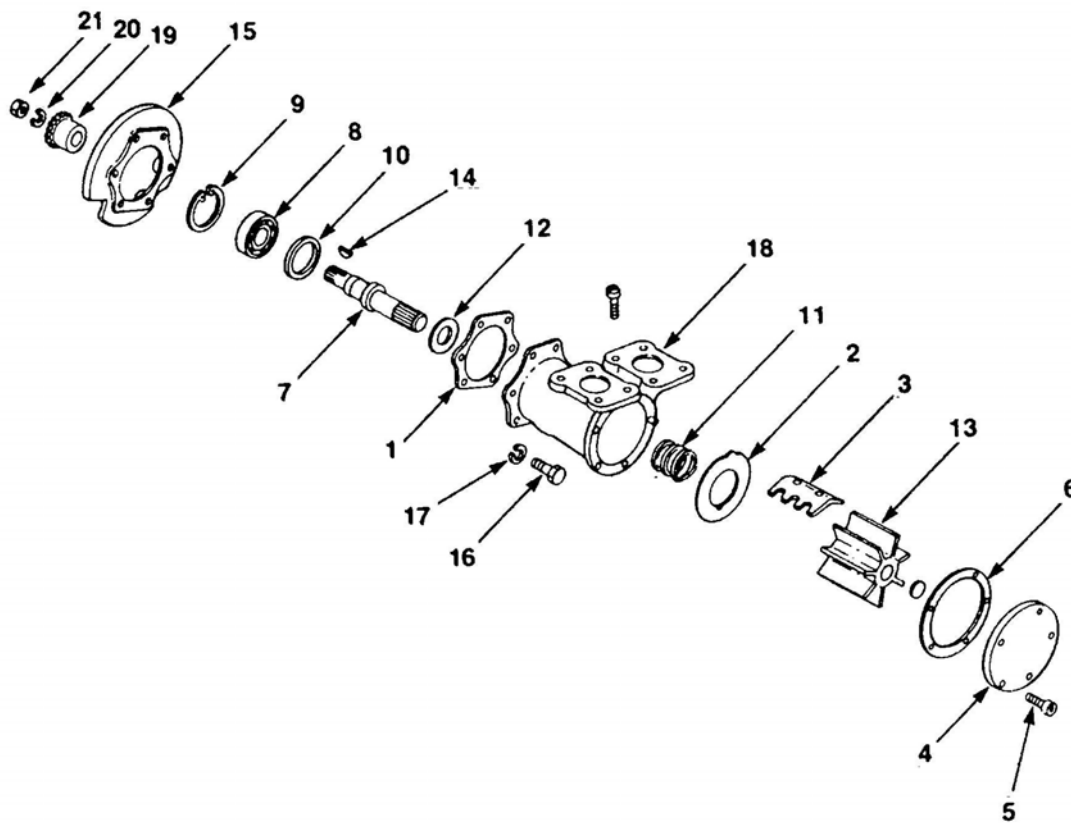
5.6001 - 5.6176

Group	Ref	Part No.	Description	8V	12V	16V
5.6001	0	FP-5122599	Pump, Raw Water (Types 52,81)	1	-	-
5.6010	15	FP-5193551	Adaptor, Housing, Raw Water Pump Drive	1	-	-
5.6010	16	FP-23501660	Screw, 3/8" - 16 X 1"	6	-	-
5.6010	17	FP-187372	Washer, 3/8"	6	-	-
5.6012	1	FP-23501662	Gasket, Raw Water Pump Adaptor	1	-	-
5.6020	18	FP-5196165	Body, Raw Water Pump	1	-	-
5.6025	2	FP-5193556	Plate, Wear	1	-	-
5.6025	0	FP-5197597	Pin, .183" X 11/32" Dowel	1	-	-
5.6035	0	FP-114366	Screw, 1/4" - 20 X 1/2" (Slotted)	1	-	-
5.6035	3	FP-5196167	Cam, Raw Water Pump Body Offset	1	-	-
5.6090	5	FP-23504236	Screw, 1/4" - 20 X 1/2"	5	-	-
5.6090	4	FP-5193555	Cover, End	1	-	-
5.6100	6	FP-5193562	Gasket, Raw Water Pump Cover	1	-	-
5.6120	7	FP-5196169	Shaft, Raw Water Pump	1	-	-
5.6130	8	FP-23505479	Bearing, Raw Water Pump	1	-	-
5.6140	9	FP-5196171	Ring, Bearing Retainer	1	-	-
5.6160	10	FP-5195101	Seal, 1 11/32" I.D. Raw Water Pump Bearing	1	-	-
5.6170	11	FP-5198419	Seal Assembly Raw Water Pump Shaft	1	-	-
5.6176	0	FP-5193567	O-Ring, Raw Water Pump Shaft	1	-	-
5.6220	0	FP-5196846	Impeller & Seal Kit (For Pump FP-5122599)	1	-	-
5.6230	13	FP-8924839	Impeller, Raw Water Pump	1	-	-
5.6170	11	FP-5198419	Seal Assembly, Raw Water Pump Shaft	1	-	-
5.6100	6	FP-5193562	Gasket, Raw Water Pump Cover	1	-	-
5.6025	5	FP-23504236	Screw, Hexagon	5	-	-
5.6025	0	FP-5197222	Reconditioning Kit, Raw Water Pump (For Pump FP-5122599)	1	-	-
5.6012	0	FP-23514265	Seal Ring	1	-	-
5.6012	1	FP-23501662	Gasket, Raw Water Pump Body To Adaptor	1	-	-
5.6020	2	FP-5193556	Plate, Wear	1	-	-
5.6025	0	FP-114366	Screw, 1/4" - 20 X 1/2" Raw Water Pump Cam (Brass)	1	-	-
5.6035	3	FP-5196167	Cam, Raw Water Pump Body Offset	1	-	-
5.6090	4	FP-5193555	Cover, Raw Water Pump (End)	1	-	-
5.6090	5	FP-23504236	Screw, 1/4" - 20 X 1/2" Raw Water Pump Cover (Stainless)	5	-	-
5.6100	6	FP-5193562	Gasket, Raw Water Pump Cover	1	-	-
5.6120	7	FP-5196169	Shaft, Raw Water Pump	1	-	-
5.6130	8	FP-23505479	Bearing, Raw Water Pump	1	-	-
5.6140	9	FP-5196171	Ring, Raw Water Pump Bearing Retainer	1	-	-
5.6160	10	FP-5195101	Seal, Raw Water Pump Bearing	1	-	-
5.6170	11	FP-5198419	Seal Assembly, Raw Water Pump Shaft	1	-	-
5.6200	12	FP-5193676	Slinger, Raw Water Pump Shaft	1	-	-
5.6230	13	FP-8924839	Impeller, Raw Water Pump	1	-	-
5.6320	14	FP-103462	Key, Woodruff Raw Water Pump Shaft	1	-	-



Raw Water Pump

(Figure 13.2)





Raw Water Pump

(Figure 13.2)

Groups:

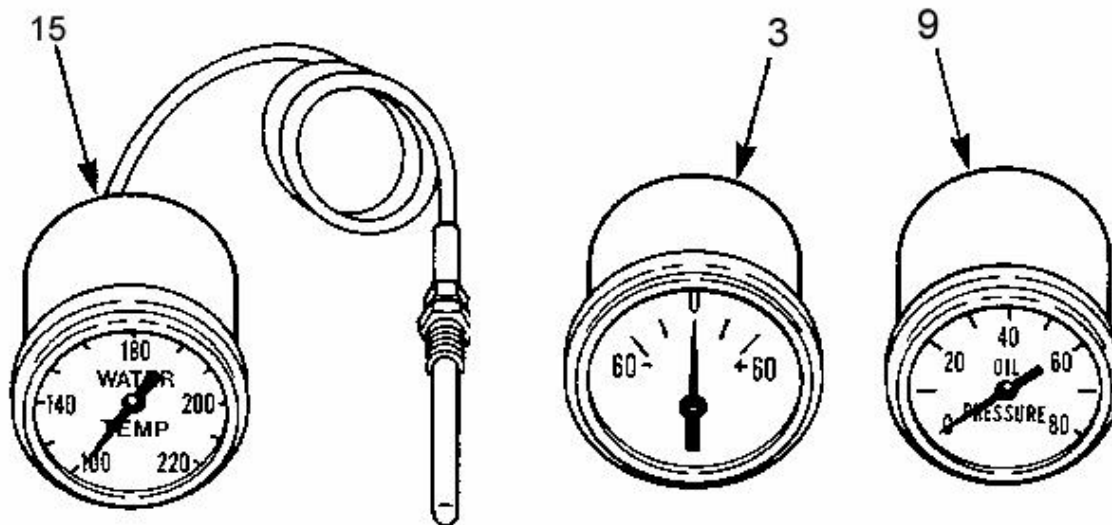
5.6200 - 5.6575

Group	Ref	Part No.	Description	8V	12V	16V
5.6200	12	FP-5193676	Slinger, Raw Water Pump Shaft	1	-	-
5.6230	13	FP-8924839	Impeller, Raw Water Pump	1	-	-
5.6320	19	FP-5196170	Gear, Raw Water Pump Drive	1	-	-
5.6320	20	FP-103325	Lockwasher, 5/8"	1	-	-
5.6320	21	FP-114498	Nut, 5/8" -18	1	-	-
5.6350	0	FP-5104506	Gasket, Adaptor Cover	1	-	-
5.6350	0	FP-23515145	Gasket, Flywheel Housing Cover	1	-	-
5.6410	0	FP-5170450	Plate (21 Teeth)	1	-	-
5.6573	0	FP-8927581	Bolt, 3/8" -16 X .135"	8	-	-
5.6573	0	FP-103321	Lockwasher, 3/8"	4	-	-
5.6574	0	FP-5112143	Gasket, Raw Water Pump Inlet Elbow	1	-	-
5.6575	0	FP-8517479	Electrode Assembly (2 1/8" L.)	2	-	-



Instruments

(Figure 14.1)





Instruments

(Figure 14.1)

Groups:

7.4015 - 7.4750

Group	Ref	Part No.	Description	8V	12V	16V
7.4015	0	FP-6474479	Ammeter (60 Amp)	1	1	1
7.4070	0	FP-12361169	Gage (0-100 PSI)	1	1	1
7.4070	0	FP-6462554	Gage (0-400 PSI)	1	1	1
7.4080	0	FP-8993253	Gage (180" Capillary)	1	1	1
7.4421	0	FP-5136678	Gasket, Tachometer Drive Cable Adaptor	1	1	1
7.4433	0	FP-3222141	Gasket, Tachometer Drive Cable Adaptor Retainer	1	1	1
7.4433	0	FP-103320	Lockwasher, 5/16"	2	2	2
7.4433	0	FP-5155596	Washer, 21/64" Special Copper	2	2	2
7.4447	0	FP-23515145	Gasket, Tachometer Drive Cover	1	1	1
7.4447	0	FP-5140035	Gasket, Tachometer Drive Cover	1	1	1
7.4455	0	FP-5135935	Gasket, Tachometer Drive Cover Adaptor	1	1	1
7.4457	0	FP-5107931	Washer, .141" X .641" I.D. Rubber	1	1	1
7.4457	0	FP-103320	Lockwasher, 5/16"	2	2	2
7.4509	0	FP-103320	Lockwasher, 5/16"	2	2	2
7.4509	0	FP-5121182	Plug, 1/4" Pipe	1	1	1
7.4510	0	FP-5113412	Gasket, Water Temperature Switch	1	1	1
7.4510	0	FP-5163830	Gasket, Water Temperature Switch	1	1	1
7.4519	0	FP-23504197	Solenoid, (24/32 Volt)	1	1	1
7.4530	0	FP-103319	Lockwasher, 1/4"(7.4538)	3	3	3
7.4591	0	FP-5155596	Washer, 21/64" Special Copper	2	2	2
7.4591	0	FP-103320	Lockwasher, 5/16"	2	2	2
7.4592	0	FP-3222141	Gasket, Tachometer Drive Cable Adaptor Retainer	1	1	1
7.4592	0	FP-5116391	Gasket, Valve Metering	1	1	1
7.4638	0	FP-23515145	Gasket, Tachometer Drive Cover	1	1	1
7.4638	0	FP-5141021	Gasket, (At # 1)	1	1	1
7.4638	0	FP-5140035	Gasket, (At # 2)	1	1	1
7.4661	0	FP-5143840	Seal Ring, (2.98" I.D.) Overspeed Governor Drive	1	1	1
7.4661	0	FP-5180352	Seal Ring, (.31" I.D.) Overspeed Governor Drive	1	1	1
7.4750	0	FP-5107931	Washer, .141" X .641" I.D.	1	1	1

2-Stroke In-Frame Engine Kits



Kit Number: FP-2-53

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5198899	2	STD	Cylinder Kit Complete	C.R. 21:1
FP-5198899 10	2	10	Cylinder Kit Complete	C.R. 21:1
FP-5198899 20	2	20	Cylinder Kit Complete	C.R. 21:1
FP-5198903	2	STD	Cylinder Kit Complete	C.R. 17.0:1
FP-5198903 10	2	10	Cylinder Kit Complete	C.R. 17.0:1
FP-5198903 20	2	20	Cylinder Kit Complete	C.R. 17.0:1
FP-5149452	2	STD	Connecting Rod Bearing Pair	
FP-5149454	2	10	Connecting Rod Bearing Pair	
FP-5149455	2	20	Connecting Rod Bearing Pair	
FP-5149456	2	30	Connecting Rod Bearing Pair	
FP-8924357	3	STD	Main Bearing, Plain	
FP-8924359	3	10	Main Bearing, Plain	
FP-8924360	3	20	Main Bearing, Plain	
FP-8924361	3	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-5199809	1		Head Gasket Set	
FP-5116255	1		Oil Pan Gasket	STAMPED PAN
FP-5147993	1		Valve Cover Gasket	

Kit Number: FP-3-53

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5198899	3	STD	Cylinder Kit Complete	C.R. 21:1
FP-5198899 10	3	10	Cylinder Kit Complete	C.R. 21:1
FP-5198899 20	3	20	Cylinder Kit Complete	C.R. 21:1
FP-5198903	3	STD	Cylinder Kit Complete	C.R. 17.0:1
FP-5149452	3	STD	Connecting Rod Bearing Pair	
FP-5149454	3	10	Connecting Rod Bearing Pair	
FP-5149455	3	20	Connecting Rod Bearing Pair	
FP-5149456	3	30	Connecting Rod Bearing Pair	
FP-8924357	4	STD	Main Bearing, Plain	
FP-8924359	4	10	Main Bearing, Plain	
FP-8924360	4	20	Main Bearing, Plain	
FP-8924361	4	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-5199811	1		Head Gasket Set	
FP-5116256	1		Oil Pan Gasket	
FP-8925273	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	1		Valve Cover Gasket	STEEL ROCKER COVER



2-Stroke In-Frame Engine Kits

Kit Number: FP-3-53-T

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149315	3	STD	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 10	3	10	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 20	3	20	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149734	3	STD	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 10	3	10	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 20	3	20	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149452	3	STD	Connecting Rod Bearing Pair	
FP-5149454	3	10	Connecting Rod Bearing Pair	
FP-5149455	3	20	Connecting Rod Bearing Pair	
FP-5149456	3	30	Connecting Rod Bearing Pair	
FP-5149447	4	STD	Main Bearing, Plain	
FP-5149449	4	10	Main Bearing, Plain	
FP-5149450	4	20	Main Bearing, Plain	
FP-5149451	4	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-5199811	1		Head Gasket Set	
FP-5116256	1		Oil Pan Gasket	
FP-8925273	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	1		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-3-53-XHT

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23503778	3	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503778 10	3	10	Cylinder Kit Complete	C.R. 18:1
FP-23503778 20	3	20	Cylinder Kit Complete	C.R. 18:1
FP-23503810	3	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503810 20	3	20	Cylinder Kit Complete	C.R. 18:1
FP-5149452	3	STD	Connecting Rod Bearing Pair	
FP-5149454	3	10	Connecting Rod Bearing Pair	
FP-5149455	3	20	Connecting Rod Bearing Pair	
FP-5149456	3	30	Connecting Rod Bearing Pair	
FP-5149447	4	STD	Main Bearing, Plain	
FP-5149449	4	10	Main Bearing, Plain	
FP-5149450	4	20	Main Bearing, Plain	
FP-5149451	4	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-5199811	1		Head Gasket Set	
FP-5116256	1		Oil Pan Gasket	
FP-8925273	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	1		Valve Cover Gasket	STEEL ROCKER COVER

2-Stroke In-Frame Engine Kits



Kit Number: FP-4-53

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5198899	4		Cylinder Kit Complete	C.R. 21:1
FP-5198899 10	4		Cylinder Kit Complete	C.R. 21:1
FP-5198899 20	4		Cylinder Kit Complete	C.R. 21:1
FP-5198903	4		Cylinder Kit Complete	C.R. 17.0:1
FP-5149452	4	STD	Connecting Rod Bearing Pair	
FP-5149454	4	10	Connecting Rod Bearing Pair	
FP-5149455	4	20	Connecting Rod Bearing Pair	
FP-5149456	4	30	Connecting Rod Bearing Pair	
FP-8924357	5	STD	Main Bearing, Plain	
FP-8924359	5	10	Main Bearing, Plain	
FP-8924360	5	20	Main Bearing, Plain	
FP-8924361	5	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-5199812	1		Head Gasket Set	
FP-5116257	1		Oil Pan Gasket	
FP-8925274	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147506	1		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-4-53-T

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149315	4	STD	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 10	4	10	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 20	4	20	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149734	4	STD	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 10	4	10	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 20	4	20	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149452	4	STD	Connecting Rod Bearing Pair	
FP-5149454	4	10	Connecting Rod Bearing Pair	
FP-5149455	4	20	Connecting Rod Bearing Pair	
FP-5149456	4	30	Connecting Rod Bearing Pair	
FP-5149447	5	STD	Main Bearing, Plain	
FP-5149449	5	10	Main Bearing, Plain	
FP-5149450	5	20	Main Bearing, Plain	
FP-5149451	5	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-5199812	1		Head Gasket Set	
FP-5116257	1		Oil Pan Gasket	
FP-8925274	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147506	1		Valve Cover Gasket	STEEL ROCKER COVER



2-Stroke In-Frame Engine Kits

Kit Number: FP-4-53-XHT

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23503778	4	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503778 10	4	10	Cylinder Kit Complete	C.R. 18:1
FP-23503778 20	4	20	Cylinder Kit Complete	C.R. 18:1
FP-23503810	4	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503810 20	4	20	Cylinder Kit Complete	C.R. 18:1
FP-5149452	4	STD	Connecting Rod Bearing Pair	
FP-5149454	4	10	Connecting Rod Bearing Pair	
FP-5149455	4	20	Connecting Rod Bearing Pair	
FP-5149456	4	30	Connecting Rod Bearing Pair	
FP-5149447	5	STD	Main Bearing, Plain	
FP-5149449	5	10	Main Bearing, Plain	
FP-5149450	5	20	Main Bearing, Plain	
FP-5149451	5	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-5199812	1		Head Gasket Set	
FP-5116257	1		Oil Pan Gasket	
FP-8925274	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147506	1		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-6V53

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5198899	6		Cylinder Kit Complete	C.R. 21:1
FP-5198899 10	6		Cylinder Kit Complete	C.R. 21:1
FP-5198899 20	6		Cylinder Kit Complete	C.R. 21:1
FP-5197975	6	STD	Connecting Rod Bearing Pair	
FP-5197977	6	10	Connecting Rod Bearing Pair	
FP-5197978	6	20	Connecting Rod Bearing Pair	
FP-5197979	6	30	Connecting Rod Bearing Pair	
FP-5198410	4	STD	Main Bearing, Plain	
FP-5198412	4	10	Main Bearing, Plain	
FP-5198413	4	20	Main Bearing, Plain	
FP-5198414	4	30	Main Bearing, Plain	
FP-5159353	4	STD	Thrust Washer	
FP-5199811	2		Head Gasket Set	
FP-5119266	1		Oil Pan Gasket	
FP-8925273	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	2		Valve Cover Gasket	STEEL ROCKER COVER

2-Stroke In-Frame Engine Kits



Kit Number: FP-6V53-T

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149315	6	STD	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 10	6	10	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 20	6	20	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149734	6	STD	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 10	6	10	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 20	6	20	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5197975	6	STD	Connecting Rod Bearing Pair	
FP-5197977	6	10	Connecting Rod Bearing Pair	
FP-5197978	6	20	Connecting Rod Bearing Pair	
FP-5197979	6	30	Connecting Rod Bearing Pair	
FP-5198410	4	STD	Main Bearing, Plain	
FP-5198412	4	10	Main Bearing, Plain	
FP-5198413	4	20	Main Bearing, Plain	
FP-5198414	4	30	Main Bearing, Plain	
FP-5159353	4	STD	Thrust Washer	
FP-5199811	2		Head Gasket Set	
FP-5119266	1		Oil Pan Gasket	
FP-8925273	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	2		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-6V53-XHT

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23503778	6	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503778 10	6	10	Cylinder Kit Complete	C.R. 18:1
FP-23503778 20	6	20	Cylinder Kit Complete	C.R. 18:1
FP-23503810	6	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503810 20	6	20	Cylinder Kit Complete	C.R. 18:1
FP-5197975	6	STD	Connecting Rod Bearing Pair	
FP-5197977	6	10	Connecting Rod Bearing Pair	
FP-5197978	6	20	Connecting Rod Bearing Pair	
FP-5197979	6	30	Connecting Rod Bearing Pair	
FP-5198410	4	STD	Main Bearing, Plain	
FP-5198412	4	10	Main Bearing, Plain	
FP-5198413	4	20	Main Bearing, Plain	
FP-5198414	4	30	Main Bearing, Plain	
FP-5159353	4	STD	Thrust Washer	
FP-5199811	2		Head Gasket Set	
FP-5119266	1		Oil Pan Gasket	
FP-8925273	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	2		Valve Cover Gasket	STEEL ROCKER COVER



2-Stroke In-Frame Engine Kits

Kit Number: FP-2-71-2V

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20014	2	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #1
FP-23505308	2	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #2
FP-23505309	2	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #3
FP-235053091	2	1	Cylinder Kit Complete	1-2V NON TURBO 17.5:1 CR; #4
FP-235053095	2	5	Cylinder Kit Complete	5-2V NON TURBO 17.5:1 CR
FP-2350530910	2	10	Cylinder Kit Complete	10-2V NON TURBO 17.5:1 CR
FP-2350530920	2	20	Cylinder Kit Complete	20-2V NON TURBO 17.5:1 CR
FP-2350530930	2	30	Cylinder Kit Complete	30-2V NON TURBO 17.5:1 CR
FP-23511129	2	STD	Connecting Rod Bearing Pair	STD
FP-23511131	2	2	Connecting Rod Bearing Pair	2
FP-23511133	2	10	Connecting Rod Bearing Pair	10
FP-23511135	2	20	Connecting Rod Bearing Pair	20
FP-23511137	2	30	Connecting Rod Bearing Pair	30
FP-5192874	3	STD	Main Bearing, Plain	STD
FP-5192875	3	2	Main Bearing, Plain	2
FP-5192876	3	10	Main Bearing, Plain	10
FP-5192877	3	20	Main Bearing, Plain	20
FP-5192878	3	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5192434	1		Complete Overhaul Gasket Set	

Kit Number: FP-3-71-NA

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20011	3	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#1
FP-23505305	3	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	3	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	3	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	3	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	3	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	3	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	3	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-23511129	3	STD	Connecting Rod Bearing Pair	STD
FP-23511131	3	2	Connecting Rod Bearing Pair	2
FP-23511133	3	10	Connecting Rod Bearing Pair	10
FP-23511135	3	20	Connecting Rod Bearing Pair	20
FP-23511137	3	30	Connecting Rod Bearing Pair	30
FP-5192874	4	STD	Main Bearing, Plain	STD
FP-5192875	4	2	Main Bearing, Plain	2
FP-5192876	4	10	Main Bearing, Plain	10
FP-5192877	4	20	Main Bearing, Plain	20
FP-5192878	4	30	Main Bearing, Plain	30

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2-Stroke In-Frame Engine Kits



Kit Number: FP-3-71-NA cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5159353	4	STD	Thrust Washer	STD
FP-5193116	1		Head Gasket Set	HIGH BLOCK
FP-5150115	1		Oil Pan Gasket	
FP-5104018	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	1		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-3-71-XH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20022	3	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	3	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	3	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	3	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	3	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	3	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	3	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	3	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23511129	3	STD	Connecting Rod Bearing Pair	STD
FP-23511133	3	10	Connecting Rod Bearing Pair	10
FP-23511135	3	20	Connecting Rod Bearing Pair	20
FP-23511137	3	30	Connecting Rod Bearing Pair	30
FP-5192874	4	STD	Main Bearing, Plain	STD
FP-5192875	4	2	Main Bearing, Plain	2
FP-5192876	4	10	Main Bearing, Plain	10
FP-5192877	4	20	Main Bearing, Plain	20
FP-5192878	4	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5193116	1		Head Gasket Set	HIGH BLOCK
FP-5150115	1		Oil Pan Gasket	
FP-5104018	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	1		Valve Cover Gasket	STEEL ROCKER COVER



2-Stroke In-Frame Engine Kits

Kit Number: FP-3-71-2V

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20014	3	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #1
FP-23505308	3	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #2
FP-23505309	3	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #3
FP-235053091	3	1	Cylinder Kit Complete	1-2V NON TURBO 17.5:1 CR; #4
FP-235053095	3	5	Cylinder Kit Complete	5-2V NON TURBO 17.5:1 CR
FP-2350530910	3	10	Cylinder Kit Complete	10-2V NON TURBO 17.5:1 CR
FP-2350530920	3	20	Cylinder Kit Complete	20-2V NON TURBO 17.5:1 CR
FP-2350530930	3	30	Cylinder Kit Complete	30-2V NON TURBO 17.5:1 CR
FP-23511129	3	STD	Connecting Rod Bearing Pair	STD
FP-23511131	3	2	Connecting Rod Bearing Pair	2
FP-23511133	3	10	Connecting Rod Bearing Pair	10
FP-23511135	3	20	Connecting Rod Bearing Pair	20
FP-23511137	3	30	Connecting Rod Bearing Pair	30
FP-5192874	4	STD	Main Bearing, Plain	STD
FP-5192875	4	2	Main Bearing, Plain	2
FP-5192876	4	10	Main Bearing, Plain	10
FP-5192877	4	20	Main Bearing, Plain	20
FP-5192878	4	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5192924	1		Head Gasket Set	LOW BLOCK
FP-5193116	1		Head Gasket Set	HIGH BLOCK
FP-5150115	1		Oil Pan Gasket	
FP-5104018	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	1		Valve Cover Gasket	STEEL ROCKER COVER

2-Stroke In-Frame Engine Kits



Kit Number: FP-4-71-NA

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20011	4	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#1
FP-23505305	4	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	4	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	4	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	4	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	4	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	4	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	4	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-23511129	4	STD	Connecting Rod Bearing Pair	STD
FP-23511131	4	2	Connecting Rod Bearing Pair	2
FP-23511133	4	10	Connecting Rod Bearing Pair	10
FP-23511135	4	20	Connecting Rod Bearing Pair	20
FP-23511137	4	30	Connecting Rod Bearing Pair	30
FP-5192874	5	STD	Main Bearing, Plain	STD
FP-5192875	5	2	Main Bearing, Plain	2
FP-5192876	5	10	Main Bearing, Plain	10
FP-5192877	5	20	Main Bearing, Plain	20
FP-5192878	5	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5198676	1		Head Gasket Set	HIGH BLOCK
FP-5150116	1		Oil Pan Gasket	
FP-5104081	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	1		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-4-71-XH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	4	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	4	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	4	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	4	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	4	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	4	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	4	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	4	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	4	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	4	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	4	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	4	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	4	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	4	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	4	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.

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2-Stroke In-Frame Engine Kits

Kit Number: FP-4-71-XH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20021	4	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	4	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2
FP-23522509	4	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	4	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	4	5	Cylinder Kit Complete	5-BUS/COACH 18.7:1 C.R.
FP-23522513	4	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	4	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	4	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	4	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	4	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	4	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	4	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	4	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	4	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	4	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	4	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	4	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	4	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	4	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-23511129	4	STD	Connecting Rod Bearing Pair	STD
FP-23511131	4	2	Connecting Rod Bearing Pair	2
FP-23511133	4	10	Connecting Rod Bearing Pair	10
FP-23511135	4	20	Connecting Rod Bearing Pair	20
FP-23511137	4	30	Connecting Rod Bearing Pair	30
FP-5192874	5	STD	Main Bearing, Plain	STD
FP-5192875	5	2	Main Bearing, Plain	2
FP-5192876	5	10	Main Bearing, Plain	10
FP-5192877	5	20	Main Bearing, Plain	20
FP-5192878	5	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5192925	1		Head Gasket Set	LOW BLOCK
FP-5198676	1		Head Gasket Set	HIGH BLOCK
FP-5150116	1		Oil Pan Gasket	
FP-5104081	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	1		Valve Cover Gasket	STEEL ROCKER COVER

2-Stroke In-Frame Engine Kits



Kit Number: FP-4-71-2V

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20014	4	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #1
FP-23505308	4	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #2
FP-23505309	4	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #3
FP-235053091	4	1	Cylinder Kit Complete	1-2V NON TURBO 17.5:1 CR; #4
FP-235053095	4	5	Cylinder Kit Complete	5-2V NON TURBO 17.5:1 CR
FP-2350530910	4	10	Cylinder Kit Complete	10-2V NON TURBO 17.5:1 CR
FP-2350530920	4	20	Cylinder Kit Complete	20-2V NON TURBO 17.5:1 CR
FP-2350530930	4	30	Cylinder Kit Complete	30-2V NON TURBO 17.5:1 CR
FP-23511129	4	STD	Connecting Rod Bearing Pair	STD
FP-23511131	4	2	Connecting Rod Bearing Pair	2
FP-23511133	4	10	Connecting Rod Bearing Pair	10
FP-23511135	4	20	Connecting Rod Bearing Pair	20
FP-23511137	4	30	Connecting Rod Bearing Pair	30
FP-5192874	5	STD	Main Bearing, Plain	STD
FP-5192875	5	2	Main Bearing, Plain	2
FP-5192876	5	10	Main Bearing, Plain	10
FP-5192877	5	20	Main Bearing, Plain	20
FP-5192878	5	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5192925	1		Head Gasket Set	LOW BLOCK
FP-5198676	1		Head Gasket Set	HIGH BLOCK
FP-5150116	1		Oil Pan Gasket	
FP-5104081	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	1		Valve Cover Gasket	STEEL ROCKER COVER



2-Stroke In-Frame Engine Kits

Kit Number: FP-6-71-NA

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	6	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	6	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	6	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	6	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-23511129	6	STD	Connecting Rod Bearing Pair	STD
FP-23511133	6	10	Connecting Rod Bearing Pair	10
FP-23511135	6	20	Connecting Rod Bearing Pair	20
FP-23511137	6	30	Connecting Rod Bearing Pair	30
FP-5192874	7	STD	Main Bearing, Plain	STD
FP-5192875	7	2	Main Bearing, Plain	2
FP-5192876	7	10	Main Bearing, Plain	10
FP-5192877	7	20	Main Bearing, Plain	20
FP-5192878	7	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5195742	1		Head Gasket Set	HIGH BLOCK
FP-5150117	1		Oil Pan Gasket	
FP-5104019	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	1		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-6-71-XH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	6	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	6	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	6	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	6	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	6	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	6	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	6	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2

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2-Stroke In-Frame Engine Kits



Kit Number: FP-6-71-XH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23522509	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	6	5	Cylinder Kit Complete	5-18.7:1 C.R.
FP-23522513	6	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	6	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	6	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	6	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	6	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	6	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	6	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-23511129	6	STD	Connecting Rod Bearing Pair	STD
FP-23511131	6	2	Connecting Rod Bearing Pair	2
FP-23511133	6	10	Connecting Rod Bearing Pair	10
FP-23511135	6	20	Connecting Rod Bearing Pair	20
FP-23511137	6	30	Connecting Rod Bearing Pair	30
FP-5192874	7	STD	Main Bearing, Plain	STD
FP-5192875	7	2	Main Bearing, Plain	2
FP-5192876	7	10	Main Bearing, Plain	10
FP-5192877	7	20	Main Bearing, Plain	20
FP-5192878	7	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5195742	1		Head Gasket Set	HIGH BLOCK
FP-5150117	1		Oil Pan Gasket	
FP-5104019	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	1		Valve Cover Gasket	STEEL ROCKER COVER



2-Stroke In-Frame Engine Kits

Kit Number: FP-6-71-2V

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505308	6	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #2
FP-23505309	6	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #3
FP-235053091	6	1	Cylinder Kit Complete	1-2V NON TURBO 17.5:1 CR; #4
FP-235053095	6	5	Cylinder Kit Complete	5-2V NON TURBO 17.5:1 CR
FP-2350530910	6	10	Cylinder Kit Complete	10-2V NON TURBO 17.5:1 CR
FP-2350530920	6	20	Cylinder Kit Complete	20-2V NON TURBO 17.5:1 CR
FP-2350530930	6	30	Cylinder Kit Complete	30-2V NON TURBO 17.5:1 CR
FP-23511129	6	STD	Connecting Rod Bearing Pair	STD
FP-23511131	6	2	Connecting Rod Bearing Pair	2
FP-23511133	6	10	Connecting Rod Bearing Pair	10
FP-23511135	6	20	Connecting Rod Bearing Pair	20
FP-23511137	6	30	Connecting Rod Bearing Pair	30
FP-5192874	7	STD	Main Bearing, Plain	STD
FP-5192875	7	2	Main Bearing, Plain	2
FP-5192876	7	10	Main Bearing, Plain	10
FP-5192877	7	20	Main Bearing, Plain	20
FP-5192878	7	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5192926	1		Head Gasket Set	LOW BLOCK
FP-5195742	1		Head Gasket Set	HIGH BLOCK
FP-5150117	1		Oil Pan Gasket	
FP-5104019	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	1		Valve Cover Gasket	STEEL ROCKER COVER

2-Stroke In-Frame Engine Kits



Kit Number: FP-6V71-NA

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20011	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#1
FP-23505305	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	6	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	6	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	6	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	6	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-5149572	6	STD	Connecting Rod Bearing Pair	STD
FP-5149575	6	10	Connecting Rod Bearing Pair	10
FP-5149577	6	20	Connecting Rod Bearing Pair	20
FP-5149579	6	30	Connecting Rod Bearing Pair	30
FP-5149556	4	STD	Main Bearing, Plain	STD
FP-5149559	4	10	Main Bearing, Plain	10
FP-5149561	4	20	Main Bearing, Plain	20
FP-5149563	4	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5196380	2		Head Gasket Set	
FP-23503588	1		Oil Pan Gasket	
FP-5104018	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	2		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-6V71-XH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	6	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	6	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	6	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	6	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	6	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	6	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	6	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2

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2-Stroke In-Frame Engine Kits

Kit Number: FP-6V71-XH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23522509	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	6	5	Cylinder Kit Complete	5-18.7:1 C.R.
FP-23522513	6	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	6	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	6	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	6	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	6	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	6	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	6	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-5149572	6	STD	Connecting Rod Bearing Pair	STD
FP-5149575	6	10	Connecting Rod Bearing Pair	10
FP-5149577	6	20	Connecting Rod Bearing Pair	20
FP-5149579	6	30	Connecting Rod Bearing Pair	30
FP-5149556	4	STD	Main Bearing, Plain	STD-NAT. ASP.
FP-5149559	4	10	Main Bearing, Plain	10-NAT. ASP.
FP-5149561	4	20	Main Bearing, Plain	20-NAT. ASP.
FP-5149563	4	30	Main Bearing, Plain	30-NAT. ASP.
FP-5149565	4	STD	Main Bearing, Plain	STD-TURBO
FP-5149567	4	10	Main Bearing, Plain	10-TURBO
FP-5149568	4	20	Main Bearing, Plain	20-TURBO
FP-8922118	4	30	Main Bearing, Plain	30-TURBO
FP-5117005	4	STD	Thrust Washer	STD
FP-5196380	2		Head Gasket Set	
FP-23503588	1		Oil Pan Gasket	
FP-5104018	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	2		Valve Cover Gasket	STEEL ROCKER COVER

2-Stroke In-Frame Engine Kits



Kit Number: FP-8V71-NA

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	8	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	8	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	8	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	8	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	8	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	8	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	8	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-5149572	8	STD	Connecting Rod Bearing Pair	STD
FP-5149575	8	10	Connecting Rod Bearing Pair	10
FP-5149577	8	20	Connecting Rod Bearing Pair	20
FP-5149579	8	30	Connecting Rod Bearing Pair	30
FP-5149556	5	STD	Main Bearing, Plain	STD
FP-5149559	5	10	Main Bearing, Plain	10
FP-5149561	5	20	Main Bearing, Plain	20
FP-5149563	5	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5196381	2		Head Gasket Set	
FP-5117231	1		Oil Pan Gasket	
FP-5104081	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	2		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-8V71-XH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	8	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	8	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	8	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	8	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	8	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	8	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	8	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	8	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	8	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	8	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	8	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	8	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	8	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	8	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	8	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	8	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	8	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2
FP-23522509	8	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3

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2-Stroke In-Frame Engine Kits

Kit Number: FP-8V71-XH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23522511	8	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	8	5	Cylinder Kit Complete	5-18.7:1 C.R.
FP-23522513	8	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	8	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	8	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	8	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	8	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	8	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	8	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	8	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	8	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	8	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	8	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	8	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	8	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	8	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-5149572	8	STD	Connecting Rod Bearing Pair	STD
FP-5149575	8	10	Connecting Rod Bearing Pair	10
FP-5149577	8	20	Connecting Rod Bearing Pair	20
FP-5149579	8	30	Connecting Rod Bearing Pair	30
FP-5149556	5	STD	Main Bearing, Plain	STD-NAT. ASP.
FP-5149559	5	10	Main Bearing, Plain	10-NAT. ASP.
FP-5149561	5	20	Main Bearing, Plain	20-NAT. ASP.
FP-5149563	5	30	Main Bearing, Plain	30-NAT. ASP.
FP-5149565	5	STD	Main Bearing, Plain	STD-TURBO
FP-5149567	5	10	Main Bearing, Plain	10-TURBO
FP-5149568	5	20	Main Bearing, Plain	20-TURBO
FP-8922118	5	30	Main Bearing, Plain	30-TURBO
FP-5117005	4	STD	Thrust Washer	STD
FP-5196381	2		Head Gasket Set	
FP-5117231	1		Oil Pan Gasket	
FP-5104081	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	2		Valve Cover Gasket	STEEL ROCKER COVER

2-Stroke In-Frame Engine Kits



Kit Number: FP-12V71-NA

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	12	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	12	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	12	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	12	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	12	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	12	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	12	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-5149572	12	STD	Connecting Rod Bearing Pair	STD
FP-5149575	12	10	Connecting Rod Bearing Pair	10
FP-5149577	12	20	Connecting Rod Bearing Pair	20
FP-5149579	12	30	Connecting Rod Bearing Pair	30
FP-5149556	7	STD	Main Bearing, Plain	STD
FP-5149559	7	10	Main Bearing, Plain	10
FP-5149561	7	20	Main Bearing, Plain	20
FP-5149563	7	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5196382	2		Head Gasket Set	
FP-5109915	1		Oil Pan Gasket	
FP-5104019	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	2		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-12V71-T

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505307	12	STD	Cylinder Kit Complete	STD-17.0:1 C.R.; #3
FP-235053071	12	STD	Cylinder Kit Complete	STD-17.0:1 C.R.; #4
FP-235053075	12	5	Cylinder Kit Complete	5-17.0:1 C.R.
FP-2350530710	12	10	Cylinder Kit Complete	10-17.0:1 C.R.
FP-2350530720	12	20	Cylinder Kit Complete	20-17.0:1 C.R.
FP-2350530730	12	30	Cylinder Kit Complete	30-17.0:1 C.R.
FP-5149572	12	STD	Connecting Rod Bearing Pair	STD
FP-5149575	12	10	Connecting Rod Bearing Pair	10
FP-5149577	12	20	Connecting Rod Bearing Pair	20
FP-5149579	12	30	Connecting Rod Bearing Pair	30
FP-5149556	7	STD	Main Bearing, Plain	STD
FP-5149559	7	10	Main Bearing, Plain	10
FP-5149561	7	20	Main Bearing, Plain	20
FP-5149563	7	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5196382	2		Head Gasket Set	
FP-5109915	1		Oil Pan Gasket	
FP-5104019	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	2		Valve Cover Gasket	STEEL ROCKER COVER



2-Stroke In-Frame Engine Kits

Kit Number: FP-12V71-XH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	12	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	12	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	12	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	12	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	12	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	12	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	12	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	12	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	12	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	12	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	12	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	12	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	12	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	12	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	12	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	12	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	12	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2
FP-23522509	12	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	12	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	12	5	Cylinder Kit Complete	5-BUS/COACH 18.7:1 C.R.
FP-23522513	12	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	12	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	12	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	12	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	12	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	12	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	12	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	12	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	12	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	12	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	12	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	12	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	12	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	12	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-5149572	12	STD	Connecting Rod Bearing Pair	STD
FP-5149575	12	10	Connecting Rod Bearing Pair	10
FP-5149577	12	20	Connecting Rod Bearing Pair	20
FP-5149579	12	30	Connecting Rod Bearing Pair	30
FP-5149556	7	STD	Main Bearing, Plain	STD
FP-5149559	7	10	Main Bearing, Plain	10

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2-Stroke In-Frame Engine Kits



Kit Number: FP-12V71-XH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149561	7	20	Main Bearing, Plain	20
FP-5149563	7	30	Main Bearing, Plain	30
FP-5149565	7	STD	Main Bearing, Plain	STD-TURBO
FP-5149567	7	10	Main Bearing, Plain	10-TURBO
FP-5149568	7	20	Main Bearing, Plain	20-TURBO
FP-8922118	7	30	Main Bearing, Plain	30-TURBO
FP-5117005	4	STD	Thrust Washer	STD
FP-5196382	2		Head Gasket Set	
FP-5109915	1		Oil Pan Gasket	
FP-5104019	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	2		Valve Cover Gasket	STEEL ROCKER COVER

Kit Number: FP-6V92

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23524337	6		Cylinder Kit Complete	STD-TURBO 15.0:1 C.R.
FP-23524339	6		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R.1.05" Port
FP-23524340	6		Cylinder Kit Complete	STD-TURBO HO 17.0:1 C.R.
FP-23524341	6		Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524342	6		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .95" Port
FP-23524343	6		Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524344	6		Cylinder Kit Complete	STD-TURBO ALCC 18.0:1 C.R.
FP-23524345	6		Cylinder Kit Complete	STD-NAT ASP 18.0:1 C.R.
FP-23524346	6		Cylinder Kit Complete	STD-NA, Ind/Marine, 18.0:1 C.R.
FP-23524494	6		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .85" Port
FP-23522161	6		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R.
FP-23523100	6		Cylinder Kit Complete	STD-18.0:1 C.R.
FP-23523101	6		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. Widegap ring
FP-5149572	6	STD	Connecting Rod Bearing Pair	STD
FP-5149573	6	2	Connecting Rod Bearing Pair	2
FP-5149575	6	10	Connecting Rod Bearing Pair	10
FP-5149577	6	20	Connecting Rod Bearing Pair	20
FP-5149579	6	30	Connecting Rod Bearing Pair	30
FP-5149565	4	STD	Main Bearing, Plain	STD
FP-5149566	4	2	Main Bearing, Plain	2
FP-5149567	4	10	Main Bearing, Plain	10
FP-5149568	4	20	Main Bearing, Plain	20
FP-8922118	4	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5199673	2		Head Gasket Set	
FP-23503588	1		Oil Pan Gasket	
FP-5104018	2		Valve Cover Gasket	ALUMINUM ROCKER COVER



2-Stroke In-Frame Engine Kits

Kit Number: FP-8V92

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23524337	8		Cylinder Kit Complete	STD-TURBO 15.0:1 C.R.
FP-23524339	8		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R.1.05" Port
FP-23524340	8		Cylinder Kit Complete	STD-TURBO HO 17.0:1 C.R.
FP-23524341	8		Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524342	8		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .95" Port
FP-23524343	8		Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524344	8		Cylinder Kit Complete	STD-TURBO ALCC 18.0:1 C.R.
FP-23524345	8		Cylinder Kit Complete	STD-NAT ASP 18.0:1 C.R.
FP-23524346	8		Cylinder Kit Complete	STD-NA, Ind/Marine,18.0:1 C.R.
FP-23524494	8		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .85" Port
FP-23522161	8		Cylinder Kit Complete	STD-TURBO 17.0:1 C.R.
FP-23523100	8		Cylinder Kit Complete	STD-18.0:1 C.R.
FP-23523101	8		Cylinder Kit Complete	STD-TURBO17.0:1C.R.Widegap rng
FP-5149572	8	STD	Connecting Rod Bearing Pair	STD
FP-5149573	8	2	Connecting Rod Bearing Pair	2
FP-5149575	8	10	Connecting Rod Bearing Pair	10
FP-5149577	8	20	Connecting Rod Bearing Pair	20
FP-5149579	8	30	Connecting Rod Bearing Pair	30
FP-5149565	5	STD	Main Bearing, Plain	STD
FP-5149566	5	2	Main Bearing, Plain	2
FP-5149567	5	10	Main Bearing, Plain	10
FP-5149568	5	20	Main Bearing, Plain	20
FP-8922118	5	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5199674	2		Head Gasket Set	
FP-5117231	1		Oil Pan Gasket	
FP-5104081	2		Valve Cover Gasket	ALUMINUM ROCKER COVER

2-stroke Overhaul Engine Kits



Kit Number: FP-2-53-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5198899	2	STD	Cylinder Kit Complete	C.R. 21:1
FP-5198899 10	2	10	Cylinder Kit Complete	C.R. 21:1
FP-5198899 20	2	20	Cylinder Kit Complete	C.R. 21:1
FP-5198903	2	STD	Cylinder Kit Complete	C.R. 17.0:1
FP-5198903 10	2	10	Cylinder Kit Complete	C.R. 17.0:1
FP-5198903 20	2	20	Cylinder Kit Complete	C.R. 17.0:1
FP-5149452	2	STD	Connecting Rod Bearing Pair	
FP-5149454	2	10	Connecting Rod Bearing Pair	
FP-5149455	2	20	Connecting Rod Bearing Pair	
FP-5149456	2	30	Connecting Rod Bearing Pair	
FP-8924357	3	STD	Main Bearing, Plain	
FP-8924359	3	10	Main Bearing, Plain	
FP-8924360	3	20	Main Bearing, Plain	
FP-8924361	3	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-5147993	1		Valve Cover Gasket	
FP-23517625	1		Complete Overhaul Gasket Set	

Kit Number: FP-3-53-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5198899	3	STD	Cylinder Kit Complete	C.R. 21:1
FP-5198899 10	3	10	Cylinder Kit Complete	C.R. 21:1
FP-5198899 20	3	20	Cylinder Kit Complete	C.R. 21:1
FP-5198903	3	STD	Cylinder Kit Complete	C.R. 17.0:1
FP-5198903 10	3	10	Cylinder Kit Complete	C.R. 17.0:1
FP-5198903 20	3	20	Cylinder Kit Complete	C.R. 17.0:1
FP-5149452	3	STD	Connecting Rod Bearing Pair	
FP-5149454	3	10	Connecting Rod Bearing Pair	
FP-5149455	3	20	Connecting Rod Bearing Pair	
FP-5149456	3	30	Connecting Rod Bearing Pair	
FP-8924357	4	STD	Main Bearing, Plain	
FP-8924359	4	10	Main Bearing, Plain	
FP-8924360	4	20	Main Bearing, Plain	
FP-8924361	4	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-8925273	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23517623	1		Complete Overhaul Gasket Set	



2-stroke Overhaul Engine Kits

Kit Number: FP-3-53-T-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149315	3	STD	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 10	3	10	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 20	3	20	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149734	3	STD	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 10	3	10	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 20	3	20	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149452	3	STD	Connecting Rod Bearing Pair	
FP-5149454	3	10	Connecting Rod Bearing Pair	
FP-5149455	3	20	Connecting Rod Bearing Pair	
FP-5149456	3	30	Connecting Rod Bearing Pair	
FP-5149447	4	STD	Main Bearing, Plain	
FP-5149449	4	10	Main Bearing, Plain	
FP-5149450	4	20	Main Bearing, Plain	
FP-5149451	4	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-8925273	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23517623	1		Complete Overhaul Gasket Set	

Kit Number: FP-3-53-XHT-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23503778	3	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503778 10	3	10	Cylinder Kit Complete	C.R. 18:1
FP-23503778 20	3	20	Cylinder Kit Complete	C.R. 18:1
FP-23503810	3	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503810 20	3	20	Cylinder Kit Complete	C.R. 18:1
FP-5149452	3	STD	Connecting Rod Bearing Pair	
FP-5149454	3	10	Connecting Rod Bearing Pair	
FP-5149455	3	20	Connecting Rod Bearing Pair	
FP-5149456	3	30	Connecting Rod Bearing Pair	
FP-5149447	4	STD	Main Bearing, Plain	
FP-5149449	4	10	Main Bearing, Plain	
FP-5149450	4	20	Main Bearing, Plain	
FP-5149451	4	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-8925273	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23517623	1		Complete Overhaul Gasket Set	

2-stroke Overhaul Engine Kits



Kit Number: FP-4-53-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5198899	4	STD	Cylinder Kit Complete	C.R. 21:1
FP-5198899 10	4	10	Cylinder Kit Complete	C.R. 21:1
FP-5198899 20	4	20	Cylinder Kit Complete	C.R. 21:1
FP-5198903	4	STD	Cylinder Kit Complete	C.R. 17.0:1
FP-5198903 10	4	10	Cylinder Kit Complete	C.R. 17.0:1
FP-5198903 20	4	20	Cylinder Kit Complete	C.R. 17.0:1
FP-5149452	4	STD	Connecting Rod Bearing Pair	
FP-5149454	4	10	Connecting Rod Bearing Pair	
FP-5149455	4	20	Connecting Rod Bearing Pair	
FP-5149456	4	30	Connecting Rod Bearing Pair	
FP-8924357	5	STD	Main Bearing, Plain	
FP-8924359	5	10	Main Bearing, Plain	
FP-8924360	5	20	Main Bearing, Plain	
FP-8924361	5	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-8925274	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147506	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23517624	1		Complete Overhaul Gasket Set	

Kit Number: FP-4-53-T-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149315	4	STD	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 10	4	10	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 20	4	20	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149734	4	STD	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 10	4	10	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 20	4	20	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149452	4	STD	Connecting Rod Bearing Pair	
FP-5149454	4	10	Connecting Rod Bearing Pair	
FP-5149455	4	20	Connecting Rod Bearing Pair	
FP-5149456	4	30	Connecting Rod Bearing Pair	
FP-5149447	5	STD	Main Bearing, Plain	
FP-5149449	5	10	Main Bearing, Plain	
FP-5149450	5	20	Main Bearing, Plain	
FP-5149451	5	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-8925274	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147506	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23517624	1		Complete Overhaul Gasket Set	



2-stroke Overhaul Engine Kits

Kit Number: FP-4-53-XHT-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23503778	4	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503778 10	4	10	Cylinder Kit Complete	C.R. 18:1
FP-23503778 20	4	20	Cylinder Kit Complete	C.R. 18:1
FP-23503810	4	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503810 20	4	20	Cylinder Kit Complete	C.R. 18:1
FP-5149452	4	STD	Connecting Rod Bearing Pair	
FP-5149454	4	10	Connecting Rod Bearing Pair	
FP-5149455	4	20	Connecting Rod Bearing Pair	
FP-5149456	4	30	Connecting Rod Bearing Pair	
FP-5149447	5	STD	Main Bearing, Plain	
FP-5149449	5	10	Main Bearing, Plain	
FP-5149450	5	20	Main Bearing, Plain	
FP-5149451	5	30	Main Bearing, Plain	
FP-5116197	4	STD	Thrust Washer	
FP-8925274	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147506	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23517624	1		Complete Overhaul Gasket Set	

Kit Number: FP-6V53-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5198899	6	STD	Cylinder Kit Complete	C.R. 21:1
FP-5198899 10	6	10	Cylinder Kit Complete	C.R. 21:1
FP-5198899 20	6	20	Cylinder Kit Complete	C.R. 21:1
FP-5197975	6	STD	Connecting Rod Bearing Pair	
FP-5197977	6	10	Connecting Rod Bearing Pair	
FP-5197978	6	20	Connecting Rod Bearing Pair	
FP-5197979	6	30	Connecting Rod Bearing Pair	
FP-5198410	4	STD	Main Bearing, Plain	
FP-5198412	4	10	Main Bearing, Plain	
FP-5198413	4	20	Main Bearing, Plain	
FP-5198414	4	30	Main Bearing, Plain	
FP-5159353	4	STD	Thrust Washer	
FP-8925273	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512690	1		Complete Overhaul Gasket Set	

2-stroke Overhaul Engine Kits



Kit Number: FP-6V53-T-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149315	6	STD	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 10	6	10	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149315 20	6	20	Cylinder Kit Complete	C.R. 17.5:1; 1.38" PIN DIA.
FP-5149734	6	STD	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 10	6	10	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5149734 20	6	20	Cylinder Kit Complete	C.R. 18.7:1; 1.5" PIN DIA.
FP-5197975	6	STD	Connecting Rod Bearing Pair	
FP-5197977	6	10	Connecting Rod Bearing Pair	
FP-5197978	6	20	Connecting Rod Bearing Pair	
FP-5197979	6	30	Connecting Rod Bearing Pair	
FP-5198410	4	STD	Main Bearing, Plain	
FP-5198412	4	10	Main Bearing, Plain	
FP-5198413	4	20	Main Bearing, Plain	
FP-5198414	4	30	Main Bearing, Plain	
FP-5159353	4	STD	Thrust Washer	
FP-8925273	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512690	1		Complete Overhaul Gasket Set	

Kit Number: FP-6V53-XHT-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23503778	6	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503778 10	6	10	Cylinder Kit Complete	C.R. 18:1
FP-23503778 20	6	20	Cylinder Kit Complete	C.R. 18:1
FP-23503810	6	STD	Cylinder Kit Complete	C.R. 18:1
FP-23503810 20	6	20	Cylinder Kit Complete	C.R. 18:1
FP-5197975	6	STD	Connecting Rod Bearing Pair	
FP-5197977	6	10	Connecting Rod Bearing Pair	
FP-5197978	6	20	Connecting Rod Bearing Pair	
FP-5197979	6	30	Connecting Rod Bearing Pair	
FP-5198410	4	STD	Main Bearing, Plain	
FP-5198412	4	10	Main Bearing, Plain	
FP-5198413	4	20	Main Bearing, Plain	
FP-5198414	4	30	Main Bearing, Plain	
FP-5159353	4	STD	Thrust Washer	
FP-8925273	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5147994	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512690	1		Complete Overhaul Gasket Set	



2-stroke Overhaul Engine Kits

Kit Number: FP-3-71-NA-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	3	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	3	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	3	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	3	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	3	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	3	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	3	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-23511129	3	STD	Connecting Rod Bearing Pair	STD
FP-23511131	3	2	Connecting Rod Bearing Pair	2
FP-23511133	3	10	Connecting Rod Bearing Pair	10
FP-23511135	3	20	Connecting Rod Bearing Pair	20
FP-23511137	3	30	Connecting Rod Bearing Pair	30
FP-5192874	4	STD	Main Bearing, Plain	STD
FP-5192875	4	2	Main Bearing, Plain	2
FP-5192876	4	10	Main Bearing, Plain	10
FP-5192877	4	20	Main Bearing, Plain	20
FP-5192878	4	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104018	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512674	1		Complete Overhaul Gasket Set	HIGH BLOCK

2-stroke Overhaul Engine Kits



Kit Number: FP-3-71-XH-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23522949	3	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	3	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	3	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	3	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	3	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	3	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	3	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23511129	3	STD	Connecting Rod Bearing Pair	STD
FP-23511133	3	10	Connecting Rod Bearing Pair	10
FP-23511135	3	20	Connecting Rod Bearing Pair	20
FP-23511137	3	30	Connecting Rod Bearing Pair	30
FP-5192874	4	STD	Main Bearing, Plain	STD
FP-5192875	4	2	Main Bearing, Plain	2
FP-5192876	4	10	Main Bearing, Plain	10
FP-5192877	4	20	Main Bearing, Plain	20
FP-5192878	4	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104018	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512674	1		Complete Overhaul Gasket Set	HIGH BLOCK
FP-5192921	1		Complete Overhaul Gasket Set	LOW BLOCK
FP-23512674	1		Complete Overhaul Gasket Set	HIGH BLOCK



2-stroke Overhaul Engine Kits

Kit Number: FP-3-71-2V-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505308	3	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #2
FP-23505309	3	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #3
FP-235053091	3	1	Cylinder Kit Complete	1-2V NON TURBO 17.5:1 CR; #4
FP-235053095	3	5	Cylinder Kit Complete	5-2V NON TURBO 17.5:1 CR
FP-2350530910	3	10	Cylinder Kit Complete	10-2V NON TURBO 17.5:1 CR
FP-2350530920	3	20	Cylinder Kit Complete	20-2V NON TURBO 17.5:1 CR
FP-2350530930	3	30	Cylinder Kit Complete	30-2V NON TURBO 17.5:1 CR
FP-23511129	3	STD	Connecting Rod Bearing Pair	STD
FP-23511131	3	2	Connecting Rod Bearing Pair	2
FP-23511133	3	10	Connecting Rod Bearing Pair	10
FP-23511135	3	20	Connecting Rod Bearing Pair	20
FP-23511137	3	30	Connecting Rod Bearing Pair	30
FP-5192874	4	STD	Main Bearing, Plain	STD
FP-5192875	4	2	Main Bearing, Plain	2
FP-5192876	4	10	Main Bearing, Plain	10
FP-5192877	4	20	Main Bearing, Plain	20
FP-5192878	4	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104018	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-5192921	1		Complete Overhaul Gasket Set	LOW BLOCK
FP-23512674	1		Complete Overhaul Gasket Set	HIGH BLOCK

2-stroke Overhaul Engine Kits



Kit Number:FP-4-71-NA-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	4	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	4	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	4	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	4	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	4	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	4	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	4	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-23511129	4	STD	Connecting Rod Bearing Pair	STD
FP-23511131	4	2	Connecting Rod Bearing Pair	2
FP-23511133	4	10	Connecting Rod Bearing Pair	10
FP-23511135	4	20	Connecting Rod Bearing Pair	20
FP-23511137	4	30	Connecting Rod Bearing Pair	30
FP-5192874	5	STD	Main Bearing, Plain	STD
FP-5192875	5	2	Main Bearing, Plain	2
FP-5192876	5	10	Main Bearing, Plain	10
FP-5192877	5	20	Main Bearing, Plain	20
FP-5192878	5	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104081	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512675	1		Complete Overhaul Gasket Set	HIGH BLOCK



2-stroke Overhaul Engine Kits

Kit Number: FP-4-71-XH-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	4	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	4	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	4	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	4	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	4	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	4	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	4	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	4	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	4	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	4	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	4	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	4	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	4	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	4	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	4	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	4	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	4	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2
FP-23522509	4	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	4	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	4	5	Cylinder Kit Complete	5-18.7:1 C.R.
FP-23522513	4	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	4	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	4	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	4	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	4	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	4	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	4	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	4	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	4	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	4	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	4	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	4	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	4	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	4	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-23511129	4	STD	Connecting Rod Bearing Pair	STD
FP-23511131	4	2	Connecting Rod Bearing Pair	2
FP-23511133	4	10	Connecting Rod Bearing Pair	10
FP-23511135	4	20	Connecting Rod Bearing Pair	20
FP-23511137	4	30	Connecting Rod Bearing Pair	30
FP-5192874	5	STD	Main Bearing, Plain	STD

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2-stroke Overhaul Engine Kits



Kit Number: FP-4-71-XH-OH con't

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5192875	5	2	Main Bearing, Plain	2
FP-5192876	5	10	Main Bearing, Plain	10
FP-5192877	5	20	Main Bearing, Plain	20
FP-5192878	5	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104081	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512675	1		Complete Overhaul Gasket Set	HIGH BLOCK

Kit Number: FP-4-71-2V-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505308	4	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #2
FP-23505309	4	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #3
FP-235053091	4	1	Cylinder Kit Complete	1-2V NON TURBO 17.5:1 CR; #4
FP-235053095	4	5	Cylinder Kit Complete	5-2V NON TURBO 17.5:1 CR
FP-2350530910	4	10	Cylinder Kit Complete	10-2V NON TURBO 17.5:1 CR
FP-2350530920	4	20	Cylinder Kit Complete	20-2V NON TURBO 17.5:1 CR
FP-2350530930	4	30	Cylinder Kit Complete	30-2V NON TURBO 17.5:1 CR
FP-23511129	4	STD	Connecting Rod Bearing Pair	STD
FP-23511131	4	2	Connecting Rod Bearing Pair	2
FP-23511133	4	10	Connecting Rod Bearing Pair	10
FP-23511135	4	20	Connecting Rod Bearing Pair	20
FP-23511137	4	30	Connecting Rod Bearing Pair	30
FP-5192874	5	STD	Main Bearing, Plain	STD
FP-5192875	5	2	Main Bearing, Plain	2
FP-5192876	5	10	Main Bearing, Plain	10
FP-5192877	5	20	Main Bearing, Plain	20
FP-5192878	5	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104081	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-5192922	1		Complete Overhaul Gasket Set	LOW BLOCK
FP-23512675	1		Complete Overhaul Gasket Set	HIGH BLOCK



2-stroke Overhaul Engine Kits

Kit Number: FP-6-71-NA-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	6	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	6	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	6	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	6	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-23511129	6	STD	Connecting Rod Bearing Pair	STD
FP-23511133	6	10	Connecting Rod Bearing Pair	10
FP-23511135	6	20	Connecting Rod Bearing Pair	20
FP-23511137	6	30	Connecting Rod Bearing Pair	30
FP-5192874	7	STD	Main Bearing, Plain	STD
FP-5192875	7	2	Main Bearing, Plain	2
FP-5192876	7	10	Main Bearing, Plain	10
FP-5192877	7	20	Main Bearing, Plain	20
FP-5192878	7	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104019	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512676	1		Complete Overhaul Gasket Set	HIGH BLOCK

2-stroke Overhaul Engine Kits



Kit Number: FP-6-71-XH-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	6	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	6	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	6	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	6	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	6	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	6	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	6	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2
FP-23522509	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	6	5	Cylinder Kit Complete	5-18.7:1 C.R.
FP-23522513	6	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	6	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	6	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	6	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	6	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	6	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	6	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-23511129	6	STD	Connecting Rod Bearing Pair	STD
FP-23511131	6	2	Connecting Rod Bearing Pair	2
FP-23511133	6	10	Connecting Rod Bearing Pair	10
FP-23511135	6	20	Connecting Rod Bearing Pair	20
FP-23511137	6	30	Connecting Rod Bearing Pair	30
FP-5192874	7	STD	Main Bearing, Plain	STD

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2-stroke Overhaul Engine Kits

Kit Number: FP-6-71-XH-OH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5192875	7	2	Main Bearing, Plain	2
FP-5192876	7	10	Main Bearing, Plain	10
FP-5192877	7	20	Main Bearing, Plain	20
FP-5192878	7	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104019	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512676	1		Complete Overhaul Gasket Set	HIGH BLOCK

Kit Number: FP-6-71-2V-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505308	6	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #2
FP-23505309	6	STD	Cylinder Kit Complete	STD-2V NON TURBO 17.5:1 CR; #3
FP-235053091	6	1	Cylinder Kit Complete	1-2V NON TURBO 17.5:1 CR; #4
FP-235053095	6	5	Cylinder Kit Complete	5-2V NON TURBO 17.5:1 CR
FP-2350530910	6	10	Cylinder Kit Complete	10-2V NON TURBO 17.5:1 CR
FP-2350530920	6	20	Cylinder Kit Complete	20-2V NON TURBO 17.5:1 CR
FP-2350530930	6	30	Cylinder Kit Complete	30-2V NON TURBO 17.5:1 CR
FP-23511129	6	STD	Connecting Rod Bearing Pair	STD
FP-23511131	6	2	Connecting Rod Bearing Pair	2
FP-23511133	6	10	Connecting Rod Bearing Pair	10
FP-23511135	6	20	Connecting Rod Bearing Pair	20
FP-23511137	6	30	Connecting Rod Bearing Pair	30
FP-5192874	7	STD	Main Bearing, Plain	STD
FP-5192875	7	2	Main Bearing, Plain	2
FP-5192876	7	10	Main Bearing, Plain	10
FP-5192877	7	20	Main Bearing, Plain	20
FP-5192878	7	30	Main Bearing, Plain	30
FP-5159353	4	STD	Thrust Washer	STD
FP-5104019	1		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	1		Valve Cover Gasket	STEEL ROCKER COVER
FP-5192923	1		Complete Overhaul Gasket Set	LOW BLOCK
FP-23512676	1		Complete Overhaul Gasket Set	HIGH BLOCK

2-stroke Overhaul Engine Kits



Kit Number: FP-6V71-NA-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	6	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	6	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	6	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	6	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	6	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-5149572	6	STD	Connecting Rod Bearing Pair	STD
FP-5149575	6	10	Connecting Rod Bearing Pair	10
FP-5149577	6	20	Connecting Rod Bearing Pair	20
FP-5149579	6	30	Connecting Rod Bearing Pair	30
FP-5149556	4	STD	Main Bearing, Plain	STD
FP-5149559	4	10	Main Bearing, Plain	10
FP-5149561	4	20	Main Bearing, Plain	20
FP-5149563	4	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5104018	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512678	1		Complete Overhaul Gasket Set	



2-stroke Overhaul Engine Kits

Kit Number: FP-6V71-XH-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	6	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	6	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	6	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	6	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	6	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	6	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	6	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	6	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	6	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2
FP-23522509	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	6	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	6	5	Cylinder Kit Complete	5-18.7:1 C.R.
FP-23522513	6	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	6	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	6	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	6	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	6	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	6	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	6	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	6	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	6	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-5149572	6	STD	Connecting Rod Bearing Pair	STD
FP-5149575	6	10	Connecting Rod Bearing Pair	10
FP-5149577	6	20	Connecting Rod Bearing Pair	20
FP-5149579	6	30	Connecting Rod Bearing Pair	30
FP-5149556	4	STD	Main Bearing, Plain	STD-NAT. ASP.
FP-5149559	4	10	Main Bearing, Plain	10-NAT. ASP.

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2-stroke Overhaul Engine Kits



Kit Number: FP-6V71-XH-OH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149561	4	20	Main Bearing, Plain	20-NAT. ASP.
FP-5149563	4	30	Main Bearing, Plain	30-NAT. ASP.
FP-5149565	4	STD	Main Bearing, Plain	STD-TURBO
FP-5149567	4	10	Main Bearing, Plain	10-TURBO
FP-5149568	4	20	Main Bearing, Plain	20-TURBO
FP-8922118	4	30	Main Bearing, Plain	30-TURBO
FP-5117005	4	STD	Thrust Washer	STD
FP-5104018	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143405	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512678	1		Complete Overhaul Gasket Set	

Kit Number: FP-8V71-NA-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	8	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	8	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	8	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	8	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	8	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	8	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	8	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-5149572	8	STD	Connecting Rod Bearing Pair	STD
FP-5149575	8	10	Connecting Rod Bearing Pair	10
FP-5149577	8	20	Connecting Rod Bearing Pair	20
FP-5149579	8	30	Connecting Rod Bearing Pair	30
FP-5149556	5	STD	Main Bearing, Plain	STD
FP-5149559	5	10	Main Bearing, Plain	10
FP-5149561	5	20	Main Bearing, Plain	20
FP-5149563	5	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5104081	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512679	1		Complete Overhaul Gasket Set	GMC/RTS COACH
FP-23512680	1		Complete Overhaul Gasket Set	



2-stroke Overhaul Engine Kits

Kit Number: FP-8V71-XH-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	8	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	8	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	8	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	8	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	8	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	8	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	8	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	8	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	8	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	8	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	8	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	8	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	8	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	8	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	8	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	8	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	8	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2
FP-23522509	8	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	8	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	8	5	Cylinder Kit Complete	5-18.7:1 C.R.
FP-23522513	8	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	8	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	8	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	8	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	8	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	8	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	8	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	8	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	8	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	8	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	8	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	8	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	8	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	8	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-5149572	8	STD	Connecting Rod Bearing Pair	STD
FP-5149575	8	10	Connecting Rod Bearing Pair	10
FP-5149577	8	20	Connecting Rod Bearing Pair	20
FP-5149579	8	30	Connecting Rod Bearing Pair	30
FP-5149556	5	STD	Main Bearing, Plain	STD-NAT. ASP.
FP-5149559	5	10	Main Bearing, Plain	10-NAT. ASP.

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2-stroke Overhaul Engine Kits



Kit Number: FP-8V71-XH-OH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149561	5	20	Main Bearing, Plain	20-NAT. ASP.
FP-5149563	5	30	Main Bearing, Plain	30-NAT. ASP.
FP-5149565	5	STD	Main Bearing, Plain	STD-TURBO
FP-5149567	5	10	Main Bearing, Plain	10-TURBO
FP-5149568	5	20	Main Bearing, Plain	20-TURBO
FP-8922118	5	30	Main Bearing, Plain	30-TURBO
FP-5117005	4	STD	Thrust Washer	STD
FP-5104081	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143406	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512679	1		Complete Overhaul Gasket Set	GMC/RTS COACH
FP-23512680	1		Complete Overhaul Gasket Set	

Kit Number: FP-12V71-NA-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505305	12	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#2
FP-23505306	12	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#3
FP-5149261	12	STD	Cylinder Kit Complete	STD-TRNK NON TRBO 18.7:1 CR;#4
FP-235053065	12	5	Cylinder Kit Complete	5-TRNK NON TURBO 18.7:1 CR
FP-5149263	12	10	Cylinder Kit Complete	10-TRNK NON TURBO 18.7:1 CR
FP-5149264	12	20	Cylinder Kit Complete	20-TRNK NON TURBO 18.7:1 CR
FP-2350530630	12	30	Cylinder Kit Complete	30-TRNK NON TURBO 18.7:1 CR
FP-5149572	12	STD	Connecting Rod Bearing Pair	STD
FP-5149575	12	10	Connecting Rod Bearing Pair	10
FP-5149577	12	20	Connecting Rod Bearing Pair	20
FP-5149579	12	30	Connecting Rod Bearing Pair	30
FP-5149556	7	STD	Main Bearing, Plain	STD
FP-5149559	7	10	Main Bearing, Plain	10
FP-5149561	7	20	Main Bearing, Plain	20
FP-5149563	7	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	
FP-5104019	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512681	1		Complete Overhaul Gasket Set	



2-stroke Overhaul Engine Kits

Kit Number: FP-12V71-T-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23505307	12	STD	Cylinder Kit Complete	STD-17.0:1 C.R.; #3
FP-235053071	12	STD	Cylinder Kit Complete	STD-17.0:1 C.R.; #4
FP-235053075	12	5	Cylinder Kit Complete	5-17.0:1 C.R.
FP-2350530710	12	10	Cylinder Kit Complete	10-17.0:1 C.R.
FP-2350530720	12	20	Cylinder Kit Complete	20-17.0:1 C.R.
FP-2350530730	12	30	Cylinder Kit Complete	30-17.0:1 C.R.
FP-5149572	12	STD	Connecting Rod Bearing Pair	STD
FP-5149575	12	10	Connecting Rod Bearing Pair	10
FP-5149577	12	20	Connecting Rod Bearing Pair	20
FP-5149579	12	30	Connecting Rod Bearing Pair	30
FP-5149556	7	STD	Main Bearing, Plain	STD
FP-5149559	7	10	Main Bearing, Plain	10
FP-5149561	7	20	Main Bearing, Plain	20
FP-5149563	7	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5104019	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512681	1		Complete Overhaul Gasket Set	

2-stroke Overhaul Engine Kits



Kit Number: FP-12V71-XH-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-20019	12	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #1
FP-23522473	12	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #2
FP-23522477	12	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #3
FP-23522479	12	STD	Cylinder Kit Complete	STD-HO MARINE 17.0:1 C.R.; #4
FP-235224735	12	5	Cylinder Kit Complete	5-Wide Gap Fire Rng 17.0:1 CR
FP-23522481	12	10	Cylinder Kit Complete	10-Wide Gap Fire Rng 17.0:1 CR
FP-23522483	12	20	Cylinder Kit Complete	20-Wide Gap Fire Rng 17.0:1 CR
FP-20020	12	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #1
FP-23522485	12	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #2
FP-23522953	12	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #3
FP-23522489	12	STD	Cylinder Kit Complete	STD-X-Hd TA 17.0:1 C.R.; #4
FP-235224855	12	5	Cylinder Kit Complete	5-X-Hd TA;17.0:1 C.R.
FP-23522491	12	10	Cylinder Kit Complete	10-X-Hd TA;17.0:1 C.R.
FP-23522493	12	20	Cylinder Kit Complete	20-X-Hd TA;17.0:1 C.R.
FP-2352248530	12	30	Cylinder Kit Complete	30-X-Hd TA;17.0:1 C.R.
FP-20021	12	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #1
FP-23522507	12	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #2
FP-23522509	12	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #3
FP-23522511	12	STD	Cylinder Kit Complete	STD-BUS/COACH 18.7:1 C.R.; #4
FP-235225075	12	5	Cylinder Kit Complete	5-18.7:1 C.R.
FP-23522513	12	10	Cylinder Kit Complete	10-BUS/COACH 18.7:1 C.R.
FP-23522515	12	20	Cylinder Kit Complete	20-BUS/COACH 18.7:1 C.R.
FP-20022	12	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#1
FP-23522949	12	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#2
FP-23522947	12	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#3
FP-23522521	12	STD	Cylinder Kit Complete	STD-X-Hd NON TRB 18.7:1C.R.;#4
FP-235229495	12	5	Cylinder Kit Complete	5-X-Hd NON TRB 18.7:1 C.R.
FP-23522951	12	10	Cylinder Kit Complete	10-NON TURBO 18.7:1 C.R.
FP-23522525	12	20	Cylinder Kit Complete	20-X-Hd NON TRB 18.7:1 C.R.
FP-2352294930	12	30	Cylinder Kit Complete	30-X-Hd NON TRB 18.7:1 C.R.
FP-23522948	12	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #2
FP-23522946	12	STD	Cylinder Kit Complete	STD-X-Hd TURBO 18.7:1 C.R.; #3
FP-23522950	12	10	Cylinder Kit Complete	10-TURBO 18.7:1 C.R.
FP-23522952	12	STD	Cylinder Kit Complete	STD-X-Hd TURBO 17.0:1 C.R.; #3
FP-5149572	12	STD	Connecting Rod Bearing Pair	STD
FP-5149575	12	10	Connecting Rod Bearing Pair	10
FP-5149577	12	20	Connecting Rod Bearing Pair	20
FP-5149579	12	30	Connecting Rod Bearing Pair	30
FP-5149556	7	STD	Main Bearing, Plain	STD
FP-5149559	7	10	Main Bearing, Plain	10

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2-stroke Overhaul Engine Kits

Kit Number: FP-12V71-XH-OH cont'd

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-5149561	7	20	Main Bearing, Plain	20
FP-5149563	7	30	Main Bearing, Plain	30
FP-5149565	7	STD	Main Bearing, Plain	STD-TURBO
FP-5149567	7	10	Main Bearing, Plain	10-TURBO
FP-5149568	7	20	Main Bearing, Plain	20-TURBO
FP-8922118	7	30	Main Bearing, Plain	30-TURBO
FP-5117005	4	STD	Thrust Washer	STD
FP-5104019	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-5143407	2		Valve Cover Gasket	STEEL ROCKER COVER
FP-23512681	1		Complete Overhaul Gasket Set	

Kit Number: FP-6V92-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23524337	6	STD	Cylinder Kit Complete	STD-TURBO 15.0:1 C.R.
FP-23522161	6	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R.
FP-23524494	6	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .85" Port
FP-23524342	6	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .95" Port
FP-23524339	6	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. 1.05" Port
FP-23524340	6	STD	Cylinder Kit Complete	STD-TURBO HO 17.0:1 C.R.
FP-23524341	6	STD	Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524343	6	STD	Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524344	6	STD	Cylinder Kit Complete	STD-TURBO ALCC 18.0:1 C.R.
FP-23523101	6	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. Widegap ring
FP-23523100	6	STD	Cylinder Kit Complete	STD-18.0:1 C.R.
FP-23524346	6	STD	Cylinder Kit Complete	STD-NA, Ind/Marine, 18.0:1 C.R.
FP-23524345	6	STD	Cylinder Kit Complete	STD-NAT ASP 18.0:1 C.R.
FP-5149572	6	STD	Connecting Rod Bearing Pair	STD
FP-5149573	6	2	Connecting Rod Bearing Pair	2
FP-5149575	6	10	Connecting Rod Bearing Pair	10
FP-5149577	6	20	Connecting Rod Bearing Pair	20
FP-5149579	6	30	Connecting Rod Bearing Pair	30
FP-5149565	4	STD	Main Bearing, Plain	STD
FP-5149566	4	2	Main Bearing, Plain	2
FP-5149567	4	10	Main Bearing, Plain	10
FP-5149568	4	20	Main Bearing, Plain	20
FP-8922118	4	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5104018	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-23512683	1		Complete Overhaul Gasket Set	COACH APPLICATION
FP-23512684	1		Complete Overhaul Gasket Set	OVER THE ROAD APPLICATION

2-stroke Overhaul Engine Kits



Kit Number: FP-8V92-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23524337	8	STD	Cylinder Kit Complete	STD-TURBO 15.0:1 C.R.
FP-23522161	8	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R.
FP-23524494	8	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .85" Port
FP-23524342	8	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .95" Port
FP-23524339	8	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. 1.05" Port
FP-23524340	8	STD	Cylinder Kit Complete	STD-TURBO HO 17.0:1 C.R.
FP-23524341	8	STD	Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524343	8	STD	Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524344	8	STD	Cylinder Kit Complete	STD-TURBO ALCC 18.0:1 C.R.
FP-23523101	8	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. Widegap ring
FP-23523100	8	STD	Cylinder Kit Complete	STD-18.0:1 C.R.
FP-23524346	8	STD	Cylinder Kit Complete	STD-NA, Ind/Marine, 18.0:1 C.R.
FP-23524345	8	STD	Cylinder Kit Complete	STD-NAT ASP 18.0:1 C.R.
FP-5149572	8	STD	Connecting Rod Bearing Pair	STD
FP-5149573	8	2	Connecting Rod Bearing Pair	2
FP-5149575	8	10	Connecting Rod Bearing Pair	10
FP-5149577	8	20	Connecting Rod Bearing Pair	20
FP-5149579	8	30	Connecting Rod Bearing Pair	30
FP-5149565	5	STD	Main Bearing, Plain	STD
FP-5149566	5	2	Main Bearing, Plain	2
FP-5149567	5	10	Main Bearing, Plain	10
FP-5149568	5	20	Main Bearing, Plain	20
FP-8922118	5	30	Main Bearing, Plain	30
FP-5117005	4	STD	Thrust Washer	STD
FP-5104081	2		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-23512685	1		Complete Overhaul Gasket Set	



2-stroke Overhaul Engine Kits

Kit Number: FP-12V92-OH

COMPONENT NO.	QTY.	PART SIZE	PART DESCRIPTION	PART APPLICATION
FP-23524337	12	STD	Cylinder Kit Complete	STD-TURBO 15.0:1 C.R.
FP-23522161	12	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R.
FP-23524494	12	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .85" Port
FP-23524342	12	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. .95" Port
FP-23524339	12	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. 1.05" Port
FP-23524340	12	STD	Cylinder Kit Complete	STD-TURBO HO 17.0:1 C.R.
FP-23524341	12	STD	Cylinder Kit Complete	STD-TURBO A/C 17.0:1 C.R.
FP-23524344	12	STD	Cylinder Kit Complete	STD-TURBO ALCC 18.0:1 C.R.
FP-23523101	12	STD	Cylinder Kit Complete	STD-TURBO 17.0:1 C.R. Widegap ring
FP-23523100	12	STD	Cylinder Kit Complete	STD-18.0:1 C.R.
FP-23524346	12	STD	Cylinder Kit Complete	STD-NA, Ind/Marine, 18.0:1 C.R.
FP-23524345	12	STD	Cylinder Kit Complete	STD-NAT ASP 18.0:1 C.R.
FP-5149572	12	STD	Connecting Rod Bearing Pair	STD
FP-5149573	12	2	Connecting Rod Bearing Pair	2
FP-5149575	12	10	Connecting Rod Bearing Pair	10
FP-5149577	12	20	Connecting Rod Bearing Pair	20
FP-5149579	12	30	Connecting Rod Bearing Pair	30
FP-5149565	8	STD	Main Bearing, Plain	STD
FP-5149566	8	2	Main Bearing, Plain	2
FP-5149567	8	10	Main Bearing, Plain	10
FP-5149568	8	20	Main Bearing, Plain	20
FP-8922118	8	30	Main Bearing, Plain	30
FP-5117005	8	STD	Thrust Washer	STD
FP-5104018	4		Valve Cover Gasket	ALUMINUM ROCKER COVER
FP-23512686	1		Complete Overhaul Gasket Set	

Conversion Tables



Decimal Equivalents

8THS.	16THS.	32NDS.	64THS.	DECIMALS	mm
			1/64	.015625	.396875
		1/32	3/64	.031250	.793750
	1/16		5/64	.046875	1.190625
			7/64	.062500	1.587500
		3/32	9/64	.078125	1.984375
1/8			11/64	.093750	2.381250
			13/64	.109375	2.778125
			15/64	.125000	3.175000
		5/32	17/64	.140625	3.571875
			19/64	.156250	3.968750
	3/16		21/64	.171875	4.365625
			23/64	.187500	4.762500
		7/32	25/64	.203125	5.159375
			27/64	.218750	5.556250
1/4			29/64	.234375	5.953125
			31/64	.250000	6.350000
		9/32	33/64	.265625	6.746875
			35/64	.281250	7.143750
	5/16		37/64	.296875	7.540625
			39/64	.312500	7.937500
		11/32	41/64	.328125	8.334375
3/8			43/64	.343750	8.731250
			45/64	.359375	9.128125
		13/32	47/64	.375000	9.525000
			49/64	.390625	9.921875
	7/16		51/64	.406250	10.318750
			53/64	.421875	10.715625
		15/32	55/64	.437500	11.112500
			57/64	.453125	11.509375
			59/64	.468750	11.906250
1/2			61/64	.484375	12.303125
		17/32	63/64	.500000	12.700000
				.515625	13.096875
	9/16			.531250	13.493750
				.546875	13.890625
		19/32		.562500	14.287500
				.578125	14.684375
5/8				.593750	15.081250
				.609375	15.478125
		21/32		.625000	15.875000
				.640625	16.271875
				.656250	16.668750
	11/16			.671875	17.065625
				.687500	17.462500
		23/32		.703125	17.859375
				.718750	18.256250
3/4				.734375	18.653125
				.750000	19.050000
		25/32		.765625	19.446875
				.781250	19.843750
	13/16			.796875	20.240625
				.812500	20.637500
		27/32		.828125	21.034375
				.843750	21.431250
				.859375	21.828125
7/8				.875000	22.225000
		29/32		.890625	22.621875
				.906250	23.018750
				.921875	23.415625
	15/16			.937500	23.812500
				.953125	24.209375
		31/32		.968750	24.606250
				.984375	25.003125
1				1.000000	25.003125

Inches to Millimeters

.001	0.0254mm
.002	0.0508mm
.003	0.0762mm
.004	0.1016mm
.005	0.1270mm
.006	0.1524mm
.007	0.1778mm
.008	0.2032mm
.009	0.2286mm
.010	0.2540mm
.020	0.5080mm
.030	0.7620mm
.040	1.0160mm
.050	1.2700mm
.060	1.5240mm
.070	1.7780mm
.080	2.0320mm
.090	2.2860mm
.100	2.5400mm

Millimeters to Inches

0.025mm	.000984
0.050mm	.001968
0.075mm	.002952
0.100mm	.003937
0.125mm	.004921
0.150mm	.005905
0.175mm	.006889
0.200mm	.007874
0.225mm	.008858
0.250mm	.009842
0.500mm	.019685
0.750mm	.029527
1.000mm	.039370
1.250mm	.049212
1.500mm	.059055
1.750mm	.068897
2.000mm	.078740
2.250mm	.088582
2.500mm	.098425

Conversion Formulae

28.349 gm./oz.
453.592 gm./lb.

16.387 cc/in.³
61.024 in.³/L

3.785 L/U.S. gal.
4.546 L/Imp. gal.
0.264 U.S. gal./L
0.220 Imp. gal./L



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Repower your heavy-duty engines easier than ever

Any high-horsepower engine, regardless of age, represents a brutal operating environment for pistons, rings, bearings, liners and other internal components. Yet not nearly as demanding as the engine durability and performance labs at Federal-Mogul Corporation's

Advanced Technology Centers

in Burscheid and Nuremberg, Germany; and Ann Arbor, Michigan, U.S.A.

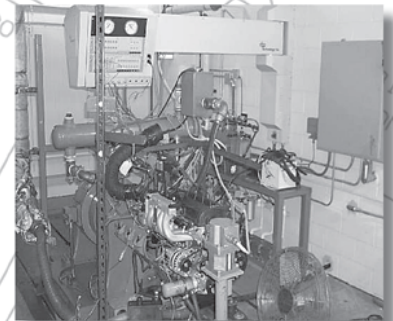
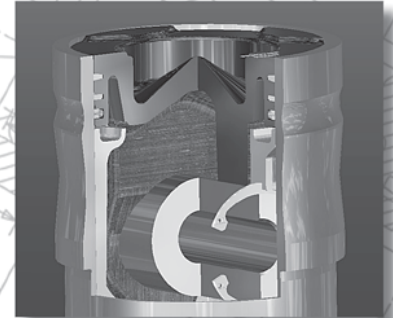
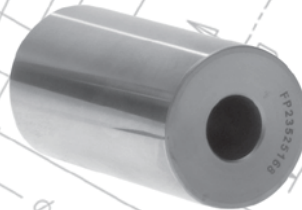
Being a global manufacturer means investing in advanced technologies worldwide. On a daily basis, our engineers work to create engine and sealing systems solutions that address the dynamic forces found in each generation of diesel engines.

As the Global Leader in Heavy-duty Powertrain Systems,

Federal-Mogul is instrumental in the development of every new generation of gasoline and diesel engine technology. Our global research centers are pioneering the use of new materials and designs that will become tomorrow's standards. And the consistent deployment of these advanced technologies throughout our technology centers means better designs for replacement applications. These include:

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- Space-age ring coatings to resist the corrosion and abrasion associated with EGR and other engine emissions solutions.
- Thinner, stronger cylinder liners that allow customers to maximize bore size.

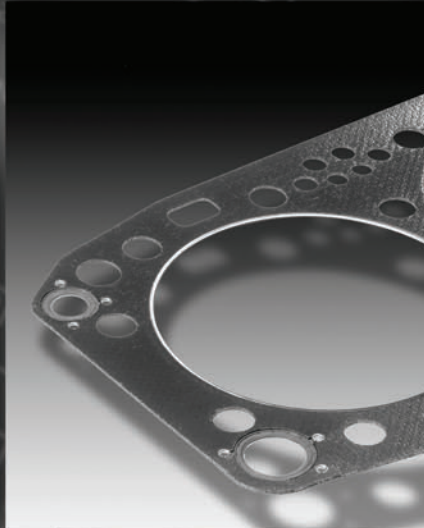
When you choose FP Diesel, you receive much more than premium-quality engine parts. Each component is the product of the industry's very best ideas — powertrain technologies that won't merely survive, but thrive in today's hardest-working engines.





Series 60 Cross Head Piston

- Improved material properties
- Reduced stress concentration at key points
- Optimized radius of struts
- Increased standup height



FP Diesel ML⁷™ Head Gaskets

- Patented multi-layer design provides unprecedented strength
- Expanded graphite outer facings fills in minor voids in sealing surfaces
- Stainless steel armors provide robust, long lasting combustion seal
- Solid steel core provides enhanced lateral stability



Valvetrain Components

- Manufactured to the highest quality standards
- OEM specification materials used with upgrades to super alloys such as stellite, nickel, nimonic and inconel where needed for problem applications
- Available parts include valves, springs, guides, keepers, rotocaps, rocker parts, lifters, seals, seats and more



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