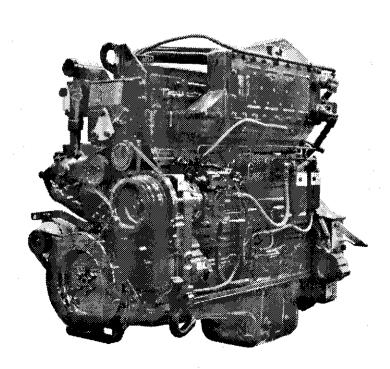




# **Parts Catalog**

# **N14**

Step Timing Control Industrial





#### **Cummins Engine Co., Inc.**

#### New Parts Warranty Heavy Duty

#### COVERAGE

#### PRODUCTS WARRANTED

These warranties apply to New Parts marketed by Cummins for its engines (except those for A, B, and C series engines). They apply anywhere in the world where service is evallable through a Cummins distributor or full service dealer.\*

#### BASE WARRANTY

The Base Warranty covers any failures of parts on or after March 31, 1986, which result, under normal use and service, from defects in workmanship or material (Warrantable Failures). The coverage on cylinder kits designated by Cummins as "Premium Plus" extends two years, 200,000 miles (321,870 kilometers) or 7,200 hours of operation, whichever occurs first, from the date of first installation.

#### EXTENDED MAJOR COMPONENTS WARRANTY

The Extended Major Components Warranty covers Warrantable Failures on or after March 31, 1986, of engine cylinder blocks, crankshafts, flangelees NT camehafts.\* and connecting rode (Covered Parts). Bushing and bearing failures are not included. This coverage begins with the expiration of the Base Warranty and ends three years, 300,000 miles (482,805 kilometers) or 10,800 hours of operation, whichever cocurs first, from the date of first installation.

Both the Base Warranty and Extended Major Components Warranty apply to all Owners in the chain of distribution, and coverage continues to all subsequent Owners until the end of the respective periods of coverage.

#### **CUMMINS RESPONSIBILITIES**

#### DURING THE BASE WARRANTY

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 Operation guidelines.

Cummins will pay for the jubricating oil, antifreeze, fifter elements, and other maintenance items that are not reusable due to the Warrantable Fallure.

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

When the parts are installed in a non-automotive engine, Cummins will pay reasonable travel expenses for mechanics to and from the engine site, or the repair dock in the case of a marine engine, including meals, mileage and lodging when it is necessary for mechanics to make on-site warranty repairs.

#### DURING THE EXTENDED MAJOR COMPONENTS WARRANTY

Cummins will pay for the Covered Part and for any Covered Part damaged by a Warrantable Failure of another Covered Part.

#### **OWNER RESPONSIBILITIES**

#### **DURING THE BASE WARRANTY**

Before expiration of the warranty, Owner must give notice to a Cummins distributor or full service dealer\* of a failure considered to be warrantable and have the repair performed by such facility.

If the part was installed in an automotive engine, the Owner must deliver the engine to the repair location. If installed in a marine engine, Owner is responsible for the cost of towing the boat to a repair dock and for any associated docking and harbor charges.

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.

#### DURING THE EXTENDED MAJOR COMPONENTS WARRANTY

Before expiration of the warranty, Owner must give notice to a Cummine distributor or full service dealer\* of a failure considered to be warrantable and deliver the defective and damaged Covered Paris to such facility.

Owner is responsible for the cost of all parts needed for the repair except for the defective Covered Part and for any Covered Part damaged by a Warrantable Failure of another Covered Part.

Owner is responsible for the cost of all labor needed to repair the engine, including the labor to remove and reinstall the engine. When Cummins elects to repair a part instead of replacing it, Owner is not responsible for the labor needed to repair the part.

Owner is responsible for the cost of lubricating oil, antifreeze, filter elements and other maintenance items replaced during the repair.

#### DURING BOTH WARRANTIES

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.

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 "down time" expenses, cargo damage and all business costs and loseer resulting from a Warrantable Failure. CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

#### LIMITATIONS

Cummins is not responsible for failures resulting from Owner or Operator abuse or neglect, such as: operation without adequate coolant, fuel 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.

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, steering pumps, transmissions, torque converters, marine gears, air cleaners, filters and non-Cummins air compressors, power steering pumps, and engine compression brakes.

Parts provided 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 Curnmins published standards.

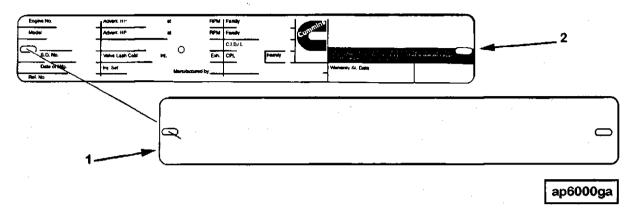
This warranty does not apply to parts furnished by Cummins at no charge to the Owner.



## **Product Identification Information**

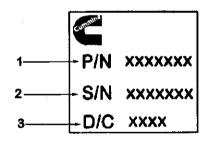
Data plates should be referred for parts identification.

#### 1. ENGINE DATA PLATE



- Shop order number
   Model designation
- 3. Engine serial number
- 4. Control parts list

### 2. ELECTRONIC CONTROL MODULE DATA PLATE



- 1. Part number
- 2. Serial number
- 3. Data code

This catalog was compiled by KC Carman in Parts Communications.

#### **Customer Service Information**

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

NTA14-C

D093635CX03

CPL 1921, CPL 2033, CPL 2038

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

Camshaft Cylinder Head Injector

Page 54 Page 57

Piston, Engine Page 59, 67, 71

Turbocharger **Exhaust Manifold**  Page 53, 63, 65, 69

Page 81

Page 84

#### **USER INFORMATION**

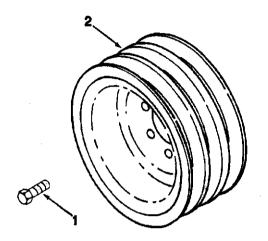
- . Parts numbers appearing in ( ) are for identification purposes only and should not be used when ordering service replacement parts.
- . The reference numbers appearing on the art pages is for publication use only.
- . Assembly content is shown by part number indentation.
- . Options are engineered 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	Eng	Engine Serial No.		
MFG Make	Model	Chassis No.		
Fuel Pump Assembly No		Injector No		
Belt, Fan	Belt, Water Pump	Belt, Gen.	<del></del>	
Element, Fuel Filter	Full Flow Lub. Filter			
Air Cleaner	By-Pa	ass Lub. Filter		
Special Equipment				
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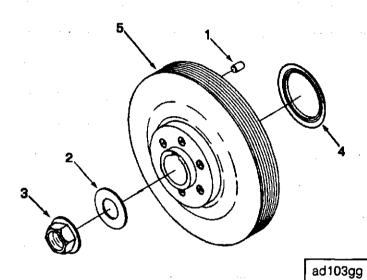
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Water Inlet Connection 9 Water Pump 9	)5 )7
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ad103gp

Ref No.	Part Number	Part Name	Req	Remarks
	: .	ACCESSORY DRIVE PULLEY OPTION AD1272		Intended drive: Fan and accessory. Fan groove diameter (in): 7.04 (178.816 mm). Fan groove type (in): Dual .800 V. Fan drive groove location (nominal-in): 5.16 (131.064 mm). Extra groove diameter (in): 7.55 (191.77mm). Extra groove type (in): single .515 V. Extra groove location (in): 4.00 (101.6 mm).
1 2	1 <b>75833</b> 3013336	Screw, Hexagon Head Cap Pulley, Accessory Drive	6	3/8 - '16 x 1 1/8 inch



Ref No.			Req	Remarks	
		ACCESSORY DRIVE PULLEY OPTION AD1701		Base pulley only. Water pump drive for two piece accessory drive arrangement. Pulley designed to drive a 6 rib "K" section polyvee belt. Re: Large shaft. Assembly and repair areas have a mandatory requirement to use an oil seal assembly guide.	
1 2 3 4 5	70550 193136 3012526 3076202 3081163	Dowel, Pin Washer, Plain Nut, Hexagon Flange Seal, Dust Pulley, Accessory Drive	1 1 1 1 1 1	1 3/4 inch 7/8 - 14 UNF	
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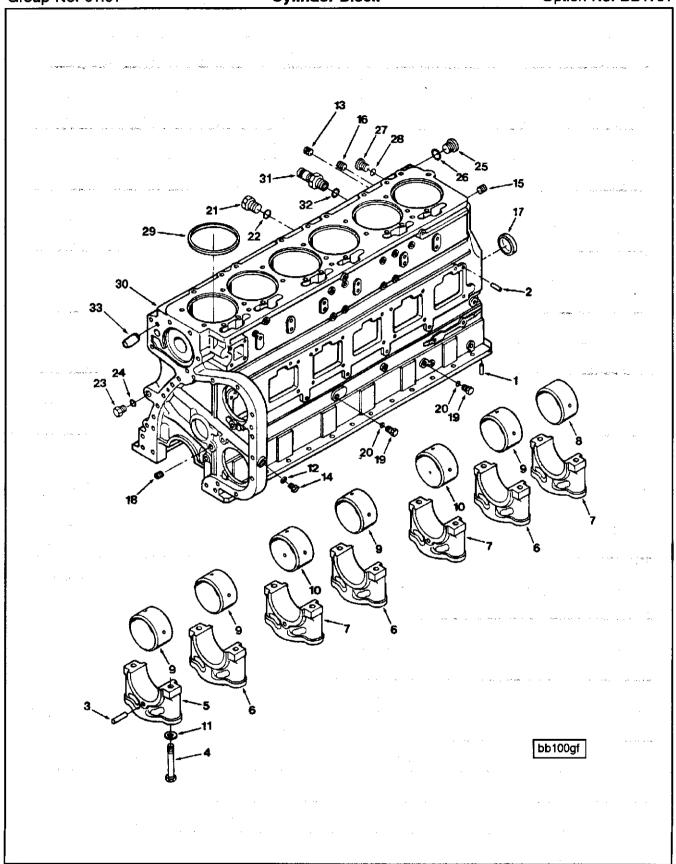


ap100gd

Ref No.	Part Number	Part Name	Req	Remarks
		AGENCY APPROVAL OPTION AP1001		This option may only be used in applications that do not require certification. It may not be used in the U.S. for industrial non-road or automotive applications without an exemption
1 2	<b>3077274</b> 3056508	Dataplate Screw, Drive	1 3	
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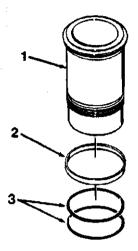
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Part Number	Part Name	Req	Remarks
68585 Dowel, Pin 202903 Pin, Roll	agon Head Cap Bearing Bearing Bearing Bearing Bearing  Min Ain Ain Aided Aided Aig	1 1 2 6 2 14 3 3 1 1 4 2 14 1 4 1 1 2 1 3 6 6 1 1 3 3 1 1 1 1 6 R R R R A A A A A A A A A A A A A A A	Engine block includes cylinder block, liners, crankshaft, HCR spur crankshaft gear, bearings, and associated block hardware for use with non-targeted piston cooling nozzles. Draincock supplied in kit.  3/4 inch 7/8 inch 1/8 NPT 7/8 - 18 UNS 1 5/8 - 12 UN 1/2 NPT 3/8 NPT 9/16 - 18 UNF  3/4 - 16 UNF 1 5/8 - 12 UN 3/8 - 24 UNF 0.0205 Inch (white) 0.0195 Inch (black) 0.0215 Inch (orange) 0.031 Inch 0.062 Inch  Supplied in kit.



bb100gb

Ref No.	Part Number	Part Name	Req	Remarks
		CYLINDER LINER KIT OPTION BB1701		
1 2 3	3801826 (3055099) 215090 3032874	Kit, Cylinder Liner Liner, Cylinder Seal, O Ring Seal, O Ring	6 1 1 2	
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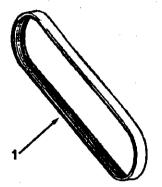
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Ref	Part Number	Part Name	Rea	Remarks
1 2 3 4 5 6 7 8 9 10	210179 3073344 3064291 3037045 3801260 3019174 3019180 3019186 3019192 3019198 3019204	CRANKSHAFT  OPTION BB1701  Key, Rectangular Gear, Crankshaft Crankshaft, Engine  MAIN BEARINGS  Dowel, Ring Set, Main Bearing Bearing, Main	7 1 3 3 3 3 1 1 1	Remarks  HCR spur gear  Standard Upper 1, 3 and 5 Lower 1, 3 and 5 Upper 2, 4 and 6 Upper 7 Lower 7
11 <sub>k</sub> 12	3067568 3009213 3801261 3801262 3801263 3801264	Bearing, Thrust Lockplate Set, Main Bearing	4 14 1 1 1	Not used on N14 0.010 Inch Oversize 0.020 Inch Oversize 0.030 Inch Oversize 0.040 Inch Oversize

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Ref No.	Part Number	Part Name	Req	Remarks
1 2 3	3008035 3047134 S 109	CRANKCASE BREATHER  OPTION BR1178  Tube, Breather Tube, Breather Screw, Hexagon Head Cap	1 1	Breather located over No. 6 cylinder. Breather vent tube extends from No. 6 cylinder toward rear corner of cylinder block exhaust side. Clipped and terminated just below top of block.  3/8 - 16 x 7/8 inch
4 5 6 7 8 9 10 11 12	\$ 190 \$ 223 \$ 602 \$ 603 \$ 604 113710 64775 3082570 3008596	Screw, Hexagon Head Cap Nut, Heavy Hexagon Washer, Plain Washer, Lock Washer, Lock Brace, Tube Hose, Plain Clip Clamp, Spring Hose	1 1 2 1 1 2 2	5/8 - 18 x 1 inch 3/8 - 16 UNC 3/8 inch 5/8 inch 3/8 inch
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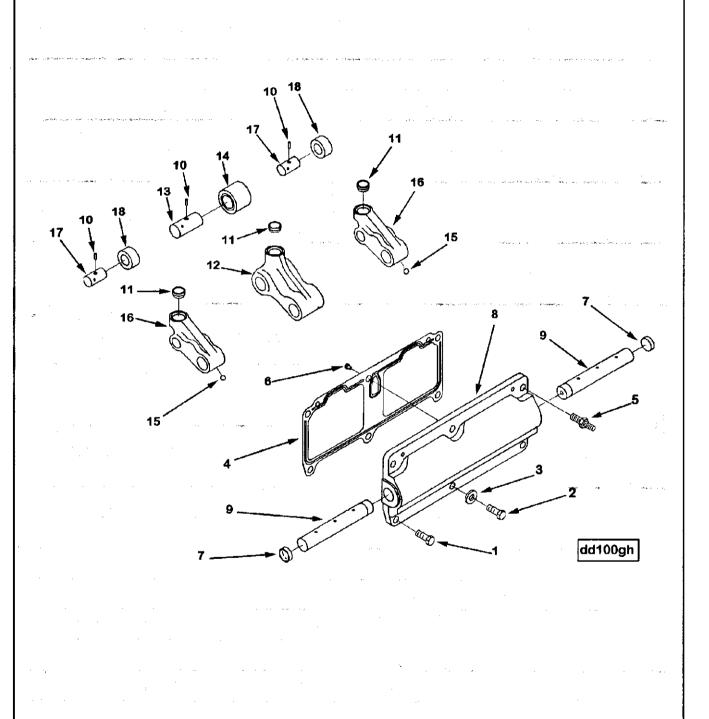
cf100gd

Ref No.	Part Number	Part Name	Req	Remarks
		REF COMPRESSOR MOUNTING OPTION CF1020		V-belt to be hung on open groove of accessory drive pulley before fan v-belts are installed and proper tension applied. Belts for use with customer supplied freon compressor
1	3040289	Belt, Top Cog	1	
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# **NOTES**

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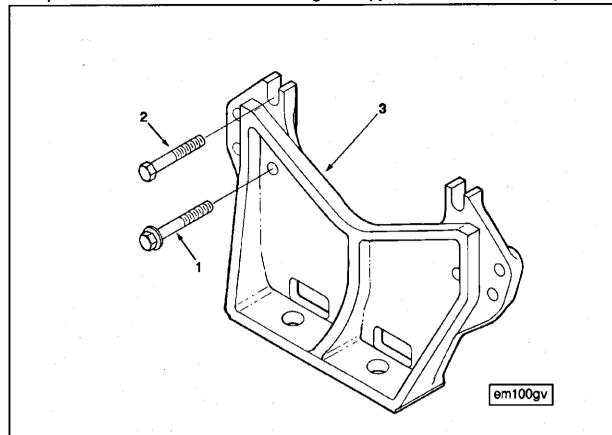


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Ref No.	Part Number	Part Name	Req	Remarks
		CAM FOLLOWER OPTION DD1704 CAM FOLLOWER HOUSING MOUNTING		Cam follower housing and mounting for use on engines without air compressors.
1 2 3 4 5	S 120 A S 194 108330 3068473 3081278	Screw, Hexagon Head Cap Screw, Hexagon Head Cap Washer, Plain Gasket, Cam Fol Housing Screw, Hexagon Head Cap	8 1 1 3 9	3/8 - 24 x 1 1/4 inch 3/8 inch
6 7 8 9 10 11 12 13 14 10 11 15 16 17	3865239 69736 205401 3055280 3066217 3083945 3064309 3064621 (3074164 3895489 3865238 3064309 3064621 3067941 3075026 3075027	CAM FOLLOWER HOUSING Housing, Cam Follower Screw, Cam Follower Shaft Plug, Expansion Housing, Cam Follower Shaft, Cam Follower Lever, Cam Follower Pin, Roll Socket, Tappet Lever, Cam Follower Pin, Cam Follower Roller, Cam Follower Pin, Roll Socket, Tappet Lever, Cam Follower Lever, Cam Follower Pin, Roll Socket, Tappet Plug, Ball Lever, Cam Follower Pin, Cam Follower Pin, Cam Follower	322122111111111111111111111111111111111	
18	3865237	Roller, Cam Follower	1	

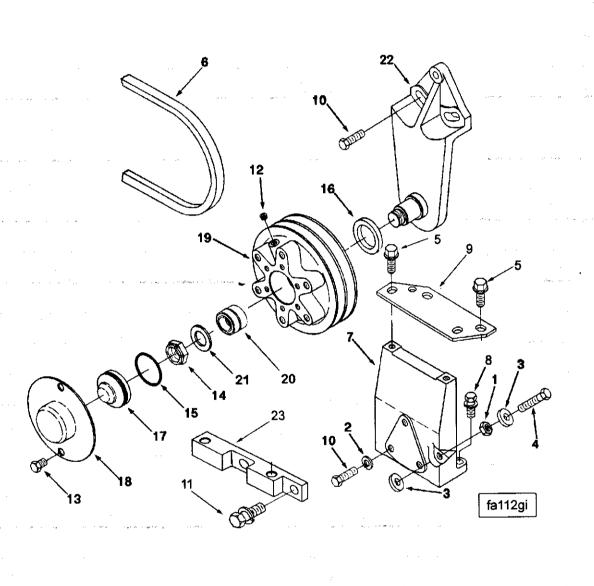
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Ref	Part Number	Part Name	Req	Remarks
1 2 3 4 5 6 7 8 9 10 11 12 13 14	70880 3049670 3076225 3088845 170664 3000175 3030175 3034438 3067987 3033742 3034412 (3072367) 3072316 3076500 3078310 3046200	FUEL PUMP DRIVE  OPTION DP1018  Washer, Plain Screw, Captive Washer Cap Gasket, Acc Drive Support Assembly, Accessory Drive Washer, Plain Screw, Hexagon Head Cap Hub, Jaw Coupling Pin, Groove Housing, Accessory Drive Plug, Threaded Seal, O Ring Support, Accessory Drive Washer, Plain Shaft, Accessory Drive Gear, Accessory Drive Spider, Jaw Coupling	15111122111	Accessory drive and mounting for engines without air compressors. Includes HCR spur gear and large accessory drive shaft.  3/8 inch 7/16 - 20 x 1 1/4 inch  3/8 inch 3/8 - 16 x 1 inch  5/16 - 24 UNF

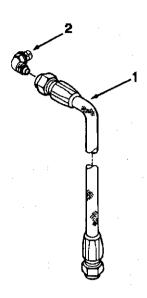


Ref No.	Part Number	Part Name	Req	Remarks
	:	FRONT ENGINE SUPPORT OPTION EM1253		Front support and mounting to gear cover with narrow span two hole pad type mounting surface located 8 inches (203 MM) below crank centerline.
1 2 3	3058664 3054889 3063029	Screw, Hexagon Head Cap Screw, Hex Flange Head Cap Support, Front Engine	2 6 1	7/16 - 20 x 2 1/2 inch 7/16 - 20 x 2 3/4 inch

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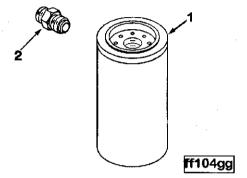
Ref	ър No. 08.03	Fan Drive	1 1	Option No. FA1370
No.	Part Number	Part Name	Req	Remarks
		FAN DRIVE OPTION FA1370		Fan drive supplier: Cummins. Fan center location (in): 13.00 (330.2 mm). Fan drive ratio: 0.86:1. Fan center style: adjustable; driven from accessory drive mounted to the water pump. Fan hub pilot diameter (in) 2 (50.8 mm).Fan bracket type: Pivot. Pulley groove type: Dual .800 V. Fan pulley diameter:P 207.772 mm (8.180 in). Fan drive groove location: 129.794 mm (5.11 in). Fan hub adjusting screw supplier: Cummins. Belt tensioning method: Manual. Fan bracket mounting location: Block mounted. Fan mounting surface location: 200.66 mm (5.11
1 2 3 3 4 5 6 7 8 9 10 1 12 13 14 15 16 17 18 19 20 21 22 3	\$ 285 \$ 608 117267 166777 3100066 178707 3099798 3069634 3099799 3076316 3355230 \$ 911 B 70896 142176 145551 200307 200310 210888 211865 3081164 3012467 3355231 3099800	Nut, Heavy Hexagon Jam Washer, Lock Washer, Counter Weight Screw, Hexagon Head Cap Screw,Hex Flange Head Cap Belt, V Support, Fan Screw, Captive Washer Cap Bracket, Fan Screw, Hexagon Head Cap Screw, Captive Washer Cap Assembly, Fan Hub Plug, Pipe Screw, Hexagon Head Cap Nut, Lock Seal, O Ring Seal, Oil Cover, Fan Hub Pulley, Fan Bearing, Roller Washer, Plain Spindle, Fan Bracket, Fan	132142121321121111111111111111111111111	in)  1/2 - 13 UNC.  1/2 inch  1/2 - 13 X 2 1/4 Inch.  7/16 - 14 x 1 1/8 inch  1/2 - 13 X 1 5/8 Inch.  1/8 NPT  1/2 - 13 x 3/4 Inch  1 1/8 - 12 UNF



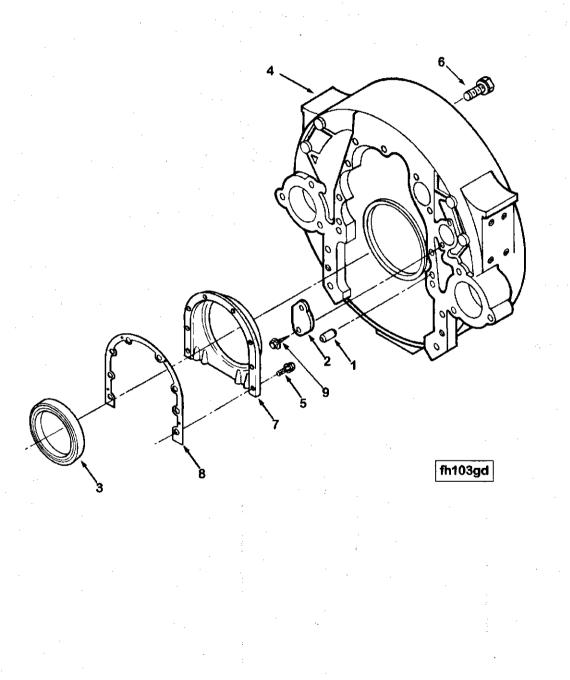
fe100gl

Ref No.	Part Number	Part Name	Req	Remarks
		AIR FUEL CONTROL PLUMBING OPTION FE1724		AFC line running from intake manifold to fuel pump. Use with Industrial STC less air compressor.
1 2	AK 4018 SS 68139	Hose, Flexible Elbow, Male Adapter	1	
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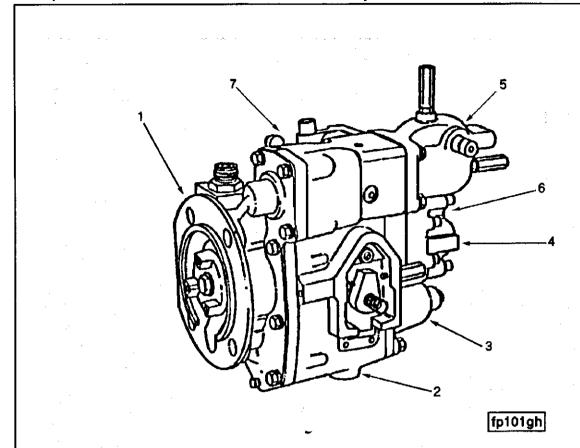


Ref No.	Part Number	Part Name	Req	Remarks
		FUEL FILTER OPTION FF1133		Single spin on fuel/water separator mounted on rear of fuel pump. Provides straight inlet fitting.
1 2	3315843 129866	Separator, Fuel Water Union, Male	1	
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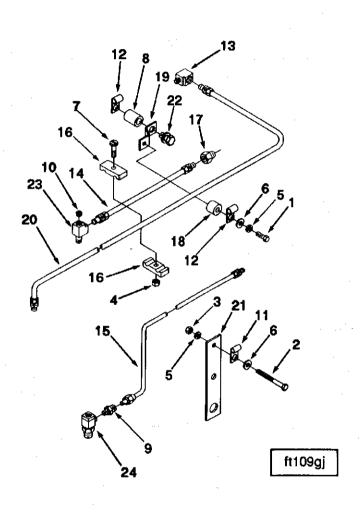


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Ref	Part Number	Part Name		Remarks
1 2 3 4 5 6 7 8 9	60408 70657 3006737 3005557 3010594 3048351 3049018 3067616 3077771	Part Name  FLYWHEEL HOUSING  OPTION FH11057  Dowel, Pin Cover, Access Hole Seal, Oil Housing, Flywheel Screw, Captive Washer Cap Screw, Captive Washer Cap Cover, Rear Gasket, Rear Cover Screw, Self Tapping Metal	2 1 1 1 8 9 1 1 2	SAE #1 dry type closed cast iron flywheel housing with both high and low mounting pads machined. Starter bore machined on exhaust side only, No. 2 quadrant. Has provision for magnetic pick-up.  3/8 - 24 x 1 1/2 Inch 5/8 - 18 x 1 1/2 Inch

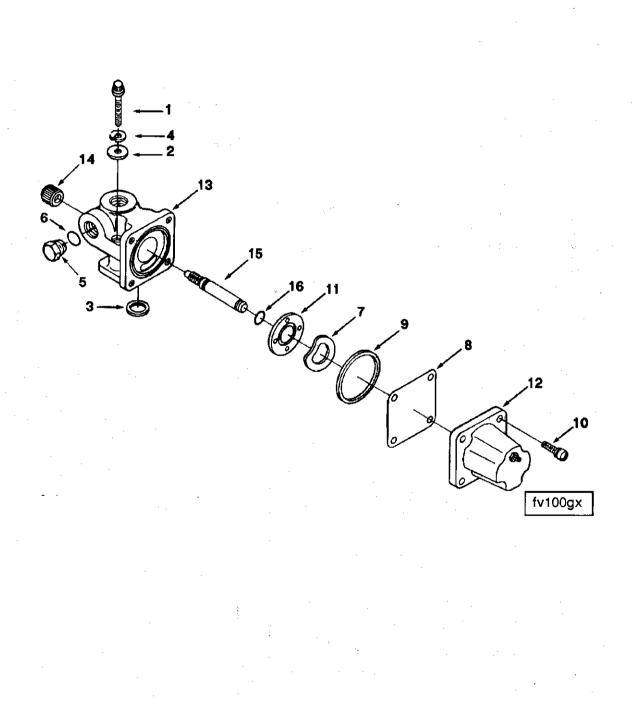


Ref No.	Part Number	Part Name	Req	Remarks
		FUEL PUMP OPTION FP10120	i	PTG/VS/Dual AFC. EDM barrel and plunger. 3/4 inch gear pump. No tachometer provision. To suit direct mounted fuel filter.
1 2 3 4 5 6 7	(3892658) 3052863 3069255 3065376 3034243 3020523 (AR12110) (3070751)	Assembly, Fuel Pump Fuel Pump Front Cover Fuel Pump Housing Spring Pack Cover Fuel Pump Gear Assembly VS Spring Pack Damper, Fuel Pump & Mtg AFC Assembly	1 1 1 1 1	Reference group 05.01.2 Reference group 05.01.1 Reference group 05.01.7 Reference group 05.01.4 Reference group 05.01.7 Reference group 05.01.5



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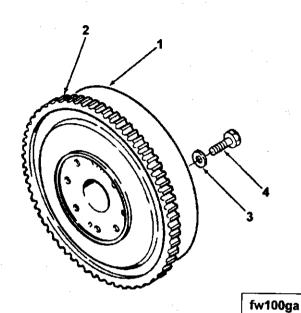
Grou	ıp No. 06.03	Fuel Plumbing	Option No. FT10136		
Ref No.	Part Number	Part Name	Req	Remarks	
		FUEL PLUMBING OPTION FT10136		Fuel tubing for industrial engines with high or low mount STC location less air compressor. Drain location DL1031. VS fuel pump with lube oil viscosity sensor. Class fit AFC.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	S 114 S 182 B S 224 S 251 S 600 S 631 S 1315 64709 68138 68606 180371 180372 181213 3003578 3003580 3007025 3018889 3019301 3033098 3061426 3065109 3069120 3069178 3074372	Screw, Hexagon Head Cap Screw, Hexagon Head Cap Nut, Heavy Hexagon Nut, Regular Hexagon Jam Washer, Lock Washer, Plain Screw, Pan Head Cap Spacer, Mounting Connector, Male Plug, Pipe Clip Clip Elbow, Plain Adapter Tube, Fuel Drain Tube, Fuel Bypass Clamp, Tube Connector, Female Spacer, Mounting Brace, Tube Tube, Fuel Supply Brace, Tube Screw, Captive Washer Cap Tee, Street Pipe Tee, Male Run	1211221211311212211211	1/4 - 20 X 3/4 Inch. 1/4 - 20 X 2 1/2 Inch. 1/4 - 20 UNC. 1/4 - 28 UNF. 1/4 Inch. 1/4 Inch. 1/4 - 28 X 1 Inch.  1/8 NPT.	



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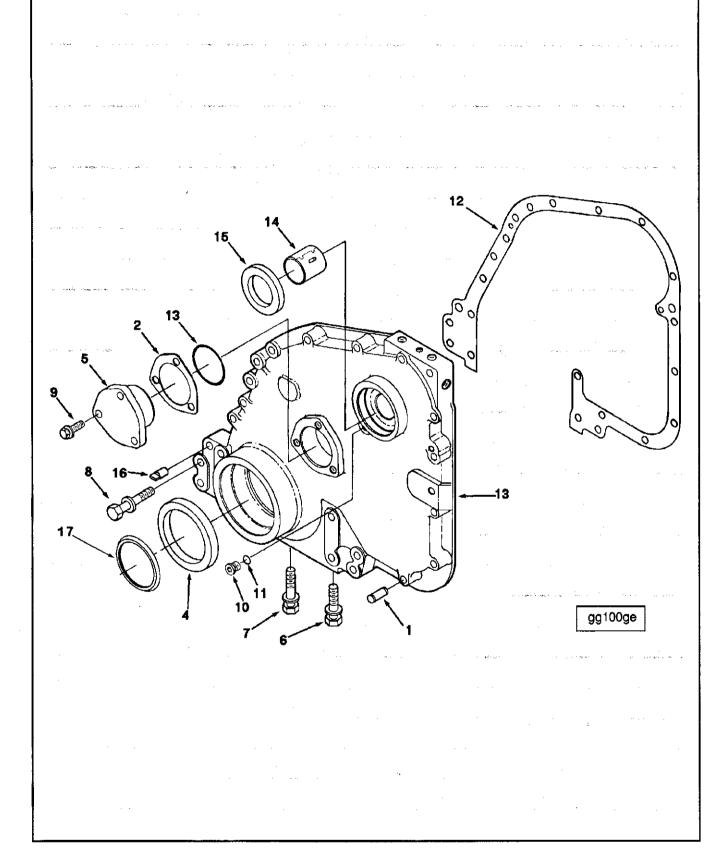
### Fuel Shutoff Valve

Ref No.	Part Number	Part Name	Req	Remarks
		FUEL SHUTOFF VALVE OPTION FV1016		12 Volt DC solenoid operated fuel shutoff valve, single terminal for use on VS or road speed fuel pumps.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	\$ 189 C 67684 154087 181466 3067424 3037236 (3073889) 129768 129839 129888 187556 3030970 3054608 3073890 129838 3013036 (3073891) 3279794	Screw, Socket Head Cap Washer, Plain Seal, Rectangular Washer, Lock Plug, Threaded Seal, O Ring Assembly, Shutoff Valve Spring, Shutoff Shield, Shutoff Seal, Rectangular Screw Disc, Valve Solenoid Body, Shutoff Valve Knob Shaft, Shutoff Valve Body, Shutoff Valve Seal, O Ring	2 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1/4 - 20 x 1 3/4 inch 1/4 inch 1/4 - 20 UNF  #10 - 24 x 5/8 inch



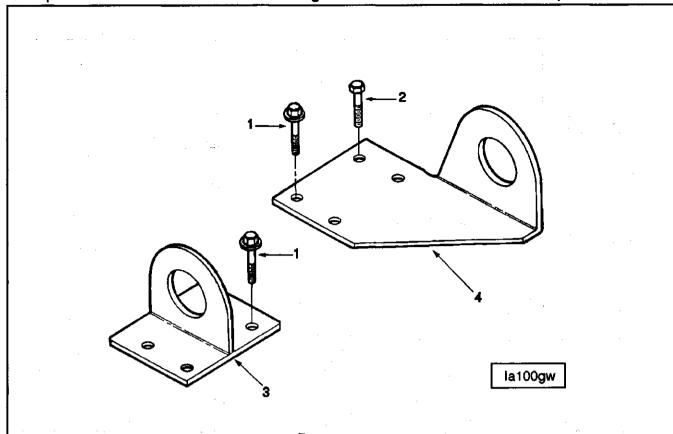
Ref No.	Part Number	Part Name	Req	Remarks
		FLYWHEEL OPTION FW1232		SAE No.2 flywheel and mounting with 2.83 inch pilot. Use with automotive spring loaded 15.5 inch 2- plate clutch. (Dana-Spicer
1 2 3 4	3021660 (129594) 3065151 200861 204165	Flywheel Flywheel Gear, Flywheel Ring Washer, Plain Screw, Head Locking	1 1 1 6 6	AS-1552 and Lipe model 15-1/2-LP).  5/8 inch 5/8 - 18 x 1 5/8 inch

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Ref No.	Part Number	Part Name	Req	Remarks
		FRONT GEAR COVER OPTION GG1701		Front gear cover and mounting . Camshaft support and mounting. Requires straight thread o-ring plug for timing hole with large accessory drive shaft.
1 2 2 2 2 3 4 5	60408 65259 A 65259 B 65259 C 185573 215705 3020186 3008530	Dowel, Pin Shim Shim Shim Shim Seal, O Ring Seal, Oil Support, Camshaft Thrust	1 1 1 3 1 1	.010 inch .005 inch .002 inch .025 inch
6 7 8 9 10 11	3011712 3011713 3011714 3011715 3037536 3037537 4058949	Screw, Captive Washer Cap Screw, Captive Washer Cap Screw, Captive Washer Cap Screw, Captive Washer Cap Plug, Threaded Seal, O Ring Gasket, Gear Cover	9 1 3 3 1 1	7/16 - 20 x 2 3/16 inch 7/16 - 20 x 2 5/8 inch 7/16 - 20 x 3 inch 3/8 - 16 x 1 3/16 inch 9/16 - 18 UNF
14 15 16 17	3411458 (3078274) 3411389 (3078292) 70653 3076203	Cover, Gear Cover, Gear Bushing Seal, Oil Dowel, Diamond Seal, Dust	1 1 1	e de la companya de l
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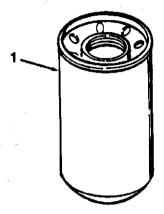
Ref No.	Part Number	Part Name	Req	Remarks
		LIFTING BRACKET OPTION LA1061	·.	Lifting arrangement with mounting brackets or front and rear of engine. With studded capscrew for provision for mounting tube clips.
1	3069633	Screw, Captive Washer Cap	5	1/2 - 13 x 1 3/8 inch
3 4	3070526 3069629 3072357	Screw, Hexagon Head Cap Bracket, Lifting Bracket, Lifting		Front
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## **NOTES**

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		Engine Oil Coo		Option No. LC1018
Ref No.	Part Number	Part Name	Req	Remarks
	3006182 3012473 3035580 3037535 3063567 3066298 3067984 3070501 3078408 109080 206963 3037537 (3040813) 3042889 3046202 3040810 3066277 3067955 3069678 3069680 3069681 3070477 3070478 3072374 3072374 3072375 3072377 3072375 3072377 3072378 3046943 3072376 3803554 3072397 3079620 3059408 (3413091) 3918334	Screw, Captive Washer Cap Screw, Captive Washer Cap Hose, Flexible Elbow, Male Union Screw, Captive Washer Cap Gasket, Oil Cooler Support Screw, Captive Washer Cap Gasket, Oil Cooler Sasembly, Oil Cooler Seal, O Ring Adapter, Filter Head Plug, Threaded Seal, O Ring Plug, Threaded Seal, O Ring Screw, Captive Washer Cap Plug, Threaded Seal, O Ring Screw, Captive Washer Cap Plug, Threaded Seal, O Ring Screw, Socket Head Cap Spacer, Cooler Support Screw, Captive Washer Cap Seal, Oil Adapter, O Ring Retainer, Connection Gasket, Oil Tooler Support Gasket, Oil Tronnection Kit, Oil Cooler Connection, Oil Transfer Support, Oil Cooler Seal, Rectangular Ring Plunger, Bypass Valve Plug, Threaded Seal, O Ring Plug, Threaded Seal, O Ring Plug, Threaded Kit, Corr Resistor Seal, O Ring Washer, Plain Thermostat Cooler, Oil Head, Lub Oil Filter	Red 2212114112155501111114 2111111111111111111111111111111	Dual pass lube oil cooler for use with engine mounted "combo" lube filter. Bypass oil filter hose fittings in cooler and block are orientated upward at approximately 12:00 positions to give the hose an upward loop. This is the standard bypass hose position.  3/8 - 16 x 7/8 inch 3/8 - 16 x 1 3/4 inch  1/2 - 13 x 1 1/4 inch 3/8 - 16 x 4 3/4 inch  9/16 - 18 UNF 9/16 - 18 UNF 3/8 - 16 X 1 7/8 Inch. 3/4 - 16 UNF  1/4 - 20 X 1/2 Inch.  5/16 - 18 X 1 1/8 Inch.
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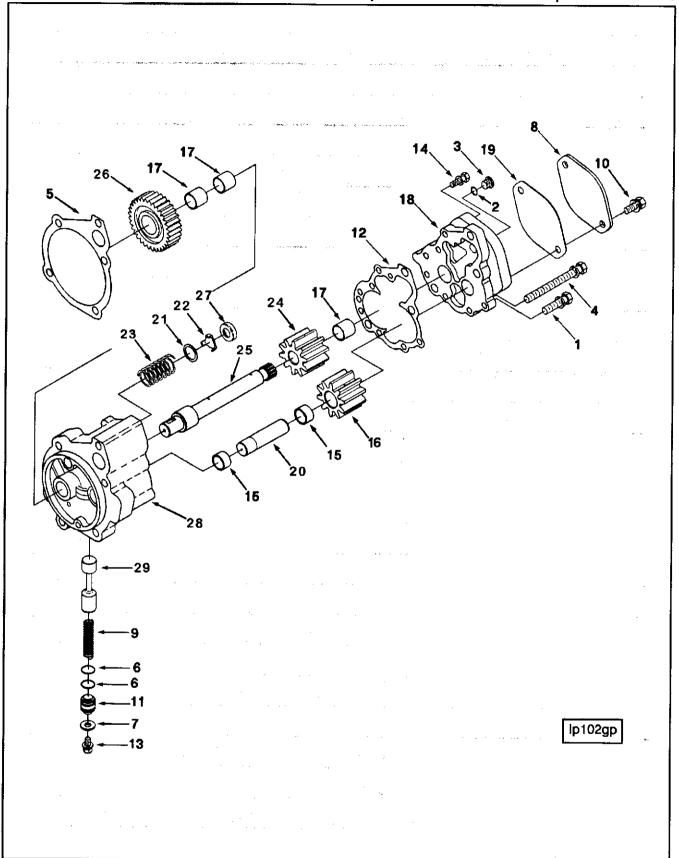


lf101gf

Ref No.	Part Number	Part Name	Req	Remarks
		FULL FLOW OIL FILTER OPTION LF1173		Combination full flow and bypass lube oil "combo" engine mounted. Bypass oil filter hose fittings in cooler and block are orientated upward at approximately 12:00 positions to give the hose an upward loop. This is the standard bypass hose position. To suit in-line coolers.
1	3401544	Element, Lub Oil Filter	1	
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# NOTES

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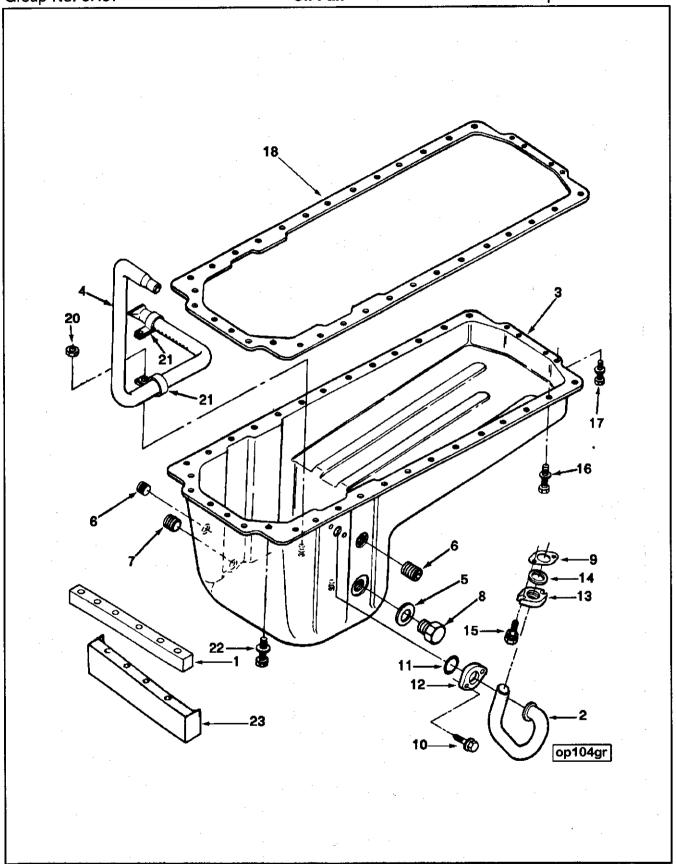
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	ip No. 07.06	Lube Oil Full	Lube Oil Pump	
lef lo.	Part Number	Part Name	Req	Remarks
1	3034526 3037536	LUBE OIL PUMP OPTION LP1702  Screw, Captive Washer Cap Plug, Threaded	3	Lubricating oil pump and mounting. Less oil temperature sensor. For use on STC engines includes spur gear. For use with large shaft accessory drive assemblies. Drive shaft with 13 tooth spline for SAE B drive specifications 7/16 - 20 x 1 3/4 inch 9/16 - 18 UNF.
2 3 4 5 6 7 8	3037537 (3040813) 3067461 3067613 (3085379) 145504 146161 204048	Seal, O Ring Plug, Threaded Screw, Captive Washer Cap Gasket, Lub Oil Pump Pump, Lubricating Oil Seal, O Ring Washer, Plain Plate, Cover	1 1 2 1 1 2 1	7/16 - 20 x 4 1/2 inch 3/8 inch
9 0 11 2 3 4 5 6 7 8 9	3010146 3010595 3012726 3014778 3022589 3022590 3045622 68365 (3045618) 3068461 69521 (3068459) 3166307	Spring, Compression Screw, Captive Washer Cap Plug, Retainer Gasket, Lub Oil Pump Cover Screw, Captive Washer Cap Screw, Captive Washer Cap Gear, Lub Oil Pumping Bushing Gear, Lub Oil Pumping Cover, Lub Oil Pump Bushing Cover, Lub Oil Pump Gasket, Hydraulic Pump	1 2 1 1 7 1 2 1 1 1 1	3/8 - 16 x 1 inch  5/16 - 18 x 5/8 inch  5/16 - 18 x 1 inch
0 1 1 2 3 4 5 6 7 8 7	(3609828) 3012531 3014754 3014756 3609888 3078385 3078386 3412892 3821577 (3087812) 69521 3884126	Pump, Lubricating Oil Shaft, Idler Washer, Plain Disc, Valve Spring, Compression Gear, Lub Oil Pumping Shaft, Lube Oil Pump Gear, Lubricating Oil Pump Plug, Retainer Body, Lubricating Oil Pump Body, Lubricating Oil Pump Bushing Plunger, Prs Regulator	1 1 1 1 1 1 1 1 2 1	3/4 inch
3				

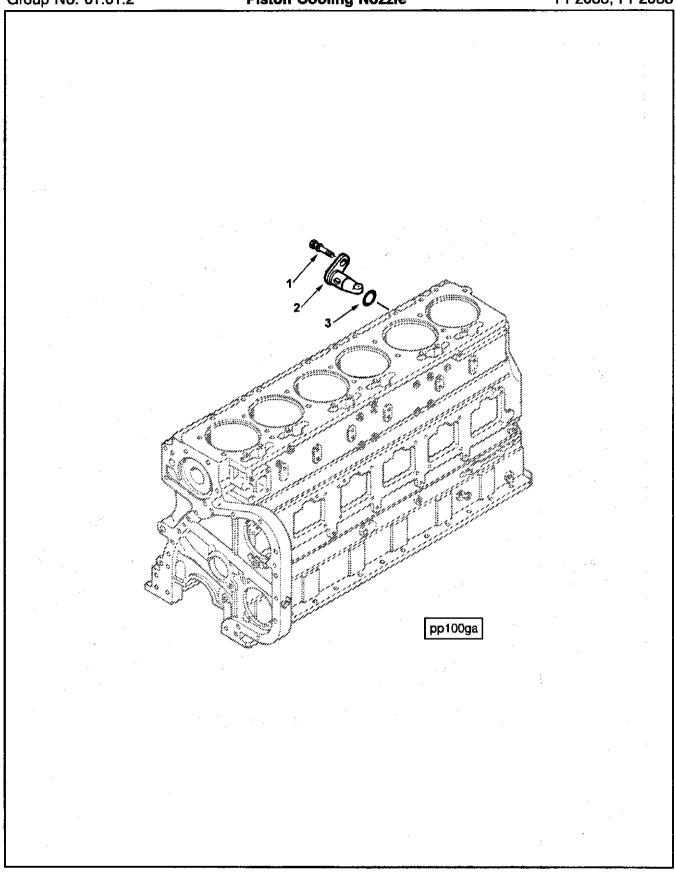
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Oil Filler Arrangement

Ref No.	Part Number	Part Name	Req	Remarks
1 2 3 4 5 6	115590 3070917 107981 3008468 3010596 3068466	OIL FILLER ARRANGEMENT OPTION OB1347  Cover, Hand Hole Tube, Oil Filler Cap, Filler Plug, Pipe Screw, Captive Washer Cap Gasket, Hand Hole	1 1 1 4 1 4	Hand hole cover includes one inch oil fill tube.  Offers provision for "press fit" type oil gauge tube.  1/2 NPT.  3/8 - 16 X 1 1/4 Inch.  3/8 Inch.
7	S 602	Washer, Plain	<b>4</b>	Gro men.
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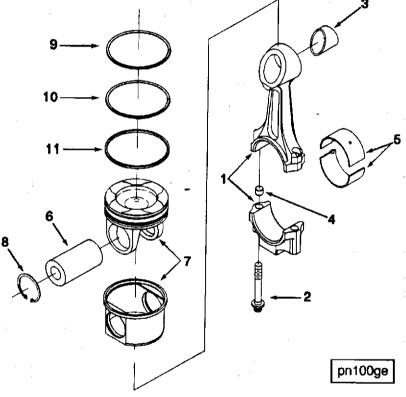
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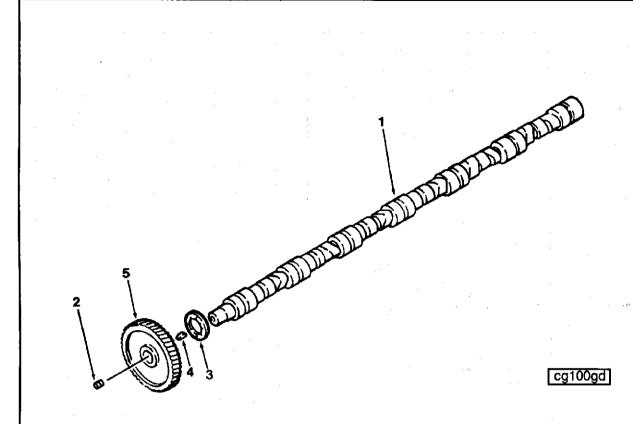
**Piston Cooling Nozzle** 

Ref	Part Number	Piston Cooling No.	Req	PP2033, PP203
No.	ran number	ran Name	neq	nemarks
ł		PISTON COOLING NOZZLE		·
		OPTION PP1921		
l		OPTION PP2033		
-		OPTION PP2038		
1 2	3067954 4058947	Screw, Captive Washer Cap Nozzle, Piston Cooling	6 6	3/8 - 16 x 3/4 inch
3	4058941	Seal, O Ring	6	
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Group No. 01.04				Option No. PP192
Ref No.	Part Number	Part Name	Req	Remarks
		ENGINE PISTON OPTION PP1921		
			:	Certified Model Name: N14-475 Timing gear code: IZ (.167). CPL: 1921 Certified By: EPA,CARB,Eu AFC: Yes ASA: No EFC: No ETC: No Manifold Type: Pulse Engine Aspiration: Turbocharged/aftercooled Engine Control System: Centry Application: Nonroad Power Turbine: N/A Design Phase: 94 Product Power Rating: ECM version: Certification Level: Tier 1 Unique Characteristics: Jacket Water aftercooled with step timing
1 2 3 4 5 5 5 5 5 6	3078330 (3078329) 3349806 3064295 219154 3055145 3055146 3055147 3055148 3055149 3064304	Rod, Engine Connecting Rod, Engine Connecting Screw, Connecting Rod Cap Bushing Dowel, Ring Bearing, Connecting Rod Bearing, Connecting Rod Bearing, Connecting Rod Bearing, Connecting Rod Bearing, Connecting Rod Bearing, Connecting Rod Pin, Piston	6 1 2 1 2 12 12 12 12 12 12 12 6	control (STC) and lube oil viscosity sensor.
7 8	3803741 (3087634) 3064305	PISTON Kit, Engine Piston Top, Piston Ring, Retaining	6	
9 10 11	3804500 3064396 3064397 3082580	PISTON RINGS Set, Piston Ring Ring, Compression Piston Ring, Compression Piston Ring, Oil Piston	6 1 1	
	3803742 (3055099) (3087634) 3800275 3064304 3800259 215090 3032874 3064305 3804500 3054396 3064397 3082580	CYLINDER KIT  Kit, Cylinder Liner, Cylinder Top, Piston Kit, PDC Pin, Piston Kit, PDC Seal, Rectangular Ring Seal, O Ring Ring, Retaining Set, Piston Ring Ring, Compression Piston Ring, Compression Piston Ring, Oil Piston	1 1 1 1 2 2 1 1 1 1	

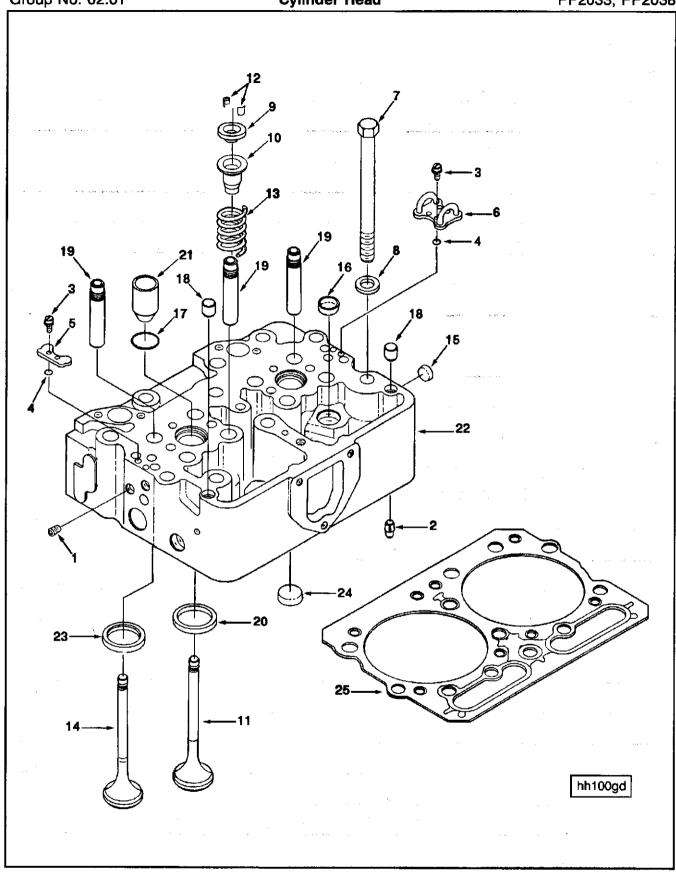


Ref No.	Part Number	Part Name	Req	Remarks
		CAMSHAFT OPTION PP1921 OPTION PP2033 OPTION PP2038		
1 2 3 4 5	3800855 (4025955) 68193 215233 3021599 3073343	Camshaft Camshaft Plug, Pipe Bearing, Thrust Key, Offset Woodruff Gear, Camshaft	1 1 1 1 1	1/8 NPT
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# NOTES

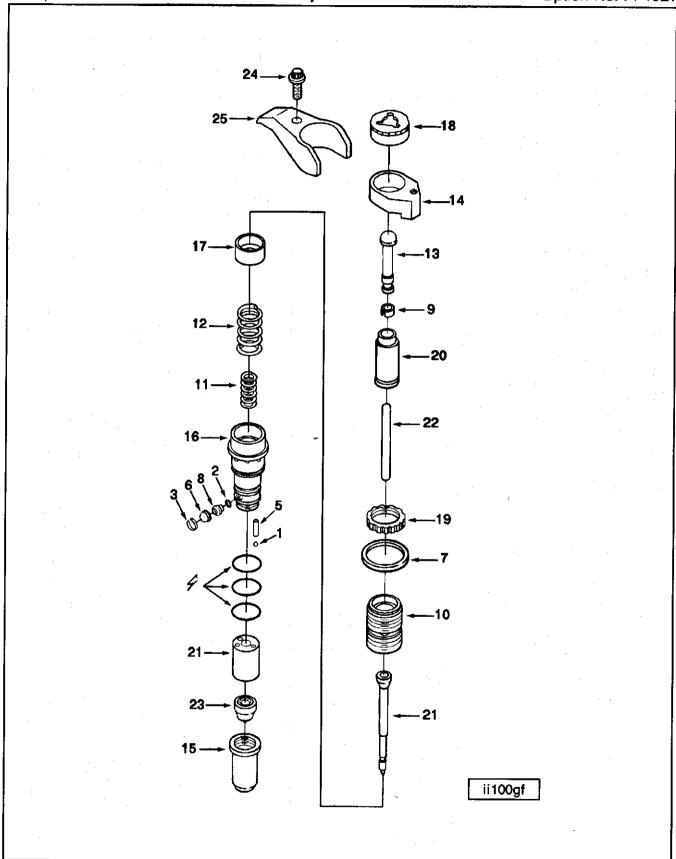
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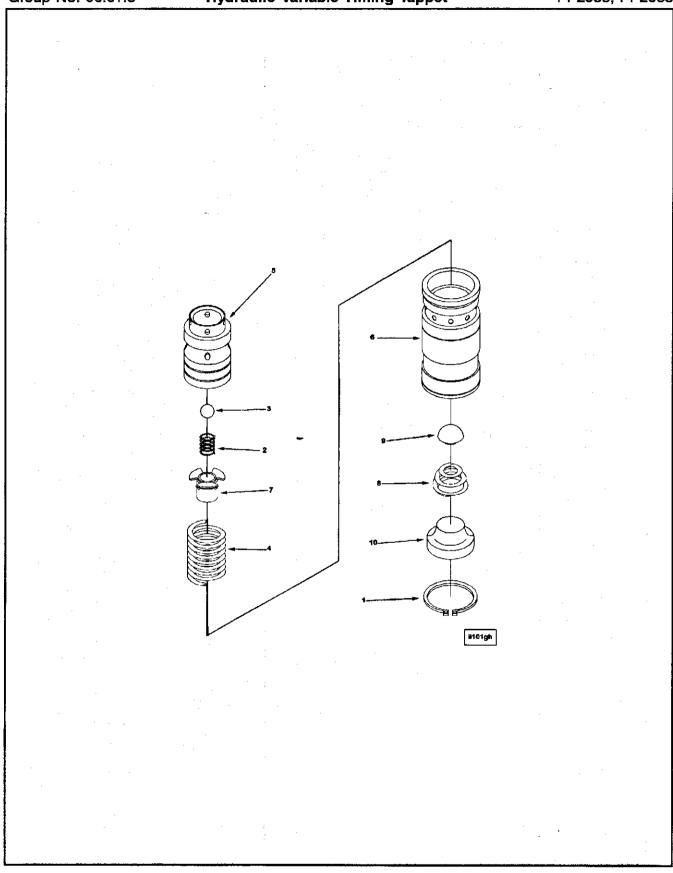
#### Cylinder Head

W. 0.	ıp No. 02.01	Cylinder He	eaq		PP2033, PP2038
Ref No.	Part Number	Part Name	R	eq	Remarks
		CYLINDER HEAD			
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		OPTION PP1921		1	
		OPTION PP2033		Į	
.		OPTION PP2038			
1	S 911 B	Plug, Pipe	1 1	10	1/8 NPT
2	68445	Pin, Groove	- 1	6	
3	70772	Screw, Fillister Head Cap		2	1/4 - 20 x 1/2 inch
5	3087740 135308	Seal, O Ring Plate, Cover		2	
6	147100	Connection, Fuel Crossover		2	
7	3071161	Screw, Hexagon Head Cap	. 3	36	11/16 - 16 x 7 1/4 inch
8	3071075	Washer, Plain		36	5/8 inch
9	3411814 4026228	Head, Cylinder Retainer, Valve Spring		3 8	v .
10	3064281	Seal, Valve Stem		В	
	3803854	Kit, Intake Valve	:	4	
11	(3084045)	Valve, Intake		4	
12	3072369 3803726	Collet, Half Valve Kit, Exhaust Valve	1	8 4	
12	3072369	Collet, Half Valve		8	
14	(3069672)	Valve, Exhaust	:	4	
13	3070460	Spring, Valve	1	8	
15	3007634 3007635	Plug, Expansion Plug, Expansion		3 6	1 inch
16 17	3007635	Seal, O Ring	(	2	i i iligii
18	3027106	Dowel, Ring	. ]	2	
19	3064312	Guide, Valve Stern Intake		8	DI .
20 21	3076515 3070486	Insert, Valve Intake Sleeve, Injector		4 2	Blue
22	(3411779)	Head, Cylinder		1	
23	3084020	Insert, Valve Exhaust		4	
24	3007636	Plug, Expansion		2	32.1 mm
25	4058790	Gasket, Cylinder Head		٦	
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Group No. 06.01		Injector	Injector		
Ref No.	Part Number	Part Name	Req	Remarks	
		INJECTOR			
		OPTION PP1921		STC injector and mounting for N14 Industrial. Oil control valve mounted high near the rear	
				of the block.	
	3084891 167157	Assembly, Injector Ball, Check	6	Top Stop	
1 2	173086	Gasket, Injector			
3	174299	Retainer, Screen	1 1		
4 5	193736 203426	Seal, O Ring Pin, Roll	3 2		
6	3054999	Screen, Filter	1		
7	3041493	Washer, Plain		1 1/2 inch	
8	(3045047) 3052231	Plug, Injector Orifice Retainer, Injector Link			
10	3055742	Screw, Injector Stop	1 1		
11	3034167	Spring, Compression Spring, Compression	1		
12 13	3023478 3084896	Link, Injector Plunger	1	·	
14	3078201	Nut, Tappet Top Stop Lock	1 1		
15	185138 3023934	Retainer, Injector Cup Adapter, Injector			
16 17	3052218	Retainer, Injector Spring			
18	3068859	Cap, Tappet Top Stop		4.5/40. 40.41915	
19 20	3068860 3075383	Nut, Lock Tappet, Hyd Var Timing	1 1	1 5/16 - 18 UNF.	
21	3084892	Barrel & Plunger		4.4	
	(3084894)	Plunger, Injector	1 1		
22	(3084893) 3062009	Barrel, Injector Link, Injector Plunger	'		
23	3084895	Cup, Injector	1	·	
24 25	205278 3067992	INJECTOR MOUNTING Screw, Twelve Point Cap Clamp, Injector	6	3/8 - 16 X 3 Inch.	
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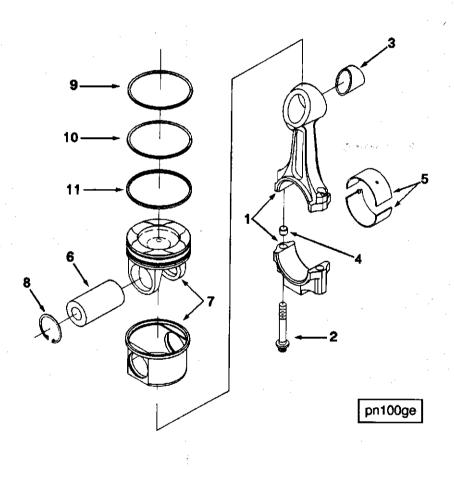
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Group No. 06.01.3

**Hydraulic Variable Timing Tappet** 

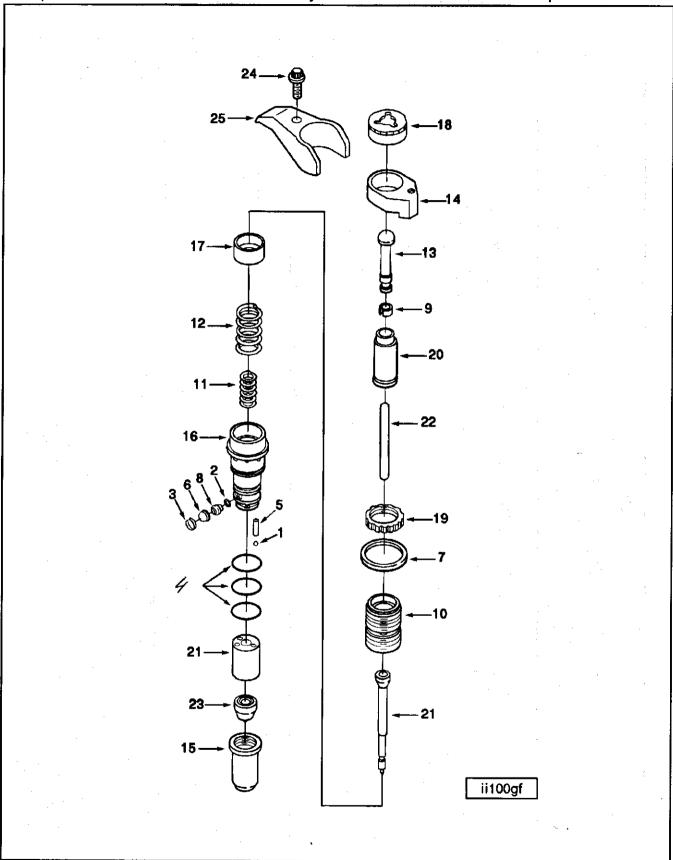
	up No. 06.01.3	Hydraulic Variable Timir	<del>-                                    </del>	pet PP2033, PP2038
Ref No.	Part Number	Part Name	Req	Remarks
1	3075383 3027988	HYDRAULIC VARIABLE TIMING OPTION PP1921 OPTION PP2033 OPTION PP2038 Tappet, Hyd Var Timing Ring, Retaining	1 1 6	
2 3 4 5 6 7 8 9	(3027994) (3027996) 3054852 (3075393) (3066708) (3075387) 3076033 (3085343) (3085344) (3085345)	Spring, Cpmpression Ball, Check Spring, Injector Sleeve & Plunger Plunger, Tappet Sleeve, Tappet Guide, Ball Spring, Injector Guide, Ball Socket, Tappet	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
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	up No. 01.04	Engine Piston		Option No. PP2033
Ref No.	Part Number	Part Name	Req	Remarks
	·	ENGINE PISTON		
		OPTION PP2033		Ontified Madel Name, NAM 405 timing and
·	·			Certified Model Name: N14- 425 timing gear code: Iz (.167) CPL: 2033 Certified By: AFC: Yes ASA: No
				EFC: No ETC: No Manifold Type: Pulse Engine Aspiration: Turbocharged Aftercooled Engine Control System: Centry Application: Nonroad
		· :		Power Turbine: N/A Design Phase: 94 Product Power Rating: ECM version: Certification Level: Unique Characteristics: Contains HT60 (32 CM2) turbocharger 16.5:1 CR articulated pistons 8 x 14 degree x 220 pph injector cups 201-203mm 3/stroke hmv: 35/30 PSI switch points spur gears swirl head (2.0).
1 2 3	3078330 (3078329) 3349806 3064295	Rod, Engine Connecting Rod, Engine Connecting Screw, Connecting Rod Cap Bushing	6 1 2	(2.0).
4 5 5 5	219154 3055145 3055146 3055147	Dowel, Ring Bearing, Connecting Rod Bearing, Connecting Rod Bearing, Connecting Rod	12 12 12 12	
5 5 6	3055148 3055149 3064304	Bearing, Connecting Rod Bearing, Connecting Rod Pin, Piston	12 12 6	
7	3803741 (3087634)	PISTON Kit, Engine Piston Top, Piston	6	
8	3064305	Ring, Retaining PISTON RINGS	2	
9 10 11	3804500 3064396 3064397 3082580	Set, Piston Ring Ring, Compression Piston Ring, Compression Piston Ring, Oil Piston	6 1 1 1	•
	3803742 (3055099)	CYLINDER KIT Kit, Cylinder Liner, Cylinder	1 1	
	(3087634) (3800275) 3064304 (3800259)	Top, Piston  Kit, PDC  Pin, Piston  Kit, PDC	1 1	
	215090 3032874 3064305 3804500	Seal, Rectangular Ring Seal, O Ring Ring, Retaining Set, Piston Ring	1 2 2 1	
	3064396	Ring, Compression Piston	1	
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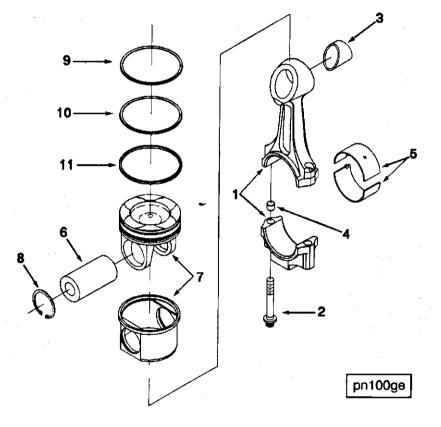
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Ref No.	Part Number	Part Name	Req	Remarks
40.	3064397 3082580	Ring, Compression Piston Ring, Oil Piston	1 1	
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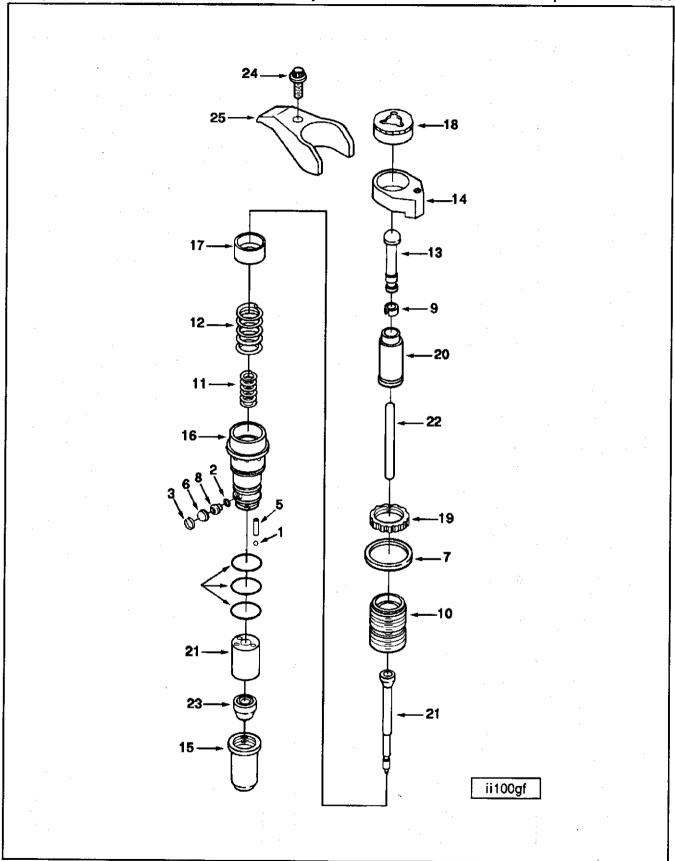
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	ıp No. 06.01	Injector		Option No. PP2033		
Ref No.	Part Number	Part Name	Req	Remarks		
	·	INJECTOR OPTION PP2033		STC injector and mounting for N14 Industrial. CPL 2033. Oil control valve mounted high near rear of block.		
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	3095023 167157 173086 174299 193736 203426 3054999 3041493 (3045047) 3052231 3055742 3034167 3023478 3084896 3078201 185138 3023934 3052218 3068859 3068859 3068860 3075383 3084892 (3084894) (3084893) 3062009 3095024	Assembly, Injector Ball, Check Gasket, Injector Retainer, Screen Seal, O Ring Pin, Roll Screen, Filter Washer, Plain Plug, Injector Orifice Retainer, Injector Link Screw, Injector Stop Spring, Compression Spring, Compression Link, Injector Plunger Nut, Tappet Top Stop Lock Retainer, Injector Cup Adapter, Injector Cup Adapter, Injector Spring Cap, Tappet Top Stop Nut, Lock Tappet, Hyd Var Timing Barrel & Plunger Plunger, Injector Barrel, Injector Link, Injector Plunger Cup, Injector Link, Injector Plunger Cup, Injector	6 1 1 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Top Stop  1 1/2 Inch.  1 5/16 - 18 UNF.		
24 25	205278 3067 <del>9</del> 92	INJECTOR MOUNTING Screw, Twelve Point Cap Clamp, Injector	1 1	3/8 - 16 X 3 Inch.		
		y!·				



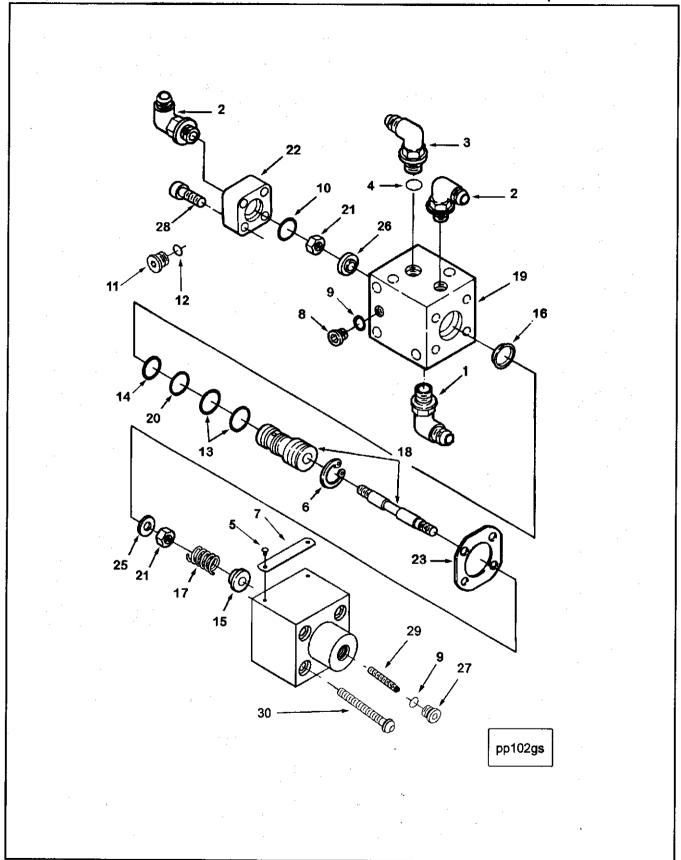
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Ref	up No. 01.04	Engine Piston	1	Option No. PP2038
No.	Part Number	Part Name	Req	Remarks
		ENGINE PISTON		
		OPTION PP2038	Î i	
		<b>0.</b> 10. 11 <b>2</b>		Certified Model Name: N14-360
				Timing gear code: JK (.164).
			1	CPL: 2038
1		<i>i</i>		Certified By: EPA,CARB,Eu AFC: Yes ASA: No
				EFC: No ETC: No
				Manifold Type: Pulse
- [	•	in the second se		Engine Aspiration: Turbocharged And Aftercooled
				Engine Control System: Centry
Ì				Application: N/A Power Turbine: N/A
ł			1	Design Phase: 94 Product
				Power Rating: ECM version:
1	3078330	Rod, Engine Connecting	6	Certification Level:.
<u>'</u>	(3078329)	Rod, Engine Connecting	1	
2	3349806 3064295	Screw, Connecting Rod Cap	2	
3	219154	Bushing Dowel, Ring	2	
5	3055145	Bearing, Connecting Rod	12	
5 5	3055146 3055147	Bearing, Connecting Rod Bearing, Connecting Rod	12 12	
5	3055147	Bearing, Connecting Rod	12	
5	3055149	Bearing, Connecting Rod	12	
6	3064304	Pin, Piston	6	
	3803739	PISTON  Kit, Engine Piston	6	
7	(3087635)	Top, Piston	ľ	
8	3064305	Ring, Retaining	2	
Ì	_	PISTON RINGS		
9	3804500 3064396	Set, Piston Ring Ring, Compression Piston	6	,
10	3064397	Ring, Compression Piston	i	
11	3082580	Ring, Oil Piston	1	
ļ		CYLINDER KIT	1	
	3803740 (3055099)	Kit, Cylinder Liner, Cylinder	1	
	(3087635)	Top, Piston	'	
	3800275	Kit, Piston	1 1	
	3064304 3800259	Pin, Piston Kit, PDC		
	215090	Seal, Rectangular Ring	1	·
	303 <b>2874</b> 3064 <b>30</b> 5	Seal, O Ring Ring, Retaining	2 2	
ļ	3804500	Set, Piston Ring	1	
	3064396	Ring, Compression Piston Ring, Compression Piston	1 1	
	3064397 3082580	Ring, Compression Piston Ring, Oil Piston	i	
1				*.
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	ар No. 06.01	Injector	1	Option No. PP2038
No.	Part Number	Part Name	Req	Remarks
1 2 3 4 5 6 7 8 9 10	3095055 167157 173086 174299 193736 203426 3054999 3041493 (3045047) 3052231 3055742 3034167	INJECTOR OPTION PP2038  Assembly, Injector Ball, Check Gasket, Injector Retainer, Screen Seal, O Ring Pin, Roll Screen, Filter Washer, Plain Plug, Injector Orifice Retainer, Injector Link Screw, Injector Stop Spring, Compression	6 1 1 1 3 2 1 1 1 1 1 1 1 1 1	Remarks  STC injector and mounting for N14 Industrial. CPL 2038. Oil control valve mounted high near rear of block. Top Stop
12 13 14 15 16 17 18 19 20 21	3023478 3084896 3078201 185138 3023934 3052218 3068859 3068860 3075383 3084892 (3084894) (3084893) 3062009 3095024	Spring, Compression Link, Injector Plunger Nut, Tappet Top Stop Lock Retainer, Injector Cup Adapter, Injector Spring Cap, Tappet Top Stop Nut, Lock Tappet, Hyd Var Timing Barrel & Plunger Plunger, Injector Barrel, injector Link, Injector Cup, Injector INJECTOR MOUNTING	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 5/16 - 18 UNF.
24 25	205278 3067992	Screw, Twelve Point Cap Clamp, Injector	1 1	3/8 - 16 X 3 Inch.



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Ref	Part Number	Oil Control Val	Req	Option No. PP10072
No.	Part Number	Part Name	Req	Remarks
		OIL CONTROL VALVE OPTION PP10072		
1 2 3 4 5 6 7 8 9 10 11 2 13 14 15 16 17 18 19 20 21 22 23 24 25 26 9 27 28 29 30	203848 3037662 3061833 3046201 3076332 \$ 2286 \$ 16240 105375 3033742 (3034412) 3034408 3040814 3036666 3042542 3045986 3049041 3056072 3060605 3060606 3066914 3069015 3069989 3070108 4009927 3070186 3070186 3070186 3070198	Elbow, Male Union Elbow, Male Union Union, Male Seal, O Ring Valve, Oil Control Screw, Drive Ring, Retaining Nameplate Plug, Threaded Seal, O Ring Seal, O Ring Plug, Threaded Seal, O Ring Seal, O Ring Seal, O Ring Seal, O Ring Seal, O Ring Retainer, Spring Spring, Leaf Spring, Compression Barrel And Plunger Body, Valve Seal, O Ring Nut, Lock Cover, Oil Control Valve Gasket, Control Valve Body Cover, Diaphragm Washer, Plain Disc, Valve Plug, Threaded Seal, O Ring Plug, Threaded Seal, O Ring Plug, Threaded Screw, Socket Head Cap Screw, Socket Set Screw, Socket Head Cap	121112111111111111111111111111111111111	3/16 inch  7/16 - 20 UNF  1/4 - 28 UNF.  1/4 Inch.
	1. <sup>7</sup> 1 11			
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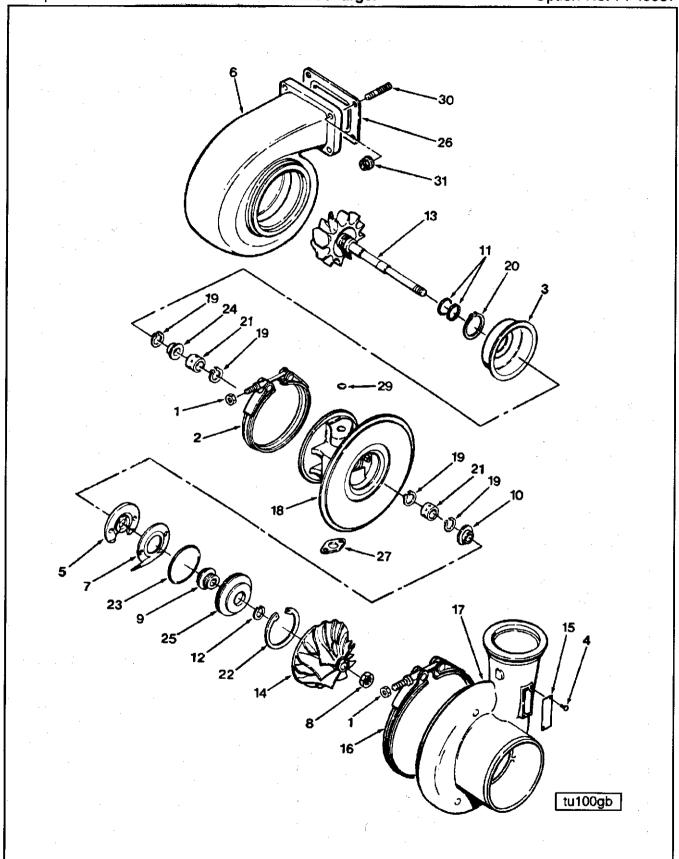
Ref No.	Part Number	Part Name	Req	
1 2 3 4 5 6 7 8 9 10 11 12 13	AK 4014 SS AK 4021 SS AK10012 SS (AK 8039 SL) S 155 A S 626 60724 68138 69911 A 3010592 3055042 3076301 3896027 S 602	OIL CONTROL VALVE MOUNTING OPTION PP10072  Hose, Flexible Hose, Flexible Hose, Flexible Screw, Hexagon Head Cap Washer, Plain Spacer, Mounting Connector, Male Clip Screw, Captive Washer Cap Bracket, Valve Clamp, Wire Tie Valve, Check Washer, Plain	11112221241112	5/16 - 18 x 2 3/4 inch 5/16 inch 3/8 - 24 x 7/8 inch

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Ref	p No. 06.01.4	Viscosity Senso		Option No. PP1007
No.	Part Number	Part Name	Req	Remarks
1 2 3 4 5 6 7 8 9	3066463 AK 4005 60SS AK 6013 20SS 3037662 3052675 3065134 3065135 3065177 3067503 3069112	VISCOSITY SENSOR  OPTION PP10072  Sensor, Viscosity Hose, Flexible Hose, Flexible Elbow, Male Union Screw, Captive Washer Cap Hose, Flexible Bracket, Valve Screw, Captive Washer Cap Elbow, Male Union Tee, Male Union	1 1 1 1 2 1 1 2 1 1	5/16 - 18 x 15/16 inch 7/16 - 20 x 1 3/8 inch
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			# # # # # # # # # # # # # # # # # # #	

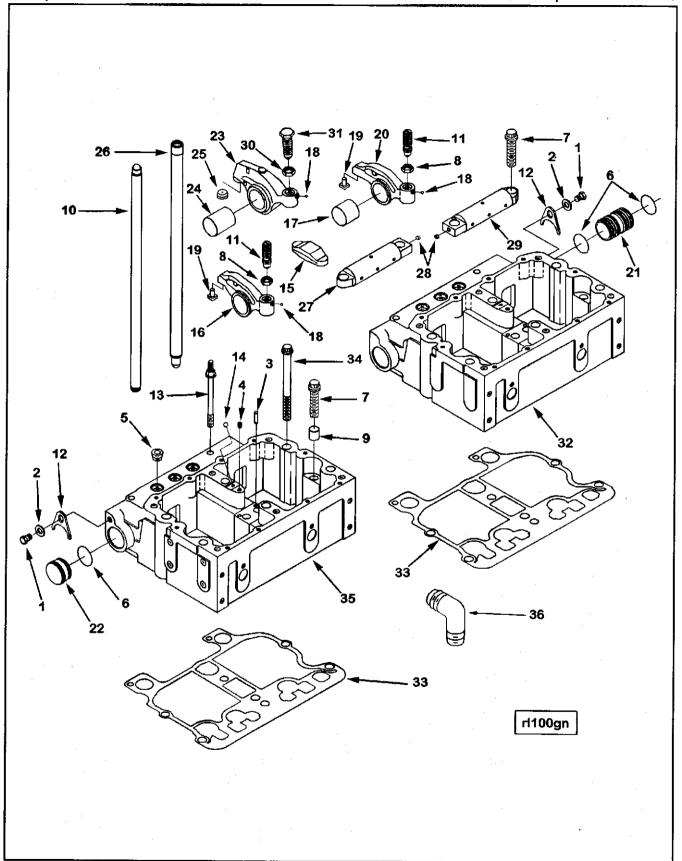
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Ref	Part Number	Oil Manifold  Part Name	Req	Option No. PP100/
No.				
ļ		OIL MANIFOLD OPTION PP10072		STC Injector Plumbing for N14 industrial engines. Oil control valve mounted low near center of block just above pan rail.
1 2 3 4 5 6 7	3067944 3019572 3008465 3001340 3071225 68425 68152	Manifold, External Oil Screw, Captive Washer Cap Plug, Pipe Seal, O Ring Screw, Captive Washer Cap Clip Clip	1 3 1 3 3 2	1/8 NPT 3/8 - 16 X 3/4 Inch.
4 8 9 10	3001340 3068014 3052587 3050867	OIL TUBE PLUMBING Seal, O Ring Tube, Var Timing Supply Seal, O Ring Seal, Grommet	6 6	
11 12 13	3071222 (3070513) 3040814 3036666 3909397 3074387	OIL MANIFOLD CONNECTOR Connector, Oil Manifold Connector, Oil Manifold Plug, Threaded Seal, O Ring Seal, O Ring Screw, Captive Washer Cap	1 1 1 6 6	7/16 - 20 UNF 5/16 - 24 x 1 1/4 inch.
15	3066837	Plug, Bali		
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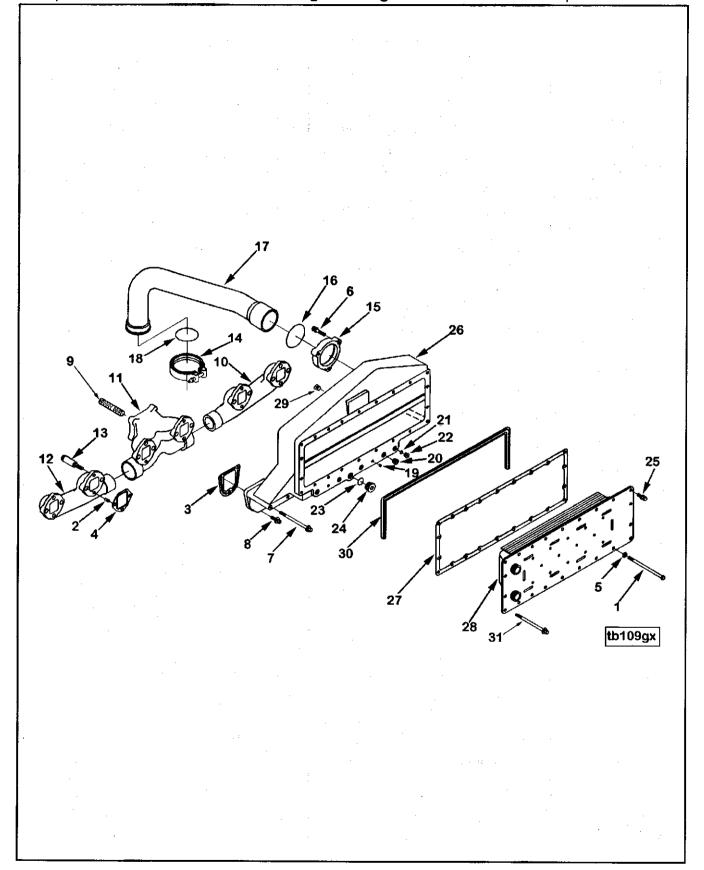
	ıp No. 10.06	<u>Turb</u> ocharger		Option No. PP1008
Ref No.	Part Number	Part Name	Req	Remarks
		TURBOCHARGER		
		OPTION PP10087		HT60-N0881A/H32K1 Turbo for use on Industrial N14 engines between 360 BHP and 425 BHP. Non-watercooled bearing housing. CPL:2033
l	3804566	Kit, Turbocharger	1 1	art in
1	(3536804) 3529372	Assembly, Turbocharger Nut, Regular Hexagon	1 2	1/4 - 28 UNF
2	(3539458) 3519155	Clamp, V Band Shield, Turbocharger Heat	1 1	
4	3519163	Screw, Drive	4	
5	3536075	Bearing, Tur Thrust	1 1	
6	(3537000) 3529658	Housing, Turbine Baffle, Oil		
8	3519471	Nut, Lock	1 1	7/16 - 20 UNF
9	3521439 3521440	Slinger, Oil Collar, Thrust	1 1	
11	3521441	Seal, Split Ring	2	
12	3521442 3594952	Seal, Split Ring Shaft & Wheel	1 1	
14	3527047	Impeller, Tur Compressor	1   1	
15 16	(3527907) 3532045	Dataplate Clamp, V Band	1 1	
17	(3536324)	Turbocharger	' ا	t e
18 19	(3536096) 3709510	Housing, Tur Bearing Ring, Retaining	1 4	
20	3718373	Ring, Retaining	1 1	
21	3722366 3723863	Bearing, Turbocharger Ring, Retaining	2	
23	3751948 3757753	Seal, O Ring Sleeve, Oil Control	1 1	
24 25	375961B	Plate, Oil Seal	i	
		MOUNTING PARTS		
26	3069177	Gasket, Turbocharger Gasket, Connection	1 1	
27 29	3202117 3037537	Seal, O Ring	;	
30 31	3056155 3056158	Stud Nut, Hexagon Flange	4	3/8 - 24 UNF.
ا'`	<b>3030130</b>	True, Honegon Finings		33 24 5W.
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## Rocker Lever

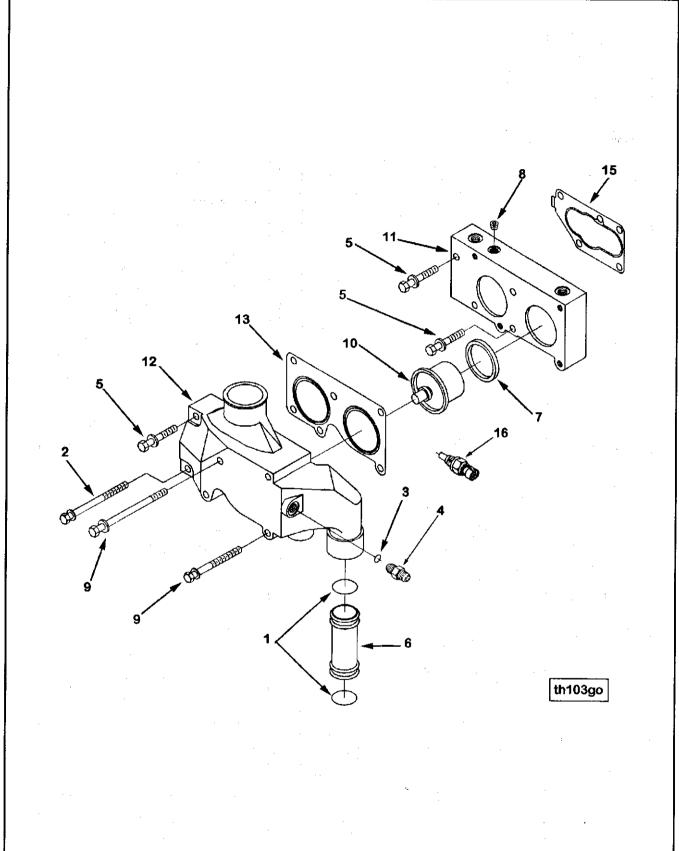
	ир мо. 03.01	HOCKER Lever	, ,	Option No. RL1720
Ref No.	Part Number	Part Name	Req	Remarks
1 2	S 117 S 602	ROCKER LEVER OPTION RL1720  Screw, Hexagon Head Cap Washer, Plain	3 3	Rocker lever housings and mounting, valve crossheads and push tubes for use without engine brake. Includes inserted valve rocker levers. 1.3 RR cast lever for N14. Contains water manifold plumbing to suit aftercooler return line to rear of engine, for use with dual thermostat.  3/8 - 16 X 3/4 Inch. 3/8 Inch.
3 4 5 6 7 8 9 10 11	148555 3008464 3008468 3050667 3064320 3066257 3066270 3066291 3066644 3067950	Dowel, Pin Plug, Pipe Plug, Pipe Seal, O Ring Screw, Twelve Point Cap Nut, Regular Hexagon Jam Dowel, Ring Rod, Push Screw, Slotted Set Plug, Retainer	6 3 8 5 12 12 6 12 12 3	1/16 NPT 1/2 NPT 9/16 - 12 x 2 1/4 inch 9/16 - 18 UNF
13 14 15 16 17 18 19 20 17	3067952 3069637 3069689 (3070465) 3058462 3067941 (3070463) (3070982) (3070466) 3058462	Screw, Hexagon Head Cap Plug, Ball Crosshead, Valve Lever, Rocker Bushing Plug, Ball Lever, Rocker Insert, Rocker Lever Lever, Rocker Bushing	6 3 12 6 1 1 1 6 1	3/8 - 16 x 4 1/4 inch
18 19 21 22 23 24 25	3067941 (3070464) (3070982) 3071228 3071229 (3073494) 3064267 3064621	Plug, Ball Lever, Rocker Insert, Rocker Lever Tube, Water Transfer Plug, O Ring Lever, Rocker Bushing Socket, Tappet	1 1 2 1 6 1 1	
18 26 27 28 29 28	3067941 (3073303) 3073499 3074376 203933 (3074373) 3074375 203933 (3074374) 3074975	Plug, Ball Lever, Rocker Rod, Push Shaft, Rocker Lever Plug, Expansion Shaft, Rocker Lever Shaft, Rocker Lever Plug, Expansion Shaft, Rocker Lever Plug, Expansion Shaft, Rocker Lever Nut, Regular Hexagon Jam	1 1 6 3 1 1 3 1 1 6	
30 31 32 33 34 35 36	3074973 3075318 (3076221) 3076292 3081151 3865125	Screw, Hexagon Head Set Housing, Rocker Lever Gasket, Rkr Lever Housing Screw, Twelve Point Cap Housing, Rocker Lever  Elbow, Male Adapter	6 2 3 18 1	Use on front for thermostat housing connection.



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## **Turbocharger Arrangement**

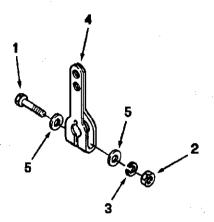
Ref No.	Part Number	Part Name	Req	Remarks
Ref	69102 105199 3008591 3020943 3036460 3044413 3049301 3051427 3056155 3062568 3065022 3065024 3067930 3067979 3084603 3084848 3097000 3095826 3097279 3008465 3025458 3037536 3037537 (3040813) 3040818 3035228 (3040819) 3040838 3097278 3084382 3084383 3097278 3084382 3084383 3097278 3084383 3097278 3084383 3097278 3084383 3097278 3084383 3097278 3084383 3097278 3084383 3097278 3084383 3097278 3084383 3097278	Part Name  TURBOCHARGER ARRANGEMENT OPTION TB1322  Screw, Hexagon Head Cap Pin, Groove Gasket, Intake Manifold Gasket, Exhaust Manifold Washer, Spring Screw, Captive Washer Cap Screw, Captive Washer Cap Screw, Captive Washer Cap Stud Manifold, Exhaust Manifold, Exhaust Manifold, Exhaust Manifold, Exhaust Screw & Spacer Clamp, V Band Retainer, Seal Seal, O Ring Tube, Air Crossover Seal, O Ring Aftercooler Assembly Plug, Pipe Plug, Pipe Plug, Threaded Seal, O Ring Plug, Threaded Seal, O Ring Plug, Threaded Seal, O Ring Plug, Threaded Seal, O Ring Plug, Threaded Screw, Captive Washer Cap Manifold, Air Intake Gasket, Aftercooler Cover Core, Aftercooler Plug, Pipe Seal, Rectangular Strip Screw, Captive Washer Cap		



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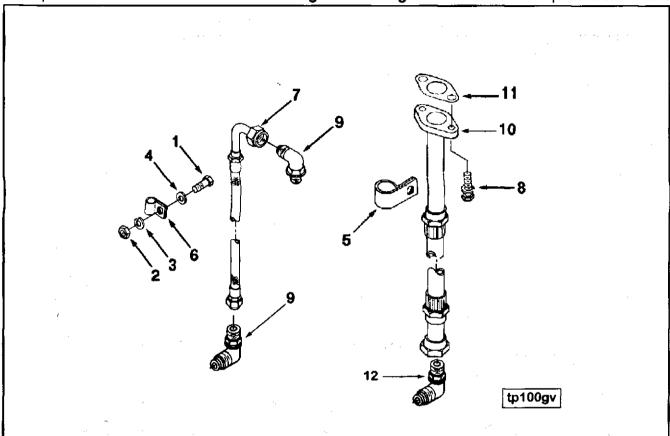
**Thermostat Housing** 

	up No. 08.07	Thermostat Housi	ng	Option No. TH1117
Ref No.	Part Number	Part Name	Req	Remarks
		THERMOSTAT HOUSING OPTION TH1117		Dual thermostat housing and mounting to water pump for industrial N14-STC and celect JWAC engines without automatic transmissions. Water outlet O.D. is 2.50 inches and is oriented straight up. The outlet is located 31 inches up and 8 inches outboard from the crankshaft centerline and 4 inches back from the front face of the block.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	43463 A 3040836 3042619 3037537 (3042620) 3068533 3076491 (3865175) 186780 3008466 3042890 3411335 3865122 3865172 3865236 3865178 3865195 3865312	Seal, O Ring Screw, Captive Washer Cap Nipple, Coupling Seal, O Ring Nipple, Coupling Screw, Captive Washer Cap Tube, Water Transfer Housing, Thermostat TLA Seal, Thermostat Plug, Pipe Screw, Captive Washer Cap Thermostat Housing, Thermostat Cover, Thm Housing Gasket, Thm Housing Cover Screw, Captive Washer Cap Gasket, Thermostat Hsg Sensor, Temperature	2 1 1 1 1 3 7 1 2 1 3 1 1 1 1 1 1 1 1 1 1	3/8 - 16 X 2 1/2 Inch.  1/4 NPT 3/8 - 16 X 4 Inch.
		, e i		

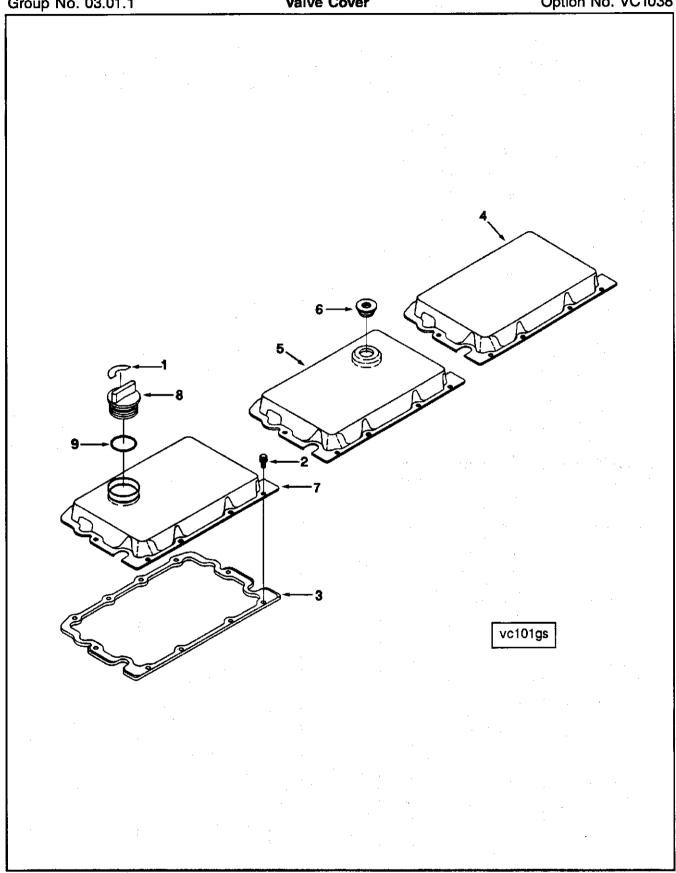


tl100gd

Ref No.	Part Number	Part Name	Req	Remarks
		THROTTLE LEVER OPTION TL1043		Two hole rigid type lever .34 inch diameter with 4.00 and 5.00 centers. Used with variable speed type fuel pump.
1 2 3 4 5	S 159 B S 270 S 600 110481 70704	Screw, Hexagon Head Cap Nut, Regular Hexagon Washer, Lock Lever, Throttle Washer, Plain	1 1 1 1 2	1/4 - 28 x 1 1/2 Inch 1/4 - 28 UNF 1/4 Inch



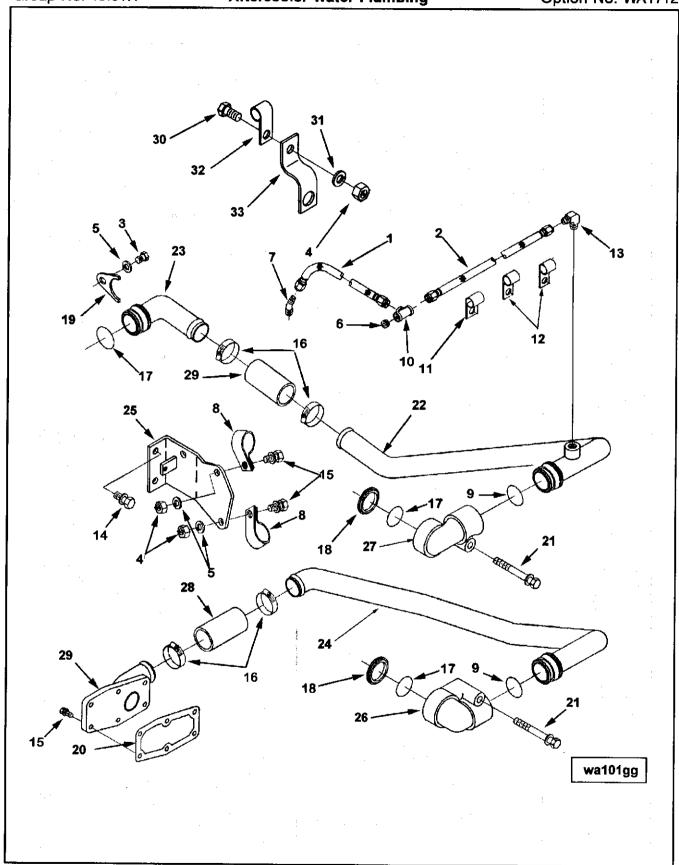
Ref No.	Part Number	Part Name	Req	Remarks
		TURBOCHARGER PLUMBING OPTION TP1719		Turbocharger oil supply and drain plumbing for front out exhaust. Drain tube routes from turbo to rear, 1 3/16 hole in block. Supply is taken from tube oil cooler.
1 2 3 4 5 6 7 8 9 10 11 12	S 115 S 221 S 605 S 626 69465 108722 209955 3010596 3037535 3076164 3202117 3067996	Screw, Hexagon Head Cap Nut, Heavy Hexagon Washer, Lock Washer, Plain Clip Clip Hose, Flexible Screw, Captive Washer Cap Elbow, Male Union Connection, Tur Oil Drain Gasket, Connection Union, Male	1 1 1 2 1 1 1 2 2 1 1	5/16 - 18 x 7/8 Inch 5/16 - 18 UNC 5/16 Inch 5/16 Inch 3/8 - 16 x 1 1/4 inch



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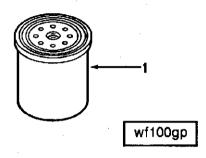
Valve Cover

	up No. 03.01.1 Valve Cover		Option No. VC1038		
Ref No.	Part Number	Part Name	Req	Remarks	
1 2 3 4 5 6 7 8 9	3027935 3066310 3066311 3075022 3075024 3042401 3076366 3081143 3026393	VALVE COVER OPTION VC1038  Decal Screw, Captive Washer Cap Gasket, Rocker Lever Cover Cover, Rocker Lever Cover, Rocker Lever Seal, Grommet Cover, Rocker Lever Cap, Filler Seal, O Ring	1 30 3 1 1 1 1	Steel stamped valve covers and mounting with oil fill located over No. 1 cylinder and breather located over No. 4 cylinder.  1/4 - 20 x 3/4 inch  Cam lock design	
				<i>:</i>	
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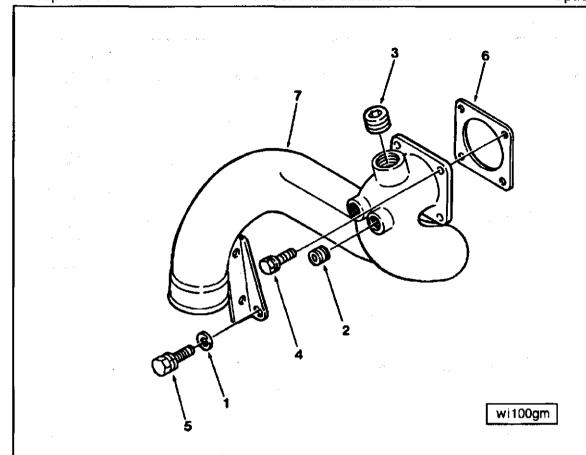


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Ref No.	Part Number	Part Name	Req	Remarks
	·	AFTERCOOLER WATER PLUMBING OPTION WA1712		Aftercooler plumbing around rear of engine for
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	AK 4019 MS AK 4028 MS S 117 S 223 S 602 S 911 B 3175773 67950 68910 70802 100269 108722 68139 3006182 3011342 3026806 3050667 3063294 3067950 3069098 3079842 3097258 3097258 3097258 3097256 3818271 3095802 S 190 S 603 67950 113710	Hose, Flexible Hose, Flexible Screw, Hexagon Head Cap Nut, Heavy Hexagon Washer, Plain Plug, Pipe Elbow, Male Adapter Clip Seal, O Ring Tee, Female Pipe Clip Clip Elbow, Male Adapter Screw, Captive Washer Cap Screw, Captive Washer Cap Clamp, Hose Seal, O Ring Seal, O Ring Seal, O Ring Seal, Cover Plate Retainer, Plug Gasket, Cover Plate Screw, Captive Washer Cap Tube, Water Outlet Tube, Water Outlet Tube, Water Transfer Tube, Water Tube Connection, Water Transfer Hose, Plain Connection, Water Outlet Screw, Hexagon Head Cap Washer, Lock Clip Brace, Tube	1 1 3 3 3 1 1 2 2 1 1 5 6 4 3 2 3 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	industrial N14 STC and celect using JWAC.  3/8 - 16 x 3/4 inch 3/8 - 16 UNC 3/8 inch 1/8 NPT  1/8 NPTF x 7/16-20 (90) 3/8 - 16 X 7/8 Inch. 1/4 - 20 X 3/4 Inch. 1 3/8 - 1 3/4 inch  5/8 - 18 X 1 Inch. 5/8 Inch.



No.	Part Number	Part Name	Req	Remarks
	CORROSION RESISTOR OPTION WF1169		Water system corrosion filter. Filter head and mounting are integral part of oil cooler assembly. For cooling system capacity of 8-15 gallons. Contains one filter element with 23 DCA units, achieving a system concentration of 1.5-3.0 DCA units per cooling system gallon.	
1	(3844234)	Resistor, Corrosion	1	



Ref No.	Part Number	Part Name	Req	Remarks
		WATER INLET CONNECTION OPTION WI1060		One piece water inlet connection. Has 2.5 inch O.D. hose connection located between oil filter and alternator pointing straight down. Includes one 1/2 inch NPT hole, one 3/4 inch hole reduced to 1/2 inch NPT hole and one 1 inch NPT hole plugged.
1 2 3 4 5 6 7	63842 3008468 3008470 3010595 3012470 3024960 3064438	Washer, Plain Plug, Pipe Plug, Pipe Screw, Captive Washer Cap Screw, Captive Washer Cap Gasket, Connection Connection, Water Inlet	1 2 1 4 1	3/8 inch 1/2 NPT 1 NPT 3/8 - 16 x 1 inch 3/8 - 16 x 3/4 inch

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	лр No. 08.01	Option No. W		
Ref No.	Part Number	Part Name	Req	Remarks
No.  1 2 3 4 5 6 7 8 9 10 11 12	217638 3012468 3066207 3076522 \$ 201 66912 1 B 213082 3066330 \$ 107 \$ 16255 145551 3070458 3074482	WATER PUMP OPTION WP1061  Belt, V Ribbed Screw, Captive Washer Cap Screw, Hex Flange Head Cap Gasket, Water Pump Nut, Heavy Hexagon Screw, Hexagon Head Cap Washer, Plain Pulley, Idler Screw, Hexagon Head Cap Ring, Retaining Seal, O Ring Washer, Plain Seal, Oil	1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Water pump and mounting. Includes belt. (2.05:1 speed ratio)  3/8 - 24 x 2 1/4 inch 3/8 - 24 x 3 1/8 inch  5/8 - 11 UNC  5/8 inch  5/16 - 18 x 3/4 inch
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	3072355 3064404 3064406 3066328 3803605 (3076529) S 911 B S 16255 3609920 3038998 3064386 3064392 196844 3074482 (3064389) 3064390 3064406 3076523 3067999	Pulley, Idler Cover, Idler Pulley Bearing, Ball Shaft, Idler Kit, Water Pump Assembly, Water Pump Plug, Pipe Ring, Retaining Seal, Water Pump Seal, Oil Impeller, Water Pump Assembly, Wtr Pump Shaft Spacer, Bearing Seal, Oil Shaft, Water Pump Slinger, Water Bearing, Ball Body, Water Pump Pulley, Water Pump	1 1 1 3 1 1 1 1 1 2 1 1	1/8 NPT
18 19 4 21 24	3803612 S 16255 43463 A 3024960 3609920 3076522 3803614 3064386 3064392 3803612	Kit, Wtr Pump Rpr (minor) Ring, Retaining Seal, O Ring Gasket, Connection Seal, Water Pump Gasket, Water Pump Kit, Wtr Pump Rpr (major) Impeller, Water Pump Shaft, Water Pump Kit, Wtr Pump Rpr (minor)	1 1 1 1 1 1	

## **Gasket Sets**

Ref No.	Part Number	Part Name	Req	Remarks
	4024924 8078 43463 A 68910 131026 3001340 3008591 3020943 3037537 3042401 3050667 3052587 3064313 3066211 3066311 3068510 3069177 4058790 3076292 3084848 3202117 3909397 3328464	GASKET SETS  Set, Upper Engine Gasket Washer, Plain Seal, O Ring Seal, O Ring Seal, O Ring Seal, O Ring Gasket, Intake Manifold Gasket, Exhaust Manifold Seal, O Ring Seal, Grommet Seal, O Ring Seal, Grommet Seal, O Ring Gasket, Thermostat Housing Gasket, Thermostat Housing Gasket, Rocker Lever Cover Seal, Rectangular Ring Gasket, Turbocharger Gasket, Cylinder Head Gasket, Rkr Lever Housing Seal, O Ring Gasket, O Ring Gasket, Connection Seal, O Ring Gasket, Connection Seal, O Ring Seal, O Ring	1 3 2 4 12 6 3 6 2 1 6 6 8 1 1 3 3 1 1 6 1	N14 STC 1/4 inch
	3084539	Seal, O Ring	6	
		·		

## **Gasket Sets**

Ref No.	Part Number	Part Name	Req	Remarks
		GASKET SETS		
	4024926 8078 131026 3001340 3008591 3020943 3042401 3050667 3050867 3052587 3066211 3066311 3069177 4058790 3076292 3202117	Set, Single Head Gasket Washer, Plain Seal, O Ring Seal, O Ring Gasket, Intake Manifold Gasket, Exhaust Manifold Seal, Grommet Seal, O Ring Seal, Grommet Seal, O Ring Seal, O Ring Gasket, Rocker Lever Cover Gasket, Turbocharger Gasket, Cylinder Head Gasket, Rkr Lever Housing Gasket, Connection	38 2 3 6 1 4 2 6 1 1 1 1 1 1 1 1	N14 STC 1/4 Inch.
	3823546 3909397	Gauge, Capscrew Seal, O Ring	1 2	· .

# Gasket Sets

0.	Part Number	Part Name	Req		Remarks
1	. n.	GASKET SETS			
	4025068	Set, Lower Engine Gasket	1	N14 Plus	
	67946	Washer, Plain	2	1 1/32 inch	
	145504	Seal, O Ring	2	1 1702 111011	
-	157551	Gasket, Oil Suc Connection	1 1		
-	215705	Seal, O Ring	li		
1	3006737	Seal, Oil	li		
	3014778	Gasket, Lub Oil Pump Cover	li		
	3020186	Seal, Oil	li		•
	3024960	Gasket, Connection	li		
	3029847	Seal, O Ring	li		
	3034412	Seal, O Ring	. 2		
	3034986	Seal, Rectangular	1		•
1	3037537	Seal, O Ring	8		
1	3038998	Seal, Oil	1		
1	3046943	Seal, O Ring	li		
	3063166	Seal, O Ring	2		•
١	3066298	Gasket, Oil Cooler Support	1 1		
1	3067613	Gasket, Lub Oil Pump	l i		
1	3067616	Gasket, Rear Cover	1 1		
Т	3068466	Gasket, Hand Hole	i		
ı	3068473	Gasket, Cam Follower	3		*
	3069098	Gasket, Cover Plate	li		•
Т	3069678	Gasket, Lub Oil	l i		•
	3070477	Gasket, Oil Cooler Support	1		•
1	3070478	Gasket, Filter Head	li		
Т	3072341	Gasket, Oil Trf Connection	l i	•	
1	3072375	Seal, Rectangular Ring	2		
	3074400	Gasket, Cam Fol Housing	3		
l	3074401	Gasket, Cam Fol Housing	3	ļ	
	3074402	Gasket, Cam Fol Housing	3		
-	3074482	Seal, Oil	2		•
-	3076203	Seal, Dust	1 1		
	3076225	Gasket, Acc Drive Support	li		
-	3076522	Gasket, Water Pump	l i		
-	3099083	Gasket, Oil Pan	l i		
	3328464	Seal, O Ring	1 i		
	3800616	Kit, Seal	li	į	•
-	(3078292)	Seal, Oil	1		•
-	3083917	Tool, Seal Installation	1		•
-	3412267	Seal. Dust	1		
-	4026171	Gasket, Fuel Pump	1		
-	(4058941)	Seal, O Ring	6	]	
	(4058949)	Gasket, Gear Cover	1	<b>!</b>	
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## KITS AND SETS

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	4025068	Set, Lower Engine Gasket		
	4024924	Set, Upper Engine Gasket		
	4024926	Set, Single Head Gasket		
	3803612	Kit, Water Pump Repair		
	3803614	Kit, Sater Pump Repair	:	
1 1	3803745	Kit, Turbo Repair		
	3803741	Kit, Engine Piston		CPL2033, CPL1921
	3804500	Set, Piston Ring		CPL2033, CPL1921, CPL2038
	3803742	Kit, Cylinder		CPL2033, CPL1921
	3803739	Kit, Engine Piston		CPL2038
	3803740	Kit, Cylinder		CPL2038
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	Accessory Drive Pulley
AP1001	Agency Approval
4	Crankshaft
BB1701	
***************************************	
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BR1178	Crankcase Breather
CF1020	Ref Compressor Mounting
DD1704	
DP1018	Fuel Pump Drive
EM1253	Front Engine Support
FA1370	Fan Drive
FE1724	Air Fuel Control Plumbing
FF1133	Fuel Filter
FH11057	Flywheel Housing
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	Fuel Shutoff Valve
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LA1061	Lifting Bracket
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LF1173	Full Flow Oil Filter
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OP1142	Oil Pan
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	Cylinder Head
	Engine Piston
	Hydraulic Variable Timing
	Injector
	Piston Cooling Nozzle
PP2033	Camshaft
FF2000	Cylinder Head
	Engine Piston
	Hydraulic Variable Timing
	Injector
	and a second control of the second control o
PP2038	Camshaft
	Cylinder Head
	Engine Piston
,,	Hydraulic Variable Timing
	Injector
	Piston Cooling Nozzle
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	Oil Control Valve Mounting
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PP10087	Turbocharger
RL1720	•
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TH1117	Thermostat Housing
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