

Weatherly Index No. 002

CATALOG NO.

**CA0030**

JANUARY 2011



# **CUMMINS ENGINES**

## **Replacement Parts Catalog**

**GLOBAL TECHNOLOGY** behind every part



# FP DIESEL® "OPEN GALLERY" DESIGN FOR M11 PISTONS OFFERS A COOLER REPLACEMENT SOLUTION FOR THESE HARD WORKING ENGINES.

Today's diesel engines burn fuel more completely and efficiently. That means they're running hotter. And that requires an advanced design to keep pistons cool.

The new FP Diesel® replacement piston for the Cummins® M11 engine features a breakthrough "open gallery" design that circulates fresh oil, nonstop, to the piston crown.

The FP Diesel open cooling gallery replacement solution gives you several advantages over the "closed gallery" design:



THE NEW "OPEN GALLERY" DESIGN - ONLY FROM FP DIESEL.

## FP DIESEL® DESIGN

### PROPRIETARY CROWN MATERIAL & MANGANESE PHOSPHATE COATING

High-strength forging combined with an exclusive coating improves break-in performance, reduces pin bore scuffing and enhances service life.

## CLOSED GALLERY DESIGN

### COVER PLATE

Keeps oil inside gallery until it drains out through metered holes. Oil stays in gallery longer and becomes hotter in a "closed gallery" design. Cover plate can also dislodge over time.

### OPEN COOLING GALLERY

Cool oil contacts the oil gallery and falls back into crankcase or skirt tray. At TDC the oil is thrown fully upward into gallery, where it absorbs additional heat.

### OIL TRAY IN SKIRT

Holds warm oil, allowing it to contact edge of gallery and transfer heat. Oil in tray is thrown upward into gallery at TDC.

### PROPRIETARY SKIRT MATERIAL

Stronger than the industry standard.

### NO OIL TRAY IN SKIRT

Oil is lifted into the gallery via pressure. This is less efficient than the oil tray design.

### EXCLUSIVE DESIGN OFFERS:

No cover plate to fall off and cause engine failure | Smooth surfaces resulting in better stress distribution | More robust to oil cooling jet alignment/wear

**This innovative FP Diesel design is proven to be a better and more efficient replacement piston in today's hardest working engines.**

## FLEETS RETHINK REPLACEMENT

More and more fleets are rethinking their engine and equipment replacement cycles as new engines become increasingly expensive. In a challenging business environment, rebuilding a commercial engine is a smart choice — if you have the right replacement technologies.

The FP Diesel approach isn't just to return the engine to service, but to increase power and performance.

To that end, our dedicated FP Diesel engineers reviewed the closed gallery articulated piston design and developed a better, more efficient solution.

FP Diesel eliminates the oil gallery cover plates and adds an oil tray to the skirt. This design creates an open cooling gallery on the underside of the piston crown — providing cooling of the piston crown and heat transfer capabilities.

In addition, fleet operators tell us the cover plates may fall out during operation. This can lead to failure of internal engine components and, ultimately, engine failure. This problem is eliminated with the FP Diesel M11 replacement piston, since it has no cover plate.

Dynamometer test results prove the FP Diesel replacement piston design removes significant amounts of heat from the piston crown, providing improved durability without sacrificing engine performance.

All FP Diesel pistons are designed using the latest in computer-aided design (CAD) and computer-aided engineering (CAE) technology, and are thoroughly researched to ensure the proper dimensional and metallurgical requirements. When installed with FP Diesel cylinder liners and piston rings, these components develop optimum performance as part of the "power-cylinder" system.





# Table of Contents

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## Catalog and Product Information

Table of Contents .....	I	Governor Plungers .....	281
How to use this catalog .....	II	Numerical Index .....	310
Abbreviations .....	III	Piston Ring Set Instructions .....	414-416
CPL Number List – All engine models ...	284	Products and Catalogs .....	II
Engine Models – In-Frame and Overhaul Kits Quick Reference .....	V	Warranty .....	VII-IX
Fuel Injection Components – all engine models .....	276		

## Coverage: Section I

B Series engines .....	2	KT & KTA Series engines .....	190
ISB/QSB Series engines .....	18	QSK19 Series engines .....	226
ISB 5.9L & 6.7L Valve Seal Identification .....	413	C464, N743, NH, NT855, Small and Medium Vee .....	247
C Series engines .....	40	743 & 855 Natural Gas engine components .....	283
ISC/QSC Series engines .....	59	855 Series engines – piston supersession list .....	303
L10 & M11 Series engines .....	76	855 Series engines – 4 ring piston list.....	304
L10 Engine Piston Ring Set Instructions .....	416	855 Series engines – 3 ring piston list.....	306
ISL/QSL Series engines .....	104	855 Series engines – cylinder kit list .....	309
ISM/QSM Series engines .....	120	C464, N743, NH, NT855, Small and Medium Vee – cylinder kit list .....	310
N14 Series engines .....	140		
ISX/QSX Series engines .....	172		

## Vintage Coverage: Section II

How to use the Cummins Vintage Catalog Section .....	331	Vintage Engine Kit BOM List .....	406-407
Vintage Engine/Model Index.....	332-340	Vintage Engine Section Numerical List.....	408-412
Vintage Engine Applications.....	340-405		







## How to use this catalog

### Global Technology Behind Every Part

The FP Diesel catalog for Cummins replacement components is divided into two distinct sections. The first section includes the most current and popular Cummins® engine families. The second section includes Cummins Vintage engines; engines not as popular as those listed in the front section, but those that FP Diesel continues to supply coverage for. Also included in the Vintage section are engines sold under the Cummins badge but manufactured by another engine manufacturer.

Part numbers listed with an FP prefix, indicate that they are currently available in the FP Diesel product offering. Part numbers without an FP prefix are currently being added and are listed for reference. Check with FP Diesel customer service for the most

up-to-date availability on these components.

To assure you get the right parts for your particular engine, you must have the engine serial number or the Control Parts List (CPL) number. If you do not have this information, you may need the piston number, block casting number, connecting rod casting number, cylinder head casting number or crankshaft casting number to identify specific parts for your particular engine.

This catalog is not intended to replace the Cummins parts books, CPL book, micro-fiche or service manuals. If in doubt about the parts for your particular application, consult your Cummins OE publications.

## Catalogs and 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-, 38and 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 S6D155 and SA6D155 engines, as well as a full line of replacement parts for Komatsu machines using Cummins N743, KT/KTA 19-, 38and 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 twoand four-valve head configurations.

**Refer to FP Diesel catalog No. CA0060.**

### International/Navistar

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. CA0188.**

### 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 855 B/C III Cummins engines.

**Refer to FP Diesel catalog No. CA0095.**

### Commercial, Ag, Industrial Engines

The FP Diesel CA0188 catalog includes all the engine manufacturers not covered in the FP Diesel name-plate specific catalogs. Replacement engine components for 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 are included in the **FP Diesel CA0188 catalog.**

### www.FMe-cat.com

FMe-cat is the online solution that offers fast, easy access to virtual catalog pages covering the thousands of FP Diesel® replacement components for the commercial vehicle category. This user-interactive catalog experience helps ease locating components for medium and heavy-duty applications and enables users to accurately navigate in a virtual catalog environment.





# 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
Cntr. Bore	Counter Bore
Compl.	Complete
Con. Rod	Connecting Rod
Cruise	Cruise Control

## ABBREVIATION ..... DESCRIPTION

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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<b>ABBREVIATION</b>	<b>DESCRIPTION</b>
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

<b>ABBREVIATION</b>	<b>DESCRIPTION</b>
oz.	Ounce
P. T.O.	Power Take Off
P/S	Power Steering
Pass.	Passenger
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.	Rotatovn
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





# Engine Models – In-Frame and Overhaul Kits Quick Review

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## In-Frame Engine Kits

Engine	Part Number	In-Frame Kit Description
4B,4BT3.9	FP-4B39PREM	w/upper gasket set & oil pan gasket
4B,4BT3.9	FP-4B39PREML	w/upper gasket set & oil pan gasket (late)
4B,4BT3.9	FP-IFK4B39PREM	w/upper gasket set & oil pan gasket
4B,4BT3.9	FP-IFK4B39PREML	w/upper gasket set & oil pan gasket (late)
6B,6BT5.9	FP-3356970	contains FP-3802160 Piston Kit
6B,6BT5.9	FP-3356971	contains FP-3802248 Piston Kit
6B,6BT5.9	FP-6B59PREM	w/upper gasket set & oil pan gasket
6B,6BT5.9	FP-6B59PREML	w/upper gasket set & oil pan gasket (late)
6B,6BT5.9	FP-IFK6B59PREM	w/upper gasket set & oil pan gasket
6B,6BT5.9	FP-IFK6B59PREML	w/upper gasket set & oil pan gasket (late)
6C,6CT8.3	FP-3356824	contains FP-3802403 Cyl Kit
6C,6CT8.3	FP-3356825	contains FP-3802404 Cyl Kit
6C,6CT8.3	FP-3356826	contains FP-3802406 Cyl Kit
6C,6CT8.3	FP-3356827	contains FP-LK92479937 Cyl Kit
6C,6CT8.3	FP-3357573	contains FP-3802263 Piston Kit
6C,6CT8.3	FP-3357574	contains FP-3802601 Piston Kit
6C,6CT8.3	FP-3357803	contains FP-3802344 Piston Kit
6C,6CT8.3	FP-6C83PREM	w/upper gasket set & oil pan gasket
6C,6CT8.3	FP-IFK6C83PREM	w/upper gasket set & oil pan gasket
ISB	FP-IFKISB624V	w/upper gasket set & oil pan gasket
ISC/QSC	FP-IFKISCQSC	w/upper gasket set & oil pan gasket
KT19	FP-IFKKT19	w/upper gasket set & oil pan gasket
KTA19	FP-IFKTA19	w/upper gasket set & oil pan gasket
L10/M11	FP-IFKL10PREM	w/upper gasket set & oil pan gasket
L10/M11	FP-L10PREM	Premium Cylinder Kits
L10/M11	FP-L10PREMDNA	Premium Cylinder Kits, Dual-NI, Anodized
L10/M11	FPL10PREMDNAOH	Premium Cylinder Kits, Dual-NI, Anodized
M11 articulated	FP-4025297	contains FP-4025162 Cyl Kit
M11 articulated	FP-IFKM11AR	w/upper gasket set & oil pan gasket Articulated Pistons
N14	FP-IFKN14PRPDN	Premium Plus, Dual-NI, Below 370HP
N14	FP-IFKN14PRPDNA	Premium Plus, Dual-NI, Anodized, 370HP & Above
N14	FP-N14PREMPDN	Premium Plus, Dual-NI, Below 370HP
N14	FP-N14PREMPDNAN	Premium Plus, Dual-NI, Anodized, 370HP & Above
N14 articulated	FP-IFKN14AR	w/upper gasket set & oil pan gasket Articulated Pistons
N743,NH220	FP-IFKNH220	w/upper gasket set & oil pan gasket
N743,NH220	FP-NH220	w/upper gasket set & oil pan gasket

Engine	Part Number	In-Frame Kit Description
NG743,220	FP-IFKNH220NG	N743,220 Natural Gas
NG743,220	FP-NH220NG	N743,220 Natural Gas
NG855	FP-IFKNG855PREM	855 Natural Gas 12.0:1 C.R.
NG855	FP-NG855PREM	855 Natural Gas 12.0:1 C.R.
NH,NT855	FP-855PREM	Premium Cylinder Kits
NH,NT855	FP-IFK855PREM	Premium Cylinder Kits
NH,NT855	FP-KS12621C	contains FP-CK31025099 Cyl Kit Std Head Gask Grommets
NH,NT855	FP-KS12621C7	contains FP-CK31025099 Cyl Kit .010 Head Gask Grommets
NH,NT855	FP-KS12622A	w/upper gasket set & oil pan gasket
NH,NT855	FP-KS12622C	w/upper gasket set & oil pan gasket
NH,NT855	FP-KS12622C7	w/upper gasket set & oil pan gasket
NH,NT855	FP-KS12622D	w/upper gasket set & oil pan gasket
NT,NTC855	FP-855PREMP	Premium Plus Cylinder Kits
NT,NTC855	FP-IFK855PREMP	Premium Plus Cylinder Kits
NT,NTC855	FP-IFK855PREMPD	Premium Plus Cylinder Kits Dual-NI Pistons
NT855	FP-855TT	Premium 3-Ring Cylinder Kits
NT855	FP-855TTDN	Premium 3-Ring Cylinder Kits Dual-NI Pistons
NT855	FP-855TTP	Premium Plus 3-Ring Cylinder Kits
NT855	FP-855TTPDN	Premium Plus 3-Ring Cylinder Kits Dual-NI Pistons
NT855	FP-IFK855TT	Premium 3-Ring Cylinder Kits
NT855	FP-IFK855TTDN	Premium 3-Ring Cylinder Kits Dual-NI Pistons
NT855	FP-IFK855TTP	Premium Plus 3-Ring Cylinder Kits
NT855	FP-IFK855TTPDN	Premium Plus 3-Ring Cylinder Kits Dual-NI Pistons
NT855 w/o rings	FP-IFK855NR	Cylinder Kits w/ no piston rings
NTC855	FP-855PREMPDN	Premium Plus Cylinder Kits Dual-NI Pistons
NTC855	FP-IFK855PRMPDN	Premium Plus Cylinder Kits Dual-NI Pistons
V,VT,VTB903	FP-VTB903PREM	w/upper gasket set & oil pan gasket
V,VT903	FP-IFKVTB903PRE	w/upper gasket set & oil pan gasket
V,VT903	FP-IFKVTB903PRM	w/upper gasket set & oil pan gasket
V378,VT378	FP-IFK378PREM	Premium Cylinder Kits



# Engine Models – In-Frame and Overhaul Kits Quick Review

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## Complete Overhaul Engine Kits

Engine	Part Number	Description
4B,4BT3.9	<b>FP-4B39PREMOH</b>	Complete Overhaul Kit
4B,4BT3.9	<b>FP-4B39PREMOHL</b>	Complete Overhaul Kit - (late)
4B,4BT3.9	<b>FP-0H4B39PREM</b>	Complete Overhaul Kit
4B,4BT3.9	<b>FP-0H4B39PREML</b>	Complete Overhaul Kit - (late)
6B,6BT5.9	<b>FP-6B59PREMOH</b>	Complete Overhaul Kit (pre-1991)
6B,6BT5.9	<b>FP6B5.9PREM-OHL</b>	Complete Overhaul Kit (1991- up) (late)
6B,6BT5.9	<b>FP-0H6B59PREM</b>	Complete Overhaul Kit (pre-1991)
6B,6BT5.9	<b>FP-0H6B59PREML</b>	Complete Overhaul Kit (1991- up) (late)
6BT5.9	<b>FP-0H6B59T</b>	Complete Overhaul Kit
6BT5.9	<b>FP-0H6B59TA</b>	Complete Overhaul Kit
6C,6CT8.3	<b>FP-6C83PREMOH</b>	Complete Overhaul Kit
6C,6CT8.3	<b>FP-0H6C83PREM</b>	Complete Overhaul Kit
ISC/QSC	<b>FP-0HISCQSC</b>	Complete Overhaul Kit
KT19	<b>FP-0HK19</b>	Complete Overhaul Kit
KTA19	<b>FP-0HKTA19</b>	Complete Overhaul Kit
L10/M11	<b>FP-L10PREMOH</b>	Complete Overhaul Kit
L10/M11	<b>FP-0HL10PREM</b>	Complete Overhaul Kit
M11 articulated	<b>FP-0HM11AR</b>	Complete Overhaul Kit - Articulated Pistons
N14	<b>FPN14PREMDNANOHL</b>	Complete Overhaul Kit - Premium Plus, Dual-NI, Anodized, 370HP & Above
N14	<b>FP-N14PREMPDNOH</b>	Complete Overhaul Kit - Premium Plus, Dual-NI, Below 370HP
N743,NH220	<b>FP-NH220OH</b>	Complete Overhaul Kit
NG743,220	<b>FP-NH220NGOH</b>	Complete Overhaul Kit - N743,220 Natural Gas
NG855	<b>FP-NG855PREMOH</b>	Complete Overhaul Kit - 855 Natural Gas - 12.0:1 C.R.
NH,NT855	<b>FP-855PREMOH</b>	Complete Overhaul Kit
NT,NTC855	<b>FP-855PREMPOH</b>	Complete Overhaul Kit
NT,NTC855	<b>FP-KS22621C</b>	Complete Overhaul Kit
NT,NTC855	<b>FP-KS22621C7</b>	Complete Overhaul Kit
NT,NTC855	<b>FP-KS22724A</b>	Complete Overhaul Kit

Engine	Part Number	Description
NT,NTC855	<b>FP-0H855PREMP</b>	Complete Overhaul Kit
NT855	<b>FP-855TTDNOH</b>	Complete Overhaul Kit
NT855	<b>FP-855TTOH</b>	Complete Overhaul Kit
NT855	<b>FP-855TTPDNOH</b>	Complete Overhaul Kit
NT855	<b>FP-855TTPOH</b>	Complete Overhaul Kit
NT855	<b>FP-0H855PREM</b>	Complete Overhaul Kit
NT855	<b>FP-0H855TT</b>	Complete Overhaul Kit - Premium 3 Ring Cylinder Kits
NT855	<b>FP-0H855TTDN</b>	Complete Overhaul Kit - Premium 3-Ring Cylinder Kits - Dual-NI Pistons
NT855	<b>FP-0H855TTP</b>	Complete Overhaul Kit - Premium Plus 3 Ring Cylinder Kits
NT855	<b>FP-0H855TTPDN</b>	Complete Overhaul Kit - Premium Plus 3-Ring Cylinder Kits - Dual-NI Pistons
NTC855	<b>FP-855PREMPDNOH</b>	Complete Overhaul Kit
NTC855	<b>FP-0H855PREMPDN</b>	Complete Overhaul Kit
V,VT,VTB903	<b>FP-VTB903PREMOH</b>	Complete Overhaul Kit
V378,VT378	<b>FP-378PREM</b>	Complete Overhaul Kit
V378,VT378	<b>FP-0H378PREM</b>	Complete Overhaul Kit
V504,VT504	<b>FP-504PREM</b>	Complete Overhaul Kit
V504,VT504	<b>FP-IFK504PREM</b>	Complete Overhaul Kit
V504,VT504	<b>FP-KS22423A</b>	Complete Overhaul Kit
V555,VT555	<b>FP-555PREM</b>	Complete Overhaul Kit
V555,VT555	<b>FP-IFK555PREM</b>	Complete Overhaul Kit
V555,VT555	<b>FP-KS22506A</b>	Complete Overhaul Kit
VT1710	<b>FP-IFK1710OHE</b>	Complete Overhaul Kit
VT1710	<b>FP-0H1710E</b>	Complete Overhaul Kit - (early)
VTA28	<b>FP-IFKVTA28OHL</b>	Complete Overhaul Kit (late)





## Warranty

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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.

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.

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.



## Warranty

### **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.





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 vehiculo 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 CIRCUNSTANCIA, 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 LIMITANDOSE 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.

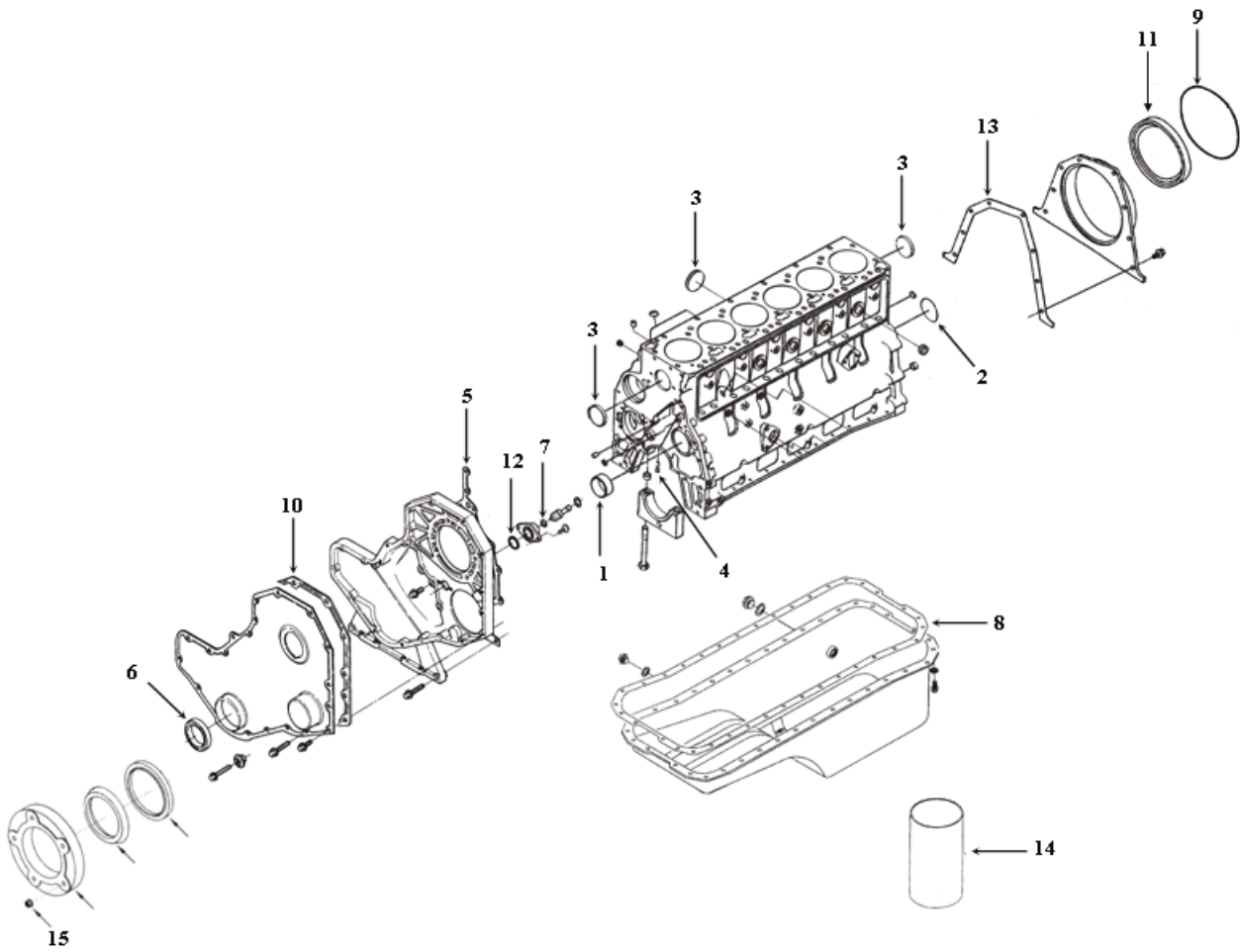
### ADVERTENCIA

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.

# B Series



## Engine Block





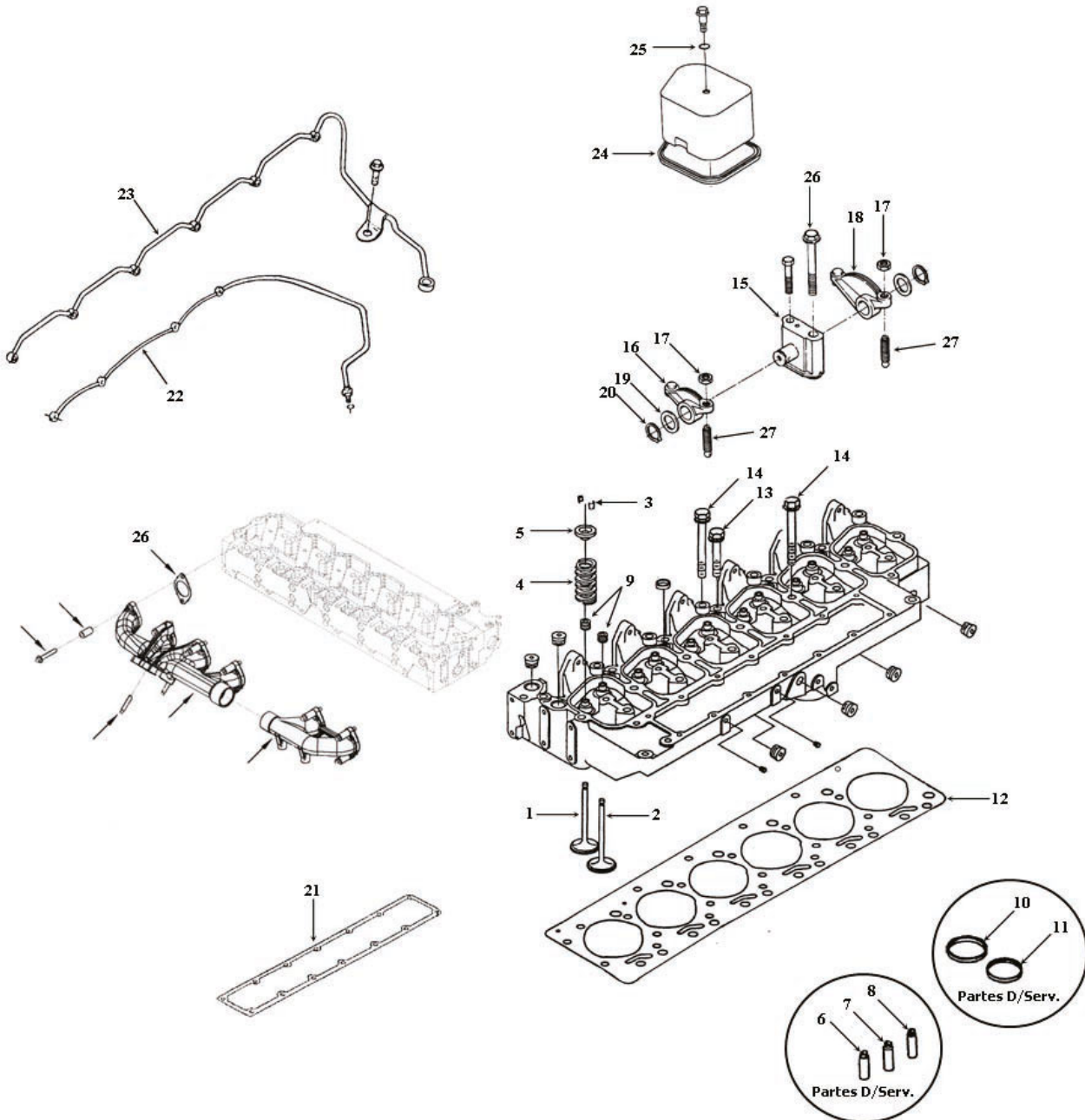
## Cylinder Block

Ref	Part Number	Description	4BT3.9	6BT5.9
00	FP-3900267	Seal, Grommet, Cam Follower Cover	2	6
00	FP-3903475	Ring, Rectangular (Tach Drive Cover)	1	1
00	FP-3906080	Sleeve, Front Crankshaft Seal	1	1
00	FP-3906081	Sleeve, Rear Crankshaft Seal	1	1
00	FP-3926126	Seal Kit W/Sleeve	1	1
00	FP-3802362	Gasket Set, Upper (.25mm O.S. Head Gasket)	1	
00	FP-3802375	Gasket Set, Lower	1	
00	FP-3804896S	Gasket Set, In-Frame (Standard Head Gasket)	1	
00	FP-3283767	Gasket, Push Rod Cover	1	
00	FP-3802362S	Gasket Set, In-Frame (.25mm O.S. Head Gasket)	1	
00	FP-3804896	Gasket Set, Upper (Standard Head Gasket)	1	
00	FP-4B3.9PREM	In-Frame Kit-W/Upper Gasket Set & Pan Gasket	1	
00	FP-4B3.9PREM-L	In-Frame Kit-W/Upper Gasket Set & Pan Gasket (Late)	1	
00	FP-4B3.9PREM-OH	O/H Engine Kit-W/Front & Rear Seals	1	
00	FP-4B3.9PREM-OH-L	O/H Engine Kit-W/Front & Rear Seals (Late)	1	
00	FP-3284623	Gasket, Push Rod Cover (Previously FP-3928832)		1
00	FP-3802245	Gasket Set, Upper (.50mm O.S. Head Gasket)		1
00	FP-3802245S	Gasket Set, In-Frame (.50mm O.S. Head Gasket)		1
00	FP-3802363	Gasket Set, Upper (Standard Head Gasket)		1
00	FP-3802363S	Gasket Set, In-Frame (Standard Head Gasket)		1
00	FP-3802364	Gasket Set, Upper (.25mm O.S. Head Gasket)		1
00	FP-3802364S	Gasket Set, In-Frame (.25mm O.S. Head Gasket)		1
00	FP-3802376	Gasket Set, Lower		1
00	FP-3804897	Gasket Set, Upper (Standard Head Gasket), (Engines Built Before April 2003)		1
00	FP-3804897S	Gasket Set, In-Frame (Standard Head Gasket), (Engines Built Before April 2003)		1
00	FP-4089649	Gasket Set, Upper (Standard Head Gasket), (Engines Built After April 2003)		1
00	FP-4089649S	Gasket Set, In-Frame (Standard Head Gasket), (Engines Built After April 2003)		1
00	FP-6B5.9PREM	In-Frame Kit-W/Upper Gasket Set & Pan Gasket		1
00	FP-6B5.9PREM-L	In-Frame Kit-W/Upper Gasket Set & Pan Gasket (Late)		1
00	FP-6B5.9PREM-OH	O/H Engine Kit-W/Front & Rear Seals (Pre 1991)		1
00	FP-6B5.9PREM-OH-L	O/H Engine Kit-W/Front & Rear Seals (1991 to Present), (Late)		1
01	FP-3901306	Bushing, Cam (Front Only)	1	1
02	FP-3900687	Plug, Expansion	1	1
03	FP-3007635	Plug, Expansion (1")	2	4
04	FP-3901020	Nozzle, Piston Cooling (Pre 1991)	4	6
04	FP-3937214	Nozzle, Piston Cooling (1991 - up) (Formerly FP-3930139)	4	6
05	FP-3938156	Gasket, Gear Front Cover	1	1
06	FP-3937111	Seal, Front Service Kit	1	1
07	FP-3913994	Seal, O-Ring	1	1
08	FP-3911535	Gasket, Oil Pan	1	
08	FP-3959052	Gasket, Oil Pan		1
09	FP-3912473	Seal, Rectangular Ring	1	1
10	FP-3914385	Gasket, Front Gear Cover	1	
10	FP-3918673	Gasket, Front Gear Cover		1
11	FP-3909410	Seal, Rear Service Kit (Dry Clutch Housing)	1	1
12	FP-3915772	Seal, Rectangular Ring		1
13	FP-3928493	Gasket, Rear Cover	1	1
14	FP-3904166	Sleeve, Salvage (To Return Block To Standard)	4	6
15	FP-4946714	Nut, Seal Carrier	5	5

# B Series



## Cylinder Head





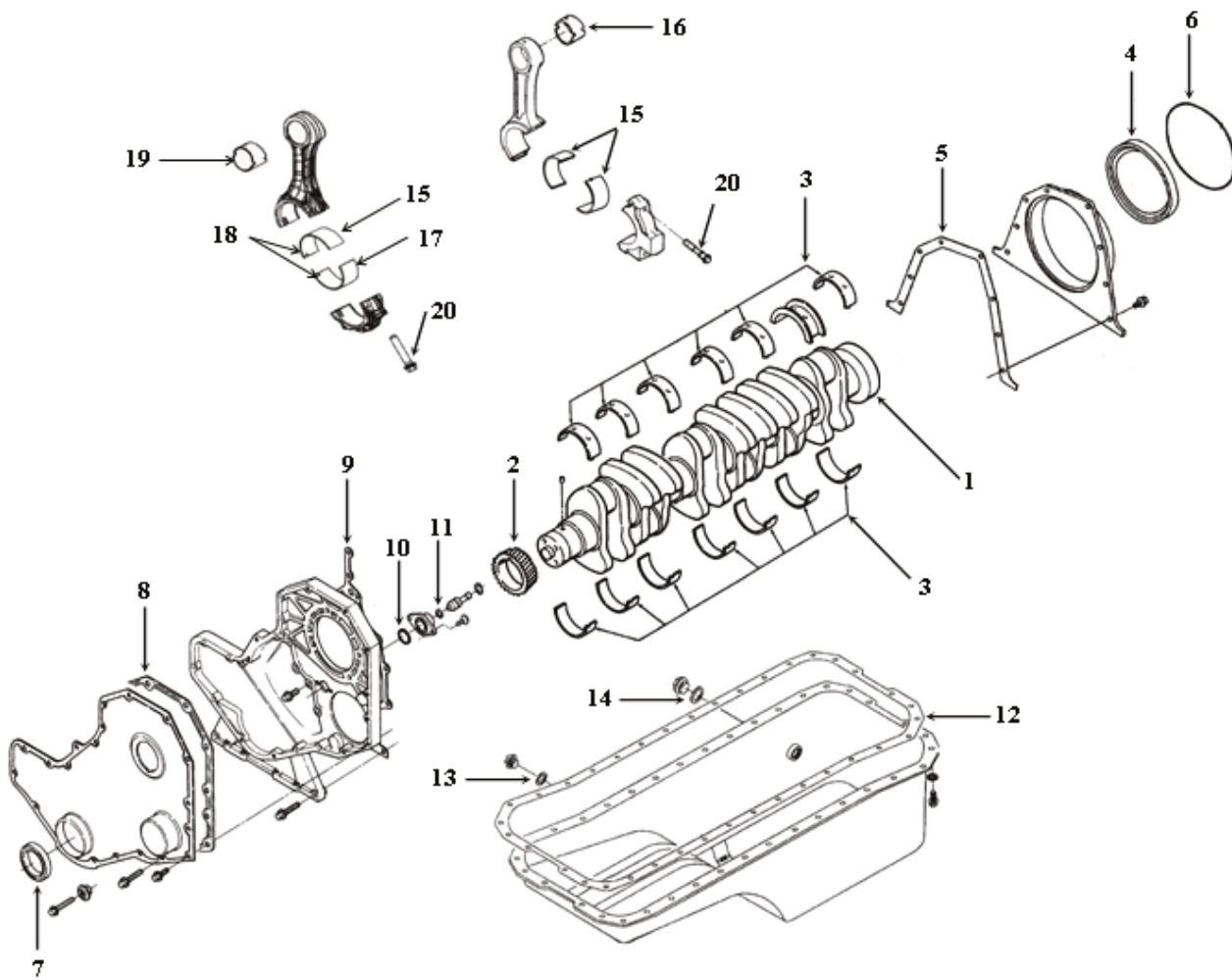
## Cylinder Head, Valve Mechanism & Upper Gasket Sets

Ref	Part Number	Description	4BT3.9	6BT5.9
00	FP-3903380	Seal, Banjo Connector (Fuel Manifold)	4	6
00	FP-3802362	Gasket Set, Upper (.25mm O.S. Head Gasket)	1	
00	FP-3804896	Gasket Set, Upper (Standard Head Gasket)	1	
00	FP-3918188	Washer, Sealing (Fuel Supply Tube)		2
00	FP-3802245	Gasket Set, Upper (.50mm O.S. Head Gasket)		1
00	FP-3802363	Gasket Set, Upper (Standard Head Gasket)		1
00	FP-3802364	Gasket Set, Upper (.25mm O.S. Head Gasket)		1
00	FP-3804897	Gasket Set, Upper (Standard Head Gasket), (Late 6BT5.9)		1
04	FP-3900276	Spring, Valve (30 PSI)	8	12
04	FP-3932453	Spring, Valve (36 PSI) (Previously FP-3926700)	8	12
04	FP-4936080	Spring, Valve (Previously FP-3943161)	8	12
05	FP-3900299	Retainer, Valve Spring	8	12
06	FP-3904408	Guide, Intake (Thick Wall 60.50mm Long)	4	6
07	FP-3904409	Guide, Exhaust (Thick Wall 51.75mm Long)	4	6
08	FP-3906206	Guide, Valve (Thin Wall Can Be Used For Intake & Exhaust)	4	6
09	FP-3921640	Seal, Valve Stem (Intake & Exhaust) (Formerly FP3901097) (For Engines Built Before April 2003)	8	12
09	FP-3957912	Seal, Valve Stem (For Engines Built After April 2003)	8	12
10	FP-3906854	Insert, Valve (Intake)	4	6
11	FP-3904105	Insert, Valve (Exhaust)	4	6
12	FP-3283336	Gasket, Cylinder Head (.25mm O.S.)	1	
12	FP-3283569	Gasket, Cylinder Head (Standard)	1	
12	FP-3283337	Gasket, Cylinder Head (.25mm O.S.)		1
12	FP-3283339	Gasket, Cylinder Head (.50mm O.S.)		1
12	FP-3283570	Gasket, Cylinder Head (Standard)		1
13	FP-3920779	Cap Screw, Cylinder Head (M12 x 1.75 x 70)	4	6
14	FP-3920780	Cap Screw, Cylinder Head (M12 x 1.75 x 120)	10	14
15	FP-3922488	Support, Rocker Lever Shaft	4	6
16	FP-3910811	Lever, Rocker	4	6
17	FP-203131	Nut, Adjusting Screw	8	12
18	FP-3910810	Lever, Rocker	4	6
19	FP-3900245	Washer, Plain	8	12
20	FP-3900242	Ring, Retaining	8	12
21	FP-3914028	Gasket, Intake Manifold Cover	1	
21	FP-3914029	Gasket, Intake Manifold Cover		1
22	FP-3909695	Manifold, Fuel	1	
23	FP-3926103	Manifold, Fuel		1
24	FP-3930906	Gasket, Valve Cover	4	6
25	FP-3910824	Seal, O-Ring (Valve Cover Screw) (For Engines Built Before April 2003)	4	6
25	FP-3935449	Seal, O-Ring (Valve Cover Screw) (For Engines Built After April 2003)	4	6
26	FP-3905443	Gasket, Exhaust Manifold	4	6
26	FP-3920781	Screw, Rocker Lever Support	4	6
27	FP-3937438	Screw, Rocker Adjusting	8	12
00	<b>FP-3802355</b>	<b>Valve Kit, Intake (W/Locks)</b>	4	6
01	FP-3920867	Valve, Intake (Bare)	4	6
03	FP-3900250	Lock Half, Valve	8	12
00	<b>FP-3802356</b>	<b>Valve Kit, Exhaust (W/Locks)</b>	4	6
02	FP-3920868	Valve, Exhaust (Bare)	4	6
03	FP-3900250	Lock Half, Valve	8	12

# B Series



## Crankshaft



## Crankshaft, Main & Rod Bearing, Oil Pan, Front & Rear Cover

Ref	Part Number	Description	4BT3.9	6BT5.9
00	FP-3906080	Sleeve, Front Crankshaft Seal	1	1
00	FP-3906081	Sleeve, Rear Crankshaft Seal	1	1
00	FP-3926126	Seal Kit W/Sleeve	1	1
00	FP-3938157	Gasket, Pick-Up Tube	1	1
01	FP-3929036	Crankshaft W/Gear	1	
01	FP-3929037	Crankshaft W/Gear		1
02	FP-3929027	Gear, Crankshaft	1	1
03	FP-3802010	Main Bearing Set (Std.)	1	
03	FP-3802011	Main Bearing Set (.25MM)	1	
03	FP-3802012	Main Bearing Set (.50MM)	1	
03	FP-3802013	Main Bearing Set (.75MM)	1	
03	FP-3802014	Main Bearing Set (1.00MM)	1	
03	FP-3802070	Main Bearing Set (Std.)		1
03	FP-3802071	Main Bearing Set (.25MM)		1
03	FP-3802072	Main Bearing Set (.50MM)		1
03	FP-3802073	Main Bearing Set (.75MM)		1
03	FP-3802074	Main Bearing Set (1.00MM)		1
04	FP-3909410	Seal, Rear Crankshaft Service Kit	1	1
05	FP-3928493	Gasket, Rear Cover	1	1
06	FP-3912473	Seal, Rectangular Ring	1	1
07	FP-3937111	Seal, Front Crankshaft Service Kit	1	1
08	FP-3914385	Gasket, Gear Cover	1	1
09	FP-3938156	Gasket, Cover of Gears	1	1
10	FP-3915772	Seal, Rectangular Ring	1	1
11	FP-3913994	Seal, O-Ring	1	1
12	FP-3911535	Gasket, Oil Pan	1	
12	FP-3959052	Gasket, Oil Pan		1
13	FP-3920773	Washer, Sealing	1	1
14	FP-3902425	Washer, Sealing	1	1
15	FP-3901171 <sup>36</sup>	Bearing, Connecting Rod (.25MM)	8	12
15	FP-3901172 <sup>36</sup>	Bearing, Connecting Rod (.50MM)	8	12
15	FP-3901173 <sup>36</sup>	Bearing, Connecting Rod (.75MM)	8	12
15	FP-3901174 <sup>36</sup>	Bearing, Connecting Rod (1.00MM)	8	12
15	FP-3939859 <sup>36</sup>	Bearing, Connecting Rod (Std.) Changes to the (Previously FP-3901170)	8	12
16	FP-4891178	Bushing, Connecting Rod (Previously FP-3901085, FP-3941476)	4	6
17	FP-4892795	Bearing, Lower Connecting Rod (0.25 mm) (For Fracture Split Rods Only)	4	6
17	FP-4892796	Bearing, Lower Connecting Rod (0.50 mm) (For Fracture Split Rods Only)	4	6
17	FP-4892797	Bearing, Lower Connecting Rod (0.75 mm) (For Fracture Split Rods Only)	4	6
17	FP-4892798	Bearing, Lower Connecting Rod (1.00 mm) (For Fracture Split Rods Only)	4	6
17	FP-4893693	Bearing, Lower Connecting Rod (Std.) (For Fracture Split Rods Only)	4	6
18	FP-3967060	Connecting Rod Bearing Kit (Includes Upper and Lower) (Std.) (For Fracture Split Rods Only)	4	6
18	FP-3967061	Connecting Rod Bearing Kit (Includes Upper and Lower) (0.25 mm) (For Fracture Split Rods Only)	4	6
18	FP-3967062	Connecting Rod Bearing Kit (Includes Upper and Lower) (0.50 mm) (For Fracture Split Rods Only)	4	6
18	FP-3967063	Connecting Rod Bearing Kit (Includes Upper and Lower) (0.75 mm) (For Fracture Split Rods Only)	4	6
18	FP-3967064	Connecting Rod Bearing Kit (Includes Upper and Lower) (1.00 mm) (For Fracture Split Rods Only)	4	6
19	FP-4891178	Bushing, Connecting Rod	4	6
20	FP-3900919	Connecting Rod Bolt (M11 x 1.25 x 59.25mm)	8	12

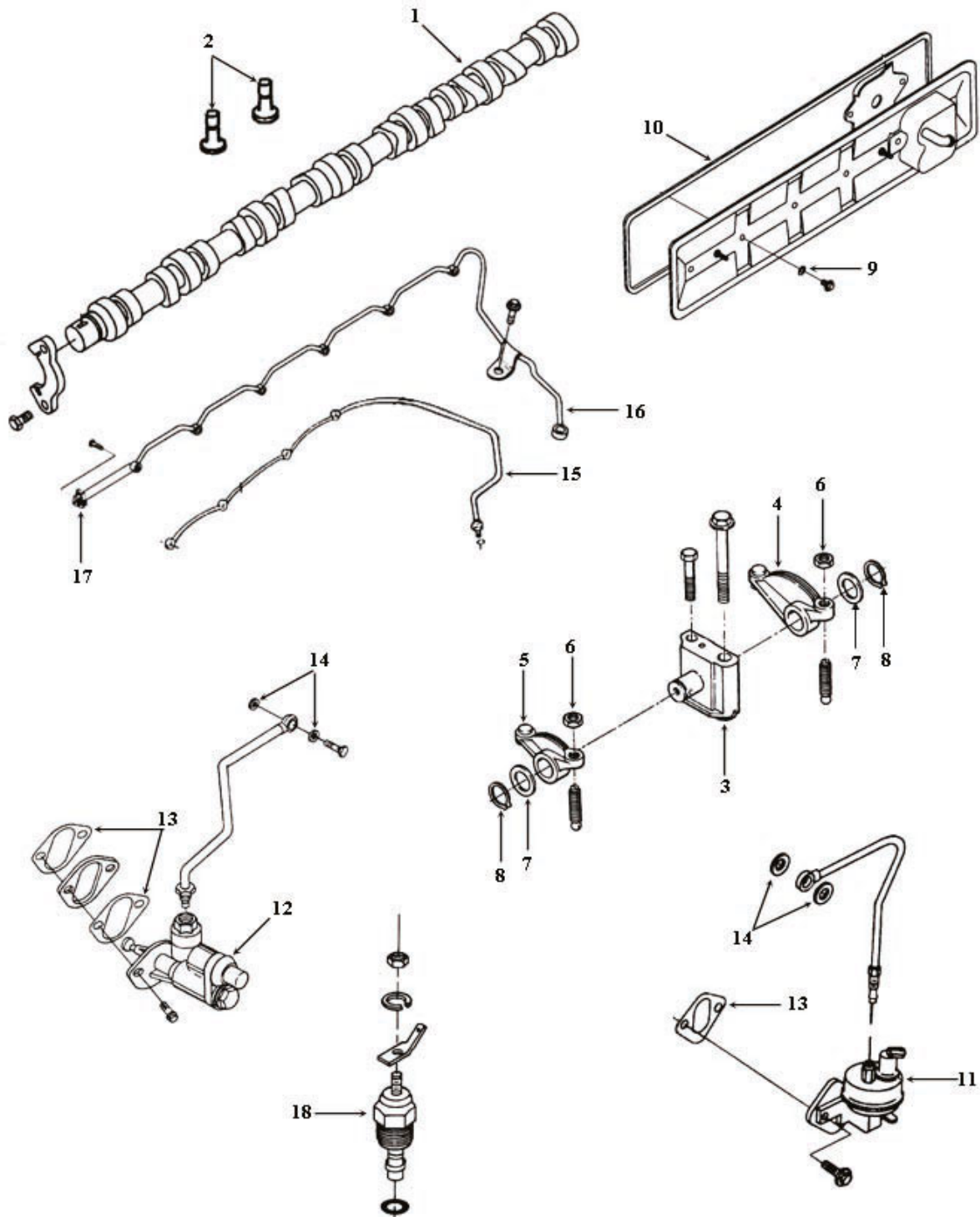
<sup>36</sup>Upper And Lower Bearing For Engines Except Fracture Split Rods. Used As Upper Bearing For Fracture Split Rods.



# B Series



## Camshaft & Fuel Components



**Camshaft & Fuel Components**

Ref	Part Number	Description	4BT3.9	6BT5.9
01	FP-3929039	Camshaft (CPL's 591-595, 690, 696, 725, 727, 730, 741, 762, 763, 793, 826, 843, 895, 937, 971, 981) (Previously FP-3925582)	1	
01	FP-3929041	Camshaft (CPL's 987, 1261, 1422, 1527, 1582)		1
01	FP-3929042	Camshaft (CPL's 596-600, 691, 697, 698, 713, 714, 716, 728, 729, 742, 761, 766, 791, 792, 802, 834, 845, 912, 938, 940, 947, 949, 953, 961, 962, 970, 983, 994, 998, 999, 1160, 1163, 1165, 1168, 1174, 1189, 1207, 1245, 1246, 1247, 1266, 1279, 1288, 1289, 1313, 1322, 1351, 1403, 1408, 1433, 1440, 1554, 1570, 1578, 1579, 1581, 1601, 1605, 1613, 1694)		1
01	FP-3929042	Camshaft (CPL's 804, 856)		1
01	FP-3929734	Camshaft (CPL 2023, 2174, 2175, 2252, 2253), Gas, LPG Applications		1
02	FP-3931623	Tappet, Valve	8	12
03	FP-3922488	Shaft, Rocker Lever	4	6
04	FP-3910810	Lever, Rocker	4	6
05	FP-3910811	Lever, Rocker	4	6
06	FP-203131	Nut, Heavy Hexagon	8	12
07	FP-3900245	Washer, Plain	8	12
08	FP-3900242	Ring, Retaining	8	12
09	FP-3900267	Seal, Grommet Fuel Drain Tube	2	4
10	FP-3283767	Gasket, Push Rod Cover	1	
10	FP-3284623	Gasket, Push Rod Cover		1

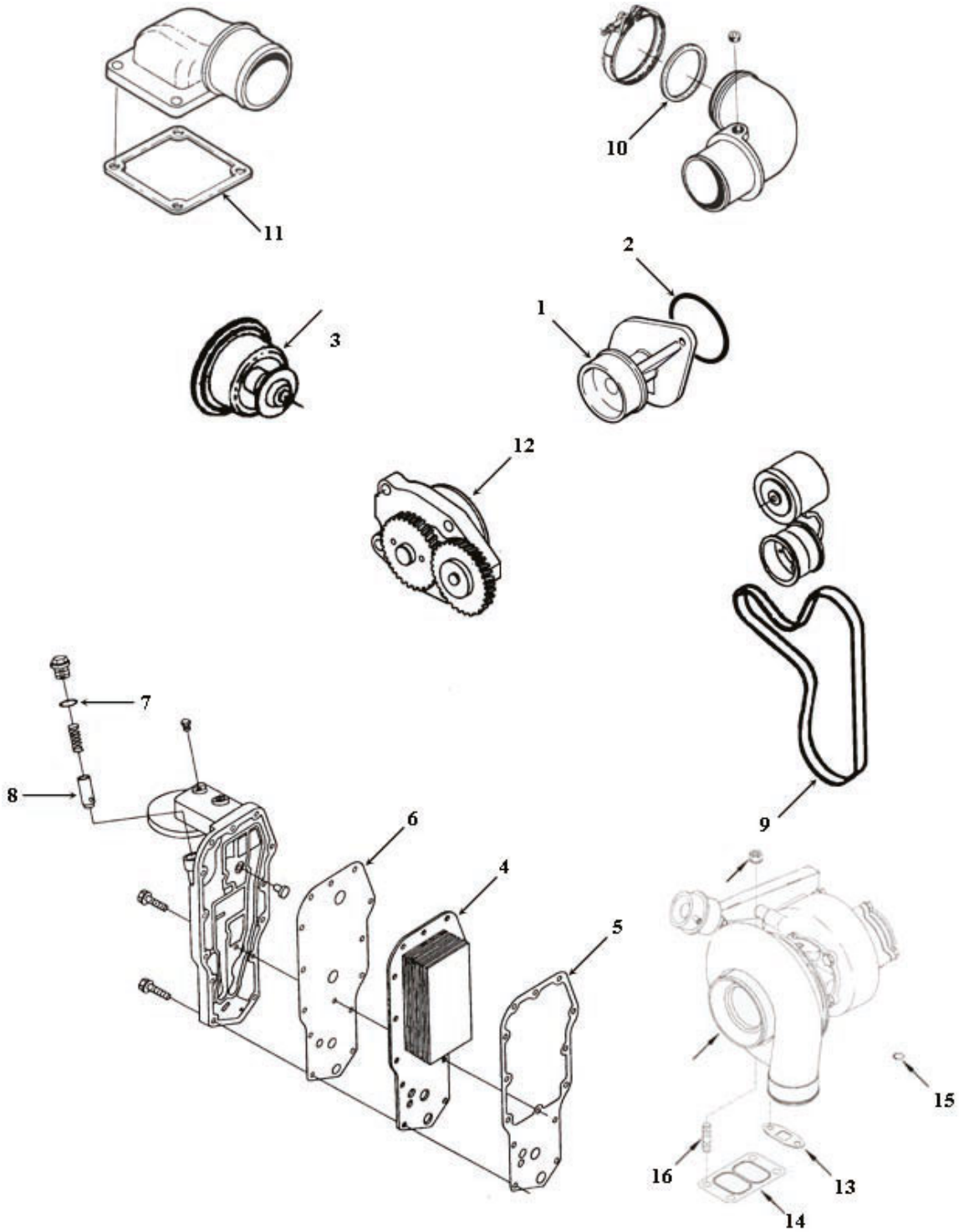
**Fuel Transfer Pump & Plumbing**

Ref	Part Number	Description	4BT3.9	6BT5.9
00	FP-3900808	Seal, Injector	4	6
00	FP-3906659	Seal, Injector	4	6
00	FP-3909356	Seal, Injector	4	6
00	FP-3900267	Seal, Grommet Fuel Drain Tube	2	4
00	FP-3906694	Seal, Rectangular Ring (Large) (Fuel Filter)	1	1
00	FP-3906695	Seal, Rectangular Ring (Small) (Fuel Filter)	1	1
00	FP-3918188	Washer, Sealing (Fuel Supply Tube)		2
11	FP-3928143	Pump, Fuel Transfer	1	
12	FP-3970880	Pump, Fuel Transfer	1	1
12	FP-4947710	Pump, Fuel Transfer (Previously FP-3933252,FP-3936316)	1	1
12	FP-4947712	Pump, Fuel Transfer (Previously FP-3933254, FP-3936318)	1	1
12	FP-4947714	Pump, Fuel Transfer (Previously FP-3933256, FP-3936320)	1	1
12	FP-3936323	Pump, Fuel Transfer	1	
12	FP-3936321	Pump, Fuel Transfer		1
12	FP-3936324	Pump, Fuel Transfer		1
12	FP-4947711	Pump, Fuel Transfer (Previously FP-3933253,FP-3936317)		1
12	FP-4947713	Pump, Fuel Transfer (Previously FP-3933255, FP-3936319)		1
12	FP-4947713	Pump, Fuel Transfer (Previous Models 1991)		1
13	FP-3939258	Gasket, Fuel Transfer Pump Mounting	1	1
14	FP-3918191	Washer, Sealing (Fuel Supply Tube)	2	
15	FP-3909695	Manifold, Fuel	1	
16	FP-3926103	Manifold, Fuel		1
17	FP-3903380	Seal, Banjo Connector (Fuel Manifold)	4	6
18	FP-3903575	Kit, Solenoid 12 Volt	1	1
18	FP-3903576	Kit, Solenoid 24 Volt	1	1

# B Series



## Cooling Components





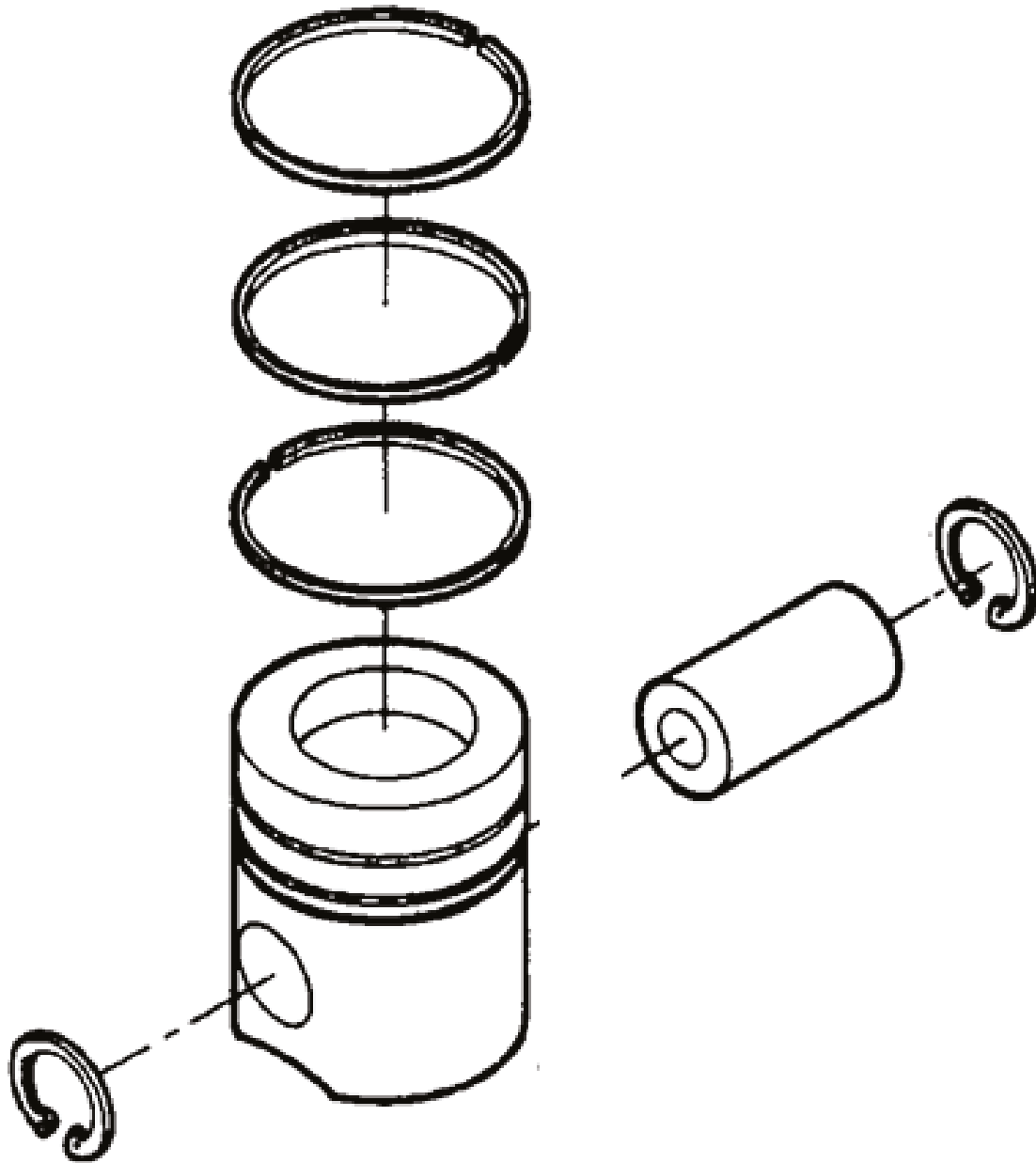
## Water Pump, Oil Cooler Core & Cooling Components

Ref	Part Number	Description	4BT3.9	6BT5.9
00	FP-3802273	Kit, Thermostat (83° C), (181° F)	1	1
00	FP-3903475	Seal, Rectangular Ring Mechanical Tach Drive	1	1
00	FP-3910739	Bearing, Ball (Fan Drive)	1	1
00	FP-3923331	Gasket, Thermostat Housing Cover	1	1
00	FP-3923517	Shaft & Bearing	1	1
01	FP-3286277	Water Pump	1	1
02	FP-3906698	Seal, Rectangular Ring	1	1
03	FP-3917324	Assembly, Thermostat (83° C), (181° F)	1	1
04	FP-3957543	Element, Oil Cooler (Previously FP-3921557)	1	
04	FP-3957544	Element, Oil Cooler (Previously FP-3921558)		1
05	FP-3926760	Gasket, Oil Cooler Core	1	1
06	FP-3929792	Gasket, Filter Head	1	1
07	FP-3909397	Seal, O-Ring	1	1
08	FP-3918428	Plunger, Pressure Regulator	1	1
09	FP-3034946	Multi-Groove Fan Belts (Ribbed 8) (62.5" X 1.125")	1	1
09	FP-3911557	Multi-Groove Fan Belts (Ribbed 8)	1	1
09	FP-3911558	Multi-Groove Fan Belts (Ribbed 8) (59" X 1.125")	1	1
09	FP-3911559	Multi-Groove Fan Belts (Ribbed 8)	1	1
09	FP-3911563	Multi-Groove Fan Belts (Ribbed 8) (60.5" X 1.125")	1	1
09	FP-3911568	Multi-Groove Fan Belts (Ribbed 8) (57" X 1.125")	1	1
09	FP-3911572	Multi-Groove Fan Belts (Ribbed 8) (61.5" X 1.125")	1	1
09	FP-3911575	Multi-Groove Fan Belts (Ribbed 8) (63" X 1.125")	1	1
09	FP-3911582	Multi-Groove Fan Belts (Ribbed 8) (70" X 1.125")	1	1
09	FP-3911587	Multi-Groove Fan Belts (Ribbed 8) (53.5" X 1.125")	1	1
09	FP-3911588	Multi-Groove Fan Belts (Ribbed 8) (56" X 1.125")	1	1
10	FP-3883284	Seal, O-Ring, Air Intake Connection	1	1
11	FP-3938158	Gasket, Air Intake Connection	1	1
12	FP-4939585	Pump, Lubricating Oil	1	
12	FP-4939587	Pump, Lubricating Oil		1
13	FP-3937706	Turbocharger Oil Drain Gasket (H x 35)	1	1
14	FP-3901356	Turbo Charger Mounting Gasket	1	1
15	FP-3931824	Seal, O-Ring, Turbo Oil Line	1	1
16	FP-3818823	Turbocharger Mounting Stud	4	4

# B Series



## Piston Kits - Early



## Piston Kits - Early

Avail	Engine	Piston Kit	Piston Body	Piston Pin	Retainers	Ring Set	C/R	Comments
✓	4BT3.9/6BT5.9	FP-3802060	FP-3906223	Not Included	FP-3920691	FP-3802040	17.3:1	Standard
✓	4BT3.9/6BT5.9	FP-3802062	FP-3906209	Not Included	FP-3920691	FP-3802042		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-3802064	FP-3906208	Not Included	FP-3920691	FP-3802044		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-3802100	FP-3907156	Not Included	FP-3920691	FP-3802230	16.5:1	Standard
✓	4BT3.9/6BT5.9	FP-3802102	FP-3907157	Not Included	FP-3920691	FP-3802232		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-3802104	FP-3907158	Not Included	FP-3920691	FP-3802234		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-3802132	FP-3908815	Not Included	FP-3920691	FP-3802232		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-3802134	FP-3908816	Not Included	FP-3920691	FP-3802234		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-3802160	FP-3907163	Not Included	FP-3920691	FP-3802230	17.5:1	Standard
✓	4BT3.9/6BT5.9	FP-3802170	FP-3911400	Not Included	FP-3920691	FP-3802230	17.5:1	Standard
✓	4BT3.9/6BT5.9	FP-3802172	FP-3912049	Not Included	FP-3920691	FP-3802232		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-3802174	FP-3912050	Not Included	FP-3920691	FP-3802234		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-3802711	FP-3907156	FP-3934048	FP-3920691	FP-3802230	16.5:1	Standard
✓	4BT3.9/6BT5.9	FP-3802712	FP-3907163	FP-3934048	FP-3920691	FP-3802230	17.5:1	Standard
✓	4BT3.9/6BT5.9	FP-3906208WP	FP-3906208	FP-3934048	FP-3920691	Not Included		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-3906209WP	FP-3906209	FP-3934048	FP-3920691	Not Included		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-3906223WP	FP-3906223	FP-3934048	FP-3920691	Not Included	17.3:1	Standard
✓	4BT3.9/6BT5.9	FP-3907156WP	FP-3907156	FP-3934048	FP-3920691	Not Included	16.5:1	Standard
✓	4BT3.9/6BT5.9	FP-3907157WP	FP-3907157	FP-3934048	FP-3920691	Not Included		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-3907158WP	FP-3907158	FP-3934048	FP-3920691	Not Included		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-3907163WP	FP-3907163	FP-3934048	FP-3920691	Not Included	17.5:1	Standard
✓	4BT3.9/6BT5.9	FP-3908815WP	FP-3908815	FP-3934048	FP-3920691	Not Included		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-3908816WP	FP-3908816	FP-3934048	FP-3920691	Not Included		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-3911400WP	FP-3911400	FP-3934048	FP-3920691	Not Included	17.5:1	Standard
✓	4BT3.9/6BT5.9	FP-3912049WP	FP-3912049	FP-3934048	FP-3920691	Not Included		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-3912050WP	FP-3912050	FP-3934048	FP-3920691	Not Included		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-PK1400	FP-3911400	FP-3934048	FP-3920691	FP-3802230	17.5:1	Standard
✓	4BT3.9/6BT5.9	FP-PK2049	FP-3912049	FP-3934048	FP-3920691	FP-3802232		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-PK2050	FP-3912050	FP-3934048	FP-3920691	FP-3802234		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-PK6208	FP-3906208	FP-3934048	FP-3920691	FP-3802044		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-PK6209	FP-3906209	FP-3934048	FP-3920691	FP-3802042		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-PK6223	FP-3906223	FP-3934048	FP-3920691	FP-3802040	17.3:1	Standard
✓	4BT3.9/6BT5.9	FP-PK7157	FP-3907157	FP-3934048	FP-3920691	FP-3802232		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-PK7158	FP-3907158	FP-3934048	FP-3920691	FP-3802234		1.00MM Oversize
✓	4BT3.9/6BT5.9	FP-PK8815	FP-3908815	FP-3934048	FP-3920691	FP-3802232		.50MM Oversize
✓	4BT3.9/6BT5.9	FP-PK8816	FP-3908816	FP-3934048	FP-3920691	FP-3802234		1.00MM Oversize

Check For New Pistons

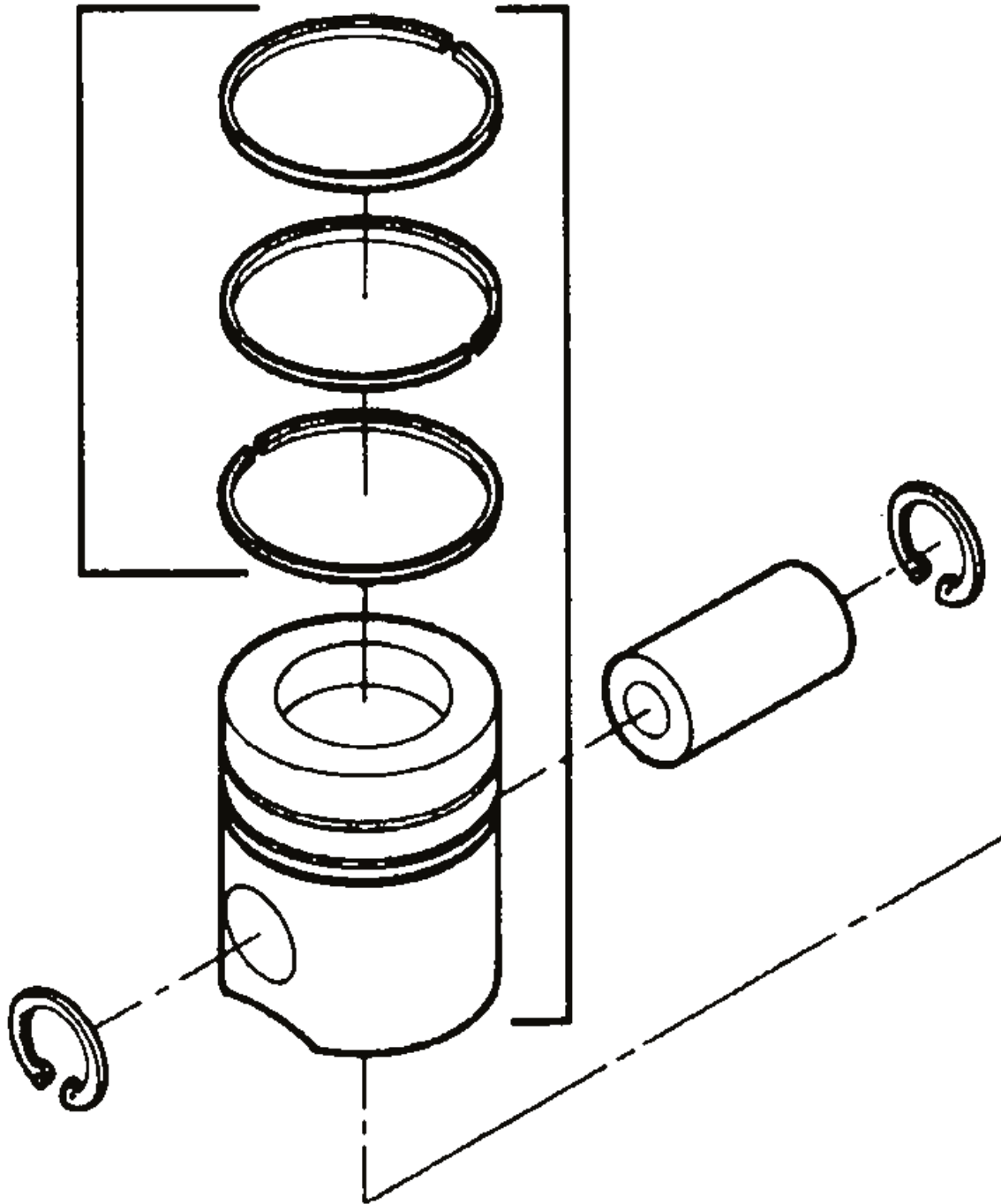
Note: Above piston kits include items in shaded area.



# B Series



## Piston Kits - Late



## Piston Kits - Late

Avail	Engine	Piston Kit	Piston Body	Piston Pin	Retainers	Ring Set	C/R	Comments
✓	4BT3.9/6BT5.9	FP-3802030	FP-3903579	Not Included	FP-3920691	FP-3802230	17.2:1	Std
✓	4BT3.9/6BT5.9	FP-3802032 <sup>1</sup>	FP-3903656	Not Included	FP-3920691	FP-3802232		0.50 mm
✓	4BT3.9/6BT5.9	FP-3802034 <sup>1</sup>	FP-3903655	Not Included	FP-3920691	FP-3802234		1.00 mm
✓	4BT3.9/6BT5.9NG	FP-3802090	FP-3903582	Not Included	FP-3920691	FP-3802230	18.5:1	Std; CPL No.593, 598, 728, 766, 767
✓	4BT3.9/6BT5.9NG	FP-3802092	FP-3908035	Not Included	FP-3920691	FP-3802232		0.50mm; CPL No.593, 598, 728, 766, 767
✓	4BT3.9/6BT5.9NG	FP-3802094	FP-3908036	Not Included	FP-3920691	FP-3802234		1.00mm; CPL No.593, 598, 728, 766, 767
✓	4BT3.9/6BT5.9	FP-3802248	FP-3919041	Not Included	FP-3920691	FP-3802421	17.5:1	Std
✓	4BT3.9/6BT5.9	FP-3802249 <sup>1</sup>	FP-3919044	Not Included	FP-3920691	FP-3802422		0.50 mm
✓	4BT3.9/6BT5.9	FP-3802250 <sup>1</sup>	FP-3919045	Not Included	FP-3920691	FP-3802423		1.00 mm
✓	4BT3.9/6BT5.9	FP-3802251	FP-3917619	Not Included	FP-3920691	FP-3802230	17.3:1	Std
✓	4BT3.9/6BT5.9	FP-3802252 <sup>1</sup>	FP-3919047	Not Included	FP-3920691	FP-3802232		0.50 mm
✓	4BT3.9/6BT5.9	FP-3802253 <sup>1</sup>	FP-3919048	Not Included	FP-3920691	FP-3802234		1.00 mm
✓	4BT3.9/6BT5.9	FP-3802487	FP-3922571	Not Included	FP-3920691	FP-3802421	N.A.	Std A Grade
✓	4BT3.9/6BT5.9	FP-3802489	FP-3922572	Not Included	FP-3920691	FP-3802421	8 mm TRL	Std B Grade
✓	4BT3.9/6BT5.9	FP-3802490	FP-3922573	Not Included	FP-3920691	FP-3802421	8 mm TRL	Std C Grade
✓	4BT3.9/6BT5.9	FP-3802493 <sup>1</sup>	FP-3922574	Not Included	FP-3920691	FP-3802422	8 mm TRL	0.50 mm
✓	4BT3.9/6BT5.9	FP-3802495 <sup>1</sup>	FP-3922575	Not Included	FP-3920691	FP-3802423	8 mm TRL	1.00 mm
✓	4BT3.9/6BT5.9	FP-3802561	FP-3926631	Not Included	FP-3920691	FP-3802230	N.A.	Std A Grade
✓	4BT3.9/6BT5.9	FP-3802562	FP-3926632	Not Included	FP-3920691	FP-3802230	10 mm TRL	Std B Grade
✓	4BT3.9/6BT5.9	FP-3802563	FP-3926633	Not Included	FP-3920691	FP-3802230	10 mm TRL	Std C Grade
✓	4BT3.9/6BT5.9	FP-3802564 <sup>1</sup>	FP-3926634	Not Included	FP-3920691	FP-3802232	10 mm TRL	0.50 mm
✓	4BT3.9/6BT5.9	FP-3802565 <sup>1</sup>	FP-3926635	Not Included	FP-3920691	FP-3802234	10 mm TRL	1.00 mm
✓	4BT3.9/6BT5.9NG	FP-3802630	FP-3922687	Not Included	FP-3920691	FP-3802951		Std; CPL No.8714, 8737
✓	4BT3.9/6BT5.9	FP-3802757	FP-3930187	Not Included	FP-3920691	FP-3802750	17.3:1	Std
✓	4BT3.9/6BT5.9	FP-3802758 <sup>1</sup>	FP-3930188	Not Included	FP-3920691	FP-3802863		0.50 mm
✓	4BT3.9/6BT5.9	FP-3802759 <sup>1</sup>	FP-3930189	Not Included	FP-3920691	FP-3802864		1.00 mm
✓	4BT3.9/6BT5.9	FP-3903579WP	FP-3903579	FP-3934048	FP-3920691	Not Included	17.2:1	Std
✓	4BT3.9/6BT5.9	FP-3903655WP <sup>1</sup>	FP-3903655	FP-3934048	FP-3920691	Not Included		1.00 mm
✓	4BT3.9/6BT5.9	FP-3903656WP <sup>1</sup>	FP-3903656	FP-3934048	FP-3920691	Not Included		0.50 mm
✓	4BT3.9/6BT5.9	FP-3917619WP	FP-3917619	FP-3934047	FP-3920691	Not Included	17.3:1	Std
✓	4BT3.9/6BT5.9	FP-3919041WP	FP-3919041	FP-3934047	FP-3920691	Not Included	17.5:1	Std
✓	4BT3.9/6BT5.9	FP-3919044WP <sup>1</sup>	FP-3919044	FP-3934047	FP-3920691	Not Included		0.50 mm
✓	4BT3.9/6BT5.9	FP-3919045WP <sup>1</sup>	FP-3919045	FP-3934047	FP-3920691	Not Included		1.00 mm
✓	4BT3.9/6BT5.9	FP-3919047WP <sup>1</sup>	FP-3919047	FP-3934047	FP-3920691	Not Included		0.50 mm
✓	4BT3.9/6BT5.9	FP-3919048WP <sup>1</sup>	FP-3919048	FP-3934047	FP-3920691	Not Included		1.00 mm
✓	4BT3.9/6BT5.9	FP-3922571WP	FP-3922571	FP-3934047	FP-3920691	Not Included	N.A.	Std A Grade
✓	4BT3.9/6BT5.9	FP-3922572WP	FP-3922572	FP-3934047	FP-3920691	Not Included	8 mm TRL	Std B Grade
✓	4BT3.9/6BT5.9	FP-3922573WP	FP-3922573	FP-3934047	FP-3920691	Not Included	8 mm TRL	Std C Grade
✓	4BT3.9/6BT5.9	FP-3922574WP <sup>1</sup>	FP-3922574	FP-3934047	FP-3920691	Not Included	8 mm TRL	0.50 mm
✓	4BT3.9/6BT5.9	FP-3922575WP <sup>1</sup>	FP-3922575	FP-3934047	FP-3920691	Not Included	8 mm TRL	1.00 mm
✓	4BT3.9/6BT5.9	FP-3922631WP	FP-3926631	FP-3934047	FP-3920691	Not Included	N.A.	Std A Grade
✓	4BT3.9/6BT5.9	FP-3922632WP	FP-3926632	FP-3934047	FP-3920691	Not Included	10 mm TRL	Std B Grade
✓	4BT3.9/6BT5.9	FP-3922633WP	FP-3926633	FP-3934047	FP-3920691	Not Included	10 mm TRL	Std C Grade
✓	4BT3.9/6BT5.9	FP-3926634WP <sup>1</sup>	FP-3926634	FP-3934047	FP-3920691	Not Included	10 mm TRL	0.50 mm
✓	4BT3.9/6BT5.9	FP-3926635WP <sup>1</sup>	FP-3926635	FP-3934047	FP-3920691	Not Included	10 mm TRL	1.00 mm
✓	4BT3.9/6BT5.9	FP-3930187WP	FP-3930187	FP-3934047	FP-3920691	Not Included	17.3:1	Std

<sup>1</sup>On Measure

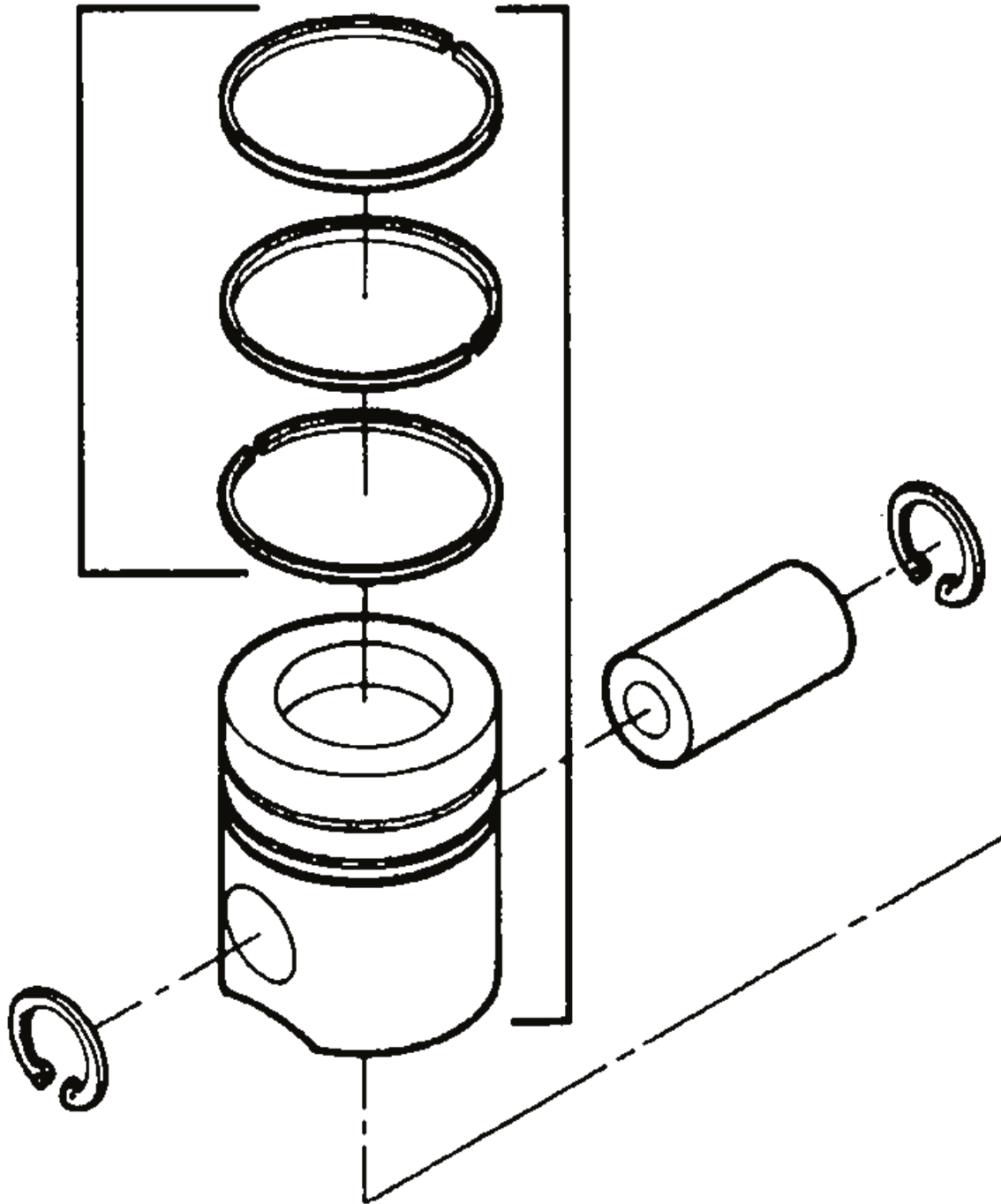
Check For New Pistons

Note: Above piston kits include items in shaded area.

# B Series



## Piston Kits - Late



**Piston Kits - Late (Cont.)**

Avail	Engine	Piston Kit	Piston Body	Piston Pin	Retainers	Ring Set	C/R	Comments
✓	4BT3.9/6BT5.9	FP-3930188WP <sup>1</sup>	FP-3930188	FP-3934047	FP-3920691	Not Included		0.50 mm
✓	4BT3.9/6BT5.9	FP-3930189WP <sup>1</sup>	FP-3930189	FP-3934047	FP-3920691	Not Included		1.00 mm
✓	4BT3.9/6BT5.9	FP-PK0187	FP-3930187	FP-3934047	FP-3920691	FP-3802750	17.3:1	Std
✓	4BT3.9/6BT5.9	FP-PK0188 <sup>1</sup>	FP-3930188	FP-3934047	FP-3920691	FP-3802863		0.50 mm
✓	4BT3.9/6BT5.9	FP-PK0189 <sup>1</sup>	FP-3930189	FP-3934047	FP-3920691	FP-3802864		1.00 mm
✓	4BT3.9/6BT5.9NG	FP-PK2090	FP-3903582	FP-3934048	FP-3920691	FP-3802230	18.5:1	Std; CPL No.593, 598, 728, 766, 767
✓	4BT3.9/6BT5.9NG	FP-PK2092	FP-3908035	FP-3934048	FP-3920691	FP-3802232		0.50mm; CPL No.593, 598, 728, 766, 767
✓	4BT3.9/6BT5.9NG	FP-PK2094	FP-3908036	FP-3934048	FP-3920691	FP-3802234		1.00mm; CPL No.593, 598, 728, 766, 767
✓	4BT3.9/6BT5.9	FP-PK2571	FP-3922571	FP-3934047	FP-3920691	FP-3802421	N.A.	Std A Grade
✓	4BT3.9/6BT5.9	FP-PK2572	FP-3922572	FP-3934047	FP-3920691	FP-3802421	8 mm TRL	Std B Grade
✓	4BT3.9/6BT5.9	FP-PK2573	FP-3922573	FP-3934047	FP-3920691	FP-3802421	8 mm TRL	Std C Grade
✓	4BT3.9/6BT5.9	FP-PK2574 <sup>1</sup>	FP-3922574	FP-3934047	FP-3920691	FP-3802422	8 mm TRL	0.50 mm
✓	4BT3.9/6BT5.9	FP-PK2575 <sup>1</sup>	FP-3922575	FP-3934047	FP-3920691	FP-3802423	8 mm TRL	1.00 mm
✓	4BT3.9/6BT5.9NG	FP-PK2630	FP-3922687	FP-3934047	FP-3920691	FP-3802951		Std; CPL No.8714, 8737
✓	4BT3.9/6BT5.9	FP-PK3579	FP-3903579	FP-3934048	FP-3920691	FP-3802230	17.2:1	Std
✓	4BT3.9/6BT5.9	FP-PK3655 <sup>1</sup>	FP-3903655	FP-3934048	FP-3920691	FP-3802234		1.00 mm
✓	4BT3.9/6BT5.9	FP-PK3656 <sup>1</sup>	FP-3903656	FP-3934048	FP-3920691	FP-3802232		0.50 mm
✓	4BT3.9/6BT5.9	FP-PK6631	FP-3926631	FP-3934047	FP-3920691	FP-3802230	N.A.	Std A Grade
✓	4BT3.9/6BT5.9	FP-PK6632	FP-3926632	FP-3934047	FP-3920691	FP-3802230	10 mm TRL	Std B Grade
✓	4BT3.9/6BT5.9	FP-PK6633	FP-3926633	FP-3934047	FP-3920691	FP-3802230	10 mm TRL	Std C Grade
✓	4BT3.9/6BT5.9	FP-PK6634 <sup>1</sup>	FP-3926634	FP-3934047	FP-3920691	FP-3802232	10 mm TRL	0.50 mm
✓	4BT3.9/6BT5.9	FP-PK6635 <sup>1</sup>	FP-3926635	FP-3934047	FP-3920691	FP-3802234	10 mm TRL	1.00 mm
✓	4BT3.9/6BT5.9	FP-PK7619	FP-3917619	FP-3934047	FP-3920691	FP-3802230	17.3:1	Std
✓	4BT3.9/6BT5.9	FP-PK9041	FP-3919041	FP-3934047	FP-3920691	FP-3802421	17.5:1	Std
✓	4BT3.9/6BT5.9	FP-PK9044 <sup>1</sup>	FP-3919044	FP-3934047	FP-3920691	FP-3802422		0.50 mm
✓	4BT3.9/6BT5.9	FP-PK9045 <sup>1</sup>	FP-3919045	FP-3934047	FP-3920691	FP-3802423		1.00 mm
✓	4BT3.9/6BT5.9	FP-PK9047 <sup>1</sup>	FP-3919047	FP-3934047	FP-3920691	FP-3802232		0.50 mm
✓	4BT3.9/6BT5.9	FP-PK9048 <sup>1</sup>	FP-3919048	FP-3934047	FP-3920691	FP-3802234		1.00 mm

<sup>1</sup>On Measure

Check For New Pistons

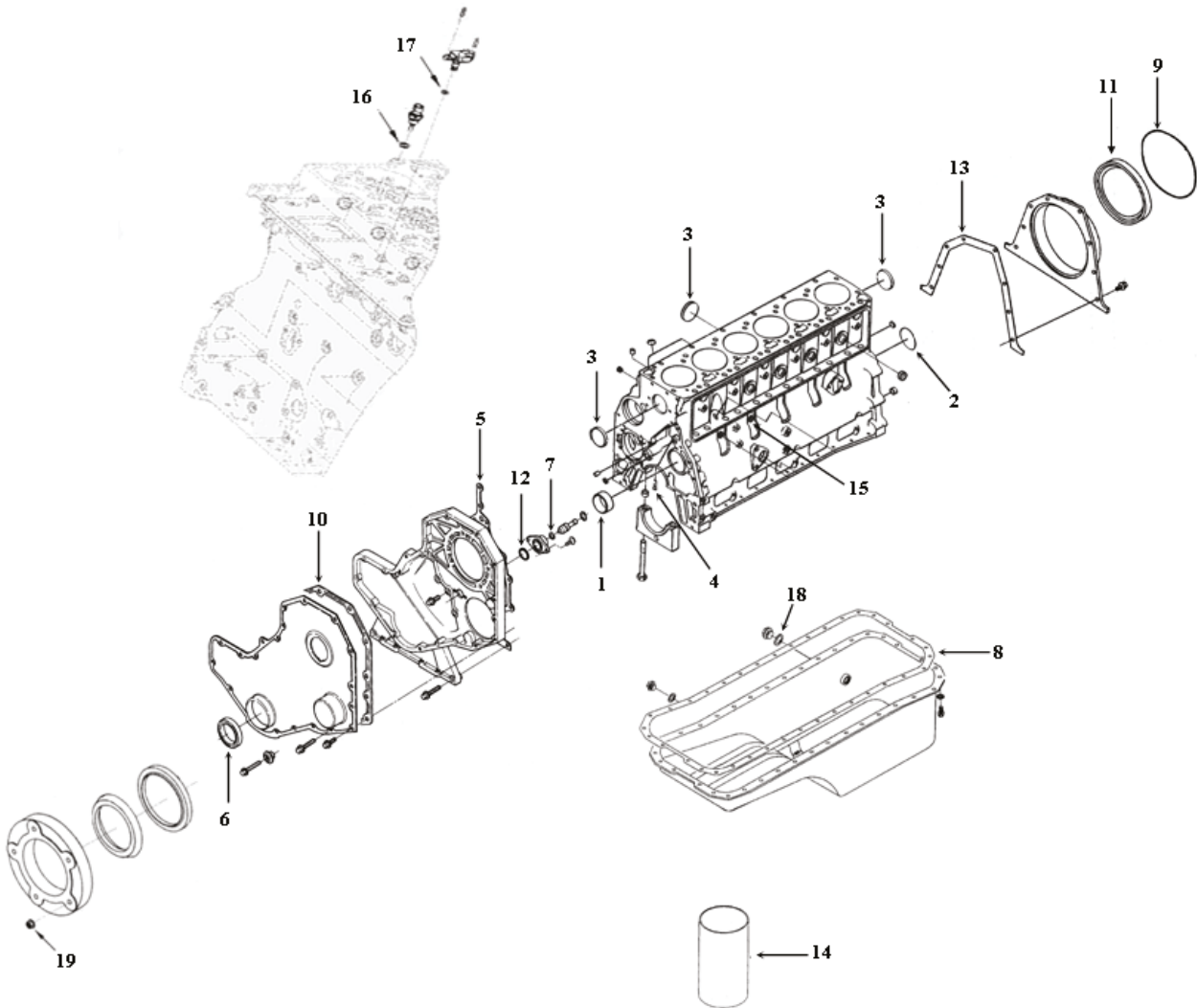
Note: Above piston kits include items in shaded area.



# ISB-QSB Series



## Engine Block



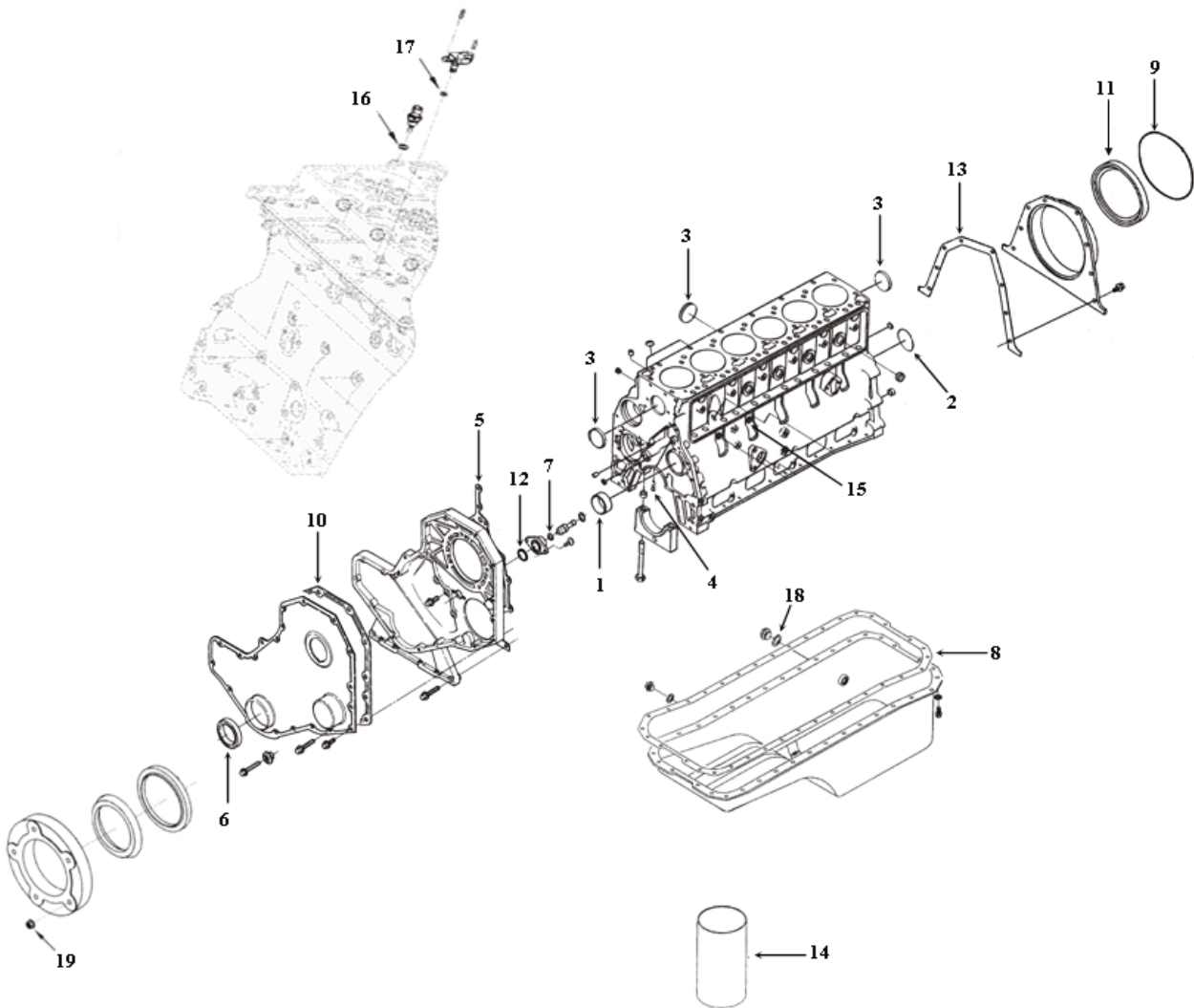
## Cylinder Block

Ref	Part Number	Description	ISB4	QSB4	ISB6	QSB6
00	4025138	Gasket Set, Upper ISB (Standard Head Gasket)(ISBE185 22)	-	-	1	-
00	4025139	Gasket Set, Lower ISB (ISBE185 22)	-	-	1	-
00	4089173	Gasket Set, Upper ISB (Standard Head Gasket)	-	-	1	-
00	FP-3800487	Gasket Set, Lower ISB	-	-	1	1
00	FP-4089819	Gasket Set, Upper ISB/QSB (Standard Head Gasket) (Previously 4089172)	-	-	1	1
00	FP-4090035	Gasket Set, Upper ISB (Standard Head Gasket) (Automotive)	-	-	1	1
00	FP-IFKISB624V	Inframe Kit	-	-	1	1
00	4025107	Gasket Set, Upper ISB (Standard Head Gasket)	1	1	-	-
00	4025108	Gasket Set, Lower ISB	1	1	-	-
00	3008468	Plug, Pipe (1/2" NPT)	1	1	1	1
00	3008469	Plug, Pipe (3/4" NPT)	1	1	1	1
00	3678921	Plug, Threaded	1	1	1	1
00	3678922	Plug, Threaded	1	1	1	1
00	3678924	Plug, Threaded	1	1	1	1
00	3900629	Screw, Hex Flange Head Cap	1	1	1	1
00	3900958	Plug, Expansion	1	1	1	1
00	3921992	Connection, Oil Suction	1	1	1	1
00	3924147	Plug, Threaded (M18 x 1.50)	1	1	1	1
00	3924148	Plug, Threaded	1	1	1	1
00	3929751	Gasket, Accessory Drive	1	1	1	1
00	3932290	Plug, O-Ring	1	1	1	1
00	3941910	Cover, Gear	1	1	1	1
00	3944816	Screw, Hex Flange Head Cap	1	1	1	1
00	3966976	Screw, Hex Flange Head Cap	1	1	1	1
00	FP-3008400	Gasket, Accessory Drive	1	1	1	1
00	FP-3902425	Washer, Sealing (M22) (Lower Drain Plug)	1	1	1	1
00	FP-3938157	Gasket, Oil Pickup Flange	1	1	1	1
00	3927948	Screw, Hex Flange Head Cap	14	14	14	14
00	3900068	Dowel, Ring	2	2	2	2
00	3900257	Dowel, Pin	2	2	2	2
00	3902343	Dowel, Ring	2	2	2	2
00	3920706	Plug, Expansion	2	2	2	2
00	3932296	Plug, O-Ring	2	2	2	2
00	3678923	Plug, Threaded	3	3	3	3
00	3900955	Plug, Expansion	3	3	3	3
00	3900956	Plug, Expansion	3	3	3	3
00	3920400	Screw, Hex Flange Head Cap	36	36	36	36
00	3921816	Screw, Hex Flange Head Cap	4	4	4	4
00	3975796	Plug, Expansion	5	5	-	-
00	3926846	Screw, Hex Flange Head Cap	5	5	5	5
00	3913638	Screw, Hex Flange Head Cap	6	6	6	6
00	3924962	Screw, Hex Flange Head Cap	7	7	7	7
01	FP-3940059	Bushing, Camshaft	1	1	1	1
01	FP-3903242	Bushing, Camshaft OS (#2-5)	AR	AR	AR	AR
01	FP-3904369	Bushing, Camshaft OS (#1)	AR	AR	AR	AR
02	FP-3900687	Plug, Expansion	1	1	1	1
02	FP-3926047	Seal, O-Ring (For 3900687 Expansion Plug)	1	1	1	1
02	3975796	Plug, Expansion	5	5	-	-
03	FP-3007635	Plug, Expansion	4	4	4	4

# ISB-QSB Series



## Engine Block



**Cylinder Block**

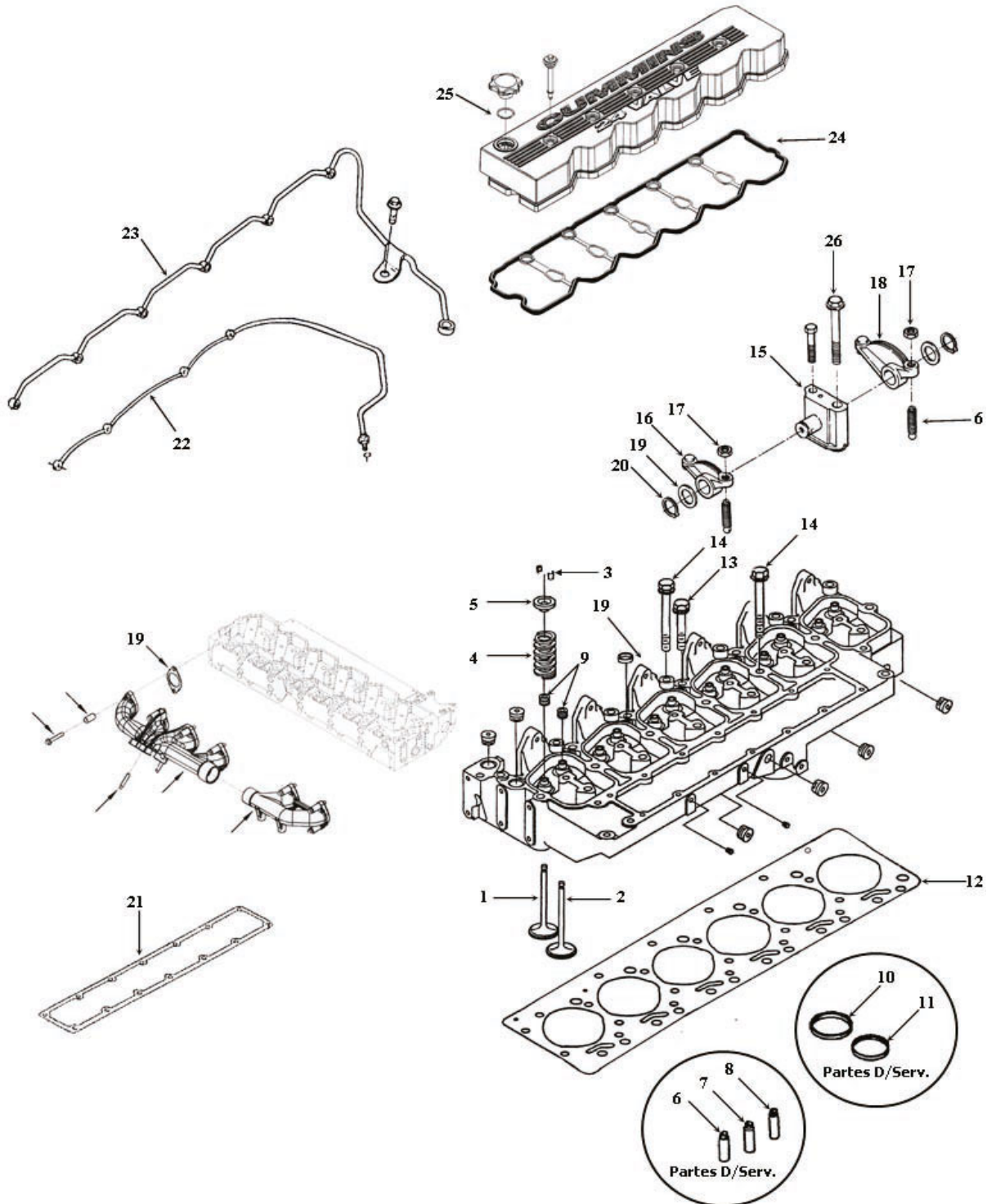
Ref	Part Number	Description	ISB4	QSB4	ISB6	QSB6
04	FP-3937214	Nozzle, Piston Cooling	4	4	6	6
05	FP-3938156	Gasket, Gear Housing	1	1	1	1
06	FP-3804899	Seal Kit, Front Cranshaft	1	1	1	1
06	FP-3937111	Seal Kit, Front Cranshaft	1	1	1	1
08	FP-3958165	Gasket, Oil Pan (Stamped Steel Pan, drain on bottom)	-	-	1	1
08	FP-3959052	Gasket, Oil Pan	-	-	1	1
09	3957492	Gasket, Rear Cover (For 3949415 Cover) (Wet Applications)	1	1	1	1
09	FP-3912473	Seal, Rectangular Ring	1	1	1	1
10	3938706	Gasket, Cover Plate	1	1	1	1
11	FP-4089342	Seal Kit, Rear Cranshaft				
11	3970548	Seal, Oil (Available In FP-4089342)	1	1	1	1
12	FP-3915772	Seal, Rectangular Ring (Timing Pin Housing)	1	1	1	1
13	4947667	Gasket, Rear Cover	1	1	1	1
14	FP-3904166	Sleeve, Salvage	4	4	6	6
15	FP-3678912	Seal, O-Ring	1	1	1	1
15	FP-3679139	Seal, O-Ring (For Coolant Plug 3089568)	1	1	1	1
16	FP-3957440	Seal, O-Ring	1	1	1	1
16	FP-3678925	Seal, O-Ring (Oil Pressure Switch)	2	2	2	2
17	FP-3330478	Seal, O-Ring (FP193734)	1	1	1	1
18	FP-3920773	Washer, Sealing (Sump Drain Plug)	1	1	1	1
19	FP-4946714	Nut, Seal Carrier	5	5	5	5



# ISB-QSB Series



## Cylinder Head



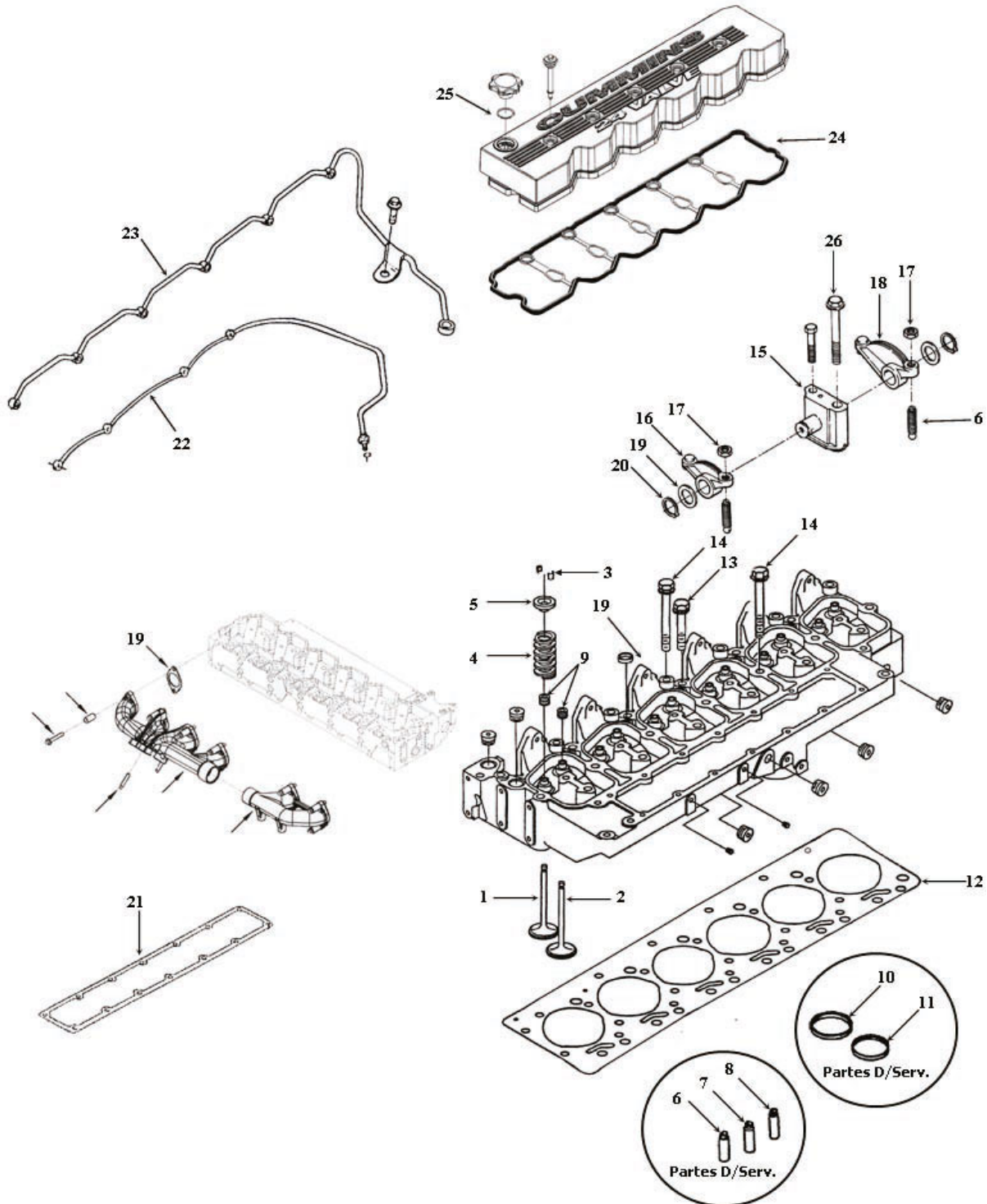
**Cylinder Head, Valve Mechanism & Upper Gasket Sets**

Ref	Part Number	Description	ISB4	QSB4	ISB6	QSB6
00	FP-4090035	Gasket Set, Upper ISB (Standard Head Gasket)	-	-	1	-
00	FP-4089819	Gasket Set, Upper QSB (Standard Head Gasket)	-	-	-	1
00	3935945	Retainer, Socket	1	1	1	1
00	3920706	Plug, Expansion	11	11	11	11
00	FP-3007635	Plug, Expansion	14	14	14	14
00	3935892	Shaft, Rocker Lever	2	2	2	2
00	3945094	Plug, Expansion	2	2	2	2
00	3945095	Plug, Expansion	2	2	2	2
00	3941253	Rod, Push	8	8	12	12
00	3943626	Crosshead, Valve	8	8	12	12
01	FP-3940734	Valve, Exhaust	8	8	12	12
02	FP-3940735	Valve, Intake	8	8	12	12
03	FP-3940123	Collet, Valve	36	36	48	48
04	FP-4936080	Spring, Valve	16	16	24	24
04	FP-3932453	Spring, Valve (36 PSI) Industrial Applications	36	36	48	48
05	FP-3943198	Retainer, Valve Spring	16	16	24	24
06	3959128	Screw, rkr Lever Adjusting	16	16	24	24
07	3942730	Ball, Rocker Lever	16	16	24	24
08	3935946	Socket, Rocker Lever	16	16	24	24
09	FP-3955393	Seal, Valve Stem (Exhaust)	8	8	12	12
09	FP-3955394	Seal, Valve Stem (Intake)	8	8	12	12
10	3943449	Insert, Valve (Intake)	8	8	12	12
11	3943450	Insert, Valve (Exhaust)	8	8	12	12
12	FP-3977063	Gasket, Cylinder Head	-	-	1	1
12	2830704	Gasket, Cylinder Head (1.25MM OS)	-	-	AR	AR
12	2830705	Gasket, Cylinder Head (1.15MM OS)	-	-	AR	AR
12	2830706	Gasket, Cylinder Head	1	1	-	-
12	2830707	Gasket, Cylinder Head	1	1	-	-
14	FP-3927063	Screw, Hex Flange Head Cap	26	26	26	26
15	3964908	Support, Rocker Lever	8	8	12	12
16	3941927	Lever, Rocker (Intake)	8	8	12	12
17	FP-3927692	Nut, Heavy Hexagon	16	16	24	24
18	3941928	Lever, Rocker (Exhaust)	8	8	12	12
19	FP-3937479	Gasket, Exhaust Manifold (Exc. Automotive)	4	4	6	6
19	FP-3946275	Gasket, Exhaust Manifold (Automotive)	4	4	6	6
21	3947530	Gasket, Air Intake Manifold Cover (For 3979766 Cover)	1	1	1	1
21	FP-3938152	Gasket, Air Intake Manifold Cover (For 3913349 Cover)	1	1	1	1
22	3943773	Tube, Injector Fuel Supply	1	1	1	1
23	3943775	Tube, Injector Fuel Supply	1	1	1	1
24	4939178	Gasket, Valve Cover (Automotive)	-	-	1	1
24	FP-3935878	Gasket, Valve Cover (Industrial)	-	-	1	1
24	FP-4899226	Gasket, Valve Cover (For Die-Cast Valve Cover)	-	-	1	1
24	FP-4897568	Gasket, Valve Cover (For Sand-Cast Valve Cover)	1	1	-	-
25	3946168	Screw, Captive Isolator Cap (M8 - 1.25 x 95.3)	5	5	5	5
26	3990127	Screw, Hex Flange Head Cap	12	12	12	12
00	<b>FP-3802924</b>	<b>Kit, Intake Valve</b>	8	8	12	12
02	FP-3940735	Valve, Intake	8	8	12	12
03	FP-3940123	Collet, Valve	36	36	48	48

# ISB-QSB Series



## Cylinder Head



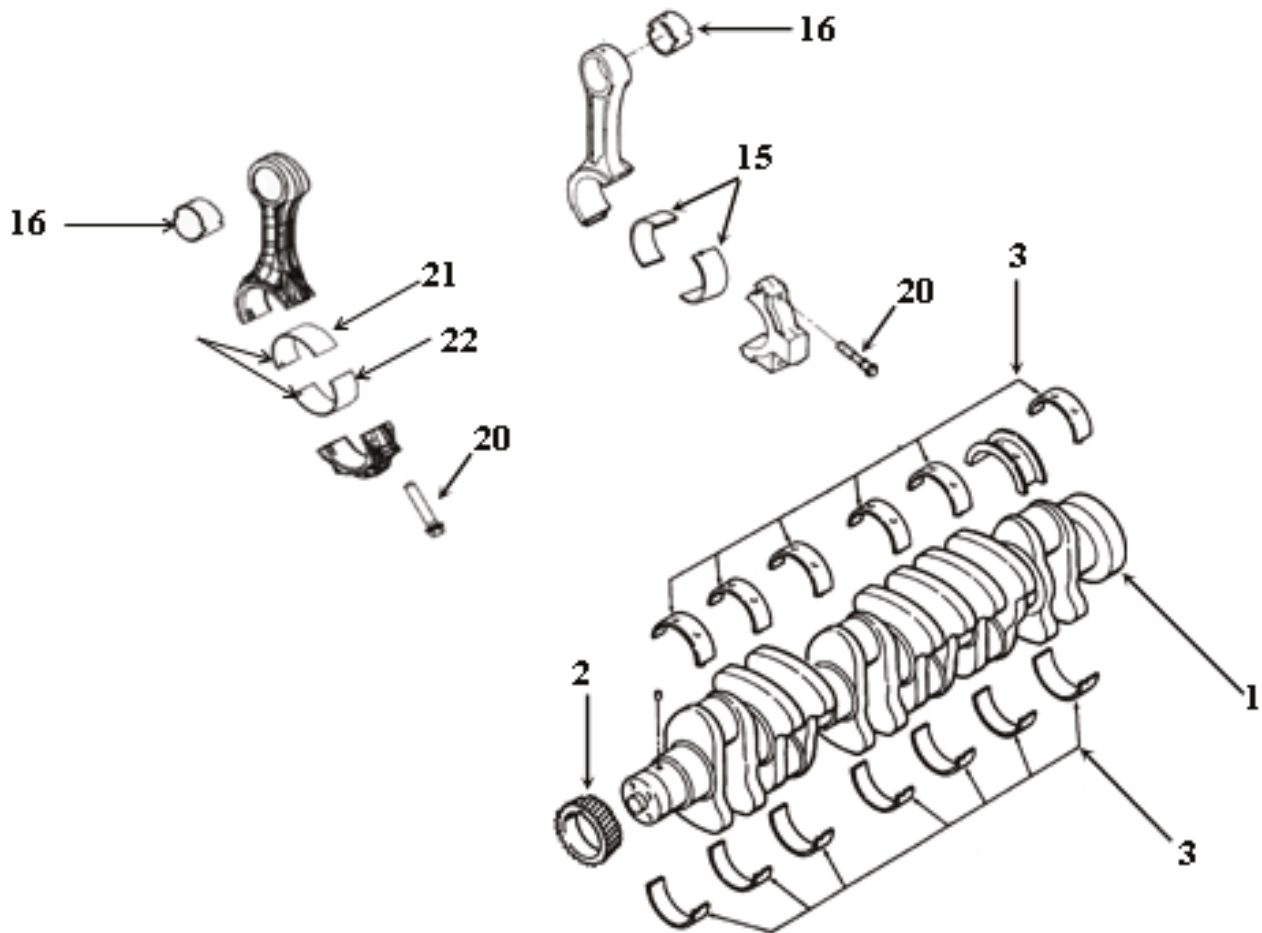


**Cylinder Head, Valve Mechanism & Upper Gasket Sets (Cont.)**

Ref	Part Number	Description	ISB4	QSB4	ISB6	QSB6
00	<b>FP-3802967</b>	Kit, Exhaust Valve	8	8	12	12
01	FP-3940734	Valve, Exhaust	8	8	12	12
03	FP-3940123	Collet, Valve	36	36	48	48
00	<b>FP-4089672</b>	Kit, Exhaust Valve w/Valve Stem Seal	8	8	12	12
01	FP-3968183	Valve, Exhaust	8	8	12	12
03	FP-3940123	Collet, Valve	36	36	48	48
09	FP-3955394	Seal, Valve Stem (Green Seal)	8	8	12	12
00	<b>FP-4955210</b>	Kit, Exhaust Valve w/Valve Stem Seal	8	8	12	12
01	FP-3968183	Valve, Exhaust	8	8	12	12
03	FP-3940123	Collet, Valve	8	8	12	12
09	FP-3955393	Seal, Valve Stem (Yellow Seal)	8	8	12	12



## Crankshaft



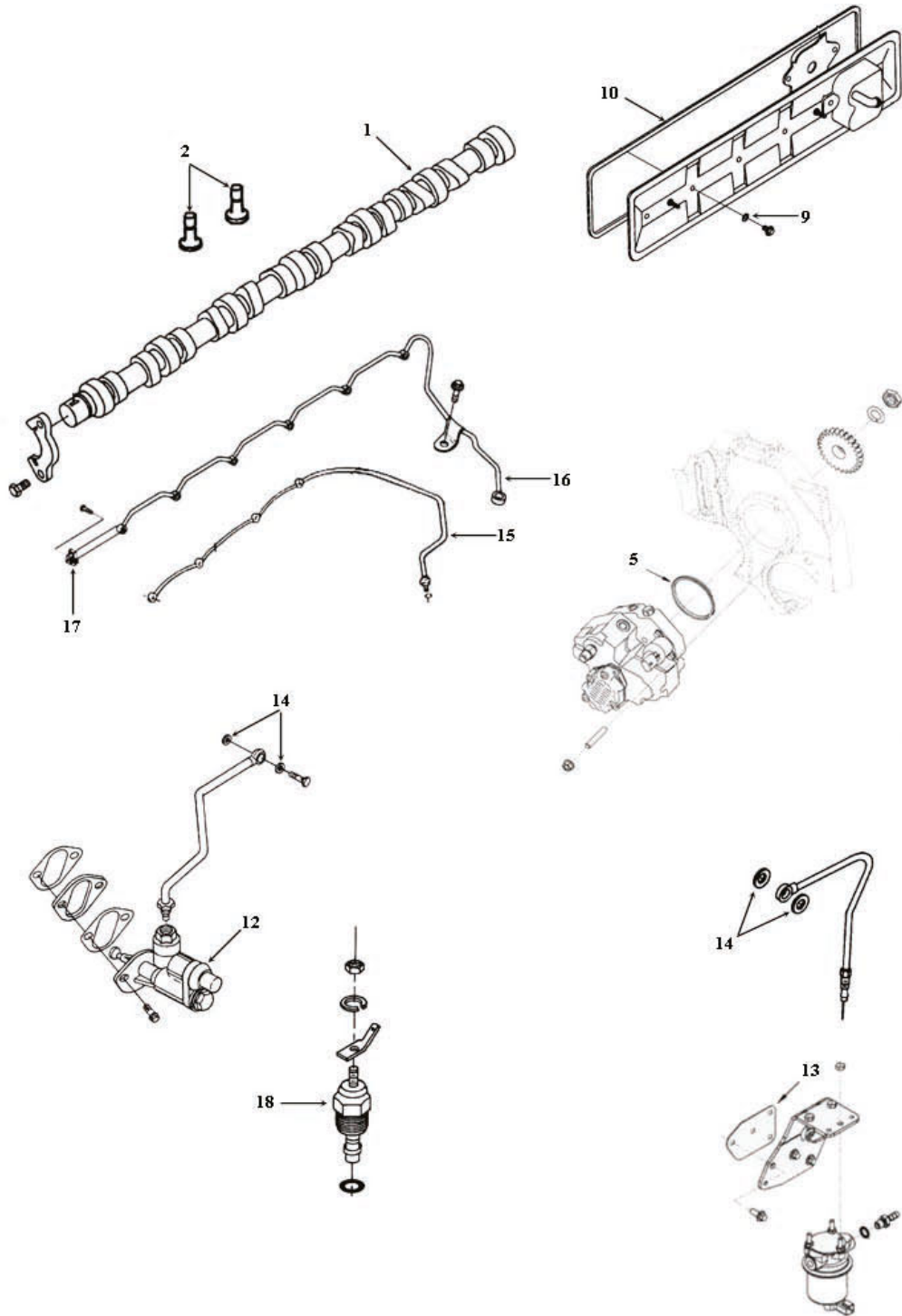
**Crankshaft, Main & Road Bearing, Oil Pan, front & Rear Cover**

Ref	Part Number	Description	ISB4	QSB4	ISB6	QSB6
00	3904483	Dowel, Pin	1	1	1	1
00	3944203	Screw, Flat Head Cap	5	5	5	5
01	3944204	Crankshaft, Engine	-	-	1	1
01	3939367	Crankshaft, Engine	1	1	-	-
02	FP-3929027	Gear, Crankshaft	1	1	1	1
03	FP-3802070	Main Bearing Set (Std.)	-	-	1	1
03	FP-3802071	Main Bearing Set (.25MM)	-	-	1	1
03	FP-3802072	Main Bearing Set (.50MM)	-	-	1	1
03	FP-3802073	Main Bearing Set (.75MM)	-	-	1	1
03	FP-3802074	Main Bearing Set (1.00MM)	-	-	1	1
03	FP-3802010	Main Bearing Set (Std.)	1	1	-	-
03	FP-3802011	Main Bearing Set (.25MM)	1	1	-	-
03	FP-3802012	Main Bearing Set (.50MM)	1	1	-	-
03	FP-3802013	Main Bearing Set (.75MM)	1	1	-	-
03	FP-3802014	Main Bearing Set (1.00MM)	1	1	-	-
15	FP-3967060	Connecting Rod Bearing Kit (Includes Upper And Lower) (Std.)	4	4	6	6
15	FP-3967061	Connecting Rod Bearing Kit (Includes Upper And Lower) (0.25mm)	4	4	6	6
15	FP-3967062	Connecting Rod Bearing Kit (Includes Upper And Lower) (0.50mm)	4	4	6	6
15	FP-3967063	Connecting Rod Bearing Kit (Includes Upper And Lower) (0.75mm)	4	4	6	6
15	FP-3967064	Connecting Rod Bearing Kit (Includes Upper And Lower) (1.00mm)	4	4	6	6
16	FP-4891178	Bushing	4	4	6	6
20	4891179	Connecting Rod Bolt (For Fractured Split Rods)	8	8	12	12
20	FP-3900919	Connecting Rod Bolt (M11 x 1.25 x 59.25mm) (For Machined Split Rods)	8	8	12	12
21	FP-3939859	Bearing, Connecting Rod (Std.) (Upper)	4	4	6	6
21	FP-3901171	Bearing, Connecting Rod (.25 mm oversize) (Upper)	A/R	A/R	A/R	A/R
21	FP-3901172	Bearing, Connecting Rod (.50 mm oversize) (Upper)	A/R	A/R	A/R	A/R
21	FP-3901173	Bearing, Connecting Rod (.75 mm oversize) (Upper)	A/R	A/R	A/R	A/R
21	FP-3901174	Bearing, Connecting Rod (1.00 mm Oversize) (Upper)	A/R	A/R	A/R	A/R
22	FP-4893693	Bearing, Connecting Rod (Std.) (Lower)	4	4	6	6
22	FP-4892795	Bearing, Connecting Rod (.25 mm oversize) (Lower)	A/R	A/R	A/R	A/R
22	FP-4892796	Bearing, Connecting Rod (.50 mm oversize) (Lower)	A/R	A/R	A/R	A/R
22	FP-4892797	Bearing, Connecting Rod (.75 mm oversize) (Lower)	A/R	A/R	A/R	A/R
22	FP-4892798	Bearing, Connecting Rod (1.00 mm Oversize) (Lower)	A/R	A/R	A/R	A/R

# ISB-QSB Series



## Camshaft & Fuel Components



**Camshaft & Fuel Components**

Ref	Part Number	Description	4BT3.9	6BT5.9
00	3900227	Screw, Hexagon Head Cap	2	2
00	3902332	Key, Plain Woodruff	1	1
00	3927155	Support, Camshaft Thrust	1	1
01	3942567	Camshaft	-	-
02	FP-3942565	Tappet, Valve (1998.5-2002)	16	16
02	FP-3947759	Tappet, Valve (2003-Up)	16	16
03	3910960	Washer, Plain	2	2
09	FP-3928759	Seal, Grommet	6	6
10	FP-3284623	Gasket, Push Rod Cover	1	1

**Fuel Transfer Pump & Plumbing**

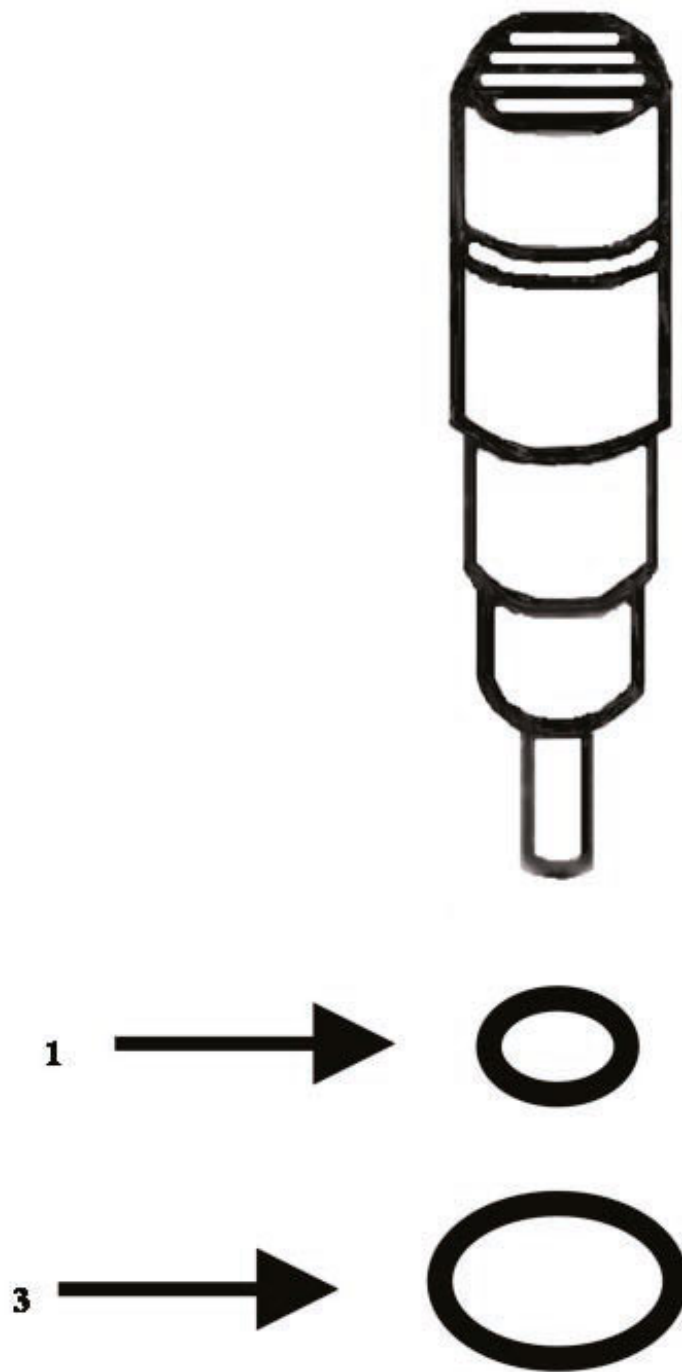
Ref	Part Number	Description	4BT3.9	6BT5.9
00	3408346	Sensor, Temperature	A/R	A/R
00	3408438	Seal, O-Ring Position Sensors	A/R	A/R
00	4010519	Seal, O-Ring Temperature	A/R	A/R
00	FP-3330202	Seal, O-Ring Pressure Sensor	A/R	A/R
00	3990084	Seal, O-Ring Oil Filler Cap	1	1
05	FP-3949688	Seal, Gear Driven Fuel Pump Rectangular	1	1
11	FP-3990105	Pump, Fuel Transfer (With VP30, VP44 Injection Pump) 4943048 (12V)	1	1
12	FP-4089602	Pump, Fuel Transfer (With Common Rail)	1	1
13	3938706	Gasket, Cover Plate Bracket (Electric Lift Pump)	1	1
14	FP-3963983	Gasket, Fuel Inlet Fitting	8	8
15	3972080	Tube, Fuel Drain	1	1
16	3943765	Tube, Injector Fuel Supply (#1 Cylinder)	1	1
16	3943767	Tube, Injector Fuel Supply (#2 Cylinder)	1	1
16	3943769	Tube, Injector Fuel Supply (#3 Cylinder)	1	1
16	3943771	Tube, Injector Fuel Supply (#4 Cylinder)	1	1
16	3943773	Tube, Injector Fuel Supply (#5 Cylinder)	1	1
16	3943775	Tube, Injector Fuel Supply (#6 Cylinder)	1	1
16	3943777	Tube, Injector Fuel Supply	1	1
17	3944833	Connector, Male	1	1
18	3348747	Sensor, Pressure	1	1



# ISB-QSB Series



## Fuel Injector Parts





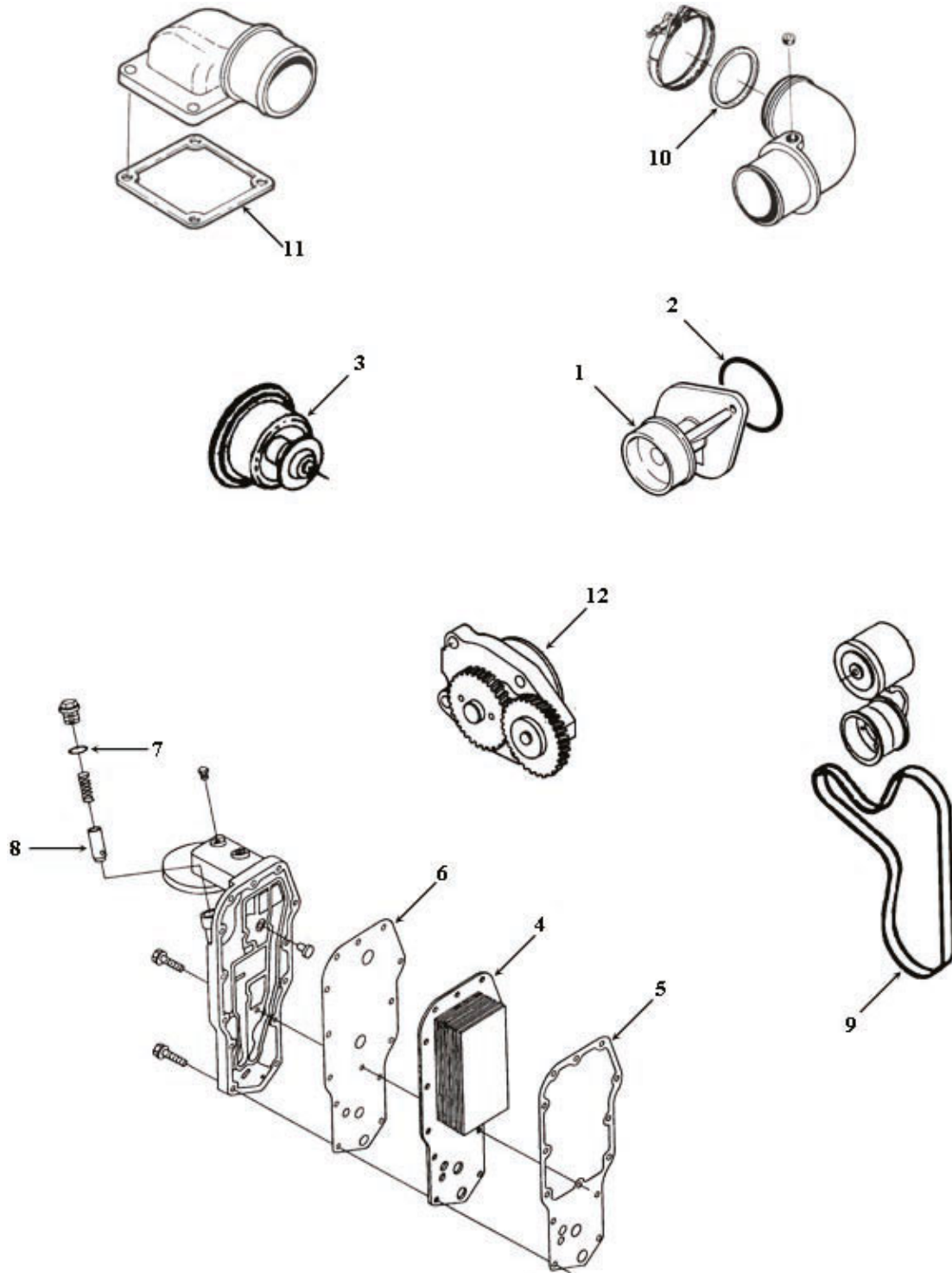
**Fuel Injector Parts**

Ref	Part Number	Description	ISB4	QSB4	ISB6	QSB6
00	FP-3867043	Fuel Connector O-Rings (3882589)	8	8	12	12
01	FP-3029820	Fuel Injector O-Rings (Bosch Type Inj)	8	8	12	12
01	FP-3937142	Fuel Injector O-Rings (For Engines Built After April 2003)	8	8	12	12
03	FP-3906659	Fuel Injector Sealing Washer (Bosch Type Inj)	8	8	12	12

# ISB-QSB Series



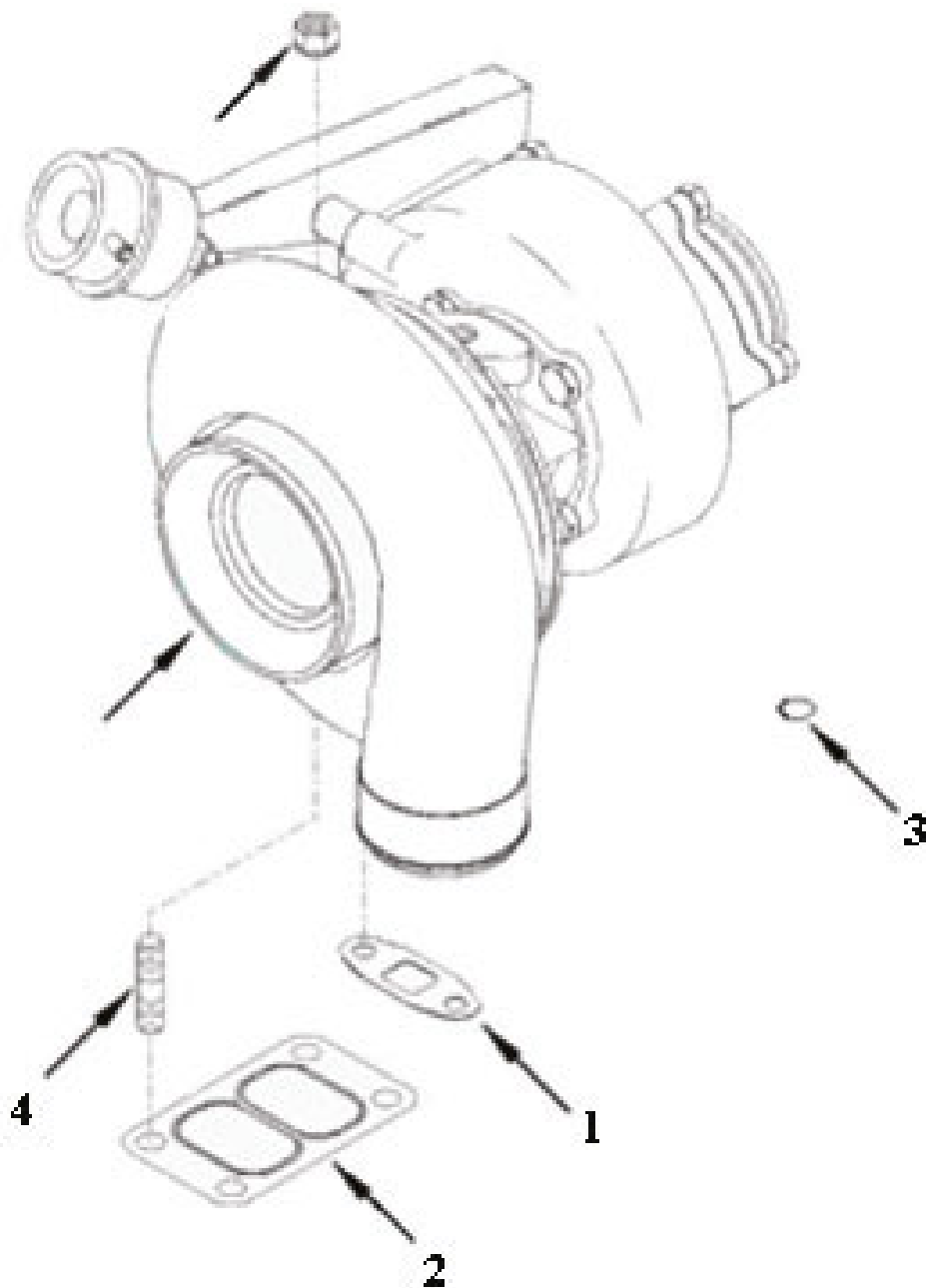
## Cooling Components



**Water Pump, Oil Cooler Core & Cooling Components**

Ref	Part Number	Description	ISB4	QSB4	ISB6	QSB6
00	3906619	Plug, Pipe	1	1	1	1
00	3915787	Plug, Threaded	1	1	1	1
00	3925009	Spring, Compression	1	1	1	1
00	3954829	Seal, Thermostat	1	1	1	1
00	3976831	Tensioner, Belt	1	1	1	1
00	FP-3883284	Seal, O-Ring	1	1	1	1
00	3900677	Screw, Hexagon Head Cap (Oil Pump Mounting)	4	4	4	4
01	FP-3286278	Pump, Water	1	1	1	1
02	FP-3906698	Seal, Rectangular Ring	1	1	1	1
03	3928499	Thermostat	1	1	1	1
03	3967195	Thermostat	1	1	1	1
04	FP-3957544	Core, Oil Cooler	-	-	1	1
04	FP-3957543	Core, Oil Cooler	1	1	-	-
05	FP-3926760	Gasket, Oil Cooler Core - FP-3942914 Replaced	1	1	1	1
06	FP-3942915	Gasket, Filter Head	1	1	1	1
07	FP-3929457	Seal, O-Ring	1	1	1	1
08	FP-3918428	Plunger, Pressure Regulator	1	1	1	1
09	3289257	Belt, V Ribbed	1	1	1	1
10	FP-3883284	Seal, O-Ring Air Transfer Connection	1	1	1	1
11	FP-3969988	Gasket, Connection Air Intake	1	1	1	1
12	FP-4939587	Pump, Lubricating Oil - (Old No. 3937404)	-	-	1	1
12	FP-4939585	Oil Pump (Old No. 3937027)	1	1	-	-

## Turbocharger

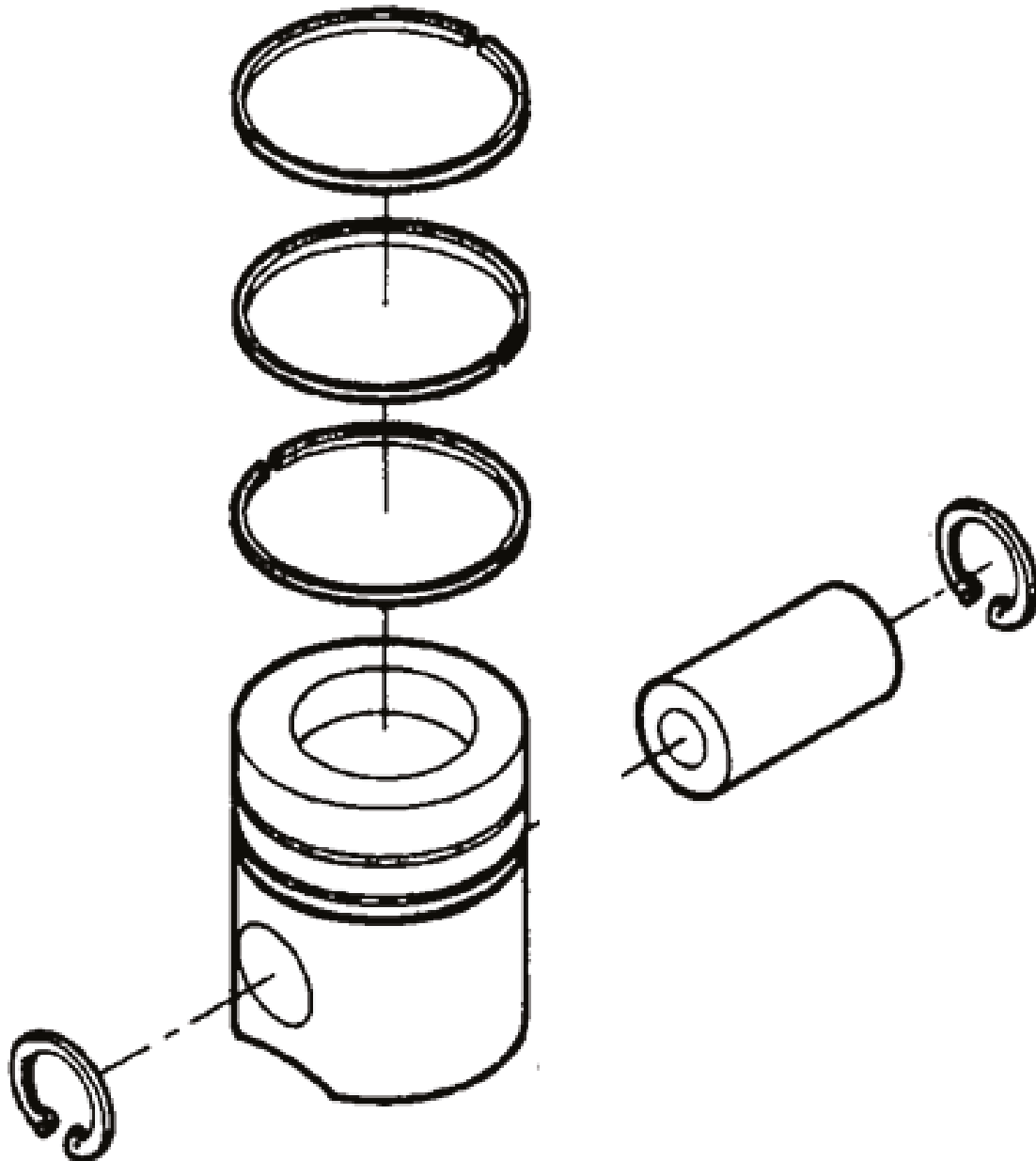




**Turbocharger**

Ref	Part Number	Description	ISB4	QSB4	ISB6	QSB6
01	4931365	Gasket, Turbo Drain (6.7L Engines)	-	-	1	1
01	FP-3937706	Gasket, Turbo Charger Oil Drain (HX35)	1	1	1	1
02	FP-3919369	Gasket, Turbo Mounting 3901356 (Exc. 6.7L Engines)	1	1	1	1
03	FP-3931824	Seal, O-Ring Turbo Oil Line (Exc. 6.7L Engines)	1	1	1	1
04	FP-3818823	Stud, Turbocharger Mounting (Exc. 6.7L Engines)	1	1	1	1

Piston Kits



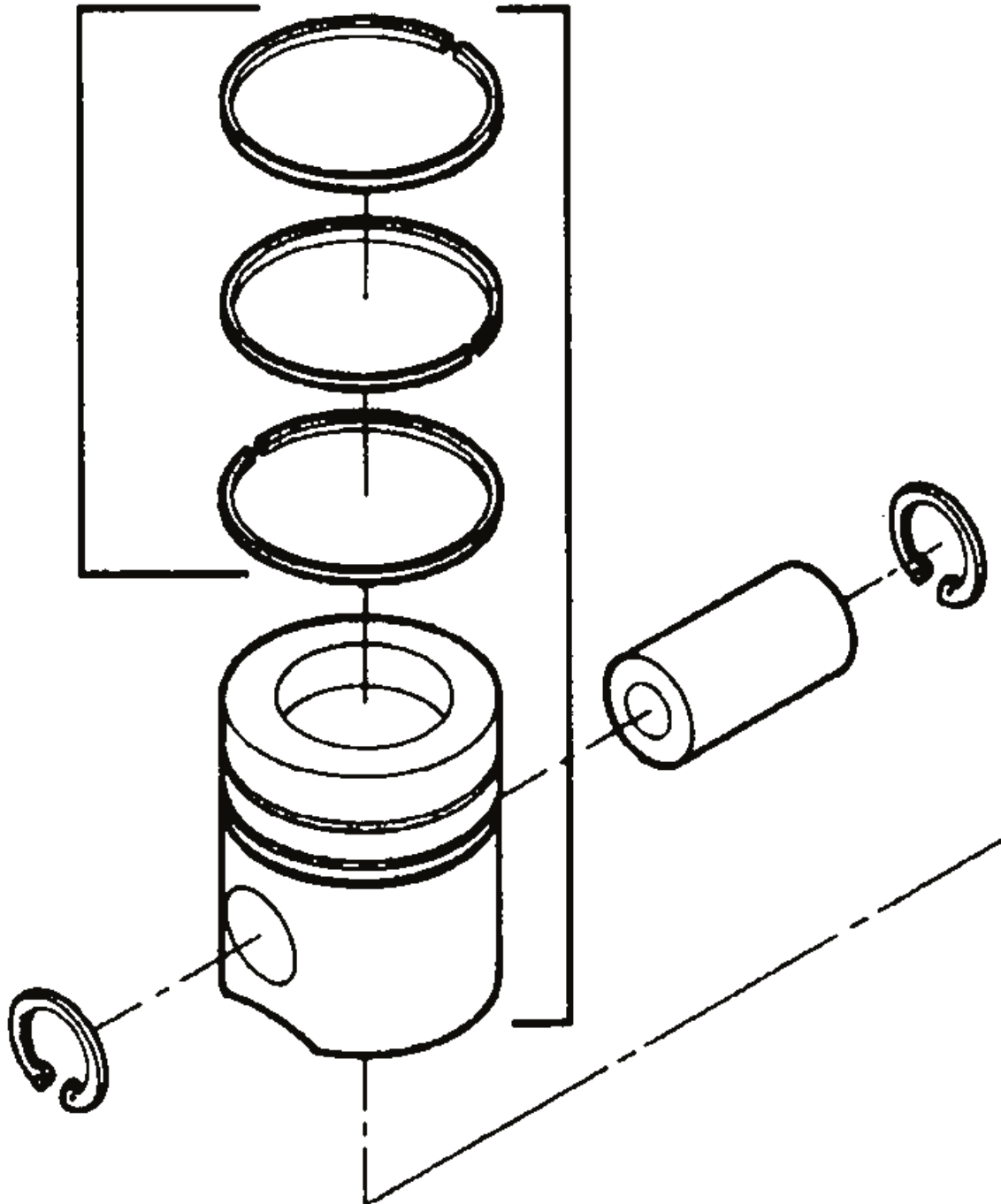
## Piston Kits

Avail	Engine	Piston Kit	Piston Body	Piston Pin	Retainers	Ring Set	C/R	Comments
<sup>3</sup>	QSB	3802925	3948468	Not Included	FP-3920691	3802917		.50MM Oversize
<sup>3</sup>	QSB	3802926	3948469	Not Included	FP-3920691	3802918		1.00MM Oversize
<sup>3</sup>	QSB	3802927	3948465	Not Included	FP-3920691	3802919		STD - GRADE A
<sup>3</sup>	QSB	3802928	3948466	Not Included	FP-3920691	3802919		STD - GRADE B
<sup>3</sup>	QSB	3802929	3948467	Not Included	FP-3920691	3802919		STD - GRADE C
<sup>3</sup>	ISB	3804980	3932514	Not Included	FP-3920691	3804930		Standard
<sup>3</sup>	ISB	3804981	3933581	Not Included	FP-3920691	3804931		.50MM Oversize
<sup>3</sup>	ISB	3804982	3933582	Not Included	FP-3920691	3804932		1.00MM Oversize
✓	ISB/QSB	FP-3800781	FP-3946153	Not Included	FP-3920691	FP-3804990		Standard
✓	ISB/QSB	FP-3800782	FP-3946154	Not Included	FP-3920691	FP-3804990		STD - GRADE A
✓	ISB/QSB	FP-3800783	FP-3946155	Not Included	FP-3920691	FP-3804990		STD - GRADE B
✓	ISB/QSB	FP-3800784	FP-3946156	Not Included	FP-3920691	FP-3806201		.50MM Oversize
✓	ISB/QSB	FP-3800785	FP-3946157	Not Included	FP-3920691	FP-3806203		1.00MM Oversize
✓	ISB/QSB	FP-3800838	FP-3946050	Not Included	FP-3920691	FP-3804990		Standard
✓	ISB/QSB	FP-3800839	FP-3946051	Not Included	FP-3920691	FP-3804990		STD - GRADE B
✓	ISB/QSB	FP-3800840	FP-3946052	Not Included	FP-3920691	FP-3804990		STD - GRADE C
✓	ISB/QSB	FP-3800841	FP-3946053	Not Included	FP-3920691	FP-3806201		.50MM Oversize
✓	ISB/QSB	FP-3800842	FP-3946054	Not Included	FP-3920691	FP-3806203		1.00MM Oversize
✓	ISB	FP-4025011	FP-3972884	Not Included	FP-3920691	FP-4089258		Standard
✓	ISB	FP-4025072	FP-3972880	Not Included	FP-3920691	FP-4089258		Standard
✓	ISB	FP-4089183	FP-3966675	Not Included	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-4089184	FP-3966676	Not Included	FP-3920691	FP-4089182		1.00MM Oversize
✓	ISB	FP-4089185	FP-3949843	Not Included	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-4089186	FP-3949844	Not Included	FP-3920691	FP-4089182		1.00MM Oversize
✓	ISB	FP-4089259	FP-3965497	Not Included	FP-3920691	FP-4089258		Standard
✓	ISB	FP-4089260	FP-3958675	Not Included	FP-3920691	FP-4089258		Standard
✓	ISB	FP-4089420	FP-3972885	Not Included	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-4089421	FP-4898821	Not Included	FP-3920691	FP-4089182		1.00MM Oversize
✓	ISB	FP-4089422	FP-3972881	Not Included	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-4089423	FP-3972882	Not Included	FP-3920691	FP-4089182		1.00MM Oversize
✓	ISB	FP-4089669	FP-3970192	Not Included	FP-3920691	FP-4089258		Standard
✓	ISB	FP-4089670	FP-3970126	Not Included	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-4089671	FP-3970127	Not Included	FP-3920691	FP-4089182		1.00MM Oversize
✓	ISB/QSB	FP-PK0781	FP-3946153	FP-3934047	FP-3920691	FP-3804990		Standard
✓	ISB/QSB	FP-PK0782	FP-3946154	FP-3934047	FP-3920691	FP-3804990		STD - GRADE A
✓	ISB/QSB	FP-PK0783	FP-3946155	FP-3934047	FP-3920691	FP-3804990		STD - GRADE B
✓	ISB/QSB	FP-PK0784	FP-3946156	FP-3934047	FP-3920691	FP-3806201		.50MM Oversize
✓	ISB/QSB	FP-PK0785	FP-3946157	FP-3934047	FP-3920691	FP-3806203		1.00MM Oversize
✓	ISB/QSB	FP-PK0838	FP-3946050	FP-3934047	FP-3920691	FP-3804990		Standard
✓	ISB/QSB	FP-PK0839	FP-3946051	FP-3934047	FP-3920691	FP-3804990		STD - GRADE B
✓	ISB/QSB	FP-PK0840	FP-3946052	FP-3934047	FP-3920691	FP-3804990		STD - GRADE C
✓	ISB/QSB	FP-PK0841	FP-3946053	FP-3934047	FP-3920691	FP-3806201		.50mm Oversize
✓	ISB/QSB	FP-PK0842	FP-3946054	FP-3934047	FP-3920691	FP-3806203		1.00mm Oversize
✓	ISB	FP-PK5011	FP-3972884	FP-3934047	FP-3920691	FP-4089258		Standard
✓	ISB	FP-PK5072	FP-3972880	FP-3934047	FP-3920691	FP-4089258		Standard
✓	ISB	FP-PK9183	FP-3966675	FP-3934047	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-PK9184	FP-3966676	FP-3934047	FP-3920691	FP-4089182		1.00MM Oversize
✓	ISB	FP-PK9185	FP-3949843	FP-3934047	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-PK9186	FP-3949844	FP-3934047	FP-3920691	FP-4089182		1.00MM Oversize

<sup>3</sup>New Item Call For Availability

Note: Above piston kits include items in shaded area.

Piston Kits



## Piston Kits (Cont.)

Avail	Engine	Piston Kit	Piston Body	Piston Pin	Retainers	Ring Set	C/R	Comments
✓	ISB	FP-PK9259	FP-3965497	FP-3934047	FP-3920691	FP-4089258		Standard
✓	ISB	FP-PK9260	FP-3958675	FP-3934047	FP-3920691	FP-4089258		Standard
✓	ISB	FP-PK9420	FP-3972885	FP-3934047	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-PK9421	FP-4898821	FP-3934047	FP-3920691	FP-4089182		1.00MM Oversize
✓	ISB	FP-PK9422	FP-3972881	FP-3934047	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-PK9423	FP-3972882	FP-3934047	FP-3920691	FP-4089182		1.00MM Oversize
✓	ISB	FP-PK9669	FP-3970192	FP-3934047	FP-3920691	FP-4089258		Standard
✓	ISB	FP-PK9670	FP-3970126	FP-3934047	FP-3920691	FP-4089181		.50MM Oversize
✓	ISB	FP-PK9671	FP-3970127	FP-3934047	FP-3920691	FP-4089182		1.00MM Oversize

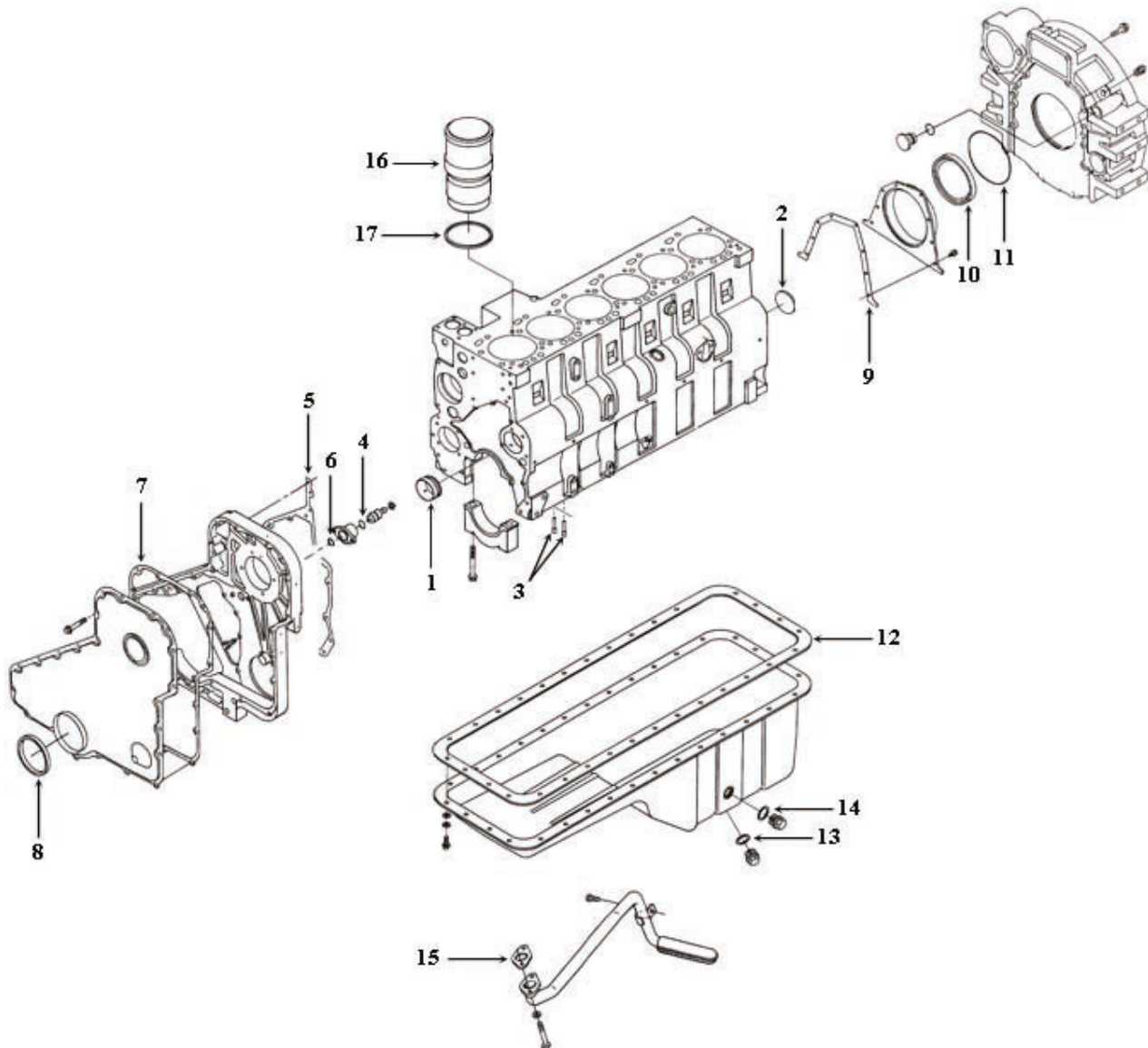
Note: Above piston kits include items in shaded area.



# 6CT8.3 Series



## Engine Block



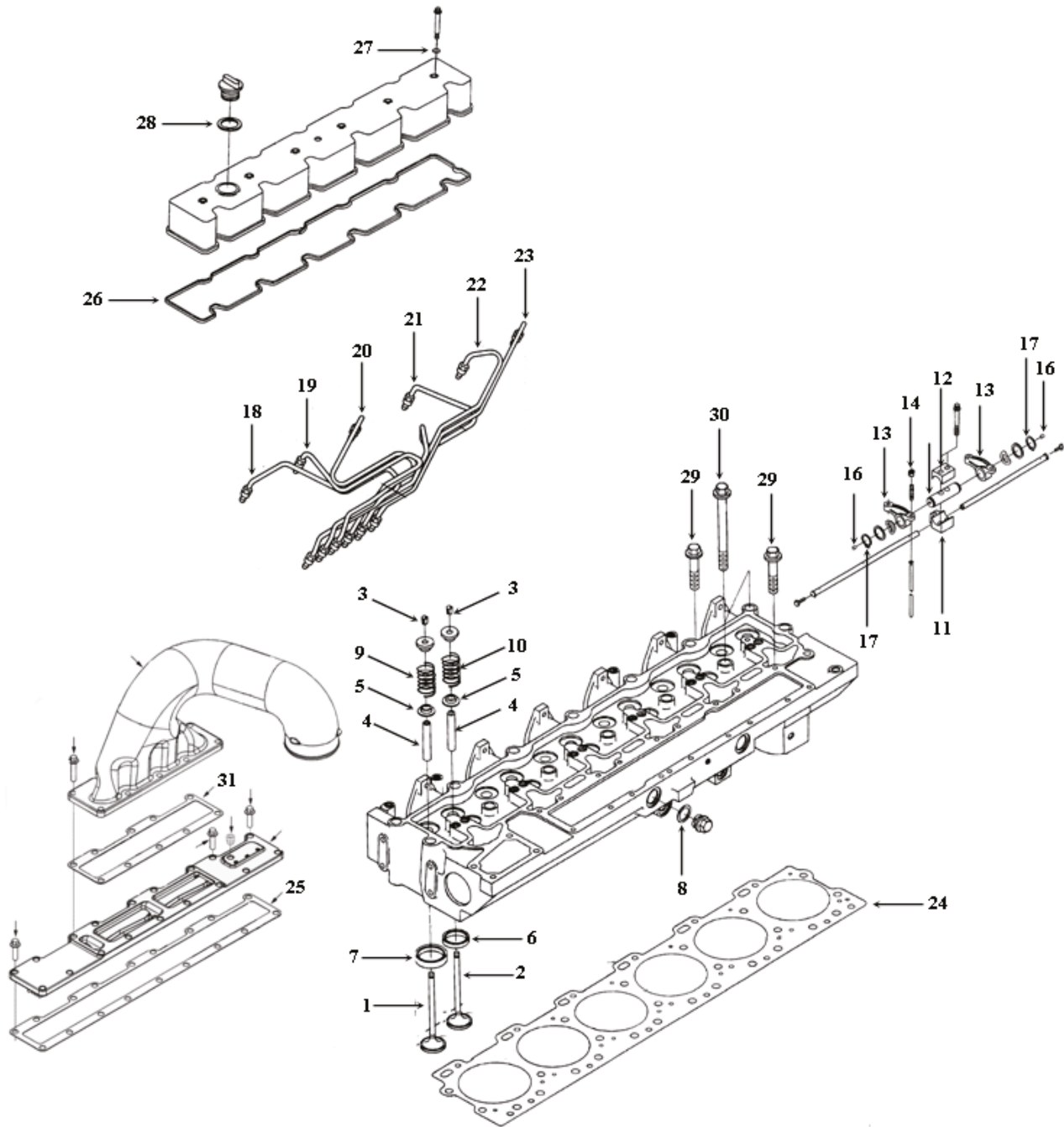
## Cylinder Block, Front & Rear Covers & Gasket Sets

Ref	Part Number	Description	6 CT8.3
00	FP-3802389	Gasket Set, Lower	1
00	FP-3903475	Seal, Rectangular Ring	1
00	FP-3906081	Sleeve, Wear (Rear)	1
00	FP-3908096	Gasket, Cover Plate (Bell Housing)	1
00	FP-4025271	Gasket Set, Upper (With Standard Head Gasket)	1
00	FP-4025271S	Gasket Set, In-Frame	1
00	FP-6C8.3PREM	In-Frame Kit W/Upper Gasket Set & Pan Gasket	1
00	FP-6C8.3PREM OH	O/H Engine Kit W/Front & Rear Seals	1
01	FP-3945329	Bushing, Camshaft	7
02	FP-3901969	Plug, Expansion	1
03	FP-3905928	Nozzle, Piston Cooling (Early)(Pre 91C)	6
03	FP-3928031	Nozzle, Piston Cooling (Late), (Thick-Walled Block)(91C>)	12
04	FP-3913994	Seal, O-Ring	1
05	FP-3281721	Gasket, Gear Housing	1
06	FP-3915772	Seal, Rectangular Ring	1
07	FP-3917780	Gasket, Gear Cover	1
08	FP-3353977	Seal, Front Service Kit (Crankshaft)	1
08	FP-3925343	Front Crankshaft Seal and Sleeve Kit (Non-Automotive Applications)	1
08	FP-3925626	Front Crankshaft Seal and Sleeve Kit (Automotive Applications)	1
09	FP-3939353	Gasket, Rear Cover (Formerly FP-3914301)	1
10	FP-3909410	Seal, Rear Service Kit (Crankshaft)	1
10	FP-3926126	Seal Kit W/Sleeve	1
11	FP-3912473	Seal, Rectangular Ring	1
12	FP-3938160	Gasket, Oil Pan	1
13	FP-3920773	Washer, Sealing (Oil Pan Plug)	1
14	FP-3902425	Washer, Sealing (Oil Pan Plug)	1
15	FP-3914302	Gasket, Oil Suction Connection	1
00	<b>FP-3800328</b>	<b>Kit, Liner Standard (1/05/98 to Present), (Thick-Walled Block)(Previously FP-3800903)</b>	6
16	FP-3948095	Liner, Cylinder (1/05/98 to Present)(Previously FP-3944344)	6
17	FP-3907177	Seal, Rectangular Ring (Liner), (All)	6
00	<b>FP-3802370</b>	<b>Kit, Liner Standard (Early Prior to 1991)</b>	6
16	FP-3907792	Liner, Cylinder (Early Prior to 1991)	6
17	FP-3907177	Seal, Rectangular Ring (Liner), (All)	6
00	<b>FP-3802407</b>	<b>Kit, Liner Standard (1991 thru 1/04/98), (Thick-Walled Block)</b>	6
16	FP-3907792	Liner, Cylinder (Early Prior to 1991)	6
17	FP-3907177	Seal, Rectangular Ring (Liner), (All)	6

# 6CT8.3 Series



## Cylinder Head



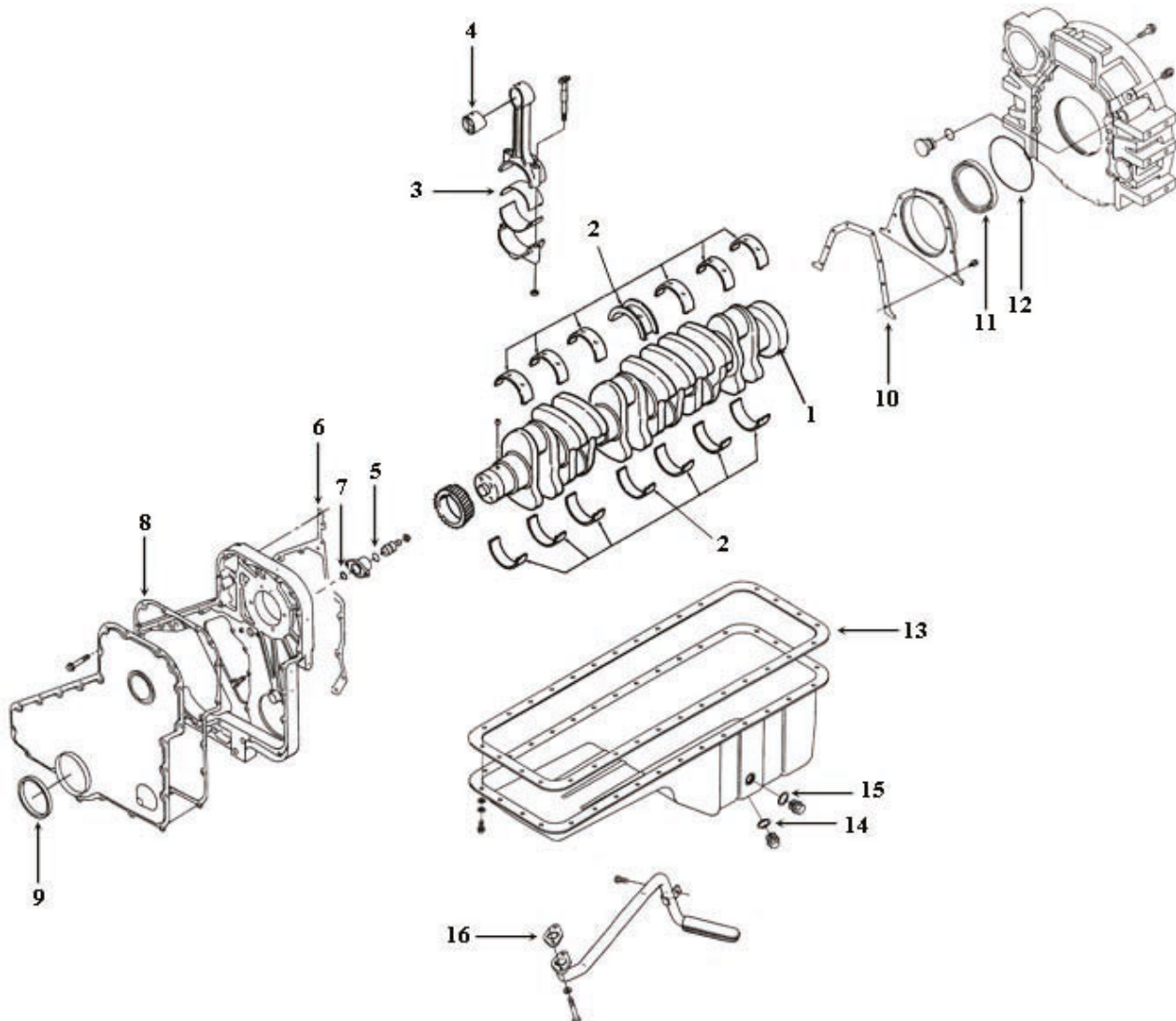
## Cylinder Head, Valve Mechanism & Upper Gasket Set

Ref	Part Number	Description	6 CT8.3
00	FP-3903380	Seal, Banjo Connector (Fuel Manifold)	6
00	FP-3909886	Seal, Injector	6
00	FP-3932063	Gasket, Exhaust Manifold	6
00	FP-4025271	Gasket Set, Upper (230 HP and Lower)	1
04	FP-3923564	Guide, Valve Stem (Intake & Exhaust Valve)	12
05	FP-3927642	Seal, Valve Stem (Intake & Exhaust Valve)	12
06	FP-3929005	Insert, Valve (Exhaust) (.230 Tall)	6
07	3928174	Insert, Valve (Exhaust) (.250 Tall)	6
07	FP-3924582	Insert, Valve (Intake)	6
08	FP-3902425	Washer, Sealing	2
09	FP-3906412	Spring, Valve (Intake)	6
10	FP-3916588	Spring, Valve (Exhaust)	6
11	FP-3905870	Support, Rocker Lever	12
12	FP-3901693	Clamp, Retaining	6
13	FP-3901717	Lever, Rocker	12
14	FP-203131	Nut, Heavy Hexagon	12
15	FP-3919435	Shaft, Rocker Lever	6
16	FP-3907555	Plug, Expansion	2
17	FP-3901764	Ring, Retaining	12
18	FP-3906783	Tube, Injector Fuel Supply	1
19	FP-3906784	Tube, Injector Fuel Supply	1
20	FP-3906785	Tube, Injector Fuel Supply	1
21	FP-3910521	Tube, Injector Fuel Supply	1
22	FP-3906788	Tube, Injector Fuel Supply	1
24	FP-3935585	Gasket, Cylinder Head (Standard)(230 HP & Below)	1
24	FP-3935586	Gasket, Cylinder Head (.25MM OS)	1
25	FP-3936993	Gasket, Intake Manifold Cover	1
26	FP-3905449	Seal, Rocker Lever Cover	1
27	FP-3910824	Seal, O-Ring	6
28	FP-3902466	Seal, Rectangular Ring	1
29	FP-3907234	Screw, Hex Flange Head Cap (Prior To 91) (M14 X 2.00 X 70)	12
29	FP-3917729	Screw, Hex Flange Head Cap (91 To Current) (M14 X 2.00 X 80)	12
30	FP-3907233	Screw, Hex Flange Head Cap (Prior To 91) (M14 X 2.00 X 150)	14
30	FP-3917728	Screw, Hex Flange Head Cap (91 To Current) (M14 X 2.00 X 160)	14
31	FP-3992090	Gasket, Air Intake Connection	1
00	<b>FP-3802085</b>	<b>Valve Kit, Exhaust (12 Valve Engines)</b>	6
02	FP-3921444	Valve, Exhaust (12 Valve Engines)	6
03	FP-3901177	Lock Half, Valve (12 Valve Engines)	24
00	<b>FP-3802463</b>	<b>Valve Kit, Intake (12 Valve Engines)</b>	6
01	FP-3924492	Valve, Intake (12 Valve Engines)	6
03	FP-3901177	Lock Half, Valve (12 Valve Engines)	24

# 6CT8.3 Series



## Crankshaft





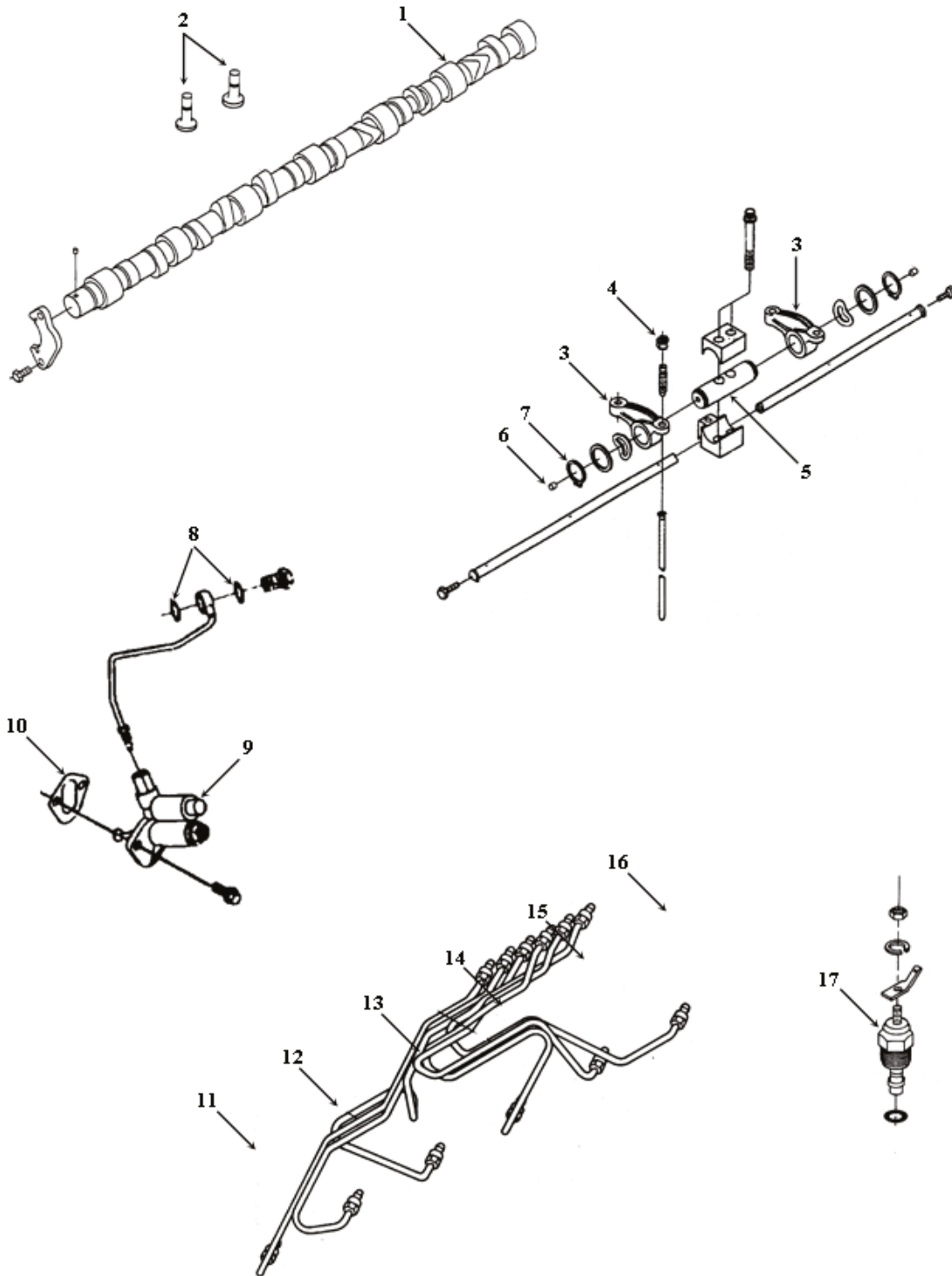
**Crankshaft, Main & Rod Bearing, Oil Pan, Front & Rear Covers**

Ref	Part Number	Description	6 CT8.3
01	FP-3918986	Crankshaft Assembly	1
02	FP-3802210	Bearing Set, Main Standard	1
02	FP-3802211	Bearing Set, Main (0.25MM U.S.)	1
02	FP-3802212	Bearing Set, Main (0.50MM U.S.)	1
02	FP-3945917	Bearing Set, Main Std. (Narrow)	1
02	FP-3945918	Bearing Set, Main .25MM (Narrow)	1
02	FP-3945919	Bearing Set, Main .50MM (Narrow)	1
03	FP-3901430	Bearing, Connecting Rod Standard	12
03	FP-3901431	Bearing, Connecting Rod (0.25MM U.S.)	12
03	FP-3901432	Bearing, Connecting Rod (0.50MM U.S.)	12
03	FP-3901433	Bearing, Connecting Rod (0.75MM U.S.)	12
03	FP-3901434	Bearing, Connecting Rod (1.00MM U.S.)	12
04	FP-3913990	Bushing, Connecting Rod	6
05	FP-3913994	Seal, O-Ring	1
06	FP-3281721	Gasket, Gear Housing	1
07	FP-3915772	Seal, Rectangular Ring	1
08	FP-3917780	Gasket, Gear Cover	1
09	FP-3353977	Seal, Front Service (Seal Only)	1
09	FP-3925343	Front Crankshaft Seal and Sleeve Kit	1
10	FP-3939353	Gasket, Rear Cover	1
11	FP-3909410	Seal, Rear Service Kit (Crankshaft)	1
12	FP-3912473	Seal, Rectangular Ring	1
13	FP-3938160	Gasket, Oil Pan	1
14	FP-3920773	Washer, Sealing (Oil Pan Plug) (Bottom Of Pan)	1
15	FP-3902425	Washer, Sealing (Oil Pan Plug) (Side Of Pan)	1
16	FP-3914302	Gasket, Oil Suction Connection	1
11	<b>FP-3926126</b>	<b>Seal Kit W/Sleeve</b>	1
00	FP-3906081	Sleeve, Wear (Rear)	1

# 6CT8.3 Series



## Camshaft & Fuel Components



## Camshaft & Fuel Components

Ref	Part Number	Description	6CT8.3
01	FP-3923478	Camshaft CPL 601, 602, 603, 604, 605, 752, 753, 754, 755, 805, 818, 819, 828, 829, 830831, 848, 890, 892, 893, 942, 954, 959, 982, 984, 985, 1196, 1212, 1217, 1221, 1222, 1274, 1248, 1269, 1273, 1275, 1321, 1356, 1366, 1377, 1435, 1464, 1539, 1547, 1603, 1612, 1616, 1633, 1639, 1826 (Formerly FP-3924471)	1
02	FP-3931623	Tappet, Valve	12
03	FP-3901717	Lever, Rocker	12
04	FP-203131	Nut, Heavy Hexagon	12
05	FP-3919435	Shaft, Rocker Lever	6
06	FP-3907555	Plug, Expansion	2
07	FP-3901764	Ring, Retaining	12

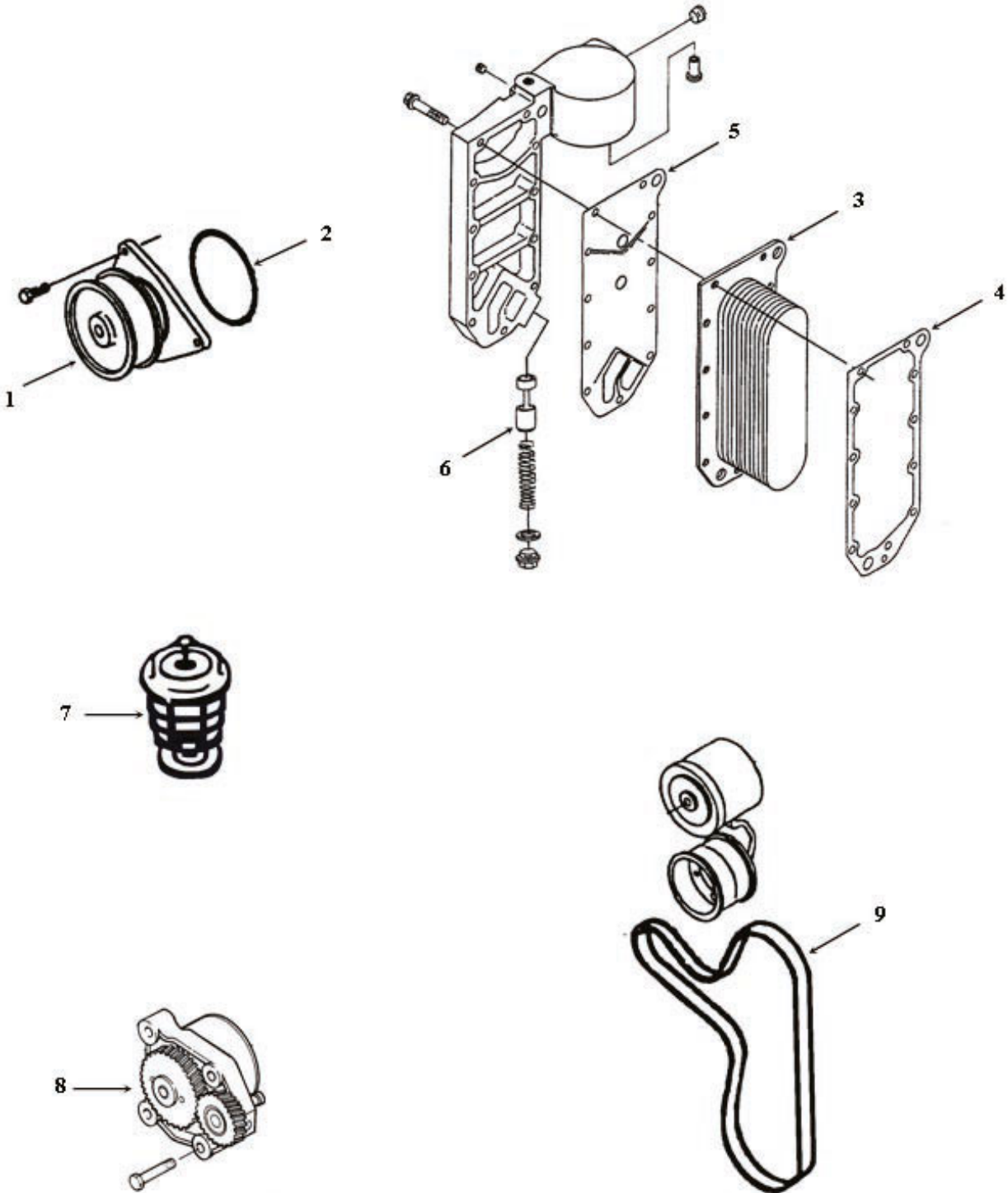
## Fuel Transfer Pump & Plumbing

Ref	Part Number	Description	6CT8.3
00	FP-3903380	Seal, Banjo Connector	6
00	FP-3906659	Seal, Injector	6
00	FP-3918188	Washer, Sealing	2
00	FP-3918192	Washer, Sealing Fuel Inlet Tube	2
00	FP-3911941	Gasket, Turbocharger Mounting	1
00	FP-3914388	Gasket, Turbocharger Oil, Drain	1
08	FP-3918191	Washer, Sealing	2
08	FP-3918191	Washer, Sealing Fuel Filter	2
09	FP-3936321	Pump, Fuel Transfer	1
09	FP-3936324	Pump, Fuel Transfer	1
09	FP-4944710	Pump, Fuel Transfer (Previously FP-3933252,FP-3936316,FP-3936322)	1
09	FP-4944711	Pump, Fuel Transfer (Previously FP-3933253, FP-3936317)	1
09	FP-4944712	Pump, Fuel Transfer (Previously FP-3933254, FP-3936318)	1
09	FP-4944713	Pump, Fuel Transfer (Previously FP-3918000,FP-3933255,FP-3936319)	1
09	FP-4944714	Pump, Fuel Transfer (Previously FP-3936320)	1
10	FP-3939258	Gasket, Fuel Transfer Pump Mounting	1
11	FP-3906783	Tube, Injector Fuel Supply (No. 1 Cylinder)	1
12	FP-3906784	Tube, Injector Fuel Supply (No. 2 Cylinder)	1
13	FP-3906785	Tube, Injector Fuel Supply (No. 3 Cylinder)	1
14	FP-3910521	Tube, Injector Fuel Supply (No. 4 Cylinder)	1
15	FP-3906788	Tube, Injector Fuel Supply (No. 5 Cylinder)	1
17	FP-3921978	Solenoid, Fuel Pump Shutoff (12 Volt)	1
17	FP-3921980	Solenoid, Fuel Pump Shutoff (24 Volt)	1

# 6CT8.3 Series



## Cooling Components



**Water Pump, Oil Pump, Oil Cooler Core & Cooling Components**

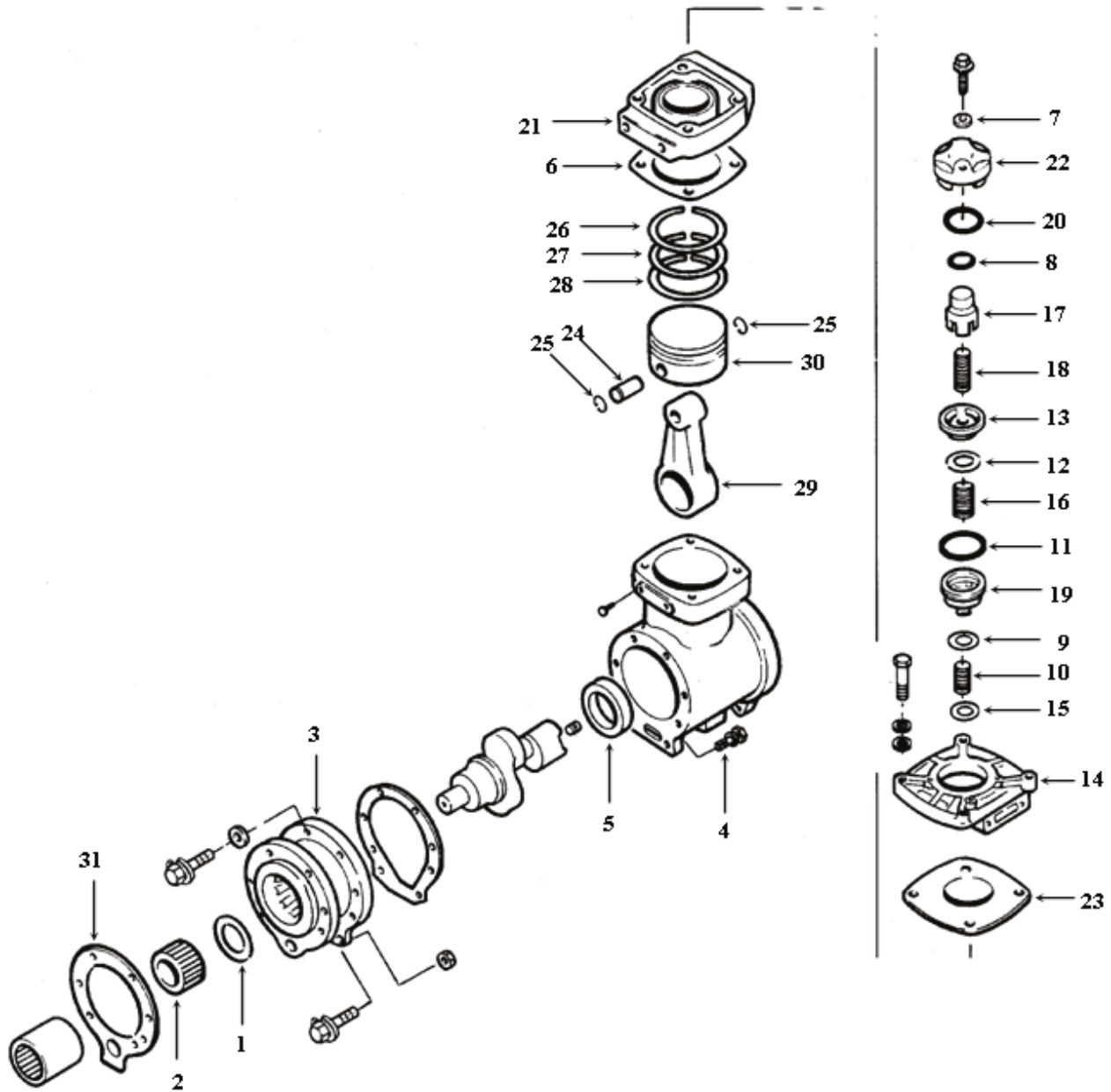
Ref	Part Number	Description	6 CT8.3
00	FP-101322	Cap, Oil Filler	1
00	FP-3800828	Kit, Lube Oil Pump	1
00	FP-3903787	Shaft & Bearing, Water Pump	1
00	FP-3910739	Bearing, Ball (Fan Drive)	1
00	FP-3914308	Gasket, Oil Cooler Core Mounting	1
00	FP-3914310	Gasket, Thermostat Housing	1
01	FP-3806180	Pump, Water	1
02	FP-3902089	Gasket, Water Pump Mounting	1
03	FP-3974815	Oil Cooler Core	1
04	FP-3918174	Gasket, Oil Cooler Core	1
05	FP-3918332	Gasket, Oil Cooler Core Cover	1
06	FP-3945967	Plunger, Pressure Regulator	1
07	FP-3928639	Thermostat Assembly (83° C), (180° F)	2
08	FP-3948071	Pump, Lubricating Oil	1
08	FP-3966840	Pump, Lubricating Oil (For CPL's 2995, 2996, 2997, 8145, 8146, 8185, 8222, 8292, 8307, 8388)	1
09	FP-3911558	Belt, V Ribbed (Alternator)	1
09	FP-3911582	Belt, V Ribbed (Alternator)	1



# 6CT8.3 Series



## Compressor (13.2 CFM)



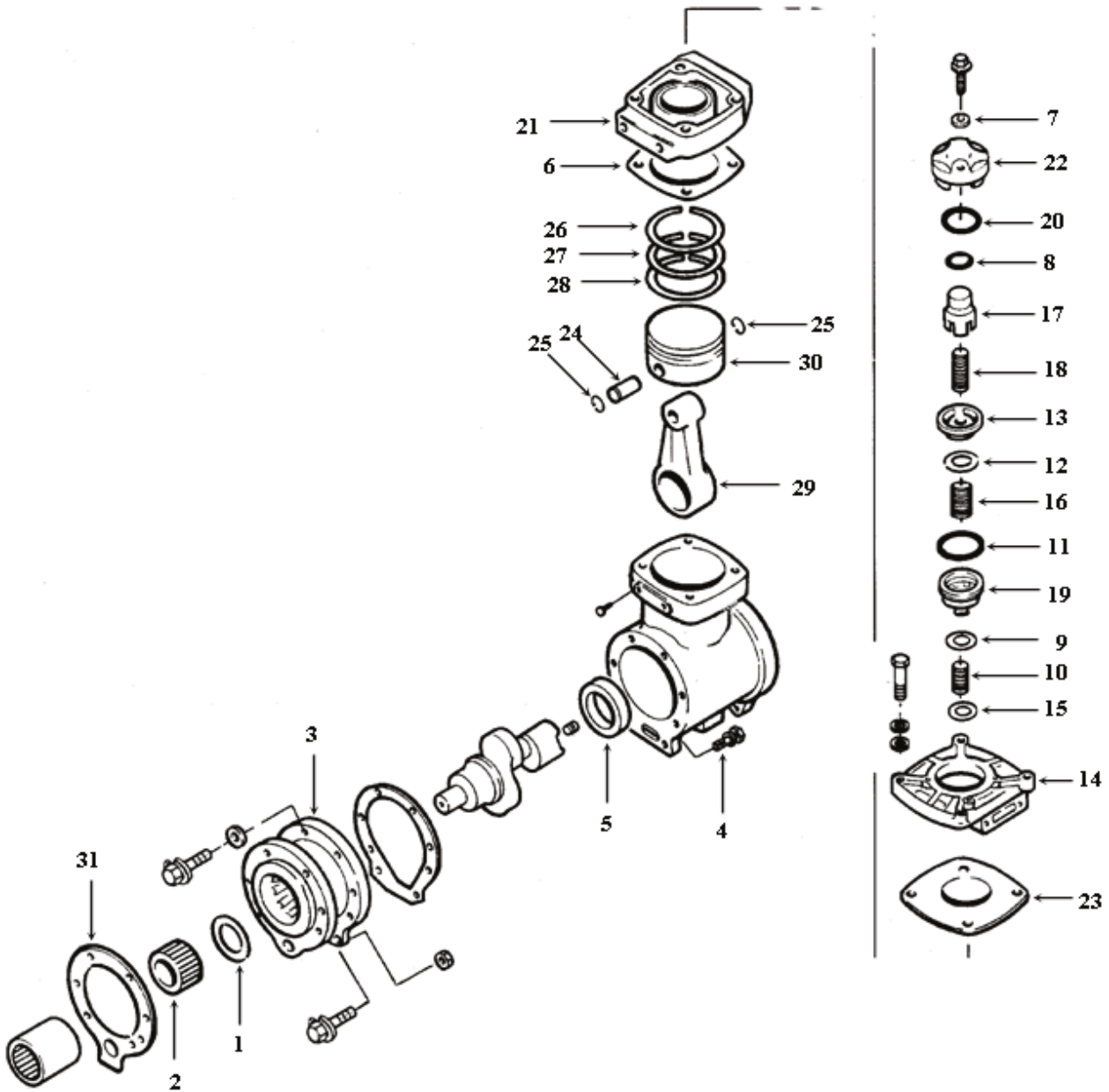
**Compressor (13.2 CFM)**

Ref	Part Number	Description	6 CT8.3
00	FP-3018153	Bushing, Connecting Rod	1
01	FP-211662	Bearing, Thrust	1
02	FP-3000174	Hub, Spline Coupling	1
04	FP-3012472	Screw, Captive Washer Cap	2
05	FP-147610	Bushing	1
06	FP-154018	Gasket, Air Compressor	1
07	FP-109557	Washer, Plain	2
08	FP-127936	Seal, Rectangular Ring	1
09	FP-127940	Valve, Exhaust	1
10	FP-128080	Spring, Compression	1
11	FP-128086	Seal, O-Ring	1
12	FP-144948	Valve, Intake	1
13	FP-145028	Seat, Compressor Intake Valve	1
14	FP-153964	Cover, Air Compressor	1
15	FP-183429	Plate, Wear	1
16	FP-190334	Spring, Valve	1
17	FP-191037	Cap, Unloader (13.2 C.F.M.)	1
18	FP-3023101	Spring, Compression	1
19	FP-144714	Seat, Compression Exhaust Valve	1
20	FP-3043995	Seal, O-Ring	1
21	FP-3558762	Head, Compressor	1
22	FP-3046298	Body, Unloading Valve	1
23	FP-3047159	Gasket, Air Compressor	1
29	FP-3018151	Rod, Compressor Connecting	1
31	FP-3820922	Gasket, Air Compressor Support	1
00	<b>FP-3803930</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Standard)</b>	1
30	FP-3045670	Body, Piston (Standard)	1
00	FP-AR73350	Ring Set, Compressor (Standard)	1
24	FP-119810	Pin, Piston	1
25	FP-3558754	Ring, Retaining	2
00	<b>FP-3803931</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b>	1
30	FP-3045671	Body, Piston (.010)	1
00	FP-AR73351	Ring Set, Compressor (.010)	1
24	FP-119810	Pin, Piston	1
25	FP-3558754	Ring, Retaining	2
00	<b>FP-3803932</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b>	1
30	FP-3045672	Body, Piston (.020)	1
00	FP-AR73352	Ring Set, Compressor (.020)	1
24	FP-119810	Pin, Piston	1
25	FP-3558754	Ring, Retaining	2
00	FP-AR73353	Ring Set, Compressor (.030)	1
24	FP-119810	Pin, Piston	1
25	FP-3558754	Ring, Retaining	2

# 6CT8.3 Series



## Compressor (13.2 CFM)



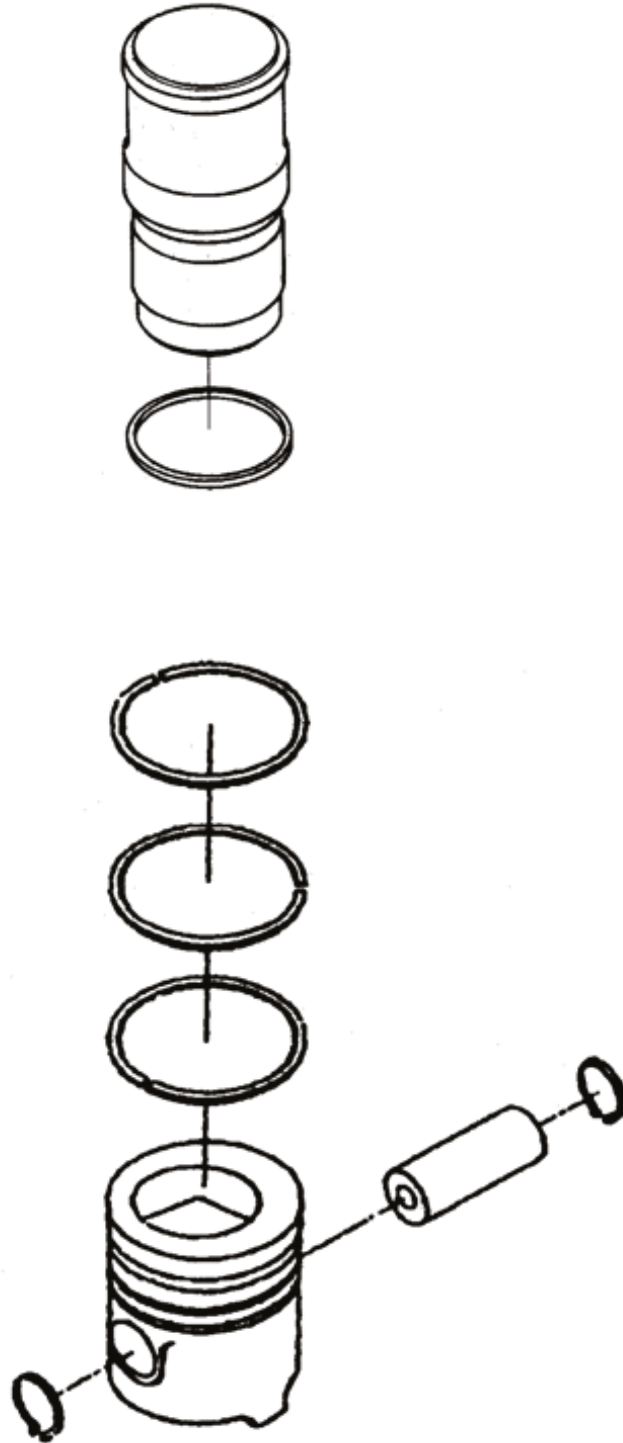
**Compressor Kits (13.2 CFM)**

Ref	Part Number	Description	6 CT8.3
00	<b>FP-3801728</b>	Kit, Compressor Head Repair	1
00	FP-AR12719	Kit, Valve Repair	1
13	FP-145028	Seat, Compressor Intake Valve	1
17	FP-191037	Cap, Unloader (13.2 C.F.M.)	1
19	FP-144714	Seat, Compression Exhaust Valve	1
22	FP-3046298	Body, Unloading Valve	1
00	<b>FP-3801733</b>	Kit, Compressor Head Repair	1
00	FP-AR12719	Kit, Valve Repair	1
13	FP-145028	Seat, Compressor Intake Valve	1
17	FP-191037	Cap, Unloader (13.2 C.F.M.)	1
19	FP-144714	Seat, Compression Exhaust Valve	1
00	<b>FP-3801808</b>	Kit, Compressor Head Repair (Major)	1
00	FP-AR12719	Kit, Valve Repair	1
13	FP-145028	Seat, Compressor Intake Valve	1
17	FP-191037	Cap, Unloader (13.2 C.F.M.)	1
19	FP-144714	Seat, Compression Exhaust Valve	1
22	FP-3558624	Body, Unloading Valve	1
00	<b>FP-AR12719</b>	Kit, Valve Repair	1
07	FP-109557	Washer, Plain	2
08	FP-127936	Seal, Rectangular Ring	1
09	FP-127940	Valve, Exhaust	1
10	FP-128080	Spring, Compression	1
11	FP-128086	Seal, O-Ring	1
12	FP-144948	Valve, Intake	1
15	FP-183429	Plate, Wear	1
16	FP-190334	Spring, Valve	1
18	FP-3023101	Spring, Compression	1
20	FP-3043995	Seal, O-Ring	1
00	FP-128085	Seal, O-Ring	1
00	<b>FP-AR73308</b>	Gasket Set, 13.2 C.F.M. Compressor	1
08	FP-127936	Seal, O-Ring	1
00	FP-128085	Seal, O-Ring	1
11	FP-128086	Seal, O-Ring	1
06	FP-154018	Gasket	1
00	FP-176027	Gasket	1
20	FP-3043995	Seal, O-Ring	1
23	FP-3047159	Gasket, Air Compressor	1
00	FP-3201386	Gasket	1

# 6CT8.3 Series



## Cylinder & Piston Kits



### Cylinder Kits & Piston Kits

Cylinder Kit	Piston Body	Liner	Ring Set	Piston Pin	Seal Ring	Retainers
FP-3802372	FP-3919566	FP-3907792	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802388	FP-3917707	FP-3907792	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802399	FP-3923165	FP-3907792	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802400	FP-3923163	FP-3907792	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802401	FP-3923164	FP-3907792	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-4020060	FP-4019886	FP-3907792	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-LK92477792	FP-3919247	FP-3907792	FP-3802429	FP-3934046	FP-3907177	FP-3920692

The above kits to be used with early standard cylinder block # FP-3802265 prior to 1991

Cylinder Kit	Piston Body	Liner	Ring Set	Piston Pin	Seal Ring	Retainers
FP-3802402	FP-3923165	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802403	FP-3923163	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802404	FP-3923164	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802405	FP-3919566	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802406	FP-3917707	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802609	FP-3925878	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802610	FP-3925879	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802743	FP-3925878	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-3802811	FP-3929161	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-4020061	FP-4019886	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-4025293	FP-3992117	FP-3919937	FP-4025290	FP-3934046	FP-3907177	FP-3920692
FP-LK92479937	FP-3919247	FP-3919937	FP-3802429	FP-3934046	FP-3907177	FP-3920692

The above kits to be used with early standard cylinder block # FP-3928962 1991 thru 1/04/98

Cylinder Kit	Piston Body	Liner	Ring Set	Piston Pin	Seal Ring	Retainers
FP-3934580	FP-3919566	FP-3948095 <sup>7</sup>	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-4020062	FP-4019886	FP-3948095	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-4025294	FP-3992117	FP-3948095	FP-4025290	FP-3934046	FP-3907177	FP-3920692
FP-LK31648095	FP-3923164	FP-3948095	FP-3802429	FP-3934046	FP-3907177	FP-3920692
FP-LK98868095	FP-4016886	FP-3948095	FP-3802538	FP-3934046	FP-3907177	FP-3920692

The above kits to be used with early standard cylinder block # FP-3934899 Effective 1/05/98

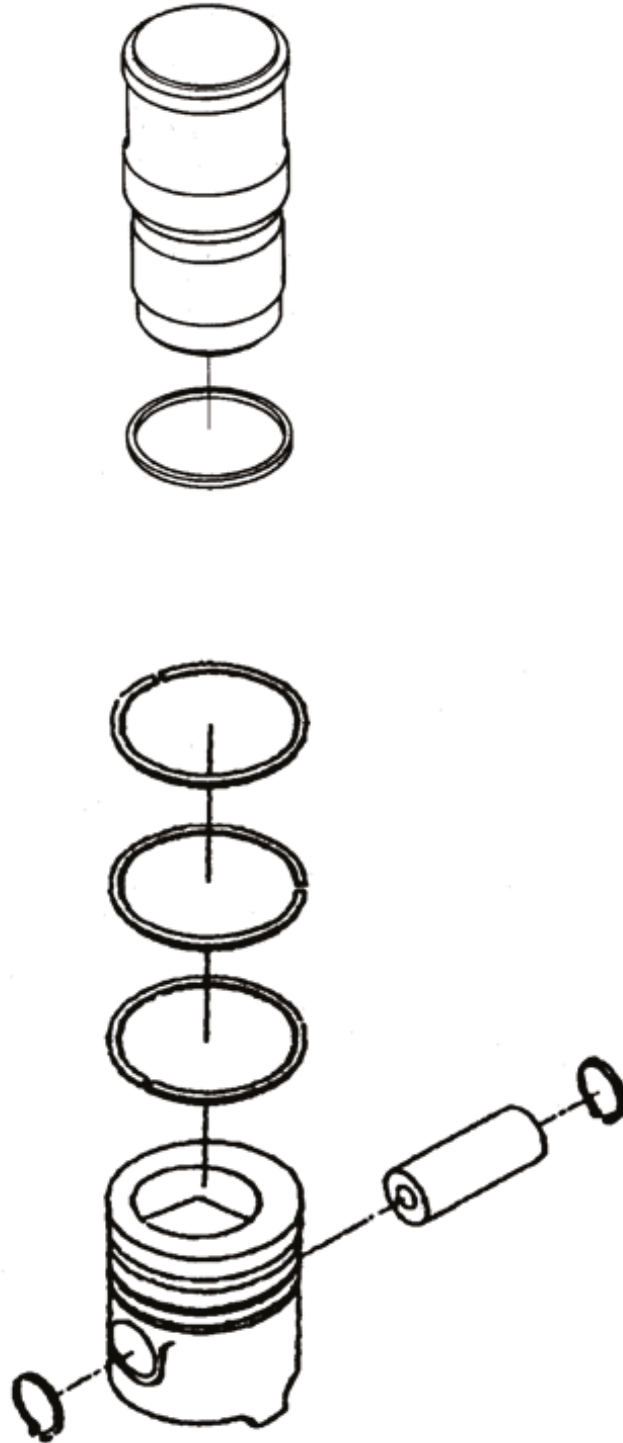
<sup>7</sup>This liner is 3mm shorter than previous liners. Refer to Cummins Service Topics 99T1-3



# 6CT8.3 Series



## Cylinder & Piston Kits



**Cylinder Kits & Piston Kits (Cont.)**

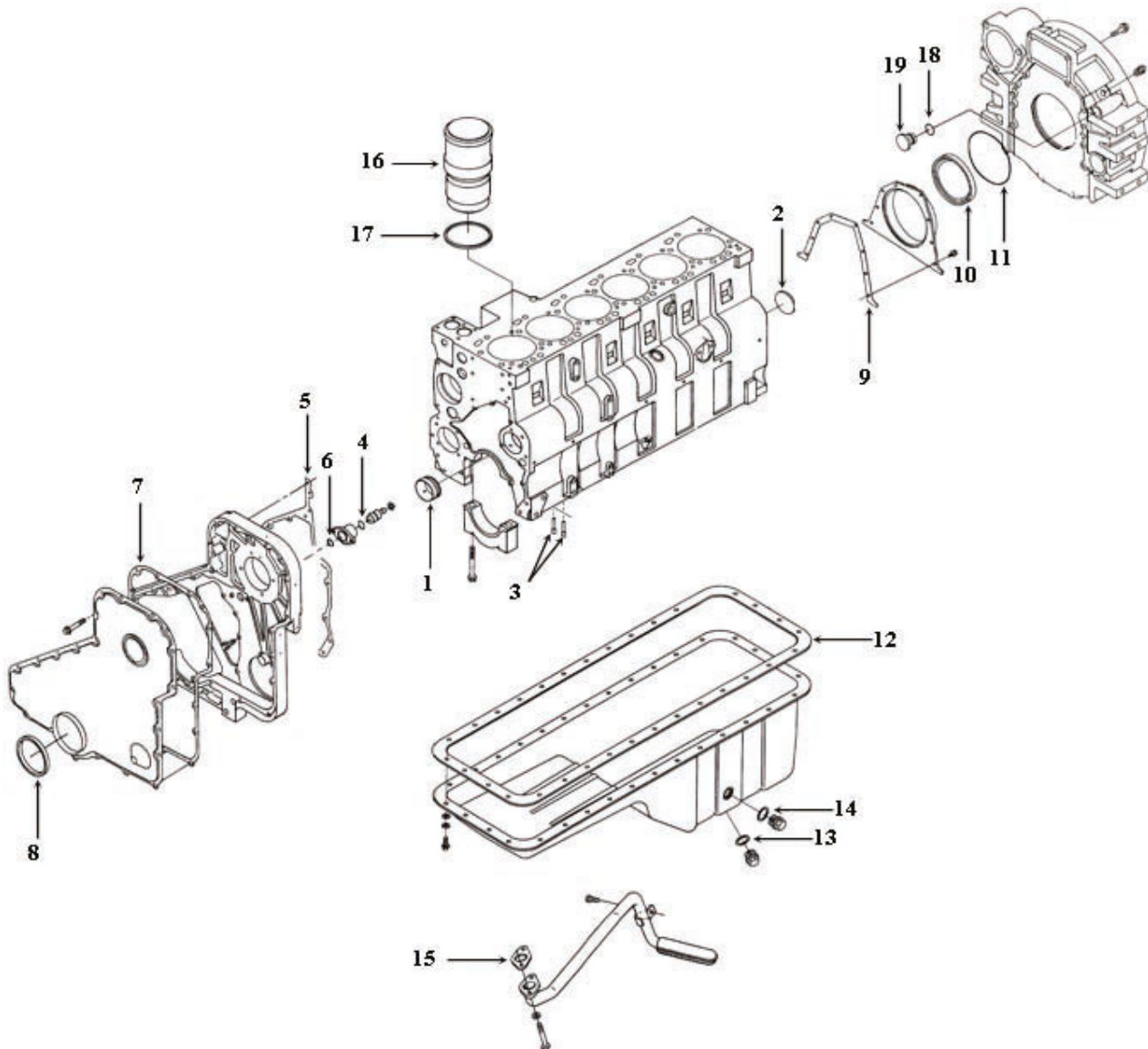
Piston Kit	Piston Body	Piston Pin	Retainers	Ring Set	Comments
FP-3802263	FP-3917707	Not Included	FP-3920692	FP-3802429	
FP-3802280	FP-3919566	Not Included	FP-3920692	FP-3802429	
FP-3802344	FP-3919247	Not Included	FP-3920692	FP-3802429	
FP-3802396	FP-3923165	Not Included	FP-3920692	FP-3802429	
FP-3802397	FP-3923163	Not Included	FP-3920692	FP-3802429	
FP-3802398	FP-3923164	Not Included	FP-3920692	FP-3802429	
FP-3802601	FP-3925878	Not Included	FP-3920692	FP-3802429	
FP-3802602	FP-3925879	Not Included	FP-3920692	FP-3802429	
FP-3802657	FP-3929161	Not Included	FP-3920692	FP-3802429	
FP-3917707WP	FP-3917707	FP-3934046	FP-3920692	Not Included	
FP-3919247WP	FP-3919247	FP-3934046	FP-3920692	Not Included	
FP-3919566WP	FP-3919566	FP-3934046	FP-3920692	Not Included	
FP-3923163WP	FP-3923163	FP-3934046	FP-3920692	Not Included	
FP-3923164WP	FP-3923164	FP-3934046	FP-3920692	Not Included	
FP-3923165WP	FP-3923165	FP-3934046	FP-3920692	Not Included	
FP-3925878WP	FP-3925878	FP-3934046	FP-3920692	Not Included	
FP-3925879WP	FP-3925879	FP-3934046	FP-3920692	Not Included	
FP-3929161WP	FP-3929161	FP-3934046	FP-3920692	Not Included	
FP-4020059	FP-4019886	Not Included	FP-3920692	FP-3802429	Marine - CPL No. 1221
FP-4025366	FP-4019886	Not Included	FP-3920692	FP-3802538	Marine - CPL No. 8089
FP-4089348	FP-3992117	FP-3934046	FP-3920692	FP-4025290	C8.3G Natural Gas Eng.
FP-PK3163	FP-3923163	FP-3934046	FP-3920692	FP-3802429	
FP-PK3164	FP-3923164	FP-3934046	FP-3920692	FP-3802429	
FP-PK3165	FP-3923165	FP-3934046	FP-3920692	FP-3802429	
FP-PK5878	FP-3925878	FP-3934046	FP-3920692	FP-3802429	
FP-PK5879	FP-3925879	FP-3934046	FP-3920692	FP-3802429	
FP-PK7707	FP-3917707	FP-3934046	FP-3920692	FP-3802429	
FP-PK9161	FP-3929161	FP-3934046	FP-3920692	FP-3802429	
FP-PK9247	FP-3919247	FP-3934046	FP-3920692	FP-3802429	
FP-PK9566	FP-3919566	FP-3934046	FP-3920692	FP-3802429	

Above cylinder kits and piston kits include items in shaded area

# ISC/QSC Series



## Cylinder Block



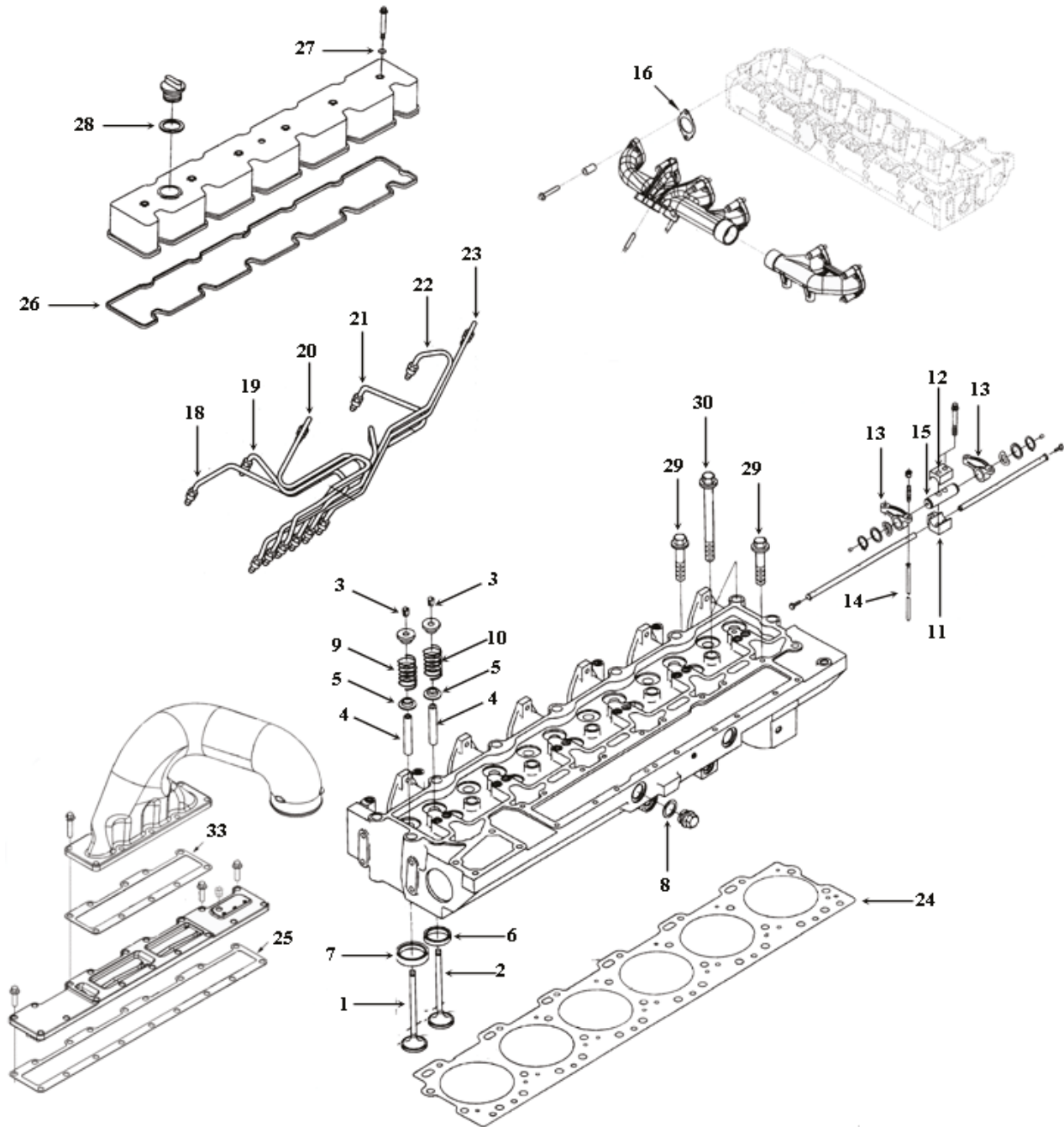
**Cylinder Block, Front & Rear Covers & Gasket Sets**

Ref	Part Number	Description	ISC	QSC
00	3678923	Plug, Threaded	6	6
00	4937311	Nozzle, Piston Cooling	6	6
00	3004258	Plug, Expansion	4	4
00	3905401	Plug, Expansion	4	4
00	143066	Plug, Expansion	2	2
00	3900257	Dowel, Pin	2	2
00	3008468	Plug, Pipe	1	1
00	3008470	Plug, Pipe	1	1
00	3678921	Plug, Threaded	1	1
00	3678922	Plug, Threaded	1	1
00	3678924	Plug, Threaded	1	1
00	3904181	Plug, Threaded	1	1
00	3910787	Connection, Oil Suction	1	1
00	3910960	Washer, Plain	1	1
00	3924147	Plug, Threaded	1	1
00	3924148	Plug, Threaded	1	1
00	FP-3678912	Seal, O-Ring	1	1
00	FP-3678925	Seal, O-Ring (Oil Pressure Switch)	1	1
00	FP-3800343	Gasket Set, Lower	1	1
00	FP-3901969	Plug, Expansion	1	1
00	FP-3902425	Washer, Sealing	1	1
00	FP-3920773	Washer, Sealing	1	1
00	FP-4089958	Gasket Set, Upper	1	1
00	FP-IFKISCQSC	In-Frame Kit	1	1
00	FP-OHISCQSC	Overhaul Kit	1	1
00	S 923 E	Draincock	1	1
01	FP-3945329	Bushing, Camshaft	7	7
02	FP-3901969	Plug, Expansion	1	1
03	3901846	Dowel, Pin	4	4
04	FP-3926048	Seal, O-Ring	1	1
05	FP-3944293	Gasket, Gear Housing	1	1
06	FP-3678912	Seal, O-Ring	A/R	A/R
07	FP-3939258	Gasket, Cover Plate	1	1
08	FP-4025270	Kit, Front Crankshaft Seal	1	1
09	FP-3939353	Gasket, Rear Cover	1	1
10	FP-4089342	Kit, Rear Crankshaft Seal	1	1
11	FP-3912473	Seal, Rectangular Ring	1	1
12	FP-3938160	Gasket, Oil Pan	1	1
13	FP-3902425	Washer, Sealing	1	1
14	FP-3920773	Washer, Sealing	1	1
15	3939352	Gasket, Oil Suc Connection	1	1
18	FP-3910260	O-Ring, Flywheel Plug	1	1
19	FP-3910248	Plug, O-Ring	1	1
16	<b>FP-3800328</b>	<b>Kit, Cylinder Liner</b>	<b>6</b>	<b>6</b>
16	FP-3948095	Liner, Cylinder	6	6
17	FP-3907177	Seal, Rectangular Ring	6	6

# ISC/QSC Series



## Cylinder Head



**Cylinder Head, Valve Mechanism & Upper Gasket Set**

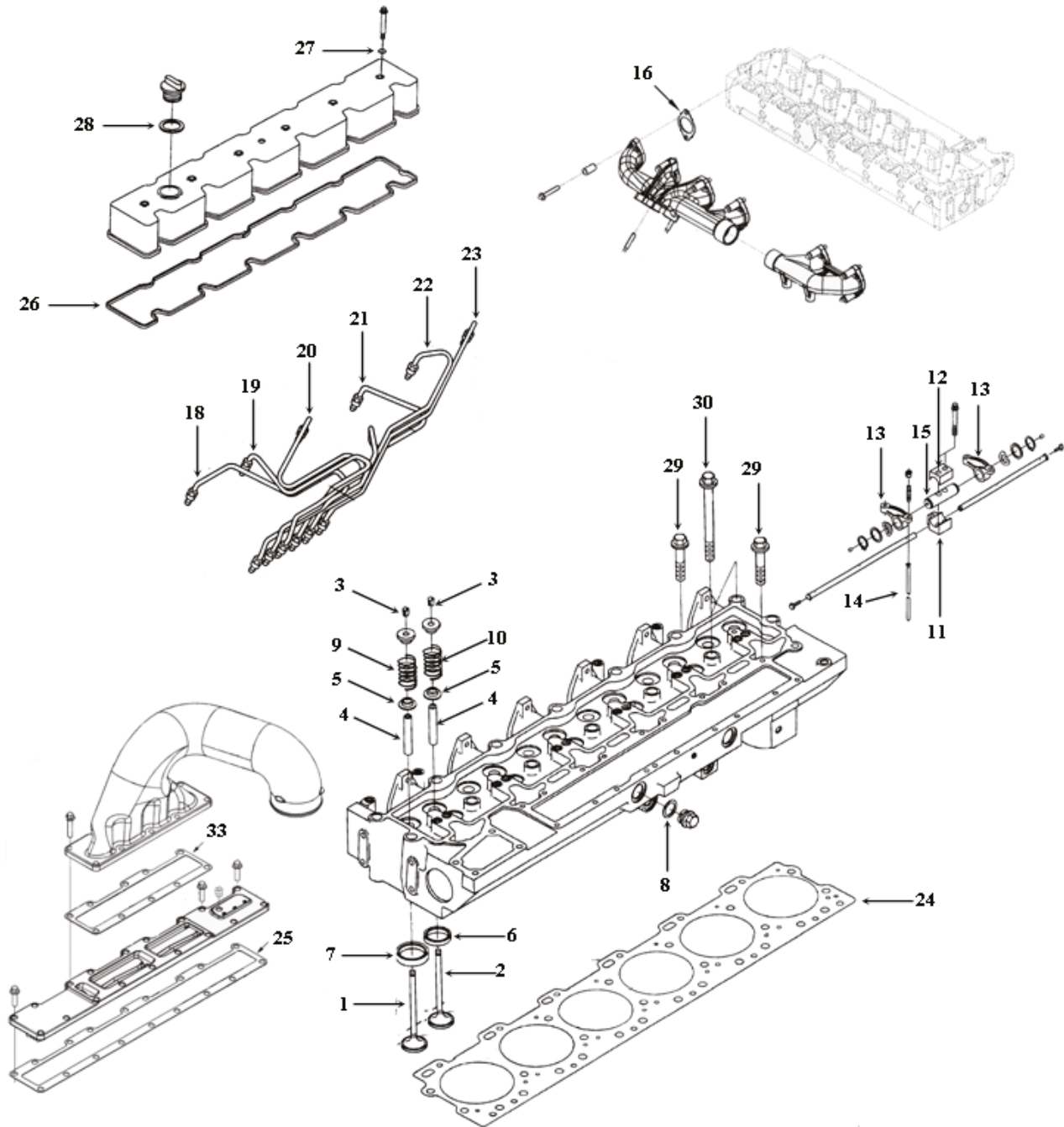
Ref	Part Number	Description	ISC	QSC
	FP-4089958	Gasket Set, Upper	1	1
	4089978	Gasket Set, Upper	1	-
	4955643	Gasket Set, Upper	1	-
00	3945098	Plug, Expansion	6	6
00	3964712	Assy, Rocker Lever	6	6
00	3032693	Plug, Expansion	2	2
00	3943933	Screw, Hex Flange Head Cap	2	2
00	3945094	Plug, Expansion	2	2
00	3920706	Plug, Expansion	18	18
00	3943445	Crosshead, Valve	12	12
00	3678923	Plug, Threaded	1	1
00	3678924	Plug, Threaded	1	1
00	3935945	Retainer, Socket	1	1
00	3941934	Lever, Rocker	1	1
00	3945093	Plug, Expansion	1	1
00	3945097	Plug, Expansion	1	1
00	3964713	Lever, Rocker	1	1
00	3964714	Lever, Rocker	1	1
00	3964720	Screw, Rocker Lever Adjusting	1	1
00	3964721	Ball, Rocker Lever	1	1
00	3964722	Socket, Rocker Lever	1	1
00	3964796	Lever, Rocker	1	1
00	3964797	Lever, Rocker	1	1
00	3967265	Housing, Rocker Lever	1	1
04	4934063	Guide, Valve Stem	24	24
05	FP-3948578	Valve Stem Seal, Intake And Exhaust	24	24
06	3940152	Insert, Valve, Intake	12	12
07	3968074	Insert, Valve, Exhaust	12	12
08	FP-3678925	Seal, O-Ring	1	1
09	FP-4936076	Spring, Intake Valve (Some QSC Applications Exhaust Spring)	24	AR
10	FP-4936079	Spring, Exhaust Valve (Use On Eng. w/Rotators)	-	24
11	3941140	Support, Rocker Lever	6	6
13	3941937	Lever, Rocker	1	1
14	3964715	Rod, Push	2	2
14	3944174	Rod, Push (Use w/3938163 Camshaft Only)	12	12
15	3966658	Shaft, Rocker Lever	12	12
16	FP-3937479	Gasket, Exhaust Manifold	6	6
18	3964141	Tube, Injector Fuel Supply	1	1
19	3964142	Tube, Injector Fuel Supply	1	1
20	3964142	Tube, Injector Fuel Supply	1	1
21	3964142	Tube, Injector Fuel Supply	1	1
22	3964142	Tube, Injector Fuel Supply	1	1
23	3964143	Tube, Injector Fuel Supply	1	1
24	FP-4891796	Gasket, Cylinder Head	1	1
25	FP-3936993	Gasket, Air Intake Manifold Cover (For 4" Dia. Air Connection)	1	1
25	FP-3944646	Intake Manifold Gasket (For 3.5" Dia. Air Connection)	1	1
26	3966708	Gasket, Rocker Lever Housing 4089978, 4955643	1	1
26	FP-3939264	Gasket, Rocker Lever Housing 4089958	-	1



# ISC/QSC Series



## Cylinder Head



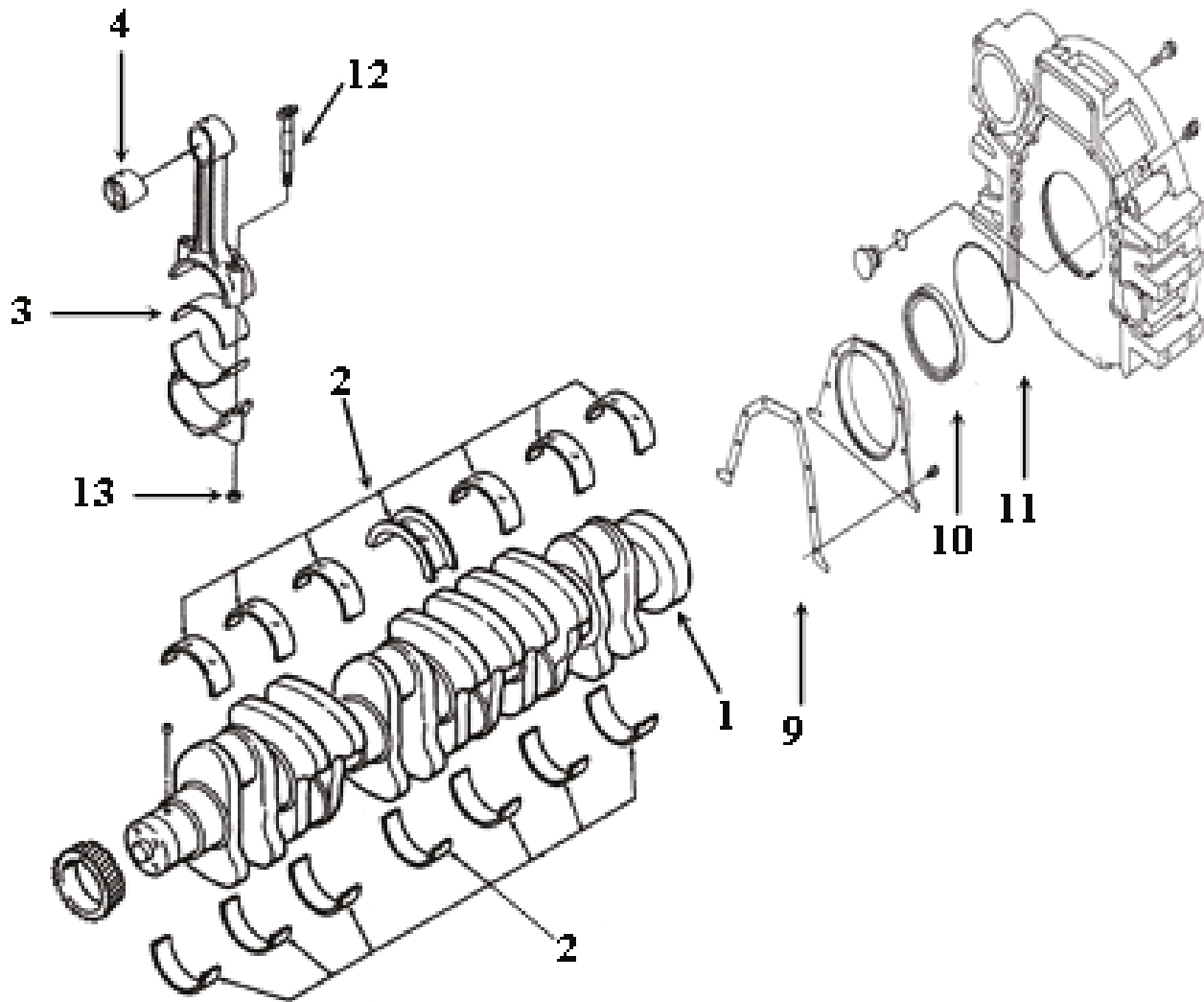
**Cylinder Head, Valve Mechanism & Upper Gasket Set (Cont.)**

Ref	Part Number	Description	ISC	QSC
27	3959799	Isolator, Noise	8	8
28	3990084	Seal, O-Ring	1	1
29	3901447	Screw, Hex Flange Head Cap	7	7
30	3960043	Screw, Hex Flange Head Cap	26	26
32	3944452	Retainer, Valve Spring	24	24
33	FP-3992090	Gasket, Air Intake Connection	1	1
00	<b>FP-3800340</b>	<b>Valve Kit, Exhaust</b>	12	12
00	FP-3942588	Valve, Exhaust	12	12
03	FP-3900250	Lock Half, Valve	48	48
00	<b>FP-3800341</b>	<b>Valve Kit, Intake</b>	12	12
00	FP-3942589	Valve, Intake	12	12
00	FP-3900250	Lock Half, Valve	48	48
00	<b>FP-4089761</b>	<b>Valve Kit, Intake</b>	12	12
00	FP-3970727	Valve, Intake	12	12
03	FP-3900250	Lock Half, Valve	48	48
00	<b>FP-4089762</b>	<b>Valve Kit, Exhaust</b>	12	12
02	3969637	Valve, Exhaust	1	1
00	FP-3900250	Lock Half, Valve	48	48

# ISC/QSC Series



## Crankshaft



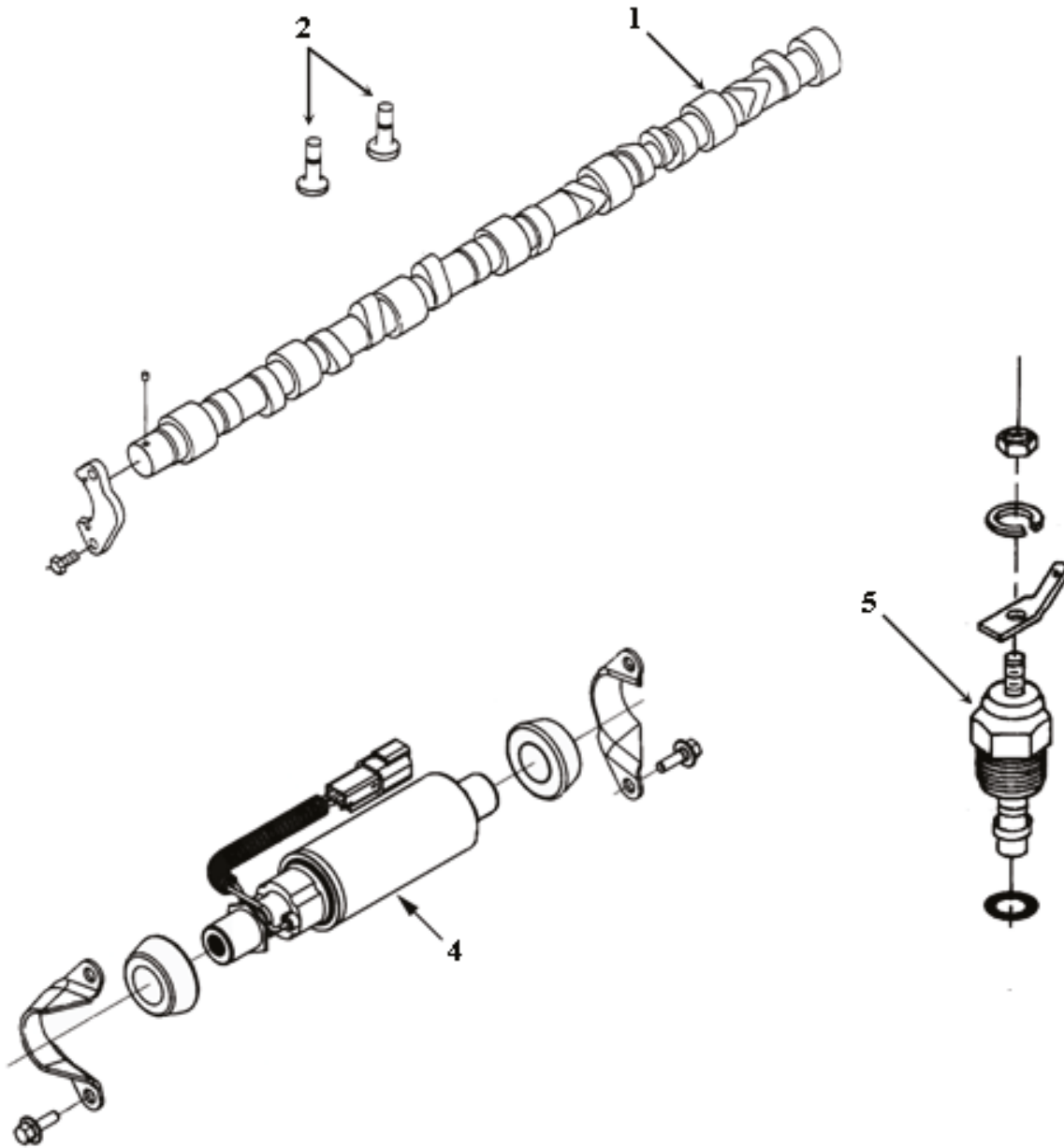
**Crankshaft, Main & Rod Bearing, Oil Pan, Front & Rear Covers**

Ref	Part Number	Description	ISC	QSC
00	3904483	Dowel, Pin	1	1
00	3918776	Gear, Crankshaft	1	1
00	FP-3925343	Kit, Front Crankshaft Seal w/sleeve	1	1
01	3965006	Crankshaft, Engine	1	1
03	FP-3950662	Bearing, Connecting (.25MM)	A/R	A/R
03	FP-3950663	Bearing, Connecting (.50MM)	A/R	A/R
03	FP-3950664	Bearing, Connecting (.75MM)	A/R	A/R
03	FP-3950665	Bearing, Connecting (1.00MM)	A/R	A/R
03	FP-3950661	Bearing, Connecting Rod Standard	12	12
04	FP-3913990	Bushing	2	2
09	FP-3939353	Gasket, Rear Cover	1	1
10	FP-3926126	Kit, Rear Crankshaft Seal w/Sleeve	1	1
10	FP-4089642	Kit, Rear Crankshaft Seal w/Sleeve	1	1
11	FP-3912473	Seal, Rectangular Ring	1	1
12	FP-3928870	Bolt, Connecting Rod	2	2
13	FP-3934864	Nut, Connecting Rod	2	2
02	<b>FP-3945917</b>	<b>Main Bearing Set (standard)</b>	1	1
00	3944158	Bearing, Main (Not Sold Separately)	6	6
00	3944163	Bearing, Crankshaft Thrust (Not Sold Separately)	1	1
00	3944153	Bearing, Main (Not Sold Separately)	7	7
02	<b>FP-3945918</b>	<b>Main Bearing Set (0.25MM oversize)</b>	1	1
00	3944159	Bearing, Main (Not Sold Separately)	6	6
00	3944164	Bearing, Crankshaft Thrust (Not Sold Separately)	1	1
00	3944154	Bearing, Main (Not Sold Separately)	7	7
02	<b>FP-3945919</b>	<b>Main Bearing Set (0.50MM oversize)</b>	1	1
00	3944160	Bearing, Main (Not Sold Separately)	6	6
00	3944165	Bearing, Crankshaft Thrust (Not Sold Separately)	1	1
00	3944155	Bearing, Main (Not Sold Separately)	7	7

# ISC/QSC Series



## Camshaft & Fuel Components



**Camshaft & Fuel Components**

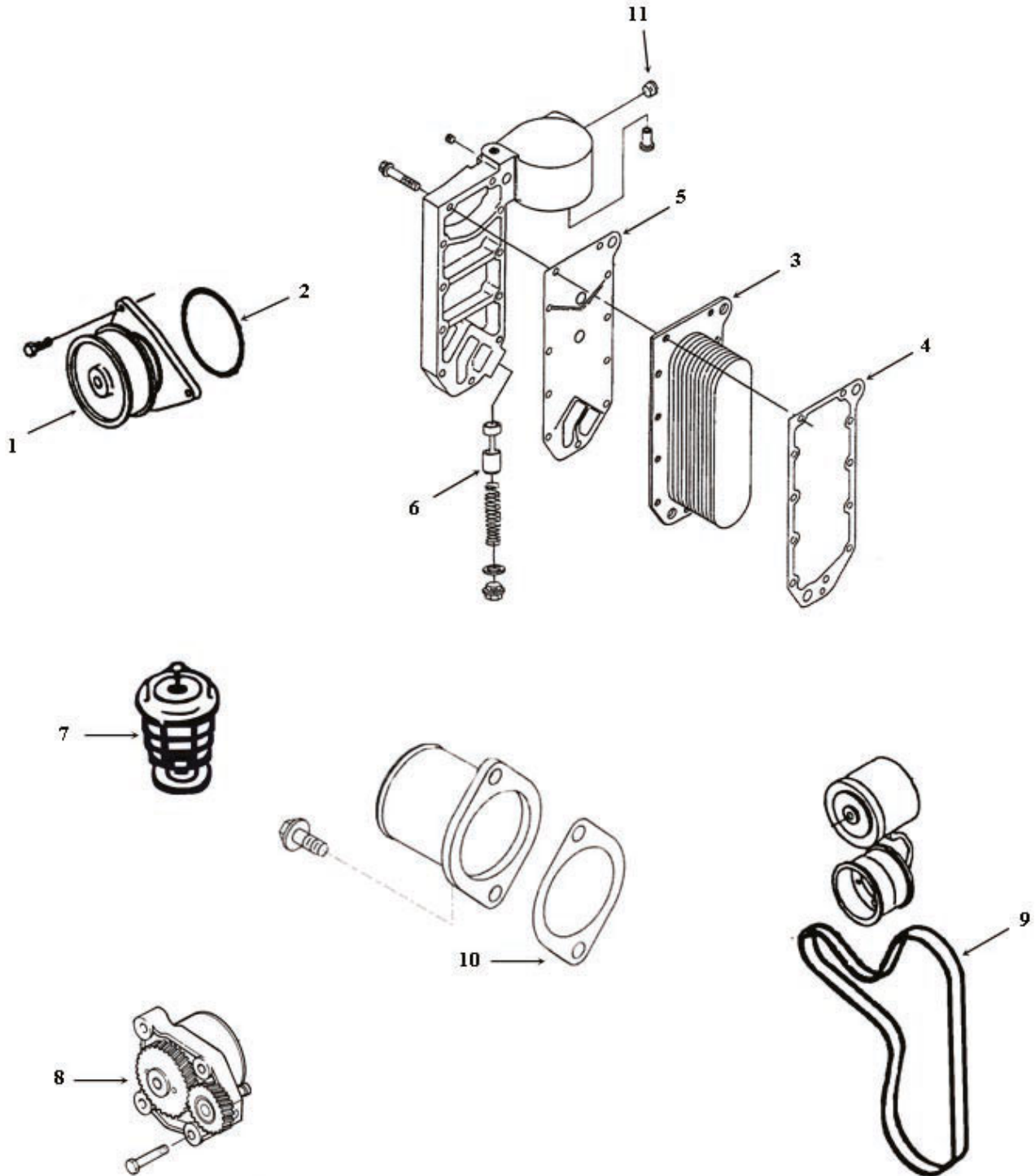
Ref	Part Number	Description	ISC	QSC
00	3900227	Screw, Hexagon Head Cap	2	2
00	3902332	Woodruff Key (Use w/3938163 Camshaft Only)	1	1
00	3917883	Dowel, Pin	1	1
00	3944001	Support, Camshaft Thrust	1	1
00	3950135	Gear, Camshaft	1	1
01	3938163	Camshaft, (Chilled Ductile Iron)	1	1
01	3966431	Camshaft	1	1
02	3965966	Tappet, Valve (Use w/3966431 Camshaft Only)	12	12
03	3963990	Washer, Sealing	6	6
04	3968187	Pump, Fuel Transfer	1	1
05	4088750	Sensor, Temperature	1	1



# ISC/QSC Series



## Cooling Components



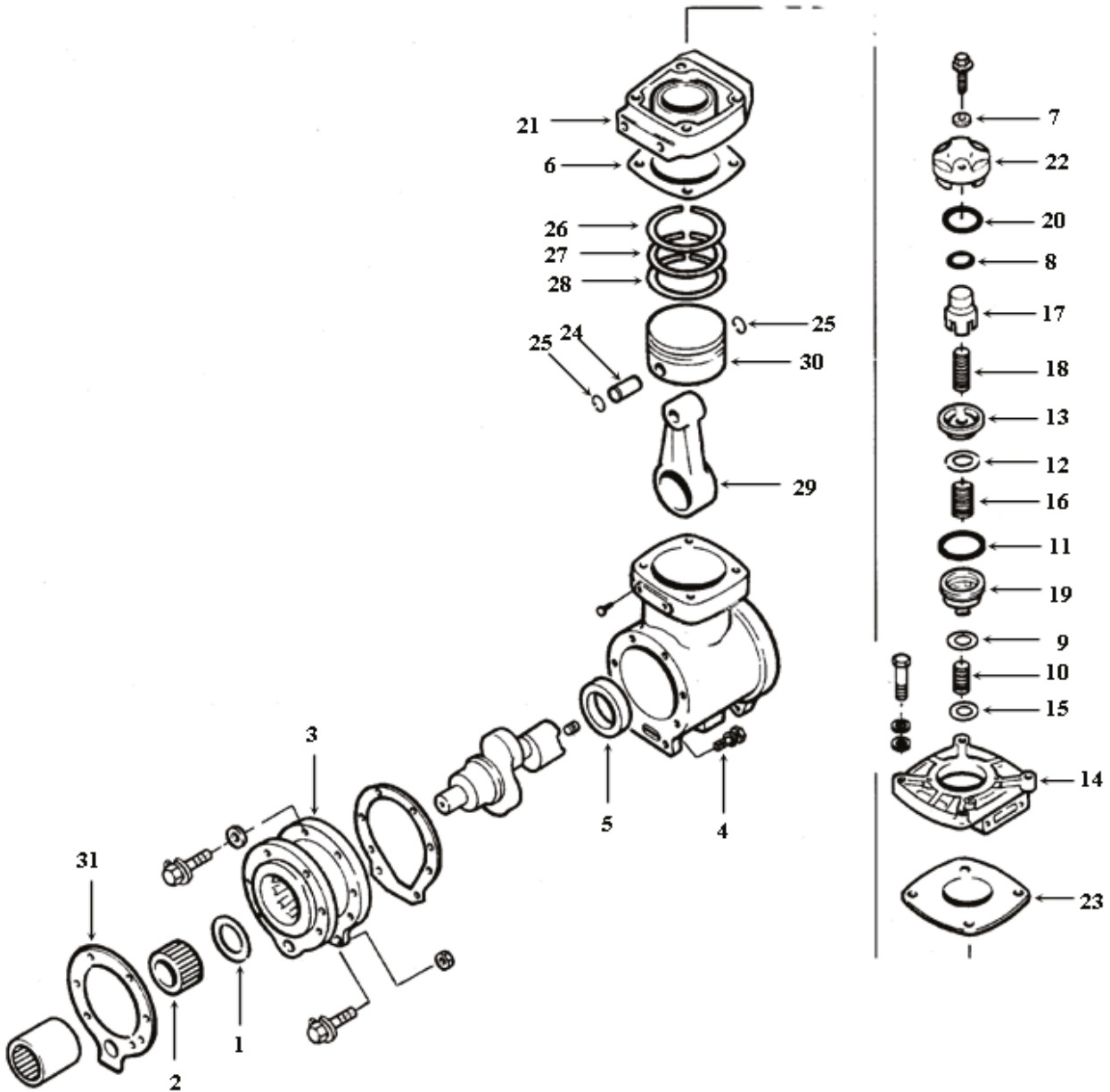
**Water Pump, Oil Pump, Oil Cooler Core & Cooling Components**

Ref	Part Number	Description	ISC	QSC
00	3900677	Oil Pump Mounting Screw, Hexagon Head Cap (M8 x 1.25 x 30)	4	4
00	3907860	Screw, Hex Flange Head Cap	4	4
00	3906619	Plug, Pipe	2	2
00	3944874	Screw, Hex Flange Head Cap	2	2
00	3966976	Screw, Hex Flange Head Cap	11	11
00	118227	Dowel, Ring	1	1
00	3008469	Plug, Pipe	1	1
00	3027232	Plug, Pipe	1	1
00	3930910	Plug, Threaded	1	1
00	3931077	Cover, Lub Oil Cooler	1	1
00	3931084	Plug, Threaded	1	1
00	3934278	Valve, Bypass	1	1
00	3934410	Valve Kit, Bypass	1	1
00	68274	Spring, Compression	1	1
00	FP-3201562	Seal, O-Ring (Valve By Pass)	1	1
00	FP-3992092	Gasket, Connection (To Oil Filter Head)	1	1
02	FP-3940386	Seal, O-Ring	1	1
03	3966365	Core, Cooler	1	1
04	FP-3918174	Gasket, Oil Cooler Core	1	1
05	FP-3918332	Gasket, Lub Oil clr Cover (3929011)	1	1
06	FP-3945967	Plunger, Pressure Regulator	1	1
07	FP-3940632	Thermostat	1	1
07	FP-4930594	Thermostat (Centerline Engines 180 Degree)	1	1
08	3991123	Pump, Lubricating Oil	1	1
09	3289135	Belt, V Ribbed	1	1
10	FP-3913032	Gasket, Water Outlet Connection	1	1
11	FP-3930911	Seal, O-Ring	1	1
00	<b>FP-4089647</b>	<b>Kit, Water Pump</b>	1	1
01	FP-3973114	Pump, Water (Previously 3964791)	1	1
02	FP-3940386	Seal, O-Ring	1	1

# ISC/QSC Series



## Compressor (13.2 CFM)



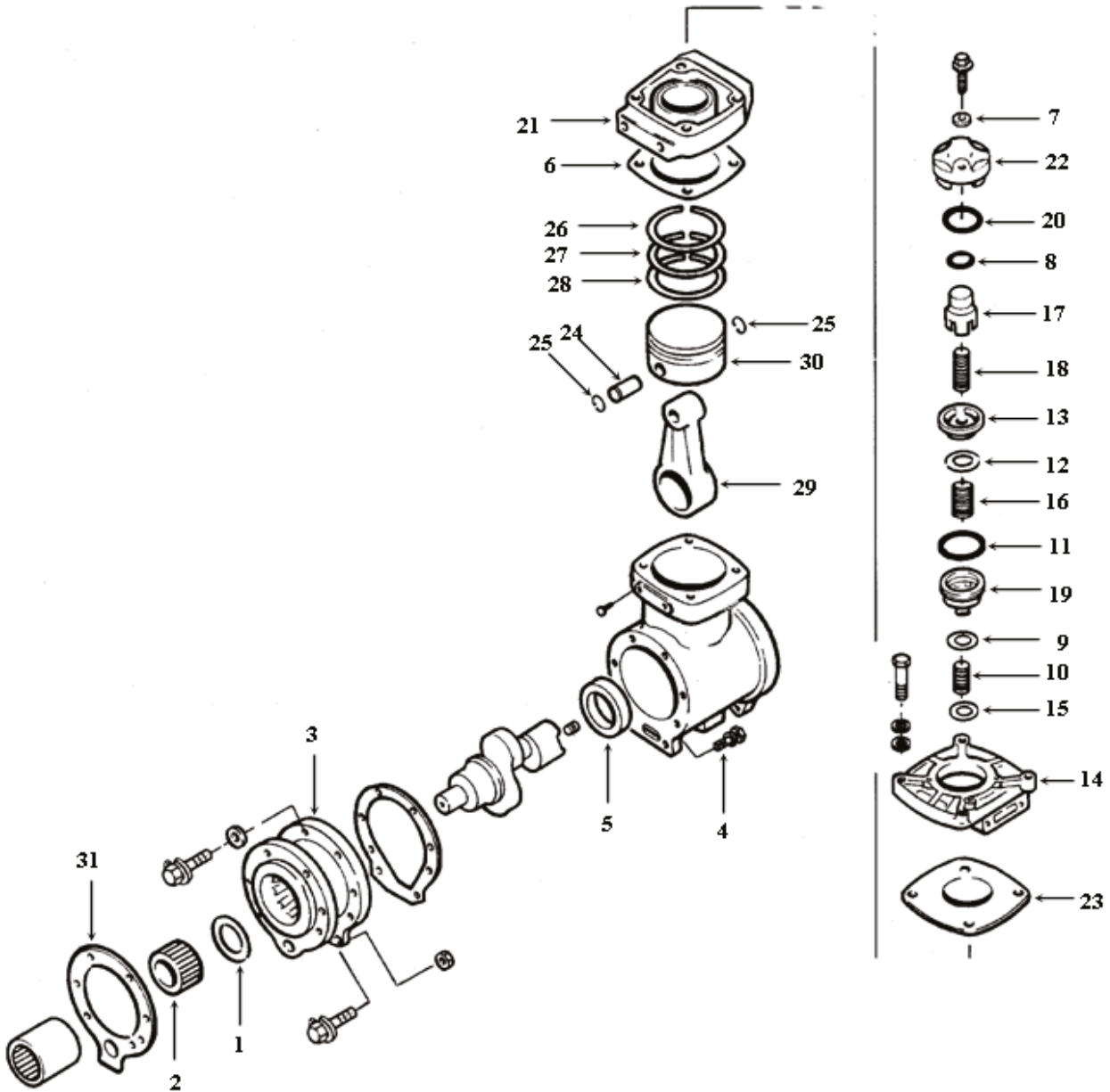
**Compressor (13.2 CFM)**

Ref	Part Number	Description	ISC	QSC
00	3966522	Compressor	1	1
02	199349	Sleeve, Spline	1	1
03	199349	Sleeve, Spline	1	1
04	3925344	Screw, Hex Flange Head Cap (m10x1.50x30)	4	4
05	FP-147610	Bushing, Crankshaft	1	1
06	FP-154018	Gasket, Cylinder	1	1
07-23	FP-3801728	Major Uploader Repair Kit (Includes Body)	1	1
07-23	FP-3801733	Major Uploader Repair Kit (Less Body)	1	1
24	FP-119810	Piston Pin	1	1
25	FP-3558754	Piston Pin Retainer	2	2
26-27-28	FP-AR73350	Set, Ring	1	1
29	FP-3018151	Connecting Rod	1	1
30	FP-3045670	Piston Body w/o Pin	1	1
31	FP-3940245	Gasket, Hydraulic Pump	1	1

# ISC/QSC Series



## Compressor (13.2 CFM)





**Compressor Kits (13.2 CFM)**

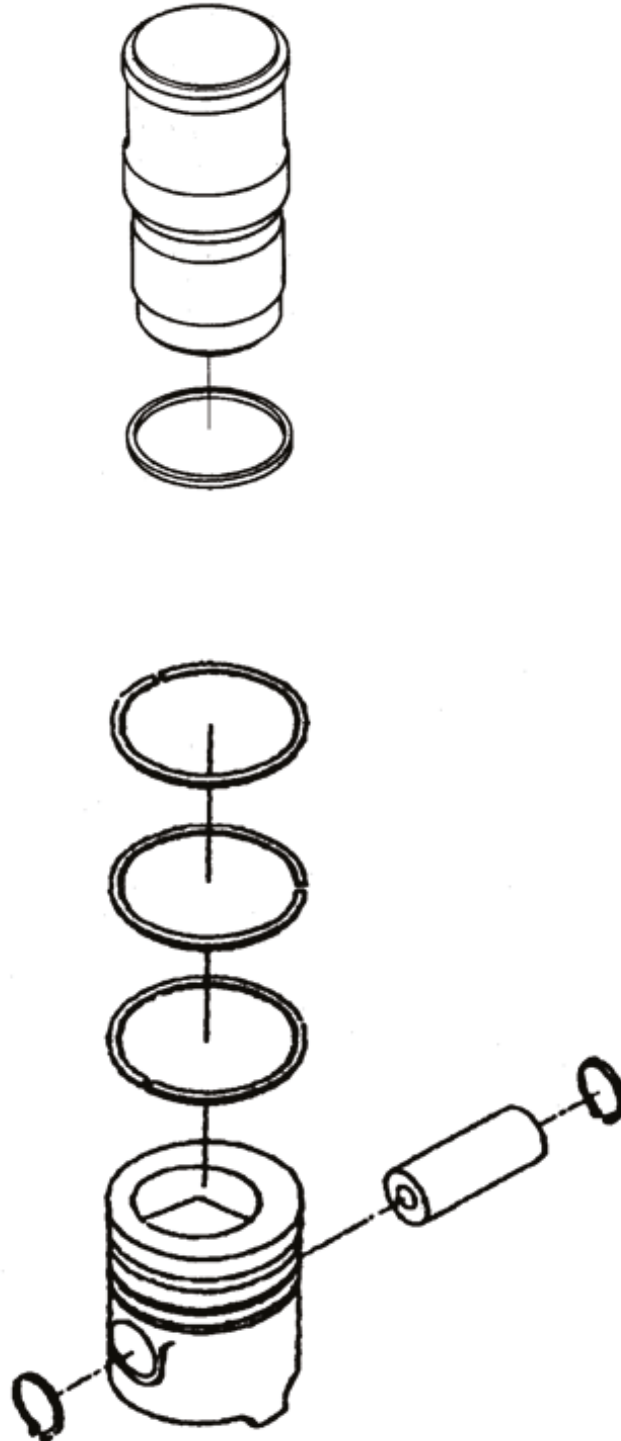
Ref	Part Number	Description	ISC	QSC
00	35589549	Kit, Cylinder Head	1	1
00	FP-3803930	Kit, Piston	1	1
24	FP-119810	Piston Pin	1	1
25	FP-3558754	Piston Pin Retainer	2	2
26-27-28	FP-AR73350	Set, Ring	1	1
30	FP-3045670	Piston Body w/o Pin	1	1



# ISC/QSC Series



## Cylinder & Piston Kits



## Cylinder Kits & Piston Kits

Cylinder Kit	Piston Body	Liner	Ring Set	Piston Pin	Retainer	Comment
FP-3800319	FP-3942106	FP-3948095	FP-3802429	FP-3934046	FP-3920692	ISC-230;ISC215;ISC275;ISC250;ISC285;ISC280;ISC250
FP-LK03208095	FP-3943367	FP-3948095	FP-3802538	FP-3934046	FP-3920692	ISC 350; QSC (CPL 2238)

Piston Kit	Piston Body	Piston Pin	Retainers	Ring Set	Comment
3800316 use FP-3800318 4089645 use 4955204 4955204	3968404	FP-3934046	FP-3920692	FP-3802429	ISC230;ISC215;ISC275;ISC250;ISC285;ISC280;ISC250
FP-3800318	FP-3942106	FP-3934046	FP-3920692	FP-3802429	
FP-3800320	FP-3943367	FP-3934046	FP-3920692	FP-3802538	ISC350;QSC(CPL2238)
FP-4955190	FP-4933120	3950549	FP-3920692	FP-4089644	CPL 8159, 8220, 8430, 8535, 8536, 8537, 8538, 8539, 8569, 8570

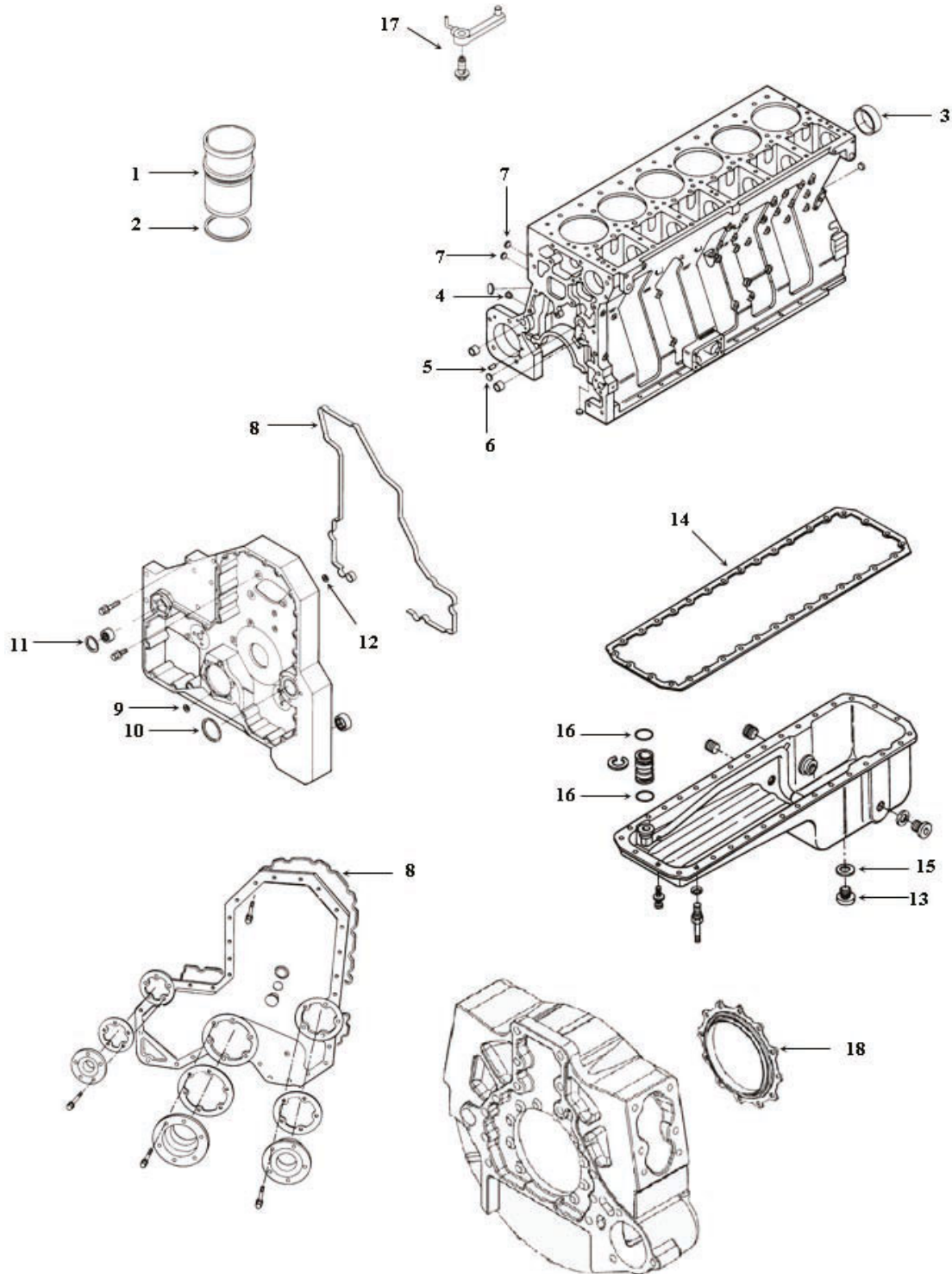
Above Cylinder Kits And Piston Kits Include Items In Shaded Area.

Piston Ring Set	Comment
FP-4089644	STD

# L10 & M11 Series



## Cylinder Block



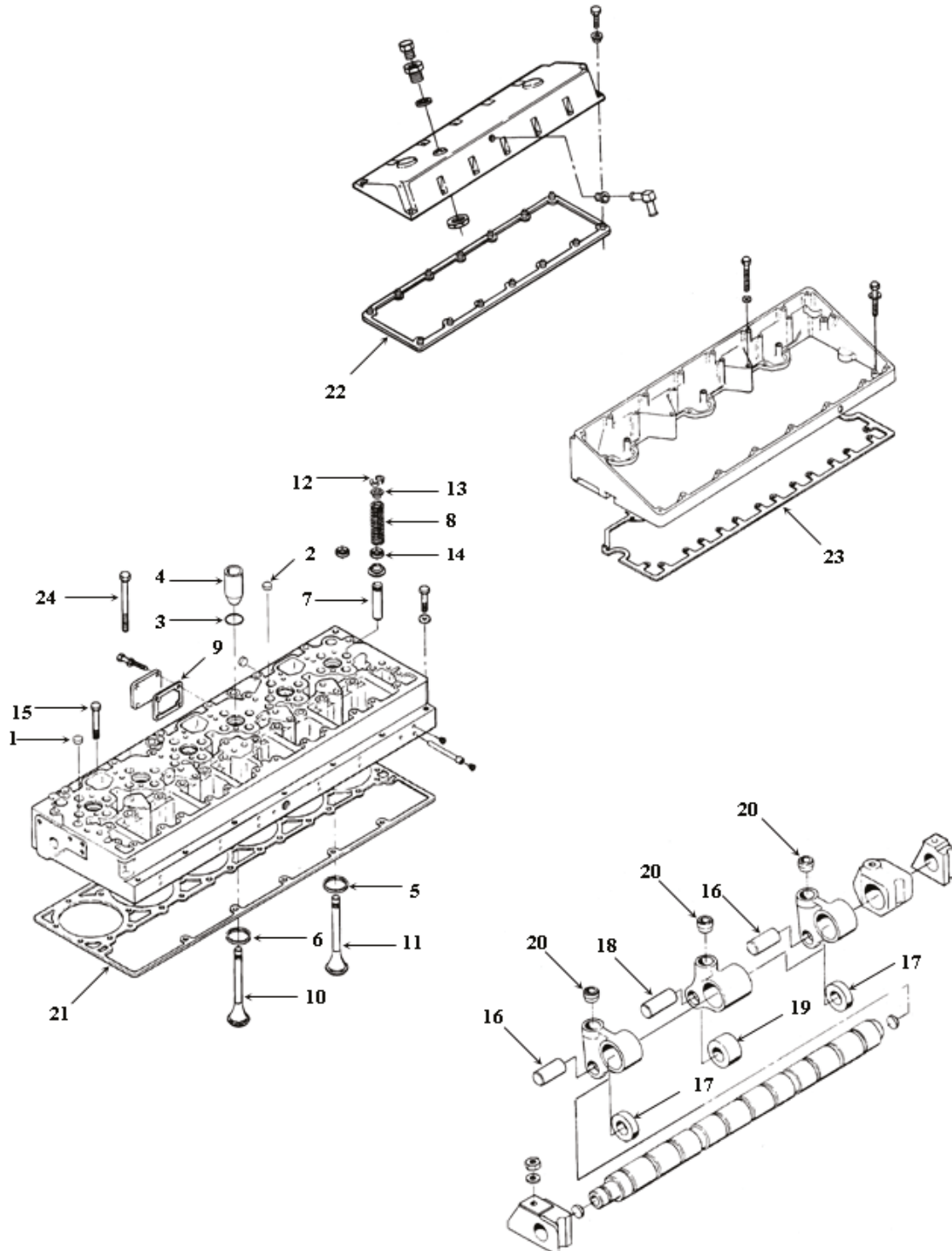
## Cylinder Block, Front & Rear Covers & Gasket Sets

Ref	Part Number	Description	L10	M11
00	FP-3883472	Gasket, Hand Hole Cover	3	3
00	FP-216484	Dipstick	1	1
00	FP-2863702	Seal, O-Ring Hydraulic Pump	1	1
00	FP-3004242	Gasket, Hydraulic Pump	1	1
00	FP-3025296	Gasket, Cover Plate	1	1
00	FP-3037537	Seal, O-Ring	1	1
00	FP-3046201	Seal, O-Ring	1	1
00	FP-4024993S	Gasket Set, In-Frame (Late L10/ M11)	1	1
00	FP-4089478	Superior Gasket Set (L10/M11 Current) (Switch to FP-4025157)	1	1
00	FP-4089995	Kit, Seal (Front Gear Cover)	1	1
00	FP-4089998	Lower Gasket Set (L10/M11 Current)(Previously FP-3802453)	1	1
00	FP-L10PREM	In-Frame Kit W/Upper Gasket & Pan Set	1	1
00	FP-L10PREMDNA	In-Frame Kit, Dual-Ni Anodized	1	1
00	FP-L10PREM-OH	O/H Engine Kit W/Front & Rear Seal	1	1
00	FP-3010146	Oil Pressure Regulator Spring	1	
00	FP-3803404	Gasket Set, Lower (Early L10)	1	
00	FP-4025155	Gasket Set, Upper (Early L10)	1	
00	FP-4025155S	Gasket Set, In-Frame (Early L10)	1	
00	FP-4025297	In-Frame Kit, For CPL's No's 1827, 1828, 1855, 1856, 1857, 1875, 1885, 1973, 2036, 2037, 2140, 2141, 2178, 2370, 2371, 2425 Only.	-	1
00	FP-IFKM11AR	In-Frame Kit, All M11 Eng's w/Articulated Pistons	-	1
00	FP-OHM11AR	O/H Engine Kit (Articulated Piston Engines)	-	1
03	FP-2878168	Bushing, Camshaft (Formerly FP-3820566)	7	7
03	FP-2878168S	Cam Bushing Set (Includes 7 FP-2878168 Bushings) (Formerly FP-3820566S)	1	1
04	FP-3002158	Plug, Pipe	2	2
05	FP-70550	Dowel, Pin	1	1
06	FP-3007635	Plug, Expansion	3	3
08	FP-4920751	Seal, Rectangular Strip (Gear Cover)	1	1
09	FP-3201659	Seal, Rectangular Ring	6	6
10	FP-3820945	Seal, Rectangular Ring	1	1
11	FP-3820946	Seal, Rectangular Ring	1	1
12	FP-3883150	Seal, O-Ring	1	1
13	FP-3055069	Plug, Threaded (Oil Pan)	2	2
17	FP-3070218	Nozzle, Piston Cooling (For Articulated Pistons Only)	6	6
17	FP-3803495	Nozzle, Piston Cooling (Check For Availability)	6	6
18	FP-4089542	Kit Seal Crankshaft Rear	1	1
00	<b>FP-3803703</b>	<b>Kit, Cylinder Liner (All Applications)</b>	6	6
01	FP-3080760	Liner, Cylinder	6	6
02	FP-3047188	Seal, O-Ring, Cylinder Liner	6	6
00	<b>FP-3882433-PS</b>	<b>Gasket Set, Oil Pan (Early L10), (W/Washers &amp; Seal Rings)</b>	1	
14	FP-3882433	Gasket, Oil Pan (Early L10)	1	
15	FP-67946	Washer, Plain (Oil Pan Plug)	2	2
16	FP-3032787	Seal, O-Ring (Lube Oil Transfer/Pick Up Tube)	2	2
00	<b>FP-3882733-PS</b>	<b>Gasket Set, Oil Pan (Late L10/M11), (W/Washers &amp; Seal Rings)</b>	1	1
14	FP-3401290	Gasket, Oil Pan (Current L10/M11)	1	1
15	FP-67946	Washer, Plain (Oil Pan Plug)	2	2
16	FP-3032787	Seal, O-Ring (Lube Oil Transfer/Pick Up Tube)	2	2

# L10 & M11 Series



## Cylinder Head



## Cylinder Head, Valve Mechanism & Upper Gasket Set

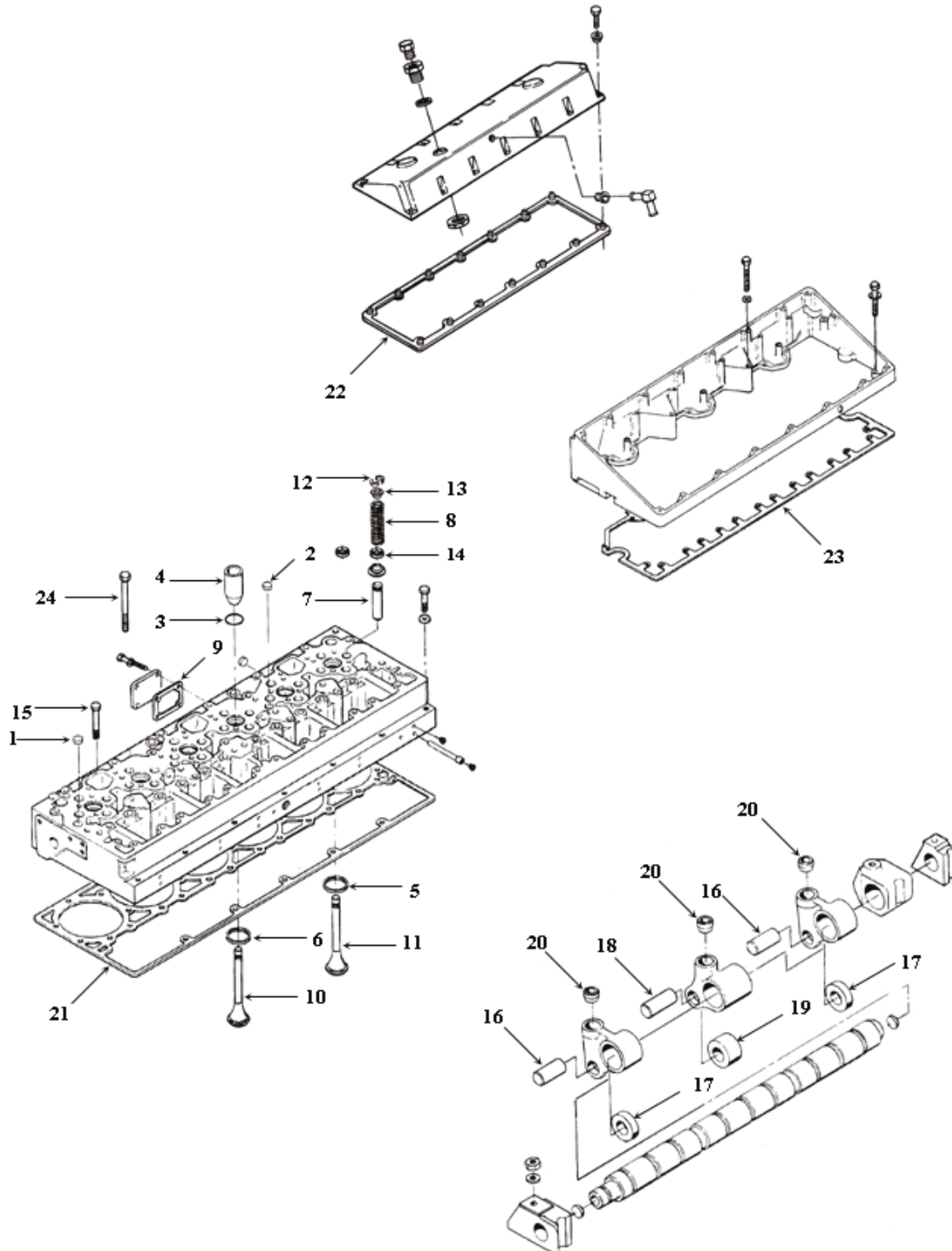
Ref	Part Number	Description	L10	M11
00	FP-3328948	Gasket, Exhaust Manifold	6	6
00	FP-S212	Nut, Hexagon	5	
00	FP-3033230	Guide, Valve Spring	24	
00	FP-3033232	Spring, Valve (Outer)	24	
00	FP-3033233	Spring, Valve (Inner)	24	
00	FP-168306	Screw, Slotted Set	18	
00	FP-123558	Guide, Valve Crosshead	12	
00	FP-147389	Screw, Slotted Set	12	
00	FP-203131	Nut, Jam	12	
00	FP-3037537	O-Ring (Plug)	1	1
00	FP-4024993S	Gasket Set, In-Frame Kit (Late L10, M11)	1	1
00	FP-4089478	Superior Gasket Set (L10/M11 Current) (Previously FP-4024993)	1	1
00	FP-4025155	Gasket Set, Upper (Early L10)	1	
00	FP-4025155S	Gasket Set, In-Frame Kit (Early L10)	1	
02	FP-3007635	Plug, Expansion	8	8
03	FP-3007759	Seal, O-Ring	6	-
03	FP-3035026	Seal, O-Ring	-	6
04	FP-3070486	Sleeve, Injector (Thin)	6	6
04	FP-3417717	Sleeve, Injector		6
05	FP-3418044	Insert, Valve (.25mm O.S.)	24	24
05	FP-3418045	Insert, Valve (.50mm O.S.)	24	24
05	FP-3418046	Insert, Valve (.75mm O.S.)	24	24
05	FP-3418047	Insert, Valve (1.00 mm S/M)(Previously FP-3028074)	24	24
05	FP-3418040	Insert, Valve (Exhaust) Changes to FP-3028070	12	12
06	FP-3418040	Insert, Valve (Intake), (Check For Availability)	12	12
07	FP-3033314	Guide, Valve Stem	24	24
07	FP-3328785	Guide, Valve Stem (Previously FP-3073512)	24	24
08	FP-3895860	Spring, Valve	24	24
09	FP-3820872	Gasket, Cover Plate	1	1
13	FP-3883512	Retainer, Valve Spring	24	24
14	FP-3328781	Seal, Valve Stem (Intake & Exhaust)	24	24
14	FP-4003966	Valve Stem Seal (Intake and Exhaust) w/Steel Spring		24
15	FP-4022907	Screw, Hexagon Head Cap	3	3
16	FP-3335342	Pin, Cam Follower Roller	12	12
17	FP-3895488	Roller, Cam Follower	12	12
18	FP-3335341	Pin, Cam Follower Roller	6	6
19	FP-3895487	Roller, Cam Follower	6	6
20	FP-3033292	Socket, Tappet (Early L10)	6	
21	FP-2864080 <sup>38</sup>	Gasket, Cylinder Head (New ML7 Design)	1	1
21	FP-4022500	Gasket, Cylinder Head (Will Supersede To FP-2864080)	1	1
22	FP-3883220	Gasket, Rocker Lever Cover (Late L10) (Check For Availability)	1	1
22	FP-3034855	Gasket, Rocker Lever Cover (Early L10)	1	
23	FP-4070529	Gasket, Bank Rockers (Current L10/M11)(Previously FP-3896697)	1	1
24	FP-3328379	Screw, Hex Flange Head Cap	2	2
00	<b>FP-3800638</b>	<b>Kit, Valve w/Locks (Intake)</b>	12	12
10	FP-3418020	Valve, Intake Bare	12	12
12	FP-3275354	Lock Half, Valve	48	48

<sup>38</sup>See Inside Back Cover For ML7™ Product Details.

# L10 & M11 Series



## Cylinder Head







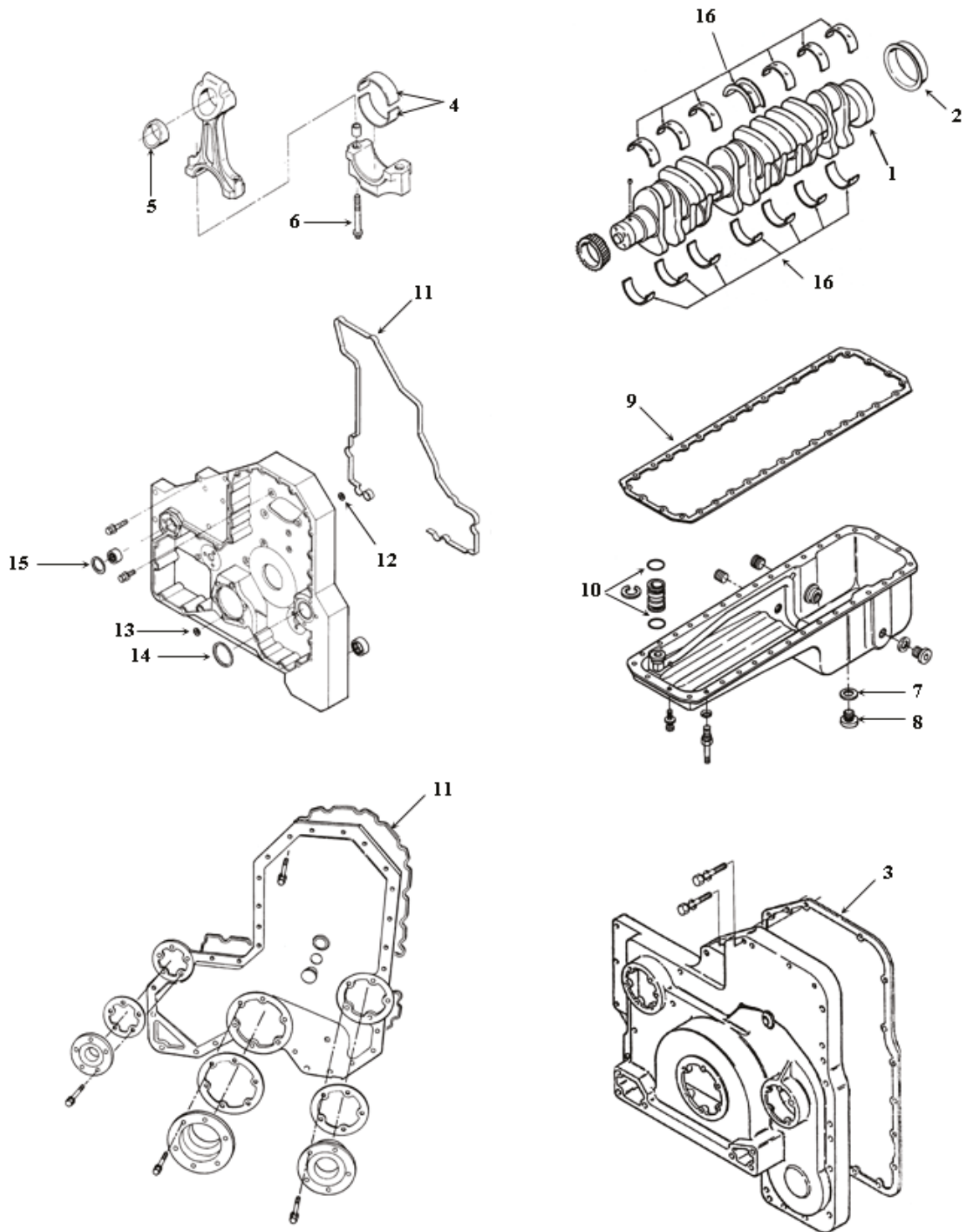
**Cylinder Head, Valve Mechanism & Upper Gasket Set (Cont.)**

Ref	Part Number	Description	L10	M11
00	<b>FP-3800639</b>	Kit, Valve w/Locks (Exhaust)	12	12
11	FP-3418021	Valve, Exhaust (Bare)	12	12
12	FP-3275354	Lock Half, Valve	48	48
00	<b>FP-3801356</b>	Kit, Valve w/Locks (Intake)	12	
10	FP-3033234	Valve, Intake Bare	12	
12	FP-3275354	Lock Half, Valve	48	48
00	<b>FP-3803995</b>	Kit, Exhaust Valve (C/Insurance) (Previously FP-3801357)	12	
11	FP-3895477	Exhaust Valve (Previously FP-3818520)	12	
12	FP-3275354	Lock Half, Valve	48	48
00	<b>FP-3803996</b>	Kit, Exhaust Valve (C/Insurance) (Previously FP-3803348)	12	12
11	FP-3417713	Exhaust Valve (Previously FP-3883287)	12	12
12	FP-3275354	Lock Half, Valve	48	48

# L10 & M11 Series



## Crankshaft



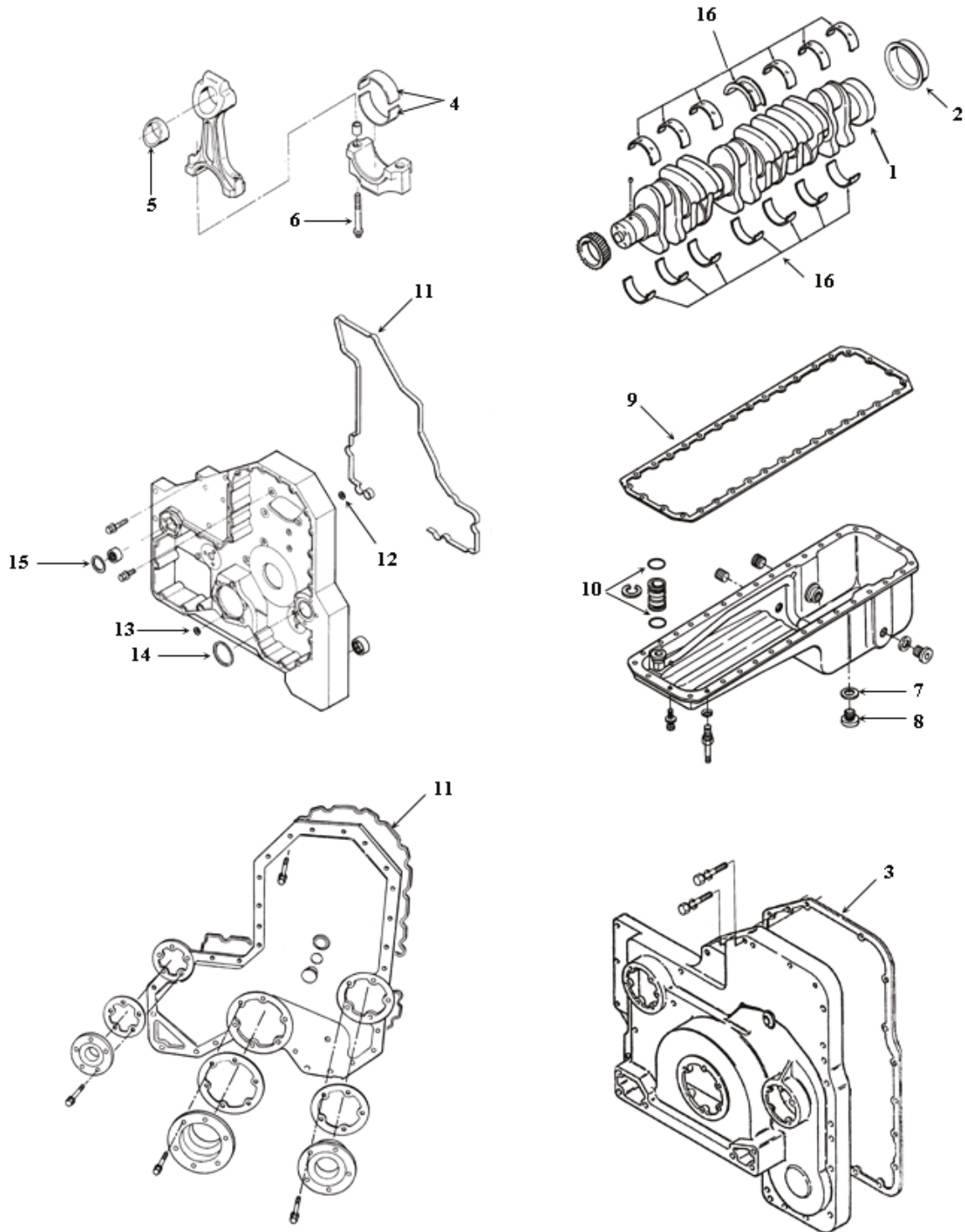
## Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover

Ref	Part Number	Description	L10	M11
00	FP-4926017	Thrust Washer, Lower (W/Tab)	2	2
00	FP-4926019	Thrust Washer, Upper	2	2
00	FP-2863702	Seal, O-Ring Hydraulic Pump	1	1
00	FP-3004242	Gasket, Hydraulic Pump	1	1
00	FP-3026134	Gasket, Cover Plate (Flywheel Housing)	1	1
00	FP-3600925	Gasket, End Plate	1	1
00	FP-3800643	Seal, Crankshaft Rear Dry	1	1
00	FP-3803896	Seal, Crankshaft (Front)	1	1
00	FP-4089998	Lower Gasket Kit	1	1
00	FP-3820917	Sleeve, Front Crankshaft Seal	1	
00	FP-3820918	Sleeve, Front Crankshaft Seal		1
01	FP-3819989	Crankshaft (5 Hole, Internal Dam)	1	
02	FP-3819774	Sleeve, Rear Crankshaft Seal	1	1
03	FP-3058148	Gasket, Front Cover	1	1
04	FP-3016760	Bearing, Connecting Rod (Std.)	12	12
04	FP-3016761	Bearing, Connecting Rod (.010mm)	12	12
04	FP-3016762	Bearing, Connecting Rod (.020mm)	12	12
04	FP-3016763	Bearing, Connecting Rod (.030mm)	12	12
04	FP-3016764	Bearing, Connecting Rod (.040mm)	12	12
05	FP-3027105	Bushing, Connecting Rod (Drilled Rod)	6	
05	FP-3896894	Bushing, Connecting Rod (Non Drilled Rod)		6
06	FP-3027108	Screw, Connecting Rod	12	12
07	FP-67946	Washer, Plain (Oil Pan Plug)	2	2
08	FP-3055069	Plug, Threaded (Oil Pan)	2	2
12	FP-3201659	Seal, Rectangular Ring	6	6
13	FP-3820945	Seal, Rectangular Ring	1	1
14	FP-3820946	Seal, Rectangular Ring	1	1
15	FP-3883150	Seal, Rectangular Ring	1	1
16	FP-4025120	Bearing, Main Set (Std.) (Tab Design Thrust Bearings)	1	1
16	FP-4025121	Bearing, Main Set (.010) (Tab Design Thrust Bearings)	1	1
16	FP-4025122	Bearing, Main Set (.020) (Tab Design Thrust Bearings)	1	1
16	FP-4025123	Bearing, Main Set (.030) (Tab Design Thrust Bearings)	1	1
00	<b>FP-3882433-PS</b>	<b>Gasket Set, Oil Pan (Early L10), (w/Washers &amp; Seal Rings)</b>	1	
09	FP-3882433	Gasket, Oil Pan (Early L10)	1	
07	FP-67946	Washer, Plain (Oil Pan Plug)	2	2
10	FP-3032787	Seal, O-Ring (Lube Oil Transfer/Pick-Up Tube)	2	2
00	<b>FP-3882733-PS</b>	<b>Gasket Set, Oil Pan (Late L10/M11), (w/Washers &amp; Seal Rings)</b>	1	1
09	FP-3401290	Gasket, Oil Pan (Late L10/M11)	1	1
07	FP-67946	Washer, Plain (Oil Pan Plug)	2	2
10	FP-3032787	Seal, O-Ring (Lube Oil Transfer/Pick-Up Tube)	2	2
16	<b>FP-4025125</b>	<b>Main Bearing Set ( Std.) Pre 2004, Roll Pin Design Thrust Bearings</b>	1	1
00	3016770	Bearing Main (Upper) (Not Sold Separately)	7	7
00	3016780	Bearing Main (Lower) (Not Sold Separately)	7	7
00	FP-4926019	Thrust Washer (No.4 Main) (Std.)	4	4
16	<b>FP-4025126</b>	<b>Main Bearing Set (.25mm) Pre 2004, Roll Pin Design Thrust Bearings</b>	1	1
00	3016771	Bearing Main (Upper) (Not Sold Separately)	7	7
00	3016781	Bearing Main (Lower) (Not Sold Separately)	7	7
00	FP-4926019	Thrust Washer	4	4

# L10 & M11 Series



## Crankshaft





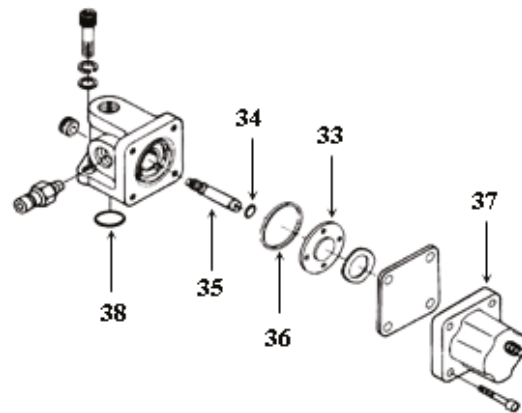
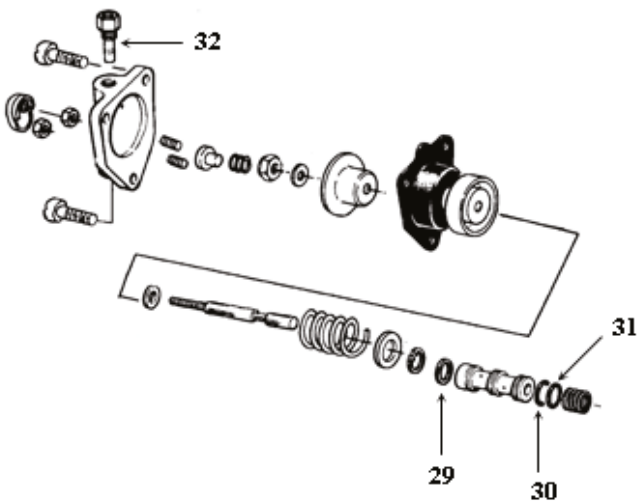
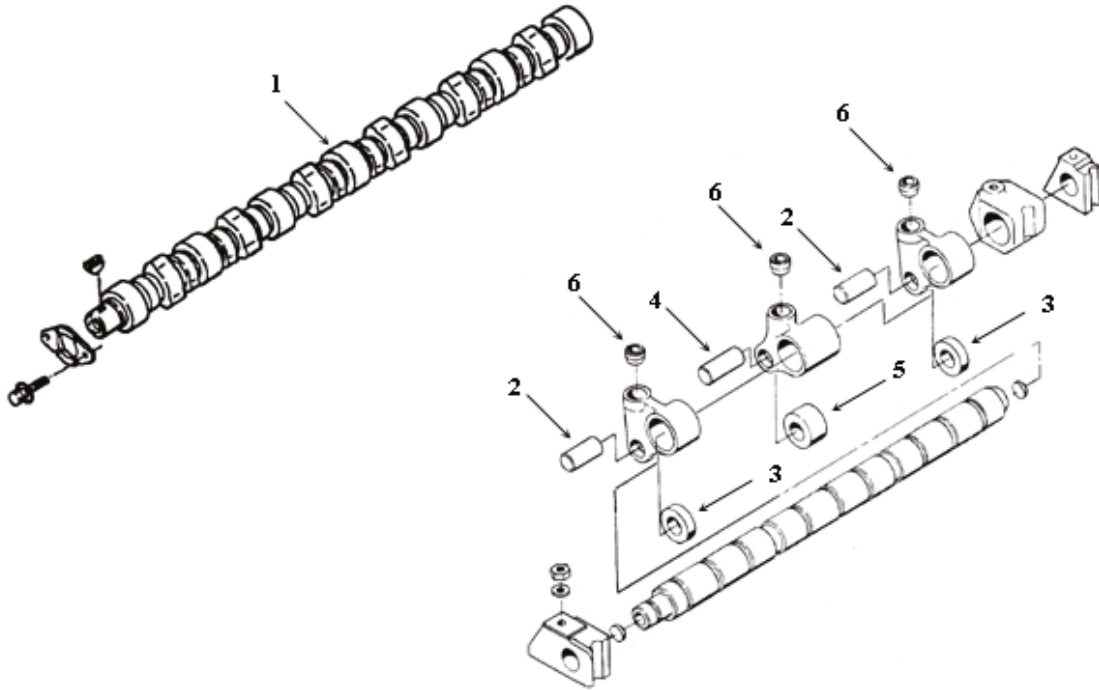
**Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover (Cont.)**

Ref	Part Number	Description	L10	M11
16	<b>FP-4025127</b>	Main Bearing Set (.50mm) Pre 2004, Roll Pin Design Thrust Bearings	1	1
00	3016772	Bearing Main (Upper) (Not Sold Separately)	7	7
00	3016782	Bearing Main (Lower) (Not Sold Separately)	7	7
00	FP-4926019	Thrust Washer	4	4
16	<b>FP-4025128</b>	Main Bearing Set (.75mm) Pre 2004, Roll Pin Design Thrust Bearings	1	1
00	FP-3016773	Bearing, Main (Upper)	7	7
00	FP-3016783	Bearing, Main (Lower)	7	7
00	FP-4926019	Thrust Washer	4	4
00	<b>FP-4089995</b>	Seal Kit, Front Gear Cover	1	1
11	FP-4920751	Seal, Rectangular Strip (Gear Cover)	1	1
00	FP-4070462	Screw, Long (Gear Cover)	38	38
00	FP-4070463	Screw, Short (Gear Cover)	5	5

# L10 & M11 Series



## Camshaft, Fuel Shutoff Valve & AFC Assembly



## Camshaft

Ref	Part Number	Description	L10	M11
00	FP-208084	Rivet, Blind (Rocker Lever)	18	18
00	FP-4070529	Gasket, Bank Rockers (Previously FP-3896697)	1	1
01	FP-3036117	Camshaft, Bare - CPL's 528, 638, 703, 704, 717, 770, 773, 774, 775, 776, 777, 784, 785, 786, 881, 882, 894, 919, 921, 958, 1198, 1234, 1198, 1359, 1414, 1454, 1459, 1660, 1674, 1687, 1695, 1696, 1699, 1849	1	
01	FP-3037523	Camshaft, Bare - CPL's 652, 655, 671, 735, 748, 751, 764, 765, 780, 781, 783, 787, 788, 789, 790, 835, 836, 894, 978, 995, 1208, 1429, 1443	1	
02	FP-3335342	Pin, Cam Follower Roller (Valve)	12	12
03	FP-3895488	Roller, Cam Follower (Valve)	12	12
04	FP-3335341	Pin, Cam Follower Roller (Injector)	6	6
05	FP-3895487	Roller, Cam Follower (Injector)	6	6
06	FP-3033292	Socket, Tappet (Early L10)	6	

## Fuel Shutoff & AFC Assembly

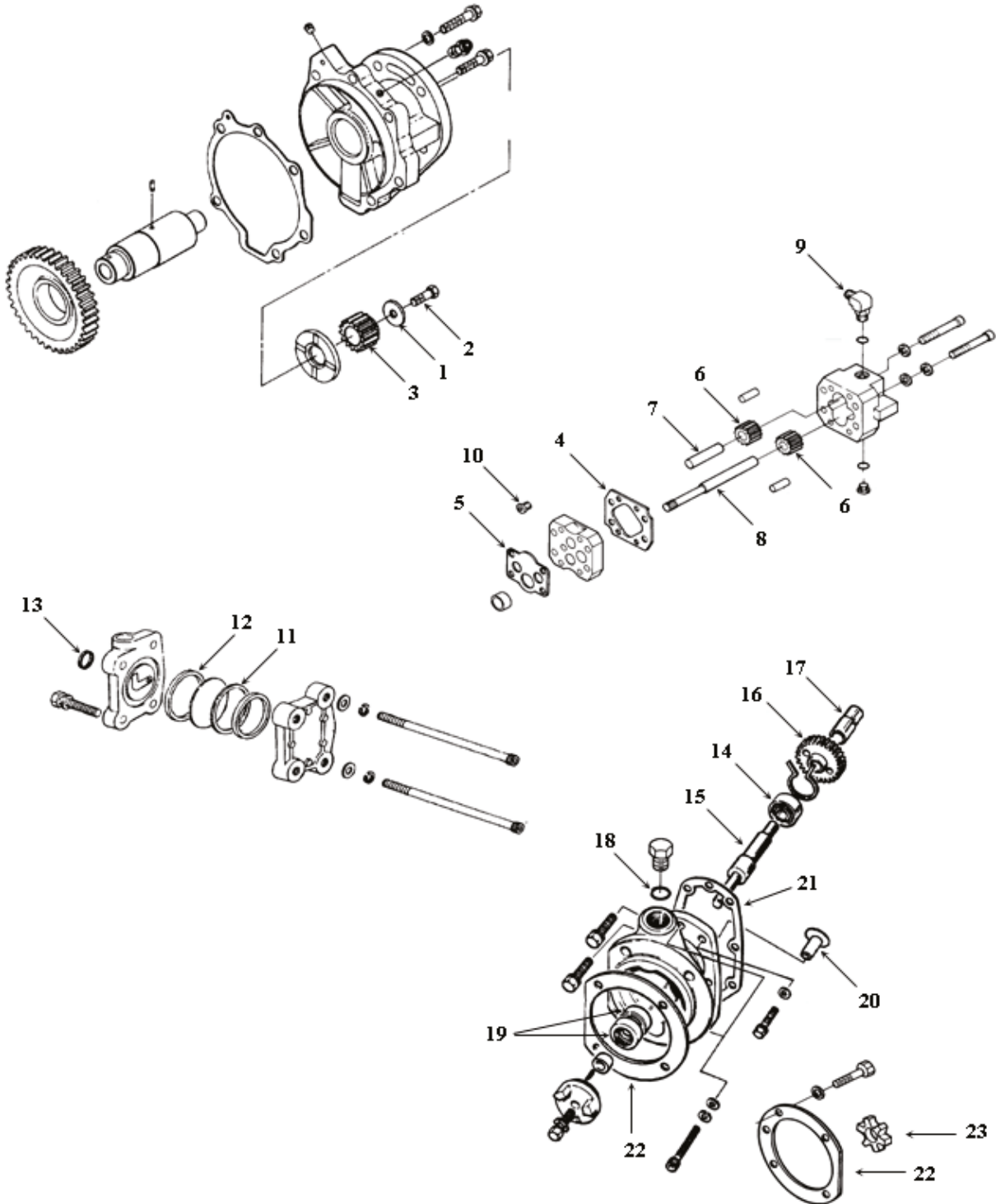
Ref	Part Number	Description	L10	M11
29	FP-3042542	Seal, O-Ring (AFC Assembly)	2	2
30	FP-3045986	Seal, O-Ring (AFC Assembly)	1	1
31	FP-3069614	Seal, O-Ring (AFC Assembly)	1	1
32	FP-3015522	Valve, Check (AFC Assembly)	1	1
33	FP-3030970	Disc, Valve (Fuel Shutoff Valve)	1	1
34	FP-190876	Seal, O-Ring	1	1
35	FP-3000266	Shaft, Shutoff Valve	1	1
36	FP-129888	Seal, Rectangular Ring	1	1
37	FP-3054609	Solenoid, 24V	1	1
37	FP-3408421	Solenoid, 12V (Switch to FP-3054611)	1	1
38	FP-154087	Seal, Rectangular Ring	1	1



# L10 & M11 Series



## Fuel Pump & Components





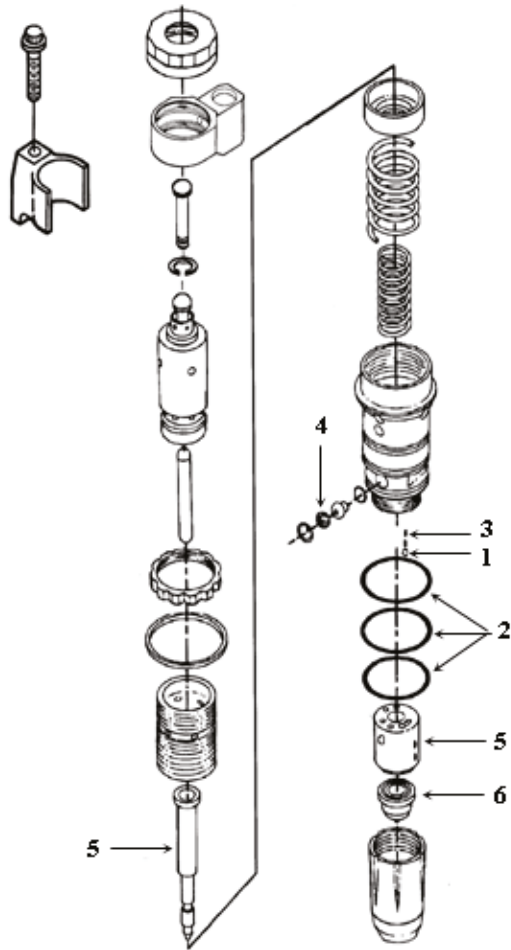
## Fuel Pump Drive, Gear Pump, Fuel Pump Front Cover

Ref	Part Number	Description	L10	M11
00	FP-3034243	Fuel Pump, Gear (3/4" RH)	1	1
01	FP-170664	Washer, Plain	1	1
02	FP-3000173	Screw, Hexagon Head Cap	1	1
03	FP-3000174	Hub, Spline Coupling	1	1
04	FP-110855	Gasket, Fuel Pump	1	1
05	FP-3069017	Gasket, Fuel Pump	1	1
06	FP-119363	Gear, Fuel Pump	2	2
07	FP-100215	Shaft, Fuel Pump (Driven)	1	1
09	FP-3033740	Valve, Check	1	1
10	FP-3050624	Valve, Pressure Regulator	1	1
11	FP-100099	Seal, Rectangular Ring (Fuel Pump Damper)	1	1
12	FP-139988	Seal, Rectangular Ring (Fuel Pump Damper)	1	1
13	FP-151900	Seal, Rectangular Ring (Fuel Pump Damper)	1	1
14	FP-S16052	Bearing, Ball	1	1
15	FP-212601	Shaft, Fuel Pump	1	1
18	FP-3040817	Seal, O-Ring	1	1
19	FP-3062676	Seal, Oil	2	2
20	FP-163944	Bushing	1	1
21	FP-3063052	Gasket, Fuel Pump	1	1
22	FP-4026171	Gasket, Fuel Pump (Previously FP-3069103)	1	1
23	FP-3046200	Spider, Jaw Coupling	1	1

# L10 & M11 Series

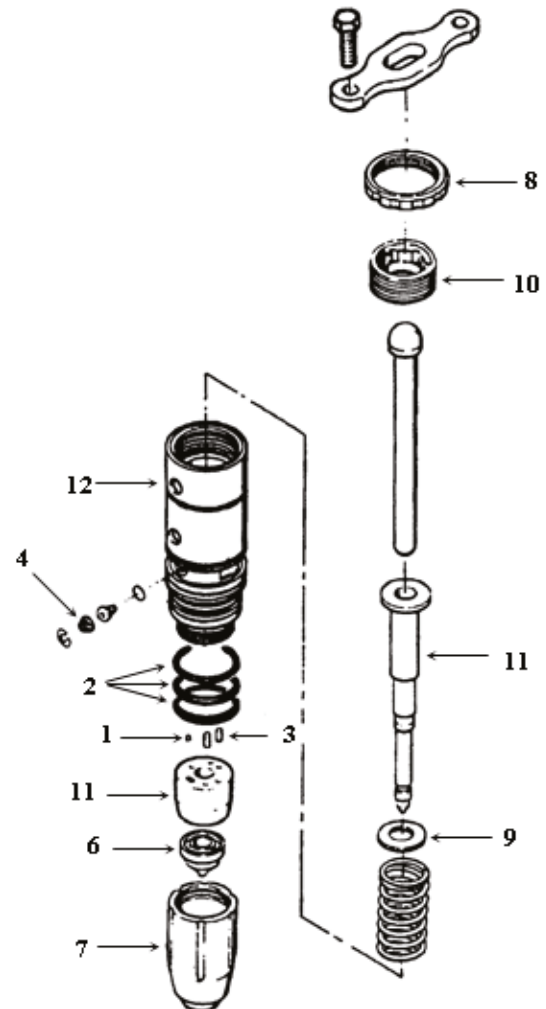


## Fuel Injectors



STC Injector

## PTD Top Stop



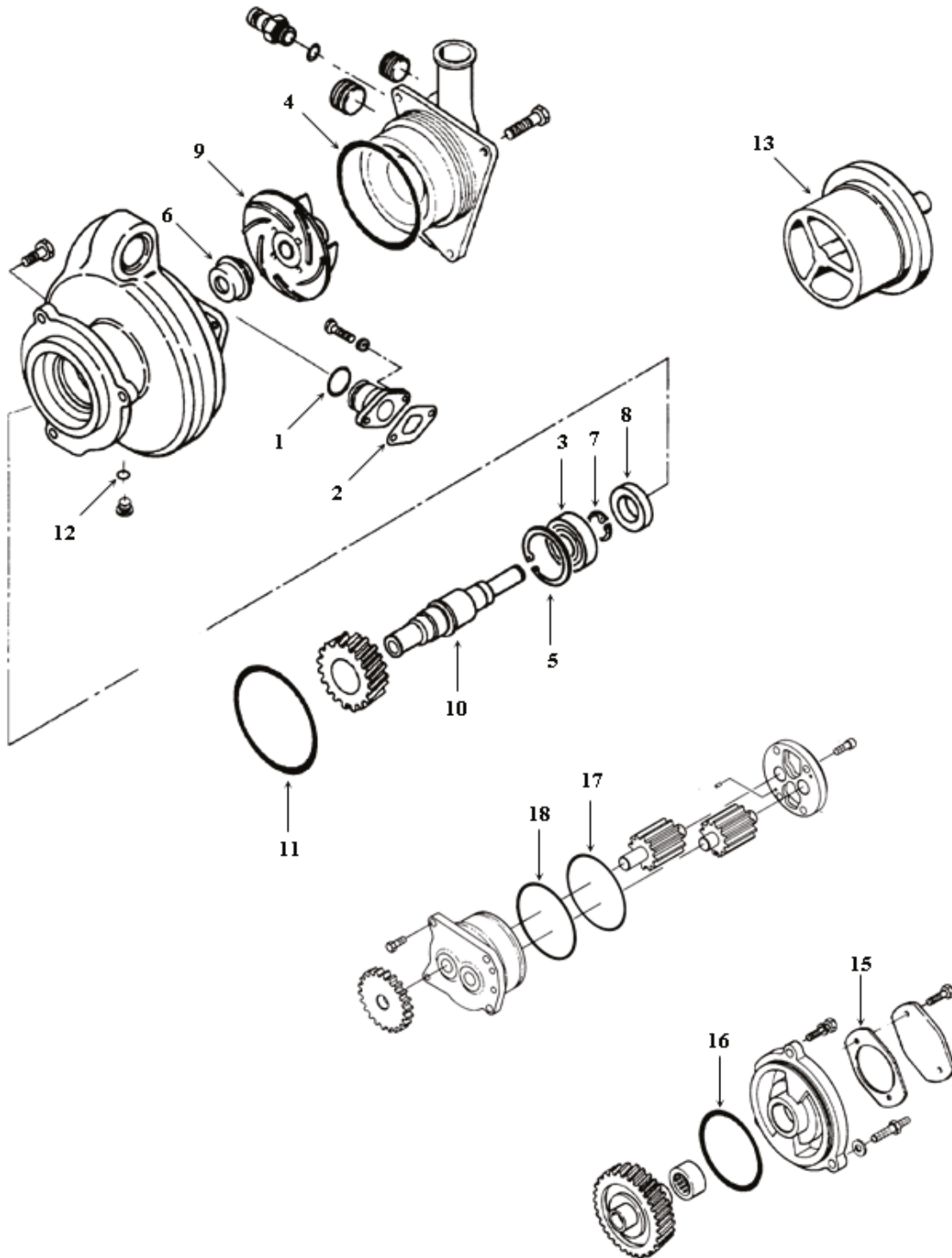
## Fuel Injectors

Ref	Part Number	Description	L10	M11
00	FP-3075383	Assy, Injector Tappet (Mushroom Design)	6	6
00	FP-3066486	Injector Assembly (Premium Rebuilt PTD Top Stop)	6	
00	FP-3035342	Valve, Shutdown 12V	1	1
00	FP-3035344	Valve, Shutdown 24V	1	1
00	FP-3054609	Solenoid, 24V (Previously FP-3054610)	1	1
00	FP-3408421	Solenoid, 12V (Previously FP-3054611)	1	1
01	FP-167157	Ball, Check	6	6
01	FP-3045102	Injector Assembly (New PTD)	6	
02	FP-193736	Seal, O-Ring	6	6
03	FP-203426	Pin, Roll	6	6
04	FP-3008706	Screen, Filter	6	6
05	FP-3069718	Barrel & Plunger Assembly (STC Injector)	6	6
06	FP-3028068	Cup, Injector	6	6
06	FP-3069717	Cup, Injector	6	6
06	FP-3071564	Cup, Injector	6	6
07	FP-185138	Retainer, Injector Cup (PTD TS Injector)	6	
08	FP-3009362	Nut, Lock (PTD TS Injector)	6	
09	FP-3049995	Retainer, Spring (PTD TS Injector)	6	
10	FP-3018772	Screw, Injector Stop (PTD TS Injector)	6	
11	FP-3049996	Barrel & Plunger Assembly (PTD TS Injector)	6	
12	FP-3028066	Adapter, Injector (PTD TS Injector)	6	

# L10 & M11 Series



## Water Pump, Oil Pump, Thermostat



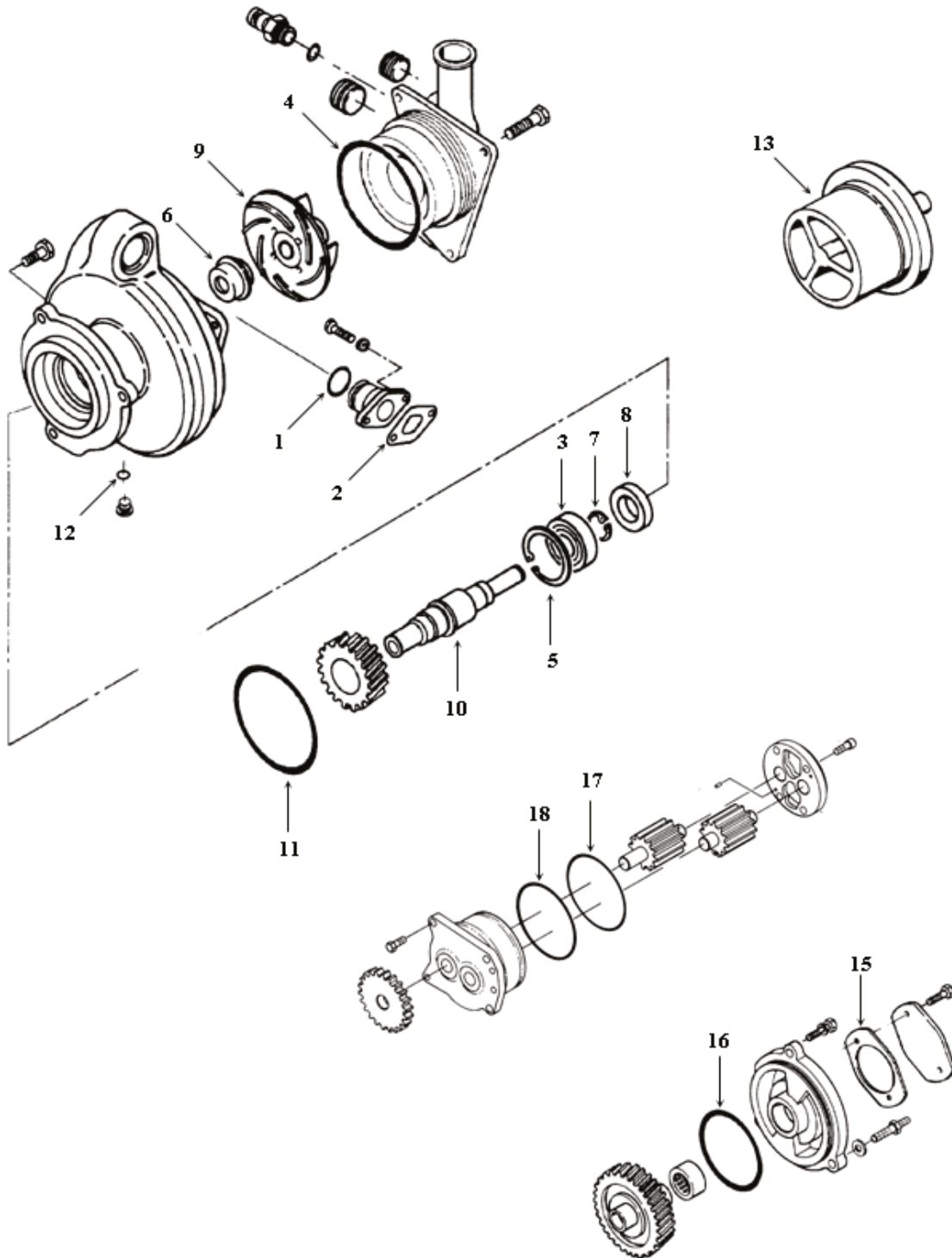
## Water Pump, Oil Pump, Thermostat

Ref	Part Number	Description	L10	M11
00	FP-101322	Cap, Oil Filler	1	1
00	FP-186780	Seal, Thermostat	1	1
00	FP-3015522	Valve, Check	1	1
00	FP-3027445	Gasket, Heater Housing	1	1
00	FP-3027675	Seal, Oil (Fan Drive)	1	1
00	FP-3042542	Seal, O-Ring (Oil Control Valve)	1	1
00	FP-3045986	Seal, O-Ring (Oil Control Valve)	1	1
00	FP-3062602	Assembly, Idler Pulley	1	1
00	FP-3066914	Seal, O-Ring (Oil Control Valve)	1	1
00	FP-3070100	Gasket, Air Connection	1	1
00	FP-3080770	Seal, O-Ring, Thermostat	1	1
00	FP-3803402	Pump Assembly, Water (4 Hole Mount)	1	1
00	FP-3803403	Pump Assembly, Water (3 Hole Mount)	1	1
00	FP-3818841	Gasket, Thermostat Housing	1	1
00	FP-3820629	Gasket, Filter Head	1	1
00	FP-3883284	Seal, O-Ring (Air Connection)	1	1
01	FP-3892095	Seal, O-Ring	1	1
02	FP-3027924	Gasket, Connection	1	1
03	FP-S16002	Bearing, Ball	1	1
04	FP-3820791	Seal, O-Ring	1	1
05	FP-160586	Ring, Retaining	1	1
06	FP-3029099	Seal, Water Pump	1	1
07	FP-112302	Ring, Retaining	1	1
08	FP-3019600	Seal, Oil	1	1
09	FP-3035679	Impeller, Water Pump	1	1
10	FP-3040964	Shaft, Water Pump (For FP-3803402 Pump)	1	1
10	FP-3819632	Shaft, Water Pump (For FP-3803403 Pump)	1	1
11	FP-2863701	Seal, O-Ring	1	1
12	FP-3037537	Seal, O-Ring	1	1
13	FP-3076489	Thermostat Assembly (180° F)	1	1
15	FP-3004242	Gasket, Hydraulic Pump	1	1
16	FP-2863702	Seal, O-Ring	1	1
17	FP-3033247	Seal, O-Ring, Oil Pump	1	1
18	FP-3033248	Seal, O-Ring, Oil Pump	1	1
00	<b>FP-3801179</b>	<b>Kit, Water Pump Repair (4 Hole Mount)</b>	1	1
03	FP-S16002	Bearing, Ball	1	1
00	FP-S16054	Bearing, Ball	1	1
05	FP-160586	Ring, Retaining	1	1
08	FP-3019600	Seal, Oil	1	1
06	FP-3029099	Seal, Water Pump	1	1
09	FP-3035679	Impeller, Water Pump	1	1
00	FP-3064634	Ring, Retaining	1	1
04	FP-3820791	Seal, O-Ring	1	1
00	FP-3883365	Gasket, Water Pump Mounting	2	2

# L10 & M11 Series



## Water Pump, Oil Pump, Thermostat







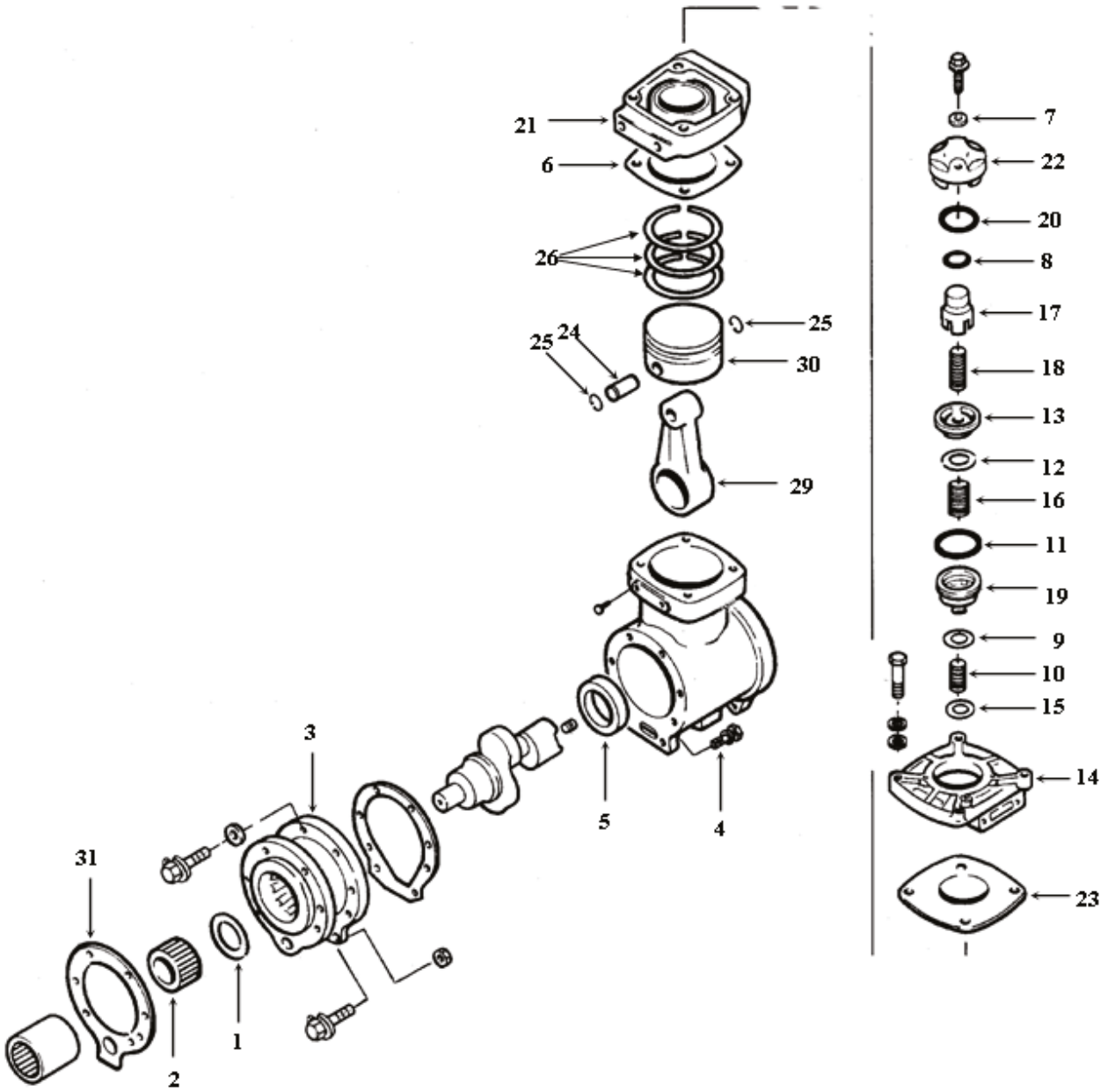
**Water Pump, Oil Pump, Thermostat (Cont.)**

Ref	Part Number	Description	L10	M11
00	<b>FP-4024817</b>	Kit, Water Pump Repair (3 Hole Mount)	1	1
03	FP-S16002	Bearing, Ball	1	1
04	FP-3820791	Seal, O-Ring	1	1
05	FP-160586	Ring, Retaining	1	1
06	FP-3029099	Seal, Water Pump	1	1
07	FP-112302	Ring, Retaining	1	1
08	FP-3019600	Seal, Oil	1	1
09	FP-3035679	Impeller, Water Pump	1	1
11	FP-2863701	Seal, O-Ring	1	1

# L10 & M11 Series



## Compressor (13.2 CFM)



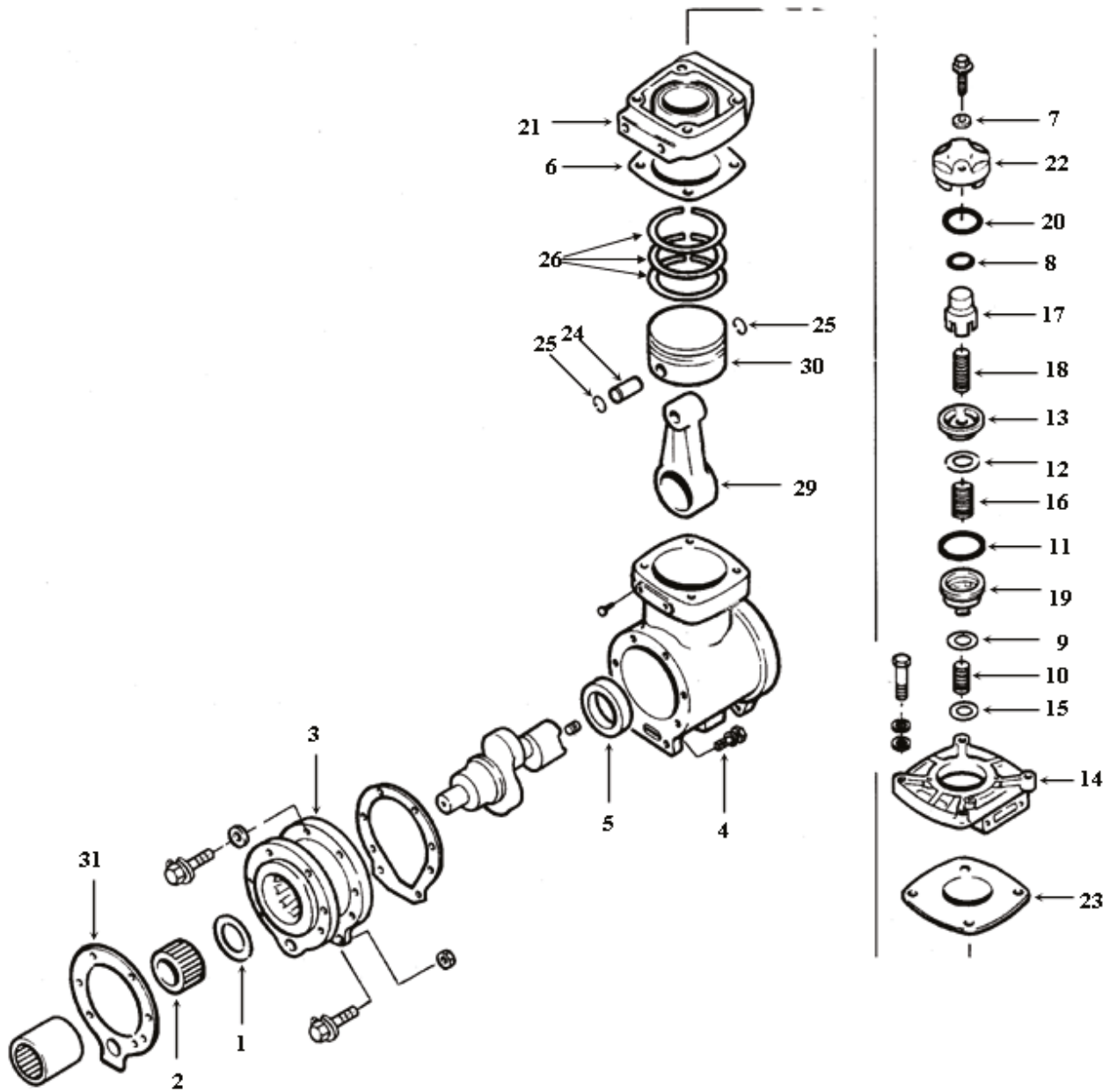
## Compressor (13.2 CFM)

Ref	Part Number	Description	L10	M11
00	FP-3018153	Bushing, Connecting Rod	1	1
01	FP-211662	Bearing, Thrust	1	1
02	FP-3000174	Hub, Spline Coupling	1	1
04	FP-3012472	Screw, Captive Washer Cap	2	2
05	FP-147610	Bushing	1	1
06	FP-154018	Gasket, Air Compressor	1	1
07	FP-109557	Washer, Plain	2	2
08	FP-127936	Seal, Rectangular Ring	1	1
09	FP-127940	Valve, Exhaust	1	1
10	FP-128080	Spring, Compression	1	1
11	FP-128086	Seal, O-Ring	1	1
12	FP-144948	Valve, Intake	1	1
13	FP-145028	Seat, Compression Intake Valve	1	1
14	FP-153964	Cover, Air Compressor	1	1
15	FP-183429	Plate, Wear	1	1
16	FP-190334	Spring, Valve	1	1
17	FP-191037	Cap, Unloader (13.2 C.F.M.)	1	1
18	FP-3023101	Spring, Compression	1	1
19	FP-144714	Seat, Compressor Exhaust Valve	1	1
20	FP-3043995	Seal, O-Ring	1	1
21	FP-3558762	Head, Compressor	1	1
22	FP-3046298	Body, Unloading Valve	1	1
23	FP-3047159	Gasket, Air Compressor	1	1
29	FP-3018151	Rod, Compressor Connecting	1	1
31	FP-3820922	Gasket, Air Compressor Support	1	1
00	<b>FP-3803930</b>	<b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b>	1	1
30	FP-3045670	Body, Piston (Std.)	1	1
26	FP-AR73350	Ring Set, Compressor (Std.)	1	1
24	FP-119810	Pin, Piston	1	1
25	FP-3558754	Ring, Retaining	2	2
00	<b>FP-3803931</b>	<b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (.010)</b>	1	1
30	FP-3045671	Body, Piston (.010)	1	1
26	FP-AR73351	Ring Set, Compressor (.010)	1	1
24	FP-119810	Pin, Piston	1	1
25	FP-3558754	Ring, Retaining	2	2
00	<b>FP-3803932</b>	<b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (.020)</b>	1	1
30	FP-3045672	Body, Piston (.020)	1	1
26	FP-AR73352	Ring Set, Compressor (.020)	1	1
24	FP-119810	Pin, Piston	1	1
25	FP-3558754	Ring, Retaining	2	2

# L10 & M11 Series



## Compressor (13.2 CFM)



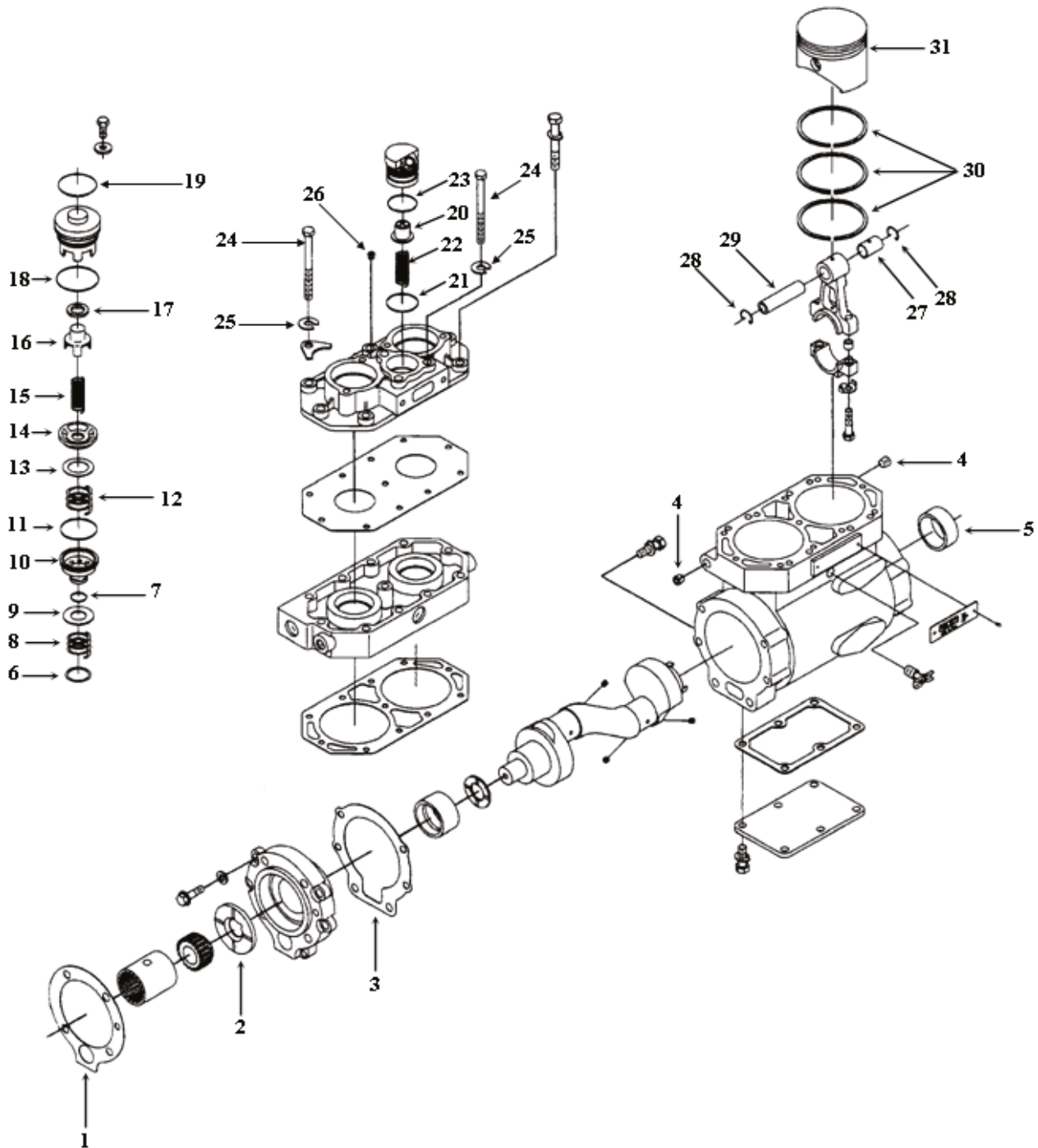
## Compressor Kits (13.2 CFM)

Ref	Part Number	Description	L10	M11
00	<b>FP-3801733</b>	Kit, Compressor Head Repair (Minor)	1	1
00	FP-AR12719	Kit, Valve Repair	1	1
13	FP-145028	Seat, Compression Intake Valve	1	1
17	FP-191037	Cap, Unloader (13.2 C.F.M.)	1	1
19	FP-144714	Seat, Compressor Exhaust Valve	1	1
00	<b>FP-3801735</b>	Kit, Compressor Head Repair (Major)	1	1
17	FP-184240	Cap, Unloader Valve (15.0 C.F.M.)	1	1
08	FP-127936	Seal, Rectangular Ring	1	1
09	FP-127940	Valve, Exhaust	1	1
10	FP-128080	Spring, Compression	1	1
00	FP-128085	Seal, O-Ring	1	1
11	FP-128086	Seal, O-Ring	1	1
12	FP-144948	Valve, Intake	1	1
13	FP-145028	Seat, Compression Intake Valve	1	1
15	FP-183429	Plate, Wear	1	1
16	FP-190334	Spring, Valve	1	1
18	FP-3023101	Spring, Compression	1	1
19	FP-144714	Seat, Compressor Exhaust Valve	1	1
20	FP-3043995	Seal, O-Ring	1	1
00	<b>FP-3801808</b>	Kit, Compressor Head Repair (Major)	1	1
00	FP-AR12719	Kit, Valve Repair	1	1
13	FP-145028	Seat, Compression Intake Valve	1	1
17	FP-191037	Cap, Unloader (13.2 C.F.M.)	1	1
19	FP-144714	Seat, Compressor Exhaust Valve	1	1
22	FP-3558624	Body, Unloading Valve	1	1
00	<b>FP-AR12719</b>	Kit, Valve Repair	1	1
07	FP-109557	Washer, Plain	2	1
08	FP-127936	Seal, Rectangular Ring	1	1
09	FP-127940	Valve, Exhaust	1	1
10	FP-128080	Spring, Compression	1	1
11	FP-128086	Seal, O-Ring	1	1
12	FP-144948	Valve, Intake	1	1
15	FP-183429	Plate, Wear	1	1
16	FP-190334	Spring, Valve	1	1
18	FP-3023101	Spring, Compression	1	1
20	FP-3043995	Seal, O-Ring	1	1
00	FP-128085	Seal, O-Ring	1	1
00	<b>FP-AR73308</b>	Gasket Set, 13.2 C.F.M. Compressor	1	1
08	FP-127936	Seal, O-Ring	1	1
00	FP-128085	Seal, O-Ring	1	1
11	FP-128086	Seal, O-Ring	1	1
06	FP-154018	Gasket	1	1
00	FP-176027	Gasket	1	1
20	FP-3043995	Seal, O-Ring	1	1
23	FP-3047159	Gasket, Air Compressor	1	1
00	FP-3201386	Gasket	1	1

# L10 & M11 Series



## Compressor Kits (30 CFM)



## Compressor Kits (30 CFM)

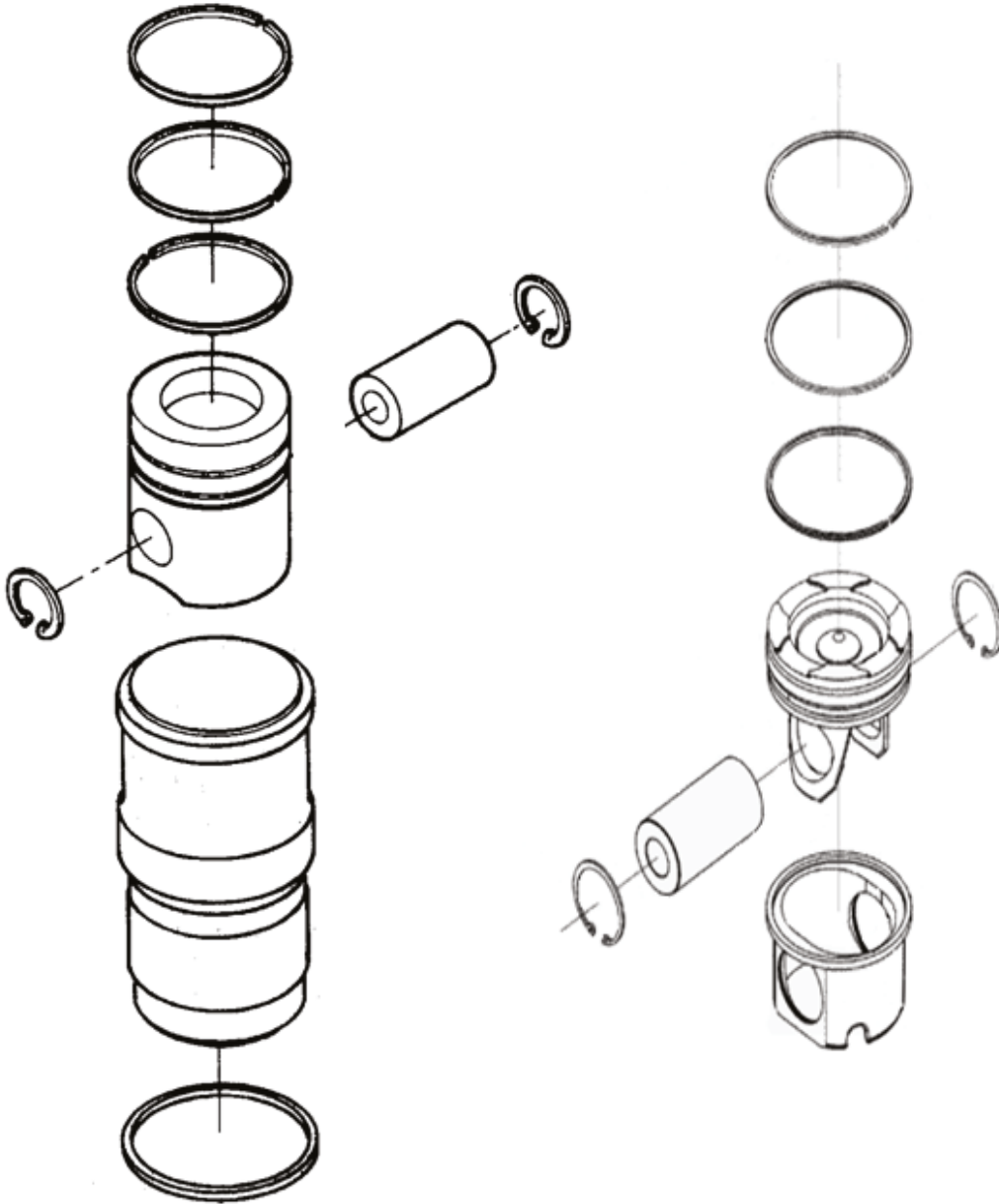
Ref	Part Number	Description	L10	M11
01	FP-3820922	Gasket, Air Compressor Support		1
02	FP-211662	Bearing, Thrust		1
03	FP-199347	Gasket, Air Compressor		1
04	FP-3013786	Plug, Pipe		3
05	FP-147610	Bushing		1
06	FP-183429	Plate, Wear		1
07	FP-3042542	Seal, O-Ring		1
08	FP-128080	Spring, Compression		1
09	FP-127940	Valve, Exhaust		1
10	FP-144714	Seat, Compressor Exhaust Valve		1
11	FP-128086	Seal, O-Ring		1
12	FP-190334	Spring, Valve		1
13	FP-144948	Valve, Intake		1
14	FP-145028	Seat, Compression Intake Valve		1
15	FP-3023101	Spring, Compression		1
16	FP-191037	Cap, Unloader		1
17	FP-127936	Seal, Rectangular Ring		1
18	FP-3015068	Seal, O-Ring		1
19	FP-211315	Seal, O-Ring		1
20	FP-184420	Cap, Unloader		1
21	FP-3009738	Seal, O-Ring		1
22	FP-150631	Spring, Compression		1
23	FP-3009739	Seal, O-Ring		1
26	FP-S911B	Plug, Pipe		1
27	FP-3018153	Bushing, Connecting Rod		2
28	FP-3558754	Ring, Retaining		4
29	FP-119810	Pin, Piston		2
30	FP-AR73350	Ring Set, Compressor (Std.)		2
00	<b>FP-3803930</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b>		1
31	FP-3045670	Body, Piston (Std.)		1
30	FP-AR73350	Ring Set, Compressor (Std.)		1
29	FP-119810	Pin, Piston		1
28	FP-3558754	Ring, Retaining		2
00	<b>FP-3803931</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b>		1
31	FP-3045671	Body, Piston (.010)		1
30	FP-AR73351	Ring Set, Compressor (.010)		1
29	FP-119810	Pin, Piston		1
28	FP-3558754	Ring, Retaining		2
00	<b>FP-3803932</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b>		1
31	FP-3045672	Body, Piston (.020)		1
30	FP-AR73352	Ring Set, Compressor (.020)		1
29	FP-119810	Pin, Piston		1
28	FP-3558754	Ring, Retaining		2



# L10 & M11 Series



## Articulated Cylinder Kits, Piston Kits, Liner



## Cylinder Kits, Piston Kits, Liner Kits & Ring Set

Cylinder Kit	Piston Body	Liner	Ring Set	Piston Pin	Seal Ring	Retainers
FP-3800800	FP-3055622	FP-3080760	FP-3803961	FP-4083243	FP-3047188	FP-3016652
FP-3800800-NP		FP-3080760	FP-3803961	FP-4083243	FP-3047188	FP-3016652
FP-3800801	FP-3044448	FP-3080760	FP-3803961	FP-4083243	FP-3047188	FP-3016652
FP-3803963	FP-3893751	FP-3080760	FP-3803961	FP-4083244	FP-3047188	FP-3016652
FP-3803964	FP-3068090	FP-3080760	FP-3803961	FP-4083244	FP-3047188	FP-3016652
FP-3803974	FP-3045907	FP-3080760	FP-3803961	FP-4083243	FP-3047188	FP-3016652
FP-3804696	FP-3606732	FP-3080760	FP-3804694	FP-4083243	FP-3047188	FP-3016652

Above cylinder kits include items in shaded area

Piston Kit	Piston Body	Ring Set	Piston Pin	Retainers	Comp Ratio	Comments
FP-3803962	FP-3893751	FP-3803961	FP-4083244	FP-3016652		
FP-3803965	FP-3044448	FP-3803961	FP-4083243	FP-3016652	16.1:1	
FP-3803966	FP-3045907	FP-3803961	FP-4083243	FP-3016652	18.1:1	
FP-3803967	FP-3055622	FP-3803961	FP-4083243	FP-3016652	17.0:1	
FP-3803968	FP-3068090	FP-3803961	FP-4083244	FP-3016652	16.6:1	
FP-3804695	FP-3606732	FP-3804694	Not Included	FP-3016652		NG Eng.
FP-PK6732	FP-3606732	FP-3804694	FP-4083243	FP-3016652		NG Eng.

Above piston kits include items in shaded area

Ring Set	Ring, Top Comp	Ring, Comp	Ring, Oil
FP-3803961	FP-3893752	FP-3899413	FP-3893754

Above ring set includes items in shaded area

Liner Kit	Liner	Seal Ring	Comments
FP-3803703	FP-3080760	FP-3047188	Non-Induction Hardened
FP-4089388	FP-3102423	FP-3047188	Induction Hardened

Above liner kit includes items in shaded area

Pin Kit	Pin, Piston	Retainer
FP-3800140	FP-4083243	FP-3016652
FP-3800256	FP-4083244	FP-3016652

Above pin kits includes items in shaded area

## M11 Articulated Cylinder Kits, Piston Kits, Liner Kits & Ring Sets

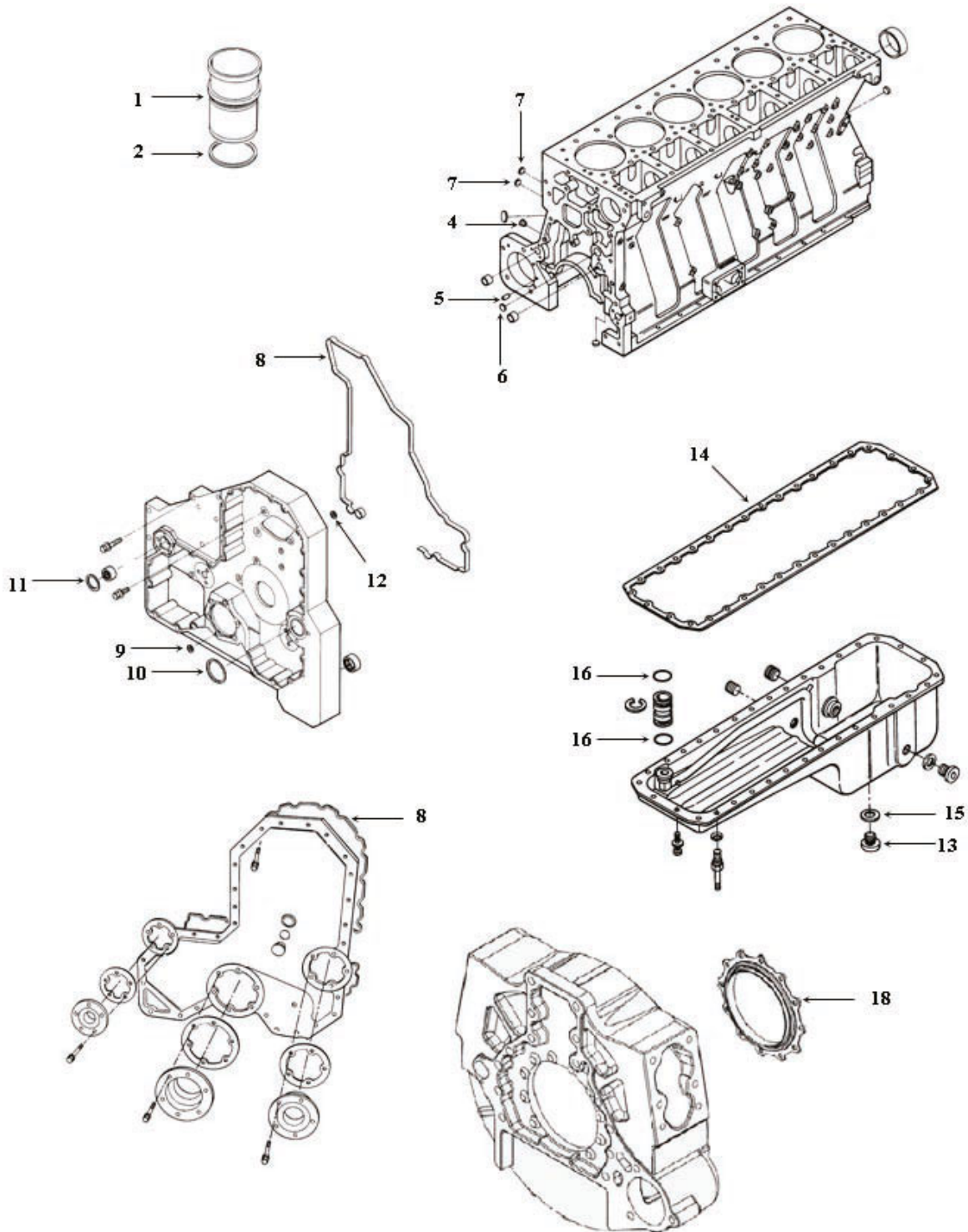
Cylinder Kit	Piston Crown	Piston Skirt	Liner	Ring Set	Piston Pin	Seal Ring	Retainers
FP-4025162	FP-4059901T	FP-4070653T	FP-3080760	FP-3803977	FP-4083244	FP-3047188	FP-3016652
FP-4025164	FP-4059898T	FP-4070653T	FP-3080760	FP-3803977	FP-4083244	FP-3047188	FP-3016652

Above cylinder kits include items in shaded area

# ISL/QSL Series



## Cylinder Block



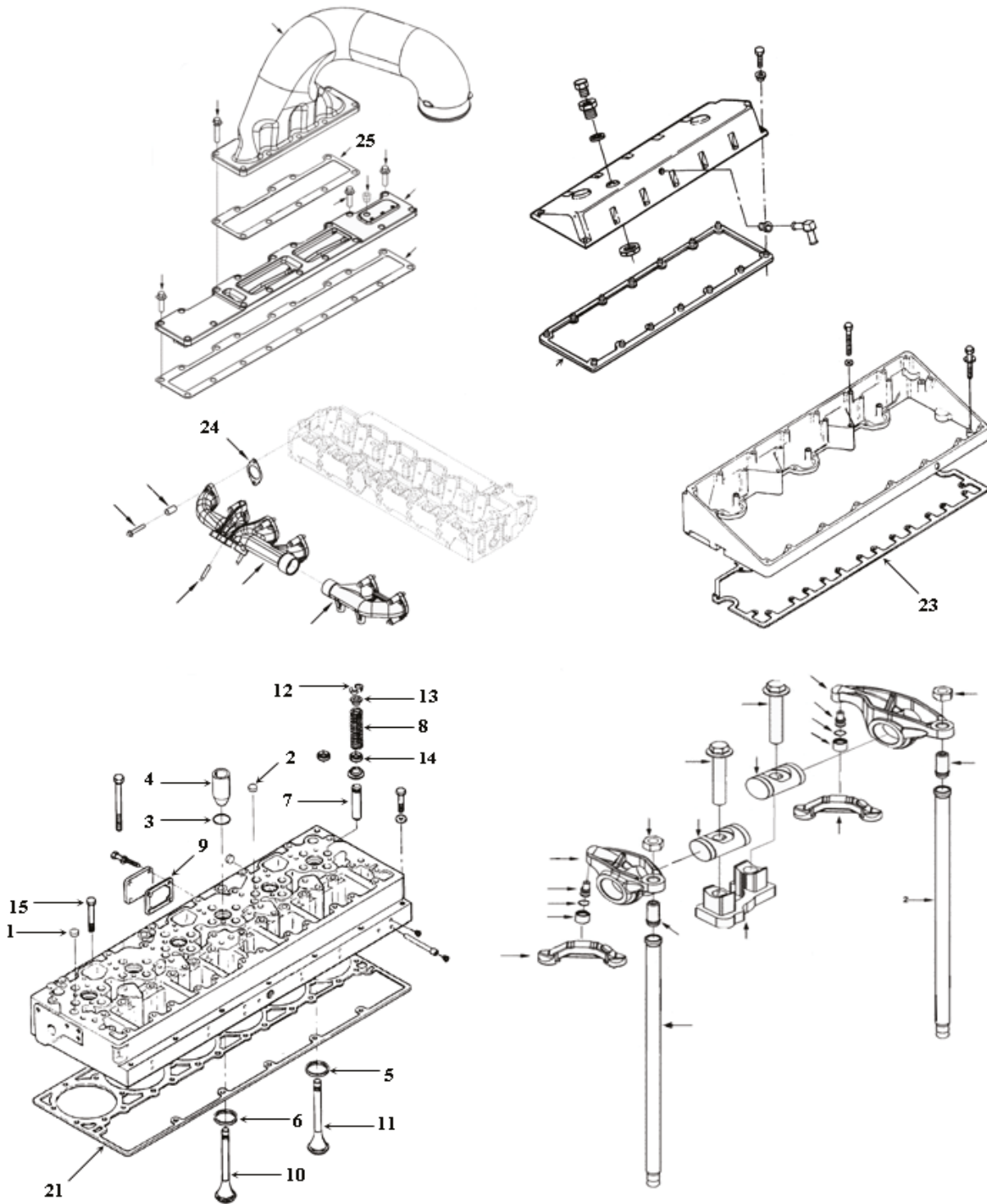
**Cylinder Block, Front & Rear Covers & Gasket Sets**

Ref	Part Number	Description	ISL	QSL
00	143066	Plug, Expansion	2	2
00	3004258	Plug, Expansion	4	4
00	3008468	Plug, Pipe	1	1
00	3008470	Plug, Pipe	1	1
00	3013768	Plug, Pipe	1	1
00	3678921	Plug, Threaded	1	1
00	3678922	Plug, Threaded	1	1
00	3678923	Plug, Threaded	6	6
00	3678924	Plug, Threaded	1	1
00	3900257	Dowel, Pin	2	2
00	3900956	Plug, Expansion	3	3
00	3901846	Dowel, Pin	4	4
00	3905401	Plug, Expansion	4	4
00	3906216	Nut, Hexagon Flange	1	1
00	3910960	Washer, Plain	1	1
00	3934147	Plug, Threaded	1	1
00	3939352	Gasket, Oil Suc Connection	1	1
00	3959291	Nozzle, Piston Cooling	6	6
00	3964028	Connection, Oil Suction	1	1
00	FP-3678912	Seal, O-Ring	1	1
00	FP-3678925	Seal, O-Ring	1	1
00	FP-3901969	Plug, Expansion	1	1
00	FP-3902425	Washer, Sealing	1	1
00	FP-3926048	Seal, O-Ring	1	1
00	FP-3939353	Gasket, Rear Cover	1	1
00	FP-4089958	Gasket Set, Upper	1	1
00	S 923 E	Draincock (1/4 NPTF)	1	1
03	FP-3901969	Plug, Expansion	1	1
03	FP-3945329	Bushing, Camshaft	7	7
04	3678924	Plug, Threaded (m10 x 1.00 x 9.5)	1	1
05	3900257	Dowel, Pin	A/R	A/R
06	3004258	Plug, Expansion	4	4
07	3004258	Plug, Expansion	4	4
08	FP-3944293	Gasket, Gear Housing	1	1
09	FP-3073966	Seal, O-Ring	A/R	A/R
10	FP-3925343	Kit, Front Crankshaft Seal w/sleeve	1	1
11	4010519	Seal, O-Ring	A/R	A/R
12	4010643	Seal, O-Ring	A/R	A/R
13	3924148	Plug, Threaded (m22 x 1.50 thd)	1	1
14	FP-3938160	Gasket, Oil Pan	1	1
15	FP-3920773	Washer, Sealing (18mm)	1	1
16	FP-3936876	Seal, Rectangular Ring	2	2
18	3941786	Carrier, Seal	1	1
00	<b>FP-3800328</b>	<b>Kit, Cylinder Liner</b>	<b>6</b>	<b>6</b>
01	FP-3948095	Liner, Cylinder	6	6
02	FP-3907177	Seal, Rectangular Ring	6	6

# ISL/QSL Series



## Cylinder Head



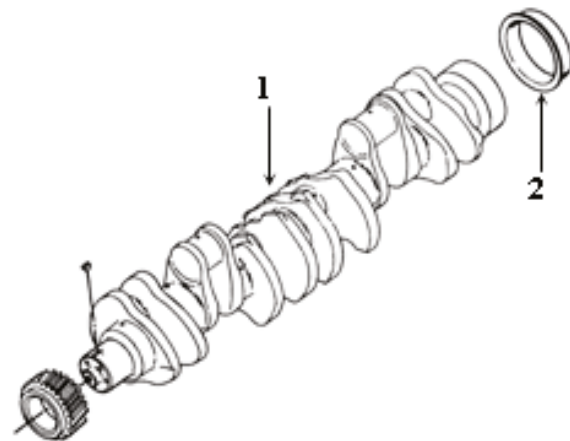
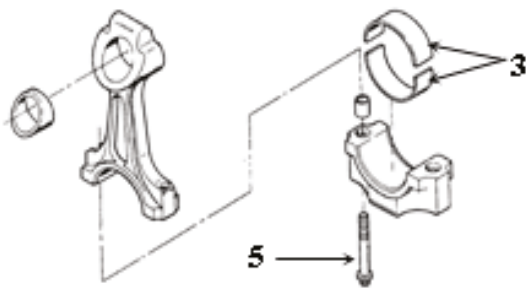
**Cylinder Head, Valve Mechanism & Upper Gasket Set**

Ref	Part Number	Description	ISL	QSL
00	3032693	Plug, Expansion	2	2
00	3678923	Plug, Threaded	1	1
00	3678924	Plug, Threaded	1	1
00	3945093	Plug, Expansion	1	1
00	3945094	Plug, Expansion	2	2
00	3945097	Plug, Expansion	1	1
00	3960043	Screw, Hex Flange Head Cap	26	26
00	3990084	Seal O-Ring Filler Cap	1	1
00	FP-3678925	Seal, O-Ring (Oil Pressure Switch)	1	1
00	FP-4089958	Gasket Set, Upper	1	1
00	FP-4955643	Gasket Set, Upper	1	-
01	3945098	Plug, Expansion	6	6
02	3920706	Plug, Expansion	18	18
03	FP-4890926	Seal, O-Ring	6	6
04	3965721	Injector	6	6
05	3940152	Insert, Valve	12	12
06	3968074	Insert, Valve	12	12
07	3942645	Guide, Valve Stem	24	24
08	FP-4936076	Spring, Valve Intake And Exhaust (Previously FP-3944711)	24	24
08	FP-4936079	Spring, Valve (Only Used On QSL9 Engines w/Exhaust Valve Rotators)	-	12
13	3944452	Retainer, Valve Spring	24	24
14	3945098	Seal, Valve Stem Exhaust	12	12
14	3948888	Seal, Valve Stem Intake	12	12
15	3960043	Screw, Hex Flange Head Cap	26	26
16	3966658	Shaft, Rocker Lever	12	12
17	3941937	Lever, Rocker	12	12
18	3964796	Lever, Rocker	12	12
21	FP-4981796	Gasket, Cylinder Head	1	1
22	3959798	Gasket, Valve Cover	1	1
23	3966708	Gasket, Rocker Lever Housing	1	1
24	FP-3937479	Gasket Exhaust Manifold	6	6
00	<b>FP-4089761</b>	<b>Valve Kit, Intake</b>	12	12
10	FP-3970727	Valve, Intake	12	12
12	FP-3900250	Lock Half, Valve	48	48
00	<b>FP-4089762</b>	<b>Valve Kit, Exhaust</b>	12	12
11	FP-3969637	Valve, Exhaust	12	12
12	FP-3900250	Lock Half, Valve	48	48

# ISL/QSL Series



## Crankshaft





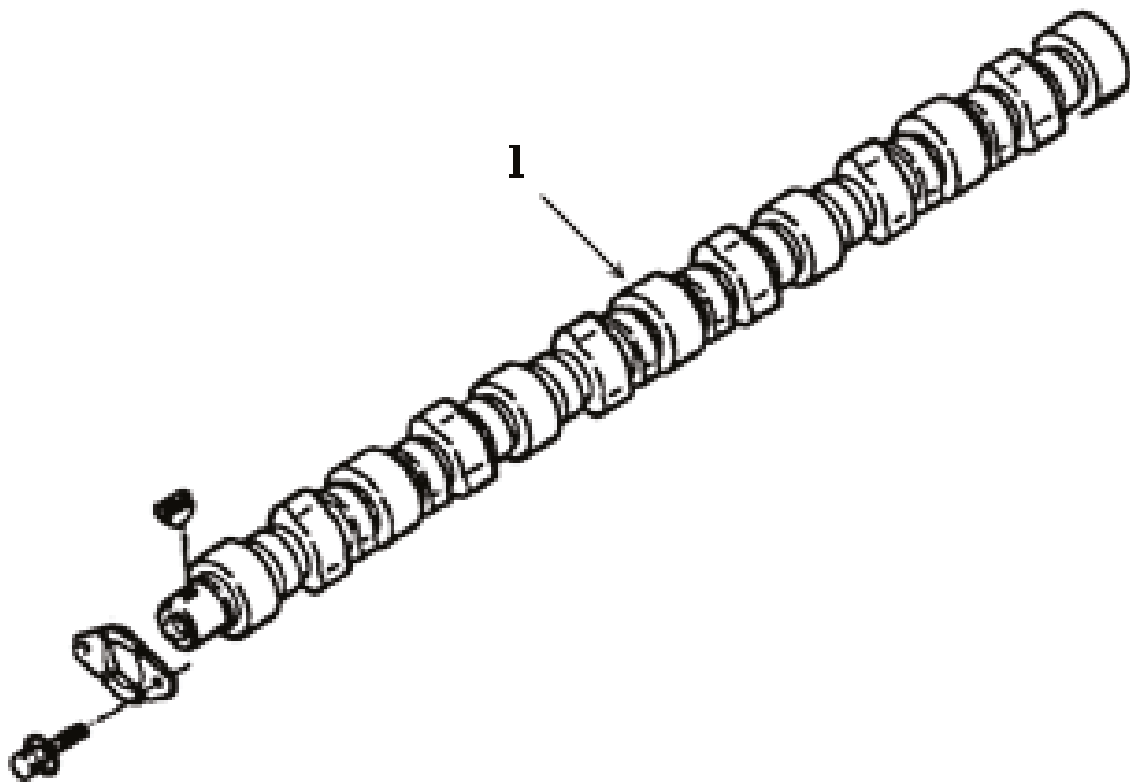
**Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover**

Ref	Part Number	Description	ISL	QSL
00	3904483	Dowel, Pin	1	1
00	3918776	Gear, Crankshaft	1	1
00	3924148	Plug, Threaded	1	1
00	3942087	Bushing	1	1
00	3967346	Rod, Connecting	6	6
00	3967347	Rod, Engine Connecting	1	1
00	FP-3920773	Washer, Sealing	1	1
00	FP-3925343	Kit, Front Crankshaft Seal w/sleeve	1	1
00	FP-3938160	Gasket, Oil Pan	1	1
01	3965010	Crankshaft, Engine	1	1
02	FP-3926126	Kit, Rear Crankshaft Seal w/sleeve	1	1
02	FP-4089642	Kit, Rear Crankshaft Seal w/Sleeve	1	1
03	3966244	Bearing, Connecting Rod (Upper)	6	6
03	FP-3950661	Bearing, Connecting Rod Standard (Lower)	6	6
03	FP-3950662	Bearing, Connecting (.25MM) (Lower)	A/R	A/R
03	FP-3950663	Bearing, Connecting (.50MM) (Lower)	A/R	A/R
03	FP-3950664	Bearing, Connecting (.75MM) (Lower)	A/R	A/R
03	FP-3950665	Bearing, Connecting (1.00MM) (Lower)	A/R	A/R
04	3942087	Bushing	6	6
05	3944679	Screw, Hex Flange Head Cap	12	12
00	<b>3945920</b>	<b>Set, Main Bearing (0.75 mm Oversize)</b>	1	1
00	3944161	Bearing, Main	6	6
00	3944166	Bearing, Crankshaft Thrust	1	1
00	3944156	Bearing, Main	7	7
00	<b>3945921</b>	<b>Set, Main Bearing (1.00 mm Oversize)</b>	1	1
00	3944162	Bearing, Main	6	6
00	3944167	Bearing, Crankshaft Thrust	1	1
00	3944157	Bearing, Main	7	7
00	<b>FP-3945917</b>	<b>Set, Main Bearing (Standard)</b>	1	1
00	3944158	Bearing, Main	6	6
00	3944163	Bearing, Crankshaft Thrust	1	1
00	3944153	Bearing, Main	7	7
00	<b>FP-3945918</b>	<b>Set, Main Bearing (0.25 mm oversize)</b>	1	1
00	3944159	Bearing, Main	6	6
00	3944164	Bearing, Crankshaft Thrust	1	1
00	3944154	Bearing, Main	7	7
00	<b>FP-3945919</b>	<b>Set, Main Bearing (0.50 mm oversize)</b>	1	1
00	3944160	Bearing, Main	6	6
00	3944165	Bearing, Crankshaft Thrust	1	1
00	3944155	Bearing, Main	7	7

# ISL/QSL Series



## Camshaft



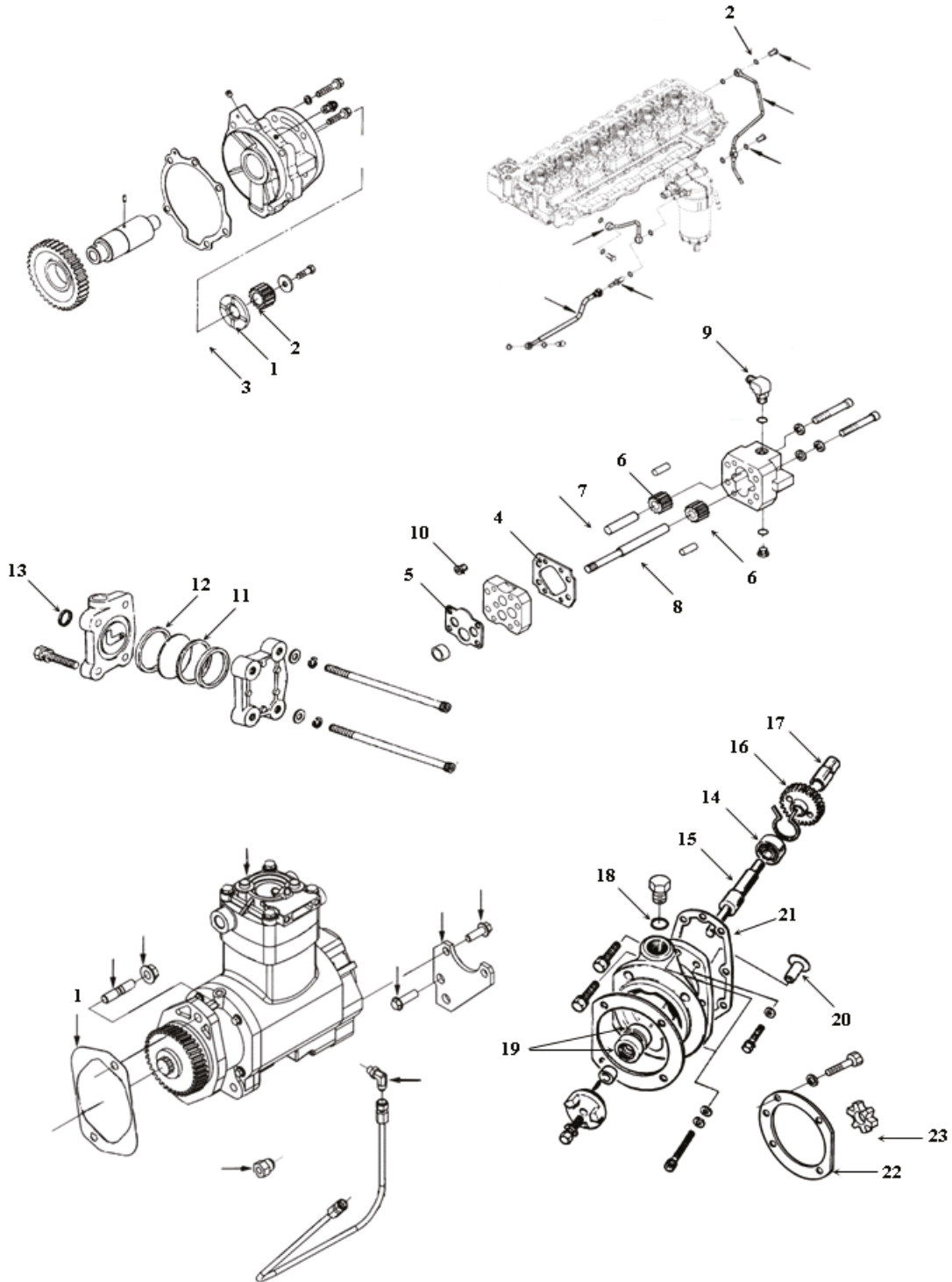
**Camshaft**

Ref	Part Number	Description	ISL	QSL
00	3900227	Screw, Hexagon Head Cap	2	2
00	3917883	Dowel, Pin	1	1
00	3944001	Support, Camshaft Thrust	1	1
00	3950135	Gear, Camshaft	1	1
00	3965966	Tappet, Valve	12	12
01	3966431	Camshaft	1	1

# ISL/QSL Series



## Fuel Pump & Components

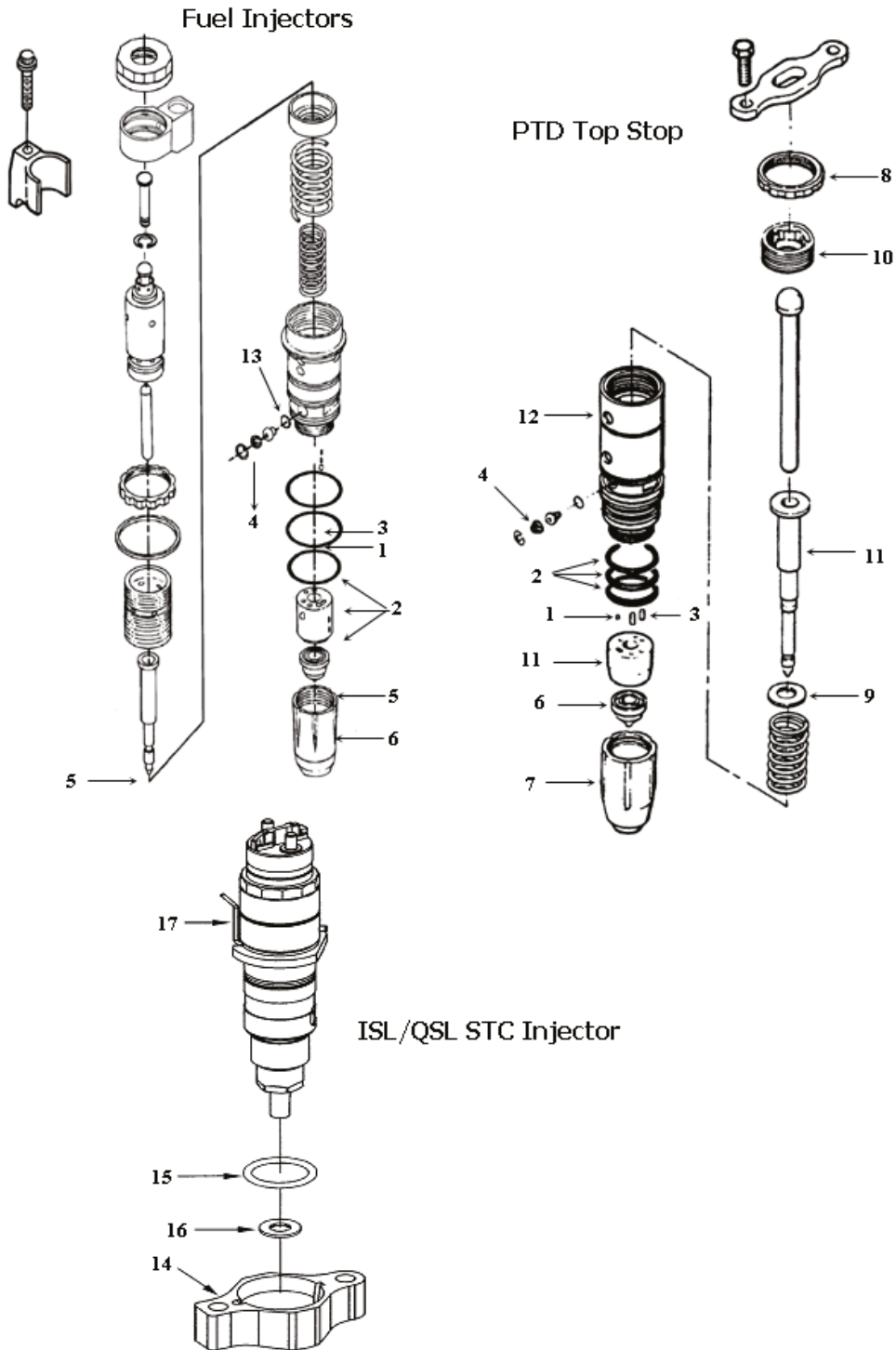




**Fuel Pump Drive, Gear Pump, Fuel Pump Front Cover**

Ref	Part Number	Description	ISL	QSL
00	3966656	Connection, Fuel Block	1	1
00	3968187	Pump, Fuel Transfer	1	1
00	4902780	Gasket, Fuel Pump	1	1
00	4902952	Gasket, Fuel Pump	1	1
00	FP-3069017	Gasket, Fuel Pump - (Formerly FP-3026163)	1	1
01	FP-3940245	Gasket, Hydraulic Pump Mounting	1	1
02	FP-3963988	Washer, Sealing	2	2
04	FP-110855	Gasket, Fuel Pump	1	1
06	FP-119363	Gear, Fuel Pumping	2	2
08	FP-100215	Shaft, Fuel Pump Drive	1	1
09	FP-3033740	Valve, Check Ball Elbow	1	1

Fuel Injectors



**Fuel Injectors**

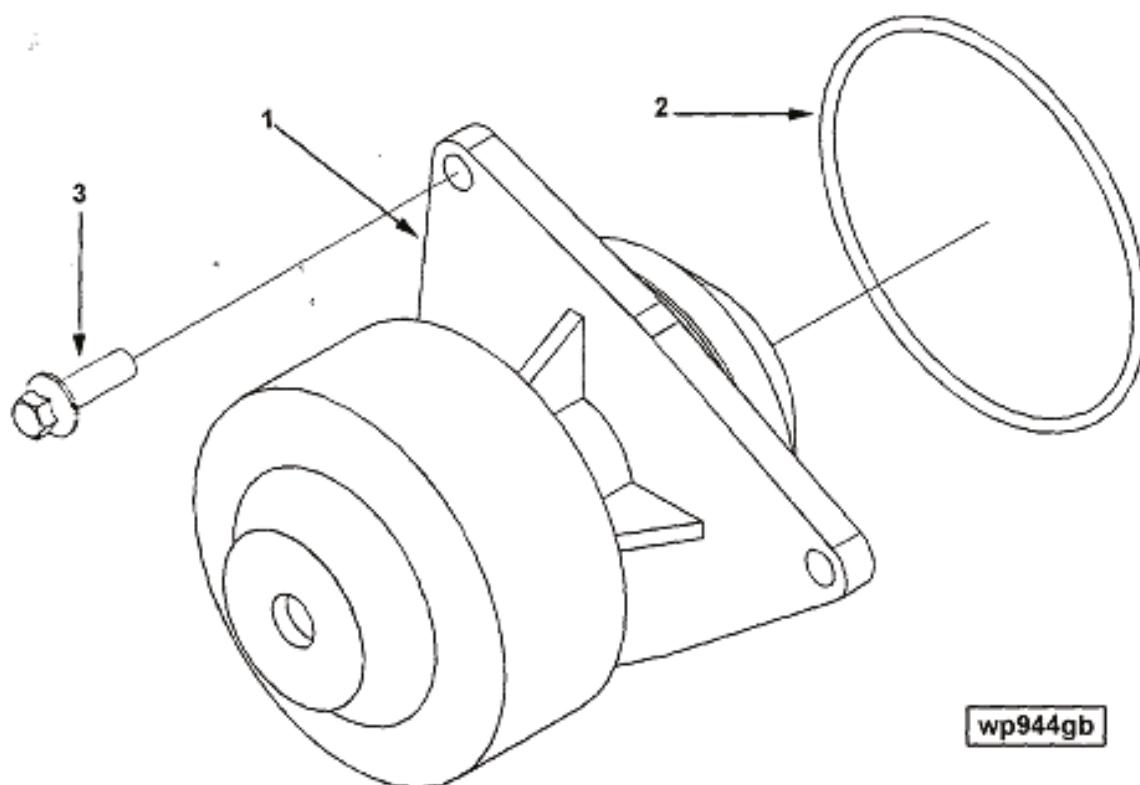
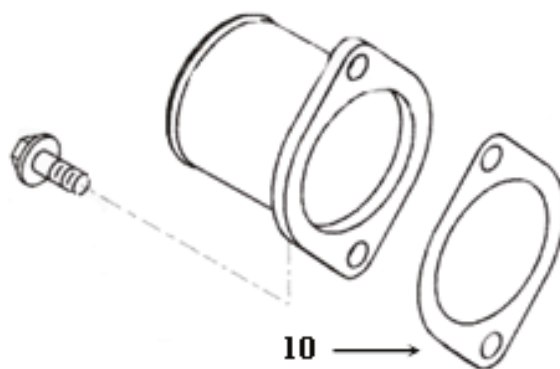
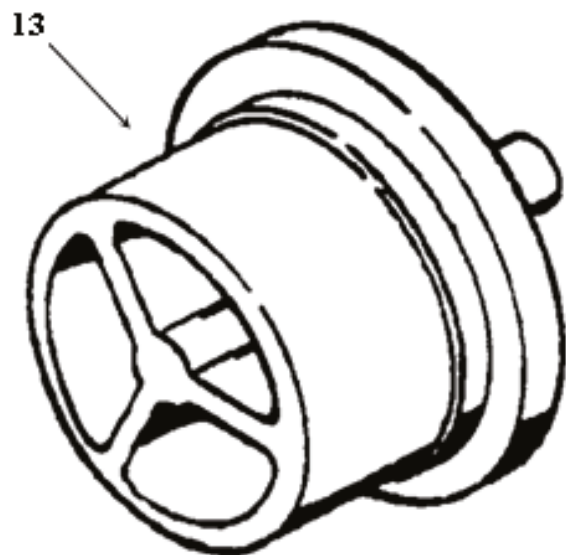
Ref	Part Number	Description	ISL	QSL
00	3073569	Injector (Top Stop 1709,1715)	6	6
00	3073571	Injector (Top Stop 1710,1714)	6	6
00	3073572	Injector (Top Stop 1706,1712)	6	6
00	3073574	Injector (Top Stop 1711,1716)	6	6
01	FP-167157	Ball, check	6	6
02	FP-193736	Seal, O-Ring	18	18
03	FP-203426	Pin, Roll	12	12
04	FP-3008706	Screen, Filter	6	6
05	3069708	Plunger, Injector	6	6
07	3066693	Retainer, Injector Cup	6	6
08	3068860	Nut, Lock	6	6
09	3066707	Retainer, Injector Spring	6	6
10	3055742	Screw, Injector Stop	6	6
11	3069707	Barrel And Plunger, Injector	6	6
12	3066695	Adapter, Injector	6	6
13	173086	Gasket, Injector	6	6
14	3959045	Clamp, Injector	6	6
15	FP-4890926	Seal, O-Ring	6	6
16	FP-3937142	Seal, Injector	6	6
17	3965721	Injector	6	6



# ISL/QSL Series



## Water Pump, Oil Pump, Thermostat



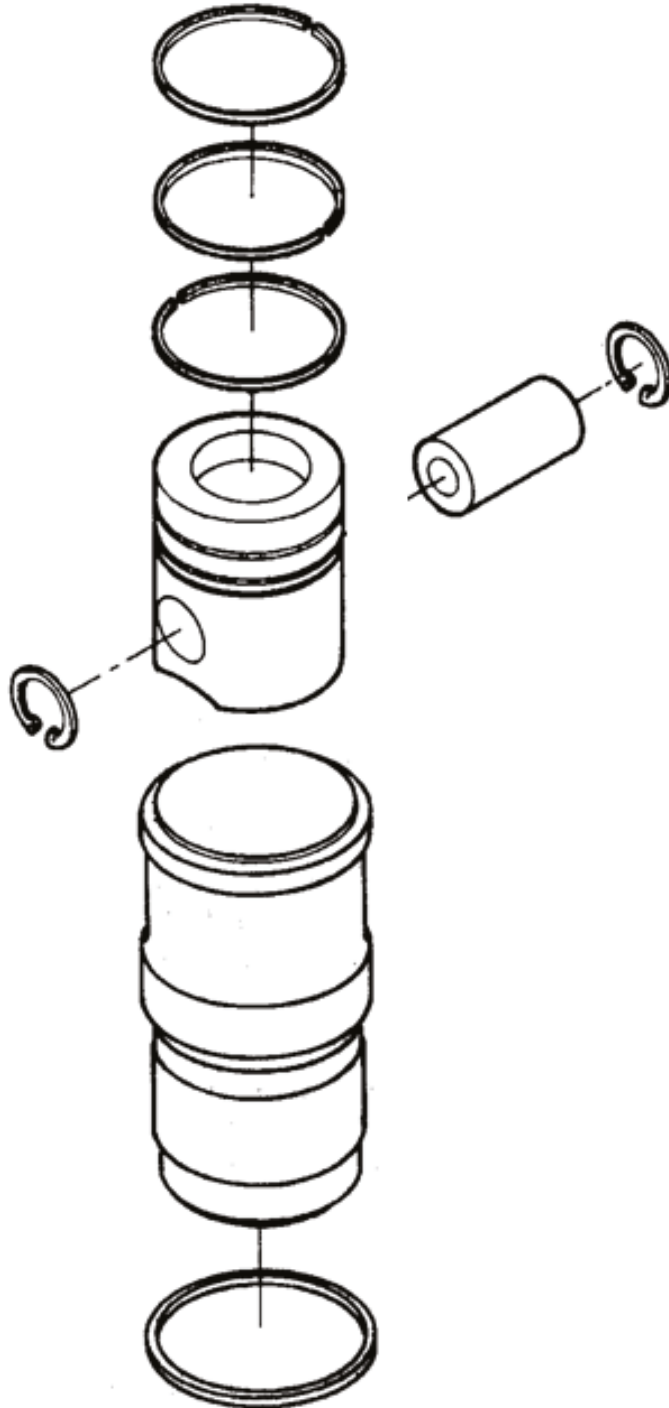
**Water Pump, Oil Pump, Thermostat**

Ref	Part Number	Description	ISL	QSL
02	FP-3940386	Seal, O-Ring	1	1
10	FP-3913032	Gasket, Water Outlet Connection	1	1
13	FP-4930594	Thermostat	1	1
00	<b>FP-4089647</b>	<b>Kit, Water Pump</b>	1	1
01	FP-3973114	Pump, Water (Previously 3964791)	1	1
02	FP-3940386	Seal, O-Ring	1	1

# ISL/QSL Series



## Cylinder Kits



**Cylinder Kits, Piston Kits, Liner Kits & Ring Set**

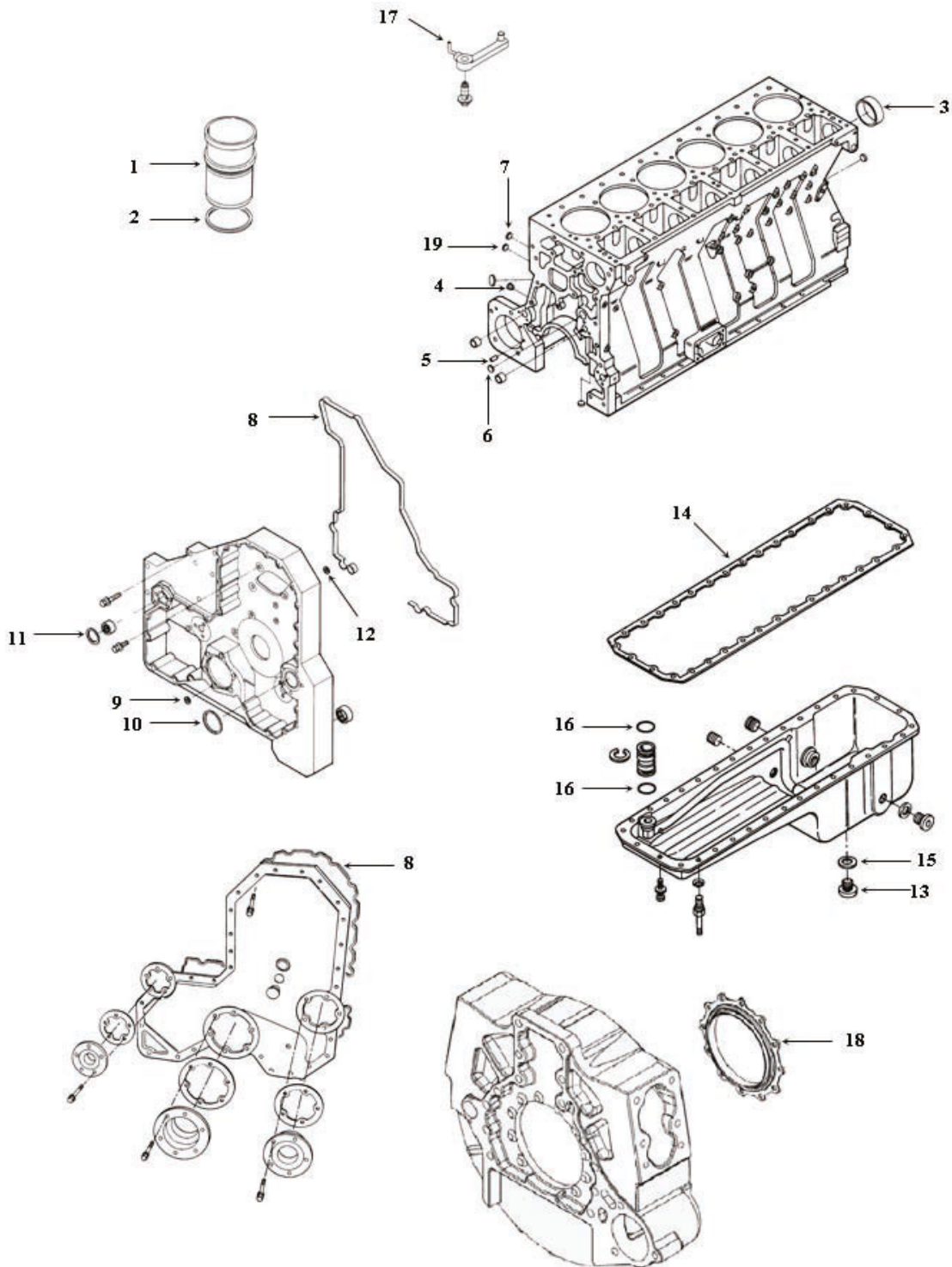
Piston Kit	Piston Crown	Piston Skirt	Piston Ring Set	Piston Pin	Piston Pin Retainer	Comment
4089646	3966722	3966721	4089644	3950549	FP-3920692	Articulated Piston

Liner Kit	Cylinder Liner	Cylinder Liner Seal	Comment
FP-3800328	FP-3948095	FP-3907177	

# ISM/QSM Series



## Cylinder Block



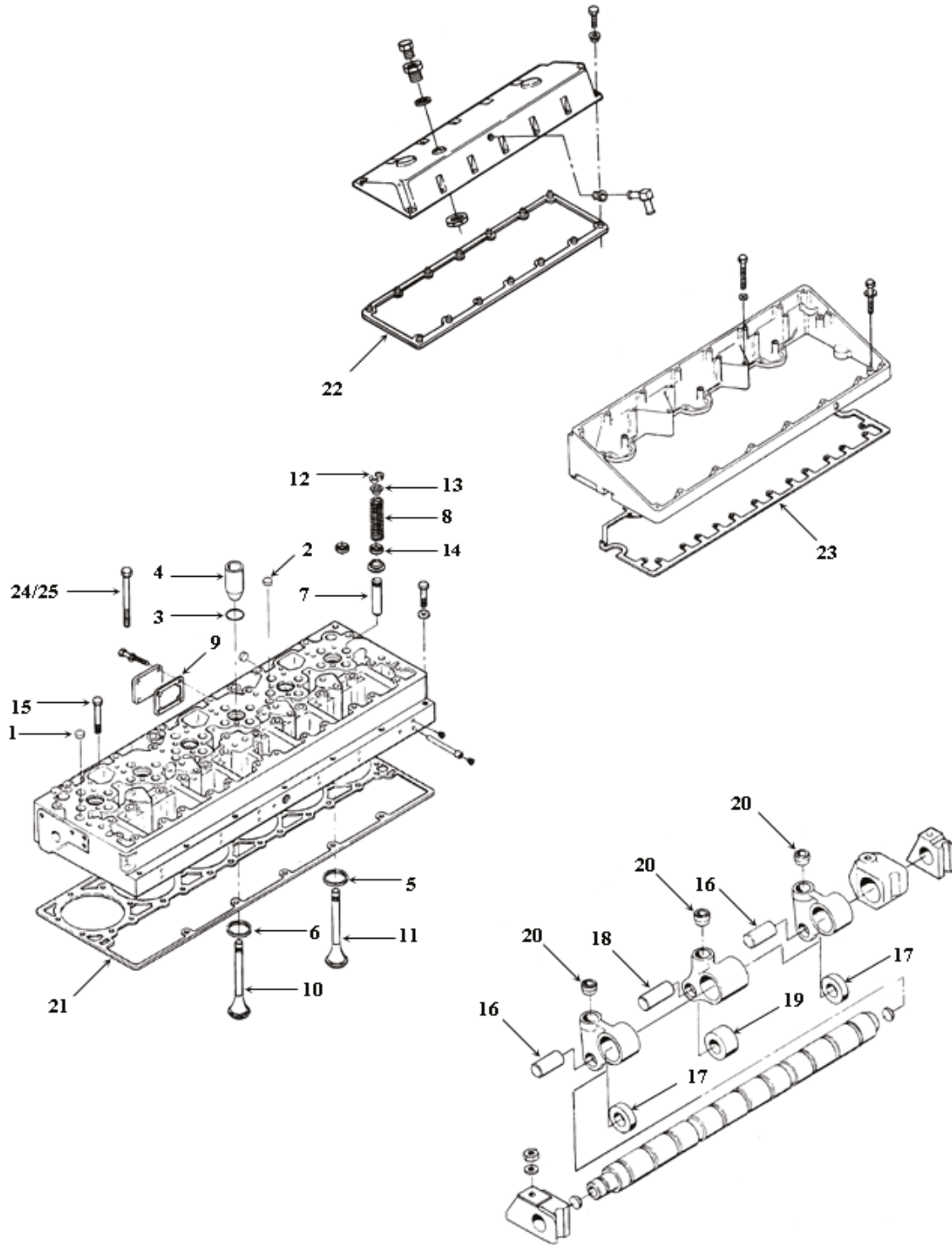
**Cylinder Block, Front & Rear Covers & Gasket Sets**

Ref	Part Number	Description	ISM	QSM
00	142207	Dowel, Pin	2	2
00	148555	Dowel, Pin	2	2
00	179063	Plug, Retainer	1	1
00	3008446	Dowel, Pin	3	3
00	3008466	Plug, Pipe	2	2
00	3008468	Plug, Pipe	1	1
00	3008470	Plug, Pipe	1	1
00	3009330	Washer, Plain	1	1
00	3014754	Washer, Plain	1	1
00	3821725	Plug, Retainer	1	1
00	FP-3010146	Spring, Compression	1	1
00	FP-3032787	Seal, O-Ring (Oil Transfer Tube)	1	1
00	FP-3037537	Seal, O-Ring (For 3040813 Plug)	1	1
00	FP-3046201	Seal, O-Ring	1	1
00	FP-4082772	Screw, Round Head Cap (For 4083449 Block Stiffening Plate)	18	18
00	FP-4089478	Upper Gasket Set	1	1
00	FP-4089998	Lower Gasket Set	1	1
00	FP-70550	Dowel, Pin	1	1
03	FP-3820566	Bushing	7	7
04	3008468	Plug, Pipe	1	1
06	FP-3007635	Plug, Expansion	4	4
08	FP-4920751	Seal, Rectangular Strip	1	1
09	FP-3201659	Seal, Rectangular Ring	6	6
10	FP-3820945	Seal, Rectangular Ring	1	1
11	FP-3820946	Seal, Rectangular Ring	1	1
12	FP-3883150	Seal, O-Ring	1	1
13	FP-3055069	Plug, Threaded	2	2
14	FP-3401290	Gasket, Oil Pan	1	1
15	FP-67946	Washer, Plain	2	2
16	FP-3032787	Seal, O-Ring	2	2
17	FP-3080708	Nozzle, Piston Cooling	6	6
18	FP-4089542	Seal, Rear Service Kit (Dry Clutch)	1	1
19	FP-3007635	Plug, Expansion	4	4
00	<b>FP-4089388</b>	<b>Kit, Liner</b>	6	6
01	FP-3102423	Liner, Cylinder	6	6
02	FP-3047188	Seal, Rectangular	6	6

# ISM/QSM Series



## Cylinder Head





### Cylinder Head, Valve Mechanism & Upper Gasket Set

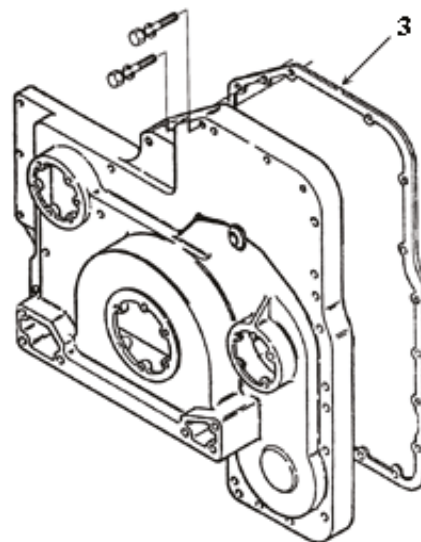
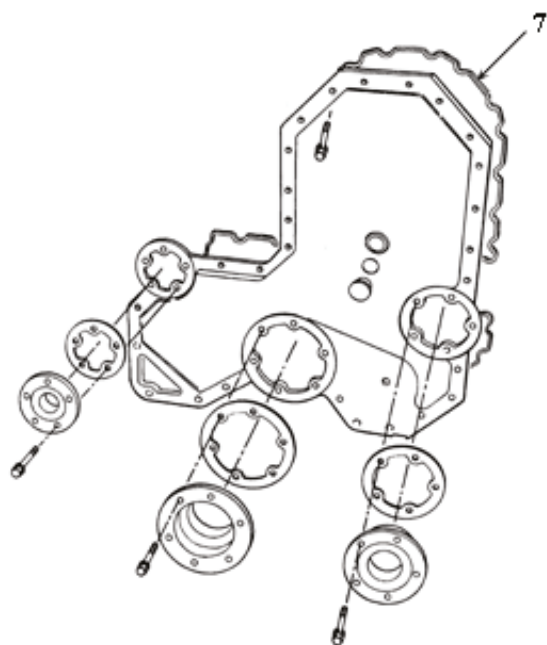
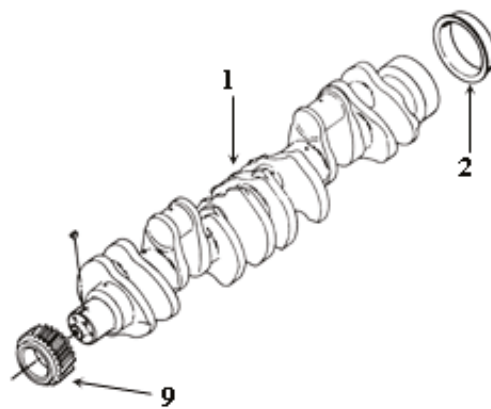
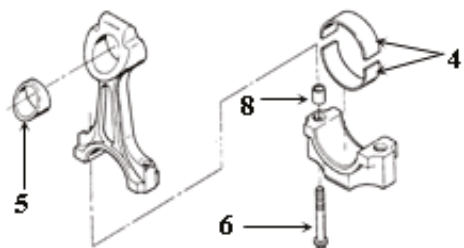
Ref	Part Number	Description	ISL	QSL
00	3008465	Plug, Pipe	16	16
00	3009330	Washer, Plain	7	7
00	3070072	Guide, Valve Spring	24	24
00	3079589	Lever, Cam Follower	1	1
00	3328379	Screw, Hex Flange Head Cap	2	2
00	3328637	Screw, Hex Flange Head Cap	5	5
00	3417769	Shaft, Cam Follower	1	1
00	3821160	Lever, Cam Follower	1	1
00	3895831	Support, Cam fol Shaft	4	4
00	4023086	Plug, Expansion	2	2
00	4064582	Support, Cam fol Shaft	1	1
00	FP-3007635	Plug, Expansion	8	8
00	FP-3161423	Roller, Cam Follower	1	1
00	FP-3328328	Washer, Sealing	7	7
00	FP-3335342	Pin, Cam Follower Roller	1	1
00	FP-3335343	Pin, Cam Follower Roller	1	1
00	FP-3895488	Roller, Cam Follower	1	1
00	FP-4089478	Upper Gasket Set	1	1
01	FP-3007635	Plug, Expansion	8	8
03	FP-3035025	Seal, O-Ring	6	6
03	FP-3035026	Seal, O-Ring - FP-3035026 Status # Deleted	6	6
04	FP-3417717	Sleeve, Injector	6	6
05	FP-3090704	Insert, Valve	24	24
06	FP-3090704	Insert, Valve	24	24
07	FP-3328786	Guide, Valve Stem	24	24
08	FP-3895860	Spring, Valve	24	24
09	FP-3883472	Gasket, Hand Hole	1	1
13	FP-3883512	Retainer, Valve Spring	24	24
14	FP-4003966	Seal, Valve Stem	6	6
15	FP-4022907	Screw, Hex Flange Head Cap (M14 x 1.50 x 71)	3	3
16	FP-3067871	Bushing	24	24
17	FP-3895488	Roller, Cam Follower	24	24
18	FP-3019733	Bushing	24	24
19	FP-3161423	Roller, Cam Follower	24	24
20	3064621	Socket, Tappet	24	24
21	FP-2864080 <sup>38</sup>	Gasket, Cylinder Head (New ML7 Design)	1	1
21	FP-4022500	Gasket, Cylinder Head (Will Supersede To FP-2864080)	1	1
22	FP-3883220	Gasket, Rocker Lever Cover	1	1
23	FP-4070529	Gasket, Rocker Lever Housing	1	1
24	4923187	Screw, Hex Flange Head Cap	29	29
25	FP-3328379	Screw, Hex Flange Head Cap	2	2
00	<b>FP-3800636</b>	<b>Valve Kit, Intake (Non-Chrome Plated Intake Valve)</b>	12	12
10	FP-3417778	Valve, Intake (Non-Chrome Plated)	12	12
12	FP-3275354	Collet, Valve	24	24
00	<b>FP-3800637</b>	<b>Valve Kit, Exhaust</b>	12	12
11	FP-3417779	Valve, Exhaust	12	12
12	FP-3275354	Collet, Valve	24	24
00	<b>FP-4955239</b>	<b>Intake (Chrome Plated Intake Valve)</b>	12	12
10	FP-4926069	Valve, Intake (Chrome Plated)	12	12
12	FP-3275354	Collet, Valve	24	24

<sup>38</sup>See Inside Back Cover For ML7™ Product Details.

# ISM/QSM Series



## Crankshaft



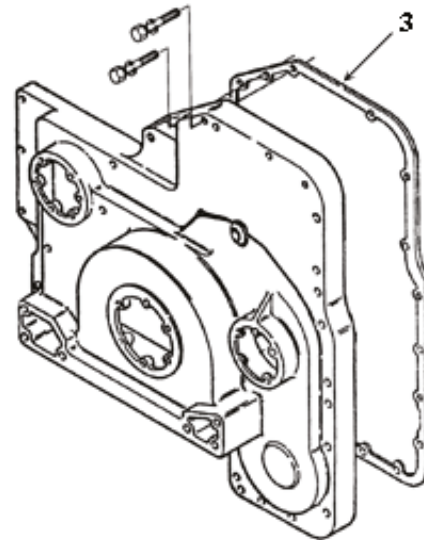
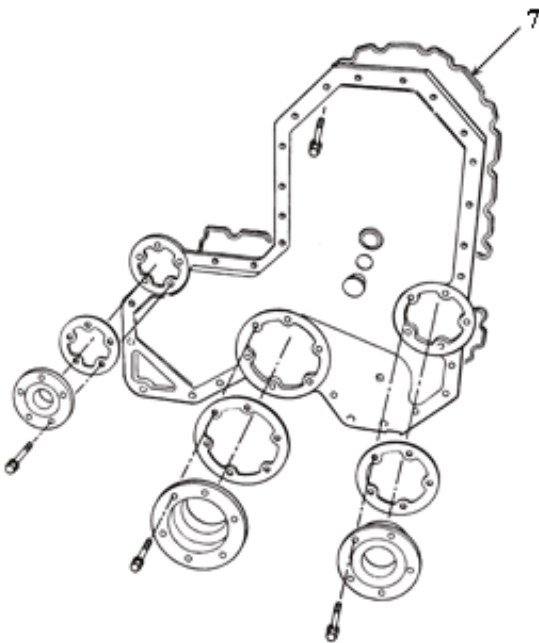
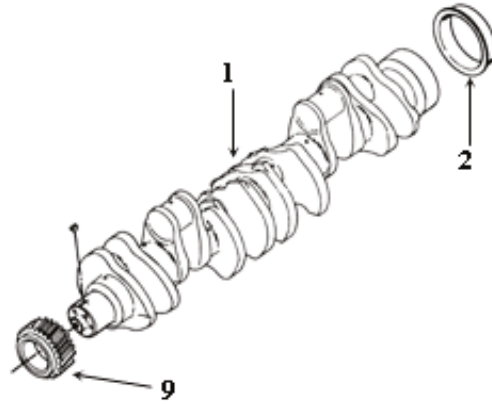
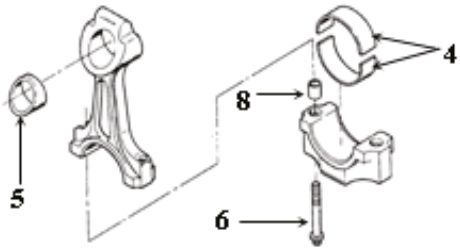
**Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover**

Ref	Part Number	Description	ISM	QSM
00	FP-3820918	Sleeve, Wear (Front)	1	1
00	S 300	Key, Plain Woodruff	1	1
01	FP-3073707	Crankshaft, Engine	1	1
02	3819974	Sleeve, Wear (Rear)	1	1
03	FP-4089995	Seal, Rectangular	1	1
04	FP-3016760	Bearing, Connecting Rod (Std.)	12	12
04	FP-3016761	Bearing, Connecting Rod (.25mm)	12	12
04	FP-3016762	Bearing, Connecting Rod (.50mm)	12	12
04	FP-3016763	Bearing, Connecting Rod (.75mm)	12	12
04	FP-3016764	Bearing, Connecting Rod (1.00mm)	12	12
05	3896970	Bushing, Piston Pin	6	6
06	FP-3027108	Screw, Connecting Rod Cap	12	12
07	FP-4920751	Seal, Rectangular	1	1
08	3027106	Dowel, Ring	2	2
09	3084445	Gear, Crankshaft	1	1
00	<b>4025124</b>	<b>Set, Main Bearing (1.00 mm Oversize)</b>	1	1
00	3016774	Bearing, Main (Upper)	7	7
00	3016784	Bearing, Main (Lower)	7	7
00	FP-4926017	Bearing, Thrust	2	2
00	FP-4926019	Bearing, Thrust	2	2
00	<b>FP-4025120</b>	<b>Set, Main Bearing (Std.)</b>	1	1
00	FP-3016770	Bearing, Main (Upper)	7	7
00	FP-3016780	Bearing, Main (Lower)	7	7
00	FP-4926017	Bearing, Thrust	2	2
00	FP-4926019	Bearing, Thrust	2	2
00	<b>FP-4025121</b>	<b>Set, Main Bearing (0.25 mm oversize)</b>	1	1
00	FP-3016771	Bearing, Main (Upper)	7	7
00	FP-3016781	Bearing, Main (Lower)	7	7
00	FP-4926017	Bearing, Thrust	2	2
00	FP-4926019	Bearing, Thrust	2	2
00	<b>FP-4025122</b>	<b>Set, Main Bearing (0.50 mm oversize)</b>	1	1
00	FP-3016772	Bearing, Main (Upper)	7	7
00	FP-3016782	Bearing, Main (Lower)	7	7
00	FP-4926017	Bearing, Thrust	2	2
00	FP-4926019	Bearing, Thrust	2	2
00	<b>FP-4025123</b>	<b>Set, Main Bearing (0.75 mm oversize)</b>	1	1
00	FP-3016773	Bearing, Main (Upper)	7	7
00	FP-3016783	Bearing, Main (Lower)	7	7
00	FP-4926017	Bearing, Thrust	2	2
00	FP-4926019	Bearing, Thrust	2	2
16	<b>FP-4025125</b>	<b>Main Bearing Set ( Std.) Pre 2004, Roll Pin Design Thrust Bearings</b>	1	1
00	3016770	Bearing Main (Upper) (Not Sold Separately)	7	7
00	3016780	Bearing Main (Lower) (Not Sold Separately)	7	7
00	FP-4926019	Thrust Washer (No.4 Main) (Std.)	4	4
16	<b>FP-4025126</b>	<b>Main Bearing Set (.25mm) Pre 2004, Roll Pin Design Thrust Bearings</b>	1	1
00	3016771	Bearing Main (Upper) (Not Sold Separately)	7	7
00	3016781	Bearing Main (Lower) (Not Sold Separately)	7	7
00	FP-4926019	Thrust Washer	4	4

# ISM/QSM Series



## Crankshaft



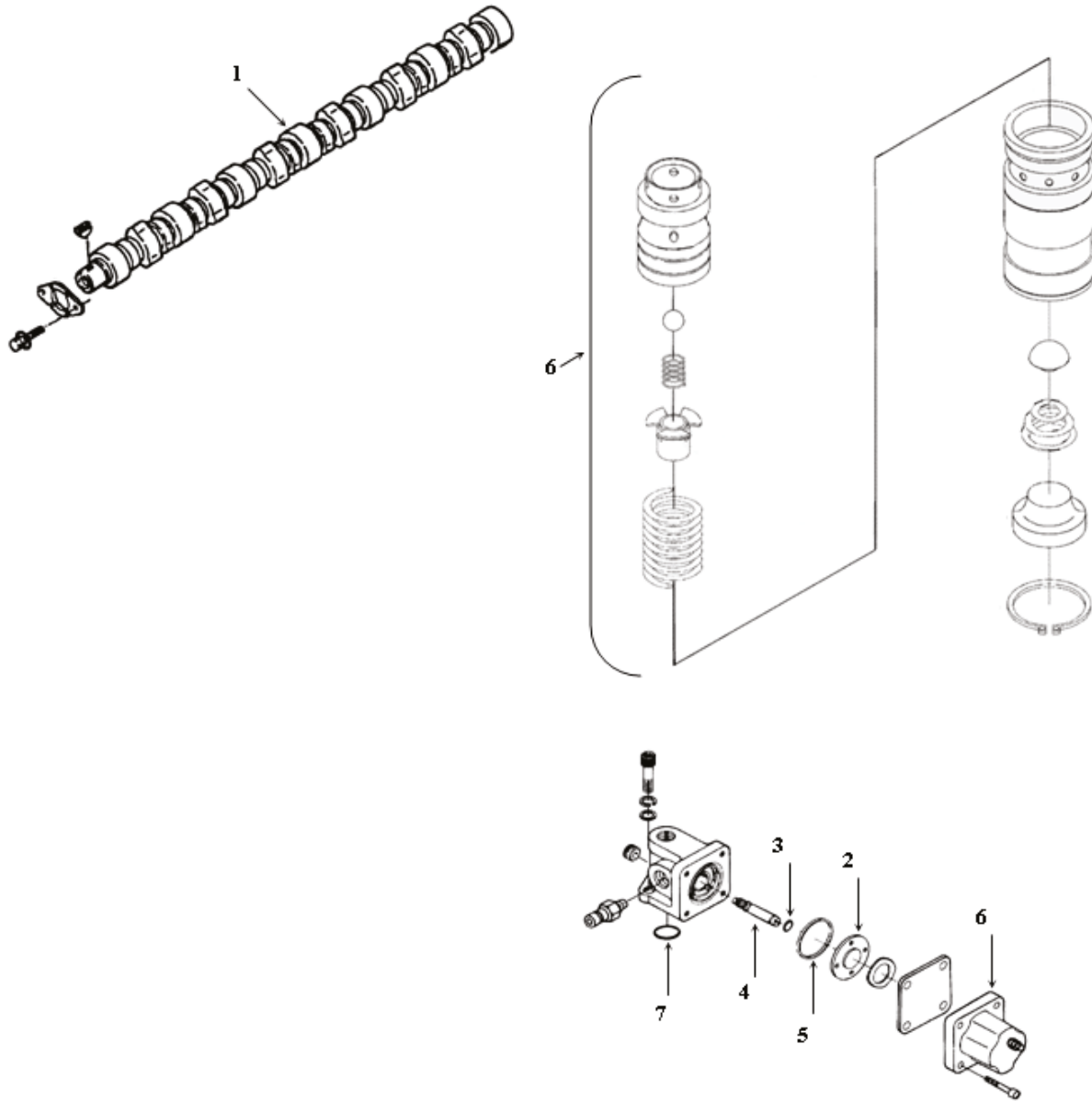
**Crankshaft, Main & Rod Bearings, Oil Pan, Front Gear Cover (Cont.)**

Ref	Part Number	Description	ISM	QSM
16	<b>FP-4025127</b>	Main Bearing Set (.50mm) Pre 2004, Roll Pin Design Thrust Bearings	1	1
00	3016772	Bearing Main (Upper) (Not Sold Separately)	7	7
00	3016782	Bearing Main (Lower) (Not Sold Separately)	7	7
00	FP-4926019	Thrust Washer	4	4
16	<b>FP-4025128</b>	Main Bearing Set (.75mm) Pre 2004, Roll Pin Design Thrust Bearings	1	1
00	FP-3016773	Bearing, Main (Upper)	7	7
00	FP-3016783	Bearing, Main (Lower)	7	7
00	FP-4926019	Thrust Washer		

# ISM/QSM Series



## Camshaft





**Camshaft**

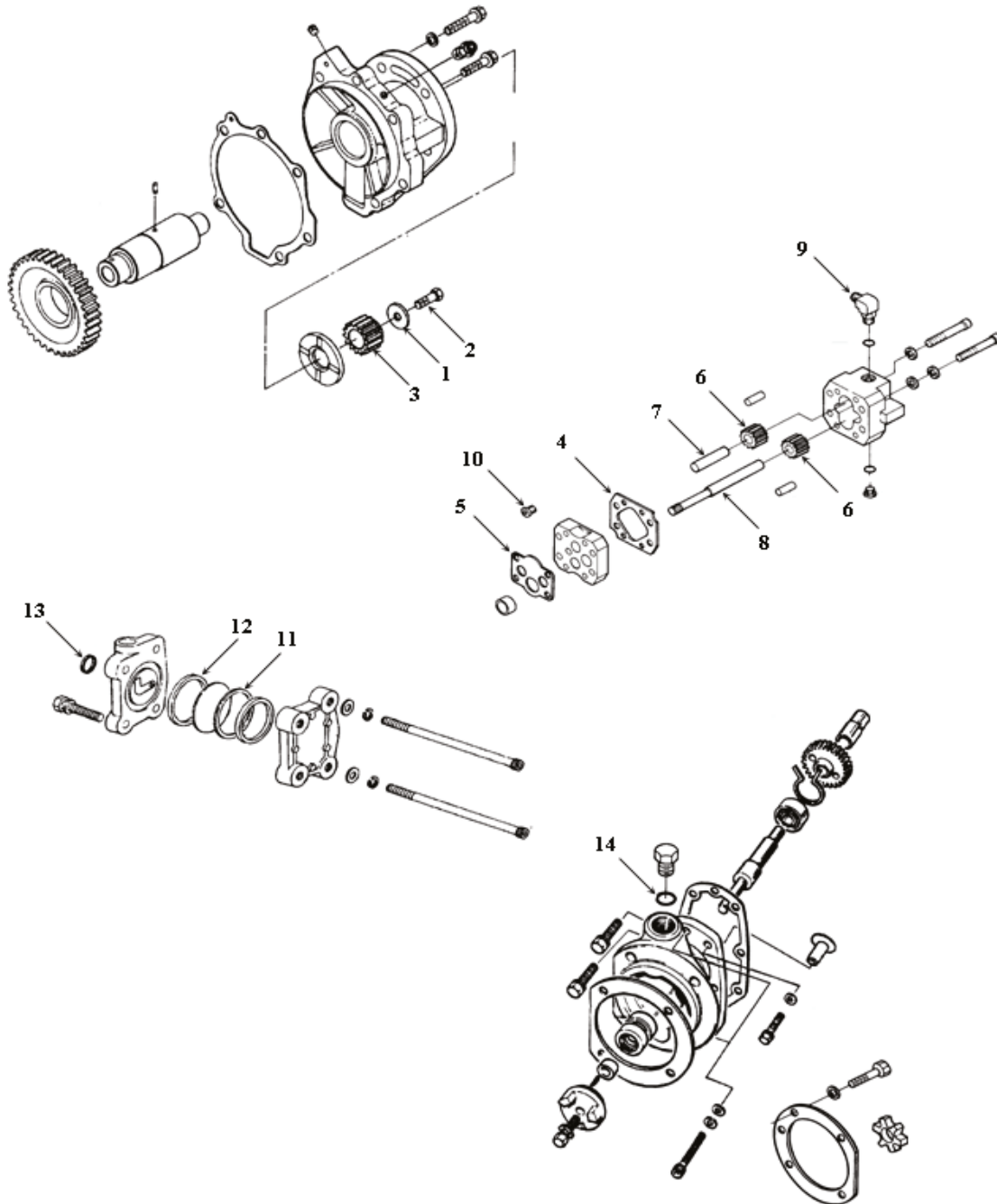
Ref	Part Number	Description	ISM	QSM
00	3009953	Key, Plain Woodruff	1	1
00	3401439	Gear, Camshaft	1	1
00	3822067	Screw, Captive Washer Cup	2	2
00	3896335	Support, Camshaft Thrust	1	1
01	3102901	Camshaft	1	1
02	196057	Disc, Valve	1	1
03	3085615	Ring, Retaining	1	1
04	3095356	Shaft, Fuel Pump Drive	1	1
05	FP-129888	Seal, Rectangular Ring	1	1
06	FP-3075383	Tappet Assy (STC Fuel System, 1991-Up, Mushroom Design)	6	6



# ISM/QSM Series



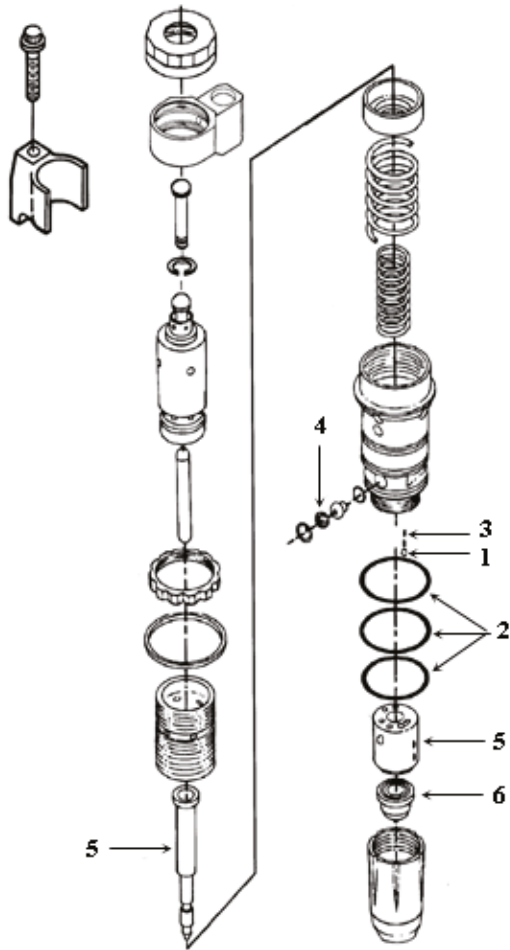
## Fuel Pump & Components



**Fuel Pump Drive, Gear Pump, Fuel Pump Front Cover**

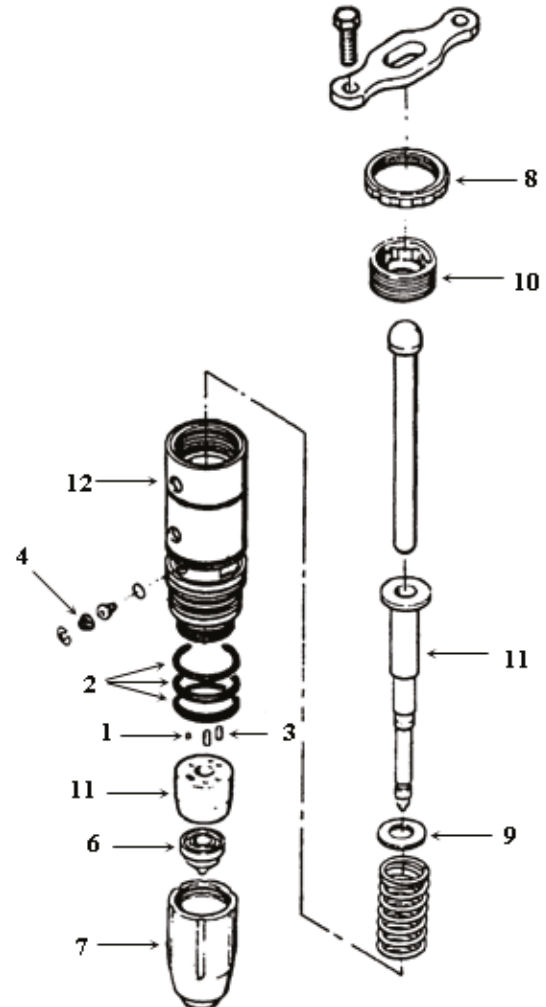
Ref	Part Number	Description	ISM	QSM
00	3028309	Bearing, Thrust	1	1
00	3041042	Gear, Accessory Drive	1	1
00	3041043	Gear, Accessory Drive	1	1
00	3041048	Gear & Shaft	1	1
00	3883123	Screw, Hex Flange Head Cap	6	6
00	3896046	Support, Accessory Drive	1	1
00	4903442	Plug, Threaded	1	1
00	4903443	Plug, Threaded	2	2
00	S 3193	Pin, Groove	1	1
01	170664	Washer, Plain	1	1
02	FP-3000173	Screw, Hexagon Head Cap	1	1
03	FP-3000174	Hub, Jaw Coupling	1	1
04	FP-110855	Gasket, Fuel Pump	1	1
06	FP-119364	Gear, Fuel Pump - FP-119364 Status A - Pending Discontinuance	2	2
08	3095356	Shaft, Fuel Pump	1	1
09	FP-3033740	Valve, Check	1	1
10	4010296	Plunger, Pressure Regulator	1	1
11	160540	Washer, Plain	1	1
12	FP-139988	Seal, Rectangular Ring	1	1
13	3033719	Dowel, Ring	1	1
14	3021123	Seal, O-Ring	1	1

## Fuel Injectors



STC Injector

## PTD Top Stop

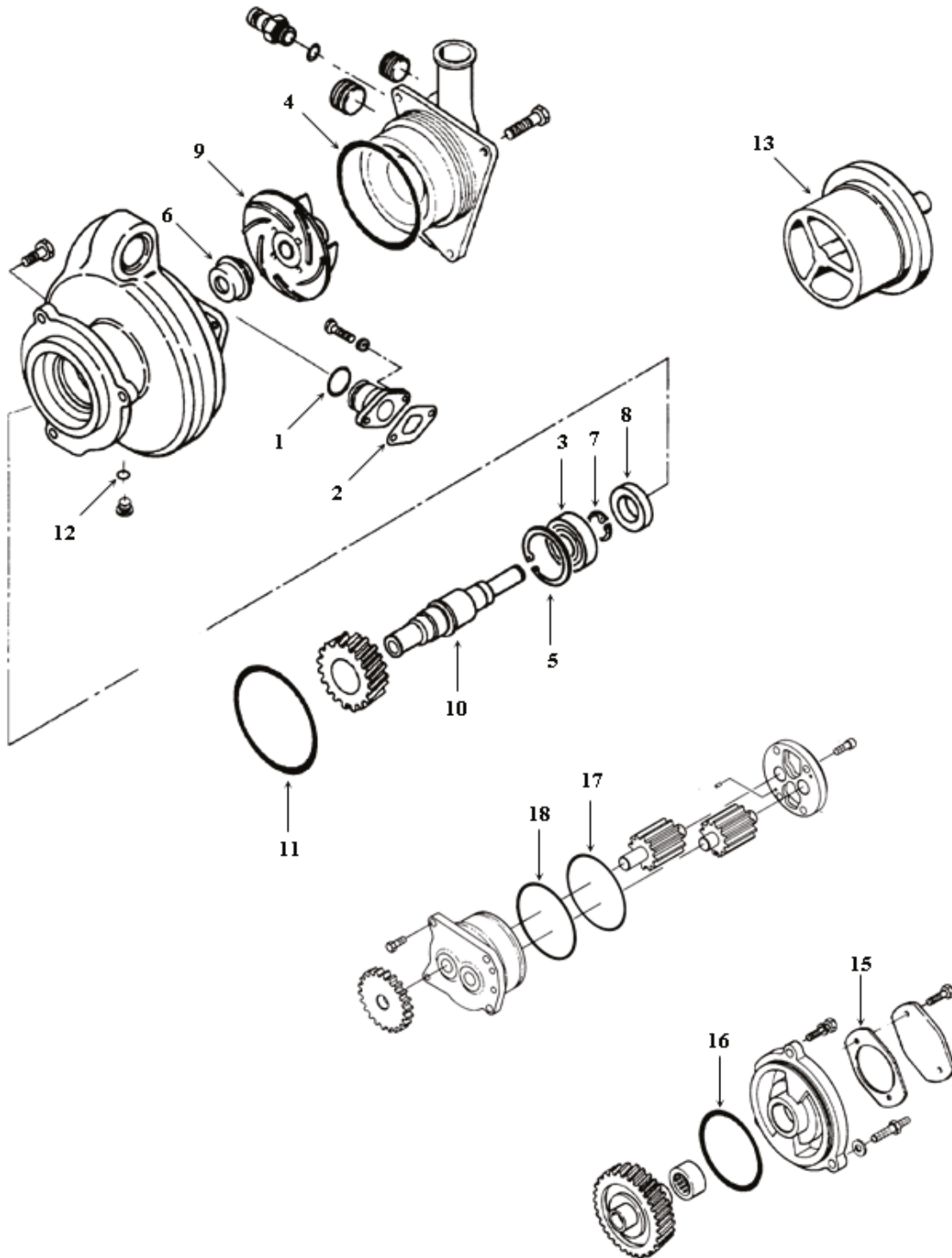




**Fuel Injectors**

Ref	Part Number	Description	ISM	QSM
00	3882793	Screw, Twelve Point Cap	6	6
00	4022914	Clamp, Injector	6	6
00	4902921	Injector	6	6
00	FP-3070136	Seal, O-Ring	1	1
00	FP-3070137	Seal, O-Ring	1	1
00	FP-3070138	Seal, O-Ring	1	1

## Water Pump, Oil Pump, Thermostat



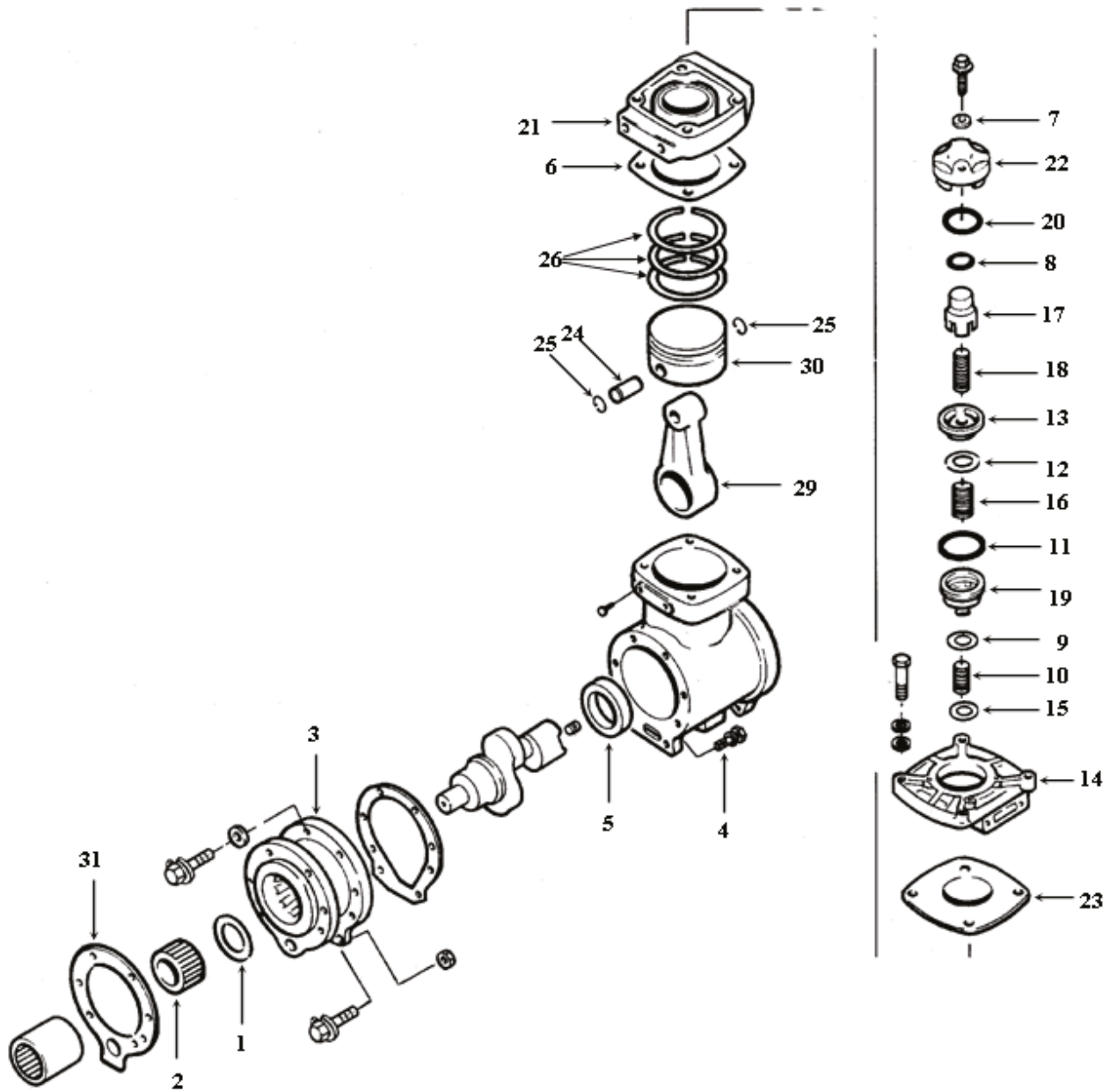
**Water Pump, Oil Pump, Thermostat**

Ref	Part Number	Description	ISM	QSM
00	FP-3893690	Gasket, Heater Housing	-	-
00	FP-4083006	Gasket, Water Header Cover	-	-
01	3102649	Connection, Water Transfer	1	1
02	FP-3027924	Gasket, Connection	1	1
03	FP-S16002	Bearing, Ball	1	1
04	FP-3102500	Seal, O-Ring	1	1
05	FP-160586	Ring, Retaining	1	1
06	3609826	Seal, Water Pump	1	1
07	FP-3064634	Ring, Retaining	1	1
08	FP-3019600	Seal, Oil	1	1
09	3102723	Impeller, Water Pump	1	1
10	3102499	Shaft, Water Pump	1	1
11	FP-2863701	Seal, O-Ring (Previously FP-3882774)	1	1
12	FP-3037537	Seal, O-Ring	1	1
13	3335550	Thermostat	1	1
14	FP-3335548	Seal, Thermostat	1	1
15	3558515	Gasket, Hydraulic Pump	1	1
16	FP-2863702	Seal, O-Ring (Previously FP-3883042)	1	1
17	FP-3033248	Seal, O-Ring	1	1
18	FP-3033247	Seal, O-Ring	1	1

# ISM/QSM Series



## Compressor (13.2 CFM)







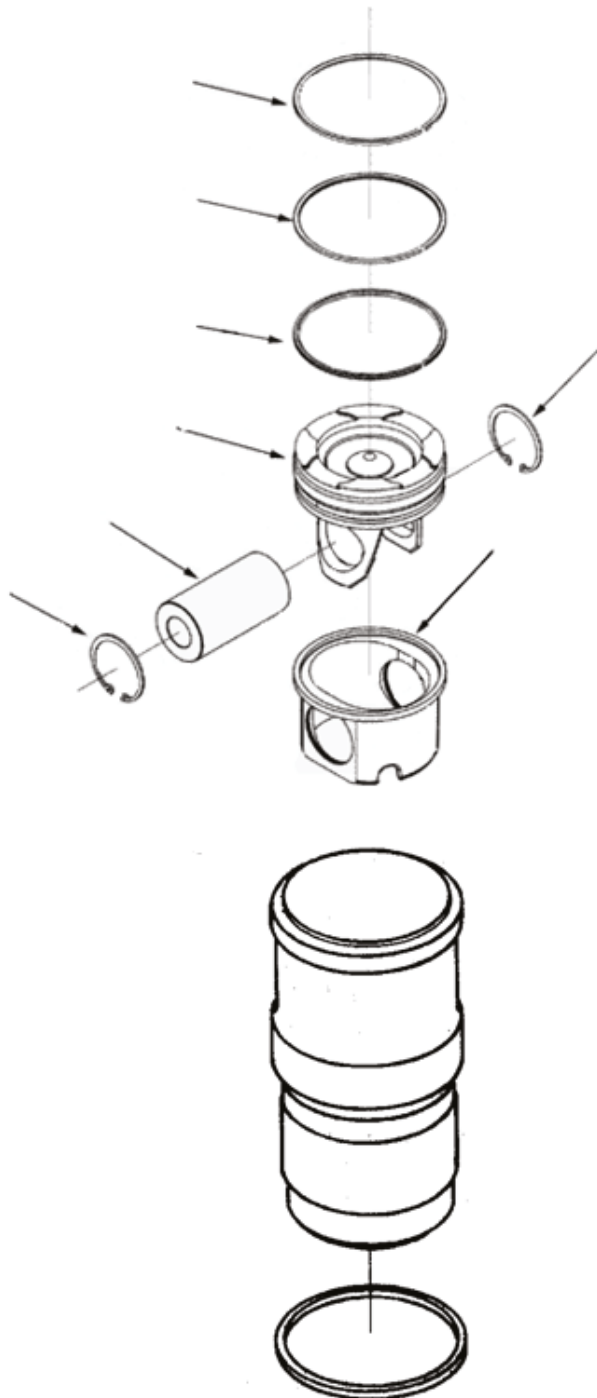
**Compressor (13.2 CFM)**

Ref	Part Number	Description	ISM	QSM
00	4089207	Kit, Cylinder Head	1	1
00	4089209	Kit, Piston Assembly	1	1
00	4089211	Kit, Connecting Rod	1	1
00	4089213	Kit, Crankschaft Bearing	1	1
00	FP-3820922	Gasket, Air Compressor	1	1

# ISM-QSM Series



## Cylinder Kits, Piston Kits, Liner Kits & Ring Set



**Cylinder Kits, Piston Kits, Liner Kits & Ring Set**

Liner Kit	Liner	Liner Seal	Comments
FP-3803703	FP-3080760	FP-3047188	Non Induction Hardened
FP-4089388	FP-3102423	FP-3047188	Induction Hardened

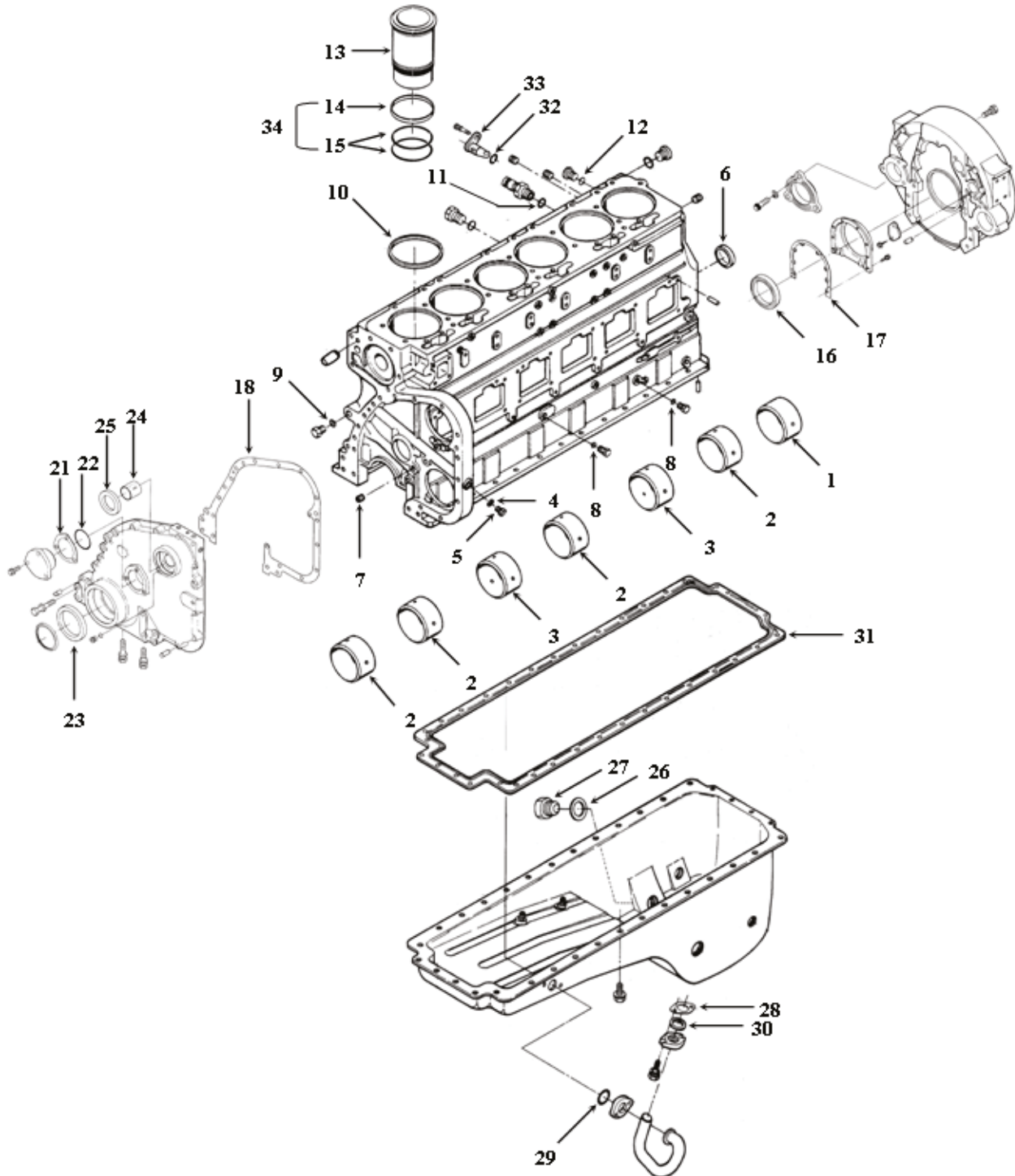
Piston Kit	Piston Crown	Piston Skirt	Piston Ring Set	Piston Pin	Piston Pin Retainer	Comment
4024938	4059948	FP-4070653	FP-3903977	FP-4083244	FP-3016652	Tier II (Europe Industrial only)
4024941	4022532	FP-4070653	FP-3903977	FP-4083244	FP-3016652	Euro III Europe & Asia only)
4025158	4059905	FP-4070653	FP-3903977	FP-4083244	FP-3016652	ISM,QSM Marine
4025174		3067804	FP-3803961	FP-4083244	FP-3016652	ISM,QSM Marine (CPL1626)
4089386	4060420	3067804	FP-3803961	FP-4083244	FP-3016652	L10
FP-4025161	FP-4059901T	FP-4070653T	FP-3903977	Not Included	FP-3016652	L10,M11,ISM Industrial
FP-4025168	FP-4059898T	FP-4070653T	FP-3903977	Not Included	FP-3016652	ISM Automotive
FP-PK5161	FP-4059901T	FP-4070653T	FP-3903977	FP-4083244	FP-3016652	L10, M11, ISM Industrial
FP-PK5164	FP-4059898T	FP-4070653T	FP-3903977	FP-4083244	FP-3016652	ISM Automotive

Cylinder Kit	Liner	Liner Seal	Piston Crown	Piston Skirt	Ring Set	Piston Pin	Retainers	Comment
3803971 Use 4025167								
3803978 Use FP-4025162								
3803980 Use 4025175								
4024844 Use FP-4025164								
4024939	FP-3080760	FP-3047188	4059948	FP-4070653	FP-3903977	FP-4083244	FP-3016652	Tier II (Europe Industrial only)
4024940	FP-3080760	FP-3047188	4022532	FP-4070653	FP-3903977	FP-4083244	FP-3016652	Euro III Europe & Asia only)
4025160	FP-3080760	FP-3047188	4059905	FP-4070653	FP-3903977	FP-4083244	FP-3016652	ISM,QSM Marine
4025167	FP-3080760	FP-3047188		3067804	FP-3803961	FP-4083244	FP-3016652	ISM,QSM Marine (CPL1626)
4025175	FP-3080760	FP-3047188	4060420	3067804	FP-3803961	FP-4083244	FP-3016652	L10
FP-4025162	FP-3080760	FP-3047188	FP-4059901T	FP-4070653T	FP-3903977	FP-4083244	FP-3016652	L10,M11,ISM Industrial
FP-4025164	FP-3080760	FP-3047188	FP-4059898T	FP-4070653T	FP-3903977	FP-4083244	FP-3016652	ISM Automotive

# N14 Engine



## Cylinder Block



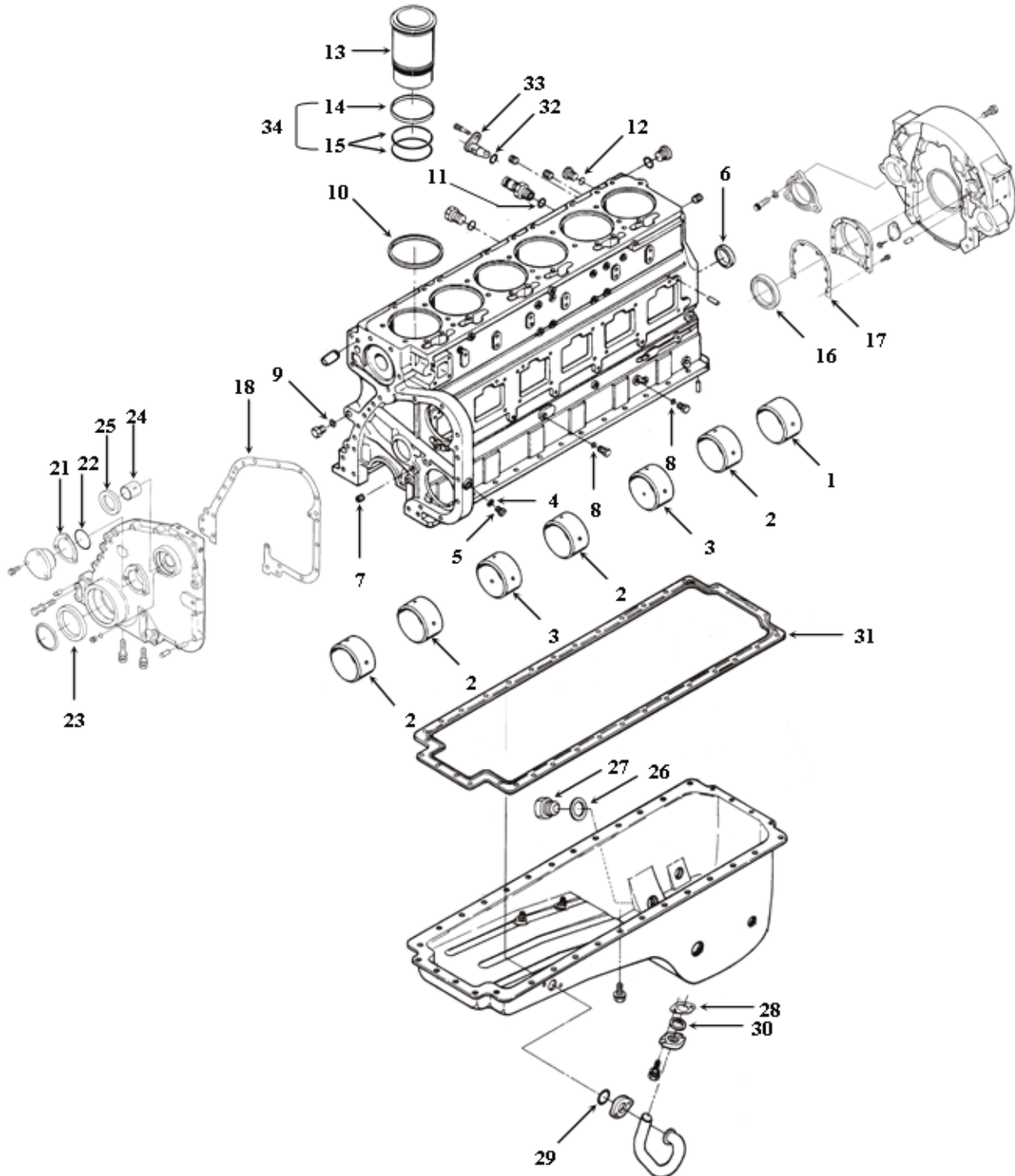
## Cylinder Block, Front & Rear Covers & Gasket Sets

Ref	Part Number	Description	N14
00	FP-204165	Screw, Head Locking (Flywheel)	6
00	FP-3803613	Gasket Set, Lower Engine	1
00	FP-380371610	Gasket Set, Upper With .010" Thicker Head Gasket (Celect)	1
00	FP-4024924	Upper Gasket Kit (STC Engine)	1
00	FP-402492410	Gasket Set, Upper With .010" Thicker Head Gasket (STC)	1
00	FP-4024924S	Gasket Kit Media Repair (STC Engine)	1
00	FP-4089371	Gasket Set, Upper Engine (Celect)	1
00	FP-4089371S	Gasket Set, In-Frame Engine (Celect)	1
00	FP-IFKN14AR	In-Frame Kit (Articulated Pistons)	1
00	FP-N14PREMDNAN-OH	Overhaul Engine Kit (370 H.P. & Above), (Anodized Crown)	1
00	FP-N14PREMPDN	In-Frame Kit (Below 370 H.P.)	1
00	FP-N14PREMPDNAN	In-Frame Kit (370 H.P. & Above) (Anodized Crown)	1
00	FP-N14PREMPDN-OH	Overhaul Engine Kit (Below 370 H.P.)	1
00	FP-PGC25	Gasket Set - C - Brake®	1
01	FP-3011951	Bushing, Camshaft #7	1
02	FP-3028075	Bushing, Camshaft #1,2,4,6	4
03	FP-3028269	Bushing, Camshaft #3,5	2
04	FP-66292	Washer, Plain	1
05	FP-210884	Plug, Threaded (7/8 NPT)	1
06	FP-3011952	Plug, Expansion (2.625")	1
07	FP-3013786	Plug, Pipe (3/8 NPT)	3
08	FP-3037537	Seal, O-Ring	2
09	FP-3046201	Seal, O-Ring	2
10	FP-30549486	Ring, Liner Seal (0.0205" White) (Bulk - 6 per package)	AR
10	FP-3054948B	Ring, Liner Seal (0.0205" White) (Bulk - 50 per package)	AR
10	FP-3019959	Ring, Liner Seal (0.031")	6
10	FP-3019960	Ring, Liner Seal (0.062")	6
10	FP-3054948	Ring, Liner Seal (0.0205" White)	6
11	FP-3037537	Seal, O-Ring	1
16	FP-3006737	Seal, Crankshaft (Rear)	1
16	FP-3006743	Sleeve, Crankshaft Repair (Rear)	1
17	FP-3067616	Gasket, Rear Seal Cover	1
18	FP-3067618	Gasket, Front Gear Cover	1
19	FP-200861	Washer, Plain (Flywheel)	6
21	FP-185573	Shim, Camshaft Thrust (.025")	1
21	FP-65259A	Shim, Camshaft Thrust (.010")	1
21	FP-65259B	Shim, Camshaft Thrust (.005")	1
21	FP-65259C	Shim, Camshaft Thrust (.002")	1
22	FP-215705	Seal, O-Ring	1
23	FP-3006736	Seal, Crankshaft (Front)	1
23	FP-3006742	Sleeve, Crankshaft Repair (Front)	1
24	FP-132770	Bushing, Accessory Drive	1
25	FP-3004316	Seal, Accessory Drive	1
26	FP-67946	Washer, Plain	1
27	FP-3055069	Plug, Threaded (1" NPT) (Oil Pan)	1
28	FP-157551	Gasket, Oil Connection	1

# N14 Engine



## Cylinder Block



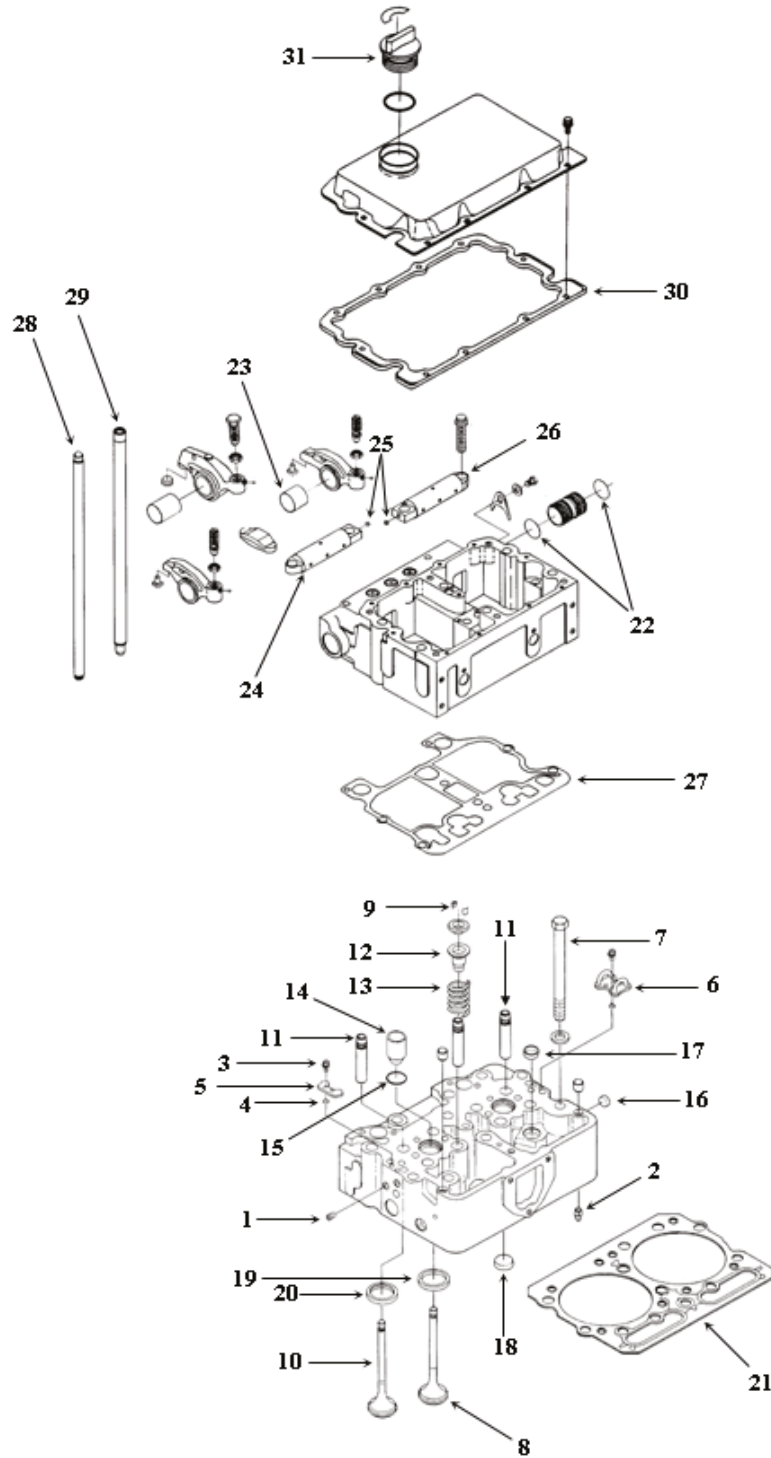
## Cylinder Block, Front & Rear Covers & Gasket Sets (Cont.)

Ref	Part Number	Description	N14
29	FP-3029847	Seal, O-Ring (Oil Suction Tube)	1
30	FP-3034986	Seal, O-Ring Rectangular Ring	1
31	FP-3099083	Gasket, Oil Pan (Premium 1.19mm / 0.047" Thick )(See Topic 97T7-8)	1
31	FP-3349820	Gasket, Oil Pan (Standard 0.79mm / 0.031" Thick )	1
32	FP-4058941	Seal, O-Ring Piston Cooling Nozzle	6
33	FP-4058947	Nozzle, Piston Cooling	6
34	FP-AR51477	Seal Kit, Cylinder Liner	6
00	<b>FP-3801387</b>	<b>Kit, Cylinder Liner (.020 UPF)</b>	6
13	FP-3046325	Liner (.020 UPF)	6
14	FP-215090	Seal, Crevice	6
15	FP-3032874	Seal, O-Ring	12
00	<b>FP-3801826</b>	<b>Kit, Cylinder Liner</b>	6
13	FP-3055099	Liner, Cylinder	6
14	FP-215090	Seal, Crevice	6
15	FP-3032874	Seal, O-Ring	12
00	<b>FP-3803219</b>	<b>Kit, Cylinder Liner (.020/.040 O.S.)</b>	6
13	FP-3065405	Liner (.020/040 O.S.)	6
14	FP-215090	Seal, Crevice	6
15	FP-3032874	Seal, O-Ring	12

# N14 Engine



## Cylinder Head





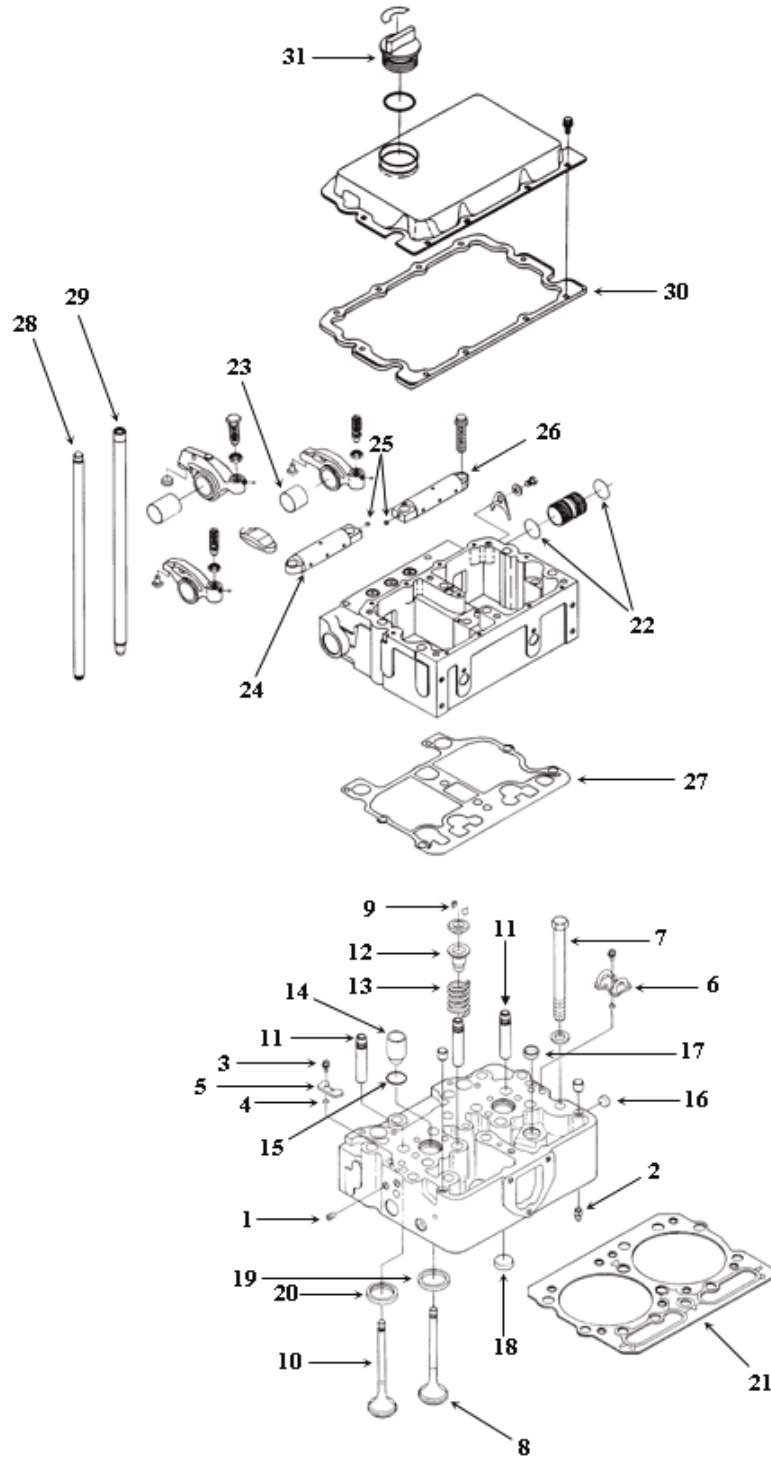
## Cylinder Head

Ref	Part Number	Description	N14
00	FP-3020943	Gasket, Exhaust Manifold	6
00	FP-3008591	Gasket, Intake Manifold	3
00	FP-3803608	Gasket Set, Single Cylinder Head	3
00	FP-380371610	Gasket Set, Upper With .010" Thicker Head Gasket (Celect)	1
00	FP-4024924	Upper Gasket Kit (STC Engine), Switch to FP-4089368	1
00	FP-402492410	Gasket Set, Upper With .010" Thicker Head Gasket (STC)	1
00	FP-4024924S	Gasket Kit Media Repair (STC Engine) (Includes Board Carter)	1
00	FP-4089371	Gasket Set, Upper Engine (Celect)	1
00	FP-4089371S	Gasket Set, In-Frame Engine (Celect)	1
00	FP-PGC25	Gasket Kit, Compression	1
01	FP-S911B	Plug, Pipe	10
02	FP-68445	Pin, Groove	6
03	FP-70772	Screw, Fillister Head Cap	12
04	FP-131026	Seal, O-Ring	12
05	FP-135308	Plate, Cover	2
06	FP-147100	Connection, Fuel Crossover	2
07	FP-3071161	Bolt, Cylinder Head (11/16 - 16 X 7 1/4")	36
11	FP-3064312	Guide, Intake Valve	12
11	FP-3072321	Guide, Intake Valve (.010 O/S)	12
12	FP-3064281	Seal, Valve Guide	12
13	FP-3070460	Spring, Valve	24
14	FP-3070486	Sleeve, Injector	6
15	FP-3007759	Seal, O-Ring (Injector Sleeve)	6
16	FP-3007634	Plug, Expansion	3
17	FP-3007635	Plug, Expansion	6
18	FP-3007636	Plug, Expansion	2
19	FP-3054590	Insert, Intake Valve	12
19	FP-3076515	Insert, Intake Valve	12
20	FP-3069692	Insert, Exhaust Valve	12
21	FP-4058790	Cylinder Head Gasket, Switch to FP-3047402R1	3
22	FP-3050667	Seal, O-Ring	5
23	FP-3058462	Bushing, Rocker Lever	6
24	FP-3074375	Shaft, Rocker Lever	3
25	FP-203933	Plug, Expansion	3
26	FP-3074376	Shaft, Rocker Lever	3
27	FP-4058981	Gasket, Rocker Lever Housing	3
28	FP-3066291	Rod, Push (Valve)	12
29	FP-3067932	Rod, Push (Injector)	6
30	FP-3066311	Gasket, Rocker Cover	1
31	FP-101322	Cap, Oil Filler	1
31	FP-107981	Cap, Oil Filler	1
00	<b>FP-3803360</b>	<b>Kit, Intake Valve (Celect)</b>	12
08	FP-3068519	Valve, Intake	12
09	FP-3072369	Lock Half, Valve	24
00	<b>FP-3803726</b>	<b>Kit, Exhaust Valve (STC Industrial)</b>	12
10	FP-3069672	Valve, Exhaust	12
09	FP-3072369	Lock Half, Valve	24

# N14 Engine



## Cylinder Head



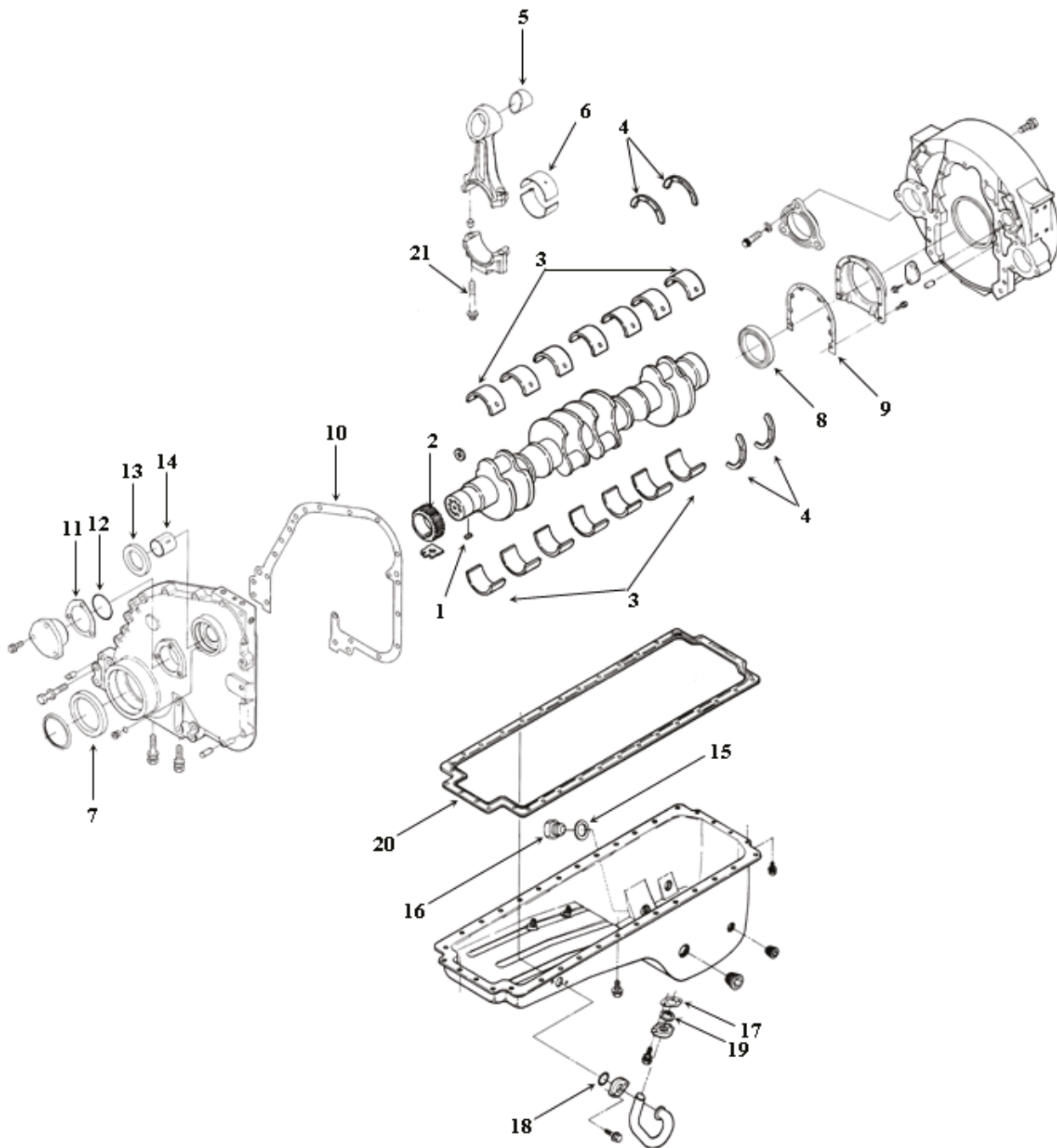
## Cylinder Head (Cont.)

Ref	Part Number	Description	N14
00	<b>FP-3803770</b>	Kit, Exhaust Valve (Automotive)	12
10	FP-3078399	Valve, Exhaust	12
09	FP-3072369	Lock Half, Valve	24
00	<b>FP-3803854</b>	Kit, Intake Valve (STC Industrial)	12
08	FP-3084045	Valve, Intake	12
09	FP-3072369	Lock Half, Valve	24

# N14 Engine



## Crankshaft



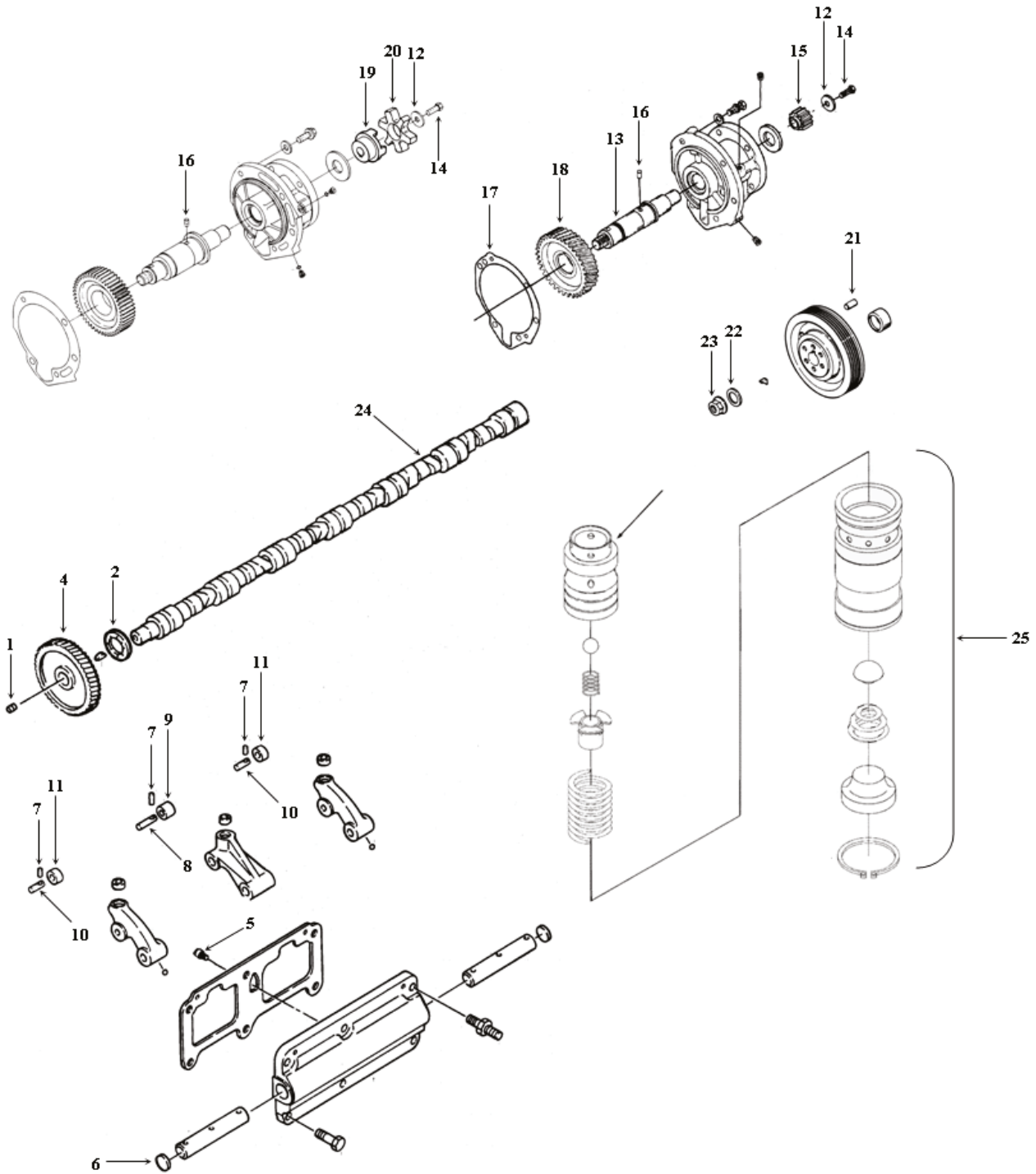
## Crankshaft

Ref	Part Number	Description	N14
00	FP-200861	Washer, Plain (Flywheel)	6
00	FP-204165	Screw, Head Locking	6
00	FP-204165	Screw, Head Locking	1
00	FP-217323	Damper, Vibration (13.55 Inch Diameter)	1
01	FP-210179	Key, Crankshaft	1
02	FP-3014614	Gear, Crankshaft	1
03	FP-3801260	Set, Main Bearing (Std.)	1
03	FP-3801261	Set, Main Bearing (.010)	1
03	FP-3801262	Set, Main Bearing (.020)	1
03	FP-3801263	Set, Main Bearing (.030)	1
03	FP-3801264	Set, Main Bearing (.040)	1
04	FP-3067568	Thrust Washer (Std.)	1
05	FP-3064295	Bushing, Connecting Rod	6
06	FP-3055145PR	Bearing, Connecting Rod (Std.)(Pair Pack)	6
06	FP-3055146PR	Bearing, Connecting Rod (.010)(Pair Pack)	6
06	FP-3055145	Bearing, Connecting Rod (Std.)	12
06	FP-3055146	Bearing, Connecting Rod (.010)	12
06	FP-3055147	Bearing, Connecting Rod (.020)	12
06	FP-3055148	Bearing, Connecting Rod (.030)	12
06	FP-3055149	Bearing, Connecting Rod (.040)	12
07	FP-3006736	Seal, Crankshaft (Front)	1
08	FP-3006737	Seal, Crankshaft (Rear)	1
09	FP-3067616	Gasket, Rear Seal Cover	1
10	FP-3067618	Gasket, Front Gear Cover	1
11	FP-185573	Shim, Camshaft Thrust (.025")	1
11	FP-65259A	Shim, Camshaft Thrust (.010")	1
11	FP-65259B	Shim, Camshaft Thrust (.005")	1
11	FP-65259C	Shim, Camshaft Thrust (.002")	1
12	FP-215705	Seal, O-Ring	1
13	FP-132770	Bushing, Accessory Drive	1
14	FP-3004316	Seal, Accessory Drive	1
15	FP-67946	Washer, Plain	1
16	FP-3055069	Plug, Threaded (1" NPT), (Oil Pan)	1
17	FP-157551	Gasket, Oil Connection	1
18	FP-3029847	Seal, O-Ring (Oil Suction Tube)	1
19	FP-3034986	Seal, Rectangular Ring	1
20	FP-3099083	Gasket, Oil Pan (Premium 1.19mm / 0.047" Thick)(See Topic 97T7-8)	1
20	FP-3349820	Gasket, Oil Pan (Standard 0.79mm / 0.031" Thick )	1
21	FP-3349806	Bolt, Connecting Rod	12

# N14 Engine



## Camshaft, Follower & Accessory Drive



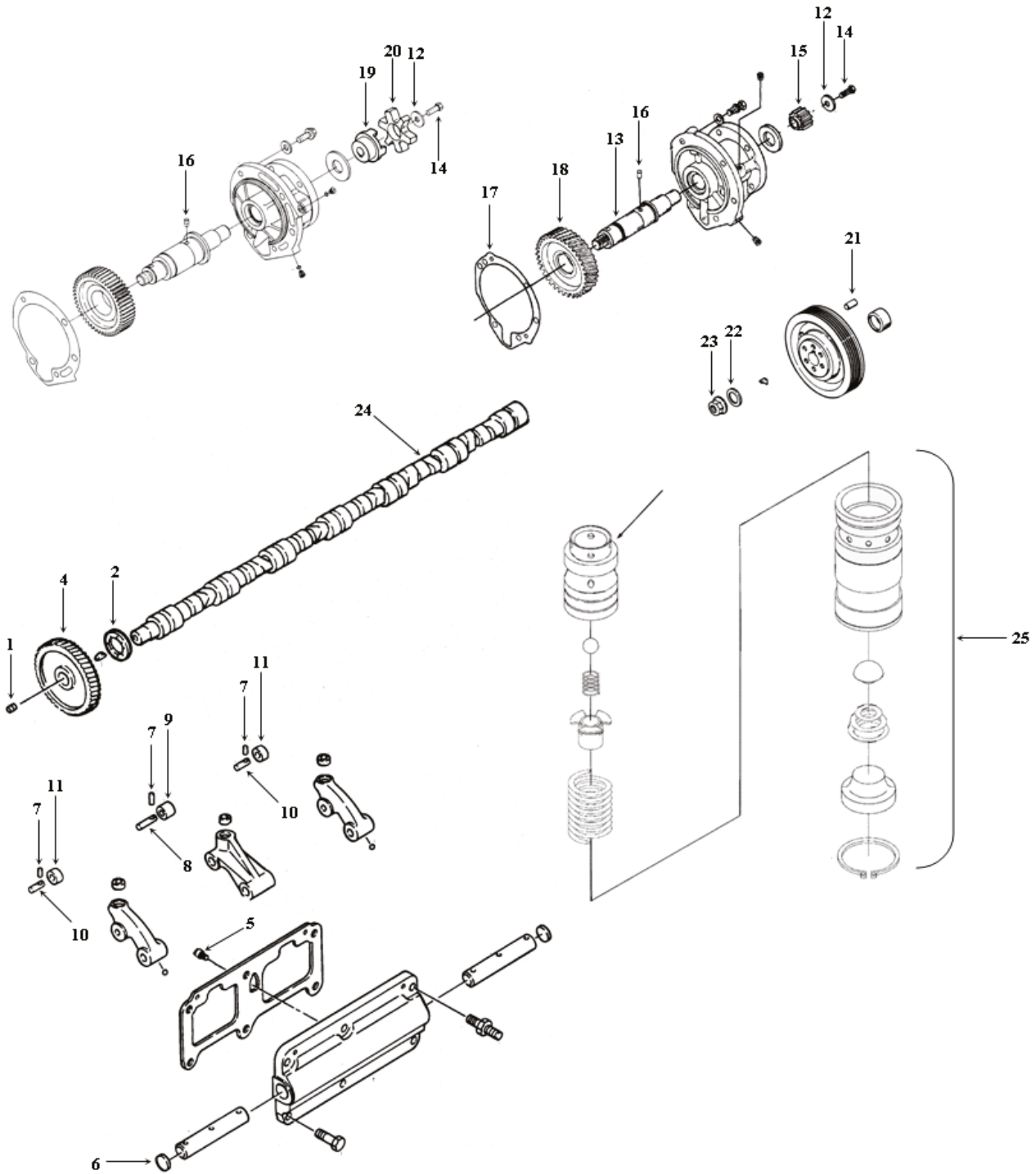
## Camshaft, Cam Follower & Accessory Drive

Ref	Part Number	Description	N14
00	FP-3068471	Gasket, Cam Follower Mounting	3
00	FP-3068473	Gasket, Cam Follower Mounting (.032" Thick)	3
00	FP-3068474	Gasket, Cam Follower Mounting (.037" Thick)	3
00	FP-3068476	Gasket, Cam Follower Mounting (.047" Thick)	3
00	FP-3068477	Gasket, Cam Follower Mounting (.052" Thick)	3
00	FP-3074400	Gasket, Cam Follower Mounting	3
00	FP-3074401	Gasket, Cam Follower Mounting (.006-.008 Thick)	3
00	FP-3074402	Gasket, Cam Follower Mounting (.014-.021 Thick)	3
00	FP-3074403	Gasket, Cam Follower Mounting (.018-.025 Thick)	3
00	FP-145551	Seal, O-Ring (Fan Drive)	1
00	FP-200307	Seal, Oil (Fan Drive)	1
00	FP-3069102	Gasket, Compressor To Accessory Drive	1
00	FP-4026171	Gasket, PTO Fuel Pump (Previously FP-3069103)	1
00	FP-S911B	Plug, Pipe (1/8" - 27 NPT)	1
01	FP-68193	Pipe Plug	1
02	FP-215233	Bearing, Thrust	1
03	FP-3021599	Key, Offset Woodruff	1
03	FP-3021601	Key, Offset Woodruff	1
04	FP-3002901	Gear, Camshaft	1
05	FP-69736	Screw, Hexagon Head Cap	2
06	FP-205401	Plug, Expansion	2
07	FP-3064309	Pin, Roll	12
08	FP-3166388	Pin, Cam Follower Roller (Injector)	6
08	FP-3412922	Pin, Cam Follower Roller (Injector)	6
09	FP-3161423	Roller, Cam Follower (Injector)	6
09	FP-3895487	Roller, Cam Follower (Injector)	6
10	FP-3013331	Pin, Cam Follower Roller (Valve)	12
10	FP-3166428	Pin, Cam Follower Roller (Valve)	12
11	FP-3036933	Roller, Cam Follower (Valve)	12
11	FP-3865237	Roller, Cam Follower (Valve), (Check Availability)	12
17	FP-3069101	Gasket, Accessory Drive Support	1
18	FP-142689	Gear, Accessory Drive	1
19	FP-3000175	Hub, Jaw Coupling (Fuel Pump Drive)	1
20	FP-3046200	Spider, Jaw Coupling (Fuel Pump Drive)	1
21	FP-70550	Dowel, Pin (Accessory Drive Pulley)	1
22	FP-193136	Washer, Plain (Accessory Drive Pulley)	1
23	FP-3012526	Nut, Hexagon Flange (7/8" 14 UNF)	1
24	FP-3800855	Camshaft (CPL's 1374, 1405, 1607 and 1652)	1
25	FP-3075381	Tappet Assy (Pre 1991)	6
25	FP-3075383	Tappet Assy (1991 - Up STC, Mushroom Design)	6
00	<b>FP-3006483</b>	<b>Kit, Accessory Drive Shaft</b>	1
12	FP-170664	Washer, Plain	1
13	FP-3000171	Shaft, Accessory Drive	1
14	FP-3000173	Screw, Hexagon Head Cap	1
15	FP-3000174	Hub, Jaw Coupling	1
00	FP-3008947	Seal, Accessory Drive	1
16	FP-3034438	Pin, Groove	1

# N14 Engine



## Camshaft, Follower & Accessory Drive





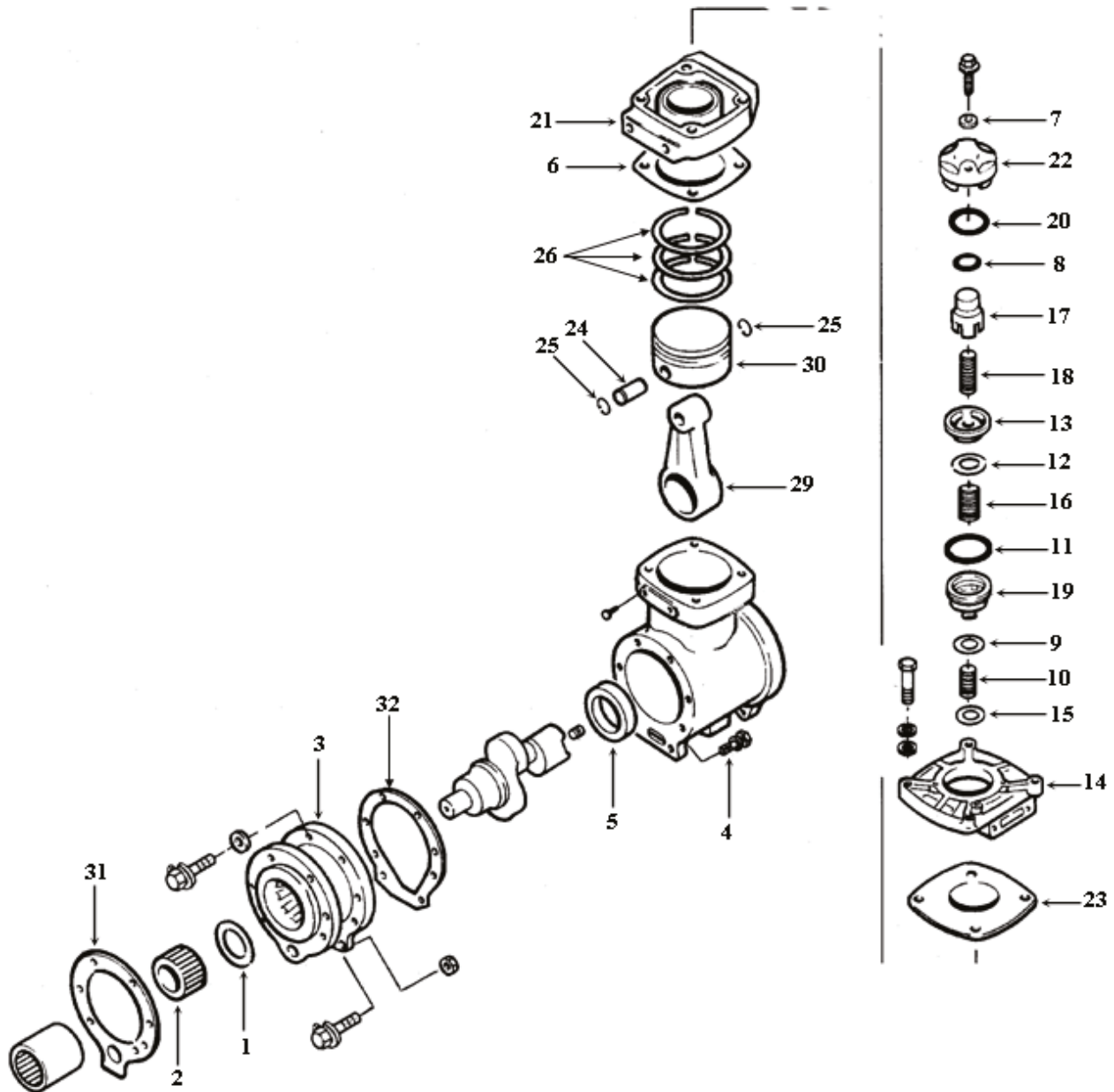
## Camshaft, Cam Follower & Accessory Drive (Cont.)

Ref	Part Number	Description	N14
00	<b>FP-90004</b>	Repair Kit, Accessory Drive	1
00	FP-116391	Bushing, Accessory Drive	1
00	FP-132770	Bushing, Gear Cover	1
00	FP-190397	Sleeve, Pulley	1
00	FP-3004316	Seal, Front Cover	1
00	FP-3008947	Seal, Accessory Drive	1
00	FP-3014103	Washer	1
00	FP-3026556	Thrust Washer, Accessory Drive	1
00	FP-3026557	Thrust Washer, Accessory Drive	1
17	FP-3069101	Gasket, Accessory Drive Support	1
00	FP-3069102	Gasket, Compressor To Accessory Drive	1

# N14 Engine



## Compressor (13.2 CFM)



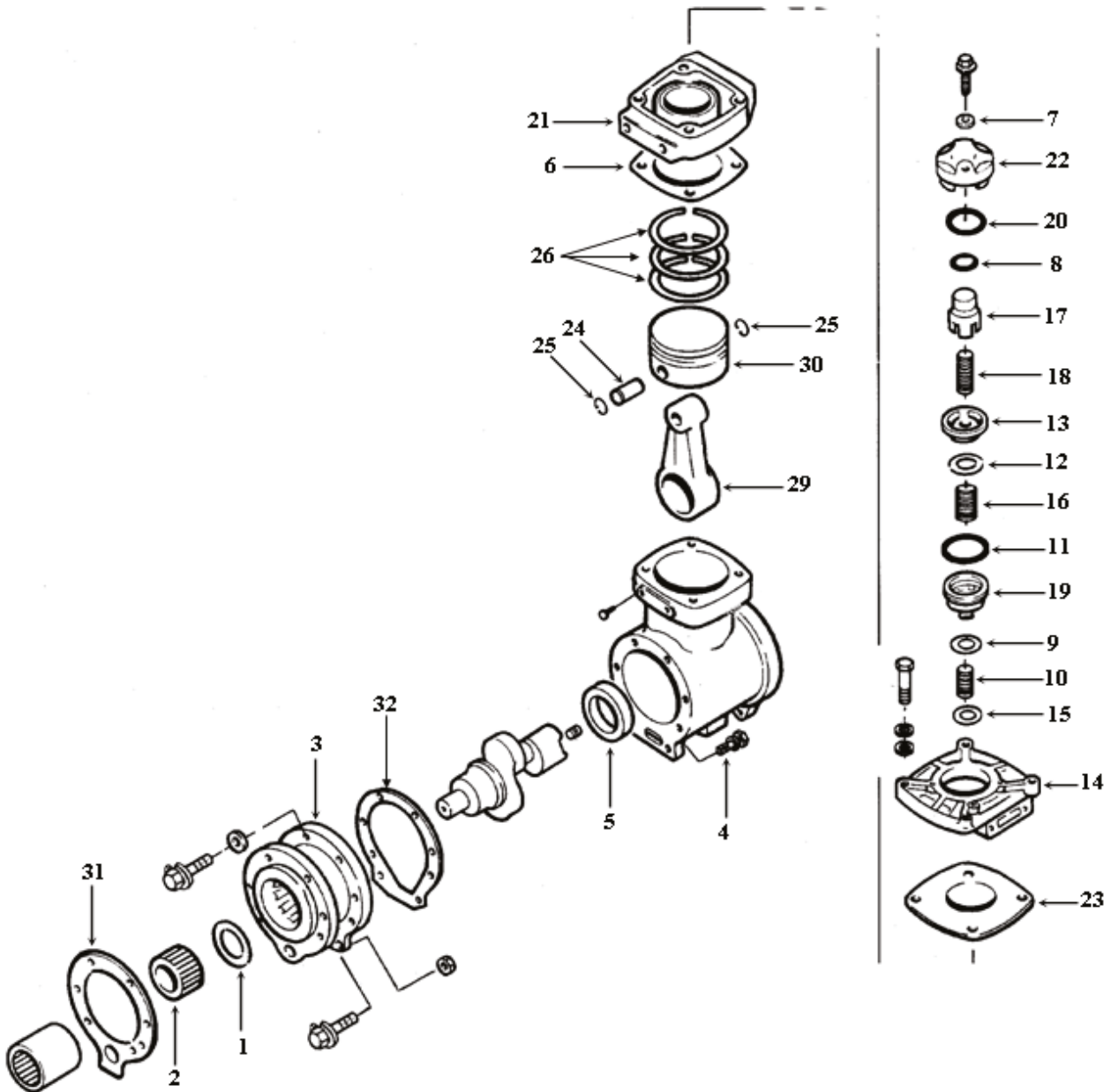
## Compressor (13.2 CFM)

Ref	Part Number	Description	N14
00	FP-3018153	Bushing, Connecting Rod	1
00	FP-3038060	Tube, Copper (Water Inlet Compressor)	1
01	FP-211662	Bearing, Thrust	1
02	FP-3000174	Hub, Spline Coupling	1
04	FP-3012472	Screw, Captive Washer Cap	2
05	FP-147610	Bushing	1
06	FP-154018	Gasket, Air Compressor	1
07	FP-109557	Washer, Plain	2
08	FP-127936	Seal Ring	1
09	FP-127940	Valve, Exhaust	1
10	FP-128080	Spring, Compression	1
11	FP-128086	Seal, O-Ring	1
12	FP-144948	Valve, Intake	1
13	FP-145028	Seat, Compressor Intake Valve	1
14	FP-153964	Cover, Air Compressor	1
15	FP-183429	Plate, Wear	1
16	FP-190334	Spring, Valve	1
17	FP-191037	Cap, Unloader (13.2 CFM)	1
18	FP-3023101	Spring, Compression	1
20	FP-3043995	Seal, O-Ring	1
21	FP-3558762	Head, Compressor	1
22	FP-3046298	Body, Unloading Valve	1
22	FP-3558624	Body, Unloader Valve (Celect, Celect Plus)	1
23	FP-3047159	Gasket	1
29	FP-3018151	Rod, Compressor Connecting	1
31	FP-3820922	Gasket, Air Compressor Support	1
32	FP-176027	Gasket	1
00	<b>FP-3803930</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b>	1
30	FP-3045670	Body, Piston	1
26	FP-AR73350	Ring Set, Compressor (Std.)	1
24	FP-119810	Pin, Piston	1
25	FP-3558754	Ring, Retaining P/Bolt	2
00	<b>FP-3803931</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b>	1
30	FP-3045671	Body, Piston (.010)	1
26	FP-AR73351	Ring Set, Compressor, (.010)	1
24	FP-119810	Pin, Piston	1
25	FP-3558754	Ring, Retaining P/Bolt	2
00	<b>FP-3803932</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b>	1
30	FP-3045672	Body, Piston (.020)	1
26	FP-AR73352	Ring Set, Compressor, (.020)	1
24	FP-119810	Pin, Piston	1
25	FP-3558754	Ring, Retaining P/Bolt	2

# N14 Engine



## Compressor (13.2 CFM)



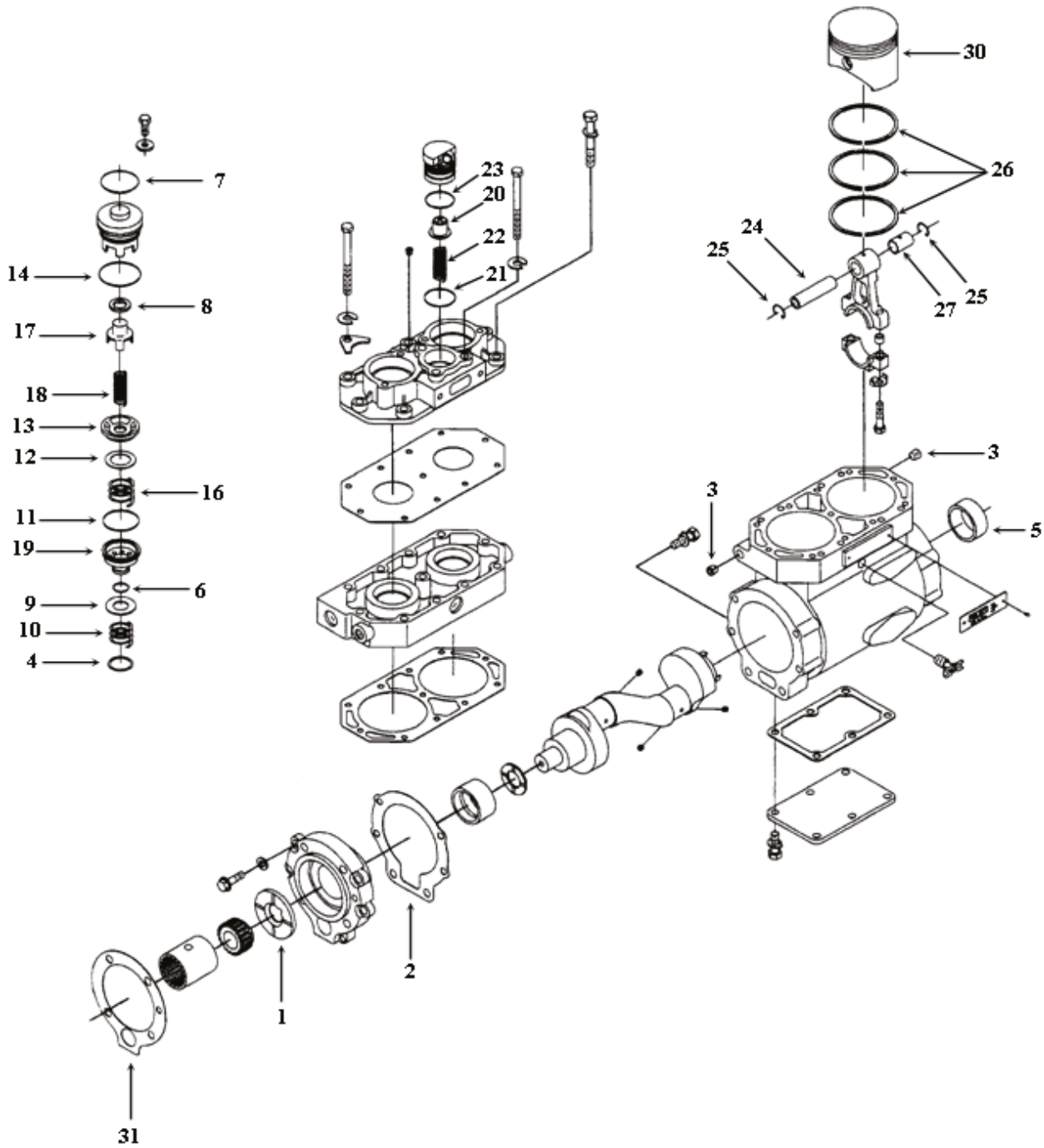
## Compressor Kits (13.2 CFM)

Ref	Part Number	Description	N14
00	<b>FP-3801728</b>	Kit, Compressor Head Repair (Major)	1
00	FP-AR12719	Kit, Valve Repair	1
13	FP-145028	Seat, Compressor Intake Valve	1
17	FP-191037	Cap, Unloader (13.2 CFM)	1
19	FP-144714	Seat, Compressor Exhaust Valve	1
22	FP-3046298	Body, Unloading Valve	1
00	<b>FP-3801733</b>	Kit, Compressor Head Repair (Minor)	1
00	FP-AR12719	Kit, Valve Repair	1
13	FP-145028	Seat, Compressor Intake Valve	1
17	FP-191037	Cap, Unloader (13.2 CFM)	1
19	FP-144714	Seat, Compressor Exhaust Valve	1
00	<b>FP-AR12719</b>	Kit, Valve Repair	1
07	FP-109557	Washer, Plain	1
08	FP-127936	Seal Ring	1
09	FP-127940	Valve, Exhaust	1
10	FP-128080	Spring, Compression	1
11	FP-128086	Seal, O-Ring	1
12	FP-144948	Valve, Intake	1
15	FP-183429	Plate, Wear	1
16	FP-190334	Spring, Valve	1
18	FP-3023101	Spring, Compression	1
20	FP-3043995	Seal, O-Ring	1
00	FP-128085	Seal, O-Ring	1
00	<b>FP-AR73308</b>	Gasket Set, 13.2 CFM Compressor	1
08	FP-127936	Seal, O-Ring	1
00	FP-128085	Seal, O-Ring	1
11	FP-128086	Seal, O-Ring	1
06	FP-154018	Gasket	1
00	FP-176027	Gasket	1
20	FP-3043995	Seal, O-Ring	1
23	FP-3047159	Gasket	1
00	FP-3201386	Gasket	1

# N14 Engine



## Compressor (30 CFM)



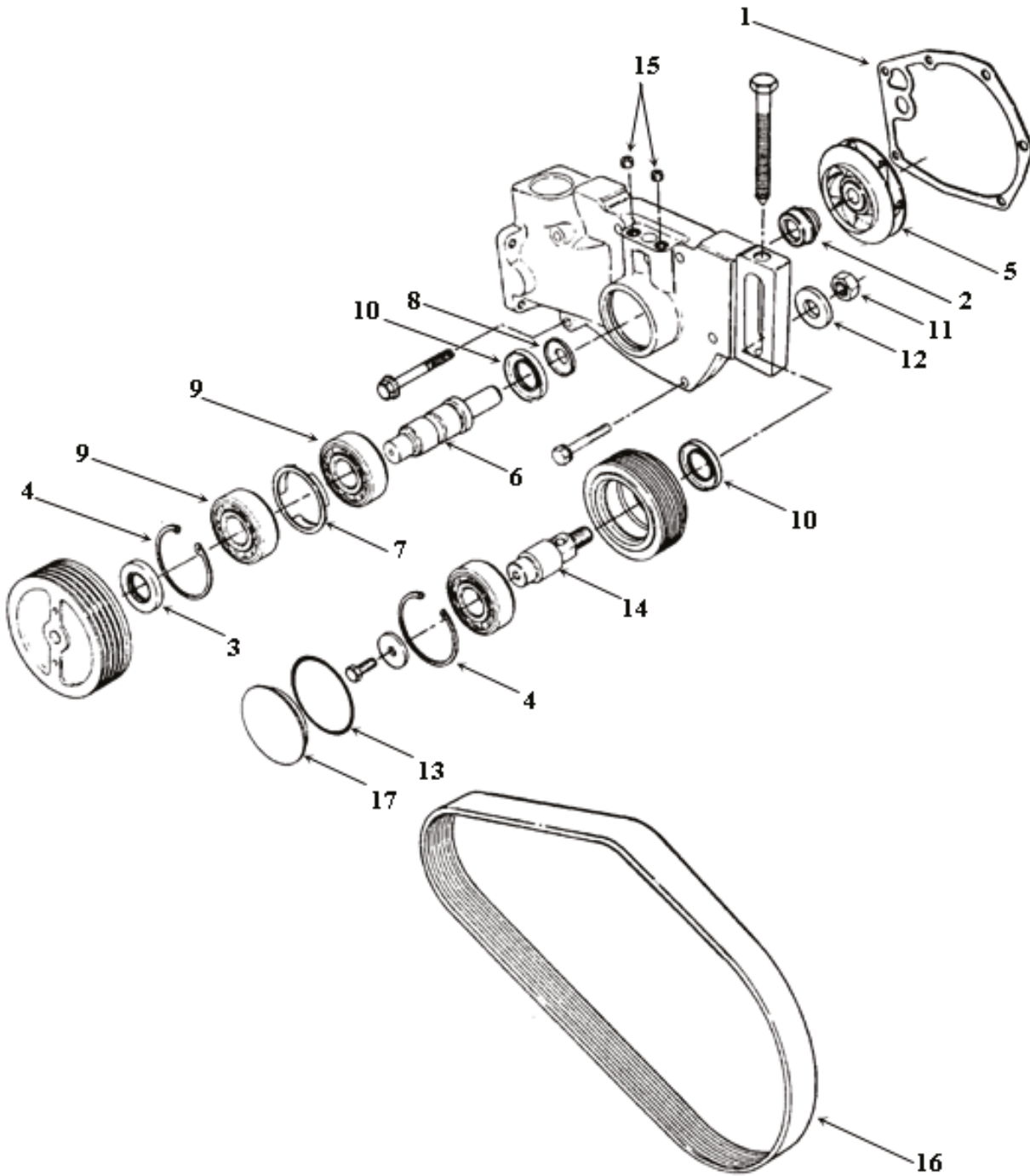
## Compressor (30 CFM)

Ref	Part Number	Description	N14
01	FP-211662	Bearing, Thrust	1
02	FP-199347	Gasket, Air Compressor	1
03	FP-3013786	Plug, Pipe	2
04	FP-183429	Plate, Wear	2
05	FP-147610	Bushing	1
06	FP-3042542	Seal, O-Ring	2
07	FP-211315	Seal, O-Ring	2
08	FP-127936	Seal, Rectangular Ring	1
09	FP-127940	Valve, Exhaust	1
10	FP-128080	Spring, Compression	1
11	FP-128086	Seal, O-Ring	1
12	FP-144948	Valve, Intake	1
13	FP-145028	Seat, Compression Intake Valve	1
14	FP-3015068	Seal, O-Ring	2
16	FP-190334	Spring, Valve	1
17	FP-191037	Cap, Unloader	1
18	FP-3023101	Spring, Compression	1
20	FP-184240	Cap, Unloader Valve (E Type)	1
21	FP-3009738	Seal, O-Ring	1
22	FP-150631	Spring, Compression	1
23	FP-3009739	Seal, O-Ring	1
27	FP-3018153	Bushing, Connecting Rod	1
31	FP-3820922	Gasket, Air Compressor Support	1
00	<b>FP-3803930</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b>	2
30	FP-3045670	Body, Piston (Std.)	2
26	FP-AR73350	Ring Set, Compressor (Std.)	2
24	FP-119810	Pin, Piston	2
25	FP-3558754	Ring, Retaining P/Bolt	4
00	<b>FP-3803931</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b>	2
30	FP-3045671	Body, Piston (.010)	2
26	FP-AR73351	Ring Set, Compressor (.010)	2
24	FP-119810	Pin, Piston	2
25	FP-3558754	Ring, Retaining P/Bolt	4
00	<b>FP-3803932</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b>	2
30	FP-3045672	Body, Piston (.020)	2
26	FP-AR73352	Ring Set, Compressor (.020)	2
24	FP-119810	Pin, Piston	2
25	FP-3558754	Ring, Retaining P/Bolt	4
00	<b>FP-AR12719</b>	<b>Kit, Valve Repair</b>	1
07	FP-109557	Washer, Plain	2
08	FP-127936	Seal, Rectangular Ring	1
09	FP-127940	Valve, Exhaust	1
10	FP-128080	Spring, Compression	1
11	FP-128086	Seal, O-Ring	1
12	FP-144948	Valve, Intake	1
15	FP-183429	Plate, Wear	1
16	FP-190334	Spring, Valve	1
18	FP-3023101	Spring, Compression	1
20	FP-3043995	Seal, O-Ring	1
00	FP-128085	Seal, O-Ring	1

# N14 Engine



## Water Pump





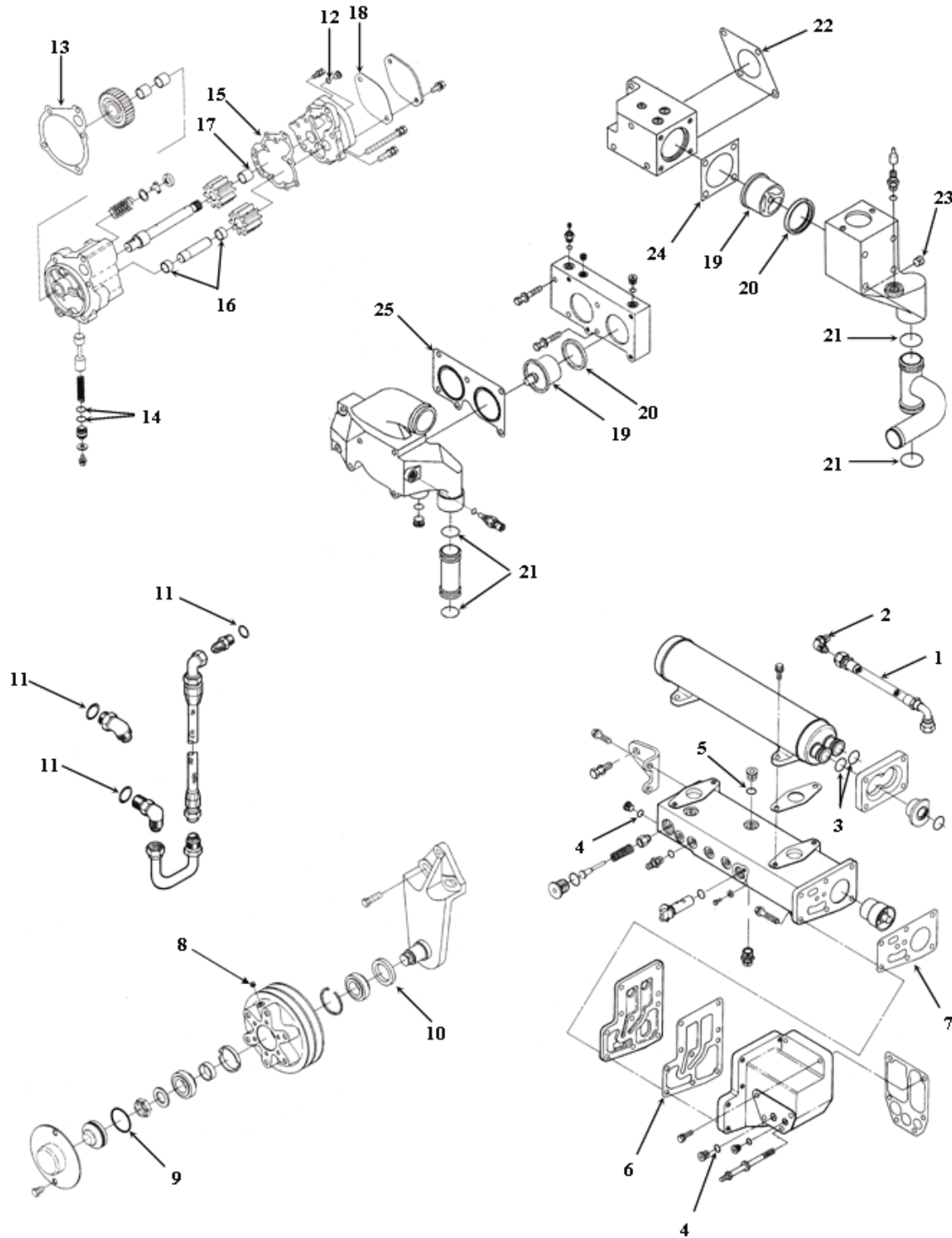
## Water Pump

Ref	Part Number	Description	N14
00	FP-186780	Seal, Thermostat	1
00	FP-193136	Washer, Plain	1
00	FP-203097	Sleeve, Wear	1
00	FP-3012526	Nut, Hexagon Flange (7/8 - 14 UNF)	1
00	FP-3066330	Pulley, Idler	1
00	FP-3076489	Thermostat Assembly (180° F)	1
00	FP-3803605	Pump Assembly, Water (CPL #'s 1054, 1059, 1061, 1062, 1718, 1719, 1722, 1723)	1
00	FP-70550	Pin, Dowel	1
01	FP-3076522	Gasket, Mounting	1
02	FP-3029099	Seal, Water Pump	1
03	FP-3038998	Seal, Oil	2
11	FP-S201	Nut, Heavy Hexagon	1
12	FP-213082	Washer, Plain	1
13	FP-145551	Seal, O-Ring	1
14	FP-3066328	Shaft, Idler	1
15	FP-S911B	Plug, Pipe	2
16	FP-217638	Belt, V Ribbed	1
17	FP-3064404	Cover, Idler Pulley	1
00	<b>FP-3064392</b>	<b>Assembly, Water Pump Shaft</b>	1
06	FP-3064389	Shaft, Water Pump	1
07	FP-196844	Spacer, Bearing	1
08	FP-3064390	Slinger, Water Pump	1
09	FP-3064406	Bearing, Ball	2
10	FP-3074482	Seal, Oil	1
00	<b>FP-3803612</b>	<b>Kit, Water Pump Repair (Minor)</b>	1
04	FP-S16255	Ring, Retaining P/Bolt	1
00	FP-43463A	Seal, O-Ring	1
02	FP-3029099	Seal, Water Pump	1
00	FP-3024960	Gasket, Connection	1
01	FP-3076522	Gasket, Mounting	1
00	<b>FP-3803614</b>	<b>Kit, Water Pump Repair (Major)</b>	1
05	FP-3064386	Impeller, Water Pump	1
00	FP-3064392	Assembly, Water Pump Shaft	1
04	FP-S16255	Ring, Retaining P/Bolt	1
00	FP-43463A	Seal, O-Ring	1
02	FP-3029099	Seal, Water Pump	1
00	FP-3024960	Gasket, Connection	1
01	FP-3076522	Gasket, Mounting	1

# N14 Engine



## Cooling Components



## Cooling Components

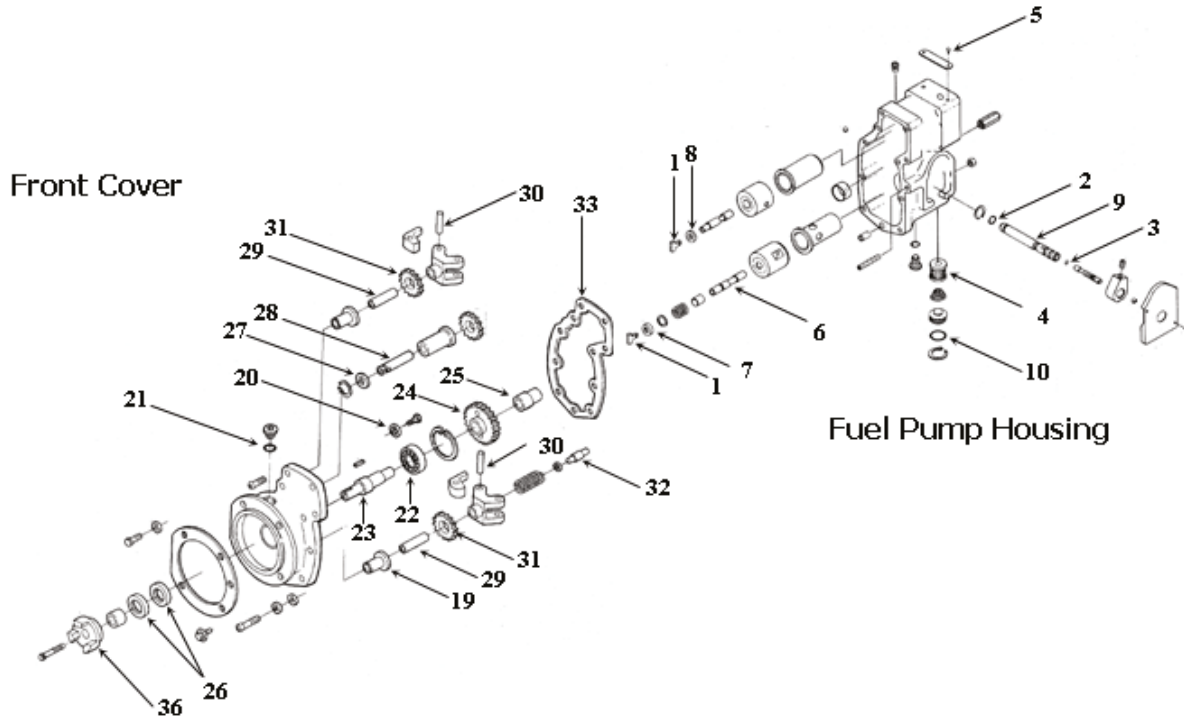
Ref	Part Number	Description	N14
01	FP-3035580	Hose, Flexible	1
02	FP-3037535	Elbow, Male Union	1
03	FP-109080	Seal, O-Ring	1
04	FP-3037537	Seal, O-Ring	4
05	FP-3046201	Seal, O-Ring	5
06	FP-3070477	Gasket, Oil Cooler Support	1
07	FP-3072341	Gasket, Oil Transfer Connection	1
08	FP-S911B	Plug, Pipe (1/8" NPT)	1
09	FP-145551	Seal, O-Ring	1
10	FP-200307	Seal, Oil	1
11	FP-3040817	Seal, O-Ring	1
12	FP-3037537	Seal, O-Ring (Oil Pump)	1
13	FP-3067613	Gasket, Lube Oil Pump	1
14	FP-145504	Seal, O-Ring	2
15	FP-3014778	Gasket, Lube Oil Pump Cover	1
16	FP-68365	Bushing, Oil Pump	2
17	FP-69521	Bushing, Oil Pump	4
18	FP-154916	Gasket, Hydraulic Pump	1
19	FP-3076489	Thermostat (82°C), (180° F)	1
20	FP-186780	Seal, Thermostat	2
21	FP-43463A	Seal, O-Ring	2
22	FP-3064313	Gasket, Thermostat Housing	1
23	FP-3013786	Plug, Pipe	1
24	FP-3066285	Gasket, Thermostat Housing Cover	1
25	FP-3865236	Gasket, Safety Thermostat	1

# N14 Engine

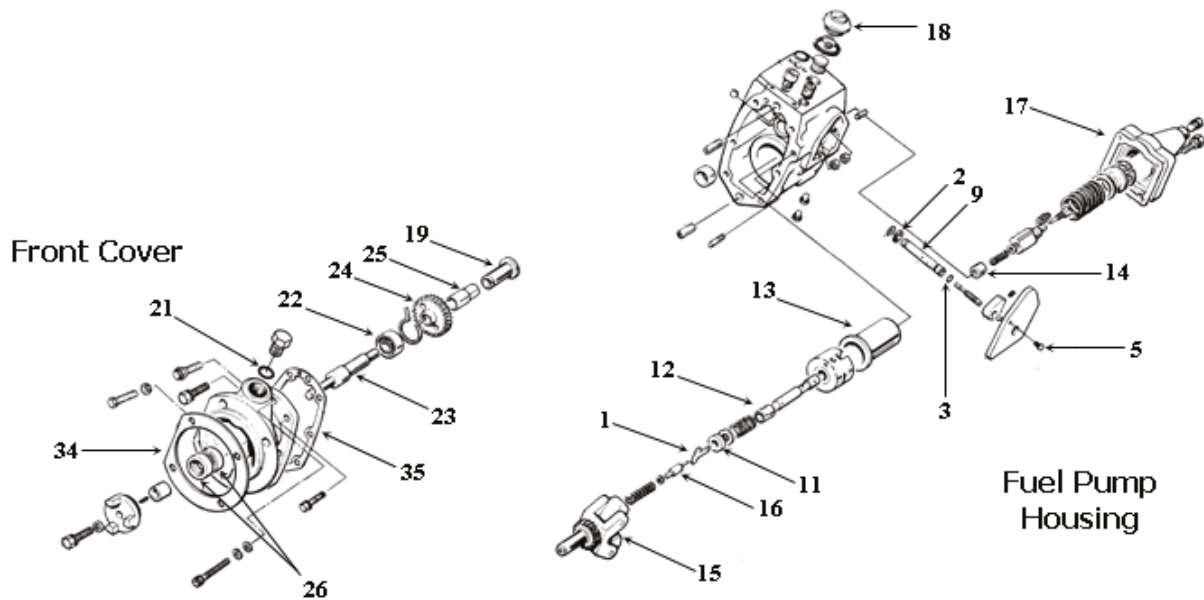


## Fuel Pump

### PTG-VS/AFC Industrial



### PTG Automotive



## Fuel Pump Housing

Ref	Part Number	Description	N14
01	FP-70690	Driver, Governor Plunger	2
02	FP-100478	Seal, O-Ring	1
03	FP-213768	Seal, O-Ring	1
04	FP-146483	Screen, Filter	1
05	FP-S2286	Screw, Drive (Name Plate)	4

## STC Industrial

Ref	Part Number	Description	N14
00	FP-177150	Sleeve, Governor Barrel	1
06	FP-3040750	Plunger, Governor	1
07	FP-3027633	Bearing, Thrust	1
08	FP-3035230	Bearing, Thrust	1
10	FP-3066914	Seal, O-Ring	1

## PTG Automotive

Ref	Part Number	Description	N14
11	FP-3066637	Bearing, Thrust	1
13	FP-3036970	Lodging, Carries Springs	1
14	FP-140417	Plunger, Idle	1
15	FP-3024991	Counterweight Governor	1
16	FP-144178	Plunger, Governor Weight Assist	1
17	FP-70705	Gasket, Spring Pack Flange	1
18	FP-157088	Cap, Fuel Pump Filter	1

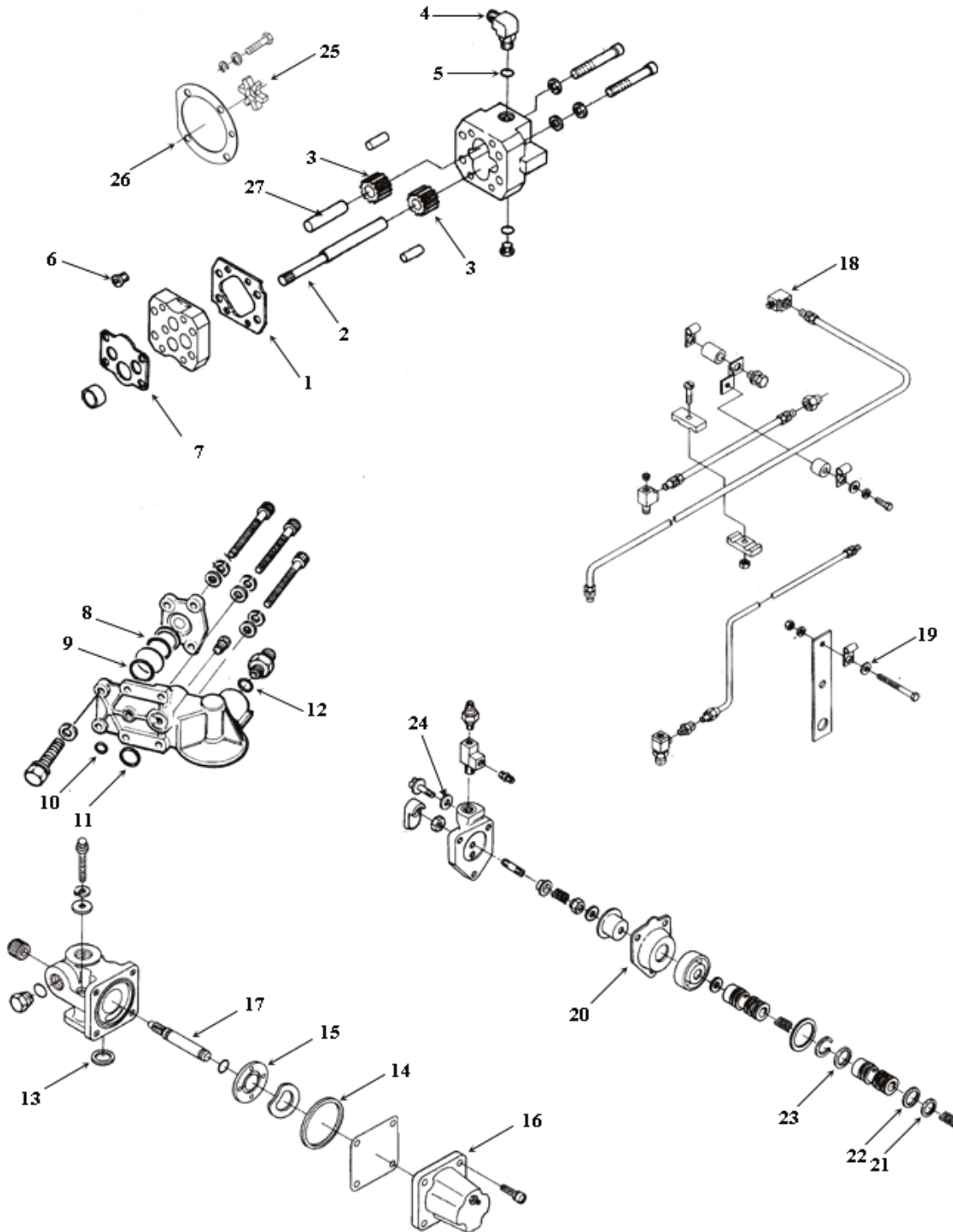
## Fuel Pump Front Cover & Weight Assembly (STC & PTG)

Ref	Part Number	Description	N14
00	FP-3024991	The Following Items For Option 12394, 12395, 12396, 1239	1
19	FP-163944	Bushing, Fuel Pump	2
21	FP-3040817	Seal, O-Ring	1
22	FP-S16052	Bearing, Ball	1
23	FP-212601	Shaft, Fuel Pump Drive	1
26	FP-3062676	Seal, Oil	2
27	FP-201745	Washer, Lock	1
30	FP-211635	Pin, Governor	4
32	FP-144178	The Following Items For Option 12394, 12395, 12396, 1239	1
33	FP-200998	Gasket, Fuel Pump	1
34	FP-4026171	Gasket, Fuel Pump Front Cover	1
35	FP-3063052	Gasket, Fuel Pump Front Cover	2
36	FP-3000175	Hub, Jaw Coupling (STC Fuel Pump Drive)	1

# N14 Engine



## Fuel Gear Pump



## Fuel Gear Pump

Ref	Part Number	Description	N14
00	FP-119364	Gear, Fuel Pumping (1 1/4"), (Celect Fuel Pump)	1
00	FP-3034243	Fuel Pump (Gear 3/4")	1
00	FP-3037537	Seal, O-Ring (Celect Fuel Pump)	1
01	FP-110855	Gasket, Fuel Pump	1
02	FP-100215	Shaft, Fuel Pump Drive (3/4")	1
03	FP-119363	Gear, Fuel Pumping (3/4")	1
04	FP-3033740	Valve, Check Ball Elbow	1
06	FP-3050624	Valve, Pressure Regulator	1
07	FP-3069017	Gasket, Fuel Pump	1

## Fuel Filter Head

Ref	Part Number	Description	N14
08	FP-100099	Seal, Rectangular Ring	1
09	FP-139988	Seal, Rectangular Ring	1
10	FP-151900	Seal, Rectangular Ring	1
11	FP-213079	Seal, Rectangular Ring	1
12	FP-3040817	Seal, O-Ring	1

## Fuel Shutoff Valve

Ref	Part Number	Description	N14
00	FP-190876	Seal, O-Ring	1
13	FP-154087	Seal, Rectangular	1
14	FP-129888	Seal, Rectangular (Fuel Shutoff Valve)	1
15	FP-3030970	Disc, Valve	1
16	FP-3408421	Solenoid (Fuel Shutoff Valve), (12 Volt)(Previously FP-3054611)	1
17	FP-3013036	Shaft (Fuel Shutoff Valve)	1

## Fuel Tubing

Ref	Part Number	Description	N14
18	FP-181213	Elbow, Plain Adapter	2
19	FP-S631	Washer, Plain	2

## AFC Assembly

Ref	Part Number	Description	N14
20	FP-3013811	Diaphragm	1
21	FP-3042542	Seal, O-Ring	1
22	FP-3066914	Seal, O-Ring	2
23	FP-3045986	Seal, O-Ring	1
24	FP-S631	Washer, Plain	3

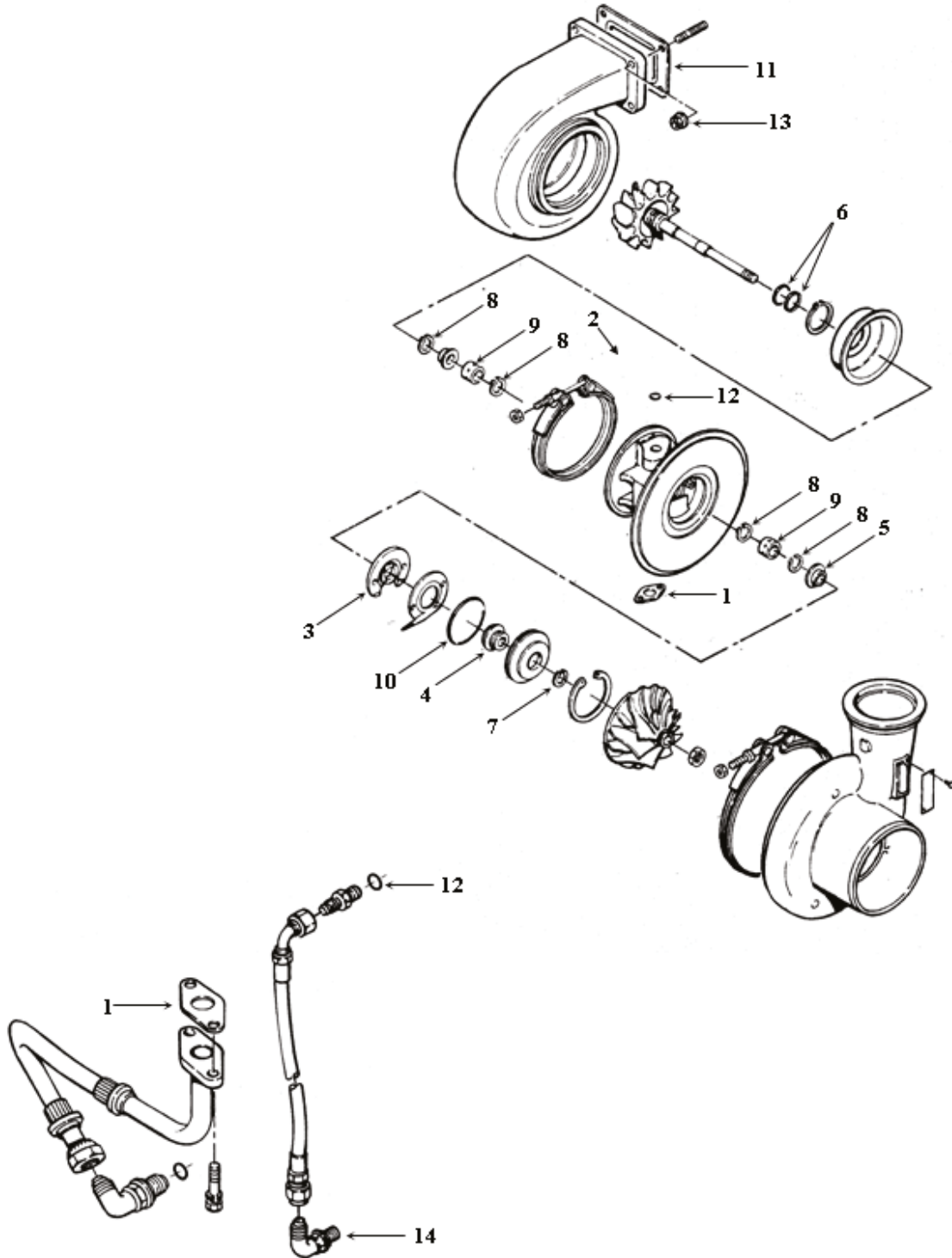
## Fuel Pump Coupling

Ref	Part Number	Description	N14
25	FP-3046200	Spider, Jaw Coupling (Fuel Pump Drive)	1
26	FP-4026171	Gasket, Fuel Pump (Previously FP-3069103)	1

# N14 Engine



## Turbocharger





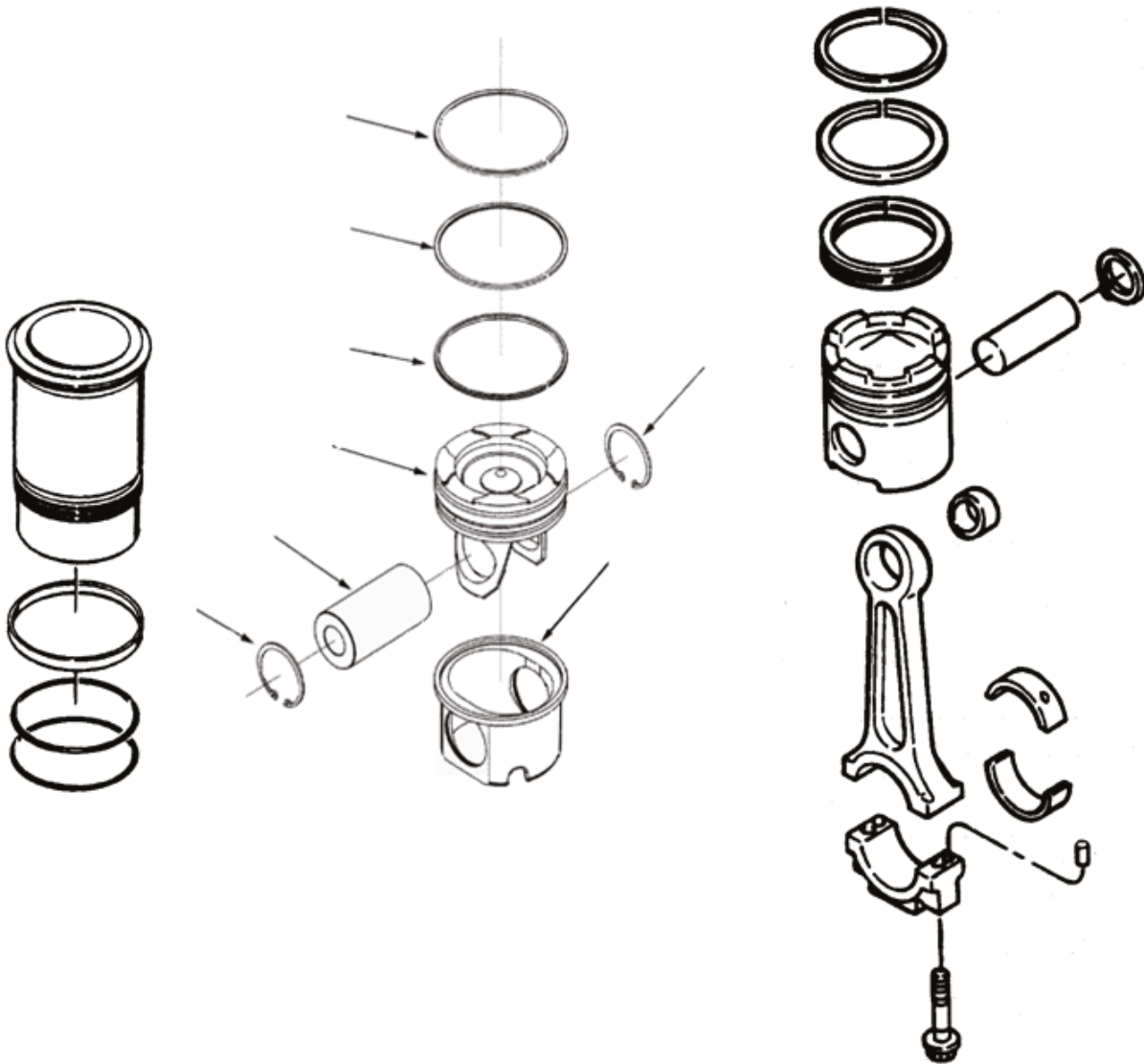
## Turbocharger

Ref	Part Number	Description	N14
01	FP-3202117	Gasket, Connection	1
11	FP-3069177	Gasket, Turbocharger	1
12	FP-3037537	Seal, O-Ring	1
13	FP-3056158	Nut, Hexagon Flange	4
14	FP-3037535	Elbow, Male Union	1
00	<b>FP-3801522</b>	<b>Seal Kit, Turbocharger</b>	
01	FP-201048	Gasket, Turbocharger	1
02	FP-201049	Gasket, Turbocharger	1
06	FP-3521441	Seal, O-Ring, Turbocharger	2
07	FP-3521442	Seal, O-Ring, Turbocharger	1
08	FP-3709510	Ring, Retaining P/Bolt	4
10	FP-3751948	Seal, O-Ring, Turbocharger	1
00	FP-3801523	Repair Kit, Turbocharger	
01	FP-201048	Gasket, Turbocharger	1
02	FP-201049	Gasket, Turbocharger	1
03	FP-3536075	Bearing, Thrust, Turbocharger (Previously FP-3532984)	1
04	FP-3521439	Slinger, Turbocharger	1
05	FP-3521440	Collar, Thrust Turbocharger	1
06	FP-3521441	Seal, O-Ring, Turbocharger	2
07	FP-3521442	Seal, O-Ring, Turbocharger	1
08	FP-3709510	Ring, Retaining P/Bolt	4
09	FP-3722366	Bearing, Turbocharger	2
10	FP-3751948	Seal, O-Ring, Turbocharger	1

# N14 Engine



## Cylinder & Piston Kits



## Cylinder & Piston Kits

Cylinder Kit	Piston Body	Liner	Ring Set	Piston Pin	Retainers	Crevice Seal	O-Rings
FP-3803753	FP-3081266	FP-3055099	FP-4089489	FP-3064304	FP-3064305	FP-215090 (1)	FP-3032874 (2)
FP-3803755	FP-3081268	FP-3055099	FP-4089489	FP-3064304	FP-3064305	FP-215090 (1)	FP-3032874 (2)
FP-3803757	FP-3081267	FP-3055099	FP-4089489	FP-3064304	FP-3064305	FP-215090 (1)	FP-3032874 (2)
FP-3803759	FP-3081269	FP-3055099	FP-4089489	FP-3064304	FP-3064305	FP-215090 (1)	FP-3032874 (2)

Above kits include items in shaded area

Piston Kit	Piston Body	Retainers	Comment
FP-3803752	FP-3081266	FP-3064305	NTA14E (Celect) Below 350 H.P. (Non-Anodized Crown)
FP-3803754	FP-3081268	FP-3064305	NTA14E (Celect) Above 350 H.P. (Anodized Crown)
FP-3803756	FP-3081267	FP-3064305	NTA14 (STC) Auto & Industrial Below 370 H.P. (Non-Anodized Crown)
FP-3803758	FP-3081269	FP-3064305	NTA14 (STC) Auto & Industrial Below 370 H.P. (Anodized Crown)

Above kits include items in shaded area

Piston Body	CPL Reference #
FP-3081266	CPL: 1386, 1391, 1392, 1393, 1394, 1540, 1574, 1649
FP-3081267	CPL: 1395, 1507, 1529, 1530, 1532
FP-3081268	CPL: 1309, 1324, 1384, 1385, 1389, 1390, 1426, 1445, 1533, 1534, 1535, 1536, 1537, 1538, 1548, 1572, 1573, 1575, 1580, 1611
FP-3081269	CPL: 1374, 1405, 1607, 1652

Liner Kit	Liner	Crevice Seal	O-Rings	Size
FP-3801387	FP-3046325	FP-215090 (1)	FP-3032874 (2)	0.020" UPF
FP-3801826	FP-3055099	FP-215090 (1)	FP-3032874 (2)	Standard
FP-3803219	FP-3065405	FP-215090 (1)	FP-3032874 (2)	0.020"/0.040" O.S

Above kits include items in shaded area

Ring Set	Top Ring	Comp Ring	Oil Ring
FP-4089489	FP-4058967	FP-4058968	FP-4058969

Above kits include items in shaded area

## Articulated Cylinder & Piston Kits

Piston Kit	Piston Crown	Piston Skirt	Ring Set	Piston Pin	Retainers	CPL Reference #
FP-3803739	FP-3087634 <sup>37</sup>	37	FP-4089489	FP-3064304	FP-3064305	CPL: 1807, 1833, 2027, 2038, 2330, 2389, 2575, 2590
FP-3803741	FP-3087635 <sup>37</sup>	37	FP-4089489	FP-3064304	FP-3064305	CPL: 1809, 1844, 1852, 1896, 1921, 1924, 1987, 2003, 2025, 2033, 2143, 2228, 2261, 2287, 2306, 2388, 2690, 2391, 2403, 2453, 2492, 2529, 2591, 2592, 2659, 8023, 9921, 9925, 9951
FP-3804630	FP-3865113 <sup>37</sup>	37	FP-4089489	FP-3064304	FP-3064305	CPL: 2026, 2398

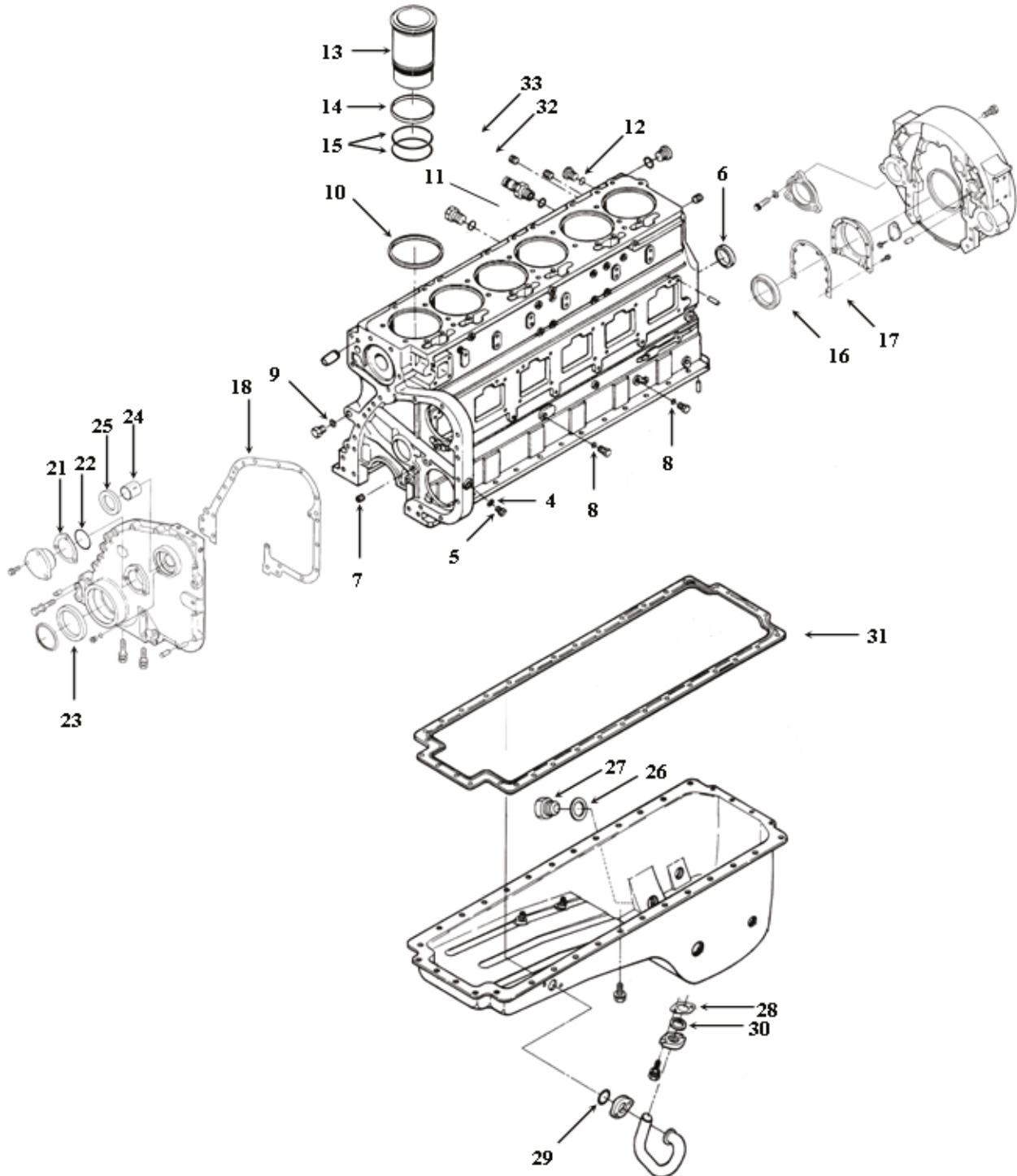
Cylinder Kit	Liner	Crevice Seal	Liner O-rings	Piston Crown	Piston Skirt	Ring Set	Piston Pin	Retainers	CPL Reference #
3804501 Use FP-3803742									
3804639 Use FP-3803740									
3804653 Use FP-3803740									
FP-3803740	FP-3055099	FP-215090 (1)	FP-3032874 (2)	FP-3087634 <sup>37</sup>	37	FP-4089489	FP-3064304	FP-3064305	CPL: 1807, 1833, 2027, 2038, 2330, 2389, 2575, 2590
FP-3803742	FP-3055099	FP-215090 (1)	FP-3032874 (2)	FP-3087635 <sup>37</sup>	37	FP-4089489	FP-3064304	FP-3064305	CPL: 1809, 1844, 1852, 1896, 1921, 1924, 1987, 2003, 2025, 2033, 2143, 2228, 2261, 2287, 2306, 2388, 2690, 2391, 2403, 2453, 2492, 2529, 2591, 2592, 2659, 8023, 9921, 9925, 9951
FP-3804636	FP-3055099	FP-215090 (1)	FP-3032874 (2)	FP-3865113 <sup>37</sup>	37	FP-4089489	FP-3064304	FP-3064305	CPL: 2026, 2398

<sup>37</sup>Not Sold Separately

# ISX/QSX Series



## Cylinder Block



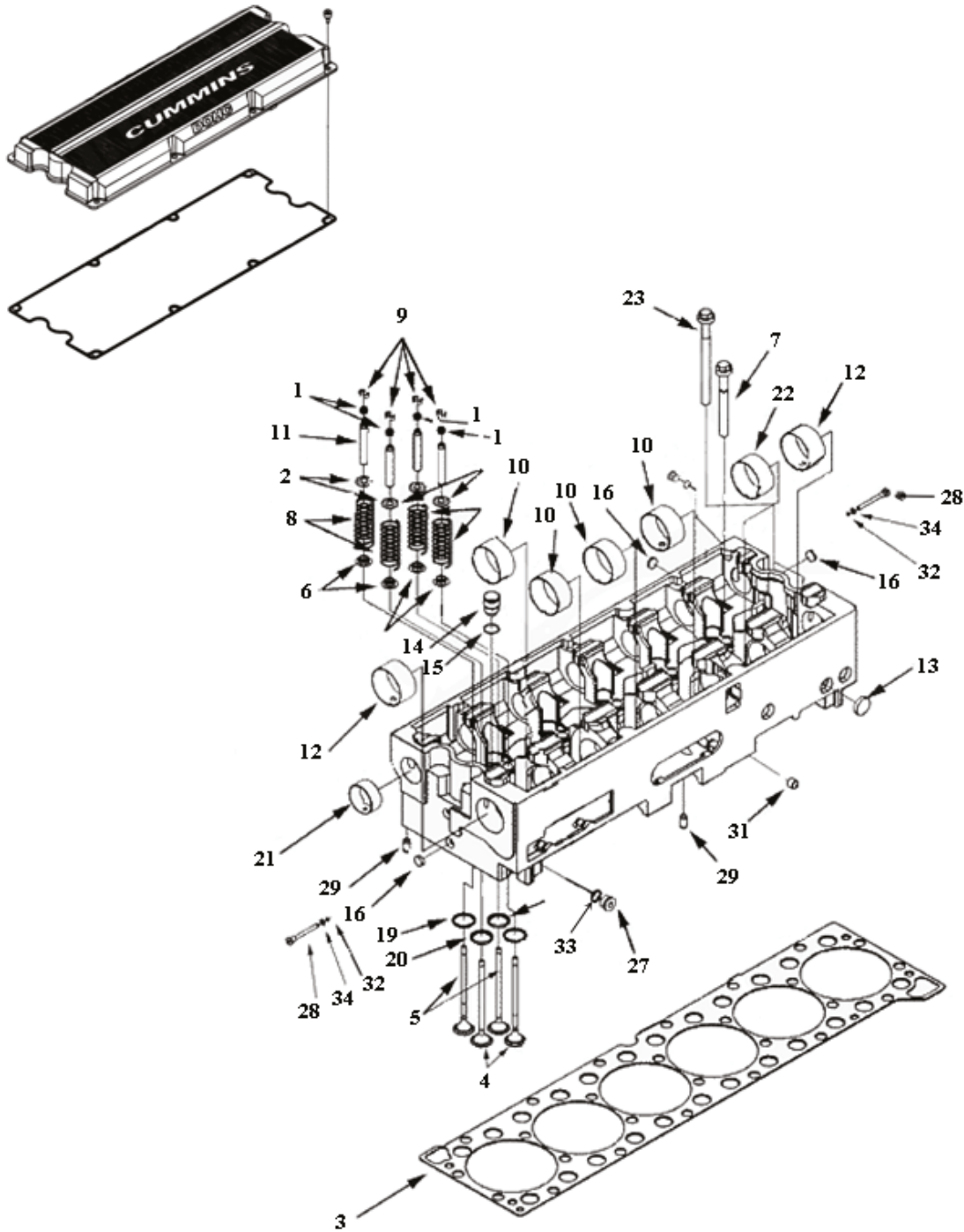
**Cylinder Block, Front & Rear Covers & Gasket Sets**

Ref	Part Number	Description	ISX	QSX
00	3903112	Screw, Hex Flange Head Cap	35	35
00	3678506	Screw, Hex Flange Head Cap	14	14
00	3678507	Dowel, Ring	14	14
00	3680781	Screw, Hex Flange Head Cap	10	10
00	3678610	Plug, Threaded	1	1
00	3680420	Plug, Threaded	1	1
00	4026621	Connection, Oil Suction	1	1
00	4026622	Clip	1	1
00	4955594	Gasket Set, Upper (Eng. Built Prior To 8/27/2001)	1	1
00	4955595	Gasket Set, Upper (Non-EGR Engines Up To S/N14022616)	1	1
00	FP-3678912	Seal, O-Ring	1	1
04	3678603	Seal, O-Ring	1	1
08	FP-3678912	Seal, O-Ring	1	1
09	3678603	Seal, O-Ring	1	1
10	3678751	Seal, Combustion	6	6
11	FP-3678912	Seal, O-Ring	4	4
12	FP-3678912	Seal, O-Ring	4	4
13	3681046	Liner, Cylinder	6	6
14	3678738	Seal, O-Ring	6	6
15	3678737	Seal, O-Ring	6	6
16	3680095	Seal, Oil	1	1
17	3680373	Gasket, Flywheel Housing	1	1
18	3681145	Gasket, Gear Housing	1	1
21	FP-3026134	Gasket, Cover Plate	1	1
22	4026490	Seal, O-Ring	1	1
23	4026488	Seal, Oil	1	1
24	3680239	Shaft, Idler	1	1
25	3680201	Bushing	1	1
26	3678606	Seal, O-Ring	2	2
27	3680534	Plug, Threaded	2	2
28	3678756	Seal, O-Ring	1	1
29	3678756	Seal, O-Ring	1	1
30	3678756	Seal, O-Ring	1	1
31	4026684	Gasket, Oil Pan	1	1
32	3330478	Seal, O-Ring	1	1
33	4001902	Sensor, Position	1	1

# ISX/QSX Series



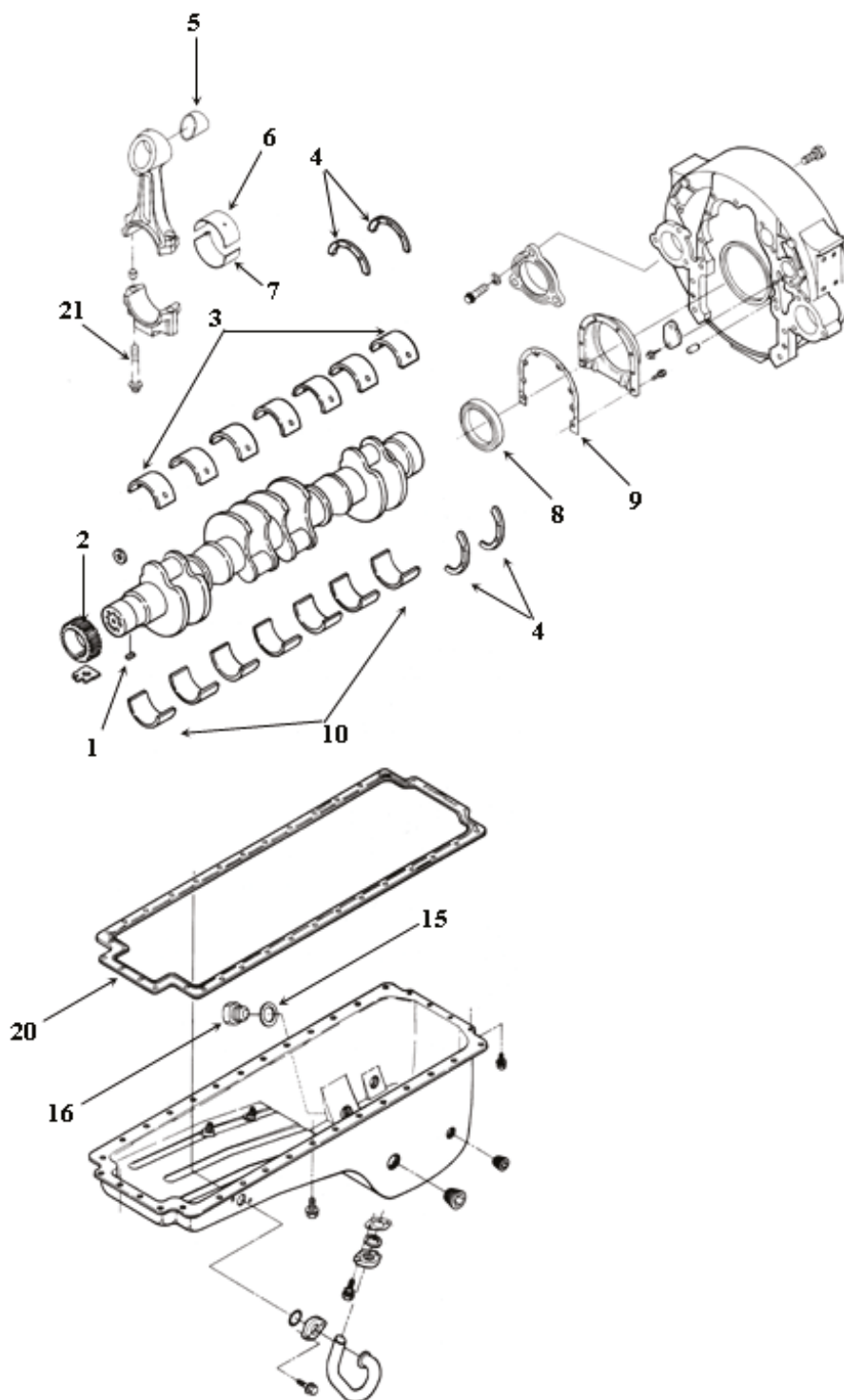
## Cylinder Head



**Cylinder Head**

Ref	Part Number	Description	ISX	QSX
00	3412426	Seal, Combustion	6	6
00	3678751	Seal, Combustion	6	6
00	3680955	Plug, Ball	4	4
00	3679418	Shaft, Rocker	1	1
01	4026791	Seal, Valve Stem	24	24
01	3813247	Plug, Expansion	1	1
02	3680884	Retainer, Valve Spring	24	24
03	4926316	Gasket, Cylinder Head	1	1
04	4965868	Valve, Intake	12	12
05	4101454	Valve, Exhaust	12	12
06	3680318	Seat, Valve Spring	24	24
07	3678506	Screw, Hex Flange Head Cap	22	22
08	3679551	Spring, Valve	24	24
09	FP-3680883	Collet, Valve	48	48
10	3680580	Bushing	4	4
11	4026657	Guide, Valve Stem	24	24
12	3680581	Bushing	3	3
13	3015865	Plug, Expansion	7	7
14	3412352	Sleeve, Injector	6	6
15	FP-3678536	Seal, Rectangular Ring	6	6
19	3679537	Insert, Valve (Exhaust)	12	12
20	3681071	Insert, Valve (Intake)	12	12
21	4026423	Bushing	7	7
23	3678804	Screw, Hex Flange Head Cap	4	4
27	3678611	Plug, Threaded	3	3
28	4920470	Plug, Threaded	6	6
29	3901846	Dowel, Pin	2	2
30	3679937	Gasket, Valve Cover	1	1
31	3911678	Dowel, Ring	2	2
32	3678603	Seal, O-Ring	1	1
33	3678606	Seal, O-Ring	1	1
34	3679122	Seal, O-Ring	1	1

## Crankshaft





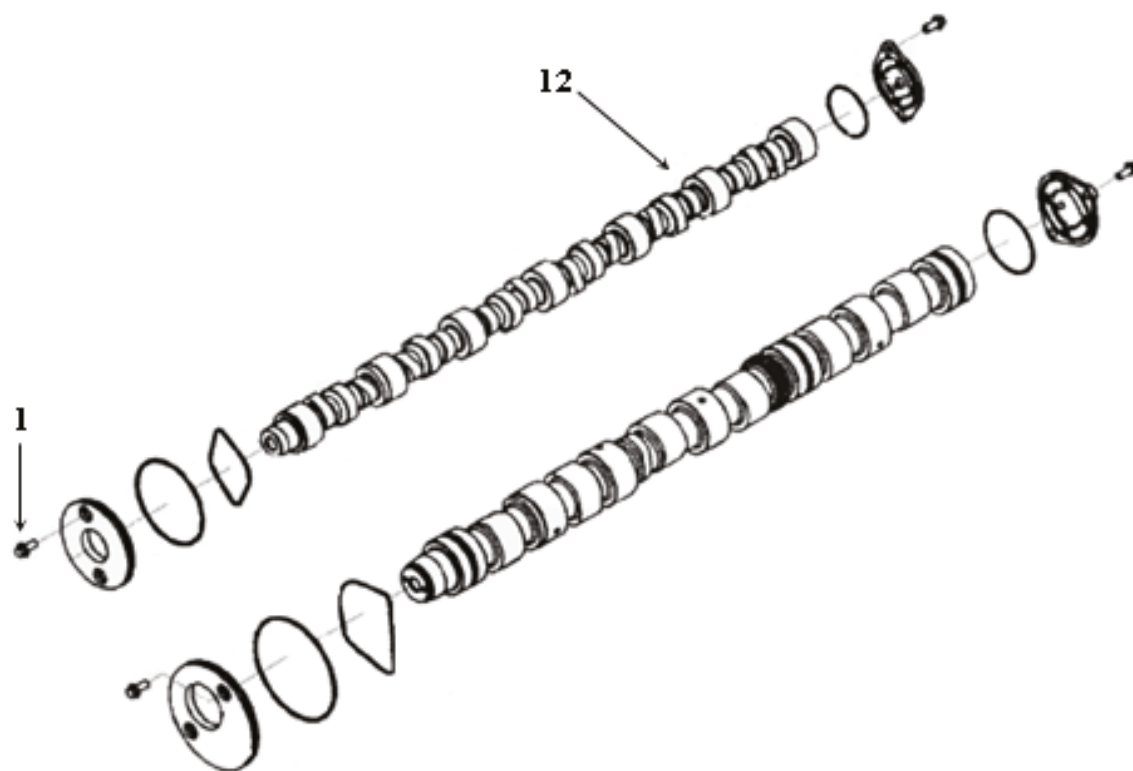
## Crankshaft

Ref	Part Number	Description	ISX	QSX
00	3608888	Crankshaft, Engine	1	1
00	3678739	Dowel, Ring	2	2
01	3068935	Dowel, Pin	2	2
02	3680542	Gear, Crankshaft	1	1
05	3679314	Bushing	3	3
06	4962705	Bearing, Connecting Rod (Upper)	6	6
07	4925975	Bearing, Connecting Rod (Lower)	6	6
09	4965688	Gasket, Flywheel Housing	1	1
15	3678606	Seal, Oil	2	2
16	3680534	Plug, Threaded	1	1
20	4026684	Gasket, Oil Pan	1	1
21	3678574	Screw, Connecting Rod Cap	24	24
00	<b>3800298</b>	<b>Set, Main Bearing (Std.)</b>	1	1
03	3678555	Main Bearing, Upper	7	7
10	3678556	Main Bearing, Lower	7	7
04	3680202	Thrust Bearing	4	4
00	<b>4089405</b>	<b>Connecting Rod Bearing Pair (Std.) - Drilled Upper</b>	6	6
00	4925971	Bearing, Connecting Rod (Upper) - Drilled	6	6
00	4925975	Bearing, Connecting Rod (Lower)	6	6
00	<b>4089845</b>	<b>Set, Main Bearing (.25mm)</b>	1	1
03	4907151	Main Bearing, Upper	7	7
10	4907153	Main Bearing, Lower	7	7
04	3680202	Thrust Bearing	4	4
00	<b>4089846</b>	<b>Set, Main Bearing (.50mm)</b>	1	1
03	4907152	Main Bearing, Upper	7	7
10	4907154	Main Bearing, Lower	7	7
04	3680202	Thrust Bearing	4	4
00	<b>4090016</b>	<b>Connecting Rod Bearing Pair (25mm) - Drilled Upper</b>	6	6
00	4925972	Bearing, Connecting Rod (Upper) - Drilled	6	6
00	4925976	Bearing, Connecting Rod (Lower)	6	6
00	<b>4090017</b>	<b>Connecting Rod Bearing Pair (50mm) - Drilled Upper</b>	6	6
00	4925973	Bearing, Connecting Rod (Upper) - Drilled	6	6
00	4925977	Bearing, Connecting Rod (Lower)	6	6
00	<b>4965569</b>	<b>Kit, Seal &amp; Spacer</b>	1	1
08	4962603	Seal, Oil	1	1
00	4918688	Spacer, Oil Seal	1	1

# ISX/QSX Series



## Camshaft, Follower & Accessory Drive



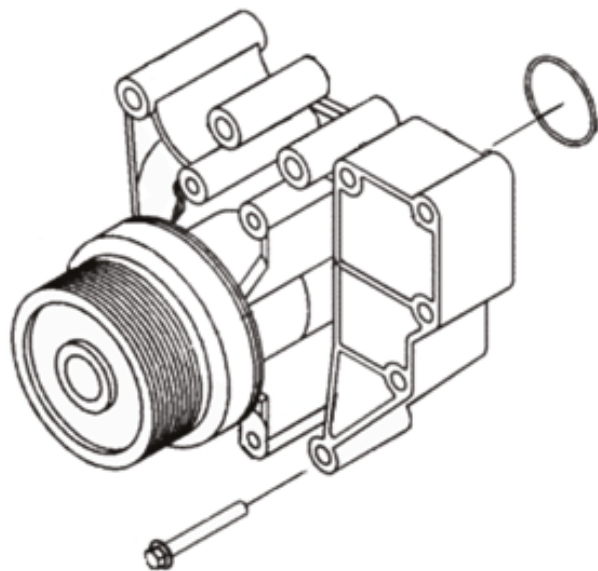
**Camshaft, Cam Follower & Accessory Drive**

Ref	Part Number	Description	ISX	QSX
00	3412284	Camshaft	1	1
00	3679929	Support, Camshaft Thrust	1	1
00	3679930	Support, Camshaft Thrust	1	1
00	3679931	Gasket, Camshaft Cover	1	1
00	3679932	Gasket, Camshaft Cover	1	1
00	3679933	Seal, O-Ring	1	1
00	3679934	Seal, O-Ring	1	1
00	4026587	Cover, Camshaft	1	1
00	4026588	Cover, Camshaft	1	1
00	4026522	Seal, Rectangular Ring		
00	4026523	Seal, Rectangular Ring		
01	3902460	Screw, Hex Flange Head Cap	8	8
02	3679930	Support, Camshaft Thrust	2	2
04	3681204	Gear, Camshaft	2	2
06	3679336	Roller, Cam Follower	4	4
07	3871558	Plug, Pipe	24	24
08	3680173	Pin, Cam Follower Roller	12	12
09	3678488	Bushing	12	12
10	3680173	Pin, Cam Follower Roller	12	12
11	3678488	Bushing	12	12
12	3681710	Camshaft	1	1

# ISX/QSX Series



## Water Pump





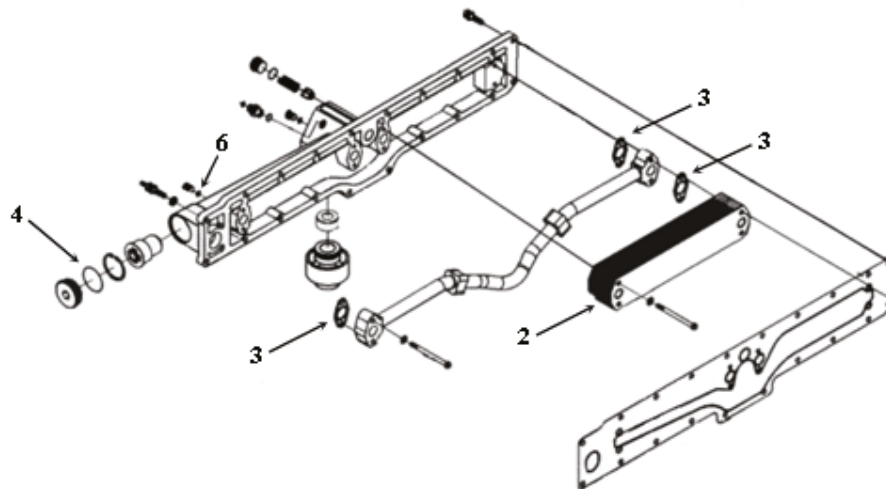
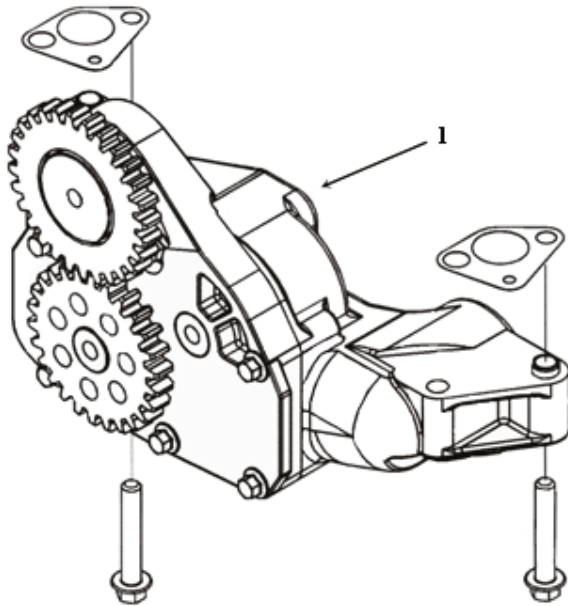
**Water Pump**

Ref	Part Number	Description	ISX	QSX
00	3678724	Seal, O-Ring	1	1
00	4089908	Kit, Water Pump	1	1

# ISX/QSX Series



## Cooling Components, Water Pump, Oil Pump, Th



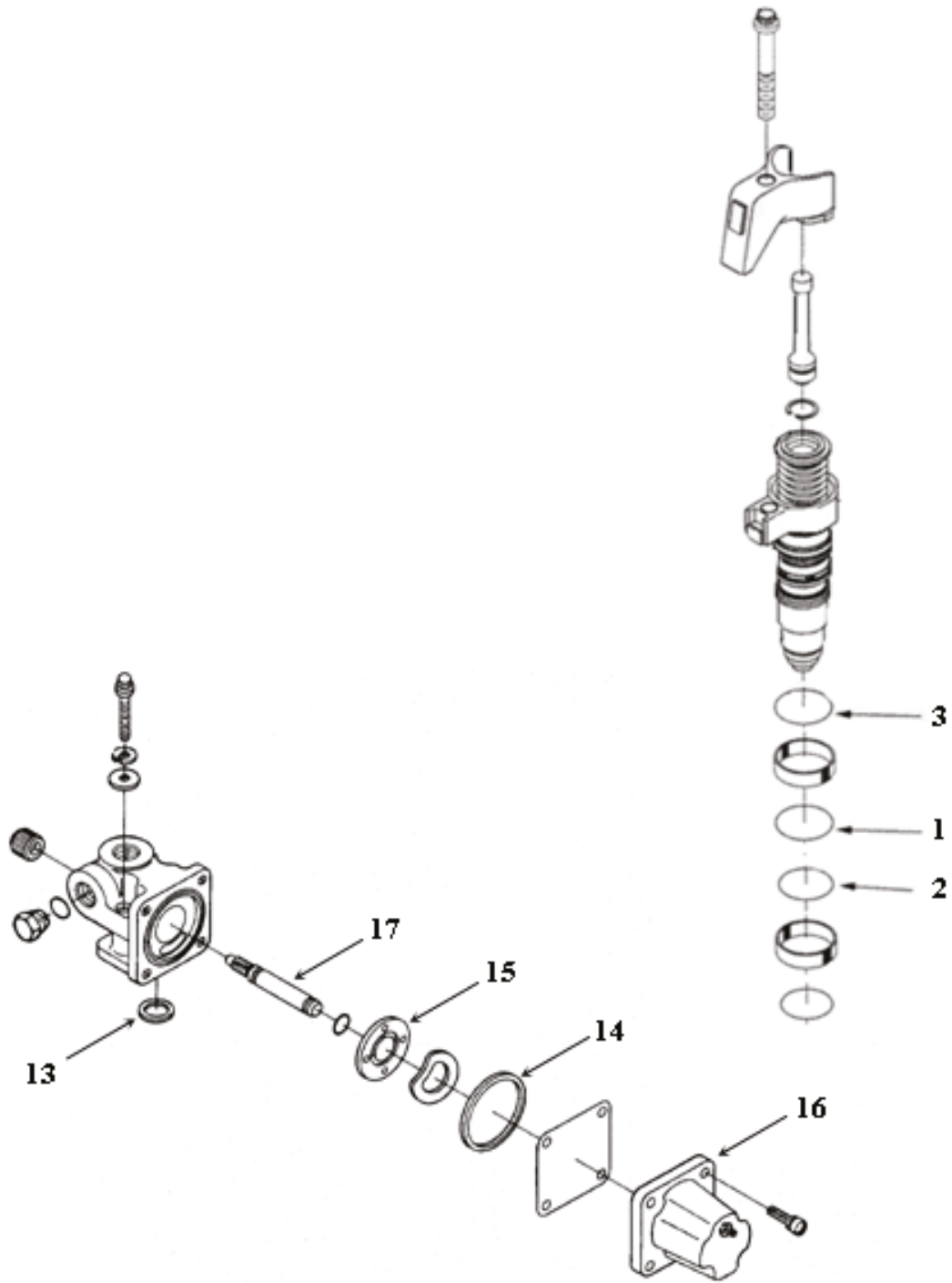
**Cooling Components, Water Pump, Oil Pump, Thermostat**

Ref	Part Number	Description	ISX	QSX
00	3411880	Head, Oil Filter Cooler	1	1
00	3411881	Ring, Retaining	1	1
00	3411882	Adapter, Filter Head	1	1
00	3418883	Assy, Oil Filter clr Head	1	1
00	3678606	Seal, O-Ring	1	1
00	3679770	Plug, Threaded	1	1
00	3679880	Plug, Threaded	1	1
00	3679954	Plug, Threaded	1	1
00	3680453	Thermostat	1	1
00	3680593	Plate, Cover	1	1
00	3680712	Gasket, Lub Oil clr Hsg	1	1
00	3680713	Gasket, Lub Oil clr Hsg	1	1
00	3800751	Kit, Shim	1	1
00	3800753	Kit, Lube Pump	1	1
00	3820320	Plunger, Bypass Valve	1	1
00	3882586	Spring, Compression	1	1
00	FP-3678786	Seal, O-Ring	1	1
00	3009330	Washer, Plain	20	20
00	3892692	Screw, Captive Washer Cap	20	20
00	3678921	Plug, Threaded	3	3
00	3328617	Screw, Captive Washer Cap	6	6
00	3680329	Washer, Sealing	8	8
00	3680596	Screw, Hex Flange Cap	8	8
01	4026691	Pump, Lubricating Oil	1	1
02	3680595	Core, Cooler	2	2
03	3680714	Gasket, Oil Cooler Core	4	4
04	3089025	Seal, O-Ring	1	1
06	FP-3678912	Seal, O-Ring	1	1

# ISX/QSX Series



## Fuel Components







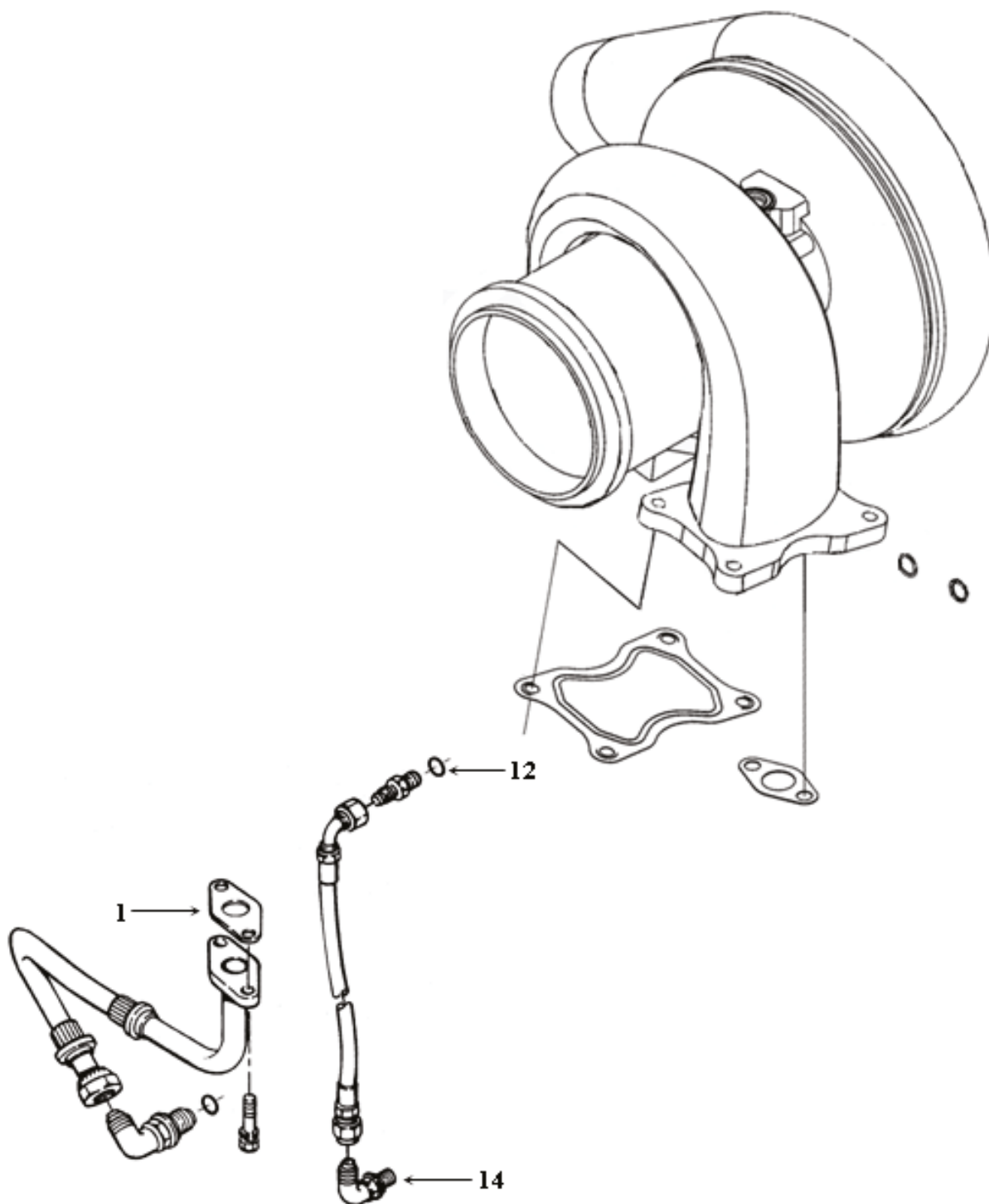
Fuel Components

Ref	Part Number	Description	ISX	QSX
01	FP-3330537	O-Ring, Fuel Injector	6	6
02	FP-3330538	O-Ring, Fuel Injector	6	6
03	FP-3347939	O-Ring, Fuel Injector (Black)	6	6
00	<b>FP-4024808</b>	<b>Kit, Fuel Solenoid</b>	1	1
14	FP-129888	Seal, Rectangular Ring	2	2
16	FP-3408421	Solenoid	1	1

# ISX/QSX Series



## Turbocharger





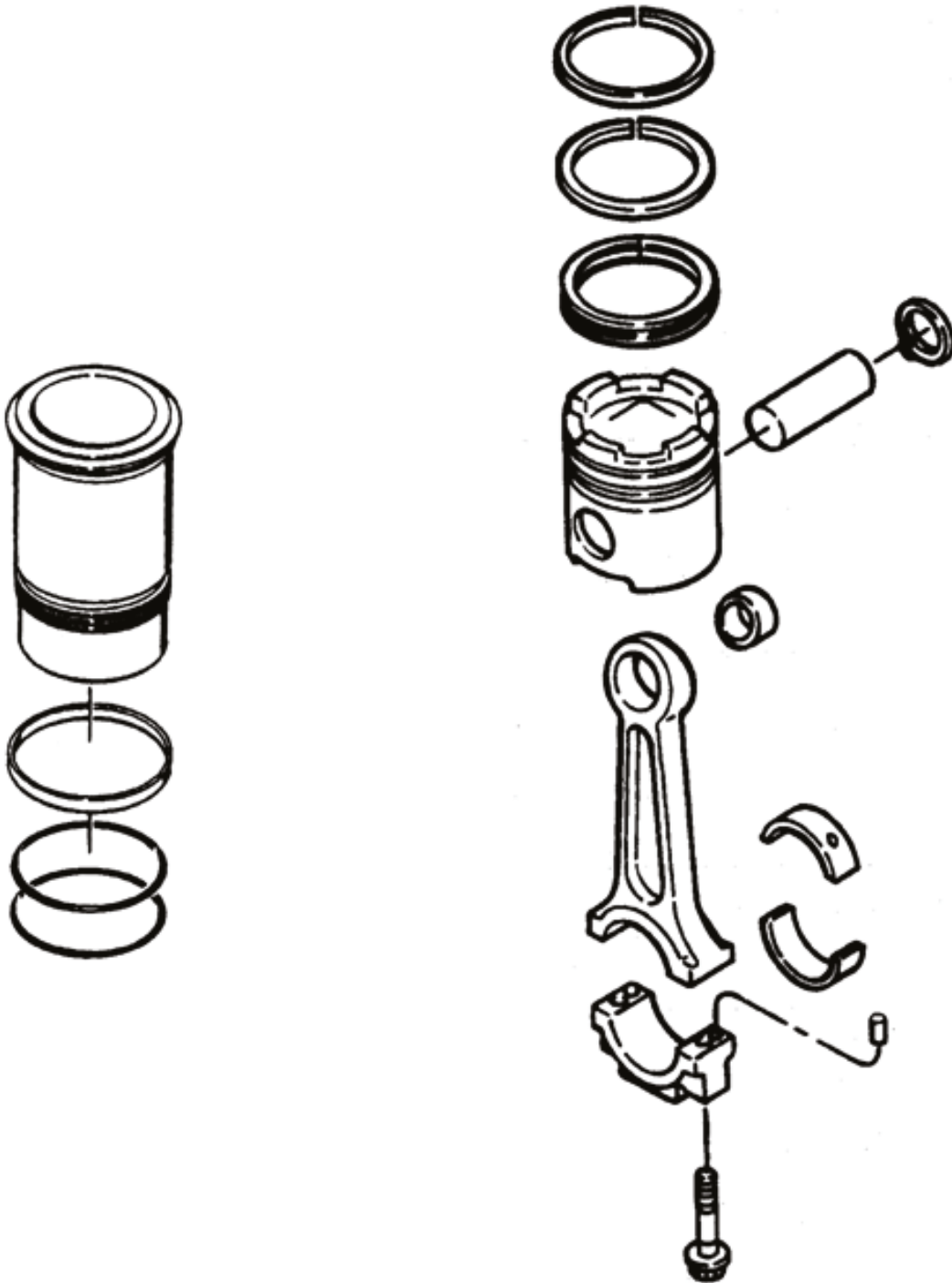
**Turbocharger**

Ref	Part Number	Description	ISX	QSX
00	3679139	Seal, O-Ring	1	1
00	3680324	Gasket, Flange	1	1
00	3680465	Gasket, Turbocharger	1	1
00	3800770	Kit, Turbocharger (Option PP10146)	1	1
00	3800774	Kit, Turbocharger (Option PP10147)	1	1
00	3800775	Kit, Turbocharger (Option PP10144)	1	1
00	3800775	Kit, Turbocharger (Option PP10149)	1	1
00	3883963	Seal, O-Ring	1	1

# ISX/QSX Series



## Cylinder Kits



## Cylinder Kits, Piston Kits, Liner Kits & Ring Set

Piston Kit	Piston	Liner Kit	Liner	Ring Set	Piston Pin	Piston Pin Retainer	CPL #
3800940	3681737	3800453	3681046	4089154	3678590	FP-3064305	PP2630
3800941	3681738	3800453	3681046	4089154	3678590	FP-3064305	PP2629

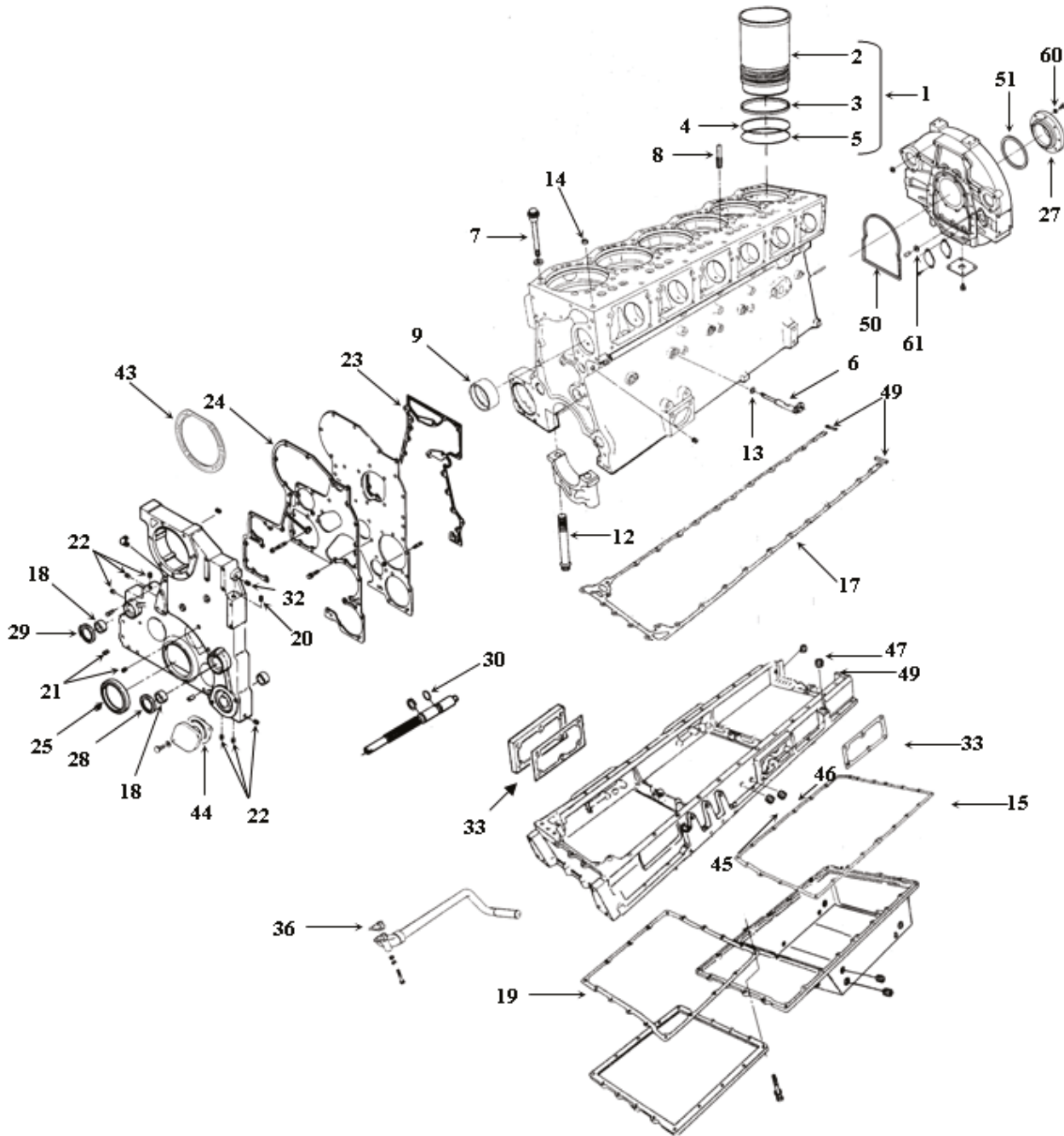
Liner Kit	Liner	Liner Seal	Ring Set	Pin
4089153	4101507	3678738	4089406	4923748

For 1 Piece Steel Pistons Only

# KT, KTA Series



## Cylinder Block



**Cylinder Block (KT19)**

Ref	Part Number	Description	K19	K38	K50
00	<b>FP-AR3880664</b>	Complete Cylinder Kit 14.5:1 C.R. (Kit Contents Are Listed Below)	6		
	FP-3004730	Piston Body			
	FP-4095009	Piston Pin			
	FP-205269	Piston Pin Retainers			
	FP-4089500	Single Cylinder Ring Set			
	FP-4009220	Cylinder Liner Bare (Standard), (Thick Flange .526"), (Previously FP-3202240)			
	FP-3011076	Seal, O-Ring (Cylinder Liner)			
	FP-3014668	Seal, O-Ring (Cylinder Liner)			
	FP-3081489	Seal, Crevice (Cylinder Liner)			
	FP-4000504	Filler Band, (Cylinder Liner)			
00	<b>FP-AR3880665</b>	Complete Cylinder Kit 15.5:1 C.R. (Kit Contents Are Listed Below)	6		
	FP-3026270	Piston Body			
	FP-4095009	Piston Pin			
	FP-205269	Piston Pin Retainers			
	FP-4089500	Single Cylinder Ring Set			
	FP-4009220	Cylinder Liner Bare (Standard), (Thick Flange .526"), (Previously FP-3202240)			
	FP-3011076	Seal, O-Ring (Cylinder Liner)			
	FP-3014668	Seal, O-Ring (Cylinder Liner)			
	FP-3081489	Seal, Crevice (Cylinder Liner)			
	FP-4000504	Filler Band, (Cylinder Liner)			

(The Following Thick Flanged LPF Cylinder Liners for Late Blocks FP-3028130 & FP-3060545)

Ref	Part Number	Description	K19	K38	K50
00	FP-4024767	Kit, Cylinder Liner (Standard), (Thick Flange .526"), (Previously FP-3028434)	6		
00	FP-4024768	Kit, Cylinder Liner (.020 O.S.), (Thick Flange .526"), (Previously FP-3028430)	6		
00	FP-4024769	Kit, Cylinder Liner (.040 O.S.), (Thick Flange .526"), (Previously FP-3028431)	6		
00	FP-4024771	Kit, Cylinder Liner (.083 O.S.), (Thick Flange .526"), (Previously FP-3024726)	6		
00	FP-4024772	Kit, Cylinder Liner (.095 O.S.), (Thick Flange .526"), (Previously FP-3028433)	6		
00	FP-4024773	Kit, Cylinder Liner (.020/.020), (Thick Flange .526"), (Previously FP-3803505)	6		
00	FP-4024774	Kit, Cylinder Liner (.060/.020), (Thick Flange .526"), (Previously FP-3803509)	6		
00	FP-4024775	Kit, Cylinder Liner (.060 O.S.), (Thick Flange .526"), (Previously FP-3803510)	6		
01	FP-4009220	Cylinder Liner Bare (Standard), (Thick Flange .526"), (Previously FP-3202240)	6		
01	FP-4009221	Cylinder Liner Bare (.020 O.S.), (Thick Flange .526"), (Previously FP-3202241)	6		
01	FP-4009222	Cylinder Liner Bare (.040 O.S.), (Thick Flange .526"), (Previously FP-3202242)	6		
01	FP-4009228	Cylinder Liner Bare (.083 O.S.), (Thick Flange .526"), (Previously FP-3024726)	6		
01	FP-4009230	Cylinder Liner Bare (.095 O.S.), (Thick Flange .526"), (Previously FP-3053800)	6		
01	FP-4009231	Cylinder Liner Bare (.020/.020), (Thick Flange .526"), (Previously FP-3074547)	6		
01	FP-4009232	Cylinder Liner Bare (.060/.020), (Thick Flange .526"), (Previously FP-3074551)	6		
01	FP-4009233	Cylinder Liner Bare (.060 O.S.), (Thick Flange .526"), (Previously FP-3074552)	6		

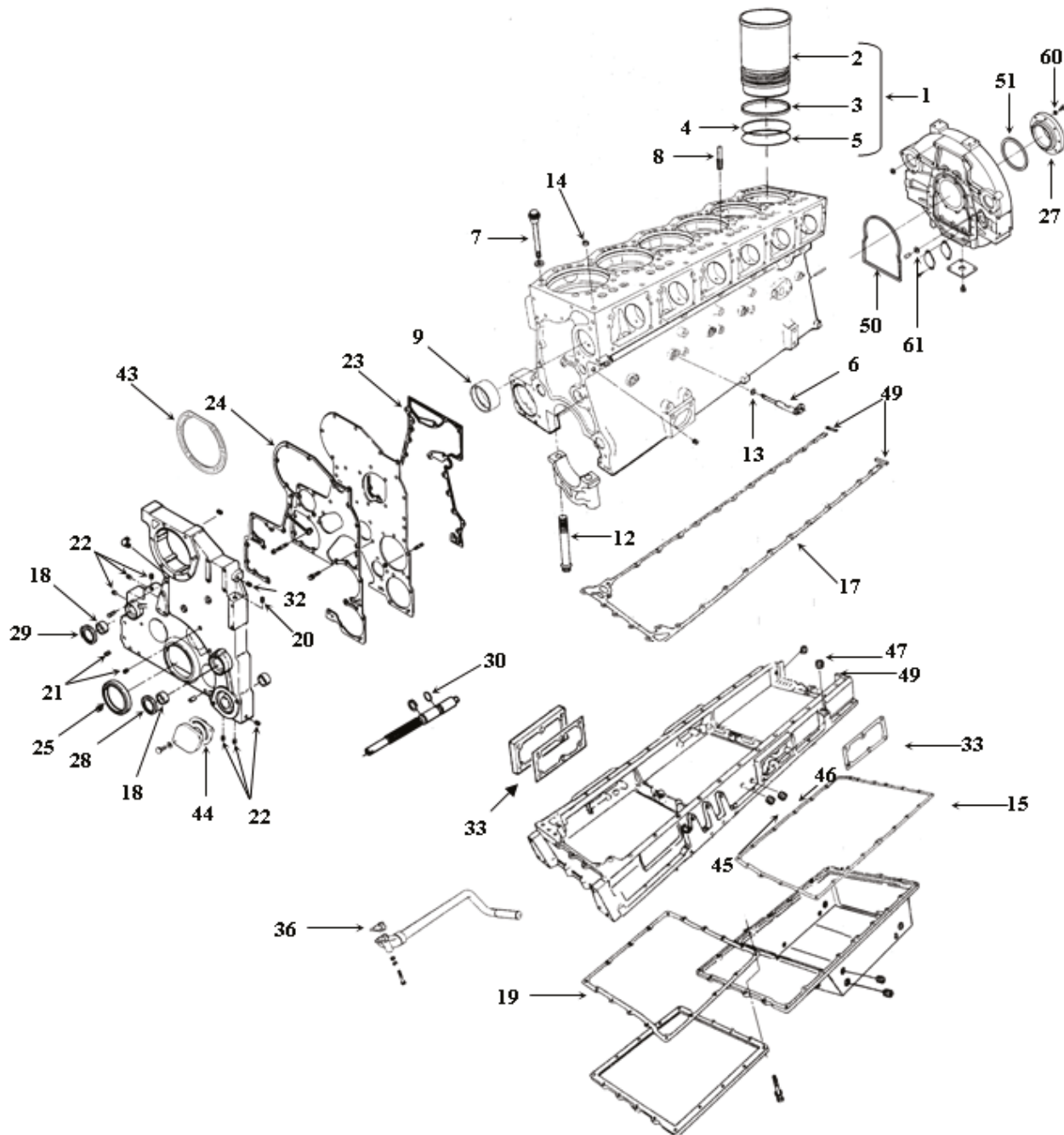
(The Following Thin Flanged UPF Cylinder Liner for Early Blocks FP-3001700 & FP-3005860)

Ref	Part Number	Description	K19	K38	K50
00	FP-4024770	Kit, Cylinder Liner UPF (Std.), (Thin Flange .306"), (Previously FP-3009549)	6		
01	FP-4009227	Cylinder Liner UPF (Std.), (Thin Flange .306"), (Previously FP-3007710)	6		

# KT, KTA Series



## Cylinder Block





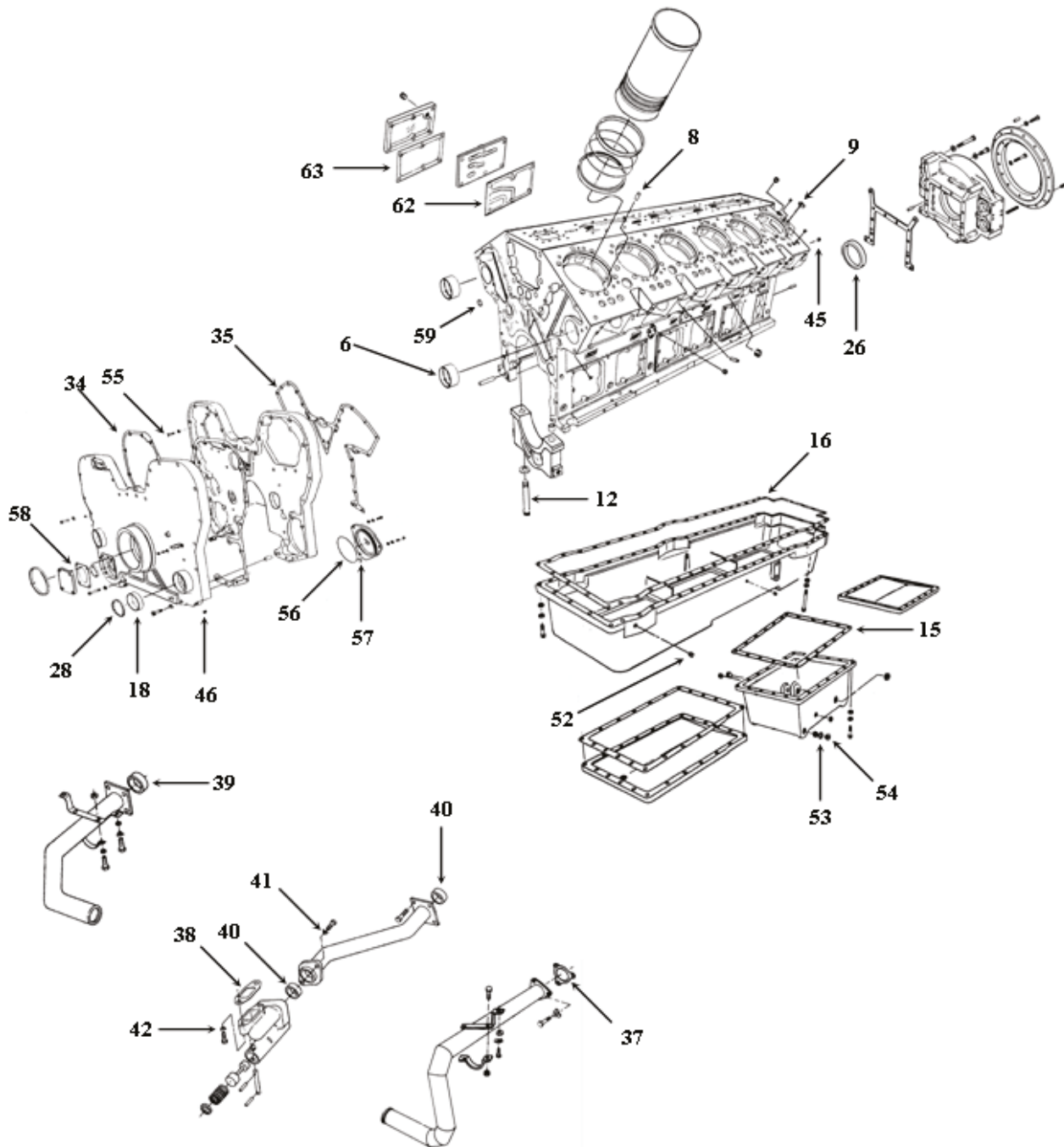
**Cylinder Block (KT38 & KT50)**

Ref	Part Number	Description	K19	K38	K50
00	FP-3088298	Laina, Liner 0.019" (Previously FP-3014227, FP-3074559)	6		
00	FP-3014226	Shim, Liner .007"	6		
00	FP-3014228	Shim, Liner .009"	6		
00	FP-4000504	Filler Band, (Cylinder Liner)	6		
00	FP-3007525	Kit, Cylinder Liner (Standard)		12	16
00	FP-3012611	Kit, Cylinder Liner (.010 O.S.)		12	16
00	FP-3012612	Kit, Cylinder Liner (.020 O.S.)		12	16
00	FP-3801268	Kit, Cylinder Liner (.030 O.S.)		12	16
00	FP-3801269	Kit, Cylinder Liner (.040 O.S.)		12	16
01	FP-3022157	Cylinder Liner Bare (Standard)		12	16
01	FP-3023017	Cylinder Liner Bare (.010 O.S.)		12	16
01	FP-3023018	Cylinder Liner Bare (.020 O.S.)		12	16
01	FP-3023019	Cylinder Liner Bare (.030 O.S.)		12	16
01	FP-3023020	Cylinder Liner Bare (.040 O.S.)		12	16
02	FP-3081489	Seal, Crevice (Cylinder Liner)	6	12	16
03	FP-3011076	Seal, O-Ring (Cylinder Liner)	6	12	16
04	FP-3014668	Seal, O-Ring (Cylinder Liner)	6	12	16
00	<b>FP-AR3880666</b>	<b>Complete Cylinder Kit 15.5:1 C.R. (Kit Contents Are Listed Below)</b>		6	6
	FP-3026270	Piston Body			
	FP-4095009	Piston Pin			
	FP-205269	Piston Pin Retainers			
	FP-4089500	Single Cylinder Ring Set			
	FP-3022157	Cylinder Liner Bare (Standard)			
	FP-3011076	Seal, O-Ring (Cylinder Liner)			
	FP-3014668	Seal, O-Ring (Cylinder Liner)			
	FP-3081489	Seal, Crevice (Cylinder Liner)			
00	<b>FP-AR3880667</b>	<b>Complete Cylinder Kit 14.5:1 C.R. (Kit Contents Are Listed Below)</b>		6	6
	FP-3004730	Piston Body			
	FP-4095009	Piston Pin			
	FP-205269	Piston Pin Retainers			
	FP-4089500	Single Cylinder Ring Set			
	FP-3022157	Cylinder Liner Bare (Standard)			
	FP-3011076	Seal, O-Ring (Cylinder Liner)			
	FP-3014668	Seal, O-Ring (Cylinder Liner)			
	FP-3081489	Seal, Crevice (Cylinder Liner)			

# KT, KTA Series



## Cylinder Block



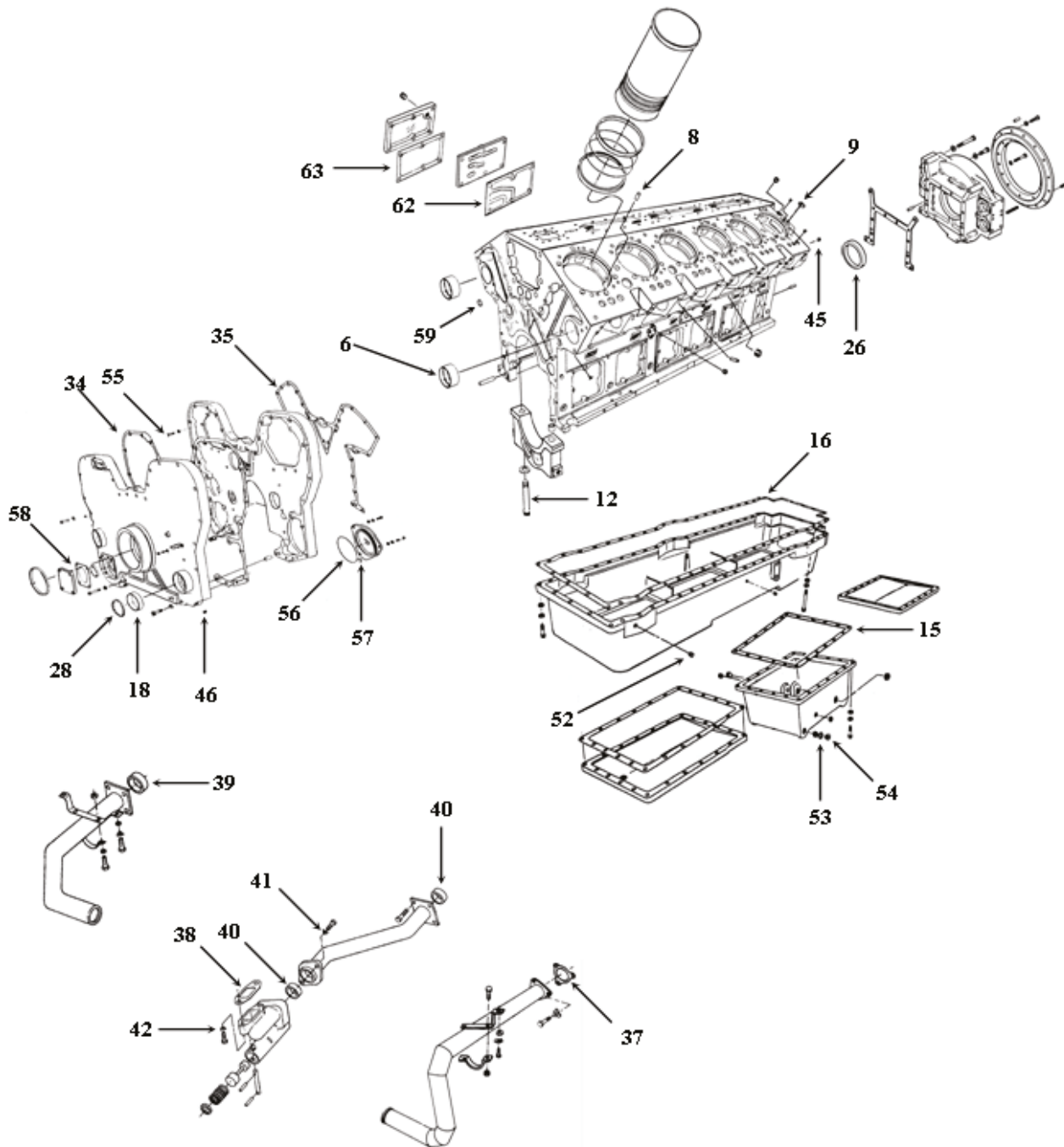
## Cylinder Block

Ref	Part Number	Description	K19	K38	K50
00	FP-43969A	O-Ring (Oil Cover Plate)		4	4
00	FP-S965E	Plug, Pipe (Gear Cover)		2	4
00	FP-3040722	Gasket, Camshaft Cover	1	2	2
00	FP-3040721	Gasket, Cam Follower Cover	6	12	16
00	FP-3803596	Gasket Set, Single Cylinder Head	6	12	16
00	FP-108172	Seal, O-Ring (Hand Hole)		1	1
00	FP-190397	Sleeve, Wear (Accessory Drive)		1	1
00	FP-205571	Gasket, Seal Retainer		1	1
00	FP-3006236	Sleeve, Front Crankshaft Seal	1	1	1
00	FP-3006237	Sleeve, Rear Crankshaft Seal	1	1	1
00	FP-3031544	Seal, Rectangular Ring (Lube Oil Suction Tube)		1	1
00	FP-3200287	Seal, Keyway		1	1
00	FP-3801897	STC Kit, Add To Upper Set For KTTA Models			1
00	FP-3803601	Gasket Set, Upper			1
00	FP-3804300	Gasket Set, Lower			1
00	FP-3913994	Seal, O-Ring		1	1
00	FP-200861	Washer, Plain (Flywheel Bolt)	9		
00	FP-206177	Gasket, Pressure Relief Valve Body		1	
00	FP-207551	Seal, O-Ring, Dust Seal (Flywheel Housing)		1	
00	FP-3005940	Gasket, Gear Housing		1	
00	FP-3007380	Gasket, Cover (Hydraulic Drive)	1		
00	FP-3007441	Seal, O-Ring, Piston Cooling Nozzle		12	
00	FP-3801896	STC Kit, Add To Upper Set For KTTA Models		1	
00	FP-3803597	Gasket Set, Upper (KT19)	1		
00	FP-3803600	Gasket Set, Upper		1	
00	FP-3804296	Gasket Set, Upper (KTA/KTTA19)	1		
00	FP-3804301	Gasket Set, Lower		1	
00	FP-4089390	Gasket Set, Lower (KT19) (Formerly FP-3801006)	1		
00	FP-4089391	Gasket Set, Lower (KTA/KTTA19) (Formerly FP-3801007)	1		
05	FP-3002834	Bushing, Camshaft	7		
06	FP-205230	Bushing, Camshaft		26	34
08	FP-68445	Pin, Groove	12	24	32
09	FP-206224	Plug, Expansion		15	21
13	FP-3015067	Seal, O-Ring	6		
15	FP-3043211	Gasket, Oil Pan			2
15	FP-3042590	Gasket, Oil Pan	1		
16	FP-3043213	Gasket, Oil Pan			1
16	FP-3043212	Gasket, Oil Pan		1	
17	FP-3042587	Gasket, Oil Pan Adapter (Late)	1		
17	FP-3042588	Gasket, Oil Pan Adapter (Early)	1		
18	FP-132770	Bushing, Accessory & Water Pump Drives	2		
19	FP-3073213	Gasket, Oil Pan Adapter (Late)	1		
20	FP-S965E	Plug, Pipe (Gear Cover)	1		
21	FP-3013786	Plug, Pipe (Gear Cover)	2	1	
22	FP-3002158	Plug, Pipe (Gear Cover)	6		
23	FP-3037282	Gasket, Gear Cover Plate To Block	1		

# KT, KTA Series



## Cylinder Block



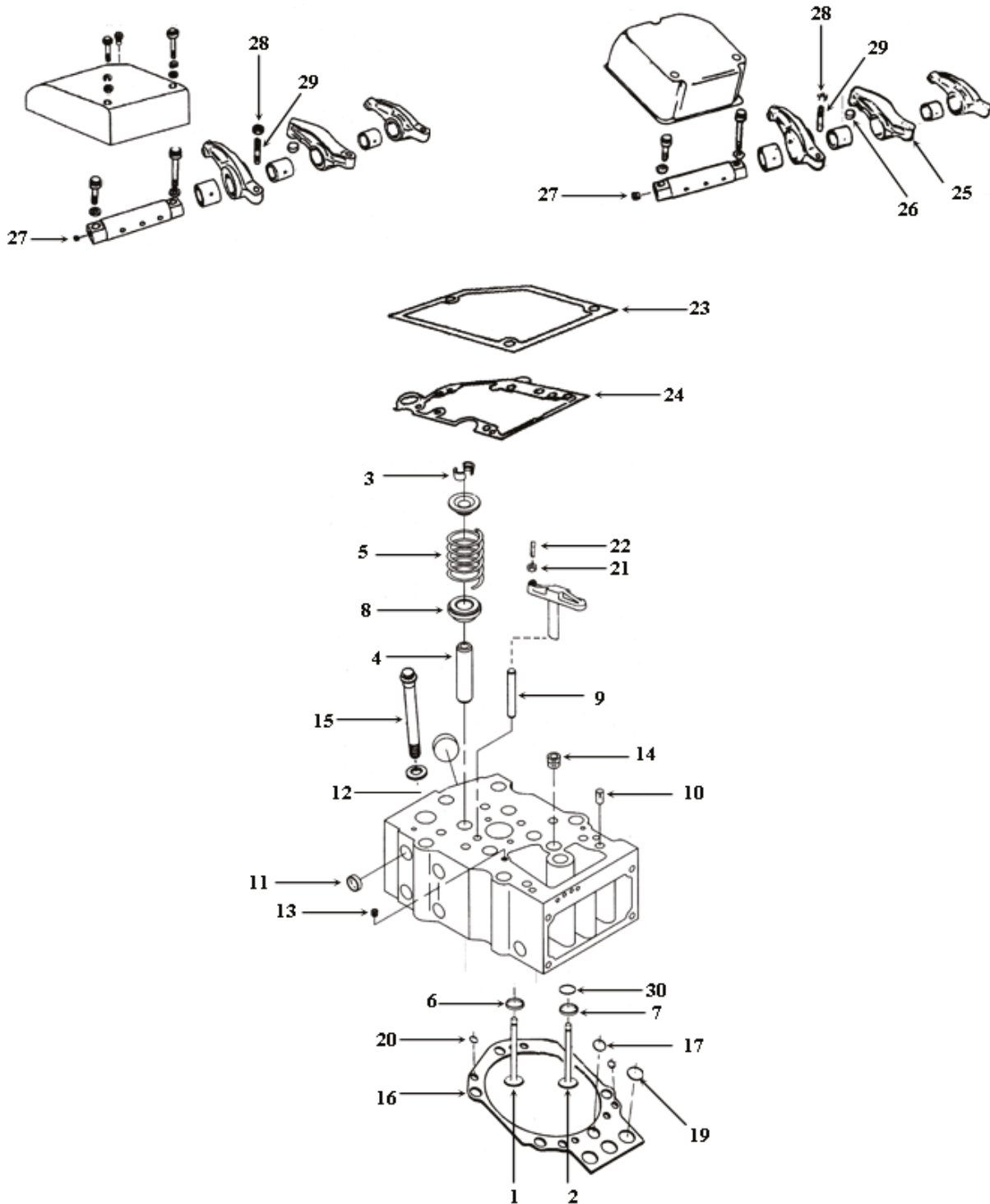
**Cylinder Block (Cont.)**

Ref	Part Number	Description	K19	K38	K50
24	FP-3001318	Gasket, Front Gear Cover Plate (KT19)	1		
24	FP-3074690	Gasket, Front Gear Cover Plate (KTA19) (3044762)	1		
25	FP-3016792	Seal, Oil Front Crankshaft	1	1	1
26	FP-3630681	Oil Seal Rear Crankshaft (Previously FP-3630681)		1	1
27	FP-3005885	Seal, Oil Crankshaft (Rear RR)	1		
27	FP-3005886	Seal, Oil Crankshaft (Rear RR) (Wet Housing)	1		
28	FP-3628895	Gear Cover Seal	1	2	2
29	FP-3016794	Seal, Oil Water Pump Drive	1		
30	FP-3201125	Seal, O-Ring	1		
32	FP-175831	Cup Plug, Barring	1		
33	FP-3042586	Gasket, Hand Hole Cover	3		
34	FP-3177160	Gasket, Front Cover		1	1
35	FP-3178076	Gasket, Gear Cover		1	1
36	FP-3008403	Gasket, Oil Connection (Oil Suction Tube)	1		
37	FP-206013	Gasket, Oil Connection (Oil Suction Tube)		1	
38	FP-3000632	Gasket, Oil Connection (Oil Suction Tube)			1
39	FP-3026391	Seal, Rectangular Ring			1
40	FP-3026392	Seal, Rectangular Ring			2
40	FP-3026393	Seal, Rectangular Ring		2	
41	FP-68908	Lockplate			2
42	FP-151355	Lockplate			2
43	FP-3042612	Gasket, Fan Hub	1		
44	FP-3008400	Gasket, Cover (Hydraulic Drive)	1		
45	FP-3013786	Plug, Pipe (Gear Cover)	1	5	8
45	FP-3013786	Plug, Pipe (Gear Cover)		5	8
46	FP-3002158	Plug, Pipe (Gear Cover)	1		
47	FP-153518	Seal, Bolt	4		
48	FP-205241	Strip, Rectangular Sealing	2		
49	FP-3046201	Seal, O-Ring	1		
50	FP-3096260	Ribbed Type Rectangular Label (Previously FP-205239)	1		
51	FP-205247	Seal, O-Ring	1		
52	FP-67622	Plug, Pipe		2	
53	FP-67946	Washer, Plain		2	8
54	FP-3055069	Plug, Threaded		2	3
55	FP-103009	Screw, Hexagon Head Cap (Front Gear Cover)		8	
56	FP-3818885	O-Ring (Hydraulic Cover)		1	
57	FP-145600	O-Ring (Hydraulic Cover)		3	
58	FP-206407	Gasket, Hydraulic Cover		1	
59	FP-175830	Plug, Expansion	2	8	12
60	FP-S631	Washer, Plain	8		
61	FP-172648	Seal, Rectangular Ring	12		
62	FP-3177108	Gasket, Filter Head		1	1
63	FP-3628973	Gasket, Oil Transfer (Formerly FP-3011651)		1	1

# KT, KTA Series



## Cylinder Head



## Cylinder Head

Ref	Part Number	Description	K19	K38	K50
00	FP-3803515	Kit, Valve, Standard Intake (Silichrome 1), (W/Lock)	12	24	32
00	FP-3803518 <sup>9</sup>	Kit, Valve, Premium Intake (Tribaloy), (W/Lock)	12	24	32
00	FP-3803528	Kit, Valve, Premium Exhaust (Inconel), (W/Lock)	12	24	32
00	FP-3803529	Kit, Valve, Standard Exhaust (Stellite 6), (W/Lock)	12	24	32
00	FP-208084	Rivet	6	12	16
00	FP-3037821	Gasket, Exhaust Manifold		12	16
00	FP-3803596	Gasket Set, Single Cylinder Head	6	12	16
00	FP-3043097	Gasket, Exhaust Manifold	6		
01	FP-3088389	Valve, Premium Exhaust (Inconel)	12	24	32
01	FP-3088391	Valve, Standard Exhaust (Stellite 6)	12	24	32
02	FP-3052820 <sup>9</sup>	Valve, Premium Intake (Tribaloy)	12	24	32
02	FP-3088393	Valve, Standard Intake (Silichrome 1)	12	24	32
03	FP-205091	Collet, Valve	48	96	128
04	FP-3018818	Guide, Valve Flat Top (3.800" Standard Length)	12	24	32
04	FP-3202210	Guide, Valve 45° Taper Top (3.580" Standard Length)	12	24	32
05	FP-3633840	Spring, Valve Short (Nitrided), (Check For Availability)	24	48	64
05	FP-3629006	Spring, Valve Long (Carbon Steel) (Previously FP-205208)	12	24	32
06	FP-205093	Insert, Exhaust Valve (Standard 2.381")	12	24	32
07	FP-3026296	Insert, Intake Valve (Standard 2.381")	12	24	32
07	FP-3031098	Insert, Intake Valve (2.391" O.S.)	12	24	32
07	FP-3031099	Insert, Intake Valve (2.401" O.S.)	12	24	32
07	FP-3052819 <sup>9</sup>	Insert, Intake Valve (Tribaloy Standard 2.381")	12	24	32
08	FP-3081081	Rotator, Valve Spring	12	24	32
09	FP-205169	Crosshead Guide	12	24	32
10	FP-68445	Pin, Groove	12	24	32
11	FP-205401	Plug, Expansion	48	96	128
12	FP-206224	Plug, Expansion	12	24	32
13	FP-67622	Plug, Pipe	6	12	16
13	FP-3002158	Plug, Pipe	1	1	1
14	FP-S915A	Plug, Pipe	6	12	16
16	FP-3126287	Cylinder Head Gasket O/S	6	12	16
16	FP-3166288	Standard Cylinder Head Gasket (Previously FP-3022340)	6	12	16
20	FP-207448	Grommet, Cylinder Head Water	24	48	64
21	FP-203131	Nut, Locking	12	24	32
22	FP-147389	Screw, Adjusting	12	24	32
23	FP-4922219	Gasket, Rocker Lever Cover	6	12	16
24	FP-3201517	Gasket, Rocker Lever Housing	6	12	16
25	FP-3013300	Lever, Rocker (Injector), (Early)	6		
26	FP-194037	Socket, Rocker Lever	6	12	16
27	FP-203933	Plug, Expansion (Rocker Lever Shaft)	6	12	16
28	FP-S212	Nut, Regular Hexagon	18	36	48
29	FP-168306	Screw, Slotted Set	18	36	48
30	FP-3009109	Plate, Swirl	12	24	32

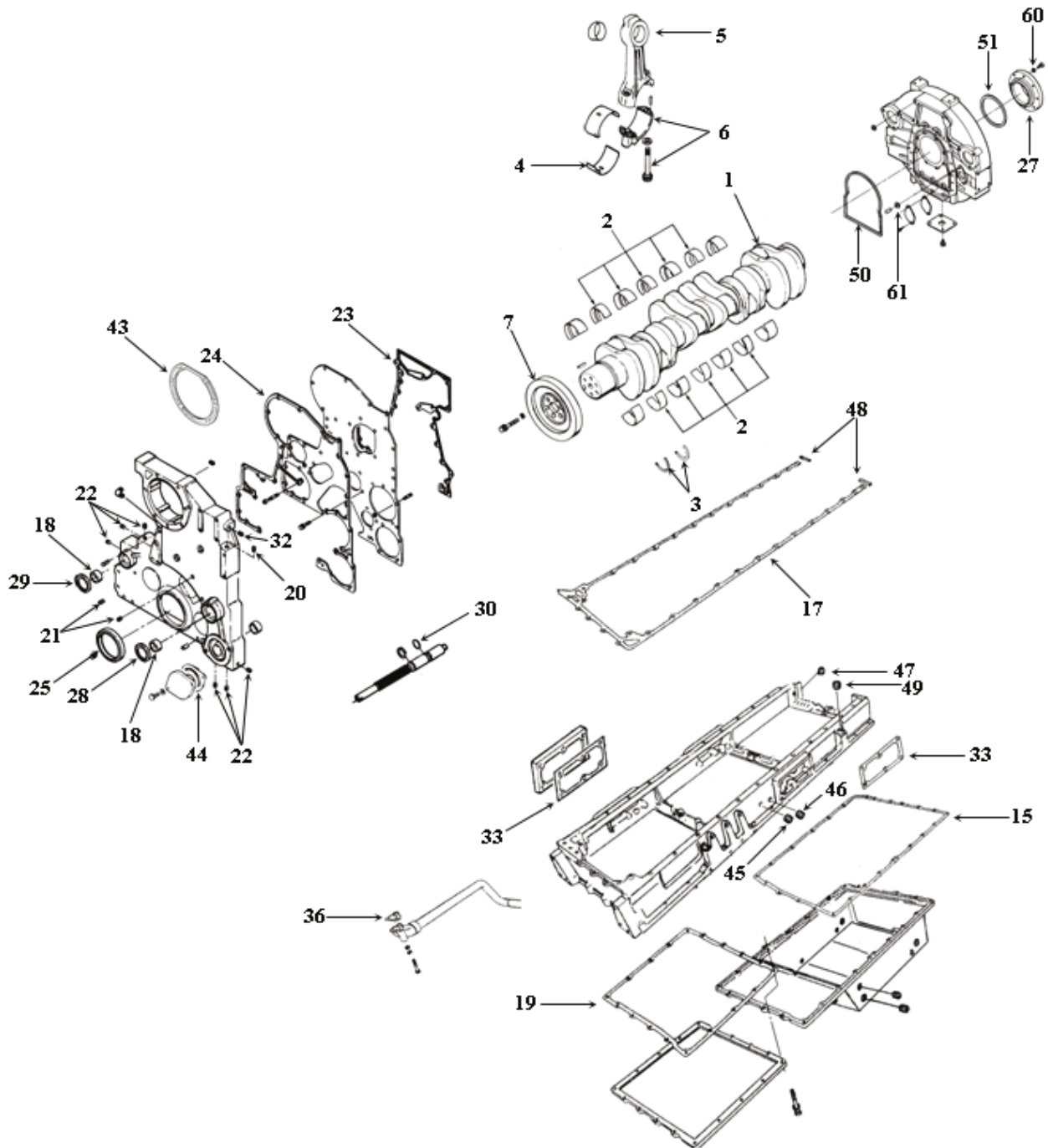
<sup>9</sup>Must use with Tribaloy Valve Insert FP-3052819



# KT, KTA Series



## Crankshaft





**Crankshaft**

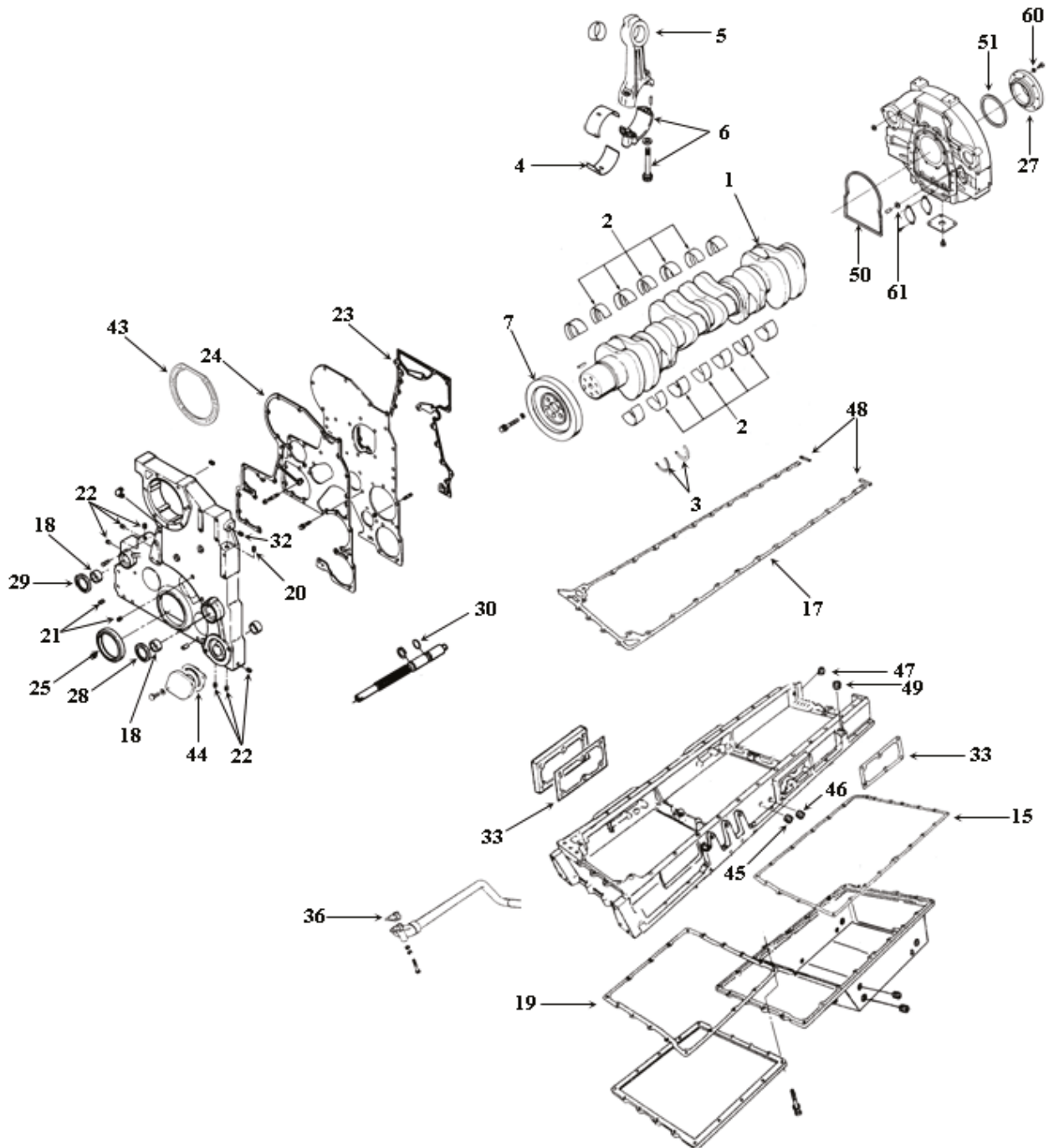
Ref	Part Number	Description	K19	K38	K50
00	FP-108172	Seal, O-Ring (Hand Hole)		1	1
00	FP-3006236	Sleeve, Front Crankshaft Seal	1	1	1
00	FP-3006237	Sleeve, Rear Crankshaft Seal	1	1	1
00	FP-3018210 <sup>35</sup>	Bearing Set, Main Standard			1
00	FP-3018211	Bearing Set, Main (.010)			1
00	FP-3018212	Bearing Set, Main (.020)			1
00	FP-3031544	Seal, Rectangular Ring (Lube Oil Suction Tube)		1	1
00	FP-3630681	Rear Crankshaft Seal (Previously FP-3016793)		1	1
00	FP-3913994	Seal, O-Ring		1	1
00	FP-3007380	Gasket, Cover (Hydraulic Drive)	1		
00	FP-AR12250	Bearing Set, Main Standard		1	
00	FP-AR12251	Bearing Set, Main (.010)		1	
00	FP-AR12252	Bearing Set, Main (.020)		1	
01	FP-3096362	Crankshaft, W/O Gear	1		
02	FP-AR12270	Bearing Set, Main Standard	1		
02	FP-AR12271	Bearing Set, Main (.010)	1		
02	FP-AR12272	Bearing Set, Main (.020)	1		
02	FP-AR12273	Bearing Set, Main (.030)	1		
03	FP-3000139	Thrust Washer Standard		2	2
03	FP-205112	Thrust Washer Standard	4		
03	FP-205112S	Thrust Washer Set (4 Pieces)	1		
03	FP-3001197 <sup>35</sup>	Thrust Washer (.020 O.S.)	4		
04	FP-3047390	Bearing Half, Connecting Rod (Std.)		24	32
04	FP-3047391	Bearing Half, Connecting Rod (.010)		24	32
04	FP-3047392	Bearing Half, Connecting Rod (.020)		24	32
04	FP-3047393	Bearing Half, Connecting Rod (.030)		24	32
04	FP-205840	Bearing Half, Connecting Rod (Std.)	12		
04	FP-205841	Bearing Half, Connecting Rod (.010)	12		
04	FP-205842	Bearing Half, Connecting Rod (.020)	12		
04	FP-205843	Bearing Half, Connecting Rod (.030)	12		
05	FP-3043909	Bushing, Connecting Rod	6	12	16
07	FP-217322	Damper, Vibration	1		
15	FP-3043211	Gasket, Oil Pan			2
15	FP-3042590	Gasket, Oil Pan	1		
16	FP-3043213	Gasket, Oil Pan			1
16	FP-3043212	Gasket, Oil Pan		1	
17	FP-3042587	Gasket, Oil Pan Adapter (Late)	1		
17	FP-3042588	Gasket, Oil Pan Adapter (Early)	1		
18	FP-132770	Bushing, Accessory & Water Pump Drives	2		
19	FP-3073213	Gasket, Oil Pan Adapter (Late)	1		
20	FP-S965E	Plug, Pipe (Gear Cover)	1		
21	FP-3013786	Plug, Pipe	2	1	
22	FP-3002158	Plug, Pipe (Oil Pan)	6		
23	FP-3037282	Gasket, Gear Cover Plate To Block	1		
24	FP-3074690	Gasket, Front Gear Cover Plate (FP-3044762)	1		
25	FP-3016792	Seal, Oil Front Crankshaft	1	1	1
27	FP-3630681	Oil Seal Rear Crankshaft (Previously FP-3016793)		1	1
27	FP-3005885	Seal, Oil Crankshaft (Rear RR)	1		

<sup>35</sup>Discontinued

# KT, KTA Series



## Crankshaft



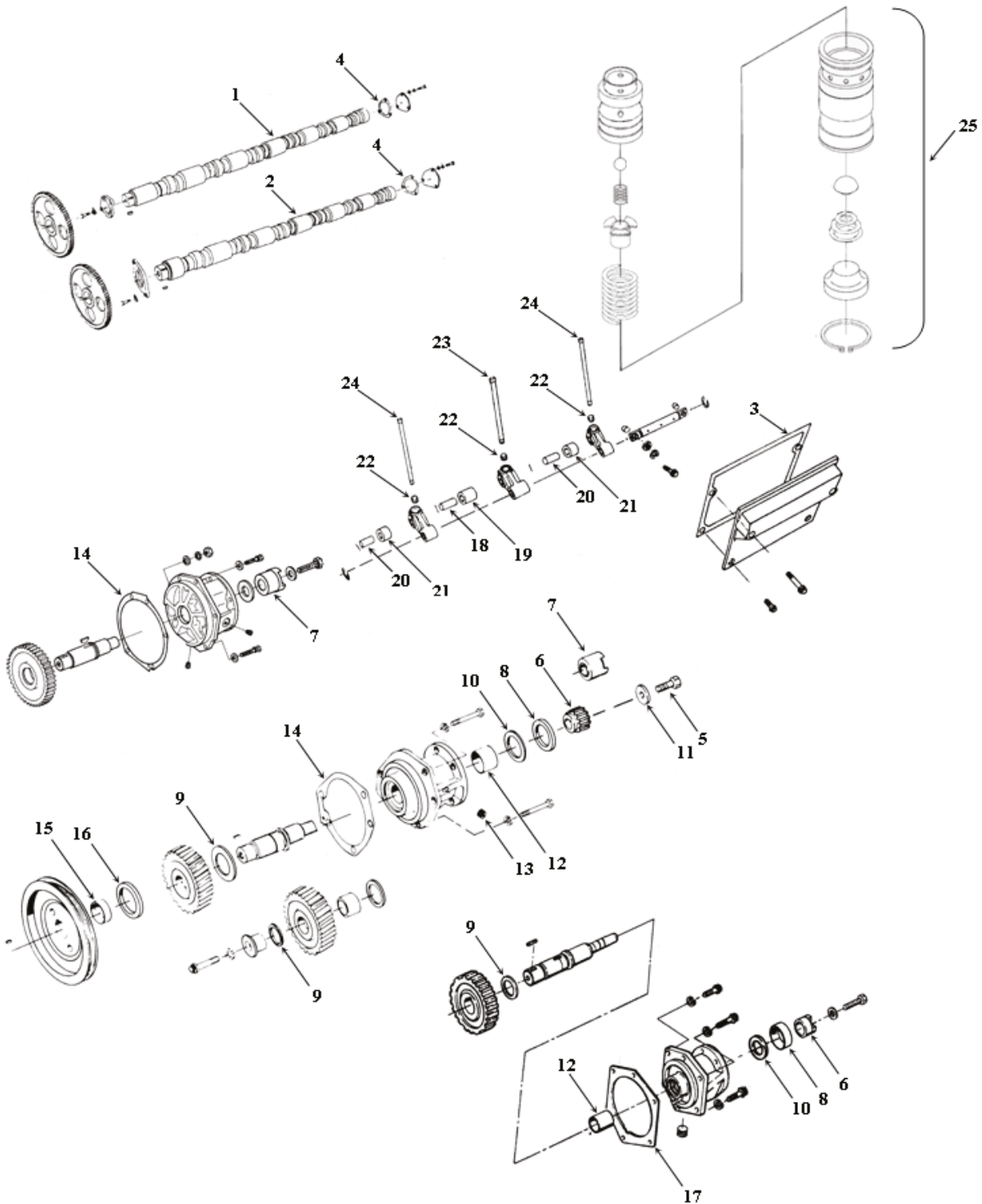
**Crankshaft (Cont.)**

Ref	Part Number	Description	K19	K38	K50
27	FP-3005886	Seal, Oil Crankshaft (Rear RR) (Wet Housing)	1		
28	FP-3628895	Gear Cover Seal	1	2	2
29	FP-3016794	Seal, Oil Water Pump Drive	1		
30	FP-3201125	Seal, O-Ring	1		
32	FP-175831	Cup Plug, Barring	1		
33	FP-3042586	Gasket, Hand Hole Cover	3		
36	FP-3000632	Gasket, Oil Connection (Oil Suction Tube)			1
36	FP-206013	Gasket, Oil Connection (Oil Suction Tube)		1	
36	FP-3008403	Gasket, Oil Connection (Oil Suction Tube)	1		
43	FP-3042612	Gasket, Fan Hub	1		
44	FP-3008400	Gasket, Cover (Hydraulic Drive)	1		
45	FP-3013786	Plug, Pipe	1	5	8
46	FP-3002158	Plug, Pipe (Oil Pan)	1		
47	FP-153518	Seal, Bolt	4		
48	FP-205241	Strip, Rectangular Sealing (Oil Pan)	2		
49	FP-3046201	Seal, O-Ring	1		
50	FP-3096260	Seal, Rectangular Section (Previously FP-205239)	1		
51	FP-205247	Seal, O-Ring	1		
60	FP-S631	Washer, Plain	8		
61	FP-172648	Seal, Rectangular Ring	12		

# KT, KTA Series



## Camshaft, Cam Follower & Accessory Drive



**Camshaft, Cam Follower & Accessory Drive**

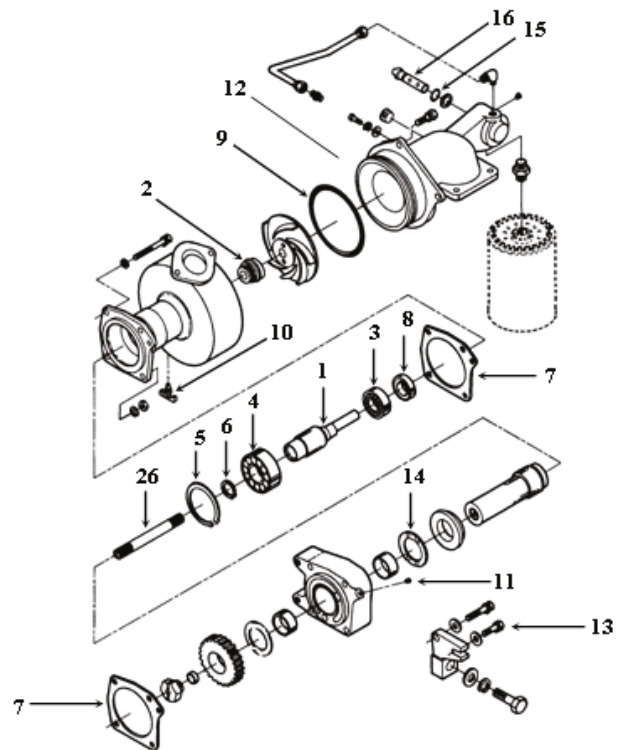
Ref	Part Number	Description	K19	K38	K50
00	FP-103009	Capscrew		1	1
00	FP-107981	Cap, Oil Filler	1		
00	FP-3066877	Camshaft (CPL #'s 127, 153, 159, 171, 183, 184, 185, 213, 219, 232, 245, 251, 274, 290, 291, 292, 293, 297, 302, 334, 379, 385, 386, 398, 415, 428, 438, 439, 440, 441, 442, 444, 445, 447, 474, 475, 520, 584, 640, 672, 724, 884, 885, 886, 888, 952, 969, 1190, 1531)	1		
03	FP-3040721	Gasket, Camshaft Follower Cover	6	12	16
04	FP-3040722	Gasket, Camshaft Cover	1	2	2
05	FP-3000173	Capscrew	1		
06	FP-3000174	Coupling Half	1	1	1
07	FP-3000175	Hub, Jaw Coupling	1		
08	FP-3014103	Washer, Clamping	1	1	1
09	FP-3026556	Washer, Thrust	1	1	1
10	FP-3026557	Washer, Thrust	1	1	1
11	FP-170664	Washer, Plain	1		
12	FP-116391	Bearing, Accessory Drive	1	1	1
13	FP-3002158	Plug, Pipe	2		
14	FP-3410171	Gasket, Accessory Drive Support	1	1	1
15	FP-190397	Sleeve, Wear Accessory Drive Pulley	1	1	1
16	FP-3200287	Seal, Accessory Drive	1	1	1
16	FP-3628894	Seal, Cover Accessories	1	1	1
17	FP-3046852	Gasket, Accessory Drive Support		1	1
18	FP-205068	Pin, Cam Follower Injector	6	12	16
19	FP-3016825	Roller, Cam Follower Injector	6	12	16
20	FP-205071	Pin, Cam Follower Intake & Exhaust Valve	12	24	32
21	FP-3016826	Roller, Cam Follower Intake & Exhaust Valve	12	24	32
22	FP-213559	Socket, Cam Follower		36	48
22	FP-107738	Socket, Cam Follower	18		
23	FP-3017961	Rod, Push Injector	6	12	16
24	FP-205492	Rod, Push Intake & Exhaust Valve	12	24	32
25	FP-3075381	Tappet Assy (HUT, STC Fuel Systems)	6	12	16

# KT, KTA Series

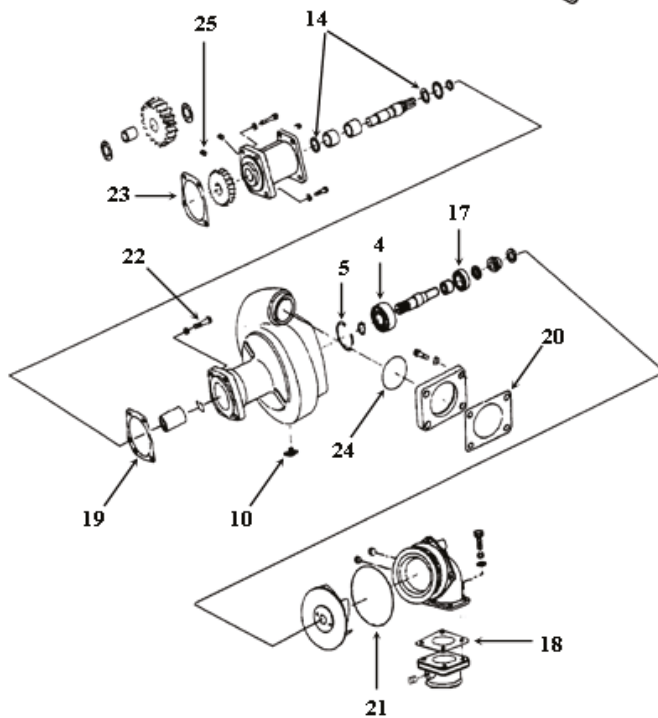


## Water Pump

K19



K38 & K50



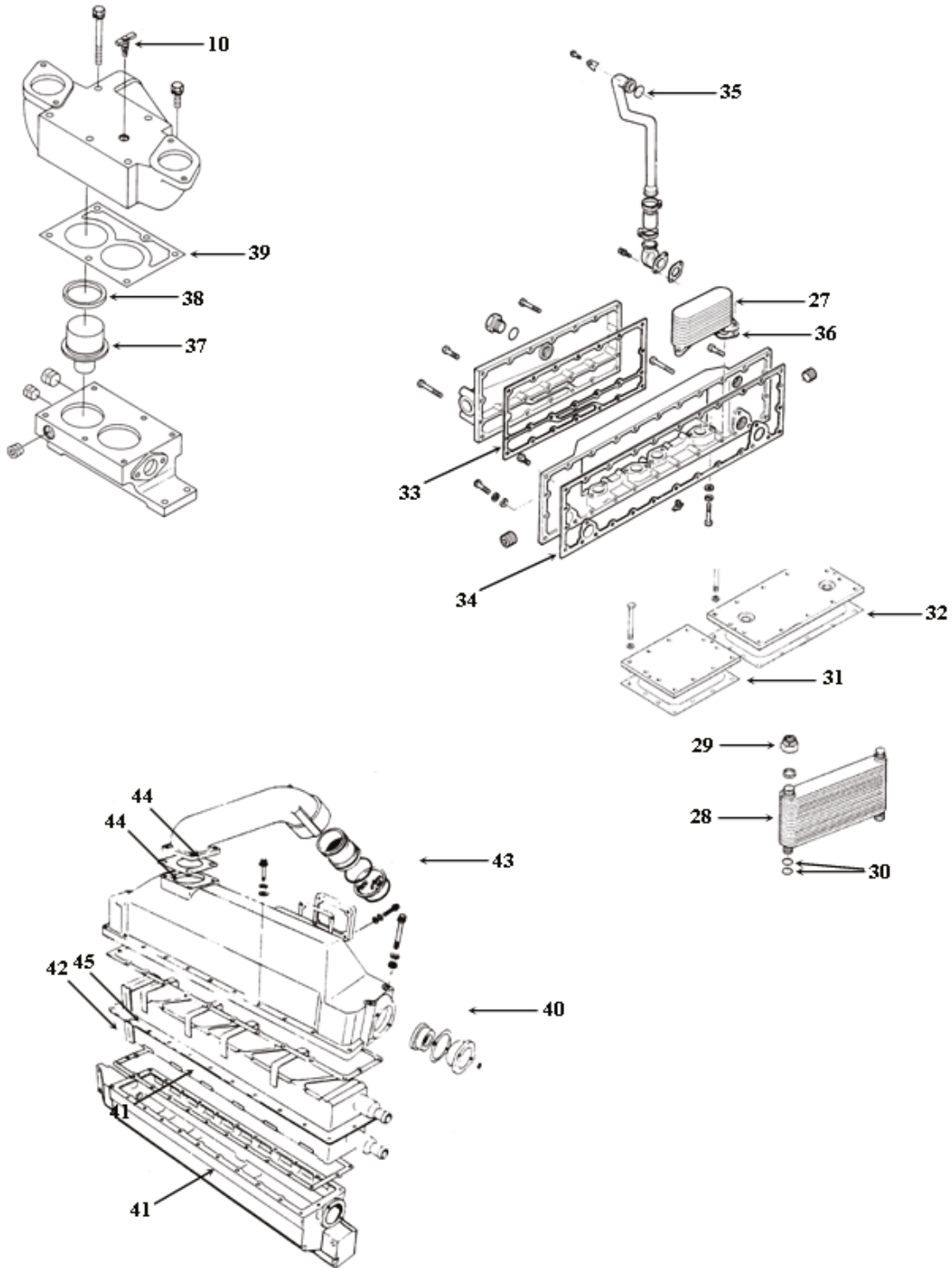
**Water Pump**

Ref	Part Number	Description	K19	K38	K50
03	FP-3077646	Bearing, Ball (Inner Water Pump Shaft) (Early KT450)	1		
03	FP-S16002	Bearing, Ball (Inner Water Pump Shaft) (KT,KTA19)	1		
04	FP-S16069	Bearing, Ball (Outer Water Pump Shaft) (KT,KTA19, 38, 50)	1	1	1
11	FP-S965E	Plug, Pipe 1/16" NPT	1		
12	FP-S631	Washer, Plain	1		
13	FP-3012472	Screw	1		
14	FP-3026556	Bearing, Thrust	2	1	1
15	FP-3818885	Seal, O-Ring	1		
17	FP-S16054	Bearing, Ball (Inner Water Pump Shaft) (KT,KTA38, 50)		1	1
18	FP-3179035	Gasket, Connection		1	1
19	FP-206193	Gasket, Water Pump		1	1
20	FP-206455	Gasket, Water Pump		1	1
21	FP-206457	Seal, O-Ring		1	1
22	FP-103009	Capscrew		4	4
23	FP-206416	Gasket, Support		1	1
24	FP-3007512	Seal, O-Ring		1	1
25	FP-68193	Plug, Pipe		1	1
00	<b>FP-3803153</b>	<b>Kit, Water Pump Repair</b>	1		
01	FP-3042827	Shaft, Water Pump	1		
02	FP-3029099	Seal, Coolant Water Pump	1		
03	FP-S16002	Bearing, Ball (Inner Water Pump Shaft) (KT,KTA19)	1		
04	FP-S16069	Bearing, Ball (Outer Water Pump Shaft) (KT,KTA19, 38, 50)	1	1	1
05	FP-70183	Retaining Ring, Water Pump Shaft	1	1	1
06	FP-205258	Retaining Ring, Water Pump Shaft	1		
00	FP-205288	Gasket, Water Pump	1		
00	FP-205289	Gasket, Water Pump	1		
07	FP-3202283	Gasket, Water Pump	1		
08	FP-206948	Seal, Oil	1		
09	FP-145623	Seal, O-Ring	1		
00	FP-3028291	Seal, O-Ring	2		
10	FP-S962E	Cock, Drain	1	1	1

# KT, KTA Series



## Thermostat & Coolers





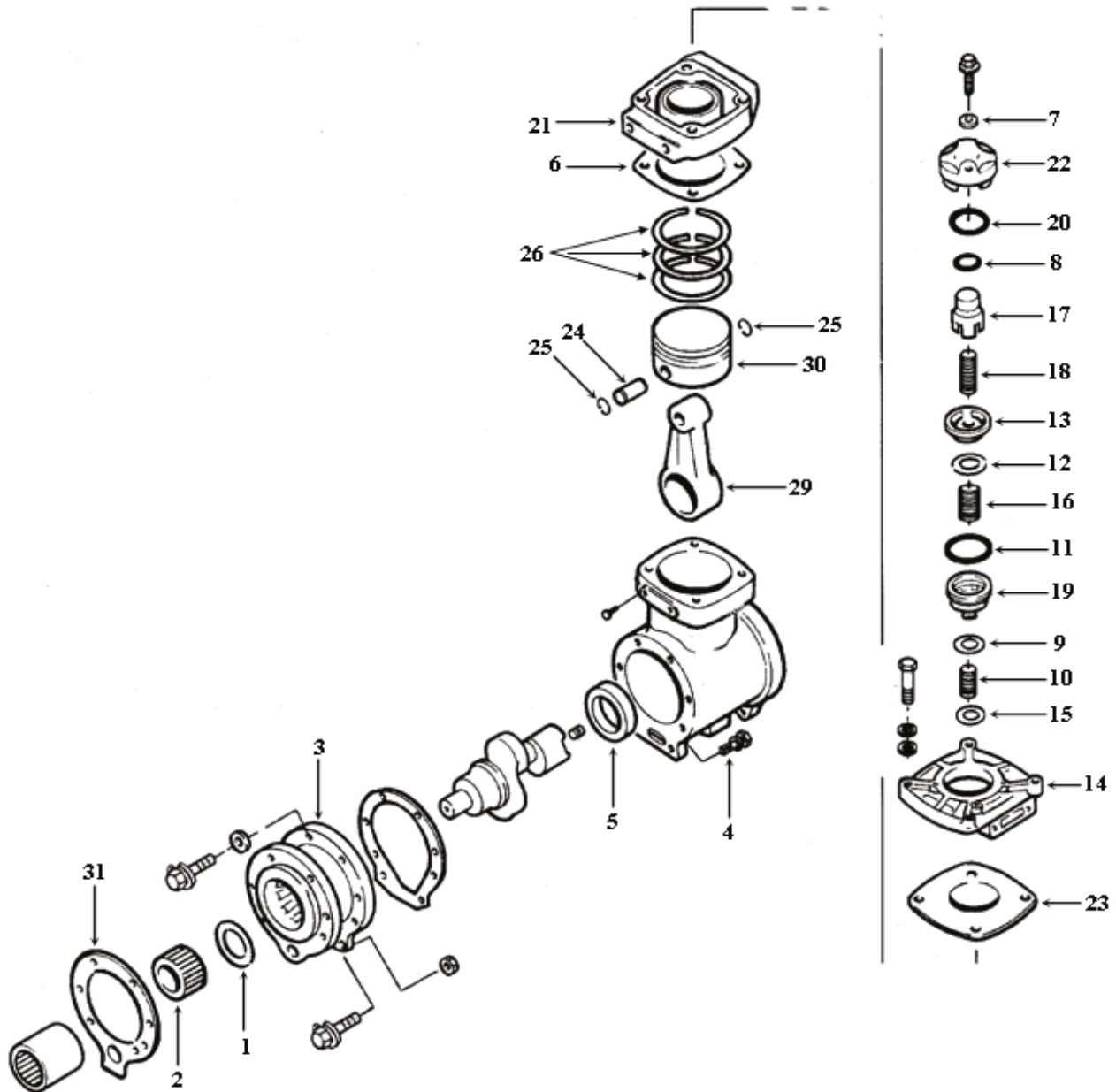
**Thermostat, Oil Cooler & Aftercooler**

Ref	Part Number	Description	K19	K38	K50
00	FP-3033915	O-Ring (Use w/3638360, 3638361 Aftercoolers Only) (After Feb. 6, 2006 Production)		8	8
00	FP-68910	O-Ring (Use w/3068976, 3638311, 3638312, 3866152 After Coolers Only)		8	8
00	FP-206443	Gasket, Thermostat Housing		2	2
00	FP-3002158	Plug, Pipe	1		
00	FP-3014304	Sleeve, Rubber	24		
28	FP-3635074	Cooler Assembly, Oil		3	4
28	FP-4095097	Body, Oil Cooler (Previously FP-3201785)	2		
29	FP-206021	Seal, Oil Cooler	6	6	8
30	FP-212161	Seal, Oil Cooler (Use w/FP-3627295 Cooler)	12	12	16
31	FP-3009323	Gasket, Mounting Oil Cooler		1	1
32	FP-3009324	Gasket, Mounting Oil Cooler		3	4
33	FP-3065791	Gasket, Mounting Oil Cooler	1		
34	FP-3200550	Gasket, Mounting Oil Cooler	1		
35	FP-70624	Seal, O-Ring	1		
36	FP-206973	Gasket, Mounting Oil Cooler	4		
37	FP-3076489	Thermostat (82°C), (180° F)	1	2	4
37	FP-204586	Thermostat (80°C), (175° F)	1		
37	FP-3017360	Thermostat (85°C), (185° F)	2		
38	FP-3627961	Seal, Thermostat		4	4
38	FP-186780	Seal, Thermostat	1		
39	FP-3010918	Gasket, Thermostat Housing	1		
40	FP-3001299	Core, Aftercooler	1		
41	FP-3001304	Gasket, Aftercooler	2		
42	FP-3001305	Gasket, Aftercooler	1		
43	FP-3032161	Gasket, Aftercooler	3		
44	FP-3023066	Seal, O-Ring	2		
45	FP-206808	Seal	2		
46	FP-109557	Washer, Plain	4		
00	<b>FP-3804935</b>	<b>Kit, Oil Cooler</b>	2	-	-
28	FP-4095097	Body, Oil Cooler (Previously FP-3201785)	1	-	-
00	FP-3078053	Bolt, Oil Cooler Mounting	4	-	-

# KT, KTA Series



## Compressor (13.2 CFM)



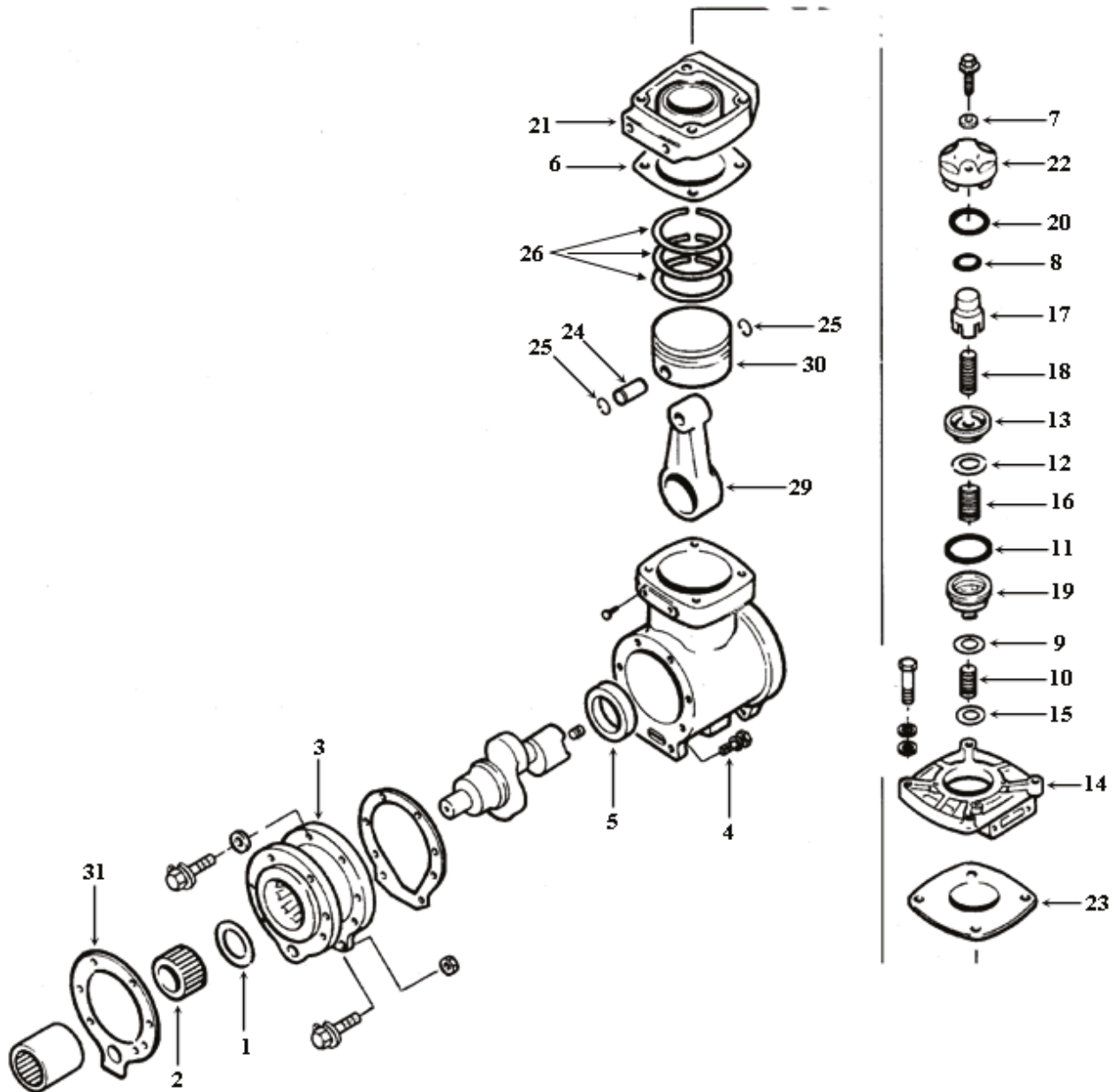
**Compressor (13.2 CFM)**

Ref	Part Number	Description	K19	K38	K50
00	FP-3018153	Bushing, Connecting Rod	1		
00	FP-3042542	Seal, O-Ring	1		
00	FP-3201386	Gasket, Connection	1		
00	FP-S911B	Plug, Pipe	1		
01	FP-211662	Bearing, Thrust	1		
02	FP-3000174	Hub, Spline Coupling	1		
04	FP-3012472	Screw, Captive Washer Cap	2		
05	FP-147610	Bushing	1		
06	FP-154018	Gasket, Air Compressor	1		
07	FP-109557	Washer, Plain	2		
08	FP-127936	Seal, Rectangular Ring	1		
09	FP-127940	Valve, Exhaust	1		
10	FP-128080	Spring, Compression	1		
11	FP-128086	Seal, O-Ring	1		
12	FP-144948	Valve, Intake	1		
13	FP-145028	Seat, Compression Intake Valve	1		
14	FP-153964	Cover, Air Compressor	1		
15	FP-183429	Plate, Wear	1		
16	FP-190334	Spring, Valve	1		
17	FP-184240	Cap, Unloader (15.0 CFM)	2		
17	FP-191037	Cap, Unloader (13.2 CFM)	1		
18	FP-3023101	Spring, Compression	1		
20	FP-3043995	Seal, O-Ring	1		
21	FP-3558762	Head, Compressor	1		
22	FP-3046298	Body, Unloading Valve	1		
23	FP-3047159	Gasket, Air Compressor	1		
29	FP-3018151	Rod, Compressor Connecting	1		
31	FP-3820922	Gasket, Air Compressor Support	1		
00	<b>FP-3803930</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b>	1		
30	FP-3045670	Body, Piston (Std.)	1		
26	FP-AR73350	Ring Set, Compressor (Std.)	1		
24	FP-119810	Pin, Piston	1		
25	FP-3558754	Ring, Retaining P/Bolt	2		
00	<b>FP-3803931</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b>	1		
30	FP-3045671	Body, Piston (.010)	1		
26	FP-AR73351	Ring Set, Compressor (.010)	1		
24	FP-119810	Pin, Piston	1		
25	FP-3558754	Ring, Retaining P/Bolt	2		
00	<b>FP-3803932</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b>	1		
30	FP-3045672	Body, Piston (.020)	1		
26	FP-AR73352	Ring Set, Compressor (.020)	1		
24	FP-119810	Pin, Piston	1		
25	FP-3558754	Ring, Retaining P/Bolt	2		

# KT, KTA Series



## Compressor (13.2 CFM)



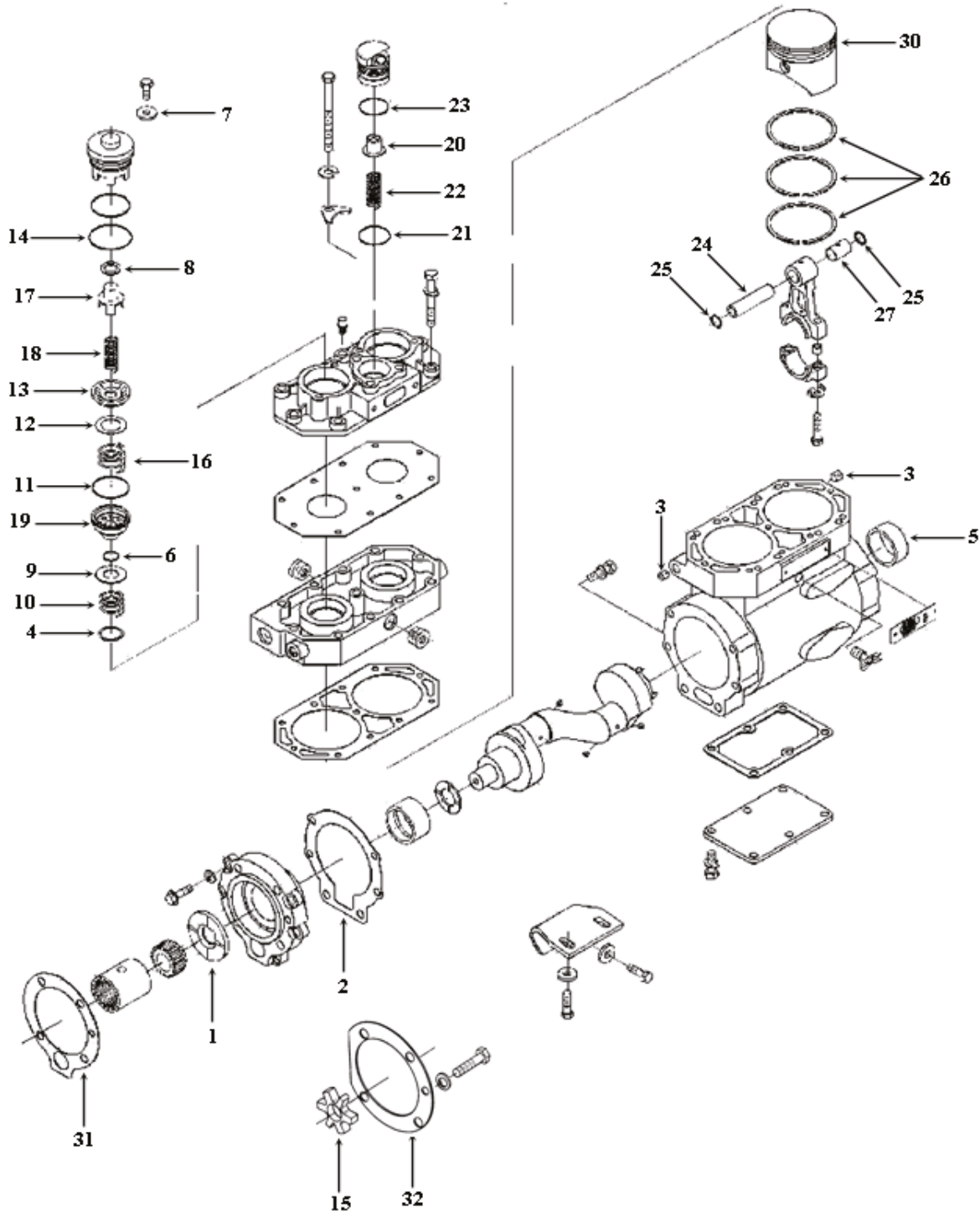
**Compressor Kits (13.2 CFM)**

Ref	Part Number	Description	K19	K38	K50
00	<b>FP-AR12719</b>	Kit, Valve Repair	1		
07	FP-109557	Washer, Plain	2		
08	FP-127936	Seal Ring	1		
09	FP-127940	Valve, Exhaust	1		
10	FP-128080	Spring, Compression	1		
11	FP-128086	Seal, O-Ring	1		
12	FP-144948	Valve, Intake	1		
15	FP-183429	Plate, Wear	1		
16	FP-190334	Spring, Valve	1		
18	FP-3023101	Spring, Compression	1		
20	FP-3043995	Seal, O-Ring	1		
00	FP-128085	Seal, O-Ring	1		
00	<b>FP-AR73308</b>	<b>Gasket Set, 13.2 CFM Compressor</b>	1		
08	FP-127936	Seal, O-Ring	1		
00	FP-128085	Seal, O-Ring	1		
11	FP-128086	Seal, O-Ring	1		
06	FP-154018	Gasket	1		
00	FP-176027	Gasket	1		
20	FP-3043995	Seal, O-Ring	1		
23	FP-3047159	Gasket	1		
00	FP-3201386	Gasket	1		

# KT, KTA Series



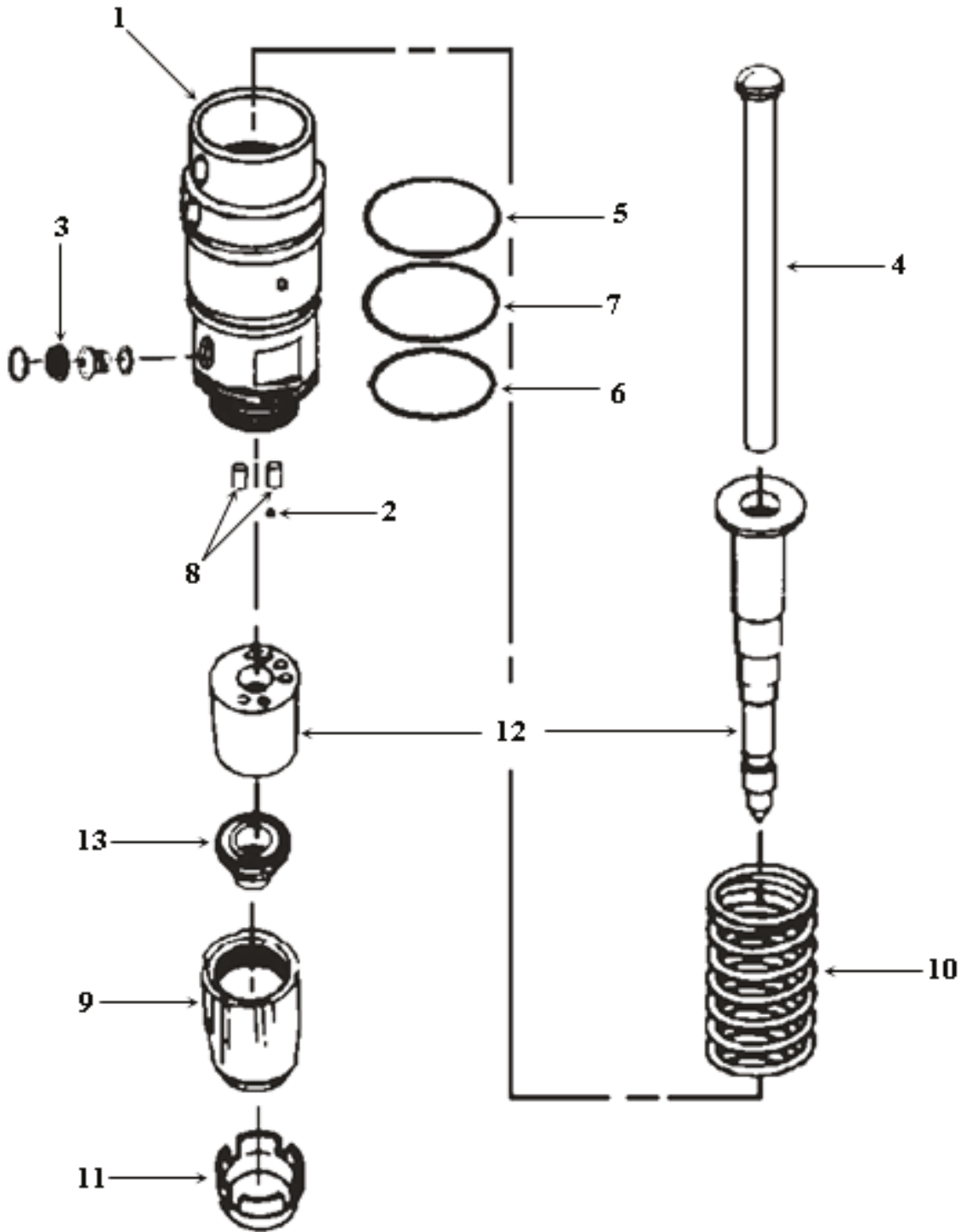
## Compressor (30 CFM)



**Compressor (30 CFM)**

Ref	Part Number	Description	K19	K38	K50
00	FP-127950	Gasket, Connection	1	1	1
00	FP-3046201	Seal, O-Ring	1	1	1
00	FP-207117	Gasket, Air Compressor	1		
00	FP-185848	Gasket, Air Compressor	1		
01	FP-211662	Bearing, Thrust	1	1	1
02	FP-199347	Gasket, Air Compressor	1	1	1
03	FP-3013786	Plug, Pipe	2	1	1
04	FP-183429	Plate, Wear	2	2	2
05	FP-147610	Bushing	1	1	1
06	FP-3042542	Seal, O-Ring	2	1	1
07	FP-211315	Seal, O-Ring	2	2	2
08	FP-127936	Seal, Rectangular Ring	1	3	3
09	FP-127940	Valve, Exhaust	1	2	2
10	FP-128080	Spring, Compression	1	2	2
11	FP-128086	Seal, O-Ring	1	2	2
12	FP-144948	Valve, Intake	1	2	2
13	FP-145028	Seat, Compression Intake Valve	1	2	2
14	FP-3015068	Seal, O-Ring	2	2	2
15	FP-3046200	Spider, Jaw Coupling	1	1	1
16	FP-190334	Spring, Valve	1	2	2
17	FP-191037	Cap, Unloader	1	2	2
18	FP-3023101	Spring, Compression	1	2	2
20	FP-184240	Cap, Unloader Valve (E Type)	1	1	1
21	FP-3009738	Seal, O-Ring	1	1	1
22	FP-150631	Spring, Compression	1	1	1
23	FP-3009739	Seal, O-Ring	1	1	1
27	FP-3018153	Bushing, Connecting Rod	2	2	2
31	FP-3069102	Gasket, Air Compressor	1	1	1
32	FP-4026171	Gasket, Fuel Pump	1	1	1
00	<b>FP-3803930</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b>	2	2	2
30	FP-3045670	Body, Piston (Std.)	2	2	2
26	FP-AR73350	Ring Set, Compressor (Std.)	2	2	2
24	FP-119810	Pin, Piston	2	2	2
25	FP-3558754	Ring, Retaining P/Bolt	4	4	4
00	<b>FP-3803931</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.010)</b>	2	2	2
30	FP-3045671	Body, Piston (.010)	2	2	2
26	FP-AR73351	Ring Set, Compressor (.010)	2	2	2
24	FP-119810	Pin, Piston	2	2	2
25	FP-3558754	Ring, Retaining P/Bolt	4	4	4
00	<b>FP-3803932</b>	<b>Kit, Piston (W/Piston, Ring Set, Pin &amp; Retainers), (.020)</b>	2	2	2
30	FP-3045672	Body, Piston (.020)	2	2	2
26	FP-AR73352	Ring Set, Compressor (.020)	2	2	2
24	FP-119810	Pin, Piston	2	2	2
25	FP-3558754	Ring, Retaining P/Bolt	4	4	4

Fuel Injectors





**Fuel Injectors**

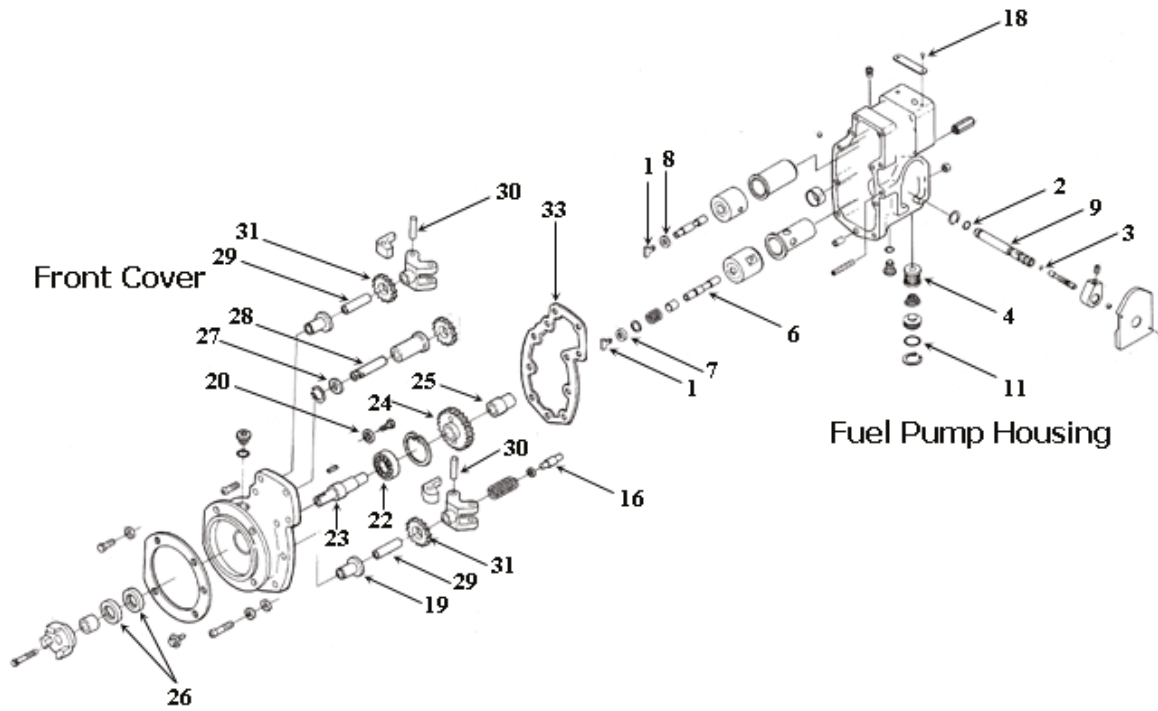
Ref	Part Number	Description	K19	K38	K50
00	FP-3053124	Injector Assembly, PTK (New)		12	16
00	FP-3016675	Injector Assembly, PTK (New)	6		
00	FP-3016676	Injector Assembly, PTK (New)	6		
00	FP-3022197	Injector Assembly, PTK (New)	6		
01	FP-205463	Adapter, Injector	1	1	1
02	FP-167157	Ball, Check	1	1	1
03	FP-3008706	Screen, Filter	1	1	1
04	FP-205462	Link, Injector Plunger	1	1	1
05	FP-3010510	Seal, O-Ring	1	1	1
06	FP-193736	Seal, O-Ring	1	1	1
07	FP-205216	Seal, O-Ring	1	1	1
08	FP-203426	Pin, Roll	1	1	1
09	FP-207245	Retainer, Injector Cup	1	1	1
11	FP-207244	Ring, Injector Sealing	1	1	1
12	FP-3037292	Plunger & Bushing	1		
13	FP-3001314	Cup, Injector (10-.0085-10°)	1	1	1
13	FP-3005963	Cup, Injector (9-.0075-10°)	1	1	1
13	FP-3003932	Cup, Injector (9-.0085-7°)	1		
13	FP-3003933	Cup, Injector (9-.0085-10°)	1	1	

# KT, KTA Series

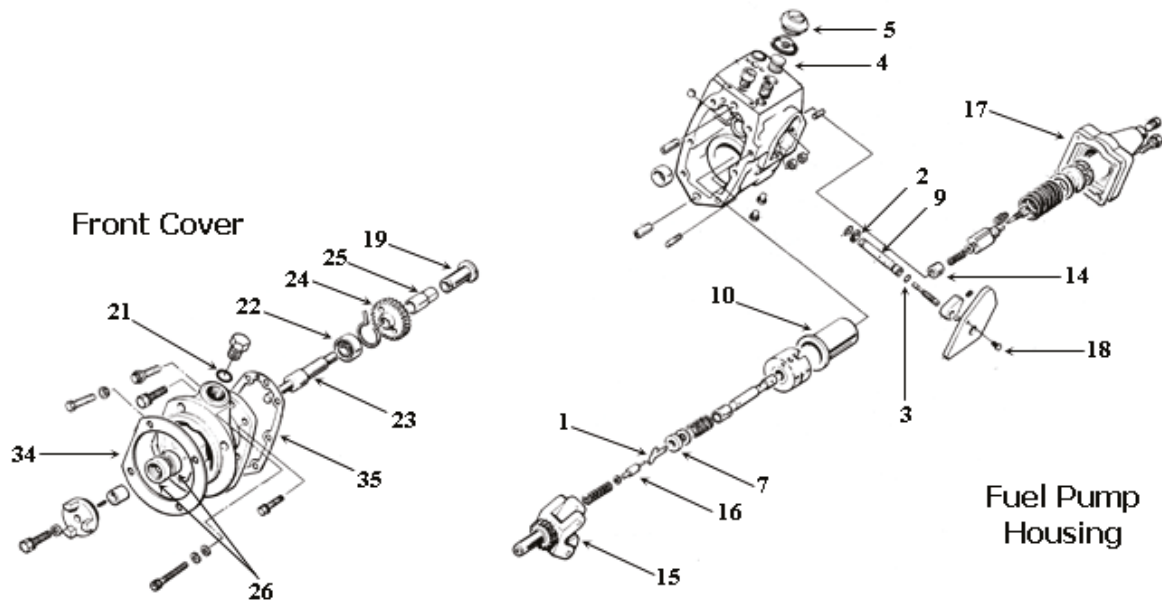


## Fuel Pump

### PTG-VS/AFC Industrial



### PTG Automotive



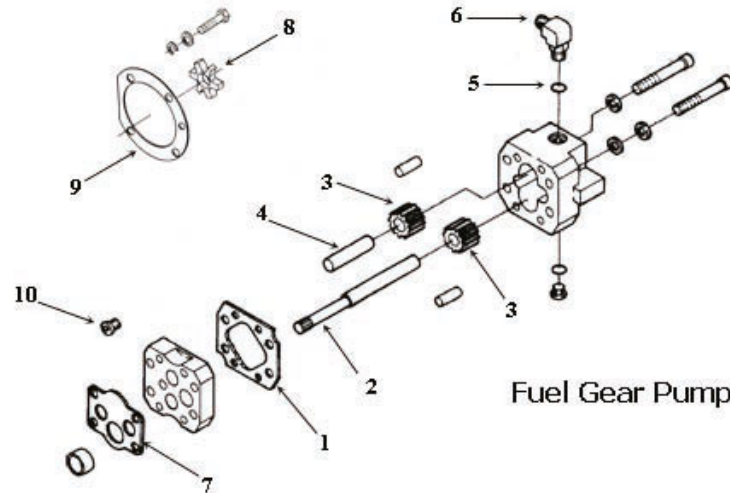
**Fuel Pump Housing**

Ref	Part Number	Description	K19	K38	K50
00	FP-141629	Button, #20			1
01	FP-70690	Driver, Governor Plunger	1	1	1
02	FP-100478	Seal, O-Ring	1	1	1
03	FP-213768	Seal, O-Ring	1	1	1
04	FP-146483	Screen, Filter	1	1	1
05	FP-157088	Cap, Filter	1		
06	FP-3009380	Plunger, Governor	1	1	1
06	FP-300938010	Piston, Governor (Oversize)	1	1	1
06	FP-300938011	Piston, Governor (Oversize)	1	1	1
06	FP-300938012	Piston, Governor (Oversize)	1	1	1
06	FP-300938013	Piston, Governor (Oversize)	1	1	1
06	FP-300938014	Piston, Governor (Oversize)	1	1	1
06	FP-300938015	Piston, Governor (Oversize)	1	1	1
06	FP-300938016	Piston, Governor (Oversize)	1	1	1
06	FP-3040750	Plunger, Governor	1		
07	FP-3027633	Bearing, Thrust	1	1	1
08	FP-3035230	Bearing, Thrust	1	1	1
10	FP-3036970	Housing, Spring	1	1	1
11	FP-145504	Seal, O-Ring	1	1	1
14	FP-139894	Plunger, Idler Spring	1		
15	FP-3024991	Governor Carrier Assembly	1	2	
16	FP-144178	Plunger, Governor Weight Assist	1	1	1
17	FP-70705	Gasket, Flange	1	1	1
18	FP-S2286	Screw, Drive (Name Plate)	2	2	4

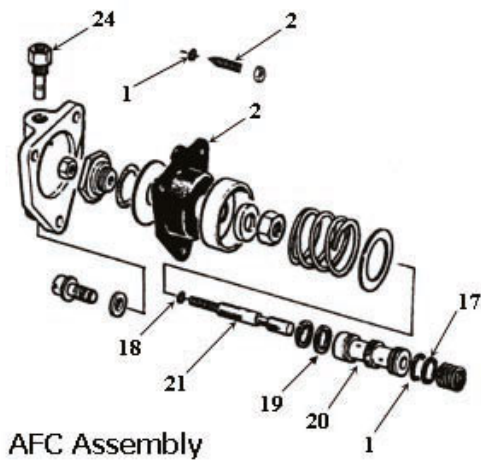
**Fuel Pump Front Cover & Weight Assembly**

Ref	Part Number	Description	K19	K38	K50
00	FP-212602	Gear, Tachometer Drive	1	1	1
00	FP-212603	Seal, Oil	1	1	1
00	FP-212607	Shaft, Tachometer Drive	1	1	1
19	FP-163944	Bushing, Fuel Pump	1	2	
22	FP-S16052	Bearing, Ball	1	1	1
23	FP-212601	Shaft, Fuel Pump Drive	1	1	1
26	FP-3062676	Seal, Oil	2	2	2
27	FP-201745	Washer, Lock	1	1	1
29	FP-211633	Shaft, Governor	1	1	1
30	FP-211635	Pin, Governor	2	2	2
33	FP-200998	Gasket, Fuel Pump	1	1	1
34	FP-4026171	Gasket, Front Cover To Drive	1	1	1
35	FP-3063052	Gasket, Front Cover To Housing	1	1	1

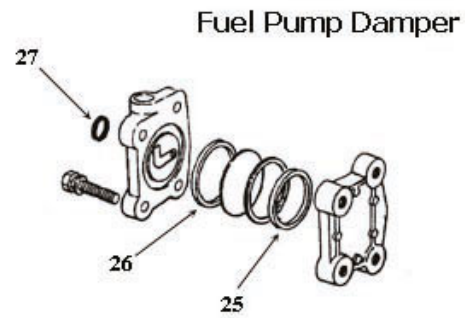
## Fuel Gear Pump



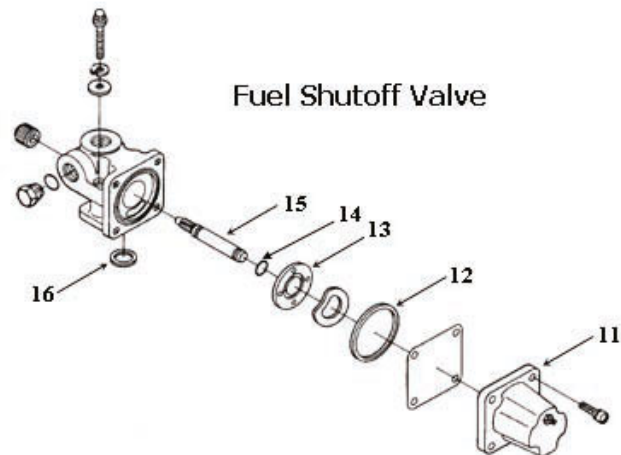
Fuel Gear Pump



AFC Assembly



Fuel Pump Damper



Fuel Shutoff Valve

**Fuel Gear Pump**

Ref	Part Number	Description	K19	K38	K50
00	FP-3010240	Gasket Set, PT Type G Pressure Regulator	1	1	1
00	FP-3034245	Assembly, Fuel Pump Gear (1" Pressurized R.H.)	1	1	1
00	FP-3034243	Assembly, Fuel Pump Gear (3/4")	1		
00	FP-3034221	Assembly, Fuel Pump Gear (1 1/4" Heavy Duty R.H.)			1
01	FP-110855	Gasket, Fuel Pump	1	1	
02	FP-100216	Shaft, Fuel Pump Drive (1" Gear)	1	1	1
02	FP-100215	Shaft, Fuel Pump Drive (3/4" Gear)	1	1	
02	FP-100217	Shaft, Fuel Pump Drive (1 1/4" Gear)			1
03	FP-170942	Gear (1 " Pump)	2	2	2
03	FP-119363	Gear (3/4" Pump)	2	2	
03	FP-119364	Gear (1 1/4" Pump)		2	2
06	FP-3033740	Valve, Check Ball Elbow	1	1	
07	FP-3069017	Gasket, Fuel Pump	1	1	1
08	FP-3046200	Coupling, Spider	1	1	1
09	FP-4026171	Gasket, Fuel Pump Front Cover	1	1	1
10	FP-3050624	Gasket, Fuel Pump Valve Pressure Regulator	1	1	1

**Fuel Shutoff Valve**

Ref	Part Number	Description	K19	K38	K50
11	FP-3408421	Solenoid (Fuel Shutoff Valve), (12 Volt)	1	1	
12	FP-129888	Seal, Rectangular (Fuel Shutoff Valve)	1	1	1
13	FP-3030970	Disc, Valve	1	1	
14	FP-190876	Seal, O-Ring	1		
15	FP-3013036	Shaft (Fuel Shutoff Valve)	1	1	1
16	FP-154087	Seal, Rectangular	1	1	1

**AFC Assembly**

Ref	Part Number	Description	K19	K38	K50
00	FP-S631	Washer, Plain	1	3	
00	FP-3066914	Seal, O-Ring	1	1	1
00	FP-3010242	Gasket Set, AFC-VS	1	1	
00	FP-145505	Seal, O-Ring	1	1	
00	FP-214144	Valve, Needle AFC No. 162	1	1	
00	FP-3042542	Seal, O-Ring			1
17	FP-145504	Seal, O-Ring	1	1	
18	FP-68061A	Seal, O-Ring	2	2	
19	FP-3045986	Seal, O-Ring	1	1	
20	FP-3021068	Barrel, Air Fuel Control	1		
21	FP-3021676	Plunger, Air Fuel Control	1		
23	FP-3013811	Diaphragm	1	1	1
24	FP-3015522	Valve, Check	1		

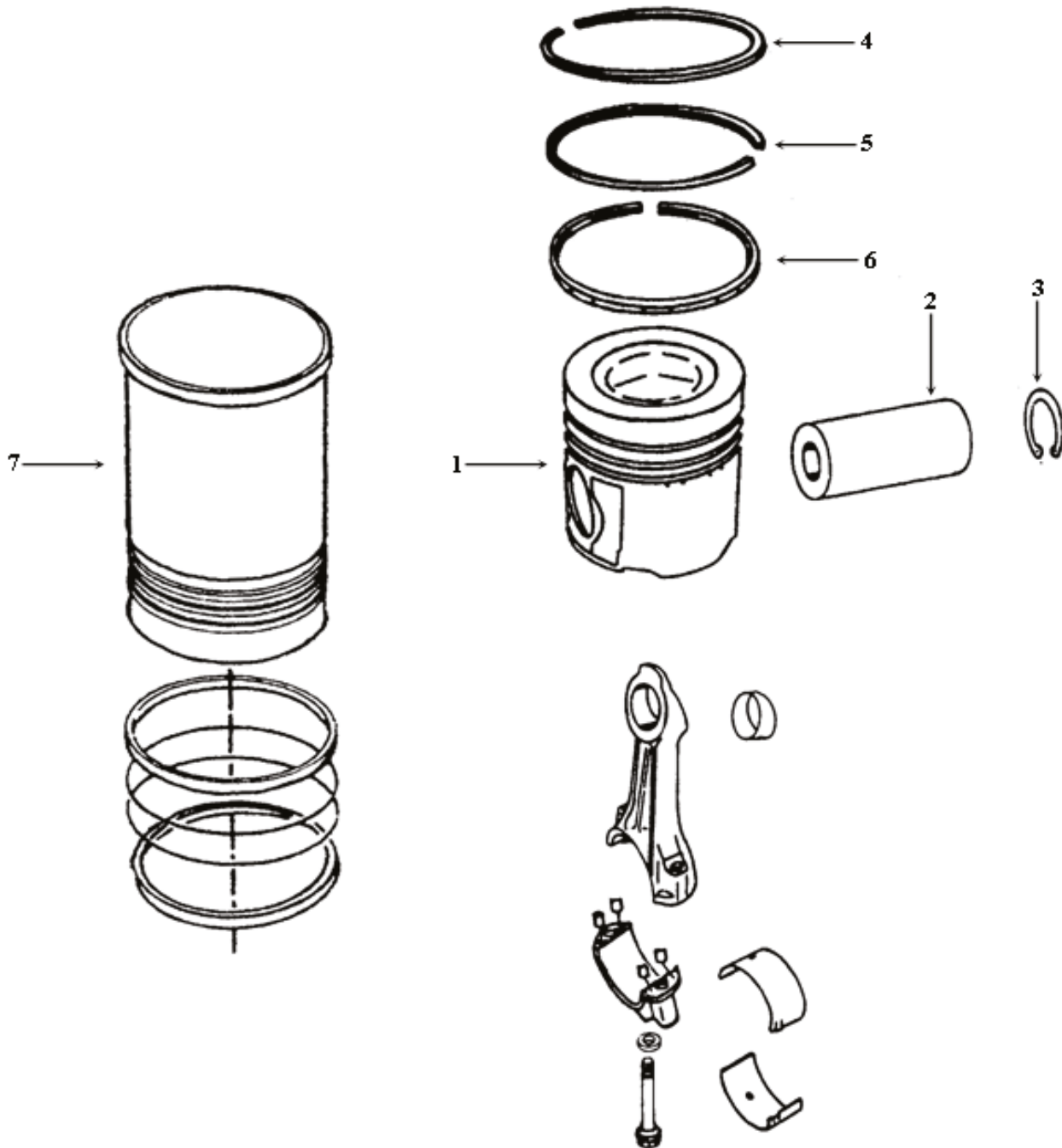
**Fuel Pump Damper**

Ref	Part Number	Description	K19	K38	K50
25	FP-100099	Seal, Rectangular Ring	1	1	1
26	FP-139988	Seal, Rectangular Ring	1	1	1
27	FP-151900	Seal, Rectangular Ring	1	1	1

# KT, KTA Series



## Piston & Liner Kits



## Piston & Liner Kits

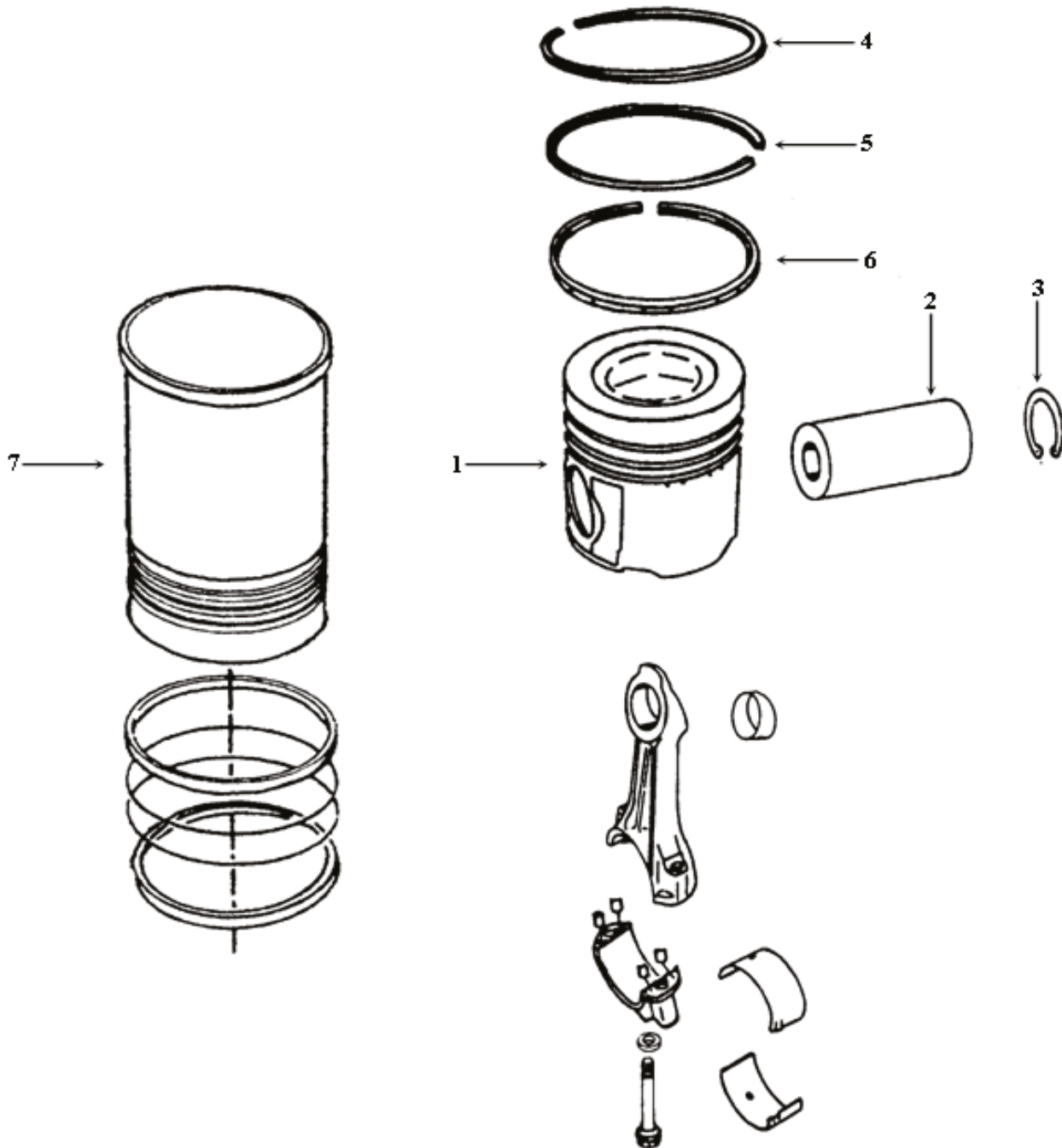
Ref	Part Number	Description	K19	K38	K50
00	FP-3007525	Kit, Cylinder Liner (Std.)		12	16
07	FP-3012611	Kit, Cylinder Liner (.010 O.S.)		12	16
07	FP-3012612	Kit, Cylinder Liner (.020 O.S.)		12	16
07	FP-3801268	Kit, Cylinder Liner (.030 O.S.)		12	16
07	FP-3801269	Kit, Cylinder Liner (.040 O.S.)		12	16
07	FP-4024767	Kit, Cylinder Liner (Std.), (Previously FP-3028434)	6		
07	FP-4024768	Kit, Cylinder Liner (.020 O.S.), (Previously FP-3028430)	6		
07	FP-4024769	Kit, Cylinder Liner (.040 O.S.), (Previously FP-3028431)	6		
07	FP-4024771	Kit, Cylinder Liner (.083 O.S.), (Previously FP-3024726)	6		
07	FP-4024772	Kit, Cylinder Liner (.095 O.S.), (Previously FP-3028433)	6		
07	FP-4024773	Kit, Cylinder Liner (.020/.020), (Previously FP-3803505)	6		
07	FP-4024774	Kit, Cylinder Liner (.060/.020), (Previously FP-3803509)	6		
07	FP-4024775	Kit, Cylinder Liner (.060 O.S.), (Previously FP-3803510)	6		
00	<b>FP-3026333</b>	<b>Kit, Piston 15.5:1 C/R (Early KT450)</b>	6		
01	FP-3026270	Body, Piston	6		
02	FP-4095009	Piston Bolt	6		
03	FP-205269	Retainer, Piston Pin	12		
00	<b>FP-3631241<sup>10</sup></b>	<b>Kit, Piston 13.9:1 C/R (Previously FP-3803312)</b>	6	12	16
01	FP-3096685	Body, Piston (Previously FP-3070703)	6	12	16
02	FP-4095009	Piston Bolt	6	12	16
03	FP-205269	Retainer, Piston Pin	12	24	32
00	<b>FP-3631242<sup>10</sup></b>	<b>Kit, Piston 13.5:1 C/R (Previously FP-3803313)</b>	6	12	16
01	FP-3096683	Body, Piston (Previously FP-3070705)	6	12	16
02	FP-4095009	Piston Bolt	6	12	16
03	FP-205269	Retainer, Piston Pin	12	24	32
00	<b>FP-3631243<sup>10</sup></b>	<b>Kit, Piston 15.7:1 C/R (Previously FP-3803617)</b>	6	12	16
01	FP-3096684	Body, Piston (Previously FP-3070704)	6	12	16
02	FP-4095009	Piston Bolt	6	12	16
03	FP-205269	Retainer, Piston Pin	12	24	32
00	<b>FP-3631244<sup>10</sup></b>	<b>Kit, Piston 14.5:1 C/R (Previously FP-3803314)</b>	6	12	16
01	FP-3096682	Body, Piston (Previously FP-3070706)	6	12	16
02	FP-4095009	Piston Bolt	6	12	16
03	FP-205269	Retainer, Piston Pin	12	24	32
00	<b>FP-3631245<sup>10</sup></b>	<b>Kit, Piston 15.5:1 C/R (Previously FP-3803315)</b>	6	12	16
01	FP-3096681	Body, Piston (Previously FP-3070707)	6	12	16
02	FP-4095009	Piston Bolt	6	12	16
03	FP-205269	Retainer, Piston Pin	12	24	32
00	<b>FP-3631246<sup>10</sup></b>	<b>Kit, Piston 13.8:1 C/R (Previously FP-3803316)</b>	6	12	16
01	FP-3096680	Body, Piston (Previously FP-3070708)	6	12	16
02	FP-4095009	Piston Bolt	6	12	16
03	FP-205269	Retainer, Piston Pin	12	24	32
00	<b>FP-3803530</b>	<b>Piston, Kit</b>	6	12	16
01	FP-3628731	Piston	6	12	16
02	FP-4095009	Piston Bolt	6	12	16
03	FP-205269	Retainer, Piston Pin	12	24	32
00	<b>FP-4024770</b>	<b>Kit, Cylinder Liner UPF (Std.), (Previously FP-3009549)</b>	6		
07	FP-4009227	Cylinder Liner UPF (Std.), (Previously FP-3007710)	6		
00	<b>FP-4089500</b>	<b>Rings Kit (All Top Pistons)</b>	6	12	16

<sup>10</sup>New Offset Piston Pin Design

# KT, KTA Series



## Piston & Liner Kits







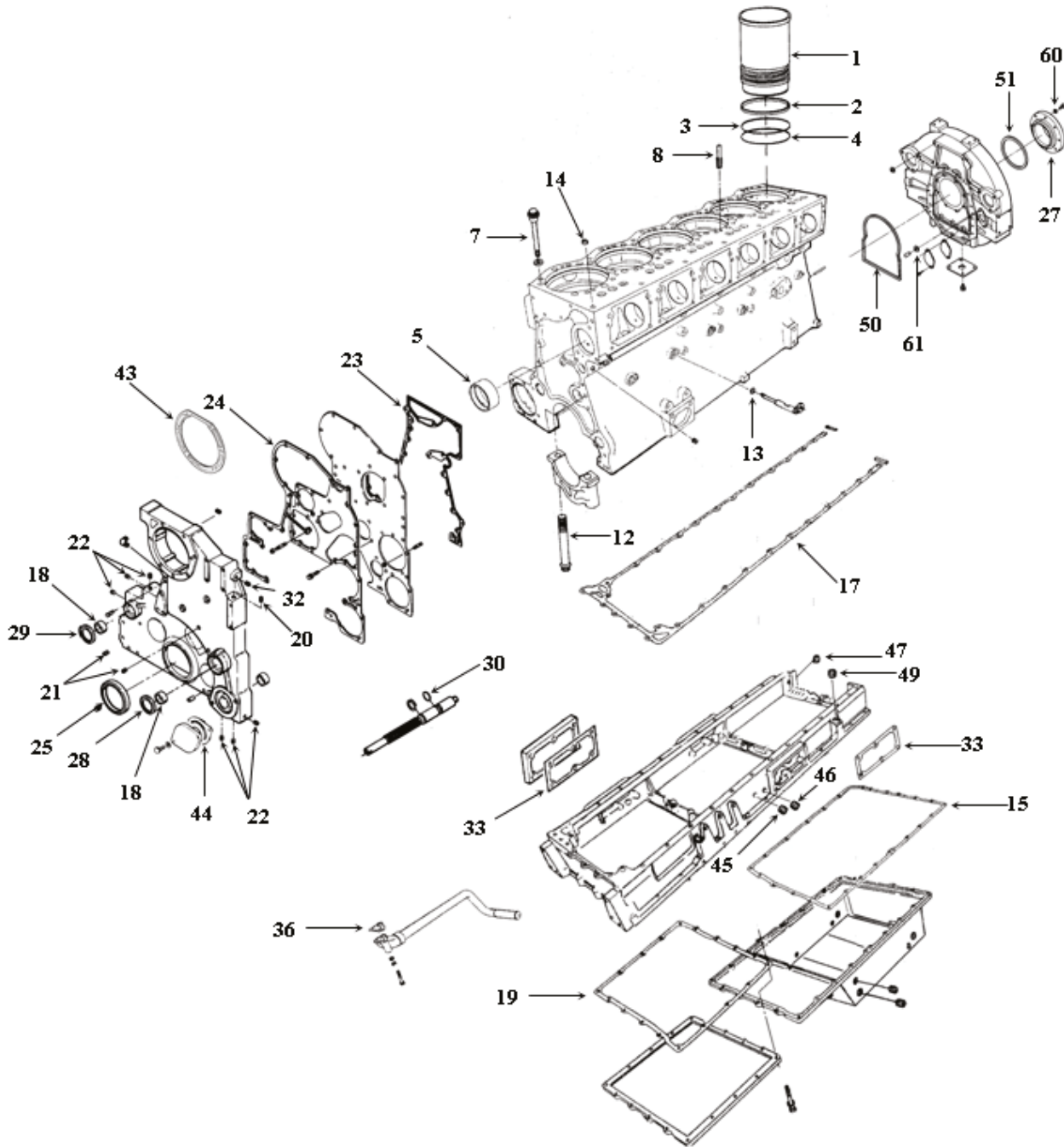
**Piston & Liner Kits (Cont.)**

Ref	Part Number	Description	K19	K38	K50
00	<b>FP-4089501</b>	Piston Rings Kit (Use Only With Piston 3628731)	6	12	16
05	FP-3068813	Ring, Piston (Second Compression)	6	12	16
00	<b>FP-AR12313</b>	Kit, Piston 14.5:1 C/R (Early KT450)	6		
01	FP-3004730	Body, Piston	6		
02	FP-4095009	Piston Bolt	6		
03	FP-205269	Retainer, Piston Pin	12		

# QSK19 Series



## Cylinder Block



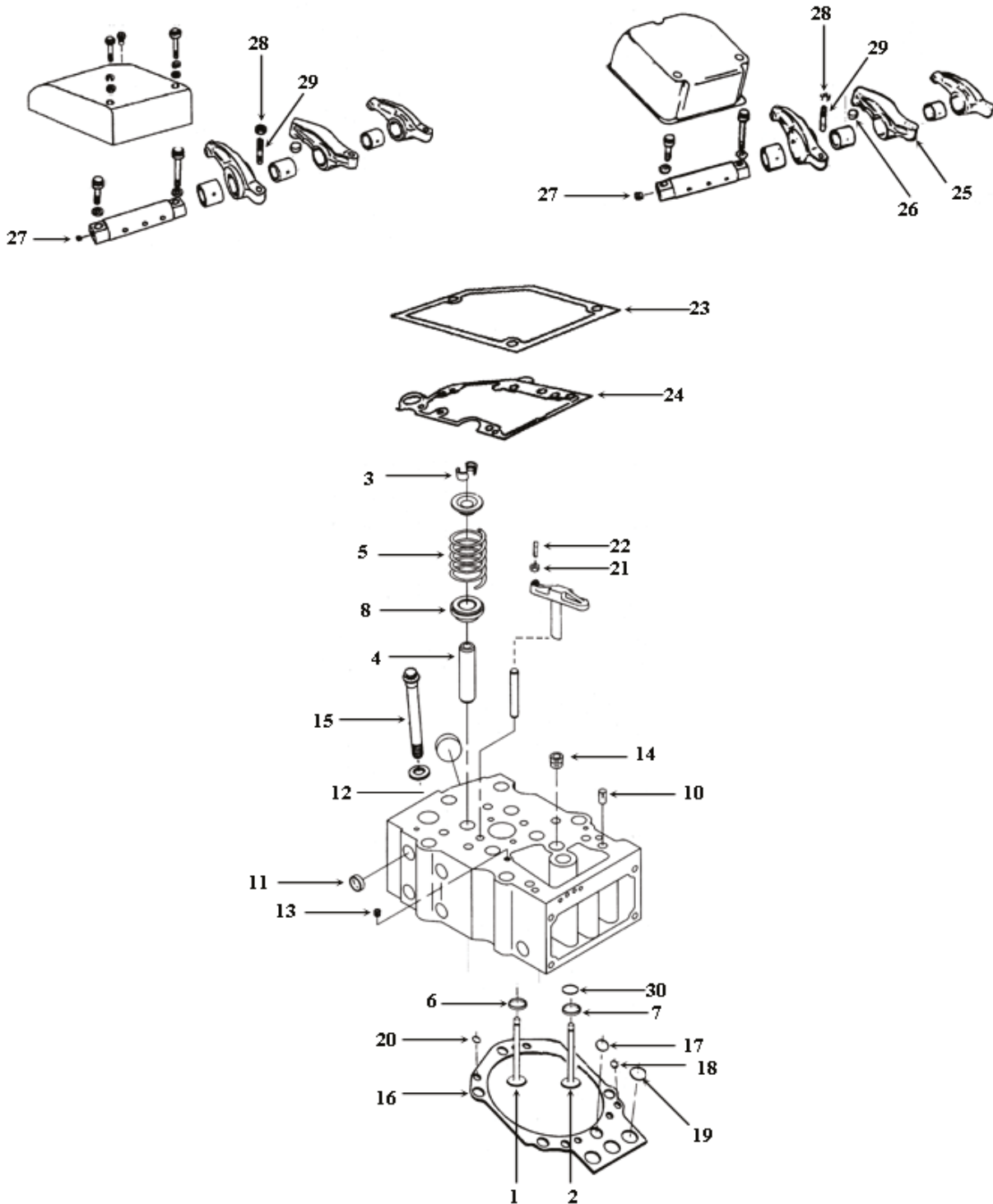
## Cylinder Block

Ref	Part Number	Description	QSK19
00	FP-4089390	Gasket Set, Lower (QSK19) (Formerly FP-3801006)	1
00	FP-IFKQSK19RR	In Frame Kit w/o Piston Crown	1
06	3804664	Nozzle Assy	6
06	4081128	Nozzle	1
07	3081837	Bolt	36
08	FP-68445	Pin	12
09	3081677	Bushing	7
13	3081494	Seal, O-Ring	1
15	FP-3042590	Gasket, Oil Pan	1
17	4000595	Gasket, Oil Pan Adapter (Formerly 3086280)	1
18	FP-132770	Bushing	2
19	FP-3073213	Gasket	1
20	FP-3201125	Seal, O-Ring	1
21	FP-3046201	Seal, O-Ring	2
23	3090320	Gasket	1
24	4080829	Gasket	1
25	3096478	Seal, Oil	1
27	3090297	Seal, Oil	1
28	FP-3200287	Seal, Oil	1
29	3086120	Ring, Seal	1
31	FP-3201125	Seal, Oil	1
32	127362	Seal, O-Ring	1
33	FP-3042586	Gasket	3
36	3079754	Gasket	1
44	FP-3201388	Gasket	1
45	181C	Bolt	2
46	FP-3037537	Seal, O-Ring	2
47	FP-3037537	Seal, O-Ring	5
48	4910518	Strip, Seal	2
49	FP-153518	Seal	4
50	FP-3096260	Seal Ring Assy	1
51	FP-205247	O-Ring	1
60	FPS631	Washer, Plain	8
61	FP-172648	Seal, O-Ring	12
01	<b>FP-4024767</b>	<b>Kit, Cylinder Liner w/Seals</b>	<b>6</b>
02	FP-4009220	Liner, Cylinder	1
03	FP-3081489	Seal Assy	1
04	FP-3011076	O-Ring	1
05	FP-3014668	O-Ring	1

# QSK19 Series



## Cylinder Head



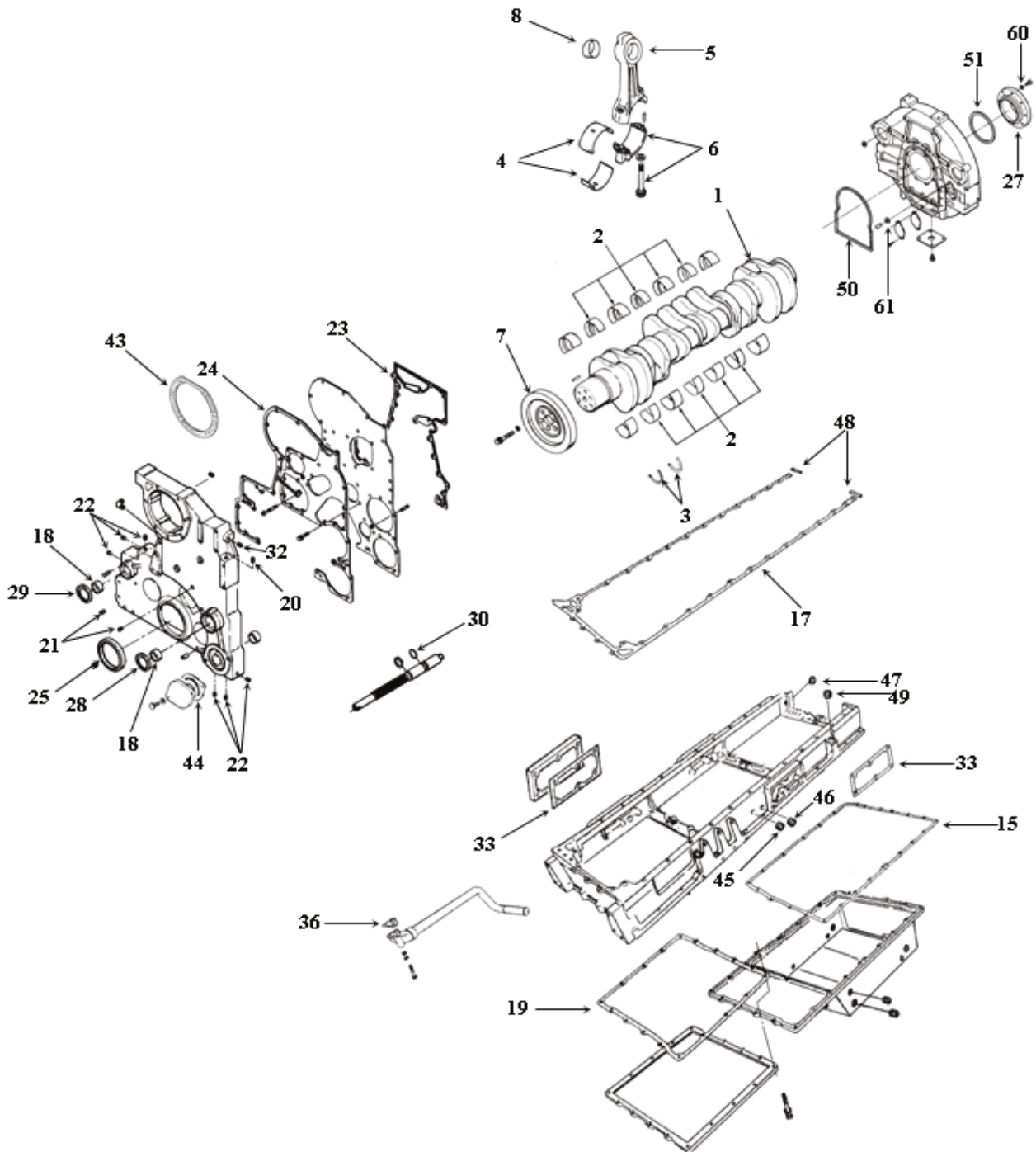
## Cylinder Head

Ref	Part Number	Description	QSK19
00	3278093	Plug	6
00	3331752	Retainer, Spring	24
00	FP-203933	Plug 1/4"	6
00	FP-206224	Plug	12
00	FP-3170134	Seal	24
01	FP-3090469	Valve, Exhaust	12
02	4016438	Valve, Intake	12
03	3641537	Collet	48
04	FP-3170135	Guide, Valve	24
05	FP-4957806	Spring, Valve	24
06	3086192	Insert, Valve	12
07	3086193	Insert, Valve	12
08	4086649	Roto Cap (Formerly FP-3085961)	24
09	3090377	Rod, Push	12
10	FP-68445	Pin	12
11	FP-205401	Plug	48
12	FP-206224	Plug	12
13	3056416	Plug	6
14	3046202	Plug	12
15	3081837	Bolt	36
16	3634664	Gasket, Cylinder Head	6
21	3028349	Seal, O-Ring	6
22	3085978	Ball	6
23	3081898	Gasket	6
24	3090495	Cover	3
25	4065632	Lever	18
26	3085980	Socket	18
27	3089716	Shaft	6
28	3680057	Nut	18
29	3090007	Bolt	18

# QSK19 Series



## Crankshaft



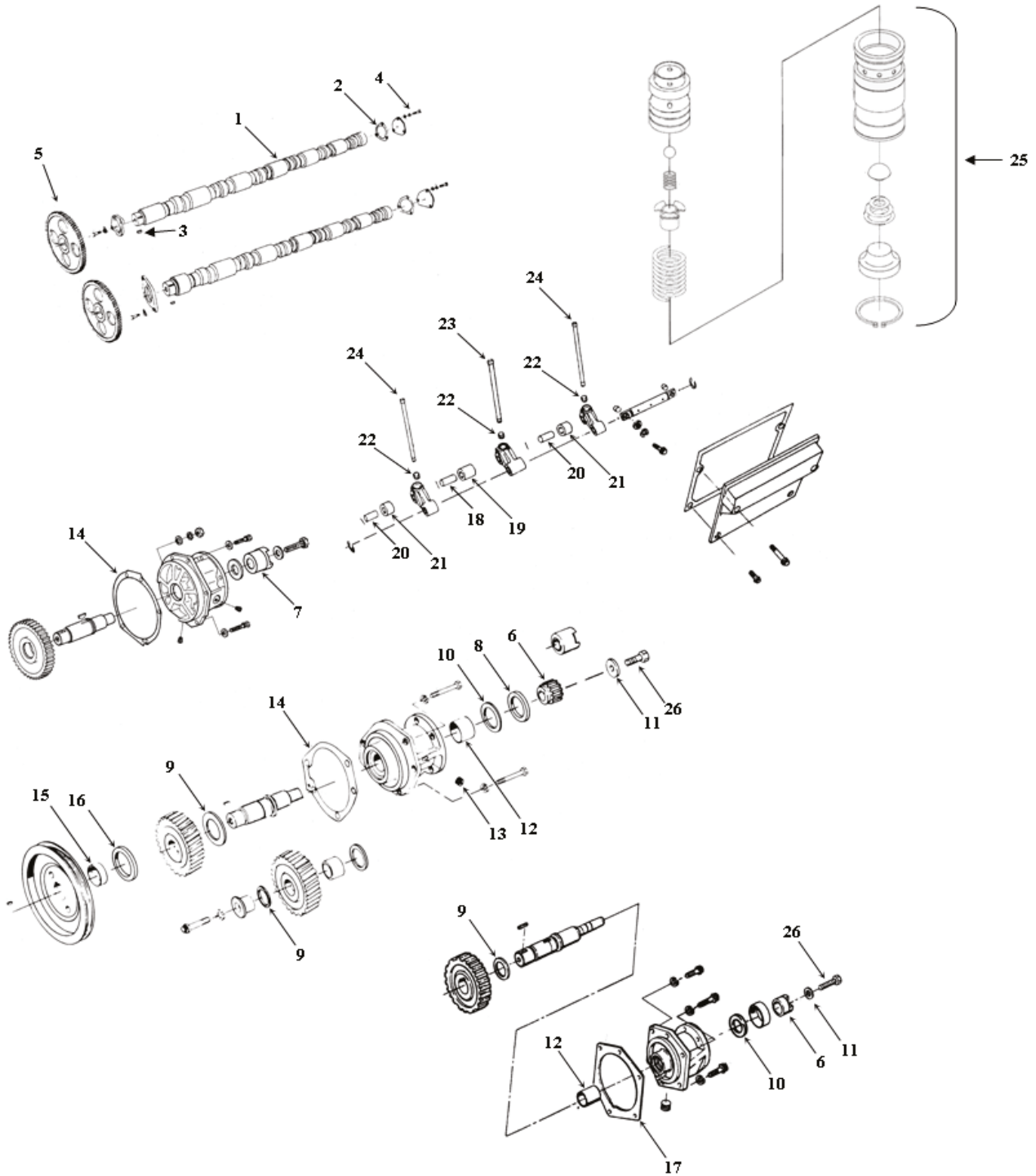
**Crankshaft**

Ref	Part Number	Description	QSK19
00	206904	Key	1
00	3090484	Gear	1
00	69558	Ring	24
01	FP-3096362	Crankshaft	1
03	FP-205112	Thrust Washer (Std.)	4
03	FP-3001197	Thrust Washer (.020 OS)	A/R
04	FP-205840	Bearing, Connecting Rod (Std.)	12
04	FP-205841	Bearing, Connecting Rod (.25mm)	A/R
04	FP-205842	Bearing, Connecting Rod (.50mm)	A/R
04	FP-205843	Bearing, Connecting Rod (.75mm)	A/R
07	3081040	Damper	1
08	FP-3043909	Bushing	6
15	FP-3042590	Gasket, Oil Pan	1
17	4000595	Gasket, Oil Pan Adapter (Formerly 3086280)	1
27	3090297	Seal, Oil	1
50	FP-3096260	Seal	1
51	FP-205247	Seal	1
02	FP-AR12270	Bearing Set, Main (Std.) (Includes Thrust Washers)	1
02	FP-AR12271	Bearing Set, Main (.010) (Includes Thrust Washers)	1
02	FP-AR12272	Bearing Set, Main (.020) (Includes Thrust Washers)	1
02	FP-AR12273	Bearing Set, Main (.030) (Includes Thrust Washers)	1

# QSK19 Series



## Camshaft, Cam Follower & Accessory Drive





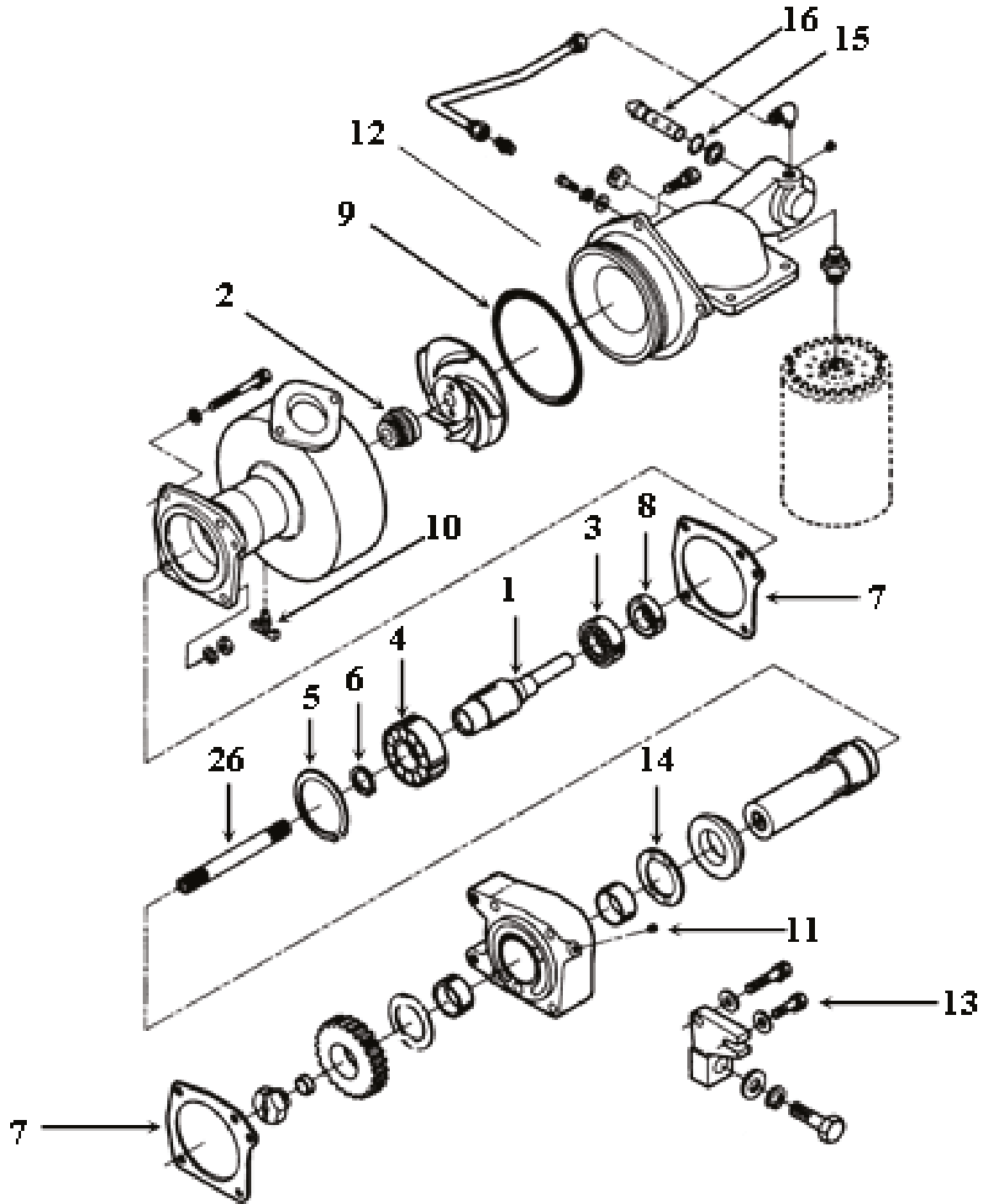
**Camshaft, Cam Follower & Accessory Drive**

Ref	Part Number	Description	QSK19
01	3090000	Camshaft	1
03	3081261	Gasket	1
03	S 302	Key	1
04	3014766	Bolt, w/Washer	2
05	3329533	Gear	1
06	FP-3000175	coupling	1
08	3090358	Bearing, Thrust	2
09	130083	Bearing, Thrust	2
10	FP-3014103	Washer	1
11	3045136	Washer	1
12	3090256	Bushing	1
13	3402170	Ring	1
14	FP-3410171	Gasket	1
15	130083	Metal, Thrust	1
16	3090358	Bearing, Thrust	1
17	FP-3410171	Gasket	1
18	4065751	Pin	12
19	3090009	Roller	12
20	3090010	Roller	12
21	3090010	Roller	12
22	3090377	Rod, Push	12
23	3408259	Rod, Push	12
25	FP-3075381	Tappet Assy (HVT, STC Fuel Systems Pre 1991)	6
25	FP-3075383	Tappet Assy (HVT, STC Fuel Systems 1991 - Up, Mushroom Design)	6
26	3045137	Bolt, w/Washer	1

# QSK19 Series



## Water Pump



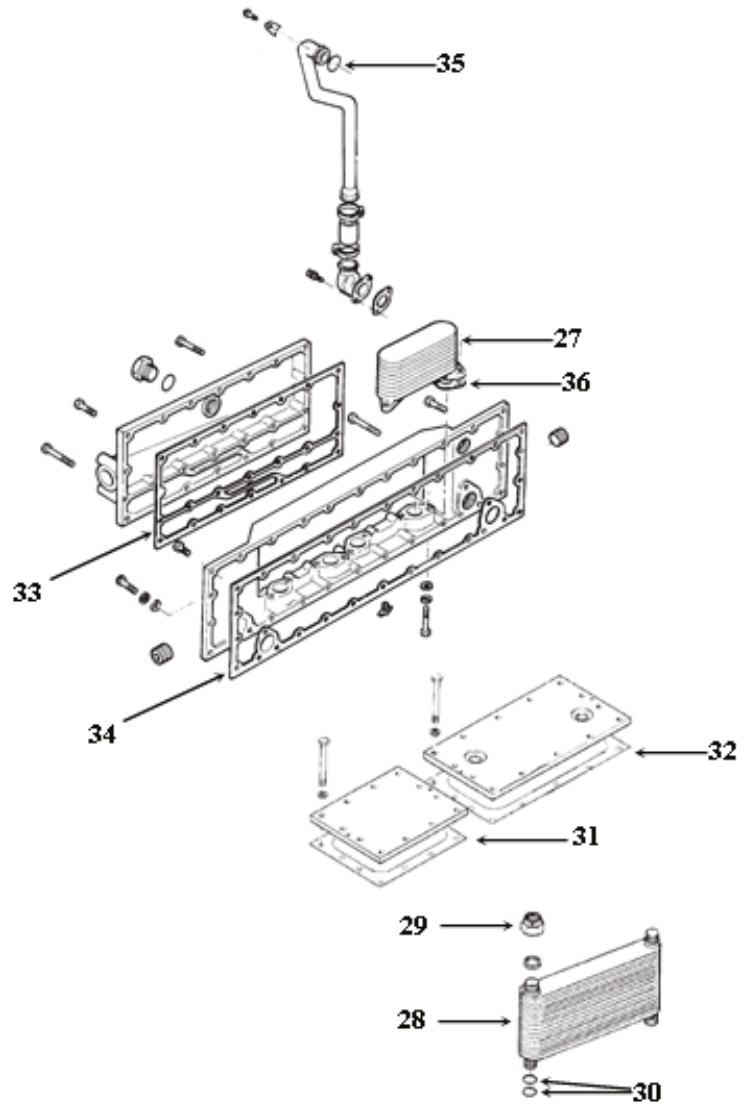
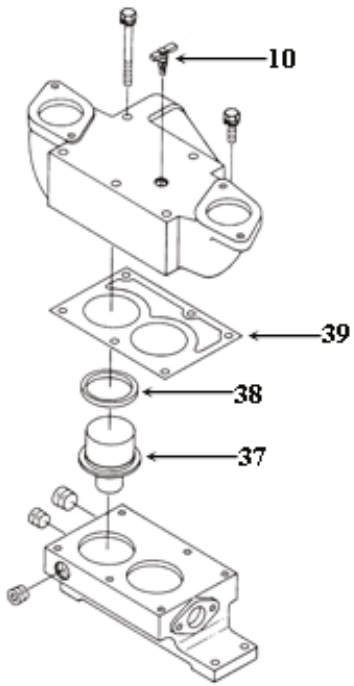
**Water Pump**

Ref	Part Number	Description	QSK19
01	FP-3042827	Shaft	1
02	3609826	Seal	1
03	FP-S16002	Bearing, Ball	1
04	FP-S16069	Bearing, Ball	1
05	FP-70183	Ring, Snap	1
06	FP-205258	Ring, Snap	1
07	FP-3202283	Gasket	1
08	FP-206948	Bearing, Ball	1
09	FP-145623	Seal, O-Ring	1
10	FP-S962E	Cock, Drain	1
11	3056003	Plug	1
13	3012474	Bolt	1
13	FP-3012472	Bolt -FP-3012472	1
14	3034721	Retainer	1

# QSK19 Series



## Thermostat & Coolers



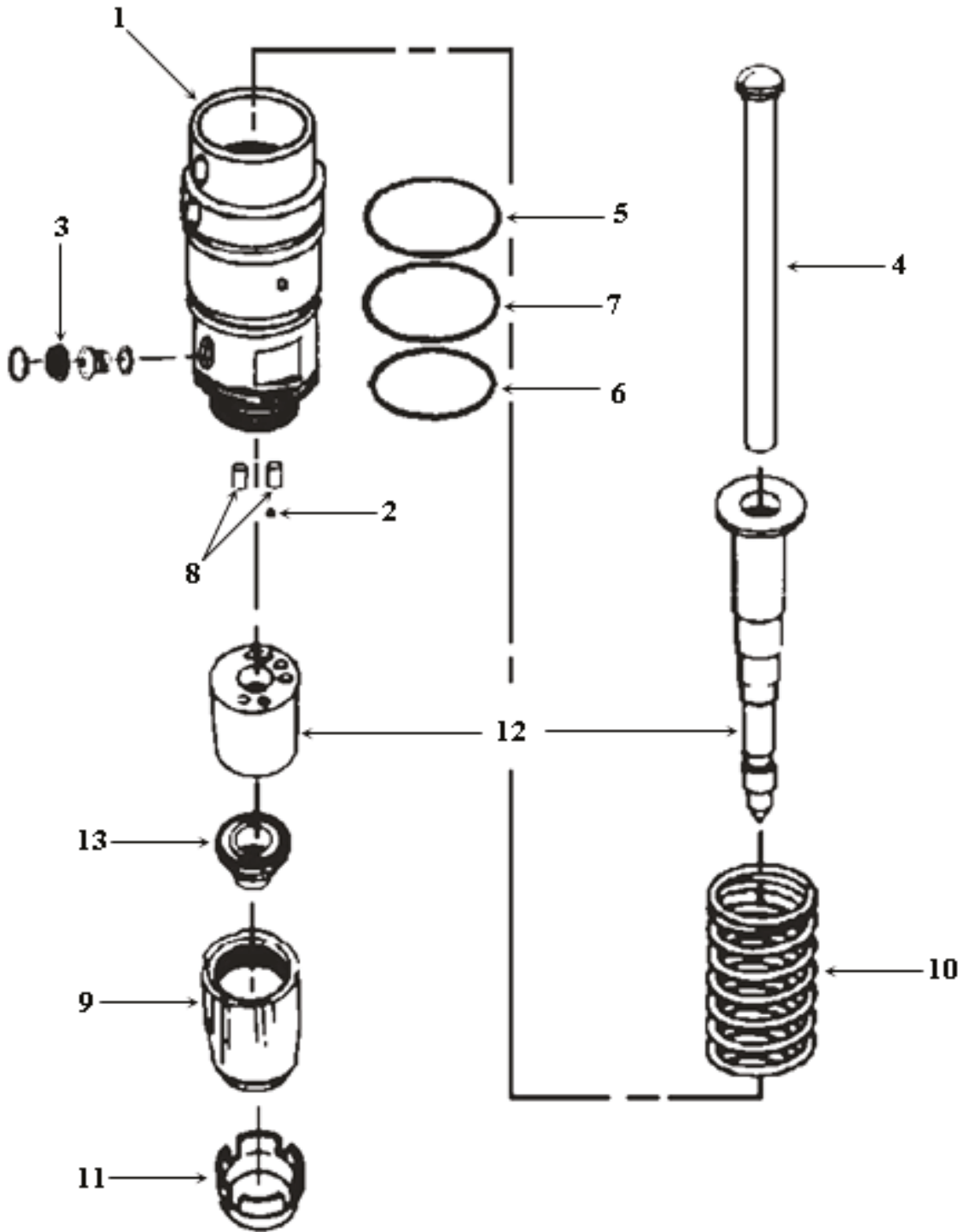
**Thermostat, Oil Cooler & Aftercooler**

Ref	Part Number	Description	QSK19
10	3087691	Cock, Drain	1
27	4095096	Core	1
29	3002126	Nut	2
30	FP-212161	Seal	8
31	3065792	Gasket	1
32	FP-3065791	Gasket	1
33	3200988	Gasket	1
34	FP-3200550	Gasket (FP-3065790)	1
35	3086052	Seal	1
36	FP-206973	Gasket	1
37	FP-3076489	Thermostat	2
38	FP-186780	Seal	2
39	3090170	Gasket	1
00	<b>FP-3804935</b>	<b>Kit, Oil Cooler</b>	2
28	FP-4095097	Core, Oil Cooler	1
00	FP-3078053	Bolt, Oil Cooler Mounting	4

# QSK19 Series



## Fuel Injectors



**Fuel Injectors**

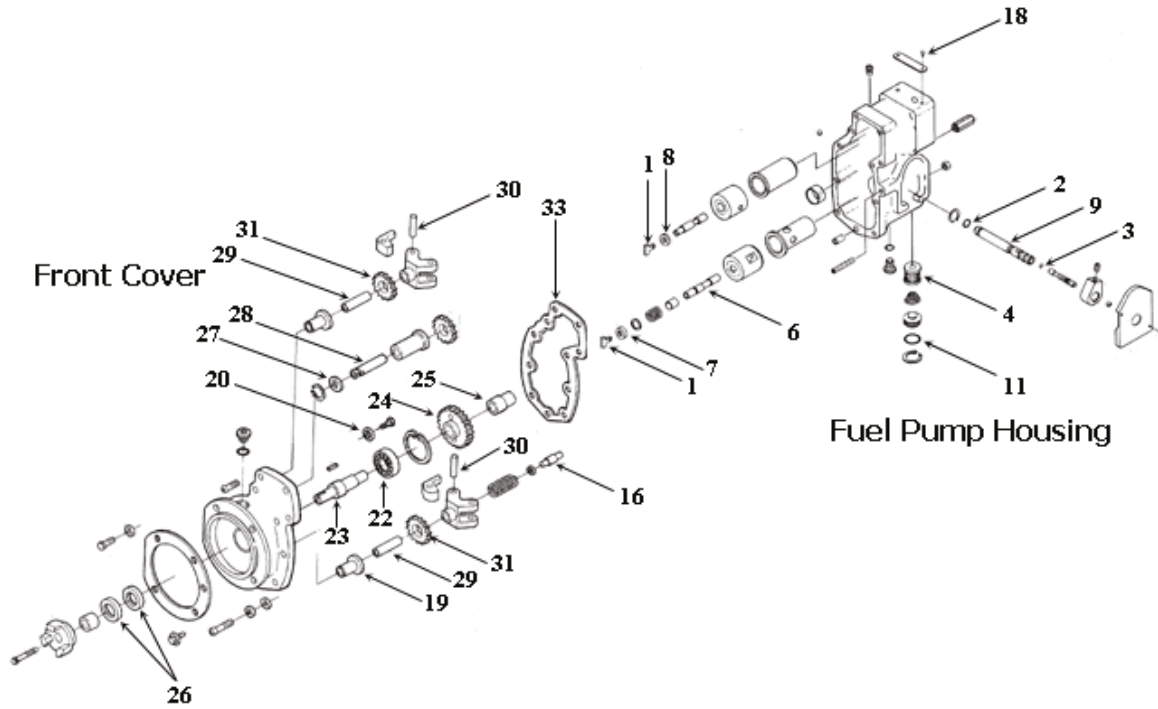
Ref	Part Number	Description	QSK19
01	4010578	Housing	6
02	FP-167157	Ball	12
03	3045047	Orifice	6
04	4087871	Plunger	6
05	3347937	Seal, O-Ring	6
06	3867651	Seal, O-Ring	6
07	4010577	Seal, O-Ring	6
08	203426	Pin	12
09	3329999	Retainer	6
10	3417290	Spring	6
11	3867687	Seal	6
12	4010026	Nozzle	6
13	4009692	Filter	6

# QSK19 Series

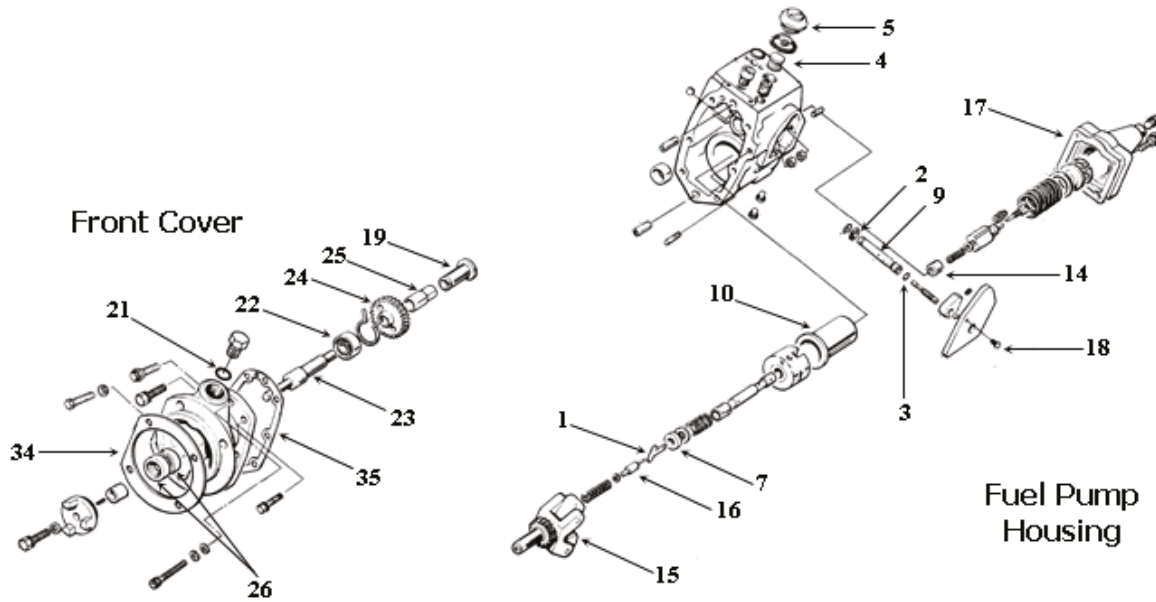


## Fuel Pump

### PTG-VS/AFC Industrial



### PTG Automotive







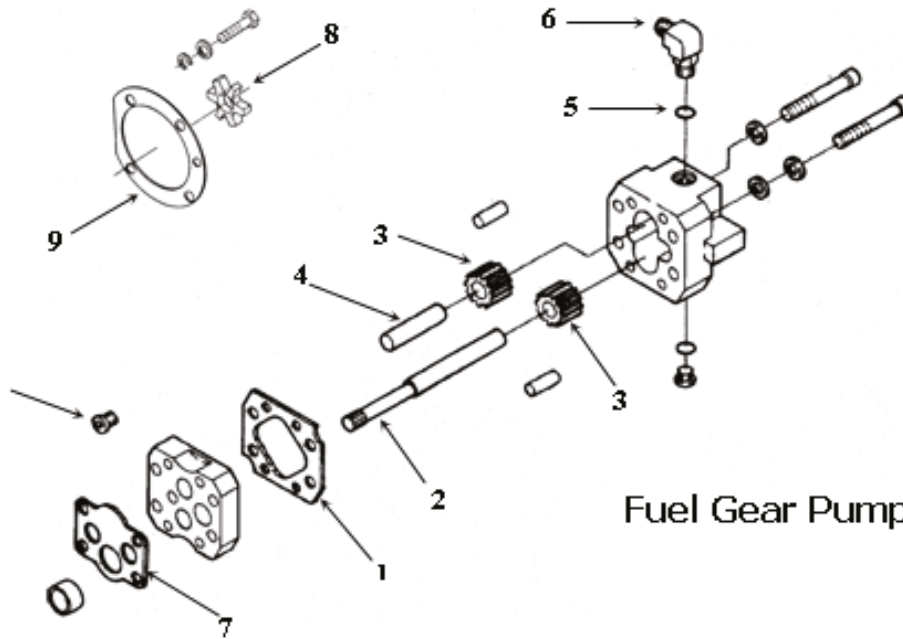
**Fuel Pump Housing**

Ref	Part Number	Description	QSK19
00	4001979	Pump, Fuel	1
00	4010509	Module, Fuel	1
00	4010510	Module, Fuel	1
00	FP-129888	Seal	2
00	FP-134076	Solenoid	1
00	FP-3037537	Seal, O-Ring	6
00	FP-3037537	Seal, O-Ring	1
00	FP-3922794	Seal, O-Ring	3

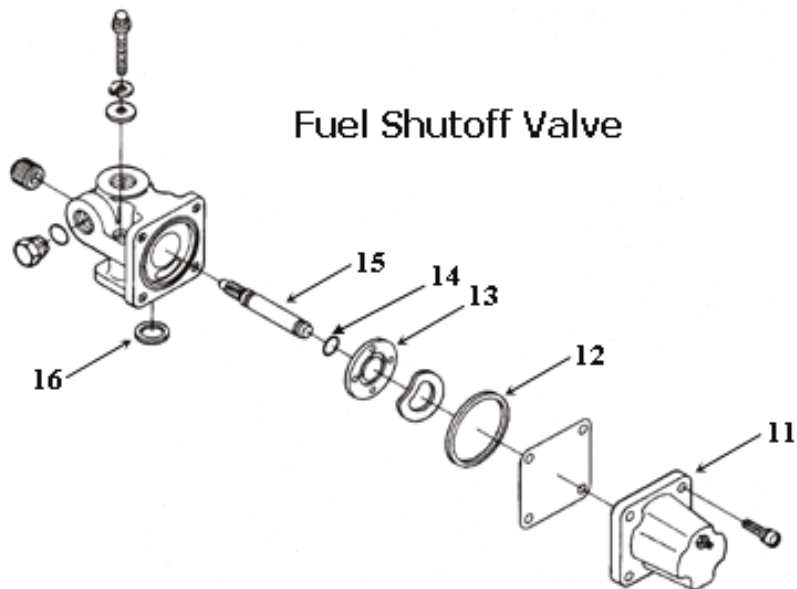
# QSK19 Series



## Fuel Gear Pump



Fuel Gear Pump



Fuel Shutoff Valve

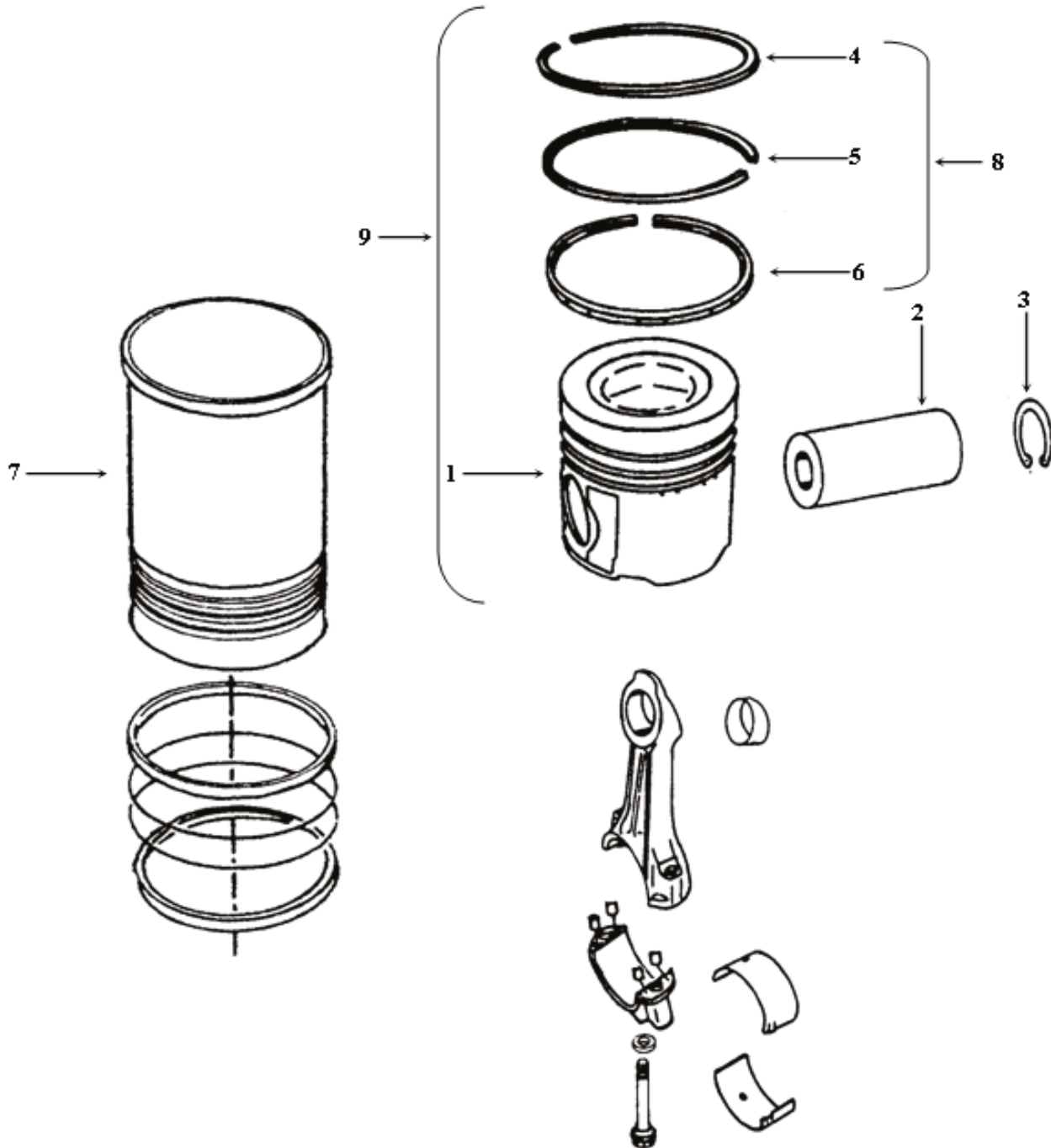
**Fuel Gear Pump**

Ref	Part Number	Description	QSK19
01	3330764	Seal, O-Ring	2
02	4001717	Shaft, Drive	1
03	3867578	Gear	4
04	3417162	Shaft, Drive	2
05	FP-3035228	Seal, Oring	1
06	3867410	Valve, Check	1
07	3348618	Seal, O-Ring	2
08	FP-3046200	Gear	1
09	FP-4026171	Gasket	1
11	FP-134076	Solenoid - FP-3021420	1
12	FP-129888	Seal	1
13	196057	Disc	1
14	3348652	Seal, O-Ring	1

# QSK19 Series



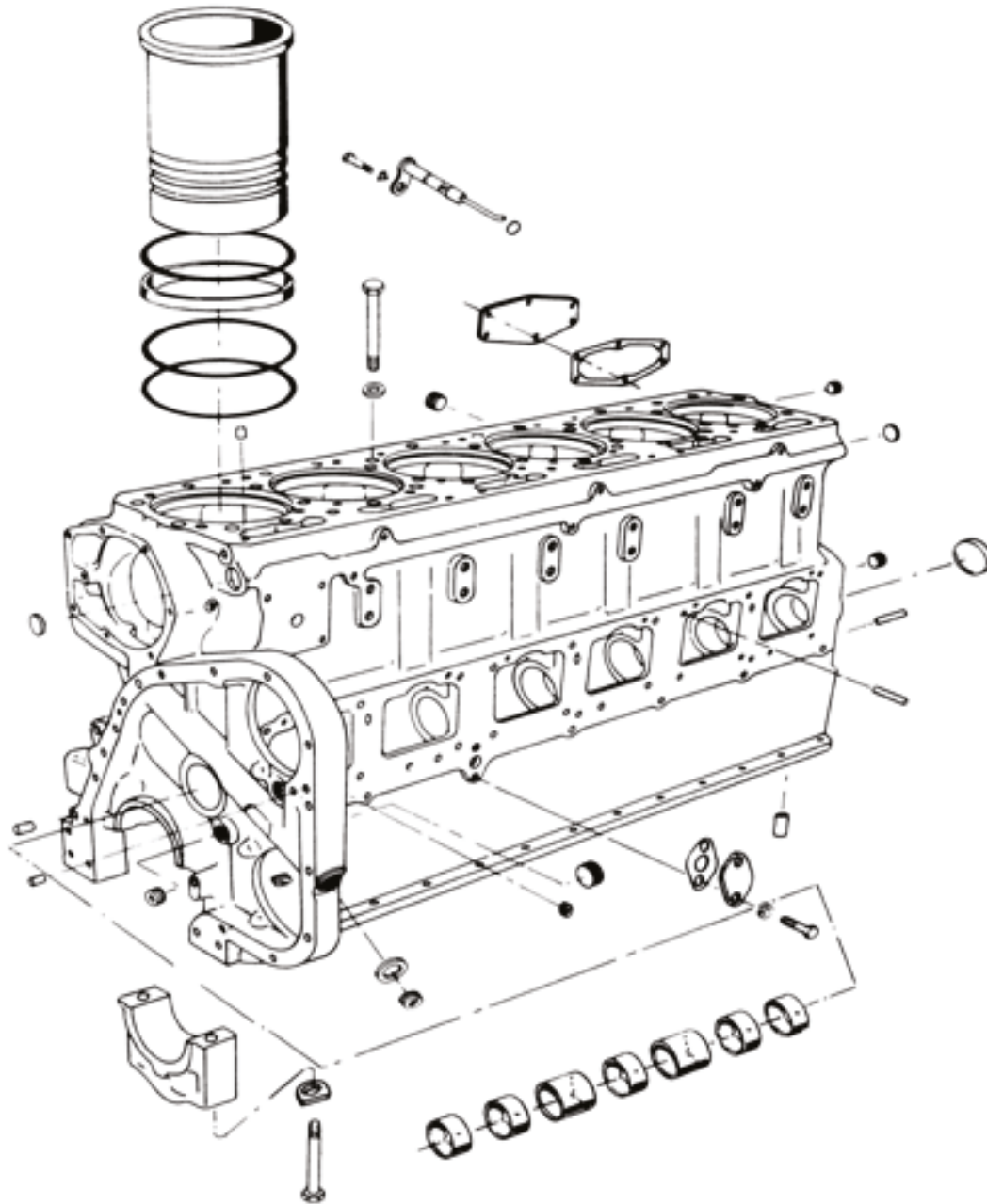
## Piston & Liner Kits



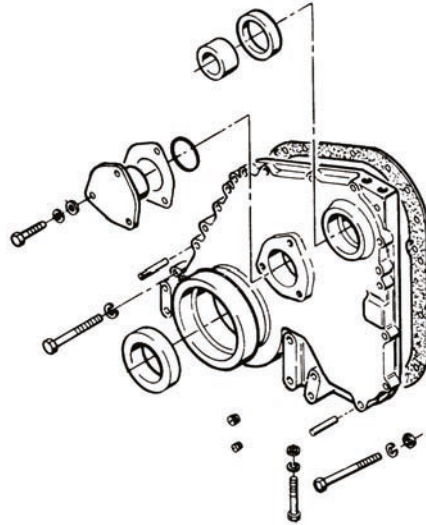
**Piston & Liner Kits**

Ref	Part Number	Description	QSK19
02	FP-4095009	Pin, Piston (Exc. Articulated Pistons)	6
02	FP-4095010	Pin, Piston (Articulated Piston Only)	6
03	FP-205269	Retaining Ring, Piston Pin	12
07	FP-4009220	Liner, Cylinder	6
07	FP-4024767	Kit, Cylinder Liner (Std.), (Previously FP-3028434)	6
07	FP-4024768	Kit, Cylinder Liner (.020 O.S.), (Previously FP-3028430)	6
07	FP-4024769	Kit, Cylinder Liner (.040 O.S.), (Previously FP-3028431)	6
07	FP-4024771	Kit, Cylinder Liner (.083 O.S.), (Previously FP-3024726)	6
07	FP-4024772	Kit, Cylinder Liner (.095 O.S.), (Previously FP-3028433)	6
07	FP-4024773	Kit, Cylinder Liner (.020/.020), (Previously FP-3803505)	6
07	FP-4024774	Kit, Cylinder Liner (.060/.020), (Previously FP-3803509)	6
07	FP-4024775	Kit, Cylinder Liner (.060 O.S.), (Previously FP-3803510)	6
09	<b>FP-3631245</b>	<b>Piston Kit w/Pin and Retainers</b>	6
01	FP-3096681	Piston Body w/o Pin	
02	FP-4095009	Pin, Piston	
03	FP-205269	Retaining Ring, Piston Pin	
08	<b>FP-4089500</b>	<b>Piston Ring Set</b>	6
04	4081176	Ring, Compression (Top) (Not Sold Separately)	-
05	3090460	Ring, Compression (Intermediate) (Not Sold Separately)	-
06	3090450	Ring, Oil Control (Not Sold Separately)	-
00	<b>FP-PKQSK19</b>	<b>Crownless Piston Kit</b>	6
01	FP-3090067	Skirt, Piston	6
02	FP-4095010	Pin, Piston (Articulated Piston Only)	6
03	FP-205269	Retainer, Piston Pin	12
08	FP-4089500	Piston Ring Set	





Exploded View of Typical 855 Series Engine



**Front Cover**

Engine	Part Number	Description	Comment
855	FP-AR1176	Shim Kit	Cam Thrust
855	FP-3021705	Gasket, Front Cover	Split Type
855	FP-3021704	Gasket, Front Cover	Single Piece
855	FP-3008530	Support	Flangless Camshaft
855	FP-3004316	Seal, Oil Accessory Drive	
855	FP-215705	Packing, Support	
855	FP-190397	Sleeve, Accessory Drive	
855	FP-132770	Bushing	Front Cover



**Small Cam Gasket Sets**

Complete O / H	Upper Set	Lower Set	Comments	Single Head Set	Head Gasket
FP-3011472 <sup>14</sup> FP-3801337 <sup>11</sup> FP-3801348C <sup>15</sup>	FP-4058790S		In-Frame Overhaul FFC	FP-4024958	FP-4058790
	FP-4024956		w/Solid Head Gasket		FP-4058790
	FP-3804276S		In-Frame Overhaul FFC O/S Grommets	FP-4024958	FP-4058790
	FP-3804276-OS	FP-3014459 <sup>15</sup>	0.010 O/S Head Gasket		FP-3098985
	FP-3801397	FP-3801464 <sup>15</sup>	NT855 Non FFC	FP-3801324	FP-4058790
	FP-3804276	FP-3014459 <sup>15</sup>	Standard FFC and Piston Cooling	FP-4024958	FP-4058790
	FP-3804276	FP-3801465 <sup>11</sup>	855 NTA	FP-4024958	FP-4058790
	FP-3804276	FP-3014459 <sup>15</sup>	0.010" O/S Water Grommet	FP-4024958	FP-4058790

**Big Cam In-Frame Gasket Sets**

Complete O / H	Upper Set	Lower Set	Comments	Single Head Set	Head Gasket
	FP-4024953S		In-Frame Set BC I, II, III NTC 475		FP-4058790
	FP-4024920S10		In-Frame Set BC IV 0.010 O/S Grommets		FP-4058790
	FP-4024920S		In-Frame Set Big Cam IV Standard		FP-4058790
	FP-4024919S		In-Frame Set Big Cam IV, STC		FP-4058790
	FP-4024918S10		In-Frame Set NT88 BC IV 0.010 O/S Grommets		FP-4058790
	FP-4024918S		In-Frame Set NT88 Big Cam IV		FP-4058790
	FP-3804276S		In-Frame Set Standard Big Cam		FP-4058790
	FP-4024919S10		In-Frame Set BC IV 0.010 O/S Grommets		FP-4058790

**Big Cam I, II, III Gasket Sets**

Complete O / H	Upper Set	Lower Set	Comments	Single Head Set	Head Gasket
FP-3801335 <sup>15</sup>	FP-3804276-OS		0.010 O/S Head Gasket		FP-3098985
	FP-3804276	FP-3801469 <sup>15</sup>	Big Cam I, II NTC 475 and NTCC	FP-4024958	FP-4058790
	FP-3804276	FP-3801468D <sup>15</sup>	Big Cam I, II, III Special For Wet Clutch		FP-4058790
	FP-3804276	FP-3801468 <sup>15</sup>	Big Cam I, II, III	FP-4024958	FP-4058790
	FP-3804276	FP-3801235 <sup>15</sup>	Big Cam III NTC 400 & Below	FP-4024958	FP-4058790
	FP-3013479 <sup>35</sup>	FP-3801470 <sup>15</sup>	NTE (European) NTE 290	FP-4024958	FP-4058790
	FP-4024953	FP-3801529 <sup>15</sup>	Big Cam I, II, III NTC 475 & NTCC w/MVT	FP-4024958	FP-4058790

**Big Cam IV Gasket Sets**

Complete O / H	Upper Set	Lower Set	Comments	Single Head Set	Head Gasket
FP-3356174 <sup>15</sup> FP-3801754C10 <sup>15</sup> FP-3803040C <sup>15</sup> FP-3803040C10 <sup>15</sup>	FP-4024920-OS	FP-3801454 <sup>15</sup>	0.010 O/S Head Gasket		FP-3098985
	FP-4024920 10	FP-3801454 <sup>15</sup>	0.010 O/S Water Grommet	FP-4024921 10	FP-4058790
	FP-4024920	FP-3801454 <sup>15</sup>	NTC BC IV FFC Standard	FP-4024921	FP-4058790
	FP-4024919-OS	FP-3801454 <sup>15</sup>	0.010 O/S Head Gasket		FP-3098985
	FP-4024919	FP-3803041 <sup>15</sup>	NTC 444 STC BC IV FFC	FP-4024921	FP-4058790
	FP-4024919	FP-3801454 <sup>15</sup>	Big Cam IV S.T.C.	FP-4024922	FP-4058790
	FP-4024918-OS	FP-3803041 <sup>15</sup>	0.010 O/S Head Gasket		FP-3098985
	FP-4024918	FP-3803041 <sup>15</sup>	NTC 365/400 STC BC IV FFC	FP-4024921	FP-4058790
	FP-3801350	FP-3803041 <sup>15</sup>	NTC BC IV FFC	FP-4024921	FP-4058790
	FP-4024920	FP-3801454 <sup>15</sup>	Big Cam IV Standard	FP-4024921	FP-4058790
	FP-4024919 10	FP-3801454 <sup>15</sup>	0.010 O/S Water Grommet	FP-4024922 10	FP-4058790
	FP-4024918	FP-3803041 <sup>15</sup>	NT88 Big Cam IV	FP-4024952	FP-4058790
	FP-4024918 10	FP-3803041 <sup>15</sup>	0.010 O/S Water Grommet	FP-4024952 10	FP-4058790

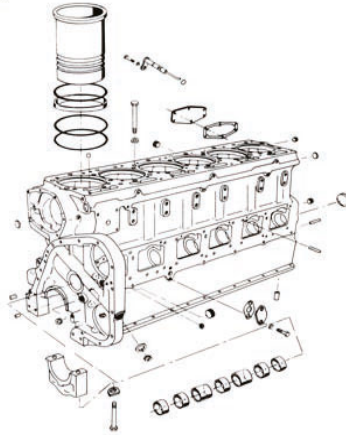
<sup>14</sup>W/O Crankshaft Seals <sup>14</sup>W/Rear Crankshaft Seal Only <sup>15</sup>w/Front & Rear Crankshaft Seals <sup>35</sup>Discontinued

Note: A Complete Overhaul Set Can Be Any Combination Of 1 Upper .1 Lower Gasket Set Based On Individual Needs

## Specialty Kits & Gasket Sets

Engine	Part Number	Description	Comment
Big Cam IV (85-87)	FP-3801606	Gasket Set C-Brake® 5 Hole	
B/C I, II, III, IV	FP-3801640	Gasket Set Jake Brake®	Small Cam and Big Cam
855 Big Cam	FP-3803017	MVT Seal Kit	
855 Series	FP-90004	Accessory Drive Repair Kit	
NT855	FP-90012	Turbo Installation Kit	
Small & Big Cam	FP-940014	Major Tune-Up Kit Jake Brake®	Includes Gasket Set FP-3801640
Small & Big Cam	FP-940015	Major Tune-Up Kit Jake Brake®	
855 Series (Natural Gas)	PG1330NG	Gasket Set, Cylinder Head .010 O/S Grommets	Accommodates Three Cylinder Heads
855 Big Cam	PGC100	Big Cam Follower Gasket Set	
855 Small Cam	PGC101	Small Cam Follower Gasket Set	
855 Series	PGC1014	Rear Crankshaft Seal Set	Seal And Gasket
855 Small & Big Cam	PGC110	Overhead Gasket Set	
NH855	PGC175	Front Cover Gasket Set	W/ FP-3020183 Front Seal
NTC855 Small & Big Cam	PGC176	Front Cover Gasket Set	W/ FP-3006736 Front Seal
88 Big Cam IV	PGC-20	Gasket Set C-Brake® 7 Hole	
855	PGC200	Gasket Set Oil Cooler FP-142608 (16")	Non-Piston Cooled
NTC855	PGC202	Gasket Set Oil Cooler FP-3021581 (12 1/2")	
855	PGC204	Gasket Set Oil Cooler	Low Mount Oil Cooler
NTC855	PGC205	Aftercooler Gasket Set For FP-214836	Single Pass Small Cam
NTC855	PGC206	Aftercooler Gasket Set For FP-3068724	Three Pass Big Cam
855 Series	PGC300	Pan Set	Includes Seals For Suction Tube & Drain Plug
855	PGJ-10	Gasket Set Jake Brake®	Small Cam and Big Cam
Big Cam I, II, III, IV	PGJ-15	Gasket Set Jake Brake® 5 Hole	
88 Big Cam IV	PGJ-20	Gasket Set Jake Brake® 7 Hole	
855 Small Cam	PGJ-5	Gasket Set Early Jake Brake®	

**Liners & Liner Kits**



**NT855**

Engine	Liner Kit	Bare Liner	Liner Seal Kit:	Crevice Seal	Liner Seal	Comment
NT855	FP-3801826	FP-3055099	FP-AR51477	FP-215090	FP-3032874 (2)	Standard LPF
855TT	FP-3801387	FP-3046325	FP-AR51477	FP-215090	FP-3032874 (2)	0.020" UPF
	FP-3803219	FP-3065405	FP-AR51477	FP-215090	FP-3032874 (2)	0.020"/0.040" LPF

**Small & Medium Vee Engines**

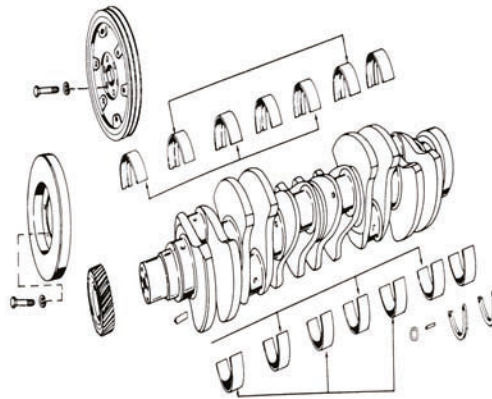
Engine	Liner Kit	Bare Liner	Liner Seal Kit:	Crevice Seal	Liner Seal	Comment
VT378	FP-3277592	FP-3022530		FP-216283	FP-216284 (2)	Standard
VT504	FP-3277592	FP-3022530		FP-216283	FP-216284 (2)	Standard

### Cam Bushings & Sets

Engine	Part Number	Description	Location	Comments
N743	FP-BM27253	Set, Cam Bushing	NH220	All Models
NH, NT855	FP-BM27253	Set, Cam Bushing	Small Cam	
NTC855	FP-3007689	Set, Cam Bushing	Big Cam	7 Required
NTC855	FP-3007689S	Cam Bearing Set	Big Cam	1 Required
NTC855	FP-3801106	Set, Cam Bushing	Big Cam	

### Block Upper Deck Repair Sleeves & Liners Shims (855)

Engine	Part Number	Description	Location	Comments
855	FP-202226 10	Upper Deck Repair Sleeve		.010 (Should Be .006 Depth)
855	FP-202226 20	Upper Deck Repair Sleeve		.020 (Should Be .006 Depth)
855	FP-202226 30	Upper Deck Repair Sleeve		.030 (Should Be .006 Depth)
855	FP-202226 5	Upper Deck Repair Sleeve		.005 (Should Be .006 Depth)
855	FP-202226 Std.	Upper Deck Repair Sleeve		Standard (Should Be .006 Depth)
855	FP-202227	Upper Deck Repair Sleeve		Semi- Finished
855	FP-3019955	Liner Shim		.007 Thick Standard Liner
855	FP-3019956	Liner Shim		.008 Thick Standard Liner
855	FP-3019957	Liner Shim		.009 Thick Standard Liner
855	FP-3019959	Liner Shim		.0315 Thick Standard Liner
855	FP-3019960	Liner Shim		.062 Thick Standard Liner
855	FP-3054948	Liner Shim		.0205 Thick Standard Liner
855	FP-3065406	Seal Ring		0.0205 Thick .020/.040 Liner
855	FP-3066843	Seal Ring		.018 Thick .020/.040 Liner
855	FP-3066844	Seal Ring		.0220 Thick .020/.040 Liner
855	FP-3376382	Upper Deck Repair Sleeve		.020 Upper Press Fit
855	FP-3822959	Upper Deck Repair Sleeve Std.		O.D. 6.750 Lower Press Fit
855	FP-3822960	Upper Deck Repair Sleeve .010		O.D. 6.760 Lower Press Fit
855	FP-3822961	Upper Deck Repair Sleeve .020		O.D. 6.770 Lower Press Fit
855	FP-3822963	Upper Deck Repair Sleeve .030		O.D. 6.780 Lower Press Fit
855	FP-AR51478	Shim Kit		Contains One Each Next 6 Items

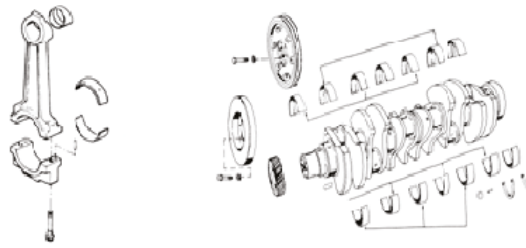


**Crankshafts, Seals And Vibration Dampers**

Engine	Crankshaft	Front Gear	Front Seal	Front Sleeve	Rear Seal Dry / Wet	Rear Sleeve
NT855	FP-3029340 Taper Nose	FP-142804	FP-3010457		FP-3006737	FP-3006743
NTC855	FP-3608833 Snub Nose	FP-3014614	FP-3006736	FP-3006742	FP-3006737 FP-3006738	FP-3006743

**Vibration Dampers**

Engine	Part Number	Size	Description
855 Snub Nose Crankshaft (Qty 6)	FP-204165		Bolt, Damper & Flywheel
855 Snub Nose Except NTC400	FP-211915	12.3 Inch	Damper
855 Tapered Nose	FP-217321	13.55 Inch	Damper
KTA19, NTA370, NTA420	FP-217322	13.55 Inch	Damper
855 Snub Nose NTC400-Up	FP-217323	13.55 Inch	Damper
855 Snub Nose Crankshaft (Qty 6)	FP-200861		Washer, Flywheel Bolt



**Main Bearing Sets**

Engine	Standard	.010	.020	.030	.040	Thrust Washer	Comments
N743 / NH220	FP-3801260	FP-3801261	FP-3801262	FP-3801263	FP-3801264	FP-3067568 Std. (4 req.)	FP-3067568 Std. (4 req.)
NH, NT855	FP-3801260	FP-3801261	FP-3801262	FP-3801263	FP-3801264	FP-3074361 0.010"	FP-3074361 0.010"

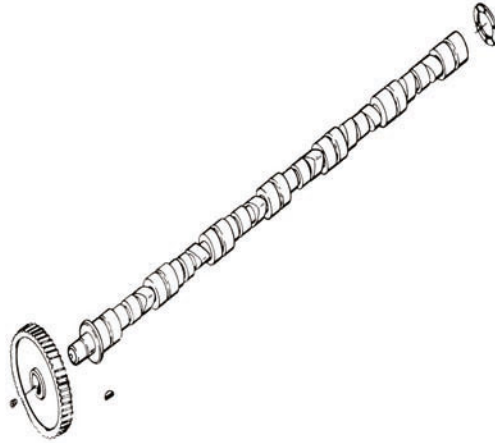
**Connecting Rod Bearings**

Engine	Standard	.010	.020	.030	.040	Rod Bushing	Rod Bolt	Rod Nut
NH, NT855 S/C	FP-203660	FP-203661	FP-203662	FP-203663	FP-203664	FP-187420	FP-9195-3 <sup>17</sup>	FP-69936
N743 B/C	FP-214950	FP-214951	FP-214952	FP-214953	FP-214954	FP-187420	FP-219153	

<sup>17</sup>Rod Bolt Nut Requires Washer # FP-200861

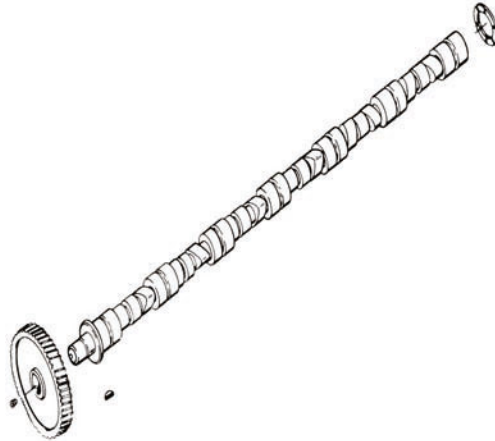
**Connecting Rods, New**

Engine	Conn Rod	Rod Bushing	Rod Bolt	Rod Nut
855 Big Cam	FP-3013930	FP-187420	FP-219153	



**855 Camshaft Keys**

Engine	Camshaft	Description	Comment
N855	FP-3021592	Cam Key 3/4"	
N855	FP-3021593	Cam Key 3/4"	
N855	FP-3021594	Cam Key 3/4"	
N855	FP-3021595	Cam Key 3/4"	
N855	FP-3021596	Cam Key 3/4"	
N855	FP-3021597	Cam Key 3/4"	
N855	FP-3021598	Cam Key 3/4"	
N855	FP-3021599	Cam Key 3/4"	
N855	FP-3021600	Cam Key 3/4"	
N855	FP-3021601	Cam Key 3/4"	
N855	FP-69550	Cam Key 1"	
NTC855	FP-3022352	Cam Key 3/4" (MVT)	
NTC855	FP-3022353	Cam Key 3/4" (MVT)	



**Camshafts By CPL**

Engine	Camshaft	Control Parts List (CPL)	Comment
NH, NT855	FP-3023177	002, 005, 021, 022, 069, 077, 081, 093, 100, 101, 107, 123, 132, 133, 135, 144, 147, 155, 161, 166, 173, 201, 202, 204, 215, 217, 221, 226, 227, 230, 246, 256, 259, 260, 272, 276, 280, 285, 288, 288, 299, 300, 316, 317, 318, 319, 325, 326, 331, 346, 370, 371, 407, 411, 412, 416, 437, 488, 511, 547, 572	Small Cam 5½" Bore
NH, NT855	FP-3801030	018, 026, 121, 172, 200, 258, 271, 312, 356, 357, 544	Small Cam 5½" Bore
NTC855	FP-3026972	330, 454, 455, 456, 457, 458, 459, 518, 523, 702, 658, 1183, 1197	Big Cam 5½" Bore
NTC855	FP-3049024	462, 463, 470, 512, 517, 538, 539, 540, 541, 542, 543, 545, 553, 554, 566, 567, 573, 574, 579, 582, 583, 585, 588, 609, 611, 612, 650, 657, 675, 700, 701, 706, 719, 732, 733, 743, 744, 745, 811, 832, 849, 909, 1171, 1180, 1204, 1205, 1252, 1411, 1415, 1416, 1417, 1418	Big Cam 5½" Bore Flangeless
NTC855	FP-3608786	838, 840, 1187, 1352	Big Cam 5½" Bore
NTC855	FP-3801426	586, 614, 615, 616, 617, 677, 794, 795	Big Cam MVT
NTC855	FP-3801448 <sup>18</sup>	642, 647, 651, 659, 676, 814	Hi-Lift Big Cam IV
NTC855	FP-3801668	653, 654, 880, 908, 989, 991, 1167, 1179, 1193, 1314	Big Cam S.T.C.
NTC855	FP-3801749	806, 821, 833, 903	Big Cam S.T.C.
NTC855	FP-3801763	199, 214, 218, 222, 233, 254, 266, 267, 294, 298, 306, 307, 308, 309, 310, 315, 322, 323, 324, 327, 328, 329, 332, 338, 339, 344, 345, 349, 353, 354, 360, 362, 363, 364, 365, 369, 373, 374, 375, 376, 394, 395, 396, 397, 402, 414, 431, 432, 433, 435, 449, 450, 460, 461, 471, 481, 482, 483, 485, 491, 492, 499, 500, 506, 516, 529, 530, 536, 551, 552, 581, 606, 749, 769, 796, 797, 812, 891, 963625, 632, 634, 669, 674, 718, 1188, 1211	Big Cam 5½" Bore Flanged
NTC855	FP-3803903 <sup>18</sup>	1188, 1211	Hi-Lift Big Cam IV

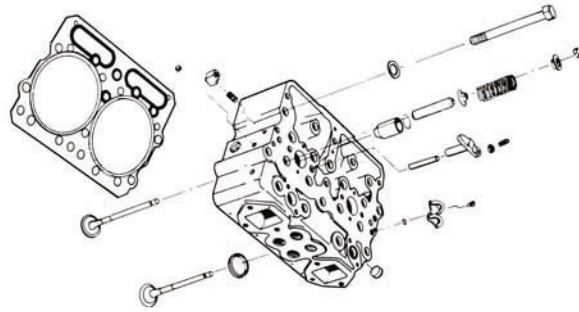
<sup>18</sup>Hi-Lift Cams Must Use Piston # FP-3028706, FP-3028685 or FP-3028686 (Which Have .340" Valve Relief)

**855 Camshaft Components**

Engine	Camshaft	Description	Comment
855	FP-9235-1	Thrust Washer, Camshaft	Small Cam
N855	FP-215966	Cam Gear	Small & Big Cam
N855	FP-AR1176	Shim Kit	Small & Big Cam
NTC855	FP-215233	Thrust Washer, Camshaft	Big Cam
NTC855	FP-3002901	Cam Gear	Big Cam II, III, IV
NTC855 Big Cam	FP-3008530	Camshaft Support	Flangeless Cam
NTC855 Big Cam	FP-708124 <sup>35</sup>	Camshaft Support	Flanged Cam

<sup>35</sup>Discontinued





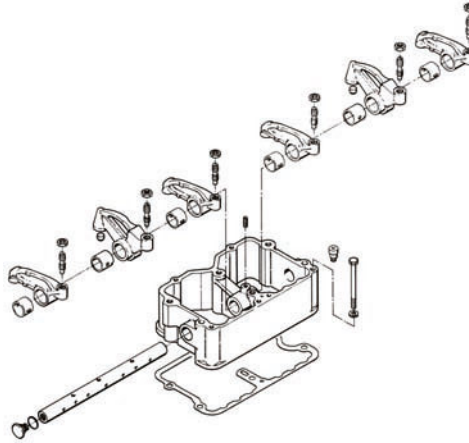
**Cylinder Heads & Components**

Engine	Head / Bare	Head W/ Valves	Injector Tube	Inj. Tube Seal	Head Bolt	Comment	Comment
NH, NT855 Small Cam	FP-3041992	FP-3041993	FP-3070486	FP-3007759	FP-209700	Quantity 36	6¼" Long
NTC855 Big Cam	FP-3041992	FP-3041993	FP-3070486	FP-3007759	FP-3013623	Quantity 36	7¼" Long

Engine	Intake Valve Kit Valve / Bare	Exhaust Valve Kit Valve / Bare	Locks, Valve	Spring, Valve	Guide, Valve	Seal, Valve Guide	Insert, Intake Insert, Exhaust
NT855	FP-3803512 (FP-135957)	FP-3803524 (FP-145701)	FP-127554	FP-211999	FP-3006456 <sup>20</sup> (Std.) FP-3006457 <sup>20</sup> (0.010") FP-3006458 <sup>20</sup> (0.015")	FP-156641	FP-200354 <sup>21,35</sup> FP-3017759 (Std.) FP-30177593 (0.003")
88 B/C IV <sup>20</sup>	FP-3803512 (FP-135957)	FP-3803519 (FP-3040830)	FP-127554	FP-3081212		FP-156641	FP-3054590 FP-3054600

<sup>20</sup>Check Cummins Service Topics 93T2-2 <sup>21</sup>Check Availability <sup>35</sup>Discontinued

Engine	Retainer Valve Spring	Seat Valve Spring	Crosshead Intake and Exhaust	Crosshead Guide	Push Rod Intake Valve	Push Rod Exhaust Valve	Push Rod Injector
855 Small Cam	FP-170296	FP-3042745	FP-3030038	FP-123558	FP-3053377	FP-3046418	FP-3046431
855 Big Cam	FP-170296	FP-3042745	FP-3028293	FP-123558	FP-3046420	FP-3046420	FP-3046430
NTC855BC IV	FP-3036966	FP-3047395					



**Rocker Arm Bushings & Components**

Engine	Bushing, Valve Rocker Lever	Bushing, Injector Rocker Lever	Adjusting Screw, Rocker Arm Crosshead	Nut, R / A Adjusting Screw Crosshead	Socket, Lever Injector	Shaft, Rocker, Plug	Gasket, Rocker Housing	Gasket Valve Cover
855 Small Cam	FP-140330	FP-218153	FP-168306	FP-S212	FP-194037	FP-3038904 FP-3038903	FP-3017750	FP-3054841
855 Big Cam	FP-140330	FP-218153	FP-168306	FP-S212	FP-194037	FP-3038904 FP-3038903	FP-3017750	FP-3054841
88 Big Cam IV	FP-3058462	3063296 <sup>11</sup>	FP-168306 FP-147389	FP-S212 FP-203131	FP-194037	3044399 <sup>22</sup> FP-3044789	FP-3049187S	FP-3058532

<sup>11</sup>W/O Crankshaft Seals <sup>22</sup>Not Available From FP Diesel

O-Rings, End Plugs, N743-4V and 855 Rocker Shafts: S/C, B/C I, II- Use FP-3000521, B/C III- Use FP-3058653, B/C IV- Use FP-3058654, 2 Ea. Per Shaft Req

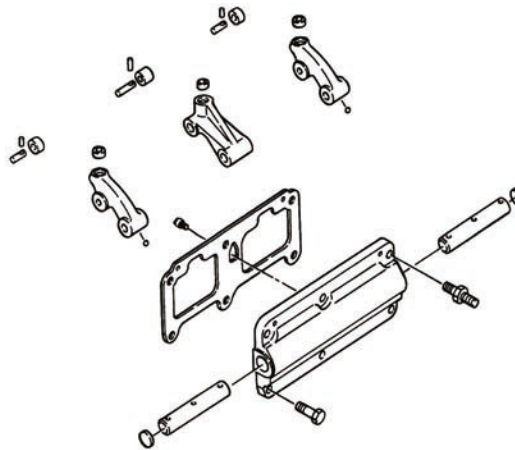
**Miscellaneous 855 Cylinder Head Components**

Engine	Part Number	Description	Comment
855	FP-147100	Fuel Crossover	2 Per Head Req.
855	FP-131026	O-Ring, Fuel Crossover	12 Per Head Req.
855	FP-70772	Screw, Fuel Crossover	12 Per Head Req.
855	FP-181213	Fitting	90 Degrees
855	FP-213394	Cup Plug, Expansion (1 Req.)	¾"
855	FP-213395	Cup Plug, Expansion (6 Req.)	1"
855	FP-216524	Cup Plug, Expansion (2 Req.)	1¼"
855	FP-3823681	Insert, Water	Threaded
855	FP-CWB008	Insert, Brass	

# NT855



## Cam Follower And Components

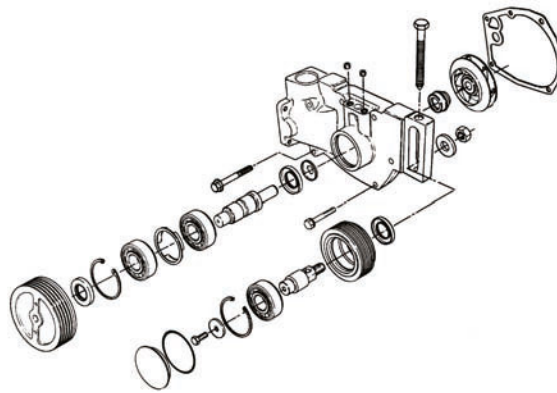


### NH NT855

Engine	Housing, Shaft	Lock Pin, Valve	Lock Pin, Injector	Valve Roller	Injector Roller	Pin, Valve Roller	Pin, Injector Roller	Socket, Intake And Exhaust Valve	Pin, Valve Roller
855 Big Cam (Cam Follower)	FP-3065125 FP-3065125 FP-3016887	FP-118939	FP-118939	FP-3036933	FP-3036934	FP-3013331	FP-3013330	FP-118378	FP-118377
855 Small Cam (Cam Follower)	FP-3016887	FP-118939	FP-118939	FP-9260-1	FP-3062096	FP-68513	FP-3017544	FP-118378	FP-118377

### Cam Follower Gaskets

Engine	Part Number	Thickness	Part Number	Thickness	Part Number	Thickness	Part Number	Thickness
855 Small Cam / N927	FP-9266-A	0.006"-0.008"	FP-9266	0.014"-0.020"	FP-3011272	0.020"-0.024"	FP-120819	0.027"-0.033"
855 Big Cam	FP-3074401	0.006"-0.008"	FP-3074400	0.014"-0.020"	FP-3074402	0.020"-0.024"	FP-3011273 FP-3074403 FP-3074404	0.037"-0.041" 0.018"-0.025" 0.026"-0.036"
855 MVT	FP-3029416	Mtg Gasket						



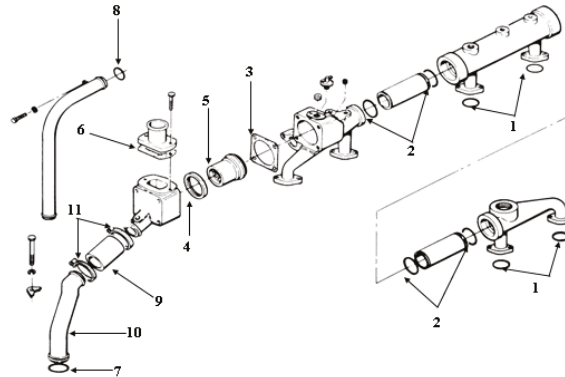
**Water Pump & Components**

Engine	W / P Assy. Mtg. Gasket	Repair Kit	Idler Assy. W / P Pulley	Shaft Retainer	Impeller Seal Assy.	Bearing, Inner Bearing, Outer	Thermostat And Seal
5-1/8 S/S	FP-9097				FP-3029099	FP-177596	FP-186780
NH855 Small Cam Pancake, Non-FFC	FP-AR4284 FP-130240 FP-130226		FP-154966	FP-199410 FP-S16255 FP-112302	FP-3020479 FP-3029099	FP-3063246 FP-3063246	FP-135675 <sup>26</sup> FP-186780
NTC230 Small Cam (Short Suit Case)	FP-3801713 FP-130226	FP-3801714 (250 HP & Below)	FP-3064920 (2 Ranuras)	FP-3050394 FP-S16255	FP-3010646 FP-3029099	FP-3063246 FP-3063246	FP-204586 FP-186780
NTC855 Big Cam (Short Suit Case)	FP-3801711 FP-130226	FP-3801714 (250 HP & Below)	FP-3064919 (Multi-Groove)	FP-3050394 FP-S16255	FP-3010646 FP-3029099	FP-3063246 FP-3063246	FP-204586 FP-186780
NT855 Small Cam FFC	FP-3801715 FP-3002385	FP-3801716 (Above 250 HP)	FP-3064920 FP-3007075 (2 Ranuras)	FP-3050394 FP-S16255 FP-112302	FP-3007637 FP-3029099	FP-3063246 FP-3063246	FP-135675 <sup>26</sup> FP-201737 <sup>27</sup>
NTC855 Big Cam I, II	FP-3801788 FP-3002385	FP-3801712	FP-3064919 FP-3025935 (Multi-Groove)	FP-3050394 FP-S16255 FP-112302	FP-3000888 FP-3029099	FP-3063246 FP-3063246	FP-204586 FP-186780
NTC855 BC I, II, III & Early Big Cam IV	FP-3801708 <sup>26</sup> FP-3002385	FP-3801712	FP-3064919 FP-3025935 (Poly-Vee)	FP-3050394 FP-S16255 FP-112302	FP-3000888 FP-3029099	FP-3063246 FP-3063246	FP-201737 <sup>27</sup> FP-186780
NTC855 88 BC IV	FP-3803138 FP-3002385	FP-3803345 <sup>24</sup> FP-3803139 <sup>25</sup>				FP-3063246 FP-3063246	FP-3052877
NH,NT 855		FP-3803202 (4.5" Impeller)			FP-3000888	FP-3063246	
NH,NT 855		FP-3803203 (5" Impeller)			FP-3007637	FP-3063246	
NH,NT855 BC/SC		FP-3801709 (Carbon Seal W/O Impeller)			FP-3029099	FP-3063246	

<sup>26</sup>Vented <sup>27</sup>Non Vented

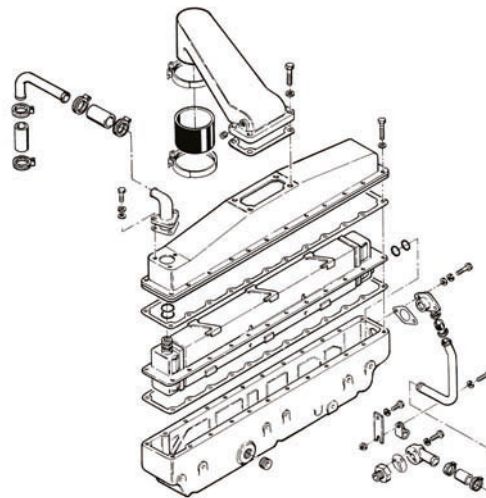
**855 Water Pump Impellers**

Impeller Part Number	Comment	Impeller Part Number	Comment	855 Water Pump Belts
FP-3010646 Short Suit Case	4.00" Diameter	FP-3602788	Cast Iron	4.60" Diameter
FP-3000888 BC I, II, III, Early BC IV	4.50" Diameter	FP-201766	NH743	4.75" Diameter
FP-3020479 Pancake Pump	4.75" Diameter	FP-208134	855 Komatsu	5.25" Diameter
FP-3007637 Small Cam FFC	5.00" Diameter			



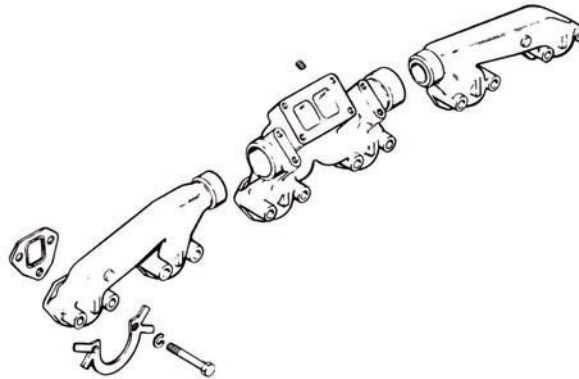
**Thermostat, Water Manifold Components**

Engine	Part Number	Description	Comment
	FP-3064455	Thermostat (175°F)	Big Cam IV-LFC Engs. Only
	FP-3064454	Thermostat (175°F)	NTC 444, 855NT-FFC
	FP-3064453	Thermostat (175°F)	Big Cam IV-LFC Engs. Only
	FP-3062069	Seal Ring, Thermostat (For 3049000, 3061649 only)	88NT
	FP-3049000	Thermostat (By Pass)	88NT
00	FP-3063618	O-Ring, Multiple Water Restrictor in Big Cam IV	Quantity 6
00	FP-3050667	O-Ring, Transfer Multiple Big Cam IV	Quantity 6
00	FP-215041	Tube, Connector	
00	FP-179901	Gate Valve, 3/8" Pipe-3/8" Heater Hose	
00	FP-157098	Gate Valve, 3/8" Pipe-5/8" Heater Hose	
00	FP-130394	Tube, Transfer	
1	FP-3024709	Seal Ring, Water Manifold	Quantity 6
10	FP-213485	Pipe, Water By-Pass	Quantity 1
11	FP-43828B	Clamp, Hose Type Water By-Pass	Quantity 2
2	FP-70624	O-Ring, Ends of Tube Type 'Coupling'	Quantity 4
3	FP-208128	Gasket, Thermostat Housing	
4	FP-186780	Seal, Thermostat Housing	
5	FP-3076489	Thermostat (180°F)	No Sale
5	FP-204586	Thermostat (175°F)	
5	FP-146076	Thermostat (160°F)	
5	FP-135675	Thermostat (180°F)	Vented
6	FP-3019158	Gasket, Water Outlet	
7	FP-43643A	O-Ring, Towards The Front Of The Tube Of By-Pass	Quantity 1
8	FP-212161	O-Ring, Water Transfer Tube	Quantity 2
9	FP-102522	Hose, Water By-Pass	Quantity 1



**Aftercooler Components**

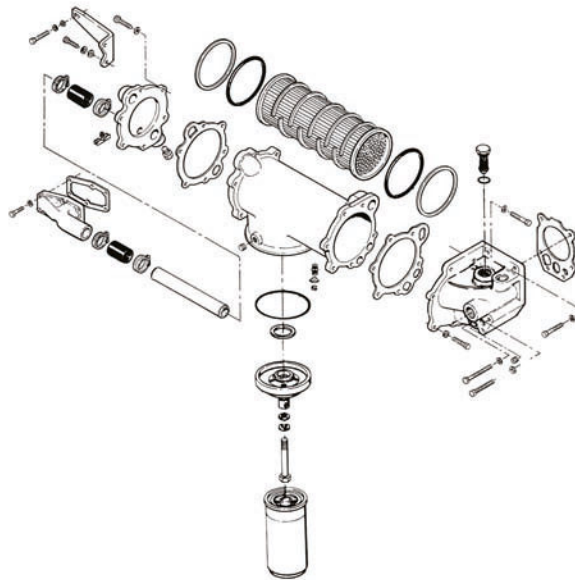
Engine	Part Number	Description	Comment
855	FP-3069098	Gasket, For The Base Of The Water Outlet	
855	FP-3012972	Gasket, Connector Type Cooler	
855	FP-214836	Element, Aftercooler	Simple Flow for Small Cam
KT19-KTA19	FP-3032161	Gasket, Connection Cooler Lid	Quantity 1
KT19-KTA19	FP-3023066	O-Ring, Transfer Tube	Quantity 2
KT19-KTA19	FP-3014304	Sleeve, Rubber	Quantity 24
KT19-KTA19	FP-3002158	Plug, Air Connector 1/8"	Quantity 1
KT19-KTA19	FP-3001305	Gasket, Cooler Lid Side	Quantity 2
KT19-KTA19	FP-3001304	Gasket, To Cover Cooler	Quantity 2
KT19-KTA19	FP-206808	Seal	Quantity 24
KT19-KTA19	FP-109557	Lockwasher, 1/4" Flat	Quantity 4
NTC855	FP-3411460	Element, Aftercooler	3 Holes, Big Cam
855	<b>FP-PGC205</b>	<b>Gasket Kit</b>	Only Applies To The FP-214836
	FP-216486	Gasket, Cooler (Sup. E Inf.)	Quantity 2
	FP-195952	Seal, Aftercooler Core	Quantity 4
	FP-3032348	Gasket, Side Water Inlet	
	FP-215044	Gasket, For The Base Of The Water Outlet	
	FP-195950	Gasket, Cooler	
	FP-216487	Gasket, Top of Cooler Base	
	FP-109080	O-Ring	
	FP-215045	Gasket, For The Base Of The Water Outlet	Quantity 3
	FP-3008591	Gasket, Air Inlet	
NTC855	<b>FP-PGC206</b>	<b>Gasket Kit</b>	Only Applies To The FP-3411460
	FP-109080	O-Ring	
	FP-195952	O-Ring	Quantity 4
	FP-215044	Gasket, For The Base Of The Water Outlet	
	FP-216486	Gasket, Cooler (Sup. E Inf.)	
	FP-216487	Gasket, Top of Cooler Base	
	FP-217037	O-Ring	
	FP-3008591	Gasket, Air Inlet	Quantity 3
	FP-3032348	Gasket, Side Water Inlet	



**Exhaust Manifold**

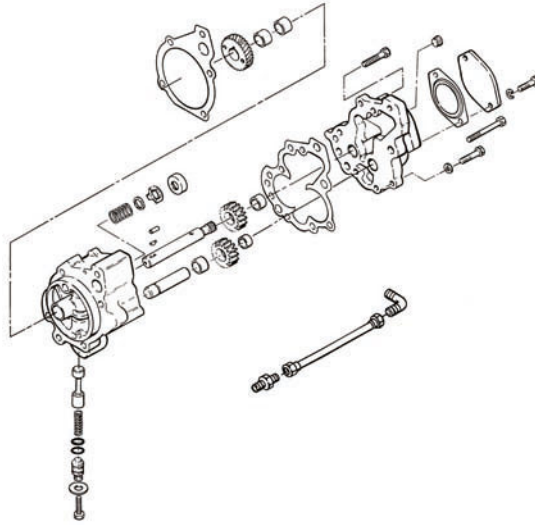
Engine	Part Number	Description	Comment
4BT3.9	FP-3905443	Gasket, Exhaust Manifold	Quantity 4
6BT5.9	FP-3905443	Gasket, Exhaust Manifold	Quantity 6
6CT8.3	FP-3932063	Gasket, Exhaust Manifold	Quantity 6
KT19	FP-3043097	Gasket, Exhaust Manifold	Quantity 6
KT38	FP-3037821	Gasket, Exhaust Manifold	Quantity 12
KT50	FP-3037821	Gasket, Exhaust Manifold	Quantity 16
L10/M11	FP-3328948	Gasket, Exhaust Manifold	Quantity 6
N14	FP-3020943	Gasket, Exhaust Manifold	Quantity 6
N743	FP-3020943	Gasket, Exhaust Manifold	Quantity 6 (4 Overhead Valve)
N743	FP-147263	Gasket, Exhaust Manifold	Quantity 3 (2 Overhead Valve)
N927	FP-3020943	Gasket, Exhaust Manifold	Quantity 6
NH, NT855	FP-3020943	Gasket, Exhaust Manifold	Quantity 6
NH, NT855	FP-116982	Lock Plate	Log Type Manifold
NH, NT856	FP-200566	Manifold, Center	Log Type Manifold
NT855	FP-3801915MK	Exhaust Manifold Mounting Kit	
V, VT1710	FP-3045941	Gasket, Exhaust Manifold	Quantity 12
V, VT903	FP-3028665	Gasket, Exhaust Manifold	Quantity 6
V378	FP-556356	Gasket, Exhaust Manifold	Quantity 2
V504	FP-556355	Gasket, Exhaust Manifold	Quantity 2
V555	FP-556355	Gasket, Exhaust Manifold	Quantity 2
NTC855	<b>FP-3800231</b>	<b>Sub Kit, Exhaust Manifold</b>	
	FP-3043647	Screw, Multiple-Type Pulsating	Quantity 12 in: 7/16"-14x3 3/4"
	FP-3020943	Gasket, Exhaust Manifold	Quantity 6
	FP-3010915	Stud, Turbo Mounting	Quantity 4: 3/8" NF x 1 7/8"
	FP-219138	Nut, Turbo Mounting	Quantity 4
	FP-3027653	Seal Kit With Spiral Washer	Quantity 2
	FP-202994	Hose, Turbo	Quantity 1
	FP-3069177	Gasket, Turbo Mounting	Quantity 1
	FP-216487	Gasket, For The Air Base Junction	Quantity 1
NT855	<b>FP-3801915</b>	<b>Kit, Pulse Manifold</b>	Includes Mounting Hardware
	FP-3052859	Manifold, Center	
	FP-3053138	Manifold, Front	
	FP-3053137	Manifold, Rear	

Oil Coolers & Components



Engine	Oil Cooler	Mounting Gasket	Seal	Retainers	Gasket Set	Comment
NH855	FP-110848	FP-68210 FP-3008017	FP-3019116 (2)	FP-110827		6 1/2" Non FFC
NT855 Big Cam I, II and III	FP-142608	FP-146309 FP-203922	FP-3007713 (2)	FP-3006745 (2)	PGC200	16" Core
NTC855 Small and Big Cam	FP-3021581	FP-218245 FP-3008017	FP-3007713 (2)	FP-3006745 (2)	FP-3801198 PGC202 PGC204	13" Core Low Mount Oil Cooler
NTC855 Big Cam III and IV	FP-3412285	FP-3047464 FP-3047465 FP-3069014	FP-3018695		FP-3801199	





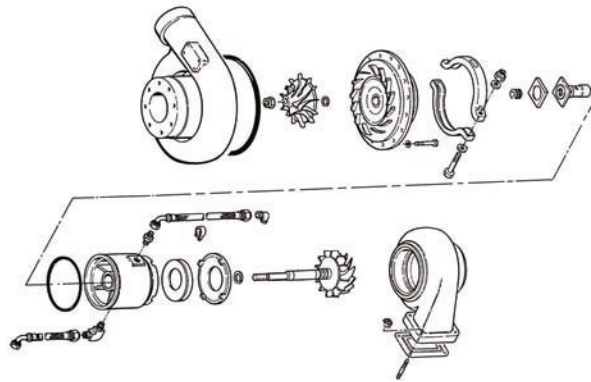
**Oil Pumps & Components**

Engine	Part Number	Description	Comment
	FP-551079	Spring, Pressure Regulator	
	FP-3201388	Gasket, Tube To Pump	
	FP-3201388	Gasket, Tube To Pump	
	FP-3201388	Gasket, Tube To Pump	
	FP-3004242	Gasket, Cover Pump	
	FP-183014	Spring, Pressure Regulator	
	FP-183014	Spring, Pressure Regulator	
	FP-183014	Valve, Pressure Regulator	
	FP-157551	Gasket, Tube To Pump	
Big Cam I	FP-109333	Valve, Pressure Regulator	
Big Cam II, III, IV	FP-3067613	Gasket, Pump To Block	Cooling
NH, NT855	FP-AR10172	Pump, Oil (New)	NTC270-NTC400
NTC855	FP-3821572	Pump, Oil (New)	Continuous Flow
Small Cam	FP-3067613	Spring, Pressure Regulator	
Todos	FP-216484	Dipstick Oil Level	90" Length, Universal Type
Todos	FP-154916	Gasket, Steering Pump	
Todos	FP-101322	Cap, Oil Fill, 2"	
V	FP-AR60801	Pump, Oil (New)	V6
VT504	FP-3275912	Pump, Oil (New)	V8 Turbo Charged

**855 Nozzle, Piston Cooling**

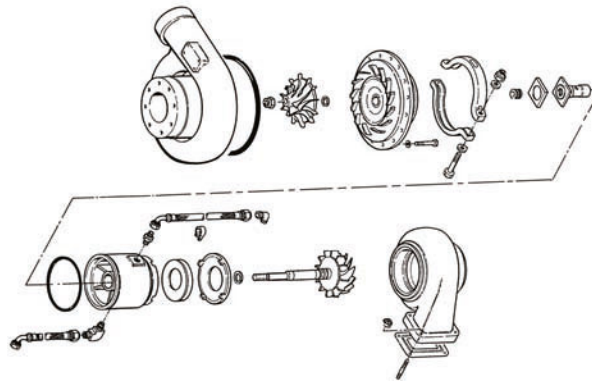
Engine	Part Number	Description	Comment
NH, NT855	FP-3013591	Piston Cooling Nozzle	Quantity 6

**Turbocharger Components**



Part Number	Description	Turbocharger Model	Comment
FP-206576	Gasket, Turbocharger Mounting		K-Series
FP-217736	Diffuser		
FP-3014354	Adapter		
FP-3069177	Gasket, Turbocharger Mounting		4 Holes (190849)
FP-3202117	Gasket, Turbocharger Drain		K-Series
FP-3901356	Gasket, Turbocharger Mounting		B-Series
FP-3911941	Gasket, Turbocharger Mounting		C-Series
FP-206576	Gasket, Turbocharger Mounting	HC-3	
FP-3751948	O-Ring, Turbo Charger Shaft	HC-3	
FP-70502	Ring, Type Safe For Turbo Bushings	HC-3	Has 4 Parts
FP-3521441	Seal, Split Ring	HT3B	
FP-3521442	Seal, Split Ring	HT3B	
FP-3801522	Kit, Seal	HT3B	
FP-3801523	Kit, Seal & Bearing	HT3B	
FP-3709510	Ring, Retaining	HT3B, HC-3	
FP-201048	Gasket, To Return Basis Lubrication	HT3B, HT4B	
FP-201049	Gasket, For Lubrication Input Base	HT3B, HT4B	
FP-3010915	Stud, Turbo Mounting	HT3B, HT4B	Has 4 Parts
FP-156420	Bushings, Turbo Shaft Type for "Dual"	ST50, VT50	
FP-156444	Seal, Coupling W/Propellant Plate	ST50, VT50	
FP-167299	Nut, Clamp	ST50, VT50	Has 2 Parts; 1/4"
FP-171570	Cover, Seal Central Body to esc.	ST50, VT50	
FP-186917	Clamp, Turbo To Exit	ST50, VT50	
FP-202457	O-Ring, Central Body	ST50, VT50	
FP-211375	O-Ring, Central Body	ST50, VT50	
FP-3034736	Seal, Ring Type	ST50, VT50	Previous FP-195840
FP-3038745	Body, Central Base Bushings	ST50, VT50	Previous FP-202376
FP-S222A	Locknut	ST50, VT50	Quantity 2
FP-S631	Washer, Clamp	ST50, VT50	Has 4 Parts; 1/4"
FP-100918	Gasket, Compressor Housing	ST-50, VT-50	NT855, NTC855 (8 Holes)
FP-3000560	Connector, For Oil Output	ST-50, VT-50	45°
FP-202853	O-Ring, Retention For Turbo	T-18A	

**Turbocharger Components (Cont'd)**

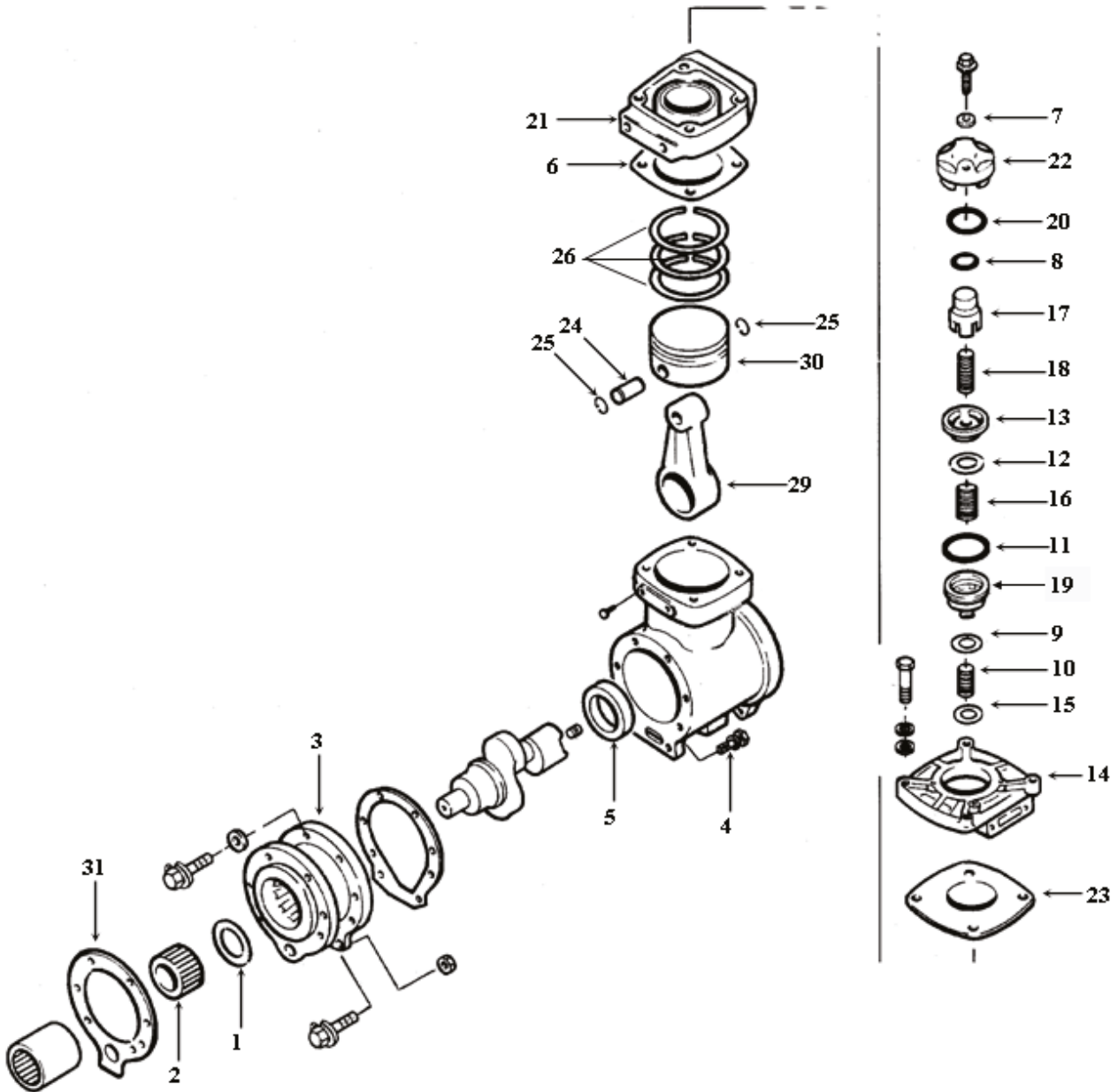


Part Number	Description	Turbocharger Model	Comment
FP-202859	O-Ring, Central Body	T-18A	
FP-202860	O-Ring, Base Turbo	T-18A	
FP-202868	Clamp, Turbo To Exit	T-18A	
FP-207431	Ring, For Turbo	T-18A	
FP-3032634	Kit, Turbo Installation	T-18A	
FP-114753	Gasket, Turbocharger Mounting	T-35	6 Holes
FP-3034736	Seal, Ring Type	T-46	VTA28
FP-3801096	Kit, Seal & Bearing	T50, ST50, VT50, T46	
FP-3801101	Kit, Seal, Bearing & Sleeve	T50, ST50, VT50, T46	
FP-3803042	Kit, Major Repair	T50, ST50, VT50, T46	Includes Seals, Bushings And Sleeve
FP-209955	Hose, Turbocharger Feed	Todos	22" Long
FP-209956	Hose, Turbocharger Feed	Todos	28" Long
FP-209957	Hose, Turbocharger Feed	Todos	29" Long
FP-209958	Hose, Turbocharger Feed	Todos	34" Long
FP-209959	Hose, Turbocharger Feed	Todos	36" Long
FP-209960	Hose, Turbocharger Feed	Todos	37" Long
FP-209961	Hose, Turbocharger Feed	Todos	39" Long
FP-209962	Hose, Turbocharger Feed	Todos	50" Long
FP-209963	Hose, Turbocharger Feed	Todos	54" Long
FP-209964	Hose, Turbocharger Feed	Todos	58" Long
FP-213806	Shaft & Wheel Turbine (Impelente Escape)	VT50	NT335, NTC350, VT903
FP-216794	Wheel, Compressor	VT-50	
FP-AR7051	Kit, Major Repair	VT-50	With Hub to Casing
FP-216802	Sleeve, Shaft And Turbine Wheel	VT-50, T-46	
FP-216804	Support, Turbo Seal	VT-50, T-46	
<b>FP-90012</b>	<b>Kit, Turbo Installation</b>		
FP-202994	Hose, Turbo		
FP-208326	Clamp, Hose Turbo		Has 2 Parts
FP-219138	Nut, Hex		Has 4 Parts
FP-3069177	Gasket, Turbocharger Mounting		

# NT855



## Air Compressor (13.2 CFM)



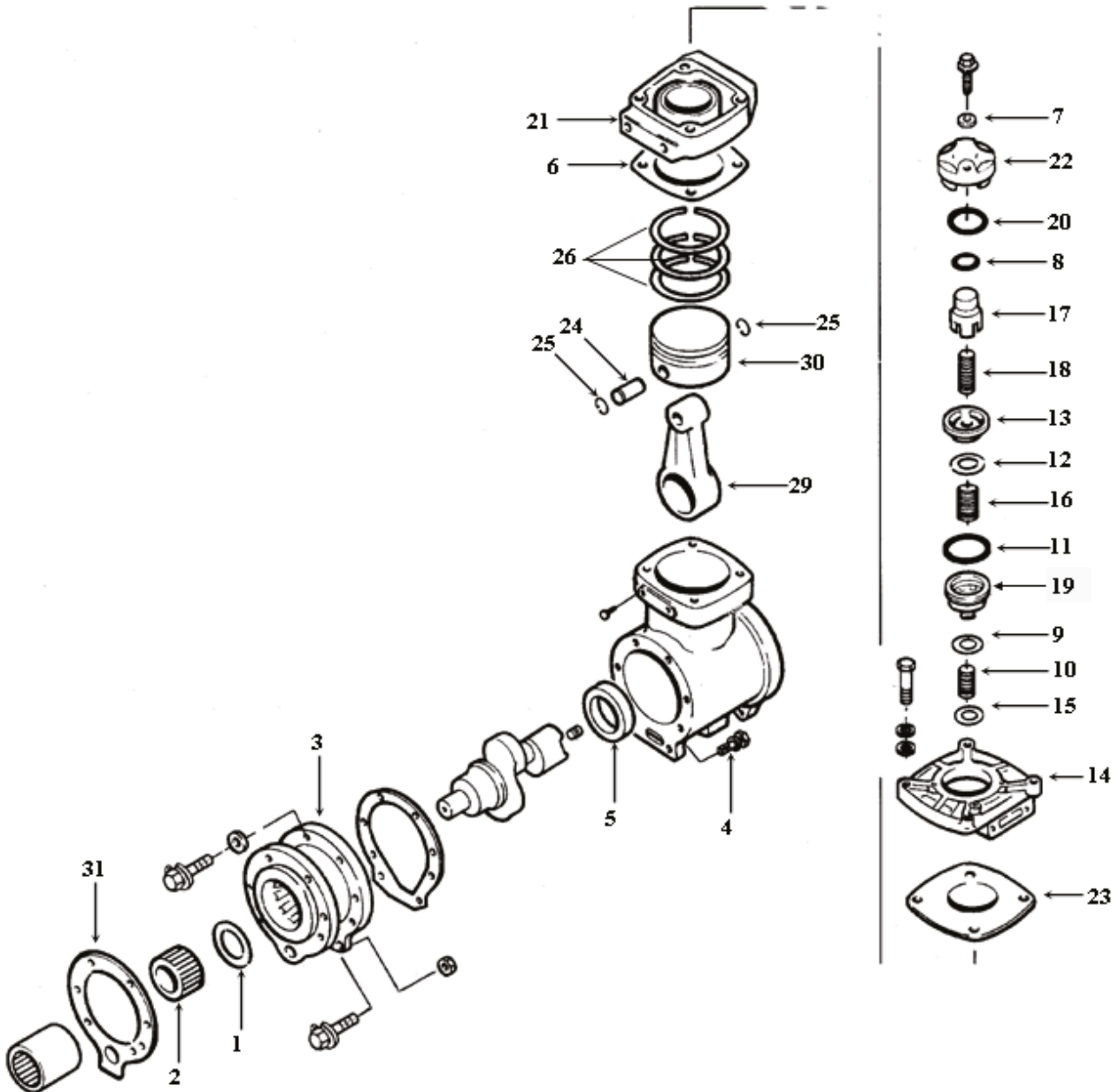
**Air Compressor (13.2 CFM)**

Ref	Part Number	Description	Qty
00	FP-3018153	Bushing, Connecting Rod	1
00	FP-3038060	Tube, Copper (Water Inlet Compressor)	1
01	FP-211662	Washer, Bearing Thrust	1
02	FP-3000174	Hub, Spline Coupling	1
04	FP-3012472	Screw, With Washer 3/8" - 16 x 1 1/2"	2
05	FP-147610	Bushing	1
06	FP-154018	Gasket, Air Compressor	1
07	FP-109557	Washer, Flat Base Valve for Compressor Head	2
08	FP-127936	Seal, Rectangular Ring	1
09	FP-127940	Exhaust Valve	1
10	FP-128080	Spring, Compression	1
11	FP-128086	Seal, O-Ring Valve Seat Compressor Head	1
12	FP-144948	Valve, Intake	1
13	FP-145028	Seat, Compression Intake Valve	1
14	FP-153964	Cover, Air Compressor	1
15	FP-183429	Plate, Compression Spring	1
16	FP-190334	Spring, Valve	1
17	FP-191037	Cap, Unloader	1
18	FP-3023101	Spring, Compression	1
20	FP-3043995	Seal, O-Ring Compression Spring	1
21	FP-3558762	Head, Compressor	1
22	FP-3046298	Body, Central Compressor Valve in Head	1
23	FP-3047159	Gasket, Air Compressor	1
29	FP-3018151	Rod, Compressor Connecting	1
31	FP-3820922	Gasket, To Support Air Compressor Motor	1
00	<b>FP-3803930</b>	<b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (Std.)</b>	1
30	FP-3045670	Piston (std.)	1
00	FP-AR73350	Ring Set (Std.)	1
24	FP-119810	Bolt, Piston	1
25	FP-3558754	Ring, Piston Pin	2
00	<b>FP-3803931</b>	<b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (0.010")</b>	1
30	FP-3045671	Piston (0.010".)	1
00	FP-AR73351	Ring Set (0.010")	1
24	FP-119810	Bolt, Piston	1
25	FP-3558754	Ring, Piston Pin	2
00	<b>FP-3803932</b>	<b>Kit, Piston (w/Piston, Ring Set, Pin &amp; Retainers), (0.020")</b>	1
30	FP-3045672	Piston (0.020".)	1
00	FP-AR73352	Ring Set (0.020")	1
24	FP-119810	Bolt, Piston	1
25	FP-3558754	Ring, Piston Pin	2
00	FP-AR73353	Ring Set (0.030")	1
24	FP-119810	Bolt, Piston	1
25	FP-3558754	Ring, Piston Pin	2

# NT855



## Air Compressor (13.2 CFM)



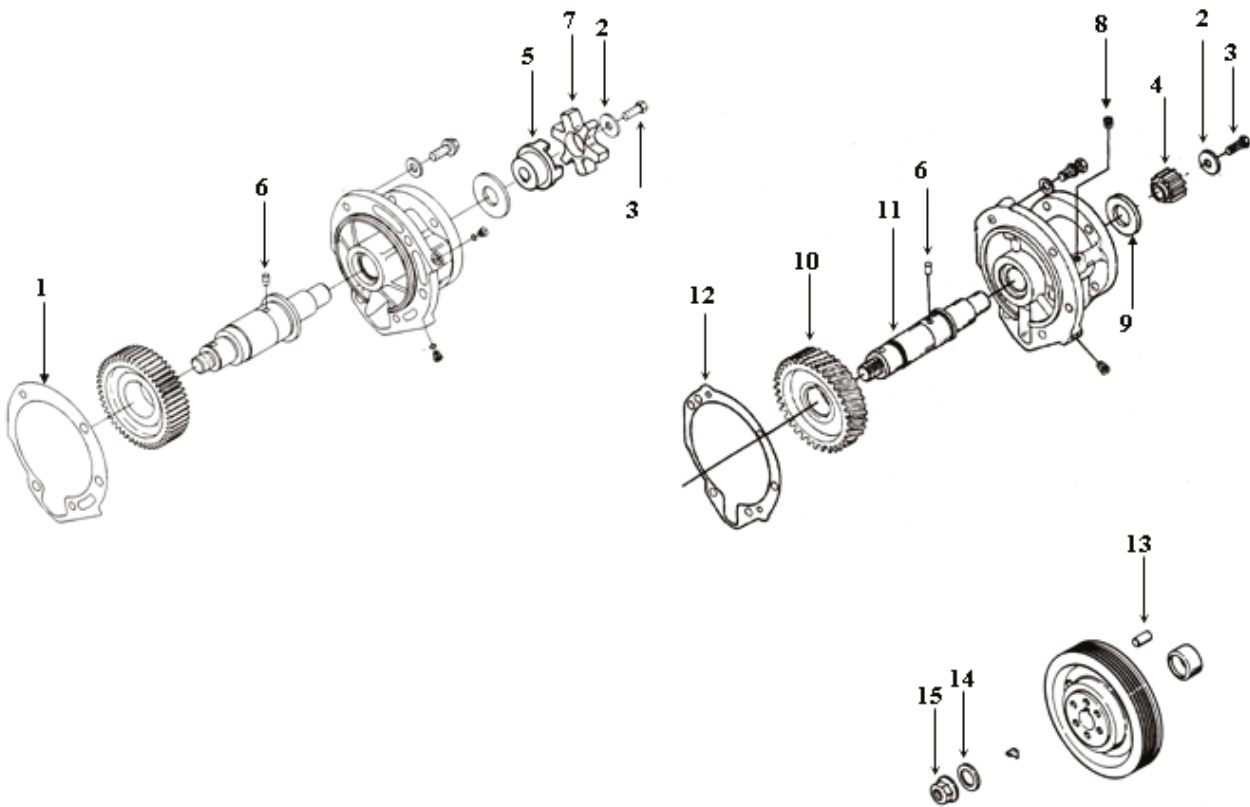
## Air Compressor (13.2 CFM)

Ref	Part Number	Description	Qty
00	<b>FP-3801728</b>	<b>Kit, Compressor Head Repair (Major)</b>	1
00	FP-AR12719	Kit, Valve Repair	1
13	FP-145028	Seat, Compressor Intake Valve	1
17	FP-191037	Cap, Spring Compression (13.2 CFM)	1
19	FP-144714	Seat, Compressor Exhaust Valve	1
22	FP-3046298	Body, Central Compressor Valve in Head	1
00	<b>FP-3801733</b>	<b>Kit, Compressor Head Repair (Major)</b>	1
00	FP-AR12719	Kit, Valve Repair	1
13	FP-145028	Seat, Compressor Intake Valve	1
17	FP-191037	Cap, Unloader (13.2 CFM)	1
19	FP-144714	Seat, Compressor Exhaust Valve	1
00	<b>FP-AR12719</b>	<b>Kit, Valve Repair</b>	1
07	FP-109557	Washer, Flat Base Valve for Compressor Head	1
08	FP-127936	Seal, Rectangular Head Valve Compressor	1
09	FP-127940	Exhaust Valve	1
10	FP-128080	Spring, Compression	1
11	FP-128086	Seal, O-Ring Valve Seat Compressor Head	1
12	FP-144948	Valve, Admission	1
15	FP-183429	Plate, Spring Compression	1
16	FP-190334	Spring, Valve	1
18	FP-3023101	Spring, Compression	1
20	FP-3043995	Seal, O-Ring Cover Compression Spring	1
00	FP-128085	Seal, O-Ring Compressor Head	1
00	<b>FP-AR73308</b>	<b>Gasket Kit, Compressor 13.2 CFM</b>	1
08	FP-127936	Seal, Rectangular Head Valve Compressor	1
00	FP-128085	O-Ring, Compressor Head	1
11	FP-128086	Seal, O-Ring Valve Seat Compressor Head	1
06	FP-154018	Gasket, Air Compressor	1
00	FP-176027	Gasket, To Base a Compressor Body	1
20	FP-3043995	Seal, O-Ring Cover Compression Spring	1
23	FP-3047159	Gasket, Air Compressor	1
00	FP-3201386	Gasket, For Base Oil Return Tube	1

# NT855



## Accessory Drive





**Accessory Drive**

Ref	Part Number	Description	Qty
00	FP-3005133	Drive, Accessory	1
00	FP-4026171	Gasket, Drive To Fuel Pump	1
05	FP-3000175	Coupling, Clamp Type Compressor	1
07	FP-162426	Spider, Jaw Coupling (Black)	1
07	FP-3046200	Spider, Jaw Coupling (Green)	1
08	FP-S911B	Plug, Pipe	1
10	FP-142689	Gear, Accessory Drive	1
13	FP-70550	Bolt, PTO Pulley	1
14	FP-193136	Washer, Flat for PTO Pulley	1
15	FP-3012526	Nut, Hexagon Flange (7/18" 14 UNF)	1
00	<b>FP-3006483</b>	<b>Kit, Accessory Drive Shaft</b>	1
02	FP-170664	Washer, Flat for Coupling	1
11	FP-3000171	Shaft, Accessory Drive	1
03	FP-3000173	Screw, Hexagon Head Cap	1
04	FP-3000174	Hub, Splin Coupling	1
00	FP-3008947	Wedge to PTO pulley	1
06	FP-3034438	Bolt, PTO Shaft	1
00	<b>FP-90004</b>	<b>Repair Kit, Accessory Drive</b>	1
00	FP-116391	Bushing, Drive Support	1
00	FP-132770	Bushing, Gear Cover	1
00	FP-190397	Sleeve, Pulley	1
00	FP-3004316	Seal, Front Cover	1
00	FP-3008947	Seal, Accessory Drive Shaft	1
00	FP-3014103	Washer, Flat to the Coupling of the PTO, 1 1/32"	1
00	FP-3026556	Thrust Washer, Accessory Drive	1
00	FP-3026557	Thrust Washer, Accessory Drive	1
12	FP-3069101	Gasket, Accessory Drive Support	1
00	FP-3069102	Gasket, Compressor To Accessory Drive	1

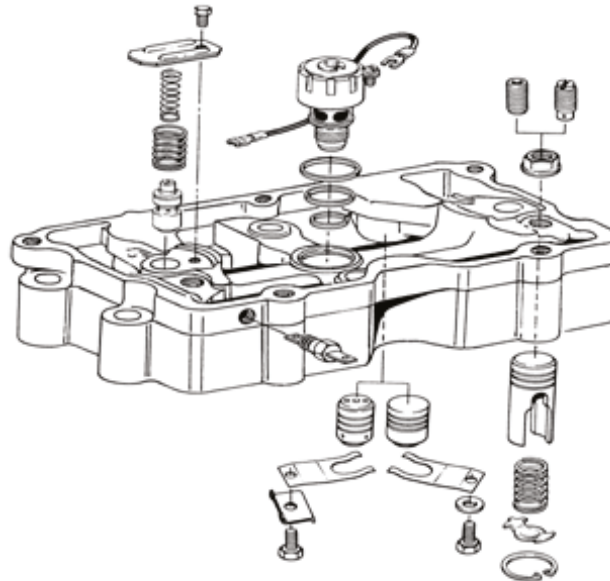
**Fan Belts**

Ref	Part Number	Description	Qty
00	FP-3034946	Belt, Ribbed (8) 62.5 X 1.125W	1
00	FP-3911557	Belt, Ribbed (8) 56.0 X 1.125W	1
00	FP-3911558	Belt, Ribbed (8) 59.0 X 1.125W	1
00	FP-3911559	Belt, Ribbed (8) 62.0 X 1.125W	1
00	FP-3911563	Belt, Ribbed (8) 60.5 X 1.125W	1
00	FP-3911564	Belt, Ribbed (8) 64.5 X 1.125W	1
00	FP-3911565	Belt, Ribbed (8) 58.0 X 1.125W	1
00	FP-3911566	Belt, Ribbed (8) 63.0 X 1.125W	1
00	FP-3911568	Belt, Ribbed (8) 57.0 X 1.125W	1
00	FP-3911572	Belt, Ribbed (8) 61.5 X 1.125W	1
00	FP-3911575	Belt, Ribbed (8) 63.0 X 1.125W	1
00	FP-3911582	Belt, Ribbed (8) 70.0 X 1.125W	1
00	FP-3911587	Belt, Ribbed (8) 53.5 X 1.125W	1
00	FP-3911588	Belt, Ribbed (8) 56.0 X 1.125W	1

**Fan Hub Components**

Ref	Part Number	Description	Qty
00	FP-106276	Oil Seal (None FFC Fan Hub)	1
00	FP-200307	Oil Seal (FFC Fan Hub)	1
00	FP-217638	Belt, Poly-Vee (Qty 1)	1
00	FP-3005592	Gasket, Type Of Fan Pulley Spacer (Applies To All Models)	1
00	FP-3058383	Belt, Water Pump (Qty 2)	2

Engine Brake



Typical Engine Brake

Engine	C.P.L. Numbers	Turbo	Lash Kit	Contents	Recess Depth
Big Cam I, II, III	222, 233, 322, 323, 353, 354, 433, 471, 529, 579, 585	Single Entry	FP-3801677 Blue	FP-3045117  FP-S276	0.008"-0.009"
Big Cam I, II, III	266, 306, 327, 332, 369, 393, 449, 450, 530, 531, 543, 588, 611, 625, 632, 634, 743, 744, 745, 769	Twin Entry	FP-3801677 Blue	FP-3045117  FP-S276	0.008"-0.009"
Big Cam I, II, III	266, 306, 327, 332, 369, 450, 530, 543, 611, 642, 650, 674, 675, 676, 814, 832	Single Entry	FP-3801603 Green	FP-3047195  FP-S276	0.103"-0.106"
Big Cam I, II, III	673, 718, 749, 796, 797, 811, 812, 813, 905	Twin Entry	FP-3801603 Green	FP-3047195  FP-S276	0.103"-0.106"
Big Cam I, II, III	393, 449, 531, 588	Single Entry	FP-3801809 Yellow	FP-3046355  FP-S276	0.114"-0.115"
Big Cam I, II, III	222, 233, 322, 323, 353, 354, 579, 633	Twin Entry	FP-3801678 None	FP-3045174  FP-S276	0.114"-0.115"
Small Cam	Para todos los C.P.L.	Single Entry	FP-3801809 Yellow	FP-3046355  FP-S276	0.114"-0.115"
Small Cam	Para todos los C.P.L.	Twin Entry	Not Applicable		

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Jake Brake® Components

Part Number	Description	Model 420	Model 425	Model 425A	Model 430A	Model 140A
		NT855	NT855	NT855	B / C IV	N14
FP-001023	O-Ring, Retainer	2	2	2		
FP-001030	Washer	2	2	2	2	2
FP-001081	Seal, Ring Type	1	1	1	1	1
FP-001082	Seal, Ring Type	1	1	1	1	1
FP-001083	Seal, Ring Type	1	1	1	1	1
FP-001094	Nut, Hex				6	6
FP-001219	Switch Assembly Fuel Pump	1	1	1	1	1
FP-001234	Spacer	4	4	4	1	
FP-001519	Spring, Control Valve, External			2		
FP-003678	Screw, Injector Lever	2				
FP-004205	Solenoid, 12 Volt	1	1	1	1	1
FP-007447	Spring, Straight				2	
FP-007500	Spring, Control Valve, Inside	2	2	2	2	2
FP-010180	Seal, Ring Type	1	1	1		
FP-011930	Control Valve			2	2	2
FP-012261	Switch Assembly Clutch	1	1	1	1	1
FP-013294	Gasket, Brake To Rocker	A/R <sup>31</sup>	A/R <sup>31</sup>	A/R <sup>31</sup>		
FP-014619	Harness, Solenoid	1	1	1	1	1
FP-014848	Gasket, Brake To Rocker				A/R <sup>31</sup>	
FP-014928	Cover, Control Valve			2		
FP-015561	O-Ring, Retainer			2		
FP-147389	Screw (016765)	2	2	2		
FP-203131	Nut (016766)	2	2	2		
FP-216487	Gasket, Crossover	A/R <sup>31</sup>	A/R <sup>31</sup>	A/R <sup>31</sup>		
FP-3012972	Gasket, Crossover	A/R <sup>31</sup>	A/R <sup>31</sup>	A/R <sup>31</sup>		
FP-3017750	Gasket, Rocker Housing	A/R <sup>31</sup>	A/R <sup>31</sup>	A/R <sup>31</sup>		
FP-3049187S	Gasket, Rocker Housing				A/R <sup>31</sup>	
FP-3054841	Gasket, Valve Cover	A/R <sup>31</sup>	A/R <sup>31</sup>	A/R <sup>31</sup>		
FP-3058532	Gasket, Valve Cover				A/R <sup>31</sup>	
FP-3066311	Gasket, Valve Cover					A/R <sup>31</sup>
FP-3068135	Gasket, Brake To Rocker					A/R <sup>31</sup>
FP-3871248	Without Screw Nut	4	4	4	2	2
FP-4058981	Gasket, Rocker Housing					A/R <sup>31</sup>

<sup>31</sup>As Required

All Quantities are per housing except where noted.  
 Note: Please see Specialty Kits \_Gasket page for Jake Brake® and C-Brake gasket sets and repair kits.  
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## Fuel Injectors & Components

Engine	Injector Part No.	Description	Body	P And B Assy.	Cup, Injector	Spring, Injector	Screen
V378	FP-3275538	Injector, New		FP-AR40063	FP-3275265	FP-166009	FP-3008706
V504	FP-3275539	Injector, New		FP-AR40063	FP-3275266	FP-166009	FP-3008706
V555	FP-3275989	Injector, New		FP-AR73665	FP-3275266	FP-166009	FP-3008706
L10	FP-3045102	Injector, New		FP-3049996	FP-3028068	FP-166009	FP-3008706
L10	FP-3066486	Injector, Rebuilt					
L10	FP-3069759PR <sup>35</sup>	Injector, Rebuilt					
KTA19	FP-3016675	Injector, New	FP-205463	FP-3037292	FP-3003933		FP-3008706
KTA19	FP-3016676	Injector, New	FP-205463	FP-3037292	FP-3001314		FP-3008706
KTA38	FP-3052255	Injector, New					FP-3054999
KTA50	FP-3053124	Injector, New					FP-3054999

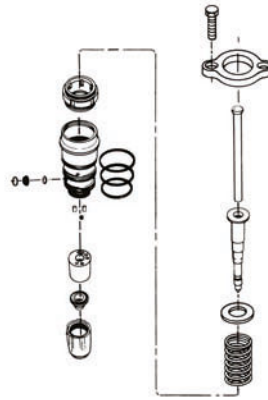
## PTD Standard

Engine	Injector Part No.	Description	Body	P And B Assy.	Cup, Injector	Spring, Injector	Screen
NH, NT855	FP-3054058	Injector, New	FP-185139	FP-3018324	FP-3012537	FP-166009	FP-3008706
NH, NT855	FP-3054250	Injector, New	FP-185139	FP-3018324	FP-3012536	FP-166009	FP-3008706
NT, NTC855	FP-3054211	Injector, New	FP-185139	FP-3018324	FP-3012537	FP-166009	FP-3008706
NT, NTC855	FP-3054086	Injector, New	FP-185139	FP-3018324	FP-3012536	FP-166009	FP-3008706
NT, NTC855	FP-3054218	Injector, New	FP-185139	FP-3047964	FP-3012536	FP-166009	FP-3008706
NTC855	FP-3054246	Injector, New	FP-185140	FP-3054532	FP-3012535	FP-166009	FP-3008706
	FP-3054246PR <sup>35</sup>	Injector, Rebuilt					
NTC855	FP-3054247	Injector, New	FP-185139	FP-3018324	FP-3012536	FP-166009	FP-3008706
NTC855	FP-3054249	Injector, New	FP-185139	FP-3018324	FP-3012537	FP-166009	FP-3008706

## PTD Top Stop

Engine	Injector Part No.	Description	Body	P And B Assy.	Cup, Injector	Spring, Injector	Screen
NTC855	FP-3054228	Injector, New	FP-3000464	FP-3022968	FP-3012536	FP-166009	FP-3008706
NTC855	FP-3054071	Injector, New	FP-3000464	FP-3022968	FP-3012538	FP-166009	FP-3008706
NTC855	FP-3054231	Injector, New	FP-3000464	FP-3047963	FP-3012538	FP-166009	FP-3008706
	FP-3054231PR <sup>35</sup>	Injector, Rebuilt					
NTC855	FP-3054068	Injector, New	FP-3000464	FP-3022968	FP-3012538	FP-166009	FP-3008706
NTC855	FP-3054232	Injector, New	FP-3000464	FP-3022968	FP-3023556	FP-166009	FP-3008706
NTC855	FP-3047973	Injector, New	FP-3000464	FP-3047963	FP-3023556	FP-166009	FP-3008706
NTC855	FP-3069767	Injector, New	FP-3000464			FP-166009	FP-3008706

<sup>35</sup>Discontinued



## Cups

Part Number	Number Of Orifice	Size Of Orifice	Angle Of Spray
FP-3000798	9	0.007"	4 Degrees
FP-3001314	10	0.0085"	10 Degrees
FP-3003929	7	0.0075"	4 Degrees
FP-3003930	7	0.008"	4 Degrees
FP-3003931	7	0.0075"	6 Degrees
FP-3003932	9	0.0085"	7 Degrees
FP-3003933	9	0.0085"	10 Degrees
FP-3004054	9	0.007"	6 Degrees
FP-3005963	10	0.0075"	10 Degrees
FP-3006540	8	0.006"	2 Degrees
FP-3006543	9	0.0065"	2 Degrees
FP-3006545	8	0.008"	14 Degrees
FP-3010511	7	0.007"	4 Degrees
FP-3012535	8	0.007"	18 Degrees
FP-3012537	8	0.0065"	18 Degrees
FP-3012538	9	0.008"	18 Degrees
FP-3015236	8	0.008"	18 Degrees
FP-3018813	10	0.0065"	18 Degrees
FP-3018814	10	0.007"	18 Degrees
FP-3018860	7	0.007"	17 Degrees
FP-3018861	7	0.006"	20 Degrees
FP-3018862	8	0.009"	18 Degrees
FP-3018863	7	0.007"	21 Degrees
FP-3020793	8	0.005"	4 Degrees
FP-3022154	8	0.006"	4 Degrees
FP-3023556	9	0.0085"	18 Degrees
FP-3024148	9	0.009"	18 Degrees
FP-3028068	9	0.007"	10 Degrees
FP-3052229	8	0.0093"	18 Degrees
FP-3052630	8	0.009"	18 Degrees
FP-3053742	9	0.0086"	18 Degrees
FP-3055135	10	0.007"	10 Degrees
FP-3056341	10	0.006"	10 Degrees
FP-3059423	8	0.007"	14 Degrees
FP-3069024	10	0.0095"	10 Degrees
FP-3275265	7	0.0055"	4 Degrees
FP-3275266	7	0.006"	4 Degrees
FP-3275267	7	0.006"	3 Degrees

## Plunger & Barrels

Part Number	Comment
FP-3018324	High Flow
FP-3018325	
FP-3018366	High Flow
FP-3018587	Direct Feed H.F.
FP-3022968	High Flow
FP-3047963	Direct Feed
FP-3047964	Direct Feed H.F.
FP-3052222	S.T.C.
FP-3052223	S.T.C.
FP-3052224	S.T.C.
FP-3054532	Direct Feed
FP-3054533	Direct Feed

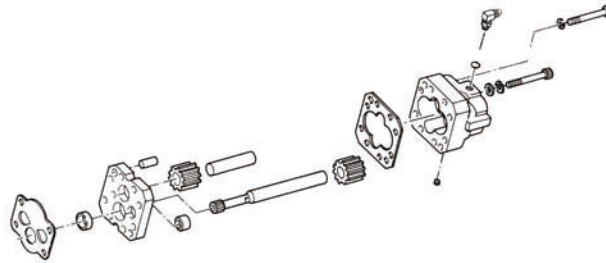
## Injector Mounting O-Rings

Engine	Part Number	Quantity
V378	FP-193736	18
V504	FP-193736	24
V555	FP-193736	24
NH, NTC855	FP-193736	18
V903	FP-193736	24
	FP-193736	6
N927	FP-193736	18
L10 Non-Celect	FP-193736	18
V, VT1710	FP-193736	36
	FP-204216	6
Series K	FP-3010510	6
N14	FP-3070136	6
M11 Celect	FP-3070136	6
	FP-3070137	6
	FP-3070137	6
	FP-3070138	6
	FP-3070138	6

# All Engine Models



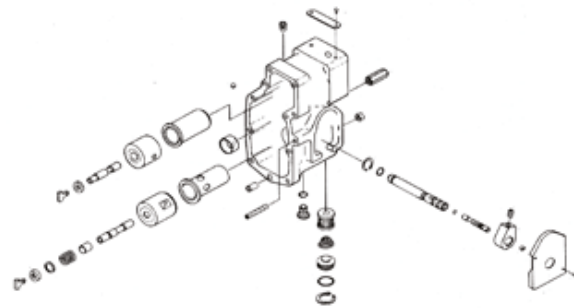
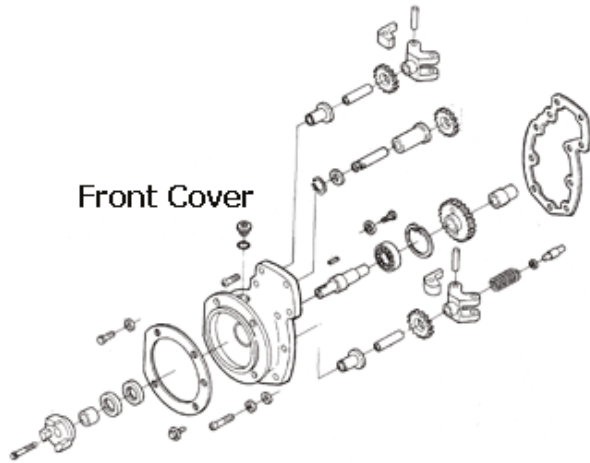
## Fuel Gear Pumps



Engine	Gear Pump	Size and Rotation	Gear (2)	Splined Drive Shaft	Idler	Mounting Gasket	Body Gasket
V, VT378	FP-3034216	7/16" L.H. Standard	FP-167166	FP-167169	FP-175866	FP-3026163	FP-110855
V, VT504	FP-3034216	7/16" L.H. Standard	FP-167166	FP-167169	FP-175866	FP-3026163	FP-110855
V, VT555	FP-3034244	3/4" L.H. Standard	FP-119363	FP-100215	FP-175864	FP-3026163	FP-110855
L10	FP-3034243	3/4" R.H. Standard	FP-119363	FP-100215	FP-175864	FP-3026163	FP-110855
L10 Select		1 1/4"	FP-119364		FP-175865	FP-3080837	FP-110855
M11 Industrial		3/4" R.H.	FP-119363	FP-100215	FP-175864	FP-3080837	FP-110855
M11 Select		1 1/4"	FP-119364		FP-175865	FP-3080837	FP-110855
NH220, 743	FP-3034243	3/4" R.H. Standard	FP-119363	FP-100215	FP-175864	FP-3026163	FP-110855
855	FP-3034215	7/16" R.H. Standard	FP-167166	FP-167169	FP-175866	FP-3026163	FP-110855
855	FP-3034216	7/16" L.H. Standard	FP-167166	FP-167169	FP-175866	FP-3026163	FP-110855
855	FP-3034243	3/4" R.H. Standard	FP-119363	FP-100215	FP-175864	FP-3026163	FP-110855
855	FP-3034244	3/4" L.H. Standard	FP-119363	FP-100215	FP-175864	FP-3026163	FP-110855
855	FP-3034245	1" R.H. Standard	FP-170942	FP-100216	FP-100133	FP-3026163	FP-110855
855	FP-3034221	1 1/4" R.H. Heavy Duty	FP-119364	FP-100217	FP-175865	FP-3026163	FP-110855
855	FP-3034215	7/16" R.H. Standard	FP-167166	FP-167169	FP-175866	FP-3069017	FP-110855
855	FP-3034243	3/4" R.H. Standard	FP-119363	FP-100215	FP-175864	FP-3069017	FP-110855
855	FP-3034245	1" R.H.					
V, VT903	FP-3034244	3/4" L.H. Standard	FP-119363	FP-100215	FP-175864		FP-110855
V, VT903	FP-3034246	1" L.H. Standard	FP-170942	FP-100216	FP-100133		FP-110855
V, VT903	FP-3034246	1" L.H. Standard					
V, VT1710	FP-3034246	1" L.H. Standard	FP-170942	FP-100216	FP-100133	FP-3026163	FP-110855
V, VT1710	FP-3034222	1 1/4" L.H. Heavy Duty	FP-119364	FP-100217	FP-175865	FP-3026163	FP-110855
V28	FP-3034222	1 1/4" L.H. Heavy Duty					
KT1150	FP-3034243	3/4" R.H. Standard	FP-119363	FP-100215	FP-175864	FP-3026163	FP-110855
KTA19	FP-3034245	1" R.H. Standard	FP-170942	FP-100216	FP-100133	FP-3026163	FP-110855
KT2300	FP-3034243	3/4" R.H. Standard	FP-119363	FP-100215	FP-175864	FP-3026163	FP-110855
KTA38	FP-3034245	1" R.H. Standard	FP-170942	FP-100216	FP-100133	FP-3026163	FP-110855
KT3067	FP-3034245	1" R.H. Standard	FP-170942	FP-100216	FP-100133	FP-3026163	FP-110855
KTA50	FP-3034221	1 1/4" R.H. Heavy Duty	FP-119364	FP-100217	FP-175865	FP-3026163	FP-110855
KTA50	FP-3034245	1" R.H. Pressurized	FP-170942	FP-100216	FP-100133	FP-3069017	FP-110855

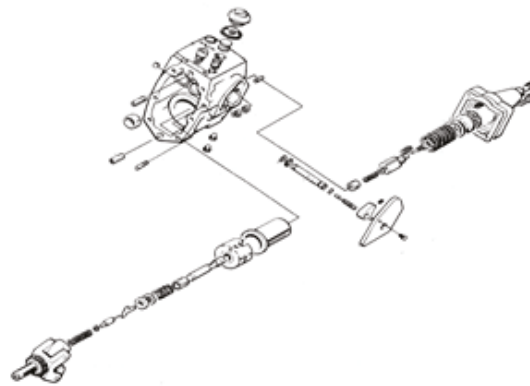
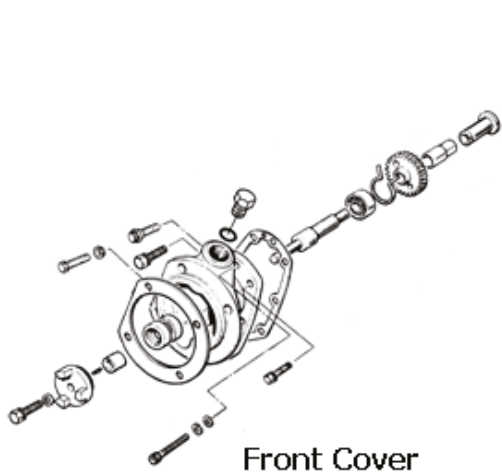
*AFC & PTG Fuel Pump Components*

*PTG-VS/AFC Industrial*



Fuel Pump Housing

*PTG Automotive*



Fuel Pump Housing

# AFC & PTG Fuel Pump Components



## Typical AFC Pump

Part Number	Description
FP-100099	Seal Ring
FP-100478	O-Ring
FP-110855	Gasket
FP-129888	O-Ring
FP-134075	Coil 12V 2 Terminal
FP-137808	Screen
FP-139988	Seal Ring
FP-144178	Plunger
FP-144302	Spacer
FP-145504	O-Ring
FP-146160	Washer
FP-146483	Screen
FP-149767	Screen
FP-151900	O-Ring
FP-154087	O-Ring
FP-154088	Seal
FP-157088	Cap, Central Body
FP-163944	Bushing
FP-175836	Check Valve
FP-190876	O-Ring
FP-193734	O-Ring
FP-200743	Screen
FP-212601	Main Shaft
FP-212602	Gear, Tach Drive
FP-212605	Gear
FP-212607	Tach Shaft
FP-213079	O-Ring
FP-213603	Seal
FP-214144	Valve, Needle
FP-3013810	Piston
FP-3020739-1	Plunger
FP-3020739-2	Plunger
FP-3021068	Barrel
FP-3021676	Plunger
FP-3024991	Wt & Carrier
FP-3027633	Thrustwasher
FP-3030970	Valve
FP-3033740	Check Valve
FP-3048017	O-Ring
FP-3054291	Coil 32V 2 Terminal
FP-3054291	Coil 24V 2 Terminal
FP-3054609	Coil 24V 1 Terminal
FP-3062676	Seal (2)
FP-3069017	Gasket
FP-3408421	Coil 12V 1 Terminal
FP-4026171	Gasket
FP-68061A	O-Ring
FP-70690	Crosshead for Shaft Control Governed

## Typical AFC Pump

Part Number	Description
FP-70704	Washer
FP-70704	Washer
FP-70705	Gasket
FP-S16052	Ball Bearing

## Typical PTG Pump

Part Number	Description
FP-100099	O-Ring
FP-100192	Main Shaft
FP-100478	O-Ring
FP-101918	Coupling
FP-104087	Tach Shaft
FP-110855	Gasket
FP-134075	Coil 12V 2 Terminal
FP-137808	Screen
FP-139988	O-Ring
FP-143847	Spring
FP-144178	Plunger
FP-144302	Spacer
FP-146483	Screen
FP-149767	Screen
FP-151900	Seal
FP-154087	Seal
FP-154088	Seal (2)
FP-163944	Bushing
FP-175836	Check Valve
FP-190876	O-Ring
FP-200743	Screen
FP-3000266	Shaft
FP-3027633	Thrustwasher
FP-3030970	Valve
FP-3033740	Check Valve
FP-3054291	Coil 24V 2 Terminal
FP-3054291	Coil 32V 2 Terminal
FP-3054609	Solenoid Coil Fuel Stop 24V, 2 Term
FP-3062676	Retainer (2)
FP-3069017	Gasket
FP-3408421	Solenoid Coil Fuel Stop 12V, 1 Term
FP-43696A	O-Ring
FP-69793	Screw
FP-70690	Governor Drive Shaft
FP-70704	Washer
FP-70705	Gasket
FP-70732	Gasket
FP-70809	Retainer (2)
FP-S2286	Screw

## 855 Gasket Sets, Fuel Pump

Part Number	Description
FP-3010240	PT Type G Pressure Regulated
FP-3010242	Seal Kit Type G and AFC-VS Standard Governor
FP-BM68356	Seal Kit Type G Standard Governor
FP-BM98776	Seal Kit MVS Governor



## PTG Pump

Part Number	Size	Color Code
FP-169660	Standard	Red
FP-169660-8	8	
FP-169660-9	9	
FP-169660-10	10	
FP-169660-11	11	
FP-169660-12	12	
FP-169660-13	13	
FP-169660-14	14	
FP-169660-15	15	
FP-169660-16	16	
FP-169660-17	17	
FP-169660-18	18	
FP-169660-19	19	
FP-169660-20	20	
FP-169661	0.3749"	Blue
FP-169662	0.3751"	Green
FP-169663 <sup>35</sup>	0.3753"	Yellow
FP-169664	0.3755"	Orange
FP-169665	0.3757"	Black
FP-169666	0.3759"	Gray
FP-169667	0.3761"	Violet

## AFC With Tapered Seat

Part Number	Size	Color Code
FP-3003980	Standard	Red
FP-3003980-8	8	
FP-3003980-9	9	
FP-3003980-10	10	
FP-3003980-11	11	
FP-3003980-12	12	
FP-3003980-13	13	
FP-3003980-14	14	
FP-3003980-15	15	
FP-3003980-16	16	
FP-3003980-17	17	
FP-3003980-18	18	
FP-3003980-19	19	
FP-3003980-20	20	Blue
FP-3003981	0.37474"	Blue
FP-3003982	0.37484"	Green
FP-3003983	0.37494"	Yellow
FP-3003984	0.37504"	Orange
FP-3003985	0.37514"	Black
FP-3003986	0.37524"	Gray
FP-3003987	0.37534"	Violet

## AFC & PTG

Part Number	Size	Color Code
FP-203350	Standard	Red
FP-203350-8	8	
FP-203350-9	9	
FP-203350-10	10	
FP-203350-11	11	
FP-203350-12	12	
FP-203350-13	13	
FP-203350-14	14	
FP-203350-15	15	
FP-203350-16	16	
FP-203350-17	17	
FP-203350-18	18	
FP-203350-19	19	
FP-203350-20	20	
FP-203351	0.37474"	Blue
FP-203352	0.37484"	Green
FP-203353	0.37494"	Yellow
FP-203354	0.37504"	Orange
FP-203355	0.37514"	Black
FP-203356	0.37524"	Gray
FP-203357	0.37534"	Violet

## AFC

Part Number	Size	Color Code
FP-3040750	Standard	Red
FP-3040750-8	8	
FP-3040750-9	9	
FP-3040750-10	10	
FP-3040750-11	11	
FP-3040750-12	12	
FP-3040750-13	13	
FP-3040750-14	14	
FP-3040750-15	15	
FP-3040750-16	16	
FP-3040750-17	17	Red
FP-3040750-18	18	
FP-3040750-19	19	
FP-3040750-20	20	Blue
FP-3040751	0.37474	Blue
FP-3040752	0.37484	Green
FP-3040753	0.37494	Yellow
FP-3040754	0.37504	Orange
FP-3040755	0.37514	Black
FP-3040756	0.37524	Gray

<sup>35</sup>Discontinued

**AFC Throttle Shafts - STD Capacity**

Part Number	Size	Color Code
FP-3006350	0.5006	Red
FP-3006350-8	8	
FP-3006350-9	9	
FP-3006350-10	10	
FP-3006350-11	11	
FP-3006350-12	12	
FP-3006350-13	13	
FP-3006350-14	14	
FP-3006350-15	15	
FP-3006350-16	16	
FP-3006350-17	17	
FP-3006350-18	18	
FP-3006350-19	19	
FP-3006350-20	20	
FP-3006351	0.501"	Blue
FP-3006352	0.5012"	Green
FP-3006353	0.5014"	Yellow
FP-3006354	0.5016"	Orange
FP-3006355	0.5018"	Black
FP-3006356	0.502"	Gray
FP-3006357	0.5022"	Purple
FP-3006360	0.5028"	Cream

**AFC Throttle Shafts**

Part Number	Size	Color Code
FP-3046680	0.5006"	Red
FP-3046680-11	0.503"	
FP-3046680-12	0.5032"	
FP-3046680-13	0.5034"	
FP-3046680-14	0.5036"	
FP-3046680-15	0.5038"	
FP-3046680-16	0.504"	
FP-3046680-17	0.5042"	
FP-3046680-18	0.5044"	
FP-3046680-19	0.5046"	
FP-3046680-20	0.5048"	
FP-3046680-8	8	
FP-3046680-9	9	
FP-3046680-10	10	
FP-3046681	0.501"	Blue
FP-3046682	0.5012"	Green
FP-3046683	0.5014"	Yellow
FP-3046684	0.5016"	Orange
FP-3046685	0.5018"	Black
FP-3046686	0.502"	Gray
FP-3046687	0.5022"	Purple

**Idler Spring Plunger Buttons**

Part Number	Size	Color Code
FP-137370	40	0.2785"/0.2815"
FP-138862	45	0.2885"/0.2915"
FP-139618	52	0.3035"/0.3065"
FP-139619	55	0.3085"/0.3115"
FP-139894	15	0.2285"/0.2315"
FP-140417	17	0.2335"/0.2365"
FP-140418	37	0.2735"/0.2765"
FP-140922	35	0.2685"/0.2715"
FP-140923	42	0.2835"/0.2865"
FP-140924	47	0.2935"/0.2965"
FP-140925	50	0.2985"/0.3015"
FP-140926	57	0.3135"/0.3165"
FP-140927	60	0.3185"/0.3215"
FP-141624	7	0.2135"/0.2165"
FP-141625	10	0.2185"/0.2215"
FP-141626	12	0.2235"/0.2265"
FP-141629	20	0.2385"/0.2415"
FP-141630	22	0.2435"/0.2465"
FP-141631	25	0.2485"/0.2515"
FP-141632	27	0.2535"/0.2565"
FP-141633	30	0.2585"/0.2615"
FP-141634	32	0.2635"/0.2665"
FP-141636	62	0.3235"/0.3265"
FP-141637	65	0.3285"/0.3315"
FP-141638	67	0.3335"/0.3365"
FP-145947	170	0.3385"/0.3415"
FP-145948	172	0.3435"/0.3465"
FP-145949	175	0.3485"/0.3515"
FP-145950	177	0.3535"/0.3565"
FP-145951	180	0.3585"/0.3615"
FP-145952	182	0.3635"/0.3665"
FP-145953 <sup>35</sup>	185	0.3685"/0.3715"
FP-145954	187	0.3735"/0.3735"
FP-145955 <sup>35</sup>	190	0.3785"/0.3815"
FP-145956 <sup>35</sup>	192	0.3835"/0.3865"
FP-145957 <sup>35</sup>	195	0.3885"/0.3915"
FP-145958 <sup>35</sup>	197	0.3935"/0.3965"
FP-145959 <sup>35</sup>	200	0.3985"/0.4015"
FP-145960	202	

<sup>35</sup>Discontinued

## 743 Natural Gas Components

Part Number	Description	Comment
FP-108692	Gasket, Valve Cover	
FP-135675	Thermostat	
FP-175755	Retainers	Quantity 2
FP-181449	Packing	
FP-184400	Liner	
FP-186780	Seal, Thermostat	
FP-188329	Bolt, Cylinder Head	Quantity 18
FP-200730	Piston	
FP-203070	Piston Bolt	
FP-203670	Bearing, Connecting Rod (Std.)	Quantity 12
FP-203671	Bearing, Connecting Rod .010	Quantity 12
FP-203672	Bearing, Connecting Rod .020	Quantity 12
FP-203673	Bearing, Connecting Rod .030	Quantity 12
FP-203674	Bearing, Connecting Rod .040	Quantity 12
FP-214633-R1	Gasket, Front Cover	
FP-215983	Crevice Seal	
FP-216879	Packing	
FP-3004316	Seal, Front Cover	
FP-3006737	Seal, Rear Crankshaft	
FP-3010457	Seal, Front Crankshaft	
FP-3029341	Crankshaft	
FP-3226064	Valve	Intake and Exhaust
FP-3349820	Gasket, Oil Pan	
FP-3801030	Camshaft	Prior To S/N 2511994
FP-3801260	Main Bearings Kit Std.	
FP-3801261	Main Bearings Kit .010	
FP-3801262	Main Bearings Kit .020	
FP-3801263	Main Bearings Kit .030	
FP-3801264	Main Bearings Kit .040	
FP-3802075	Lower Gasket Kit	
FP-3802077	Upper Gasket Kit	
FP-4062902	Spring, Valve	Quantity 24
FP-66890	Guide, Valve	Quantity 24
FP-90210009	Rotator	
FP-90210020	Insert, Valve	Quantity 24
FP-90210035	Adapter	Spark Plug
FP-AR12098	Piston Rings Kit	
FP-AR2883	Gasket, Cylinder Head	
FP-AR7460	Piston, Kit	12:1 Ratio Compression
FP-BM27253	Cam Bearings Kit	
FP-BM98224	Liner, Kit	4 Valves In The Lead
FP-S2037	Lock Half, Valve	Quantity 48

## 855 Natural Gas Components

Part Number	Description	Comment
FP-127554	Lock Half, Valve	Quantity 48
FP-135675	Thermostat	
FP-166630	Piston	
FP-175755	Retainers	Quantity 2
FP-186780	Seal, Thermostat	
FP-191970	Piston Pin	
FP-203660	Bearing, Connecting Rod (Std.)	Quantity 12 Small Cam
FP-203661	Bearing, Connecting Rod .010	Quantity 12 Small Cam
FP-203662	Bearing, Connecting Rod .020	Quantity 12 Small Cam
FP-203663	Bearing, Connecting Rod .030	Quantity 12 Small Cam
FP-203664	Bearing, Connecting Rod .040	Quantity 12 Small Cam
FP-209700	Bolt, Cylinder Head	Quantity 36, 6¼"
FP-214950	Bearing, Connecting Rod (Std.)	Quantity 12 Big Cam
FP-214951	Bearing, Connecting Rod .010	Quantity 12 Big Cam
FP-214952	Bearing, Connecting Rod .020	Quantity 12 Big Cam
FP-214953	Bearing, Connecting Rod .030	Quantity 12 Big Cam
FP-214954	Bearing, Connecting Rod .040	Quantity 12 Big Cam
FP-215090	Crevice Seal	Quantity 1
FP-3006456	Guide, Valve	Quantity 24
FP-3006736	Seal, Front Crankshaft	Snub-Nose
FP-3006737	Seal, Rear Crankshaft	
FP-3006742	Sleeve, Front Crank	Snub-Nose
FP-3006743	Sleeve, Rear Crank	
FP-3010457	Seal, Front Crankshaft	Tapered Nose
FP-3013623	Bolt, Cylinder Head	Quantity 36, 7¼"
FP-3029340	Crankshaft	Conical
FP-3032874	Packing	Quantity 2
FP-3055099	Liner	
FP-3406659	Valve	Intake and Exhaust
FP-3608833	Crankshaft	Snub-Nose
FP-3801106	Cam Bearings Kit	Big Cam
FP-3801260	Main Bearings Kit Std.	
FP-3801261	Main Bearings Kit .010	
FP-3801262	Main Bearings Kit .020	
FP-3801263	Main Bearings Kit .030	
FP-3801264	Main Bearings Kit .040	
FP-3801826	Liner, Kit	
FP-4089810	Piston Rings Kit	
FP-4957806	Spring, Valve	Quantity 24
FP-80210020	Insert, Valve	Quantity 24
FP-90210011	Rotator	Quantity 24
FP-90210035	Adapter	Spark Plug
FP-AR3560	Piston, Kit	
FP-BM27253	Cam Bearings Kit	Small Cam
FP-LK166630	Cylinder, Kit	12:1 Ratio Compression
FP-PG1330NG	Head Gaskets Kit	Water Seal O/S
FP-PG1330SNG	Head Gaskets Kit	Std Head Board
FP-PG1331NGB	Lower Gasket Kit	Gas Natural

## Cylinder Kits By CPL

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus .020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	1	NT855 S/C	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	2	NT855 S/C	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	3	NT855 S/C	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	4	NT855 S/C	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	5	NT290/365	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	6	NT855 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	7	NT855 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	8	NTA380 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	9	NT380 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	10	NTA380 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	11	NTA380 S/C	SAME AS LINE 10 (NON-AFTERCOOLED CANNOT USE DUAL-NI PISTON)									YES & NO
✓	12	NT380 S/C	SAME AS LINE 10 (NON-AFTERCOOLER CANNOT USE DUAL-NI PISTON)									YES & NO
✓	13	NTA400 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	14	NHCT270	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	16	NHCT-CT	SAME AS LINE 14									NO
✓	17	NH250 S/C	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	18	NT280 S/C	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	19	NT280-B1	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	20	NT335M	SAME AS LINE 19									NO
✓	21	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	22	NTC370	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	23	NTA420 S/C	SAME AS LINE 22									YES
✓	24	NHTF295	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	25	NTF365	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	26	NH230 S/C	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	69	NTC335 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	70	NT335 S/C	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	71	NT310	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	75	NT335-B1	SAME AS LINE 71									NO
✓	76	NT855-R2	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		NO
✓	77	NHTC270	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	85	NT380M	14.5:1	FP-3051555		FP-3801779	FP-3801769		FP-3801769	FP-3803213		NO
✓	101	NTC290	SAME AS LINE 85									NO
✓	102	NT280-IF	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	104	NT310	SAME AS LINE 102									NO
✓	107	NTA420 S/C	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	108	NT855-R	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	109	NT335	SAME AS LINE 108									NO
✓	113	NTC270	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	117	NHCT270	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	120	NT280	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	121	NH230/250T	15.5:1	FP-3042320		FP-3801774	FP-3801775		FP-3801767	FP-3803210		NO
✓	123	NT280-IF	SAME AS LINE 120									NO
✓	132	NTC335-E	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	135	NTA400/420	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	144	NTA380	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	146	NTA855	SAME AS LINE 144									YES
✓	147	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	152	NTA855 S/C	SAME AS LINE 144									YES
✓	154	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	155	NT290/365	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	156	NTC290-R	SAME AS	LINE 155								NO
✓	160	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	161	NT855-400	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	162	NTA400	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	163	NTA370	SAME AS	LINE 162								YES
✓	164	N855-250	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	166	NT855-310	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	168	NT855-R2	SAME AS	LINE 166								YES
✓	170	N855	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	172	NHC250	SAME AS	LINE 170								NO
✓	173	NT855-280	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	174	NTC290/335	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	175	PT270	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	176	NTC250	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	178	NTC230	SAME AS	LINE 176								NO
✓	180	NT855-280	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	181	PT270	SAME AS	LINE 180								NO
✓	182	NTC335	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	187	NTF295	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	188	NTC230	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	189	NTC250	SAME AS	LINE 188								NO
✓	190	NTCC335	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	196	NTC350-Y	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	197	NTC335-E	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	198	NTC355	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	199	NTC290	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801769	FP-3803213		NO
✓	200	N855-B	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	201	NT855 S/C	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	202	NTA855-GS	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	204	NTCC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	205	NTA400 B/C	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	207	PT270	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	214	N855-250	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	215	NTC290-E	14.5:1	FP-3017349		FP-3801872	FP-3801873			FP-3803226		NO
✓	217	NTC290	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	220	NTC230	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	221	NTC250-E	SAME AS	LINE 220								NO
✓	222	NTC250	SAME AS	LINE 220								NO
✓	226	NTA380 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	227	NTC290	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	233	NTC290 B/C	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	246	NTFE295	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213		NO
✓	248	NTC350 B/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	249	NTCC290	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	250	NTCC350	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	254	NTC350 B/C	SAME AS	LINE 250								YES
✓	255	N855	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	256	NT855	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	258	N855	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	259	NTA855-420	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	260	NTA855-350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	266	NTC350	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	267	NTC400 B/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus .020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	270	NTCC230	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	271	NT855-250	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	272	NTA855-400	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	276	NT855	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	277	NTCC250	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	278	NTC350 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	281	NTCC400	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	288	NT855-R4	SAME AS	LINE 281								YES
✓	294	NTCC350	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	298	NTC350 B/C	SAME AS	LINE 294								YES
✓	299	NTCE365	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	300	NT855GS	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	306	NTCC290	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	307	NTC350 B/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	308	NTCC350	SAME AS	LINE 307								YES
✓	309	NTC350	SAME AS	LINE 307								YES
✓	310	NTCC400	SAME AS	LINE 307								YES
✓	312	N855M	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	314	NTC350-Y	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	315	NTC350	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	316	NTA855-400	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	317	NTA855-360	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	318	NT855-335	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	319	NTA855-GS	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	320	NTE290	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	322	NTC290	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	323	NTC250	SAME AS	LINE 322								NO
✓	324	NTC400	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	325	NT855M	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	326	NT855M	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	327	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	328	NTCC350	SAME AS	LINE 327								YES
✓	329	NTC350	SAME AS	LINE 327								YES
✓	330	NTC475 B/C II	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES/MVT
✓	331	NT380	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	332	NTCC290	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	338	NTC290	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	339	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	344	NTC290	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	345	NTC250	SAME AS	LINE 344								NO
✓	346	NT855 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	347	NTE350 B/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	348	NTE370	SAME AS	LINE 347								YES
✓	349	NTC400 B/C II	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	353	NTC290	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	354	NTC250	SAME AS	LINE 353								NO
✓	356	N855CP	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	357	N855CLP	SAME AS	LINE 356								NO
✓	358	NT855C	SAME AS	LINE 356								NO
✓	359	NT855CP	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	360	NT855CPLR	SAME AS	LINE 359								NO
✓	362	NT855P	SAME AS	LINE 359								NO
✓	363	NTA360	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus .020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	364	NTA855P	SAME AS	LINE 363								YES
✓	365	NTA855CPR	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	366	NTA855PR	SAME AS	LINE 365								YES
✓	369	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	370	NTCE290	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	371	NTCE250	16.0:1	FP-3051553		FP-3801764	FP-3801765		FP-3801920	FP-3803211		NO
✓	372	NTC230	SAME AS	LINE 371								NO
✓	373	NTC250	SAME AS	LINE 371								NO
✓	374	NTC290	SAME AS	LINE 371								NO
✓	375	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	376	NTC400	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	377	NTE290	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	380	NTCC290	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	381	NTCC350	SAME AS	LINE 380								YES
✓	382	NTCC400	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	384	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	391	NTE370 B/C II	14.5:1	FP-3051555		FP-3801779	FPL-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	392	NTE350 B/C II	SAME AS	LINE 391								YES
✓	393	NTC400 B/C	SAME AS	LINE 391								YES
✓	394	NT855M	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	395	NTA855M	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	396	NTA855G	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		NO
✓	397	NTA855G	SAME AS	LINE 396								YES
✓	402	NTC290	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	407	NTC230	15.0:1	FP-3017348		FP-3801874	FP-3801875			FP-3803223		NO
✓	408	NTCC230	SAME AS	LINE 407								NO
✓	413	N855	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	414	NTC300	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	416	NTA400	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		NO
✓	419	NTE350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	431	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	432	NTC290	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	433	NTC300	SAME AS	LINE 432								YES
✓	435	NTE370	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	436	NTC350	SAME AS	LINE 435								YES
✓	437	NT240/250	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	448	NTCC230	SAME AS	LINE 437								NO
✓	449	NTC400 B/C II	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	450	NTC350 B/C II	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	454	NTCC400 B/C II	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES / MVT
✓	455	NTCC350 B/C II	SAME AS	LINE 454								YES / MVT
✓	456	NTCC300 B/C II	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES / MVT
✓	457	NTCC400 B/C II	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES / MVT
✓	458	NTCC350 B/C II	SAME AS	LINE 457								YES / MVT
✓	459	NTCC300 B/C II	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		YES / MVT
✓	460	NT855G	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	461	NT855G	SAME AS	LINE 460								NO
✓	462	NTA360	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	463	NT855	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	469	NTA855P	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	470	NT855P	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	471	NTC300 B/C II	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES
✓	472	NTC250	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO



## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus .020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	473	NTC290	SAME AS	LINE 472								NO
✓	479	NTE290	SAME AS	LINE 472								NO
✓	481	NTC400	14.0:1	FP-3051556		FP-3801780	FP-3801781	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	482	NTC350	SAME AS	LINE 481								YES
✓	483	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	485	NTC300	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	488	NTC230	15.0:1	FP-3017348		FP-3801874	FP-3801785			FP-3803223		NO
✓	491	NTC270 B/C II	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	492	NTC270	SAME AS	LINE 491								NO
✓	494	NHHTCC290	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		YES
✓	495	NHHTCC350	14.5:1	FP-3051555		FP-3801769	FP-3801768		FP-3801769	FP-3803213		YES
✓	497	NTC240	15.0:1	FP-3017348		FP-3801874	FP-3801875			FP-3803223		NO
✓	498	NTC240	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	499	NT855	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	500	NTE370/400	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801778	FP-3803214	FP-3803217	YES
✓	506	FLEET270	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES
✓	509	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	510	NTC400	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801778	FP-3803214	FP-3803217	YES
✓	511	NT855C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	516	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	517	NTA855C	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	518	NTTC475 B/C II	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES / MVT
✓	523	NTTA855G	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES
✓	527	L10		FP-3044448								
✓	528	L10		FP-3044448								
✓	529	NTC300 B/C III	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES
✓	530	NTC350 B/C III	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	531	NTC400 B/C III	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	534	L10		FP-3044448								
✓	535	L10		FP-3044448								
✓	536	NTC300	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	537	N855	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	538	NT855C	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	539	NT855	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	540	NT855G	SAME AS	LINE 539								NO
✓	541	NTA855P	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	542	NTA855G	13.5:1	FP-3051557		FP-3801781	FP-3801782			FP-3803228		YES
✓	543	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	544	NH230	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO;
✓	545	NTA855P	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	547	NTC240/270	15.0:1	FP-3017348		FP-3801874	FP-3801875			FP-3803223		NO
✓	551	NTA855F	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	552	NT855F	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	553	NTA855	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	554	NTA855 B/C III	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	558	NTCC240	15.5:1	FP-3048650		FP-3801795	FP-			FP-3803221		NO
✓	561	L10		FP-3044448								
✓	562	L10		FP-3044448								
✓	566	NT855P	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	567	N855P	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	572	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	573	NTA855G	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	574	NTA855G	SAME AS	LINE 573								YES



## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus .020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	575	NTA855R	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	578	NTE290	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	579	NTC270 B/C III	15.5:1	FP-3042320		FP-3801774	FP-3801775		FP-3801767	FP-3803210		NO
✓	580	L10		FP-3044448								
✓	581	FLEET270 B/C III	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES
✓	582	NT855G	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	583	NT855G	SAME AS	LINE 582								NO
✓	585	NTC300 B/C III	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES
✓	586	NTC475 B/C III	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES
✓	588	NTC400 B/C III	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	596	6B		FP-3906223								
✓	599	6B		FP-3907156								
✓	600	6B		FP-3907156								
✓	602	6C		FP-3923163								
✓	603	6C		FP-3923163								
✓	604	6C		FP-3923164								
✓	606	FLT300 B/C III	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	608	L10		FP-3044448								
✓	609	NT855	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	611	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	612	NTC270	15.5:1	FP-3042320		FP-3801774	FP-3801775		FP-3801767	FP-3803210		NO
✓	613	L10		FP-3044448								
✓	614	NTCC400 B/C III	15.5:1	FP-3050366				FP-3801822		FP-3803218		YES / MVT
✓	615	NTCC350 B/C III	SAME AS	LINE 614								YES / MVT
✓	616	NTCC300 B/C III	CALL FOR	AVAILABILITY								YES / MVT
✓	617	NTCC240	CALL FOR	AVAILABILITY								YES / MVT
✓	625	NTC400 B/C III	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	626	L10		FP-3044448								
✓	631	L10		FP-3044448								
✓	632	NTC350 B/C III	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	633	NTC300 B/C III	CALL FOR	AVAILABILITY								
✓	634	FLT300 B/C III	CALL FOR	AVAILABILITY								
✓	635	NTC475 B/C III	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES / MVT
✓	636	NTC300 S/C	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES
✓	637	NTC350 S/C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	638	L10		FP-3044448								
✓	641	L10		FP-3044448								
✓	642	NTC400 B/CIV	14.0:1	FP-3028685			FP-3801796	FP-3801746	FP-3801811	FP-3803209	FP-3803233	YES
✓	643	L10		FP-3044448								
✓	647	NTC320	15.3:1	FP-3028706			FP-3801230					YES
✓	649	L10		FP-3044448								
✓	650	NTA855 B/C III	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3800817	FP-3801769	FP-3803213	FP-3803216	YES
✓	651	NTE430	14.0:1	FP-3028685			FP-3801796	FP-3801746	FP-3801811	FP-3803209	FP-3803233	YES
✓	653	NTTA855	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES
✓	654	NTTA855A	SAME AS	LINE 653								YES
✓	657	NTA8555 B/C III	14.0:1	FP-3051556		FP-3801783	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	658	NTTA855	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES
✓	659	NTE350	14.0:1	FP-3028685			FP-3801796	FP-3801746	FP-3801811	FP-3803209	FP-3803233	YES
✓	662	L10		FP-3044448								
✓	669	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	670	NT855-R5	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778			NO
✓	671	L10		FP-3044448								
✓	673	FLT300 B/C IV	15.0:1	FP-3042319			FP-3801798	FP-3801824		FP-3803224	FP-3803215	YES
✓	674	NTC300 B/C IV	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus .020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	675	NTC350 B/C IV	15.5:1	FP-3042318			FP-3801797	FP-3801817		FP-3803225	FP-3803216	YES
✓	676	NTC400 B/C IV	14.0:1	FP-3028685			FP-3801796	FP-3801746	FP-3801811	FP-3803209	FP-3803233	YES
✓	677	NHHTC300	15.5:1	FP-3050366			FP-3801822			FP-3803218		YES
✓	691	6B		FP-3906223								
✓	695	NTC400 S/C	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	698	6B		FP-3907156								
✓	699	NT855G	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	700	NTA855M	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	701	NTA855M	SAME AS	LINE 700								
✓	702	NTTA855G	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES
✓	703	L10		FP-3044448								
✓	704	L10		FP-3044448								
✓	706	NTA855C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	707	L10		FP-3044448								
✓	708	L10		FP-3044448								
✓	709	NHC250	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	713	6B		FP-3907156								
✓	714	6B		FP-3906223								
✓	715	6B		FP-3907156								
✓	717	L10		FP-3044448								
✓	718	FLT300 B/C IV	14.5:1	FP-3045948				FP-3801817			FP-3803216	YES
	718			DUAL NI-RES								
✓	719	NT855	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	726	L10		FP-3044448								
✓	729	6B		FP-3907163								
✓	731	NT855M	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		NO
✓	732	NT855C	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	733	NT855G	SAME AS	LINE 732								
✓	742	6B		FP-3907156								
✓	743	NTC300	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES
✓	744	NTC350	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	745	NTC400	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	748	L10		FP-3044448								
✓	749	NTC315	15.0:1	FP-3042319			FP-3801798			FP-3803224	FP-3803215	YES
✓	750	L10		FP-3044448								
✓	751	L10		FP-3044448								
✓	753	6C		FP-3923163								
✓	754	6C		FP-3923164								
✓	755	6C		FP-3923164								
✓	757	NTA855G	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	761	6B		FP-3907163								
✓	769	NTC350 B/C III	14.5:1	FP-3045948				FP-3801817			FP-3803216	YES
	769			DUAL NI-RES								
✓	770	L10		FP-3044448								
✓	771	L10		FP-3044448								
✓	772	L10		FP-3044448								
✓	773	L10		FP-3044448								
✓	774	L10		FP-3044448								
✓	775	L10		FP-3044448								
✓	776	L10		FP-3044448								
✓	777	L10		FP-3044448								
✓	778	L10		FP-3044448								
✓	779	L10		FP-3044448								
✓	782	L10		FP-3044448								
✓	783	L10		FP-3044448								

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	784	L10		FP-3044448								
✓	785	L10		FP-3044448								
✓	786	L10		FP-3044448								
✓	788	L10		FP-3044448								
✓	791	6B		FP-3906223								
✓	792	6B		FP-3907156								
✓	794	NTCC315 B/C IV	15.5:1	FP-3050366			FP-3801822	FP-3801822			FP-3803218	YES / MVT
	794			DUAL NI-RES								
✓	795	NTCC350 B/C IV	SAME AS	LINE 794								YES / MVT
✓	796	NTC315	15.0:1	FP-3048809				FP-3801824			FP-3803215	YES
	796			DUAL NI-RES								NEW B/C IV
✓	797	NTC350	14.5:1	FP-3045948				FP-3801817			FP-3803216	YES
✓	798	NTC400	14.0:1	FP-3048808			FP-3801823			FP-3803217		NEW B/C IV
	798			DUAL NI-RES								
✓	802	6B		FP-3906223								
✓	804	6B		FP-3907163								
✓	806	400 / 444										NEW B/C IV
✓	806	NTCC365	CALL FOR AVAILABILITY									YES/STC
✓	807	6B		FP-3907163								
✓	808	NTA855G	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	811	NTC300 B/C IV	15.5:1	FP-3050366				FP-3801822			FP-3803218	YES
✓	812	NTC315 B/C IV	15.0:1	FP-3048809				FP-3801824			FP-3803215	YES
✓	813	NTC350 B/C IV	14.5:1	FP-3045948				FP-3801817			FP-3803216	YES
✓	814	NTC400 B/C IV	14.0:1	FP-3050480				FP-3801746			FP-3803233	YES
	814			DUAL NI-RES								
✓	815	L10		FP-3044448								
✓	819	6C		FP-3923163								
✓	821	NTC444	14.0:1	FP-3050480				FP-3801746			FP-3803233	YES / STC
✓	827	NTC365/400	15.5:1	FP-3052794				FP-3801956				YES / STC
	827			DUAL NI-RES								88 BC4
✓	828	6C		FP-3923163								
✓	830	6C		FP-3923164								
✓	831	6C		FP-3923164								
✓	832	NTC300 B/C IV	15.5:1	FP-3050366				FP-3801822			FP-3803218	YES
✓	833	NTC365/400	14.0:1	FP-3050480				FP-3801746			FP-3803233	YES/STC
✓	834	6B		FP-3907156								
✓	835	L10		FP-3044448								
✓	836	L10		FP-3044448								
✓	838	NTC300/315	17.0:1	FP-3069212				FP-3803346				YES
	838			DUAL NI-RES								88 BC4
✓	840	NTC350	SAME AS	LINE 838								YES
✓	842	L10		FP-3055622								
✓	845	6B		FP-3906223								
✓	849	NT855G	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	880	NTA855M	SAME AS	LINE 849								
✓	881	L10		FP-3044448								
✓	882	L10		FP-3044448								
✓	891	NTC400	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
✓	893	6C		FP-3923164								
✓	894	L10		FP-3044448								
✓	903	NTC444	14.0:1	FP-3050480				FP-3801746			FP-3803233	YES/STC
✓	904	NTC365/400	SAME AS	LINE 903								YES/STC
✓	905	NTC300/320	14.5:1	FP-3045948				FP-3801817			FP-3803216	YES
✓	907	NTC300	15.5:1	FP-3050366				FP-3801822			FP-3803218	YES
✓	908	NTA855C	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 0.020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	910	NTC444	CALL FOR AVAILABILITY									YES/STC
	910											88 BC4
✓	911	NT315E	15.5:1	FP-3052794				FP-3801956				
	911			DUAL NI-RES								
✓	912	6B		FP-3907156								
✓	919	L10		FP-3044448								
✓	921	L10		FP-3044448								
✓	938	6B		FP-3907163								
✓	939	L10		FP-3055622								
✓	940	6B		FP-3907156								
✓	943	6B		FP-3907163								
✓	947	6B		FP-3907163								
✓	948	6B		FP-3907163								
✓	950	6B		FP-3907163								
✓	955	6C		FP-3923163								
✓	956	L10		FP-3055622								
✓	958	L10		FP-3044448								
✓	959	6C		FP-3923164								
✓	960	6B		FP-3906223								
✓	961	6B		FP-3907156								
✓	962	6B		FP-3907156								
✓	970	6B		FP-3911400								
✓	972	NT855	15.0:1	FP-3051554		FP-3801776	FP-3801777	FP-3801824	FP-3801778	FP-3803212	FP-3803215	YES
✓	974	NTC365/400	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	978	L10		FP-3044448								
✓	980	L10		FP-3055622								
✓	982	6C		FP-3923164								
✓	983	6B		FP-3907156 OR FP-3907163								
✓	984	6C		FP-3923164								
✓	985	6C		FP-3923163								
✓	987	6B		FP-3917619								
✓	989	NTA855G	14.0:1	FP-3031227			FP-3801783			FP-3803227		YES
✓	990	NTA855G/GS	SAME AS	LINE 989								YES
✓	991	NTA855G2	SAME AS	LINE 989								YES
✓	992	NT350E	15.5:1	FP-3052794				FP-3801956				YES
✓	994	6B		FP-3907163								
✓	995	L10		FP-3055622								
✓	996	L10		FP-3055622								
✓	998	6B		FP-3907156								
✓	999	6B		FP-3906223								
✓	1071	6B		FP-3928673								
✓	1160	6B		FP-3907163								
✓	1163	6B		FP-3907163								
✓	1167	NTA855M	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	1168	6B		FP-3907163								
✓	1171	NTA855/370	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	1174	6B		FP-3907156								
✓	1179	NTA855M2	SAME AS	LINE 1171								YES
✓	1180	NT855R2	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	1181	NTA855R1	14.5:1	FP-3051555		FP-3801779	FP-3801768		FP-3801769	FP-3803213		YES
✓	1182	NTA855R1	SAME AS	LINE 1181								YES
✓	1183	NTA855G	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	1185	NTC365/400	15.5:1	FP-3052794				FP-3801956				YES
	1185			DUAL NI-RES								88 BC4
✓	1186	NTE465 B/C IV	14.0:1	FP-3050480				FP-3801746			FP-3803233	YES

Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	1187	FLT285 B/C IV	17.0:1	FP-3069212				FP-3803346				YES
	1187			DUAL NI-RES								88 BC4
✓	1188	FLT350 B/C IV	15.5:1	FP-3052794				FP-3801956				YES
	1188			DUAL NI-RES								88 BC4
✓	1189	6B		FP-3907163								
✓	1193	NTA855	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
	1193			DUAL NI-RES								
✓	1194	NTA855	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	1197	NTTA855	SAME AS	LINE 1194								YES
✓	1203	N855C	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	1204	NTA855	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	1205	NT855	15.0:1	FP-3051554		FP-3801776	FP-3801777		FP-3801778	FP-3803212		NO
✓	1209	6B		FP-3907156								
✓	1210	NTC444		CALL FOR AVAILABILITY								
✓	1211	NTC365/400	15.5:1	FP-3052794				FP-3801956				YES
	1211			DUAL NI-RES								
✓	1212	6C		FP-3923164								
	1215			DUAL NI-RES								
✓	1215	NTC444/450	14.0:1	FP-3050480				FP-3801746			FP-3803233	YES
✓	1222	6C		FP-3923164								
✓	1223	L10		FP-3055622								
✓	1224	L10		FP-3055622								
✓	1226	L10		FP-3055622								
✓	1234	L10		FP-3044448								
✓	1241			FP-3068090								
✓	1245	6B		FP-3907163								
✓	1248	6C		FP-3923163								
✓	1252	NTA855/400	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
✓	1255	L10		FP-3055622								
✓	1255	NTA855/360	14.5:1	FP-3045978				FP-3801817			FP-3803216	YES
	1255			DUAL NI-RES								
	1256	NTC444		CALL FOR AVAILABILITY								
✓	1260	6B		FP-3919041								
✓	1261	6B		FP-3917619								
✓	1262	6C		FP-3917707								
	1263	6C		3925673								
✓	1266	6B		FP-3907163								
✓	1270	6C		FP-3923164								
✓	1273	6C		FP-3923164								
✓	1274	6C		FP-3923163								
✓	1275	6C		FP-3923163								
✓	1279	6B		FP-3907163								
	1280	NTC444		CALL FOR AVAILABILITY								
✓	1281	6C		FP-3923163								
	1282	6C		3926790								
✓	1288	6B		FP-3907163								
✓	1289	6B		FP-3907163								
✓	1309	NTA14		FP-3081268				FP-3803755				YES
✓	1310	NT855 B/C III	15.5:1	FP-3048650		FP-3801795				FP-3803221		NO
✓	1314	NTA855	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
	1314			DUAL NI-RES								
✓	1315	NTA855R3,4	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767		FP-3803218	YES
✓	1320	6B		FP-3906223								
✓	1321	6C		FP-3923164								
✓	1321	L10		FP-3055622								

Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus .020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	1322	6B		FP-3911400								
✓	1324	N14E-460		FP-3081268				FP-3803755				AIR TO AIR
✓	1346	L10		FP-3055622								
✓	1347	L10		FP-3068090								
	1348	L10		4070311	4025167							
✓	1349	L10		FP-3068090								
✓	1350	NTC400	14.0:1	FP-3028685		FP-3801796		FP-3801823	FP-3801811	FP-3803209	FP-3803217	YES
✓	1351	6B		FP-3919041								
✓	1352	FLT300	17.0:1	FP-3069212				FP-3803346				
	1352			DUAL NI-RES								
✓	1356	6C		FP-3923163								
✓	1358	6B		FP-3917619								
✓	1362	L10		FP-3068090								
✓	1367	L10		FP-3068090								
✓	1373	L10		FP-3068090								
✓	1374	N14-370		FP-3081269				FP-3803759				AIR TO AIR
	1375	L10		4070311	4025167							
✓	1377	6C		FP-3923164								
✓	1380	N14-330/350		FP-3081267				FP-3803757				AIR TO AIR
✓	1381	NT855G	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
	1381			DUAL NI-RES								
	1382	NT855G	CALL FOR AVAILABILITY									
✓	1383	NTA855G	15.3:1	FP-3028706		FP-3801230						YES
✓	1384	N14E-460		FP-3081268				FP-3803755				AIR TO AIR
✓	1385	N14E-430		FP-3081268				FP-3803755				AIR TO AIR
✓	1386	N14E-430		FP-3081266				FP-3803753				AIR TO AIR
✓	1389	N14E-370		FP-3081268				FP-3803755				AIR TO AIR
✓	1390	N14E-370		FP-3081268				FP-3083755				AIR TO AIR
✓	1391	N14E-350		FP-3081266				FP-3803753				AIR TO AIR
✓	1392	N14E-330		FP-3081266				FP-3803753				AIR TO AIR
✓	1393	N14E-330		FP-3081266				FP-3803753				AIR TO AIR
✓	1394	N14E-310		FP-3081266				FP-3803753				AIR TO AIR
✓	1395	N14-310/330		FP-3081267				FP-3803757				AIR TO AIR
✓	1401	NTA855R1	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	1402	NTAA410	15.5:1	FP-3042320		FP-3801774	FP-3801775	FP-3801822	FP-3801767	FP-3803210	FP-3803218	YES
✓	1403	6B		FP-3906223								
✓	1405	N14-410		FP-3081269				FP-3803759				AIR TO AIR
✓	1406	6C		FP-3917707								
✓	1409	NTA855C	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	1410	NTA855	SAME AS LINE 1409									YES
✓	1411	NTA855-400	14.0:1	FP-3051556		FP-3801780	FP-3801771	FP-3801823	FP-3801772	FP-3803214	FP-3803217	YES
✓	1413	L10		FP-3044448								
✓	1414	L10		FP-3044448								
✓	1415	NTA855	14.5:1	FP-3051555		FP-3801779	FP-3801768	FP-3801817	FP-3801769	FP-3803213	FP-3803216	YES
✓	1416	NTA855	14.5:1	FP-3045948				FP-3801817			FP-3803216	YES
✓	1417	NTA855	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
✓	1418	NTA855	SAME AS LINE 1417									YES
✓	1419	6C		FP-3923164								
✓	1420	L10		FP-3068090								
✓	1421	NTA855C	SAME AS LINE 1417									YES
✓	1422	6B		FP-3917619								
✓	1425	NTA855	15.0:1	FP-3048809				FP-3801824			FP-3803215	YES
✓	1426	N14E-410		FP-3081268				FP-3803755				AIR TO AIR
	1428	L10		4070311	4025167							
✓	1436	NTA855G	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES

Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	1439	6C		3925673								
✓	1441	L10		FP-3055622								
✓	1442	L10		FP-3055622								
✓	1445	N14E-370		FP-3081268				FP-3803755				AIR TO AIR
✓	1446	L10		FP-3068090								
✓	1447	L10		FP-3068090								
✓	1448	L10		FP-3068090								
✓	1449	L10		FP-3068090								
✓	1450	L10		FP-3068090								
✓	1464	6C		FP-3923163								
✓	1501	NTA855C	14.5:1	FP-3045948				FP-3801817			FP-3803216	YES
✓	1502	NTA855/400	15.0:1	FP-3048809				FP-3801824			FP-3803215	YES
✓	1507	N14-350P		FP-3081267				FP-3803757				AIR TO AIR
	1511	L10		4070311	4025167							
	1512	L10		4070311	4025167							
	1513	L10		4070311	4025167							
✓	1514	L10		FP-3068090								
✓	1527	6B		FP-3917619								
✓	1529	N14-350P		FP-3081267				FP-3803757				AIR TO AIR
✓	1530	NTA14-330		FP-3081267				FP-3803757				AIR TO AIR
✓	1532	N14-350P		FP-3081267				FP-3803757				AIR TO AIR
✓	1533	N14E-370		FP-3081268				FP-3803755				AIR TO AIR
✓	1534	N14E-370		FP-3081268				FP-3803755				AIR TO AIR
✓	1535	N14E-350		FP-3081268				FP-3803755				AIR TO AIR
✓	1536	N14E-330		FP-3081268				FP-3803755				AIR TO AIR
✓	1537	N14E-330		FP-3081268				FP-3803755				AIR TO AIR
✓	1538	N14E-310		FP-3081268				FP-3803755				AIR TO AIR
✓	1540	N14E-330		FP-3081266				FP-3803753				AIR TO AIR
✓	1546	NTA855/400	15.0:1	FP-3048809				FP-3801824			FP-3803215	YES
✓	1548	N14E-460		FP-3081268				FP-3803755				AIR TO AIR
✓	1549	6B		FP-3922571								
✓	1550	6B		FP-3922571								
✓	1551	6B		FP-3926631								
✓	1552	6B		FP-3926631								
✓	1553	6B		FP-3926632								
✓	1557	NTA360/375	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
✓	1558	L10		FP-3893751								
✓	1559	L10		FP-3893751								
✓	1560	L10		FP-3893751								
✓	1561	L10		FP-3893751								
✓	1562	L10		FP-3893751								
✓	1563	6C		FP-3925878								
	1564	6C		3926961								
✓	1565	6C		FP-3925878								
	1566	6C		3926961								
	1568	6C		3926961								
✓	1569	6C		FP-3925878								
✓	1572	N14-460E		FP-3081268				FP-3803755				AIR TO AIR
✓	1573	N14E370/430		FP-3081268				FP-3803755				AIR TO AIR
✓	1574	N14E310/350		FP-3081266				FP-3803753				AIR TO AIR
✓	1575	N14-460E		FP-3081268				FP-3803755				AIR TO AIR
	1576			DUAL NI-RES								
✓	1576	NTA855CP	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
✓	1577	6B		FP-3917619								
✓	1578	6B		FP-3919041								
✓	1579	6B		FP-3919041								

**Cylinder Kits By CPL (Cont'd)**

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	1580	N14-460E		FP-3081268				FP-3803755				AIR TO AIR
✓	1582	6B		FP-3917619								
✓	1583	N14E370/460		FP-3081268				FP-3803755				AIR TO AIR
	1587	L10		4070311	4025167							
	1588	L10		4070311	4025167							
✓	1589	L10		FP-3068090								
	1590	L10		4070311	4025167							
✓	1597	NTA855CP	14.0:1	FP-3048808				FP-3801823			FP-3803217	YES
✓	1600	NTA855C	SAME AS	LINE 1597								YES
✓	1601	6B		FP-3907163								
✓	1606	6B		FP-3919041								
✓	1607	N14-370/410		FP-3081269				FP-3803759				AIR TO AIR
✓	1608	6B		FP-3906223								
	1609	L10		4070311	4025167							
✓	1611	N14E440/500		FP-3081268				FP-3803755				AIR TO AIR
✓	1612	6C		FP-3923164								
✓	1613	6B		FP-3911400								
✓	1615	6C		FP-3917707								
	1617	L10		4070311	4025167							
✓	1619	L10		FP-3055622								
✓	1620	L10		FP-3055622								
✓	1621	L10		FP-3055622								
✓	1622	L10		FP-3055622								
✓	1623	L10		FP-3055622								
✓	1624	L10		FP-3055622								
✓	1625	L10		FP-3055622								
	1626	L10		4060420	4025174							
✓	1627	6B		FP-3907163								
✓	1633	6C		FP-3923164								
✓	1639	6C		FP-3923164								
✓	1642	L10		FP-3068090								
✓	1646	L10		FP-3055622								
✓	1648	L10		FP-3055622								
✓	1649	N14-300E		FP-3081266				FP-3803753				AIR TO AIR
✓	1650	NTA855-400	15.0:1	FP-3048809				FP-3801824			FP-3803215	YES
	1650			DUAL NI-RES								
✓	1652	N14-330		FP-3081269				FP-3803759				AIR TO AIR
	1658	6C		3926961								
✓	1661	6C		FP-3923163								
	1669	L10		4070311	4025167							
✓	1675	L10		FP-3055622								
✓	1676	L10		FP-3893751								
✓	1677	L10		FP-3055622								
✓	1678	L10		FP-3055622								
✓	1683	6B CNG		FP-3922687								
✓	1685	6B		FP-3907163								
✓	1807	N14-370E		FP-3087635X	FP-3803740							
✓	1809	N14-410		FP-3087634X	FP-3803742							
	1811	6C		3926961								
✓	1812	6C		FP-3925878								
✓	1815	6B		FP-3922572								
✓	1816	6B		FP-3922572								
	1819	6C		3926961								
	1820	6C		3926961								
✓	1821	6C		FP-3925878								
✓	1824	6B		FP-3922571								
✓	1825	6B		FP-3922571								



## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	1831	N14-430E		FP-3081268				FP-3803755				
✓	1832	L10		FP-3893751								
✓	1833	N14-330		FP-3087635X	FP-3803740							
✓	1839	6B		FP-3926631								
✓	1841	M11//ISM		FP-4059901T	FP-4025162							
✓	1844	N14-410		FP-3087634X	FP-3803742							
✓	1848	6B		FP-3919041								
✓	1852	N14-500E		FP-3087634X	FP-3803742							
✓	1855	M11//ISM		FP-4059901T	FP-4025162							
✓	1856	M11//ISM		FP-4059901T	FP-4025162							
✓	1857	M11//ISM		FP-4059901T	FP-4025162							
✓	1863	6B		FP-3922571								
✓	1866	L10		FP-3893751								
✓	1867	L10		FP-3893751								
✓	1868	L10		FP-3893751								
✓	1869	L10		FP-3893751								
✓	1870	L10		FP-3893751								
✓	1871	L10		FP-3893751								
✓	1878	N14-430		FP-3081269				FP-3803759				
✓	1885	M11//ISM		FP-4059901T	FP-4025162							
✓	1889	6B		FP-3930187								
✓	1896	N14-410		FP-3087634X	FP-3803742							
✓	1897	M11//ISM		FP-4059901T	FP-4025162							
✓	1903	6C		FP-3923164								
	1905	6C		3926961								
	1914	6B		FP-3926631								
	1915	6B		FP-3926631								
	1916	6B		FP-3926631								
✓	1917	6C		FP-3925878								
	1918	6C		3926961								
✓	1920	6C		FP-3925878								
✓	1921	N14-C		FP-3087634X	FP-3803742							
	1922	6C		3926961								
✓	1923	6C		FP-3925878								
✓	1924	N14-525		FP-3087634X	FP-3803742							
✓	1928	6B		FP-3911400								
	1929	6C		3926790								
✓	1943	6C		FP-3929161								
✓	1944	N14-430		FP-3081268				FP-3803755				AIR TO AIR
✓	1948	6B		FP-3928473								
	1949	6C		3926961								
✓	1956	N14-350		FP-3081269				FP-3803759				AIR TO AIR
✓	1957	N14-410		FP-3081269				FP-3803759				AIR TO AIR
✓	1959	6B		FP-3922571								
✓	1961	6B		FP-3928673								
✓	1962	6B		FP-3928673								
✓	1968	6B		FP-3922571								
✓	1972	6C		FP-3925878								
✓	1973	M11//ISM		FP-4059901T	FP-4025162							
	1983	L10		4070311	4025167							
✓	1987	N14-350		FP-3087634X	FP-3803742							
✓	1988	6C		FP-3923163								
✓	1991	M11//ISM		FP-4059901T	FP-4025162							
✓	1992	M11//ISM		FP-4059901T	FP-4025162							
✓	1993	M11//ISM		FP-4059901T	FP-4025162							
	1999	6C		3926961								
	2000	6B		FP-3926631								

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	2001	6B		FP-3926631								
✓	2003	N14-500E		FP-3087634X	FP-3803742							
✓	2007	6C		FP-3929161								
	2011	6C		3926961								
✓	2012	M11/ISM		FP-4059901T	FP-4025162							
✓	2013	6B		FP-3926631								
✓	2018	6C		FP-3925878								
✓	2019	6C		FP-3925878								
✓	2022	6B		FP-3922571								
✓	2023	6B		FP-3926631								
✓	2024	ISB		FP-3946153								
✓	2025	N14-525E		FP-3087634X	FP-3803742							
✓	2026	N14		FP-3865113X	FP-3804636							
✓	2027	N14		FP-3087635X	FP-3803740							
✓	2033	NTA14-M		FP-3087634X	FP-3803742							
	2034	6C		3926961								
✓	2035	6C		FP-3923163								
✓	2036	M11/ISM		FP-4059901T	FP-4025162							
✓	2037	M11/ISM		FP-4059901T	FP-4025162							
✓	2038	NTA14-C		FP-3087635X	FP-3803740							
✓	2040	M11/ISM		FP-4059901T	FP-4025162							
✓	2041	M11/ISM		FP-4059901T	FP-4025162							
✓	2042	M11/ISM		FP-4059901T	FP-4025162							
✓	2049	6B		FP-3907163								
	2050	6B		3921888								
✓	2055	6C		FP-3929161								
✓	2056	6C		FP-3929161								
✓	2057	6C		FP-3929161								
✓	2058	6C		FP-3923164								
✓	2060	6C		FP-3929161								
✓	2063	6B		FP-3930187								
	2066	L10		4070311	4025167							
	2067	L10		4070311	4025167							
	2068	L10		3895864								
	2069	L10		3895864								
	2072	6B		3930314								
	2075	ISB		3943708								
	2076	ISB		3943708								
	2077	ISB		3943708								
	2078	ISB		3944073								
	2079	ISB		3948471								
	2080	ISB		3944073								
✓	2097	M11/ISM		FP-4059901T	FP-4025162							
	2098	ISB		3943708								
✓	2099	M11/ISM		FP-4059901T	FP-4025162							
✓	2100	6C		FP-3917707								
✓	2101	6C		FP-3925878								
	2102	6C		3926961								
✓	2103	6C		FP-3925878								
✓	2104	6C		FP-3925878								
	2105	6C		3926961								
✓	2106	6C		FP-3925878								
✓	2107	6C		FP-3925878								
✓	2108	6C		FP-3925878								
✓	2110	L10 CNG		FP-3606732								
✓	2111	L10 CNG		FP-3606732								
	2114	6C		3926961								

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	2119	M11//ISM		FP-4059901T	FP-4025162							
✓	2120	6C		FP-3929161								
	2132	ISB		3944073								
	2138	ISB		3943708								
✓	2140	M11//ISM		FP-4059901T	FP-4025162							
✓	2141	M11//ISM		FP-4059901T	FP-4025162							
✓	2143	N14-525		FP-3087634X	FP-3803742							
✓	2150	6C		FP-3925878								
✓	2161	6C		FP-3923163								
✓	2162	6C		FP-3923163								
✓	2165	M11//ISM		FP-4059901T	FP-4025162							
✓	2174	6B		FP-3922571								
	2175	6B		FP-3926631								
✓	2178	M11//ISM		FP-4059901T	FP-4025162							
✓	2182	6C		FP-3923163								
✓	2183	6C		FP-3923163								
✓	2185	6C		FP-3929161								
✓	2189	L10 CNG		FP-3606732								
✓	2190	L10 CNG		FP-3606732								
	2192	L10		3895864								
✓	2193	6C		FP-3925878								
✓	2194	6C		FP-3925878								
✓	2201	M11//ISM		FP-4059901T	FP-4025162							
✓	2204	M11//ISM		FP-4059901T	FP-4025162							
✓	2207	M11//ISM		FP-4059901T	FP-4025162							
✓	2228	N14-530		FP-3087634X	FP-3803742							
	2243	6B		FP-3926631								
	2249	6B		FP-3926631								
	2252	6B		FP-3926631								
	2253	6B		FP-3926631								
✓	2261	N14-525		FP-3087634X	FP-3803742							
	2262	ISB		3944073								
	2263	ISB		3948471								
✓	2265	6B		FP-3922571								
✓	2268	6B		FP-3922571								
	2279	ISB		3943708								
	2280	ISB		3943708								
	2282	ISB		3943708								
	2283	ISB		3943708								
✓	2284	6C		FP-3923163								
✓	2285	6C		FP-3923163								
✓	2287	NTA14-G		FP-3087634X	FP-3803742							
✓	2292	6B		FP-3928673								
✓	2296	6B		FP-3928673								
✓	2306	N530		FP-3087634X	FP-3803742							
✓	2308	6B		FP-3922571								
✓	2330	NTA14-C		FP-3087635X	FP-3803740							
✓	2336	M11//ISM		FP-4059901T	FP-4025162							
✓	2339	M11//ISM		FP-4059901T	FP-4025162							
✓	2343	6C		FP-3923163								
✓	2344	6C		FP-3923163								
✓	2345	6B		FP-3922571								
✓	2346	6B		FP-3922571								
	2347	6B		FP-3926631								
✓	2349	6B		FP-3922571								
✓	2363	M11//ISM		FP-4059901T	FP-4025162							
✓	2367	6C		FP-3917707								

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	2368	6C		FP-3917707								
✓	2370	M11/ISM		FP-4059901T	FP-4025162							
✓	2371	M11/ISM		FP-4059901T	FP-4025162							
✓	2372	6B		FP-3928673								
✓	2373	6B		FP-3928673								
✓	2378	M11/ISM		FP-4059901T	FP-4025162							
✓	2388	N14E		FP-3087634X	FP-3803742							
✓	2389	NTA14-E		FP-3087635X	FP-3803740							
✓	2390	N14-370E		FP-3087634X	FP-3803742							
✓	2391	NTA14-E		FP-3087634X	FP-3803742							
✓	2398	N14		FP-3865113X	FP-3804636							
✓	2403	N14-480		FP-3087634X	FP-3803742							
✓	2405	6B		FP-3919041								
✓	2406	6C		FP-3923163								
✓	2407	6C		FP-3923163								
✓	2408	6C		FP-3923163								
✓	2409	6C		FP-3923163								
✓	2410	6C		FP-3923163								
✓	2411	6C		FP-3923163								
✓	2413	6B		FP-3907163								
✓	2415	ISB		FP-3946050								
✓	2417	6B		FP-3928673								
✓	2425	M11/ISM		FP-4059901T	FP-4025162							
✓	2445	M11/ISM		FP-4059901T	FP-4025162							
	2446	ISB		3943708								
	2447	ISB		3943708								
	2448	ISB		3943708								
	2449	ISB		3944073								
	2450	ISB		3944073								
	2451	ISB		3944073								
✓	2453	NTA14-M		FP-3087634X	FP-3803742							
✓	2479	6B		FP-3930187								
✓	2480	L10 CNG		FP-3606732								
✓	2491	6B		FP-3922571								
✓	2492	N520E		FP-3087634X	FP-3803742							
✓	2496	ISB		FP-3946153								
	2498	ISB		3943708								
✓	2503	M11/ISM		FP-4059901T	FP-4025162							
	2512	ISB		3943708								
	2513	ISB		3943708								
	2514	ISB		3943708								
	2515	ISB		3943708								
	2516	ISB		3943708								
	2517	ISB		3943708								
	2518	ISB		3943708								
	2519	ISB		3943708								
✓	2529	NTA14-M		FP-3087634X	FP-3803742							
✓	2539	M11/ISM		FP-4059901T	FP-4025162							
✓	2540	M11/ISM		FP-4059901T	FP-4025162							
✓	2541	M11/ISM		FP-4059901T	FP-4025162							
✓	2542	M11/ISM		FP-4059901T	FP-4025162							
✓	2543	M11/ISM		FP-4059901T	FP-4025162							
✓	2544	6C		FP-3923163								
✓	2545	6C		FP-3923163								
✓	2551	6B		FP-3928673								
✓	2569	ISB		FP-3946153								
✓	2570	ISB		FP-3946153								

## Cylinder Kits By CPL (Cont'd)

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	2571	ISB		FP-3946153								
	2572	ISB		3948471								
	2573	ISB		3948471								
	2574	ISB		3948471								
✓	2575	N14		FP-3087635X	FP-3803740							
✓	2590	NTA14-E		FP-3087635X	FP-3803740							
✓	2591	N14-475E		FP-3087634X	FP-3803742							
✓	2592	NTA14-E		FP-3087634X	FP-3803742							
✓	2595	ISB		FP-3946153								
✓	2596	ISB		FP-3946153								
✓	2597	ISB		FP-3946153								
✓	2616	ISB		FP-3946153								
✓	2617	ISB		FP-3946153								
✓	2618	ISB		FP-3946153								
✓	2619	ISB		FP-3946153								
✓	2620	6C		FP-3923163								
✓	2624	ISB		FP-3958675								
✓	2637	L10 CNG		FP-3606732								
✓	2638	L10 CNG		FP-3606732								
✓	2639	L10 CNG		FP-3606732								
	2643	ISB		3943708								
	2644	ISB		3943708								
	2645	ISB		3943708								
	2646	ISB		3943708								
✓	2659	N14-525		FP-3087634X	FP-3803742							
✓	2662	ISB		FP-3946153								
	2682	ISB		3948465								
	2683	ISB		3948465								
	2684	ISB		3948471								
✓	2685	ISB		FP-3946153								
✓	2686	ISB		FP-3946153								
✓	2687	ISB		FP-3946153								
✓	2809	M11/ISM		FP-4059901T	FP-4025162							
✓	2811	M11/ISM		FP-4059901T	FP-4025162							
✓	2812	M11/ISM		FP-4059901T	FP-4025162							
✓	2868	6B		FP-3928673								
✓	2897	L10 CNG		FP-3606732								
✓	2898	L10 CNG		FP-3606732								
✓	2899	L10 CNG		FP-3606732								
✓	2916	M11/ISM		FP-4059901T	FP-4025162							
✓	2917	M11/ISM		FP-4059901T	FP-4025162							
✓	2918	M11/ISM		FP-4059901T	FP-4025162							
	2998	ISB		3949808								
✓	3868	6B		FP-3928673								
✓	8023	N14		FP-3087634X	FP-3803742							
✓	8024	L10 CNG		FP-3606732								
✓	8025	L10 CNG		FP-3606732								
✓	8026	L10 CNG		FP-3606732								
✓	8027	L10 CNG		FP-3606732								
✓	8028	L10 CNG		FP-3606732								
✓	8029	L10 CNG		FP-3606732								
✓	8159	ISC/CM850		FP-4933120								
	8161	ISL/CM850		4933749								
✓	8218	ISB		FP-3958675								
✓	8220	ISC/CM850		FP-4933120								
✓	8223	ISB		FP-3958675								
✓	8346	ISB		FP-3970192								



**Cylinder Kits By CPL (Cont'd)**

Avail	CPL#	Engine	Comp Ratio	Piston Body	Cylinder Kit - Articulated Piston	Premium Cylinder Kit	Premium Plus Cylinder Kit	Dual Ni-Resist	Premium Plus .020 UPF Cylinder Kit	Premium Plus 020/.040 LPF Cylinder Kit	Dual Ni-Resist .020 / .040 LPF Cylinder Kit	After Cooler Model
✓	8350	ISB		FP-3970192								
✓	8430	ISC/CM850		FP-4933120								
✓	8494	ISL/CM850		FP-4933120								
✓	8535	ISC/CM850		FP-4933120								
✓	8536	ISC/CM850		FP-4933120								
✓	8537	ISC/CM850		FP-4933120								
✓	8538	ISC/CM850		FP-4933120								
✓	8539	ISC/CM850		FP-4933120								
✓	8569	ISC/CM850		FP-4933120								
✓	8570	ISC/CM850		FP-4933120								
✓	9921	N14-480		FP-3087634X	FP-3803742							
✓	9925	N14-525		FP-3087634X	FP-3803742							
✓	9951	N14-525		FP-3087634X	FP-3803742							

## Piston Supersession

Original Piston (Obsolete)	Comp Ratio	Current Piston	Comp Ratio	Optional Dual-Ni	Comp Ratio	Comment
135980 <sup>33</sup>	14.9:1	FP-3051554	15.0:1	FP-3048809	15.0:1	Piston Cooled & Aftercooled
167700 <sup>33</sup>	15.3:1	FP-3048650	15.5:1			Non Piston Cooled
195850 <sup>33</sup>	13.5:1	FP-3051557	13.5:1			
198660 <sup>33</sup>	15.5:1	FP-3042320 <sup>32</sup>	15.5:1	FP-3050366	15.5:1	Piston Cooled & Aftercooled
198660 <sup>33</sup>	15.5:1	FP-3048650	15.5:1			Non Piston Cooled
198670 <sup>33</sup>	16.0:1	FP-3051553	16.0:1			
200390 <sup>33</sup>	14.1:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
200400 <sup>33</sup>	15.0:1	FP-3051554	15.0:1	FP-3048809	15.0:1	Piston Cooled & Aftercooled
203090 <sup>33</sup>	14.5:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
214190 <sup>33</sup>	15.5:1	FP-3042320 <sup>32</sup>	15.5:1	FP-3050366	15.5:1	Piston Cooled & Aftercooled
214190 <sup>33</sup>	15.5:1	FP-3048650	15.5:1			Non Piston Cooled
214480 <sup>33</sup>	14.1:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
214870 <sup>33</sup>	13.5:1	FP-3051557	13.5:1			
215040 <sup>33</sup>	16.2:1	FP-3051553	16.0:1			
215420 <sup>33</sup>	14.5:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
216020 <sup>33</sup>	14.5:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
218269 <sup>33</sup>	14.7:1	FP-3051554	15.0:1	FP-3048809	15.0:1	Piston Cooled & Aftercooled
218520 <sup>33</sup>	13.4:1	FP-3051557	13.5:1			
218860 <sup>33</sup>	16.5:1	FP-3048650	15.5:1			Non Piston Cooled
219110 <sup>33</sup>	15.9:1	FP-3051553	16.0:1			
3007244 <sup>33</sup>	15.5:1	FP-3042320 <sup>32</sup>	15.5:1	FP-3050366	15.5:1	Piston Cooled & Aftercooled
3007244 <sup>33</sup>	15.5:1	FP-3048650	15.5:1			Non Piston Cooled
3007245 <sup>33</sup>	14.3:1	FP-3051555	15.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
3007246 <sup>33</sup>	16.0:1	FP-3051553	16.0:1			
3008472 <sup>33</sup>	14.3:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
3009626 <sup>33</sup>	15.0:1	FP-3051554	15.0:1	FP-3048809	15.0:1	Piston Cooled & Aftercooled
3010570 <sup>33</sup>	13.7:1	FP-3051556 <sup>32</sup>	14.0:1	FP-3048808	14.0:1	Piston Cooled & Aftercooled
3012424 <sup>33</sup>	15.0:1	FP-3051554	15.0:1	FP-3048809	15.0:1	Piston Cooled & Aftercooled
3017008 <sup>33</sup>	15.0:1	FP-3051554	15.0:1	FP-3048809	15.0:1	Piston Cooled & Aftercooled
3020944 <sup>33</sup>	13.7:1	FP-3031277	14.0:1			
3024675 <sup>33</sup>	13.9:1	FP-3051556 <sup>32</sup>	14.0:1	FP-3048808	14.0:1	Piston Cooled & Aftercooled
3024676 <sup>33</sup>	14.5:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
3025476 <sup>33</sup>	13.7:1	FP-3051556 <sup>32</sup>	14.0:1	FP-3048808	14.0:1	Piston Cooled & Aftercooled
3025477 <sup>33</sup>	14.1:1	FP-3051556 <sup>32</sup>	14.0:1	FP-3048808	14.0:1	Piston Cooled & Aftercooled
3031139 <sup>33</sup>	14.0:1	FP-3051556 <sup>32</sup>	14.0:1	FP-3048808	14.0:1	Piston Cooled & Aftercooled
3031140 <sup>33</sup>	14.5:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled
3037285 <sup>33</sup>	15.4:1	FP-3050366	15.5:1	FP-3050366	15.5:1	Piston Cooled & Aftercooled
3037346 <sup>33</sup>	13.4:1	FP-3051557	13.5:1			
3053500 <sup>33</sup>	14.0:1	FP-3050480	14.0:1	FP-3050480	14.0:1	Piston Cooled & Aftercooled
3053526 <sup>33</sup>	17.0:1	FP-3069212	17.0:1	FP-3069212	17.0:1	Piston Cooled & Aftercooled
3150043 <sup>33</sup>	14.3:1	FP-3017349	14.5:1			Non Piston Cooled
3150043 <sup>33</sup>	14.3:1	FP-3051555	14.5:1	FP-3045948	14.5:1	Piston Cooled & Aftercooled

<sup>32</sup>Must Be Used In Complete Sets To Maintain Engine Balance <sup>33</sup>Not Offered By FP Diesel, See Corresponding "Current Piston Number" Column For Active Number  
 Non Piston cooled engines must use piston part number FP-3017348 or FP-3048650.

## Piston Kits (4 Rings)



Piston Kit*	Piston Kit With Pin**	Piston Body	Piston Pin	Description	Piston Pin Retainers( 2 )	Comp Ratio	Comment
FP-3801057	FP-3801057-WP	FP-3017348	FP-191970	Single Ni-Resist	FP-175755	15.0:1	Non Piston Cooled (Barrel Profile)
FP-3801058	FP-3801058-WP	FP-3017349	FP-191970	Single Ni-Resist	FP-175755	14.5:1	Non Piston Cooled (Barrel Profile)
FP-3801229	FP-3801229-WP	FP-3028706	FP-191970	Single Ni-Resist	FP-175755	15.3:1	.34" Valve Relief for Hi Lift Cams
FP-3801231	FP-3801231-WP	FP-3028686	FP-191970	Single Ni-Resist	FP-175755	14.5:1	.34" Valve Relief for Hi Lift Cams
FP-3801233	FP-3801233-WP	FP-3028685	FP-191970	Single Ni-Resist	FP-175755	14.0:1	.34" Valve Relief for Hi Lift Cams
FP-3801393	FP-3801393-WP	FP-3051557	FP-191970	Single Ni-Resist	FP-175755	13.5:1	
FP-3801424	FP-3801424-WP	FP-3031227	FP-191970	Single Ni-Resist	FP-175755	14.0:1	
FP-3801533	FP-3801533-WP	FP-3042318	FP-191970	Single Ni-Resist	FP-175755	14.5:1	
FP-3801534	FP-3801534-WP	FP-3045948	FP-191970	Dual Ni-Resist	FP-175755	14.5:1	Piston Cooled & Aftercooled
FP-3801535	FP-3801535-WP	FP-3042320	FP-191970	Single Ni-Resist	FP-175755	15.5:1	Turbo Piston Cooled
FP-3801660	FP-3801660-WP	FP-3042319	FP-191970	Single Ni-Resist	FP-175755	15.0:1	
FP-3801703	FP-3801703-WP	FP-3048650	FP-191970	Single Ni-Resist	FP-175755	15.5:1	Piston Cooled
FP-3801744	FP-3801744-WP	FP-3050480	FP-191970	Dual Ni-Resist	FP-175755	14.0:1	Piston Cooled & Aftercooled
FP-3801766	FP-3801766-WP	FP-3051553	FP-191970	Single Ni-Resist	FP-175755	16.0:1	Barrel Profile
FP-3801770	FP-3801770-WP	FP-3051555	FP-191970	Single Ni-Resist	FP-175755	14.5:1	Piston Cooled Only
FP-3801773	FP-3801773-WP	FP-3051556	FP-191970	Single Ni-Resist	FP-175755	14.0:1	
FP-3801818	FP-3801818-WP	FP-3050366	FP-191970	Dual Ni-Resist	FP-175755	15.5:1	Piston Cooled & Aftercooled
FP-3801819	FP-3801819-WP	FP-3048808	FP-191970	Dual Ni-Resist	FP-175755	14.0:1	Piston Cooled & Aftercooled
FP-3801820	FP-3801820-WP	FP-3048809	FP-191970	Dual Ni-Resist	FP-175755	15.0:1	Piston Cooled & Aftercooled
FP-3801876	FP-3801876-WP	FP-3051554	FP-191970	Single Ni-Resist	FP-175755	15.0:1	
FP-3801954	FP-3801954-WP	FP-3052794	FP-191970	Dual Ni-Resist	FP-175755	15.5:1	Piston Cooled & Aftercooled
FP-3803344	FP-3803344-WP	FP-3069212	FP-191970	Dual Ni-Resist	FP-175755	17.0:1	Piston Cooled & Aftercooled
FP-PK3102	FP-PK3102-WP	FP-3023102	FP-191970	Single Ni-Resist	FP-175755	13.9:1	Barrel Profile
FP-PK5516	FP-PK5516-WP	FP-3025516	FP-191970	Single Ni-Resist	FP-175755	15.5:1	Barrel Profile

\* Includes Piston Body Retainers \*\* Includes Piston Body, Pin Retainers

Warning: Dual-Ni resist pistons must be used with piston cooled and aftercooled engines.

Warning: Do not mix Single-Ni and Dual-Ni pistons in an engine.

Warning: Hi-Lift cams(FP-3801448 FP-3803903) must use piston P/N's FP-3028685, FP-3028686, FP-3028706 (.34" valve relief



## Piston Kits (3 Rings)



Piston Kit*	Piston Kit With Pin**	Piston Body	Piston Pin	Description	Piston Pin Retainers( 2 )	Comp Ratio	Comment
FP-3804318		FP-3095711	FP-191970	Single Ni-Resist	FP-175755	15.5:1	Premium
FP-3804321		FP-3095702	FP-191970	Single Ni-Resist	FP-175755	15.0:1	Premium
FP-3804324		FP-3095703	FP-191970	Single Ni-Resist	FP-175755	14.5:1	Premium
FP-3804327		FP-3095704	FP-191970	Single Ni-Resist	FP-175755	14.0:1	Premium
FP-3804329		FP-3095705	FP-191970	Single Ni-Resist	FP-175755	13.5:1	Premium
FP-3804330		FP-3076813	FP-191970	Dual Ni-Resist	FP-175755	16.5:1	Premium
FP-3804332		FP-3076816	FP-191970	Dual Ni-Resist	FP-175755	15.5:1	Premium
FP-3804333		FP-3076810	FP-191970	Dual Ni-Resist	FP-175755	15.0:1	Premium
FP-3804336		FP-3076811	FP-191970	Dual Ni-Resist	FP-175755	14.5:1	Premium
FP-3804406		FP-3095757	FP-191970	Single Ni-Resist	FP-175755	16.0:1	Premium Plus
FP-3804411		FP-3095738	FP-191970	Single Ni-Resist	FP-175755	15.0:1	Premium Plus
FP-3804414		FP-3095739	FP-191970	Single Ni-Resist	FP-175755	14.5:1	Premium Plus
FP-3804417		FP-3095740	FP-191970	Single Ni-Resist	FP-175755	14.0:1	Premium Plus
FP-3804419		FP-3095741	FP-191970	Single Ni-Resist	FP-175755	13.5:1	Premium Plus
FP-3804420		FP-3095064	FP-191970	Dual Ni-Anodized	FP-175755	16.5:1	Premium Plus
FP-3804422		FP-3095067	FP-191970	Dual Ni-Anodized	FP-175755	15.0:1	Premium Plus
FP-3804423		FP-3095061	FP-191970	Dual Ni-Anodized	FP-175756	14.5:1	Premium Plus
FP-3804426		FP-3095062	FP-191970	Dual Ni-Anodized	FP-175755	14.0:1	Premium Plus

\* Includes Piston Body Retainers \*\* Includes Piston Body, Pin Retainers

Warning: Dual-Ni resist pistons must be used with piston cooled and aftercooled engines.

Warning: Do not mix Single-Ni and Dual-Ni pistons in an engine.

Warning: Hi-Lift cams(FP-3801448 FP-3803903) must use piston P/N's FP-3028685, FP-3028686, FP-3028706 (.34" valve relief

## 4-Ring Cylinder Kits

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3801230	Prem+Cyl Kit	FP-3055099	FP-3028706 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801229	15.3:1
FP-3801232	Prem+Cyl Kit	FP-3055099	FP-3028686 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801231	14.5:1
FP-3801746	Prem+DN Cyl Kit	FP-3055099	FP-3050480 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801744	14.0:1
FP-3801764	Prem+Cyl Kit	FP-3055099	FP-3051553 (BP)	FP-4089810	FP-191970	FP-175755	FP-3801766	16.0:1
FP-3801765	Prem+Cyl Kit	FP-3055099	FP-3051553 (BP)	FP-4089811	FP-191970	FP-175755	FP-3801766	16.0:1
FP-3801767	Prem+Cyl Kit	FP-3046325	FP-3042320 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801535	15.5:1
FP-3801768	Prem+Cyl Kit	FP-3055099	FP-3051555 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801770	14.5:1
FP-3801769	Prem+Cyl Kit	FP-3046325	FP-3051555 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801770	14.5:1
FP-3801771	Prem+Cyl Kit	FP-3055099	FP-3051556 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801773	14.0:1
FP-3801772	Prem+Cyl Kit	FP-3046325	FP-3051556 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801773	14.0:1
FP-3801774	Prem+Cyl Kit	FP-3055099	FP-3042320 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801535	15.5:1
FP-3801775	Prem+Cyl Kit	FP-3055099	FP-3042320 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801535	15.5:1
FP-3801776	Prem Cyl Kit	FP-3055099	FP-3051554 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801876	15.0:1
FP-3801777	Prem+Cyl Kit	FP-3055099	FP-3051554 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801876	15.0:1
FP-3801778	Prem+Cyl Kit	FP-3046325	FP-3051554 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801876	15.0:1
FP-3801779	Prem Cyl Kit	FP-3055099	FP-3051555 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801770	14.5:1
FP-3801780	Prem Cyl Kit	FP-3055099	FP-3051556 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801773	14.0:1
FP-3801781	Prem Cyl Kit	FP-3055099	FP-3051557 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801393	13.5:1
FP-3801782	Prem+Cyl Kit	FP-3055099	FP-3051557 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801393	13.5:1
FP-3801783	Prem+Cyl Kit	FP-3055099	FP-3031227 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801424	14.0:1
FP-3801795	Prem Cyl Kit	FP-3055099	FP-3048650 (BP)	FP-4089810	FP-191970	FP-175755	FP-3801703	15.5:1
FP-3801796	Prem+Cyl Kit	FP-3055099	FP-3028685 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801233	14.0:1
FP-3801797	Prem+Cyl Kit	FP-3055099	FP-3042318 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801533	14.5:1
FP-3801798	Prem+Cyl Kit	FP-3055099	FP-3042319 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801660	15.0:1
FP-3801811	Prem+Cyl Kit	FP-3046325	FP-3028685 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801233	14.0:1
FP-3801817	Prem+DN Cyl Kit	FP-3055099	FP-3045948 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801534	14.5:1
FP-3801822	Prem+DN Cyl Kit	FP-3055099	FP-3050366 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801818	15.5:1
FP-3801823	Prem+DN Cyl Kit	FP-3055099	FP-3048808 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801819	14.0:1
FP-3801824	Prem+DN Cyl Kit	FP-3055099	FP-3048809 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801820	15.0:1
FP-3801872	Prem Cyl Kit	FP-3055099	FP-3017349 (BP)	FP-4089810	FP-191970	FP-175755	FP-3801058	14.5:1
FP-3801873	Prem+Cyl Kit	FP-3055099	FP-3017349 (BP)	FP-4089811	FP-191970	FP-175755	FP-3801058	14.5:1
FP-3801874	Prem Cyl Kit	FP-3055099	FP-3017348 (BP)	FP-4089810	FP-191970	FP-175755	FP-3801057	15.0:1
FP-3801875	Prem+Cyl Kit	FP-3055099	FP-3017348 (BP)	FP-4089811	FP-191970	FP-175755	FP-3801057	15.0:1
FP-3801920	Prem+Cyl Kit	FP-3046325	FP-3051553 (BP)	FP-4089811	FP-191970	FP-175755	FP-3051553	16.0:1
FP-3801956	Prem+DN Cyl Kit	FP-3055099	FP-3052794 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801954	15.5:1
FP-3803209	Prem+Cyl Kit	FP-3065405	FP-3028685 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801233	14.0:1
FP-3803210	Prem+Cyl Kit	FP-3065405	FP-3042320 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801535	15.5:1
FP-3803211	Prem+Cyl Kit	FP-3065405	FP-3051553 (BP)	FP-4089811	FP-191970	FP-175755	FP-3801766	16.0:1
FP-3803212	Prem+Cyl Kit	FP-3065405	FP-3051554 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801876	15.0:1
FP-3803213	Prem+Cyl Kit	FP-3065405	FP-3051555 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801770	14.5:1
FP-3803214	Prem+Cyl Kit	FP-3065405	FP-3051556 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801773	14.0:1
FP-3803215	Prem+DN Cyl Kit	FP-3055099	FP-3048809 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801820	15.0:1
FP-3803216	Prem+DN Cyl Kit	FP-3065405	FP-3045948 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801534	14.5:1
FP-3803217	Prem+DN Cyl Kit	FP-3065405	FP-3048808 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801819	14.0:1
FP-3803218	Prem+DN Cyl Kit	FP-3065405	FP-3050366 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801954	15.5:1
FP-3803221	Prem+Cyl Kit	FP-3065405	FP-3048650 (BP)	FP-4089811	FP-191970	FP-175755	FP-3801703	15.5:1
FP-3803223	Prem+Cyl Kit	FP-3065405	FP-3017348 (BP)	FP-4089811	FP-191970	FP-175755	FP-3801057	15.0:1
FP-3803224	Prem+Cyl Kit	FP-3065405	FP-3042319 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801660	15.0:1
FP-3803225	Prem+Cyl Kit	FP-3065405	FP-3042318 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801533	14.5:1
FP-3803226	Prem+Cyl Kit	FP-3065405	FP-3017349 (BP)	FP-4089811	FP-191970	FP-175755	FP-3801058	14.5:1
FP-3803227	Prem+Cyl Kit	FP-3065405	FP-3031227 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801424	14.0:1

BP=Barrel Profile Skirt

SR=Sled Runner Skirt

Note: Gray Shaded Area Contains Cylinder Kit Contents. Quantities Are (1) Each For These and FP-AR51477 Packing Kit. Quantities Are (2) Each For Retainers.



**4-Ring Cylinder Kits (Cont'd)**

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3803228	Prem+Cyl Kit	FP-3065405	FP-3051557 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801393	13.5:1
FP-3803233	Prem+DN Cyl Kit	FP-3065405	FP-3050480 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801744	14.0:1
FP-3803346	Prem+DN Cyl Kit	FP-3055099	FP-3069212 (SR)	FP-4089811	FP-191970	FP-175755	FP-3803344	17.0:1

**Custom Cylinder Kits (Standard LPF Liners)**

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-CK3102-5099	Prem Cyl Kit	FP-3055099	FP-3023102 (BP)	FP-4089810	FP-191970	FP-175755	FP-PK3102	13.9:1
FP-CK5516-5099	Prem Cyl Kit	FP-3055099	FP-3025516 (BP)	FP-4089810	FP-191970	FP-175755	FP-PK5516	15.5:1

**Custom Cylinder Kits (020/040 Liners)**

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-CK1553-5405	Prem Cyl Kit	FP-3065405	FP-3051553 (BP)	FP-4089810	FP-191970	FP-175755	FP-3801766	16.0:1
FP-CK1554-5405	Prem Cyl Kit	FP-3065405	FP-3051554 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801876	15.0:1
FP-CK1555-5405	Prem Cyl Kit	FP-3065405	FP-3051555 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801770	14.5:1
FP-CK1556-5405	Prem Cyl Kit	FP-3065405	FP-3051556 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801773	14.0:1
FP-CK1557-5405	Prem Cyl Kit	FP-3065405	FP-3051557 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801393	13.5:1
FP-CK2320-5405	Prem Cyl Kit	FP-3065405	FP-3042320 (SR)	FP-4089810	FP-191970	FP-175755	FP-3801535	15.5:1
FP-CK5516-5405	Prem Cyl Kit	FP-3065405	FP-3025516 (BP)	FP-4089810	FP-191970	FP-175755	FP-PK5516	15.5:1
FP-CK7348-5405	Prem Cyl Kit	FP-3065405	FP-3017348 (BP)	FP-4089810	FP-191970	FP-175755	FP-3801057	15.0:1
FP-CK7349-5405	Prem Cyl Kit	FP-3065405	FP-3017349 (BP)	FP-4089810	FP-191970	FP-175755	FP-3801058	14.5:1
FP-CK8650-5405	Prem Cyl Kit	FP-3065405	FP-3048650 (BP)	FP-4089810	FP-191970	FP-175755	FP-3801703	15.5:1

**Custom Cylinder Kits (020/040 Liners)(Prem+Dual Ni)**

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-CK2794-5405	Prem+DN Cyl Kit	FP-3065405	FP-3052794 (SR)	FP-4089811	FP-191970	FP-175755	FP-3801954	15.5:1
FP-CK9212-5405	Prem+DN Cyl Kit	FP-3065405	FP-3069212 (SR)	FP-4089811	FP-191970	FP-175755	FP-3803344	17.0:1

**3-Ring Cylinder Kits**

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3804346	Prem Cyl Kit	FP-3055099	FP-3095757	FP-4089489	FP-191970	FP-175755	FP-3804406	16.0:1
FP-3804348	Prem Cyl Kit	FP-3055099	FP-3095711	FP-4089489	FP-191970	FP-175755	FP-3804318	15.5:1
FP-3804351	Prem Cyl Kit	FP-3055099	FP-3095702	FP-4089489	FP-191970	FP-175755	FP-3804321	15.0:1
FP-3804354	Prem Cyl Kit	FP-3055099	FP-3095703	FP-4089489	FP-191970	FP-175755	FP-3804324	14.5:1
FP-3804357	Prem Cyl Kit	FP-3055099	FP-3095704	FP-4089489	FP-191970	FP-175755	FP-3804327	14.0:1
FP-3804359	Prem Cyl Kit	FP-3055099	FP-3095705	FP-4089489	FP-191970	FP-175755	FP-3804329	13.5:1

**Prem 3 Ring Cylinder Kit (020/040 Liners)**

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3804376	Prem Cyl Kit	FP-3065405	FP-3095757	FP-4089489	FP-191970	FP-175755	FP-3804406	16.0:1
FP-3804378	Prem Cyl Kit	FP-3065405	FP-3095711	FP-4089489	FP-191970	FP-175755	FP-3804318	15.5:1
FP-3804381	Prem Cyl Kit	FP-3065405	FP-3095702	FP-4089489	FP-191970	FP-175755	FP-3804321	15.0:1
FP-3804384	Prem Cyl Kit	FP-3065405	FP-3095703	FP-4089489	FP-191970	FP-175755	FP-3804324	14.5:1
FP-3804387	Prem Cyl Kit	FP-3065405	FP-3095704	FP-4089489	FP-191970	FP-175755	FP-3804327	14.0:1
FP-3804389	Prem Cyl Kit	FP-3065405	FP-3095705	FP-4089489	FP-191970	FP-175755	FP-3804329	13.5:1

BP=Barrel Profile Skirt

SR=Sled Runner Skirt

Note: Gray Shaded Area Contains Cylinder Kit Contents. Quantities Are (1) Each For These and FP-AR51477 Packing Kit. Quantities Are (2) Each For Retainers.

### Prem Plus 3 Ring Cylinder Kit

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3804436	Prem+Cyl Kit	FP-3055099	FP-3095757	FP-4089489	FP-191970	FP-175755	FP-3804406	16.0:1
FP-3804441	Prem+Cyl Kit	FP-3055099	FP-3095738	FP-4089489	FP-191970	FP-175755	FP-3804411	15.0:1
FP-3804444	Prem+Cyl Kit	FP-3055099	FP-3095739	FP-4089489	FP-191970	FP-175755	FP-3804414	14.5:1
FP-3804447	Prem+Cyl Kit	FP-3055099	FP-3095740	FP-4089489	FP-191970	FP-175755	FP-3804417	14.0:1
FP-3804449	Prem+Cyl Kit	FP-3055099	FP-3095741	FP-4089489	FP-191970	FP-175755	FP-3804419	13.5:1

### Prem Plus 3 Ring Cylinder Kit (020/040 Liners)

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3804466	Prem+Cyl Kit	FP-3065405	FP-3095757	FP-4089489	FP-191970	FP-175755	FP-3804406	16.0:1
FP-3804471	Prem+Cyl Kit	FP-3065405	FP-3095738	FP-4089489	FP-191970	FP-175755	FP-3804411	15.0:1
FP-3804474	Prem+Cyl Kit	FP-3065405	FP-3095739	FP-4089489	FP-191970	FP-175755	FP-3804414	14.5:1
FP-3804477	Prem+Cyl Kit	FP-3065405	FP-3095740	FP-4089489	FP-191970	FP-175755	FP-3804417	14.0:1
FP-3804479	Prem+Cyl Kit	FP-3065405	FP-3095741	FP-4089489	FP-191970	FP-175755	FP-3804419	13.5:1

### Prem 3 Ring Dual Ni Cylinder Kits

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3804360	Prem+DN Cyl Kit	FP-3055099	FP-3076813	FP-4089489	FP-191970	FP-175755	FP-3804330	16.5:1
FP-3804362	Prem+DN Cyl Kit	FP-3055099	FP-3076816	FP-4089489	FP-191970	FP-175755	FP-3804332	15.5:1
FP-3804363	Prem+DN Cyl Kit	FP-3055099	FP-3076810	FP-4089489	FP-191970	FP-175755	FP-3804333	15.0:1
FP-3804366	Prem+DN Cyl Kit	FP-3055099	FP-3076811	FP-4089489	FP-191970	FP-175755	FP-3804336	14.5:1

### Prem 3 Ring Dual Ni Cylinder Kits (020/040 Liners)

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3804390	Prem+DN Cyl Kit	FP-3065405	FP-3076813	FP-4089489	FP-191970	FP-175755	FP-3804330	16.5:1
FP-3804392	Prem+DN Cyl Kit	FP-3065405	FP-3076816	FP-4089489	FP-191970	FP-175755	FP-3804332	15.5:1
FP-3804393	Prem+DN Cyl Kit	FP-3065405	FP-3076810	FP-4089489	FP-191970	FP-175755	FP-3804333	15.0:1
FP-3804396	Prem+DN Cyl Kit	FP-3065405	FP-3076811	FP-4089489	FP-191970	FP-175755	FP-3804336	14.5:1

### Prem Plus 3 Ring Dual Ni Anodized Cylinder Kits

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3804450	Prem+Cyl Kit	FP-3055099	FP-3095064	FP-4089489	FP-191970	FP-175755	FP-3804420	16.5:1
FP-3804452	Prem+Cyl Kit	FP-3055099	FP-3095067	FP-4089489	FP-191970	FP-175755	FP-3804422	15.0:1
FP-3804453	Prem+Cyl Kit	FP-3055099	FP-3095061	FP-4089489	FP-191970	FP-175755	FP-3804423	14.5:1
FP-3804456	Prem+Cyl Kit	FP-3055099	FP-3095062	FP-4089489	FP-191970	FP-175755	FP-3804426	14.0:1

### Prem Plus 3 Ring Dual Ni Anodized Cylinder Kits (020/040 Liners)

Kit, Cylinder	Description	Liner, Cylinder	Body, Piston	Ring Set, Piston	Pin, Piston	Retainer, Piston Pin	Kit, Piston	Comp Ratio
FP-3804480	Prem+DN Cyl Kit	FP-3065405	FP-3095064	FP-4089489	FP-191970	FP-175755	FP-3804420	16.5:1
FP-3804482	Prem+DN Cyl Kit	FP-3065405	FP-3095067	FP-4089489	FP-191970	FP-175755	FP-3804422	15.0:1
FP-3804483	Prem+DN Cyl Kit	FP-3065405	FP-3095061	FP-4089489	FP-191970	FP-175755	FP-3804423	14.5:1
FP-3804486	Prem+DN Cyl Kit	FP-3065405	FP-3095062	FP-4089489	FP-191970	FP-175755	FP-3804426	14.0:1

BP=Barrel Profile Skirt

SR=Sled Runner Skirt

Note: Gray Shaded Area Contains Cylinder Kit Contents. Quantities Are (1) Each For These and FP-AR51477 Packing Kit. Quantities Are (2) Each For Retainers.



## Cylinder Kits

Engine	Cylinder Kit	Liner, Cylinder	Body, Piston	Ring Set, Piston	Piston Pin	Retainer, Piston Pin	Kit, Piston	Comp Ratio
HR-6	FP-AR7375	FP-184400	FP-200680	FP-AR12098	FP-203070	FP-175755	FP-AR7420 <sup>34</sup>	15.5:1
NS743	FP-AR7399	FP-184400	FP-200710	FP-AR12098	FP-203070	FP-175755	FP-AR7440 <sup>34</sup>	14:1
NT743/NH220	FP-AR7383	FP-184400	FP-199821	FP-AR12098	FP-203070	FP-175755	FP-AR7510 <sup>34</sup>	15:1

Above Cylinder Kits Include Items In Shaded Area Plus (1) FP-181449, FP-216879 Seal Rings (1) FP-215983 Crevice Seal

<sup>34</sup>Piston Kits Include Piston Body, Piston Pin And Retainers  
The Above Piston Kits Contain Piston Body, retainers And Teflon Inserts.

# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
118227	69	3012474	235	3068935	177
127362	227	3013768	105	3069707	115
130083	233	3014754	121	3069708	115
135980	303	3014766	233	3070072	123
142207	121	3015865	175	3073569	115
143066	59, 105	3016770	83, 125	3073571	115
148555	121	3016771	83, 125	3073572	115
160540	131	3016772	85, 127	3073574	115
167700	303	3016774	125	3079589	123
170664	131	3016780	83, 125	3079754	227
173086	115	3016781	83, 125	3081040	231
179063	121	3016782	85, 127	3081261	233
181C	227	3016784	125	3081494	227
195850	303	3017008	303	3081677	227
196057	129, 243	3020944	303	3081837	227, 229
198660	303	3021123	131	3081898	229
198670	303	3024675	303	3084445	125
199349	71	3024676	303	3085615	129
200390	303	3025476	303	3085978	229
200400	303	3025477	303	3085980	229
203090	303	3027106	125	3086052	237
203426	239	3027232	69	3086120	227
206741	123	3028309	131	3086192	229
206904	231	3028349	229	3086193	229
214190	303	3029920	123	3087691	237
214480	303	3031139	303	3089025	183
214870	303	3031140	303	3089716	229
215040	303	3032693	61, 107	3090000	233
215420	303	3033719	131	3090007	229
216020	303	3034721	235	3090009	233
218269	303	3037285	303	3090010	233
218520	303	3037346	303	3090170	237
218860	303	3041042	131	3090256	233
219110	303	3041043	131	3090297	227, 231
2830704	23	3041048	131	3090320	227
2830705	23	3044360	123	3090358	233
2830706	23	3044399	258	3090377	229, 233
2830707	23	3045047	239	3090450	245
3002126	237	3045136	233	3090460	245
3004258	59, 105	3045137	233	3090484	231
3007244	303	3045850	123	3090495	229
3007245	303	3046202	229	3095356	129, 131
3007246	303	3053500	303	3096478	227
3008446	121	3053526	303	3102499	135
3008465	123	3055742	115	3102649	135
3008466	121	3056003	235	3102723	135
3008468	19, 59, 105, 121	3056416	229	3102901	129
3008469	19, 69	3063296	258	3150043	303
3008470	59, 105, 121	3064621	123	3200988	237
3008472	303	3065792	237	3278093	229
3009330	121, 123, 183	3066693	115	3289135	69
3009626	303	3066695	115	3289257	33
3009953	129	3066707	115	3328379	123
3010570	303	3067804	139	3328617	183
3012424	303	3068860	115	3328637	123



# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
3329533	233	3679314	177	3800775	187
3329999	239	3679336	179	3800940	189
3330478	173	3679418	175	3800941	189
3330764	243	3679537	175	3802917	37
3331752	229	3679551	175	3802918	37
3335550	135	3679770	183	3802919	37
3347937	239	3679880	183	3802925	37
3348618	243	3679929	179	3802926	37
3348652	243	3679930	179	3802927	37
3348747	29	3679931	179	3802928	37
3401439	129	3679932	179	3802929	37
3402170	233	3679933	179	3803971	139
3408259	233	3679934	179	3803978	139
3408346	29	3679937	175	3803980	139
3408438	29	3679954	183	3804501	171
3411880	183	3680057	229	3804639	171
3411881	183	3680095	173	3804653	171
3411882	183	3680173	179	3804664	227
3412284	179	3680201	173	3804930	37
3412352	175	3680202	177	3804931	37
3412426	175	3680239	173	3804932	37
3417162	243	3680318	175	3804980	37
3417290	239	3680324	187	3804981	37
3417769	123	3680329	183	3804982	37
3418883	183	3680373	173	3813247	175
3558515	135	3680420	173	3819974	125
35589549	73	3680453	183	3820320	183
3608888	177	3680465	187	3820749	123
3609826	135, 235	3680534	173, 177	3821160	123
3634664	229	3680542	177	3821725	121
3641537	229	3680580	175	3822067	129
3678488	179	3680581	175	3867410	243
3678506	173, 175	3680593	183	3867578	243
3678507	173	3680595	183	3867651	239
3678555	177	3680596	183	3867687	239
3678556	177	3680712	183	3871558	179
3678574	177	3680713	183	3882586	183
3678590	189	3680714	183	3882793	133
3678603	173, 175	3680781	173	3883123	131
3678606	173, 175, 177, 183	3680884	175	3883963	187
3678610	173	3680955	175	3892692	183
3678611	175	3681046	173, 189	3895831	123
3678724	181	3681071	175	3895864	298, 299
3678737	173	3681145	173	3896046	131
3678738	173, 189	3681204	179	3896335	129
3678739	177	3681710	179	3896970	125
3678751	173, 175	3681737	189	3900068	19
3678756	173	3681738	189	3900227	29, 67, 111
3678804	175	3800298	177	3900257	19, 59, 105
3678921	19, 59, 105, 183	3800316	75	3900629	19
3678922	19, 59, 105	3800453	189	3900677	33, 69
3678923	19, 59, 61, 105, 107	3800751	183	3900955	19
3678924	19, 59, 61, 105, 107	3800753	183	3900956	19, 105
3679122	175	3800770	187	3900958	19
3679139	187	3800774	187	3901447	63



# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
3901846	59, 105, 175	3938706	21, 29	3945094	23, 61, 107
3902332	29, 67	3939352	59, 105	3945095	23
3902343	19	3939367	27	3945097	61, 107
3902460	179	3940152	61, 107	3945098	61, 107
3903112	173	3941140	61	3945920	109
3904181	59	3941253	23	3945921	109
3904483	27, 65, 109	3941786	105	3946050	37
3905401	59, 105	3941910	19	3946053	37
3906216	105	3941927	23	3946054	37
3906619	33, 69	3941928	23	3946168	23
3907860	69	3941934	61	3947530	23
3910248	59	3941937	61, 107	3948465	37, 301
3910787	59	3942087	109	3948466	37
3910960	29, 59, 105	3942567	29	3948467	37
3911678	175	3942645	107	3948468	37
3913638	19	3942730	23	3948469	37
3914369	55	3943445	61	3948471	298, 299, 301
3915787	33	3943449	23	3948888	107
3917883	67, 111	3943450	23	3949808	301
3918776	65, 109	3943626	23	3950135	67, 111
3920400	19	3943708	298, 299, 300, 301	3950549	75, 119
3920706	19, 23, 61, 107	3943765	29	3954829	33
3921816	19	3943767	29	3957492	21
3921888	298	3943769	29	3959045	115
3921992	19	3943771	29	3959128	23
3924147	19, 59	3943773	23, 29	3959291	105
3924148	19, 59, 105, 109	3943775	23, 29	3959798	107
3924962	19	3943777	29	3959799	63
3925009	33	3943933	61	3960043	63, 107
3925344	71	3944001	67, 111	3963990	67
3925673	293, 294, 295	3944073	298, 299, 300	3964028	105
3926790	293, 297	3944153	65, 109	3964141	61
3926846	19	3944154	65, 109	3964142	61
3926961	295, 296, 297, 298	3944155	65, 109	3964143	61
3927155	29	3944156	109	3964712	61
3927948	19	3944157	109	3964713	61
3928174	43	3944158	65, 109	3964714	61
3928499	33	3944159	65, 109	3964715	61
3929751	19	3944160	65, 109	3964720	61
3930314	298	3944161	109	3964721	61
3930910	69	3944162	109	3964722	61
3931077	69	3944163	65, 109	3964796	61, 107
3931084	69	3944164	65, 109	3964797	61
3932290	19	3944165	65, 109	3964908	23
3932296	19	3944166	109	3965006	65
3932514	37	3944167	109	3965010	109
3933581	37	3944174	61	3965721	107, 115
3933582	37	3944203	27	3965966	67, 111
3934147	105	3944204	27	3966244	109
3934278	69	3944452	63, 107	3966365	69
3934410	69	3944679	109	3966431	67, 111
3935892	23	3944816	19	3966522	71
3935945	23, 61	3944833	29	3966656	113
3935946	23	3944874	69	3966658	61, 107
3938163	67	3945093	61, 107	3966708	61, 107





# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
3966721	119	4026587	179	4910518	227
3966722	119	4026588	179	4918688	177
3966976	19, 69	4026621	173	4920470	175
3967195	33	4026622	173	4923748	189
3967265	61	4026657	175	4925971	177
3967346	109	4026684	173, 177	4925972	177
3967347	109	4026691	183	4925973	177
3968074	61, 107	4026791	175	4925975	177
3968187	67, 113	4059905	139	4925976	177
3968404	75	4059948	139	4925977	177
3969637	63	4060420	139, 296	4926316	175
3970548	21	4064582	123	4931365	35
3972080	29	4065632	229	4933749	301
3975796	19	4065751	233	4934063	61
3976831	33	4070311	294, 295, 296, 297, 298	4937311	59
3990084	29, 63, 107	4080829	227	4939178	23
3990127	23	4081128	227	4947667	21
3991123	69	4081176	245	4955204	75
4000595	227, 231	4086649	229	4955594	173
4001717	243	4087871	239	4955595	173
4001902	173	4088750	67	4955643	61
4001979	241	4089153	189	4962603	177
4009692	239	4089154	189	4962705	177
4010026	239	4089173	19	4965569	177
4010296	131	4089207	137	4965688	177
4010509	241	4089209	137	4965868	175
4010510	241	4089211	137	68274	69
4010519	29, 105	4089213	137	69558	231
4010577	239	4089386	139	FP-001023	275
4010578	239	4089405	177	FP-001030	275
4010643	105	4089406	189	FP-001081	275
4016438	229	4089644	119	FP-001082	275
4022532	139	4089645	75	FP-001083	275
4022914	133	4089646	119	FP-001094	275
4023086	123	4089761	61	FP-001219	275
4024844	139	4089762	61	FP-001234	275
4024938	139	4089845	177	FP-001519	275
4024939	139	4089846	177	FP-002856	275
4024940	139	4089908	181	FP-003678	275
4024941	139	4089978	61	FP-004205	275
4025107	19	4090016	177	FP-007447	275
4025108	19	4090017	177	FP-007500	275
4025124	125	4095096	237	FP-010180	275
4025138	19	4101454	175	FP-010843	275
4025139	19	4101507	189	FP-011930	275
4025158	139	4891179	27	FP-012261	275
4025160	139	4902780	113	FP-012292	275
4025167	139, 294, 295, 296, 297, 298	4902921	133	FP-013294	275
4025174	139, 296	4902952	113	FP-014619	275
4025175	139	4903442	131	FP-014848	275
4026423	175	4903443	131	FP-014928	275
4026488	173	4907151	177	FP-015561	275
4026490	173	4907152	177	FP-017337	275
4026522	179	4907153	177	FP-100099	89, 167, 221, 280
4026523	179	4907154	177	FP-100192	280

# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
FP-100215	89, 113, 167, 221, 278	FP-135957	257	FP-145956	282
FP-100216	221, 278	FP-137370	282	FP-145957	282
FP-100217	221, 278	FP-137808	280	FP-145958	282
FP-100478	165, 219, 280	FP-138862	282	FP-145959	282
FP-100918	266	FP-139618	282	FP-145960	282
FP-101322	49, 93, 145, 265	FP-139619	282	FP-146076	261
FP-101918	280	FP-139894	219, 282	FP-146160	280
FP-102522	261	FP-139988	89, 131, 167, 221, 280	FP-146309	264
FP-103009	197, 205, 207	FP-140330	258	FP-146483	165, 219, 280
FP-104087	280	FP-140417	165, 282	FP-147100	145, 258
FP-106276	273	FP-140418	282	FP-147263	263
FP-107738	205	FP-140922	282	FP-147389	79, 199
FP-107981	145, 205	FP-140923	282	FP-147389	258
FP-108172	195, 201	FP-140924	282	FP-147389	275
FP-108692	283	FP-140925	282	FP-147610	51, 71, 97, 101, 155, 159, 211, 215, 269
FP-109080	163, 262	FP-140926	282	FP-149767	280
FP-109333	265	FP-140927	282	FP-150631	101, 159, 215
FP-109557	51, 53, 97, 99, 155, 157, 159, 209, 211, 213, 262, 269, 271	FP-141624	282	FP-151355	197
FP-110827	264	FP-141625	282	FP-151900	89, 167, 221, 280
FP-110848	264	FP-141626	282	FP-153518	197, 203, 227
FP-110855	89, 113, 131, 167, 221, 278, 280	FP-141629	219, 282	FP-153964	51, 97, 155, 211, 269
FP-112302	95, 260	FP-141630	282	FP-154018	51, 53, 71, 97, 99, 155, 157, 211, 213, 269, 271
FP-114753	267	FP-141631	282	FP-154087	87, 167, 221, 280
FP-116391	153, 205, 273	FP-141632	282	FP-154088	280
FP-116982	263	FP-141633	282	FP-154916	163, 265
FP-118377	259	FP-141634	282	FP-154966	260
FP-118378	259	FP-141636	282	FP-156420	266
FP-118939	259	FP-141637	282	FP-156444	266
FP-119363	89, 113, 167, 221, 278	FP-141638	282	FP-157088	165, 219, 280
FP-119364	131, 167, 221, 278	FP-142608	264	FP-157098	261
FP-120819	259	FP-142689	151, 273	FP-157551	141, 149, 265
FP-123558	79, 257	FP-142804	253	FP-160586	95, 135
FP-127554	257, 283	FP-143847	280	FP-162426	273
FP-127936	51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271	FP-144178	165, 219, 280	FP-163944	89, 165, 219, 280
FP-127940	51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271	FP-144302	280	FP-166009	276
FP-127950	215	FP-144714	51, 53, 97, 99, 101, 157, 271	FP-166630	283
FP-128080	51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271	FP-144948	51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271	FP-167157	91, 117, 217, 239
FP-128085	53, 99, 157, 159, 213, 271	FP-145028	51, 53, 97, 99, 101, 155, 157, 159, 211, 215, 269, 271	FP-167166	278
FP-128086	51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271	FP-145504	163, 219, 221, 280	FP-167169	278
FP-129768	280	FP-145505	221	FP-167299	266
FP-129888	87, 129, 167, 185, 221, 241, 243, 280	FP-145551	151, 161, 163	FP-168306	79, 199, 258
FP-130226	260	FP-145600	197	FP-169660	281
FP-130240	260	FP-145623	207, 235	FP-169660-10	281
FP-130394	261	FP-145701	257	FP-169660-11	281
FP-131026	145, 258	FP-145947	282	FP-169660-12	281
FP-132770	141, 149, 153, 195, 201, 227, 248, 273	FP-145948	282	FP-169660-13	281
FP-134075	280	FP-145949	282	FP-169660-14	281
FP-134076	241, 243	FP-145949	282	FP-169660-15	281
FP-135308	145	FP-145950	282	FP-169660-16	281
FP-135527	265	FP-145951	282	FP-169660-17	281
FP-135675	260, 261, 283	FP-145952	282	FP-169660-18	281
		FP-145953	282	FP-169660-19	281
		FP-145954	282	FP-169660-20	281
		FP-145955	282		



# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
FP-169660-8	281	FP-196844	161	FP-203426	91, 115, 217
FP-169660-9	281	FP-196932	266	FP-203660	254, 283
FP-169661	281	FP-199347	101, 159, 215	FP-203661	254, 283
FP-169662	281	FP-199410	260	FP-203662	254, 283
FP-169663	281	FP-199821	309	FP-203663	254, 283
FP-169664	281	FP-200307	151, 163, 273	FP-203664	254, 283
FP-169665	281	FP-200566	263	FP-203670	283
FP-169666	281	FP-200680	309	FP-203671	283
FP-169667	281	FP-200710	309	FP-203672	283
FP-170296	257	FP-200730	283	FP-203673	283
FP-170664	89, 151, 205, 273	FP-200743	280	FP-203674	283
FP-170942	221, 278	FP-200861	141, 149, 195, 253	FP-203922	264
FP-171570	266	FP-200998	165, 219	FP-203933	145, 199, 229
FP-172648	197, 203, 227	FP-201008	165, 219	FP-204165	141, 149, 253
FP-175755	283, 304, 305, 306, 307, 308, 309	FP-201048	169, 266	FP-204216	277
FP-175756	305	FP-201049	169, 266	FP-204586	209, 260, 261
FP-175830	197	FP-201737	260	FP-205068	205
FP-175831	197, 203	FP-201745	165, 219	FP-205071	205
FP-175836	280	FP-201766	260	FP-205091	199
FP-175864	89, 113, 167, 221, 278	FP-202226	252	FP-205093	199
FP-175865	131, 167, 221, 278	FP-202226 10	252	FP-205112	201, 231
FP-175866	278	FP-202226 20	252	FP-205112S	201
FP-176027	53, 99, 155, 157, 213, 271	FP-202226 30	252	FP-205169	199
FP-177150	165	FP-202226 5	252	FP-205216	217
FP-177596	260	FP-202227	252	FP-205230	195
FP-179901	261	FP-202457	266	FP-205241	197, 203
FP-181213	167, 258	FP-202853	266	FP-205247	197, 203, 227, 231
FP-181449	283	FP-202859	267	FP-205258	207, 235
FP-183014	265	FP-202860	267	FP-205269	191, 193, 225, 245
FP-183429	51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271	FP-202868	267	FP-205288	207
FP-184240	99, 159, 211, 215	FP-202994	263, 267	FP-205289	207
FP-184400	283, 309	FP-203070	283, 309	FP-205401	151, 199, 229
FP-184420	101	FP-203097	161	FP-205462	217
FP-185138	91	FP-203131	5, 9, 43, 47, 79, 199, 258, 275	FP-205463	217
FP-185573	141, 149	FP-203350	281	FP-205492	205
FP-185848	215	FP-203350-10	281	FP-205571	195
FP-186780	93, 161, 163, 209, 237	FP-203350-11	281	FP-205840	201, 231
FP-186780	260	FP-203350-12	281	FP-205841	201, 231
FP-186780	261, 283	FP-203350-13	281	FP-205842	201, 231
FP-186917	266	FP-203350-14	281	FP-205843	201, 231
FP-187420	254	FP-203350-15	281	FP-205844	201
FP-188329	283	FP-203350-16	281	FP-205852	199
FP-190334	51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271	FP-203350-17	281	FP-205855	199
FP-190397	153, 195, 205, 248, 273	FP-203350-18	281	FP-205858	199
FP-190876	87, 167, 221, 280	FP-203350-19	281	FP-206013	197, 203
FP-191037	51, 53, 97, 99, 101, 155, 157, 159, 211, 215, 269, 271	FP-203350-20	281	FP-206021	209
FP-191970	283, 304, 305, 306, 307, 308	FP-203350-8	281	FP-206177	195
FP-193136	151, 161, 273	FP-203350-9	281	FP-206193	207
FP-193734	280	FP-203351	281	FP-206224	195, 199, 229
FP-193736	91, 115, 217, 277	FP-203352	281	FP-206407	197
FP-194037	199, 258	FP-203353	281	FP-206416	207
FP-195950	262	FP-203354	281	FP-206443	209
FP-195952	262	FP-203355	281	FP-206455	207
		FP-203356	281	FP-206457	207
		FP-203357	281	FP-206576	266

# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
FP-206808	209, 262	FP-214952	254, 283	FP-3001318	197
FP-206948	207, 235	FP-214953	254, 283	FP-3002158	77, 197, 199, 203, 205, 209, 262
FP-206973	209, 237	FP-214954	254, 283	FP-3002385	260
FP-207117	215	FP-215041	261	FP-3002731	266
FP-207244	217	FP-215044	262	FP-3002834	195
FP-207245	217	FP-215045	262	FP-3002901	151, 256
FP-207431	267	FP-215090	251	FP-3003929	277
FP-207448	199	FP-215090	283	FP-3003930	277
FP-207551	195	FP-215090	143	FP-3003931	277
FP-208084	87, 199	FP-215090 (1)	171	FP-3003932	217, 277
FP-208128	261	FP-215233	151, 256	FP-3003933	217, 276, 277
FP-208134	260	FP-215705	141, 149, 248	FP-3003980	281
FP-208326	267	FP-215966	256	FP-3003980-10	281
FP-209700	257, 283	FP-215983	283	FP-3003980-11	281
FP-209955	267	FP-216283	251	FP-3003980-12	281
FP-209956	267	FP-216284 (2)	251	FP-3003980-13	281
FP-209957	267	FP-216484	77, 265	FP-3003980-14	281
FP-209958	267	FP-216486	262	FP-3003980-15	281
FP-209959	267	FP-216487	262, 263, 275	FP-3003980-16	281
FP-209960	267	FP-216524	258	FP-3003980-17	281
FP-209961	267	FP-216791	266	FP-3003980-18	281
FP-209962	267	FP-216794	267	FP-3003980-19	281
FP-209963	267	FP-216802	267	FP-3003980-20	281
FP-209964	267	FP-216804	267	FP-3003980-8	281
FP-210179	149	FP-216879	283	FP-3003980-9	281
FP-210218	280	FP-217037	262	FP-3003981	281
FP-210884	141	FP-217321	253	FP-3003982	281
FP-211315	101, 159, 215	FP-217322	201, 253	FP-3003983	281
FP-211375	266	FP-217323	149, 253	FP-3003984	281
FP-211633	165, 219	FP-217638	161, 260, 273	FP-3003985	281
FP-211635	165, 219	FP-217736	266	FP-3003986	281
FP-211662	51, 97, 101, 155, 159, 211, 215, 269	FP-218153	258	FP-3003987	281
FP-211915	253	FP-218245	264	FP-3004054	277
FP-211999	257	FP-219138	263, 267	FP-3004242	77, 83, 93, 265
FP-212161	209, 237, 261	FP-219153	254	FP-3004316	141, 149, 153, 248, 273, 283
FP-212601	89, 165, 219, 280	FP-2863701	95, 135	FP-3004730	191, 193, 225
FP-212602	219, 280	FP-2863702	77, 83, 93, 135	FP-3005133	273
FP-212603	219	FP-2878168	77	FP-3005592	273
FP-212605	89, 165, 219, 280	FP-2878168S	77	FP-3005885	197, 201
FP-212607	219, 280	FP-3000139	201	FP-3005886	197, 203
FP-212639	89, 165, 219, 280	FP-3000171	151, 273	FP-3005940	195
FP-213079	167, 280	FP-3000173	89, 131, 151, 205, 273	FP-3005963	217, 277
FP-213082	161	FP-3000174	51, 89, 97, 131, 151, 155, 205, 211, 269, 273	FP-3006236	195, 201
FP-213394	258		151, 165, 205, 233, 273	FP-3006237	195, 201
FP-213395	258	FP-3000175	151, 165, 205, 233, 273	FP-3006350	282
FP-213485	261	FP-3000266	87, 280	FP-3006350-10	282
FP-213559	205	FP-3000560	266	FP-3006350-11	282
FP-213603	280	FP-3000632	197, 203	FP-3006350-12	282
FP-213768	165, 219	FP-3000798	277	FP-3006350-13	282
FP-213806	267	FP-3000888	260	FP-3006350-14	282
FP-214144	221, 280	FP-3001197	201, 231	FP-3006350-15	282
FP-214633-R1	283	FP-3001299	209	FP-3006350-16	282
FP-214836	262	FP-3001304	209, 262	FP-3006350-17	282
FP-214950	254, 283	FP-3001305	209, 262	FP-3006350-18	282
FP-214951	254, 283	FP-3001314	217, 276, 277	FP-3006350-19	282



# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
FP-3006350-20	282	FP-300938016	219	FP-3016675	217, 276
FP-3006350-8	282	FP-3009738	101, 159, 215	FP-3016676	217
FP-3006350-9	282	FP-3009739	101, 159, 215	FP-3016676	276
FP-3006351	282	FP-3010146	77, 121	FP-3016760	83, 125
FP-3006352	282	FP-3010240	221, 280	FP-3016761	83, 125
FP-3006353	282	FP-3010242	221, 280	FP-3016762	83, 125
FP-3006354	282	FP-3010457	253, 283	FP-3016763	83, 125
FP-3006355	282	FP-3010510	217, 277	FP-3016764	83, 125
FP-3006356	282	FP-3010511	277	FP-3016770	125
FP-3006357	282	FP-3010536	207, 235	FP-3016771	125
FP-3006360	282	FP-3010646	260	FP-3016772	125
FP-3006456	257, 283	FP-3010915	263, 266	FP-3016773	85, 127
FP-3006457	257	FP-3010918	209	FP-3016780	125
FP-3006458	257	FP-3011076	191, 193, 227	FP-3016781	125
FP-3006483	151, 273	FP-3011258	266	FP-3016782	125
FP-3006540	277	FP-3011272	259	FP-3016783	85, 127
FP-3006543	277	FP-3011273	259	FP-3016792	197, 201
FP-3006545	277	FP-3011472	249	FP-3016794	197, 203
FP-3006736	141, 149, 253, 283	FP-3011951	141	FP-3016825	205
FP-3006737	141, 149, 253, 283	FP-3011952	141	FP-3016826	205
FP-3006738	253	FP-3012472	51, 97, 155, 207, 211, 235, 269	FP-3016887	259
FP-3006742	141, 253, 283	FP-3012526	151, 161, 273	FP-3017348	287, 288
FP-3006743	141, 253, 283	FP-3012535	276, 277	FP-3017348	304
FP-3006745 (2)	264	FP-3012536	276	FP-3017348 (BP)	306, 307
FP-3007075	260	FP-3012537	276, 277	FP-3017349	284, 285, 303
FP-3007380	195, 201	FP-3012538	276, 277	FP-3017349	304
FP-3007441	195	FP-3012611	193, 223	FP-3017349 (BP)	306, 307
FP-3007512	207	FP-3012612	193, 223	FP-3017360	209
FP-3007525	193, 223	FP-3012972	262, 275	FP-3017544	259
FP-3007634	145	FP-3013036	167, 221	FP-3017750	258, 275
FP-3007635	3, 19, 23, 77, 79, 121, 123, 145	FP-3013266	201	FP-3017933	167, 221
FP-3007636	145	FP-3013300	199	FP-3017961	205
FP-3007637	260	FP-3013330	259	FP-3018151	51, 71, 97, 155, 211, 269
FP-3007689	252	FP-3013331	151, 259	FP-3018153	51, 97, 101, 155, 159, 211, 215, 269
FP-3007689S	252	FP-3013479	249	FP-3018210	201
FP-3007713 (2)	264	FP-3013591	265	FP-3018211	201
FP-3007759	79, 145, 257	FP-3013623	257, 283	FP-3018212	201
FP-3008017	264	FP-3013786	101, 141, 159, 163, 197, 203, 215	FP-3018324	276, 277
FP-3008400	19, 197, 203	FP-3013810	280	FP-3018325	277
FP-3008403	197, 203	FP-3013811	167, 221	FP-3018366	277
FP-3008530	248, 256	FP-3013930	254	FP-3018587	277
FP-3008591	145, 262	FP-3014103	153, 205, 233, 273	FP-3018695	264
FP-3008706	91, 115, 217, 276	FP-3014226	193	FP-3018772	91
FP-3008947	153, 273	FP-3014228	193	FP-3018813	277
FP-3009109	199	FP-3014304	209, 262	FP-3018814	277
FP-3009323	209	FP-3014354	266	FP-3018818	199
FP-3009324	209	FP-3014459	249	FP-3018860	277
FP-3009362	91	FP-3014614	149, 253	FP-3018861	277
FP-3009380	219	FP-3014668	191, 193, 227	FP-3018862	277
FP-300938010	219	FP-3014778	163	FP-3018863	277
FP-300938011	219	FP-3015067	195	FP-3019116 (2)	264
FP-300938012	219	FP-3015068	101, 159, 215	FP-3019158	261
FP-300938013	219	FP-3015236	277	FP-3019600	95, 135
FP-300938014	219	FP-3015522	87, 93, 221	FP-3019733	123
FP-300938015	219	FP-3016652	103, 139	FP-3019955	252

# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
FP-3019956	252	FP-3026333	223	FP-3033234	81
FP-3019957	252	FP-3026391	197	FP-3033247	93, 135
FP-3019959	141, 252	FP-3026392	197	FP-3033248	93, 135
FP-3019960	141, 252	FP-3026393	197	FP-3033292	79, 87
FP-3020479	260	FP-3026556	153, 205, 207, 273	FP-3033314	79
FP-3020739-1	280	FP-3026557	153, 205, 273	FP-3033740	89, 113, 131, 167, 221, 280
FP-3020739-2	280	FP-3026972	256	FP-3033915	209
FP-3020793	277	FP-3027105	83	FP-3034215	278
FP-3020943	145, 263	FP-3027108	83, 125	FP-3034216	278
FP-3021068	221, 280	FP-3027445	93	FP-3034221	221, 278
FP-3021581	264	FP-3027633	165, 219, 280	FP-3034222	278
FP-3021592	255	FP-3027653	263	FP-3034243	89, 167, 221, 278
FP-3021593	255	FP-3027675	93	FP-3034244	278
FP-3021594	255	FP-3027924	93, 135	FP-3034245	221, 278
FP-3021595	255	FP-3028066	91	FP-3034246	278
FP-3021596	255	FP-3028068	91, 276, 277	FP-3034438	151, 273
FP-3021597	255	FP-3028075	141	FP-3034736	267
FP-3021598	255	FP-3028269	141	FP-3034855	79
FP-3021599	151, 255	FP-3028291	207	FP-3034946	11
FP-3021600	255	FP-3028293	257	FP-3034946	273
FP-3021601	151, 255	FP-3028665	263	FP-3034986	143, 149
FP-3021676	221, 280	FP-3028685	289, 290, 294	FP-3035025	123
FP-3021704	248	FP-3028685	304	FP-3035026	79, 123
FP-3021705	248	FP-3028685 (SR)	306	FP-3035228	243
FP-3022154	277	FP-3028686	304	FP-3035230	165, 219
FP-3022157	193	FP-3028686 (SR)	306	FP-3035342	91
FP-3022197	217	FP-3028706	289, 294	FP-3035344	91
FP-3022352	255	FP-3028706	304	FP-3035580	163
FP-3022353	255	FP-3028706 (SR)	306	FP-3035679	95
FP-3022530	251	FP-3029099	95, 161, 207, 260	FP-3036117	87
FP-3022968	276, 277	FP-3029340	253, 283	FP-3036933	151, 259
FP-3023017	193	FP-3029341	283	FP-3036934	259
FP-3023018	193	FP-3029416	259	FP-3036966	257
FP-3023019	193	FP-3029820	31	FP-3036970	165, 219
FP-3023020	193	FP-3029847	143, 149	FP-3037282	195, 201
FP-3023066	209, 262	FP-3030038	257	FP-3037292	217, 276
FP-3023101	51, 53, 97, 99, 101, 155, 157, 159, 211, 213, 215, 269, 271	FP-3030970	87, 167, 221, 280	FP-3037523	87
FP-3023102	304	FP-3031098	199	FP-3037535	163, 169
FP-3023102 (BP)	307	FP-3031099	199	FP-3037537	77, 79, 93, 121, 135, 141, 163, 167, 169, 227, 241
FP-3023177	256	FP-3031227	286, 288, 289, 290, 292	FP-3037821	199, 263
FP-3023556	276, 277	FP-3031227	304	FP-3038060	155, 269
FP-3024148	277	FP-3031227 (SR)	306	FP-3038745	266
FP-3024709	261	FP-3031277	303	FP-3038903	258
FP-3024960	161	FP-3031544	195, 201	FP-3038904	258
FP-3024991	165, 219, 280	FP-3032161	209, 262	FP-3038998	161
FP-3025296	77	FP-3032348	262	FP-3040721	195, 205
FP-3025390	266	FP-3032633	195, 199	FP-3040722	195, 205
FP-3025516	304	FP-3032634	267	FP-3040750	165, 219, 281
FP-3025516 (BP)	307	FP-3032787	77, 83, 121	FP-3040750-10	281
FP-3025935	260	FP-3032874	143, 283	FP-3040750-11	281
FP-3026134	83, 173	FP-3032874 (2)	171	FP-3040750-12	281
FP-3026163	278	FP-3032874 (2)	251	FP-3040750-13	281
FP-3026270	191, 193, 223	FP-3033230	79	FP-3040750-14	281
FP-3026296	199	FP-3033232	79	FP-3040750-15	281
		FP-3033233	79		



# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
FP-3040750-16	281	FP-3045948	304	FP-3048809	304
FP-3040750-17	281	FP-3045948 (SR)	306	FP-3048809 (SR)	306
FP-3040750-18	281	FP-3045978	293	FP-3049000	261
FP-3040750-19	281	FP-3045986	87, 93, 167, 221	FP-3049024	256
FP-3040750-20	281	FP-3046200	89, 151, 167, 215, 221, 243, 273	FP-3049187S	258, 275
FP-3040750-8	281	FP-3046201	77, 121, 141, 163, 197, 203, 215, 227	FP-3049995	91
FP-3040750-9	281	FP-3046298	51, 53, 97, 155, 157, 211, 269, 271	FP-3049996	91, 276
FP-3040751	281	FP-3046325	143, 171, 251, 306	FP-3050366	304
FP-3040752	281	FP-3046355	274	FP-3050366	289, 290, 291, 303
FP-3040753	281	FP-3046420	257	FP-3050366 (SR)	306
FP-3040754	281	FP-3046680	165, 219, 282	FP-3050394	260
FP-3040755	281	FP-3046680-10	282	FP-3050480	291, 292, 293, 303
FP-3040756	281	FP-3046680-11	282	FP-3050480	304
FP-3040817	89, 163, 165, 167	FP-3046680-12	282	FP-3050480 (SR)	306, 307
FP-3040830	257	FP-3046680-13	282	FP-3050624	89, 167, 221
FP-3040964	93	FP-3046680-14	282	FP-3050667	145, 261
FP-3041992	257	FP-3046680-15	282	FP-3051553	285, 286, 287, 303
FP-3041993	257	FP-3046680-16	282	FP-3051553	304
FP-3042318	289, 290, 304	FP-3046680-17	282	FP-3051553	306
FP-3042318 (SR)	306	FP-3046680-18	282	FP-3051553 (BP)	306, 307
FP-3042319	289, 290, 304	FP-3046680-19	282	FP-3051554	285, 286, 287, 288, 289, 290, 292, 293, 303, 304
FP-3042319 (SR)	306	FP-3046680-20	282	FP-3051554 (SR)	306, 307
FP-3042320	284, 287, 288, 289, 290, 293, 294, 303, 304	FP-3046680-8	282	FP-3051555	284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 303, 304
FP-3042320 (SR)	306, 307	FP-3046680-9	282	FP-3051555 (SR)	306, 307
FP-3042542	87, 93, 101, 159, 167, 211, 215, 221	FP-3046681	282	FP-3051556	287, 288, 289, 290, 291, 292, 293, 294, 303, 304
FP-3042586	197, 203, 227	FP-3046682	282	FP-3051556 (SR)	306, 307
FP-3042587	195, 201	FP-3046683	282	FP-3051557	284, 285, 286, 287, 288, 303
FP-3042588	195, 201	FP-3046684	282	FP-3051557 (SR)	304
FP-3042590	195, 201, 227, 231	FP-3046685	282	FP-3051557	306, 307
FP-3042612	197, 203	FP-3046686	282	FP-3051557 (SR)	277
FP-3042745	257	FP-3046687	282	FP-3052222	277
FP-3042827	207, 235	FP-3046852	205	FP-3052223	277
FP-3043097	199, 263	FP-3047159	51, 53, 97, 99, 155, 157, 211, 213, 269, 271	FP-3052224	277
FP-3043211	195, 201	FP-3047188	77, 103, 121, 139	FP-3052229	277
FP-3043212	195, 201	FP-3047195	274	FP-3052630	277
FP-3043213	195, 201	FP-3047390	201	FP-3052794	291, 292, 293
FP-3043482	167	FP-3047391	201	FP-3052794	304
FP-3043647	263	FP-3047392	201	FP-3052794 (SR)	306, 307
FP-3043909	201, 231	FP-3047393	201	FP-3052819	199
FP-3043995	51, 53, 97, 99, 155, 157, 159, 211, 213, 269, 271	FP-3047395	257	FP-3052820	199
FP-3044448	103, 288, 289, 290, 291, 292, 293, 294	FP-3047464	264	FP-3052859	263
FP-3044789	258	FP-3047465	264	FP-3052877	260
FP-3045102	91, 276	FP-3047963	276, 277	FP-3053124	217, 276
FP-3045117	274	FP-3047964	276, 277	FP-3053137	263
FP-3045174	274	FP-3047973	276	FP-3053138	263
FP-3045206	280	FP-3048017	280	FP-3053377	257
FP-3045670	51, 71, 73, 97, 101, 155, 159, 211, 215, 269	FP-3048650	284, 285, 286, 287, 288, 290, 293, 303	FP-3053742	277
FP-3045671	51, 97, 101, 155, 159, 211, 215, 269	FP-3048650	304	FP-3054058	276
FP-3045672	51, 97, 101, 155, 159, 211, 215, 269	FP-3048650 (BP)	306, 307	FP-3054068	276
FP-3045907	103	FP-3048808	304	FP-3054071	276
FP-3045941	263	FP-3048808	291, 293, 294, 295, 296, 303	FP-3054086	276
FP-3045948	290, 291, 294, 295, 303	FP-3048808 (SR)	306	FP-3054211	276
		FP-3048809	291, 294, 295, 296, 303	FP-3054218	276
				FP-3054228	276



# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
FP-3054231	276	FP-3064406	161	FP-3069767	276
FP-3054231PR	276	FP-3064453	261	FP-3070100	93
FP-3054232	276	FP-3064454	261	FP-3070136	133, 277
FP-3054246	276	FP-3064455	261	FP-3070137	133, 277
FP-3054246PR	276	FP-3064634	93, 135	FP-3070138	133, 277
FP-3054247	276	FP-3064919	260	FP-3070218	77
FP-3054249	276	FP-3064920	260	FP-3070460	145
FP-3054250	276	FP-3065125	259	FP-3070477	163
FP-3054291	280	FP-3065405	143, 171, 251, 306, 307, 308	FP-3070486	79, 145, 257
FP-3054532	276, 277	FP-3065406	252	FP-3071161	145
FP-3054533	277	FP-3065791	209, 237	FP-3071564	91
FP-3054590	145	FP-3066285	163	FP-3072321	145
FP-3054609	87, 91, 280	FP-3066291	145	FP-3072322	145
FP-3054841	258, 275	FP-3066311	145, 275	FP-3072341	163
FP-3054948	141, 252	FP-3066328	161	FP-3072369	147
FP-30549486	141	FP-3066330	161	FP-3073213	195, 201, 227
FP-3054948B	141	FP-3066486	91, 276	FP-3073573	115
FP-3054999	276	FP-3066637	165	FP-3073707	125
FP-3055069	77, 83, 121, 141, 149, 197	FP-3066638	165	FP-3073966	105
FP-3055099	143, 171, 251, 283, 306, 307, 308	FP-3066843	252	FP-3074361	254
FP-3055135	277	FP-3066844	252	FP-3074375	145
FP-3055145	149	FP-3066877	205	FP-3074376	145
FP-3055145PR	149	FP-3066884	205	FP-3074400	151, 259
FP-3055146	149	FP-3066914	93, 165, 167, 221	FP-3074401	151, 259
FP-3055146PR	149	FP-3067568	149, 254	FP-3074402	151, 259
FP-3055147	149	FP-3067613	163, 265	FP-3074403	151, 259
FP-3055148	149	FP-3067616	141, 149	FP-3074404	259
FP-3055149	149	FP-3067618	141, 149	FP-3074482	161
FP-3055622	103, 291, 292, 293, 294, 295, 296	FP-3067871	123	FP-3074690	197, 201
FP-3056158	169	FP-3067932	145	FP-3075381	151, 205, 233
FP-3056341	277	FP-3068090	103, 293, 294, 295, 296	FP-3075383	91, 129, 151, 233
FP-3058148	83	FP-3068135	275	FP-3076489	93, 161, 163, 209, 237, 261
FP-3058383	260, 273	FP-3068471	151	FP-3076515	145
FP-3058462	145, 258	FP-3068473	151	FP-3076522	161
FP-3058532	258, 275	FP-3068474	151	FP-3076810	305, 308
FP-3059423	277	FP-3068476	151	FP-3076811	305, 308
FP-3062069	261	FP-3068477	151	FP-3076813	305, 308
FP-3062096	259	FP-3068519	145	FP-3076816	305, 308
FP-3062602	93	FP-3068813	225	FP-3077646	207
FP-3062676	89, 165, 219, 280	FP-3069014	264	FP-3078053	209, 237
FP-3063052	89, 165, 219	FP-3069017	89, 113, 167, 221, 278, 280	FP-3078399	147
FP-3063246	260	FP-3069024	277	FP-3080708	121
FP-3063618	261	FP-3069098	262	FP-3080760	77, 103, 139
FP-3064281	145	FP-3069101	153, 273	FP-3080770	93
FP-3064295	149	FP-3069102	153, 215, 273	FP-3080837	278
FP-3064304	171	FP-3069177	169, 263, 267	FP-3081081	199
FP-3064305	171, 189	FP-3069212	291, 292, 293, 294, 303	FP-3081212	257
FP-3064309	151	FP-3069212	304	FP-3081266	171, 294, 295, 296
FP-3064312	145	FP-3069212 (SR)	306, 307	FP-3081267	171, 294, 295
FP-3064313	163	FP-3069614	87	FP-3081268	171, 293, 294, 295, 296, 297
FP-3064386	161	FP-3069672	145	FP-3081269	171, 294, 296, 297
FP-3064389	161	FP-3069692	145	FP-3081489	191, 193, 227
FP-3064390	161	FP-3069717	91	FP-3083755	294
FP-3064392	161	FP-3069718	91	FP-3084045	147
FP-3064404	161	FP-3069759PR	91, 276	FP-3087634	171





# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
FP-3087634X	296, 297, 298, 299, 300, 301, 302	FP-3202210	199	FP-3418040	79
FP-3087635	171	FP-3202283	207, 235	FP-3418044	79
FP-3087635X	296, 297, 298, 299, 300, 301	FP-3226064	283	FP-3418045	79
FP-3088298	193	FP-3275265	276, 277	FP-3418046	79
FP-3088389	199	FP-3275266	276, 277	FP-3418047	79
FP-3088391	199	FP-3275267	277	FP-3521439	169, 266
FP-3088393	199	FP-3275354	81, 123	FP-3521440	169, 266
FP-3090469	229	FP-3275538	276	FP-3521441	169, 266
FP-3090704	123	FP-3275539	276	FP-3521442	169, 266
FP-3095061	305, 308	FP-3275912	265	FP-3536075	169, 266
FP-3095062	305, 308	FP-3275989	276	FP-3558624	53, 99, 155
FP-3095064	305, 308	FP-3277592	251	FP-3558762	51, 97, 155, 211, 269
FP-3095067	305, 308	FP-3281721	41, 45	FP-3600925	83
FP-3095702	305, 307	FP-3283336	5	FP-3602788	260
FP-3095703	305, 307	FP-3283337	5	FP-3606732	103, 298, 299, 300, 301
FP-3095704	305, 307	FP-3283339	5	FP-3608786	256
FP-3095705	305, 307	FP-3283569	5	FP-3608833	253, 283
FP-3095711	305, 307	FP-3283570	5	FP-3627961	209
FP-3095738	305, 308	FP-3283767	3, 9	FP-3628731	223
FP-3095739	305, 308	FP-3284623	3, 9, 29	FP-3628894	205
FP-3095740	305, 308	FP-3286277	11	FP-3628895	197, 203
FP-3095741	305, 308	FP-3286278	33	FP-3628973	197
FP-3095757	305, 307, 308	FP-3328328	123	FP-3629006	199
FP-3096260	197, 203, 227, 231	FP-3328379	79, 123	FP-3630681	197, 201
FP-3096362	201, 231	FP-3328781	79	FP-3631241	223
FP-3096680	223	FP-3328785	79	FP-3631242	223
FP-3096681	223, 245	FP-3328786	123	FP-3631243	223
FP-3096682	223	FP-3328948	79, 263	FP-3631244	223
FP-3096683	223	FP-3330202	29	FP-3631245	223, 245
FP-3096684	223	FP-3330478	21	FP-3631246	223
FP-3096685	223	FP-3330537	185	FP-3633840	199
FP-3098985	249	FP-3330538	185	FP-3635074	209, 237
FP-3099083	143, 149	FP-3335341	79, 87	FP-3678536	175
FP-3102423	103, 121, 139	FP-3335342	79, 87, 123	FP-3678786	183
FP-3102500	135	FP-3335343	123	FP-3678912	21, 59, 105, 173, 183
FP-3126287	199	FP-3335548	135	FP-3678925	21, 59, 61, 105, 107
FP-3161423	123, 151	FP-3347939	185	FP-3679139	21
FP-3166288	199	FP-3349806	149	FP-3680883	175
FP-3166388	151	FP-3349820	143, 149, 283	FP-3709510	169, 266
FP-3166428	151	FP-3353977	41, 45	FP-3722366	169, 266
FP-3170134	229	FP-3356174	249	FP-3751948	169, 266
FP-3170135	229	FP-3376382	252	FP-3800140	103
FP-3177108	197	FP-3401290	77, 83, 121	FP-3800231	263
FP-3177160	197	FP-3406659	283	FP-3800256	103
FP-3178076	197	FP-3408421	87, 91, 129, 167, 185, 221, 280	FP-3800318	75
FP-3179035	207	FP-3410171	205, 233	FP-3800319	75
FP-3200287	195, 205, 227	FP-3411460	262	FP-3800320	75
FP-3200550	209, 237	FP-3412285	264	FP-3800328	41, 59, 105, 119
FP-3201125	197, 203, 227	FP-3412922	151	FP-3800340	63
FP-3201386	53, 99, 157, 211, 213, 271	FP-3417713	81	FP-3800341	63
FP-3201388	227, 265	FP-3417717	79, 123	FP-3800343	59
FP-3201517	199	FP-3417778	123	FP-3800487	19
FP-3201562	69	FP-3417779	123	FP-3800636	123
FP-3201659	77, 83, 121	FP-3418020	79	FP-3800637	123
FP-3202117	169, 266	FP-3418021	81	FP-3800638	79

# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
FP-3800639	81	FP-3801397	249	FP-3801767	284, 287, 288, 289, 290, 293, 294, 306
FP-3800643	83	FP-3801424	304, 306	FP-3801768	284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 306
FP-3800781	37	FP-3801424-WP	304	FP-3801769	284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 306
FP-3800782	37	FP-3801426	256	FP-3801770	304, 306, 307
FP-3800783	37	FP-3801448	256	FP-3801770-WP	304
FP-3800784	37	FP-3801454	249	FP-3801771	287, 288, 289, 290, 291, 292, 293, 294, 306
FP-3800785	37	FP-3801464	249	FP-3801772	287, 288, 289, 290, 291, 292, 293, 294, 306
FP-3800800	103	FP-3801465	249	FP-3801773	304, 306, 307
FP-3800800-NP	103	FP-3801468	249	FP-3801773-WP	304
FP-3800801	103	FP-3801468D	249	FP-3801774	284, 287, 288, 289, 290, 293, 294, 306
FP-3800817	289	FP-3801469	249	FP-3801775	284, 287, 288, 289, 290, 293, 294, 306
FP-3800828	49	FP-3801470	249	FP-3801776	285, 286, 287, 288, 289, 290, 292, 293, 306
FP-3800838	37	FP-3801522	169, 266	FP-3801777	285, 286, 287, 288, 289, 290, 292, 293, 306
FP-3800839	37	FP-3801523	169	FP-3801778	285, 286, 287, 288, 289, 290, 292, 293, 306
FP-3800840	37	FP-3801523	266	FP-3801779	284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 306
FP-3800841	37	FP-3801529	249	FP-3801780	287, 288, 289, 290, 291, 292, 293, 294, 306
FP-3800842	37	FP-3801533	304, 306	FP-3801781	284, 285, 286, 287, 288, 306
FP-3800855	151	FP-3801533-WP	304	FP-3801782	284, 285, 286, 287, 288, 306
FP-3801030	256, 283	FP-3801534	304, 306	FP-3801783	286, 288, 289, 290, 292, 306
FP-3801057	304, 306, 307	FP-3801534-WP	304	FP-3801785	288
FP-3801057-WP	304	FP-3801535	304, 306, 307	FP-3801788	260
FP-3801058	304, 306, 307	FP-3801535-WP	304	FP-3801795	284, 285, 286, 287, 288, 290, 293, 306
FP-3801058-WP	304	FP-3801598	266	FP-3801796	289, 290, 294, 306
FP-3801096	267	FP-3801603	274	FP-3801797	289, 290, 306
FP-3801101	267	FP-3801606	250	FP-3801798	289, 290, 306
FP-3801106	252, 283	FP-3801640	250	FP-3801808	53, 99
FP-3801154	83	FP-3801660	304, 306	FP-3801809	274
FP-3801179	93	FP-3801660-WP	304	FP-3801811	289, 290, 294, 306
FP-3801198	264	FP-3801668	256	FP-3801817	284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 306
FP-3801199	264	FP-3801677	274	FP-3801818	304, 306
FP-3801229	304, 306	FP-3801678	274	FP-3801818-WP	304
FP-3801229-WP	304	FP-3801703	304, 306, 307	FP-3801819	304, 306
FP-3801230	289, 294, 306	FP-3801703-WP	304	FP-3801819-WP	304
FP-3801231	304, 306	FP-3801708	260	FP-3801820	304, 306
FP-3801231-WP	304	FP-3801709	260	FP-3801820-WP	304
FP-3801232	306	FP-3801711	260	FP-3801822	287, 288, 289, 290, 291, 293, 294, 306
FP-3801233	304, 306	FP-3801712	260	FP-3801823	287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 306
FP-3801233-WP	304	FP-3801713	260	FP-3801824	285, 286, 287, 288, 289, 290, 291, 292, 294, 295, 296, 306
FP-3801235	249	FP-3801714	260	FP-3801826	143, 171, 251, 283
FP-3801260	149, 254, 283	FP-3801715	260	FP-3801872	284, 285, 306
FP-3801261	149, 254, 283	FP-3801716	260	FP-3801873	284, 285, 306
FP-3801262	149, 254, 283	FP-3801728	53, 71, 157, 271	FP-3801874	287, 288, 306
FP-3801263	149, 254, 283	FP-3801733	53, 71, 99, 157, 271	FP-3801875	287, 288, 306
FP-3801264	149, 254, 283	FP-3801735	99	FP-3801876	304, 306, 307
FP-3801268	193, 223	FP-3801744	304, 306, 307		
FP-3801269	193, 223	FP-3801744-WP	304		
FP-3801324	249	FP-3801746	289, 290, 291, 292, 293, 306		
FP-3801335	249	FP-3801749	256		
FP-3801337	249	FP-3801754C10	249		
FP-3801348C	249	FP-3801763	256		
FP-3801350	249	FP-3801764	285, 286, 287, 306		
FP-3801356	81	FP-3801765	285, 286, 287, 306		
FP-3801387	143, 171, 251	FP-3801766	304, 306, 307		
FP-3801393	304, 306, 307	FP-3801766-WP	304		
FP-3801393-WP	304				



# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
FP-3801876-WP	304	FP-3802249	15	FP-3802630	17
FP-3801896	195	FP-3802250	15	FP-3802657	57
FP-3801897	195	FP-3802251	15	FP-3802711	13
FP-3801915	263	FP-3802252	15	FP-3802712	13
FP-3801915MK	263	FP-3802253	15	FP-3802743	55
FP-3801920	285, 286, 287, 306	FP-3802263	57	FP-3802750	15
FP-3801954	304, 306, 307	FP-3802273	11	FP-3802757	15
FP-3801954-WP	304	FP-3802280	57	FP-3802758	15
FP-3801956	291, 292, 293, 306	FP-3802344	57	FP-3802759	15
FP-3802010	7, 27	FP-3802355	5	FP-3802811	55
FP-3802011	7, 27	FP-3802356	5	FP-3802863	15
FP-3802012	7, 27	FP-3802362	3, 5	FP-3802864	15
FP-3802013	7, 27	FP-3802362S	3	FP-3802924	23
FP-3802014	7, 27	FP-3802363	3, 5	FP-3802951	17
FP-3802030	15	FP-3802363S	3	FP-3802967	25
FP-3802032	15	FP-3802364	3, 5	FP-3803017	250
FP-3802034	15	FP-3802364S	3	FP-3803040C	249
FP-3802040	13	FP-3802370	41	FP-3803040C10	249
FP-3802042	13	FP-3802372	55	FP-3803041	249
FP-3802044	13	FP-3802375	3	FP-3803042	267
FP-3802060	13	FP-3802376	3	FP-3803138	260
FP-3802062	13	FP-3802388	55	FP-3803139	260
FP-3802064	13	FP-3802389	41	FP-3803153	207
FP-3802070	7, 27	FP-3802396	57	FP-3803202	260
FP-3802071	7, 27	FP-3802397	57	FP-3803203	260
FP-3802072	7, 27	FP-3802398	57	FP-3803209	289, 290, 294, 306
FP-3802073	7, 27	FP-3802399	55	FP-3803210	284, 287, 288, 289, 290, 294, 306
FP-3802074	7, 27	FP-3802400	55	FP-3803211	285, 286, 287, 306
FP-3802075	283	FP-3802401	55	FP-3803212	285, 286, 287, 288, 289, 290, 292, 293, 306
FP-3802077	283	FP-3802402	55	FP-3803213	284, 285, 286, 287, 288, 289, 290, 292, 293, 294, 306
FP-3802085	43	FP-3802403	55	FP-3803214	287, 288, 289, 290, 291, 292, 293, 294, 306
FP-3802090	17	FP-3802404	55	FP-3803215	285, 286, 287, 288, 289, 290, 291, 292, 294, 295, 296, 306
FP-3802092	17	FP-3802405	55	FP-3803216	284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 306
FP-3802094	17	FP-3802406	55	FP-3803217	287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 306
FP-3802100	13	FP-3802407	41	FP-3803218	287, 288, 289, 290, 291, 293, 294, 306
FP-3802102	13	FP-3802421	15	FP-3803219	143, 171, 251
FP-3802104	13	FP-3802422	15	FP-3803221	284, 285, 286, 287, 288, 290, 293, 306
FP-3802110	55	FP-3802423	15	FP-3803222	287, 288, 306
FP-3802132	13	FP-3802429	55, 57, 75	FP-3803224	289, 290, 306
FP-3802134	13	FP-3802463	43	FP-3803225	289, 290, 306
FP-3802160	13	FP-3802487	15	FP-3803226	284, 285, 306
FP-3802170	13	FP-3802489	15	FP-3803227	286, 288, 289, 290, 292, 306
FP-3802172	13	FP-3802490	15	FP-3803228	284, 285, 286, 287, 288, 307
FP-3802174	13	FP-3802493	15	FP-3803233	289, 290, 291, 292, 293, 307
FP-3802210	45	FP-3802495	15	FP-3803344	304, 306, 307
FP-3802211	45	FP-3802538	57, 75	FP-3803344-WP	304
FP-3802212	45	FP-3802561	15	FP-3803345	260
FP-3802213	45	FP-3802562	15	FP-3803346	291, 292, 293, 294, 307
FP-3802214	45	FP-3802563	15	FP-3803360	145
FP-3802230	13, 15, 17	FP-3802564	15	FP-3803402	93
FP-3802232	13, 15, 17	FP-3802565	15		
FP-3802234	13, 15, 17	FP-3802601	57		
FP-3802245	3, 5	FP-3802602	57		
FP-3802245S	3	FP-3802609	55		
FP-3802248	15	FP-3802610	55		

# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
FP-3803403	93	FP-3803996	81	FP-3804471	308
FP-3803404	77	FP-3804276	249	FP-3804474	308
FP-3803495	77	FP-3804276-OS	249	FP-3804477	308
FP-3803512	257	FP-3804276S	249	FP-3804479	308
FP-3803515	199	FP-3804296	195	FP-3804480	308
FP-3803518	199	FP-3804300	195	FP-3804482	308
FP-3803519	257	FP-3804301	195	FP-3804483	308
FP-3803524	257	FP-3804318	305, 307	FP-3804486	308
FP-3803528	199	FP-3804321	305, 307	FP-3804630	171
FP-3803529	199	FP-3804324	305, 307	FP-3804636	171, 298, 300
FP-3803530	223	FP-3804327	305, 307	FP-3804694	103
FP-3803596	195, 199	FP-3804329	305, 307	FP-3804695	103
FP-3803597	195	FP-3804330	305, 308	FP-3804696	103
FP-3803600	195	FP-3804332	305, 308	FP-3804896	3, 5
FP-3803601	195	FP-3804333	305, 308	FP-3804896S	3
FP-3803605	161	FP-3804336	305, 308	FP-3804897	3, 5
FP-3803608	145	FP-3804346	307	FP-3804897S	3
FP-3803612	161	FP-3804348	307	FP-3804899	21
FP-3803613	141	FP-3804351	307	FP-3804935	209, 237
FP-3803614	161	FP-3804354	307	FP-3804990	37
FP-3803703	77, 103, 139	FP-3804357	307	FP-3806180	49
FP-380371610	141, 145	FP-3804359	307	FP-3806201	37
FP-3803726	145	FP-3804360	308	FP-3806203	37
FP-3803739	171	FP-3804362	308	FP-3818823	11, 35
FP-3803740	171, 296, 297, 298, 299, 300, 301	FP-3804363	308	FP-3818841	93
FP-3803741	171	FP-3804366	308	FP-3818885	197, 207
FP-3803742	171, 296, 297, 298, 299, 300, 301, 302	FP-3804376	307	FP-3819632	93
FP-3803752	171	FP-3804378	307	FP-3819774	83
FP-3803753	171, 294, 295, 296	FP-3804381	307	FP-3819989	83
FP-3803754	171	FP-3804384	307	FP-3820566	121
FP-3803755	171, 293, 294, 295, 296, 297	FP-3804387	307	FP-3820629	93
FP-3803756	171	FP-3804389	307	FP-3820791	95
FP-3803757	171, 294, 295	FP-3804390	308	FP-3820872	79
FP-3803758	171	FP-3804392	308	FP-3820917	83
FP-3803759	171, 294, 296, 297	FP-3804393	308	FP-3820918	83, 125
FP-3803770	147	FP-3804396	308	FP-3820922	51, 97, 101, 137, 155, 159, 211, 269
FP-3803854	147	FP-3804406	305, 307, 308	FP-3820945	77, 83, 121
FP-3803896	83	FP-3804411	305, 308	FP-3820946	77, 83, 121
FP-3803903	256	FP-3804414	305, 308	FP-3821572	265
FP-3803930	51, 73, 97, 101, 155, 159, 211, 215, 269	FP-3804417	305, 308	FP-3822959	252
FP-3803931	51, 97, 101, 155, 159, 211, 215, 269	FP-3804419	305, 308	FP-3822960	252
FP-3803932	51, 97, 101, 155, 159, 211, 215, 269	FP-3804420	305, 308	FP-3822961	252
FP-3803961	103, 139	FP-3804422	305, 308	FP-3822963	252
FP-3803962	103	FP-3804423	305, 308	FP-3823681	258
FP-3803963	103	FP-3804426	305, 308	FP-3865113	171
FP-3803964	103	FP-3804436	308	FP-3865113X	298, 300
FP-3803965	103	FP-3804441	308	FP-3865236	163
FP-3803966	103	FP-3804444	308	FP-3865237	151
FP-3803967	103	FP-3804447	308	FP-3867043	31
FP-3803968	103	FP-3804449	308	FP-3871248	275
FP-3803974	103	FP-3804450	308	FP-3882433	77, 83
FP-3803977	103	FP-3804452	308	FP-3882433-PS	77, 83
FP-3803995	81	FP-3804453	308	FP-3882733-PS	77, 83
		FP-3804456	308	FP-3883150	77, 83, 121
		FP-3804466	308	FP-3883220	79, 123



# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
FP-3883284	11, 33, 93	FP-3903656WP	15	FP-3909695	5, 9
FP-3883365	93	FP-3903787	49	FP-3909886	43
FP-3883472	77, 123	FP-3903977	139	FP-3910260	59
FP-3883512	79, 123	FP-3904105	5	FP-3910521	43, 47
FP-3892095	93	FP-3904166	3, 21	FP-3910739	11, 49
FP-3893690	135	FP-3904369	19	FP-3910810	5, 9
FP-3893751	103, 295, 296, 297	FP-3904408	5	FP-3910811	5, 9
FP-3893752	103	FP-3904409	5	FP-3910824	5, 43
FP-3893754	103	FP-3905443	5, 263	FP-3911400	13, 292, 293, 294, 296, 297
FP-3895477	81	FP-3905449	43	FP-3911400WP	13
FP-3895487	79, 87, 151	FP-3905870	43	FP-3911535	3, 7
FP-3895488	79, 87, 123	FP-3905928	41	FP-3911557	11
FP-3895860	79, 123	FP-3906080	3, 7	FP-3911557	273
FP-3896894	83	FP-3906081	3, 7, 41, 45	FP-3911558	11, 49
FP-3899413	103	FP-3906206	5	FP-3911558	273
FP-3900242	5, 9	FP-3906208	13	FP-3911559	11
FP-3900245	5, 9	FP-3906208WP	13	FP-3911559	273
FP-3900250	5, 63, 107	FP-3906209	13	FP-3911563	11
FP-3900267	3, 9	FP-3906209WP	13	FP-3911563	273
FP-3900276	5	FP-3906223	13, 289, 290, 291, 292, 293, 294, 296	FP-3911564	273
FP-3900299	5	FP-3906223WP	13	FP-3911565	273
FP-3900687	3, 19	FP-3906412	43	FP-3911566	273
FP-3900808	9	FP-3906659	9, 31, 47	FP-3911568	273
FP-3900919	7, 27	FP-3906694	9	FP-3911568	11
FP-3901020	3	FP-3906695	9	FP-3911572	11
FP-3901171	7, 27	FP-3906698	11, 33	FP-3911572	273
FP-3901172	7, 27	FP-3906783	43, 47	FP-3911575	11
FP-3901173	7, 27	FP-3906784	43, 47	FP-3911575	273
FP-3901174	7, 27	FP-3906785	43, 47	FP-3911582	11, 49
FP-3901177	43	FP-3906788	43, 47	FP-3911582	273
FP-3901306	3	FP-3906854	5	FP-3911587	11
FP-3901356	11, 266	FP-3907117	55	FP-3911587	273
FP-3901430	45	FP-3907156	13, 289, 290, 291, 292, 293	FP-3911588	273
FP-3901431	45	FP-3907156WP	13	FP-3911588	11
FP-3901432	45	FP-3907157	13	FP-3911941	47, 266
FP-3901433	45	FP-3907157WP	13	FP-3912049	13
FP-3901434	45	FP-3907158	13	FP-3912049WP	13
FP-3901693	43	FP-3907158WP	13	FP-3912050	13
FP-3901717	43, 47	FP-3907163	13, 290, 291, 292, 293, 296, 298, 300	FP-3912050WP	13
FP-3901764	43, 47	FP-3907163WP	13	FP-3912473	3, 7, 21, 41, 45, 59, 65
FP-3901969	41, 59, 105	FP-3907177	41, 55, 59, 105, 119	FP-3913032	69, 117
FP-3902089	49	FP-3907233	43	FP-3913990	45, 65
FP-3902425	7, 19, 41, 43, 45, 59, 105	FP-3907234	43	FP-3913994	3, 7, 41, 45, 195, 201
FP-3902466	43	FP-3907555	43, 47	FP-3914028	5
FP-3903242	19	FP-3907792	41, 55	FP-3914029	5
FP-3903380	5, 9, 43, 47	FP-3908035	17	FP-3914302	41, 45
FP-3903475	3, 11, 41	FP-3908036	17	FP-3914308	49
FP-3903575	9	FP-3908096	41	FP-3914310	49
FP-3903576	9	FP-3908815	13	FP-3914385	3, 7
FP-3903579	15	FP-3908815WP	13	FP-3914388	47
FP-3903579WP	15	FP-3908816	13	FP-3915772	3, 7, 21, 41, 45
FP-3903582	17	FP-3908816WP	13	FP-3916588	43
FP-3903655	15	FP-3909356	9	FP-3917324	11
FP-3903655WP	15	FP-3909397	11	FP-3917619	15, 292, 293, 294, 295, 296
FP-3903656	15	FP-3909410	3, 7, 41, 45	FP-3917619WP	15

# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
FP-3917707	55, 57, 293, 294, 296, 298, 299, 300	FP-3922632WP	15	FP-3929161WP	57
FP-3917707WP	57	FP-3922633WP	15	FP-3929457	33
FP-3917728	43	FP-3922687	17, 296	FP-3929734	9
FP-3917729	43	FP-3922794	241	FP-3929792	11
FP-3917780	41, 45	FP-3923163	55, 57, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301	FP-3930187	15, 297, 298, 300
FP-3918174	49, 69	FP-3923163WP	57	FP-3930187WP	15
FP-3918188	5, 9, 47	FP-3923164	55, 57, 289, 290, 291, 292, 293, 294, 296, 297, 298	FP-3930188	15
FP-3918191	9, 47	FP-3923164WP	57	FP-3930188WP	17
FP-3918192	47	FP-3923165	55, 57	FP-3930189	15
FP-3918332	49, 69	FP-3923165WP	57	FP-3930189WP	17
FP-3918428	11, 33	FP-3923331	11	FP-3930906	5
FP-3918532	49	FP-3923478	47	FP-3930911	69
FP-3918673	3	FP-3923517	11	FP-3931623	9, 47
FP-3918986	45	FP-3923564	43	FP-3931824	11, 35
FP-3919041	15, 293, 294, 295, 296, 297, 300	FP-3924492	43	FP-3932063	43, 263
FP-3919041WP	15	FP-3924582	43	FP-3932453	5, 23
FP-3919044	15	FP-3925343	41, 45, 65, 105, 109	FP-3934046	55, 57, 75
FP-3919044WP	15	FP-3925626	41	FP-3934047	15, 17, 37, 39
FP-3919045	15	FP-3925878	55, 57, 295, 296, 297, 298, 299	FP-3934048	13, 15, 17
FP-3919045WP	15	FP-3925878WP	57	FP-3934580	55
FP-3919047	15	FP-3925879	55, 57	FP-3934864	65
FP-3919047WP	15	FP-3925879WP	57	FP-3935449	5
FP-3919048	15	FP-3926047	19	FP-3935585	43
FP-3919048WP	15	FP-3926048	59, 105	FP-3935586	43
FP-3919247	57	FP-3926103	5, 9	FP-3935878	23
FP-3919247WP	57	FP-3926126	3, 7, 41, 45, 65, 109	FP-3936321	9, 47
FP-3919369	35	FP-3926631	15, 295, 297, 298, 299	FP-3936323	9
FP-3919435	43, 47	FP-3926632	15, 295	FP-3936324	9, 47
FP-3919566	57	FP-3926633	15	FP-3936876	105
FP-3919566WP	57	FP-3926634	15	FP-3936993	43, 61
FP-3919937	55	FP-3926634WP	15	FP-3937111	3, 7, 21
FP-3920691	13, 15, 17, 37, 39	FP-3926635	15	FP-3937142	31, 115
FP-3920692	55, 57, 75, 119	FP-3926635WP	15	FP-3937214	3, 21
FP-3920773	7, 21, 41, 45, 59, 105, 109	FP-3926760	11, 33	FP-3937438	5
FP-3920779	5	FP-3927063	23	FP-3937479	23, 61, 107
FP-3920780	5	FP-3927642	43	FP-3937706	11, 35
FP-3920781	5	FP-3927692	23	FP-3938152	23
FP-3920867	5	FP-3928031	41	FP-3938156	3, 7, 21
FP-3920868	5	FP-3928143	9	FP-3938157	7, 19
FP-3921444	43	FP-3928473	297	FP-3938158	11
FP-3921640	5	FP-3928493	3, 7	FP-3938160	41, 45, 59, 105, 109
FP-3921978	47	FP-3928639	49	FP-3939258	9, 47, 59, 67
FP-3921980	47	FP-3928673	292, 297, 299, 300, 301	FP-3939264	61
FP-3922488	5, 9	FP-3928759	29	FP-3939353	41, 45, 59, 65, 105
FP-3922571	15, 295, 296, 297, 298, 299, 300	FP-3928870	65	FP-3939859	7, 27
FP-3922571WP	15	FP-3929005	43	FP-3940059	19
FP-3922572	15, 296	FP-3929027	7, 27	FP-3940123	25
FP-3922572WP	15	FP-3929036	7	FP-3940245	71, 113
FP-3922573	15	FP-3929037	7	FP-3940386	69, 117
FP-3922573WP	15	FP-3929039	9	FP-3940632	69
FP-3922574	15	FP-3929041	9	FP-3940734	25
FP-3922574WP	15	FP-3929042	9	FP-3940735	23
FP-3922575	15	FP-3929161	57, 297, 298, 299	FP-3942106	75
FP-3922575WP	15			FP-3942565	29
FP-3922631WP	15			FP-3942588	63



# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
FP-3942589	63	FP-3968183	25	FP-4024919	249
FP-3942915	33	FP-3969637	107	FP-4024919 10	249
FP-3943198	23	FP-3969988	33	FP-4024919-OS	249
FP-3943367	75	FP-3970126	37	FP-4024919S	249
FP-3944293	59, 105	FP-3970127	37	FP-4024919S10	249
FP-3944646	61	FP-3970192	37, 301, 302	FP-4024920	249
FP-3945329	41, 59, 105	FP-3970727	63, 107	FP-4024920 10	249
FP-3945866	67	FP-3970880	9	FP-4024920-OS	249
FP-3945917	45, 65, 109	FP-3972880	37	FP-4024920S	249
FP-3945918	45, 65, 109	FP-3972881	37	FP-4024920S10	249
FP-3945919	45, 65, 109	FP-3972882	37	FP-4024921	249
FP-3945967	49, 69	FP-3972884	37	FP-4024921 10	249
FP-3946050	37, 300	FP-3972885	37	FP-4024922	249
FP-3946051	37	FP-3973114	69, 117	FP-4024922 10	249
FP-3946052	37	FP-3974815	49	FP-4024924	141, 145
FP-3946053	37	FP-3977063	23	FP-402492410	141, 145
FP-3946054	37	FP-3990105	29	FP-4024924S	141, 145
FP-3946153	37, 298, 300, 301	FP-3992090	63	FP-4024952	249
FP-3946154	37	FP-3992092	69	FP-4024952 10	249
FP-3946155	37	FP-3992117	57	FP-4024953	249
FP-3946156	37	FP-4000504	191, 193	FP-4024953S	249
FP-3946157	37	FP-4003966	79, 123	FP-4024956	249
FP-3946275	23	FP-4009220	191, 227, 245	FP-4024958	249
FP-3947759	29	FP-4009221	191	FP-4024993S	77, 79
FP-3948071	49	FP-4009222	191	FP-4025011	37
FP-3948095	41, 55, 59, 75, 105, 119	FP-4009227	191, 223	FP-4025072	37
FP-3948578	61	FP-4009228	191	FP-4025120	83, 125
FP-3949688	29	FP-4009230	191	FP-4025121	83, 125
FP-3949843	37	FP-4009231	191	FP-4025122	83, 125
FP-3949844	37	FP-4009232	191	FP-4025123	83, 125
FP-3950661	65, 109	FP-4009233	191	FP-4025125	83, 125
FP-3950662	65, 109	FP-4016886	55	FP-4025126	83, 125
FP-3950663	65, 109	FP-4019886	55, 57	FP-4025127	85, 127
FP-3950664	65, 109	FP-4020059	57	FP-4025128	85, 127
FP-3950665	65, 109	FP-4020060	55	FP-4025129	83
FP-3955393	25	FP-4020061	55	FP-4025155	77, 79
FP-3955394	25	FP-4020062	55	FP-4025155S	77, 79
FP-3957440	21	FP-4022500	79, 123	FP-4025161	139
FP-3957543	11, 33	FP-4022907	79, 123	FP-4025162	103, 139, 297, 298, 299, 300, 301
FP-3957544	11, 33	FP-4024767	191, 223, 227, 245	FP-4025164	103, 139
FP-3957912	5	FP-4024768	191, 223, 245	FP-4025168	139
FP-3958165	21	FP-4024769	191, 223, 245	FP-4025270	59
FP-3958675	37, 301	FP-4024770	191, 223	FP-4025271	41, 43
FP-3959052	3, 7, 21	FP-4024771	191, 223, 245	FP-4025271S	41
FP-3963983	29	FP-4024772	191, 223, 245	FP-4025290	55
FP-3963988	67, 113	FP-4024773	191, 223, 245	FP-4025293	55
FP-3965497	37	FP-4024774	191, 223, 245	FP-4025294	55
FP-3966675	37	FP-4024775	191, 223, 245	FP-4025297	77
FP-3966676	37	FP-4024808	185	FP-4025366	57
FP-3966840	49	FP-4024817	95	FP-4026171	89, 151, 165, 167, 215, 219, 221, 243, 273, 280
FP-3967060	7, 27	FP-4024918	249	FP-4058790	145, 249
FP-3967061	7, 27	FP-4024918 10	249	FP-4058790S	249
FP-3967062	7, 27	FP-4024918-OS	249	FP-4058941	143
FP-3967063	7, 27	FP-4024918S	249	FP-4058947	143
FP-3967064	7, 27	FP-4024918S10	249		



# Numerical Index



Part Number	Page	Part Number	Page	Part Number	Page
FP-4058967	171	FP-4089811	306, 307	FP-4B3.9PREM-L	3
FP-4058968	171	FP-4089819	19, 23	FP-4B3.9PREM-OH	3
FP-4058969	171	FP-4089958	59, 61, 105, 107	FP-4B3.9PREM-OH-L	3
FP-4058981	145, 275	FP-4089995	77, 85, 125	FP-551079	265
FP-4059898T	103, 139	FP-4089998	77, 83, 121	FP-556355	263
FP-4059901T	103, 139, 297, 298, 299, 300, 301	FP-4090035	19, 23	FP-556356	263
FP-4062902	283	FP-4095009	191, 193, 223, 225, 245	FP-65259A	141, 149
FP-4070462	85	FP-4095010	245	FP-65259B	141, 149
FP-4070463	85	FP-4095097	209, 237	FP-65259C	141, 149
FP-4070529	79, 87, 123	FP-43463A	161, 163	FP-66292	141
FP-4070653	139	FP-43643A	261	FP-66890	283
FP-4070653T	103	FP-43696A	280	FP-67622	197, 199
FP-4070653T	139	FP-43828B	261	FP-67946	77, 83, 121, 141, 149, 197
FP-4082772	121	FP-43969A	195	FP-68061A	221, 280
FP-4083006	135	FP-4890926	107, 115	FP-68193	151, 207
FP-4083243	103	FP-4891178	7, 27	FP-68210	264
FP-4083244	103, 139	FP-4891796	61	FP-68365	163
FP-4089181	37, 39	FP-4892795	7, 27	FP-68445	145, 195, 199, 227, 229
FP-4089182	37, 39	FP-4892796	7, 27	FP-68513	259
FP-4089183	37	FP-4892797	7, 27	FP-68908	197
FP-4089184	37	FP-4892798	7, 27	FP-68910	209
FP-4089185	37	FP-4893693	7, 27	FP-69521	163
FP-4089186	37	FP-4897568	23	FP-69550	255
FP-4089258	37, 39	FP-4898821	37	FP-69736	151
FP-4089259	37	FP-4899226	23	FP-69793	280
FP-4089260	37	FP-4920751	77, 85, 121, 125	FP-69936	254
FP-4089342	21, 59	FP-4922219	199	FP-6B5.9PREM	3
FP-4089348	57	FP-4926017	83, 125	FP-6B5.9PREM-L	3
FP-4089371	141, 145	FP-4926019	85, 127	FP-6B5.9PREM-OH	3
FP-4089371S	141, 145	FP-4926069	123	FP-6B5.9PREM-OH-L	3
FP-4089388	103, 121, 139	FP-4930594	69, 117	FP-6C8.3PREM	41
FP-4089390	195, 227	FP-4933120	75, 301, 302	FP-6C8.3PREM OH	41
FP-4089391	195	FP-4936076	61, 107	FP-70183	207, 235
FP-4089420	37	FP-4936079	61, 107	FP-7025290	55
FP-4089421	37	FP-4936080	5, 23	FP-70502	266
FP-4089422	37	FP-4939585	11, 33	FP-70550	77, 121, 151, 161, 273
FP-4089423	37	FP-4939587	11, 33	FP-70624	209, 261
FP-4089478	77, 79, 121, 123	FP-4944710	47	FP-70690	165, 219, 280
FP-4089489	171, 307, 308	FP-4944711	47	FP-70704	280
FP-4089500	191, 193, 223, 245	FP-4944712	47	FP-70705	165, 219, 280
FP-4089501	225	FP-4944713	47	FP-70723	280
FP-4089542	77, 121	FP-4944714	47	FP-70732	280
FP-4089602	29	FP-4946714	3, 21	FP-70772	145, 258
FP-4089642	65, 109	FP-4947710	9	FP-70809	280
FP-4089644	75	FP-4947711	9	FP-708124	256
FP-4089647	69, 117	FP-4947712	9	FP-70815	165, 219
FP-4089649	3	FP-4947713	9	FP-80210020	283
FP-4089649S	3	FP-4947714	9	FP-90004	153, 250, 273
FP-4089669	37	FP-4955190	75	FP-90012	250, 267
FP-4089670	37	FP-4955210	25	FP-90210001	283
FP-4089671	37	FP-4955239	123	FP-90210002	283
FP-4089672	25	FP-4955643	107	FP-90210009	283
FP-4089761	63, 107	FP-4957806	229, 283	FP-90210011	283
FP-4089762	63, 107	FP-4981796	107	FP-90210014 20	283
FP-4089810	283, 306, 307	FP-4B3.9PREM	3	FP-90210020	283





# Numerical Index

Part Number	Page	Part Number	Page	Part Number	Page
FP-90210035	283	FP-CK1557-5405	307	FP-PK2092	17
FP-9097	260	FP-CK2320-5405	307	FP-PK2094	17
FP-9195-3	254	FP-CK2794-5405	307	FP-PK2571	15
FP-9235-1	256	FP-CK3102-5099	307	FP-PK2572	15
FP-9260-1	259	FP-CK5516-5099	307	FP-PK2573	17
FP-9266	259	FP-CK5516-5405	307	FP-PK2574	17
FP-9266-A	259	FP-CK7348-5405	307	FP-PK2575	17
FP-940014	250	FP-CK7349-5405	307	FP-PK2630	17
FP-940015	250	FP-CK8650-5405	307	FP-PK3102	304, 307
FP-AR10172	265	FP-CK9212-5405	307	FP-PK3102-WP	304
FP-AR1176	248, 256	FP-CWB008	258	FP-PK3163	57
FP-AR12098	283, 309	FP-IFKISB624V	19	FP-PK3164	57
FP-AR12250	201	FP-IFKISCQSC	59	FP-PK3165	57
FP-AR12251	201	FP-IFKM11AR	77	FP-PK3579	17
FP-AR12252	201	FP-IFKN14AR	141	FP-PK3655	17
FP-AR12270	201, 231	FP-IFKQSK19RR	227	FP-PK3656	17
FP-AR12271	201, 231	FP-L10PREM	77	FP-PK5011	37
FP-AR12272	201, 231	FP-L10PREMDNA	77	FP-PK5072	37
FP-AR12273	201, 231	FP-L10PREM-OH	77	FP-PK5161	139
FP-AR12313	225	FPL-3801768	287	FP-PK5164	139
FP-AR12719	53, 99, 157, 159, 213, 271	FP-LK03208095	75	FP-PK5516	304, 307
FP-AR2883	283	FP-LK166630	283	FP-PK5516-WP	304
FP-AR3560	283	FP-LK31648095	55	FP-PK5878	57
FP-AR3880664	191	FP-LK92477792	55	FP-PK5879	57
FP-AR3880665	191	FP-LK92479937	55	FP-PK6208	13
FP-AR3880666	193	FP-LK98868095	55	FP-PK6209	13
FP-AR3880667	193	FP-N14PREMDNAN-OH	141	FP-PK6223	13
FP-AR40063	276	FP-N14PREMPDN	141	FP-PK6631	17
FP-AR4284	260	FP-N14PREMPDNAN	141	FP-PK6632	17
FP-AR51477	143, 251	FP-N14PREMPDN-OH	141	FP-PK6633	17
FP-AR51478	252	FP-OHISCQSC	59	FP-PK6634	17
FP-AR60801	265	FP-OHM11AR	77	FP-PK6635	17
FP-AR62181	265	FP-PG1330NG	283	FP-PK6732	103
FP-AR7051	267	FP-PG1330SNG	283	FP-PK7157	13
FP-AR73308	53, 99, 157, 213, 271	FP-PG1331NGB	283	FP-PK7158	13
FP-AR73350	51, 71, 73, 97, 101, 155, 159, 211, 215, 269	FP-PGC205	262	FP-PK7619	17
FP-AR73351	51, 97, 101, 155, 159, 211, 215, 269	FP-PGC206	262	FP-PK7707	57
FP-AR73352	51, 97, 101, 155, 159, 211, 215, 269	FP-PGC25	141, 145	FP-PK8815	13
FP-AR73665	276	FP-PK0187	15, 17	FP-PK8816	13
FP-AR7375	309	FP-PK0188	15, 17	FP-PK9041	17
FP-AR7383	309	FP-PK0189	15, 17	FP-PK9044	17
FP-AR7399	309	FP-PK0781	37	FP-PK9045	17
FP-AR7420	309	FP-PK0782	37	FP-PK9047	17
FP-AR7440	309	FP-PK0783	37	FP-PK9048	17
FP-AR7460	283	FP-PK0784	37	FP-PK9161	57
FP-AR7510	309	FP-PK0785	37	FP-PK9183	37
FP-BM27253	252, 283	FP-PK0838	37	FP-PK9184	37
FP-BM68356	280	FP-PK0839	37	FP-PK9185	37
FP-BM98224	283	FP-PK0840	37	FP-PK9186	37
FP-BM98776	280	FP-PK0841	37	FP-PK9247	57
FP-CK1553-5405	307	FP-PK0842	37	FP-PK9259	39
FP-CK1554-5405	307	FP-PK1400	13	FP-PK9260	39
FP-CK1555-5405	307	FP-PK2049	13	FP-PK9420	39
FP-CK1556-5405	307	FP-PK2050	13	FP-PK9421	39
		FP-PK2090	17	FP-PK9422	39

# Numerical Index



Part Number	Page
FP-PK9423	39
FP-PK9566	57
FP-PK9669	39
FP-PK9670	39
FP-PK9671	39
FP-PKQSK19	245
FP-S16002	95, 135, 207, 235
FP-S16052	89, 165, 219, 280
FP-S16054	93, 207
FP-S16069	207, 235
FP-S16255	161, 260
FP-S201	161
FP-S2037	283
FP-S212	79, 199, 258
FP-S222A	266
FP-S2286	165, 219, 280
FP-S276	274
FPS631	227
FP-S631	167, 197, 203, 207, 221, 266
FP-S911B	101, 145, 151, 161, 163, 211, 273
FP-S915A	199
FP-S962E	207, 235
FP-S965E	195, 201, 207
NH743	260
PG1330NG	250
PGC100	250
PGC101	250
PGC1014	250
PGC110	250
PGC175	250
PGC176	250
PGC-20	250
PGC200	250, 264
PGC202	250, 264
PGC204	250, 264
PGC205	250
PGC206	250
PGC300	250
PGJ-10	250
PGJ-15	250
PGJ-20	250
PGJ-5	250
S 300	125
S 302	233
S 3193	131
S 923 E	59, 105



## Cummins Vintage Section

*Global Technology Behind Every Part*

This new section in the Cummins CA0030 catalog contains all of the components currently offered under the FP Diesel brand for Cummins Vintage engines not listed in the front section of this catalog. Engines listed in this section are not considered as popular as the engines listed in the front section of the catalog and may be hard to find, but are still available in the FP Diesel product offering. Also listed in this section are engines branded as Cummins but may be manufactured by another engine manufacturer.

In addition to the new FP Diesel part numbers listed in this catalog, you'll also find coverage previously available under Sealed Power that are now part of the FP Diesel offering. In cases where both a Sealed Power part number and FP Diesel part number were available for the same application, both part numbers will be listed in the catalog. As this coverage transitions to the FP Diesel product line offering, Sealed Power part numbers will be superseded to FP Diesel and only the FP Diesel number will be available for purchase.

## How To Use This Catalog

This catalog is designed to allow expedient identification of correct parts using the following information.

### The catalog is sorted as follows:

- 1st** by VEHICLE or ENGINE MANUFACTURER.
- 2nd** by ENGINE DISPLACEMENT.
- 3rd** by BORE DIAMETER. Engines with the same displacement are sorted by bore diameter.
- 4th** by USAGE. Engines used in Medium Duty Truck applications will be listed before engines used in Heavy Duty Truck applications.
- 5th** by VALVETRAIN CONFIGURATION. DOHC engines will be listed before SOHC engines.
- 6th** by INDUCTION SYSTEM. Naturally aspirated engines will be listed before Turbocharged engines.

Each engine header provides all the information necessary to select the desired engine. Many of the headers include serial number listings to provide absolute assurance that the correct listing is being used.

The pages within the applications are easy to read, and contain all the information required to select the correct part. Each listing will contain three distinct sections – Valvetrain, Block and Kits. The components in each section will always be listed in the following order:

Valvetrain	Block	Kits
Timing	Pistons	Re-ring Kits
Camshafts	Rings	In-Frame Kits
Lifters	Liners	Overhaul Kits
Cam Kits	Engine Bearings	
Push Rods	Oil Pumps	
Rocker Parts	Oil Coolers	
Valves	After-Coolers	
Valve Guides	Gaskets	
Valve Springs	Freeze Plugs	
Valve Seals	Seals	
Valve Seats	Redi-Sleeves	
Valve Misc.		

**Engine Finding Index**

Engine	Line No.	Engine	Line No.
Diesel L1 3.625" Bore.....	1	8.3L 504 OHV Diesel V8 4.625" Bore .....	24
2.9L 180 OHV Diesel L3 102mm Bore .....	2	8.3L 504 OHV Turbo-Diesel V8 4.625" Bore.....	25
2.9L 180 OHV Turbo-Diesel L3 102mm Bore.....	3	8.3L 505 OHV Diesel L6 114mm Bore .....	26
3.9L 239 (3921cc) OHV Diesel L4 102mm Bore .....	4	9.1L 555 OHV Diesel V8 4.625" Bore .....	27
4.1L 251 OHV Diesel L4 4" Bore (Case engine) .....	5	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore.....	28
4.4L 267 OHV Diesel L4 4.125" Bore.....	6	9.6L 588 OHV Diesel V6 5.5" Bore .....	29
4.4L 267 OHV Turbo-Diesel L4 4.125" Bore .....	7	9.6L 588 OHV Turbo-Diesel V6 5.5" Bore.....	30
5.1L 309 OHV Diesel L4 4.4375" Bore.....	8	11.0L 672 OHV Diesel L6 4.875" Bore.....	31
5.1L 309 OHV Turbo-Diesel L4 4.4375" Bore .....	9	11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged).....	32
5.4L 331 OHV Diesel L6 3.75" Bore.....	10	12.2L 743 OHV Diesel L6 5.125" Bore.....	33
5.8L 352 OHV Turbo-Diesel V6 4.625" Bore .....	11	12.2L 743 OHV NG L6 5.125" Bore .....	34
5.9L 359 (5882cc) OHV Diesel L6 102mm Bore .....	12	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore .....	35
6.2L 377 OHV Diesel L6 4" Bore (Case engine) .....	13	12.9L 785 OHV Diesel V8 5.5" Bore .....	36
6.2L 378 OHV Diesel V6 4.625" Bore .....	14	12.9L 785 OHV Turbo-Diesel V8 5.5" Bore.....	37
6.2L 378 OHV Turbo-Diesel V6 4.625" Bore.....	15	14.0L 855 OHV NG L6 5.5" Bore .....	38
6.6L 401 OHV Diesel L6 4.125" Bore.....	16	14.8L 903 OHV Diesel V8 5.5" Bore .....	39
6.6L 401 OHV Turbo-Diesel L6 4.125" Bore .....	17	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore.....	40
7.3L 448 OHV Diesel L4 4.875" Bore.....	18	15.2L 927 OHV Diesel L6 5.5" Bore.....	41
7.6L 464 OHV Diesel L6 4.4375" Bore.....	19	24.4L 1486 OHV Diesel V12 5.125" Bore .....	42
7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore .....	20	24.4L 1486 OHV Turbo-Diesel V12 5.125" Bore.....	43
7.7L 470 OHV Diesel V8 4.625" Bore .....	21	28.0L 1710 OHV Diesel V12 5.5" Bore .....	44
8.1L 495 OHV Diesel L4 5.125" Bore.....	22	28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore.....	45
8.1L 495 OHV Turbo-Diesel L4 5.125" Bore .....	23		

**Engine Code Index**

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
"B" Series (3-290) ... Multi-Purpose Engines.....	2.9L 180 OHV Diesel L3 102mm Bore .....	2	CF160 ... Multi-Purpose Engines.....	7.6L 464 OHV Diesel L6 4.4375" Bore .....	19
"B" Series (4-390) ... Multi-Purpose Engines.....	3.9L 239 (3921cc) OHV Diesel L4 102mm Bore .....	4	CR160 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
"B" Series (6-590) ... Multi-Purpose Engines.....	5.9L 359 (5882cc) OHV Diesel L6 102mm Bore .....	12	CS195 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
"B" Series Turbo (3T-290) ... Multi-Purpose Engines.....	2.9L 180 OHV Turbo-Diesel L3 102mm Bore .....	3	CS464 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
AA400 ... Multi-Purpose Engines.....	4.1L 251 OHV Diesel L4 4" Bore (Case engine).....	5	CS464-B180 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
AA6 ... Multi-Purpose Engines.....	5.4L 331 OHV Diesel L6 3.75" Bore .....	10	CS464-C180 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
AA600 ... Multi-Purpose Engines.....	6.2L 377 OHV Diesel L6 4" Bore (Case engine).....	13	CS464-C195 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
BT2.9 ... Multi-Purpose Engines.....	2.9L 180 OHV Turbo-Diesel L3 102mm Bore .....	3	CS464-P180 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
B2.9 ... Multi-Purpose Engines.....	2.9L 180 OHV Diesel L3 102mm Bore .....	2	CT160 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
B3.9 ... Multi-Purpose Engines.....	3.9L 239 (3921cc) OHV Diesel L4 102mm Bore .....	4	CT464 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
C-105 ... Multi-Purpose Engines.....	5.1L 309 OHV Diesel L4 4.4375" Bore .....	8	CT464-C175 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
C-140 ... Multi-Purpose Engines.....	5.1L 309 OHV Turbo-Diesel L4 4.4375" Bore.....	9	CT464-P175 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
C-309 ... Multi-Purpose Engines.....	5.1L 309 OHV Diesel L4 4.4375" Bore .....	8	CT464-P180 ... Multi-Purpose Engines.....	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore.....	20
C-90 ... Multi-Purpose Engines.....	5.1L 309 OHV Diesel L4 4.4375" Bore .....	8	C160 ... Multi-Purpose Engines.....	7.6L 464 OHV Diesel L6 4.4375" Bore.....	19

(continued on next page)

**Engine Code Index**

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
C160M ... Multi-Purpose Engines	7.6L 464 OHV Diesel L6 4.4375" Bore	19	HA6 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31
C175 ... Multi-Purpose Engines	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore	20	HB ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31
C175B ... Multi-Purpose Engines	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore	20	HBS ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged)	32
C175C ... Multi-Purpose Engines	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore	20	HBS6 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged)	32
C180 ... Multi-Purpose Engines	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore	20	HB4 ... Multi-Purpose Engines	7.3L 448 OHV Diesel L4 4.875" Bore	18
C180M ... Multi-Purpose Engines	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore	20	HB4 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
C190 ... Multi-Purpose Engines	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore	20	HB6 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31
C190B ... Multi-Purpose Engines	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore	20	HMR ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31
C195 ... Multi-Purpose Engines	7.6L 464 OHV Turbo-Diesel L6 4.4375" Bore	20	HMR4 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
C4 ... Multi-Purpose Engines	7.6L 464 OHV Diesel L6 4.4375" Bore	19	HMR6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
C464 ... Multi-Purpose Engines	7.6L 464 OHV Diesel L6 4.4375" Bore	19	HR ... Multi-Purpose Engines	7.3L 448 OHV Diesel L4 4.875" Bore	18
C464-B160 ... Multi-Purpose Engines	7.6L 464 OHV Diesel L6 4.4375" Bore	19	HR ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
C464-C160 ... Multi-Purpose Engines	7.6L 464 OHV Diesel L6 4.4375" Bore	19	HRB ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
C464-P160 ... Multi-Purpose Engines	7.6L 464 OHV Diesel L6 4.4375" Bore	19	HRBB ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
GNHC250 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	HRBB6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
GNHC4 ... Multi-Purpose Engines	7.3L 448 OHV Diesel L4 4.875" Bore	18	HRBS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
GNH220 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	HRB16 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
GNH220-GC ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	HRB6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
GNH220P ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	HRC4 ... Multi-Purpose Engines	7.3L 448 OHV Diesel L4 4.875" Bore	18
GNH250 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	HRC4 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
G855 "Rio Grande" ... Multi-Purpose Engines	14.0L 855 OHV NG L6 5.5" Bore	38	HRC6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
HA ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	HRF ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
HA4 ... Multi-Purpose Engines	7.3L 448 OHV Diesel L4 4.875" Bore	18	HRF6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
HA4 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	HRM6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33

(continued on next page)

**Engine Code Index**

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
HRP6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	JBS ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HRS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	JBS6 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HRS6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	JF ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HR16 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	JF6 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HR4 ... Multi-Purpose Engines	7.3L 448 OHV Diesel L4 4.875" Bore	18	JN ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HR4 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	JNF ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HR6 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	JNF6 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HR6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	JNR ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HR6-B ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	JNS ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HR6-B1 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	JNS6 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HR672 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	JN6 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HS ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged)	32	JS ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HS6 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged)	32	JS6 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
HS672 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore (Supercharged)	32	JT ... Multi-Purpose Engines	6.6L 401 OHV Turbo-Diesel L6 4.125" Bore	17
HS743 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	JT401 ... Multi-Purpose Engines	6.6L 401 OHV Turbo-Diesel L6 4.125" Bore	17
HU170 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	JT6 ... Multi-Purpose Engines	6.6L 401 OHV Turbo-Diesel L6 4.125" Bore	17
H135 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	JT6-10 Degree ... Multi-Purpose Engines	6.6L 401 OHV Turbo-Diesel L6 4.125" Bore	17
H4 ... Multi-Purpose Engines	7.3L 448 OHV Diesel L4 4.875" Bore	18	JT6-15 Degree ... Multi-Purpose Engines	6.6L 401 OHV Turbo-Diesel L6 4.125" Bore	17
H4 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	JT6-20 Degree ... Multi-Purpose Engines	6.6L 401 OHV Turbo-Diesel L6 4.125" Bore	17
H6 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	J40 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
H6-1F ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	J401 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
H672 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	J6 ... Multi-Purpose Engines	6.6L 401 OHV Diesel L6 4.125" Bore	16
H743 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NFT6 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
H743L ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHB ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
			NHBS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33

(continued on next page)

**Engine Code Index**

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
NHB6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHHTO ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NHC4 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NHHT6 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NHC4-B1 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NHHT6-B1 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NHC4-C1 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NHH180 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31
NHC4-GC ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NHH195 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31
NHC4-GS ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NHH220 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHC400 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NHH220-T ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHC5 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NHH6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHC6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHK205 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHD ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHK220 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHD180 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHRBS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHE ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHRS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHE180 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHRS-1F ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHE195 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHRS6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHE195-B ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHRS6-M ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHH ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHRS6-1F ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHHB ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHRT6 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NHHRS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHHRS6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NHS-1F ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHHRT ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NHS180 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHHRTO ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NHS6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHHRT6 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NHS6-1F ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NHHS6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NH180 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31
NHHT ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NH195 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31

(continued on next page)

## Engine Code Index

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
NH200 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NRTO6-C1 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NH200-GC ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NRT6 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NH200-GS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NS743 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NH220 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31	NS743-B290 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NH220 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NS743-B320 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NH220-B ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NS743-C290 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NH220-B1 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NS743-C320 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NH220-C1 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NS743-L ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NH220-GC ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NS743-P290 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NH220-GS ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NS743-P320 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NH220-M ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NT ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NH220-T ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NTA495-GC ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23
NH220-1F ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NTA495-GC1 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23
NH4 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NTA495-GC2 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23
NH4-GC ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NTA495-GS ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23
NH4-GS ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22	NTA495-GS1 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23
NH6 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NTA495-GS2 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23
NH743 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33	NTA495-G1 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23
NRT ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NTA495-G2 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23
NRTO ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NTE235 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NRTO-6-P1 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NTO ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NRTO6 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NTO262 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NRTO6-B1 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NTO280 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35
NRTO6-B1G ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NTO362 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35

(continued on next page)



**Engine Code Index**

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
NTO6 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	NVT-600 ... Multi-Purpose Engines	24.4L 1486 OHV Turbo-Diesel V12 5.125" Bore	43
NTO6-B1 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	N495 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
NTO6-C1 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	N495-C130 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
NTR230 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	N495-F ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
NT165 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N495-PG130 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
NT180 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N495-P130 ... Multi-Purpose Engines	8.1L 495 OHV Diesel L4 5.125" Bore	22
NT200 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N672 ... Multi-Purpose Engines	11.0L 672 OHV Diesel L6 4.875" Bore	31
NT230 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	N743 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT262 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	N743-B320 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT265 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	N743-C ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT4 ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N743-C220 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT495-C ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N743-C320 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT495-F ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N743-F ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT495-G ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N743-PG220 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT495-GC ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N743-P220 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT495-GS ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N743-220 ... Multi-Purpose Engines	12.2L 743 OHV Diesel L6 5.125" Bore	33
NT495-P ... Multi-Purpose Engines	8.1L 495 OHV Turbo-Diesel L4 5.125" Bore	23	N927 ... Multi-Purpose Engines	15.2L 927 OHV Diesel L6 5.5" Bore	41
NT6 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	Super 250 ... Multi-Purpose Engines	15.2L 927 OHV Diesel L6 5.5" Bore	41
NT743 ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	Super 270 ... Multi-Purpose Engines	15.2L 927 OHV Diesel L6 5.5" Bore	41
NT743-C ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	V-1710 ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44
NT743-F ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	V-1710-L ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44
NT743-G ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	V-1710-M ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44
NT743-P ... Multi-Purpose Engines	12.2L 743 OHV Turbo-Diesel L6 5.125" Bore	35	V-1710-P-500 ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44
NVH450 ... Multi-Purpose Engines	24.4L 1486 OHV Diesel V12 5.125" Bore	42	V-1710-PG-500 ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44

(continued on next page)

Engine Code Index

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
V-1710-460 ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44	VT555-C ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28
V-1710-500 ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44	VT555-C230 ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28
VC555 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27	VT555-C240 ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28
VF555-240 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27	VT555-C250 ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28
VT-1710 ... Multi-Purpose Engines	28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore	45	VT555-M ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28
VT-1710 (C-525) ... Multi-Purpose Engines	28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore	45	VT555-225 ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28
VT-1710 (C-635) ... Multi-Purpose Engines	28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore	45	VT785 ... Multi-Purpose Engines	12.9L 785 OHV Turbo-Diesel V8 5.5" Bore	37
VT-600 ... Multi-Purpose Engines	24.4L 1486 OHV Turbo-Diesel V12 5.125" Bore	43	VT8-400 ... Multi-Purpose Engines	12.9L 785 OHV Turbo-Diesel V8 5.5" Bore	37
VT-700 ... Multi-Purpose Engines	28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore	45	VT8-430 ... Multi-Purpose Engines	12.9L 785 OHV Turbo-Diesel V8 5.5" Bore	37
VTA-1710 ... Multi-Purpose Engines	28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore	45	VT903 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTA-1710 (C-800) ... Multi-Purpose Engines	28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore	45	VT903-A ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTA-1710 (7800) ... Multi-Purpose Engines	28.0L 1710 OHV Turbo-Diesel V12 5.5" Bore	45	VT903-C265 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTA500 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	VT903-C320 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTA903 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	VT903-C350 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTA903-R ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	VT903-C375 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTA903-TR ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	VT903-C430 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTB903 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	VT903-M1 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTF350 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	VT903-S ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VTF555 ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28	VT903-350 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40
VT225 ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28	V12-500-GS/GC ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44
VT300 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	V12-500-M ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44
VT350 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	V12-525 ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44
VT400 ... Multi-Purpose Engines	14.8L 903 OHV Turbo-Diesel V8 5.5" Bore	40	V28 ... Multi-Purpose Engines	28.0L 1710 OHV Diesel V12 5.5" Bore	44
VT555 ... Multi-Purpose Engines	9.1L 555 OHV Turbo-Diesel V8 4.625" Bore	28	V352 ... Multi-Purpose Engines	5.8L 352 OHV Diesel V6 4.625" Bore	11

(continued on next page)

**Engine Code Index**

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
V378 ... Multi-Purpose Engines	6.2L 378 OHV Diesel V6 4.625" Bore	14	V555-210 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27
V378-C ... Multi-Purpose Engines	6.2L 378 OHV Diesel V6 4.625" Bore	14	V555-225 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27
V378-C145 ... Multi-Purpose Engines	6.2L 378 OHV Diesel V6 4.625" Bore	14	V555-230 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27
V378-F2 ... Multi-Purpose Engines	6.2L 378 OHV Diesel V6 4.625" Bore	14	V555-240 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27
V378-P ... Multi-Purpose Engines	6.2L 378 OHV Diesel V6 4.625" Bore	14	V6-140 ... Multi-Purpose Engines	5.8L 352 OHV Diesel V6 4.625" Bore	11
V378-P145 ... Multi-Purpose Engines	6.2L 378 OHV Diesel V6 4.625" Bore	14	V6-140-E ... Multi-Purpose Engines	5.8L 352 OHV Diesel V6 4.625" Bore	11
V470 ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21	V6-140-352 ... Multi-Purpose Engines	5.8L 352 OHV Diesel V6 4.625" Bore	11
V470-D ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21	V6-140-352HT ... Multi-Purpose Engines	5.8L 352 OHV Diesel V6 4.625" Bore	11
V470-F ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21	V6-155 ... Multi-Purpose Engines	6.2L 378 OHV Diesel V6 4.625" Bore	14
V470-M ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21	V6-200 ... Multi-Purpose Engines	9.6L 588 OHV Diesel V6 5.5" Bore	29
V504 ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24	V6-378-155 ... Multi-Purpose Engines	6.2L 378 OHV Diesel V6 4.625" Bore	14
V504-C ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24	V6N-140 ... Multi-Purpose Engines	5.8L 352 OHV Diesel V6 4.625" Bore	11
V504-C195 ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24	V785 ... Multi-Purpose Engines	12.9L 785 OHV Diesel V8 5.5" Bore	36
V504-M ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24	V8-185 ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21
V504-M-L.H. ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24	V8-185-C ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21
V504-P ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24	V8-185-E ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21
V504-P195 ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24	V8-185-HT ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21
V504-52 ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24	V8-185-470 ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21
V555 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27	V8-185-470HT ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21
V555-A ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27	V8-210 ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24
V555-C ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27	V8-265 ... Multi-Purpose Engines	12.9L 785 OHV Diesel V8 5.5" Bore	36
V555-C215 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27	V8-300 ... Multi-Purpose Engines	12.9L 785 OHV Diesel V8 5.5" Bore	36
V555-M ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27	V8-350 ... Multi-Purpose Engines	12.9L 785 OHV Diesel V8 5.5" Bore	36
V555-200 ... Multi-Purpose Engines	9.1L 555 OHV Diesel V8 4.625" Bore	27	V8-504-210 ... Multi-Purpose Engines	8.3L 504 OHV Diesel V8 4.625" Bore	24

(continued on next page)

## Engine Code Index

Engine Code	Engine Description	Line No.	Engine Code	Engine Description	Line No.
V8N-185 ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21	V903-C320 ... Multi-Purpose Engines	14.8L 903 OHV Diesel V8 5.5" Bore	39
V8N-185-B ... Multi-Purpose Engines	7.7L 470 OHV Diesel V8 4.625" Bore	21	V903-M ... Multi-Purpose Engines	14.8L 903 OHV Diesel V8 5.5" Bore	39
V903 ... Multi-Purpose Engines	14.8L 903 OHV Diesel V8 5.5" Bore	39	V903-S ... Multi-Purpose Engines	14.8L 903 OHV Diesel V8 5.5" Bore	39
V903-A ... Multi-Purpose Engines	14.8L 903 OHV Diesel V8 5.5" Bore	39	V903-V265 ... Multi-Purpose Engines	14.8L 903 OHV Diesel V8 5.5" Bore	39
V903-C265 ... Multi-Purpose Engines	14.8L 903 OHV Diesel V8 5.5" Bore	39	6B5.9 (6-590) ... Multi-Purpose Engines	5.9L 359 (5882cc) OHV Diesel L6 102mm Bore	12
V903-C295 ... Multi-Purpose Engines	14.8L 903 OHV Diesel V8 5.5" Bore	39			

### 1 Compressors Diesel L1, 3.625" Bore

#### CYLINDER COMPONENTS

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
1	Ring Set Single Cylinder	FP-AR73350	STD	
1	Ring Set Single Cylinder	FP-AR73351	10	
1	Ring Set Single Cylinder	FP-AR73352	20	
1	Ring Set Single Cylinder	FP-AR73353	30	

### 2 Multi-Purpose Engines "B" Series, 3B2.9 (3-290) (Naturally Aspirated) 2.9L 180 OHV Diesel L3, 102mm Bore

#### CYL. HEAD & PARTS

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
3	Intake	FP-3920867		Bare Valve
3	Exhaust	FP-3920868		Bare Valve
3	Exhaust Valve Kit	FP-3802356		Incl. valve & locks
3	Intake Valve Kit	FP-3802355		Incl. valve & locks
12	Keeper	FP-3900250		

#### CAMSHAFT GROUP

QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
6	Lifter	FP-3931623		

#### COOLING SYSTEM

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump - Heavy Duty	FP-3286277		

#### ENGINE BLOCK & PARTS

QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Brg.	FP-3901306	STD	

#### CYLINDER COMPONENTS

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
3	Liner w/o Sealing Rings	FP-3904166		To return block to Standard

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
3	Piston Kit w/Pin & Retainers	FP-3906223WP	STD	
3	Piston Kit w/Pin & Retainers	FP-3906209WP	.50MM	
3	Piston Kit w/Pin & Retainers	FP-3906208WP	1.00MM	
3	Piston w/Retainer & Rings	FP-3802060	STD	
3	Piston w/Retainer & Rings	FP-3802062	.50MM	
3	Piston w/Retainer & Rings	FP-3802064	1.00MM	
3	Pin	FP-3934048		
6	Piston Pin Retainer	FP-3920691		
3	Pin Bushing	FP-3901085		

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
3	Rod Bearing Half Upper/Lower	FP-3939859	STD	
3	Rod Bearing Half Upper/Lower	FP-3901171	.25MM	

(continued on next page)

**Multi-Purpose Engines "B" Series, 3B2.9 (3-290) (Naturally Aspirated) 2**  
2.9L 180 OHV Diesel L3, 102mm Bore (cont.)

**CYLINDER COMPONENTS (cont.)**

QTY	CONNECTING RODS & BRGS. (cont.)	PART NO.	SIZE	DESCRIPTION
3	Rod Bearing Half Upper/Lower	FP-3901172	.50MM	
3	Rod Bearing Half Upper/Lower	FP-3901173	.75MM	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
3	Ring Set Single Cylinder	FP-3802040	STD	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
3	Ring Set Single Cylinder	FP-3802042	.50MM	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
3	Ring Set Single Cylinder	FP-3802044	1.00MM	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)

**Multi-Purpose Engines "B" Series, 3BT2.9 (3T-290)(Turbo) 3**  
2.9L 180 OHV Turbo-Diesel L3, 102mm Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
3	Intake	FP-3920867		Bare Valve
3	Exhaust	FP-3920868		Bare Valve
3	Exhaust Valve Kit	FP-3802356		Incl. valve & locks
3	Intake Valve Kit	FP-3802355		Incl. valve & locks
12	Keeper	FP-3900250		

**CAMSHAFT GROUP**

QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
6	Lifter	FP-3931623		

**COOLING SYSTEM**

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump - Heavy Duty	FP-3286277		

**ENGINE BLOCK & PARTS**

QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Brg.	FP-3901306	STD	

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
3	Liner w/o Sealing Rings	FP-3904166		To return block to Standard
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
3	Piston Kit w/Pin & Retainers	FP-3907163WP	STD	
3	Piston Kit w/Pin & Retainers	FP-3908815WP	.50MM	
3	Piston Kit w/Pin & Retainers	FP-3908816WP	1.00MM	
3	Piston w/Retainer & Rings	FP-3802160	STD	
3	Piston w/Retainer & Rings	FP-3802132	.50MM	
3	Piston w/Retainer & Rings	FP-3802134	1.00MM	
3	Cast Piston	2743PN Std-.50-1.00MM		Cast; 1-3.00mm, 1-2.36mm, 1-4.00mm Ring Groove, 2.815" CD, 1.5750" Pin Dia., Recessed Head .700" deep x 2.430" dia. - 17.5:1 C.R.; Repl. O.E. No. 3907163
3	Pin	FP-3934048		
6	Piston Pin Retainer	FP-3920691		
3	Pin Bushing	FP-3901085		

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
3	Rod Bearing Half Upper/Lower	FP-3939859	STD	
3	Rod Bearing Half Upper/Lower	FP-3901171	.25MM	
3	Rod Bearing Half Upper/Lower	FP-3901172	.50MM	
3	Rod Bearing Half Upper/Lower	FP-3901173	.75MM	

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
3	Ring Set Single Cylinder	FP-3802230	STD	1-3.00MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
3	Ring Set Single Cylinder	FP-3802232	.50MM	1-3.00MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
3	Ring Set Single Cylinder	FP-3802234	1.00MM	1-3.00MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
3	Premium Set	E-623KC Std-.50-1.00MM		1-3.00MM, 1-2.36MM, 1-4.00MM (1 cyl. set)

**Multi-Purpose Engines "B" Series, 4B3.9 (4-390) (Naturally Aspirated) 4**  
3.9L 239 (3921cc) OHV Diesel L4, 102mm Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
4	Intake	FP-3920867		Bare Valve
4	Exhaust	FP-3920868		Bare Valve

(continued on next page)

<b>4 Multi-Purpose Engines "B" Series, 4B3.9 (4-390) (Naturally Aspirated)</b>				
<b>(cont.) 3.9L 239 (3921cc) OHV Diesel L4, 102mm Bore</b>				
<b>CYL. HEAD &amp; PARTS (cont.)</b>				
<b>QTY</b>	<b>VALVE (cont.)</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Exhaust Valve Kit	FP-3802356		Incl. valve & locks
4	Intake Valve Kit	FP-3802355		Incl. valve & locks
8	Keeper	FP-3900250		
<b>QTY</b>	<b>VALVE SEAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Exh.	FP-3904105		
4	Int.	FP-3906854		
<b>QTY</b>	<b>VALVE GUIDE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Guide	FP-3904409		Exh.; Thick wall, 51.75MM
4	Guide	FP-3904408		Int.; Thick wall, 60.50MM; .3160" ID, 2.3970" O.A.L.
4	Guide	FP-3906206		Int. & Exh.; Thin wall
<b>QTY</b>	<b>VALVE SPRING</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Spring	FP-3932453		
8	Spring	FP-4936080		
8	Spring	FP-3900276		30 PSI
8	Spring	FP-3926700		36 PSI
8	Retainer	FP-3900299		
<b>QTY</b>	<b>VALVE MISC.</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	O-Ring	FP-3910824		Valve Cover Screw
<b>QTY</b>	<b>VALVE SEAL</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Valve Stem Seal	FP-3901097		Int. & Exh.
<b>CAMSHAFT GROUP</b>				
<b>QTY</b>	<b>CAMSHAFT/LIFTER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Lifter	FP-3931623		
<b>FUEL SYSTEM &amp; PARTS</b>				
<b>QTY</b>	<b>FUEL INJECTION</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Fuel Injector Seal Ring	FP-3909356		
4	Fuel Injector Seal	FP-3930324		
4	Copper Washer	FP-3906659		For 7mm head
4	Fuel Line Connector	FP-3903380		Banjo connector; 6mm
<b>COOLING SYSTEM</b>				
<b>QTY</b>	<b>WATER PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Water Pump - Heavy Duty	FP-3286277		
<b>ENGINE BLOCK &amp; PARTS</b>				
<b>QTY</b>	<b>CAM BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Cam Brg.	FP-3940059	STD	From 1997 and up
1	Cam Brg.	FP-3901306	STD	To 1996
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b>	<b>CRANKSHAFT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Crankshaft	FP-3929036		STD; With Gear
<b>QTY</b>	<b>MAIN BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Main Set	FP-3802010	STD	
1	Main Set	FP-3802011	.25MM	
1	Main Set	FP-3802012	.50MM	
1	Main Set	FP-3802013	.75MM	
1	Main Set	FP-3802014	1.00MM	
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b>	<b>LINERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Liner w/o Sealing Rings	FP-3904166		To return block to Standard
<b>QTY</b>	<b>PISTONS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Piston Kit w/Pin & Retainers	FP-3906223WP	STD	
4	Piston Kit w/Pin & Retainers	FP-3906209WP	.50MM	
4	Piston Kit w/Pin & Retainers	FP-3906208WP	1.00MM	
4	Piston w/Retainer & Rings	FP-3802060	STD	
4	Piston w/Retainer & Rings	FP-3802062	.50MM	
4	Piston w/Retainer & Rings	FP-3802064	1.00MM	
4	Pin Bushing	FP-3901085		
<b>QTY</b>	<b>CONNECTING RODS &amp; BRGS.</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Rod Bearing Half Upper/Lower	FP-3939859	STD	
4	Rod Bearing Half Upper/Lower	FP-3901171	.25MM	

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*Multi-Purpose Engines "B" Series, 4B3.9 (4-390) (Naturally Aspirated) 4*  
3.9L 239 (3921cc) OHV Diesel L4, 102mm Bore (cont.)

**CYLINDER COMPONENTS (cont.)**

QTY	CONNECTING RODS & BRGS. (cont.)	PART NO.	SIZE	DESCRIPTION
4	Rod Bearing Half Upper/Lower	FP-3901172	.50MM	
4	Rod Bearing Half Upper/Lower	FP-3901173	.75MM	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
4	Ring Set Single Cylinder	FP-3802040	STD	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
4	Ring Set Single Cylinder	FP-3802042	.50MM	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
4	Ring Set Single Cylinder	FP-3802044	1.00MM	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
KITS				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Piston and Ring Kit	PK1-2742		When depleted use FP-PK12742
1	Piston and Ring Kit w/Bearing	PK2-2742A		When depleted use FP-PK22742A
1	Piston Kit w/Ring Set	FP-PK12742		
1	Piston Kit w/Rings & Bearings	FP-PK22742A		
1	In-Frame Overhaul Kit	FP-4B39PREML		4B3.9; Late; Premium; With Upper Gasket Set & Pan Gasket
1	Complete Overhaul Kit	FP-4B39PREMOHL		4B3.9; Late; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets
1	Complete Overhaul Kit	FP-4B39PREMOH		4B3.9; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets

*Multi-Purpose Engines AA400 To Ser. No. 18354 Eng. 5*  
4.1L 251 OHV Diesel L4 (Case engine), 4" Bore

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	470334		
1	Redi-Sleeve	99172		

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99290		
1	Oil Seal	415012V		Viton®

**CYLINDER COMPONENTS**

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
4	Rod Pair	FP-127730PR	STD	
4	Rod Pair	FP-127731PR	10	
4	Rod Pair	FP-127732PR	20	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
4	Premium Single Cylinder Set	W-920KX Std Only		3-1/8, 1-3/16
4	Standard Single Cylinder Set	W-920X Std Only		3-1/8, 1-3/16

*Multi-Purpose Engines J4, J70, J80 Eng. 6*  
4.4L 267 OHV Diesel L4, 4.125" Bore

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	470334		
1	Redi-Sleeve	99172		

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99290		
1	Oil Seal	415012V		Viton®

**CYLINDER COMPONENTS**

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
4	Rod Pair	FP-127730PR	STD	
4	Rod Pair	FP-127731PR	10	
4	Rod Pair	FP-127732PR	20	

<b>7 Multi-Purpose Engines J120 Eng.</b> 4.4L 267 OHV Turbo-Diesel L4, 4.125" Bore				
<b>ACCESSORY DRIVE</b>				
<b>QTY</b>	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	470334		
1	Redi-Sleeve	99172		
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b>	<b>SEALS - FRONT CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Redi-Sleeve	99290		
1	Oil Seal	415012V		Viton®
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b>	<b>CONNECTING RODS &amp; BRGS.</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Rod Pair	FP-127730PR	STD	
4	Rod Pair	FP-127731PR	10	
4	Rod Pair	FP-127732PR	20	
<b>8 Multi-Purpose Engines C-90, C-105, C-309 Eng. (15.8:1 C.R.)</b> 5.1L 309 OHV Diesel L4, 4.4375" Bore				
<b>ACCESSORY DRIVE</b>				
<b>QTY</b>	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	470334		
1	Redi-Sleeve	99172		
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b>	<b>SEALS - FRONT CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Redi-Sleeve	99290		
1	Oil Seal	415012V		Viton®
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b>	<b>CONNECTING RODS &amp; BRGS.</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Rod Pair	FP-127730PR	STD	
4	Rod Pair	FP-127731PR	10	
4	Rod Pair	FP-127732PR	20	
<b>QTY</b>	<b>PISTON RINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Ring Set Single Cylinder	FP-AR4920	STD	3 - 1/8", 1 - 3/16"
<b>9 Multi-Purpose Engines C-140 Automotive Eng. (14.5:1 C.R.)</b> 5.1L 309 OHV Turbo-Diesel L4, 4.4375" Bore				
<b>ACCESSORY DRIVE</b>				
<b>QTY</b>	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	470334		
1	Redi-Sleeve	99172		
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b>	<b>SEALS - FRONT CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Redi-Sleeve	99290		
1	Oil Seal	415012V		Viton®
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b>	<b>CONNECTING RODS &amp; BRGS.</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Rod Pair	FP-127730PR	STD	
4	Rod Pair	FP-127731PR	10	
4	Rod Pair	FP-127732PR	20	
<b>QTY</b>	<b>PISTON RINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
4	Ring Set Single Cylinder	FP-AR4920	STD	3 - 1/8", 1 - 3/16"
<b>10 Multi-Purpose Engines AA6 Eng.</b> 5.4L 331 OHV Diesel L6, 3.75" Bore				
<b>ACCESSORY DRIVE</b>				
<b>QTY</b>	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	470334		
1	Redi-Sleeve	99172		

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*Multi-Purpose Engines AA6 Eng. 10*  
5.4L 331 OHV Diesel L6, 3.75" Bore (cont.)

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99290		
1	Oil Seal	415012V		Viton®

**CYLINDER COMPONENTS**

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-127730PR	STD	
6	Rod Pair	FP-127731PR	10	
6	Rod Pair	FP-127732PR	20	

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
1	Premium Set	645KX + Std Only		3-1/8, 1-3/16; When depleted use FP-645KX
6	Premium Single Cylinder Set	W-645KX Std Only		3-1/8, 1-3/16

*Multi-Purpose Engines V6-140, V6-140-E, V6-140-352, V6-140-352HT, V6N-140, V352 Eng. 11*  
5.8L 352 OHV Diesel V6, 4.625" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
24	Intake	FP-V1957		Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
24	Intake	V-1957 + Std Only		Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957
24	Exhaust	FP-3275356		Exh. & Int.; Use w/FP-3275354 late style keeper; O.E. No. 3275356; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
24	Valve Kit, Intake & Exhaust	FP-3275779		Exh. & Int.; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.
48	Keeper	VK-138		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove
48	Keeper	VK-138R		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened
48	Keeper	FP-3275354		Exh. & Int.; Use w/FP3275356 valve
48	Keeper, Bulk	VK-138B		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000

QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-3278173		Exh. & Int.; .3820" ID, 2.5000" O.A.L.

QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	FP-163037		Exh. & Int.

QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
24	Valve Stem Seal	ST-2002		Exh. & Int.; Installation requires valve guide machining; Polyacrylate
24	Valve Stem Seal Bulk	ST-2002BC		Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate

**CRANKSHAFT/OIL PUMP**

QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-BM99830	STD	Phase 5F series Engs.
1	Main Set	FP-BM99831	10	Phase 5F series Engs.
1	Main Set	FP-BM99832	20	Phase 5F series Engs.
1	Main Set	FP-BM99833	30	Phase 5F series Engs.
1	Thrust Washer Set	FP-173640S		Position 4; Phase 3.5D, Phase 5F series Engs.

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/Sealing Rings	FP-3277592	STD	Incl. (1) FP216283, (1) FP216284

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-3012360PR	STD	
6	Rod Pair	FP-3012361PR	10	
6	Rod Pair	FP-3012362PR	20	

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-3278723	STD	1-1/8, 1-3/32, 1-7/64 (1 cyl. set)
6	Ring Set Single Cylinder	FP-AR62258	STD	2-3/32, 1-3/16 (1 cyl. set)

## 12 Multi-Purpose Engines "B" Series, 6B5.9 (6-590) (Naturally Aspirated) 5.9L 359 (5882cc) OHV Diesel L6, 102mm Bore

CYL. HEAD & PARTS				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Head Set	FP-3802363		From 1984-1990; .25 MM
1	Head Set	FP-3804897		From 1991-4/2003
1	Head Set	FP-4089649		From 4/2003
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
6	Intake	FP-3920867		Bare Valve
6	Intake	V-4385 Std Only		Chrome plated stem; 1.7720" Head Dia., .3138" Stem Dia., 5.0840" O.A.L.
6	Exhaust	FP-3920868		Bare Valve
6	Exhaust	V-4384 Std Only		Chrome plated stem; 1.6540" Head Dia., .3138" Stem Dia., 5.0810" O.A.L.
6	Exhaust Valve Kit	FP-3802356		Incl. valve & locks
6	Intake Valve Kit	FP-3802355		Incl. valve & locks
24	Keeper	VK-286		
12	Keeper	FP-3900250	6B5.9	
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
6	Exh.	FP-3904105		
6	Exh.	245-1722-E1 Std Only		1.7220" OD, 1.3570" ID, .2650" Depth
6	Int.	FP-3906854		
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
6	Guide	VG-1331		Exh.; .3160" ID, 2.0520" O.A.L.
6	Guide	FP-3904409		Exh.; 6B5.9; Thick wall, 51.75MM
12	Guide	VG-1325		Exh. & Int.; 7/16" OD; .3162" ID, 2.5000" O.A.L.
6	Guide	VG-1330		Int.; .3160" ID, 2.3970" O.A.L.
6	Guide	FP-3904408		Int.; 6B5.9; Thick wall, 60.50MM; .3160" ID, 2.3970" O.A.L.
6	Guide	FP-3906206		Int. & Exh.; 6B5.9; Thin wall
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
12	Spring	FP-3932453	6B5.9	
12	Spring	FP-4936080	6B5.9	
12	Spring	FP-3900276	6B5.9; 30 PSI	
12	Spring	FP-3926700	6B5.9; 36 PSI	
12	Retainer	FP-3900299	6B5.9	
QTY	PUSH RODS	PART NO.	SIZE	DESCRIPTION
12	Push Rod	FP-3284377		10.9100" O.A.L.
QTY	VALVE MISC.	PART NO.	SIZE	DESCRIPTION
1	O-Ring	FP-3910824		6B5.9; Valve Cover Screw
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
12	Valve Stem Seal	FP-3901097		Int. & Exh.; 6BT5.9
FUEL SYSTEM & PARTS				
QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
6	Fuel Injector Seal Ring	FP-3909356		
6	Fuel Injector Seal	FP-3930324		
6	Copper Washer	FP-3906659		For 7mm head
6	Fuel Line Connector	FP-3903380		Banjo connector; 6mm
COOLING SYSTEM				
QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump - Heavy Duty	FP-3286277		
ENGINE BLOCK & PARTS				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-3959052		
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3802376		Incl. seals
1	Kit Gasket Set	260-1527		Incl. std. .061" thickness head gskt.; PermaDry® molded rubber valve cover gskts. incl.; Premium valve stem seals incl.
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Brg.	FP-3940059	STD	From 1997 and up
1	Cam Brg.	FP-3901306	STD	To 1996
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-3957544		
CRANKSHAFT/OIL PUMP				
QTY	CRANKSHAFT	PART NO.	SIZE	DESCRIPTION
1	Crankshaft	FP-3929037		With Gear

(continued on next page)

**Multi-Purpose Engines "B" Series, 6B5.9 (6-590) (Naturally Aspirated) 12**  
5.9L 359 (5882cc) OHV Diesel L6, 102mm Bore (cont.)

**CRANKSHAFT/OIL PUMP (cont.)**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal Kit	FP-3802820		
1	Redi-Sleeve	99248		
1	Oil Seal	39803		
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3909410		Dry
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-3802070	STD	
1	Main Set	FP-3802071	.25MM	
1	Main Set	FP-3802072	.50MM	
1	Main Set	FP-3802073	.75MM	
1	Main Set	FP-3802074	1.00MM	
QTY	OIL PUMP	PART NO.	SIZE	DESCRIPTION
1	Oil Pump	FP-4939587		

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Rings	FP-3904166		To return block to Standard
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Body w/o Pin	FP-3906223	STD	17.3:1 C.R.
6	Piston Body w/o Pin	FP-3906209	.50MM	17.3:1 C.R.
6	Piston Body w/o Pin	FP-3906208	1.00MM	17.3:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-3906223WP	STD	17.3:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-3906209WP	.50MM	17.3:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-3906208WP	1.00MM	17.3:1 C.R.
6	Piston w/Retainer & Rings	FP-3802060	STD	17.3:1 C.R.
6	Piston w/Retainer & Rings	FP-3802062	.50MM	17.3:1 C.R.
6	Piston w/Retainer & Rings	FP-3802064	1.00MM	17.3:1 C.R.
6	Piston w/Pin, Retainer, Rings	FP-PK6223	STD	17.3:1 C.R.
6	Piston w/Pin, Retainer, Rings	FP-PK6209	.50MM	17.3:1 C.R.
6	Piston w/Pin, Retainer, Rings	FP-PK6208	1.00MM	17.3:1 C.R.
6	Pin	FP-3934048		
6	Pin Bushing	FP-3901085		
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
12	Rod Bearing Half Upper/Lower	FP-3939859	STD	
12	Rod Bearing Half Upper/Lower	FP-3901171	.25MM	
12	Rod Bearing Half Upper/Lower	FP-3901172	.50MM	
12	Rod Bearing Half Upper/Lower	FP-3901173	.75MM	
12	Rod Bearing Half Upper/Lower	FP-3901174	1.00MM	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
1	Ring Set Single Cylinder	FP-3802040	STD	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
1	Ring Set Single Cylinder	FP-3802042	.50MM	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)
1	Ring Set Single Cylinder	FP-3802044	1.00MM	1-2.40MM, 1-2.36MM, 1-4.00MM (1 cyl. set)

**KITS**

QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Piston Kit w/Ring Set	FP-PK12742B		
1	Piston Kit w/Rings & Bearings	FP-PK22742B		
1	In-Frame Overhaul Kit	FP-6B59PREML		6B5.9; Late; Premium; With Upper Gasket Set & Pan Gasket
1	In-Frame Overhaul Kit	FP-6B59PREM		6B5.9; Premium; With Upper Gasket Set & Pan Gasket
1	Complete Overhaul Kit	FP6B5.9PREM-OHL		6B5.9; Late; 1991 to Present; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets
1	Complete Overhaul Kit	FP-6B59PREMOH		6B5.9; Pre 1991; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets

**Multi-Purpose Engines AA600 To Ser. No. 18354 Eng. 13**  
6.2L 377 OHV Diesel L6 (Case engine), 4" Bore

**CYLINDER COMPONENTS**

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-127730PR	STD	
6	Rod Pair	FP-127731PR	10	
6	Rod Pair	FP-127732PR	20	

**14 Multi-Purpose Engines V6-155, V6-378-155, V378, V378-C, V378-C145, V378-F2, V378-P, V378-P145 Engs.**  
6.2L 378 OHV Diesel V6, 4.625" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-154019		V-378; Early
1	Valve Cover Gasket	FP-3277100		V-378; Late
2	Head Gasket	FP-3017063		V-378
1	Head Set	FP-3277752		V-378
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
24	Intake	FP-V1957		Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
24	Intake	V-1957 +	Std Only	Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957
1	Exhaust	FP-3275356		Int. & Exh.; V-378; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
12	Valve Kit, Intake & Exhaust	FP-3275779		V-378; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.
48	Keeper	FP-3275354		V-378
48	Keeper	FP-166772		V-378; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.
48	Keeper	VK-138		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove
48	Keeper	VK-138R		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened
48	Keeper, Bulk	VK-138B		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
1	Exh.	FP-154390	STD	V-378
1	Int.	FP-195000	STD	V-378
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-3278173		V-378; .3820" ID, 2.5000" O.A.L.
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	FP-163037		V-378
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
24	Valve Stem Seal	ST-2002		Exh. & Int.; Installation requires valve guide machining; Polyacrylate
1	Valve Stem Seal	FP-156541		V-378; Installation requires valve guide machining; Polyacrylate
24	Valve Stem Seal Bulk	ST-2002BC		Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
12	Cam Follower Roller	FP-153679		V-378; Valve
6	Injector Cam Roller	FP-154571		V-378
18	Adjusting Screw Nut	FP-S212		V-378; 1/2" - 20 UNF; Use w/FP-168306
12	Valve Roller Pin	FP-169154		V-378; Cam Follower
18	Rocker Lever Adjusting Screw	FP-168306		V-378; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
1	Rocker Arm Socket	FP-194037		V-378
12	Bushing	FP-152936		Injector Lever bushing
12	Bushing	FP-152937		Rocker Lever bushing
12	Fuel Injector Roller Pin	FP-114223		V-378; Cam Follower
6	Valve Lifter Socket	FP-218853		V-378; Injector; Cam Follower
12	Valve Lifter Socket	FP-218853		Int. & Exh.; V-378; Valve; Cam Follower
12	Valve Lock Pin	FP-108186		V-378; Cam Follower
6	Valve Lock Pin	FP-111272		V-378; Injector; Cam Follower
INT & EXH MANIFOLDS				
QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
2	Exhaust Manifold Gasket	FP-556356		V-378
CAMSHAFT GROUP				
QTY	TIMING COVER	PART NO.	SIZE	DESCRIPTION
1	Oil Filler Cap	FP-101322		V-378; 2"
QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft	FP-3277463		V-378; Small Cam; CPL's 5004, 5010, 5015, 5024, 5036, 5058.
ACCESSORY DRIVE				
QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Power Steering Pump Gasket	FP-154916		V-378

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*Multi-Purpose Engines V6-155, V6-378-155, V378, V378-C, V378-C145, V378-F2, V378-P, 14 V378-P145 Engs. (cont.)*  
6.2L 378 OHV Diesel V6, 4.625" Bore

**FUEL SYSTEM & PARTS**

QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
6	Fuel Injector Sleeve	FP-169630		V-378
18	O-Ring	FP-193736		V-378; Fuel Injector Mounting
6	O-Ring	FP-3007759		V-378; Injector Tube Seal
6	Fuel Injector	FP-3275538		V-378; PTD Standard
6	Fuel Injector Valve Spring	FP-166009		V-378
6	Fuel Inj. Plunger & Barrel	FP-AR40063		V-378; PTD
6	Fuel Injector Screen	FP-3008706		V-378
QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
2	Fuel Pump Gear	FP-167166		V-378; 7/16"
1	Fuel Pump Drive Shaft	FP-167169		V-378; 7/16"; Drive
1	Fuel Pump Drive Shaft	FP-175866		V-378; 7/16"; Driven
1	Fuel Pump Gasket	FP-110855		V-378; Fuel Pump Body

**COOLING SYSTEM**

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump - Heavy Duty	FP-AR61788		V-378; Front Mount
1	Water Pump Impeller	FP-554438		V-378
1	Water Pump Repair/Rebuild Kit	FP-AR61392		V-378
1	Water Pump Mech. Shaft Seal	FP-3029099		V-378
1	Ball Brg.	FP-177596		Inner; V-378
1	Ball Brg.	FP-552335		Outer; V-378
1	Water Pump Gasket	FP-169042		V-378
1	Water Pump Lock Ring	FP-160586		V-378; Mounting
QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		
1	Redi-Sleeve	99181		
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Thermostat	FP-3076489		V-378; 180 Deg. F, Non-Vented
1	Rect. or Square Seal	FP-186780		V-378

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-175726		V-378
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3801657		V-378
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
2	Cam Brg.	FP-3278345	STD	Position 1-4; V-378; Small Cam; Turbo Cam # FP-3278026 Only. Do Not Use For N/A Cam 201060.
2	Cam Brg.	FP-3031037	STD	Position 2-3; V-378; Small Cam; Turbo Cam # FP-3278026 Only. Do Not Use For N/A Cam 201060.
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-110848		V-378; 6.500" X 4.000" tube bundle
1	Snap Ring	FP-110827		V-378; Oil Cooler
1	Oil Cooler Gasket	FP-165153		V-378
1	Oil Cooler Gasket	FP-166407		V-378
2	O-Ring	FP-3019116		V-378; Oil Cooler
QTY	DIPSTICK	PART NO.	SIZE	DESCRIPTION
1	Dipstick	FP-216484		V-378; 90" Long; Blank Universal

**CRANKSHAFT/OIL PUMP**

QTY	CRANKSHAFT	PART NO.	SIZE	DESCRIPTION
1	Crankshaft	FP-195240		V-378
1	Oil Pressure Regulator Spring	FP-551079		V-378
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3010457		Front; V-378
1	Redi-Sleeve	FP-3010464		Front; V-378
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3010459		Rear; V-378
1	Redi-Sleeve	FP-3010465		Rear; V-378
1	Redi-Sleeve	99372		
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-BM99830	STD	
1	Main Set	FP-BM99831	10	
1	Main Set	FP-BM99832	20	

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**14 Multi-Purpose Engines V6-155, V6-378-155, V378, V378-C, V378-C145, V378-F2, V378-P, (cont.) V378-P145 Engs.**  
6.2L 378 OHV Diesel V6, 4.625" Bore

**CRANKSHAFT/OIL PUMP (cont.)**

QTY	MAIN BEARINGS (cont.)	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-BM99833	30	
1	Main Set	FP-BM99834	40	
QTY	OIL PUMP	PART NO.	SIZE	DESCRIPTION
1	Oil Pump	FP-AR60801		V-378; New
1	Gasket	FP-3201388		V-378; Tube to Pump
1	Oil Pressure Regulator Valve	FP-183014		V-378

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Rings	FP-3022530	STD	V-378
6	Liner w/Sealing Rings	FP-3277592	STD	V-378; Incl. (1) FP216283, (1) FP216284
6	Cylinder Kit Complete	FP-3277991	STD	V-378; 16.0:1 C.R.
6	Cylinder Kit Complete	FP-AR61504	STD	V-378; 17.0:1 C.R.
1	Sealing Ring, Liner	FP-216283		V-378
2	Sealing Ring, Liner	FP-216284		V-378

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Body w/o Pin	FP-3277336	STD	V-378; 16.0:1 C.R.
6	Piston Body w/o Pin	FP-200800	STD	V-378; 17.0:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-3020737	STD	V-378; 16.0:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-AR60740	STD	V-378; 17.0:1 C.R.; Cast
6	Pin	FP-151770		V-378
6	Piston Pin Retainer	FP-157978		V-378
6	Pin Bushing	FP-3277332		V-378

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
12	Con. Rod Bolt	FP-551143		V-378
12	Con. Rod Nut	FP-152838		V-378
6	Rod Pair	FP-3012360PR	STD	
6	Rod Pair	FP-3012361PR	10	
6	Rod Pair	FP-3012362PR	20	
12	Rod Bearing Half Upper/Lower	FP-157620	STD	V-378
12	Rod Bearing Half Upper/Lower	FP-157621	10	V-378
12	Rod Bearing Half Upper/Lower	FP-157622	20	V-378
12	Rod Bearing Half Upper/Lower	FP-157623	30	V-378
12	Rod Bearing Half Upper/Lower	FP-157624	40	V-378

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-3278723	STD	V-378; 1-1/8, 1-3/32, 1-7/64 (1 cyl. set)
6	Ring Set Single Cylinder	FP-3278723	STD	1-1/8, 1-3/32, 1-7/64 (1 cyl. set)

**KITS**

QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Kit	FP-378PREM		V-378; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets

**15 Multi-Purpose Engines VT378 Eng.**  
6.2L 378 OHV Turbo-Diesel V6, 4.625" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-154019		VT-378; Early
1	Valve Cover Gasket	FP-3277100		VT-378; Late
2	Head Gasket	FP-3017063		VT-378
1	Head Set	FP-3277752		VT-378

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
24	Intake	FP-V1957		Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
24	Intake	V-1957 + Std Only		Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957
1	Exhaust	FP-3275356		Int. & Exh.; VT-378; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
12	Valve Kit, Intake & Exhaust	FP-3275779		VT-378; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.
48	Keeper	FP-3275354		VT-378
48	Keeper	FP-166772		VT-378; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.

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*Multi-Purpose Engines VT378 Eng. 15*  
6.2L 378 OHV Turbo-Diesel V6, 4.625" Bore (cont.)

<b>CYL. HEAD &amp; PARTS (cont.)</b>				
QTY	VALVE (cont.)	PART NO.	SIZE	DESCRIPTION
48	Keeper	VK-138		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove
48	Keeper	VK-138R		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened
48	Keeper, Bulk	VK-138B		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
1	Exh.	FP-154390	STD	VT-378
1	Int.	FP-195000	STD	VT-378
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-3278173		VT-378; .3820" ID, 2.5000" O.A.L.
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	FP-163037		VT-378
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
24	Valve Stem Seal	ST-2002		Exh. & Int.; Installation requires valve guide machining; Polyacrylate
1	Valve Stem Seal	FP-156541		VT-378; Installation requires valve guide machining; Polyacrylate
24	Valve Stem Seal Bulk	ST-2002BC		Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
12	Cam Follower Roller	FP-153679		VT-378; Valve
6	Injector Cam Roller	FP-154571		VT-378
18	Adjusting Screw Nut	FP-S212		VT-378; 1/2" - 20 UNF; Use w/FP-168306
12	Valve Roller Pin	FP-169154		VT-378; Cam Follower
18	Rocker Lever Adjusting Screw	FP-168306		VT-378; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
1	Rocker Arm Socket	FP-194037		VT-378
12	Bushing	FP-152936		Injector Lever bushing
12	Bushing	FP-152937		Rocker Lever bushing
12	Fuel Injector Roller Pin	FP-114223		VT-378; Cam Follower
6	Valve Lifter Socket	FP-218853		VT-378; Injector; Cam Follower
12	Valve Lifter Socket	FP-218853		Int. & Exh.; VT-378; Valve; Cam Follower
12	Valve Lock Pin	FP-108186		VT-378; Cam Follower
6	Valve Lock Pin	FP-111272		VT-378; Injector; Cam Follower
<b>INT &amp; EXH MANIFOLDS</b>				
QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
2	Exhaust Manifold Gasket	FP-556356		VT-378
<b>CAMSHAFT GROUP</b>				
QTY	TIMING COVER	PART NO.	SIZE	DESCRIPTION
1	Oil Filler Cap	FP-101322		VT-378; 2"
QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft	FP-3277463		VT-378; Small Cam; CPL's 5004, 5010, 5015, 5024, 5036, 5058.
<b>ACCESSORY DRIVE</b>				
QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Power Steering Pump Gasket	FP-154916		VT-378
<b>FUEL SYSTEM &amp; PARTS</b>				
QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
6	Fuel Injector Sleeve	FP-169630		VT-378
18	O-Ring	FP-193736		VT-378; Fuel Injector Mounting
6	O-Ring	FP-3007759		VT-378; Injector Tube Seal
6	Fuel Injector	FP-3275538		VT-378; PTD Standard
6	Fuel Injector Valve Spring	FP-166009		VT-378
6	Fuel Inj. Plunger & Barrel	FP-AR40063		VT-378; PTD
6	Fuel Injector Screen	FP-3008706		VT-378
QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
2	Fuel Pump Gear	FP-167166		VT-378; 7/16"
1	Fuel Pump Drive Shaft	FP-167169		VT-378; 7/16"; Drive
1	Fuel Pump Drive Shaft	FP-175866		VT-378; 7/16"; Driven
1	Fuel Pump Gasket	FP-110855		VT-378; Fuel Pump Body
<b>COOLING SYSTEM</b>				
QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump - Heavy Duty	FP-AR61788		VT-378; Front Mount
1	Water Pump Impeller	FP-554438		VT-378

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<b>15 Multi-Purpose Engines VT378 Eng.</b>				
<b>(cont.) 6.2L 378 OHV Turbo-Diesel V6, 4.625" Bore</b>				
<b>COOLING SYSTEM (cont.)</b>				
<b>QTY</b>	<b>WATER PUMP (cont.)</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Water Pump Repair/Rebuild Kit	FP-AR61392		VT-378
1	Water Pump Mech. Shaft Seal	FP-3029099		VT-378
1	Ball Brg.	FP-177596		Inner; VT-378
1	Ball Brg.	FP-552335		Outer; VT-378
1	Water Pump Gasket	FP-169042		VT-378
1	Water Pump Lock Ring	FP-160586		VT-378; Mounting
<b>QTY</b>	<b>SEALS - FAN HUB</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	39835		
1	Redi-Sleeve	99181		
<b>QTY</b>	<b>THERMOSTAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Thermostat	FP-3076489		VT-378; 180 Deg. F, Non-Vented
1	Rect. or Square Seal	FP-186780		VT-378
<b>ENGINE BLOCK &amp; PARTS</b>				
<b>QTY</b>	<b>GASKETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Pan Gasket	FP-175726		VT-378
<b>QTY</b>	<b>GASKET SETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Gasket Conversion Set	FP-3801657		VT-378
<b>QTY</b>	<b>CAM BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Cam Brg.	FP-3278345	STD	Position 1-4; VT-378; Small Cam; Turbo Cam # FP-3278026 Only. Do Not Use For N/A Cam 201060.
2	Cam Brg.	FP-3031037	STD	Position 2-3; VT-378; Small Cam; Turbo Cam # FP-3278026 Only. Do Not Use For N/A Cam 201060.
<b>QTY</b>	<b>OIL COOLERS &amp; FILTERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Cooler	FP-110848		VT-378; 6.500" X 4.000" tube bundle
1	Snap Ring	FP-110827		VT-378; Oil Cooler
1	Oil Cooler Gasket	FP-165153		VT-378
1	Oil Cooler Gasket	FP-166407		VT-378
2	O-Ring	FP-3019116		VT-378; Oil Cooler
<b>QTY</b>	<b>DIPSTICK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Dipstick	FP-216484		VT-378; 90" Long; Blank Universal
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b>	<b>CRANKSHAFT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Crankshaft	FP-195240		VT-378
1	Oil Pressure Regulator Spring	FP-551079		VT-378
<b>QTY</b>	<b>SEALS - FRONT CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	FP-3010457		Front; VT-378
1	Redi-Sleeve	FP-3010464		Front; VT-378
<b>QTY</b>	<b>SEALS - REAR CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	FP-3010459		Rear; VT-378
1	Redi-Sleeve	FP-3010465		Rear; VT-378
1	Redi-Sleeve	99372		
<b>QTY</b>	<b>MAIN BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Main Set	FP-BM99830	STD	
1	Main Set	FP-BM99831	10	
1	Main Set	FP-BM99832	20	
1	Main Set	FP-BM99833	30	
1	Main Set	FP-BM99834	40	
<b>QTY</b>	<b>OIL PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Pump	FP-AR60801		VT-378; New
1	Gasket	FP-3201388		VT-378; Tube to Pump
1	Oil Pressure Regulator Valve	FP-183014		VT-378
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b>	<b>LINERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
6	Liner w/o Sealing Rings	FP-3022530	STD	VT-378
6	Liner w/Sealing Rings	FP-3277592	STD	VT-378; Incl. (1) FP216283, (1) FP216284
6	Cylinder Kit Complete	FP-3277991	STD	VT-378; 16.0:1 C.R.
6	Cylinder Kit Complete	FP-AR61504	STD	VT-378; 17.0:1 C.R.
1	Sealing Ring, Liner	FP-216283		VT-378
2	Sealing Ring, Liner	FP-216284		VT-378
<b>QTY</b>	<b>PISTONS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
6	Piston Body w/o Pin	FP-3277336	STD	VT-378; 16.0:1 C.R.
6	Piston Body w/o Pin	FP-200800	STD	VT-378; 17.0:1 C.R.

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*Multi-Purpose Engines VT378 Eng. 15*  
6.2L 378 OHV Turbo-Diesel V6, 4.625" Bore (cont.)

**CYLINDER COMPONENTS (cont.)**

QTY	PISTONS (cont.)	PART NO.	SIZE	DESCRIPTION
6	Piston Kit w/Pin & Retainers	FP-3020737	STD	VT-378; 16.0:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-AR60740	STD	VT-378; 17.0:1 C.R.; Cast
6	Pin	FP-151770		VT-378
6	Piston Pin Retainer	FP-157978		VT-378
6	Pin Bushing	FP-3277332		VT-378

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-3012360PR	STD	
6	Rod Pair	FP-3012361PR	10	
6	Rod Pair	FP-3012362PR	20	
12	Rod Bearing Half Upper/Lower	FP-157620	STD	VT-378
12	Rod Bearing Half Upper/Lower	FP-157621	10	VT-378
12	Rod Bearing Half Upper/Lower	FP-157622	20	VT-378
12	Rod Bearing Half Upper/Lower	FP-157623	30	VT-378
12	Rod Bearing Half Upper/Lower	FP-157624	40	VT-378

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-3278723	STD	VT-378; 1-1/8, 1-3/32, 1-7/64 (1 cyl. set)

**KITS**

QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Kit	FP-378PREM		VT-378; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets

*Multi-Purpose Engines J6, J40, J401, JBS, JBS6, JF, JF6, JN, JN6, JNF, JNF6, JNR, JNS, JNS6, JS, JS6 Engs. 16*  
6.6L 401 OHV Diesel L6, 4.125" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
48	Keeper	FP-VK123		Exc. JS6 Engs.
48	Keeper	VK-123 +		Exc. JS6 Engs.; When depleted use FP-VK123
48	Keeper	VK-66		JS6 Engs.; 2 groove
48	Keeper	VK-66R		JS6 Engs.; 2 groove; Hardened

QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-VG529		Exc. JS6 Engs.; Not flanged; .4385" ID, 3.2500" O.A.L.
24	Guide	VG-529 +		Exc. JS6 Engs.; Not flanged; .4385" ID, 3.2500" O.A.L.; When depleted use FP-VG529

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	451147H		
1	Redi-Sleeve	99174		

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99311		
1	Oil Seal	39809		

**CYLINDER COMPONENTS**

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-127730PR	STD	
6	Rod Pair	FP-127731PR	10	
6	Rod Pair	FP-127732PR	20	

*Multi-Purpose Engines JT, JT6, JT6-10 Degree, JT6-15 Degree, JT6-20 Degree, JT401 Engs. 17*  
6.6L 401 OHV Turbo-Diesel L6, 4.125" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
48	Keeper	FP-VK123		
48	Keeper	VK-123 +		When depleted use FP-VK123

QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-VG529		Not flanged; .4385" ID, 3.2500" O.A.L.

(continued on next page)

<b>17 Multi-Purpose Engines JT, JT6, JT6-10 Degree, JT6-15 Degree, JT6-20 Degree, JT401 (cont.) Engs.</b> 6.6L 401 OHV Turbo-Diesel L6, 4.125" Bore				
<b>CYL. HEAD &amp; PARTS (cont.)</b>				
<b>QTY</b> 24	<b>VALVE GUIDE (cont.)</b> Guide	<b>PART NO.</b> VG-529 +	<b>SIZE</b>	<b>DESCRIPTION</b> Not flanged; .4385" ID, 3.2500" O.A.L.; When depleted use FP-VG529
<b>ACCESSORY DRIVE</b>				
<b>QTY</b> 1 1	<b>ACCESSORY DRIVE</b> Oil Seal Redi-Sleeve	<b>PART NO.</b> 451147H 99174	<b>SIZE</b>	<b>DESCRIPTION</b>
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b> 1 1	<b>SEALS - FRONT CRANK</b> Redi-Sleeve Oil Seal	<b>PART NO.</b> 99311 39809	<b>SIZE</b>	<b>DESCRIPTION</b>
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b> 6 6 6	<b>CONNECTING RODS &amp; BRGS.</b> Rod Pair Rod Pair Rod Pair	<b>PART NO.</b> FP-127730PR FP-127731PR FP-127732PR	<b>SIZE</b> STD 10 20	<b>DESCRIPTION</b>
<b>18 Multi-Purpose Engines GNHC4, H4, HA4, HB4, HR, HR4, HRC4 Engs.</b> 7.3L 448 OHV Diesel L4, 4.875" Bore				
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b> 8	<b>PISTONS</b> Pin Bushing	<b>PART NO.</b> FP-43067	<b>SIZE</b>	<b>DESCRIPTION</b> Straight rod bushing; 1.03" Width; 2 req'd. per rod
<b>QTY</b> 4 4 4 4	<b>CONNECTING RODS &amp; BRGS.</b> Rod Pair Rod Pair Rod Pair Rod Pair	<b>PART NO.</b> FP-203670PR FP-203671PR FP-203672PR FP-203673PR	<b>SIZE</b> STD 10 20 30	<b>DESCRIPTION</b>
<b>19 Multi-Purpose Engines C4, C160, C160M, C464, C464-B160, C464-C160, C464-P160, CF160 Engs.</b> 7.6L 464 OHV Diesel L6, 4.4375" Bore				
<b>CYL. HEAD &amp; PARTS</b>				
<b>QTY</b> 1 1	<b>GASKETS</b> Head Gasket Head Set	<b>PART NO.</b> FP-143693 FP-3012590	<b>SIZE</b>	<b>DESCRIPTION</b> C-464 C-464
<b>QTY</b> 48 48	<b>VALVE</b> Keeper Keeper	<b>PART NO.</b> FP-VK123 VK-123 +	<b>SIZE</b>	<b>DESCRIPTION</b> When depleted use FP-VK123
<b>QTY</b> 24 24	<b>VALVE GUIDE</b> Guide Guide	<b>PART NO.</b> FP-VG529 VG-529 +	<b>SIZE</b>	<b>DESCRIPTION</b> Not flanged; .4385" ID, 3.2500" O.A.L. Not flanged; .4385" ID, 3.2500" O.A.L.; When depleted use FP-VG529
<b>ACCESSORY DRIVE</b>				
<b>QTY</b> 1 1	<b>ACCESSORY DRIVE</b> Oil Seal Redi-Sleeve	<b>PART NO.</b> 451147H 99174	<b>SIZE</b>	<b>DESCRIPTION</b>
<b>ENGINE BLOCK &amp; PARTS</b>				
<b>QTY</b> 1	<b>GASKETS</b> Oil Pan Gasket	<b>PART NO.</b> FP-175726	<b>SIZE</b>	<b>DESCRIPTION</b> C-464
<b>QTY</b> 1	<b>GASKET SETS</b> Gasket Conversion Set	<b>PART NO.</b> FP-3012595	<b>SIZE</b>	<b>DESCRIPTION</b> C-464; Without Crankshaft Seals
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b> 1 1	<b>SEALS - FRONT CRANK</b> Redi-Sleeve Oil Seal	<b>PART NO.</b> 99311 39809	<b>SIZE</b>	<b>DESCRIPTION</b>

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**Multi-Purpose Engines C4, C160, C160M, C464, C464-B160, C464-C160, C464-P160, 19 CF160 Eng. (cont.)**  
7.6L 464 OHV Diesel L6, 4.4375" Bore

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Rings	FP-112851		C-464
6	Cylinder Kit Complete	FP-BM76928	STD	C-464; 14.5:1 C.R.
6	Cylinder Kit Complete	FP-BM79352		C-464; 15.8:1 C.R.
2	Sealing Ring, Liner	FP-112847		C-464
1	Sealing Ring, Liner	FP-174316		C-464
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Body w/o Pin	FP-130500		C-464; 14.5:1 C.R.
6	Piston Body w/o Pin	FP-130360		C-464; 15.8:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-BM62730		C-464; 14.5:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-BM60610	STD	C-464; 15.8:1 C.R.
6	Pin	FP-112904		C-464
6	Piston Pin Retainer	FP-S16256		C-464
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-127730PR	STD	
6	Rod Pair	FP-127731PR	10	
6	Rod Pair	FP-127732PR	20	
12	Rod Bearing Half Upper/Lower	FP-127730	STD	C-464
12	Rod Bearing Half Upper/Lower	FP-127731	10	C-464
12	Rod Bearing Half Upper/Lower	FP-127732	20	C-464
12	Rod Bearing Half Upper/Lower	FP-127733	30	C-464
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-AR4920	STD	3 - 1/8", 1 - 3/16"

**Multi-Purpose Engines C175, C175B, C175C, C180, C180M, C190, C190B, C195, CR160, 20 CS195, CS464, CS464-B180, CS464-C180, CS464-C195, CS464-P180, CT160, CT464, CT464-C175, CT464-P175, CT464-P180 Eng. (cont.)**  
7.6L 464 OHV Turbo-Diesel L6, 4.4375" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Head Gasket	FP-143693		
1	Head Set	FP-3012590		
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
48	Keeper	FP-VK123		
48	Keeper	VK-123 +		When depleted use FP-VK123
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-VG529		Not flanged; .4385" ID, 3.2500" O.A.L.
24	Guide	VG-529 +		Not flanged; .4385" ID, 3.2500" O.A.L.; When depleted use FP-VG529

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	451147H		
1	Redi-Sleeve	99174		

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-175726		
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3012595		Without Crankshaft Seals

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99311		
1	Oil Seal	39809		

**CYLINDER COMPONENTS**

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-127730PR	STD	
6	Rod Pair	FP-127731PR	10	
6	Rod Pair	FP-127732PR	20	
12	Rod Bearing Half Upper/Lower	FP-127730	STD	
12	Rod Bearing Half Upper/Lower	FP-127731	10	

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+ Superseded Part Number

**20** Multi-Purpose Engines C175, C175B, C175C, C180, C180M, C190, C190B, C195, CR160, (cont.) CS195, CS464, CS464-B180, CS464-C180, CS464-C195, CS464-P180, CT160, CT464, CT464-C175, CT464-P175, CT464-P180 Engs.  
7.6L 464 OHV Turbo-Diesel L6, 4.4375" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	CONNECTING RODS & BRGS. (cont.)	PART NO.	SIZE	DESCRIPTION
12	Rod Bearing Half Upper/Lower	FP-127732	20	
12	Rod Bearing Half Upper/Lower	FP-127733	30	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-AR4920	STD	3 - 1/8", 1 - 3/16"

**21** Multi-Purpose Engines V8-185, V8-185-C, V8-185-E, V8-185-HT, V8-185-470, V8-185-470HT, V8N-185, V8N-185-B, V470, V470-D, V470-F, V470-M Engs.  
7.7L 470 OHV Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
32	Intake	FP-V1957		Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
32	Intake	V-1957 + Std Only		Exh. & Int.; Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957
32	Exhaust	FP-3275356		Exh. & Int.; Use w/FP-3275354 late style keeper; O.E. No. 3275356; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
32	Valve Kit, Intake & Exhaust	FP-3275779		Exh. & Int.; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.
64	Keeper	VK-138		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove
64	Keeper	VK-138R		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened
64	Keeper	FP-3275354		Exh. & Int.; Use w/FP3275356 valve
64	Keeper, Bulk	VK-138B		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
32	Guide	FP-3278173		Exh. & Int.; .3820" ID, 2.5000" O.A.L.
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
32	Spring	FP-163037		Exh. & Int.
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
32	Valve Stem Seal	ST-2002		Exh. & Int.; Installation requires valve guide machining; Polyacrylate
32	Valve Stem Seal Bulk	ST-2002BC		Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate

**CAMSHAFT GROUP**

QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.

**ENGINE BLOCK & PARTS**

QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	In-Frame Gasket Set	FP-4025271S		Incl. valve stem seals
1	Kit Gasket Set	260-1544 +		In Frm.; Incl. valve stem seals.; When depleted use FP-4025271S

**CRANKSHAFT/OIL PUMP**

QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-BM99820	STD	Phase 5F series Engs.
1	Main Set	FP-BM99821	10	Phase 5F series Engs.
1	Main Set	FP-BM99822	20	Phase 5F series Engs.
1	Main Set	FP-BM99823	30	Phase 5F series Engs.
1	Thrust Washer Set	FP-173640S		Position Rear; Phase 3.5D, Phase 5F series Engs.

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
8	Liner w/Sealing Rings	FP-3277592	STD	Incl. (1) FP216283, (1) FP216284
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
8	Rod Pair	FP-3012360PR	STD	
8	Rod Pair	FP-3012361PR	10	
8	Rod Pair	FP-3012362PR	20	

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**Multi-Purpose Engines V8-185, V8-185-C, V8-185-E, V8-185-HT, V8-185-470, 21  
V8-185-470HT, V8N-185, V8N-185-B, V470, V470-D, V470-F, V470-M Engs. (cont.)  
7.7L 470 OHV Diesel V8, 4.625" Bore**

**CYLINDER COMPONENTS (cont.)**

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
8	Ring Set Single Cylinder	FP-3278723	STD	1-1/8, 1-3/32, 1-7/64 (1 cyl. set)
8	Ring Set Single Cylinder	FP-AR62258	STD	2-3/32, 1-3/16 (1 cyl. set)

**Multi-Purpose Engines H4, HA4, HB4, HMR4, HR, HR4, HRC4, N495, N495-C130, N495-F, 22  
N495-P130, N495-PG130, NH4, NH4-GC, NH4-GS, NHC4, NHC4-B1, NHC4-C1, NHC4-GC,  
NHC4-GS, NHC5, NHC400 Engs.  
8.1L 495 OHV Diesel L4, 5.125" Bore**

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
8	Exhaust	FP-144911		W/4 valve cyl. head; 1.7400" Head Dia., 7.0600" O.A.L.
32	Keeper	VK-66		Use w/4-valve cyl. head; 2 groove
32	Keeper	VK-66R		Use w/4-valve cyl. head; 2 groove; Hardened
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
16	Guide	FP-66890		Exh. & Int.; w/4 valve cyl. head; Threaded I.D.; Ream .405"; Threaded ID; .405" ID, 3.44" OAL

**ENGINE BLOCK & PARTS**

QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-110848		6.500" X 4.000" tube bundle

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
4	Liner w/Sealing Rings	FP-BM98224	STD	Exc. HR, HR4, HRC4 Engs.
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
8	Pin Bushing	FP-43067		Straight rod bushing; 1.03" Width; 2 req'd. per rod
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
4	Rod Pair	FP-203670PR	STD	
4	Rod Pair	FP-203671PR	10	
4	Rod Pair	FP-203672PR	20	
4	Rod Pair	FP-203673PR	30	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
4	Ring Set Single Cylinder	FP-AR12098	STD	Check piston grooving before supplying ring set; 3-5/32, 1-1/4
4	Premium Set	FP-9822KX		Check piston grooving before supplying ring set; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set)
4	Premium Set	9822KX + Std Only		Check piston grooving before supplying ring set; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set); When depleted use FP-9822KX

**Multi-Purpose Engines NT4, NT165, NT180, NT200, NT495-C, NT495-F, NT495-G, 23  
NT-495GC, NT495-GS, NT495-P, NTA495-G1, NTA495-G2, NTA495-GC, NTA495-GC1,  
NTA495-GC2, NTA495-GS, NTA495-GS1, NTA495-GS2 Engs.  
8.1L 495 OHV Turbo-Diesel L4, 5.125" Bore**

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
8	Exhaust	FP-144911		W/4 valve cyl. head; 1.7400" Head Dia., 7.0600" O.A.L.
32	Keeper	VK-66		Use w/4-valve cyl. head; 2 groove
32	Keeper	VK-66R		Use w/4-valve cyl. head; 2 groove; Hardened
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
16	Guide	FP-66890		Exh. & Int.; w/4 valve cyl. head; Threaded I.D.; Ream .405"; Threaded ID; .405" ID, 3.44" OAL
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
16	Spring	FP-111446		NT-180, NT-200 Engs. w/4 valve cyl. head

**ENGINE BLOCK & PARTS**

QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-110848		6.500" X 4.000" tube bundle

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
4	Liner w/Sealing Rings	FP-BM98224	STD	Exc. NT-180, NT-200 Engs.

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**23** Multi-Purpose Engines NT4, NT165, NT180, NT200, NT495-C, NT495-F, NT495-G, (cont.) NT-495GC, NT495-GS, NT495-P, NTA495-G1, NTA495-G2, NTA495-GC, NTA495-GC1, NTA495-GC2, NTA495-GS, NTA495-GS1, NTA495-GS2 Engs.  
8.1L 495 OHV Turbo-Diesel L4, 5.125" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	PARTS	PART NO.	SIZE	DESCRIPTION
8	Pin Bushing	FP-43067		Straight rod bushing; 1.03" Width; 2 req'd. per rod
<b>CONNECTING RODS &amp; BRGS.</b>				
4	Rod Pair	FP-203670PR	STD	
4	Rod Pair	FP-203671PR	10	
4	Rod Pair	FP-203672PR	20	
4	Rod Pair	FP-203673PR	30	
<b>PISTON RINGS</b>				
4	Ring Set Single Cylinder	FP-AR12098	STD	Check piston grooving before supplying ring set; 3-5/32, 1-1/4
4	Premium Set	FP-9822KX		Check piston grooving before supplying ring set; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set)
4	Premium Set	9822KX + Std Only		Check piston grooving before supplying ring set; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set); When depleted use FP-9822KX

**24** Multi-Purpose Engines V8-210, V8-504-210, V504, V504-C, V504-C195, V504-M, V504-M-L.H., V504-P, V504-P195, V504-52 Engs.  
8.3L 504 OHV Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS**

QTY	PARTS	PART NO.	SIZE	DESCRIPTION
<b>GASKETS</b>				
1	Valve Cover Gasket	FP-157018		V-504; Early
1	Valve Cover Gasket	FP-3277099		V-504; Late
2	Head Gasket	FP-3017062		V-504
1	Head Set	FP-3277753		V-504
<b>VALVE</b>				
16	Intake	FP-V1957		Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
16	Intake	V-1957 + Std Only		Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957
32	Exhaust	FP-3275356		Int. & Exh.; V-504; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
32	Valve Kit, Intake & Exhaust	FP-3275779		V-504; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.
64	Keeper	FP-3275354		V-504
64	Keeper	FP-166772		V-504; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.
64	Keeper	VK-138		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove
64	Keeper	VK-138R		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened
64	Keeper, Bulk	VK-138B		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000
<b>VALVE SEAT</b>				
16	Exh.	FP-154390	STD	V-504
16	Int.	FP-195000	STD	V-504
<b>VALVE GUIDE</b>				
32	Guide	FP-3278173		V-504; .3820" ID, 2.5000" O.A.L.
<b>VALVE SPRING</b>				
32	Spring	FP-163037		V-504
<b>VALVE SEAL</b>				
32	Valve Stem Seal	ST-2002		Exh. & Int.; Installation requires valve guide machining; Polyacrylate
1	Valve Stem Seal	FP-156541		V-504; Installation requires valve guide machining; Polyacrylate
32	Valve Stem Seal Bulk	ST-2002BC		Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate
<b>ROCKER PARTS</b>				
12	Cam Follower Roller	FP-153679		V-504; Valve
6	Injector Cam Roller	FP-154571		V-504
18	Adjusting Screw Nut	FP-S212		V-504; 1/2" - 20 UNF; Use w/FP-168306
12	Valve Roller Pin	FP-169154		V-504; Cam Follower
12	Rocker Lever Adjusting Screw	FP-168306		V-504; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
12	Rocker Arm Socket	FP-194037		V-504
12	Bushing	FP-152936		Injector Lever bushing

(continued on next page)

**Multi-Purpose Engines V8-210, V8-504-210, V504, V504-C, V504-C195, V504-M, 24 V504-M-L.H., V504-P, V504-P195, V504-52 Eng. (cont.)**  
8.3L 504 OHV Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS (cont.)**

QTY	ROCKER PARTS (cont.)	PART NO.	SIZE	DESCRIPTION
12	Bushing	FP-152937		Rocker Lever bushing
12	Fuel Injector Roller Pin	FP-114223		V-504; Cam Follower
6	Cam Follower Socket	FP-107738		V-504; Injector; Cam Follower
12	Valve Lock Pin	FP-108186		V-504; Cam Follower
6	Valve Lock Pin	FP-111272		V-504; Injector; Cam Follower

**INT & EXH MANIFOLDS**

QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
2	Exhaust Manifold Gasket	FP-556355		V-504

**CAMSHAFT GROUP**

QTY	TIMING COVER	PART NO.	SIZE	DESCRIPTION
1	Oil Filler Cap	FP-101322		V-504; 2"

QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft	FP-3277462		V-504; Small Cam; CPL's 5003, 5009, 5013, 5014, 5023, 5028, 5029, 5037.; Cam is cross drilled and will work with either cross-drilled or non-grooved bushing. Replaces O.E. Nos. 201050 & 3277462.
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Power Steering Pump Gasket	FP-154916		V-504

**FUEL SYSTEM & PARTS**

QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
8	Fuel Injector Sleeve	FP-169630		V-504
24	O-Ring	FP-193736		Fuel Injector Mounting
8	O-Ring	FP-3007759		Injector Tube Seal
8	Fuel Injector Valve Spring	FP-166009		V-504
8	Fuel Inj. Plunger & Barrel	FP-AR40063		V-504; PTD
1	Fuel Injector Cup	FP-3275266		V-504; orifice number 7; orifice size 0.006; 4 Deg. spray angle
8	Fuel Injector Screen	FP-3008706		V-504

QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
2	Fuel Pump Gear	FP-167166		V-504; 7/16"
1	Fuel Pump Drive Shaft	FP-167169		V-504; 7/16"; Drive
1	Fuel Pump Drive Shaft	FP-175866		V-504; 7/16"; Driven
24	O-Ring	FP-193736		V-504; Fuel Injector Mounting
8	O-Ring	FP-3007759		V-504; Injector Tube Seal
1	Fuel Pump Gasket	FP-110855		V-504; Fuel Pump Body

**COOLING SYSTEM**

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump - Heavy Duty	FP-AR61788		V-504; Front Mount
1	Water Pump - Heavy Duty	FP-AR61789		V-504; Rear Mount
1	Water Pump Impeller	FP-554438		V-504
1	Water Pump Repair/Rebuild Kit	FP-AR61392		V-504
1	Water Pump Mech. Shaft Seal	FP-3029099		V-504
1	Ball Brg.	FP-177596		Inner; V-504
1	Ball Brg.	FP-552335		Outer; V-504
1	Water Pump Gasket	FP-169042		V-504
1	Water Pump Lock Ring	FP-160586		V-504

QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		
1	Redi-Sleeve	99181		

QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Thermostat	FP-3076489		V-504; 180 Deg. F, Non-Vented
1	Rect. or Square Seal	FP-186780		V-504

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-175727		V-504

QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3801658		V-504
1	In-Frame Gasket Set	FP-4025271S		Incl. valve stem seals
1	Kit Gasket Set	260-1544 +		In Frm.; Incl. valve stem seals.; When depleted use FP-4025271S

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+ Superseded Part Number

**24 Multi-Purpose Engines V8-210, V8-504-210, V504, V504-C, V504-C195, V504-M,**  
 (cont.) **V504-M-L.H., V504-P, V504-P195, V504-52 Engs.**  
 8.3L 504 OHV Diesel V8, 4.625" Bore

<b>ENGINE BLOCK &amp; PARTS (cont.)</b>				
<b>QTY</b>	<b>CAM BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Cam Brg.	FP-3013522		Position 1,5; V-504; Big Cam
2	Cam Brg.	FP-3278345	STD	Position 1,5; V-504; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.
3	Cam Brg.	FP-3030891		Position 2-3-4; V-504; Big Cam
3	Cam Brg.	FP-3031037	STD	Position 2-3-4; V-504; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.
<b>QTY</b>	<b>OIL COOLERS &amp; FILTERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Cooler	FP-110848		V-504; 6.500" X 4.000" tube bundle
1	Snap Ring	FP-110827		V-504; Oil Cooler
1	Oil Cooler Gasket	FP-165153		V-504
1	Oil Cooler Gasket	FP-166407		V-504
2	O-Ring	FP-3019116		V-504; Oil Cooler
<b>QTY</b>	<b>DIPSTICK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Dipstick	FP-216484		V-504; 90" Long; Blank Universal
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b>	<b>CRANKSHAFT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Crankshaft	FP-194840		V-504
<b>QTY</b>	<b>SEALS - FRONT CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	FP-3010457		Front; V-504
1	Redi-Sleeve	FP-3010464		Front; V-504
<b>QTY</b>	<b>SEALS - REAR CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	FP-3010459		Rear; V-504
1	Redi-Sleeve	FP-3010465		Rear; V-504
1	Redi-Sleeve	99372		
<b>QTY</b>	<b>MAIN BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Main Set	FP-BM99820	STD	Phase 5F series Engs.
1	Main Set	FP-BM99821	10	Phase 5F series Engs.
1	Main Set	FP-BM99822	20	Phase 5F series Engs.
1	Main Set	FP-BM99823	30	Phase 5F series Engs.
1	Main Set	FP-BM99820	STD	V-504
1	Main Set	FP-BM99821	10	V-504
1	Main Set	FP-BM99822	20	V-504
1	Main Set	FP-BM99823	30	V-504
1	Main Set	FP-BM99824	40	V-504
1	Thrust Washer Set	FP-173640S		Position 5
<b>QTY</b>	<b>OIL PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Gasket	FP-3201388		V-504; Tube to Pump
1	Oil Pressure Regulator Valve	FP-183014		V-504
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b>	<b>LINERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Liner w/o Sealing Rings	FP-3022530	STD	V-504
8	Liner w/Sealing Rings	FP-3277592	STD	V-504; Incl. (1) FP216283, (1) FP216284
8	Cylinder Kit Complete	FP-3277991	STD	V-504; 16.0:1 C.R.
8	Cylinder Kit Complete	FP-AR61504	STD	V-504; 17.0:1 C.R.
8	Sealing Ring, Liner	FP-216283		V-504
16	Sealing Ring, Liner	FP-216284		V-504
<b>QTY</b>	<b>PISTONS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Piston Body w/o Pin	FP-3277336	STD	V-504; 16.0:1 C.R.
8	Piston Body w/o Pin	FP-200800	STD	V-504; 17.0:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3020737	STD	V-504; 16.0:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-AR60740	STD	V-504; 17.0:1 C.R.; Cast
8	Pin	FP-151770		V-504
8	Piston Pin Retainer	FP-157978		V-504
8	Pin Bushing	FP-3277332		V-504
<b>QTY</b>	<b>CONNECTING RODS &amp; BRGS.</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
16	Con. Rod Bolt	FP-551143		V-504
16	Con. Rod Nut	FP-152838		V-504
8	Rod Pair	FP-3012360PR	STD	
8	Rod Pair	FP-3012361PR	10	
8	Rod Pair	FP-3012362PR	20	
16	Rod Bearing Half Upper/Lower	FP-157620	STD	
16	Rod Bearing Half Upper/Lower	FP-157621	10	

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*Multi-Purpose Engines V8-210, V8-504-210, V504, V504-C, V504-C195, V504-M, 24  
V504-M-L.H., V504-P, V504-P195, V504-52 Eng. (cont.)  
8.3L 504 OHV Diesel V8, 4.625" Bore*

**CYLINDER COMPONENTS (cont.)**

QTY	CONNECTING RODS & BRGS. (cont.)	PART NO.	SIZE	DESCRIPTION
16	Rod Bearing Half Upper/Lower	FP-157622	20	
16	Rod Bearing Half Upper/Lower	FP-157623	30	
16	Rod Bearing Half Upper/Lower	FP-157624	40	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
8	Ring Set Single Cylinder	FP-3278723	STD	1-1/8, 1-3/32, 1-7/64 (1 cyl. set)
KITS				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Kit	FP-504PREM		V-504; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets
1	Complete Overhaul Kit	KS2-2423A		When depleted use FP-504PREM

*Multi-Purpose Engines VT504 Eng. 25  
8.3L 504 OHV Turbo-Diesel V8, 4.625" Bore*

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-157018		VT-504; Early
1	Valve Cover Gasket	FP-3277099		VT-504; Late
2	Head Gasket	FP-3017062		VT-504
1	Head Set	FP-3277753		VT-504
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
16	Intake	FP-V1957		Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
16	Intake	V-1957 + Std Only		Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957
16	Exhaust	FP-3275356		Int. & Exh.; VT-504; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
16	Valve Kit, Intake & Exhaust	FP-3275779		VT-504; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.
64	Keeper	FP-3275354		VT-504
64	Keeper	FP-166772		VT-504; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.
64	Keeper	VK-138		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove
64	Keeper	VK-138R		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened
64	Keeper, Bulk	VK-138B		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
16	Exh.	FP-154390	STD	VT-504
16	Int.	FP-195000	STD	VT-504
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
32	Guide	FP-3278173		VT-504; .3820" ID, 2.5000" O.A.L.
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
32	Spring	FP-163037		VT-504
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
32	Valve Stem Seal	ST-2002		Exh. & Int.; Installation requires valve guide machining; Polyacrylate
32	Valve Stem Seal	FP-156541		VT-504; Installation requires valve guide machining; Polyacrylate
32	Valve Stem Seal Bulk	ST-2002BC		Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
12	Cam Follower Roller	FP-153679		VT-504; Valve
6	Injector Cam Roller	FP-154571		VT-504
18	Adjusting Screw Nut	FP-S212		VT-504; 1/2" - 20 UNF; Use w/FP-168306
12	Valve Roller Pin	FP-169154		VT-504; Cam Follower
12	Rocker Lever Adjusting Screw	FP-168306		VT-504; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
12	Rocker Arm Socket	FP-194037		VT-504
12	Bushing	FP-152936		Injector Lever bushing
12	Bushing	FP-152937		Rocker Lever bushing
12	Fuel Injector Roller Pin	FP-114223		VT-504; Cam Follower
6	Cam Follower Socket	FP-107738		VT-504; Injector; Cam Follower
12	Valve Lock Pin	FP-108186		VT-504; Cam Follower

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+ Superseded Part Number

<b>25 Multi-Purpose Engines VT504 Eng.</b> (cont.) 8.3L 504 OHV Turbo-Diesel V8, 4.625" Bore				
<b>CYL. HEAD &amp; PARTS (cont.)</b>				
<b>QTY</b>	<b>ROCKER PARTS (cont.)</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
6	Valve Lock Pin	FP-111272		VT-504; Injector; Cam Follower
<b>INT &amp; EXH MANIFOLDS</b>				
<b>QTY</b>	<b>INT. &amp; EXH. MANIFOLDS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Exhaust Manifold Gasket	FP-556355		VT-504
<b>CAMSHAFT GROUP</b>				
<b>QTY</b>	<b>TIMING COVER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Filler Cap	FP-101322		VT-504; 2"
<b>QTY</b>	<b>CAMSHAFT/LIFTER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Camshaft	FP-3277462		VT-504; Small Cam; CPL's 5003, 5009, 5013, 5014, 5023, 5028, 5029, 5037.; Cam is cross drilled and will work with either cross-drilled or non-grooved bushing. Replaces O.E. Nos. 201050 & 3277462.
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
<b>ACCESSORY DRIVE</b>				
<b>QTY</b>	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Power Steering Pump Gasket	FP-154916		VT-504
<b>FUEL SYSTEM &amp; PARTS</b>				
<b>QTY</b>	<b>FUEL INJECTION</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Fuel Injector Sleeve	FP-169630		VT-504
24	O-Ring	FP-193736		Fuel Injector Mounting
8	O-Ring	FP-3007759		Injector Tube Seal
8	Fuel Injector Valve Spring	FP-166009		VT-504
8	Fuel Inj. Plunger & Barrel	FP-AR40063		VT-504; PTD
1	Fuel Injector Cup	FP-3275266		VT-504; orifice number 7; orifice size 0.006; 4 Deg. spray angle
8	Fuel Injector Screen	FP-3008706		VT-504
<b>QTY</b>	<b>FUEL FILTERS &amp; PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Fuel Pump Gear	FP-167166		VT-504; 7/16"
1	Fuel Pump Drive Shaft	FP-167169		VT-504; 7/16"; Drive
1	Fuel Pump Drive Shaft	FP-175866		VT-504; 7/16"; Driven
24	O-Ring	FP-193736		VT-504; Fuel Injector Mounting
8	O-Ring	FP-3007759		VT-504; Injector Tube Seal
1	Fuel Pump Gasket	FP-110855		VT-504; Fuel Pump Body
<b>COOLING SYSTEM</b>				
<b>QTY</b>	<b>WATER PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Water Pump - Heavy Duty	FP-AR61788		VT-504; Front Mount
1	Water Pump - Heavy Duty	FP-AR61789		VT-504; Rear Mount
1	Water Pump Impeller	FP-554438		VT-504
1	Water Pump Repair/Rebuild Kit	FP-AR61392		VT-504
1	Water Pump Mech. Shaft Seal	FP-3029099		VT-504
1	Ball Brg.	FP-177596		Inner; VT-504
1	Ball Brg.	FP-552335		Outer; VT-504
1	Water Pump Gasket	FP-169042		VT-504
1	Water Pump Lock Ring	FP-160586		VT-504
<b>QTY</b>	<b>SEALS - FAN HUB</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	39835		
1	Redi-Sleeve	99181		
<b>QTY</b>	<b>THERMOSTAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Thermostat	FP-3076489		VT-504; 180 Deg. F, Non-Vented
1	Rect. or Square Seal	FP-186780		VT-504
<b>ENGINE BLOCK &amp; PARTS</b>				
<b>QTY</b>	<b>GASKETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Pan Gasket	FP-175727		VT-504
<b>QTY</b>	<b>GASKET SETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Gasket Conversion Set	FP-3801658		VT-504
1	In-Frame Gasket Set	FP-4025271S		Incl. valve stem seals
<b>QTY</b>	<b>CAM BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Cam Brg.	FP-3013522		Position 1,5; VT-504; Big Cam
2	Cam Brg.	FP-3278345	STD	Position 1,5; VT-504; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.
3	Cam Brg.	FP-3030891		Position 2-3-4; VT-504; Big Cam

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*Multi-Purpose Engines VT504 Eng. 25*  
8.3L 504 OHV Turbo-Diesel V8, 4.625" Bore (cont.)

<b>ENGINE BLOCK &amp; PARTS (cont.)</b>				
QTY		PART NO.	SIZE	DESCRIPTION
3	<b>CAM BEARINGS (cont.)</b> Cam Brg.	FP-3031037	STD	Position 2-3-4; VT-504; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.
1	<b>OIL COOLERS &amp; FILTERS</b> Oil Cooler	FP-110848		VT-504; 6.500" X 4.000" tube bundle
1	Snap Ring	FP-110827		VT-504; Oil Cooler
1	Oil Cooler Gasket	FP-165153		VT-504
1	Oil Cooler Gasket	FP-166407		VT-504
2	O-Ring	FP-3019116		VT-504; Oil Cooler
1	<b>DIPSTICK</b> Dipstick	FP-216484		V-504; 90" Long; Blank Universal
<b>CRANKSHAFT/OIL PUMP</b>				
1	<b>CRANKSHAFT</b> Crankshaft	FP-194840		VT-504
1	<b>SEALS - FRONT CRANK</b> Oil Seal	FP-3010457		Front; VT-504
1	Redi-Sleeve	FP-3010464		Front; VT-504
1	<b>SEALS - REAR CRANK</b> Oil Seal	FP-3010459		Rear; VT-504
1	Redi-Sleeve	FP-3010465		Rear; VT-504
1	Redi-Sleeve	99372		
1	<b>MAIN BEARINGS</b> Main Set	FP-BM99820	STD	Phase 5F series Eng.
1	Main Set	FP-BM99821	10	Phase 5F series Eng.
1	Main Set	FP-BM99822	20	Phase 5F series Eng.
1	Main Set	FP-BM99823	30	Phase 5F series Eng.
1	Main Set	FP-BM99820	STD	VT-504
1	Main Set	FP-BM99821	10	VT-504
1	Main Set	FP-BM99822	20	VT-504
1	Main Set	FP-BM99823	30	VT-504
1	Main Set	FP-BM99824	40	VT-504
1	Thrust Washer Set	FP-173640S		Position 5
1	<b>OIL PUMP</b> Gasket	FP-3201388		VT-504; Tube to Pump
1	Oil Pressure Regulator Valve	FP-183014		VT-504
<b>CYLINDER COMPONENTS</b>				
8	<b>LINERS</b> Liner w/o Sealing Rings	FP-3022530	STD	VT-504
8	Liner w/Sealing Rings	FP-3277592	STD	VT-504; Incl. (1) FP216283, (1) FP216284
8	Cylinder Kit Complete	FP-3277991	STD	VT-504; 16.0:1 C.R.
8	Cylinder Kit Complete	FP-AR61504	STD	VT-504; 17.0:1 C.R.
8	Sealing Ring, Liner	FP-216283		VT-504
16	Sealing Ring, Liner	FP-216284		VT-504
8	<b>PISTONS</b> Piston Body w/o Pin	FP-3277336	STD	VT-504; 16.0:1 C.R.
8	Piston Body w/o Pin	FP-200800	STD	VT-504; 17.0:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3020737	STD	VT-504; 16.0:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-AR60740	STD	VT-504; 17.0:1 C.R.; Cast
8	Pin	FP-151770		VT-504
8	Piston Pin Retainer	FP-157978		VT-504
8	Pin Bushing	FP-3277332		VT-504
8	<b>CONNECTING RODS &amp; BRGS.</b> Rod Pair	FP-3012360PR	STD	
8	Rod Pair	FP-3012361PR	10	
8	Rod Pair	FP-3012362PR	20	
16	Rod Bearing Half Upper/Lower	FP-157620	STD	
16	Rod Bearing Half Upper/Lower	FP-157621	10	
16	Rod Bearing Half Upper/Lower	FP-157622	20	
16	Rod Bearing Half Upper/Lower	FP-157623	30	
16	Rod Bearing Half Upper/Lower	FP-157624	40	
8	<b>PISTON RINGS</b> Ring Set Single Cylinder	FP-3278723	STD	1-1/8, 1-3/32, 1-7/64 (1 cyl. set)

(continued on next page)

## 25 Multi-Purpose Engines VT504 Eng. (cont.) 8.3L 504 OHV Turbo-Diesel V8, 4.625" Bore

### KITS

QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Kit	FP-504PREM		VT-504; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets
1	Complete Overhaul Kit	KS2-2423A		When depleted use FP-504PREM

## 26 Multi-Purpose Engines 6C8.3 Eng. 8.3L 505 OHV Diesel L6, 114mm Bore

### CYL. HEAD & PARTS

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-3905449		
1	Head Set	FP-4025271		Incl. valve stem seals
QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
14	Head Bolt	FP-3917728		M14 X 2.00 X 160
12	Head Bolt	FP-3917729		M14 X 2.00 X 80
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
6	Intake	FP-3924492		
6	Exhaust	FP-3921444		
6	Exhaust Valve Kit	FP-3802085		Exh.; Incl. valve and keepers
6	Intake Valve Kit	FP-3802463		Int.; Incl. valve and keepers
24	Keeper	FP-3901177		Exh. & Int.
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
6	Exh.	FP-3929005		
6	Int.	FP-3924582		
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
12	Guide	FP-3923564		
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
6	Spring	FP-3916588		Exh.; 3.0500" Free Height
6	Spring	FP-3906412		Int.; 2.6000" Free Height
QTY	VALVE MISC.	PART NO.	SIZE	DESCRIPTION
1	Oil Filler Cap Gasket	FP-3902466		
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
12	Valve Stem Seal	FP-3927642		Exh. & Int.
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
6	Rocker Shaft	FP-3919435		
2	Expansion Plug	FP-3907555		Rocker Lever
6	O-Ring	FP-3910824		Rocker Lever Cover Screw
12	Adjusting Screw Nut	FP-203131		3/8" - 24 UNF
12	Support, Rocker Lever	FP-3905870		
12	Rocker Lever Exhaust	FP-3901717		
6	Clamp	FP-3901693		Rocker Lever
12	Snap Ring	FP-3901764		Rocker Lever

### INT & EXH MANIFOLDS

QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
6	Exhaust Manifold Gasket	FP-3932063		
1	Intake Manifold Gasket	FP-3936993		

### CAMSHAFT GROUP

QTY	TIMING COVER	PART NO.	SIZE	DESCRIPTION
1	Oil Filler Cap	FP-101322		2"
QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft	FP-3923478		CPL's 601, 602, 603, 604, 605, 752, 753, 754, 755, 805, 818, 819, 828, 829, 830, 831, 848, 890, 892, 893, 942, 954, 959, 982, 984, 985, 1196, 1212, 1217, 1221, 1222, 1248, 1269, 1273, 1274, 1275, 1321, 1356, 1366, 1377, 1435, 1464, 1539, 1547, 1603, 1612, 1616, 1633, 1639, 1826
12	Lifter	FP-3931623		

### FUEL SYSTEM & PARTS

QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
1	Injector Tube	FP-3906783		No. 1 Cylinder
1	Injector Tube	FP-3906784		No. 2 Cylinder
1	Injector Tube	FP-3906785		No. 3 Cylinder
1	Injector Tube	FP-3910521		No. 4 Cylinder
1	Injector Tube	FP-3906788		No. 5 Cylinder
6	Copper Washer	FP-3906659		

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*Multi-Purpose Engines 6C8.3 Eng. 26*  
8.3L 505 OHV Diesel L6, 114mm Bore (cont.)

<b>FUEL SYSTEM &amp; PARTS (cont.)</b>				
QTY	FUEL INJECTION (cont.)	PART NO.	SIZE	DESCRIPTION
6	Fuel Line Connector	FP-3903380		Fuel Manifold
<b>FUEL FILTERS &amp; PUMP</b>				
1	Fuel Transfer Pump	FP-4944714		108.1 - 230.9 LPH; 1/4 x 18 NPTF Fuel Inlet
1	Fuel Transfer Pump	FP-4944712		117 - 229.9 LPH; 1/4 x 18 NPTF Fuel Inlet
1	Fuel Transfer Pump	FP-4944713		144.7 - 201.2 LPH; 1/4 x 18 NPTF Fuel Inlet
1	Fuel Transfer Pump	FP-4944710		183 - 229 LPH; 1/2 x 14 NPTF Fuel Inlet
1	Fuel Transfer Pump	FP-4944711		187.4 - 304.2 LPH; 1/4 x 18 NPTF Fuel Inlet
1	Cover Plate Gasket	FP-3931348		Fuel Transfer Pump Mounting
1	Cover Plate Gasket	FP-3939258		Fuel Transfer Pump Mounting
2	Washer	FP-3918191		Sealing; Fuel Filter
2	Washer	FP-3918192		Sealing; Fuel Inlet Tube
1	Fuel Shutdown Solenoid	FP-3921978		12V
<b>COOLING SYSTEM</b>				
QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump - Heavy Duty	FP-3806180		
1	Ball Brg.	FP-3910739		Fan Drive
1	O-Ring	FP-3902089		Water Pump Mounting
1	Shaft & Bearing Assembly	FP-3903787		
1	V Belt	FP-3911558		59 X 1.125"; Ribbed 8
1	V Belt	FP-3911582		70 X 1.125"; Ribbed 8
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
2	Thermostat	FP-3928639		180 Deg. F
1	Thermostat Gasket	FP-3914310		Thermostat Housing
<b>ENGINE BLOCK &amp; PARTS</b>				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-3914017 +		When depleted use FP-3938160
1	Washer	FP-3902425		Sealing; Oil Pan Plug
1	Washer	FP-3920773		Sealing; Oil Pan Plug
1	Cover Plate Gasket	FP-3908096		Bell Housing
1	Gear Cover Gasket	FP-3917780		
1	Gear Housing Gasket	FP-3281721		
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3802389		
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
7	Cam Brg.	FP-3945329	STD	
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-3974815		
1	Oil Cooler	FP-3974815		
1	Oil Press. Reg. Low Pressure	FP-3945967		
1	Oil Cooler Gasket	FP-3914308		Core Mounting
1	Oil Cooler Core Inner Gasket	FP-3918174		Core
1	Oil Cooler Core Outer Gasket	FP-3918332		Core Cover
QTY	FREEZE PLUGS	PART NO.	SIZE	DESCRIPTION
1	Expansion Plug	FP-3901969		
<b>CRANKSHAFT/OIL PUMP</b>				
QTY	CRANKSHAFT	PART NO.	SIZE	DESCRIPTION
1	Crankshaft	FP-3918986		
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3353977		Front
1	Oil Seal Kit	FP-3925343		Front
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3909410		Rear; Dry
1	Oil Seal Kit	FP-3926126		
1	Redi-Sleeve	FP-3906081		Rear
1	Rear Cover Gasket	FP-3914301		Rear
1	Rear Cover Gasket	FP-3939353		Rear
1	Rect. or Square Seal	FP-3912473		Rear
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-3802210	STD	Wide style, 33.85 - 34.10MM
1	Main Set	FP-3802211	.25MM	Wide style, 33.85 - 34.10MM
1	Main Set	FP-3802212	.50MM	Wide style, 33.85 - 34.10MM

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## 26 Multi-Purpose Engines 6C8.3 Eng. (cont.) 8.3L 505 OHV Diesel L6, 114mm Bore

CRANKSHAFT/OIL PUMP (cont.)				
QTY	OIL PUMP	PART NO.	SIZE	DESCRIPTION
1	Oil Pump	FP-3948071		
1	Oil Pump	FP-3800828		Includes Pressure Regulator
1	Oil Suction Tube Gasket	FP-3914302		
CYLINDER COMPONENTS				
QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Rings	FP-3907792		To be used with early standard cylinder block # FP-3802265 prior to 1991.
6	Liner w/o Sealing Rings	FP-3948095		To be used with late thick-walled cylinder block # FP-3934899 Effective 1/05/98. This liner is 3mm shorter than previous liners. Refer to Cummins Service Topics 99T1-3.
6	Liner w/o Sealing Rings	FP-3919937		To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.
6	Liner w/Sealing Rings	FP-3802370		Early; Prior to 1991
6	Liner w/Sealing Rings	FP-3802407		1991 thru 1/04/98; Thick-Walled Block
6	Cylinder Kit Complete	FP-LK92477792		To be used with early standard cylinder block # FP-3802265 prior to 1991.
6	Cylinder Kit Complete	FP-3802388		To be used with early standard cylinder block # FP-3802265 prior to 1991.
6	Cylinder Kit Complete	FP-3802401		To be used with early standard cylinder block # FP-3802265 prior to 1991.
6	Cylinder Kit Complete	FP-3934586		To be used with late thick-walled cylinder block # FP-3934899 Effective 1/05/98. This liner is 3mm shorter than previous liners. Refer to Cummins Service Topics 99T1-3.
6	Cylinder Kit Complete	FP-3934588		To be used with late thick-walled cylinder block # FP-3934899 Effective 1/05/98. This liner is 3mm shorter than previous liners. Refer to Cummins Service Topics 99T1-3.
6	Cylinder Kit Complete	FP-LK92479937		To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.
6	Cylinder Kit Complete	FP-3802406		To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.
6	Cylinder Kit Complete	FP-3802609		To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.
6	Cylinder Kit Complete	FP-3802811		To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.
6	Cylinder Kit Complete	FP-3802610		To be used with late thick-walled cylinder block # FP-3928962 1991 thru 1/04/98.; B Grade piston; Anodized crown & combustion bowl
6	Sealing Ring, Liner	FP-3907177		
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Body w/o Pin	FP-3929161		
6	Piston Body w/o Pin	FP-3925878		A Grade; Anodized crown & combustion bowl
6	Piston Body w/o Pin	FP-3925879		B Grade; Anodized crown & combustion bowl
6	Piston Body w/o Pin	FP-3919247		Charge-Air-Cooled; Europe Appl.
6	Piston Body w/o Pin	FP-3917707		Charge-Air-Cooled; U.S.A. Appl.
6	Piston Body w/o Pin	FP-3923164		Engine Coolant Aftercooled; U.S.A. Appl.
6	Piston Kit w/Pin & Retainers	FP-3917707WP		
6	Piston Kit w/Pin & Retainers	FP-3919247WP		
6	Piston Kit w/Pin & Retainers	FP-3923164WP		
6	Piston Kit w/Pin & Retainers	FP-3925878WP		
6	Piston Kit w/Pin & Retainers	FP-3925879WP		
6	Piston Kit w/Pin & Retainers	FP-3929161WP		
6	Piston w/Retainer & Rings	FP-3802263		
6	Piston w/Retainer & Rings	FP-3802344		
6	Piston w/Retainer & Rings	FP-3802398		
6	Piston w/Retainer & Rings	FP-3802657		
6	Piston w/Retainer & Rings	FP-3802601		A Grade; Anodized crown & combustion bowl
6	Piston w/Retainer & Rings	FP-3802602		B Grade; Anodized crown & combustion bowl
6	Piston w/Pin, Retainer, Rings	FP-PK3164		
6	Piston w/Pin, Retainer, Rings	FP-PK7707		
6	Piston w/Pin, Retainer, Rings	FP-PK9161		
6	Piston w/Pin, Retainer, Rings	FP-PK9247		
6	Piston w/Pin, Retainer, Rings	FP-PK5878		A Grade; Anodized crown & combustion bowl
6	Piston w/Pin, Retainer, Rings	FP-PK5879		B Grade; Anodized crown & combustion bowl
6	Pin	FP-3934046		
6	Piston Cooling Nozzle	FP-3905928		Early; < 91C
12	Piston Cooling Nozzle	FP-3928031		Thick-Walled Block; Late; 91C>
6	Pin Bushing	FP-3913990		

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*Multi-Purpose Engines 6C8.3 Eng. 26*  
8.3L 505 OHV Diesel L6, 114mm Bore (cont.)

**CYLINDER COMPONENTS (cont.)**

<b>CONNECTING RODS &amp; BRGS.</b>				
QTY		PART NO.	SIZE	DESCRIPTION
6	Rod Bearing Half Upper/Lower	FP-3901430	STD	
6	Rod Bearing Half Upper/Lower	FP-3901431	.25MM	
6	Rod Bearing Half Upper/Lower	FP-3901432	.50MM	
6	Rod Bearing Half Upper/Lower	FP-3901433	.75MM	
6	Rod Bearing Half Upper/Lower	FP-3901434	1.00MM	
<b>PISTON RINGS</b>				
QTY		PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-3802429		
<b>KITS</b>				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	In-Frame Overhaul Kit	FP-6C83PREM		6C8.3; Premium; With Upper Gasket Set & Pan Gasket
1	Complete Overhaul Kit	FP-6C83PREMOH		6C8.3; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets

*Multi-Purpose Engines V555, V555-A, V555-C, V555-C215, V555-M, V555-200, V555-210, 27*  
V555-225, V555-230, V555-240, VC555, VF555-240 Engs.  
9.1L 555 OHV Diesel V8, 4.625" Bore

**CYL. HEAD & PARTS**

<b>GASKETS</b>				
QTY		PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-157018		V-555; Early
1	Valve Cover Gasket	FP-3277099		V-555; Late
2	Head Gasket	FP-3017062		V-555
1	Head Set	FP-AR63520		V-555; Incl. Big Cam & Small Cam Engs.
<b>VALVE</b>				
QTY		PART NO.	SIZE	DESCRIPTION
16	Intake	FP-V1957		Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
16	Intake	V-1957 + Std Only		Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957
32	Exhaust	FP-3275356		Int. & Exh.; V-555; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
32	Valve Kit, Intake & Exhaust	FP-3275779		V-555; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.
64	Keeper	FP-3275354		V-555
64	Keeper	FP-166772		V-555; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.
64	Keeper	VK-138		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove
64	Keeper	VK-138R		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened
64	Keeper, Bulk	VK-138B		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000
<b>VALVE SEAT</b>				
QTY		PART NO.	SIZE	DESCRIPTION
16	Exh.	FP-154390	STD	V-555
16	Int.	FP-195000	STD	V-555
<b>VALVE GUIDE</b>				
QTY		PART NO.	SIZE	DESCRIPTION
32	Guide	FP-3278173		V-555; .3820" ID, 2.5000" O.A.L.
<b>VALVE SPRING</b>				
QTY		PART NO.	SIZE	DESCRIPTION
32	Spring	FP-163037		V-555
<b>VALVE SEAL</b>				
QTY		PART NO.	SIZE	DESCRIPTION
32	Valve Stem Seal	ST-2002		Exh. & Int.; Installation requires valve guide machining; Polyacrylate
32	Valve Stem Seal	FP-156541		V-555; Installation requires valve guide machining; Polyacrylate
32	Valve Stem Seal Bulk	ST-2002BC		Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate
<b>ROCKER PARTS</b>				
QTY		PART NO.	SIZE	DESCRIPTION
8	Cam Follower Roller	FP-153679		V-555; Small Cam; Valve
8	Injector Cam Roller	FP-154571		V-555; Small Cam
16	Adjusting Screw Nut	FP-S212		V-555; 1/2" - 20 UNF; Use w/FP-168306
8	Valve Roller Pin	FP-169154		V-555; Small Cam; Cam Follower
16	Rocker Lever Adjusting Screw	FP-168306		V-555; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
8	Rocker Arm Socket	FP-194037		V-555
8	Bushing	FP-152936		V-555; Injector Lever bushing
16	Bushing	FP-152937		V-555; Rocker Lever bushing
8	Fuel Injector Roller Pin	FP-114223		V-555; Small Cam; Cam Follower

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+ Superseded Part Number

**27 Multi-Purpose Engines V555, V555-A, V555-C, V555-C215, V555-M, V555-200, V555-210, (cont.) V555-225, V555-230, V555-240, VC555, VF555-240 Engs.**  
9.1L 555 OHV Diesel V8, 4.625" Bore

<b>CYL. HEAD &amp; PARTS (cont.)</b>				
<b>QTY</b>	<b>ROCKER PARTS (cont.)</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Cam Follower Socket	FP-107738		V-555; Small Cam; Injector, Cam Follower
8	Valve Lock Pin	FP-108186		V-555; Small Cam; Cam Follower
8	Valve Lock Pin	FP-111272		V-555; Small Cam; Injector, Cam Follower
<b>INT &amp; EXH MANIFOLDS</b>				
<b>QTY</b>	<b>INT. &amp; EXH. MANIFOLDS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Exhaust Manifold Gasket	FP-556355		V-555
<b>CAMSHAFT GROUP</b>				
<b>QTY</b>	<b>TIMING COVER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Filler Cap	FP-101322		V-555; 2"
<b>QTY</b>	<b>CAMSHAFT/LIFTER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Camshaft	FP-3277462		V-555; Small Cam; CPL's 5005, 5011, 5025, 5027.; Cam is cross drilled and will work with either cross-drilled or non-grooved bushing. Replaces O.E. Nos. 201050 & 3277462.
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
<b>ACCESSORY DRIVE</b>				
<b>QTY</b>	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Power Steering Pump Gasket	FP-154916		V-555
<b>FUEL SYSTEM &amp; PARTS</b>				
<b>QTY</b>	<b>FUEL INJECTION</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Fuel Injector Sleeve	FP-169630		V-555
24	O-Ring	FP-193736		V-555; Fuel Injector Mounting
8	O-Ring	FP-3007759		VT-555; Injector Tube Seal
8	Fuel Injector	FP-3275989		V-555; PTD Standard
8	Fuel Injector Valve Spring	FP-166009		V-555
1	Fuel Injector Cup	FP-3275266		V-555; orifice number 7; orifice size 0.006; 4 Deg. spray angle
8	Fuel Injector Screen	FP-3008706		V-555
<b>QTY</b>	<b>FUEL FILTERS &amp; PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Fuel Pump Gear	FP-119363		V-555; 3/4"
1	Fuel Pump Drive Shaft	FP-100215		V-555; 3/4"; Drive, Splined
1	Fuel Pump Gasket	FP-110855		V-555; Fuel Pump Body
<b>COOLING SYSTEM</b>				
<b>QTY</b>	<b>SEALS - FAN HUB</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	39835		
1	Redi-Sleeve	99181		
<b>QTY</b>	<b>THERMOSTAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	39821		
<b>ENGINE BLOCK &amp; PARTS</b>				
<b>QTY</b>	<b>GASKETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Pan Gasket	FP-175727		V-555
<b>QTY</b>	<b>GASKET SETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Gasket Conversion Set	FP-3801659		V-555; Incl. Big Cam & Small Cam Engs.
1	Kit Gasket Set	FP-2601625		Compl., Incl. Big Cam & Small Cam Engs.
<b>QTY</b>	<b>CAM BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Cam Brg.	FP-3013522		Position 1-5; V-555; Big Cam
2	Cam Brg.	FP-3278345	STD	Position 1-5; V-555; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.
3	Cam Brg.	FP-3030891		Position 2-3-4; V-555; Big Cam
3	Cam Brg.	FP-3031037	STD	Position 2-3-4; V-555; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.
<b>QTY</b>	<b>OIL COOLERS &amp; FILTERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Cooler	FP-173287		V-555; 8.000" X 5.000" tube bundle
2	Snap Ring	FP-3006745		V-555; Oil Cooler
1	Oil Cooler Gasket	FP-554320		V-555
1	Oil Cooler Gasket	FP-554321		V-555
<b>QTY</b>	<b>DIPSTICK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Dipstick	FP-216484		V-555; 90" Long; Blank Universal

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**Multi-Purpose Engines V555, V555-A, V555-C, V555-C215, V555-M, V555-200, V555-210, 27  
V555-225, V555-230, V555-240, VC555, VF555-240 Engs. (cont.)  
9.1L 555 OHV Diesel V8, 4.625" Bore**

**CRANKSHAFT/OIL PUMP**

QTY	CRANKSHAFT	PART NO.	SIZE	DESCRIPTION
1	Crankshaft	FP-201950		V-555
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3010461		Front; V-555
1	Redi-Sleeve	FP-3010465		Front; V-555
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3010459		Rear; V-555
1	Redi-Sleeve	FP-3010465		Rear; V-555
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-BM99820	STD	
1	Main Set	FP-BM99821	10	
1	Main Set	FP-BM99822	20	
1	Main Set	FP-BM99823	30	
1	Main Set	FP-BM99824	40	
1	Thrust Washer Set	FP-173640S		Position 5
QTY	OIL PUMP	PART NO.	SIZE	DESCRIPTION
1	Gasket	FP-3201388		V-555; Tube to Pump
1	Oil Pressure Regulator Valve	FP-183014		V-555

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
8	Liner w/o Sealing Rings	FP-3022529	STD	
8	Liner w/Sealing Rings	FP-3277608	STD	Incl. (1) FP-216283 Crevice seal, (1) FP-216284 Lower seal; Replaces O.E. No. 3277608
8	Cylinder Kit Complete	FP-3277634	STD	16.2:1 C.R.
8	Cylinder Kit Complete	FP-3277626	STD	17.0:1 C.R.
8	Sealing Ring, Liner	FP-216283		Crevice Seal
8	Sealing Ring, Liner	FP-216284		Lower Seal
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
8	Piston Body w/o Pin	FP-3019369	STD	16.2:1 C.R.
8	Piston Body w/o Pin	FP-3275431	STD	17.0:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3019634	STD	16.2:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3275949	STD	17.0:1 C.R.; Cast
8	Pin	FP-554785		
8	Piston Pin Retainer	FP-S16256		
8	Pin Bushing	FP-555421		
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
8	Rod Pair	FP-556350PR	STD	
8	Rod Pair	FP-556351PR	10	
8	Rod Pair	FP-556352PR	20	
16	Rod Bearing Half Upper/Lower	FP-556350	STD	
16	Rod Bearing Half Upper/Lower	FP-556351	10	
16	Rod Bearing Half Upper/Lower	FP-556352	20	
16	Rod Bearing Half Upper/Lower	FP-556353	30	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
8	Ring Set Single Cylinder	FP-3278723	STD	1-1/8, 1-3/32, 1-7/64 (1 cyl. set)

**KITS**

QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Kit	FP-555PREM		Premium; With Front & Rear Seals and Upper & Lower Gasket Sets
1	Complete Overhaul Kit	KS2-2506A		When depleted use FP-555PREM

**Multi-Purpose Engines VT225, VT555, VT555-C, VT555-C230, VT555-C240, VT555-C250, 28  
VT555-M, VT555-225, VTF555 Engs.  
9.1L 555 OHV Turbo-Diesel V8, 4.625" Bore**

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-157018		VT-555; Early
1	Valve Cover Gasket	FP-3277099		VT-555; Late
2	Head Gasket	FP-3017062		VT-555
1	Head Set	FP-AR63520		VT-555; Incl. Big Cam & Small Cam Engs.

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**28 Multi-Purpose Engines VT225, VT555, VT555-C, VT555-C230, VT555-C240, VT555-C250,**  
 (cont.) **VT555-M, VT555-225, VTF555 Engs.**  
 9.1L 555 OHV Turbo-Diesel V8, 4.625" Bore

<b>CYL. HEAD &amp; PARTS (cont.)</b>				
<b>QTY</b>	<b>VALVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
16	Intake	<b>FP-V1957</b>		Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
16	Intake	<b>V-1957 +</b> Std Only		Use w/VK-138 old style keeper; O.E. No. 166774; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.; When depleted use FP-V1957
16	Exhaust	<b>FP-3275356</b>		Int. & Exh.; VT-555; 1.6050" Head Dia., .3788" Stem Dia., 5.5650" O.A.L.
16	Valve Kit, Intake & Exhaust	<b>FP-3275779</b>		VT-555; Contains (1) FP-3275356 Valve & (2) FP-3275354 Keepers; 1.610" Head Dia., 5.570" O.A.L.
64	Keeper	<b>FP-3275354</b>		VT-555
64	Keeper	<b>FP-166772</b>		VT-555; Early Lock For Valve 166774; Do not use with Current Valve FP-3275356.
64	Keeper	<b>VK-138</b>		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove
64	Keeper	<b>VK-138R</b>		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Hardened
64	Keeper, Bulk	<b>VK-138B</b>		Exh. & Int.; Use w/FP-V1957 valve; 1 groove; Square cut key groove; Carton of 1000
<b>QTY</b>	<b>VALVE SEAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
16	Exh.	<b>FP-154390</b>	STD	VT-555
16	Int.	<b>FP-195000</b>	STD	VT-555
<b>QTY</b>	<b>VALVE GUIDE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
32	Guide	<b>FP-3278173</b>		VT-555; .3820" ID, 2.5000" O.A.L.
<b>QTY</b>	<b>VALVE SPRING</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
32	Spring	<b>FP-163037</b>		VT-555
<b>QTY</b>	<b>VALVE SEAL</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
32	Valve Stem Seal	<b>ST-2002</b>		Exh. & Int.; Installation requires valve guide machining; Polyacrylate
32	Valve Stem Seal	<b>FP-156541</b>		VT-555; Installation requires valve guide machining; Polyacrylate
32	Valve Stem Seal Bulk	<b>ST-2002BC</b>		Exh. & Int.; Positive type; Installation requires valve guide machining; Carton of 100; Polyacrylate
<b>QTY</b>	<b>ROCKER PARTS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Cam Follower Roller	<b>FP-153679</b>		Small Cam; Valve
8	Injector Cam Roller	<b>FP-154571</b>		Small Cam
16	Adjusting Screw Nut	<b>FP-S212</b>		1/2" - 20 UNF; Use w/FP-168306
8	Valve Roller Pin	<b>FP-169154</b>		Small Cam; Cam Follower
16	Rocker Lever Adjusting Screw	<b>FP-168306</b>		1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
8	Rocker Arm Socket	<b>FP-194037</b>		
8	Bushing	<b>FP-152936</b>		Injector Lever bushing
16	Bushing	<b>FP-152937</b>		Rocker Lever bushing
8	Fuel Injector Roller Pin	<b>FP-114223</b>		Small Cam; Cam Follower
8	Cam Follower Socket	<b>FP-107738</b>		Small Cam; Injector, Cam Follower
8	Valve Lock Pin	<b>FP-108186</b>		Small Cam; Cam Follower
8	Valve Lock Pin	<b>FP-111272</b>		Small Cam; Injector, Cam Follower
<b>CAMSHAFT GROUP</b>				
<b>QTY</b>	<b>TIMING COVER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Filler Cap	<b>FP-101322</b>		VT-555; 2"
<b>QTY</b>	<b>CAMSHAFT/LIFTER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Camshaft	<b>FP-3278031</b>		VT-555; Big Cam; CPL's 5038, 5039, 5044, 5047, 5048, 5050, 5051, 5053, 5065.
<b>ACCESSORY DRIVE</b>				
<b>QTY</b>	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Power Steering Pump Gasket	<b>FP-154916</b>		VT-555
<b>FUEL SYSTEM &amp; PARTS</b>				
<b>QTY</b>	<b>FUEL INJECTION</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Fuel Injector Sleeve	<b>FP-169630</b>		VT-555
8	O-Ring	<b>FP-3007759</b>		VT-555; Injector Tube Seal
<b>QTY</b>	<b>FUEL FILTERS &amp; PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
2	Fuel Pump Gear	<b>FP-119363</b>		VT-555; 3/4"
1	Fuel Pump Drive Shaft	<b>FP-100215</b>		VT-555; 3/4"; Drive, Splined
1	Fuel Pump Gasket	<b>FP-110855</b>		VT-555; Fuel Pump Body

(continued on next page)

**Multi-Purpose Engines VT225, VT555, VT555-C, VT555-C230, VT555-C240, VT555-C250, 28  
VT555-M, VT555-225, VTF555 Engs. (cont.)  
9.1L 555 OHV Turbo-Diesel V8, 4.625" Bore**

**COOLING SYSTEM**

QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		
1	Redi-Sleeve	99181		
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39821		

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-175727		VT-555
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3801659		VT-555; Incl. Big Cam & Small Cam Engs.
1	Kit Gasket Set	FP-2601625		Compl., Incl. Big Cam & Small Cam Engs.
1	Kit Gasket Set	260-1625		Compl., Incl. Big Cam & Small Cam Engs.
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
2	Cam Brg.	FP-3013522		Position 1-5; VT-555; Big Cam
2	Cam Brg.	FP-3278345	STD	Position 1-5; VT-555; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.
3	Cam Brg.	FP-3030891		Position 2-3-4; VT-555; Big Cam
3	Cam Brg.	FP-3031037	STD	Position 2-3-4; VT-555; Small Cam; Turbo Cam # FP-3278031 Only. Do Not Use For N/A Cam 201050.
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-173287		VT-555; 8.000" X 5.000" tube bundle
2	Snap Ring	FP-3006745		VT-555; Oil Cooler
1	Oil Cooler Gasket	FP-554320		VT-555
1	Oil Cooler Gasket	FP-554321		VT-555
QTY	DIPSTICK	PART NO.	SIZE	DESCRIPTION
1	Dipstick	FP-216484		VT-555; 90" Long; Blank Universal

**CRANKSHAFT/OIL PUMP**

QTY	CRANKSHAFT	PART NO.	SIZE	DESCRIPTION
1	Crankshaft	FP-201950		VT-555
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3010461		Front; VT-555
1	Redi-Sleeve	FP-3010465		Front; VT-555
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3010459		Rear; VT-555
1	Redi-Sleeve	FP-3010465		Rear; VT-555
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-BM99820	STD	
1	Main Set	FP-BM99821	10	
1	Main Set	FP-BM99822	20	
1	Main Set	FP-BM99823	30	
1	Main Set	FP-BM99824	40	
1	Thrust Washer Set	FP-173640S		Position 5
QTY	OIL PUMP	PART NO.	SIZE	DESCRIPTION
1	Oil Pump	FP-3275912		VT-555; Turbocharged; New
1	Gasket	FP-3201388		VT-555; Tube to Pump
1	Oil Pressure Regulator Valve	FP-183014		VT-555

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
8	Liner w/o Sealing Rings	FP-3022529	STD	VT-555
8	Liner w/Sealing Rings	FP-3277608	STD	VT-555; Incl. (1) FP-216283 Crevice seal, (1) FP-216284 Lower seal; Replaces O.E. No. 3277608
8	Cylinder Kit Complete	FP-3277634	STD	VT-555; 16.2:1 C.R.
8	Cylinder Kit Complete	FP-3277626	STD	VT-555; 17.0:1 C.R.
8	Sealing Ring, Liner	FP-216283		VT-555
16	Sealing Ring, Liner	FP-216284		VT-555
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
8	Piston Body w/o Pin	FP-3019369	STD	VT-555; 16.2:1 C.R.
8	Piston Body w/o Pin	FP-3275431	STD	VT-555; 17.0:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3019634	STD	VT-555; 16.2:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3275949	STD	VT-555; 17.0:1 C.R.; Cast
8	Pin	FP-554785		VT-555
8	Piston Pin Retainer	FP-S16256		VT-555

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**28 Multi-Purpose Engines VT225, VT555, VT555-C, VT555-C230, VT555-C240, VT555-C250, (cont.) VT555-M, VT555-225, VTF555 Engs.**  
9.1L 555 OHV Turbo-Diesel V8, 4.625" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	PISTONS (cont.)	PART NO.	SIZE	DESCRIPTION
8	Pin Bushing	FP-555420		VT-555
<b>CONNECTING RODS &amp; BRGS.</b>				
QTY		PART NO.	SIZE	DESCRIPTION
8	Rod Pair	FP-556350PR	STD	
8	Rod Pair	FP-556351PR	10	
8	Rod Pair	FP-556352PR	20	
16	Rod Bearing Half Upper/Lower	FP-556350	STD	
16	Rod Bearing Half Upper/Lower	FP-556351	10	
16	Rod Bearing Half Upper/Lower	FP-556352	20	
16	Rod Bearing Half Upper/Lower	FP-556353	30	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
8	Ring Set Single Cylinder	FP-3278723	STD	1-1/8, 1-3/32, 1-7/64 (1 cyl. set)
<b>KITS</b>				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Kit	FP-555PREM		Premium; With Front & Rear Seals and Upper & Lower Gasket Sets
1	Complete Overhaul Kit	KS2-2506A		When depleted use FP-555PREM

**29 Multi-Purpose Engines V6-200, V6-200-B, V6-215, V6-215-M, V6E-195, V6E-215, V6N-215, V6R-180, V6R-280, V588 Engs.**  
9.6L 588 OHV Diesel V6, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Intake	FP-216707		
12	Exhaust	FP-138887		
48	Keeper	FP-127554		
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
24	Exh. & Int.	245-1073-10 Std Only		2.0160" OD, 1.6900" ID, .2795" Depth
24	Exh. & Int.	FP-245107310	10	2.0160" OD, 1.6900" ID, .2795" Depth
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
12	Guide	FP-138937		Exh. & Int.

**CYLINDER COMPONENTS**

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Pin Bushing	FP-189763		
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-AR11930	STD	

**30 Multi-Purpose Engines VT6-200, VT6-280, VT6N-280, VT588 Engs.**  
9.6L 588 OHV Turbo-Diesel V6, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Intake	FP-216707		
12	Exhaust	FP-138887		
48	Keeper	FP-127554		
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
24	Exh. & Int.	245-1073-10 Std Only		2.0160" OD, 1.6900" ID, .2795" Depth
24	Exh. & Int.	FP-245107310	10	2.0160" OD, 1.6900" ID, .2795" Depth
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
12	Guide	FP-138937		Exh. & Int.

**CYLINDER COMPONENTS**

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Pin Bushing	FP-189763		
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-AR11930	STD	

**Multi-Purpose Engines H6, H6-1F, H135, H672, HA, HA6, HB, HB6, HMR, HR6, HR672, 31 HU170, N672, NH180, NH195, NHH180, NHH195 Eng's.**  
11.0L 672 OHV Diesel L6, 4.875" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Exhaust	FP-3417713		w/Letter 'S' stamped in head; Chrome plated stem; 1.6730" Head Dia., .3789" Stem Dia., 6.9400" O.A.L.
12	Exhaust	FP-144911		Exc. H-6 & HB-6 Eng's.; 1.7400" Head Dia., 7.0600" O.A.L.
12	Exhaust Valve Kit	FP-3803996		w/Letter 'S' stamped in head; Incl. FP-3417713 valve & (2) FP-3275354 keepers; 1.6730" Head Dia., .3789" Stem Dia., 6.940" O.A.L.
48	Keeper	VK-66		Exc. H-6 & HB-6 Eng's.; 2 groove
48	Keeper	VK-66R		Exc. H-6 & HB-6 Eng's.; 2 groove; Hardened
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-66890		Exc. H-6 & HB-6 Eng's.; Threaded I.D.; Ream .405"; Threaded ID; .405" ID, 3.44" OAL
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
48	Spring	FP-111446		Exc. H-6 & HB-6 Eng's.

**CAMSHAFT GROUP**

QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft	FP-3801030		H-6, HB-6, NH180, & NH195 Eng's.; Replaces O.E. Nos. 129860 & 3801030; Late style w/ 3/4" keyway; If camshaft being replaced has 1" keyway, contact Cummins dealer for 3/4" replacement key.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39302		
1	Wear Sleeve	J1396		Wear Sleeve

**COOLING SYSTEM**

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	473010N		
QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		Inner
1	Oil Seal	39877		Outer
1	Redi-Sleeve	99181		Inner
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39821		

**ENGINE BLOCK & PARTS**

QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Set	FP-BM27253	STD	Late Eng's.; w/5/32" oil holes

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99363		
1	Oil Seal	39813		
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39703		
1	Oil Seal	39823		(Wet Clutch)
1	Oil Seal	39807		6.000" Shaft
1	Redi-Sleeve	99363		
1	Redi-Sleeve	99599		(Wet Clutch)
1	Redi-Sleeve	99599		6.000" Shaft
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-3801260	STD	Late Eng's.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801261	10	Late Eng's.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801262	20	Late Eng's.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801263	30	Late Eng's.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers

(continued on next page)

**31 Multi-Purpose Engines H6, H6-1F, H135, H672, HA, HA6, HB, HB6, HMR, HR6, HR672, (cont.) HU170, N672, NH180, NH195, NHH180, NHH195 Engs.**  
11.0L 672 OHV Diesel L6, 4.875" Bore

**CYLINDER COMPONENTS**

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
12	Pin Bushing	FP-43067		Use w/straight pin boss con. rods; Straight rod bushing; 1.03" Width; 2 req'd. per rod
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-203670PR	STD	Late Engs.; w/insert type brgs.
6	Rod Pair	FP-203671PR	10	Late Engs.; w/insert type brgs.
6	Rod Pair	FP-203672PR	20	Late Engs.; w/insert type brgs.
6	Rod Pair	FP-203673PR	30	Late Engs.; w/insert type brgs.

**32 Multi-Purpose Engines HBS, HBS6, HS, HS6, HS672 Engs.**  
11.0L 672 OHV Diesel L6 (Supercharged), 4.875" Bore

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39302		
1	Wear Sleeve	J1396		Wear Sleeve

**COOLING SYSTEM**

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	473010N		
QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		Inner
1	Oil Seal	39877		Outer
1	Redi-Sleeve	99181		Inner
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39821		

**ENGINE BLOCK & PARTS**

QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Set	FP-BM27253	STD	Late Engs.; w/5/32" oil holes

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99363		
1	Oil Seal	39813		
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39703		
1	Oil Seal	39823		(Wet Clutch)
1	Oil Seal	39807		6.000" Shaft
1	Redi-Sleeve	99363		
1	Redi-Sleeve	99599		(Wet Clutch)
1	Redi-Sleeve	99599		6.000" Shaft
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-3801260	STD	Late Engs.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801261	10	Late Engs.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801262	20	Late Engs.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801263	30	Late Engs.; w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers

**CYLINDER COMPONENTS**

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
12	Pin Bushing	FP-43067		Use w/straight pin con. rods; Straight rod bushing; 1.03" Width; 2 req'd. per rod
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-203670PR	STD	Late Engs.; w/insert type brgs.
6	Rod Pair	FP-203671PR	10	Late Engs.; w/insert type brgs.
6	Rod Pair	FP-203672PR	20	Late Engs.; w/insert type brgs.
6	Rod Pair	FP-203673PR	30	Late Engs.; w/insert type brgs.

**33**

*Multi-Purpose Engines* GNH220, GNH220-GC, GNH220P, GNH250, GNHC250, H743, H743L, HMR6, HR6, HR6-B, HR6-B1, HR16, HRB, HRB6, HRB16, HRBB, HRBB6, HRBS, HRC6, HRF, HRF6, HRM6, HRP6, HRS, HRS6, HS743, N743, N743-B320, N743-C, N743-C220, N743-C320, N743-F, N743-P220, N743-PG220, N743-220, NH6, NH200, NH200-GC, NH200-GS, NH220, NH220-B, NH220-B1, NH220-C1, NH220-GC, NH220-GS, NH220-M, NH220-T, NH220-1F, NH743, NHB, NHB6, NHBS, NHC6, NHD, NHD180, NHE, NHE180, NHE195, NHE195-B, NHH, NHH6, NHH220, NHH220-T, NHHB, NHHRS, NHHRS6, NHHS6, NHK205, NHK220, NHRBS, NHRS, NHRS-1F, NHRS6, NHRS6-M, NHRS6-1F, NHS, NHS-1F, NHS6, NHS6-1F, NHS180, NS743, NS743-B290, NS743-B320, NS743-C290, NS743-C320, NS743-L, NS743-P290, NS743-P320 Engs.  
12.2L 743 OHV Diesel L6, 5.125" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-108692		N-743
1	Valve Cover Gasket	FP-108692		N-743; 4 Valve Head
1	Valve Cover Gasket	FP-108692		NH-220
1	Rocker Housing Gasket	FP-194106		N-743; N743 4 Valve Head
1	Head Gasket	FP-107371		N-743; Bare without grommets
3	Head Gasket	FP-AR2883		N-743; With grommets
1	Head Gasket	FP-107371		NH-220; Bare without grommets
3	Head Gasket	FP-AR2883		NH-220; With grommets
1	Head Set	FP-PGE743HS		N-743
1	Head Set	FP-3802076		N-743
1	Head Set	PGE743HS +		N-743; When depleted use FP-PGE743HS
1	Head Set	FP-PGC220K		NH-220
1	Head Set	FP-PGE743HS		NH-220
1	Head Set	FP-3802077		NH-220; .50 MM
1	Head Set	PGE743HS +		NH-220; When depleted use FP-PGE743HS
QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
18	Head Bolt	FP-188329		N-743
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Intake	FP-150288		N-743; N743 4 Valve Head
12	Exhaust	FP-144911		N-743; 4 Valve Head; 1.7400" Head Dia., 7.0600" O.A.L.
48	Keeper	VK-66		Exc. HRB, HRBB & HRF Engs.; 2 groove
48	Keeper	VK-66R		Exc. HRB, HRBB & HRF Engs.; 2 groove; Hardened
48	Keeper	FP-S2037		N-743; 4 Valve Head; 2 groove
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
12	Int.	FP-69965	STD	N-743; 4 Valve Head
12	Int.	FP-699655	5	N-743; 4 Valve Head
12	Int.	FP-6996520	20	N-743; 4 Valve Head
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-66890		N-743; N743 4 Valve Head; Threaded ID; .405" ID, 3.44" OAL
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	FP-111446		N-743; N743 4 Valve Head
QTY	PUSH RODS	PART NO.	SIZE	DESCRIPTION
6	Push Rod	FP-3046431		N-743; Injector; N743 4 Valve Head
12	Push Rod	FP-3046418		Exh.; N-743; N743 4 Valve Head
6	Push Rod	FP-3053377		Int.; N-743; N743 4 Valve Head
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
24	Valve Stem Seal	FP-202013		Exh. & Int.; N-743; N743 4 Valve Head
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
1	Rocker Shaft	FP-3038904		N-743; N743 4 Valve Head
24	Cam Follower Roller	FP-92601		N-743; Valve
6	Injector Cam Roller	FP-3062096		N-743; Injector
24	Adjusting Screw Nut	FP-S212		N-743; 4 Valve Head; 1/2" - 20 UNF; Use w/FP-168306
FG	Valve Bridge Guide	FP-123558		N-743; 4 Valve Head
24	Valve Roller Pin	FP-68513		N-743; Cam Follower; .500" OD x 1.280" Length
1	Rocker Lever Adjusting Screw	FP-168306		N-743; 4 Valve Head; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
4	Rocker Shaft Plug	FP-3038903		N-743; N743 4 Valve Head
6	Bushing	FP-118377		N-743; Injector; Cam Follower
6	Bushing	FP-218153		N-743; Injector; Rocker Lever; N743 4 Valve Head
24	Bushing	FP-140330		N-743; Valve; Rocker Lever, N743 4 Valve Head
12	Bushing	FP-118378		Int. & Exh.; N-743; Valve; Cam Follower
12	Fuel Injector Roller Pin	FP-3017544		N-743; Cam Follower
36	Valve Lock Pin	FP-118939		N-743; Injector and Valve; Cam Follower

(continued on next page)

**33** *Multi-Purpose Engines* **GNH220, GNH220-GC, GNH220P, GNH250, GNHC250, H743, H743L, HMR6, HR6, HR6-B, HR6-B1, HR16, HRB, HRB6, HRB16, HRBB, HRBB6, HRBS, HRC6, HRF, HRF6, HRM6, HRP6, HRS, HRS6, HS743, N743, N743-B320, N743-C, N743-C220, N743-C320, N743-F, N743-P220, N743-PG220, N743-220, NH6, NH200, NH200-GC, NH200-GS, NH220, NH220-B, NH220-B1, NH220-C1, NH220-GC, NH220-GS, NH220-M, NH220-T, NH220-1F, NH743, NHB, NHB6, NHBS, NHC6, NHD, NHD180, NHE, NHE180, NHE195, NHE195-B, NHH, NHH6, NHH220, NHH220-T, NHHB, NHHRS, NHHRS6, NHHRS6, NHK205, NHK220, NHRBS, NHRBS, NHRBS-1F, NHRBS6, NHRBS6-M, NHRBS6-1F, NHS, NHS-1F, NHS6, NHS6-1F, NHS180, NS743, NS743-B290, NS743-B320, NS743-C290, NS743-C320, NS743-L, NS743-P290, NS743-P320 Engs.**  
 12.2L 743 OHV Diesel L6, 5.125" Bore

**INT & EXH MANIFOLDS**

QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
3	Exhaust Manifold Gasket	FP-147263		N-743; 2 Valve Head
6	Exhaust Manifold Gasket	FP-3020943		N-743; 4 Valve Head

**CAMSHAFT GROUP**

QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft	FP-3801030		N-743, NH-220; 5 1/8" Bore; CPL's 28, 34, 36, 58, 80, 90, 91, 92, 114, 125.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key
1	Camshaft	FP-3023177		N-743, NH-220; 5 1/8" Bore; CPL's 452, 453, 466, 467, 468, 489, 490.
1	Camshaft Thrust Washer	FP-92351		N-743
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
1	Cam Follower Shaft	FP-3065125		N-743

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39302		
1	Wear Sleeve	J1396		Wear Sleeve

**FUEL SYSTEM & PARTS**

QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
6	Fuel Injector Sleeve	FP-202605		N-743
2	Fuel Pump Gear	FP-119363		NH-220, NH-743; 3/4"
1	Fuel Pump Drive Shaft	FP-100215		NH-220, NH-743; 3/4"; Drive, Splined
1	Fuel Pump Gasket	FP-110855		NH-220, NH-743; Fuel Pump Body

**COOLING SYSTEM**

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump - Heavy Duty	FP-BM76506		NH-220, NH-743; 5-1/8 S/S
1	Water Pump - Heavy Duty	FP-4919811		NH-220, NH-743; 5-1/8 S/S
1	Water Pump Impeller	FP-201766		NH-220, NH-743; 5-1/8 S/S; 4.75" Diameter
1	Water Pump Mech. Shaft Seal	FP-3029099		NH-220, NH-743
1	Ball Brg.	FP-177596		Inner; NH-220, NH-743
1	Water Pump Gasket	FP-9097		NH-220, NH-743; 5-1/8 S/S
1	Oil Seal	473010N		
QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		Inner
1	Oil Seal	39877		Outer
1	Redi-Sleeve	99181		Inner
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Thermostat	FP-135675		NH-220, NH-743; 180 degree F, Vented
1	Rect. or Square Seal	FP-186780		N-743, NH-220
1	Oil Seal	39821		

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-3349820		N-743, NH-220; 0.79mm / 0.031" Thick; One piece gskt.
1	Gear Cover Gasket	FP-214633R1		NH-220
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3802075A		N-743; With Front & Rear Crankshaft Seals
1	Gasket Conversion Set	FP-3802075		N-743; Without Crankshaft Seals
1	Gasket Conversion Set	FP-3801466		NH-220; Without Crankshaft Seals
1	In-Frame Gasket Set	FP-PGNH220IF		N-743, NH-220
1	In-Frame Gasket Set	PGNH220-IF +		N-743, NH-220; When depleted use FP-PGNH220IF

(continued on next page)



*Multi-Purpose Engines* GNH220, GNH220-GC, GNH220P, GNH250, GNHC250, H743, H743L, HMR6, HR6, HR6-B, HR6-B1, HR16, HRB, HRB6, HRB16, HRBB, HRBB6, HRBS, HRC6, HRF, HRF6, HRM6, HRP6, HRS, HRS6, HS743, N743, N743-B320, N743-C, N743-C220, N743-C320, N743-F, N743-P220, N743-PG220, N743-220, NH6, NH200, NH200-GC, NH200-GS, NH220, NH220-B, NH220-B1, NH220-C1, NH220-GC, NH220-GS, NH220-M, NH220-T, NH220-1F, NH743, NHB, NHB6, NHBS, NHC6, NHD, NHD180, NHE, NHE180, NHE195, NHE195-B, NHH, NHH6, NHH220, NHH220-T, NHHB, NHHRS, NHHRS6, NHHS6, NHK205, NHK220, NHRBS, NHRS, NHRS-1F, NHRS6, NHRS6-M, NHRS6-1F, NHS, NHS-1F, NHS6, NHS6-1F, NHS180, NS743, NS743-B290, NS743-B320, NS743-C290, NS743-C320, NS743-L, NS743-P290, NS743-P320 Engs.  
12.2L 743 OHV Diesel L6, 5.125" Bore

**33**  
(cont.)

**ENGINE BLOCK & PARTS (cont.)**

QTY	GASKET SETS (cont.)	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Gasket Set	FP-3011463		NH-220; Crankshaft seals not incl.
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Set	FP-BM27253	STD	N-743, NH-220
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-110848		N-743, NH-220; 6.500" X 4.000" tube bundle
1	Snap Ring	FP-110827		N-743, NH-220; Oil Cooler
1	Oil Cooler Gasket	FP-3008017		N-743, NH-220
1	Oil Cooler Gasket	FP-68210		N-743, NH-220
2	O-Ring	FP-3019116		N-743, NH-220; Oil Cooler
CRANKSHAFT/OIL PUMP				
QTY	CRANKSHAFT	PART NO.	SIZE	DESCRIPTION
1	Crankshaft	FP-3029341		NH-220
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3020183		Front; NH-220
1	Redi-Sleeve	99363		
1	Oil Seal	39813		
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3006737		Rear; NH-220; 6.00" Shaft
1	Oil Seal	39703		
1	Oil Seal	39807		(w/6.000" Shaft)
1	Oil Seal	39823		(Wet Clutch)
1	Redi-Sleeve	FP-3006743		Rear; NH-220; Wet Clutch; 6.00" Shaft
1	Redi-Sleeve	99363		
1	Redi-Sleeve	99599		(w/ 6.000" Shaft)
1	Redi-Sleeve	99599		(Wet Clutch)
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-3801260	STD	N-743, NH-220; Incl. thrust washers
1	Main Set	FP-3801261	10	N-743, NH-220; Incl. thrust washers
1	Main Set	FP-3801262	20	N-743, NH-220; Incl. thrust washers
1	Main Set	FP-3801263	30	N-743, NH-220; Incl. thrust washers
1	Main Set	FP-3801264	40	N-743, NH-220; Incl. thrust washers
2	Thrust Washer	FP-3067568	STD	N-743, NH-220
CYLINDER COMPONENTS				
QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Rings	FP-184400	STD	HR-6
6	Liner w/o Sealing Rings	FP-184420		HR-6; 2 Valve Head
6	Liner w/o Sealing Rings	FP-184400	STD	NH-220; 4 Valve Head
6	Liner w/o Sealing Rings	FP-184400	STD	NS-743
6	Liner w/Sealing Rings	FP-BM98226		HR-6; 2 Valve Head
6	Liner w/Sealing Rings	FP-BM98224	STD	NH-220; 4 Valve Head
6	Cylinder Kit Complete	FP-AR7383	STD	For N-743 Series, NH-220, NHE Series, NHH, NHH-220, NHH-220T, NHHB, NHK-220 & NHK-205 Engs.; 14.5:1 C.R.
6	Cylinder Kit Complete	FP-AR7375	STD	HR-6; 15.5:1 C.R.; 15.5:1 C.R.
6	Cylinder Kit Complete	FP-AR7399	STD	NS-743; 14.0:1 C.R.
6	Sleeve Assy.	SL-2271G +	Std Only	For N-743 Series, NHE Series, NHH, NHH-220, NHH-220T, NHHB, NHK-220 & NHK-205 Engs.; When depleted use FP-SL2271G
6	Sleeve Assy.	FP-SL2271G +		For N-743 Series, NHE Series, NHH, NHH-220, NHH-220T, NHHB, NHK-220 & NHK-205 Engs.; 15.0:1 C.R.; When depleted use FP-AR7383
6	Sealing Ring, Liner	FP-181449		HR-6, NH-220, NS-743; 2 & 4 Valve Head
6	Sealing Ring, Liner	FP-216879		HR-6, NH-220, NS-743; 2 & 4 Valve Head
6	Sealing Ring, Liner	FP-215983		HR-6, NH-220, NS-743; 2 & 4 Valve Head; Crevice Seal

(continued on next page)

**33** *Multi-Purpose Engines* GNH220, GNH220-GC, GNH220P, GNH250, GNHC250, H743, H743L, HMR6, HR6, HR6-B, HR6-B1, HR16, HRB, HRB6, HRB16, HRBB, HRBB6, HRBS, HRC6, HRF, HRF6, HRM6, HRP6, HRS, HRS6, HS743, N743, N743-B320, N743-C, N743-C220, N743-C320, N743-F, N743-P220, N743-PG220, N743-220, NH6, NH200, NH200-GC, NH200-GS, NH220, NH220-B, NH220-B1, NH220-C1, NH220-GC, NH220-GS, NH220-M, NH220-T, NH220-1F, NH743, NHB, NHB6, NHBS, NHC6, NHD, NHD180, NHE, NHE180, NHE195, NHE195-B, NHH, NHH6, NHH220, NHH220-T, NHHB, NHHRS, NHHRS6, NHHS6, NHK205, NHK220, NHRBS, NHR6, NHR6-1F, NHR6-M, NHR6-1F, NHS, NHS-1F, NHS6, NHS6-1F, NHS180, NS743, NS743-B290, NS743-B320, NS743-C290, NS743-C320, NS743-L, NS743-P290, NS743-P320 Engs.  
12.2L 743 OHV Diesel L6, 5.125" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Body w/o Pin	FP-200680		HR-6; 15.5:1 C.R.
6	Piston Body w/o Pin	FP-199821	STD	NH-220; 15.0:1 C.R.
6	Piston Body w/o Pin	FP-200710	STD	NS-743; 14.0:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-AR7420		HR-6; 15.5:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-AR7510	STD	NH-220; 15.0:1 C.R.; Dish Head .240" deep x 3.880" dia., straight pin boss piston.
6	Piston Kit w/Pin & Retainers	FP-AR7440		NS-743; 14.0:1 C.R.
6	Pin	FP-203070	STD	HR-6, NH-220, NS-743; 1.9989" Dia.
6	Piston Pin Retainer	FP-175755		HR-6, NH-220, NS-743
12	Pin Bushing	FP-43067		N-743; Straight rod bushing; 1.03" Width; 2 req'd. per rod
6	Pin Bushing	FP-187420		1 piece bushing; 2.20" Width

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
12	Con. Rod Nut	FP-69936		N-743
6	Rod Pair	FP-203670PR	STD	
6	Rod Pair	FP-203671PR	10	
6	Rod Pair	FP-203672PR	20	
6	Rod Pair	FP-203673PR	30	
12	Rod Bearing Half Upper/Lower	FP-203670	STD	N-743
12	Rod Bearing Half Upper/Lower	FP-203671	10	N-743
12	Rod Bearing Half Upper/Lower	FP-203672	20	N-743
12	Rod Bearing Half Upper/Lower	FP-203673	30	N-743
12	Rod Bearing Half Upper/Lower	FP-203674	40	N-743

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-AR12098	STD	3-5/32, 1-1/4
6	Premium Set	9822KX +	Std Only	Check piston grooving before supplying ring set; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set); When depleted use FP-9822KX

**KITS**

QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	In-Frame Overhaul Kit	FP-NH220		N-743; With Upper Gasket Set & Pan Gasket
1	Complete Overhaul Kit	FP-NH220OH		N-743; With Front & Rear Seals and Upper & Lower Gasket Sets

**34** *Multi-Purpose Engines*  
12.2L 743 OHV NG L6, 5.125" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-108692		
3	Head Gasket	FP-AR2883		With grommets
1	Head Set	FP-3802077		.50 MM
QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
18	Head Bolt	FP-188329		
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Exhaust	FP-3226064		Int. & Exh.
48	Keeper	FP-S2037		Int. & Exh.; 2 groove
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
24	Int. & Exh.	FP-90210020	STD	
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-66890		Int. & Exh.; Threaded ID; .405" ID, 3.44" OAL
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	FP-4062902		Int. & Exh.; 2.4100" Free Height

(continued on next page)

<b>IGNITION</b>					
QTY	IGNITION	PART NO.	SIZE	DESCRIPTION	
6	Glow Plug Adapter	FP-90210035		Spark Plug	
<b>CAMSHAFT GROUP</b>					
QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION	
1	Camshaft	FP-3801030		Prior To S/N 2511994; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key	
<b>ACCESSORY DRIVE</b>					
QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION	
1	Oil Seal	FP-3004316		Front Cover	
<b>COOLING SYSTEM</b>					
QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION	
1	Rect. or Square Seal	FP-186780		Thermostat Seal	
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION	
1	Thermostat	FP-135675		180 degree F, Vented	
<b>ENGINE BLOCK &amp; PARTS</b>					
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION	
1	Oil Pan Gasket	FP-3349820		0.79mm / 0.031" Thick; One piece gskt.	
1	Gear Cover Gasket	FP-214633R1			
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION	
1	Gasket Conversion Set	FP-3802075		Without Crankshaft Seals	
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION	
1	Cam Set	FP-BM27253	STD		
<b>CRANKSHAFT/OIL PUMP</b>					
QTY	CRANKSHAFT	PART NO.	SIZE	DESCRIPTION	
1	Crankshaft	FP-3029341			
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION	
1	Oil Seal	FP-3010457			
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION	
1	Oil Seal	FP-3006737		6.00" Shaft	
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION	
1	Main Set	FP-3801260	STD	Incl. thrust washers	
1	Main Set	FP-3801261	10	Incl. thrust washers	
1	Main Set	FP-3801262	20	Incl. thrust washers	
1	Main Set	FP-3801263	30	Incl. thrust washers	
1	Main Set	FP-3801264	40	Incl. thrust washers	
<b>CYLINDER COMPONENTS</b>					
QTY	LINERS	PART NO.	SIZE	DESCRIPTION	
6	Liner w/o Sealing Rings	FP-184400	STD	4 Valve Head	
6	Liner w/Sealing Rings	FP-BM98224	STD		
6	Sealing Ring, Liner	FP-181449			
6	Sealing Ring, Liner	FP-216879			
6	Sealing Ring, Liner	FP-215983			Crevise Seal
6	Sealing Ring, Liner	FP-215983			
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION	
6	Piston Body w/o Pin	FP-200730		12.0:1 C.R.	
6	Piston Kit w/Pin & Retainers	FP-AR7460		12.0:1 C.R.	
6	Pin	FP-203070	STD	1.9989" Dia.	
12	Piston Pin Retainer	FP-175755			
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION	
12	Rod Bearing Half Upper/Lower	FP-203670	STD		
12	Rod Bearing Half Upper/Lower	FP-203671	10		
12	Rod Bearing Half Upper/Lower	FP-203672	20		
12	Rod Bearing Half Upper/Lower	FP-203673	30		
12	Rod Bearing Half Upper/Lower	FP-203674	40		
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION	
6	Ring Set Single Cylinder	FP-AR12098	STD	3-5/32, 1-1/4	

## 35 Multi-Purpose Engines NHT6, NHHRT, NHHRT6, NHHRT6, NHHT, NHHT6, NHHT6-B1, NHHTO, NHRT6, NRT, NRT6, NRTO, NRTO6, NRTO6-B1, NRTO6-B1G, NRTO6-C1, NRTO6-P1, NT, NT6, NT230, NT262, NT265, NT743, NT743-C, NT743-F, NT743-G, NT743-P, NTE235, NTO, NTO6, NTO6-B1, NTO6-C1, NTO262, NTO280, NTO362, NTR230 Engs.

12.2L 743 OHV Turbo-Diesel L6, 5.125" Bore

CYL. HEAD & PARTS				
<b>QTY</b>	<b>GASKETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Valve Cover Gasket	FP-108692		NT-743; 4 Valve Head
1	Rocker Housing Gasket	FP-194106		NT-743; 4 Valve Head
1	Head Gasket	FP-107371		NT-743; Bare without grommets
3	Head Gasket	FP-AR2883		NT-743; With grommets
1	Head Set	FP-PGE743HS		NT-743
1	Head Set	FP-3802076		NT-743
1	Head Set	PGE743HS +		NT-743; When depleted use FP-PGE743HS
<b>QTY</b>	<b>HEAD BOLTS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
18	Head Bolt	FP-188329		NT-743
<b>QTY</b>	<b>VALVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
12	Exhaust	FP-144911		1.7400" Head Dia., 7.0600" O.A.L.
48	Keeper	VK-66		2 groove
48	Keeper	VK-66R		2 groove; Hardened
<b>QTY</b>	<b>VALVE GUIDE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
24	Guide	FP-66890		Threaded ID; .405" ID, 3.44" OAL
<b>QTY</b>	<b>VALVE SPRING</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
24	Spring	FP-111446		Exc. NHHTO-6-B-1, NT & NTO-6-C-1 Engs.; O.E. No. 262208
INT & EXH MANIFOLDS				
<b>QTY</b>	<b>INT. &amp; EXH. MANIFOLDS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
3	Exhaust Manifold Gasket	FP-147263		NT-743; 2 Valve Head
6	Exhaust Manifold Gasket	FP-3020943		NT-743; 4 Valve Head
CAMSHAFT GROUP				
<b>QTY</b>	<b>CAMSHAFT/LIFTER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Camshaft	FP-3023177		NRT, & NRTO Engs. Right hand w/outboard bearing, Late style w/3/4" keyway to replace O.E. Nos. 143450, 3023177, & 3023229. If camshaft being replaced has 1" keyway contact Cummins dealer for 3/4" replacement key.
1	Camshaft	FP-3801030		NT, NTE-235, NTO-262, & NTO-280 Engs.; Late style w/3/4" keyway, To replace O.E. Nos. 129860, & 3801030; If camshaft being replaced has 1" keyway contact Cummins dealer for replacement key.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
ACCESSORY DRIVE				
<b>QTY</b>	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	39302		
1	Wear Sleeve	J1396		Wear Sleeve
FUEL SYSTEM & PARTS				
<b>QTY</b>	<b>FUEL FILTERS &amp; PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Fuel Pump Gasket	FP-110855		NHT-743; Fuel Pump Body
COOLING SYSTEM				
<b>QTY</b>	<b>WATER PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Water Pump Gasket	FP-9097		NT-743; 5-1/8 S/S
1	Oil Seal	473010N		
<b>QTY</b>	<b>SEALS - FAN HUB</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	39835		Inner
1	Oil Seal	39877		Outer
1	Redi-Sleeve	99181		Inner
<b>QTY</b>	<b>THERMOSTAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Rect. or Square Seal	FP-186780		NT-743
ENGINE BLOCK & PARTS				
<b>QTY</b>	<b>GASKETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Pan Gasket	FP-3349820		NT-743; 0.79mm / 0.031" Thick; One piece gskt.
<b>QTY</b>	<b>GASKET SETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Gasket Conversion Set	FP-3802075A		NT-743; With Front & Rear Crankshaft Seals

(continued on next page)

+ Superseded Part Number

*Multi-Purpose Engines* **NFT6, NHHRT, NHHRT6, NHHRT0, NHHT, NHHT6, NHHT6-B1, 35  
NHHTO, NHRT6, NRT, NRT6, NRTO, NRTO6, NRTO6-B1, NRTO6-B1G, NRTO6-C1, (cont.)  
NRTO6-P1, NT, NT6, NT230, NT262, NT265, NT743, NT743-C, NT743-F, NT743-G,  
NT743-P, NTE235, NTO, NTO6, NTO6-B1, NTO6-C1, NTO262, NTO280, NTO362, NTR230  
Engs.  
12.2L 743 OHV Turbo-Diesel L6, 5.125" Bore**

**ENGINE BLOCK & PARTS (cont.)**

QTY	GASKET SETS (cont.)	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3802075		NT-743; Without Crankshaft Seals
1	In-Frame Gasket Set	FP-PGNH220IF		NT-743
1	In-Frame Gasket Set	PGNH220-IF +		NT-743; When depleted use FP-PGNH220IF
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Set	FP-BM27253	STD	
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-110848		6.500" X 4.000" tube bundle
1	Oil Cooler Gasket	FP-3008017		NT-743
1	Oil Cooler Gasket	FP-68210		NT-743
2	O-Ring	FP-3019116		NT-743; Oil Cooler
CRANKSHAFT/OIL PUMP				
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99363		
1	Oil Seal	39813		
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39703		
1	Oil Seal	39823		(Wet Clutch)
1	Oil Seal	39807		6.000" Shaft
1	Redi-Sleeve	99363		
1	Redi-Sleeve	99599		(Wet Clutch)
1	Redi-Sleeve	99599		6.000" Shaft
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-3801260	STD	w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801261	10	w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801262	20	w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
1	Main Set	FP-3801263	30	w/partial groove brgs.; Incl. thrust washer set; Incl. thrust washers
CYLINDER COMPONENTS				
QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Rings	FP-184400	STD	NT-743
6	Liner w/Sealing Rings	FP-BM98224	STD	
6	Cylinder Kit Complete	FP-AR7383	STD	For NHHT, NHHTO, NHHTO-6-B1, NT, NT-20 Degree Tilt, NTO, NTTO, NTO-6-C1 & NTO-262 Engs.; 15.0:1 C.R.; 14.5:1 C.R.
6	Sleeve Assy.	SL-2271G +	Std Only	For NHHT, NHHTO, NHHTO-6-B1, NT, NT-20 Degree Tilt, NTO, NTTO, NTO-6-C1 & NTO-262 Engs.; When depleted use FP-SL2271G
6	Sleeve Assy.	FP-SL2271G +		For NHHT, NHHTO, NHHTO-6-B1, NT, NT-20 Degree Tilt, NTO, NTTO, NTO-6-C1 & NTO-262 Engs.; 15.0:1 C.R.; When depleted use FP-AR7383
6	Sealing Ring, Liner	FP-181449		
6	Sealing Ring, Liner	FP-216879		
6	Sealing Ring, Liner	FP-215983		NT-743; Crevice Seal
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Body w/o Pin	FP-199821	STD	NT-743; 15.0:1 C.R.
6	Piston Kit w/Pin & Retainers	FP-AR7510	STD	NT-743; 15.0:1 C.R.; Dish Head .240" deep x 3.880" dia., straight pin boss piston.
6	Pin	FP-203070	STD	NT-743; 1.9989" Dia.
6	Piston Pin Retainer	FP-175755		NT-743
12	Pin Bushing	FP-43067		Straight rod bushing; 1.03" Width; 2 req'd. per rod
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-203670PR	STD	
6	Rod Pair	FP-203671PR	10	
6	Rod Pair	FP-203672PR	20	
6	Rod Pair	FP-203673PR	30	
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-AR12098	STD	For four-ring piston; FP-199821; 3-5/32, 1-1/4
6	Premium Set	9822KX +	Std Only	Check piston grooving before supplying ring set; For three-ring pistons only; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set); When depleted use FP-9822KX

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**35** Multi-Purpose Engines NFT6, NHHRT, NHHRT6, NHHRTO, NHHT, NHHT6, NHHT6-B1, (cont.) NHHTO, NHRT6, NRT, NRT6, NRTO, NRTO6, NRTO6-B1, NRTO6-B1G, NRTO6-C1, NRTO6-P1, NT, NT6, NT230, NT262, NT265, NT743, NT743-C, NT743-F, NT743-G, NT743-P, NTE235, NTO, NTO6, NTO6-B1, NTO6-C1, NTO262, NTO280, NTO362, NTR230 Engs.  
12.2L 743 OHV Turbo-Diesel L6, 5.125" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	PISTON RINGS (cont.)	PART NO.	SIZE	DESCRIPTION
6	Premium Set	FP-9822KX		Check piston grooving before supplying ring set; For three-ring pistons only; 1-5/32, 1-1/8, 1-3/16 (1 cyl. set)

**36** Multi-Purpose Engines V8-265, V8-300, V8-300-M, V8-350, V8E-235, V8N-300-M, V8R-240, V785 Engs.  
12.9L 785 OHV Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
2	Head Gasket	FP-212224		V-785
1	Head Set	FP-3013498		V-785; Single Head Set
1	Head Set	FP-3013508		V-785; Upper Set
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
16	Intake	FP-216707		V8-265 Engs. only
16	Exhaust	FP-138887		V8-265 Engs. only
64	Keeper	FP-127554		
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
32	Exh. & Int.	245-1073-10	Std Only	O.E. Nos. 127930 & 3017759; 2.0160" OD, 1.6900" ID, .2795" Depth
32	Exh. & Int.	FP-245107310	10	O.E. Nos. 127930 & 3017759; 2.0160" OD, 1.6900" ID, .2795" Depth
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
32	Guide	FP-138937		V8-265 Engs. only

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-151101		
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3801541		

**CYLINDER COMPONENTS**

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
8	Pin Bushing	FP-187420		1 piece bushing; 2.20" Width
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
8	Ring Set Single Cylinder	FP-AR11930	STD	V8-265 Engs. only
8	Ring Set Single Cylinder	FP-4089810	STD	V8-300, V8-350 Engs.; 1-5/32, 2-1/8, 1-3/16 (1 cyl. set)

**37** Multi-Purpose Engines VT8-370-M, VT8-400, VT8-430, VT8N-370-M, VT785 Engs.  
12.9L 785 OHV Turbo-Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
2	Head Gasket	FP-212224		VT-785
1	Head Set	FP-3013508		VT-785; Single Head Set
1	Head Set	FP-3013498		VT-785; Upper Set
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
64	Keeper	FP-127554		
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
32	Exh. & Int.	245-1073-10	Std Only	O.E. Nos. 127930 & 3017759; 2.0160" OD, 1.6900" ID, .2795" Depth
32	Exh. & Int.	FP-245107310	10	O.E. Nos. 127930 & 3017759; 2.0160" OD, 1.6900" ID, .2795" Depth

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-151101		
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3801541		

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*Multi-Purpose Engines VT8-370-M, VT8-400, VT8-430, VT8N-370-M, VT785 Engs. 37*  
12.9L 785 OHV Turbo-Diesel V8, 5.5" Bore (cont.)

**CYLINDER COMPONENTS**

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
8	Pin Bushing	FP-187420		1 piece bushing; 2.20" Width
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
8	Ring Set Single Cylinder	FP-4089810	STD	1-5/32, 2-1/8, 1-3/16 (1 cyl. set)

*Multi-Purpose Engines G855 "Rio Grande" (Natural Gas) 38*  
14.0L 855 OHV NG L6, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
3	Valve Cover Gasket	FP-3054841		Single valve cover gskt., 5-bolt Engs.; 3 req'd.
3	Rocker Housing Gasket	FP-3017750		Single rocker box gskt., 5-bolt Engs.; 3 req'd.
3	Valve Cover Gasket	260-1679V +		Single rocker box gskt., 5-bolt Engs.; 3 req'd.; When depleted use FP-3017750
3	Head Gasket	FP-4058790		Single head gskt., Incl. .010 thick water grommets. 3 req'd.
3	Head Gasket	260-7000 +		Single head gskt., Incl. .010 thick water grommets. 3 req'd.; When depleted use FP-4058790
1	Head Set	FP-PG1330NG		NG-855; .010 O/S Grommets; Accommodates Three Cylinder Heads
1	Head Set	FP-PG1330SNG		NG-855; Standard
1	Valve Timing Gasket	FP-PGC100		Cam timing gskt. set, BC Engs., Incl. 3 each .007", .021", & .030" thick gskts. & 3 beaded seal cover gskts.
1	Valve Timing Gasket	FP-PGC101		Cam timing gskt. set, SC Engs., incl. 3 each .007", .015", & .030" thick gskts.
1	Valve Timing Gasket	260-2088 +		Cam timing gskt. set, SC Engs., incl. 3 each .007", .015", & .030" thick gskts.; When depleted use FP-PGC101
1	Cam Follower Gasket	FP-3029416		MVT; Mounting
QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
36	Head Bolt	FP-209700		NG-855; 6 1/4"
36	Head Bolt	FP-3013623		NG-855; 7 1/4"
QTY	MISCELLANEOUS	PART NO.	SIZE	DESCRIPTION
2	Bolt	FP-70772		Qty 2 Per Head; 1/4" - 20 X 1/2" Fillister machine screw
1	Brass Water Tube	FP-CWB008		Brass
1	Fitting	FP-181213		90 Deg.
1	Insert, Water	FP-3823681		Threaded
QTY	FREEZE PLUGS	PART NO.	SIZE	DESCRIPTION
6	Expansion Plug	FP-216524		1 1/4" Dia. Cup
18	Expansion Plug	FP-213395		1" Dia. Cup
3	Expansion Plug	FP-213394		3/4" Dia. Cup
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
24	Exhaust	FP-3406659	STD	Exh. & Int.; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.
48	Keeper	FP-127554		NG-855
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
24		FP-80210020		NG-855
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-3006456		Exh. & Int.; Plain w/threaded I.D.; Check Cummins Service Topics 93T2-2; .4530" ID, 3.3900" O.A.L.
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	FP-4957806		Exh. & Int.; 2.3350" Free Height
QTY	VALVE MISC.	PART NO.	SIZE	DESCRIPTION
24	Rotocap	FP-90210011		NG-855
ENGINE BRAKE				
QTY	ENGINE BRAKE	PART NO.	SIZE	DESCRIPTION
1	C-Brake Gasket Set	PGC20 +		Jake Brake gskt. set, 7-bolt Engs. 1 req'd.; When depleted use FP-PGC20
1	Jake Brake Gasket Set	PGJ-10		Jake Brake gskt. set, 5-bolt Engs. 1 req'd.
IGNITION				
QTY	IGNITION	PART NO.	SIZE	DESCRIPTION
6	Glow Plug Adapter	FP-90210035		NG-855; Spark Plug
INT & EXH MANIFOLDS				
QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
3	Intake Manifold Gasket	FP-3008591		Aftercooler

(continued on next page)

<b>38 Multi-Purpose Engines G855 "Rio Grande" (Natural Gas)</b> (cont.) 14.0L 855 OHV NG L6, 5.5" Bore				
<b>CAMSHAFT GROUP</b>				
QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
<b>ACCESSORY DRIVE</b>				
QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Accessory Drive Repair Kit	FP-90004		
1	Oil Seal	39302		
1	Wear Sleeve	J1396		Wear Sleeve
<b>FUEL SYSTEM &amp; PARTS</b>				
QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
1	Fuel Injection Driver Tang	FP-70690		Typical AFC Pump
1	Fuel Injection Driver Tang	FP-70690		Typical PTG Pump
6	Fuel Injector Screen	FP-137808		Typical AFC Pump
6	Fuel Injector Screen	FP-149767		Typical AFC Pump
6	Fuel Injector Screen	FP-200743		Typical AFC Pump
2	Fuel Crossover Connection	FP-147100		Qty 2 Per Head
<b>COOLING SYSTEM</b>				
QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump Impeller	FP-208134		Komatsu; 5.25" Diameter
1	Water Pump Impeller	FP-3602788		4.60" Diameter; Cast Iron
1	Oil Seal	473010N		
6	O-Ring	FP-70624		
2	O-Ring	FP-212161		Water Transfer Tube
QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		Inner
1	Oil Seal	39877		Outer
1	Redi-Sleeve	99181		Inner
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Thermostat	FP-135675		NG-855; 180 degree F, Vented
1	Rect. or Square Seal	FP-186780		NG-855
QTY	MISCELLANEOUS	PART NO.	SIZE	DESCRIPTION
1	Water Filter Valve	FP-179901		3/8 Pipe-3/8 Heater Hose
1	Water Heater Valve	FP-157098		3/8 Pipe-5/8 Heater Hose
1	Water Bypass Connection	FP-130394		
1	Hose	FP-102522		
2	Hose Clamp	FP-43828B		
1	Transfer Tube	FP-215041		
1	Ring - Seal	FP-3024709		
1	Bypass Tube	FP-213485		
<b>ENGINE BLOCK &amp; PARTS</b>				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	260-6004 +		One piece gskt.; When depleted use FP-3349820
1	Oil Pan Gasket	FP-3349820		0.79mm / 0.031" Thick; One piece gskt.
1	Oil Pan Gasket Set	FP-PGC300		All 855 Engs.; Incl. 1 pc. oil pan gskt.; Includes Seals For Suction Tube & Drain Plug
1	Oil Pan Gasket Set	PGC300 +		All 855 Engs.; Incl. 1 pc. oil pan gskt.; Includes Seals For Suction Tube & Drain Plug; When depleted use FP-PGC300
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3801464		Non-FFC, w/piston cooling
1	Gasket Conversion Set	FP-3801463		Non-FFC, Non-piston cooling
1	Custom Gasket Set	FP-PG1331NGB		NG-855
1	Custom Gasket Set	PG1331NGB +		NG-855; When depleted use FP-PG1331NGB
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Set	FP-3801106	STD	NG-855 Big Cam
1	Cam Set	FP-BM27253	STD	NG-855 Small Cam
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Aftercooler Gasket Set	FP-PGC205		For 214836 Aftercooler
1	Aftercooler Gasket Set	PGC205 +		For 214836 Aftercooler; When depleted use FP-PGC205
2	Aftercooler Housing Gasket	FP-216486		
1	Aftercooler Gasket	FP-195950		
1	Aftercooler Gasket	FP-215044		
3	Aftercooler Gasket	FP-215045		
1	Aftercooler Gasket	FP-3032348		
1	Aftercooler Gasket	FP-3069098		

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*Multi-Purpose Engines G855 "Rio Grande" (Natural Gas) 38*  
14.0L 855 OHV NG L6, 5.5" Bore (cont.)

**ENGINE BLOCK & PARTS (cont.)**

<b>OIL COOLERS &amp; FILTERS</b>				
QTY		PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-142608		15.312" x 5.000" tube bundle. Industrial w/FFC, Non-FFC NT Eng.
1	Oil Cooler Element	FP-3021581		12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC
1	Oil Cooler Element	213-3021581		12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC
1	Oil Cooler Element	FP-3052514		13.125" x 3.125" tube bundle w/1.250" nipple. For Eng. w/single oil filter, Big Cam III & Big Cam IV (from 10/15/86)
1	Oil Cooler Gasket Kit	FP-PGC204		Low Mount Oil Cooler
1	Oil Cooler Gasket Kit	PGC204 +		Low Mount Oil Cooler; When depleted use FP-PGC204
1	Oil Cooler Gasket Kit	FP-PGC200		Non-Piston Cooled; Oil Cooler FP-142608; 16"
1	Oil Cooler Gasket Kit	PGC200 +		Non-Piston Cooled; Oil Cooler FP-142608; 16"; When depleted use FP-PGC200
1	After Cooler Gasket	213-201 +		Cummins 5 1/2" bore Eng. w/Flange mount.; When depleted use FP-213201
1	O-Ring	FP-109080		Aftercooler
4	O-Ring	FP-195952		Aftercooler Core Seal
1	Air Crossover Gasket	FP-216487		Aftercooler
1	Air Crossover Gasket	FP-3012972		Aftercooler

**CRANKSHAFT/OIL PUMP**

<b>CRANKSHAFT</b>				
QTY		PART NO.	SIZE	DESCRIPTION
1	Crankshaft	FP-3608833		NG-855; Snub Nose
1	Crankshaft	FP-3029340		NG-855; Tapered Nose
<b>SEALS - FRONT CRANK</b>				
QTY		PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3006736		Front; NG-855; Snub Nose
1	Oil Seal	FP-3010457		Front; NG-855; Tapered Nose
1	Redi-Sleeve	FP-3006742		Front; NG-855; Snub Nose
<b>SEALS - REAR CRANK</b>				
QTY		PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3006737		Rear; NG-855; 6.00" Shaft
1	Oil Seal Kit	FP-PGC1014		Rear
1	Oil Seal Kit	PGC1014 +		Rear; When depleted use FP-PGC1014
1	Redi-Sleeve	FP-3006743		Rear; NG-855; Wet Clutch; 6.00" Shaft
<b>MAIN BEARINGS</b>				
QTY		PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-3801260	STD	NG-855; Incl. thrust washers
1	Main Set	FP-3801261	10	NG-855; Incl. thrust washers
1	Main Set	FP-3801262	20	NG-855; Incl. thrust washers
1	Main Set	FP-3801263	30	NG-855; Incl. thrust washers
1	Main Set	FP-3801264	40	NG-855; Incl. thrust washers

**CYLINDER COMPONENTS**

<b>LINERS</b>				
QTY		PART NO.	SIZE	DESCRIPTION
6	Liner w/o Sealing Rings	FP-3065405	20	.020/.040 LPF; 20/40 Oversize lower press-fit liner; Flange Dia. is .020" Larger than Std.; Flange thickness is .020" greater than Std.; Pilot Dia. is .040" larger than Std.
6	Liner w/o Sealing Rings	FP-3055099	STD	NG-855; Standard LPF; Std. Liners
6	Liner w/Sealing Rings	FP-3801387	20	Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger & flange thickness .010" greater than Std. Replaces O.E. Nos. 3046325 & 3801387 w/seals (referred to as '10/20 Size').
6	Liner w/Sealing Rings	FP-3803219	20	Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger than Std. & lower Press Fit is increased by .040". Replaces O.E. Nos. 3056405 & 3803219 (referred to as '20/40 Size').
6	Liner w/Sealing Rings	FP-3801826	STD	NG-855; Standard LPF; Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Std. size, Lower Press Fit design. Replaces O.E. Nos. 3055099 & 3801826 w/seals.
6	Cylinder Kit Complete	FP-CK66305405	20	
6	Cylinder Kit Complete	FP-3801920	20	.020 UPF; 16.0:1 C.R.; Barrel Profile Skirt; Premium Plus; 4 Rings
6	Cylinder Kit Complete	FP-LK166630	STD	NG-855; 12.0:1 C.R.
6	Sealing Ring, Liner	FP-215090		NG-855
2	Sealing Ring, Liner	FP-3032874		NG-855
6	Cylinder Sleeve Shim Kit	FP-AR51478		
6	Flange Shim	FP-3019955	7	.007 Thick Standard Liner
6	Flange Shim	FP-3019956	8	.008" Thick, fits Std. & 10/20 sleeves
6	Flange Shim	FP-3019957	9	.009 Thick Standard Liner

(continued on next page)

+ Superseded Part Number

**38 Multi-Purpose Engines G855 "Rio Grande" (Natural Gas)**  
(cont.) 14.0L 855 OHV NG L6, 5.5" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	LINERS (cont.)	PART NO.	SIZE	DESCRIPTION
6	Flange Shim	FP-3054948	20	.020" Thick, fits Std. & 10/20 sleeves
6	Flange Shim	FP-3054948B	20	.020" Thick, fits Std. & 10/20 sleeves; Carton of 50
6	Flange Shim	FP-30549486	20	.020" Thick, fits Std. & 10/20 sleeves; Carton of 6
6	Flange Shim	FP-3019959	31	.031" thick
6	Flange Shim	FP-3019960	62	.062" thick
6	Sealing Ring	FP-3066843		20/40 Liner; .018 Thick
6	Sealing Ring	FP-3065406		20/40 Liner; .0205 Thick
6	Sealing Ring	FP-3066844		20/40 Liner; .0220 Thick
6	Cntr. Bore Insert	FP-3822959		LPF; O.D. 6.750
6	Cntr. Bore Insert	FP-3822960		LPF; O.D. 6.760
6	Cntr. Bore Insert	FP-3822961		LPF; O.D. 6.770
6	Cntr. Bore Insert	FP-3822963		LPF; O.D. 6.780
6	Cntr. Bore Insert	FP-202227		Semi-Finished
6	Cntr. Bore Insert	FP-202226		Should Be .006 Depth
6	Cntr. Bore Insert	FP-2022265		Should Be .006 Depth
6	Cntr. Bore Insert	FP-20222610		Should Be .006 Depth
6	Cntr. Bore Insert	FP-20222620		Should Be .006 Depth
6	Cntr. Bore Insert	FP-20222630		Should Be .006 Depth
6	Cntr. Bore Insert	FP-3376382		UPF

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Piston Body w/o Pin	FP-166630		NG-855
6	Piston Kit w/Pin & Retainers	FP-AR3560		NG-855
6	Pin	FP-191970		NG-855
12	Piston Pin Retainer	FP-175755		NG-855
12	Pin Bushing	FP-43067		Straight rod bushing; 1.03" Width; 2 req'd. per rod
6	Pin Bushing	FP-187420		1 piece bushing; 2.20" Width

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
6	Rod Pair	FP-214950PR	STD	Big Cam 2.500" dia.; Engs. w/1.741" length. brgs.; Used w/con. rod No. 218808; w/3.1240-3.1250" std. shaft size
6	Rod Pair	FP-214951PR	10	Big Cam 2.500" dia.; Engs. w/1.741" length. brgs.; Used w/con. rod No. 218808; w/3.1240-3.1250" std. shaft size
6	Rod Pair	FP-214952PR	20	Big Cam 2.500" dia.; Engs. w/1.741" length. brgs.; Used w/con. rod No. 218808; w/3.1240-3.1250" std. shaft size
6	Rod Pair	FP-203660PR	STD	Small Cam 2.000" dia.; Engs. w/1.730" length. brgs.; w/3.2725-3.2730" std. shaft size
6	Rod Pair	FP-203661PR	10	Small Cam 2.000" dia.; Engs. w/1.730" length. brgs.; w/3.2725-3.2730" std. shaft size
6	Rod Pair	FP-203662PR	20	Small Cam 2.000" dia.; Engs. w/1.730" length. brgs.; w/3.2725-3.2730" std. shaft size
12	Rod Bearing Half Upper/Lower	FP-214950	STD	NG-855 Big Cam
12	Rod Bearing Half Upper/Lower	FP-214951	10	NG-855 Big Cam
12	Rod Bearing Half Upper/Lower	FP-214952	20	NG-855 Big Cam
12	Rod Bearing Half Upper/Lower	FP-214953	30	NG-855 Big Cam
12	Rod Bearing Half Upper/Lower	FP-214954	40	NG-855 Big Cam
12	Rod Bearing Half Upper/Lower	FP-203660	STD	NG-855 Small Cam
12	Rod Bearing Half Upper/Lower	FP-203661	10	NG-855 Small Cam
12	Rod Bearing Half Upper/Lower	FP-203662	20	NG-855 Small Cam
12	Rod Bearing Half Upper/Lower	FP-203663	30	NG-855 Small Cam
12	Rod Bearing Half Upper/Lower	FP-203664	40	NG-855 Small Cam

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-4089810	STD	1-5/32, 2-1/8, 1-3/16 (1 cyl. set)

**KITS**

QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	In-Frame Overhaul Kit	FP-NG855PREM		NG-855; 12.0:1 C.R.; Premium; With Upper Gasket Set & Pan Gasket
1	Complete Overhaul Kit	FP-NG855PREMOH		NG-855; 12.0:1 C.R.; Premium; With Upper & Lower Gasket Sets

**39 Multi-Purpose Engines V903, V903-A, V903-C265, V903-C295, V903-C320, V903-M, V903-S, V903-V265 Engs.**  
14.8L 903 OHV Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-3026315		V-903
1	Valve Cover Gasket	FP-3028673		V-903
2	Head Gasket	FP-212224		V-903

(continued on next page)

*Multi-Purpose Engines V903, V903-A, V903-C265, V903-C295, V903-C320, V903-M, V903-S, 39  
V903-V265 Engs. (cont.)  
14.8L 903 OHV Diesel V8, 5.5" Bore*

**CYL. HEAD & PARTS (cont.)**

QTY	GASKETS (cont.)	PART NO.	SIZE	DESCRIPTION
1	Head Set	FP-3013498		V-903; Single Head Set
1	Head Set	FP-3013497		V-903; Upper Set
QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
10	Head Bolt	FP-214751		V-903
26	Head Bolt	FP-209700		V-903; 6 1/4"
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
8	Intake	FP-216707		V-903
8	Exhaust	FP-138887		V-903
8	Intake Valve Kit	FP-3803513		V-903
32	Keeper	FP-127554		V-903
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
8	Exh.	FP-3071466		V-903
8	Exh.	FP-212940 +		V-903; When depleted use FP-3071466
8	Int.	FP-3071467		V-903
8	Int.	FP-212217 +		V-903; When depleted use FP-3071467
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
16	Guide	FP-138937		V-903
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
16	Spring	FP-146732		Inner; V-903
16	Spring	FP-146731		Outer; V-903
16	Retainer	FP-146733		V-903
QTY	PUSH RODS	PART NO.	SIZE	DESCRIPTION
8	Push Rod	FP-3003602		V-903; Injector
16	Push Rod	FP-169351		Int. & Exh.; V-903
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
16	Valve Stem Seal	FP-156541		V-903; Installation requires valve guide machining; Polyacrylate
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
16	Cam Follower Roller	FP-152082		V-903; Valve
8	Injector Cam Roller	FP-213061		V-903
18	Adjusting Screw Nut	FP-S212		V-903; 1/2" - 20 UNF; Use w/FP-168306
16	Valve Roller Pin	FP-169327		V-903; Cam Follower
16	Rocker Lever Adjusting Screw	FP-168306		V-903; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
16	Rocker Arm Socket	FP-194037		V-903
16	Fuel Injector Roller Pin	FP-213058		V-903; Cam Follower
8	Cam Follower Socket	FP-213559		V-903; Injector; Cam Follower
16	Valve Lifter Socket	FP-218853		Int. & Exh.; V-903; Valve; Cam Follower
16	Valve Lock Pin	FP-108186		V-903; Cam Follower
INT & EXH MANIFOLDS				
QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
6	Exhaust Manifold Gasket	FP-3028665		V-903
ACCESSORY DRIVE				
QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39719		
1	Redi-Sleeve	99147		
FUEL SYSTEM & PARTS				
QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
8	Fuel Injector Sleeve	FP-3070486		Thin
24	O-Ring	FP-193736		V-903; Fuel Injector Mounting
8	O-Ring	FP-3007759		V-903; Injector Tube Seal
QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
2	Fuel Pump Gear	FP-170942		V-903; 1"
2	Fuel Pump Gear	FP-119363		V-903; 3/4"
1	Fuel Pump Drive Shaft	FP-100215		V-903; 3/4"; Drive, Splined
1	Fuel Pump Gasket	FP-110855		V-903; Fuel Pump Body
COOLING SYSTEM				
QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Water Pump Shaft	FP-3054160		V-903
1	Water Pump Impeller	FP-3002483		V-903
1	Water Pump Repair/Rebuild Kit	FP-3390118		V-903
1	Water Pump Retainer Ring	FP-70183		V-903

(continued on next page)

**39 Multi-Purpose Engines V903, V903-A, V903-C265, V903-C295, V903-C320, V903-M, V903-S, (cont.) V903-V265 Engs.**  
14.8L 903 OHV Diesel V8, 5.5" Bore

<b>COOLING SYSTEM (cont.)</b>				
<b>QTY</b>	<b>WATER PUMP (cont.)</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Water Pump Mech. Shaft Seal	FP-3029099		V-903
1	Ball Brg.	FP-3077646		Inner; V-903
1	Ball Brg.	FP-3017035		Outer; V-903
1	Redi-Sleeve	99225		
<b>QTY</b>	<b>SEALS - FAN HUB</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	39835		Inner
1	Oil Seal	39877		Outer
1	Redi-Sleeve	99181		Inner
<b>QTY</b>	<b>THERMOSTAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Thermostat	FP-135675		V-903; 180 degree F, Vented
1	Rect. or Square Seal	FP-186780		V-903
<b>ENGINE BLOCK &amp; PARTS</b>				
<b>QTY</b>	<b>GASKETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Pan Gasket	FP-196949		V-903
<b>QTY</b>	<b>GASKET SETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Gasket Conversion Set	FP-3014458		V-903; Incl. crank seals
1	In-Frame Gasket Set	FP-3013497S		V-903
1	Kit Gasket Set	260-1667		Compl., Incl. valve stem seals
<b>QTY</b>	<b>CAM BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Cam Set	FP-1449M		Late Engs.; w/2.6875" housing bore
1	Cam Set	1449M +	Std Only	Late Engs.; w/2.6875" housing bore; When depleted use FP-1449M
2	Cam Brg.	FP-200780	STD	Position 1-5; V-903
3	Cam Brg.	FP-200790	STD	Position 2-3-4; V-903
<b>QTY</b>	<b>OIL COOLERS &amp; FILTERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Cooler Element	FP-186348		V-903
1	Oil Cooler Element	FP-3021581		12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC
1	Oil Cooler Element	213-3021581		12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC
2	Snap Ring	FP-3006745		V-903; Oil Cooler
1	Oil Cooler Gasket	FP-187608		V-903
1	Oil Cooler Gasket	FP-209865		V-903
2	O-Ring	FP-3007713		V-903; Oil Cooler
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b>	<b>SEALS - FRONT CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	FP-3020184		Front; V-903
1	Redi-Sleeve	FP-3006740		Front; V-903
<b>QTY</b>	<b>SEALS - REAR CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	FP-3023867		Rear; Dry or Wet
1	Redi-Sleeve	FP-3006741		Rear; For Wet or Dry Clutch
<b>QTY</b>	<b>MAIN BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Main Set	FP-AR3640	STD	V-903; Incl. Thrust Washers
1	Main Set	FP-AR3641	10	V-903; Incl. Thrust Washers
1	Main Set	FP-AR3642	20	V-903; Incl. Thrust Washers
1	Main Set	FP-AR3643	30	V-903; Incl. Thrust Washers
<b>CYLINDER COMPONENTS</b>				
<b>QTY</b>	<b>LINERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Liner w/o Sealing Rings	FP-203170	STD	V-903
8	Liner w/Sealing Rings	FP-AR8069	STD	V-903
8	Cylinder Kit Complete	FP-AR11909	STD	V-903; 15.5:1 C.R.
8	Cylinder Kit Complete	FP-AR11928	STD	V-903; 15.5:1 C.R.
16	Sealing Ring, Liner	FP-3032874		V-903
8	Sealing Ring, Liner	FP-3044795		V-903; Crevice Seal
<b>QTY</b>	<b>PISTONS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
8	Piston Body w/o Pin	FP-3037413	STD	V-903; 15.5:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3019287		V-903; Heavy Pin; 15.5:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-AR11929		V-903; Light Pin
8	Pin	FP-215390	STD	V-903; Heavy Pin
8	Pin	FP-140120		V-903; Light Pin
8	Piston Pin Retainer	FP-155267		V-903
8	Pin Bushing	FP-189763		

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*Multi-Purpose Engines V903, V903-A, V903-C265, V903-C295, V903-C320, V903-M, V903-S, 39  
V903-V265 Engs. (cont.)*  
14.8L 903 OHV Diesel V8, 5.5" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
8	Rod Pair	FP-189770PR	STD	
8	Rod Pair	FP-189771PR	10	
8	Rod Pair	FP-189772PR	20	
16	Rod Bearing Half Upper/Lower	FP-189770	STD	V-903
16	Rod Bearing Half Upper/Lower	FP-189771	10	V-903
16	Rod Bearing Half Upper/Lower	FP-189772	20	V-903
16	Rod Bearing Half Upper/Lower	FP-189773	30	V-903

QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
8	Ring Set Single Cylinder	FP-AR11930	STD	

**KITS**

QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	In-Frame Overhaul Kit	FP-VTB903PREM		V-903; Premium; With Upper Gasket Set & Pan Gasket
1	Complete Overhaul Kit	FP-VTB903PREMOH		V-903; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets

*Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, 40  
VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500,  
VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.*  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-3026315		VT-903
1	Valve Cover Gasket	FP-3028673		VT-903
2	Head Gasket	FP-212224		VT-903
1	Head Set	FP-3013498		VT-903; Single Head Set
1	Head Set	FP-3013497		VT-903; Upper Set

QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
10	Head Bolt	FP-214751		VT-903
26	Head Bolt	FP-209700		VT-903; 6 1/4"

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
8	Intake	FP-216707		VT-903
8	Exhaust	FP-138887		VT-903
8	Intake Valve Kit	FP-3803513		VT-903
32	Keeper	FP-127554		VT-903

QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
8	Exh.	FP-3071466		VT-903
8	Exh.	FP-212940 +		VT-903; When depleted use FP-3071466
8	Int.	FP-3071467		VT-903
8	Int.	FP-212217 +		VT-903; When depleted use FP-3071467

QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
16	Guide	FP-138937		Exh. & Int.; VT-903

QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
16	Spring	FP-146732		Inner; VT-903
16	Spring	FP-146731		Outer; VT-903
16	Retainer	FP-146733		VT-903

QTY	PUSH RODS	PART NO.	SIZE	DESCRIPTION
8	Push Rod	FP-3003602		VT-903; Injector
16	Push Rod	FP-169351		Int. & Exh.; VT-903

QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
16	Valve Stem Seal	FP-156541		VT-903; Installation requires valve guide machining; Polyacrylate

QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
16	Cam Follower Roller	FP-152082		VT-903; Valve
8	Injector Cam Roller	FP-213061		VT-903
18	Adjusting Screw Nut	FP-S212		VT-903; 1/2" - 20 UNF; Use w/FP-168306
16	Valve Roller Pin	FP-169327		VT-903; Cam Follower
16	Rocker Lever Adjusting Screw	FP-168306		VT-903; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
16	Rocker Arm Socket	FP-194037		VT-903
16	Fuel Injector Roller Pin	FP-213058		VT-903; Cam Follower
8	Cam Follower Socket	FP-213559		VT-903; Injector; Cam Follower
16	Valve Lifter Socket	FP-218853		Int. & Exh.; VT-903; Valve; Cam Follower

(continued on next page)

**40** Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, (cont.) VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore

**CYL. HEAD & PARTS (cont.)**

QTY	ROCKER PARTS (cont.)	PART NO.	SIZE	DESCRIPTION
16	Valve Lock Pin	FP-108186		VT-903; Cam Follower

**INT & EXH MANIFOLDS**

QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
6	Exhaust Manifold Gasket	FP-3028665		VT-903

**CAMSHAFT GROUP**

QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft	FP-199180		VT-903; 1.2:1 Rocker Ratio; CPL's 112, 130, 136, 148, 151, 169, 192, 262, 301.

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39719		
1	Redi-Sleeve	99147		

**FUEL SYSTEM & PARTS**

QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
8	Fuel Injector Sleeve	FP-3070486		Thin
8	Fuel Injector Sleeve	FP-3070486		VT-903; Thin
8	O-Ring	FP-3007759		VT-903; Injector Tube Seal
1	Fuel Injection Driver Tang	FP-70690		VT-903; Typical AFC Pump
1	Fuel Injection Driver Tang	FP-70690		VT-903; Typical PTG Pump
8	Fuel Injector Screen	FP-137808		VT-903; Typical AFC Pump
8	Fuel Injector Screen	FP-149767		VT-903; Typical AFC Pump
8	Fuel Injector Screen	FP-200743		VT-903; Typical AFC Pump

QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
2	Fuel Pump Gear	FP-170942		VT-903; 1"
2	Fuel Pump Gear	FP-119363		VT-903; 3/4"
1	Fuel Pump Drive Shaft	FP-3000266		VT-903; Typical PTG Pump
1	Fuel Pump Drive Shaft	FP-100192		VT-903; Typical PTG Pump; Main Shaft
1	Fuel Pump Drive Shaft	FP-100215		VT-903; 3/4"; Drive, Splined
1	Fuel Pump Spacer	FP-144302		VT-903; Typical AFC Pump
1	Fuel Pump Spacer	FP-144302		VT-903; Typical PTG Pump
1	Bolt	FP-S2286		VT-903; Typical PTG Pump; Name Plate; Fuel Pump Housing
1	O-Ring	FP-100478		VT-903; Typical AFC Pump
1	O-Ring	FP-129888		VT-903; Typical AFC Pump
1	O-Ring	FP-145504		VT-903; Typical AFC Pump
1	O-Ring	FP-190876		VT-903; Typical AFC Pump
1	O-Ring	FP-68061A		VT-903; Typical AFC Pump
1	O-Ring	FP-193734		VT-903; Typical AFC Pump; Fuel Pump Housing
1	O-Ring	FP-151900		VT-903; Typical AFC Pump; 0.621" OD, 0.494" ID
1	O-Ring	FP-213079		VT-903; Typical AFC Pump; 0.941" OD, 0.810" ID
1	O-Ring	FP-100099		VT-903; Typical AFC Pump; 1.627" OD, 1.364" ID
1	O-Ring	FP-139988		VT-903; Typical AFC Pump; 1.752" OD, 1.489" ID
1	O-Ring	FP-100478		VT-903; Typical PTG Pump
1	O-Ring	FP-43696A		VT-903; Typical PTG Pump; Fuel Pump Housing
1	O-Ring	FP-151900		VT-903; Typical PTG Pump; 0.621" OD, 0.494" ID
1	O-Ring	FP-100099		VT-903; Typical PTG Pump; 1.627" OD, 1.364" ID
1	O-Ring	FP-139988		VT-903; Typical PTG Pump; 1.752" OD, 1.489" ID
1	Fuel Pump Gasket	FP-110855		VT-903; Fuel Pump Body
1	Gasket	FP-70705		VT-903; Typical AFC Pump; Spring Pack Flange
1	Gasket	FP-70732		VT-903; Typical PTG Pump
1	Gasket	FP-70705		VT-903; Typical PTG Pump; Spring Pack Flange
2	Oil Seal	FP-70809		VT-903; Typical PTG Pump; Front Cover
1	Bushing	FP-163944		VT-903; Typical AFC Pump
1	Fuel Pump Check Valve	FP-175836		VT-903; Typical AFC Pump
1	AFC Plunger	FP-144178		VT-903; Fuel Pump Housing
1	AFC Plunger	FP-30207391		VT-903; Typical AFC Pump
1	AFC Plunger	FP-30207392		VT-903; Typical AFC Pump
1	AFC Plunger	FP-3021676		VT-903; Typical AFC Pump
1	Fuel Pump Thrust Bearing	FP-3027633		VT-903; Typical AFC Pump
1	Fuel Pump Thrust Bearing	FP-3027633		VT-903; Typical PTG Pump
1	Needle Valve	FP-214144		VT-903; Typical AFC Pump; No. 162
1	Rect. or Square Seal	FP-154087		VT-903; Typical AFC Pump
1	Rect. or Square Seal	FP-154087		VT-903; Typical PTG Pump

(continued on next page)

*Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, 40  
VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, (cont.)  
VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore*

**FUEL SYSTEM & PARTS (cont.)**

QTY	FUEL FILTERS & PUMP (cont.)	PART NO.	SIZE	DESCRIPTION
2	Rect. or Square Seal	FP-154088		VT-903; Typical PTG Pump
1	Fuel Shutdown Solenoid	FP-134075		VT-903; Typical AFC Pump; 12V; 2 Terminal
1	Fuel Shutdown Solenoid	FP-134076		VT-903; Typical AFC Pump; 24V; 2 Terminal

QTY	TURBOCHARGER	PART NO.	SIZE	DESCRIPTION
1	Turbine Wheel and Shaft	FP-213806		VT-903; Turbocharger Model VT50

**GOVERNOR**

QTY	GOVERNOR	PART NO.	SIZE	DESCRIPTION
1	Throttle/Governor Shaft	FP-3006355		VT-903; AFC; Black; Standard Capacity, 0.5018
1	Throttle/Governor Shaft	FP-300635015		VT-903; AFC; Black/Gray; Standard Capacity
1	Throttle/Governor Shaft	FP-304668015		VT-903; AFC; Black/Gray; 0.5038
1	Throttle/Governor Shaft	FP-300635011		VT-903; AFC; Blue/Gray; Standard Capacity
1	Throttle/Governor Shaft	FP-304668011		VT-903; AFC; Blue/Gray; 0.503
1	Throttle/Governor Shaft	FP-30063508		VT-903; AFC; Brown; Standard Capacity
1	Throttle/Governor Shaft	FP-3006360		VT-903; AFC; Cream; Standard Capacity; 0.5028
1	Throttle/Governor Shaft	FP-3046686		VT-903; AFC; Gray; 0.502
1	Throttle/Governor Shaft	FP-3006352		VT-903; AFC; Green; Standard Capacity; 0.5012
1	Throttle/Governor Shaft	FP-3046682		VT-903; AFC; Green; 0.5012
1	Throttle/Governor Shaft	FP-300635012		VT-903; AFC; Green/Gray; Standard Capacity
1	Throttle/Governor Shaft	FP-304668012		VT-903; AFC; Green/Gray; 0.5032
1	Throttle/Governor Shaft	FP-3006354		VT-903; AFC; Orange; Standard Capacity, 0.5016
1	Throttle/Governor Shaft	FP-3046684		VT-903; AFC; Orange; 0.5016
1	Throttle/Governor Shaft	FP-30466809		VT-903; AFC; Pink
1	Throttle/Governor Shaft	FP-3046687		VT-903; AFC; Purple; 0.5022
1	Throttle/Governor Shaft	FP-300635020		VT-903; AFC; Purple/Red; Standard Capacity
1	Throttle/Governor Shaft	FP-3006353		VT-903; AFC; Yellow; Standard Capacity; 0.5014
1	Throttle/Governor Shaft	FP-3046683		VT-903; AFC; Yellow; 0.5014
1	Throttle/Governor Shaft	FP-300635013		VT-903; AFC; Yellow/Gray; Standard Capacity
1	Fuel Governor Plunger	FP-203355		VT-903; AFC & PTG; Black; 0.37514
1	Fuel Governor Plunger	FP-203352		VT-903; AFC & PTG; Green; 0.37484
1	Fuel Governor Plunger	FP-300938010		VT-903; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938011		VT-903; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938012		VT-903; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938013		VT-903; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938014		VT-903; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938015		VT-903; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938016		VT-903; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-3009381		VT-903; AFC With Tapered Seat; Blue; 0.37474
1	Fuel Governor Plunger	FP-3009382		VT-903; AFC With Tapered Seat; Green; 0.37484
1	Fuel Governor Plunger	FP-3009384		VT-903; AFC With Tapered Seat; Orange; 0.37504
1	Fuel Governor Plunger	FP-3009380		VT-903; AFC With Tapered Seat; Red
1	Fuel Governor Plunger	FP-3009383		VT-903; AFC With Tapered Seat; Yellow; 0.37494
1	Fuel Governor Plunger	FP-3040755		VT-903; AFC; Black; 0.37514
1	Fuel Governor Plunger	FP-3040751		VT-903; AFC; Blue; 0.37474
1	Fuel Governor Plunger	FP-30407508		VT-903; AFC; Brown
1	Fuel Governor Plunger	FP-3040756		VT-903; AFC; Gray; 0.37524
1	Fuel Governor Plunger	FP-3040752		VT-903; AFC; Green; 0.37484
1	Fuel Governor Plunger	FP-3040754		VT-903; AFC; Orange; 0.37504
1	Fuel Governor Plunger	FP-30407509		VT-903; AFC; Pink
1	Fuel Governor Plunger	FP-3040750		VT-903; AFC; Red
1	Fuel Governor Plunger	FP-3040757		VT-903; AFC; Violet
1	Fuel Governor Plunger	FP-3040753		VT-903; AFC; Yellow; 0.37494
1	Fuel Governor Plunger	FP-169662		VT-903; PTG; Green; 0.3751
1	Idle Spring Plunger Button	FP-141624		VT-903; .2135/.2165; Button Number 7
1	Idle Spring Plunger Button	FP-141625		VT-903; .2185/.2215; Button Number 10
1	Idle Spring Plunger Button	FP-141626		VT-903; .2235/.2265; Button Number 12
1	Idle Spring Plunger Button	FP-139894		VT-903; .2285/.2315; Button Number 15
1	Idle Spring Plunger Button	FP-140417		VT-903; .2335/.2365; Button Number 17
1	Idle Spring Plunger Button	FP-141629		VT-903; .2385/.2415; Button Number 20
1	Idle Spring Plunger Button	FP-141630		VT-903; .2435/.2465; Button Number 22
1	Idle Spring Plunger Button	FP-141631		VT-903; .2485/.2515; Button Number 25
1	Idle Spring Plunger Button	FP-141632		VT-903; .2535/.2565; Button Number 27
1	Idle Spring Plunger Button	FP-141633		VT-903; .2585/.2615; Button Number 30
1	Idle Spring Plunger Button	FP-141634		VT-903; .2635/.2665; Button Number 32
1	Idle Spring Plunger Button	FP-140922		VT-903; .2685/.2715; Button Number 35
1	Idle Spring Plunger Button	FP-140418		VT-903; .2735/.2765; Button Number 37

(continued on next page)

**40 Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, (cont.) VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.**  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore

<b>GOVERNOR (cont.)</b>				
<b>QTY</b>	<b>GOVERNOR (cont.)</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Idler Spring Plunger Button	FP-137370		VT-903; .2785/.2815; Button Number 40
1	Idler Spring Plunger Button	FP-140923		VT-903; .2835/.2865; Button Number 42
1	Idler Spring Plunger Button	FP-138862		VT-903; .2885/.2915; Button Number 45
1	Idler Spring Plunger Button	FP-140925		VT-903; .2985/.3015; Button Number 50
1	Idler Spring Plunger Button	FP-145951		VT-903; .3585/.3615; Button Number 180
1	Carrier, Governor Weight	FP-3024991		VT-903; Typical AFC Pump
<b>COOLING SYSTEM</b>				
<b>QTY</b>	<b>WATER PUMP</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Water Pump Shaft	FP-3054160		VT-903
1	Water Pump Impeller	FP-3002483		VT-903
1	Water Pump Repair/Rebuild Kit	FP-3390118		VT-903
1	Water Pump Retainer Ring	FP-70183		VT-903
1	Water Pump Mech. Shaft Seal	FP-3029099		VT-903
1	Ball Brg.	FP-3077646		Inner; VT-903
1	Ball Brg.	FP-3017035		Outer; VT-903
<b>QTY</b>	<b>SEALS - FAN HUB</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	39835		Inner
1	Oil Seal	39877		Outer
1	Redi-Sleeve	99181		Inner
<b>QTY</b>	<b>THERMOSTAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Thermostat	FP-135675		VT-903; 180 degree F, Vented
1	Rect. or Square Seal	FP-186780		VT-903
<b>ENGINE BLOCK &amp; PARTS</b>				
<b>QTY</b>	<b>GASKETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Pan Gasket	FP-196949		VT-903
<b>QTY</b>	<b>GASKET SETS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Gasket Conversion Set	FP-3014458		VT-903; Incl. crank seals
1	In-Frame Gasket Set	FP-3013497S		VT-903
1	Kit Gasket Set	260-1667		Compl., Incl. valve stem seals
<b>QTY</b>	<b>CAM BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Cam Set	FP-1449M		Late Engs.; w/2.6875" housing bore
1	Cam Set	1449M + Std Only		Late Engs.; w/2.6875" housing bore; When depleted use FP-1449M
2	Cam Brg.	FP-200780	STD	Position 1-5; VT-903
3	Cam Brg.	FP-200790	STD	Position 2-3-4; VT-903
<b>QTY</b>	<b>OIL COOLERS &amp; FILTERS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Cooler Element	FP-186348		VT-903
1	Oil Cooler Element	FP-3021581		12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC
1	Oil Cooler Element	213-3021581		12.625" x 5.000" tube bundle. O.E. Nos. 3021581 & 208149. Automotive w/FFC
2	Snap Ring	FP-3006745		VT-903; Oil Cooler
1	Oil Cooler Gasket	FP-187608		VT-903
1	Oil Cooler Gasket	FP-209865		VT-903
2	O-Ring	FP-3007713		VT-903; Oil Cooler
<b>CRANKSHAFT/OIL PUMP</b>				
<b>QTY</b>	<b>SEALS - FRONT CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	FP-3020184		Front; VT-903
1	Oil Seal	FP-3021094		Front; VTB-903
1	Oil Seal Kit	FP-SK3021094		Front & Rear; VTB-903
1	Redi-Sleeve	FP-3006740		Front; VT-903, VTB-903
1	Redi-Sleeve	99395		
<b>QTY</b>	<b>SEALS - REAR CRANK</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Oil Seal	FP-3023867		Rear; VT-903
1	Oil Seal	FP-3016660		Rear; VTB-903
1	Redi-Sleeve	FP-3006741		Rear; Wet or Dry Clutch
<b>QTY</b>	<b>MAIN BEARINGS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Main Set	FP-AR3640	STD	VT-903; Incl. Thrust Washers
1	Main Set	FP-AR3641	10	VT-903; Incl. Thrust Washers
1	Main Set	FP-AR3642	20	VT-903; Incl. Thrust Washers
1	Main Set	FP-AR3643	30	VT-903; Incl. Thrust Washers

(continued on next page)



**Multi-Purpose Engines VT300, VT350, VT400, VT903, VT903-A, VT903-C265, VT903-C320, 40  
VT903-C350, VT903-C375, VT903-C430, VT903-M1, VT903-S, VT903-350, VTA500, (cont.)  
VTA903, VTA903-R, VTA903-TR, VTB903, VTF350 Engs.  
14.8L 903 OHV Turbo-Diesel V8, 5.5" Bore**

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
8	Liner w/o Sealing Rings	FP-203170	STD	VT-903, VTB-903
8	Liner w/Sealing Rings	FP-AR8069	STD	VT-903
8	Cylinder Kit Complete	FP-AR11909	STD	VT-903; 15.5:1 C.R.
8	Cylinder Kit Complete	FP-AR11928	STD	VT-903; 15.5:1 C.R.
8	Cylinder Kit Complete	FP-3023475	STD	VTB-903; 16.5:1 C.R.
16	Sealing Ring, Liner	FP-3032874		VT-903, VTB-903
8	Sealing Ring, Liner	FP-3044795		VT-903, VTB-903; Crevice Seal
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
8	Piston Body w/o Pin	FP-3037413	STD	VT-903; 15.5:1 C.R.; 15.5:1 C.R.
8	Piston Body w/o Pin	FP-3037414		VTB-903; 16.5:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3019287		VT-903; Heavy Pin; 15.5:1 C.R.; 15.5:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-AR11929		VT-903; Light Pin; 15.5:1 C.R.
8	Piston Kit w/Pin & Retainers	FP-3020083	STD	VTB-903; Heavy Pin; 16.5:1 C.R.
8	Pin	FP-140120		VT-903; Light Pin
8	Pin	FP-215390	STD	VT-903, VTB-903; Heavy Pin
8	Piston Pin Retainer	FP-155267		VT-903, VTB-903
8	Pin Bushing	FP-189763		
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
8	Rod Pair	FP-189770PR	STD	
8	Rod Pair	FP-189771PR	10	
8	Rod Pair	FP-189772PR	20	
16	Rod Bearing Half Upper/Lower	FP-189770	STD	VT-903
16	Rod Bearing Half Upper/Lower	FP-189771	10	VT-903
16	Rod Bearing Half Upper/Lower	FP-189772	20	VT-903
16	Rod Bearing Half Upper/Lower	FP-189773	30	VT-903
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
8	Ring Set Single Cylinder	FP-AR11930	STD	VT-903, VTB-903
<b>KITS</b>				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	In-Frame Overhaul Kit	FP-VTB903PREM		VT-903; Premium; With Upper Gasket Set & Pan Gasket
1	Complete Overhaul Kit	FP-VTB903PREMOH		VT-903; Premium; With Front & Rear Seals and Upper & Lower Gasket Sets

**Multi-Purpose Engines N-927, Super 250, Super 270 Engs. 41  
15.2L 927 OHV Diesel L6, 5.5" Bore**

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
3	Valve Cover Gasket	FP-3054841		N-927, Super 250; Single valve cover gskt., 5-bolt Engs.; 3 req'd.
3	Rocker Housing Gasket	FP-3017750		Super 250; Single rocker box gskt., 5-bolt Engs.; 3 req'd.
1	Head Gasket	FP-4058790		N-927; Single head gskt., Incl. .010 thick water grommets. 3 req'd.
1	Head Set	FP-3801324		N-927
1	Head Set	FP-3801348		Super 250, Super 270; .010 O/S Water Grommets; Upper set, SC & BC I, II, III, 5 bolt Engs.; w/ & w/o FFC
1	Head Set	FP-3804276		Super 250, Super 270; Contains standard size water grommets
1	Cam Follower Gasket	FP-9266A		N-927; .006-.008
1	Cam Follower Gasket	FP-9266		N-927; .014-.020
1	Cam Follower Gasket	FP-3011272		N-927; .020-.024
1	Cam Follower Gasket	FP-120819		N-927; .027-.033
1	Cam Follower Gasket	FP-3011273		N-927; .037-.041
QTY	HEAD BOLTS	PART NO.	SIZE	DESCRIPTION
36	Head Bolt	FP-209700		N-927, Super 250, Super 270; 6 1/4"
QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Intake	FP-135957		N-927; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.
12	Exhaust	FP-145701		N-927; Stellite; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.
24	Exhaust	FP-3040830		Exh. & Int.; Super 250, Super 270
12	Exhaust Valve Kit	FP-3803524		N-927
12	Intake Valve Kit	FP-3803512		N-927
48	Keeper	FP-127554		N-927

(continued on next page)

## 41 Multi-Purpose Engines N-927, Super 250, Super 270 Engs.

(cont.) 15.2L 927 OHV Diesel L6, 5.5" Bore

CYL. HEAD & PARTS (cont.)				
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
12	Exh.	FP-3017759	STD	N-927; Check Cummins Service Topics 93T2-2; 2.0030" OD, 1.6900" ID, .2795" Depth
12	Exh.	FP-30177593	3	N-927; Check Cummins Service Topics 93T2-2; 2.0330" OD, 1.6900" ID, .2795" Depth
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-3006456		STD; N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2; .4530" ID, 3.3900" O.A.L.
24	Guide	FP-3006457		10; N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2
24	Guide	FP-3006458		15; N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	FP-211999		N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2; 2.6850" Free Height
QTY	VALVE SEAL	PART NO.	SIZE	DESCRIPTION
24	Valve Stem Seal	FP-156641		N-927, Super 250, Super 270; Check Cummins Service Topics 93T2-2
QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
2	Rocker Shaft	FP-3038904		Super 250
1	Cam Follower Roller	FP-92601		N-927; Valve
6	Injector Cam Roller	FP-3062096		N-927; Injector
18	Adjusting Screw Nut	FP-S212		Super 250; 1/2" - 20 UNF; Use w/FP-168306
12	Valve Roller Pin	FP-68513		N-927; Cam Follower; .500" OD x 1.280" Length
12	Rocker Lever Adjusting Screw	FP-168306		Super 250; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
4	Rocker Shaft Plug	FP-3038903		Super 250
6	Rocker Arm Socket	FP-194037		Super 250
6	Bushing	FP-118377		N-927; Injector; Cam Follower
1	Bushing	FP-118377		Super 250; Injector; Rocker Lever
12	Bushing	FP-118378		Super 250; Valve; Rocker Lever
12	Bushing	FP-118378		Int. & Exh.; N-927; Valve; Cam Follower
12	Fuel Injector Roller Pin	FP-3017544		N-927; Cam Follower
36	Valve Lock Pin	FP-118939		N-927; Injector and Valve; Cam Follower
INT & EXH MANIFOLDS				
QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
6	Exhaust Manifold Gasket	FP-3020943		N-927
CAMSHAFT GROUP				
QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft	FP-3801030		N-927, Super 250; IL6; CPL's 087, 124, 131.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key
1	Camshaft	FP-3023177		N-927, Super 250; IL6; CPL's 115, 133.
1	Camshaft	FP-3801030		N-927, Super 270; IL6; CPL's 087, 124, 131.; w/.750" Keyway, replaces O.E. 129860 & 3801030; If camshaft being replaced has 1" keyway, contact Cummins dealer for replacement key
1	Camshaft	FP-3023177		N-927, Super 270; IL6; CPL's 115, 133.
1	Prelube	55-400		4 oz. bottle; 1.5 oz. packet No. 55-403 also avail.
1	Cam Follower Shaft	FP-3065125		N-927
FUEL SYSTEM & PARTS				
QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
6	Fuel Injector Sleeve	FP-3071147		N-927, Super 250; Heavy Nose; Optional To FP-3070486 For Thin Cylinder Heads.
6	Fuel Injector Sleeve	FP-3070486		N-927, Super 250; Thin
6	Fuel Injector Sleeve	FP-3071147		N-927, Super 270; Heavy Nose; Optional To FP-3070486 For Thin Cylinder Heads.
6	Fuel Injector Sleeve	FP-3070486		N-927, Super 270; Thin
QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
18	O-Ring	FP-193736		N-927; Fuel Injector Mounting
6	O-Ring	FP-3007759		Super 250, Super 270; Injector Tube Seal
ENGINE BLOCK & PARTS				
QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-3349820		0.79mm / 0.031" Thick; One piece gskt.
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3014459		Super 250, Super 270; Lower set

(continued on next page)

*Multi-Purpose Engines N-927, Super 250, Super 270 Engs. 41*  
15.2L 927 OHV Diesel L6, 5.5" Bore (cont.)

**ENGINE BLOCK & PARTS (cont.)**

QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Cam Set	FP-BM27253	STD	
<b>CRANKSHAFT/OIL PUMP</b>				
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3020182		Front; N-927
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3006737		Rear; N-927; 6.00" Shaft
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-3801260	STD	N-927, Super 250; Incl. thrust washers
1	Main Set	FP-3801261	10	N-927, Super 250; Incl. thrust washers
1	Main Set	FP-3801262	20	N-927, Super 250; Incl. thrust washers
1	Main Set	FP-3801263	30	N-927, Super 250; Incl. thrust washers
1	Main Set	FP-3801264	40	N-927, Super 250; Incl. thrust washers
4	Thrust Washer	FP-3067568	STD	N-927, Super 250
<b>CYLINDER COMPONENTS</b>				
QTY	LINERS	PART NO.	SIZE	DESCRIPTION
6	Flange Shim	FP-3019956	8	.008" Thick, fits Std. & 10/20 sleeves
6	Flange Shim	FP-3054948	20	.020" Thick, fits Std. & 10/20 sleeves
6	Flange Shim	FP-3054948B	20	.020" Thick, fits Std. & 10/20 sleeves; Carton of 50
6	Flange Shim	FP-30549486	20	.020" Thick, fits Std. & 10/20 sleeves; Carton of 6
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
6	Pin Bushing	FP-187420		1 piece bushing; 2.20" Width
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
6	Ring Set Single Cylinder	FP-4089810	STD	1-5/32, 2-1/8, 1-3/16 (1 cyl. set)

*Multi-Purpose Engines GNVH, GNVH450, GV1486, NVH, NVH12, NVH450, NVHS, V600, V1486 Engs. 42*  
24.4L 1486 OHV Diesel V12, 5.125" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
48	Exhaust	FP-144911		1.7400" Head Dia., 7.0600" O.A.L.
96	Keeper	FP-S2037		2 groove
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
48	Guide	FP-66890		Exh. & Int.; Threaded I.D., ream .405"; Threaded ID; .405" ID, 3.44" OAL
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
48	Spring	FP-111446		Exh. & Int.

**ENGINE BLOCK & PARTS**

QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
28	Cam Brg.	FP-70437	STD	Position All
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-110848		6.500" X 4.000" tube bundle
<b>CRANKSHAFT/OIL PUMP</b>				
QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Redi-Sleeve	99376		
1	Oil Seal	39705		
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39701		
1	Redi-Sleeve	99725		
<b>CYLINDER COMPONENTS</b>				
QTY	LINERS	PART NO.	SIZE	DESCRIPTION
12	Liner w/o Sealing Rings	FP-184400	STD	
12	Liner w/Sealing Rings	FP-BM98224	STD	
12	Cylinder Kit Complete	FP-AR7383	STD	14.5:1 C.R.
12	Sealing Ring, Liner	FP-181449		
12	Sealing Ring, Liner	FP-216879		
12	Sealing Ring, Liner	FP-215983		Crevice Seal
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
12	Piston Body w/o Pin	FP-199821	STD	
12	Pin	FP-203070	STD	1.9989" Dia.

(continued on next page)

**42 Multi-Purpose Engines GNVH, GNVH450, GV1486, NVH, NVH12, NVH450, NVHS, V600, (cont.) V1486 Engs.**  
24.4L 1486 OHV Diesel V12, 5.125" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	PISTONS (cont.)	PART NO.	SIZE	DESCRIPTION
24	Piston Pin Retainer	FP-175755		
12	Pin Bushing	FP-43067		Straight rod bushing; 1.03" Width; 2 req'd. per rod
12	Pin Bushing	FP-187420		1 piece bushing; 2.20" Width
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
12	Rod Pair	FP-200600PR	STD	V & VT Series Engs.
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
1	Ring Set Single Cylinder	FP-AR12098	STD	3-5/32, 1-1/4

**43 Multi-Purpose Engines VT600, VT1486 Engs.**  
24.4L 1486 OHV Turbo-Diesel V12, 5.125" Bore

**CYL. HEAD & PARTS**

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
48	Exhaust	FP-144911		1.7400" Head Dia., 7.0600" O.A.L.
96	Keeper	FP-S2037		2 groove
QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
48	Exh. & Int.	FP-69965	STD	
48	Exh. & Int.	FP-699655	5	
48	Exh. & Int.	FP-6996520	20	
QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
48	Guide	FP-66890		Exh. & Int.; Threaded I.D., ream .405"; Threaded ID; .405" ID, 3.44" OAL
QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
48	Spring	FP-111446		Exh. & Int.

**ENGINE BLOCK & PARTS**

QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
28	Cam Brg.	FP-70437	STD	Position All
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Oil Cooler	FP-110848		6.500" X 4.000" tube bundle

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
12	Liner w/o Sealing Rings	FP-184400	STD	
12	Liner w/Sealing Rings	FP-BM98224	STD	
12	Sealing Ring, Liner	FP-181449		
12	Sealing Ring, Liner	FP-216879		
12	Sealing Ring, Liner	FP-215983		Crevice Seal
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
12	Piston Body w/o Pin	FP-200710	STD	14.0:1 C.R.
12	Pin	FP-203070	STD	1.9989" Dia.
24	Piston Pin Retainer	FP-175755		
12	Pin Bushing	FP-43067		Straight rod bushing; 1.03" Width; 2 req'd. per rod
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
1	Ring Set Single Cylinder	FP-AR12098	STD	3-5/32, 1-1/4

**44 Multi-Purpose Engines GV1710, V12-500, V12-500-GC, V12-500-GS, V12-500-M, V12-525, V12-600, V12-800, V28, V1710, V1710-C500, V1710-L, V1710-M, V1710-P500, V1710-PG500, V1710-460, V1710-500 Engs.**  
28.0L 1710 OHV Diesel V12, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-3077198		V-1710
1	Rocker Housing Gasket	FP-3036100		V-1710
2	Head Gasket	FP-BM98021		V-1710
1	Head Set	FP-PG1710SH		V-1710; Contains Gaskets For Both Wet & Dry Exhaust Manifolds
1	Head Set	PG1710SH +		V-1710; Contains Gaskets For Both Wet & Dry Exhaust Manifolds; When depleted use FP-PG1710SH
1	Head Set	FP-PG1710HP		V-1710; For High Profile Aftercooler; Phase II & III Engines
1	Head Set	PG1710HP +		V-1710; For High Profile Aftercooler; Phase II & III Engines; When depleted use FP-PG1710HP
1	Head Set	FP-3801403		V-1710; Single Head Set

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*Multi-Purpose Engines* **GV1710, V12-500, V12-500-GC, V12-500-GS, V12-500-M, V12-525, 44 V12-600, V12-800, V28, V1710, V1710-C500, V1710-L, V1710-M, V1710-P500, (cont.) V1710-PG500, V1710-460, V1710-500 Engs.**  
28.0L 1710 OHV Diesel V12, 5.5" Bore

**CYL. HEAD & PARTS (cont.)**

QTY	GASKETS (cont.)	PART NO.	SIZE	DESCRIPTION
1	Head Set	FP-3803697		V-1710; Upper Set
QTY	<b>VALVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
12	Intake	FP-135957		V-1710; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.
12	Exhaust	FP-145701		V-1710; Stellite; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.
12	Exhaust Valve Kit	FP-3803524		V-1710
12	Intake Valve Kit	FP-3803512		V-1710
48	Keeper	FP-127554		V-1710
QTY	<b>VALVE SEAT</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
24	Exh.	FP-30177593	3	Check Cummins Service Topics 93T2-2; 2.0330" OD, 1.6900" ID, .2795" Depth
24	Exh.	FP-3017759	STD	V-1710; Check Cummins Service Topics 93T2-2; 2.0030" OD, 1.6900" ID, .2795" Depth
QTY	<b>VALVE GUIDE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
24	Guide	FP-3006456		STD; V-1710; Check Cummins Service Topics 93T2-2; .4530" ID, 3.3900" O.A.L.
24	Guide	FP-3006457		10; V-1710; Check Cummins Service Topics 93T2-2
24	Guide	FP-3006458		15; V-1710; Check Cummins Service Topics 93T2-2
QTY	<b>VALVE SPRING</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
24	Spring	FP-211999		V-1710; Check Cummins Service Topics 93T2-2; 2.6850" Free Height
24	Retainer	FP-170296		V-1710
24	Valve Spring Seat	FP-3042745		V-1710
QTY	<b>PUSH RODS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
12	Push Rod	FP-3046432		V-1710; Injector
48	Push Rod	FP-3046419		Int. & Exh.; V-1710
QTY	<b>VALVE MISC.</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
48	Crosshead Valve Assembly	FP-3030038		Exh. & Int.
QTY	<b>ROCKER PARTS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
48	Cam Follower Roller	FP-3006699		V-1710; Valve
12	Injector Cam Roller	FP-3017511		V-1710
48	Adjusting Screw Nut	FP-S212		V-1710; 1/2" - 20 UNF; Use w/FP-168306
1	Valve Bridge Guide	FP-123558		V-1710
48	Valve Roller Pin	FP-113749		V-1710; Cam Follower
48	Valve Roller Pin	FP-163815		V-1710; Cam Follower
48	Rocker Lever Adjusting Screw	FP-168306		V-1710; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
48	Rocker Arm Socket	FP-194037		V-1710
12	Bushing	FP-218153		V-1710; Injector; Rocker Lever
24	Bushing	FP-140330		V-1710; Valve; Rocker Lever
12	Cam Follower Socket	FP-213559		V-1710; Injector; Cam Follower
48	Cam Follower Socket	FP-213559		Int. & Exh.; V-1710; Valve; Cam Follower
<b>INT &amp; EXH MANIFOLDS</b>				
QTY	<b>INT. &amp; EXH. MANIFOLDS</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
12	Exhaust Manifold Gasket	FP-3045941		V-1710
<b>CAMSHAFT GROUP</b>				
QTY	<b>CAMSHAFT/LIFTER</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Camshaft Thrust Washer	FP-92351		V-1710; Small Cam
<b>ACCESSORY DRIVE</b>				
QTY	<b>ACCESSORY DRIVE</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
1	Bushing	FP-116391		V-1710; Front Cover
1	Oil Seal	50569		1.625" Shaft
1	Oil Seal	39719		Left Hand
1	Redi-Sleeve	99162		1.625" Shaft
1	Redi-Sleeve	99162		Left Hand
1	Redi-Sleeve	99162		Right Hand
1	Oil Seal	FP-3020187		V-1710; Front Cover
<b>FUEL SYSTEM &amp; PARTS</b>				
QTY	<b>FUEL INJECTION</b>	<b>PART NO.</b>	<b>SIZE</b>	<b>DESCRIPTION</b>
12	Fuel Injector Sleeve	FP-3070486		V-1710; Thin
12	O-Ring	FP-3007759		V-1710; Injector Tube Seal

(continued on next page)

**44 Multi-Purpose Engines GV1710, V12-500, V12-500-GC, V12-500-GS, V12-500-M, V12-525, (cont.) V12-600, V12-800, V28, V1710, V1710-C500, V1710-L, V1710-M, V1710-P500, V1710-PG500, V1710-460, V1710-500 Eng's.**  
28.0L 1710 OHV Diesel V12, 5.5" Bore

**FUEL SYSTEM & PARTS (cont.)**

QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
1	Mechanical Fuel Pump	FP-3034222		V-1710; 1 1/4" L.H. Heavy Duty
2	Fuel Pump Gear	FP-119364		V-1710; 1 1/4"
2	Fuel Pump Gear	FP-170942		V-1710; 1"
1	Fuel Pump Drive Shaft	FP-100217		V-1710; 1 1/4"; Drive
1	Fuel Pump Gasket	FP-110855		V-1710; Fuel Pump Body

**COOLING SYSTEM**

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39713		
1	Redi-Sleeve	99125		
QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		
1	Redi-Sleeve	99181		
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39821		

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-181256		V-1710
1	O-Ring	FP-215705		V-1710; Front Cover
1	Gear Cover Gasket	FP-181187		V-1710
1	Gear Housing Gasket	FP-181085		V-1710
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3017564		V-1710
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
28	Cam Brg.	FP-70437	STD	Position All; V-1710
QTY	ENGINE BEARING MISC.	PART NO.	SIZE	DESCRIPTION
1	Shim	FP-AR1176		V-1710; Cam Thrust
QTY	MISCELLANEOUS	PART NO.	SIZE	DESCRIPTION
1	Bushing	FP-132770		V-1710; Gear Cover; w/1.567" ID, 1.697" OD, 1.500" O.A.L.
48	Washer	FP-200861		Phase III Eng's. only

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3020182		Front; V-1710
1	Redi-Sleeve	FP-3006744		Front; V-1710
1	Redi-Sleeve	99376		
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3630681		Rear; V-1710; Dry
1	Oil Seal	FP-3005887		Rear; V-1710; Wet
1	Oil Seal	FP-3070080		Rear; V-28
1	Oil Seal	39701		
1	Redi-Sleeve	FP-3006237		Rear; V-1710
1	Redi-Sleeve	99725		
QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-AR4220	STD	V-1710; Phase III Only
1	Main Set	FP-AR4221	10	V-1710; Phase III Only
1	Main Set	FP-AR4222	20	V-1710; Phase III Only
1	Main Set	FP-AR4223	30	V-1710; Phase III Only
4	Thrust Washer	FP-180280	STD	V-1710; Phase III Only

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
12	Liner w/o Sealing Rings	FP-3055099	STD	V-1710; Std. Liners
12	Liner w/Sealing Rings	FP-3801387	20	Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger & flange thickness .010" greater than Std. Replaces O.E. Nos. 3046325 & 3801387 w/seals (referred to as '10/20 Size').
12	Liner w/Sealing Rings	FP-3803219	20	Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger than Std. & lower Press Fit is increased by .040". Replaces O.E. Nos. 3056405 & 3803219 (referred to as '20/40 Size').

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**Multi-Purpose Engines GV1710, V12-500, V12-500-GC, V12-500-GS, V12-500-M, V12-525, 44 V12-600, V12-800, V28, V1710, V1710-C500, V1710-L, V1710-M, V1710-P500, (cont.) V1710-PG500, V1710-460, V1710-500 Engs. 28.0L 1710 OHV Diesel V12, 5.5" Bore**

**CYLINDER COMPONENTS (cont.)**

QTY	LINERS (cont.)	PART NO.	SIZE	DESCRIPTION
12	Liner w/Sealing Rings	FP-3801826	STD	Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Std. size, Lower Press Fit design. Replaces O.E. Nos. 3055099 & 3801826 w/seals.
12	Cylinder Kit Complete	FP-3803003	STD	V-12, V-28
12	Cylinder Kit Complete	FP-3801834		V-1710; 13.0:1 C.R.
12	Cylinder Kit Complete	FP-3801832		V-1710; 13.7:1 C.R.
12	Cylinder Kit Complete	FP-3801829		V-1710; 13.7:1 C.R.; Premium Plus; Premium Plus
12	Cylinder Kit Complete	FP-3801835		V-1710; 14.0:1 C.R.
12	Cylinder Kit Complete	FP-3801831		V-1710; 14.1:1 C.R.
12	Cylinder Kit Complete	FP-3801828		V-1710; 14.1:1 C.R.; 5 Rings
12	Cylinder Kit Complete	FP-3801836		V-1710; 14.5:1 C.R.
12	Cylinder Kit Complete	FP-3801833		V-1710; 14.7:1 C.R.; Premium
12	Cyl. Liner Sealing Ring Kit	FP-3800174		Incl. (1) FP-215090, (2) FP-3032874
1	Sealing Ring, Liner	FP-215090		V-1710; Crevice Seal
2	Sealing Ring, Liner	FP-3032874		V-1710; Middle & Lower Seal
12	Flange Shim	FP-3019956	8	.008" Thick, fits Std. & 10/20 sleeves
12	Flange Shim	FP-3054948	20	.020" Thick, fits Std. & 10/20 sleeves
12	Flange Shim	FP-3054948B	20	.020" Thick, fits Std. & 10/20 sleeves; Carton of 50
12	Flange Shim	FP-30549486	20	.020" Thick, fits Std. & 10/20 sleeves; Carton of 6
QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
12	Piston Body w/o Pin	FP-3058363	STD	V-12, V-28
12	Piston Body w/o Pin	FP-3031213		V-1710; 13.0:1 C.R.
12	Piston Body w/o Pin	FP-3031049		V-1710; 13.7:1 C.R.
12	Piston Body w/o Pin	FP-3003176		V-1710; 13.7:1 C.R.; Premium Plus
12	Piston Body w/o Pin	FP-3031214		V-1710; 14.0:1 C.R.
12	Piston Body w/o Pin	FP-175760		V-1710; 14.1:1 C.R.
12	Piston Body w/o Pin	FP-3011295		V-1710; 14.1:1 C.R.
12	Piston Body w/o Pin	FP-3040097		V-1710; 14.5:1 C.R.
12	Piston Body w/o Pin	FP-3003175		V-1710; 14.7:1 C.R.; Premium
12	Piston Kit w/Pin & Retainers	FP-AR5720		V-1710; 13.7:1 C.R.; Premium Plus
12	Piston Kit w/Pin & Retainers	FP-AR3550		V-1710; 14.1:1 C.R.
12	Piston Kit w/Pin & Retainers	FP-AR45653		V-1710; 14.7:1 C.R.; Premium
12	Pin	FP-191970		V-12, V-28, V-1710
12	Piston Pin Retainer	FP-175755		V-12, V-28, V-1710
12	Pin Bushing	FP-43067		w/straight rod; Straight rod bushing; 1.03" Width; 2 req'd. per rod
12	Pin Bushing	FP-187420		V-1710; 1 piece bushing; 2.20" Width
2	Insert, Piston	FP-3043650		V-1710; PTFE
12	Piston With Retainer & Insert	FP-3803002		V-12, V-28
12	Piston With Retainer & Insert	FP-3801267		V-1710; 13.0:1 C.R.
12	Piston With Retainer & Insert	FP-AR12357		V-1710; 13.7:1 C.R.
12	Piston With Retainer & Insert	FP-3801434		V-1710; 14.0:1 C.R.
12	Piston With Retainer & Insert	FP-AR12359		V-1710; 14.1:1 C.R.
12	Piston With Retainer & Insert	FP-3801666		V-1710; 14.5:1 C.R.
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
12	Rod Pair	FP-200600PR	STD	V & VT Series Engs.; Phase 3 Engs.
24	Rod Bearing Half Upper/Lower	FP-200600	STD	V-1710
24	Rod Bearing Half Upper/Lower	FP-200601	10	V-1710
24	Rod Bearing Half Upper/Lower	FP-200602	20	V-1710
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
12	Ring Set Single Cylinder	FP-4089810	STD	V-1710; For Pistons FP-3003175, FP-3058363; 1-5/32, 2-1/8, 1-3/16 (1 cyl. set)
12	Ring Set Single Cylinder	FP-4089811	STD	V-1710; For Pistons FP-3003176, FP-3011295, FP-3031049, FP-3031213, FP-3031214, FP-3040097
12	Ring Set Single Cylinder	FP-4089812		V-1710; For 5-Ring Piston, FP-175760
12	Ring Set Single Cylinder	FP-3801044 +		V-1710; When depleted use FP-4089812
KITS				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Kit	FP-IFK1710OHE		V-1710; With Front & Rear Seals and Upper & Lower Gasket Sets
1	Complete Overhaul Kit	FP-IFKVTA28OHL		V-28; With Front & Rear Seals and Upper & Lower Gasket Sets

**45 Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800, VTR1710 Engs.**  
28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**CYL. HEAD & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Valve Cover Gasket	FP-3077198		VTA-28, VT-1710
1	Rocker Housing Gasket	FP-3036100		VTA-28, VT-1710
2	Head Gasket	FP-BM98021		VTA-28, VT-1710
1	Head Set	FP-PG1710SH		VTA-28, VT-1710; Contains Gaskets For Both Wet & Dry Exhaust Manifolds
1	Head Set	PG1710SH +		VTA-28, VT-1710; Contains Gaskets For Both Wet & Dry Exhaust Manifolds; When depleted use FP-PG1710SH
1	Head Set	FP-PG1710HP		VTA-28, VT-1710; For High Profile Aftercooler; Phase II & III Engines
1	Head Set	PG1710HP +		VTA-28, VT-1710; For High Profile Aftercooler; Phase II & III Engines; When depleted use FP-PG1710HP
1	Head Set	FP-PG1710LP		VTA-28, VT-1710; Late; For Low Profile Aftercooler
1	Head Set	PG1710LP +		VTA-28, VT-1710; Late; For Low Profile Aftercooler; When depleted use FP-PG1710LP
1	Head Set	FP-3801403		VTA-28, VT-1710; Single Head Set
1	Head Set	FP-3803697		VTA-28, VT-1710; Upper Set

QTY	VALVE	PART NO.	SIZE	DESCRIPTION
12	Intake	FP-135957		VT-1710; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.
12	Exhaust	FP-145701		VT-1710; Stellite; 1.8700" Head Dia., .4505" Stem Dia., 7.0660" O.A.L.
24	Exhaust	FP-3040830		Int. & Exh.; VT12R-600, VT12-700
12	Exhaust Valve Kit	FP-3803524		VT-1710
12	Intake Valve Kit	FP-3803512		VT-1710
48	Keeper	FP-127554		Exh. & Int.; VT-1710, VT12R-600, VT12-700

QTY	VALVE SEAT	PART NO.	SIZE	DESCRIPTION
24	Exh.	FP-3017759	STD	VT-1710; Check Cummins Service Topics 93T2-2; 2.0030" OD, 1.6900" ID, .2795" Depth
24	Exh.	FP-30177593	3	VT-1710; Check Cummins Service Topics 93T2-2; 2.0330" OD, 1.6900" ID, .2795" Depth

QTY	VALVE GUIDE	PART NO.	SIZE	DESCRIPTION
24	Guide	FP-3006456		STD; VT-1710, VT12R-600, VT12-700; Check Cummins Service Topics 93T2-2; .4530" ID, 3.3900" O.A.L.
24	Guide	FP-3006457		10; VT-1710, VT12R-600, VT12-700; Check Cummins Service Topics 93T2-2
24	Guide	FP-3006458		15; VT-1710, VT12R-600, VT12-700; Check Cummins Service Topics 93T2-2

QTY	VALVE SPRING	PART NO.	SIZE	DESCRIPTION
24	Spring	FP-211999		VT-1710, VT12R-600, VT12-700; Check Cummins Service Topics 93T2-2; 2.6850" Free Height
24	Retainer	FP-170296		VT-1710, VT12R-600, VT12-700
24	Valve Spring Seat	FP-3042745		VT-1710, VT12R-600, VT12-700

QTY	PUSH RODS	PART NO.	SIZE	DESCRIPTION
12	Push Rod	FP-3046432		VT-1710; Injector
48	Push Rod	FP-3046419		Int. & Exh.; VT-1710

QTY	VALVE MISC.	PART NO.	SIZE	DESCRIPTION
48	Crosshead Valve Assembly	FP-3030038		Exh. & Int.

QTY	ROCKER PARTS	PART NO.	SIZE	DESCRIPTION
48	Cam Follower Roller	FP-3006699		VT-1710; Valve
12	Injector Cam Roller	FP-3017511		VT-1710
48	Adjusting Screw Nut	FP-S212		VT-1710; 1/2" - 20 UNF; Use w/FP-168306
48	Valve Bridge Guide	FP-123558		VT-1710
48	Valve Roller Pin	FP-113749		VT-1710; Cam Follower
48	Valve Roller Pin	FP-163815		VT-1710; Cam Follower
48	Rocker Lever Adjusting Screw	FP-168306		VT-1710; 1/2" - 20 UNF x 2.045" Length; Use w/FP-S212
48	Rocker Arm Socket	FP-194037		VT-1710
12	Bushing	FP-218153		VT-1710; Injector; Rocker Lever
24	Bushing	FP-140330		VT-1710; Valve; Rocker Lever
12	Cam Follower Socket	FP-213559		VT-1710; Injector; Cam Follower
48	Cam Follower Socket	FP-213559		Int. & Exh.; VT-1710; Valve; Cam Follower

**INT & EXH MANIFOLDS**

QTY	INT. & EXH. MANIFOLDS	PART NO.	SIZE	DESCRIPTION
12	Exhaust Manifold Gasket	FP-3045941		VT-1710

(continued on next page)



**Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, 45  
VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, (cont.)  
VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800,  
VTR1710 Enggs.  
28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore**

**INT & EXH MANIFOLDS (cont.)**

QTY	INT. & EXH. MANIFOLDS (cont.)	PART NO.	SIZE	DESCRIPTION
3	Intake Manifold Gasket	FP-3008591		VTA-1710

**CAMSHAFT GROUP**

QTY	CAMSHAFT/LIFTER	PART NO.	SIZE	DESCRIPTION
1	Camshaft Thrust Washer	FP-92351		Small Cam Enggs.
1	Woodruff Key	FP-3021601		VT-1710; 3/4"
1	Cam Gear Key	FP-69550		VT-1710; 1"
1	Cam Gear Key	FP-3021592		VT-1710; 3/4"
1	Cam Gear Key	FP-3021593		VT-1710; 3/4"
1	Cam Gear Key	FP-3021594		VT-1710; 3/4"
1	Cam Gear Key	FP-3021595		VT-1710; 3/4"
1	Cam Gear Key	FP-3021596		VT-1710; 3/4"
1	Cam Gear Key	FP-3021597		VT-1710; 3/4"
1	Cam Gear Key	FP-3021598		VT-1710; 3/4"
1	Cam Gear Key	FP-3021599		VT-1710; 3/4"
1	Cam Gear Key	FP-3021600		VT-1710; 3/4"

**ACCESSORY DRIVE**

QTY	ACCESSORY DRIVE	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	50569		1.625" Shaft
1	Oil Seal	39719		Left Hand
1	Redi-Sleeve	99162		1.625" Shaft
1	Redi-Sleeve	99162		Left Hand
1	Redi-Sleeve	99162		Right Hand

**FUEL SYSTEM & PARTS**

QTY	FUEL INJECTION	PART NO.	SIZE	DESCRIPTION
12	Fuel Injector Sleeve	FP-3070486		VT-1710; Thin
36	O-Ring	FP-193736		VT-1710; Fuel Injector Mounting
12	O-Ring	FP-3007759		VT-1710; Injector Tube Seal
1	Fuel Injection Driver Tang	FP-70690		VT-1710; Typical AFC Pump
1	Fuel Injection Driver Tang	FP-70690		VT-1710; Typical PTG Pump
12	Fuel Injector Screen	FP-137808		VT-1710; Typical AFC Pump
12	Fuel Injector Screen	FP-149767		VT-1710; Typical AFC Pump
12	Fuel Injector Screen	FP-200743		VT-1710; Typical AFC Pump

QTY	FUEL FILTERS & PUMP	PART NO.	SIZE	DESCRIPTION
1	Mechanical Fuel Pump	FP-3034222		VT-1710; 1 1/4" L.H. Heavy Duty
2	Fuel Pump Gear	FP-119364		VT-1710; 1 1/4"
2	Fuel Pump Gear	FP-170942		VT-1710; 1"
1	Fuel Pump Drive Shaft	FP-3000266		VT-1710; Typical PTG Pump
1	Fuel Pump Drive Shaft	FP-100192		VT-1710; Typical PTG Pump; Main Shaft
1	Fuel Pump Drive Shaft	FP-100217		VT-1710; 1 1/4"; Drive
1	Fuel Pump Spacer	FP-144302		VT-1710; Typical AFC Pump
1	Fuel Pump Spacer	FP-144302		VT-1710; Typical PTG Pump
1	Bolt	FP-S2286		VT-1710; Typical PTG Pump; Name Plate; Fuel Pump Housing
1	O-Ring	FP-100478		VT-1710; Typical AFC Pump
1	O-Ring	FP-129888		VT-1710; Typical AFC Pump
1	O-Ring	FP-145504		VT-1710; Typical AFC Pump
1	O-Ring	FP-190876		VT-1710; Typical AFC Pump
1	O-Ring	FP-68061A		VT-1710; Typical AFC Pump
1	O-Ring	FP-193734		VT-1710; Typical AFC Pump; Fuel Pump Housing
1	O-Ring	FP-151900		VT-1710; Typical AFC Pump; 0.621" OD, 0.494" ID
1	O-Ring	FP-213079		VT-1710; Typical AFC Pump; 0.941" OD, 0.810" ID
1	O-Ring	FP-100099		VT-1710; Typical AFC Pump; 1.627" OD, 1.364" ID
1	O-Ring	FP-139988		VT-1710; Typical AFC Pump; 1.752" OD, 1.489" ID
1	O-Ring	FP-100478		VT-1710; Typical PTG Pump
1	O-Ring	FP-43696A		VT-1710; Typical PTG Pump; Fuel Pump Housing
1	O-Ring	FP-151900		VT-1710; Typical PTG Pump; 0.621" OD, 0.494" ID
1	O-Ring	FP-100099		VT-1710; Typical PTG Pump; 1.627" OD, 1.364" ID
1	O-Ring	FP-139988		VT-1710; Typical PTG Pump; 1.752" OD, 1.489" ID
1	Fuel Pump Gasket	FP-110855		VT-1710; Fuel Pump Body
1	Gasket	FP-70705		VT-1710; Typical AFC Pump; Spring Pack Flange
1	Gasket	FP-70732		VT-1710; Typical PTG Pump
1	Gasket	FP-70705		VT-1710; Typical PTG Pump; Spring Pack Flange

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**45 Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, (cont.) VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800, VTR1710 Engs.**  
28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**FUEL SYSTEM & PARTS (cont.)**

QTY	FUEL FILTERS & PUMP (cont.)	PART NO.	SIZE	DESCRIPTION
2	Oil Seal	FP-70809		VT-1710; Typical PTG Pump; Front Cover
1	Bushing	FP-163944		VT-1710; Typical AFC Pump
1	Fuel Pump Check Valve	FP-175836		VT-1710; Typical AFC Pump
1	AFC Plunger	FP-144178		VT-1710; Fuel Pump Housing
1	AFC Plunger	FP-30207391		VT-1710; Typical AFC Pump
1	AFC Plunger	FP-30207392		VT-1710; Typical AFC Pump
1	AFC Plunger	FP-3021676		VT-1710; Typical AFC Pump
1	Fuel Pump Thrust Bearing	FP-3027633		VT-1710; Typical AFC Pump
1	Fuel Pump Thrust Bearing	FP-3027633		VT-1710; Typical PTG Pump
1	Needle Valve	FP-214144		VT-1710; Typical AFC Pump; No. 162
1	Rect. or Square Seal	FP-154087		VT-1710; Typical AFC Pump
1	Rect. or Square Seal	FP-154087		VT-1710; Typical PTG Pump
2	Rect. or Square Seal	FP-154088		VT-1710; Typical PTG Pump
1	Fuel Shutdown Solenoid	FP-134075		VT-1710; Typical AFC Pump; 12V; 2 Terminal
1	Fuel Shutdown Solenoid	FP-134076		VT-1710; Typical AFC Pump; 24V; 2 Terminal

QTY	TURBOCHARGER	PART NO.	SIZE	DESCRIPTION
1	Split Seal	FP-3034736		VTA-28; Turbocharger Model T-46

**GOVERNOR**

QTY	GOVERNOR	PART NO.	SIZE	DESCRIPTION
1	Throttle/Governor Shaft	FP-3006355		VT-1710; AFC; Black; Standard Capacity, 0.5018
1	Throttle/Governor Shaft	FP-300635015		VT-1710; AFC; Black/Gray; Standard Capacity
1	Throttle/Governor Shaft	FP-304668015		VT-1710; AFC; Black/Gray; 0.5038
1	Throttle/Governor Shaft	FP-300635011		VT-1710; AFC; Blue/Gray; Standard Capacity
1	Throttle/Governor Shaft	FP-304668011		VT-1710; AFC; Blue/Gray; 0.503
1	Throttle/Governor Shaft	FP-30063508		VT-1710; AFC; Brown; Standard Capacity
1	Throttle/Governor Shaft	FP-3006360		VT-1710; AFC; Cream; Standard Capacity; 0.5028
1	Throttle/Governor Shaft	FP-3046686		VT-1710; AFC; Gray; 0.502
1	Throttle/Governor Shaft	FP-3006352		VT-1710; AFC; Green; Standard Capacity; 0.5012
1	Throttle/Governor Shaft	FP-3046682		VT-1710; AFC; Green; 0.5012
1	Throttle/Governor Shaft	FP-300635012		VT-1710; AFC; Green/Gray; Standard Capacity
1	Throttle/Governor Shaft	FP-304668012		VT-1710; AFC; Green/Gray; 0.5032
1	Throttle/Governor Shaft	FP-3006354		VT-1710; AFC; Orange; Standard Capacity, 0.5016
1	Throttle/Governor Shaft	FP-3046684		VT-1710; AFC; Orange; 0.5016
1	Throttle/Governor Shaft	FP-30466809		VT-1710; AFC; Pink
1	Throttle/Governor Shaft	FP-3046687		VT-1710; AFC; Purple; 0.5022
1	Throttle/Governor Shaft	FP-300635020		VT-1710; AFC; Purple/Red; Standard Capacity
1	Throttle/Governor Shaft	FP-3006353		VT-1710; AFC; Yellow; Standard Capacity; 0.5014
1	Throttle/Governor Shaft	FP-3046683		VT-1710; AFC; Yellow; 0.5014
1	Throttle/Governor Shaft	FP-300635013		VT-1710; AFC; Yellow/Gray; Standard Capacity
1	Fuel Governor Plunger	FP-203355		VT-1710; AFC & PTG; Black; 0.37514
1	Fuel Governor Plunger	FP-203352		VT-1710; AFC & PTG; Green; 0.37484
1	Fuel Governor Plunger	FP-300938010		VT-1710; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938011		VT-1710; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938012		VT-1710; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938013		VT-1710; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938014		VT-1710; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938015		VT-1710; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-300938016		VT-1710; AFC With Tapered Seat
1	Fuel Governor Plunger	FP-3009381		VT-1710; AFC With Tapered Seat; Blue; 0.37474
1	Fuel Governor Plunger	FP-3009382		VT-1710; AFC With Tapered Seat; Green; 0.37484
1	Fuel Governor Plunger	FP-3009384		VT-1710; AFC With Tapered Seat; Orange; 0.37504
1	Fuel Governor Plunger	FP-3009380		VT-1710; AFC With Tapered Seat; Red
1	Fuel Governor Plunger	FP-3009383		VT-1710; AFC With Tapered Seat; Yellow; 0.37494
1	Fuel Governor Plunger	FP-3040755		VT-1710; AFC; Black; 0.37514
1	Fuel Governor Plunger	FP-3040751		VT-1710; AFC; Blue; 0.37474
1	Fuel Governor Plunger	FP-30407508		VT-1710; AFC; Brown
1	Fuel Governor Plunger	FP-3040756		VT-1710; AFC; Gray; 0.37524
1	Fuel Governor Plunger	FP-3040752		VT-1710; AFC; Green; 0.37484
1	Fuel Governor Plunger	FP-3040754		VT-1710; AFC; Orange; 0.37504
1	Fuel Governor Plunger	FP-30407509		VT-1710; AFC; Pink
1	Fuel Governor Plunger	FP-3040750		VT-1710; AFC; Red
1	Fuel Governor Plunger	FP-3040757		VT-1710; AFC; Violet
1	Fuel Governor Plunger	FP-3040753		VT-1710; AFC; Yellow; 0.37494
1	Fuel Governor Plunger	FP-169662		VT-1710; PTG; Green; 0.3751

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**Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, 45  
VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, (cont.)  
VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800,  
VTR1710 Engs.**

28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**GOVERNOR (cont.)**

QTY	GOVERNOR (cont.)	PART NO.	SIZE	DESCRIPTION
1	Idler Spring Plunger Button	FP-141624		VT-1710; .2135/.2165; Button Number 7
1	Idler Spring Plunger Button	FP-141625		VT-1710; .2185/.2215; Button Number 10
1	Idler Spring Plunger Button	FP-141626		VT-1710; .2235/.2265; Button Number 12
1	Idler Spring Plunger Button	FP-139894		VT-1710; .2285/.2315; Button Number 15
1	Idler Spring Plunger Button	FP-140417		VT-1710; .2335/.2365; Button Number 17
1	Idler Spring Plunger Button	FP-141629		VT-1710; .2385/.2415; Button Number 20
1	Idler Spring Plunger Button	FP-141630		VT-1710; .2435/.2465; Button Number 22
1	Idler Spring Plunger Button	FP-141631		VT-1710; .2485/.2515; Button Number 25
1	Idler Spring Plunger Button	FP-141632		VT-1710; .2535/.2565; Button Number 27
1	Idler Spring Plunger Button	FP-141633		VT-1710; .2585/.2615; Button Number 30
1	Idler Spring Plunger Button	FP-141634		VT-1710; .2635/.2665; Button Number 32
1	Idler Spring Plunger Button	FP-140922		VT-1710; .2685/.2715; Button Number 35
1	Idler Spring Plunger Button	FP-140418		VT-1710; .2735/.2765; Button Number 37
1	Idler Spring Plunger Button	FP-137370		VT-1710; .2785/.2815; Button Number 40
1	Idler Spring Plunger Button	FP-140923		VT-1710; .2835/.2865; Button Number 42
1	Idler Spring Plunger Button	FP-138862		VT-1710; .2885/.2915; Button Number 45
1	Idler Spring Plunger Button	FP-140925		VT-1710; .2985/.3015; Button Number 50
1	Idler Spring Plunger Button	FP-145951		VT-1710; .3585/.3615; Button Number 180
2	Carrier, Governor Weight	FP-3024991		VT-1710; Typical AFC Pump

**COOLING SYSTEM**

QTY	WATER PUMP	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39713		
1	Redi-Sleeve	99125		
QTY	SEALS - FAN HUB	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39835		
1	Redi-Sleeve	99181		
QTY	THERMOSTAT	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	39821		

**ENGINE BLOCK & PARTS**

QTY	GASKETS	PART NO.	SIZE	DESCRIPTION
1	Oil Pan Gasket	FP-181256		VTA-28, VT-1710
QTY	GASKET SETS	PART NO.	SIZE	DESCRIPTION
1	Gasket Conversion Set	FP-3017564		VTA-28, VT-1710
QTY	CAM BEARINGS	PART NO.	SIZE	DESCRIPTION
28	Cam Brg.	FP-70437	STD	Position All Positions; VTA-28, VT-1710
QTY	OIL COOLERS & FILTERS	PART NO.	SIZE	DESCRIPTION
1	Aftercooler Core Assembly	FP-3411460		VTA-1710; Big Cam; Three Pass; For Big Cam III and Engs. up-dated to cross bolt mount, O.E. Nos. 3028997 & 3068724.
1	Aftercooler Gasket Set	FP-PGC206		VTA-1710; For 3068724 Aftercooler
1	Aftercooler Gasket Set	PGC206 +		VTA-1710; For 3068724 Aftercooler; When depleted use FP-PGC206
2	Aftercooler Housing Gasket	FP-216486		VTA-1710
1	Aftercooler Gasket	FP-215044		VTA-1710
1	Aftercooler Gasket	FP-3032348		VTA-1710
1	O-Ring	FP-109080		VTA-1710; Aftercooler
1	O-Ring	FP-217037		VTA-1710; Aftercooler
4	O-Ring	FP-195952		VTA-1710; Aftercooler Core Seal
1	Air Crossover Gasket	FP-216487		VTA-1710

**CRANKSHAFT/OIL PUMP**

QTY	SEALS - FRONT CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3020182		Front; VT-1710
1	Redi-Sleeve	FP-3006744		Front; VT-1710
1	Redi-Sleeve	99376		
QTY	SEALS - REAR CRANK	PART NO.	SIZE	DESCRIPTION
1	Oil Seal	FP-3630681		Rear; VT-1710; Dry
1	Oil Seal	FP-3005887		Rear; VT-1710; Wet
1	Oil Seal	39701		
1	Redi-Sleeve	FP-3006237		Rear; VT-1710
1	Redi-Sleeve	99725		

(continued on next page)

**45 Multi-Purpose Engines VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, (cont.) VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800, VTR1710 Engs.**  
28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**CRANKSHAFT/OIL PUMP (cont.)**

QTY	MAIN BEARINGS	PART NO.	SIZE	DESCRIPTION
1	Main Set	FP-AR4220	STD	VT-1710; Phase III Only
1	Main Set	FP-AR4221	10	VT-1710; Phase III Only
1	Main Set	FP-AR4222	20	VT-1710; Phase III Only
1	Main Set	FP-AR4223	30	VT-1710; Phase III Only
4	Thrust Washer	FP-180280	STD	VT-1710; Phase III Only

**CYLINDER COMPONENTS**

QTY	LINERS	PART NO.	SIZE	DESCRIPTION
12	Liner w/o Sealing Rings	FP-3055099	STD	VT-1710, VT12R-600, VT12-700; LPF; Std. Liners
12	Liner w/o Sealing Rings	FP-3046325	20	VTA-28, VT-1710; .020 UPF
12	Liner w/o Sealing Rings	FP-3065405	20	VTA-28, VT-1710; .020/.040 LPF; 20/40 Oversize lower press-fit liner; Flange Dia. is .020" Larger than Std.; Flange thickness is .020" greater than Std.; Pilot Dia. is .040" larger than Std.
12	Liner w/Sealing Rings	FP-3801826	STD	VT-1710; LPF; Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Std. size, Lower Press Fit design. Replaces O.E. Nos. 3055099 & 3801826 w/seals.
12	Liner w/Sealing Rings	FP-3801387	20	VTA-28, VT-1710; .020 UPF; Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger & flange thickness .010" greater than Std. Replaces O.E. Nos. 3046325 & 3801387 w/seals (referred to as '10/20 Size').
12	Liner w/Sealing Rings	FP-3803219	20	VTA-28, VT-1710; .020/.040 LPF; Incl. (1) FP215090 crevice seal, (2) FP3032874 (Blk., middle & lower) sealing rings. Oversize, flange Press Fit dia. .020" larger than Std. & lower Press Fit is increased by .040". Replaces O.E. Nos. 3056405 & 3803219 (referred to as '20/40 Size').
12	Cylinder Kit Complete	FP-3801834		VT-1710; 13.0:1 C.R.
12	Cylinder Kit Complete	FP-3801832		VT-1710; 13.7:1 C.R.
12	Cylinder Kit Complete	FP-3801829		VT-1710; 13.7:1 C.R.; Premium Plus
12	Cylinder Kit Complete	FP-3801835		VT-1710; 14.0:1 C.R.
12	Cylinder Kit Complete	FP-3801831		VT-1710; 14.1:1 C.R.
12	Cylinder Kit Complete	FP-3801836		VT-1710; 14.5:1 C.R.
12	Cylinder Kit Complete	FP-3801833		VT-1710; 14.7:1 C.R.; Premium
12	Cylinder Kit Complete	FP-3801828		VT-1710, VT12R-600, VT12-700; 14.1:1 C.R.; 5 Rings
12	Cyl. Liner Sealing Ring Kit	FP-AR51477 +		VT-1710; Incl. (1) FP-215090 crevice seal and (2) FP-3032874 liner seals; When depleted use FP-3800174
12	Cyl. Liner Sealing Ring Kit	FP-3800174		VT-1710; Incl. (1) FP-215090, (2) FP-3032874
12	Cyl. Liner Sealing Ring Kit	FP-AR51477 +		VTA-28; Incl. (1) FP-215090 crevice seal and (2) FP-3032874 liner seals; When depleted use FP-3800174
12	Cyl. Liner Sealing Ring Kit	FP-3800174		VTA-28; Incl. (1) FP-215090, (2) FP-3032874
1	Sealing Ring, Liner	FP-215090		VTA-28, VT-170; Crevice Seal
2	Sealing Ring, Liner	FP-3032874		VTA-28, VT-170; Middle & Lower Seal
12	Flange Shim	FP-3019956	8	.008" Thick, fits Std. & 10/20 sleeves
12	Flange Shim	FP-3054948	20	.020" Thick, fits Std. & 10/20 sleeves
12	Flange Shim	FP-3054948B	20	.020" Thick, fits Std. & 10/20 sleeves; Carton of 50
12	Flange Shim	FP-30549486	20	.020" Thick, fits Std. & 10/20 sleeves; Carton of 6

QTY	PISTONS	PART NO.	SIZE	DESCRIPTION
12	Piston Body w/o Pin	FP-3031213		VT-1710; 13.0:1 C.R.
12	Piston Body w/o Pin	FP-3031049		VT-1710; 13.7:1 C.R.
12	Piston Body w/o Pin	FP-3003176		VT-1710; 13.7:1 C.R.; Premium Plus
12	Piston Body w/o Pin	FP-3031214		VT-1710; 14.0:1 C.R.
12	Piston Body w/o Pin	FP-3011295		VT-1710; 14.1:1 C.R.
12	Piston Body w/o Pin	FP-3040097		VT-1710; 14.5:1 C.R.
12	Piston Body w/o Pin	FP-3003175		VT-1710; 14.7:1 C.R.; Premium
12	Piston Body w/o Pin	FP-175760		VT-1710, VT12R-600, VT12-700; 14.1:1 C.R.; 5-Ring Piston
12	Piston Kit w/Pin & Retainers	FP-AR5720		VT-1710; 13.7:1 C.R.; Premium Plus
12	Piston Kit w/Pin & Retainers	FP-AR3550		VT-1710; 14.1:1 C.R.
12	Piston Kit w/Pin & Retainers	FP-AR45653		VT-1710; 14.7:1 C.R.; Premium
12	Pin	FP-191970		VT-1710, VT12R-600, VT12-700
12	Piston Pin Retainer	FP-175755		VT-1710
12	Pin Bushing	FP-43067		VT-1710, VT12R-600, VT12-700; Straight rod bushing; 1.03" Width; 2 req'd. per rod
12	Pin Bushing	FP-187420		VT-1710, VT12R-600, VT12-700; 1 piece bushing; 2.20" Width
2	Insert, Piston	FP-3043650		VT-1710; PTFE
12	Piston With Retainer & Insert	FP-3801267		VT-1710; 13.0:1 C.R.
12	Piston With Retainer & Insert	FP-AR12357		VT-1710; 13.7:1 C.R.

(continued on next page)

*Multi-Purpose Engines* VT12-600, VT12-635-M, VT12-700, VT12-800, VT12R-600, VT28, **45**  
 VT700, VT900, VT1710, VT1710-C525, VT1710-C635, VT1710-L, VT1710-635, VTA28, (cont.)  
 VTA1710, VTA1710-C700, VTA1710-C800, VTA1710-L, VTA1710-700, VTA1710-800,  
**VTR1710 Engs.**  
 28.0L 1710 OHV Turbo-Diesel V12, 5.5" Bore

**CYLINDER COMPONENTS (cont.)**

QTY	PISTONS (cont.)	PART NO.	SIZE	DESCRIPTION
12	Piston With Retainer & Insert	FP-3801434		VT-1710; 14.0:1 C.R.
12	Piston With Retainer & Insert	FP-AR12359		VT-1710; 14.1:1 C.R.
12	Piston With Retainer & Insert	FP-3801666		VT-1710; 14.5:1 C.R.
QTY	CONNECTING RODS & BRGS.	PART NO.	SIZE	DESCRIPTION
12	Rod Pair	FP-200600PR	STD	VT-1710, VT12R-600, VT12-700 Engs.; Phase 3 Engs.
24	Rod Bearing Half Upper/Lower	FP-200600	STD	VT-1710, VT12R-600, VT12-700
24	Rod Bearing Half Upper/Lower	FP-200601	10	VT-1710, VT12R-600, VT12-700
24	Rod Bearing Half Upper/Lower	FP-200602	20	VT-1710, VT12R-600, VT12-700
QTY	PISTON RINGS	PART NO.	SIZE	DESCRIPTION
12	Ring Set Single Cylinder	FP-4089810	STD	VT-1710; For Piston FP-3003175; 1-5/32, 2-1/8, 1-3/16 (1 cyl. set)
12	Ring Set Single Cylinder	FP-4089811	STD	VT-1710; For Pistons FP-3003176, FP-3011295, FP-3031049, FP-3031213, FP-3031214, FP-3040097
12	Ring Set Single Cylinder	FP-4089812		VT-1710, VT12R-600, VT12-700; For 5-Ring Piston FP-175760
12	Ring Set Single Cylinder	FP-3801044 +		VT-1710, VT12R-600, VT12-700; When depleted use FP-4089812
KITS				
QTY	OVERHAUL KIT	PART NO.	SIZE	DESCRIPTION
1	Complete Overhaul Kit	FP-IFK1710OHE		VT-1710; With Front & Rear Seals and Upper & Lower Gasket Sets
1	Complete Overhaul Kit	FP-IFKVTA28OHL		VTA-28; With Front & Rear Seals and Upper & Lower Gasket Sets

# Engine Kit Bill of Material



Qty.	Part No.	Description	Qty.	Part No.	Description	Qty.	Part No.	Description	Qty.	Part No.	Description
<b>FP-IFKVT28OHL</b>			<b>FP-NG855PREMOH (cont'd.)</b>			<b>FP-VTB903PREM (cont'd.)</b>			<b>FP-4B39PREML (cont'd.)</b>		
(12)	FP-3801831	Cylinder Kit Complete	(1)	FP-3801260	Main Bearing Set	(16)	FP-189772	Rod Bearing Half Upper/Lower	(1)	FP-3802014	Main Bearing Set
(12)	FP-3801832	Cylinder Kit Complete	(1)	FP-3801261	Main Bearing Set				(1)	FP-3804896S	In-Frame Gasket Set
(12)	FP-3801834	Cylinder Kit Complete	(1)	FP-3801262	Main Bearing Set	(16)	FP-189773	Rod Bearing Half Upper/Lower	<b>FP-4B39PREMOH</b>		
(12)	FP-3801835	Cylinder Kit Complete	(1)	FP-3801263	Main Bearing Set	(1)	FP-AR3640	Main Bearing Set	(4)	FP-3802030	Piston w/Retainer & Rings
(12)	FP-3801836	Cylinder Kit Complete	(1)	FP-3801264	Main Bearing Set	(1)	FP-AR3641	Main Bearing Set	(4)	FP-3802032	Piston w/Retainer & Rings
(24)	FP-200600	Rod Bearing Half Upper/Lower	(1)	PG1331NGB	Custom Gasket Set	(1)	FP-AR3642	Main Bearing Set	(4)	FP-3802034	Piston w/Retainer & Rings
(24)	FP-200601	Rod Bearing Half Upper/Lower	(1)	PG1330NG	Head Gasket Set	(1)	FP-AR3643	Main Bearing Set	(4)	FP-3802060	Piston w/Retainer & Rings
(24)	FP-200602	Rod Bearing Half Upper/Lower	(1)	FP-3801463	Conversion Gasket Set	(1)	FP-AR3643	Main Bearing Set	(4)	FP-3802062	Piston w/Retainer & Rings
(1)	FP-AR4220	Main Bearing Set	(1)	FP-3801464	Conversion Gasket Set	(1)	FP-3013497S	In-Frame Gasket Set	(4)	FP-3802064	Piston w/Retainer & Rings
(1)	FP-AR4221	Main Bearing Set	(1)	PGC100	Valve Timing Gasket Set	<b>FP-VTB903PREMOH</b>			(4)	FP-3802100	Piston w/Retainer & Rings
(1)	FP-AR4222	Main Bearing Set	<b>FP-NH220</b>			(8)	FP-AR11909	Cylinder Kit Complete	(4)	FP-3802102	Piston w/Retainer & Rings
(1)	FP-AR4223	Main Bearing Set	(1)	FP-3349820	Oil Pan Gasket	(8)	FP-AR11928	Cylinder Kit Complete	(4)	FP-3802104	Piston w/Retainer & Rings
(1)	FP-3803697	Head Gasket Set	(6)	FP-AR7375	Cylinder Kit Complete	(8)	FP-3023475	Cylinder Kit Complete	(4)	FP-3802132	Piston w/Retainer & Rings
(1)	FP-3017564	Conversion Gasket Set	(6)	FP-AR7383	Cylinder Kit Complete	(16)	FP-189770	Rod Bearing Half Upper/Lower	(4)	FP-3802134	Piston w/Retainer & Rings
<b>FP-IFK1710OHE</b>			(6)	FP-AR7399	Cylinder Kit Complete	(16)	FP-189771	Rod Bearing Half Upper/Lower	(4)	FP-3802160	Piston w/Retainer & Rings
(12)	FP-3801828	Cylinder Kit Complete	(12)	FP-203670	Rod Bearing Half Upper/Lower	(16)	FP-189772	Rod Bearing Half Upper/Lower	(4)	FP-3802170	Piston w/Retainer & Rings
(12)	FP-3801829	Cylinder Kit Complete	(12)	FP-203671	Rod Bearing Half Upper/Lower	(16)	FP-189773	Rod Bearing Half Upper/Lower	(4)	FP-3802172	Piston w/Retainer & Rings
(12)	FP-3801833	Cylinder Kit Complete	(12)	FP-203672	Rod Bearing Half Upper/Lower	(16)	FP-189773	Rod Bearing Half Upper/Lower	(4)	FP-3802174	Piston w/Retainer & Rings
(24)	FP-200600	Rod Bearing Half Upper/Lower	(12)	FP-203673	Rod Bearing Half Upper/Lower	(1)	FP-AR3640	Main Bearing Set	(4)	FP-3934048	Piston Pin
(24)	FP-200601	Rod Bearing Half Upper/Lower	(12)	FP-203674	Rod Bearing Half Upper/Lower	(1)	FP-AR3641	Main Bearing Set	(8)	FP-3901171	Rod Bearing Half Upper/Lower
(24)	FP-200602	Rod Bearing Half Upper/Lower	(12)	FP-203674	Rod Bearing Half Upper/Lower	(1)	FP-AR3642	Main Bearing Set	(8)	FP-3901173	Rod Bearing Half Upper/Lower
(1)	FP-AR4220	Main Bearing Set	(1)	FP-3801260	Main Bearing Set	(1)	FP-AR3643	Main Bearing Set	(8)	FP-3901174	Rod Bearing Half Upper/Lower
(1)	FP-AR4221	Main Bearing Set	(1)	FP-3801261	Main Bearing Set	(1)	FP-3013497	Head Gasket Set	(8)	FP-3901174	Rod Bearing Half Upper/Lower
(1)	FP-AR4222	Main Bearing Set	(1)	FP-3801262	Main Bearing Set	(1)	FP-3014458	Conversion Gasket Set	(8)	FP-3939859	Rod Bearing Half Upper/Lower
(1)	FP-AR4223	Main Bearing Set	(1)	FP-3801263	Main Bearing Set	(1)	FP-SK3021094	Oil Seal Kit	(1)	FP-3802010	Main Bearing Set
(1)	FP-3803697	Head Gasket Set	(1)	FP-3801264	Main Bearing Set	(6)	FP-AR61504	Cylinder Kit Complete	(1)	FP-3802011	Main Bearing Set
(1)	FP-3017564	Conversion Gasket Set	(1)	FP-3802077	Head Gasket Set	(6)	FP-3277991	Cylinder Kit Complete	(1)	FP-3802012	Main Bearing Set
<b>FP-NG855PREM</b>			(12)	FP-157620	Rod Bearing Half Upper/Lower	(12)	FP-157621	Rod Bearing Half Upper/Lower	(1)	FP-3802013	Main Bearing Set
(1)	PGC300	Oil Pan Gasket Set	(12)	FP-157622	Rod Bearing Half Upper/Lower	(12)	FP-157622	Rod Bearing Half Upper/Lower	(1)	FP-3802014	Main Bearing Set
(6)	FP-CK66305405	Cylinder Kit Complete	(12)	FP-157623	Rod Bearing Half Upper/Lower	(12)	FP-157623	Rod Bearing Half Upper/Lower	(1)	FP-3804896	Head Gasket Set
(6)	FP-LK166630	Cylinder Kit Complete	(12)	FP-203661	Rod Bearing Half Upper/Lower	(12)	FP-3012360	Rod Bearing Half Upper/Lower	(1)	FP-3802375	Conversion Gasket Set
(12)	FP-203660	Rod Bearing Half Upper/Lower	(12)	FP-203662	Rod Bearing Half Upper/Lower	(12)	FP-3012361	Rod Bearing Half Upper/Lower	<b>FP-4B39PREMOHL</b>		
(12)	FP-203661	Rod Bearing Half Upper/Lower	(12)	FP-203662	Rod Bearing Half Upper/Lower	(12)	FP-3012362	Rod Bearing Half Upper/Lower	(4)	FP-3802248	Piston w/Retainer & Rings
(12)	FP-203662	Rod Bearing Half Upper/Lower	(12)	FP-203663	Rod Bearing Half Upper/Lower	(12)	FP-3012363	Rod Bearing Half Upper/Lower	(4)	FP-3802249	Piston w/Retainer & Rings
(12)	FP-214950	Rod Bearing Half Upper/Lower	(12)	FP-214951	Rod Bearing Half Upper/Lower	(1)	FP-BM99830	Main Bearing Set	(4)	FP-3802250	Piston w/Retainer & Rings
(12)	FP-214951	Rod Bearing Half Upper/Lower	(12)	FP-214952	Rod Bearing Half Upper/Lower	(1)	FP-BM99831	Main Bearing Set	(4)	FP-3802251	Piston w/Retainer & Rings
(12)	FP-214952	Rod Bearing Half Upper/Lower	(12)	FP-214953	Rod Bearing Half Upper/Lower	(1)	FP-BM99832	Main Bearing Set	(4)	FP-3802252	Piston w/Retainer & Rings
(12)	FP-214953	Rod Bearing Half Upper/Lower	(1)	FP-3801260	Main Bearing Set	(1)	FP-BM99833	Main Bearing Set	(4)	FP-3802253	Piston w/Retainer & Rings
(1)	FP-3801260	Main Bearing Set	(1)	FP-3801261	Main Bearing Set	(1)	FP-3277752	Head Gasket Set	(4)	FP-3802247	Piston w/Retainer & Rings
(1)	FP-3801261	Main Bearing Set	(1)	FP-3801262	Main Bearing Set	(1)	FP-3801657	Conversion Gasket Set	(4)	FP-3802487	Piston w/Retainer & Rings
(1)	FP-3801262	Main Bearing Set	(1)	FP-3801263	Main Bearing Set	(12)	FP-3012363	Rod Bearing Half Upper/Lower	(4)	FP-3802493	Piston w/Retainer & Rings
(1)	FP-3801263	Main Bearing Set	(1)	FP-3801264	Main Bearing Set	(1)	FP-BM99830	Main Bearing Set	(4)	FP-3802495	Piston w/Retainer & Rings
(1)	PG1330NG	Head Gasket Set	(1)	FP-3802077	Head Gasket Set	(1)	FP-BM99831	Main Bearing Set	(4)	FP-3802562	Piston w/Retainer & Rings
(1)	PG1330SNG	Head Gasket Set	(1)	FP-3802077A	Conversion Gasket Set	(1)	FP-BM99832	Main Bearing Set	(4)	FP-3802565	Piston w/Retainer & Rings
<b>FP-NG855PREMOH</b>			(1)	FP-3802077	Head Gasket Set	<b>FP-4B39PREML</b>			(4)	FP-3802747	Piston w/Retainer & Rings
(6)	FP-CK66305405	Cylinder Kit Complete	(1)	FP-3802075A	Conversion Gasket Set	(4)	FP-3802248	Piston w/Retainer & Rings	(4)	FP-3934047	Piston Pin
(6)	FP-LK166630	Cylinder Kit Complete	<b>FP-PK12742</b>			(4)	FP-3802249	Piston w/Retainer & Rings	(8)	FP-3901171	Rod Bearing Half Upper/Lower
(12)	FP-203660	Rod Bearing Half Upper/Lower	(4)	FP-3906223WP	Piston Kit w/Pin & Retainers	(4)	FP-3802250	Piston w/Retainer & Rings	(8)	FP-3901173	Rod Bearing Half Upper/Lower
(12)	FP-203661	Rod Bearing Half Upper/Lower	(4)	FP-3802040	Ring Set, Single Cylinder	(4)	FP-3802251	Piston w/Retainer & Rings	(8)	FP-3901174	Rod Bearing Half Upper/Lower
(12)	FP-203662	Rod Bearing Half Upper/Lower	<b>FP-PK12742B</b>			(4)	FP-3802252	Piston w/Retainer & Rings	(8)	FP-3939859	Rod Bearing Half Upper/Lower
(12)	FP-203663	Rod Bearing Half Upper/Lower	(6)	FP-3906223WP	Piston Kit w/Pin & Retainers	(4)	FP-3802253	Piston w/Retainer & Rings	(1)	FP-3802010	Main Bearing Set
(12)	FP-203664	Rod Bearing Half Upper/Lower	(6)	FP-3802040	Ring Set, Single Cylinder	(4)	FP-3802487	Piston w/Retainer & Rings	(1)	FP-3802011	Main Bearing Set
(12)	FP-214950	Rod Bearing Half Upper/Lower	<b>FP-PK22742A</b>			(4)	FP-3802493	Piston w/Retainer & Rings	(1)	FP-3802012	Main Bearing Set
(12)	FP-214951	Rod Bearing Half Upper/Lower	(1)	FP-PK22742A	Piston Kit w/Rings & Bearings	(4)	FP-3802495	Piston w/Retainer & Rings	(1)	FP-3802013	Main Bearing Set
(12)	FP-214952	Rod Bearing Half Upper/Lower	<b>FP-PK22742B</b>			(4)	FP-3802562	Piston w/Retainer & Rings	(1)	FP-3802014	Main Bearing Set
(12)	FP-214953	Rod Bearing Half Upper/Lower	(1)	FP-PK22742B	Piston Kit w/Rings & Bearings	(4)	FP-3802565	Piston w/Retainer & Rings	(1)	FP-3804896	Head Gasket Set
(12)	FP-214954	Rod Bearing Half Upper/Lower	<b>FP-VTB903PREM</b>			(8)	FP-3934047	Piston Pin	(1)	FP-3802375	Conversion Gasket Set
(12)	FP-214955	Rod Bearing Half Upper/Lower	(8)	FP-AR11909	Cylinder Kit Complete	(8)	FP-3901171	Rod Bearing Half Upper/Lower	<b>FP-504PREM</b>		
(12)	FP-214956	Rod Bearing Half Upper/Lower	(8)	FP-AR11928	Cylinder Kit Complete	(8)	FP-3901172	Rod Bearing Half Upper/Lower	(8)	FP-AR61504	Cylinder Kit Complete
(12)	FP-214957	Rod Bearing Half Upper/Lower	(8)	FP-3023475	Cylinder Kit Complete	(8)	FP-3901173	Rod Bearing Half Upper/Lower	(8)	FP-3277991	Cylinder Kit Complete
(12)	FP-214958	Rod Bearing Half Upper/Lower	(16)	FP-189770	Rod Bearing Half Upper/Lower	(8)	FP-3901174	Rod Bearing Half Upper/Lower	(16)	FP-157620	Rod Bearing Half Upper/Lower
(12)	FP-214959	Rod Bearing Half Upper/Lower	(16)	FP-189771	Rod Bearing Half Upper/Lower	(8)	FP-3939859	Rod Bearing Half Upper/Lower	(16)	FP-157621	Rod Bearing Half Upper/Lower
(12)	FP-214960	Rod Bearing Half Upper/Lower	(cont'd. next column)			(1)	FP-3802010	Main Bearing Set	(16)	FP-157622	Rod Bearing Half Upper/Lower
(12)	FP-214961	Rod Bearing Half Upper/Lower	(cont'd. next column)			(1)	FP-3802011	Main Bearing Set	(16)	FP-157623	Rod Bearing Half Upper/Lower
(12)	FP-214962	Rod Bearing Half Upper/Lower	(cont'd. next column)			(1)	FP-3802012	Main Bearing Set	(16)	FP-3012360	Rod Bearing Half Upper/Lower
(12)	FP-214963	Rod Bearing Half Upper/Lower	(cont'd. next column)			(1)	FP-3802013	Main Bearing Set			(cont'd. next page)



# Engine Kit Bill of Material

Qty.	Part No.	Description	Qty.	Part No.	Description	Qty.	Part No.	Description	Qty.	Part No.	Description
<b>FP-504PREM</b> (cont'd.)			<b>FP-6B59PREML</b> (cont'd.)			<b>FP-6C83PREM</b> (cont'd.)			<b>KS2-2506A</b>		
(16)	FP-3012361	Rod Bearing Half Upper/Lower	(12)	FP-3901171	Rod Bearing Half Upper/Lower	(1)	FP-3802212	Main Bearing Set	(8)	FP-3277626	Cylinder Kit Complete
(16)	FP-3012362	Rod Bearing Half Upper/Lower	(12)	FP-3901172	Rod Bearing Half Upper/Lower	(1)	FP-3945917	Main Bearing Set	(8)	FP-556350PR	Connecting Rod Bearing Pair
(16)	FP-3012363	Rod Bearing Half Upper/Lower	(12)	FP-3901173	Rod Bearing Half Upper/Lower	(1)	FP-3945918	Main Bearing Set	(1)	FP-BM99820	Main Bearing Set
(1)	FP-BM99820	Main Bearing Set	(12)	FP-3901174	Rod Bearing Half Upper/Lower	(1)	FP-3945919	Main Bearing Set	(1)	FP-2601625	Gasket Kit
(1)	FP-BM99821	Main Bearing Set	(12)	FP-3939859	Rod Bearing Half Upper/Lower	<b>FP-6C83PREMOH</b>			<b>PK1-2742</b>		
(1)	FP-BM99822	Main Bearing Set	(1)	FP-3802070	Main Bearing Set	(6)	FP-LK9247792	Cylinder Kit Complete	(4)	FP-3906223WP	Piston Kit w/Pin & Retainers
(1)	FP-BM99823	Main Bearing Set	(1)	FP-3802071	Main Bearing Set	(6)	FP-LK92479937	Cylinder Kit Complete	(4)	FP-3802040	Ring Set, Single Cylinder
(1)	FP-3277753	Head Gasket Set	(1)	FP-3802072	Main Bearing Set	(6)	FP-3802372	Cylinder Kit Complete	<b>PK2-2742A</b>		
(1)	FP-3801658	Conversion Gasket Set	(1)	FP-3802073	Main Bearing Set	(6)	FP-3802388	Cylinder Kit Complete	(4)	4205CP	Connecting Rod Bearing Pair
<b>FP-555PREM</b>			(1)	FP-3802074	Main Bearing Set	(6)	FP-3802399	Cylinder Kit Complete	(1)	FP-3802010	Main Bearing Set
(8)	FP-3277626	Cylinder Kit Complete	(1)	FP-3802075	Main Bearing Set	(6)	FP-3802400	Cylinder Kit Complete	(4)	FP-3906223WP	Piston Kit w/Pin & Retainers
(8)	FP-3277634	Cylinder Kit Complete	(1)	FP-3804897S	In-Frame Gasket Set	(6)	FP-3802401	Cylinder Kit Complete	(4)	FP-3802040	Ring Set, Single Cylinder
(16)	FP-556350	Rod Bearing Half Upper/Lower	<b>FP-6B59PREMOH</b>			(6)	FP-3802402	Cylinder Kit Complete			
(16)	FP-556351	Rod Bearing Half Upper/Lower	(6)	FP-3802030	Piston w/Retainer & Rings	(6)	FP-3802403	Cylinder Kit Complete			
(16)	FP-556352	Rod Bearing Half Upper/Lower	(6)	FP-3802032	Piston w/Retainer & Rings	(6)	FP-3802404	Cylinder Kit Complete			
(16)	FP-556353	Rod Bearing Half Upper/Lower	(6)	FP-3802034	Piston w/Retainer & Rings	(6)	FP-3802406	Cylinder Kit Complete			
(1)	FP-BM99820	Main Bearing Set	(6)	FP-3802060	Piston w/Retainer & Rings	(6)	FP-3802609	Cylinder Kit Complete			
(1)	FP-BM99821	Main Bearing Set	(6)	FP-3802062	Piston w/Retainer & Rings	(6)	FP-3802610	Cylinder Kit Complete			
(1)	FP-BM99822	Main Bearing Set	(6)	FP-3802064	Piston w/Retainer & Rings	(6)	FP-3802743	Cylinder Kit Complete			
(1)	FP-BM99823	Main Bearing Set	(6)	FP-3802100	Piston w/Retainer & Rings	(6)	FP-3802811	Cylinder Kit Complete			
(1)	FP-AR63520	Head Gasket Set	(6)	FP-3802102	Piston w/Retainer & Rings	(6)	FP-3934588	Cylinder Kit Complete			
(1)	FP-3801659	Conversion Gasket Set	(6)	FP-3802104	Piston w/Retainer & Rings	(6)	FP-4020061	Cylinder Kit Complete			
			(6)	FP-3802104	Piston w/Retainer & Rings	(6)	FP-4020062	Cylinder Kit Complete			
			(6)	FP-3802132	Piston w/Retainer & Rings	(12)	FP-3901430	Rod Bearing Half Upper/Lower			
			(6)	FP-3802134	Piston w/Retainer & Rings	(12)	FP-3901431	Rod Bearing Half Upper/Lower			
			(6)	FP-3802160	Piston w/Retainer & Rings	(12)	FP-3901432	Rod Bearing Half Upper/Lower			
			(6)	FP-3802170	Piston w/Retainer & Rings	(12)	FP-3901433	Rod Bearing Half Upper/Lower			
			(6)	FP-3802172	Piston w/Retainer & Rings	(12)	FP-3901434	Rod Bearing Half Upper/Lower			
			(6)	FP-3802174	Piston w/Retainer & Rings	(1)	FP-3802210	Main Bearing Set			
			(6)	FP-3802747	Piston w/Retainer & Rings	(1)	FP-3802211	Main Bearing Set			
			(6)	FP-3934048	Piston Pin	(1)	FP-3802212	Main Bearing Set			
			(12)	FP-3901171	Rod Bearing Half Upper/Lower	(1)	FP-3945917	Main Bearing Set			
			(12)	FP-3901172	Rod Bearing Half Upper/Lower	(1)	FP-3945918	Main Bearing Set			
			(12)	FP-3901173	Rod Bearing Half Upper/Lower	(1)	FP-3945919	Main Bearing Set			
			(12)	FP-3901174	Rod Bearing Half Upper/Lower	(1)	FP-4025271	Head Gasket Set			
			(12)	FP-3939859	Rod Bearing Half Upper/Lower	(1)	FP-3802389	Conversion Gasket Set			
			(1)	FP-3802070	Main Bearing Set	<b>FP6B5.9PREM-OHL</b>					
			(1)	FP-3802071	Main Bearing Set	(6)	FP-3802248	Piston w/Retainer & Rings			
			(1)	FP-3802072	Main Bearing Set	(6)	FP-3802249	Piston w/Retainer & Rings			
			(1)	FP-3802073	Main Bearing Set	(6)	FP-3802250	Piston w/Retainer & Rings			
			(1)	FP-3802363	Head Gasket Set	(6)	FP-3802251	Piston w/Retainer & Rings			
			(1)	FP-3804897	Head Gasket Set	(6)	FP-3802252	Piston w/Retainer & Rings			
			(1)	FP-4089649	Head Gasket Set	(6)	FP-3802253	Piston w/Retainer & Rings			
			(1)	FP-3802376	Conversion Gasket Set	(6)	FP-3802487	Piston w/Retainer & Rings			
			<b>FP-6C83PREM</b>			(6)	FP-3802493	Piston w/Retainer & Rings			
			(6)	FP-LK9247792	Cylinder Kit Complete	(6)	FP-3802495	Piston w/Retainer & Rings			
			(6)	FP-LK92479937	Cylinder Kit Complete	(6)	FP-3802499	Piston w/Retainer & Rings			
			(6)	FP-3802372	Cylinder Kit Complete	(6)	FP-3802562	Piston w/Retainer & Rings			
			(6)	FP-3802388	Cylinder Kit Complete	(6)	FP-3802564	Piston w/Retainer & Rings			
			(6)	FP-3802399	Cylinder Kit Complete	(6)	FP-3802565	Piston w/Retainer & Rings			
			(6)	FP-3802400	Cylinder Kit Complete	(6)	FP-3802747	Piston w/Retainer & Rings			
			(6)	FP-3802401	Cylinder Kit Complete	(6)	FP-3934047	Piston Pin			
			(6)	FP-3802402	Cylinder Kit Complete	(12)	FP-3901171	Rod Bearing Half Upper/Lower			
			(6)	FP-3802403	Cylinder Kit Complete	(12)	FP-3901172	Rod Bearing Half Upper/Lower			
			(6)	FP-3802404	Cylinder Kit Complete	(12)	FP-3901173	Rod Bearing Half Upper/Lower			
			(6)	FP-3802406	Cylinder Kit Complete	(12)	FP-3901174	Rod Bearing Half Upper/Lower			
			(6)	FP-3802609	Cylinder Kit Complete	(12)	FP-3939859	Rod Bearing Half Upper/Lower			
			(6)	FP-3802610	Cylinder Kit Complete	(1)	FP-3802070	Main Bearing Set			
			(6)	FP-3802743	Cylinder Kit Complete	(1)	FP-3802071	Main Bearing Set			
			(6)	FP-3802811	Cylinder Kit Complete	(1)	FP-3802072	Main Bearing Set			
			(6)	FP-3934588	Cylinder Kit Complete	(1)	FP-3802073	Main Bearing Set			
			(6)	FP-4020061	Cylinder Kit Complete	(1)	FP-3804897	Head Gasket Set			
			(6)	FP-4020062	Cylinder Kit Complete	(1)	FP-4089649	Head Gasket Set			
			(12)	FP-3901430	Rod Bearing Half Upper/Lower	(1)	FP-3802376	Conversion Gasket Set			
			(12)	FP-3901431	Rod Bearing Half Upper/Lower	<b>KS2-2423A</b>					
			(12)	FP-3901432	Rod Bearing Half Upper/Lower	(8)	FP-AR61504	Cylinder Kit Complete			
			(12)	FP-3901433	Rod Bearing Half Upper/Lower	(8)	FP-3012360PR	Connecting Rod Bearing Pair			
			(12)	FP-3901434	Rod Bearing Half Upper/Lower	(1)	FP-BM99820	Main Bearing Set			
			(1)	FP-3802210	Main Bearing Set	(1)	FP-2601543	Gasket Kit			
			(1)	FP-3802211	Main Bearing Set	(cont'd. next column)					
			(cont'd. next column)								

# Numerical List



Part No.	Line No.	Part No.	Line No.	Part No.	Line No.
E-623KC	CUI 3	FP-PGC220K	CUI 33	FP-137370	CUI 40, 45
FP-AR1176	CUI 44	FP-PGC300	CUI 38	FP-137808	CUI 38, 40, 45
FP-AR11909	CUI 39, 40	FP-PGE743HS	CUI 33, 35	FP-138862	CUI 40, 45
FP-AR11928	CUI 39, 40	FP-PGNH220IF	CUI 33, 35	FP-138887	CUI 29, 30, 36, 39, 40
FP-AR11929	CUI 39, 40	FP-PG1330NG	CUI 38	FP-138937	CUI 29, 30, 36, 39, 40
FP-AR11930	CUI 29, 30, 36, 39, 40	FP-PG1330SNG	CUI 38	FP-139894	CUI 40, 45
FP-AR12098	CUI 22, 23, 33-35, 42, 43	FP-PG1331NGB	CUI 38	FP-139988	CUI 40, 45
FP-AR12357	CUI 44, 45	FP-PG1710HP	CUI 44, 45	FP-140120	CUI 39, 40
FP-AR12359	CUI 44, 45	FP-PG1710LP	CUI 45	FP-140330	CUI 33, 44, 45
FP-AR2883	CUI 33-35	FP-PG1710SH	CUI 44, 45	FP-140417	CUI 40, 45
FP-AR3550	CUI 44, 45	FP-PK12742	CUI 4	FP-140418	CUI 40, 45
FP-AR3560	CUI 38	FP-PK12742B	CUI 12	FP-140922	CUI 40, 45
FP-AR3640	CUI 39, 40	FP-PK22742A	CUI 4	FP-140923	CUI 40, 45
FP-AR3641	CUI 39, 40	FP-PK22742B	CUI 12	FP-140925	CUI 40, 45
FP-AR3642	CUI 39, 40	FP-PK3164	CUI 26	FP-141624	CUI 40, 45
FP-AR3643	CUI 39, 40	FP-PK5878	CUI 26	FP-141625	CUI 40, 45
FP-AR40063	CUI 14, 15, 24, 25	FP-PK5879	CUI 26	FP-141626	CUI 40, 45
FP-AR4220	CUI 44, 45	FP-PK6208	CUI 12	FP-141629	CUI 40, 45
FP-AR4221	CUI 44, 45	FP-PK6209	CUI 12	FP-141630	CUI 40, 45
FP-AR4222	CUI 44, 45	FP-PK6223	CUI 12	FP-141631	CUI 40, 45
FP-AR4223	CUI 44, 45	FP-PK7707	CUI 26	FP-141632	CUI 40, 45
FP-AR45653	CUI 44, 45	FP-PK9161	CUI 26	FP-141633	CUI 40, 45
FP-AR4920	CUI 8, 9, 19, 20	FP-PK9247	CUI 26	FP-141634	CUI 40, 45
FP-AR51477+	CUI 45	FP-SK3021094	CUI 40	FP-142608	CUI 38
FP-AR51478	CUI 38	FP-SL2271G+	CUI 33, 35	FP-143693	CUI 19, 20
FP-AR5720	CUI 44, 45	FP-S16256	CUI 19, 27, 28	FP-144178	CUI 40, 45
FP-AR60740	CUI 14, 15, 24, 25	FP-S2037	CUI 33, 34, 42, 43	FP-144302	CUI 40, 45
FP-AR60801	CUI 14, 15	FP-S212	CUI 14, 15, 24, 25, 27, 28, 33, 39-41, 44, 45	FP-1449M	CUI 39, 40
FP-AR61392	CUI 14, 15, 24, 25	FP-S2286	CUI 40, 45	FP-144911	CUI 22, 23, 31, 33, 35, 42, 43
FP-AR61504	CUI 14, 15, 24, 25	FP-VG529	CUI 16, 17, 19, 20	FP-145504	CUI 40, 45
FP-AR61788	CUI 14, 15, 24, 25	FP-VK123	CUI 16, 17, 19, 20	FP-145701	CUI 41, 44, 45
FP-AR61789	CUI 24, 25	FP-VTB903PREM	CUI 39, 40	FP-145951	CUI 40, 45
FP-AR62258	CUI 11, 21	FP-VTB903PREMOH	CUI 39, 40	FP-146731	CUI 39, 40
FP-AR63520	CUI 27, 28	FP-V1957	CUI 11, 14, 15, 21, 24, 25, 27, 28	FP-146732	CUI 39, 40
FP-AR73350	CUI 1	FP-100099	CUI 40, 45	FP-146733	CUI 39, 40
FP-AR73351	CUI 1	FP-100192	CUI 40, 45	FP-147100	CUI 38
FP-AR73352	CUI 1	FP-100215	CUI 27, 28, 33, 39, 40	FP-147263	CUI 33, 35
FP-AR73353	CUI 1	FP-100217	CUI 44, 45	FP-149767	CUI 38, 40, 45
FP-AR7375	CUI 33	FP-100478	CUI 40, 45	FP-150288	CUI 33
FP-AR7383	CUI 33, 35, 42	FP-101322	CUI 14, 15, 24-28	FP-151101	CUI 36, 37
FP-AR7399	CUI 33	FP-102522	CUI 38	FP-151770	CUI 14, 15, 24, 25
FP-AR7420	CUI 33	FP-107371	CUI 33, 35	FP-151900	CUI 40, 45
FP-AR7440	CUI 33	FP-107738	CUI 24, 25, 27, 28	FP-152082	CUI 39, 40
FP-AR7460	CUI 34	FP-108186	CUI 14, 15, 24, 25, 27, 28, 39, 40	FP-152838	CUI 14, 24
FP-AR7510	CUI 33, 35	FP-108692	CUI 33-35	FP-152936	CUI 14, 15, 24, 25, 27, 28
FP-AR8069	CUI 39, 40	FP-109080	CUI 38, 45	FP-152937	CUI 14, 15, 24, 25, 27, 28
FP-BM27253	CUI 31-35, 38, 41	FP-110827	CUI 14, 15, 24, 25, 33	FP-153679	CUI 14, 15, 24, 25, 27, 28
FP-BM60610	CUI 19	FP-110848	CUI 14, 15, 22-25, 33, 35, 42, 43	FP-154019	CUI 14, 15
FP-BM62730	CUI 19	FP-110855	CUI 14, 15, 24, 25, 27, 28, 33, 35, 39, 40, 44, 45	FP-154087	CUI 40, 45
FP-BM76506	CUI 33	FP-111272	CUI 14, 15, 24, 25, 27, 28	FP-154088	CUI 40, 45
FP-BM76928	CUI 19	FP-111446	CUI 23, 31, 33, 35, 42, 43	FP-154390	CUI 14, 15, 24, 25, 27, 28
FP-BM79352	CUI 19	FP-112847	CUI 19	FP-154571	CUI 14, 15, 24, 25, 27, 28
FP-BM98021	CUI 44, 45	FP-112851	CUI 19	FP-154916	CUI 14, 15, 24, 25, 27, 28
FP-BM98224	CUI 22, 23, 33-35, 42, 43	FP-112904	CUI 19	FP-155267	CUI 39, 40
FP-BM98226	CUI 33	FP-113749	CUI 44, 45	FP-155641	CUI 14, 15, 24, 25, 27, 28, 39, 40
FP-BM99820	CUI 21, 24, 25, 27, 28	FP-114223	CUI 14, 15, 24, 25, 27, 28	FP-156641	CUI 41
FP-BM99821	CUI 21, 24, 25, 27, 28	FP-116391	CUI 44	FP-157018	CUI 24, 25, 27, 28
FP-BM99822	CUI 21, 24, 25, 27, 28	FP-118377	CUI 33, 41	FP-157098	CUI 38
FP-BM99823	CUI 21, 24, 25, 27, 28	FP-118378	CUI 33, 41	FP-157620	CUI 14, 15, 24, 25
FP-BM99824	CUI 24, 25, 27, 28	FP-118939	CUI 33, 41	FP-157621	CUI 14, 15, 24, 25
FP-BM99830	CUI 11, 14, 15	FP-119363	CUI 27, 28, 33, 39, 40	FP-157622	CUI 14, 15, 24, 25
FP-BM99831	CUI 11, 14, 15	FP-119364	CUI 44, 45	FP-157623	CUI 14, 15, 24, 25
FP-BM99832	CUI 11, 14, 15	FP-120819	CUI 41	FP-157624	CUI 14, 15, 24, 25
FP-BM99833	CUI 11, 14, 15	FP-123558	CUI 33, 44, 45	FP-157978	CUI 14, 15, 24, 25
FP-BM99834	CUI 14, 15	FP-127554	CUI 29, 30, 36-41, 44, 45	FP-160586	CUI 14, 15, 24, 25
FP-CK66305405	CUI 38	FP-127730	CUI 19, 20	FP-163037	CUI 11, 14, 15, 21, 24, 25, 27, 28
FP-CWB008	CUI 38	FP-127730PR	CUI 5-10, 13, 16, 17, 19, 20	FP-163815	CUI 44, 45
FP-IFKVT28OHL	CUI 44, 45	FP-127731	CUI 19, 20	FP-163944	CUI 40, 45
FP-IFK1710OHE	CUI 44, 45	FP-127731PR	CUI 5-10, 13, 16, 17, 19, 20	FP-165153	CUI 14, 15, 24, 25
FP-LK166630	CUI 38	FP-127732	CUI 19, 20	FP-166009	CUI 14, 15, 24, 25, 27
FP-LK9247792	CUI 26	FP-127732PR	CUI 5-10, 13, 16, 17, 19, 20	FP-166407	CUI 14, 15, 24, 25
FP-LK92479937	CUI 26	FP-127733	CUI 19, 20	FP-166630	CUI 38
FP-NG855PREM	CUI 38	FP-127733PR	CUI 5-10, 13, 16, 17, 19, 20	FP-166772	CUI 14, 15, 24, 25, 27, 28
FP-NG855PREMOH	CUI 38	FP-129888	CUI 40, 45	FP-167166	CUI 14, 15, 24, 25
FP-NH220	CUI 33	FP-130360	CUI 19	FP-167169	CUI 14, 15, 24, 25
FP-NH220OH	CUI 33	FP-130394	CUI 38	FP-168306	CUI 14, 15, 24, 25, 27, 28, 33, 39-41, 44, 45
FP-PGC100	CUI 38	FP-130500	CUI 19	FP-169042	CUI 14, 15, 24, 25
FP-PGC101	CUI 38	FP-132770	CUI 44	FP-169154	CUI 14, 15, 24, 25, 27, 28
FP-PGC1014	CUI 38	FP-134075	CUI 40, 45	FP-169327	CUI 39, 40
FP-PGC200	CUI 38	FP-134076	CUI 40, 45	FP-169351	CUI 39, 40
FP-PGC204	CUI 38	FP-135675	CUI 33, 34, 38-40	FP-169630	CUI 14, 15, 24, 25, 27, 28
FP-PGC205	CUI 38	FP-135957	CUI 41, 44, 45	FP-169662	CUI 40, 45
FP-PGC206	CUI 45				



Part No.	Line No.	Part No.	Line No.	Part No.	Line No.
FP-170296	CUI 44, 45	FP-203663	CUI 38	FP-3006740	CUI 39, 40
FP-170942	CUI 39, 40, 44, 45	FP-203664	CUI 38	FP-3006741	CUI 39, 40
FP-173287	CUI 27, 28	FP-203670	CUI 33, 34	FP-3006742	CUI 38
FP-173640S	CUI 11, 21, 24, 25, 27, 28	FP-203670PR	CUI 18, 22, 23, 31-33, 35	FP-3006743	CUI 33, 38
FP-174316	CUI 19	FP-203671	CUI 33, 34	FP-3006744	CUI 44, 45
FP-175726	CUI 14, 15, 19, 20	FP-203671PR	CUI 18, 22, 23, 31-33, 35	FP-3006745	CUI 27, 28, 39, 40
FP-175727	CUI 24, 25, 27, 28	FP-203672	CUI 33, 34	FP-3007713	CUI 39, 40
FP-175755	CUI 33-35, 38, 42-45	FP-203672PR	CUI 18, 22, 23, 31-33, 35	FP-3007759	CUI 14, 15, 24, 25, 27, 28, 39-41, 44, 45
FP-175760	CUI 44, 45	FP-203673	CUI 33, 34	FP-3008017	CUI 33, 35
FP-175836	CUI 40, 45	FP-203673PR	CUI 18, 22, 23, 31-33, 35	FP-3008591	CUI 38, 45
FP-175866	CUI 14, 15, 24, 25	FP-203674	CUI 33, 34	FP-3008706	CUI 14, 15, 24, 25, 27
FP-177596	CUI 14, 15, 24, 25, 33	FP-208134	CUI 38	FP-3009380	CUI 40, 45
FP-179901	CUI 38	FP-209700	CUI 38-41	FP-300938010	CUI 40, 45
FP-180280	CUI 44, 45	FP-209865	CUI 39, 40	FP-300938011	CUI 40, 45
FP-181085	CUI 44	FP-211999	CUI 41, 44, 45	FP-300938012	CUI 40, 45
FP-181187	CUI 44	FP-212161	CUI 38	FP-300938013	CUI 40, 45
FP-181213	CUI 38	FP-212217+	CUI 39, 40	FP-300938014	CUI 40, 45
FP-181256	CUI 44, 45	FP-212224	CUI 36, 37, 39, 40	FP-300938015	CUI 40, 45
FP-181449	CUI 33-35, 42, 43	FP-212940+	CUI 39, 40	FP-300938016	CUI 40, 45
FP-183014	CUI 14, 15, 24, 25, 27, 28	FP-213058	CUI 39, 40	FP-30093810	CUI 40, 45
FP-184400	CUI 33-35, 42, 43	FP-213061	CUI 39, 40	FP-3009382	CUI 40, 45
FP-184420	CUI 33	FP-213079	CUI 40, 45	FP-3009383	CUI 40, 45
FP-186348	CUI 39, 40	FP-213394	CUI 38	FP-3009384	CUI 40, 45
FP-186780	CUI 14, 15, 24, 25, 33-35, 38-40	FP-213395	CUI 38	FP-3010457	CUI 14, 15, 24, 25, 34, 38
FP-187420	CUI 33, 36-38, 41, 42, 44, 45	FP-213485	CUI 38	FP-3010459	CUI 14, 15, 24, 25, 27, 28
FP-187608	CUI 39, 40	FP-213559	CUI 39, 40, 44, 45	FP-3010461	CUI 27, 28
FP-188329	CUI 33-35	FP-213806	CUI 40	FP-3010464	CUI 14, 15, 24, 25
FP-189763	CUI 29, 30, 39, 40	FP-214144	CUI 40, 45	FP-3010465	CUI 14, 15, 24, 25, 27, 28
FP-189770	CUI 39, 40	FP-214633R1	CUI 33, 34	FP-3011272	CUI 41
FP-189770PR	CUI 39, 40	FP-214751	CUI 39, 40	FP-3011273	CUI 41
FP-189771	CUI 39, 40	FP-214950	CUI 38	FP-3011295	CUI 44, 45
FP-189771PR	CUI 39, 40	FP-214950PR	CUI 38	FP-3011463	CUI 33
FP-189772	CUI 39, 40	FP-214951	CUI 38	FP-3012360PR	CUI 11, 14, 15, 21, 24, 25
FP-189772PR	CUI 39, 40	FP-214951PR	CUI 38	FP-3012361PR	CUI 11, 14, 15, 21, 24, 25
FP-189773	CUI 39, 40	FP-214952	CUI 38	FP-3012362PR	CUI 11, 14, 15, 21, 24, 25
FP-190876	CUI 40, 45	FP-214952PR	CUI 38	FP-3012590	CUI 19, 20
FP-191970	CUI 38, 44, 45	FP-214953	CUI 38	FP-3012595	CUI 19, 20
FP-193734	CUI 40, 45	FP-214954	CUI 38	FP-3012972	CUI 38
FP-193736	CUI 14, 15, 24, 25, 27, 39, 41, 45	FP-215041	CUI 38	FP-3013497	CUI 39, 40
FP-194037	CUI 14, 15, 24, 25, 27, 28, 39-41, 44, 45	FP-215044	CUI 38, 45	FP-3013497S	CUI 39, 40
FP-194106	CUI 33, 35	FP-215045	CUI 38	FP-3013498	CUI 36, 37, 39, 40
FP-194840	CUI 24, 25	FP-215090	CUI 38, 44, 45	FP-3013508	CUI 36, 37
FP-195000	CUI 14, 15, 24, 25, 27, 28	FP-215390	CUI 39, 40	FP-3013522	CUI 24, 25, 27, 28
FP-195240	CUI 14, 15	FP-215705	CUI 44	FP-3013623	CUI 38
FP-195950	CUI 38	FP-215983	CUI 33-35, 42, 43	FP-3014458	CUI 39, 40
FP-195952	CUI 38, 45	FP-216283	CUI 14, 15, 24, 25, 27, 28	FP-3014459	CUI 41
FP-196949	CUI 39, 40	FP-216284	CUI 14, 15, 24, 25, 27, 28	FP-3016660	CUI 40
FP-199180	CUI 40	FP-216484	CUI 14, 15, 24, 25, 27, 28	FP-3017035	CUI 39, 40
FP-199821	CUI 33, 35, 42	FP-216486	CUI 38, 45	FP-3017062	CUI 24, 25, 27, 28
FP-200600	CUI 44, 45	FP-216487	CUI 38, 45	FP-3017063	CUI 14, 15
FP-200600PR	CUI 42, 44, 45	FP-216524	CUI 38	FP-3017511	CUI 44, 45
FP-200601	CUI 44, 45	FP-216707	CUI 29, 30, 36, 39, 40	FP-3017544	CUI 33, 41
FP-200602	CUI 44, 45	FP-216879	CUI 33-35, 42, 43	FP-3017564	CUI 44, 45
FP-200680	CUI 33	FP-217037	CUI 45	FP-3017750	CUI 38, 41
FP-200710	CUI 33, 43	FP-218153	CUI 33, 44, 45	FP-3017759	CUI 41, 44, 45
FP-200730	CUI 34	FP-218853	CUI 14, 15, 39, 40	FP-30177593	CUI 41, 44, 45
FP-200743	CUI 38, 40, 45	FP-245107310	CUI 29, 30, 36, 37	FP-3019116	CUI 14, 15, 24, 25, 33, 35
FP-200780	CUI 39, 40	FP-2601625	CUI 27, 28	FP-3019287	CUI 39, 40
FP-200790	CUI 39, 40	FP-3000266	CUI 40, 45	FP-3019369	CUI 27, 28
FP-200800	CUI 14, 15, 24, 25	FP-3002483	CUI 39, 40	FP-3019634	CUI 27, 28
FP-200861	CUI 44	FP-3003175	CUI 44, 45	FP-3019955	CUI 38
FP-201766	CUI 33	FP-3003176	CUI 44, 45	FP-3019956	CUI 38, 41, 44, 45
FP-201950	CUI 27, 28	FP-3003602	CUI 39, 40	FP-3019957	CUI 38
FP-202013	CUI 33	FP-3004316	CUI 34	FP-3019959	CUI 38
FP-202226	CUI 38	FP-3005887	CUI 44, 45	FP-3019960	CUI 38
FP-20222610	CUI 38	FP-3006237	CUI 44, 45	FP-3020083	CUI 40
FP-20222620	CUI 38	FP-300635011	CUI 40, 45	FP-3020182	CUI 41, 44, 45
FP-20222630	CUI 38	FP-300635012	CUI 40, 45	FP-3020183	CUI 33
FP-2022265	CUI 38	FP-300635013	CUI 40, 45	FP-3020184	CUI 39, 40
FP-202227	CUI 38	FP-300635015	CUI 40, 45	FP-3020187	CUI 44
FP-202605	CUI 33	FP-300635020	CUI 40, 45	FP-3020737	CUI 14, 15, 24, 25
FP-203070	CUI 33-35, 42, 43	FP-30063508	CUI 40, 45	FP-30207391	CUI 40, 45
FP-203131	CUI 26	FP-3006352	CUI 40, 45	FP-30207392	CUI 40, 45
FP-203170	CUI 39, 40	FP-3006353	CUI 40, 45	FP-3020943	CUI 33, 35, 41
FP-203352	CUI 40, 45	FP-3006354	CUI 40, 45	FP-3021094	CUI 40
FP-203355	CUI 40, 45	FP-3006355	CUI 40, 45	FP-3021581	CUI 38-40
FP-203660	CUI 38	FP-3006360	CUI 40, 45	FP-3021592	CUI 45
FP-203660PR	CUI 38	FP-3006456	CUI 38, 41, 44, 45	FP-3021593	CUI 45
FP-203661	CUI 38	FP-3006457	CUI 41, 44, 45	FP-3021594	CUI 45
FP-203661PR	CUI 38	FP-3006458	CUI 41, 44, 45	FP-3021595	CUI 45
FP-203662	CUI 38	FP-3006699	CUI 44, 45	FP-3021596	CUI 45
FP-203662PR	CUI 38	FP-3006736	CUI 38	FP-3021597	CUI 45
		FP-3006737	CUI 33, 34, 38, 41		

# Numerical List



Part No.	Line No.	Part No.	Line No.	Part No.	Line No.
FP-3021598	CUI 45	FP-3070486	CUI 39-41, 44, 45	FP-3802010	CUI 4
FP-3021599	CUI 45	FP-3071147	CUI 41	FP-3802011	CUI 4
FP-3021600	CUI 45	FP-3071466*	CUI 39, 40	FP-3802012	CUI 4
FP-3021601	CUI 45	FP-3071467*	CUI 39, 40	FP-3802013	CUI 4
FP-3021676	CUI 40, 45	FP-3076489	CUI 14, 15, 24, 25	FP-3802014	CUI 4
FP-3022529	CUI 27, 28	FP-3077198	CUI 44, 45	FP-3802040	CUI 2, 4, 12
FP-3022530	CUI 14, 15, 24, 25	FP-3077646	CUI 39, 40	FP-3802042	CUI 2, 4, 12
FP-3023177	CUI 33, 35, 41	FP-3201388	CUI 14, 15, 24, 25, 27, 28	FP-3802044	CUI 2, 4, 12
FP-3023475	CUI 40	FP-3226064	CUI 34	FP-3802060	CUI 2, 4, 12
FP-3023867	CUI 39, 40	FP-3275266	CUI 24, 25, 27	FP-3802062	CUI 2, 4, 12
FP-3024709	CUI 38	FP-3275354	CUI 11, 14, 15, 21, 24, 25, 27, 28	FP-3802064	CUI 2, 4, 12
FP-3024991	CUI 40, 45	FP-3275356	CUI 11, 14, 15, 21, 24, 25, 27, 28	FP-3802070	CUI 12
FP-3026315	CUI 39, 40	FP-3275431	CUI 27, 28	FP-3802071	CUI 12
FP-3027633	CUI 40, 45	FP-3275538	CUI 14, 15	FP-3802072	CUI 12
FP-3028665	CUI 39, 40	FP-3275779	CUI 11, 14, 15, 21, 24, 25, 27, 28	FP-3802073	CUI 12
FP-3028673	CUI 39, 40	FP-3275912	CUI 28	FP-3802074	CUI 12
FP-3029099	CUI 14, 15, 24, 25, 33, 39, 40	FP-3275949	CUI 27, 28	FP-3802075	CUI 33-35
FP-3029340	CUI 38	FP-3275989	CUI 27	FP-3802075A	CUI 33, 35
FP-3029341	CUI 33, 34	FP-3277099	CUI 24, 25, 27, 28	FP-3802076	CUI 33, 35
FP-3029416	CUI 38	FP-3277100	CUI 14, 15	FP-3802077	CUI 33, 34
FP-3030038	CUI 44, 45	FP-3277332	CUI 14, 15, 24, 25	FP-3802085	CUI 26
FP-3030891	CUI 24, 25, 27, 28	FP-3277336	CUI 14, 15, 24, 25	FP-3802132	CUI 3
FP-3031037	CUI 14, 15, 24, 25, 27, 28	FP-3277462	CUI 24, 25, 27	FP-3802134	CUI 3
FP-3031049	CUI 44, 45	FP-3277463	CUI 14, 15	FP-3802160	CUI 3
FP-3031213	CUI 44, 45	FP-3277592	CUI 11, 14, 15, 21, 24, 25	FP-3802210	CUI 26
FP-3031214	CUI 44, 45	FP-3277608	CUI 27, 28	FP-3802211	CUI 26
FP-3032348	CUI 38, 45	FP-3277626	CUI 27, 28	FP-3802212	CUI 26
FP-3032874	CUI 38-40, 44, 45	FP-3277634	CUI 27, 28	FP-3802230	CUI 3
FP-3034222	CUI 44, 45	FP-3277752	CUI 14, 15	FP-3802232	CUI 3
FP-3034736	CUI 45	FP-3277753	CUI 24, 25	FP-3802234	CUI 3
FP-3036100	CUI 44, 45	FP-3277991	CUI 14, 15, 24, 25	FP-3802263	CUI 26
FP-3037413	CUI 39, 40	FP-3278031	CUI 28	FP-3802344	CUI 26
FP-3037414	CUI 40	FP-3278173	CUI 11, 14, 15, 21, 24, 25, 27, 28	FP-3802355	CUI 2-4, 12
FP-3038903	CUI 33, 41	FP-3278345	CUI 14, 15, 24, 25, 27, 28	FP-3802356	CUI 2-4, 12
FP-3038904	CUI 33, 41	FP-3278723	CUI 11, 14, 15, 21, 24, 25, 27, 28	FP-3802363	CUI 12
FP-3040097	CUI 44, 45	FP-3281721	CUI 26	FP-3802370	CUI 26
FP-3040750	CUI 40, 45	FP-3284377	CUI 12	FP-3802376	CUI 12
FP-3040750B	CUI 40, 45	FP-3286277	CUI 2-4, 12	FP-3802388	CUI 26
FP-30407509	CUI 40, 45	FP-3349820	CUI 33-35, 38, 41	FP-3802389	CUI 26
FP-3040751	CUI 40, 45	FP-3353977	CUI 26	FP-3802398	CUI 26
FP-3040752	CUI 40, 45	FP-3376382	CUI 38	FP-3802401	CUI 26
FP-3040753	CUI 40, 45	FP-3390118	CUI 39, 40	FP-3802406	CUI 26
FP-3040754	CUI 40, 45	FP-3406659	CUI 38	FP-3802407	CUI 26
FP-3040755	CUI 40, 45	FP-3411460	CUI 45	FP-3802429	CUI 26
FP-3040756	CUI 40, 45	FP-3417713	CUI 31	FP-3802463	CUI 26
FP-3040757	CUI 40, 45	FP-3602788	CUI 38	FP-3802601	CUI 26
FP-3040830	CUI 41, 45	FP-3608833	CUI 38	FP-3802602	CUI 26
FP-3042745	CUI 44, 45	FP-3630681	CUI 44, 45	FP-3802609	CUI 26
FP-3043650	CUI 44, 45	FP-378PREM	CUI 14, 15	FP-3802610	CUI 26
FP-3044795	CUI 39, 40	FP-3800174	CUI 44, 45	FP-3802657	CUI 26
FP-3045941	CUI 44, 45	FP-3800828	CUI 26	FP-3802811	CUI 26
FP-3046325	CUI 45	FP-3801030	CUI 31, 33-35, 41	FP-3802820	CUI 12
FP-3046418	CUI 33	FP-3801044+	CUI 44, 45	FP-3803002	CUI 44
FP-3046419	CUI 44, 45	FP-3801106	CUI 38	FP-3803003	CUI 44
FP-3046431	CUI 33	FP-3801260	CUI 31-35, 38, 41	FP-3803219	CUI 38, 44, 45
FP-3046432	CUI 44, 45	FP-3801261	CUI 31-35, 38, 41	FP-3803512	CUI 41, 44, 45
FP-304668011	CUI 40, 45	FP-3801262	CUI 31-35, 38, 41	FP-3803513	CUI 39, 40
FP-304668012	CUI 40, 45	FP-3801263	CUI 31-35, 38, 41	FP-3803524	CUI 41, 44, 45
FP-304668015	CUI 40, 45	FP-3801264	CUI 33, 34, 38, 41	FP-3803697	CUI 44, 45
FP-30466809	CUI 40, 45	FP-3801267	CUI 44, 45	FP-3803996	CUI 31
FP-3046682	CUI 40, 45	FP-3801324	CUI 41	FP-3804276	CUI 41
FP-3046683	CUI 40, 45	FP-3801348	CUI 41	FP-3804897	CUI 12
FP-3046684	CUI 40, 45	FP-3801387	CUI 38, 44, 45	FP-3806180	CUI 26
FP-3046686	CUI 40, 45	FP-3801403	CUI 44, 45	FP-3822959	CUI 38
FP-3046687	CUI 40, 45	FP-3801434	CUI 44, 45	FP-3822960	CUI 38
FP-3052514	CUI 38	FP-3801463	CUI 38	FP-3822961	CUI 38
FP-3053377	CUI 33	FP-3801464	CUI 38	FP-3822963	CUI 38
FP-3054160	CUI 39, 40	FP-3801466	CUI 33	FP-3823681	CUI 38
FP-3054841	CUI 38, 41	FP-3801541	CUI 36, 37	FP-3900250	CUI 2-4, 12
FP-3054948	CUI 38, 41, 44, 45	FP-3801657	CUI 14, 15	FP-3900276	CUI 4, 12
FP-3054948B	CUI 38, 41, 44, 45	FP-3801658	CUI 24, 25	FP-3900299	CUI 4, 12
FP-30549486	CUI 38, 41, 44, 45	FP-3801659	CUI 27, 28	FP-3901085	CUI 2-4, 12
FP-3055099	CUI 38, 44, 45	FP-3801666	CUI 44, 45	FP-3901097	CUI 4, 12
FP-3058363	CUI 44	FP-3801826	CUI 38, 44, 45	FP-3901171	CUI 2-4, 12
FP-3062096	CUI 33, 41	FP-3801828	CUI 44, 45	FP-3901172	CUI 2-4, 12
FP-3065125	CUI 33, 41	FP-3801829	CUI 44, 45	FP-3901173	CUI 2-4, 12
FP-3065405	CUI 38, 45	FP-3801831	CUI 44, 45	FP-3901174	CUI 12
FP-3065406	CUI 38	FP-3801832	CUI 44, 45	FP-3901177	CUI 26
FP-3066843	CUI 38	FP-3801833	CUI 44, 45	FP-3901306	CUI 2-4, 12
FP-3066844	CUI 38	FP-3801834	CUI 44, 45	FP-3901430	CUI 26
FP-3067568	CUI 33, 41	FP-3801835	CUI 44, 45	FP-3901431	CUI 26
FP-3069098	CUI 38	FP-3801836	CUI 44, 45	FP-3901432	CUI 26
FP-3070080*	CUI 44	FP-3801920	CUI 38	FP-3901433	CUI 26

Part No.	Line No.	Part No.	Line No.	Part No.	Line No.
FP-3901434	CUI 26	FP-3925879	CUI 26	FP-68061A	CUI 40, 45
FP-3901693	CUI 26	FP-3925879WP	CUI 26	FP-68210	CUI 33, 35
FP-3901717	CUI 26	FP-3926126	CUI 26	FP-68513	CUI 33, 41
FP-3901764	CUI 26	FP-3926700	CUI 4, 12	FP-69550	CUI 45
FP-3901969	CUI 26	FP-3927642	CUI 26	FP-69936	CUI 33
FP-3902089	CUI 26	FP-3928031	CUI 26	FP-69965	CUI 33, 43
FP-3902425	CUI 26	FP-3928639	CUI 26	FP-6996520	CUI 33, 43
FP-3902466	CUI 26	FP-3929005	CUI 26	FP-699655	CUI 33, 43
FP-3903380	CUI 4, 12, 26	FP-3929036	CUI 4	FP-70183	CUI 39, 40
FP-3903787	CUI 26	FP-3929037	CUI 12	FP-70437	CUI 42-45
FP-3904105	CUI 4, 12	FP-3929161	CUI 26	FP-70624	CUI 38
FP-3904166	CUI 2-4, 12	FP-3929161WP	CUI 26	FP-70690	CUI 38, 40, 45
FP-3904408	CUI 4, 12	FP-3930324	CUI 4, 12	FP-70705	CUI 40, 45
FP-3904409	CUI 4, 12	FP-3931348	CUI 26	FP-70732	CUI 40, 45
FP-3905449	CUI 26	FP-3931623	CUI 2-4, 26	FP-70772	CUI 38
FP-3905870	CUI 26	FP-3932063	CUI 26	FP-70809	CUI 40, 45
FP-3905928	CUI 26	FP-3932453*	CUI 4, 12	FP-80210020	CUI 38
FP-3906081	CUI 26	FP-3934046	CUI 26	FP-90004	CUI 38
FP-3906206	CUI 4, 12	FP-3934048	CUI 2, 3, 12	FP-90210011	CUI 38
FP-3906208	CUI 12	FP-3934586	CUI 26	FP-90210020	CUI 34
FP-3906208WP	CUI 2, 4, 12	FP-3934588	CUI 26	FP-90210035	CUI 34, 38
FP-3906209	CUI 12	FP-3936993	CUI 26	FP-9097	CUI 33, 35
FP-3906209WP	CUI 2, 4, 12	FP-3939258*	CUI 26	FP-92351	CUI 33, 44, 45
FP-3906223	CUI 12	FP-3939353*	CUI 26	FP-92601	CUI 33, 41
FP-3906223WP	CUI 2, 4, 12	FP-3939859	CUI 2-4, 12	FP-9266	CUI 41
FP-3906412	CUI 26	FP-3940059	CUI 4, 12	FP-9266A	CUI 41
FP-3906659	CUI 4, 12, 26	FP-3945329	CUI 26	FP-9822KX	CUI 22, 23, 35
FP-3906783	CUI 26	FP-3945967	CUI 26	J1396	CUI 31-33, 35, 38
FP-3906784	CUI 26	FP-3948071	CUI 26	KS2-2423A+	CUI 24, 25
FP-3906785	CUI 26	FP-3948095	CUI 26	KS2-2506A+	CUI 27, 28
FP-3906788	CUI 26	FP-3957544	CUI 12	PGC1014+	CUI 38
FP-3906854	CUI 4, 12	FP-3959052	CUI 12	PGC20+	CUI 38
FP-3907163WP	CUI 3	FP-3974815	CUI 26	PGC200+	CUI 38
FP-3907177	CUI 26	FP-4B39PREML	CUI 4	PGC204+	CUI 38
FP-3907555	CUI 26	FP-4B39PREMOH	CUI 4	PGC205+	CUI 38
FP-3907792	CUI 26	FP-4B39PREMOHL	CUI 4	PGC206+	CUI 45
FP-3908096	CUI 26	FP-4025271	CUI 26	PGC300+	CUI 38
FP-3908815WP	CUI 3	FP-4025271S	CUI 21, 24, 25	PGE743HS+	CUI 33, 35
FP-3908816WP	CUI 3	FP-4058790	CUI 38, 41	PGJ-10	CUI 38
FP-3909356	CUI 4, 12	FP-4062902	CUI 34	PGNH220-IF+	CUI 33, 35
FP-3909410	CUI 12, 26	FP-4089649*	CUI 12	PG1331NGB+	CUI 38
FP-3910521	CUI 26	FP-4089810	CUI 36-38, 41, 44, 45	PG1710HP+	CUI 44, 45
FP-3910739	CUI 26	FP-4089811	CUI 44, 45	PG1710LP+	CUI 45
FP-3910824	CUI 4, 12, 26	FP-4089812*	CUI 44, 45	PG1710SH+	CUI 44, 45
FP-3911558	CUI 26	FP-43067	CUI 18, 22, 23, 31-33, 35, 38, 42-45	PK1-2742+	CUI 4
FP-3911582	CUI 26	FP-43696A	CUI 40, 45	PK2-2742A+	CUI 4
FP-3912473	CUI 26	FP-43828B	CUI 38	SL-2271G+	CUI 33, 35
FP-3913990	CUI 26	FP-4919811*	CUI 33	ST-2002	CUI 11, 14, 15, 21, 24, 25, 27, 28
FP-3914017+	CUI 26	FP-4936080	CUI 4, 12	ST-2002BC	CUI 11, 14, 15, 21, 24, 25, 27, 28
FP-3914301	CUI 26	FP-4939587	CUI 12	VG-1325	CUI 12
FP-3914302	CUI 26	FP-4944710	CUI 26	VG-1330	CUI 12
FP-3914308	CUI 26	FP-4944711	CUI 26	VG-1331	CUI 12
FP-3914310	CUI 26	FP-4944712	CUI 26	VG-529+	CUI 16, 17, 19, 20
FP-3916588	CUI 26	FP-4944713	CUI 26	VK-123+	CUI 16, 17, 19, 20
FP-3917707	CUI 26	FP-4944714	CUI 26	VK-138	CUI 11, 14, 15, 21, 24, 25, 27, 28
FP-3917707WP	CUI 26	FP-4957806	CUI 38	VK-138B	CUI 11, 14, 15, 21, 24, 25, 27, 28
FP-3917728	CUI 26	FP-504PREM	CUI 24, 25	VK-138R	CUI 11, 14, 15, 21, 24, 25, 27, 28
FP-3917729	CUI 26	FP-551079	CUI 14, 15	VK-286	CUI 12
FP-3917780	CUI 26	FP-551143	CUI 14, 24	VK-66	CUI 16, 22, 23, 31, 33, 35
FP-3918174	CUI 26	FP-552335	CUI 14, 15, 24, 25	VK-66R	CUI 16, 22, 23, 31, 33, 35
FP-3918191	CUI 26	FP-554320	CUI 27, 28	V-1957+	CUI 11, 14, 15, 21, 24, 25, 27, 28
FP-3918192	CUI 26	FP-554321	CUI 27, 28	V-4384	CUI 12
FP-3918332	CUI 26	FP-554438	CUI 14, 15, 24, 25	V-4385	CUI 12
FP-3918986	CUI 26	FP-554785	CUI 27, 28	W-645KX	CUI 10
FP-3919247	CUI 26	FP-555PREM	CUI 27, 28	W-920KX	CUI 5
FP-3919247WP	CUI 26	FP-555420	CUI 28	W-920X	CUI 5
FP-3919435	CUI 26	FP-555421	CUI 27	1449M+	CUI 39, 40
FP-3919937	CUI 26	FP-556350	CUI 27, 28	213-201+	CUI 38
FP-3920691	CUI 2, 3	FP-556350PR	CUI 27, 28	213-3021581	CUI 38-40
FP-3920773	CUI 26	FP-556351	CUI 27, 28	245-1073-10	CUI 29, 30, 36, 37
FP-3920867	CUI 2-4, 12	FP-556351PR	CUI 27, 28	245-1722-E1	CUI 12
FP-3920868	CUI 2-4, 12	FP-556352	CUI 27, 28	260-1527	CUI 12
FP-3921444	CUI 26	FP-556352PR	CUI 27, 28	260-1544+	CUI 21, 24
FP-3921978	CUI 26	FP-556353	CUI 27, 28	260-1625	CUI 28
FP-3923164	CUI 26	FP-556355	CUI 24, 25, 27	260-1667	CUI 39, 40
FP-3923164WP	CUI 26	FP-556356	CUI 14, 15	260-1679V+	CUI 38
FP-3923478	CUI 26	FP-6B59PREM	CUI 12	260-2088+	CUI 38
FP-3923564	CUI 26	FP-6B59PREML	CUI 12	260-6004+	CUI 38
FP-3924492	CUI 26	FP-6B59PREMOH	CUI 12	260-7000+	CUI 38
FP-3924582	CUI 26	FP6B5.9PREM-OHL	CUI 12	2743PN	CUI 3
FP-3925343	CUI 26	FP-6C83PREM	CUI 26	39302	CUI 31-33, 35, 38
FP-3925878	CUI 26	FP-6C83PREMOH	CUI 26	39701	CUI 42, 44, 45
FP-3925878WP	CUI 26	FP-66890	CUI 22, 23, 31, 33-35, 42, 43	39703	CUI 31-33, 35

# Numerical List



Part No.	Line No.	Part No.	Line No.	Part No.	Line No.
39705	CUI 42				
39713	CUI 44, 45				
39719	CUI 39, 40, 44, 45				
39803	CUI 12				
39807	CUI 31-33, 35				
39809	CUI 16, 17, 19, 20				
39813	CUI 31-33, 35				
39821	CUI 27, 28, 31-33, 44, 45				
39823	CUI 31-33, 35				
39835	CUI 14, 15, 24, 25, 27, 28, 31-33, 35, 38-40, 44, 45				
39877	CUI 31-33, 35, 38-40				
415012V	CUI 5-10				
451147H	CUI 16, 17, 19, 20				
470334	CUI 5-10				
473010N	CUI 31-33, 35, 38				
50569	CUI 44, 45				
645KX+	CUI 10				
9822KX+	CUI 22, 23, 33, 35				
99125	CUI 44, 45				
99147	CUI 39, 40				
99162	CUI 44, 45				
99172	CUI 5-10				
99174	CUI 16, 17, 19, 20				
99181	CUI 14, 15, 24, 25, 27, 28, 31-33, 35, 38-40, 44, 45				
99225	CUI 39				
99248	CUI 12				
99290	CUI 5-10				
99311	CUI 16, 17, 19, 20				
99363	CUI 31-33, 35				
99372	CUI 14, 15, 24, 25				
99376	CUI 42, 44, 45				
99395	CUI 40				
99599	CUI 31-33, 35				
99725*	CUI 42, 44, 45				

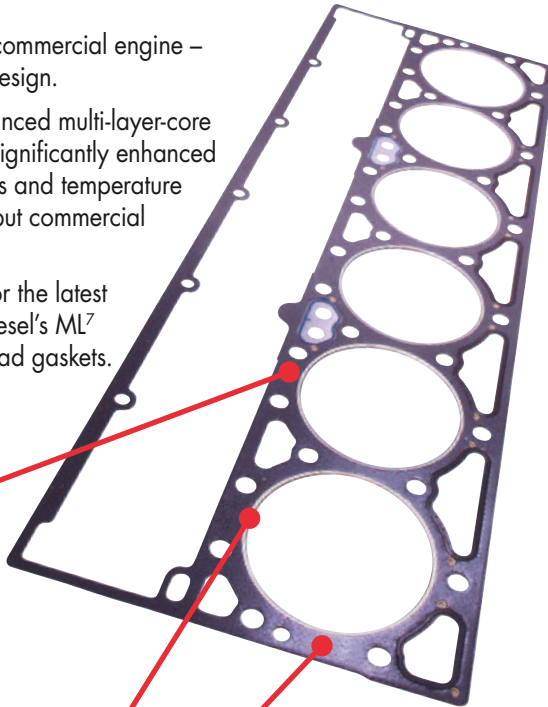


# ML<sup>7</sup>,™ THE FP DIESEL® 7-LAYER HEAD GASKET THAT SEALS REBUILT ENGINES BETTER!

Sealing the most demanding area in a commercial engine – it takes today's most advanced gasket design.

FP Diesel® has introduced a highly advanced multi-layer-core head gasket technology that will bring significantly enhanced combustion and fluid sealing capabilities and temperature resistance to a broad range of high-output commercial diesel engines: The ML<sup>7</sup> head gasket.

As commercial engine rebuilders look for the latest and best engine sealing solutions, FP Diesel's ML<sup>7</sup> gasket provides a new generation of head gaskets.



### BODY CONSTRUCTION

The ML<sup>7</sup> head gasket's 7-layer construction features an advanced graphite material over a thicker, perforated stainless steel core for significantly increased rigidity.

The key to determining the thickness of the gasket body, armor and wire is achieving optimal load balance among the components and materials. The result is a much more solid and durable part.

### LOW-CARBON STEEL WIRE

Copper flash-coated low-carbon steel (LCS) wire ring offers the ability to absorb stress without causing cracks or other problems.

### EXPANDED GRAPHITE FACING

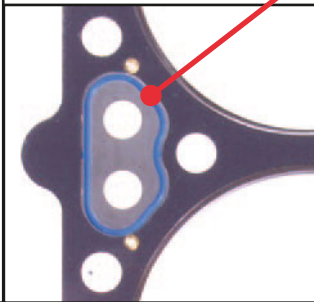
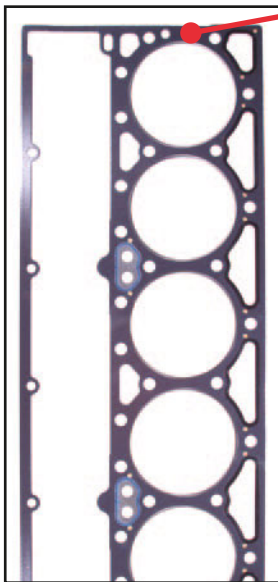
The ML<sup>7</sup>'s resilient, conformable graphite facing provides excellent fluid sealability and low creep relaxation, and stands up to temperature extremes and corrosive chemicals.

### MOLY COATING WITH SILICONE TOP COAT

Federal-Mogul engineers developed a moly coating specifically for the aftermarket service environment. This coating helps seal imperfections in the head and block mating surfaces and allows the gasket to adapt to lateral and vertical casting motion caused by combustion pressures and extreme operating temperatures. The special silicone top coat provides no-stick release for future engine work.

### FULLY ENCAPSULATED GROMMETS

Some aftermarket gasket designs feature grommets that are then either staked or welded into place. But being fixed in place, they lack the flexibility to seat properly, leading to unwanted sealing issues. By contrast, the ML<sup>7</sup> gasket's silicone rubber grommets are eyeleted into the gasket body. These "floating" grommets accommodate casting movement, allowing for dramatically improved seating over competing designs.



## FP DIESEL SMART TIP

Cummins® utilizes several types of valve stem seals on the 24 valve ISB engines, depending on the fuel system. Please review the references below to assist you in ordering the correct valve stem seals.

**For 1998-2002 engines using the VP44 Injection Pump, with serial number 46239408 and below use:**



**INTAKE VALVE STEM SEAL**  
Yellow Viton® Center  
Part No. FP-3942989



**EXHAUST VALVE STEM SEAL**  
Green Viton® Center  
Part No. FP-3945438

**For 2003-2009 engines using the HPCR System, with serial number 46239409 and above use:**



**INTAKE VALVE STEM SEAL**  
Yellow Viton® Center  
Part No. FP-3955393



**EXHAUST VALVE STEM SEAL**  
Green Viton® Center  
Part No. FP-3955394





## Cummins M11 Replacement Piston

- Exclusive open cooling gallery design reduces piston crown heat providing improved durability
- Improved material properties and proprietary coatings improve break-in performance, reduce pin bore scuffing and enhance service life
- More robust to oil cooling jet alignment/wear



## FP Diesel ML<sup>7</sup>™ 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



## [www.FMe-cat.com](http://www.FMe-cat.com)

- Commercial vehicle electronic catalog – available at [www.FMe-cat.com](http://www.FMe-cat.com)
- User friendly interface features the most complete product offering and latest coverage data
- Online solution offers fast, easy access to virtual catalog pages covering the thousands of FP Diesel® components
- Eases locating components for heavy-duty applications and enables users to accurately navigate in a virtual catalog environment of commercial vehicles



**GLOBAL TECHNOLOGY behind every part**