

**Parts Catalog**  
**ENGINE TYPE : 6CT/A8.3D(M)**





**Cummins Inc.**  
**New Parts Warranty**  
**Midrange**

**COVERAGE**

**PRODUCTS WARRANTED**

This warranty applies to New Parts marketed by Cummins for its A, B, and C Series engines. It applies anywhere in the world where service is available through a Cummins distributor or A, B, and C Series dealer.\*

**COVERAGE**

This warranty covers any failures of parts on or after December 1, 1986, which result, under normal use and service, from defects in workmanship or material (Warrantable Failures). The coverage extends six months from the date of first installation.

This warranty continues to all subsequent Owners until the end of the period of coverage.

**CUMMINS RESPONSIBILITIES**

Cummins will pay for all parts and labor needed to repair the damage to the engine resulting from the Warrantable Failure. All labor costs will be paid in accordance with Cummins published Standard Repair Time guidelines.

Cummins will pay for the lubricating oil, antifreeze, filter elements, and other maintenance items that are not reusable due to the Warrantable Failure.

Cummins will pay reasonable labor costs for engine removal and reinstallation when necessary to make the warranty repair.

**OWNER RESPONSIBILITIES**

At the time when the parts are installed, Owner is responsible for the preparation of a written record containing the following: (1) the date of installation of the parts; (2) the engine serial number; (3) the engine miles, hours or kilometers of operation; (4) the parts installed, and (5) the location of the parts in the engine. The purpose of this record is to protect Owner's interests and support any claim for a Warrantable Failure.

Owner is responsible for the operation and maintenance of the engine as specified in Cummins Operation and Maintenance Manuals.

Before expiration of the warranty, Owner must give notice to a Cummins distributor or A, B, and C Series dealer\* of a failure considered to be warrantable and deliver the engine to such facility for repair.

Owner is responsible for the cost of lubricating oil, antifreeze, filter elements and other maintenance items replaced during warranty repairs except where such items are not reusable due to a Warrantable Failure.

Owner is responsible for communication expenses, meals, lodging and similar costs incurred by Owner as a result of a Warrantable Failure. Owner is responsible for non-engine repairs and for "downtime" expenses, cargo damage and all business costs and losses resulting from a Warrantable Failure. **CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

(In the United States, some states do not allow the exclusion or limitation of incidental or consequential damages relating to Consumer Products, so the above limitation or exclusion may not apply to you.)

**LIMITATIONS**

Cummins is not responsible for failures resulting from Owner or Operator abuse or neglect, such as: operation without adequate coolant or lubricants; overfueling; overspeeding; lack of maintenance of lubricating, cooling or air intake systems; improper storage, starting, warm-up, run-in or shutdown practices. Cummins is also not responsible for failures caused by incorrect fuel, or by water, dirt or other contaminants in the fuel.

Except for fuel pumps, Cummins does not warrant parts supplied by Cummins which bear the name of another company. These parts are warranted by their manufacturers and not by Cummins. This category of parts includes, but is not limited to: hydraulic pumps, alternators, starters, fans, air conditioning compressors, clutches, filters, transmissions, torque converters, marine gears, air cleaners and non-Cummins air compressors, engine compression brakes, and steering pumps.

Parts used in warranty repairs may be new Cummins, Cummins approved rebuilt parts, or repaired parts. Cummins is not responsible for failures resulting from the use of parts not approved by Cummins.

Before a claim for excessive oil consumption will be considered, Owner must submit adequate documentation to show that consumption exceeds Cummins published standards.

This warranty does not apply to parts furnished by Cummins at no charge to the Owner.

**THIS WARRANTY IS THE SOLE WARRANTY MADE BY CUMMINS IN REGARD TO THESE PARTS. CUMMINS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OR OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**



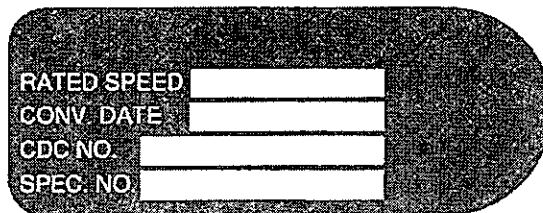
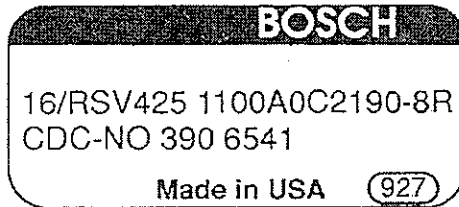
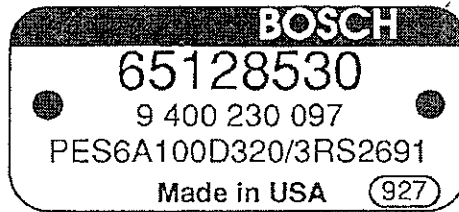
## Product Identification Information

Data plates should be referred for parts identification.

### 1. ENGINE DATA PLATE

<b>Cummins Engine Company, Inc.</b> Columbus, Indiana 47202-3005 Made in U.S.A.    3920701	Engine Cert. I.D. Certificat d'identite'	C.I.D./L. Pouco Cubo/L	Family Famille	CPL	Model Modele	FEL	EPA	CARB
						Injector P/N Inj ecteur P/N	NDX	
WARNING: Injury may result and warranty is voided if fuel rate rpm or altitudes exceed published maximum values for this model and application. AVERTISSEMENT: Danger de blessures et d'annulation de la garantie si debit de combustible tr/min ou altitude de passant les valeurs maximum annoncees pour ce modele et son utilisation.	Timing—T.D.C. Colage—P.M.H.				Engine No. Moteur No.	PM		
	Valve lash cold Jeux Soup. a Froid	Int. Adm.	Exh. Ech.	Ref. No.				
	Firing Order Order d'Allumage				Fuel rate at adv. HP Debit combust. a puiss. indiquee <span style="float: right;">mm<sup>3</sup> / stroke</span>			
Date of Mfg. Date of Fabrication	Idle Speed (rpm) Vitesse Rotati	E.C.S.	Advertised HP Puiss. indiquee (ch)		at a	rpm		

### 2. FUEL PUMP DATA PLATE



This catalog was compiled by Debbie Sample in Parts Communications.

## Customer Service Information

This standard Parts Catalog contains parts information for the following Cummins Engine Model(s):

6CTA8.3-D(M)

D413045MX02

CPL 8509

Certain basic engine components have been matched to give optimum performance to your engine. The part numbers listed in this catalog for these components are for a standard engine configuration. When ordering any of the Control Parts List (CPL) components listed below, please order by part description and engine serial number. Reference to the CPL number stamped on the engine data (name) plate will also help identify the proper service parts for your engine.

### Control Parts List (CPL) Components

Pump, Injection  
Camshaft  
Cylinder Head  
Injector

Connecting Rod and Engine Piston  
Turbocharger  
Exhaust Manifold

### USER INFORMATION

- . Parts numbers appearing in ( ) are for identification purposes only and should not be used when ordering service replacement parts.
- . The reference numbers appearing on the art pages is for publication use only.
- . Assembly content is shown by part number indentation.
- . Options are engineered production part groupings, specifically used for compiling engine orders.
- . Option numbers are for reference only and are not sold for service.
- . Use assembly and not option content to determine service parts replacement.

### ALWAYS SPECIFY ENGINE MODEL AND SERIAL NUMBER WHEN ORDERING PARTS FROM THIS CATALOG

Engine Model \_\_\_\_\_ Engine Serial No. \_\_\_\_\_

MFG Make \_\_\_\_\_ Model \_\_\_\_\_ Chassis No. \_\_\_\_\_

Fuel Pump Assembly No. \_\_\_\_\_ Injector No. \_\_\_\_\_

Belt, Fan \_\_\_\_\_ Belt, Water Pump \_\_\_\_\_ Belt, Gen. \_\_\_\_\_

Element, Fuel Filter \_\_\_\_\_ Full Flow Lub. Filter \_\_\_\_\_

Air Cleaner \_\_\_\_\_ By-Pass Lub. Filter \_\_\_\_\_

Special Equipment

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Agency Approval

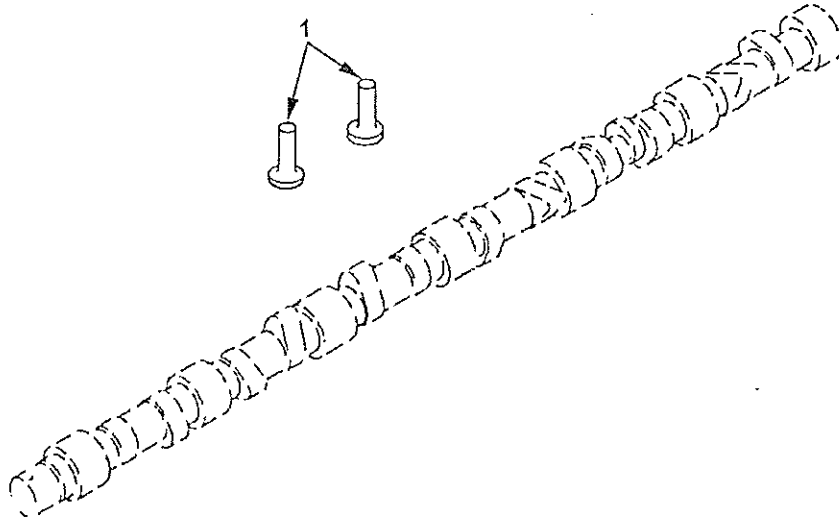
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### Agency Approval

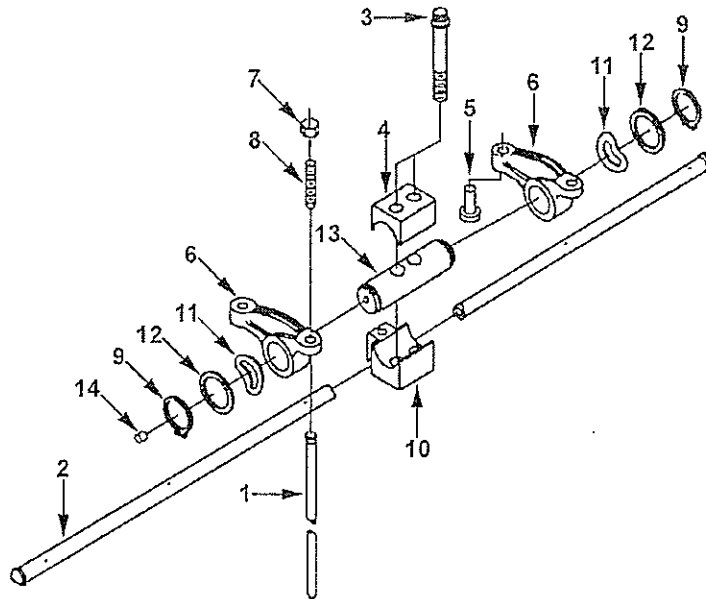
Ref No.	Part Name	Req	Remarks
1	AGENCY APPROVAL		MR - APPROVAL, AGENCY Certified By : EPA, IMO Application: Marine Cert Level: Tier 2, Marpol Special Allowance: N/A Cert Agent: EPA, LR Comment: N/A Fuel Type: Diesel Manufacturer of Record: Cummins Inc. Certification Level: Nox Per International Maritime Organization (IMO) Marpol 73/78 Annex VI, Regulation 13 and EPA Tier 2 Marine Commercial Engines as Defined by 40 CFR 94 Engine Family: C Series EPA Useful Life: 10 Years, 10,000 Hours For Constant Speed Auxiliary and Prop Use Only Engine Dataplate Location: Front Gear Cover Housing Fuel Pump Side Horizontal to Vertical Orientation Top Edge Starts Approximately 444 mm From Crankshaft and Wraps Around the Edge of the Gear Housing
2	Screw, Drive Dataplate	2 1	

## Valve Tappets



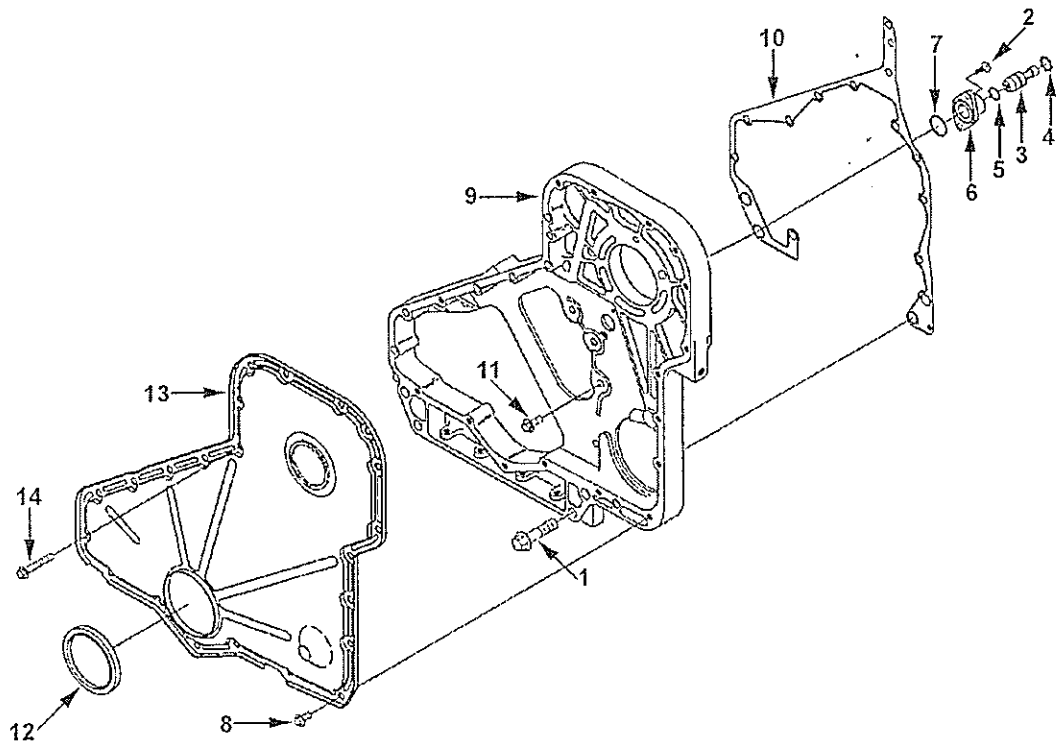
Ref No.		Part Name	Req	Remarks
1		<p style="text-align: center;">VALVE TAPPETS</p> <p>Tappet, Valve</p>	12	<p>MR - TAPPETS, VALVE</p> <p>Engine Family: C Series</p> <p>Cylinders: 6</p> <p>Tappet Material: C94</p>

## Rocker Lever



Ref No.	Part Name	Req	Remarks
	<b>ROCKER LEVER</b>		
			MR - ROCKER LEVER Engine Family: C Series Cylinders: 6 P/N 3914606 Can Be Used In Place of 3934921
1	Rod, Push	12	
2	Manifold, Oil Lever, Rocker	1 6	
3	Screw, Twelve Point Cap	2	M10 x 1.50 x 65
4	Clamp, Retaining Lever, Rocker	1 2	
5	Insert, Rocker Lever	1	
6	Lever, Rocker	1	
7	Nut, Heavy Hexagon	1	
8	Screw, Rkr Lever Adjusting	1	
9	Ring, Retaining	2	
10	Support, Rocker Lever	1	
11	Washer, Spring	2	
12	Washer, Plain	2	M22
13	Shaft, Rocker Lever	1	
14	Shaft, Rocker Lever Rivet	1 1	

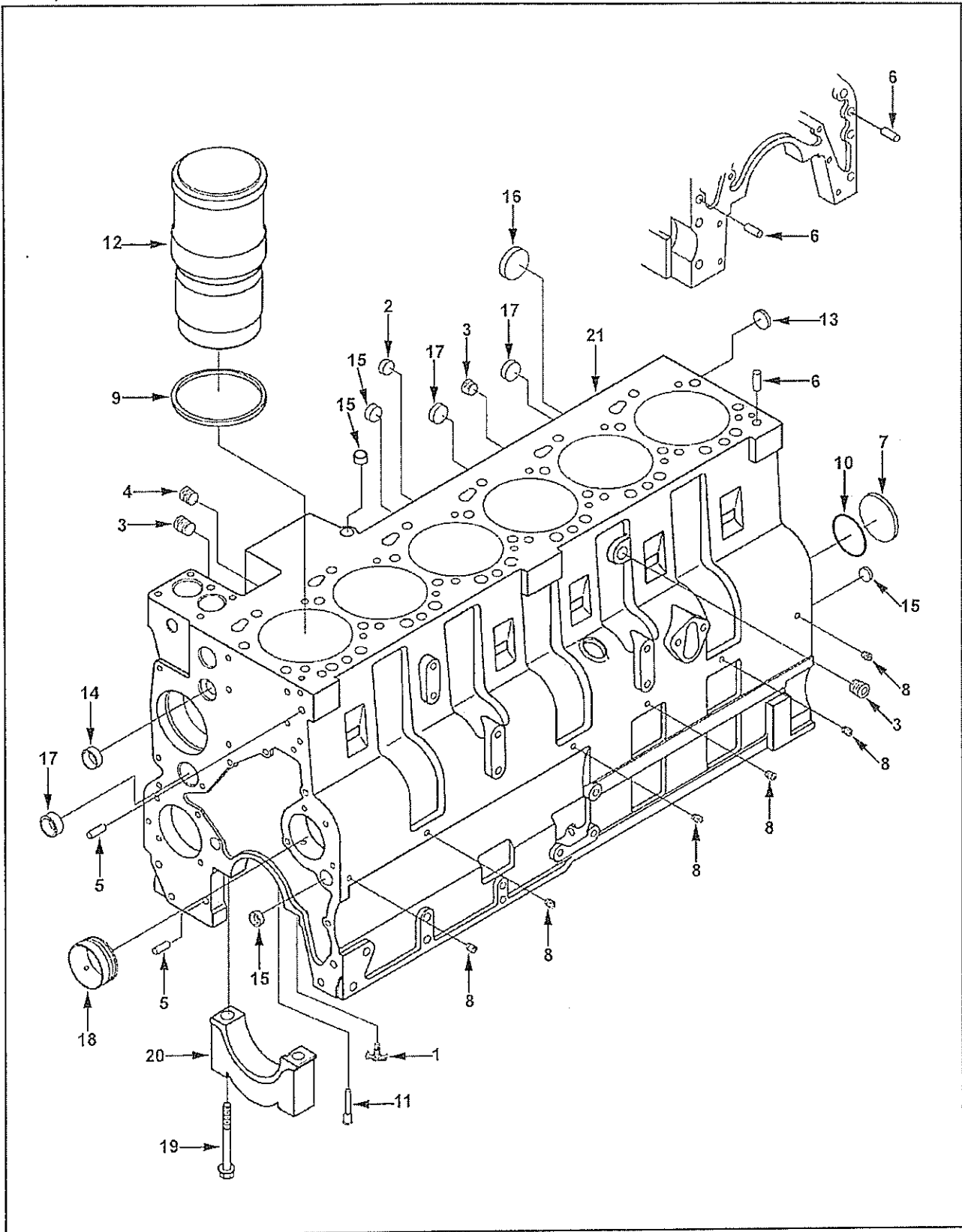
# Front Gear Cover



### Front Gear Cover

Ref No.	Part Name	Req	Remarks
	FRONT GEAR COVER		MR - COVER, FRONT GEAR Family: C Series Noise Dampening Panel Provision: No PTO Location: Low Front Support Provision: No Access For Tachometer Drive: Yes Gear Housing Material: Cast Aluminum Fuel Pump: Bosch P3000 Bosch P7100 3917780 Gasket and 3916193 Gear Cover May Be Substituted By Brazil for 3925230 Gear Cover BZL May Use P/N 3971264 Instead of 3926840 BZL May Use P/N 3358252 Instead of 3979349
1	Screw, Hex Flange Head Cap	4	M12 x 1.75 x 50
2	Screw, Round Head Cap	2	M5 x 0.80 x 17
3	Housing, Timing Pin	1	
4	Pin, Timing	1	
5	Ring, Retaining	1	
6	Seal, O Ring	1	
7	Housing, Timing Pin	1	
8	Seal, Rectangular Ring	1	
9	Screw, Hex Flange Head Cap	16	M8 x 1.25 x 16
10	Housing, Gear	1	
11	Gasket, Gear Housing	1	
12	Screw, Hex Flange Head Cap	5	M8 x 1.25 x 20
13	Cover, Gear	1	
14	Seal, Oil	1	Sold In Higher Level Assy/Kit
	Cover, Gear	1	
	Screw, Hex Flange Head Cap	6	M8 x 1.25 x 50

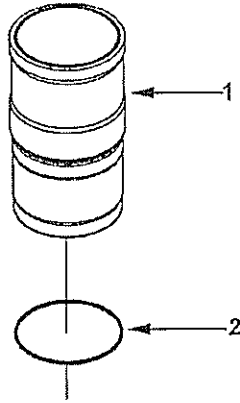
# Cylinder Block



### Cylinder Block

Ref No.	Part Name	Req	Remarks
	<b>CYLINDER BLOCK</b>		MR - BLOCK, CYLINDER Engine Family: C Series Cylinders: 6 Aspiration: Jacket Water Jacket Water Aftercooled Sea Water Aftercooled Turbo Exhaust Outlet Location: HMFO; HMFO Low HMFO HMFO Low Profile HMFO Set Forward HMRO HMRO Set Forward Fuel Type: Diesel Tapped Fittings: NPT DEP May Use 3282987 or 3629497 Draincock In Place of S923E
1	Draincock	1	1/4 NPTF
3	Plug, Pipe	5	1/2 NPT
4	Plug, Pipe	2	3/4 NPT
5	Dowel, Pin	2	
6	Dowel, Pin	4	
7	Plug, Expansion	1	
8	Plug, Pipe	6	1/8 NPT
9	Seal, Rectangular Ring	6	
10	Seal, O Ring	1	
11	Nozzle, Piston Cooling	12	
12	Liner, Cylinder Block, Cylinder	6 1	Sold In Higher Level Assy/Kit
13	Plug, Expansion Block, Cylinder	1 1	Not Used on Engines W/Turbos
14	Plug, Expansion	3	
15	Plug, Expansion	4	
16	Plug, Expansion	1	
17	Plug, Expansion	3	
18	Bushing	7	
19	Screw, Hex Flange Head Cap	14	
20	Cap, Main Bearing	7	
21	Block, Cylinder	1	
	<b>COUNTERBORE SERVICE SHIMS</b>		
	Shim	A/R	0.25mm Oversize (0.010 in.)
	Shim	A/R	0.38mm Oversize (0.015 in.)
	Shim	A/R	0.50mm Oversize (0.020 in.)
	Shim	A/R	0.76mm Oversize (0.030 in.)
	Shim	A/R	1.00mm Oversize (0.040 in.)

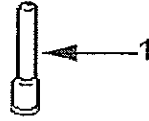
### Cylinder Liner



Ref No.	Part Name	Req	Remarks
1	CYLINDER LINER	6	MR - LINER, CYLINDER Engine Family: C Series Cylinders: 6 Aspiration: Jacket Water Aftercooled Sea Water Aftercooled Turbo Exhaust Outlet Location: HMFO HMFO Low Profile HMFO Set Forward HMRO HMRO Set Forward Fuel Type: Diesel Tapped Fittings: NPT DEP May Use 3282987 or 3629497 Draincock In Place of S923E
2	Kit, Liner Liner, Cylinder Seal, Rectangular Ring	1 1	Sold In Higher Level Assy/Kit

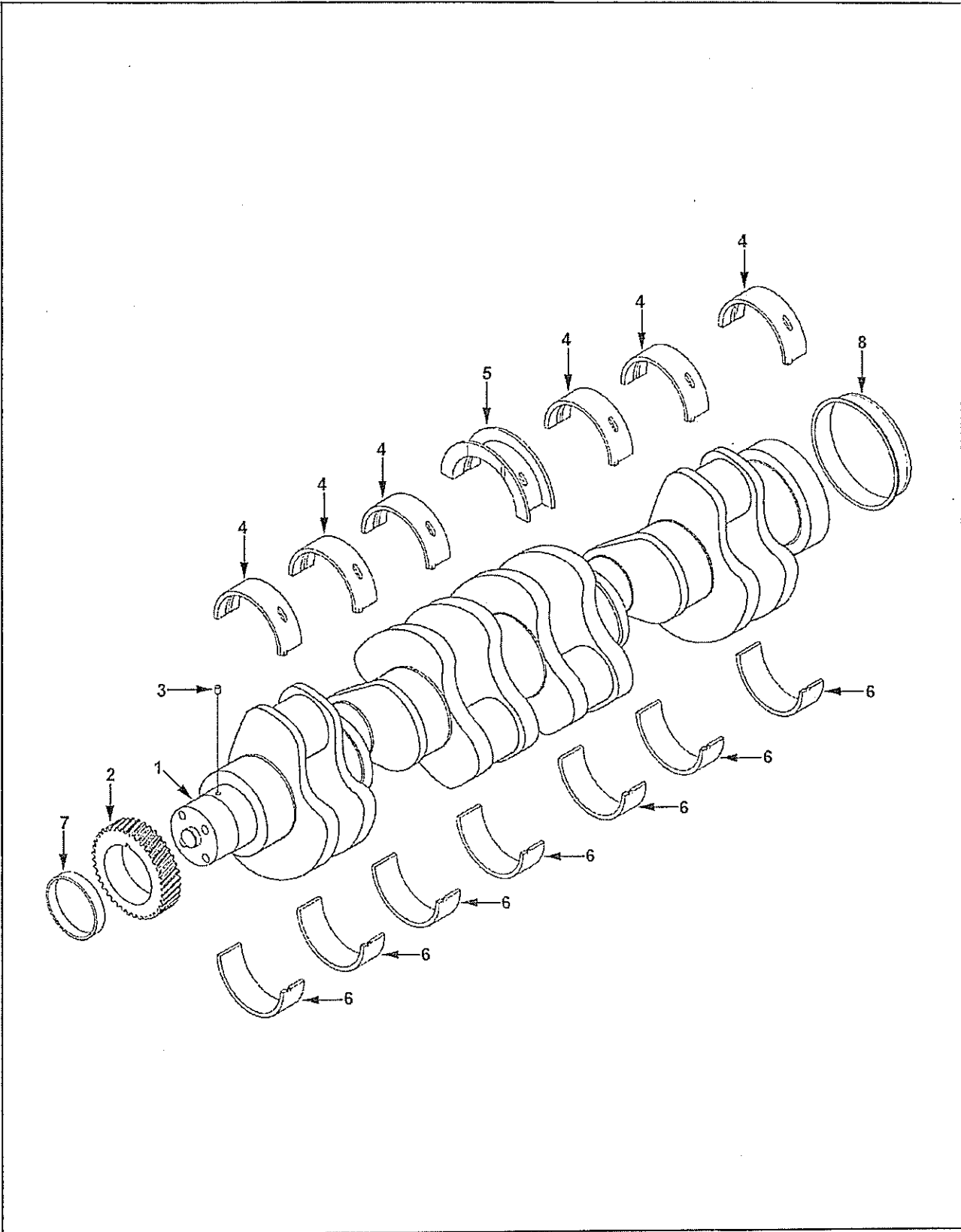


## Piston Cooling Nozzle



Ref No.	Part Name	Req	Remarks
1	Nozzle, Piston Cooling	12	PISTON COOLING NOZZLE  MR - NOZZLE, PISTON COOLING Engine Family: C Series Cylinders: 6 Aspiration: Sea Water Aftercooled Jacket Water Aftercooled Turbo Exhaust Outlet Location: HMFO HMFO Low Profile HMFO Set Forward HMRO HMRO Set Forward Fuel Type: Diesel Tapped Fittings: NPT DEP May Use 3282987 or 3629497 Draincock In Place of S923E

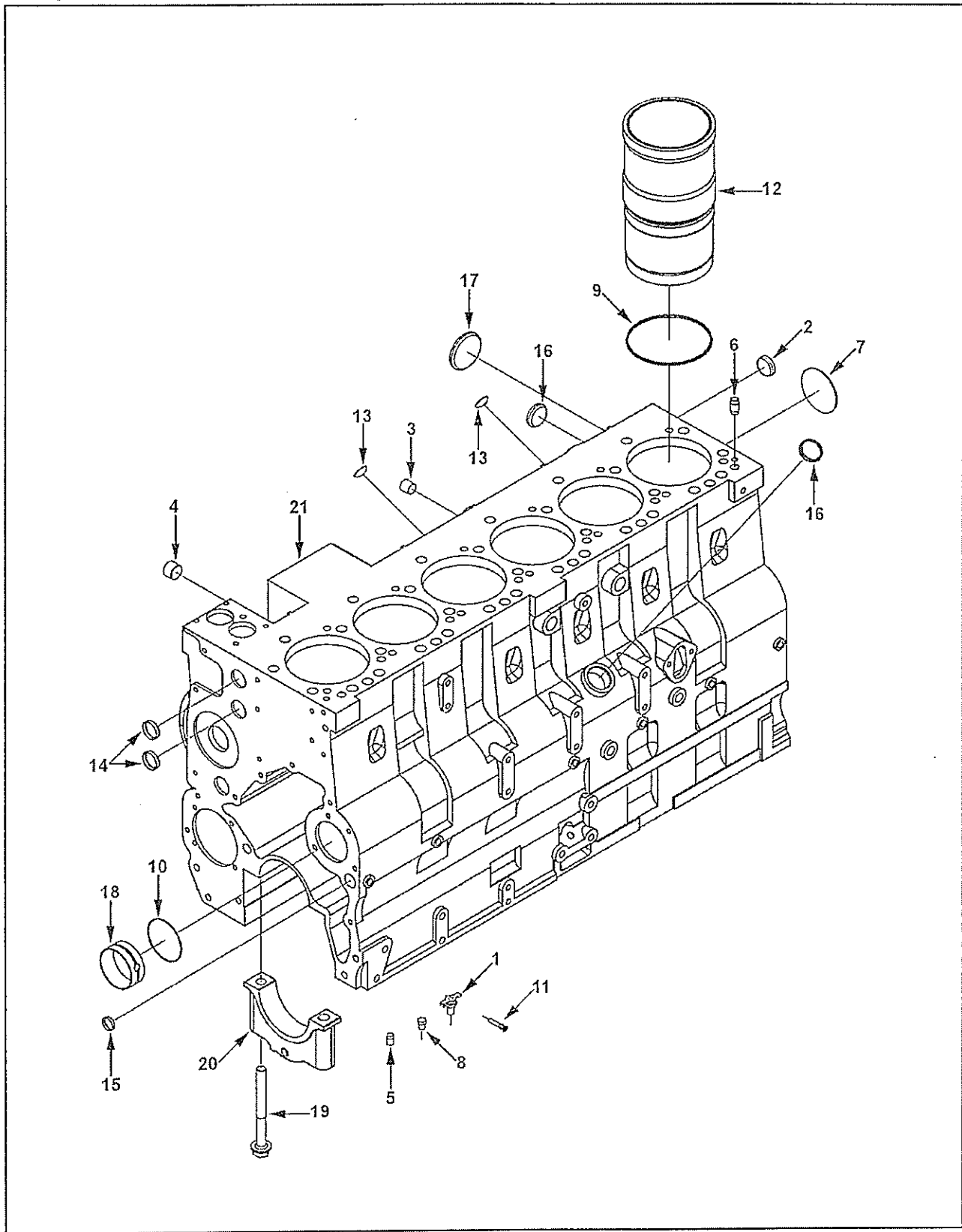
# Crankshaft And Main Bearings



### Crankshaft And Main Bearings

Ref No.	Part Name	Req	Remarks
	<b>CRANKSHAFT</b>		
			MR - CRANKSHAFT
1	Assembly TLA, Crankshaft	1	
2	Crankshaft, Engine	1	
3	Gear, Crankshaft	1	
	Dowel, Pin	1	
	<b>MAIN BEARING SETS</b>		
	Kit, PDC	1	Standard
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	0.25 mm Oversize
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	Sold In Higher Level Assy/Kit
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	0.50 mm Oversize
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	0.75 mm Oversize
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	1.00 mm Oversize
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	<b>SERVICE PARTS</b>		
7	Ft Seal Ser Kit W/Sleeve	1	Front
8	Sleeve, Wear	1	Rear
	<b>OVERSIZE THRUST BEARINGS</b>		
	Bearing, Crankshaft Thrust	A/R	
	Bearing, Crankshaft Thrust	A/R	0.50mm Oversize
	Bearing, Crankshaft Thrust	A/R	0.50mm Oversize

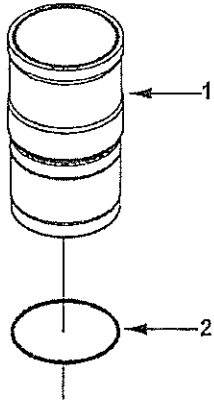
# Cylinder Block



### Cylinder Block

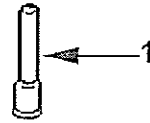
Ref No.	Part Name	Req	Remarks
	CYLINDER BLOCK		MR - BLOCK, CYLINDER Engine Family: C Series Cylinders: 6 Aspiration: Sea Water Aftercooled Turbo Exhaust Outlet Location: RMSO Fuel Type: Diesel Tapped Fittings: NPT DEP May Use 3282987 or 3629497 Draincock in Place of S923E
1	Draincock	1	
2	Plug, Expansion	1	
3	Plug, Pipe	3	1/2 NPT
4	Plug, Pipe	2	3/4 NPT
5	Dowel, Pin	2	
6	Dowel, Pin	2	
7	Plug, Expansion	1	
8	Plug, Pipe	5	1/8 NPT
9	Seal, Rectangular Ring	6	
10	Seal, O Ring	1	
11	Nozzle, Piston Cooling	12	
12	Liner, Cylinder	6	Sold In Higher Level Assy/Kit
	Block, Cylinder	1	
13	Plug, Expansion	1	
	Block, Cylinder	1	
14	Plug, Expansion	3	
15	Plug, Expansion	4	
16	Plug, Expansion	3	
17	Plug, Expansion	1	
18	Bushing	7	
19	Screw, Hex Flange Head Cap	14	
20	Cap, Main Bearing	7	
21	Block, Cylinder	1	

## Cylinder Block



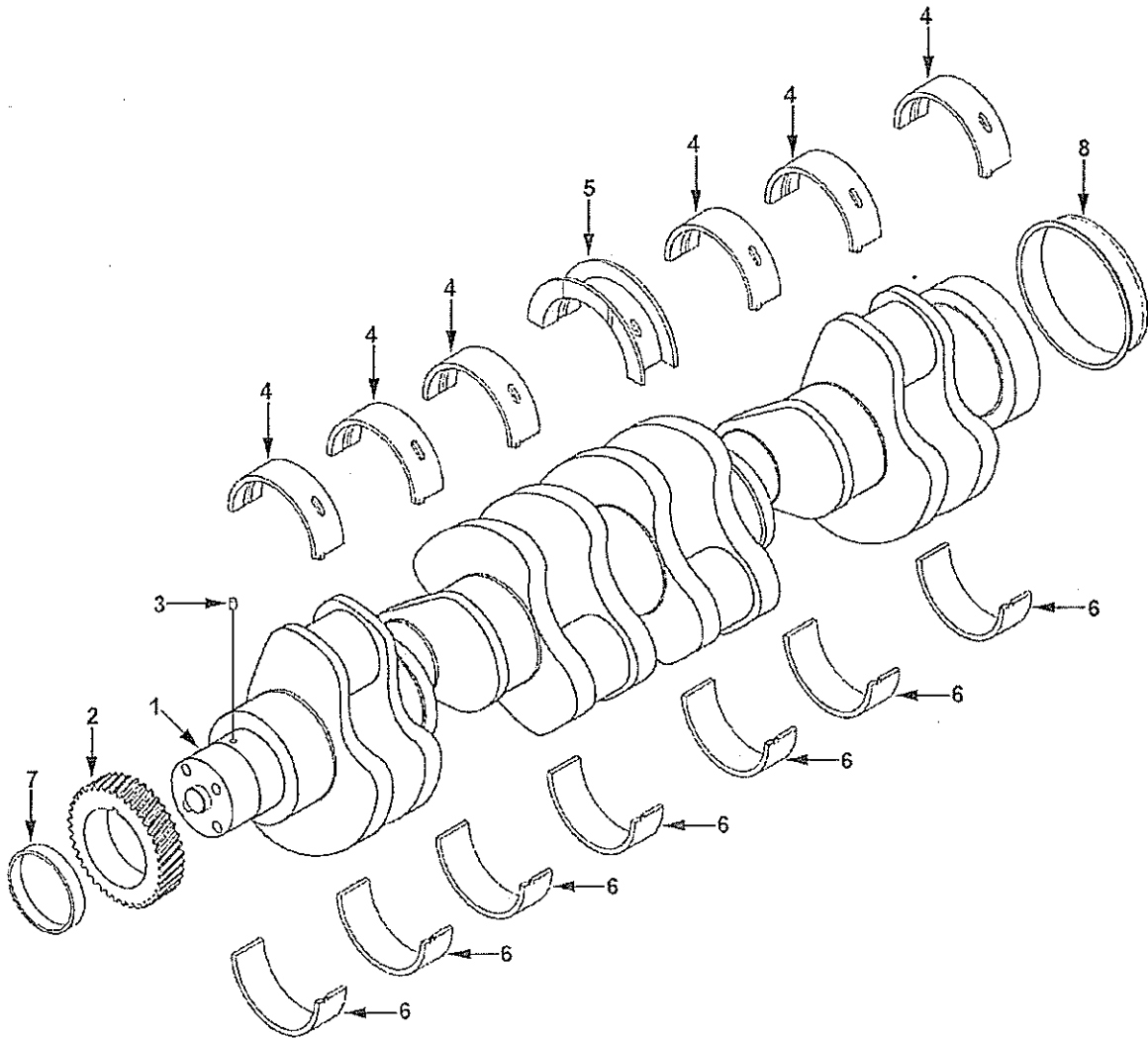
Ref No.	Part Name	Req	Remarks
1	CYLINDER BLOCK	6	MR - LINER, CYLINDER Engine Family: C Series Cylinders: 6 Aspiration: Sea Water Aftercooled Turbo Exhaust Outlet Location: RMSO Fuel Type: Diesel Tapped Fittings: NPT Brazil (CBL) May Substitute 3918986 Crank Assembly for 3917443 Crank Assembly DEP May Use 3282987 or 3629497 Draincock In Place of S923E
2	Kit, Liner Liner, Cylinder Seal, Rectangular Ring	1 1	Sold In Higher Level Assy/Kit

## Engine Block



Ref No.		Part Name	Req	Remarks
1		ENGINE BLOCK  Nozzle, Piston Cooling	12	MR - NOZZLE, PISTON COOLING Engine Family: C Series Cylinders: 6 Aspiration: Sea Water Aftercooled Turbo Exhaust Outlet Location: RMSO Fuel Type: Diesel Tapped Fitting: NPT DEP May Use 3282987 or 3629497 Draincock In Place of S923E

# Crankshaft

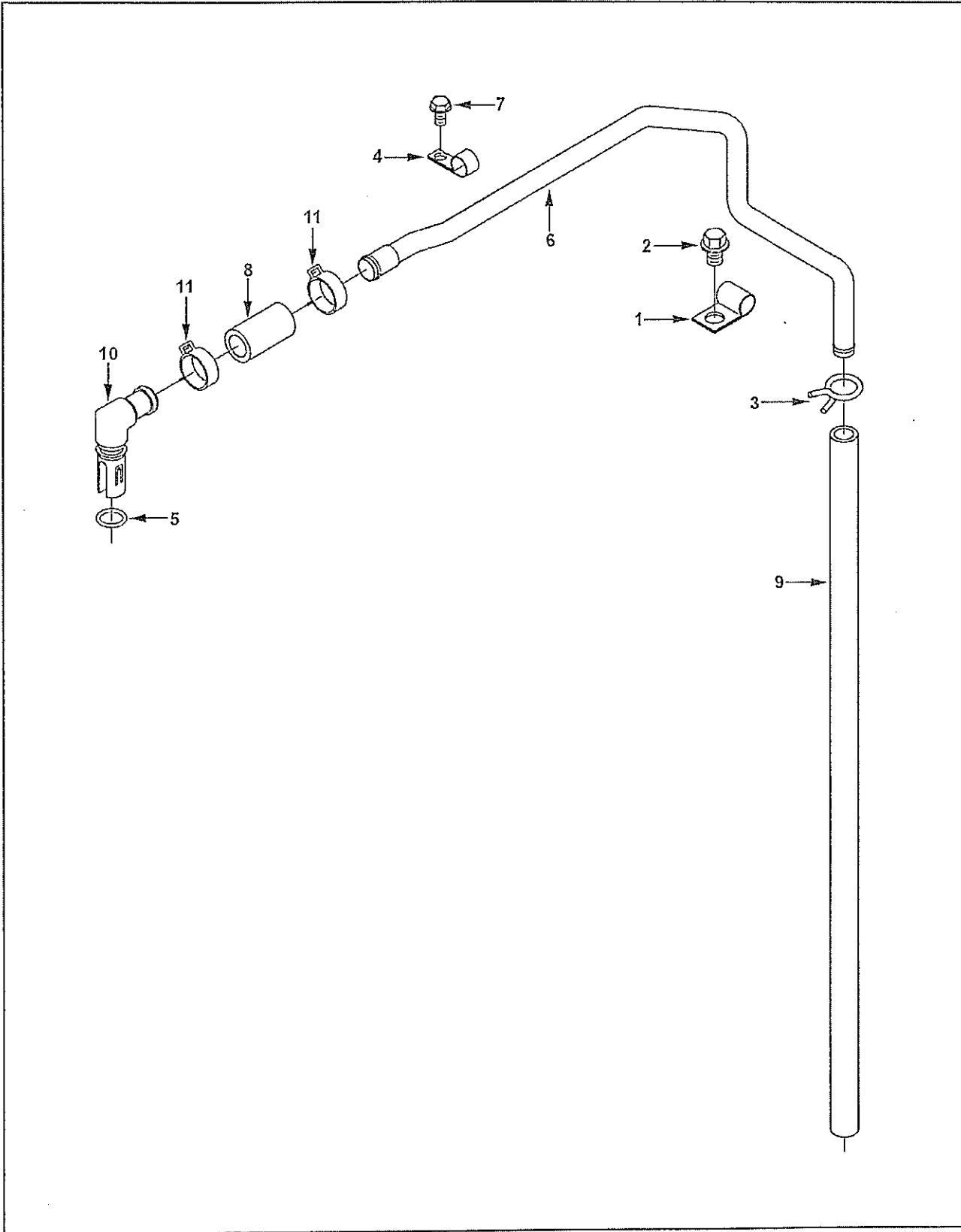




### Crankshaft

Ref No.	Part Name	Req	Remarks
	<b>CRANKSHAFT</b>		
			MR - CRANKSHAFT
			Engine Family: C Series
			Cylinders: 6
			Aspiration: Sea Water Aftercooled
1	Assembly TLA, Crankshaft	1	
2	Crankshaft, Engine	1	
3	Gear, Crankshaft	1	
3	Dowel, Pin	1	
	<b>Main Bearing Sets</b>		
	Kit, PDC	1	Standard
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	0.25 mm Oversize
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	Sold In Higher Level Assy/Kit
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Kit, PDC	1	1.00 mm Oversize
4	Bearing, Main	6	Sold In Higher Level Assy/Kit
5	Bearing, Crankshaft Thrust	1	
6	Bearing, Main	7	Sold In Higher Level Assy/Kit
	<b>Service Parts</b>		
7	Ft Seal Ser Kit W/Sleeve	1	Front
8	Sleeve, Wear	1	Rear
	<b>Oversize Thrust Bearings</b>		
	Bearing, Crankshaft Thrust	A/R	
	Bearing, Crankshaft Thrust	A/R	0.50mm Oversize
	Bearing, Crankshaft Thrust	A/R	0.50mm Oversize

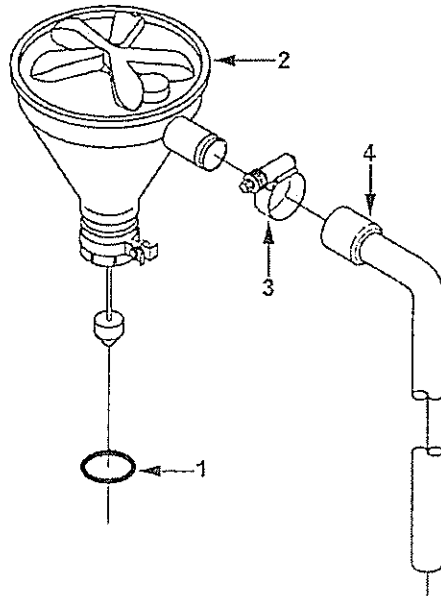
# Crankcase Breather



### Crankcase Breather

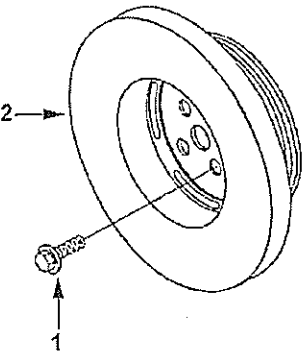
Ref No.	Part Name	Req	Remarks
	<b>CRANKCASE BREATHER</b>		<p>MR - BREATHER, CRANKCASE</p> <p>Engine Design Phase: Current Product  Breather Type: Open  Breather Vent Tube End Location: Below Oil Pan Rail  Tube Routing: Fuel Pump Side  Attachment Clip Provision: Yes  Breather Vent Location: Between 3 &amp; 4  Required Mounting Provision (mm): 22.26 (Diameter)  Filter Supply Method: Mounted  Fuel Type: Diesel  Plumbing Mounting Responsibility: Cummins  Tube Routes Ahead of Rear Lift Bracket: No  Attaches to Front Cover: No  Engine Family: C Series  BZL to Use 3909397 Instead of 3936331</p>
1	Clip	1	
2	Screw, Hex Flange Head Cap	1	M12 x 1.75 x 25
3	Clamp, Spring Hose	1	
4	Clip	1	
5	Seal, Rectangular Ring	1	
6	Tube, Breather	1	
7	Screw, Self Tapping Metal	1	M8 x 1.25 x 15
8	Hose, Plain	1	
9	Hose, Plain	1	
10	Connection, Vent	1	Use 3934865 When Servicing
11	Clamp, Hose	2	

### Crankcase Breather



Ref No.	Part Name	Req	Remarks
	<b>CRANKCASE BREATHER</b>		MR - BREATHER, CRANKCASE Breather Type: Open Breather Vent Tube End Location: Below Oil Pan Rail Tube Routing: Fuel Pump Side Attachment Clip Provision: Yes Breather Vent Location: Between 5 & 6 Required Mounting Provision (mm): 37.00, Diameter Unique Characteristics: 24.5mm ID hose Engine Families: C Series
1	Seal, O Ring	1	
2	Breather, Crankcase	1	
3	Clamp, Hose	1	
4	Hose, Elbow	1	

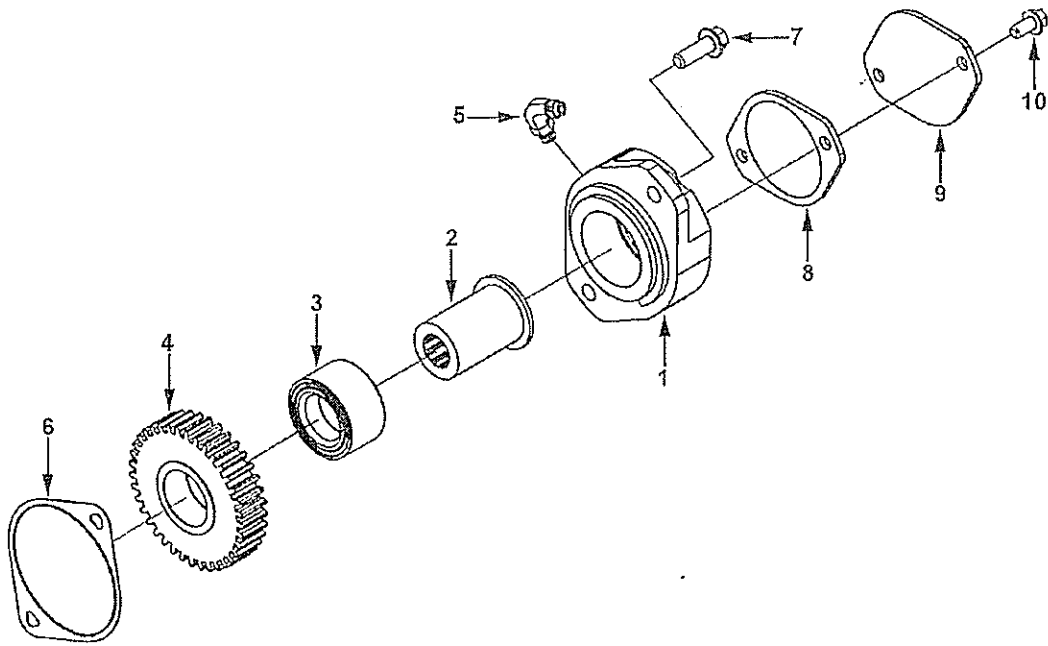
Vibration Damper



### Vibration Damper

Ref No.	Part Name	Req	Remarks
	VIBRATION DAMPER		MR - DAMPER, VIBRATION Engine Family: C Series Damper Pulley Effective Diameter (mm): 173.76 Damper Diameter (mm): 246.00 Damper RPM Limitation: 2200 and Below Damper Type: Rubber Pulley Type: Cast 8 Groove Front PTO Provision: Yes Tach Pick-up Provision: No High Inertia Damper: Yes Additional Undercut on Damper: No Accessory Drive Bolt Circle: 4 x 96.0mm Accessory Drive Thread: M12 x 1.75-6H Engine Design Phase: Current Product Restricted Cylinders: 6 Provision for Engine Position Sensor: No Additional Pulley Provision: None Integral PTO/ 4 Hole 96mm Diameter B.C./ 95.76mm Forward Front Face of Block To Be Used on Applications Where Governed Speed or Rated Speed is 2200 RPM or Below Inertia of Components Bolted to Crank Should Not Exceed 2.2 KgM2
1 2	Screw, Hex Flange Head Cap Damper, Vibration	4 1	M14 x 1.50 x 35

# Front Gear Train Accessory

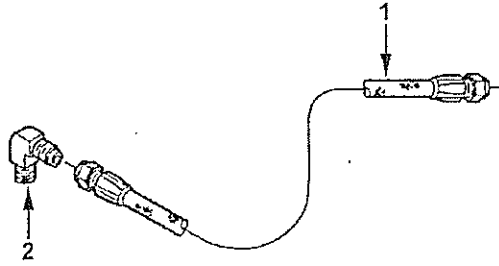


### Front Gear Train Accessory

Ref No.	Part Name	Req	Remarks
	FRONT GEAR TRAIN ACCESSORY		MR - DRIVE, FRONT GEAR TRAIN ACCESSORY Drive Location: Gear Cover - Back Rear Flange SAE: 82-2 (SAE A) Accessory Drive Type: SAE 16-4 Rear Flange Mount Thread: Metric Maximum Torque (lb/ft): 43 Drive Offset (deg): 0 Drive Rotation: Counter - Clock Rear Flange Thickness (mm): 15 Engine Family: C Series Effective Drive Ratio: 1.13:1 DEP May Use 3916042 in Place of 3913287
1	Adapter, Hydraulic Pump	1	
2	Adapter, Hydraulic Pump	1	
3	Shaft, Accessory Drive	1	
4	Bearing, Roller	1	
5	Gear, Accessory Drive	1	
6	Elbow, Plain Union	1	
7	Gasket, Acc Drive Cover	1	
8	Screw, Hex Flange Head Cap	2	M12 x 1.75 x 35
9	Gasket, Hydraulic Pump	1	
10	Plate, Cover	1	
	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 20

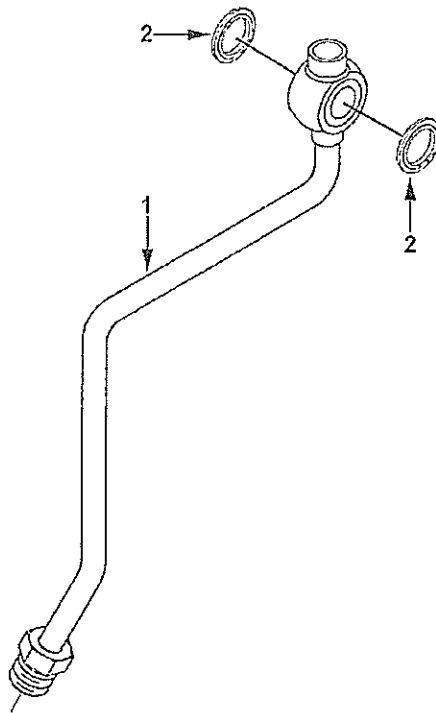


## Front Gear Train Accessory Plumbing



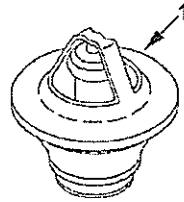
Ref No.	Part Name	Req	Remarks
1	FRT GEAR TRAIN ACCY PLUMB		MR - PLUMBING, FRONT GEAR TRAIN ACCESSORY Plumbing Location: #4 Oil Supply Hole in Cylinder Block Engine Family: C Series Engine Design Phase: Current Product
2	Hose, Flexible	1	
	Elbow, Male Adapter	1	1/8 NPTF x 7/16-20 (90)

### Fuel Drain Location



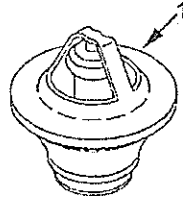
Ref No.	Part Name	Req	Remarks
1	FUEL DRAIN LOCATION	1	MR - LOCATION, FUEL DRAIN Drain Tube OD (mm): 10.00 Connection Type: 11/16 UN Customer Connect Location: Fuel Pump - Inboard Unique Characteristics: Attaches to Inboard Side of Pump Engine Family: C Series Restricted Fuel Pump Manufacturing/Model: Bosch P7100 Customer Connection at Outlet of Fuel Cooler
2	Tube, Fuel Drain Washer, Sealing	2	M14

# Thermostat



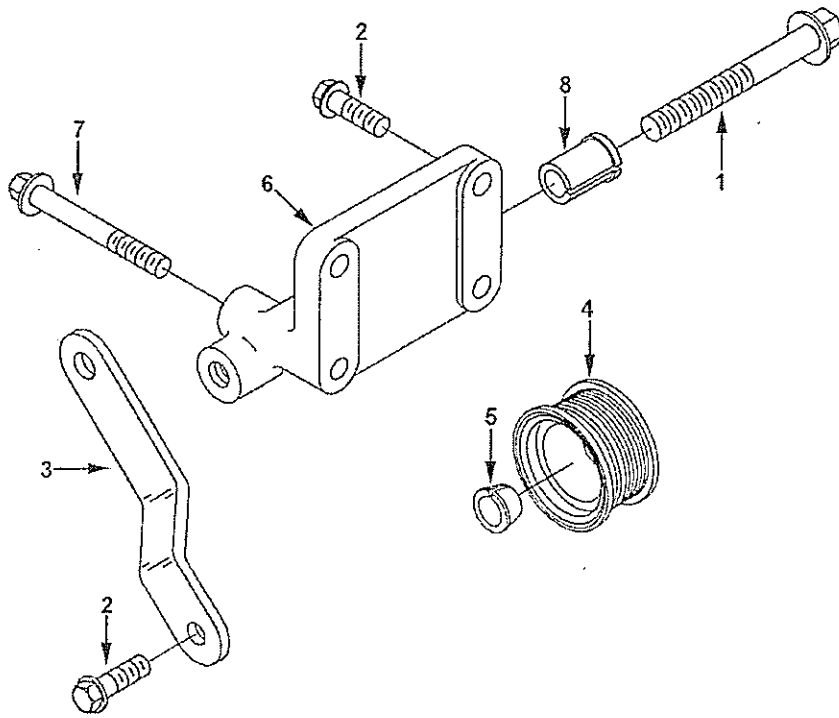
Ref No.		Part Name	Req	Remarks
1		Thermostat	2	THERMOSTAT  MR - THERMOSTAT Degree C Thermostat Opens: 83 C Number of Thermostats: 2 Thermostat Type: Jiggle-Pin Vented/Non-Vented: Vented Requires By-Pass Housing: No Engine Family: C Series Required Housing Bore Diameter (mm): 43.50

# Thermostat



Ref No.		Part Name	Req	Remarks
1		THERMOSTAT  Thermostat	2	MR - THERMOSTAT Degree C Thermostat Opens: 71 Deg C Engine Design Phase: Current Product Number of Thermostats: 2 Thermostat Type: Jiggle-Pin Vented Non-Vented: Vented Requires By-Pass Housing: No Engine Family: C Series Required Housing Bore Diameter (mm): 43.50 Low Gain Thermostat: No Thermostat Seat Type: Soft

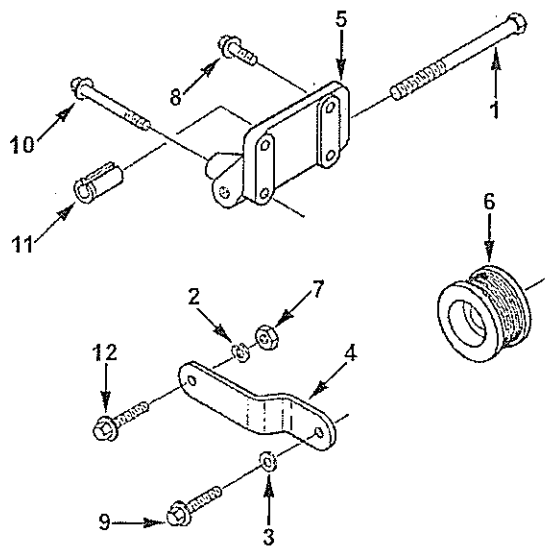
# Alternator Location



### Alternator Location

Ref No.	Part Name	Req	Remarks
	ALTERNATOR LOCATION		MR - LOCATION, ALTERNATOR Engine Design Phase: Current Product Pulley Retainer Provided: Yes Alternator Pulley Provided: Yes Belt Supplier: Cummins Belt Tensioner Supplier: Cummins Alternator Mount Type: 2 in. Spool Damper Pulley Effective Diameter (mm): 173.76 Alternator Driven By Auxiliary Belt: No Required Tensioner Pulley Material: Steel Pad for Freon Compressor Provided: No Engine Family: C Series Alternator Manufacturer / Model: Bosch K-1 Delco 11SI Stud for Wiring Harness Attachment: No ALT Tail Support Required: No REF. Compressor Mounting Hardware Included: No Tail Tensioner Bracket: No
1	Screw, Hex Flange Head Cap	1	M10 x 1.50 x 90
2	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 25
3	Brace, Alternator	1	
4	Pulley, Alternator	1	
5	Retainer, Pulley	1	
6	Support, Alternator	1	
7	Screw, Hex Flange Head Cap	2	
8	Spacer, Mounting	1	

# Alternator Location

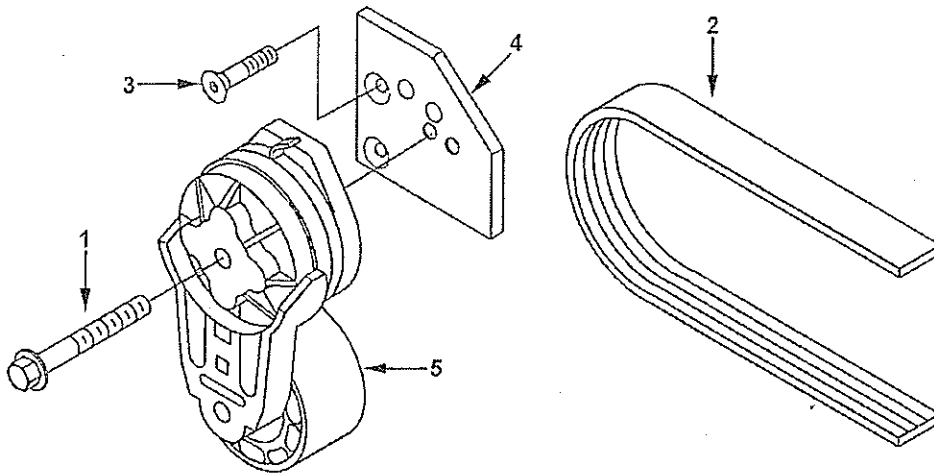


### Alternator Location

Ref No.	Part Name	Req	Remarks
	ALTERNATOR LOCATION		MR - LOCATION, ALTERNATOR Alternator Manufacturer / Model: CAV AC5RSM Engine Design Phase: Current Product Pulley Retainer Provided: No Alternator Pulley Provided: Yes Belt Supplier: Cummins Belt Tensioner Supplier: Cummins Alternator Drive Speed: 2.9 Alternator Mount Type: 4 in. Hinge Damper Pulley Effective Diameter (mm): 173.76 Alternator Driven by Auxiliary Belt: No Required Tensioner Pulley Material: Steel Pad for Freon Compressor Provided: No Engine Family: C Series Required Water Pump Pulley Type: Standard Stud for Wiring Harness Attachment: No Alternator Tail Support Required: No REF. Compressor Mounting Hardware Included: No Tail Tensioner Bracket: No
1	Screw, Hexagon Head Cap	1	7/16-14 x 5.00
2	Washer, Lock	1	5/16 in.
3	Washer, Plain	1	5/16 in.
4	Brace, Alternator	1	
5	Support, Alternator	1	
6	Pulley, Alternator	1	
7	Nut, Regular Hexagon	1	M8 x 1.25
8	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 25
9	Screw, Hex Flange Head Cap	1	M8 x 1.25 x 30
10	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 70
11	Spacer, Mounting	1	
12	Screw, Hex Flange Head Cap	1	M8 x 1.25 x 40

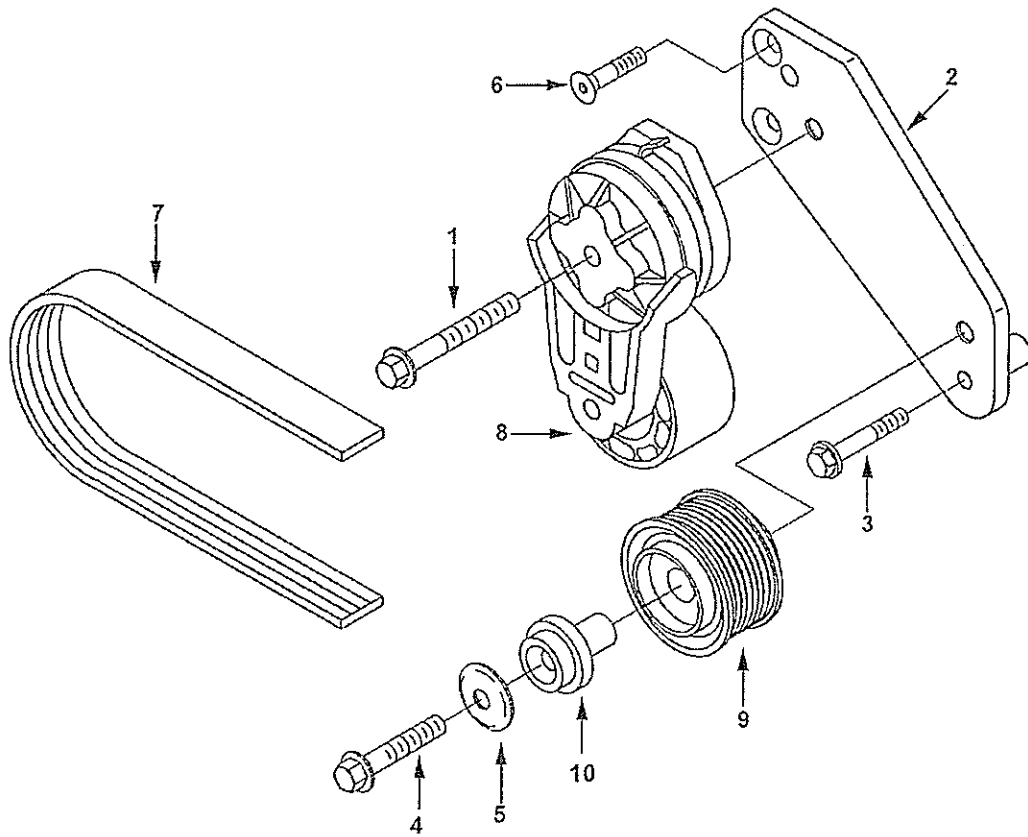


### Alternator Drive



Ref No.	Part Name	Req	Remarks
	<b>ALTERNATOR DRIVE</b>		MR - DRIVE, ALTERNATOR Fan Drive Ratio: 1.10:1 Fan Center (mm): 292.0 Tensioner Pulley Type: Standard Water Pump Pulley Diameter (mm): 110.74 Belt Supplier: Cummins Required Belt Length (mm): N/A Belt Tensioner Supplier: Cummins Damper Pulley Effective Diameter (mm): 173.76 Engine Design Phase: Current Product Tall Tensioner Bracket: No Engine Family: C Series Alternator Manufacturer / Model: Bosch K-1 BZL May Use P/N 3911571 Instead of P/N 3288900 BZL May Use P/N 3967188 Instead of P/N 3978022
1	Screw, Hex Flange Head Cap	1	M10 x 1.50 x 75
2	Belt, V Ribbed	1	
3	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 25
4	Bracket, Belt Tensioner	1	
5	Tensioner, Belt	1	

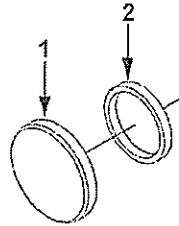
# Alternator Drive



### Alternator Drive

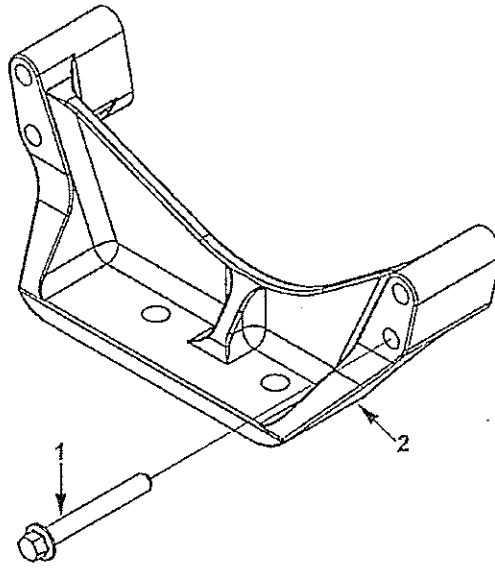
Ref No.	Part Name	Req	Remarks
	ALTERNATOR DRIVE		MR - DRIVE, ALTERNATOR Fan Drive Ratio: 1.00:1 Fan Center (mm): 0.0 Tensioner Position on Bracket: High Tensioner Mounting Holes: Single Set Tensioner Pulley Type: Standard Water Pump Pulley Diameter (mm): 88.00 Alternator Pulley Horizontal from Crank Centerline (mm): 301.4 Alternator Pulley Vertical From Crank Centerline (mm): 277.25 Tensioner Mounting Location: Bracket on Cylinder Head Belt Supplier: Cummins Required Belt Length (mm): 1435 Belt Tensioner Supplier: Cummins Damper Pulley Effective Diameter (mm): 173.76 Alternator Pulley Effective Diameter (mm): 58 Alternator Drive Ration: 2.9 Bracket Height from Mounting Hole (mm): 103 Engine Design Phase: Current Product Tall Tensioner Bracket: No Engine Family: C Series
1	Screw, Hex Flange Head Cap	1	M10 x 1.50 x 75
2	Bracket, Belt Tensioner	1	
3	Screw, Hex Flange Head Cap	1	M8 x 1.25 x 50
4	Screw, Hex Flange Head Cap	1	M10 x 1.50 x 55
5	Shield, Dust	1	
6	Screw, Flat Head Cap	2	
7	Belt, V Ribbed	1	
8	Tensioner, Belt	1	
9	Pulley, Idler	1	
10	Shaft, Idler	1	

### Mechanical Tach Drive Cover



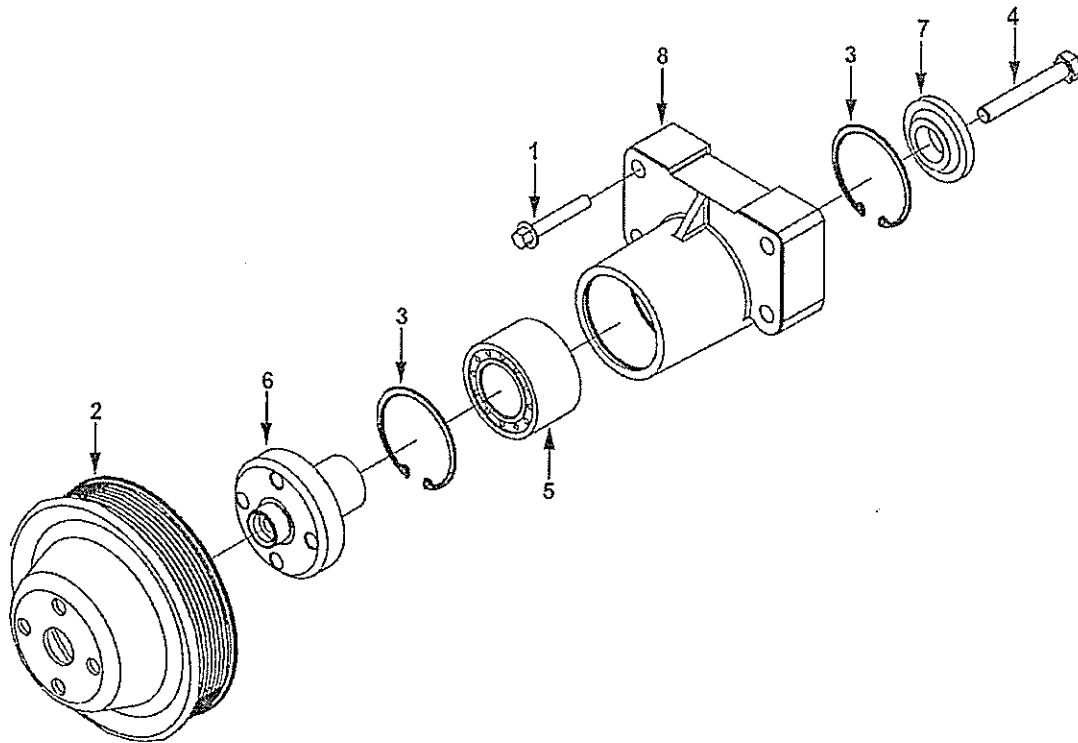
Ref No.	Part Name	Req	Remarks
1	MECHANICAL TACH DRIVE COVR	1	MR - COVER, MECHANICAL TACH DRIVE Mechanical Tachometer Drive Provision: No Oil Fill Location: Fuel Pump Side Exhaust Side Valve Cover None Engine Family: B & C Series Brazil May Use P/N 3968355 in Place of P/N 3903463
2	Cover, Access Hole Seal, Rectangular Ring	1	

## Front Engine Support



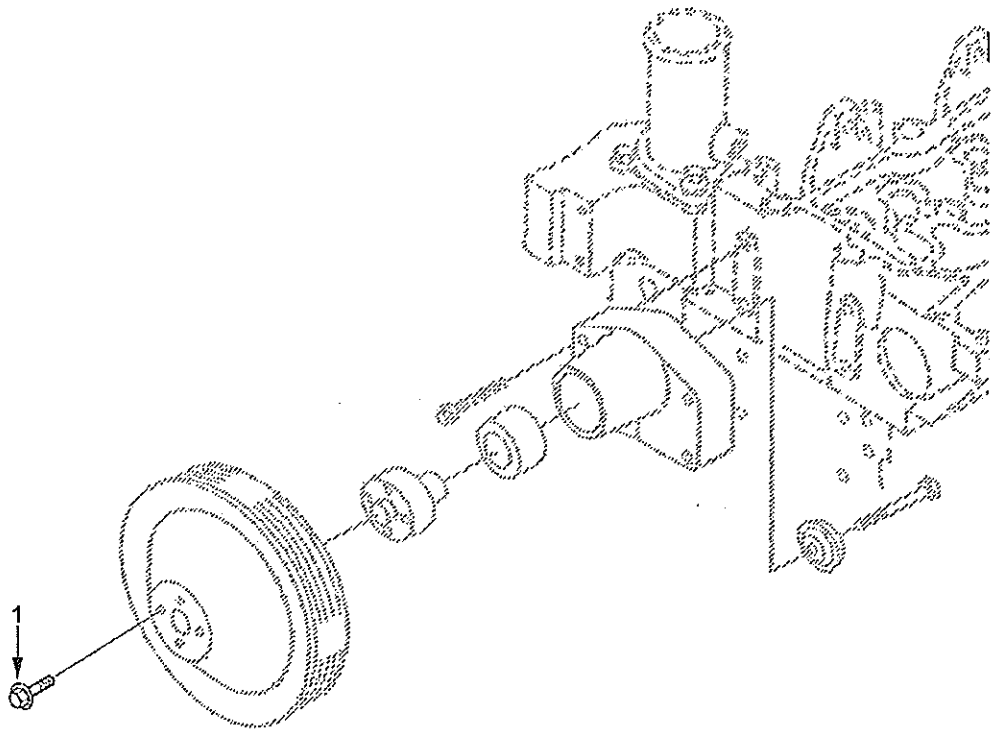
Ref No.	Part Name	Req	Remarks
	FRONT ENGINE SUPPORT		MR - SUPPORT, FRONT ENGINE Engine Family: C Series Support Location: Front Mount Type: 2 Hole Threaded Mounting Holes: No Mounting Hole Size (mm): 13 Maximum Damper Diameter (mm): 274.1 (10.79 in.) Mount Material: 41,020 Mounting Surface Below Crank Centerline (mm): 164.1 (6.46 in.) Mounting Holes for M12 Capscrews Spaced 102mm Apart
1 2	Screw, Hex Flange Head Cap Support, Front Engine	4 1	M12 x 1.75 x 90

## Fan Drive



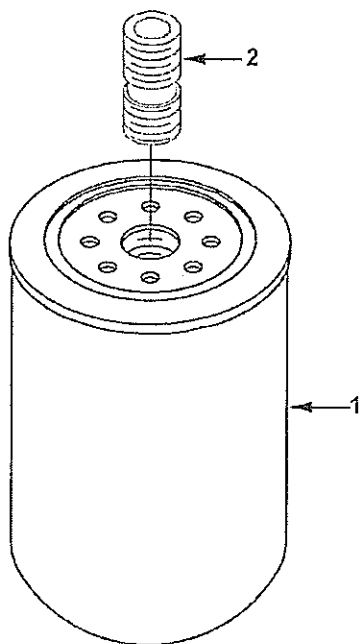
Ref No.	Part Name	Req	Remarks
	<b>FAN DRIVE</b>		MR - DRIVE, FAN Component Supplier: Cummins Fan Drive Ratio: 1.10:1 Mounting Bolt Circle (mm): 60 Engine Fan Center (mm): 292 (11.5 in.) Horizontal Offset: 0.0 Unique Characteristics: Increased Fan Weight Capability Fan Hub Pulley Material: Spun Steel Required Damper Pulley Diameter (mm): 173.76 Engine Family: C Series
1	Screw, Hex Flange Head Cap	4	M8 x 1.25 x 50
2	Pulley, Fan	1	
	Support, Fan	1	
3	Ring, Retaining	2	
4	Screw, Hexagon Head Cap	1	M10 x 1.75 x 70
5	Bearing, Ball	1	
6	Hub, Fan	1	
7	Retainer, Fan Hub	1	
8	Support, Fan	1	

## Fan Drive



Ref No.		Part Name	Req	Remarks
1		<p style="text-align: center;">FAN DRIVE</p> <p>Screw, Hex Flange Head Cap</p>	4	<p>MR - DRIVE, FAN</p> <p>Required Bolt Circle (mm): 60</p> <p>Engine Design Phase: Current Product</p> <p>Installation Responsibility: Customer</p> <p>Fastener Length (mm): 20</p> <p>Spacer Type: Clamping Plate</p> <p>Fan Hub Material: Spun Steel</p> <p>Engine Family: B &amp; C Series</p> <p>M10 x 1.50 x 20</p>

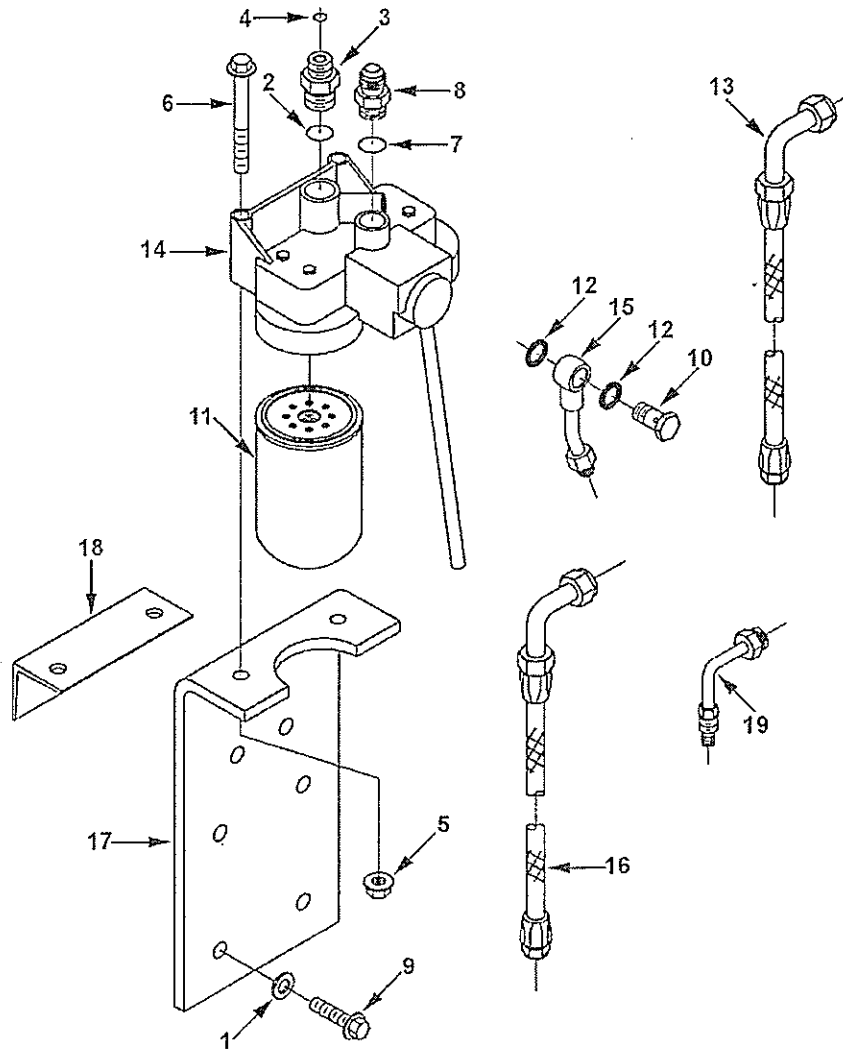
### Fuel Filter



Ref No.	Part Name	Req	Remarks
1	FUEL FILTER	1	MR - FILTER, FUEL Engine Family: C Series Engine Cylinders: 6 Engine Design Phase: Current Product Element Type: Single Water Separator Provision: No Element Style: Spin On Filter Location: Under Head Cylinder #5 First Filter Horizontal from Crank Centerline (mm): N/A First Filter Vertical from Crank Centerline (mm): N/A First Filter Location from Front Face of Block (mm): N/A Heater Element Included: No Compatible with Lift Pump: Yes Absolute Filtration (Microns): 25 Supply Method: Mounted Intake Cover Flange Thickness (mm): 18
2	Filter, Fuel Adapter, Filter Head	1	



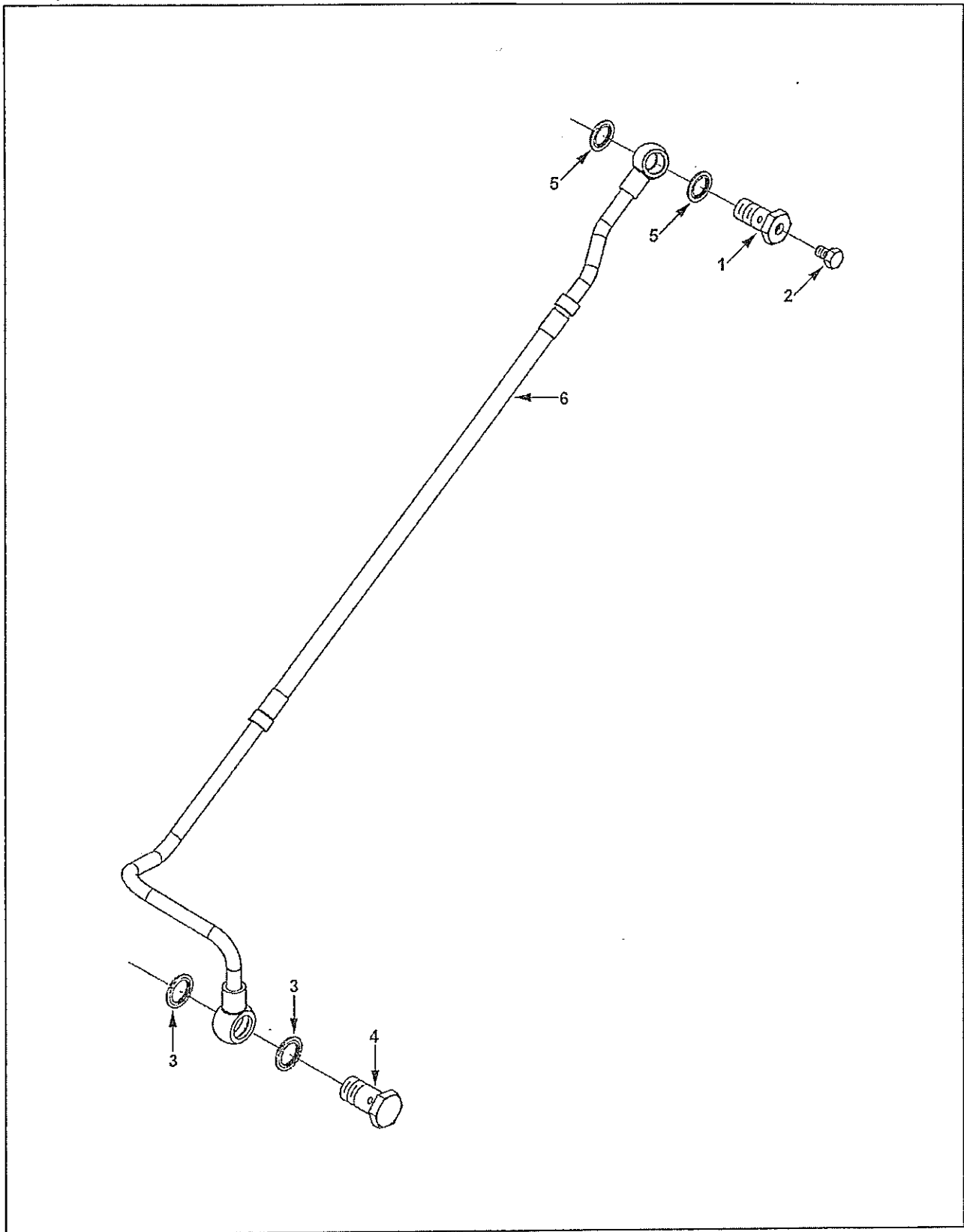
# Duplex Fuel Filters



### Duplex Fuel Filters

Ref No.	Part Name	Req	Remarks
	DUPLEX FUEL FILTERS		MR - FILTERS, DUPLEX FUEL Element Type: Dual Water Separator Provision: No Mounting Angle from Crank Centerline: Perpendicular to Crank Element Style: Spin-On Installation Responsibility: Customer Filter Location: Remote Mounted, Not for Engine Mounting Absolute Filtration (microns): 25 Compatible With Lift Pump: Yes Air Heater Connection Provided: No Strainer Plumbed Before Lift Pump: Yes Filter Inlet Diameter: 1/4 in. Restriction at Lift Pump Connection Engine Family: C Series
1	Washer, Plain	8	M10
	Union, Male	1	
2	Seal, O Ring	1	
3	Union, Male	1	
4	Seal, O Ring	1	
5	Nut, Hexagon Flange	4	M10 x 1.50 Thd
6	Screw, Hex Flange Head Cap	2	
	Union, Male	1	
7	Seal, O Ring	1	
8	Union, Male	1	3/4-16 x 9/16-18
9	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 40
10	Screw, Banjo Connector	1	
11	Filter, Fuel	2	
12	Washer, Sealing	2	
13	Hose, Flexible	1	
14	Head, Fuel Filter	1	
15	Tube, Fuel Supply	1	
16	Hose, Flexible	1	
17	Bracket, Filter	1	
18	Bracket, Filter	1	
19	Tube, Fuel Supply	1	

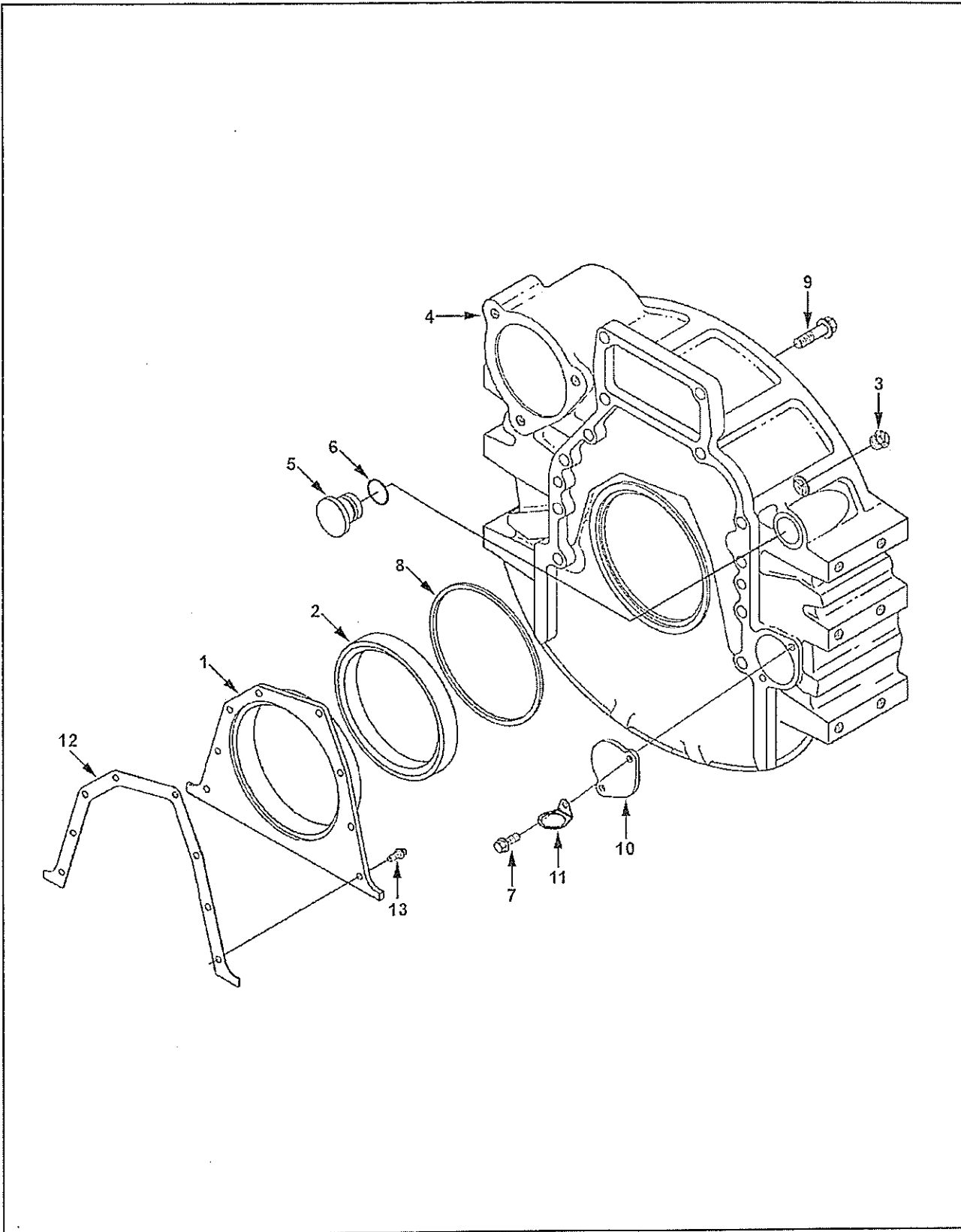
# Fuel Filter Plumbing



### Fuel Filter Plumbing

Ref No.	Part Name	Req	Remarks
	FUEL FILTER PLUMBING		MR - PLUMBING, FUEL FILTER Engine Family: C Series Cylinders: 6 Engine Design Phase: Current Product Pump Manufacturing/Model: Bosch P3000 Bosch P7100 Governor Type: RSV Filter Location: Under Head Cylinder #5 Banjo Screw to Filter Head: M6 Threaded Hole Injection Pump Supply Line Material: Steel Braid Engine RPM Limitation: < = 2500 Use With Jacket Water Aftercooler Can Be Used With or Without Dropdown Grid Heater
1	Screw, Banjo Connector	1	Order as Separate Parts
2	Screw, Banjo Connector	1	M12 x 1.50 x 24
3	Screw, Captive Washer Cap	1	M6 x 1.00 x 10
4	Washer, Sealing	2	
5	Screw, Banjo Connector	1	M14 x 1.50 x 26
6	Washer, Sealing	2	
	Tube, Fuel Supply	1	

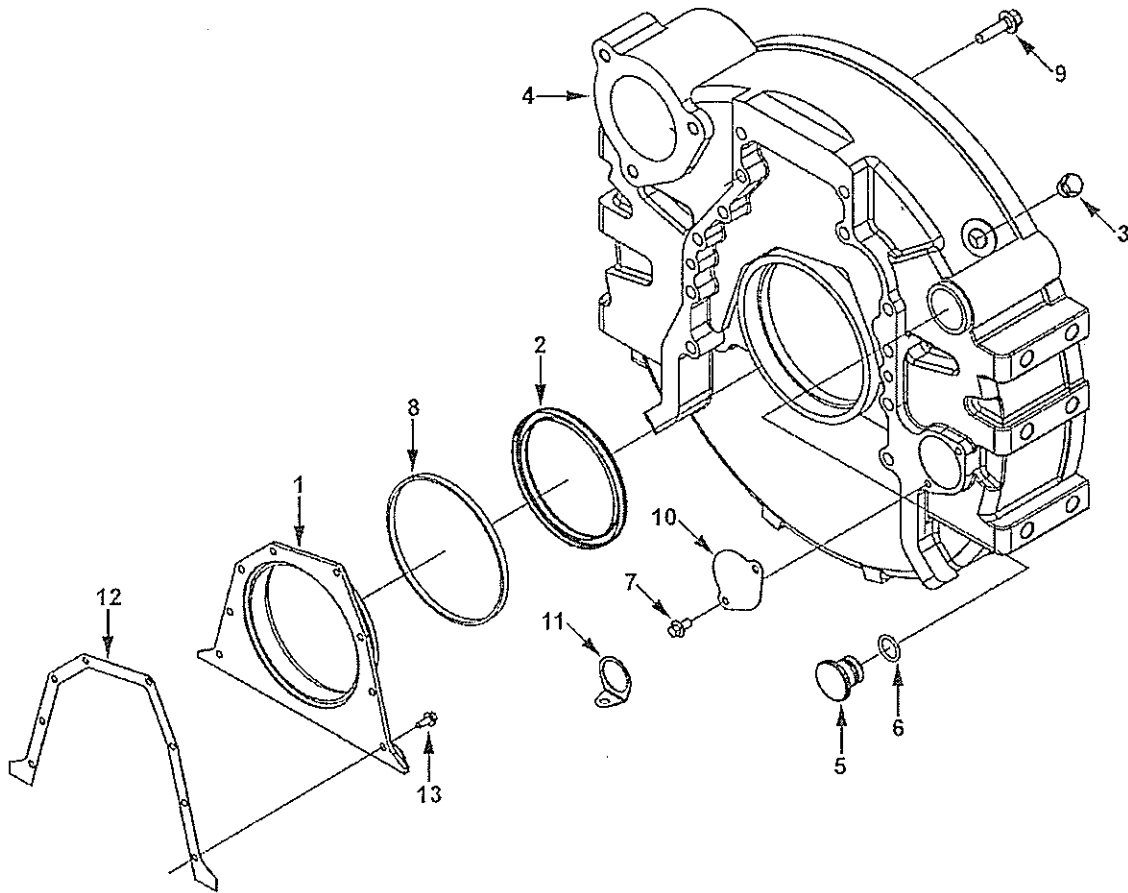
# Flywheel Housing



### Flywheel Housing

Ref No.	Part Name	Req	Remarks
	FLYWHEEL HOUSING		MR - HOUSING, FLYWHEEL Engine Design Phase: Current Product Wet/Dry Clutch: Dry Housing Material: Aluminum SAE Size or Type: SAE 2 Starter Mount SAE: SAE #3 - 3 Bolt 120 Degree Starter Mount Thread Type: Metric St Quadrant: 1st Starter Pad Offset from Rear Face of Block (mm): 0.00 Starter Mounting Hole Diameter (mm): 106.0 Mount Type: Pad Engine Mounting Hole Dimension: M12 x 1.75-6H Number of Mount Holes: 12 Engine Mount Top Hole +/- CR Centerline (mm): 104.78 Tach Sensor Location: 4th Tach Size: 3/4 - 16 UNF Tach Count: 1 Trans Mounting Holes Count / Thread: 12 - M10 x 1.50 6H Starter Pad +/- CR Centerline Y Axis (mm): 157.59 Starter Pad +/- CR Centerline X Axis (mm): 181.29 Starter Bore Angle (deg): 49 Flywheel Housing Attachment Provision: Cylinder Block Starter Center Distance: 240.21 Doweled for Oil Pan: No Engine Family: C Series BZL May Use Rear Cover P/N 3357700 Instead of P/N 3911699
	Cover, Rear	1	Includes Installation Tools
1	Cover, Rear	1	
2	Seal, Oil	1	Sold In Higher Level Assy/Kit
3	Plug, Threaded	1	3/4 - 16 UNF
4	Housing, Flywheel	1	
5	Plug, O Ring	1	
6	Seal, O Ring	1	
7	Screw, Self Tapping Metal	2	M8 x 1.25 x 15
8	Seal, Rectangular Ring	1	
9	Screw, Hex Flange Head Cap	12	M12 x 1.75 x 40
10	Plate, Cover	1	
11	Clip	1	
12	Gasket, Rear Cover	1	
13	Screw, Hex Flange Head Cap	8	

# Flywheel Housing

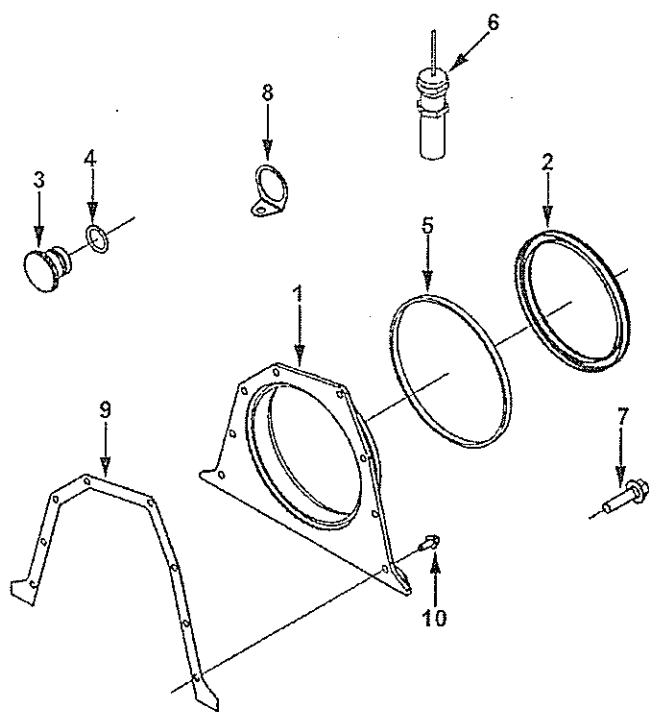


### Flywheel Housing

Ref No.	Part Name	Req	Remarks
	FLYWHEEL HOUSING		MR - FLYWHEEL HOUSING Engine Design Phase: Current Product Wet/Dry Clutch: Dry Housing Material: Aluminum SAE Size or Type: SAE 1 Starter Mount SAE: SAE #3 - 3 Bolt 120 Degree Starter Mount Thread Type: Metric St Quadrant: 1st Starter Pad Offset from Rear Face of Block (mm): 0.00 Starter Mounting Hole Diameter (mm): 92.05 Mount Type: Pad Engine Mounting Hole Dimension: M16 x 2.0-6H Number of Mount Holes: 12 Engine Mount Top Hole +/- CR Centerline (mm): 104.78 Tach Sensor Location: 4th Tach Size: 3/4 - 16 UNF Tach Count: 1 Trans Mt Holes Count/Thread: 12 - 7/16 x 14 UNC-2B Starter Pad +/- CR Centerline Y Axis (mm): 178.95 Starter Pad +/- CR Centerline X Axis (mm): 205.55 Starter Bore Angle (deg): 49 Flywheel Housing Attachment Provision: Cylinder Block Starter Center Distance: 272.532 Doweled for Oil Pan: No Engine Family: C Series Brazil May Use Rear Cover PN 3357700 Instead of PN 3911699
	Cover, Rear	1	Includes Installation Tools
1	Cover, Rear	1	
2	Seal, Oil	1	Sold In Higher Level Assy/Kit
3	Plug, Threaded	1	3/4 - 16 UNF
4	Housing, Flywheel	1	
5	Plug, O Ring	1	
6	Seal, O Ring	1	
7	Screw, Self Tapping Metal	2	M8 x 1.25 x 15
8	Seal, Rectangular Ring	1	
9	Screw, Hex Flange Head Cap	12	M12 x 1.75 x 40
10	Plate, Cover	1	
11	Clip	1	
12	Gasket, Rear Cover	1	
13	Screw, Hex Flange Head Cap	8	



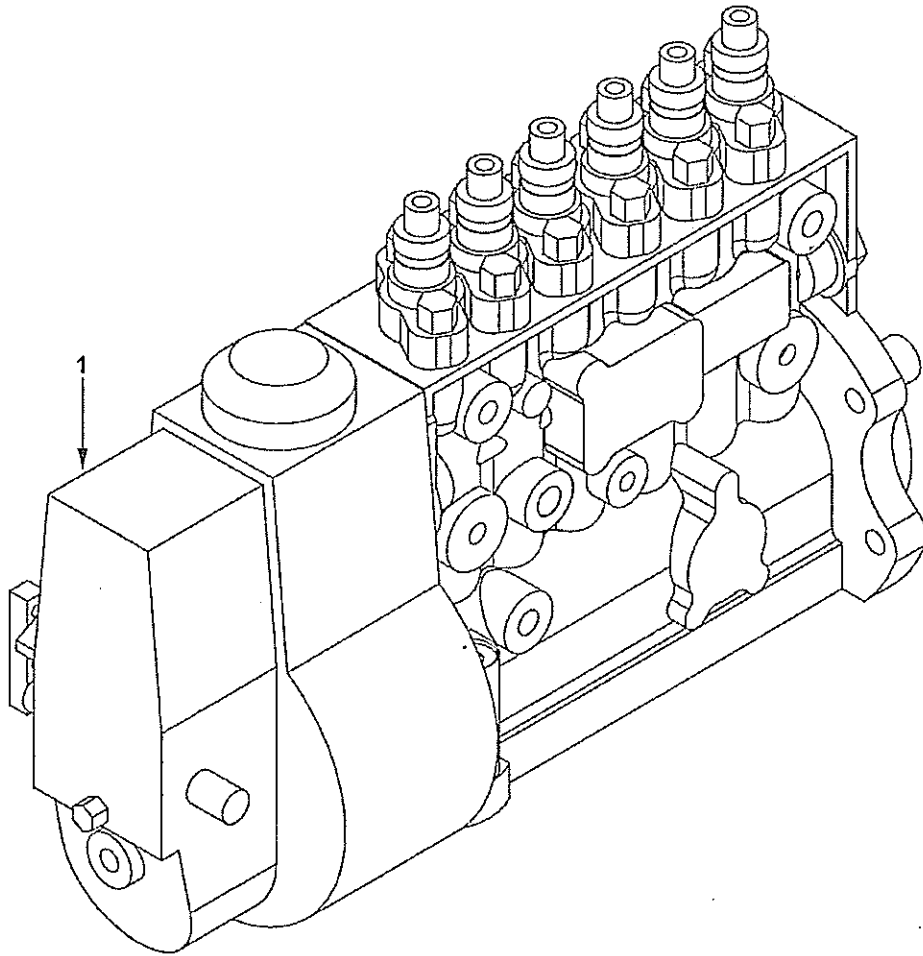
# Flywheel Housing



### Flywheel Housing

Ref No.	Part Name	Req	Remarks
	FLYWHEEL HOUSING		MR - HOUSING, FLYWHEEL Engine Design Phase: Current Product Wet/Dry Clutch: Dry SAE Size or Type: Oil Seal Starter Mount Thread Type: Metric Unique Feature: Premium Rear Crank Seal Flywheel Housing Attachment Provision: Cylinder Block Doweled for Oil Pan: No Engine Family: C Series Option Is For Customer Installed Flywheel Housing For Use at DEP Only
1	Cover, Rear	1	
2	Cover, Rear	1	
3	Seal, Oil	1	Sold In Higher Level Assy/Kit
4	Plug, O Ring	1	
5	Seal, O Ring	1	
6	Seal, Rectangular Ring	1	
7	Pickup, Magnetic	1	
8	Screw, Hex Flange Head Cap	12	M12 x 1.75 x 40
9	Clip	1	
10	Gasket, Rear Cover	1	
	Screw, Hex Flange Head Cap	8	

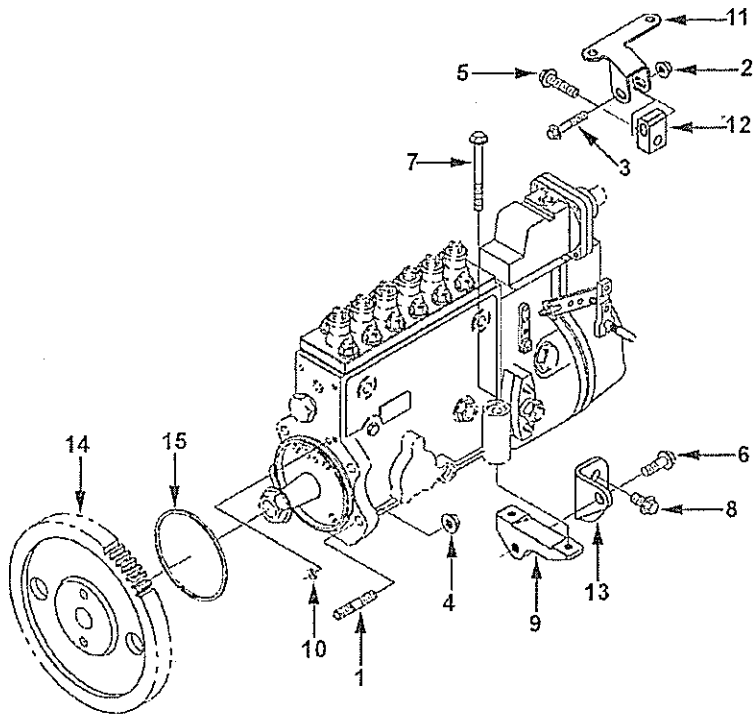
# Base Fuel Pump



## Base Fuel Pump

Ref No.		Part Name	Req	Remarks
1		BASE FUEL PUMP          Pump, Fuel Injection	1	MR - PUMP, FUEL Engine Family: C Series Engine Cylinders: 6 Advertised HP: 270 at 1800 RPM Fuel Pump Type: Inline Pump Pump Manufacturing/Model: Bosch P7100 Governor Type: RQVK Solenoid Mounting Location: Pump High Pressure Tube ID (mm): 1.8 Boost Control Provided: Yes Shutdown Device: Electrical Shutoff Lever Design: Direct Link Compatible Fuel Rating: FR91336 CPL: 8509 Certified By: EPA, IMO Certification Level: Tier 2, NOX Requirements of the IMO Marpol 73/78 Annex VI Regulation 13 Prime Power: 270 BHP at 1800 RPM Overload: 297 BHP at 1800 RPM

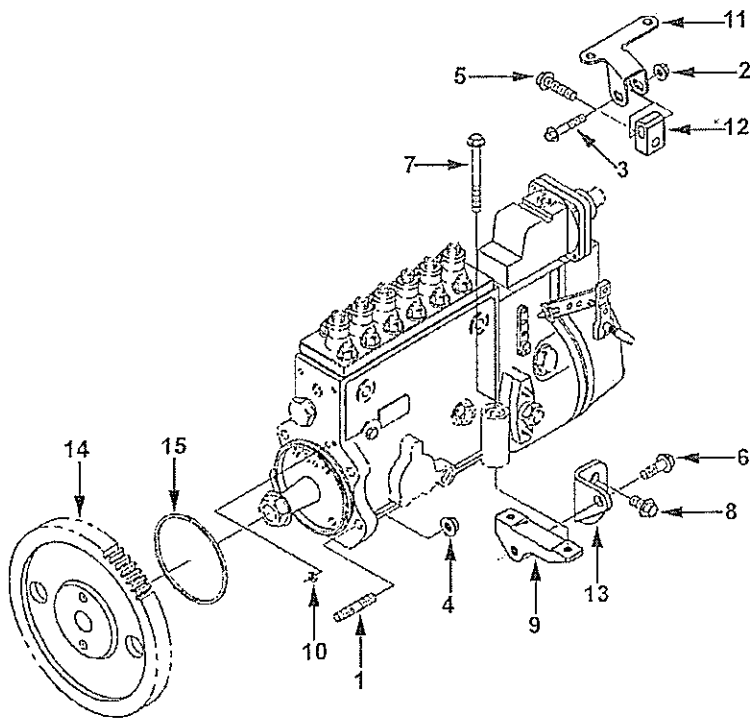
# Fuel Pump Coupling



### Fuel Pump Coupling

Ref No.	Part Name	Req	Remarks
	FUEL PUMP COUPLING		MR - COUPLING, FUEL PUMP Engine Family: C Series Boost Control Provision: Yes Engine Cylinders: 6 Engine Design Phase: Current Product Advertised Speed Restriction (< RPM): None Fuel Pump Manufacturing / Model: Bosch 7100 Aspiration: Jacket Water Aftercooled NOx Level: 6.0 Used With and Without "Dropped-In" Grid Heater Installed Compatible With Dimpled Aftercooler Used With Formed In Place Gasket BZL May Use Stud 3937123 Quantity 4 Instead of 3282372
1	Stud	4	
2	Nut, Hexagon Flange	1	M8 x 1.25
3	Screw, Hex Flange Head Cap	1	M8 x 1.25 x 45
4	Nut, Hexagon Flange	4	M10 x 1.50
5	Screw, Hex Flange Head Cap	1	M10 x 1.50 x 40
6	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 20
7	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 90
8	Screw, Hex Flange Head Cap	1	M10 x 1.00 x 30
9	Support, Fuel Pump	1	
10	Seal, Rectangular Ring	1	
11	Brace, Fuel Pump	1	
12	Support, Fuel Pump	1	
13	Support, Fuel Pump	1	
14	Gear, Fuel Pump	1	
15	Seal, O Ring	1	

# Fuel Pump Coupling

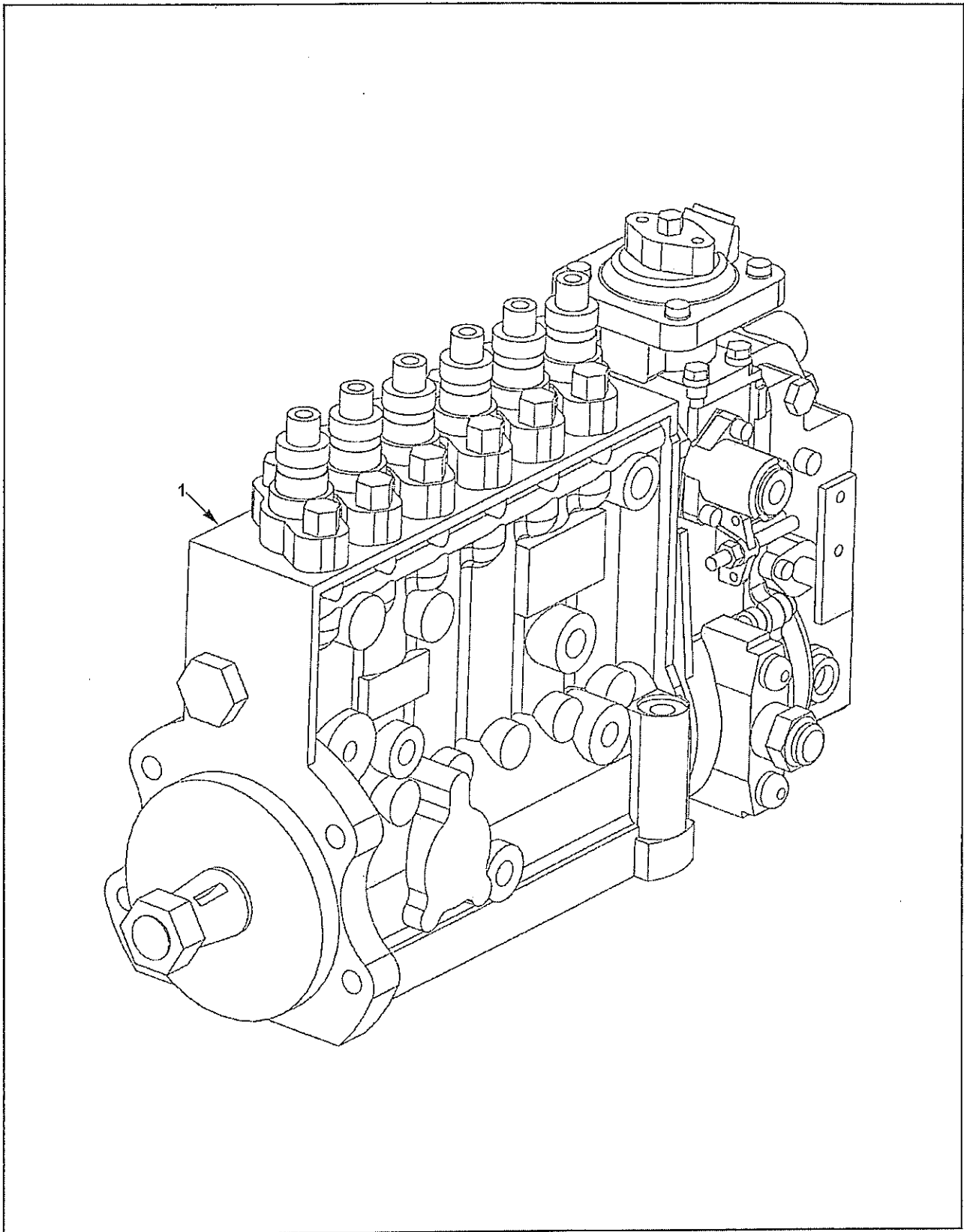


### Fuel Pump Coupling

Ref No.	Part Name	Req	Remarks
	FUEL PUMP COUPLING		MR - COUPLING, FUEL PUMP Engine Family: C Series Boost Control Provision: Yes Engine Cylinders: 6 Engine Design Phase: Current Product Advertised Speed Restriction (< RPM): None Fuel Pump Manufacturing / Model: Bosch P3000 Bosch P7100 Aspiration: Jacket Water Aftercooled NOx Level: 6.0 Used With and Without "Dropped-In" Grid Heater Installed Compatible With Dimpled Aftercooler Used With Formed In Place Gasket BZL May Use Stud 3937123 Quantity 4 Place of 3282372
1	Stud	4	
2	Nut, Hexagon Flange	1	M8 x 1.25
3	Screw, Hex Flange Head Cap	1	M8 x 1.25 x 45
4	Nut, Hexagon Flange	4	M10 x 1.50
5	Screw, Hex Flange Head Cap	1	M10 x 1.50 x 40
6	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 20
7	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 90
8	Screw, Hex Flange Head Cap	1	M10 x 1.00 x 30
9	Support, Fuel Pump	1	
10	Seal, Rectangular Ring	1	
11	Brace, Fuel Pump	1	
12	Support, Fuel Pump	1	
13	Support, Fuel Pump	1	
14	Gear, Fuel Pump	1	
15	Seal, O'Ring	1	



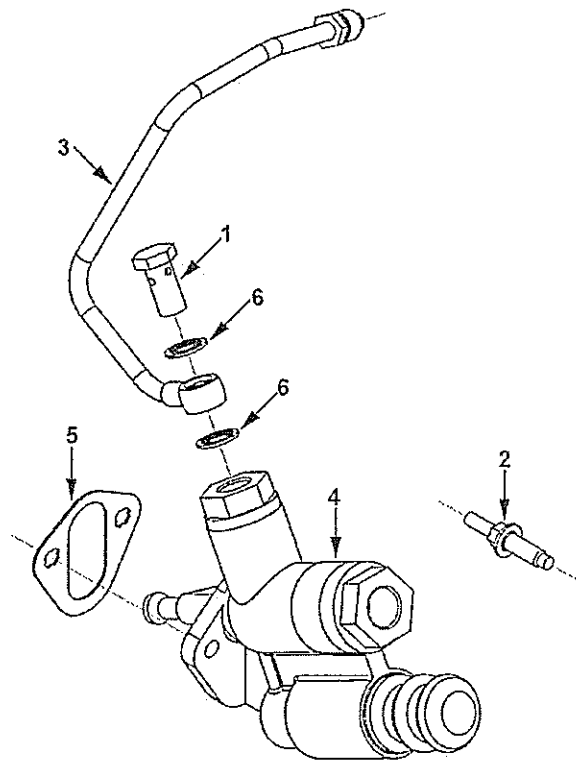
# Base Fuel Pump



Base Fuel Pump

Ref No.		Part Name	Req	Remarks
1		Pump, Fuel Injection	1	<p>BASE FUEL PUMP</p> <p>MR - PUMP, BASE FUEL</p> <p>Engine Family: C Series Engine Cylinders: 6 Advertised HP: 220 BHP Prime Power with 242 BHP Overload Capability at 1500 RPM Fuel Pump Type: Inline Pump Manufacturer/Model: Bosch P3000 High Idle: 1575 Governor Type: RSV High Pressure Tube ID (mm): 1.8 Shutdown Device: Manual Shutoff Lever Design: Direct Link Compatible Fuel Rating: FR90725 CPL: 2833 Certified By: CCNR, IMO Certification Level: Marpol, Tier 1 Peak Power: 242 Governor Break RPM: 1500 Governor Regulation (%): 5</p>

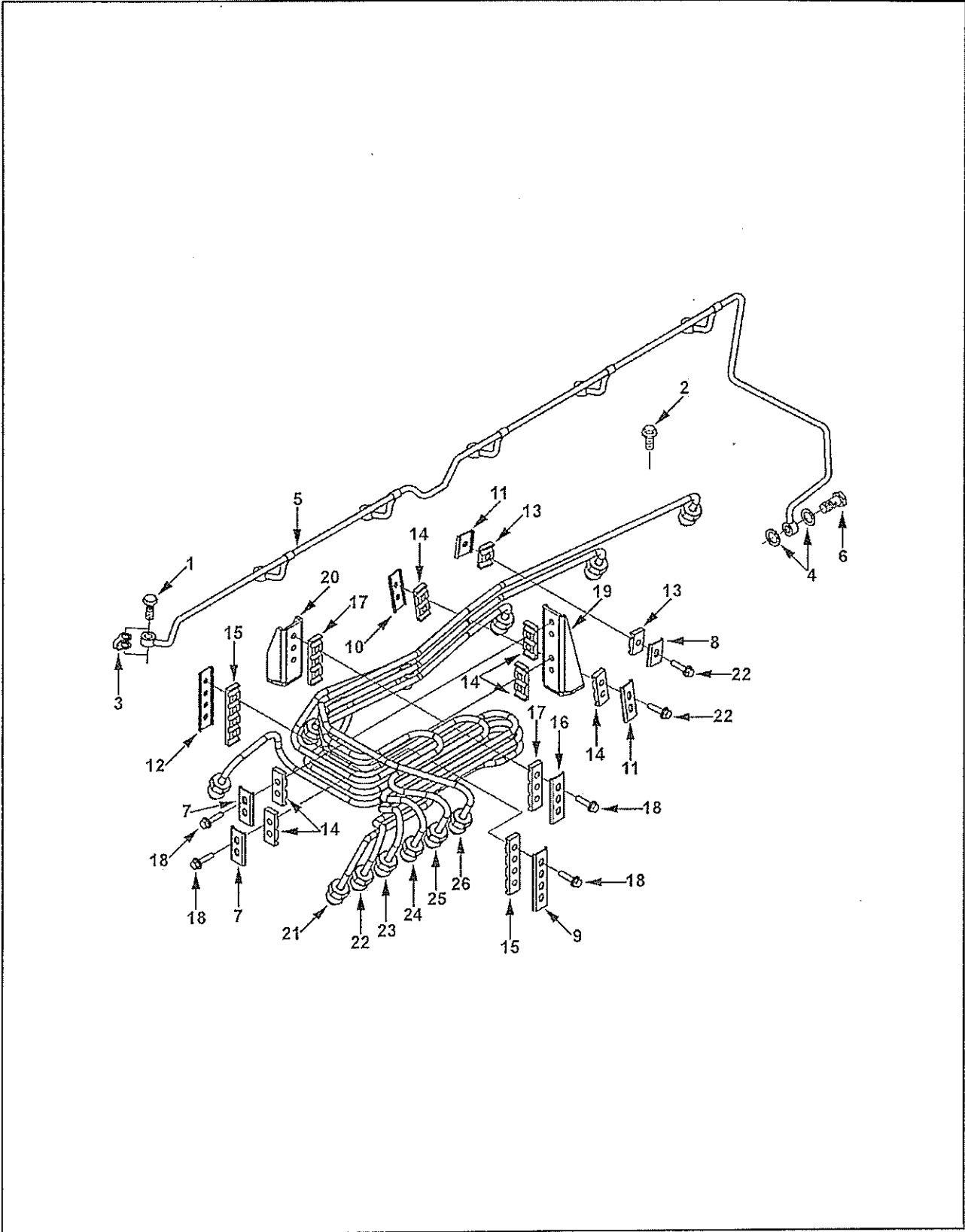
# Lift Pump



### Lift Pump

Ref No.	Part Name	Req	Remarks
	LIFT PUMP		MR - PUMP, LIFT Pump Style: Piston Pump Operation: Mechanical Pump Supplier: Cummins Pump Stand Measured Flow (LPH): 183-229 Pump Measured Flow (Pump RPM): 1250 Fuel Inlet Size: 1/2 - 14 NPTF Filter Location: #4 Cylinder Pre-Filter Provided: No Restricted Fuel Pump Angle (deg): 26 Unique Characteristics: Includes M6 Mounting Studs; Restricted Fuel Pump
1	Screw, Banjo Connector	1	
2	Screw, Hexagon Head Cap	2	
3	Tube, Fuel Supply	1	
4	Pump, Fuel Transfer	1	
5	Gasket, Cover Plate	1	
6	Washer, Sealing	2	

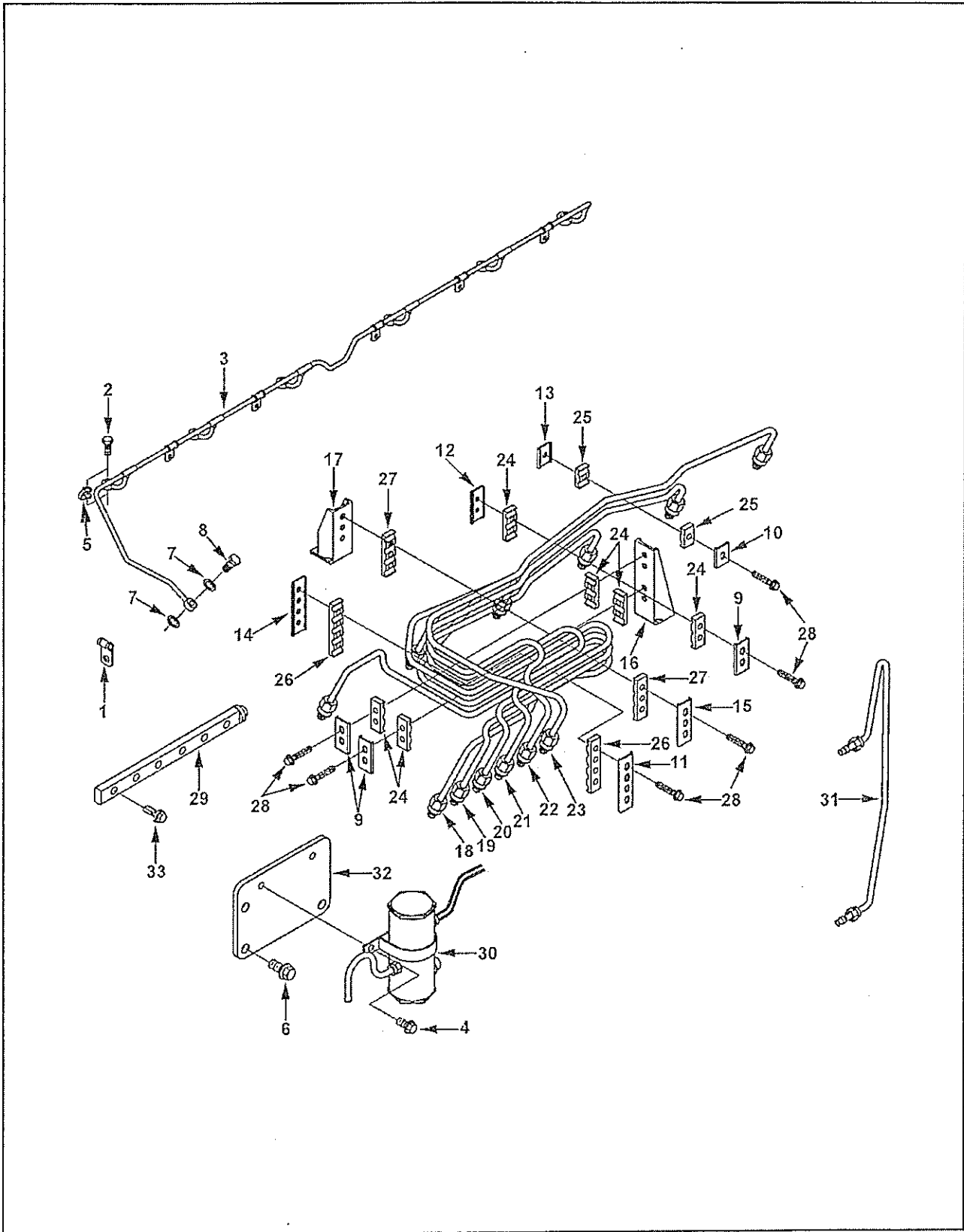
Fuel Plumbing



### Fuel Plumbing

Ref No.	Part Name	Req	Remarks
	<b>FUEL PLUMBING</b>		
			MR - PLUMBING, FUEL
			Engine Family: C Series
			Engine Cylinders: 6
			High Pressure Tube ID.: 1.8
			Fuel Pump Governor: RSV
			Boost Control: With
			Unique Characteristics: Metal Fuel Drain Manifold
			Restricted Aspiration: Turbocharged; Aftercooled
			Fuel Pump Manufacturer / Model: Bosch P3000
1	Screw, Banjo Connector	6	
2	Screw, Hex Flange Head Cap	1	M12 x 1.75 x 25
3	Seal, Banjo Connector	6	6.2mm
4	Washer, Sealing	2	8.0mm
5	Manifold, Fuel	1	
6	Valve, Check	1	M8 x 1.25 x 17.5
	Tube, Injector Fuel Supply	1	
7	Brace, Tube	3	
8	Brace, Tube	1	
9	Brace, Tube	1	
10	Brace, Tube	1	
11	Brace, Tube	1	
12	Brace, Tube	1	M5 x 0.80 x 20
13	Isolator, Vibration	2	
14	Isolator, Vibration	6	
15	Isolator, Vibration	2	
16	Brace, Tube	1	
17	Isolator, Vibration	2	
18	Screw, Captive Washer Cap	14	M5 x 0.80 x 20
19	Brace, Tube	1	
20	Brace, Tube	1	
21	Tube, Injector Fuel Supply	1	
22	Tube, Injector Fuel Supply	1	
23	Tube, Injector Fuel Supply	1	
24	Tube, Injector Fuel Supply	1	
25	Tube, Injector Fuel Supply	1	
26	Tube, Injector Fuel Supply	1	

# Fuel Plumbing

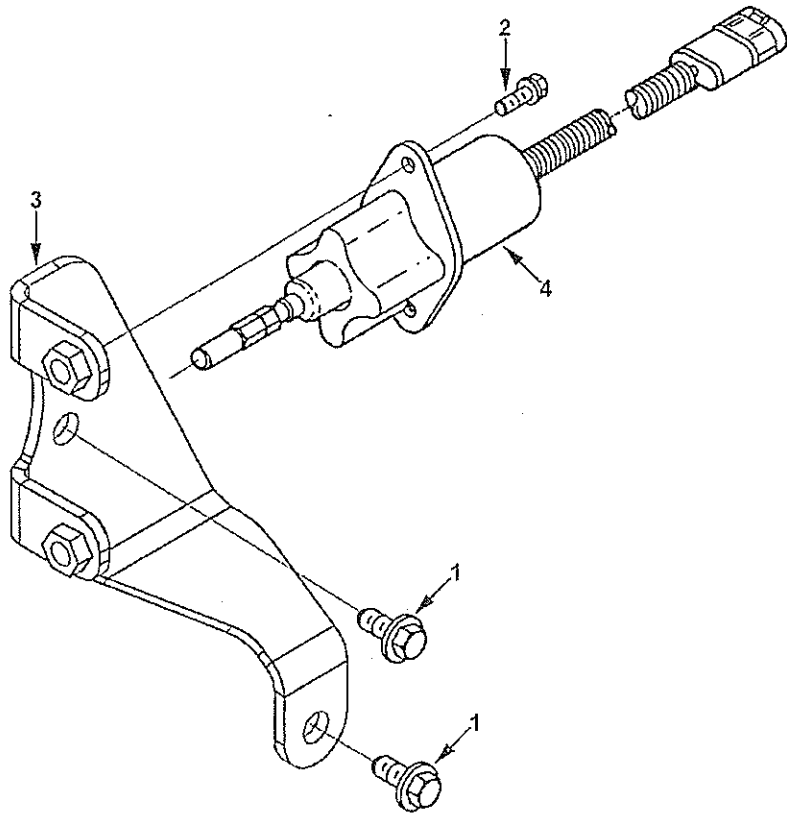


### Fuel Plumbing

Ref No.	Part Name	Req	Remarks
	<b>FUEL PLUMBING</b>		
			MR - PLUMBING, FUEL
			Engine Family: C Series
			Engine Cylinders: 6
			Dual Wall High Pressure Tube ID.: 1.8
			Fuel Pump Governor: RSV, RQVK
			Boost Control: With
			Unique Characteristics:
			Metal Fuel Drain Manifold
			Restricted Aspiration:
			Jacket Water Aftercooled
			Fuel Pump Manufacturer / Model:
			Bosch P3000
			Bosch P7100
			Fuel Lines Meet SOLAS Requirements
1	Clip	1	
2	Screw, Banjo Connector	6	
3	Manifold, Fuel	1	
4	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 16
5	Seal, Banjo Connector	6	6.2mm
6	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 20
7	Washer, Sealing	2	8.0mm
8	Valve, Check	1	M8 x 1.25 x 17.5
	Plumbing, Fuel	1	
	Tube, Injector Fuel Supply	1	
9	Brace, Tube	3	
10	Brace, Tube	1	
11	Brace, Tube	1	
12	Brace, Tube	1	
13	Brace, Tube	1	
14	Brace, Tube	1	M5 x 0.80 x 20
15	Brace, Tube	1	
16	Brace, Tube	1	
17	Brace, Tube	1	
18	Tube, Injector Fuel Supply	1	
19	Tube, Injector Fuel Supply	1	
20	Tube, Injector Fuel Supply	1	
21	Tube, Injector Fuel Supply	1	
22	Tube, Injector Fuel Supply	1	
23	Tube, Injector Fuel Supply	1	
24	Isolator, Vibration	6	
25	Isolator, Vibration	2	
26	Isolator, Vibration	2	
27	Isolator, Vibration	2	
28	Screw, Captive Washer Cap	14	M5 x .80 x 29.5
29	Manifold, Fuel	1	
33	Screw, Hex Flange Head Cap	6	
30	Tank, Fuel	1	
31	Tube, Fuel Drain	1	
32	Bracket, Fuel Tank	1	



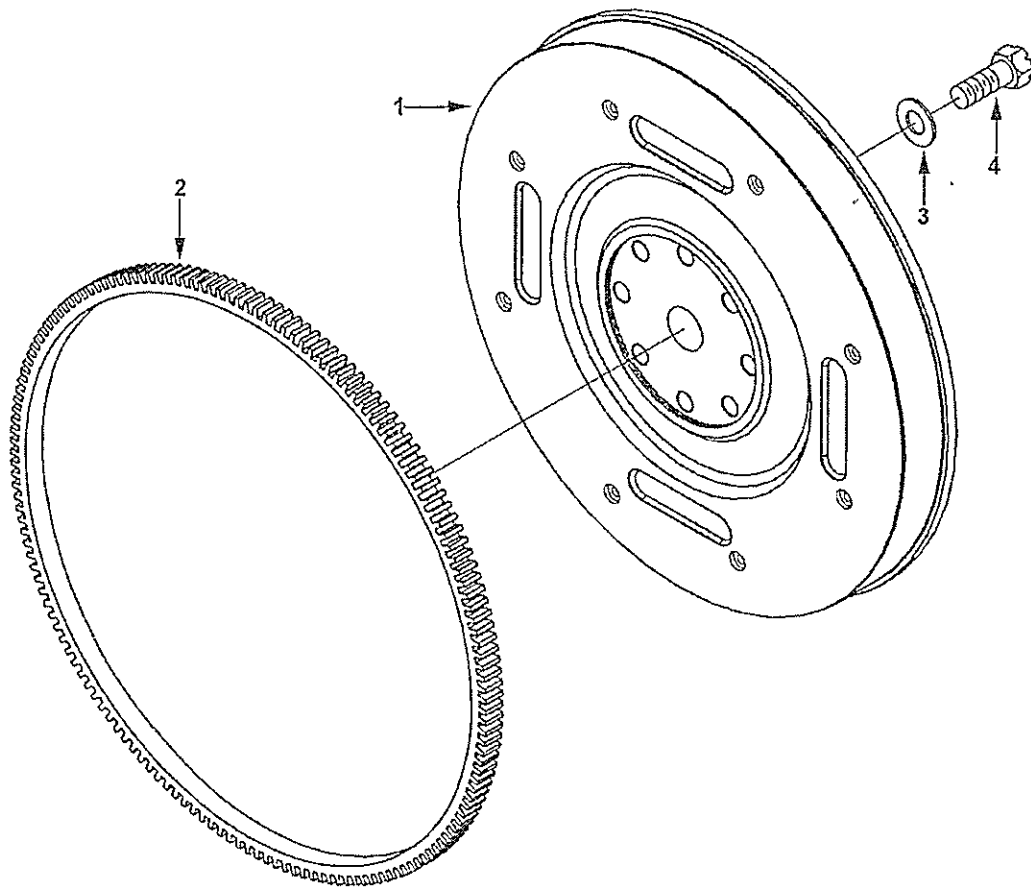
# Fuel Shutoff Valve



### Fuel Shutoff Valve

Ref No.	Part Name	Req	Remarks
	FUEL SHUTOFF VALVE		MR - VALVE, FUEL SHUTOFF Valve Activation: Electrical Engine Design Phase: Current Product Voltage: 24 Valve Manufacturer: Syncro- Start Shutoff Valve Supplier: Cummins Solenoid Activation: ATR Unique Characteristics: Direct Link Fuel Pump Cylinders: 6 Solenoid Lever Design: N/A Bolt-On Governor: No Fuel Pump Manufacturer / Model: Bosch P3000 Pump Governor Type: RSV Engine Family: C Series Solenoid to Oriented with Wiring Pigtail at 6 O'Clock Position When Mounted on Engine
1	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 20
2	Screw, Hex Flange Head Cap	2	M6 x 1.00 x 16
3	Solenoid, Fuel Pump	1	
4	Bracket, Solenoid	1	

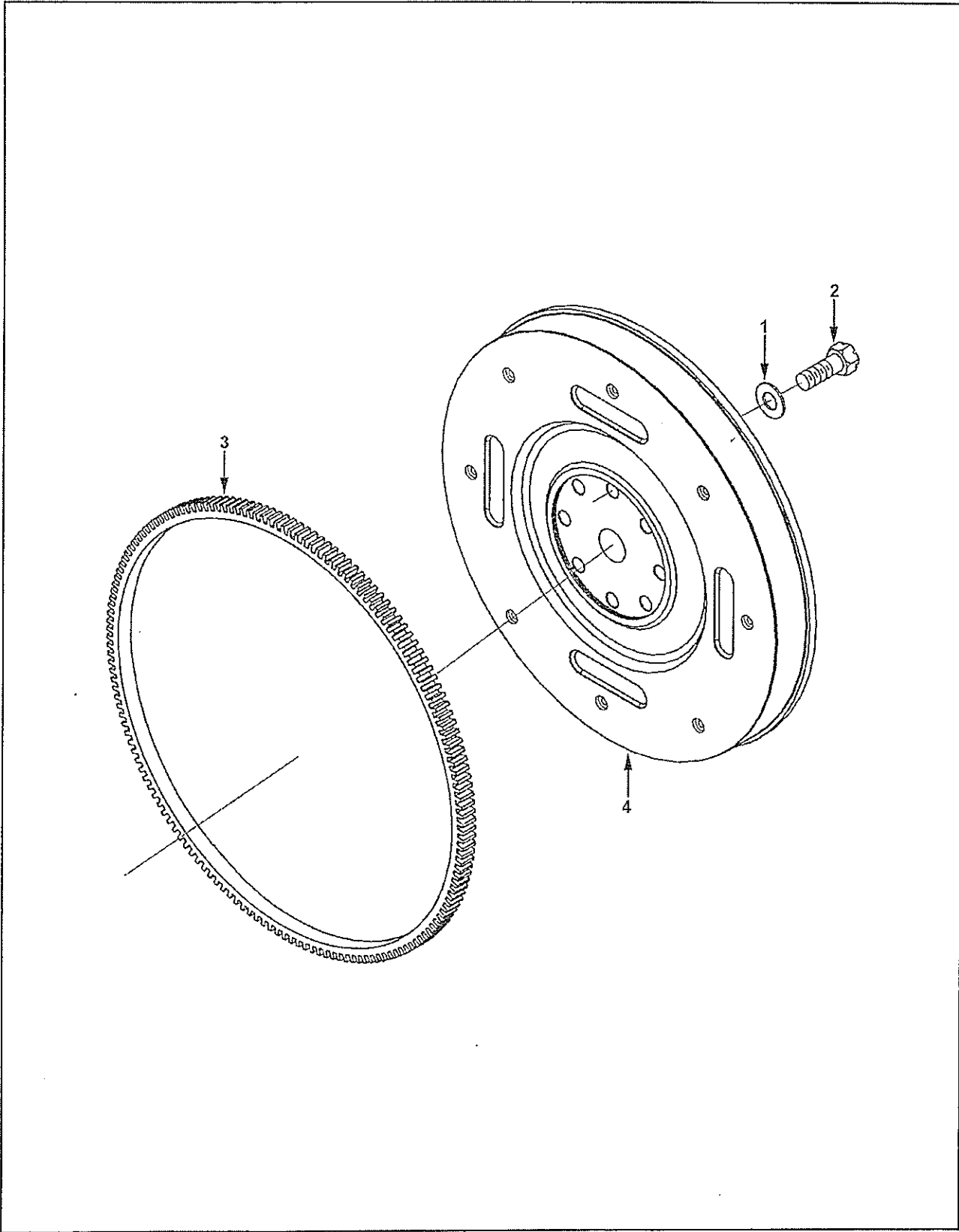
# Flywheel



## Flywheel

Ref No.	Part Name	Req	Remarks
	FLYWHEEL		MR - FLYWHEEL Type: Flywheel Housing SAE Size or Type: SAE 2 Intended Drive Hardware: 11 1/2 in. O.C. Clutch Material Specification: 41,044 Ring Gear Pitch: 8/10 Ring Gear Pitch Diameter (mm): 438.15 (17.25 in.) Ring Gear Tooth Count: 138 Crank Flange to Ring Gear Leading Edge (mm): 9.075 Maximum RPM: 3700 Pilot Bearing Bore Diameter (mm): 71.973 Clutch Mounting Bolt Circle (mm): 333.38 Clutch Mounting Hole Count: 8 Clutch Mounting Hole Nomenclature: 3/8-16 UNC Moment of Inertia (Kg/m2): 1.17 Required Starter Center Distance (mm): 234.19 Engine Family: C Series
1	Flywheel	1	
2	Flywheel	1	
3	Gear, Flywheel Ring	1	
4	Washer, Plain	8	M12
5	Screw, Hexagon Head Cap	8	M12 x 1.25 x 32

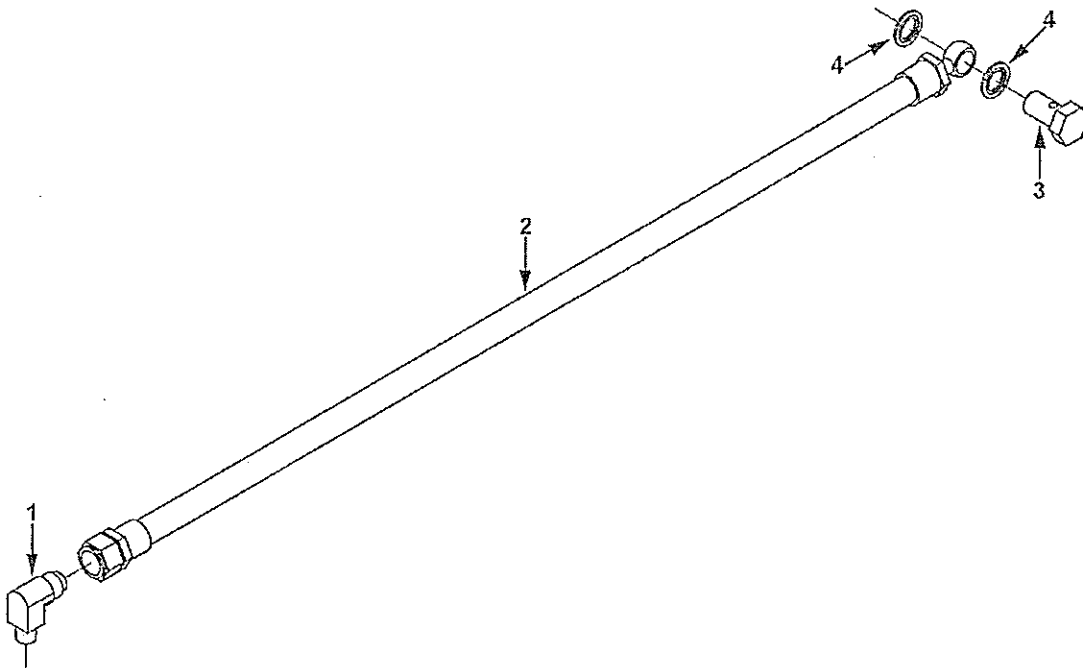
Flywheel



### Flywheel

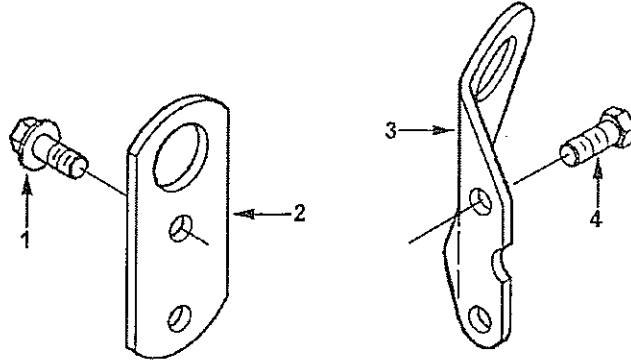
Ref No.	Part Name	Req	Remarks
	FLYWHEEL		MR - FLYWHEEL Engine Design Phase: Current Product Type: Flywheel Housing SAE Size or Type: SAE 1 Material Specification: 41,044 Ring Gear Pitch: 8/10 Ring Gear Pitch Diameter (mm): 501.65 (19.75 in.) Ring Gear Tooth Count: 158 Crank Flange To Ring Gear Leading Edge (mm): 15.80 Maximum RPM: 3270 Pilot Bearing Bore Diameter (mm): 80.000 Clutch Mounting Bolt Circle (mm): 438.15 Clutch Mounting Hole Count: 8 Clutch Mounting Hole Nomenclature: TBD Reduced Step Clearance for Starter: No Moment of Inertia (Kg/m2): 1.75 Required Starter Center Distance (mm): 256.1 Crank Mount Bolt Circle (mm): 110 Crank Mount Capscrew Quantity: 8 Ring Gear Supply Method: Mounted Engine Families: C Series Requires Viscous Damper for Applications Where Rated Speed or Governed Speed is 2201 RPM or Greater
1	Washer, Plain	8	M12
2	Screw, Hexagon Head Cap Flywheel	8	M12 x 1.25 x 50
3	Gear, Flywheel Ring	1	
4	Flywheel	1	

### Injection Pump Oil Supply



Ref No.	Part Name	Req	Remarks
	<b>INJECTION PUMP OIL SUPPLY</b>		MR - SUPPLY, INJECTION PUMP OIL External Oiling Provision: No Latch Out Provision: Yes Air Compressor Provision: No Connection Hose Material: M213 Restricted Fuel Pump Governor: RSV Location: #3 Hole Length (mm): 508 Orientation: 9:00 Engine Family: C Series Restricted Fuel Pump Manufacturing/Model: Bosch MW Bosch A Bosch P3000 DEP May Use 3280572 in Place of 3918002
1	Elbow, Male Adapter	1	1/8 NPTF x 7/16-20 (90)
2	Hose, Flexible	1	
3	Screw, Banjo Connector	1	M10 x 1.00 x 19
4	Washer, Sealing	2	

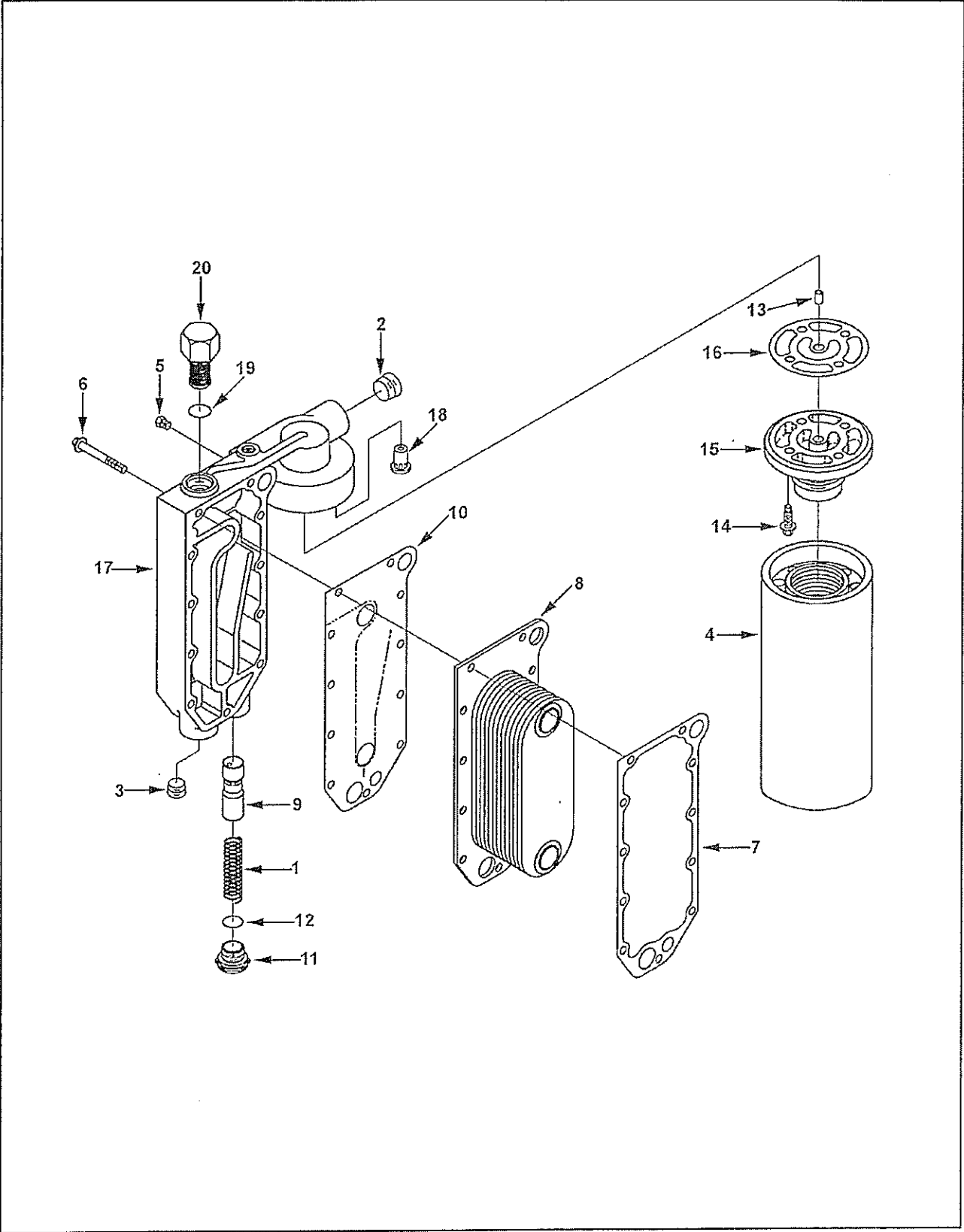
## Lifting Bracket



Ref No.	Part Name	Req	Remarks
	LIFTING BRACKET		MR - BRACKET, LIFTING Engine Family: C Series Capscrew Length (mm): 25 Allows for Intake Trunking: No Max Lifting Loads (lbs.): 2000 Bracket Pre-Painted: No Bracket(s) Provided: Front and Rear
1	Screw, Hex Flange Head Cap	2	M12 x 1.75 x 25
2	Bracket, Front Lifting	1	
3	Bracket, Rear Lifting	1	
4	Screw, Hexagon Head Cap	2	M12 x 1.75 x 25



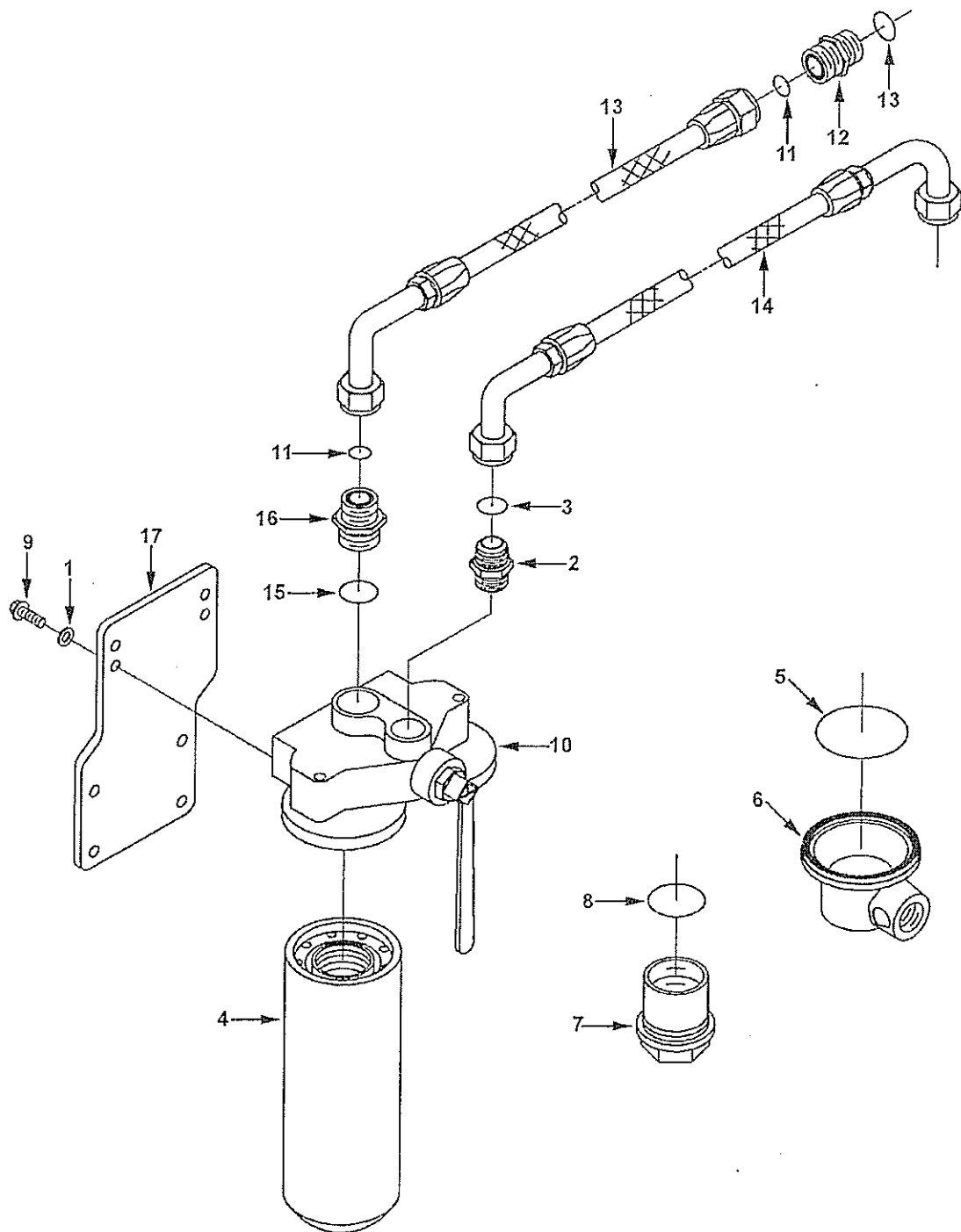
Engine Oil Cooler



### Engine Oil Cooler

Ref No.	Part Name	Req	Remarks
	ENGINE OIL COOLER		MR - COOLER, LUBE OIL Cylinders: 6 Cooler Type: Plate Mounting Position/Location: Vertical Filter Material: Cellulose Unique Characteristics: With Full Flow Bypass Filter Filter Head Thickness (mm): 43.50 Engine Families: C Series Restricted Aspiration: Charged Air Cooled Jacket Water Aftercooled Sea Water Aftercooled Turbocharged Pressure Relief Set 65 PSI
1	Spring, Compression	1	
2	Plug, Pipe	1	1/2 NPT
3	Plug, Pipe	1	3/4 NPT
4	Element, Lub Oil Filter	1	
5	Plug, Pipe	2	1/8 NPT
6	Screw, Hex Flange Head Cap	11	
7	Gasket, Oil Cooler Core	1	
8	Core, Cooler	1	
9	Plunger, Prs Regulator	1	
10	Gasket, Lub Oil Cir Cover	1	
	Plug, Threaded	1	
11	Plug, Threaded	1	
12	Seal, O Ring	1	
	Head, Lub Oil Filter	1	
13	Dowel, Ring	1	
14	Screw, Hex Flange Head Cap	4	M8 x 1.25 x 25
15	Head, Lub Oil Filter	1	
16	Gasket, Connection	1	
17	Cover, Lub Oil Cooler	1	
18	Valve, Pressure Relief	1	
	Valve, Bypass	1	
19	Seal, O Ring	1	
20	Valve, Bypass	1	

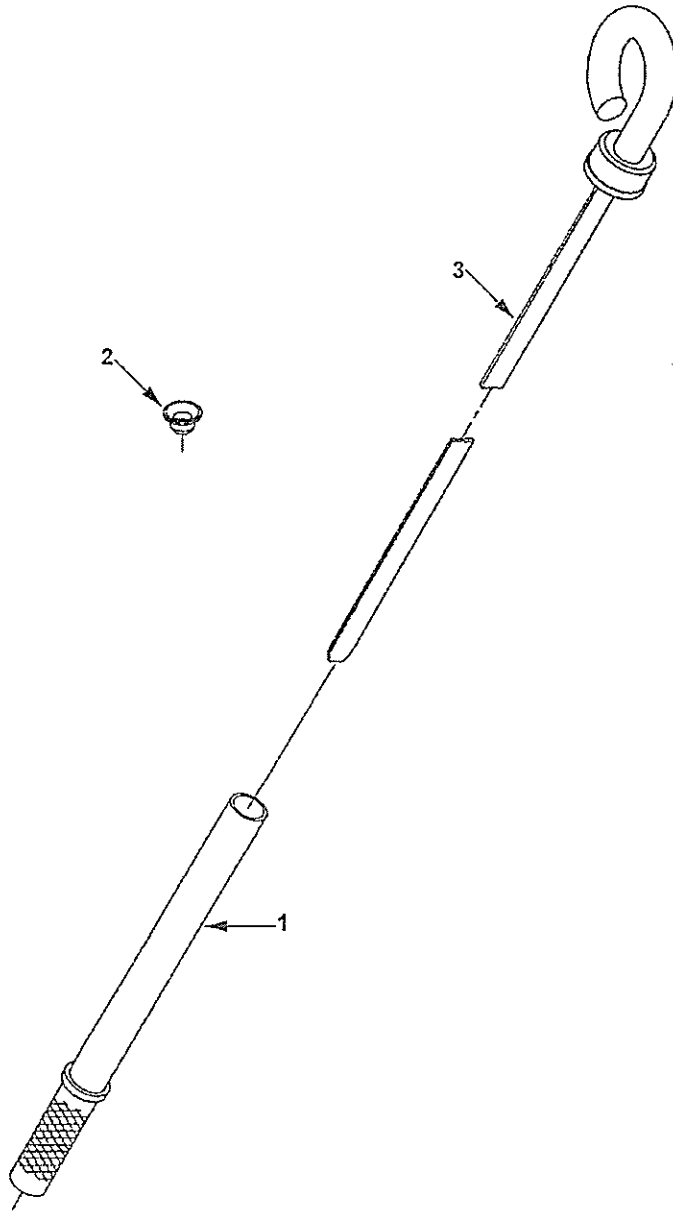
# Duplex Oil Filter



### Duplex Oil Filter

Ref No.	Part Name	Req	Remarks
	DUPLEX OIL FILTER		MR - FILTER, DUPLEX OIL Cylinders: 6 Element Type: Dual Element Style: Spin-On Filter Location: Remote Mounted Installation Responsibility: Customer Engine Family: C Series Marine Auxiliary Restricted Aspiration: Jacket Water Air Cooled
1	Washer, Plain	4	M10
	Union, Male	1	
2	Union, Male	1	
3	Seal, O Ring	1	
4	Element, Lub Oil Filter	2	
5	Seal, O Ring	1	
6	Cover, Filter Head	1	
7	Adapter, Filter Head	1	
8	Seal, O Ring	1	
9	Screw, Hex Flange Head Cap	4	M10 x 1.50 x 30
10	Head, Lub Oil Filter	1	
	Union, Male	1	
3	Seal, O Ring	1	
11	Seal, O Ring	1	
12	Union, Male	1	
13	Hose, Flexible	1	
14	Hose, Flexible	1	
	Union, Male	1	
11	Seal, O Ring	1	
15	Seal, O Ring	1	
16	Union, Male	1	
17	Bracket, Filter	1	

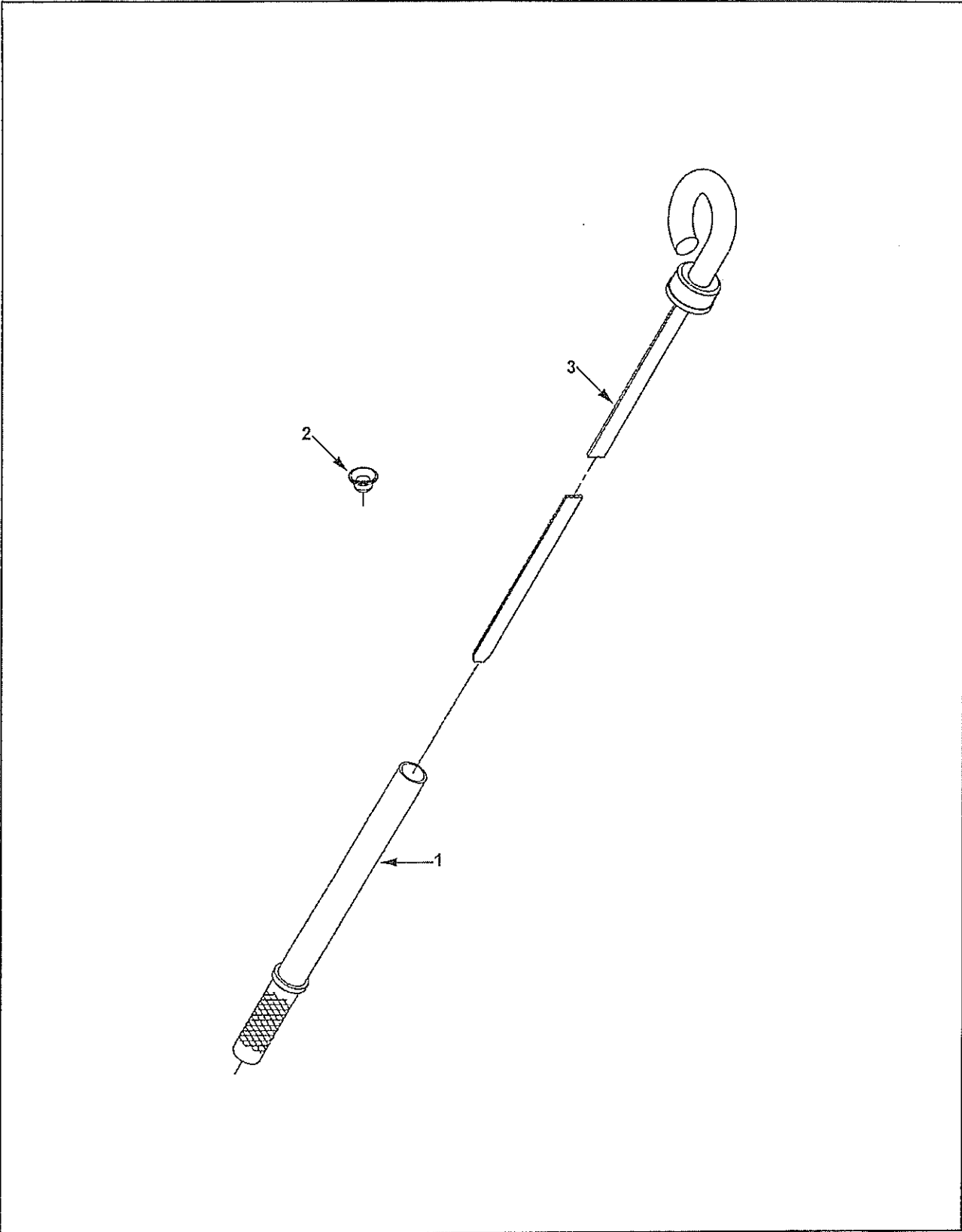
# Oil Level Gauge



### Oil Level Gauge

Ref No.	Part Name	Req	Remarks
	OIL LEVEL GAUGE		MR - GAUGE, LUBE OIL Engine Design Phase: Current Product Engine Family: C Series Cylinders: 6 Supplier: Cummins Oil Pan High Limit (qt): 20 Oil Pan Low Limit (qt): 16 Oil Pan Sump: Front or Rear Entry Location from Front Face of Block (mm): 428.0 Tube Block Entry Side: Fuel Pump Side Power Angle (deg): 0 Engine Tilt (deg): 0 Pull Direction: Vertical Tube Termination Side: Fuel Pump side Tube Effective Length (mm): 65 Restricted Breather Type: Open Restricted Fuel Pump Type: Inline Cannot Use in Conjunction With Hydraulic Pump Mounted on Rear of Air Compressor With This Combination, Use Dipstick on Exhaust Side of Engine BZL May Use Dipstick P/N 3357062 With Tube P/N 3357073 In Place of Dipstick P/N 3908772 With Tube 3279104
1	Tube, Oil Gauge	1	
2	Plug, Expansion	1	
3	Dipstick	1	

Oil Level Gauge

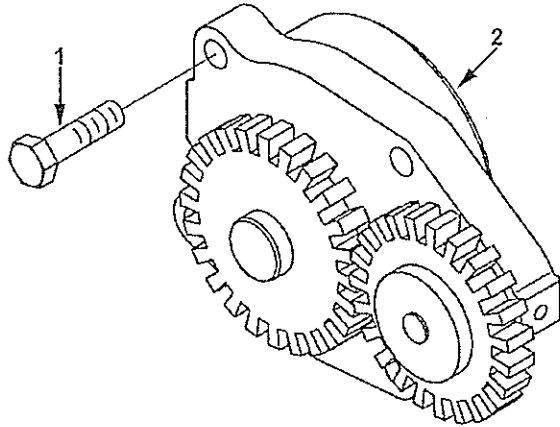


### Oil Level Gauge

Ref No.	Part Name	Req	Remarks
	OIL LEVEL GAUGE		MR - GAUGE, OIL LEVEL Engine Design Phase: Current Product Engine Family: C Series Cylinders: 6 Supplier: Cummins Oil Pan High Limit (qt): 20 Oil Pan Low Limit (qt): 16 Oil Pan Sump: Center Entry Location from Front Face of Block (mm): 428.0 Tube Block Entry Side: Fuel Pump Side Power Angle (deg): 0 Engine Tilt (deg): 0 Pull Direction: Vertical Tube Termination Side: Fuel Pump Side Tube Effective Length (mm): 65 Restricted Breather Type: Open Restricted Fuel Pump Type: Inline Brazil May Use Dipstick P/N 3357058 With Tube P/N 3357073 in Place of Dipstick 3906757 With Tube 3279104
1	Tube, Oil Gauge	1	
2	Plug, Expansion	1	
3	Dipstick	1	

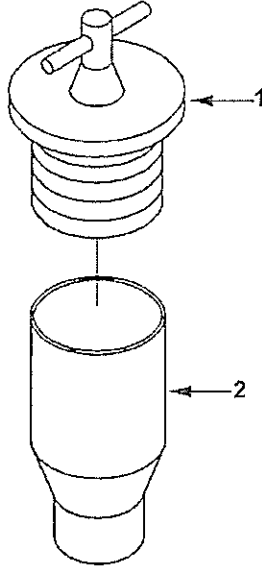


### Lube Oil Pump



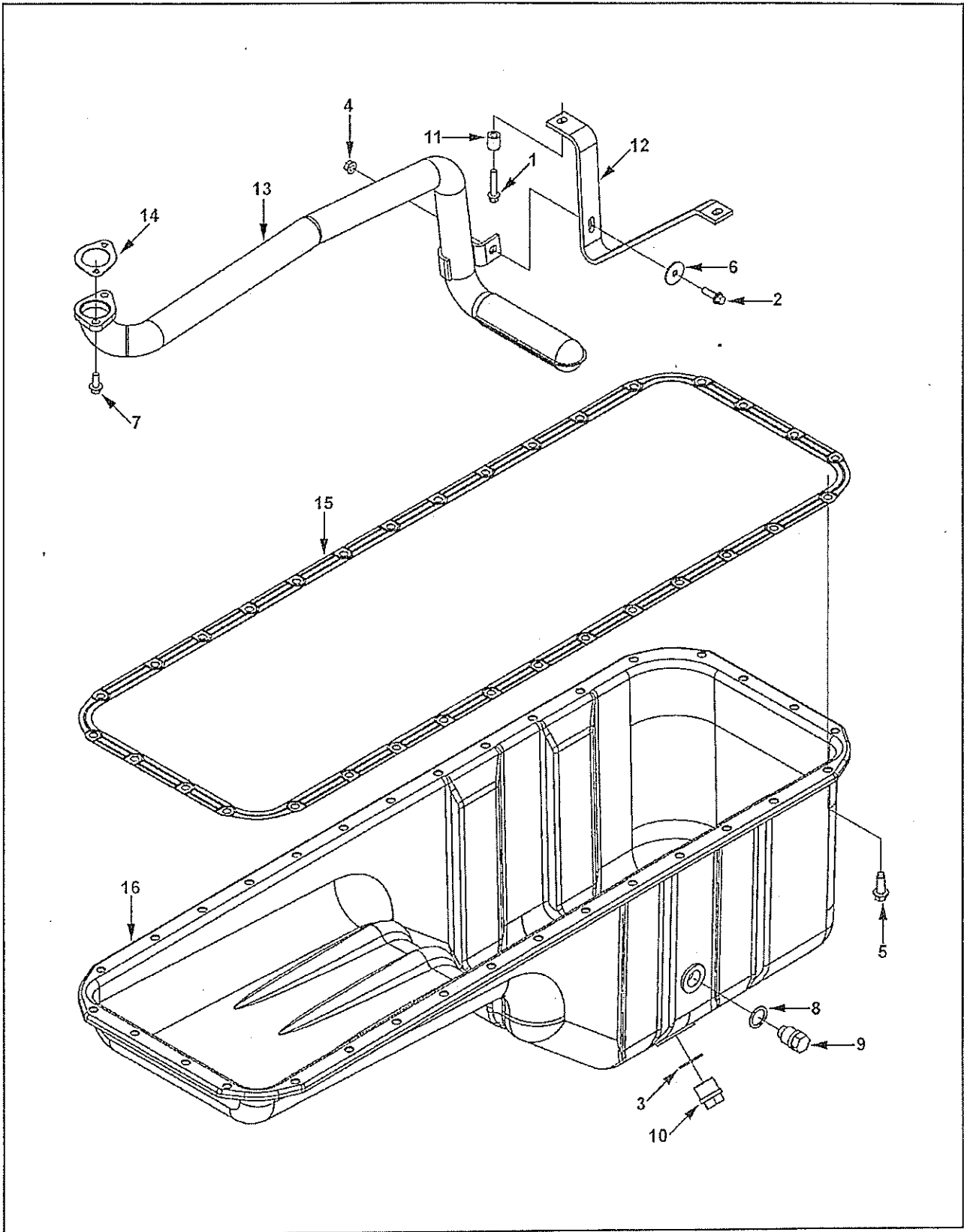
Ref No.	Part Name	Req	Remarks
	<b>LUBE OIL PUMP</b>		<p>MR - PUMP, LUBE OIL</p> <p>Engine Design Phase: Current Product                      Pump Drive: Non-Crank Concentric                      Body Material: Cast Iron Body                      Flow Rate (GPM @ RPM): 27.5 @ 2200                      Gear Type: Steel HCR Gear                      Piston Cooling Method: Saddle Jet                      Engine Families: C Series                      Cylinders: 6                      Engine Aspiration:                      Charge Air Cooled                      Jacket Water Aftercooled                      Naturally Aspirated                      Sea Water Aftercooled                      Turbocharged</p>
1	Kit, Lube Pump	1	Recon Equivalent 3800828 RX
2	Pump, Lubricating Oil	1	
	Screw, Hexagon Head Cap	4	M8 x 1.25 x 30

### Cylinder Block Cover



Ref No.	Part Name	Req	Remarks
	CYLINDER BLOCK COVER		MR - COVER, CYLINDER BLOCK Engine Family: C Series Fill Tube Supplier: Cummins Oil Fill Location: Fuel Pump Side Fill Position from Front Face of Block (mm): 496.5 Position Vertical from Crank Centerline (mm): 266.1 Position Horizontal from Crank Centerline (mm): 187.9 Fill Cap Supplier: Cummins
1	Cap, Filler	1	
2	Tube, Oil Filler	1	

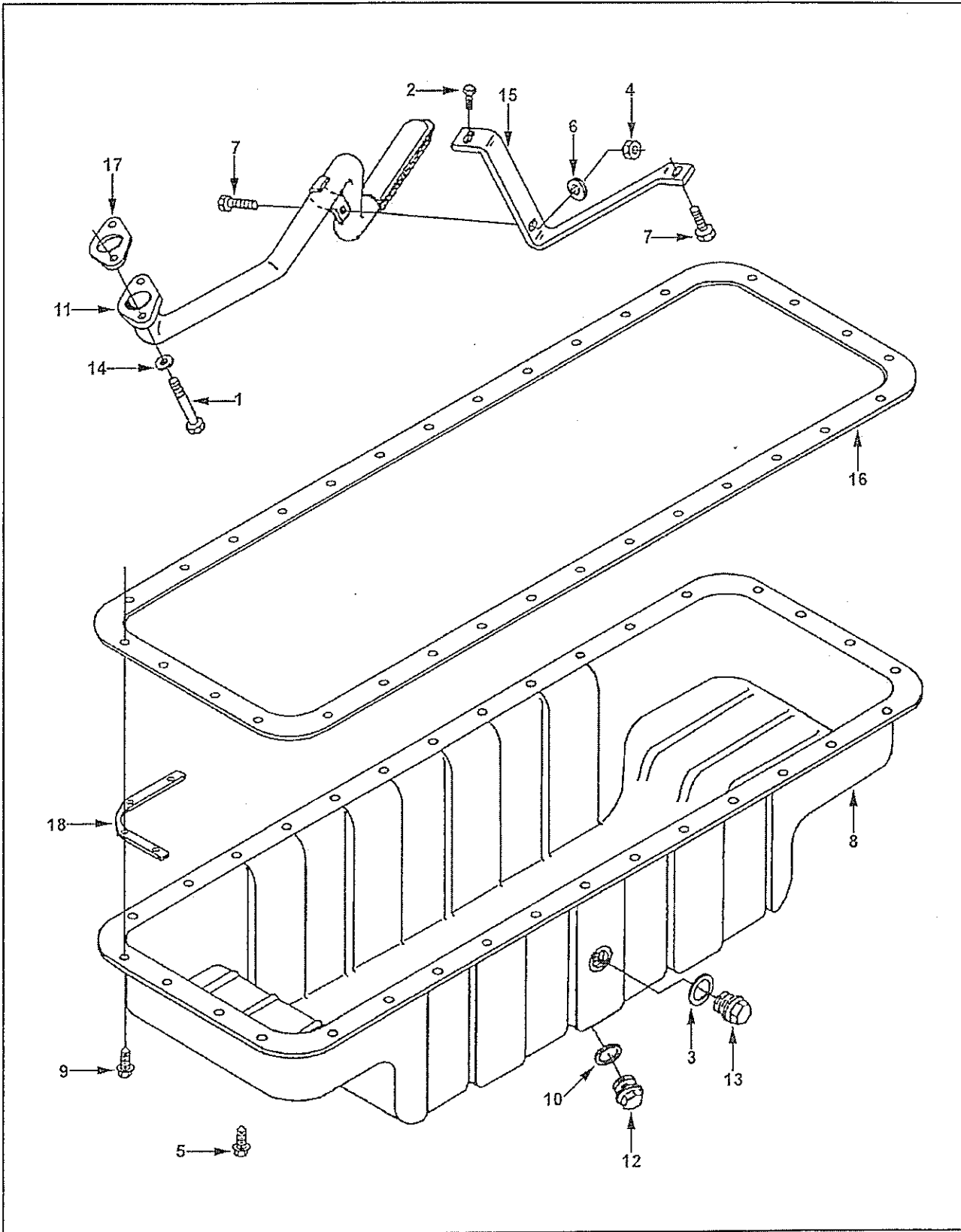
# Oil Pan



### Oil Pan

Ref No.	Part Name	Req	Remarks
	OIL PAN		MR - PAN, OIL Family: C Series Cylinders: 6 Sump Style: Standard Sump Location: Rear Oil Pan Material: Stamped Steel Drain Location: Fuel Pump Side Pan High Capacity (qt): 20 (18.921 L) Pan Low Capacity (qt): 16 (15.137 L) Front Up Angularity (deg): 45 Front Down Angularity (deg): 45 Pan Side to Side Angularity (deg): 45 Oil Pan Type: Non-Isolated Internally Cast Suction Tube: No Required Oil Filter Medium: Cellulose Oil Heater Thread Provision: No Oil Level Sensor Provision: No Doweled For Flywheel Housing: No Engine Design Phase: Current Product Pan Includes Full Perimeter Clamping Plates Heater Boss Size & Location: 22mm Fuel Pump Washer 3910960 Must Be Assembled Between Fastener Bearing Surface and Brace 3927611 DEP May Use 3282266 Plug in Place of 3924148 Plug
1	Screw, Hex Flange Head Cap	2	M6 x 1.00 x 30
2	Screw, Hex Flange Head Cap	1	M6 x 1.00 x 20
3	Washer, Sealing	1	
4	Nut, Hexagon Flange	1	M6 x 1.00
5	Screw, Hex Flange Head Cap	32	M8 x 1.25 x 25
6	Washer, Plain	1	M6
7	Screw, Hex Flange Head Cap	2	M6 x 1.00 x 16
8	Washer, Sealing	1	
9	Plug, Threaded	1	
10	Plug, Threaded	1	
11	Spacer, Mounting	2	
12	Brace, Tube	1	
13	Connection, Oil Suction	1	
14	Gasket, Oil Suc Connection	1	
15	Gasket, Oil Pan	1	
16	Pan, Oil	1	

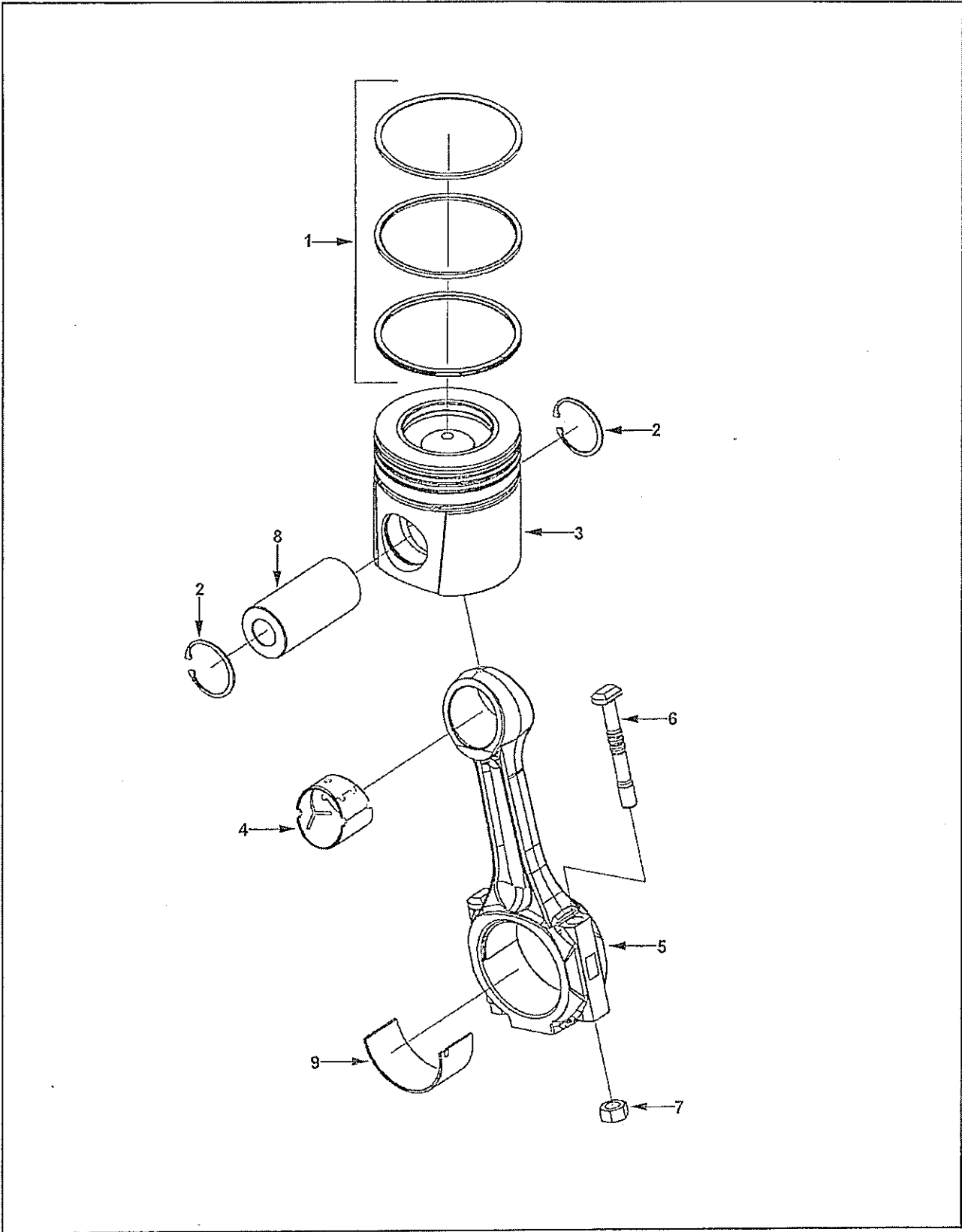
# Oil Pan



### Oil Pan

Ref No.	Part Name	Req	Remarks
	OIL PAN		<p>MR - PAN, OIL</p> <p>Engine Family: C Series            Cylinders: 6            Sump Style: Standard            Sump Location: Center            Oil Pan Material: Stamped Steel            Drain Location: Fuel Pump Side            Pan High Capacity (qt): 20 (18.921 L)            Pan Low Capacity (qt): 16 (15.137 L)            Pan Front Up Angularity (deg): 35            Pan Front Down Angularity (deg): 35            Pan Side To Side Angularity (deg): 45            Oil Pan Type: Non-Isolated            Internally Cast Suction Tube: No            Required Oil Filter Medium: Cellulose            Oil Heater Thread Provision: No            Oil Level Sensor Provision: No            Doweled for Flywheel Housing: No            Engine Design Phase: Current Product            Corner Pan Stiffener Provided: No            Heater Boss Size &amp; Location: 22mm, Fuel Pump            Washer 3910960 Must Be Assembled Between Fastener Bearing Surface and Brace 3927611            DEP May Use 3282266 Plug in Place of 3924148 Plug. Pan            Pan Includes Full Perimeter Clamping Plates</p>
1	Screw, Hex Flange Head Cap	2	M6 x 1.00 x 30
2	Screw, Hex Flange Head Cap	1	M6 x 1.00 x 20
3	Washer, Sealing	1	
4	Nut, Hexagon Flange	1	M6 x 1.00
5	Screw, Hex Flange Head Cap	32	M8 x 1.25 x 25
6	Washer, Plain	1	M6
7	Screw, Hex Flange Head Cap	2	M6 x 1.00 x 16
8	Pan, Oil	1	
10	Washer, Sealing	1	
11	Connection, Oil Suction	1	
12	Plug, Threaded	1	
13	Plug, Threaded	1	
14	Spacer, Mounting	2	
15	Brace, Tube	1	
16	Gasket, Oil Pan	1	
17	Gasket, Oil Suc Connection	1	
18	Pan, Oil	1	

# Connecting Rod and Pistons

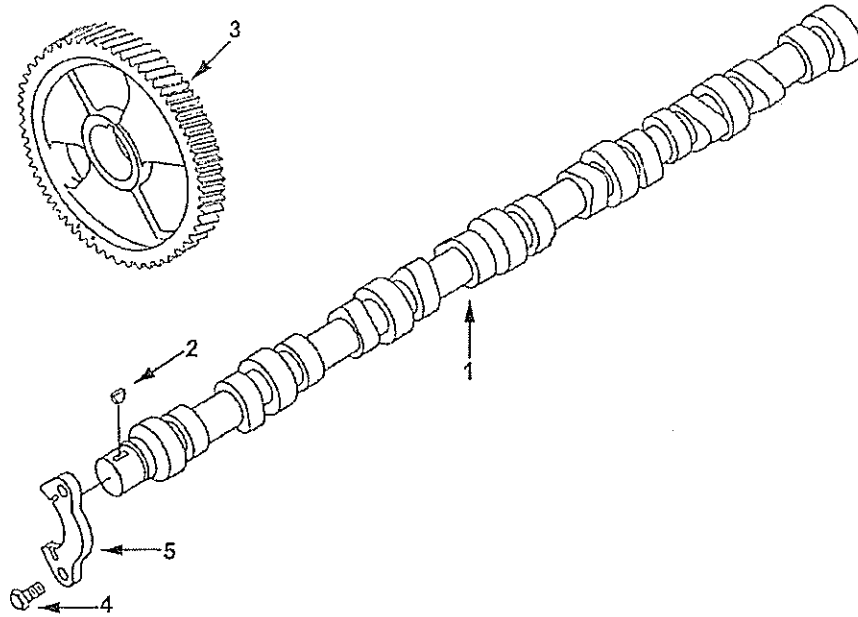


### Connecting Rod and Pistons

Ref No.	Part Name	Req	Remarks
	CONNECTING ROD AND PISTONS		MR - PISTONS, CONNECTING ROD AND Performance Parts For: 6CTA8.3 Litre Engine Family: C Series CPL: 2833 Certified By: EPA, LR Certification Level: NOx Requirements of the International Maritime Organization (IMO) Marpol 73/78 Annex VI, Regulation 13 Cylinders: 6 Exhaust Manifold Type: Wet Aspiration: Turbocharged Aftercooled Fuel Pump Model: Bosch P3000 High Pressure Fuel Line ID (mm): 1.8 Cylinder Head Valve Material: Premium Cylinder Head Valve Inserts: No Valve Bridge Scalloping: No Required Cylinder Head Swirl: Low Required Lube Pump Flow (GPM at RPM): 20.5 @ 4200 Base Turbocharger ID17: 3593680
1	Piston, Engine	6	
2	Set, Piston Ring	1	
3	Ring, Retaining	2	
4	Piston, Engine	1	Sold In Higher Level Assy/Kit
5	Rod, Engine Connecting	1	
6	Bolt, Connecting Rod	2	
7	Nut, Connecting Rod	2	
8	Rod, Engine Connecting	1	
9	Bushing	1	
	Pin, Piston	1	
	Bearing, Connecting Rod	2	Lower

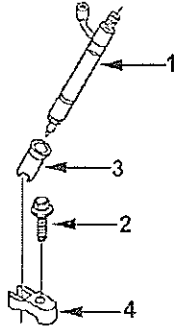


# Camshaft



Ref No.	Part Name	Req	Remarks
1	CAMSHAFT	1	MR - CAMSHAFT
2	Camshaft	1	Performance Parts For: 6CTA8.3 Litre
3	Key, Plain Woodruff	1	Engine Family: C Series
4	Gear, Camshaft	1	CPL: 2833
5	Screw, Hexagon Head Cap	2	Cylinders: 6
	Support, Camshaft Thrust	1	Base Turbocharger ID17: 3593680
			M8 x 1.25 x 22

## Fuel Injector

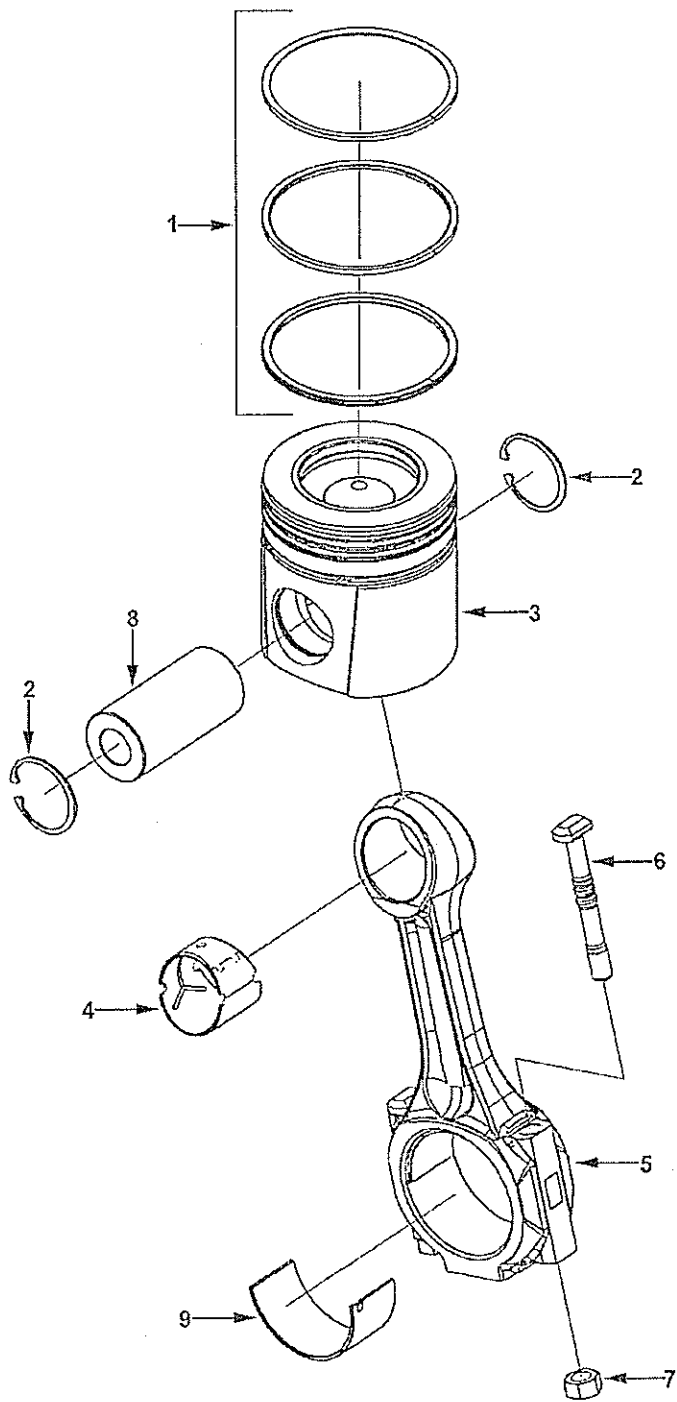


Ref No.	Part Name	Req	Remarks
	<b>FUEL INJECTOR</b>		
1	Injector	6	MR - INJECTOR, FUEL
2	Injector	1	Engine Family: C Series
3	Screw, Hex Flange Head Cap	6	Engine Design: 6CTA8.3 Litro
4	Seal, Injector	1	CPL: 2833
	Clamp, Injector	6	Base Turbocharger ID17: 3593680
			Sold In Higher Level Assy/Kit
			M8 x 1.25 x 80

### Fuel Injector

Ref No.	Part Name	Req	Remarks
	FUEL INJECTOR OPTION PP2833		CPL 2833
8	Shim	A/R	1.00 mm Thick
8	Shim	A/R	1.04 mm Thick
8	Shim	A/R	1.08 mm Thick
8	Shim	A/R	1.10 mm Thick
8	Shim	A/R	1.14 mm Thick
8	Shim	A/R	1.18 mm Thick
8	Shim	A/R	1.20 mm Thick
8	Shim	A/R	1.24 mm Thick
8	Shim	A/R	1.28 mm Thick
8	Shim	A/R	1.30 mm Thick
8	Shim	A/R	1.34 mm Thick
8	Shim	A/R	1.38 mm Thick
8	Shim	A/R	1.40 mm Thick
8	Shim	A/R	1.44 mm Thick
8	Shim	A/R	1.48 mm Thick
8	Shim	A/R	1.50 mm Thick
8	Shim	A/R	1.54 mm Thick
8	Shim	A/R	1.58 mm Thick
8	Shim	A/R	1.60 mm Thick
8	Shim	A/R	1.64 mm Thick
8	Shim	A/R	1.68 mm Thick
8	Shim	A/R	1.70 mm Thick
8	Shim	A/R	1.74 mm Thick
8	Shim	A/R	1.78 mm Thick
8	Shim	A/R	1.80 mm Thick
8	Shim	A/R	1.84 mm Thick
8	Shim	A/R	1.88 mm Thick
8	Shim	A/R	1.90 mm Thick
8	Shim	A/R	1.94 mm Thick
8	Shim	A/R	1.98 mm Thick

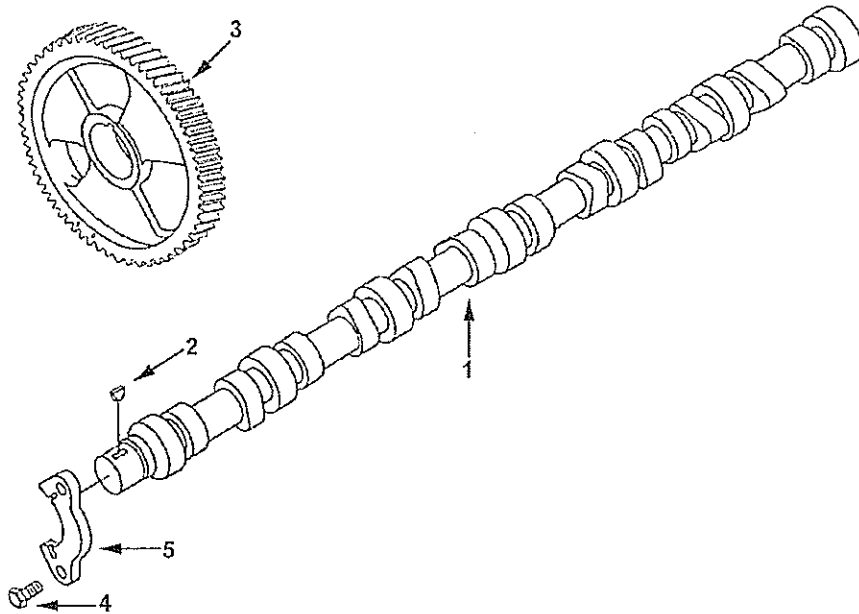
# Connecting Rod



### Connecting Rod

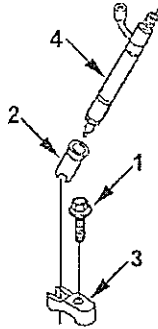
Ref No.	Part Name	Req	Remarks
	CONNECTING ROD		MR - PARTS, PERFORMANCE Technical Model Name: 6CTA8.3-D(M) Engine Family: C Series CPL: 8509 Certified By: EPA, IMO Cylinders: 6 Engine Aspiration: Jacket Water Aftercooled Engine Control System: N/A Engine Application: Marine Auxiliary Engine Design Phase: Tier 2, Alpha Service Model Name: 6CTA8.3-D(M) ECM Version: N/A Centinel Provision: N/A Cert Level: Tier 2, Marpol
1	Piston, Engine	6	
2	Set, Piston Ring	1	
3	Ring, Retaining	2	
4	Piston, Engine	1	Sold In Higher Level Assy/Kit
5	Rod, Engine Connecting	6	
6	Bushing	1	
7	Rod, Engine Connecting	1	
8	Bolt, Connecting Rod	2	
9	Nut, Connecting Rod	2	
	Pin, Piston	6	
	Bearing, Connecting Rod	12	Lower

### Camshaft Gear



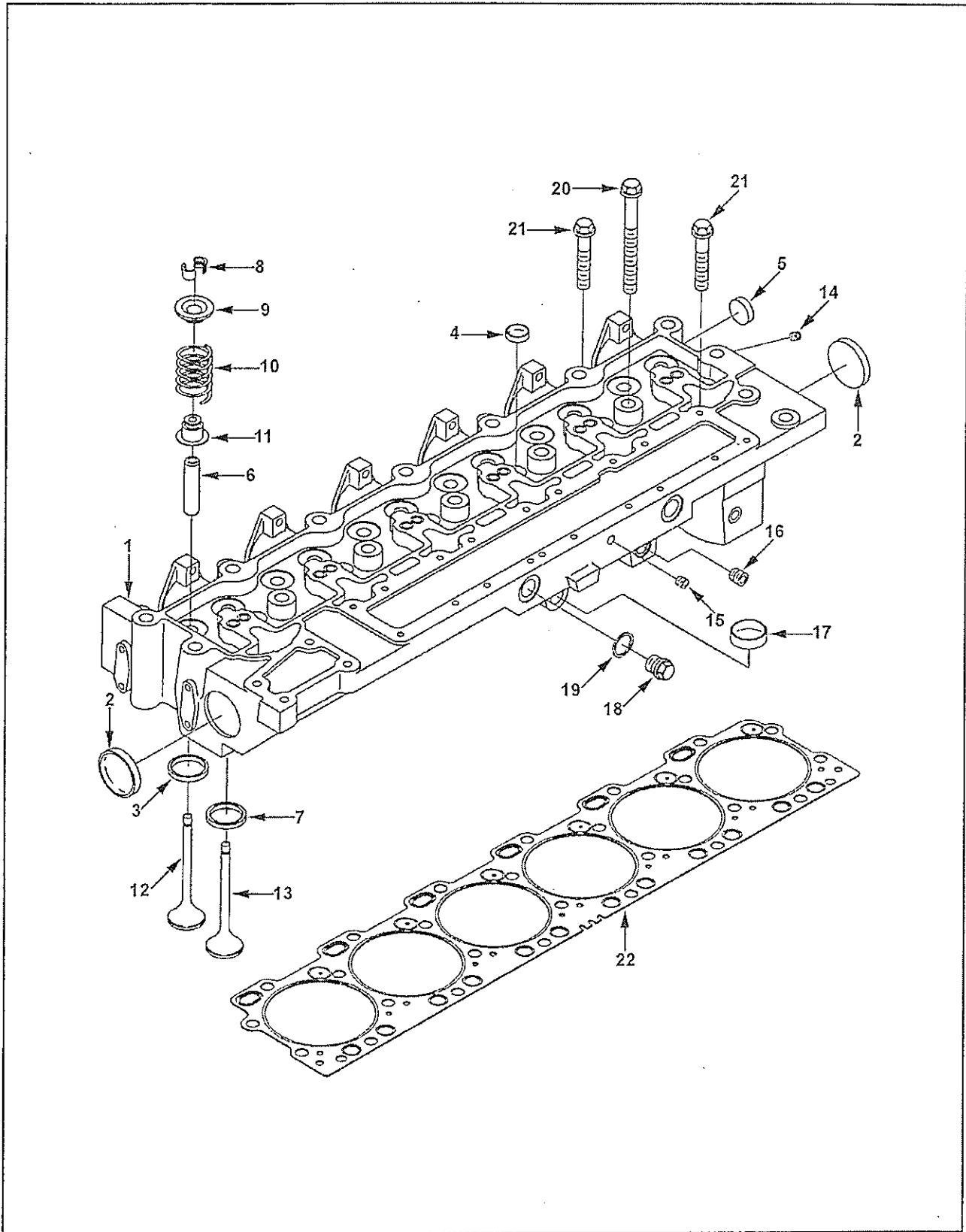
Ref No.	Part Name	Req	Remarks
	<b>CAMSHAFT GEAR</b>		
			MR - GEAR, CAMSHAFT Engine Family: C Series CPL: 8509 Certified By: EPA Cylinders: 6 Engine Aspiration: Jacket Water Aftercooled Engine Application: Marine Auxiliary Engine Design Phase: Tier 2, Alpha Service Model Name: 6CTA8.3-D(M) Cert Level: Tier 2, Marpol
1	Camshaft	1	
2	Key, Plain Woodruff	1	
3	Gear, Camshaft	1	
4	Screw, Hexagon Head Cap	2	M8 x 1.25 x 22
5	Support, Camshaft Thrust	1	

# Injector



Ref No.		Part Name	Req	Remarks
		INJECTOR		<p>MR - INJECTOR            Engine Family: C Series            CPL: 8509            Certified By: EPA            Engine Aspiration:              Jacket Water Aftercooled            Engine Application: Marine Auxiliary            Engine Design Phase: Tier 2, Alpha            Service Model Name: 6CTA8.3-D(M)            Cert Level: Tier 2, Marpol</p>
1		Injector	6	
2		Screw, Hex Flange Head Cap	1	M8 x 1.25 x 80
3		Seal, Injector	1	
4		Clamp, Injector	1	
		Injector	1	Sold In Higher Level Assy/Kit

# Cylinder Head

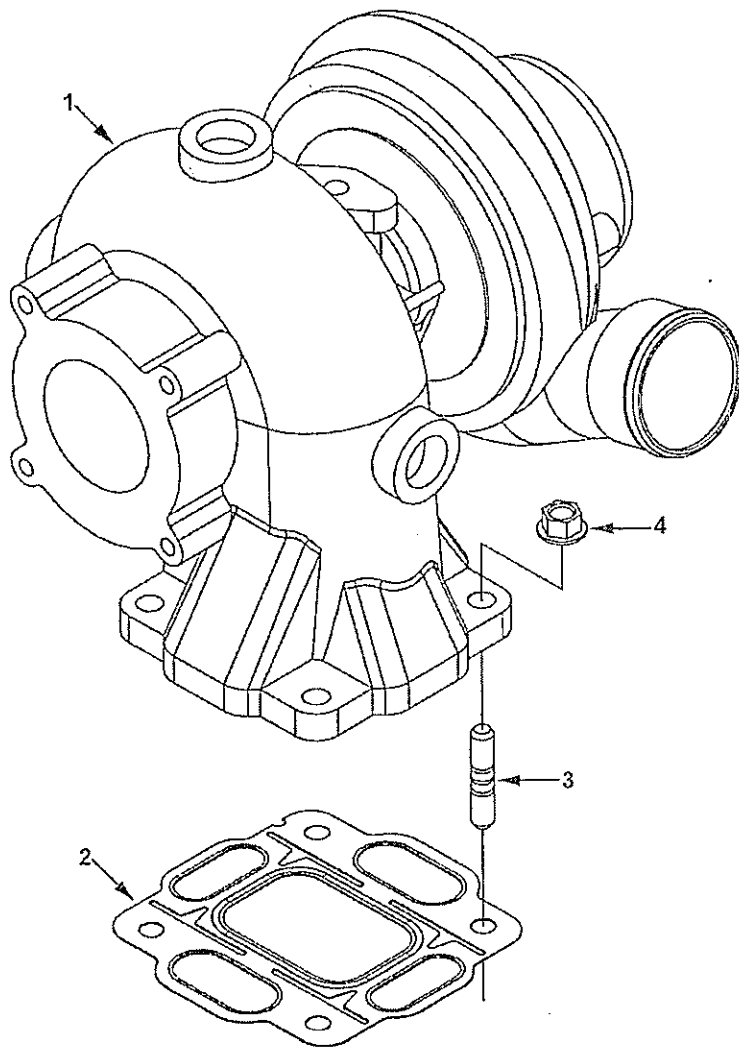




### Cylinder Head

Ref No.	Part Name	Req	Remarks
	CYLINDER HEAD OPTION PP9996		MR - HEAD, CYLINDER Engine Family: C Series Engine Design Phase: Current Product Cylinder: 6 Swirl: Low Manifold Pressure to Lift Exhaust Valve (PSI): 30 Air Compressor Inlet Coupling: Without Notched Head: No Cylinder Head Material: Moly Cylinder Head Valve Material: Premium Exhaust Manifold Type: Dry Valve Seat Inserts: No Valve Bridge Scalloping: No Compression Brake Mounting Hardware: No Aspiration: Jacket Water Aftercooled, Turbocharged, Charged Air Cooled
1	Head, Cylinder	1	
2	Head, Cylinder	1	
3	Head, Cylinder	1	
4	Plug, Expansion	2	
5	Insert, Valve	6	Intake
6	Plug, Expansion	5	
7	Plug, Expansion	1	
8	Guide, Valve Stem	12	
9	Insert, Valve	6	Exhaust
10	Collet, Valve	24	
11	Rotator, Valve	12	
12	Spring, Valve	12	
13	Seal, Valve Stem	12	
14	Valve, Intake	6	Sold In Higher Level Assy/Kit
15	Valve, Exhaust	6	Sold In Higher Level Assy/Kit
16	Plug, Pipe	1	1/16 NPT
17	Plug, Pipe	1	Not Used In This Option
18	Plug, Pipe	1	1/2 NPT
19	Plug, Expansion	1	
20	Plug, Threaded	2	M22 x 1.50
21	Washer, Sealing	2	22 mm
22	Screw, Hex Flange Head Cap	14	M14 x 2.00 x 160
	Screw, Hex Flange Head Cap	1	M14 x 2.00 x 80
	Gasket, Cylinder Head	1	

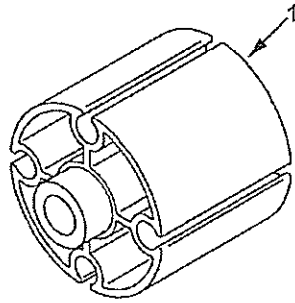
# Turbocharger



### Turbocharger

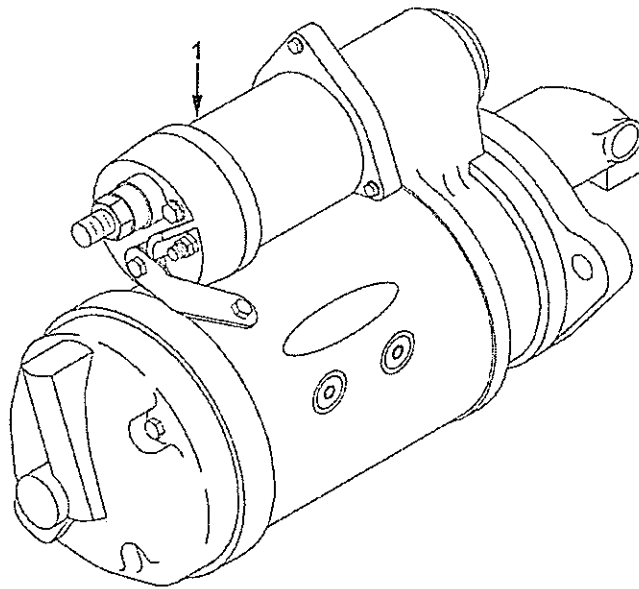
Ref No.	Part Name	Req	Remarks
	TURBOCHARGER		MR - TURBOCHARGER Engine Family: C Series Turbocharger Location: HMFO Base ID17 Turbo: 4038109 Turbo Type: Non-Wastegate Turbo Model: HX40-18294T / J13S3 Compressor Angle (Shipping deg): 270 Turbine Angle (deg): 0 SPIG Orientation: N/A Engine Cylinders: 6 Engine Aspiration: Jacket Water Aftercooled
1	Turbocharger	1	HX40
2	Turbocharger	1	Sold In Higher Level Assy/Kit
3	Gasket, Turbocharger	1	
4	Stud	4	M10 x 1.50 (Both Ends) x 50
4	Nut, Hexagon Flange	4	M10 x 1.50

## Fan Pilot Spacer



Ref No.	Part Name	Req	Remarks
1	FAN PILOT SPACER  Spacer, Fan Pilot	1	MR - SPACER, FAN PILOT Spacer Thickness (mm): 50.80 Spacer Type: Spacer Fan Pilot Diameter (mm): 25.40 Engine Family: B & C Series Mounting Bolt Circle (mm): 60

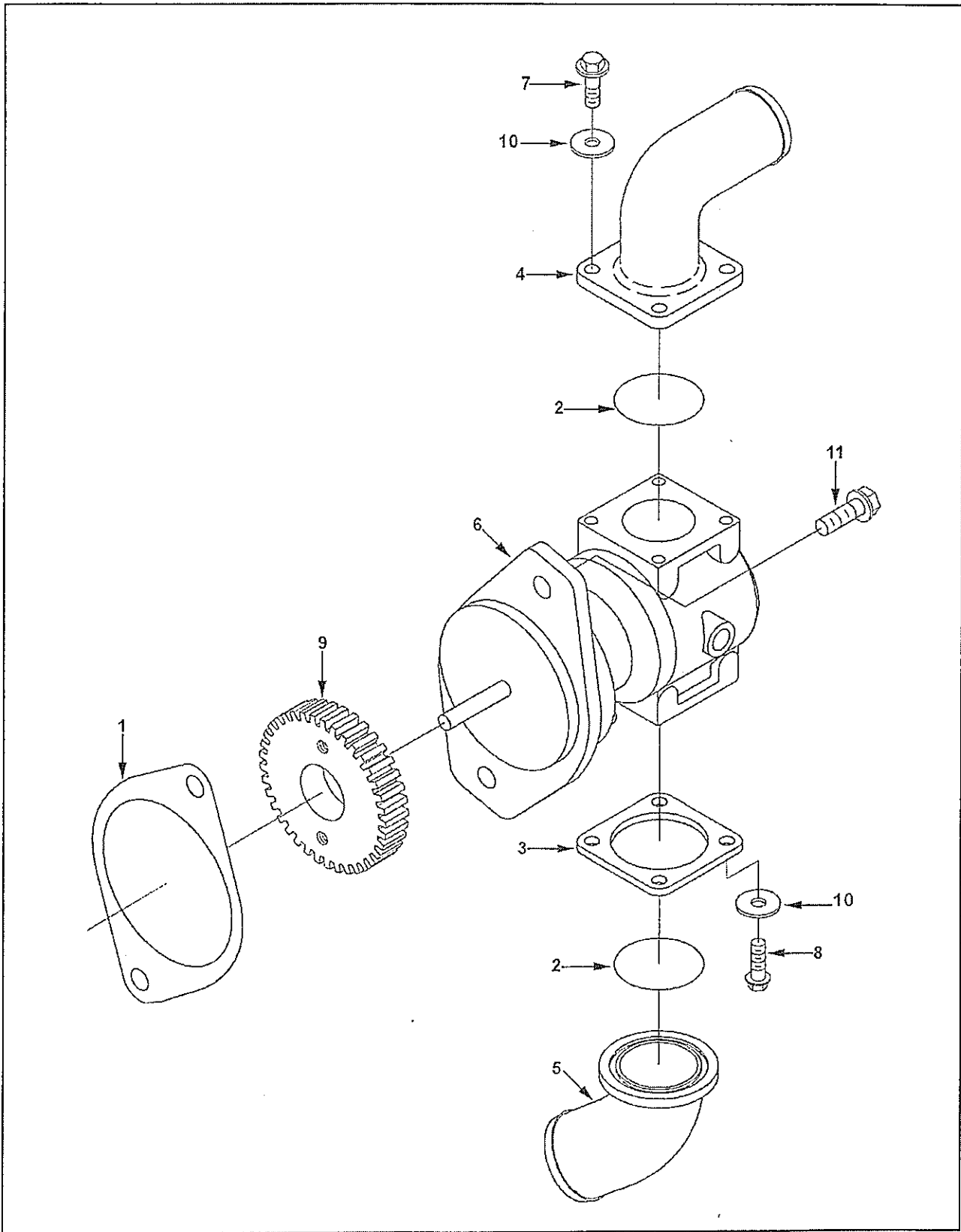
# Starting Motor



### Starting Motor

Ref No.	Part Name	Req	Remarks
1	STARTING MOTOR  Motor, Starting	1	MR - MOTOR, STARTING Engine Design Phase: Current Product Manufacturer: Cummins Volt: 24 Model/Type: 39MT-HD Dia Pitch: 8/10 Mount SAE: SAE #3 - 3 Bolt 120 Degree Wet/Dry: Wet Starter Style: Reduction Pilot Bore Diameter (mm): 92.05 With Heat Shield: No Mounting Flange Thickness (mm): 17.3 KW Rating: 7.2 Angle Limitation High (deg): 106 Angle Limitation Low (deg): 16 Battery Terminal Nuts Provided: Yes Supply Method: Mounted Exposed Starter Length (mm): 360 Starter Pinion Tooth Blank: 13 Starter Pinion Offset (mm): 0 Starter Solenoid Angle (deg): 308 Drain Tube Provision: Yes Starter Body Diameter (mm): 111 Over-Crank Protection Provided: No Cummins Nameplate: With Engine Family: C Series Private Branded Provision for Jump Start Protection

# Raw Water Pump

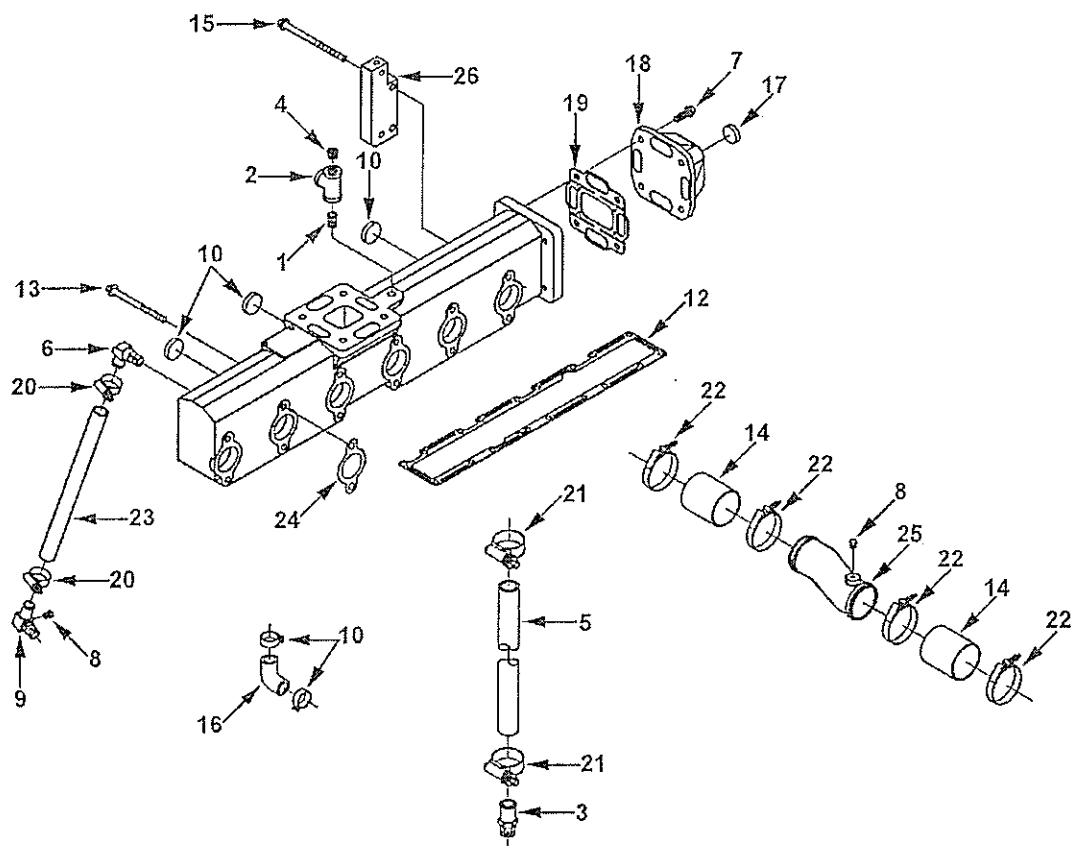


### Raw Water Pump

Ref No.	Part Name	Req	Remarks
	RAW WATER PUMP		MR - PUMP, RAW WATER Cylinders: 6 Manufacturing/Model: Sherwood P1730 SBD Drive Method: Accessory Drive Gear Outlet Flange: 101-2 (SAE B) Inlet OD (mm): 50.8 Outlet OD (mm): 44.50 Restricted Fuel Pump: Bosch A3500 Bosch P3000 Part Numbers for Water Pump Service Kits: (1) Minor Kit: 3897337 - Sherwood P/N 21592 (2) Intermediate Kit: 3897338 - Sherwood P/N 21633 (3) Major Kit: 3897339 - Sherwood P/N 21587
1	Gasket, Hydraulic Pump	1	
	Pump, Sea Water	1	
2	Seal, O Ring	2	
3	Flange	1	
4	Connection, Water Outlet	1	
5	Connection, Water Inlet	1	
6	Pump, Sea Water	1	
7	Screw, Hex Flange Head Cap	4	M8 x 1.25 x 20
8	Screw, Hex Flange Head Cap	4	M8 x 1.25 x 25
9	Gear, Accessory Drive	1	
10	Washer, Plain	8	8.4mm
11	Screw, Hex Flange Head Cap	2	M12 x 1.75 x 30



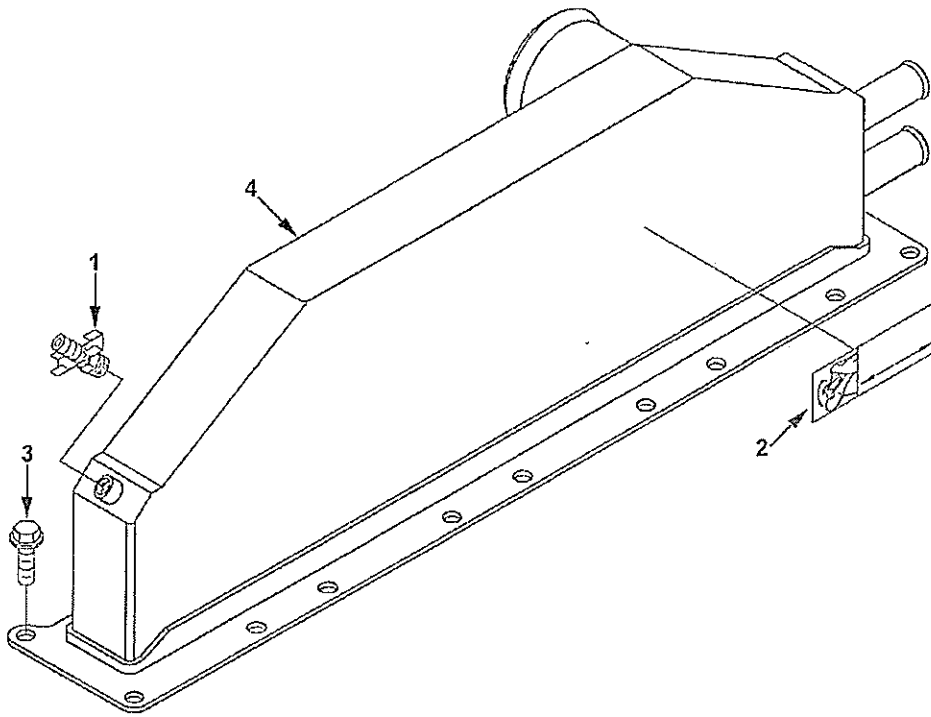
# Turbocharger Location



### Turbocharger Location

Ref No.	Part Name	Req	Remarks
	<b>TURBOCHARGER LOCATION</b>		MR - LOCATION, TURBOCHARGER Engine Family: C Series Cylinders: 6 Exhaust Outlet Location: HMFO Aspiration: Jacket Water Aftercooled Oil Supply Routing: Outboard Exhaust Manifold Type: Wet Intake Cover Provided: No Intake Connection Orientation: Rear Turbine Outlet Flange Type: 4 Bolt Flange Turbo Max CRR Orientation from Fuel Pump Horizontal (deg): 270 Turbo Type: Non-Wastegate Requires Air Heater/Spacer: No Additional Mounting Bosses: 4 Turbo Drain Location: Bottom Drain Bearing Housing Manufacturer: Holset Compressor Angle (deg): 198 Turbine Angle (deg): 5 Turbo Drain Tube Type: Flexible Exhaust Support Flange: 2 - M14 38.76mm Apart Base Turbo ID17: 3593680
1	Nipple, Plain Pipe	1	
2	Tee, Female Pipe	1	
3	Coupling, Plain Hose	2	3/4 NPTF x 1 in.
4	Plug, Pipe	1	1/2 NPT
5	Hose, Plain	1	
6	Coupling, Elbow Hose	1	
7	Screw, Hex Flange Head Cap	4	M10 x 1.50 x 30
8	Plug, Pipe	1	1/8 NPT
	Coupling, Hose	1	
8	Plug, Pipe	1	1/8 NPT
9	Coupling, Elbow Hose	1	
	Manifold, Exhaust	1	
10	Plug, Expansion	3	
11	Manifold, Exhaust	1	
12	Gasket, Int Manifold Cover	1	
13	Screw, Hex Flange Head Cap	8	M10 x 1.50 x 125
14	Hose, Plain	2	
15	Screw, Hex Flange Head Cap	4	M10 x 1.50 x 145
16	Hose, Elbow	1	
	Connection, Water Transfer	1	
17	Plug, Expansion	1	
18	Connection, Water Transfer	1	
19	Gasket, Turbocharger	1	
20	Clamp, Hose	4	
21	Clamp, Hose	2	
22	Clamp, Hose	4	
23	Hose, Plain	1	
24	Gasket, Exhaust Manifold	6	
25	Tube, Air	1	
26	Plate, Clamping	2	

### Jacket Water Aftercooler



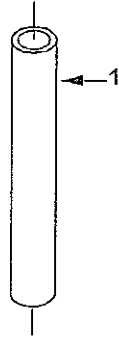
Ref No.	Part Name	Req	Remarks
	JACKET WATER AFTERCOOLER		MR - AFTERCOOLER, JACKET WATER Engine Family: C Series HP Limit: > =236 Vent to Top Tank: No FIPG Provided: Yes Turbo Exhaust Outlet Location: LMFO HMFO
1	Draincock	1	
2	Decal	1	
3	Screw, Hex Flange Head Cap	18	M8 x 1.25 x 25
4	Aftercooler	1	

### Turbocharger Location



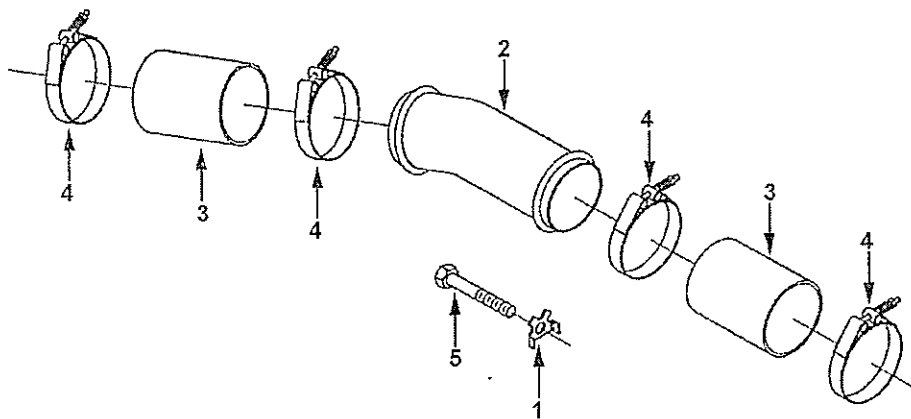
Ref No.	Part Name	Req	Remarks
1	TURBOCHARGER LOCATION  Hose, Plain	1	MR - PLUMBING, TURBOCHARGER Water Plumbing for HMFO Wet Turbocharger Short Hose Used to Connect Turbocharger Drain to Block Used When Heat Exchanger is Not Present

## Turbocharger Location



Ref No.		Part Name	Req	Remarks
1		<p style="text-align: center;">TURBOCHARGER LOCATION OPTION TB9874</p> <p>Hose, Plain</p>	1	<p>MR - PLUMBING, TURBOCHARGER Water Plumbing for HMFO Wet Turbocharger Long Hose Used to Connect Turbocharger Drain to Block Used When Heat Exchanger is Present</p>

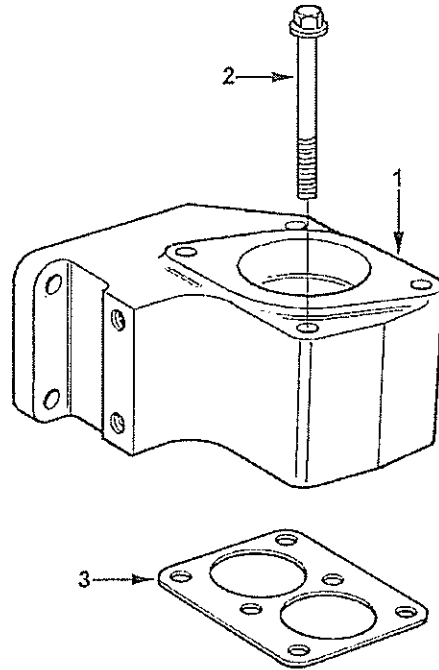
# Turbocharger Location



### Turbocharger Location

Ref No.	Part Name	Req	Remarks
	TURBOCHARGER LOCATION		<p>MR - LOCATION, TURBOCHARGER</p> <p>Engine Family: C Series            Cylinders: 6            Exhaust Outlet Location: HMFO            Turbo Exhaust Location from Front Face of Block (mm): 377.4            Exhaust Vertical from Crank Centerline (mm): 602.9            Exhaust Horizontal from Crank Centerline (mm): 254.7            Aspiration:              Jacket Water Aftercooled            Crossover Routing: Top Standard            Oil Supply Routing: Outboard            Intake Cover Provided: No            Turbine Outlet Flange Type: Half Marmon            Manifold Type: Dry            Turbocharger Type: Non - Wastegate            Engine Design Phase: Current Product            Requires Air Heater/Spacer: No            Intake Cover Opening Position: Rear            Compressor Outlet Flange Type: Half Marmon            Compressor Outlet Diameter (mm): 50.8 (2 in.)            Compressor Outlet Fixed Location (CCW)(deg): 20            Mounting Studs Provided: 0            Additional Mounting Bosses: 6            Turbo Drain Location: Front Drain            Bearing Housing Manufacturer: Holset            CPR Angle (deg): 200            Turbine Angle (deg): 0            Turbo Drain Tube Type: Flexible            Exhaust Support Flange: 2 - M14 92.50 mm Apart            Turbo Model: HX40            Alternator Support Provision: No            Manifold Style: 1 Piece            Base Turbo ID17 Number: 4038424, 3595507            Bearing Housing Cooling Provision: Oil Cooled</p>
1	Lockplate	12	
2	Tube, Air	1	
3	Hose, Plain	2	
4	Clamp, T Bolt	4	
5	Screw, Hexagon Head Cap	12	M10 x 1.50 x 70

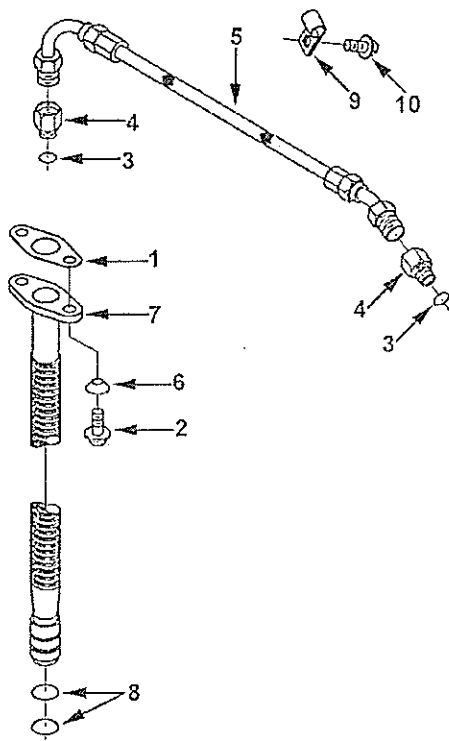
### Thermostat Housing



Ref No.	Part Name	Req	Remarks
	THERMOSTAT HOUSING		MR - HOUSING, THERMOSTAT Thermostat Bore: 43.50 Outlet Type/OD (mm): Flanged Outlet Direction: Vertical Bracket Direction: Vertical / Rearward Airation Method: Non-Vented Tappings for Belt Tensioner: No Water Outlet Bolt Spread (mm): 100.0 Engine Families: C Series
1	Housing, Thermostat	1	
2	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 80
3	Gasket, Thermostat Housing	1	



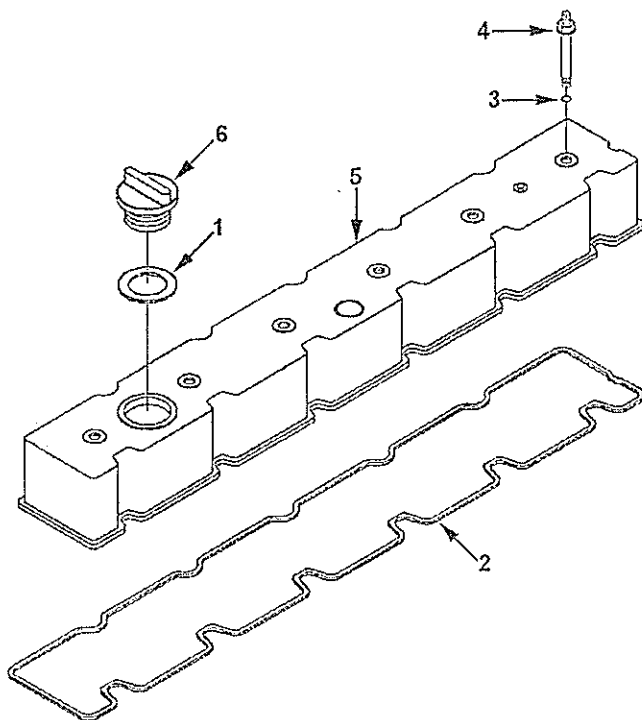
# Turbocharger Plumbing



### Turbocharger Plumbing

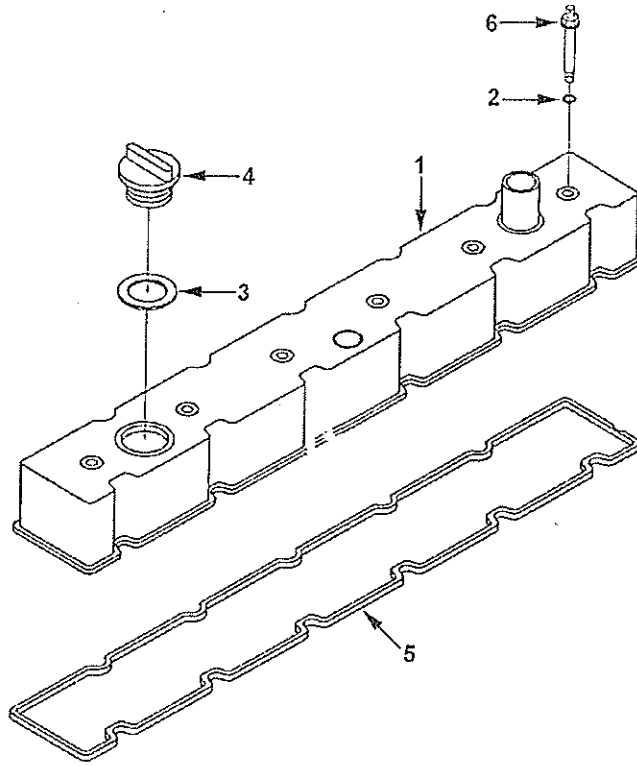
Ref No.	Part Name	Req	Remarks
	<b>TURBOCHARGER PLUMBING</b>		MR - PLUMBING, TURBOCHARGER Engine Cylinders: 6 Engine Family: C Series Turbocharger Exhaust Location: HMFO Oil Filter Mounted Location: On Engine Manifold Type: Wet Turbocharger Drain Line Routing: Outboard Block Drain Location: Front Drain
1	Gasket, Oil Drain	1	Holset P/N 3519807
2	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 20
	Connector, Female	2	
3	Seal, O Ring	1	
4	Connector, Female	1	M12 x 1.50(Ext) x 5/8-18(Int)
5	Hose, Flexible	1	
6	Washer, Sealing	2	7.2mm
	Connection, Tur Oil Drain	1	
7	Connection, Tur Oil Drain	1	
8	Seal, O Ring	1	
9	Clip	1	
10	Screw, Hex Flange Head Cap	1	M10 x 1.50 x 20

### Valve Cover



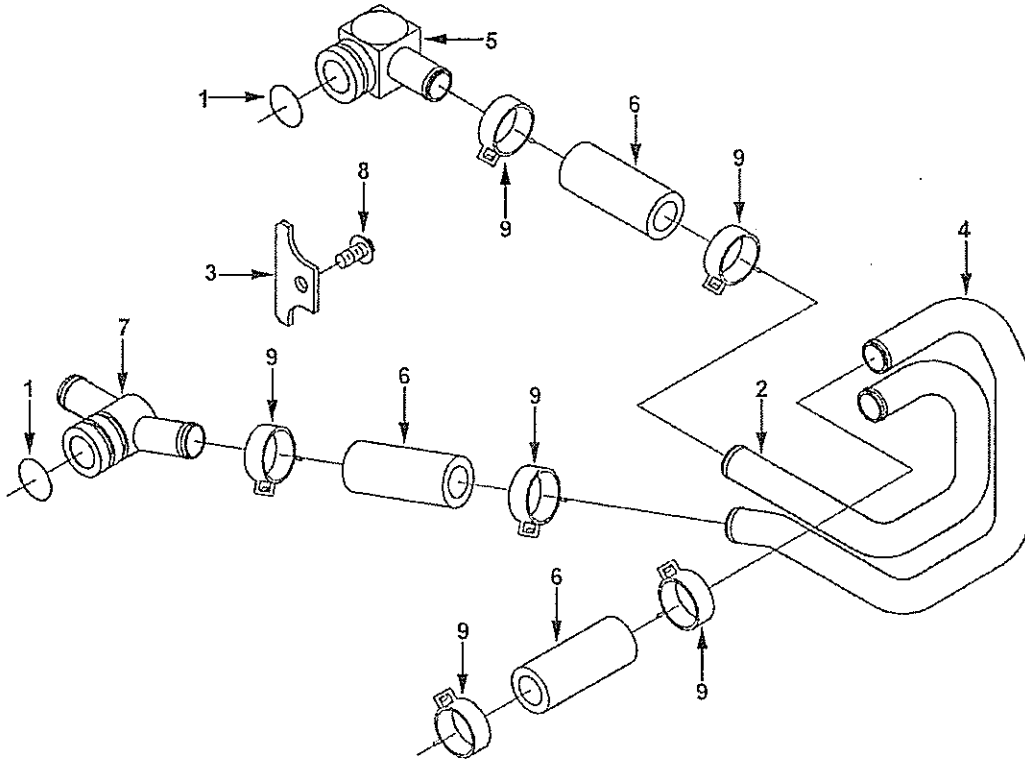
Ref No.	Part Name	Req	Remarks
	VALVE COVER		MR - COVER, VALVE Family: C Series Cylinders: 6 Oil Fill Cylinder: Between 1 & 2 Noise Supression Provision: No Breather Location: Between 3 & 4 Breather Mounting Diameter (mm): 22.26
1	Seal, Rectangular Ring	1	
2	Seal, Rocker Lever Cover	1	
3	Seal, O Ring	6	
4	Screw, Hex Flange Head Cap	6	M8 x 1.25 x 56
5	Cover, Valve	1	
6	Cap, Filler	1	

## Valve Cover



Ref No.	Part Name	Req	Remarks
	VALVE COVER OPTION VC9029		MR - COVER, VALVE Family: C Series Cylinders: 6 Oil Fill Cylinder: Between 1 & 2 Noise Supression Provision: No Breather Location: Between 5 & 6 Breather Mounting: 37.00mm Diameter For Mann Hummel Breather
1	Cover, Valve	1	
2	Seal, O Ring	6	
3	Seal, Rectangular Ring	1	
4	Cap, Filler	1	
5	Seal, Rocker Lever Cover	1	
6	Screw, Hex Flange Head Cap	6	M8 x 1.25 x 56

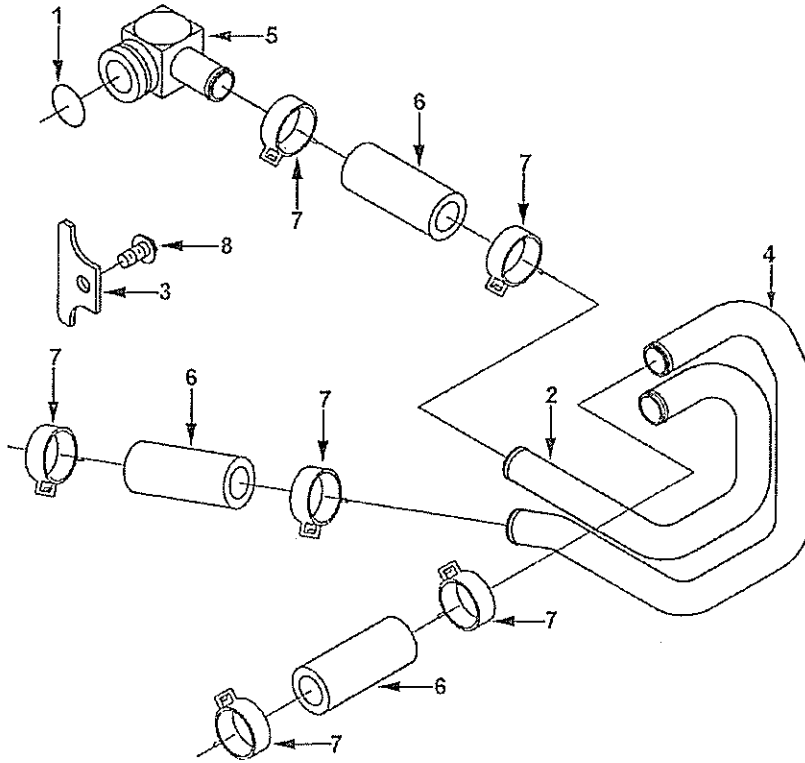
# Aftercooler Plumbing



### Aftercooler Plumbing

Ref No.	Part Name	Req	Remarks
	<b>AFTERCOOLER PLUMBING</b>		MR - PLUMBING, AFTERCOOLER Engine Family: C Series Manifold Type: Wet
1	Seal, O Ring	2	
2	Tube, Water Inlet	1	
3	Plate, Clamping	1	
4	Tube, Water Outlet	1	
5	Connection, Water Transfer	1	
6	Hose, Plain	4	
7	Connection, Water Transfer	1	
8	Screw, Hex Flange Head Cap	1	M8 x 1.25 x 16
9	Clamp, Hose	8	

# Aftercooler Plumbing

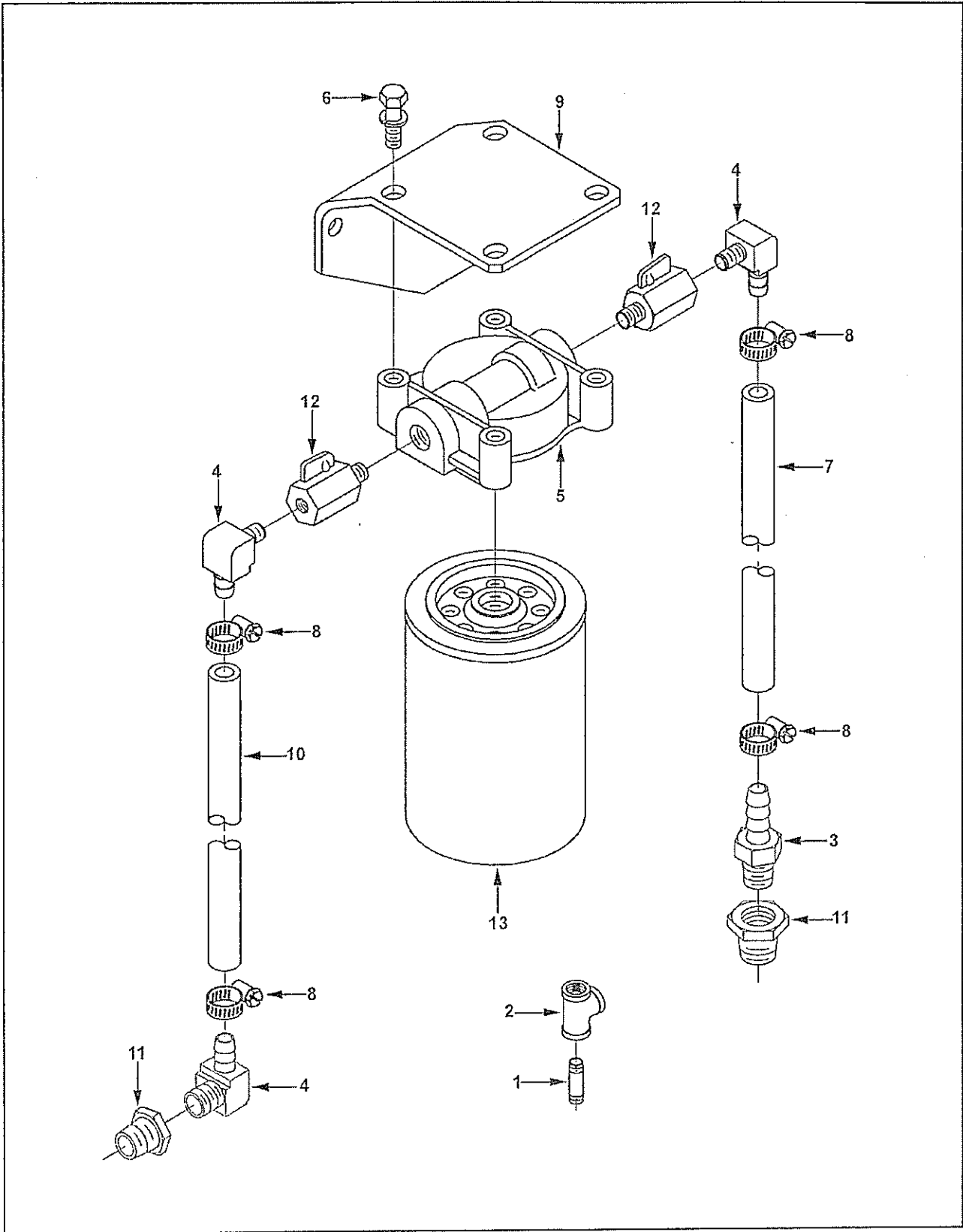


### Aftercooler Plumbing

Ref No.	Part Name	Req	Remarks
	AFTERCOOLER PLUMBING		MR - AFTERCOOLER PLUMBING Engine Family: C Series Manifold Type: Wet Water Returns to the Rear of the Exhaust Manifold This Option is Required for Tier II C Series Marine Auxiliary Ratings
1	Seal, O Ring	1	
2	Tube, Water Inlet	1	
3	Plate, Clamping	1	
4	Tube, Water Outlet	1	
5	Connection, Water Transfer	1	
6	Hose, Plain	4	
7	Clamp, Hose	8	
8	Screw, Hex Flange Head Cap	1	M8 x 1.25 x 16



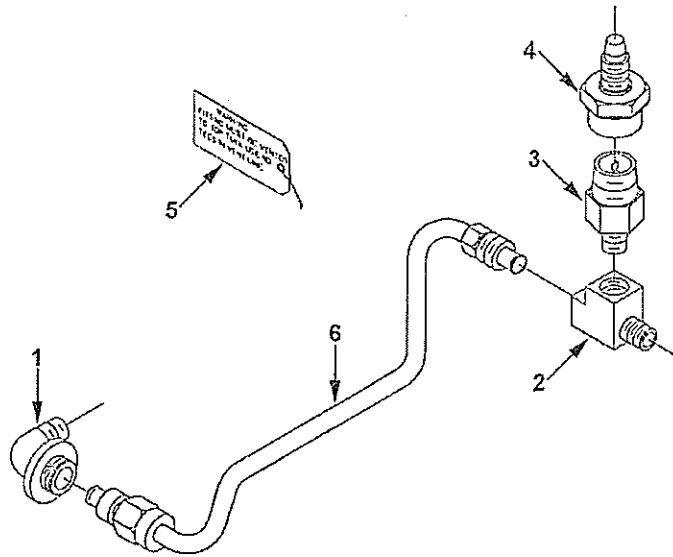
# Corrosion Resistor



### Corrosion Resistor

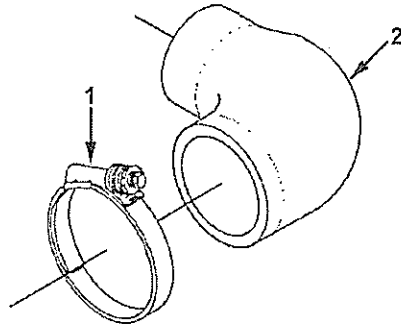
Ref No.	Part Name	Req	Remarks
	CORROSION RESISTOR		MR - RESISTOR, CORROSION Application: Marine, Sea Water Aftercooled Mounting Location: Exhaust Side Coolant Capacity: 8 Unit DCA-4 For Up to 32 U.S. Quarts Includes Filter Head and Shut-Off Valves
1	Tee, Female Pipe	1	
2	Nipple, Plain Pipe	1	
3	Coupling, Plain Hose	1	
4	Coupling, Elbow Hose	3	
5	Head, Corrosion Resistor	1	Buy Directly From Fleetguard
6	Screw, Captive Washer Cap	4	3/8 - 16 x 1 1/8 in.
7	Clamp, Hose	4	1/4-7/8 in.
8	Bracket, Filter	1	
9	Hose, Plain	1	
10	Bushing, Reducing Pipe	2	
11	Valve, Shutoff	2	
12	Resistor, Corrosion	1	
13	Hose, Plain	1	

## Block Vent Plumbing



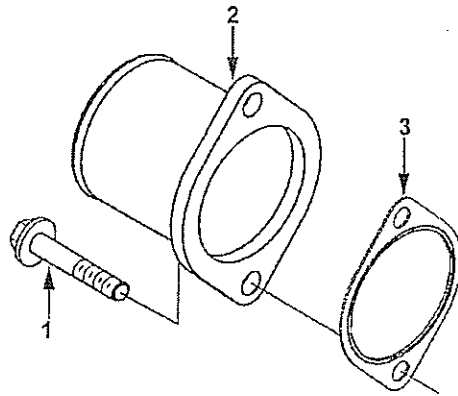
Ref No.	Part Name	Req	Remarks
	<b>BLOCK VENT PLUMBING</b>		MR - PLUMBING, BLOCK VENT Engine Family: C Series 3921724 Tag to be Attached to the 3918497 Connector DEP May Use 3283104 in Place of 3908763
1	S 1000 A Elbow, Male Adapter	1	
2	3908763 Tee, Plain Adapter	1	
3	3974268 Valve, Check	1	
3	3911901 Valve, Check	1	
4	3918497 Connector, Female	1	
5	(3921724) Tag, Identificati	1	
6	3930678 Tube, Vent	1	

### Water Inlet Connection



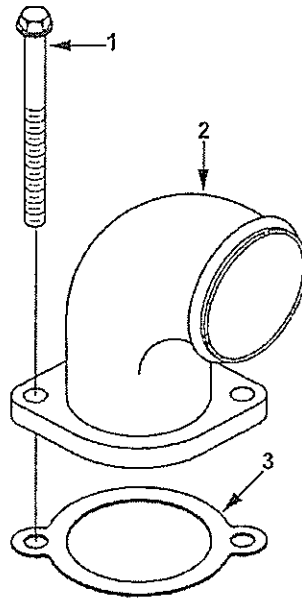
Ref No.	Part Name	Req	Remarks
	<b>WATER INLET CONNECTION</b>		MR - CONNECTION, WATER INLET Engine Family: C Series Inlet Connection OD (mm): 58.00 Connection Type: Beaded Connection Orientation: 50 Degrees Down Contains Mounting Pad for Freon Compressor: No Attachment for Low Profile Tensioner: No Unique Characteristics: For Butec Alternator and Crank Mounted Fans
1	Clamp, Hose	1	
2	Hose, Elbow	1	59-83 mm

## Water Outlet Connection



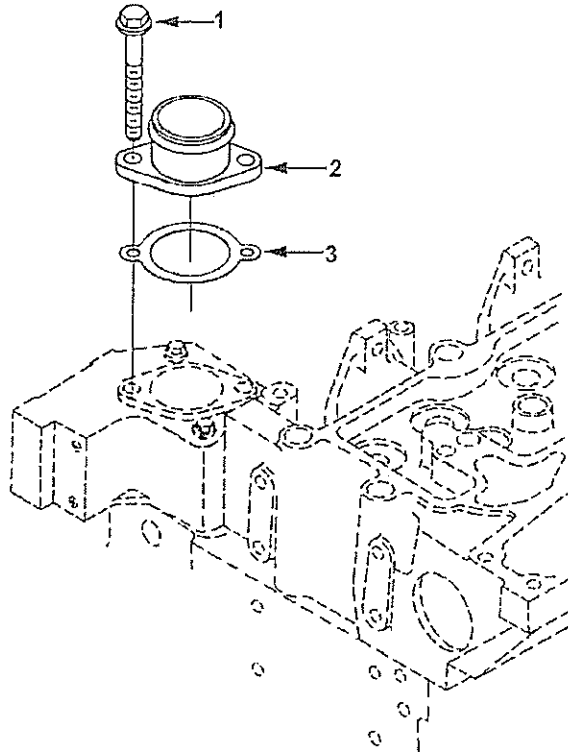
Ref No.	Part Name	Req	Remarks
	<b>WATER OUTLET CONNECTION</b>		MR - CONNECTION, WATER OUTLET Connection Type: Straight Engine Design Phase: Current Product Connection OD (mm): 57.15 Vent Fitting Included: No Water Outlet Bolt Spread (mm): 100 Mounting Flange to Connection End (mm): 100 (3.94 in.) Engine Family: C Series
1	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 95
2	Connection, Water Outlet	1	
3	Gasket, Connection	1	

### Water Outlet Connection



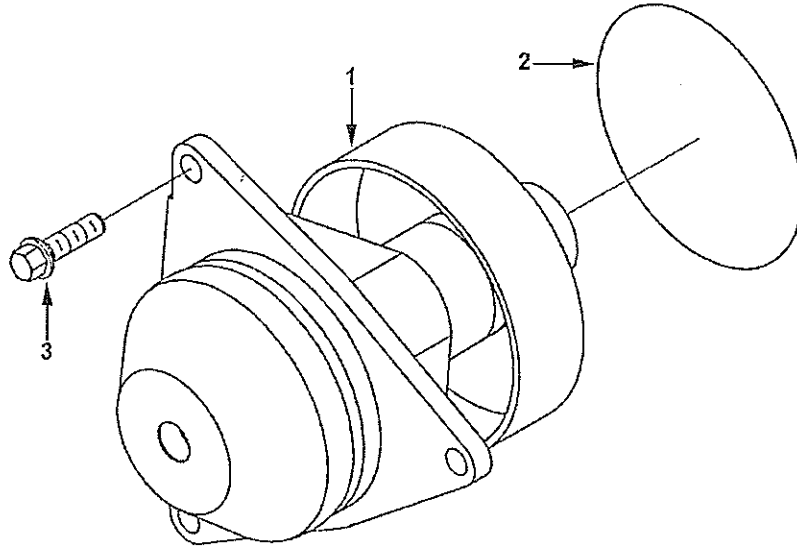
Ref No.	Part Name	Req	Remarks
	WATER OUTLET CONNECTION		MR - CONNECTION, WATER OUTLET Connection Type: Elbow Engine Design Phase: Current Product Connection OD (mm): 57.2 Angle (deg): 90 Vent Fitting Included: No Water Outlet Bolt Spread (mm): 100.0 Mounting Flange to Connection Centerline (mm): 76 (2.99 in.) Engine Family: C Series
1	Screw, Hex Flange Head Cap	2	M8 x 1.25 x 95
2	Gasket, Connection	1	
3	Connection, Water Outlet	1	

### Water Outlet Connection



Ref No.	Part Name	Req	Remarks
	<b>HEATER PLUMBING</b>		MR - PLUMBING, HEATER Connection Type: Straight Engine Design Phase: Current Product Connection OD (mm): 57.15 Vent Fitting Included: No Water Outlet Bolt Spread (mm): 100.0 Mounting Flange to Connection End (mm): 41 (1.61 in.) Engine Family: C Series
1	3906715	2	M8 x 1.25 x 95
2	3912159	1	
3	3918779	1	
	Screw, Hex Flange Head Cap Connection, Water Outlet		
	Gasket, Connection		

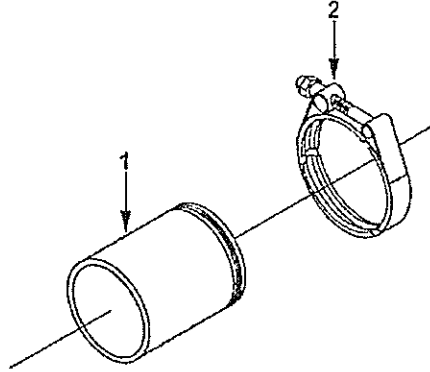
## Water Pump



Ref No.	Part Name	Req	Remarks
	<b>WATER PUMP</b>		
1	Kit, Water Pump	1	MR - PUMP, WATER
2	Pump, Water	1	Pulley Type: Standard
3	Seal, O Ring	1	Engine Family: C Series
	Screw, Hex Flange Head Cap	3	Pulley Diameter (mm): 88.00
			Engine Design Phase: Current Product
			Unique Characteristics: Increased Bearing Capacity
			Restricted Application:
			Fire Pump
			Marine
			Drive Ratio: 1.9:1
			Long Nose With SiC/C Seal
			Revised Weep Chamber Vent Arrangement
			M8 x 1.25 x 25

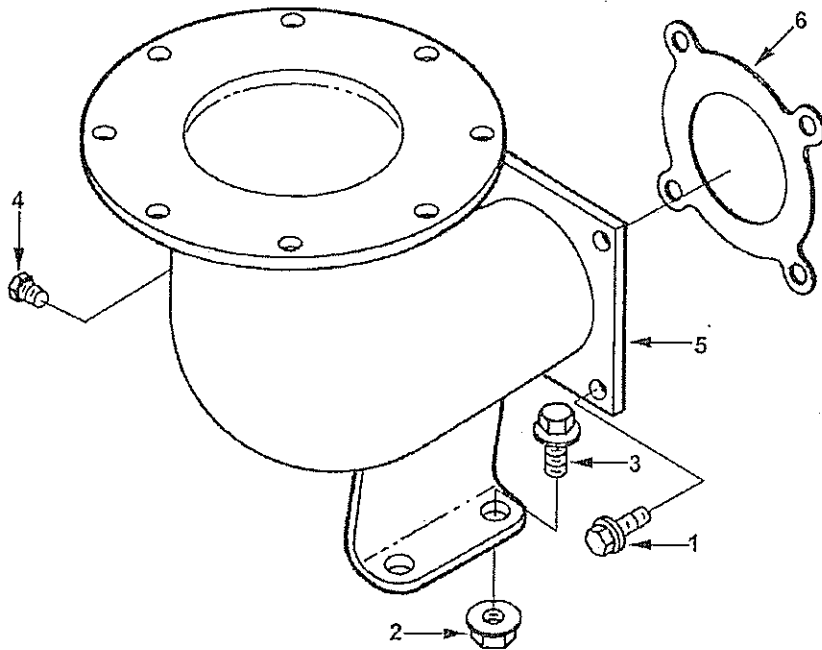


### Exhaust Connection



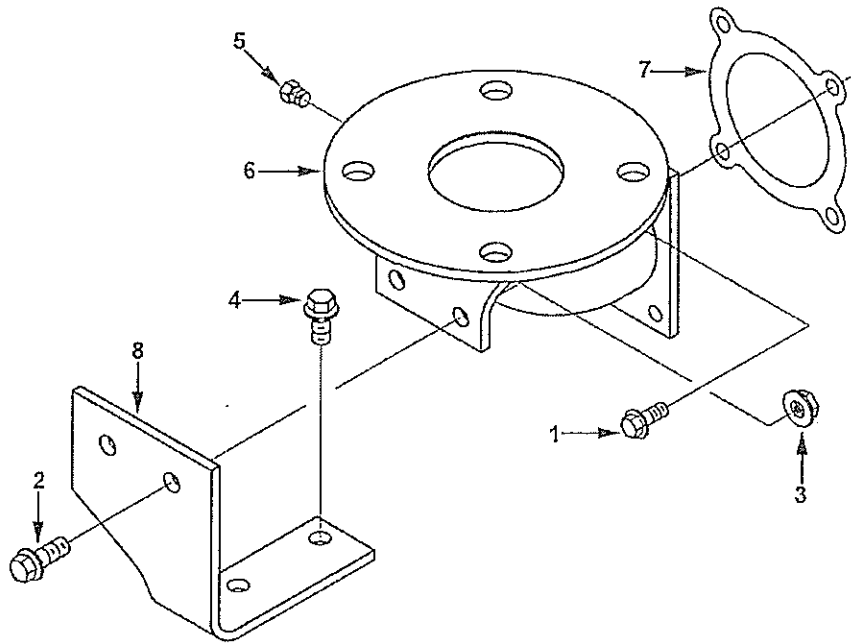
Ref No.	Part Name	Req	Remarks
	EXHAUST CONNECTION		MR - CONNECTION, EXHAUST Engine Family: C Series Exhaust Manifold Type: Dry Exhaust Pipe Diameter (in.): 4.00 Connection Orientation: Straight Mounting Flange to Turbo: Half Marmon Turbo Type: Non-Wastegate Restricted Cylinders: 6 Restricted Turbo Location: HMFO HMRO Restricted Aspiration: Turbocharged Jacket Water Aftercooled
1	Tube, Exhaust Outlet	1	
2	Clamp, V Band	1	

### Exhaust Connection



Ref No.	Part Name	Req	Remarks
	<b>EXHAUST CONNECTION</b>		MR - CONNECTION, EXHAUST 4 Inch Pipe, 4 Bolt Flange 90 Degrees Supported Upturbocharged Exhaust Connection For Use on Water Cooled Turbocharger Mounting Hardware Is Included
1	Screw, Hex Flange Head Cap	4	M8 x 1.25 x 20
2	Nut, Hexagon Flange	2	M10 x 1.50
3	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 20
4	Plug, Pipe	1	
5	Connection, Exhaust Outlet	1	
6	Gasket, Exh Out Connection	1	

## Exhaust Connection



Ref No.	Part Name	Req	Remarks
	<b>EXHAUST CONNECTION</b>		
			MR - CONNECTION, EXHUAUST Engine Family: C Series Exhaust Manifold Type: Wet Exhaust Pipe Diameter (in.): 3.00 Connection Orientation: 90 Degrees Vertical Turbo Type: Non-Wastegate Restricted Cylinders: 6 Restricted Aspiration: Turbocharged Jacket Water Aftercooled
1	Screw, Hex Flange Head Cap	4	M8 x 1.25 x 20
2	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 25
3	Nut, Hexagon Flange	2	M10 x 1.50
4	Screw, Hex Flange Head Cap	2	M10 x 1.50 x 20
5	Plug, Pipe	1	
6	Connection, Exhaust Outlet	1	
7	Gasket, Exh Out Connection	1	
8	Bracket, Exh Connection	1	

### Service Repair Kits

Ref No.	Part Name	Req	Remarks
	<b>SERVICE REPAIR KITS</b>		
	<b>PISTON RING SET</b>		
	Set, Piston Ring	6	
	Ring, Compression Piston	1	Sold In Higher Level Assy/Kit
	Ring, Oil Piston	1	Sold In Higher Level Assy/Kit
	Ring, Compression Piston	1	Sold In Higher Level Assy/Kit
	<b>REAR SEAL KIT</b>		
	Rear Seal, Wear Sleeve Kit	1	Rear
	Seal, Oil	1	Sold In Higher Level Assy/Kit
	Sleeve, Wear	1	Sold In Higher Level Assy/Kit
	<b>FRONT SEAL KIT</b>		
	Ft Seal Ser Kit W/Sleeve	1	Front Non-Automotive
	Seal, Oil	1	Sold In Higher Level Assy/Kit
	Sleeve, Wear	1	
	Shield, Dust	1	Sold In Higher Level Assy/Kit
	<b>WATER PUMP KIT</b>		
	Kit, Water Pump	1	Recon Equivalent 4089647 NX
	Seal, O Ring	1	
	Pump, Water	1	Sold In Higher Level Assy/Kit

### Service Repair Kits

Ref No.	Part Name	Req	Remarks
	<b>SERVICE REPAIR KITS</b>		
	<b>MAIN BEARING KITS</b>		
	Kit, PDC	1	Standard
	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Bearing, Main	6	Sold In Higher Level Assy/Kit
	Bearing, Crankshaft Thrust	1	
	Kit, PDC	1	0.25 mm Oversize
	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Bearing, Main	6	Sold In Higher Level Assy/Kit
	Bearing, Crankshaft Thrust	1	Sold In Higher Level Assy/Kit
	Kit, PDC	1	0.50 mm Oversize
	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Bearing, Main	6	Sold In Higher Level Assy/Kit
	Bearing, Crankshaft Thrust	1	
	Kit, PDC	1	0.75 mm Oversize
	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Bearing, Main	6	Sold In Higher Level Assy/Kit
	Bearing, Crankshaft Thrust	1	
	Kit, PDC	1	1.00 mm Oversize
	Bearing, Main	7	Sold In Higher Level Assy/Kit
	Bearing, Main	6	Sold In Higher Level Assy/Kit
	Bearing, Crankshaft Thrust	1	
	<b>OVERSIZE THRUST BEARINGS</b>		
	Bearing, Crankshaft Thrust	1	
	Bearing, Main	1	Sold In Higher Level Assy/Kit
	Bearing, Crankshaft Thrust	1	Std Journal - Oversize Thrust Face
	Bearing, Crankshaft Thrust	1	0.50mm Oversize
	Bearing, Main	1	Sold In Higher Level Assy/Kit
	Bearing, Crankshaft Thrust	1	Std Journal - Oversize Thrust Face
	Bearing, Crankshaft Thrust	1	0.50mm Oversize
	Bearing, Main	1	Sold In Higher Level Assy/Kit
	Bearing, Crankshaft Thrust	1	

### Service Repair Kits

Ref No.	Part Name	Req	Remarks
	<b>SERVICE REPAIR KITS</b>		
	<b>PISTON RING SET</b>		
	Set, Piston Ring	6	
	Ring, Oil Piston	1	Sold In Higher Level Assy/Kit
	Ring, Compression Piston	1	Sold In Higher Level Assy/Kit
	Ring, Compression Piston	1	Sold In Higher Level Assy/Kit
	<b>REAR SEAL KIT</b>		
	Kit, Crankshaft Seal	1	
	Tool, Seal Installation	1	Sold In Higher Level Assy/Kit
	Seal, Oil	1	Sold In Higher Level Assy/Kit
	Tool, Seal Installation	1	Sold In Higher Level Assy/Kit
	<b>WATER PUMP KIT</b>		
	Kit, Water Pump	1	Recon Equivalent 4089647 NX
	Seal, O Ring	1	
	Pump, Water	1	Sold In Higher Level Assy/Kit
	<b>FRONT SEAL KIT</b>		
	Kit, Seal	1	Includes Installation Tool
	Tool, Seal Installation	1	Sold In Higher Level Assy/Kit
	Seal, Oil	1	Sold In Higher Level Assy/Kit
	Seal, Oil	1	Sold In Higher Level Assy/Kit
	Carrier, Seal	1	

### Service Repair Kits

Ref No.	Part Name	Req	Remarks
	SERVICE GASKET SET		
	UPPER ENGINE GASKET SET		
	Set, Upper Engine Gasket	1	
	Seal, O Ring	1	
	Seal, O Ring	2	
	Washer, Sealing	1	18mm
	Gasket, Turbocharger	1	
	Seal, O Ring	1	
	Seal, O Ring	1	
	Seal, Injector	6	
	Gasket, Exhaust Manifold	6	
	Gasket, Oil Drain	1	Holset P/N 3519807
	Seal, Valve Stem	12	Intake
	Gasket, Valve Cover	1	
	Washer, Sealing	5	
	Washer, Sealing	23	
	Gasket, Rkr Lever Housing	1	
	Gasket, Cylinder Head	1	
	Gasket, Connection	1	
	Gasket, Int Manifold Cover	1	
	Gasket, Connection	1	
	Seal, O Ring	1	
	Seal, O Ring	3	
	Seal, O Ring	2	
	Seal, O Ring	6	

### Service Repair Kits

Ref No.	Part Name	Req	Remarks
	SERVICE GASKET SET		
	LOWER ENGINE GASKET SET		
	Set, Lower Engine Gasket	1	
	Seal, O Ring	1	
	Seal, O Ring	1	
	Seal, O Ring	1	M10 x 1.00
	Seal, O Ring	1	
	Seal, Rectangular Ring	6	
	Seal, O Ring	1	
	Gasket, Oil Cooler Core	1	
	Washer, Sealing	1	
	Plug, Threaded	1	M22 x 1.50
	Seal, O Ring	1	
	Gasket, Lub Oil Clr Cover	1	
	Seal, O Ring	1	
	Gasket, Oil Pan	1	
	Gasket, Acc Drive Cover	1	
	Gasket, Oil Suc Connection	1	
	Gasket, Rear Cover	1	
	Seal, O Ring	1	
	Gasket, Connection	1	
	Washer, Sealing	3	
	Washer, Sealing	13	
	Seal, O Ring	4	
	Seal, O Ring	2	
	Kit, Seal	1	Includes Installation Tool
	Kit, Crankshaft Seal	1	
	Gasket, Fuel Pump	1	



# Cummins Customized Parts Catalog

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