

# Parts Manual



See "General Information"  
for New Parts Manual  
Features.

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## **3608 MARINE**

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6MC716 (Engine) BGBTG00 (ESO)

This Parts Manual is also available in .PDF Format on Compact Disc  
(CD-ROM) - Caterpillar Form No. SERL3600.

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# Product and Dealer Information

Note: For product identification plate locations, see the section "Product Identification Information" in the Operation and Maintenance Manual.

Delivery Date: \_\_\_\_\_

## Product Information

Model: \_\_\_\_\_

Product Identification Number: \_\_\_\_\_

Engine Serial Number: \_\_\_\_\_

Transmission Serial Number: \_\_\_\_\_

Generator Serial Number: \_\_\_\_\_

Attachment Serial Numbers: \_\_\_\_\_

Attachment Information: \_\_\_\_\_

Customer Equipment Number: \_\_\_\_\_

Dealer Equipment Number: \_\_\_\_\_

## Dealer Information

Name: \_\_\_\_\_ Branch: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Dealer Contact

Phone Number

Hours

Sales: \_\_\_\_\_

Parts: \_\_\_\_\_

Service: \_\_\_\_\_

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# GENERAL INFORMATION

## 1. ENGINE IDENTIFICATION

Caterpillar 3600 family of engines are identified with serial numbers and Engine Shipping Order Numbers. The serial number plate is mounted on the engine.

Caterpillar dealers need this information to determine which components were included on the engine when it was assembled at the factory. This permits accurate identification of replacement part numbers.

## 2. ORDERING PARTS

### WARNING

**When replacement parts are required for this product Caterpillar recommends using Caterpillar replacement parts or parts with equivalent specifications including, but not limited to, physical dimensions, type, strength and material.**

**Failure to heed this warning can lead to premature failures, product damage, personal injury or death.**

Quality Caterpillar replacement parts are available from Caterpillar dealers throughout the world. Their parts inventories are up to date and include all parts normally required to protect your investment in Caterpillar Engines. Dealers may offer repair kits or remanufactured parts to allow selection of the most effective repair alternative for a particular situation. When ordering parts, your order should specify the quantity, part number, part name, and the serial number/product identification number of the engine for which the parts are needed.

## 3. PARTS MANUAL ORGANIZATION

Product information in this manual is presented as "information elements" that represent all of the components for the specific model. An Engine Arrangement is an example of an information element. The information elements are organized alphabetically by part name and secondarily by part number within each major section of the manual.

## 4. TABLE OF CONTENTS

A table of contents (TOC) is found at the beginning of the manual. The TOC lists each section of the manual with a complete list of all information elements organized as they appear in the manual. Page numbers are provided for quick reference to detailed parts identification illustrations and serviceable consist lists.

## 5. MAINTENANCE PARTS INDEX

The Maintenance Parts Index, located near the beginning of the manual, references most frequently used maintenance part numbers, providing description, quantity, usage and page number. This information is organized alphabetically by part description.

## 6. INDEX

The index located near the front of the manual is an alphabetical listing of all information elements included in the manual. Page numbers are provided for quick reference to detailed parts identification illustrations and serviceable consist lists.

## 7. PART NUMBER INDEX

A numerical index listing all part numbers and the corresponding page number(s) appears at the back of the manual.

## 8. CAPTIONS

Captions located at the beginning of each information element identify the part number and part name along with additional descriptive information. S/N information found in each caption should be used to select correct information for a specific engine. Field replacement options, identification of optional attachment components, and where used ("part of") information is also provided.

The first line of a caption is shown in larger type font to indicate the beginning of an information element. Captions for additional pages that may be required to illustrate an information element will be shown in standard type font and will include the term (*contd.*) .

## 9. NON-SERVICED PARTS

In some instances it is necessary to display non-serviced parts that are a link to lower level serviceable consist lists. These non-serviced part numbers are shown in *italic* type indicating that they are not available. All consist lists have not been converted to reflect this enhancement.

# GENERAL INFORMATION

## 10. PARTS LIST REFERENCE NUMBERS

Numbers shown in the Ref No column correspond to numbers used in the associated graphic(s). An alphabetic suffix may be added to a reference number to identify lower level consist items. Numbers shown in the Graphic Ref column refer to the graphic number identifier displayed in the lower left corner of each illustration. The Graphic Ref number may be used in combination with the item Ref No to determine the correct part number. There may be intentional omission of a Ref No in a consist list as information is updated to reflect the latest serviceable part numbers.

## 11. INDENTED PART NAMES

When a part name is indented in a parts list, it is part of (included in) the group or assembly under which it is indented.

## 12. ILLUSTRATION REFERENCE LETTERS

When necessary, illustrations contain reference letters (A, B, C etc.) that are intended to track lines and harnesses from one point to another. They are also used to show where to reconnect illustrations that have been separated.

## 13. ABBREVIATIONS AND SYMBOLS

- O.D.** – Outside Diameter
- I.D.** – Inside Diameter
- A** – Not Part Of This Group
- B** – Use As Required
- C** – Change From Previous Type
- D** – Order By The Meter
- E** – Order By The Centimeter
- F** – Not Shown
- G** – Order By The Inch
- I** – Refer To Hydraulic Information System
- M** – Metric Part
- R** – Remfg Part May Be Available
- Y** – Separate Illustration
- Z** – Not Serviced Separately

 *New Feature*

## 14. <END>

This symbol indicates the end of an information element.

## NOTE:

Continuing improvement and advancement of product design may cause changes to your engine which may not be included in this publication. Whenever a question arises regarding your Caterpillar product or this publication, please consult your Caterpillar dealer for the latest available information.

## SEE TECHNICAL MANUALS FOR ALL PACKAGING ARRANGEMENTS

This manual is shipped with all 3600 Engines and contains major components not serviced by Caterpillar. Contact Lafayette plant for further information.

Telephone: 765-448-2200

7:30 AM - 4:00 PM EST USA

Internet e-mail:

[LECServicesupport@cat.com](mailto:LECServicesupport@cat.com)

Website:

<https://lecservicesupport.cat.com>

# REPAIR ALTERNATIVES

## REMANUFACTURED COMPONENTS

As an option when making repairs consider Caterpillar Remanufactured Components. Components that are available through the Caterpillar Remanufactured Program are identified three ways in the parts book:

- with the letter R in the note field of the parts list
- with an R\* at the beginning of the first line of the caption
- with an \*R at the end of the first line of the caption

Typical components included in the Remanufacturing Program for 3600 Series Engines include:

CONNECTING RODS  
CYLINDER HEADS  
FUEL INJECTORS  
OIL COOLERS  
OIL PUMPS  
WATER PUMPS

Check with your local Caterpillar Dealer for the availability of Remanufactured Components.



# SUPPLEMENTAL COOLANT ADDITIVES

**CUSTOMER BENEFITS:**

Protects against cavitation, foam, erosion, corrosion, and scale buildup in cooling systems.

- Provides measured coolant conditioner.

**DESCRIPTION:**

Additives deplete from the coolant with normal operation. For this reason, Supplemental Coolant Additives (SCA) must be added to all heavy duty coolants at regular intervals. In addition, when not using a fully formulated, pre-charged antifreeze, like Caterpillar's DEAC, an initial charge of SCA must be added to the cooling system. The amount of SCA added to the system is dependent on the capacity of the system.

The SCA for initial fill is provided as a liquid. SCA's for maintenance intervals are available in liquid form and as a spin-on element. (No Spin-on available for 3600 Family of Engines)

**NOTE:**

The amount of SCA added at initial fill is not the same as the amount added at maintenance intervals.

The coolant additive elements can be used with any ethylene or propylene glycol type antifreeze which meets ASTM D4985 or ASTM D5345 Specifications.

**NOTE:**

For use with standard heavy duty coolant only, not for use with Extended Life Coolant.

**PARTS NEEDED:**

Cooling System Capacity		Liquid SCA at Initial Fill	Liquid SCA at Maintenance*	Spin-on SCA Maintenance Element*
Liters	Gallons			
22-30	(6-8)	3P-2044 (1)	6V-3542 (1)	111-2370 (1)
30-38	(8-10)	3P-2044 (1) 6V-3542 (1)	111-2372 (1)	111-2369 (1)
38-49	(10-13)	3P-2044 (1) 8T-1589 (1)	111-2372 (1)	111-2369 (1)
49-64	(13-17)	3P-2044 (2)	8T-1589 (1)	9N-3368 (1)
64-83	(17-22)	3P-2044 (2) 8T-1589 (1)	111-2372 (1) 6V-3542 (1)	111-2371 (1)
83-114	(22-30)	3P-2044 (3) 8T-1589 (1)	3P-2044 (1)	9N-3718 (1)
114-163	(30-43)	3P-2044 (5)	3P-2044 (1) 6V-3542 (1)	111-2371 (2)
163-242	(43-64)	3P-2044 (8)	3P-2044 (2)	9N-3718 (2)

\* Normal maintenance period is 250 hrs. See your Operation and Maintenance Manual for complete coolant maintenance instructions.

( ) Indicates quantity required.

# MAINTENANCE PARTS

DESCRIPTION	PART NUMBER	QTY	WHERE USED	PAGE
<b>BASIC ENGINE</b>				
SEAL-O-RING	5P-7818	3	HOUSING GP-FRONT	34
<b>COOLING SYSTEM</b>				
ELEMENT	149-9771	4	VALVE GP-THERMOSTATIC	92
REGULATOR-OIL TEMPERATURE (85-DEG C)	120-9453	4	LINES GP-OIL COOLER	78
SEAL-LIP TYPE	3S-9643	4	LINES GP-OIL COOLER	78
		4	LINES GP-WATER	81
SEAL-O-RING	3P-0654	8	LINES GP-OIL COOLER	78
<b>ELECTRICAL AND STARTING SYSTEM</b>				
CIRCUIT BREAKER AS (13-AMPERE)	142-7448	1	PANEL GP-CONTACTOR	162
<b>FUEL SYSTEM</b>				
FILTER ELEMENT AS-FUEL	1R-0766	8	FILTER GP-FUEL	125
<b>LUBRICATION SYSTEM</b>				
BREATHER AS	4W-3027	2	BREATHER GP	49
CAP-FILLER (ENGINE OIL)	4P-6979	1	CAP GP-ENGINE OIL FILLER	50
CAP GP-ENGINE OIL FILLER	7E-1659	1	FILLER GP-ENGINE OIL	51
ELEMENT AS-OIL FILTER	179-1502	6	FILTER GP-ENGINE OIL	54
GASKET-FLANGE	7C-5485	1	FILTER GP-CENTRIFUGAL	53
SEAL-O-RING	3P-0654	2	LINES GP-ENGINE OIL	58
	7C-4419	1	FILTER GP-CENTRIFUGAL	53
	7C-4421	1	FILTER GP-CENTRIFUGAL	53
<b>OPERATOR STATION</b>				
CIRCUIT BREAKER AS (10-AMPERE)	114-1142	3	PANEL GP-CONTROL	187

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# ENGINE SHIPPING ORDER

## Lafayette 3608 Engine

ESO: BGBTG00  
AR: 7E-7008

S/N: 6MC716  
ENGR MDL: E296

STATUS: F  
SALES MDL: 3608

PART NUMBER	PRODUCT LEVEL	PART NAME	QTY	CHANGE LEVEL
1W-0798	1	FILTER GP-ENGINE OIL	1	23
4P-9185	2	COVER AS	1	00
4W-0379	2	GAUGE AS	2	01
7C-1124	2	TUBE AS	1	00
7C-1128	2	SHAFT AS	1	00
7W-2970	2	SUPPORT AS	1	01
1W-0803	1	LINES GP-OIL COOLER	1	14
1W-0806	1	FILTER GP-CENTRIFUGAL	2	06
1W-4191	2	FILTER GP-CENTRIFUGAL	2	08
1W-0809	1	COOLER GP-ENGINE OIL	1	12
1W-0820	1	PUMP GP-FUEL TRANSFER	1	06
7W-1282	2	PUMP GP-FUEL TRANSFER	1	04
1W-0826	1	LIFTING GP-ENGINE	1	10
1W-0856	1	LINES GP-FUEL INJECTION	1	09
2W-1242	1	DRIVE GP-GOVERNOR	1	04
1W-0607	2	PINION AS	1	02
1W-0603	3	HOUSING AS-DRIVE	1	04
2W-2678	1	CONNECTION GP-WATER	1	02
2W-2682	1	FLANGE GP-EXHAUST	1	04
2W-2742	1	COVER GP-ENGINE LIFTING EYE	1	00
2W-3340	1	LINES GP-WATER	1	23
5P-3591	2	ADAPTER GP-PROBE	1	06
121-6018	3	CYLINDER BLOCK AS	1	03
7W-2970	2	SUPPORT AS	1	01
2W-3363	1	PUMP GP-FUEL PRIMING	1	11
7E-3974	2	PUMP GP-HAND	1	00
2W-5577	1	PUMP GP-ENGINE OIL	1	03
4W-4623	2	PUMP GP-ENGINE OIL	1	05
2W-5896	1	LINES GP-FUEL FILTER	1	08
5P-3591	2	ADAPTER GP-PROBE	1	06
3S-6224	1	PUMP GP-ELECTRIC HYDRAULIC	1	07
4P-2268	1	DRAIN GP-ENGINE OIL	1	01
4P-2335	1	CYLINDER HEAD GP	8	05
175-6341	2	CYLINDER HEAD GP	8	02
4W-0345	3	PLUG GP-CYLINDER PRESS RELIEF	8	06
175-6339	4	CYLINDER HEAD AS	8	01
188-7491	4	CYLINDER HEAD AS	8	01
4W-0345	4	PLUG GP-CYLINDER PRESS RELIEF	8	06
4P-2373	1	LINES GP-OIL FILTER	1	09
4P-9191	1	DETECTOR GP-LIQUID	1	04
125-4340	2	DETECTOR GP-LIQUID	1	01
4W-0365	1	COVER GP-FRONT HOUSING	1	01
5P-2506	1	LITERATURE GP	1	00
6I-4939	1	SEPARATOR GP-AIR	1	05
7C-1903	1	PUMP GP-FUEL INJECTION	8	07
224-9090	2	INJECTOR GP-FUEL	8	01

\* SEE TECHNICAL MANUAL FOR DRAWING REFERENCE

# ENGINE SHIPPING ORDER

## Lafayette 3608 Engine (contd.)

**ESO:** BGBTG00  
**AR:** 7E-7008

**S/N:** 6MC716  
**ENGR MDL:** E296

**STATUS:** F  
**SALES MDL:** 3608

PART NUMBER	PRODUCT LEVEL	PART NAME	QTY	CHANGE LEVEL
7C-8780	1	LINES GP-AIR	1	06
7E-0442	1	GAUGE AS-OIL LEVEL (DIPSTICK)	1	00
7E-2782	1	LINES GP-WATER	1	02
5P-3591	2	ADAPTER GP-PROBE	1	06
7E-3155	1	LINES GP-COOLANT DRAIN	1	01
7E-4449	1	LINES GP-WATER	1	03
7E-7008	1	ENGINE AR	1	21
1W-0023	2	HOUSING GP-FRONT	1	17
7C-1897	3	SENSOR GP-SPEED	1	04
4P-2351	3	HOUSING GP-FRONT	1	06
1W-0027	2	COVER GP-VALVE MECHANISM	6	09
1W-0789	2	VALVE MECHANISM GP	8	18
1W-2470	3	LIFTER GP-VALVE	8	10
128-5682	3	ROCKER ARM GP	8	03
1W-8410	4	SHAFT AS-ARM	8	03
1W-0790	2	GEAR GP-FRONT	1	09
1W-0800	2	BREATHER GP	1	09
1W-0802	2	LINES GP-ENGINE OIL	1	11
1W-0804	2	VALVE GP-PRIORITY	1	08
1W-0839	2	PAN GP-OIL	1	11
1W-3382	2	COVER GP-GEAR INSPECTION	1	05
1W-3645	2	VALVE GP-EXPLOSION RELIEF	4	09
4P-7001	2	HOUSING GP-FLYWHEEL	1	02
4P-7003	2	COVER GP-CAMSHAFT DRIVE GEAR	1	01
4P-7029	2	CONTROL GP-FUEL INJECTION	1	05
1W-1076	3	COVER AS	1	01
1W-1952	3	BRACKET AS	1	01
4P-7988	3	HOUSING AS	1	00
4W-3933	3	FLANGE AS	1	01
4W-0012	2	MOUNTING GP-FUEL FILTER	1	01
4W-0543	2	COVER GP-CYLINDER BLOCK	9	03
7E-4447	2	COVER GP-CYLINDER BLOCK	1	05
7E-8180	2	PUMP GP-WATER	2	03
7E-3172	3	PUMP GP-WATER	2	09
7W-9683	2	SEAL GP-CRANKSHAFT	1	06
9Y-9345	2	GEAR GP-REAR	1	04
9Y-9346	3	SHAFT AS	1	00
9Y-9348	3	GEAR AS	1	01
9Y-9926	2	GUIDE GP-OIL LEVEL GAUGE	1	00
9Y-9927	2	FILLER GP-ENGINE OIL	1	03
7E-1659	3	CAP GP-ENGINE OIL FILLER	1	01
121-6023	2	CYLINDER BLOCK GP	1	07
121-6018	3	CYLINDER BLOCK AS	1	04
209-6793	3	CYLINDER BLOCK AS	1	01
5P-3591	3	ADAPTER GP-PROBE	1	06

\* SEE TECHNICAL MANUAL FOR DRAWING REFERENCE

# ENGINE SHIPPING ORDER

## Lafayette 3608 Engine (contd.)

ESO: BGBTG00  
AR: 7E-7008

S/N: 6MC716  
ENGR MDL: E296

STATUS: F  
SALES MDL: 3608

PART NUMBER	PRODUCT LEVEL	PART NAME	QTY	CHANGE LEVEL
161-4147	2	COVER GP-CAMSHAFT	1	02
7E-7122	2	CYLINDER BLOCK GP	1	07
175-1364	2	AFTERCOOLER GP-TREATED WATER	1	01
193-5846	2	CRANKSHAFT GP	1	01
1W-8260	3	BRACKET AS-CRANKSHAFT	1	01
236-5928	2	PISTON & ROD GP	8	03
195-5916	3	CONNECTING ROD GP	8	04
197-6700	3	PISTON AS	8	02
7E-7173	1	CONTACTOR GP-OIL LEVEL	1	02
7W-1145	1	SENSOR GP-SPEED	2	07
189-5746	2	SENSOR GP-SPEED	2	01
7W-1543	1	FILTER GP-FUEL	1	11
7C-1128	2	SHAFT AS	1	00
7W-1841	1	HOSE AS-FUEL	1	00
7W-5891	1	FILM-ROTATION	1	00
* 8T-0820	1	GAUGE-HYDRAULIC PRESSURE	1	02
* 8T-3035	1	LINES GP-HYDRAULIC	1	00
9U-5105	1	TOOL GP-ENGINE	1	13
9U-5106	1	TOOL GP-DIESEL ENGINE	1	04
6V-7073	2	PULLER GP-CYLINDER LINER	1	01
1U-7618	3	HARDWARE GP-LINER PULLER	1	00
4C-6594	2	TOOL GP-TIMING & FUEL SETTING	1	01
9Y-4252	1	BARRING GP	1	01
9Y-4254	2	BRACKET AS	1	00
9Y-6182	1	FLYWHEEL GP	1	02
9Y-7634	1	GEAR GP-RING	1	00
107-3932	1	MOUNTING GP-ENGINE	1	00
107-3929	2	SUPPORT AS	4	00
112-5051	1	FASTENER GP-FUEL INJ PUMP	1	03
119-9211	1	THERMOCOUPLE GP	9	00
114-1653	2	THERMOCOUPLE	9	07
120-8144	1	COVER GP-COOLING SYSTEM	1	00
121-9707	1	CONTACTOR GP	1	07
121-0243	2	CONTACTOR GP-SHUTOFF	1	00
121-0244	2	CONTACTOR GP-ALARM	1	01
121-0245	2	CONTACTOR GP-ALARM	1	01
121-0246	2	CONTACTOR GP-SHUTOFF	1	01
121-0247	2	CONTACTOR GP-SHUTOFF	1	01
123-4629	2	CONTACTOR GP-ALARM	1	01
4P-6038	3	CONTACTOR-TEMPERATURE	1	01
123-4631	2	CONTACTOR GP-ALARM	1	01
4P-6038	3	CONTACTOR-TEMPERATURE	1	01
123-4633	2	CONTACTOR GP-ALARM	1	01
4P-6038	3	CONTACTOR-TEMPERATURE	1	01
126-3577	1	MANIFOLD GP-EXHAUST	1	09

\* SEE TECHNICAL MANUAL FOR DRAWING REFERENCE



# ENGINE SHIPPING ORDER

## Lafayette 3608 Engine *(contd.)*

ESO: BGBTG00  
AR: 7E-7008

S/N: 6MC716  
ENGR MDL: E296

STATUS: F  
SALES MDL: 3608

PART NUMBER	PRODUCT LEVEL	PART NAME	QTY	CHANGE LEVEL
138-4139	1	ACTUATOR AS-GOVERNOR	1	01
139-9273	1	WIRING GP-ENGINE	1	02
138-7082	2	HARNESS AS	1	02
* 140-0996	1	TRANSMITTER	1	00
140-2304	1	PROGRAMMER-GOV ELEK CONTROL	1	00
143-7511	1	LINES GP-INSTRUMENT PANEL	1	01
143-7512	1	LINES GP-INSTRUMENT PANEL	1	00
143-7513	1	LINES GP-INSTRUMENT PANEL	1	01
144-7647	1	SENSOR GP-PARTICLE	1	05
145-9075	1	LINES GP-ENGINE OIL	1	01
149-7708	1	VALVE GP-THERMOSTATIC	1	01
150-3621	1	COVER GP-WATER PUMP	1	01
151-1125	1	MOUNTING GP-TURBOCHARGER	1	00
151-1126	1	LINES GP-TURBOCHARGER OIL	1	03
153-5035	1	MOUNTING GP-STARTING MOTOR	1	02
4W-6273	2	SUPPORT AS-MOTOR	1	01
153-5401	1	LINES GP-INSTRUMENT PANEL	1	02
166-2166	1	FITTING GP-EXHAUST	1	01
167-1255	1	SILENCER & AIR CLEANER GP	1	01
164-5337	2	SILENCER & AIR CLEANER GP	1	00
171-6233	1	PANEL GP-CONTACTOR	1	02
172-8021	1	LINES GP-PRELUBRICATION	1	02
179-3453	1	CAMSHAFT GP	1	00
7E-7163	2	SHAFT AS-CAM DRIVE	1	00
7E-8127	2	JOURNAL AS-CAMSHAFT	1	00
7E-8130	2	JOURNAL AS-CAMSHAFT	2	00
7E-8131	2	JOURNAL AS-CAMSHAFT	2	00
7E-8132	2	JOURNAL AS-CAMSHAFT	1	00
7E-8133	2	JOURNAL AS-CAMSHAFT	1	00
179-3454	2	CAMSHAFT AS	1	00
7E-7163	3	SHAFT AS-CAM DRIVE	1	00
7E-8127	3	JOURNAL AS-CAMSHAFT	1	00
7E-8130	3	JOURNAL AS-CAMSHAFT	2	00
7E-8131	3	JOURNAL AS-CAMSHAFT	2	00
7E-8132	3	JOURNAL AS-CAMSHAFT	1	00
7E-8133	3	JOURNAL AS-CAMSHAFT	1	00
* 179-8980	1	INSTRUCTIONS	1	01
179-8984	1	SWITCH GP-GOVERNOR	1	02
179-8990	1	PANEL GP-CONTROL	1	04
162-0572	2	SWITCH AS	1	01
198-2731	2	MONITOR AS	1	02
179-8991	1	BOX GP-TERMINAL	1	03
179-8992	1	BOX GP-TERMINAL	1	02
* 179-9000	1	DIAGRAM-WIRING	1	03
180-1553	1	EXHAUST GP-FLEXIBLE	1	02

\* SEE TECHNICAL MANUAL FOR DRAWING REFERENCE

# ENGINE SHIPPING ORDER

## Lafayette 3608 Engine *(contd.)*

ESO: BGBTG00  
AR: 7E-7008

S/N: 6MC716  
ENGR MDL: E296

STATUS: F  
SALES MDL: 3608

PART NUMBER	PRODUCT LEVEL	PART NAME	QTY	CHANGE LEVEL
183-6220	1	TRAY GP-SUPPORT	1	01
186-0363	1	SHIELD GP-EXHAUST	1	01
* 186-6394	1	LITERATURE GP	1	00
191-7683	1	MOUNTING GP-INSTRUMENT PANEL	1	02
191-7684	1	MOUNTING GP-INSTRUMENT PANEL	1	02
197-5805	1	VALVE GP-MANUAL	8	02
199-3759	1	LINES GP-AIR	1	01
150-7891	2	SHUTOFF GP-AIR	1	00
150-7931	3	SHUTOFF GP-AIR	1	01
199-3831	1	LINES GP-AIR	1	01
204-9889	1	SHIELD GP-EXHAUST	1	01
206-8701	1	MOUNTING GP-JUNCTION BOX	1	01
207-2693	1	MOUNTING GP-CONTACTOR	1	02
* 207-5034	1	TOOL GP-STUD TENSIONER	1	01
208-9696	1	PANEL GP-INSTRUMENT	1	01
209-0122	1	PANEL GP-ELECTRONIC	1	00
209-6793	1	CYLINDER BLOCK AS	1	01
7E-7122	2	CYLINDER BLOCK GP	1	07
221-0129	1	PUMP GP-PRELUBRICATION	1	00
* 221-9052	1	CONTROL AS-GOVERNOR	1	00
226-1926	1	DRAIN GP-ENGINE OIL	1	00
229-8671	1	LINES GP-INSTRUMENT PANEL	1	01
236-0711	1	SENDER GP-PRESSURE	1	00
244-0484	1	SHIELD GP-ENGINE OIL LINES	1	00
246-0684	1	SHIELD GP-FUEL LINES	1	01
246-0686	1	SHIELD GP-FUEL LINES	1	00
246-0691	1	SHIELD GP-FUEL LINES	1	00
249-0958	1	SHIELD GP-FUEL LINES	1	00
258-2287	1	TURBOCHARGER GP	1	00
164-5015	2	HOUSING GP-TURBINE	1	00
164-5328	2	HOUSING GP-INLET	1	00
194-8705	2	CARTRIDGE GP-TURBOCHARGER	1	02
163-6434	3	HOUSING GP-CENTER	1	00
163-6439	3	BEARING GP-COMPRESSOR	1	00
163-6446	3	BEARING GP-TURBINE	1	00
258-7579	2	LINES GP-TURBOCHARGER OIL	1	00
* 264-4524	1	PACKAGING AR	1	00
* 192-7659	1	LINES GP-PRELUBE	1	00
* 198-1512	1	WIRING GP	1	06
6L-4502	1	CHART-PLATE & FILM	1	296
* 223-2342	1	SHAFT GP-STUB	1	02

\* SEE TECHNICAL MANUAL FOR DRAWING REFERENCE

# MEMORANDA

# BASIC ENGINE

## 9Y-4252 BARRING GP (CHG -00, -01, -01D1, -01D2)

SMCS - 1235

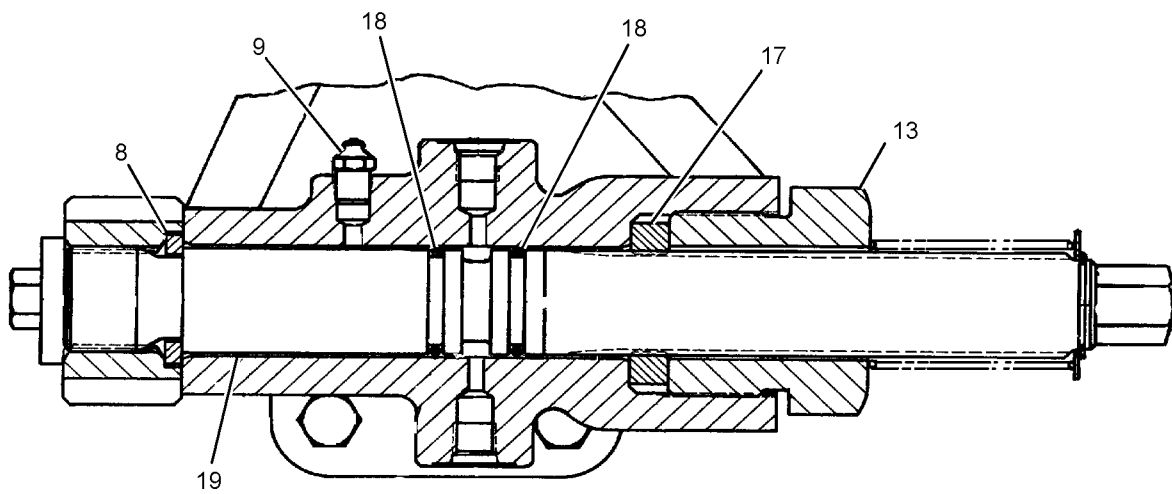
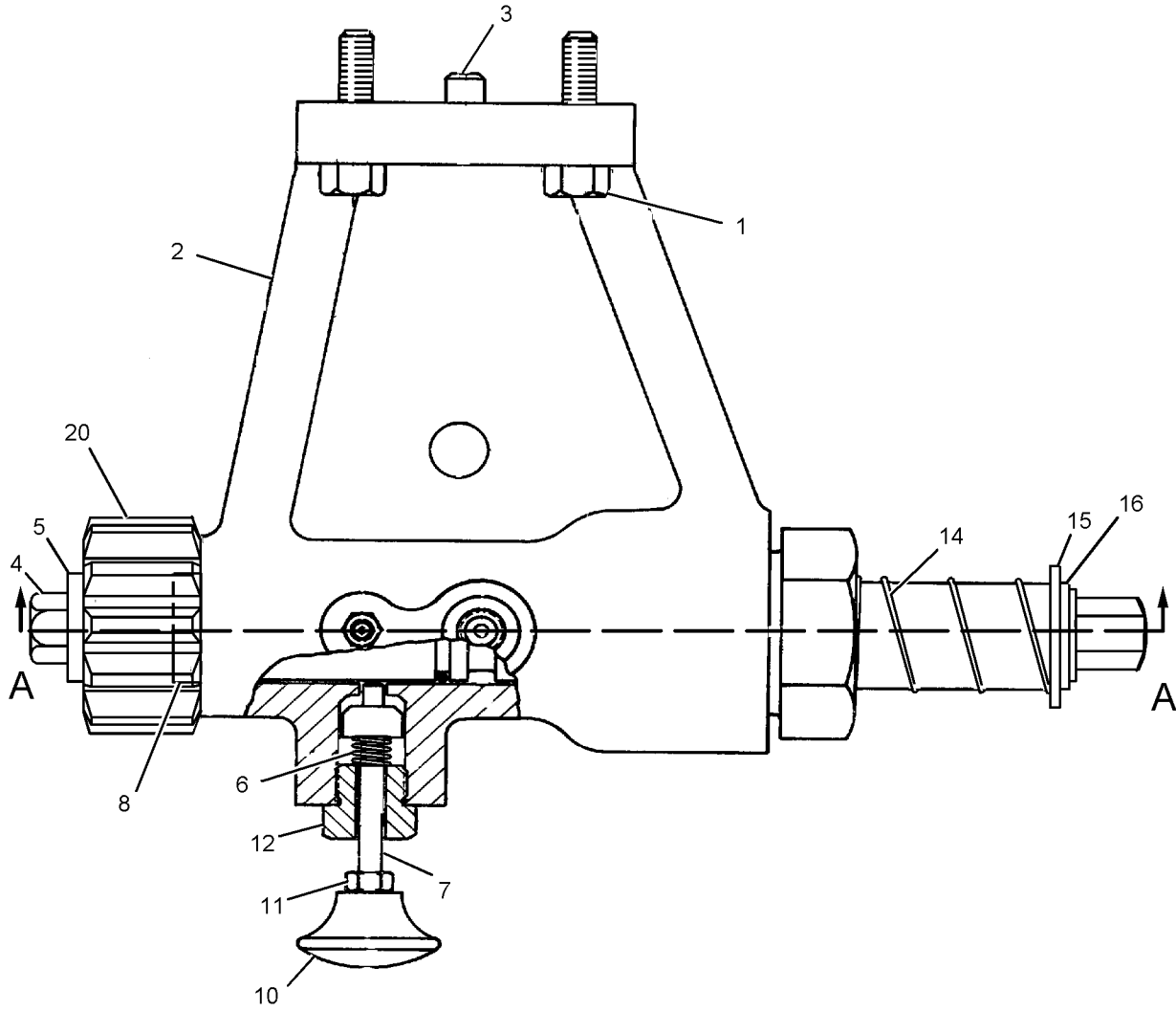
i02030838

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>0S-1585</b>	4	BOLT (1/2-13X1.5-IN)						
	2	1	<b>9Y-4254</b>	1	BRACKET AS						
	3	1	<b>6V-3538</b>	2	DOWEL						
	4	1	<b>0S-1594</b>	1	BOLT (3/8-16X1-IN)						
	5	1	<b>1P-7346</b>	1	WASHER-HARD (10.2X35X6-MM THK)						
	6	1	<b>5L-1091</b>	1	SPRING						
	7	1	<b>7W-0195</b>	1	STEM						
	8	1	<b>4W-9551</b>	1	RETAINER						
	9	1	<b>3B-8489</b>	1	FITTING-GREASE						
	10	1	<b>5H-9573</b>	1	KNOB-CHOKE						
	11	1	<b>9S-8748</b>	1	NUT-FULL (1/4-28-THD)						
	12	1	<b>7W-0196</b>	1	GUIDE						
	13	1	<b>7W-0194</b>	1	GUIDE						
	14	1	<b>4T-4027</b>	1	SPRING						
	15	1	<b>9S-1328</b>	1	WASHER (26X41X1.6-MM THK)						
	16	1	<b>6H-6109</b>	1	RING-SNAP						
	17	1	<b>7W-0193</b>	1	SPACER (26.65X44X10-MM THK)						
	18	1	<b>5P-3456</b>	2	SEAL-O-RING						
	19	1	<b>9Y-0539</b>	1	SHAFT-BARRING						
	20	1	<b>4W-9549</b>	1	PINION (11-TEETH)						

# BASIC ENGINE

9Y-4252 BARRING GP (contd.)

i02030838



SECTION A-A  
<END>

GRAPHIC #1

g01047403

# BASIC ENGINE

## 179-3454 CAMSHAFT AS (CHG -00) PART OF 179-3453 CAMSHAFT GP

SMCS-1210

i01255050

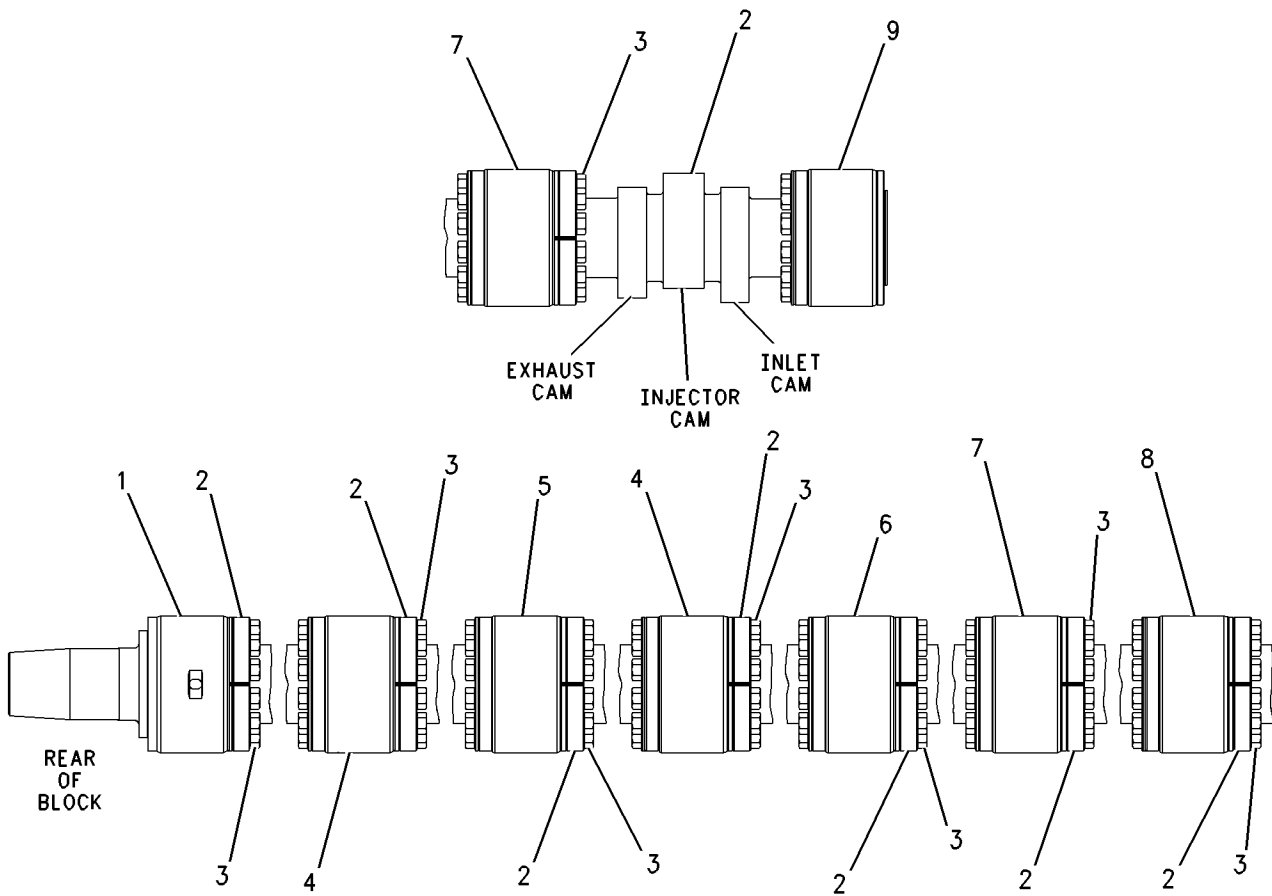
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
R	1	1	<b>7E-7163</b>	1	SHAFT AS-CAM DRIVE						
		1	<b>6V-3538</b>	1	DOWEL (20MM OAL)						
	2	1	<b>179-3439</b>	8	CAMSHAFT						
	3	1	<b>9X-6380</b>	192	BOLT (5/8-11 X 38.1MM)						
	4	1	<b>7E-8131</b>	2	JOURNAL AS-CAMSHAFT						
					(EACH INCLUDES)						
		1	<b>6V-3538</b>	2	DOWEL (20MM OAL)						
R		1	<b>7E-8124</b>	1	JOURNAL -CAMSHAFT						
	5	1	<b>7E-8133</b>	1	JOURNAL AS-CAMSHAFT						
		1	<b>6V-3538</b>	2	DOWEL (20MM OAL)						
R		1	<b>7E-8126</b>	1	JOURNAL -CAMSHAFT						
	6	1	<b>7E-8127</b>	1	JOURNAL AS-CAMSHAFT						
		1	<b>6V-3538</b>	2	DOWEL (20MM OAL)						
R		1	<b>7E-8124</b>	1	JOURNAL -CAMSHAFT						
	7	1	<b>7E-8130</b>	2	JOURNAL AS-CAMSHAFT						
					(EACH INCLUDES)						
		1	<b>6V-3538</b>	2	DOWEL (20MM OAL)						
R		1	<b>7E-8124</b>	1	JOURNAL -CAMSHAFT						
	8	1	<b>7E-8132</b>	1	JOURNAL AS-CAMSHAFT						
		1	<b>6V-3538</b>	2	DOWEL (20MM OAL)						
R		1	<b>7E-8126</b>	1	JOURNAL -CAMSHAFT						
R	9	1	<b>7E-8125</b>	1	JOURNAL -CAMSHAFT						

R-REMFG PART MAY BE AVAILABLE

# BASIC ENGINE

179-3454 CAMSHAFT AS (contd.)

i01255050



GRAPHIC #1

<END>

g00669494

# BASIC ENGINE

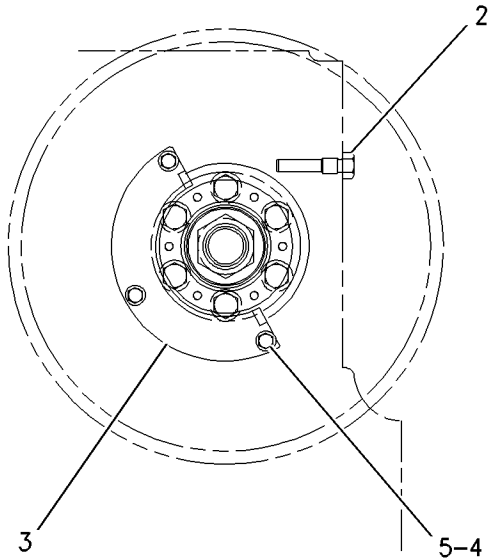
## 179-3453 CAMSHAFT GP (CHG -00)

SMCS-1210

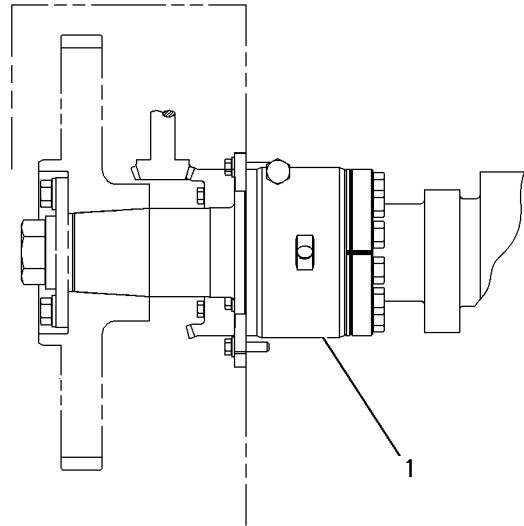
i01572171

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	179-3454	1	CAMSHAFT AS						3
	2	1	7W-0855	1	BOLT (5/8-11 X 3IN)						
	3	1	177-7760	1	PLATE-CAM						
	4	1	3B-1915	3	BOLT (3/8-16X1.37 IN)						
	5	1	3V-3308	3	WASHER-HARD (10.2X20.5X2.5MM THK)						

Y-SEPARATE ILLUSTRATION



REAR VIEW



RIGHT SIDE VIEW

GRAPHIC #1

<END>

g00667133



# BASIC ENGINE

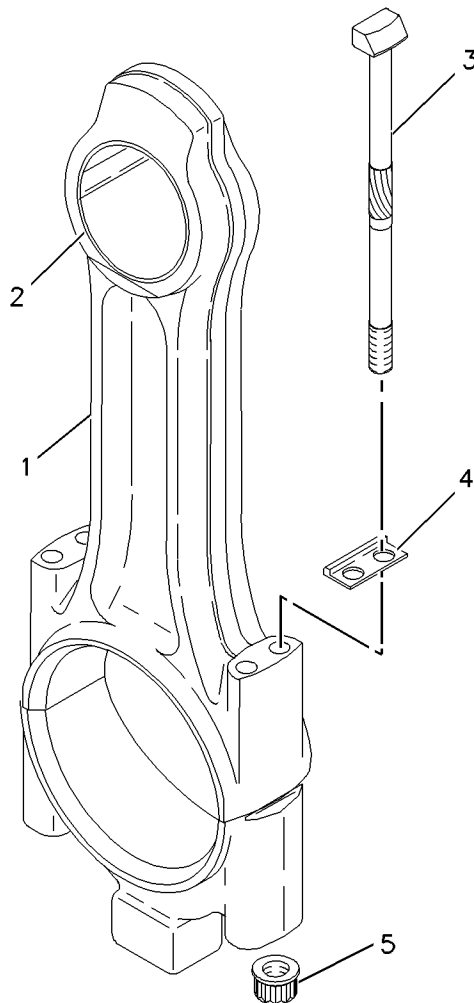
## 195-5916 CONNECTING ROD GP\*R (CHG -00 THRU -04) PART OF 236-5928 PISTON & ROD GP

SMCS-1218

i01921568

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
R	1	1	<b>4P-6126</b>	1	ROD AS-CONNECTING						
	2	1	<b>4P-6143</b>	1	BEARING-SLEEVE						
	3	1	<b>1W-0098</b>	4	BOLT-CONNECTING ROD (3/4-16X12.87IN)						
	4	1	<b>4W-8344</b>	2	RETAINER						
	5	1	<b>205-0640</b>	4	NUT (3/4-16 THD)						

R-REMFG PART MAY BE AVAILABLE



GRAPHIC #1

<END>

g00928460

# BASIC ENGINE

## 161-4147 COVER GP-CAMSHAFT (CHG -00 THRU -02)

SMCS-1210

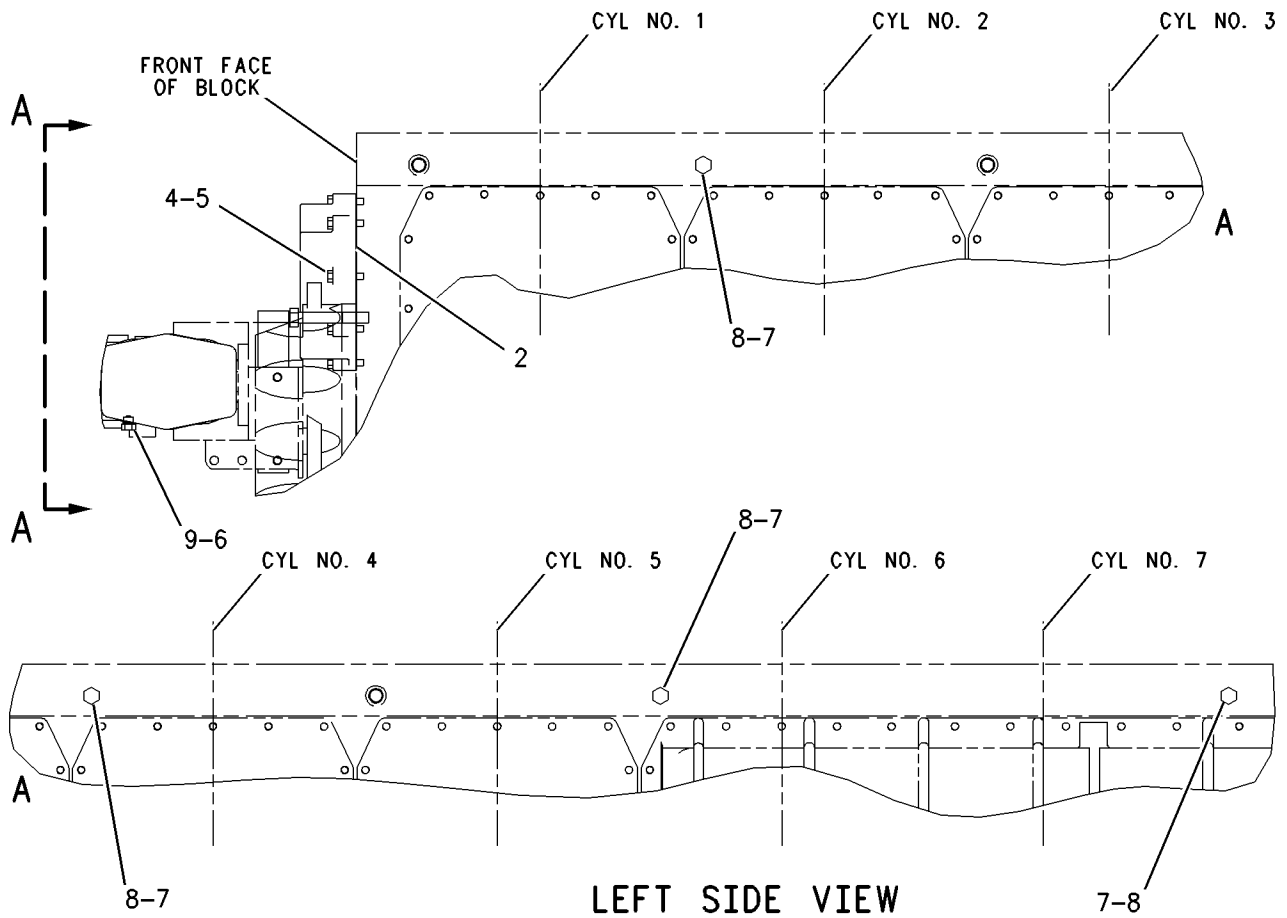
i01770726

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>1W-0843</b>	1	COVER-CAMSHAFT						
	2	1	<b>1W-2334</b>	1	GASKET						
	3	1	<b>0S-1569</b>	2	BOLT (5/8-11X4-IN)						
	4	1	<b>0S-1590</b>	8	BOLT (3/8-16X2-IN)						
	5	1	<b>3V-3308</b>	6	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	6	1	<b>6V-5049</b>	1	SEAL-O-RING						
	7	1	<b>8L-2786</b>	4	SEAL-O-RING						
	8	1	<b>9S-4185</b>	4	PLUG						
	9	1	<b>9S-4191</b>	1	PLUG						

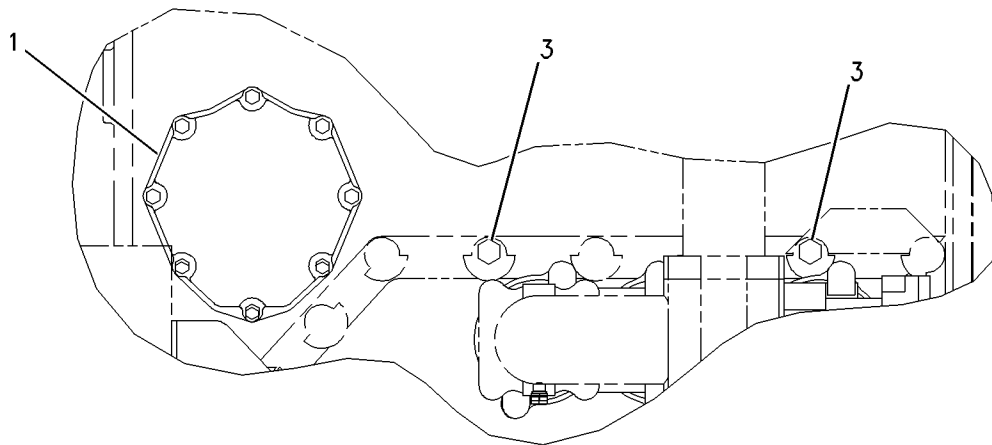
# BASIC ENGINE

161-4147 COVER GP-CAMSHAFT (contd.)

i01770726



LEFT SIDE VIEW



VIEW A-A

GRAPHIC #1

<END>

g00905223

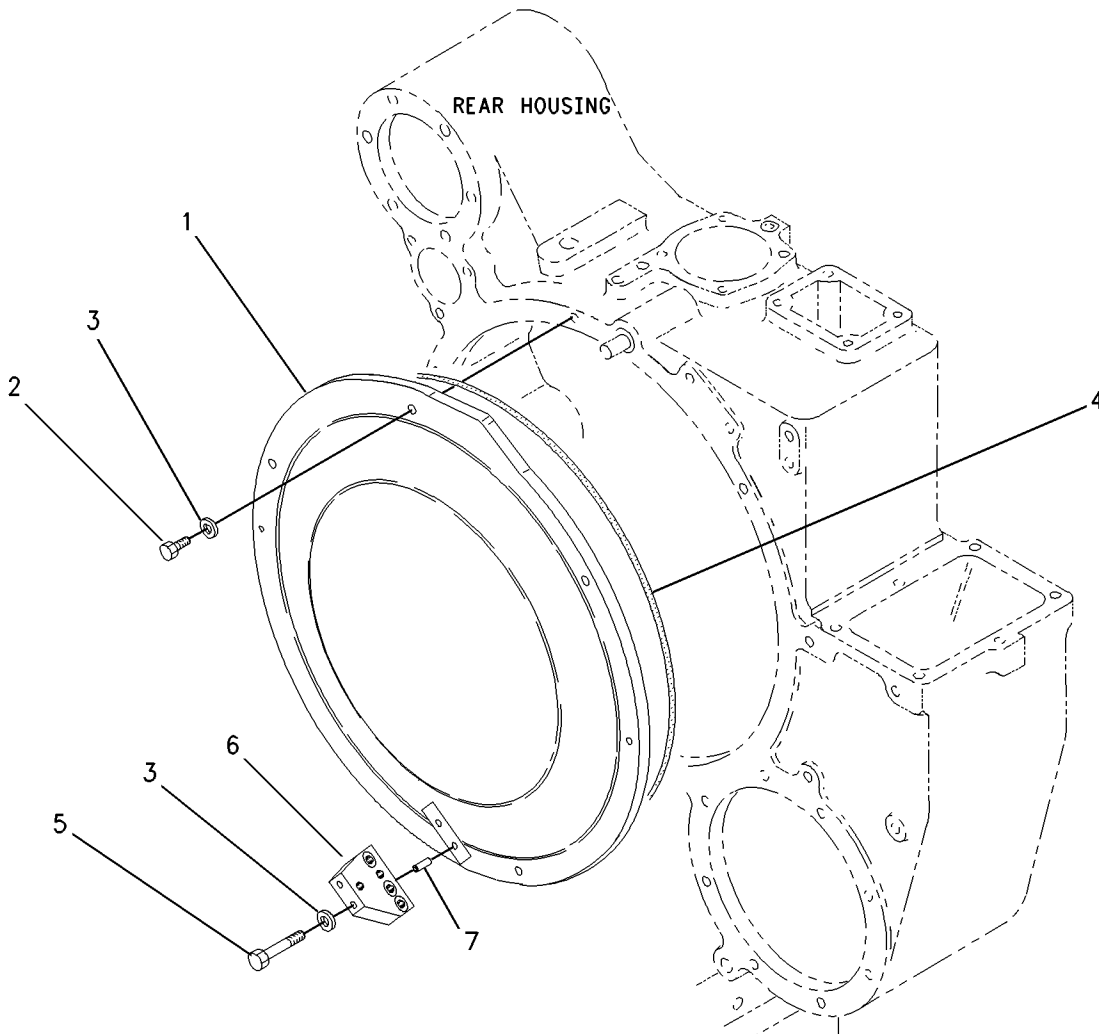
# BASIC ENGINE

## 4P-7003 COVER GP-CAMSHAFT DRIVE GEAR (CHG -00, -01) CAM DRIVE GEAR

SMCS-1212

i01557006

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4P-7002	1	COVER-CAMSHAFT						
	2	1	0S-1588	4	BOLT (3/8-16X1.25 IN)						
	3	1	3V-3308	6	WASHER-HARD (10.2X20.5X2.5MM THK)						
	4	1	6V-5060	1	SEAL-O-RING						
	5	1	5B-2638	2	BOLT (3/8-16X5.25 IN)						
	6	1	7E-1512	1	PLATE AS						
	7	1	1W-7117	2	DOWEL-HOLLOW						



GRAPHIC #1

<END>

g00727013

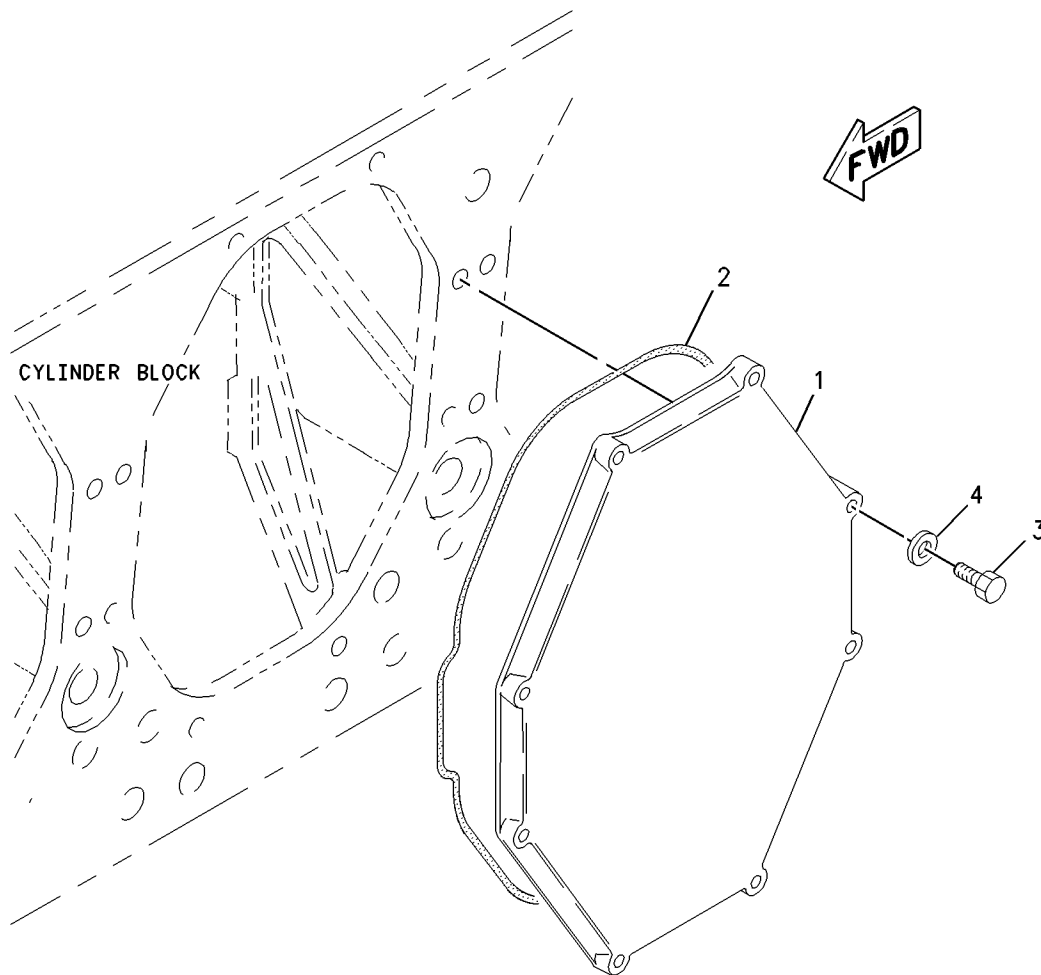
# BASIC ENGINE

## 4W-0543 COVER GP-CYLINDER BLOCK (CHG -01 THRU -03)

SMCS-1201

i01544670

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>7E-0768</b>	1	COVER-CYLINDER BLOCK						
	2	1	<b>6I-4545</b>	1	SEAL-O-RING						
	3	1	<b>0S-1591</b>	8	BOLT (3/8-16X1.5 IN)						
	4	1	<b>3V-3308</b>	8	WASHER-HARD (10.2X20.5X2.5MM THK)						



GRAPHIC #1

<END>

g00802703

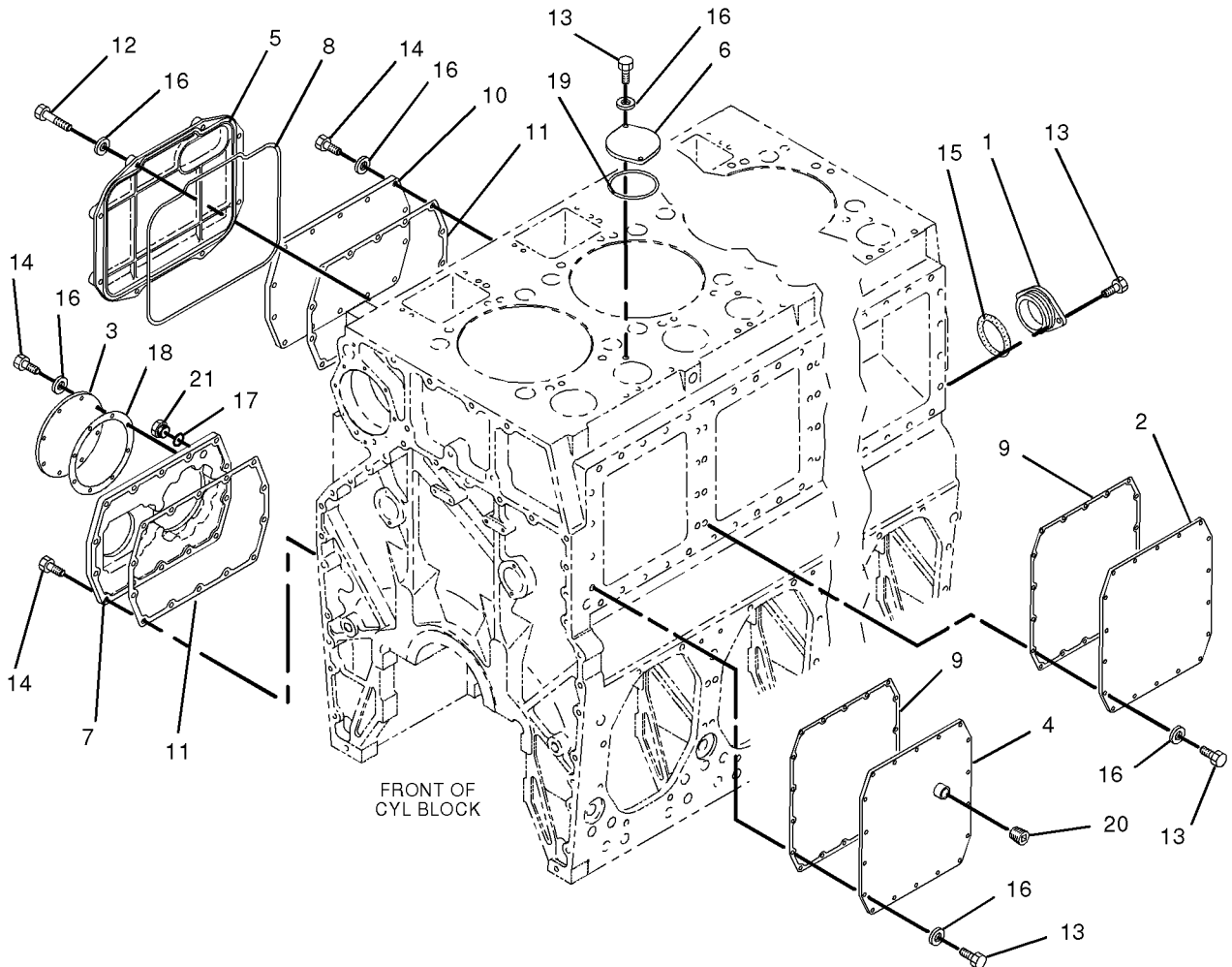
# BASIC ENGINE

## 7E-4447 COVER GP-CYLINDER BLOCK (CHG -00 THRU -05) CENTRAL STRUCTURE

SMCS-1201

i01998100

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-1049	1	PLUG						
	2	1	2W-8313	4	COVER (RH-UPPER)						
	3	1	4W-8775	1	COVER (AIR CHAMBER)						
	4	1	7C-7768	1	COVER AS						
	5	1	7E-0728	8	COVER-CAMSHAFT						
	6	1	7E-0729	8	COVER-TOP FACE (RH-UPPER)						
	7	1	7W-6424	1	COVER (AIR CHAMBER)						
	8	1	8T-0098	8	SEAL-O-RING						
	9	1	9Y-7083	5	GASKET						
	10	1	164-9501	7	COVER (RH-UPPER) (UPPER-RH)						
	11	1	241-3284	8	GASKET						
	12	1	0S-1591	64	BOLT (3/8-16X1.5-IN)						
	13	1	0S-1594	108	BOLT (3/8-16X1-IN)						
	14	1	1A-2029	120	BOLT (3/8-16X1.125-IN)						
	15	1	3P-0656	1	SEAL-O-RING						
	16	1	3V-3308	276	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	17	1	6V-3250	1	SEAL-O-RING						
	18	1	6V-5140	1	SEAL-O-RING						
	19	1	8C-3103	8	SEAL-FACE						
	20	1	8T-6762	1	PLUG-PIPE						
	21	1	9S-4191	1	PLUG						



GRAPHIC #1

<END>

g01033733

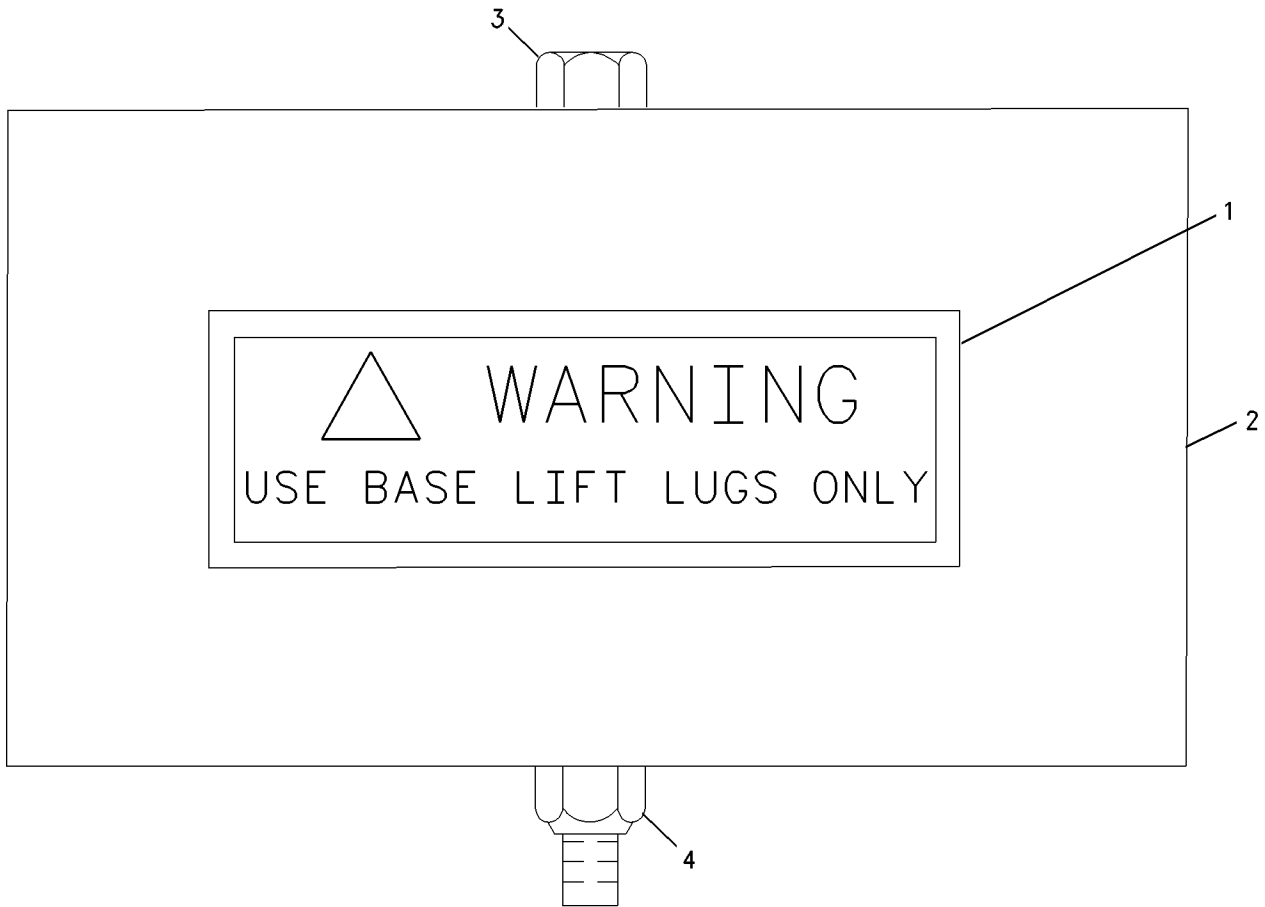
# BASIC ENGINE

## 2W-2742 COVER GP-ENGINE LIFTING EYE (CHG -00)

SMCS-1122

i02015142

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>3N-8591</b>	2	FILM-INFORMATION (DO NOT LIFT)						
	2	1	<b>2W-2972</b>	2	COVER-LIFTING						
	3	1	<b>8S-4714</b>	2	BOLT (1/4-28X4-IN)						
	4	1	<b>3F-7674</b>	2	LOCKNUT (1/4-28 THD)						



TOP VIEW

<END>

GRAPHIC #1

g00783275

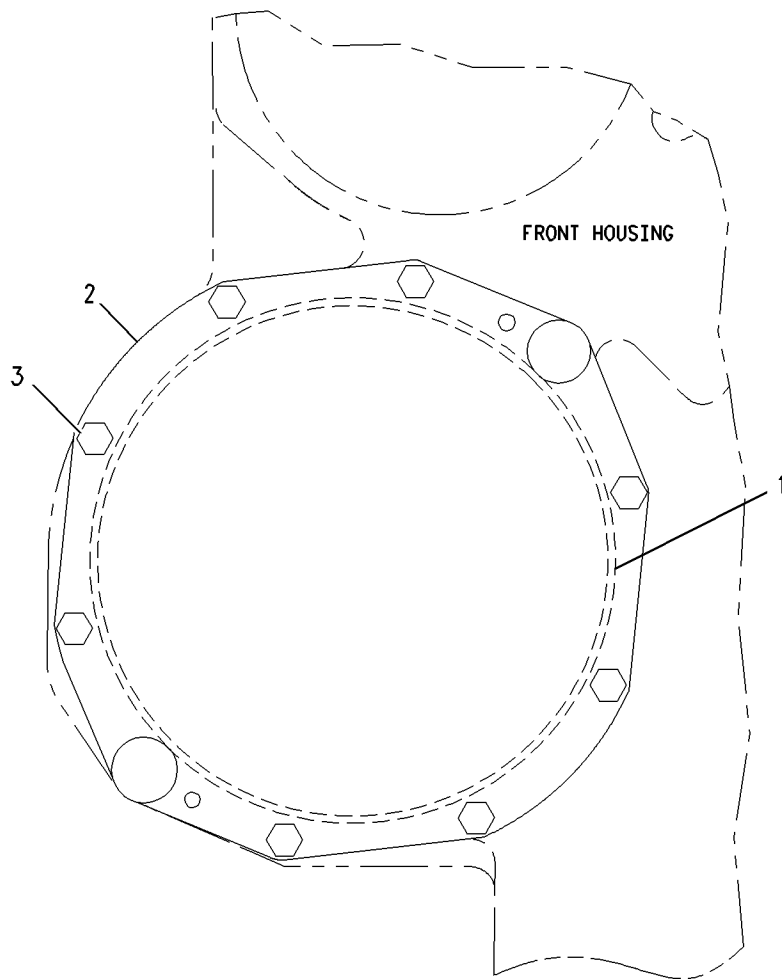
# BASIC ENGINE

## 4W-0365 COVER GP-FRONT HOUSING (CHG -01)

SMCS-1151, 1166

i01536351

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6V-7702	1	SEAL-O-RING						
	2	1	1W-3377	1	COVER						
	3	1	0S-1595	8	BOLT (1/2-13X1.25 IN)						



FRONT VIEW

<END>

GRAPHIC #1

g00799741



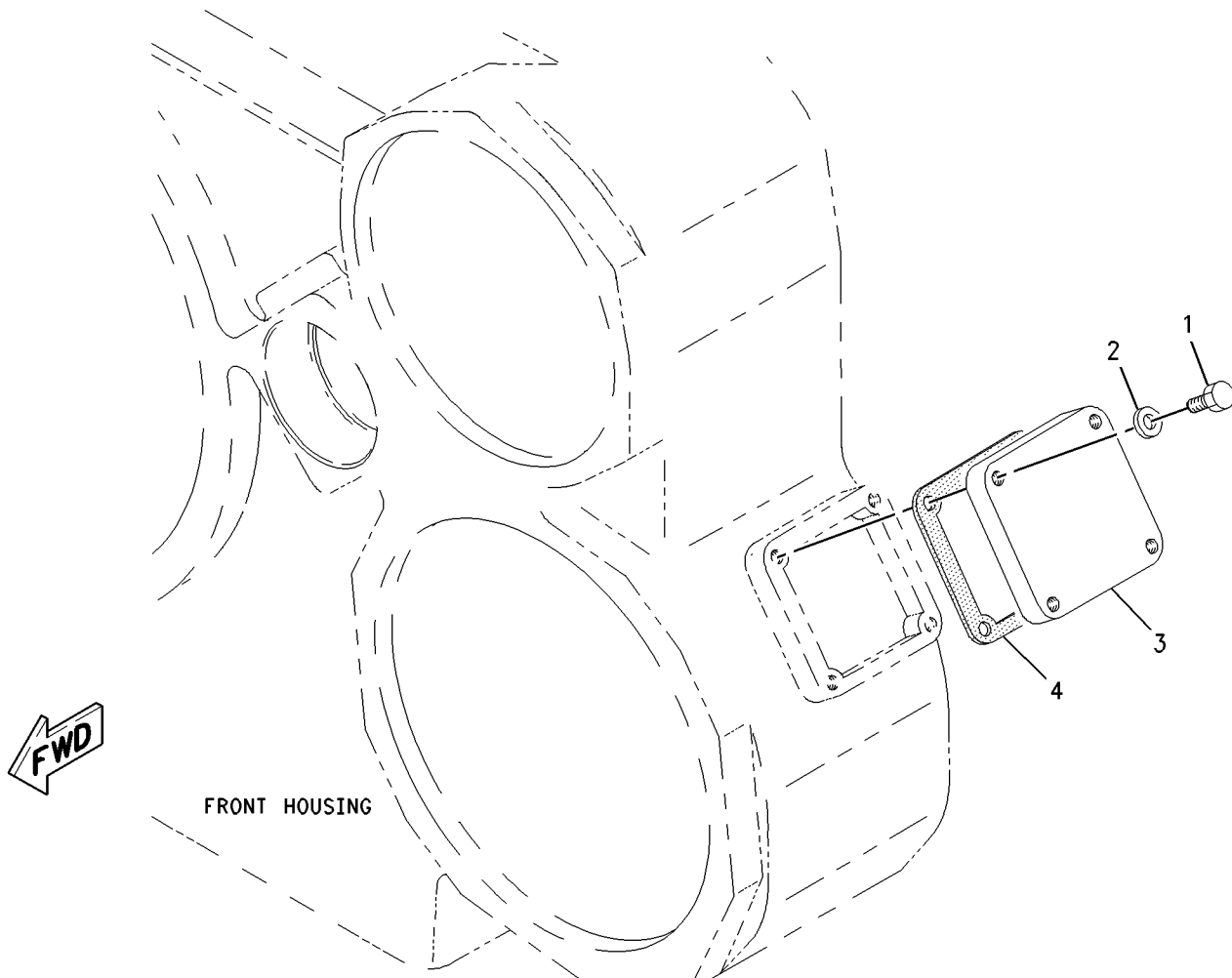
# BASIC ENGINE

## 1W-3382 COVER GP-GEAR INSPECTION (CHG -05)

SMCS-1166

i01458777

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>0S-1594</b>	4	BOLT (3/8-16X1 IN)						
	2	1	<b>3V-3308</b>	4	WASHER-HARD (20.5X10.2X2.5MM THK)						
	3	1	<b>4W-6637</b>	1	COVER						
	4	1	<b>4W-6638</b>	1	GASKET						



GRAPHIC #1

<END>

g00762517

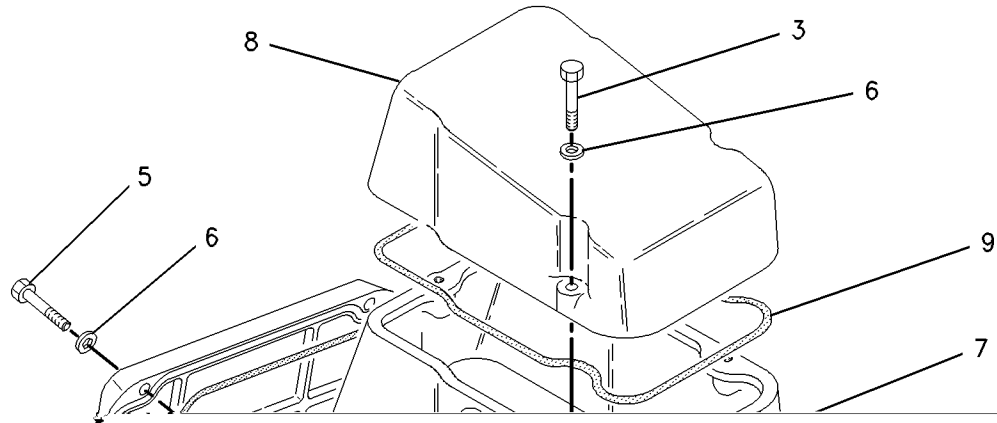
# BASIC ENGINE

## 1W-0027 COVER GP-VALVE MECHANISM (CHG -06 THRU -09)

SMCS-1107

i01556993

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-7688	1	SEAL-O-RING						
	2	1	118-7536	1	SEAL-O-RING						
	3	1	0S-1590	7	BOLT (3/8-16X2 IN)						
	4	1	7E-0732	1	COVER-GUIDE						
	5	1	0S-1591	4	BOLT (3/8-16X1.5 IN)						
	6	1	3V-3308	11	WASHER-HARD (10.2X20.5X2.5MM THK)						
	7	1	7E-0731	1	BASE-ROCKER ARM						
	8	1	7E-0733	1	COVER-VALVE MECHANISM						
	9	1	6V-3602	1	SEAL-O-RING						



GRAPHIC #1

<END>

g00761010

# BASIC ENGINE

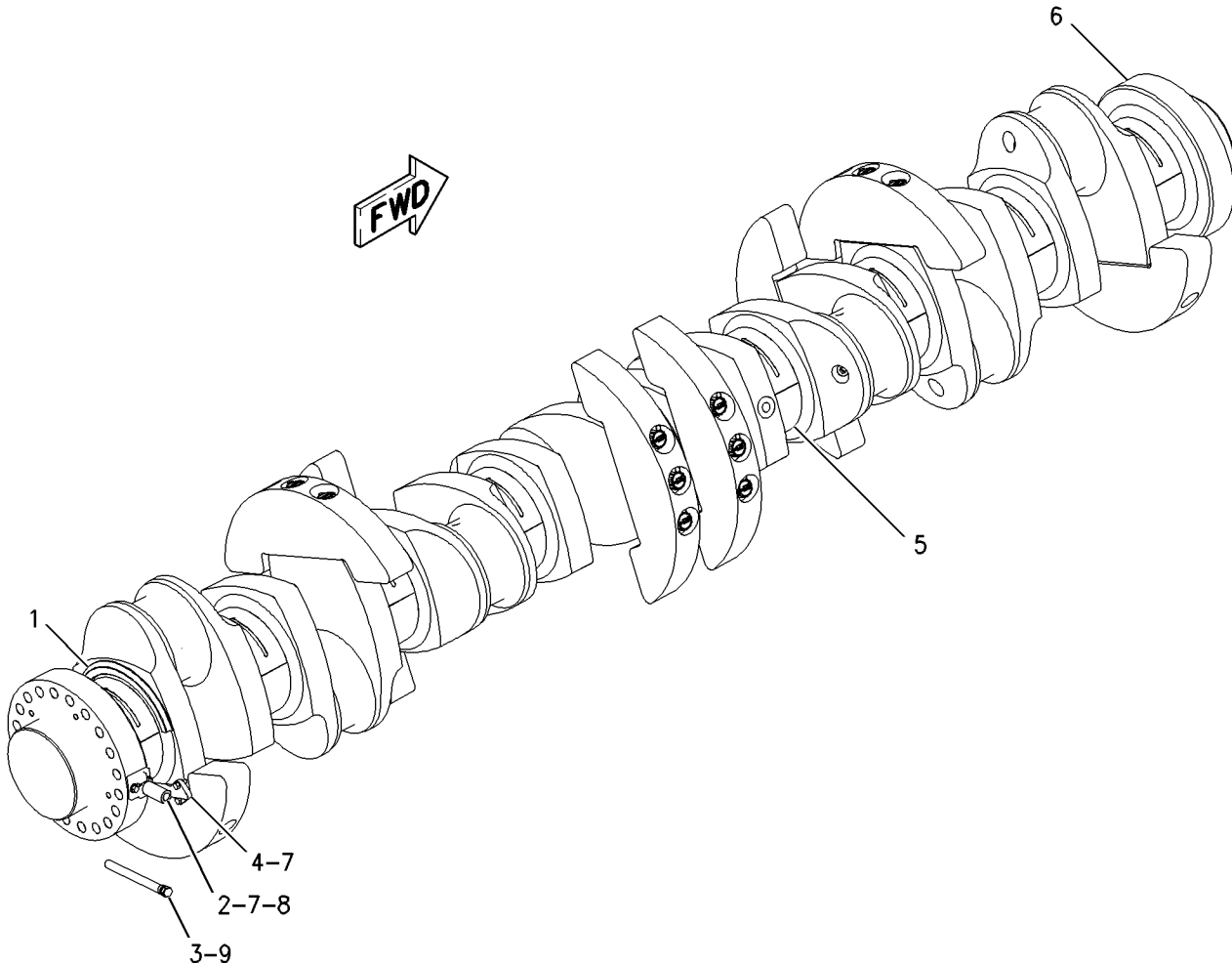
## 193-5846 CRANKSHAFT GP (CHG -00, -01)

SMCS - 1202

i01571097

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	1 2 3 4 5 6 (PRODUCT LEVEL)						SEE PAGE
	1	1	1W-1174	2	PLATE - THRUST							
	2	1	1W-8260	1	BRACKET AS-CRANKSHAFT							
		1	6V-3537	1	DOWEL							
	3	1	2W-0546	1	PIN - TIMING							
	4	1	4W-8010	1	BRACKET - GUIDE							
	5	1	129-4054	9	BEARING - CRANKSHAFT (MAIN)							
AF		1	127-1916	1	BEARING - CRANKSHAFT (0.25MM UNDERSIZE)							
AF		1	127-1921	1	BEARING - CRANKSHAFT (1.0MM OS/0.5MM US)							
AF		1	143-6219	1	BEARING - CRANKSHAFT (0.5MM UNDERSIZE)							
AF		1	143-6221	1	BEARING - CRANKSHAFT (1.0MM UNDERSIZE)							
AF		1	143-6222	1	BEARING - CRANKSHAFT (1.0MM OVERSIZE)							
AF		1	143-6224	1	BEARING - CRANKSHAFT (2.0MM OVERSIZE)							
	6	1	193-5845	1	CRANKSHAFT AS							
		1	7W-1632	8	PLUG							
		1	179-3576	8	COUNTERWEIGHT AS							
	7	1	0S-1594	4	BOLT (3/8-16X1 IN)							
	8	1	3V-3308	2	WASHER - HARD (10.2X20.5X2.5MM THK)							
	9	1	6V-4589	1	SEAL - O-RING							

A - NOT PART OF THIS GROUP  
F - NOT SHOWN



GRAPHIC #1

<END>

g00745928

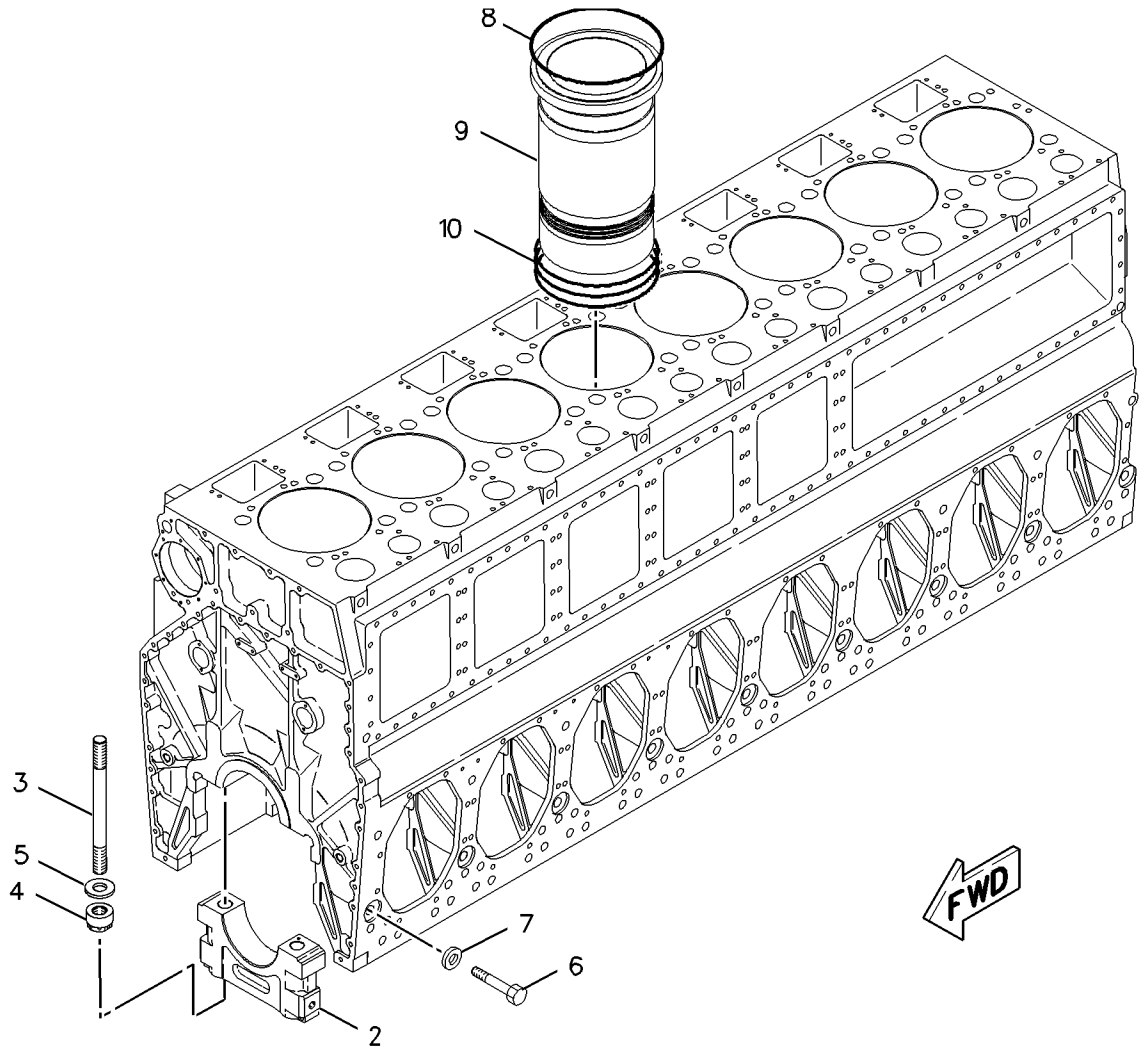
# BASIC ENGINE

## 121-6018 CYLINDER BLOCK AS (CHG -00 THRU -04) PART OF 121-6023 CYLINDER BLOCK GP

SMCS-1201

i01458772

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	2	1	124-1836	9	CAP AS-CRANKSHAFT BEARING						
					(EACH INCLUDES)						
		1	6V-3538	1	DOWEL (9.55MM DIA X 20MM OAL)						
	3	1	1W-0121	18	STUD-TAPERLOCK						
	4	1	1W-0123	18	NUT (2-12 THD)						
	5	1	1W-0122	18	WASHER (52X110X12.0MM THK)						
	6	1	3S-7079	18	BOLT (1.25X12-2A THD)						
	7	1	4K-0684	18	WASHER-HARD (34X55X6MM THK)						
	8	1	1W-0115	8	SEAL-O-RING						
	9	1	179-3167	8	LINER-CYLINDER						
	10	1	1W-0118	24	SEAL-O-RING						



GRAPHIC #1

<END>

900764237

# BASIC ENGINE

## 209-6793 CYLINDER BLOCK AS (CHG -00, -00D1, -01)

BI-METALLIC LINER

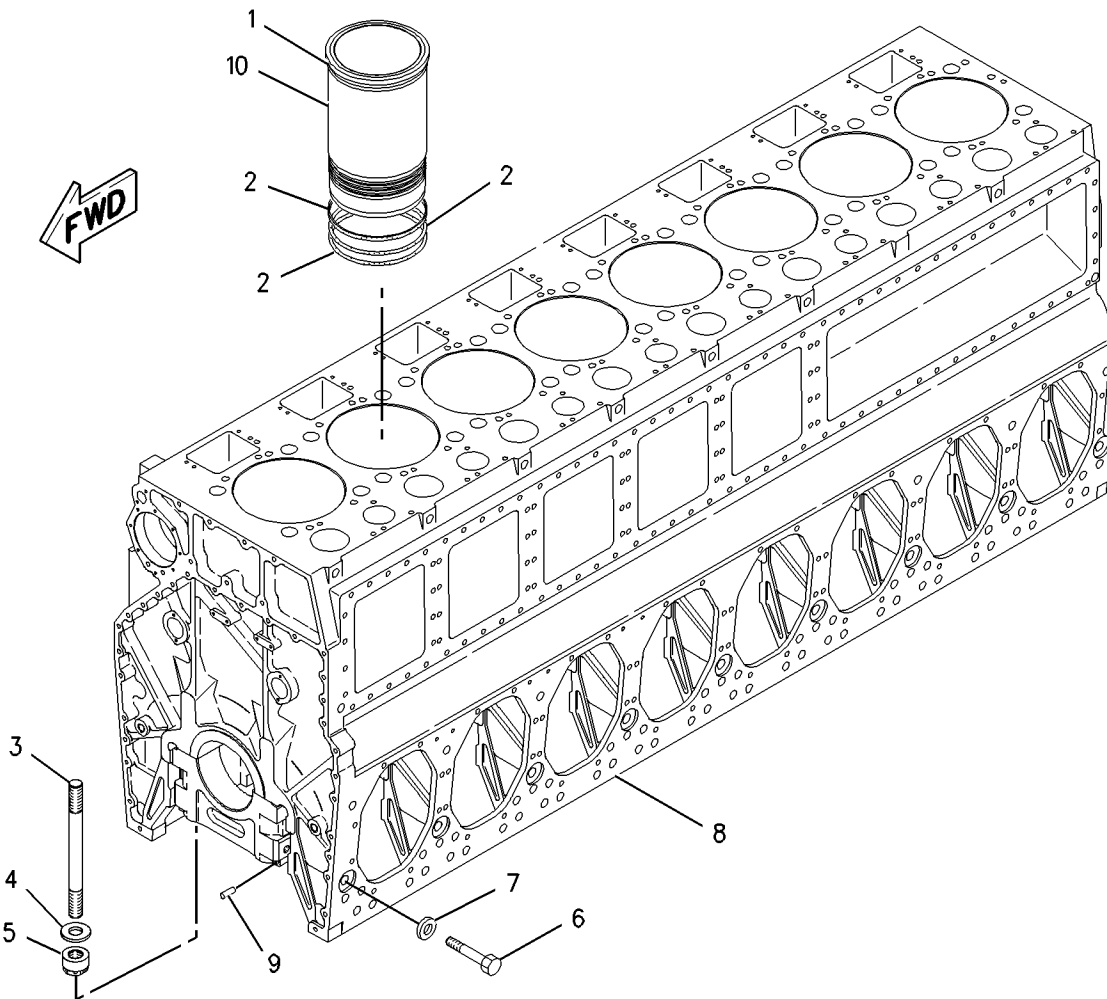
PART OF 121-6023 CYLINDER BLOCK GP

SMCS-1201

i01927044

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-0115	8	SEAL-O-RING						
	2	1	1W-0118	24	SEAL-O-RING						
	3	1	1W-0121	18	STUD-TAPERLOCK						
	4	1	1W-0122	18	WASHER (52X110X12.0MM THK)						
	5	1	1W-0123	18	NUT (2-12 THD)						
	6	1	3S-7079	18	BOLT (1.25X12-2A THD)						
	7	1	4K-0684	18	WASHER-HARD (34X55X6MM THK)						
Y	8	1	7E-7122	1	CYLINDER BLOCK GP						19
	9	1	124-1836	9	CAP AS-CRANKSHAFT BEARING (EACH INCLUDES)						
		1	6V-3538	1	DOWEL						
	10	1	179-3168	8	LINER						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00821969

# BASIC ENGINE

## 7E-7122 CYLINDER BLOCK GP (CHG -00 THRU -07, 7E-7121-02)

PART OF 209-6793 CYLINDER BLOCK AS  
FIELD REPLACEMENT FOR 121-6023-PAGE 21

SMCS-1201

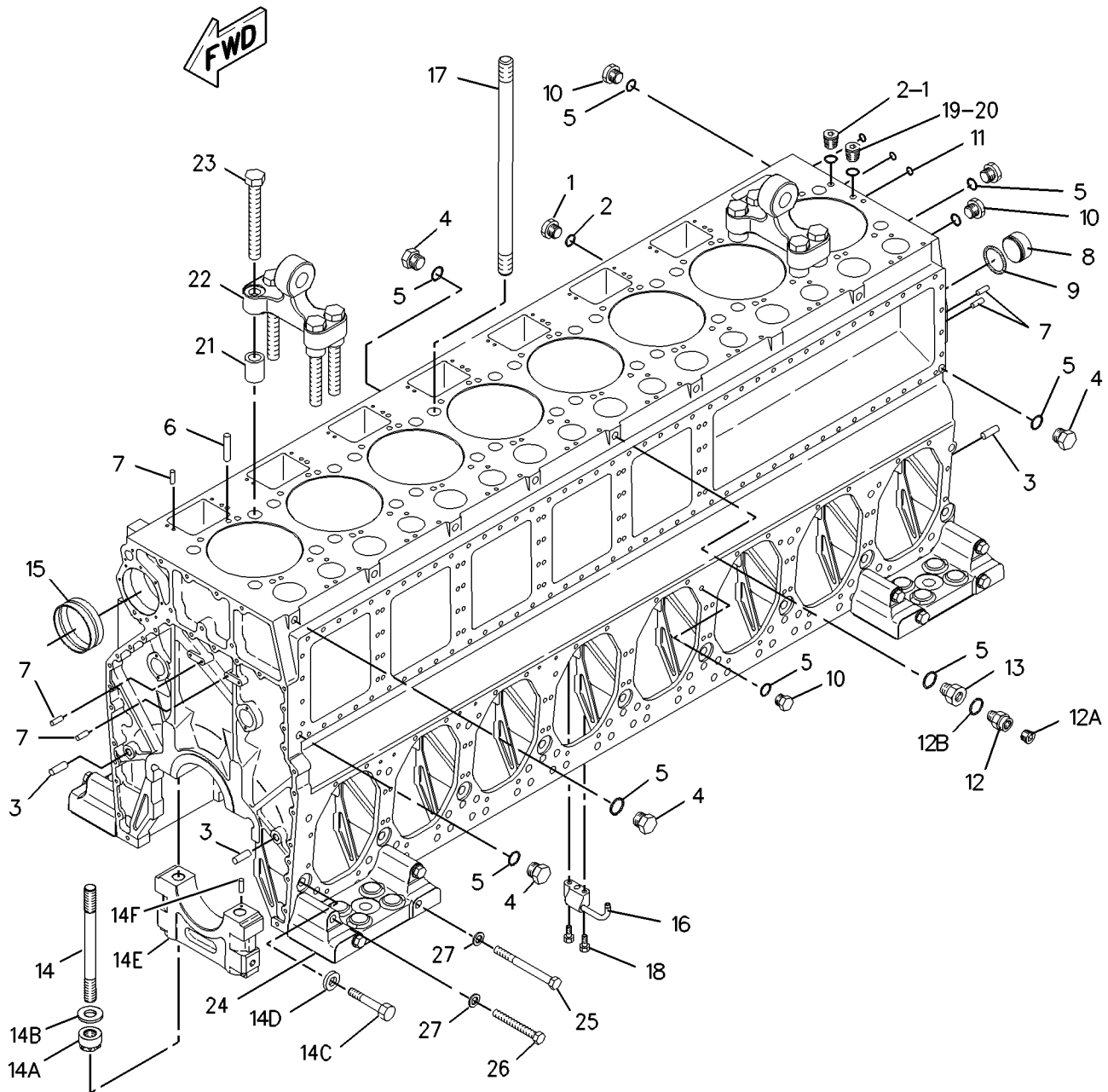
i01930224

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-8006	10	PLUG						
	2	1	6V-4589	10	SEAL-O-RING						
	3	1	7N-2328	4	DOWEL						
	4	1	9S-4185	5	PLUG						
	5	1	8L-2786	25	SEAL-O-RING						
	6	1	6V-3539	16	DOWEL						
	7	1	6V-3538	20	DOWEL						
	8	1	7W-7469	1	PLUG						
	9	1	3P-0656	1	SEAL-O-RING						
	10	1	9S-8005	19	PLUG						
	11	1	6V-3955	3	SEAL-O-RING						
	12	1	5P-3591	1	ADAPTER GP-PROBE						
	12A	1	9F-2247	1	PLUG-PIPE (1/8-27-THD)						
	12B	1	3J-1907	1	SEAL-O-RING						
	13	1	5P-6944	1	ADAPTER						
	14	1	1W-0121	18	STUD-TAPERLOCK						
	14A	1	1W-0123	18	NUT (2-12-THD)						
	14B	1	1W-0122	18	WASHER (52X110X12-MM THK)						
	14C	1	3S-7079	18	BOLT (1-1/4-12X9.5-IN)						
	14D	1	4K-0684	18	WASHER-HARD (34X55X6-MM THK)						
	14E	1	124-1836	9	CAP AS-BEARING (CRANKSHAFT) (EACH INCLUDES)						
	14F	1	6V-3538	1	DOWEL						
	15	1	1W-0105	9	BEARING-CAMSHAFT						
	16	1	120-9330	8	JET AS (PISTON COOLING) (EACH INCLUDES)						
		1	1W-7117	2	DOWEL-HOLLOW						
	17	1	187-0450	32	STUD-TAPERLOCK						
	18	1	0L-1143	16	BOLT (3/8-16X2.5-IN)						
	19	1	9S-4181	1	PLUG						
	20	1	7M-8485	1	SEAL-O-RING						
	21	1	214-6044	8	SPACER (57.2X69.9X88-MM THK)						
	22	1	101-8187	2	BRACKET-LIFTING						
	23	1	218-0660	8	BOLT (1-5/8-12X13.25-IN)						
	24	1	7W-8431	4	SUPPORT AS (EACH INCLUDES)						
		1	7N-2328	2	DOWEL						
	25	1	7B-8363	8	BOLT (1-14X10.75-IN)						
	26	1	8S-4757	8	BOLT (1-14X8-IN)						
	27	1	5P-8250	16	WASHER (28X49X5-MM THK)						

# BASIC ENGINE

7E-7122 CYLINDER BLOCK GP (contd.)

i01930224



GRAPHIC #1

<END>

g00947280

# BASIC ENGINE

## 121-6023 CYLINDER BLOCK GP (CHG -00 THRU -07) FIELD REPLACEMENT ORDER 7E-7122-PAGE 19

SMCS-1201

i01927036

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9S-8006	10	PLUG						
	2	1	6V-4589	10	SEAL-O-RING						
	3	1	7N-2328	4	DOWEL						
	4	1	9S-4185	5	PLUG						
	5	1	8L-2786	25	SEAL-O-RING						
	6	1	6V-3539	16	DOWEL						
	7	1	6V-3538	20	DOWEL						
	8	1	175-5060	8	SLEEVE (CYLINDER LINER)						
	9	1	3P-0656	1	SEAL-O-RING						
	10	1	9S-8005	19	PLUG						
	11	1	6V-3955	3	SEAL-O-RING						
	12	1	5P-3591	1	ADAPTER GP-PROBE						
	12A	1	9F-2247	1	PLUG-PIPE (1/8-27-THD)						
	12B	1	3J-1907	1	SEAL-O-RING						
	13	1	5P-6944	1	ADAPTER						
	15	1	7W-7469	1	PLUG						
	16	1	120-9330	8	JET AS (PISTON COOLING) (EACH INCLUDES)						
		1	1W-7117	2	DOWEL-HOLLOW						
	17	1	187-0450	32	STUD-TAPERLOCK						
	18	1	0L-1143	16	BOLT (3/8-16X2.5-IN)						
	19	1	8C-5230	64	SEAL-O-RING						
	20	1	6V-4314	16	SEAL-O-RING						
	21	1	114-4302	8	PLATE-SEAL						
	22	1	7C-4299	32	ADAPTER						
	23	1	2N-3350	64	SEAL-O-RING						
	24	1	114-4301	8	PLATE-SEAL						
	25	1	8C-9023	16	SEAL-O-RING						
	26	1	1W-0105	9	BEARING-CAMSHAFT						
FY			121-6018	1	CYLINDER BLOCK AS						17
					-OR-						
FY			209-6793	1	CYLINDER BLOCK AS						18

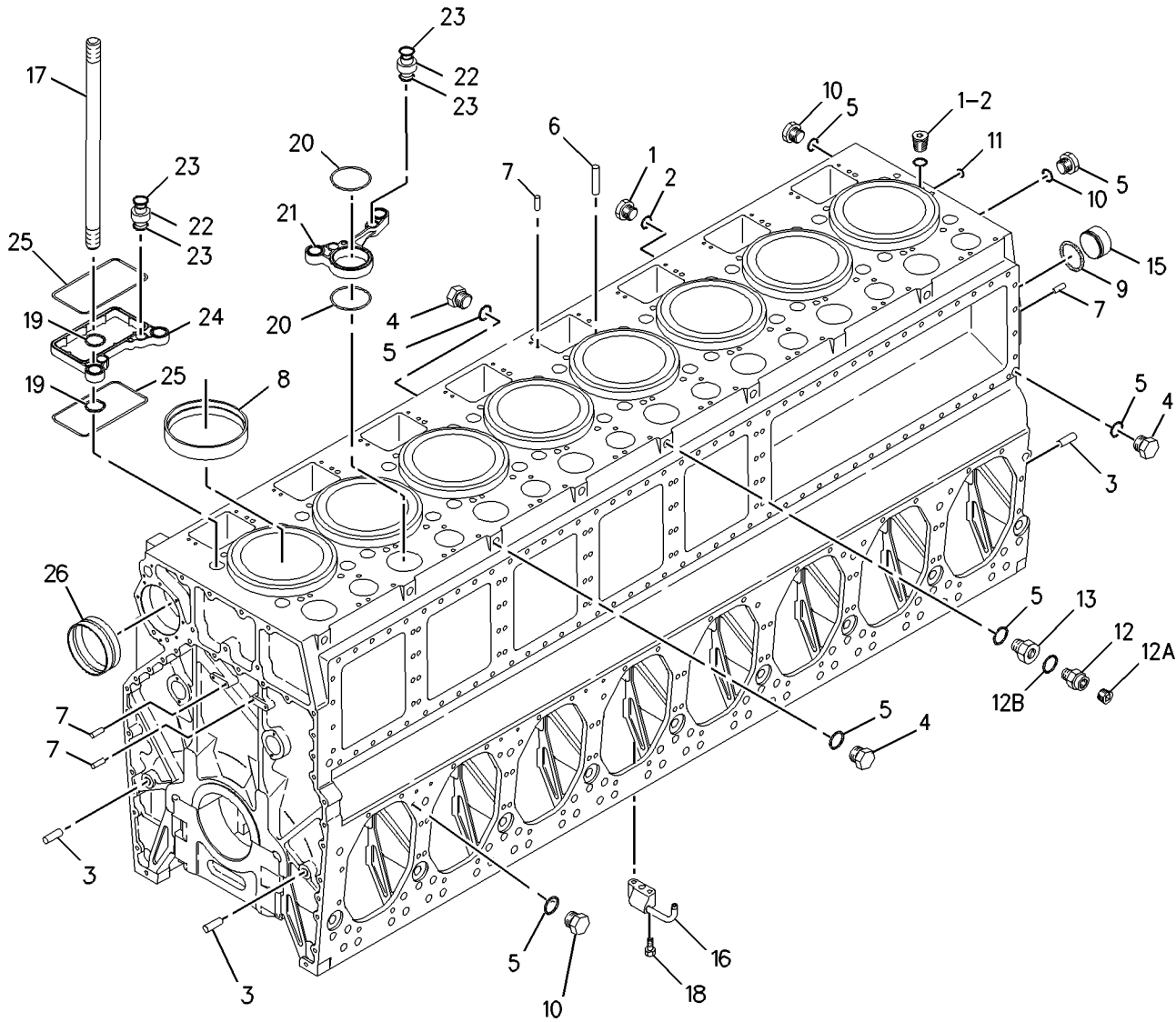
F - NOT SHOWN  
Y - SEPARATE ILLUSTRATION



# BASIC ENGINE

121-6023 CYLINDER BLOCK GP (contd.)

i01927036



GRAPHIC #1

<END>

g00927097

# BASIC ENGINE

## 175-6339 CYLINDER HEAD AS\*R (CHG -00, -01)

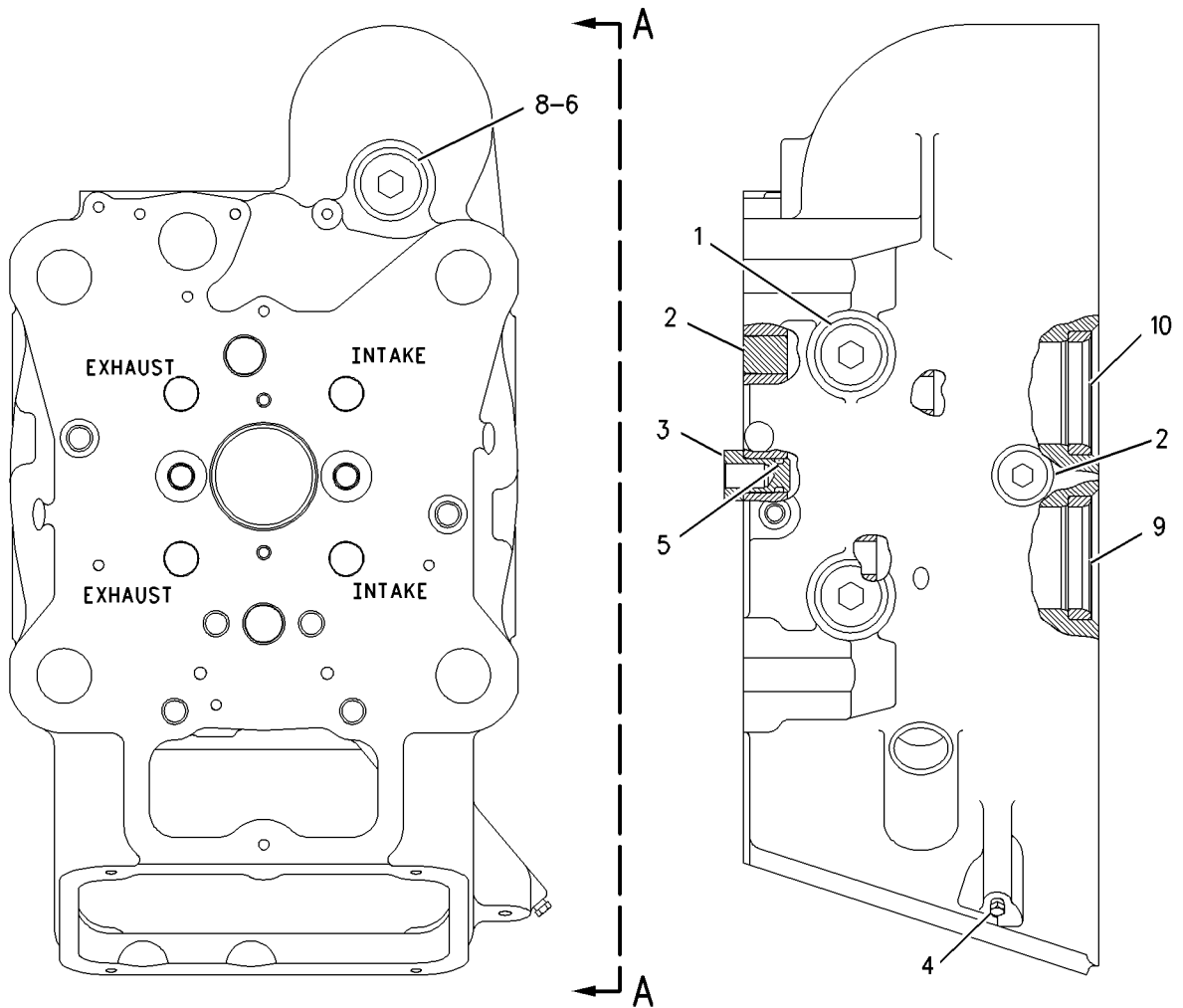
STANDARD DISTILLATE

PART OF 4W-0345 PLUG GP-CYLINDER PRESS RELIEF

SMCS-1100, 1101

i01927041

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2M-6471	4	PLUG-CUP						
	2	1	3B-0645	6	PLUG-CUP						
	3	1	4W-5442	2	PLUG-DOWEL						
	4	1	5M-6214	1	PLUG-PIPE						
	5	1	6V-5061	2	SEAL-O-RING						
	6	1	6V-5065	1	SEAL-O-RING						
	8	1	9S-8010	1	PLUG						
	9	1	160-5769	2	INSERT-VALVE SEAT (PREFINISHED) (INTAKE)						
	10	1	160-5770	2	INSERT-VALVE SEAT (EXHAUST) (EXHAUST)						



GRAPHIC #1

<END>

g00802727

# BASIC ENGINE

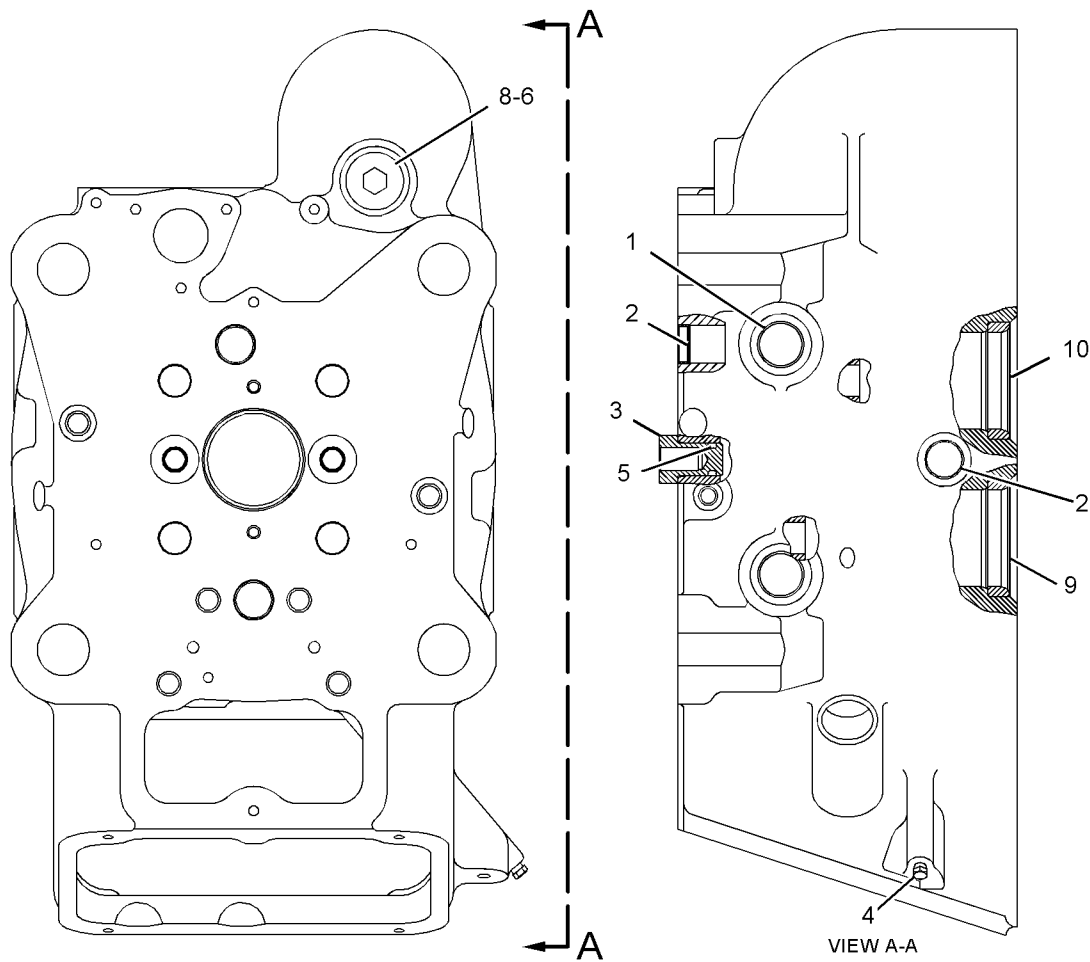
## 188-7491 CYLINDER HEAD AS (CHG -01) PART OF 4W-0345 PLUG GP-CYLINDER PRESS RELIEF

SMCS-1100, 1101

i02212178

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2M-6471	4	PLUG-CUP						
	2	1	3B-0645	6	PLUG-CUP						
	3	1	4W-5442	2	PLUG-DOWEL						
	4	1	5M-6214	1	PLUG-PIPE						
	5	1	6V-5061	2	SEAL-O-RING						
	6	1	6V-5065	1	SEAL-O-RING						
	8	1	9S-8010	1	PLUG (CYLINDER HEAD)						
	9	1	171-3992	2	INSERT-VALVE SEAT (INLET)						
AB			203-9566		INSERT-VALVE SEAT (INLET 0.5-MM OS OD)						
AB			203-9568		INSERT-VALVE SEAT (INLET 1.0-MM OS OD)						
	10	1	160-5770	2	INSERT-VALVE SEAT (EXHAUST)						

A-NOT PART OF THIS GROUP  
B-USE AS REQUIRED



GRAPHIC #1

<END>

g01116823

# BASIC ENGINE

## 4P-2335 CYLINDER HEAD GP

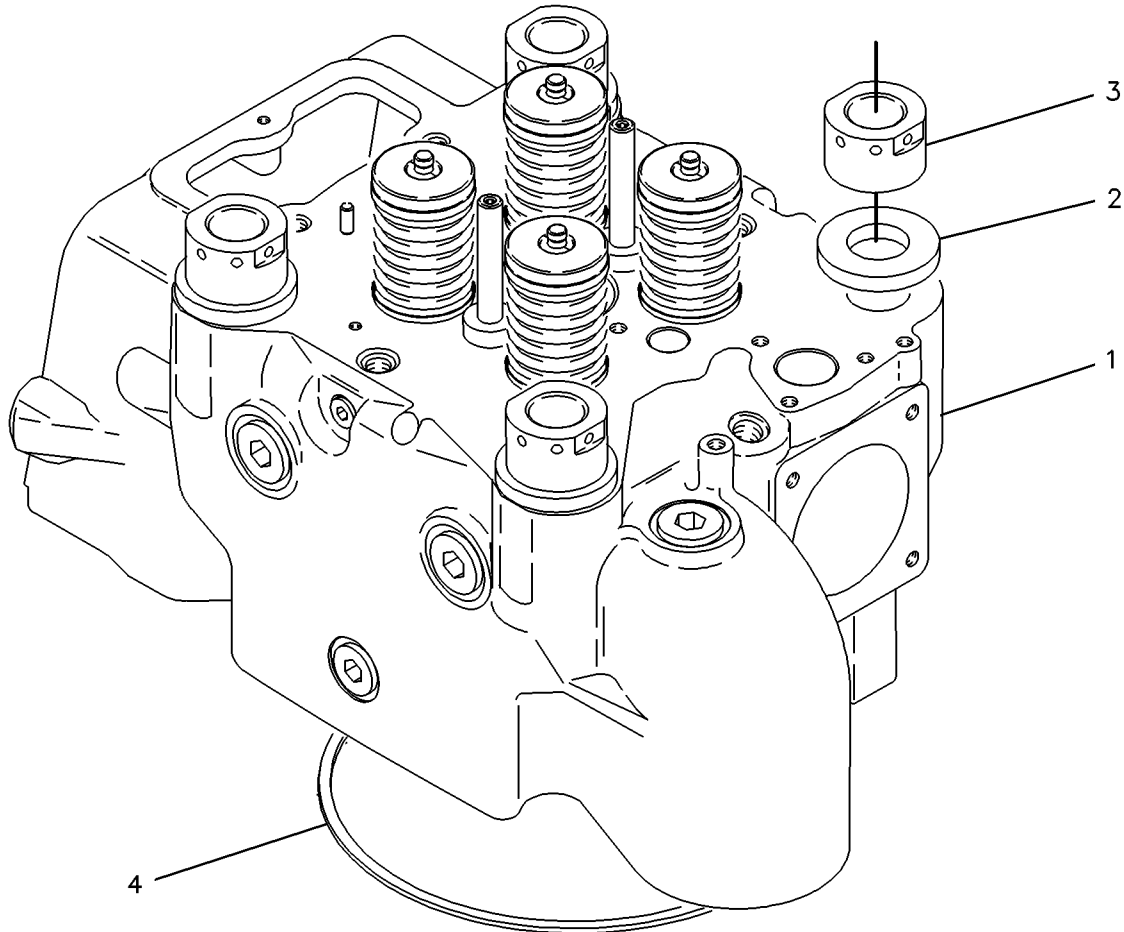
(CHG -03 THRU -05, -05D1, -05D2, -05D3, -05D4, -05D5)

SMCS-1100

i01352607

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	175-6341	1	CYLINDER HEAD GP						26
	2	1	1W-2362	4	WASHER (41.5 X 85.0 X 12.0MM THK)						
	3	1	1W-2361	4	NUT-CYLINDER HEAD (1-5/8-12UN SPL THD)						
C	4	1	142-2826	1	GASKET-COMBUSTION						

C- CHANGE FROM PREVIOUS TYPE  
Y- SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00064670

# BASIC ENGINE

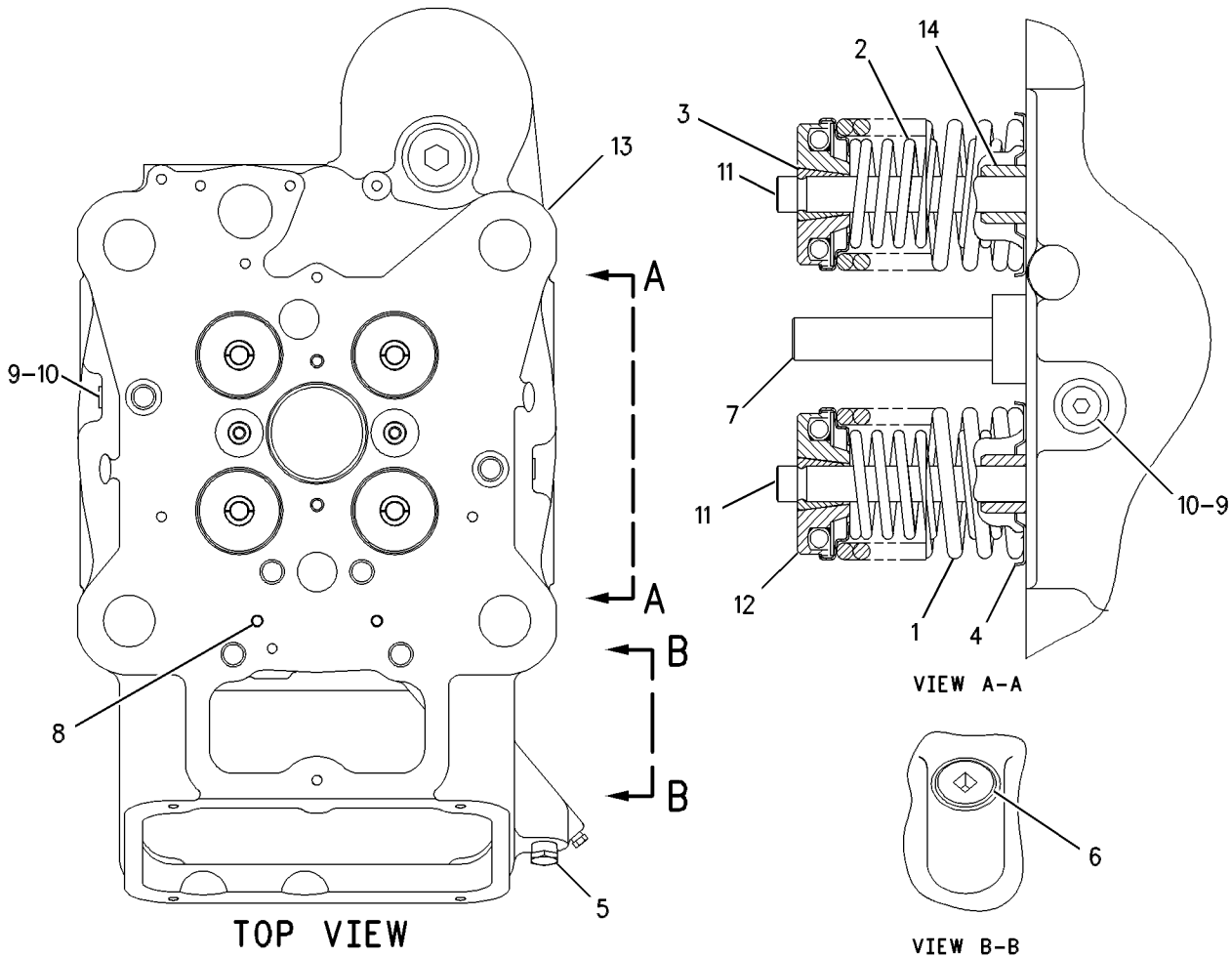
## 175-6341 CYLINDER HEAD GP\*R (CHG -00 THRU -02) PART OF 4P-2335 CYLINDER HEAD GP

SMCS-1100

i01929447

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-1748	4	SPRING-VALVE (OUTER)						
	2	1	1W-1749	4	SPRING-VALVE (INNER)						
	3	1	1W-1752	8	LOCK-VALVE RETAINER						
	4	1	1W-1754	4	GUIDE-VALVE SPRING						
	5	1	3J-5389	1	PLUG						
Y	6	1	4W-0345	1	PLUG GP-CYLINDER PRESS RELIEF						43
	7	1	4W-5441	2	DOWEL-BRIDGE GUIDE						
	8	1	6V-3538	2	DOWEL						
	9	1	6V-5049	2	SEAL-O-RING						
	10	1	9S-8004	2	PLUG						
	11	1	9Y-6232	4	VALVE						
	12	1	189-4583	4	ROTATOR AS						
YR	13	1	175-6339	1	CYLINDER HEAD AS (STANDARD DISTILLATE)						23
	14	1	175-6344	4	GUIDE-VALVE						

R-REMFG PART MAY BE AVAILABLE  
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00650772

# BASIC ENGINE

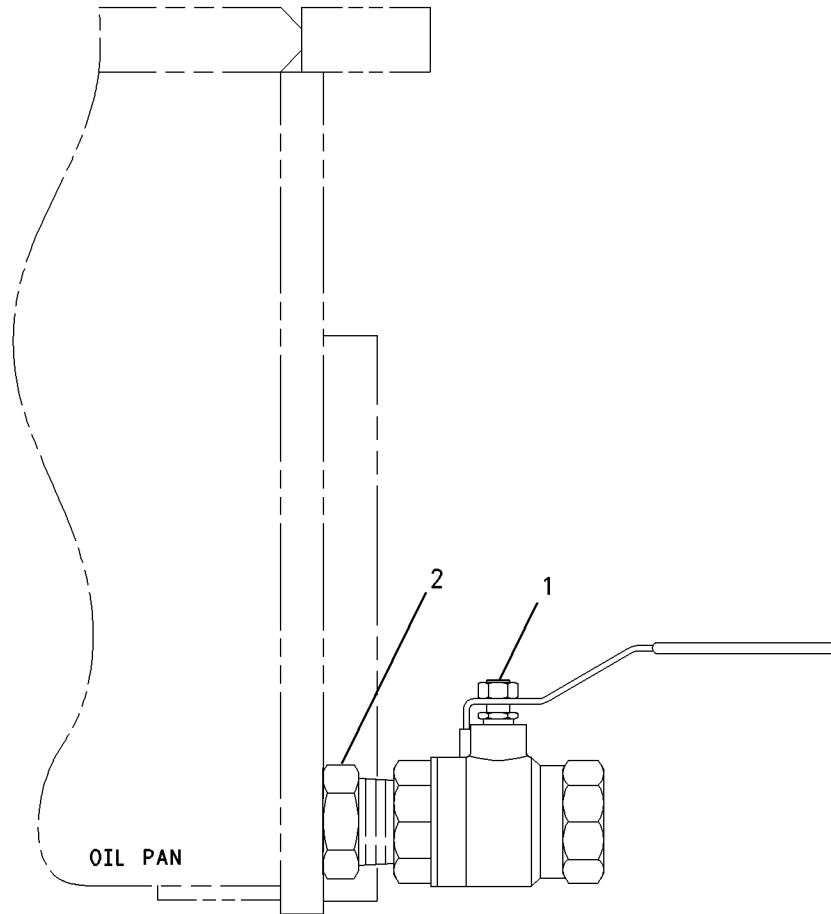
## 4P-2268 DRAIN GP-ENGINE OIL

(CHG -00, -01, -01D1, -01D2, -01D4, -01D5, -01D6, -01D7, -01D8, -02)

SMCS-1302

i01544669

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-4444	1	VALVE						
	2	1	8C-3991	1	ADAPTER-STRAIGHT THREAD						
		1	5P-7816	1	SEAL-O-RING						



RIGHT SIDE VIEW

GRAPHIC #1

<END>

g00802907

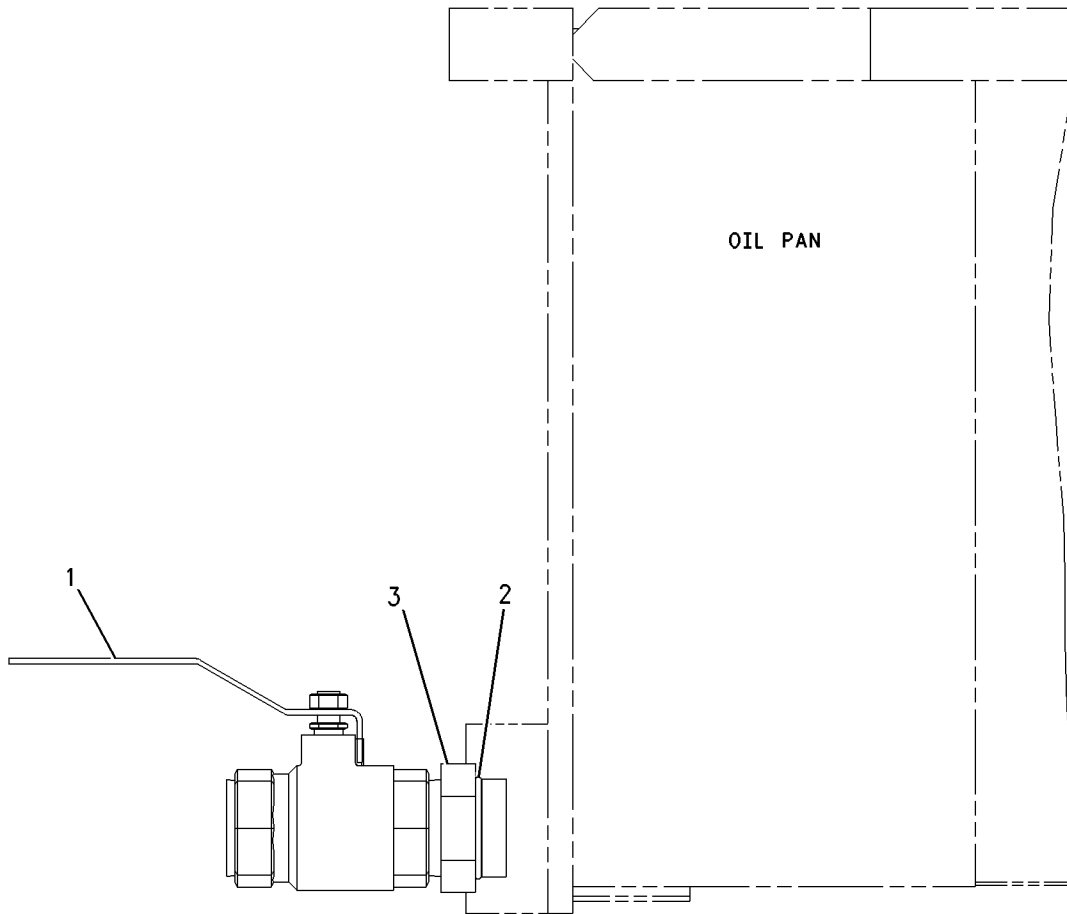
# BASIC ENGINE

## 226-1926 DRAIN GP-ENGINE OIL (CHG -00, -00D1) REAR

SMCS-1302

i01820731

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-4444	1	VALVE						
	2	1	5P-7816	1	SEAL-O-RING						
	3	1	8C-3991	1	ADAPTER-STRAIGHT THREAD						



RIGHT SIDE VIEW

GRAPHIC #1

<END>

g00929802

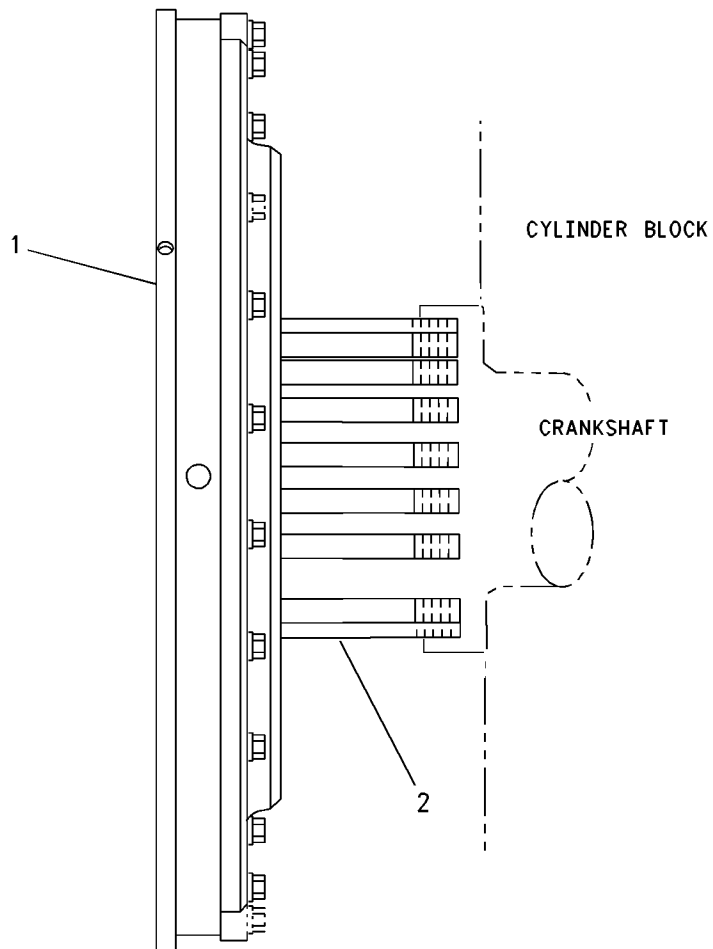
# BASIC ENGINE

## 9Y-6182 FLYWHEEL GP (CHG -00 THRU -02)

SMCS-1156

i01678089

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>9Y-6183</b>	1	FLYWHEEL						
	2	1	<b>6V-5605</b>	20	BOLT-12 POINT HEAD (1 1/8-12X12.5IN)						
		1	<b>3S-1349</b>	20	WASHER-HARD (31X52.5X6MM THK)						



**RIGHT SIDE VIEW**  
<END>

GRAPHIC #1

g00763819



# BASIC ENGINE

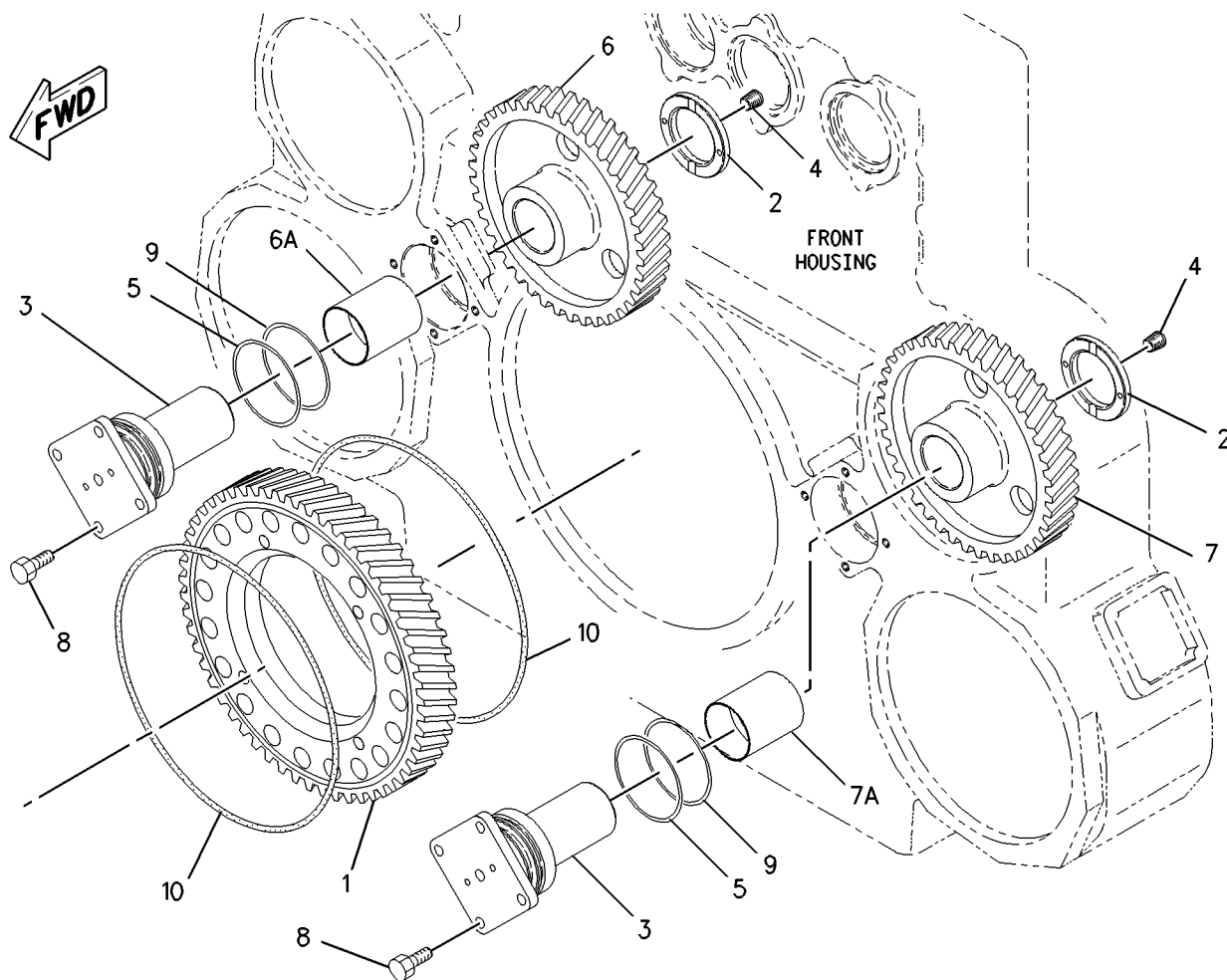
## 1W-0790 GEAR GP-FRONT (CHG -05 THRU -09)

SMCS - 1206

i01519484

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1N-3828	1	GEAR-CRANKSHAFT (96 TEETH)						
	2	1	1N-3834	2	WASHER-THRUST						
	3	1	1N-3842	2	SHAFT-IDLER						
	4	1	3G-7382	2	PLUG-ORIFICE						
	5	1	6V-5052	2	SEAL-O-RING						
C	6	1	180-3864	1	GEAR AS (68 TEETH)						
	6A	1	190-6465	1	BEARING						
C	7	1	180-3865	1	GEAR AS (67 TEETH)						
	7A	1	190-6465	1	BEARING						
	8	1	0S-1595	8	BOLT (1/2-13X1.25 IN)						
	9	1	5S-9134	2	SEAL-O-RING						
	10	1	6V-5058	2	SEAL-O-RING						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00788957

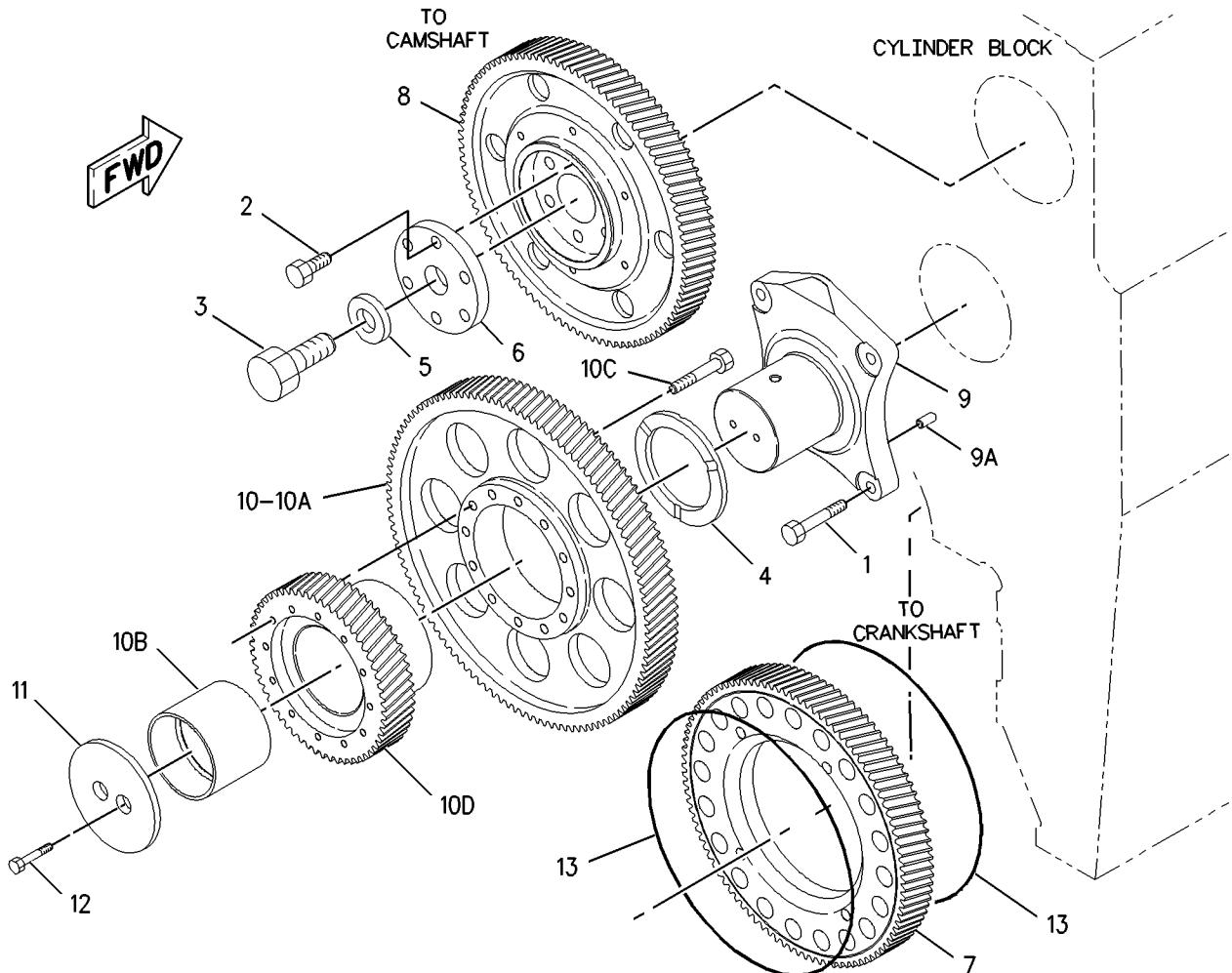
# BASIC ENGINE

## 9Y-9345 GEAR GP-REAR (CHG -01 THRU -04)

SMCS-1204

i01801679

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1625	4	BOLT (5/8-11X2.5IN)						
	2	1	1A-1135	6	BOLT (5/8-11X2 IN)						
	3	1	1F-6762	1	BOLT (1 1/2-12X4.5 IN)						
	4	1	7E-9638	1	WASHER-THRUST						
	5	1	7W-5033	1	WASHER (41X75X10MM THK)						
	6	1	7W-5034	1	PLATE						
	7	1	9Y-8546	1	GEAR-CRANKSHAFT (81 TEETH)						
	8	1	9Y-8549	1	GEAR (81 TEETH)						
	9	1	9Y-9346	1	SHAFT AS						
	9A	1	7E-7139	1	DOWEL						
	10	1	9Y-9348	1	GEAR AS (IDLER)						
	10A	1	9Y-8548	1	GEAR (45 TEETH)						
	10B	1	7E-9639	1	BEARING-SLEEVE						
	10C	1	1D-4566	12	BOLT (1/2-13X3.5 IN)						
	10D	1	9Y-8547	1	GEAR (90 TEETH)						
	11	1	9Y-9349	1	RETAINER						
	12	1	3B-1915	2	BOLT (3/8-16X1.37 IN)						
	13	1	6V-5058	2	SEAL-O-RING						



GRAPHIC #1

<END>

g00922050

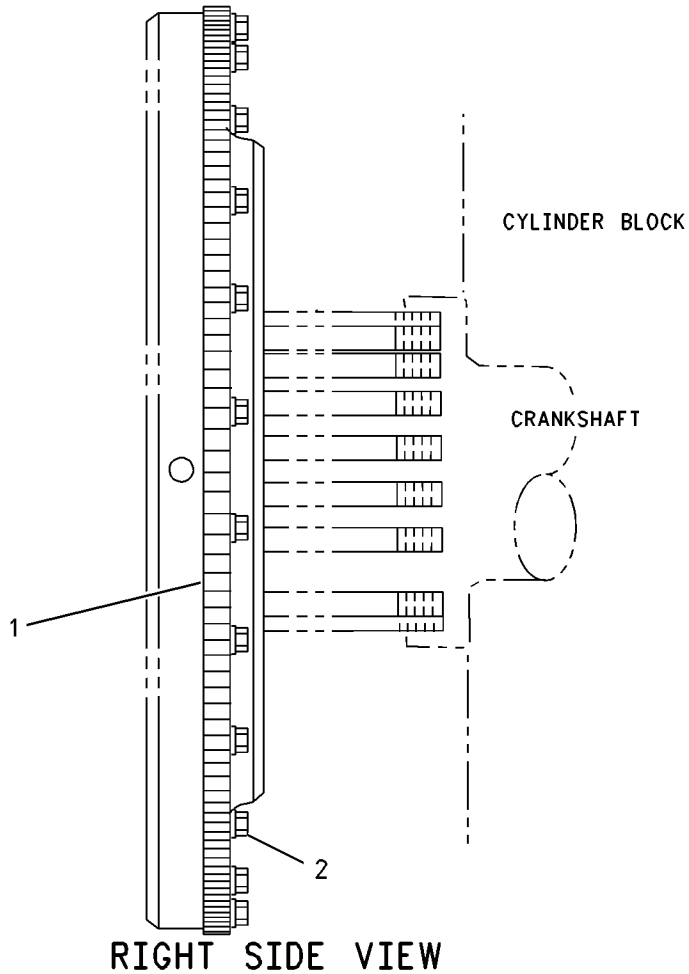
# BASIC ENGINE

## 9Y-7634 GEAR GP-RING (CHG -00) STARTER-REVERSE ROTATION

SMCS-1158

i01598871

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-5731	1	GEAR-STARTING MOTOR (255 TEETH)						
	2	1	0S-1590	24	BOLT (3/8-16X2 IN)						
		1	3V-3308	24	WASHER-HARD (10.2X20.5X2.5MM THK)						



GRAPHIC #1

<END>

g00725077

# BASIC ENGINE

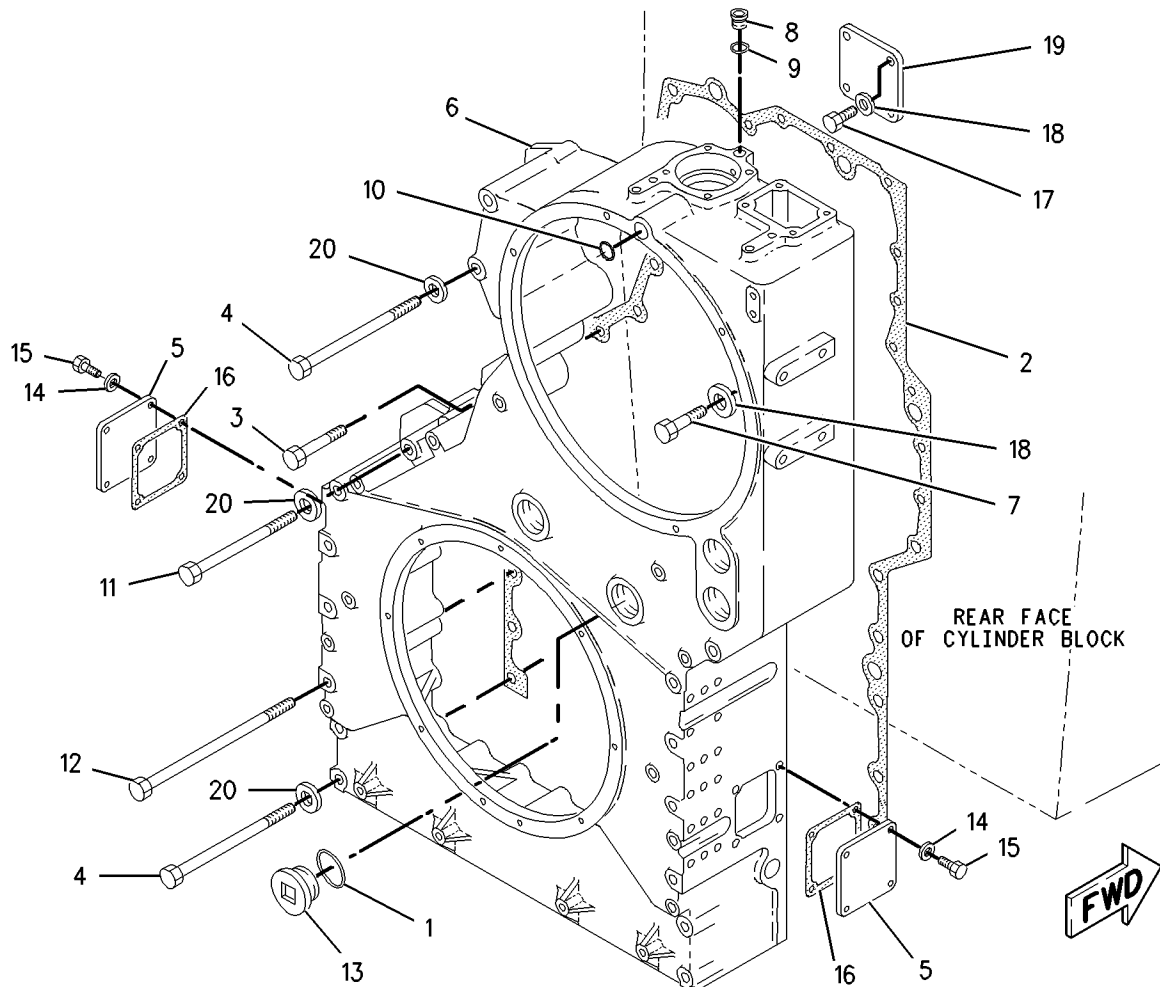
## 4P-7001 HOUSING GP-FLYWHEEL (CHG -00 THRU -02)

SMCS-1157

i01929460

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	009-2062	4	SEAL-O-RING						
	2	1	4W-4101	1	GASKET						
	3	1	0S-1569	3	BOLT (5/8-11X4-IN)						
	4	1	2H-3756	6	BOLT (5/8-11X9-IN)						
	5	1	4W-6637	2	COVER						
	6	1	4P-7000	1	HOUSING-REAR						
	7	1	1A-1460	10	BOLT (1/2-13X2-IN)						
	8	1	9S-8004	1	PLUG						
	9	1	6V-5049	1	SEAL-O-RING						
	10	1	6V-3955	1	SEAL-O-RING						
	11	1	1D-4599	2	BOLT (5/8-11X7-IN)						
	12	1	6V-9608	9	BOLT (5/8-11X10-IN)						
	13	1	4W-4813	4	PLUG						
	14	1	3V-3308	8	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	15	1	0S-1594	8	BOLT (3/8-16X1-IN)						
	16	1	4W-6638	2	GASKET						
	17	1	0S-1595	4	BOLT (1/2-13X1.25-IN)						
M	18	1	5P-8245	14	WASHER-HARD (13.5X25.5X3-MM THK)						
	19	1	4W-5017	1	COVER						
	20	1	5P-8247	8	WASHER-HARD (17X32X3.5-MM THK)						

M-METRIC PART



GRAPHIC #1

<END>

g01004197

# BASIC ENGINE

## 1W-0023 HOUSING GP-FRONT (CHG -12 THRU -18)

SMCS-1151, 1162

i02223771

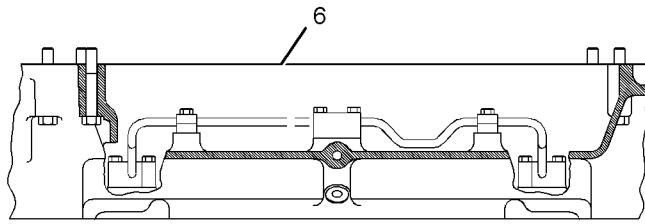
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	<b>0S-1569</b>	13	BOLT (5/8-11X4-IN)						
	2	1	<b>0S-1625</b>	12	BOLT (5/8-11X2.5-IN)						
	3	1	<b>2H-3756</b>	4	BOLT (5/8-11X9-IN)						
	4	1	<b>3P-0655</b>	1	SEAL-O-RING						
Y	5	1	<b>4P-2351</b>	1	HOUSING GP-FRONT						36
	6	1	<b>4W-4100</b>	1	GASKET						
	7	1	<b>4W-7483</b>	2	SLEEVE						
	8	1	<b>4W-7484</b>	1	CONNECTOR						
	9	1	<b>5P-7818</b>	3	SEAL-O-RING						
	10	1	<b>6V-3833</b>	1	SEAL-O-RING						
	11	1	<b>6V-3955</b>	8	SEAL-O-RING						
	12	1	<b>6V-5049</b>	3	SEAL-O-RING						
	13	1	<b>7C-1897</b>	1	SENSOR GP-SPEED						166
	14	1	<b>8L-2786</b>	2	SEAL-O-RING						
Y	15	1	<b>9S-4185</b>	1	PLUG						
	16	1	<b>9S-8004</b>	3	PLUG						
	17	1	<b>9S-8005</b>	1	PLUG						
	18	1	<b>7N-9737</b>	1	HOUSING-PLUG						

C-CHANGE FROM PREVIOUS TYPE  
Y-SEPARATE ILLUSTRATION

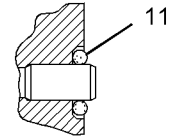
# BASIC ENGINE

1W-0023 HOUSING GP-FRONT (contd.)

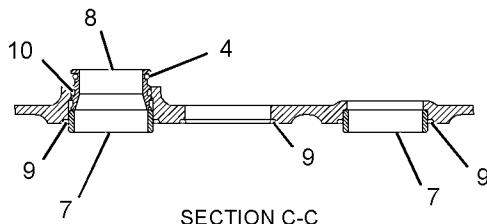
i02223771



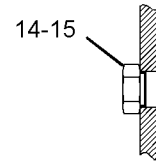
SECTION A-A



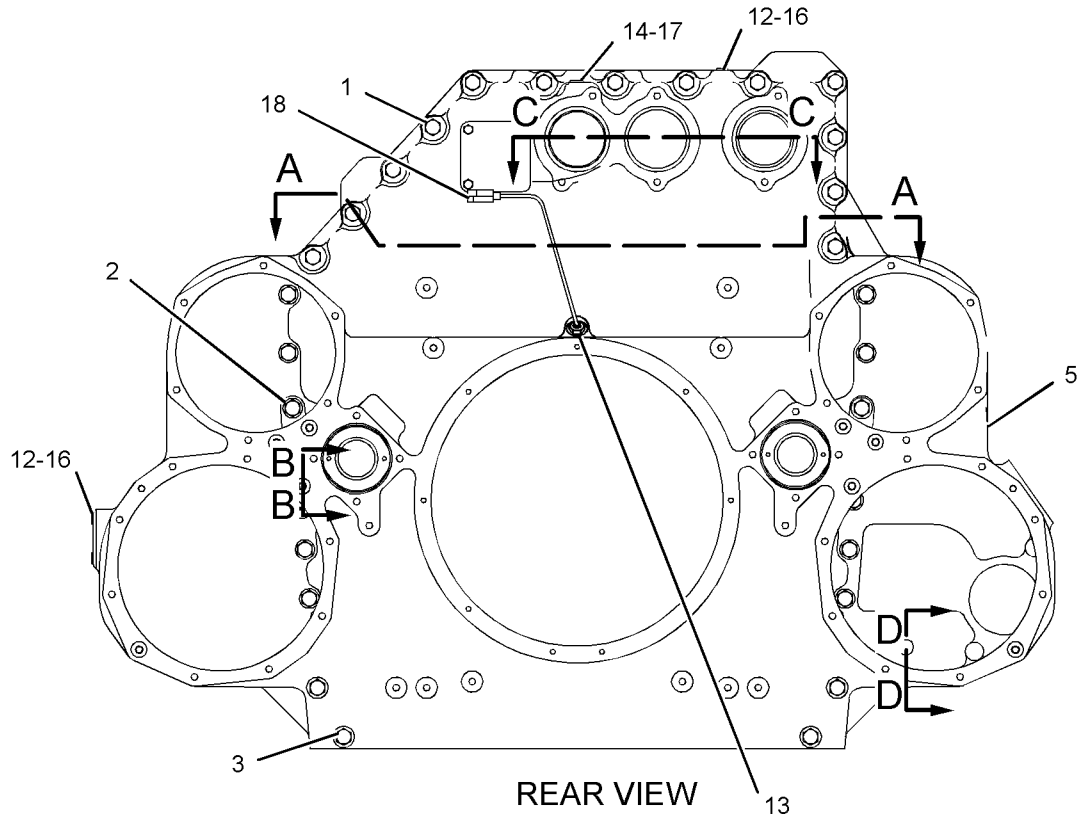
SECTION B-B



SECTION C-C



SECTION D-D



REAR VIEW

GRAPHIC #1

<END>

g01121560

# BASIC ENGINE

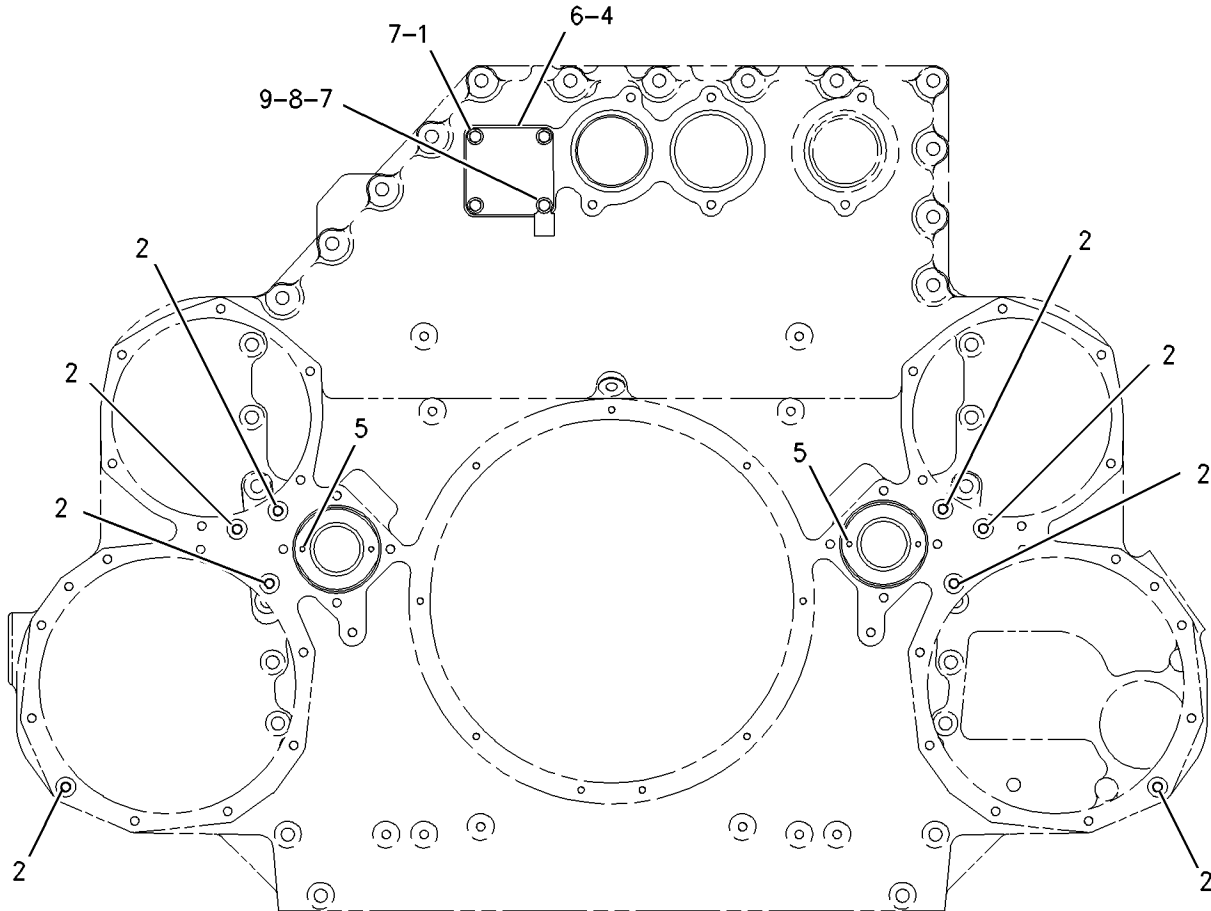
## 4P-2351 HOUSING GP-FRONT (CHG -00 THRU -06) PART OF 1W-0023 HOUSING GP-FRONT

SMCS-1151, 1162

i01921188

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1594	3	BOLT (3/8-16X1 IN)						
	2	1	1W-0104	8	DOWEL-HOLLOW						
	4	1	6V-0973	1	SEAL-O-RING						
	5	1	7N-2043	4	DOWEL						
	6	1	153-9138	1	COVER (FRONT OIL DRAIN)						
	7	1	3V-3308	4	WASHER-HARD (10.2X20.5X2.5MM THK)						
B	8	1	1A-2029	1	BOLT (3/8-16X1.125 IN)						
	9	1	9G-9150	1	CLIP						

B-USE AS REQUIRED



FRONT VIEW

GRAPHIC #1

<END>

g00857722

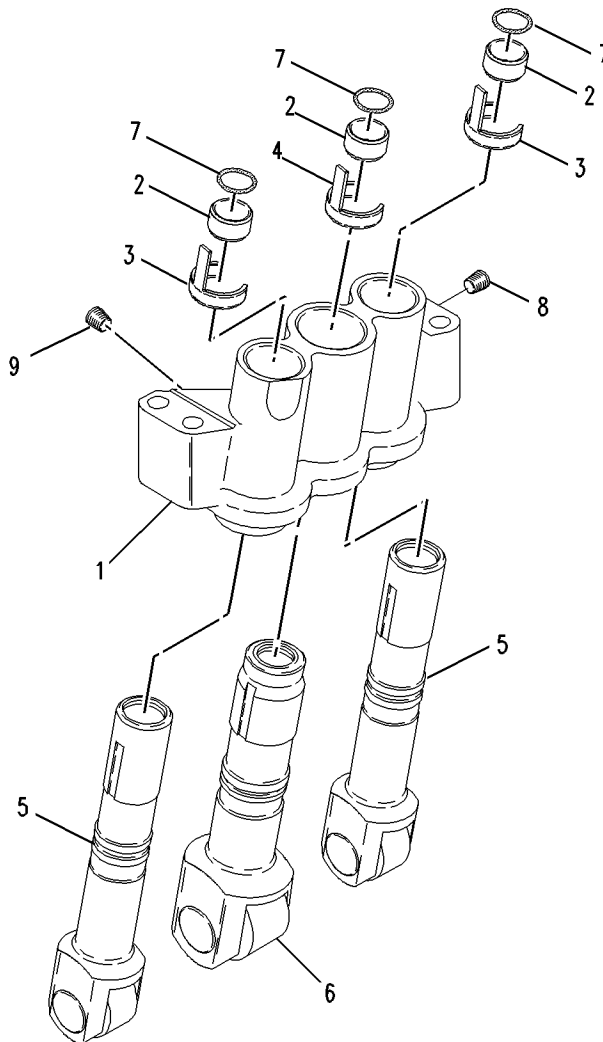
# BASIC ENGINE

## 1W-2470 LIFTER GP-VALVE (CHG -04 THRU -10, -10S1, -10S2) PART OF 1W-0789 VALVE MECHANISM GP

SMCS - 1209

i01942552

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-0020	1	GUIDE-LIFTER						
	2	1	1W-1756	3	INSERT-LIFTER						
	3	1	1W-2473	2	SPRING-GUIDE						
	4	1	1W-2474	1	SPRING-GUIDE						
	5	1	194-0629	2	LIFTER AS-VALVE						
	6	1	194-0630	1	LIFTER AS						
	7	1	5P-7701	3	SEAL-O-RING						
	8	1	8T-6757	1	PLUG-PIPE						
	9	1	8T-6759	3	PLUG-PIPE						



GRAPHIC #1

<END>

g00946722



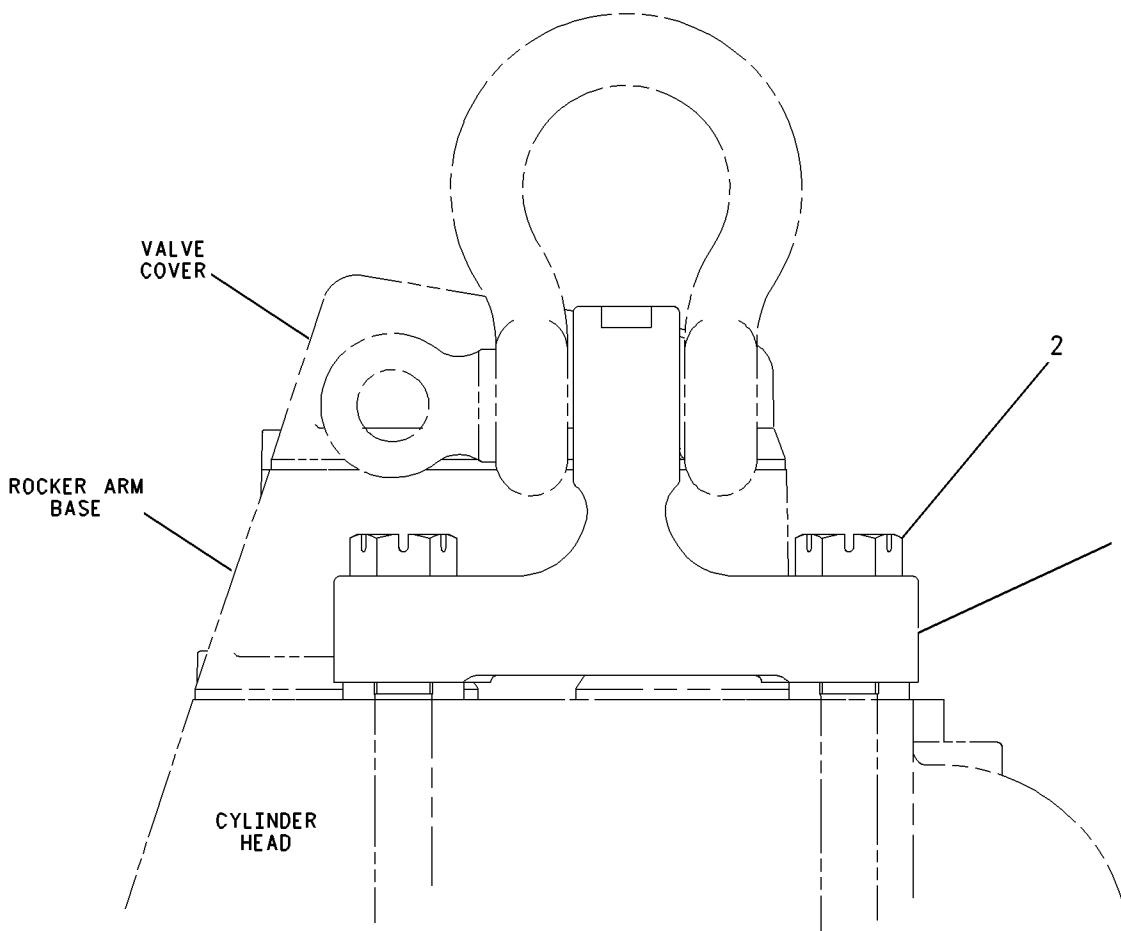
# BASIC ENGINE

## 1W-0826 LIFTING GP-ENGINE (CHG -05 THRU -09, -09A1, -09B1, -10)

SMCS-1122

i01374696

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	101-8187	2	BRACKET-LIFTING						
	2	1	9X-6003	8	NUT-SLOTTED						



GRAPHIC #1

<END>

g00726086

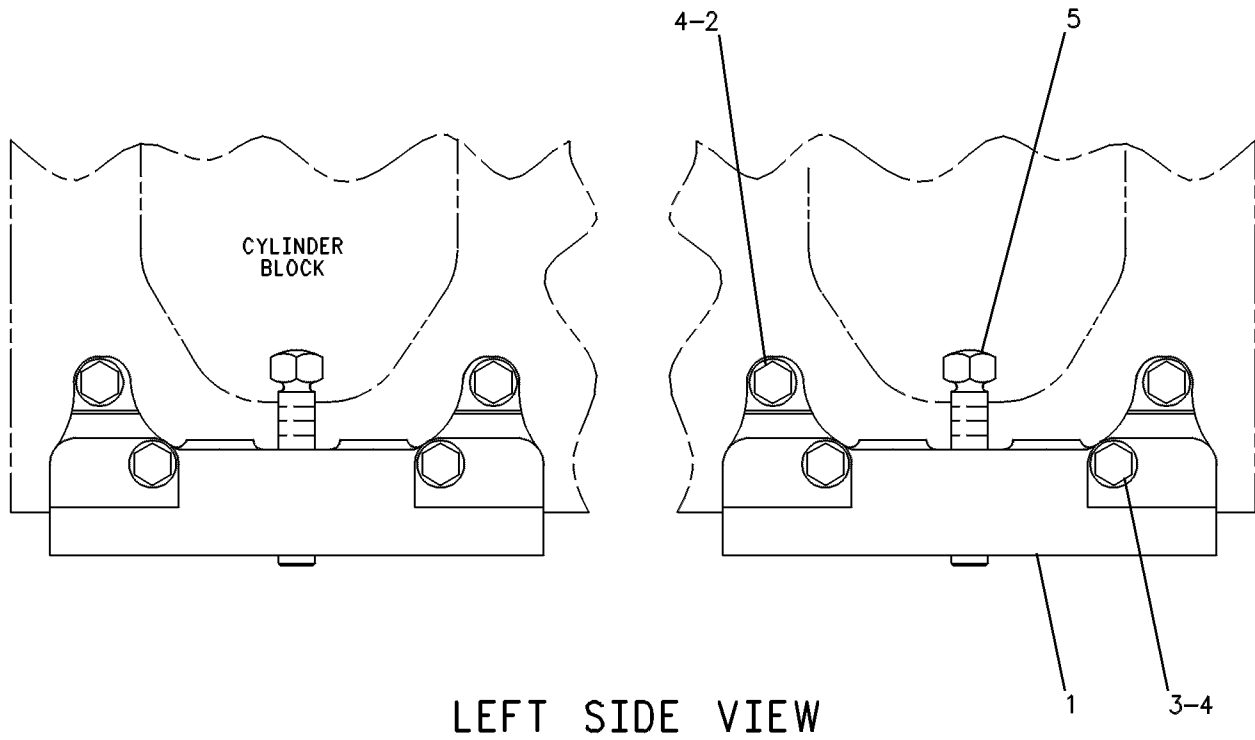
# BASIC ENGINE

## 107-3932 MOUNTING GP-ENGINE (CHG -00, -00D1) 450 MM

SMCS-1152

i01691084

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	107-3929	4	SUPPORT AS						
		1	7N-2328	2	DOWEL						
2		1	8S-4757	8	BOLT (1-14X8 IN)						
3		1	7B-8363	8	BOLT (1-14X10-3/4 IN)						
4		1	5P-8250	16	WASHER (28X49X5MM THK)						
5		1	6V-5137	4	SETSCREW-SQUARE HEAD (1-1/2-12X190.5MM)						



GRAPHIC #1

<END>

g00065796

# BASIC ENGINE

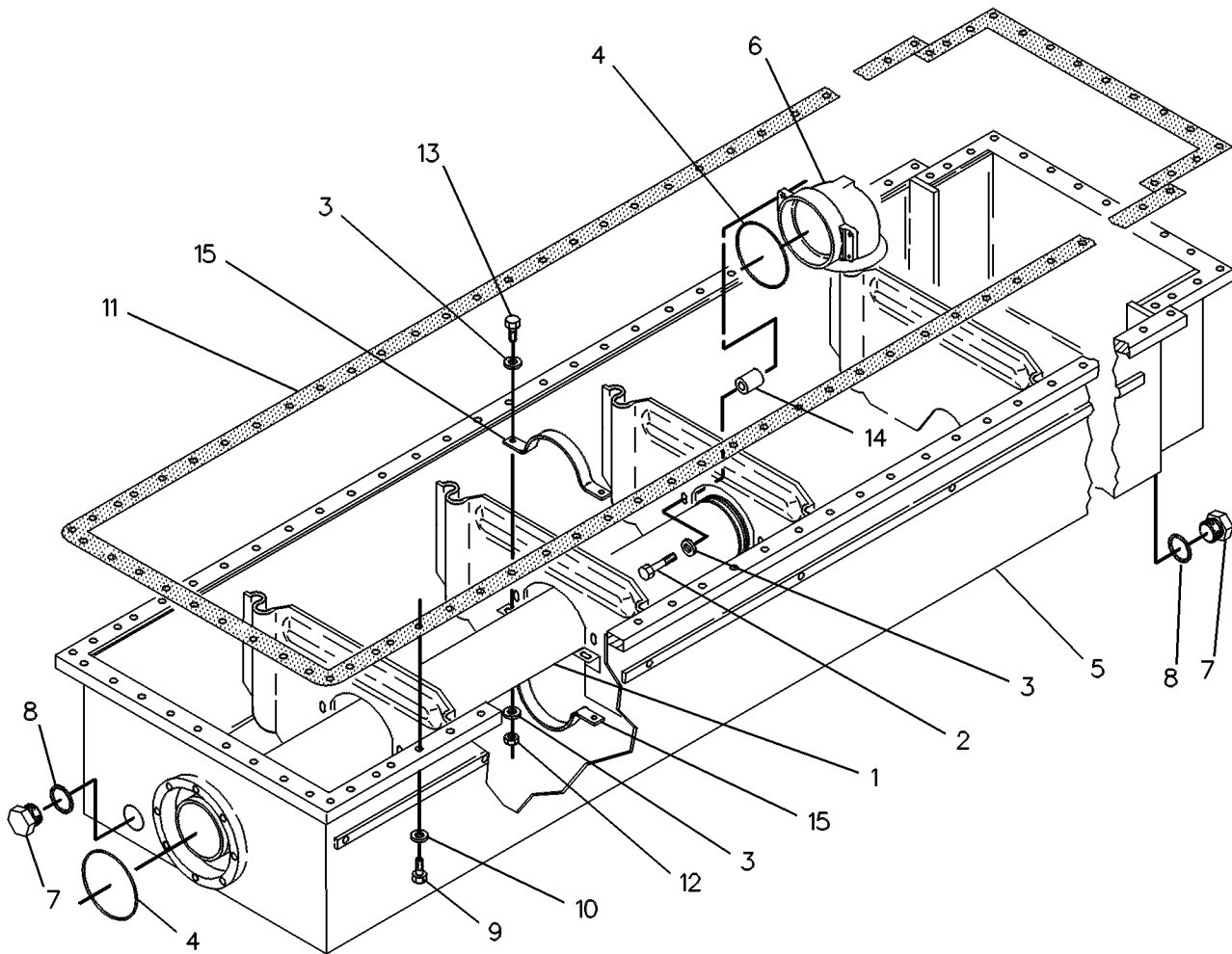
## 1W-0839 PAN GP-OIL (CHG -10, -11)

SMCS-1302

i01552726

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-3308	1	TUBE AS						
	2	1	0S-1590	4	BOLT (3/8-16X2 IN)						
	3	1	5P-1075	12	WASHER-HARD (10.2X22.5X3MM THK)						
	4	1	5P-8861	2	SEAL-O-RING						
C	5	1	114-6672	1	PAN AS-OIL						
	6	1	1W-6700	1	BELL-PUMP SUCTION						
	7	1	1N-5998	2	PLUG-O-RING						
	8	1	5P-7816	2	SEAL-O-RING						
	9	1	1A-1460	98	BOLT (1/2-13X2 IN)						
	10	1	5P-8245	98	WASHER-HARD (13.5X25.5X3MM THK)						
	11	1	4W-4050	1	GASKET-OIL PAN						
	12	1	9S-8752	4	NUT-FULL (3/8-16 THD)						
	13	1	0S-1591	4	BOLT (3/8-16X1.5 IN)						
	14	1	1B-4971	4	SPACER (13/32X1X1 IN THK)						
	15	1	1W-6702	4	CLAMP						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00065960

# BASIC ENGINE

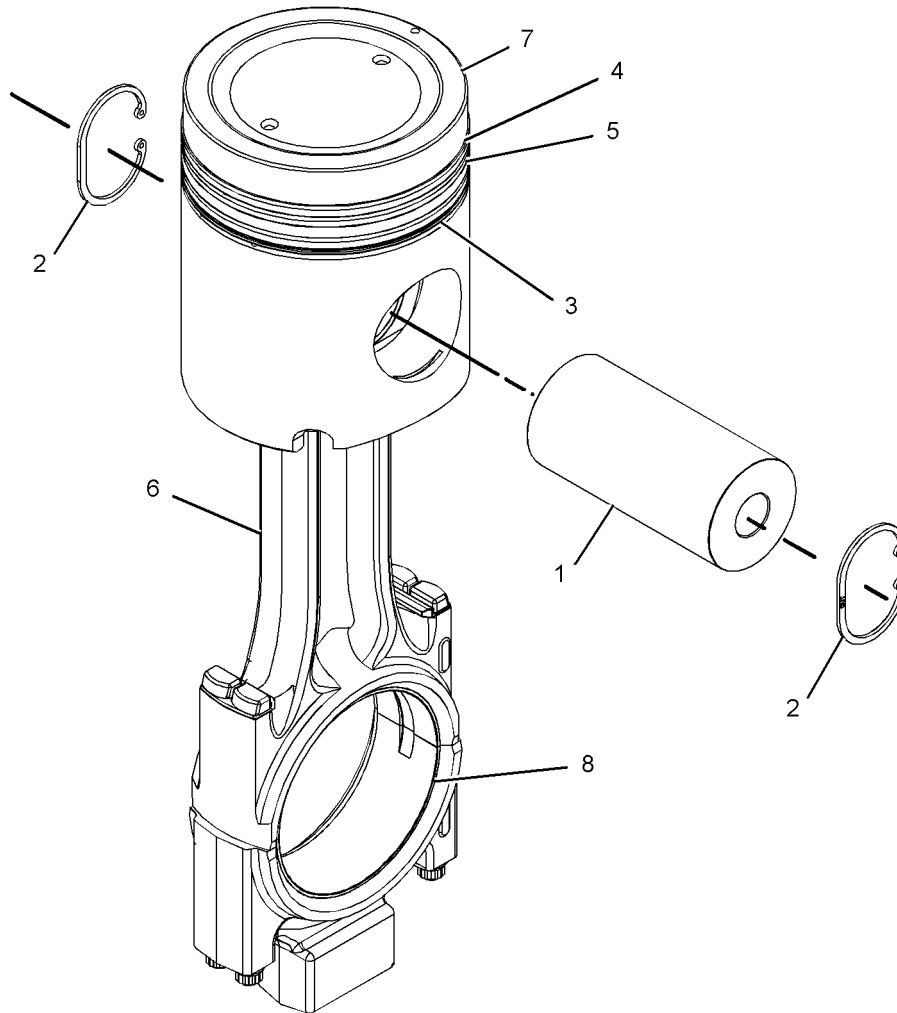
## 236-5928 PISTON & ROD GP (CHG -02, -03, -03A1)

SMCS-1225

i02217826

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7C-1412	1	PIN-PISTON						
	2	1	7C-1413	2	RETAINER-PIN						
	3	1	111-0281	1	RING-PISTON						
	4	1	137-1574	1	RING-PISTON						
	5	1	137-1575	1	RING-PISTON						
YR	6	1	195-5916	1	CONNECTING ROD GP						6
Y	7	1	197-6700	1	PISTON AS						42
	8	1	246-7542	1	BEARING-CONNECTING ROD						

R-REMFG PART MAY BE AVAILABLE  
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g01068361

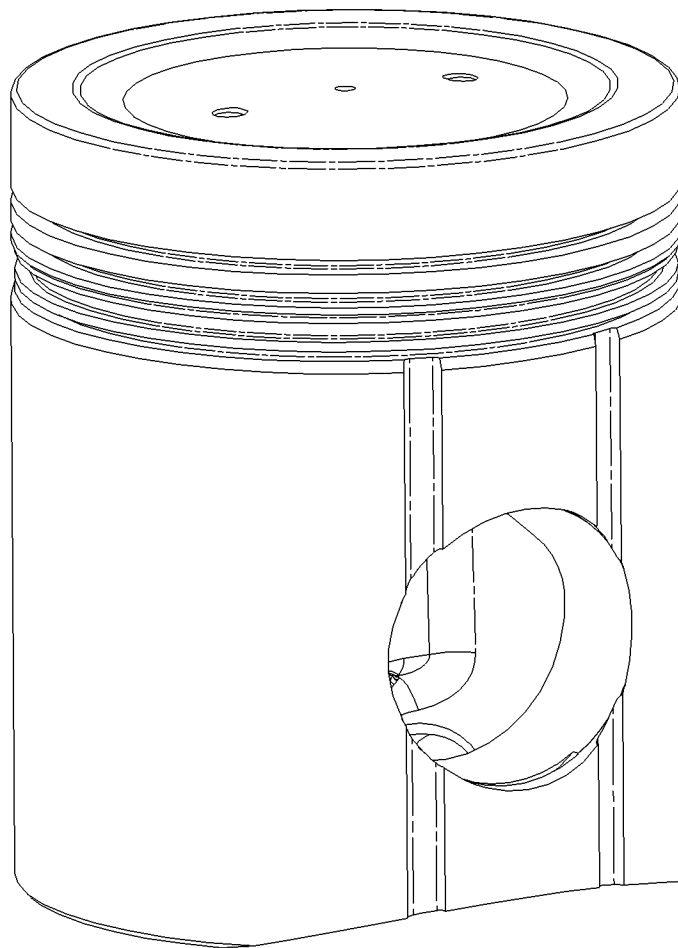
# BASIC ENGINE

## 197-6700 PISTON AS (CHG -00 THRU -02) PART OF 236-5928 PISTON & ROD GP

SMCS-1214

i01614157

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)						



GRAPHIC #1

<END>

g00861566

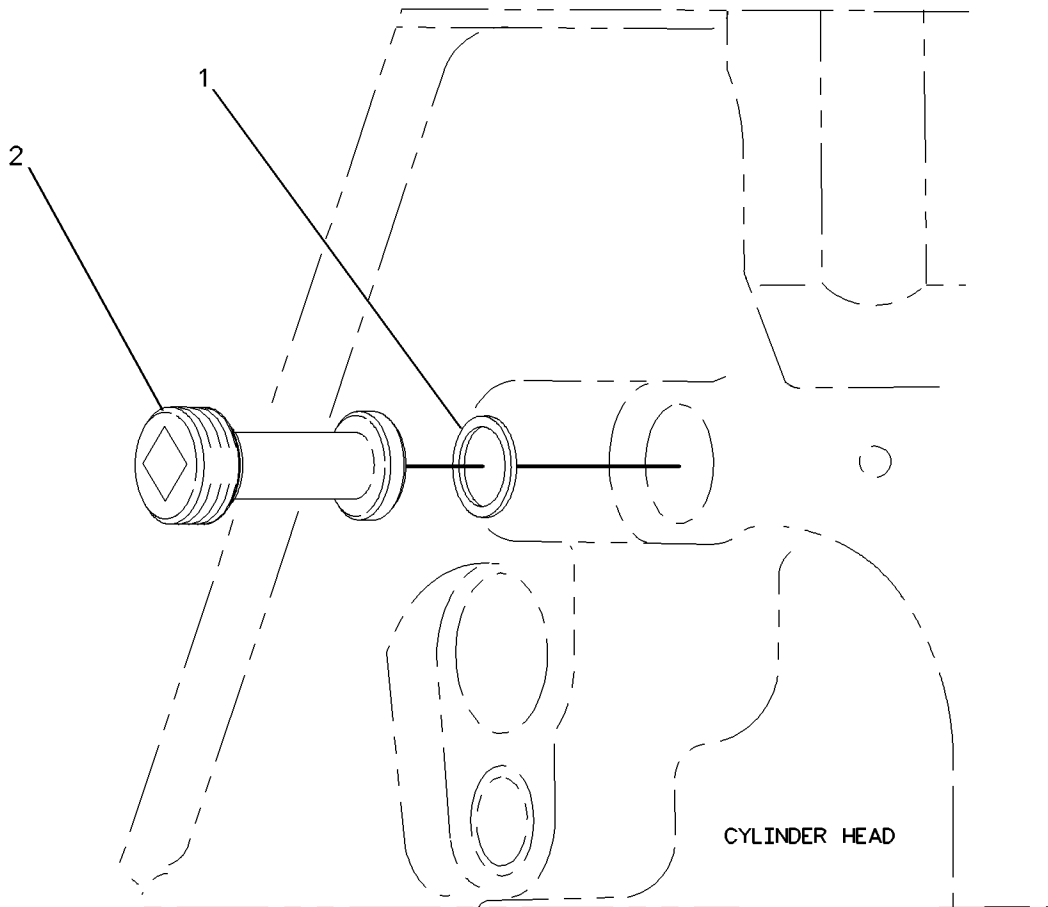
# BASIC ENGINE

## 4W-0345 PLUG GP-CYLINDER PRESS RELIEF (CHG -05, -06) PART OF 175-6341 CYLINDER HEAD GP, 4W-0345 PLUG GP-CYLINDER PRESS RELIEF

SMCS-1118

i01351184

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-8276	1	GASKET						
	2	1	4P-7639	1	PLUG-CYLINDER PRESSURE						



GRAPHIC #1

<END>

g00713014

# BASIC ENGINE

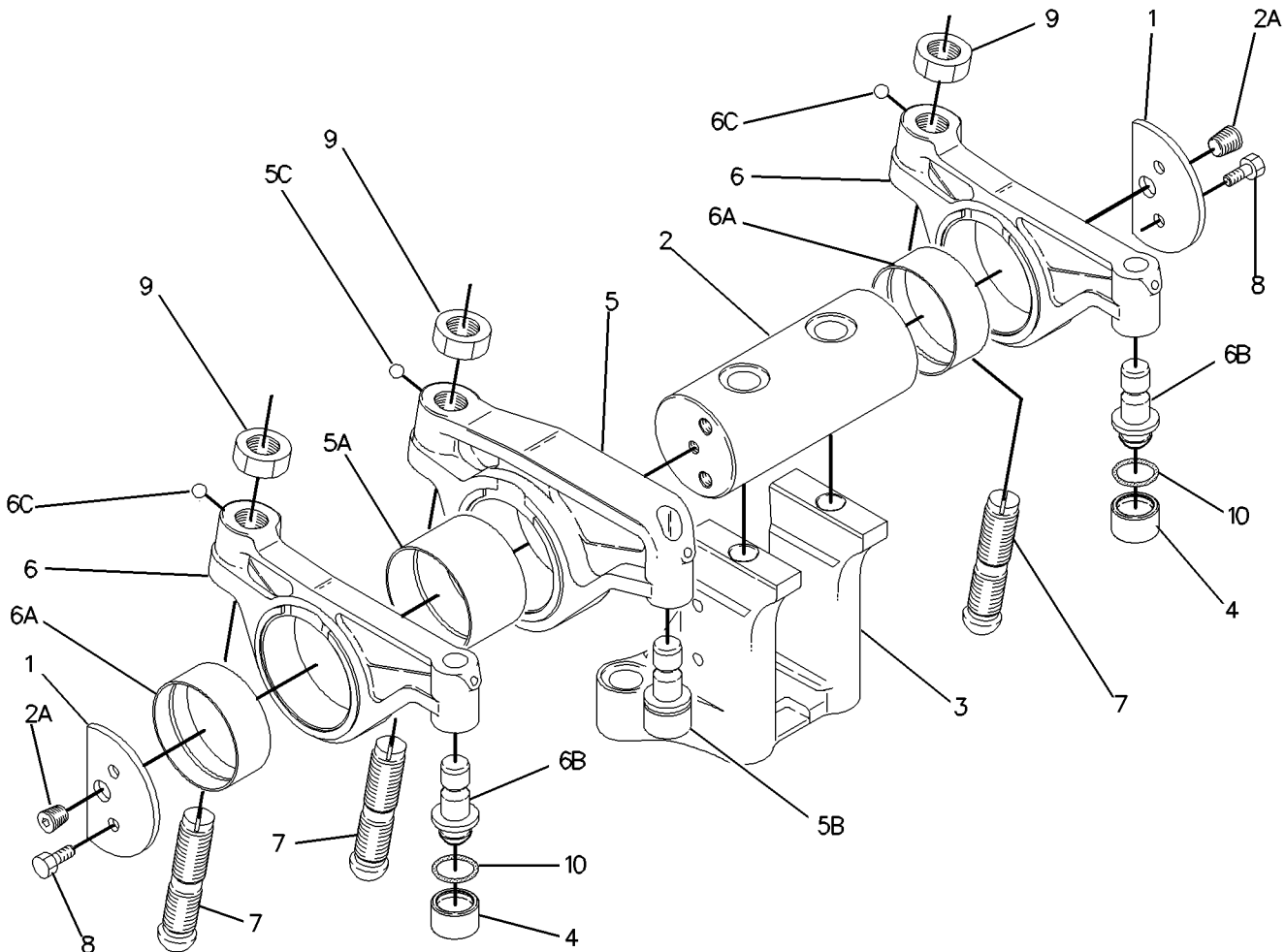
## 128-5682 ROCKER ARM GP (CHG -00 THRU -03) PART OF 1W-0789 VALVE MECHANISM GP

SMCS-1123

i01738957

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-8409	2	PLATE-THRUST						
	2	1	1W-8410	1	SHAFT AS-ARM						
	2A	1	8T-6757	2	PLUG-PIPE						
	3	1	1W-8444	1	SUPPORT-SHAFT						
	4	1	7E-7202	2	BUTTON						
R	5	1	7E-7205	1	ROCKER ARM AS						
	5A	1	7W-7230	1	BEARING-SLEEVE						
	5B	1	151-4883	1	INSERT AS						
	5C	1	2D-6642	1	BALL						
R	6	1	129-4859	2	ROCKER ARM AS						
					(EACH INCLUDES)						
	6A	1	6I-0578	1	BEARING-SLEEVE						
	6B	1	7E-7203	1	INSERT-ROCKER ARM						
	6C	1	2D-6642	1	BALL						
	7	1	204-4385	3	SCREW-ADJUSTING						
	8	1	0S-1617	4	BOLT (5/16-18X0.75 IN)						
	9	1	6V-5019	3	NUT-JAM						
	10	1	7L-9061	2	SEAL-O-RING						

R-REMFG PART MAY BE AVAILABLE



GRAPHIC #1

<END>

g00890797

# BASIC ENGINE

## 7W-9683 SEAL GP-CRANKSHAFT (CHG -03 THRU -06)

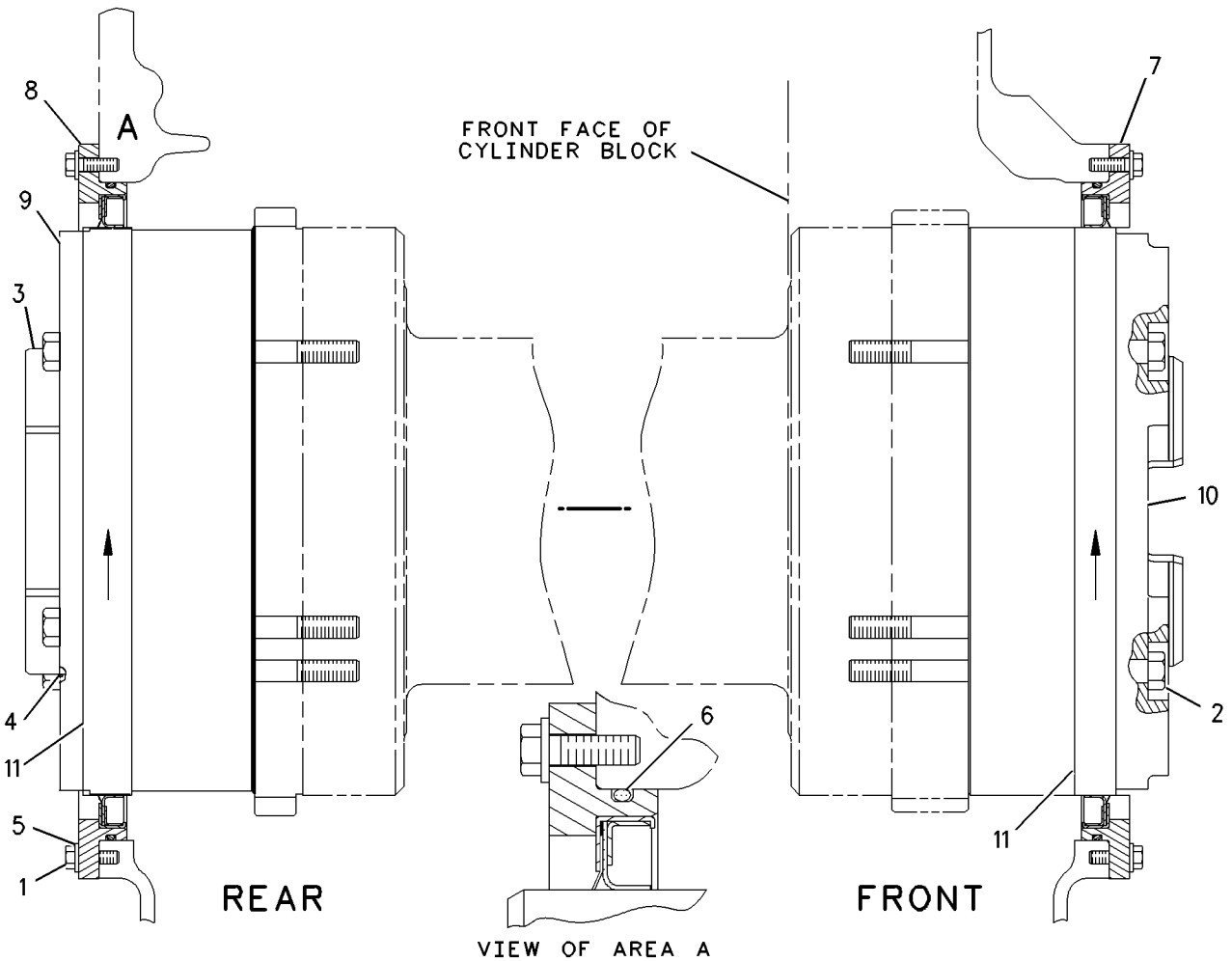
STANDARD ENGINE ROTATION

SMCS-1160, 1161

i02016668

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1588	18	BOLT (3/8-16X1.25-IN)						
	2	1	1D-4601	8	BOLT (5/8-11X8.5-IN)						
C	3	1	1W-2823	1	SLEEVE						
C	4	1	1W-2824	1	RING-LOCK						
	5	1	3V-3308	18	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	6	1	6V-5059	2	SEAL-O-RING						
	7	1	190-2462	1	SEAL AS (CW ROTATION)						
	8	1	190-2463	1	SEAL AS (CCW ROTATION)						
C	9	1	102-4112	1	ADAPTER-CRANKSHAFT						
	10	1	106-2033	1	ADAPTER-CRANKSHAFT						
	11	1	160-8173	2	SLEEVE-WEAR						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00713134



# BASIC ENGINE

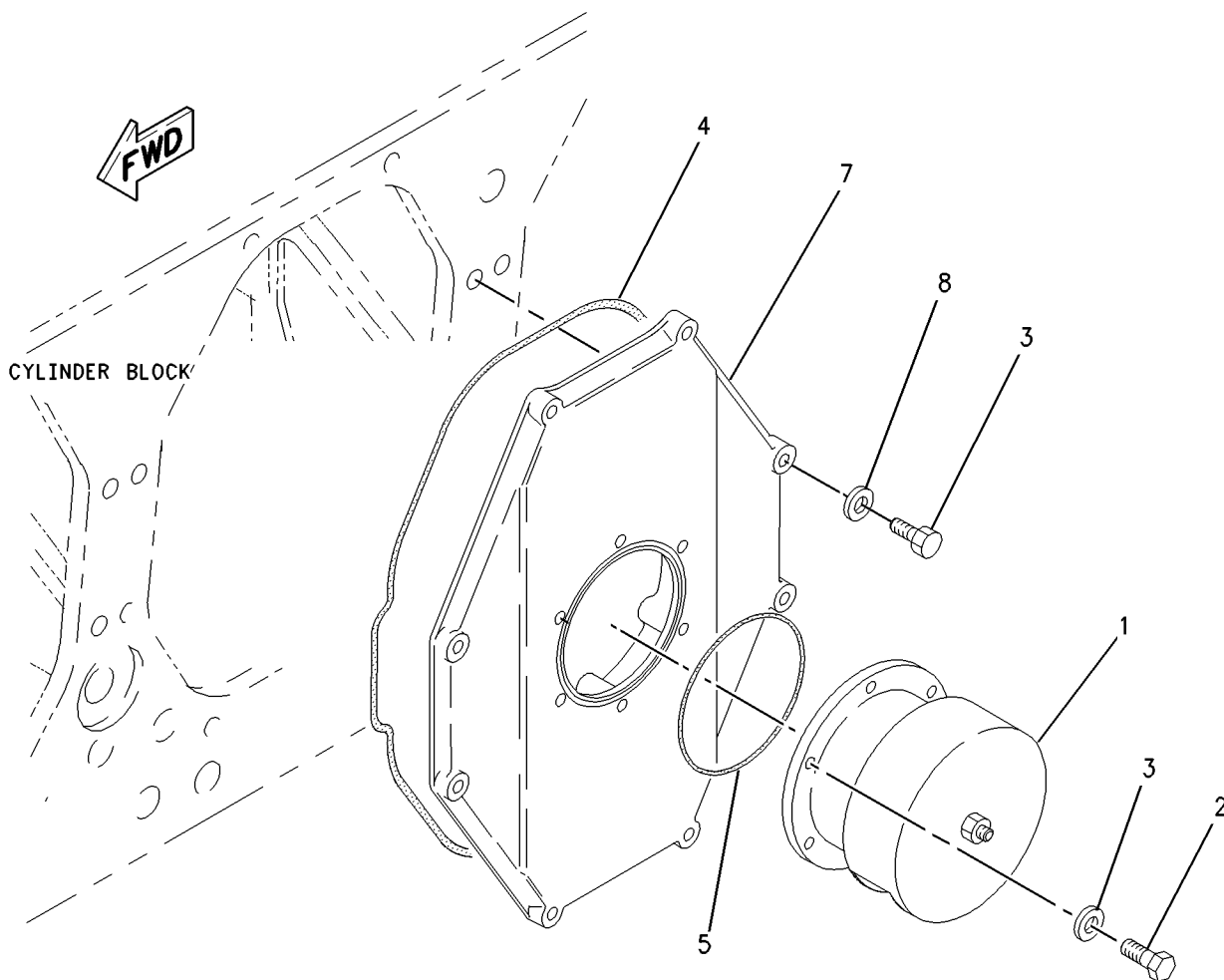
## 1W-3645 VALVE GP-EXPLOSION RELIEF (CHG -08, -09)

SMCS-1233

i02016676

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>1W-2834</b>	1	VALVE GP-EXPLOSION RELIEF						
		1	<b>2W-3584</b>	1	KIT-REPAIR (EXPLOSION RELIEF VALVE)						
C	2	1	<b>0S-1588</b>	6	BOLT (3/8-16X1.25-IN)						
	3	1	<b>3V-3308</b>	14	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	4	1	<b>6I-4545</b>	1	SEAL-O-RING						
C	5	1	<b>6V-1904</b>	1	SEAL-O-RING						
C	7	1	<b>7E-0769</b>	1	COVER-CYLINDER BLOCK						
	8	1	<b>0S-1591</b>	8	BOLT (3/8-16X1.5-IN)						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00800618

# BASIC ENGINE

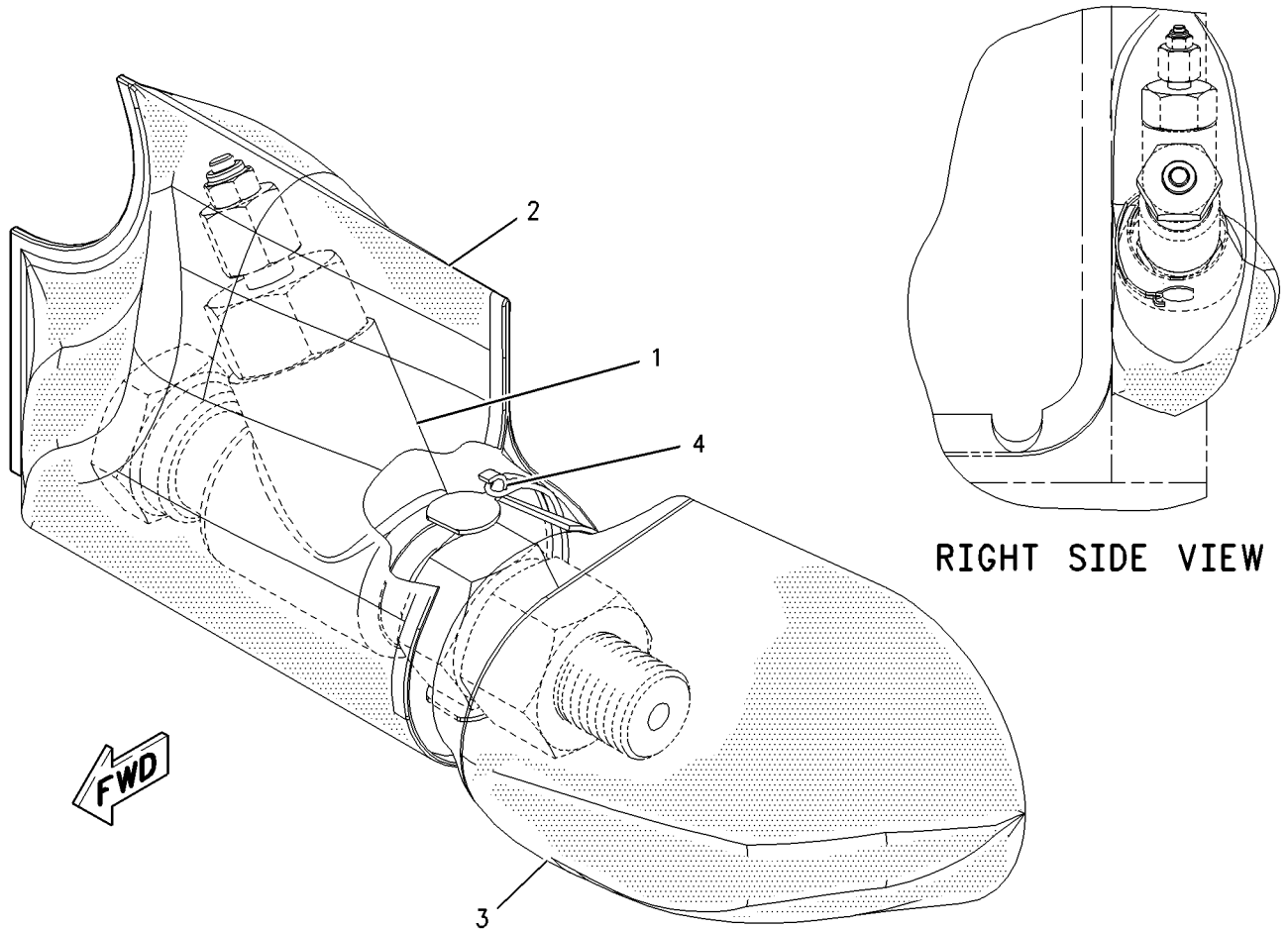
## 197-5805 VALVE GP-MANUAL (CHG -01, -02, -02D1, -02D2, -02D3)

SMCS-1118, 7450

i01986388

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	197-5807	1	INDICATOR-VALVE						
		1	5B-9246	1	GASKET						
		1	197-5808	1	INDICATOR-VALVE						
		1	208-3899	1	ADAPTER						
C	2	1	229-5415	1	SHIELD AS-HEAT						
C	3	1	229-5417	1	SHIELD AS-HEAT						
CD	4	1	138-3331		WIRE-TIE (4M)						

C-CHANGE FROM PREVIOUS TYPE  
D-ORDER BY THE METER



GRAPHIC #1

<END>

g00943539

# BASIC ENGINE

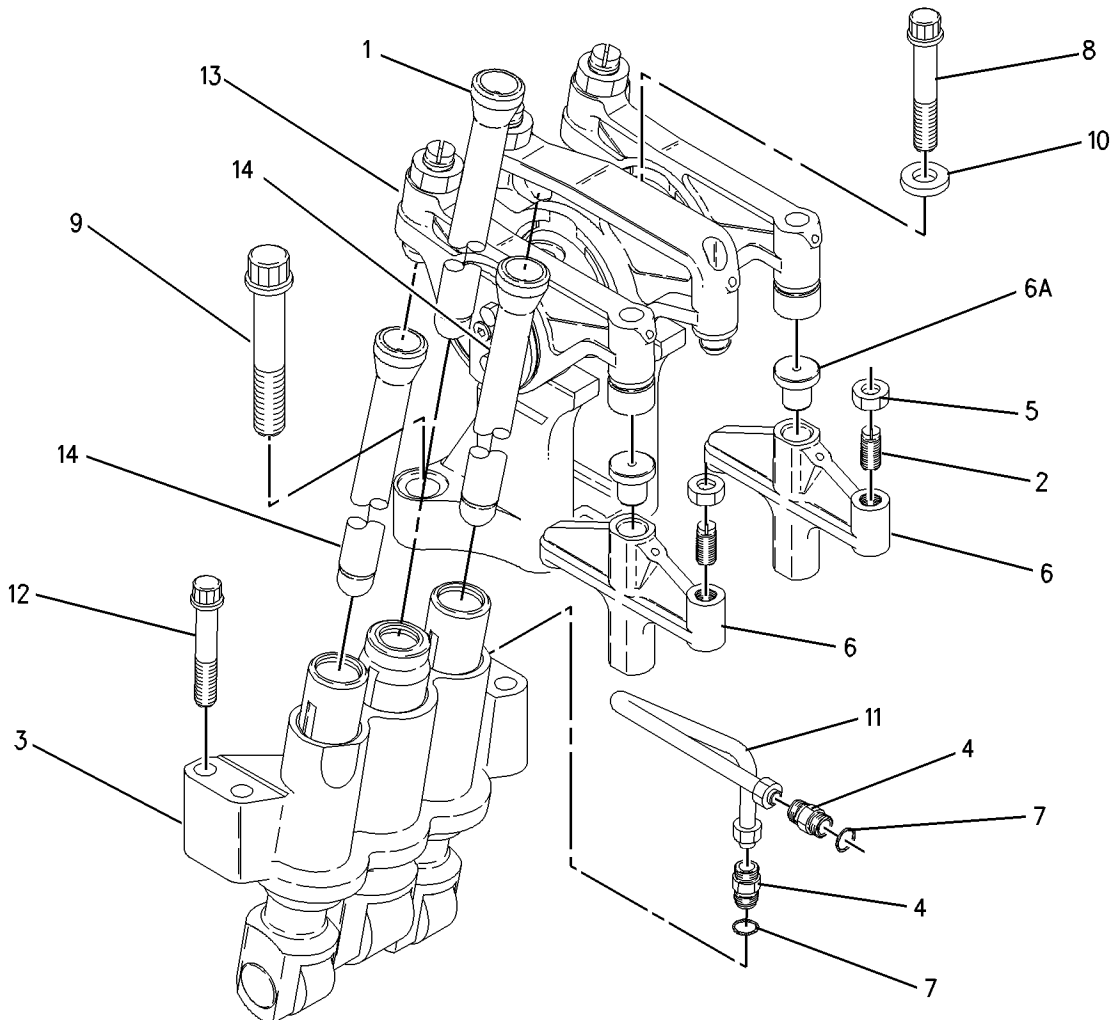
## 1W-0789 VALVE MECHANISM GP (CHG -13 THRU -18)

SMCS-1102, 1121, 1123

i01461179

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>1W-0022</b>	1	PUSHROD-VALVE & INJECTION						
	2	1	<b>1W-1760</b>	2	SCREW-ADJUSTMENT						
Y	3	1	<b>1W-2470</b>	1	LIFTER GP-VALVE						37
	4	1	<b>2R-6806</b>	2	CONNECTOR						
	5	1	<b>5P-0540</b>	2	NUT-HEX FULL (9/16-18 THD)						
	6	1	<b>6I-2491</b>	2	BRIDGE AS						
					(EACH INCLUDES)						
	6A	1	<b>6I-2489</b>	1	INSERT-BRIDGE						
	7	1	<b>6V-5049</b>	2	SEAL-O-RING						
	8	1	<b>6V-5625</b>	2	BOLT-12 POINT HEAD (3/4-10X9-1/2IN)						
	9	1	<b>6V-6869</b>	2	BOLT-12 POINT HEAD (3/4-10X2 3/4 IN)						
	10	1	<b>6V-7607</b>	2	WASHER-HARD (20X30X2.5MM THK)						
	11	1	<b>7E-1036</b>	1	TUBE AS						
	12	1	<b>8D-7941</b>	4	BOLT-12 POINT HEAD (5/8-11X4IN)						
CY	13	1	<i>128-5682</i>	1	ROCKER ARM GP						44
	14	1	<b>179-9542</b>	2	PUSHROD						

C-CHANGE FROM PREVIOUS TYPE  
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00763696

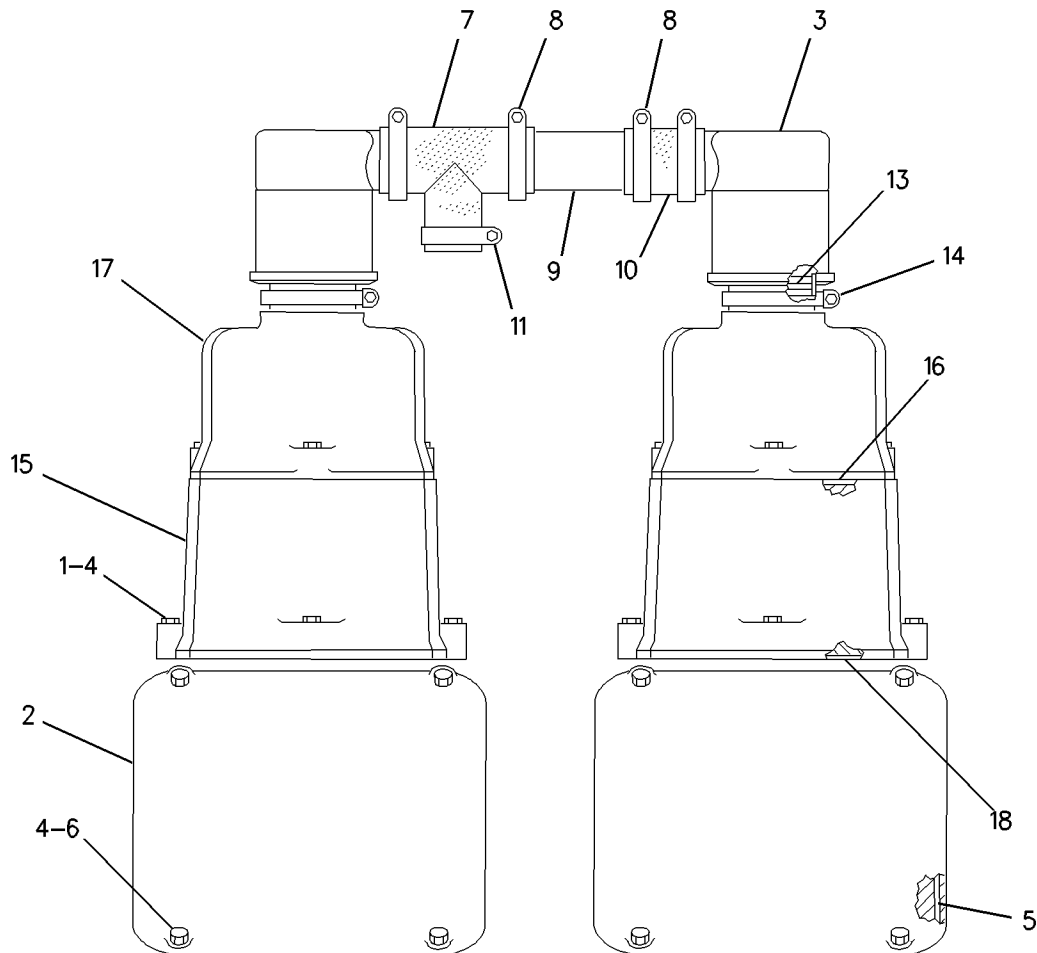
# LUBRICATION SYSTEM

## 1W-0800 BREATHER GP (CHG -04 THRU -09)

SMCS-1317

i01887661

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1590	14	BOLT (3/8-16X2 IN)						
	2	1	7E-0732	2	COVER-GUIDE						
	3	1	4W-3027	2	BREATHER AS						
	4	1	3V-3308	22	WASHER-HARD (10.2X20.5X2.5MM THK)						
	5	1	9X-7688	2	SEAL-O-RING						
	6	1	0S-1591	8	BOLT (3/8-16X1.5 IN)						
	7	1	217-6692	1	HOSE-TEE						
	8	1	5P-0597	4	CLAMP-HOSE						
	9	1	7W-5482	1	TUBE						
	10	1	6N-3792	1	HOSE						
	11	1	5P-4868	1	CLAMP-HOSE						
	13	1	5H-8848	2	SEAL-O-RING						
	14	1	4W-3034	2	CLAMP						
	15	1	7E-0731	2	BASE-ROCKER ARM						
	16	1	6V-3602	2	SEAL-O-RING						
	17	1	7E-0734	2	COVER AS-VALVE MECHANISM (BREATHER)						
	18	1	118-7536	2	SEAL-O-RING						



GRAPHIC #1

<END>

g00979659

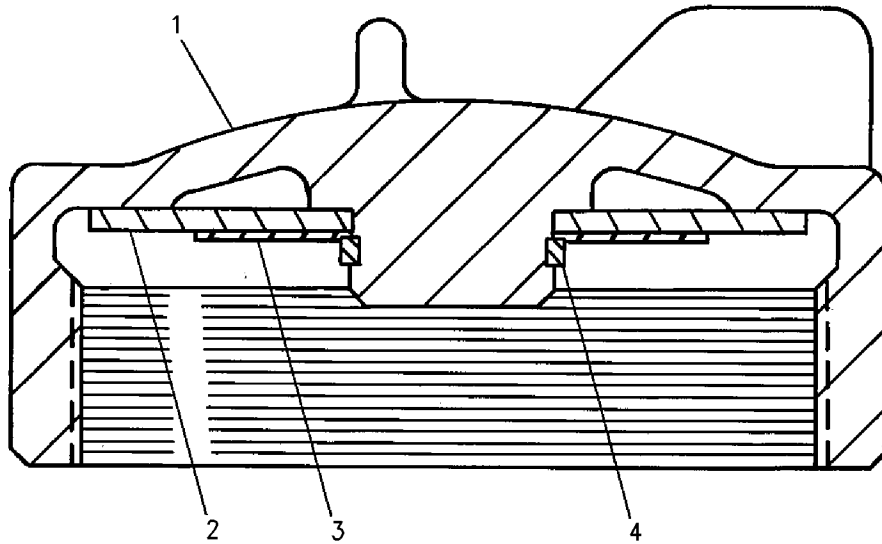
# LUBRICATION SYSTEM

## 7E-1659 CAP GP-ENGINE OIL FILLER (CHG -00, -01) PART OF 9Y-9927 FILLER GP-ENGINE OIL

SMCS-1316

i02030141

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>4P-6979</b>	1	CAP-FILLER (ENGINE OIL)						
	2	1	<b>7E-1661</b>	1	GASKET						
	3	1	<b>7E-1660</b>	1	RETAINER						
	4	1	<b>9S-9979</b>	1	RING-RETAINING						



GRAPHIC #1

<END>

g00727016

# LUBRICATION SYSTEM

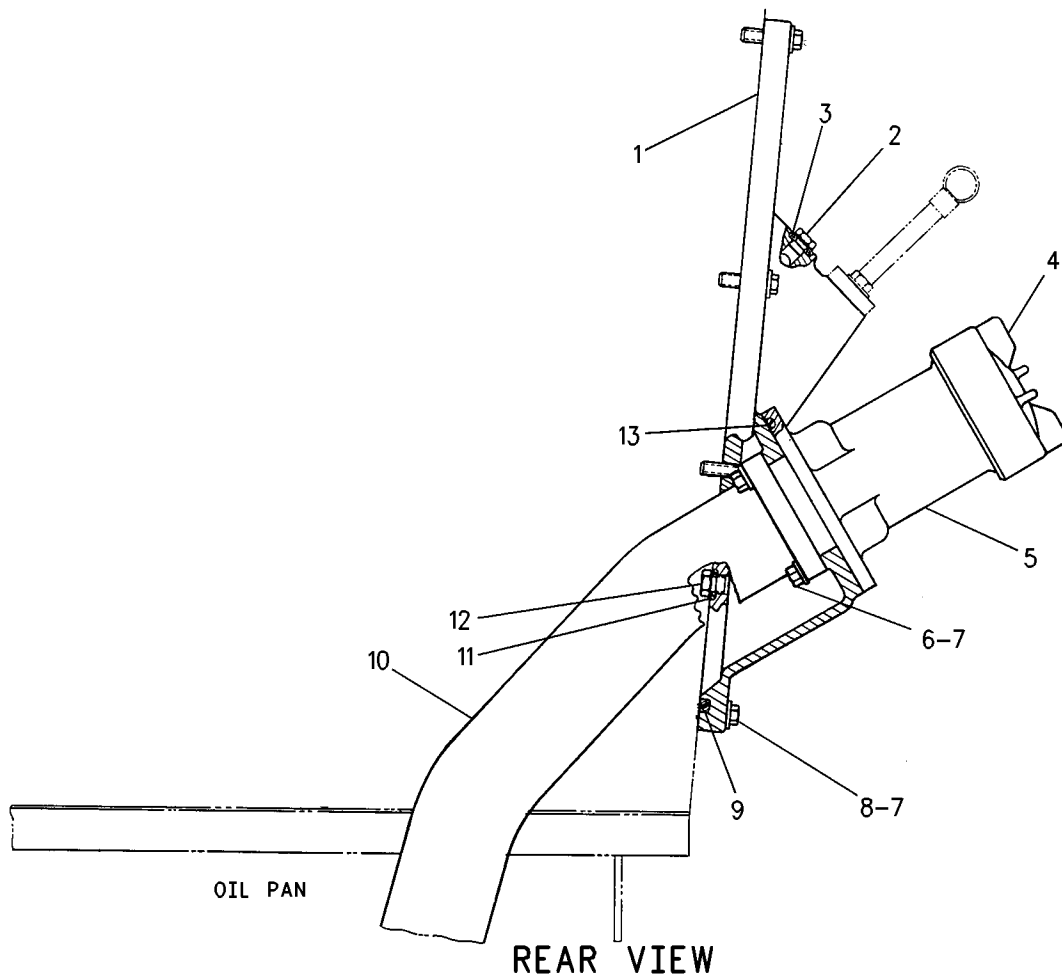
## 9Y-9927 FILLER GP-ENGINE OIL (CHG -00 THRU -03)

SMCS-1316

i01458684

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-9924	1	COVER-CYLINDER BLOCK						
	2	1	9S-4182	1	PLUG						
	3	1	6V-5048	1	SEAL-O-RING						
Y	4	1	7E-1659	1	CAP GP-ENGINE OIL FILLER						50
	5	1	9Y-6874	1	ELBOW-OIL FILLER						
	6	1	0S-1590	4	BOLT (3/8-16X2-IN)						
	7	1	3V-3308	12	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	8	1	0S-1591	8	BOLT (3/8-16X1.5-IN)						
	9	1	6I-4545	1	SEAL-O-RING						
	10	1	4P-5304	1	TUBE AS						
	11	1	6V-5049	1	SEAL-O-RING						
	12	1	9S-4191	1	PLUG						
	13	1	6V-4314	1	SEAL-O-RING						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00762895

# LUBRICATION SYSTEM

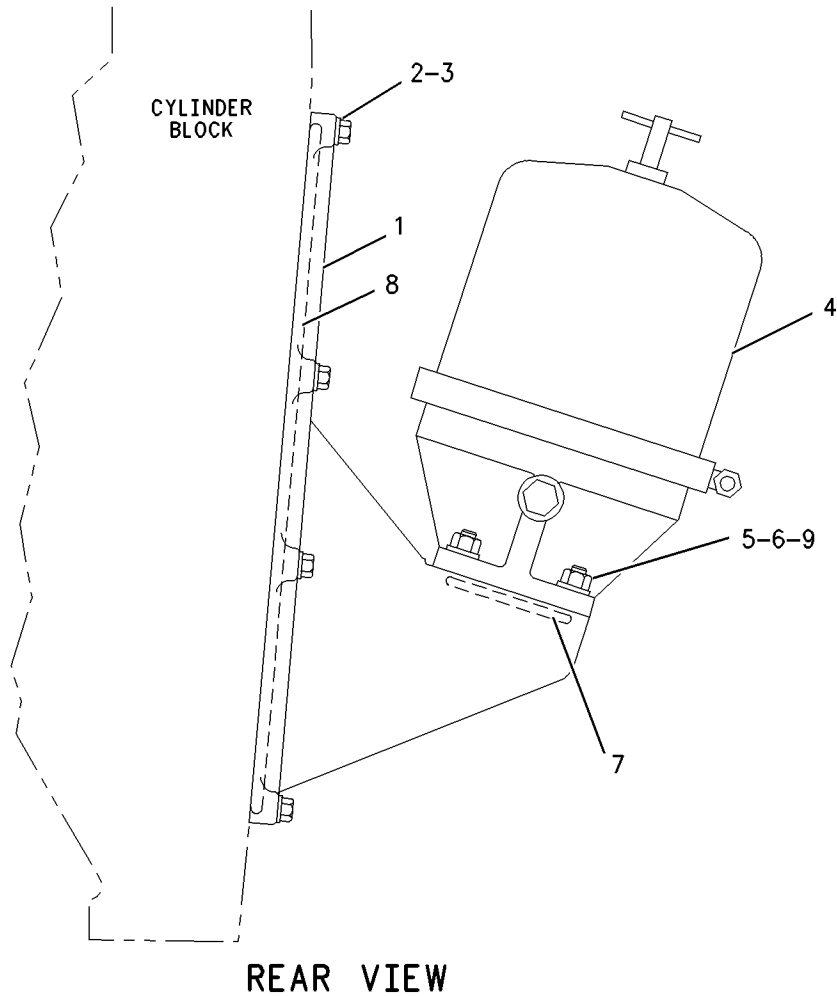
## 1W-0806 FILTER GP-CENTRIFUGAL (CHG -02 THRU -04, -04D1 THRU -06, -06D1, -06D2, -06D3)

SMCS-1328

i01544647

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-9996	1	COVER-CYLINDER BLOCK						
	2	1	3V-3308	8	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	3	1	0S-1591	8	BOLT (3/8-16X1.5-IN)						
Y	4	1	1W-4191	1	FILTER GP-CENTRIFUGAL						53
	5	1	1F-7958	4	NUT-FULL (1/2-13-THD)						
	6	1	5P-1076	4	WASHER-HARD (13.5X30X4-MM THK)						
	7	1	6V-3833	1	SEAL-O-RING						
	8	1	6I-4545	1	SEAL-O-RING						
	9	1	2D-8154	4	STUD-TAPERLOCK (1/2-13X2.36-IN)						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00802720

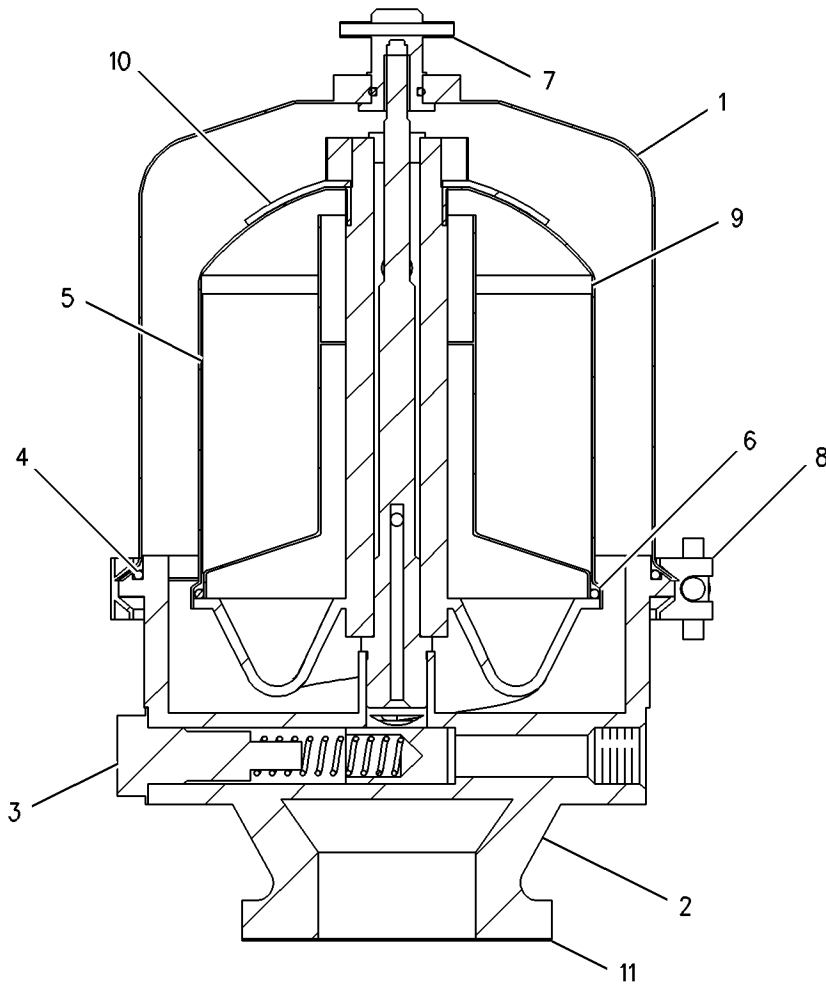
# LUBRICATION SYSTEM

## 1W-4191 FILTER GP-CENTRIFUGAL (CHG -02 THRU -08) PART OF 1W-0806 FILTER GP-CENTRIFUGAL

SMCS-1328

i02089146

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7C-4415	1	COVER AS-FILTER						
	2	1	7C-4416	1	BODY-FILTER						
	3	1	7C-4417	1	KIT-VALVE CUTOFF (CENTRIFUGAL LUBRICATION) (INCLUDES SHUTTLE, PLUG, SPRING & WASHER)						
	4	1	7C-4419	1	SEAL-O-RING						
	5	1	7C-4420	1	ROTOR AS						
	6	1	7C-4421	1	SEAL-O-RING						
	7	1	7C-4422	1	KIT-COVER-FILTER (CENTRIFUGAL LUBRICATION) (INCLUDES COVER, PIN, SEAL & CLIP)						
	8	1	7C-4423	1	CLAMP						
	9	1	7C-8390	1	LINER-ROTOR						
	10	1	168-6357	1	PLATE-STIFFENER						
	11	1	7C-5485	1	GASKET-FLANGE						



GRAPHIC #1

<END>

g00627726



# LUBRICATION SYSTEM

## 1W-0798 FILTER GP-ENGINE OIL (CHG -12 THRU -23, -23D1)

SMCS-1306, 1308

i02235930

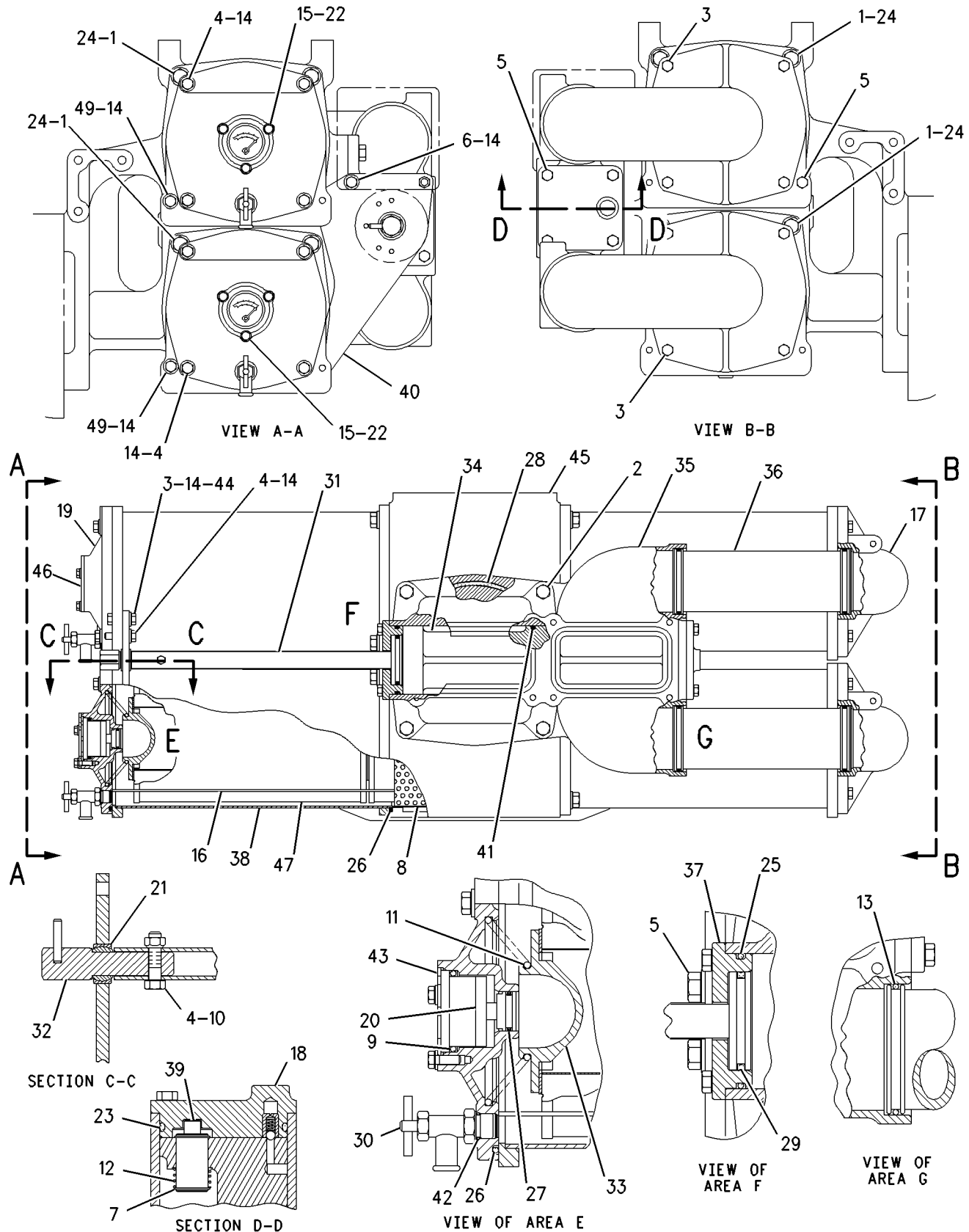
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	OS-1585	16	BOLT (1/2-13X1.5-IN)						
	2	1	OS-1587	4	BOLT (1/2-13X1.75-IN)						
	3	1	OS-1588	9	BOLT (3/8-16X1.25-IN)						
	4	1	OS-1591	11	BOLT (3/8-16X1.5-IN)						
	5	1	OS-1594	9	BOLT (3/8-16X1-IN)						
	6	1	OS-0509	1	BOLT (3/8-16X0.75-IN)						
	7	1	1K-9740	2	RING-RETAINING						
	8	1	1W-3958	2	TUBE						
	9	1	2H-3088	2	SEAL-O-RING						
	10	1	2K-4973	1	LOCKNUT (3/8-16-THD)						
	11	1	2W-6862	2	SPRING						
	12	1	3N-1308	1	SPRING						
	13	1	3P-0654	4	SEAL-O-RING						
	14	1	3V-3308	15	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	15	1	4F-7957	6	BOLT (1/4-20X0.875-IN)						
	16	1	4P-9168	2	RACK-OIL FILTER						
	17	1	4P-9169	2	HOUSING-OIL FILTER						
	18	1	4P-9185	1	COVER AS						
		1	4P-9174	1	DETENT AS						
	19	1	4P-9218	2	COVER						
	20	1	4W-0379	2	GAUGE AS (PRESSURE) (ENGINE OIL)						
	21	1	5K-2294	1	BEARING-SELF-ALIGNING						
	22	1	5P-0537	6	WASHER-HARD (7.2X14.5X2-MM THK)						
C	23	1	5P-7818	1	SEAL-O-RING						
M	24	1	5P-8245	16	WASHER-HARD (13.5X25.5X3-MM THK)						
	25	1	6V-0973	1	SEAL-O-RING						
	26	1	6V-3349	8	SEAL-O-RING						
	27	1	6V-3683	2	SEAL-O-RING						
	28	1	6V-5141	1	SEAL-O-RING						
	29	1	6V-6963	1	SEAL-QUAD RING						
	30	1	6V-7238	2	VALVE-MANUAL (ENGINE OIL DRAIN)						
	31	1	7C-1124	1	TUBE AS						
	32	1	7C-1128	1	SHAFT AS						
	33	1	7C-3945	2	RETAINER-ELEMENT						
C	34	1	7E-0930	1	VALVE-FILTER CHG						
C	35	1	7E-0932	1	HOUSING-VALVE						
	36	1	7W-2459	2	TUBE						
	37	1	7W-2467	1	PLATE-THRUST						
	38	1	7W-2470	4	HOUSING AS-FILTER						
	39	1	7W-2750	1	PISTON						
	40	1	7W-2970	1	SUPPORT AS						
C	41	1	7X-4789	1	SEAL-QUAD RING						
	42	1	8L-2786	2	SEAL-O-RING						
	43	1	8N-0453	2	RING-RETAINING						
	44	1	9S-8752	1	NUT-FULL (3/8-16-THD)						
	45	1	161-0083	1	BASE-OIL FILTER						
	46	1	169-8676	2	COVER						
	47	1	179-1502	6	ELEMENT AS-OIL FILTER						
	49	1	1A-2029	2	BOLT (3/8-16X1.125-IN)						

C-CHANGE FROM PREVIOUS TYPE  
M-METRIC PART

# LUBRICATION SYSTEM

1W-0798 FILTER GP-ENGINE OIL (contd.)

i02235930



GRAPHIC #1

<END>

g00848247

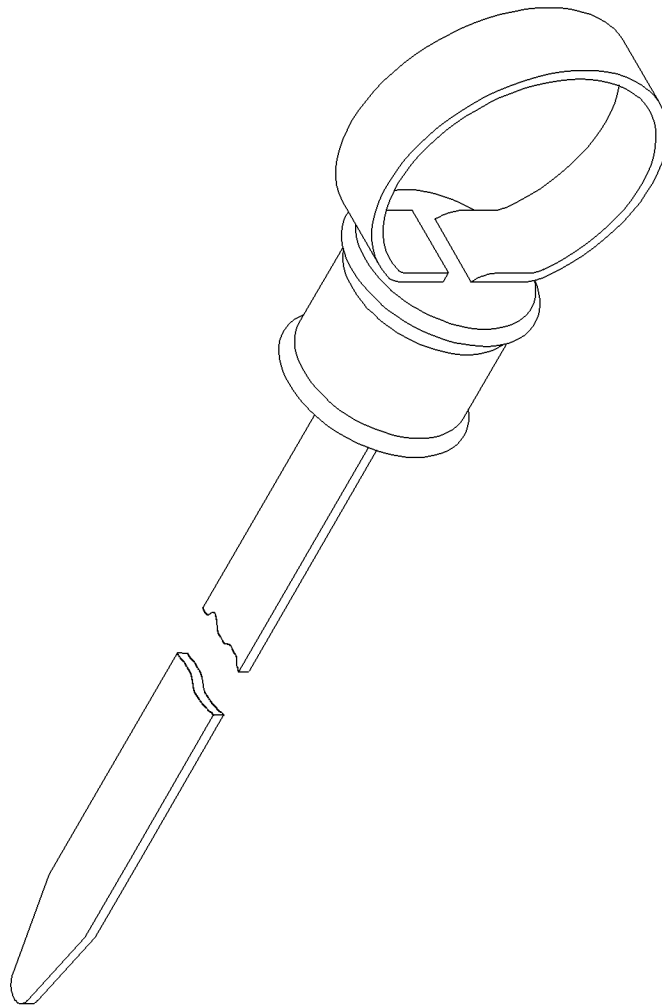
# LUBRICATION SYSTEM

## 7E-0442 GAUGE AS-OIL LEVEL (DIPSTICK) (CHG -00) 0 DEGREE. MARINE

SMCS-1326

i01472948

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL) (NO SERVICED PARTS)	



GRAPHIC #1

<END>

g00769197

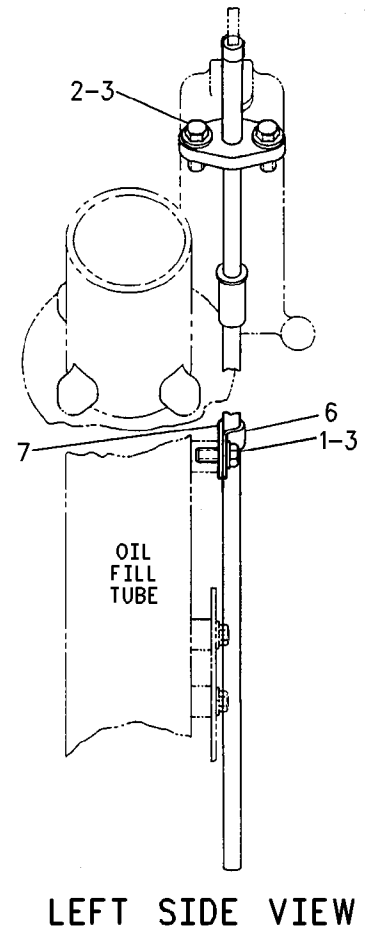
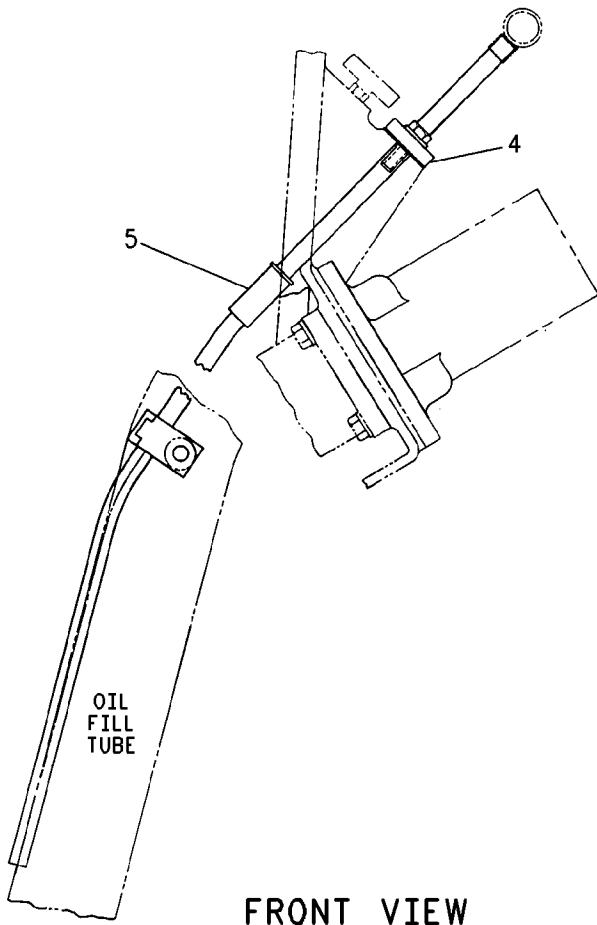
# LUBRICATION SYSTEM

## 9Y-9926 GUIDE GP-OIL LEVEL GAUGE (CHG -00)

SMCS-1326

i01494985

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	OS-1594	1	BOLT (3/8-16X1 IN)						
	2	1	OS-1588	2	BOLT (3/8-16X1.25 IN)						
	3	1	3V-3308	3	WASHER-HARD (20.5X10.2X2.5MM THK)						
	4	1	1W-1415	1	GASKET						
	5	1	9Y-4871	1	TUBE AS						
	6	1	8T-1885	1	CLIP (SLOT)						
	7	1	8T-1886	1	CLIP (TAB)						



GRAPHIC #1

<END>

g00777786

# LUBRICATION SYSTEM

## 1W-0802 LINES GP-ENGINE OIL (CHG -08, -08S1, -08S2 THRU -11)

SMCS - 1307

i01650085

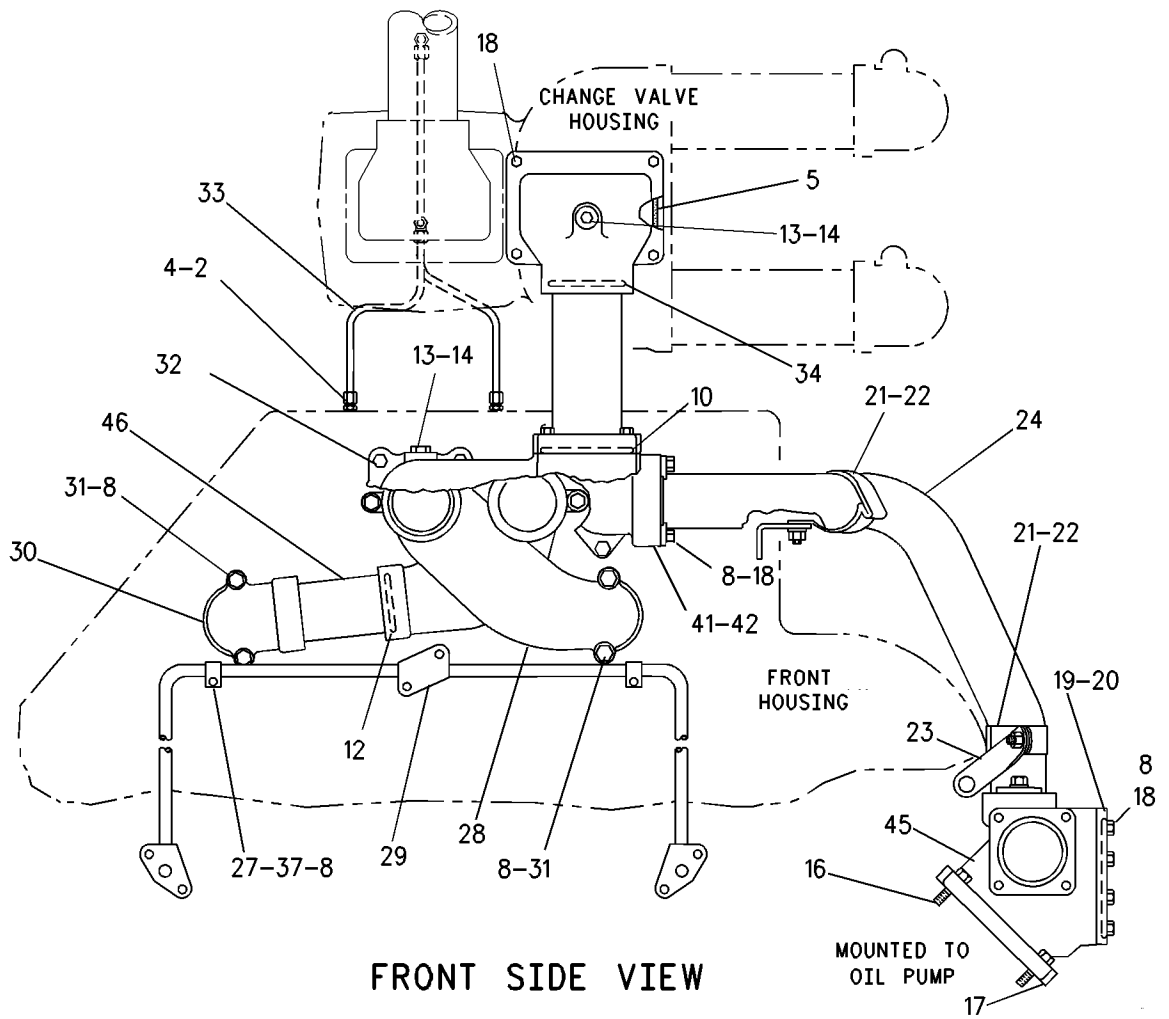
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	2	030-7946	2	ELBOW						
	2	1,2	6V-5048	4	SEAL-O-RING						
	3	2	1W-4307	1	TUBE AS-VENT						
	4	1,2	3J-7352	2	CONNECTOR						
	5	1	6V-5055	1	SEAL-O-RING						
C	6	2	7N-9044	1	TUBE						
C	7	2	0S-1588	6	BOLT (3/8-16X1.25-IN)						
C	8	1,2	3V-3308	28	WASHER-HARD (10.2X20.5X2.5-MM THK)						
C	9	2	1W-3979	1	FLANGE						
C	10	1,2	6V-5101	2	SEAL-O-RING						
	11	2	1W-4059	1	COVER						
	12	1,2	3P-0656	4	SEAL-O-RING						
C	13	1,2	9S-4191	3	PLUG						
C	14	1,2	6V-5049	3	SEAL-O-RING						
	15	2	3P-0655	2	SEAL-O-RING						
	16	1	0S-1595	4	BOLT (1/2-13X1.25-IN)						
	17	1	6V-3968	1	SEAL-O-RING						
C	18	1,2	0S-1594	18	BOLT (3/8-16X1-IN)						
	19	1	5P-8872	1	SEAL-O-RING						
	20	1	4W-8775	1	COVER (AIR CHAMBER)						
	21	1	2V-6350	2	CLIP (TAB) (STRAIGHT)						
	22	1	2V-6352	2	CLIP (SLOT) (CURVED)						
	23	1	7C-1176	1	BRACKET						
C	24	1	7W-9424	1	TUBE						
	25	2	1W-4153	2	RING-RETAINING						
	26	2	1W-4152	4	RETAINER						
	27	1	1N-4622	4	CLAMP						
	28	1	4W-6799	1	MANIFOLD						
	29	1	2W-8216	1	TUBE AS						
	30	1	4W-7487	1	ELBOW						
	31	1	0L-1143	6	BOLT (3/8-16X2.5-IN)						
	32	1	0S-1585	4	BOLT (1/2-13X1.5-IN)						
	33	1	1W-2244	1	TUBE AS-VENT						
	34	1	3P-0654	2	SEAL-O-RING						
C	35	2	7C-2322	1	ELBOW						
	36	2	5S-9134	1	SEAL-O-RING						
C	37	1,2	0S-1591	6	BOLT (3/8-16X1.5-IN)						
C	38	2	7C-1090	1	BRACKET						
	39	2	9S-8752	2	NUT-FULL (3/8-16-THD)						
	40	2	9L-9132	2	WASHER (10.2X25.5X2.5-MM THK)						
C	41	1	7W-7833	1	ELBOW						
	42	1	6V-3833	1	SEAL-O-RING						
C	43	2	7W-3882	1	ELBOW						
	44	2	4W-1164	1	COUPLING						
	45	1	2W-6317	1	TEE						
	46	1	4W-7486	1	TUBE						
	47	2	0L-2070	6	BOLT (3/8-16X2.25-IN)						

C-CHANGE FROM PREVIOUS TYPE

# LUBRICATION SYSTEM

1W-0802 LINES GP-ENGINE OIL (contd.)

i01650085



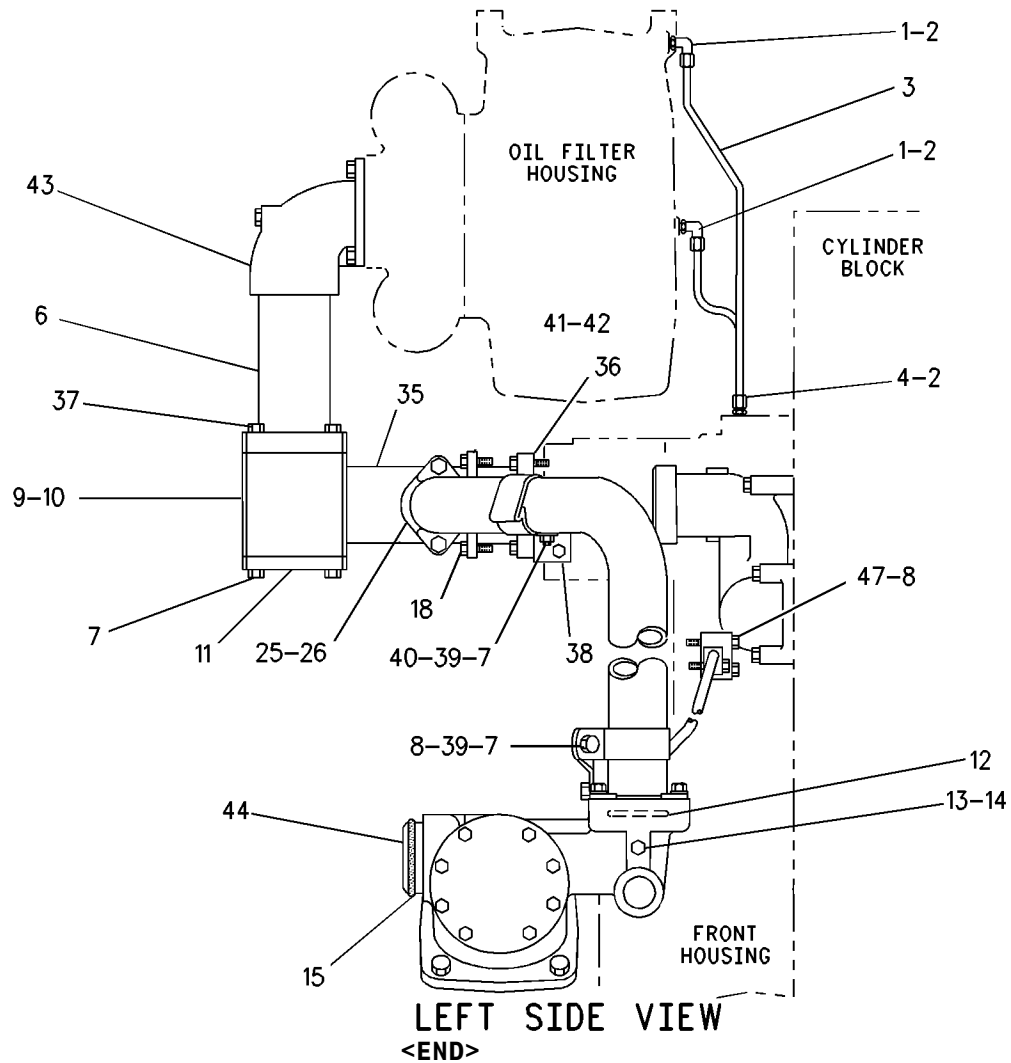
GRAPHIC #1

g00852556

# LUBRICATION SYSTEM

1W-0802 LINES GP-ENGINE OIL (contd.)

i01650085



GRAPHIC #2

g00851546

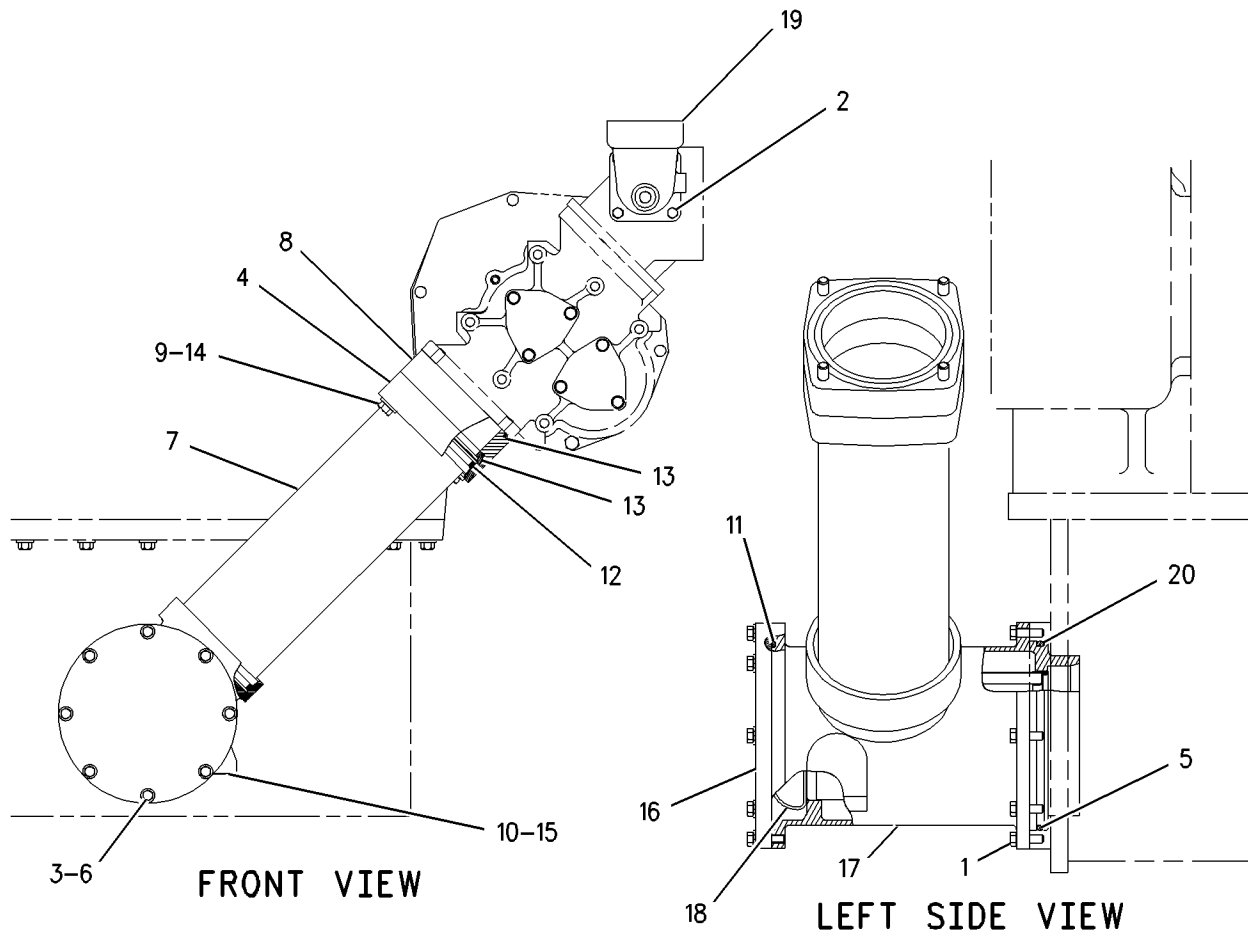
# LUBRICATION SYSTEM

## 145-9075 LINES GP-ENGINE OIL (CHG -00, -01)

SMCS-1307

i01572162

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	OS-1588	8	BOLT (3/8-16X1.25 IN)						
	2	1	OS-1590	4	BOLT (3/8-16X2 IN)						
	3	1	OS-1591	8	BOLT (3/8-16X1.5 IN)						
	4	1	1W-6492	1	FLANGE-INLET						
	5	1	3P-0658	1	SEAL-O-RING						
	6	1	3V-3308	8	WASHER-HARD (10.2X20.5X2.5MM THK)						
	7	1	4W-2535	1	TUBE AS						
	8	1	4W-4555	1	SPACER						
	9	1	5P-1076	4	WASHER-HARD (13.5X30X4MM THK)						
	10	1	5P-7701	1	SEAL-O-RING						
	11	1	5P-8429	1	SEAL-O-RING						
	12	1	5P-8861	2	SEAL-O-RING						
	13	1	6V-3968	2	SEAL-O-RING						
	14	1	8S-9089	4	BOLT (1/2-13X4.5 IN)						
	15	1	9S-9334	1	PLUG						
	16	1	9Y-3305	1	COVER						
	17	1	9Y-3306	1	TEE-OUTLET						
	18	1	169-0167	1	SCREEN AS						
	19	1	141-9647	1	ELBOW						
	20	1	142-6217	1	SEAL-LINER						



GRAPHIC #1

<END>

g00736643



# LUBRICATION SYSTEM

## 4P-2373 LINES GP-OIL FILTER (CHG -02 THRU -08, -08D1, -09) CENTRIFUGAL -RH

SMCS-1307, 1308

i01661998

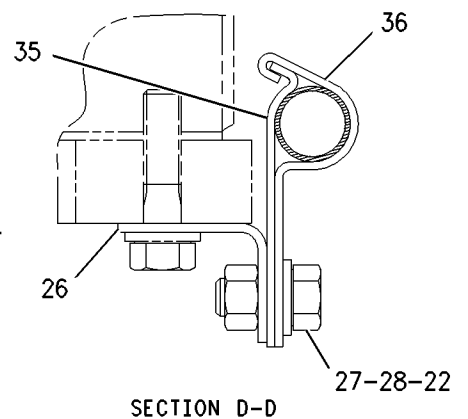
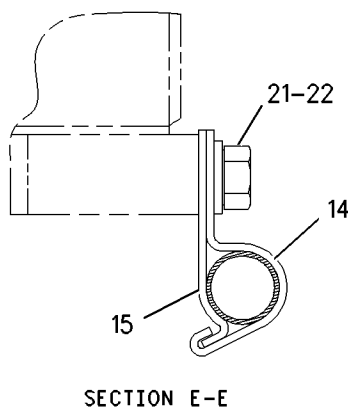
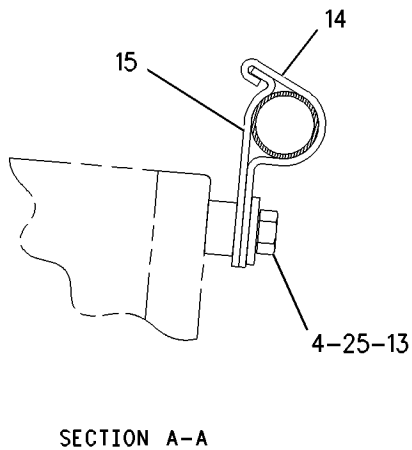
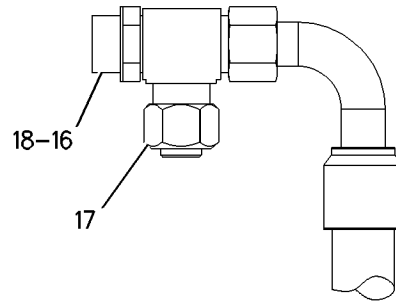
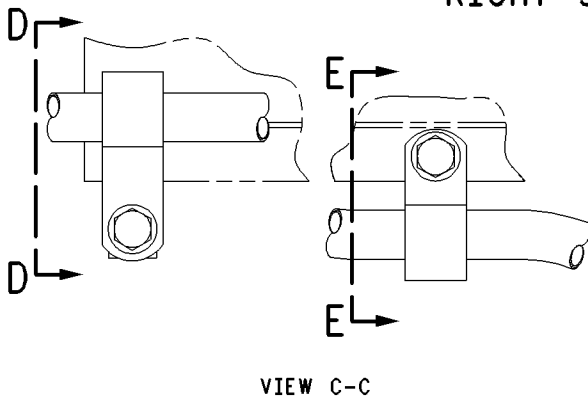
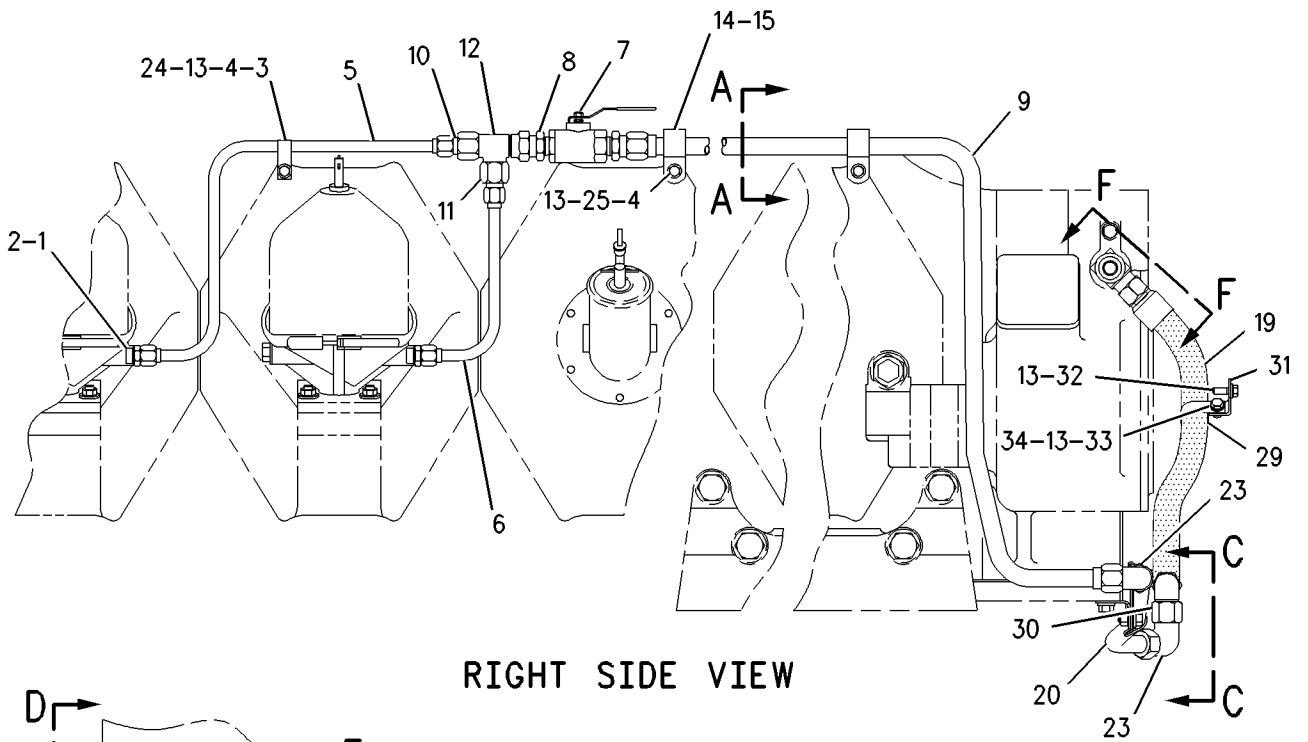
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9M-4584	2	CONNECTOR-FLARED						
	2	1	6V-4589	2	SEAL-O-RING						
	3	1	4S-5718	1	CLIP						
	4	1	0S-1590	3	BOLT (3/8-16X2 IN)						
	5	1	4P-2343	1	TUBE AS						
	6	1	4P-2344	1	TUBE AS						
	7	1	4P-3117	1	VALVE						
	8	1	009-4440	2	CONNECTOR						
	9	1	106-9578	1	TUBE AS						
	10	1	072-9601	2	REDUCER						
	11	1	1P-0043	2	NUT-FLARED (1-5/16-12 THD)						
	12	1	5P-2242	1	TEE-SWIVEL						
	13	1	3V-3308	6	WASHER-HARD (10.2X20.5X2.5MM THK)						
	14	1	6K-5535	3	CLIP (SLOT)						
	15	1	6K-5536	3	BRACKET						
	16	1	030-7960	1	TEE-FLARED						
	17	1	3R-6789	1	CAP-FLARED						
	18	1	5P-7701	1	SEAL-O-RING						
I	19	1	173-9423	1	HOSE AS						
	20	1	106-9573	1	TUBE AS						
	21	1	0S-1595	1	BOLT (1/2-13X1.25 IN)						
	22	1	5P-8245	2	WASHER-HARD (13.5X25.5X3MM THK)						
	23	1	5P-0912	2	ELBOW						
	24	1	8L-5423	1	SPACER (.406X1X.712 IN THK)						
	25	1	7W-6333	2	SPACER (10.5X20X10.7MM THK)						
	26	1	6E-0549	1	ANGLE						
	27	1	1F-7958	1	NUT-FULL (1/2-13 THD)						
	28	1	0S-1621	1	BOLT (1/2-13X1 IN)						
	29	1	7D-7233	1	CLIP						
	30	1	031-5744	1	ELBOW						
	31	1	9M-0766	1	BRACKET						
	32	1	1A-2029	1	BOLT (3/8-16X1.125 IN)						
	33	1	0L-1351	1	BOLT (3/8-16X0.875 IN)						
	34	1	9S-8752	1	NUT-FULL (3/8-16 THD)						
	35	1	201-0650	1	BRACKET						
	36	1	201-0651	1	CLIP						

I-SEE HOSE FABRICATION GUIDE

# LUBRICATION SYSTEM

4P-2373 LINES GP-OIL FILTER (contd.)

i01661998



GRAPHIC #1

<END>

g00857775

# LUBRICATION SYSTEM

## 172-8021 LINES GP-PRELUBRICATION

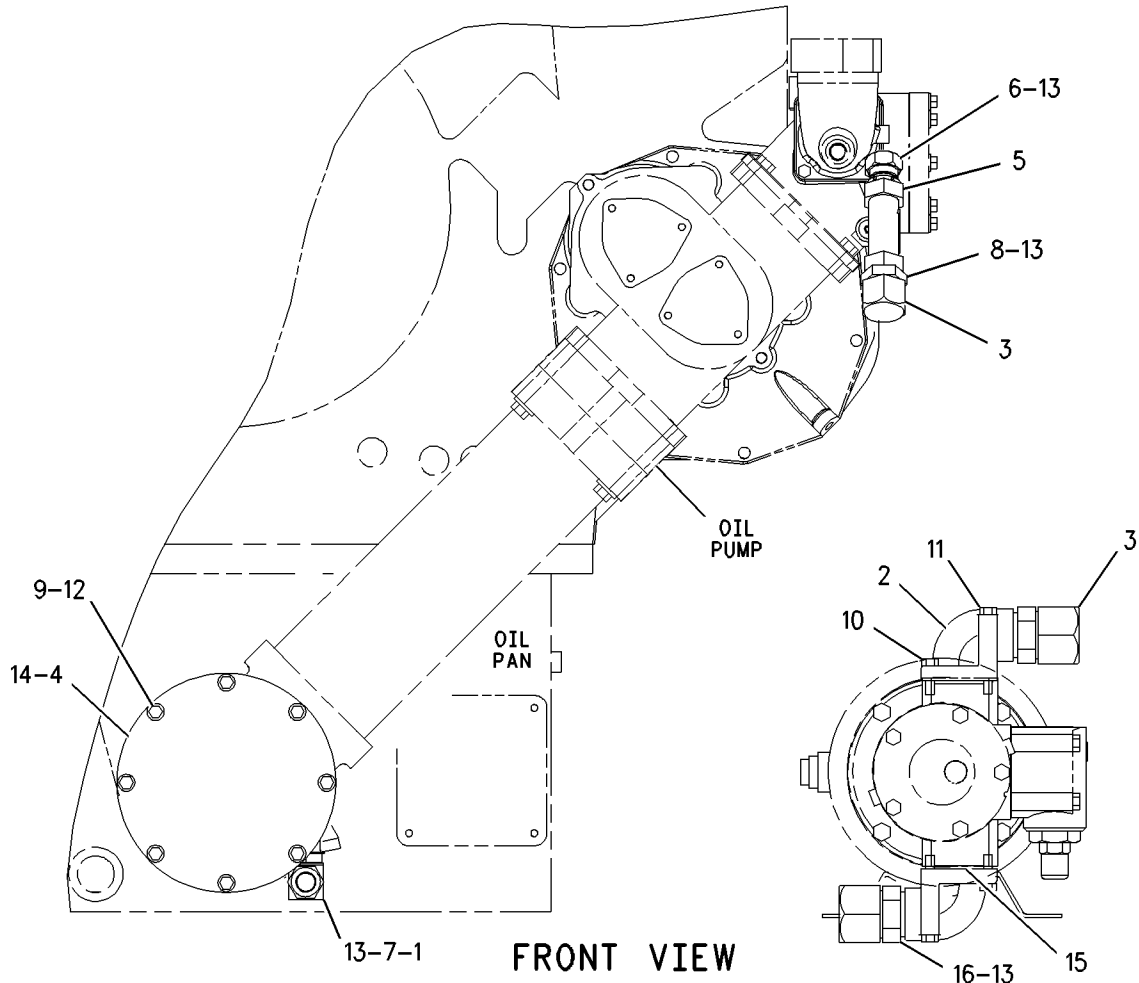
(CHG -00 THRU -02, -02D1, -02D2)

INTERMITTENT-REMOTE MT

SMCS-1307, 1319

i01742437

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>3R-6789</b>	1	CAP-FLARED						
	2	1	<b>4W-9774</b>	2	ELBOW						
	3	1	<b>8T-1458</b>	3	CAP-FLARED						
	4	1	<b>9Y-3305</b>	1	COVER						
	5	1	<b>172-8026</b>	1	VALVE-CHECK						
	6	1	<b>194-4122</b>	1	ADAPTER						
	7	1	<b>030-7951</b>	1	ELBOW-FLARED						
	8	1	<b>061-6739</b>	1	UNION-FLARED						
	9	1	<b>0S-1591</b>	8	BOLT (3/8-16X1.5 IN)						
	10	1	<b>0S-1618</b>	4	BOLT (5/16-18X1 IN)						
	11	1	<b>1D-4540</b>	4	BOLT (5/16-18X2.75 IN)						
	12	1	<b>3V-3308</b>	8	WASHER-HARD (10.2X20.5X2.5MM THK)						
	13	1	<b>5P-7701</b>	5	SEAL-O-RING						
	14	1	<b>5P-8429</b>	1	SEAL-O-RING						
	15	1	<b>6V-5100</b>	2	SEAL-O-RING						
	16	1	<b>7D-5318</b>	2	CONNECTOR-FLARED						



GRAPHIC #1

<END>

g00892066

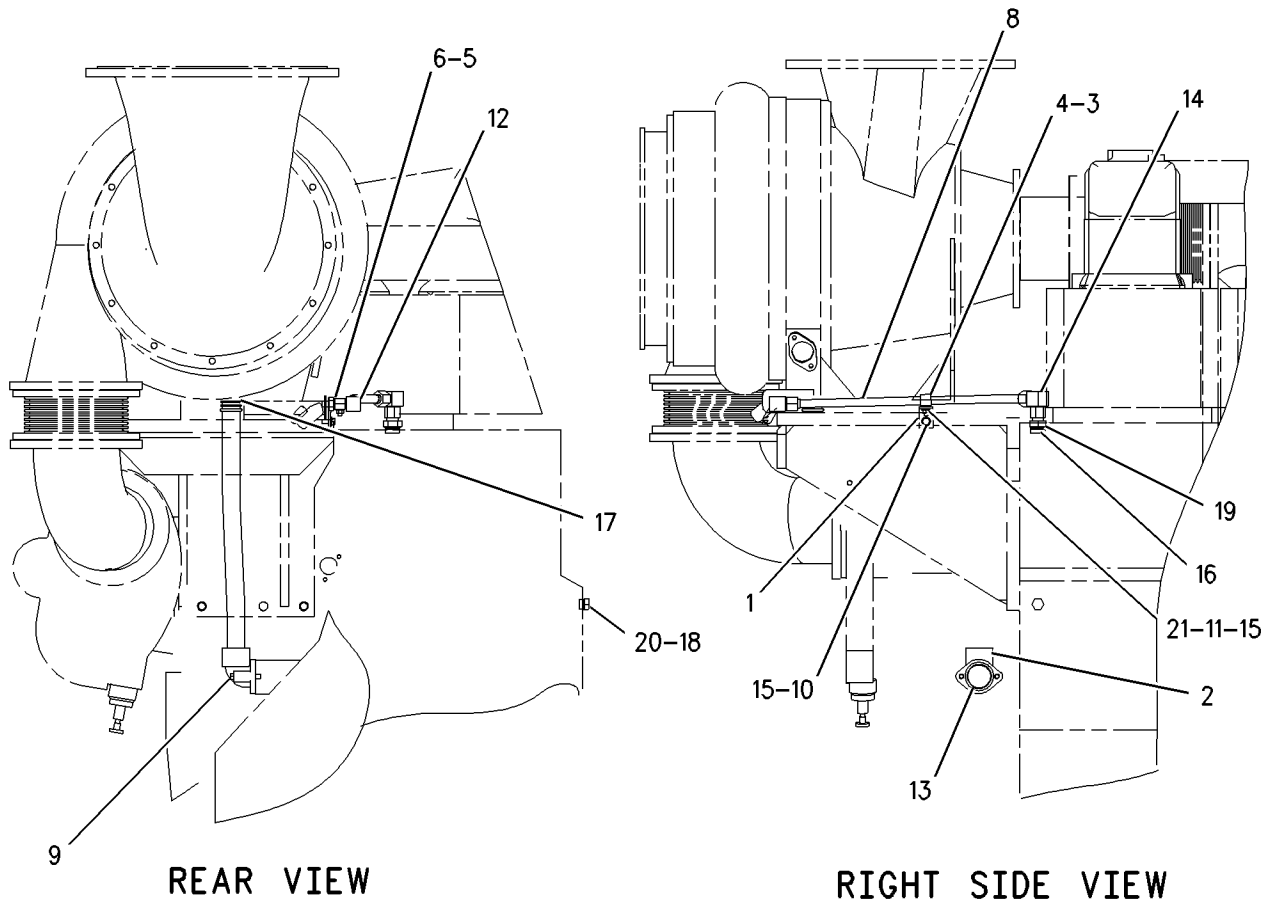
# LUBRICATION SYSTEM

## 151-1126 LINES GP-TURBOCHARGER OIL (CHG -00, -03)

SMCS-1052, 1307

i01795113

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2Y-5548	1	BRACKET						
	2	1	4P-8019	1	ELBOW						
	3	1	6K-9572	1	BRACKET						
	4	1	6K-9573	1	CLIP						
	5	1	6V-0407	1	SEAL - BONDED						
	6	1	6V-3526	1	FITTING - FLARED						
	8	1	171-5263	1	TUBE AS						
	9	1	0L-1143	2	BOLT (3/8-16X2.5-IN)						
	10	1	0L-1351	1	BOLT (3/8-16X0.875-IN)						
	11	1	0S-1588	1	BOLT (3/8-16X1.25-IN)						
	12	1	2M-9786	1	ELBOW						
	13	1	3P-0649	1	SEAL - O-RING						
	14	1	3R-9704	1	ELBOW						
	15	1	3V-3308	4	WASHER - HARD (10.2X20.5X2.5-MM THK)						
	16	1	226-2501	1	CONNECTOR						
	17	1	5P-5846	2	SEAL - O-RING						
	18	1	6V-4589	1	SEAL - O-RING						
	19	1	7M-8485	1	SEAL - O-RING						
	20	1	9S-4190	1	PLUG						
	21	1	9S-8752	1	NUT - FULL (3/8-16-THD)						



GRAPHIC #1

<END>

g00666547

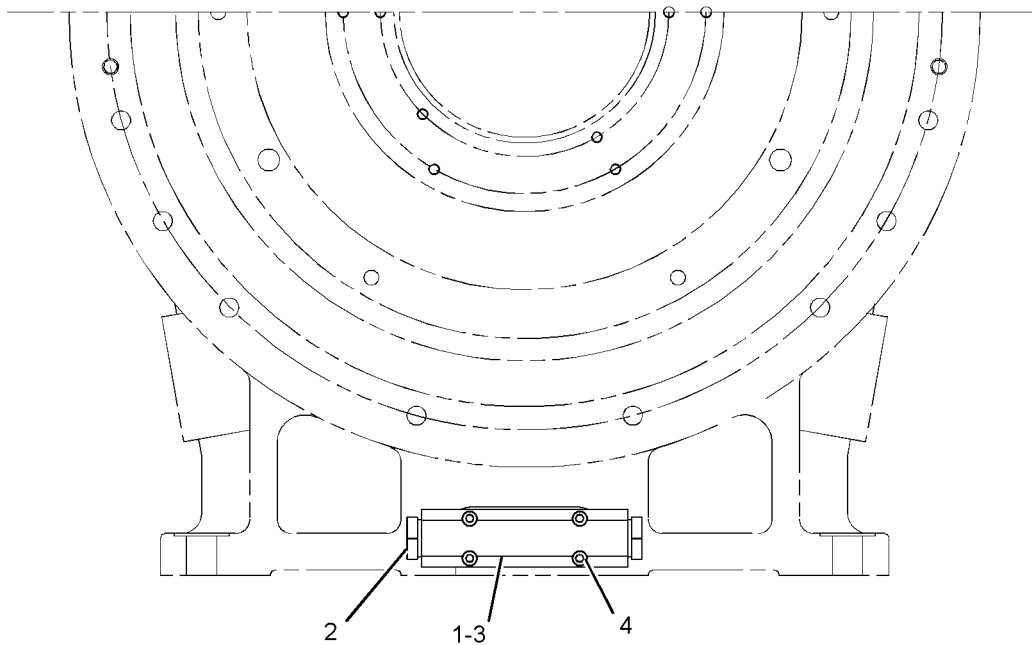
# LUBRICATION SYSTEM

## 258-7579 LINES GP-TURBOCHARGER OIL (CHG -00) PART OF 258-2287 TURBOCHARGER GP

SMCS-1052, 1307

i02148165

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	164-4985	1	MANIFOLD (OIL INLET)						
	2	1	164-5469	2	PLUG						
	3	1	164-5011	1	SEAL-O-RING						
	4	1	163-5498	4	BOLT (M6X1X35-MM)						



REAR VIEW  
<END>

GRAPHIC #1

g01090477

# LUBRICATION SYSTEM

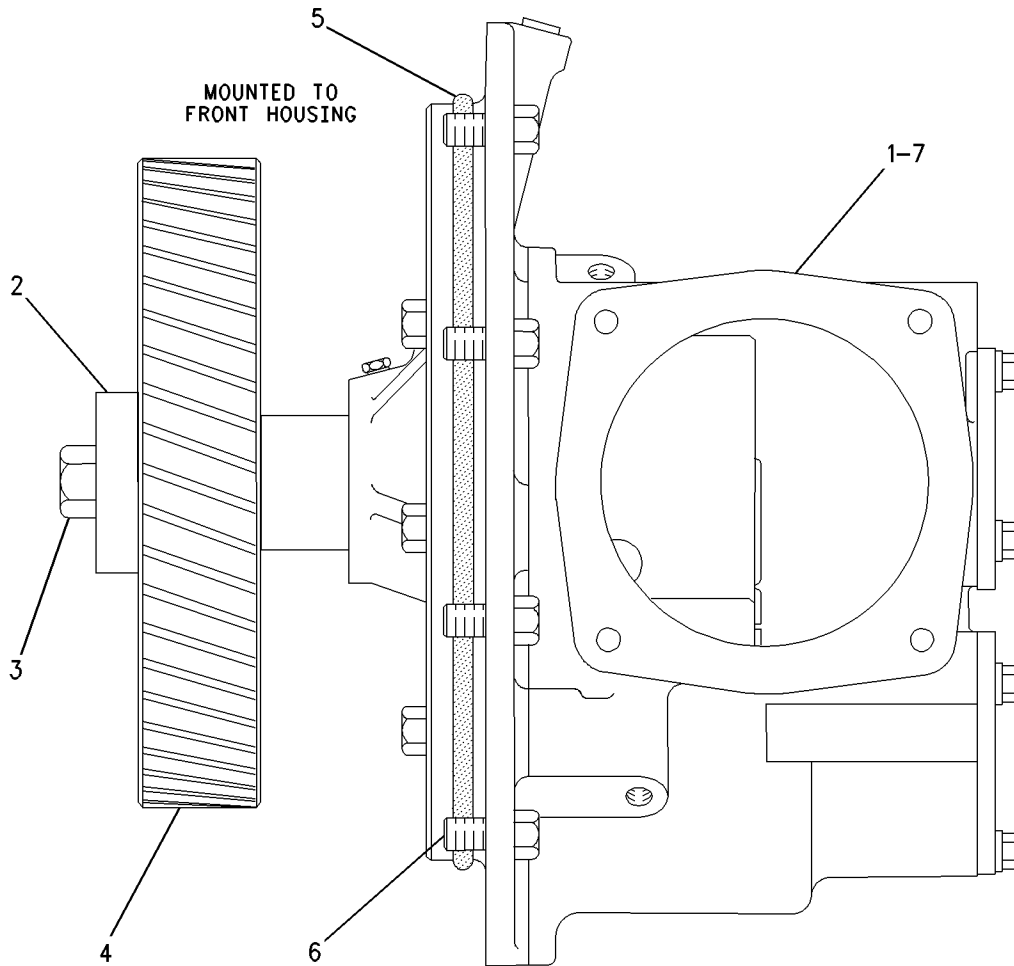
## 2W-5577 PUMP GP-ENGINE OIL (CHG -03) ONE SECTION GEAR

SMCS-1304, 1315

i01572158

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
YR	1	1	<b>4W-4623</b>	1	PUMP GP-ENGINE OIL						68
	2	1	<b>1W-2058</b>	1	WASHER (20X80X19MM THK)						
	3	1	<b>9S-1364</b>	1	BOLT (3/4-16X3.5IN)						
	4	1	<b>1W-2057</b>	1	GEAR-OIL PUMP DRIVE (63 TEETH)						
	5	1	<b>6V-7702</b>	1	SEAL-O-RING						
	6	1	<b>0S-1595</b>	8	BOLT (1/2-13X1.25 IN)						
	7	1	<b>6V-3538</b>	1	DOWEL						

R-REMFG PART MAY BE AVAILABLE  
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00726093

# LUBRICATION SYSTEM

**4W-4623 PUMP GP-ENGINE OIL\*R (CHG -03 THRU -05, 4W-4470-03)**

**ONE SECTION GEAR**

**PART OF 2W-5577 PUMP GP-ENGINE OIL**

**SMCS-1304, 1315**

**i01928637**

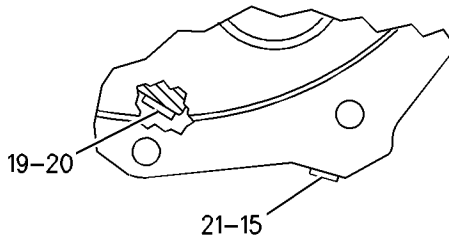
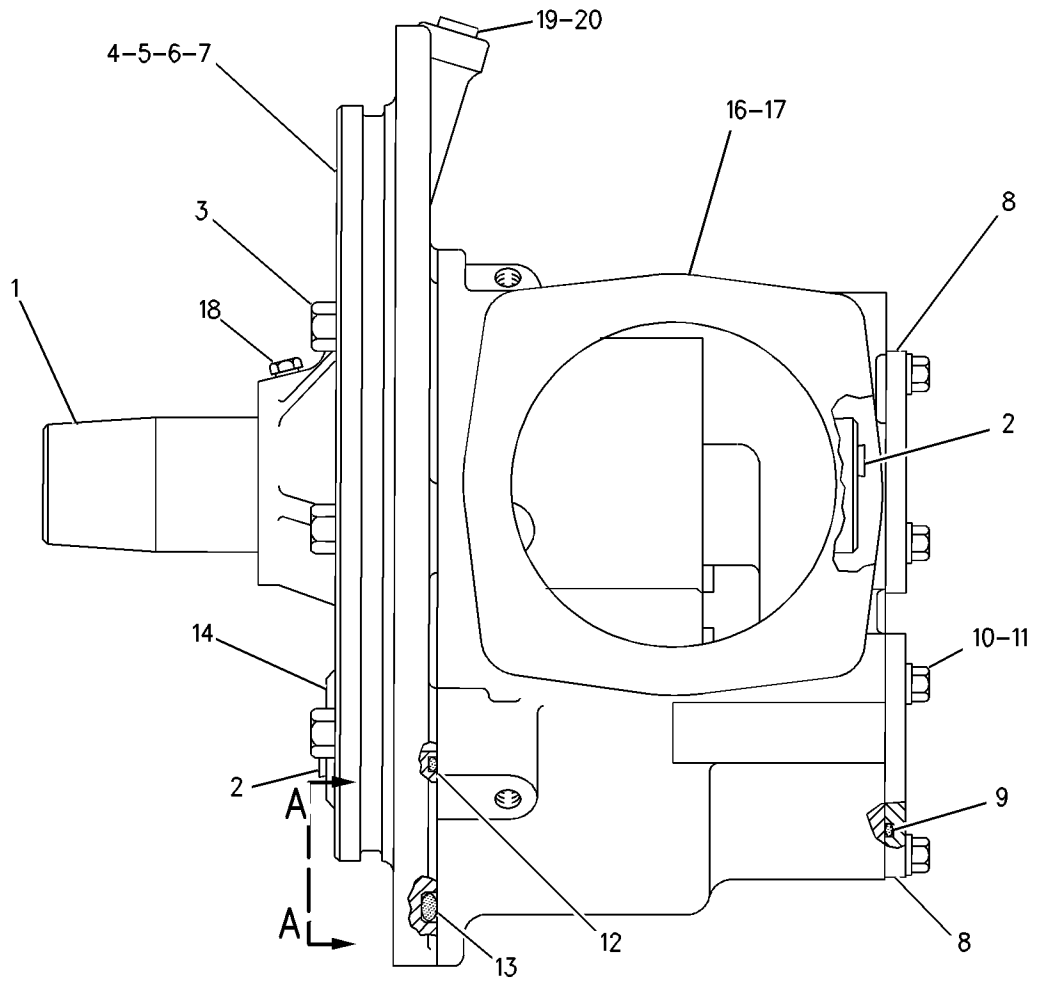
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
	1	1	<b>4W-4459</b>	1	SHAFT AS-PUMP DRIVE	
	2	1	<b>7H-3171</b>	3	PLUG-PIPE	
	3	1	<b>1A-5822</b>	6	BOLT (1/2-13X2.75-IN)	
	4	1	<b>4W-3998</b>	1	COVER AS-PUMP	
	5	1	<b>7N-5683</b>	2	DOWEL	
	6	1	<b>7E-7066</b>	1	BEARING-SLEEVE (SMALL)	
	7	1	<b>7E-7067</b>	1	BEARING-SLEEVE (LARGE)	
C	8	1	<b>1W-2059</b>	2	COVER	
	9	1	<b>5P-4889</b>	2	SEAL-O-RING	
	10	1	<b>0S-1594</b>	6	BOLT (3/8-16X1-IN)	
	11	1	<b>3V-3308</b>	6	WASHER-HARD (10.2X20.5X2.5-MM THK)	
	12	1	<b>3P-1156</b>	6	SEAL-O-RING (SMALL)	
	13	1	<b>6V-3603</b>	1	SEAL-O-RING (LARGE)	
	14	1	<b>4W-4482</b>	1	SHAFT AS-IDLER	
	15	1	<b>5P-7813</b>	1	SEAL-O-RING	
	16	1	<b>4W-4470</b>	1	BODY AS-OIL PUMP	
	17	1	<b>7E-7066</b>	2	BEARING-SLEEVE	
	18	1	<b>5M-6214</b>	1	PLUG-PIPE	
	19	1	<b>9S-8004</b>	2	PLUG	
	20	1	<b>6V-5049</b>	2	SEAL-O-RING	
	21	1	<b>9S-8007</b>	1	PLUG	

C-CHANGE FROM PREVIOUS TYPE

# LUBRICATION SYSTEM

4W-4623 PUMP GP-ENGINE OIL (contd.)

i01928637



VIEW A-A

GRAPHIC #1

<END>

g01003196



# LUBRICATION SYSTEM

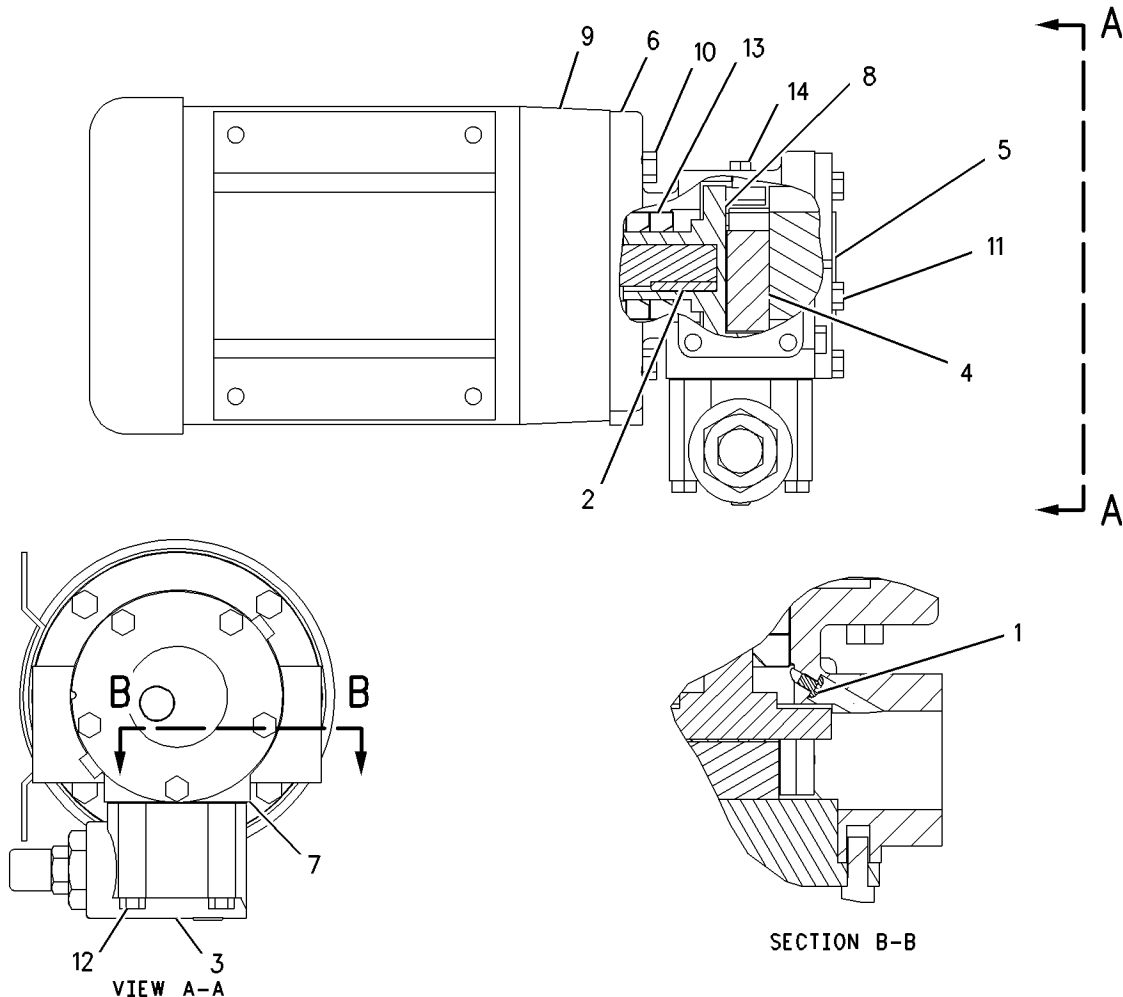
## 221-0129 PUMP GP-PRELUBRICATION (CHG -00)

50/60 HZ

SMCS-1319

i01900140

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6D-3910	1	SCREW-BUTTON HEAD (10-32 X .25 IN)						
	2	1	6F-2172	1	KEY						
	3	1	164-6343	1	VALVE-RELIEF						
	4	1	173-3855	1	IDLER AS						
	5	1	173-3856	1	HEAD AS						
	6	1	173-3859	1	HOUSING						
	7	1	173-3864	1	GASKET						
	8	1	173-3867	1	ROTOR						
	9	1	221-0132	1	MOTOR AS						
	10	1	0S-1588	4	BOLT (3/8-16X1.25 IN)						
	11	1	0S-1617	5	BOLT (5/16-18X0.75 IN)						
	12	1	1D-4539	4	BOLT (5/16-18X2.5 IN)						
	13	1	1H-5959	2	SEAL-LIP						
	14	1	8T-6764	1	PLUG-PIPE						
					AVAILABLE GASKET KIT(S):						
			173-3857	1	GASKET						



GRAPHIC #1

<END>

g00910834

# LUBRICATION SYSTEM

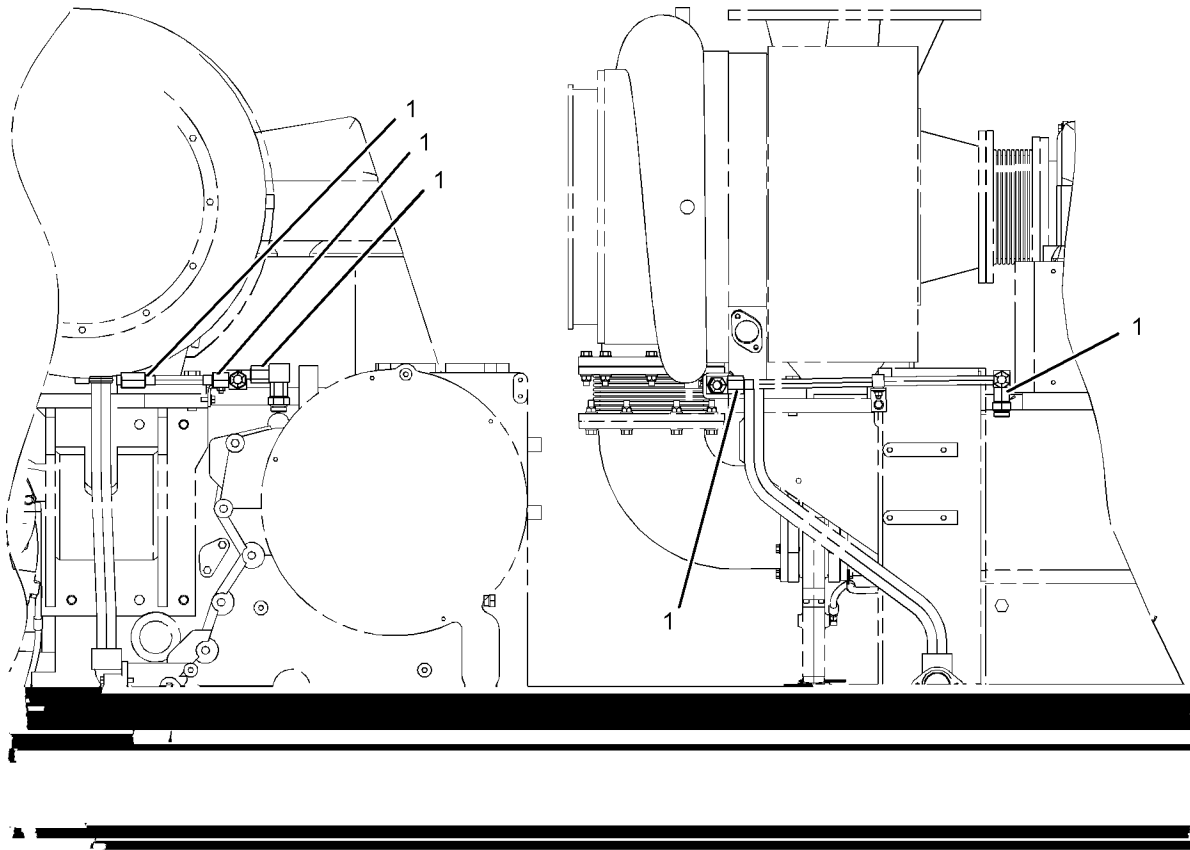
## 244-0484 SHIELD GP-ENGINE OIL LINES (CHG -00) ANTI-SPLASH

SMCS-1307

i02187281

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
B	1	1	237-3860		TAPE (ANTI-SPLASH, 50-MM WIDE) (10-M ROLL)	

B-USE AS REQUIRED



GRAPHIC #1

<END>

g01067175

# LUBRICATION SYSTEM

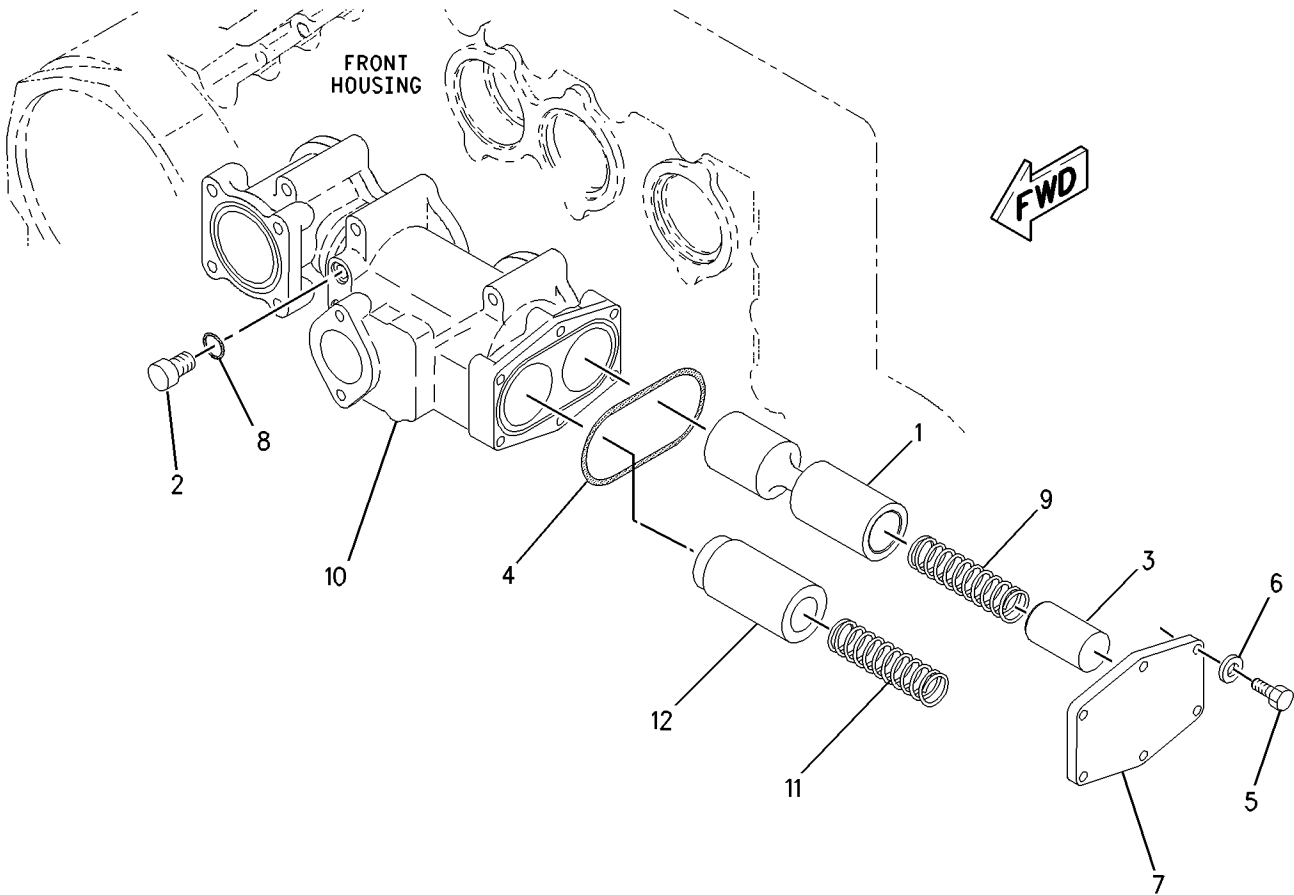
## 1W-0804 VALVE GP-PRIORITY (CHG -07, -08)

SMCS-1327

i01492321

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-2243	1	PISTON-CONTROL VALVE						
	2	1	9S-4191	2	PLUG						
	3	1	1W-2242	1	PISTON-INNER						
C	4	1	6V-3835	1	SEAL-O-RING						
C	5	1	1M-0644	6	BOLT (3/8-16X2-1/4-IN)						
C	6	1	3V-3308	6	WASHER-HARD (10.2X20.5X2.5-MM THK)						
C	7	1	7W-9423	1	COVER						
	8	1	6V-5049	2	SEAL-O-RING						
	9	1	1W-2240	1	SPRING-CONTROL VALVE						
C	10	1	7W-7825	1	BODY-VALVE						
C	11	1	2G-5664	1	SPRING						
C	12	1	7W-9425	1	PISTON						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00774883

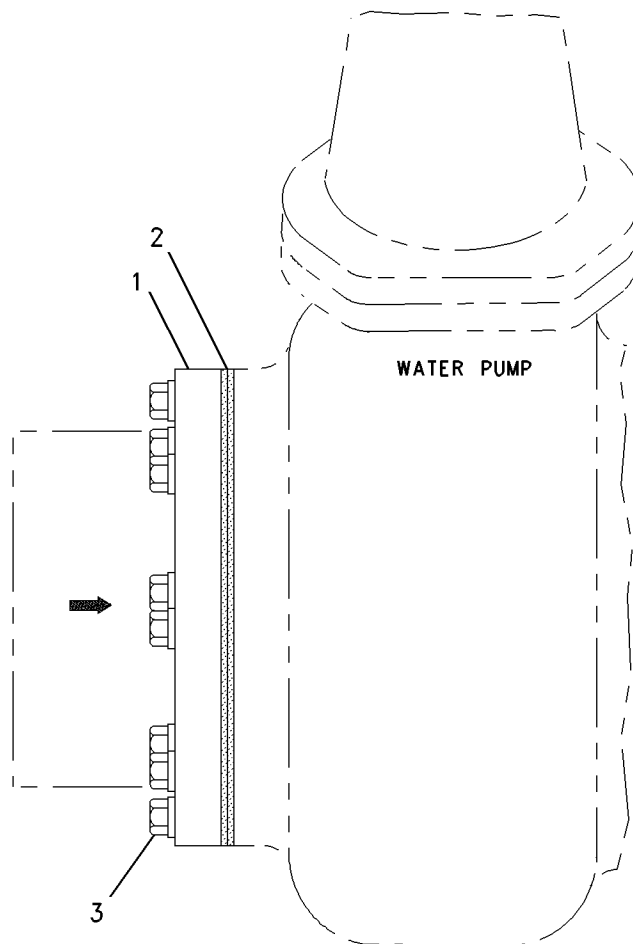
# COOLING SYSTEM

## 2W-2678 CONNECTION GP-WATER (CHG -01, -02, -02D1, -02D2, -02D3)

SMCS-1380

i01547883

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-7121	1	FLANGE - INLET						
	2	1	4W-7749	2	GASKET						
	3	1	0S-1591	8	BOLT (3/8-16X1.5 IN)						
		1	3V-3308	8	WASHER-HARD (10.2X20.5X2.5MM THK)						



LEFT SIDE VIEW

GRAPHIC #1

<END>

g00804540

# COOLING SYSTEM

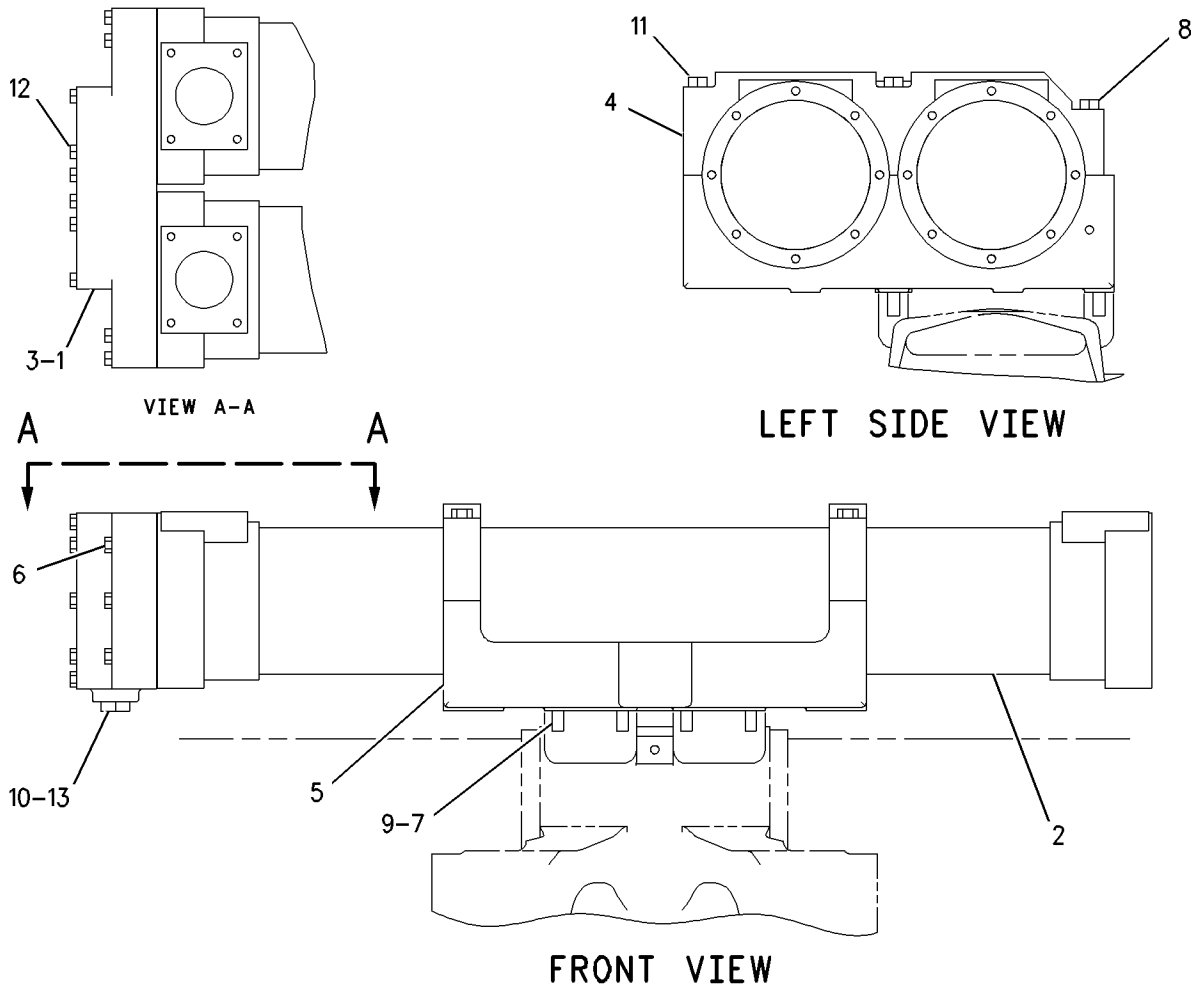
## 1W-0809 COOLER GP-ENGINE OIL (CHG -09 THRU -12)

SMCS-1378

i02090047

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-3891	1	BONNET-OIL COOLER						
R	2	1	1W-5200	2	CORE AS (OIL COOLER)						
R		1	4W-5405	1	CORE GP-OIL COOLER						
	3	1	247-3796	2	GASKET						
	4	1	7W-2029	2	SUPPORT						
C	5	1	201-3610	1	SUPPORT						
	6	1	0L-1143	6	BOLT (3/8-16X2.50-IN)						
	7	1	0V-0375	8	BOLT (1/2-13X3.25-IN)						
	8	1	1D-4566	2	BOLT (1/2-13X3.5-IN)						
M	9	1	5P-8245	8	WASHER-HARD (13.5X25.5X3-MM THK)						
	10	1	6V-5063	1	SEAL-O-RING						
	11	1	8S-9089	4	BOLT (1/2-13X4.5-IN)						
	12	1	8S-9191	10	BOLT (3/8-16X4-IN)						
	13	1	9S-4183	1	PLUG						

C-CHANGE FROM PREVIOUS TYPE  
M-METRIC PART  
R-REMFG PART MAY BE AVAILABLE



GRAPHIC #1

<END>

g00887118

# COOLING SYSTEM

## 120-8144 COVER GP-COOLING SYSTEM (CHG -00) COMBINED CIRCUIT

SMCS-1201, 1350

i01598489

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	0L-1351	8	BOLT (3/8-16X0.875 IN)						
	3B-1915	8	BOLT (3/8-16X1.37 IN)						
	120-8146	1	COVER (5 IN)						
	120-8147	1	COVER (6 IN)						
	1S-5772	1	GASKET						
	4W-7749	1	GASKET						
	9S-8752	8	NUT-FULL (3/8-16 THD)						
	3V-3308	16	WASHER-HARD (10.2X20.5X2.5MM THK)						

<END>

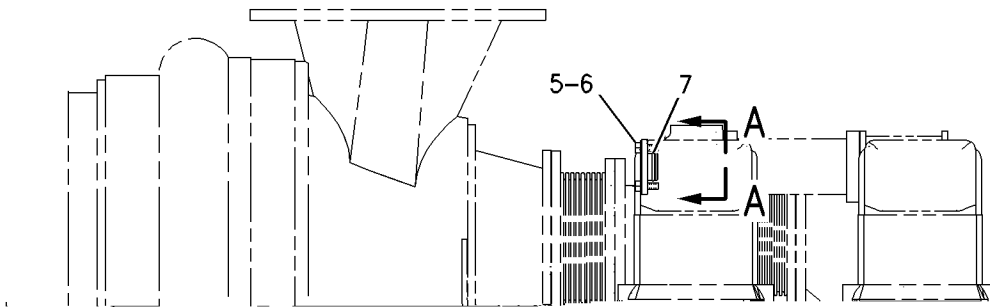
# COOLING SYSTEM

## 150-3621 COVER GP-WATER PUMP (CHG -00, -01)

SMCS-1361

i01556909

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	134-5326	1	COVER						
	2	1	148-8982	1	PLUG						
	3	1	148-8984	1	COVER						
	4	1	0S-0509	2	BOLT (3/8-16X0.75 IN)						
	5	1	0S-1594	2	BOLT (3/8-16X1 IN)						
	6	1	3V-3308	2	WASHER-HARD (10.2X20.5X2.5MM THK)						
	7	1	6L-7817	1	SEAL-O-RING						
	8	1	7L-6580	1	SEAL-O-RING						



GRAPHIC #1

<END>

g00740111

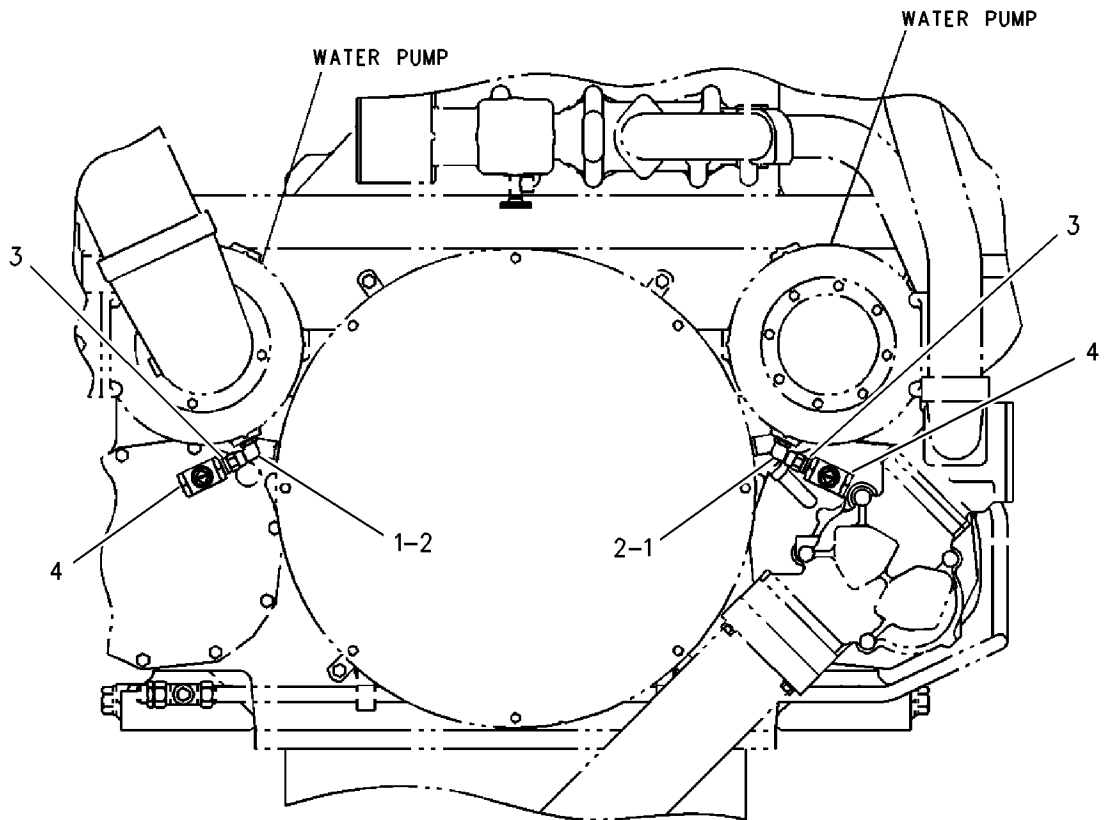
# COOLING SYSTEM

## 7E-3155 LINES GP-COOLANT DRAIN (CHG -00, -01) ENGINE WATER DRAIN CONNECTIONS

SMCS-1380

i01627177

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9X-2604	2	ELBOW						
	2	1	6V-5063	2	SEAL-O-RING						
	3	1	3B-7745	2	FITTING						
	4	1	9B-4202	2	VALVE-DRAIN						



FRONT VIEW

GRAPHIC #1

<END>

g00699359



# COOLING SYSTEM

## 1W-0803 LINES GP-OIL COOLER (CHG -05 THRU -14, -14D1)

SMCS-1307, 1378, 1380

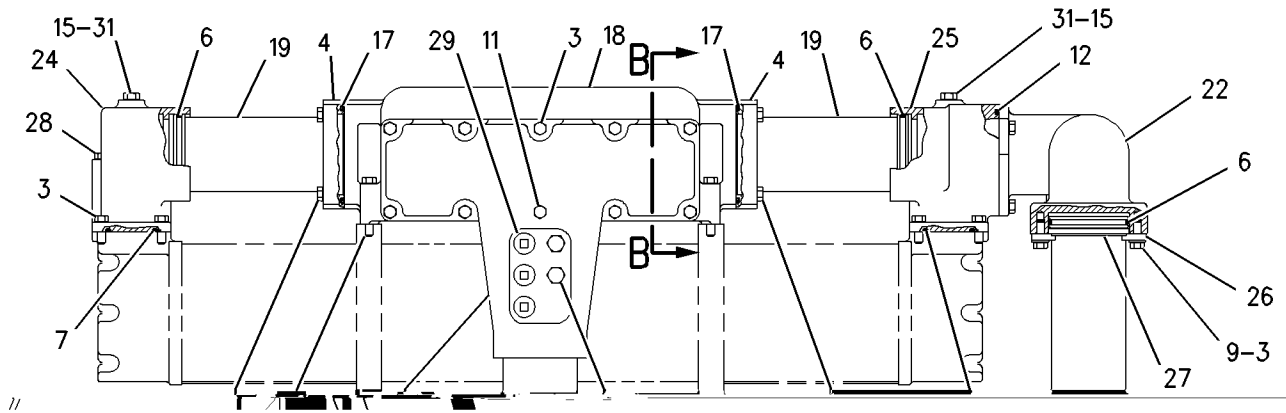
i02016720

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0L-1143	4	BOLT (3/8-16X2.5-IN)						
	2	1	0S-1591	9	BOLT (3/8-16X1.5-IN)						
	3	1	0S-1594	33	BOLT (3/8-16X1-IN)						
	4	1	1W-3979	2	FLANGE						
	5	1	2W-6318	1	TUBE						
	6	1	3P-0654	8	SEAL-O-RING						
	7	1	3P-0655	4	SEAL-O-RING						
	8	1	3S-9643	4	SEAL-LIP TYPE						
	9	1	3V-3308	5	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	10	1	4S-5719	1	SPACER (10.31X25X12.7-MM THK)						
	11	1	5B-9603	1	BOLT (3/8-16X5-IN)						
	12	1	5S-9134	1	SEAL-O-RING						
	13	1	6V-4356	1	CLIP (SLOT)						
	14	1	6V-4357	1	CLIP (TAB)						
	15	1	6V-5049	5	SEAL-O-RING						
	16	1	6V-5055	1	SEAL-O-RING						
	17	1	6V-5101	2	SEAL-O-RING						
	18	1	7C-6021	1	HOUSING-REGULATOR						
	19	1	7N-9044	2	TUBE						
	20	1	7W-2457	1	BOSS						
	21	1	7W-2459	1	TUBE						
	22	1	7W-3881	1	ELBOW						
	23	1	7W-3882	1	ELBOW						
	24	1	7W-3883	1	MANIFOLD-OIL COOLER						
	25	1	7W-3884	1	MANIFOLD-OIL COOLER						
	26	1	8N-3639	4	RETAINER						
	27	1	8N-3640	2	RING-RETAINING						
	28	1	8S-9191	4	BOLT (3/8-16X4-IN)						
	29	1	8T-6762	3	PLUG-PIPE						
	30	1	9L-9132	1	WASHER (10.2X25.5X2.5-MM THK)						
	31	1	9S-4191	5	PLUG						
	32	1	9Y-4732	1	COVER						
	33	1	9Y-9842	1	GASKET						
	34	1	120-9453	4	REGULATOR-OIL TEMPERATURE (85-DEG C)						

# COOLING SYSTEM

1W-0803 LINES GP-OIL COOLER (contd.)

i02016720



GRAPHIC #1

<END>

g00842960

# COOLING SYSTEM

## 2W-3340 LINES GP-WATER

(CHG -08 THRU -20, -20D1, -21, -21D1, -21D2, -22, -22D1, -22D2, -23, -23D1, -23D2)  
COMBINED, LH

SMCS-1355, 1380, 1393

i02199560

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7W-2477	1	HOUSING-REGULATOR						
	2	1,2	8T-6762	6	PLUG-PIPE						
	3	1	7W-3274	1	ELBOW						
	4	2	2W-5023	3	GASKET						
	5	1	8S-9191	2	BOLT (3/8-16X4-IN)						
	6	1	6V-5066	2	SEAL-O-RING						
	7	1	7W-3876	1	TUBE						
	8	1	108-6170	4	CLAMP AS						
	9	1	110-0096	2	RING						
	10	1	4W-8775	1	COVER (AIR CHAMBER)						
	11	1	6V-5140	1	SEAL-O-RING						
	12	1	7W-2021	1	ELBOW						
	13	1	5P-6619	1	SEAL-O-RING						
	14	1,2	9S-4191	4	PLUG						
C	15	1,2	6V-3250	5	SEAL-O-RING						
	16	1	108-6169	4	CLAMP AS						
	17	1	110-0097	2	RING						
	18	1	8T-2903	2	SEAL-O-RING						
	19	1	7W-2033	1	CLIP (TAB)						
	20	1	7W-2034	1	CLIP (SLOT)						
	21	1	0L-1143	1	BOLT (3/8-16X2.5-IN)						
	22	1	8V-9708	1	SPACER (14.3X25.4X35-MM THK)						
	23	1	7W-9819	1	BAR						
	24	1	2R-6806	1	CONNECTOR						
	25	1	7L-8256	1	CLAMP-TUBE						
	26	1	7W-2017	1	TUBE						
	27	1,2	0S-1588	14	BOLT (3/8-16X1.25-IN)						
	28	1	9S-8752	17	NUT-FULL (3/8-16-THD)						
	29	1	7W-3785	1	SUPPORT AS						
	30	1	7W-2026	1	FLANGE						
	31	1	7W-2018	1	GASKET						
	32	1,2	0L-2070	8	BOLT (3/8-16X2.25-IN)						
	33	1	7W-2032	1	COVER						
	34	1	5M-1719	8	STUD-TAPERLOCK						
	35	1	7W-3688	1	GASKET						
	36	1	7W-3272	1	GASKET						
	37	2	7W-9816	1	ORIFICE						
	38	1	7W-2022	1	HOUSING						
	39	1	7W-3269	4	GASKET						
	40	2	7W-3271	1	COVER						
C	41	1,2	3V-3308	49	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	42	2	113-1052	1	FLANGE						
	43	2	7W-3853	1	TUBE						
	44	2	6V-5139	2	SEAL-O-RING						
	45	2	5P-3591	1	ADAPTER GP-PROBE						
		2	9F-2247	1	PLUG-PIPE (1/8-27-THD)						
		2	3J-1907	1	SEAL-O-RING						
	46	2	7W-3275	1	ELBOW						
	47	2	7W-3270	1	GASKET						
	48	2	7W-3855	1	MANIFOLD-WATER						
	49	2	2N-0475	1	SEAL-O-RING						
	50	2	7D-5363	1	CONNECTOR						
	51	2	6K-9194	1	ELBOW						
	52	2	7C-3302	1	TUBE AS						
	53	2	7B-1597	1	CLIP						
	54	2	2W-5753	2	TUBE						

# COOLING SYSTEM

2W-3340 LINES GP-WATER (contd.)

i02199560

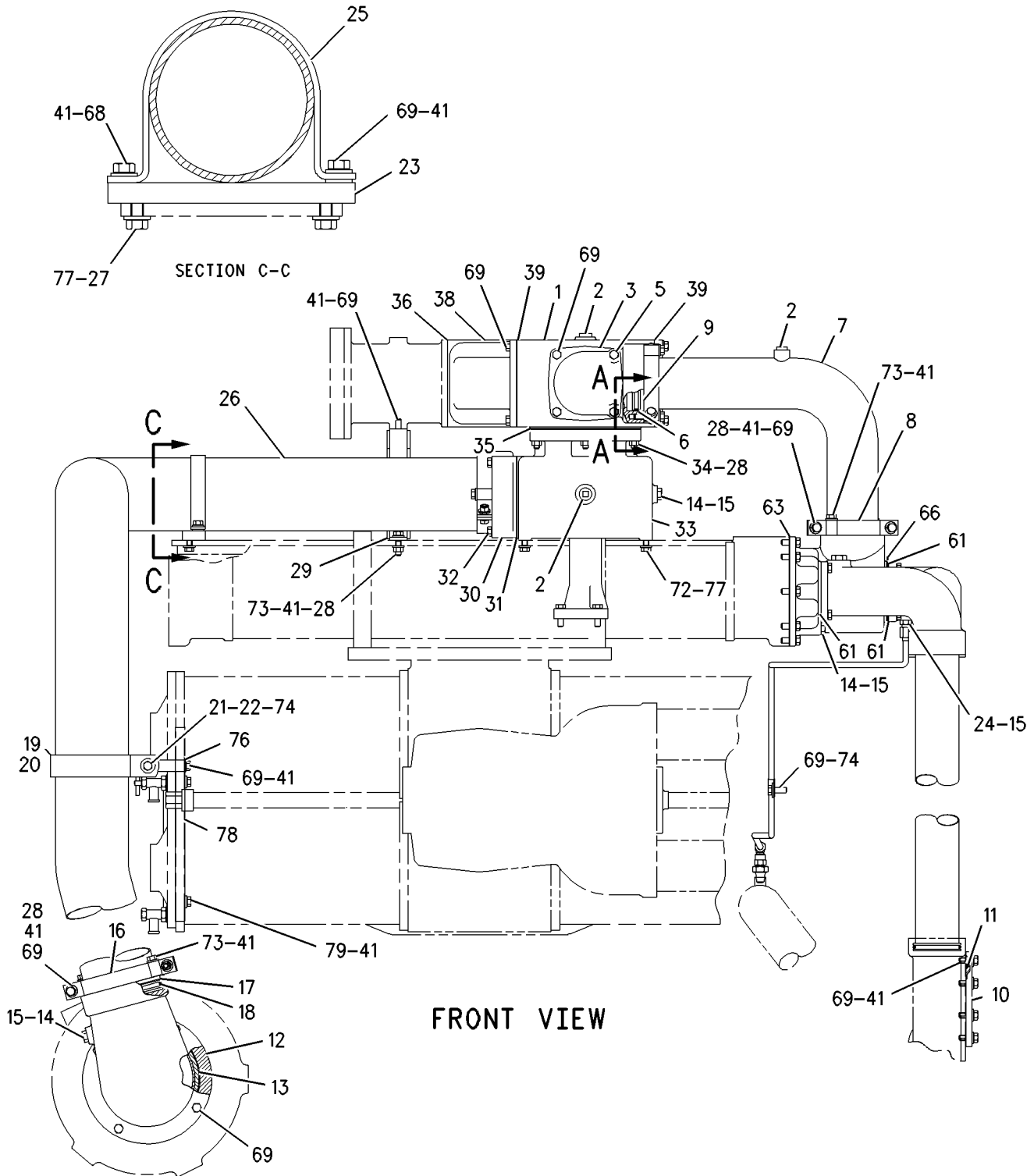
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	55	2	6V-1454	4	SEAL-O-RING						
	56	2	2W-5754	1	ELBOW						
	57	2	1W-3785	1	BONNET-OIL COOLER						
	58	2	9S-4185	1	PLUG						
	59	2	6V-6609	1	SEAL-O-RING						
	60	2	7W-3273	1	ELBOW						
	61	1	1W-4067	3	GASKET						
	62	2	7W-3857	1	BONNET-OIL COOLER						
	63	1	247-3796	2	GASKET						
	64	2	3S-9643	4	SEAL-LIP TYPE						
	65	2	198-3427	4	REGULATOR-WATER TEMPERATURE						
	66	1	7W-9817	1	ORIFICE						
	67	2	7W-9818	1	ORIFICE						
	68	1	0S-0509	1	BOLT (3/8-16X0.75-IN)						
	69	1,2	0S-1594	58	BOLT (3/8-16X1-IN)						
	70	2	4P-9224	1	COVER						
	71	2	8T-6765	1	PLUG-PIPE						
	72	1	1A-2029	4	BOLT (3/8-16X1.125-IN)						
	73	1	0S-1571	9	BOLT (3/8-16X1.75-IN)						
	74	1	9L-9132	2	WASHER (10.2X25.5X2.5-MM THK)						
	75	2	3H-6622	3	BOLT (3/8-16X1.25-IN)						
	76	1	7W-2457	1	BOSS						
	77	1	5M-2894	6	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	78	1	7W-2970	1	SUPPORT AS						
	79	1	0S-1591	2	BOLT (3/8-16X1.5-IN)						

C-CHANGE FROM PREVIOUS TYPE

# COOLING SYSTEM

2W-3340 LINES GP-WATER (contd.)

i02199560

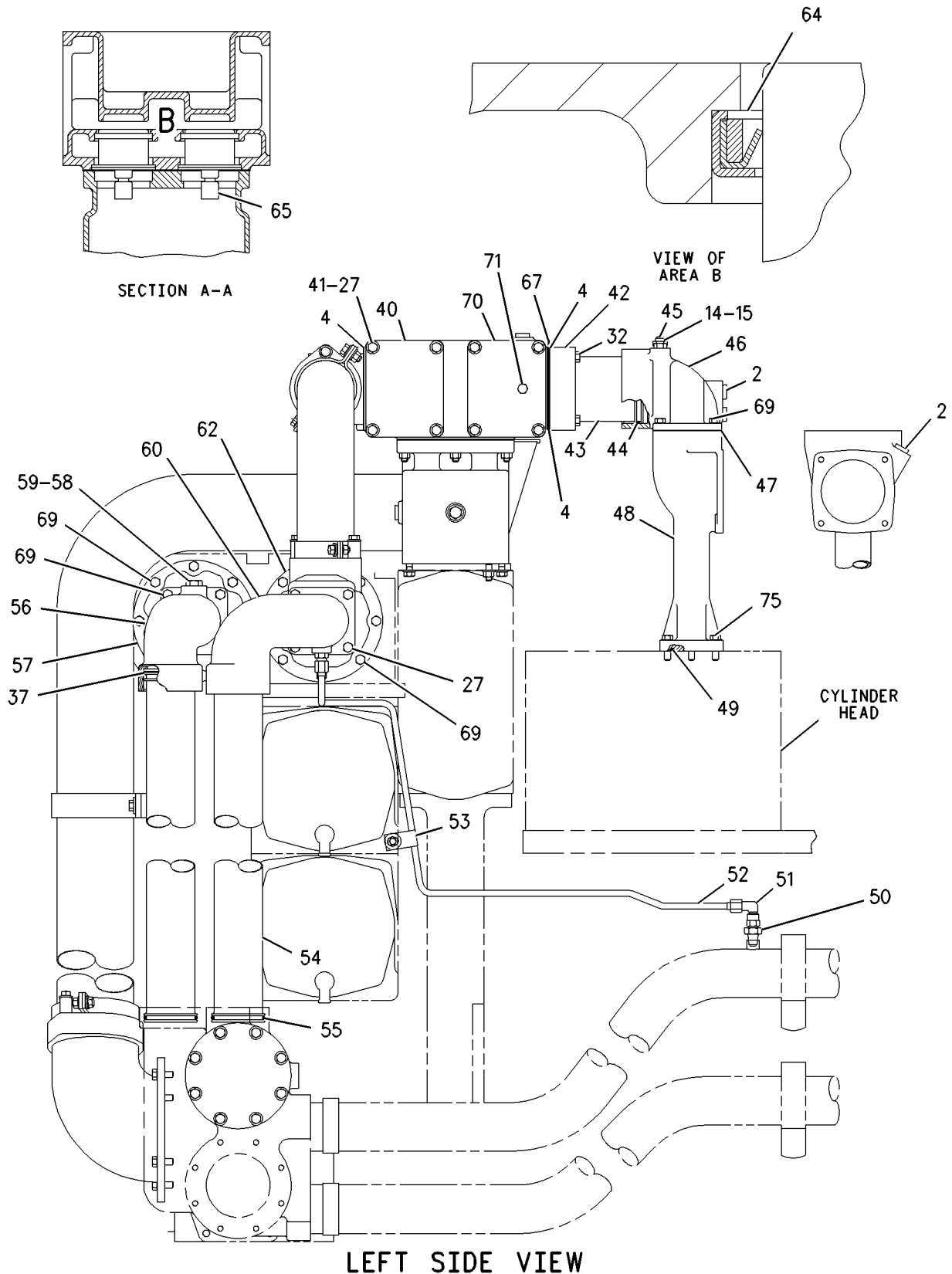


REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS

# COOLING SYSTEM

2W-3340 LINES GP-WATER (contd.)

i02199560



GRAPHIC #2

<END>

g00992682

# COOLING SYSTEM

## 7E-2782 LINES GP-WATER (CHG -00 THRU -02) JACKET

SMCS-1355, 1380, 1393

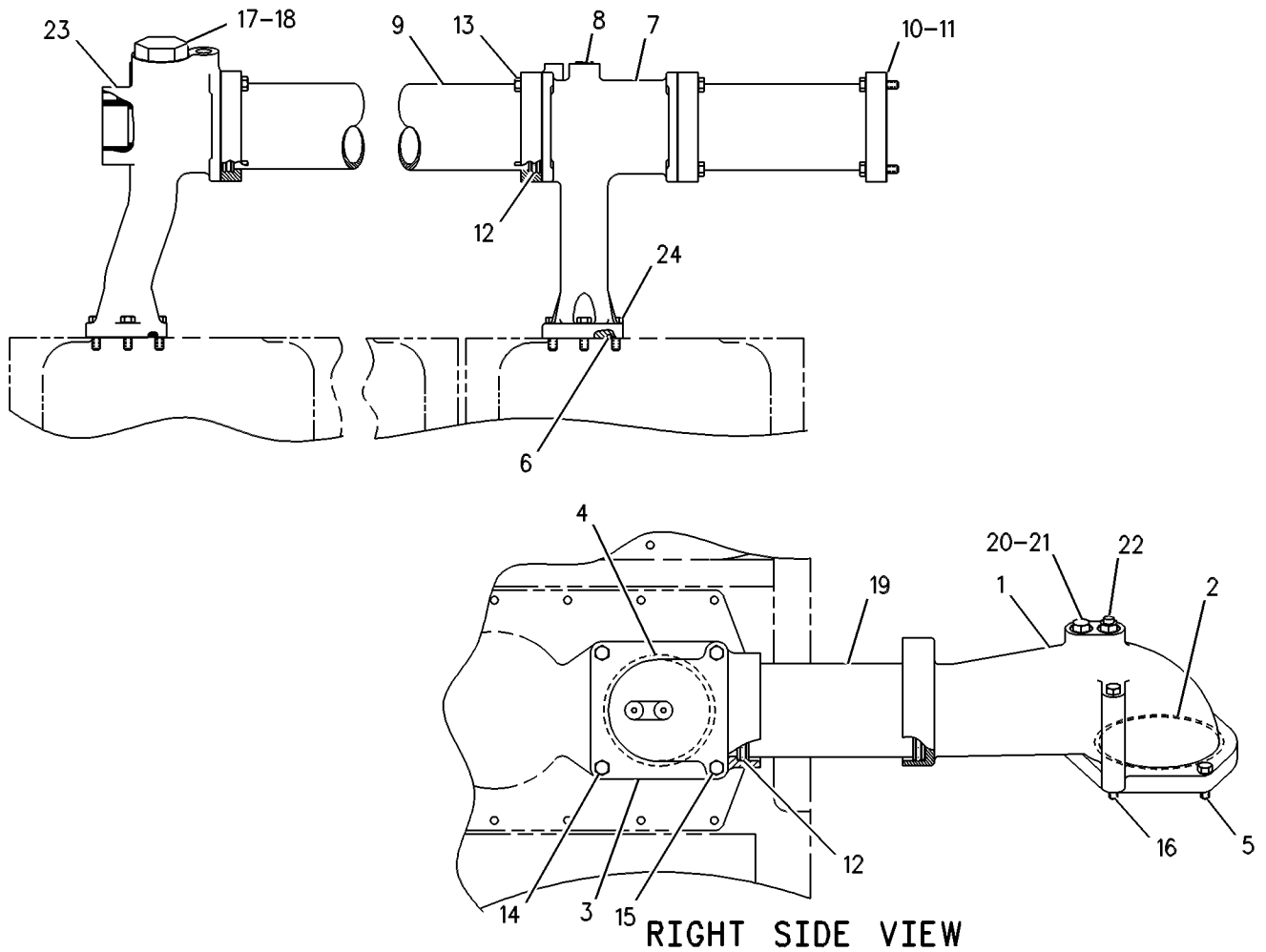
i01590881

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-8545	1	ELBOW						
	2	1	6V-6809	1	SEAL-O-RING						
	3	1	1W-3591	1	ELBOW						
	4	1	6V-5068	1	SEAL-O-RING						
	5	1	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	6	1	2N-0475	7	SEAL-O-RING						
	7	1	2W-4555	6	MANIFOLD-WATER						
	8	1	8T-6762	7	PLUG-PIPE						
	9	1	2W-5032	7	TUBE						
	10	1	2W-5023	14	GASKET						
	11	1	2W-5022	14	FLANGE						
	12	1	6V-5139	16	SEAL-O-RING						
	13	1	0S-1591	56	BOLT (3/8-16X1.5-IN)						
	14	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	15	1	7F-3425	2	BOLT (3/8-16X5.75-IN)						
	16	1	5B-9603	2	BOLT (3/8-16X5-IN)						
	17	1	1N-5998	1	PLUG						
	18	1	8C-0562	1	SEAL-O-RING						
	19	1	1W-3592	1	TUBE						
	20	1	9S-4191	1	PLUG						
	21	1	6V-3250	1	SEAL-O-RING						
	22	1	5P-3591	1	ADAPTER GP-PROBE						
		1	9F-2247	1	PLUG-PIPE (1/8-27-THD)						
		1	3J-1907	1	SEAL-O-RING						
		1	5P-2719	1	SEAL-PROBE						
	23	1	134-5329	1	MANIFOLD-WATER						
	24	1	3H-6622	21	BOLT (3/8-16X1.25-IN)						

# COOLING SYSTEM

7E-2782 LINES GP-WATER (contd.)

i01590881



GRAPHIC #1

<END>

g00067086



# COOLING SYSTEM

## 7E-4449 LINES GP-WATER (CHG -00, -01, -01D1 THRU -03, -03D1, -03D2) SEPARATE CIRCUIT

SMCS-1355, 1380, 1393

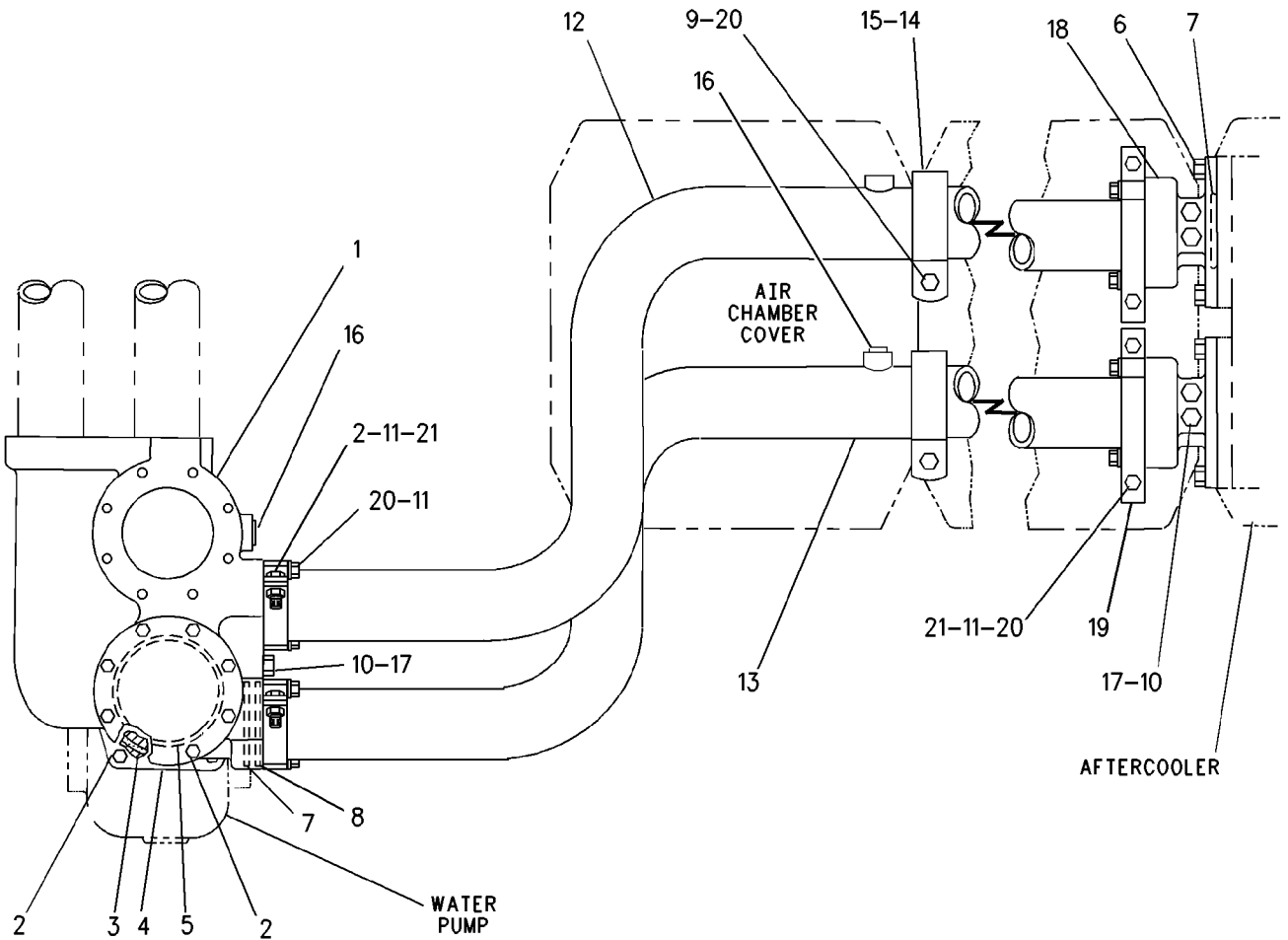
i01923412

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-4763	1	MANIFOLD (WATER TERMINAL FRONT)						
	2	1	0S-1594	20	BOLT (3/8-16X1-IN)						
	3	1	6V-6809	1	SEAL-O-RING						
	4	1	4W-8775	1	COVER (AIR CHAMBER)						
	5	1	6V-5140	1	SEAL-O-RING						
	6	1	0S-1590	4	BOLT (3/8-16X2-IN)						
	7	1	6V-1454	6	SEAL-O-RING						
	8	1	7E-7209	4	RING-RETAINING						
	9	1	8M-9024	2	WASHER-HARD (10.2X22.5X5-MM THK)						
	10	1	9S-4191	5	PLUG						
	11	1	3V-3308	32	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	12	1	7E-4451	1	TUBE AS						
	13	1	148-2185	1	TUBE AS						
	14	1	9X-2646	2	CLIP (SLOT)						
	15	1	9X-2647	2	CLIP (TAB)						
	16	1	8T-6762	2	PLUG-PIPE						
	17	1	6V-3250	5	SEAL-O-RING						
	18	1	2W-8546	2	ADAPTER						
	19	1	7E-5487	8	CLAMP AS						
	20	1	0S-1591	10	BOLT (3/8-16X1.5-IN)						
	21	1	9S-8752	8	NUT-FULL (3/8-16-THD)						

# COOLING SYSTEM

7E-4449 LINES GP-WATER (contd.)

i01923412



GRAPHIC #1

<END>

g00762521

# COOLING SYSTEM

## 7E-3172 PUMP GP-WATER\*R (CHG -07 THRU -09)

BASIC

PART OF 7E-8180 PUMP GP-WATER

SMCS-1361

i01998094

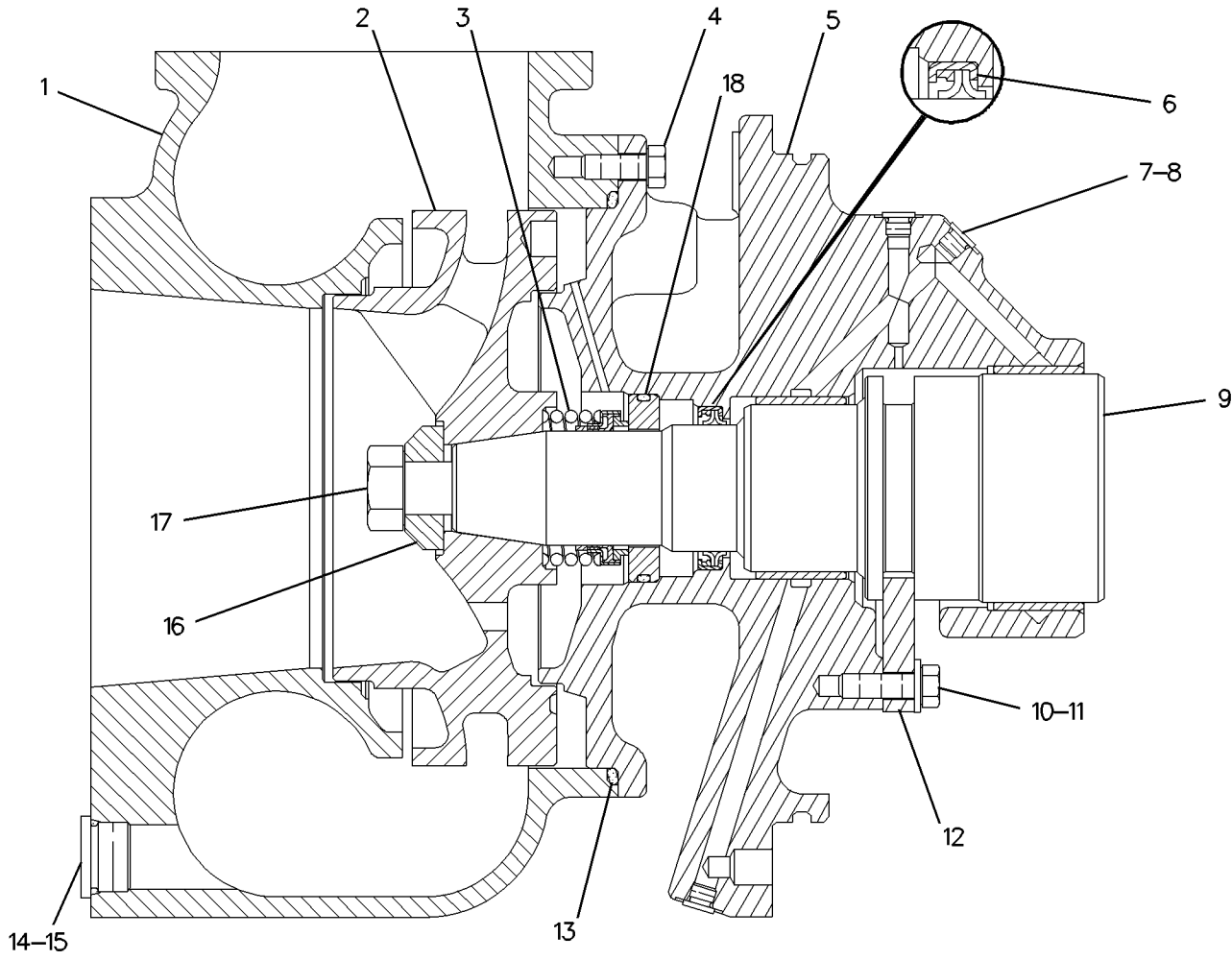
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-3173	1	HOUSING-WATER PUMP						
	2	1	7E-3174	1	IMPELLER-PUMP (WATER)						
	3	1	118-8086	1	SEAL GP-FACE						
	4	1	0S-1594	5	BOLT (3/8-16X1 IN)						
C	5	1	208-1007	1	HOUSING AS						
		1	188-0449	1	BEARING-SLEEVE (71.15MM OD)						
		1	188-0450	1	BEARING-SLEEVE (95.22MM OD)						
	6	1	7E-4356	1	SEAL-LIP TYPE						
	7	1	5P-7813	4	SEAL-O-RING						
	8	1	9S-8007	4	PLUG						
C	9	1	208-0327	1	SHAFT						
	10	1	0S-1588	3	BOLT (3/8-16X1.25 IN)						
	11	1	3V-3308	3	WASHER-HARD (10.2X20.5X2.5MM THK)						
	12	1	1W-2828	1	WASHER-THRUST						
	13	1	134-5958	1	SEAL-O-RING						
	14	1	6V-5063	2	SEAL-O-RING						
	15	1	9S-8008	2	PLUG						
	16	1	4W-0234	1	WASHER (20.5X48.0X15MM THK)						
C	17	1	3B-2968	1	BOLT (3/4-10X3.5 IN)						
	18	1	118-8706	1	SEAL-O-RING						

C-CHANGE FROM PREVIOUS TYPE

# COOLING SYSTEM

7E-3172 PUMP GP-WATER (contd.)

i01998094



GRAPHIC #1

<END>

g01000104

# COOLING SYSTEM

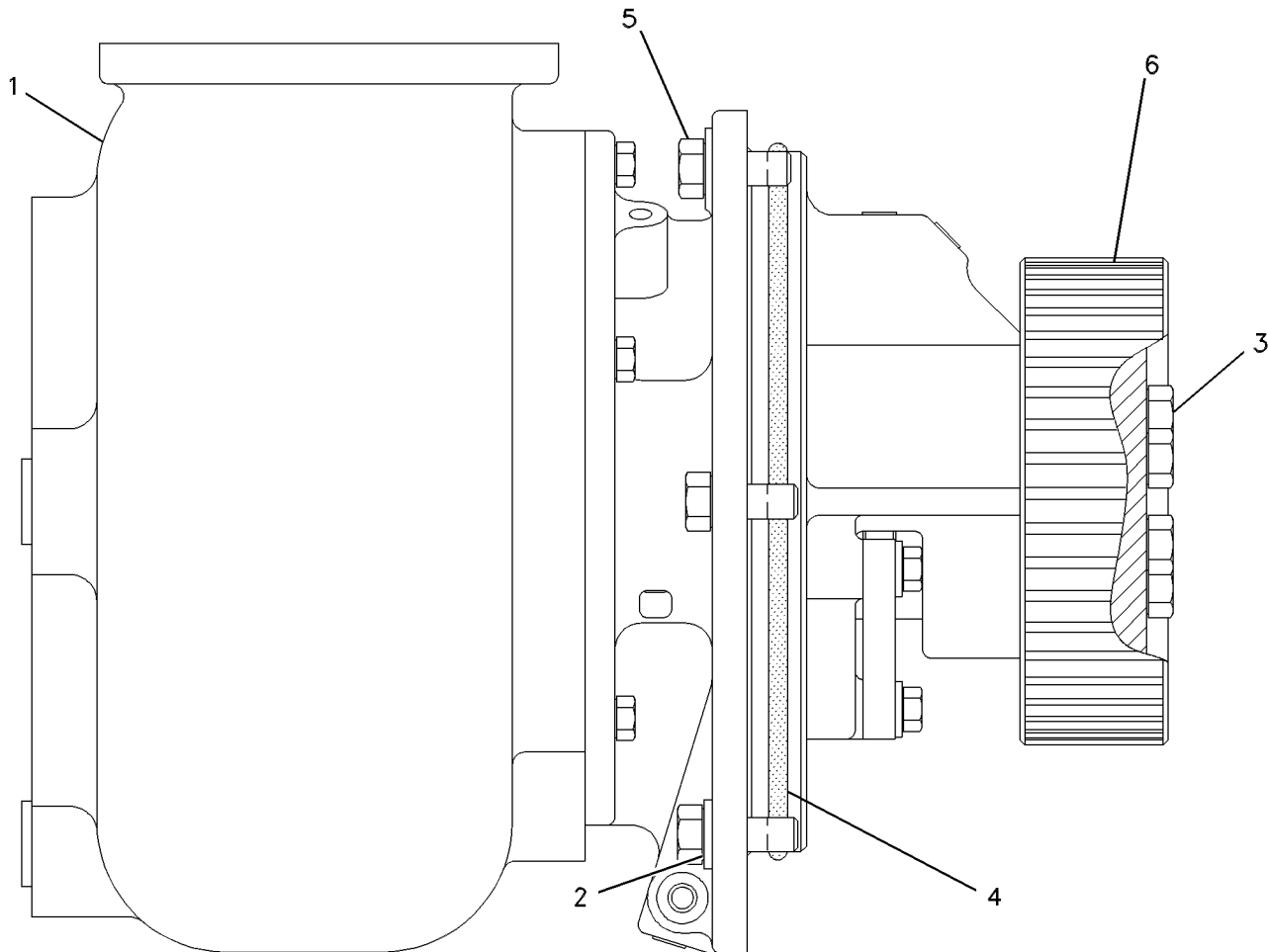
## 7E-8180 PUMP GP-WATER (CHG -00 THRU -03)

SMCS-1361

i01553906

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
YR	1	1	7E-3172	1	PUMP GP-WATER						88
	2	1	5P-8245	6	WASHER-HARD (13.5X25.5X3MM THK)						
	3	1	0S-1587	6	BOLT (1/2-13X1.75 IN)						
	4	1	6V-7701	1	SEAL-O-RING						
	5	1	0S-1585	6	BOLT (1/2-13X1.50 IN)						
	6	1	7E-4365	1	GEAR (38 TEETH)						

R-REMFG PART MAY BE AVAILABLE  
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00461852

# COOLING SYSTEM

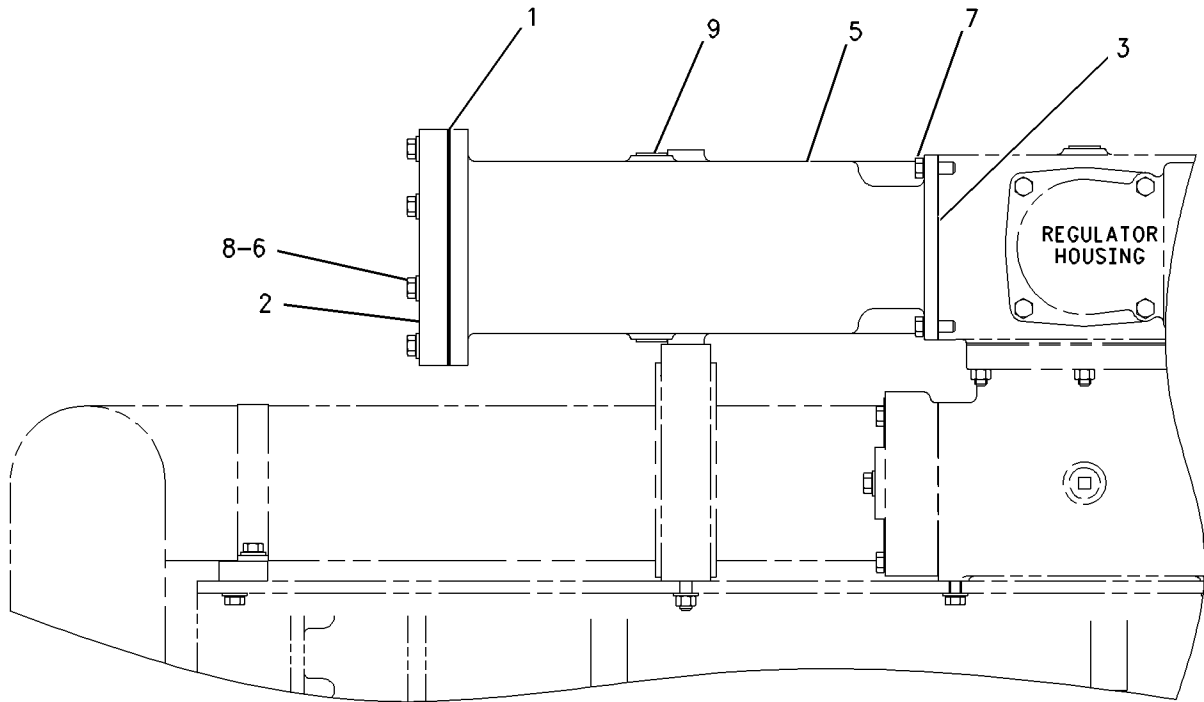
## 6I-4939 SEPARATOR GP-AIR

(CHG -00 THRU -04, -04D1, -04D2, -05, -05D1, -05D2, -05D3)

SMCS - 139S

i01657532

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1S-5772	1	GASKET						
	2	1	7N-7009	1	FLANGE						
	3	1	7W-3269	2	GASKET						
	5	1	9Y-0250	1	SEPARATOR-AIR						
	6	1	0S-1571	8	BOLT (3/8-16X1.75 IN)						
	7	1	0S-1594	8	BOLT (3/8-16X1 IN)						
	8	1	3V-3308	8	WASHER-HARD (10.2X20.5X2.5MM THK)						
	9	1	8T-6762	3	PLUG-PIPE						



GRAPHIC #1

<END>

g00855439

# COOLING SYSTEM

## 149-7708 VALVE GP-THERMOSTATIC (CHG -01)

SMCS-5074

i01089016

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	149-7729	4	BUSHING						
	149-9771	4	ELEMENT						
	149-9902	1	GASKET						
	149-9906	4	SEAL						
	149-9907	4	SEAL						
	149-7724	4	SEAT						
	4P-1511	4	SLEEVE						
<b>&lt;END&gt;</b>									

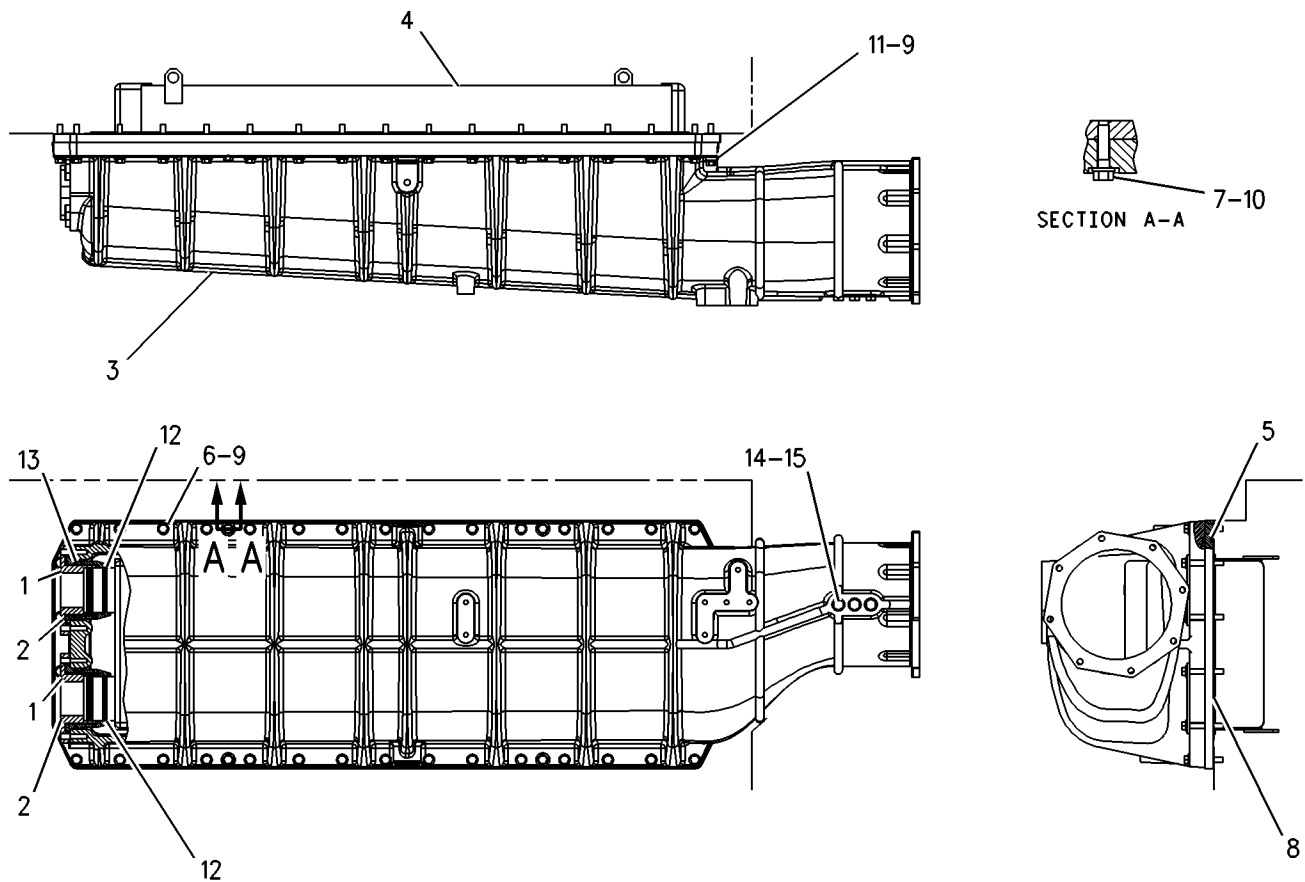
# AIR INLET AND EXHAUST SYSTEM

## 175-1364 AFTERCooler GP-TREATED WATER (CHG -00 THRU -02) SEA AIR

SMCS-1063

i02253083

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-6917	2	ADAPTER						
	2	1	123-6256	2	ADAPTER						
	3	1	175-1362	1	HOUSING						
	4	1	264-0167	1	CORE AS-AFTERCoolER						
	5	1	180-2923	2	SEAL-O-RING						
	6	1	031-0220	34	BOLT-LOCKING (3/8-16X2.5-IN)						
	7	1	0S-1591	4	BOLT (3/8-16X1.5-IN)						
	8	1	139-6857	2	PLATE						
	9	1	3V-3308	38	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	10	1	5M-2894	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	11	1	6V-0717	4	BOLT-SELF-LOCKING (3/8-16X2.75-IN)						
	12	1	6V-1454	4	SEAL-O-RING						
	13	1	6V-3908	2	SEAL-O-RING						
	14	1	6V-5049	3	SEAL-O-RING						
	15	1	9S-4191	3	PLUG						



GRAPHIC #1

<END>

g00658875



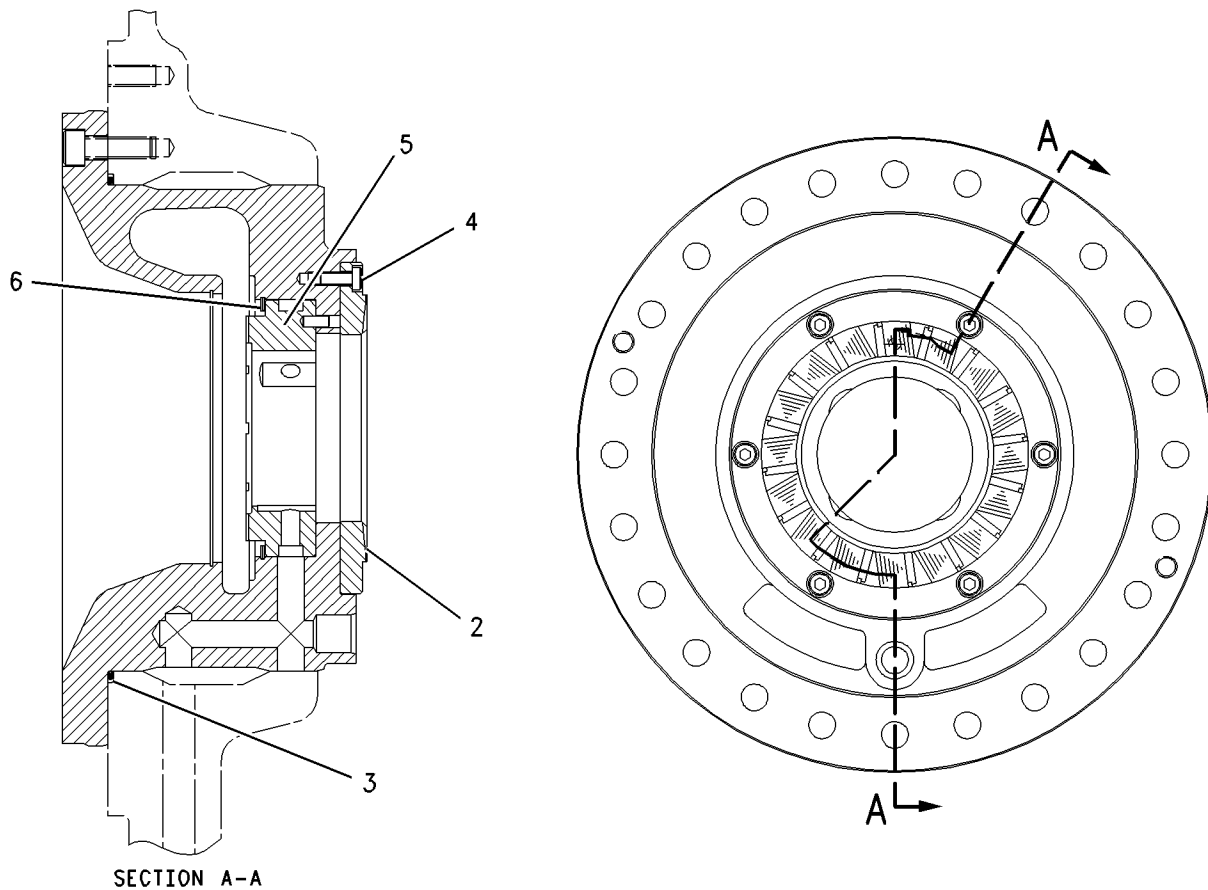
# AIR INLET AND EXHAUST SYSTEM

## 163-6439 BEARING GP-COMPRESSOR (CHG -00) PART OF 194-8705 CARTRIDGE GP-TURBOCHARGER

SMCS-1052

i01546898

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	2	1	163-6441	1	PLATE-THRUST						
	3	1	163-6442	1	SEAL-O-RING						
	4	1	163-6443	6	BOLT (M5X0.8X12MM)						
	5	1	163-6444	1	BUSHING						
	6	1	163-6445	1	RING-RETAINING						



GRAPHIC #1

<END>

g00803914

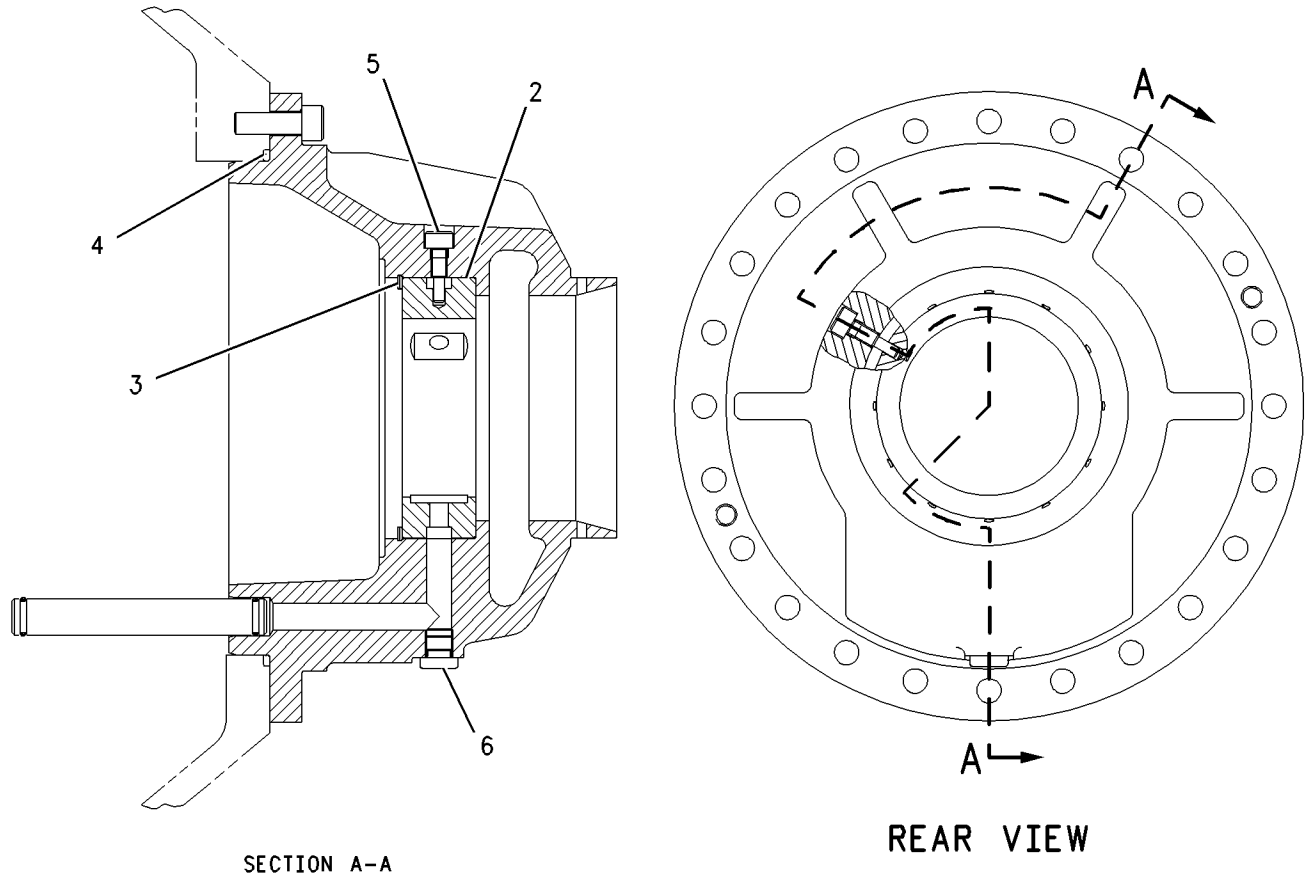
# AIR INLET AND EXHAUST SYSTEM

## 163-6446 BEARING GP-TURBINE (CHG -00) PART OF 194-8705 CARTRIDGE GP-TURBOCHARGER

SMCS-1052

i01986381

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	2	1	163-6448	1	BUSHING						
	3	1	163-6445	1	RING-RETAINING						
	4	1	163-6442	1	SEAL-O-RING						
	5	1	163-5497	1	SCREW (ANTI-ROTATION) (M6X1.0X 20MM)						
	6	1	163-6449	1	PLUG						



SECTION A-A

REAR VIEW

GRAPHIC #1

<END>

g00804089

# AIR INLET AND EXHAUST SYSTEM

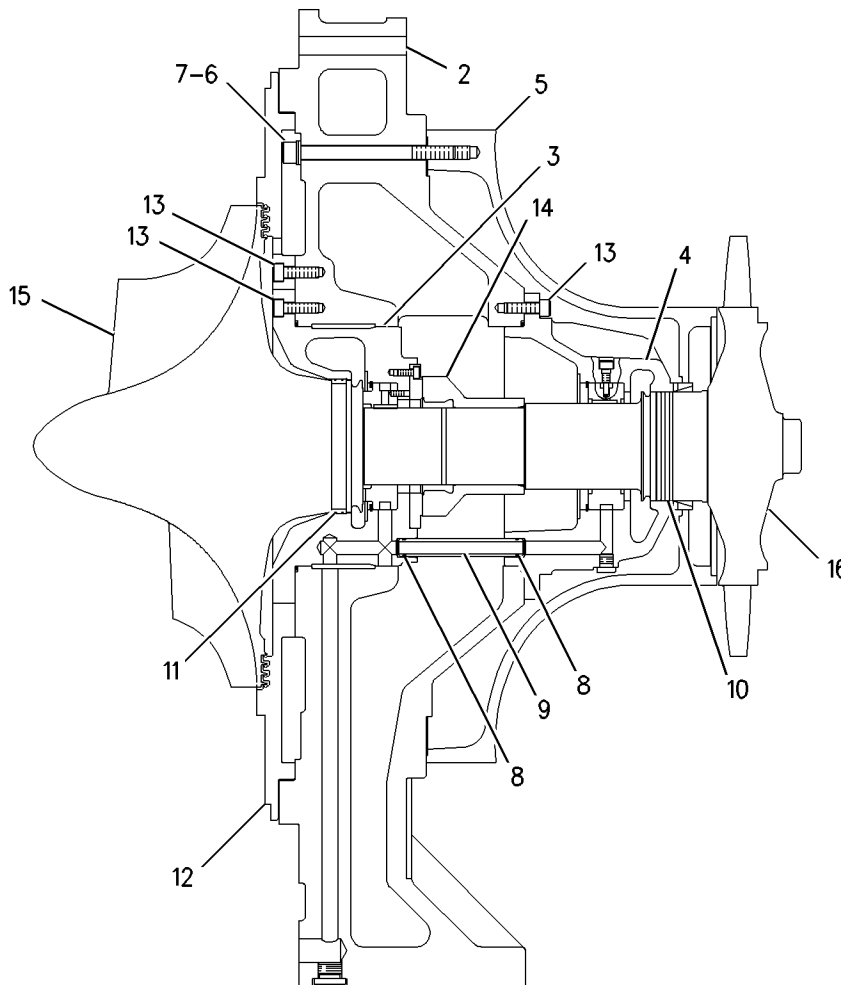
## 194-8705 CARTRIDGE GP-TURBOCHARGER (CHG -02) PART OF 258-2287 TURBOCHARGER GP

SMCS - 1053

i02157025

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	2	1	163-6434	1	HOUSING GP-CENTER (TURBOCHARGER, BEARING)						100
Y	3	1	163-6439	1	BEARING GP-COMPRESSOR						94
Y	4	1	163-6446	1	BEARING GP-TURBINE						95
	5	1	164-5339	1	TRUMPET						
	6	1	200-8038	6	BOLT-SOCKET HEAD (M10X1.5X4.72-IN)						
	7	1	163-5495	6	WASHER-DISC LOCK (10.38X17.9X3.4-MM THK)						
	8	1	164-4974	3	SEAL-O-RING						
	9	1	164-4975	1	PIPE-OIL FEED						
	10	1	164-4978	2	SEAL-RING						
	11	1	164-4980	1	SEAL-RING						
	12	1	164-4982	1	SEAL-PLATE						
M	13	1	5A-3604	18	BOLT-SOCKET HEAD (M8X1.25X25-MM)						
	14	1	164-5340	1	BEARING-THRUST						
C	15	1	214-5455	1	WHEEL-COMPRESSOR						
	16	1	194-8709	1	SHAFT-TURBINE						

C-CHANGE FROM PREVIOUS TYPE  
M-METRIC PART  
Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00772596

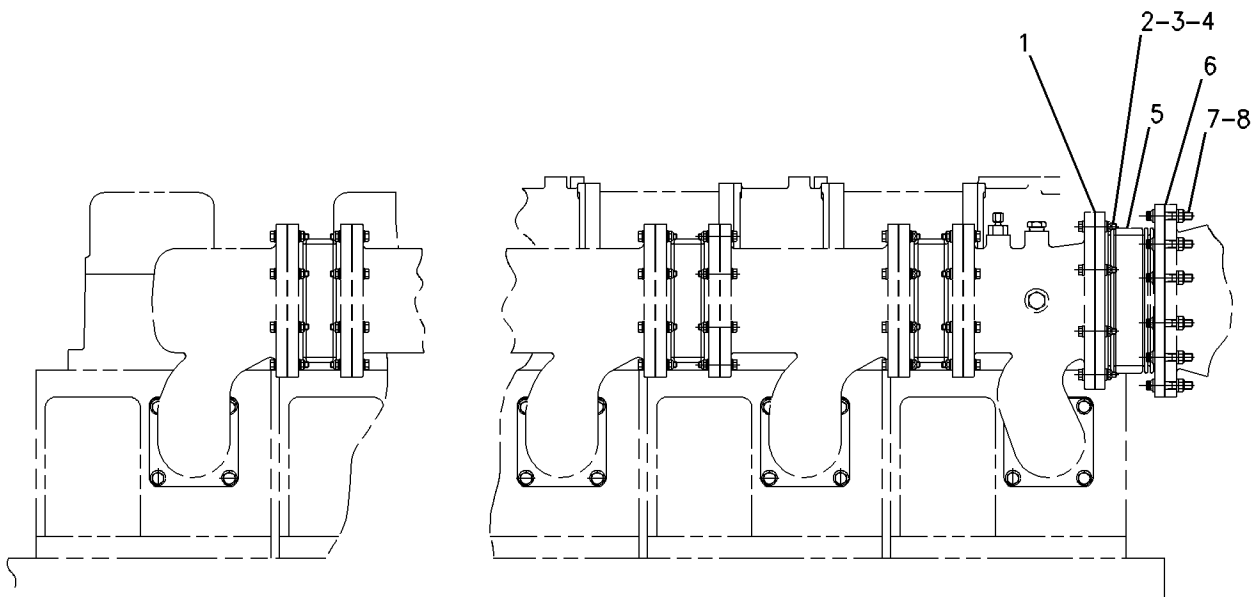
# AIR INLET AND EXHAUST SYSTEM

## 180-1553 EXHAUST GP-FLEXIBLE (CHG -00 THRU -02)

SMCS-1061

i02016747

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	134-5641	1	GASKET						
	2	1	7L-6443	8	BOLT-HIGH TEMPERATURE (3/8-16X2.25-IN)						
	3	1	8C-8491	16	WASHER-HARD (10.2X22X3-MM THK)						
	4	1	2N-2766	8	LOCKNUT (3/8-16-THD)						
	5	1	222-4707	1	BELLOWS AS						
	6	1	189-5913	1	GASKET						
	7	1	6V-3630	12	BOLT-HIGH TEMPERATURE (1/2-13X2.5-IN)						
	8	1	8C-8763	12	LOCKNUT (1/2X13X2-THD)						



LEFT SIDE VIEW

GRAPHIC #1

<END>

g00665898

# AIR INLET AND EXHAUST SYSTEM

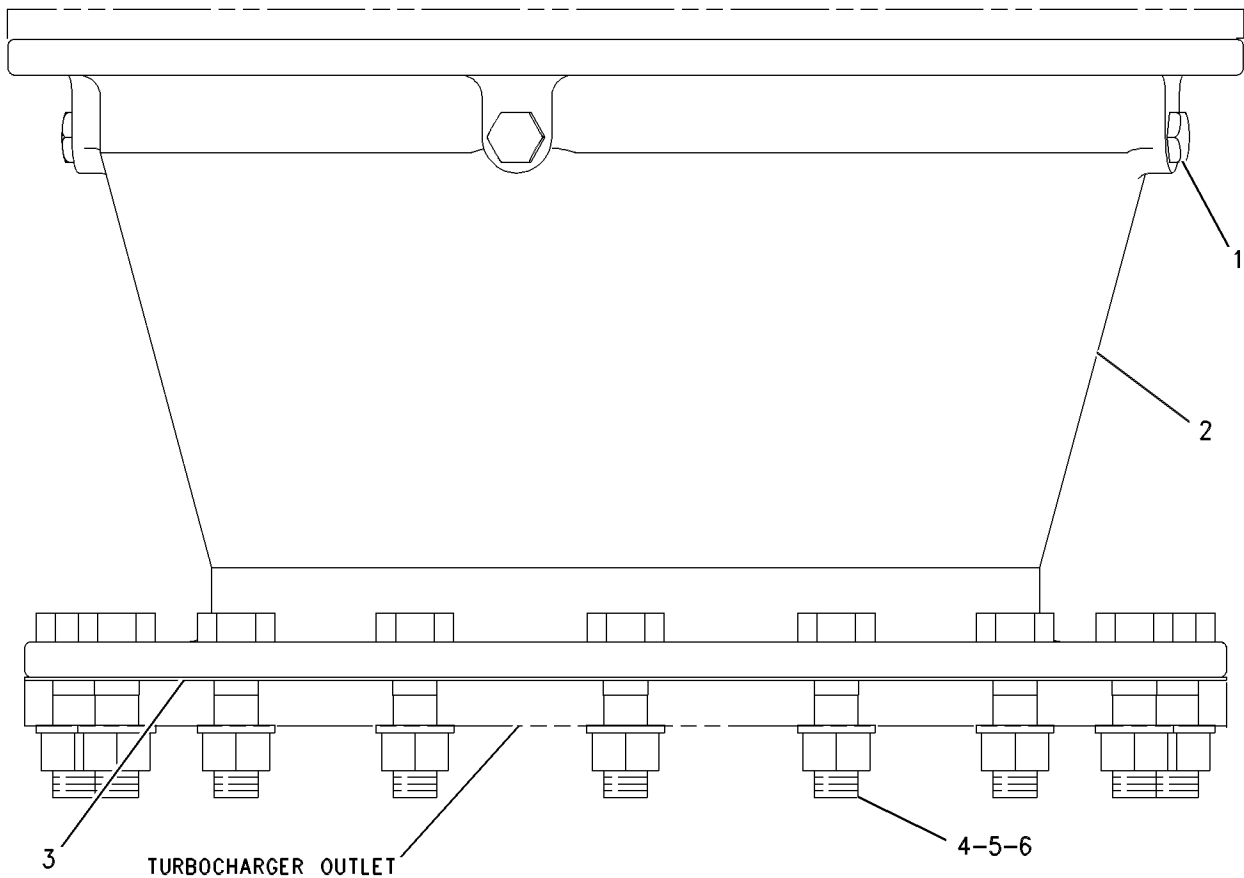
## 166-2166 FITTING GP-EXHAUST (CHG -00, -01)

SMCS-1061

i01930688

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4J-4382	4	PLUG-PIPE						
	2	1	166-2161	1	ADAPTER-EXHAUST						
	3	1	166-4572	1	GASKET						
M	4	1	6V-5845	16	BOLT (M20X2.5X70MM)						
M	5	1	6V-7742	16	NUT-FULL (M20X2.50 THD)						
	6	1	8T-3282	16	WASHER-HARD (22X35X3.5MM THK)						

M-METRIC PART



GRAPHIC #1

<END>

g00548024

# AIR INLET AND EXHAUST SYSTEM

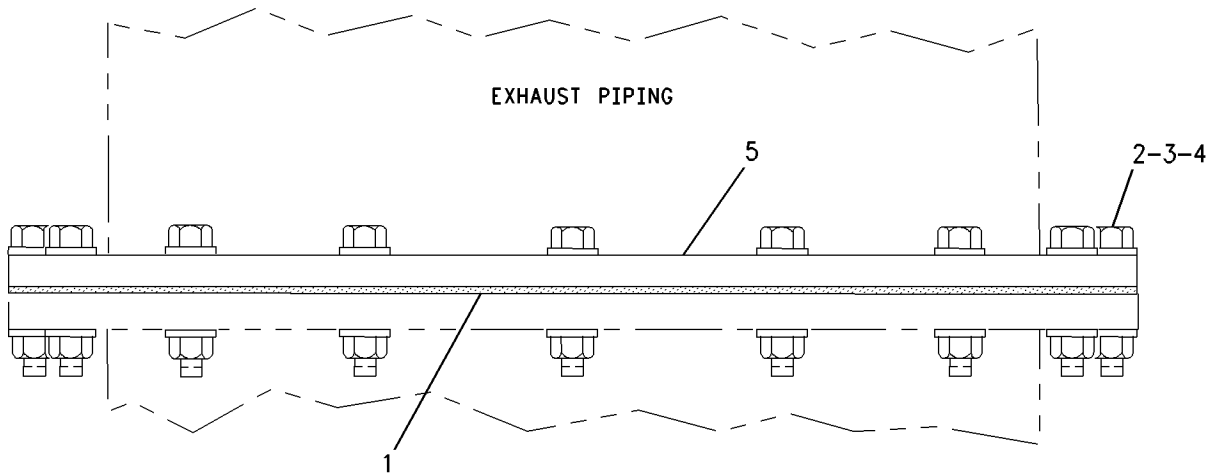
## 2W-2682 FLANGE GP-EXHAUST (CHG -02 THRU -04) 457.2-MM

SMCS-1061

i01553799

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	111-5819	1	GASKET-EXHAUST						
	2	1	9X-8873	16	BOLT (1/2-13X2.25 IN)						
	3	1	1B-5357	16	NUT-FULL (1/2-13 THD)						
	4	1	5P-8245	32	WASHER-HARD (13.5X25.5X3MM THK)						
	5	1	2W-7886	1	FLANGE-EXHAUST						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00697210

# AIR INLET AND EXHAUST SYSTEM

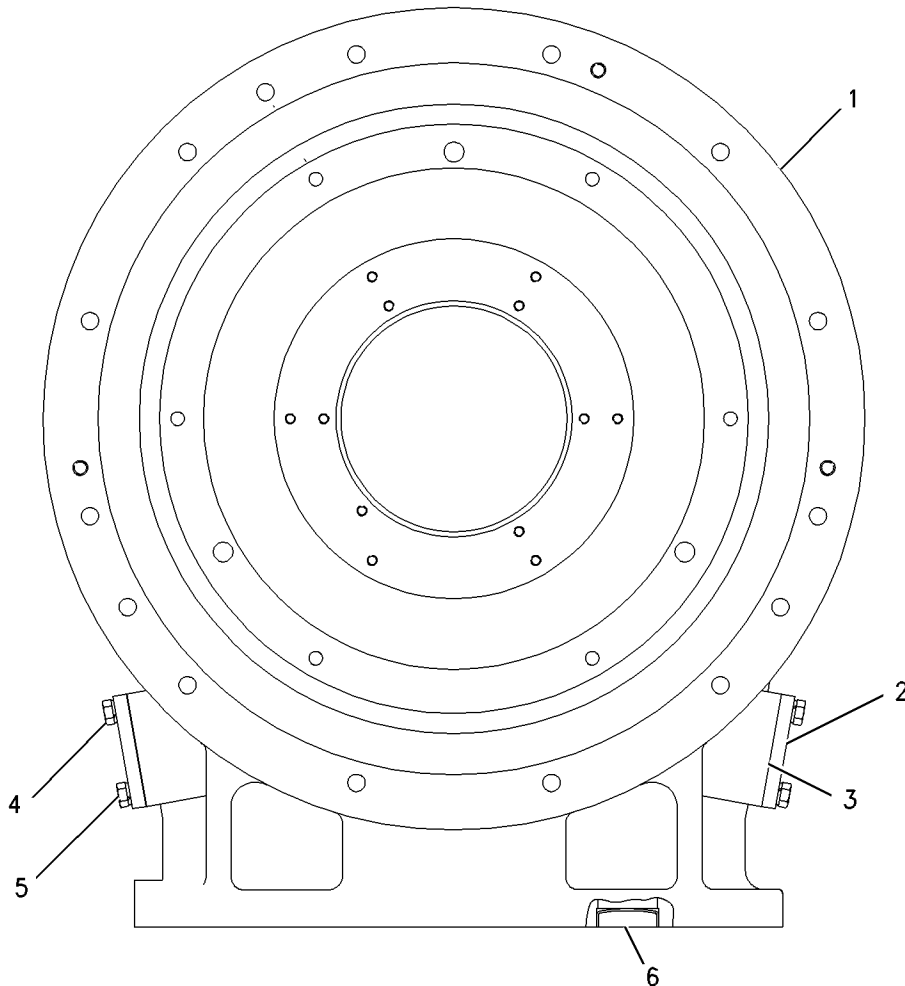
## 163-6434 HOUSING GP-CENTER (CHG -00) PART OF 194-8705 CARTRIDGE GP-TURBOCHARGER

SMCS-1052

i01378545

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	163-6435	1	HOUSING-BEARING						
	2	1	163-6436	2	COVER						
	3	1	163-6437	2	GASKET						
M	4	1	8T-4136	4	BOLT (M10X1.5X25MM)						
	5	1	163-5492	4	LOCKWASHER						
	6	1	163-6438	3	COVER						

M-METRIC PART



GRAPHIC #1

<END>

g00729304

# AIR INLET AND EXHAUST SYSTEM

## 164-5328 HOUSING GP-INLET (CHG -00)

SINGLE

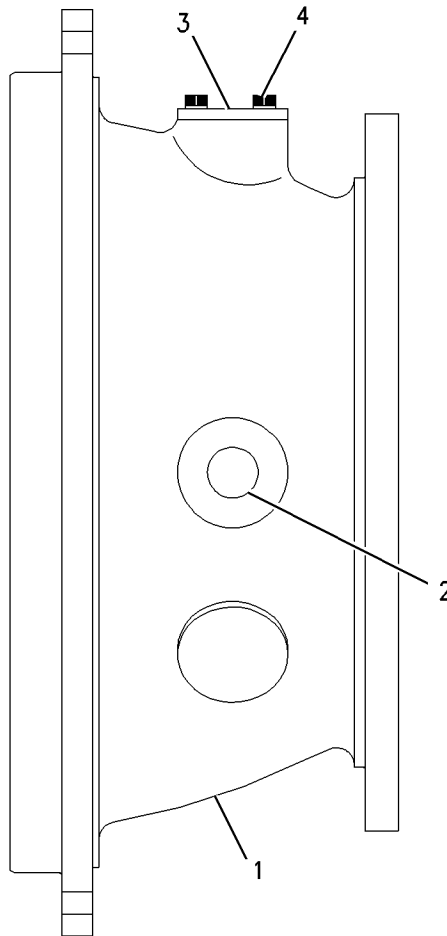
PART OF 258-2287 TURBOCHARGER GP

SMCS-1052

i01986397

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	164-5027	1	HOUSING-TURBINE IN.						
	2	1	164-5070	2	PLUG						
	3	1	164-5033	3	COVER						
M	4	1	8T-0267	9	BOLT-SOCKET HEAD (M6X1X12MM)						

M-METRIC PART



LEFT SIDE VIEW

GRAPHIC #1

<END>

g00729318



# AIR INLET AND EXHAUST SYSTEM

## 164-5015 HOUSING GP-TURBINE (CHG -00)

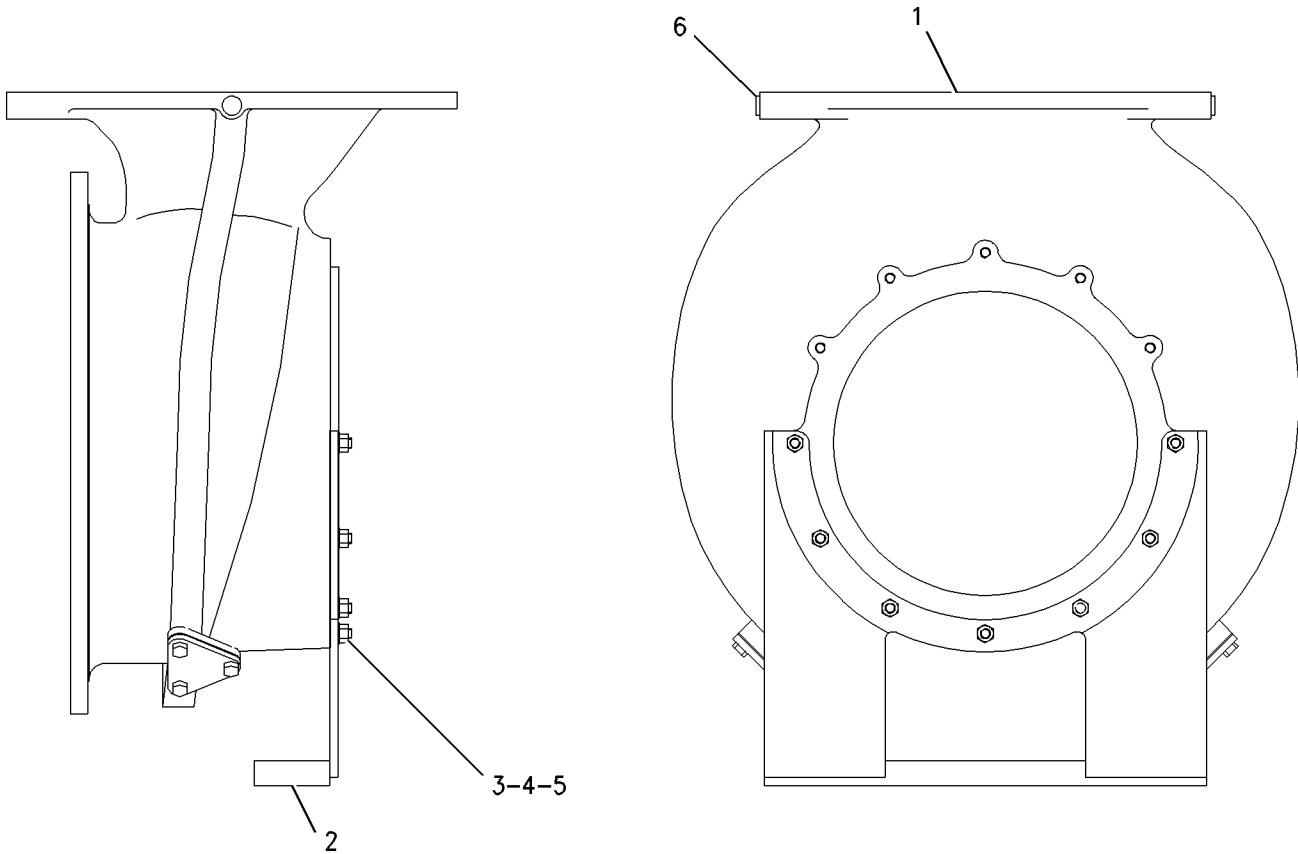
PART OF 258-2287 TURBOCHARGER GP

SMCS - 1052

i02016753

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	164-5343	1	HOUSING - TURBINE						
	2	1	164-5069	1	SUPPORT - TURBOCHARGER						
	3	1	163-5486	7	STUD						
	4	1	164-5020	14	WASHER-DISC LOCK						
M	5	1	8T-4244	7	NUT (M12X1.75-THD)						
	6	1	164-5070	2	PLUG						

M-METRIC PART



LEFT SIDE VIEW

FRONT VIEW

GRAPHIC #1

<END>

g00729312

# AIR INLET AND EXHAUST SYSTEM

## 7C-8780 LINES GP-AIR (CHG -05, -06, -06D1) 24 VDC. STARTING MOTOR CONTROL-RH SIDE MOTOR

SMCS-1071

i01818687

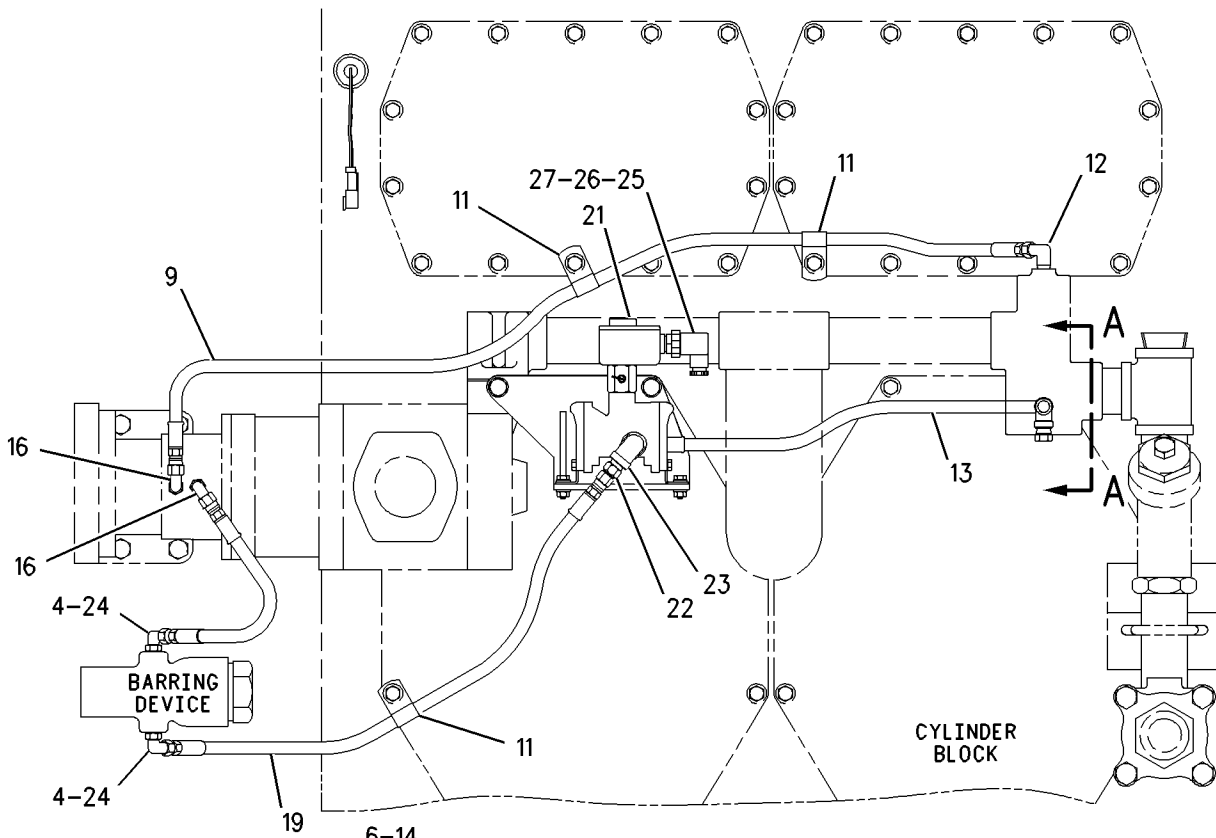
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1615	4	BOLT (1/4-20X0.75-IN)						
	2	1	0S-1571	2	BOLT (3/8-16X1.75-IN)						
	3	1	2D-7325	1	TEE-PIPE						
	4	1	3J-7354	2	SEAL-O-RING						
C	5	1	3V-3308	2	WASHER-HARD (10.2X20.5X2.5-MM THK)						
C	6	1	3P-0764	1	PLUG						
	7	1	4R-8605	1	ELBOW						
C	8	1	4S-6399	2	CONNECTOR						
I	9	1	5N-5646	1	HOSE AS						
	10	1	5P-0537	8	WASHER-HARD (7.2X14.5X2-MM THK)						
	11	1	6D-3479	3	CLIP						
	12	1	6K-1972	1	ELBOW						
CI	13	1	6N-8659	1	HOSE AS						
	14	1	6V-4589	1	SEAL-O-RING						
	15	1	7E-0871	1	BRACKET AS						
C	16	1	7K-9197	2	ELBOW						
C	17	1	8T-6765	1	PLUG-PIPE						
I	18	1	9G-4523	1	HOSE AS						
I	19	1	9G-4524	1	HOSE AS						
	20	1	9S-8750	4	NUT-FULL (1/4-20-THD)						
C	21	1	9X-7206	1	VALVE-SOLENOID						
	22	1	001-6449	2	CONNECTOR (FLARED)						
	23	1	003-2143	2	ELBOW						
	24	1	030-7946	2	ELBOW						
C	25	1	166-7656	1	CONNECTOR-SOCKET						
C	26	1	166-7657	1	CONNECTOR-PLUG						
C	27	1	166-7658	1	GASKET						
C	28	1	150-1240	1	SWITCH AS-PRESSURE (PRELUBE PRESS)						
		1	102-8802	1	KIT-RECEPTACLE (2-PIN) (INCLUDES RECEPTACLE AS & WEDGE)						
		1	3E-3365	1	WEDGE-RECEPTACLE LOCK (2-PIN)						
		1	8T-8729	2	PIN-CONNECTOR						

C-CHANGE FROM PREVIOUS TYPE  
I-REFER TO HYDRAULIC INFORMATION SYSTEM

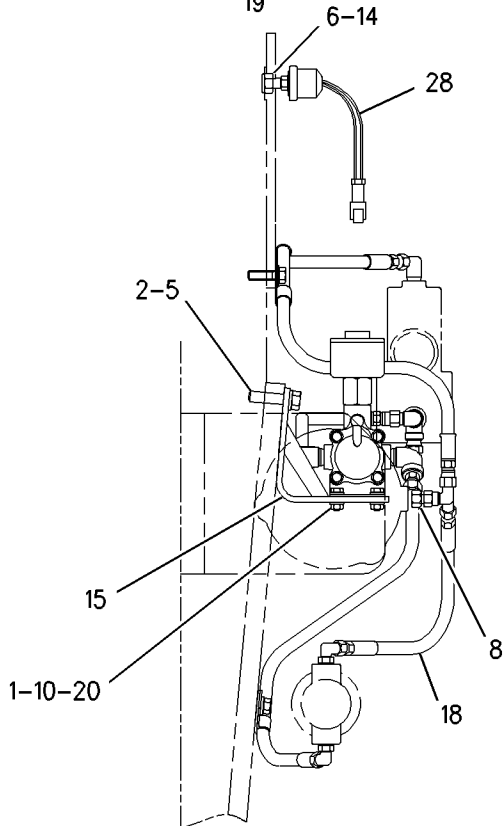
# AIR INLET AND EXHAUST SYSTEM

7C-8780 LINES GP-AIR (contd.)

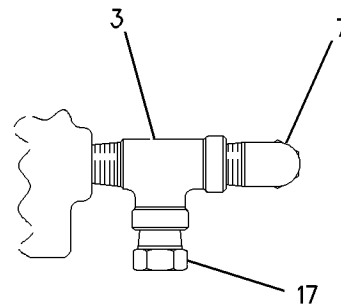
i01818687



RIGHT SIDE VIEW



REAR VIEW



SECTION A-A

GRAPHIC #1

<END>

g00873026

# AIR INLET AND EXHAUST SYSTEM

## 199-3759 LINES GP-AIR-SHUT-OFF (CHG -00, -01, -01D1, -01D2, -01D3)

SMCS-1071

i01986410

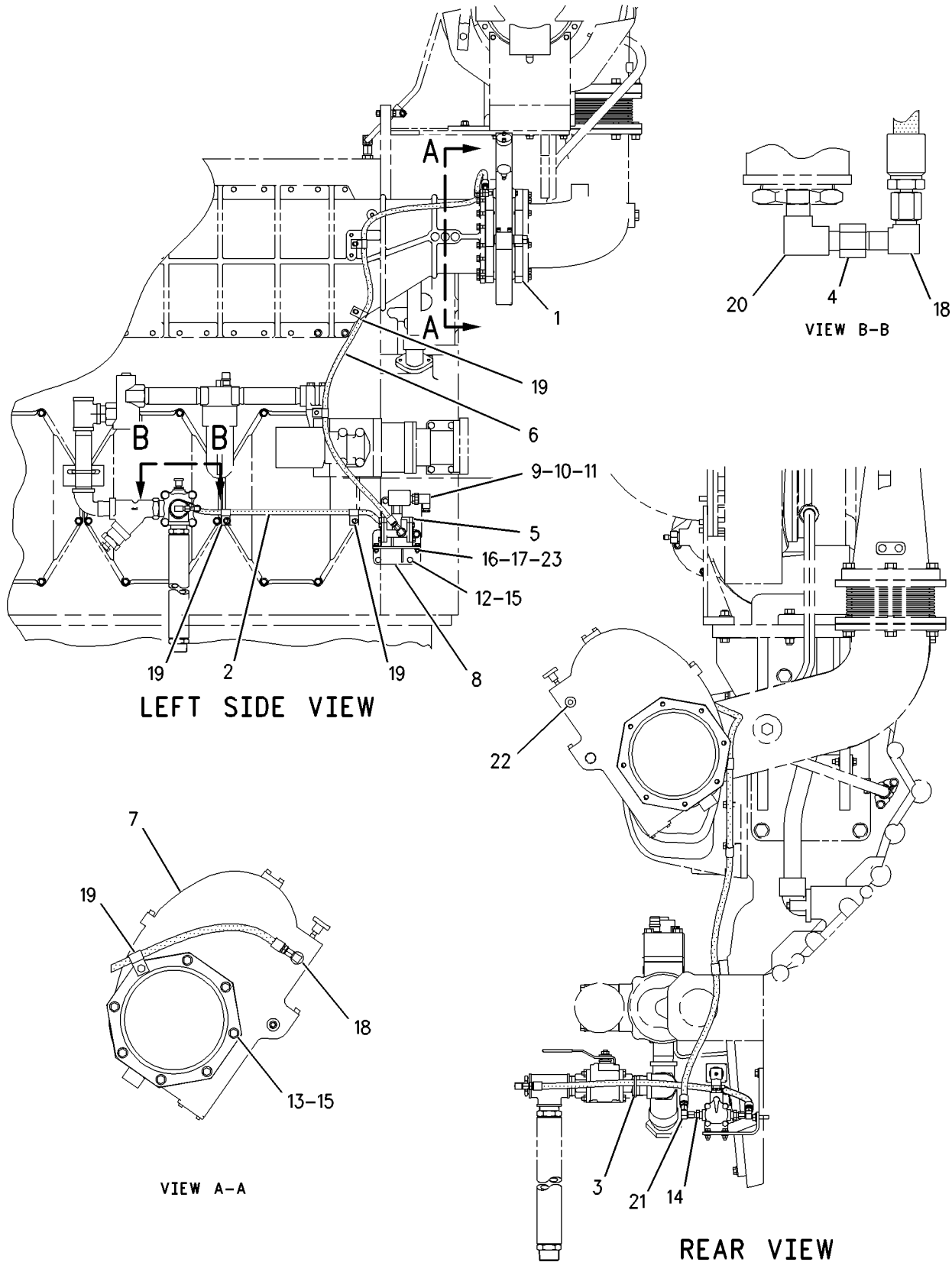
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>4W-7394</b>	2	GASKET						
I	2	1	<b>5N-5646</b>	1	HOSE AS						
	3	1	<b>6K-0806</b>	1	STRAP-CABLE						
	4	1	<b>6K-6967</b>	1	ADAPTER-PIPE						
	5	1	<b>9X-7206</b>	1	VALVE-SOLENOID						
I	6	1	<b>122-0290</b>	1	HOSE AS						
Y	7	1	<b>150-7891</b>	1	SHUTOFF GP-AIR						113
	8	1	<b>160-1066</b>	1	BRACKET AS						
	9	1	<b>166-7656</b>	1	CONNECTOR-SOCKET						
	10	1	<b>166-7657</b>	1	CONNECTOR-PLUG						
	11	1	<b>166-7658</b>	1	GASKET						
	12	1	<b>0S-1588</b>	2	BOLT (3/8-16X1.25 IN)						
	13	1	<b>0S-1591</b>	8	BOLT (3/8-16X1.5 IN)						
	14	1	<b>3E-7402</b>	2	CONNECTOR						
	15	1	<b>3V-3308</b>	10	WASHER-HARD (10.2X20.5X2.5MM THK)						
	16	1	<b>4F-7957</b>	4	BOLT (1/4-20X0.875 IN)						
	17	1	<b>5P-0537</b>	8	WASHER-HARD (7.2X14.5X2MM THK)						
	18	1	<b>5P-4479</b>	2	ELBOW (FLARED-LONG)						
	19	1	<b>6D-3479</b>	6	CLIP						
	20	1	<b>6V-4245</b>	1	ELBOW						
	21	1	<b>7K-9197</b>	2	ELBOW (SWIVEL)						
	22	1	<b>8T-6764</b>	1	PLUG-PIPE						
	23	1	<b>9S-8750</b>	4	NUT-FULL (1/4-20 THD)						

I-REFER TO HYDRAULIC INFORMATION SYSTEM  
Y-SEPARATE ILLUSTRATION

# AIR INLET AND EXHAUST SYSTEM

199-3759 LINES GP-AIR (contd.)

i01986410



GRAPHIC #1

<END>

g00759850

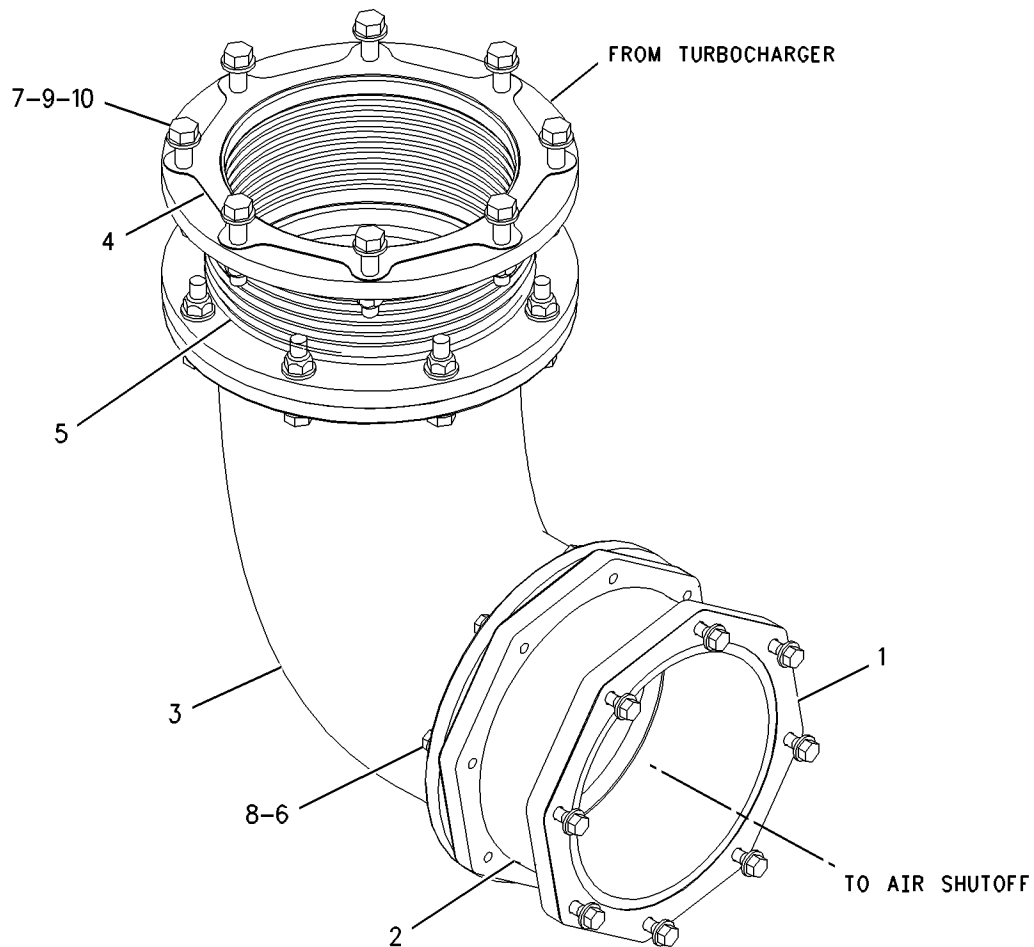
# AIR INLET AND EXHAUST SYSTEM

**199-3831 LINES GP-AIR (CHG -00, -01, -01D1, -02)**

SMCS-1071

i02251045

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>4W-7394</b>	2	GASKET						
	2	1	<b>4W-7395</b>	1	ADAPTER						
	3	1	<b>149-1401</b>	1	ELBOW						
	4	1	<b>204-7562</b>	2	GASKET						
	5	1	<b>222-4711</b>	1	BELLOWS AS						
	6	1	<b>0S-1591</b>	16	BOLT (3/8-16X1.5-IN)						
	7	1	<b>1K-6872</b>	16	LOCKNUT (1/2-13-THD)						
	8	1	<b>3V-3308</b>	16	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	9	1	<b>3H-7654</b>	32	WASHER-HARD (13.5X22.5X3-MM THK)						
	10	1	<b>9S-1366</b>	16	BOLT (1/2-13X2.5-IN)						



GRAPHIC #1

<END>

g00942427

# AIR INLET AND EXHAUST SYSTEM

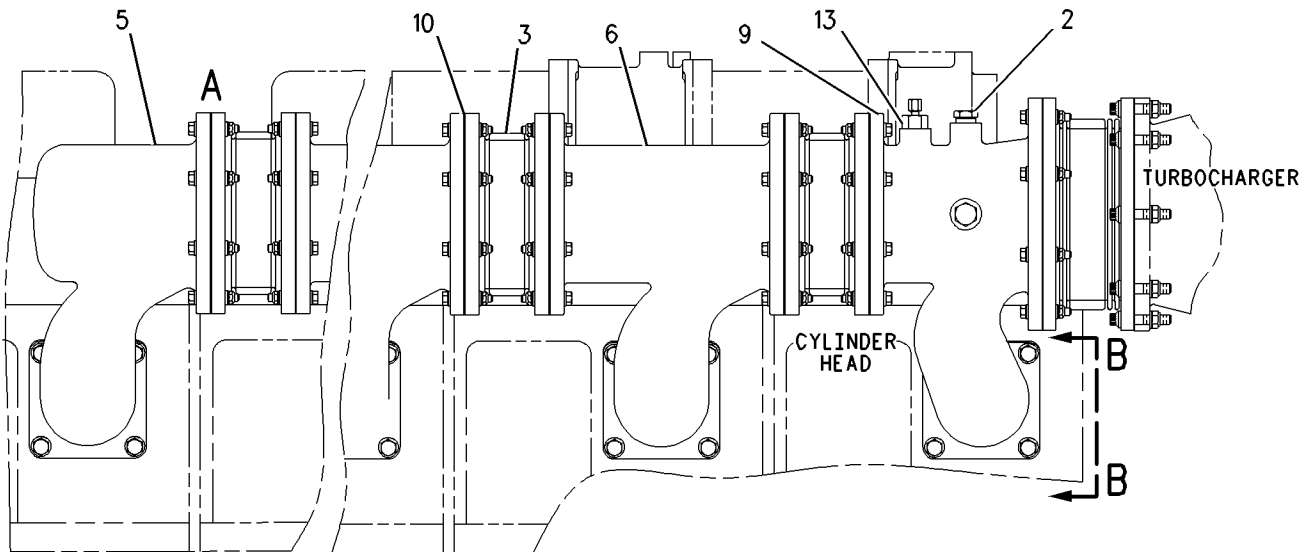
## 126-3577 MANIFOLD GP-EXHAUST (CHG -00 THRU -09) 1200 DEGREE F EXHAUST TEMP MAX

SMCS-1059

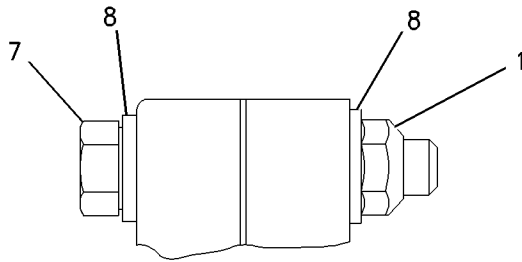
i02017399

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2N-2766	112	LOCKNUT (3/8-16-THD)						
	2	1	3M-7045	2	PLUG						
	3	1	218-7106	7	BELLOWS AS						
M	4	1	5P-8245	32	WASHER-HARD (13.5X25.5X3-MM THK)						
	5	1	171-6202	1	MANIFOLD-EXHAUST						
	6	1	171-6203	6	MANIFOLD-EXHAUST						
	7	1	7L-6443	112	BOLT-HIGH TEMPERATURE (3/8-16X2.25-IN)						
	8	1	8C-8491	224	WASHER-HARD (10.2X22X3-MM THK)						
	9	1	171-6204	1	MANIFOLD (EXHAUST)						
	10	1	134-5643	14	GASKET						
	11	1	136-4185	32	BOLT (1/2-13X1.75-IN)						
	12	1	136-7730	8	GASKET (CYLINDER HEAD)						
	13	1	149-1976	9	THERMOWELL						

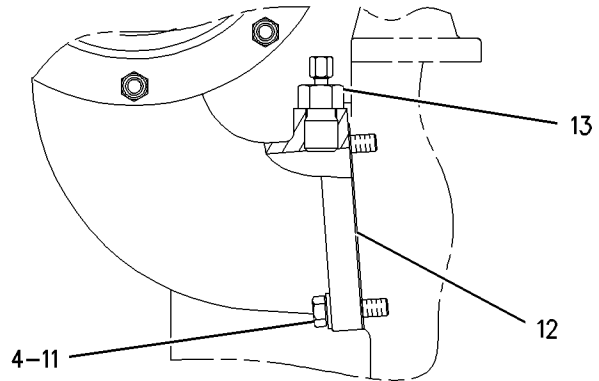
M-METRIC PART



LEFT SIDE VIEW



VIEW OF AREA A



VIEW B-B

GRAPHIC #1

<END>

g00658138

# AIR INLET AND EXHAUST SYSTEM

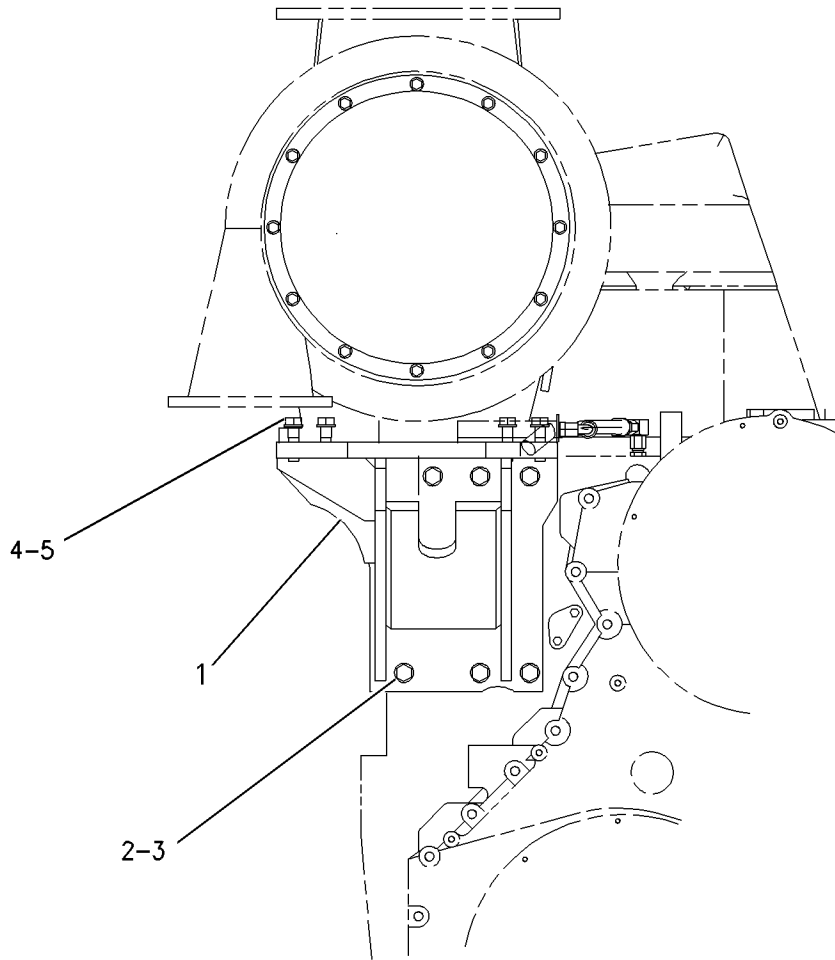
## 151-1125 MOUNTING GP-TURBOCHARGER (CHG -00)

SMCS-1052

i01556946

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	151-1401	1	SUPPORT AS						
	2	1	1A-8063	6	BOLT (3/4-10X2.5 IN)						
	3	1	5P-8248	6	WASHER-HARD (20X36.5X3.5MM THK)						
M	4	1	6V-5845	6	BOLT (M20X2.5X70MM)						
	5	1	8T-3282	6	WASHER-HARD (22X35X3.5MM THK)						

M-METRIC PART



GRAPHIC #1

<END>

g00665725



# AIR INLET AND EXHAUST SYSTEM

**186-0363 SHIELD GP-EXHAUST** (CHG -00 THRU -02)  
FOR USE WITH NA297 TURBOCHARGER

SMCS-1067

i02253094

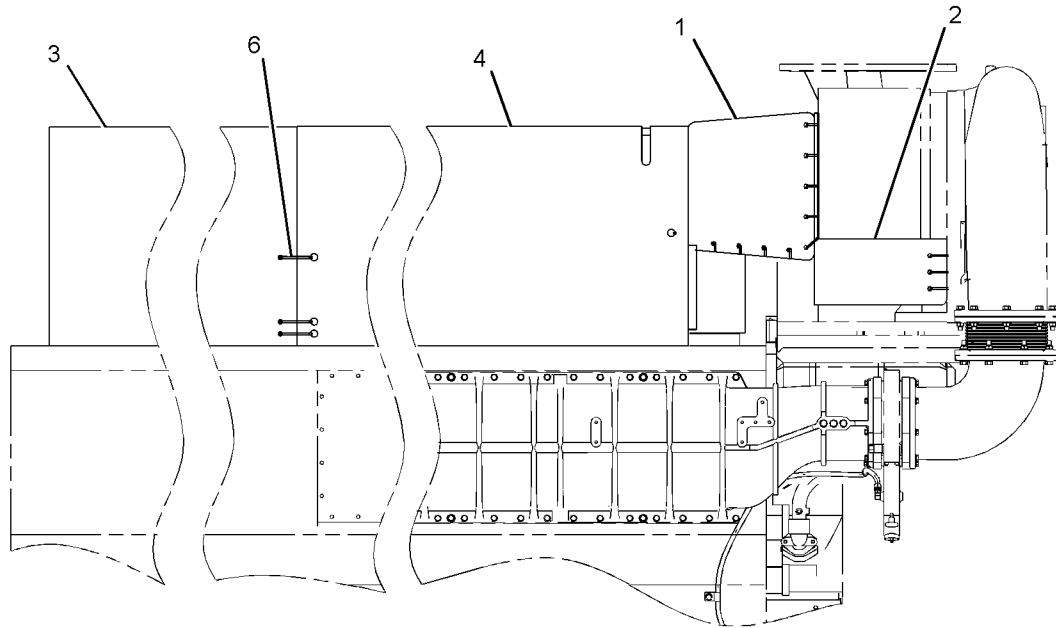
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>173-1373</b>	1	SHIELD AS-EXHAUST (LEFT TURBO BASE)						
	2	1	<b>188-9919</b>	1	SHIELD AS-EXHAUST (LEFT TURBO BASE)						
	3	1	<b>257-7703</b>	1	SHIELD AS-EXHAUST (FRONT CAP)						
	4	1	<b>263-9521</b>	1	SHIELD AS-EXHAUST						
BD	5	1	<b>138-3331</b>		WIRE-TIE (30-M)						

B-USE AS REQUIRED  
D-ORDER BY THE METER

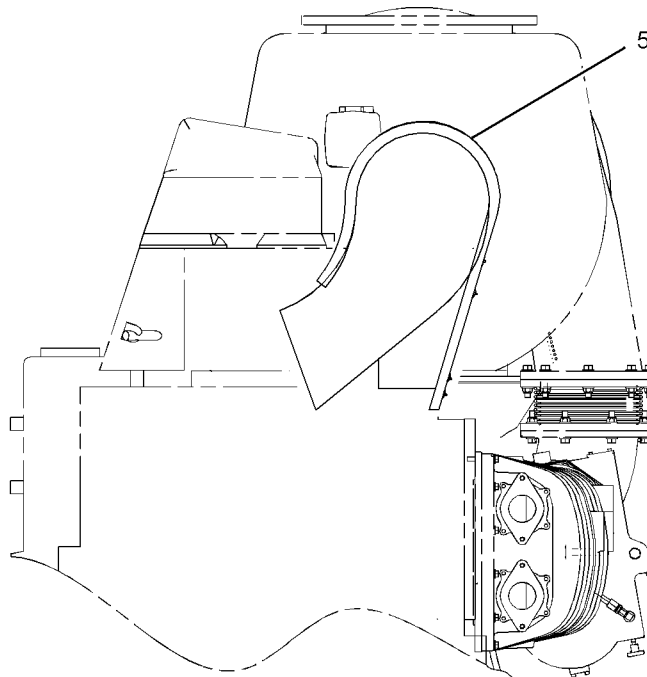
# AIR INLET AND EXHAUST SYSTEM

186-0363 SHIELD GP-EXHAUST (contd.)

i02253094



LEFT SIDE VIEW



FRONT VIEW

GRAPHIC #1

<END>

g01136615

# AIR INLET AND EXHAUST SYSTEM

## 204-9889 SHIELD GP-EXHAUST (CHG -00, -01) POST-TURBO SOFTWRAP

SMCS-1067

i02150444

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	205-4152	1	SHIELD AS-EXHAUST (BELOW TURBO FLANGE)						
	205-4153	1	SHIELD AS-EXHAUST (ADAPTER BLANKET)						
	205-4154	1	SHIELD AS-EXHAUST (BELLOWS BLANKET)						
BD	138-3331		WIRE-TIE						
B-USE AS REQUIRED D-ORDER BY THE METER									
<b>&lt;END&gt;</b>									

# AIR INLET AND EXHAUST SYSTEM

## 150-7891 SHUTOFF GP-AIR (CHG -00)

8 INCH

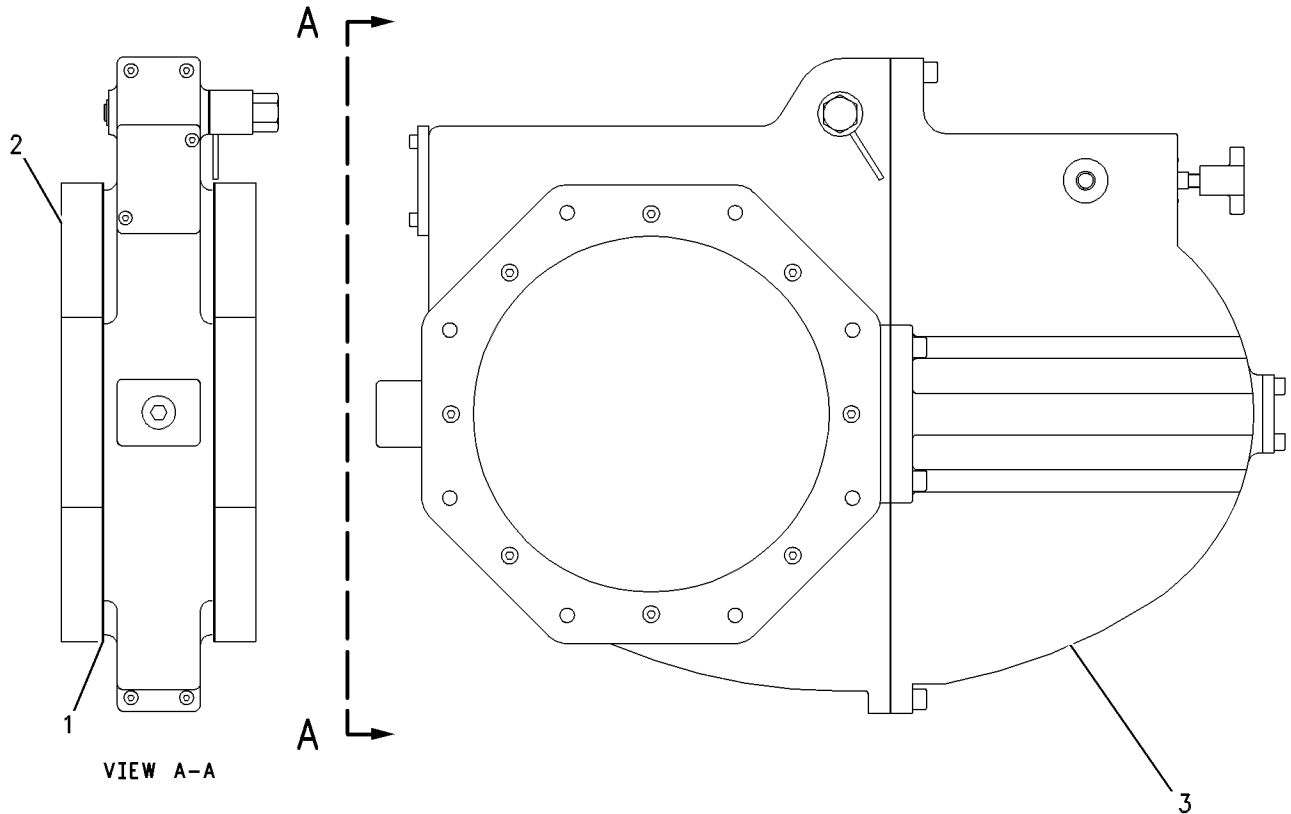
PART OF 199-3759 LINES GP-AIR

SMCS-1078

i00649756

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	150-7892	2	GASKET						
	2	1	150-7895	2	ADAPTER-FLANGE						
Y	3	1	150-7931	1	SHUTOFF GP-AIR						114

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00290062

# AIR INLET AND EXHAUST SYSTEM

## 150-7931 SHUTOFF GP-AIR (CHG -00, -01)

8 INCH

PART OF 150-7891 SHUTOFF GP-AIR

SMCS-1078

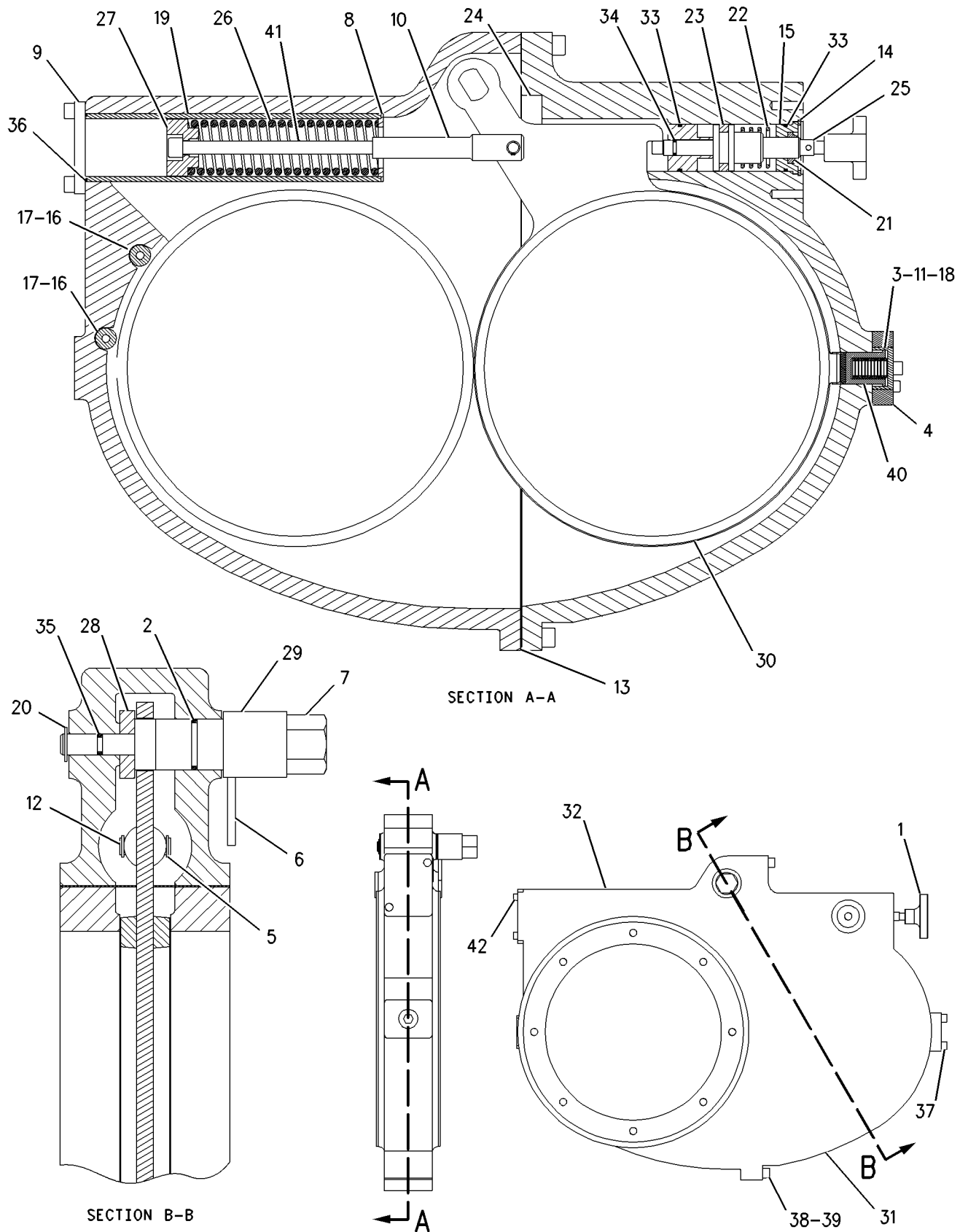
i01923816

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	195-0988	1	KNOB						
	2	1	148-8136	1	SEAL-O-RING						
	3	1	150-7897	1	SCREW (ALIGNMENT)						
	4	1	150-7898	1	CAP-SUPPORT						
	5	1	150-7899	2	RING-RETAINING						
	6	1	150-7900	1	INDICATOR (POSITION PIN)						
	7	1	150-7901	1	DRIVE-HEX						
	8	1	150-7902	1	PLATE-STOP						
	9	1	150-7903	1	CAP						
	10	1	150-7904	1	CLEVIS						
	11	1	150-7905	1	SPRING-SUPPORT						
	12	1	150-7906	1	PIN						
	13	1	150-7907	1	GASKET						
	14	1	150-7909	1	RING-RETAINING						
	15	1	150-7910	1	PLATE-END						
	16	1	150-7911	2	SETSCREW						
	17	1	150-7912	2	BUMPER						
	18	1	150-7913	1	SUPPORT-GATE						
	19	1	150-7914	1	SLEEVE						
	20	1	150-7915	1	RING-RETAINING						
	21	1	150-7916	1	WIPER						
	22	1	150-7917	1	SPRING-SPINDLE						
	23	1	150-7918	1	CUP-U						
	24	1	150-7919	1	GUIDE						
	25	1	150-7920	1	SPINDLE-PISTON						
	26	1	150-7921	1	SPRING (COMPRESSION)						
	27	1	150-7922	1	RETAINER-SPRING						
	28	1	150-7923	1	SPACER						
	29	1	150-7924	1	SHAFT-OPERATING						
	30	1	150-7926	1	PADDLE AS						
	31	1	150-7927	1	COVER						
	32	1	150-7930	1	BODY						
	33	1	150-8700	2	SEAL-O-RING						
	34	1	150-8701	1	SEAL-O-RING						
	35	1	150-8698	1	SEAL-O-RING						
	36	1	150-8699	1	SEAL-O-RING						
	37	1	8H-0707	2	BOLT (1/4-20X1 IN)						
	38	1	5J-5314	8	BOLT (5/16-18X1.5 IN)						
	39	1	9M-1974	8	WASHER-HARD (8.8X16X2MM THK)						
	40	1	180-3953	1	BUSHING						
	41	1	180-3954	1	BOLT						
	42	1	8H-3127	2	BOLT (1/4-20X3/4 IN)						

# AIR INLET AND EXHAUST SYSTEM

150-7931 SHUTOFF GP-AIR (contd.)

i01923816



GRAPHIC #1

<END>

g00762828

# AIR INLET AND EXHAUST SYSTEM

## 167-1255 SILENCER & AIR CLEANER GP (CHG -00, -01)

SMCS-1051, 1087

i01691320

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	3E-4988	12	LOCKWASHER						
M	8T-4244	12	NUT (M12X1.75 THD)						
	164-5337	1	SILENCER & AIR CLEANER GP						
	5P-8245	12	WASHER-HARD (13.5X25.5X3MM THK)						

M-METRIC PART

<END>

# AIR INLET AND EXHAUST SYSTEM

## 258-2287 TURBOCHARGER GP (CHG -00)

SMCS-1052, 1053

i02163456

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	2	1	194-8705	1	CARTRIDGE GP-TURBOCHARGER						96
Y	3	1	164-5015	1	HOUSING GP-TURBINE						102
	4	1	164-5021	1	SEAL						
	5	1	194-8707	1	NOZZLE						
	6	1	164-5023	1	RING-NOZZLE CLAMP						
	7	1	200-8039	6	BOLT-SOCKET HEAD (M10X1.5X25-MM)						
	8	1	163-5495	14	WASHER-DISC LOCK (10.38X17.9X3.4-MM THK)						
Y	9	1	164-5328	1	HOUSING GP-INLET (EXHAUST-GAS)						101
	10	1	163-5488	12	STUD (M12X1.75X77-MM OAL)						
	11	1	164-5034	12	SPACER (13.64X21.1X25-MM THK)						
	12	1	200-8035	19	NUT (M12X1.75-MM THD)						
	13	1	164-5331	1	SHROUD						
	14	1	200-8040	6	BOLT-SOCKET HEAD (M8X1.25X110-MM)						
	15	1	163-5494	6	WASHER-DISC LOCK (8.28X15.95X3.02-MM THK)						
	16	1	164-5332	1	HOUSING (COMPRESSOR)						
	17	1	163-5489	12	STUD (M12X1.75X132-MM)						
	18	1	3E-4988	12	LOCKWASHER						
M	19	1	8T-4244	12	NUT (M12X1.75-THD)						
M	20	1	8T-8442	1	BOLT-SOCKET HEAD (M6X1X30-MM)						
	21	1	164-5035	1	RING						
B	22	1	164-5036	1	SHIM (2.5-MM THK)						
	23	1	164-5334	1	INSERT						
M	24	1	8T-0271	8	BOLT-SOCKET HEAD (M10X1.5X35-MM)						
	25	1	164-5039	1	SEAL-O-RING						
	26	1	164-5335	1	DIFFUSER						
	27	1	200-8029	1	SENSOR GP-SPEED						
	28	1	164-5070	2	PLUG						
Y	29	1	258-7579	1	LINES GP-TURBOCHARGER OIL						66
	30	1	164-5042	1	INSULATION						
	32	1	200-8037	12	STUD (M12X1.75X53-MM OAL)						
	33	1	200-8036	7	STUD (M12X1.75X70.5-MM OAL)						

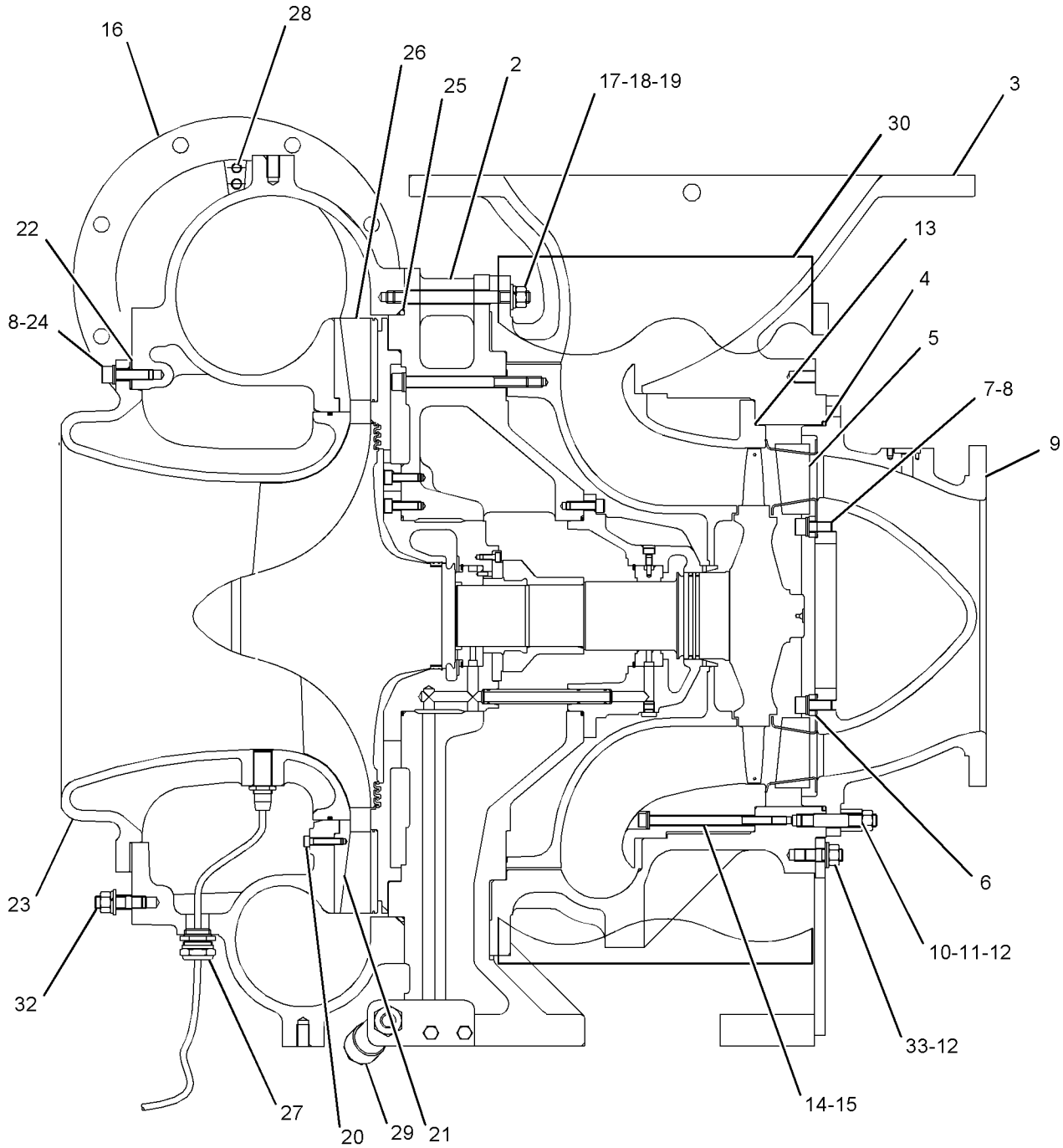
B-USE AS REQUIRED  
M-METRIC PART  
Y-SEPARATE ILLUSTRATION



# AIR INLET AND EXHAUST SYSTEM

258-2287 TURBOCHARGER GP (contd.)

i02163456



GRAPHIC #1

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g01097547

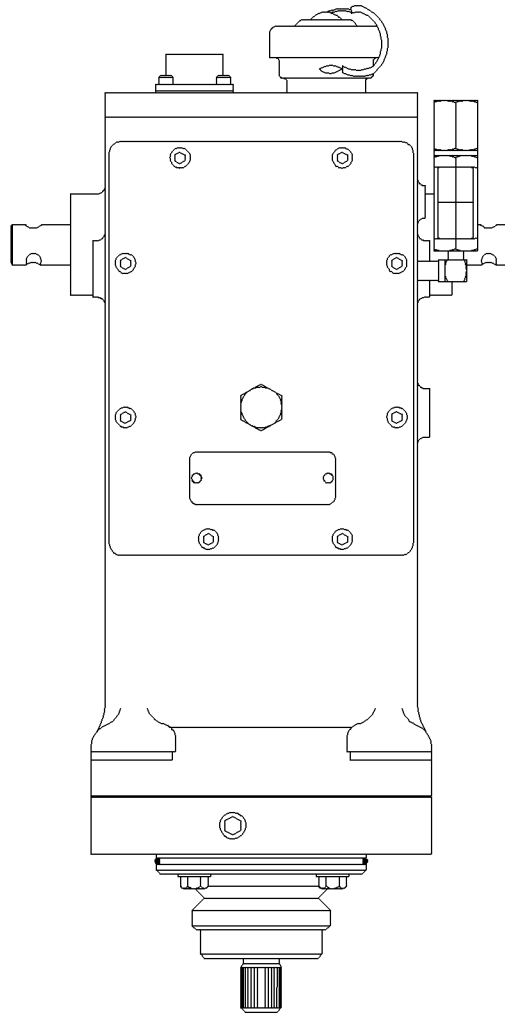
# FUEL SYSTEM

## 138-4139 ACTUATOR AS-GOVERNOR\*R (CHG -00, -01) WOODWARD UG ACTUATOR

SMCS-1716

i01552860

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)						



GRAPHIC #1

<END>

g00807918

# FUEL SYSTEM

## 4P-7029 CONTROL GP-FUEL INJECTION

(CHG -00 THRU -05, 1W-8490-05)

SMCS-1265, 1298

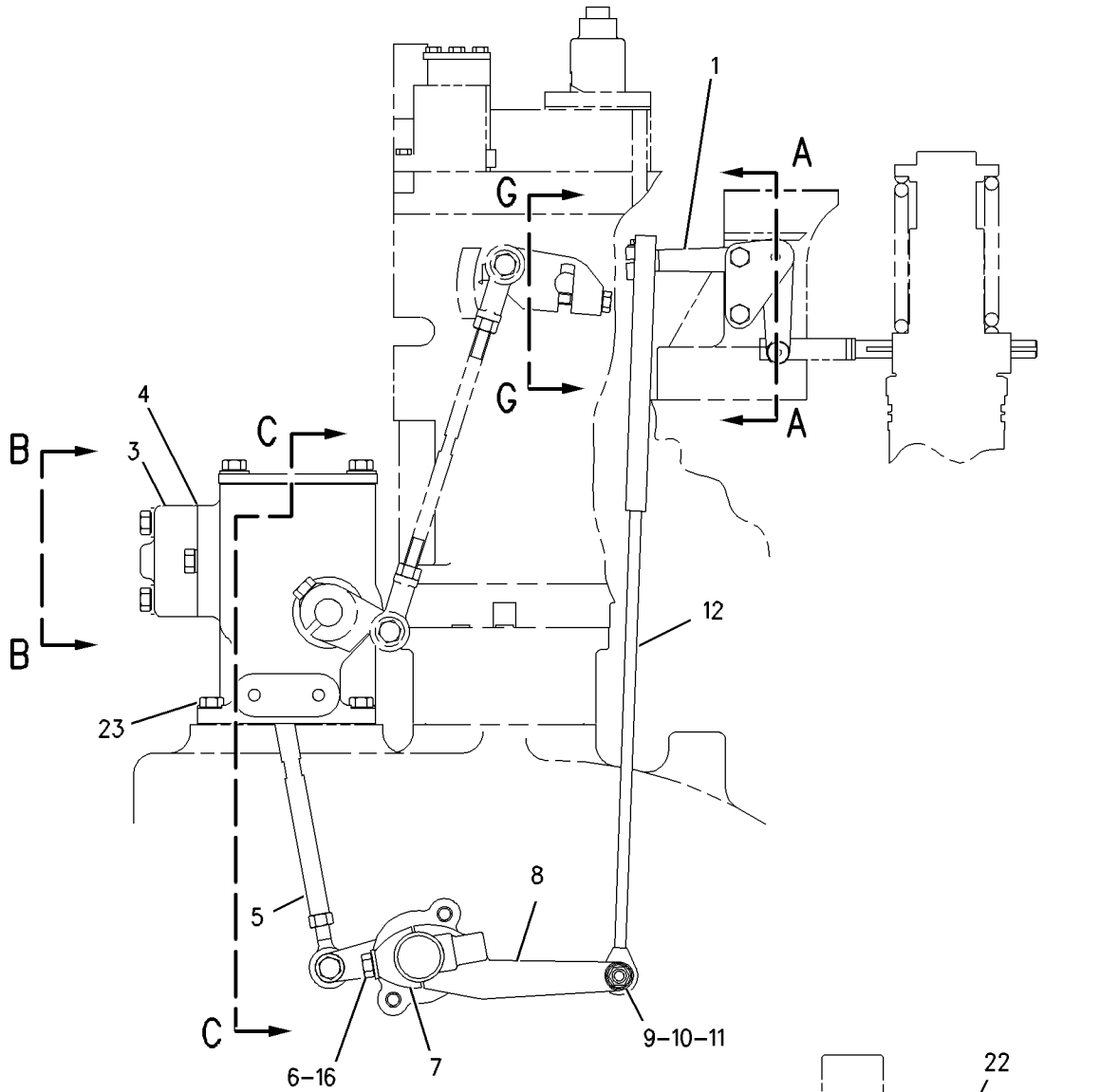
i02236809

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4W-3930	8	LEVER						
	2	1	1B-9575	16	BOLT (5/16-18X1.75-IN)						
	3	1	4W-3936	1	COVER						
	4	1	4W-3937	1	GASKET						
	5	1	165-6076	1	ROD AS-CONNECTING						
		1	1S-3584	1	NUT-FULL (3/8-24 LH THD)						
		1	5B-9079	1	NUT-JAM (3/8-24-THD)						
	6	1	0S-1619	8	BOLT (3/8-16X3-IN)						
	7	1	4W-0693	8	CAP						
	8	1	4W-0687	8	LEVER						
	9	1	8S-4719	8	BOLT (5/16-24X3.5-IN)						
	10	1,2	9M-1974	32	WASHER-HARD (8.8X16X2-MM THK)						
	11	1	3D-8752	16	LOCKNUT (5/16-24-THD)						
	12	1	1W-0647	8	ROD AS						
	13	1	2A-5220	2	PLUG-DRAIN						
	14	1	1B-4218	2	WASHER (0.39X0.625X0.064-IN THK)						
	15	1	5D-1068	1	BOLT (3/8-16X1-3/4-IN)						
	16	1,2	3V-3308	23	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	17	1	7N-5368	1	PIN-RACK						
	18	1	4W-4803	1	SETSCREW (3/8-16-THD)						
	19	1,2	9S-8752	3	NUT-FULL (3/8-16-THD)						
	20	1	1W-8408	8	BOLT-PIVOT (5/16-24-THD)						
	22	1	1W-8407	8	SLEEVE						
	23	1,2	0S-1594	8	BOLT (3/8-16X1-IN)						
	24	2	3S-1377	1	COVER						
	25	2	5M-3954	1	GASKET						
	26	2	7W-0633	1	LEVER-CONTROL LINKAGE						
	27	2	9Y-0558	1	SHAFT						
	28	2	4P-7988	1	HOUSING AS						
	28A	2	8B-4132	2	BEARING AS-NEEDLE						
	28B	2	7B-0280	2	SEAL-LIP TYPE						
	29	2	0S-1591	2	BOLT (3/8-16X1.5-IN)						
	30	2	0S-1571	7	BOLT (3/8-16X1.75-IN)						
	31	2	1W-3557	1	GASKET						
	32	2	5P-4965	8	SCREW-MACHINE (10-32X1-IN)						
	33	2	4B-4274	8	WASHER (5.5X13X1.2-MM THK)						
	34	2	9Y-4934	1	SHAFT AS-ROD						
	35	2	1W-1952	1	BRACKET AS						
		2	4W-6204	1	BEARING						
	36	2	9Y-4933	1	SHAFT AS-ROD						
	37	2	4W-3933	1	FLANGE AS						
		2	4W-6204	1	BEARING						
	38	2	2K-4973	1	LOCKNUT (3/8-16-THD)						
	39	2	1W-1076	1	COVER AS						
		2	4W-6204	1	BEARING						
	40	2	1W-1960	1	GASKET						
	41	2	4W-3928	1	LEVER						
	42	2	1B-8705	1	KEY-WOODRUFF						
	43	2	7E-4392	1	COLLAR						
	44	2	0S-1588	2	BOLT (3/8-16X1.25-IN)						
	45	1	185-8882	8	BOLT (5/16X18X35.9-MM)						

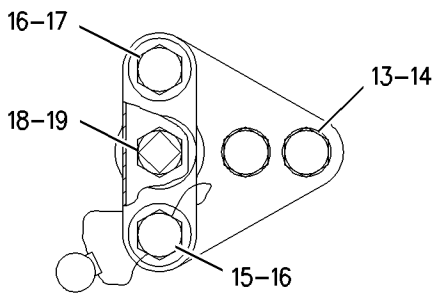
# FUEL SYSTEM

4P-7029 CONTROL GP-FUEL INJECTION (contd.)

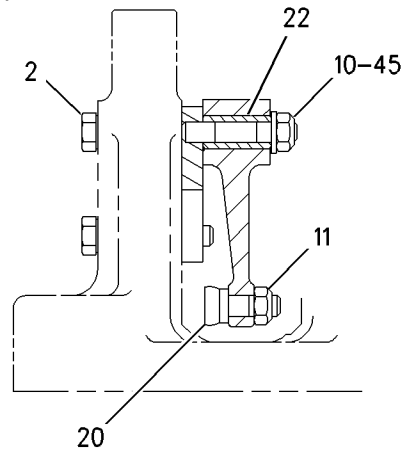
i02236809



FRONT VIEW



VIEW B-B



SECTION A-A

REFER TO ALL ILLUSTRATIONS OF THIS GROUP FOR AUXILIARY VIEWS

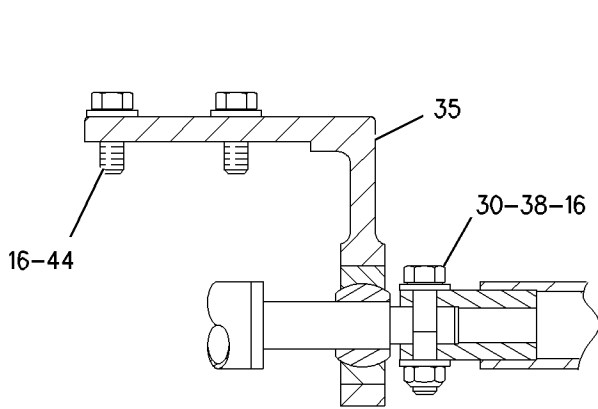
GRAPHIC #1

g00710557

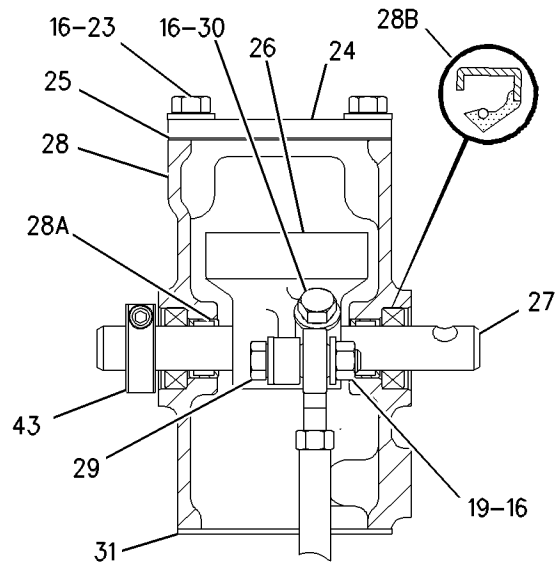
# FUEL SYSTEM

4P-7029 CONTROL GP-FUEL INJECTION (contd.)

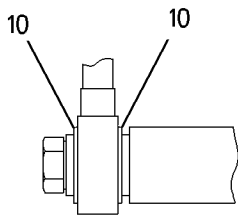
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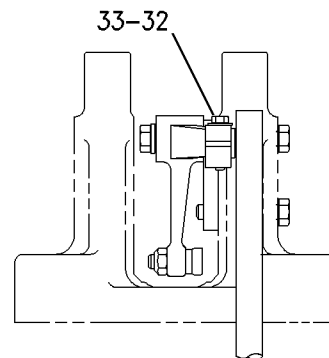
SECTION D-D



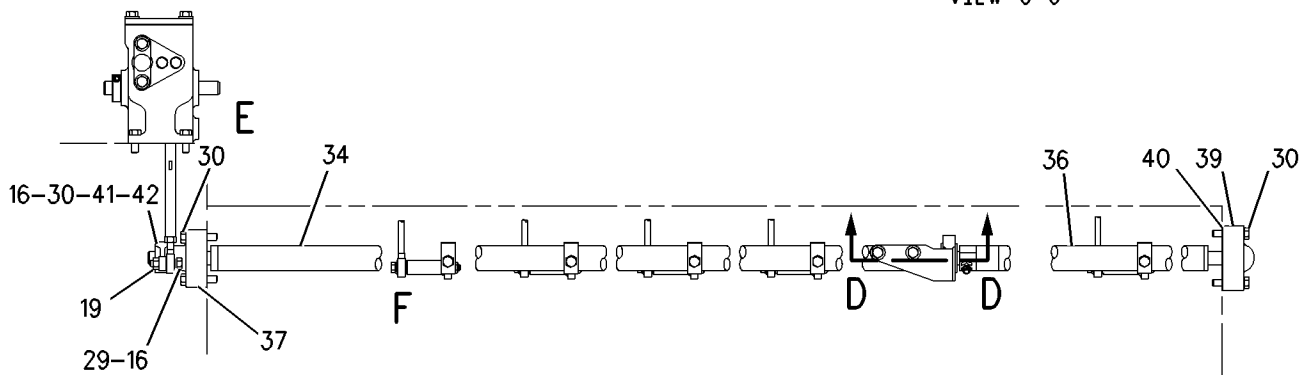
VIEW OF AREA E



VIEW OF AREA F



VIEW G-G



SECTION C-C

# FUEL SYSTEM

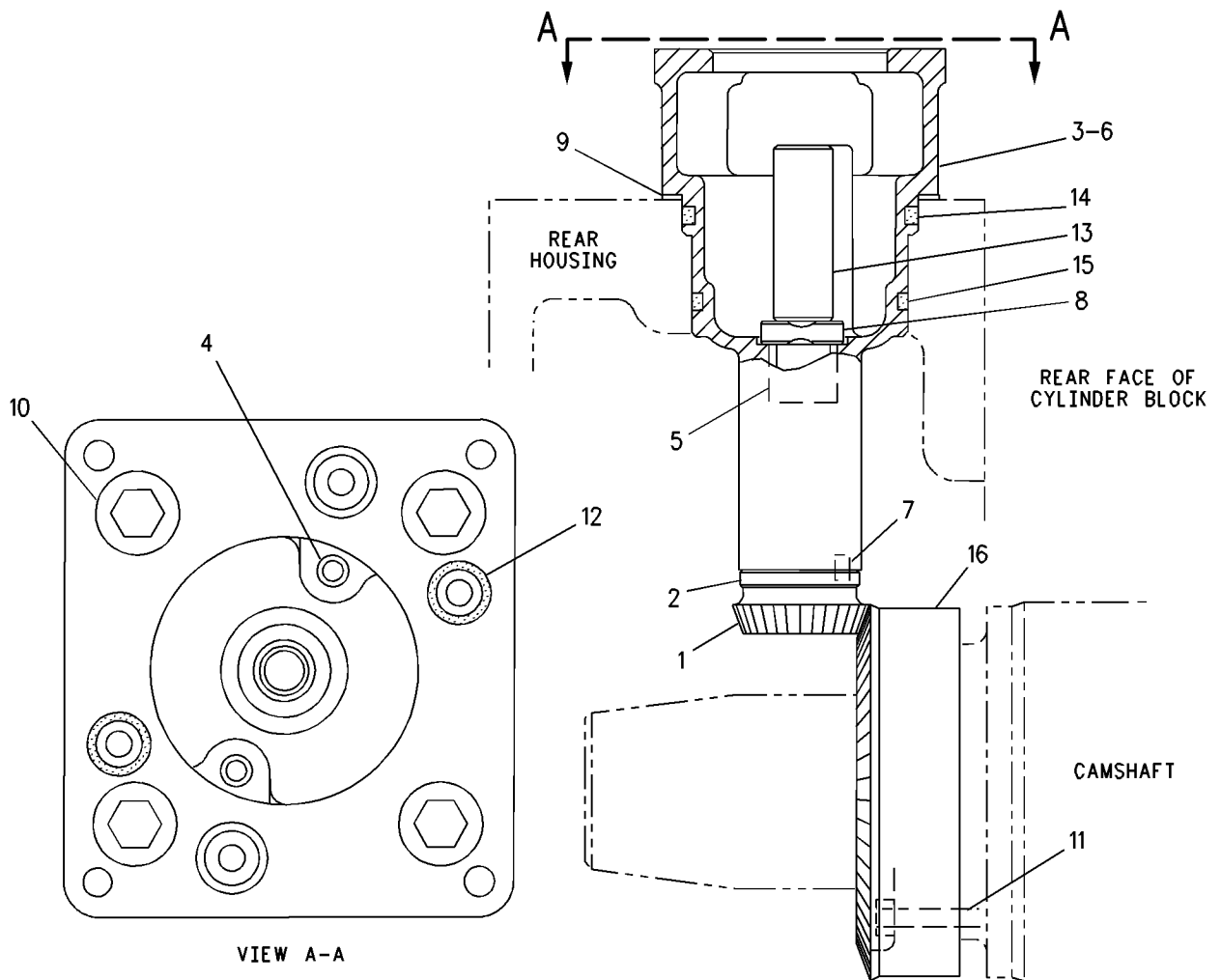
## 2W-1242 DRIVE GP-GOVERNOR (CHG -04)

SMCS-1288

i02019222

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9Y-1027	1	PINION-GOVERNOR DRIVE						
	2	1	1W-0608	1	WASHER-THRUST						
	3	1	1W-0603	1	HOUSING AS-DRIVE						
	4	1	6V-3537	2	DOWEL						
	5	1	1W-0604	2	BEARING-SLEEVE						
	6	1	1W-0605	2	PIN-HOUSING SIDE						
	7	1	7N-2043	2	DOWEL						
	8	1	1W-0609	1	WASHER-RETAINING						
	9	1	1W-0611	1	SHIM (PACK)						
	10	1	0T-0573	4	BOLT (3/8-16X2.75-IN)						
	11	1	0S-1571	6	BOLT (3/8-16X1.75-IN)						
	12	1	3P-0647	4	SEAL-O-RING						
	13	1	1W-0612	1	COUPLING-GOVERNOR DRIVE						
	14	1	5S-9134	1	SEAL-O-RING						
	15	1	6V-0973	1	SEAL-O-RING						
C	16	1	9Y-1026	1	GEAR-BEVEL (68 TEETH)						

C-CHANGE FROM PREVIOUS TYPE



GRAPHIC #1

<END>

g00746804

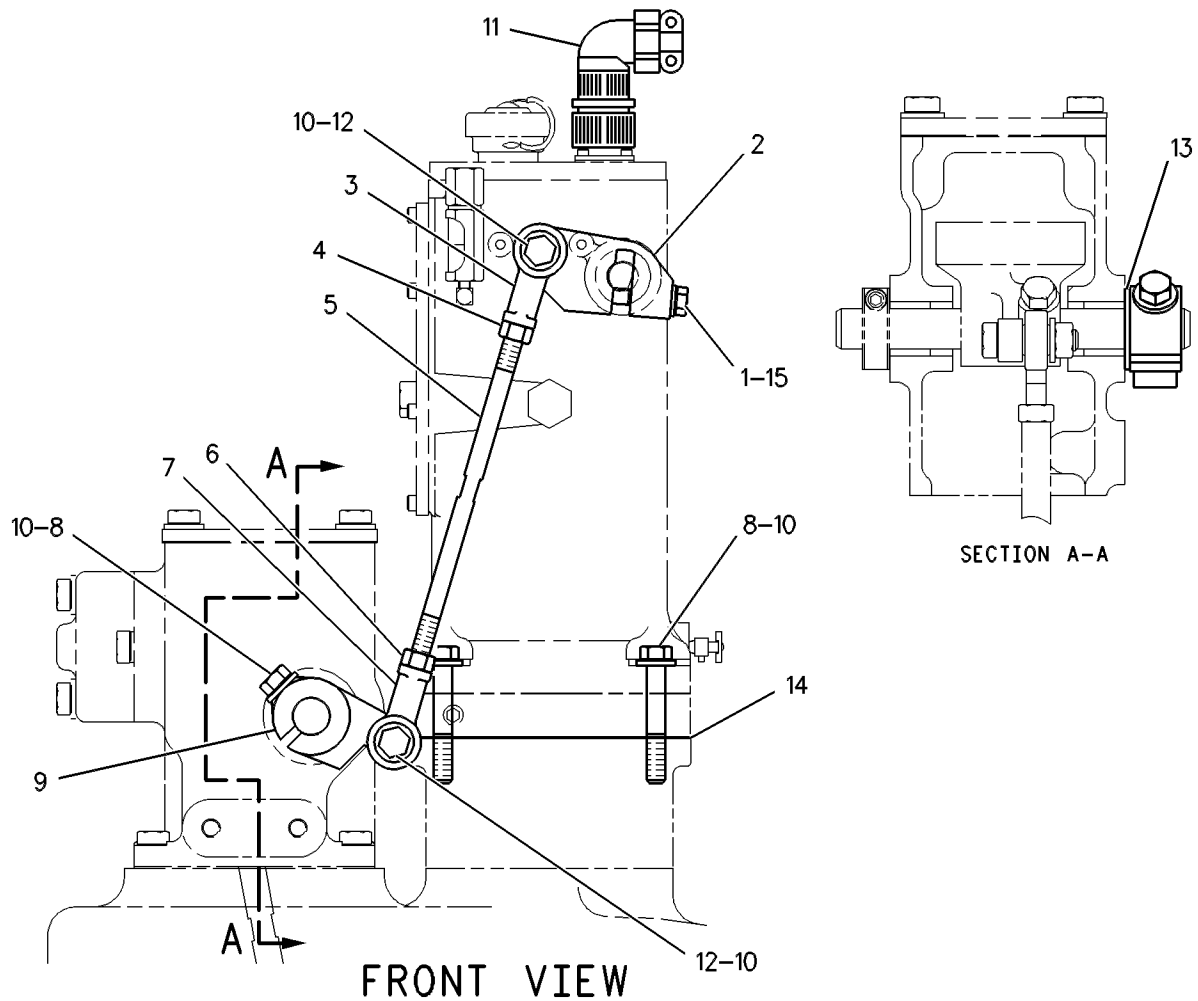
# FUEL SYSTEM

## 112-5051 FASTENER GP-FUEL INJ PUMP (CHG -00 THRU -03)

SMCS-1251

i01986414

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1B-9575	1	BOLT (5/16-18X1.75 IN)						
	2	1	2W-0028	1	LEVER						
	3	1	7X-7875	1	ROD END						
	4	1	3S-2713	1	NUT-FULL (3/8-24 THD)						
	5	1	9Y-8490	1	ROD						
	6	1	1S-3584	1	NUT-FULL (3/8-24 LH THD)						
	7	1	7X-7874	1	ROD END						
	8	1	0S-1590	5	BOLT (3/8-16X2 IN)						
	9	1	1W-7907	1	LEVER						
	10	1	3V-3308	7	WASHER-HARD (10.2X20.5X2.5MM THK)						
	11	1	116-4592	1	PLUG AS-CONNECTOR						
	12	1	0S-1588	2	BOLT (3/8-16X1.25 IN)						
	13	1	9C-7035	1	WASHER (19.8X38.0X1.5MM THK)						
	14	1	4W-3938	1	GASKET						
	15	1	9M-1974	1	WASHER-HARD (8.8X16X2MM THK)						



GRAPHIC #1

<END>

g00472798

# FUEL SYSTEM

## 7W-1543 FILTER GP-FUEL (CHG -04 THRU -11)

SMCS-1261

i01928585

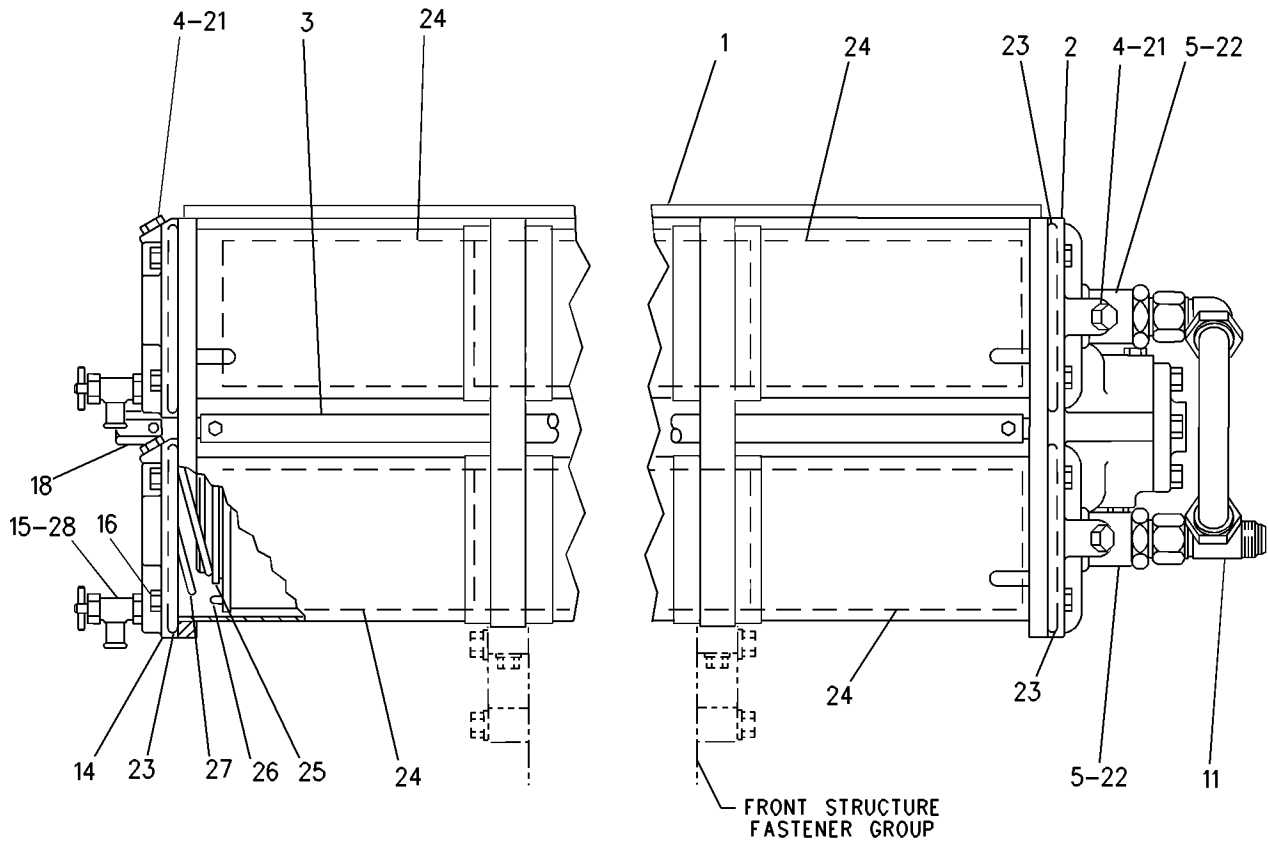
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6I-4940	1	HOUSING AS-FILTER						
	2	1	7W-1547	1	HOUSING-END						
	3	1	7C-1127	1	TUBE						
	4	1	9S-4191	4	PLUG						
	5	1	7C-0592	2	VALVE-CHECK						
	6	2	2K-4973	2	LOCKNUT (3/8-16-THD)						
	7	2	0S-1591	2	BOLT (3/8-16X1.5-IN)						
	8	2	031-5744	1	ELBOW						
	9	2	7W-1555	1	TUBE AS						
	10	2	2K-7979	2	BEARING-SLEEVE						
	11	1	5P-2242	1	TEE-SWIVEL						
	14	1	7E-3129	2	COVER						
	15	1	6V-7238	2	VALVE-MANUAL (DRAIN CONTROL)						
	16	1,2	0S-1588	15	BOLT (3/8-16X1.25-IN)						
	18	1	7C-1128	1	SHAFT AS						
	21	1	6V-5049	4	SEAL-O-RING						
	22	1	5P-7701	2	SEAL-O-RING						
	23	1	6V-5055	4	SEAL-O-RING						
	24	1	1R-0766	8	FILTER ELEMENT AS-FUEL						
	25	1	7W-8088	2	RETAINER						
	26	1	4P-9171	2	RACK-FUEL FILTER						
	27	1	2W-6862	2	SPRING						
	28	1	8L-2786	2	SEAL-O-RING						
	29	2	8J-4455	1	BALL						
	30	2	7C-0807	1	SPRING						
	31	2	9S-4182	1	PLUG						
	32	2	6V-5048	2	SEAL-O-RING						
	33	2	7W-1549	1	COVER						
	34	2	5B-9603	2	BOLT (3/8-16X5-IN)						
	35	2	1W-4357	1	PLUG						
	36	2	7C-1126	1	VALVE (CHECK)						
	37	2	8T-2188	1	SEAL-QUAD RING						
	40	2	8C-5230	1	SEAL-O-RING						



# FUEL SYSTEM

7W-1543 FILTER GP-FUEL (contd.)

i01928585

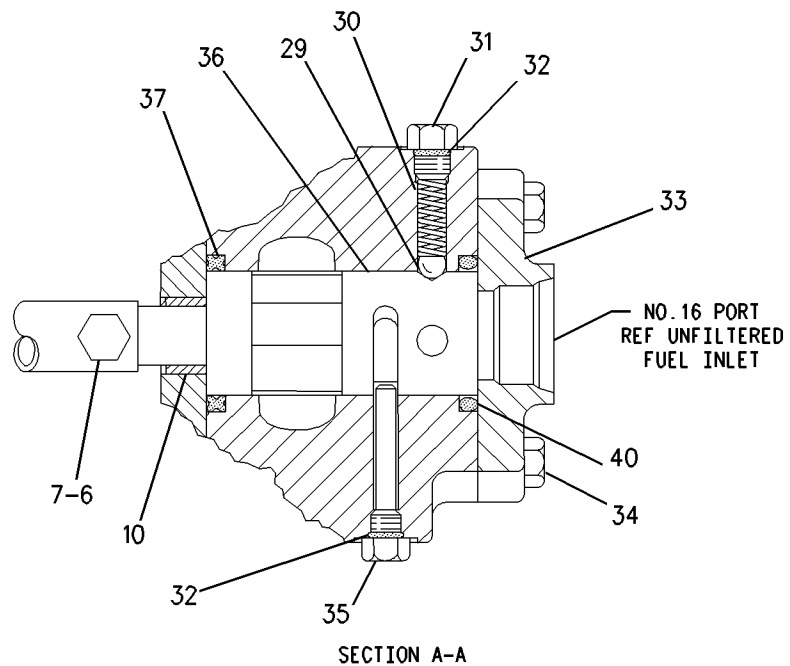
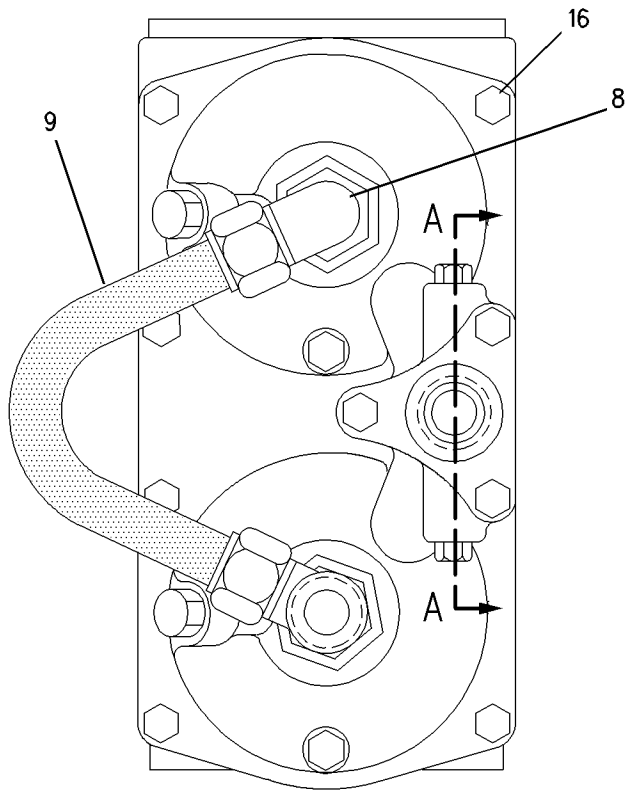


**FRONT VIEW**  
(RH SERVICE)

# FUEL SYSTEM

7W-1543 FILTER GP-FUEL (contd.)

i01928585



GRAPHIC #2

<END>

g00817381

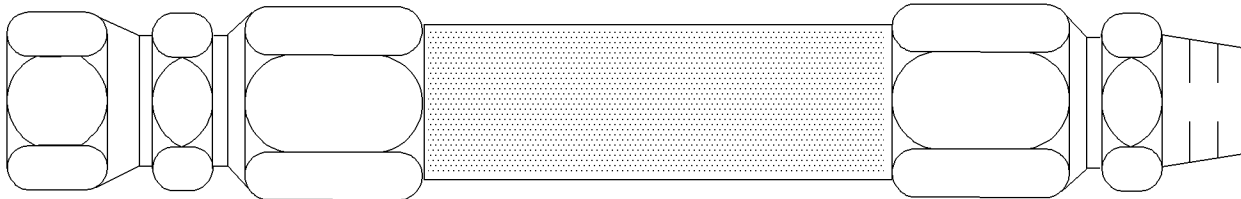
# FUEL SYSTEM

## 7W-1841 HOSE AS-FUEL\*I (CHG -00)

SMCS-1274

i01424362

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)						



GRAPHIC #1

<END>

g00745952

# FUEL SYSTEM

## 2W-5896 LINES GP-FUEL FILTER (CHG -06 THRU -08, -08D1)

SMCS-1261, 1274

i02235931

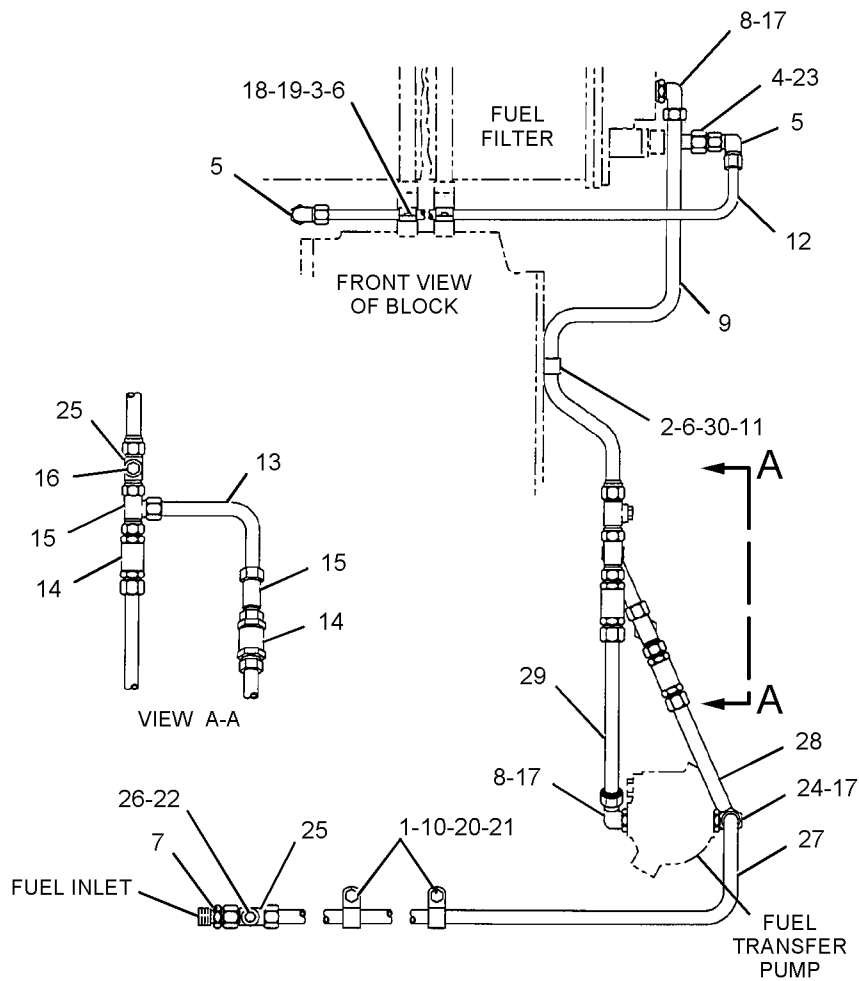
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0S-1621	2	BOLT (1/2-13X1-IN)						
	2	1	0S-1588	1	BOLT (3/8-16X1.25-IN)						
	3	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	4	1	1P-0043	1	NUT-FLARED (1-5/16-12-THD)						
	5	1	3R-9704	2	ELBOW						
	6	1	8M-9024	3	WASHER-HARD (10.2X22.5X5-MM THK)						
	7	1	9S-7754	1	UNION-FLARED						
	8	1	030-7951	2	ELBOW-FLARED						
	9	1	7W-1635	1	TUBE AS						
M	10	1	5P-8245	2	WASHER-HARD (13.5X25.5X3-MM THK)						
	11	1	9X-6376	1	CLIP (TAB)						
	12	1	7C-2552	1	TUBE AS						
	13	1	4W-7671	1	TUBE AS						
	14	1	7C-0592	2	VALVE-CHECK						
	15	1	5P-2242	2	TEE-SWIVEL						
	16	1	5P-3591	1	ADAPTER GP-PROBE						
		1	3J-1907	1	SEAL-O-RING						
		1	9F-2247	1	PLUG-PIPE (1/8-27-THD)						
	17	1	5P-7701	3	SEAL-O-RING						
	18	1	5R-0939	2	CLIP (TAB)						
	19	1	5R-0940	2	CLIP (SLOT)						
	20	1	6K-5535	2	CLIP (SLOT)						
	21	1	6K-5536	2	CLIP (TAB)						
	22	1	6V-5049	1	SEAL-O-RING						
	23	1	067-6684	1	REDUCER-FLARED						
	24	1	067-9921	1	TEE-FLARED						
	25	1	8T-0163	2	TEE-SWIVEL						
	26	1	9S-4191	1	PLUG						
	27	1	7W-0693	1	TUBE AS						
	28	1	7C-2550	1	TUBE AS						
	29	1	7C-2549	1	TUBE AS						
	30	1	9X-6375	1	CLIP (SLOT)						

M-METRIC PART

# FUEL SYSTEM

2W-5896 LINES GP-FUEL FILTER (contd.)

i02235931



GRAPHIC #1

<END>

g01127733

# FUEL SYSTEM

## 1W-0856 LINES GP-FUEL INJECTION

(CHG -06 THRU -09, -09D1, -09D2, -09D3, -10)

SMCS-1252, 1254

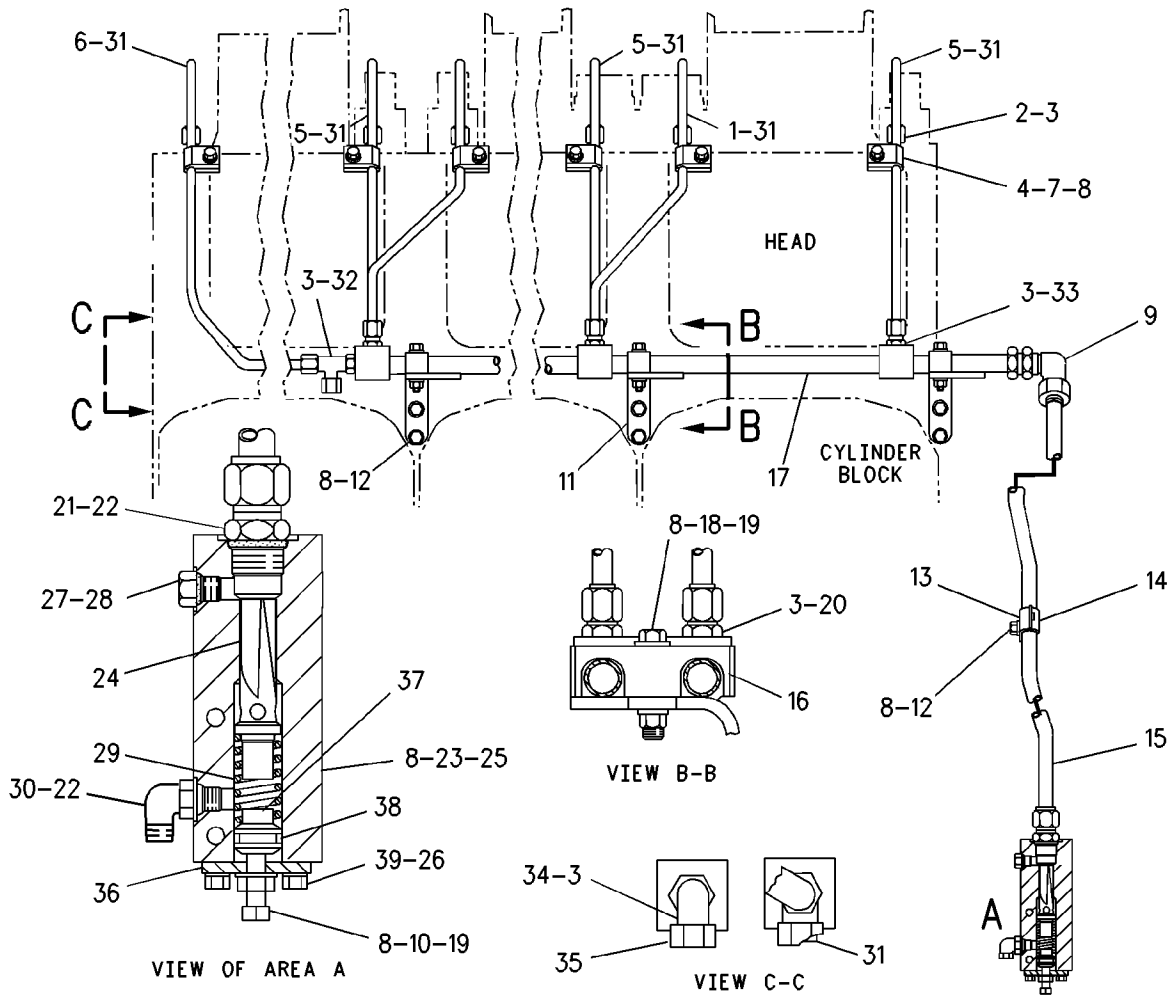
i02248326

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7C-3786	7	TUBE AS						
	2	1	7W-5989	16	CONNECTOR						
	3	1	238-5080	34	SEAL-O-RING						
	4	1	265-9003	32	CLAMP AS						
	5	1	7W-1946	8	TUBE AS						
	6	1	7C-3787	1	TUBE AS						
	7	1	0S-1619	16	BOLT (3/8-16X3-IN)						
	8	1	3V-3308	52	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	9	1	3R-9704	1	ELBOW						
	10	1	4B-3611	1	SETSCREW-SQUARE HEAD (3/8-16X2-IN)						
	11	1	1W-0593	8	SUPPORT						
	12	1	0S-1594	17	BOLT (3/8-16X1-IN)						
	13	1	5R-0939	1	CLIP (TAB)						
	14	1	5R-0940	1	CLIP (SLOT)						
	15	1	4W-8082	1	TUBE AS						
	16	1	1W-0594	8	CLAMP						
	17	1	7C-3843	2	MANIFOLD AS-FUEL						
	18	1	0L-2070	8	BOLT (3/8-16X2.25-IN)						
	19	1	9S-8752	9	NUT-FULL (3/8-16-THD)						
	20	1	6V-8639	15	CONNECTOR						
	21	1	9K-1242	1	CONNECTOR						
	22	1	6V-1903	2	SEAL-O-RING						
	23	1	7W-7725	1	BODY-VALVE						
	24	1	7E-1704	1	VALVE (REGULATING)						
	25	1	0L-1143	2	BOLT (3/8-16X2.5-IN)						
	26	1	5P-0537	2	WASHER-HARD (7.2X14.5X2-MM THK)						
	27	1	9S-4191	1	PLUG						
	28	1	6V-5049	1	SEAL-O-RING						
	29	1	5T-2760	1	SPRING						
	30	1	5P-6416	1	ELBOW						
	31	1	033-6033	34	SEAL-O-RING						
	32	1	6V-8782	1	TEE						
	33	1	9S-8005	1	PLUG						
	34	1	6V-8625	1	ELBOW						
	35	1	6V-9830	2	CAP AS						
	36	1	7W-7726	1	PLATE						
	37	1	7W-7727	1	RETAINER						
	38	1	3P-1156	1	SEAL-O-RING						
	39	1	4F-7957	2	BOLT (1/4-20X0.875-IN)						

# FUEL SYSTEM

1W-0856 LINES GP-FUEL INJECTION (contd.)

i02248326



GRAPHIC #1

<END>

g00922049

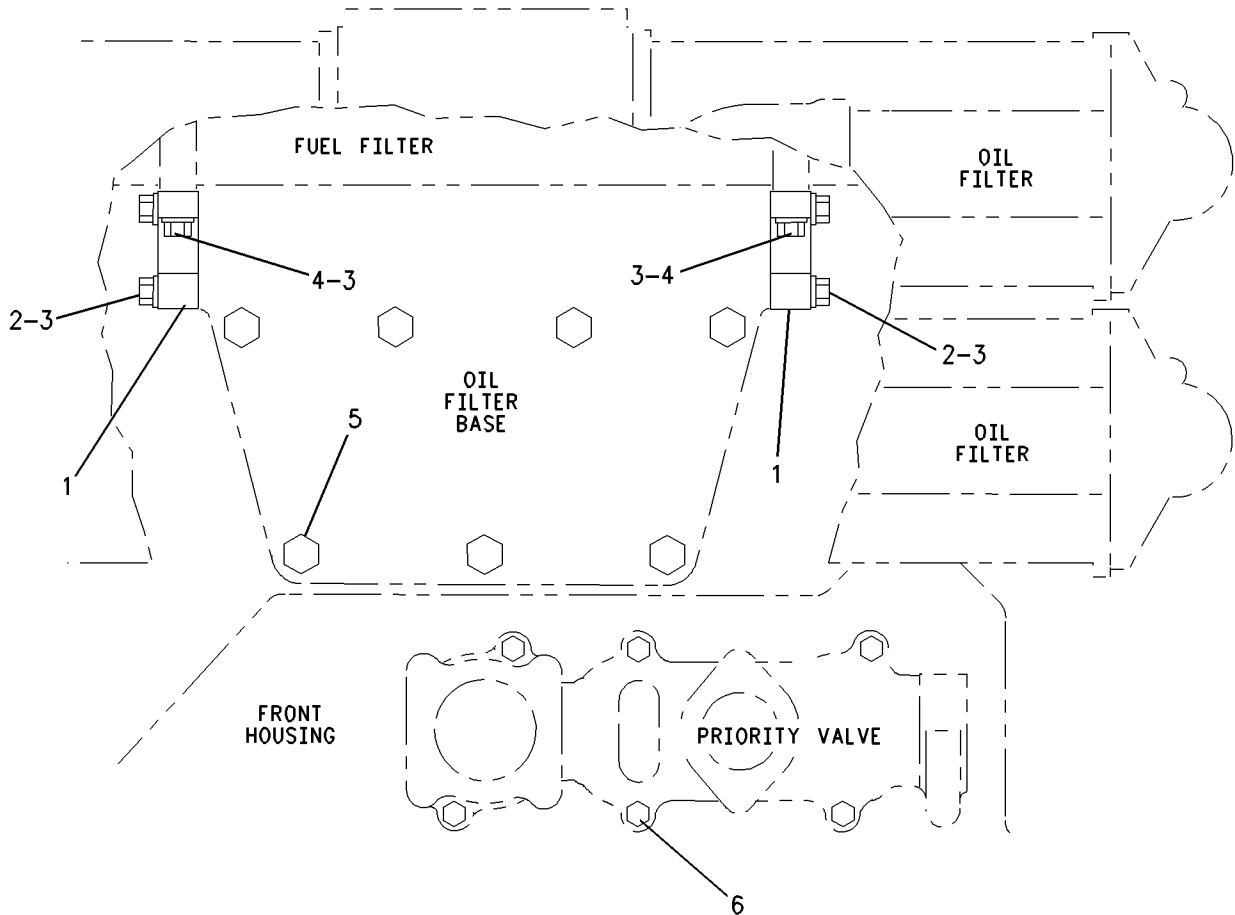
# FUEL SYSTEM

## 4W-0012 MOUNTING GP-FUEL FILTER (CHG -00, -01) FRONT STRUCTURE

SMCS-1262

i01552720

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4W-8556	2	SUPPORT						
	2	1	2B-0947	6	BOLT (1/2-13X2.25 IN)						
	3	1	5P-8245	10	WASHER-HARD (13.5X25.5X3MM THK)						
	4	1	0S-1587	4	BOLT (1/2-13X1.75 IN)						
	5	1	1A-8063	7	BOLT (3/4-10X2.5 IN)						
	6	1	2H-6488	6	BOLT (1/2-13X5IN)						



GRAPHIC #1

<END>

g00696227



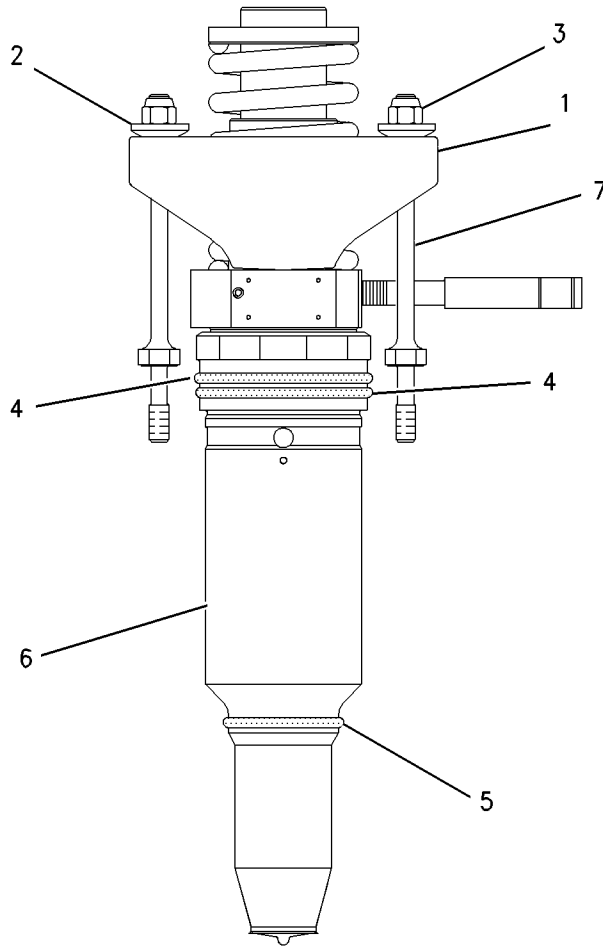
# FUEL SYSTEM

## 7C-1903 PUMP GP-FUEL INJECTION (CHG -07)

SMCS-1251, 1290

i01884554

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6	
	1	1	<b>1W-0019</b>	1	CLAMP-INJECTOR						
	2	1	<b>1W-2383</b>	2	WASHER-CLAMP (INJECTOR)						
	3	1	<b>3K-6060</b>	2	LOCKNUT (3/8-16 THD)						
	4	1	<b>6V-1179</b>	2	SEAL-O-RING						
	5	1	<b>061-9455</b>	1	SEAL-O-RING						
	6	1	<b>224-9090</b>	1	INJECTOR GP-FUEL						
	7	1	<b>150-4810</b>	2	STUD (INJECTOR CLAMP)						



GRAPHIC #1

<END>

g00749240

# FUEL SYSTEM

## 2W-3363 PUMP GP-FUEL PRIMING-RH (CHG -08 THRU -10, -10D1, -11)

SMCS - 1258

i01556999

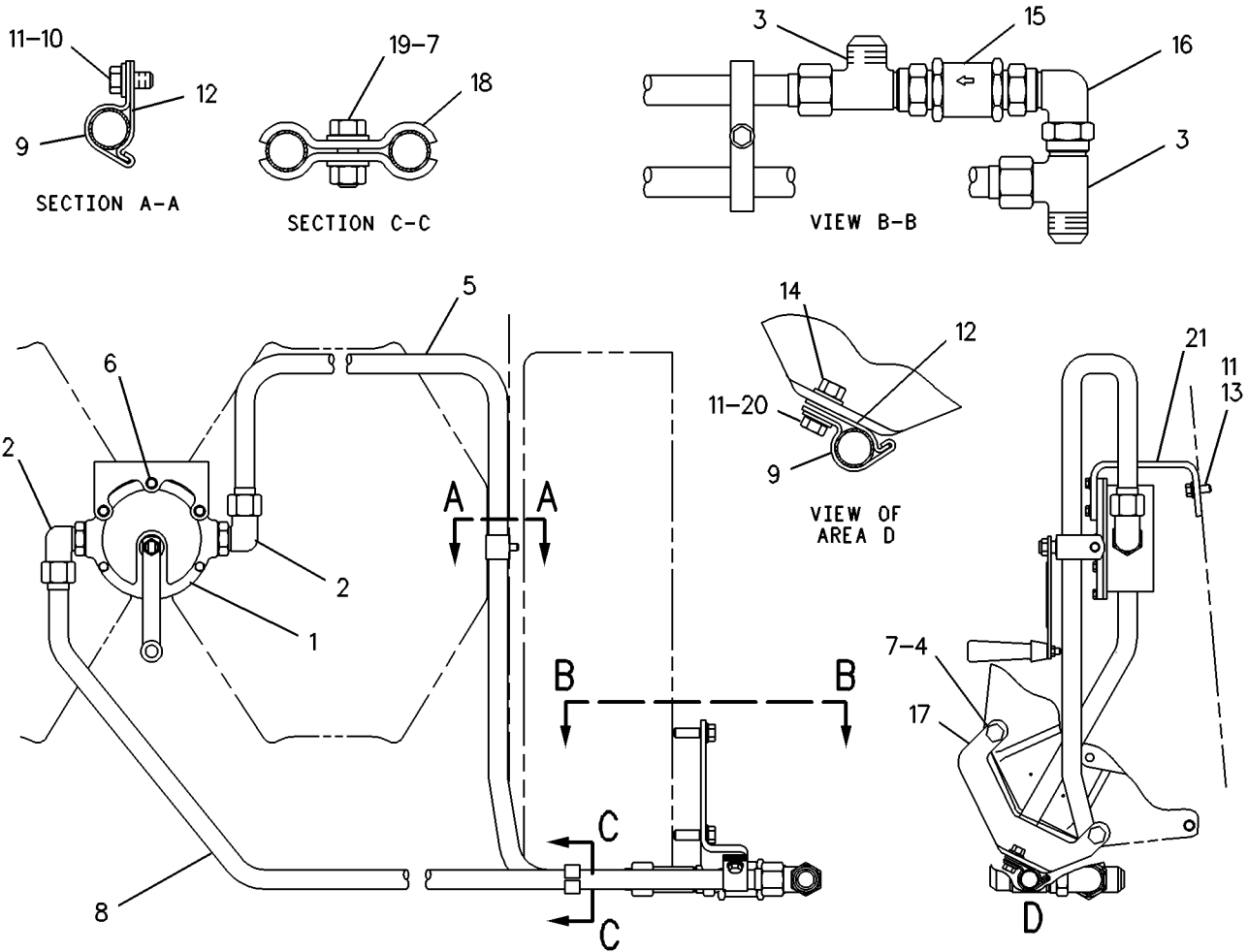
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE	
					1	2	3	4	5	6 (PRODUCT LEVEL)		
YC	1	1	7E-3974	1	PUMP GP - HAND						140	
	2	1	030-7951	2	ELBOW-FLARED							
			1	5P-7701	2	SEAL-O-RING						
	3	1	5P-2242	2	TEE-SWIVEL							
	4	1	0S-1587	2	BOLT (1/2-13X1.75 IN)							
	5	1	7C-6918	1	TUBE AS							
	6	1	7B-2742	3	BOLT (1/4-20X1.25 IN)							
			1	5P-0537	3	WASHER-HARD (7.2X14.5X2MM THK)						
	7	1	5P-8245	4	WASHER-HARD (13.5X25.5X3MM THK)							
	8	1	7C-6917	1	TUBE AS							
	9	1	7J-0729	2	CLIP (SLOT)							
	10	1	0S-0509	1	BOLT (3/8-16X0.75 IN)							
	11	1	3V-3308	5	WASHER-HARD (10.2X20.5X2.5MM THK)							
	12	1	7J-0728	2	CLIP (TAB)							
	13	1	0S-1594	2	BOLT (3/8-16X1 IN)							
	14	1	9S-8752	1	NUT-FULL (3/8-16 THD)							
	15	1	4W-8761	1	VALVE-CHECK							
	16	1	031-5744	1	ELBOW							
	17	1	106-7796	1	BRACKET							
	18	1	7D-4108	2	CLAMP							
	19	1	0S-1595	1	BOLT (1/2-13X1.25 IN)							
		1	1F-7958	1	NUT-FULL (1/2-13 THD)							
20	1	0S-1588	1	BOLT (3/8-16X1.25 IN)								
21	1	4W-4473	1	BRACKET								

C-CHANGE FROM PREVIOUS TYPE  
Y-SEPARATE ILLUSTRATION

# FUEL SYSTEM

2W-3363 PUMP GP-FUEL PRIMING (contd.)

i01556999



GRAPHIC #1

<END>

g00065572

# FUEL SYSTEM

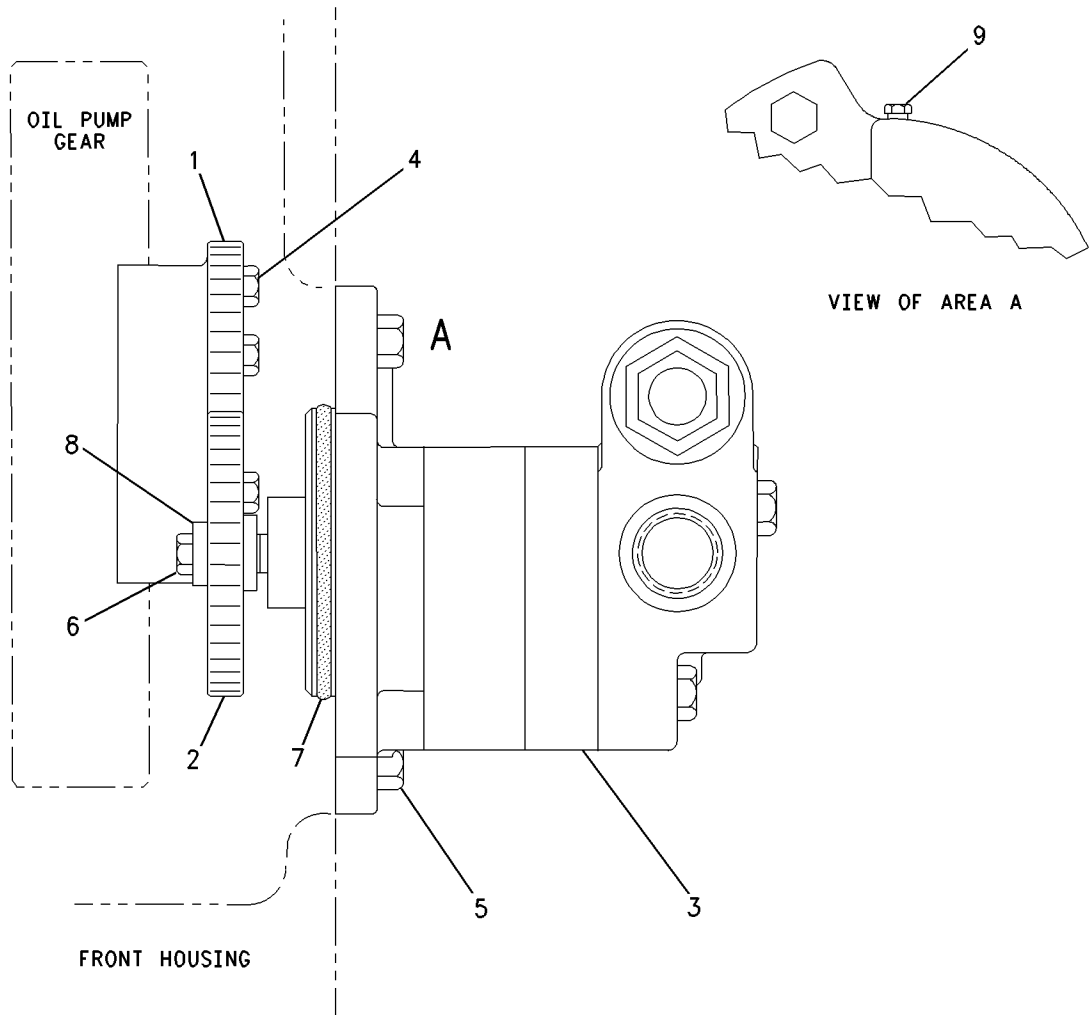
## 1W-0820 PUMP GP-FUEL TRANSFER (CHG -04 THRU -06)

SMCS-1256

i01532072

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	1W-3389	1	GEAR (55 TEETH)						
	2	1	1W-3390	1	GEAR (42 TEETH)						
Y	3	1	7W-1282	1	PUMP GP-FUEL TRANSFER						138
	4	1	0L-1143	6	BOLT (3/8-16X2.50 IN)						
	5	1	0S-1585	2	BOLT (1/2-13X1.50 IN)						
	6	1	1B-7182	1	BOLT (5/16-18X1.25 IN)						
	7	1	5D-5957	1	SEAL-O-RING						
	8	1	6V-3964	1	WASHER-HARD (8.8X25.5X5MM THK)						
	9	1	8T-6764	1	PLUG-PIPE						

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00795351

# FUEL SYSTEM

## 7W-1282 PUMP GP-FUEL TRANSFER (CHG -03, -04)

ONE SECTION GEAR

PART OF 1W-0820 PUMP GP-FUEL TRANSFER

SMCS-1256

i02125754

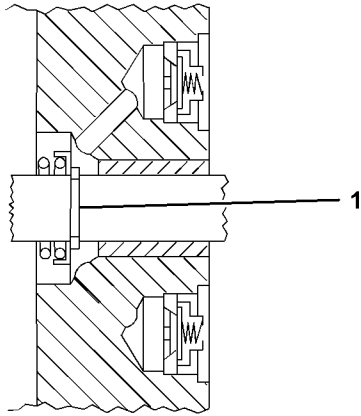
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
J	1	1	1L-3769	1	RING-RETAINING						
	2	1	2H-6488	2	BOLT (1/2-13X5-IN)						
L	3	1	4W-7988	1	SHAFT AS						
	4	1	4W-7990	1	VALVE						
	5	1	4W-7991	1	SPRING						
	6	1	4W-7993	2	DOWEL						
	7	1	4W-7994	2	DOWEL						
L	8	1	4W-7995	1	SHAFT AS						
N	9	1	4W-7996	1	CASE						
	10	1	4W-7997	1	HOUSING AS						
J	11	1	4W-7998	1	SEAL AS						
	12	1	4W-7999	1	HOUSING AS						
	13	1	7C-3778	1	SPRING-GUIDE						
	14	1	7C-7928	1	PLUG AS						
	14A	1	7W-3107	1	CAP-ADJUSTABLE SCREW						
	14B	1	7W-3111	1	SCREW-ADJUSTMENT						
	14C	1	9L-9089	1	NUT (3/8-24-THD)						
	14D	1	7W-3108	1	GASKET						
	14E	1	7W-3109	1	BONNET						
	15	1	7W-1280	1	HOUSING AS						
	16	1	7W-2135	1	PLUG						
	17	1	1D-4574	2	BOLT (1/2-13X6-IN)						
J	18	1	5P-2931	3	SEAL-O-RING						
	19	1	7D-9749	2	SEAL-O-RING						
J	20	1	8H-9180	1	SEAL-LIP TYPE						
AVAILABLE REPAIR KIT(S):											
CJ			127-6931	1	KIT-REPAIR						
(ALSO INCLUDES VALVES, BUSHINGS, & DOWEL)											
CL			127-6932	1	KIT-SHAFT						
CN			127-6933	1	KIT-GEAR						

C-CHANGE FROM PREVIOUS TYPE  
 J-KIT MARKED J INCLUDES PARTS MARKED J  
 L-KIT MARKED L INCLUDES PARTS MARKED L  
 N-KIT MARKED N INCLUDES PARTS MARKED N AND GEARS

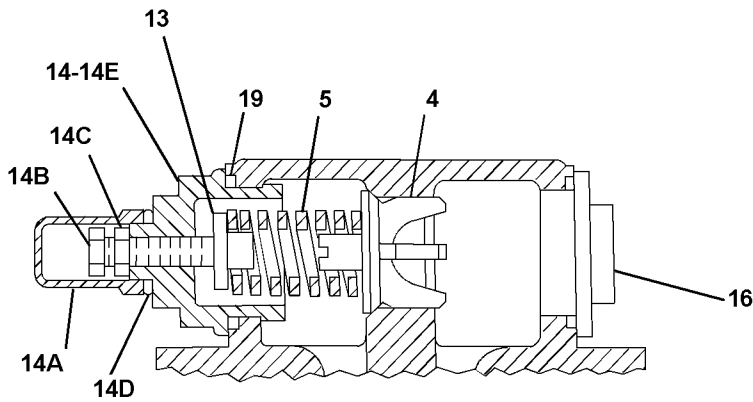
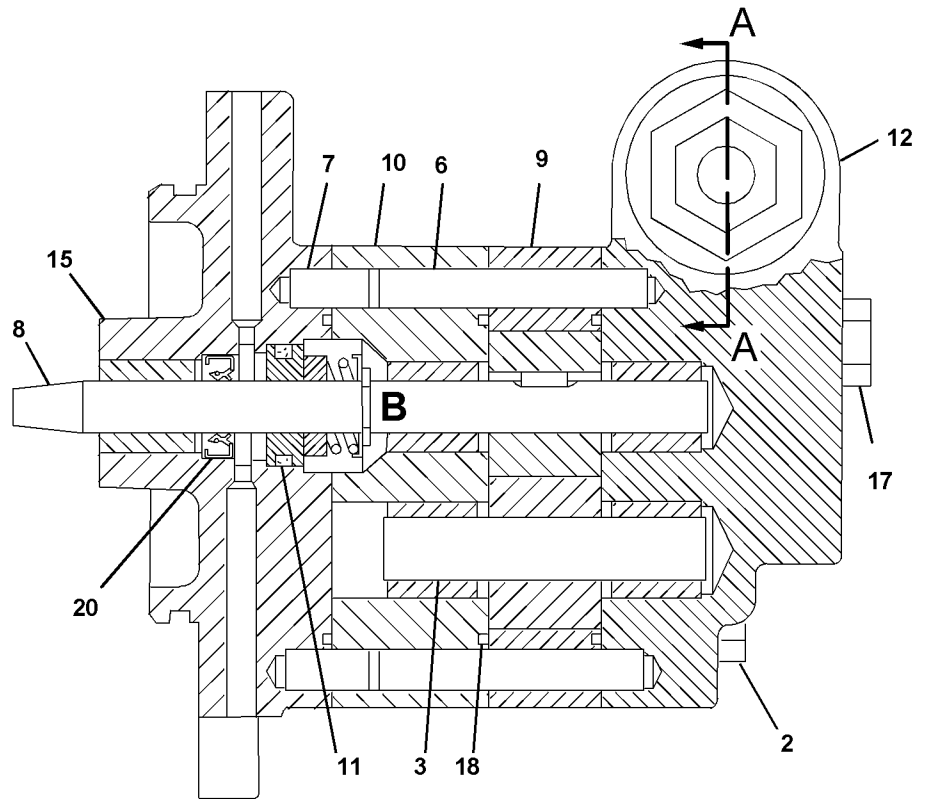
# FUEL SYSTEM

7W-1282 PUMP GP-FUEL TRANSFER (contd.)

i02125754



VIEW OF AREA B



VIEW A-A

GRAPHIC #1

<END>

g01081876

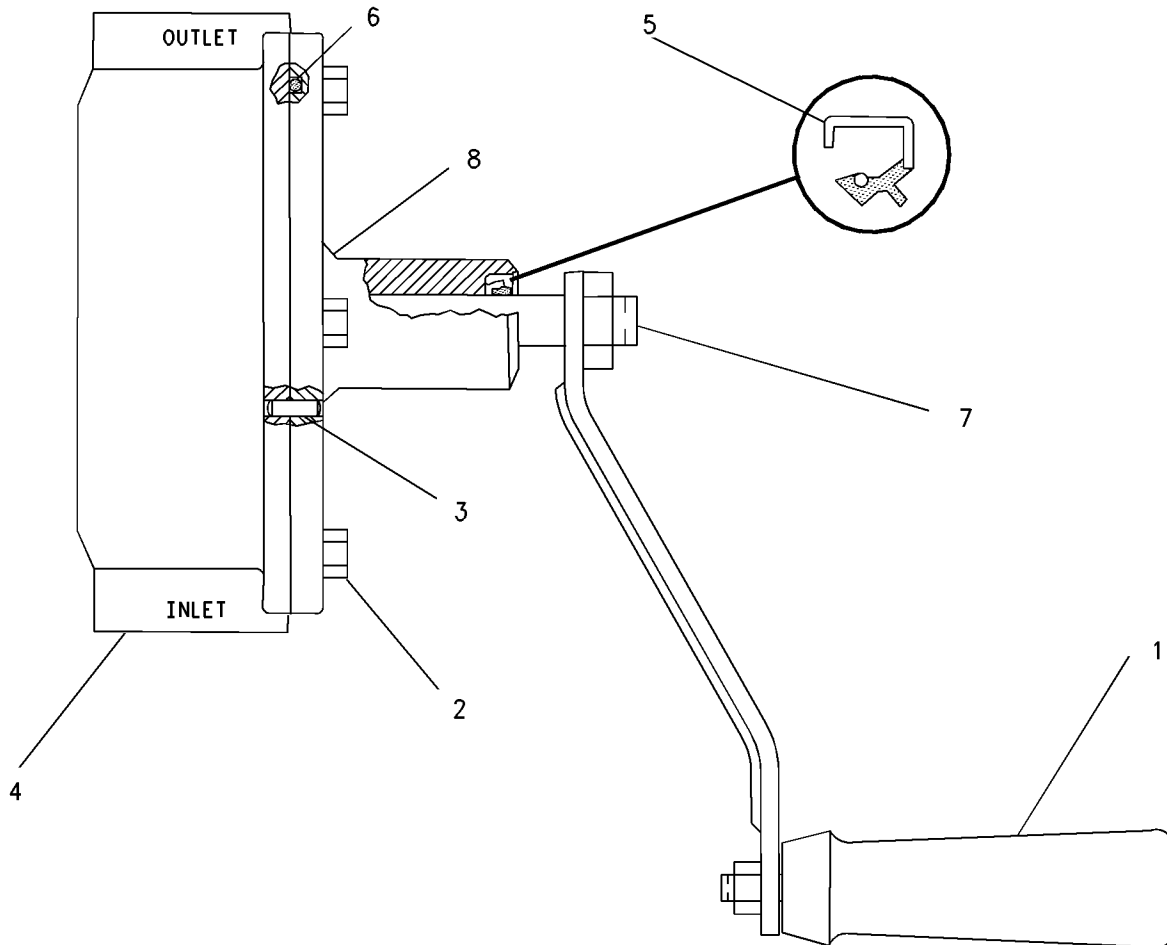
# FUEL SYSTEM

## 7E-3974 PUMP GP-HAND (CHG -00) PART OF 2W-3363 PUMP GP-FUEL PRIMING

SMCS-1258

i01922202

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	7E-3975	1	HANDLE AS						
	2	1	2A-0762	6	BOLT (1/4-20X.625 IN)						
	3	1	3N-3297	2	PIN-TAPER						
	4	1	7C-6929	1	HOUSING						
	5	1	2W-4037	1	SEAL-LIP						
	6	1	5F-3999	1	SEAL-O-RING						
	7	1	7W-1467	1	SHAFT AS						
	8	1	7C-6928	1	COVER						
					AVAILABLE REPAIR KIT(S):						
			4W-8353	1	KIT-PUMP						



GRAPHIC #1

<END>

g00725016

# FUEL SYSTEM

## 246-0684 SHIELD GP-FUEL LINES (CHG -01) ANTI-SPLASH

SMCS-1067, 1252

i02156363

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	252-9538	7	SHIELD AS						
					(EACH INCLUDES)						
		1	248-5503	1	NUT-CLINCH						
C	2	1	252-9539	7	SHIELD						
C	3	1	8K-1433	14	GROMMET						
C	4	1	8T-4205	7	WASHER-HARD (7.2X14.5X2-MM THK)						
C	5	1	8T-9367	7	BOLT (1/4-20X2-IN)						
BC	6	1	237-3860		TAPE (ANTI-SPLASH, 50-MM WIDE) (10-M ROLL)						

B-USE AS REQUIRED

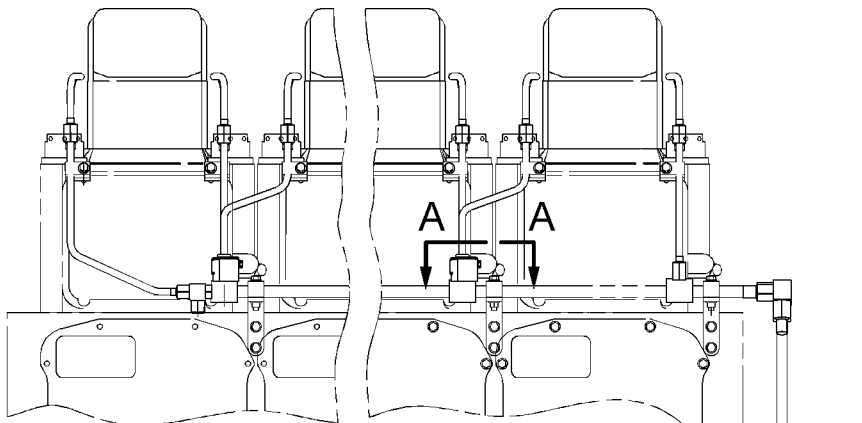
C-CHANGE FROM PREVIOUS TYPE



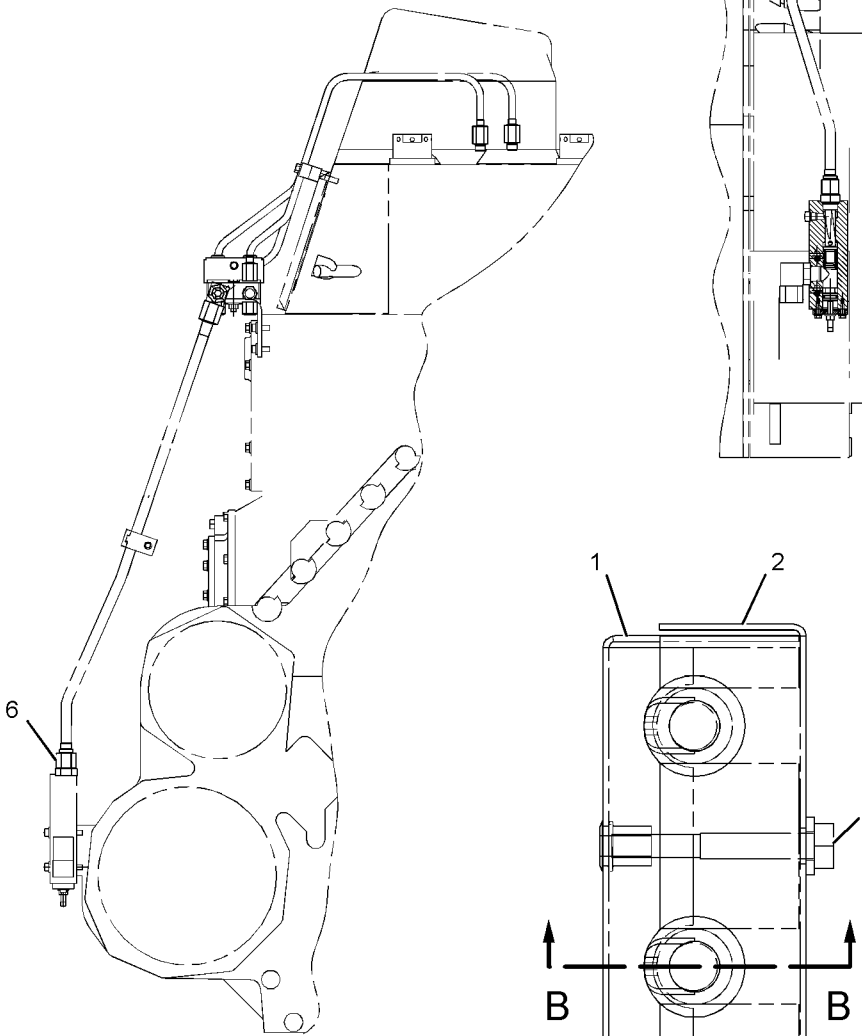
# FUEL SYSTEM

246-0684 SHIELD GP-FUEL LINES (contd.)

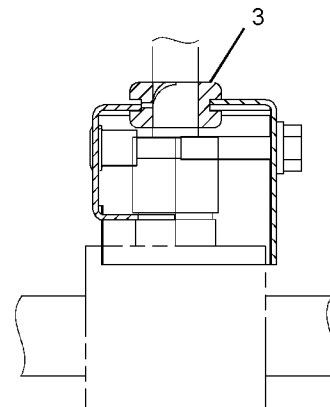
i02156363



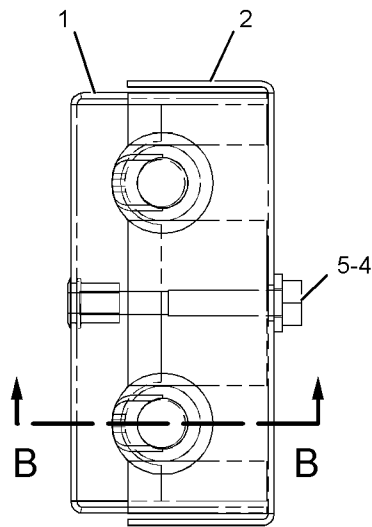
RIGHT SIDE VIEW



FRONT VIEW



SECTION B-B



SECTION A-A

<END>

GRAPHIC #1

g01094551

# FUEL SYSTEM

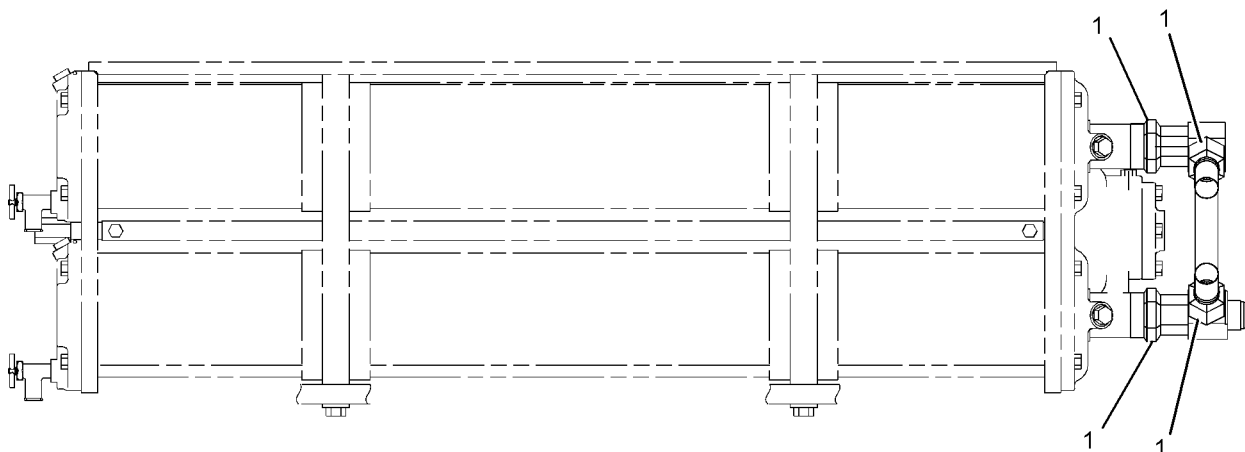
## 246-0686 SHIELD GP-FUEL LINES (CHG -00) ANTI-SPLASH

SMCS-1067, 1252

i02187507

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	237-3860		TAPE (ANTI-SPLASH, 50-MM WIDE) (10-M ROLL)						

B-USE AS REQUIRED



GRAPHIC #1

<END>

g01068789

# FUEL SYSTEM

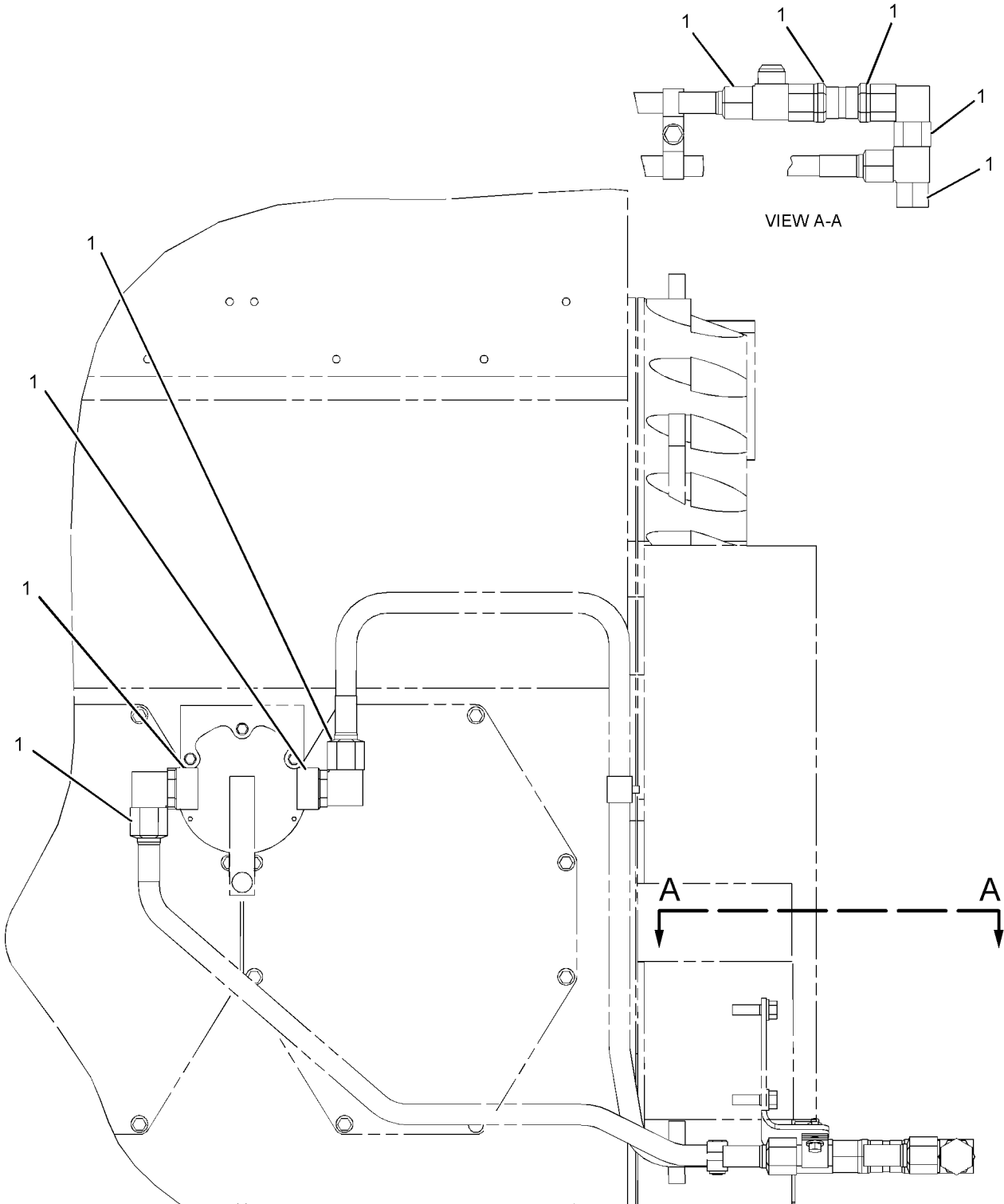
## 246-0691 SHIELD GP-FUEL LINES (CHG -00) RH, PRIMING, ANTI-SPLASH

SMCS-1067, 1252

i02187501

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
B	1	1	237-3860		TAPE (ANTI-SPLASH, 50-MM WIDE) (10-M ROLL)	

B-USE AS REQUIRED



**FRONT VIEW**  
<END>

GRAPHIC #1

g01068893

# FUEL SYSTEM

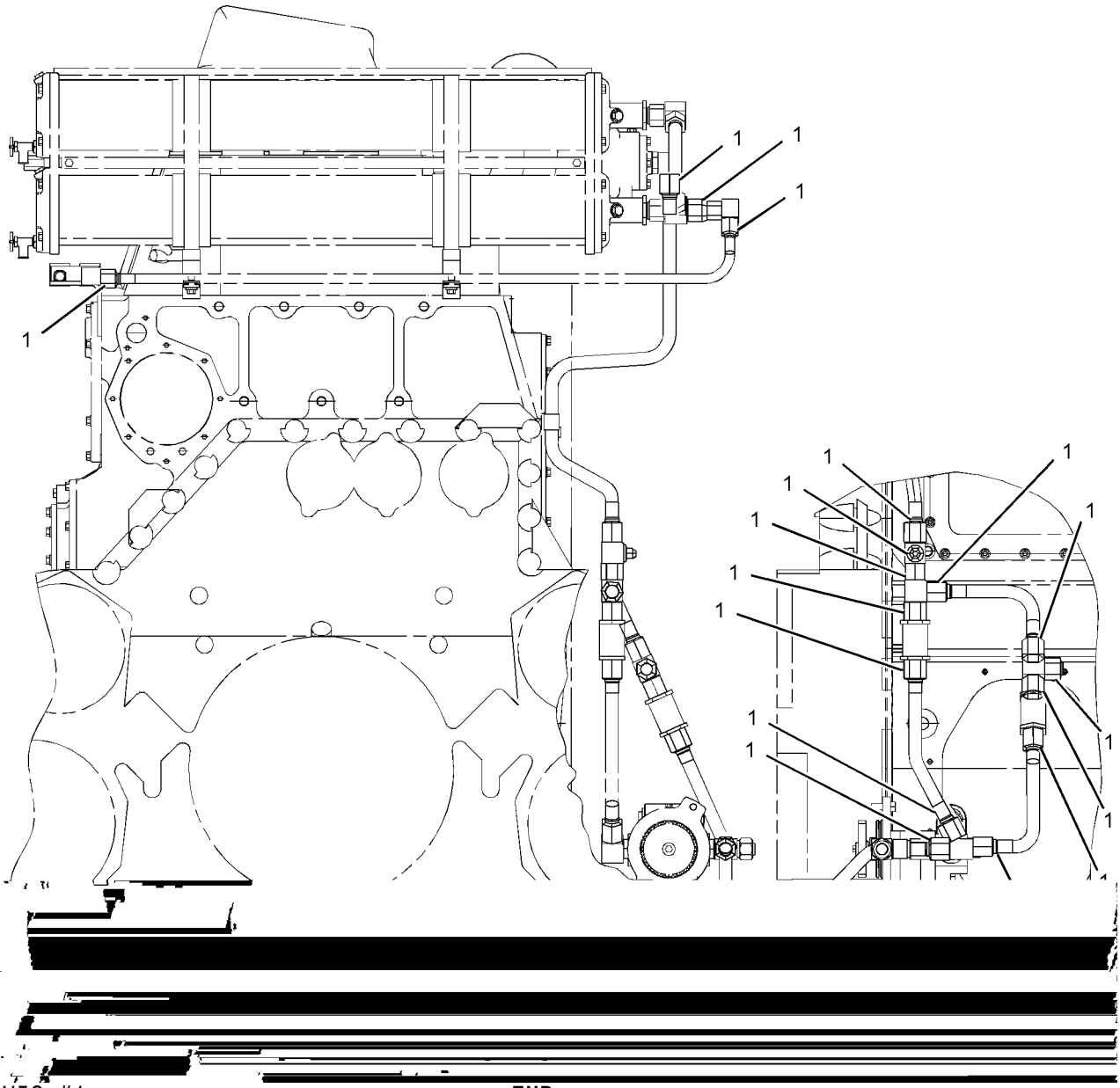
## 249-0958 SHIELD GP-FUEL LINES (CHG -00) RH, ANTI-SPLASH

SMCS-1067, 1252

i02187479

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
B	1	1	237-3860		TAPE (ANTI-SPLASH, 50-MM WIDE) (10-M ROLL)						

B-USE AS REQUIRED



GRAPHIC #1

<END>

g01069074

# ELECTRICAL AND STARTING SYSTEM

## 179-8991 BOX GP-TERMINAL (CHG -02 THRU -04)

SMCS-4460

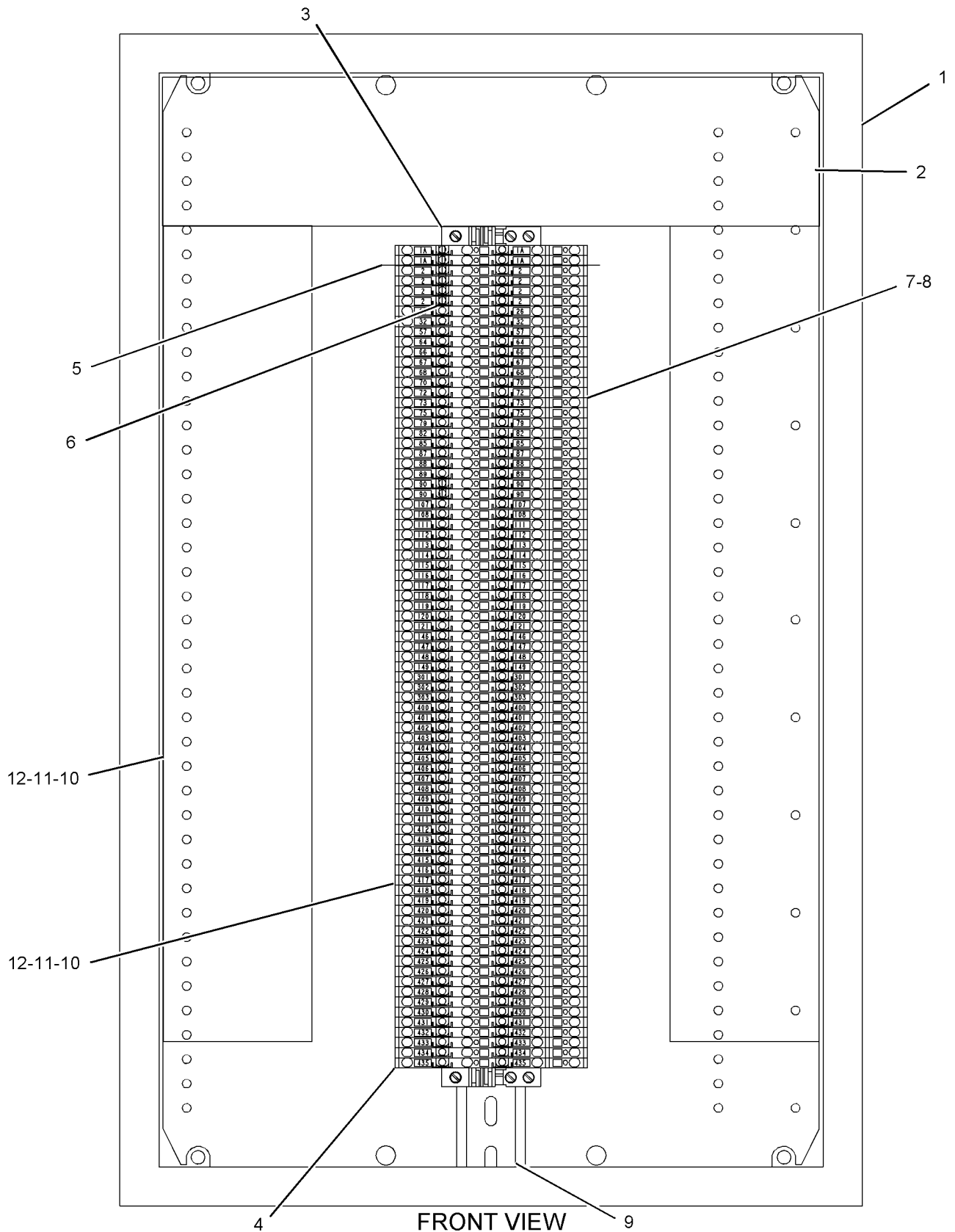
i02216441

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	112-7853	1	BOX AS-JUNCTION						
	2	1	166-6165	1	DUCT-WIRE						
	3	1	9X-9675	2	BRACKET-END						
	4	1	252-4943	1	COVER-END						
	5	1	225-0906	2	BRIDGE (2-POSITION)						
	6	1	225-0908	1	BAR (BRIDGE)						
	7	1	252-4949	81	TERMINAL-CONTACT (DOUBLE)						
	8	1	144-0436	17	MARKER						
	9	1	147-1960	1	RAIL						
	10	1	7S-1201	18	SCREW-MACHINE (8-32X0.375-IN)						
	11	1	4B-4863	18	WASHER (4.7X11X1.2-MM THK)						
	12	1	1H-4393	18	LOCKWASHER						

# ELECTRICAL AND STARTING SYSTEM

179-8991 BOX GP-TERMINAL (contd.)

i02216441



FRONT VIEW

GRAPHIC #1

<END>

g01119396

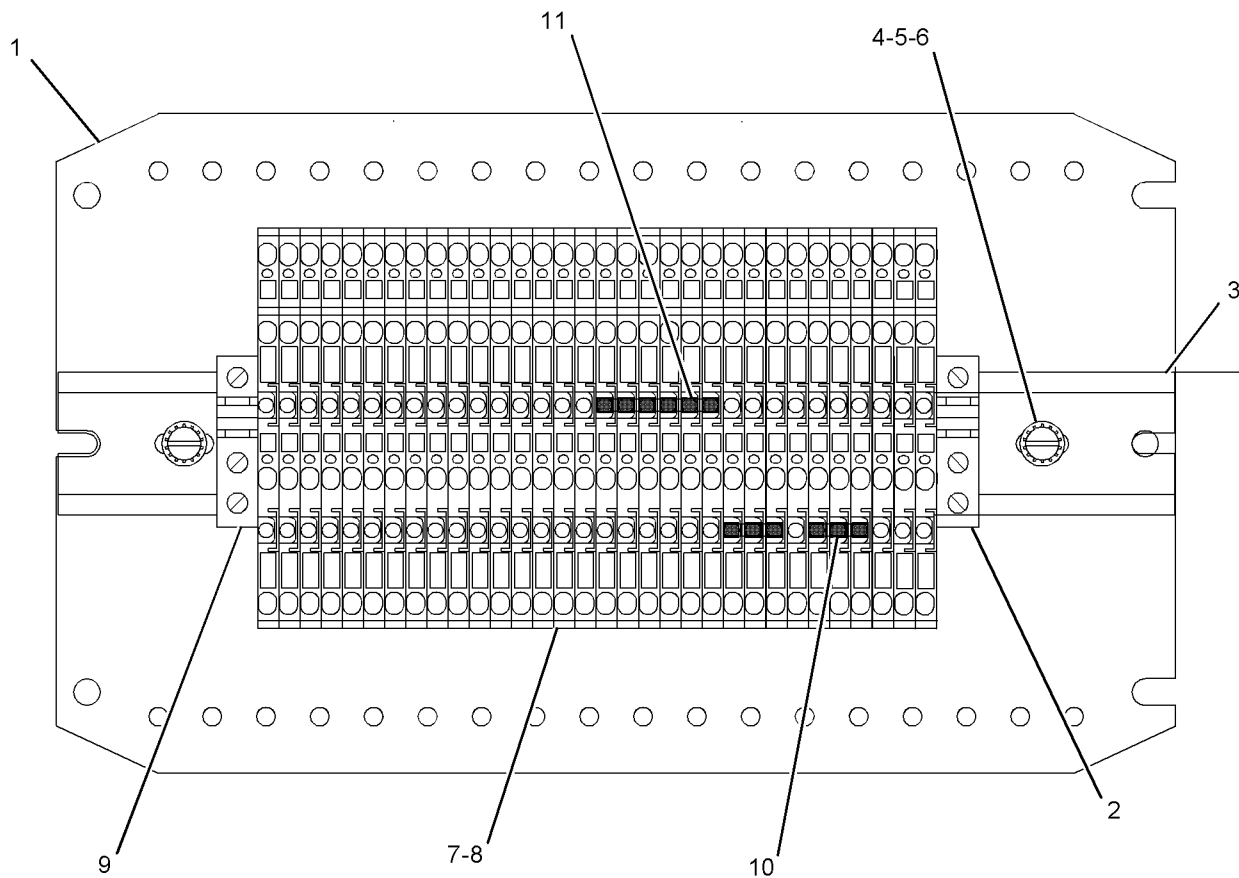
# ELECTRICAL AND STARTING SYSTEM

## 179-8992 BOX GP-TERMINAL (CHG -01 THRU -04) CONTACTOR PANEL

SMCS-4460

i02223755

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	177-7215	1	ENCLOSURE						
	2	1	9X-9675	2	BRACKET-END						
	3	1	147-1960	1	RAIL						
	4	1	4B-4863	2	WASHER (4.7X11X1.2-MM THK)						
	5	1	1H-4393	2	LOCKWASHER						
	6	1	6L-7159	2	SCREW-MACHINE (8-32X0.313-IN)						
	7	1	252-4949	32	TERMINAL-CONTACT (DOUBLE)						
	8	1	144-0436	5	MARKER						
	9	1	252-4943	1	COVER-END						
	10	1	204-5568	2	STRIP-CONTACT						
	11	1	225-0549	1	BAR (BRIDGE)						



GRAPHIC #1

<END>

g01121987

# ELECTRICAL AND STARTING SYSTEM

## 121-9707 CONTACTOR GP (CHG -06, -07) BASIC PROTECTION SYSTEM-CUSTOMER MTD

SMCS-1400, 7400

i02149319

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	<b>0S-1615</b>	4	BOLT (1/4-20X0.75-IN)						
	<b>8N-8471</b>	4	CLAMP-TUBE						
Y	123-4631	1	CONTACTOR GP-ALARM (HIGH JACKET WATER TEMPERATURE)						150
Y	123-4633	1	CONTACTOR GP-ALARM (HIGH MANIFOLD AIR TEMPERATURE)						151
Y	123-4629	1	CONTACTOR GP-ALARM (HIGH OIL TEMPERATURE)						150
Y	121-0244	1	CONTACTOR GP-ALARM (LOW OIL PRESSURE AT HIGH RPM)						149
Y	121-0245	1	CONTACTOR GP-ALARM (LOW OIL PRESSURE AT LOW RPM)						150
Y	121-0243	1	CONTACTOR GP-SHUTOFF (CRANKCASE PRESSURE)						154
Y	121-0246	1	CONTACTOR GP-SHUTOFF (LOW OIL PRESSURE AT HIGH RMP)						154
Y	121-0247	1	CONTACTOR GP-SHUTOFF (LOW OIL PRESSURE AT LOW RPM)						154
	<b>253-7751</b>	3	TUBE AS						
	<b>253-7752</b>	1	TUBE AS						
	<b>253-7753</b>	1	TUBE AS						
	<b>5P-0537</b>	4	WASHER-HARD (7.2X14.5X2-MM THK)						
Y-SEPARATE ILLUSTRATION									
<END>									

## 121-0244 CONTACTOR GP-ALARM (CHG -00, -01) LOW OIL PRESSURE ALARM PART OF 121-9707 CONTACTOR GP

SMCS-7400

i01582310

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	<b>4W-2648</b>	1	ADAPTER						
	<b>0S-1614</b>	3	BOLT (1/4-20X0.5-IN)						
	<b>2A-0762</b>	1	BOLT (1/4-20X.625-IN)						
	<b>9L-8493</b>	1	CAP						
	<b>4P-7581</b>	1	CLIP						
	<b>4W-2646</b>	1	CONTACTOR-PRESSURE (LOW OIL PRESSURE ALARM)						
	<b>4F-9325</b>	1	GASKET						
	<b>3S-2093</b>	2	STRAP-CABLE						
	<b>2N-8142</b>	1	TEE-SWIVEL						
	<b>5P-0537</b>	4	WASHER-HARD (7.2X14.5X2-MM THK)						
<END>									



# ELECTRICAL AND STARTING SYSTEM

## 121-0245 CONTACTOR GP-ALARM (CHG -00, -01)

LOW OIL PRESSURE ALARM AT LOW RPM

PART OF 121-9707 CONTACTOR GP

SMCS-7400

i01555468

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	4W-2648	1	ADAPTER						
	0S-1614	3	BOLT (1/4-20X0.5-IN)						
	2A-0762	1	BOLT (1/4-20X.625-IN)						
	9L-8493	1	CAP						
	4P-7581	1	CLIP						
	4W-2646	1	CONTACTOR-PRESSURE (LOW OIL PRESSURE ALARM AT LOW RPM)						
	4F-9325	1	GASKET						
	3S-2093	2	STRAP-CABLE						
	2N-8142	1	TEE-SWIVEL						
	5P-0537	4	WASHER-HARD (7.2X14.5X2-MM THK)						

<END>

## 123-4629 CONTACTOR GP-ALARM (CHG -00, -01)

HIGH OIL TEMPERATURE ALARM

PART OF 121-9707 CONTACTOR GP

SMCS-7400

i01555489

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	0S-1614	3	BOLT (1/4-20X0.5-IN)						
	2A-0762	1	BOLT (1/4-20X.625-IN)						
	4P-7581	1	CLIP						
B	5P-8937		COMPOUND						
Y	4P-6038	1	CONTACTOR-TEMPERATURE						155
	3S-2093	2	STRAP-CABLE						
	5P-0537	4	WASHER-HARD (7.2X14.5X2-MM THK)						

B-USE AS REQUIRED  
Y-SEPARATE ILLUSTRATION

<END>

## 123-4631 CONTACTOR GP-ALARM (CHG -00, -01)

HIGH JACKET WATER ALARM

PART OF 121-9707 CONTACTOR GP

SMCS-7400

i01555490

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	0S-1614	3	BOLT (1/4-20X0.5-IN)						
	2A-0762	1	BOLT (1/4-20X.625-IN)						
	4P-7581	1	CLIP						
B	5P-8937		COMPOUND (JOINT)						
Y	4P-6038	1	CONTACTOR-TEMPERATURE						155
	3S-2093	2	STRAP-CABLE						
	5P-0537	4	WASHER-HARD (7.2X14.5X2-MM THK)						

B-USE AS REQUIRED  
Y-SEPARATE ILLUSTRATION

<END>

# ELECTRICAL AND STARTING SYSTEM

## 123-4633 CONTACTOR GP-ALARM (CHG -00, -01)

HIGH INLET MANIFOLD AIR TEMP ALARM

PART OF 121-9707 CONTACTOR GP

SMCS-7400

i01555492

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	0S-1614	3	BOLT (1/4-20X0.5-IN)						
	2A-0762	1	BOLT (1/4-20X.625-IN)						
	4P-7581	1	CLIP						
B	5P-8937		COMPOUND (JOINT)						
Y	4P-6038	1	CONTACTOR-TEMPERATURE						155
	3S-2093	2	STRAP-CABLE						
	5P-0537	4	WASHER-HARD (7.2X14.5X2-MM THK)						

B-USE AS REQUIRED

Y-SEPARATE ILLUSTRATION

<END>

# ELECTRICAL AND STARTING SYSTEM

## 7E-7173 CONTACTOR GP-OIL LEVEL-ALARM (CHG -01, -02, -02D1)

SMCS-1326

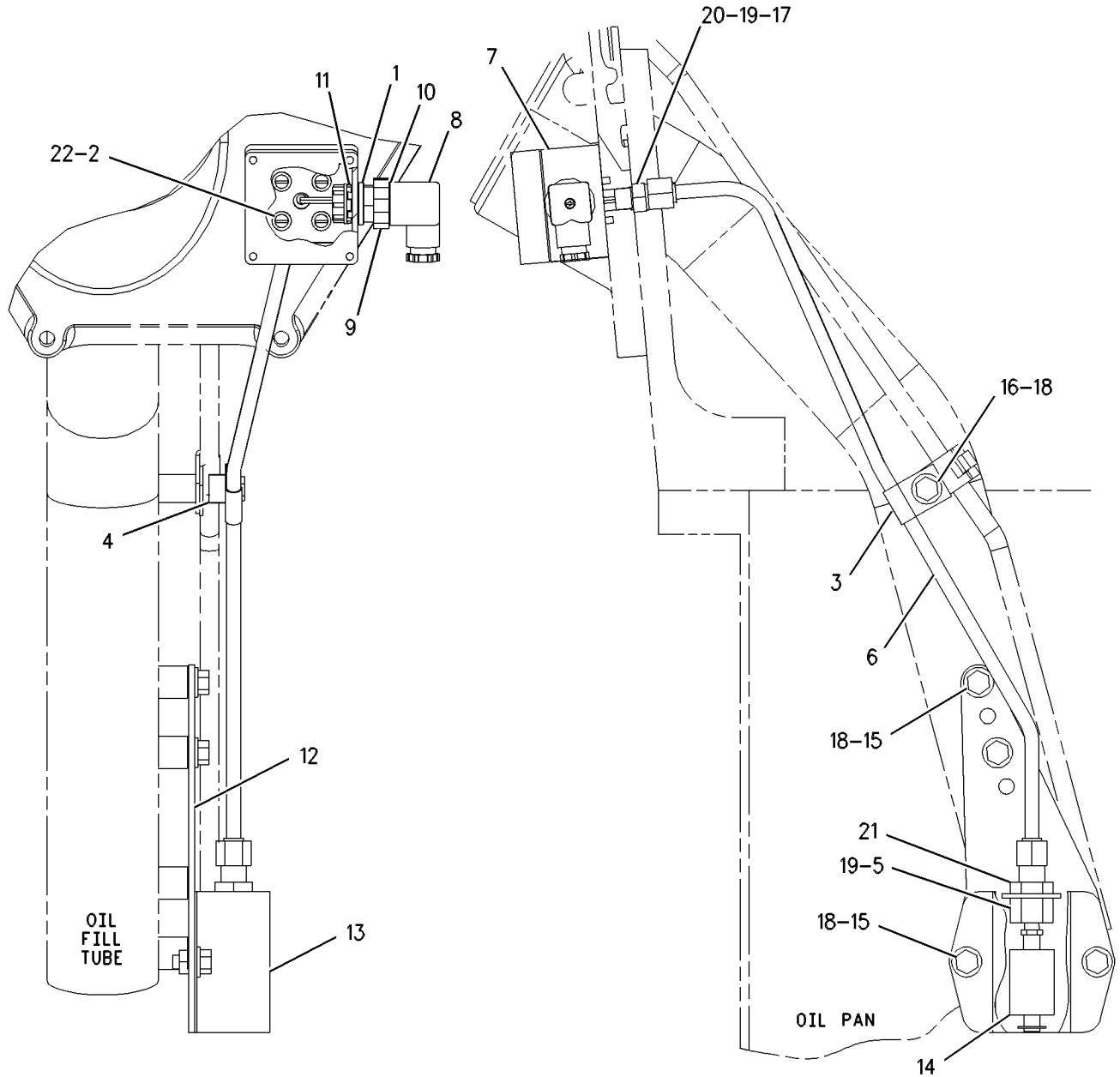
i01926975

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
C	1	1	<b>6Y-6815</b>	1	GASKET AS (CONNECTOR)						
	2	1	<b>7H-3986</b>	4	SCREW (10-24X7/16)						
	3	1	<b>8B-6127</b>	1	CLIP						
	4	1	<b>8B-8679</b>	1	SPACER (0.44X0.406X0.75-IN THK)						
	5	1	<b>8C-6915</b>	1	ADAPTER-BULKHEAD						
	6	1	<b>9Y-6875</b>	1	TUBE AS						
C	7	1	<b>163-0936</b>	1	ENCLOSURE (FLUID LEVEL)						
C	8	1	<b>166-7656</b>	1	CONNECTOR-SOCKET						
C	9	1	<b>166-7657</b>	1	CONNECTOR-PLUG						
C	10	1	<b>166-7658</b>	1	GASKET						
C	11	1	<b>166-7718</b>	1	NUT						
C	12	1	<b>169-9517</b>	1	PLATE AS						
C		1	<b>1F-0750</b>	2	NUT-WELD (3/8-16-THD)						
C	13	1	<b>169-9519</b>	1	COVER						
C	14	1	<b>174-1821</b>	1	SWITCH AS-LIQUID LEVEL						
	15	1	<b>0S-0509</b>	4	BOLT (3/8-16X0.75-IN)						
	16	1	<b>0S-1591</b>	1	BOLT (3/8-16X1.5-IN)						
	17	1	<b>3J-1907</b>	1	SEAL-O-RING						
	18	1	<b>3V-3308</b>	5	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	19	1	<b>6V-8397</b>	2	SEAL-O-RING						
	20	1	<b>6V-8636</b>	1	CONNECTOR						
	21	1	<b>6V-9168</b>	1	NUT (11/16-16-THD)						
	22	1	<b>7X-0620</b>	4	WASHER-HARD (5.5X13X1.6-MM THK)						
C-CHANGE FROM PREVIOUS TYPE											

# ELECTRICAL AND STARTING SYSTEM

7E-7173 CONTACTOR GP-OIL LEVEL (contd.)

i01926975



LEFT SIDE VIEW

REAR VIEW

GRAPHIC #1

<END>

g00625730

# ELECTRICAL AND STARTING SYSTEM

## 121-0243 CONTACTOR GP-SHUTOFF (CHG -00)

CRANKCASE PRESSURE SHUTDOWN  
PART OF 121-9707 CONTACTOR GP

SMCS-7400, 7418

i01555466

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	0S-1614	4	BOLT (1/4-20X0.5 IN)						
	117-1864	1	CONTACTOR-PRESSURE (CRANKCASE PRESSURE SHUTDOWN)						
	5P-0537	4	WASHER-HARD (7.2X14.5X2MM THK)						
<END>									

## 121-0246 CONTACTOR GP-SHUTOFF (CHG -00, -01)

LOW OIL PRESSURE SHUTDOWN AT HIGH RPM  
PART OF 121-9707 CONTACTOR GP

SMCS-7400, 7418

i01555470

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	4W-2648	1	ADAPTER						
	0S-1614	3	BOLT (1/4-20X0.5-IN)						
	2A-0762	1	BOLT (1/4-20X.625-IN)						
	9L-8493	1	CAP						
	4P-7581	1	CLIP						
	4W-2646	1	CONTACTOR-PRESSURE (LOW OIL PRESSURE SHUTDOWN AT HIGH RPM)						
	4F-9325	1	GASKET						
	3S-2093	2	STRAP-CABLE						
	2N-8142	1	TEE-SWIVEL						
	5P-0537	4	WASHER-HARD (7.2X14.5X2-MM THK)						
<END>									

## 121-0247 CONTACTOR GP-SHUTOFF (CHG -00, -01)

LOW OIL PRESSURE SHUTDOWN AT LOW RPM  
PART OF 121-9707 CONTACTOR GP

SMCS-7400, 7418

i01555472

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	4W-2648	1	ADAPTER						
	0S-1614	3	BOLT (1/4-20X0.5-IN)						
	2A-0762	1	BOLT (1/4-20X.625-IN)						
	9L-8493	1	CAP						
	4P-7581	1	CLIP						
	4W-2646	1	CONTACTOR-PRESSURE (LOW OIL PRESSURE SHUTDOWN AT LOW RPM)						
	4F-9325	1	GASKET						
	3S-2093	2	STRAP-CABLE						
	2N-8142	1	TEE-SWIVEL						
	5P-0537	4	WASHER-HARD (7.2X14.5X2-MM THK)						
<END>									

# ELECTRICAL AND STARTING SYSTEM

## 4P-6038 CONTACTOR-TEMPERATURE (CHG -00, -01)

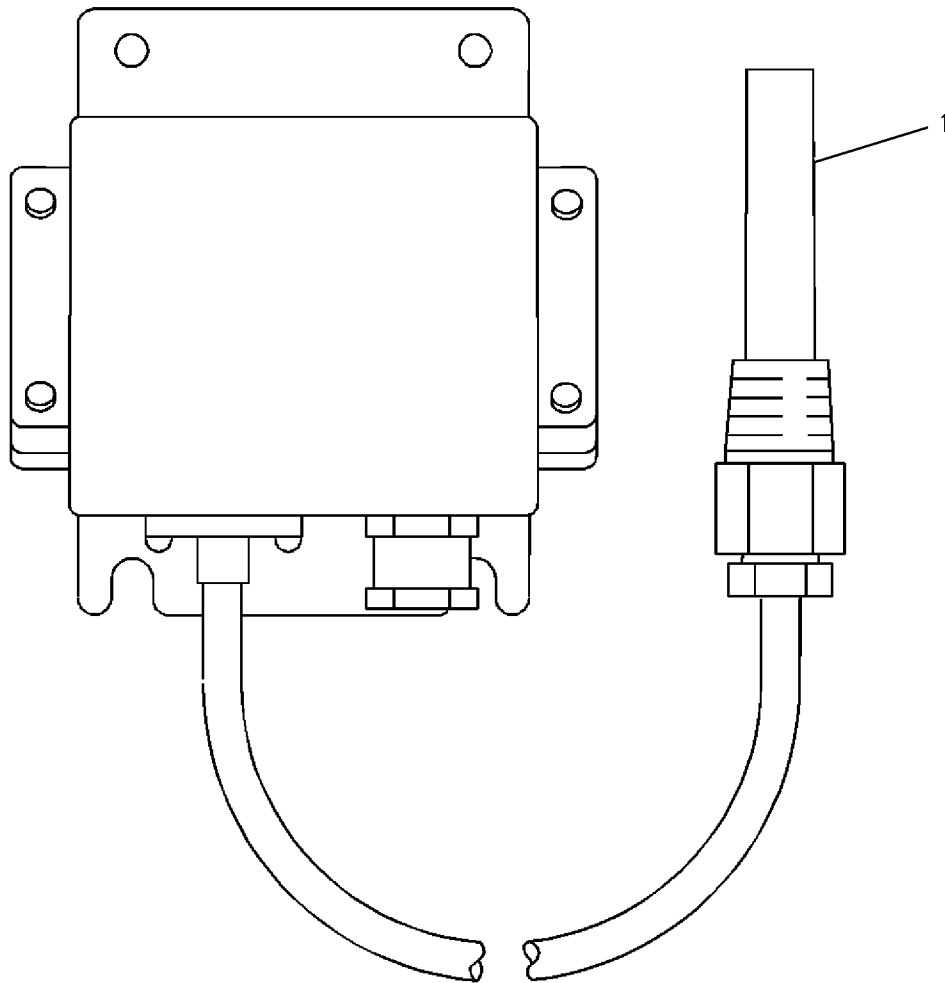
OIL TEMPERATURE SWITCH

PART OF 123-4629, 123-4631, 123-4633 CONTACTOR GP-ALARM  
FOR USE WITH SINGLE PULL DOUBLE THROW-VARIABLE

SMCS-7400, 7403, 7453, 7484

i01424371

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	4P-6043	1	KIT (POCKET SENSOR)						



GRAPHIC #1

<END>

g00746845

# ELECTRICAL AND STARTING SYSTEM

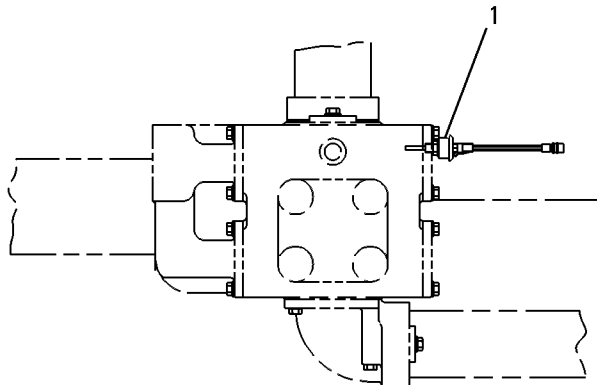
## 4P-9191 DETECTOR GP-LIQUID (CHG -02 THRU -04) JACKET WATER LOW LEVEL

SMCS-1326, 1334, 1350

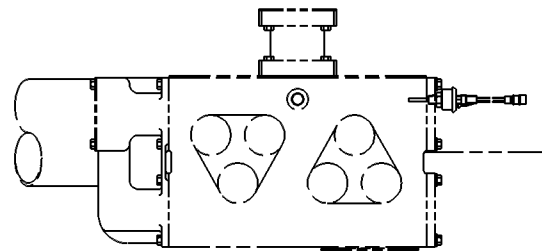
i00089607

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
CY	1	1	125-4340	1	DETECTOR GP-LIQUID						157
	2	1	6B-5072	1	BUSHING-TERMINAL						

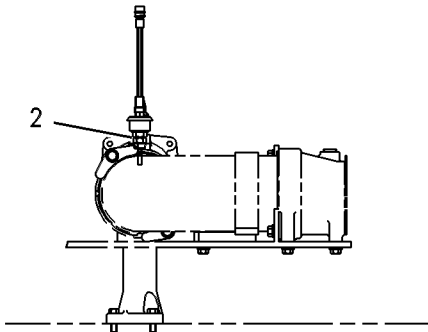
C-CHANGE FROM PREVIOUS TYPE  
Y-SEPARATE ILLUSTRATION



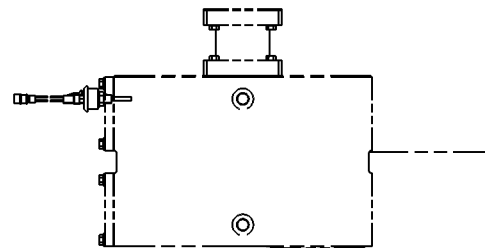
**TOP VIEW**  
WATER LINES (COMBINED CIRCUIT)  
INLINE ENGINE



**TOP VIEW**  
WATER LINES (COMBINED CIRCUIT)  
VEE ENGINE



**FRONT VIEW**  
WATER LINES (SEPERATE CIRCUIT)  
INLINE ENGINE



**TOP VIEW**  
WATER LINES (SEPERATE CIRCUIT)  
VEE ENGINE

GRAPHIC #1

<END>

g00066924

# ELECTRICAL AND STARTING SYSTEM

## 125-4340 DETECTOR GP-LIQUID (CHG -00, -01)

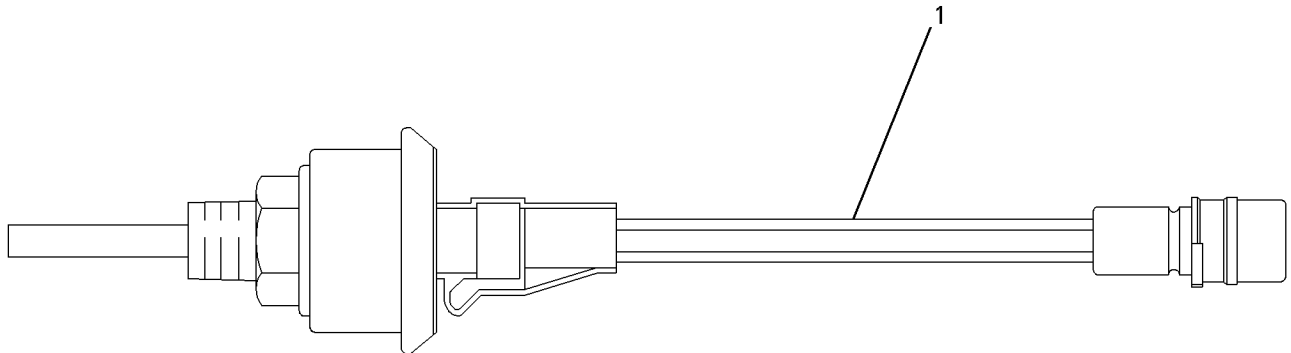
COOLANT

PART OF 4P-9191 DETECTOR GP-LIQUID

SMCS-1326, 1334, 1350

i02056790

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	125-8263	1	HARNES AS-WIRING (COOLANT)						



GRAPHIC #1

<END>

g00745925



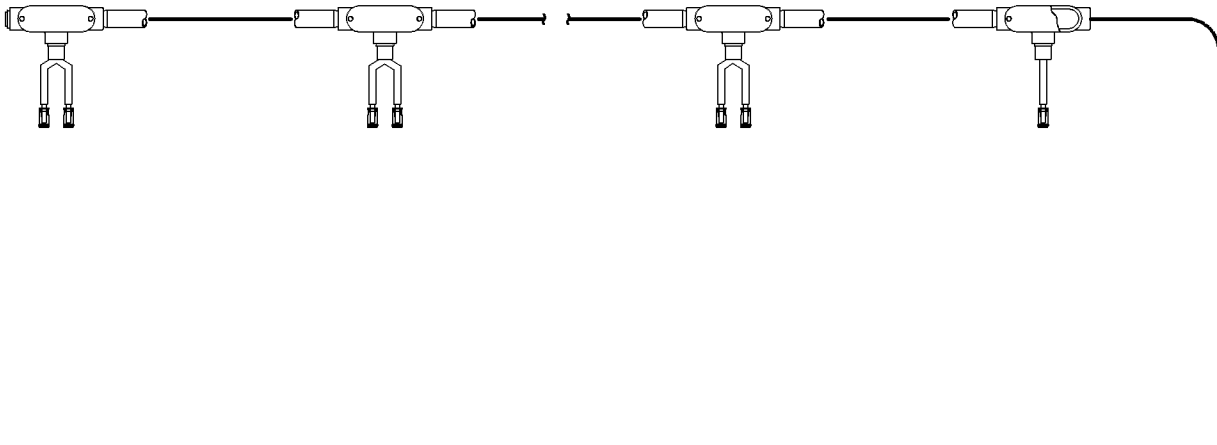
# ELECTRICAL AND STARTING SYSTEM

## 138-7082 HARNESS AS (CHG -00, -02) PART OF 139-9273 WIRING GP-ENGINE

SMCS-1408

i01059664

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)						



GRAPHIC #1

<END>

g00104595

# ELECTRICAL AND STARTING SYSTEM

## 207-2693 MOUNTING GP-CONTACTOR (CHG -00 THRU -02) ABS CERTIFICATION

SMCS-7400

i02015803

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	<b>123-6574</b>	2	BUSHING (3/4-14 THD)						
	<b>163-1209</b>	26	BUSHING (1/2-IN)						
	<b>208-6170</b>	26	FITTING-CABLE (1/2-IN)						
	<b>208-6171</b>	2	FITTING-CABLE (3/4-IN)						
	<b>225-5157</b>	2	LOCKNUT (3/4-14-THD) (3/4-IN)						
	<b>4P-4890</b>	26	NUT-SPECIAL (1/2-14 THD)						
	<b>225-5156</b>	2	LOCKNUT-SEAL (3/4-IN)						
	<b>200-8951</b>	26	SEAL						
	<b>3S-2093</b>	50	STRAP-CABLE						
	<b>6K-0806</b>	20	STRAP-CABLE						
	<b>7K-1181</b>	100	STRAP-CABLE						
	<b>8L-8413</b>	100	STRAP-CABLE						
	<b>9X-6772</b>	100	STRAP-CABLE						
	<b>201-7833</b>	14	TIE DOWN						
E	<b>6V-9023</b>		TUBE-HEAT SHRINK (21CM)						
H	<b>144-0216</b>		TUBE-HEAT SHRINK (305DM)						
D	<b>5P-6006</b>		TUBE-HEAT SHRINK (0.3M)						
D-ORDER BY THE METER E-ORDER BY THE CENTIMETER H-ORDER BY THE DECIMETER									

<END>

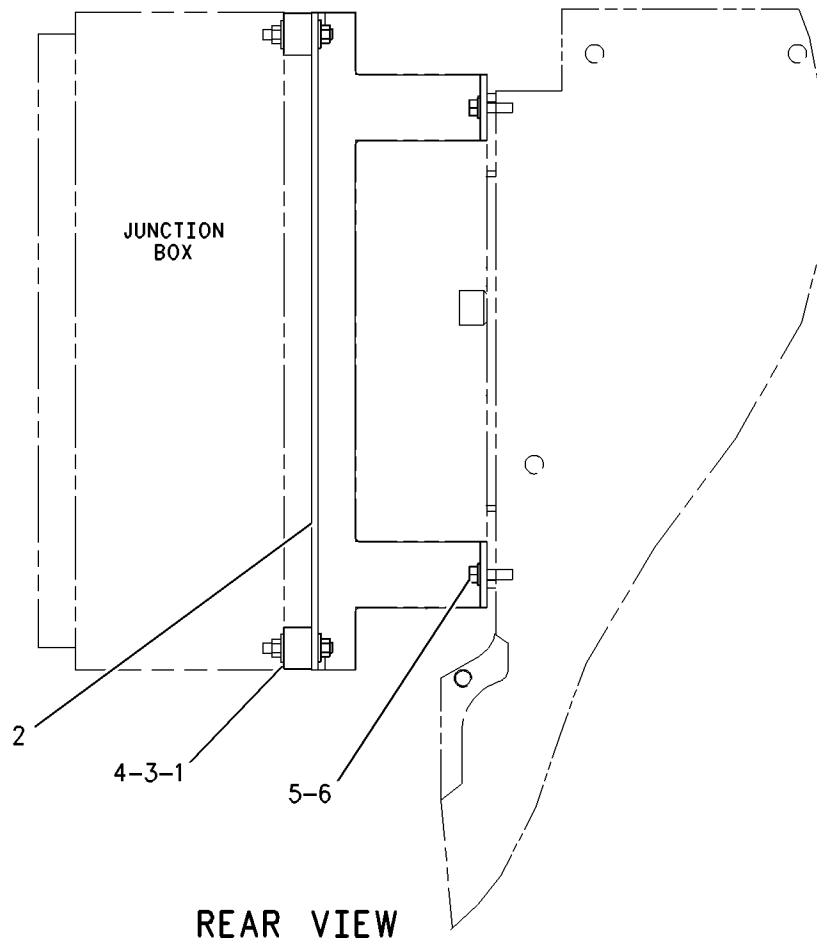
# ELECTRICAL AND STARTING SYSTEM

## 206-8701 MOUNTING GP-JUNCTION BOX (CHG -00, -01, -01D1)

SMCS-7426

i01669640

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	9W-4361	4	MOUNT-FLEXIBLE						
	2	1	206-7920	2	BRACKET						
	3	1	6V-8801	8	NUT (3/8-16-THD)						
	4	1	7X-0772	8	WASHER-HARD (10.2X25.5X2.5-MM THK)						
	5	1	8T-4896	4	WASHER-HARD (10.2X18.5X2.5-MM THK)						
	6	1	9B-7237	4	BOLT (3/8-16X1.25-IN)						



GRAPHIC #1

<END>

g00889707

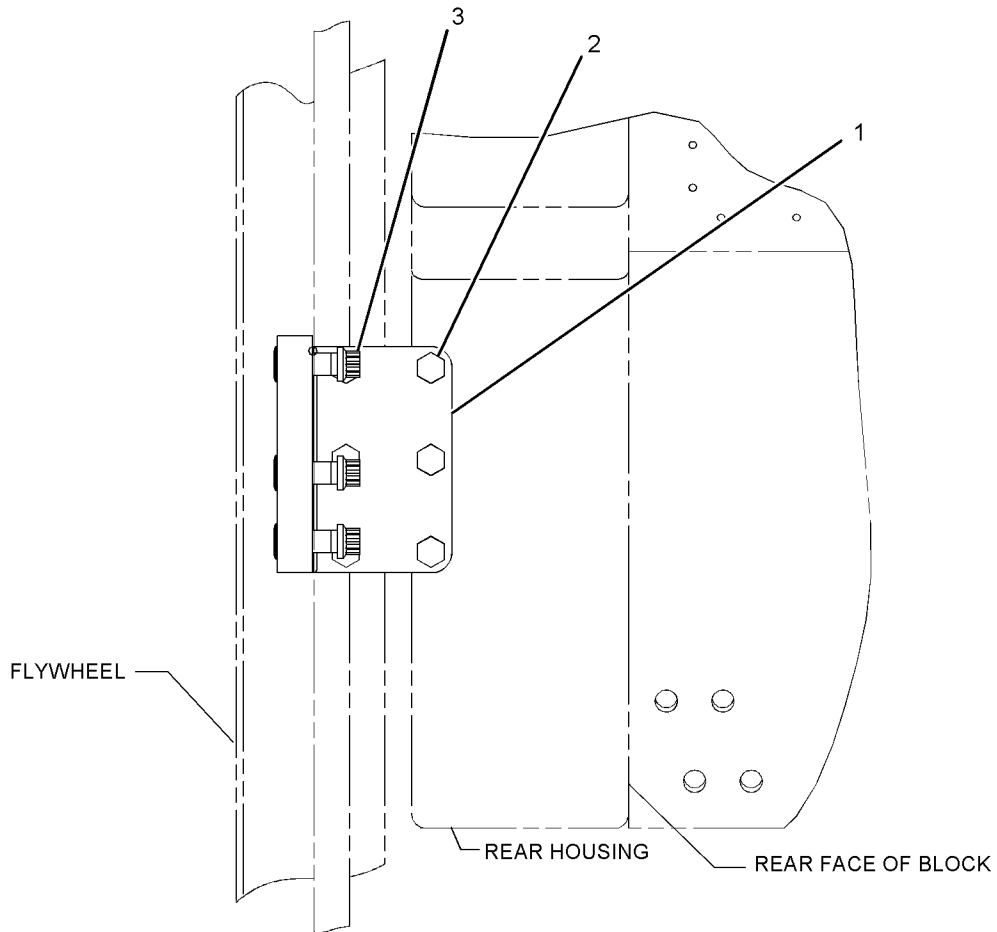
# ELECTRICAL AND STARTING SYSTEM

## 153-5035 MOUNTING GP-STARTING MOTOR (CHG -02)

SMCS-1452, 1453

i02092047

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>4W-6273</b>	1	SUPPORT AS-MOTOR						
		1	<b>6V-3538</b>	2	DOWEL						
2		1	<b>0S-1587</b>	6	BOLT (1/2-13X1.75-IN)						
3		1	<b>8S-2332</b>	3	BOLT-12 POINT HEAD (5/8-11X1.75-IN)						



GRAPHIC #1

<END>

g01066714

# ELECTRICAL AND STARTING SYSTEM

## 171-6233 PANEL GP-CONTACTOR (CHG -01 THRU -03)

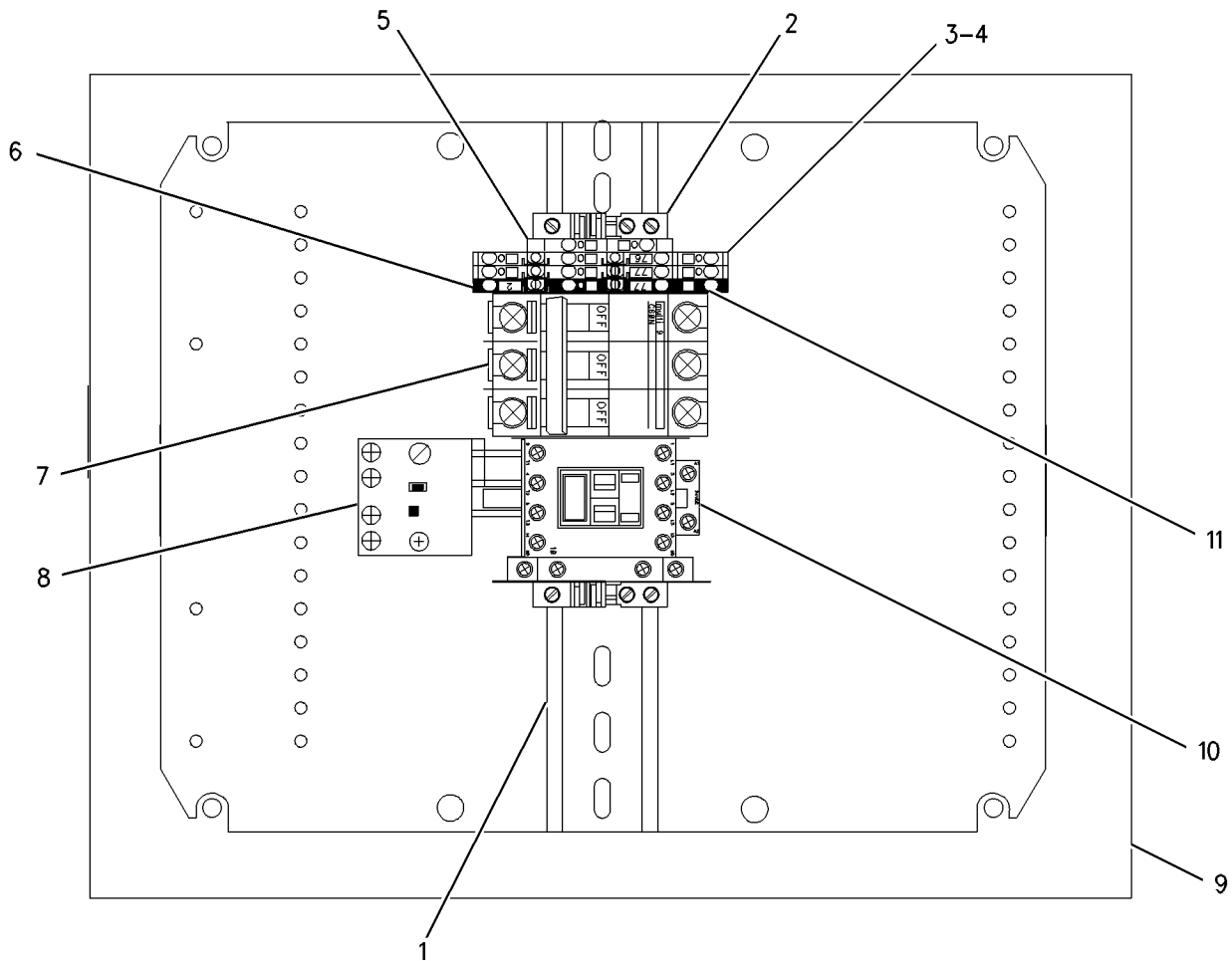
PRELUBE

SMCS-7400

i02252320

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
BE	1	1	147-1960		RAIL						
	2	1	9X-9675	2	BRACKET-END						
	3	1	252-4949	2	TERMINAL-CONTACT (DOUBLE) (SPRING CAGE)						
	4	1	252-4943	1	COVER-END						
	5	1	204-5571	1	TERMINAL-GROUND						
	6	1	252-4967	1	TERMINAL (SPRING CAGE)						
	7	1	142-7448	1	CIRCUIT BREAKER AS (13-AMPERE)						
	8	1	171-6230	1	CONTACT (THERMAL OVERLOAD)						
	9	1	128-0447	1	BOX AS-JUNCTION						
	10	1	157-5180	1	STARTER						
	11	1	225-0549	1	BAR (BRIDGE)						

B-USE AS REQUIRED  
E-ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g00643632

# ELECTRICAL AND STARTING SYSTEM

## 236-0711 SENDER GP-PRESSURE (CHG -00)

SMCS-7400

i01924616

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	4M-5317	1	BUSHING-REDUCING						
	7E-0028	1	SENDER AS-PRESSURE						
<b>&lt;END&gt;</b>									

# ELECTRICAL AND STARTING SYSTEM

## 144-7647 SENSOR GP-PARTICLE

(CHG -01 THRU -04, -04D1, -04D2, -05, -05D1)

SMCS-1308

i02001664

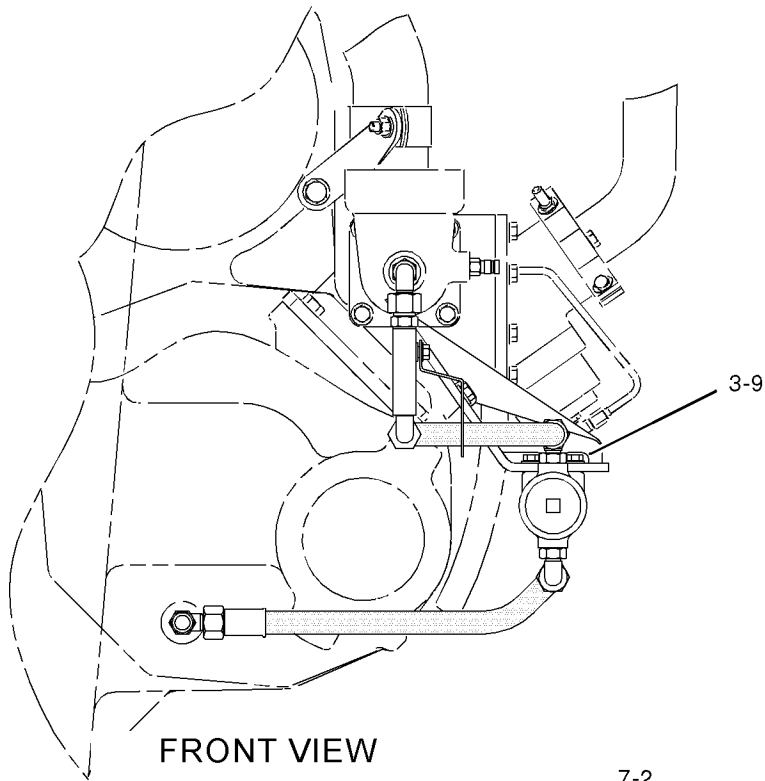
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	144-8623	1	SENSOR GP-PARTICLE						
		1	165-5690	1	KIT-PARTICLE DETECTOR (KIT INCLUDES GRID, END CAP O-SEAL AND GRID O-SEAL)						
	2	1	0S-1591	2	BOLT (3/8-16X1.5-IN)						
	3	1	0S-1618	2	BOLT (5/16-18X1-IN)						
	4	1	1P-7625	3	ELBOW						
I	5	1	165-5016	1	HOSE AS						
	6	1	3J-7354	1	SEAL-O-RING						
	7	1	3V-3308	2	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	8	1	8C-3446	1	VALVE AS-FLUID SAMPLING						
	9	1	9M-1974	2	WASHER-HARD (8.8X16X2-MM THK)						
I	10	1	9M-6511	1	HOSE AS						
	11	1	144-7115	1	BRACKET AS						
	12	1	8L-2786	4	SEAL-O-RING						
	13	1	4R-8658	1	VALVE AS-BALL						
	14	1	9M-6522	1	CONNECTOR						
	15	1	032-1269	1	ELBOW						
	16	1	166-1757	1	ELBOW (SWIVEL)						
	17	1	5N-4020	1	BUSHING-REDUCER						

I-REFER TO HYDRAULIC INFORMATION SYSTEM

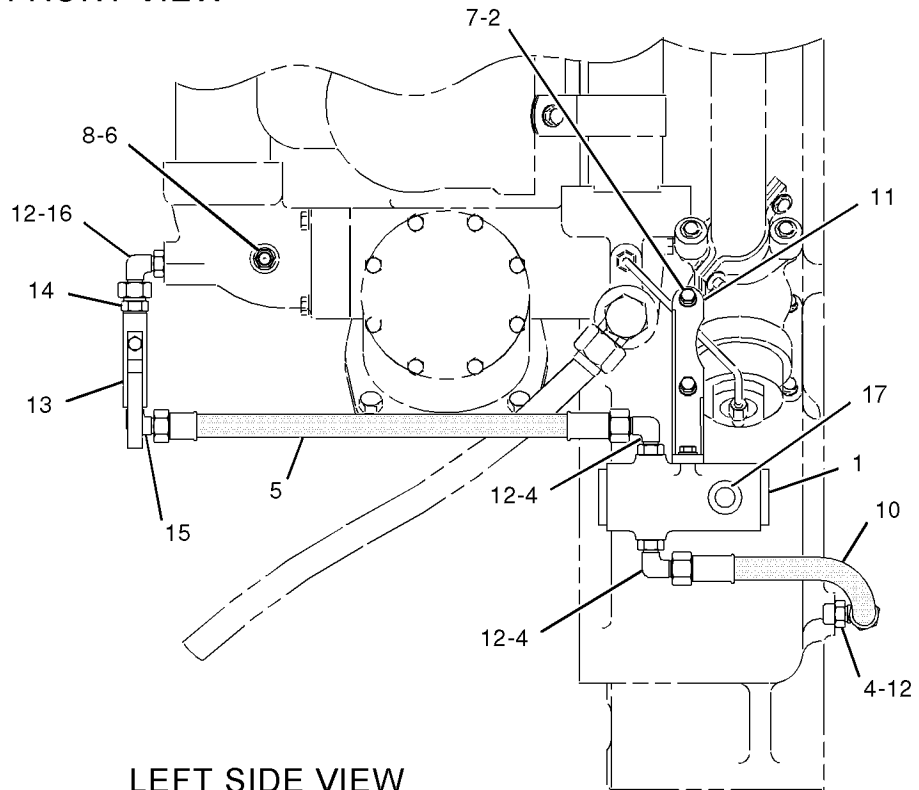
# ELECTRICAL AND STARTING SYSTEM

144-7647 SENSOR GP-PARTICLE (contd.)

i02001664



FRONT VIEW



LEFT SIDE VIEW

<END>

GRAPHIC #1

g01035887



# ELECTRICAL AND STARTING SYSTEM

## 7C-1897 SENSOR GP-SPEED (CHG -00 THRU -04)

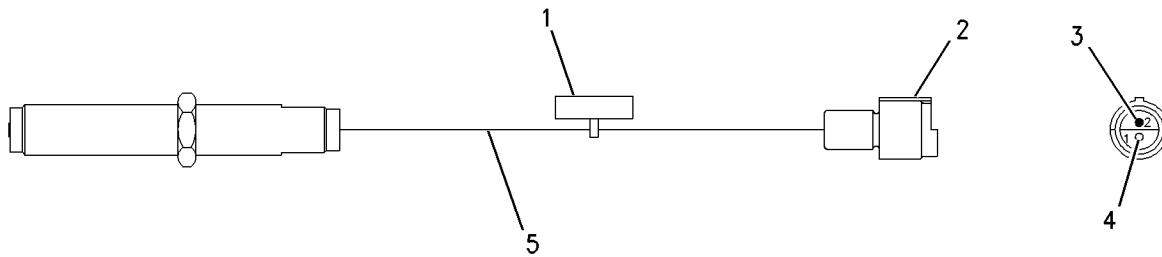
MAGNETIC, LOW OUTPUT  
PART OF 1W-0023 HOUSING GP-FRONT

SMCS-1907

i01636657

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	171-5349	1	MARKER						
	2	1	7N-9738	1	HOUSING-RECEPTACLE						
	3	1	7N-7780	1	PIN-CONNECTOR						
	4	1	7N-7779	1	SOCKET-CONNECTOR						
E	5	1	9X-1386		SLEEVE (14CM)						

E-ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g00845691

# ELECTRICAL AND STARTING SYSTEM

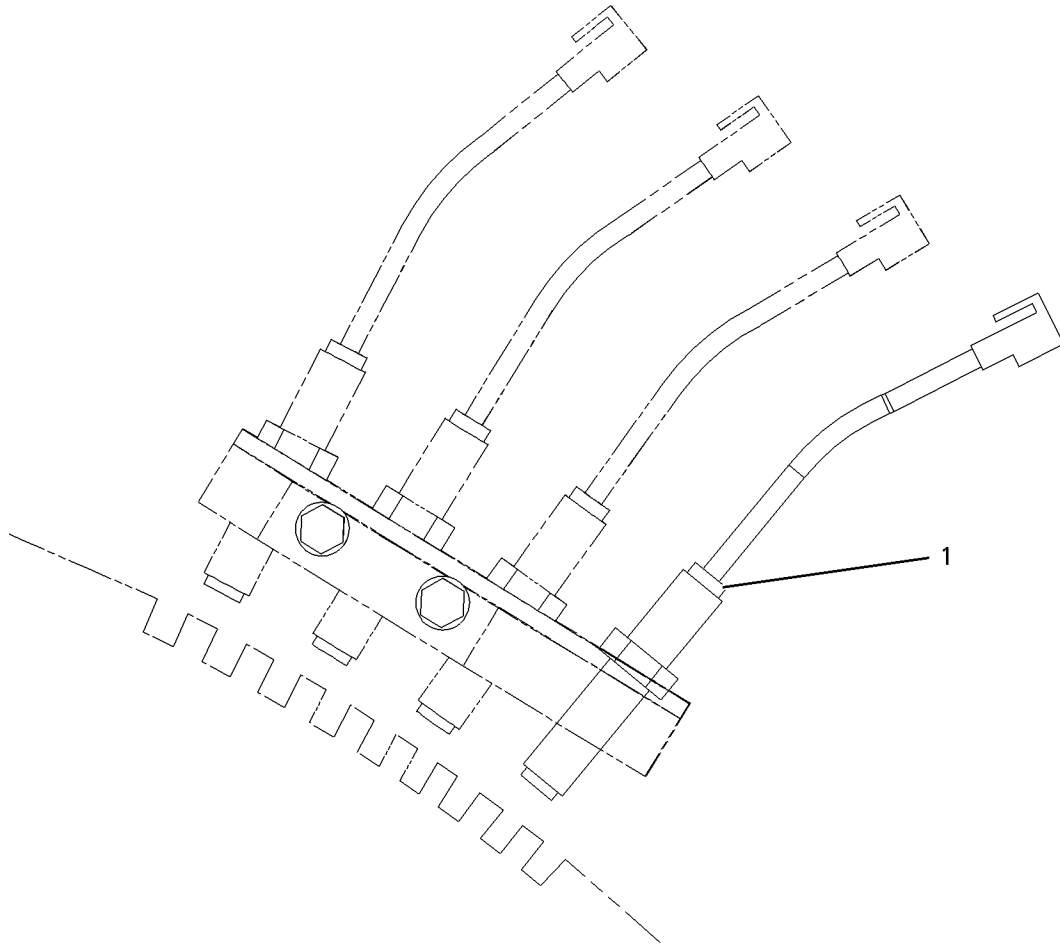
## 7W-1145 SENSOR GP-SPEED (CHG -07)

SMCS-1907

i01657547

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	1	1	189-5746	1	SENSOR GP-SPEED						168

Y-SEPARATE ILLUSTRATION



GRAPHIC #1

<END>

g00882446

# ELECTRICAL AND STARTING SYSTEM

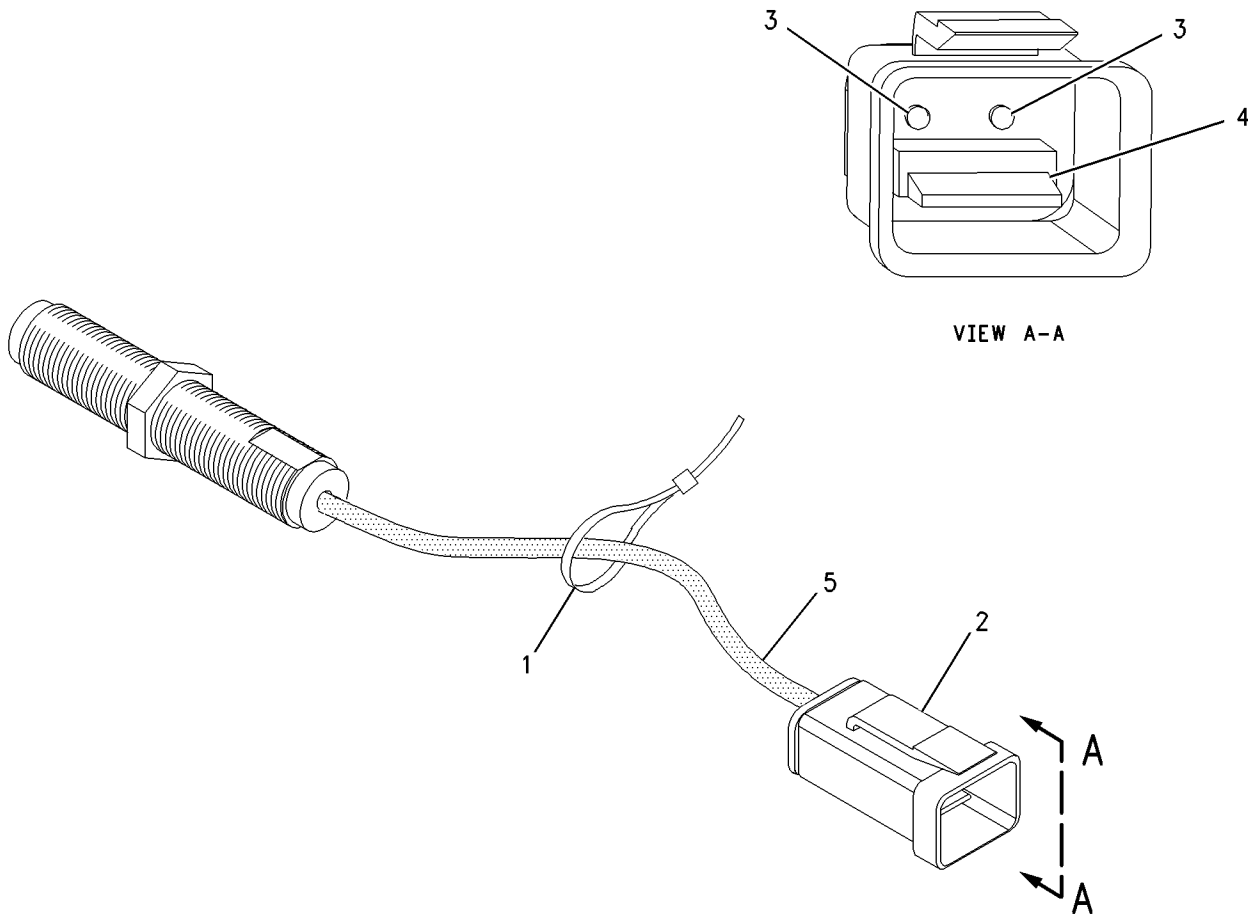
## 189-5746 SENSOR GP-SPEED (CHG -00, -01) PART OF 7W-1145 SENSOR GP-SPEED

SMCS-1907

i02251252

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>171-5349</b>	1	MARKER						
	2	1	<b>102-8802</b>	1	KIT-RECEPTACLE (2-PIN) (INCLUDES RECEPTACLE ASSEMBLY AND WEDGE)						
	3	1	<b>186-3735</b>	2	PIN-CONNECTOR						
	4	1	<b>3E-3365</b>	1	WEDGE-RECEPTACLE LOCK (2-PIN)						
BE	5	1	<b>9X-1386</b>		SLEEVE (14-CM)						

B-USE AS REQUIRED  
E-ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g00837278

# ELECTRICAL AND STARTING SYSTEM

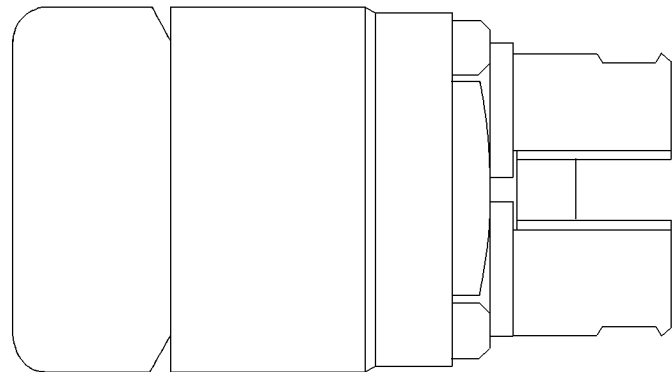
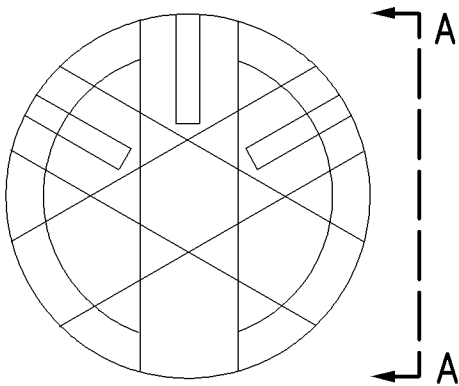
## 162-0572 SWITCH AS (CHG -01)

3 POSITION SPRING RETURN. ENGINE PRELUBRICATION/START  
PART OF 179-8990 PANEL GP-CONTROL

SMCS-1400, 1435, 4450

i01683661

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)						



VIEW A-A

GRAPHIC #1

<END>

g00868320

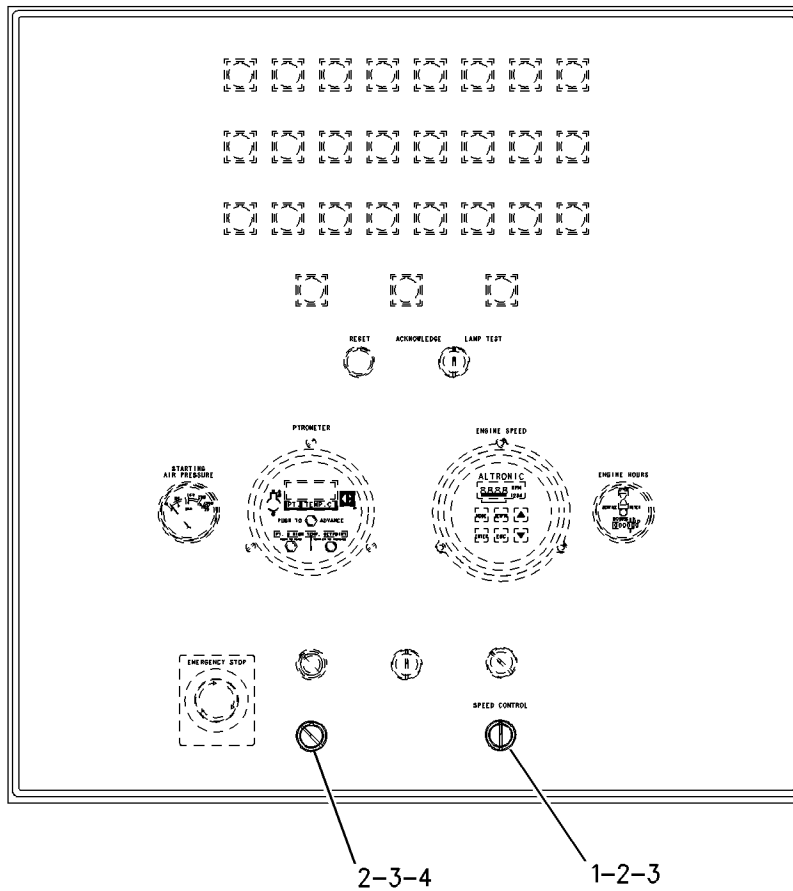
# ELECTRICAL AND STARTING SYSTEM

## 179-8984 SWITCH GP-GOVERNOR (CHG -00 THRU -02)

SMCS-1264

i01814809

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	162-0571	1	SWITCH (3 POSITION SPRING RETURN)						
	2	1	162-0575	2	LATCH-MOUNTING						
	3	1	162-0576	6	BLOCK-CONTACT						
	4	1	162-0568	1	SWITCH (2 POSITION MAINTAINED)						
	5	1	211-8675	1	FILM-CONTROL PANEL						



GRAPHIC #1

<END>

g00926591

# ELECTRICAL AND STARTING SYSTEM

## 114-1653 THERMOCOUPLE (CHG -03, -05 THRU -07)

THERMOCOUPLE

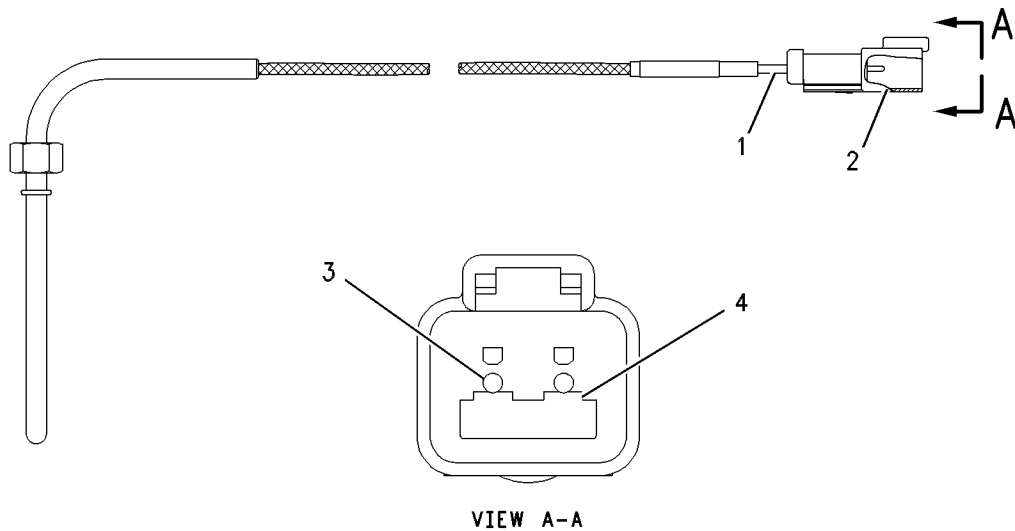
PART OF 119-9211 THERMOCOUPLE GP

SMCS-7498

i01691088

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
BE	1	1	8T-6342		TUBE (3.18MM ID)						
	2	1	102-8802	1	KIT-RECEPTACLE (2 PIN) (KIT INCLUDES RECEPTACLE AS. AND WEDGE)						
	3	1	8T-8729	2	PIN-CONNECTOR						
	4	1	3E-3365	1	WEDGE-RECEPTACLE LOCK (2 PIN)						

B-USE AS REQUIRED  
E-ORDER BY THE CENTIMETER



GRAPHIC #1

<END>

g00275098

# ELECTRICAL AND STARTING SYSTEM

## 119-9211 THERMOCOUPLE GP (CHG -00) CYLINDER PORT

SMCS-7498

i00915131

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
Y	114-1653	1	THERMOCOUPLE						171
Y-SEPARATE ILLUSTRATION									

<END>

# ELECTRICAL AND STARTING SYSTEM

## 183-6220 TRAY GP-SUPPORT (CHG -00, -01)

SMCS-1408

i01556991

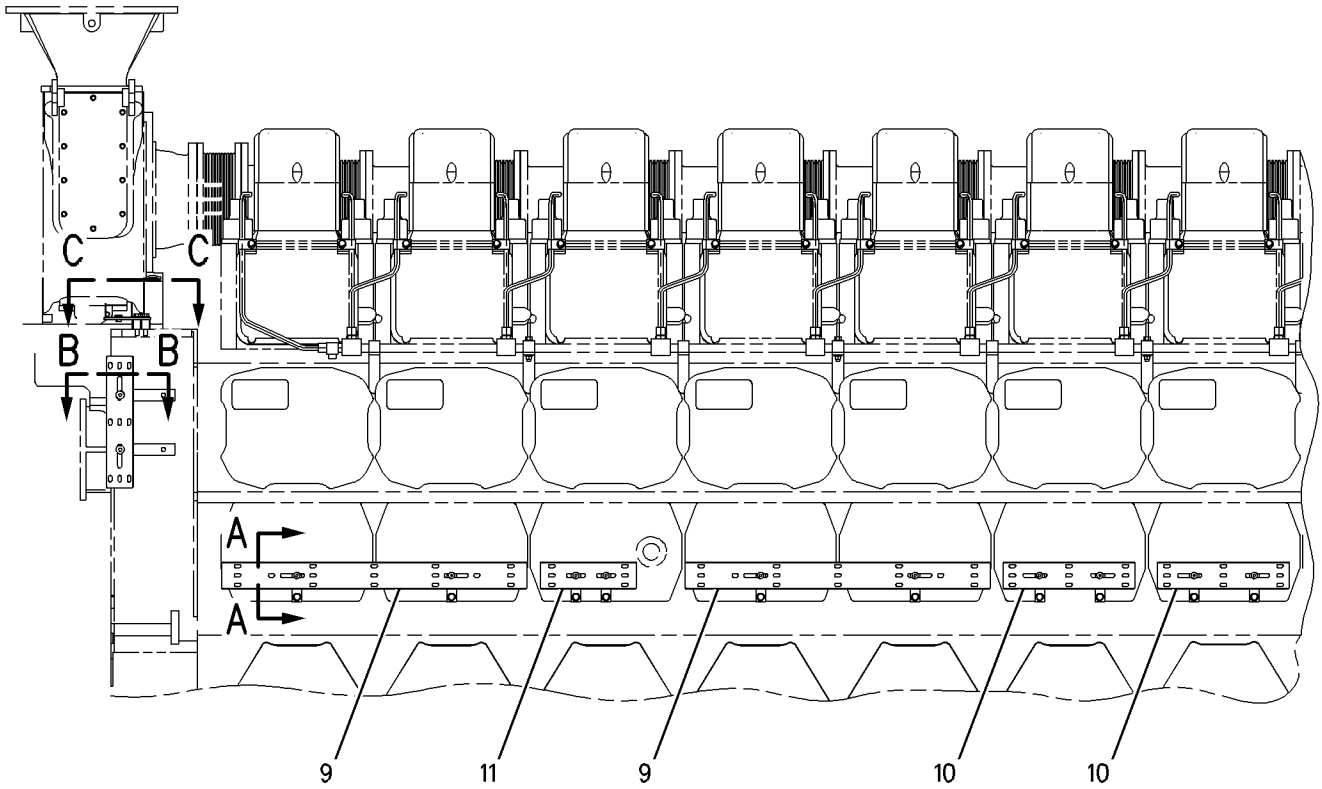
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>1B-4971</b>	4	SPACER (13/32X1X1 IN THK)						
	2	2	<b>4J-2474</b>	4	LUG						
	3	1	<b>9M-4594</b>	10	SPACER (0.406X0.875X0.75 IN THK)						
	4	2	<b>108-3612</b>	6	SPACER (11.13X19.05X53MM THK)						
	5	1,2	<b>128-8831</b>	20	BRACKET						
	6	1	<b>128-8832</b>	1	BRACKET						
	7	1	<b>128-8833</b>	1	BRACKET						
	8	1,2	<b>130-8342</b>	22	SCREW-BUTTON HEAD (3/8-16)						
	9	1,2	<b>183-6226</b>	5	TRAY-CABLE						
	10	1,2	<b>183-6227</b>	6	TRAY-CABLE						
	11	1	<b>183-6228</b>	1	TRAY-CABLE						
	12	2	<b>0L-1352</b>	10	BOLT (3/8-16X3.25 IN)						
	13	1	<b>0S-1590</b>	12	BOLT (3/8-16X2 IN)						
	14	1	<b>3E-8042</b>	2	SCREW-BUTTON HEAD (3/8-16X38.1MM)						
	15	1,2	<b>3V-3308</b>	22	WASHER-HARD (10.2X20.5X2.5MM THK)						



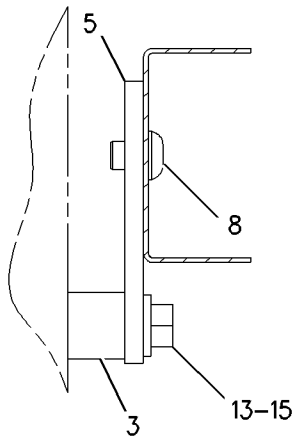
# ELECTRICAL AND STARTING SYSTEM

183-6220 TRAY GP-SUPPORT (contd.)

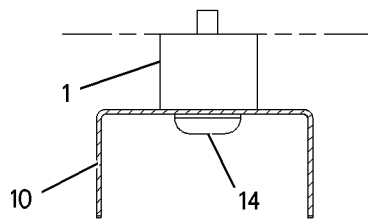
i01556991



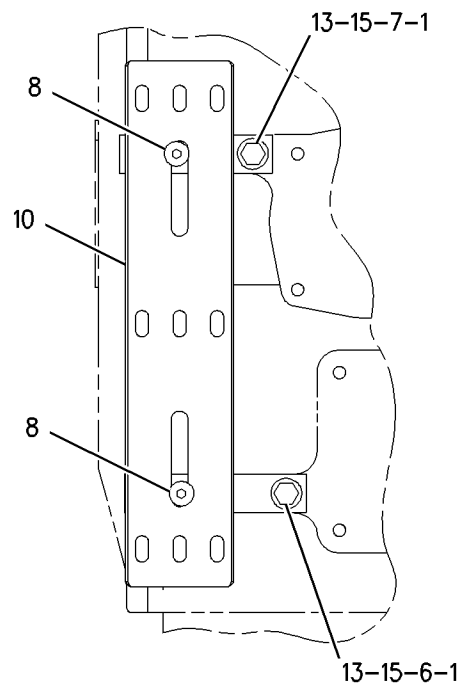
RIGHT SIDE VIEW



SECTION A-A



SECTION B-B



VIEW C-C

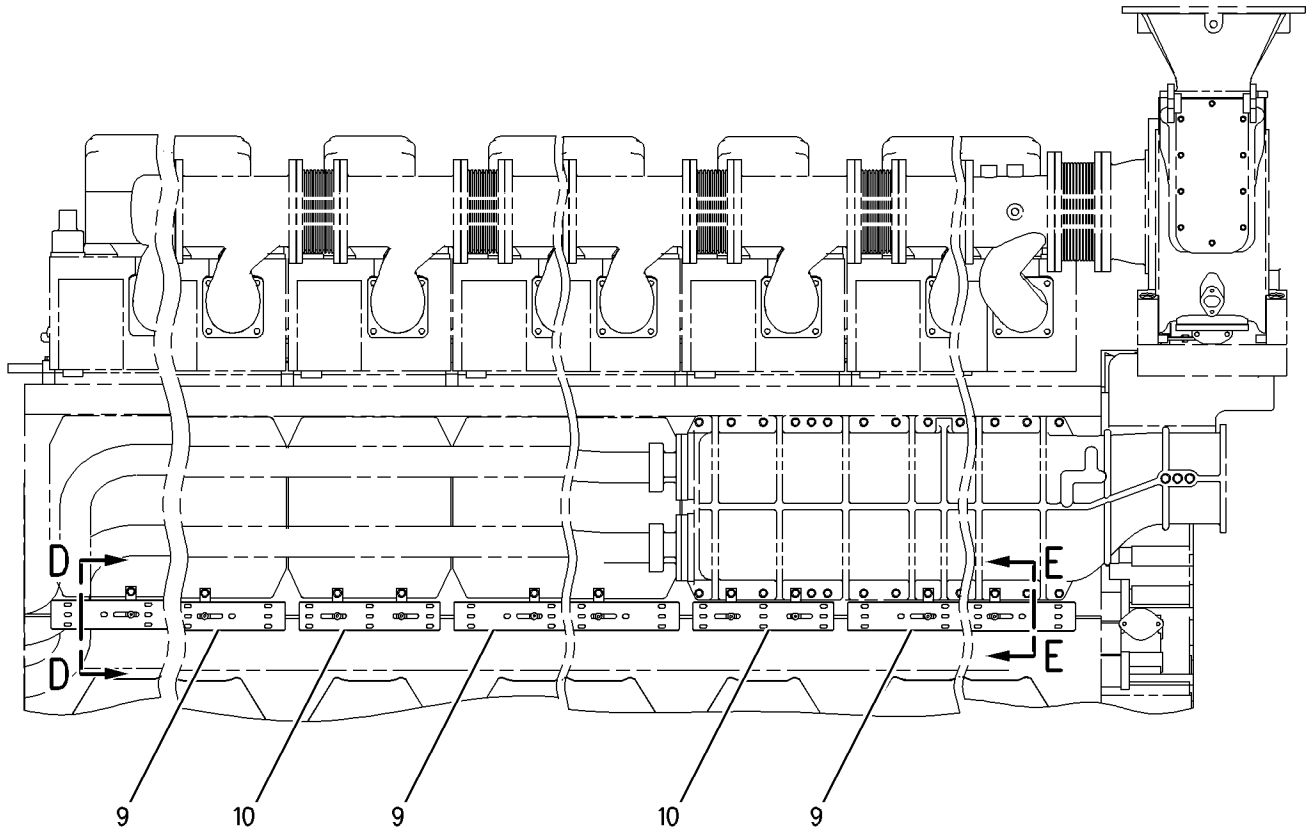
GRAPHIC #1

g00712278

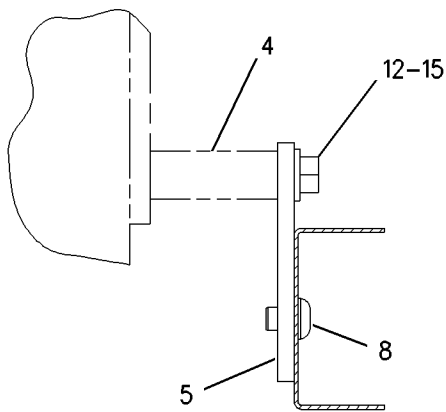
# ELECTRICAL AND STARTING SYSTEM

183-6220 TRAY GP-SUPPORT (contd.)

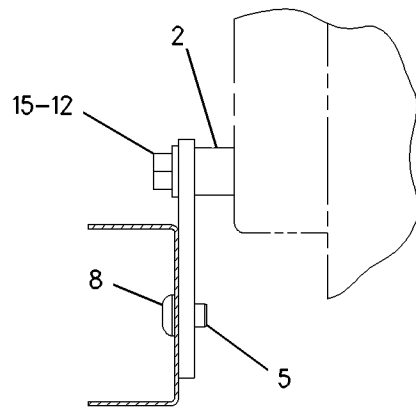
i01556991



LEFT SIDE VIEW



SECTION D-D



SECTION E-E

GRAPHIC #2

<END>

g00712279

# ELECTRICAL AND STARTING SYSTEM

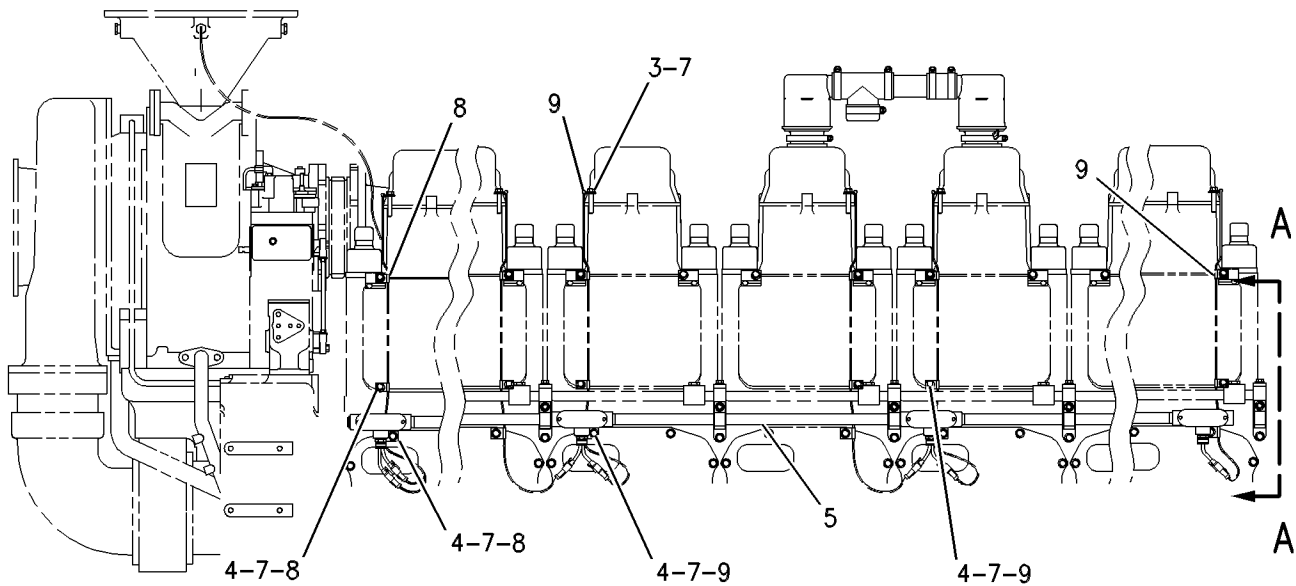
## 139-9273 WIRING GP-ENGINE (CHG -00 THRU -02)

SMCS-1000, 1408

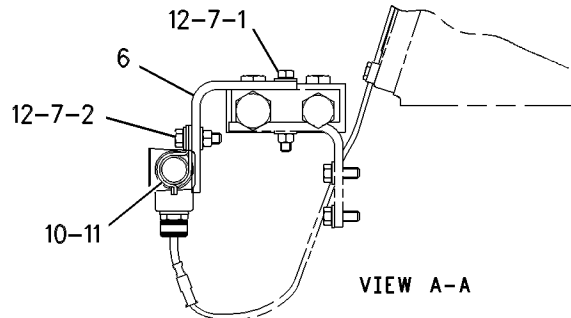
i01556812

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	0L-1143	8	BOLT (3/8-16X2.50 IN)						
B	2	1	0S-1588	8	BOLT (3/8-16X1.25 IN)						
	3	1	0S-1590	8	BOLT (3/8-16X2 IN)						
	4	1	0S-1591	16	BOLT (3/8-16X1.5 IN)						
Y	5	1	138-7082	1	HARNESS AS						158
B	6	1	1W-0593	8	SUPPORT						
B	7	1	3V-3308	56	WASHER-HARD (10.2X20.5X2.5MM THK)						
	8	1	6K-8179	3	CLIP						
	9	1	6V-2686	29	CLIP						
B	10	1	8T-1895	8	CLIP (SLOT)						
B	11	1	8T-1896	8	CLIP (TAB)						
B	12	1	9S-8752	16	NUT-FULL (3/8-16 THD)						

B-USE AS REQUIRED  
Y-SEPARATE ILLUSTRATION



RIGHT SIDE VIEW



VIEW A-A

GRAPHIC #1

<END>

g00360292

# OPERATOR STATION

## 143-7511 LINES GP-INSTRUMENT PANEL (CHG -01, -01D2) FRONT / RH

SMCS-7451

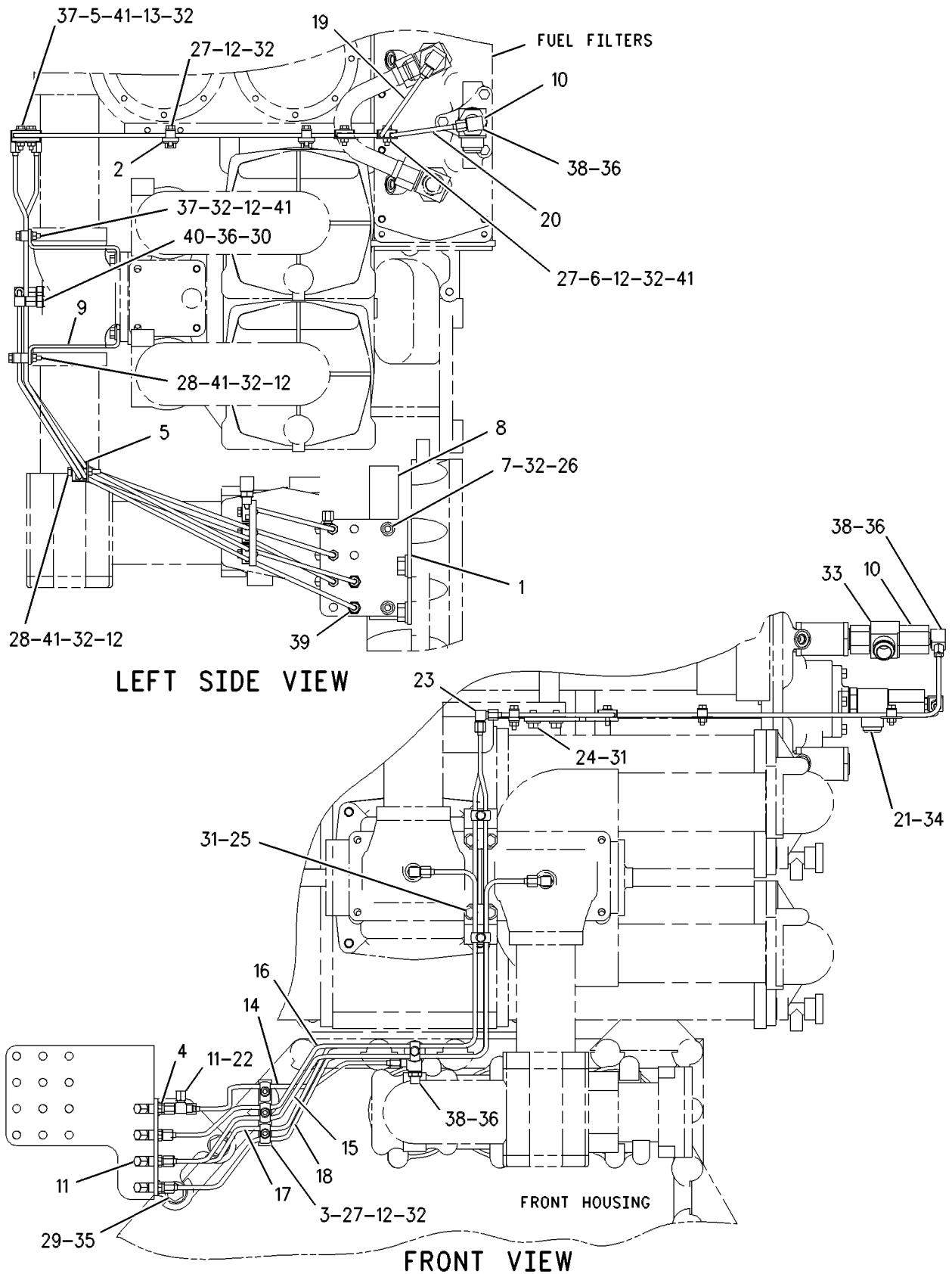
i01929217

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-4287	1	BRACKET						
	2	1	2W-8399	2	BRACKET						
	3	1	4W-8015	1	PLATE						
	4	1	5B-3254	5	NUT-JAM (7/16-20-THD)						
	5	1	5N-8071	1	PLATE						
	6	1	5P-9287	3	WASHER-HARD (7.2X32X2-MM THK)						
	7	1	9S-8752	2	NUT-FULL (3/8-16-THD)						
	8	1	7C-6713	1	BRACKET						
	9	1	7C-6897	2	BRACKET						
	10	1	8C-8921	2	ADAPTER-O-RING						
	11	1	9L-8493	6	CAP						
	12	1	138-8240	12	CLAMP-TUBE						
	13	1	138-8241	1	CLAMP-TUBE						
	14	1	145-2917	1	TUBE AS						
	15	1	145-2918	1	TUBE AS						
	16	1	145-2919	1	TUBE AS						
	17	1	145-2920	1	TUBE AS						
	18	1	145-2921	1	TUBE AS						
	19	1	145-2922	1	TUBE AS						
	20	1	145-2923	1	TUBE AS						
	21	1	030-7960	1	TEE-FLARED						
	22	1	052-0572	1	TEE-SWIVEL						
	23	1	067-6495	2	ELBOW-FLARED						
	24	1	0S-0509	4	BOLT (3/8-16X0.75-IN)						
	25	1	0S-1588	4	BOLT (3/8-16X1.25-IN)						
	26	1	0S-1594	2	BOLT (3/8-16X1-IN)						
	27	1	0S-1616	7	BOLT (1/4-20X1-IN)						
	28	1	1B-2713	2	BOLT (1/4-20X1.75-IN)						
	29	1	1D-4588	2	BOLT (5/8-11X4.25-IN)						
	30	1	2P-1314	2	CONNECTOR						
	31	1	3V-3308	12	WASHER-HARD (10.2X20.5X2.5-MM THK)						
	32	1	5P-0537	16	WASHER-HARD (7.2X14.5X2-MM THK)						
	33	1	5P-2242	1	TEE-SWIVEL						
	34	1	5P-7701	1	SEAL-O-RING						
	35	1	5P-8247	2	WASHER-HARD (17X32X3.5-MM THK)						
	36	1	6V-5049	5	SEAL-O-RING						
	37	1	7B-2742	3	BOLT (1/4-20X1.25-IN)						
	38	1	7J-4026	3	ELBOW						
	39	1	7K-6462	5	ELBOW						
	40	1	7K-9197	2	ELBOW						
	41	1	9S-8750	7	NUT-FULL (1/4-20-THD)						

# OPERATOR STATION

143-7511 LINES GP-INSTRUMENT PANEL (contd.)

i01929217



GRAPHIC #1

<END>

g00507742

# OPERATOR STATION

## 143-7512 LINES GP-INSTRUMENT PANEL

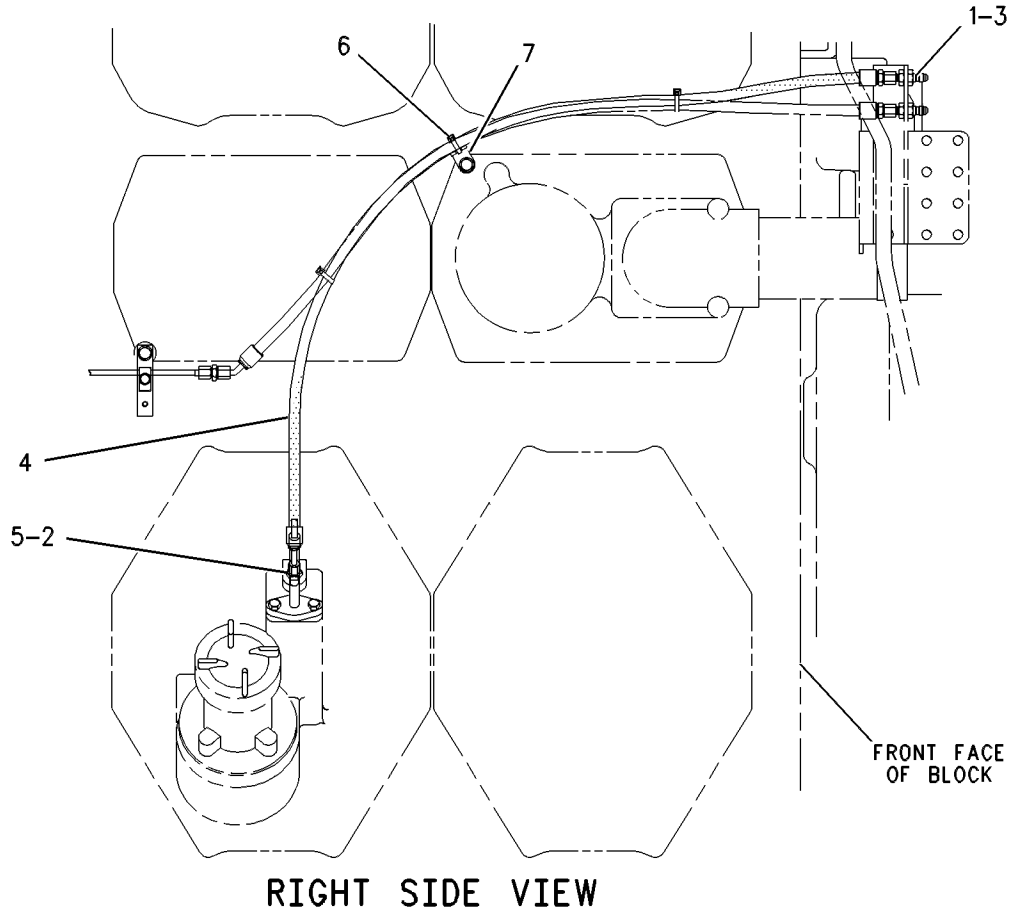
(CHG -00, -00D1, -00D2, -00D3)  
CRANKCASE PRESSURE /RH

SMCS-7451

i01929218

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2P-1276	1	UNION-BULKHEAD (FLARED)						
	2	1	3J-7352	1	CONNECTOR						
	3	1	5B-3254	1	NUT-JAM (7/16-20 THD)						
I	4	1	144-7661	1	HOSE AS						
	5	1	6V-5048	1	SEAL-O-RING						
B	6	1	7K-1181	3	STRAP-CABLE						
	7	1	132-5789	1	CLIP						

B-USE AS REQUIRED  
I-SEE HOSE FABRICATION GUIDE



GRAPHIC #1

<END>

g00117978

# OPERATOR STATION

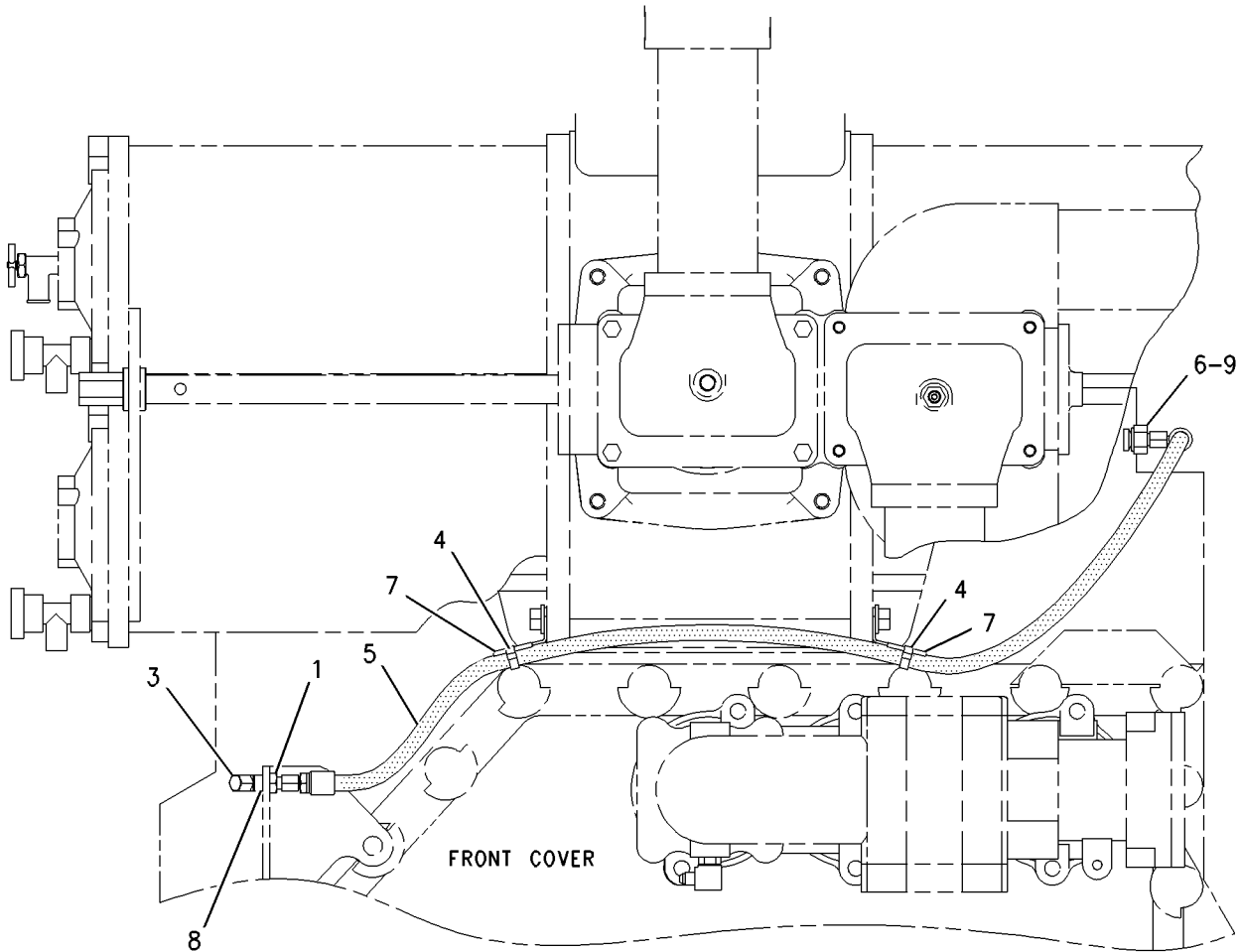
## 143-7513 LINES GP-INSTRUMENT PANEL (CHG -00, -01) INTAKE MANIFOLD - RH

SMCS-7451

i01644225

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5B-3254	1	NUT-JAM (7/16-20 THD)						
	3	1	9L-8493	1	CAP						
	4	1	9X-6772	2	STRAP-CABLE						
I	5	1	143-8450	1	HOSE AS						
	6	1	030-8193	1	CONNECTOR-FLARED						
	7	1	4P-7429	2	CLIP						
	8	1	7K-6462	1	ELBOW						
	9	1	8L-2786	1	SEAL-O-RING						

I-SEE HOSE FABRICATION GUIDE



**FRONT VIEW**

GRAPHIC #1

<END>

g00849830

# OPERATOR STATION

## 153-5401 LINES GP-INSTRUMENT PANEL (CHG -00 THRU -02) RH - INLET AIR RESTRICTION

SMCS-7451

i01599168

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-4284	6	BRACKET						
	2	1	2W-4285	3	BRACKET						
	3	1	2W-4379	6	PLATE						
	4	1	3J-7355	3	UNION-FLARED						
	5	1	5B-3254	1	NUT-JAM (7/16-20 THD)						
	7	1	7K-1181	1	STRAP-CABLE						
	8	1	9Y-2032	1	BRACKET						
	9	1	132-5789	1	CLIP						
	10	1	138-8240	17	CLAMP-TUBE						
	11	1	144-5363	1	BRACKET						
	12	1	144-5616	1	TUBE AS						
I	13	1	144-6689	1	HOSE AS						
	14	1	144-7679	1	TUBE AS						
	15	1	153-5606	1	TUBE AS						
	16	1	0L-1143	1	BOLT (3/8-16X2.50 IN)						
	17	1	0S-1588	8	BOLT (3/8-16X1.25 IN)						
	18	1	0S-1594	2	BOLT (3/8-16X1 IN)						
	19	1	0S-1615	5	BOLT (1/4-20X0.75 IN)						
	20	1	0S-1621	1	BOLT (1/2-13X1 IN)						
	21	1	2P-1276	1	UNION-BULKHEAD (FLARED)						
	22	1	3V-3308	10	WASHER-HARD (10.2X20.5X2.5MM THK)						
	23	1	5P-0537	11	WASHER-HARD (7.2X14.5X2MM THK)						
	24	1	5P-8245	1	WASHER-HARD (13.5X25.5X3MM THK)						
	25	1	9F-7022	6	BOLT (1/4-20X1.50 IN)						

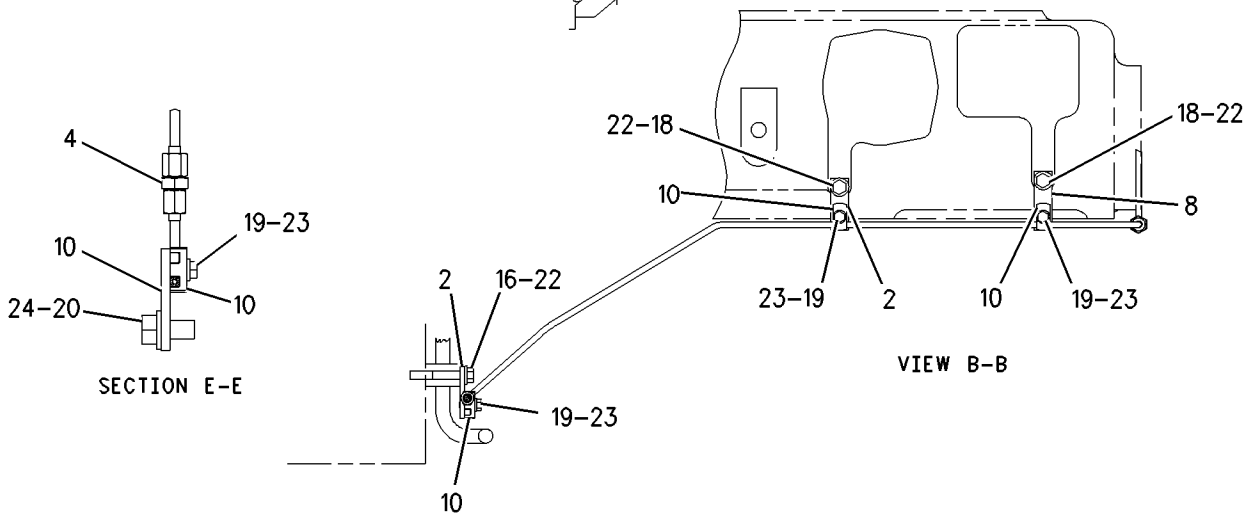
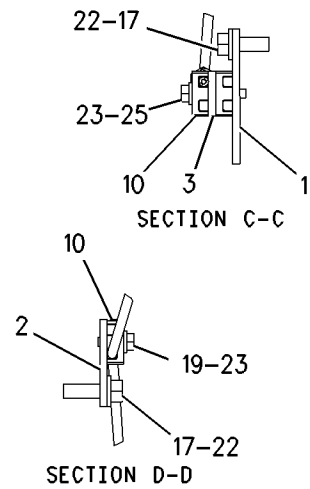
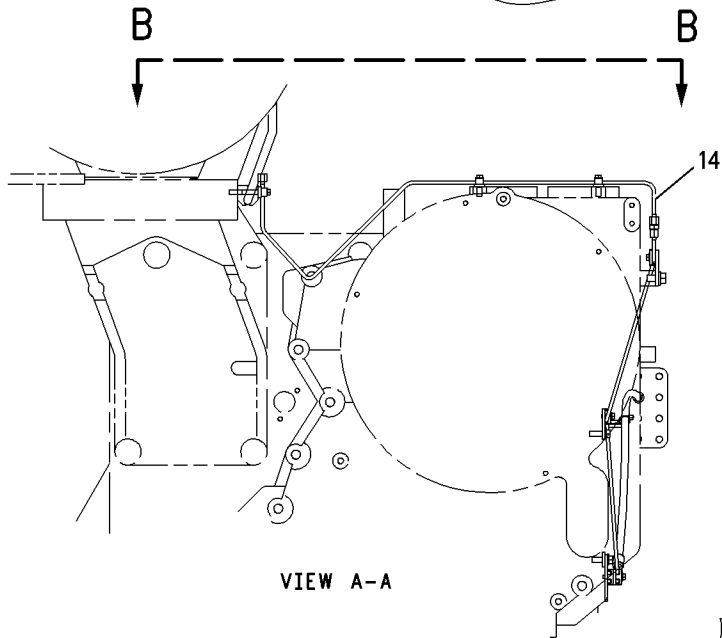
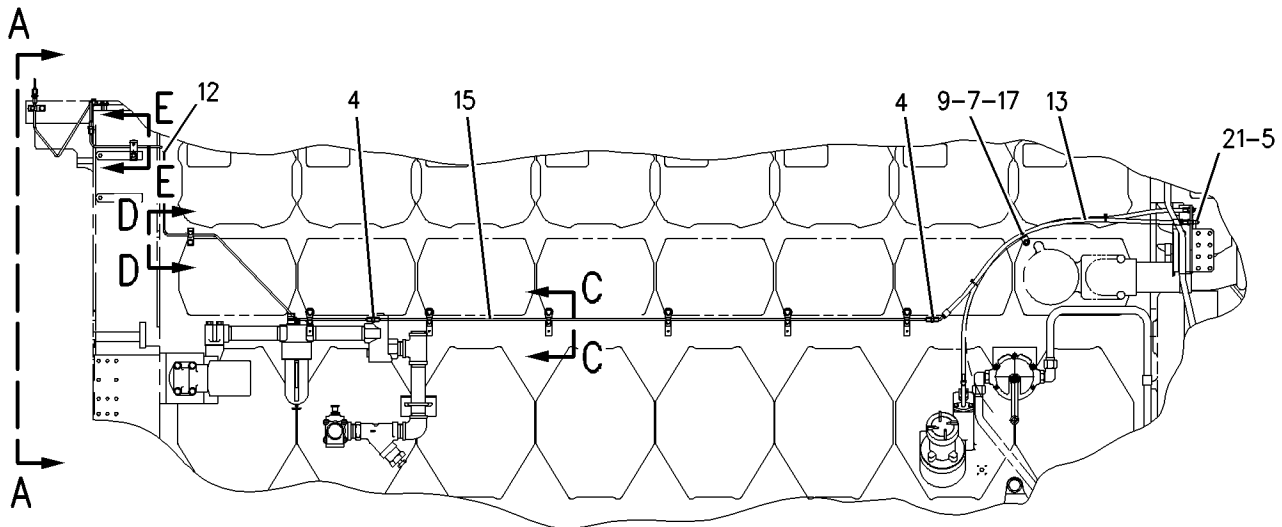
I-SEE HOSE FABRICATION GUIDE



# OPERATOR STATION

153-5401 LINES GP-INSTRUMENT PANEL (contd.)

i01599168



GRAPHIC #1

<END>

g00828705

# OPERATOR STATION

## 229-8671 LINES GP-INSTRUMENT PANEL-RIGHT HAND

(CHG -00, -01)  
AIR RESTRICTION

SMCS-7451

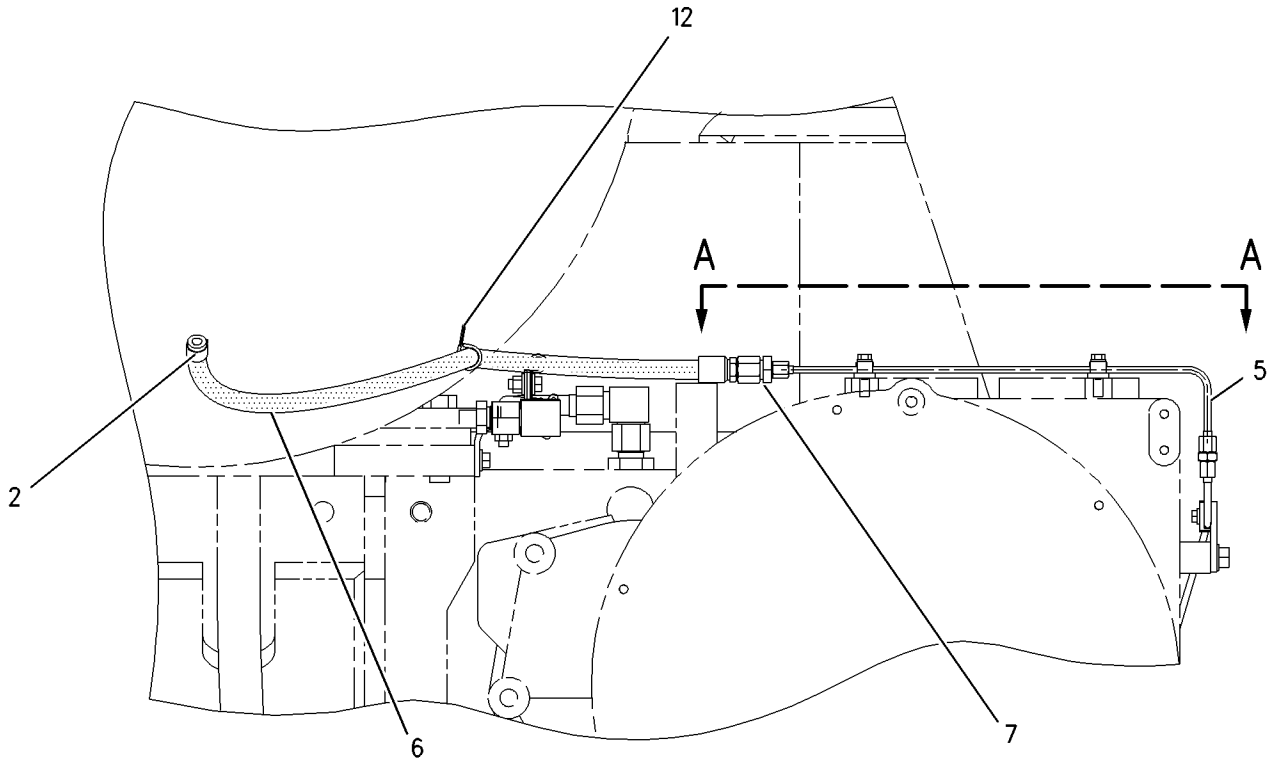
i01888691

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2W-4285	1	BRACKET						
	2	1	5D-1026	1	CLAMP-HOSE						
	3	1	9Y-2032	1	BRACKET						
	4	1	138-8240	2	CLAMP-TUBE						
	5	1	190-1052	1	TUBE AS						
	6	1	230-8209	1	HOSE AS						
	7	1	061-6740	1	UNION-FLARED						
	8	1	0S-1594	2	BOLT (3/8-16X1 IN)						
	9	1	0S-1615	2	BOLT (1/4-20X0.75 IN)						
	10	1	3V-3308	2	WASHER-HARD (10.2X20.5X2.5MM THK)						
	11	1	5P-0537	2	WASHER-HARD (7.2X14.5X2MM THK)						
	12	1	8M-2773	1	CLIP						

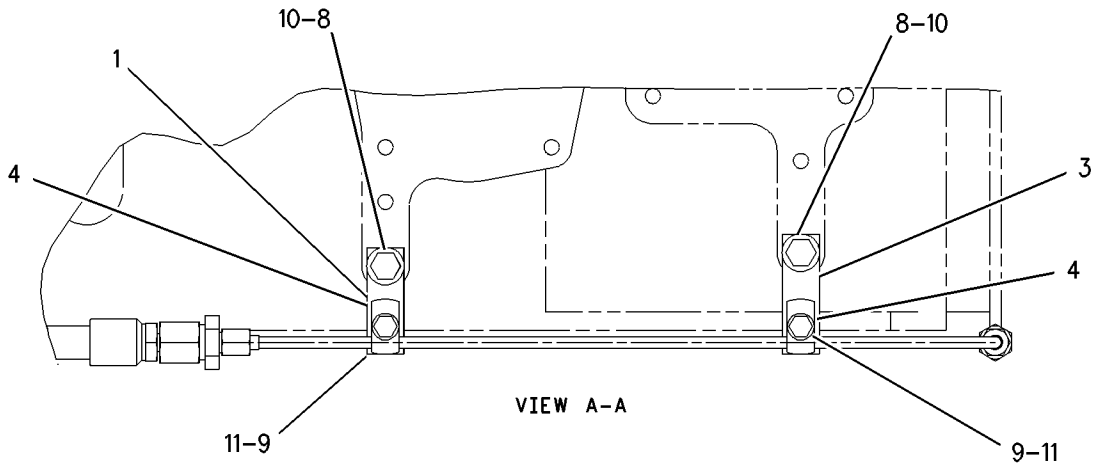
# OPERATOR STATION

229-8671 LINES GP-INSTRUMENT PANEL (contd.)

i01888691



REAR VIEW



VIEW A-A

GRAPHIC #1

<END>

g00984876

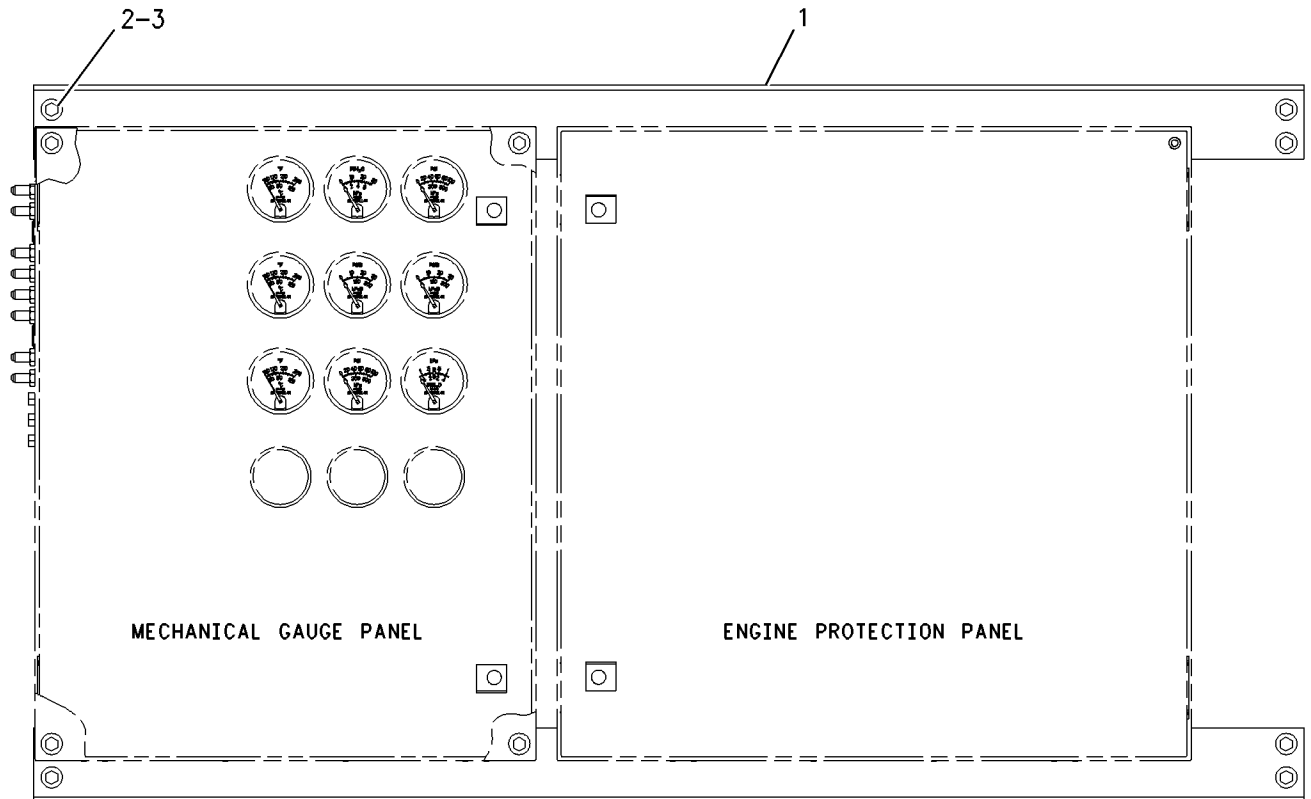
# OPERATOR STATION

## 191-7683 MOUNTING GP-INSTRUMENT PANEL (CHG -01, -02)

SMCS-7451

i01869546

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	192-3226	2	BRACKET AS						
					(EACH INCLUDES)						
		1	1F-0750	6	NUT-WELD (3/8-16 THD)						
	2	1	OS-0509	10	BOLT (3/8-16X0.75 IN)						
	3	1	9L-9132	10	WASHER (10.2X25.5X2.5MM THK)						



LEFT SIDE VIEW

GRAPHIC #1

<END>

g00881368

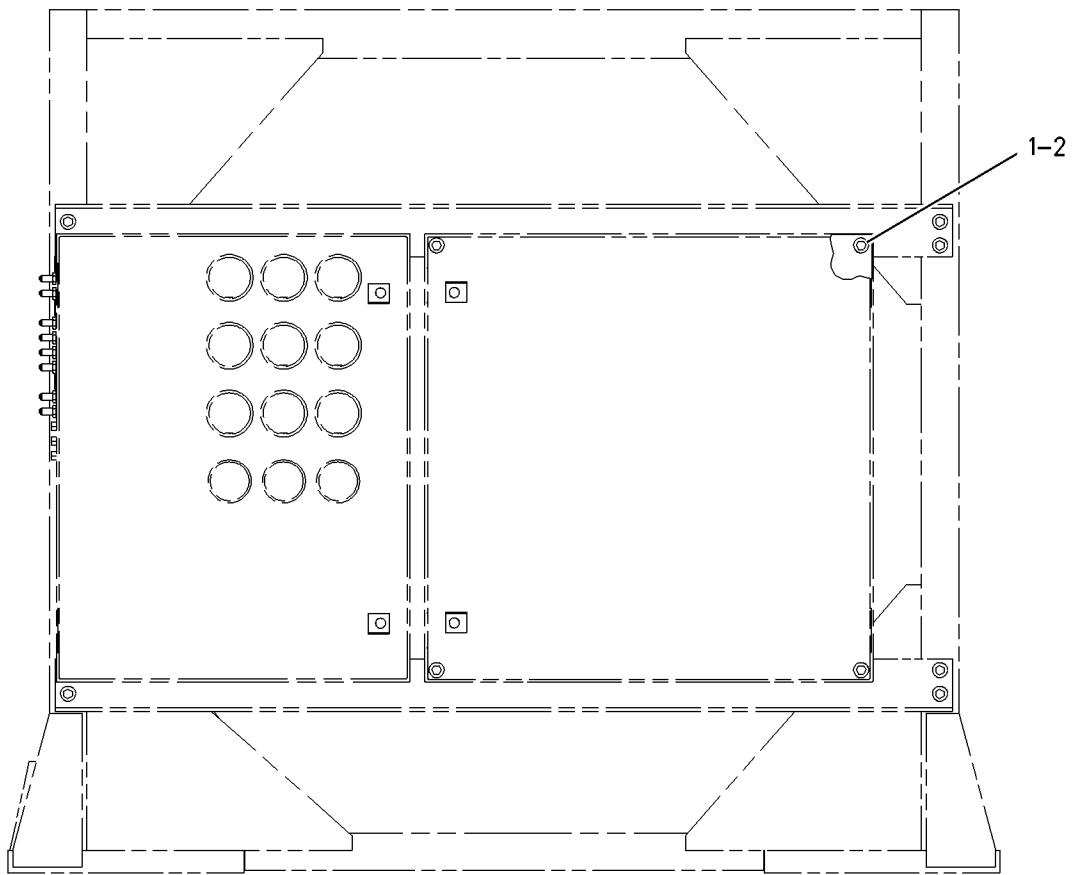
# OPERATOR STATION

## 191-7684 MOUNTING GP-INSTRUMENT PANEL (CHG -02)

SMCS-7451

i01708129

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	<b>OS-0509</b>	4	BOLT (3/8-16X0.75 IN)						
	2	1	<b>9L-9132</b>	4	WASHER (10.2X25.5X2.5MM THK)						



FRONT VIEW

GRAPHIC #1

<END>

g00887007

# OPERATOR STATION

## 179-8990 PANEL GP-CONTROL (CHG -02 THRU -05)

SMCS-4490, 7451

i02252323

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	2	199-3062	1	FILM (WIRE) (LABEL)						
	2	2	1S-9593	15	STRAP-CABLE						
	3	2	9W-1494	1	KIT-SERVICE METER						
					(INCLUDES SERVICE METER, FILM, STRAP CABLES, AND WIRE ASSEMBLIES)						
	4	2	150-7700	1	TACHOMETER						
	5	2	226-6117	1	GAUGE-PRESSURE (STARTING AIR)						
	6	2	198-2731	1	MONITOR AS (PYROMETER)						
		2	160-7689	1	PLUG AS-CONNECTOR (70-PIN)						
		2	159-9322	1	SEAL-O-RING						
		2	179-9001	1	PYROMETER GP (DIGITAL) (EXHAUST TEMPERATURE)						
	7	2	162-0573	1	SWITCH AS-PUSH BUTTON (EMERGENCY STOP)						
	8	2	162-0574	1	RING-PROTECTION						
	9	2	162-0576	6	BLOCK-CONTACT						
	10	2	162-0575	4	LATCH-MOUNTING						
	11	2	162-0577	3	BLOCK-CONTACT						
	12	2	162-0568	1	SWITCH-ROTARY (2-POSITION) (FUEL CONTROL)						
	13	2	171-6271	1	SWITCH-KEY (3-POSITION MAINTAINED) (ENGINE CONTROL)						
Y	14	2	162-0572	1	SWITCH AS (3-POSITION, SPRING RETURN) (PRELUBRICATION)						169
	15	1	7S-1197	32	SCREW-MACHINE (8-32X0.5-IN)						
	16	1	114-1142	3	CIRCUIT BREAKER AS (10-AMPERE)						
	17	1	115-7943	3	CONTACTOR-AUXILARY						
	18	1	115-7942	1	TIMER						
	19	1	127-8156	1	BRACKET-MOUNTING						
	20	1	162-1696	1	TIMER AS						
		1	162-1695	1	PLATE-COVER						
	21	1	166-6156	1	DUCT-WIRE						
	22	1	166-6162	2	DUCT-WIRE						
	23	1	166-6165	1	DUCT-WIRE						
	24	1	179-8828	25	BASE-RELAY						
	25	1	179-8829	25	RELAY (2-POLE)						
	26	1	225-5522	6	BLOCK-TERMINAL						
	27	1	228-7417	1	COVER						
	28	1	264-2019	1	STRIP-CONTACT						
	29	1	146-6819	2	MARKER						
	30	1	9X-9675	9	BRACKET-END						
BE	31	1	121-0199		WRAP-SPIRAL (3/8-IN OD)						
	32	1	225-0907	6	BRIDGE (3-POSITION)						
	33	1	252-4967	42	TERMINAL						
	34	1	225-0906	9	BRIDGE (2-POSITION)						
	35	1	252-4949	98	TERMINAL-CONTACT (DOUBLE)						
	36	1	144-0436	32	MARKER (TERMINAL)						
	37	1	252-4943	3	COVER-END						
BE	38	1	147-1960		RAIL						
	39	1	260-1355	18	BLOCK-TERMINAL						
	40	1	1H-4393	32	LOCKWASHER						
	41	1	4B-4863	32	WASHER (4.7X11X1.2-MM THK)						
	42	1	109-3038	145	END-WIRE (16-GA)						
	43	2	8L-8413	50	STRAP-CABLE						
	44	1	110-8714	7	END-WIRE (18-GA)						
	45	1	186-3736	40	SOCKET-CONNECTOR						
	46	1	211-9909	3	END-WIRE						
	47	1	151-4906	150	END-WIRE (18-GA)						
	48	1	128-5669	10	TERMINAL						
	49	1	211-9910	3	TERMINAL						
	50	1	211-9911	36	END-WIRE						

# OPERATOR STATION

179-8990 PANEL GP-CONTROL (contd.)

i02252323

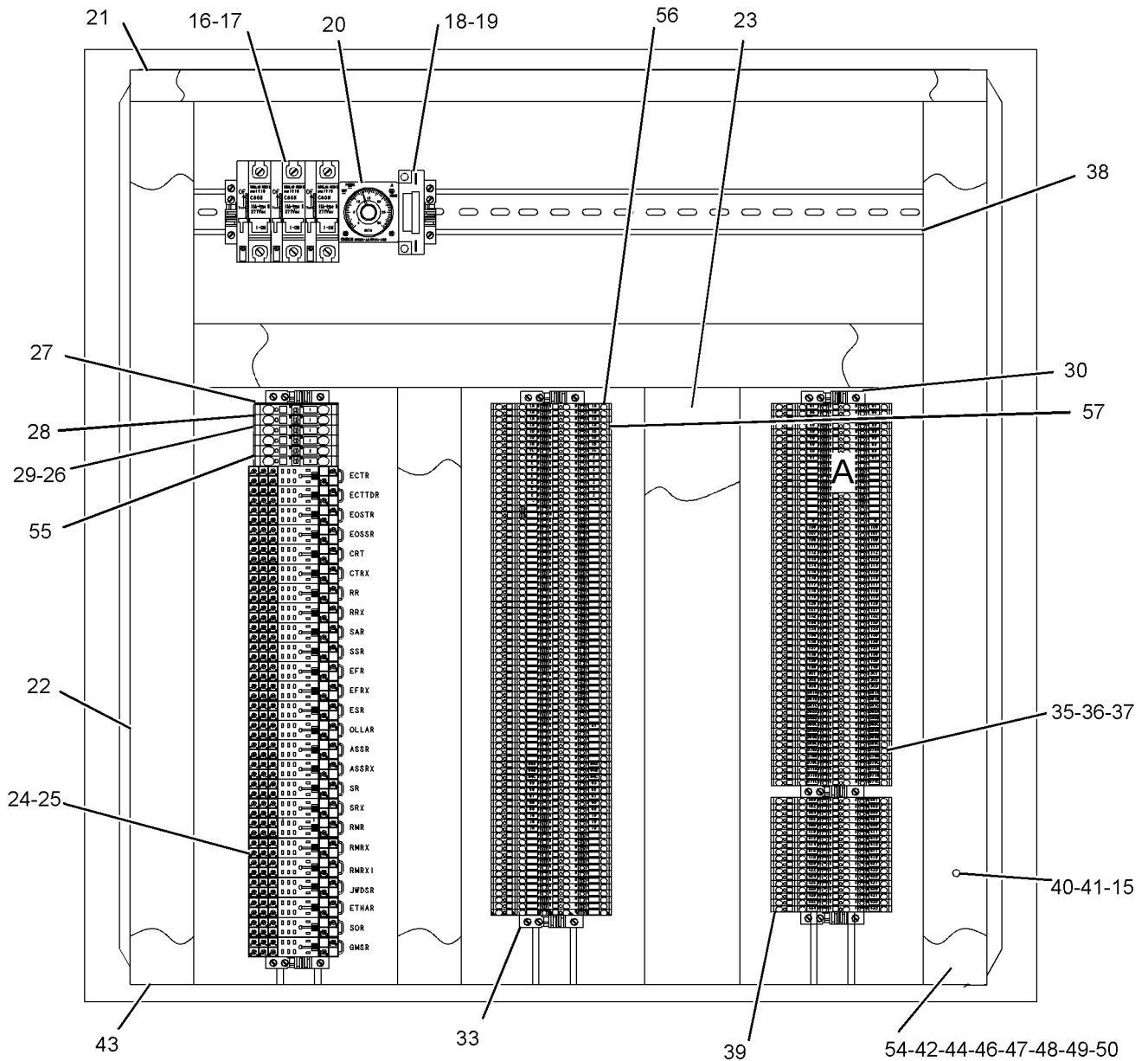
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	51	2	4P-8134	1	CLIP						
	52	2	4P-7581	1	CLIP						
	53	2	198-4263	1	FILM						
BE	54	1	8T-7875		WIRE-ELECTRICAL (16-GA)						
	55	1	225-5545	1	BRIDGE (2-POSITION)						
	56	1	204-5568	1	STRIP-CONTACT						
	57	1	225-0549	3	BAR (BRIDGE)						

B-USE AS REQUIRED  
 E-ORDER BY THE CENTIMETER  
 Y-SEPARATE ILLUSTRATION

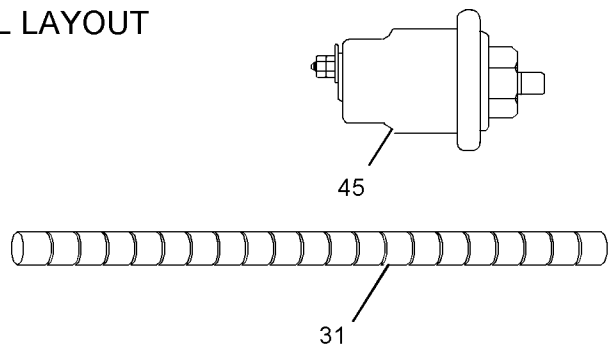
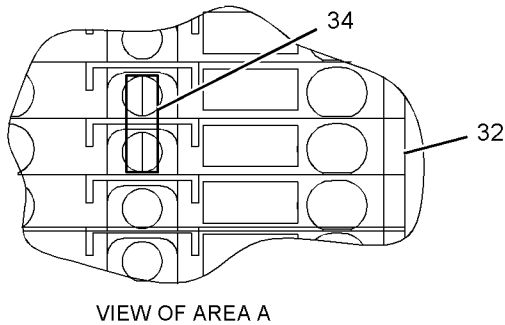
# OPERATOR STATION

179-8990 PANEL GP-CONTROL (contd.)

i02252323



PANEL LAYOUT



GRAPHIC #1

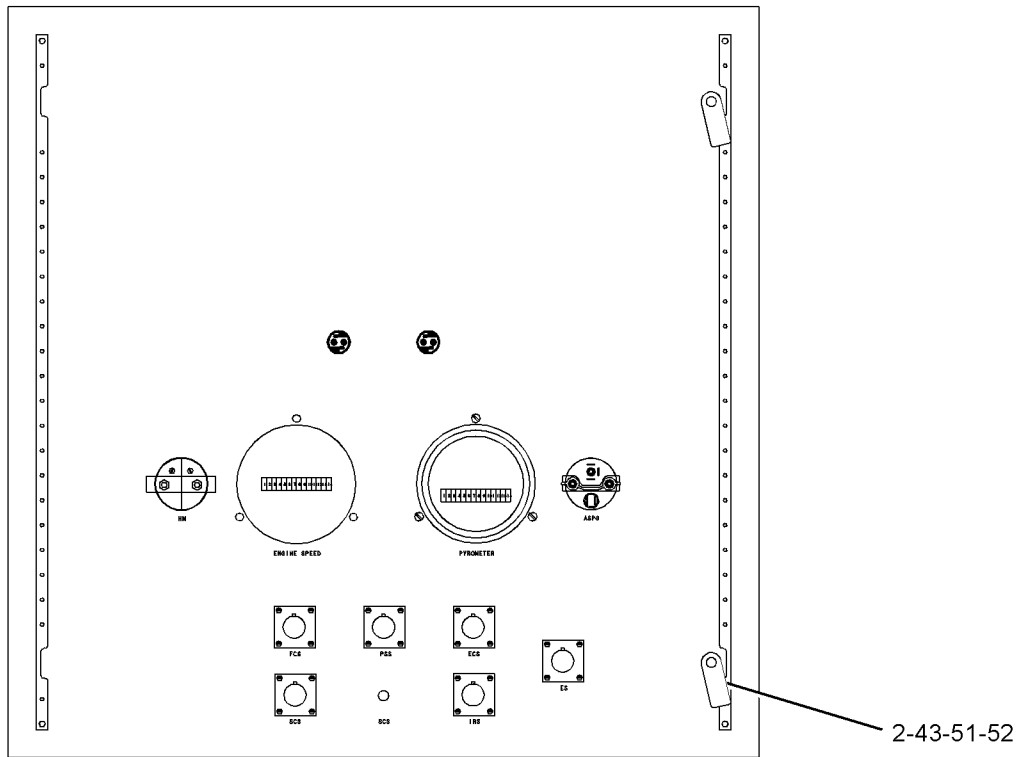
g01134681



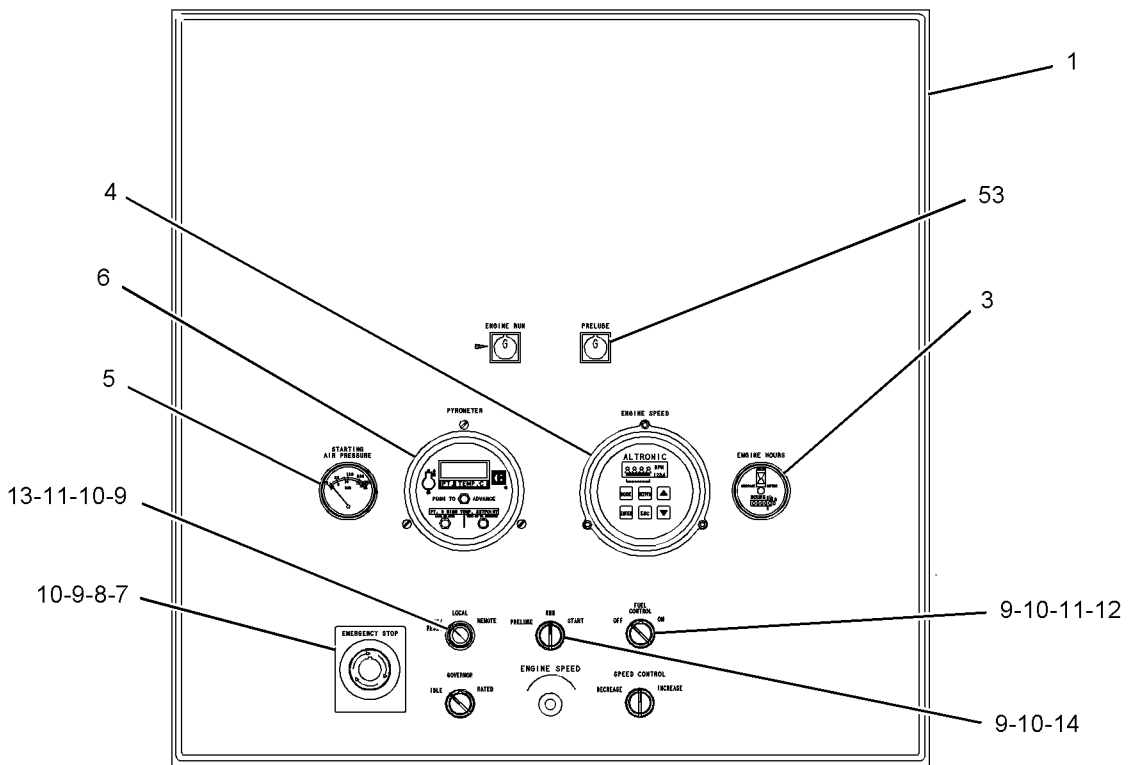
# OPERATOR STATION

179-8990 PANEL GP-CONTROL (contd.)

i02252323



REAR DOOR VIEW



FRONT DOOR VIEW

GRAPHIC #2

<END>

g01134680

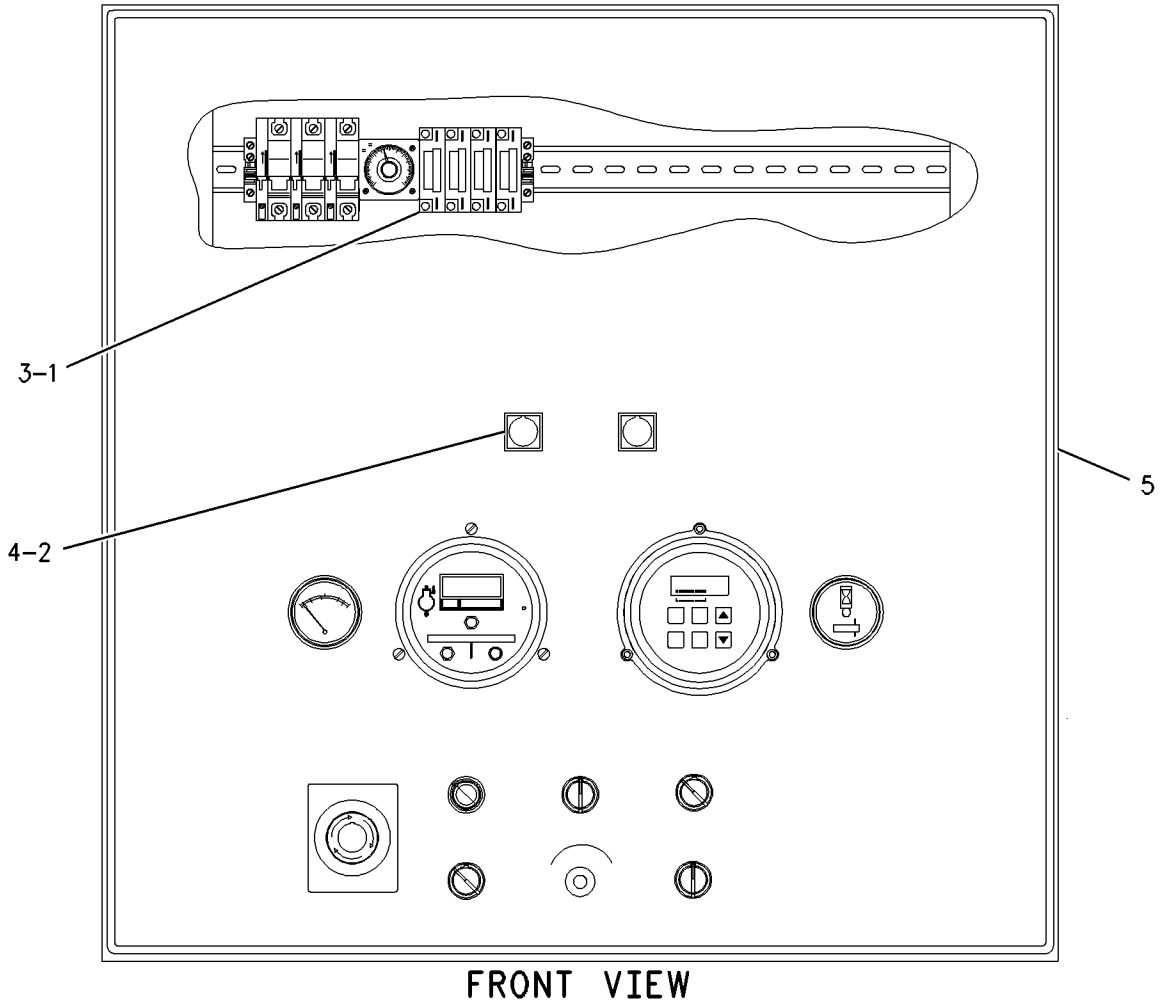
# OPERATOR STATION

## 209-0122 PANEL GP-ELECTRONIC (CHG -00) FOR USE WITH SWITCH GROUPS WITHOUT ANNUNCIATION

SMCS-4490, 7490

i01708134

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	115-7942	3	TIMER						
	2	1	162-1685	2	LAMP - INDICATOR						
	3	1	127-8156	3	BRACKET - MOUNTING						
	4	1	198-4263	1	FILM						
	5	1	179-8969	1	DOOR AS						



FRONT VIEW

GRAPHIC #1

<END>

g00879280

# OPERATOR STATION

## 208-9696 PANEL GP-INSTRUMENT (CHG -00, -01) FOR USE WITH LOW TEMPERATURE WATER COOLERS

SMCS-7451

i01650380

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	2	1S-9593	13	STRAP-CABLE						
	2	2	2W-1836	1	ADAPTER						
	3	1	2W-7796	1	FILM-GAUGE (ENGINE COOLANT TEMPERATURE)						
	4	1	2W-7811	1	FILM-IDENTIFICATION (ENGINE OIL TEMPERATURE)						
	5	1	2W-9215	1	FILM-GAUGE (MANIFOLD AIR TEMPERATURE)						
	6	1	2W-9216	1	PLATE-AIR RESTRICTION						
	7	1	2W-9217	1	FILM-IDENTIFICATION (FUEL FILTER PRESSURE DIFF)						
	8	1	2W-9219	1	FILM-IDENTIFICATION (MANIFOLD PRESSURE)						
	9	1	3N-5986	1	FILM-IDENTIFICATION (ENGINE OIL PRESSURE)						
	10	1	3N-5988	1	PLATE-FUEL PRESS INFORMATION						
	11	1	3N-5989	1	FILM-INFORMATION (OIL FILTER PRESSURE DIFF)						
	12	2	3S-2093	30	STRAP-CABLE						
	13	1	4W-0506	1	GAUGE-PRESSURE (FUEL)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	13A	1	4W-0506	1	GAUGE-PRESSURE (ENGINE OIL)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	14	1	4W-0508	1	GAUGE-DIFFERENTIAL PRESSURE (FUEL FILTER)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	14A	1	4W-0508	1	GAUGE-DIFFERENTIAL PRESSURE (OIL FILTER)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	15	1	4W-0510	1	GAUGE-PRESSURE (MANIFOLD)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	16	1	4W-5318	1	INDICATOR AS-VACUUM (AIR PRESSURE RESTRICTION)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	17	1	5B-3254	10	NUT-JAM (7/16-20-THD)						
	18	1	7C-4061	1	FILM-IDENTIFICATION (ENGINE CRANKCASE PRESSURE)						
	19	1	7C-4945	1	INDICATOR AS-PRESSURE						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	20	1	7W-2353	2	PLUG AS						
	21	1	9L-8493	2	CAP						
I	22	2	192-3220	4	HOSE AS						
I	23	2	192-3221	4	HOSE AS						
I	24	2	192-3222	1	HOSE AS						
	25	1	192-3224	1	INDICATOR AS-TEMPERATURE (ENGINE COOLANT)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	25A	1	192-3224	1	INDICATOR AS-TEMPERATURE (ENGINE OIL)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	26	1	198-1021	1	ENCLOSURE AS						
		1	144-0426	1	PANEL						
	27	1	200-6367	1	FILM						
	28	2	201-7833	1	TIE DOWN						
	29	1	208-7620	1	INDICATOR AS (MANIFOLD AIR)						
		1	4B-2049	2	NUT (10-32-THD)						
		1	8F-1434	2	LOCKWASHER						
	30	1	009-2062	10	SEAL-O-RING						
	31	2	052-0572	1	TEE-SWIVEL						

# OPERATOR STATION

208-9696 PANEL GP-INSTRUMENT (contd.)

i01650380

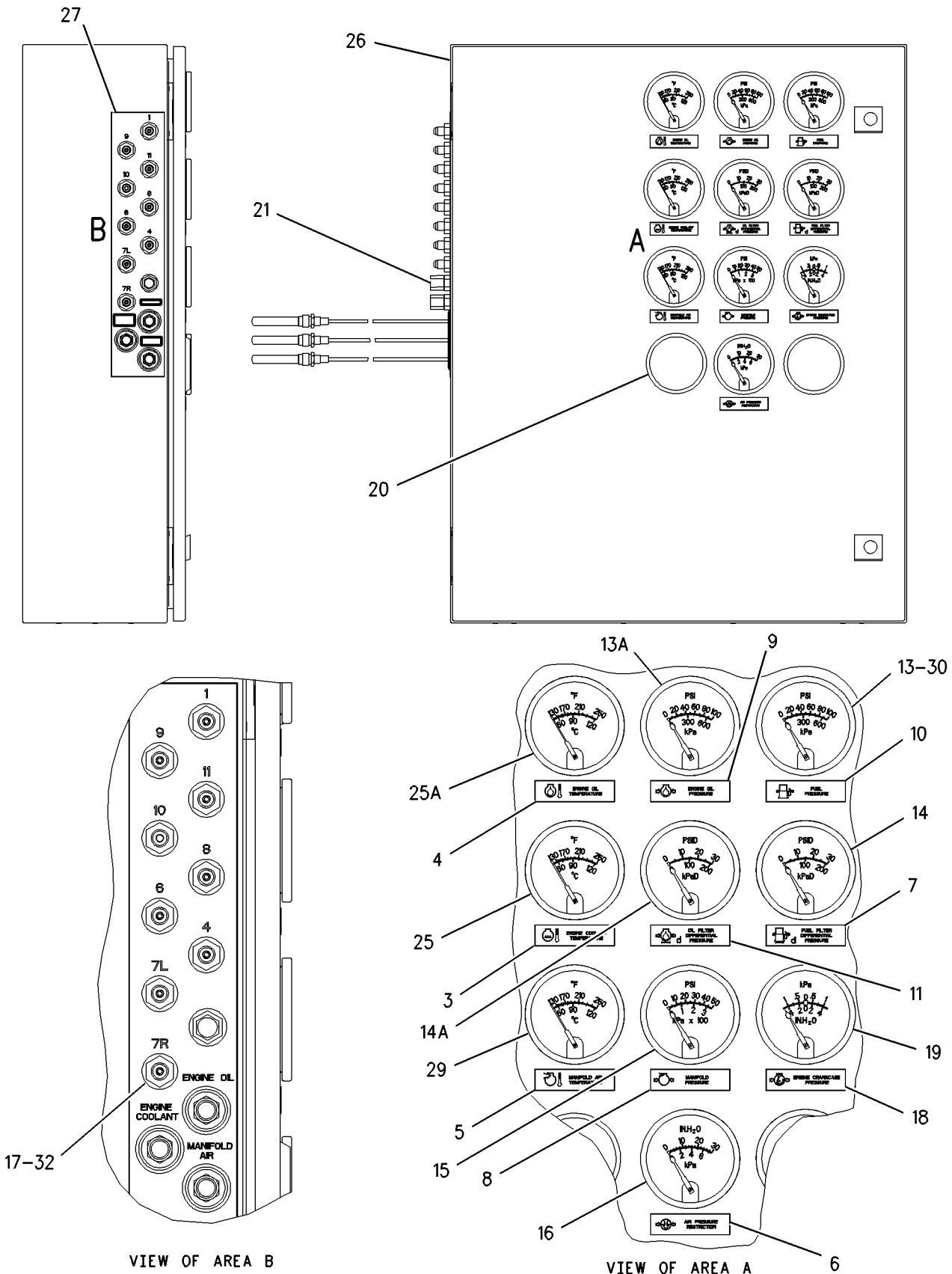
NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME	SEE PAGE
					1 2 3 4 5 6 (PRODUCT LEVEL)	
	32	1	2P-1276	10	UNION (FLARED)	
	33	2	3S-1099	7	ELBOW-FLARED	
	34	2	5D-9231	2	CONNECTOR	
	35	2	6K-6967	1	ADAPTER-PIPE	
	36	2	8L-2786	1	SEAL-O-RING	

I-REFER TO HYDRAULIC INFORMATION SYSTEM

# OPERATOR STATION

208-9696 PANEL GP-INSTRUMENT (contd.)

i01650380



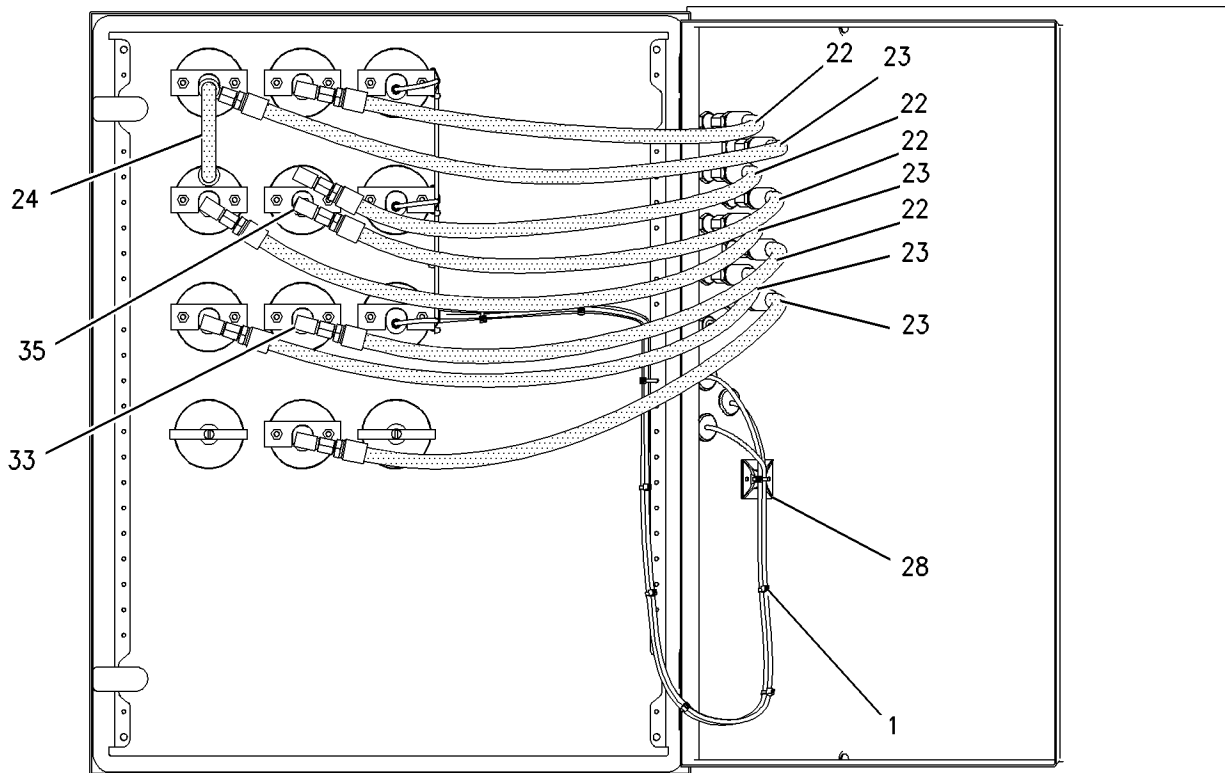
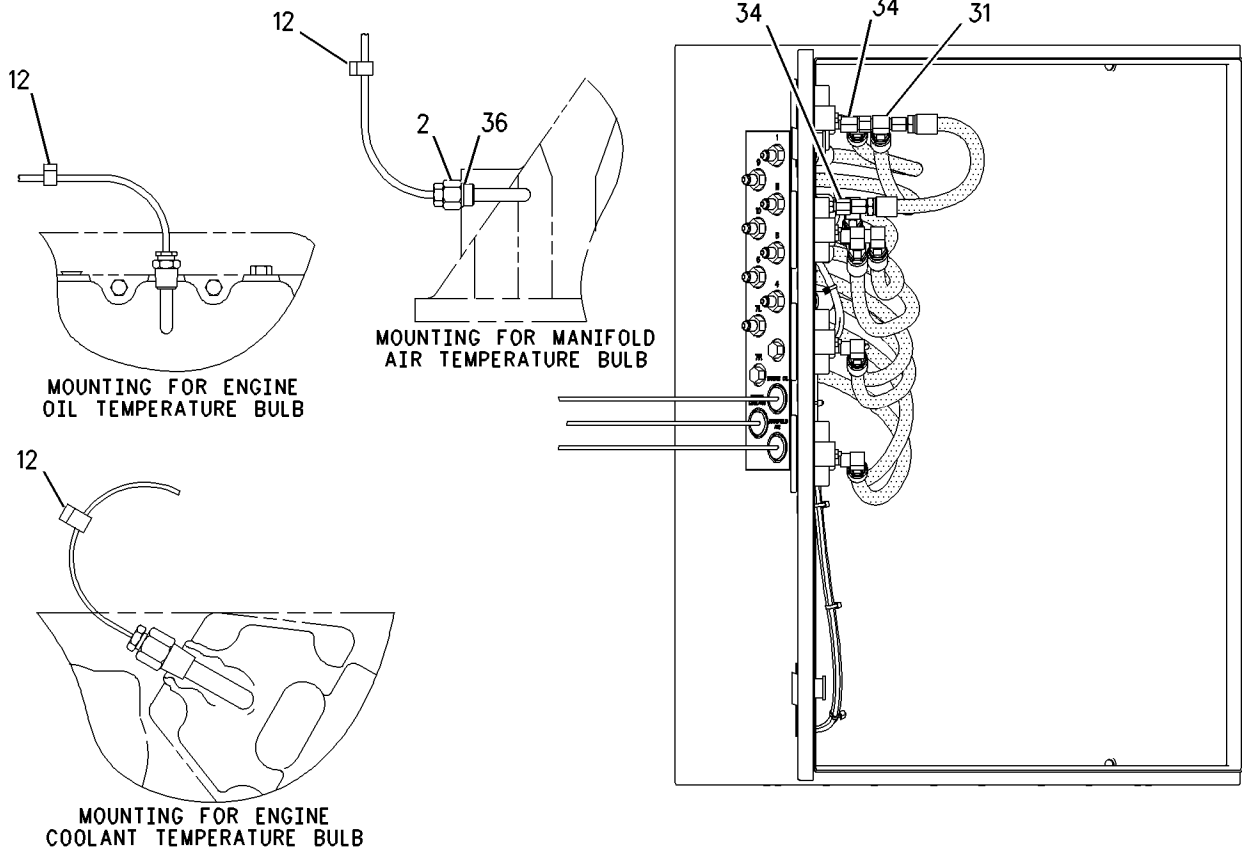
GRAPHIC #1

g00852828

# OPERATOR STATION

208-9696 PANEL GP-INSTRUMENT (contd.)

i01650380



GRAPHIC #2

<END>

g00852829

# SERVICE EQUIPMENT AND SUPPLIES

## 6L-4502 CHART-PLATE & FILM (CHG -296)

SMCS-7557

i01559208

NOTE	PART NUMBER	QTY	PART NAME 1 2 3 4 5 6 (PRODUCT LEVEL)	SEE PAGE
	<b>7W-3055</b>	1	FILM-INFORMATION INSTALL APPROPRIATE IDENTIFICATION NUMBER OVER CORRESPONDING NUMBERS FOR LINES GROUPS.	
	<b>7W-5890</b>	1	FILM-ROTATION INSTALL ON TOP OF FLYWHEEL HOUSING. IF HOUSING NOT AVAILABLE INSTALL ON REAR CAM GEAR COVER.	
	<b>1H-4950</b>	2	FILM-WARNING (CRANKCASE) INSTALL ONE ON UPPER PORTION OF 2ND RH REAR CRANKSHAFT COVER FROM REAR OF ENGINE. INSTALL ONE ON 2ND LH CRANKCASE COVER FROM FRONT OF ENGINE.	
	<b>3N-3790</b>	1	PLATE-SERIAL NUMBER (ENGINE) INSTALL ON LH SIDE OF CYLINDER BLOCK BETWEEN REAR TWO CRANKCASE COVERS.	
	<b>4B-4158</b>	2	SCREW-DRIVE (3/16X0.25 IN) FOR USE WITH 3N3790.	
<b>&lt;END&gt;</b>				

# SERVICE EQUIPMENT AND SUPPLIES

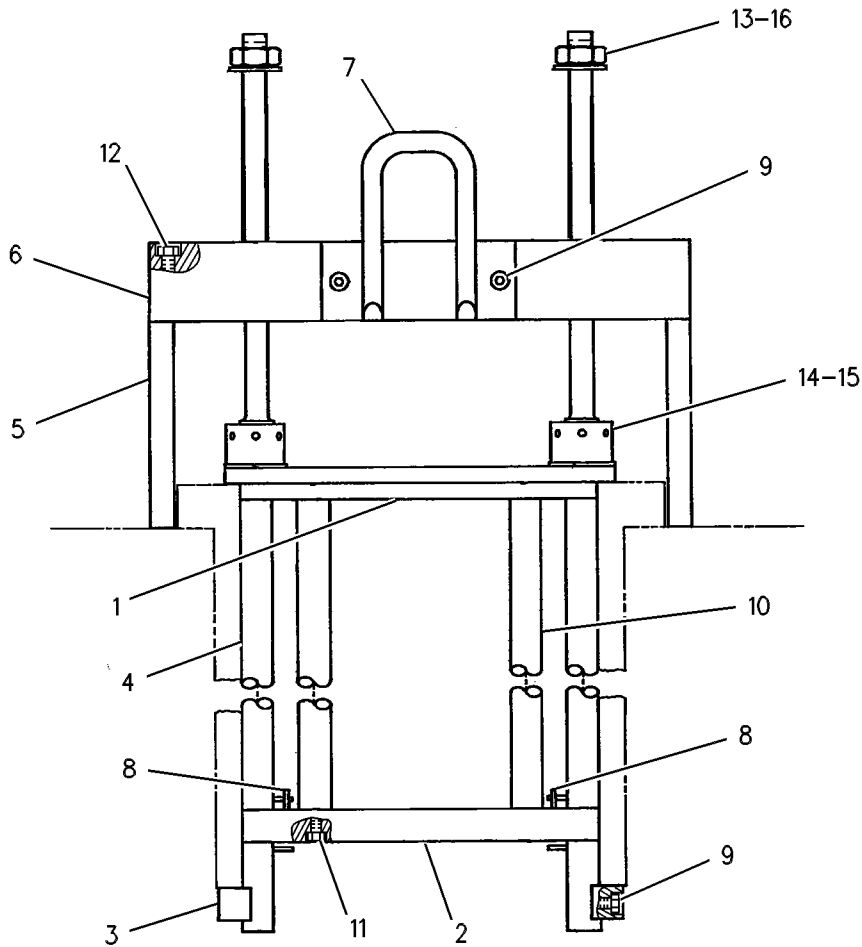
## 1U-7618 HARDWARE GP-LINER PULLER (CHG -00)

PART OF 6V-7073 PULLER GP-CYLINDER LINER

SMCS-0705, 1216, 7553

i01981880

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	6V-7074	1	RING-TOP						
	2	1	6V-7075	1	RING-BOTTOM						
	3	1	6V-7076	2	FOOT						
	4	1	6V-7077	2	LEG-PULLER						
	5	1	6V-7078	2	SUPPORT-BRIDGE						
	6	1	6V-7079	1	BRIDGE						
	7	1	8T-2835	1	BRACKET-LIFTING						
	8	1	4H-6996	8	PIN-SPRING						
	9	1	2J-5245	6	BOLT (3/8-16X1.25-IN)						
	10	1	6V-7069	4	SPACER						
	11	1	4D-3120	8	BOLT-SOCKET HEAD (3/8-16X38.1-MM)						
	12	1	2K-6073	4	BOLT-SOCKET HEAD (3/8X16X2.75-IN)						
	13	1	1B-4331	2	NUT (3/4-10-THD)						
	14	1	8T-2836	2	NUT (1-8 THD)						
	15	1	4B-5278	2	WASHER (27X63.5X4-MM THK)						
	16	1	4B-5276	2	WASHER (20.6X50.8X3.5-MM THK)						



GRAPHIC #1

<END>

g00066604



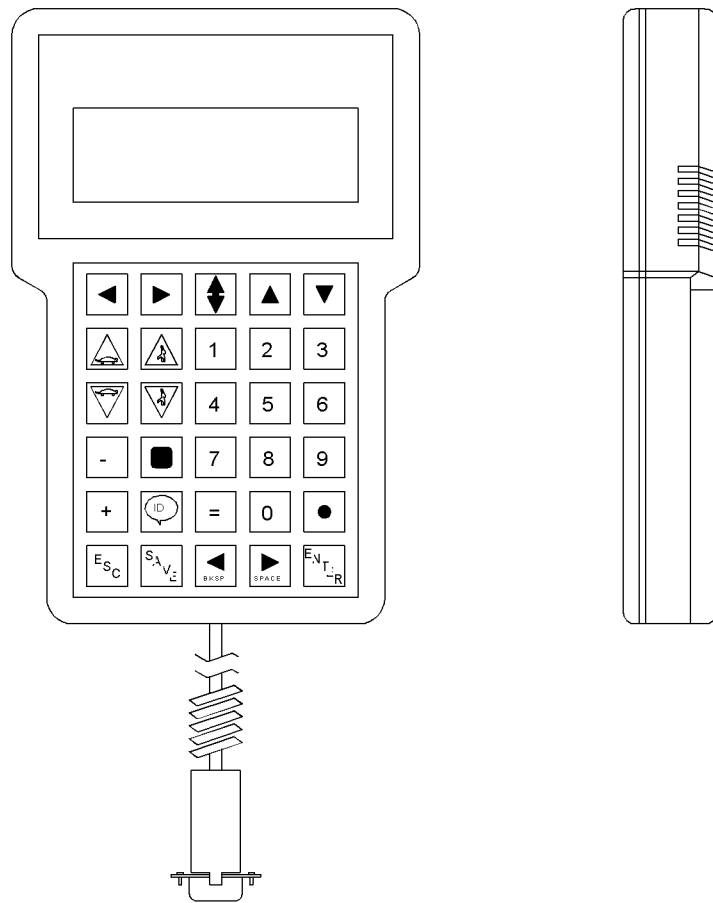
# SERVICE EQUIPMENT AND SUPPLIES

## 140-2304 PROGRAMMER-GOV ELEK CONTROL (CHG -00)

SMCS-1264, 1908

i02226419

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
(NO SERVICED PARTS)											



GRAPHIC #1

<END>

g01123192

# SERVICE EQUIPMENT AND SUPPLIES

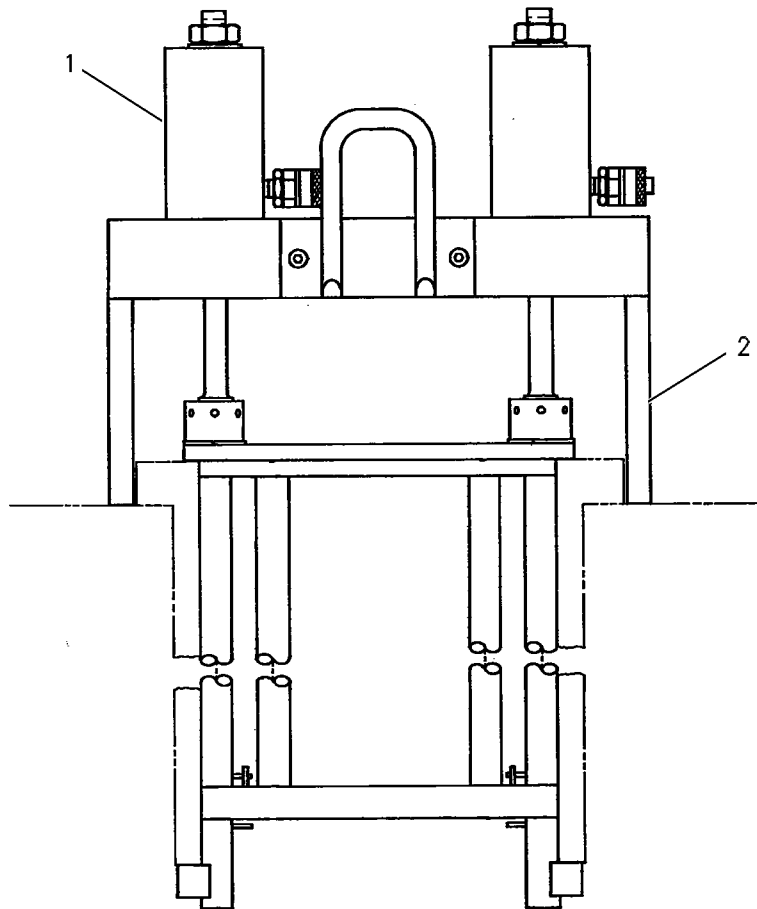
## 6V-7073 PULLER GP-CYLINDER LINER (CHG -01)

PART OF 9U-5106 TOOL GP-DIESEL ENGINE

SMCS-0701, 1216

i00073667

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	5P-5247	2	PULLER AS-HYDRAULIC						
					EACH INCLUDES						
		1	1P-2375	1	COUPLER AS-CONNECTING						
		1	4J-5268	1	SEAL (13.94MM ID)						
		1	1P-7437	1	CAP-PROTECTION						
		1	5P-5248	1	KIT-PULLER SEAL						
					INCLUDES SEALS, RINGS & WASHER-BACKUP						
Y	2	1	1U-7618	1	HARDWARE GP-LINER PULLER						197
Y-SEPARATE ILLUSTRATION											



GRAPHIC #1

<END>

g00066594

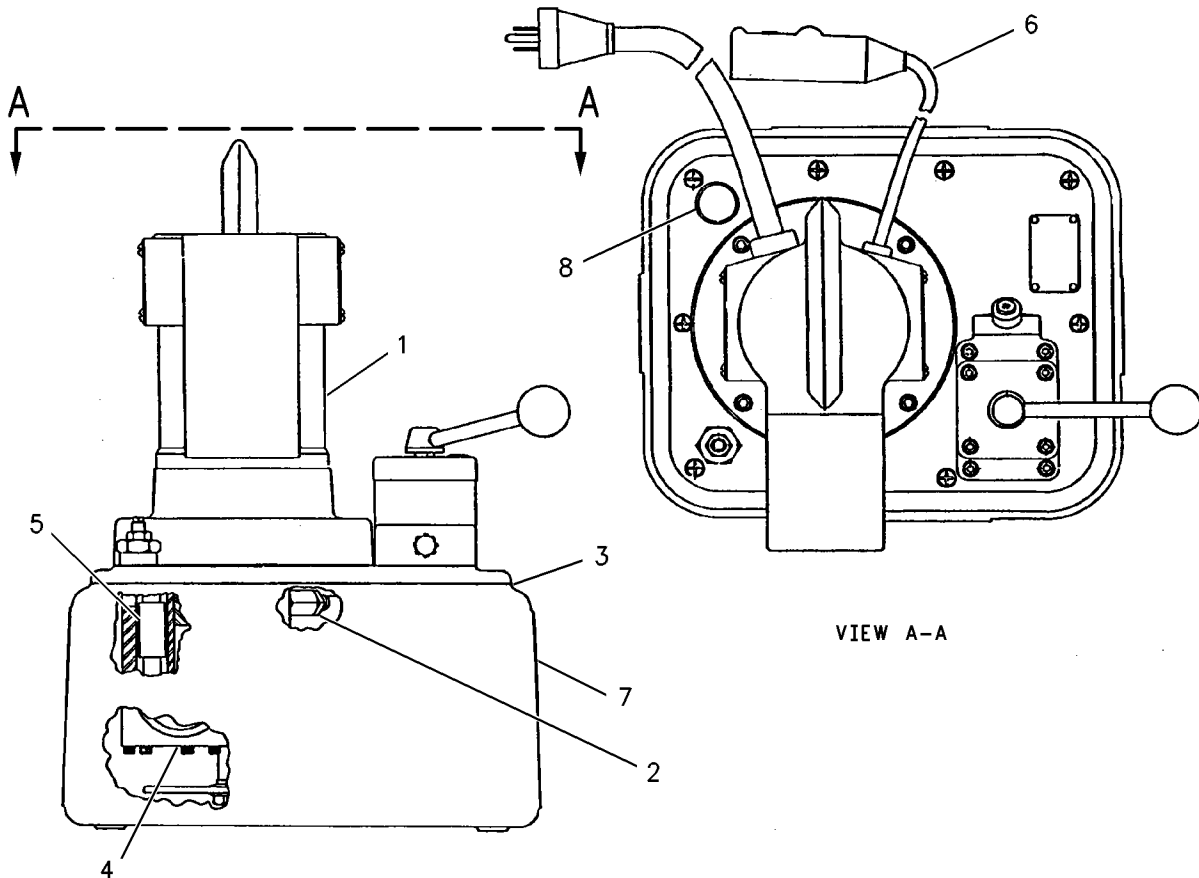
# SERVICE EQUIPMENT AND SUPPLIES

## 3S-6224 PUMP GP-ELECTRIC HYDRAULIC (CHG -07)

SMCS-0616

i01557128

NOTE	REF NO	GRAPHIC REF	PART NUMBER	QTY	PART NAME						SEE PAGE
					1	2	3	4	5	6 (PRODUCT LEVEL)	
	1	1	2P-2274	1	MOTOR AS-CONTROL						
		1	2P-2276	2	BRUSH AS-ELECTRIC						
		1	2P-2277	1	GASKET-BASE						
		1	2P-2281	1	RELAY						
		1	2P-2327	1	SWITCH-TOGGLE						
2		1	2P-2284	1	VALVE AS-RELIEF						
3		1	2P-2285	1	GASKET-PLATE						
4		1	2P-2283	1	PUMP AS						
5		1	2P-2286	1	COUPLING						
6		1	5P-7278	1	SWITCH AS-REMOTE CONTROL						
		1	4C-4040	1	SWITCH						
7		1	5P-4234	1	RESERVOIR						
8		1	5P-4232	1	CAP-FILLER VENT						
					AVAILABLE REPAIR KIT(S):						
			1U-5556	1	FILTER						
			1U-9903	1	KIT-VALVE REPAIR (INCLUDES SEAL-O-RINGS AND WASHERS)						
			2P-2287	1	KIT-VALVE (INCLUDES SEAL-O-RINGS, SPRING WASHER, ROLL PIN, TEFLON WASHER AND SPRING)						



GRAPHIC #1

<END>

g00811495

# SERVICE EQUIPMENT AND SUPPLIES

## 9U-5106 TOOL GP-DIESEL ENGINE (CHG -03, -04)

SMCS - 1000

i01186938

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	<b>1U-8795</b>	1	ARM-GOVERNOR TORQUE						
	<b>8T-3268</b>	2	BOLT-UNIT INJECTOR REMOVAL						
	<b>130-6993</b>	1	BRUSH-INJECTOR SEAT CLEANING						
	<b>4C-5719</b>	1	COMPRESSOR GP-PISTON RING						
	<b>8T-3033</b>	1	EXPANDER GP-PISTON RING						
	<b>9U-5932</b>	1	EXTENSION-TORQUE WRENCH						
Y	<b>6V-7073</b>	1	PULLER GP-CYLINDER LINER						199
Y	<b>4C-6594</b>	1	TOOL GP-TIMING & FUEL SETTING						203
	<b>5P-0328</b>	1	WRENCH-CROWFOOT (7/8) (DOUBLE HEX)						
	<b>5P-0329</b>	1	WRENCH-CROWFOOT (15/16) (DOUBLE HEX)						

Y-SEPARATE ILLUSTRATION

**<END>**

# SERVICE EQUIPMENT AND SUPPLIES

## 9U-5105 TOOL GP-ENGINE (CHG -09 THRU -13) BASIC

SMCS-0701

i01434150

NOTE	PART NUMBER	QTY	PART NAME						SEE PAGE
			1	2	3	4	5	6 (PRODUCT LEVEL)	
	4C-9818	1	ADAPATER-HEX						
C	121-7700	1	BLOCK-DISTORTER						
	5D-1972	2	BOLT (3/4-10X11.75IN)						
	9U-6248	3	BOLT-GUIDE						
	126-6918	1	BRACKET-LIFTING						
	126-6919	1	BRACKET-LIFTING						
C	138-7573	2	BRACKET-LINK						
C	138-7574	2	BRACKET-LINK						
C	138-7575	2	BRACKET-LINK						
C	5P-7409	1	DISTORTER-SLEEVE						
	134-0932	1	DRIVER-MAIN BEARING						
	8T-3034	1	DRIVER-WATER PUMP SEAL						
C	9U-5932	1	EXTENSION-TORQUE WRENCH						
C	1P-7405	1	EYEBOLT						
C	1P-7407	1	EYEBOLT						
C	1P-7409	1	EYEBOLT						
	4C-6357	1	GUIDE GP-CONNECTING ROD						
	8T-3022	1	GUIDE GP-ROD						
	1U-8692	1	GUIDE-PISTON PIN						
C	121-7702	1	INSTALLER-WEAR SLEEVE						
C	1F-7958	1	NUT-FULL (1/2-13 THD)						
	1U-9392	2	PIN-DAMPER GUIDE						
	1U-9393	2	PIN-DAMPER GUIDE						
	4C-9426	1	PIN-DAMPER GUIDE						
	8T-0914	2	PIN-GUIDE						
	136-1452	1	PLIERS AS-INTERNAL TIP						
	8T-0890	1	PULLER GP						
	9U-5981	1	RETAINER-SNAP RING						
	126-6920	1	ROD-HANDLE						
	9U-6461	1	SCREWDRIVER						
	191-1135	2	SPACER AS-CYLINDER LINER						
C	121-7705	1	STUD AS						
	9U-6244	2	SUPPORT						
	8T-3029	1	SUPPORT GP-CAMSHAFT						
C	145-5190	1	SUPPORT GP-PISTON						
	8T-0970	1	TOOL GP-CAMSHAFT BEARING						
	4C-9041	1	TOOL GP-CYLINDER INSTALLATION						
	8T-0960	1	TOOL GP-HANDLING						
	1U-9824	1	TOOL GP-OIL DRAIN						
	4C-6173	1	TRAY AS-FUEL DRAIN						
	4C-9819	1	UNIVERSAL JOINT						
C	5P-8245	1	WASHER-HARD (13.5X25.5X3MM THK)						
	4C-9451	1	WRENCH-REAR IDLER GEAR						
	4C-9452	1	WRENCH-REAR IDLER GEAR						
	9U-6251	1	YOKE AS-SUSPENSION						
	9S-1366	1	BOLT (1/2-13X2.5 IN)						

C-CHANGE FROM PREVIOUS TYPE

<END>

# SERVICE EQUIPMENT AND SUPPLIES

## 4C-6594 TOOL GP-TIMING & FUEL SETTING (CHG -01) PART OF 9U-5106 TOOL GP-DIESEL ENGINE

SMCS-0706, 0782

i00073674

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	9U-6909	1	COLLET-EXTENDED	
	5P-7263	1	CONTACT POINT-INDICATOR	
	9S-3675	1	CONTACT POINT-INDICATOR	
	5P-7276	1	CONTAINER	
	6V-9058	1	FIXTURE AS	
	6V-9067	1	GAUGE-RACK SYNCHRONIZE	
	6V-9056	1	GAUGE-SETTING	
	6V-3075	1	INDICATOR-DIAL	
	4C-6596	1	INSERT-BOTTOM	
	4C-6595	1	INSERT-TOP	
	4C-6593	1	TOOL-ADJUSTMENT	
	6V-7918	2	WRENCH	
<b>&lt;END&gt;</b>				

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