

PARTS MANUAL

**H170HD, H190HD, H210HD,
H230HD, H250HD, H280HD
(H007)**

CUSTOMER EDITION

HYSTER

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ABBREVIATIONS QUICK REFERENCE SHEET

Listed below are abbreviations used in parts manuals to denote the following expressions:

TERM	DEFINITION	TERM	DEFINITION
Amp	Amperes	FRE	Freezer Environment
AR	As Required	in.	inches
BDI	Battery Discharge Indicators	LPG	Liquefied Petroleum Gas
BWI	Brush Wear Indicator	MAP	Manifold Absolute Pressure
CE	Communicator End	mm	millimeters
CRE	Corrosive Environment	MSTS	Microprocessor Spark Timing System
D/B	Date Break	NPT	National Pipe Threads
dbA	Decibel "A" Scale	O/S	Oversize
DE	Drive End	PTO	Power Take Off
ECH	Empty Container Handler	RPM	Revolutions per Minute
ECH-3	Empty Container Handler - 3 High Stacking	S/N	Serial Number
ECH-4	Empty Container Handler - 4 High Stacking	TMM	Truck Management Module
ECH-5	Empty Container Handler - 5 High Stacking	UL Type D	Diesel-Powered Safety Rating
ECH-6	Empty Container Handler - 6 High Stacking	UL Type DS	Diesel-Powered Safety Rating
ECH-7	Empty Container Handler - 7 High Stacking	UL Type E	Battery-Powered Safety Rating
ECM	Electronic Control Module	UL Type EE	Battery-Powered Safety Rating
ECN	Engineering Change Notice	UL Type ES	Battery-Powered Safety Rating
EEPROM	Electrically Erasable Programmable Read Only Memory	UL Type G	Gasoline-Powered Safety Rating
EPA	US Environmental Protection Agency	UL Type GS	Gasoline-Powered Safety Rating
EPROM	Electrically Programmable Read Only Memory	UL Type LP	Gas-Powered Safety Rating
		UL Type LPS	LP Gas-Powered Safety Rating
		U/S	Undersize
		UL	Underwriters Laboratory
		V	Volts

HOW TO USE THE ILLUSTRATED PARTS MANUAL

This parts manual describes and illustrates assemblies, subassemblies, and detail parts needed for service replacement.

The different constructions are indicated by keys and footnotes. The callouts correspond to descriptions found on the next page.

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FRAME

ELECTRICAL SYSTEM

TRANSMISSION HOUSING S/N D001H-2628

KEY:
A: Diesel
B: Gasoline and LPG

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2	2023329	Transmission	2	2	2
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5	296426	Washer	2	2	2
6	293991	Bolt	2	2	2
7	2021390	Cover	4	4	4
8	1371656	Cotter Pin	1	1	1
9	2021329	O-Ring	4	4	4
10	2021915	Plug	22	22	22
11	2021675	Housing	39	39	39
12	2021336	Pin	1	1	1
13	287860	Bolt	1	1	1
14	292682	Lockwasher	1	1	1
15	2021345	Hydraulic Pump	1	1	1
16	214364	Figure 5-3	8	8	8
17	296418	Gasket	1	1	1
18	2021388	Bolt	1	1	1
19	2021389	Washer	1	1	1
20	2021383	Temperature Switch	1	1	1
21	292515	Breather	9	9	9
22	136692	Dipstick	2	2	2
23	292527	Bolt	3	3	3
24	292531	Nut	3	3	3
25	292583	Capscrew	4	4	4
26	293637	Lockwasher	4	4	4
27	296420	Bolt	1	1	1
28	996403	Washer	1	1	1
29	996405	Transmission Kit (Includes Item 7)	1	1	1
30		Transmission Kit (Includes Item 14)	1	1	1

This Parts Manual is divided into 11 major sections which are listed above. Quick reference can be made by placing the right thumb on the tab of the desired section, bending the pages to the corresponding tab.

See Service Manual for service procedures.

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5-15

HP990004

HOW TO FIND THE DESIRED PART NUMBER

WHEN THE PART NUMBER AND THE NEXT HIGHER ASSEMBLY IS NOT KNOWN:

1. Determine the function and application of the part required. Turn to the Sections Page. Choose the general area of reference most likely to include the part.
2. Turn to the section you chose. Use the Section Table of Contents to determine the assembly which would normally contain the part required. Then locate the part on the assembly breakdown page.

WHEN THE PART NUMBER IS NOT KNOWN AND THE NEXT HIGHER ASSEMBLY IS KNOWN:

3. Determine the assembly the required part is used on. Turn to the Table of Contents (Page i).
4. Locate the assembly the required part is used on and turn to the page indicated for that assembly. Then locate the part on the assembly breakdown page.

WHEN THE PART NUMBER IS KNOWN:

5. Use the Numerical Index (Page 15-1) to find the part number. Turn to the page listed and locate the part as indicated by the item number.

GENERAL:

The assembly breakdowns include part numbers, descriptions, quantities required, keys and footnotes to help in selecting correct parts.

6. Five periods in the PART NO. column (.) indicate that the part is either *Not Serviced Separately* or there is a reference to another figure. A figure reference is denoted by a pointing hand followed by a figure number in the DESCRIPTION column (☞ Figure 10)
7. Keys are used to show two or more similar assemblies, RH and LH assembly parts, etc. Select the appropriate key, "A", "B", "C", "D", or "E" and the corresponding quantity column to find the required parts. Two periods in the QTY column (..) indicate that the part is not used for that assembly.
8. Indented descriptions under the DESCRIPTION column are used to indicate assemblies and subparts of assemblies. In the example on the

previous page, *BEARING CAP* (Item 2) is a subpart of the major assembly *CASE*.

9. Quantities shown are for one assembly. The quantities of the subpart *BEARING CAP* are indicated as two and two. This means two per *CASE* assembly.
10. Serial number breaks identify the most current parts information and are shown as follows:
 - **S/N D001H2628**
Indicates last serial number affected.
 - S/N D001H2629** →
Indicates the first serial number affected.
 - S/N D001H1553 ↔ S/N D001H3291**
Indicates a range of serial numbers affected.

ECN numbers for pending serial numbers are shown to allow for the inclusion of the most current parts information and are identified as follows:

- **S/N Pending Per ECN 63243**
Indicates a pending serial number for last unit affected.
- S/N Pending Per ECN 63243** →
Indicates a pending serial number for first unit affected.

Date breaks are used to indicate when a change occurred but a subsequent serial number break was not recorded. This is an arbitrary date usually based on the ECN release and are identified as follows:

- **D/B 3/00**
Indicates that a change occurred sometime within that month for the item affected.
- D/B 3/00** →
Indicates that a change occurred sometime within that month for the item affected.
- D/B 3/00 ↔ D/B 4/00**
Indicates a range of production dates of the item affected.

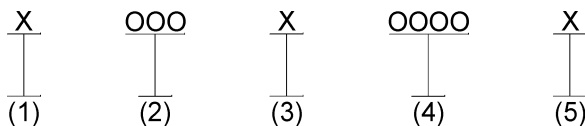
Contact your local dealer for Hyster lift trucks for serial number information for items with a ECN or a date break.

ORDERING PARTS:

When ordering replacement parts, give the unit serial number, part number, name of part and quantity required.

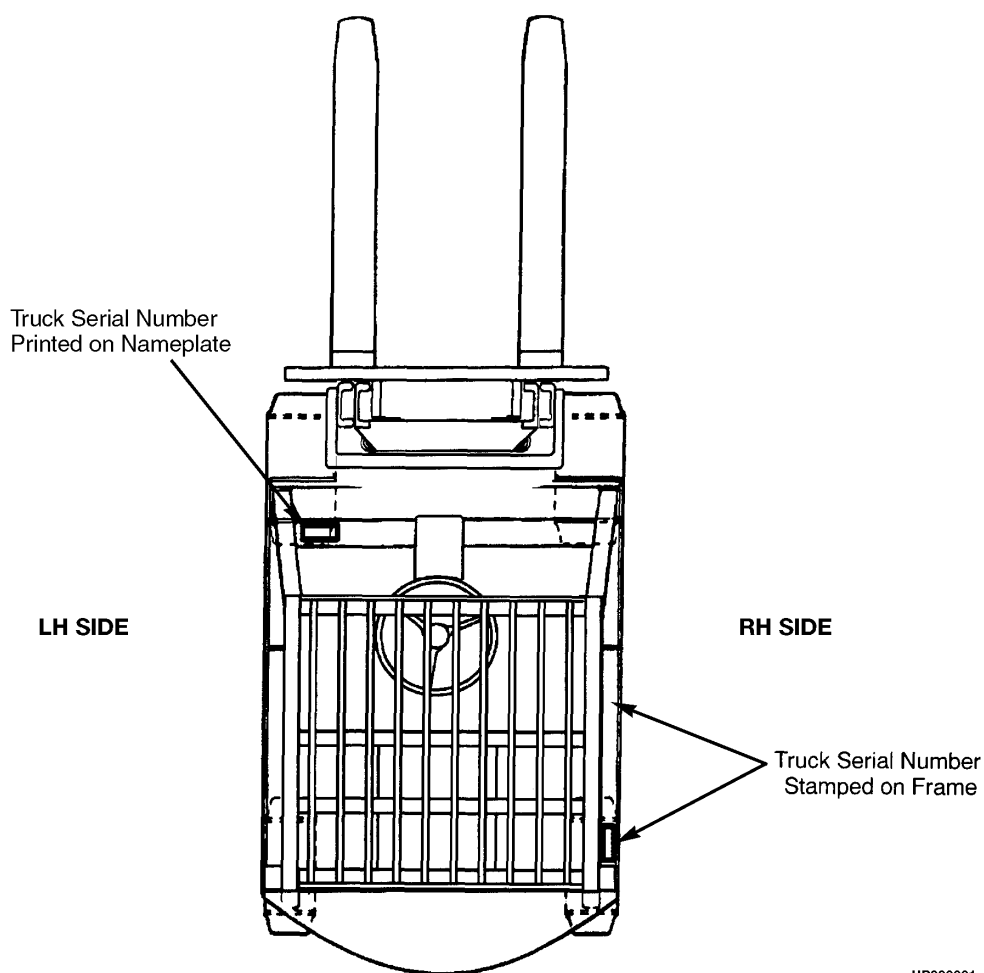
For any further information on parts, service, or ordering, consult your local dealer for Hyster lift trucks.

IDENTIFICATION OF TRUCK SERIAL NUMBERS



- (1) and (2) The first letter and three numbers indicate the truck unit code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number indicates the production sequence number of the truck.
- (5) The final letter indicates the year of manufacture starting with "A" in 1957, 1980, and 2003.
The letters "I", "O", and "Q" will not be used.

For pending serial numbers contact your local dealer for Hyster lift trucks.



HP990001

Parts referred to in this book as right or left hand parts are in accordance with the illustration above.

PUBLICATIONS

Every new lift truck is provided with an OPERATING MANUAL. This manual has information that the operator must know for inspection and operation of the lift truck.

SERVICE MAINTENANCE MANUALS, which provide service and overhaul procedures, and PARTS

MANUALS with complete replacement part identification, are available at a nominal fee from your Hyster dealer to assist users in effectively maintaining Hyster lift trucks in a safe, useful condition. See the list below for information on ordering specific publications for this model lift truck.

PUBLICATION	HYSTER PART NUMBER
Operating Manual.....	1659437
Service Manual (Complete).....	1660397
Parts Manual.....	1660374

1	FRAME

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FRAME

DESCRIPTION	PAGE
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AIR CONDITIONER SYSTEM	
WITH TOP MOUNTED CONDENSER	1-116
AIR CONDITIONER SYSTEM ASSEMBLY	
WITH TOP MOUNTED CONDENSER	1-110
AIR CONDITIONING COMPRESSOR AND ATTACHING PARTS	
DIESEL ENGINE	1-62
LPG ENGINE	1-64
AIR DUCT ASSEMBLY	1-68
WITH TOP MOUNTED CONDENSER	1-120
CAB AND TILT CYLINDER MOUNTING	1-48
CAB ATTACHING PARTS	1-14
CAB DOOR	
LEFT HAND	1-22
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CAB DOOR ATTACHING PARTS	1-18
CAB ELECTRONIC CONTROLS AND PANELS	1-46
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CAB SUNSHADES	1-36
CAB TILT PUMP ASSEMBLY	
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→ S/N H007E01502E	1-72
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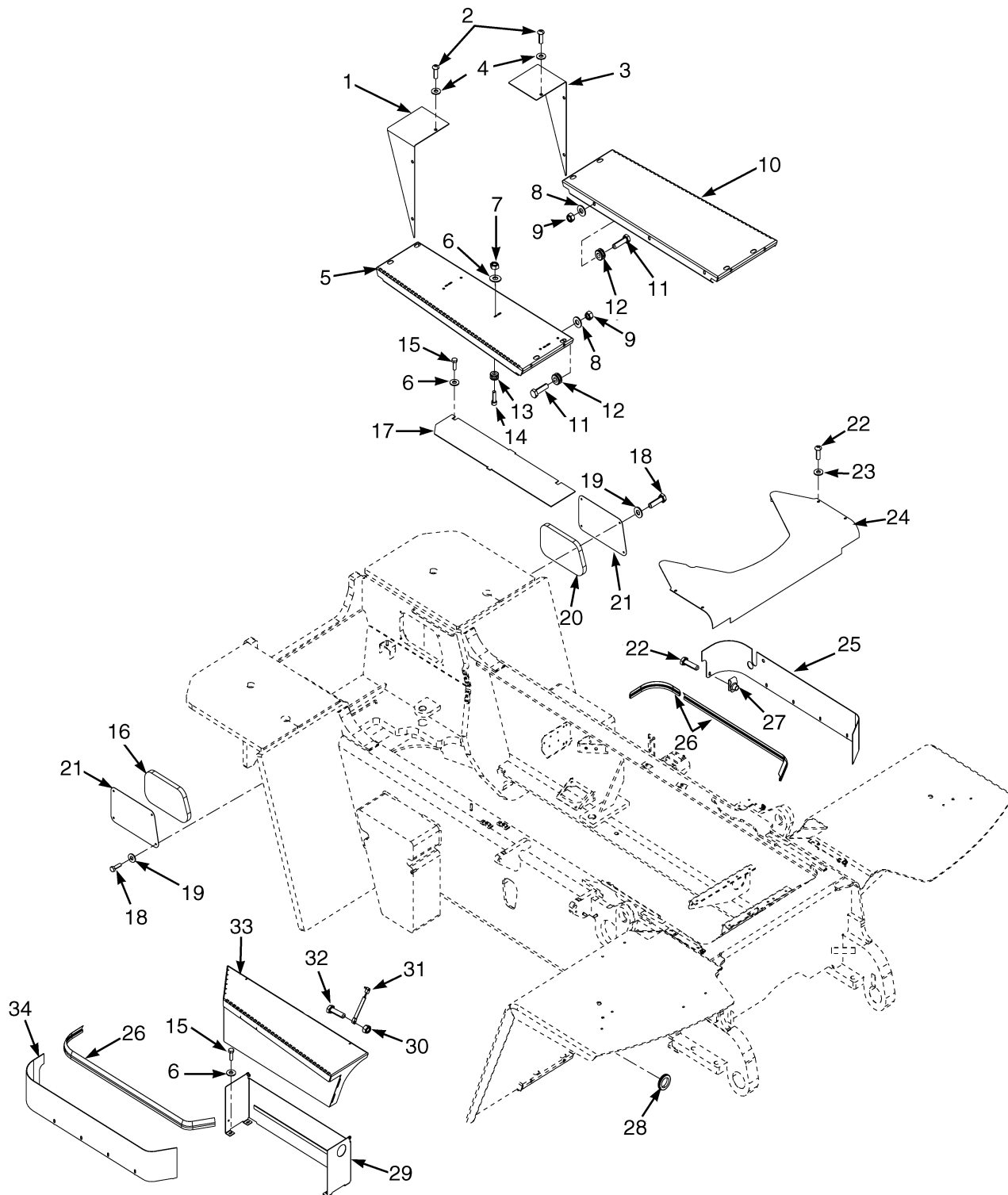
SECTION 1
FRAME

DESCRIPTION	PAGE
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HOODS AND COVERS	1-8
INDICATOR DISPLAY AND CONTROLS	1-44
LABELS	
HYDRAULIC CONTROL - JOYSTICK	1-127
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MAIN WINDOW ASSEMBLY	1-30
OVERHEAD GUARD	
WIRE MESH	1-12
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TRAINING SEAT	1-88
WINDOW WIPER SYSTEM	
SHEET 1 OF 2	1-32
SHEET 2 OF 2	1-34

NOTES

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FLOORPLATES (FIGURE 1-1)



HP121095

FLOORPLATES**KEY:****A: H170HD, H190HD, H210HD****B: H230HD, H250HD, H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	b 1646573	Plate (RH)	1	..
1	c 1677740	Extension (RH)	1	..
1	b 1646567	Plate Wldmt (RH)	..	1
1	c 1678446	Extension (RH)	..	1
2	1597444	Capscrew	6	6
3	b 1646571	Plate (LH)	1	..
3	c 1678279	Extension (LH)	1	..
3	b 1646565	Plate (LH)	..	1
3	c 1678444	Extension (LH)	..	1
4	1581558	Washer	6	6
5	b 1648140	Running Board (RH)	1	..
5	c 1678384	Running Board (RH)	1	..
5	b 1648141	Running Board (RH)	..	1
5	c 1678385	Running Board (RH)	..	1
6	b 320158	Washer	24	24
6	c 320158	Washer	16	16
7	b 302400	Nut	8	8
8	b 302402	Locknut	6	6
9	b 320162	Washer	18	18
10	b 1647946	Running Board (LH)	1	..
10	c 1694622	Running Board (LH)	1	..
10	b 1647947	Running Board (LH)	..	1
10	c 1694623	Running Board (LH)	..	1
11	b 287837	Capscrew	6	6
12	b 216735	Grommet	6	6
13	b 91946	Grommet	8	8
14	296012	Capscrew	8	8
15	136749	Screw	4	4
16	1637322	Sound Liner (RH)	1	1
17	2093122	Cover	1	1
18	176640	Bolt	8	8
19	320157	Washer	8	8
20	1637312	Sound Liner (LH)	1	1
21	1637309	Plate	2	2
22	1597449	Capscrew	14	14
23	1581851	Washer	14	14
24	1485265	Cover	1	1
25	1485263	Panel (LH)	1	1
26	1491360	Seal-Bulk	AR	AR
27	1480237	Nut	14	14
28	1347854	Grommet	1	1
29	1647769	Battery Tray	1	1
30	329069	Nut	2	2
31	1532341	Gas Spring	1	1
32	1529665	Capscrew	2	2
33	1647772	Cover (Battery Box)	1	1

FLOORPLATES

KEY:

A: H170HD, H190HD, H210HD

B: H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
34	1485264	Panel (RH)	1	1
	ab 288762	Foam Tape (Counterweight)	..	1
	ac 288762	Foam Tape (Counterweight)	..	2
	ac 1694496	Damper	12	12
	ac 292508	Capscrew	4	4

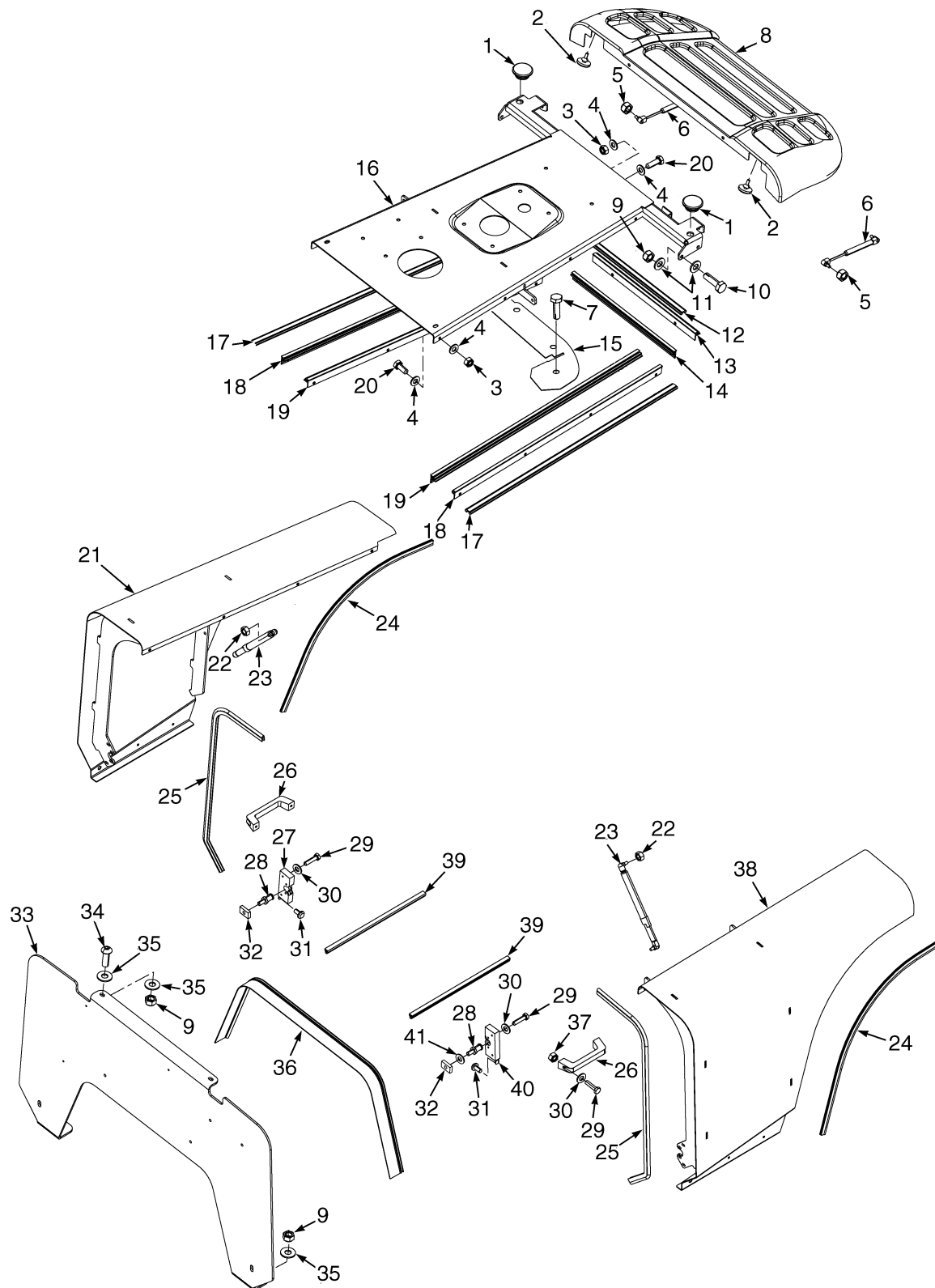
FOOTNOTES:

a Not Illustrated**c** S/N H007E02296F →**b** → S/N H007E02295F

NOTES

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HOODS AND COVERS (FIGURE 1-2)



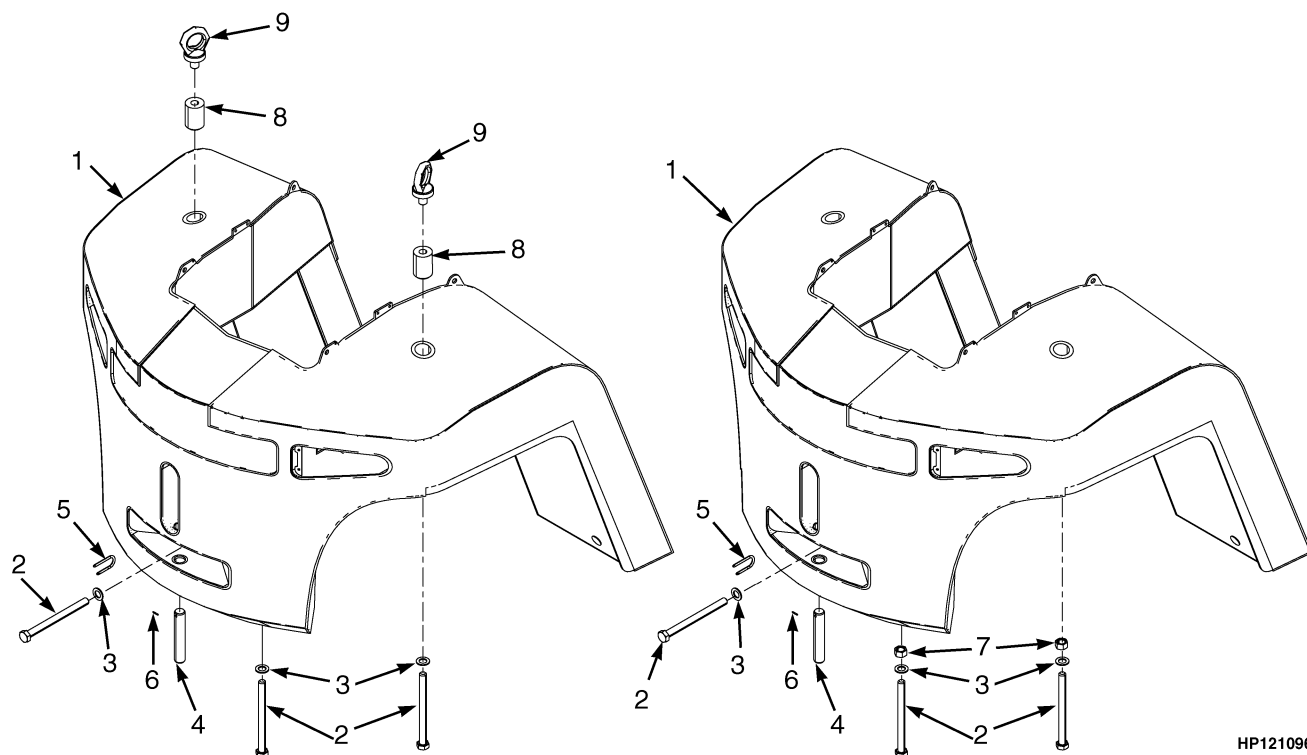
HP121091

HOODS AND COVERS**KEY:****A: H170HD, H190HD, H210HD****B: H230HD, H250HD, H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	334639	Plug	2	2
2	1450759	Button	2	2
3	302400	Nut	20	20
4	320157	Washer	20	20
5	329069	Nut	2	2
6	1455087	Gas Spring	2	2
7	1484308	Rivet	9	9
8	1649571	Cover	1	..
8	1675980	Cover (Alternate Part)	1	..
8	1649572	Cover	..	1
9	302401	Locknut	8	8
10	287860	Capscrew	4	4
11	320159	Washer	8	8
12	1633369	Hinge	1	1
13	1633363	Hinge	1	1
14	1633362	Hinge	1	1
15	1662544	Seal	1	1
16	1628451	Support	1	1
17	1633368	Hinge	2	2
18	1633360	Hinge	2	2
19	1633361	Hinge	2	2
20	1597448	Capscrew	20	20
21	1633894	Hood (LH)	1	..
21	1633896	Hood (LH)	..	1
22	239503	Nut	4	4
23	1385584	Gas Spring	2	2
24	1638439	Trim Seal	2	..
24	1638440	Trim Seal	..	2
25	1634308	Trim Seal	2	2
26	362030	Handle	2	2
27	1634172	Latch	1	1
28	1504955	Bolt	2	2
29	287816	Capscrew	12	12
30	320156	Washer	12	12
31	1637098	Button	2	2
32	1504953	Block	2	2
33	1628090	Plate	1	1
34	1597444	Capscrew	2	2
35	1581558	Washer	6	6
36	1636500	Trim Seal	1	1
37	302399	Nut	4	4
38	1633895	Hood (RH)	1	..
38	1633897	Hood (RH)	..	1
39	1634503	Trim Seal	2	..
39	1634504	Trim Seal	..	2
40	1634171	Latch	1	1

HOODS AND COVERS**KEY:****A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
41	320161	Washer	2	2

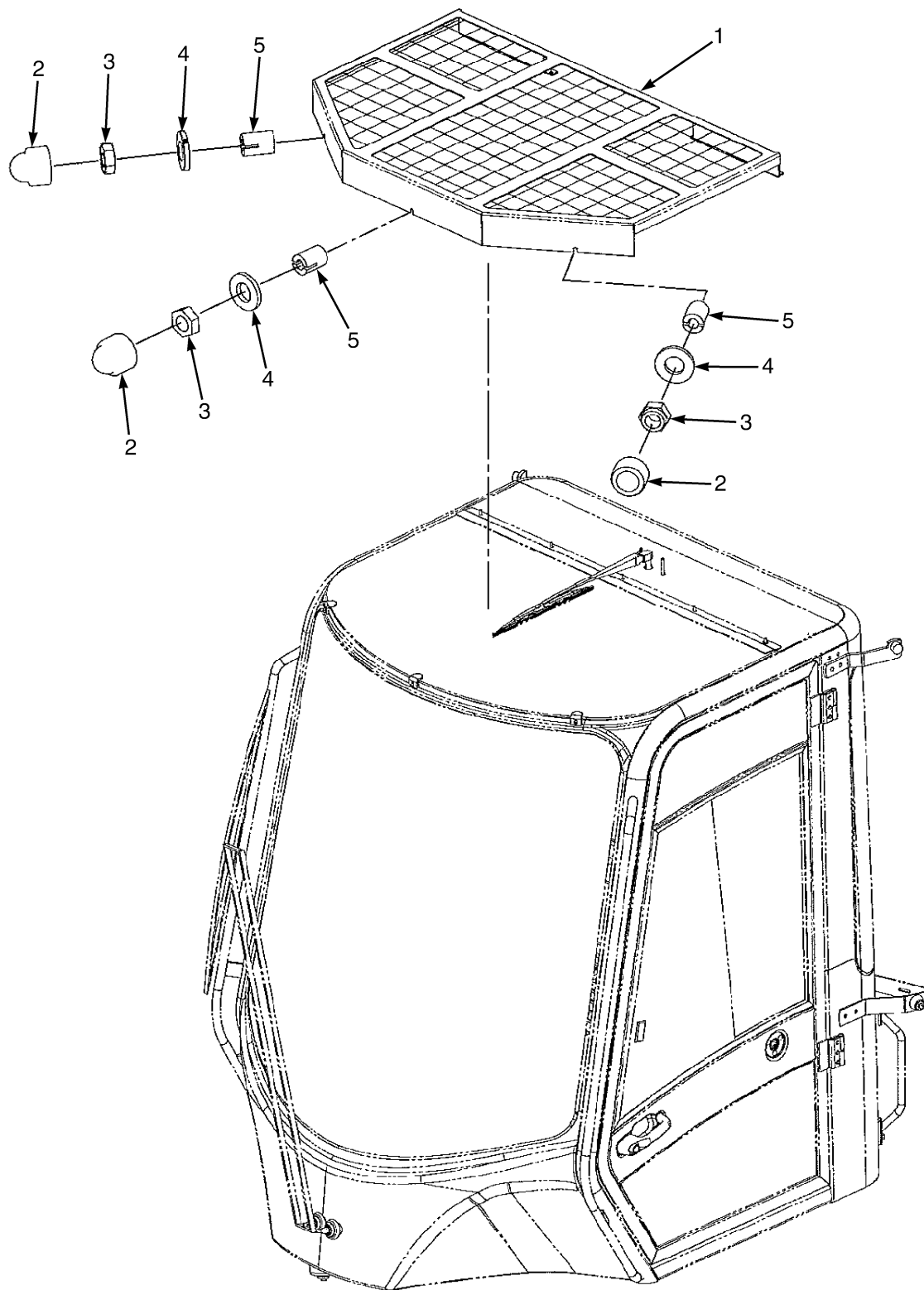
COUNTERWEIGHT (FIGURE 1-3)

HP121096

KEY:**A: Without Lifting Eyes****B: With Lifting Eyes**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1632166	Counterweight (H190HD)	1	1
1	1632165	Counterweight (H170HD)	1	1
1	1632167	Counterweight (H210HD)	1	1
1	1632168	Counterweight (H230HD)	1	1
1	1632169	Counterweight (H250HD)	1	1
1	1632170	Counterweight (H280HD)	1	1
2	2079027	Capscrew	3	3
3	296438	Washer	5	5
4	1373760	Tow Pin	1	1
5	1649266	Grip	1	1
6	302440	Roll Pin	2	2
7	292661	Nut	2	..
8	1646608	Nut (Special)	..	2
9	1507360	Lifting Eye	..	2
	212899	Foam Tape	AR	AR
	1301404	Foam	AR	AR

OVERHEAD GUARD (FIGURE 1-4) WIRE MESH

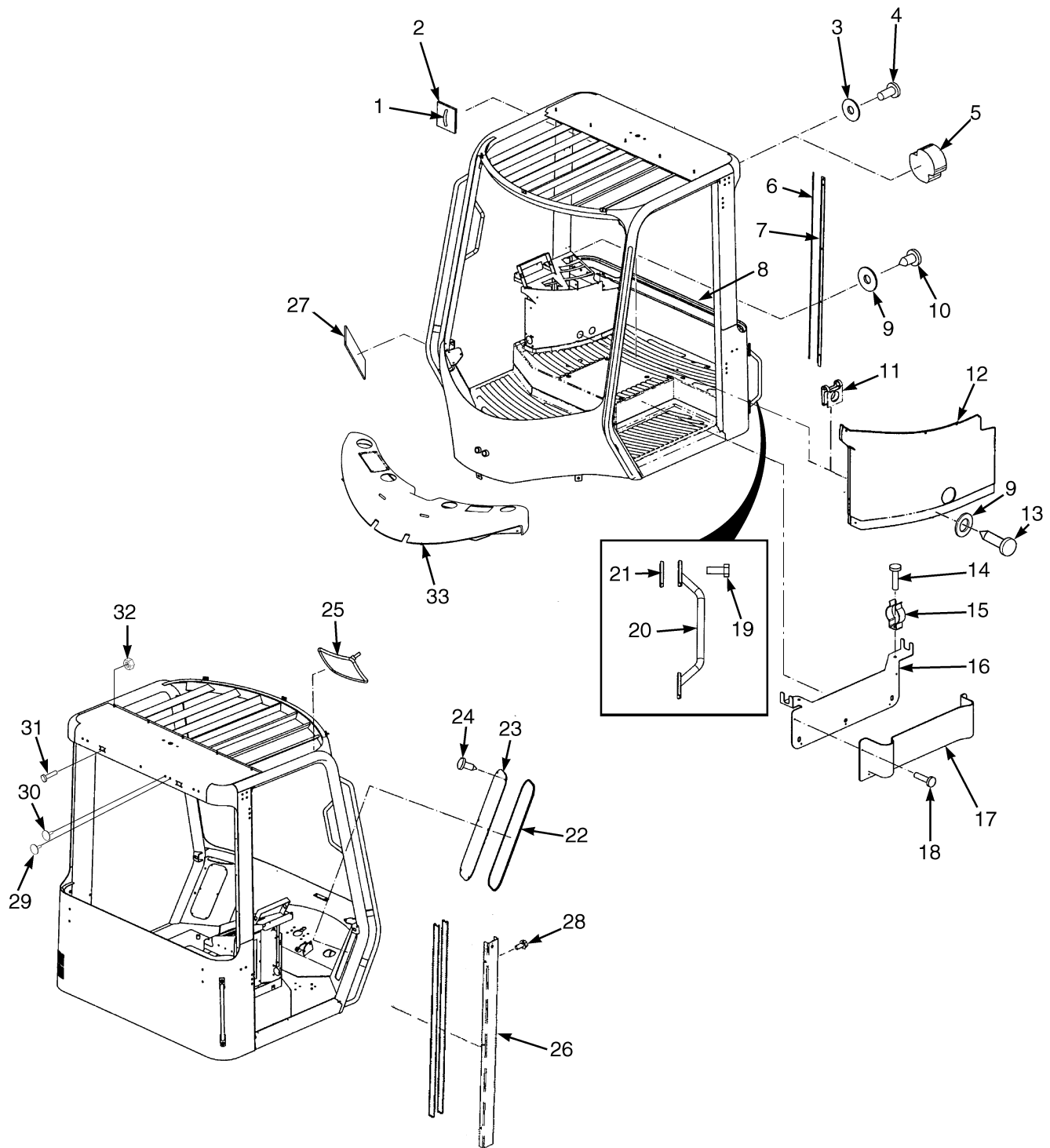


HP121220

**OVERHEAD GUARD
WIRE MESH**

ITEM	PART NO.	DESCRIPTION	QTY
	4004326	Guard	1
1	4006379	Overhead Guard	1
2	1493312	Cap (Capscrew Head)	3
3	4006381	Nut	3
4	1498338	Washer	3
5	4006380	Insert	3

CAB ATTACHING PARTS (FIGURE 1-5)

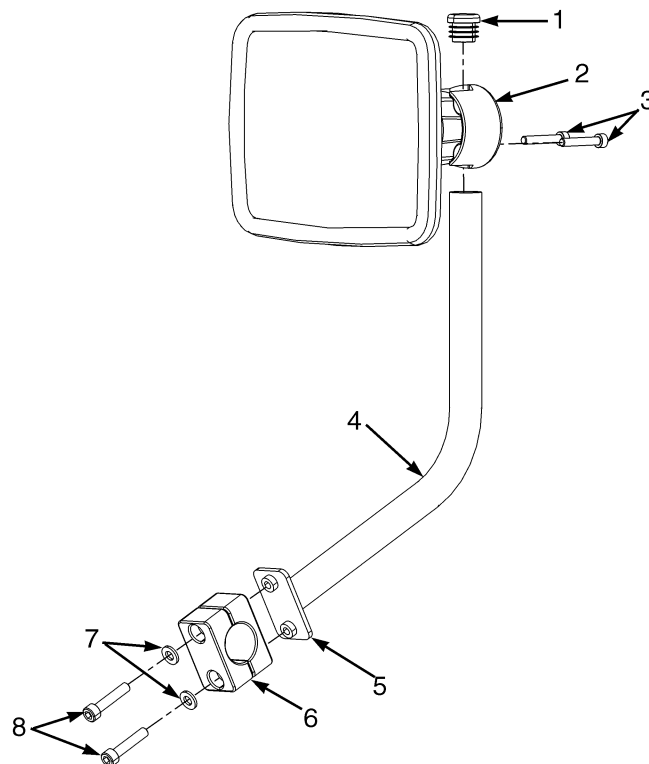


HP121119

CAB ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1393499	Clamp	1
2	1558036	Clip	1
3	1504942	Washer	8
4	1566044	Bolt	8
5	1558037	Seal	2
6	1492167	Cover	1
7	1492166	Cover	1
8	1498336	Edge Protector	AR
9	1492140	Washer	6
10	1468306	Screw	5
11	1492139	Nut	1
12	1491029	Console (RH Internal)	1
12	1498376	Cover	1
13	1468319	Screw	1
14	1498357	Screw	2
15	1498356	Clip	2
16	1498355	Bracket	1
17	1492133	Holder	1
18	1498354	Rivet	5
19	1566041	Screw	4
20	1498334	Handle (Rear)	2
20	136681	Capscrew	4
20	320158	Washer	4
20	1476584	Cover (Capscrew Head)	4
21	1498335	Pad	4
22	1498362	Seal	AR
23	1492197	Plate	2
24	1498363	Screw	12
25	1493278	Mirror (Interior)	2
26	1664405	Cover	1
27	1493372	Foam (LH)	1
27	1493373	Foam (RH)	1
28	1492163	Screw	16
29	1635006	Plug	1
30	1635005	Plug	1
31	1498357	Screw	8
32	292667	Nut	8
33	1498360	Dash Panel	1
33	1468321	Washer (Plastic)	6
33	292501	Capscrew	6
33	1476584	Cover (Capscrew Head)	6

EXTERIOR MIRRORS (FIGURE 1-6)



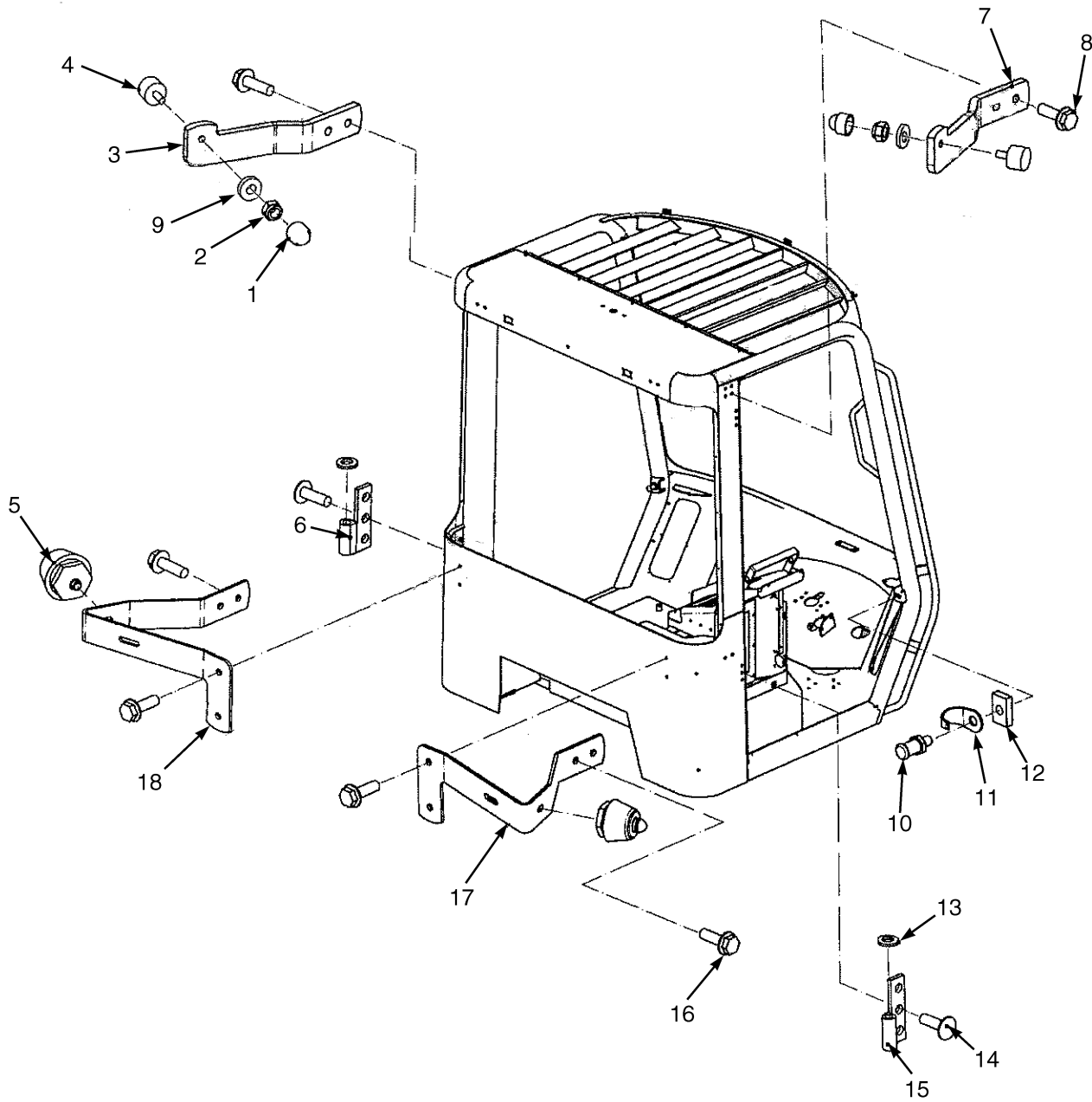
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ITEM	PART NO.	DESCRIPTION	QTY
1	1678203	End Plug	1
2	1678204	Mirror	1
3	293758	Capscrew	2
4		Pipe	1
5		Mounting Plate	1
6	1678202	Hose Clamp	1
7	320156	Washer	2
8	1581742	Capscrew	2

NOTES

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CAB DOOR ATTACHING PARTS (FIGURE 1-7)

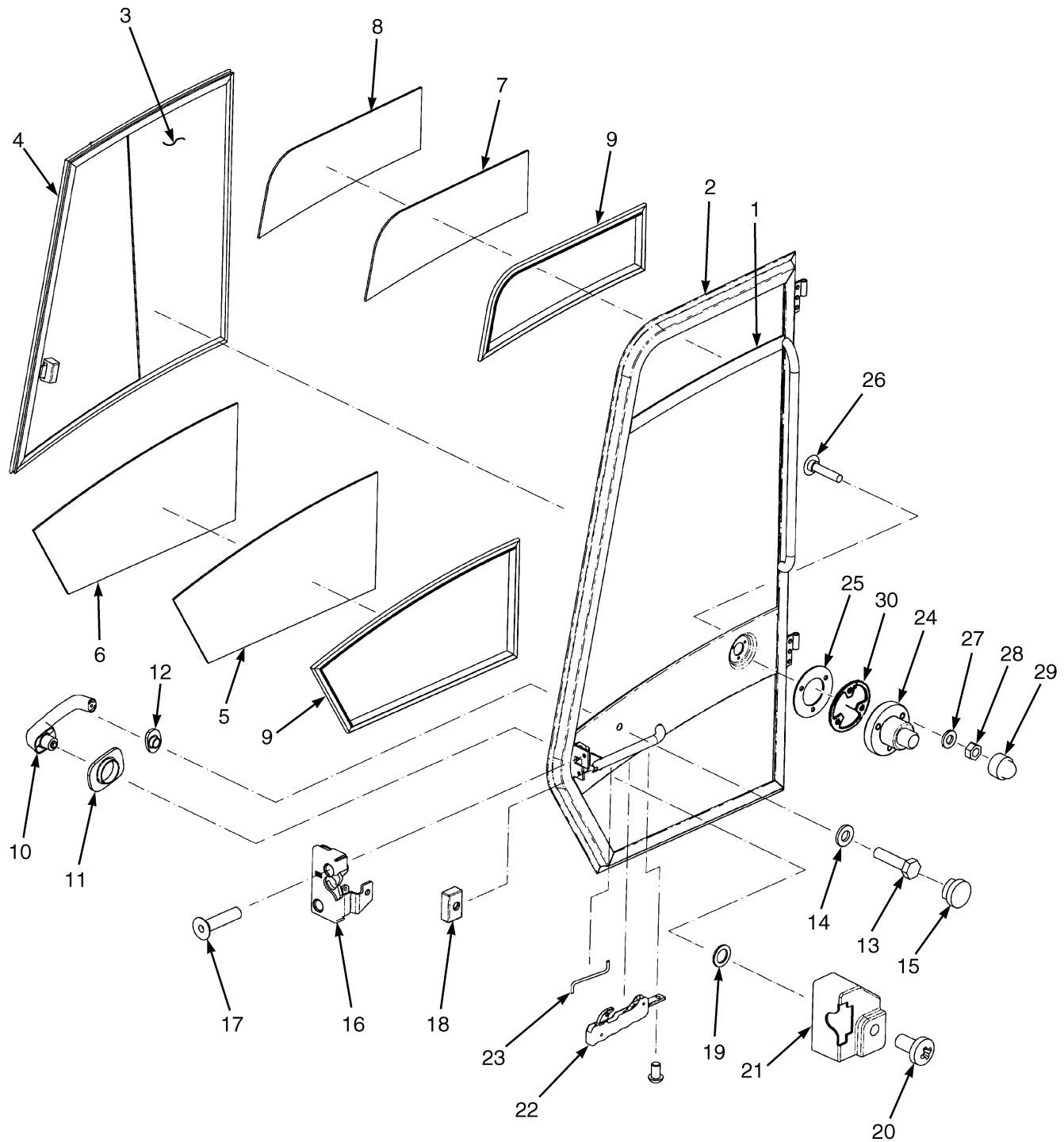


HP121116

CAB DOOR ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1476584	Cover (Capscrew Head)	2
2	316835	Nut	2
3	1558022	Bar (LH) (Upper)	1
4	1493316	Bumper	2
5	1493313	Bumper	2
6	1393473	Hinge (LH)	2
7	1558023	Bar (RH) (Upper)	1
8	1566041	Screw	4
9	320158	Washer	2
10	1493318	Capscrew (Striker)	2
10	1504955	Bolt	1
11	1504954	Guard	1
12	1504953	Block	1
13	1468312	Washer	4
14	1493308	Bolt	12
15	1393474	Hinge (RH)	2
16	1566041	Screw	8
17	1558021	Bar (RH) (Lower)	1
18	1558020	Bar (LH) (Lower)	1

CAB DOOR (FIGURE 1-8) RIGHT HAND

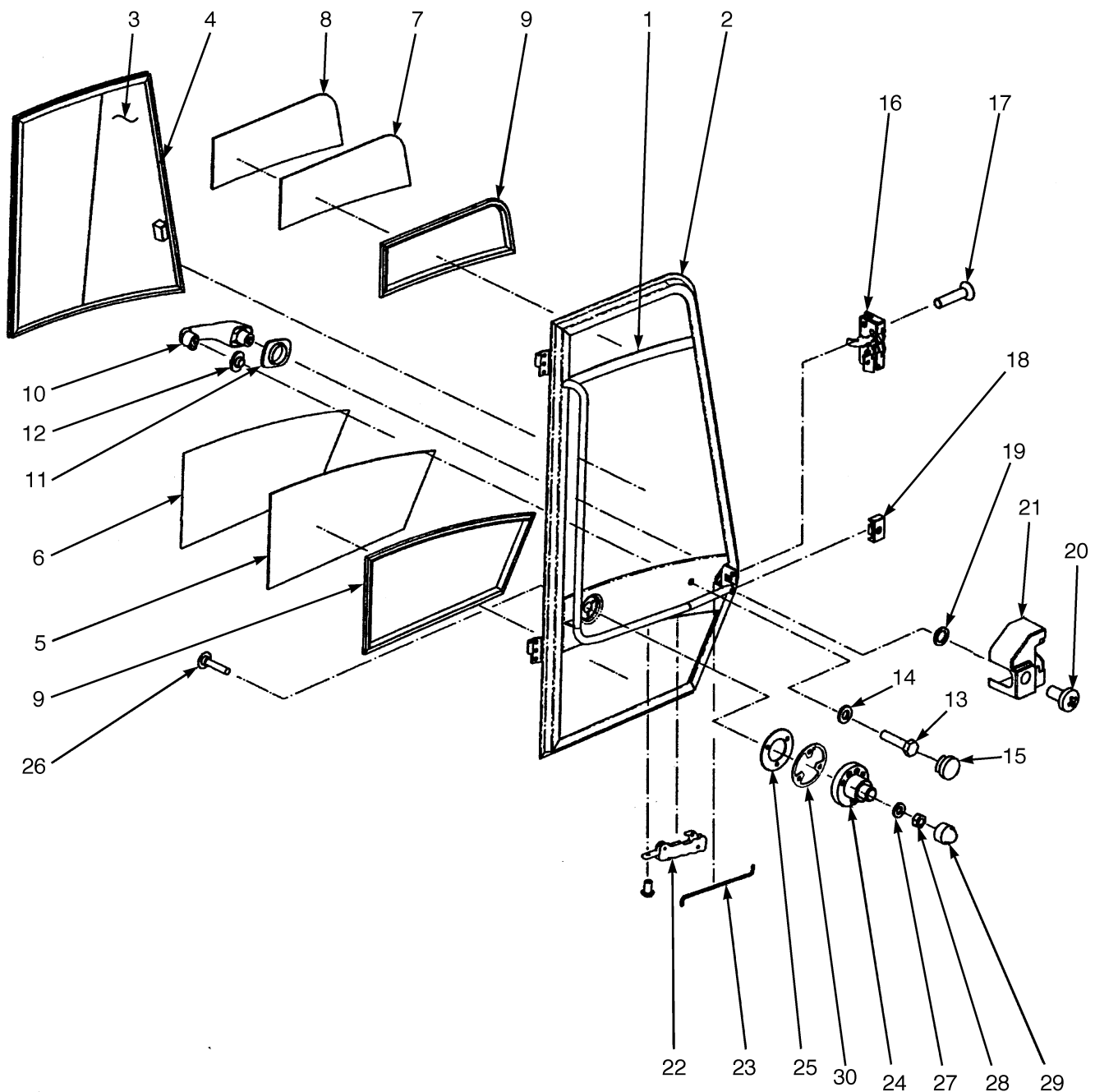


HP121106

**CAB DOOR
RIGHT HAND**

ITEM	PART NO.	DESCRIPTION	QTY
	1664394	Door (RH)	1
1	1623268	Door	1
2	1515337	Seal	5
3	1644795	Window (Main) (☞ Figure 1-13).....	1
4	1558294	Seal	AR
5	1558295	Window (Lower)	1
6	1558296	Frame (Lower RH)	1
7	1558297	Sliding Window (Upper)	1
8	1558298	Frame (Upper RH)	1
9	1558299	Hose-Bulk	4
10	1495371	Handle (Push Button)	1
11	1495372	Seal	1
12	1495431	Seal	1
13	287816	Capscrew	1
14	1468321	Washer (Plastic)	1
15	1558300	Cap	1
16	1558301	Latch	1
17	296229	Capscrew	2
18	1558302	Plate (Door Handle)	1
19	1558303	Washer	1
20	1493308	Bolt	1
21	1495435	Cover	1
22	1558305	Lock (Door Handle)	1
23	1558306	Piston Rod (Connector)	1
24	1559691	Latch	1
25	1495454	Seal	1
26	1558307	Screw	3
27	1506738	Washer	3
28	316834	Nut	3
29	1493397	Cover (Capscrew Head)	3
30	1495456	Washer (Special)	1
	1623270	Kit-Repair (Sliding Window)	1
	1593629	Key (For Cab Door Grip)	1

CAB DOOR (FIGURE 1-9) LEFT HAND

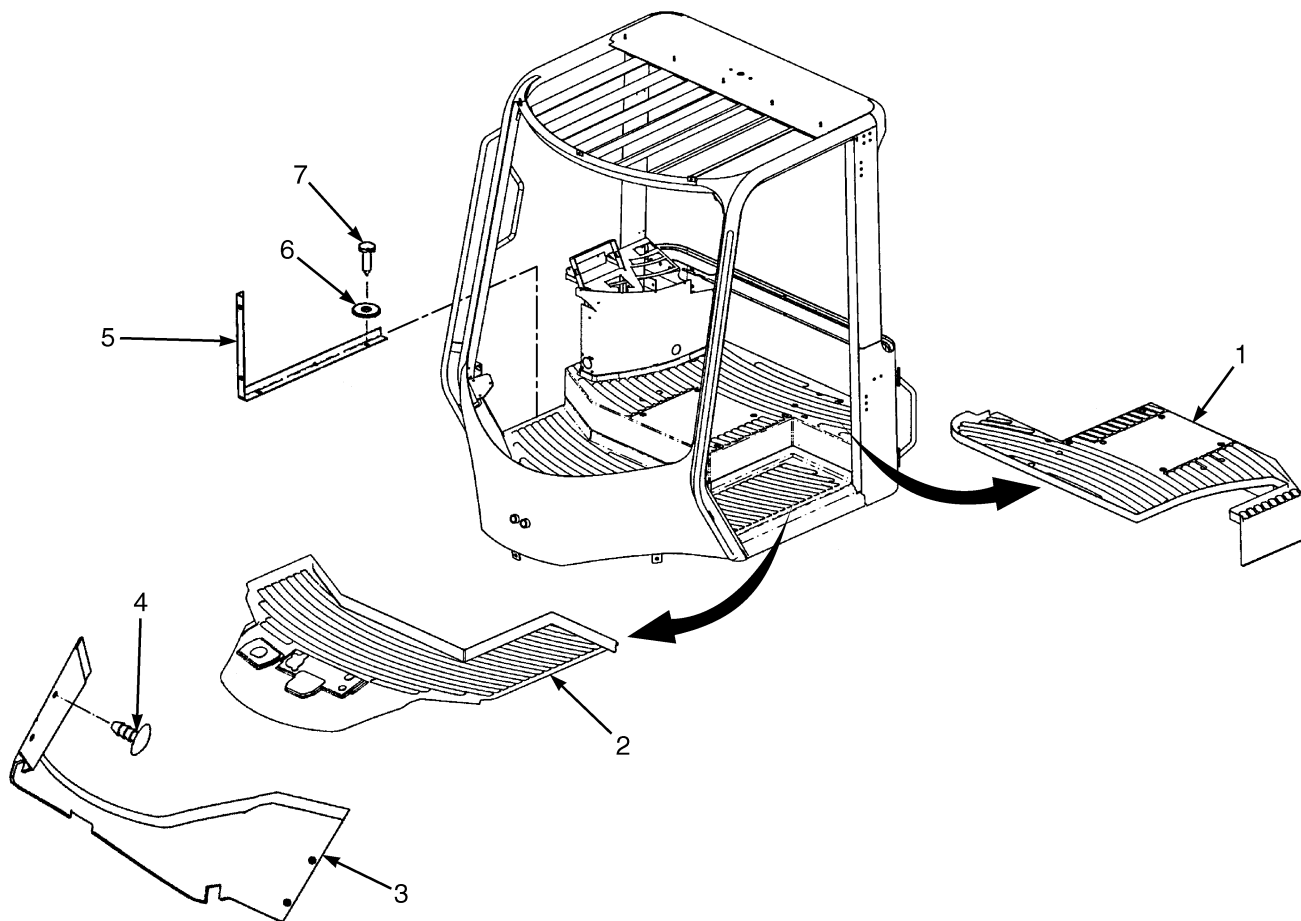


HP121107

**CAB DOOR
LEFT HAND**

ITEM	PART NO.	DESCRIPTION	QTY
	1664396	Door (LH)	1
1	1623266	Door	1
2	1515337	Seal	5
3	1644794	Window (Main) (☞ Figure 1-13).....	1
4	1558294	Seal	AR
5	1558442	Window (Door) (Lower)	1
6	1558443	Seal (Lower LH)	1
7	1558444	Sliding Window (Door) (Upper)	1
8	1558445	Seal (Upper LH)	1
9	1558299	Hose-Bulk	4
10	1495371	Handle (Push Button)	1
11	1495372	Seal	1
12	1495431	Seal	1
13	287816	Capscrew	1
14	1468321	Washer (Plastic)	1
15	1558300	Cap	1
16	1558446	Latch	1
17	296229	Capscrew	2
18	1558302	Plate	1
19	1558303	Washer	1
20	1493308	Bolt	1
21	1495438	Cover	1
22	1558305	Lock	1
23	1558447	Piston Rod (Connector)	1
24	1559691	Latch	1
25	1495454	Seal	1
26	1558307	Screw	3
27	1506738	Washer	3
28	316834	Nut	3
29	1493397	Cover (Capscrew Head)	3
30	1495456	Washer (Special)	1
	1593629	Key (For Cab Door Grip)	1
	1623270	Kit-Repair (Sliding Window)	1

CAB FLOORMATS (FIGURE 1-10)



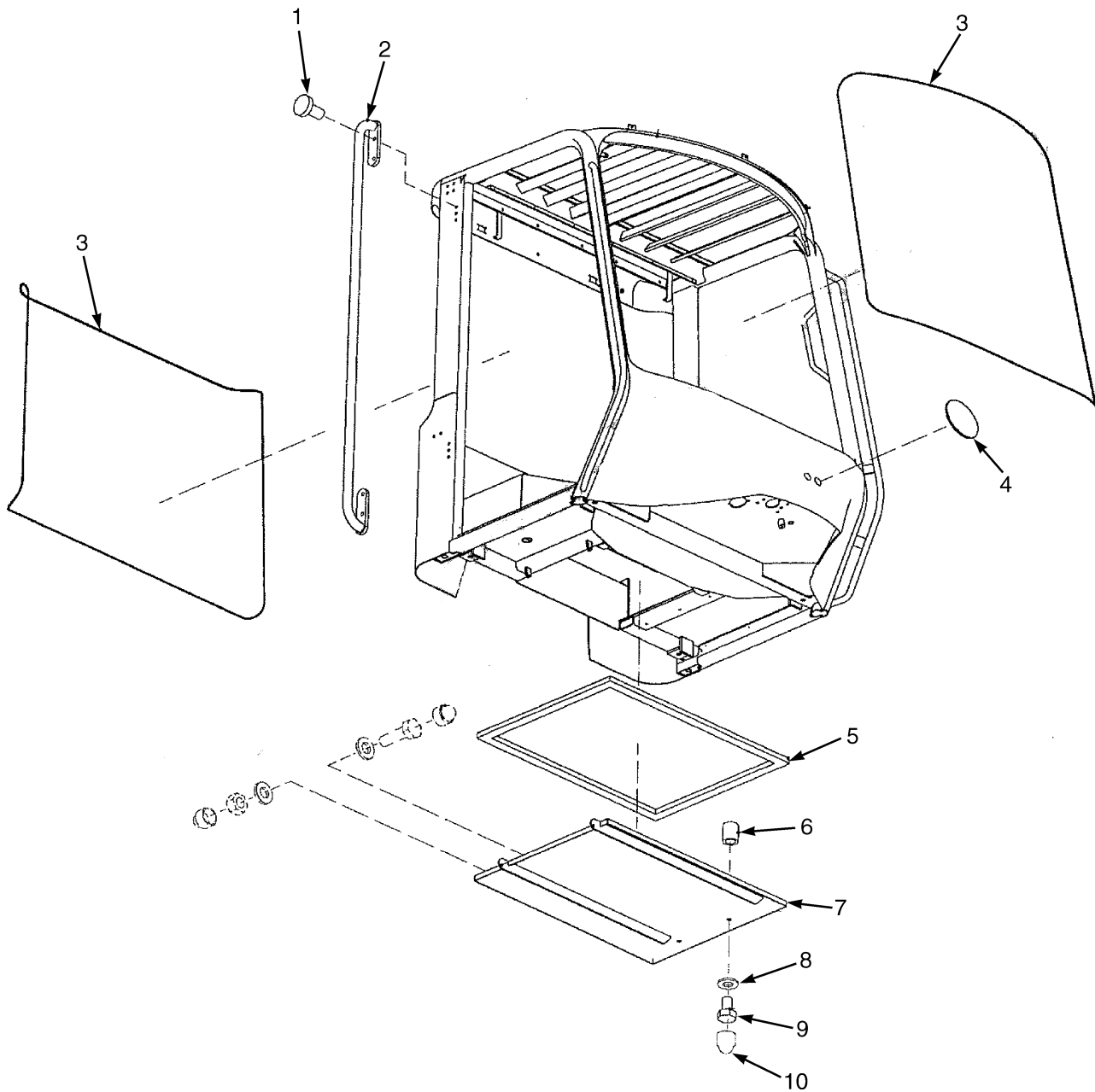
HP120784

ITEM	PART NO.	DESCRIPTION	QTY
1	1493282	Floormat (Seat)	1
2	1493281	Floormat (Main)	1
3	1493283	Floormat (Cowl)	1
4	1601929	Plug	4
5	1498365	Strip	1
6	1492140	Washer	4
7	1468318	Screw	4

NOTES

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HANDHOLD AND UNDERFLOOR COVER (FIGURE 1-11) OPEN CAB

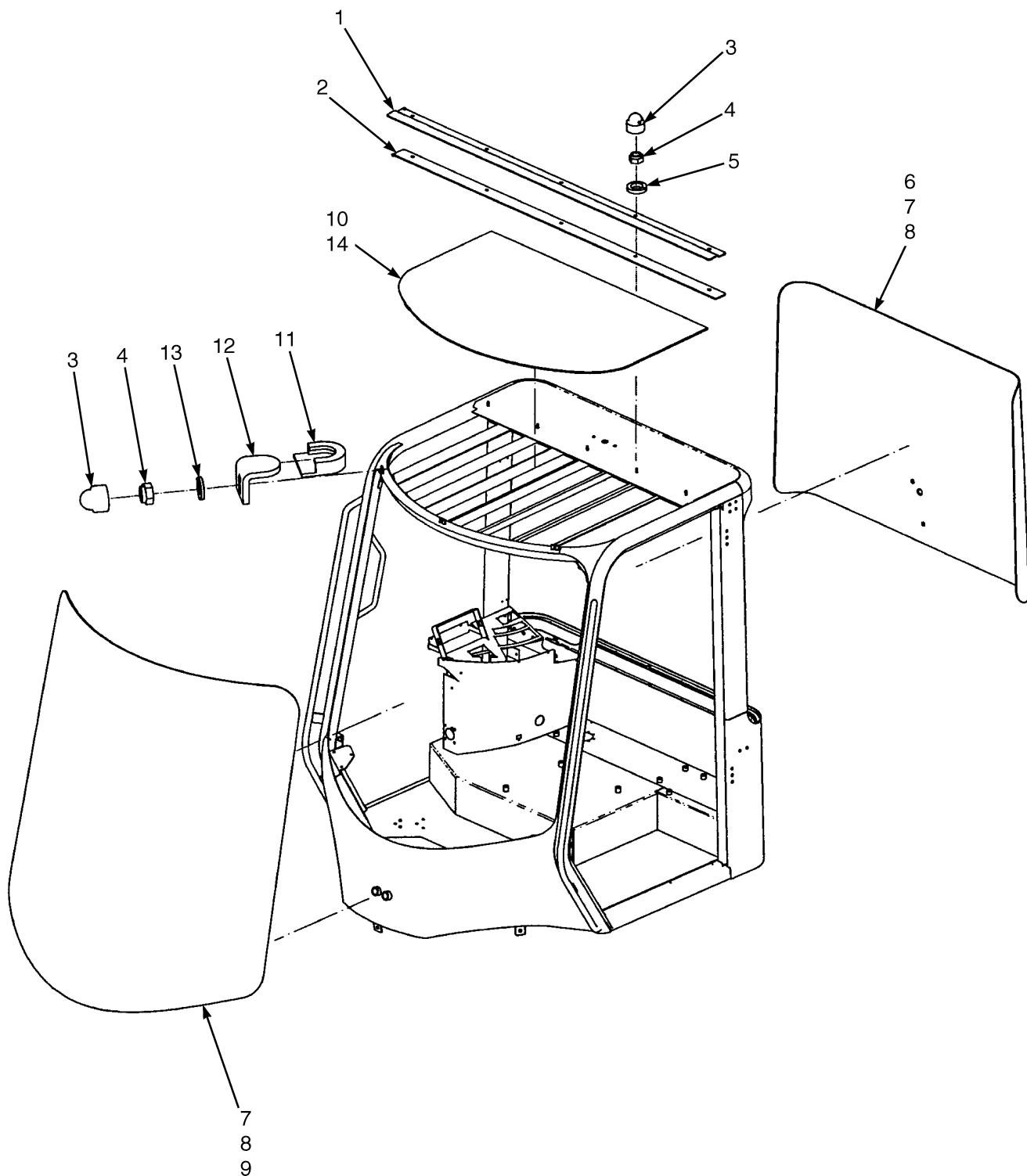


HP121115

**HANDHOLD AND UNDERFLOOR COVER
OPEN CAB**

ITEM	PART NO.	DESCRIPTION	QTY
1	1468311	Screw	8
2	1558015	Rail	2
3	1498336	Edge Protector	AR
4	1558016	Grommet	2
5	1508229	Seal	15
6	1493491	Bushing	3
7	1558017	Cover (Heater Box)	1
8	320160	Washer	3
9	136985	Capscrew	3
10	1493312	Cap (Capscrew Head)	3

CAB WINDOWS INSTALLATION (FIGURE 1-12)

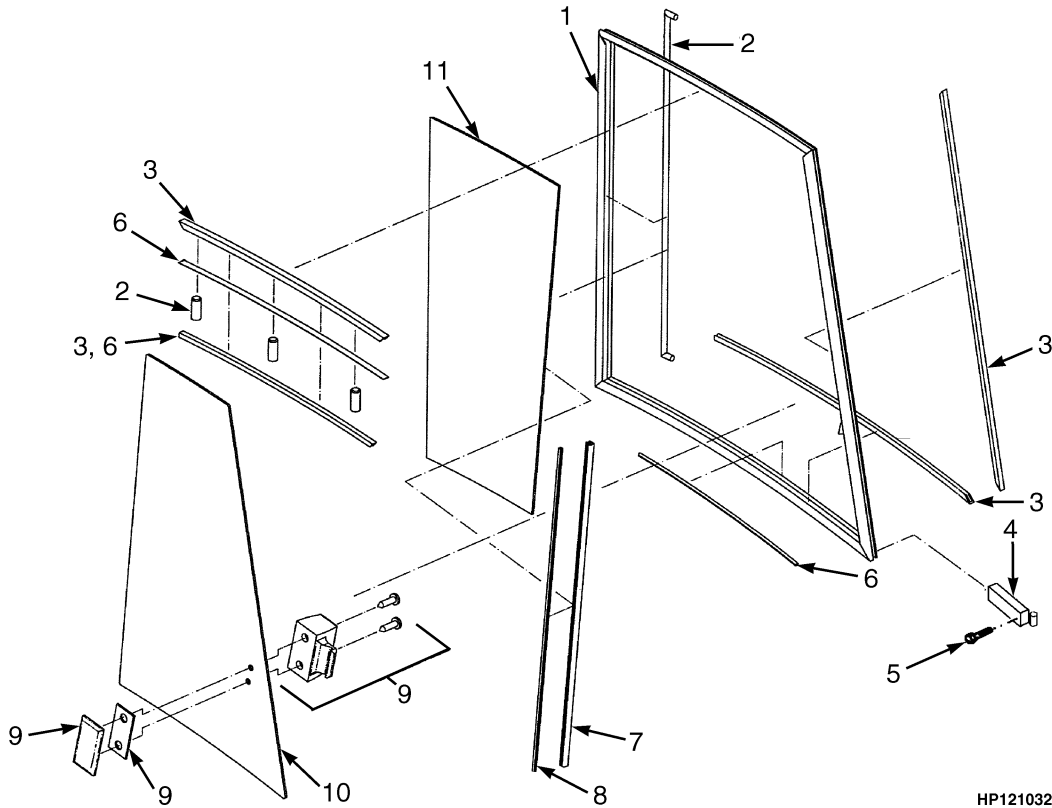


HP121117

CAB WINDOWS INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY
1	1493328	Clip Window	1
2	1498341	Seal	1
3	1493397	Cover (Capscrew Head)	8
4	316834	Nut	8
5	1498342	Washer	5
6	1493324	Window (Rear) (Curved)	1
7	1493321	Seal (Profile)	AR
8	1393466	Seal (11.5 ft)	1
9	1493320	Window (Tempered)	1
9	2046118	Window (Laminated) (Optional)	1
10	1558024	Window (Skylight) (Top)	1
11	1493329	Cover	3
12	1498343	Clip (Roof)	3
13	1468321	Washer (Plastic)	3
14	1515337	Seal (Top)	AR
	1498750	Kit-Seal	1

MAIN WINDOW ASSEMBLY (FIGURE 1-13)



HP121032

KEY:

A: Right Hand

B: Left Hand

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1644795	Window (Main)	1	..
	1644794	Window (Main)	..	1
1	1644803	Frame (Sliding Window)	1	..
1	1644796	Frame (Sliding Window)	..	1
2	a 1641640	Strip Seal	AR	AR
3	a 1644804	Seal	AR	AR
4	1644801	Guide	4	4
5	1644802	Screw	4	4
6	a 1641637	Seal	AR	AR
7	1644799	Guard	1	1
8	a 1644800	Seal	AR	AR
9	1483226	Latch	2	2
10	1644806	Glass	1	..
10	1644797	Glass	..	1
11	1644805	Glass	1	..
11	1644798	Glass	..	1

FOOTNOTES:

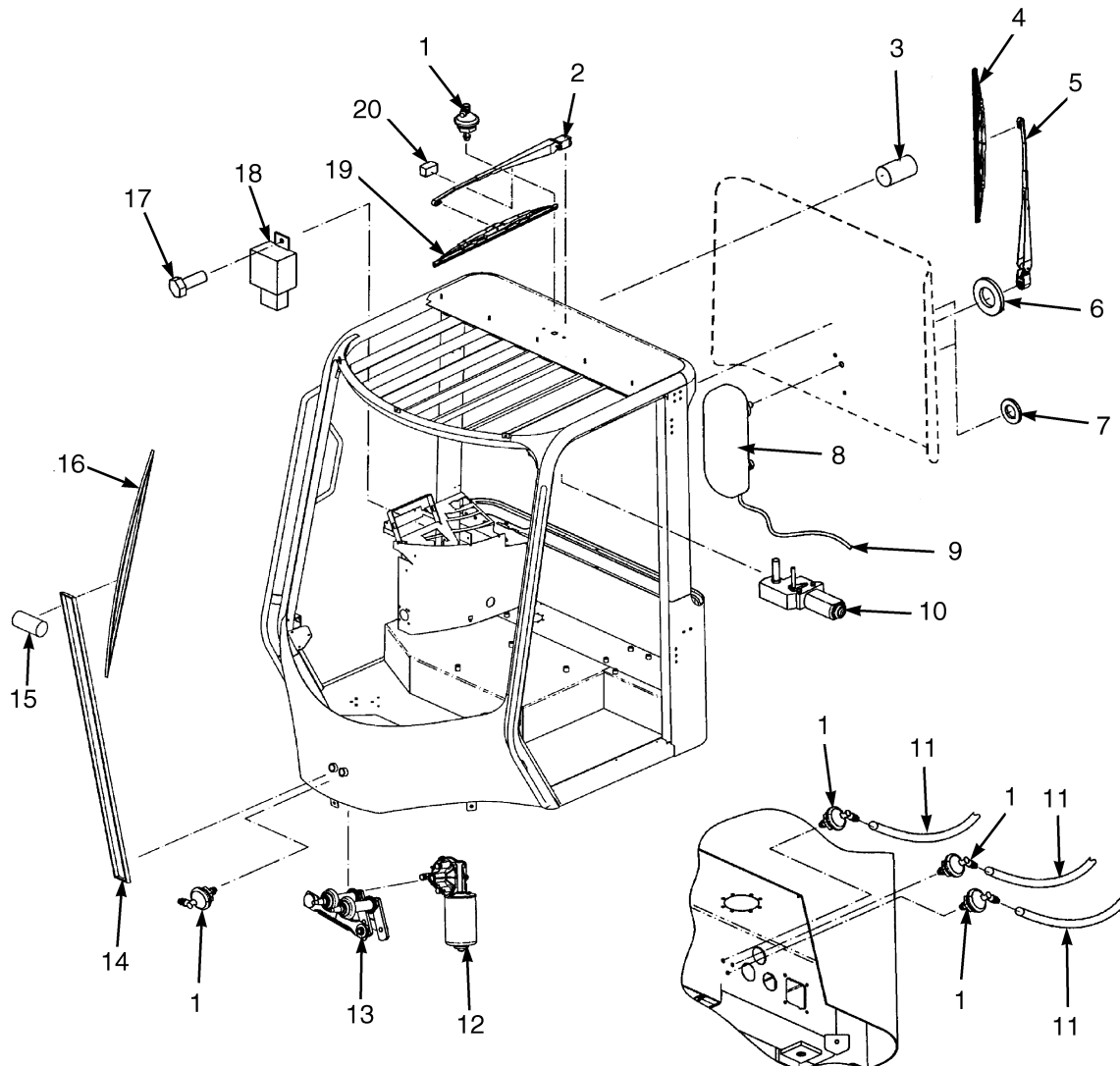
a Sold by the foot

NOTES

[illegible]

WINDOW WIPER SYSTEM (FIGURE 1-14)

SHEET 1 OF 2



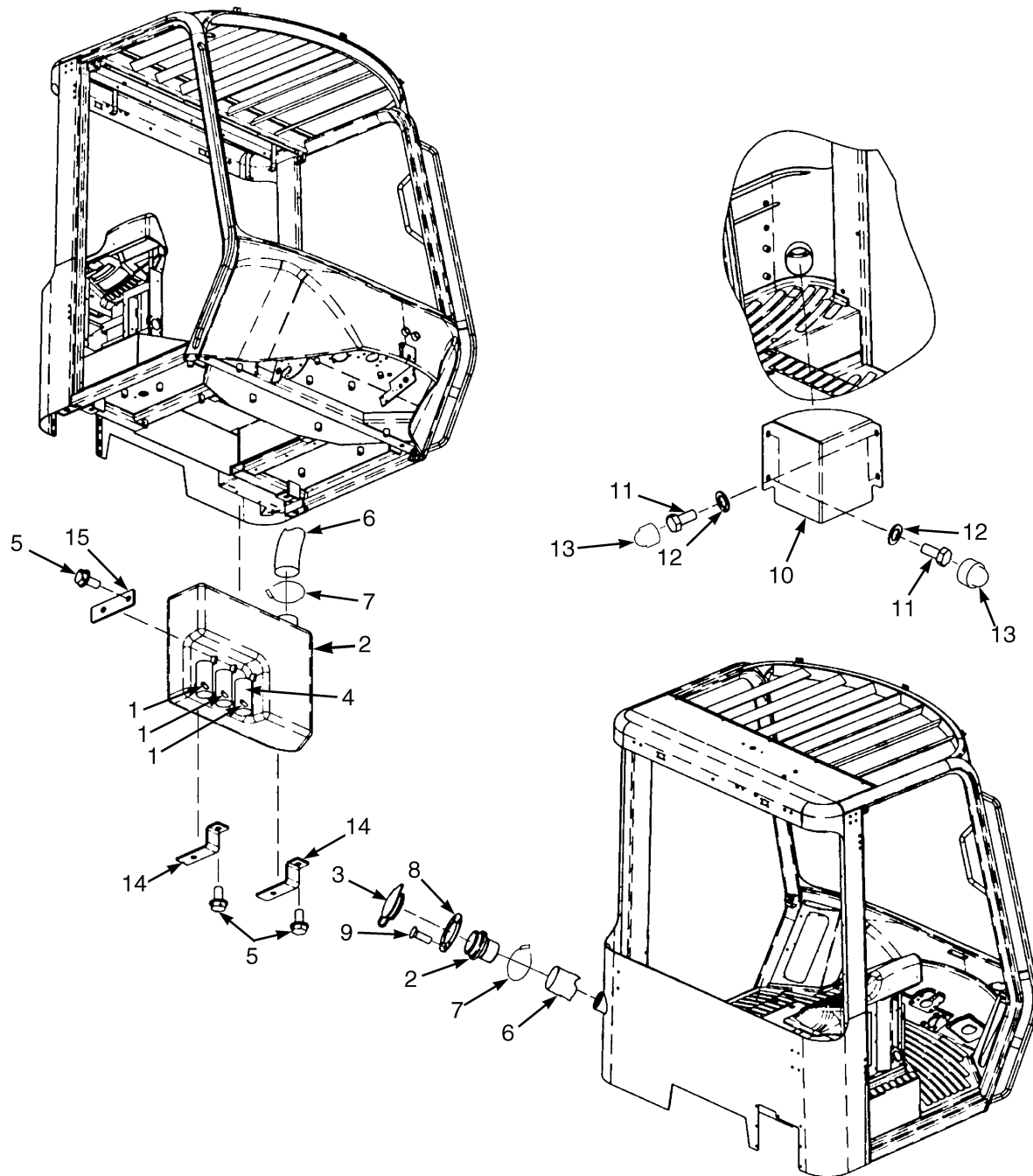
HP121118

WINDOW WIPER SYSTEM
SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	1493336	Connector	6
2	1498347	Wiper Arm (Top)	1
3	1498344	Washer (Nozzle) (Double)	1
4	1493340	Wiper Blade	1
5	1493341	Wiper Arm (Rear)	1
6	1558025	Washer	1
7	1554125	Washer	2
8	1493339	Wiper Motor (Rear)	1
9	2043546	Wire Harness (Rear Wiper) (☞ Figure 4-43).....	1
10	1493344	Wiper Motor (Top)	1
11	1493337	Hose	AR
12	1493332	Wiper Motor (Front)	1
13	1493333	Linkage (Front)	1
14	1493334	Wiper Arm (Single)	1
15	1507005	Nozzle (Front)	1
16	1493335	Wiper Blade (Single)	1
17	292500	Capscrew	1
18	1492156	Relay (Wiper Timer) (Internal)	1
19	1498348	Wiper Blade (Top)	1
20	1507003	Nozzle (Top)	1

WINDOW WIPER SYSTEM (FIGURE 1-15)

SHEET 2 OF 2

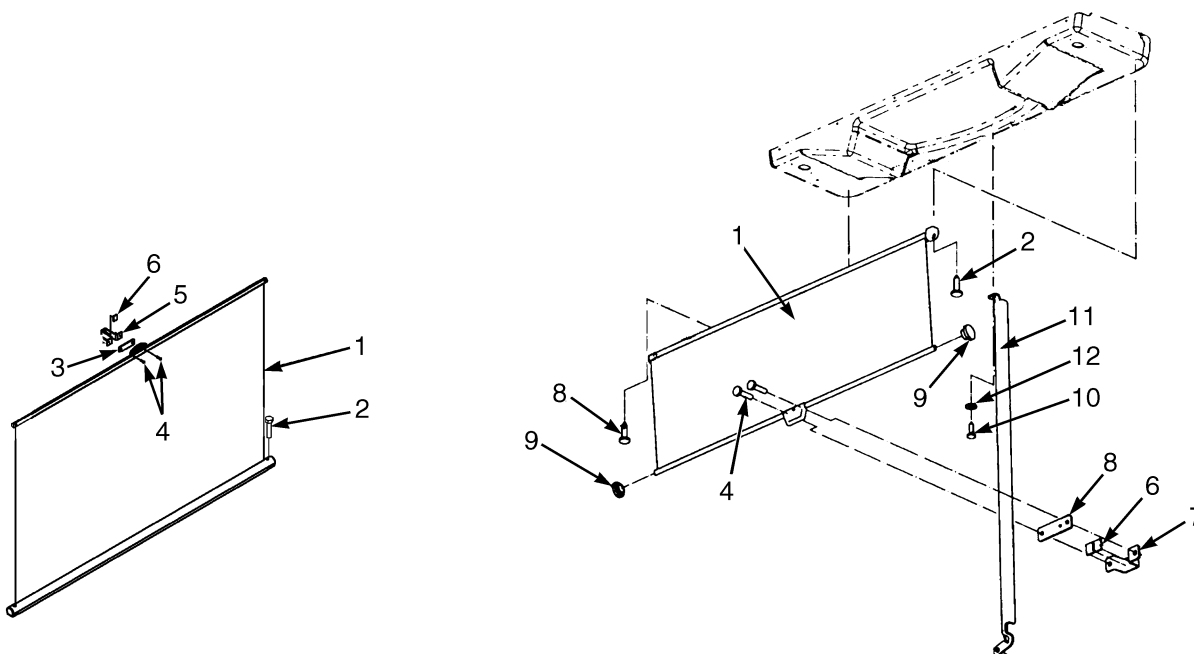


HP081758

WINDOW WIPER SYSTEM
SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	1493337	Hose	AR
2	1626996	Reservoir	1
3	1635026	Cap	1
4	1705156	Pump	1
5	1566044	Bolt	3
6	1635020	Hose	1
7	1657620	Clamp	4
8	1635021	Washer	1
9	1635022	Screw	4
10	1635023	Cover	1
11	292500	Capscrew	4
12	1506738	Washer	4
13	1493397	Cover (Capscrew Head)	4
14	1635018	Bracket	2
15	1635019	Plate	1

CAB SUNSHADES (FIGURE 1-16)



HP121101

KEY:

A: Top Application

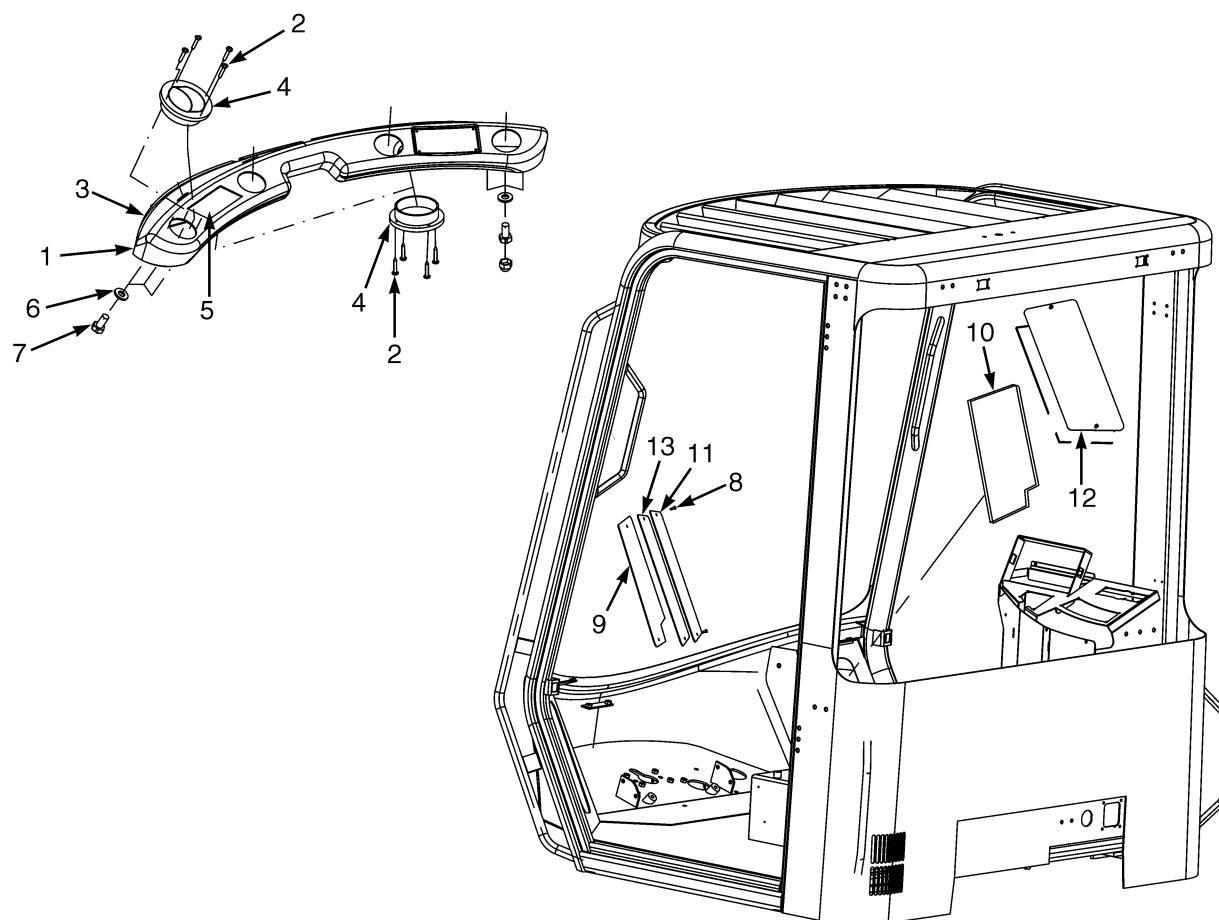
B: Rear Application

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1506751	Sunshade	1	1
2	1468318	Screw	2	3
3	1506749	Rubber Pad	1	..
4	1655365	Screw	2	2
5	1506750	Clamp	1	..
6	1506748	Rubber Pad	1	2
7	1644792	Bracket	..	1
8	1506749	Rubber Pad	..	1
9	1644793	Plug	..	2
10	1468318	Screw	..	1
11	1644791	Bracket	..	1
12	296415	Washer	..	1

NOTES

[illegible]

DASH DISPLAY (FIGURE 1-17)

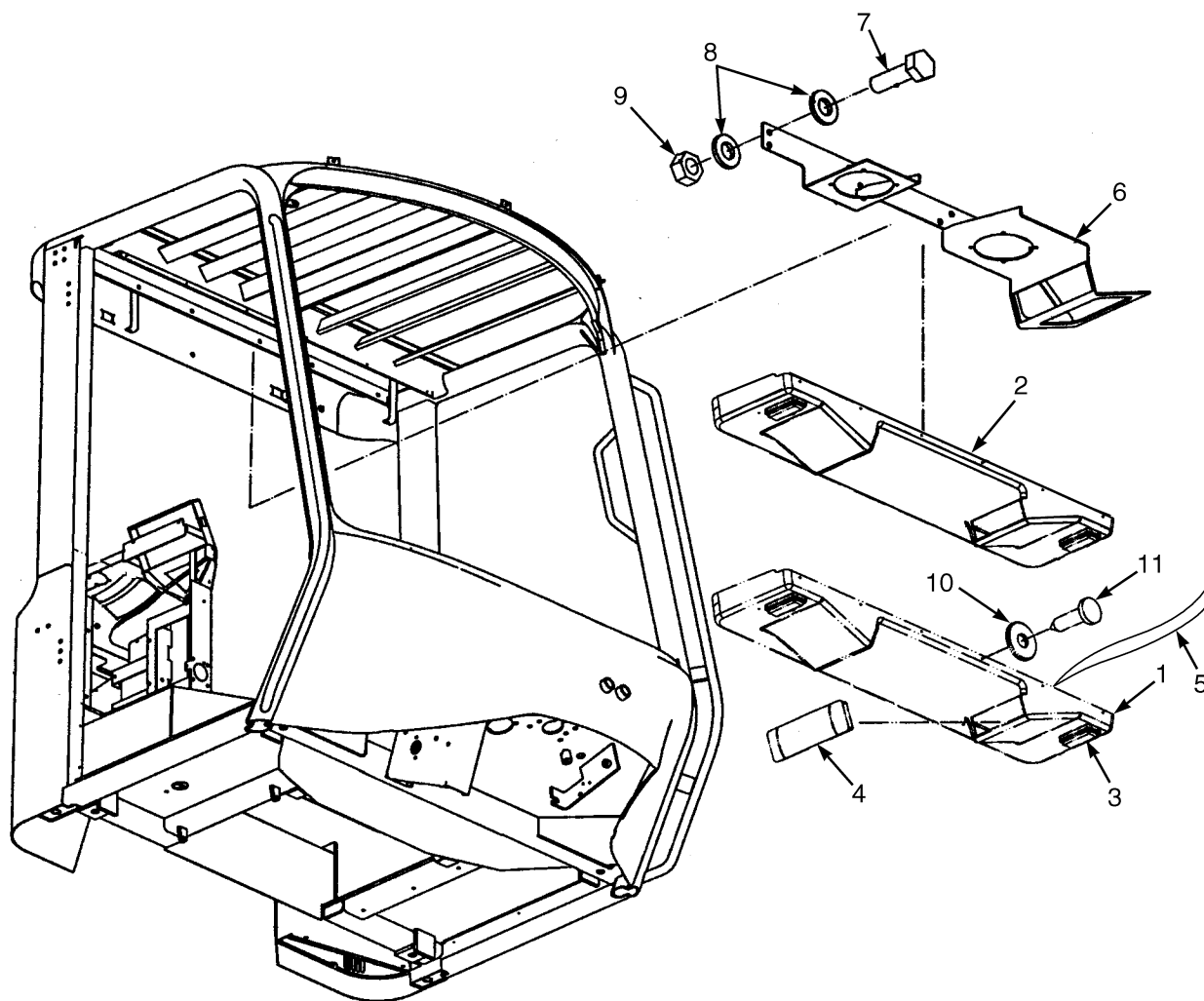


BP120169

DASH DISPLAY

ITEM	PART NO.	DESCRIPTION	QTY
	1492200	Cover	1
1	1492195	Cover	1
2	1654935	Screw	24
3	1512822	Seal	AR
4	1598398	Louver (Round)	4
5	1492196	Ashtray	1
6	1468321	Washer (Plastic)	6
7	292501	Capscrew	6
8	1498363	Screw	12
9	1493372	Foam (LH)	4
10	1493373	Foam (RH)	1
11	1492197	Plate (LH Air Duct Cover)	1
12	1492198	Plate (RH Air Duct Cover)	1
13	1498362	Seal	AR

RADIO CONSOLE (FIGURE 1-18)

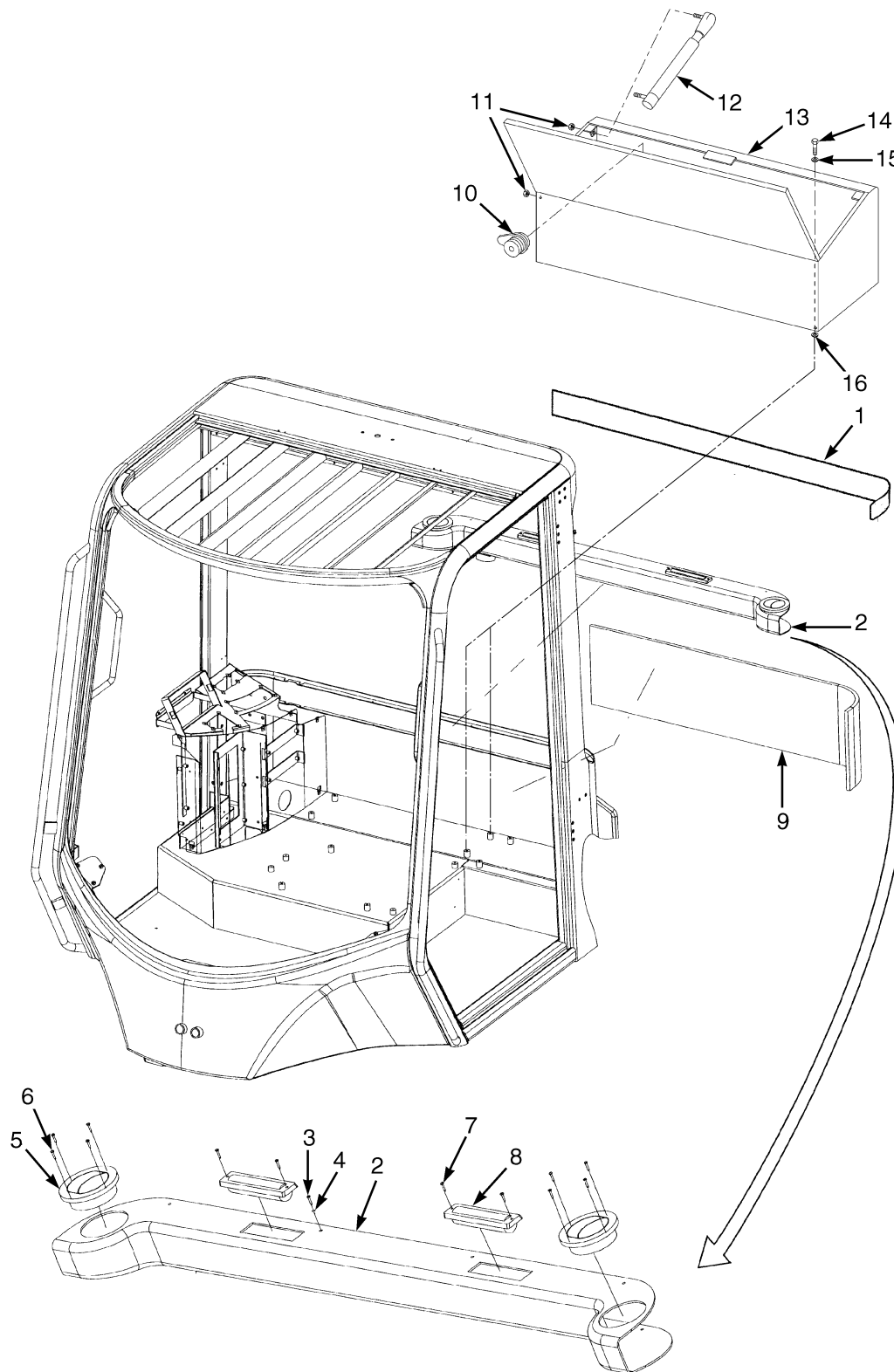


HP121108

RADIO CONSOLE**KEY:****A: Closed Cab****B: Open Cab**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1492176	Console (Radio)	1	..
2	1491468	Headliner	1	..
3	1393528	Dome Light	2	..
3	1566767	Bracket	2	..
3	887317	Bulb	2	..
3	1492163	Screw	4	..
4	1571628	Cover	1	1
5	2093714	Wire Harness (Closed Cab) (☞Figure 4-24).....	1	..
5	2042507	Wire Harness (Open Cab) (☞Figure 4-25).....	..	1
6	1566762	Bracket	1	1
7	287854	Capscrew	4	4
8	320160	Washer	8	8
9	136692	Nut	4	4
10	1492140	Washer	10	10
11	1468318	Screw	10	10
	1508012	Headliner	..	1

REAR DUCT AND CONSOLE (FIGURE 1-19)

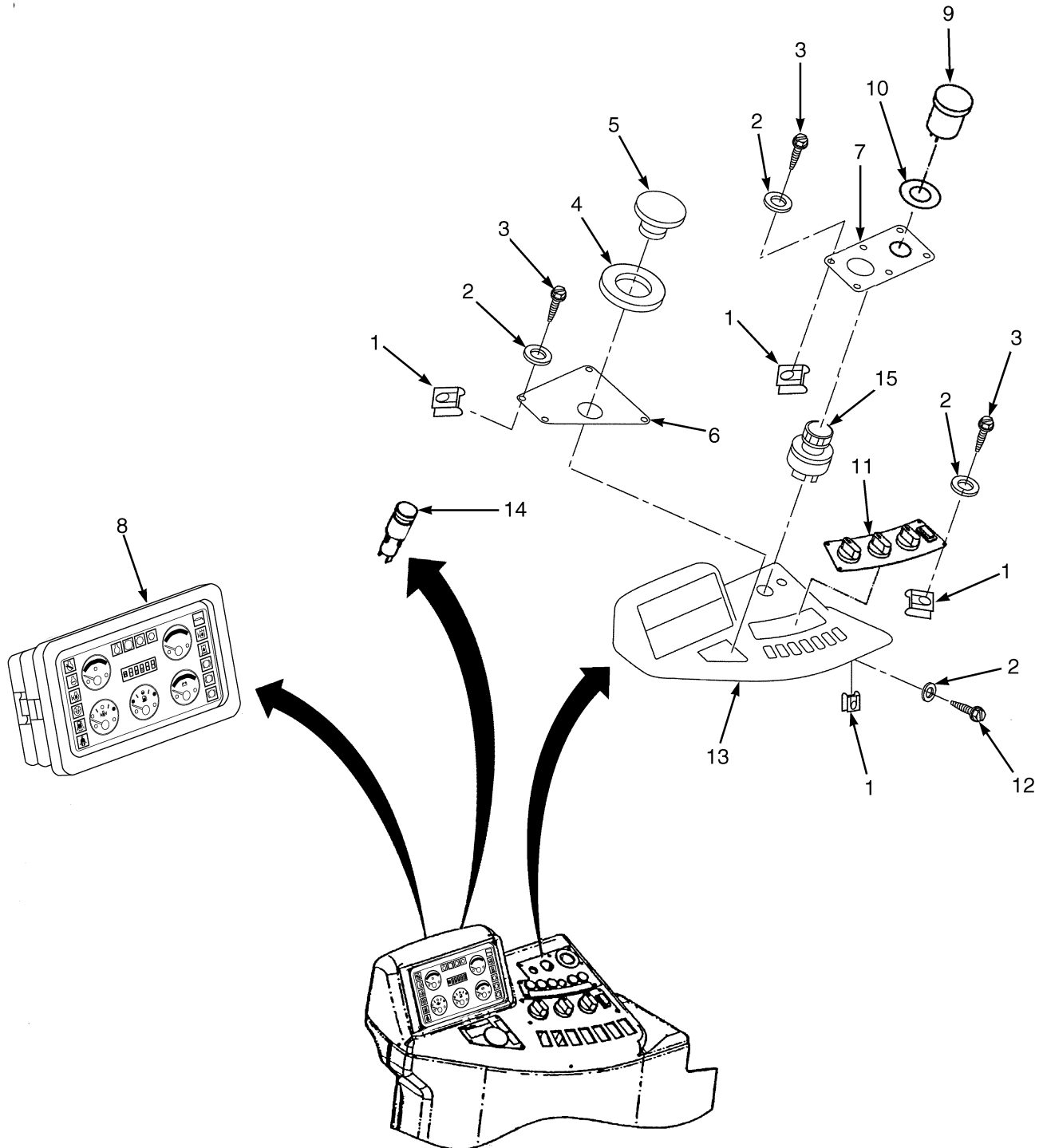


HP121109

REAR DUCT AND CONSOLE

ITEM	PART NO.	DESCRIPTION	QTY
1	1493370	Foam	1
2	1492175	Duct (Rear)	1
2	1491495	Duct (Front Cover)	1
3	1468318	Screw	8
4	1492140	Washer	8
5	1598398	Louver	2
6	1598420	Nut	8
7	1468320	Screw	4
8	1492169	Louver	2
9	1492173	Foam (Closed Cab)	1
9	1558031	Foam (Open Cab)	1
10	1506680	Cover	1
11	316835	Nut	2
12	1506679	Gas Spring	1
13	1499932	Console (Rear Locking)	1
14	136681	Capscrew	4
15	320158	Washer	4
16	1506678	Washer	4

INDICATOR DISPLAY AND CONTROLS (FIGURE 1-20)

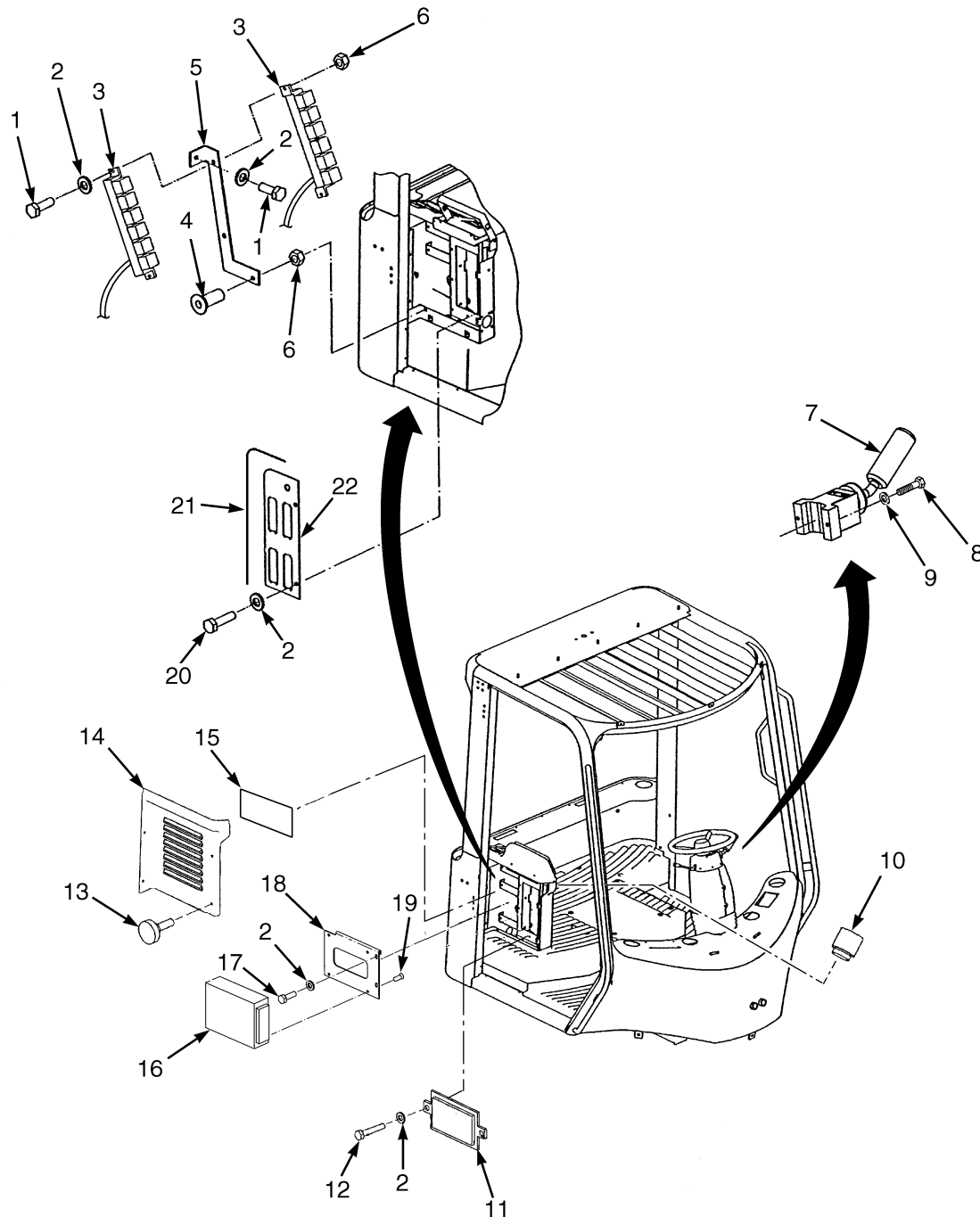


HP121104

INDICATOR DISPLAY AND CONTROLS

ITEM	PART NO.	DESCRIPTION	QTY
1	1492139	Nut	23
2	1492140	Washer	18
3	1468319	Screw	19
4	1492149	Washer	1
5	1659511	Switch (Park Brake)	1
6	1492147	Plate (Park Brake)	1
7	1566771	Plate (Ignition)	1
8	2091418	Dash Display	1
9	1601935	Plug (Not Shown, For Use Without 12 Volt Socket Option)	1
9	1566764	Socket (12 Volt) (Optional)	1
10	1558027	Label (For Use With 12 Volt Socket)	1
11	1558033	Control Panel (Heater) (☞Figure 4-9).....	1
11	1615364	Control Panel (Heater and Air Conditioner) (☞Figure 4-8).....	1
12	1492141	Screw	4
13	1566770	Console (Console) (Closed Cab)	1
13	1652020	Cover (Console) (Open Cab)	1
14	1561540	Warning Light (Red) (Includes Bulb)	1
15	379902	Ignition Switch	1
15	1337197	Key Set	1
15	186304	Key	2

CAB ELECTRONIC CONTROLS AND PANELS (FIGURE 1-21)



HP121120

CAB ELECTRONIC CONTROLS AND PANELS

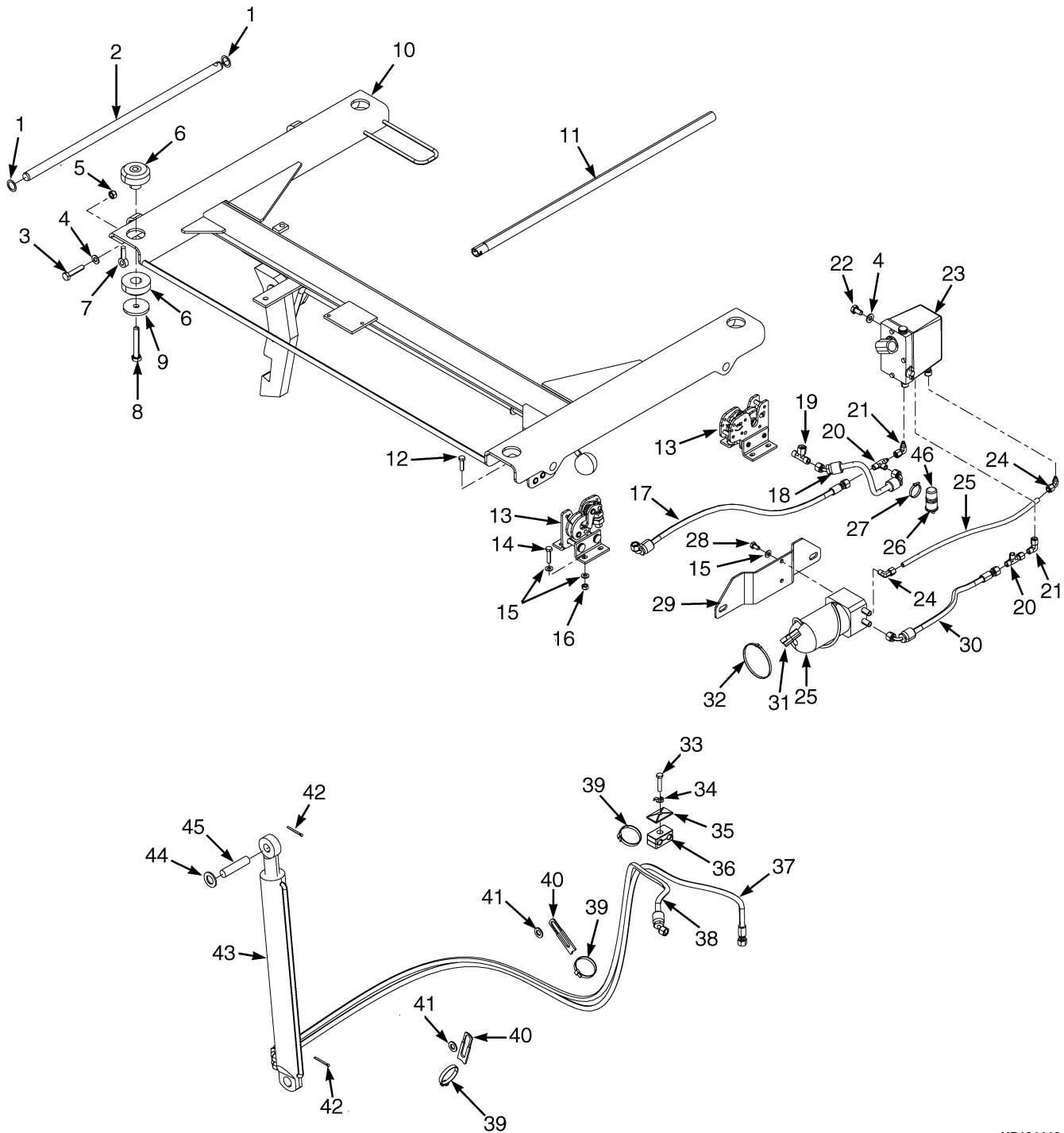
ITEM	PART NO.	DESCRIPTION	QTY
1	292501	Capscrew	3
2	320156	Washer	9
3	2088901	Wire Harness (Side Console) (☞Figure 4-21, ☞Figure 4-22, ☞Figure 4-23)....	1
4	1558041	Screw	1
5	1492146	Bracket Wldmt (Relay)	1
6	316834	Nut	3
7	b 1494677	Shifter (Forward And Reverse Lever)	1
7	d 1494678	Shifter (Forward And Reverse Lever)	1
7	a 1494691	Shifter (Monotrol)	1
7	c 1494694	Shifter (Monotrol)	1
8	1623812	Screw	2
9	1558055	Washer	2
10	1393781	Back-Up Alarm (Slow Pulse)	1
11	2056447	Controller (FLT/PWM)	1
12	292502	Capscrew	2
13	1558042	Screw	4
14	1498375	Cover (Open Cab)	1
14	1491028	Console (RH External) (Closed Cab)	1
15	2094020	Label (Fuse Panel)	1
16	2092720	Controller (12 V) (LPG)	1
16	2092719	Controller (12 V-APC 200) (Diesel)	1
17	292500	Capscrew	2
18	1558050	Bracket	1
19	1567941	Screw	4
20	292500	Capscrew	2
21	1492167	Cover	AR
22	1571634	Plate	1

FOOTNOTES:

- a** → S/N H007E01957E INC. 01960, 01963, 01967, 01974-01975, 01978-01979, 00019
- b** → S/N H007E01957E INC. 01960, 01963, 01967, 01974-01975, 01978-01979, 01986, 02000

- c** S/N H007E01958F → EXC. 01960, 01963, 01967, 01974-01975, 01978-01979, 00019
- d** S/N H007E01958F → EXC. 01960, 01963, 01967, 01974-01975, 01978-01979, 01986, 02000

CAB AND TILT CYLINDER MOUNTING (FIGURE 1-22)



HP121112

CAB AND TILT CYLINDER MOUNTING**KEY:****A: Manual Tilt****B: Power Tilt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1520841	Shim	4	4
2	1474921	Shaft	1	..
3	292517	Capscrew	1	1
4	320159	Washer	3	3
5	302401	Locknut	1	1
6	1486540	Mount	4	4
7	195566	Anchor	1	1
8	292535	Capscrew	4	4
9	300939	Washer	4	4
10	1651378	Tilt Platform (☞ Figure 1-24).....	1	..
11	1487204	Handle	1	..
12	176640	Bolt	1	1
13	1486539	Latch	2	2
14	132861	Capscrew	7	7
15	320157	Washer	15	17
16	302400	Nut	7	7
17	1486067	Hose Assy	1	1
18	1486068	Hose Assy	1	1
19	1488675	Fitting	1	1
20	1496296	Fitting	1	2
21	1488676	Fitting	2	2
22	292514	Capscrew	2	2
23	1486535	Hand Pump (☞ Figure 1-26).....	1	..
24	1496459	Fitting	..	1
25	1480186	Cab Tilt Pump Assembly (☞ Figure 1-27).....	..	1
26	a 370776	Switch (Momentary)	..	1
26	b 1672504	Push Button Switch	..	1
27	137852	Strap Clamp	..	1
28	287851	Capscrew	..	2
29	1485271	Bracket	..	1
30	1496368	Hose Assy	..	1
31	2049849	Wire Harness (Cab Tilt) (☞ Figure 4-40).....	..	1
32	2004005	Strap Clamp	..	1
33	292508	Capscrew	1	1
34	1533661	Lockwasher	1	1
35	1533648	Plate (Cover)	1	1
36	1629234	Clamp	1	1
37	1486069	Hose Assy	1	1
38	1486070	Hose Assy	1	1
39	397676	Strap Clamp	3	3
40	1350911	Strap	2	2
41	320161	Washer	2	2
42	15235	Cotter Pin	2	2
43	2043194	Tilt Cylinder (Cab) (☞ Figure 1-23).....	1	..
44	1486630	Pin	1	1
45	320169	Washer	1	1

CAB AND TILT CYLINDER MOUNTING

KEY:

A: Manual Tilt

B: Power Tilt

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
46	1672505	Rain Cap	..	1

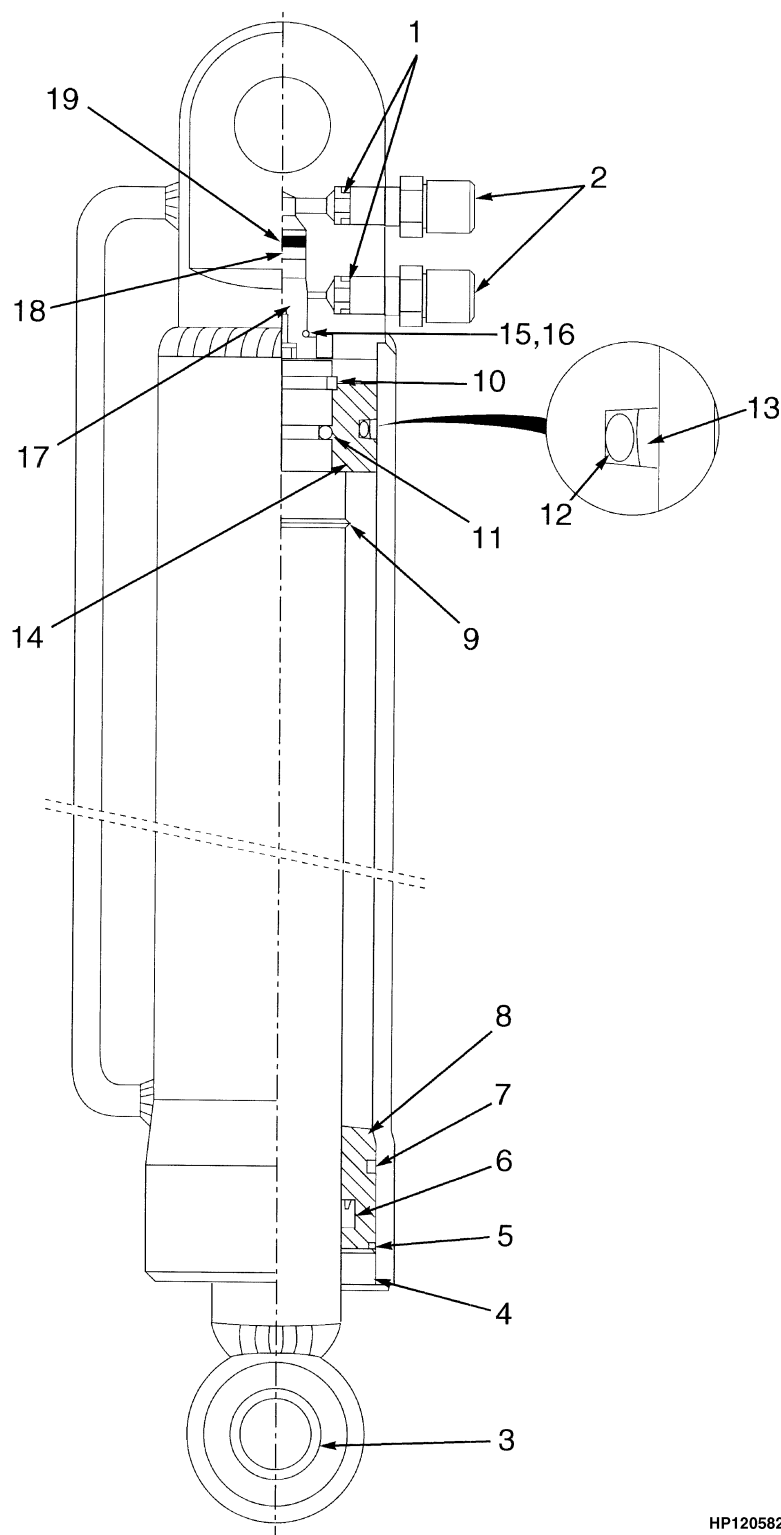
FOOTNOTES:

a → S/N H008E01890F**b** S/N H008E01891F →

NOTES

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TILT CYLINDER (FIGURE 1-23) CAB

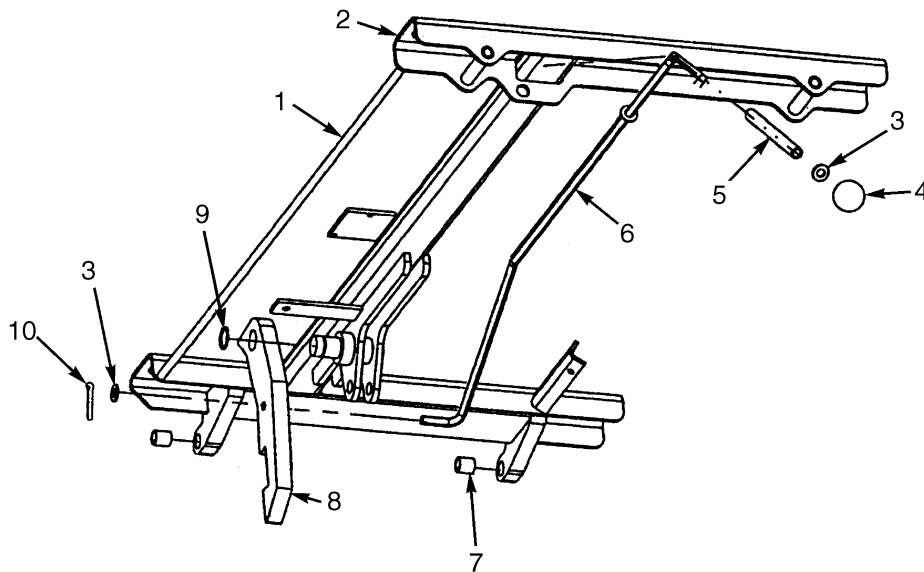


HP120582

**TILT CYLINDER
CAB**

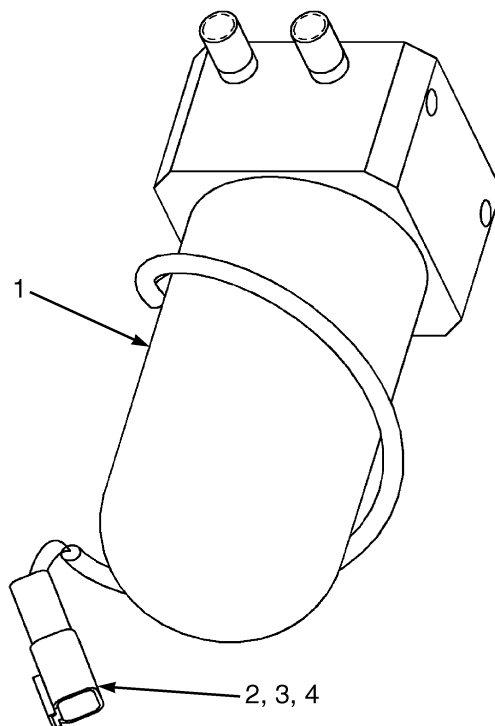
ITEM	PART NO.	DESCRIPTION	QTY
	2043194	Tilt Cylinder (Cab)	1
1	1488735	Filter	2
2	1488703	Coupler	2
3	1488751	Spacer	2
4		Wiper	1
5		Retaining Ring (Bore)	1
6		U-Cup	1
7		O-Ring	1
8		Gland	1
9		Retaining Ring (Shaft)	1
10		Retaining Ring (Shaft)	1
11		O-Ring	1
12		O-Ring	1
13		Sleeve	1
14		Piston	1
15		Washer	1
16		O-Ring	1
17		Valve Seat Assembly	1
18		Pilot Piston Assembly	1
19		O-Ring	1
	1488752	Kit-Seal	1
	1665756	Kit-Service	1
	1488762	Kit-Service	1

TILT PLATFORM ASSEMBLY (FIGURE 1-24)



HP121110

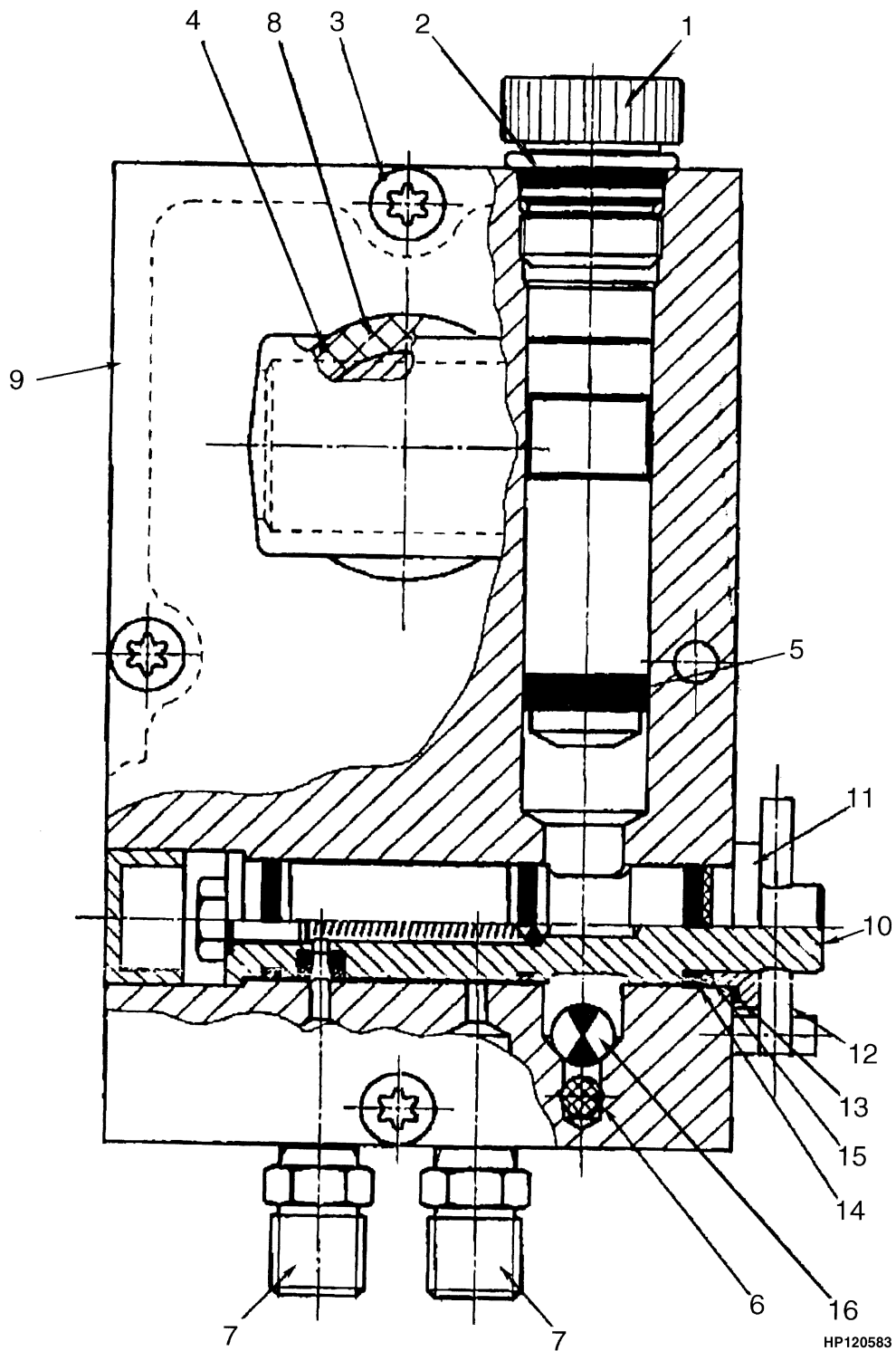
ITEM	PART NO.	DESCRIPTION	QTY
1	1651378	Tilt Platform	1
1	1635003	Plate	1
2	1658214	Tilt Frame	1
3	1493386	Washer	2
4	1493383	Knob	1
5	1493385	Spring	1
6	1493381	Rod (Release)	1
7	1493380	Bearing	2
8	1493382	Catch (Tilt)	1
9	1493384	Retaining Ring	1
10	1493387	Cotter Pin	1

**CAB TILT PUMP ASSEMBLY (FIGURE 1-25)
ELECTRIC**

HP121111

ITEM	PART NO.	DESCRIPTION	QTY
	1480186	Cab Tilt Pump Assembly (☞ Figure 1-27).....	1
1	1475732	Cab Tilt Pump (Electric) (☞ Figure 1-27).....	1
1	1488736	Hose	1
1	1488729	Coupler	1
1	1488728	Kit-Repair Pump	1
1		Fitting	1
1	1488703	Coupler	1
1	1488730	Spring	1
1		Ball	1
1		Screen	1
1	1488735	Filter	1
1	1488725	Kit-Motor	1
1	1488726	Electric Motor	1
1	1488727	O-Ring	1
2	1480187	Connector	1
3	1480188	Connector	1
4	1484709	Terminal (Pin)	2
4	866401	Terminal (Alternate Part)	2

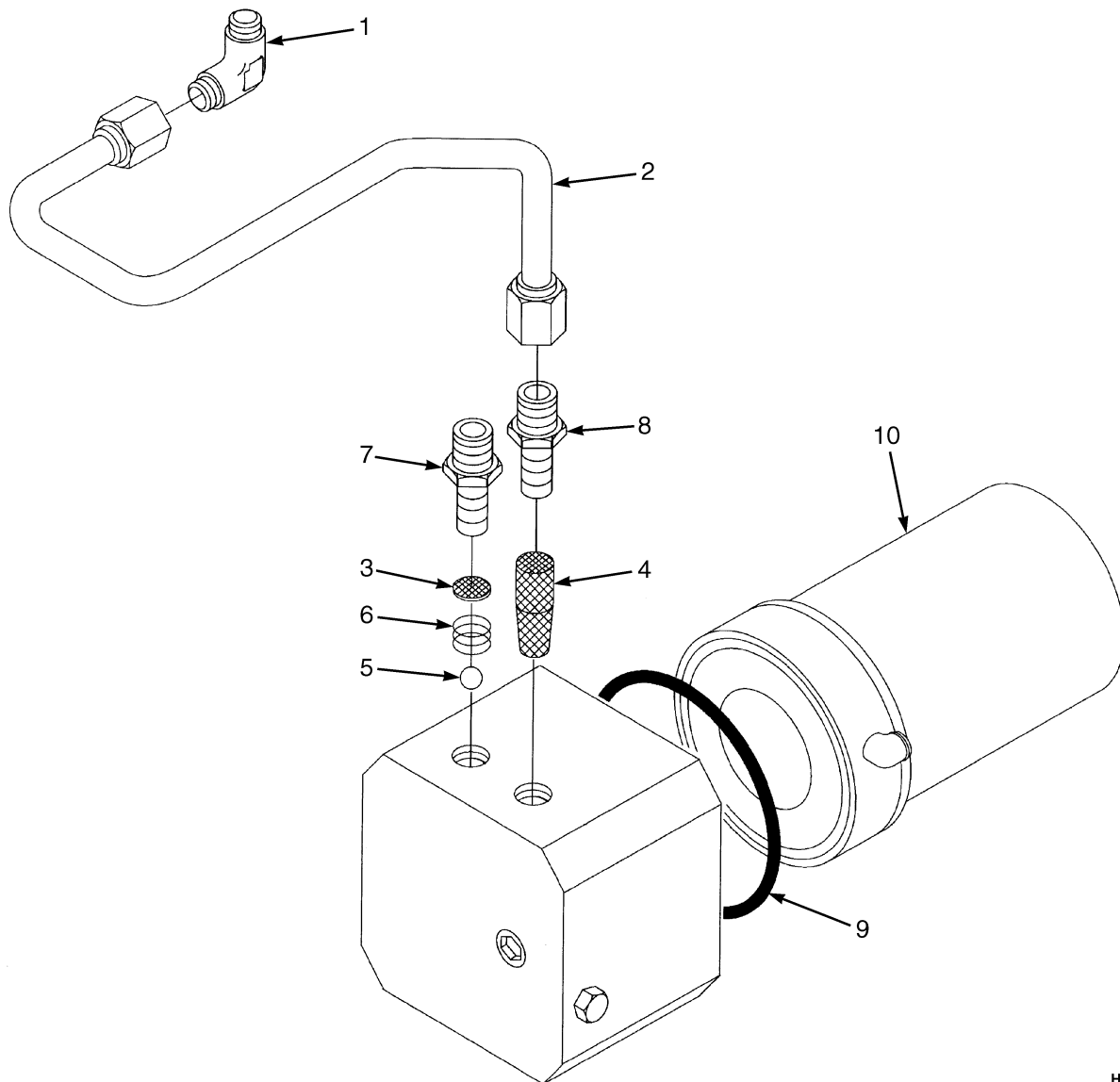
HAND PUMP (FIGURE 1-26)



HP120583

HAND PUMP

ITEM	PART NO.	DESCRIPTION	QTY
	1486535	Hand Pump	1
1	1488689	Plug (Fill)	1
2		O-Ring	1
3		Screw	4
4		Bearing	1
5		Seal	1
6		Filter	1
7		Coupler	2
8		O-Ring	1
9		Joint	1
10		Spool	1
11		Washer	1
12		Pin	1
13		O-Ring	1
14		O-Ring	1
15		Back-Up Ring	1
16		Ball	1
	1488704	Kit-Seal (Includes Gasket And O-Ring)	1
	1488705	Kit-Seal	1

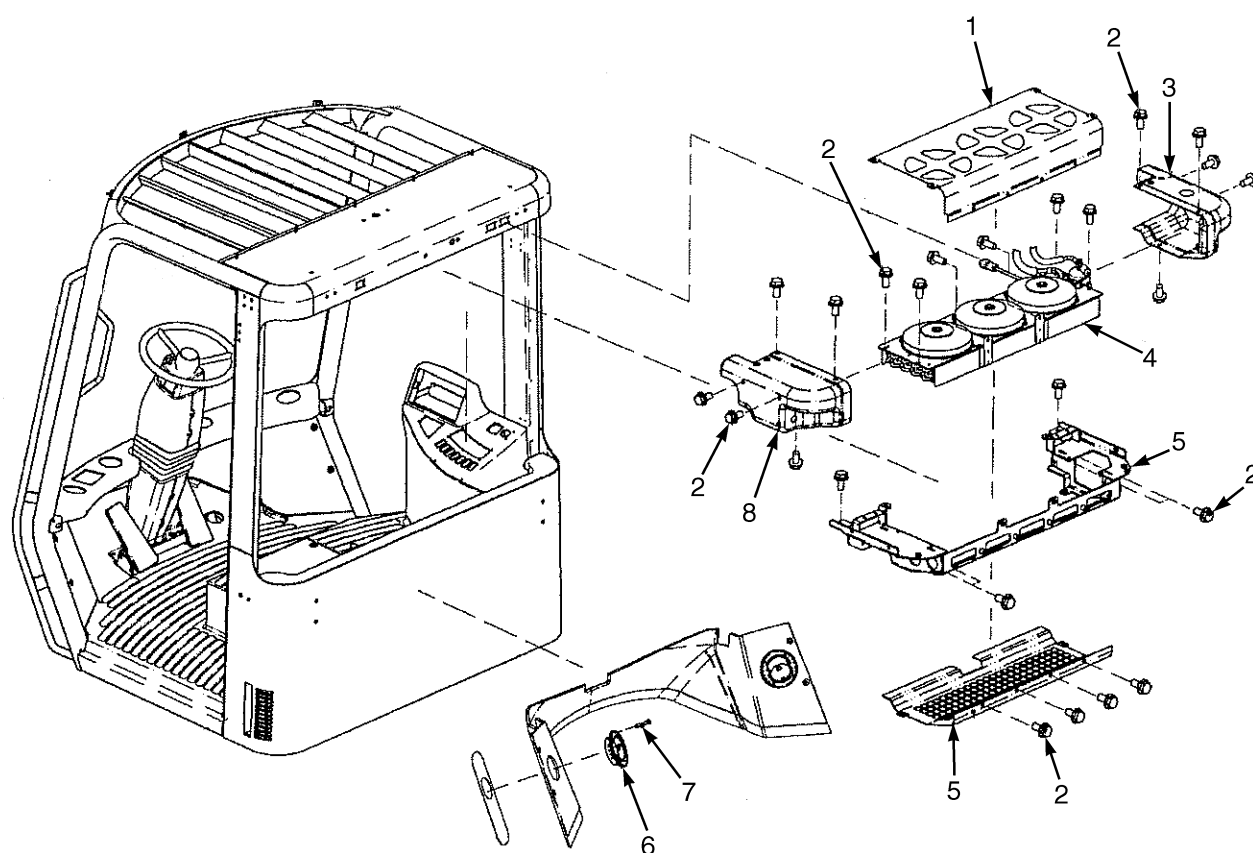
ELECTRIC PUMP (FIGURE 1-27)

HP120584

ELECTRIC PUMP

ITEM	PART NO.	DESCRIPTION	QTY
	1475732	Cab Tilt Pump (Electric)	1
1	1488729	Coupler	1
2	1488736	Hose	1
3	1488735	Filter	1
4		Screen	1
5		Ball	1
6	1488730	Spring	1
7	1488703	Coupler	1
8		Coupling	1
9	1488727	O-Ring	1
10	1488726	Electric Motor	1
	1488728	Kit-Repair Pump	1
	1488725	Kit-Motor	1

CONDENSOR AND ATTACHING PARTS (FIGURE 1-28)



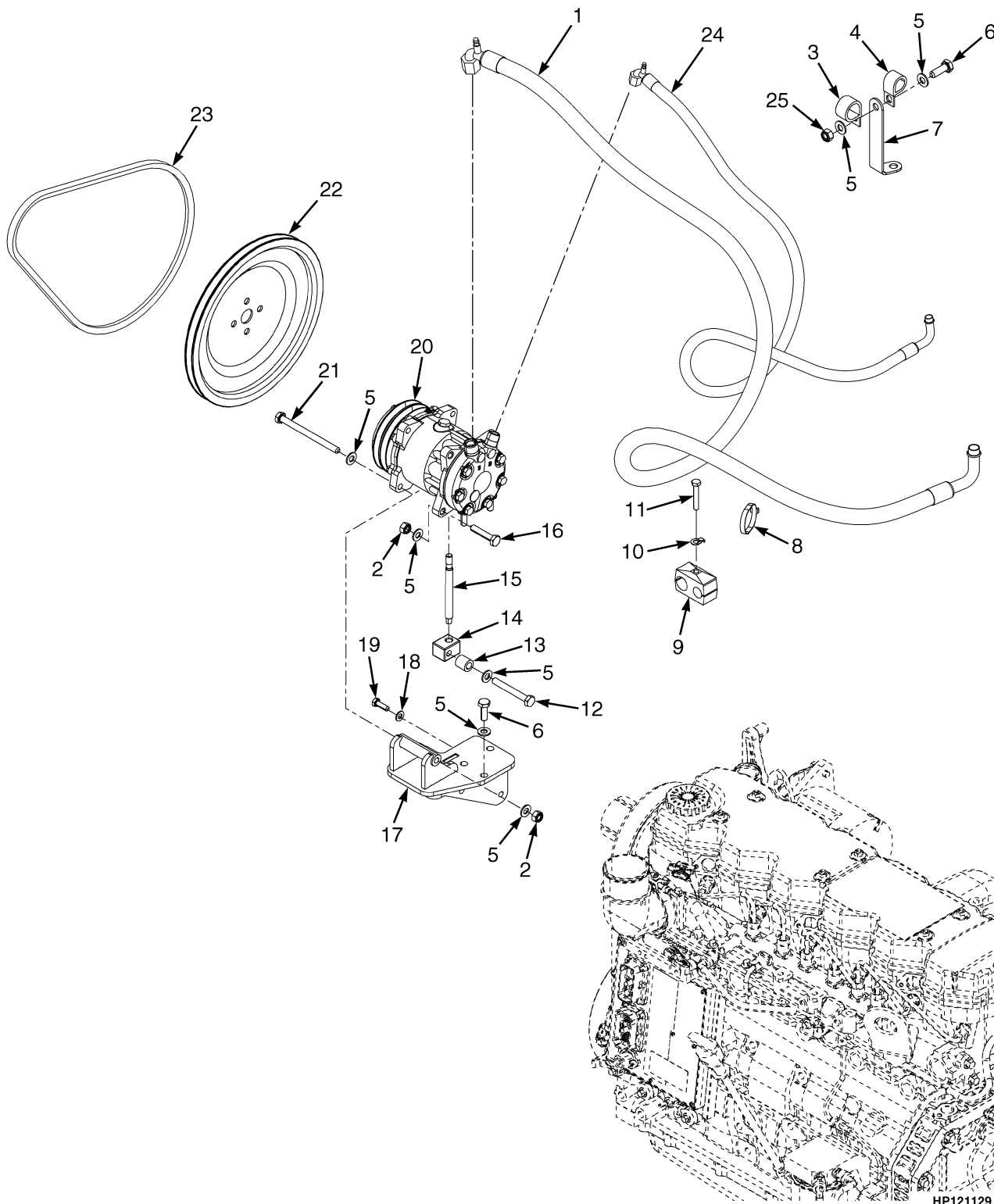
HP121121

CONDENSOR AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1658125	Cover	1
2	1566044	Bolt	14
3	1658128	Cover (RH)	1
4	1658138	Condenser	1
5	1658126	Cover	1
6	1598398	Louver	2
7	1492163	Screw	12
8	1658127	Cover (LH)	1
	a 1683160	Frame (Condenser)	1

FOOTNOTES:**a** Not Illustrated

AIR CONDITIONING COMPRESSOR AND ATTACHING PARTS (FIGURE 1-29) DIESEL ENGINE



HP121129

**AIR CONDITIONING COMPRESSOR AND ATTACHING PARTS
DIESEL ENGINE**

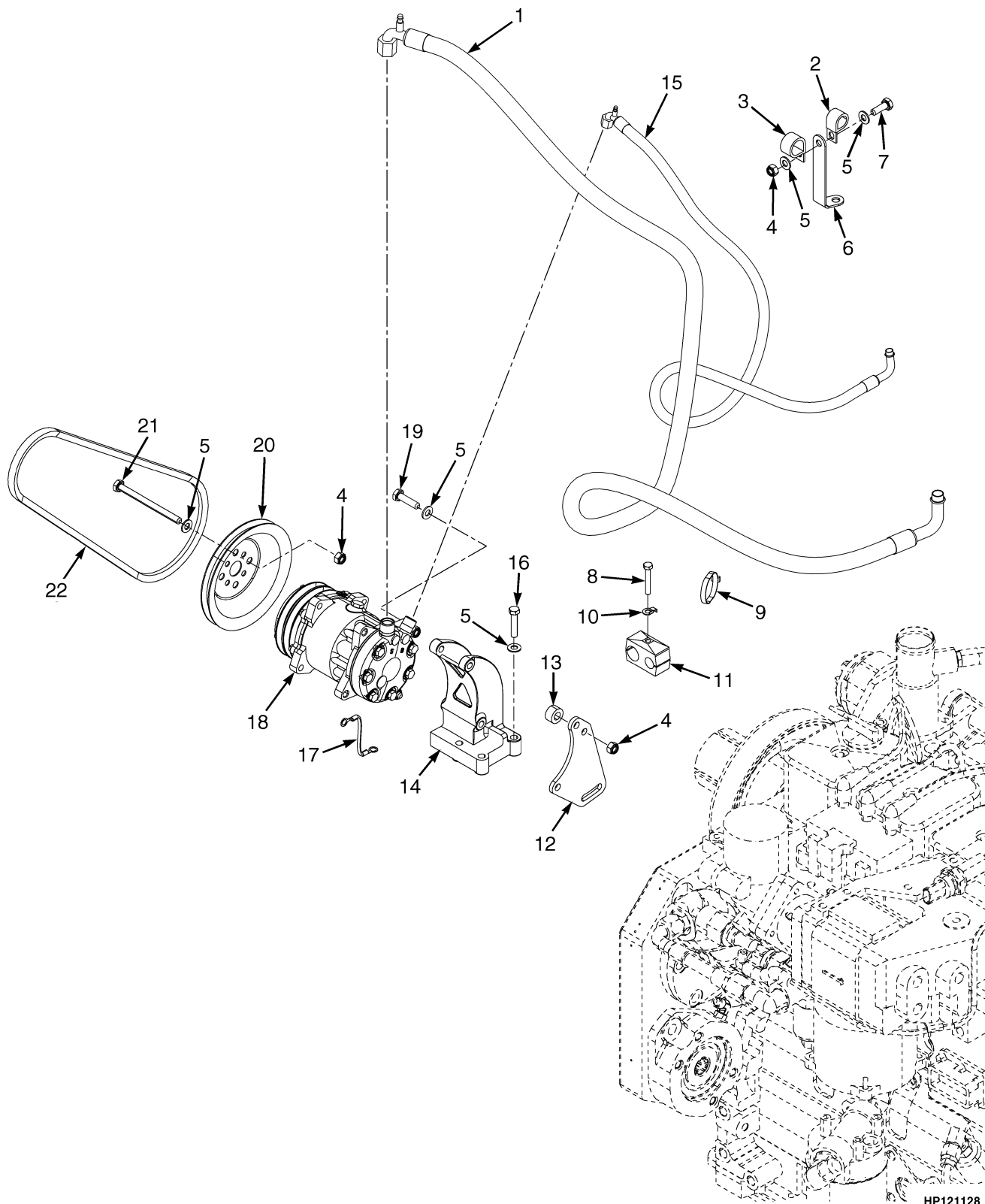
ITEM	PART NO.	DESCRIPTION	QTY
1	a 2100212	Hose Assy	1
1	c 2105989	Hose	1
2	302401	Locknut	3
3	178119	Clamp	1
4	144067	Clamp	1
5	b 320159	Washer	8
5	d 320159	Washer	7
6	136985	Capscrew	3
7	1661388	Bracket	1
8	129563	Strap Clamp	1
9	1663076	Clamp	1
10	1533661	Lockwasher	1
11	292509	Capscrew	1
12	b 292522	Capscrew	1
12	d 292516	Capscrew	1
13	b 1650539	Spacer	1
13	d 320160	Washer	2
14	b 1532482	Adjuster	1
14	d 1686686	Eyebolt	1
15	b 1532484	Link	1
15	d 136692	Nut	1
16	b 292517	Capscrew	1
17	b 1650537	Bracket	1
17	d 1686670	Bracket Wldmt	1
18	b 320157	Washer	4
18	d 320157	Washer	2
19	b 136749	Screw	3
19	d 136749	Screw	1
20	a 1650536	Compressor	1
20	c 1689914	Compressor (☞ Figure 1-31).....	1
21	1390281	Capscrew	1
22	1649268	Pulley	1
23	118135	V-Belt	1
24	2100214	Hose Assy	1
25	302400	Nut	1

FOOTNOTES:

a → S/N H007E02193F
b → S/N H007E02350G

c S/N H007E02194F →
d S/N H007E02351G →

AIR CONDITIONING COMPRESSOR AND ATTACHING PARTS (FIGURE 1-30) LPG ENGINE



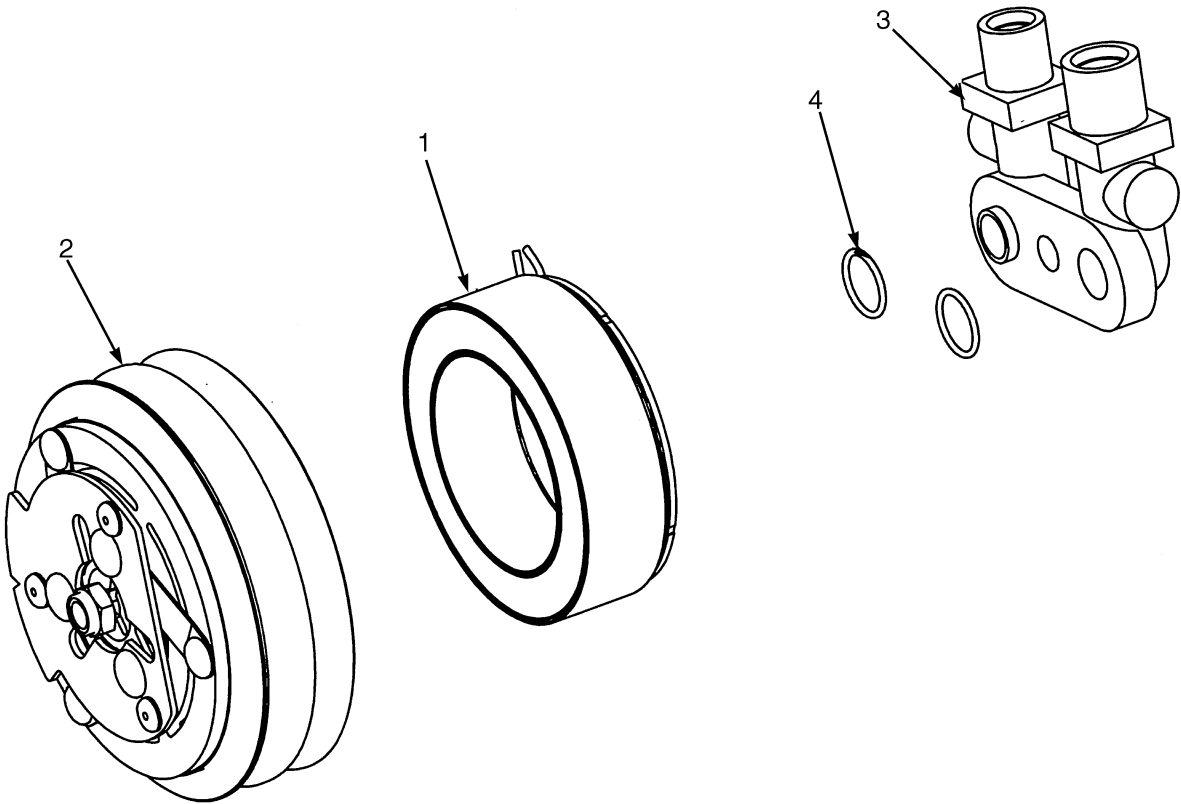
HP121128

**AIR CONDITIONING COMPRESSOR AND ATTACHING PARTS
LPG ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	a 2100212	Hose Assy	1
1	b 2105989	Hose	1
2	173247	Clamp	1
3	178119	Clamp	1
4	302401	Locknut	7
5	320159	Washer	14
6	1661388	Bracket	1
7	136985	Capscrew	1
8	292509	Capscrew	1
9	129563	Strap Clamp	1
10	1533661	Lockwasher	1
11	1663076	Clamp	1
12	1623950	Bracket	2
13	1373791	Spacer	2
14	1500871	Bracket	1
15	2100214	Hose Assy	1
16	a 16816	Capscrew	3
16	b 292516	Capscrew	3
17	1605597	Wire	1
18	a 1650536	Compressor	1
18	b 1689914	Compressor (☞ Figure 1-31).....	1
19	292515	Capscrew	4
20	1500869	Pulley (Belt)	1
21	1390281	Capscrew	2
22	2098997	V-Belt	1

FOOTNOTES:**a** → S/N H007E02193F**b** S/N H007E02194F →

COMPRESSOR ASSEMBLY (FIGURE 1-31)

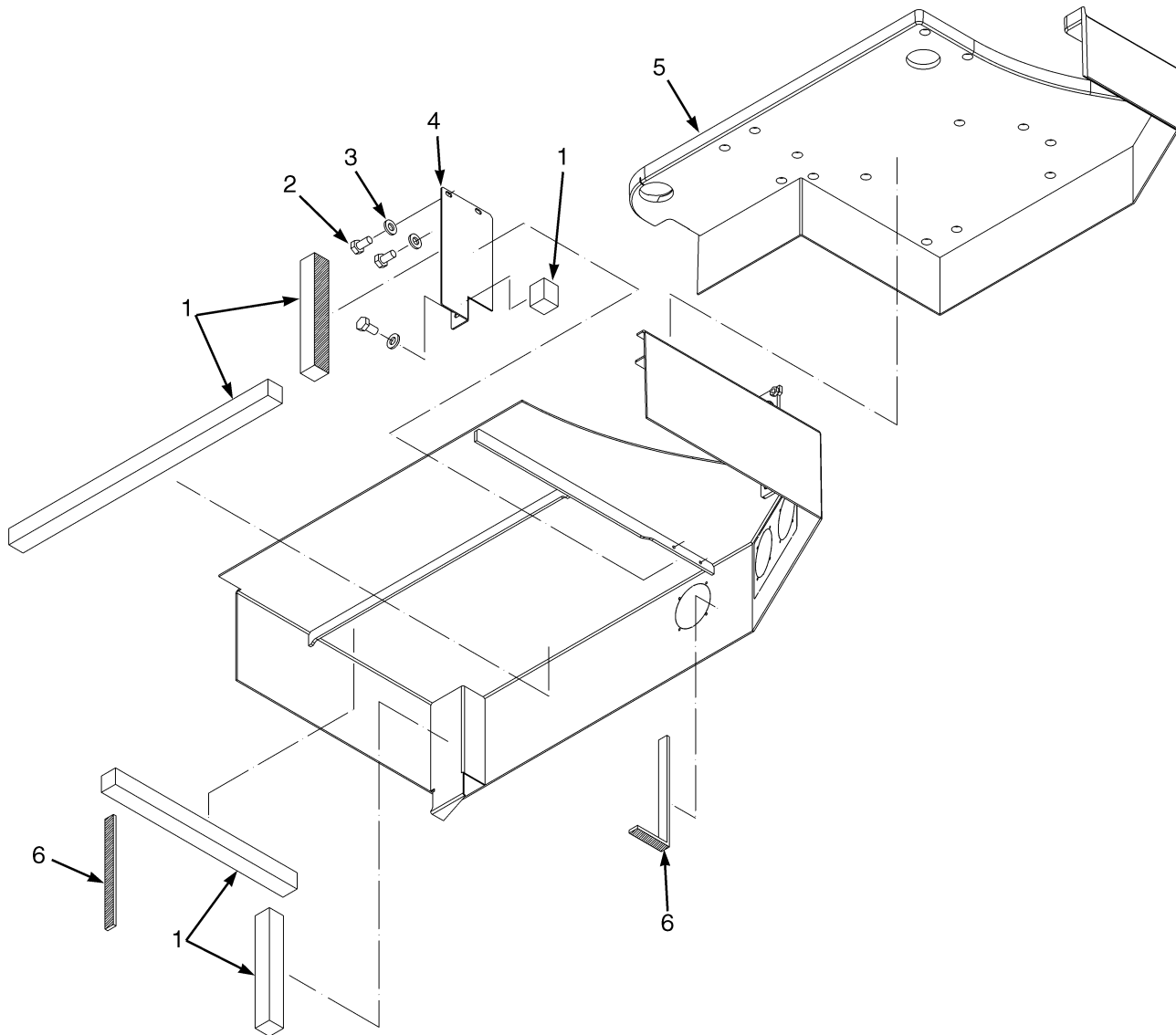


HP121196

ITEM	PART NO.	DESCRIPTION	QTY
	1689914	Compressor	1
1	4001309	Coil	1
2	4001308	Clutch Assy	1
3	4001307	Manifold	1
4	4001306	O-Ring	2

NOTES

[illegible]

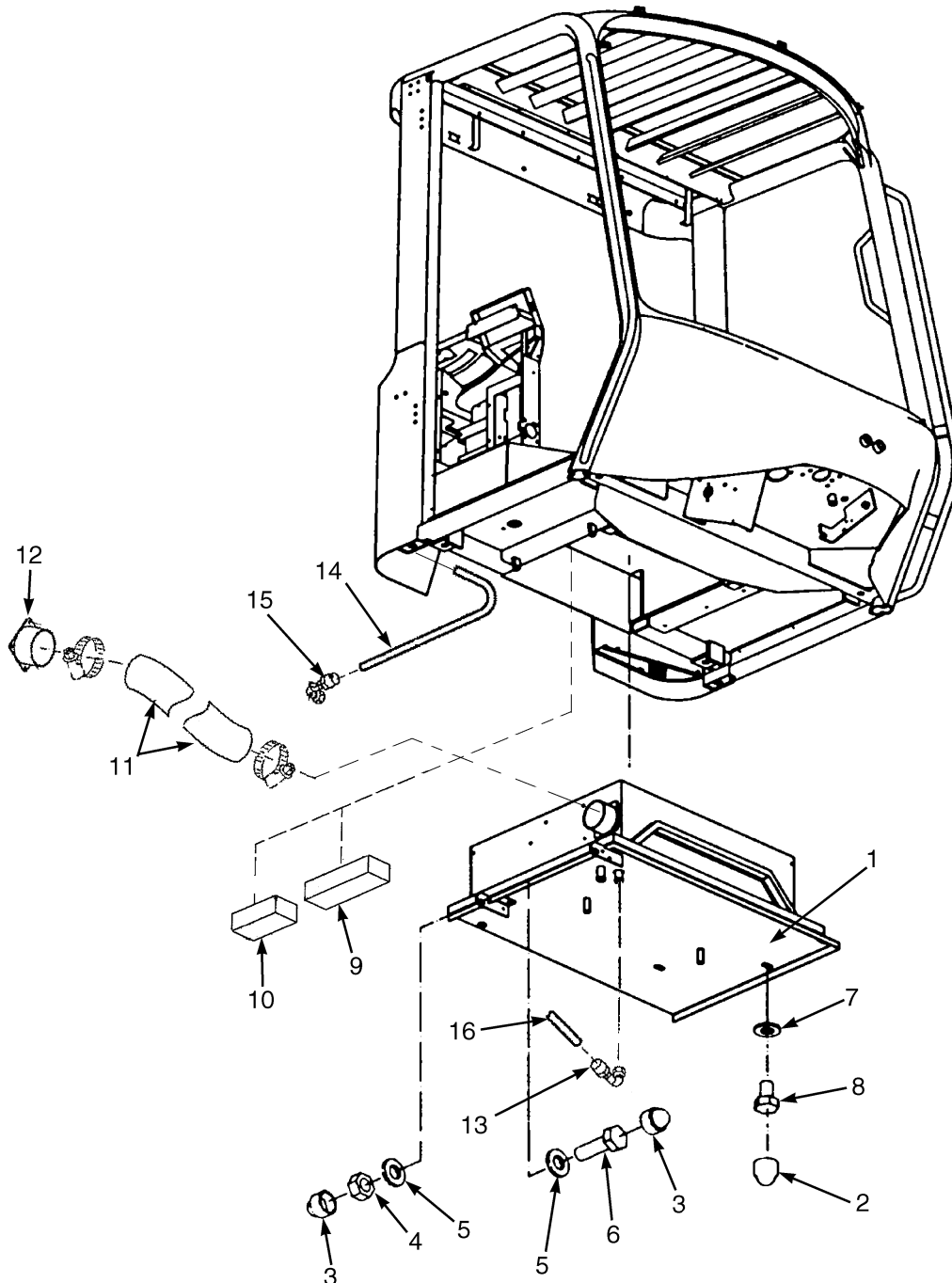
AIR DUCT ASSEMBLY (FIGURE 1-32)

HP200121

AIR DUCT ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	4000400	Air Duct Assembly	1
1	4000919	Foam	AR
2	4000918	Screw	3
3	320156	Washer	3
4	4000917	Cover Plate	1
5	1493282	Floormat	1
6	4000920	Foam	AR

HEATER AND AIR CONDITIONER MOUNTING (FIGURE 1-33)



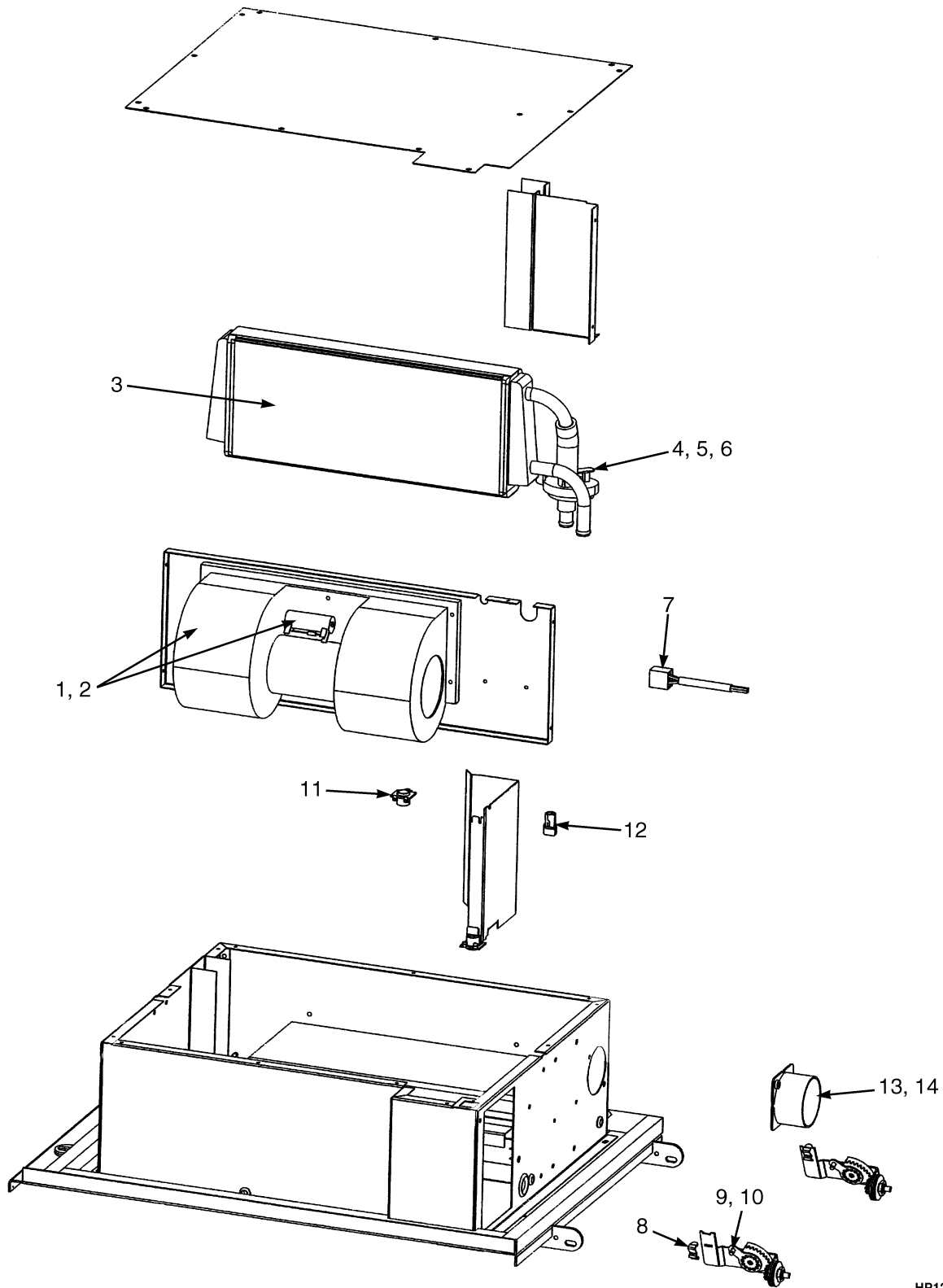
HP121105

HEATER AND AIR CONDITIONER MOUNTING

ITEM	PART NO.	DESCRIPTION	QTY
1	a 1558032	Heater (☞ Figure 1-34).....	1
1	b 1656599	Kit-Heater and Airco (☞ Figure 1-35).....	1
1	1696084	Heater and Air Duct Assembly (Alternate Part) (☞ Figure 1-36).....	1
2	1493312	Cap (Capscrew Head)	3
3	1493397	Cover (Capscrew Head)	4
4	316834	Nut	2
5	320156	Washer	4
6	292501	Capscrew	2
7	320160	Washer	3
8	292513	Capscrew	3
9	1493394	Foam	1
10	1558029	Foam	1
11	1603503	Hose	1
12	1603502	Flange	1
13	1658140	Connector	1
14	1664403	Hose	1
15	1658139	Connector	1
16	1664404	Hose	1
	2098895	Wire Harness (Heater Adapter)	1

FOOTNOTES:**a** → S/N H007E01502E**b** S/N H007E01503E →

HEATER ASSEMBLY (FIGURE 1-34) (→ S/N H007E01502E)



HP121098

HEATER ASSEMBLY
(→ S/N H007E01502E)

ITEM	PART NO.	DESCRIPTION	QTY
	1558032	Heater	1
1	1560537	Blower	1
2	1453031	Resistor	1
3	1560623	Core (Heater)	1
4	1560624	Hose (Water Valve)	1
5	1560625	Drain Valve	1
6	1560554	Push-Pull Cable (Push Pull)	1
7	1560627	Wire Harness	1
8	1560556	Clip	1
9	1560626	Push-Pull Cable (Push Pull)	1
10	1560555	Valve	1
11	1560552	Bearing	1
12	1560553	Clip	1
13	1560547	Adapter (Hose)	1
14	1560548	Rivet	1

This exploded view diagram illustrates the assembly of a mechanical unit. The components are numbered as follows:

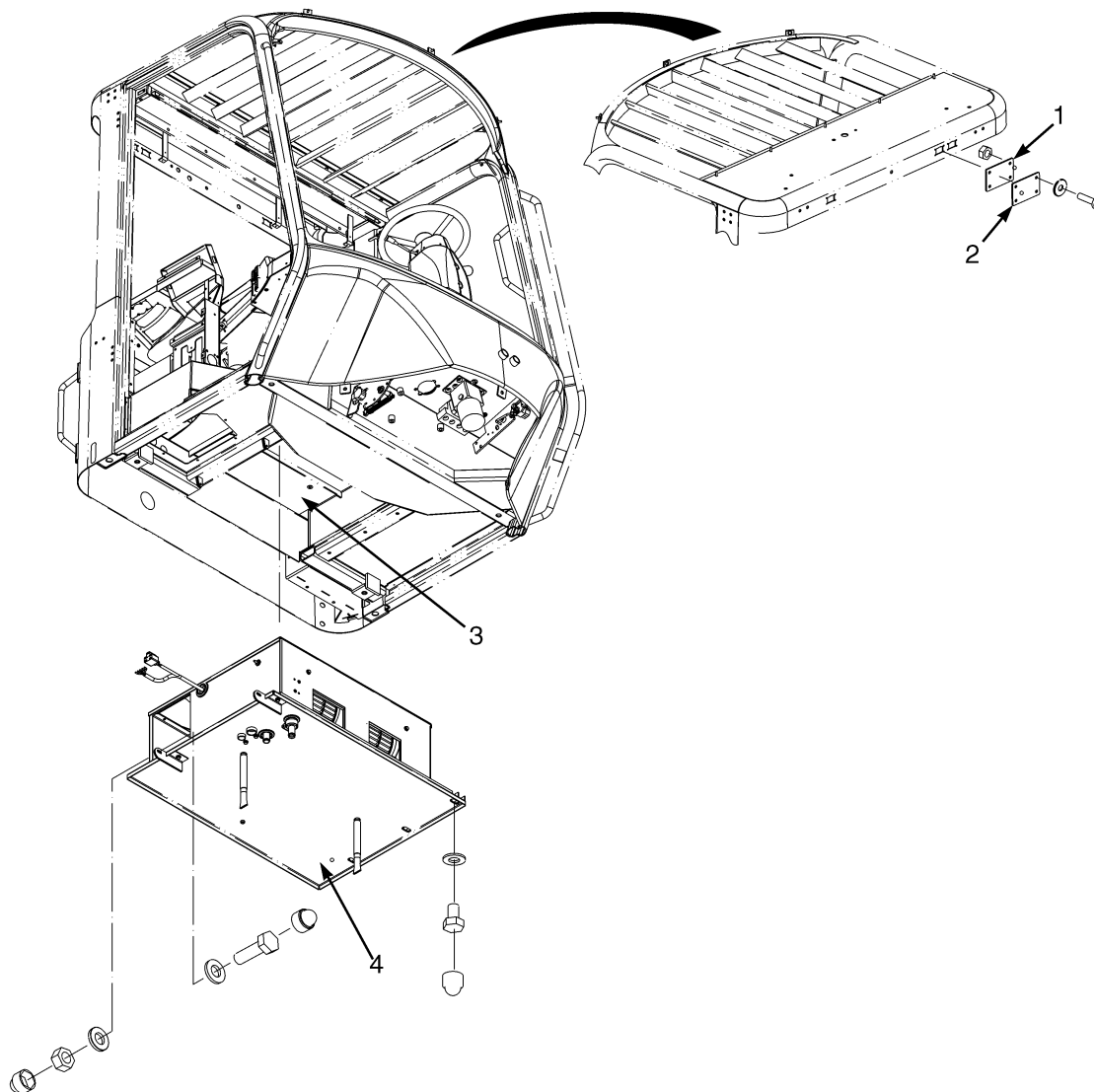
- 1, 2**: Point to the two cylindrical rollers of the internal mechanism.
- 3**: Points to a small rectangular component, likely a switch or sensor, mounted on the right side of the internal frame.
- 4**: Points to the main rectangular housing or panel.
- 5**: Points to the internal frame or support structure.
- 6, 7, 8, 18**: Point to a complex assembly of pipes and valves, likely a water inlet or outlet connection.
- 9**: Points to a small L-shaped bracket or clip.
- 10**: Points to a small rectangular component with a protruding pin.
- 11**: Points to a small rectangular component, possibly a filter or a connector.
- 12, 13**: Point to a cylindrical component, likely a filter or a cap.
- 14**: Points to a small rectangular component, possibly a switch or a connector.
- 15, 16**: Point to a complex assembly of pipes and valves, likely a water inlet or outlet connection.
- 17**: Points to a small circular component, likely a screw or a cap.

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HEATER AND AIR CONDITIONER ASSEMBLY
(S/N H007E01503E →)

ITEM	PART NO.	DESCRIPTION	QTY
	1656599	Kit-Heater and Airco	1
1	1560537	Blower	1
2	1453031	Resistor	1
3	1560538	Thermostat	1
4	1560539	Core	1
5	1674584	Evaporator Core	1
6	1656600	Water Valve Assy	1
7	1560544	Hose (90 degree)	1
8	1560545	Hose (Straight)	1
9	1560553	Clip	1
10	1560549	Wire Harness	1
11	1656603	Controller (Water Valve)	1
12	1560547	Adapter	1
13	1560548	Rivet	1
14	1560556	Clip	1
15	1560554	Push-Pull Cable	1
16	1560555	Valve	1
17	1560552	Bearing	1
18	1656604	Wire Harness	1
	1656601	Kit-Controller (Water)	1

HEATER AND AIR DUCT ASSEMBLY (FIGURE 1-36)

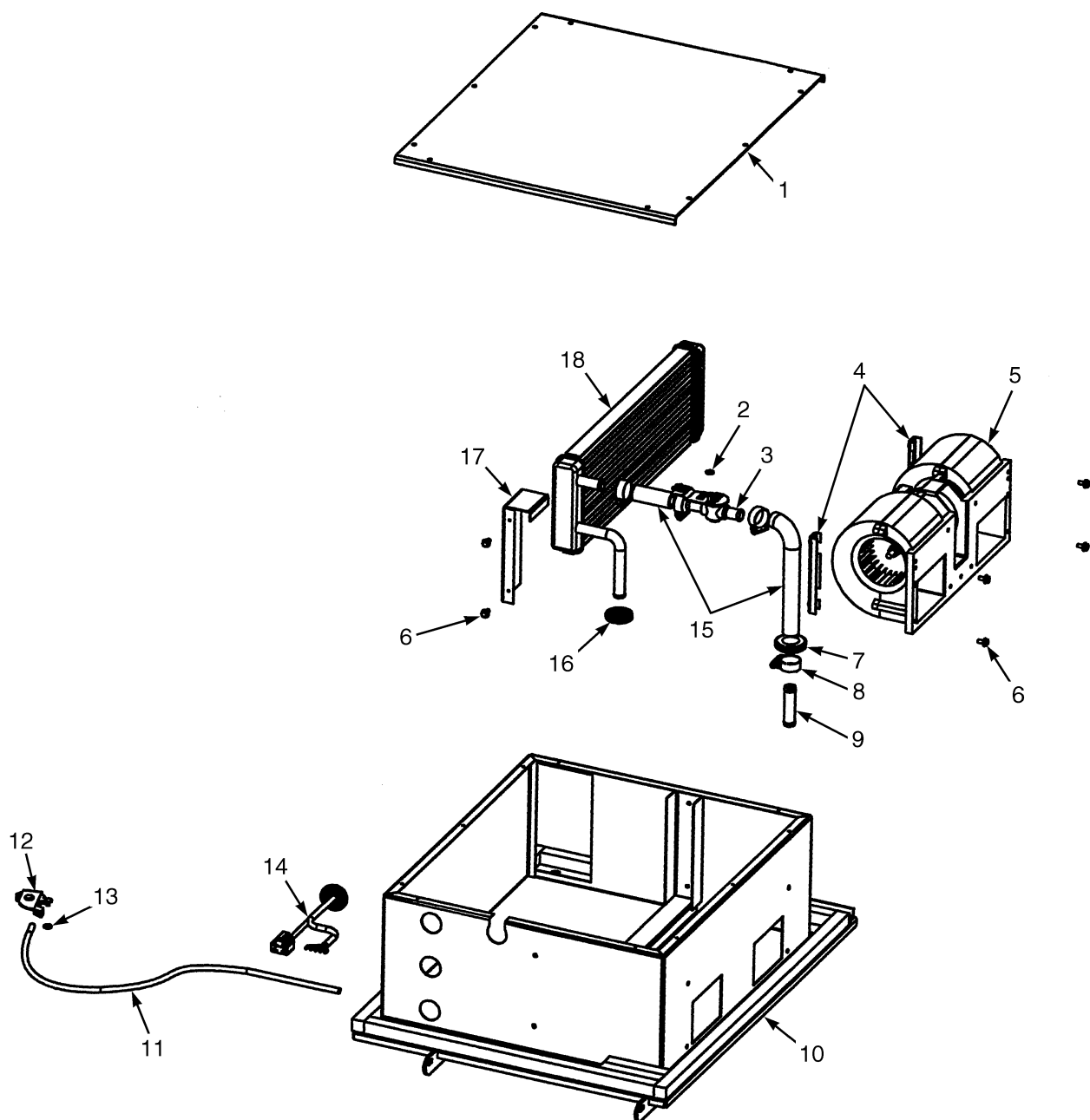


HP200122

HEATER AND AIR DUCT ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	1696084	Heater and Air Duct Assembly and Air Duct Assembly	1
1	1635008	Seal	1
2	1635007	Plate	1
3	4000400	Air Duct Assembly (☞Figure 1-32).....	1
4	4000399	Heater Assembly (☞Figure 1-38).....	1

HEATER ASSEMBLY (FIGURE 1-37)

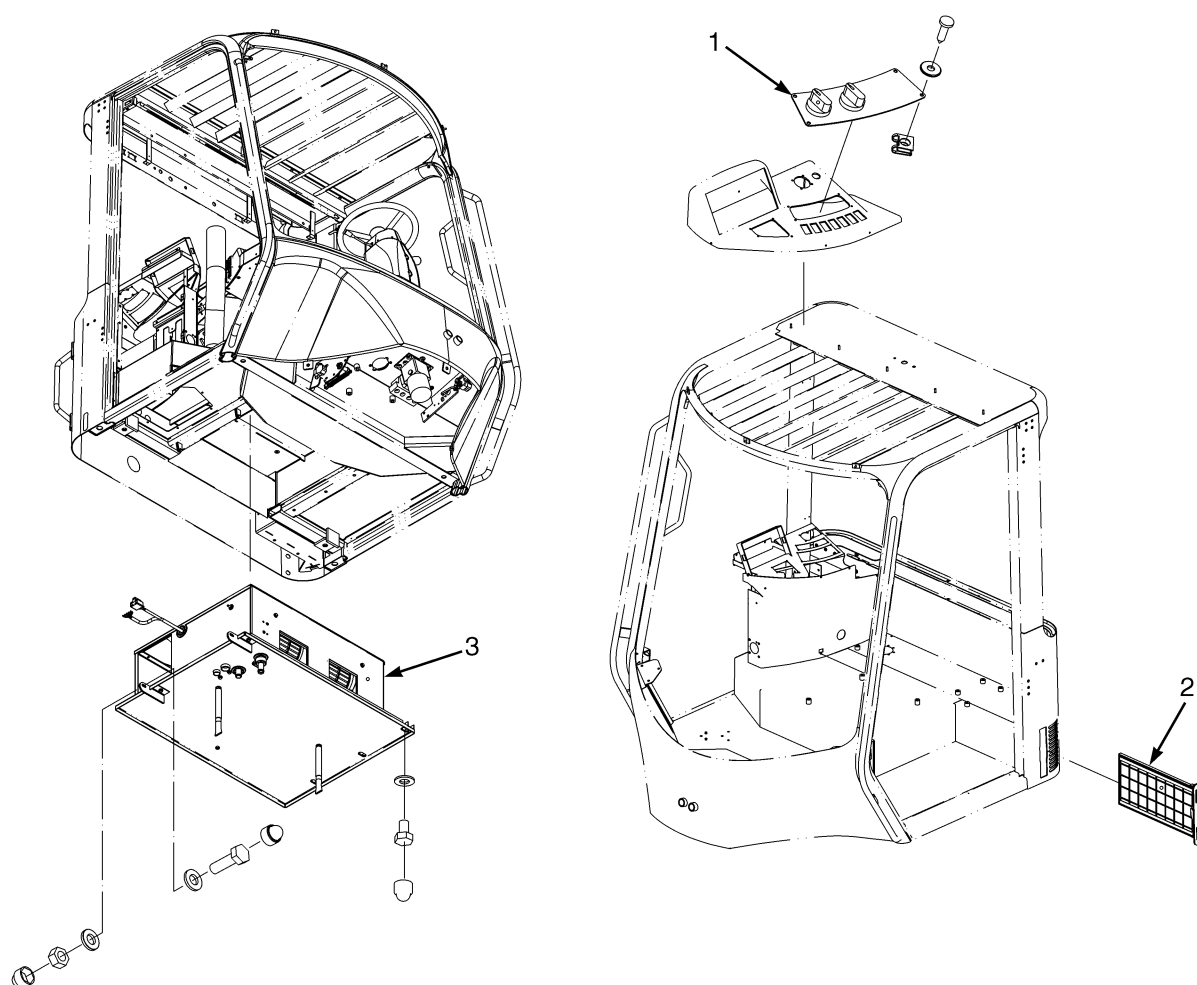


HP121213

HEATER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	4000915	Heater	1
1	4004928	Cover	1
2	4004933	Washer	1
3	1487947	Control Valve (Air Conditioning)	1
4	4004930	Bracket	2
5	4004929	Blower	1
6		Bolt	6
7	1487953	Grommet	1
8	1487950	Hose Clamp	4
9	1487952	Tube (Copper)	1
10	4004926	Case	1
11	4004931	Wire	1
12	1487959	Switch (180 deg)	1
13	4004932	Washer	1
14	4004934	Wire Harness	1
15	4003089	Hose	1
16	4003088	Grommet	1
17	4004927	Bracket	1
18	4003091	Core	1

HEATER SYSTEM (FIGURE 1-38)

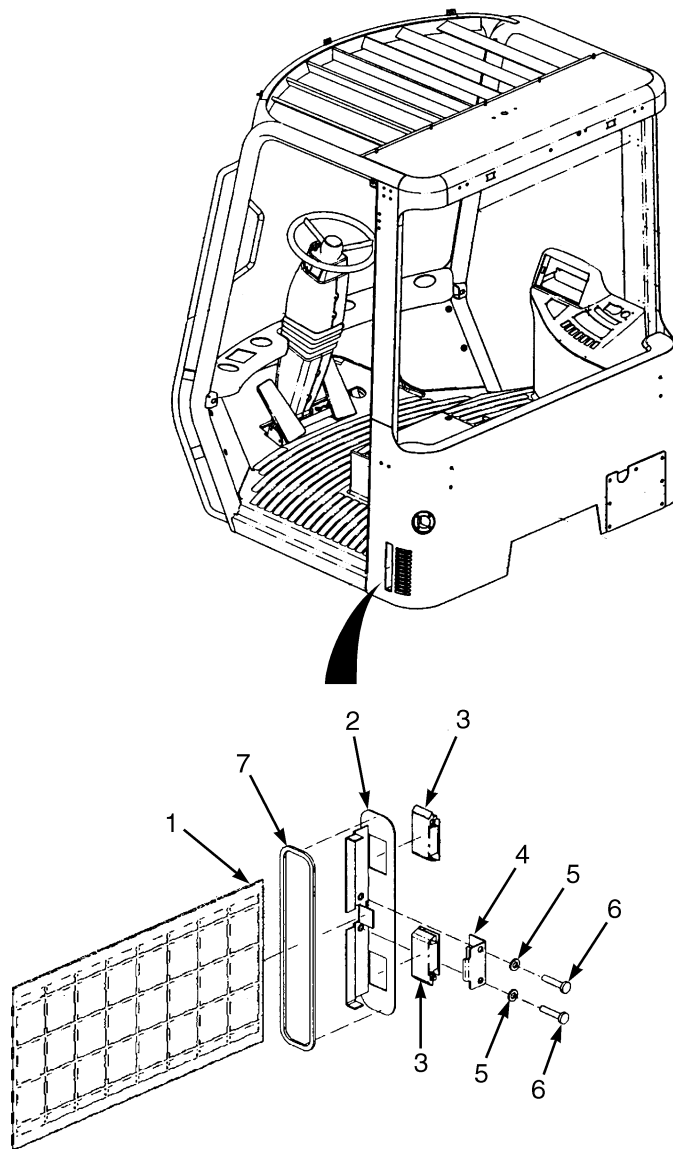


HP200120

HEATER SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY
	4000399	Heater Assembly	1
1	4000916	Heater Control Panel	1
2	1493276	Air Filter	1
3	4000915	Heater (☞ Figure 1-37).....	1

HEATING AND AIR CONDITIONING SYSTEM FILTER (FIGURE 1-39)



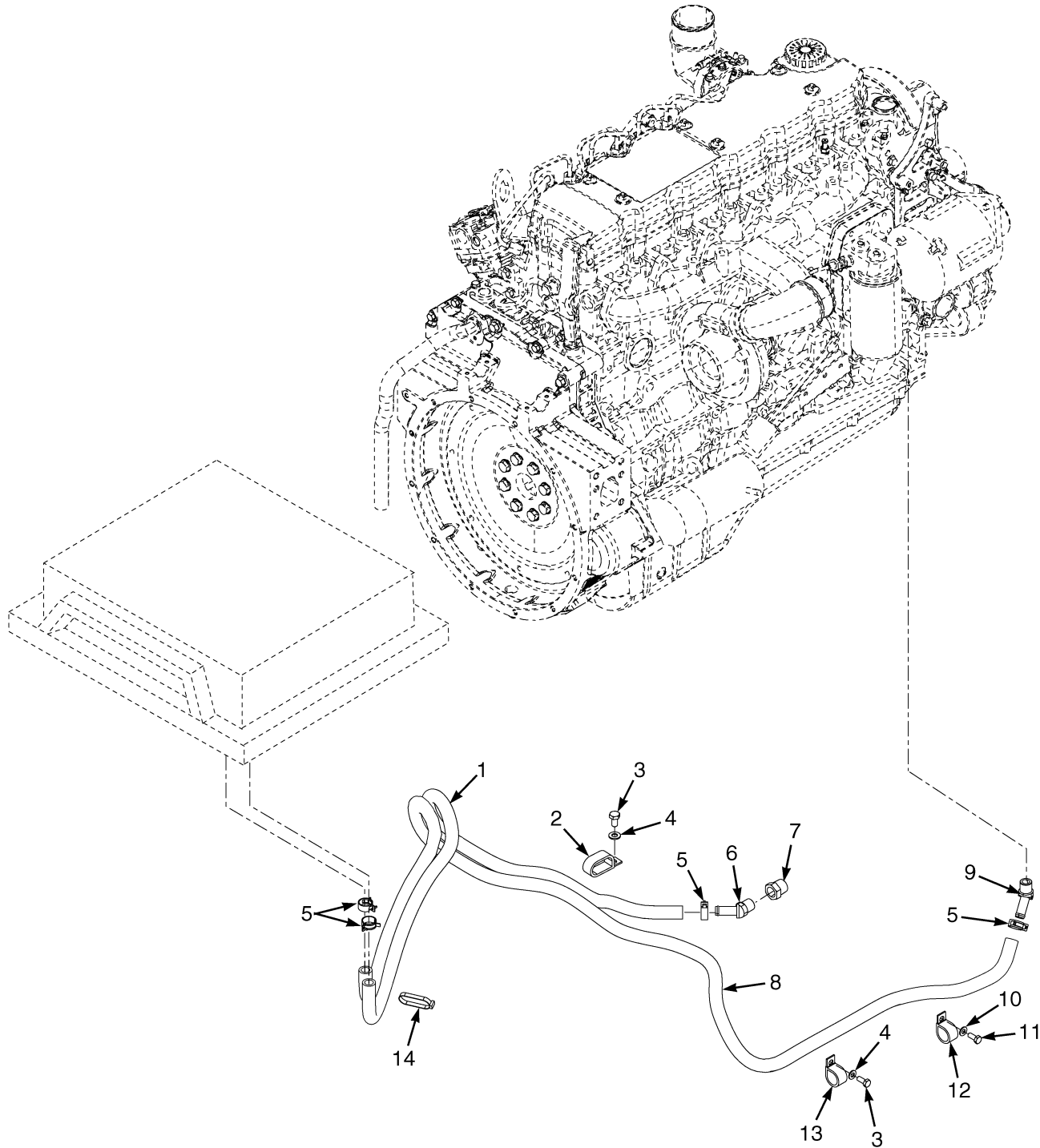
HP121003

ITEM	PART NO.	DESCRIPTION	QTY
1	1558028	Air Filter	1
2	1590815	Cover (Filter)	1
2	1590822	Cover	1
3	1590821	Catch	2
4	1590820	Bracket	1
5	1492253	Washer	2
6	1492231	Screw	2
7	1558294	Seal	AR

NOTES

[illegible]

HEATER HOSES (FIGURE 1-40) DIESEL ENGINE

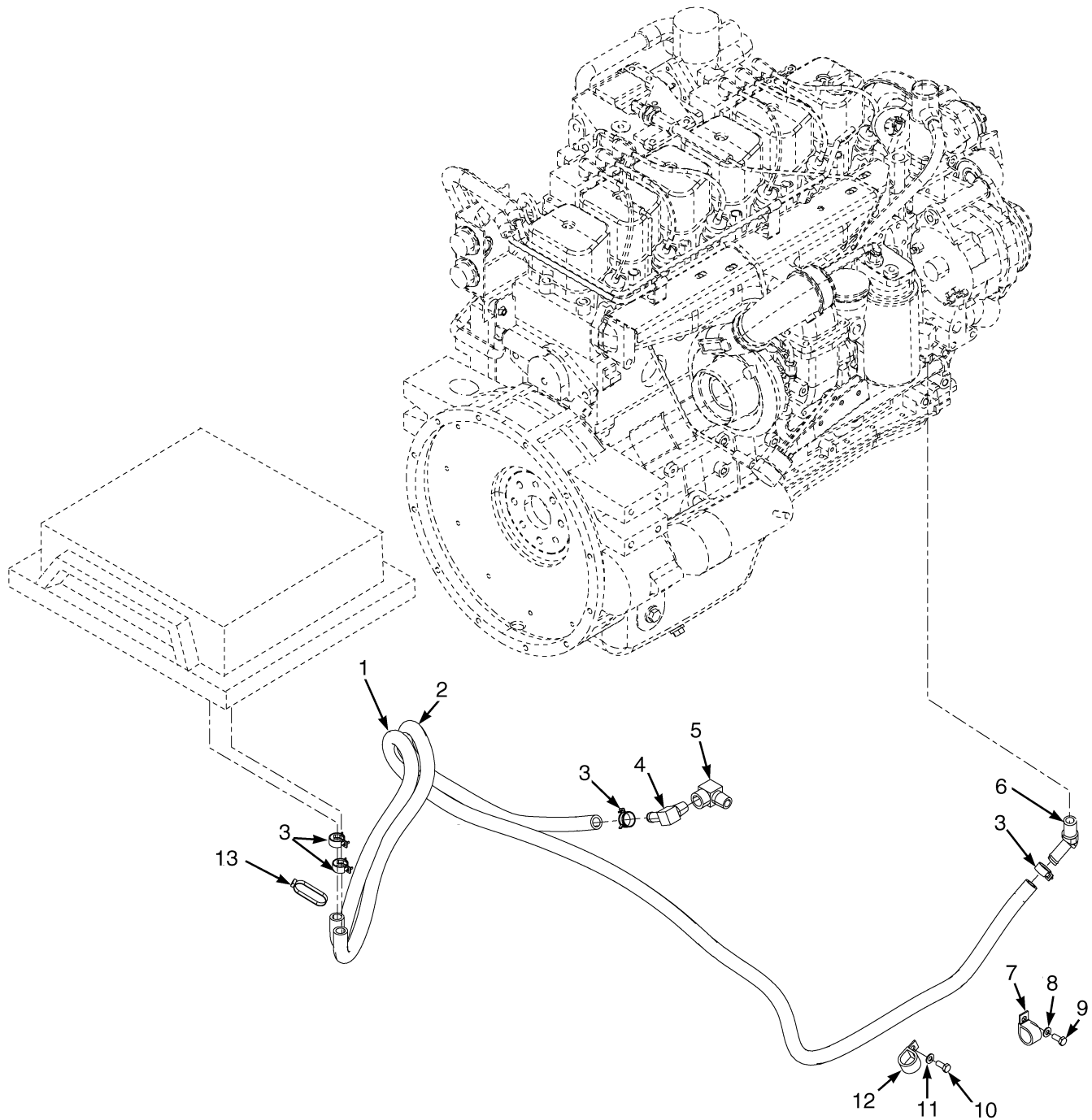


HP121126

**HEATER HOSES
DIESEL ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	2102699	Hose	1
2	251994	Clamp	1
3	136681	Capscrew	2
4	320157	Washer	2
5	1502008	Hose Clamp	4
6	127852	Fitting	1
7	12845	Fitting	1
8	2102700	Hose	1
9	17742	Fitting	1
10	320161	Washer	1
11	132860	Capscrew	3
12	321487	Clamp	2
13	198678	Clamp	1
14	129563	Strap Clamp	2

HEATER HOSES (FIGURE 1-41) LPG ENGINE



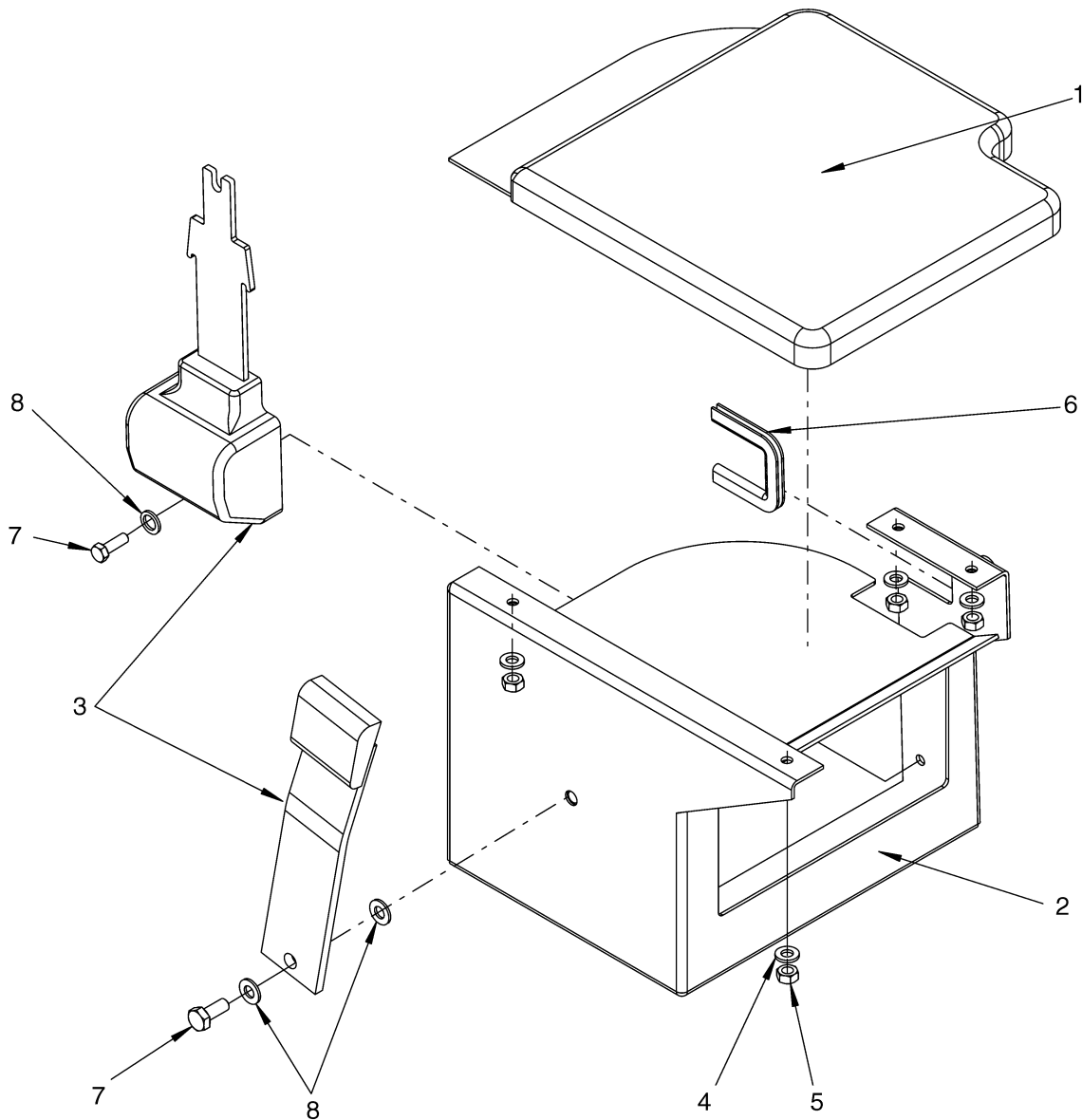
HP121127

**HEATER HOSES
LPG ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	2102704	Hose	1
2	2102703	Hose	1
3	1502008	Hose Clamp	4
4	16155	Fitting	1
5	17742	Fitting	1
6	127852	Fitting	1
7	178119	Clamp	3
8	320157	Washer	3
9	136681	Capscrew	3
10	292514	Capscrew	1
11	320159	Washer	1
12	321487	Clamp	1
13	129563	Strap Clamp	2
	a 239308	Sleeve	2

FOOTNOTES:**a** Not Illustrated

TRAINING SEAT (FIGURE 1-42)



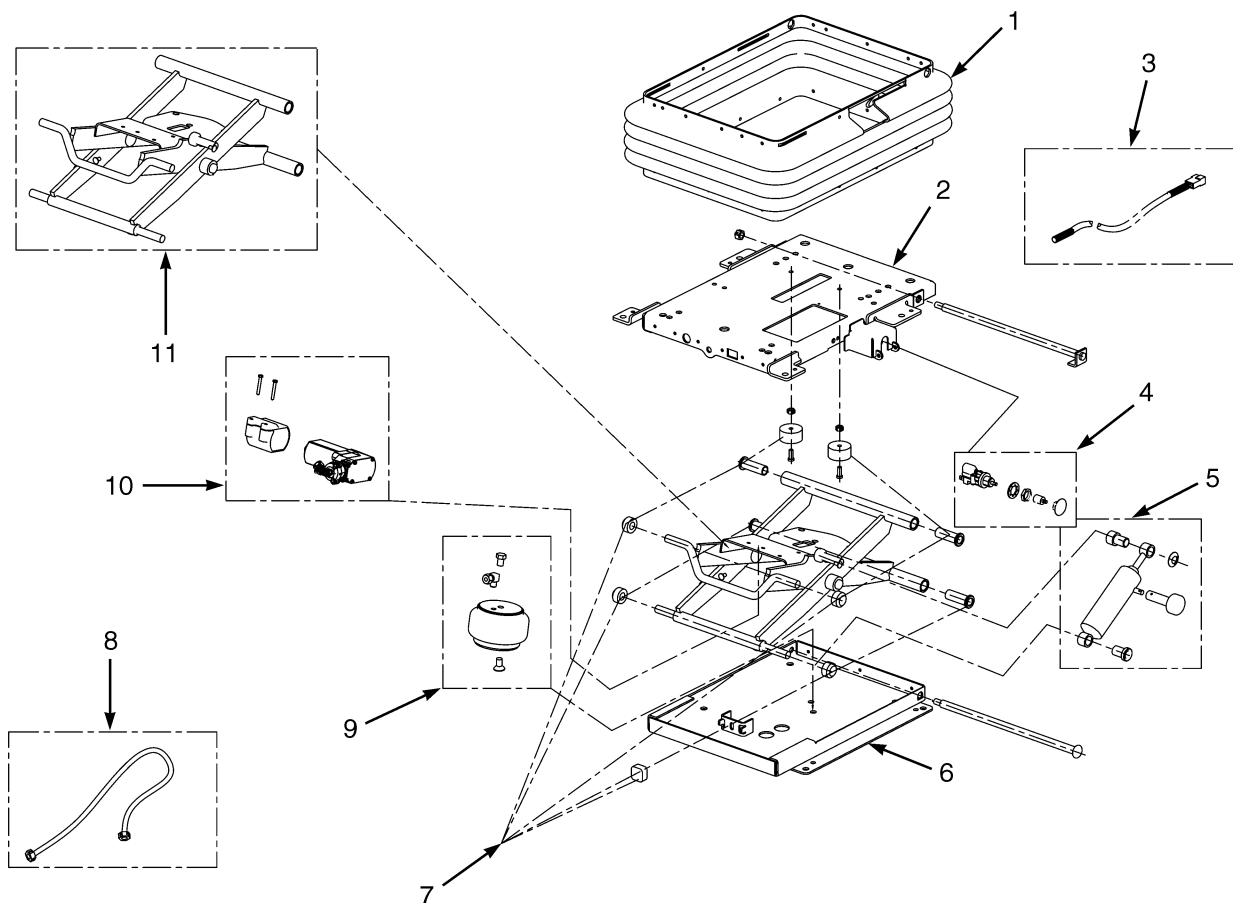
HP120623

ITEM	PART NO.	DESCRIPTION	QTY
	1497822	Seat-Non Suspension	1
1	1499936	Cover (Top)	1
2	1506677	Seat Assy (Bottom)	1
3	1461081	Kit-Seat Belt	1
4	320156	Washer	4
5	136687	Nut	4
6	1498336	Edge Protector	AR
7	293628	Capscrew	2
8	1498338	Washer	3

NOTES

[illegible]

SEAT SUSPENSION ASSEMBLY (FIGURE 1-43) AIR



BP120136

SEAT SUSPENSION ASSEMBLY
AIR

ITEM	PART NO.	DESCRIPTION	QTY
	1482989	Suspension (Air)	1
1	1483005	Kit-Suspension Boot	1
1	1483006	Boot	1
1	1483003	Clip	22
1	1483004	Nut	3
2	1483042	Kit-Housing (Upper)	1
2	1483043	Housing (Upper)	1
2	1483009	Shaft	1
2	1483010	Nut	1
2		Plug	1
2	1483047	Roll Pin	1
2	1483003	Clip	11
2	1482917	Locknut	4
2	1482990	Bolt	4
2		Bearing	2
3	1483040	Wire Harness	1
3	1483041	Wire Harness	1
3	1482953	Strap Clamp	1
3	1483003	Clip	1
3	1483004	Nut	1
4	1615107	Valve (Air)	1
4		Valve Body	1
4	1615109	Lockwasher	1
4	1615110	Nut	1
4		Knob (Air Valve)	1
4	1615111	Connector	1
4	1483047	Roll Pin	2
4	1615105	Handle (Control Valve)	1
4	1615106	Knob (Air Control Valve)	1
5	1483049	Gas Spring	1
5	1615129	Shock Absorber	1
5		Fastener	1
5	1615124	Knob (Adjuster)	1
5	1615125	Roll Pin	1
5	1615126	Bushing (Upper Shock)	1
5	1615127	Bushing (Lower Shock)	1
5	1615128	Spring	1
6	1483050	Kit-Housing (Lower)	1
6	1483051	Housing (Lower)	1
6	1483009	Shaft	1
6	1483010	Nut	1
6	1483029	Rubber Bellow	3
6	1483003	Clip	9
6	1483004	Nut	3
6	1615131	Bumper (Rubber)	1
6	1483058	Screw	1
7	1483052	Kit-Bearing (Suspension)	1
7	1483031	Roller	4
7	1483053	Bumper	2
7	1483054	Screw	2

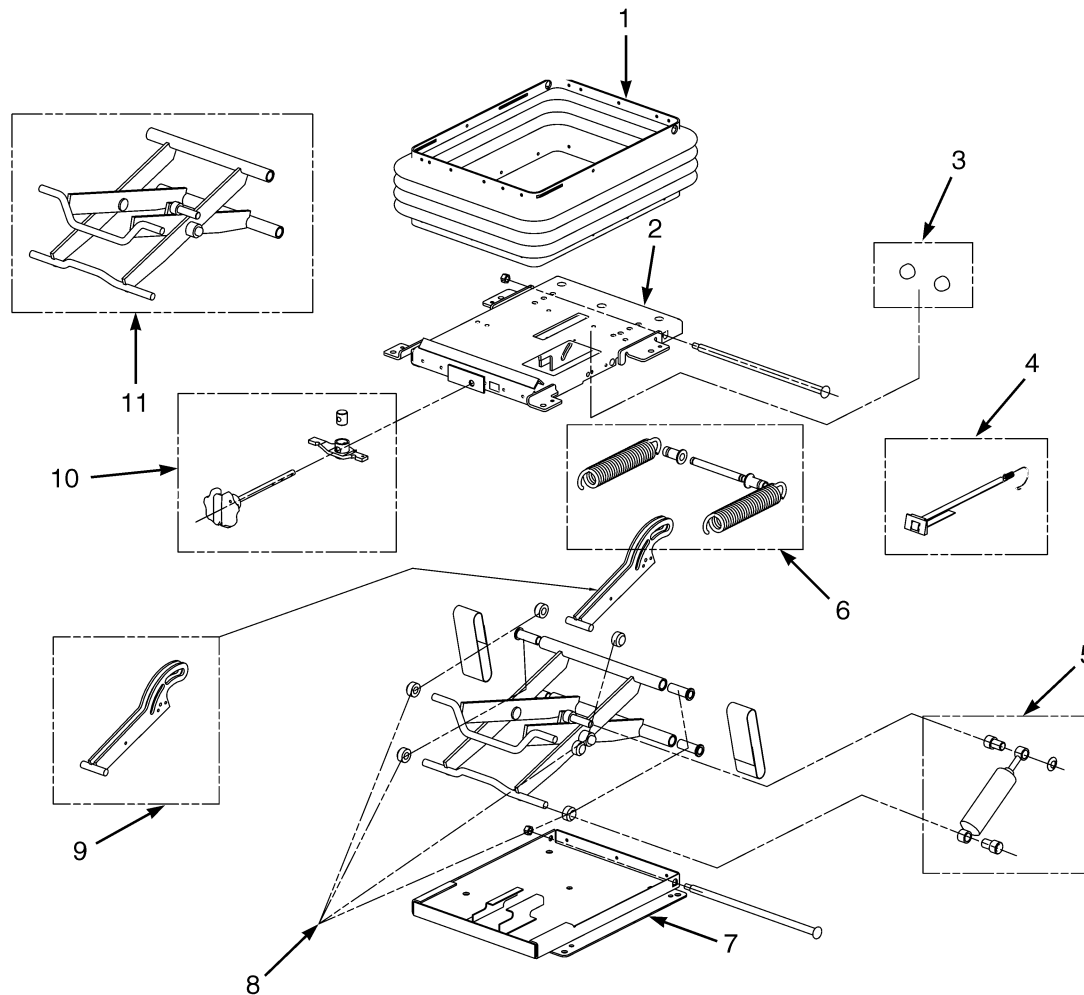
SEAT SUSPENSION ASSEMBLY AIR

ITEM	PART NO.	DESCRIPTION	QTY
7	1483055	Nut	2
7		Bearing	4
7	1482990	Bolt	4
7	1483010	Nut	2
7	1483003	Clip	9
7	1483004	Nut	3
7	1482953	Strap Clamp	1
7	1615132	Bumper	2
7	1615126	Bushing	1
7	1615127	Bushing	1
7		Fastener	1
7	1482980	Washer	4
8	1483061	Kit-Air Hose	1
8	1483062	Hose	1
8	1615111	Connector	1
8	1483060	Fitting	1
8	1615138	Cap	1
8	1615139	O-Ring	1
9	1483056	Kit-Spring (Air)	1
9	1483057	Spring	1
9	1483058	Screw	1
9	1483059	Bolt	1
9	1483060	Fitting	1
9	1615136	Clip	1
9	1483062	Hose	1
9	1483003	Clip	10
9	1483004	Nut	3
9	1615137	Screw	1
10	1528714	Kit-Compressor	1
10	1615140	Compressor (24 Volt)	1
10	1615141	Bracket (Plastic)	1
10	1483067	Screw	2
10	1483062	Hose	1
10	1615111	Connector	1
10	1483060	Fitting	1
11	1615143	Kit-Service Susp Scissors	1
11	1615144	Scissor	1
11	1615126	Bushing (Upper Shock)	1
11	1615127	Bushing (Lower Shock)	1
11	1483031	Roller	4
11		Bearing	4
11		Fastener	1

NOTES

[illegible]

SEAT SUSPENSION ASSEMBLY (FIGURE 1-44) MECHANICAL



BP120179

**SEAT SUSPENSION ASSEMBLY
MECHANICAL**

ITEM	PART NO.	DESCRIPTION	QTY
	1482992	Suspension (Mechanical)	1
1	1483001	Kit-Suspension Boot	1
1	1483002	Boot	1
1	1483003	Clip	18
1	1483004	Nut	3
2	1483007	Kit-Housing (Upper)	1
2	1483008	Housing	1
2	1483009	Shaft	1
2	1483010	Nut	1
2	1483003	Clip	9
2	1483011	Roll Pin	1
2	1482917	Locknut	4
2	1482990	Bolt	4
2	1615075	Pin	2
2	1615076	Pin	1
2	1615077	Clip	4
2	1615078	Clip	2
2	1615079	Cam Follower	1
3	1483012	Kit-Bumper	1
3	1483013	Spring	2
3	1483388	Nut	2
4	1483020	Tape	1
4	1483021	Spring	1
4	1483022	Tape	1
4	1483023	Guide	1
4	1483014	Rivet	1
5	1483024	Gas Spring	1
5	1483025	Shock Absorber	1
5		Fastener	1
5	1483026	Bushing	2
6	1483015	Kit-Spring	1
6	1483016	Spring	2
6		Retaining Ring	2
6	1483017	Bushing	2
6	1483018	Spacer	2
6	1483019	Spring	1
7	1483027	Kit-Housing (Lower)	1
7	1483028	Housing	1
7	1483009	Shaft	1
7	1483010	Nut	1
7	1483029	Rubber Bellow	3
7	1483003	Clip	9
7	1483004	Nut	3
7	1483031	Roller	4
8	1483030	Kit-Bearing	1
8	1483031	Roller	6
8		Bearing	4
8	1483026	Bushing	2
9	1483032	Arm	1
9	1483033	Arm	1

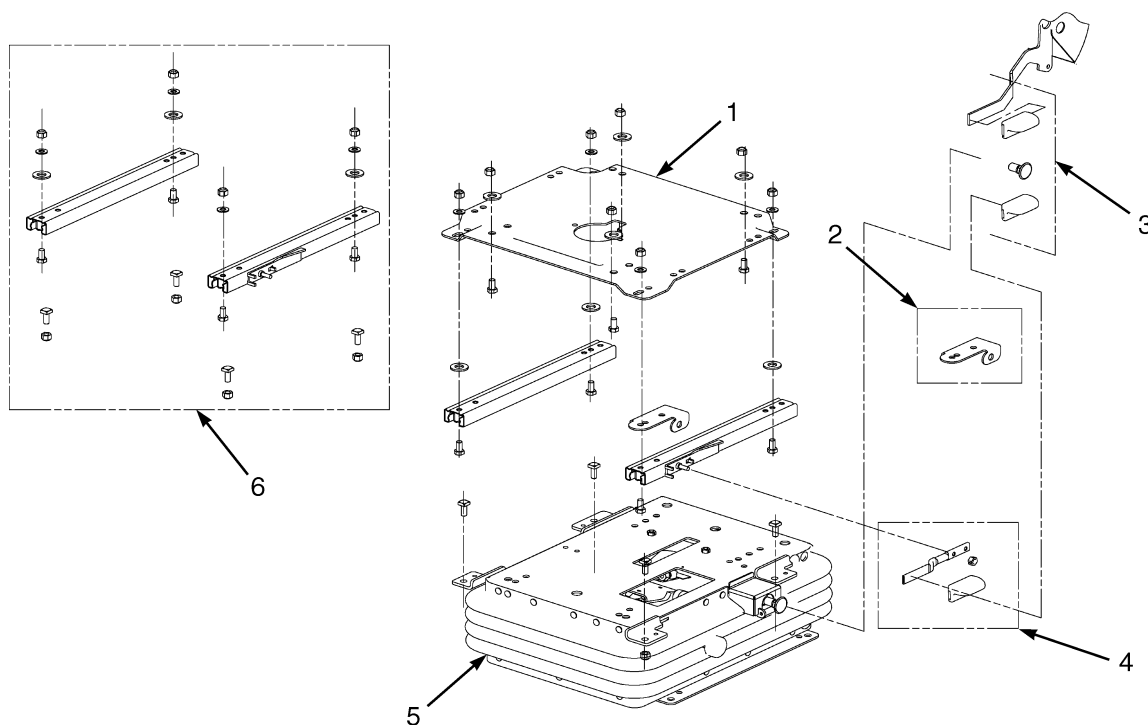
SEAT SUSPENSION ASSEMBLY MECHANICAL

ITEM	PART NO.	DESCRIPTION	QTY
9	1615075	Pin	2
9	1615076	Pin	1
9	1615077	Clip	4
9		Retaining Ring	2
9	1615078	Clip	2
9	1615079	Cam Follower	1
9	1483018	Spacer	2
9		Bearing	2
9	1483031	Roller	2
10	1483034	Knob	1
10	1483036	Knob	1
10	1483011	Roll Pin	1
11	1483037	Kit-Service Susp Scissors	1
11	1483039	Scissor	1
11	1483031	Roller	4
11		Bearing	4
11	1483026	Bushing	2
11	1483010	Nut	2
11		Fastener	1

NOTES

[illegible]

SEAT SUSPENSION MOUNTING (FIGURE 1-45)



BP120177

SEAT SUSPENSION MOUNTING**KEY:****A: Mechanical Suspension****B: Air Suspension**

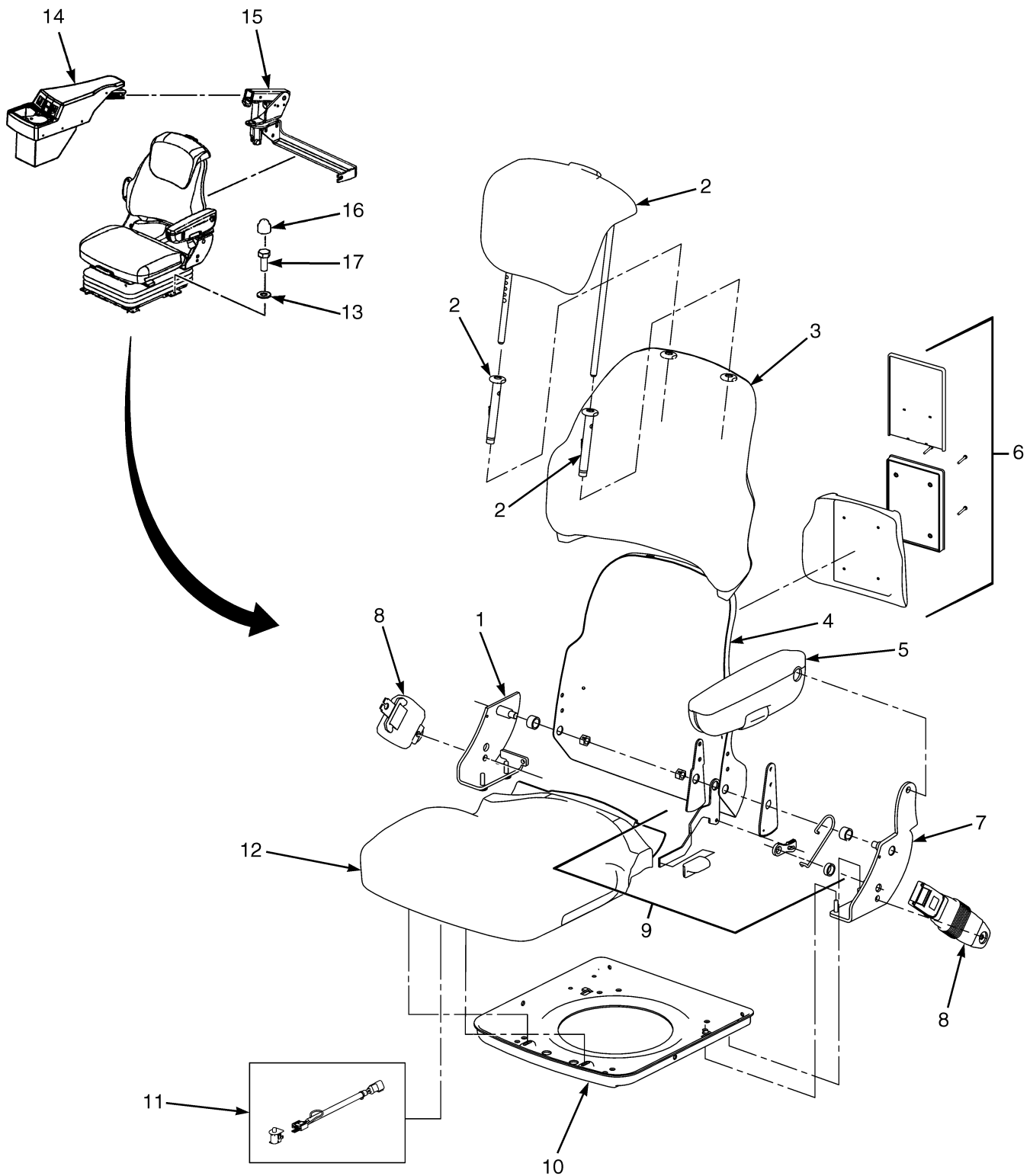
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1603522	Seat-Full Suspension (Mechanical Suspension) (Fabric Cover)	1	..
	1603521	Seat-Full Suspension (Mechanical Suspension) (Vinyl Cover)	1	..
	1603524	Seat-Full Suspension (Air Suspension) (Fabric Cover)	..	1
	1603523	Seat-Full Suspension (Air Suspension) (Vinyl Cover)	..	1
1	1482993	Kit-Plate (Adapter)	1	1
1	1482994	Plate	1	1
1	1482917	Locknut	8	8
1	1482951	Bolt	8	8
1	1482952	Clip	2	2
1	1482995	Washer	4	4
1	1482953	Strap Clamp	1	1
2	1482996	Kit-Bracket	1	1
2	1482997	Bracket	1	1
2	1482917	Locknut	4	4
2	1482951	Bolt	4	4
2	1482995	Washer	4	4
2	1482980	Washer	1	1
2	1482981	Locknut	1	1
3	1482976	Kit-Knob	1	1
3	1467531	Knob (Recliner)	1	1
3		Knob (Slide)	1	1
3	1483047	Roll Pin	..	1
3		Knob (Air Valve)	..	1
3	1615105	Handle (Control Valve)	..	1
3	1615106	Knob (Air Control Valve)	..	1
4	1482978	Kit-Lever (Slider)	1	1
4	1482979	Lever	1	1
4		Knob	1	1
4	1482980	Washer	1	1
4	1482981	Locknut	1	1
5	1482991	Kit-Service Mech Susp Seat	1	..
5	1482992	Suspension (Mechanical)	1	..
5	1482917	Locknut	4	..
5	1482990	Bolt	4	..
5	1482953	Strap Clamp	1	..
5	1482982	Kit-Service Air Susp Seat	..	1
5	1482989	Suspension (Air)	..	1
5	1482917	Locknut	..	4
5	1482990	Bolt	..	4
5	1482953	Strap Clamp	..	1
6	1482998	Kit-Seat Rail	1	1
6	1482999	Seat Rail	1	1
6	1483000	Seat Rail	1	1
6	1482990	Bolt	4	4
6	1482917	Locknut	8	8
6	1482951	Bolt	4	4

SEAT SUSPENSION MOUNTING**KEY:****A: Mechanical Suspension****B: Air Suspension**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
6	1482980	Washer	1	1
6	1482981	Locknut	1	1

[illegible]

SEAT ASSEMBLY (FIGURE 1-46)



BP120176

SEAT ASSEMBLY**KEY:****A: Fabric Cover****B: Vinyl Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1603522	Seat-Full Suspension (Mechanical Suspension) (Fabric Cover)	1	..
	1603521	Seat-Full Suspension (Mechanical Suspension) (Vinyl Cover)	..	1
	1603524	Seat-Full Suspension (Air Suspension) (Fabric Cover)	1	..
	1603523	Seat-Full Suspension (Air Suspension) (Vinyl Cover)	..	1
	1482798	Seat-Full Suspension (With Armrest)	1	..
	1482954	Seat-Full Suspension (With Armrest)	..	1
	a 1482915	Spacer	1	1
	a 292528	Capscrew	1	1
	a 1482917	Locknut	4	4
	a 1615073	Bolt	4	4
1	1482974	Kit-Bracket (RH)	1	1
1	1482806	Bracket	1	1
1	1482917	Locknut	3	3
1	1482951	Bolt	1	1
1	1482919	Locknut	2	2
1	1482924	Screw	2	2
1	1482952	Clip	2	2
1	1482953	Strap Clamp	1	1
2	1615147	Kit-Back/Headrest Cushion	1	..
2	b 1574082	Headrest	1	..
2	c 1692151	Seat Cushion	1	..
2	1615149	Guide	2	..
2	1615150	Kit-Back/Headrest Cushion	..	1
2	1574081	Cushion	..	1
2	1615149	Guide	..	2
3	1482957	Seat Back Cushion Assy, Cloth	1	..
3	1482802	Cushion	1	..
3	1482924	Screw	2	..
3	1482958	Seat Back Cushion Assy, Vinyl	..	1
3	1482955	Seat Cushion	..	1
3	1482924	Screw	..	2
4	1482959	Kit-Back Pan	1	1
4	1615056	Pan	1	1
4	1482917	Locknut	8	8
4	1482919	Locknut	2	2
4	1482924	Screw	2	2
4	1615057	Bolt	1	1
4	1482913	Connector	6	6
5	1482960	Armrest (LH)	1	1
5	1482804	Armrest	1	1
5	1482919	Locknut	1	1
5	292528	Capscrew	1	1
5	1482920	Washer	2	2
5	1482961	Screw	1	1
6	1467522	Information Case	1	1
6	1470155	Information Case (Kit) (Alternate Part)	1	1

SEAT ASSEMBLY

KEY:

A: Fabric Cover

B: Vinyl Cover

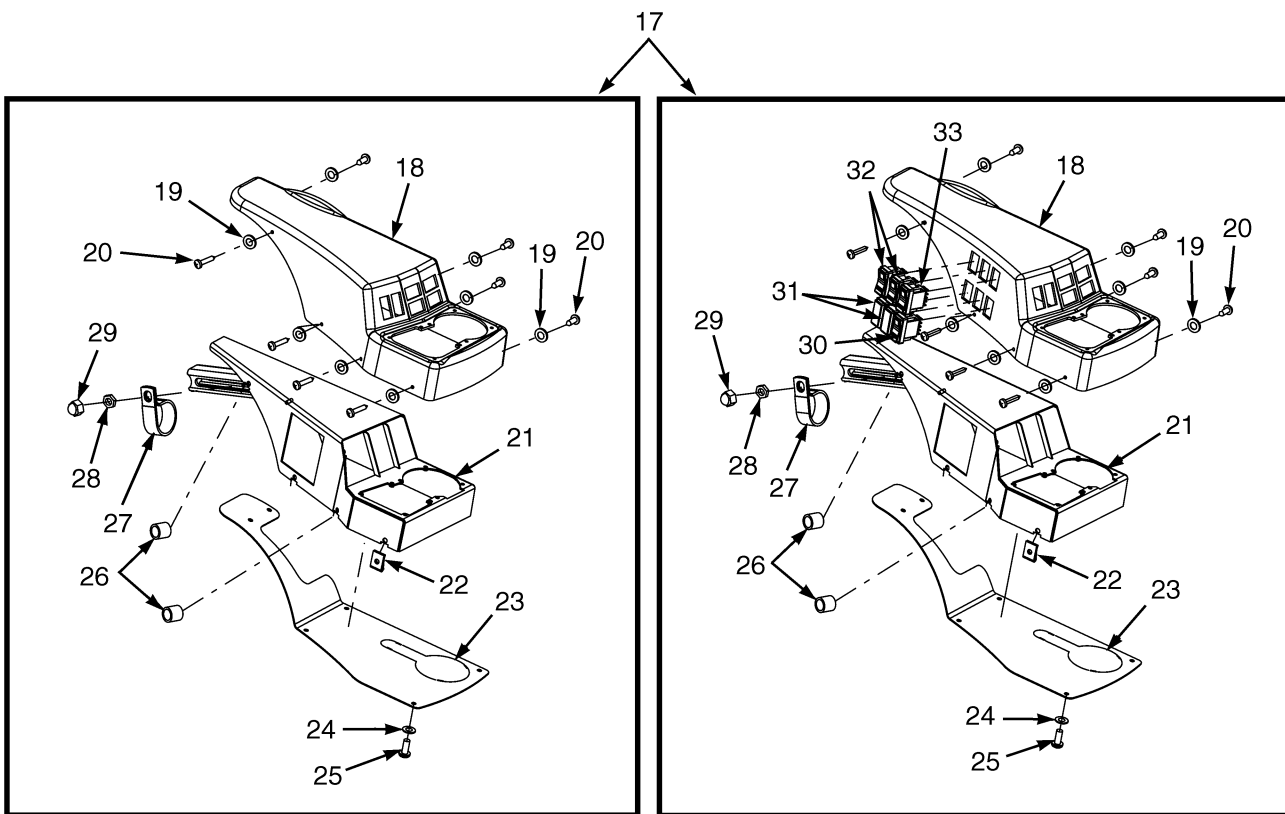
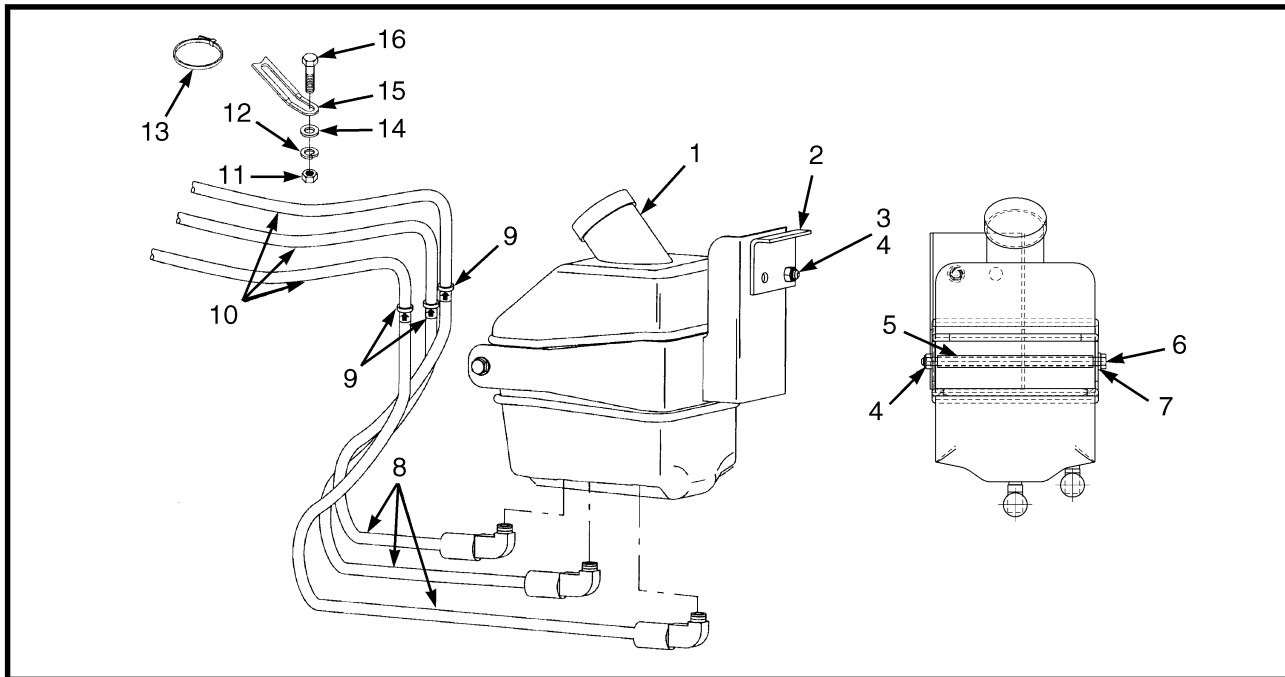
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
6	1482925	Plate	1	1
6	1482948	Box	1	1
6	1482949	Screw	4	4
6	1482950	Cover	1	1
7	1482969	Kit-Bracket (LH)	1	1
7	1482805	Bracket	1	1
7	1482917	Locknut	3	3
7	1615057	Bolt	1	1
7	292528	Capscrew	1	1
7	1482919	Locknut	2	2
7	1482924	Screw	2	2
7	1482910	Nut	1	1
7	1482952	Clip	2	2
7	1482961	Screw	1	1
7	1482953	Strap Clamp	1	1
8	1615062	Kit-Seat Belt	1	1
8	292528	Capscrew	1	1
8	246001	Capscrew	1	1
8	1615063	Washer	3	3
8	1615064	Spacer	2	2
9	1615066	Kit-Operator Presence System	1	1
9	1615067	Switch (Operator Presence System)	1	1
9	1615068	Wire Harness (Operator Presence System)	1	1
9	1482953	Strap Clamp	2	2
9	1482952	Clip	2	2
10	1482970	Kit-Recliner	1	1
10	1467531	Knob	1	1
10	1482904	Lever	1	1
10	1482905	Plate	1	1
10	1482906	Latch	1	1
10	1482907	Cover	1	1
10	1482908	Spring	1	1
10	1482909	Spring	1	1
10	1482919	Locknut	2	2
10	1615057	Bolt	1	1
10	1482917	Locknut	5	5
10	1482952	Clip	2	2
10	1482953	Strap Clamp	1	1
10	1482910	Nut	1	1
10	1482924	Screw	2	2
11	1482971	Kit-Seat Pan	1	1
11	1482801	Seat Pan	1	1
11	1482917	Locknut	12	12
11	1482951	Bolt	6	6
11	1482952	Clip	2	2
11	1482953	Strap Clamp	1	1

SEAT ASSEMBLY**KEY:****A: Fabric Cover****B: Vinyl Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
11	1615057	Bolt	2	2
11	1482919	Locknut	2	2
12	1615158	Seat Cushion	1	..
12	1482803	Seat Cushion	1	..
12	1482952	Clip	2	..
12	1482953	Strap Clamp	1	..
12	1615055	Seat Cushion	..	1
12	1482956	Seat Cushion	..	1
12	1482952	Clip	..	2
12	1482953	Strap Clamp	..	1
13	1558035	Lockwasher	4	4
14	1628948	Armrest (Closed Cab)	1	1
14	1628949	Armrest (Open Cab)	1	1
14	1636182	Cover (Armrest) (Closed Cab)	1	1
14	1636183	Cover (Armrest) (Open Cab)	1	1
14	1643338	Pad - Arm Rest	1	1
15		Pivot Arm Assembly (☞ Figure 1-48).....	1	1
16	1476584	Cover (Capscrew Head)	4	4
17	136681	Capscrew	4	4
	1561530	Kit-Back/Headrest Cushion	1	..
	1615152	Kit-Cushion	..	1
	a 1687037	Kit-Weight Adjuster	1	1

FOOTNOTES:**a** Not Illustrated**c** S/N H007E02374G →**b** → S/N H007E02373G

SEAT (FIGURE 1-47) ARMREST ASSEMBLY — WITH WINDOW WASHER OPTIONS



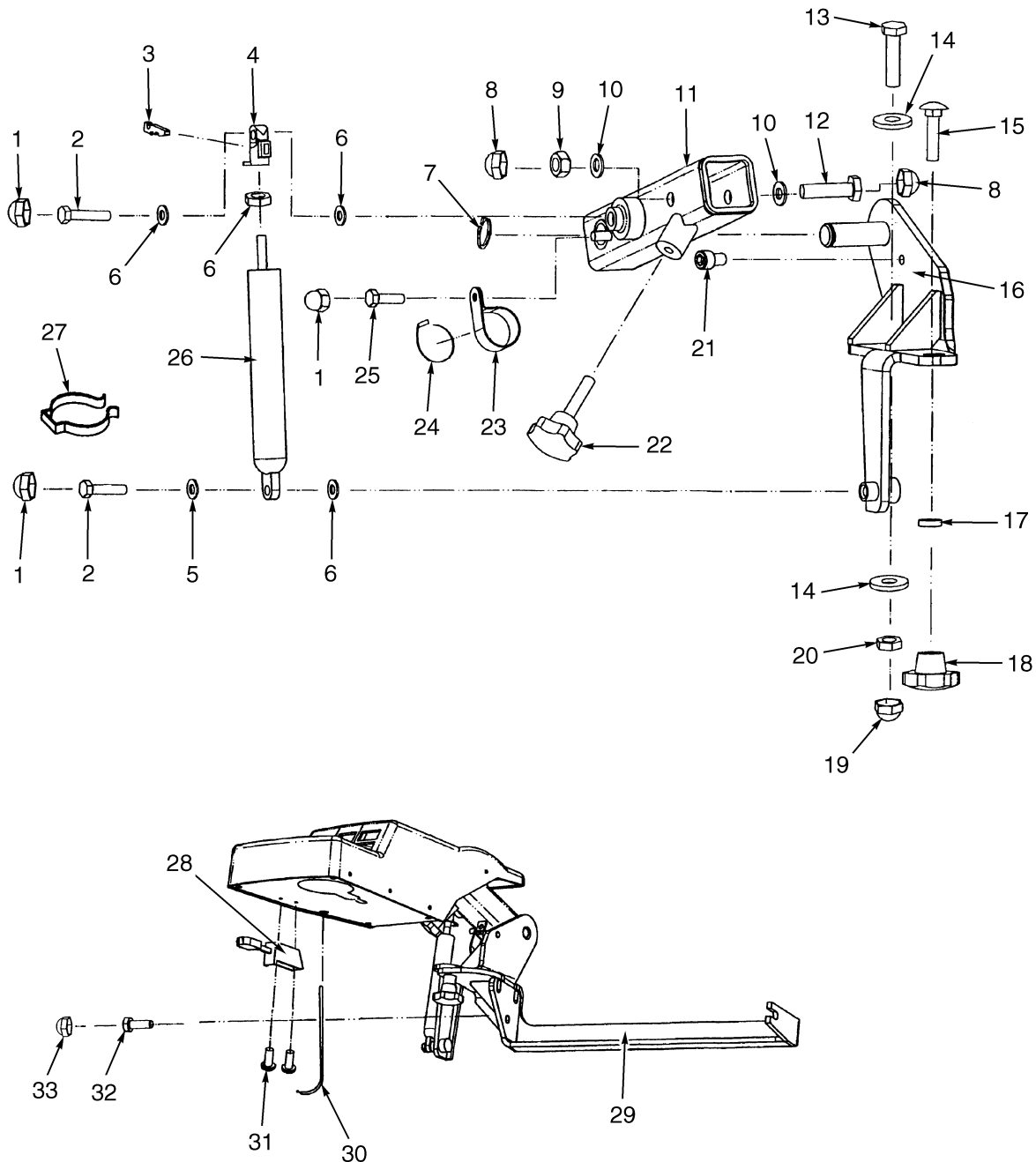
BP120187

SEAT

ARMREST ASSEMBLY – WITH WINDOW WASHER OPTIONS

ITEM	PART NO.	DESCRIPTION	QTY
1	1473851	Reservoir	1
1	1480017	Reservoir	1
1	1489089	Tank	1
1	1489090	Pump	3
2	1485427	Bracket Wldmt	1
3	176640	Bolt	1
4	302400	Nut	2
5	1492461	Tube	1
6	176769	Capscrew	1
7	320157	Washer	2
8	1563863	Hose	3
9	1301685	Check Valve	3
10	1563864	Hose	3
11	239503	Nut	3
12	292681	Lockwasher	3
13	137852	Strap Clamp	AR
14	320157	Washer	4
15	1356947	Strap	5
16	176640	Bolt	1
17	1628948	Armrest (With Wiper Switches)	1
17	1628949	Armrest (Without Wiper Switches)	1
18	1636183	Cover (Armrest) (Without Wiper Switches)	1
18	1636182	Cover (Armrest) (With Wiper Switches)	1
19	1492140	Washer	8
20	1468306	Screw	8
21	1493476	Frame (Armrest)	1
22	1492139	Nut	8
23	1493478	Plate (Bottom)	1
24	1493480	Washer	6
25	2046866	Capscrew	6
26	1493485	Spacer	2
27	1493486	Clamp	1
28	316834	Nut	1
29	1493397	Cover (Capscrew Head)	1
30	2043354	Switch (Window Washer) (With Wiper Switches)	1
31	1498383	Plug (Switch) (With Wiper Switches)	2
32	2043353	Switch (Top And Rear) (With Wiper Switches)	2
33	2043352	Switch (Front) (With Wiper Switches)	1
	2054224	Wire Harness (Armrest) (Open Cab) (Not Illustrated) (☞ Figure 4-41).....	1
	2054225	Wire Harness (Armrest) (Closed Cab) (Not Illustrated) (☞ Figure 4-42).....	1
	1563906	Trim (Not Illustrated)	AR

PIVOT ARM ASSEMBLY (FIGURE 1-48)

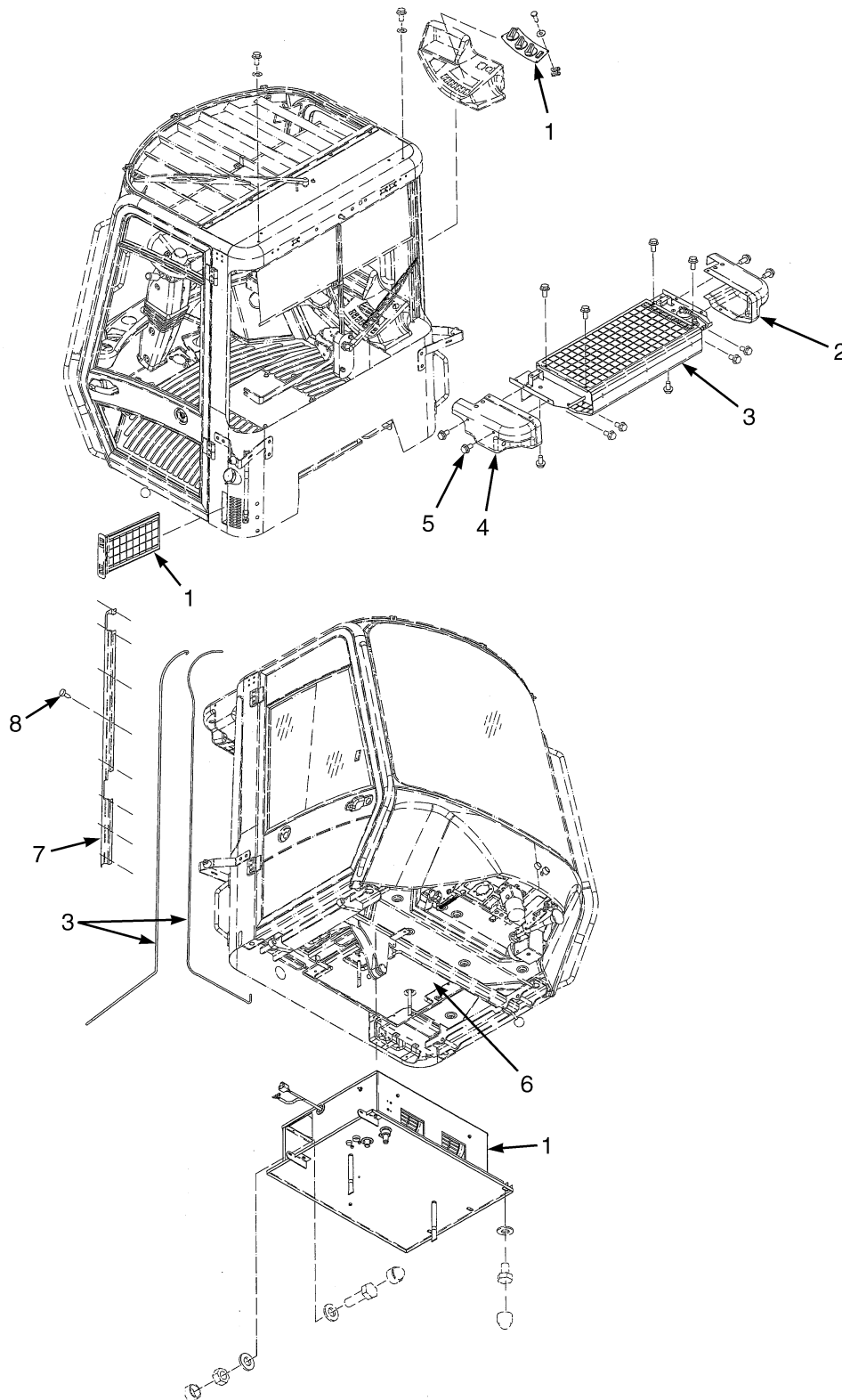


BP120190

PIVOT ARM ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	1476584	Cover (Capscrew Head)	3
2	132861	Capscrew	2
3	1534477	Lever (Release)	1
4	1534425	Rod End	1
5	1539034	Nut	1
6	320158	Washer	4
7	1498385	Retaining Ring	1
8	1493397	Cover (Capscrew Head)	2
9	316834	Nut	1
10	1476421	Washer	2
11	1534475	Tube Wldmt-Cylinder	2
12	1506669	Screw	1
13	287837	Capscrew	1
14	1571029	Washer	3
15	1493499	Screw	1
16	1534474	Console	1
17	1498338	Washer	2
18	1534476	Knob	1
19	1493474	Cover (Capscrew Head)	1
20	1506827	Nut	1
21	296010	Capscrew	1
22	1493494	Knob (Star Grip)	1
23	1493498	Clamp	1
24	1506825	Strap Clamp	1
25	287805	Capscrew	1
26	1530385	Gas Spring	1
27	1498356	Clip	1
28	1571030	Lever (Armrest Release)	1
28	1623802	Connector Body	1
28	1623801	Trip Lever	1
28	302048	Screw	1
28	1468321	Washer (Plastic)	3
28	1506670	Nut	1
28	302023	Screw	1
28	1623800	Knob	1
29	1534481	Console	1
30	1530386	Cable	1
31	1498357	Screw	1
32	136985	Capscrew	2
33	1493312	Cap (Capscrew Head)	3
	1624002	Kit-Armrest Lever Release	1

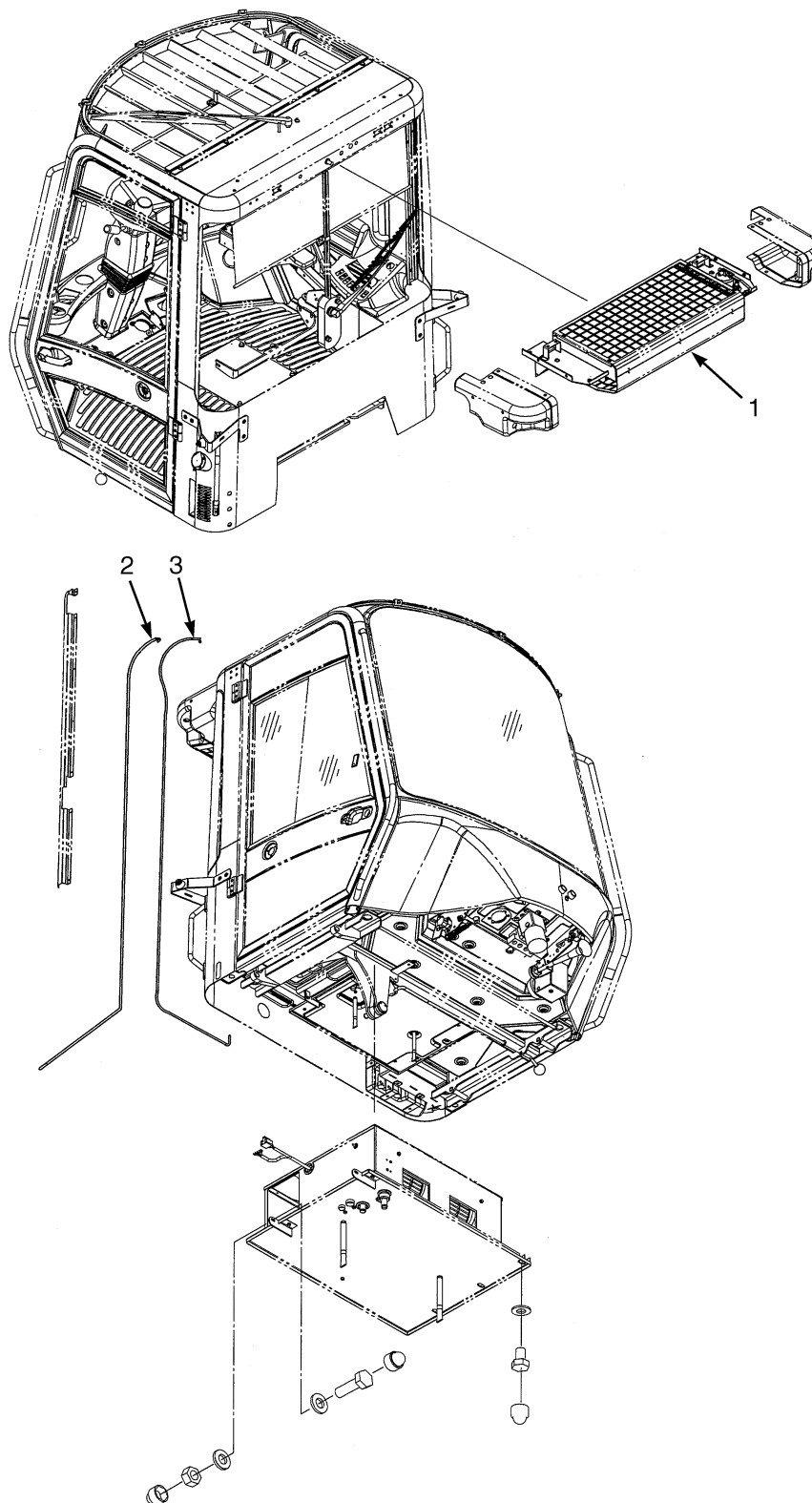
AIR CONDITIONER SYSTEM ASSEMBLY (FIGURE 1-49) WITH TOP MOUNTED CONDENSER



HP121216

**AIR CONDITIONER SYSTEM ASSEMBLY
WITH TOP MOUNTED CONDENSER**

ITEM	PART NO.	DESCRIPTION	QTY
1	1702289	Air Conditioner (☞ Figure 1-52).....	1
2	1658128	Cover (RH)	1
3	4004825	Condenser (☞ Figure 1-50).....	1
4	1658127	Cover (LH)	1
5	1566041	Screw	10
6	1702293	Air Duct (☞ Figure 1-54).....	1
7	4004826	Cover	1
8	1468319	Screw	8

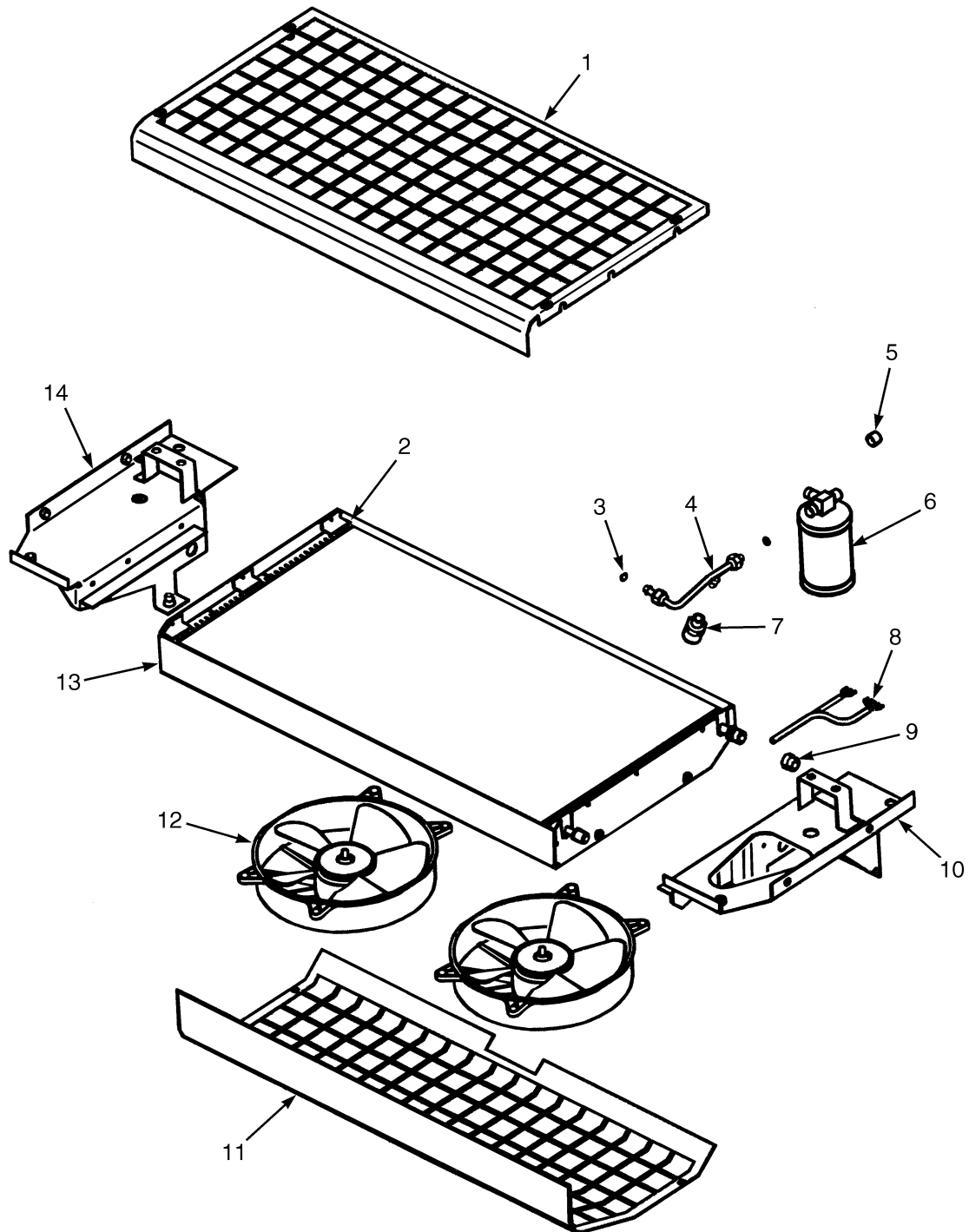
**CONDENSER SYSTEM (FIGURE 1-50)
TOP MOUNTED**

HP121215

**CONDENSER SYSTEM
TOP MOUNTED**

ITEM	PART NO.	DESCRIPTION	QTY
	4004825	Condenser	1
1	4004830	Condenser (☞ Figure 1-51).....	1
2	4004829	Hose	1
3	4004828	Hose	1

CONDENSER (FIGURE 1-51) TOP MOUNTED

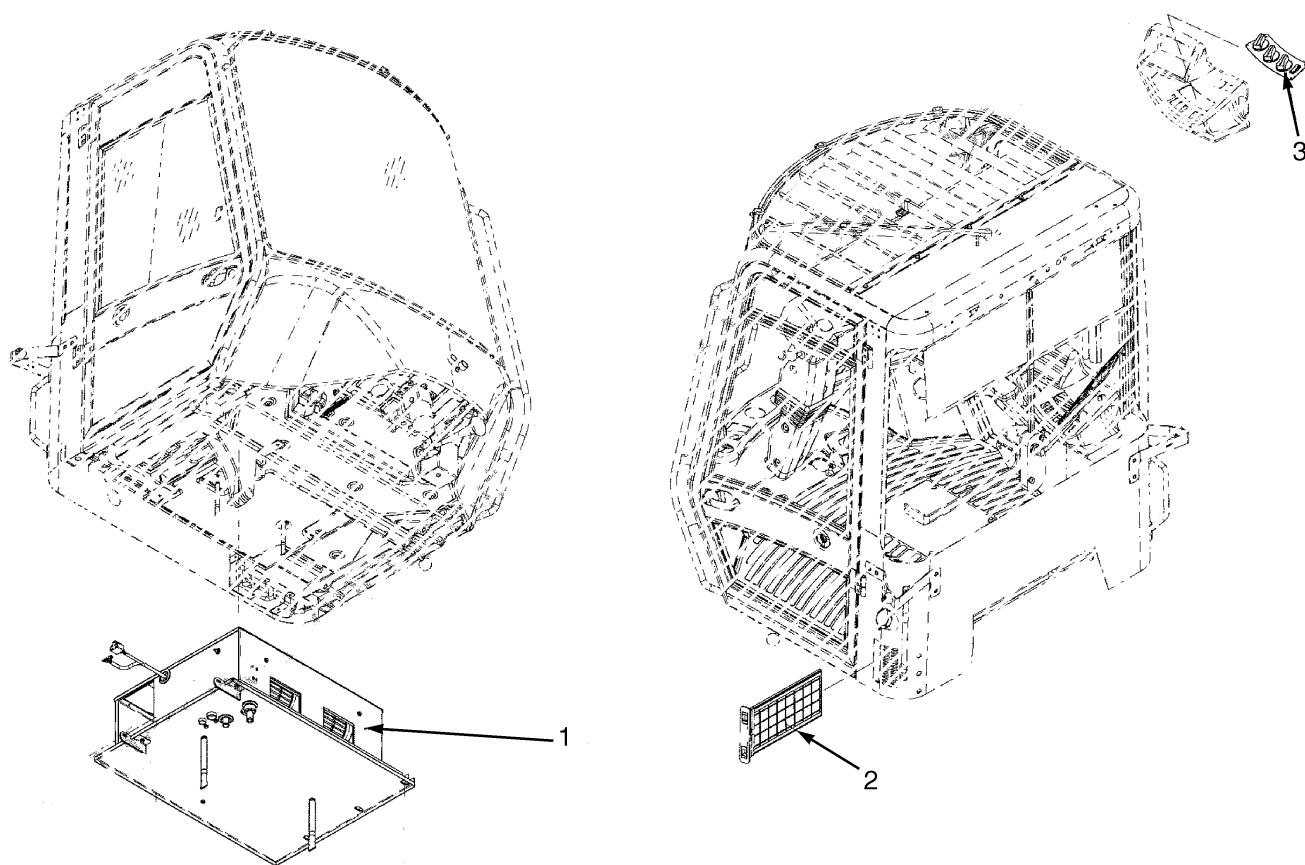


HP121214

**CONDENSER
TOP MOUNTED**

ITEM	PART NO.	DESCRIPTION	QTY
	4004830	Condenser	1
1	4004832	Cover	1
2	4003079	Condenser	1
3	1487118	O-Ring	2
4	4004836	Tube Assy	1
5	4004839	Cap	1
6	1693804	Air Dryer	1
6	1695629	Relief Valve	1
7	1514712	Pressure Switch	1
8	4004061	Wire Harness	1
9	4004838	Cap	1
10	4004835	Bracket	1
11	4004833	Cover	1
12	1564433	Fan (24 Volt)	2
13	4004831	Case	1
14	4004834	Bracket	1

AIR CONDITIONER SYSTEM (FIGURE 1-52) WITH TOP MOUNTED CONDENSER

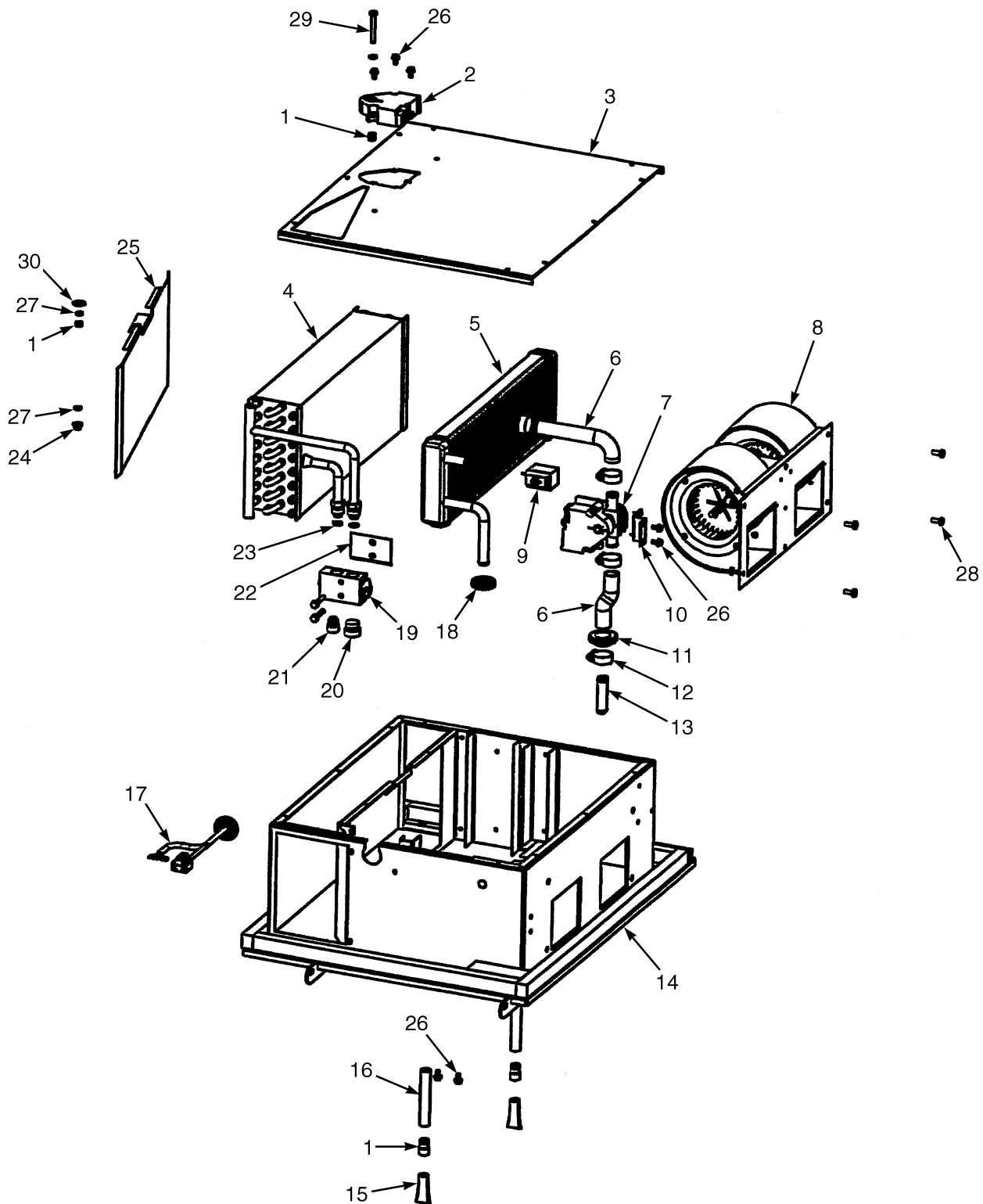


HP121182

**AIR CONDITIONER SYSTEM
WITH TOP MOUNTED CONDENSER**

ITEM	PART NO.	DESCRIPTION	QTY
	1702289	Air Conditioner	1
1	1702562	Air Conditioner (☞ Figure 1-53).....	1
2	1493276	Air Filter	1
3	1702563	Control Panel (☞ Figure 1-55).....	1

AIR CONDITIONER ASSEMBLY (FIGURE 1-53) WITH TOP MOUNTED CONDENSER

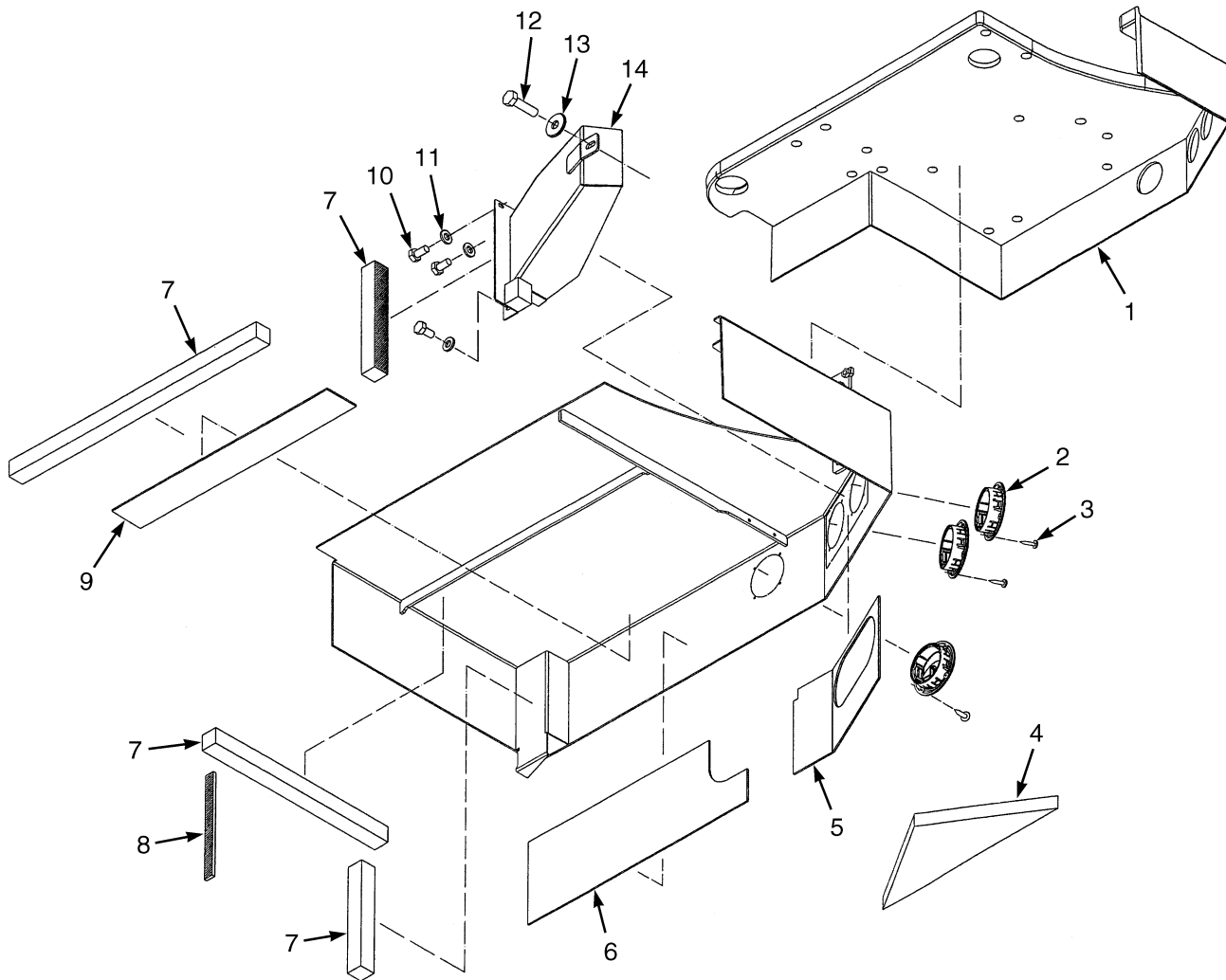


HP121205

**AIR CONDITIONER ASSEMBLY
WITH TOP MOUNTED CONDENSER**

ITEM	PART NO.	DESCRIPTION	QTY
	1702562	Air Conditioner	1
1	4003095	Connector	2
2	4003081	Actuator	1
3	4003085	Cover	1
4	4003090	Coil	1
5	4003091	Core	1
6	4003089	Hose	1
7	1510538	Valve (Motorized)	1
8	4003083	Blower	1
9	4003082	Thermostat	1
10	4003098	Bracket	1
11	1487953	Grommet	1
12	1487950	Hose Clamp	4
13	1487952	Tube (Copper)	1
14	4003084	Case	1
15	4003094	Drain Valve	2
16	4003096	Hose	2
17	4003097	Wire Harness	1
18	4003088	Grommet	1
19	1487945	Valve (Block)	1
20	4003093	Plug	1
21	4003092	Plug	1
22	4003087	Bracket	1
23	1487122	O-Ring	1
24	1487963	Bushing	1
25	4003086	Cover Plate	1
26		Bolt	7
27		Washer	5
28		Bolt	4
29		Bolt	1
30		Lockwasher	1

AIR DUCT ASSEMBLY (FIGURE 1-54) WITH TOP MOUNTED CONDENSER

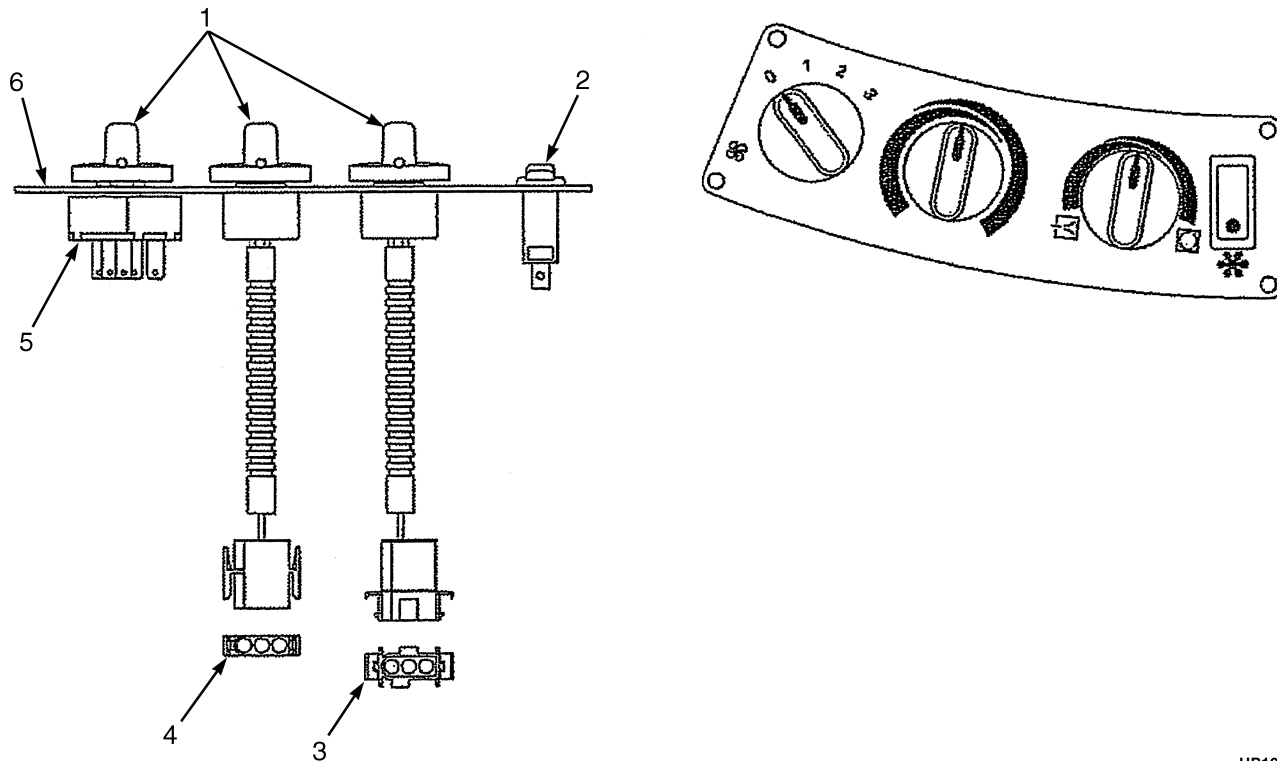


HP121208

**AIR DUCT ASSEMBLY
WITH TOP MOUNTED CONDENSER**

ITEM	PART NO.	DESCRIPTION	QTY
	1702293	Air Duct	1
1	4002525	Floormat	1
2	1598398	Louver	3
3	1492163	Screw	12
4	4002524	Insulation	1
5	4002522	Insulation	1
6	4002521	Insulation	1
7	4000919	Foam	AR
8	4000920	Foam	AR
9	4002523	Insulation	1
10	4000918	Screw	3
11	320156	Washer	3
12	292501	Capscrew	1
13	1476421	Washer	1
14	4002520	Air Duct	1

CONTROL PANEL ASSEMBLY (FIGURE 1-55) WITH TOP MOUNTED CONDENSER



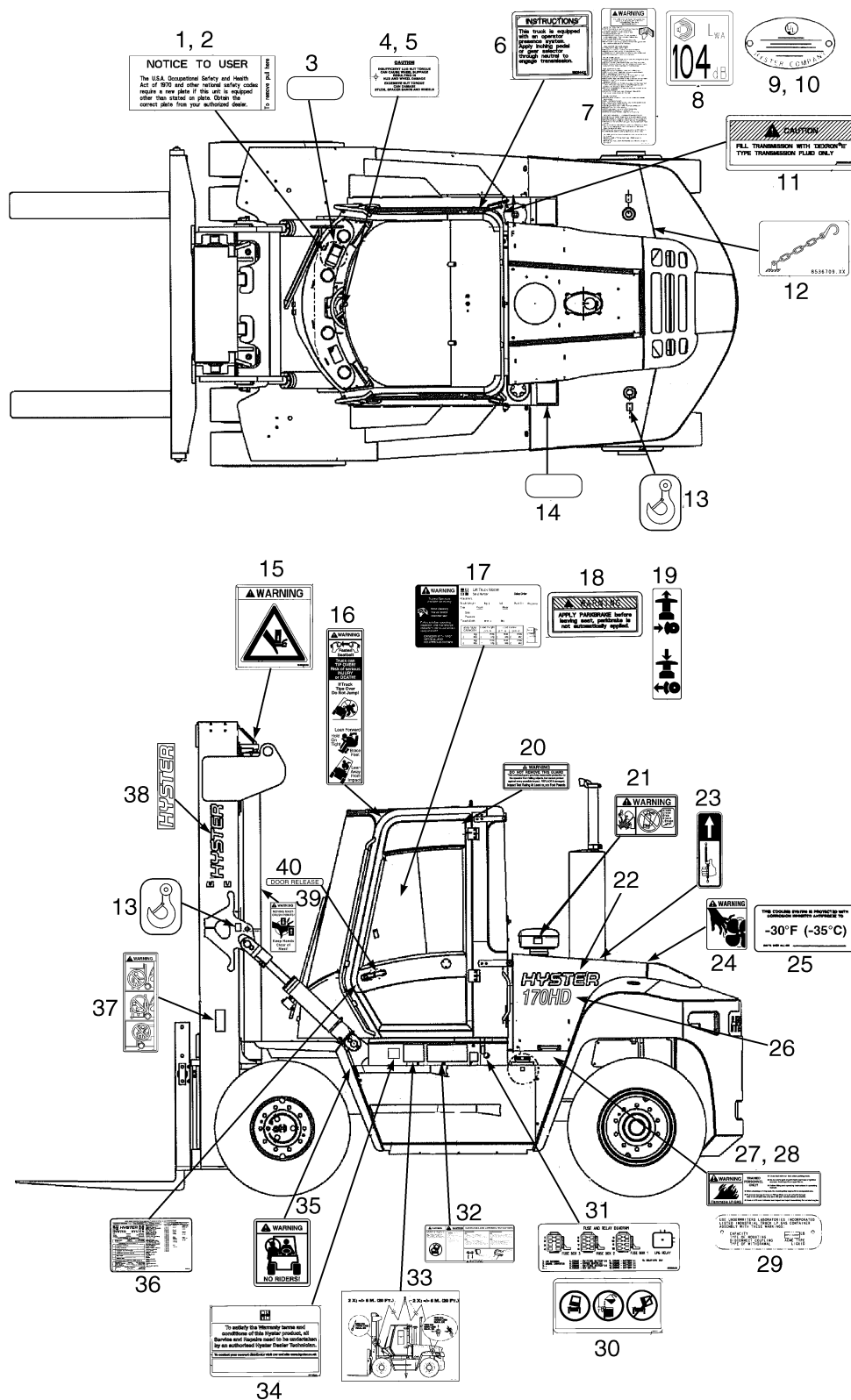
HP121207

ITEM	PART NO.	DESCRIPTION	QTY
	1702563	Control Panel	1
1	1487957	Knob	3
2	4004308	Switch	1
3	4004309	Potentiometer	1
4	4004310	Potentiometer	1
5	1487956	Switch (with Nut)	1
6	4004307	Control	1

NOTES

[illegible]

LABELS (FIGURE 1-56) MAIN



BP120342

**LABELS
MAIN**

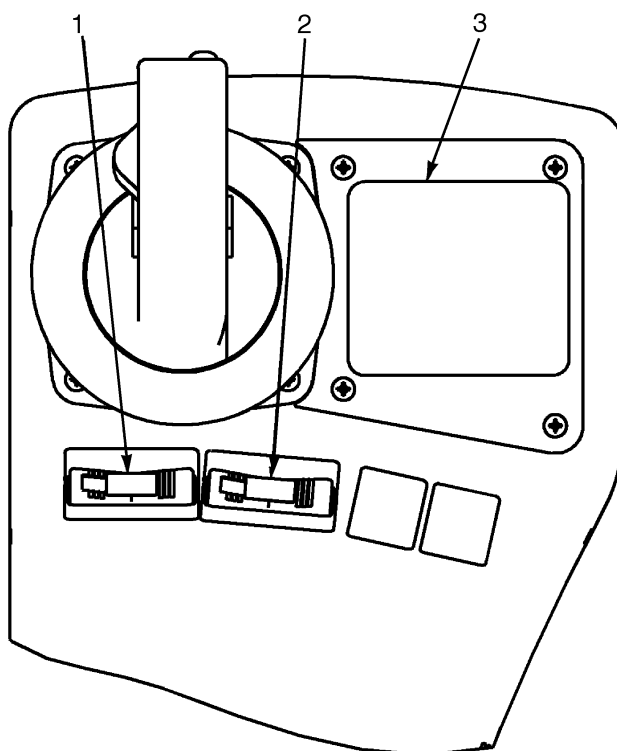
ITEM	PART NO.	DESCRIPTION	QTY
1	1335137	Label (Nameplate Tag)	1
2	1513947	Rivet (Plastic)	4
3	389688	Nameplate	1
4	322668	Label (Lug Nut Torque)	1
5	137852	Strap Clamp	1
6	2084159	Label (Operator Presence)	1
7	2043479	Label (Operator Warning)	1
8	1503882	Label (Noise Level) (Diesel)	1
8	1503880	Label (Noise Level) (LPG)	1
9	a	Label (Inspection Plate)	1
10	166818	Rivet	2
11	2090774	Label (Transmission Fluid Caution)	1
12	2090765	Label (Tie Down)	4
13	316448	Label (Lifting Eye)	4
14	184841	Anti-Slip Tread (Slip-Resistant Tread) (H170HD, H190HD, H210HD)	2
14	299391	Anti-Slip Tread (Slip-Resistant Tread) (H230HD, H250HD, H280HD)	2
15	1545062	Label (Pinch Point)	2
16	1330917	Label (Operator Restraint)	2
17	a	Label (Capacity Plate)	1
18	1335146	Label (Park Brake Warning)	1
19	2044400	Label (Park Brake)	1
20	a	Label (Impact Rating)	1
21	2034459	Label (Ether Warning)	2
22	1466008	Label (Hyster)	2
23	1311423	Label (Gas Spring)	2
24	1345939	Label (Fan Warning)	2
25	1354165	Label (Antifreeze)	1
26	1488635	Label (H170HD)	2
26	1488637	Label (H190HD)	2
26	1488638	Label (H210HD)	2
26	1488640	Label (H230HD)	2
26	1488641	Label (H250HD)	2
26	1488643	Label (H280HD)	2
27	170658	Rivet	2
28	2081196	Label (Flammable LP Gas)	1
29	a	Label (LP Tank Identifier)	1
30	2050044	Label (Cab Tilt Pump)	1
31	2082622	Label (LPG Fuse Box)	1
32	2043493	Label (Cab Tilt Warning)	1
33	2048063	Label (Lifting)	1
34	a	Label (Warranty)	1
35	1330920	Label (No Riders)	2
36	389692	Label (US Patents And Trademarks)	1
37	2075658	Label (Mast Warning)	2
38	1490398	Label (Hyster)	2
39	1346893	Label (Mast Warning)	2
40	1451416	Label (Door Release)	2

FOOTNOTES:

- a** Contact Your Local Hyster Dealer

LABELS (FIGURE 1-57)

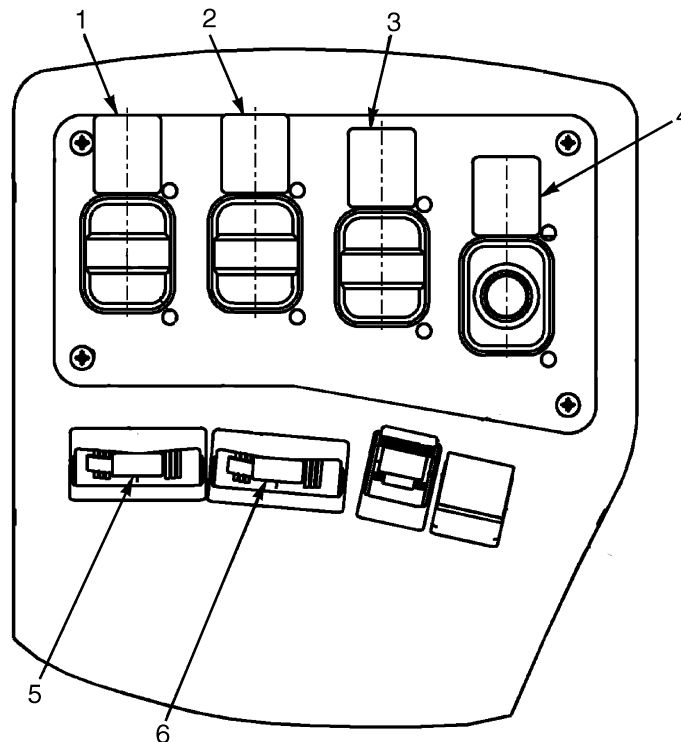
HYDRAULIC CONTROL — JOYSTICK



HP121123

ITEM	PART NO.	DESCRIPTION	QTY
1	2043469	Label (LH Fork) (With Side-Shift Fork Positioner)	1
2	2043471	Label (RH Fork) (With Side-Shift Fork Positioner)	1
2	2043472	Label (Auxiliary Function, Fork Spreader) (With Simultaneous Fork Positioner)	1
3	2058930	Label (Joystick Without Side-Shift)	1
3	2043801	Label (Joystick, With Suspension Hooks)	1

LABELS (FIGURE 1-58) **HYDRAULIC CONTROL — LEVERS**



BP121124

KEY:**A: Forklift Truck With Side-Shift Fork Positioner****B: Forklift Truck With Simultaneous Fork Positioner**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1301411	Label (Hoist)	1	1
2	1301410	Label (Tilt)	1	1
3	370258	Label (Auxiliary Function, Side-Shift)	1	..
3	370257	Label (Auxiliary Function, Rotate) (Optional Equipment)	1	1
4	370256	Label (Auxiliary Function, Clamp)	1	1
5	2043469	Label (LH Fork)	1	..
6	2043471	Label (RH Fork)	1	..
6	2043472	Label (Auxiliary Function, Fork Spreader)	..	1

2

ENGINE ASSEMBLY

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ENGINE ASSEMBLY**

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VALVE TAPPETS	
CUMMINS DIESEL	2-131

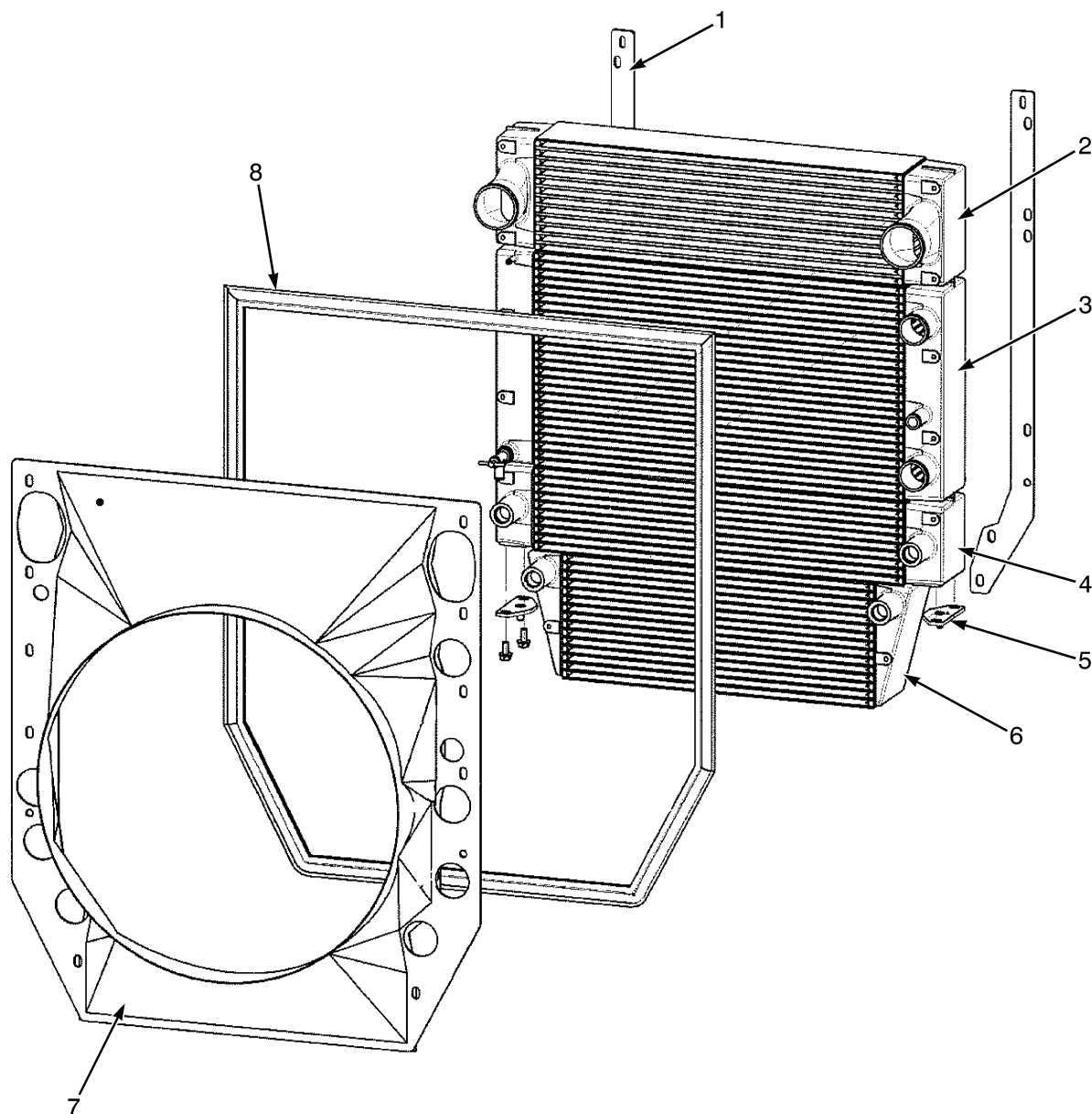
**SECTION 2
ENGINE ASSEMBLY**

DESCRIPTION	PAGE
VIBRATION DAMPER	
CUMMINS DIESEL	2-132
CUMMINS LPG	2-76
WATER INLET CONNECTION	
CUMMINS LPG	2-78
WATER OUTLET CONNECTION	
CUMMINS DIESEL	2-133
CUMMINS LPG	2-79
WATER PUMP	
CUMMINS DIESEL	2-134
CUMMINS LPG	2-80
WATER PUMP DRIVE	
CUMMINS DIESEL	2-135

NOTES

[illegible]

RADIATOR ASSEMBLY (FIGURE 2-1)



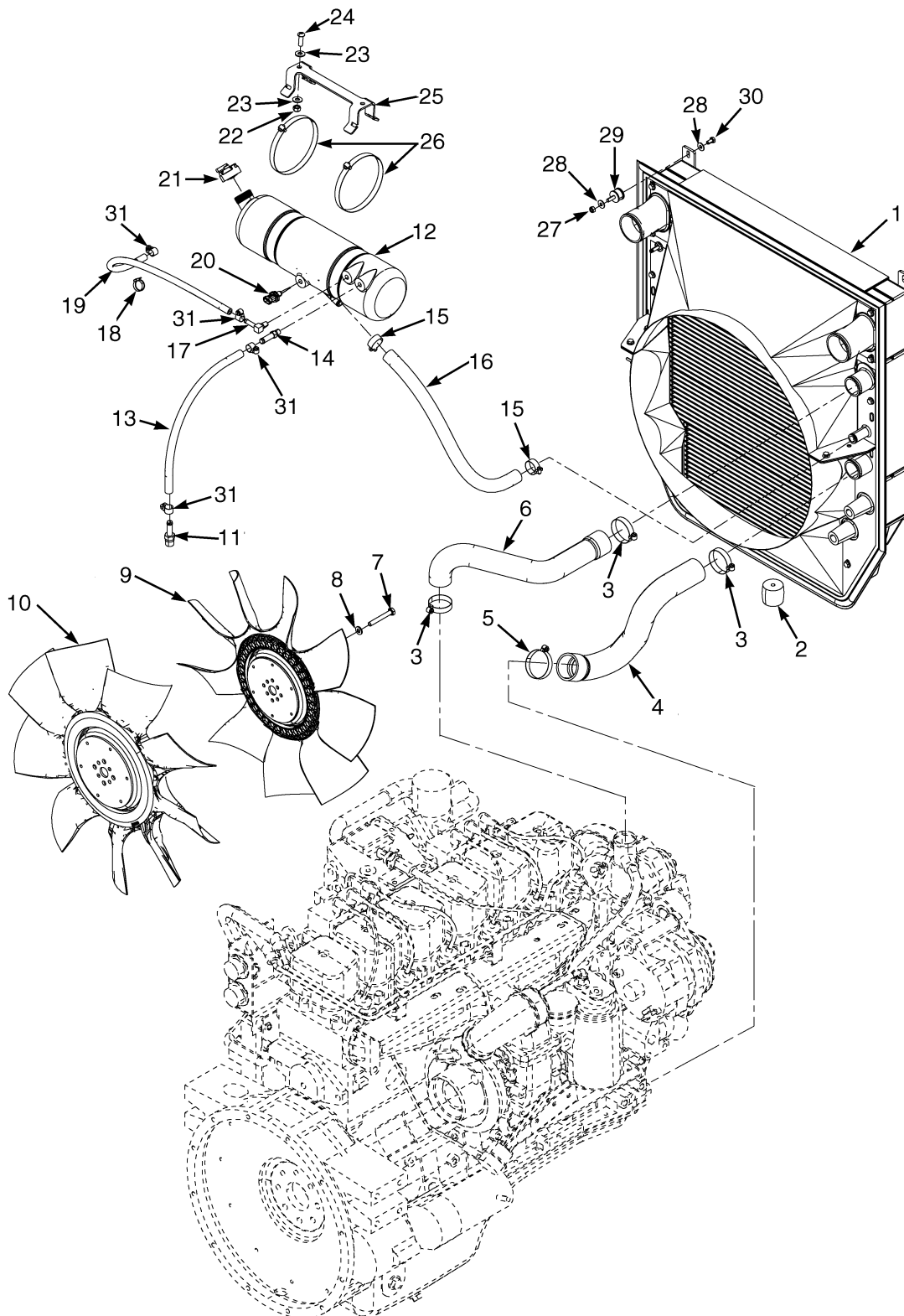
HP060072

RADIATOR ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	a 2097016	Cooler	1
	b 2101590	Radiator	1
1	1663786	Plate	2
2	a 2097384	Cooler	1
2	b 2101592	Air Cooler	1
3	a 2097017	Radiator	1
3	b 2101591	Cooler	1
3	1677294	Drain Valve	1
4		Hydraulic Oil Cooler	1
5	1663785	Plate	2
6	2097386	Oil Cooler	1
7	1677295	Shroud	1
7	2097387	Shroud	1
7	1677296	Nut	2
7	1677298	Clip	1
8	1677297	Seal	1

FOOTNOTES:**a** → S/N H007E01789E**b** S/N H007E01790E →

COOLING SYSTEM (FIGURE 2-2) LPG



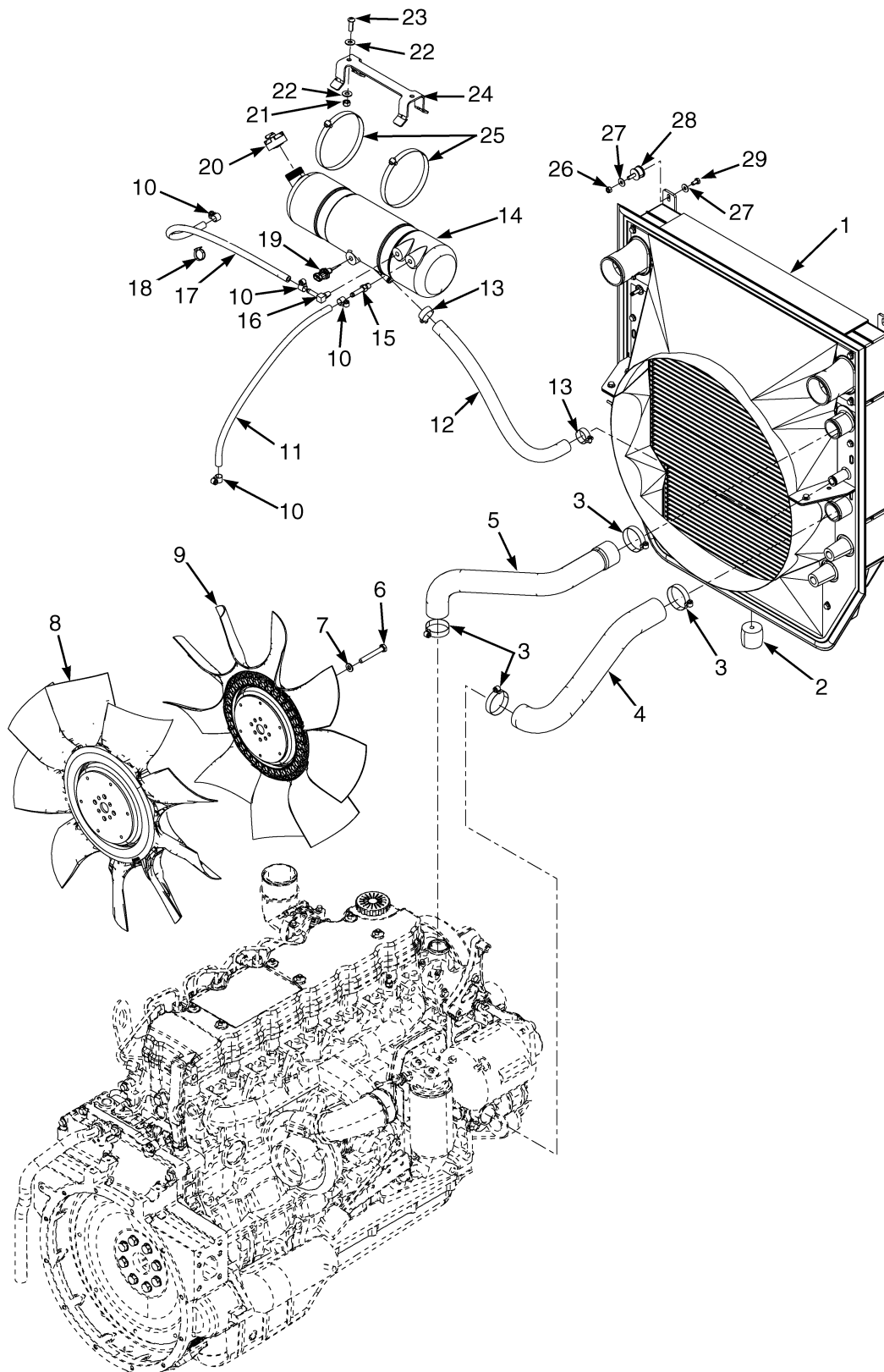
HP091436

**COOLING SYSTEM
LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	a 2097016	Cooler (☞ Figure 2-1).....	1
1	b 2101590	Radiator	1
2	376649	Isolator	2
3	119236	Clamp	3
4	1658272	Radiator Hose (Coolant)	1
5	112989	Hose Clamp	1
6	1658271	Radiator Hose (Coolant)	1
7	136718	Capscrew	8
8	320159	Washer	8
9	1629351	Fan (Puller)	1
10	1649438	Fan (Pusher)	1
11	222473	Fitting	1
12	2088036	Reservoir	1
13	78462	Hose	1
14	109417	Fitting	1
15	127045	Clamp (Hose)	2
16	2099775	Radiator Hose	1
17	a 192306	Fitting	1
17	b 17353	Fitting	1
18	129563	Strap Clamp	1
19	a 1673562	Hose	1
19	b 1659021	Hose (Low Pressure)	1
20	1531404	Sensor (Low Coolant Level)	1
21	1634889	Radiator Cap	1
22	302401	Locknut	2
23	1581558	Washer	4
24	1597444	Capscrew	2
25	1635188	Bracket	1
26	144157	Hose Clamp	2
27	302400	Nut	2
28	320158	Washer	4
29	353453	Mount	2
30	287851	Capscrew	2
31	166857	Clamp	4

FOOTNOTES:**a** → S/N H007E01789E**b** S/N H007E01790E →

COOLING SYSTEM (FIGURE 2-3) DIESEL



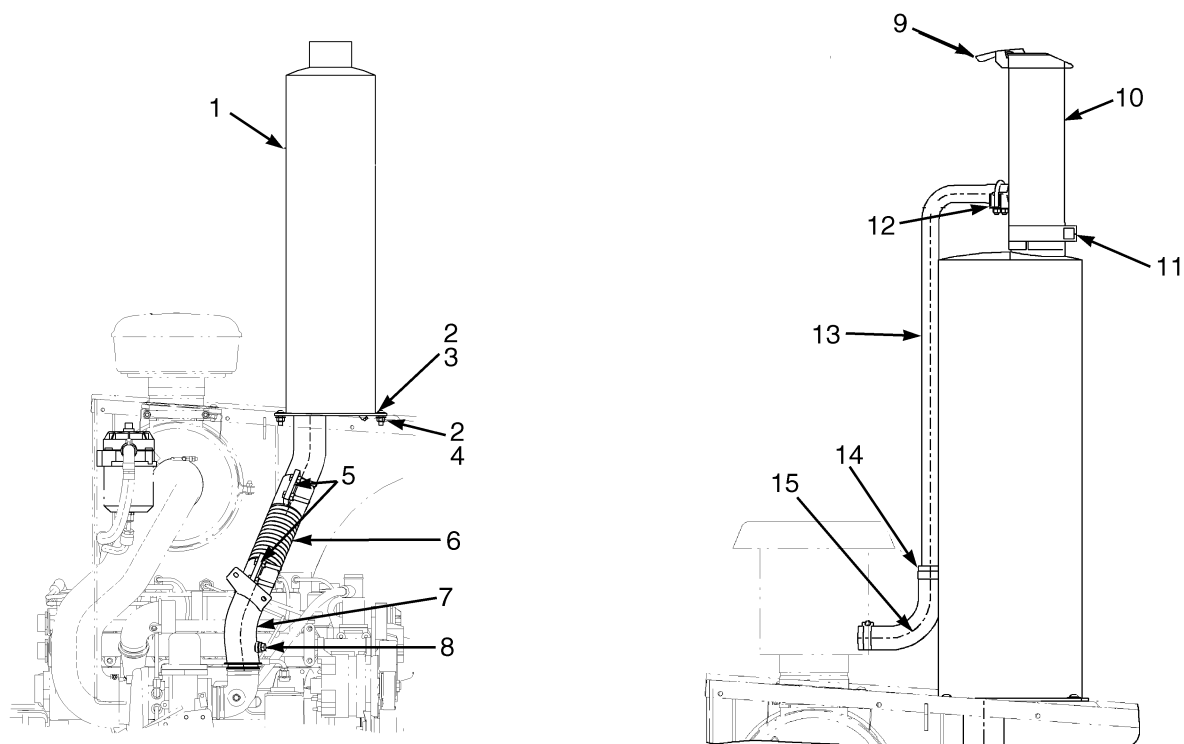
HP091435

**COOLING SYSTEM
DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	a 2097016	Cooler (☞ Figure 2-1).....	1
1	b 2101590	Radiator	1
2	376649	Isolator	2
3	119236	Clamp	4
4	1657357	Radiator Hose (Coolant)	1
5	1657358	Radiator Hose (Coolant)	1
6	136718	Capscrew	8
7	320159	Washer	8
8	1649438	Fan (Pusher)	1
9	1629351	Fan (Puller)	1
10	166857	Clamp	4
11	1659020	Hose (Low Pressure)	1
12	2099775	Radiator Hose	1
13	127045	Clamp (Hose)	2
14	2088036	Reservoir	1
15	17352	Fitting	1
16	a 192306	Fitting	1
16	b 17353	Fitting	1
17	a 1673562	Hose	1
17	b 1659021	Hose (Low Pressure)	1
18	129563	Strap Clamp	1
19	1531404	Sensor (Low Coolant Level)	1
20	1634889	Radiator Cap	1
21	302401	Locknut	2
22	1581558	Washer	4
23	1597444	Capscrew	2
24	1635188	Bracket	1
25	144157	Hose Clamp	2
26	302400	Nut	2
27	320158	Washer	4
28	353453	Mount	2
29	287851	Capscrew	2

FOOTNOTES:**a** → S/N H007E01789E**b** S/N H007E01790E →

EXHAUST SYSTEM (FIGURE 2-4) LPG

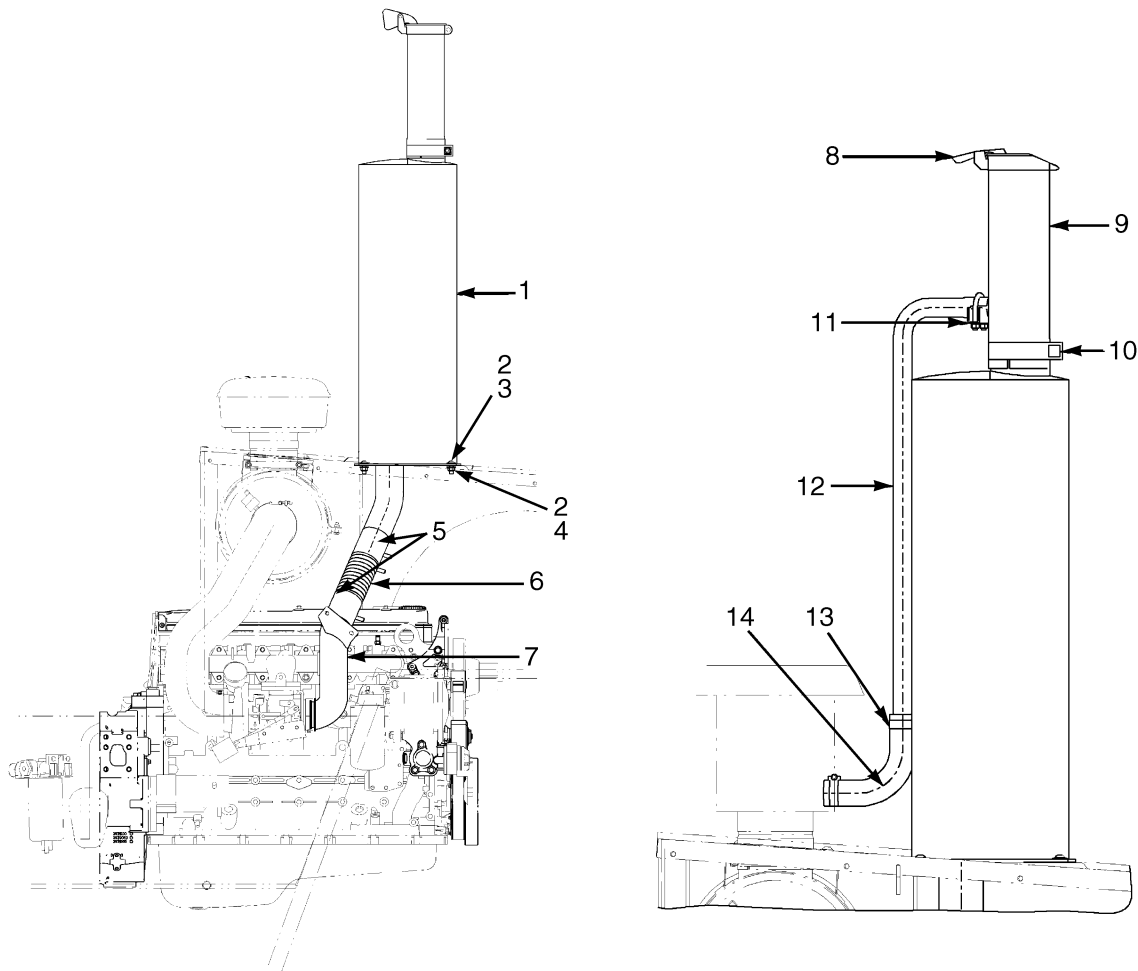


HP091433

EXHAUST SYSTEM
LPG**KEY:****A: Standard Configuration****B: Exhaust Extension Option****C: Exhaust Extension Option With Aspirated Pre-Cleaner Option**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	2092542	Muffler	1	1	1
2	1581558	Washer	8	8	8
3	1597444	Capscrew	4	4	4
4	302401	Locknut	4	4	4
5	270826	Clamp	2	2	2
6	1544774	Flex Tube	1	1	1
7	1635088	Exhaust Pipe	1	1	1
8	1396518	Plug	1	1	1
8	1509103	Ring (Copper)	1	1	1
8	1509104	Plug	1	1	1
9	1305839	Rain Cap	..	1	1
10	1658854	Exhaust Pipe	..	1	..
10	1658850	Exhaust Pipe	..	..	1
11	1658856	Clamp	..	1	1
12	69854	Clamp	..	..	1
13	1610665	Tube	..	..	1
14	127045	Clamp (Hose)	..	..	2
15	1610667	Hose	..	..	1

EXHAUST SYSTEM (FIGURE 2-5) DIESEL

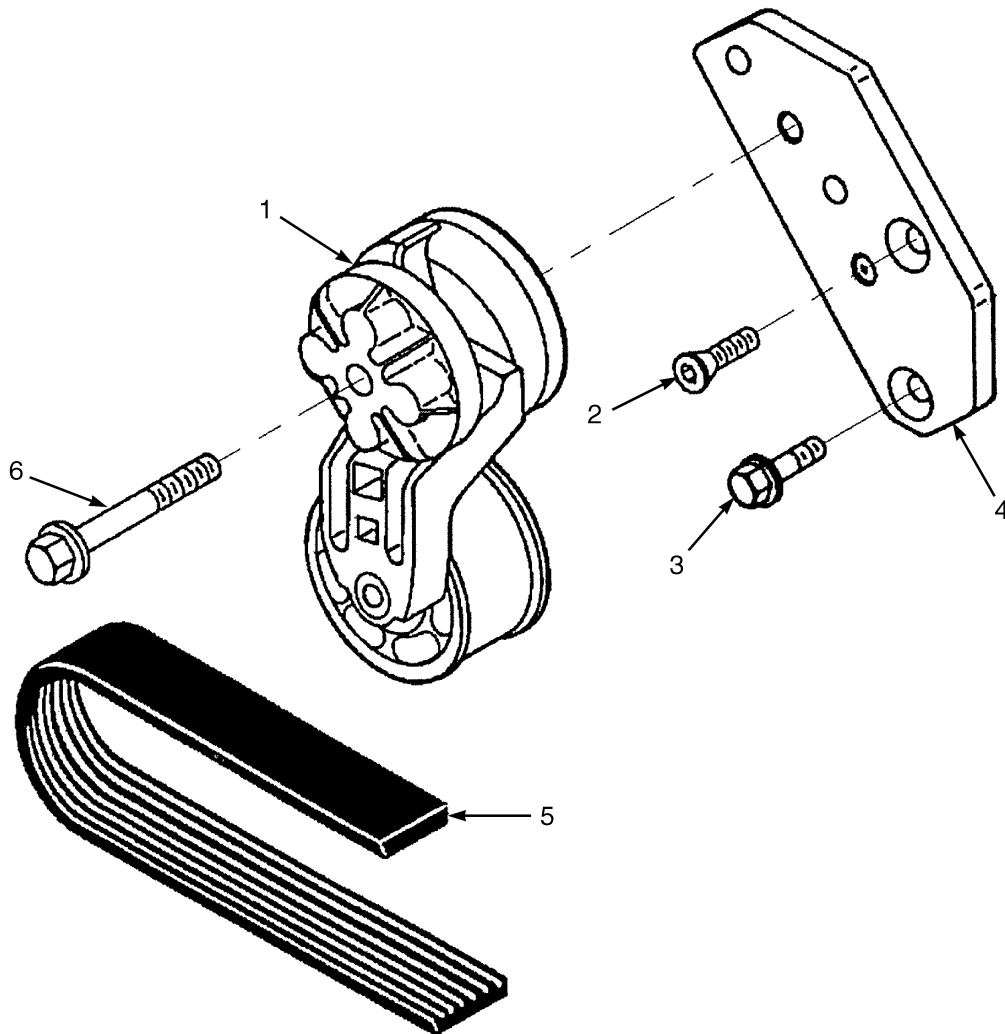


HP091434

**EXHAUST SYSTEM
DIESEL****KEY:****A: Standard Configuration****B: Exhaust Extension Option****C: Exhaust Extension Option With Aspirated Pre-Cleaner Option**

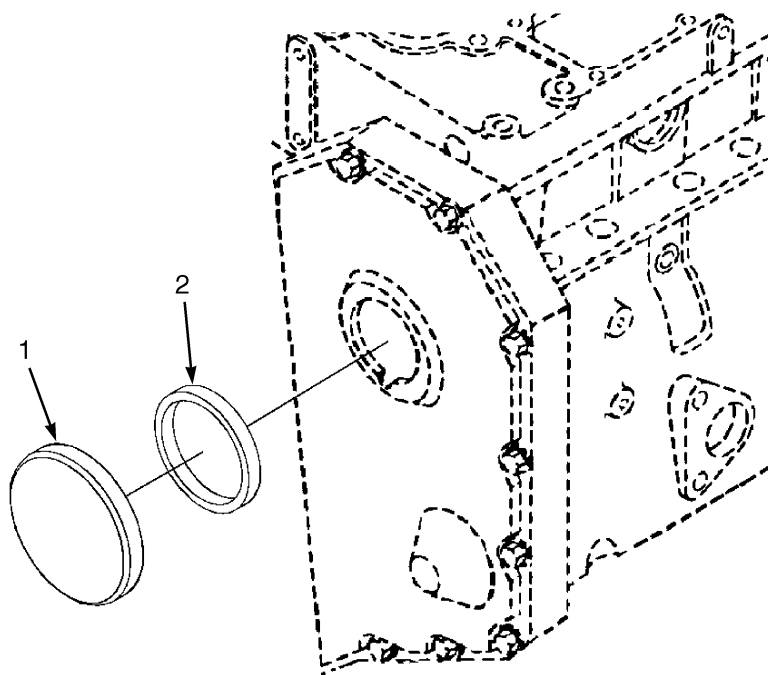
ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	2087632	Muffler	1	1	1
2	1581558	Washer	8	8	8
3	1597444	Capscrew	4	4	4
4	302401	Locknut	4	4	4
5	270826	Clamp	2	2	2
6	1544774	Flex Tube	1	1	1
7	1626931	Exhaust Pipe	1	1	1
8	1305839	Rain Cap	..	1	1
9	1658854	Exhaust Pipe	..	1	..
9	1658850	Exhaust Pipe	..	..	1
10	1658856	Clamp	..	1	1
11	69854	Clamp	..	..	1
12	1610665	Tube	..	..	1
13	127045	Clamp (Hose)	..	..	2
14	1610667	Hose	..	..	1

ACCESSORY DRIVE BELT AND TENSIONER (FIGURE 2-6) CUMMINS LPG



BP080439

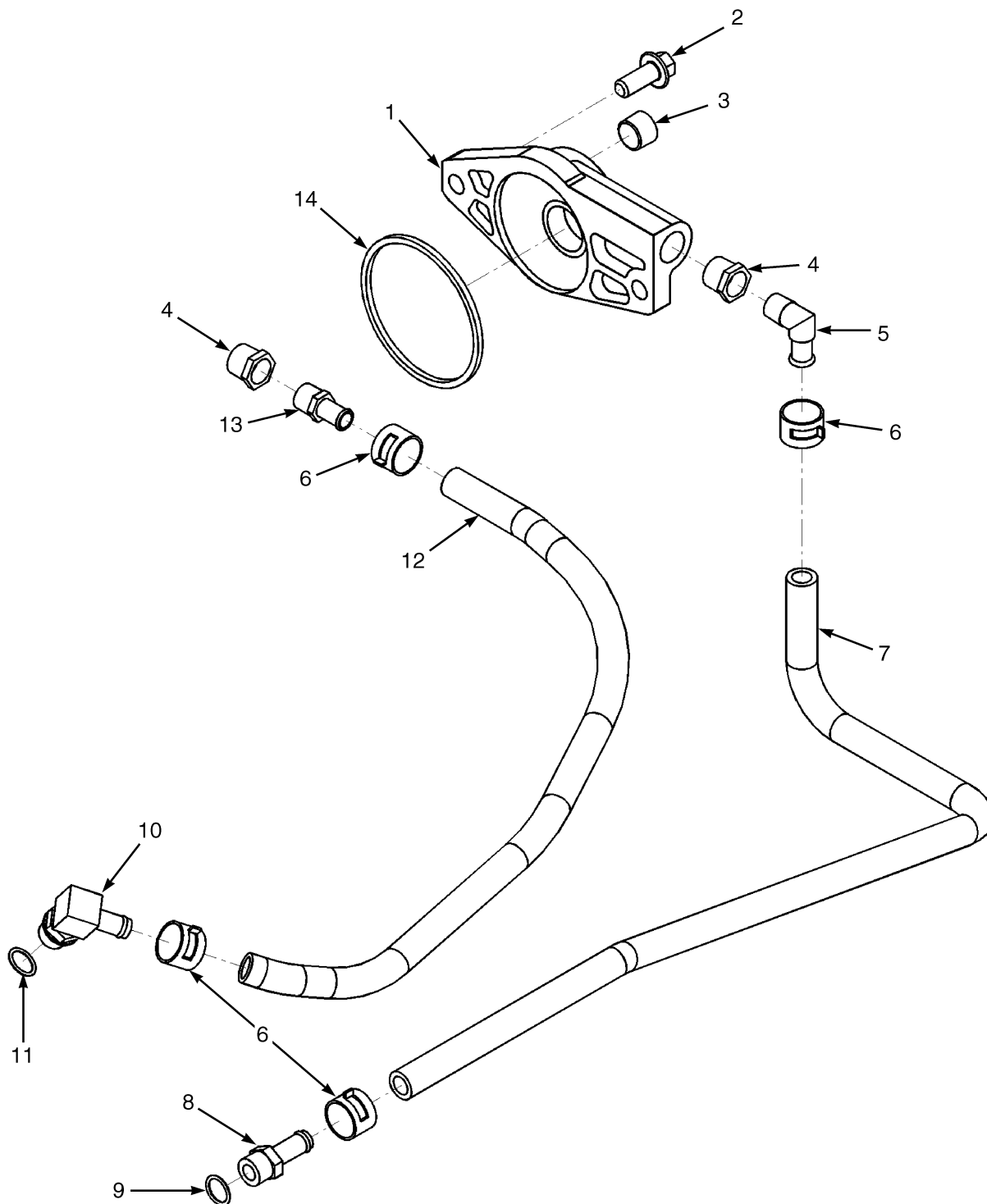
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614627	Belt Tensioner	1
2	1514359	Screw	1
3	1512005	Capscrew	1
4	1614546	Bracket	1
5	1614464	V-Belt	1
6	1614515	Capscrew	1

**ACCESSORY HOLE COVER (FIGURE 2-7)
CUMMINS LPG**

BP090239

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512011	Cover	1
2	1512012	Sealing Ring	1

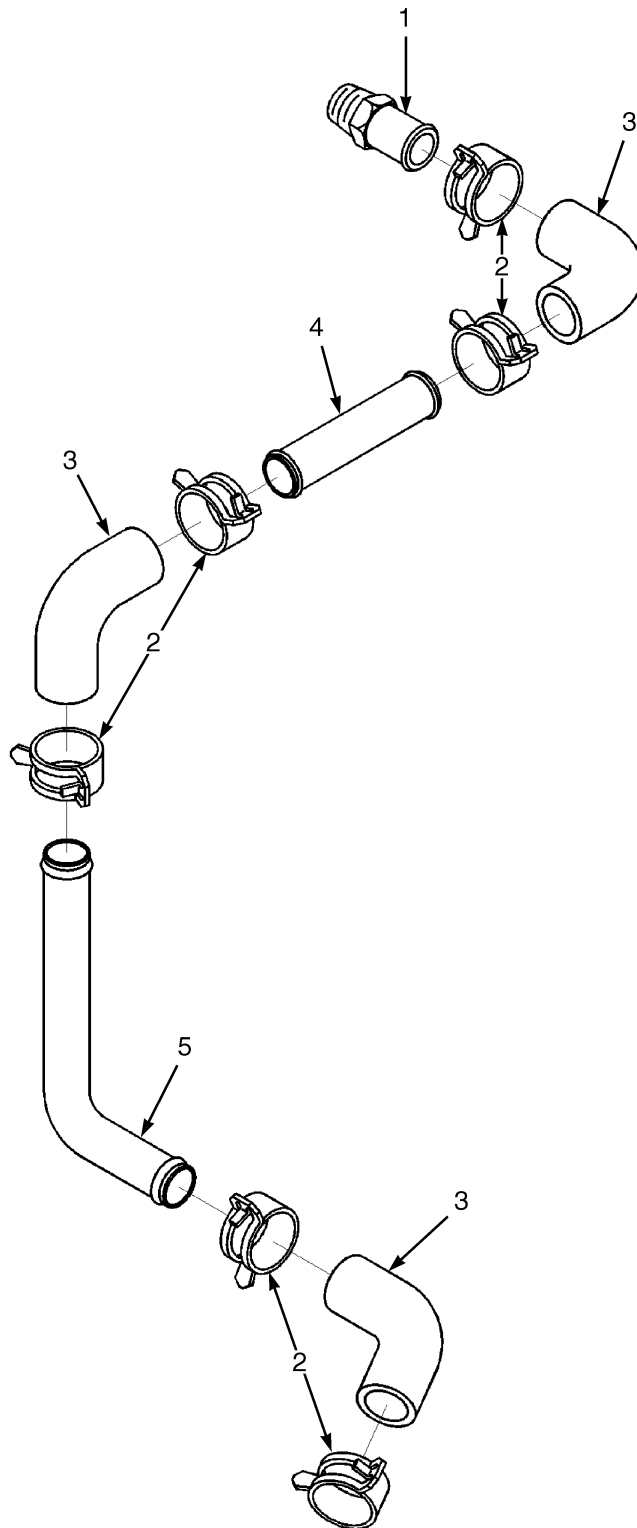
AIR COMPRESSOR COOLANT PLUMBING (FIGURE 2-8) CUMMINS LPG



BP090231

**AIR COMPRESSOR COOLANT PLUMBING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1511959	Connector	1
2	1511953	Capscrew	2
3	1511952	Fitting	1
4	1511956	Bushing	2
5	1511958	Coupling	1
6	1511955	Hose Clamp	4
7	1511963	Hose	1
8	1511962	Coupling	1
9	1511961	O-Ring	1
10	1512443	Coupling	1
11	1511961	O-Ring	1
12	1511960	Hose	1
13	1662038	Coupling	1
14	1511954	Sealing Ring	1

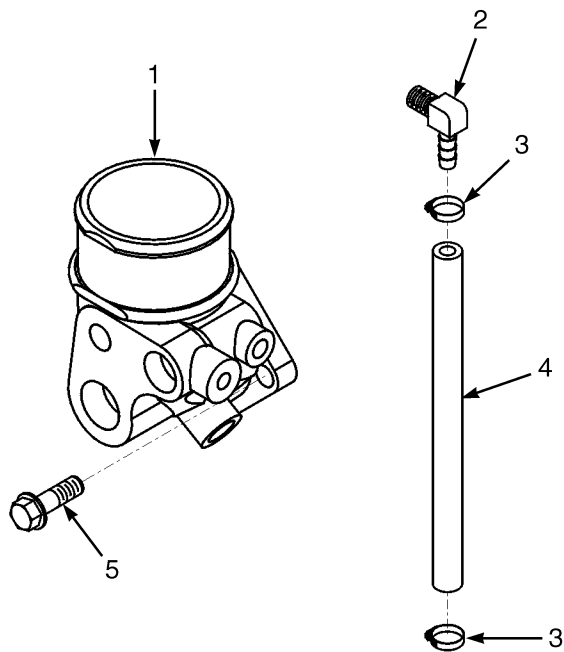
**AIR COMPRESSOR INLET CONNECTION (FIGURE 2-9)
CUMMINS LPG**

BP090232

**AIR COMPRESSOR INLET CONNECTION
CUMMINS LPG**

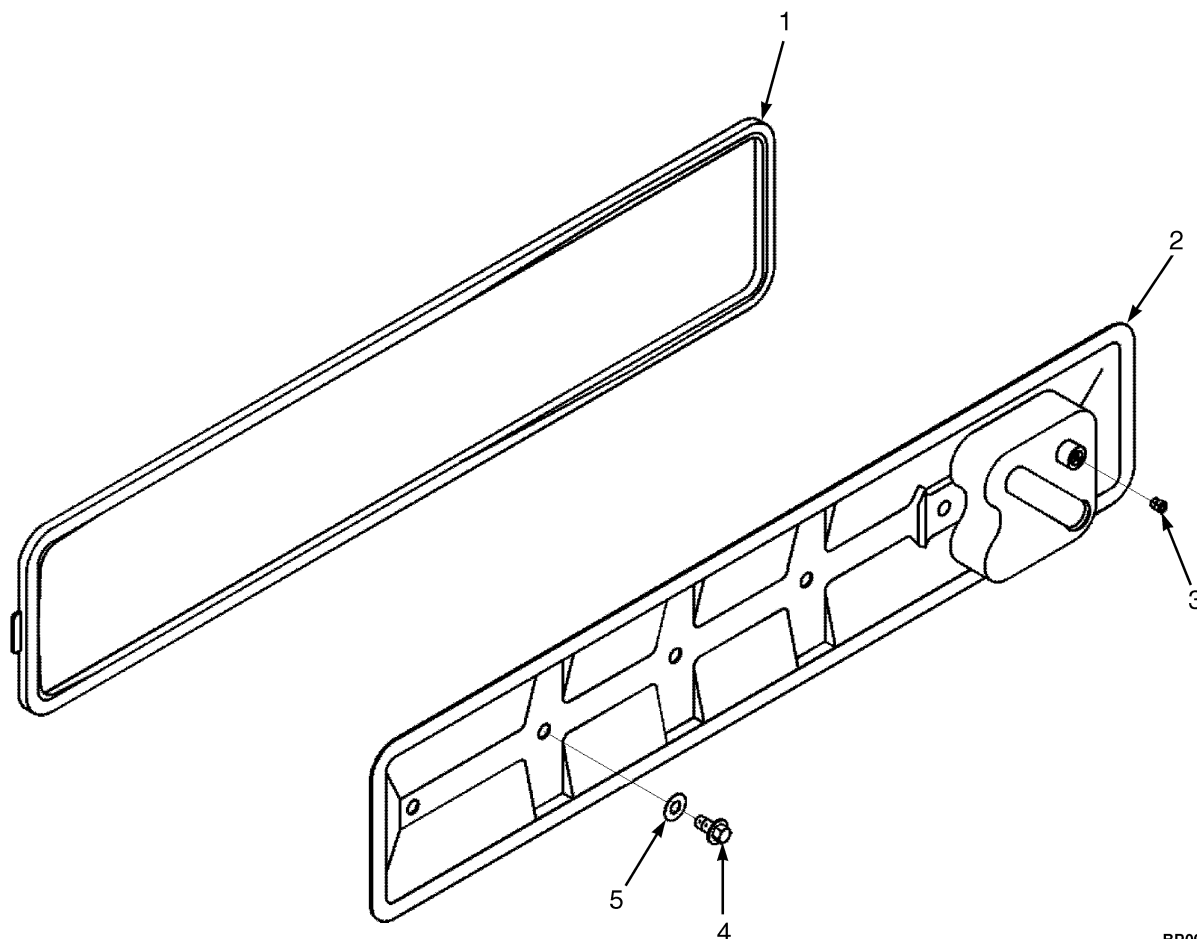
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1511966	Coupling	1
2	1618998	Hose Clamp	6
3	1618997	Hose	3
4	1618999	Tube	1
5	1619000	Tube	1

AIR INTAKE CONNECTION (FIGURE 2-10) CUMMINS LPG



BP090242

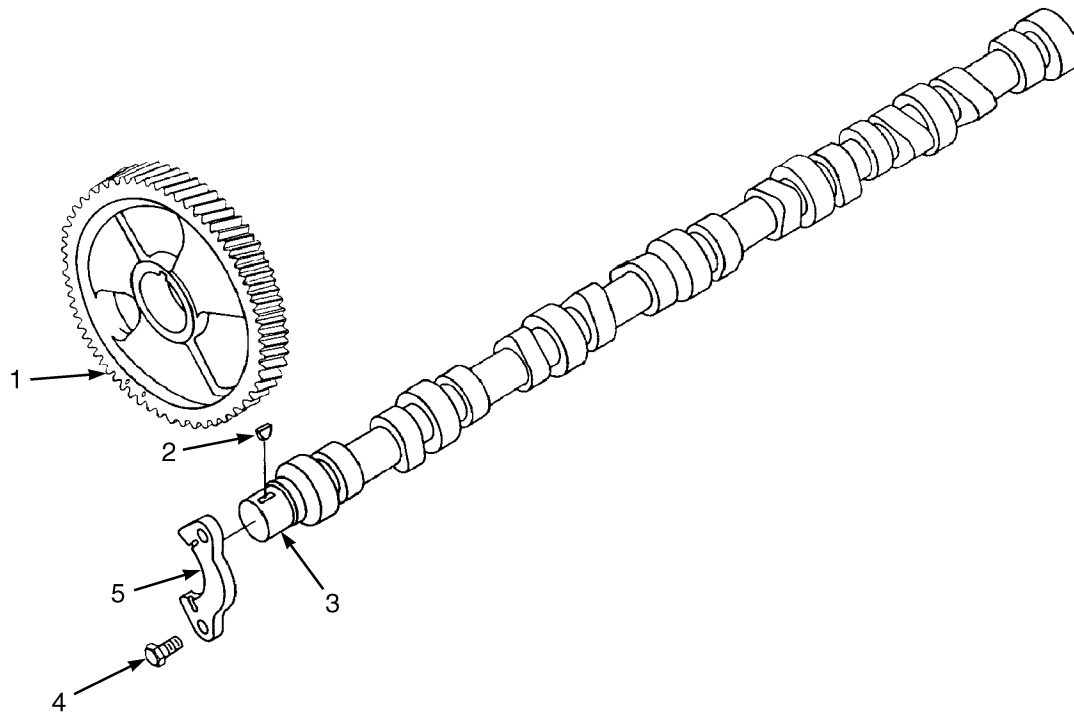
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614597	Connector	1
2	1614549	Coupling	1
3	1612804	Clamp	2
4	1614631	Hose	1
5	1512005	Capscrew	3

**CAM FOLLOWER COVER (FIGURE 2-11)
CUMMINS LPG**

BP090233

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1511974	Gasket	1
2	1614628	Cover	1
3	1513191	Fitting	1
4	1511970	Capscrew	6
5	1511969	Seal	6

CAMSHAFT (FIGURE 2-12) CUMMINS LPG



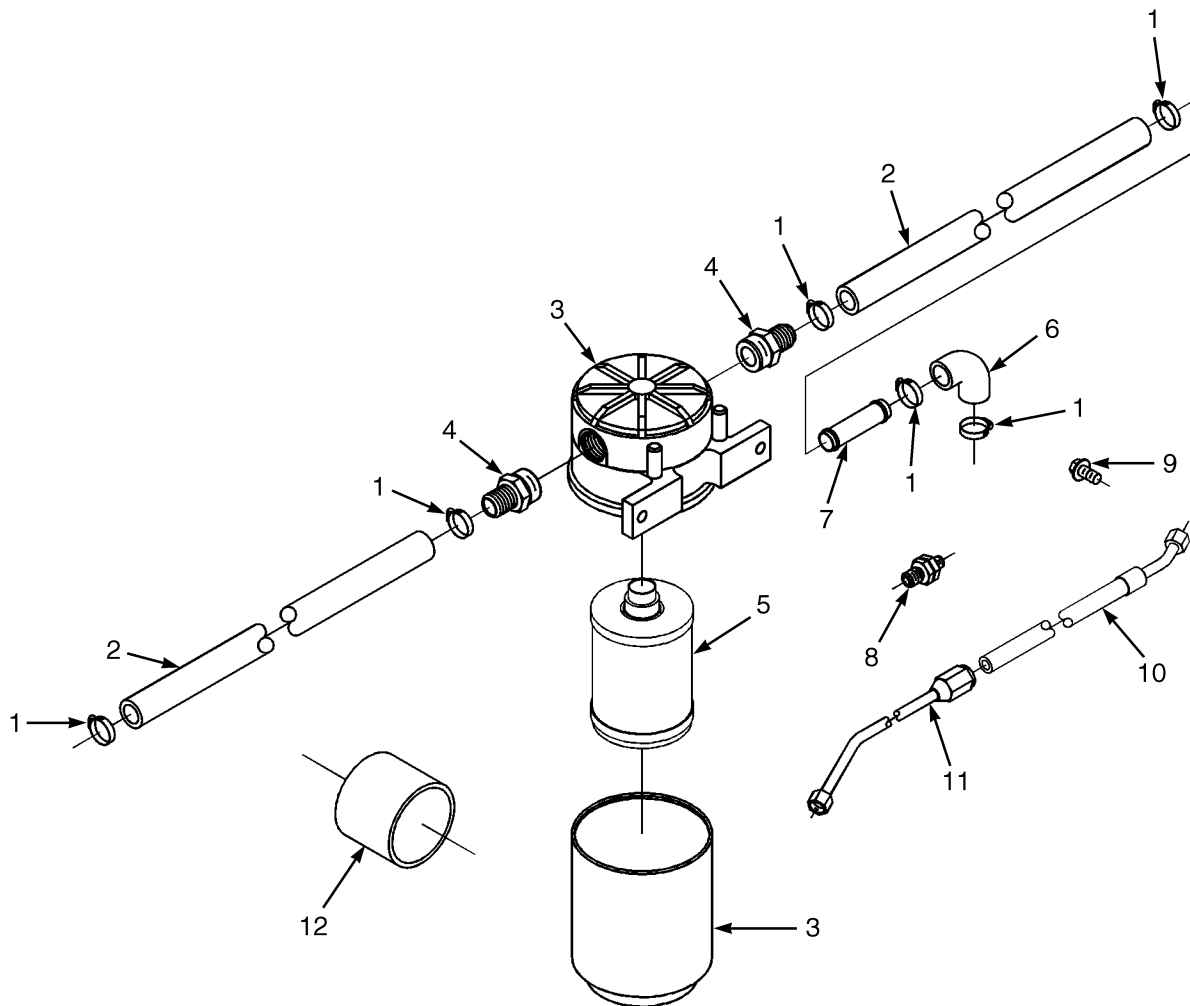
BP090246

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614607	Gear	1
2	1512161	Woodruff Key	1
3	1614551	Camshaft	1
4	1512163	Capscrew	2
5	1512164	Support	1

NOTES

[illegible]

CRANKCASE BREATHER (FIGURE 2-13) CUMMINS LPG

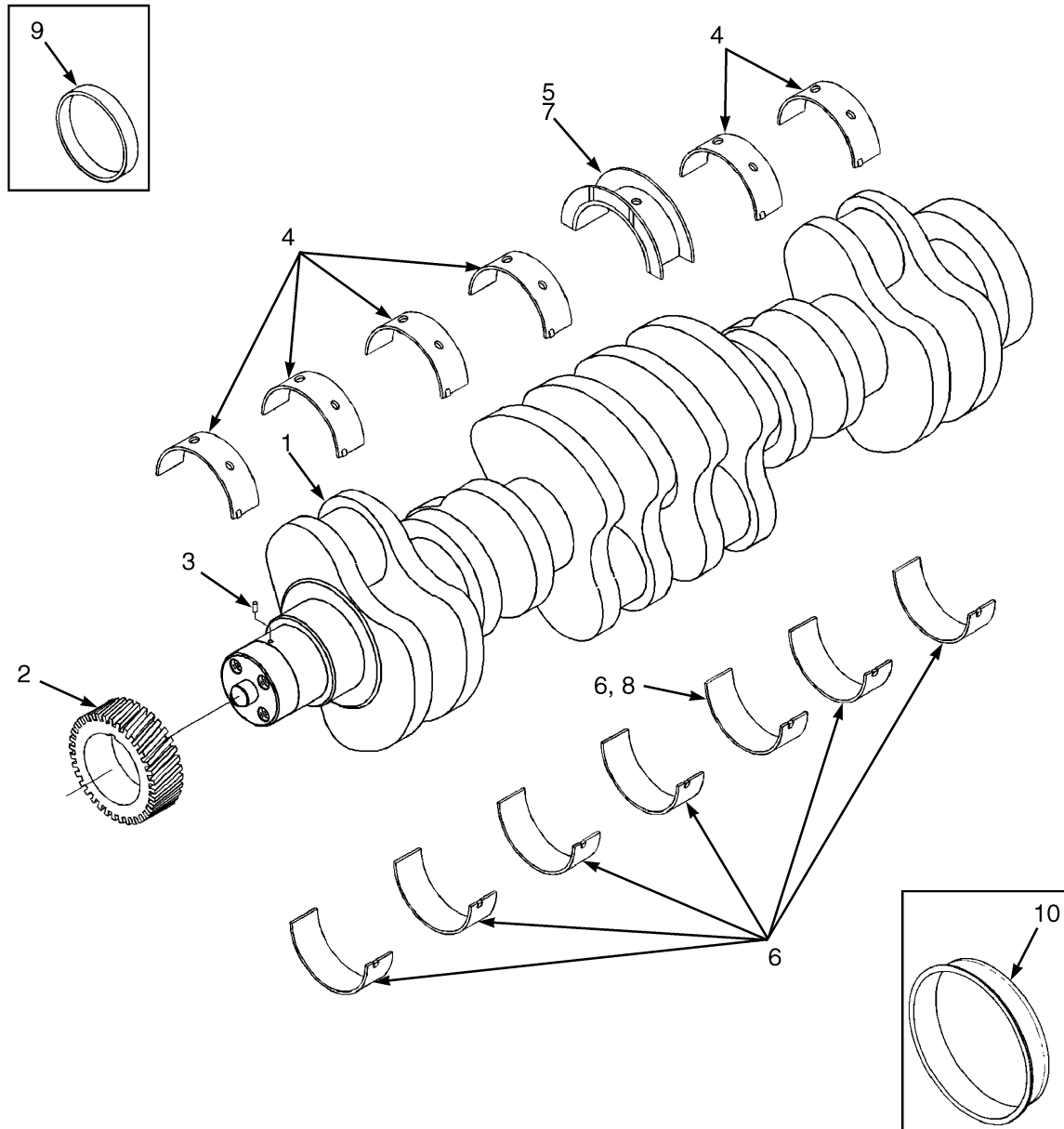


BP090230

**CRANKCASE BREATHER
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614524	Hose Clamp	10
2	1614572	Hose	2
3	1614568	Breather (Top)	1
3	1614489	Breather (Bottom)	1
4	1618220	Adapter	2
5	1614488	Breather	1
6	1614583	Hose (Elbow)	2
7	1614569	Tube (Coupling)	2
8	1614490	Check Valve	1
9	1512328	Capscrew	1
10	1614573	Hose	1
11	1614574	Connector	1
12	1614312	Hose	1

CRANKSHAFT AND MAIN BEARINGS (FIGURE 2-14) CUMMINS LPG



HP091188

**CRANKSHAFT AND MAIN BEARINGS
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1		Crankshaft	1
2	1521701	Gear	1
3	1514346	Dowel	1
4	1543317	Bearing (Standard)	6
4	1696674	Bearing (Standard) (Alternate Part)	6
4	1585002	Bearing (0.25 mm O/S)	6
4	1584992	Bearing (0.50 mm O/S)	6
4	1707620	Bearing (0.50 mm O/S) (Alternate Part)	6
4	1584995	Bearing (0.75 mm O/S)	6
4	1585000	Bearing (1.00 mm O/S)	6
4	1708511	Bearing (Alternate Part)	6
4	4007946	Bearing (Alternate Part)	6
5	1543316	Thrust Bearing (Standard)	1
5	1707004	Thrust Bearing (Alternate Part)	1
5	1584990	Crankshaft Bearing (0.010 in.)	1
5	1584993	Thrust Bearing (0.020 in.)	1
5	1707621	Thrust Bearing (Alternate Part)	1
5	1584996	Thrust Bearing (0.030 in.)	1
5	1584999	Thrust Bearing (0.040 in.)	1
5	1708512	Thrust Bearing (Alternate Part)	1
5	1707004	Thrust Bearing (Alternate Part)	1
5	4007945	Thrust Bearing (Alternate Part)	1
6	1543318	Bearing (Standard)	7
6	1696675	Bearing (Standard) (Alternate Part)	7
6	1584991	Bearing (.010 in.)	7
6	1584994	Bearing (.020 in.)	7
6	1707622	Bearing (0.50 mm O/S) (Alternate Part)	7
6	1584997	Bearing (.030 in.)	7
6	4007468	Bearing (Alternate Part)	7
6	1584998	Bearing (.040 in.)	7
6	1708513	Bearing (1.00 mm) (Alternate Part)	7
7	1584993	Thrust Bearing (0.020 in.)	1
7	1584999	Thrust Bearing (0.040 in.)	1
8	1584994	Bearing (.020 in.)	1
8	1584998	Bearing (.040 in.)	1
9	1554045	Kit-Wear Sleeve (Front)	1
10	1514354	Kit-Wear Sleeve (Rear)	1
	1635239	Kit-Crankshaft Bearing (Standard)	1
	4007469	Bearing Set (Alternate Part)	1
	1521705	Bearing Set (.010 in.)	1
	1708510	Bearing Set (.040 in.) (Alternate Part)	1
	4007075	Bearing Set (.010 in.) (Alternate Part)	1
	1521706	Bearing Set (.020 in.)	1
	1707619	Bearing Set (0.50 mm O/S) (Alternate Part)	1
	1521707	Bearing Set (.030 in.)	1
	4007466	Bearing Set (.030 in.) (Alternate Part)	1
	1521708	Bearing Set (.040 in.)	1

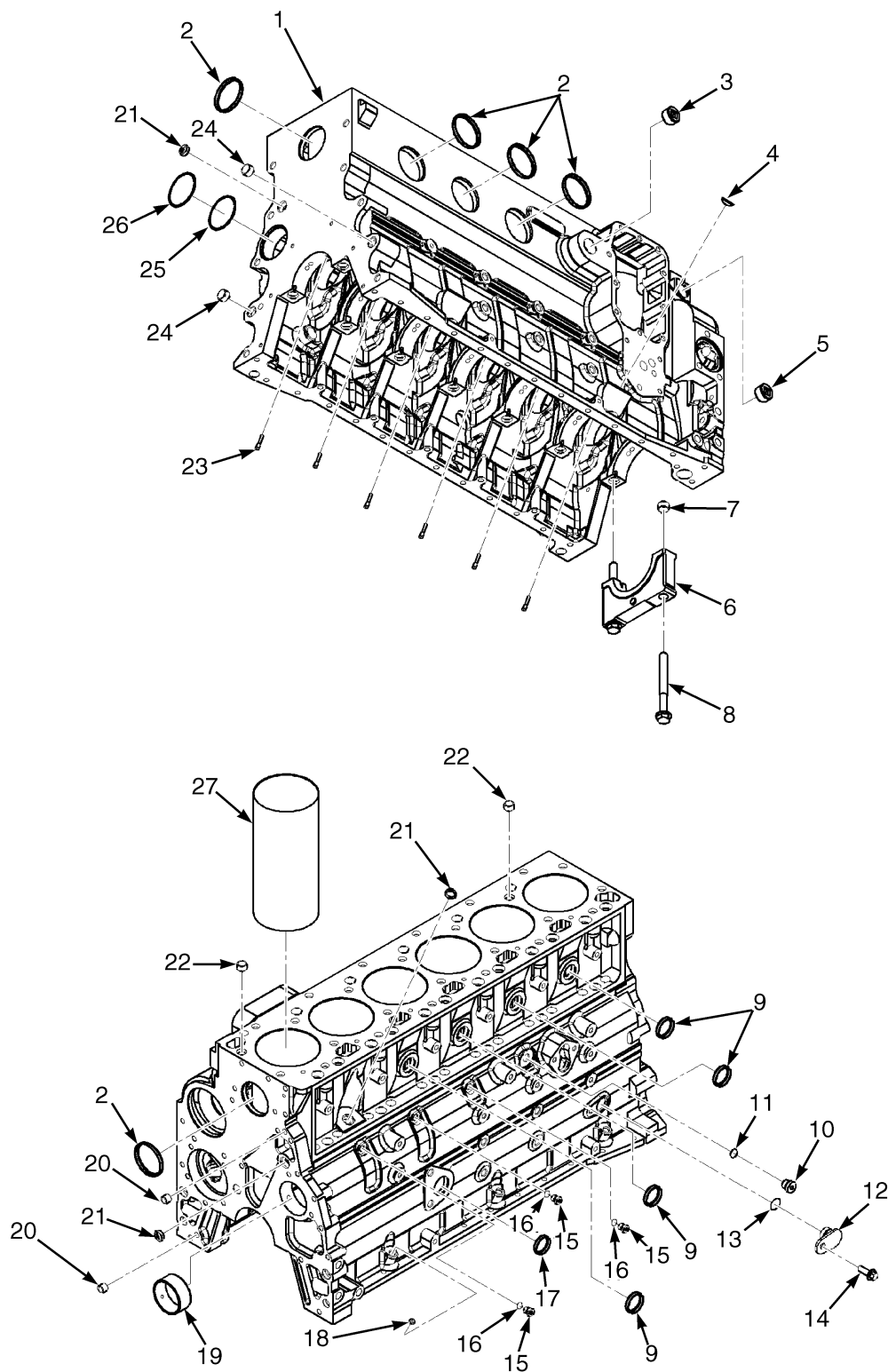
**CRANKSHAFT AND MAIN BEARINGS
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	1708510	Bearing Set (.040 in.) (Alternate Part)	1
	1635243	Thrust Bearing (0.50 mm Oversize)	1
	1635244	Thrust Bearing (1.00 mm Oversize)	1

NOTES

[illegible]

CYLINDER BLOCK (FIGURE 2-15) CUMMINS LPG

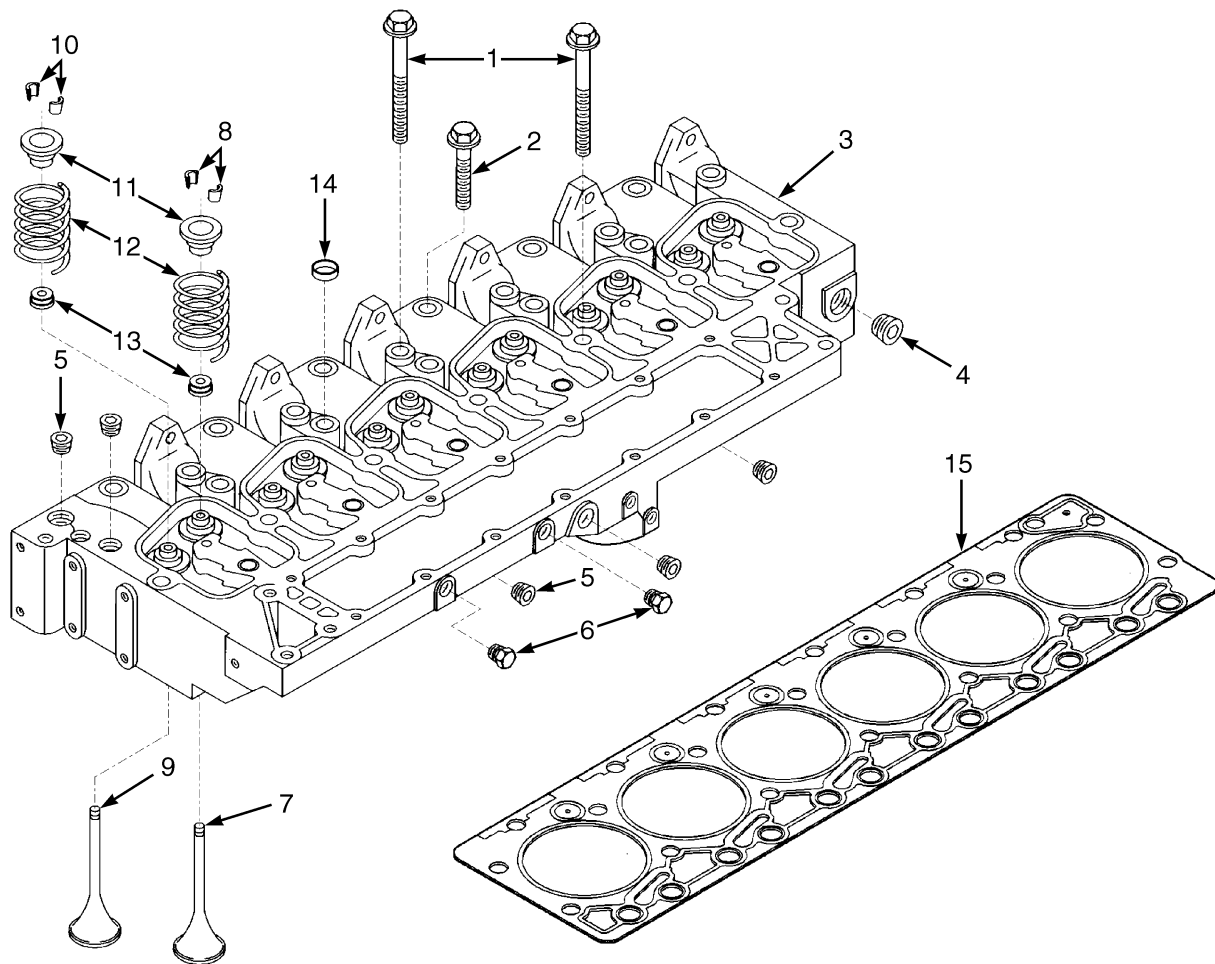


HP091187

**CYLINDER BLOCK
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1589514	Cylinder Block	1
2	1514542	Plug	5
3	1512292	Plug	1
4	1514339	Plug	2
5	1511952	Fitting	1
6	1635307	Cap (Main Bearing)	7
7	1521685	Ring	2
8	1521683	Capscrew	14
9	1512585	Plug	4
10	1521695	Plug	1
11	1517119	O-Ring	1
12	1521697	Fitting	1
13	1543321	Sealing Ring	1
14	1511970	Capscrew	1
15	1517010	Plug	3
16	1517011	O-Ring	1
17	1521694	Plug	1
18	1512130	Plug	3
19	1521682	Bushing	1
20	1513878	Dowel	2
21	1512304	Plug	3
22	1521691	Ring	2
23	1521692	Nozzle	6
24	1521685	Ring	2
25	1521696	O-Ring	1
26	1521693	Plug	1
27	1585284	Sleeve	AR
	1521686	Kit-Cylinder Block	1

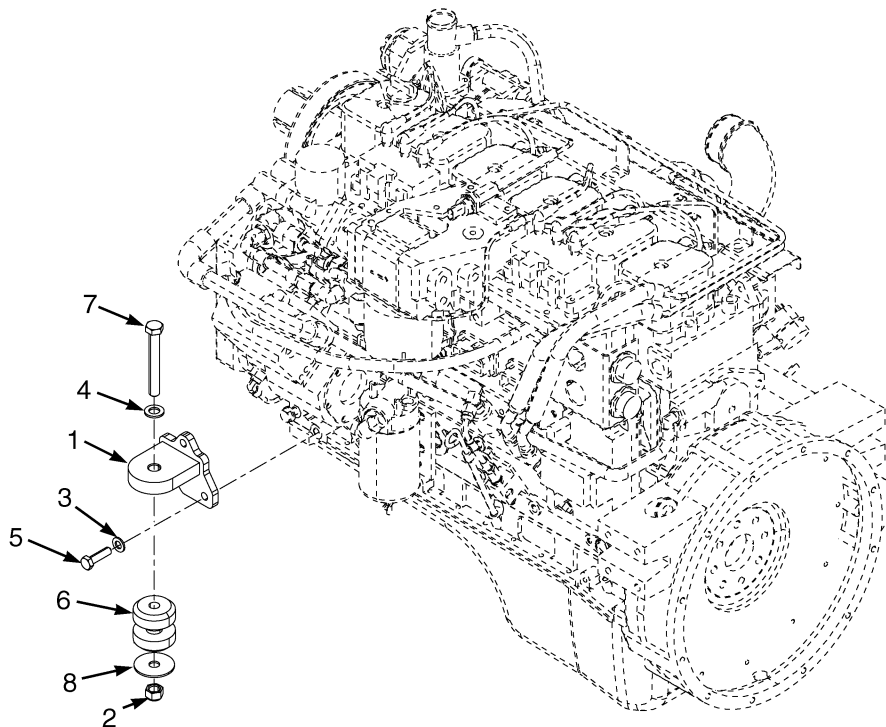
CYLINDER HEAD (FIGURE 2-16) CUMMINS LPG



**CYLINDER HEAD
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1543451	Screw	14
2	1543450	Screw	6
3	1615829	Cylinder Head	1
4	1512292	Plug	1
5	1511952	Fitting	2
6	1512448	Fitting	2
7	1614493	Exhaust Valve	6
8	1517185	Keeper	12
9	1614492	Inlet Valve (Intake)	6
10	1517185	Keeper	12
11	1588104	Retainer	12
12	1614504	Spring	12
13	1543455	Seal (Valve Stem)	12
14	1597817	Plug	5
15	1618648	Cylinder Head Gasket (Standard)	1
15	1638854	Cylinder Head Gasket (0.25 mm, OS)	1
15	1638852	Cylinder Head Gasket (0.50 mm, OS)	1
	1511952	Fitting (0.5 NPT)	3
	1512292	Plug (0.75 NPT)	1
	1588087	Kit-Gasket	1

ENGINE MOUNT (FIGURE 2-17) CUMMINS LPG



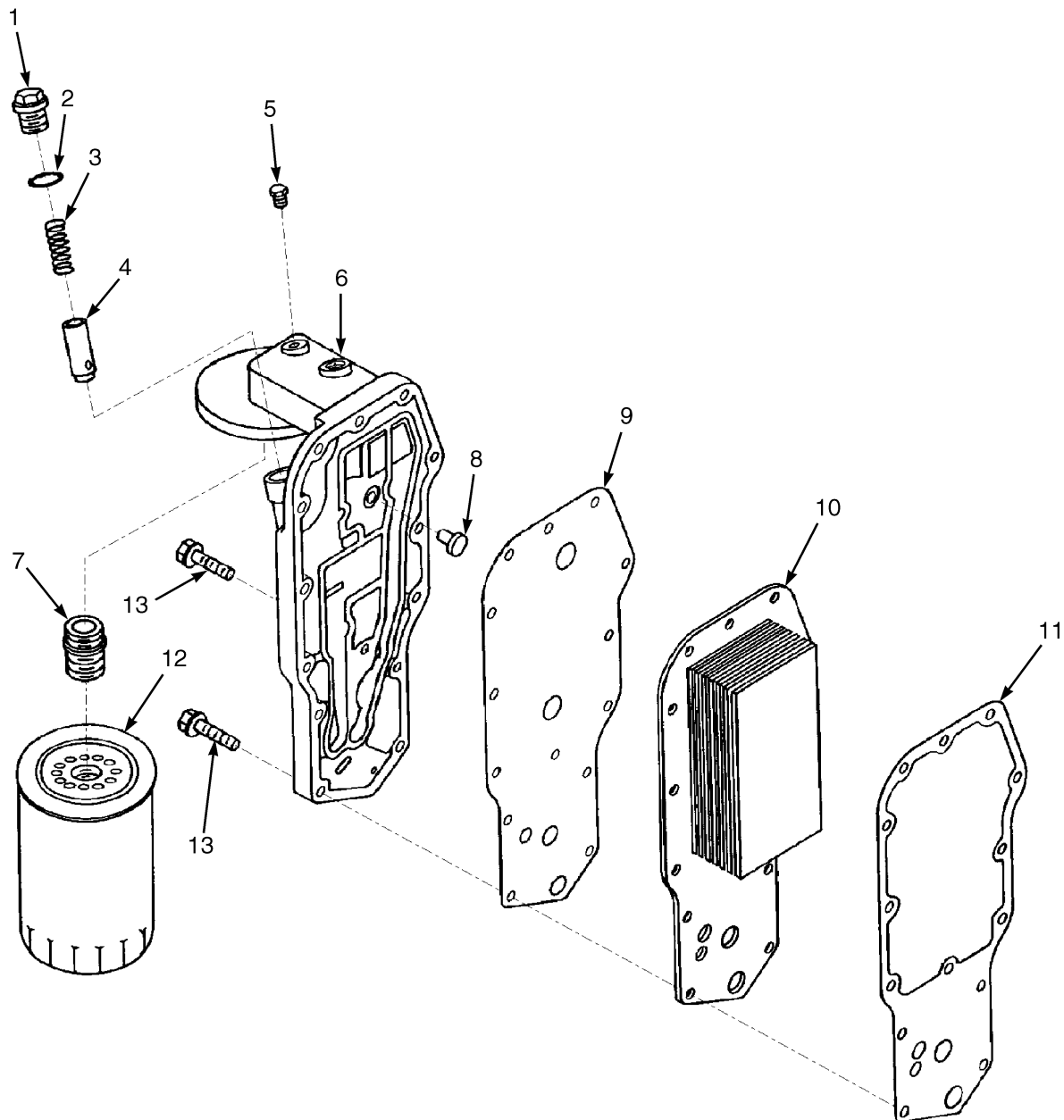
HP091432

ITEM	PART NO.	DESCRIPTION	QTY
1	1619570	Mount (RH)	1
1	1619572	Mount (LH)	1
2	302404	Locknut	2
3	320161	Washer	6
4	320165	Washer	2
5	296044	Capscrew	6
6	1393708	Isolator	2
7	292573	Capscrew	2
8	1452404	Washer	2

NOTES

[illegible]

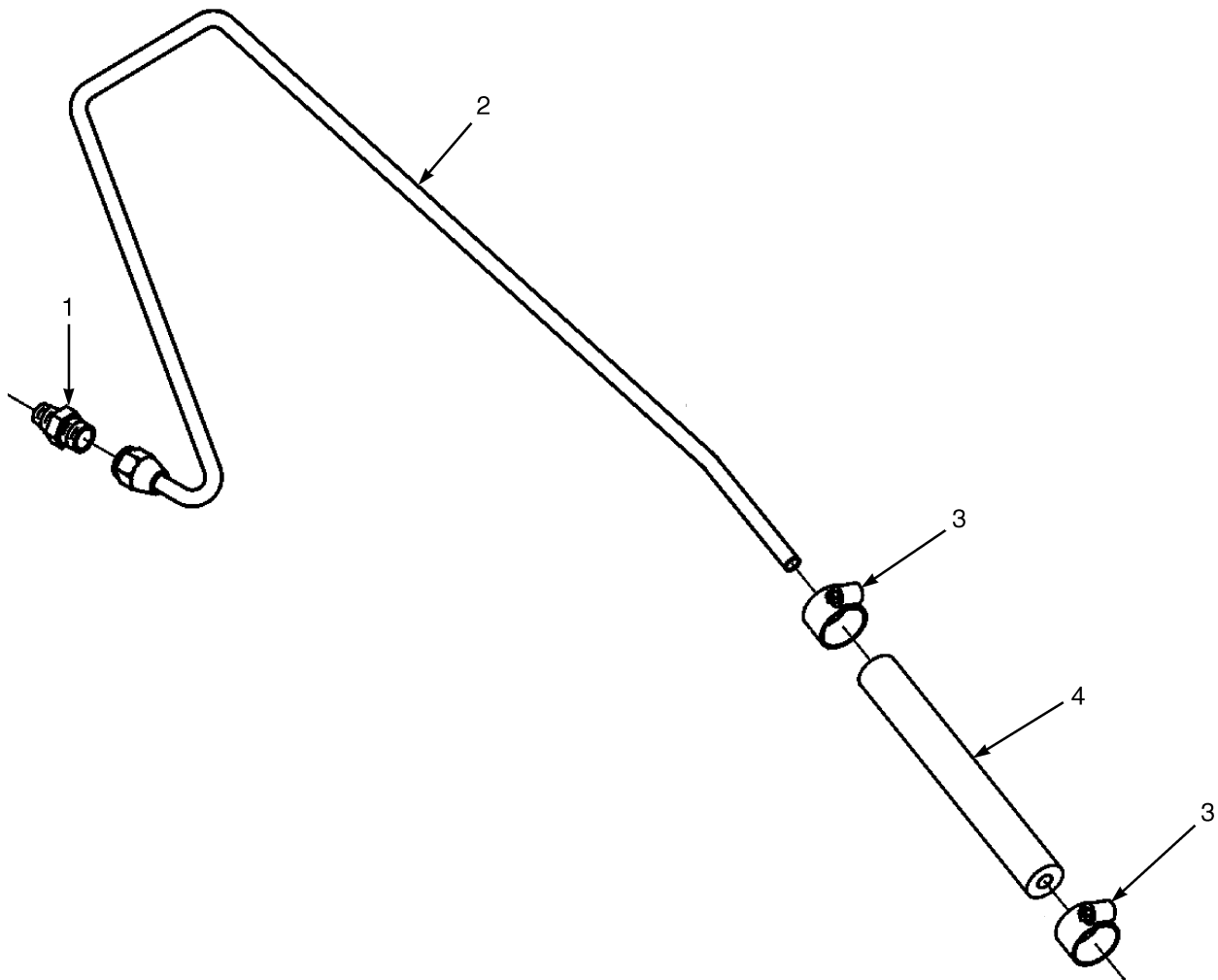
ENGINE OIL COOLER (FIGURE 2-18) CUMMINS LPG



BP090243

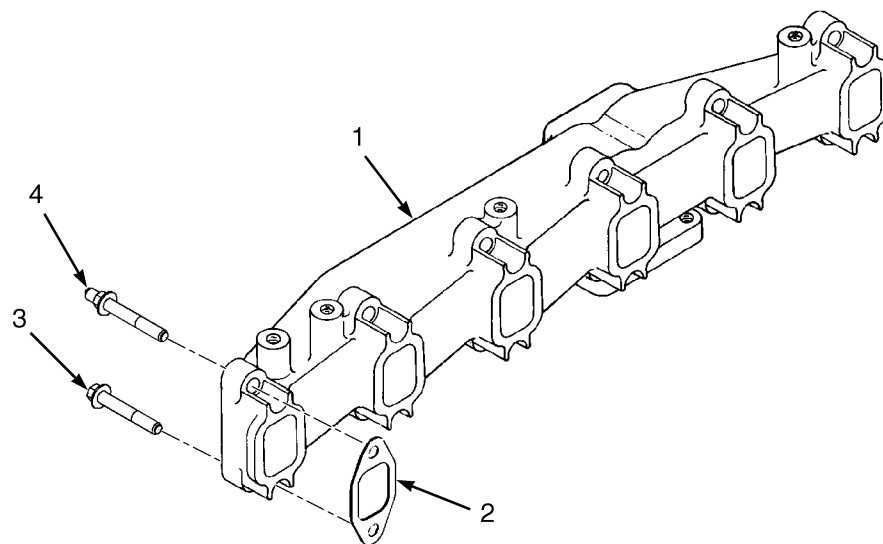
**ENGINE OIL COOLER
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512453	Plug	1
2	1512118	O-Ring	1
3	1512112	Spring	1
4	1512119	Plunger	1
5	1512448	Fitting	1
6	1512449	Filter Head	1
7	1512451	Adapter	1
8	1513772	Relief Valve (Pressure)	1
9	1512452	Gasket	1
10	1552286	Core	1
11	1638856	Gasket	1
12	1512123	Oil Filter (Filter)	1
13	1512033	Capscrew	14

EXHAUST GAS SENSOR PLUMBING (FIGURE 2-19)
CUMMINS LPG

BP090269

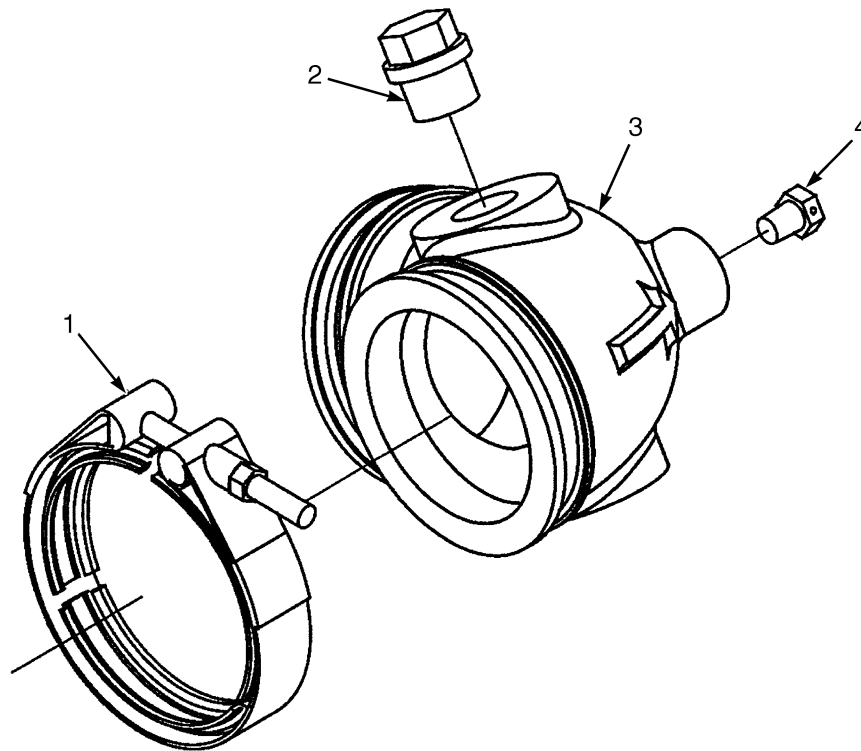
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512728	Connector (Male)	1
2	1624871	Tube	1
3	1614323	Hose Clamp	2
4	1614615	Hose	1

EXHAUST MANIFOLD (FIGURE 2-20)
CUMMINS LPG

BP090251

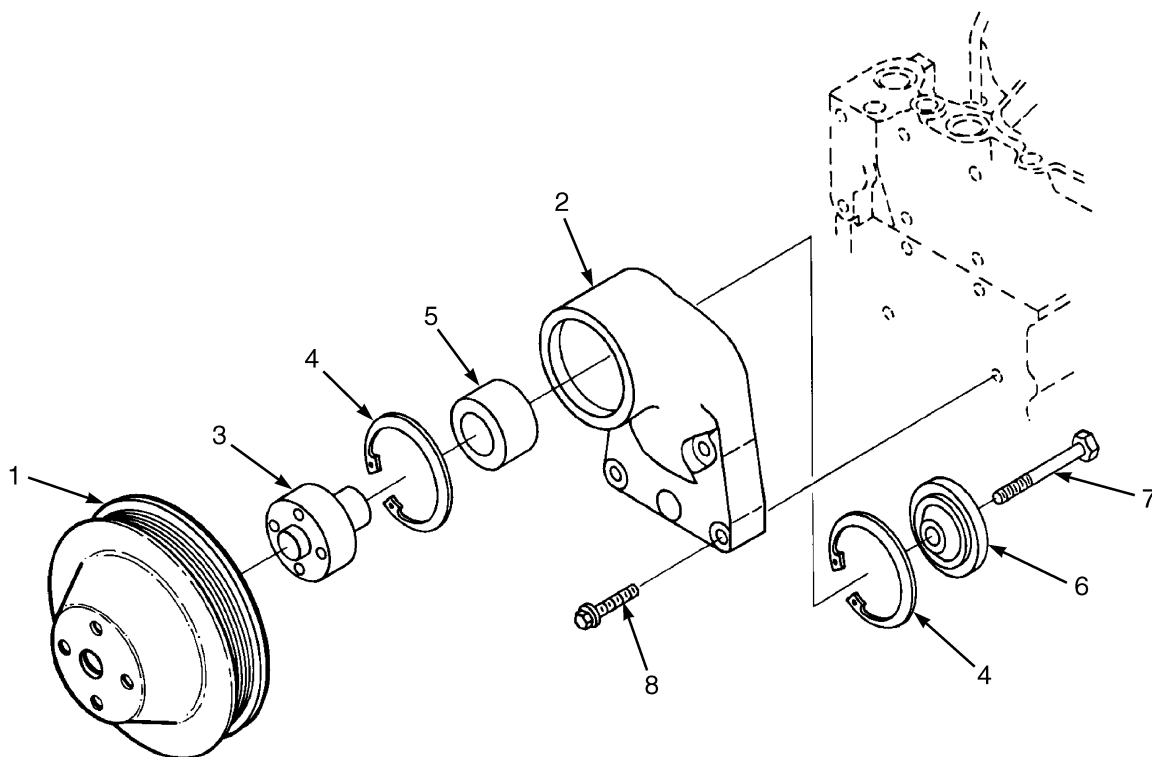
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1662046	Exhaust Manifold	1
2	1614066	Gasket	6
3	1543895	Screw	11
4	1543897	Screw	1
	1588087	Kit-Gasket	1

EXHAUST OUTLET CONNECTION (FIGURE 2-21) CUMMINS LPG



BP090271

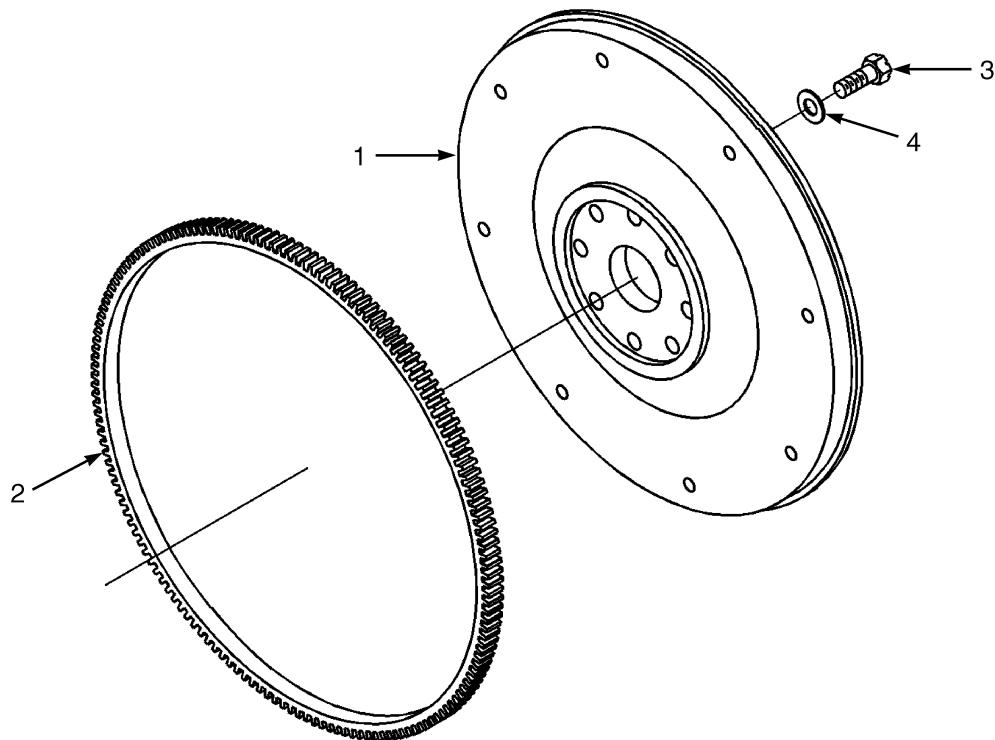
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1373430	Clamp	2
2	1614503	Plug	1
3	1614635	Adapter	1
4	1614454	Fitting (Pipe)	1

FAN DRIVE (FIGURE 2-22)
CUMMINS LPG

BP090240

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1635258	Fan Pulley	1
2	1512424	Fan Mount	1
3	1512024	Hub (Fan)	1
4	1512026	Retaining Ring	2
5	1512015	Ball Bearing	1
6	1512025	Hub	1
7	1512027	Capscrew	1
8	1512029	Screw	4

FLYWHEEL (FIGURE 2-23) CUMMINS LPG



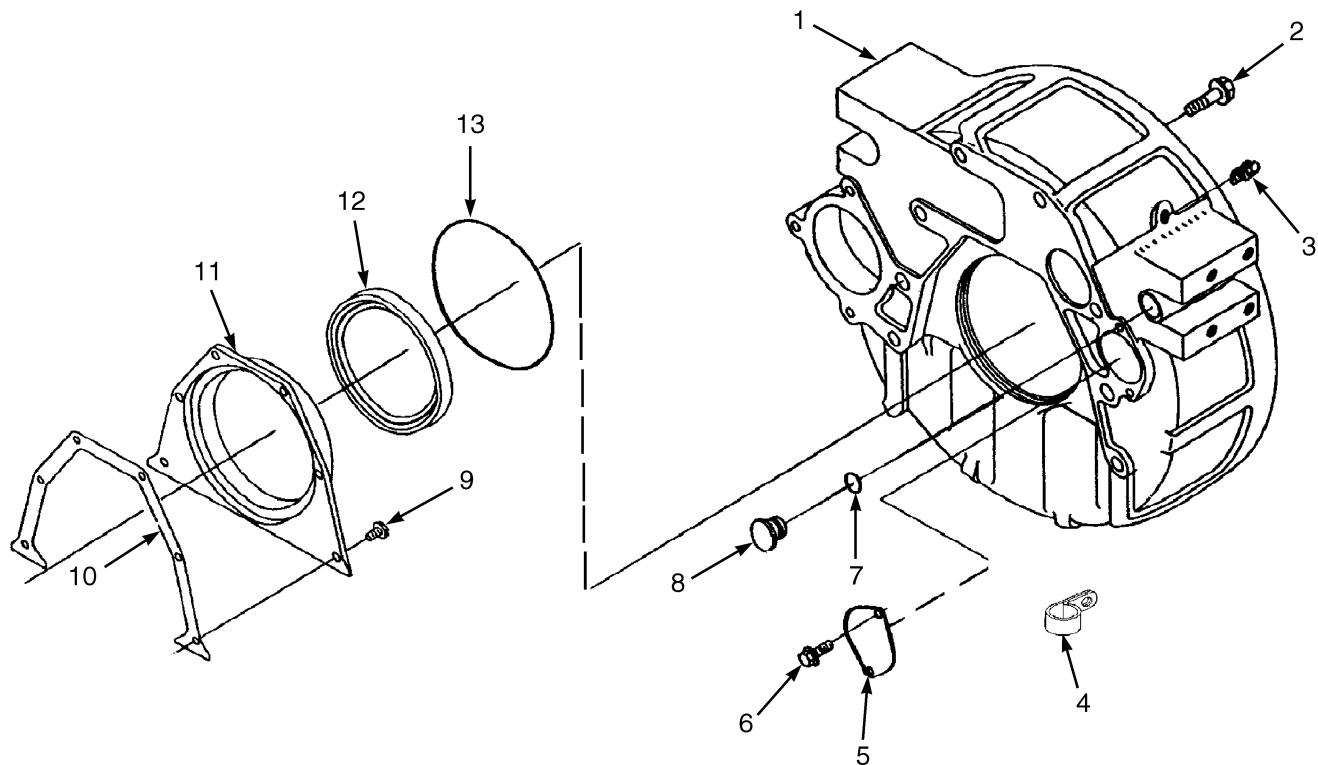
BP090261

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1598354	Flywheel	1
1	1600416	Flywheel	1
2	1512445	Ring Gear	1
3	1512106	Capscrew	8
4	1512107	Washer	8

NOTES

[illegible]

FLYWHEEL HOUSING (FIGURE 2-24) CUMMINS LPG

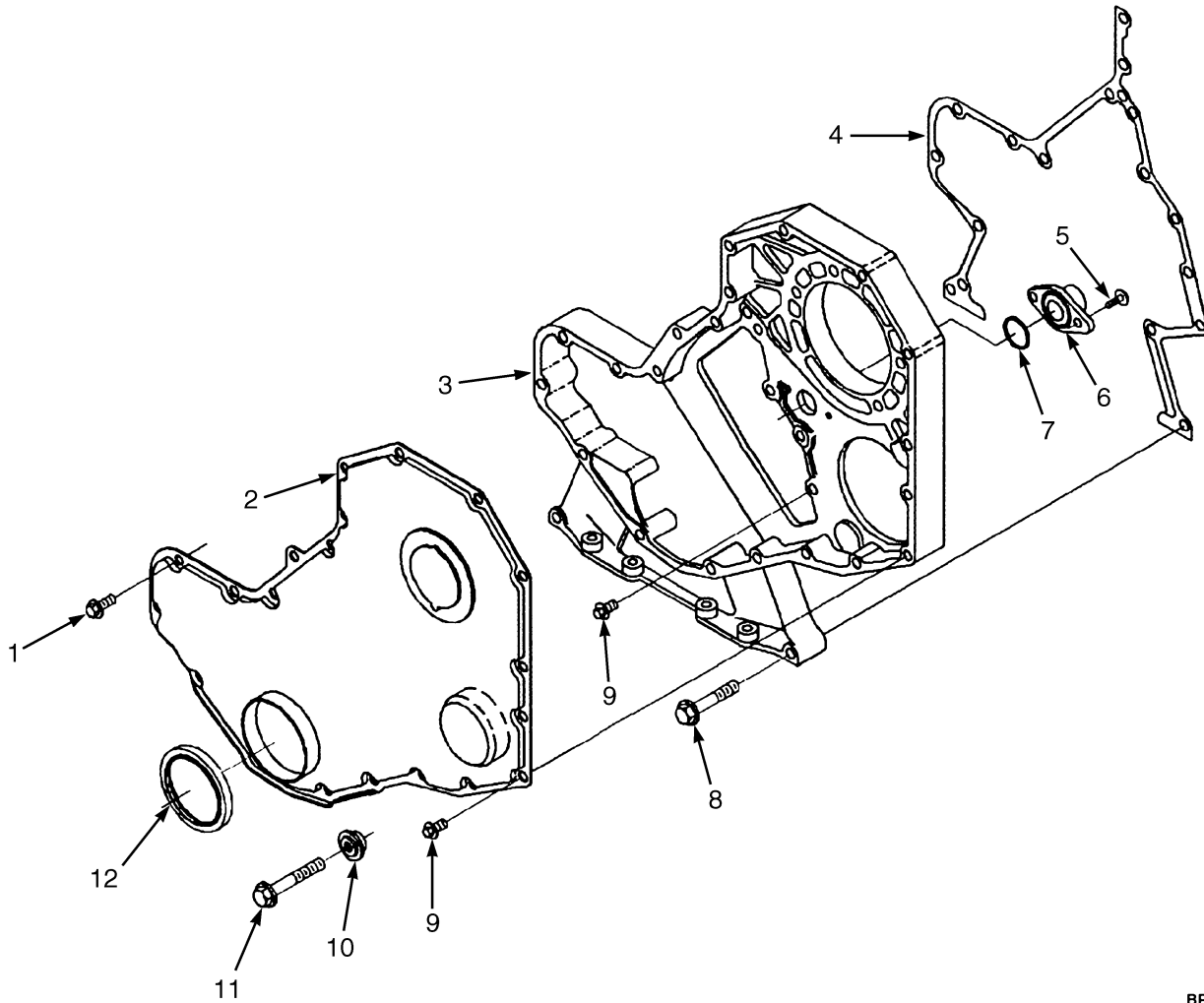


BP090260

**FLYWHEEL HOUSING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1543361	Flywheel Housing	1
2	1512053	Capscrew	8
3	1512046	Plug	1
4	1512435	Clip	1
5	1512056	Cover Plate	1
6	1512045	Screw	2
7	1512048	O-Ring	1
8	1512047	Fitting	1
9	1543362	Capscrew	6
10	1512052	Gasket	1
11	1543363	Cover	1
12	1564992	Kit-Seal (Crankshaft)	1
13	1512050	O-Ring	1

FRONT GEAR COVER AND HOUSING (FIGURE 2-25) CUMMINS LPG

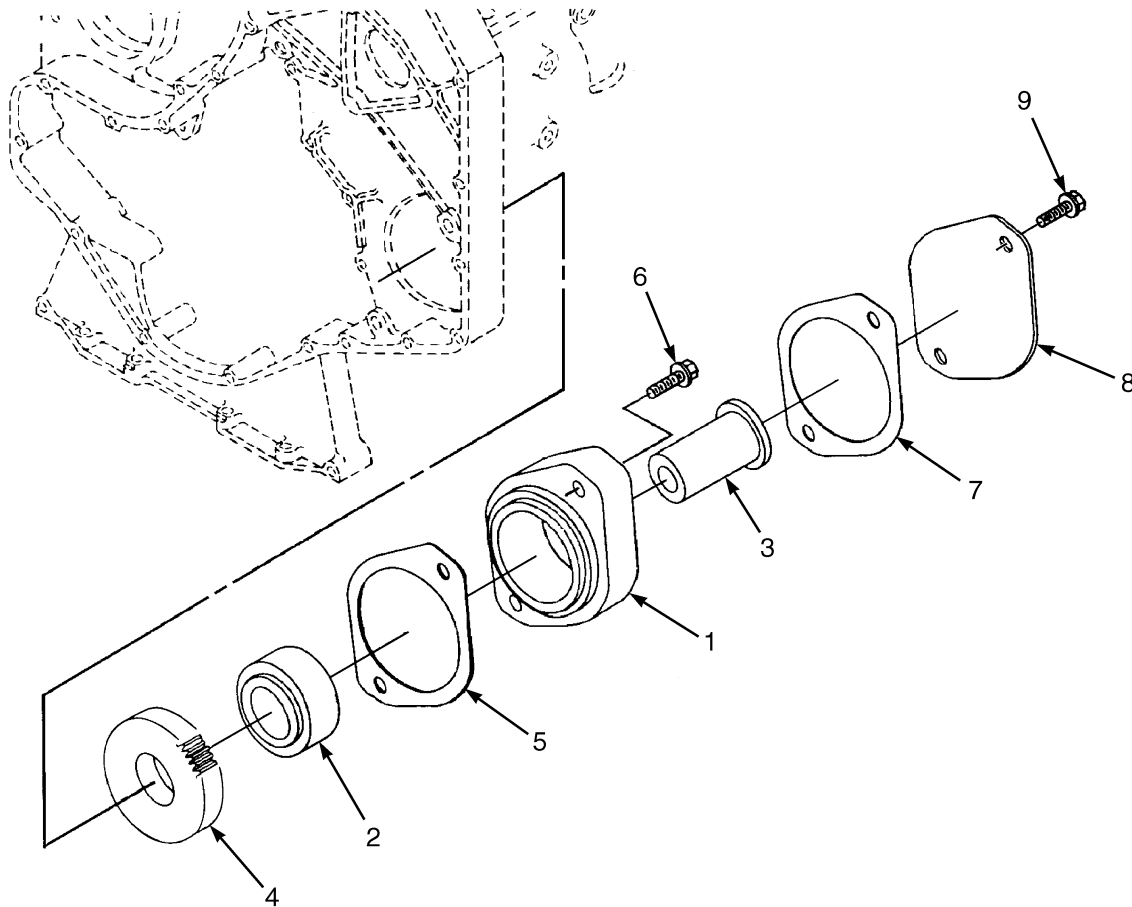


BP090223

**FRONT GEAR COVER AND HOUSING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1513751	Screw	5
2	1614579	Cover	1
3	1614580	Clutch Housing	1
4	1521712	Gasket	1
5	1513736	Capscrew	2
6	1614544	Bracket (Sensor)	1
7	1513748	Sealing Ring	1
8	1513725	Capscrew	10
9	1521875	Screw	11
10	1521880	Retainer	1
11	1553781	Capscrew	1
12		Oil Seal	1
	1600388	Kit-Seal	1
	1588086	Kit-Gasket	1

FRONT GEAR TRAIN ACCESSORY DRIVE (FIGURE 2-26) CUMMINS LPG

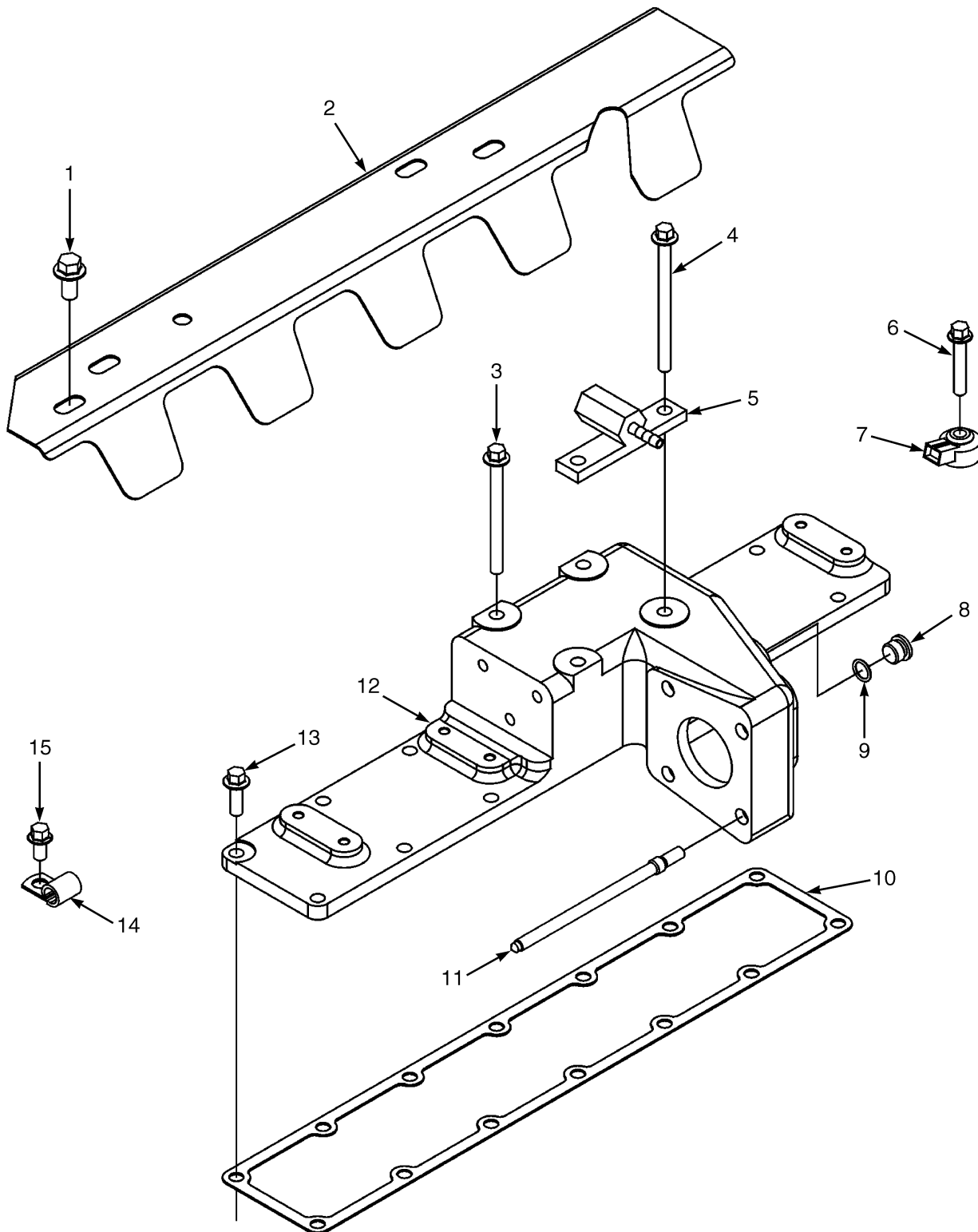


HP091201

**FRONT GEAR TRAIN ACCESSORY DRIVE
CUMMINS LPG****KEY:****A: Wet Brake****B: Dry Brake**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2095553	Engine Assy-Lpg (Dry Brake)	..	1
	2095552	Engine Assy-Lpg (Wet Brake)	1	..
1	1564978	Adapter	..	1
1	1543347	Adapter	1	..
1	1543348	Elbow	1	1
1		Adapter	1	1
2	1512330	Bearing	1	1
3	1513709	Drive Shaft	..	1
3	1512331	Drive Shaft	1	..
4	1602497	Drive Gear	1	1
5	1588061	Gasket	..	1
5	1512326	Gasket	1	..
6	1511976	Capscrew	2	2
7	1512336	Gasket	1	1
8	1512327	Cover Plate	1	1
9	1512328	Capscrew	2	2

INTAKE MANIFOLD (FIGURE 2-27) CUMMINS LPG

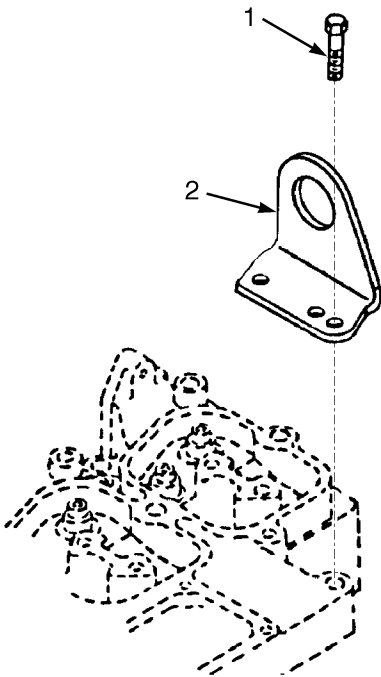


BP090250

**INTAKE MANIFOLD
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614576	Capscrew	3
2	1624994	Heat Shield	1
3	1512296	Capscrew	2
4	1614582	Capscrew	1
5	1614591	Bracket	1
6	1512111	Capscrew	1
7	1614491	Sensor (Knock)	3
8	1512587	Plug	2
9	1512588	O-Ring	1
10	1512300	Gasket	1
11	1614633	Stud	4
12	1614593	Cover (Intake Manifold)	1
13	1512295	Capscrew	9
14	1513776	Clip	1
15	1513749	Capscrew	1
	1588087	Kit-Gasket	1

LIFTING BRACKET (FIGURE 2-28)
CUMMINS LPG

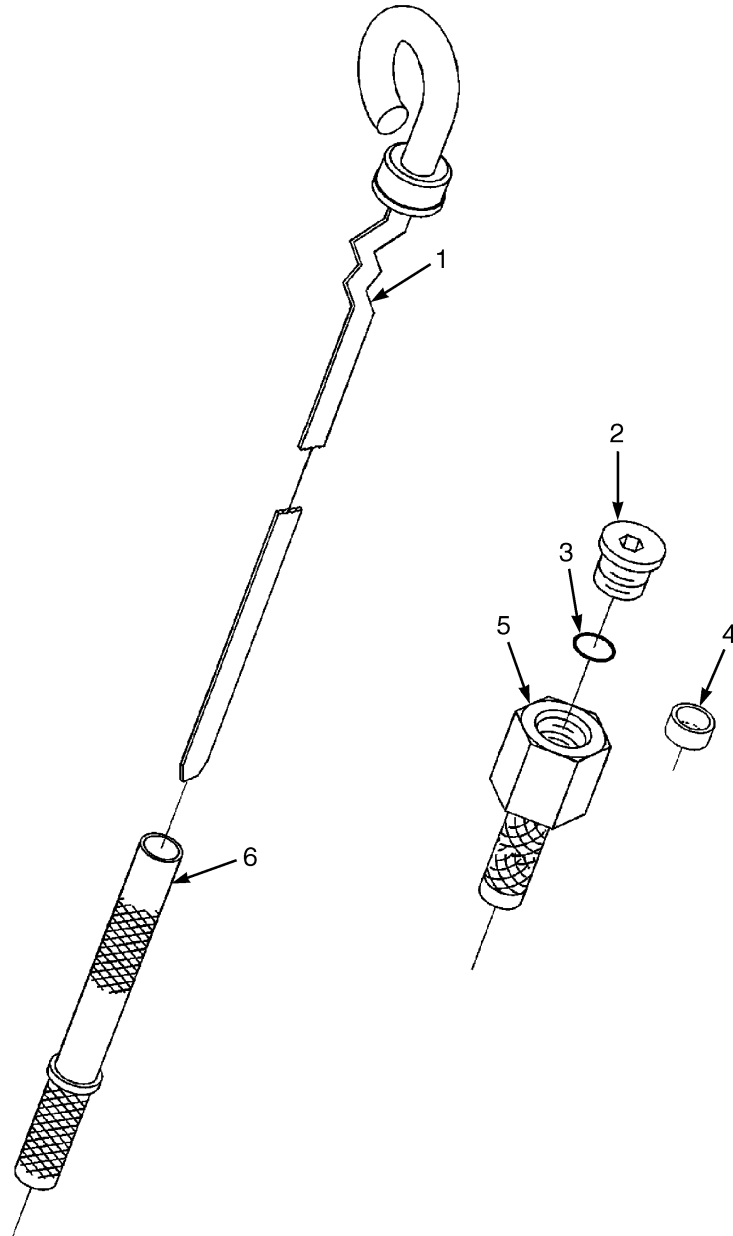


BP090257

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1511953	Capscrew	2
2	1512109	Bracket	1

NOTES

[illegible]

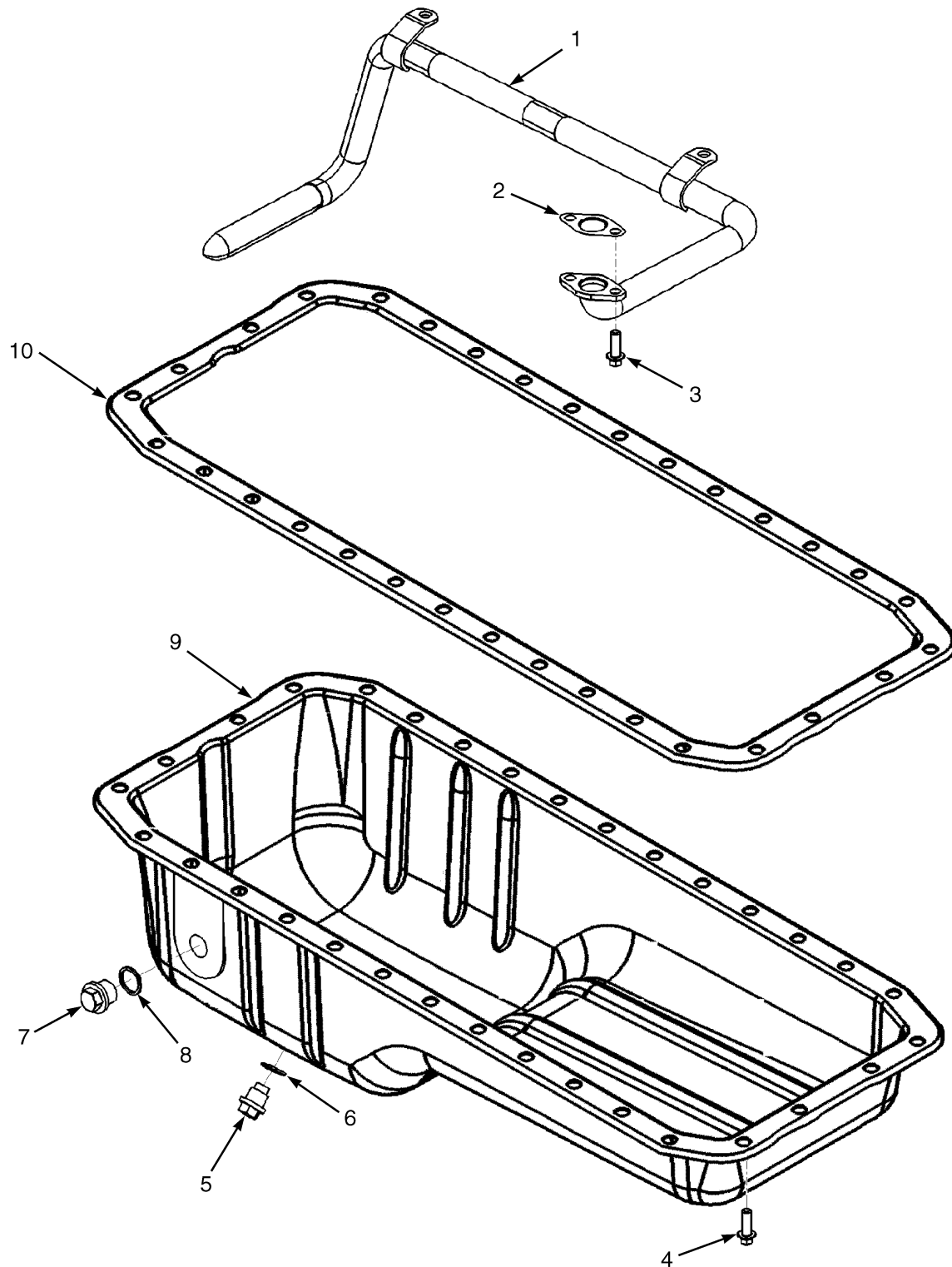
**OIL LEVEL GAUGE (FIGURE 2-29)
CUMMINS LPG**

BP090244

**OIL LEVEL GAUGE
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512132	Dipstick	1
2	1614453	Plug (Threaded)	1
3	1614452	O-Ring	1
4	1512130	Plug	2
5	1614575	Adapter	1
6	1624829	Dipstick Tube	1

OIL PAN (FIGURE 2-30) CUMMINS LPG



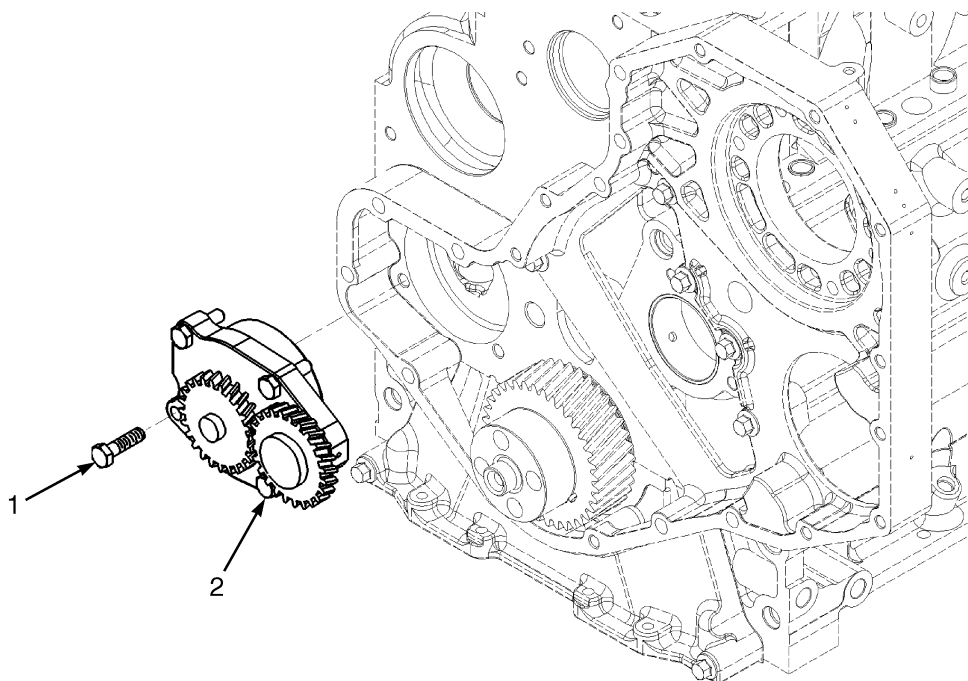
BP090270

**OIL PAN
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512136	Adapter (Oil Suction)	1
2	1512139	Gasket	1
3	1512004	Capscrew	2
4	1513794	Capscrew	36
5	1512134	Plug	1
6	1512135	Seal	1
7	1512138	Plug	1
8	1512137	Seal	1
9	1543430	Kit-Service	1
9	1543429	Oil Pan	1
10	1543424	Gasket	1
	a 1513769	Capscrew	4
	a 1543432	Clamping Plate	1
	1588086	Kit-Gasket	1
	1588087	Kit-Gasket	1

FOOTNOTES:**a** Not Illustrated

OIL PUMP (FIGURE 2-31) CUMMINS LPG



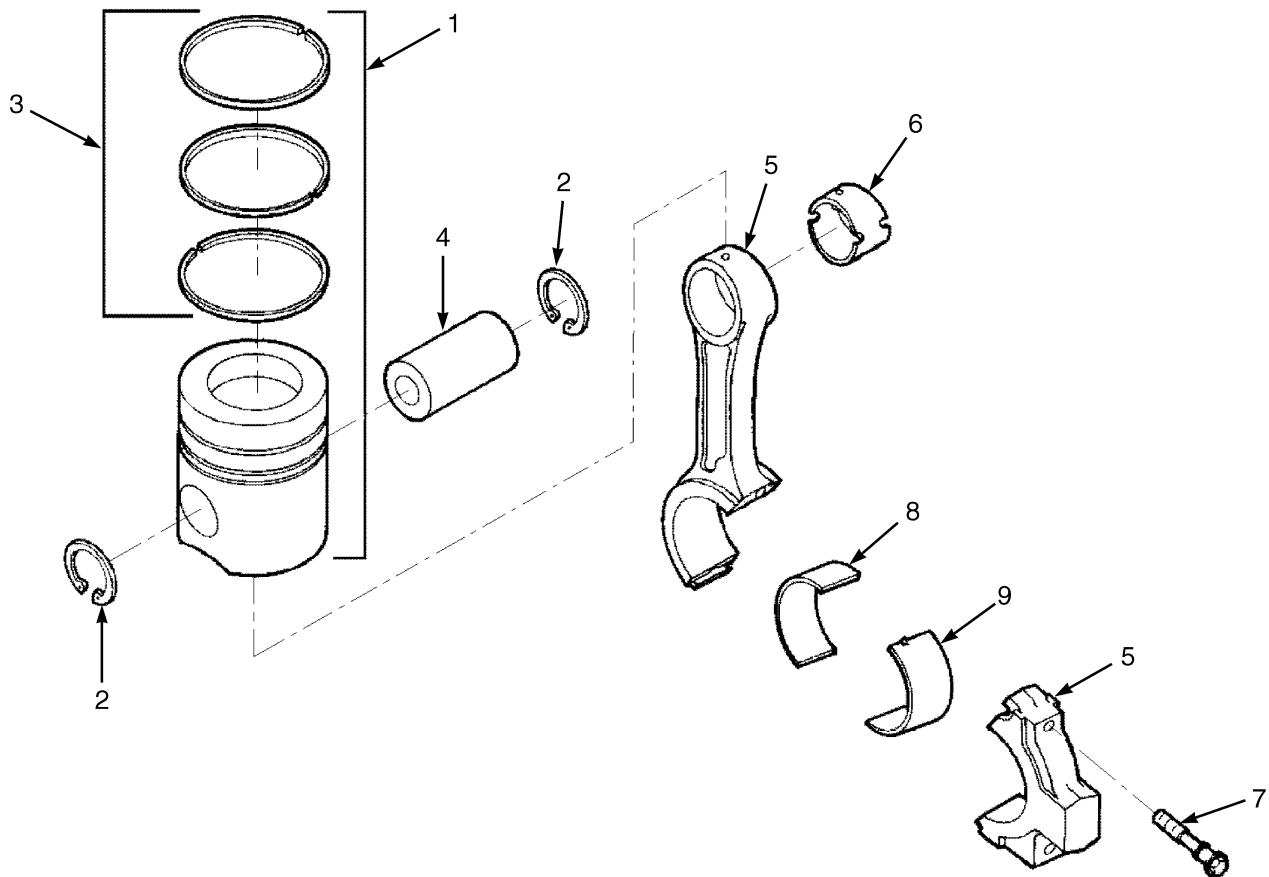
BP090245

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512456	Capscrew	4
2	1661076	Oil Pump	1

NOTES

[illegible]

PISTON AND CONNECTING ROD (FIGURE 2-32) CUMMINS LPG

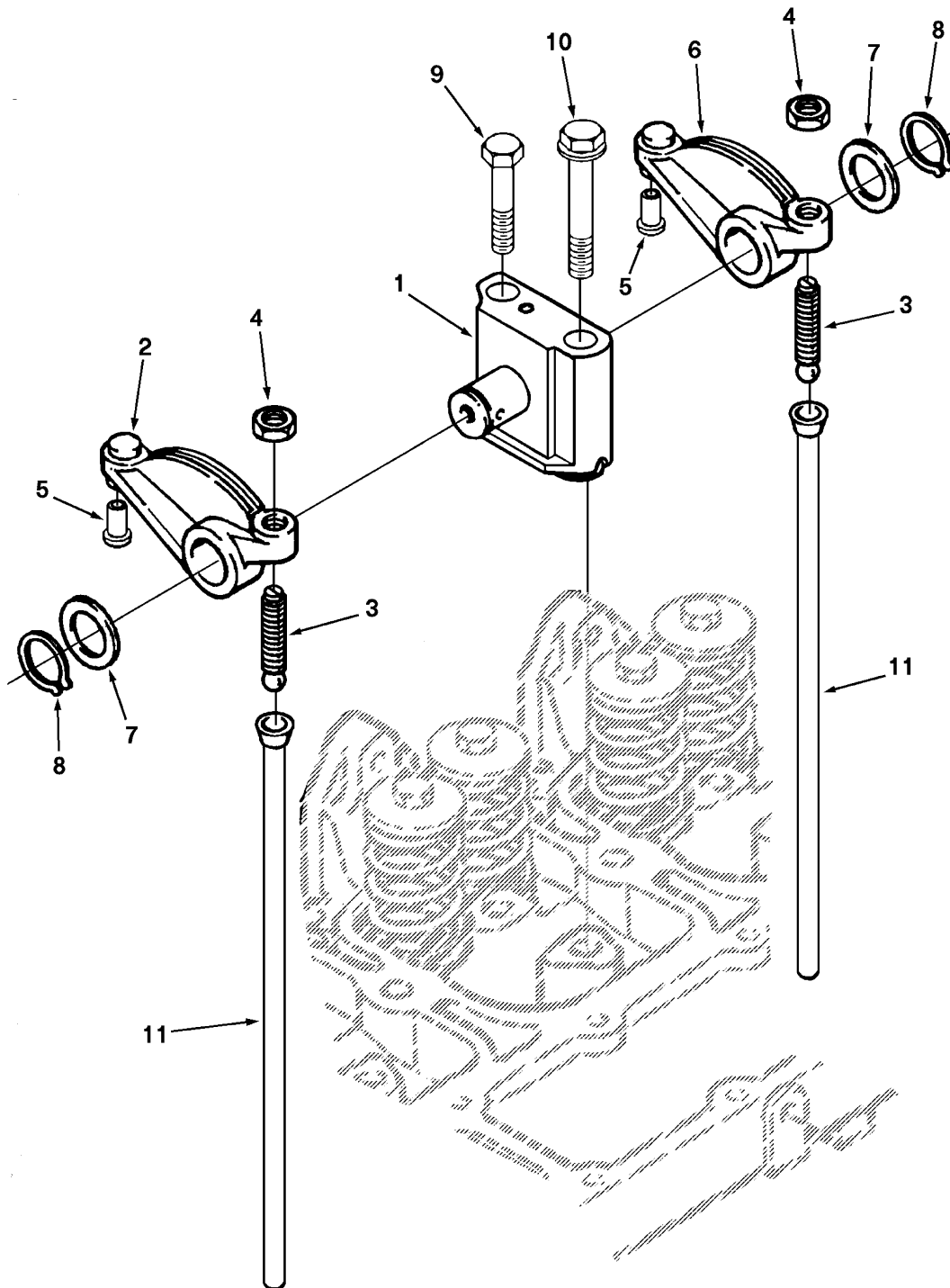


BP090247

**PISTON AND CONNECTING ROD
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614496	Kit-Piston (Standard)	6
2	1512146	Retaining Ring	2
3	1614495	Kit-Piston Ring (Standard)	1
3	1614499	Kit-Piston Ring (.020 in)	1
3	1614500	Kit-Piston Ring (.040 in)	1
4	1512149	Pin	6
5	1637868	Piston Rod	6
6	1553262	Bushing	1
7	1553261	Capscrew	2
8	1614511	Bearing (Standard)	6
8	1512150	Bearing (.010 in.)	AR
8	1512151	Bearing (.020 in.)	AR
8	1512152	Bearing (.030 in.)	AR
8	1512153	Bearing (.040 in.)	AR
9	1543445	Bearing (Standard)	6
9	1584817	Bearing (.010 in.)	AR
9	1584818	Bearing (.020 in.)	AR
9	1584819	Bearing (.030 in.)	AR
9	1584820	Bearing (.040 in.)	AR

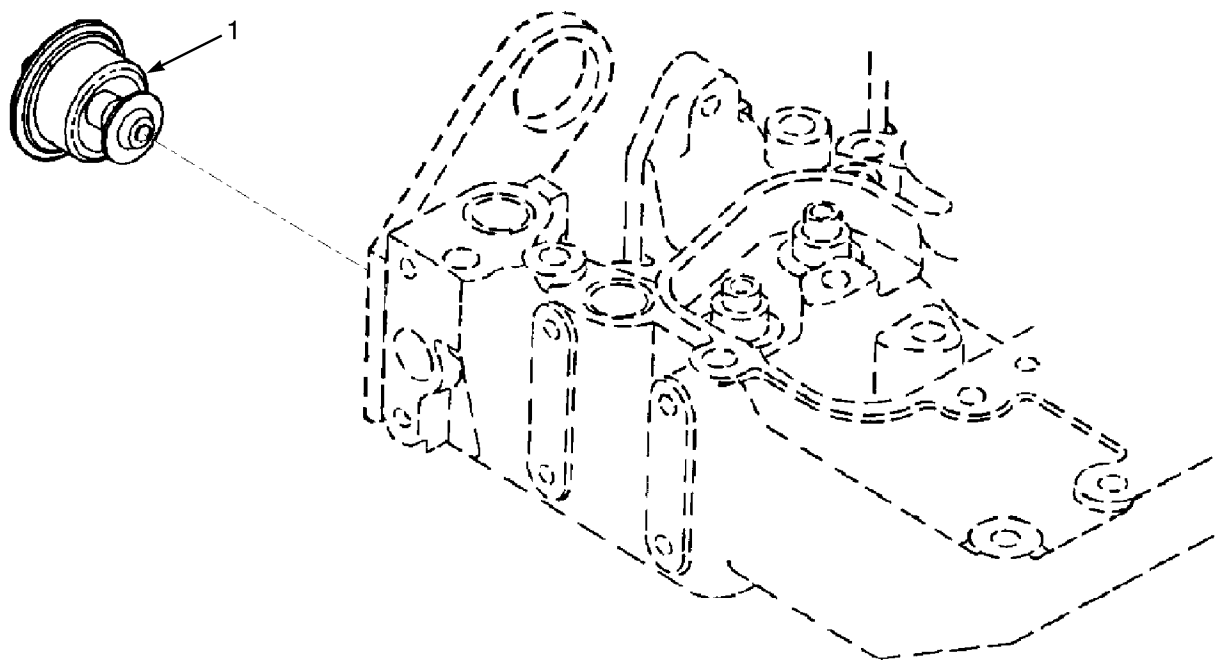
ROCKER LEVERS (FIGURE 2-33) CUMMINS LPG



HP091192

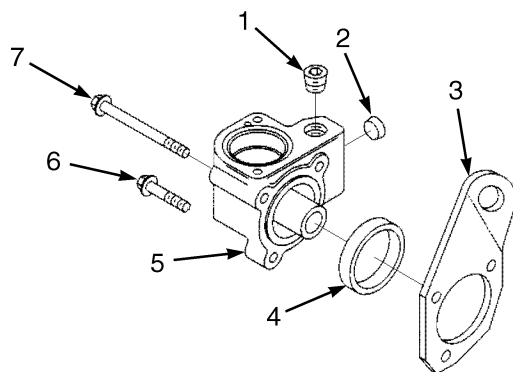
**ROCKER LEVERS
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1543891	Support	6
1	1543892	Support	1
2	1543889	Rocker (Intake)	1
3	1543886	Screw	1
4	1513806	Nut	1
5	1543884	Insert	1
6	1543885	Rocker (Exhaust)	1
7	1543882	Washer	12
8	1543881	Retaining Ring	12
9	1543878	Capscrew	6
10	1543879	Capscrew	6
11	1543877	Rod	12
	1543883	Rocker (Exhaust)	6
	1543887	Rocker (Intake)	6

THERMOSTAT (FIGURE 2-34)
CUMMINS LPG

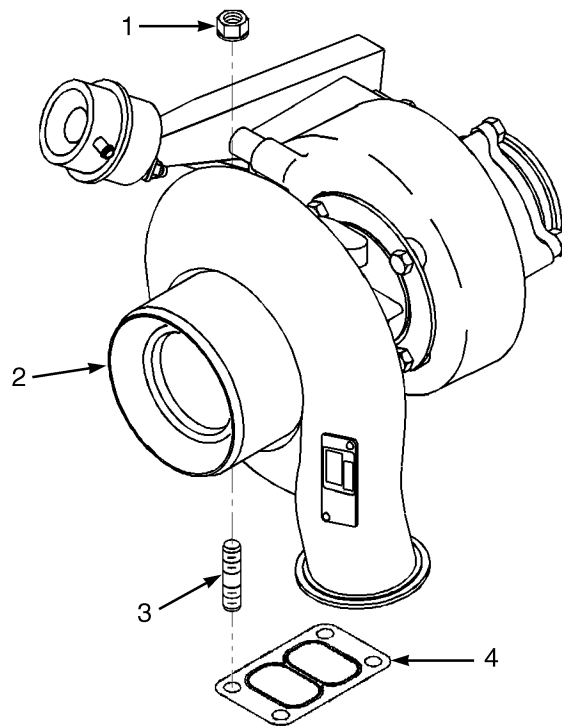
BP090238

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1603897	Thermostat	1

THERMOSTAT HOUSING (FIGURE 2-35)
CUMMINS LPG

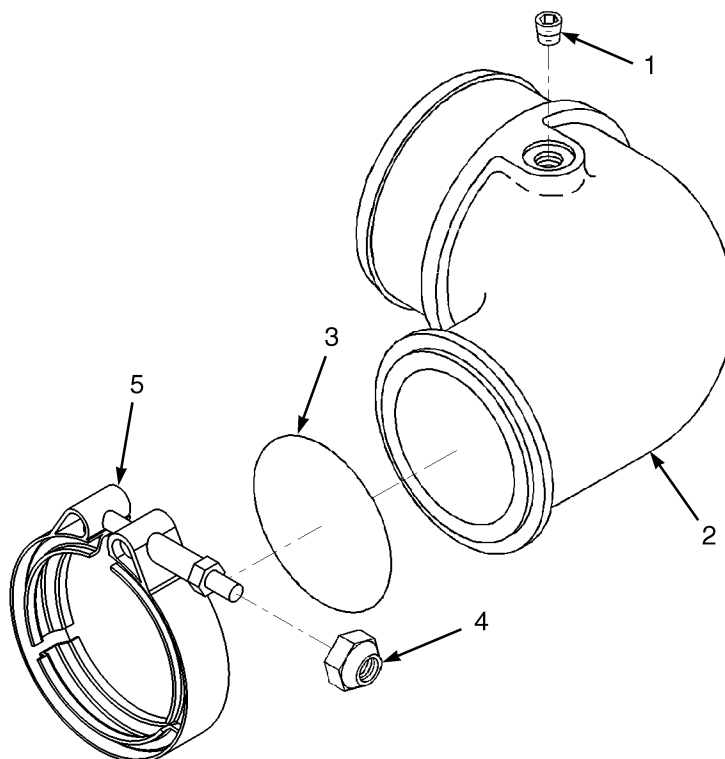
BP090252

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512304	Plug	1
2	1511952	Fitting	1
3	1512302	Bracket	1
4	1512305	O-Ring	1
5	1614459	Thermostat Housing	1
6	1512296	Capscrew	2
7	1512029	Screw	1

TURBOCHARGER (FIGURE 2-36)
CUMMINS LPG

BP090249

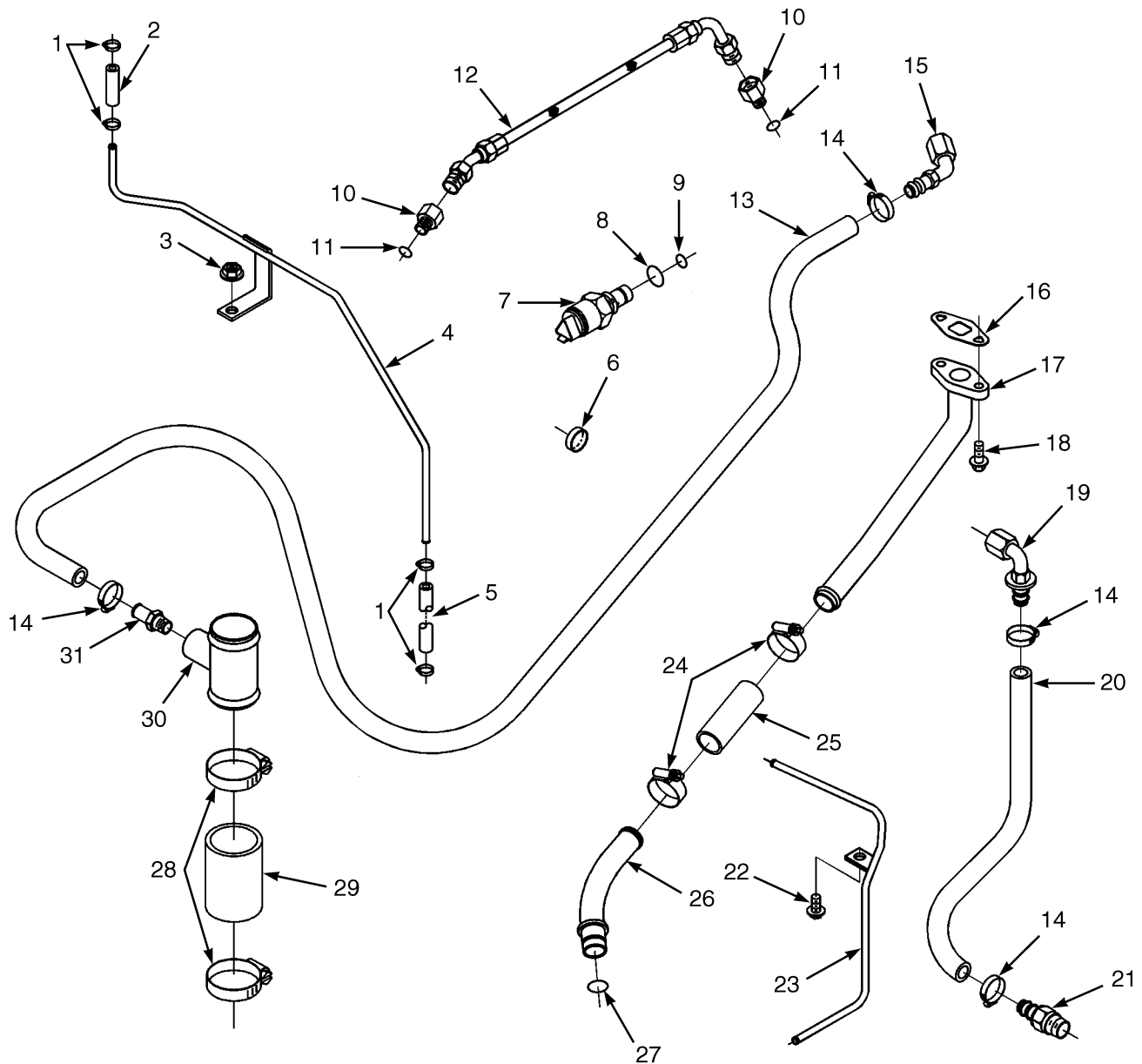
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1513338	Nut	4
2		Turbocharger	1
3	1513337	Stud	4
4	1584657	Gasket	1
	1624872	Kit-Repair Turbocharger	1

TURBOCHARGER COMPRESSOR OUTLET CONNECTION (FIGURE 2-37)
CUMMINS LPG

BP090241

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614322	Fitting	1
2	1521891	Pipe	1
3	1515787	O-Ring	1
4	1517094	Locknut	1
5	1597806	Clamp	1

TURBOCHARGER PLUMBING (FIGURE 2-38) CUMMINS LPG

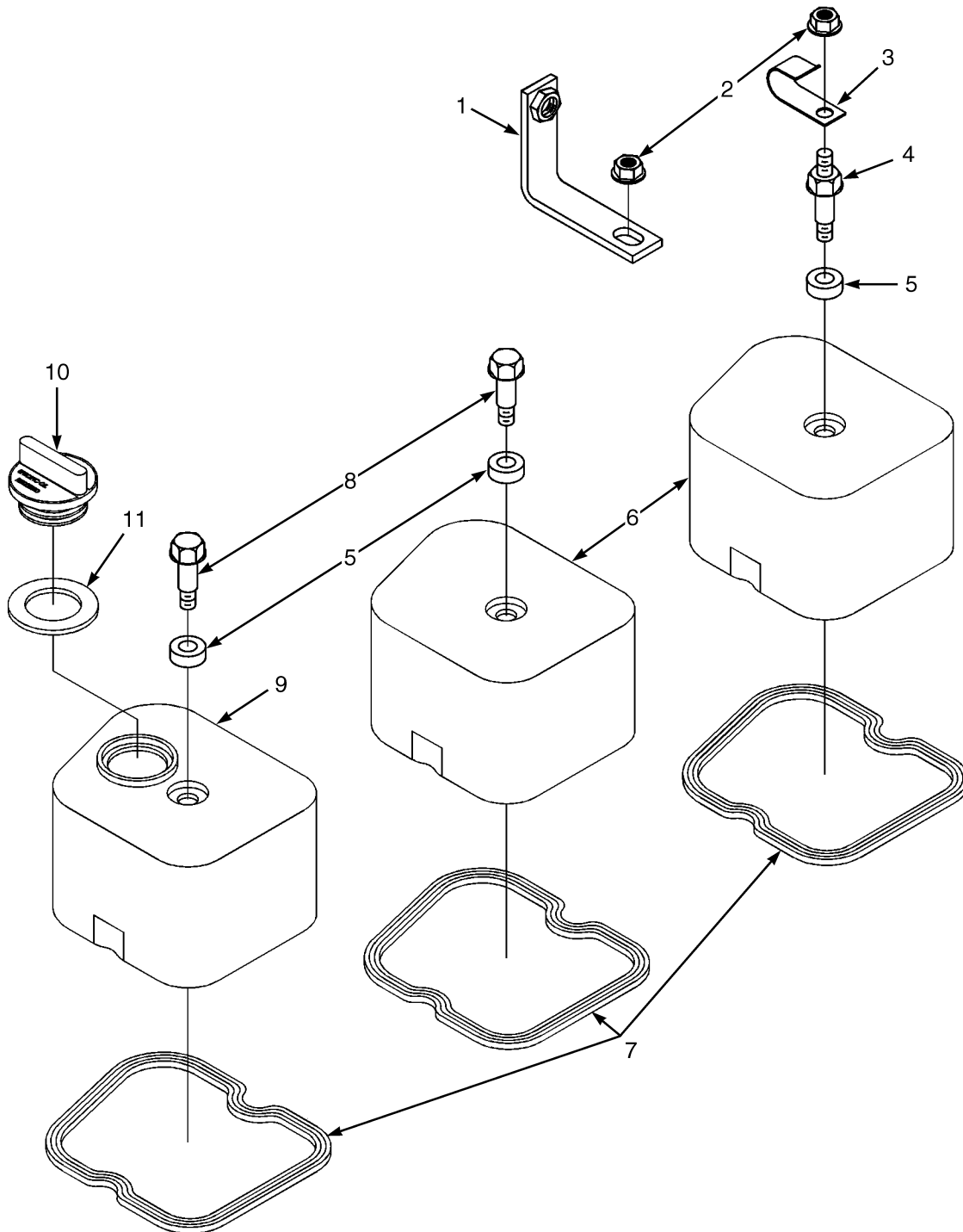


BP090253

**TURBOCHARGER PLUMBING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1612804	Clamp	4
2	1662047	Hose	1
3	1514483	Nut	1
4	1625567	Tube (Air Fuel Control)	1
5	1662048	Hose	1
6	1514339	Plug	1
7	1614570	Valve (Air Control)	1
8	1614560	O-Ring	1
9	1614561	O-Ring	1
10	1514566	Connector	2
11	1513294	O-Ring	1
12	1625570	Hose (Flexible)	1
13	1625569	Hose (Plain)	1
14	1614501	Hose Clamp	4
15	1625568	Coupling (Hose)	1
16	1514565	Gasket (Oil Drain)	1
17	1588834	Pipe	1
18	1512004	Capscrew	2
19	1614542	Coupling	2
20	1614578	Hose	1
21	1614550	Coupling	1
22	1513749	Capscrew	1
23	1625566	Tube (Air Transfer)	1
24	1517268	Hose Clamp	2
25	1517269	Hose	1
26	1521962	Tube	1
27	1517270	O-Ring	1
28	1513411	Hose Clamp	2
29	1614311	Hose	1
30	1614541	Tube	1
31	1511957	Coupling	1
	1588087	Kit-Gasket	1

VALVE COVER (FIGURE 2-39) CUMMINS LPG

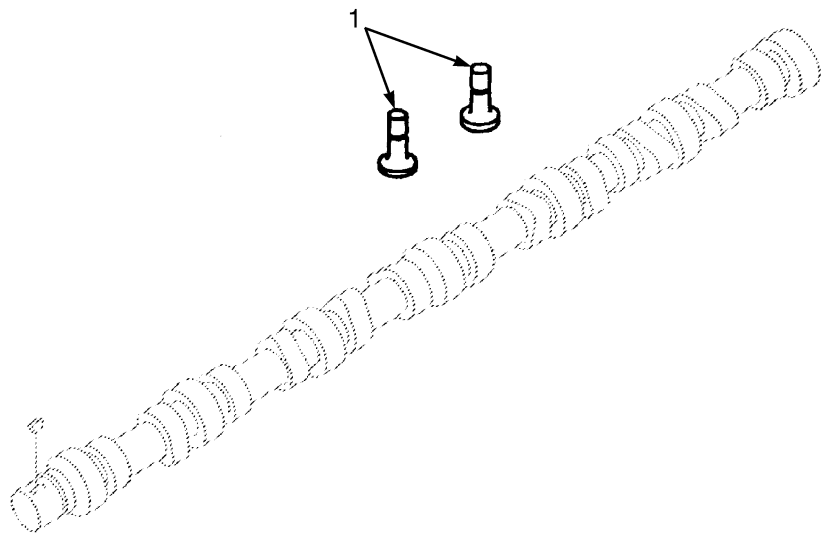


BP090254

**VALVE COVER
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614577	Brace	1
2	1513712	Nut	2
3	1614532	Clip	1
4	1614531	Capscrew	2
5	1512308	Isolator	6
6	1512310	Cover	5
7	1512307	Gasket	6
8	1512309	Capscrew	4
9	1512311	Cover	1
10	1614548	Cap	1
11	1512312	Sealing Ring	1
	1588087	Kit-Gasket	1

VALVE TAPPET (FIGURE 2-40)
CUMMINS LPG

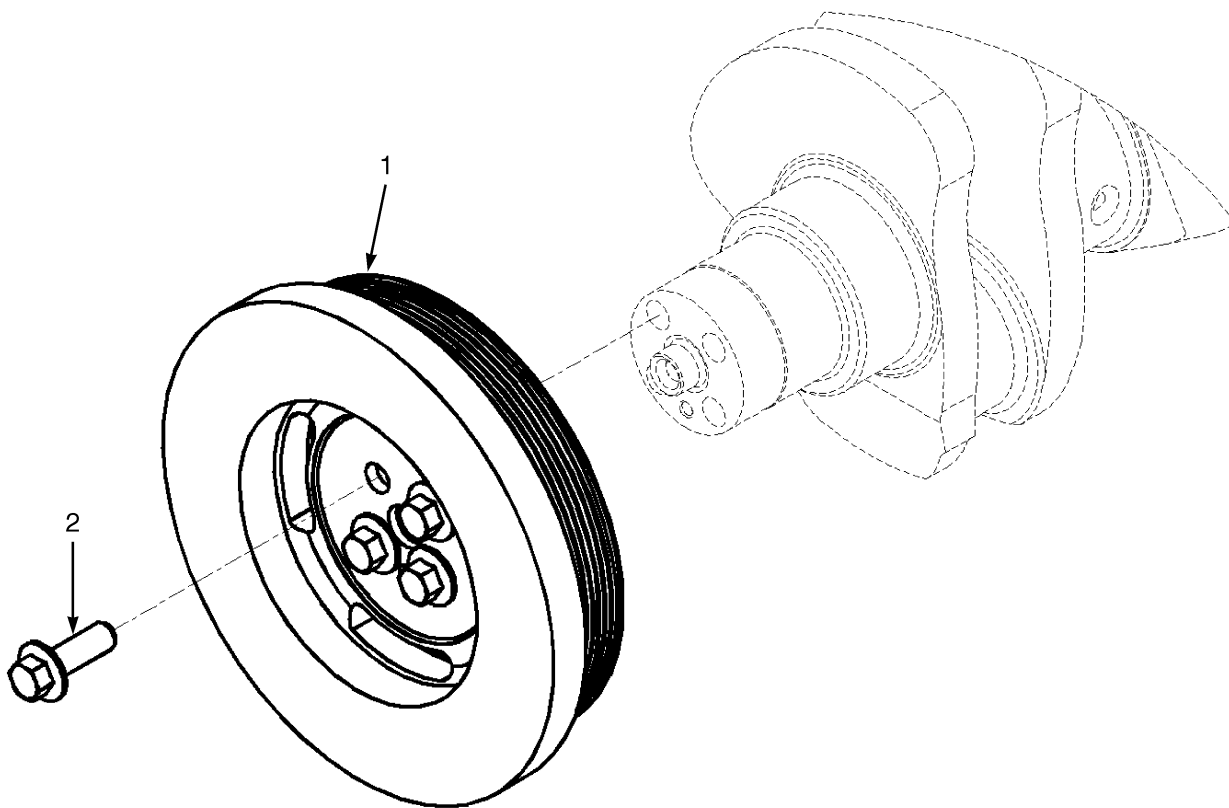


HP091189

ITEM	PART NO.	DESCRIPTION	QTY
1	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
	1513734	Valve (Tappet)	12

NOTES

[illegible]

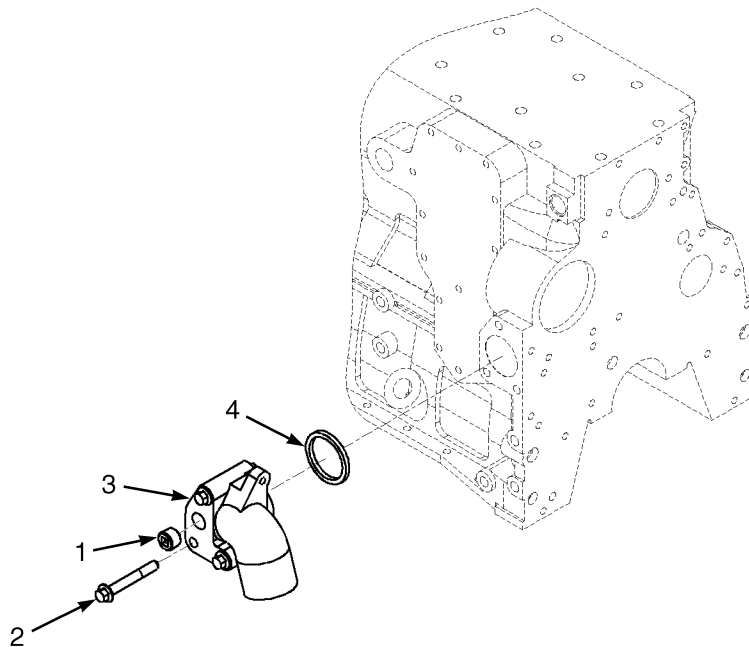
**VIBRATION DAMPER (FIGURE 2-41)
CUMMINS LPG**

BP090235

**VIBRATION DAMPER
CUMMINS LPG**

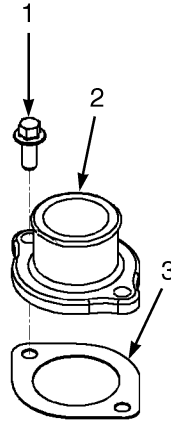
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614522	Vibration Damper	1
2	1511996	Capscrew	4

WATER INLET CONNECTION (FIGURE 2-42) CUMMINS LPG



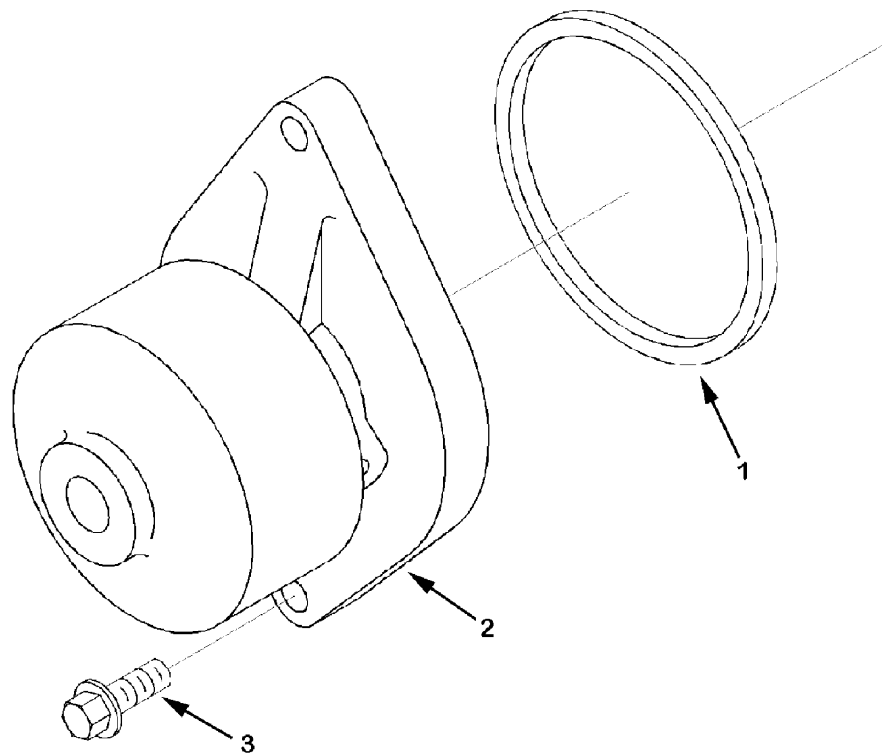
BP090255

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1511952	Fitting	1
2	1512316	Screw	3
3	1512315	Water Inlet	1
4	1512305	O-Ring	1

WATER OUTLET CONNECTION (FIGURE 2-43)
CUMMINS LPG

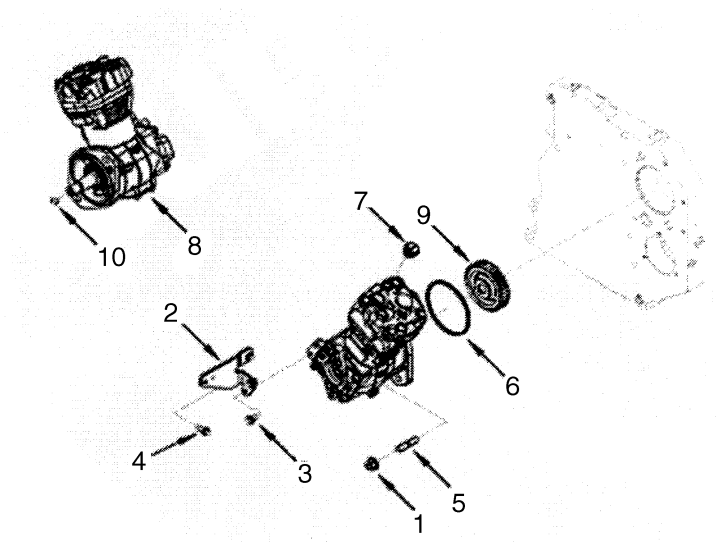
BP090256

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512004	Capscrew	2
2	1512318	Connector	1
3	1512319	Gasket	1

WATER PUMP (FIGURE 2-44)
CUMMINS LPG

HP091178

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614513	O-Ring	1
1	1512322	Sealing Ring	1
2		Water Pump	1
3	1597807	Capscrew (Flange)	2
	1512321	Kit-Repair Water Pump	1
4	1521975	Kit-Repair Water Pump (Alternate Part)	1

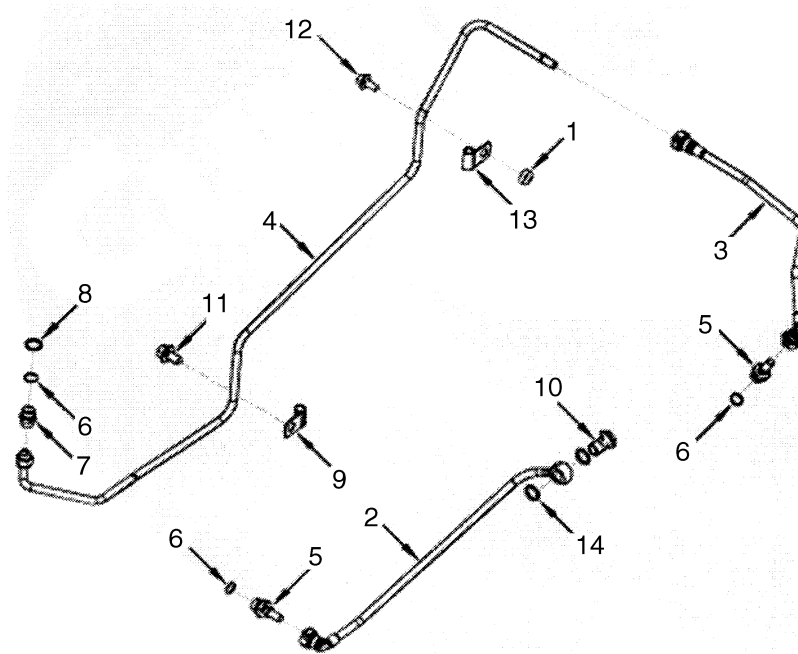
AIR COMPRESSOR (FIGURE 2-45)
CUMMINS DIESEL

HP091443

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1661040	Nut	2
2	1661041	Brace	1
3	1511970	Capscrew	2
4	1512004	Capscrew	2
5	1588934	Stud	2
6	1588097	Seal	1
7	1661042	Plug	1
8	1661043	Compressor	1
9	1661044	Drive Gear	1
10	1661045	O-Ring	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

AIR COMPRESSOR COOLANT PLUMBING (FIGURE 2-46) CUMMINS DIESEL



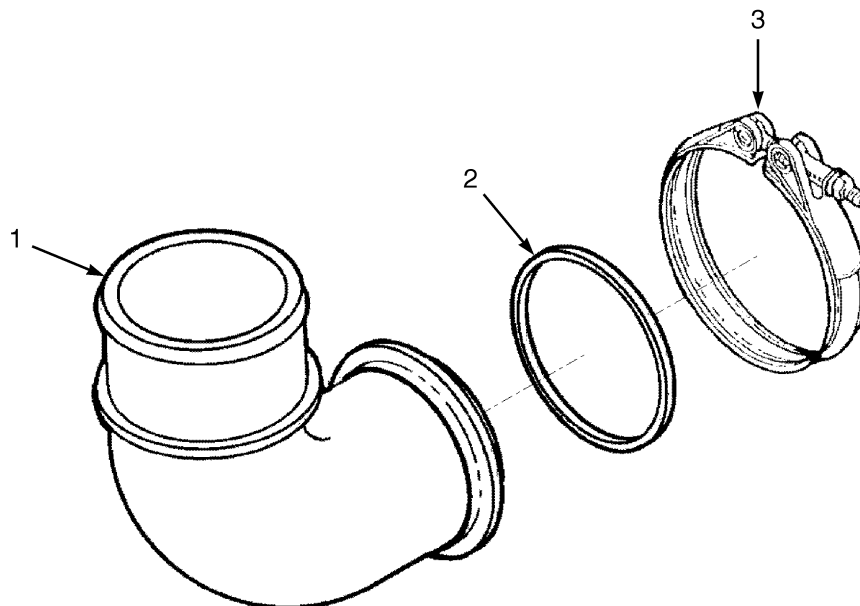
HP091445

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1660935	Spacer	1
2	1661038	Tube Assy	1
3	1661039	Tube Assy	1
4	1660936	Tube	1
5	1660937	Connector	2
6	1515895	O-Ring	2
7	1661032	Connector	1
8	1588920	Retaining Ring	1
9	1661036	Sealing Ring	2
10	1661037	Clip	1
11	1661033	Screw	1
12	1661034	Capscrew	1
13	1661035	Clip	2

FOOTNOTES:

a → S/N H007E02176F

b S/N H007E02177F →

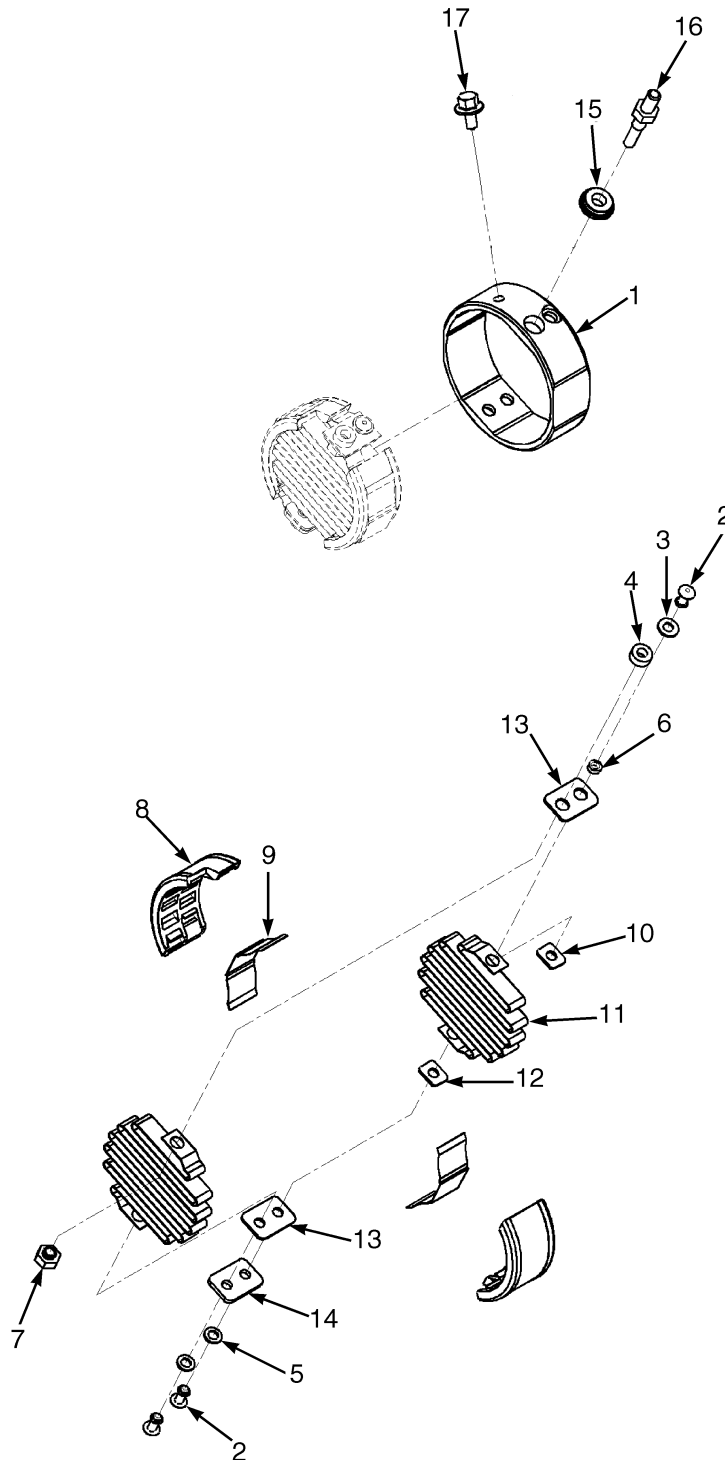
AIR INTAKE CONNECTION (FIGURE 2-47)
CUMMINS DIESEL

HP091346

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1635412	Pipe (Air Transfer)	1
2	1635251	O-Ring	1
3	1635320	Clamp	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

AIR HEATER (FIGURE 2-48) CUMMINS DIESEL

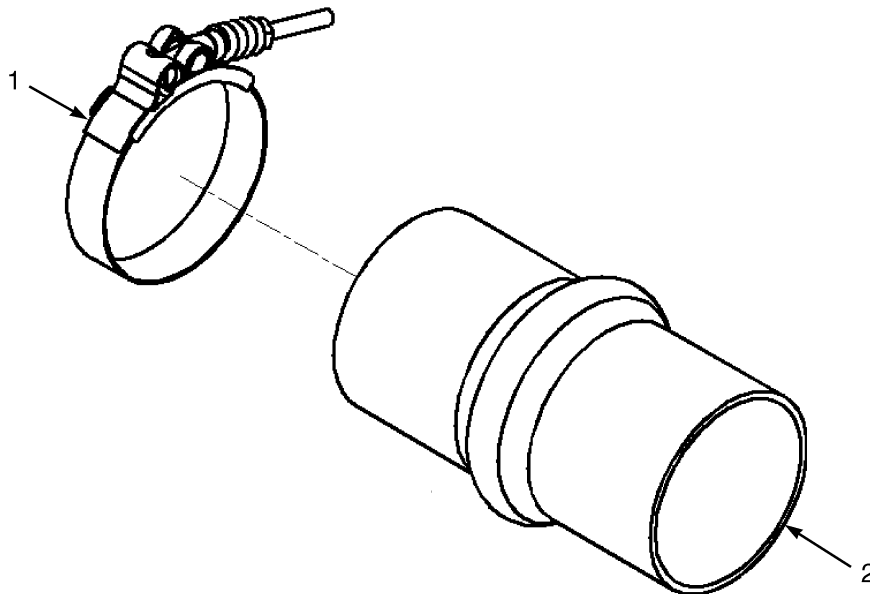


HP091438

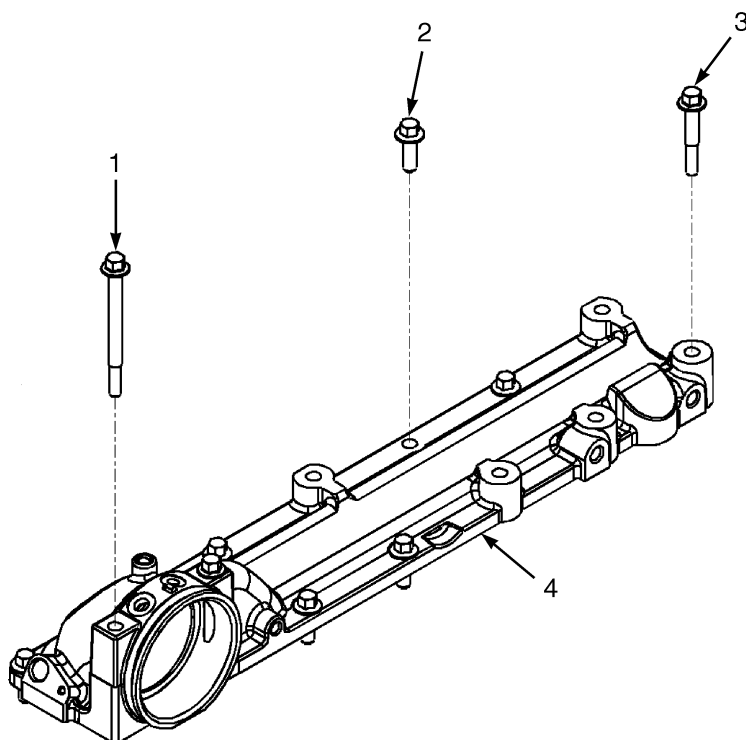
**AIR HEATER
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
		Air Heater Assembly	1
	1661077	Starting Aid	1
1	1661078	Housing	1
2		Rivet	3
3	1648590	Washer	2
4	1661082	Washer	1
5		Insulating Washer	1
6		Insulating Washer	2
7		Adapter	1
8		Retainer	2
9		Leaf Spring	2
10		Washer	1
11		Heating Element	2
12	1661080	Retainer	1
13		Washer	2
14	1661079	Washer	1
15	1635363	Retainer	1
16	1661074	Capscrew	1
17	1513836	Screw	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →



ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1521889	Clamp	8
2	1521888	Hose	4

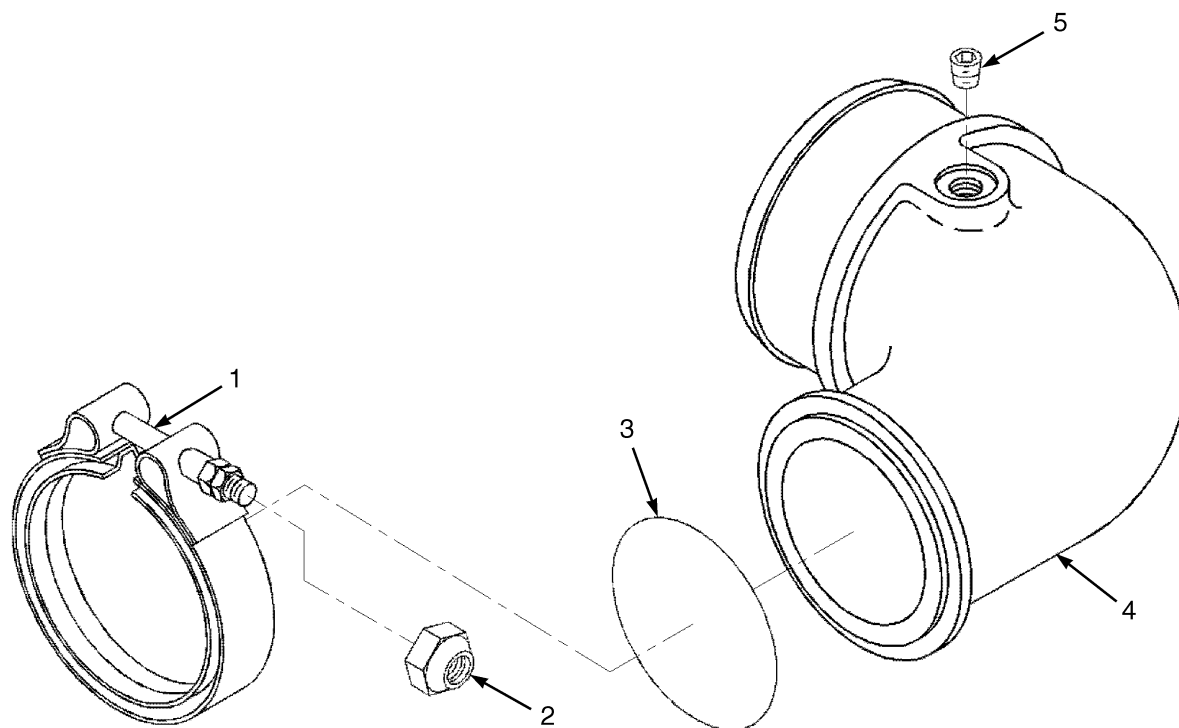
AIR INTAKE MANIFOLD (FIGURE 2-50)
CUMMINS DIESEL

HP091348

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1512296	Capscrew	2
2	1512295	Capscrew	7
3	1513725	Capscrew	1
4	1635411	Manifold	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

AIR TRANSFER CONNECTION (FIGURE 2-51) CUMMINS DIESEL



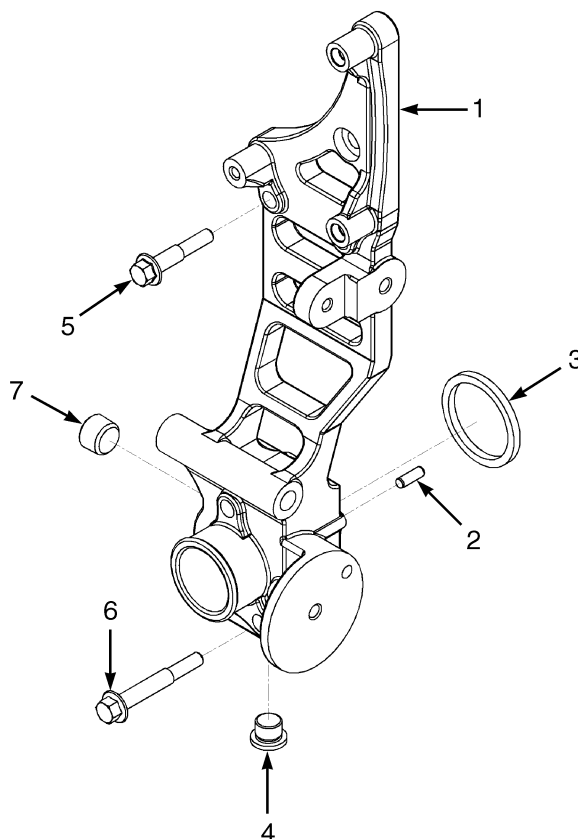
HP091349

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1597806	Clamp	1
2	1517094	Locknut	1
3	1515787	O-Ring	1
4	1521891	Pipe	1
5	1513191	Fitting	1

FOOTNOTES:

a → S/N H007E02176F

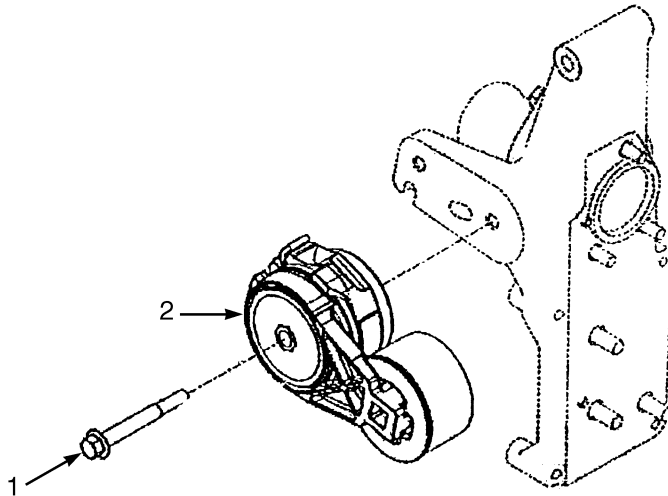
b S/N H007E02177F →

ALTERNATOR SUPPORT AND WATER INLET (FIGURE 2-52)
CUMMINS DIESEL

HP091439

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635403	Water Inlet	1
1	1666567	Water Inlet	1
2	1632983	Dowel	2
3	1512305	O-Ring	1
4	1661398	Plug	1
5	1517003	Capscrew	3
6	1614515	Capscrew	3
7	1512292	Plug	1

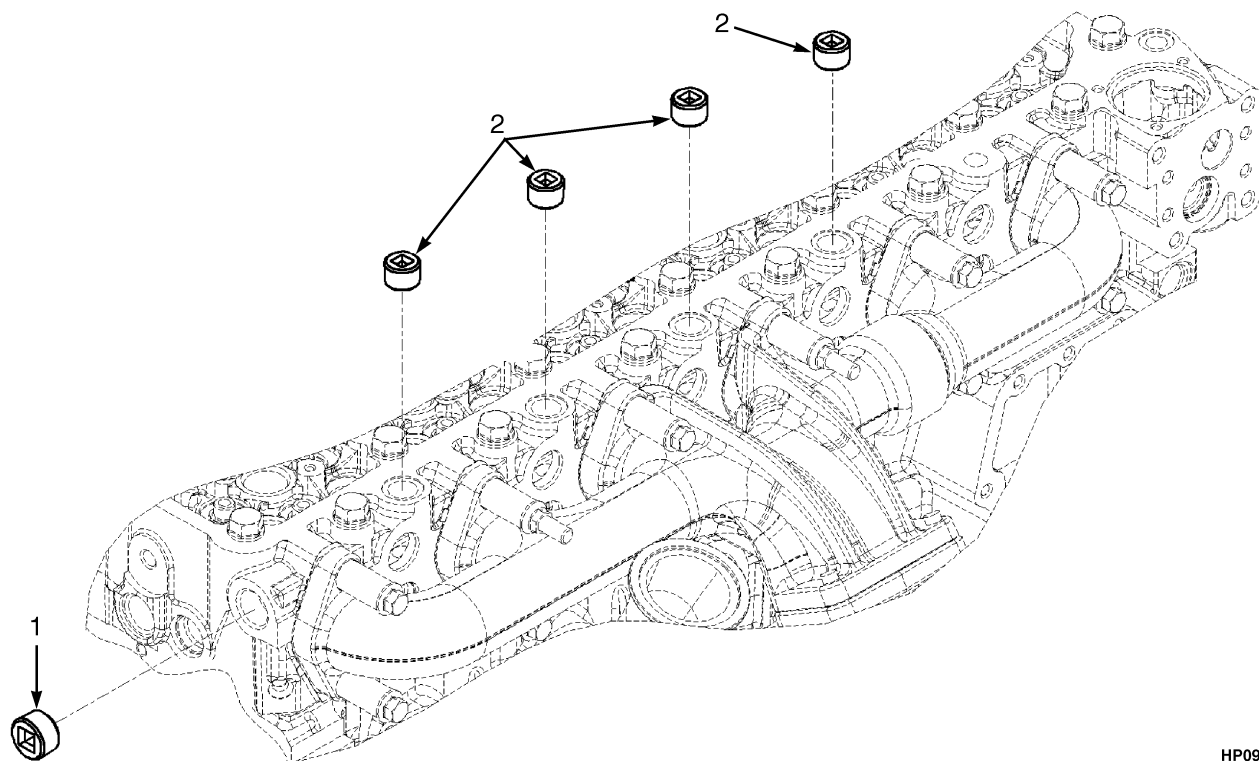
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

BELT TENSIONER (FIGURE 2-53)
CUMMINS DIESEL

HP091364

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1521938	Capscrew	1
2	1635318	Belt Tensioner	1

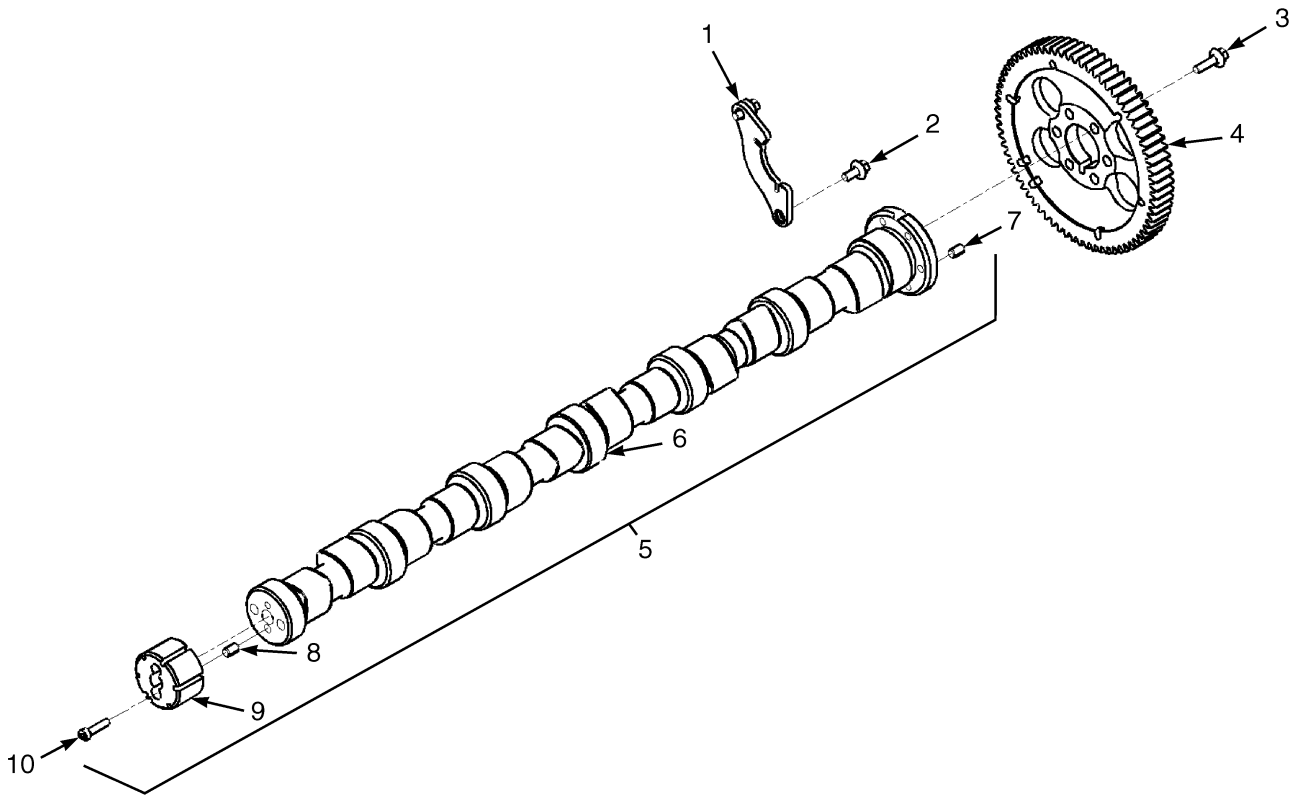
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

CAB HEATER PLUMBING (FIGURE 2-54)
CUMMINS DIESEL

HP091441

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1512292	Plug	1
2	1511952	Fitting	4

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

CAMSHAFT (FIGURE 2-55)
CUMMINS DIESEL

HP091353

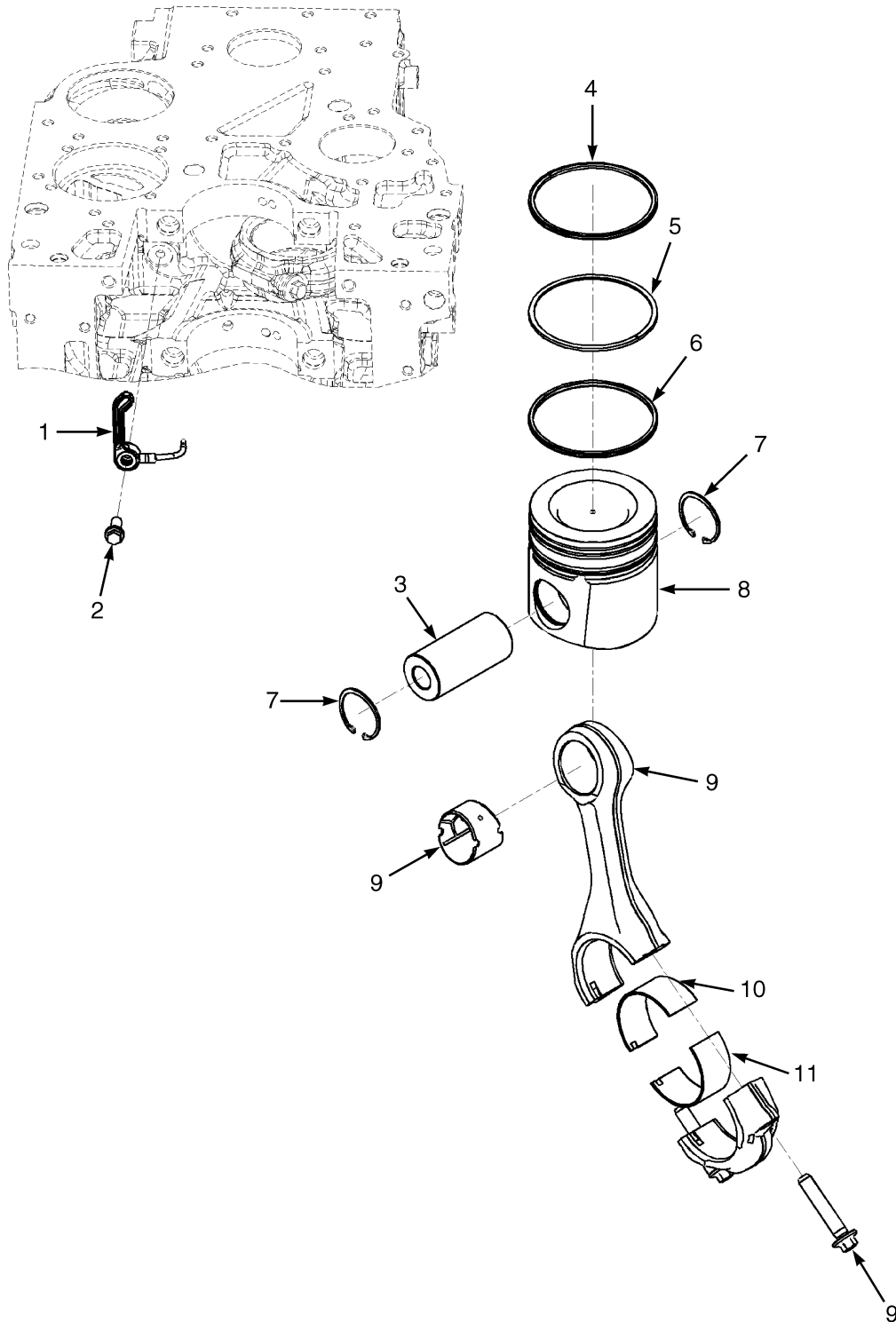
ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1635369	Plate	1
2	1513749	Capscrew	2
3	1597807	Capscrew (Flange)	6
4	1635275	Gear	1
5		Camshaft Assembly	1
6	1635340	Camshaft	1
7	1514346	Dowel	1
8	1635269	Ring	1
9	1635272	Indicator	1
10	1635362	Capscrew	2

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

NOTES

This image shows a single page from a notebook or ledger. It features a series of evenly spaced, horizontal black lines running across the width of the page. The lines are thin and uniform, providing a guide for writing. There are no margins, headers, footers, or other markings present on the page.

CONNECTING RODS AND PISTONS (FIGURE 2-56) CUMMINS DIESEL



HP091352

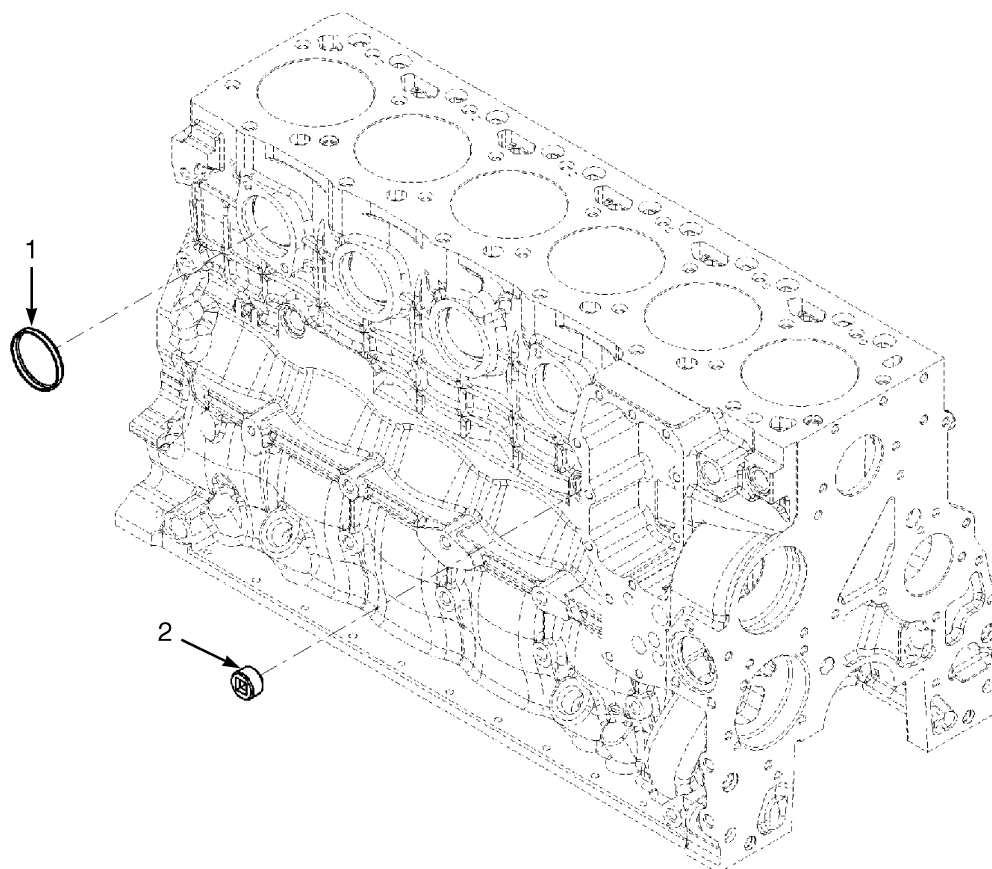
**CONNECTING RODS AND PISTONS
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1661211	Nozzle (Piston Cooling)	6
2	1635282	Screw (Banjo Connector)	6
3	1635400	Pin	6
4	1635409	Piston Ring	6
5	1635316	Piston Ring	6
6	1638703	Piston Ring	6
7	1512146	Retaining Ring	12
8	1635406	Piston	6
8	1635408	Piston (Optional)	AR
9	1618590	Piston Rod	6
9		Connecting Rod	1
9	1553261	Capscrew	2
9	1553262	Bushing	1
10	1635295	Bearing (Standard) (Upper)	6
10	1638419	Bearing (Upper)	AR
10	1638420	Bearing (Upper)	AR
10	1638421	Bearing (Upper)	AR
10	1638422	Bearing (Upper)	AR
11	1543445	Bearing (Standard) (Lower)	6
11	1584817	Bearing (.010 in.) (Lower)	AR
11	1584818	Bearing (.020 in.) (Lower)	AR
11	1584819	Bearing (.030 in.) (Lower)	AR
11	1584820	Bearing (.040 in.) (Lower)	AR

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

COOLANT HEATER STARTING AID (FIGURE 2-57)

CUMMINS DIESEL

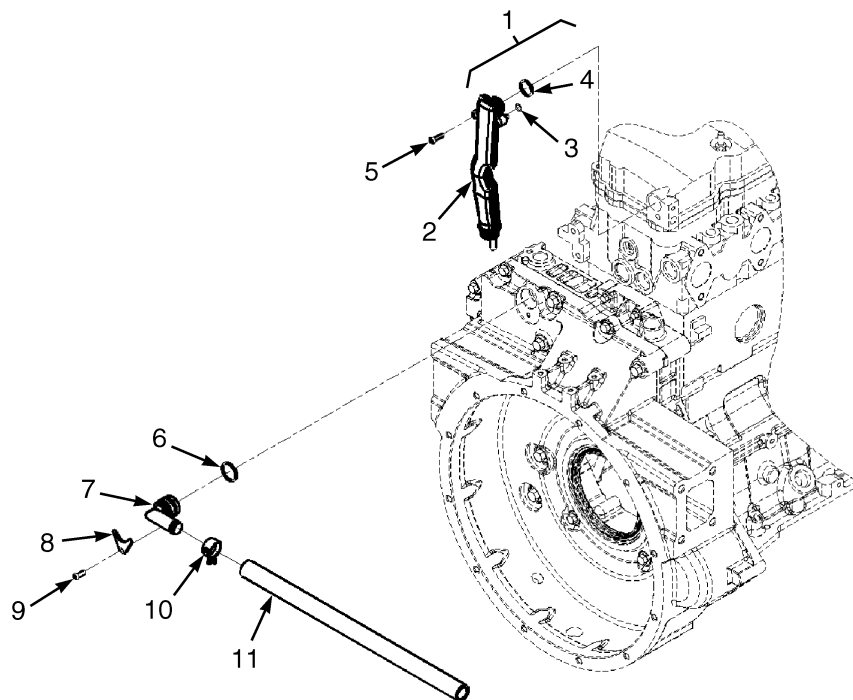


HP091331

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1661086	Plug (Expansion)	1
2	1512292	Plug	1

FOOTNOTES:

a → S/N H007E02176F**b** S/N H007E02177F →

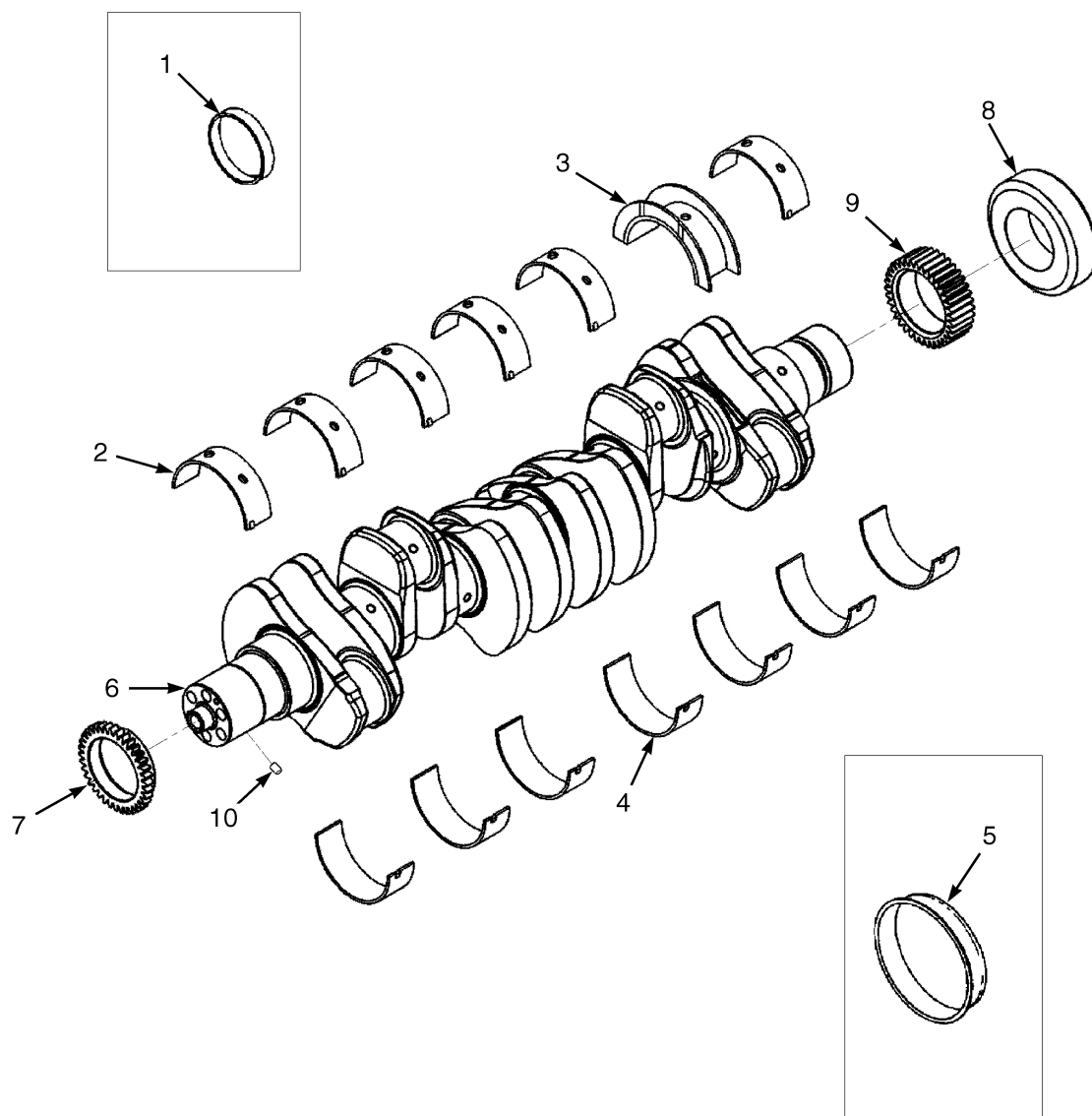
CRANKCASE BREATHER (FIGURE 2-58)
CUMMINS DIESEL

HP091329

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1635298	Tube Assy	1
2	1635291	Tube Assy	1
3	1635281	O-Ring	2
4	1632984	O-Ring	1
5	1661085	Capscrew	1
6	1635227	O-Ring	1
7	1635286	Breather	1
8	1635382	Plate	1
9	1635383	Capscrew	1
10	1635259	Hose Clamp	1
11	1511972	Hose	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

CRANKSHAFT AND BEARINGS (FIGURE 2-59) CUMMINS DIESEL



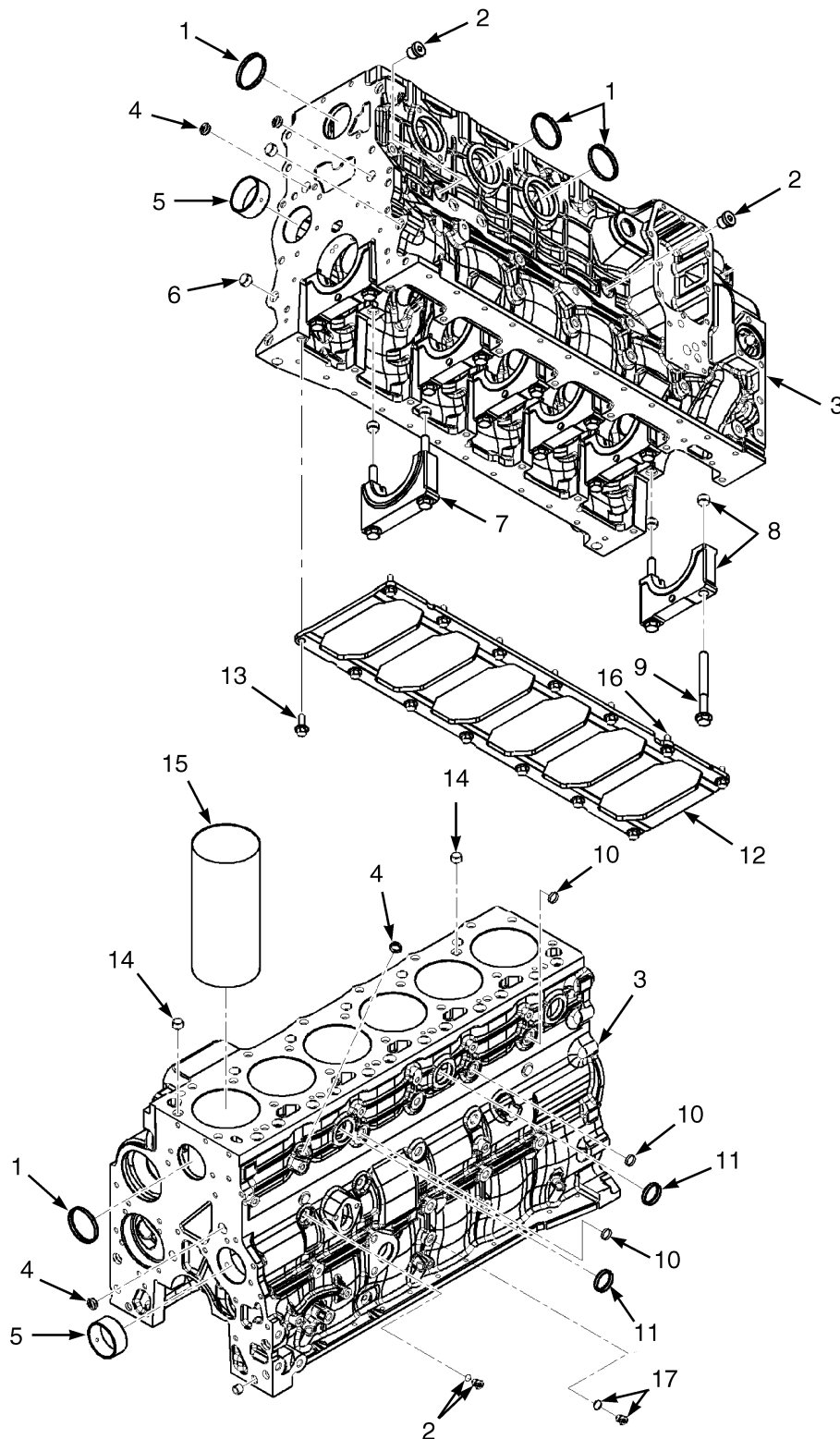
HP091328

**CRANKSHAFT AND BEARINGS
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1554045	Kit-Wear Sleeve (Front)	1
2	1543317	Bearing (Standard) (Upper)	6
2	1585002	Bearing (0.25 mm O/S) (Upper)	6
2	1584992	Bearing (0.50 mm O/S) (Upper)	6
2	1584995	Bearing (0.75 mm O/S) (Upper)	6
2	1585000	Bearing (1.00 mm O/S) (Upper)	6
3	1543316	Thrust Bearing (Standard) (Upper)	1
3	1637777	Thrust Bearing (Standard) (Lower)	1
3	1637782	Thrust Bearing (0.25 mm O/S) (Lower)	1
3	1637783	Thrust Bearing (0.50 mm O/S) (Lower)	1
3	1637784	Thrust Bearing (0.75 mm O/S) (Lower)	1
3	1637785	Thrust Bearing (1.00 mm O/S) (Lower)	1
4	1543318	Bearing (Standard) (Lower)	7
5	1514354	Kit-Wear Sleeve (Rear)	1
6	1635310	Crankshaft	1
6		Crankshaft	1
7	1635274	Gear	1
8		Collar	1
9	1635273	Gear	1
10	1514346	Dowel	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

CYLINDER BLOCK (FIGURE 2-60) CUMMINS DIESEL



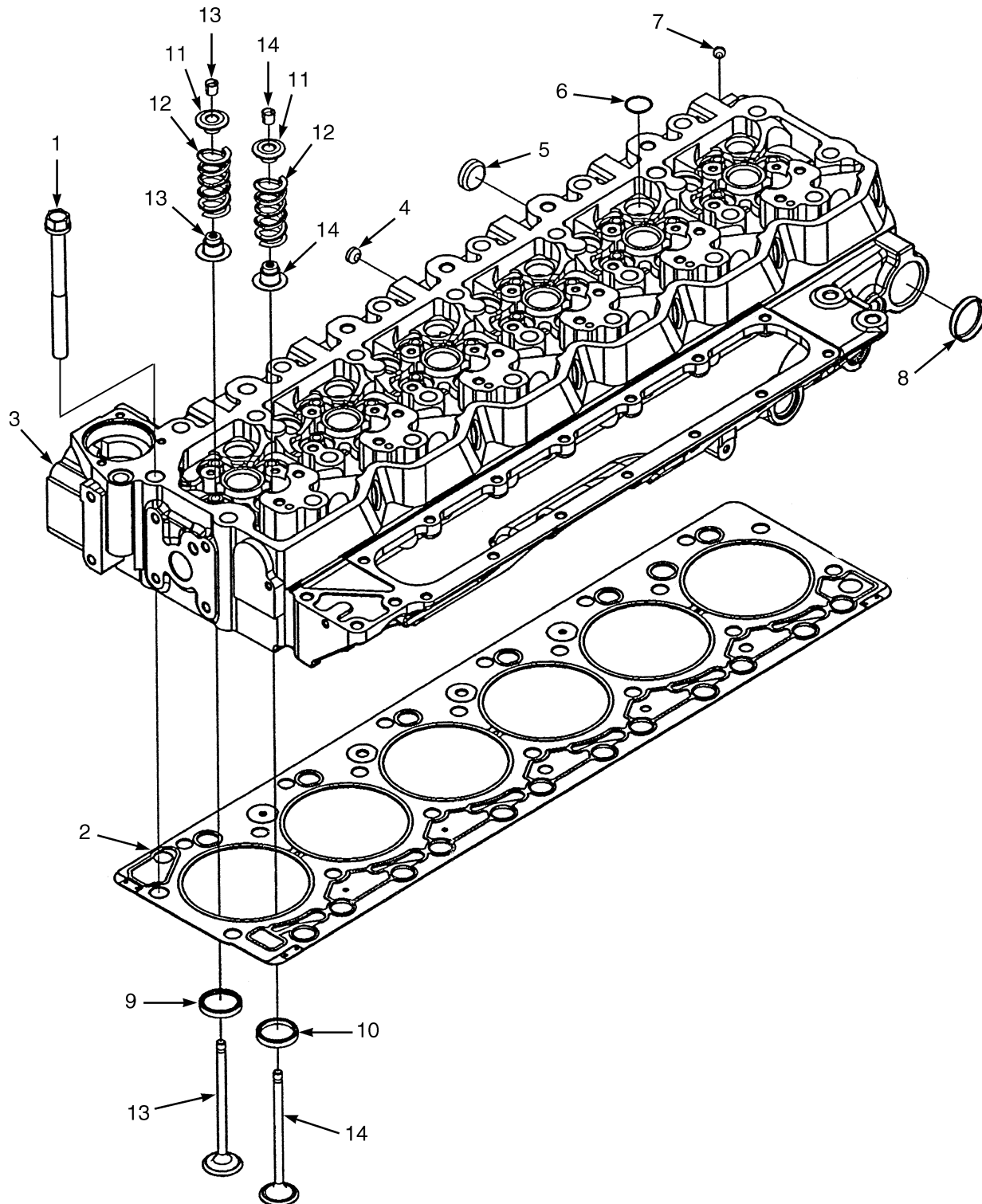
HP091452

**CYLINDER BLOCK
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
		Cylinder Block Assembly	1
1	1661086	Plug	4
2	1635330	Plug	2
3		Cylinder Block	1
4	1512304	Plug	2
5	1521682	Bushing	2
6	1521685	Ring	AR
7	1635308	Cap (Main Bearing)	1
7	1521685	Ring	2
8	1635307	Cap (Main Bearing)	6
8	1521685	Ring	2
9	1521683	Capscrew	14
10	1512585	Plug	3
11	1513788	Plug	3
12	1638696	Plate (Stiffener)	1
13	1512503	Capscrew	10
14	1521691	Ring	2
15	1585284	Sleeve	AR
16	1640824	Capscrew	1
17	1643866	Plug	1
	1662315	Kit-Gasket (Lower)	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

CYLINDER HEAD (FIGURE 2-61) CUMMINS DIESEL



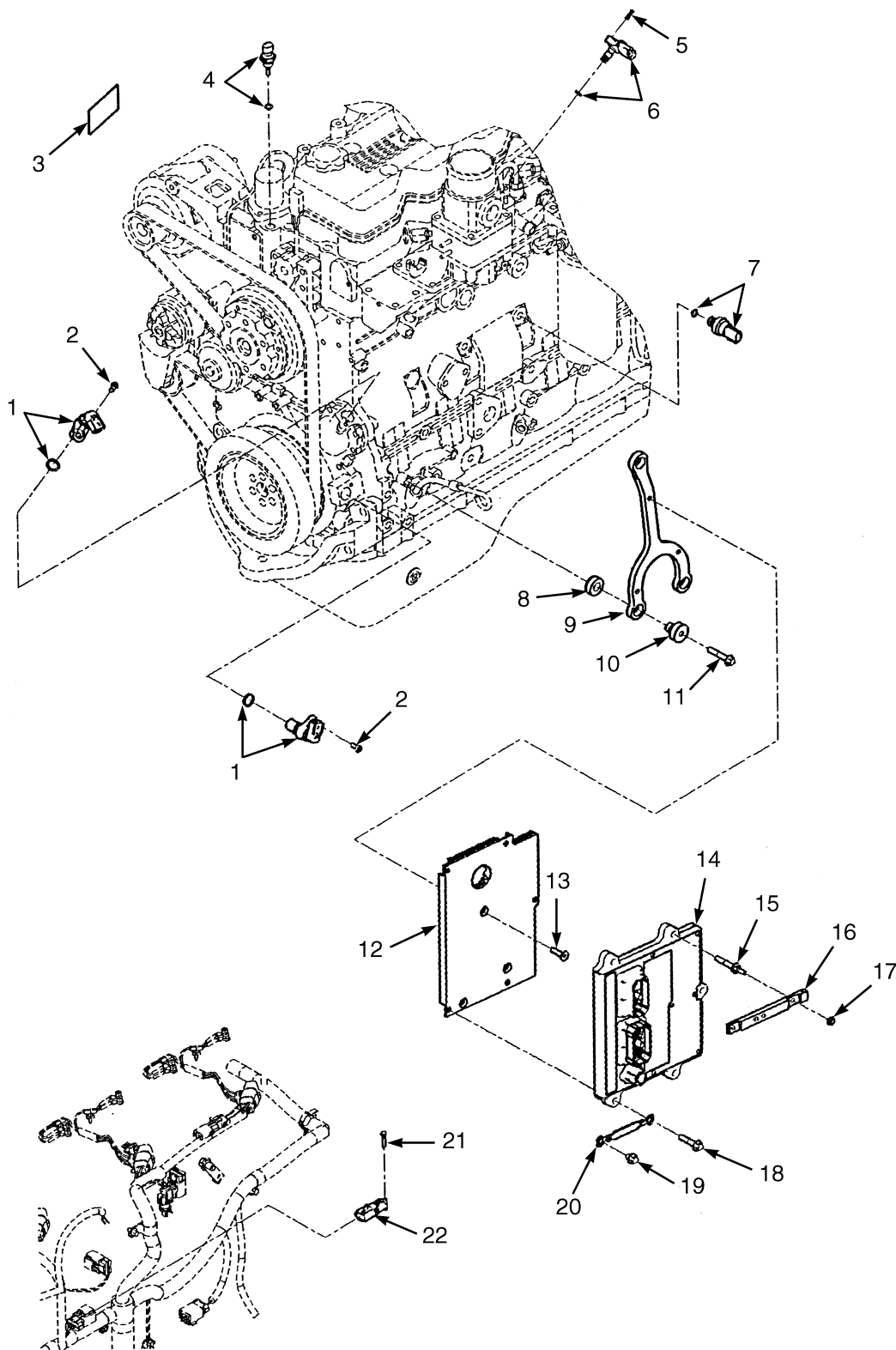
HP131323

**CYLINDER HEAD
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1521901	Screw	26
2	1635407	Gasket	1
3	1661288	Cylinder Head	1
3	1635321	Cylinder Head	1
4	1521919	Plug	2
5	1512585	Plug	13
6	1514339	Plug	11
7	1512586	Plug	7
8	1517190	Plug	2
9	1584925	Insert (Intake Valve)	12
10	1635464	Insert (Exhaust Valve)	12
11	1521915	Retainer	24
12	1661289	Spring	24
13	1521913	Kit-Valve (Intake)	12
13	1521914	Keeper	24
13	1584922	Seal (Valve Stem)	12
13	1521913	Kit-Valve (Intake)	12
14	1635346	Kit-Exhaust Valve	12
14	1521914	Keeper	24
14	1584923	Seal (Valve Stem)	12
	1662314	Kit-Gasket (Upper)	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

ENGINE CONTROL MODULE (FIGURE 2-62) CUMMINS DIESEL

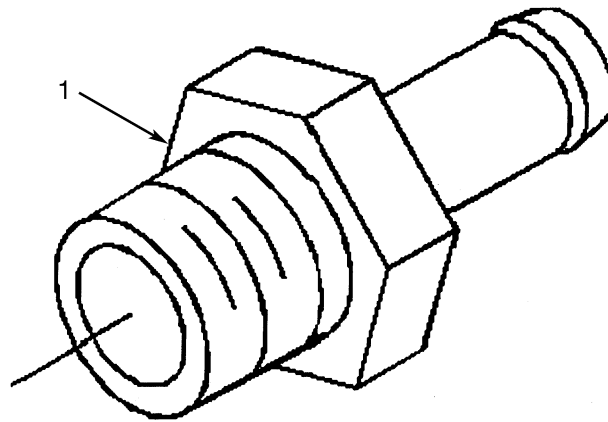


HP091322

**ENGINE CONTROL MODULE
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635457	Sensor (Camshaft Position)	2
1	1635240	Sensor	1
1	1635342	O-Ring	1
2	1543437	Capscrew	2
3	1635359	Data Plate	1
4	1565040	Temperature Sensor	1
4	1565885	Temperature Sender	1
4	1543435	O-Ring	1
5	1635280	Capscrew	2
6	1661205	Sensor	1
6		Pressure And Temperature Sensor	1
6	1635387	O-Ring	1
7	1543439	Oil Pressure Sensor	1
7	1543440	Pressure Switch	1
7	1543435	O-Ring	1
8	1635277	Isolator	3
9	1635323	Bracket	1
10	1635278	Isolator	3
11	1512111	Capscrew	3
12	1635324	Support	1
13	1614461	Capscrew (Flat Head)	3
14	1635421	Electronic Control Module	1
15	1635422	Capscrew	3
16	1635315	Bracket (Sensor)	1
17	1513793	Nut	2
18	1565007	Capscrew	2
19	1517266	Capscrew	1
20	1635325	Wire	1
21	1514504	Capscrew	1
22	1635345	Sensor (Pressure)	1

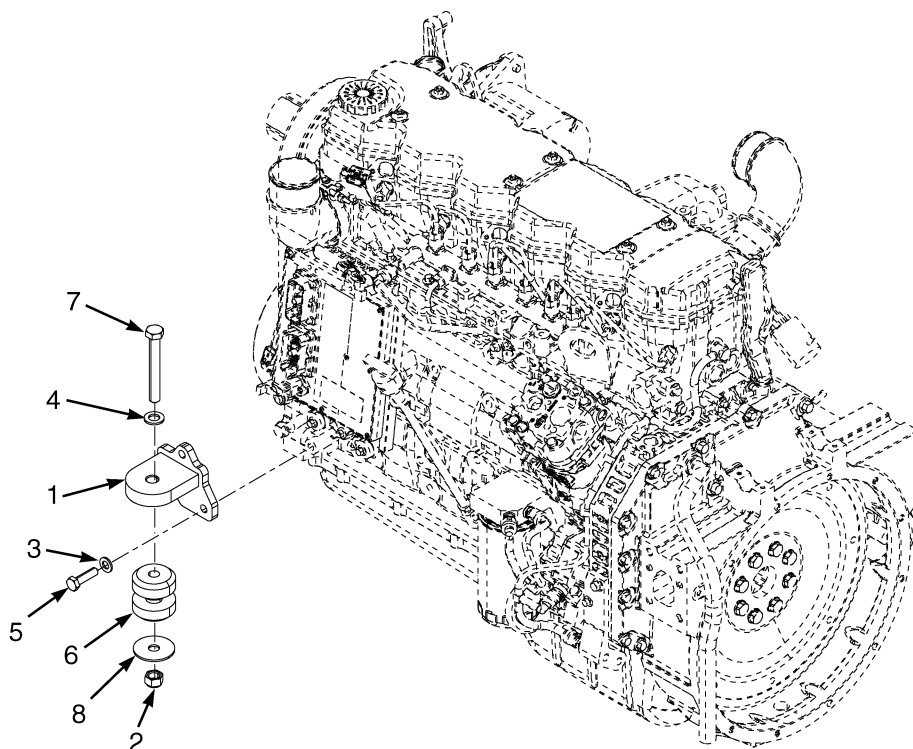
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

ENGINE COOLANT VENT (FIGURE 2-63)
CUMMINS DIESEL

HP090908

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1517250	Fitting	1

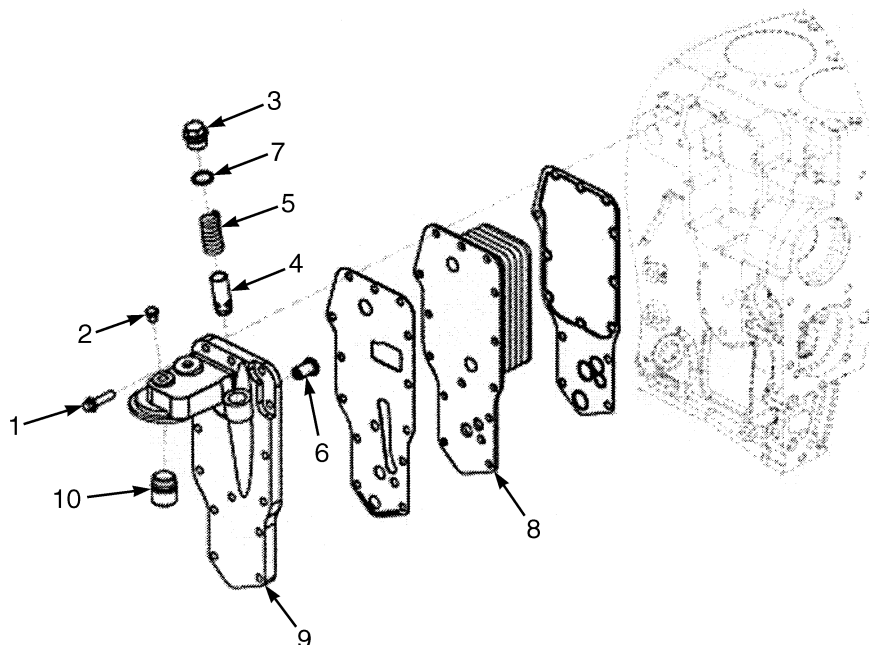
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

ENGINE MOUNT (FIGURE 2-64)
CUMMINS DIESEL

HP091431

ITEM	PART NO.	DESCRIPTION	QTY
1	1619570	Mount (RH)	1
1	1619572	Mount (LH)	1
2	302404	Locknut	2
3	320161	Washer	6
4	320165	Washer	2
5	296044	Capscrew	6
6	1393708	Isolator	2
7	292573	Capscrew	2
8	1452404	Washer	2

ENGINE OIL COOLER (FIGURE 2-65) CUMMINS DIESEL



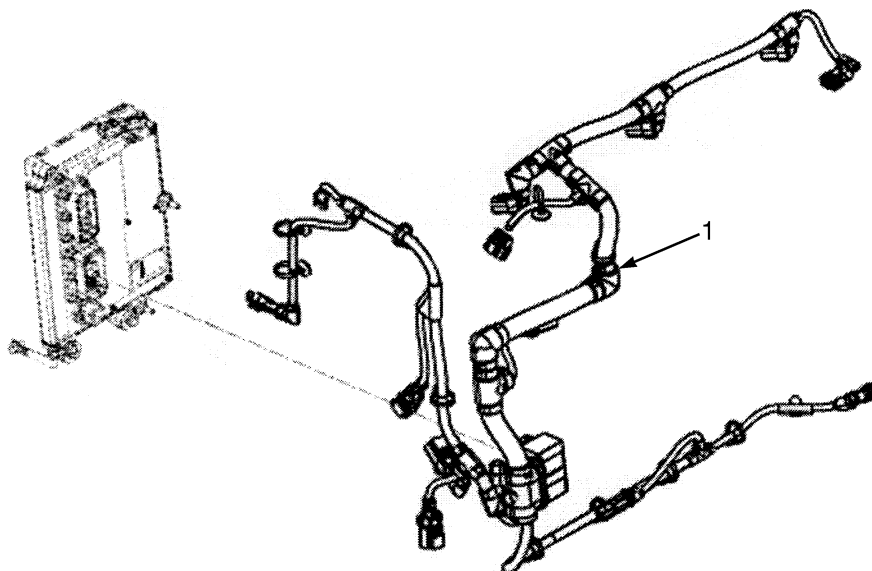
HP091449

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1512111	Capscrew	15
2	1512448	Fitting	2
3	1637850	Plug	1
4	1637851	Plunger	1
5	1512112	Spring	1
6	1513772	Relief Valve (Pressure)	1
7	1512118	O-Ring	1
8	1635314	Oil Cooler	1
9	1637852	Filter Head	1
10	1553782	Adapter	1

FOOTNOTES:

a → S/N H007E02176F

b S/N H007E02177F →

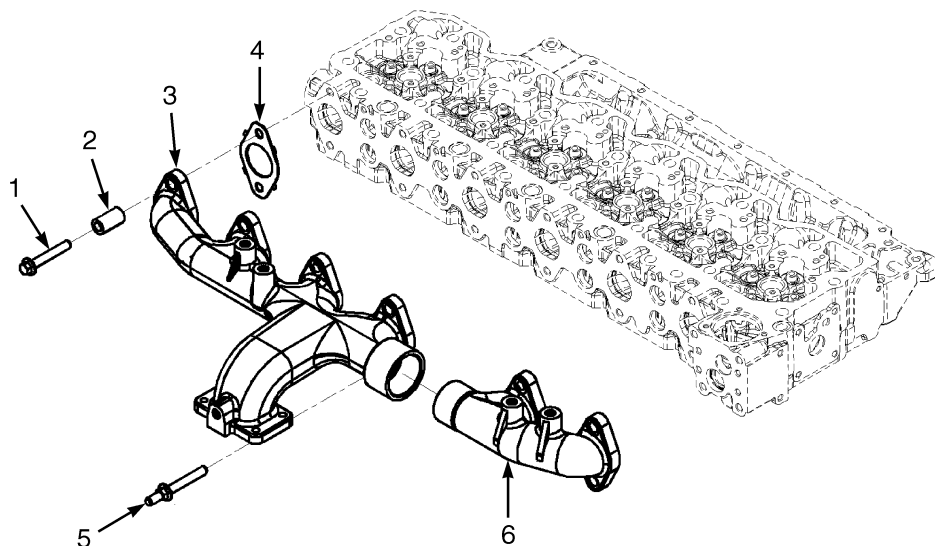
ETR MODULE WIRING (FIGURE 2-66)
CUMMINS DIESEL

HP091451

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1661072	Wire Harness	1
1	1702191	Wire Harness (Alternate Part)	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

EXHAUST MANIFOLD (FIGURE 2-67) CUMMINS DIESEL



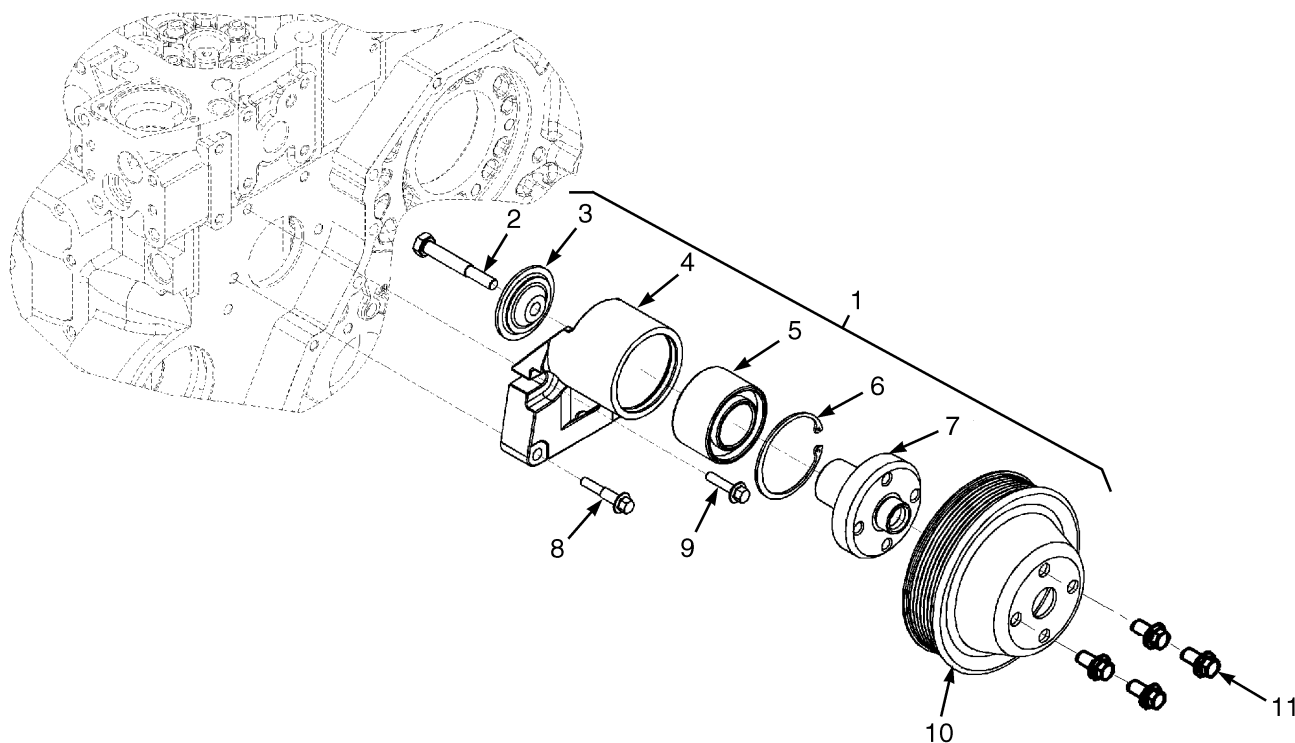
HP091334

ITEM	PART NO.	DESCRIPTION	QTY
	b 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	c 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	b 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	c 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1517257	Screw	11
2	1517256	Spacer	12
3	1635373	Exhaust Manifold	1
4	1521952	Gasket	6
5	1565045	Capscrew	1
6	1635374	Exhaust Manifold	1
	a 1373430	Clamp (Exhaust Outlet Connection)	1

FOOTNOTES:

a Not Illustrated
b → S/N H007E02176F

c S/N H007E02177F →

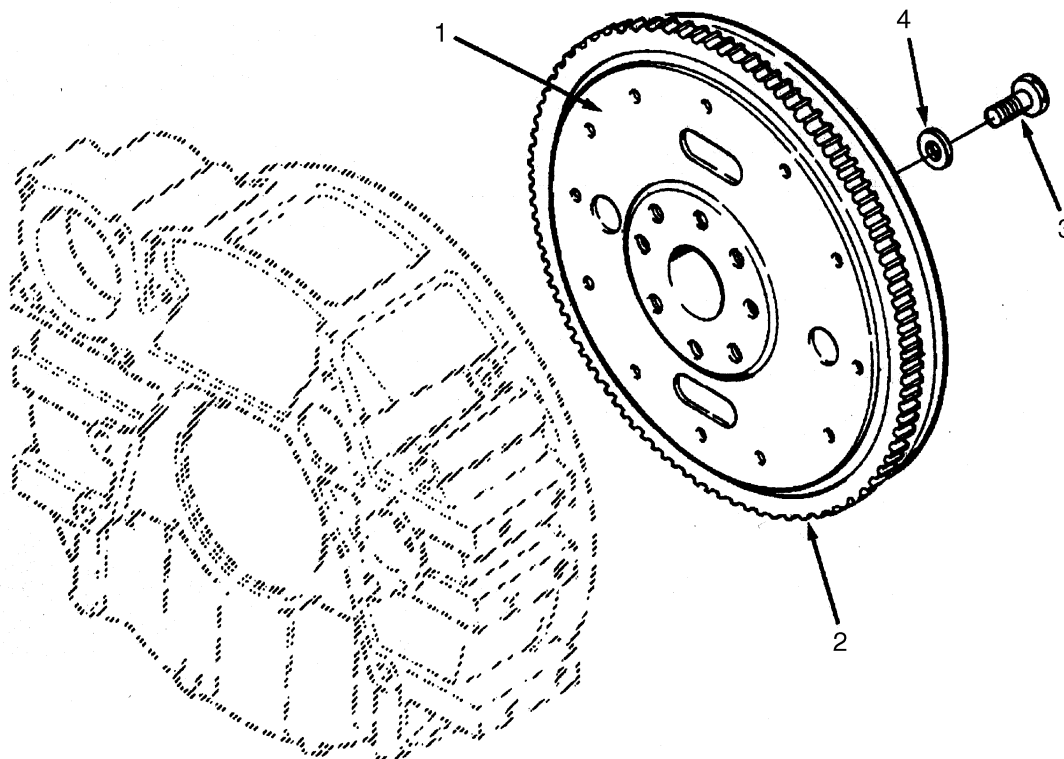
FAN DRIVE AND MOUNTING (FIGURE 2-68)
CUMMINS DIESEL

HP091335

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
		Fan Drive Assembly	1
1	1512424	Fan Mount	1
2	1512027	Capscrew	1
3	1512025	Hub	1
4		Support	1
5	1512015	Ball Bearing	1
6	1512026	Retaining Ring	2
7	1512024	Hub (Fan)	1
8	1512029	Screw	2
9	1635220	Capscrew	2
10	1635258	Fan Pulley	1
11	1512328	Capscrew	4
	1512287	Spacer (Fan Pilot)	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

FLYWHEEL AND MOUNTING (FIGURE 2-69) CUMMINS DIESEL



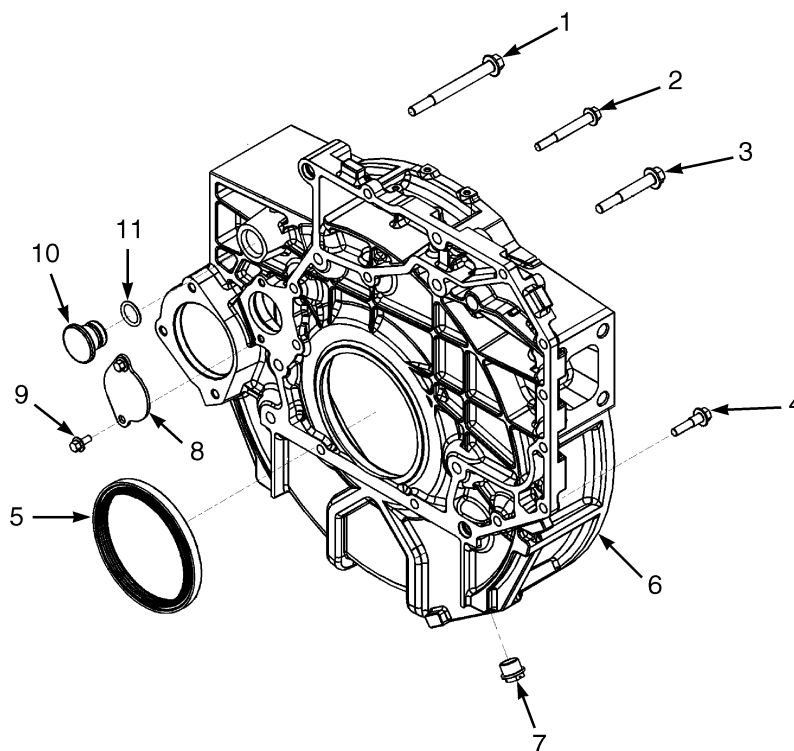
HP090879

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1598354	Flywheel	1
2	1512445	Ring Gear	1
3	1512106	Capscrew	8
4	1512107	Washer	8

FOOTNOTES:

a → S/N H007E02176F

b S/N H007E02177F →

FLYWHEEL HOUSING (FIGURE 2-70)
CUMMINS DIESEL

HP091338

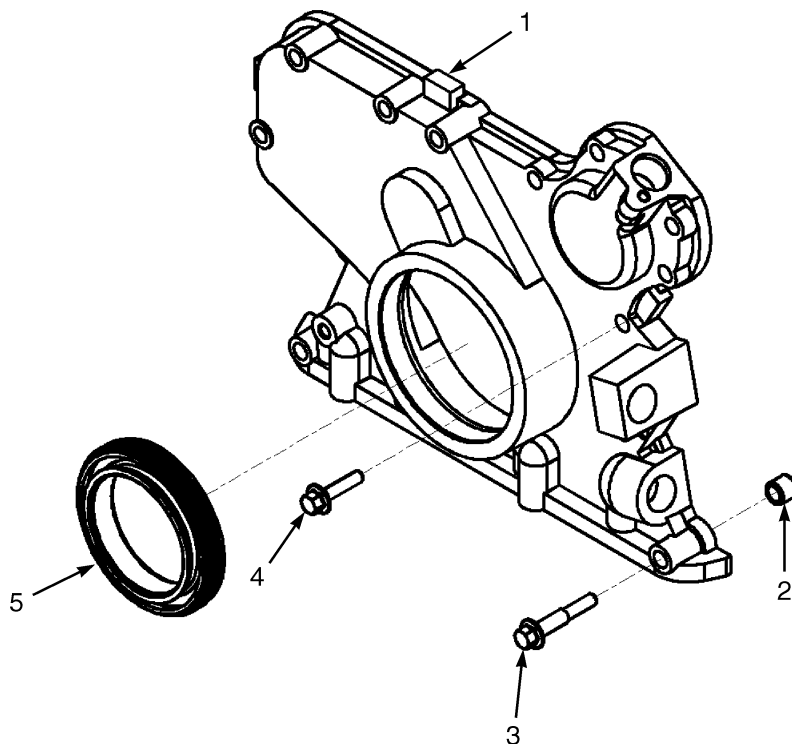
ITEM	PART NO.	DESCRIPTION	QTY
	b 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	c 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	b 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	c 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635228	Capscrew	2
2	1521938	Capscrew	2
3	1511981	Capscrew	6
4	1635255	Capscrew	10
5	1564993	Oil Seal	1
6	1635452	Flywheel Housing	1
6	1635302	Flywheel Housing	1
7	1512046	Plug	1
8	1635256	Plate	1
9	1511970	Capscrew	2
10	1512047	Fitting	1
11	1512048	O-Ring	1
	a 1603891	Tool (Seal Installation)	1
	1564992	Kit-Seal (Crankshaft)	AR

FOOTNOTES:

a Not illustrated
b → S/N H007E02176F

c S/N H007E02177F →

FRONT GEAR COVER (FIGURE 2-71) CUMMINS DIESEL



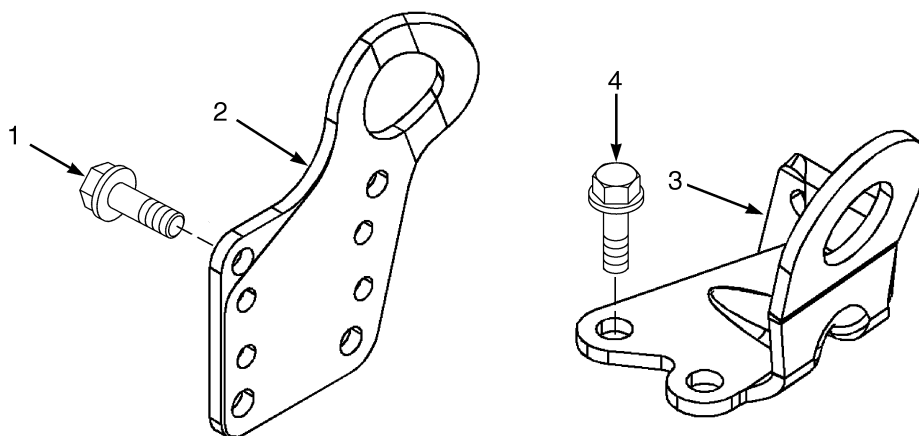
HP091342

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1661070	Cover	1
2	1635266	Ring	2
3	1512111	Capscrew	6
4	1512423	Capscrew	7
5	1635350	Oil Seal	1

FOOTNOTES:

a → S/N H007E02176F

b S/N H007E02177F →

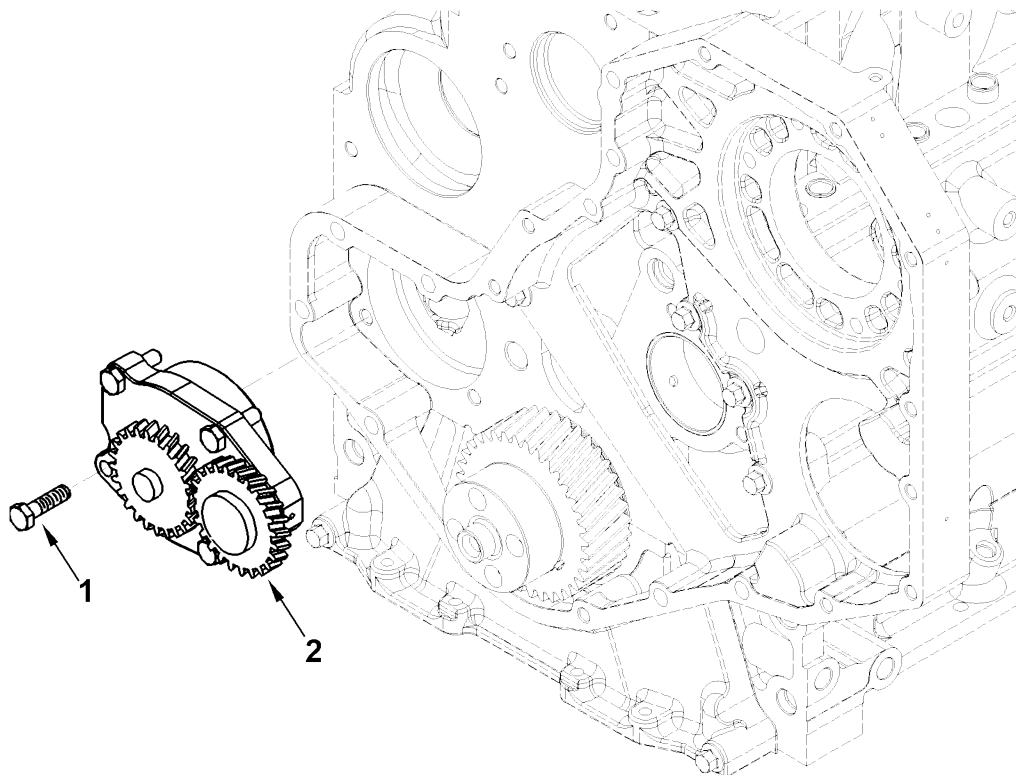
LIFTING BRACKETS AND MOUNTING (FIGURE 2-72)
CUMMINS DIESEL

HP091347

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635229	Capscrew	4
2	1635357	Bracket	1
3	1635396	Bracket	1
4	1512418	Capscrew	2

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

LUBRICATING OIL PUMP (FIGURE 2-73) CUMMINS DIESEL



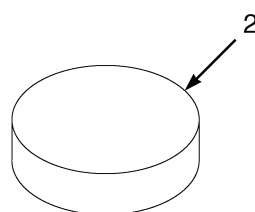
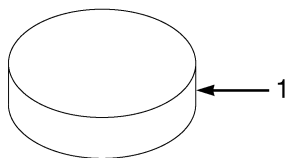
HP091122

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1512456	Capscrew	4
2	1661076	Oil Pump	1

FOOTNOTES:

a → S/N H007E02176F

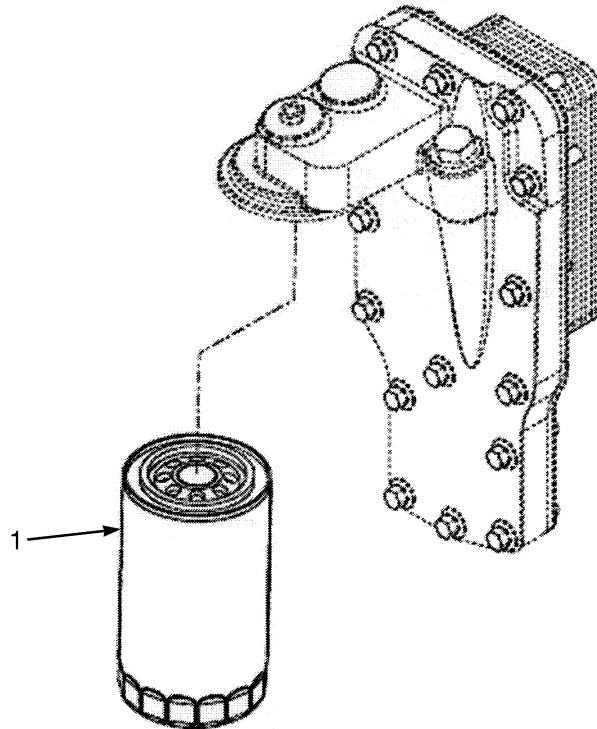
b S/N H007E02177F →

OIL FILLER (FIGURE 2-74)
CUMMINS DIESEL

HP091442

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635224	Plug	1
2	1514339	Plug	1

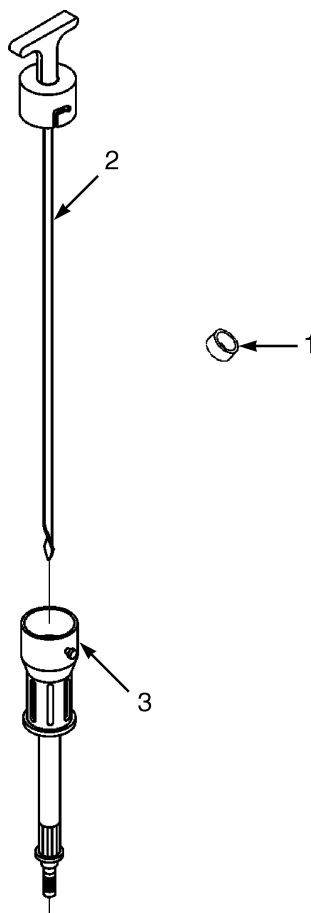
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

OIL FILTER (FIGURE 2-75)
CUMMINS DIESEL

HP091450

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1524551	Oil Filter	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

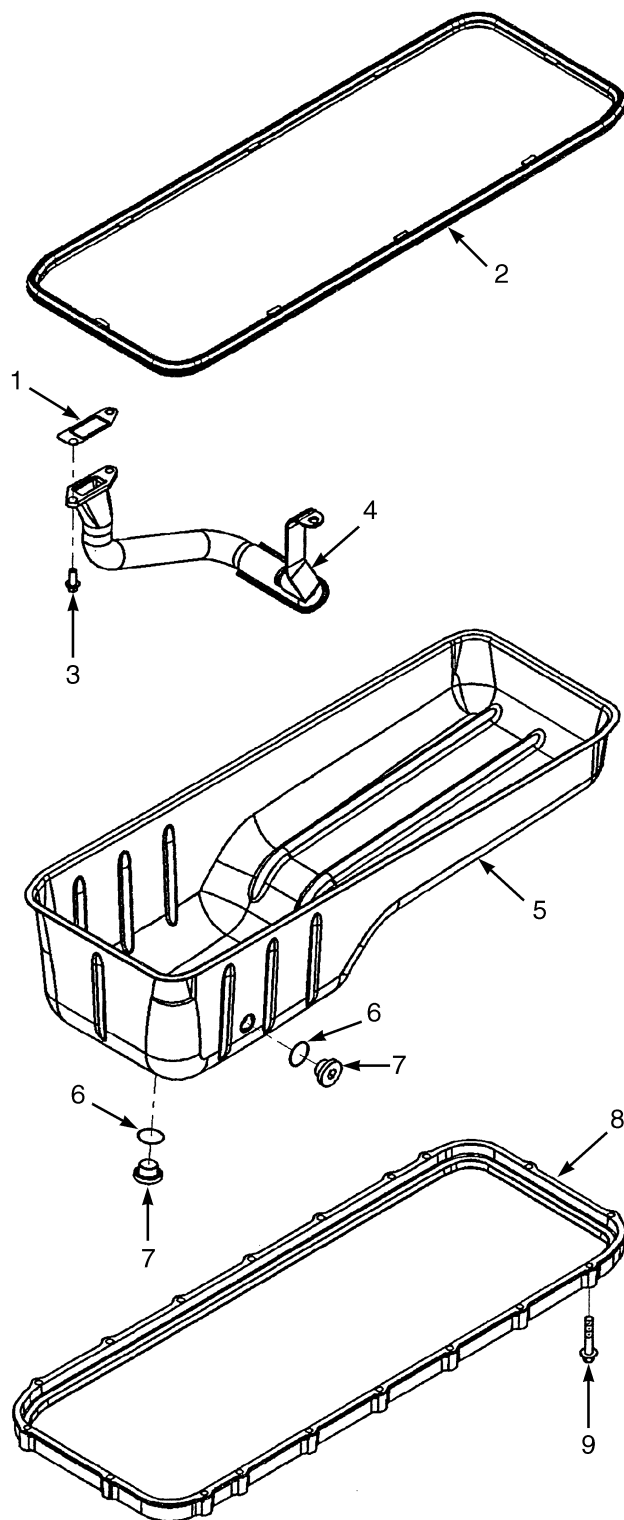
OIL LEVEL GAUGE (FIGURE 2-76)
CUMMINS DIESEL

HP091351

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1512130	Plug (Expansion)	4
2	1635319	Dipstick	1
3	1635309	Dipstick Tube	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

OIL PAN (FIGURE 2-77) CUMMINS DIESEL



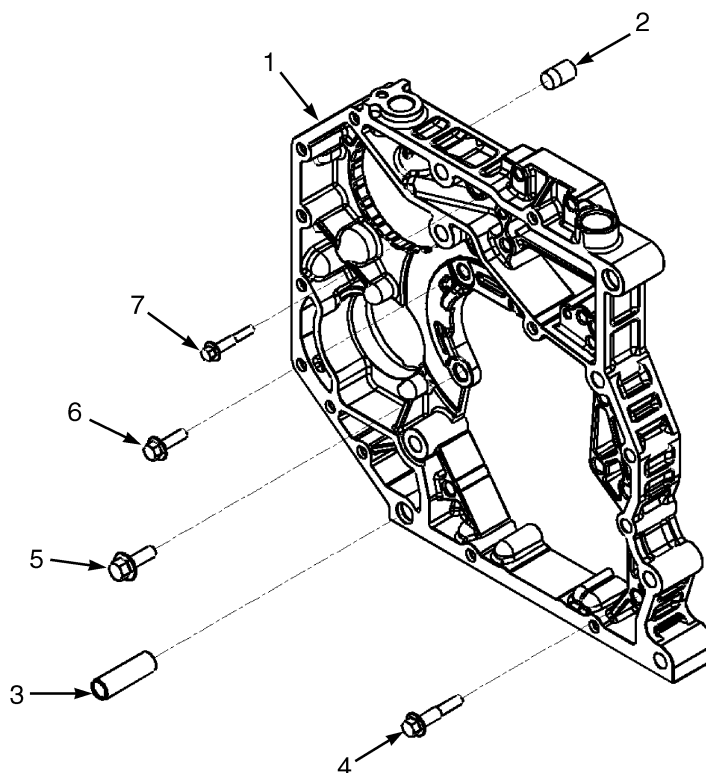
HP091356

**OIL PAN
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635375	Gasket	1
2	1635372	Gasket	1
3	1635225	Capscrew	2
4	1635336	Tube (Oil Suction)	1
5	1635461	Oil Pan	1
5	1635462	Oil Pan	1
6	1635234	Sealing Ring (Sealing)	2
7	1635233	Plug	2
8	1635371	Adapter	1
9	1512111	Capscrew	18

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

REAR GEAR HOUSING (FIGURE 2-78) CUMMINS DIESEL

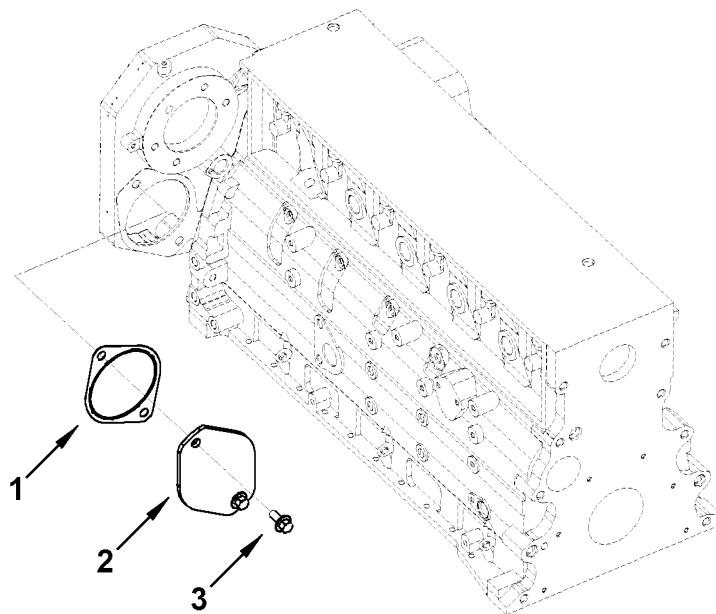


HP091327

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1661084	Housing	1
2	1635395	Insert	2
3	1635270	Ring (Dowel)	2
4	1635260	Capscrew	3
5	1511953	Capscrew	1
6	1511977	Capscrew	2
7	1512111	Capscrew	4

FOOTNOTES:

a → S/N H007E02176F**b** S/N H007E02177F →

REAR GEAR TRAIN ACCESSORY MOUNTING COVER (FIGURE 2-79)
CUMMINS DIESEL

HP091117

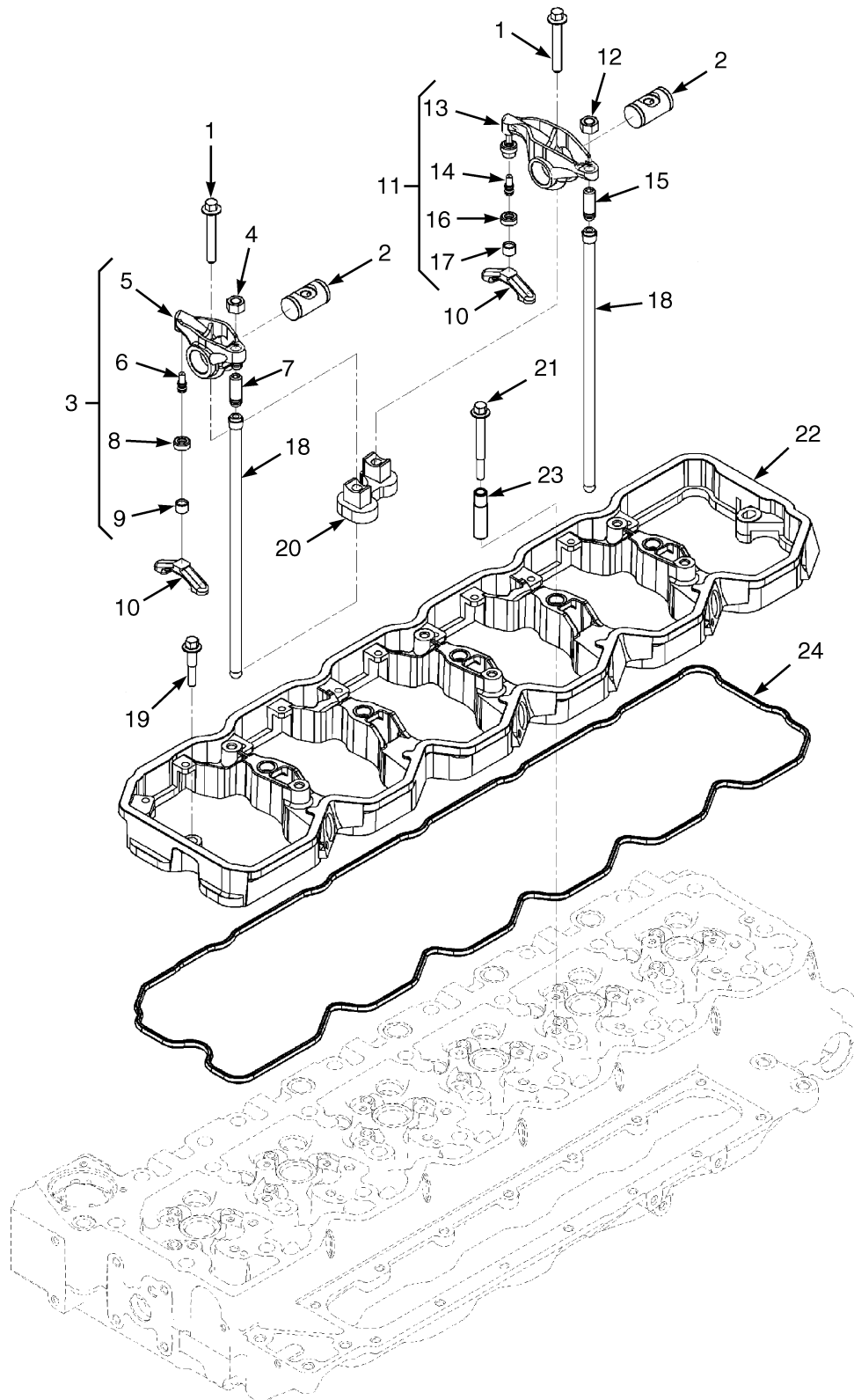
ITEM	PART NO.	DESCRIPTION	QTY
	b 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	c 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	b 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	c 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635367	Gasket	1
2	1512417	Cover Plate	1
3	1511953	Capscrew	2
	a 1661442	Adapter	1
	a 1661443	Drive Gear	1
	a 1512330	Bearing	1
	a 1512331	Drive Shaft	1

FOOTNOTES:

a Not Illustrated
b → S/N H007E02176F

c S/N H007E02177F →

ROCKER LEVERS (FIGURE 2-80) CUMMINS DIESEL



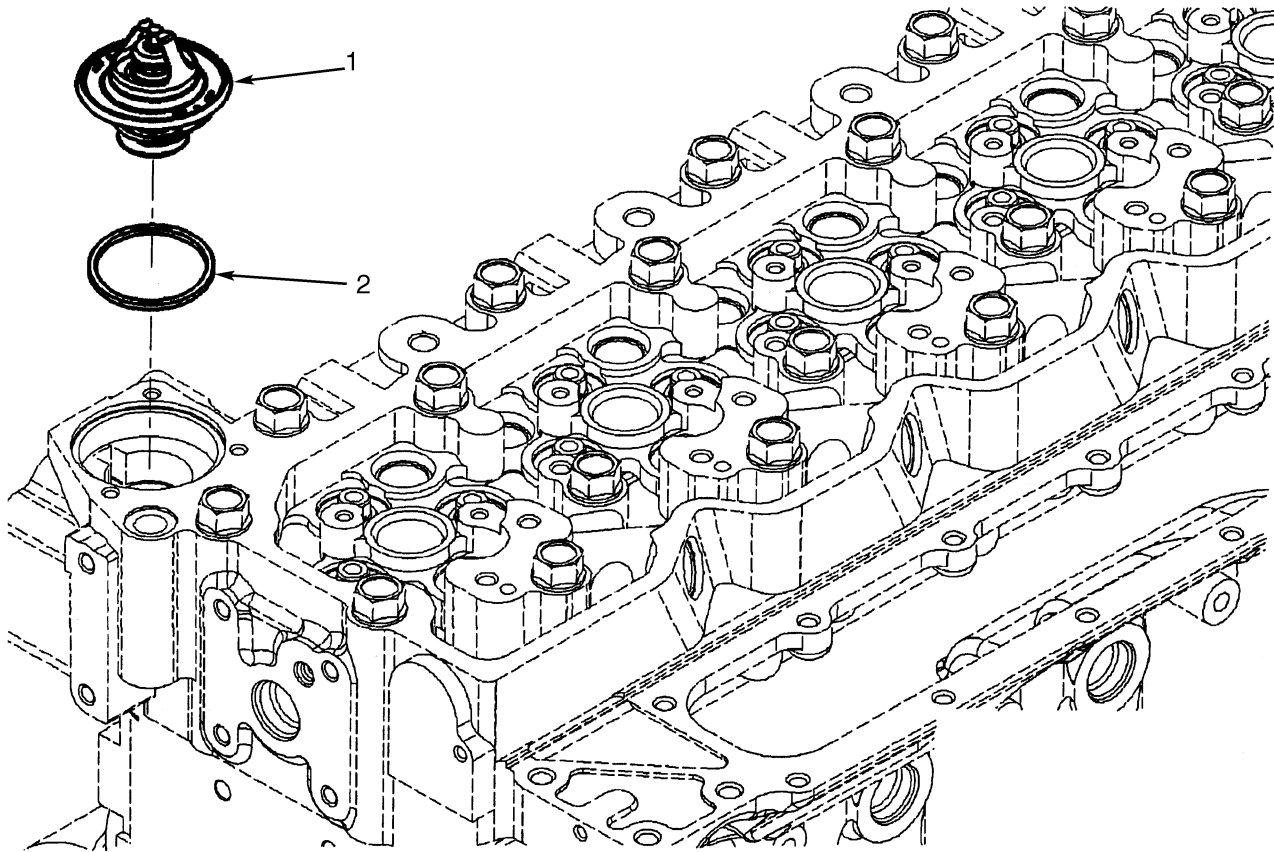
HP091355

**ROCKER LEVERS
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
		Rocker Lever Assembly	6
1	1553952	Capscrew	2
2	1635388	Rocker Shaft	2
3	1521939	Rocker (Exhaust)	1
3		Rocker Lever	1
4	1513806	Nut	1
5		Lever	1
6		Ball	1
7	1553956	Screw	1
8		Retainer	1
9		Socket	1
10	1521944	Valve (Crosshead)	12
11	1521937	Rocker (Intake)	1
11		Rocker Lever	1
12	1513806	Nut	1
13		Lever	1
14		Ball	1
15	1553956	Screw	1
16		Retainer	1
17		Socket	1
18	1521943	Push Rod	12
19	1513725	Capscrew	2
20	1584933	Support	2
21	1635254	Capscrew	5
22	1635380	Housing	1
22		Housing	1
23		Sleeve	5
24	1635378	Gasket	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

THERMOSTAT (FIGURE 2-81) CUMMINS DIESEL



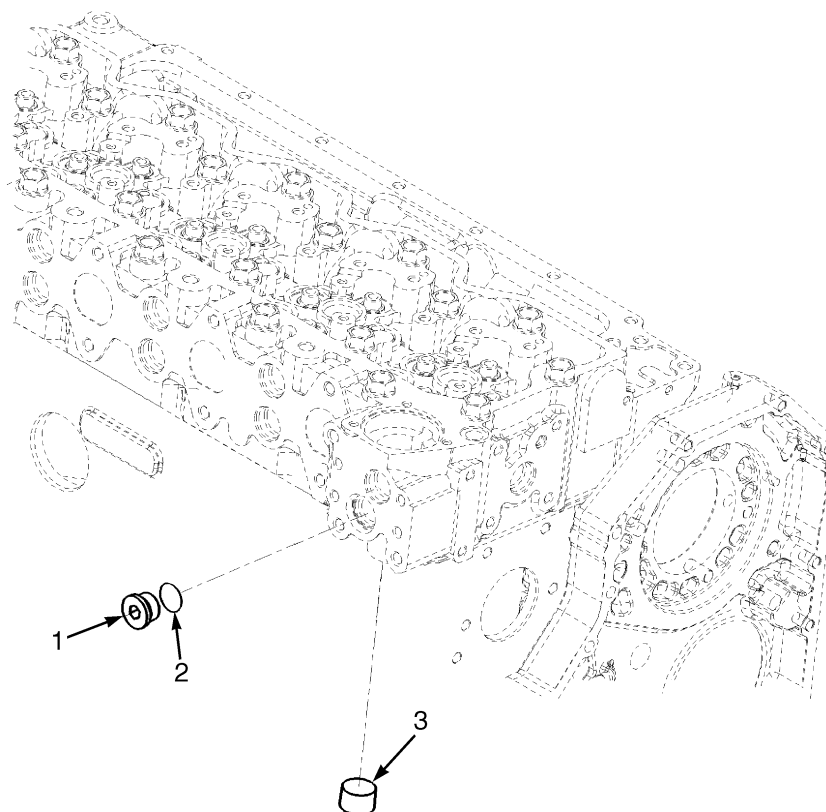
HP090893

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635397	Thermostat	1
2	1552716	Seal	1

FOOTNOTES:

a → S/N H007E02176F

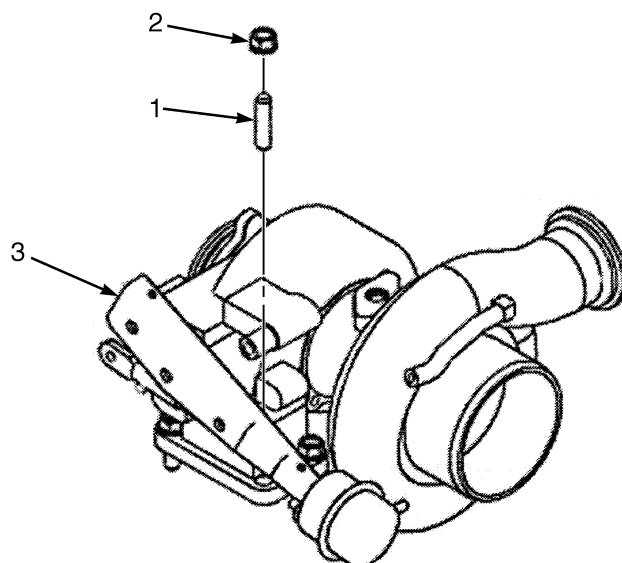
b S/N H007E02177F →

TORQUE CONVERTER COOLER PLUGS (FIGURE 2-82)
CUMMINS DIESEL

HP091440

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	1589584	Plug	1
1		Plug	1
2	1517262	O-Ring	1
3	1512292	Plug	1

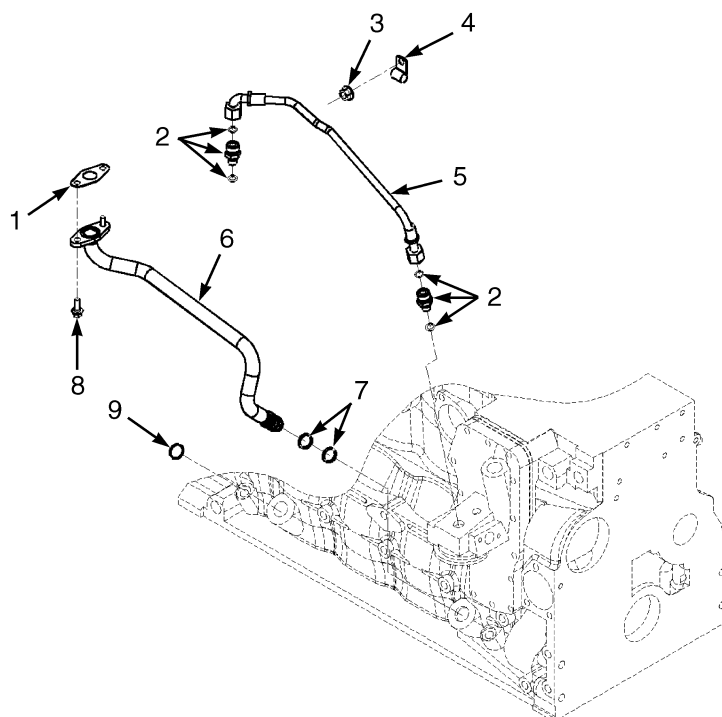
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

TURBOCHARGER (FIGURE 2-83)
CUMMINS DIESEL

HP091455

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1513337	Stud	1
2	1513338	Nut	4
3	1661394	Kit-Turbocharger	1
3	1517069	O-Ring	1
3	1513430	O-Ring	1
3	1654762	Gasket	1
3		Turbocharger	1
3	1661396	Gasket	1

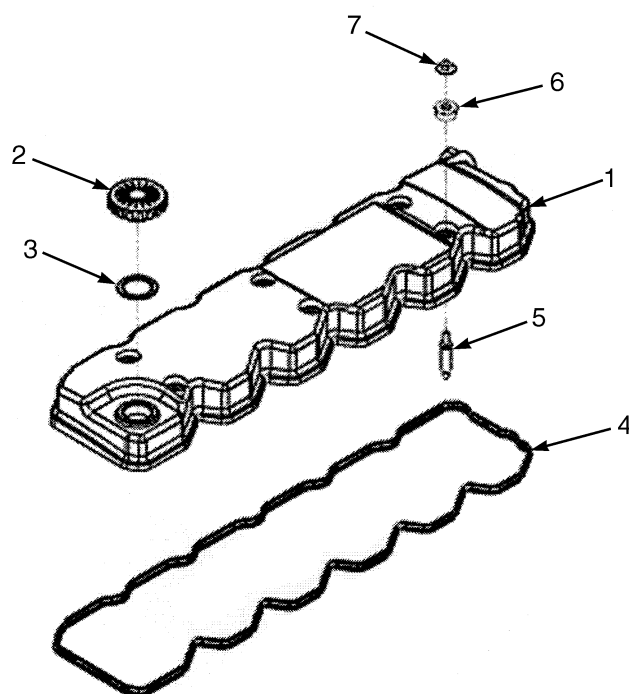
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

TURBOCHARGER PLUMBING (FIGURE 2-84)
CUMMINS DIESEL

HP091360

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635354	Gasket	1
2	1521960	Connector	2
2		Connector	1
2	1517069	O-Ring	1
2	1513430	O-Ring	1
3	1635230	Nut	1
4	1588106	Clamp	1
5	1661071	Hose	1
6	1635235	Tube (Turbo Oil Drain)	1
7	1514571	Seal	2
8	1512004	Capscrew	2
9	1514339	Plug	1

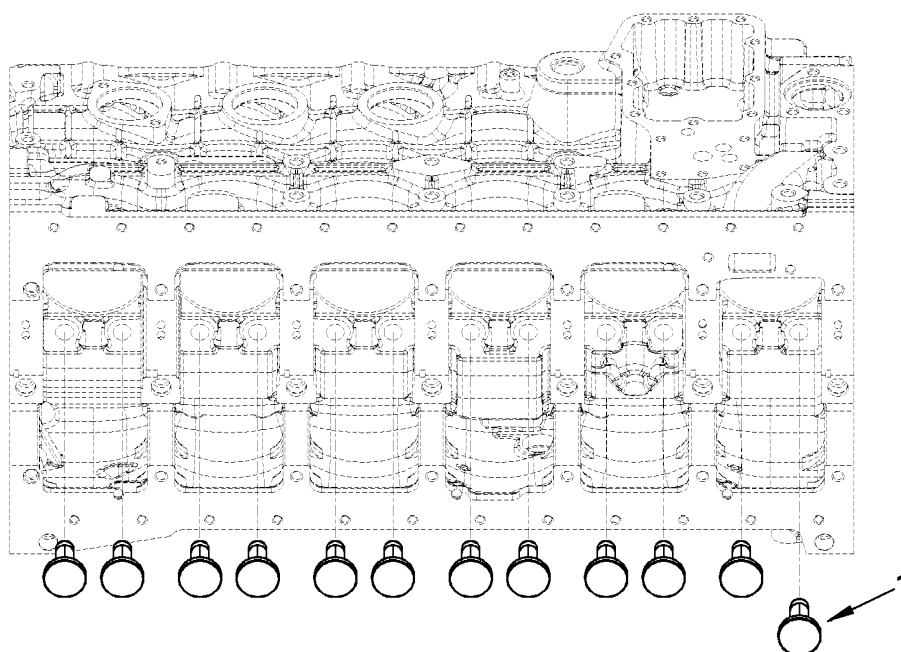
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

VALVE COVER (FIGURE 2-85)
CUMMINS DIESEL

HP091453

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1661437	Cover	1
2	1635360	Cap	1
3	1635361	Gasket	1
4	1635377	Gasket (Valve Cover)	1
5	1635368	Stud	6
6	1635379	Isolator	6
7	1635356	Nut	6

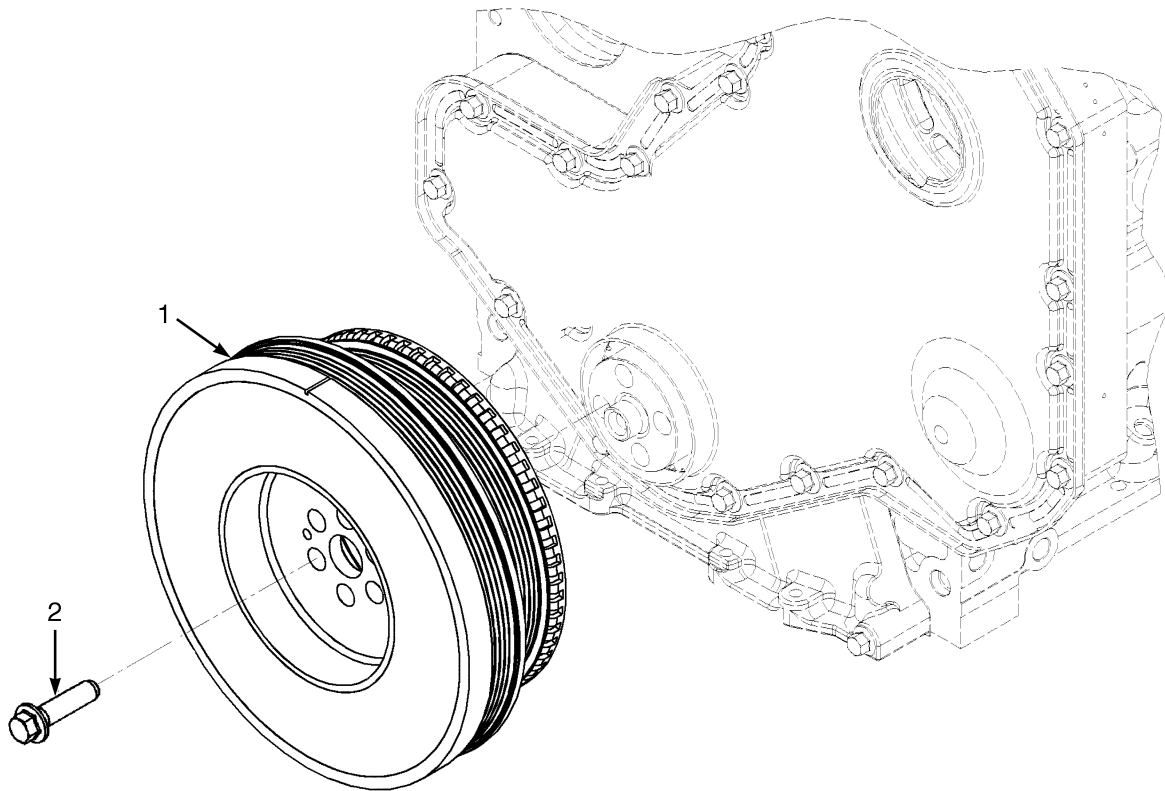
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

VALVE TAPPETS (FIGURE 2-86)
CUMMINS DIESEL

HP091133

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635265	Tappet	12

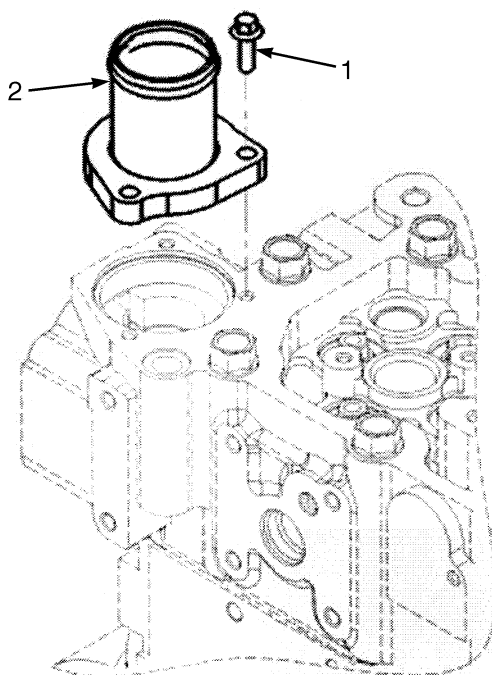
FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

VIBRATION DAMPER (FIGURE 2-87)
CUMMINS DIESEL

HP091332

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1661047	Vibration Damper	1
2	1635366	Capscrew	6

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

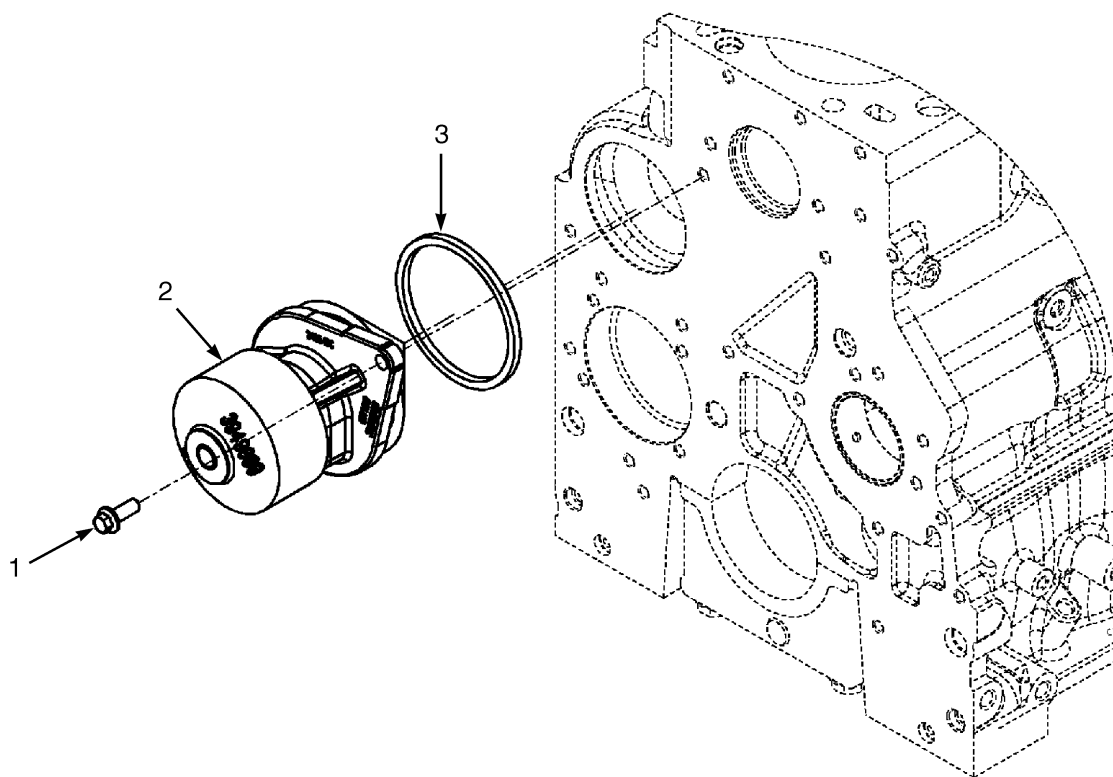
WATER OUTLET CONNECTION (FIGURE 2-88)
CUMMINS DIESEL

HP091454

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1513792	Capscrew	3
2	1521973	Water Outlet	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

WATER PUMP (FIGURE 2-89) CUMMINS DIESEL



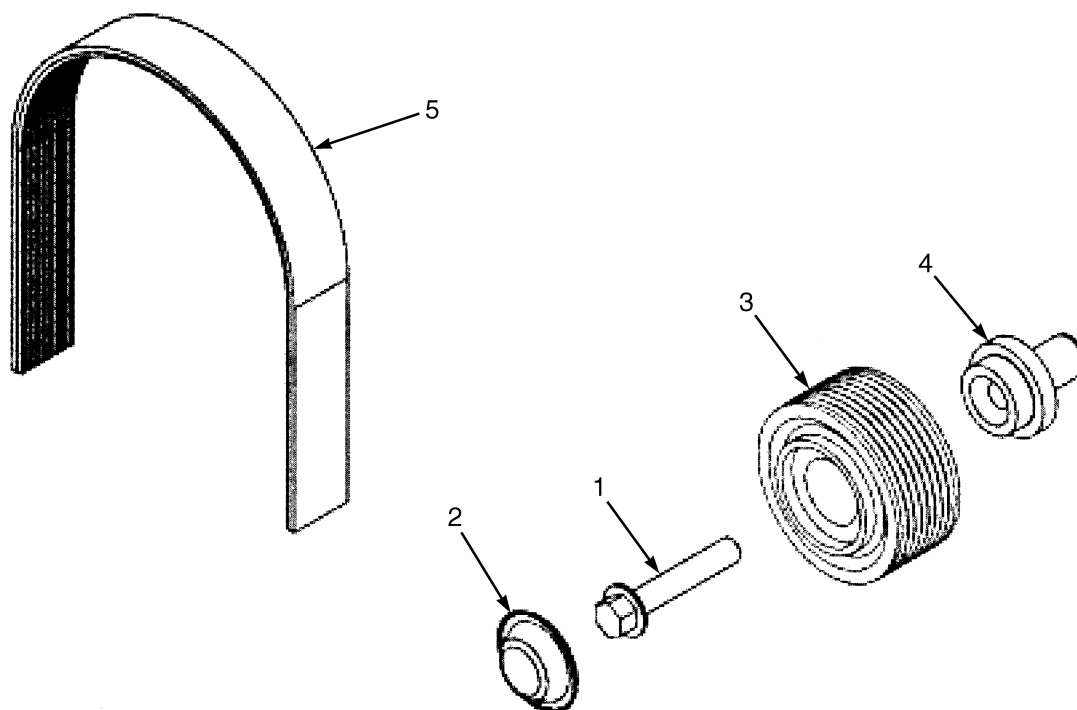
HP091363

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1597807	Capscrew (Flange)	2
2	1635242	Water Pump	1
2	1635353	Water Pump	1
3	1512322	Sealing Ring	1

FOOTNOTES:

a → S/N H007E02176F

b S/N H007E02177F →

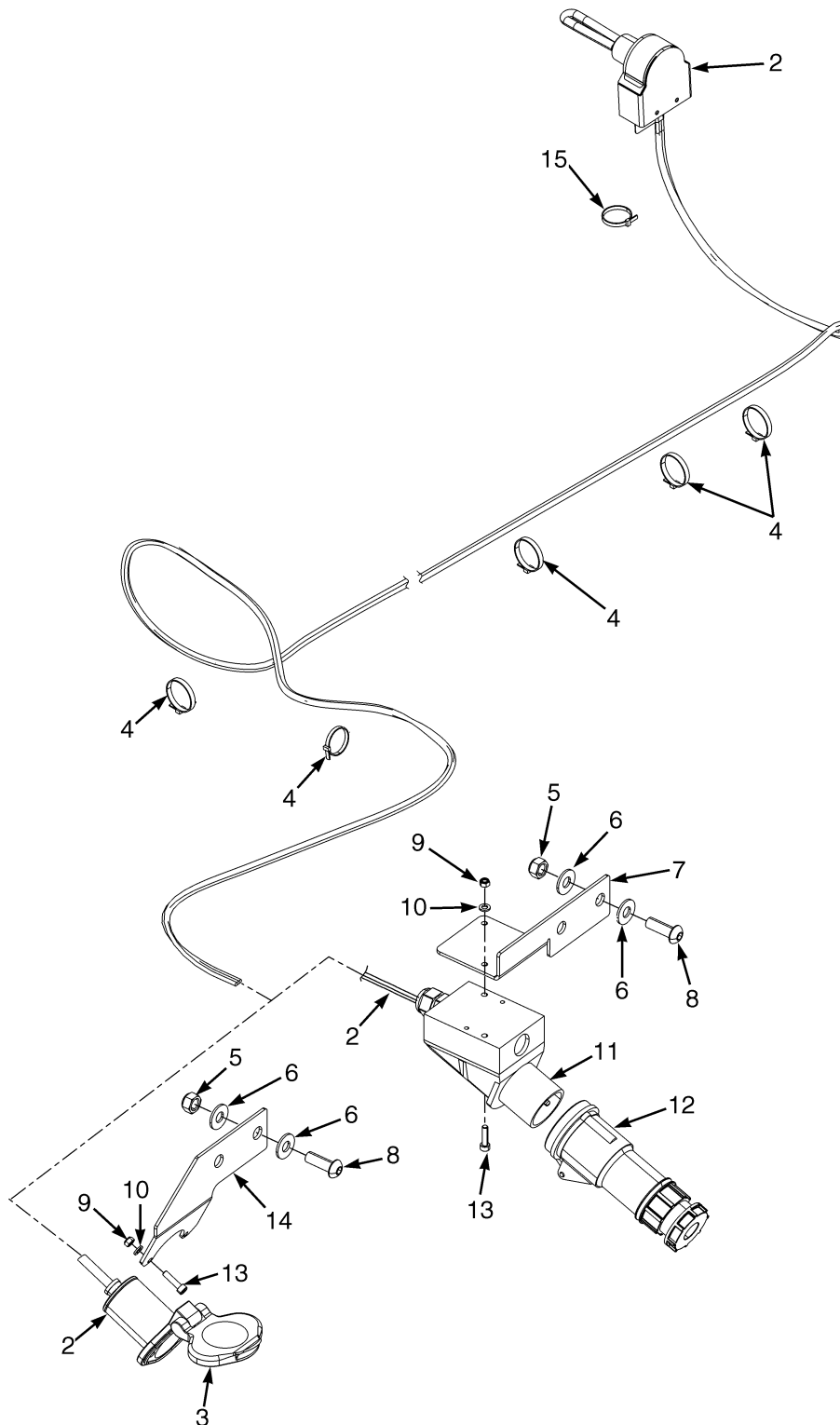
WATER PUMP DRIVE (FIGURE 2-90)
CUMMINS DIESEL

HP091362

ITEM	PART NO.	DESCRIPTION	QTY
	b 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	d 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	b 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	d 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1517257	Screw	1
2	1635261	Dust Shield	1
3	1635337	Idler Pulley	1
4	1635262	Drive Shaft	1
5	a 1635300	V-Belt (Serpentine V Ribbed)	1
5	c 1687622	V-Belt (Alternate Part)	1

FOOTNOTES:**a** → 11/2008**b** → S/N H007E02176F**c** 11/2008 →**d** S/N H007E02177F →

ENGINE BLOCK HEATER (FIGURE 2-91) CUMMINS DIESEL



HP091409

**ENGINE BLOCK HEATER
CUMMINS DIESEL****KEY:****A: 120 Volt****B: 220 Volt**

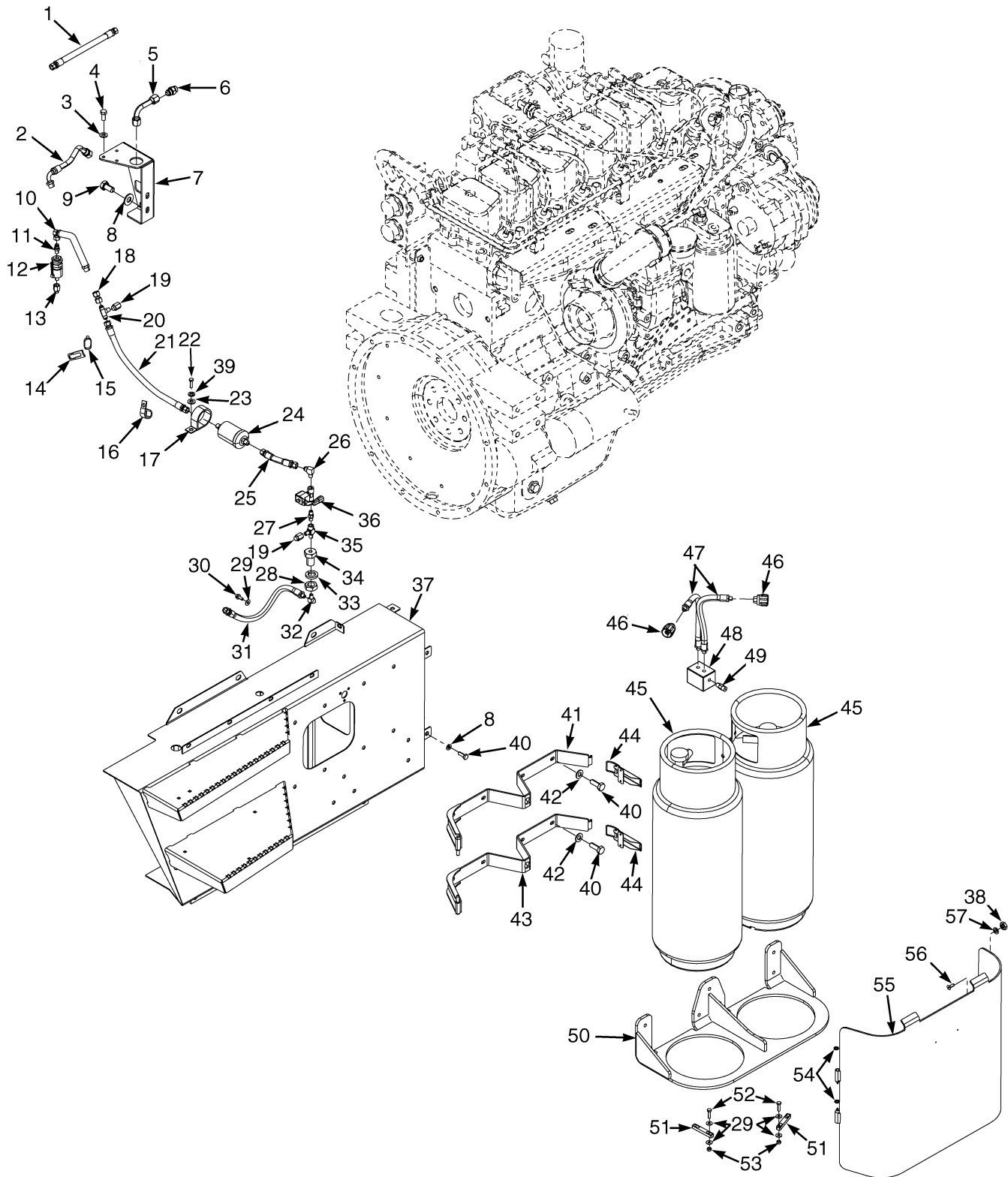
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1625540	Heater	1	..
1	1625944	Heater	..	1
1	1628959	Heat Shield	1	1
1	1628960	Cable	1	..
1	1628965	Cable	..	1
1	1628961	Clamp	1	1
1	1628962	Heater	1	..
1	1628966	Heater	..	1
1	1628967	Gland	..	1
2	1628964	Housing	1	..
3	1628963	Cover	1	..
4	137852	Strap Clamp	5	5
5	302401	Locknut	2	2
6	1581558	Washer	4	4
7	1650570	Plate	..	1
8	1597444	Capscrew	2	2
9	302398	Locknut	2	2
10	320155	Washer	2	2
11	1507089	Connector (220 Volt)	..	1
12	1507090	Connector (220 Volt)	..	1
13	293744	Screw	2	2
14	1650569	Plate	1	..
15	114312	Strap Clamp	1	1

[illegible]

**SECTION 3
FUEL SYSTEM**

DESCRIPTION	PAGE
AIR CLEANER ASSEMBLY	3-14
AIR INTAKE SYSTEM	
DIESEL - DRY BRAKE	3-10
DIESEL - WET BRAKE	3-12
LPG	3-8
FUEL CONTROL MODULE	
CUMMINS LPG	3-22
FUEL FILTER	
CUMMINS DIESEL	3-31
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FUEL SYSTEM (FIGURE 3-1) LPG



HP130423

**FUEL SYSTEM
LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	1646948	Hose Assy	1
2	2091539	Hose Assy	1
3	18515	Washer	3
4	199567	Capscrew	3
5	1606426	Tube	1
6	16542	Connector	1
6	16485	O-Ring	1
7	1606452	Bracket	1
8	320162	Washer	5
9	132860	Capscrew	2
10	1646947	Hose Assy	1
11	1647994	Fitting	1
12	1646950	Valve	1
12	1646949	Valve	1
12	1465468	Connector	1
12	1323583	Terminal	2
12	1336874	Seal	1
13	1490617	Fitting	1
13	16483	O-Ring	1
14	1350911	Strap	1
15	129563	Strap Clamp	1
16	321487	Clamp	3
17	1384699	Clamp	1
18	1634854	Fitting	1
19	14345	Fitting	2
20	1641021	Fitting	1
21	2079079	Hose Assy	1
22	287805	Capscrew	1
23	320157	Washer	1
24	1608426	Fuel Filter	1
25	2079078	Hose Assy	1
26	1641024	Fitting	1
27	16271	Fitting	1
28	15036	Nut	1
29	320158	Washer	11
30	1527880	Capscrew	3
31	2076168	Hose Assy	1
32	1641022	Fitting	1
33	15166	Lockwasher	1
34	121347	Fitting	1
35	17672	Fitting	1
36	1609865	Valve	1
36		Shut-Off Valve	1
36	1493465	Connector	1
36	1330414	Connector (Secondary Lock)	1
36	1330437	Terminal (Pin)	2
37	1605573	Cover	1
38	302398	Locknut	4
39	320163	Washer	2
40	136985	Capscrew	15

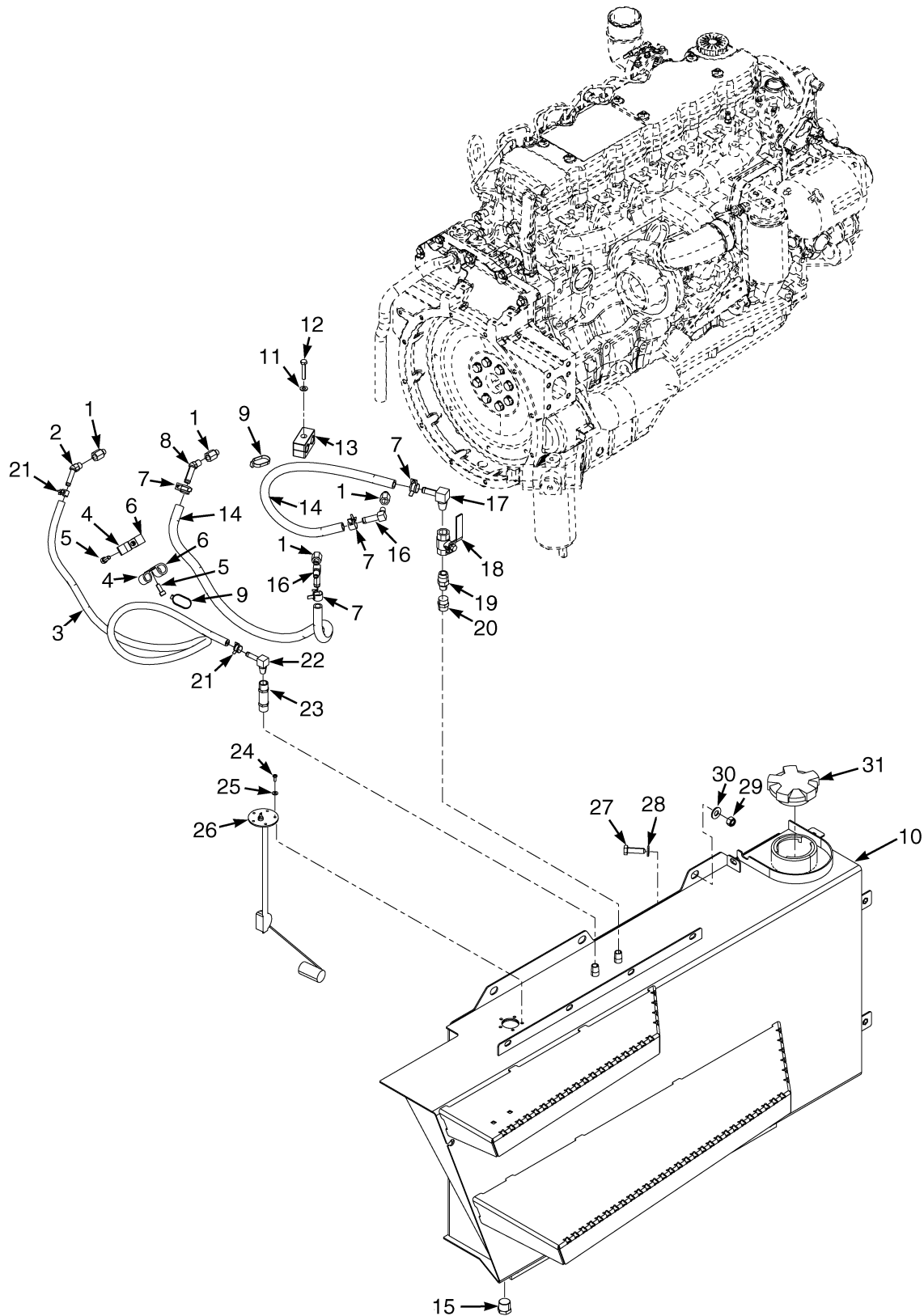
**FUEL SYSTEM
LPG**

ITEM	PART NO.	DESCRIPTION	QTY
41	1603778	Bracket Wldmt	1
42	320159	Washer	15
43	1603777	Bracket Wldmt	1
44	1603361	Clamp (Toggle)	2
45	1328896	Kit-Lpg Tank (LPG)	2
46	97999	Fitting	2
47	2091553	Hose Assy	2
48	1641025	Manifold	1
49	101809	Relief Valve	1
50	1603706	Bracket	1
51	1641027	Plate	2
52	176640	Bolt	4
53	302400	Nut	4
54	1301700	Ring (Brass)	2
55	1605568	Door	1
56	296204	Capscrew	4
57	320155	Washer	4

NOTES

[illegible]

FUEL SYSTEM (FIGURE 3-2) DIESEL



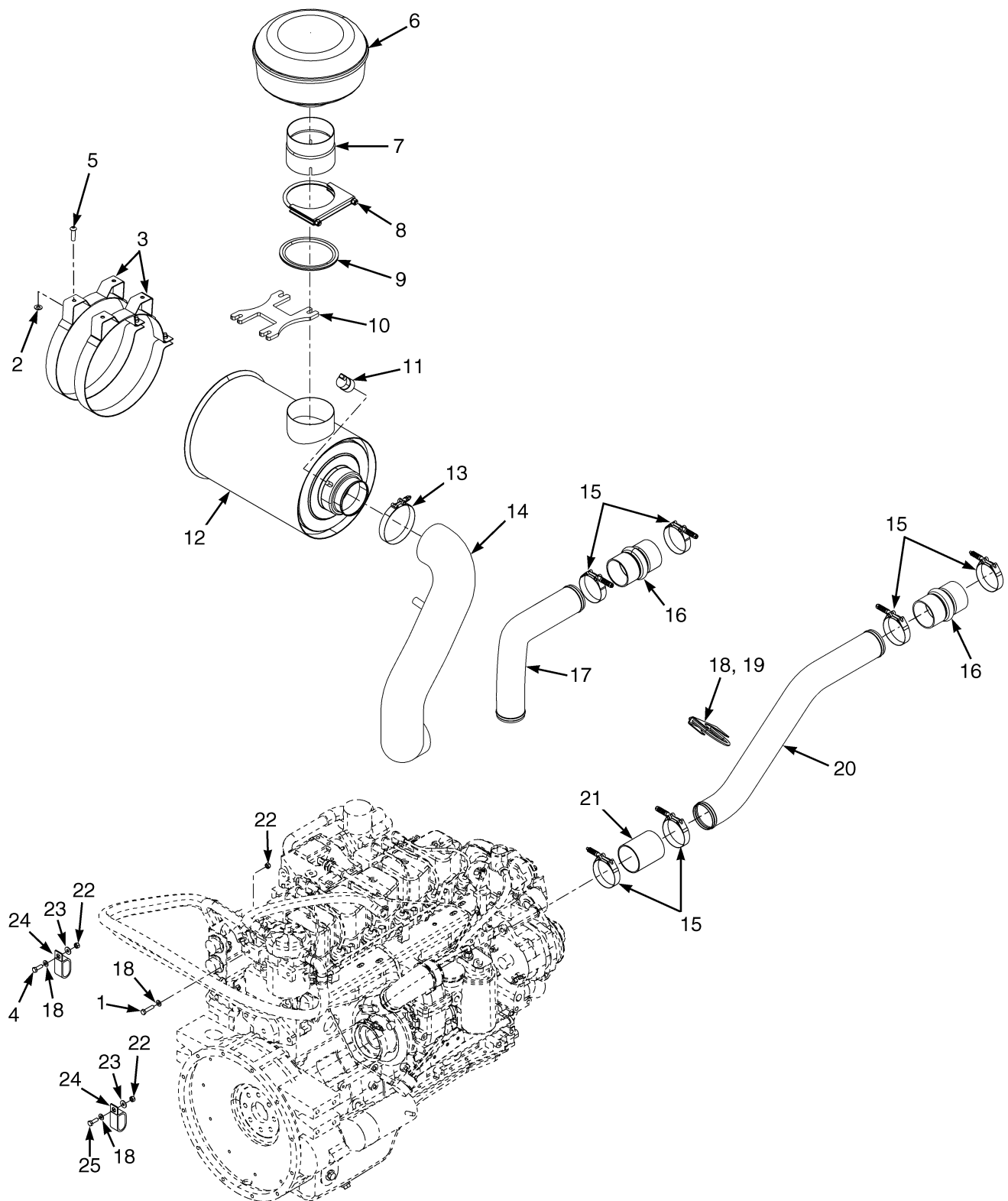
HP130424

**FUEL SYSTEM
DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1547766	Adapter (Male)	4
2	16694	Fitting	1
3	1629273	Hose (Fuel)	1
4	128408	Clamp	2
5	296010	Capscrew	2
6	173247	Clamp	2
7	130845	Clamp	4
8	17194	Fitting	1
9	129563	Strap Clamp	2
10	a 1625683	Fuel Tank Wldmt	1
10	b 1677858	Fuel Tank Wldmt	1
11	320157	Washer	3
12	214364	Capscrew	1
13	1569803	Clamp	1
14	1629270	Hose (Fuel)	2
15	a 14388	Fitting	1
15	b 1689346	Drain Plug	1
16	16788	Fitting	2
17	17174	Fitting	1
18	1384669	Drain Valve	1
19	12837	Fitting	1
20	12827	Fitting	1
21	166857	Clamp	2
22	201808	Fitting	1
23	1628436	Check Valve	1
24	16708	Screw	5
25	197067	Washer	5
26	1480332	Fuel Sender	1
26	111561	Gasket	1
27	246001	Capscrew	2
28	320161	Washer	2
29	302402	Locknut	3
30	320162	Washer	3
31	1569867	Fuel Cap (Non-Locking)	1
31	1569866	Fuel Cap (Locking)	1

FOOTNOTES:**a** → S/N H007E02295F**b** S/N H007E02296F →

AIR INTAKE SYSTEM (FIGURE 3-3) LPG

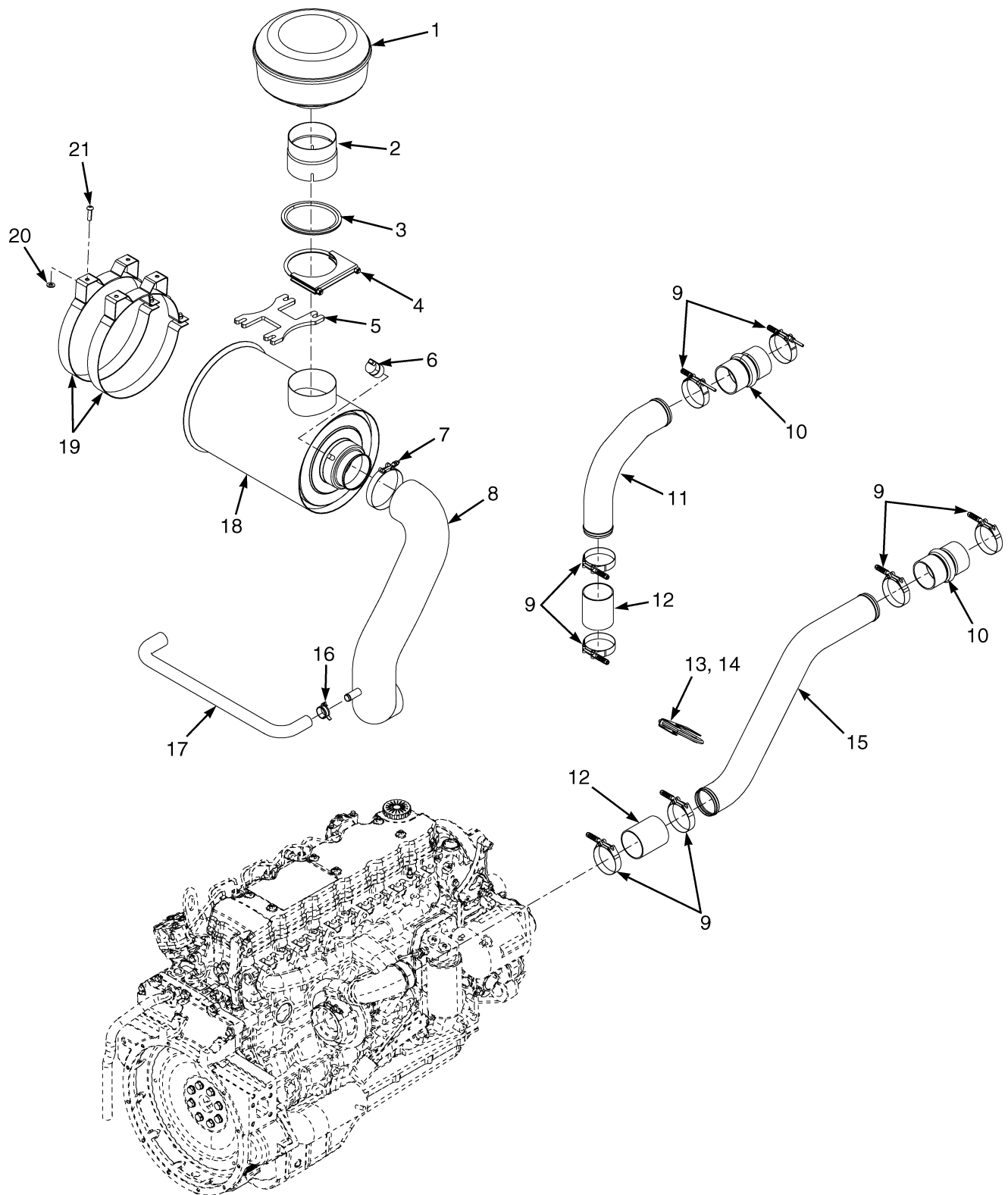


HP130427

**AIR INTAKE SYSTEM
LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	132861	Capscrew	1
2	320159	Washer	4
2	320158	Washer (Alternate Part)	4
3	1561964	Clamp	2
4	136749	Screw	2
5	292513	Capscrew	4
5	287851	Capscrew (Alternate Part)	4
6	196959	Pre-Cleaner (Bowl Type) (Option)	4
6	147983	Cover	1
6	147985	Body	1
6	214336	Sleeve	1
6	227220	Clamp	1
6	1638785	Pre-Cleaner (Option, Not Illustrated)	1
6	1656996	Clamp (T-Bolt)	1
6	1656997	Insert (Rubber)	1
6	1524555	Pre-Cleaner (Aspirated) (Option, Not Illustrated)	1
7	1628088	Air Duct	1
8	134881	Clamp	1
9	1564243	Trim	1
10		Plate	1
11	1486218	Switch (Vacuum)	1
12	2091695	Air Filter (☞ Figure 3-6).....	1
13	1514903	Clamp	2
13	1507394	Clamp (Alternate Part)	2
14	1601364	Hose (Air Cleaner)	1
14	2099769	Hose (Alternate Part)	1
15	1612634	Clamp	8
16	1524553	Hose (Charge Air Cooler)	2
17	1625961	Tube	1
18	320157	Washer	4
19	30375	Clamp	8
20	1625960	Tube	1
21	1524554	Hose (Charge Air Cooler)	2
22	302400	Nut	2
23	320158	Washer	2
24	176455	Clamp	2

AIR INTAKE SYSTEM (FIGURE 3-4) DIESEL — DRY BRAKE

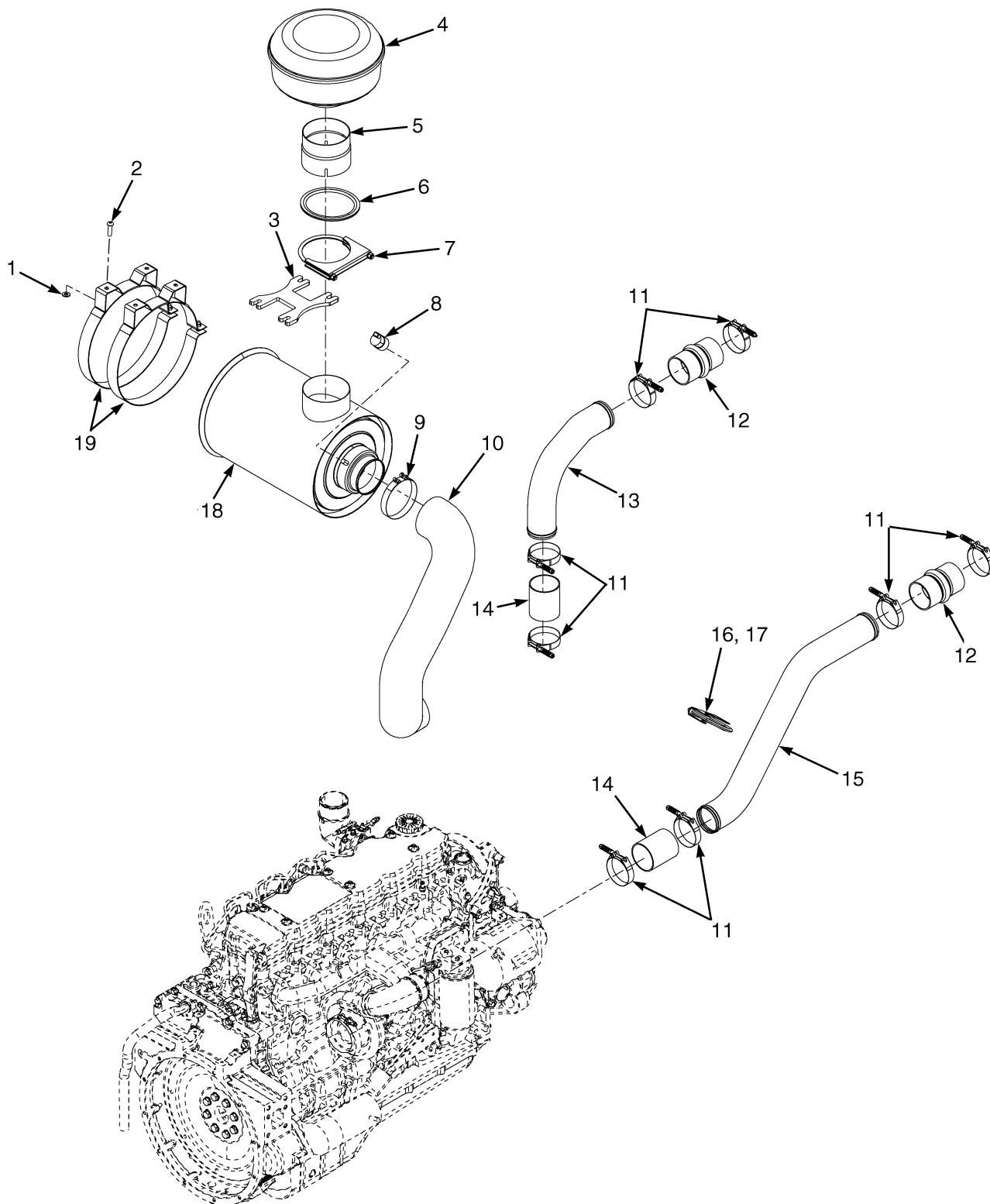


HP130428

**AIR INTAKE SYSTEM
DIESEL – DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
1	196959	Pre-Cleaner (Bowl Type)	1
1	147983	Cover	1
1	147985	Body	1
1	214336	Sleeve	1
1	227220	Clamp	1
1	1638785	Pre-Cleaner	1
1	1656996	Clamp (T-Bolt)	1
1	1656997	Insert (Rubber)	1
1	1524555	Pre-Cleaner (Aspirated)	1
2	1628088	Air Duct	1
3	1564243	Trim	1
4	134881	Clamp	1
5	1633980	Plate	1
6	1486218	Switch (Vacuum)	1
7	1514903	Clamp	2
8	1634291	Hose (Air Cleaner)	1
9	1612634	Clamp	8
10	1524553	Hose (Charge Air Cooler)	2
11	1625639	Tube (Charge Air Cooler)	1
12	1524554	Hose (Charge Air Cooler)	2
13	30375	Clamp	1
14	320157	Washer	2
15	1625638	Tube (Charge Air Cooler)	1
16	1527980	Hose Clamp	1
17	1628086	Hose (Air Compressor)	1
18	2091695	Air Filter (☞ Figure 3-6).....	1
19	1561964	Clamp	2
20	320159	Washer	4
20	320158	Washer (Alternate Part)	4
21	292513	Capscrew	4
21	287851	Capscrew (Alternate Part)	4

AIR INTAKE SYSTEM (FIGURE 3-5) DIESEL — WET BRAKE

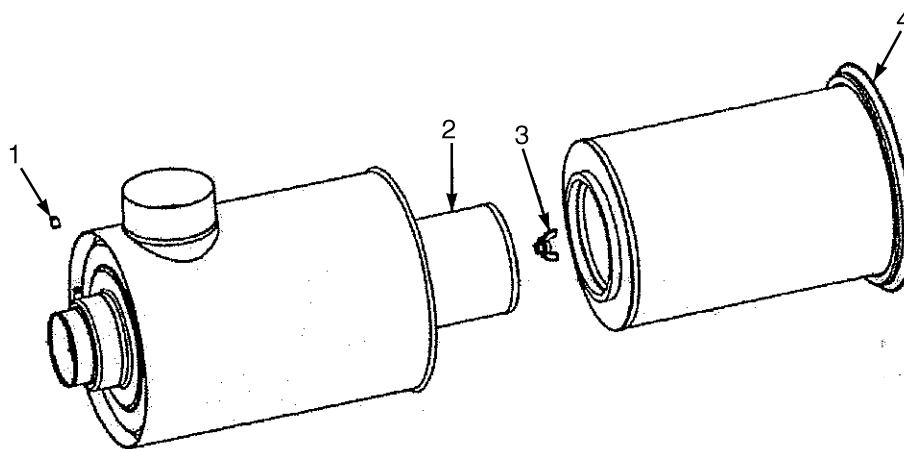


HP130429

**AIR INTAKE SYSTEM
DIESEL – WET BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
1	320159	Washer	4
1	320158	Washer (Alternate Part)	4
2	292513	Capscrew	4
2	287851	Capscrew (Alternate Part)	4
3	1633980	Plate	1
4	196959	Pre-Cleaner (Bowl Type)	1
4	147983	Cover	1
4	147985	Body	1
4	214336	Sleeve	1
4	227220	Clamp	1
4	1638785	Pre-Cleaner	1
4	1656996	Clamp (T-Bolt)	1
4	1656997	Insert (Rubber)	1
4	1524555	Pre-Cleaner (Aspirated)	1
5	1628088	Air Duct	1
6	1564243	Trim	1
7	134881	Clamp	1
8	1486218	Switch (Vacuum)	1
9	1514903	Clamp	2
9	1507394	Clamp (Alternate Part)	2
10	1655427	Hose (Air Cleaner)	1
10	2099768	Hose (Alternate Part)	1
11	1612634	Clamp	8
12	1524553	Hose (Charge Air Cooler)	2
13	1625639	Tube (Charge Air Cooler)	1
14	1524554	Hose (Charge Air Cooler)	2
15	1625638	Tube (Charge Air Cooler)	1
16	30375	Clamp	1
17	320157	Washer	2
18	2091695	Air Filter (☞ Figure 3-6).....	1
19	1561964	Clamp	2

AIR CLEANER ASSEMBLY (FIGURE 3-6)



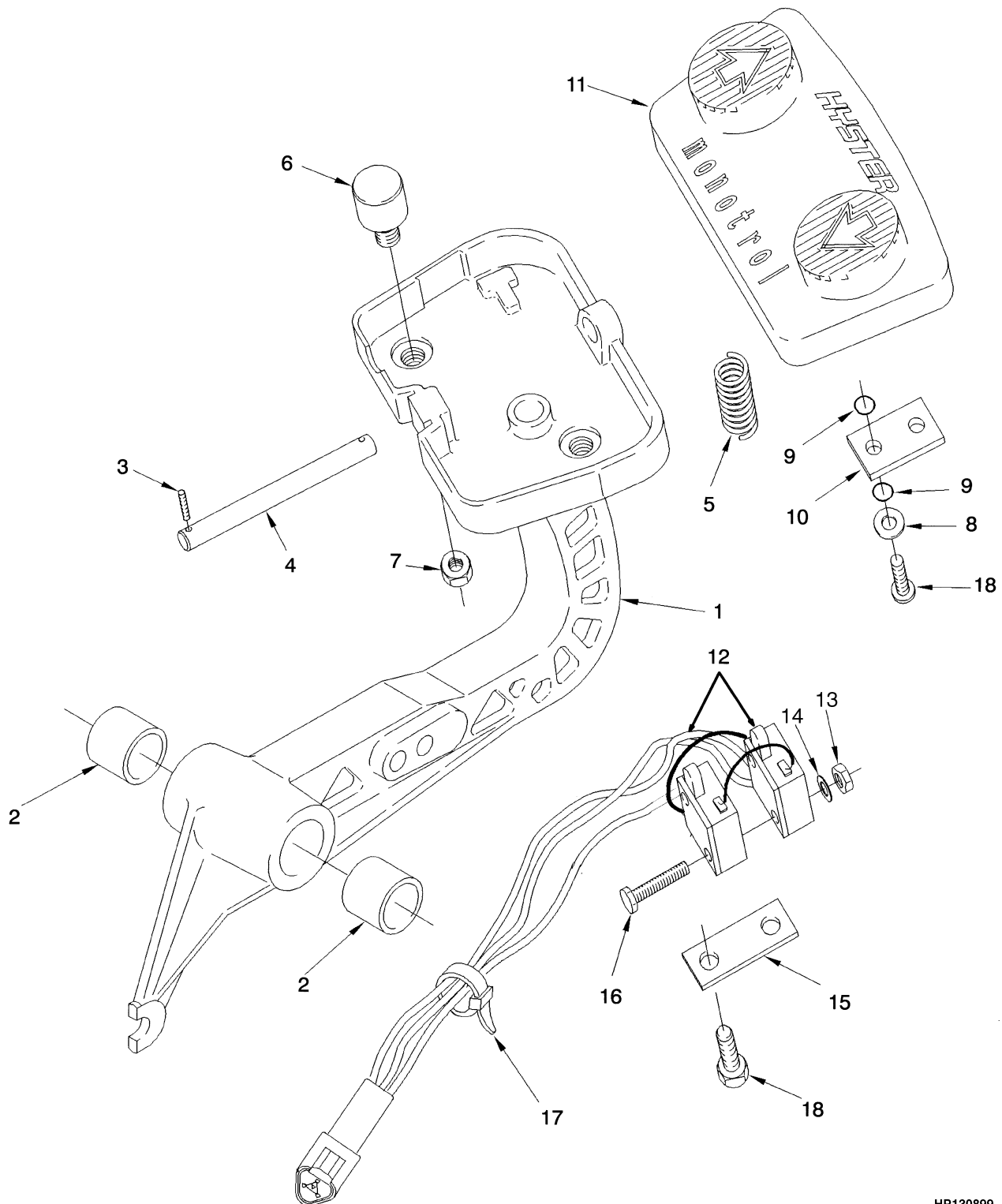
HP130426

ITEM	PART NO.	DESCRIPTION	QTY
	2091695	Air Filter	1
1		Cap	1
2	2091698	Filter Element (Safety)	1
3	1580286	Nut	1
4	2091697	Filter Element (Main)	1

NOTES

[illegible]

MONOTROL PEDAL ASSEMBLY (FIGURE 3-7)



HP130899

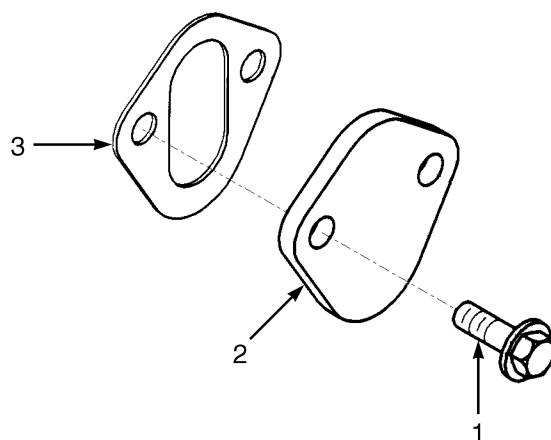
MONOTROL PEDAL ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	1352575	Monotrol Pedal	1
1	353397	Pedal	1
2	135685	Bushing	2
3	220932	Setscrew	2
4	353154	Pin	1
5	353168	Spring	1
6	353441	Magnet	1
6	353422	Magnet	2
7	353432	Nut	2
8	353448	Washer	4
9	57568	O-Ring	8
10	359207	Plate	2
11	353175	Pad	1
12	1352090	Switch	1
13	16865	Nut	2
14	53162	Lockwasher	2
15	353165	Retainer	1
16	220434	Screw	2
17	114312	Strap Clamp	3
18	352969	Screw	6

BP120170

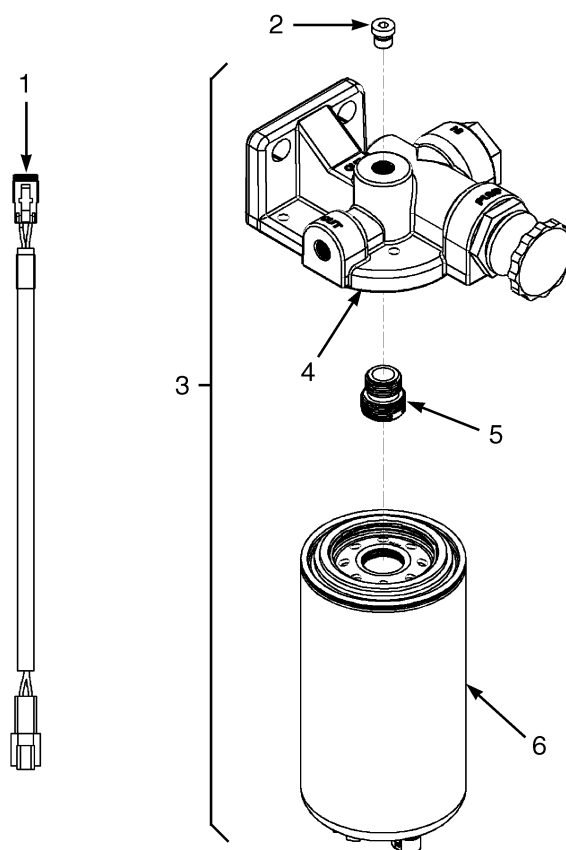
THROTTLE PEDAL LINKAGE**KEY:****A: Monotrol****B: Forward And Reverse Lever**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1494675	Bracket	1	1
2	1468323	Washer	1	1
3	287854	Capscrew	1	1
4	352499	Pedal	..	1
4	1352575	Monotrol Pedal (☞ Figure 3-7).....	1	..
5	352885	Rubber Pad	1	1
6	353195	Bumper	1	1
7	292521	Capscrew	..	1
7	292523	Capscrew	1	..
8	325708	Tube Assy	..	1
8	353141	Tube Assy	1	..
8	320160	Washer	1	..
9	352485	Shaft	1	1
10	320156	Washer	1	1
11	15200	Cotter Pin	1	1
12	353129	Rod	1	1
13	292682	Lockwasher	3	3
14	302401	Locknut	..	2
14	136692	Nut	2	..
15	316835	Nut	1	1
16	320158	Washer	1	1
17	292501	Capscrew	4	4
18	353142	Spring	1	1
18	1558049	Spring	1	1
19	353143	Spring	1	1
20	316834	Nut	2	2
21	1506738	Washer	4	4
22	1493397	Cover (Capscrew Head)	2	2
23	2076661	Sensor (Throttle and Inching)	1	1
24	1494677	Shifter (With Autoshift)	..	1
24	1494678	Shifter (Without Autoshift)	..	1
25	296128	Nut (Not Illustrated)	..	1
26	15212	Cotter Pin (Not Illustrated)	..	1
	1516917	Kit-Monotrol to Fwd/Rev Lever (With Autoshift)	..	1
	1516919	Kit-Monotrol to Fwd/Rev Lever (Without Autoshift)	..	1

FUEL SYSTEM ACCESSORIES (FIGURE 3-9)
CUMMINS LPG

BP130192

ITEM	PART NO.	DESCRIPTION	QTY
	2095552	Engine Assy-Lpg (Wet Brake)	1
	2095553	Engine Assy-Lpg (Dry Brake)	1
1	1512004	Capscrew	2
2	1517110	Cover Plate	1
3	1513743	Gasket (Cover Plate)	1

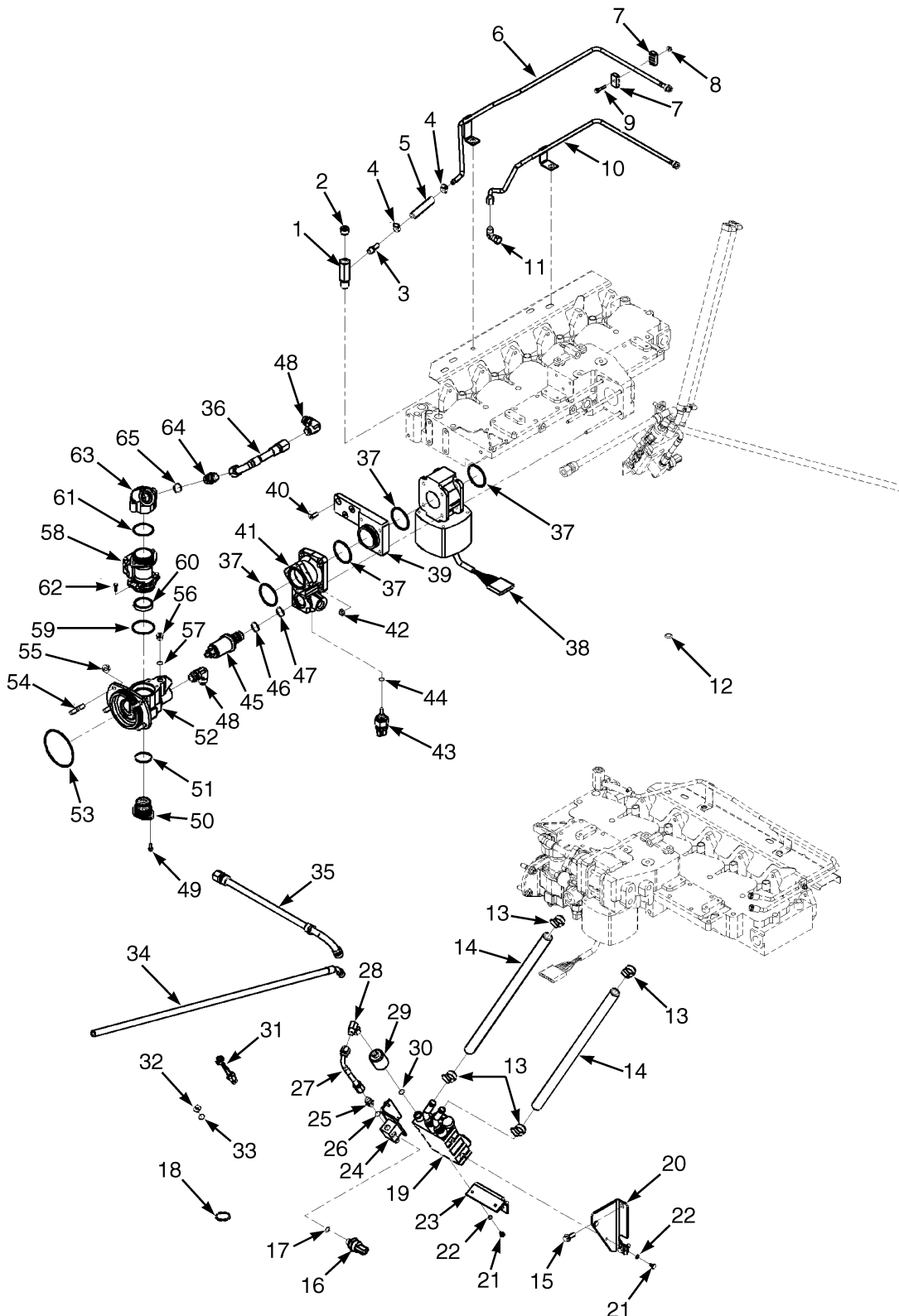
FUEL SYSTEM ACCESSORIES (FIGURE 3-10)
CUMMINS DIESEL

HP091341

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1635271	Wire Harness (Fuel System Accessories)	1
2	1661144	Plug	1
2	1644166	Sealing Ring	1
3	1635454	Fuel Filter	1
4	1635424	Filter Head	1
5	1635312	Adapter	1
6	1635303	Fuel Filter	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

FUEL CONTROL MODULE (FIGURE 3-11) CUMMINS LPG



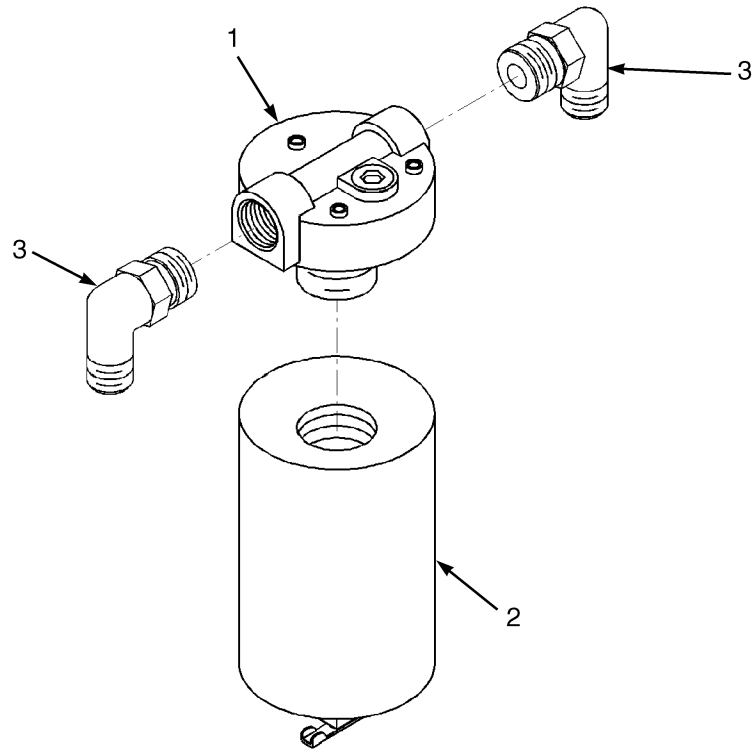
BP130196

**FUEL CONTROL MODULE
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095552	Engine Assy-Lpg (Wet Brake)	1
	2095553	Engine Assy-Lpg (Dry Brake)	1
1	1614558	T-Fitting	1
2	1511952	Fitting	1
3	1614502	Coupling (Hose)	1
4	1516981	Hose Clamp	2
5	1614567	Hose	1
6	1624515	Tube	1
7	1512778	Clamp (Tube)	3
8	1513793	Nut	1
9	1513791	Screw	1
10	1624514	Tube	1
11	1624512	Elbow	1
12	1614619	Sealing Ring	1
13	1511965	Clamp (Hose)	4
14	1614319	Hose	2
15	1512503	Capscrew	4
16	1662037	Sensor (Pressure)	1
17	1543435	O-Ring	1
18	1614552	Screen	1
19	1614620	Kit-Evaporator	1
19		Evaporator	1
20	1614608	Bracket	1
21	1614644	Capscrew	6
22	1513421	Lockwasher	6
23	1614609	Bracket	1
24	1614610	Bracket	1
25	1614315	Fitting	2
26	1512588	O-Ring	1
27	1614603	Hose	1
28	1614604	Elbow	1
29	1614621	Kit-LPG Shutoff Valve	1
30		O-Ring	1
31		Wire Harness	1
32	1614595	Plug (Threaded)	1
33	1614596	O-Ring	1
34	1614624	Hose	1
35	1614557	Hose	1
36	1614600	Hose	1
37	1614320	O-Ring	4
38	1614623	Actuator	1
39	1614626	Support	1
40	1614461	Capscrew (Flat Head)	3
41	1614622	Mixer	1
42	1513712	Nut	4
43	1662042	Sensor (Temperature)	1
44	1517116	O-Ring	1
45	1614586	Flow Valve (Fuel Flow)	1
46	1614564	O-Ring	2
47	1614565	O-Ring	1

**FUEL CONTROL MODULE
CUMMINS LPG**

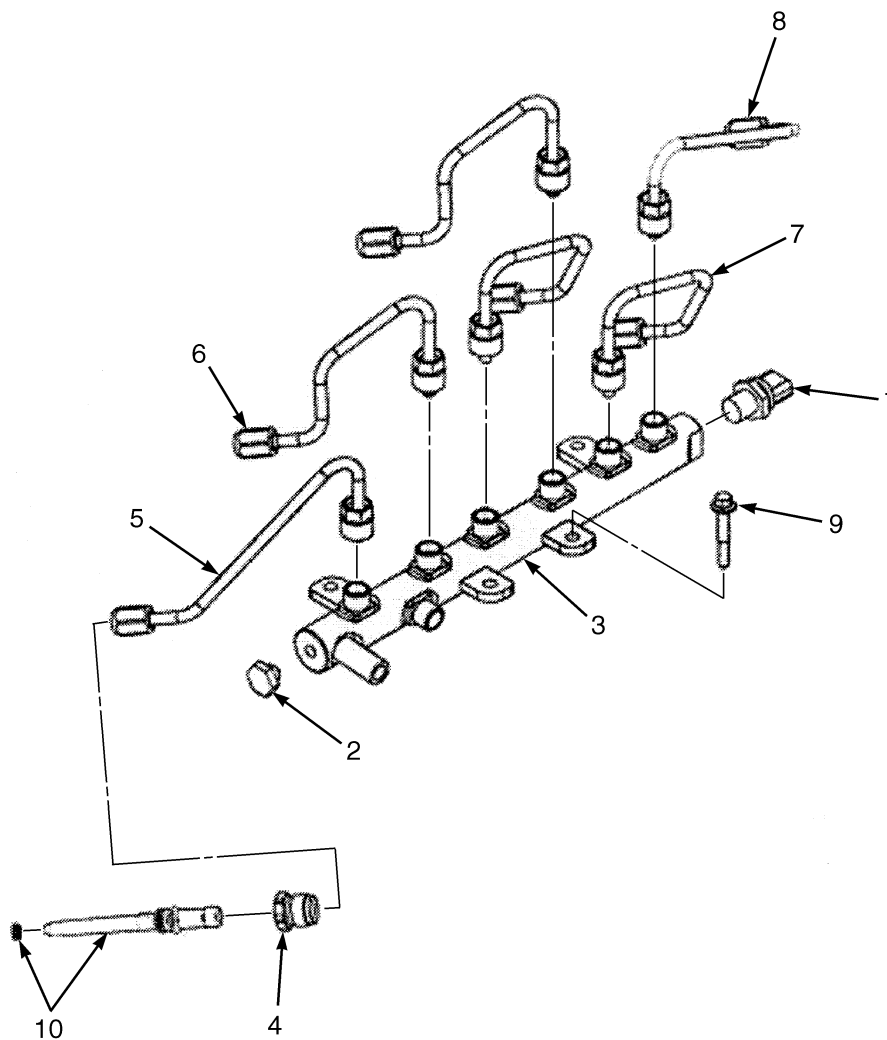
ITEM	PART NO.	DESCRIPTION	QTY
48	1512743	Fitting	2
49	1512051	Capscrew	6
50	1614601	Cover	1
51	1614566	O-Ring	2
52	1614590	Housing	1
53	1614618	O-Ring	1
54	1553768	Stud	4
55	1514483	Nut	4
56	1512587	Plug	2
57	1512588	O-Ring	1
58	1614559	Sensor (Fuel Flow)	1
59	1614467	O-Ring	1
60	1614562	Screen	1
61	1614466	O-Ring	1
62	1614458	Capscrew (Hex Head)	4
63	1614547	Adapter	1
64	1512739	Fitting	1
65	1512740	O-Ring	1
	1614620	Kit-Evaporator	1

FUEL FILTER (FIGURE 3-12)
CUMMINS LPG

BP130191

ITEM	PART NO.	DESCRIPTION	QTY
	2095552	Engine Assy-Lpg (Wet Brake)	1
	2095553	Engine Assy-Lpg (Dry Brake)	1
1	1614486	Fuel Filter	1
1	1614483	Filter Head	1
2	1614485	Fuel Filter	1
3	1614484	Elbow	2

FUEL INJECTOR PLUMBING (FIGURE 3-13) CUMMINS DIESEL



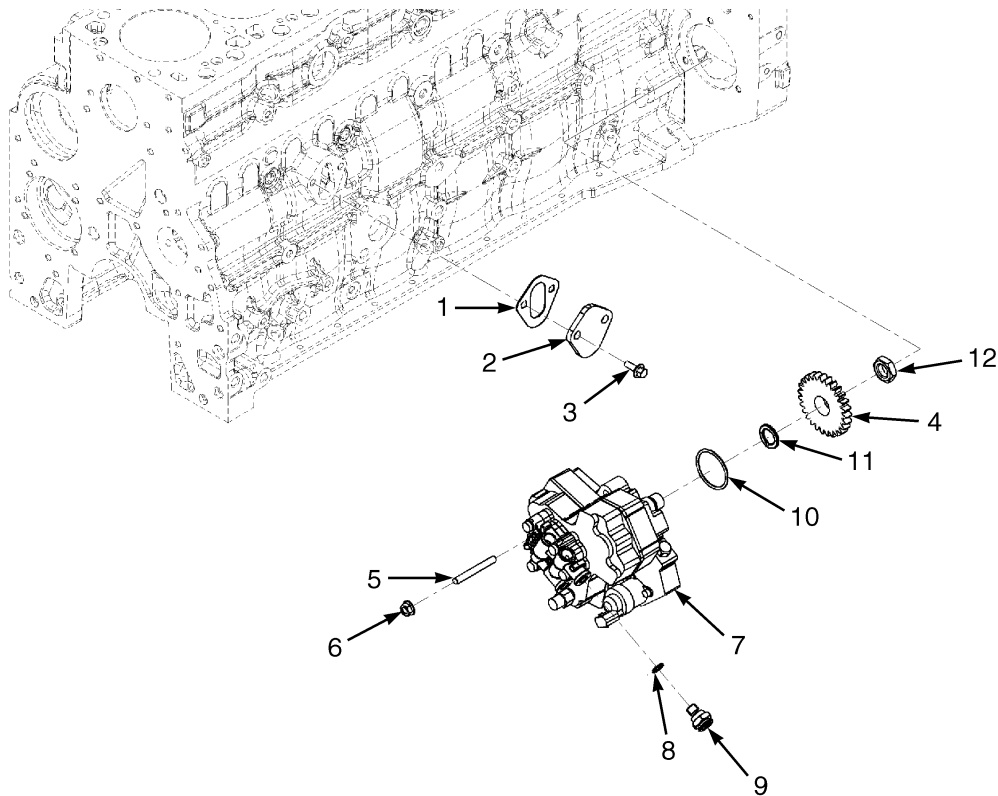
HP091457

**FUEL INJECTOR PLUMBING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	1635327	Manifold	1
1	1635304	Sensor	1
2	1635305	Relief Valve	1
3	1635338	Manifold	1
4	1635264	Retainer	6
5	1635332	Tube Assy	1
6	1635333	Tube Assy	2
7	1635334	Tube Assy	2
8	1635335	Tube Assy	1
9	1512494	Screw	4
10	1661292	Fitting	6

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

FUEL INJECTION PUMP (FIGURE 3-14) CUMMINS DIESEL



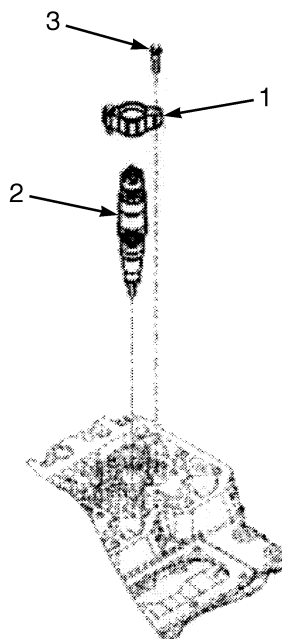
HP091340

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1513743	Gasket (Cover Plate)	1
2	1517110	Cover Plate	1
3	1512004	Capscrew	2
4	1635276	Gear	1
5	1635267	Stud	3
6	1513712	Nut	3
7	1635313	Injection Pump (Fuel Pump)	1
7		Fuel Injection Pump	1
8	1635355	Sealing Ring	1
9	1635311	Connector (Quick Disconnect)	1
10	1635222	O-Ring	1
11	1635349	Spring Washer	1
12	1635348	Nut	1

FOOTNOTES:

a → S/N H007E02176F

b S/N H007E02177F →

FUEL INJECTOR (FIGURE 3-15)
CUMMINS DIESEL

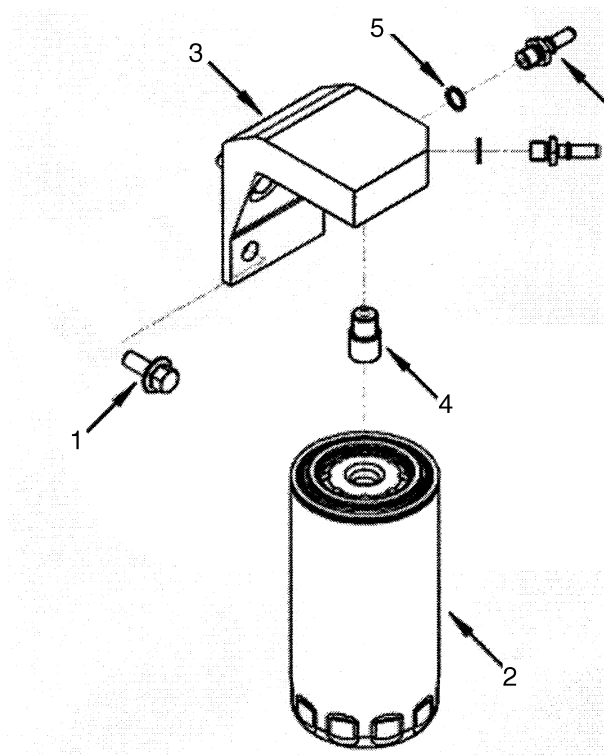
HP091456

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1635317	Clamp	6
2	1649738	Injector	6
3	1513791	Screw	12

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1661048	Tube Assy	1
2	1661049	Tube Assy	1

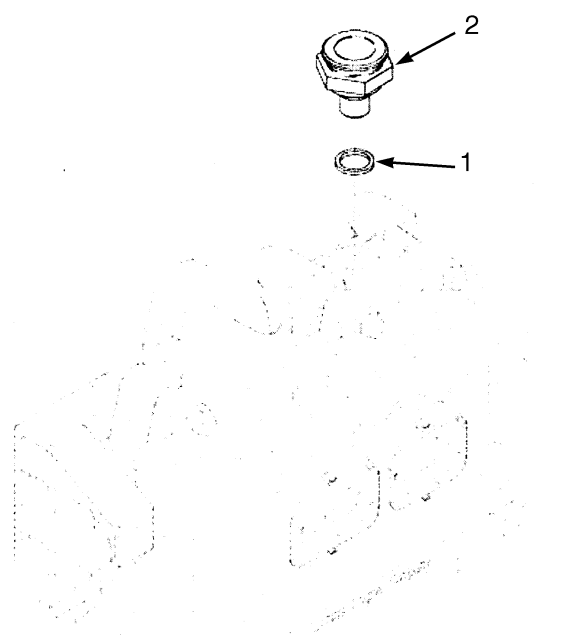
b S/N H007E02177F →

FUEL FILTER (FIGURE 3-17)
CUMMINS DIESEL

HP091446

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
1	1512418	Capscrew	2
2	1635370	Fuel Filter	1
2	2104697	Fuel Filter (Alternate Part)	1
3		Filter Head	1
4	1635376	Adapter	1
5	1635355	Sealing Ring	2
6	1676624	Connector	2

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

FUEL INLET FITTING (FIGURE 3-18)
CUMMINS DIESEL

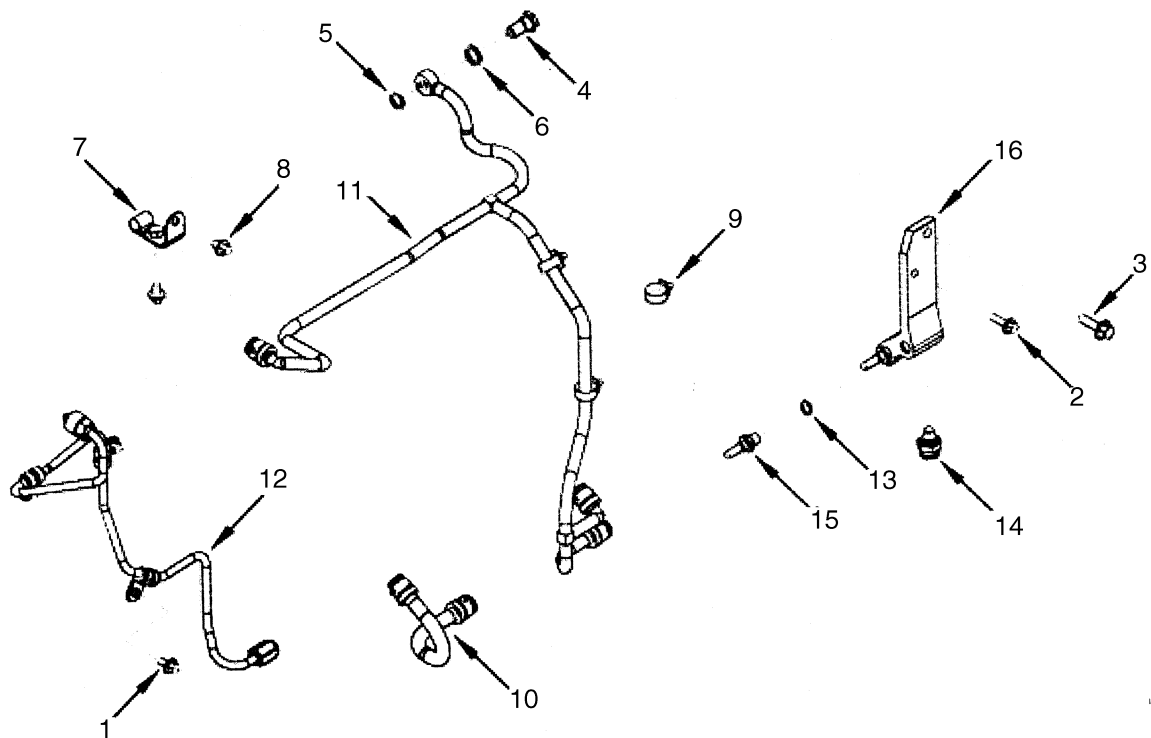
BP130282

ITEM	PART NO.	DESCRIPTION	QTY
1	1635355	Sealing Ring (Sealing)	1
2	1635364	Connector (Quick Disconnect)	1

NOTES

[illegible]

FUEL RAIL SYSTEM (FIGURE 3-19) CUMMINS DIESEL



BP130283

**FUEL RAIL SYSTEM
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1511970	Capscrew	3
2	1512005	Capscrew	1
3	1511977	Capscrew	1
4	1635279	Check Valve	1
5	1543359	Sealing Ring	1
6	1584546	Sealing Ring	1
7	1635326	Bracket	1
8	1606569	Capscrew	2
9	1635384	Clip	3
10	1635394	Tube Assy (Supply)	1
11	1635398	Tube Assy (Drain)	1
12	1635410	Tube Assy (Supply)	1
12	1635393	Adapter	1
13	1635355	Sealing Ring (Sealing)	2
14	1635365	Connector (Quick Disconnect)	1
15	1635399	Connector (Quick Disconnect)	2
16		Fuel Connector (Adapter)	1

[illegible]

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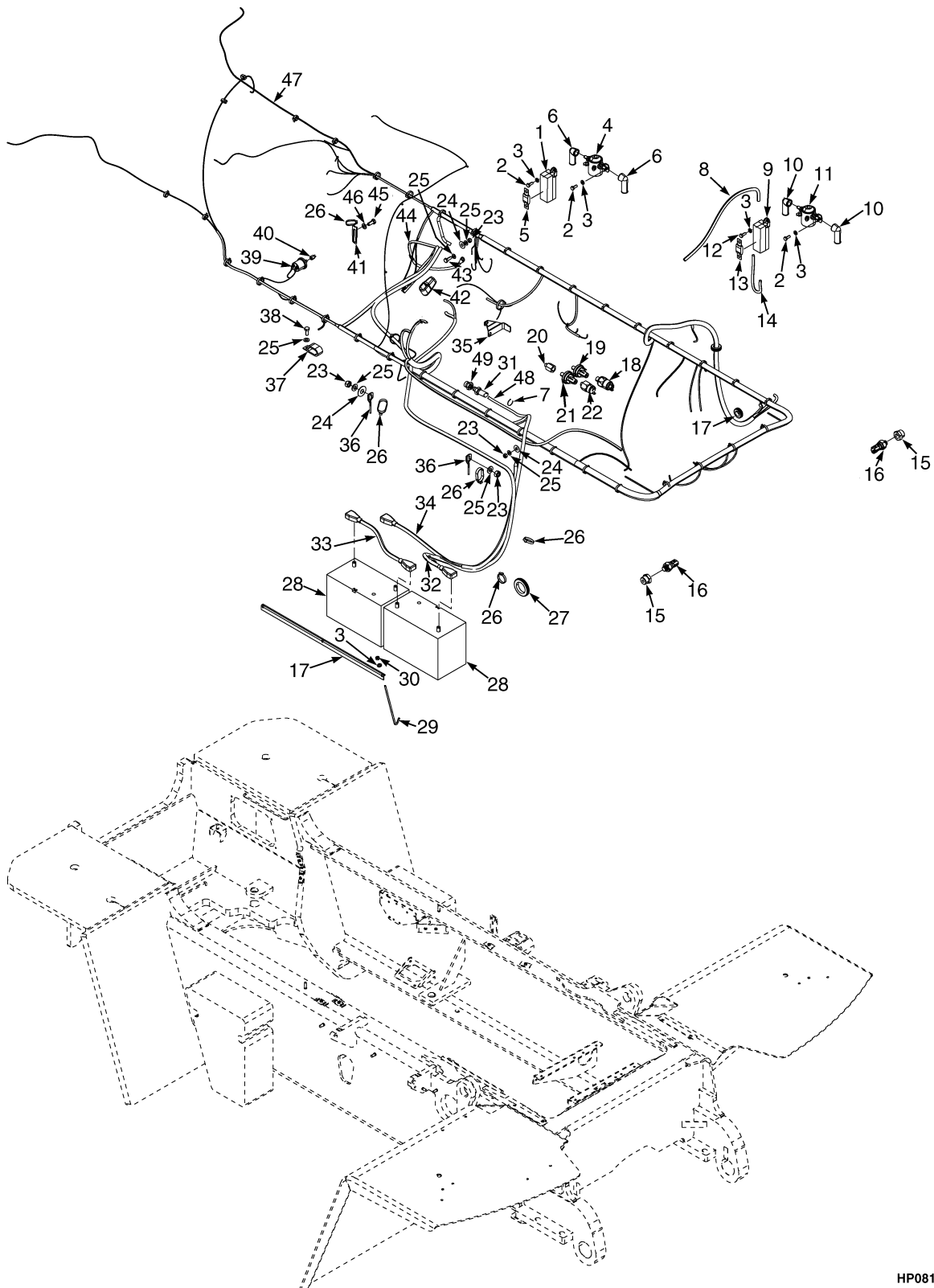
SECTION 4
ELECTRICAL SYSTEM

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NOTES

[illegible]

ELECTRICAL SYSTEM (FIGURE 4-1) DIESEL ENGINE



HP081940

**ELECTRICAL SYSTEM
DIESEL ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	1617615	Fuse Holder	1
2	292500	Capscrew	4
3	320156	Washer	11
4	1307121	Switch	1
5	1617618	Fuse (100 Amp)	1
6	204223	Boot	2
7	137852	Strap Clamp	3
8	b 1665321	Battery Cable	1
8	e 2109608	Battery Cable	1
9	1617615	Fuse Holder	1
10	204223	Boot	2
11	1307121	Switch	1
12	292500	Capscrew	4
13	1617617	Fuse (125 Amp)	1
14	b 1665434	Power Cable	1
14	e 2109609	Battery Cable	1
15	222454	Fitting	2
16	1627991	Switch	2
17	1648640	Battery Hold Down	1
18	1558581	Pressure Switch (Wet Brake)	1
19	c 1301299	Pressure Switch (Low Pressure)	1
19	f 1688092	Pressure Switch (Low Pressure)	1
20	12856	Fitting	1
21	c 1484562	Pressure Switch (Dry Brake)	1
21	f 1688091	Pressure Switch (Dry Brake)	1
22	1332206	Pressure Switch (Wet Brake, light Switch)	1
23	302401	Locknut	4
24	296408	Lockwasher	3
25	320159	Washer	3
26	129563	Strap Clamp	44
27	1347854	Grommet	1
28	1399332	Start Battery Wet	2
29	1658942	Link (Battery Hold Down)	3
30	302399	Nut	4
31	1660992	Switch	1
32	b 1665237	Battery Cable	1
32	e 2109603	Battery Cable	1
33	b 1665052	Battery Cable	1
33	e 2109604	Battery Cable	1
34	b 1667220	Battery Cable	1
34	e 2109605	Battery Cable	1
35	2080826	Bracket	1
36	1345023	Strap	2
37	110322	Clamp	2
38	136681	Capscrew	2
39	1652018	Pressure Sender (Oil)	1
40	1648135	Adapter	1
41	1350911	Strap	1
42	370009	Boot	1
43	136985	Capscrew	1

ELECTRICAL SYSTEM DIESEL ENGINE

ITEM	PART NO.	DESCRIPTION	QTY
44	b 1541841	Battery Cable	1
44	e 2109607	Battery Cable	1
45	292527	Capscrew	1
46	320161	Washer	3
47	a 2088713	Wire Harness (Chassis) (☞Figure 4-19, ☞Figure 4-20).....	1
47	d 2103933	Wire Harness (☞Figure 4-19, ☞Figure 4-20).....	1
47	f 2108927	Wire Harness (☞Figure 4-19, ☞Figure 4-20).....	1
48	2098413	Wire Harness (Hydraulic Oil Temperature) (☞Figure 4-45).....	1
49	1661514	Fitting (Special)	1

FOOTNOTES:

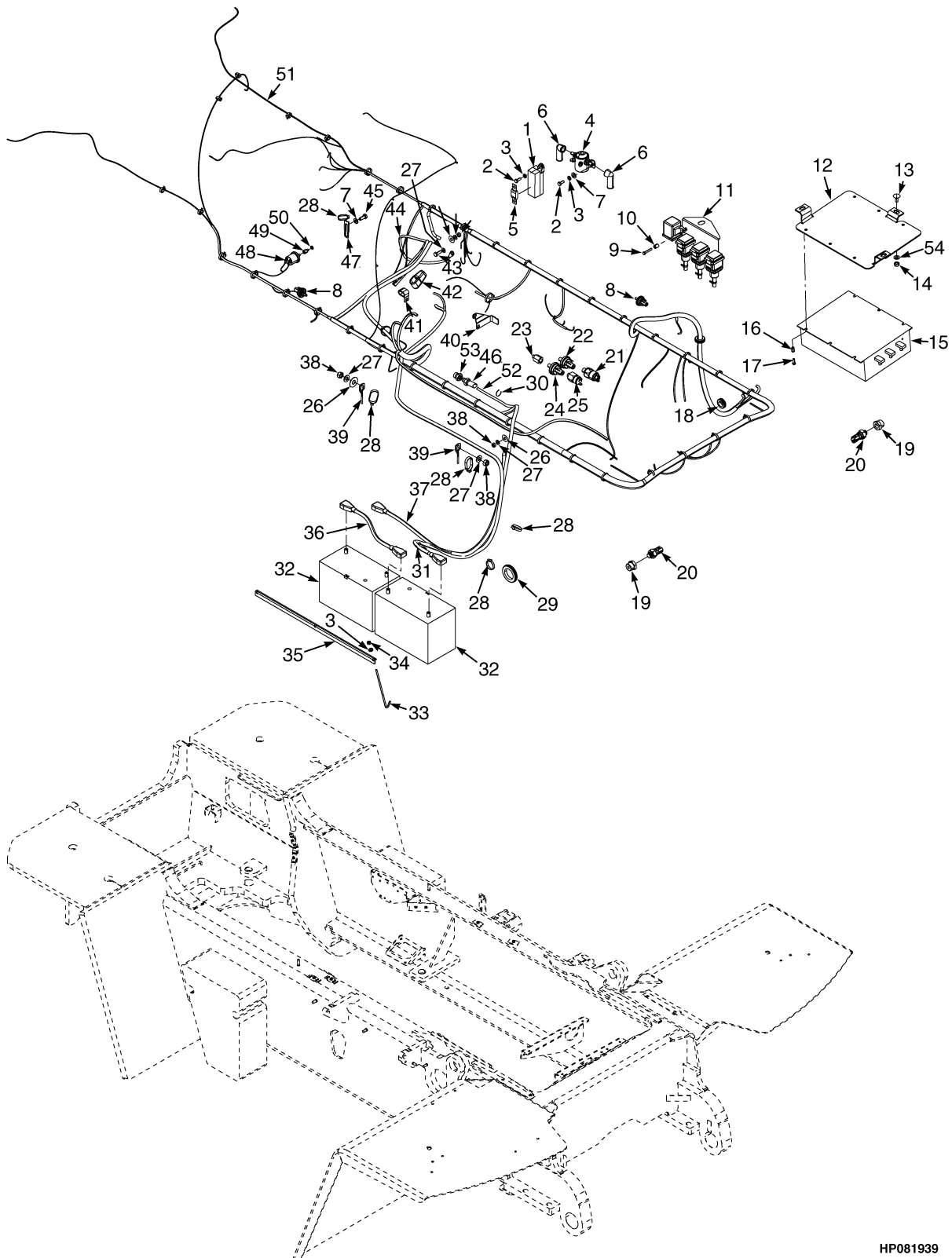
a → 3/2008
b → 4/2009
c → 5/2009

d 3/2008 →
e 4/2009 →
f 5/2009 →

NOTES

[illegible]

ELECTRICAL SYSTEM (FIGURE 4-2) LPG ENGINE



HP081939

**ELECTRICAL SYSTEM
LPG ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	1617615	Fuse Holder	1
2	292500	Capscrew	4
3	320156	Washer	7
4	1307121	Switch	1
5	1617618	Fuse (100 Amp)	1
6	204223	Boot	2
7	320161	Washer	4
8	1301648	Pressure Switch	2
9	2072353	Capscrew	4
10	1534793	Spacer	4
11	1606764	Bracket	1
12	1606513	Bracket	1
13	1533520	Capscrew	3
14	302400	Nut	3
15	1606515	Converter (DC-DC, 60 Amp)	1
16	320155	Washer	6
17	2044515	Capscrew	6
18	279752	Grommet	2
19	222454	Fitting	2
20	1627991	Switch	2
21	1558581	Pressure Switch (Wet Brake)	1
22	c 1301299	Pressure Switch (Low Pressure)	1
22	e 1688092	Pressure Switch (Low Pressure)	1
23	12856	Fitting	1
24	c 1484562	Pressure Switch (Dry Brake)	1
24	e 1688091	Pressure Switch (Dry Brake)	1
25	1332206	Pressure Switch (Wet Brake, light Switch)	1
26	296408	Lockwasher	3
27	320159	Washer	5
28	129563	Strap Clamp	40
29	1347854	Grommet	1
30	137852	Strap Clamp	3
31	b 1665237	Battery Cable	1
31	d 2109603	Battery Cable	1
32	1399332	Start Battery Wet	2
33	1658942	Link (Battery Hold Down)	3
34	302399	Nut	3
35	1648640	Battery Hold Down	1
36	b 1665052	Battery Cable	1
36	d 2109604	Battery Cable	1
37	b 1667220	Battery Cable	1
37	d 2109605	Battery Cable	1
38	302401	Locknut	4
39	1345023	Strap	2
40	2080826	Bracket	1
41	1347314	Clamp	1
42	370009	Boot	1
43	136985	Capscrew	1
44	b 1541841	Battery Cable	1
44	d 2109607	Battery Cable	1

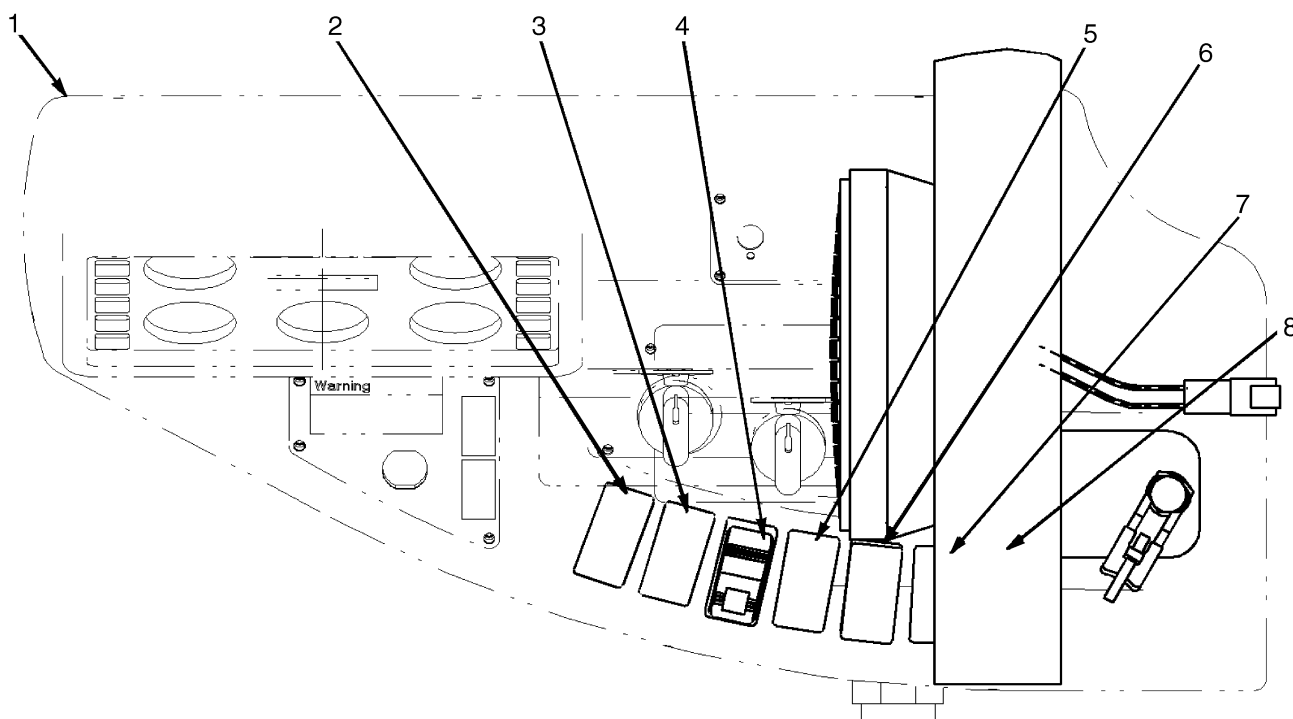
ELECTRICAL SYSTEM LPG ENGINE

ITEM	PART NO.	DESCRIPTION	QTY
45	292527	Capscrew	1
46	1660992	Switch	1
47	1350911	Strap	1
48	1652018	Pressure Sender (Oil)	1
49	1475493	Fitting (Adapter)	1
50	1470791	Seal	1
51	2094175	Wire Harness (Chassis) (☞Figure 4-17, ☞Figure 4-18).....	1
52	2098413	Wire Harness (Hydraulic Oil Temperature) (☞Figure 4-45).....	1
53	1661514	Fitting (Special)	1
54	320157	Washer	3
	a 391484	Clamp (Insulated)	1
	a 132860	Capscrew	1

FOOTNOTES:

a Not Illustrated
b → 4/2009
c → 5/2009

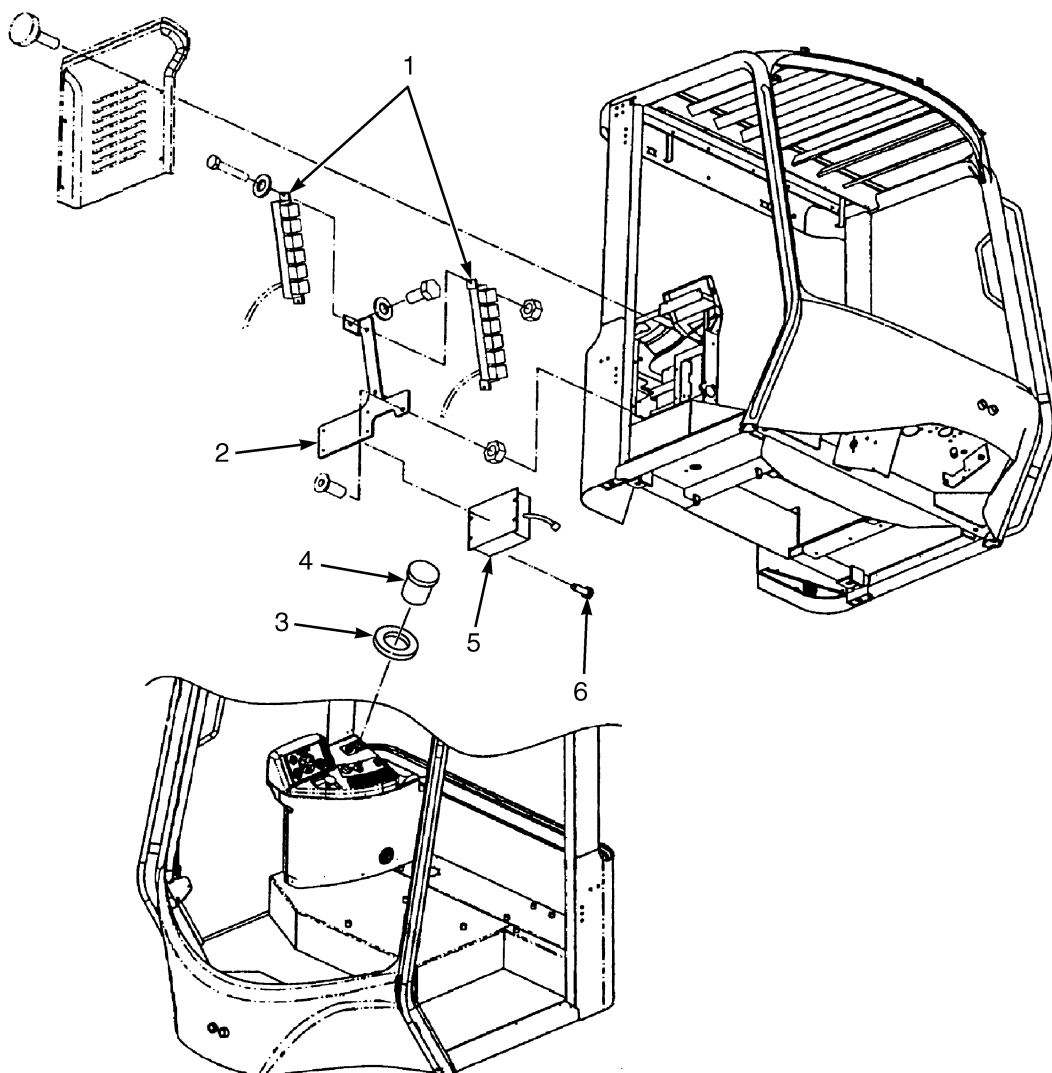
d 4/2009 →
e 5/2009 →

LIGHT SWITCHES (FIGURE 4-3)

HP081938

ITEM	PART NO.	DESCRIPTION	QTY
1	2082217	Wire Harness (Lights)	1
2	2052773	Switch (Mast And Attachment Lights)	1
2	1487428	Switch (Blank)	1
3	2052774	Switch (Master Light Switch)	1
3	1487428	Switch (Blank)	1
4	2052775	Switch (Cab Mounted Drive Lights)	1
4	1487428	Switch (Blank)	1
5	2052776	Switch (Work Lamp)	1
5	1487428	Switch (Blank)	1
6	2043879	Wire Harness (Strobe Light Adaptor)	1
6	1487428	Switch (Blank)	1
7	2043351	Switch (Hazard Light)	1
7	1487428	Switch (Blank)	1
8	1487428	Switch (Blank)	1

DC-DC CONVERTER AND ATTACHING PARTS (FIGURE 4-4)

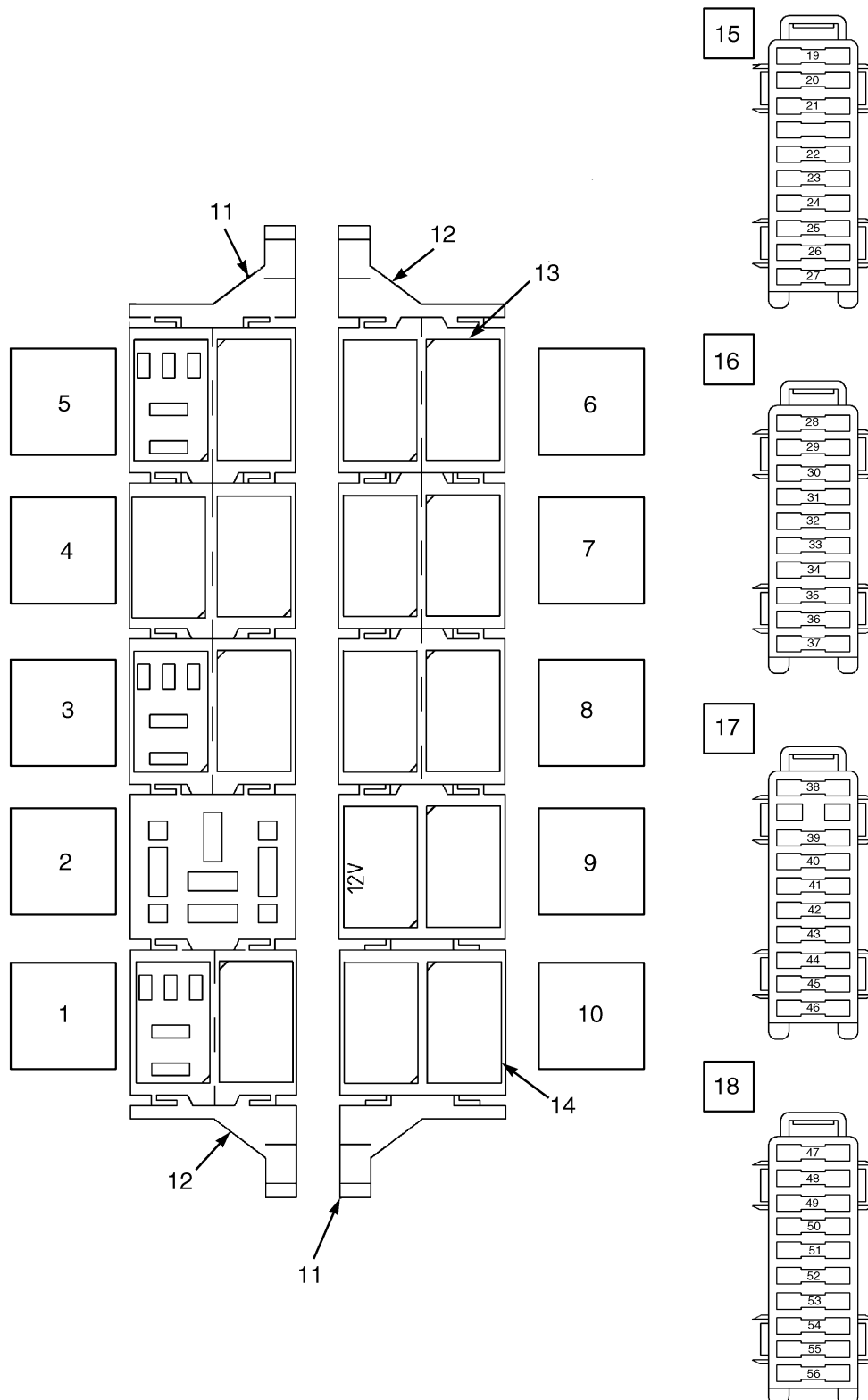


HP200115

DC-DC CONVERTER AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	2088901	Wire Harness (Side Console) (☞Figure 4-21, ☞Figure 4-22, ☞Figure 4-23, ☞Figure 4-5).....	1
2	1566765	Bracket	1
3	1558027	Label	1
4	1566764	Socket (12 Volt)	1
5	2055678	DC-DC Converter	1
6	1571789	Screw	4

RELAYS AND FUSES (FIGURE 4-5)



HP081930

RELAYS AND FUSES

ITEM	PART NO.	DESCRIPTION	QTY
	2088901	Wire Harness (Side Console)	1
1		Air Conditioner Fan 1 Relay	1
1	1484683	Relay (Base)	1
1	1389479	Terminal	2
1	1570602	Terminal (Socket)	2
2		Directional Indicator Flasher Relay	1
2	1484684	Single Mini Relay Base	1
2	1489957	Connector (1-Way)	3
3	1484683	Relay (Base)	1
4		Ignition Relay and Seat Switch Relay	1
4	1484683	Relay (Base)	1
4	1490249	Connector (1-Way) (Ignition)	2
4	1570602	Terminal (Socket) (Ignition)	2
4	1570602	Terminal (Socket) (Seat Switch)	4
5		Override Relay And Pressure Signal Relay	1
5	1484683	Relay (Base)	1
5	1489957	Connector (1-Way) (Override)	2
5	1570602	Terminal (Socket) (Override)	2
5	1489957	Connector (1-Way) (Pressure Signal)	2
5	1570602	Terminal (Socket) (Pressure Signal)	2
6		Lights Relay And Flood Lights Relay	1
6	1484683	Relay (Base)	1
6	1490249	Connector (1-Way) (Lights)	2
6	1570602	Terminal (Socket) (Lights)	2
6	1490249	Connector (1-Way) (Flood Lights)	2
6	1570602	Terminal (Socket) (Flood Lights)	2
7		Neutral Relay And Start Inhibit Relay	1
7	1484683	Relay (Base)	1
7	1489957	Connector (1-Way) (Neutral)	2
7	1570602	Terminal (Socket) (Neutral)	2
7	1489957	Connector (1-Way) (Start Inhibit)	2
7	1570602	Terminal (Socket) (Start Inhibit)	2
8		Lower Interrupt Relay And Reverse Light And Alarm Relay	1
8	1484683	Relay (Base)	1
8	1489957	Connector (1-Way) (Lower Interrupt)	1
8	1570602	Terminal (Socket) (Lower Interrupt)	3
8	1489957	Connector (1-Way) (Reverse Light And Alarm Relay)	2
8	1570602	Terminal (Socket) (Reverse Light And Alarm Relay)	2
9		12V Relay And Horn Relay	1
9	1484683	Relay (Base)	1
9	1489957	Connector (1-Way) (12V)	4
9	1389479	Terminal (Horn)	1
9	1489957	Connector (1-Way) (Horn)	1
9	1570602	Terminal (Socket) (Horn)	2
10		Air Conditioner Fan 2 Relay And Air Conditioner Fan 3 Relay	1
10	1484683	Relay (Base)	1
10	1389479	Terminal (Air Conditioner Fan 2)	2
10	1570602	Terminal (Socket) (Air Conditioner Fan 2)	2
10	1389479	Terminal (Air Conditioner Fan 3)	2
10	1570602	Terminal (Socket) (Air Conditioner Fan 3)	2
11	1484715	Clip	2

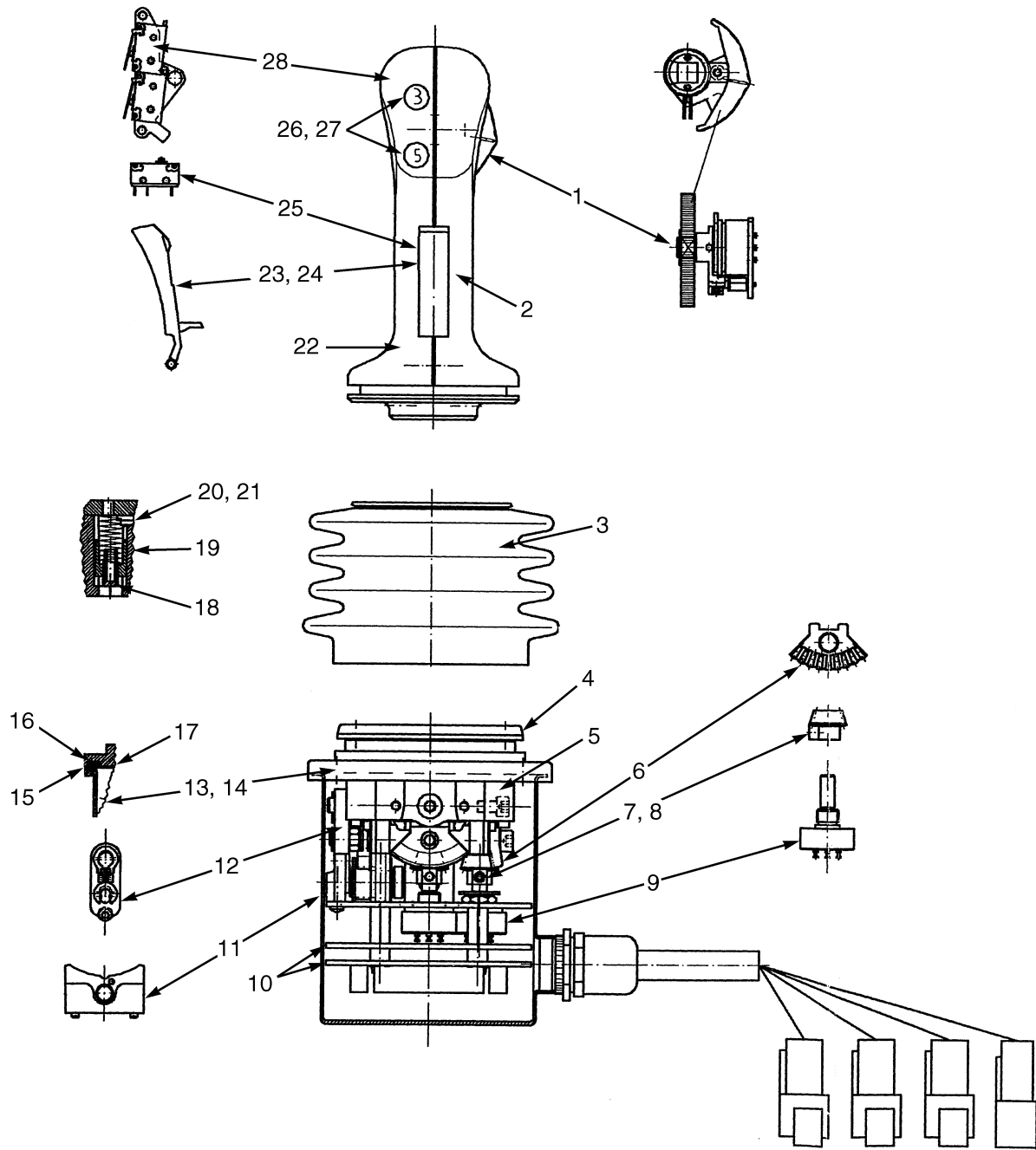
RELAYS AND FUSES

ITEM	PART NO.	DESCRIPTION	QTY
12	1484714	Clip	2
13	1582155	Relay (12 Volt)	1
14	1489960	Relay (24 Volt)	13
15		Fusebox 1, Hydraulics And Transmission	1
15	1484681	Fuse Box (10-Way)	1
15	1389477	Lock	1
15	1490250	Terminal (2-Way)	2
15	1489957	Connector (1-Way)	6
15	1389479	Terminal	6
15	1496884	Terminal (3-Way)	1
16		Fusebox 2, Lights And Heater, Air Conditioner And Ventilation Fan	1
16	1484681	Fuse Box (10-Way)	1
16	1389477	Lock	1
16	1490250	Terminal (2-Way)	3
16	1655132	Bridge (2-Way)	1
16	1489957	Connector (1-Way)	8
16	1389479	Terminal	4
17		Fusebox 3, Engine Control And Display	1
17	1484681	Fuse Box (10-Way)	1
17	1389477	Lock	1
17	1489957	Connector (1-Way)	9
17	1496884	Terminal (3-Way)	2
17	1389479	Terminal	2
17	1490249	Connector (1-Way)	1
18		Fusebox 4, 12V	1
18	1484681	Fuse Box (10-Way)	1
18	1389477	Lock	1
18	1490250	Terminal (2-Way)	2
18	1389479	Terminal	6
18	1490249	Connector (1-Way)	4
18	1489957	Connector (1-Way)	7
19	1310630	Fuse (15 Amp) (Hydraulic Controls)	1
20	370647	Fuse (10 Amp) (Transmission)	1
21	1310630	Fuse (15 Amp) (Attachment Controls)	1
22	1300057	Fuse (7.5 Amp) (Transmission B+)	1
23	370647	Fuse (10 Amp) (Park Brake)	1
24	1300057	Fuse (7.5 Amp) (Transmission B+)	1
25	370647	Fuse (10 Amp) (Front Screen Wash Wipe)	1
26	370647	Fuse (10 Amp) (Roof Screen Wash Wipe)	1
27	370647	Fuse (10 Amp) (Rear Screen Wash Wipe)	1
28	370647	Fuse (10 Amp) (Front Inner Flood Lights)	1
29	370647	Fuse (10 Amp) (Front Outer Flood Lights)	1
30	370647	Fuse (10 Amp) (Rear Drive Lights)	1
31	370647	Fuse (10 Amp) (Beacon And Strobe Lights)	1
32	370647	Fuse (10 Amp) (Stop Lights)	1
33	370647	Fuse (10 Amp) (Mast Lights)	1
34	370647	Fuse (10 Amp) (Direction Indicators)	1
35	370647	Fuse (10 Amp) (Hazard Lights)	1
36	370647	Fuse (10 Amp) (Side Lights And Tail Lights)	1
37	370647	Fuse (10 Amp) (Front Drive Lights)	1
38	370646	Fuse (5 Amp) (Engine Start)	1

RELAYS AND FUSES

ITEM	PART NO.	DESCRIPTION	QTY
39	370647	Fuse (10 Amp) (Instrumentation)	1
40	370648	Fuse (20 Amp) (Cab Tilt Power Assist)	1
41	370647	Fuse (10 Amp) (Horn)	1
42	370646	Fuse (5 Amp) (Interior Lighting)	1
43	1310630	Fuse (15 Amp) (Seat Suspension Compressor)	1
44	370648	Fuse (20 Amp) (Heater And Air Conditioner And Ventilation Fan)	1
45	370647	Fuse (10 Amp) (Oil Cooler And Air Dryer)	1
46	370646	Fuse (5 Amp) (Reverse Lights And Alarm)	1
47	370647	Fuse (10 Amp) (Console Accessory Socket)	1
48	1337828	Fuse (3 Amp) (Radio And CB And Intercom)	1
49	370647	Fuse (10 Amp) (Converter For Accessories)	1
50	1310630	Fuse (15 Amp) (12V Relay And Air Conditioner Fan 1)	1
51	1310630	Fuse (15 Amp) (Engine Supply)	1
52	1310630	Fuse (15 Amp) (Engine Supply)	1
53	370646	Fuse (5 Amp) (LPG Relay)	1
54	1378661	Fuse (1 Amp) (Diagnostics Supply)	1
55	370647	Fuse (10 Amp) (Air Conditioner Fan 2)	1
56	370647	Fuse (10 Amp) (Air Conditioner Fan 3)	1

JOYSTICK ASSEMBLY (FIGURE 4-6) SUSPENSION HOOKS

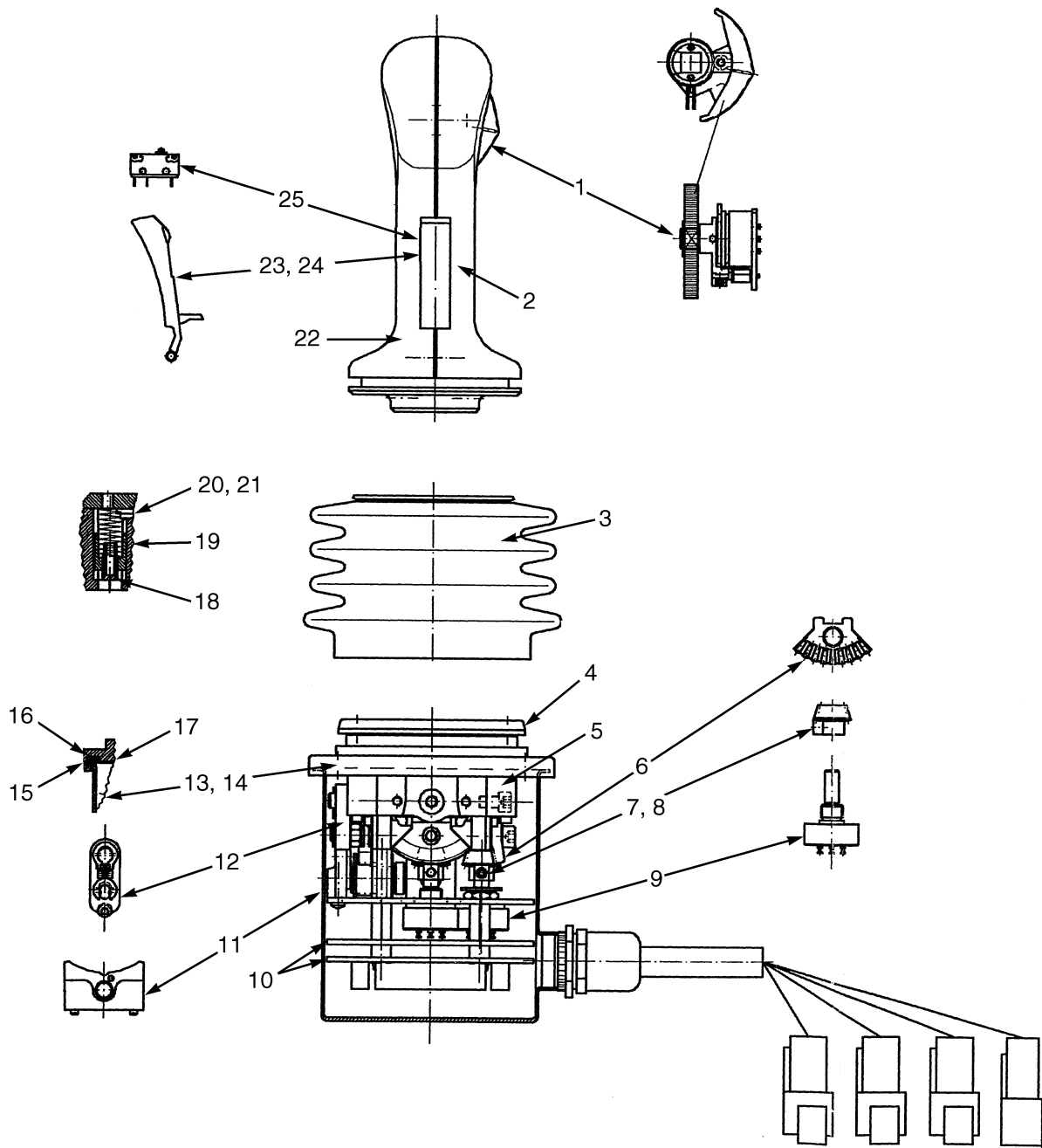


HP081848

**JOYSTICK ASSEMBLY
SUSPENSION HOOKS**

ITEM	PART NO.	DESCRIPTION	QTY
	1504059	Joystick	1
1	1584827	Potentiometer	1
1	1584828	Switch (See Saw)	1
2	1584848	Grip (LH)	1
3	1584846	Boot	1
4	1584835	Gate	1
5	1584829	Drive Assy-Upper Mechanical	1
6	1584834	Bevel Gear	1
7	1584838	Bevel Gear	2
8	1504917	Pin	2
9	1584837	Potentiometer	2
10	1584867	Printed Circuit Board	1
11	1584836	Bearing (Detent)	2
12	1584839	Plate (Complete)	2
13	1584843	Housing	1
14	1584844	Screw	4
15	1584845	Gasket	1
16	1584841	Gasket	1
17	1584842	Gasket	1
18	1584833	Screw	4
19	1584830	Plunger	4
20	1584831	Spring	4
21	1584832	Spring	4
22	1584847	Grip (RH)	1
23	1584824	Twistlock	1
24	1584825	Spring	1
25	1584826	Microswitch	1
26	1584852	Push Button (Red)	2
27	1584853	Spring	2
28	1584854	Contact	1

JOYSTICK ASSEMBLY (FIGURE 4-7) TWISTLOCKS

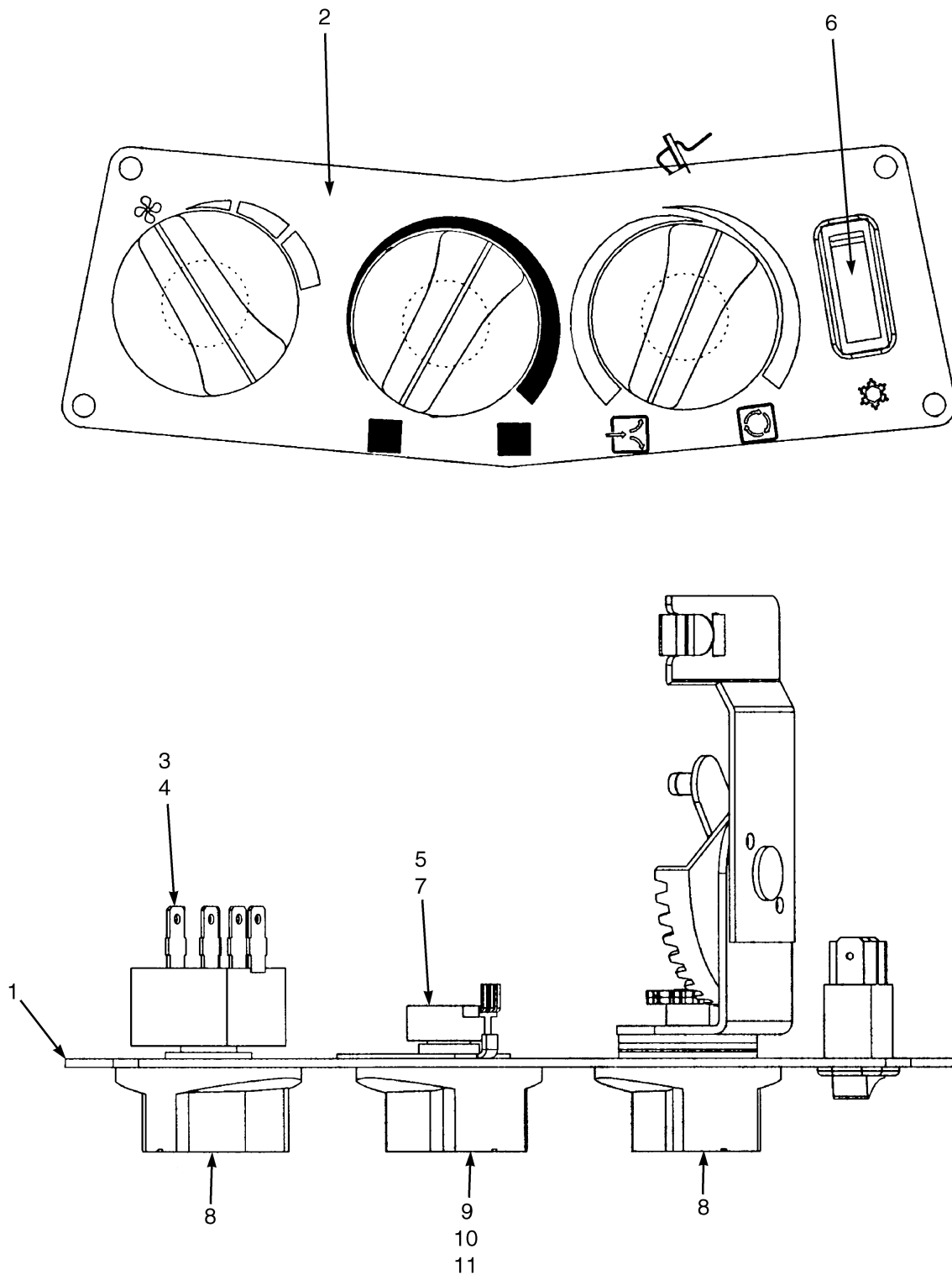


HP081849

**JOYSTICK ASSEMBLY
TWISTLOCKS**

ITEM	PART NO.	DESCRIPTION	QTY
	1504059	Joystick	1
1	1584827	Potentiometer	1
1	1584828	Switch (See Saw)	1
2	1584823	Grip (LH)	1
3	1584846	Boot	1
4	1584835	Gate	1
5	1584829	Drive Assy-Upper Mechanical	1
6	1584834	Bevel Gear	1
7	1584838	Bevel Gear	2
8	1504917	Pin	2
9	1584837	Potentiometer	2
10	1584840	Printed Circuit Board	1
11	1584836	Bearing (Detent)	2
12	1584839	Plate (Complete)	2
13	1584843	Housing	1
14	1584844	Screw	4
15	1584845	Gasket	1
16	1584841	Gasket	1
17	1584842	Gasket	1
18	1584833	Screw	4
19	1584830	Plunger	4
20	1584831	Spring	4
21	1584832	Spring	4
22	1584822	Grip (RH)	1
23	1584824	Twistlock	1
24	1584825	Spring	1
25	1584826	Microswitch	1

CONTROL PANEL (FIGURE 4-8) AIR CONDITIONER

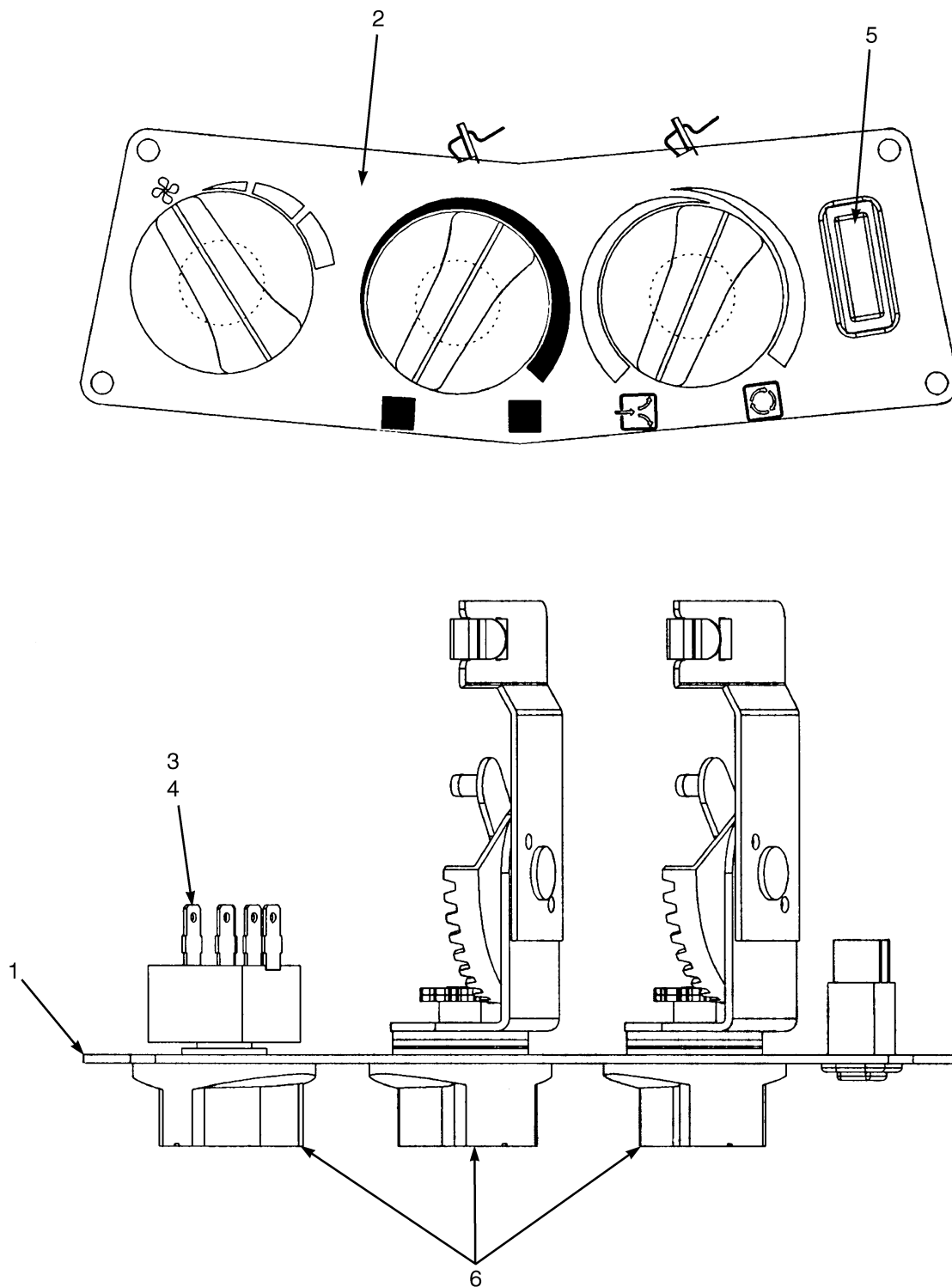


HP081509

**CONTROL PANEL
AIR CONDITIONER**

ITEM	PART NO.	DESCRIPTION	QTY
	1615364	Control Panel (Heater and Air Conditioner)	1
1		Plate (Mounting)	1
2		Decal	1
3	1566205	Switch (Fan Speed)	1
4	1566206	Nut	1
5	1615363	Potentiometer	1
6	1566208	Switch (Air Conditioner)	1
7	1566209	Wire Harness	1
8	1566210	Knob (Fan Switch)	2
9	1566211	Knob (Potentiometer)	1
10	1566212	O-Ring	1
11	1566213	Washer	1

CONTROL PANEL (FIGURE 4-9) HEATER

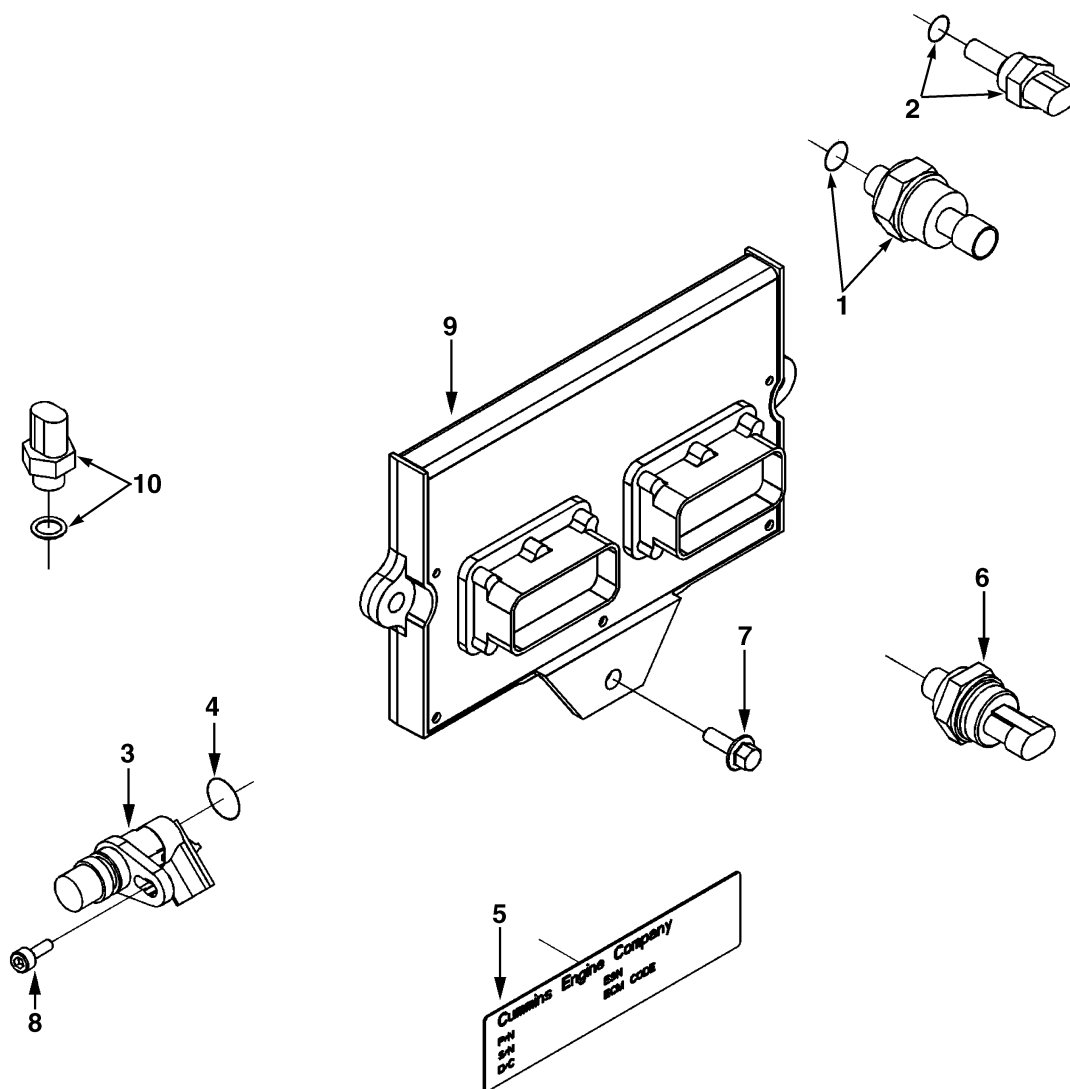


HP081508

**CONTROL PANEL
HEATER**

ITEM	PART NO.	DESCRIPTION	QTY
	1558033	Control Panel (Heater)	1
1		Plate (Mounting)	1
2		Decal	1
3	1566205	Switch (Fan Speed)	2
4	1566206	Nut	1
5	1566216	Plug	1
6	1566210	Knob	3

ENGINE CONTROL SYSTEM (FIGURE 4-10) CUMMINS DIESEL



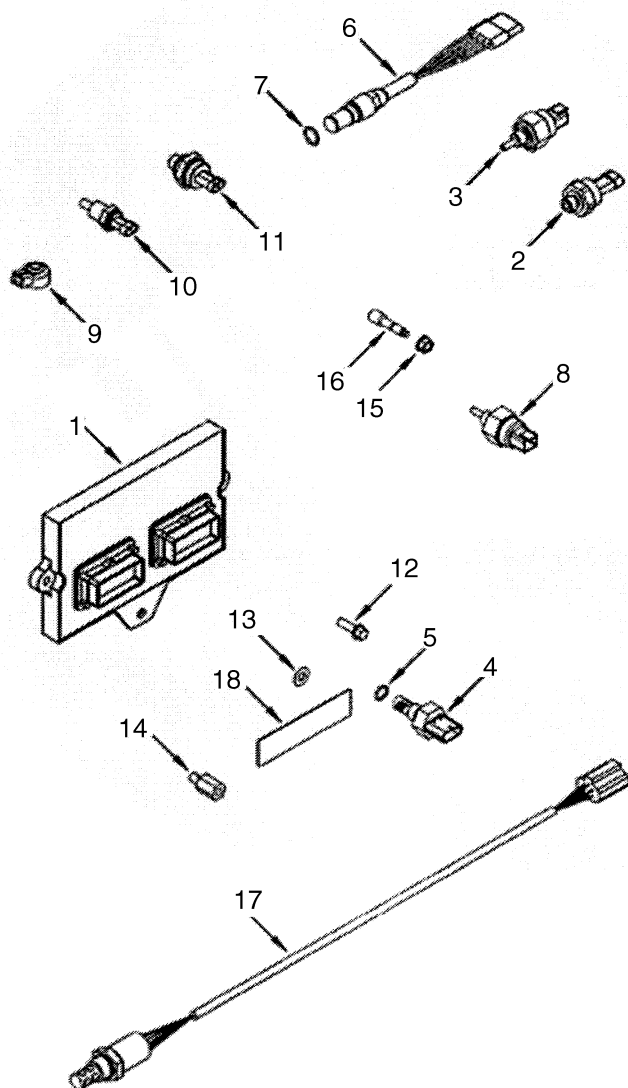
HP091194

**ENGINE CONTROL SYSTEM
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1659572	Sensor (Boost Pressure)	1
2	1517118	Sensor (Air Intake)	1
3	1619371	Sensor (Camshaft Position)	1
4	1552288	O-Ring	1
5	1517120	Data Plate	1
6	1543436	Sensor (Coolant)	1
7	1512004	Capscrew	3
8	1543437	Capscrew	1
9	1635421	Electronic Control Module	1
10	1543439	Oil Pressure Sensor	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

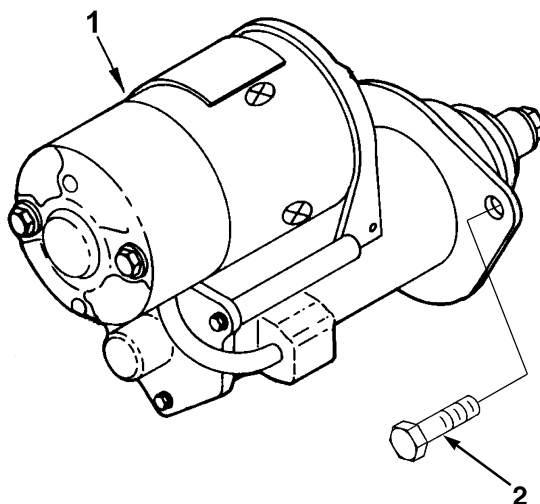
ENGINE CONTROL SYSTEM (FIGURE 4-11) CUMMINS LPG



HP091448

**ENGINE CONTROL SYSTEM
CUMMINS LPG**

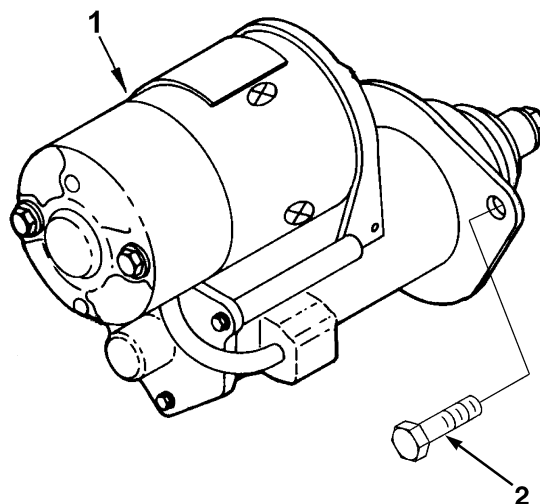
ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1		Control Module (Electronic)	1
2	1662044	Sensor (Pressure)	1
3	1662045	Sensor (Pressure)	1
4	1614640	Sensor	1
5	1614638	O-Ring	1
6	1568719	Sensor (Camshaft Position)	1
6	1708423	Camshaft Position Sensor (Alternate Part)	1
7	1511961	O-Ring	1
8	1658984	Sensor (Charge Air Pressure)	1
8	1515836	O-Ring	1
9	1614491	Sensor (Knock)	1
10	1543436	Sensor (Coolant)	1
11	1662042	Sensor (Temperature)	1
11	1517116	O-Ring	1
12	1512005	Capscrew	2
13	1511969	Seal	2
14	1517122	Spacer	2
15	1513712	Nut	1
16	1614632	Stud	1
17	1614636	Sensor	1
18	1517120	Data Plate	1

STARTER MOTOR (FIGURE 4-12)
CUMMINS DIESEL

HP091171

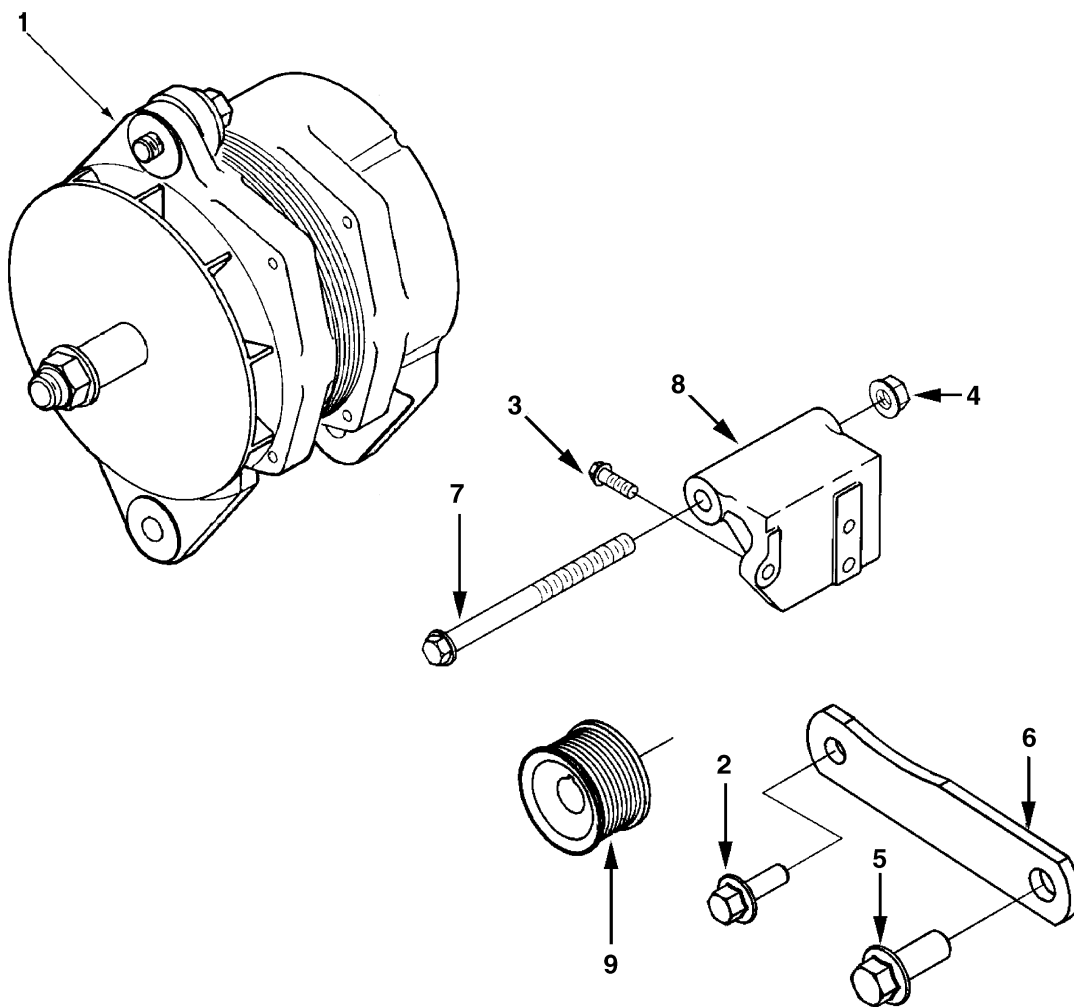
ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1552880	Starter	1
2	1588828	Capscrew	2

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

STARTER MOTOR (FIGURE 4-13)
CUMMINS LPG

HP091171

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1552880	Starter	1
2	1588828	Capscrew	2

ALTERNATOR AND MOUNTING (FIGURE 4-14)
CUMMINS DIESEL

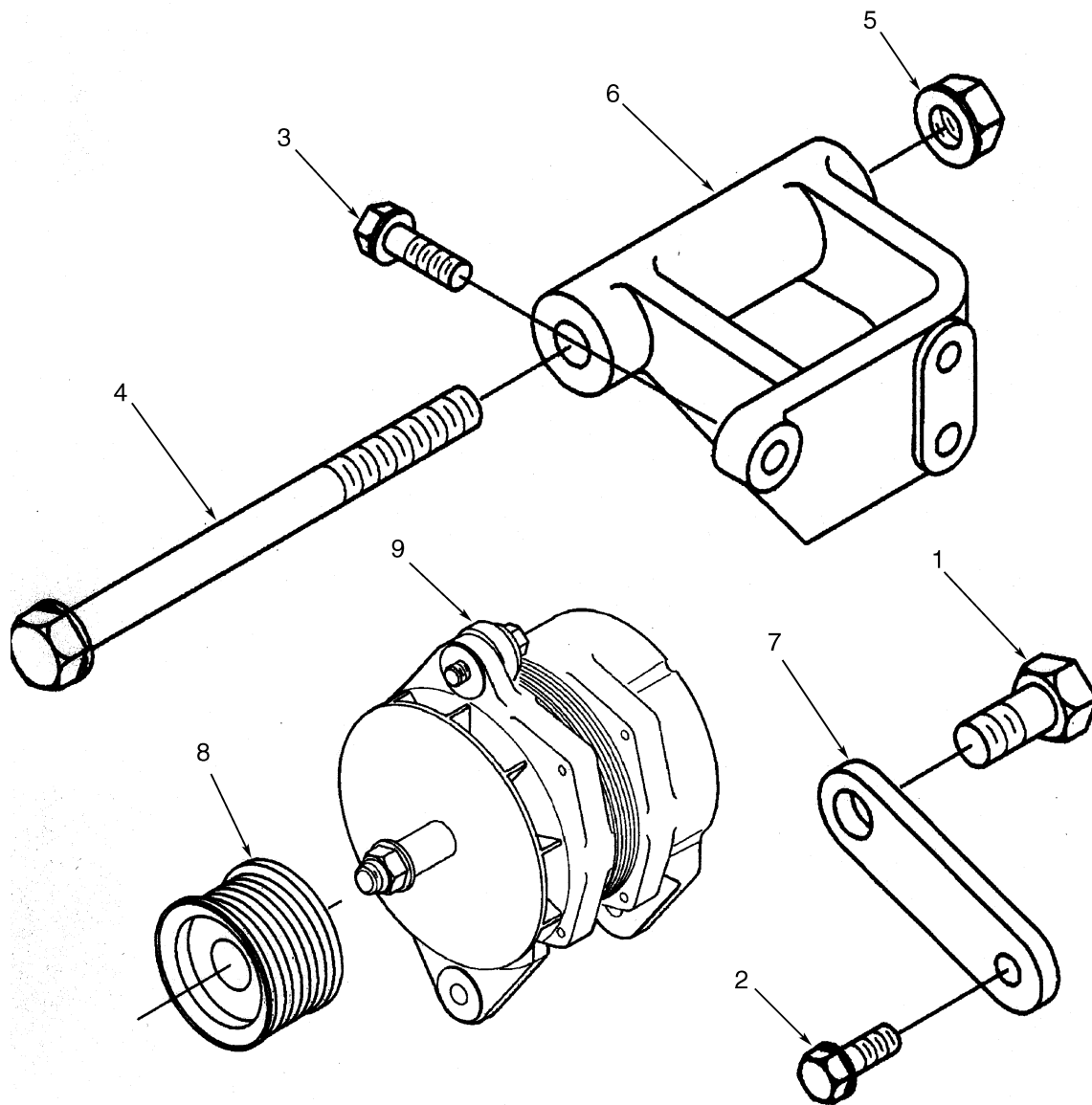
HP091151

**ALTERNATOR AND MOUNTING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2085495	Engine Assy-Diesel (2500 RPM, Dry Brakes)	1
	b 2107119	Engine Assy (2500 RPM, Dry Brakes)	1
	a 2085491	Engine Assy-Diesel (2500 RPM, Wet Brakes)	1
	b 2107117	Engine Assy (2500 RPM, Wet Brakes)	1
1	1649349	Alternator	1
1	1693006	Alternator (Alternate Part)	1
2	1512003	Capscrew	1
3	1512005	Capscrew	3
4	1511978	Nut	1
5	1512503	Capscrew	1
6	1543352	Brace	1
7	1512006	Capscrew	1
8	1543351	Support	1
9	b 1521827	Pulley	1
9	a 1512009	Pulley	1

FOOTNOTES:**a** → S/N H007E02176F**b** S/N H007E02177F →

ALTERNATOR AND MOUNTING (FIGURE 4-15) CUMMINS LPG

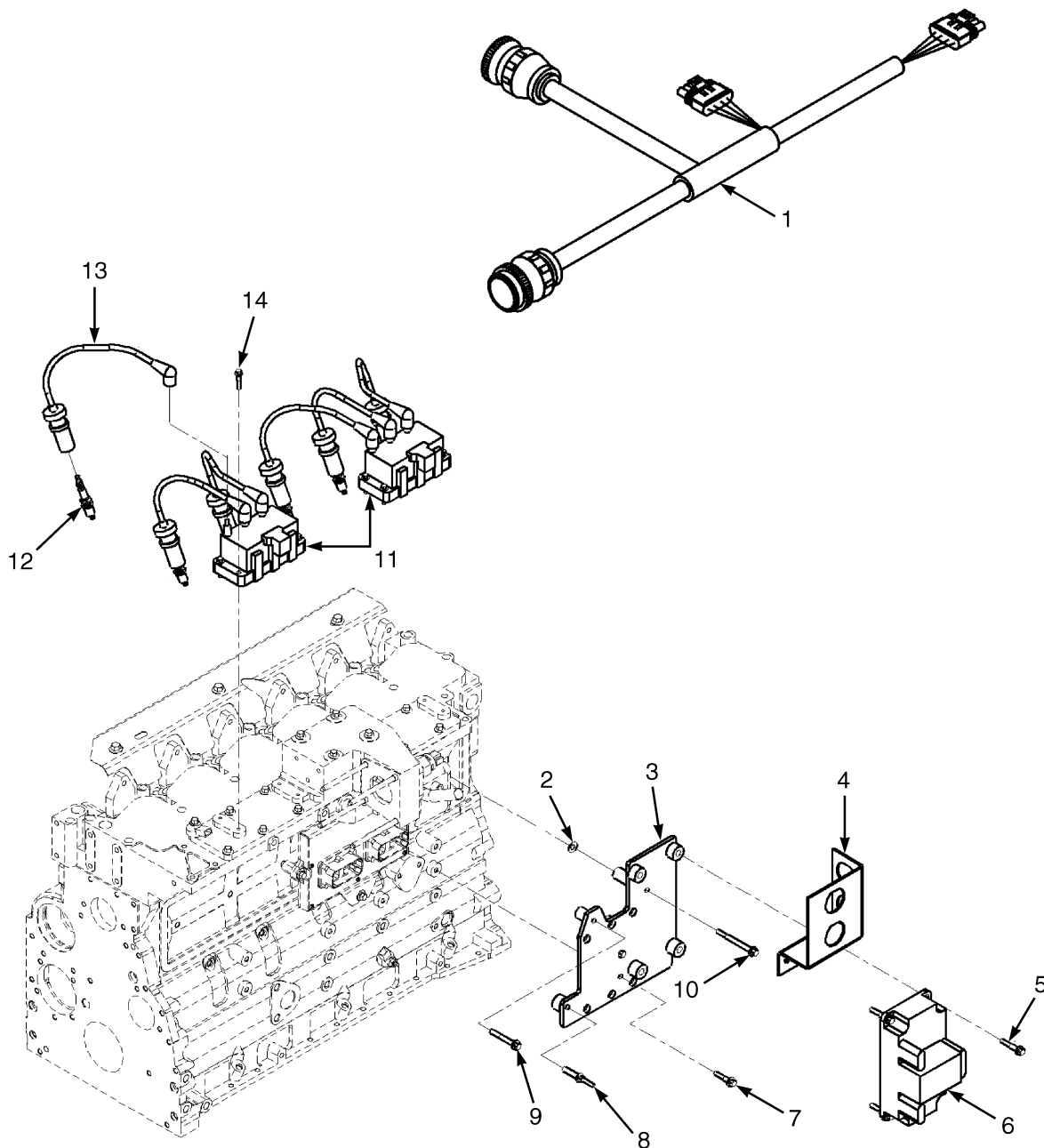


HP090873

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1512003	Capscrew	1
2	1512004	Capscrew	1
3	1512005	Capscrew	3
4	1512006	Capscrew	1
5	1661040	Nut	1
6	1662039	Support	1
6	1662040	Roll Pin	2
7	1512008	Brace	1
8	1662041	Pulley	1

ITEM	PART NO.	DESCRIPTION	QTY
9	1649349	Alternator	1
9	1693006	Alternator (Alternate Part)	1

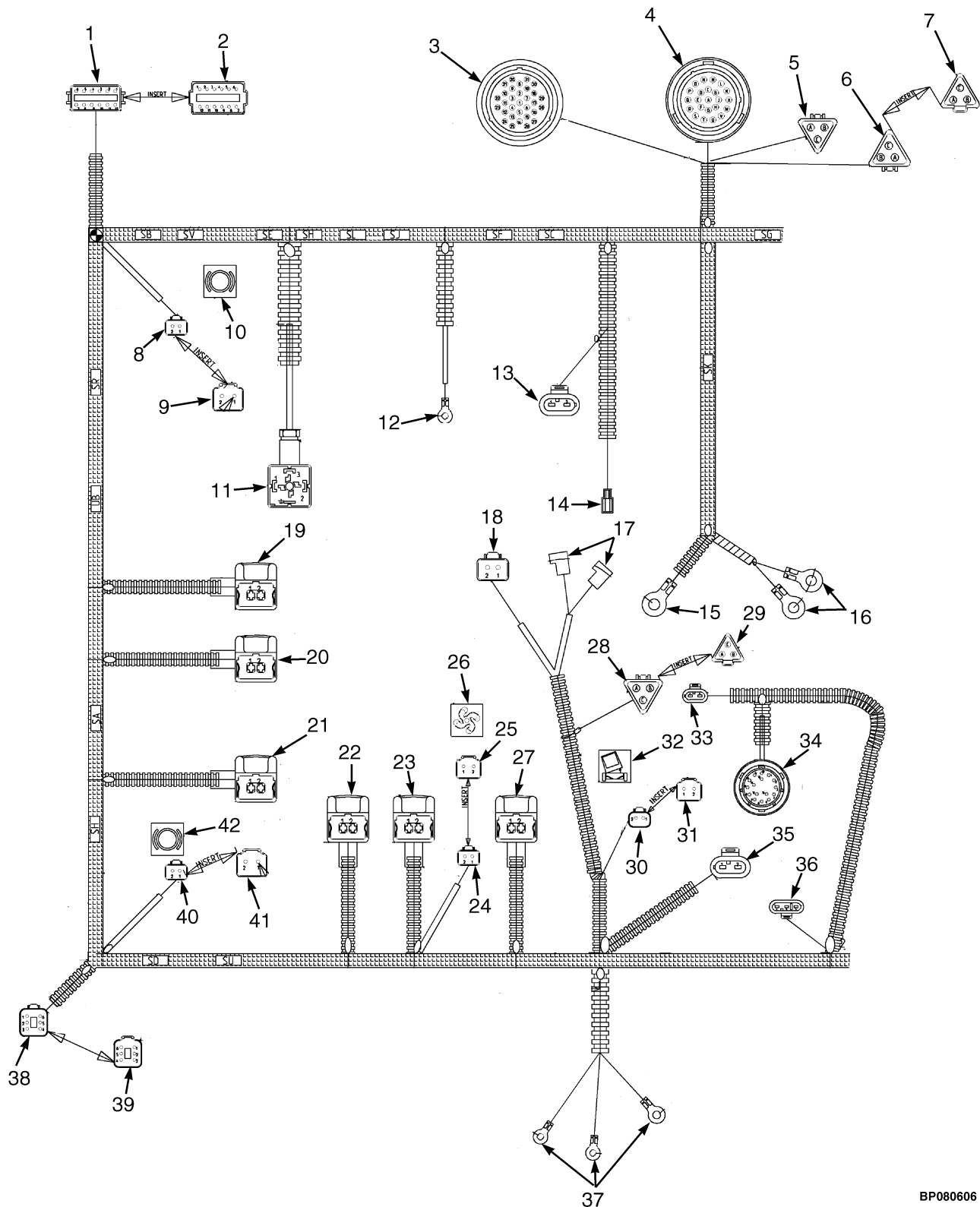
ENGINE IGNITION SYSTEM (FIGURE 4-16) CUMMINS LPG



BP080440

**ENGINE IGNITION SYSTEM
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2095553	Engine Assy-Lpg (Dry Brake)	1
	2095552	Engine Assy-Lpg (Wet Brake)	1
1	1614598	Wire Harness	1
2	1511969	Seal	1
3	1614592	Bracket	1
4	1614599	Bracket	1
5	1565007	Capscrew	4
6	1614616	Control Module (Ignition)	1
7	1614516	Capscrew	1
8	1614545	Capscrew	1
9	1512033	Capscrew	2
10	1514535	Screw	1
11	1614584	Ignition Coil	2
12		Spark Plug	1
13	1614605	Ignition Cable	6
14	1513791	Screw	8
	1614641	Spark Plug	6

WIRE HARNESS (FIGURE 4-17)
CHASSIS, LPG — SHEET 1 OF 2

BP080606

WIRE HARNESS
CHASSIS, LPG – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	2094175	Wire Harness (Chassis)	1
1		Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1363886	Terminal (Socket)	2
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
2		Insert (Front End)	1
2	1352603	Connector	1
2	1500925	Connector	1
2	1330439	Plug	12
3		Connector Assembly (Engine)	1
3	1611032	Socket (Socket)	1
3	1507725	Terminal	4
3	1484377	Plug	27
4		Connector Assembly (Engine)	1
4	1503634	Connector	1
4	1363886	Terminal (Socket)	16
4	1330439	Plug	7
5		Connector Assembly (Can Connector)	1
5	1484397	Connector (3-Way)	1
5	1463194	Connector	1
5	1518112	Terminal (Socket)	2
5	1330439	Plug	1
6		Connector Assembly (Terminating Resistor)	1
6	1330439	Plug	1
6	1484397	Connector (3-Way)	1
6	1518112	Terminal (Socket)	2
6	1610944	Lock	1
7		Insert (Terminating Resistor)	1
7	1607772	Connector (Termination)	1
8		Connector Assembly (RH Hub Temperature)	1
8	1490242	Connector	1
8	1490243	Connector	1
8	1330438	Terminal (Socket)	2
9		Insert (RH Hub Temperature)	1
9	1330439	Plug	2
10	1569972	Label (Brake)	1
11		Connector Assembly (Park Brake Solenoid)	1
11	1634443	Housing	1
11	1634444	Wire Seal	1
12		Connector Assembly (Battery Box)	1
12	1493459	Ring	1
13		Connector Assembly (Turbine Speed)	1
13	1508206	Connector (2 Way)	1
13	2787349	Terminal	2
13	2060555	Wire Seal	2
14		Connector Assembly (Converter Temperature Sensor)	1
14	1610948	Receptacle	1
14	1610947	Receptacle	1

WIRE HARNESS

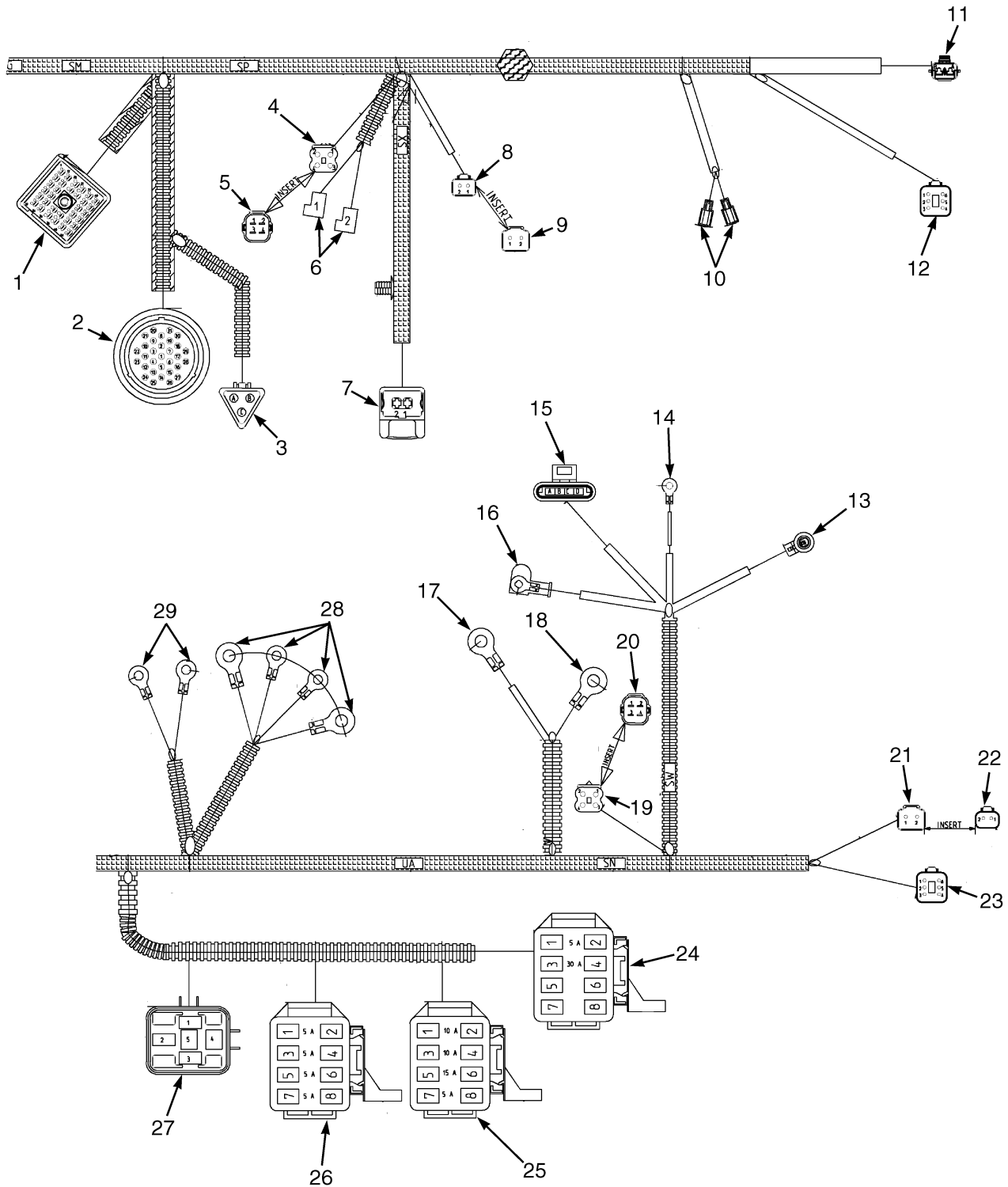
CHASSIS, LPG – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
15		Connector Assembly (24 Volt)	1
15	1493455	Ring	1
16		Connector Assembly (Ground)	1
16	1493455	Ring	2
17		Connector Assembly (Low Pressure Switch)	1
17	1634450	Indicator	2
18		Connector Assembly (LPG Solenoid)	1
18	1490242	Connector	1
18	1490243	Connector	1
18	1330438	Terminal (Socket)	2
19		Connector Assembly (Lift)	1
19	1493447	Connector	1
19	1493436	Terminal (Socket)	2
19	1623890	Seal	2
20		Connector Assembly (Auxilliary)	1
20	1493446	Connector	1
20	1493436	Terminal (Socket)	2
20	1623890	Seal	2
21		Connector Assembly (Tilt)	1
21	1493435	Connector (2-Way)	1
21	1493436	Terminal (Socket)	2
21	1623890	Seal	2
22		Connector Assembly (Tilt)	1
22	1493435	Connector (2-Way)	1
22	1493436	Terminal (Socket)	2
22	1623890	Seal	2
23		Connector Assembly (Auxilliary)	1
23	1493446	Connector	1
23	1493436	Terminal (Socket)	2
23	1623890	Seal	2
24		Connector Assembly (Hydraulic Cooler)	1
24	1490242	Connector	1
24	1490243	Connector	1
24	1330438	Terminal (Socket)	2
25		Insert (Hydraulic Cooler)	1
25	1502920	Connector	1
25	1330439	Plug	2
26	1607775	Label (Fan)	1
27		Connector Assembly (Low)	1
27	1493447	Connector	1
27	1493436	Terminal (Socket)	2
27	1623890	Seal	2
28		Connector Assembly (Resistor)	1
28	1484397	Connector (3-Way)	1
28	1463194	Connector	1
28	1518112	Terminal (Socket)	2
28	1330439	Plug	1
29		Insert (Resistor)	1
29	1607772	Connector (Termination)	1
30		Connector Assembly (Cab Power Tilt)	1

WIRE HARNESS
CHASSIS, LPG – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
30	1490242	Connector	1
30	1490243	Connector	1
30	1363886	Terminal (Socket)	2
31		Insert (Cab Power Tilt)	1
31	1502920	Connector	1
31	1330439	Plug	2
32	1605545	Label (Cab Tilt)	1
33		Connector Assembly (Drum Speed)	1
33	1508206	Connector (2 Way)	1
33	2787349	Terminal	2
33	2060555	Wire Seal	2
34		Connector Assembly (Valve)	1
34	1607771	Boot	1
34	1598469	Connector (16-Way)	1
34	1598470	Terminal (Pin)	16
35		Connector Assembly (Output Speed)	1
35	1508206	Connector (2 Way)	1
35	2787349	Terminal	2
35	2060555	Wire Seal	2
36		Connector Assembly (Engine Speed)	1
36	2787344	Connector (3 Way)	1
36	2787349	Terminal	3
36	2060555	Wire Seal	3
37		Connector Assembly (DC/DC Converter)	1
37	1634448	Ring	1
37	1493459	Ring	2
38		Connector Assembly (Front Lights)	1
38	1493430	Connector	1
38	1529052	Connector	1
38	1363886	Terminal (Socket)	2
38	1330438	Terminal (Socket)	4
39		Insert (Front Lights)	1
39	1500914	Housing	1
39	1330439	Plug	6
40		Connector Assembly (LH Hub Temperature)	1
40	1490242	Connector	1
40	1490243	Connector	1
40	1330438	Terminal (Socket)	2
41		Insert (LH Hub Temperature)	1
41	1502920	Connector	1
42	1569972	Label (Brake)	1

WIRE HARNESS (FIGURE 4-18) CHASSIS, LPG — SHEET 2 OF 2



BP080607

WIRE HARNESS
CHASSIS, LPG – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	2094175	Wire Harness (Chassis)	1
1		Connector Assembly (Cab Signals)	1
1	1493431	Housing (Socket)	1
1	1493432	Retainer (Socket)	1
1	1463141	Terminal (Socket)	47
1	1484377	Plug	1
1	1330439	Plug	5
1	1330438	Terminal (Socket)	3
1	1363886	Terminal (Socket)	4
2		Connector Assembly (Cab Supplies)	1
2	1484650	Connector (Socket)	1
2	1518112	Terminal (Socket)	2
2	1363886	Terminal (Socket)	1
2	1330438	Terminal (Socket)	28
3		Connector Assembly (Accelerator Pedal)	1
3	1484397	Connector (3-Way)	1
3	1463194	Connector	1
3	1330438	Terminal (Socket)	3
4		Connector Assembly (Park Brake And Air Dryer Diode)	1
4	1610950	Housing (Sealed) (4-Way)	1
4	1484656	Terminal (Socket)	4
4	1482659	Seal (Rubber)	4
5		Insert (Park Brake And Air Dryer Diode)	1
5	1610953	Diode	1
6		Connector Assembly (Pressure Switch)	1
6	1634450	Indicator	2
7		Connector Assembly (Air Filter)	1
7	1493435	Connector (2-Way)	1
7	1493436	Terminal (Socket)	2
7	1623890	Seal	2
8		Connector Assembly (Air Dryer)	1
8	1490242	Connector	1
8	1402813	Clip	1
8	1330438	Terminal (Socket)	2
9		Insert (Air Dryer)	1
9	1502920	Connector	1
9	1330439	Plug	2
10		Connector Assembly (Engine Oil Pressure)	1
10	1610948	Receptacle	2
10	1610947	Receptacle	2
11		Connector Assembly (Coolant Level)	1
11	1329152	Plug	1
11	1484395	Housing (Socket)	2
11	1484396	Terminal	2
12		Connector Assembly (RH Rear Lights)	1
12	1493430	Connector	1
12	1529052	Connector	1
12	1330438	Terminal (Socket)	5
12	1330439	Plug	1
13		Connector Assembly (Air Conditioner)	1

WIRE HARNESS

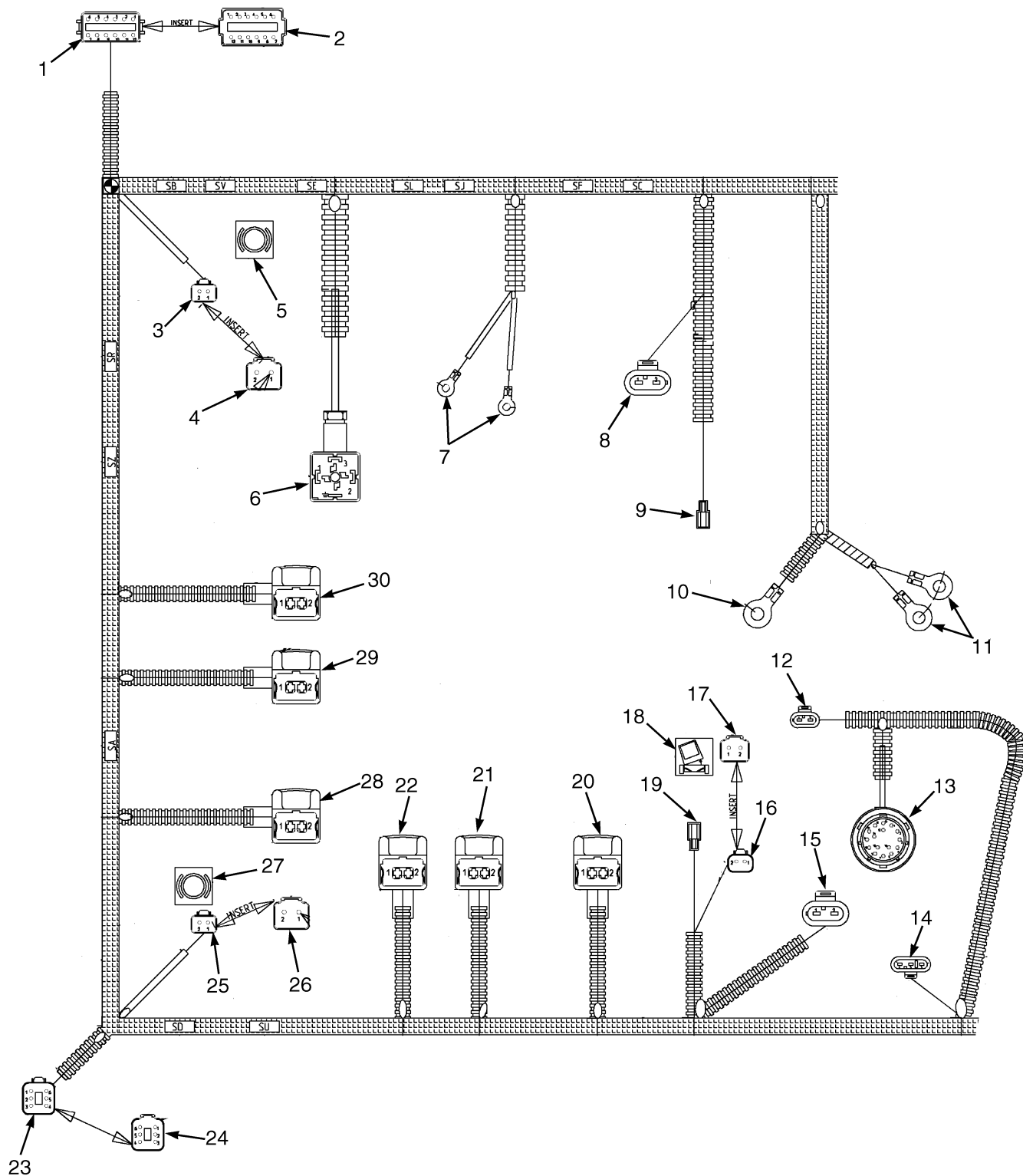
CHASSIS, LPG – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
13	2787349	Terminal	1
13	2060555	Wire Seal	1
13	1484395	Housing (Socket)	1
13	1484396	Terminal	1
14		Connector Assembly (Alternator Ground)	1
14	1496883	Ring	1
15		Connector Assembly (Alternator Signals)	1
15	1501919	Connector	1
15	1482663	Connector	1
15	1482668	Plug	3
15	1330355	Terminal	1
15	1330356	Seal	1
16		Connector Assembly (Alternator)	1
16	1607801	Terminal (Ring)	1
17		Connector Assembly (Starter Solenoid)	1
17	1502921	Ring	1
18		Connector Assembly (24 Volt)	1
18	1493455	Ring	1
19		Connector Assembly (Backup Diode)	1
19	1610950	Housing (Sealed) (4-Way)	1
19	1484656	Terminal (Socket)	4
19	1482659	Seal (Rubber)	4
20		Insert (Backup Diode)	1
20	1610953	Diode	1
21		Connector Assembly (Reverse Alarm)	1
21	1502920	Connector	1
21	1330414	Connector (Secondary Lock)	1
21	1330437	Terminal (Pin)	2
22		Insert (Reverse Alarm)	1
22	1330439	Plug	2
22	1490242	Connector	1
22	1402813	Clip	1
23		Connector Assembly (LH Rear Lights)	1
23	1493430	Connector	1
23	1529052	Connector	1
23	1330438	Terminal (Socket)	5
23	1330439	Plug	1
24		Connector Assembly (Fuse Box 3)	1
24	1573113	Fuse Box	1
24	1573114	Cover	1
24	1573115	Terminal	3
24	1607778	Terminal	1
24	1484715	Clip	1
25		Connector Assembly (Fuse Box 2)	1
25	1573113	Fuse Box	1
25	1573114	Cover	1
25	1573115	Terminal	8
25	1484715	Clip	1
26		Connector Assembly (Fuse Box 1)	1
26	1573113	Fuse Box	1

WIRE HARNESS
CHASSIS, LPG – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
26	1573114	Cover	1
26	1573115	Terminal	8
26	1484715	Clip	1
27		Connector Assembly (LPG Relay)	1
27	1607524	Socket	1
27	1607527	Cover	1
27	1484714	Clip	1
27	1607525	Terminal	2
27	1607529	Terminal	2
27	1607532	Seal	2
27	1655134	Seal	2
27	1607528	Seal	1
28		Connector Assembly (Starter Relay)	1
28	1493459	Ring	2
28	1502921	Ring	1
28	1493448	E-Ring	1
29		Connector Assembly (Fuse)	1
29	1607801	Terminal (Ring)	2

WIRE HARNESS (FIGURE 4-19) CHASSIS, DIESEL — SHEET 1 OF 2



BP080610

WIRE HARNESS
CHASSIS, DIESEL – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	a 2088713	Wire Harness (Chassis)	1
1		Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
1	1363886	Terminal (Socket)	2
2		Insert (Front End)	1
2	1352603	Connector	1
2	1500925	Connector	1
2	1330439	Plug	12
3		Connector Assembly (RH Hub Temperature)	1
3	1490242	Connector	1
3	1490243	Connector	1
3	1330438	Terminal (Socket)	12
4		Insert (RH Hub Temperature)	1
4	1502920	Connector	1
4	1330439	Plug	12
5	1569972	Label (Brake)	1
6		Connector Assembly (Park Brake Solenoid)	1
6	1493449	Connector Body	1
6	1484394	Crimp Ferrule	2
7		Connector Assembly (Battery Box)	1
7	1493459	Ring	1
7	1493455	Ring	1
8		Connector Assembly (Turbine Speed)	1
8	1508206	Connector (2 Way)	1
8	2787349	Terminal	2
8	2060555	Wire Seal	2
9		Connector Assembly (Converter Temperature Sensor)	1
9	1610948	Receptacle	1
9	1484651	Cover	1
10		Connector Assembly (24 Volt)	1
10	1493455	Ring	1
11		Connector Assembly (Ground)	1
11	1493455	Ring	1
12		Connector Assembly (Drum Speed)	1
12	1508206	Connector (2 Way)	1
12	2787349	Terminal	2
12	2060555	Wire Seal	2
13		Connector Assembly (Valve)	1
13	1607771	Boot	1
13	1598469	Connector (16-Way)	1
13	1598470	Terminal (Pin)	16
14		Connector Assembly (Engine Speed)	1
14	2787344	Connector (3 Way)	1
14	2787349	Terminal	3
14	2060555	Wire Seal	3
15		Connector Assembly (Output Speed)	1
15	1508206	Connector (2 Way)	1

WIRE HARNESS

CHASSIS, DIESEL – SHEET 1 OF 2

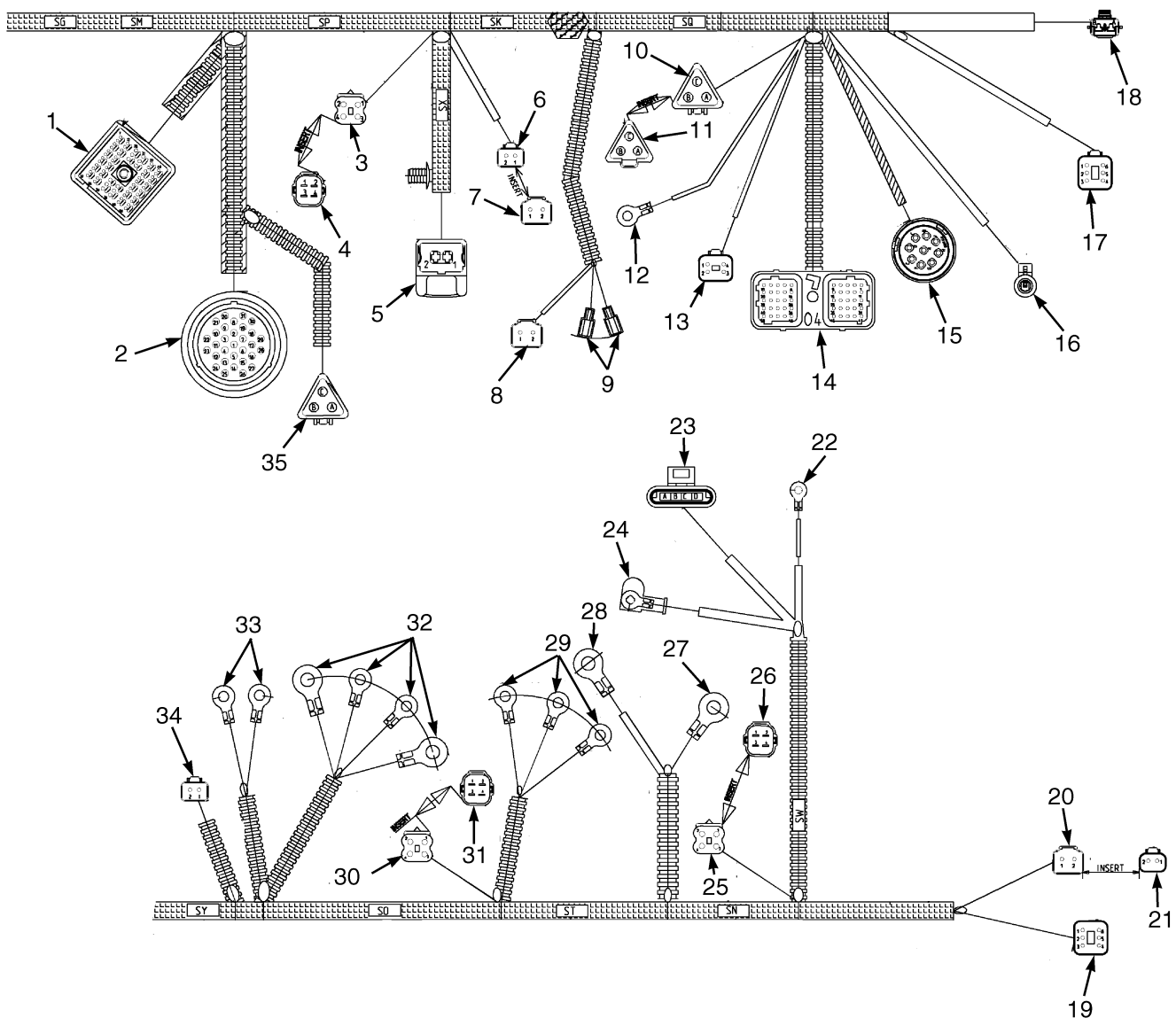
ITEM	PART NO.	DESCRIPTION	QTY
15	2787349	Terminal	2
15	2060555	Wire Seal	2
16		Connector Assembly (Cab Power Tilt)	1
16	1490242	Connector	1
16	1490243	Connector	1
16	1363886	Terminal (Socket)	2
17		Insert (Cab Power Tilt)	1
17	1502920	Connector	1
17	1330439	Plug	2
18	1605545	Label (Cab Tilt)	1
19		Connector Assembly (Fuel Sender)	1
19	1610948	Receptacle	1
19	1610947	Receptacle	1
20		Connector Assembly (Low)	1
20	1493447	Connector	1
20	1493436	Terminal (Socket)	2
20	1479109	Seal	2
21		Connector Assembly (Auxiliary)	1
21	1493446	Connector	1
21	1493436	Terminal (Socket)	2
21	1479109	Seal	2
22		Connector Assembly (Tilt)	1
22	1493435	Connector (2-Way)	1
22	1493436	Terminal (Socket)	2
22	1479109	Seal	2
23		Connector Assembly (Front Lights)	1
23	1493430	Connector	1
23	1529052	Connector	1
23	1363886	Terminal (Socket)	2
23	1330439	Plug	4
24		Insert	1
24	1500914	Housing	1
24	1330439	Plug	6
25		Connector Assembly (LH Hub Temperature)	1
25	1490242	Connector	1
25	1490243	Connector	1
25	1330438	Terminal (Socket)	2
26		Insert (LH Hub Temperature)	1
26	1502920	Connector	1
26	1330439	Plug	2
27	1569972	Label (Brake)	1
28		Connector Assembly (Tilt)	1
28	1493435	Connector (2-Way)	1
28	1493436	Terminal (Socket)	2
28	1479109	Seal	2
29		Connector Assembly (Auxiliary)	1
29	1493446	Connector	1
29	1493436	Terminal (Socket)	2
29	1479109	Seal	2
30		Connector Assembly (Lift)	1

WIRE HARNESS
CHASSIS, DIESEL – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
30	1493447	Connector	1
30	1493436	Terminal (Socket)	2
30	1479109	Seal	2

FOOTNOTES:**a** → 3/2008

WIRE HARNESS (FIGURE 4-20) CHASSIS, DIESEL — SHEET 2 OF 2



BP08061

WIRE HARNESS
CHASSIS, DIESEL – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	a 2088713	Wire Harness (Chassis)	1
1		Connector Assembly (Cab Signals)	1
1	1493431	Housing (Socket)	1
1	1493432	Retainer (Socket)	1
1	1463141	Terminal (Socket)	48
1	1363886	Terminal (Socket)	9
1	1330438	Terminal (Socket)	3
2		Connector Assembly (Cab Supplies)	1
2	1484650	Connector (Socket)	1
2	1518112	Terminal (Socket)	2
2	1363886	Terminal (Socket)	3
2	1330438	Terminal (Socket)	26
3		Connector Assembly (Park Brake And Air Dryer Diode)	1
3	1610950	Housing (Sealed) (4-Way)	1
3	1484656	Terminal (Socket)	4
3	1482659	Seal (Rubber)	4
4		Insert (Park Brake And Air Dryer Diode)	1
4	1610953	Diode	1
5		Connector Assembly (Air Filter)	1
5	1493435	Connector (2-Way)	1
5	1493436	Terminal (Socket)	2
5	1479109	Seal	2
6		Connector Assembly (Air Dryer)	1
6	1490242	Connector	1
6	1490243	Connector	1
6	1330438	Terminal (Socket)	2
7		Insert (Air Dryer)	1
7	1502920	Connector	1
7	1330439	Plug	2
8		Connector Assembly (Fuel Filter To Engine)	1
8	1502920	Connector	1
8	1330414	Connector (Secondary Lock)	1
8	1330437	Terminal (Pin)	2
9		Connector Assembly (Engine Oil Pressure)	1
9	1610948	Receptacle	2
9	1610947	Receptacle	2
10		Connector Assembly (Terminating Resistor)	1
10	1484397	Connector (3-Way)	1
10	1610944	Lock	1
10	1518112	Terminal (Socket)	2
10	1330439	Plug	1
11		Insert (Terminating Resistor)	1
11	1607772	Connector (Termination)	1
12		Connector Assembly (Grid Heater)	1
12	1496883	Ring	1
13		Connector Assembly (Engine Power Supply)	1
13	1654795	Housing	1
13	1514603	Connector	1
13	1493434	Terminal (Socket)	2
13	1330439	Plug	2

WIRE HARNESS

CHASSIS, DIESEL – SHEET 2 OF 2

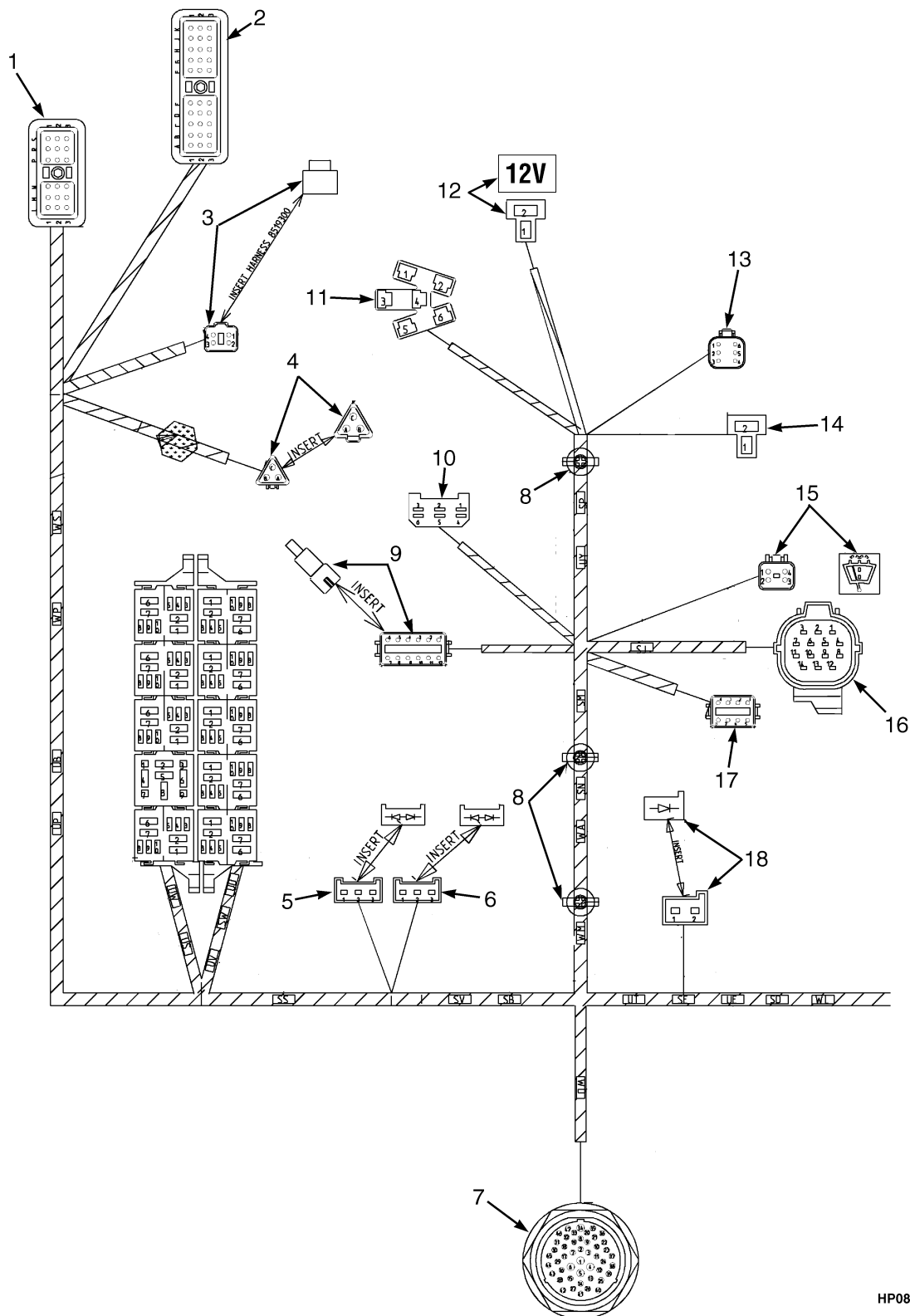
ITEM	PART NO.	DESCRIPTION	QTY
14		Connector Assembly (ECM)	1
14	1632864	Housing	1
14	1484377	Plug	40
14	1507725	Terminal	6
14	1518112	Terminal (Socket)	2
15		Connector Assembly (Diagnostics)	1
15	1632866	Connector	1
15	1632867	Cap	1
15	1502712	Terminal (Pin)	6
15	1363886	Terminal (Socket)	3
16		Connector Assembly (Air Conditioner)	1
16	2787349	Terminal	1
16	2060555	Wire Seal	1
16	1484395	Housing (Socket)	1
16	1484396	Terminal	1
17		Connector Assembly (RH Rear Lights)	1
17	1493430	Connector	1
17	1529052	Connector	1
17	1330438	Terminal (Socket)	5
17	1330439	Plug	1
18		Connector Assembly (Coolant Level)	1
18	1329152	Plug	1
18	1484395	Housing (Socket)	2
18	1484396	Terminal	2
19		Connector Assembly (LH Rear Lights)	1
19	1493430	Connector	1
19	1529052	Connector	1
19	1330438	Terminal (Socket)	5
19	1330439	Plug	1
20		Connector Assembly (Reverse Alarm)	1
20	1502920	Connector	1
20	1330414	Connector (Secondary Lock)	1
20	1330437	Terminal (Pin)	2
21		Insert (Reverse Alarm)	1
21	1490242	Connector	1
21	1490243	Connector	1
21	1330439	Plug	2
22		Connector Assembly (Alternator Ground)	1
22	1496883	Ring	1
23		Connector Assembly (Alternator Signals)	1
23	1501919	Connector	1
23	1482663	Connector	1
23	1482668	Plug	3
23	1330355	Terminal	1
23	1330356	Seal	1
24		Connector Assembly (Alternator)	1
24	1607801	Terminal (Ring)	1
25		Connector Assembly (Backup Diode)	1
25	1610950	Housing (Sealed) (4-Way)	1
25	1484656	Terminal (Socket)	4

WIRE HARNESS
CHASSIS, DIESEL – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
25	1482659	Seal (Rubber)	4
26		Insert (Backup Diode)	1
26	1610953	Diode	1
27		Connector Assembly (24 Volt)	1
27	1493455	Ring	1
28		Connector Assembly (Starter Solenoid)	1
28	1502921	Ring	1
29		Connector Assembly (Grid Heater Relay)	1
29	1493448	E-Ring	2
29	1493459	Ring	1
30		Connector Assembly (Pre-Excitation Diode)	1
30	1610950	Housing (Sealed) (4-Way)	1
30	1484656	Terminal (Socket)	2
30	1482659	Seal (Rubber)	2
30	1610941	Seal (Dummy)	2
31		Insert (Pre-Excitation Diode)	1
31	1610953	Diode	1
32		Connector Assembly (Starter Relay)	1
32	1493459	Ring	2
32	1502921	Ring	2
33		Connector Assembly (Fuse)	1
33	1607801	Terminal (Ring)	2
34		Connector Assembly (Fuel Filter To Filter)	1
34	1490242	Connector	1
34	1490243	Connector	1
34	1330438	Terminal (Socket)	2
35		Connector Assembly (Accelerator Pedal)	1
35	1484397	Connector (3-Way)	1
35	1463194	Connector	1
35	1330438	Terminal (Socket)	3

FOOTNOTES:**a** → 3/2008

WIRE HARNESS (FIGURE 4-21) CAB SIDE CONSOLE — SHEET 1 OF 3



HP081931

WIRE HARNESS
CAB SIDE CONSOLE – SHEET 1 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
	a 2088901	Wire Harness (Side Console)	1
	b 2104835	Wire Harness	1
1		Connector Assembly (Transmission Controller J1)	1
1	1602433	Connector	1
1	1323581	Plug	5
1	1532571	Terminal	13
2		Connector Assembly (Transmission Controller J2)	1
2	1607842	Connector (30 Way)	1
2	1323581	Plug	2
2	1532571	Terminal	28
3		Connector Assembly (Resistors)	1
3	1489655	Connector (4 Way)	1
3	1330416	Connector	1
3	1330437	Terminal (Pin)	4
3	1582154	Label (Gear)	1
3	2058006	Wire Harness (Resistors)	1
3	1498502	Connector	2
3	1463194	Connector	2
3	1330438	Terminal (Socket)	4
3	1330439	Plug	2
4		Connector Assembly (Terminating Resistor)	1
4	1484397	Connector (3-Way)	1
4	1610944	Lock	1
4	1518112	Terminal (Socket)	2
4	1330439	Plug	1
4	1607772	Connector (Termination)	1
5		Connector Assembly (Flyback Diode)	1
5	2047859	Connector Body	1
5	2054463	Female Terminal	3
5	1484717	Diode	1
6		Connector Assembly (Flyback Diode)	1
6	2047859	Connector Body	1
6	2054463	Female Terminal	3
6	1484717	Diode	1
7		Connector Assembly (Armrest Harness)	1
7	1484664	Housing	1
7	1484685	Locknut	1
7	1484686	Washer (Spring)	1
7	1330437	Terminal (Pin)	5
7	1463140	Terminal (Pin)	31
7	1484377	Plug	11
8	1500927	Clip	3
9		Connector Assembly (Park Brake Diode)	1
9	1582102	Housing	1
9	2054463	Female Terminal	2
9	1582103	Diode	1
10		Connector Assembly (Front Wiper Timer)	1
10	1484676	Housing (Socket)	1
10	1484556	Terminal	6
11		Connector Assembly (Start Switch)	1

WIRE HARNESS

CAB SIDE CONSOLE – SHEET 1 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
11	370728	Connector Body	1
11	1484375	Terminal	3
11	141462	Terminal	1
12		Connector Assembly (12V Accessory Socket)	1
12	1465378	Connector Body	1
12	1484556	Terminal	2
12	1570645	Label (12 Volt)	1
13		Connector Assembly (Heater)	1
13	1493430	Connector	1
13	1529052	Connector	1
13	1363885	Terminal (Pin)	2
13	1330438	Terminal (Socket)	3
14		Connector Assembly (Map Light)	1
14	1465378	Connector Body	1
14	1484556	Terminal	2
15		Connector Assembly (Rear Wiper)	1
15	1489656	Connector (4-Way)	1
15	1489657	Connector	1
15	1330438	Terminal (Socket)	4
15	1570644	Label	1
16		Connector Assembly (Cabin Roof)	1
16	1484654	Connector (14-Way)	1
16	1484655	Retainer (Socket)	1
16	1484708	Terminal (Socket)	4
16	1484595	Seal	4
16	1484597	Seal	9
16	1484656	Terminal (Socket)	9
16	1484611	Seal (Blanking)	1
17		Connector Assembly (Air Conditioner Condensor)	1
17	1502625	Connector	1
17	1502626	Connector	1
17	1363886	Terminal (Socket)	1
17	1330438	Terminal (Socket)	7

FOOTNOTES:

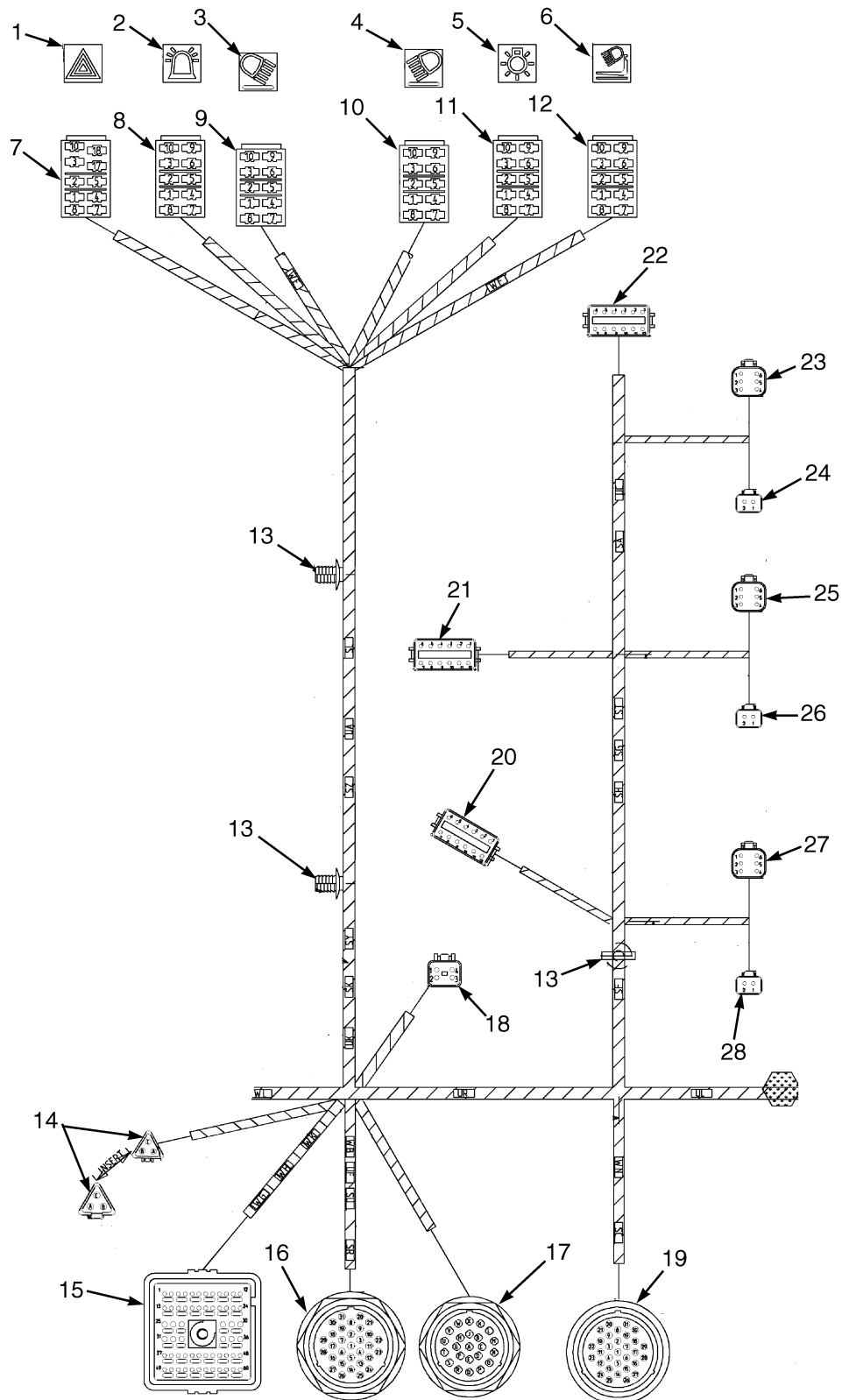
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b 2/2008 →

NOTES

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WIRE HARNESS (FIGURE 4-22) CAB SIDE CONSOLE — SHEET 2 OF 3



HP081932

WIRE HARNESS
CAB SIDE CONSOLE – SHEET 2 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
	a 2088901	Wire Harness (Side Console)	1
	b 2104835	Wire Harness	1
1	1570638	Label (Hazard Light)	1
2	1570639	Label (Beacon Switch)	1
3	1497362	Label (Rear Worklight Switch)	1
4	1497361	Label (Front Worklight Switch)	1
5	1570641	Label (Roadlight Switch)	1
6	1570643	Label (Mast And Attachment Worklight)	1
7		Connector Assembly (Hazard Lights Switch)	1
7	1484675	Switch	1
7	233141	Terminal	1
7	1484556	Terminal	7
8		Connector Assembly (Beacon And Strobe Lights Switch)	1
8	1484555	Switch (10-Way)	1
8	1484556	Terminal	3
9		Connector Assembly (Rear Drive Lights Switch)	1
9	1484555	Switch (10-Way)	1
9	1484556	Terminal	4
10		Connector Assembly (Front Flood Lights Switch)	1
10	1484555	Switch (10-Way)	1
10	233141	Terminal	4
11		Connector Assembly (Side Lights And Front Lights Switch)	1
11	1484555	Switch (10-Way)	1
11	1484556	Terminal	4
12		Connector Assembly (Mast Lights Switch)	1
12	1484555	Switch (10-Way)	1
12	1484556	Terminal	2
12	233141	Terminal	2
13	1500927	Clip	3
14		Connector Assembly (Converter)	1
14	1484397	Connector (3-Way)	1
14	1330426	Connector	1
14	1363885	Terminal (Pin)	1
14	1330438	Terminal (Socket)	2
14	1330439	Plug	3
15		Connector Assembly (Cab Signals)	1
15	1484363	Housing (Socket)	1
15	1484662	Key (Retainer Pin)	1
15	1463140	Terminal (Pin)	48
15	1363885	Terminal (Pin)	9
15	1330437	Terminal (Pin)	3
15	1500929	Flange	1
16		Connector Assembly (Cab Supplies)	1
16	1484666	Housing	1
16	1484685	Locknut	1
16	1484686	Washer (Spring)	1
16	1502712	Terminal (Pin)	2
16	1363885	Terminal (Pin)	3
16	1330437	Terminal (Pin)	26
16	1484686	Washer (Spring)	1

WIRE HARNESS

CAB SIDE CONSOLE – SHEET 2 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
16	1484685	Locknut	1
17		Connector Assembly (Auxiliary 2 Power)	1
17	1490242	Connector	1
17	1490243	Connector	1
17	1330438	Terminal (Socket)	2
18		Connector Assembly (Wash Pumps)	1
18	1489656	Connector (4-Way)	1
18	1489657	Connector	1
18	1330438	Terminal (Socket)	4
19		Connector Assembly (Cab Underfloor)	1
19	1484650	Connector (Socket)	1
19	1363885	Terminal (Pin)	1
19	1330438	Terminal (Socket)	25
19	1330439	Plug	5
20		Connector Assembly (Auxiliary 2 Signals)	1
20	1493428	Connector (12-Way)	1
20	1500913	Connector	1
20	1330439	Plug	7
20	1330438	Terminal (Socket)	5
21		Connector Assembly (Auxiliary 1 Signals)	1
21	1493428	Connector (12-Way)	1
21	1500913	Connector	1
21	1330438	Terminal (Socket)	12
22		Connector Assembly (Hydraulic Engine Control Module Signals)	1
22	1493428	Connector (12-Way)	1
22	1500913	Connector	1
22	1330439	Plug	1
22	1330438	Terminal (Socket)	11
23		Connector Assembly (Hydraulic Engine Control Module CAN)	1
23	1493430	Connector	1
23	1529052	Connector	1
23	1330438	Terminal (Socket)	2
23	1330439	Plug	4
24		Connector Assembly (Hydraulic Engine Control Module Power)	1
24	1490242	Connector	1
24	1490243	Connector	1
24	1330438	Terminal (Socket)	2
25		Connector Assembly (Auxiliary 1 CAN)	1
25	1493430	Connector	1
25	1529052	Connector	1
25	1330438	Terminal (Socket)	2
25	1330439	Plug	4
26		Connector Assembly (Auxiliary 1 Engine Control Module Power)	1
26	1490242	Connector	1
26	1490243	Connector	1
26	1330438	Terminal (Socket)	2
27		Connector Assembly (Auxiliary 2 Engine Control Module CAN)	1
27	1493430	Connector	1
27	1529052	Connector	1
27	1330438	Terminal (Socket)	2

WIRE HARNESS
CAB SIDE CONSOLE – SHEET 2 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
27	1330439	Plug	4

FOOTNOTES:**a** → 2/2008**b** 2/2008 →

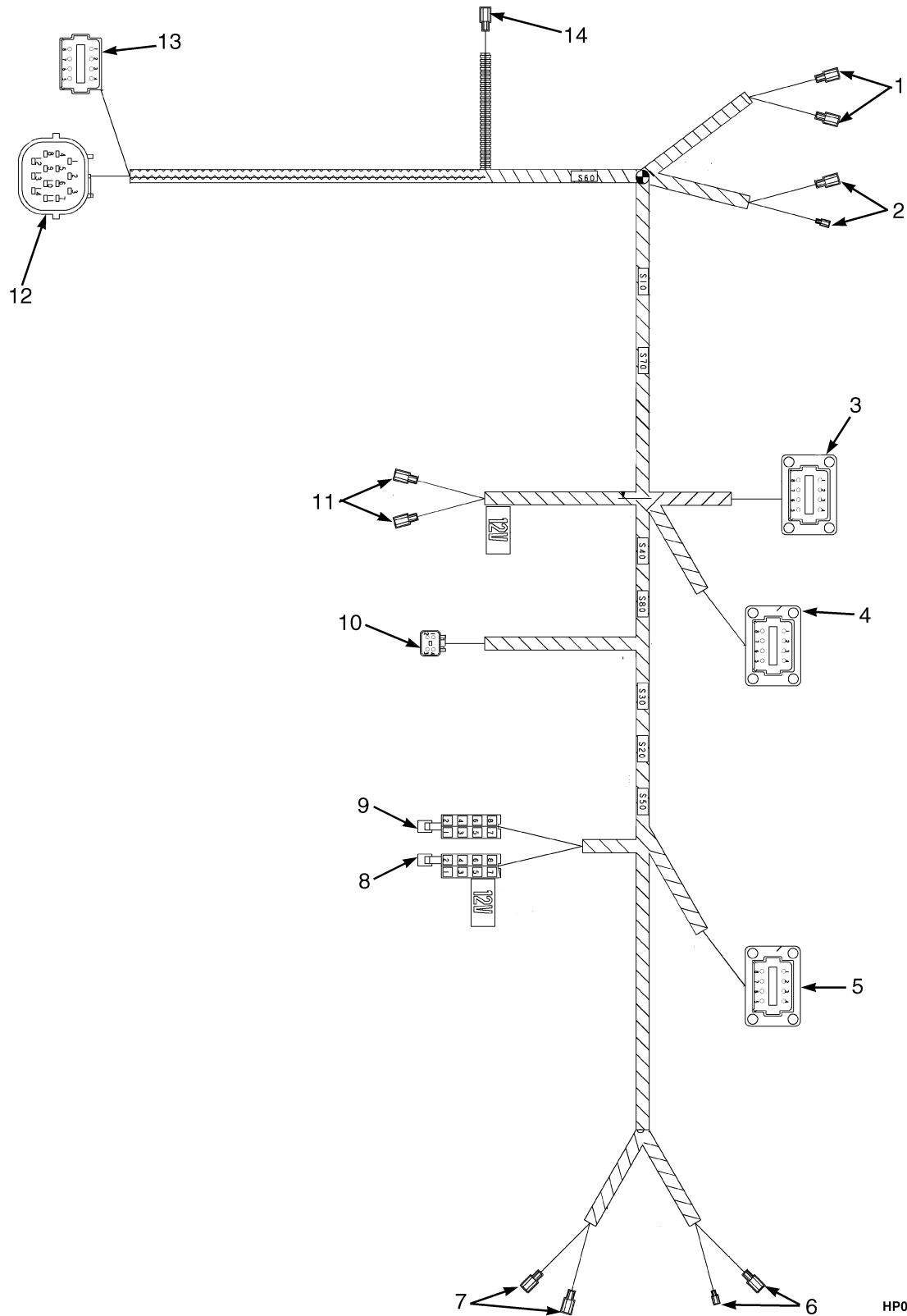
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WIRE HARNESS
CAB SIDE CONSOLE – SHEET 3 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
	a 2088901	Wire Harness (Side Console)	1
	b 2104835	Wire Harness	1
1		Connector Assembly (Transmission Diagnostic)	1
1	1506762	Housing (4-Way)	1
1	1490246	Terminal (Socket)	3
1	1607843	Cap	1
2		Connector Assembly (Jumper)	1
2	1493466	Connector	1
2	1330415	Connector	1
2	1330437	Terminal (Pin)	3
3		Connector Assembly (Diagnostic Plug)	1
3	1484397	Connector (3-Way)	1
3	1610944	Lock	1
3	1330439	Plug	1
3	1518112	Terminal (Socket)	2
3	1493466	Connector	1
4		Connector Assembly (Power Transmission)	1
4	1500914	Housing	1
4	1330417	Connector	1
4	1330437	Terminal (Pin)	4
4	1330439	Plug	2
4	1500912	Clip	1
4	1484668	Socket	1
5		Connector Assembly (Service Power)	1
5	1490242	Connector	1
5	1490243	Connector	1
5	1518112	Terminal (Socket)	2
5	1493465	Connector	1
6	1490245	Clip	3
7		Connector Assembly (Buzzer)	1
7	1610948	Receptacle	2
7	1610947	Receptacle	2
8		Connector Assembly (Park Brake Switch)	1
8	1658852	Connector (Two Way Switch Element)	1
8	1484394	Crimp Ferrule	4
8	1658852	Connector (Two Way Switch Element)	1
8	1561756	Cover (Lower)	1
8	1567676	Cover (Upper)	1
8	1570606	Strap Clamp	1
9		Connector Assembly (Instrument Cluster)	1
9	1484677	Plug (24-Way)	1
9	1484716	Terminal	15

FOOTNOTES:**a** → 2/2008**b** 2/2008 →

WIRE HARNESS (FIGURE 4-24) CLOSED CAB



HP081929

**WIRE HARNESS
CLOSED CAB**

ITEM	PART NO.	DESCRIPTION	QTY
	2093714	Wire Harness (Closed Cab)	1
1		Connector Assembly (RH Interior Light)	1
1	1610948	Receptacle	2
1	1484599	Housing	2
2		Connector Assembly (RH Speaker)	1
2	1610948	Receptacle	1
2	1484599	Housing	1
2	1484600	Terminal	1
2	1484383	Heat Shrink	1
3		Connector Assembly (Air Conditioner Condensor)	1
3	1570603	Housing	1
3	1330418	Connector	1
3	1363885	Terminal (Pin)	1
3	1330437	Terminal (Pin)	7
3	1570601	Gasket	1
4		Connector Assembly (RH Cab Lights)	1
4	1570603	Housing	1
4	1330418	Connector	1
4	1363885	Terminal (Pin)	1
4	1330439	Plug	2
4	1330437	Terminal (Pin)	4
4	1570601	Gasket	1
5		Connector Assembly (LH Cab Lights)	1
5	1570603	Housing	1
5	1330418	Connector	1
5	1363885	Terminal (Pin)	1
5	1330439	Plug	3
5	1330437	Terminal (Pin)	4
5	1570601	Gasket	1
6		Connector Assembly (LH Speaker)	1
6	1610948	Receptacle	1
6	1484599	Housing	1
6	1484600	Terminal	1
6	1484383	Heat Shrink	1
7		Connector Assembly (LH Interior Light)	1
7	1610948	Receptacle	2
7	1484599	Housing	2
8		Connector Assembly (Radio Power)	1
8	1484609	Housing (Socket)	1
8	1484719	Terminal	3
8	1570645	Label (12 Volt)	1
9		Connector Assembly (Radio Speakers)	1
9	1484608	Housing (Socket)	1
9	1484610	Terminal	4
10		Connector Assembly (Roof Wiper)	1
10	1489656	Connector (4-Way)	1
10	1489657	Connector	1
10	1330438	Terminal (Socket)	4
11		Connector Assembly (Radio Comms)	1
11	1610948	Receptacle	2

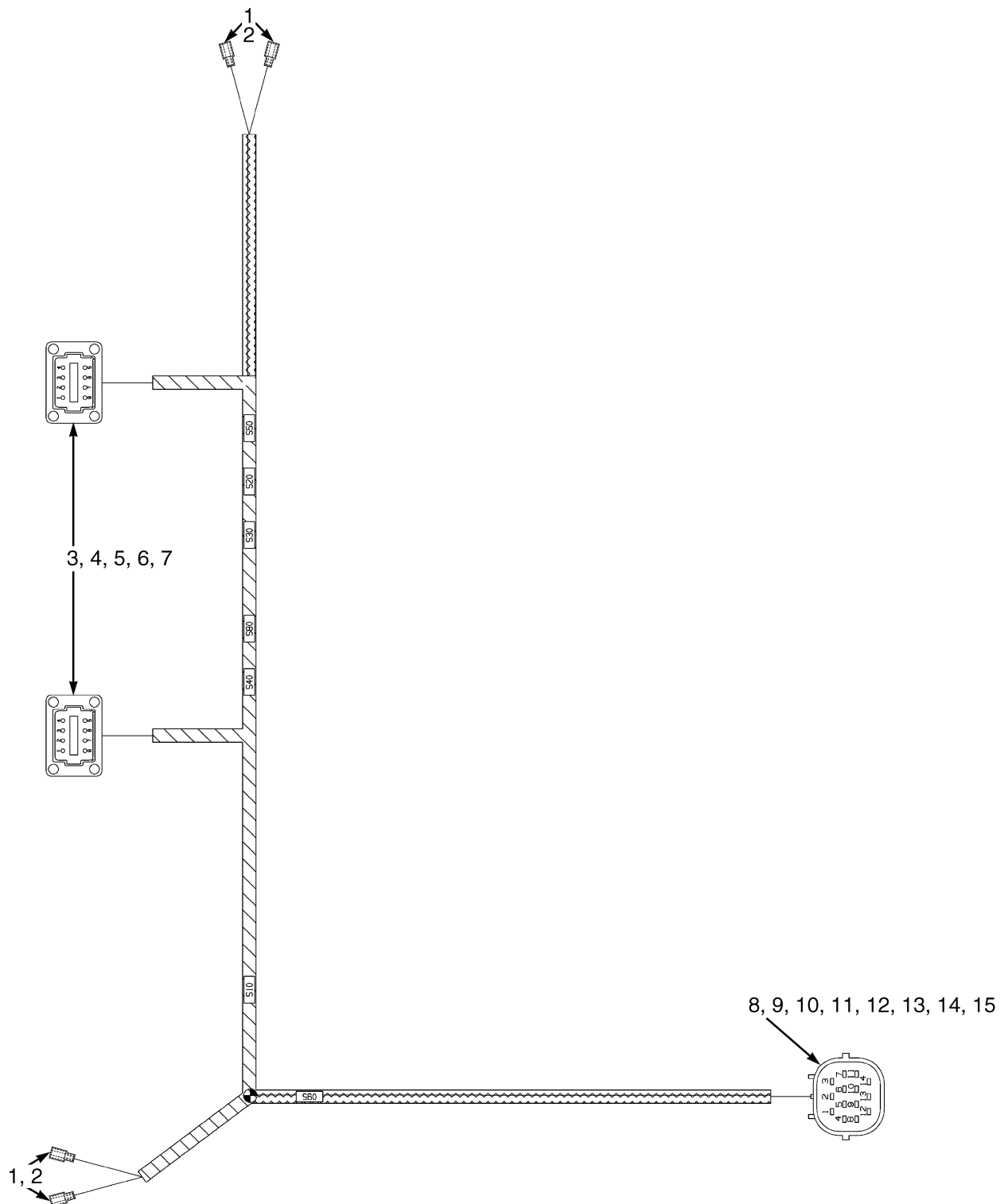
WIRE HARNESS CLOSED CAB

ITEM	PART NO.	DESCRIPTION	QTY
11	1484599	Housing	2
12		Connector Assembly (Cab Connection)	1
12	1484592	Connector	1
12	1484593	Retainer	1
12	1484594	Terminal (Pin)	4
12	1484595	Seal	4
12	1484596	Terminal (Pin)	9
12	1484597	Seal	9
12	1484611	Seal (Blanking)	1
13		Connector Assembly (Air Conditioner Condensor)	1
13	1623050	Housing	1
13	1330418	Connector	1
13	1363885	Terminal (Pin)	1
13	1330437	Terminal (Pin)	7
14		Connector Assembly (Ventilation Fan)	1
14	1610948	Receptacle	1
14	1484599	Housing	1

NOTES

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WIRE HARNESS (FIGURE 4-25) OPEN CAB

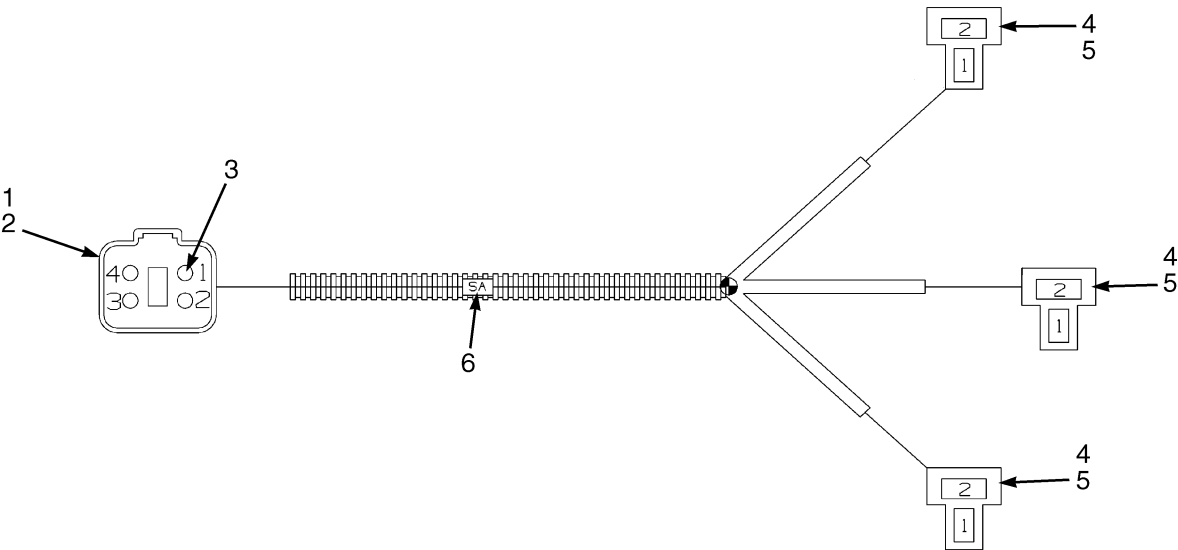


BP080363

**WIRE HARNESS
OPEN CAB**

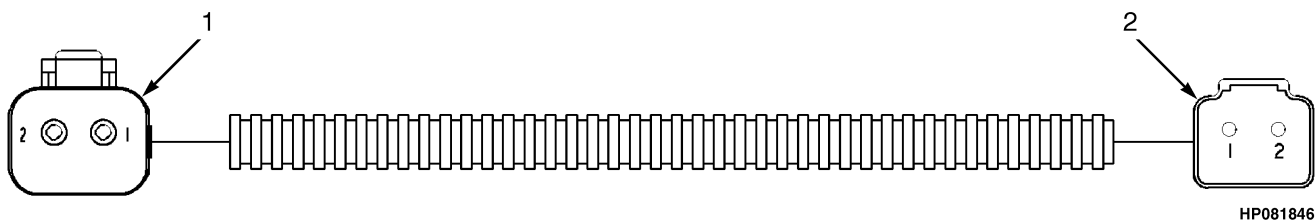
ITEM	PART NO.	DESCRIPTION	QTY
	2042507	Wire Harness (Open Cab)	1
1	1610948	Receptacle	4
2	1484599	Housing	4
3	1570603	Housing	2
4	1330418	Connector	2
5	1330437	Terminal (Pin)	8
6	1363885	Terminal (Pin)	2
7	1330439	Plug	6
8	1484592	Connector	1
9	1484593	Retainer	1
10	1484594	Terminal (Pin)	4
11	1484595	Seal (Brown)	4
12	1484596	Terminal (Pin)	3
13	1484597	Seal (Blue)	3
14	1484611	Seal (Blanking) (Brown)	1
15	1570601	Gasket	2

WIRE HARNESS (FIGURE 4-26)
WINDOW WASH PUMPS

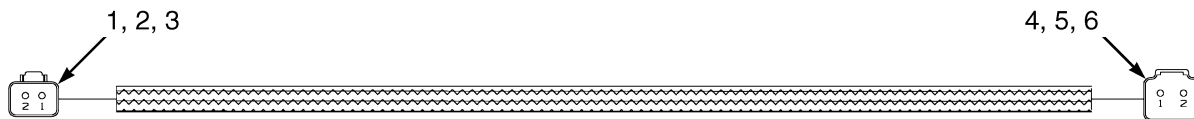


HP081466

ITEM	PART NO.	DESCRIPTION	QTY
	2097396	Wire Harness (Wash Pumps)	1
1	1489655	Connector (4 Way)	1
2	1330416	Connector	1
3	1330437	Terminal (Pin)	4
4	1484395	Housing (Socket)	3
5	1484396	Terminal	6
6	1493450	Heat Shrink	1

WIRE HARNESS (FIGURE 4-27)
BRAKE TEMPERATURE

ITEM	PART NO.	DESCRIPTION	QTY
	2089087	Wire Harness (Brake Temperature)	1
1		Connector Assembly (Sensor)	1
1	1490242	Connector	1
1	1490243	Connector	1
1	1493437	Terminal	2
2		Connector Assembly (Frame Harness)	1
2	1493465	Connector	1
2	1330414	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	2

WIRE HARNESS (FIGURE 4-28)
BACK-UP ALARM

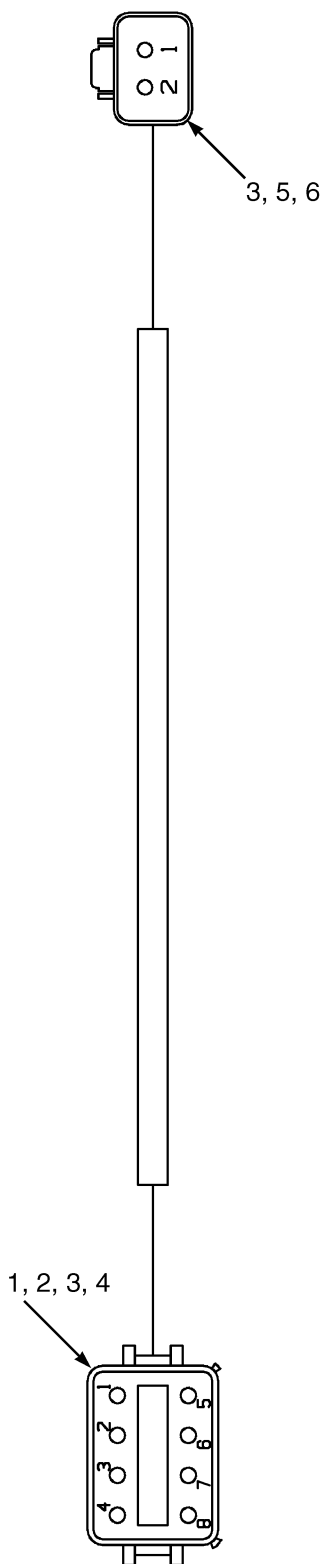
BP080361

ITEM	PART NO.	DESCRIPTION	QTY
	2045885	Wire Harness (Back-Up Alarm)	1
1	1490242	Connector	1
2	1490243	Connector	1
3	1330438	Terminal (Socket)	2
4	1493465	Connector	1
5	1330414	Connector (Secondary Lock)	1
6	1330437	Terminal (Pin)	2

NOTES

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WIRE HARNESS (FIGURE 4-29) REAR DRIVE LIGHT EXTENSION

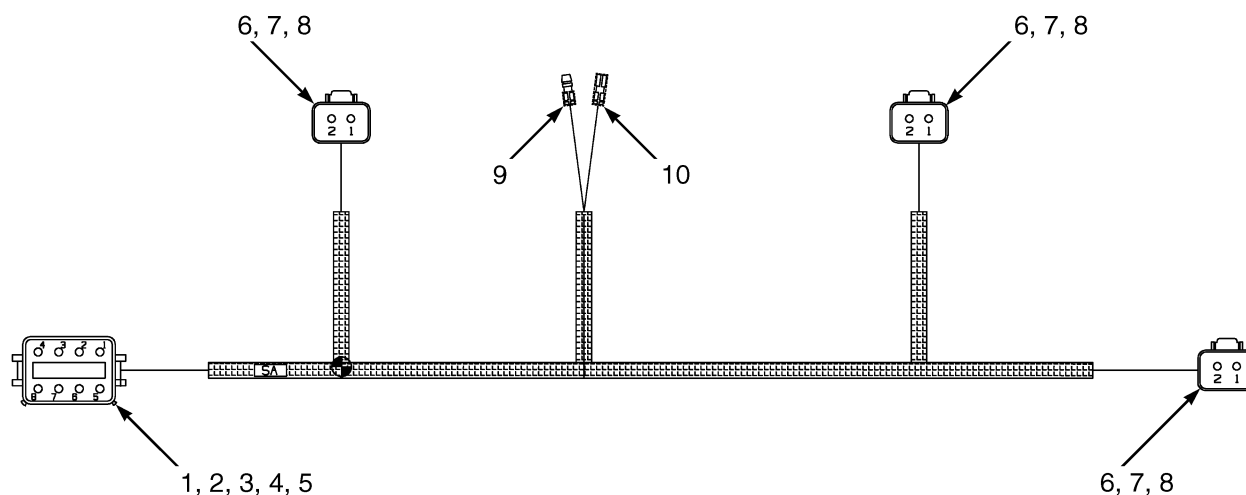


BP080366

**WIRE HARNESS
REAR DRIVE LIGHT EXTENSION**

ITEM	PART NO.	DESCRIPTION	QTY
	2043678	Wire Harness (Rear Drive Light Extension)	1
1	1502625	Connector	1
2	1502626	Connector	1
3	1330438	Terminal (Socket)	4
4	1330439	Plug	6
5	1490242	Connector	1
6	1490243	Connector	1

WIRE HARNESS (FIGURE 4-30) CAB LIGHTS



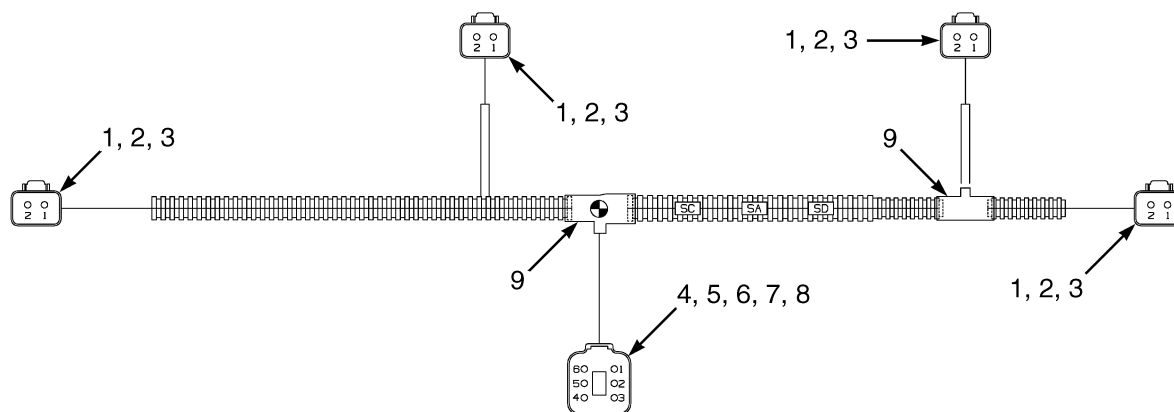
BP080362

ITEM	PART NO.	DESCRIPTION	QTY
	2042724	Wire Harness (Cab Lights)	1
1	1502625	Connector	1
2	1502626	Connector	1
3	1363886	Terminal (Socket)	1
4	1330438	Terminal (Socket)	4
5	1330439	Plug	3
6	1490242	Connector	3
7	1490243	Connector	3
8	1330438	Terminal (Socket)	6
9	1493444	Terminal	1
9	1493445	Cover	1
10	1497358	Terminal	1
10	1497287	Cover	1

NOTES

[illegible]

WIRE HARNESS (FIGURE 4-31) FRONT LIGHTS — WITH FRONT FENDER AND MAST WORKLIGHTS



HP081946

WIRE HARNESS

FRONT LIGHTS – WITH FRONT FENDER AND MAST WORKLIGHTS

ITEM	PART NO.	DESCRIPTION	QTY
	2043867	Wire Harness (Front Lights) (Front Lights)	1
1		Connector Assembly (Left Hand Mast Light)	1
1	1490242	Connector	1
1	1490243	Connector	1
1	1493434	Terminal (Socket)	2
2		Connector Assembly Left Hand Mast Light	1
2	1490242	Connector	1
2	1490243	Connector	1
2	1493434	Terminal (Socket)	2
	a 1570643	Label (Mast And Attachment Worklight)	1
3		(Connector Assembly) Right Hand Mast Light	1
3	1490242	Connector	1
3	1490243	Connector	1
3	1493434	Terminal (Socket)	2
	a 1570643	Label (Mast And Attachment Worklight)	1
4		Connector Assembly (Right Hand Drive Light)	1
4	1490242	Connector	1
4	1490243	Connector	1
4	1493434	Terminal (Socket)	2
5		Connector Assembly Frame Connector	1
5	1525589	Connector	1
5	1330417	Connector	1
5	1484712	Terminal (Pin)	2
5	1330437	Terminal (Pin)	1
5	1330439	Plug	3

FOOTNOTES:**a** Not Illustrated

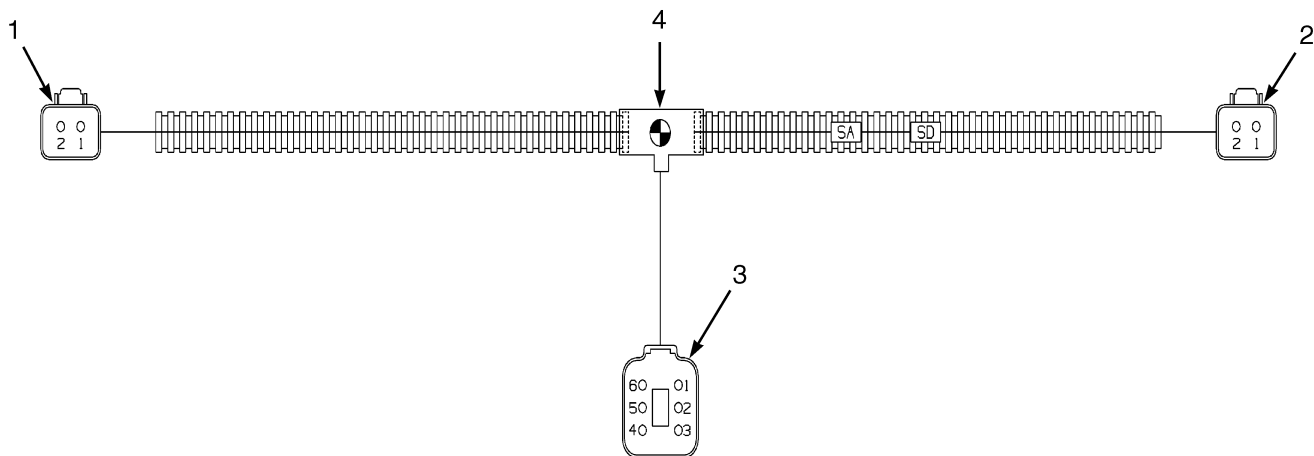
BP080365

**WIRE HARNESS
FRONT LIGHTS**

ITEM	PART NO.	DESCRIPTION	QTY
	2042889	Wire Harness (Front Lights) (Front Lights)	1
1		Connector Assembly (Left Hand Indicators)	1
1	1484394	Crimp Ferrule	2
1	1493448	E-Ring	1
1	1484383	Heat Shrink	1
2		Connector Assembly (Left Hand Drive Light)	1
2	1490242	Connector	1
2	1490243	Connector	1
2	1330438	Terminal (Socket)	2
3		Connector Assembly (Insert)	1
3	1493465	Connector	1
3	1330439	Plug	2
4		Connector Assembly (Left Hand Mast Light)	1
4	1490242	Connector	1
4	1490243	Connector	1
4	1330438	Terminal (Socket)	2
	a 1570643	Label (Mast And Attachment Worklight)	1
5		Connector Assembly (Insert)	1
5	1493465	Connector	1
5	1330439	Plug	2
6		Connector Assembly (Right Hand Mast Light)	1
6	1490242	Connector	1
6	1490243	Connector	1
6	1330438	Terminal (Socket)	2
	a 1570643	Label (Mast And Attachment Worklight)	1
7		Connector Assembly (Insert)	1
7	1493465	Connector	1
7	1330439	Plug	2
8		Connector Assembly (Right Hand Drive Light)	1
8	1490242	Connector	1
8	1490243	Connector	1
8	1330438	Terminal (Socket)	2
9		Connector Assembly (Insert)	1
9	1493465	Connector	1
9	1330439	Plug	2
10		Connector Assembly (Right Side Indicators)	1
10	1484394	Crimp Ferrule	2
10	1493448	E-Ring	1
10	1484383	Heat Shrink	1
11		Connector Assembly (Frame Connector)	1
11	1525589	Connector	1
11	1330417	Connector	1
11	1484712	Terminal (Pin)	2
11	1330437	Terminal (Pin)	4
12	1670534	Connector (T-Piece)	2

FOOTNOTES:**a** Not Illustrated

WIRE HARNESS (FIGURE 4-33) MAST WORKLIGHT EXTENSION

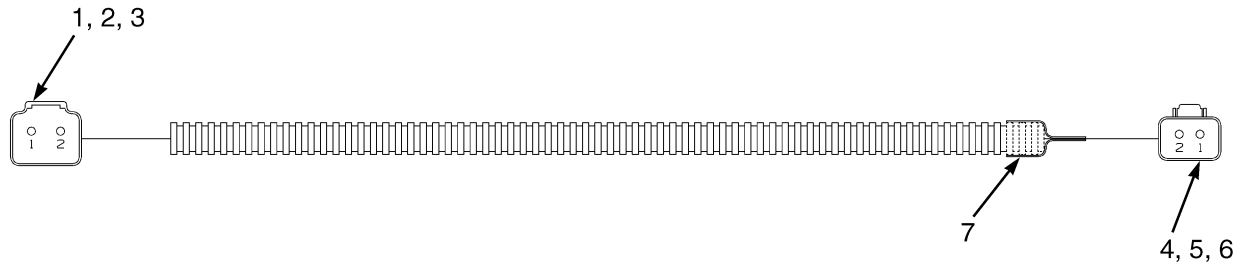


BP080367

ITEM	PART NO.	DESCRIPTION	QTY
	2043677	Wire Harness Mast (Worklight Extension)	1
1		Connector Assembly (Left Hand Mast Light)	1
1	1490242	Connector	1
1	1490243	Connector	1
1	1330438	Terminal (Socket)	1
a	1570643	Label (Mast And Attachment Worklight)	1
2		Connector Assembly (Right Hand Mast Light)	1
2	1490242	Connector	1
2	1490243	Connector	2
2	1330438	Terminal (Socket)	2
a	1570643	Label (Mast And Attachment Worklight)	1
3		Connector Assembly (Frame Connection)	1
3	1525589	Connector	1
3	1330417	Connector	1
3	1330437	Terminal (Pin)	2
3	1330439	Plug	4
4	1502490	Connector (Tee)	1

FOOTNOTES:

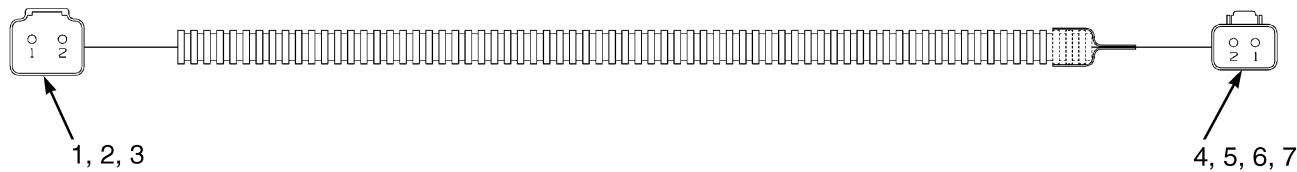
a Not Illustrated

WIRE HARNESS (FIGURE 4-34)
MAST LIGHT EXTENSION — RIGHT HAND

BP080345

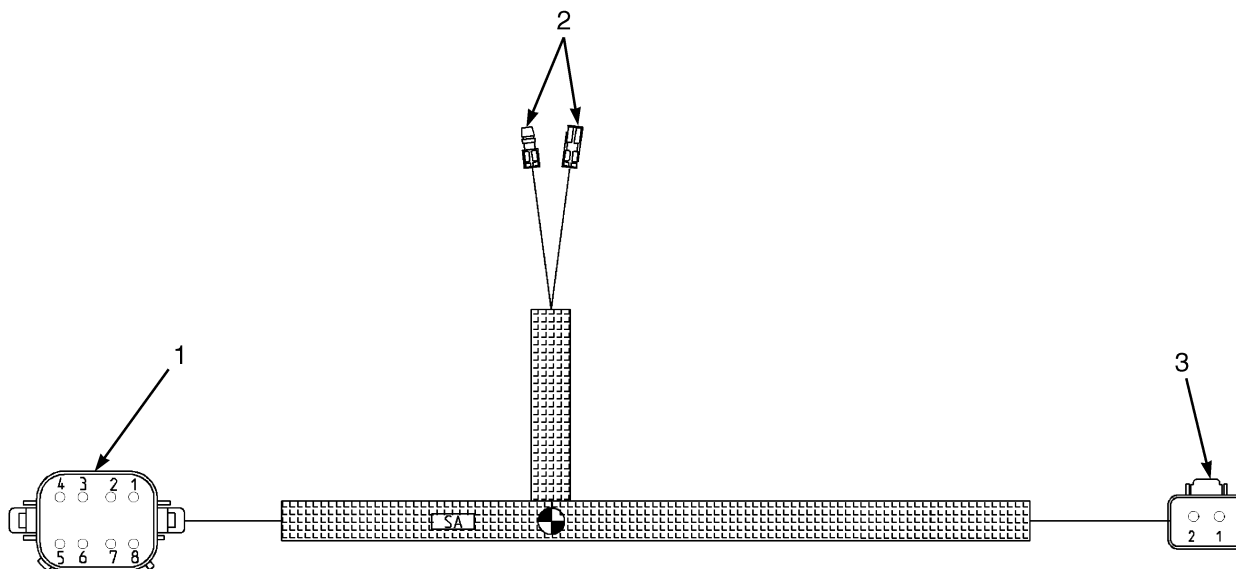
ITEM	PART NO.	DESCRIPTION	QTY
	2043478	Wire Harness (Mast Light Extension, RH)	1
1	1493465	Connector	1
2	1330414	Connector (Secondary Lock)	1
3	1330437	Terminal (Pin)	2
4	1490242	Connector	1
5	1490243	Connector	1
6	1330438	Terminal (Socket)	2
7	1502750	Heat Shrink	AR

WIRE HARNESS (FIGURE 4-35)
MAST LIGHT EXTENSION — LEFT HAND



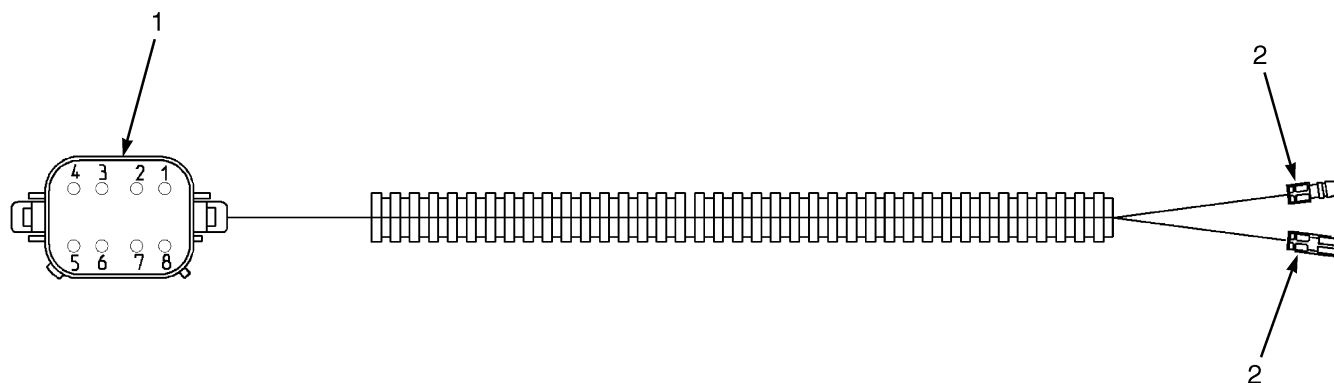
BP080352

ITEM	PART NO.	DESCRIPTION	QTY
	2043480	Wire Harness (Mast Light Extension, LH)	1
1	1493465	Connector	1
2	1330414	Connector (Secondary Lock)	1
3	1330437	Terminal (Pin)	2
4	1490242	Connector	1
5	1490243	Connector	1
6	1330438	Terminal (Socket)	2
7	1502750	Heat Shrink	1

**WIRE HARNESS (FIGURE 4-36)
REAR WORK LIGHTS**

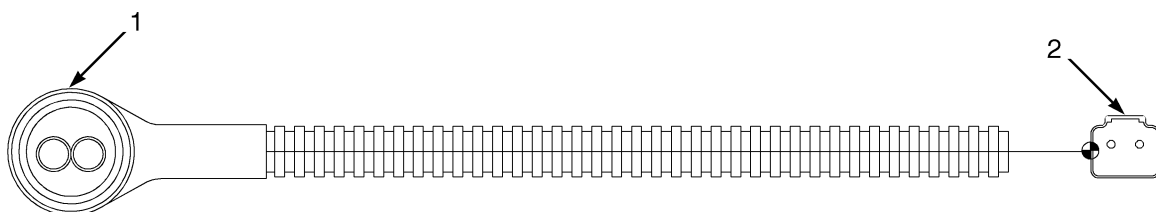
BP080646

ITEM	PART NO.	DESCRIPTION	QTY
	2102536	Wire Harness (Rear Work Lights)	1
1		Connector Assembly (Cab Connector)	1
1	1502625	Connector	1
1	1502626	Connector	1
1	1330439	Plug	5
1	1363886	Terminal (Socket)	1
1	1330438	Terminal (Socket)	2
2		Connector Assembly (Strobe Light)	1
2	1493444	Terminal	1
2	1493445	Cover	1
2	1497358	Terminal	1
2	1497287	Cover	1
3		Connector Assembly (Rear Drive Light)	1
3	1490242	Connector	1
3	1490243	Connector	1
3	1330438	Terminal (Socket)	2

**WIRE HARNESS (FIGURE 4-37)
STROBE LIGHT**

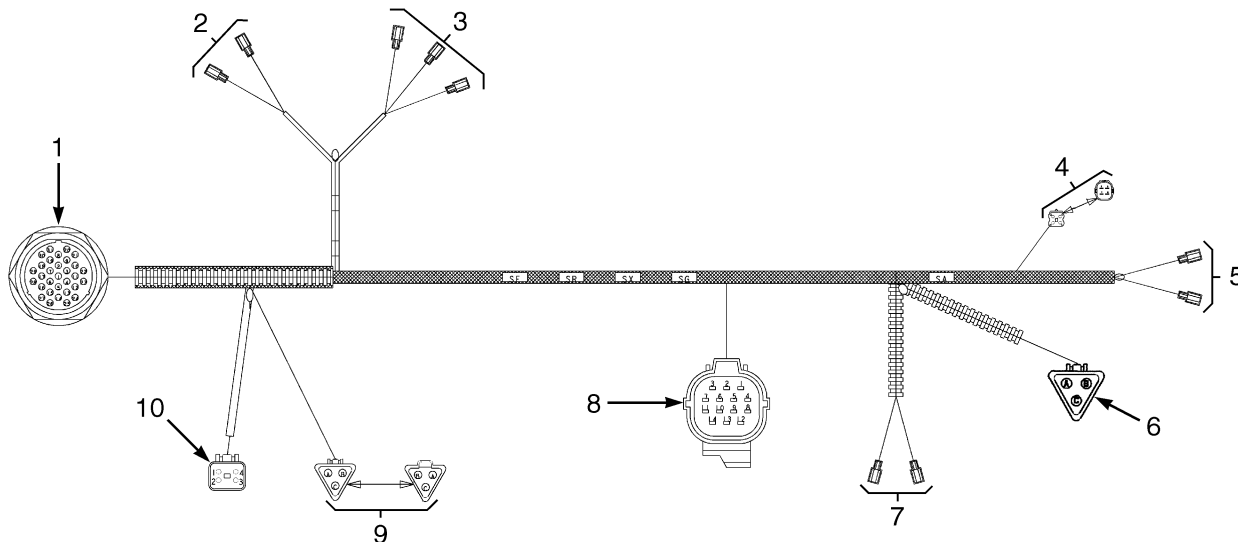
BP000406

ITEM	PART NO.	DESCRIPTION	QTY
	2099164	Wire Harness (Strobe Light)	1
1		Connector Assembly (Cab Connector)	1
1	1502625	Connector	1
1	1502626	Connector	1
1	1330439	Plug	6
1	1363886	Terminal (Socket)	1
1	1330438	Terminal (Socket)	1
2		Connector Assembly Strobe Light	1
2	1493444	Terminal	1
2	1493445	Cover	1
2	1497358	Terminal	1
2	1497287	Cover	1

WIRE HARNESS (FIGURE 4-38)
AIR DRYER

BP080202

ITEM	PART NO.	DESCRIPTION	QTY
	1602329	Wire Harness (Air Dryer)	1
1		Connector Assembly (Air Dryer)	1
1	1569877	Tube Wldmt-Cylinder	1
1	1493465	Connector	1
1	1516244	Socket	2
1	1516245	Seal	2
2		Connector Assembly (Frame Harness)	1
2	1607779	Housing	1
2	1330414	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	2

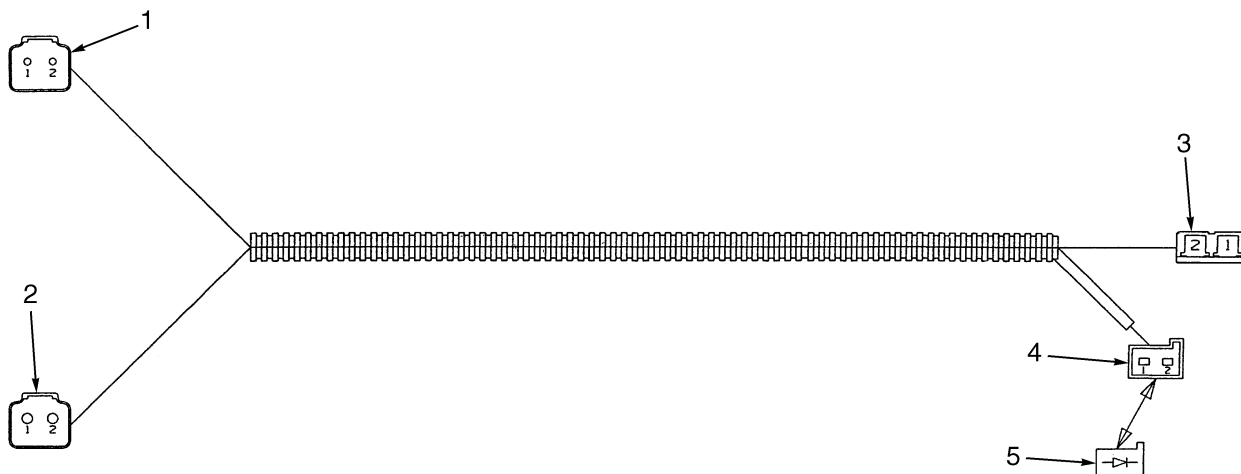
WIRE HARNESS (FIGURE 4-39)
CAB UNDERFLOOR

BP080472

ITEM	PART NO.	DESCRIPTION	QTY
	2088035	Wire Harness (Cab Underfloor)	1
1		Connector Assembly (Side Console)	1
1	1484666	Housing	1
1	1484685	Locknut	1
1	1484686	Washer (Spring)	1
1	1330437	Terminal (Pin)	25
1	1330439	Plug	5
1	1363885	Terminal (Pin)	1
2		Connector Assembly (Brake Light Switch)	1
2	1610948	Receptacle	2
2	1610947	Receptacle	2
3		Connector Assembly (Low Air Pressure)	1
3	1610948	Receptacle	3
3	1610947	Receptacle	3
4		Connector Assembly (Horn Diode)	1
4	1611029	Diode (1-Way)	1
4	1610950	Housing (Sealed) (4-Way)	1
4	1610941	Seal (Dummy)	2
4	1484656	Terminal (Socket)	2
4	1482659	Seal (Rubber)	2
5		Connector Assembly (Horn)	1
5	1610948	Receptacle	2
5	1610947	Receptacle	2
6		Connector Assembly (Inching Pedal)	1
6	1484397	Connector (3-Way)	1
6	1463194	Connector	1

ITEM	PART NO.	DESCRIPTION	QTY
6	1330438	Terminal (Socket)	3
7		Connector Assembly (Inching Switch)	1
7	1610948	Receptacle	2
7	1610947	Receptacle	2
8		Connector Assembly (Steering Column)	1
8	1484654	Connector (14-Way)	1
8	1484655	Retainer (Socket)	1
8	1484656	Terminal (Socket)	14
8	1484597	Seal	14
9		Connector Assembly (Monotrol Pedal)	1
9	1484397	Connector (3-Way)	1
9	1463194	Connector	1
9	1330438	Terminal (Socket)	3
9	1493466	Connector	1
9	1330439	Plug	3
10		Connector Assembly (Front Wiper)	1
10	1489656	Connector (4-Way)	1
10	1489657	Connector	1
10	1330438	Terminal (Socket)	4

WIRE HARNESS (FIGURE 4-40) CAB TILT



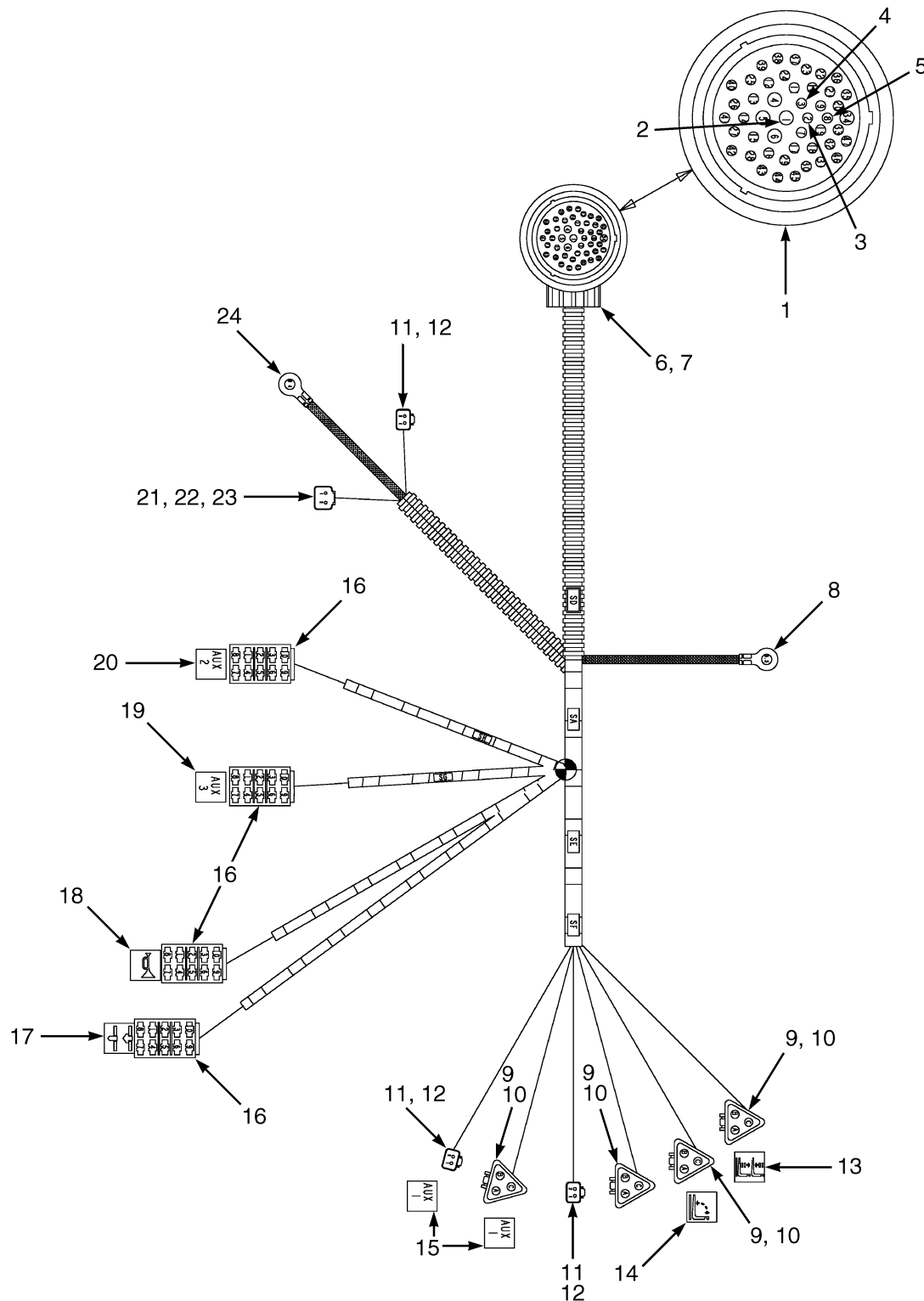
BP080161

ITEM	PART NO.	DESCRIPTION	QTY
	2049849	Wire Harness (Cab Tilt)	1
1	2051270	Connector (Frame Harness)	1
1	1493465	Connector	1
1	1330414	Connector (Secondary Lock)	1
1	1363885	Terminal (Pin)	2
2	2051279	Connector (Tilt Pump)	1
2	1545202	Connector	1
2	1546697	Connector	1
2	1493434	Terminal (Socket)	2
3	2051205	Connector (Tilt Switch)	1
3	346330	Connector Body	1
3	1484375	Terminal	2
4	2051228	Connector (Pump Diode)	1
4	1484687	Connector (Socket)	1
4	1484718	Terminal (Socket)	2
5	1490252	Diode (Single)	1

NOTES

[illegible]

WIRE HARNESS (FIGURE 4-41) ARMREST — OPEN CAB

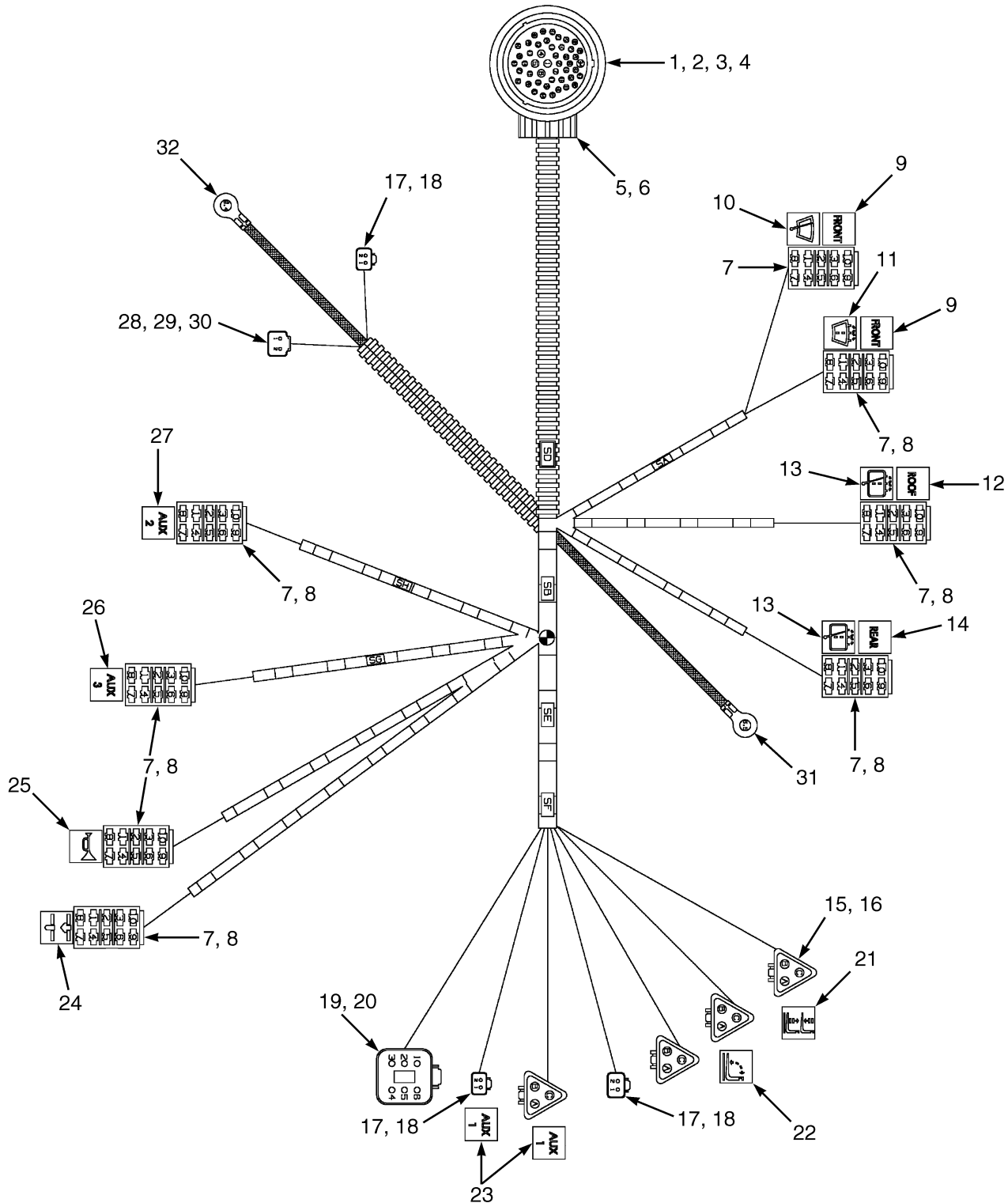


BP080373

**WIRE HARNESS
ARMREST – OPEN CAB**

ITEM	PART NO.	DESCRIPTION	QTY
	2054224	Wire Harness (Armrest) (Open Cab)	1
1	1484554	Connector (Side Console)	1
2	1330438	Terminal (Socket)	20
3	1463141	Terminal (Socket)	21
4	1484377	Plug	21
5	1330439	Plug	3
6	1506881	Cap	1
7	1506883	Clip	1
8	1506885	Ring	1
9	1484397	Connector (3-Way)	4
10	1463194	Connector	4
11	1490242	Connector	3
12	1490243	Connector	3
13	1497364	Label (Hoist)	1
14	1497365	Label (Tilt)	1
15	1497366	Label (AUX 1)	2
16	1484555	Switch (10-Way)	4
17	1570613	Label (Twist Lock)	1
18	1570617	Label (Horn)	1
19	1607748	Label (AUX 3)	1
20	1607747	Label (AUX 2)	1
21	1493465	Connector (Operator Presense Switch)	1
22	1330414	Connector (Secondary Lock)	1
23	1330437	Terminal (Pin)	2
24	1493459	Ring	1

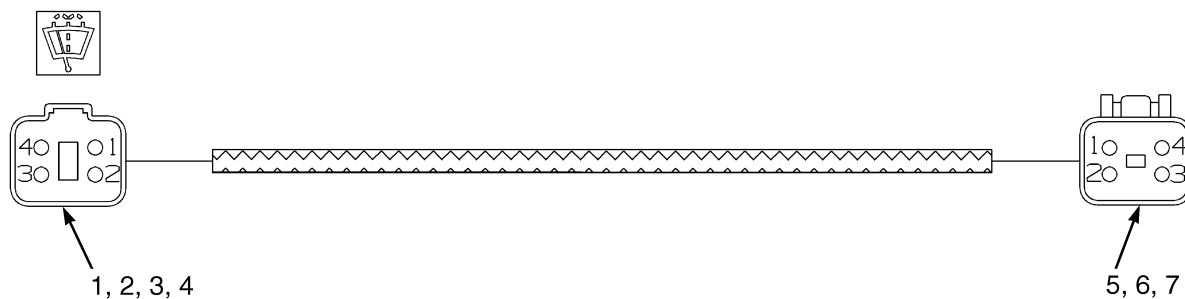
WIRE HARNESS (FIGURE 4-42) ARMREST — CLOSED CAB



BGP080368

**WIRE HARNESS
ARMREST – CLOSED CAB**

ITEM	PART NO.	DESCRIPTION	QTY
	2054225	Wire Harness (Armrest) (Closed Cab)	1
1	1484554	Connector	1
2	1330438	Terminal (Socket)	29
3	1463141	Terminal (Socket)	31
4	1484377	Plug	11
5	1506881	Cap	1
6	1506883	Clip	8
7	1484555	Switch (10-Way)	8
8	1484556	Terminal	29
9	1570608	Label (Front)	1
10	1570611	Label (Front Wiper Switch)	1
11	1570614	Label (Wash)	1
12	1570609	Label (Roof)	1
13	1570612	Label (RR/Roof Wash Wiper Switch)	2
14	1570610	Label (Rear)	1
15	1484397	Connector (3-Way)	4
16	1463194	Connector	4
17	1490242	Connector	3
18	1490243	Connector	3
19	1493430	Connector	1
20	1529052	Connector	1
21	1497364	Label (Hoist)	1
22	1497365	Label (Tilt)	1
23	1497366	Label (AUX 1)	1
24	1570613	Label (Twist Lock)	1
25	1570617	Label (Horn)	1
26	1607748	Label (AUX 3)	1
27	1607747	Label (AUX 2)	1
28	1493465	Connector	1
29	1330414	Connector (Secondary Lock)	1
30	1330437	Terminal (Pin)	2
31	1493459	Ring	1
32	1506885	Ring	1

WIRE HARNESS (FIGURE 4-43)
REAR WIPER

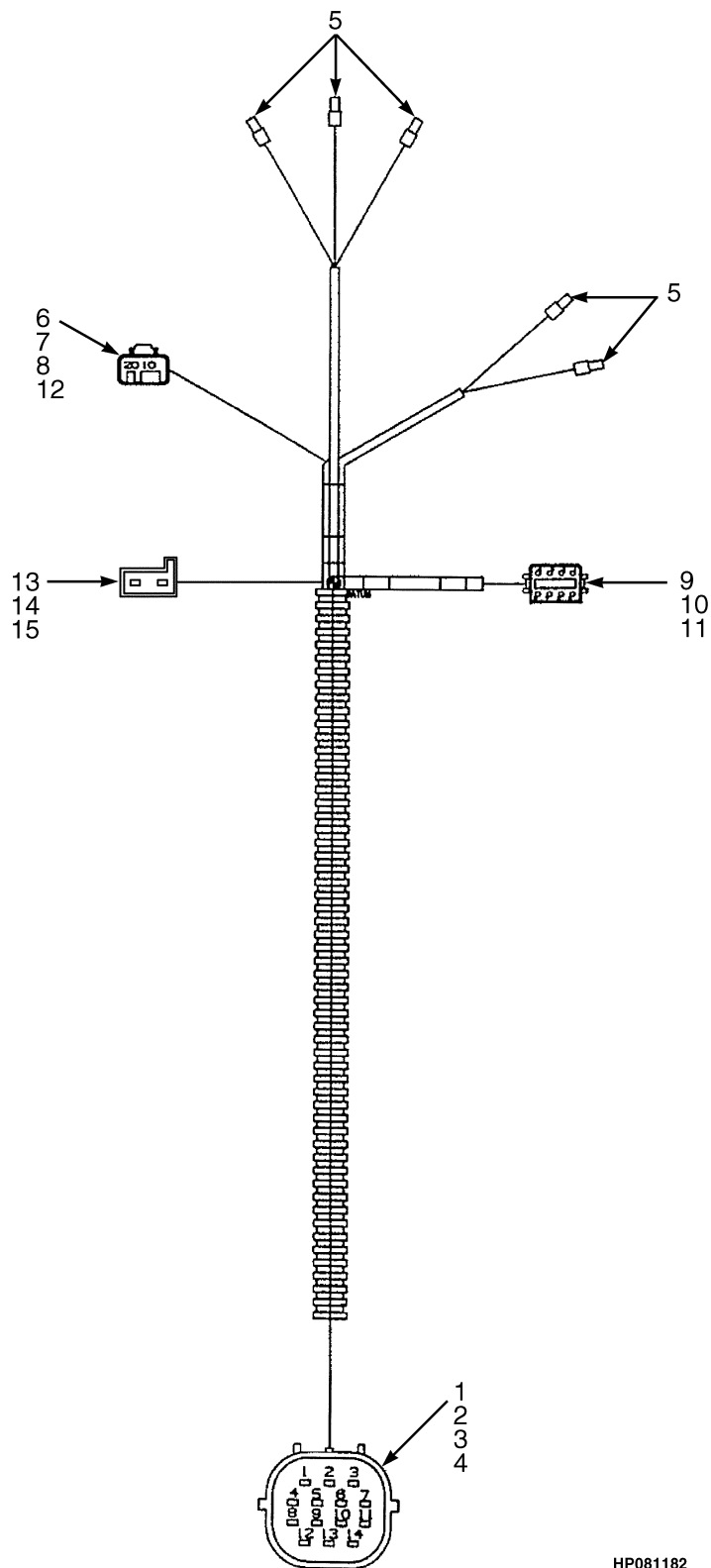
BP080355

ITEM	PART NO.	DESCRIPTION	QTY
	2043546	Wire Harness (Rear Wiper)	1
1	1489655	Connector (4 Way)	1
2	1330416	Connector	1
3	1330437	Terminal (Pin)	4
4	1570644	Label	1
5	1489656	Connector (4-Way)	1
6	1489657	Connector	1
7	1330438	Terminal (Socket)	4

NOTES

[illegible]

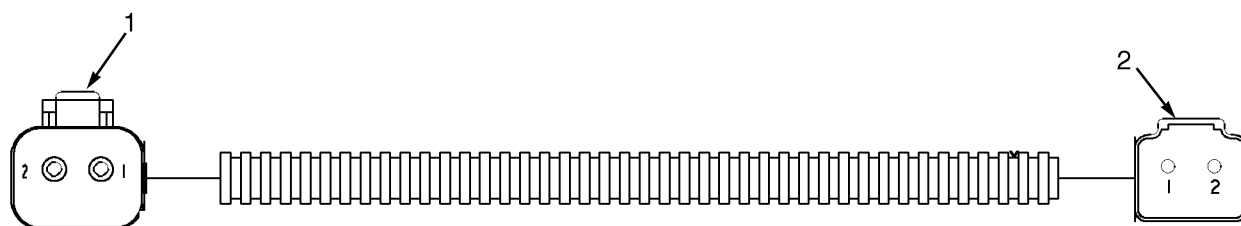
WIRE HARNESS (FIGURE 4-44) STEERING COLUMN



HP081182

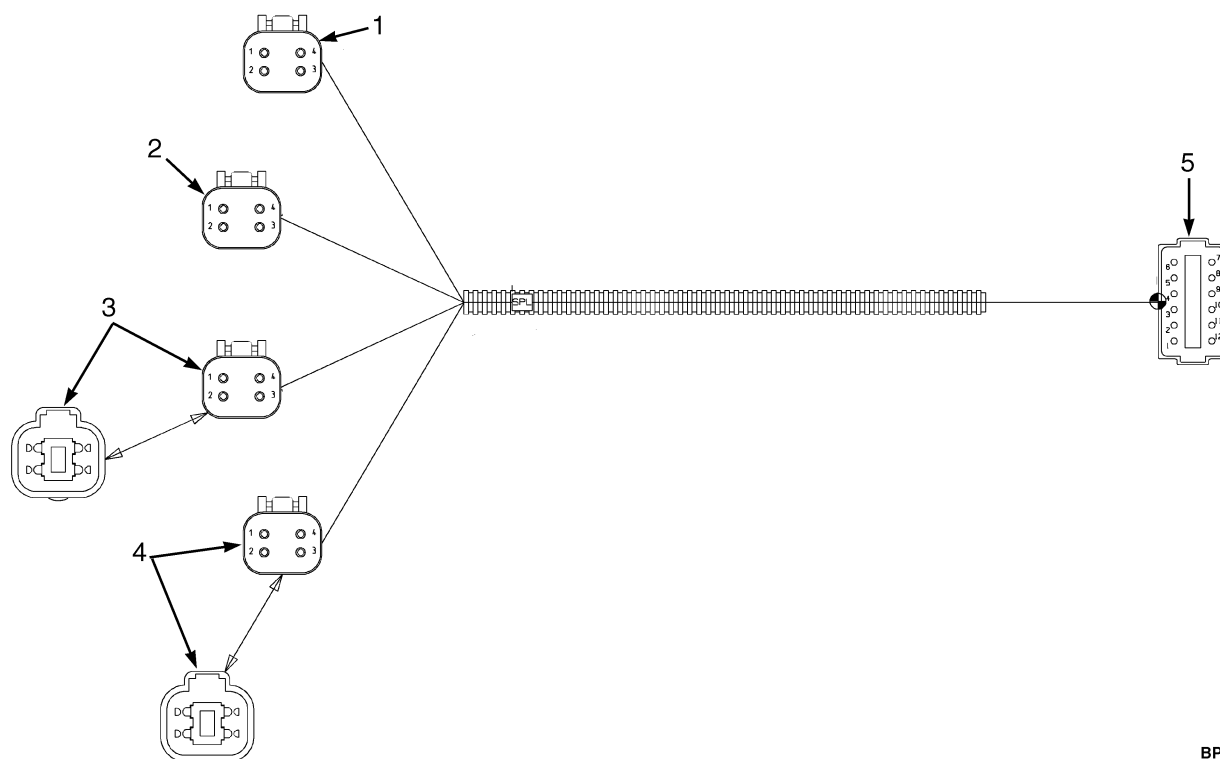
**WIRE HARNESS
STEERING COLUMN**

ITEM	PART NO.	DESCRIPTION	QTY
	2066204	Wire Harness (Steering Column)	1
1	1484592	Connector	1
2	1484593	Retainer	1
3	1484596	Terminal (Pin)	14
4	1484597	Seal (Blue)	14
5	1484394	Crimp Ferrule	5
6	1484557	Connector	1
7	1484558	Connector	1
8	1463141	Terminal (Socket)	1
9	1484647	Housing (Socket)	1
10	1330429	Connector	1
11	1330438	Terminal (Socket)	8
12	1484377	Plug	1
13	1582102	Housing	1
14	1582103	Diode	1
15	1484718	Terminal (Socket)	2

WIRE HARNESS (FIGURE 4-45)
HYDRAULIC OIL TEMPERATURE

HP081941

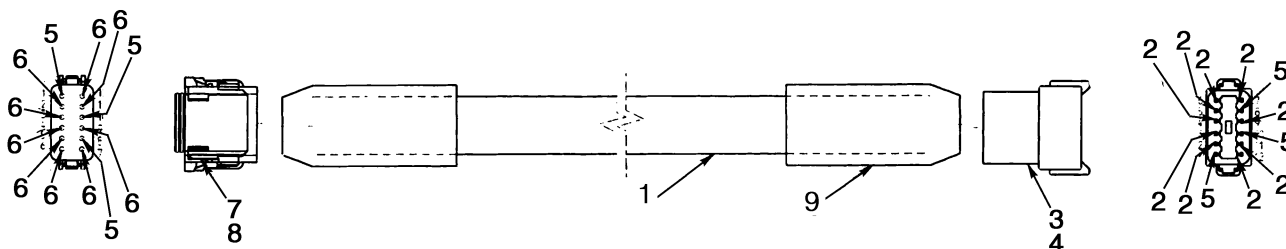
ITEM	PART NO.	DESCRIPTION	QTY
	2098413	Wire Harness (Hydraulic Oil Temperature)	1
1		Connector Assembly (Sensor)	1
1	1490242	Connector	1
1	1490243	Connector	1
1	1493437	Terminal	2
2		Connector Assembly (Frame Harness)	1
2	1330414	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	2
2	1493465	Connector	1

WIRE HARNESS (FIGURE 4-46)
FRONT END

BP080595

ITEM	PART NO.	DESCRIPTION	QTY
	2092486	Wire Harness (Front End)	1
1		Connector Assembly (Valve Block 1)	1
1	1489656	Connector (4-Way)	1
1	1489657	Connector	1
1	1330438	Terminal (Socket)	3
1	1330439	Plug	1
2		Connector Assembly (Valve Block 2)	1
2	1489656	Connector (4-Way)	1
2	1489657	Connector	1
2	1330438	Terminal (Socket)	3
2	1330439	Plug	1
3		Connector Assembly (Valve Block 3)	1
3	1489656	Connector (4-Way)	1
3	1489657	Connector	1
3	1330438	Terminal (Socket)	3
3	1330439	Plug	1
3		Connector Assembly (End Cap)	1
3	1330439	Plug	5
3	1489655	Connector (4 Way)	1
4		Connector Assembly (Valve Block 4)	1
4	1489656	Connector (4-Way)	1
4	1489657	Connector	1
4	1330438	Terminal (Socket)	3
4	1330439	Plug	1
4		Connector Assembly (End Cap)	1
4	1330439	Plug	5

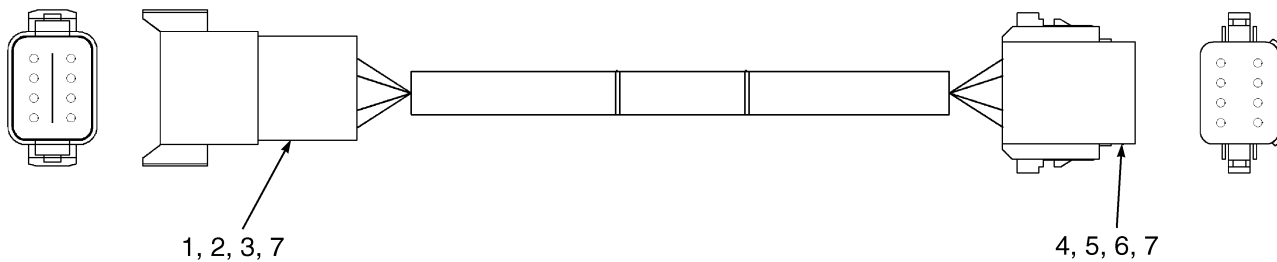
ITEM	PART NO.	DESCRIPTION	QTY
4	1489655	Connector (4 Way)	1
5		Connector Assembly (Mast)	1
5	1500925	Connector	1
5	1352603	Connector	1
5	1330439	Plug	3
5	1330437	Terminal (Pin)	9

WIRE HARNESS (FIGURE 4-47)
TWO STAGE LIMITED FREE-LIFT

HP081942

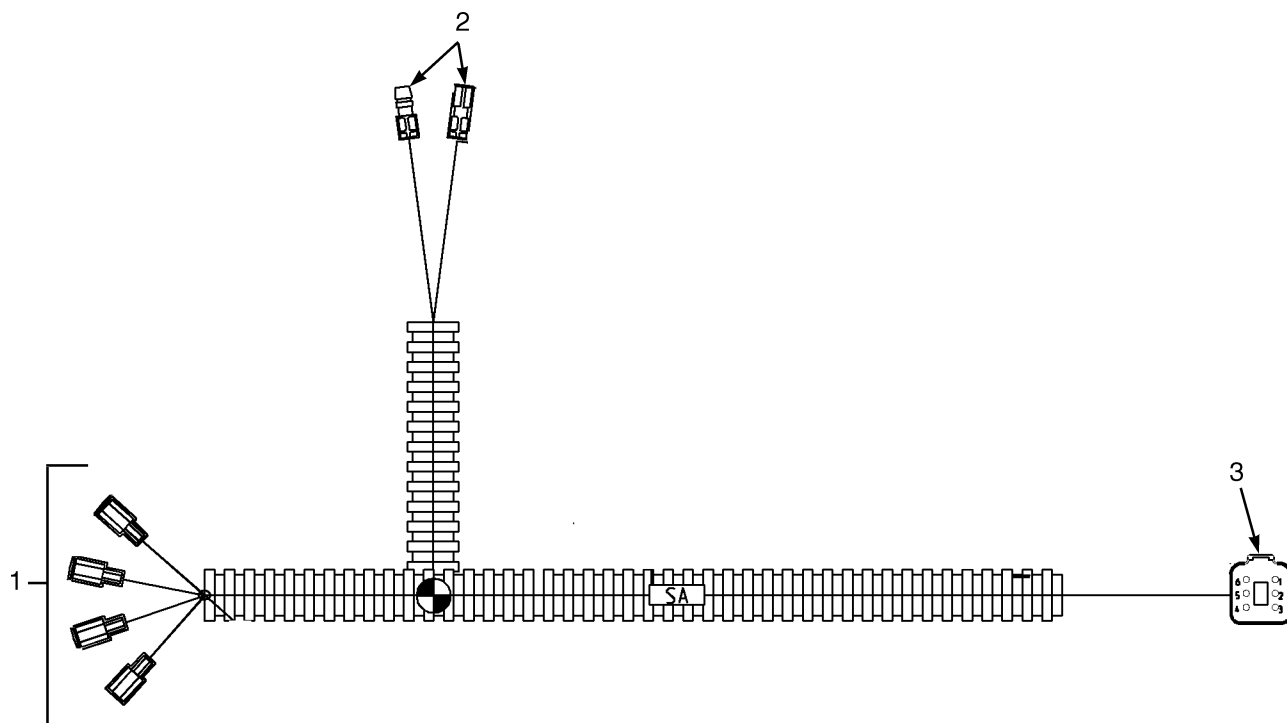
ITEM	PART NO.	DESCRIPTION	QTY
	a 2054251	Wire Harness (3686 mm)	1
	a 2054252	Wire Harness (4586 mm)	1
	a 2054253	Wire Harness (5336 mm)	1
	b 2054254	Wire Harness (3686 mm)	1
	b 2054255	Wire Harness (4586 mm)	1
	b 2054256	Wire Harness (5336 mm)	1
	b 2054257	Wire Harness (6130 mm)	1
	b 2054258	Wire Harness (6630 mm)	1
1	1569800	Cable	1
2	1330433	Terminal	9
3	1352602	Connector	1
4	1352603	Connector	1
5	1330439	Plug	6
6	1330434	Terminal	9
7	1351068	Connector	1
8	1351069	Connector	1
9	222524	Heat Shrink	AR

FOOTNOTES:**a** H170HD, H190HD, H210HD**b** H230HD, H250HD, H280HD

WIRE HARNESS (FIGURE 4-48)**SHIFT LEVER (S/N H007E01958F → EXC. 01960, 01963, 01967, 01974-01975, 01978-01979, 019)**

HP081943

ITEM	PART NO.	DESCRIPTION	QTY
	1667169	Wire Harness (Shift Lever)	1
1	1330413	Connector	1
2	1330418	Connector	1
3	1330433	Terminal	7
4	1330423	Connector	1
5	1330429	Connector	1
6	1330434	Terminal	7
7	1330439	Plug	2

WIRE HARNESS (FIGURE 4-49)
TAIL LIGHTS

BP080634

ITEM	PART NO.	DESCRIPTION	QTY
	2099414	Wire Harness (Tail Lights)	1
1		Connector Assembly (Stop and Tail Light Module)	1
1	1610948	Receptacle	4
1	1610947	Receptacle	4
2		Connector Assembly (Reverse Module)	1
2	1497358	Terminal	1
2	1497287	Cover	1
2	1493444	Terminal	1
2	1493445	Cover	1
3		Connector Assembly (Chassis Harness)	1
3	1500914	Housing	1
3	1330417	Connector	1
3	1330437	Terminal (Pin)	5
3	1330439	Plug	1

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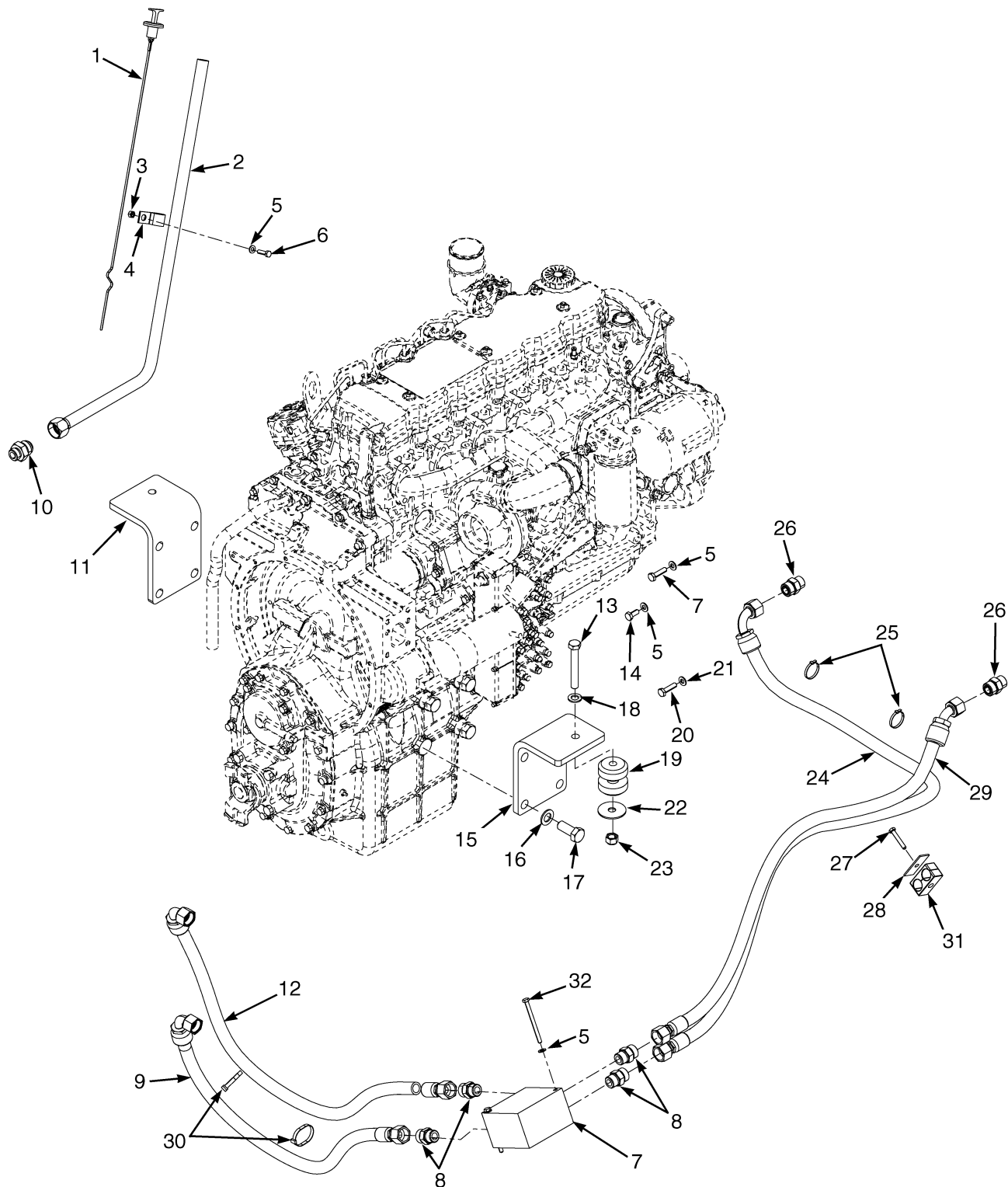
5

TRANSMISSION

**SECTION 5
TRANSMISSION**

DESCRIPTION	PAGE
AUXILIARY PUMP DRIVE	5-14
CHARGE PUMP AND FILTER ASSEMBLY	5-16
DRIVE GEAR	5-22
DRIVE PLATE	5-24
FORWARD CLUTCH	
→ PENDING PER ECN 68533-57	5-26
PENDING PER ECN 68533-57 →	5-28
GEAR CLUTCH INSTALLATION	5-30
LOW CLUTCH	
→ PENDING PER ECN 68533-57	5-34
PENDING PER ECN 68533-57 →	5-36
OUTPUT FLANGE	5-38
OUTPUT SHAFT	
→ PENDING PER ECN 68533-57	5-40
PENDING PER ECN 68533-57 →	5-42
REVERSE AND SECOND CLUTCH	5-44
REVERSE IDLER SHAFT	5-32
THIRD CLUTCH	5-46
TORQUE CONVERTER ASSEMBLY	5-10
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TRANSMISSION CASE	5-12
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DIESEL ENGINE	5-2
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TRANSMISSION MOUNT AND ATTACHING PARTS (FIGURE 5-1) DIESEL ENGINE



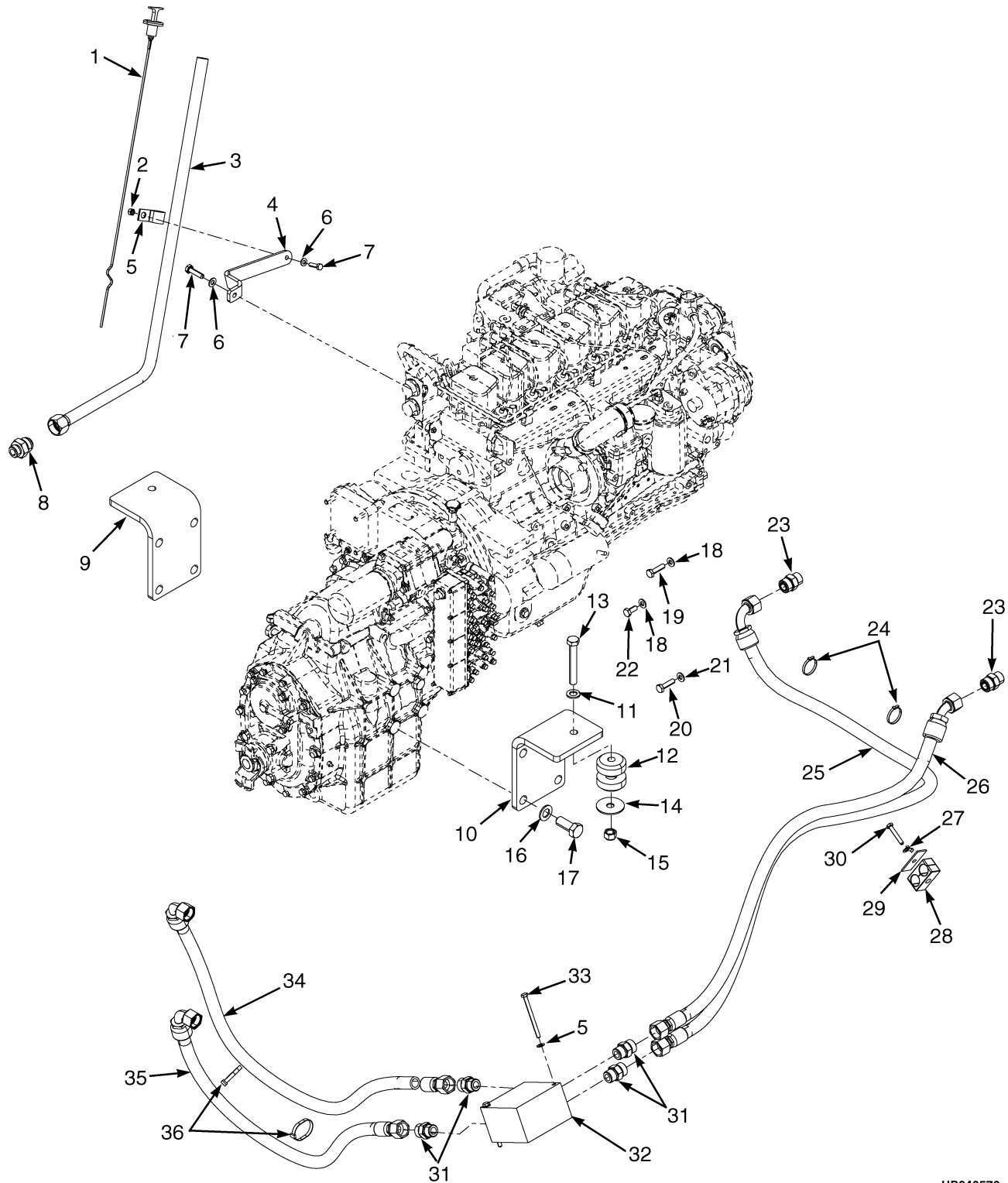
HP240579

**TRANSMISSION MOUNT AND ATTACHING PARTS
DIESEL ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	2056545	Dipstick	1
2	2074432	Dipstick Tube	1
3	302400	Nut	1
4	88194	Clamp	1
5	320157	Washer	6
6	136681	Capscrew	1
7	2091525	Manifold	1
7	1708450	Regulator Valve	1
8	1473888	Fitting	6
9	2090638	Hose Assy	1
10	142500	Fitting	1
11	1622846	Bracket	1
12	2090639	Hose Assy	1
13	292572	Capscrew	2
14	287854	Capscrew	2
15	1622845	Bracket	1
16	320169	Washer	8
17	292582	Capscrew	8
18	320165	Washer	2
19	1393707	Isolator	2
20	221509	Capscrew	8
21	15156	Lockwasher	8
22	1452404	Washer	2
23	302404	Locknut	2
24	2090634	Hose Assy	1
25	137852	Strap Clamp	2
26	1486754	Fitting	2
27	292509	Capscrew	1
27	214364	Capscrew (Alternate Part)	1
28	1533649	Cover Plate	1
29	2090636	Hose Assy	1
30	2033612	Strap Clamp	2
31	1618452	Clamp	1
32	136750	Capscrew	2
	a 1672885	Bracket	1

FOOTNOTES:**a** Not Illustrated

TRANSMISSION MOUNT AND ATTACHING PARTS (FIGURE 5-2) LPG ENGINE

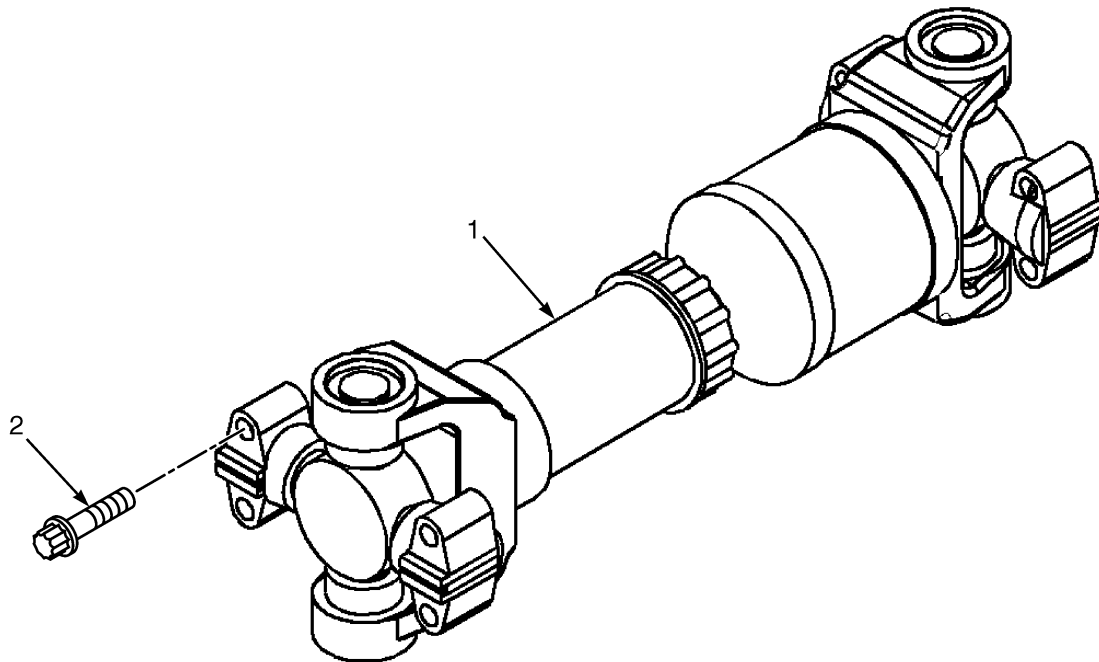


HP240578

**TRANSMISSION MOUNT AND ATTACHING PARTS
LPG ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	2056545	Dipstick	1
2	302400	Nut	1
3	2074432	Dipstick Tube	1
4	1584908	Bracket	1
5	88194	Clamp	3
6	320157	Washer	5
7	136681	Capscrew	2
8	142500	Fitting	1
9	1622846	Bracket	1
10	1622845	Bracket	1
11	320165	Washer	2
12	1393707	Isolator	2
13	292572	Capscrew	2
14	1452404	Washer	2
15	302404	Locknut	2
16	320169	Washer	8
17	292582	Capscrew	8
18	320159	Washer	12
19	292515	Capscrew	10
20	221509	Capscrew	8
21	15156	Lockwasher	8
22	287854	Capscrew	2
23	1486754	Fitting	2
24	137852	Strap Clamp	2
25	2090634	Hose Assy	1
26	2090636	Hose Assy	1
27	1533661	Lockwasher	1
28	1618452	Clamp	1
29	1533649	Cover Plate	1
30	292509	Capscrew	1
30	214364	Capscrew (Alternate Part)	1
31	1473888	Fitting	6
32	2091525	Manifold	1
32	1708450	Regulator Valve	1
33	136750	Capscrew	2
34	2090639	Hose Assy	1
35	2090638	Hose Assy	1
36	129563	Strap Clamp	2

UNIVERSAL SHAFT (FIGURE 5-3)



HP240580

ITEM	PART NO.	DESCRIPTION	QTY
1	a 1622841	Shaft (Diesel)	1
1	b 1532822	Shaft (Diesel)	1
1	a 1532822	Shaft (LPG)	1
1	b 1488488	Shaft (LPG)	1
1	1312827	Kit-Bearing (Cross And Bearing)	2
1	1312822	Yoke (Assembly)	1
1	1312823	Yoke (Slip)	1
1	1312824	Plug	1
1	1367556	Dust Cap	1
2	1490469	Capscrew (12 point Flange Head)	8

FOOTNOTES:

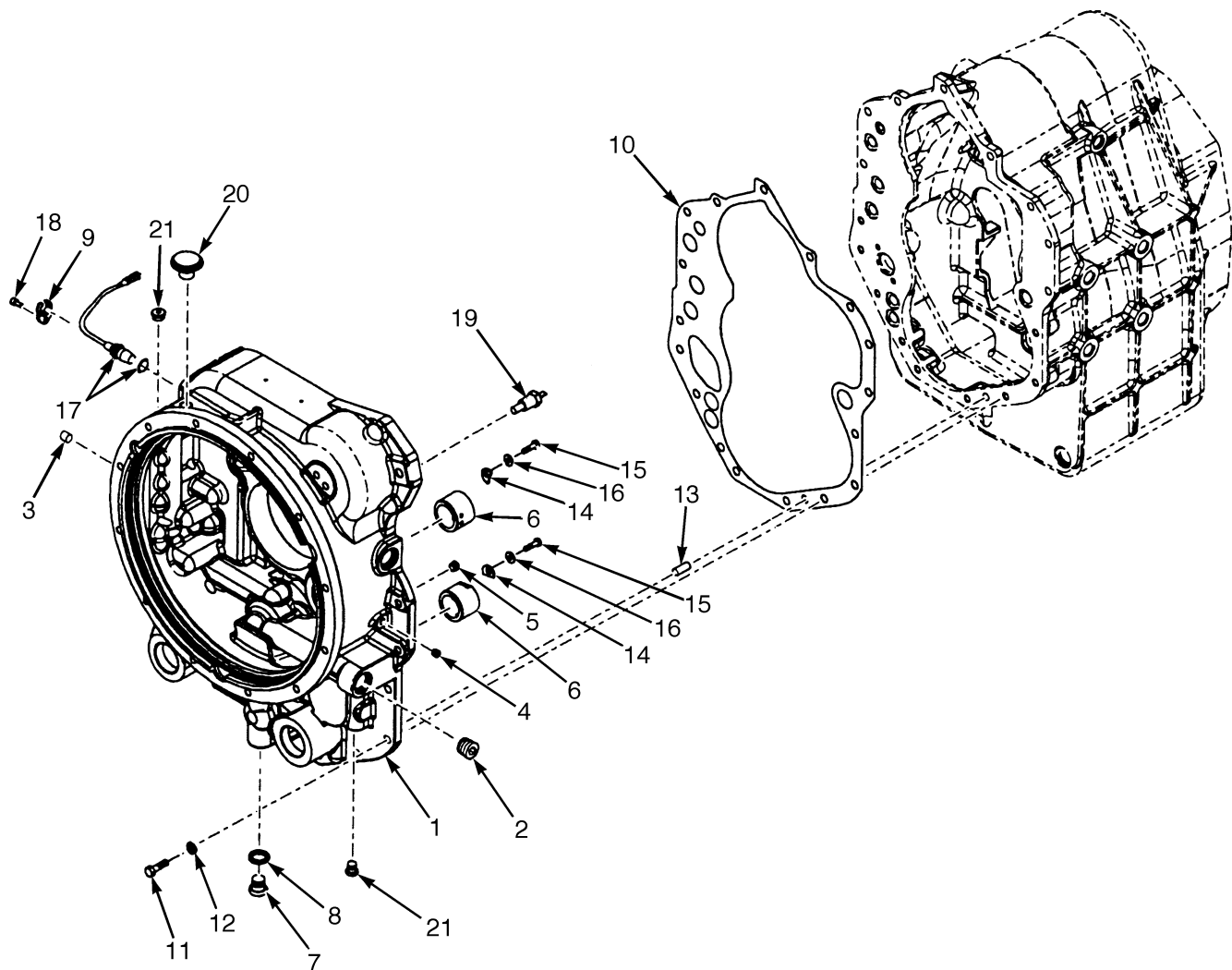
a → PENDING PER ECN 68533-57

b PENDING PER ECN 68533-57 →

NOTES

[illegible]

TORQUE CONVERTER HOUSING AND ATTACHING PARTS (FIGURE 5-4)



BP240138

TORQUE CONVERTER HOUSING AND ATTACHING PARTS

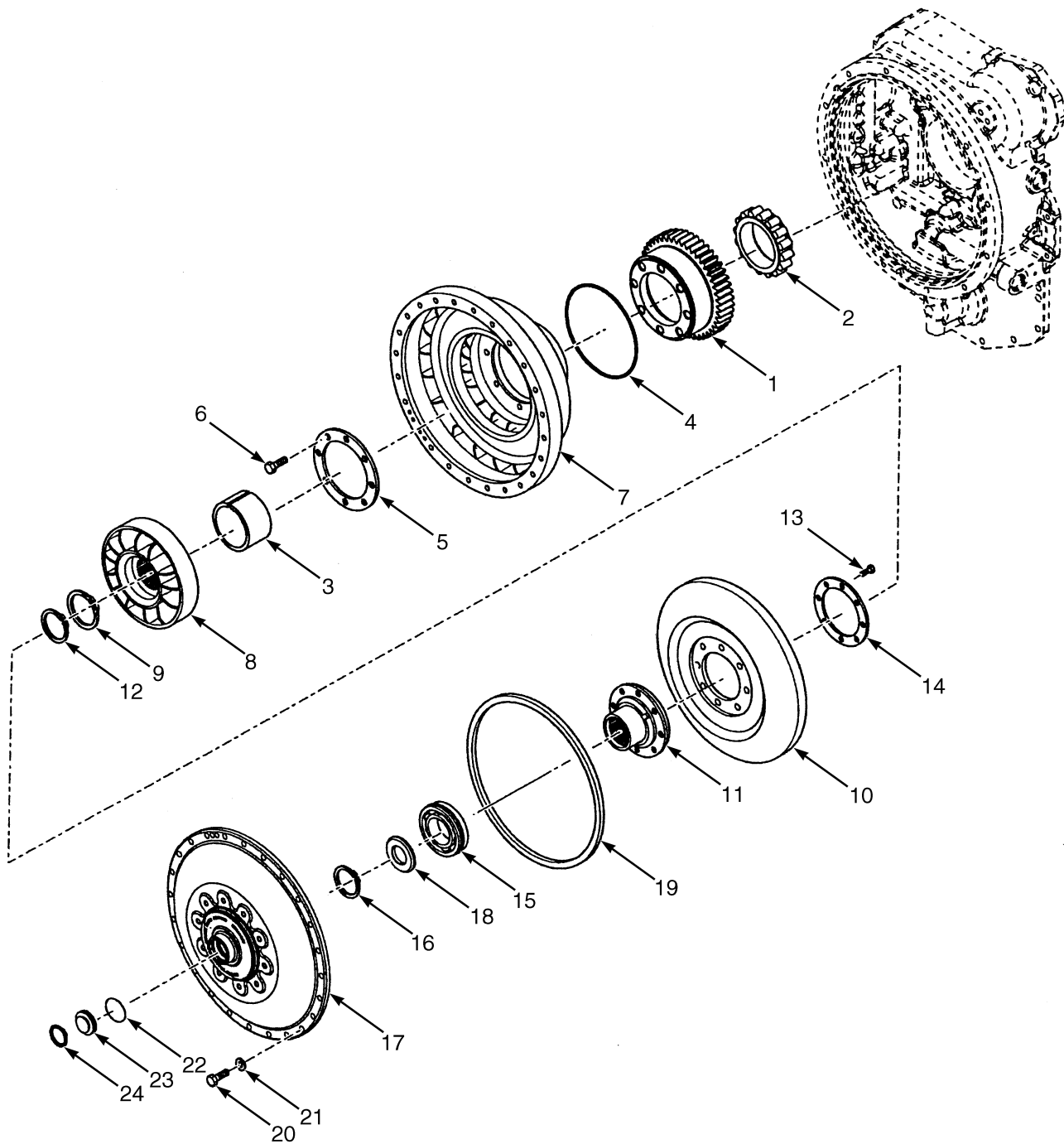
ITEM	PART NO.	DESCRIPTION	QTY
	c 2071311	Transmission Assy	1
	ae 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	b 1579006	Converter Housing	1
1	d 1705304	Converter Housing	1
2	1531587	Plug (Orifice)	1
3		Plug (Expansion)	1
4	330666	Plug	1
5	330511	Plug	1
6	1312260	Sleeve	2
7	14595	Plug	1
8	16484	O-Ring	1
9	b 1556908	Support (Speed Sensor)	1
10	1579008	Gasket	1
11	221532	Capscrew	17
12	15157	Lockwasher	17
13	1579009	Pin	1
14	330520	Washer	2
15	16374	Capscrew	2
16	15155	Lockwasher	2
17	1579010	Speed and Temperature Sensor	1
17	1579011	O-Ring (Speed Sensor)	1
18	b 1556910	Capscrew	1
19	1556912	Sensor (Converter Oil Temperature)	1
20	1676815	Breather	1
21	1389313	Plug	2
21	16483	O-Ring	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → PENDING PER ECN 68533-57
c → S/N H007E02030F

d PENDING PER ECN 68533-57 →
e S/N H007E02031F →

TORQUE CONVERTER ASSEMBLY (FIGURE 5-5)



HP240477

TORQUE CONVERTER ASSEMBLY

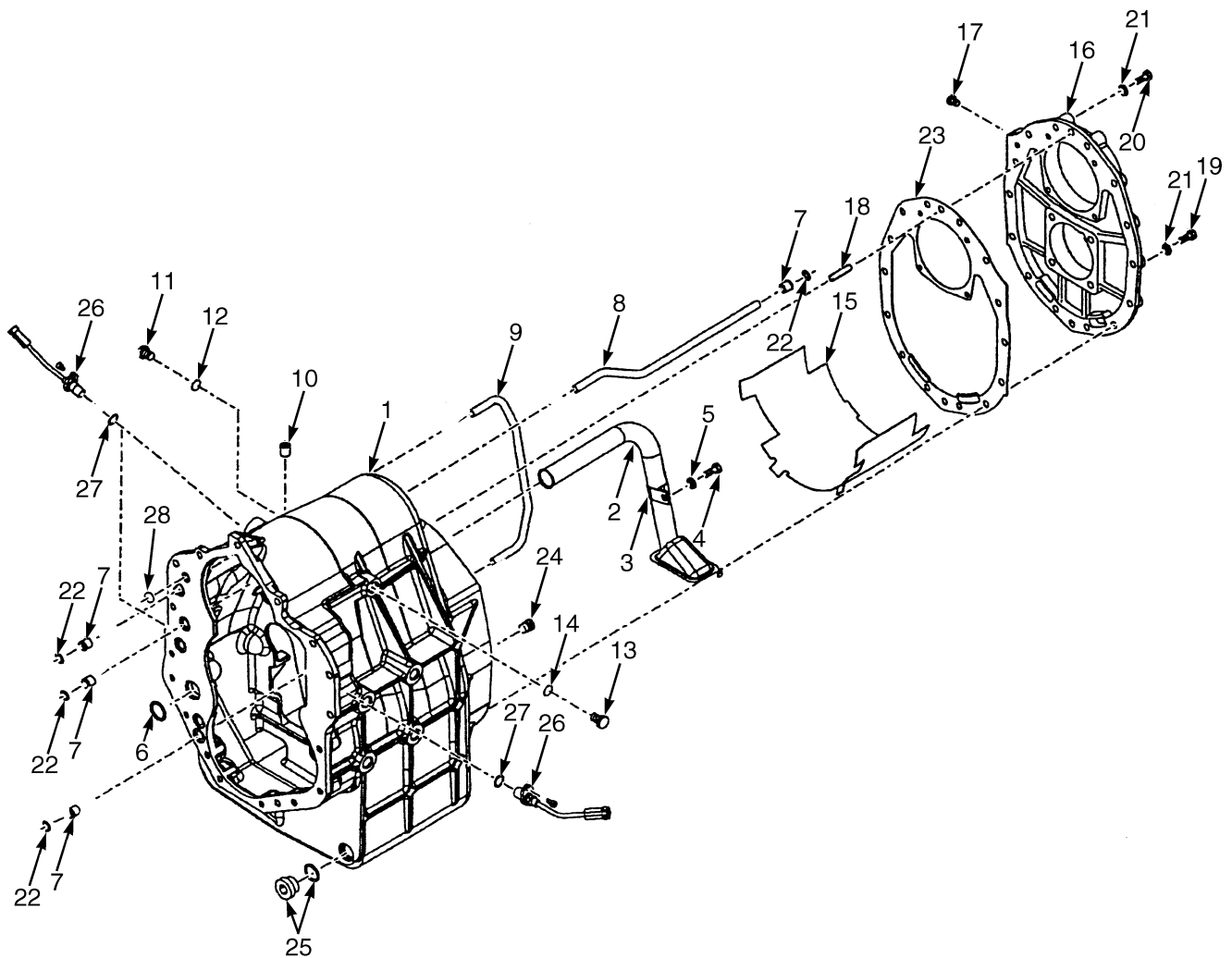
ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	1556934	Gear (Impeller)	1
2	1312279	Bearing	1
3	1312379	Spacer	1
4	1311721	O-Ring	1
5	1556935	Ring	1
6	1579117	Screw	8
7	bd 1556937	Impeller	1
7	c 1311558	Impeller	1
8	bd 1556938	Stator	1
8	c 1312275	Stator	1
9	1312377	Retaining Ring	1
10	1556941	Turbine	1
11	1579118	Hub (Turbine)	1
12	1312280	Retaining Ring	1
13	1307970	Screw	12
14	1311802	Back-Up Ring	1
15	1312285	Bearing	1
16	213069	Snap Ring	1
17	1579123	Cover (Impeller)	1
18	1579120	Spacer	1
19	1556944	O-Ring	1
20	330593	Screw	24
21	15156	Lockwasher	24
22	1579121	O-Ring	1
23	1311566	Plug	1
24	1311844	Retaining Ring	1
25	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → S/N H007E02030F

c S/N H007E02031F ↔ PENDING PER ECN
68533-57
d PENDING PER ECN 68533-57 →

TRANSMISSION CASE (FIGURE 5-6)



BP240139

TRANSMISSION CASE

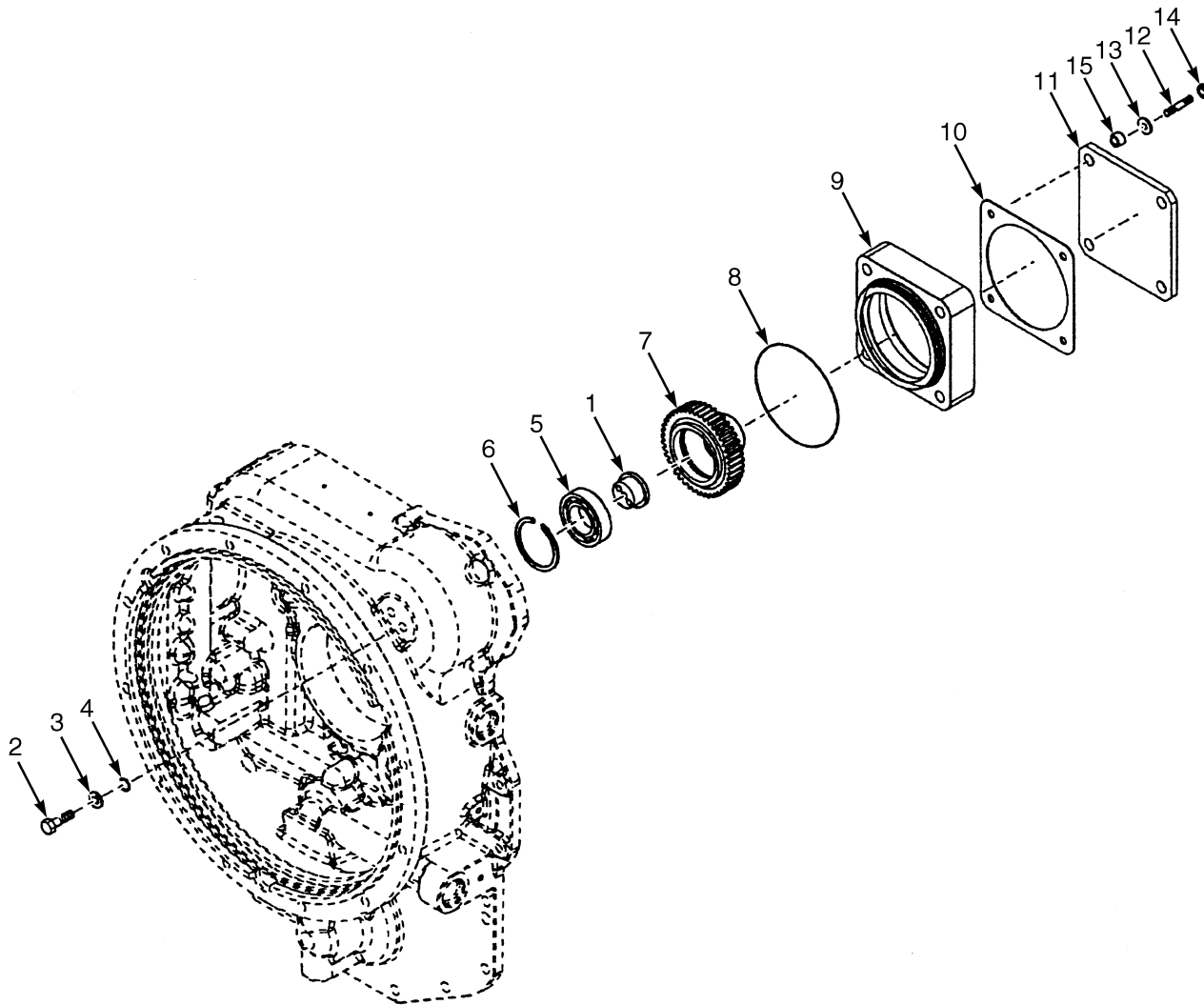
ITEM	PART NO.	DESCRIPTION	QTY
	c 2071311	Transmission Assy	1
	ad 2104740	Transmission Assy	1
	e 2093555	Transmission Assy	1
1	b 1579015	Transmission Housing	1
1	e 1705306	Transmission Housing	1
2	b 1579016	Tube Assy (Suction)	1
2	e 1705307	Tube Assy	1
3	b 1579017	Clip	1
4	b 18557	Capscrew	1
4	e 1579018	Capscrew	1
5	15157	Lockwasher	1
6	1579019	O-Ring	1
7	330504	Nut	4
8	1556915	Tube (Low Speed)	1
9	1312266	Tube (Third Clutch)	1
10	15316	Fitting	1
11	b 1389313	Plug	1
12	b 16483	O-Ring	1
13	235691	Fitting	1
14	16484	O-Ring	1
15	1691361	Baffle	1
16	b 1312268	Cover	1
16	e 1705308	Cover	1
17	b 330511	Plug	1
17	e 14589	Plug	1
18	b 330502	Pin	2
18	e 1579009	Pin	1
19	b 1384794	Screw	12
19	e 1384794	Screw	14
20	b 1390042	Screw	2
21	15157	Lockwasher	14
22	130625	O-Ring	3
23	b 1312269	Gasket	1
23	e 1705310	Gasket	1
24	1311544	Drain Plug (Drain)	1
25	1556918	Plug (Dipstick)	1
25	16486	O-Ring	1
26	1579021	Sensor (Speed)	3
27	1579011	O-Ring	3
28	87281	O-Ring	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → PENDING PER ECN 68533-57
c → S/N H007E02030F

d S/N H007E02031F ↔ PENDING PER ECN 68533-57
e PENDING PER ECN 68533-57 →

AUXILIARY PUMP DRIVE (FIGURE 5-7)

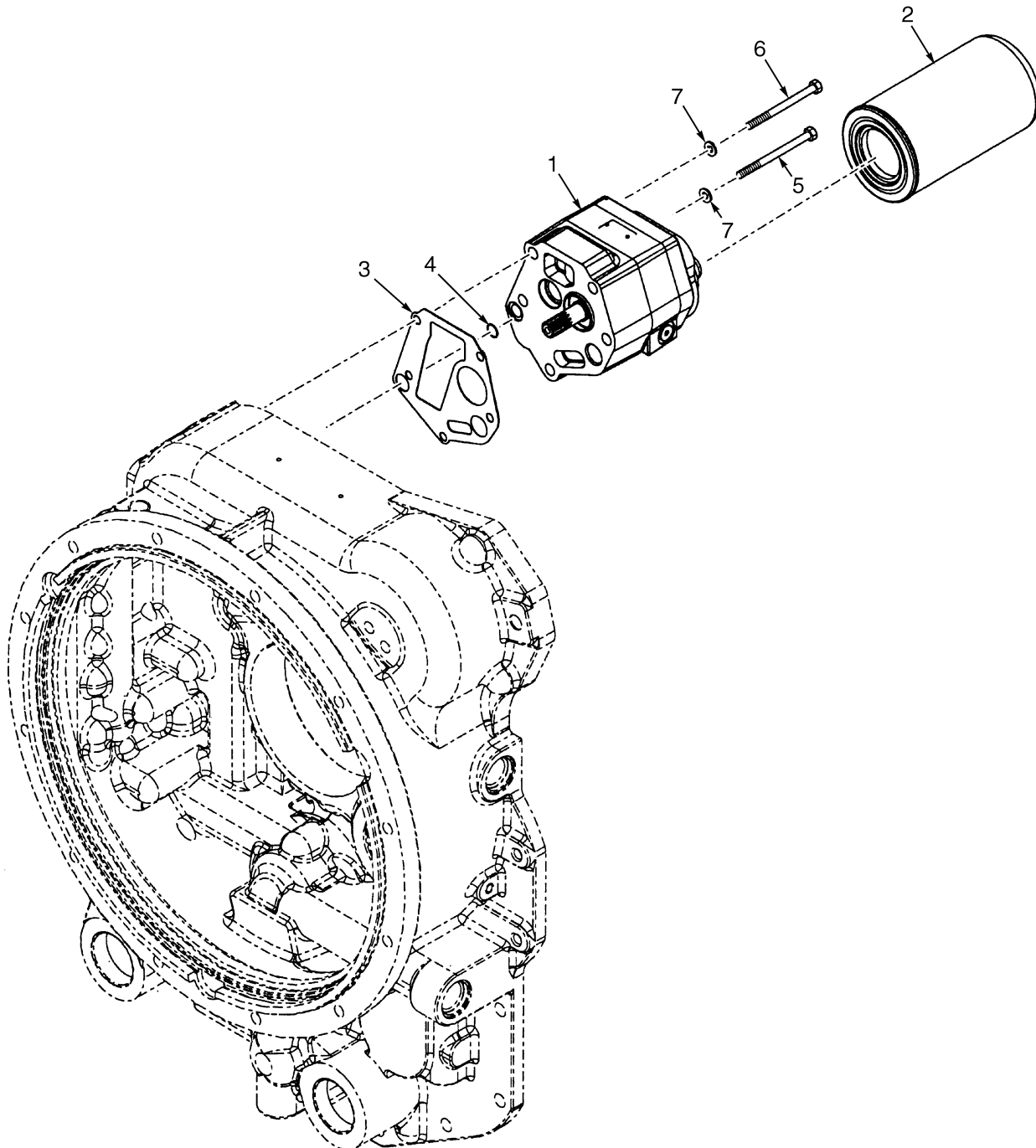


HP240479

AUXILIARY PUMP DRIVE

ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	1556950	Support	1
2	16815	Capscrew	2
3	330552	Washer	2
4	1556951	Washer	2
5	1583613	Bearing	1
6	330591	Ring	1
7	1556952	Gear	1
8	1471371	O-Ring	1
9	1579125	Adapter (Pump)	1
10	1471383	Gasket (Cover)	1
11	330566	Cover	1
12	1579126	Stud	4
13	15158	Washer	4
14	1579127	Nut	4
15	1579128	Spacer	4
	1557263	Kit-Gasket	1

FOOTNOTES:**a** Remanufactured Transmission-2104742**b** → S/N H007E02030F**c** S/N H007E02031F ↔ PENDING PER ECN
68533-57**d** PENDING PER ECN 68533-57 →

CHARGE PUMP AND FILTER ASSEMBLY (FIGURE 5-8)

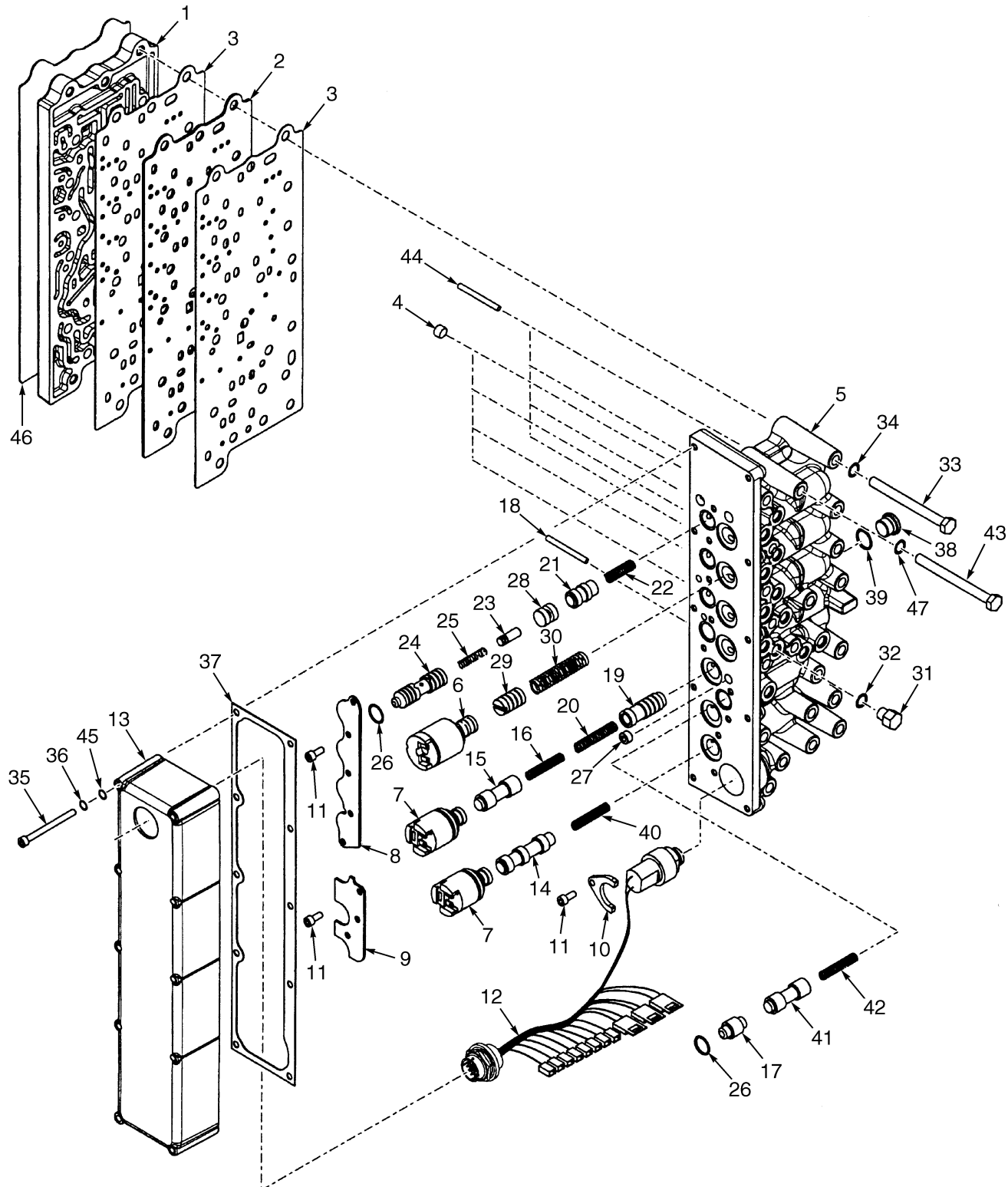
HP240443

CHARGE PUMP AND FILTER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	1556991	Charge Pump Assembly	1
2	1556992	Transmission Filter	1
3	1311695	Gasket	1
4	87281	O-Ring	1
5	1556993	Screw	4
6	1556994	Screw	1
7	15157	Lockwasher	5
	1557263	Kit-Gasket	1
	1335619	Kit-Charge Pump	1

FOOTNOTES:**a** Remanufactured Transmission-2104742**b** → S/N H007E02030F**c** S/N H007E02031F ↔ PENDING PER ECN
68533-57**d** PENDING PER ECN 68533-57 →

TRANSMISSION CONTROL VALVE (FIGURE 5-9)



HP240488

TRANSMISSION CONTROL VALVE

ITEM	PART NO.	DESCRIPTION	QTY
	d 2071311	Transmission Assy	1
	be 2104740	Transmission Assy	1
	f 2093555	Transmission Assy	1
	1657710	Hydraulic Control Valve	1
1	1556999	Side Plate (Spacer)	1
2	1557000	Plate (Adapter)	1
3	1557001	Gasket	2
4	c	Plug	4
5		Spool Body	1
6	1565474	Solenoid (VFS)	4
7	1579141	Solenoid (12 Volt)	3
8	1585088	Clamp	1
9	1585089	Clamp	1
10	1557002	Clamp	1
11	1557003	Screw	9
12	1659579	Wire Harness	1
13	1565472	Cover (Solenoid)	1
14		Spool	2
15		Spool	2
16	1641836	Spring (Pilot Valve)	4
17	c	Spool (Pilot Switch)	1
18	1585091	Pin (Parallel)	4
19		Spool (Pressure Reducer)	1
20	1641838	Spring (Pressure Reducer)	1
21		Spool (Pressure Check)	4
22		Spring (Pressure Check)	4
23		Pin (Stop)	1
24		Spool (Intensifier)	4
25	1641840	Spring	4
26	c	O-Ring	5
27	1565473	Plug	1
28		Spool (Stop)	4
29		Spool (Accumulator)	4
30	1641841	Spring (Accumulator)	4
31	1557007	Plug	13
32	1557008	O-Ring	13
33	1557009	Capscrew	6
34	1556998	Lockwasher	6
35	1557010	Screw	10
36	1557011	Lockwasher	10
37	1557012	Gasket	1
38	c	Plug	4
39	c 1530732	O-Ring	5
40		Pilot Valve Spring	3
41	c	Spool	1
42	c 1641836	Spring	1
43	1556997	Screw	15
44	c 1641837	Pin	1
44	f 1585091	Pin	1
45	1609937	Washer	10
46	1556996	Gasket	1

TRANSMISSION CONTROL VALVE

ITEM	PART NO.	DESCRIPTION	QTY
47	1556998	Lockwasher	15
	a 1557014	Strap	4
	1641835	Kit-Seal	1
	1557263	Kit-Gasket	1
	1608583	Kit-Seal	1

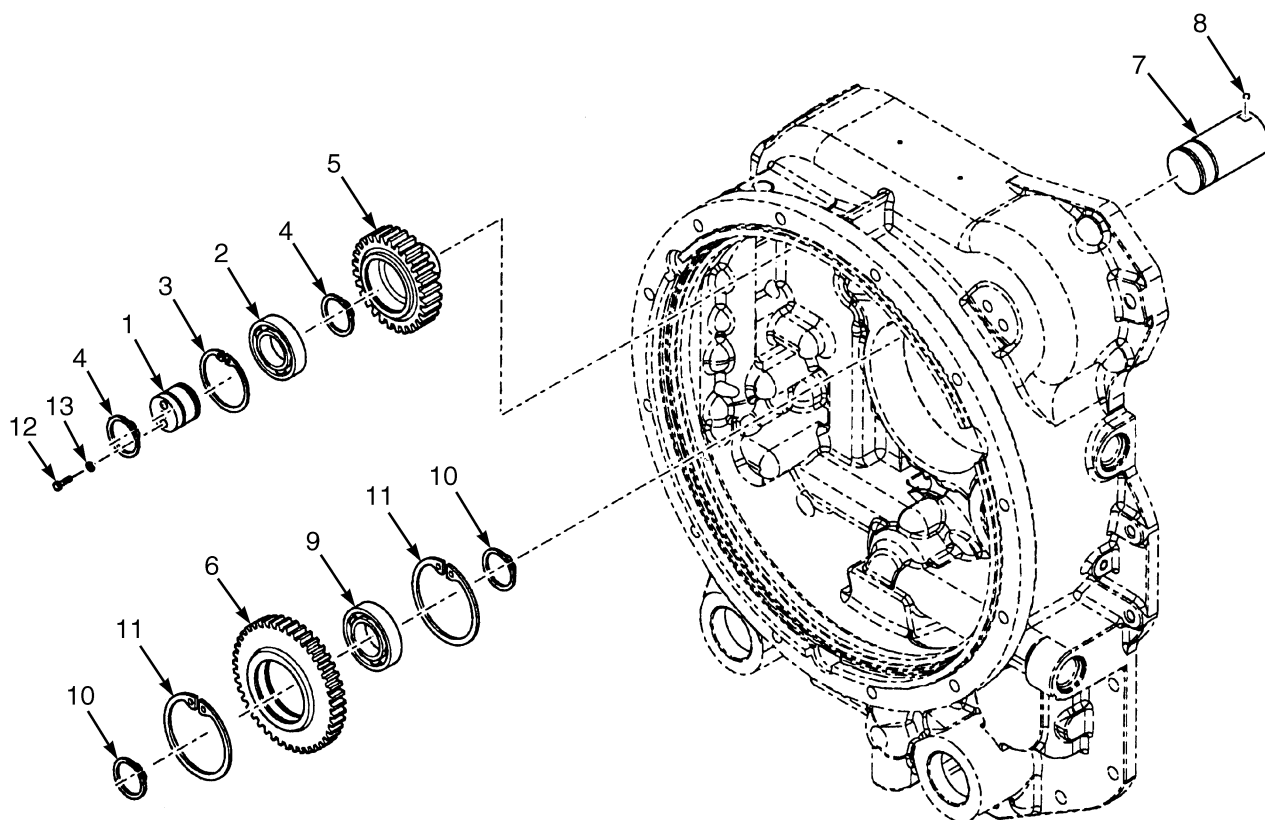
FOOTNOTES:

a Not Illustrated	d → S/N H007E02030F
b Remanufactured Transmission-2104742	e S/N H007E02031F ↔ PENDING PER ECN 68533-57
c → PENDING PER ECN 68533-57	f PENDING PER ECN 68533-57 →

NOTES

[illegible]

DRIVE GEAR (FIGURE 5-10)



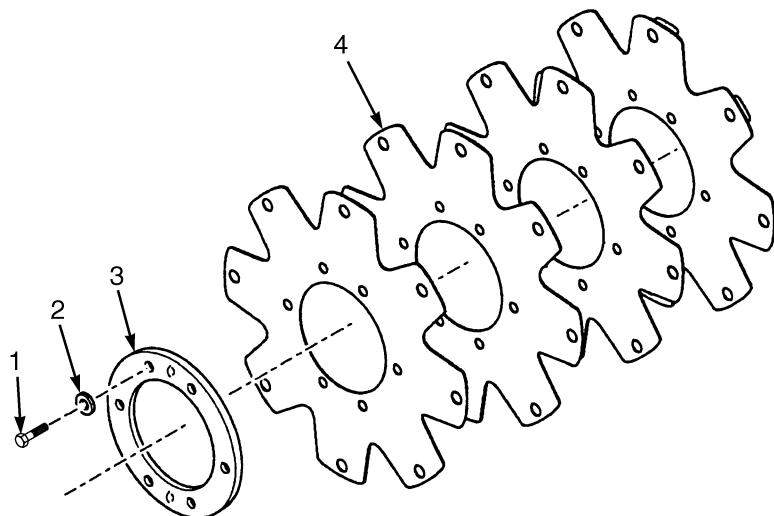
HP240436

DRIVE GEAR

ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	1311567	Support	1
2	1311571	Ball Bearing	1
3	37065	Snap Ring	2
4	1311805	Retaining Ring	1
5	1556957	Gear (Drive Pump)	1
6	1556958	Gear (Idler Pump)	1
7	1556959	Shaft	1
8	61141	Ball	1
9	41308	Bearing	1
10	330570	Retaining Ring	2
11	330612	Ring	2
12	1471366	Screw	2
13	15156	Lockwasher	2

FOOTNOTES:**a** Remanufactured Transmission-2104742**b** → S/N H007E02030F**c** S/N H007E02031F ↔ PENDING PER ECN
68533-57**d** PENDING PER ECN 68533-57 →

DRIVE PLATE (FIGURE 5-11)



HP240577

ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	18535	Capscrew	10
2	15156	Lockwasher	10
3	1312373	Back-Up Ring	1
4		Drive Plate	4
	1312271	Kit-Drive Plate Torque Conv	1

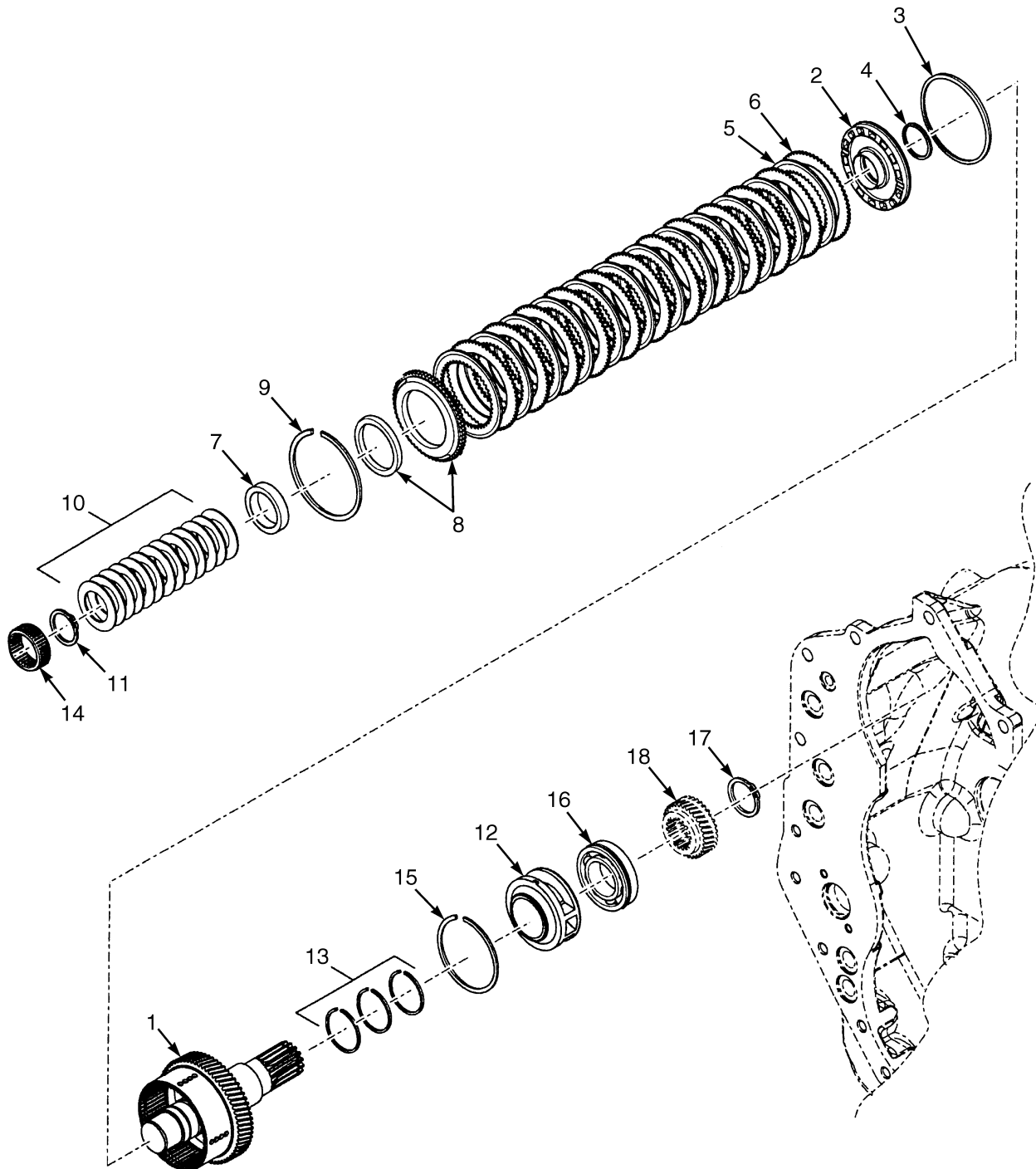
FOOTNOTES:

a Remanufactured Transmission-2104742**b** → S/N H007E02030F**c** S/N H007E02031F ↔ PENDING PER ECN 68533-57**d** PENDING PER ECN 68533-57 →

NOTES

[illegible]

FORWARD CLUTCH (FIGURE 5-12) (→ PENDING PER ECN 68533-57)



HP240437

FORWARD CLUTCH
(→ PENDING PER ECN 68533-57)

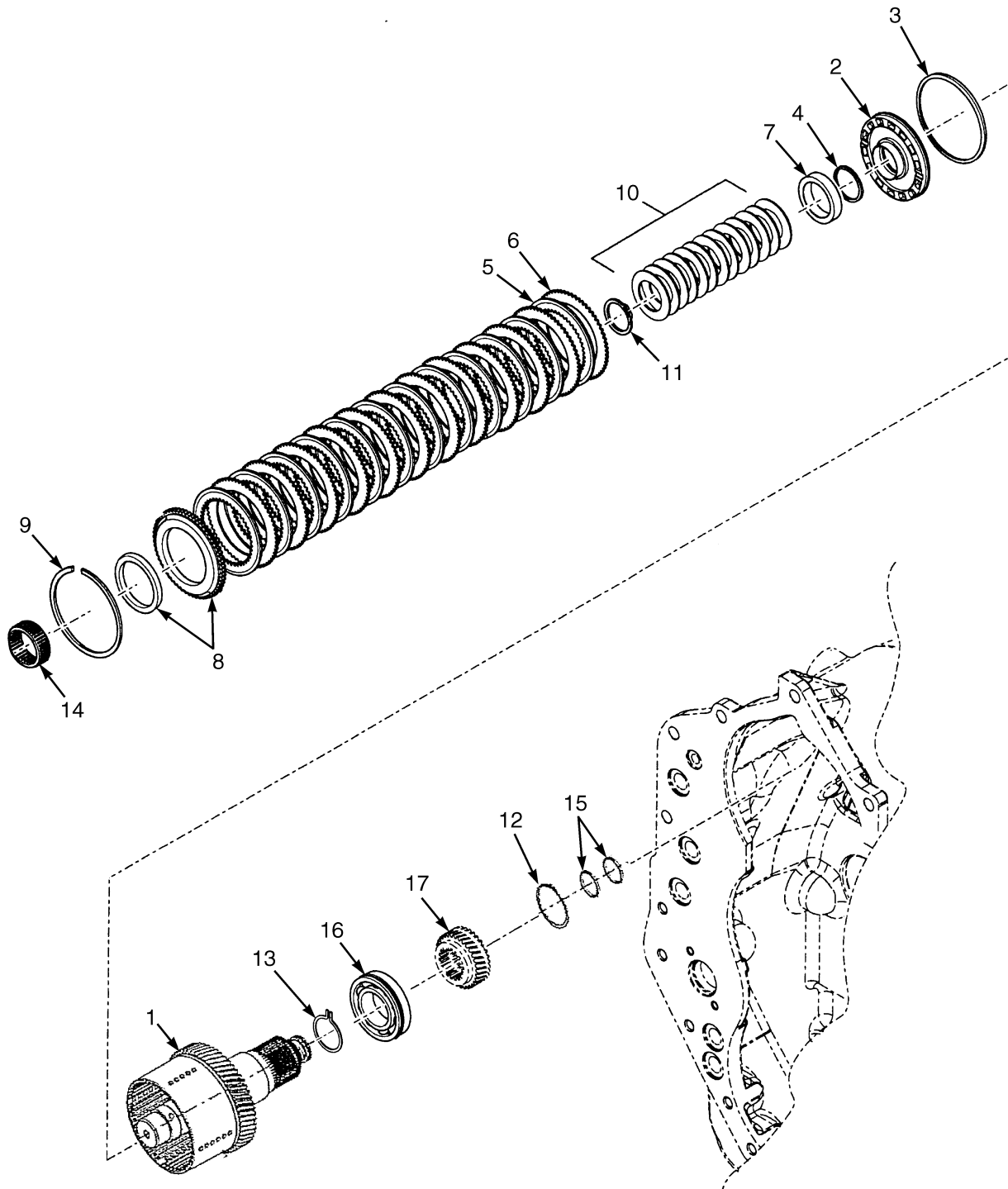
ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
1	1691399	Shaft	1
2	1556963	Piston	1
3	1311811	Piston Seal	1
4	1311812	Piston Seal	1
5	1655548	Friction Disk (Inner, High Density)	12
6	1556965	Separator Plate (Outer)	12
7	1556966	Spacer	1
8	1556967	Plate	1
8	1556968	Seal	1
9	1311810	Snap Ring	1
10	1556969	Disk Spring	1
11	1311808	Snap Ring	1
12	1311668	Sleeve	1
13	1311555	Spring (Expander)	3
13	1311646	Ring (Forward Shaft)	3
14	1311666	Bearing	1
15	1311816	Retaining Ring	1
16	1311817	Bearing (Rear)	1
17	1311825	Retaining Ring	2
18		Gear (Forward Shaft)	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → S/N H007E02030F

c S/N H007E02031F ↔ PENDING PER ECN
68533-57

FORWARD CLUTCH (FIGURE 5-13) (PENDING PER ECN 68533-57 →)

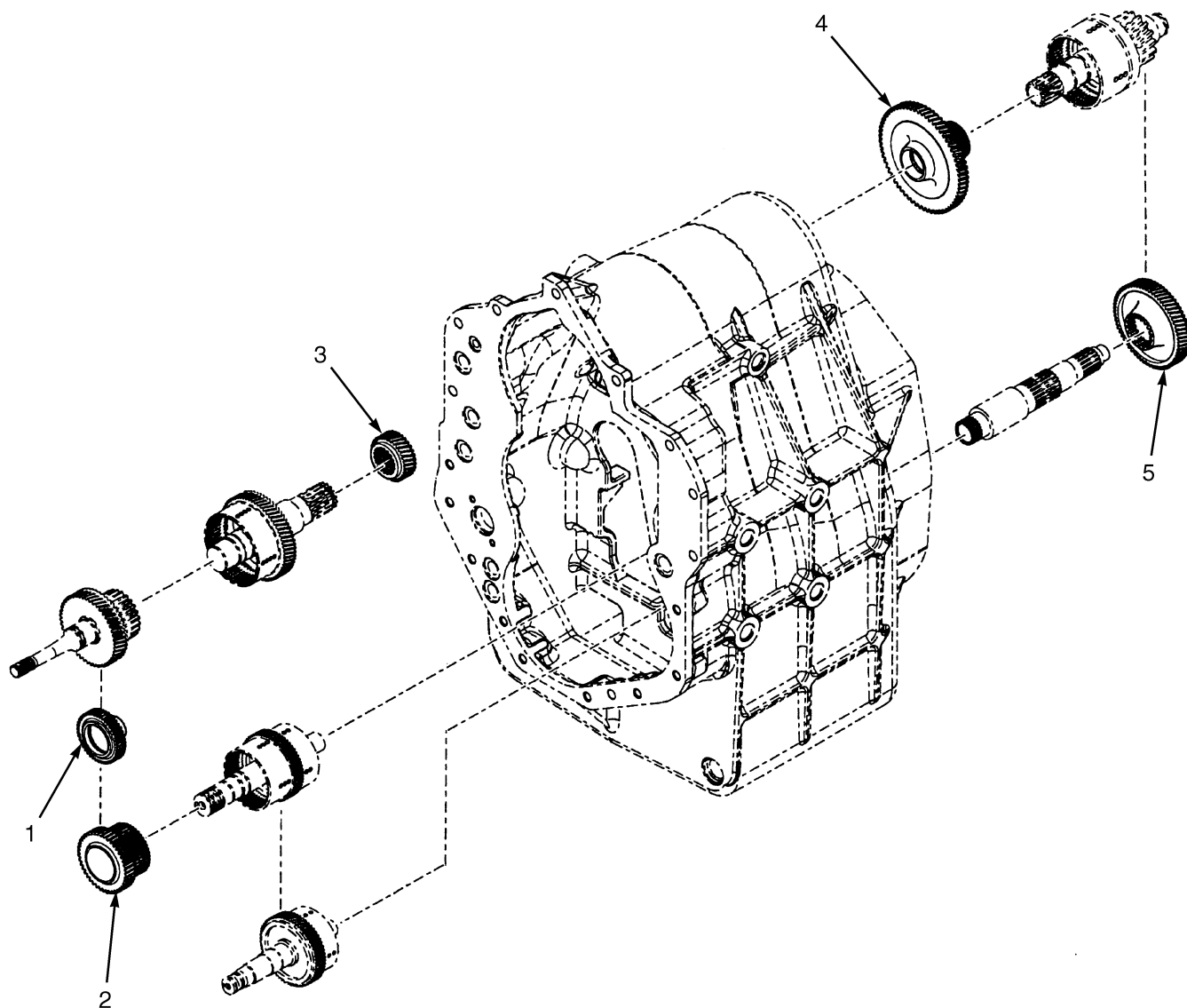


HP240550

FORWARD CLUTCH
(PENDING PER ECN 68533-57 →)

ITEM	PART NO.	DESCRIPTION	QTY
	2093555	Transmission Assy	1
1	1705316	Shaft	1
2	1556963	Piston	1
3	1311811	Piston Seal	1
4	1311812	Piston Seal	1
5	1655548	Friction Disk (Inner, High Density)	12
6	1556965	Separator Plate (Outer)	12
7	1556966	Spacer	1
8	1556967	Plate	1
8	1556968	Seal	1
9	1311810	Snap Ring	1
10	1705319	Disk Spring	1
11	1311808	Snap Ring	1
12	1311825	Retaining Ring	1
13	1705318	Retaining Ring (Forward Shaft)	3
14	1311666	Bearing	1
15	1556985	Piston Ring	1
16	1705317	Ball Bearing (Rear)	1
17		Gear (Forward Shaft)	1
	1557263	Kit-Gasket	1

GEAR CLUTCH INSTALLATION (FIGURE 5-14)



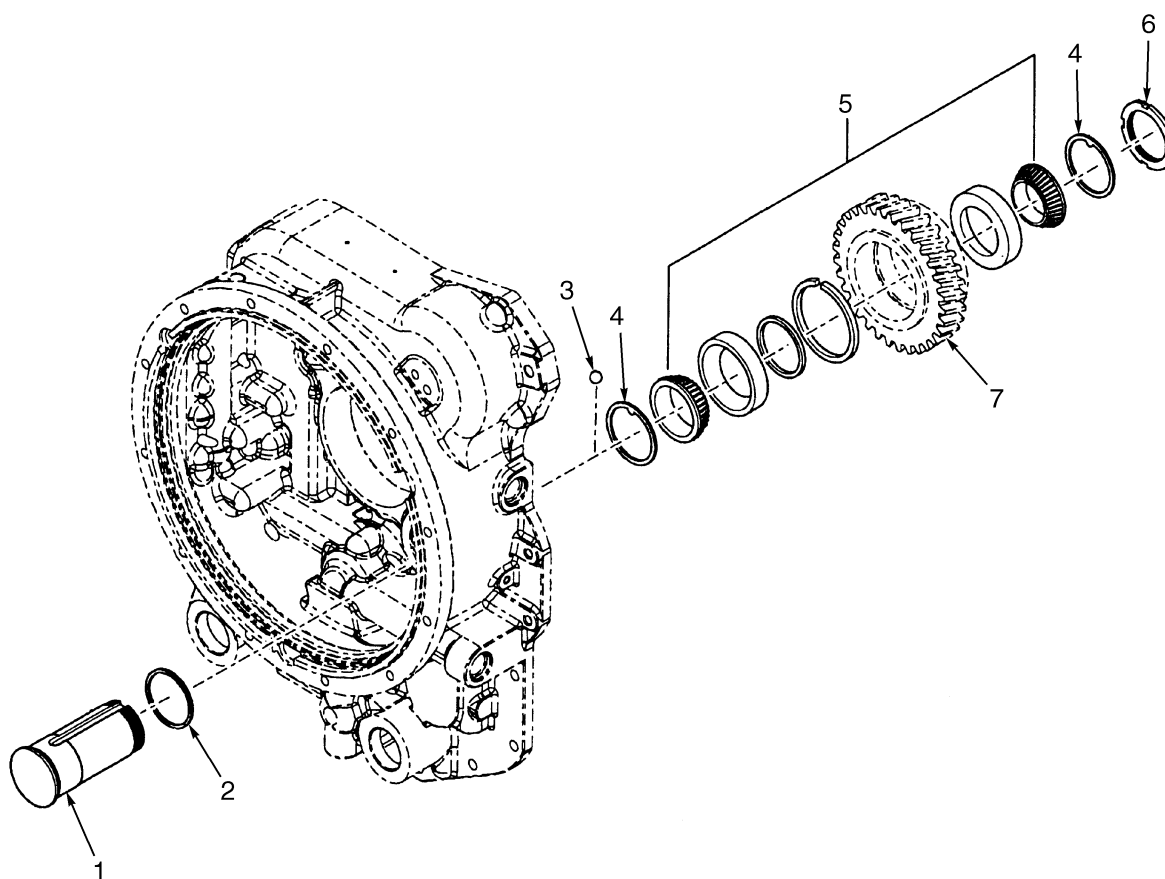
HP240434

GEAR CLUTCH INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	1556945	Gear (Idler)	1
2	1556946	Gear (Reverse Clutch)	1
3	1556947	Gear (Forward Shaft)	1
4	1556948	Gear (Low Clutch)	1
5	1556949	Gear (Output Gear)	1

FOOTNOTES:**a** Remanufactured Transmission-2104742**b** → S/N H007E02030F**c** S/N H007E02031F ↔ PENDING PER ECN
68533-57**d** PENDING PER ECN 68533-57 →

REVERSE IDLER SHAFT (FIGURE 5-15)



HP240438

REVERSE IDLER SHAFT

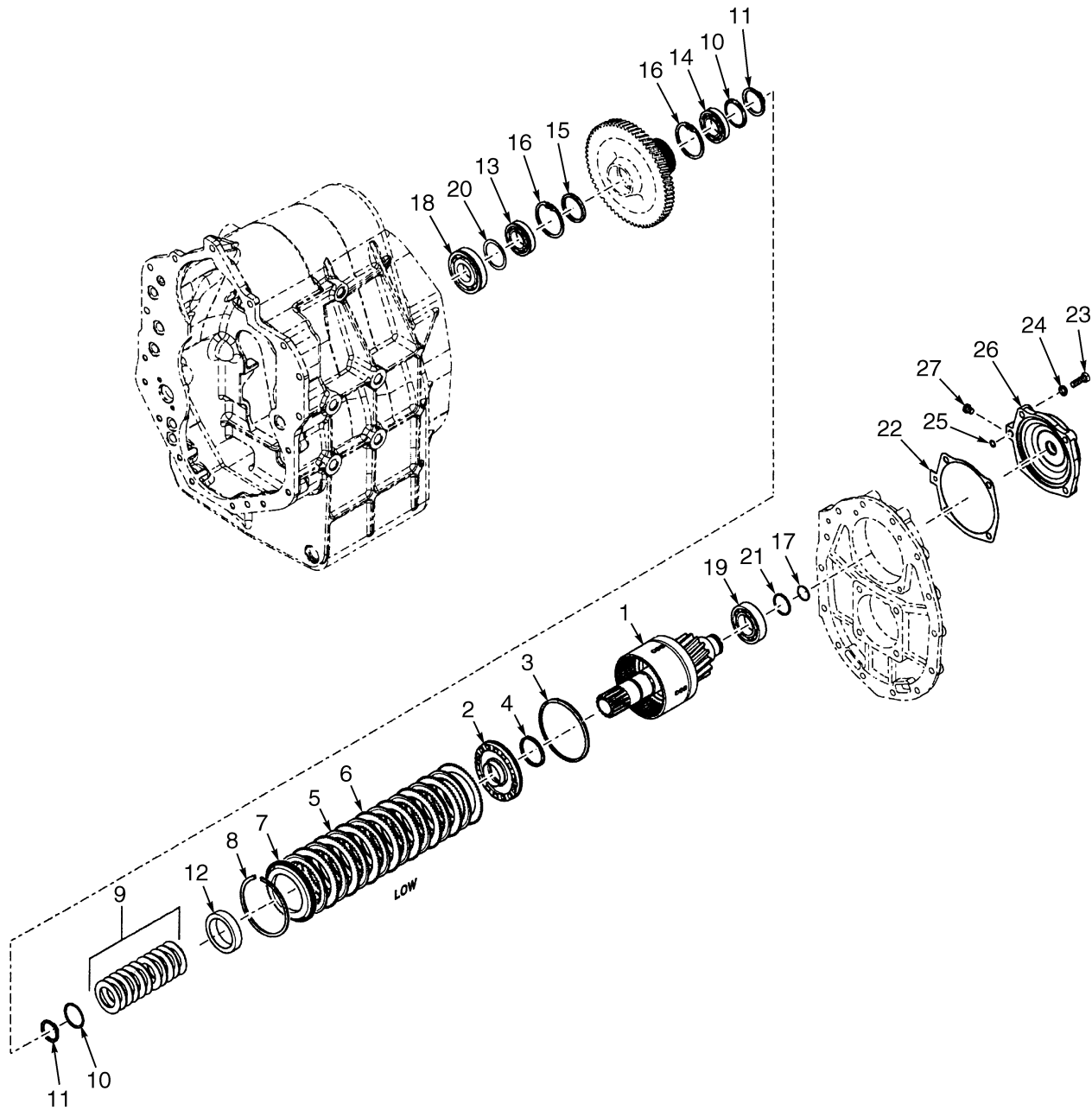
ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	1311649	Drive Shaft (Reverse)	1
2	1556970	O-Ring	1
3	55280	Ball	1
4	1311671	Thrust Plate	2
5	1311822	Bearing Set	1
6	1311823	Nut	1
7		Gear (Reverse Idler)	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → S/N H007E02030F

c S/N H007E02031F ↔ PENDING PER ECN
68533-57
d PENDING PER ECN 68533-57 →

LOW CLUTCH (FIGURE 5-16) (→ PENDING PER ECN 68533-57)



HP240440

LOW CLUTCH
(→ PENDING PER ECN 68533-57)

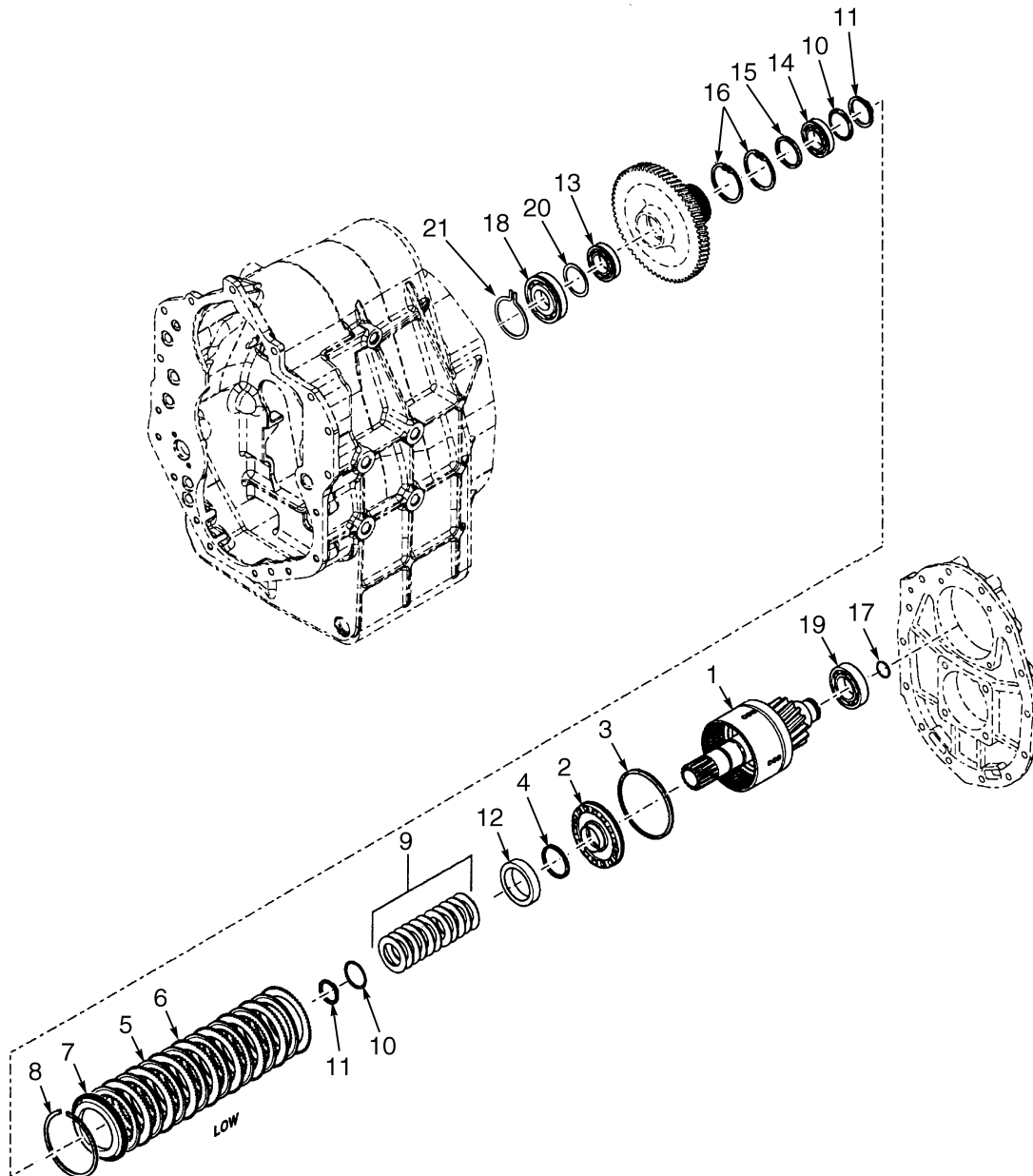
ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
1	1556972	Housing (Low Shaft, Hub and Drum)	1
2	1556973	Piston (Piston)	1
3	1311811	Piston Seal	1
4	1311812	Piston Seal	1
5	1556965	Separator Plate (Outer)	13
6	1556964	Friction Disk (Inner)	13
7	1556978	Clutch Plate	1
8	1311810	Snap Ring	1
9	1556975	Disk Spring (Disc)	1
10	1556976	Retainer	2
11	382269	Snap Ring	2
12	1556966	Spacer	1
13	1312359	Bearing (Low Speed)	1
14	330590	Bearing	1
15	1312385	Spacer (Low Speed)	1
16	382262	Snap Ring	2
17	1556977	Piston Ring	1
18	382283	Bearing	1
19	330597	Bearing	1
20	1311818	Spacer	1
21	330598	Retaining Ring	1
22	1312362	Gasket	1
23	18557	Capscrew	4
24	15157	Lockwasher	4
25	79970	O-Ring	1
26	1312363	Bearing Cap	1
27	14589	Plug	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → S/N H007E02030F

c S/N H007E02031F ↔ PENDING PER ECN
68533-57

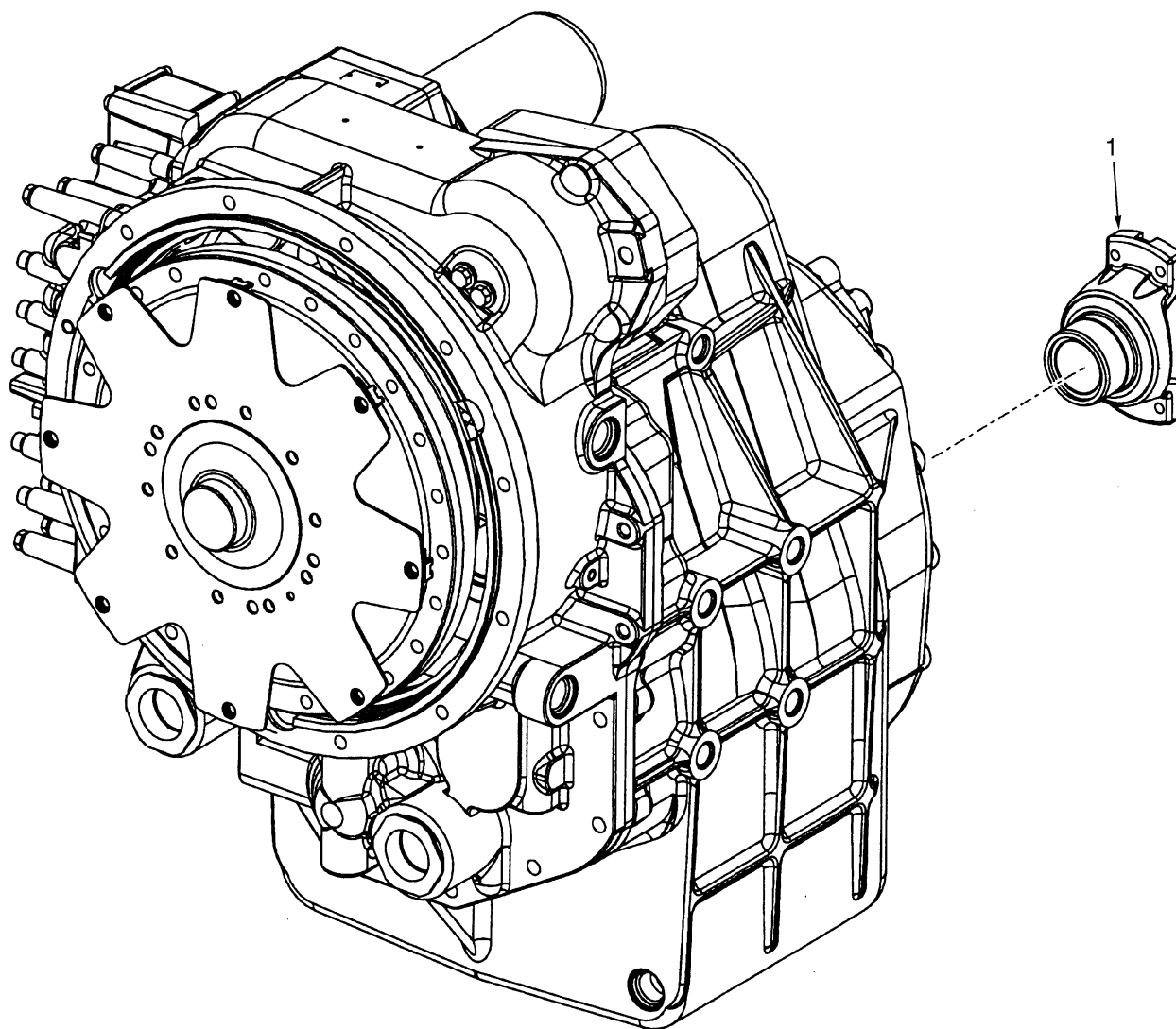
LOW CLUTCH (FIGURE 5-17) (PENDING PER ECN 68533-57 →)



HP240490

LOW CLUTCH
(PENDING PER ECN 68533-57 →)

ITEM	PART NO.	DESCRIPTION	QTY
	2093555	Transmission Assy	1
1	1705367	Shaft (Low Shaft, Hub and Drum)	1
2	1556973	Piston (Piston)	1
3	1311811	Piston Seal	1
4	1311812	Piston Seal	1
5	1556965	Separator Plate (Outer)	13
6	1556964	Friction Disk (Inner)	13
7	1556978	Clutch Plate	1
8	1311810	Snap Ring	1
9	1705368	Disk Spring (Disc)	1
10	1556976	Retainer	2
11	382269	Snap Ring	2
12	1556966	Spacer	1
13	1312359	Bearing (Low Speed)	1
14	330590	Bearing	1
15	1312385	Spacer (Low Speed)	1
16	382262	Snap Ring	2
17	1556977	Piston Ring	1
18	1624585	Ball Bearing	1
19	1624423	Bearing	1
20	1311818	Spacer	1
21	1311719	Ring	1
	1557263	Kit-Gasket	1

OUTPUT FLANGE (FIGURE 5-18)

HP240446

OUTPUT FLANGE

ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy (Cummins)	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	1311686	Flange (Output)	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → S/N H007E02030F

c S/N H007E02031F ↔ PENDING PER ECN
68533-57
d PENDING PER ECN 68533-57 →

This technical drawing is an exploded view of a mechanical assembly, showing 15 numbered components. The assembly is divided into two main sections by a diagonal dashed line. The upper section features a large, complex housing (1) with a grid of internal ribs. To its right is a shaft assembly (2) with a central shaft, a large gear (3) at one end, and a smaller gear (14) at the other. The lower section shows a front plate (5) with a circular opening, a bearing (4) and seal (6) assembly, a gasket (7), a flange (8), a bolt (11), a pin (10), a bush (9), a nut (12), a washer (13), and a small pin (15). Dashed lines indicate the assembly path and alignment of the parts.

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OUTPUT SHAFT
(→ PENDING PER ECN 68533-57)

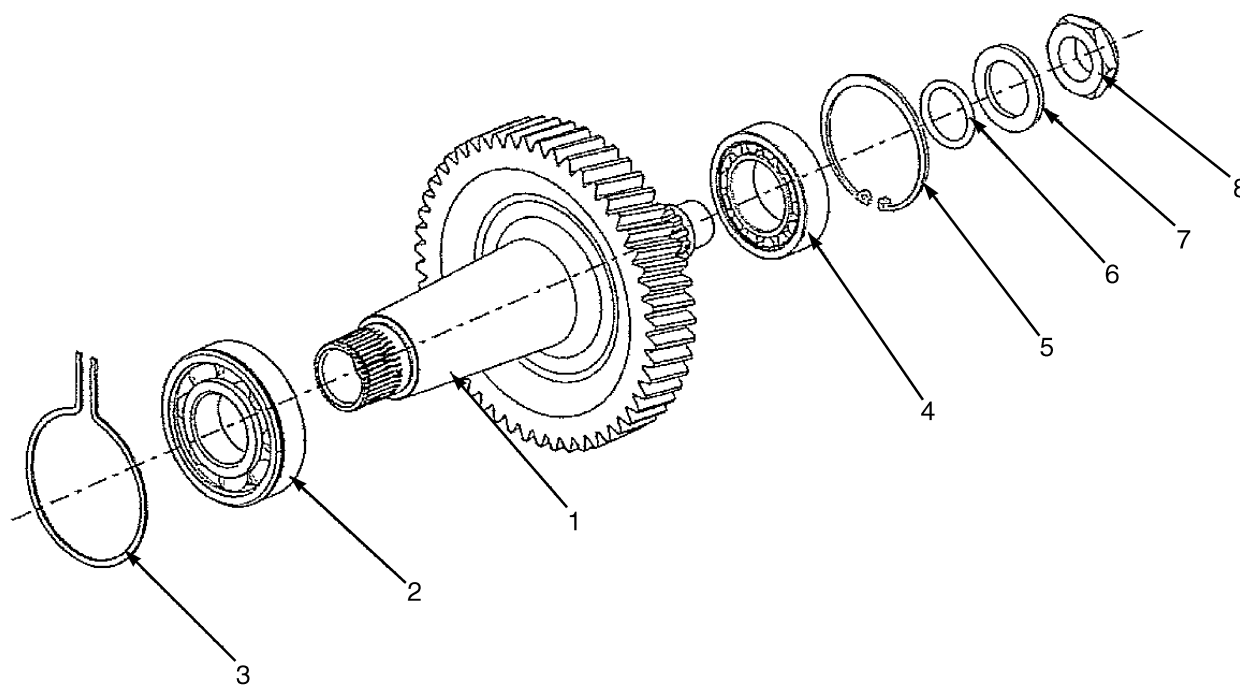
ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
1	43310	Bearing	1
2	1556982	Shaft (Output)	1
3	1311827	Spacer	1
4	330607	Bearing (Rear)	1
5	330596	Ball	1
6	330605	Spacer	1
7	330604	Gasket	1
8	330603	Cap (Bearing)	1
9	330602	Seal	1
10	1556989	Capscrew	4
11	1556990	Lockwasher	4
12	86553	O-Ring	1
13	330614	Washer	1
14	330615	Nut	1
15	330606	Ring	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → S/N H007E02030F

c S/N H007E02031F ↔ PENDING PER ECN
68533-57

OUTPUT SHAFT (FIGURE 5-20) (PENDING PER ECN 68533-57 →)

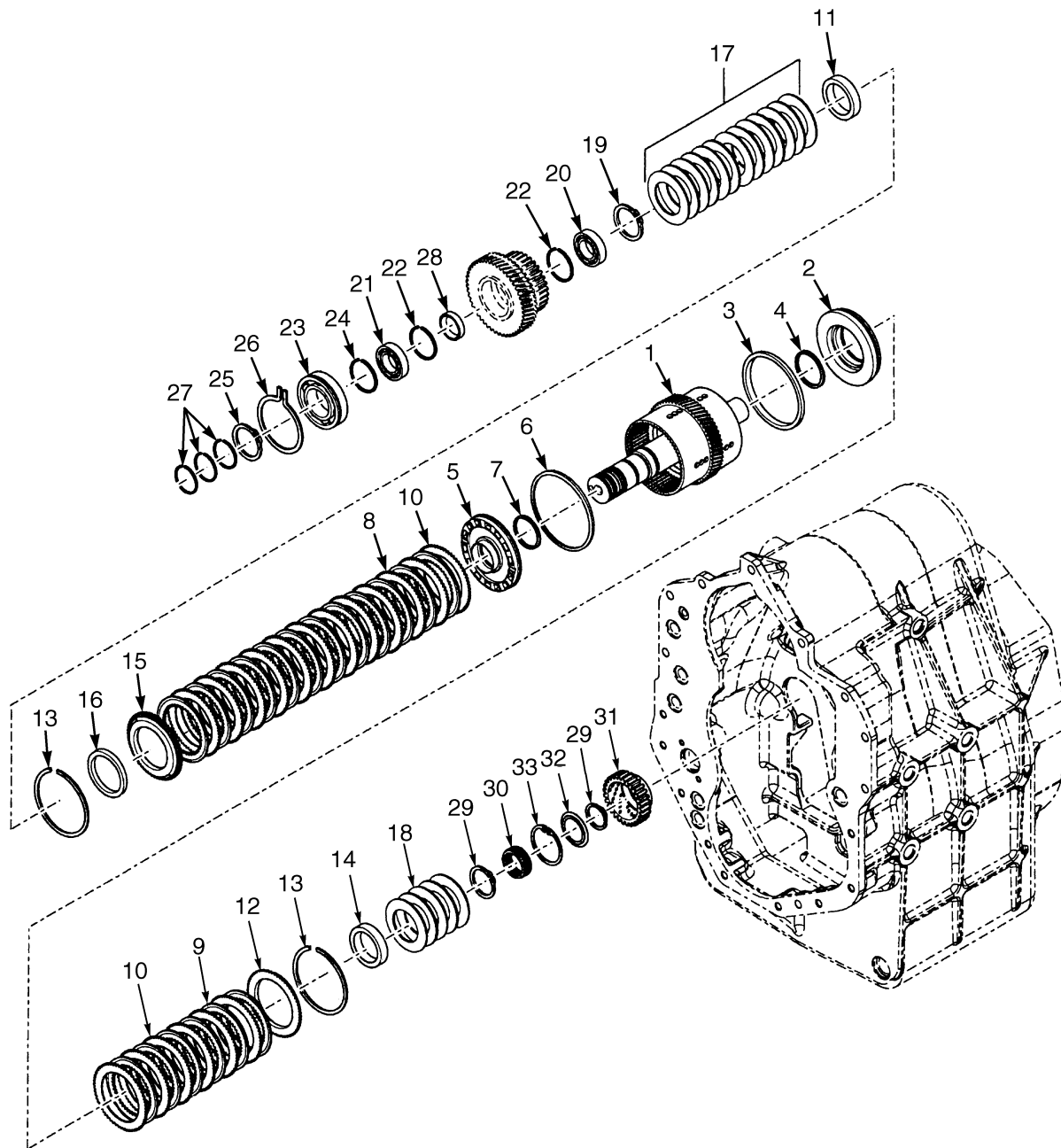


HP240495

OUTPUT SHAFT
(PENDING PER ECN 68533-57 →)

ITEM	PART NO.	DESCRIPTION	QTY
	2093555	Transmission Assy	1
1	1705370	Shaft	1
2	1624585	Ball Bearing	1
3	1311719	Ring	1
4	1705371	Bearing	1
5	1612530	Snap Ring	1
6	86553	O-Ring	1
7	330614	Washer	1
8	330615	Nut	1
	1557263	Kit-Gasket	1

REVERSE AND SECOND CLUTCH (FIGURE 5-21)



HP240489

REVERSE AND SECOND CLUTCH

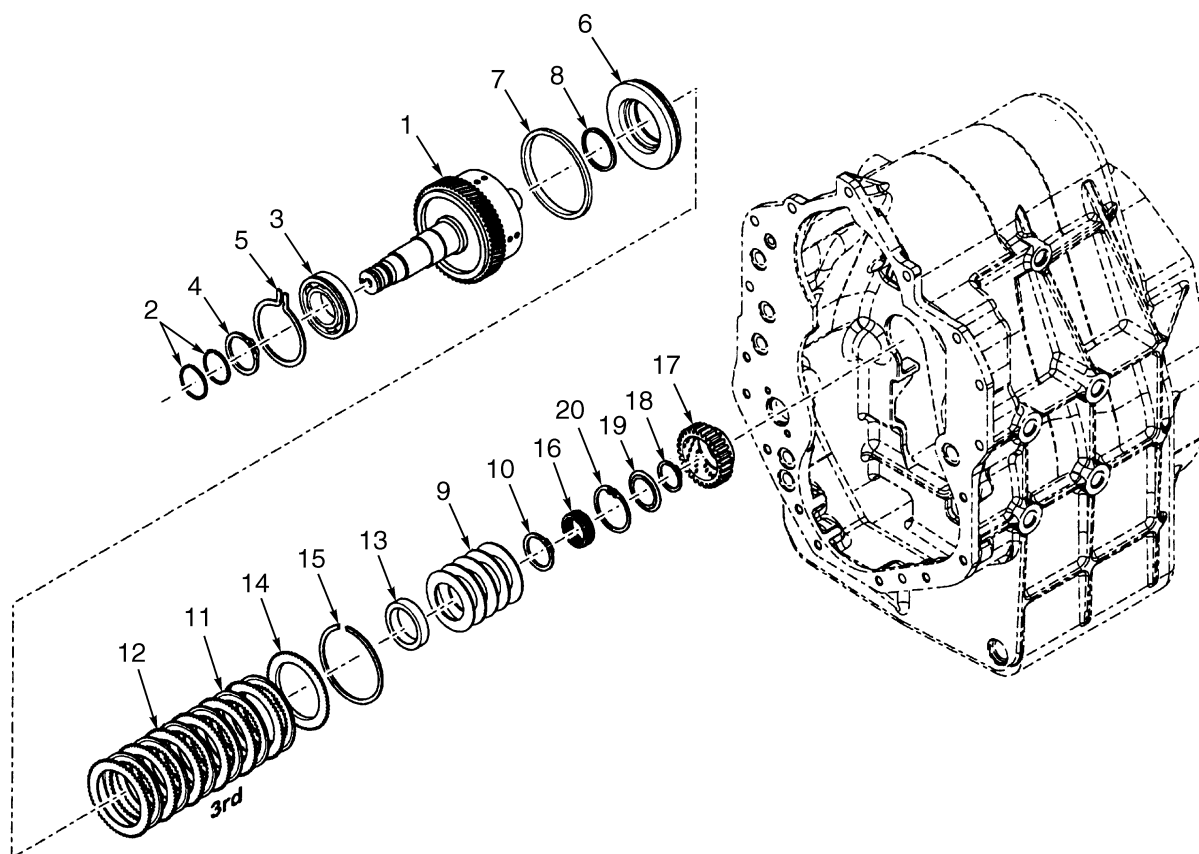
ITEM	PART NO.	DESCRIPTION	QTY
	c 2071311	Transmission Assy	1
	ad 2104740	Transmission Assy	1
	e 2093555	Transmission Assy	1
1	1691404	Shaft	1
2	1556963	Piston	1
3	1311811	Piston Seal	1
4	1311812	Piston Seal	1
5	1556963	Piston	1
6	1311811	Piston Seal	1
7	1311812	Piston Seal	1
8	1556964	Friction Disk (Inner) (Second)	6
9	b 1556964	Friction Disk (Inner) (Reverse)	12
9	e 1655548	Friction Disk (Inner, High Density)	1
10	1556965	Separator Plate (Outer)	18
11	1556966	Spacer	1
12	1556978	Clutch Plate	1
13	1311810	Snap Ring	2
14	1556979	Spacer	1
15	1556967	Plate	1
16	1556968	Seal	1
17	b 1556969	Disk Spring	1
17	e 1705319	Disk Spring	1
18	b 1556983	Disk Spring	1
18	e 1705320	Disk Spring	1
19	382269	Snap Ring	1
20	44308	Ball Bearing	1
21	1556984	Ball Bearing	1
22	1311806	Retaining Ring	2
23	1312351	Bearing	1
24	330570	Retaining Ring	1
25	304527	Snap Ring	1
26	330586	Ring	1
27	1556985	Piston Ring	3
28	1311807	Spacer	1
29	1311808	Snap Ring	2
30	1311658	Bearing (Rear)	1
31	1484565	Clutch Gear (Second Clutch)	1
32	1312097	Retainer	1
33	1312356	Retaining Ring	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → PENDING PER ECN 68533-57
c → S/N H007E02030F

d S/N H007E02031F ↔ PENDING PER ECN 68533-57
e PENDING PER ECN 68533-57 →

THIRD CLUTCH (FIGURE 5-22)



HP240441

THIRD CLUTCH

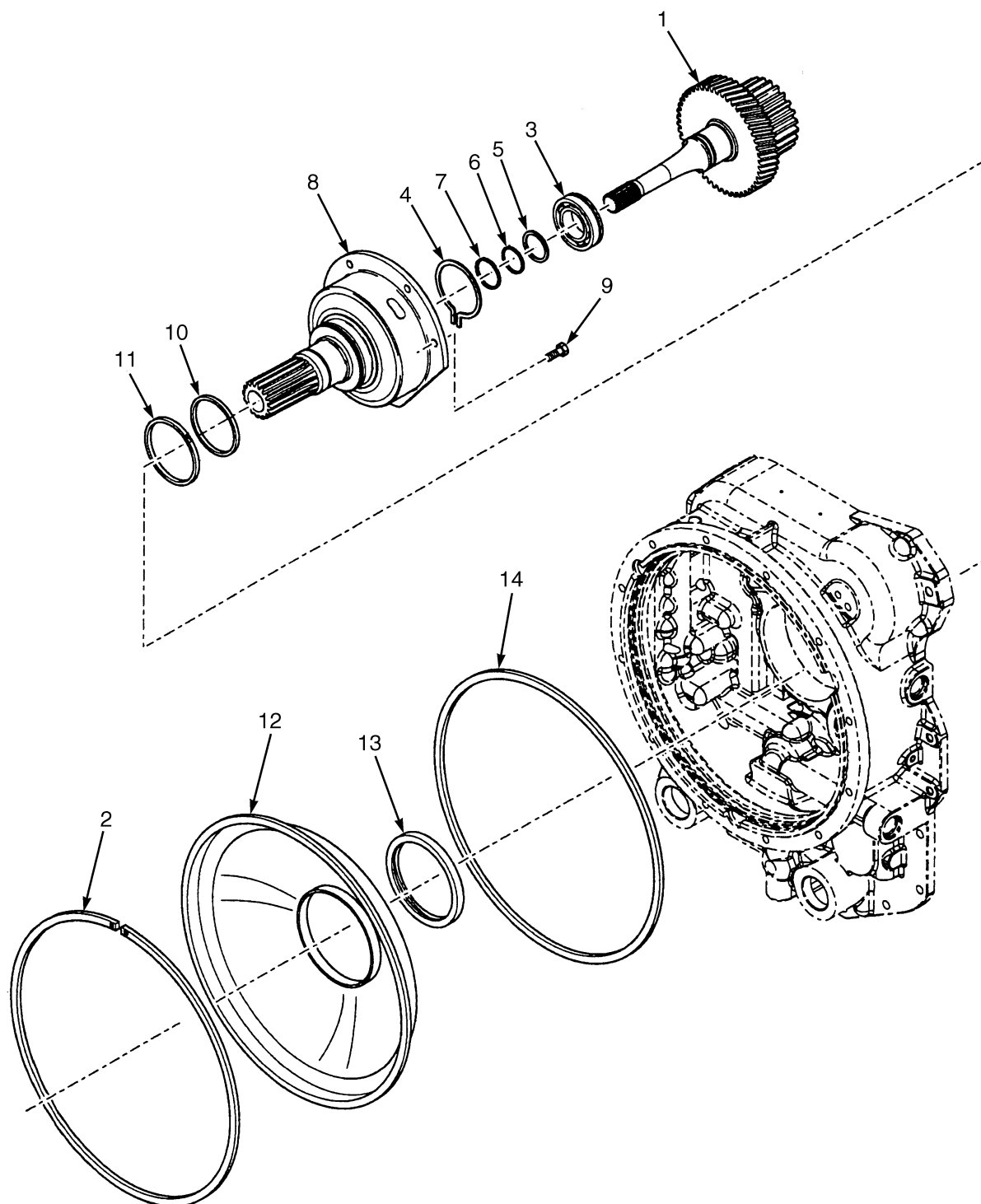
ITEM	PART NO.	DESCRIPTION	QTY
	b 2071311	Transmission Assy	1
	ac 2104740	Transmission Assy	1
	d 2093555	Transmission Assy	1
1	1644929	Gear Asm (Third Shaft, Gear, and Drum)	1
2	1556985	Piston Ring	2
3	1312351	Bearing	1
4	304527	Snap Ring	1
5	330586	Ring	1
6	1556963	Piston	1
7	1311811	Piston Seal	1
8	1311812	Piston Seal	1
9	1556983	Disk Spring	1
10	1311808	Snap Ring	1
11	1644930	Disk	6
12	1510565	Friction Plate	2
12	1510564	Friction Plate	5
13	1556979	Spacer	1
14	1556978	Clutch Plate	1
15	1311810	Snap Ring	1
16	1311658	Bearing	1
17	1484565	Clutch Gear (Third Clutch)	1
18	382269	Snap Ring	1
19	1312097	Retainer	1
20	1312356	Retaining Ring	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → S/N H007E02030F

c S/N H007E02031F ↔ PENDING PER ECN
68533-57
d PENDING PER ECN 68533-57 →

TURBINE SHAFT AND STATOR SUPPORT (FIGURE 5-23)



BP240140

TURBINE SHAFT AND STATOR SUPPORT

ITEM	PART NO.	DESCRIPTION	QTY
	c 2071311	Transmission Assy	1
	ad 2104740	Transmission Assy	1
	e 2093555	Transmission Assy	1
1	1691360	Shaft	1
2	1312376	Retaining Ring	1
3	b 382283	Bearing	1
3	e 1624585	Ball Bearing	1
4	1311719	Ring	1
5	1311716	Washer	1
6	1311717	Retaining Ring	1
7	1311718	Piston Ring	1
8	1312272	Support (Stator)	1
9	1312378	Screw	1
10	1312374	Piston Ring	1
11	1556922	Spring (Piston)	1
12	1312274	Baffle And Seal Assembly (Oil)	1
13	330532	Seal	1
14	1312375	Seal	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a Remanufactured Transmission-2104742
b → PENDING PER ECN 68533-57
c → S/N H007E02030F

d S/N H007E02031F ↔ PENDING PER ECN
68533-57
e PENDING PER ECN 68533-57 →

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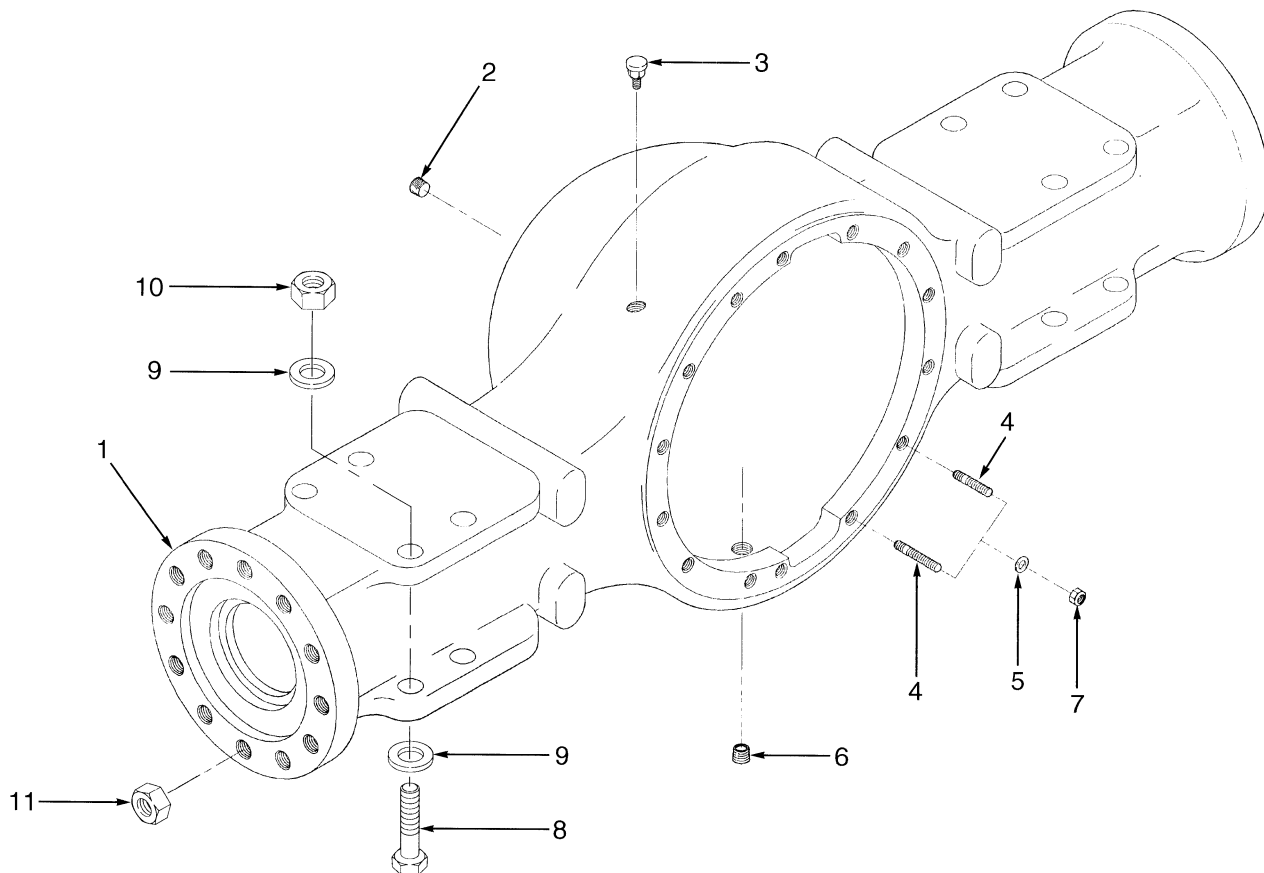
6

DRIVE AXLE

**SECTION 6
DRIVE AXLE**

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AXLE HOUSING AND ATTACHING PARTS (FIGURE 6-1)

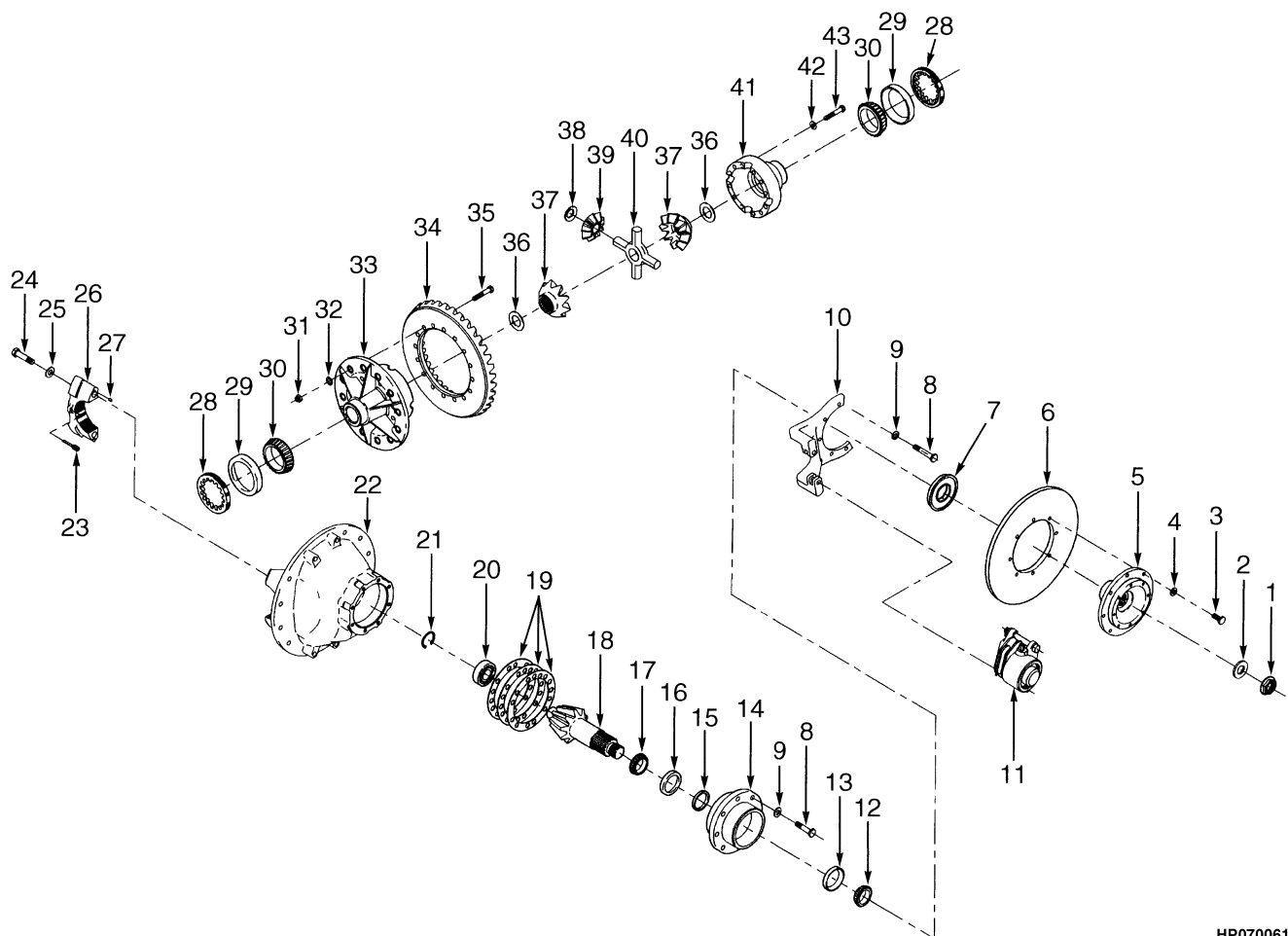


HP070136

AXLE HOUSING AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
	1634414	Drive Axle (Turbo) (Dry Brake)	1
	1634413	Drive Axle (Turbo) (Wet Brake 425 Series)	1
	1634401	Drive Axle (Turbo) (Wet Brake 475 Series)	1
1	1493168	Housing (Dry Brake)	1
1	1493233	Housing (Wet Brake)	1
2	15316	Fitting	1
3	1613651	Breather (Assembly)	1
4	1380784	Stud (Long)	4
4	214195	Bolt (Short)	8
5	86007	Washer	12
6	321293	Plug	1
7	358099	Nut	12
8	1323889	Capscrew	8
9	221780	Washer	16
10	221720	Nut	8
11	376026	Wheel Nut	20

DIFFERENTIAL AND CARRIER (FIGURE 6-2) WET BRAKE — 425 SERIES



HP070061

**DIFFERENTIAL AND CARRIER
WET BRAKE – 425 SERIES**

ITEM	PART NO.	DESCRIPTION	QTY
	1634413	Drive Axle (Turbo) (425 Series)	1
1	1357734	Locknut	1
2	1312083	Washer	1
3	293653	Capscrew	8
4	221767	Washer	8
5	1489405	Yoke (425 Series)	1
5	1578548	Deflector	1
6	1382918	Brake Disk (425 Series)	1
7	1642099	Oil Seal	1
8	1541612	Capscrew	8
9	1450861	Washer	8
10	1541613	Adapter	1
11	1561604	Brake Assembly (☞ Figure 8-5).....	1
12	1347812	Bearing Cone	1
13	200972	Bearing Cup	1
14	1541614	Cage (Assembly Pinion)	1
15		Spacer (0.344 in.)	AR
15		Spacer (0.345 in.)	AR
15		Spacer (0.346 in.)	AR
15		Spacer (0.347 in.)	AR
15		Spacer (0.348 in.)	AR
15		Spacer (0.354 in.)	AR
15		Spacer (0.358 in.)	AR
15		Spacer (0.359 in.)	AR
15		Spacer (0.360 in.)	AR
15		Spacer (0.361 in.)	AR
15		Spacer (0.362 in.)	AR
16	30062	Bearing Cup	1
17	1347774	Bearing Cone	1
18		Pinion Gear	1
19		Shim (0.003 in.)	AR
19		Shim (0.005 in.)	AR
19		Shim (0.010 in.)	AR
19		Shim (0.020 in.)	AR
20	296844	Bearing	1
21	240683	Snap Ring	1
22	1380893	Differential Carrier	1
23	86008	Cotter Pin	2
24	293716	Capscrew	4
25	1347770	Washer	4
26		Bearing Cap (Assembly)	2
27	1380777	Ball	4
28	1347839	Ring (LH and RH)	2
29	1475420	Bearing Cup (LH and RH)	2
30	1475421	Bearing Cone (LH and RH)	1
31	1374550	Nut	12
32	125428	Washer	12
33	1489290	Differential Housing	1
34	1493183	Gear Set	1
34		Gear	1

**DIFFERENTIAL AND CARRIER
WET BRAKE – 425 SERIES**

ITEM	PART NO.	DESCRIPTION	QTY
35	1347822	Bolt	12
36	1380797	Thrust Washer	2
37	1380776	Gear	2
38	200982	Washer	4
39	1347835	Pinion	4
40	1318626	Spider	1
41	1489291	Case	1
42	1450861	Washer	16
43	1347831	Capscrew	16
	1347800	Kit-Spacer	1
	1642097	Kit-Shim	1
	1642102	Kit-Differential	1
	1374099	Kit-Capscrew	1
	1514331	Kit-Repair Parking Brake	1

NOTES

[illegible]

**DIFFERENTIAL AND CARRIER
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	1634414	Drive Axle (Turbo)	1
1	1357734	Locknut	1
2	1312083	Washer	1
3	1347819	Capscrew	8
4	1450861	Washer	8
5	1642099	Oil Seal	1
6	1347812	Bearing Cone (Outer)	1
7	200972	Bearing Cup (Outer)	1
8	1374091	Cage	1
9		Spacer (8,75 mm)	2
9		Spacer (8,78 mm)	2
9		Spacer (8,80 mm)	2
9		Spacer (8,83 mm)	2
9		Spacer (8,85 mm)	2
9		Spacer (8,98 mm)	2
9		Spacer (9,10 mm)	2
9		Spacer (9,13 mm)	2
9		Spacer (9,15 mm)	2
9		Spacer (9,18 mm)	2
9		Spacer (9,20 mm)	2
10	30062	Bearing Cup (Inner)	1
11	1347774	Bearing Cone (Inner)	1
12	1493167	Gear	1
13	125428	Washer	12
14	1374550	Nut	12
15	296844	Bearing	1
16		Shim (0.003 in.)	AR
16		Shim (0.005 in.)	AR
16		Shim (0.010 in.)	AR
16		Shim (0.020 in.)	AR
17	1380893	Differential Carrier	1
18	240683	Snap Ring	1
19	86008	Cotter Pin	2
20		Cap (Assembly)	1
21	1380777	Ball	2
22	200982	Washer	4
23		Pinion	4
24	293716	Capscrew	4
25	1347770	Washer	4
26	1347839	Ring (LH and RH)	1
27	1475420	Bearing Cup (LH and RH)	1
28	1475421	Bearing Cone (LH and RH)	1
29		Case	1
30	1347831	Capscrew	16
31	1450861	Washer	16
32	1374089	Deflector	1
33	1374088	Yoke	1
34	1380797	Thrust Washer	2
35	1380776	Gear	2
36	1318626	Spider	1

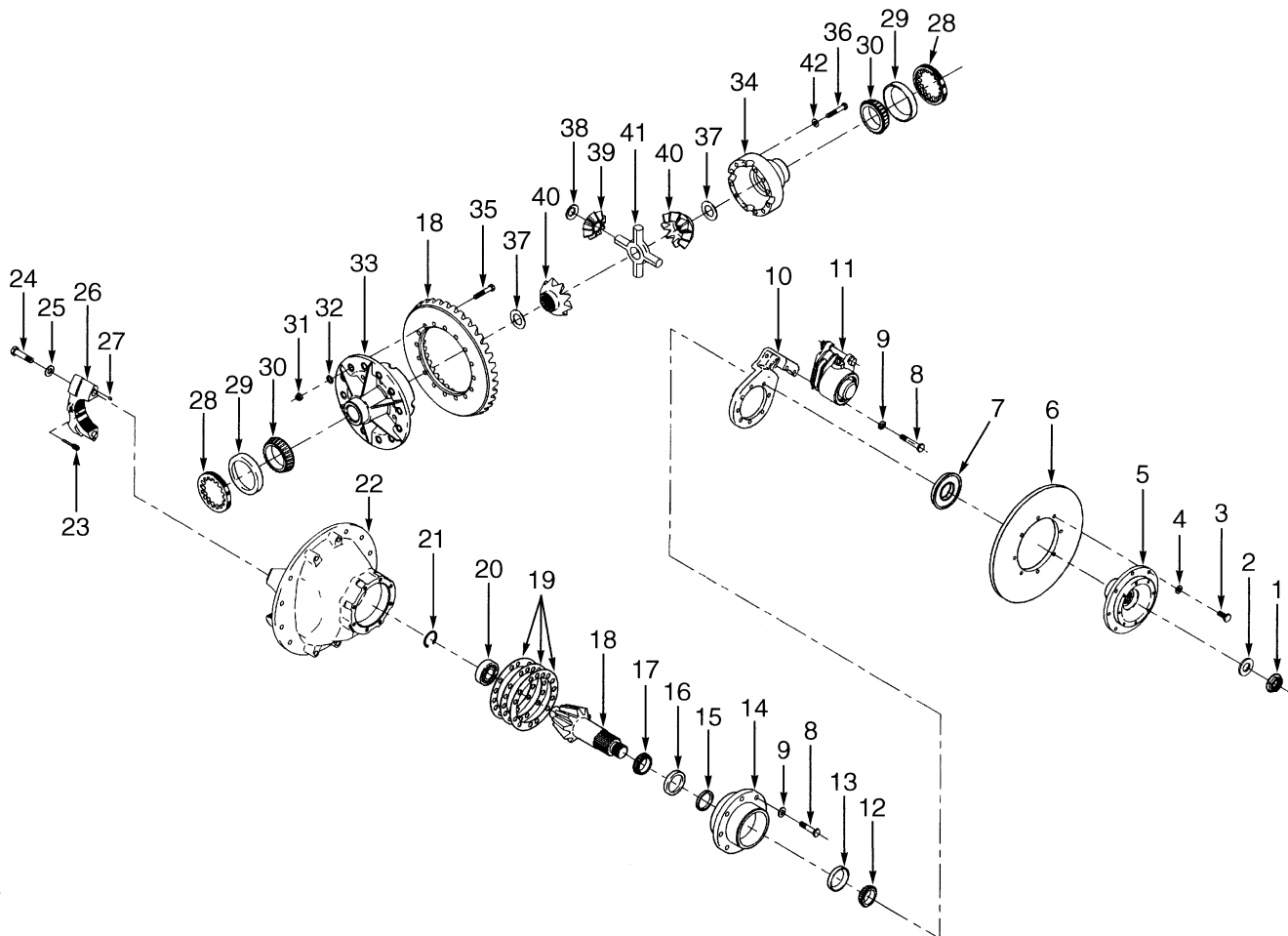
**DIFFERENTIAL AND CARRIER
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
37	1347822	Bolt	12
38		Gear (Assembly Turbo)	1
39		Case (Flange Half)	1
39	1489290	Differential Housing	1
39	1489291	Case	1
	1347800	Kit-Spacer	1
	1642102	Kit-Differential	1
	1374099	Kit-Capscrew	1
	1493183	Gear Set	1
	1642097	Kit-Shim	1

NOTES

[illegible]

DIFFERENTIAL AND CARRIER (FIGURE 6-4) WET BRAKE — 475 SERIES



BP070031

**DIFFERENTIAL AND CARRIER
WET BRAKE – 475 SERIES**

ITEM	PART NO.	DESCRIPTION	QTY
	1634401	Drive Axle (Turbo)	1
1	1357734	Locknut	1
2	1312083	Washer	1
3	293653	Capscrew	8
4	221767	Washer	8
5	1489405	Yoke	1
6	1382918	Brake Disk	1
7	1642099	Oil Seal	1
8	1541612	Capscrew	3
9	1450861	Washer	8
10	1541613	Adapter	1
11	1561604	Brake Assembly	1
12	1347812	Bearing Cone	1
13	200972	Bearing Cup	1
14	1541614	Cage (Assembly Pinion)	1
15		Spacer (0.344 in.)	AR
15		Spacer (0.345 in.)	AR
15		Spacer (0.346 in.)	AR
15		Spacer (0.347 in.)	AR
15		Spacer (0.348 in.)	AR
15		Spacer (0.354 in.)	AR
15		Spacer (0.358 in.)	AR
15		Spacer (0.359 in.)	AR
15		Spacer (0.360 in.)	AR
15		Spacer (0.361 in.)	AR
15		Spacer (0.362 in.)	AR
16	30062	Bearing Cup	1
17	1347774	Bearing Cone	1
18	1493183	Gear Set	1
19		Shim (0.003 in.)	AR
19		Shim (0.005 in.)	AR
19		Shim (0.010 in.)	AR
19		Shim (0.020 in.)	AR
20	296844	Bearing	1
21	240683	Snap Ring	1
22	1380893	Differential Carrier	1
23	86008	Cotter Pin	2
24	293716	Capscrew	4
25	1347770	Washer	4
26		Bearing Cap	2
27	1380777	Ball	4
28	1347839	Ring (LH and RH)	2
29	1475420	Bearing Cup (LH and RH)	2
30	1475421	Bearing Cone (LH and RH)	1
31	1374550	Nut	12
32	125428	Washer	12
33	1489290	Differential Housing	1
33	1347827	Differential Housing	1
33		Case, Flange	1
34		Case, Plain	1

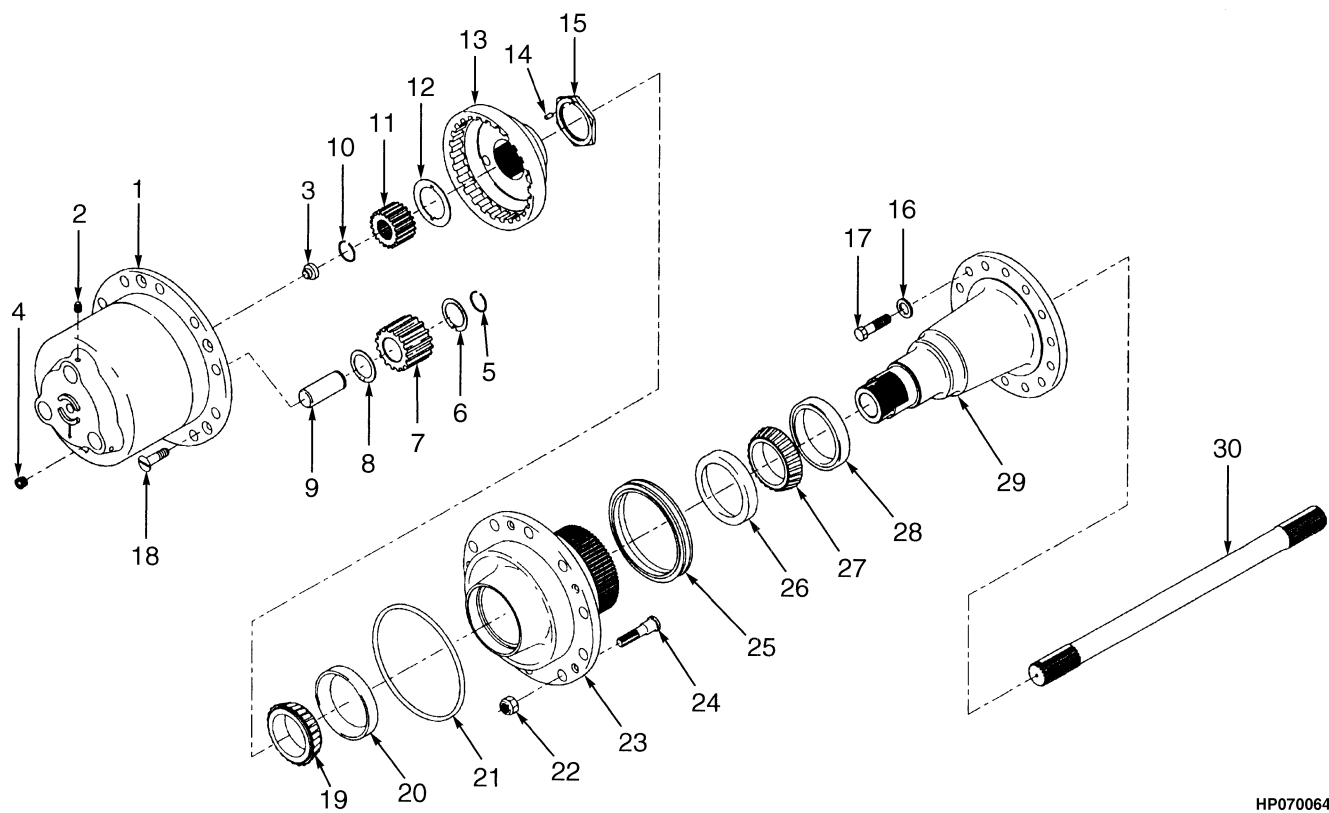
**DIFFERENTIAL AND CARRIER
WET BRAKE – 475 SERIES**

ITEM	PART NO.	DESCRIPTION	QTY
35	1347822	Bolt	12
36	1347831	Capscrew	16
37	1380797	Thrust Washer	2
38	200982	Washer	4
39	1347835	Pinion	4
40	1380776	Gear	2
41	1318626	Spider	1
42	1450861	Washer	16
	1642102	Kit-Differential	1
	1347800	Kit-Spacer	1
	1642097	Kit-Shim	1
	1374099	Kit-Capscrew	1
	1514331	Kit-Repair Parking Brake	1

NOTES

[illegible]

HUB AND SHAFT ASSEMBLY (FIGURE 6-5) WET BRAKE — 425 SERIES

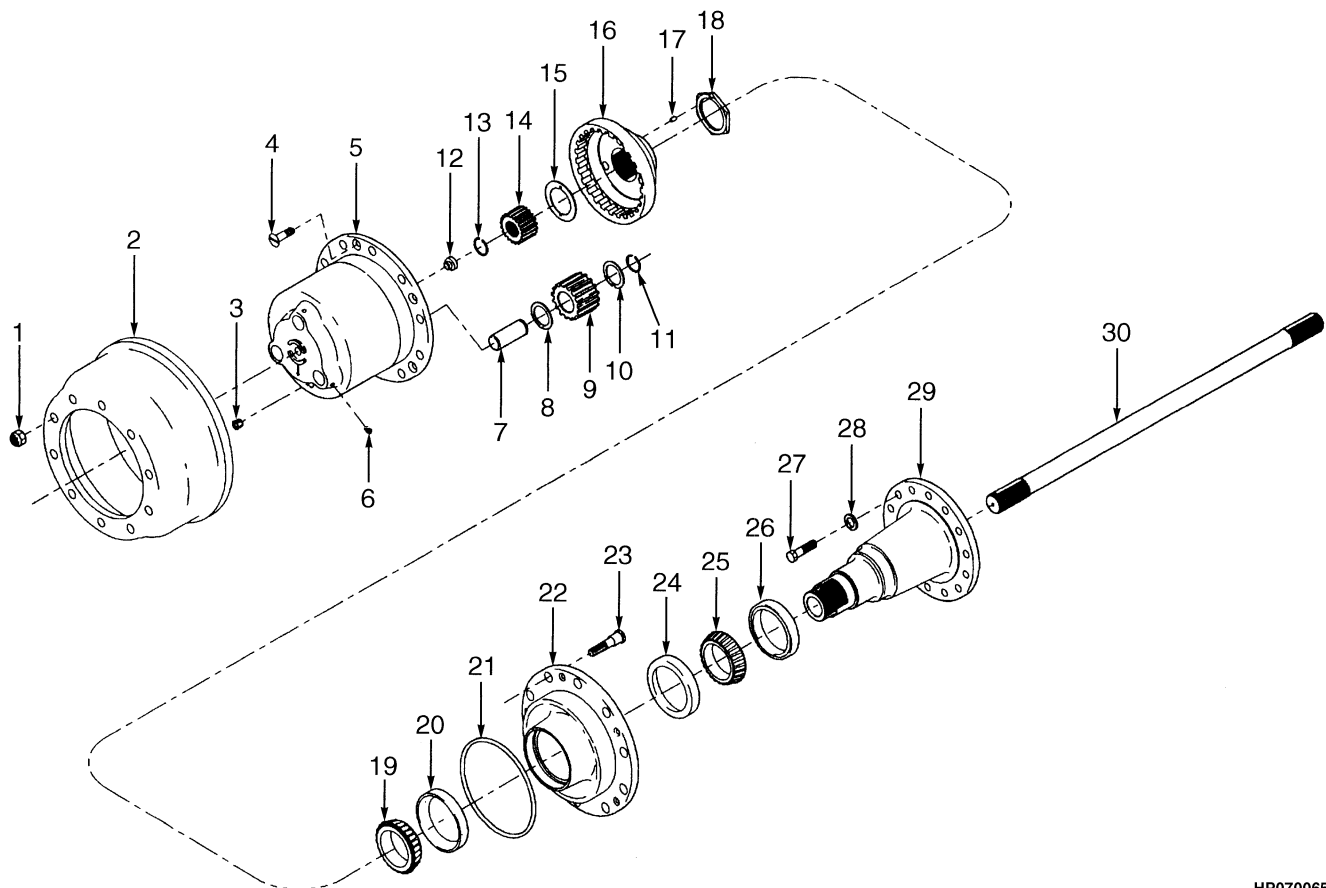


HP070064

HUB AND SHAFT ASSEMBLY
WET BRAKE – 425 SERIES

ITEM	PART NO.	DESCRIPTION	QTY
	1634413	Drive Axle (Turbo)	1
	1491245	Spider (Planetary)	2
1	1491246	Spider	1
2	321293	Plug	1
3	1303551	Button (Thrust)	1
4	321290	Setscrew	3
5	1309860	Snap Ring	3
6	1313894	Washer (Inner)	3
7	1312601	Gear	3
8	1313868	Washer (Outer)	3
9	1358203	Shaft	3
10	1450074	Snap Ring	2
11	1450075	Gear	2
12	1313895	Thrust Washer	2
13	1522056	Gear	2
14	1522055	Pin	1
15	1522054	Nut	1
16	296431	Washer	26
17	1489308	Capscrew	26
18	1385715	Screw	3
19	276228	Bearing Cone (Outer)	2
20	392197	Bearing Cup (Outer)	1
21	1312805	O-Ring	2
22	376026	Wheel Nut	10
23	1491242	Hub	2
24	1511548	Wheel Stud	20
25	1489420	Seal (Assembly)	2
26	132462	Bearing Cup (Inner)	1
27	132461	Bearing Cone (Inner)	1
28	1489421	Seal	2
29	1491256	Spindle (Cup)	2
30	1482771	Axle Shaft (RH)	1
30	1482772	Axle Shaft (LH)	1
	1522081	Gear	1
	1616273	Nut	1
	1491242	Hub	1

HUB AND SHAFT ASSEMBLY (FIGURE 6-6) DRY BRAKE

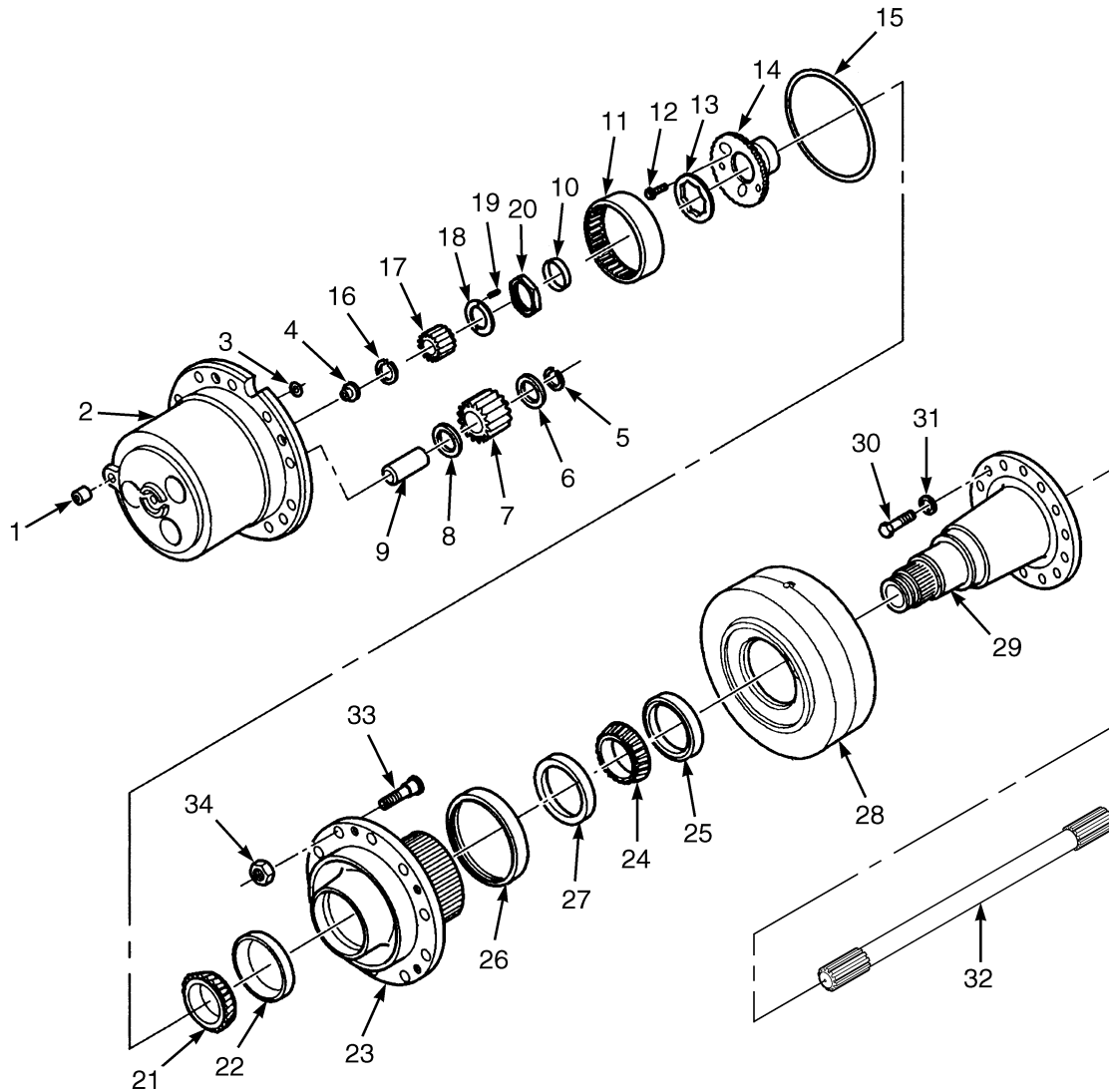


HP070065

**HUB AND SHAFT ASSEMBLY
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	1634414	Drive Axle (Turbo)	1
1	2306253	Nut	4
2	1633026	Brake Drum	2
3	321293	Plug	2
4	1385715	Screw	10
5	1358201	Spider	1
5	1358202	Spider	2
6	321290	Setscrew	3
7	1358203	Shaft (Pinion)	3
8	1313868	Washer (Outer)	3
9	1312601	Gear	3
10	1313894	Washer (Inner)	3
11	1309860	Snap Ring	3
12	1303551	Button (Thrust)	1
13	1450074	Snap Ring	2
14	1450075	Gear	2
15	1313895	Thrust Washer	2
16	1522056	Gear	2
17	1312803	Pin	1
18	1616273	Nut	2
19	276228	Bearing Cone (Outer)	2
20	392197	Bearing Cup (Outer)	1
21	1312805	O-Ring	2
22	1482766	Hub	2
23	1511548	Wheel Stud	20
23	376026	Wheel Nut	20
24	132462	Bearing Cup (Inner)	1
25	132461	Bearing Cone (Inner)	2
26	1312807	Seal	2
27	1482764	Bolt	30
28	1482765	Washer	30
29	1482763	Spindle	2
30	1482771	Axle Shaft (RH)	1
30	1482772	Axle Shaft (LH)	1

HUB AND SHAFT ASSEMBLY (FIGURE 6-7) WET BRAKE — 475 SERIES

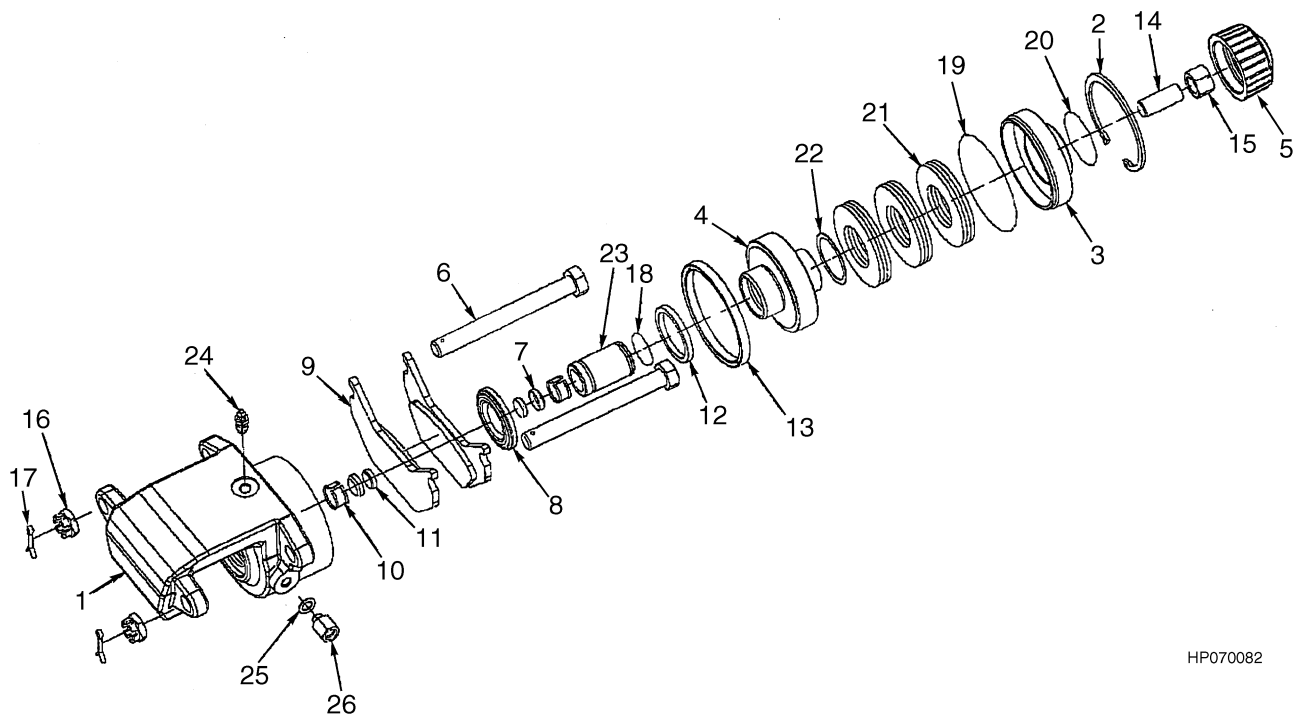


BP070029

**HUB AND SHAFT ASSEMBLY
WET BRAKE – 475 SERIES**

ITEM	PART NO.	DESCRIPTION	QTY
	1634401	Drive Axle (Turbo)	1
1	321293	Plug	2
2	1489416	Spider	2
2	1489417	Spider	1
3	273969	Button (Thrust)	3
4	1303551	Button (Thrust)	1
5	1489302	Lockring	3
6	1316044	Washer	3
7	1489303	Pinion	3
8	1489304	Thrust Washer (Outer)	3
9	1489305	Shaft	3
9	1489306	O-Ring	1
10		Sleeve	2
11	1489298	Gear	2
12	1489299	Capscrew	8
13	1489300	Lock	2
14	1489301	Hub	2
15	1312805	O-Ring	2
16	1450074	Snap Ring	2
17	1489297	Gear	2
18	1316045	Thrust Washer	2
19		Pin	2
20	1316042	Nut	2
21	170379	Bearing Cone	2
22	170380	Bearing Cup	2
23	1489419	Hub	2
24	1316314	Bearing Cone	1
25	1489421	Seal	1
26	1489420	Seal	2
27	132462	Bearing Cup	2
28	1491247	Brake Assembly	2
29	1489309	Spindle	2
30	1489308	Capscrew	26
31	296431	Washer	26
32	1561605	Axle Shaft (RH)	1
32	1561606	Axle Shaft (LH)	1
33	1561614	Wheel Stud	20
34	376026	Wheel Nut	20

PARK BRAKE (FIGURE 6-8) WET BRAKE

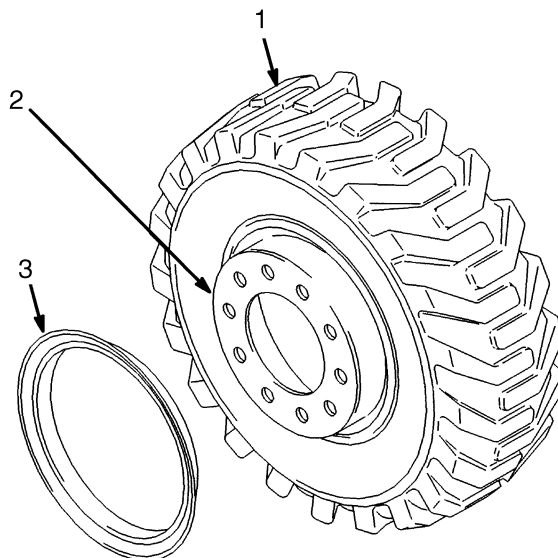


HP070082

**PARK BRAKE
WET BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	1561604	Brake Assembly	1
1	1495623	Housing	1
2	1495624	Retaining Ring	1
3	1495625	Piston (Stop)	1
4	1495626	Piston	1
5	1495627	Cap	1
6	1495628	Bolt	2
7	1495629	Cup	2
8	1495630	Boot	1
9	1495631	Brake Lining	2
10	1495632	Sleeve (Friction)	2
11	1495633	Magnet	2
12	1495634	Seal (Cup)	1
13	1495635	Seal (Cup)	1
14	1495636	Setscrew	1
15	1495637	Locknut	1
16	1495638	Nut	2
17	1495639	Cotter Pin	2
18	1495640	O-Ring	1
19	1495641	O-Ring	1
20	1495642	O-Ring	1
21	1495643	Disk Spring	6
22	1495644	Wear Plate	1
23	1495645	Cylinder Rod	1
24	1495646	Bleeder Valve	1
25	1495647	Washer	1
26	1495648	Adapter	1
	1514331	Kit-Repair Parking Brake	1

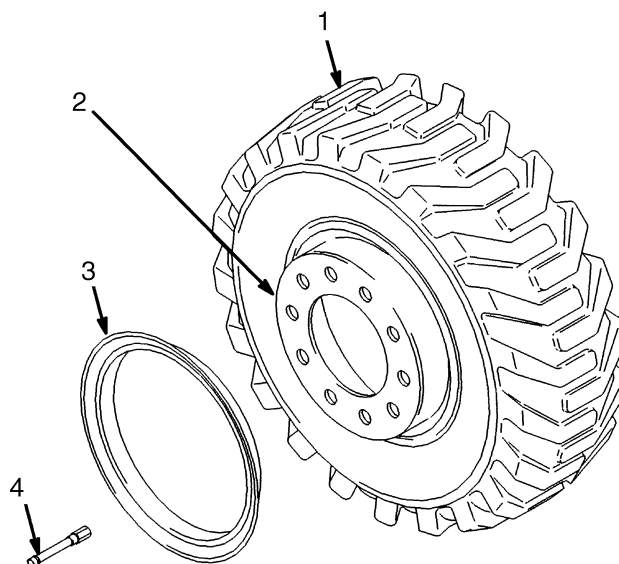
DRIVE TIRES AND WHEELS (FIGURE 6-9) BERGOUGNAN — SOLID TIRE



BP000318

KEY:**A:** 9.00 x 20**B:** 10.00 x 20

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	127403	Pneumatic Tire (Solid Pnuematic)	1	..
1	321181	Pneumatic Tire (Solid Pnuematic)	..	1
2	1366712	Rim (Solid)	1	..
2	1688642	Wheel Rim	..	1
2	1391655	Wheel Side Ring	1	..
2	1377130	Ring	..	1
2	1391656	Shoulder Ring	1	..
2	1377131	Shoulder Ring	..	1
2	1391653	Wheel Rim	1	..
3	1377132	Wheel Lock Ring	..	1
3	1391654	Wheel Lock Ring	1	..

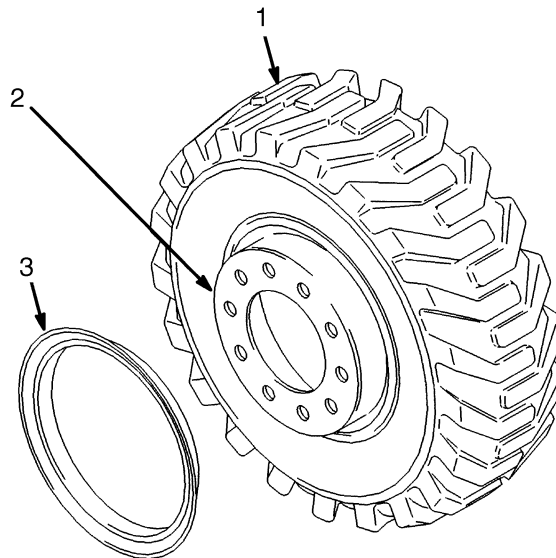
DRIVE TIRES AND WHEELS (FIGURE 6-10)
BRIDGESTONE

HP000702

KEY:**A: 9.00 x 20 - 14****B: 10.00 x 20 - 16**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1393119	Pneumatic Tire	1	..
	1369100	Pneumatic Tire	..	1
1	1393120	Pneumatic Tire	1	..
1	1369101	Pneumatic Tire	..	1
1	21655	Pneumatic Tire	1	..
1	1369104	Pneumatic Tire	..	1
1	130587	Pneumatic Tire	1	1
2	1688640	Wheel Assy	1	1
2	1391651	Wheel Rim	1	1
2	1391652	Wheel Side Ring	1	1
3	1391650	Wheel Lock Ring	1	1
4		Valve Stem Extension	2	2

DRIVE TIRES AND WHEELS (FIGURE 6-11) MICHELIN



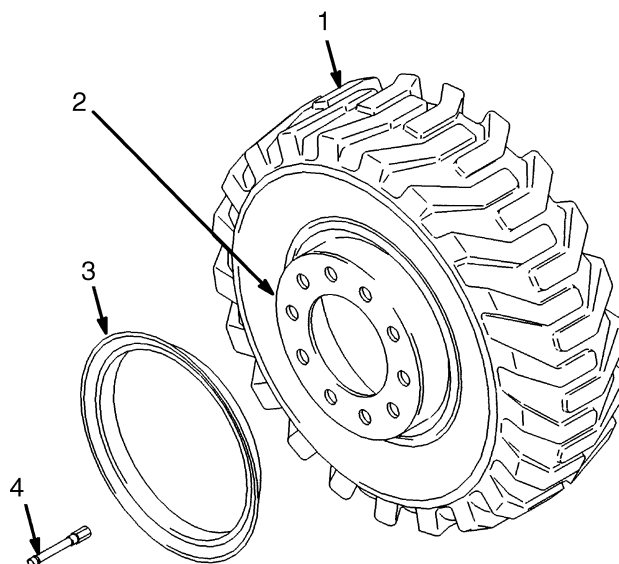
BP000318

KEY:

A: 9.00 x 20

B: 10.00 x 20

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1562020	Pneumatic Tire (Tubeless)	1	..
	1471839	Pneumatic Tire (Tubeless)	..	1
1	1562021	Pneumatic Tire (Radial)	1	..
1	1366718	Pneumatic Tire (Radial)	..	1
1	1471922	Tubeless Bead Seal Valve	1	1
1	1471600	Tire Flap	1	1
2	1688641	Rim	1	1
2	1377130	Ring	1	1
2	1377131	Shoulder Ring	1	1
3	1377132	Wheel Lock Ring	1	1

DRIVE TIRES AND WHEELS (FIGURE 6-12)
TRELLEBORG

HP000702

KEY:**A: 10.00 x 20 - 16****B: 9.00 x 20 - 14**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1369100	Pneumatic Tire	1	..
	1594931	Pneumatic Tire	..	1
1	1369101	Pneumatic Tire	1	..
1	1594936	Pneumatic Tire	..	1
1	1369104	Pneumatic Tire	1	..
1	21655	Pneumatic Tire	..	1
1	130587	Pneumatic Tire	1	1
2	1688640	Wheel Assy	1	1
2	1391651	Wheel Rim	1	1
2	1391652	Wheel Side Ring	1	1
3	1391650	Wheel Lock Ring	1	1
4		Valve Stem Extension	2	2

[illegible]

SECTION 7
STEERING SYSTEM

DESCRIPTION	PAGE
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STEER CYLINDER	7-10
STEER TIRES AND WHEELS	
BERGOUGNAN - SOLID TIRE	7-12
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MICHELIN	7-14
TRELLEBORG	7-15
STEERING COLUMN AND ATTACHING PARTS	7-4
STEERING COLUMN ASSEMBLY	7-2

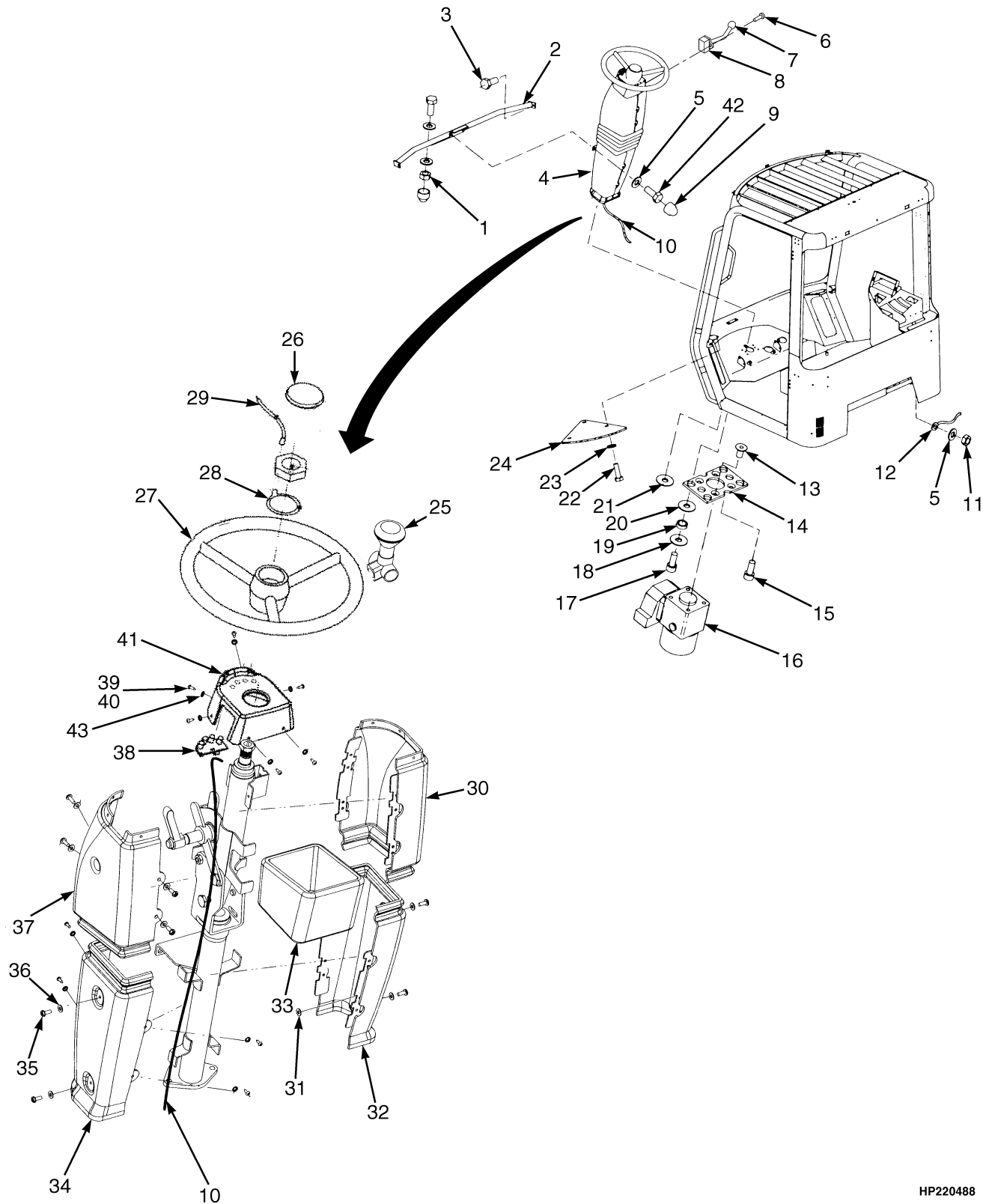
This technical drawing is an exploded view of a mechanical assembly, likely a bicycle seat post. The components are numbered 1 through 36. The main assembly includes a seat post (1), a seat clamp (2), a seat post cap (3), a seat post bush (4), a seat post spring (5), a seat post collar (6), a seat post bracket (7), a seat post nut (8), a seat post washer (9), a seat post plate (10), a seat post bolt (11), a seat post cap nut (12), a seat post cap washer (13), a seat post cap plate (14), a seat post cap nut (15), a seat post cap washer (16), a seat post cap plate (17), a seat post cap nut (18), a seat post cap washer (19), a seat post cap plate (20), a seat post cap nut (21), a seat post cap washer (22), a seat post cap plate (23), a seat post cap nut (24), a seat post cap washer (25), a seat post cap plate (26), a seat post cap nut (27), a seat post cap washer (28), a seat post cap plate (29), a seat post cap nut (30), a seat post cap washer (31), a seat post cap plate (32), a seat post cap nut (33), a seat post cap washer (34), a seat post cap plate (35), and a seat post cap nut (36). The diagram shows the assembly sequence from the seat post (1) up to the seat clamp (2) and the seat post cap (36).

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STEERING COLUMN ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	2043287	Steering Column	1
1	1487124	Pipe (Upper)	1
2	1479473	Pin	1
3	1388428	Nut	1
4	1487107	Shaft (Upper)	1
5	1487131	Spring	1
6	1388434	Snap Ring	4
7	1504861	O-Ring	2
8	1487111	Screw	2
9	1504862	Nut (Zinc Plated)	2
10	1487132	Screw	2
11	1487108	Screw	2
12	1487103	Pipe (Lower)	1
13	1487126	Shaft (Lower)	1
14	1504865	Support	1
15	1487123	Screw	8
16	1487121	Washer	8
17	1487110	Nut	8
18	1487133	Bracket	1
19	1487109	Boot	1
20	1388438	Handle	1
21	1487114	Spacer	1
22	1487130	Spring	1
23	1487112	Nut (Stop)	2
24	1487105	Lever (Back)	1
25	1487106	Lever (Front)	1
26	1487115	Washer	1
27	1487104	Support	1
28	1487120	Cotter Pin	1
29	1504867	Ring	1
30	1504864	Regulator	1
31	1504868	Connector	1
32	1504866	Nut	2
33	1487129	Screw	2
34	1504863	Support (Includes Horn Relay)	1
35	1388435	Ring	1
36	1388436	Boot	1

STEERING COLUMN AND ATTACHING PARTS (FIGURE 7-2)

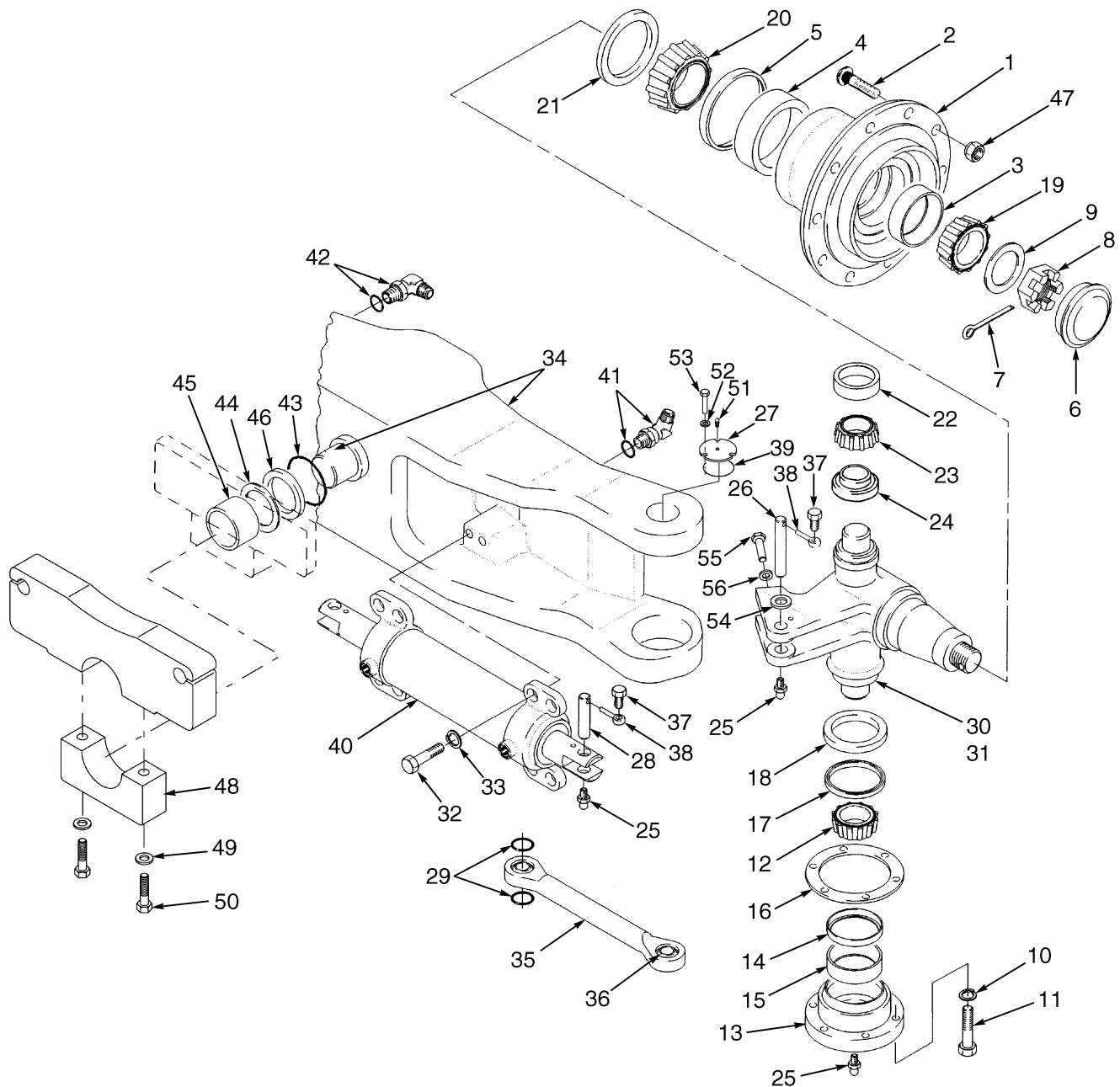


HP220488

STEERING COLUMN AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	239503	Nut	2
2	1492237	Support (Column)	1
3	1566041	Screw	2
4	2043287	Steering Column (☞ Figure 7-1).....	1
5	320158	Washer	8
6	1566411	Screw	2
7	1514033	Switch (Turn Signal)	1
8	2003859	Flasher	1
9	1476584	Cover (Capscrew Head)	6
10	2066204	Wire Harness (Steering Column) (☞ Figure 4-44).....	1
11	316835	Nut	1
12	1492214	Wire (Ground)	1
13	16080	Capscrew	4
14	1477228	Plate (Steering Pump)	1
15	296025	Capscrew	2
16	1558043	Steering Pump	1
16	1563036	Kit-Seal	1
17	296012	Capscrew	4
18	1300117	Washer	4
19	376505	Spacer	4
20	216735	Grommet	4
21	339969	Grommet	1
22	292501	Capscrew	6
23	1468321	Washer (Plastic)	6
24	1492236	Plate	2
25	895468	Wheelspinner	1
26	1608622	Horn Button	1
27	1329250	Steering Wheel	1
27	1700341	Steering Wheel (Alternate Part)	1
28	347126	Terminal	1
29	1387159	Wire (Horn Button)	1
30	1489846	Cover (Upper RH)	1
31	1647655	Nut	4
32	1489848	Cover (Lower RH)	1
33	1492252	Cover (Boot)	1
34	1489847	Cover (Lower LH)	1
35	302048	Screw	12
36	1468321	Washer (Plastic)	12
37	1489845	Cover (Upper LH)	1
38	1520542	Warning Light (With Circuit Board)	1
39	1492139	Nut	6
40	1468319	Screw	6
41	1520541	Cover (Upper)	1
42	136681	Capscrew	4
43	1647654	Washer	6

STEER AXLE (FIGURE 7-3)



BP220147

STEER AXLE

ITEM	PART NO.	DESCRIPTION	QTY
1	1485296	Hub	2
2	1311407	Wheel Stud	10
3	264893	Bearing Cup	1
4	97705	Bearing Cup	1
5	247667	Wear Sleeve	2
6	1485292	Cap	2
7	15255	Cotter Pin	2
8	1313375	Nut	2
9	1313374	Washer	2
10	15158	Washer	6
11	246001	Capscrew	6
12	247093	Bearing Cone	2
13	1485294	Bearing Cap	2
14	164639	Wear Sleeve	1
15	30189	Bearing Cup	1
16	247097	Shim (0.005 in.)	AR
16	247098	Shim (0.007 in.)	AR
16	247099	Shim (0.020 in.)	AR
17	44542	Seal	2
18	247041	Seal	2
19	264892	Bearing Cone	2
20	97678	Bearing Cone	2
21	247672	Seal	2
22	176224	Bearing Cup	2
23	176223	Bearing Cone	2
24	247101	Seal	2
25	13963	Grease Fitting	6
26	1498274	Pin	2
27	1625196	Plate	2
28	1498273	Pin	2
29	270854	Seal	8
30	1628478	Spindle (LH)	1
31	1628480	Spindle (RH)	1
32	293708	Capscrew	8
33	320169	Washer	8
34	1625195	Axle	1
34	1591498	Shaft	1
34	1337773	Shaft	1
35	1485310	Tie Rod	2
36	192814	Bushing	2
37	183611	Capscrew	4
38	195566	Anchor	4
39	55468	O-Ring	2
40	2083131	Steering Cylinder (☞ Figure 7-4).....	1
41	1473887	Fitting	1
42	1473897	Fitting	1
43	131193	Sealing Ring	1
44	131190	Shim (0.110 in.)	AR
44	131191	Shim (0.040 in.)	AR
45	1335873	Bushing	2
46	1335870	Flange	2

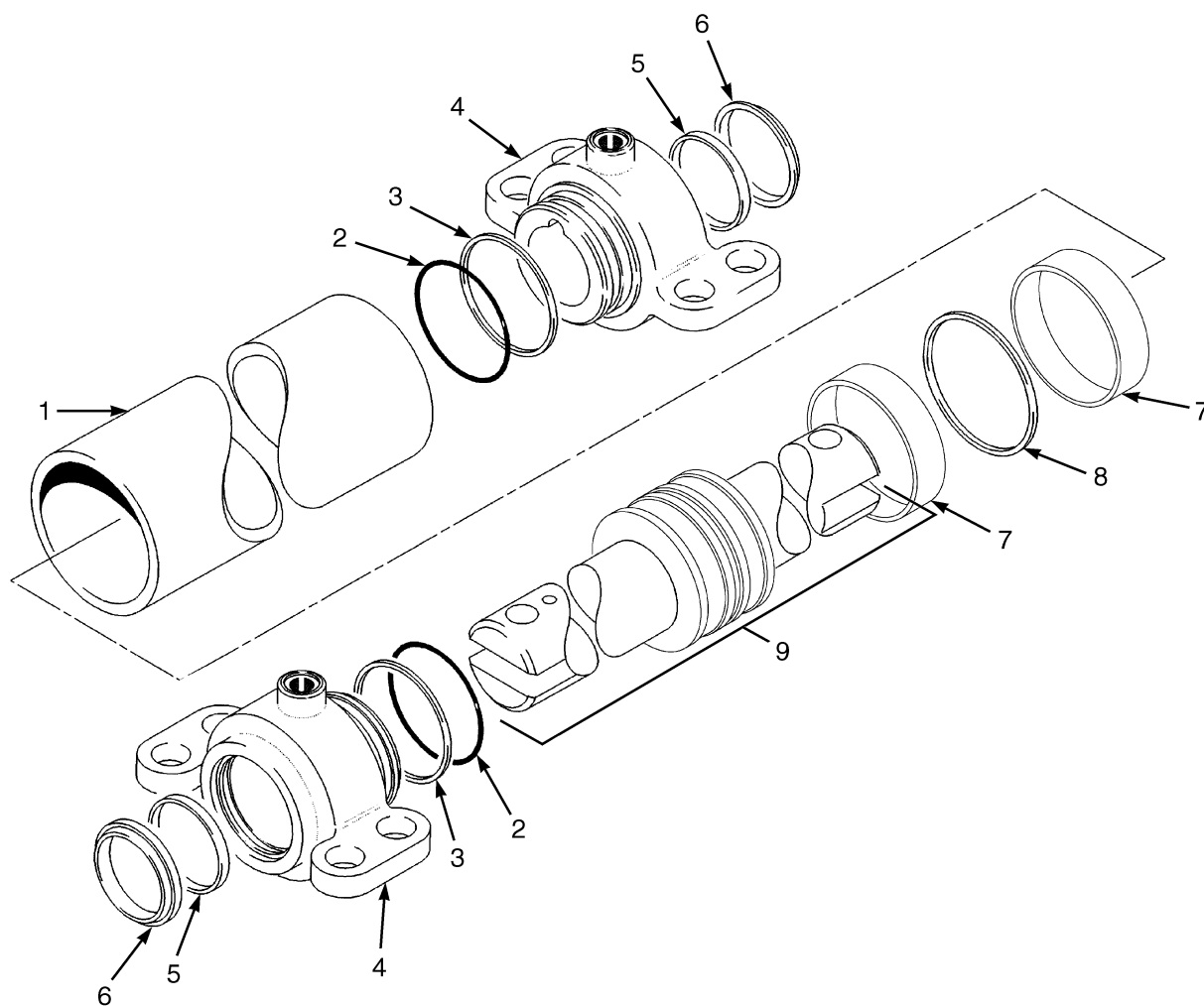
STEER AXLE

ITEM	PART NO.	DESCRIPTION	QTY
47	376026	Wheel Nut	20
48	376156	Plate	1
49	320169	Washer	2
50	293708	Capscrew	2
51	16041	Grease Fitting	2
52	320159	Washer	6
53	292514	Capscrew	6
54	15134	Washer	4
55	292560	Capscrew	4
56	1593338	Nut	4

NOTES

[illegible]

STEER CYLINDER (FIGURE 7-4)

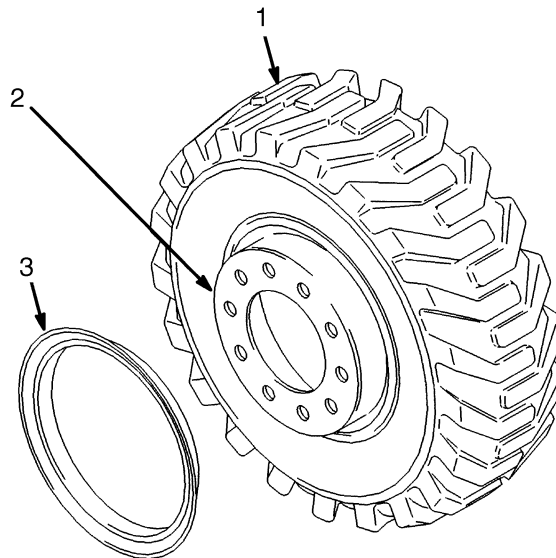


BP220077

STEER CYLINDER

ITEM	PART NO.	DESCRIPTION	QTY
	2083131	Steering Cylinder	1
1	376087	Tube Wldmt-Cylinder	1
2	46629	O-Ring	2
3	270330	Back-Up Ring	2
4	1610992	End Cap	2
5	2032492	Seal	2
6	2079273	Rod Wiper	2
7	636951	Wear Ring	2
8	2044372	Piston Seal	1
9	1612390	Piston Rod	1
9	1612393	Piston	1
9	376089	Rod	1
	1538811	Kit-Seal (Shell)	1
	1611146	Kit-Seal (Steering Cylinder)	1

STEER TIRES AND WHEELS (FIGURE 7-5) BERGOUGNAN — SOLID TIRE



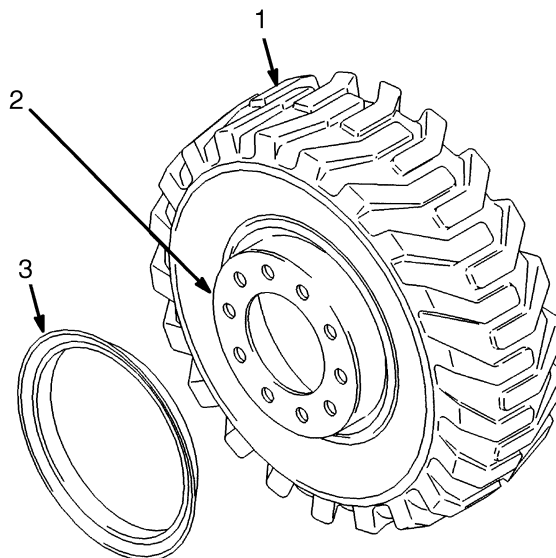
BP000318

KEY:

A: 9.00 x 20

B: 10.00 x 20

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	127403	Pneumatic Tire (Solid Pnuematic)	1	..
1	321181	Pneumatic Tire (Solid Pnuematic)	..	1
2	1366712	Rim (Solid)	1	..
2	1688642	Wheel Rim	..	1
2	1391655	Wheel Side Ring	1	..
2	1377130	Ring	..	1
2	1391656	Shoulder Ring	1	..
2	1377131	Shoulder Ring	..	1
2	1391653	Wheel Rim	1	..
3	1377132	Wheel Lock Ring	..	1
3	1391654	Wheel Lock Ring	1	..

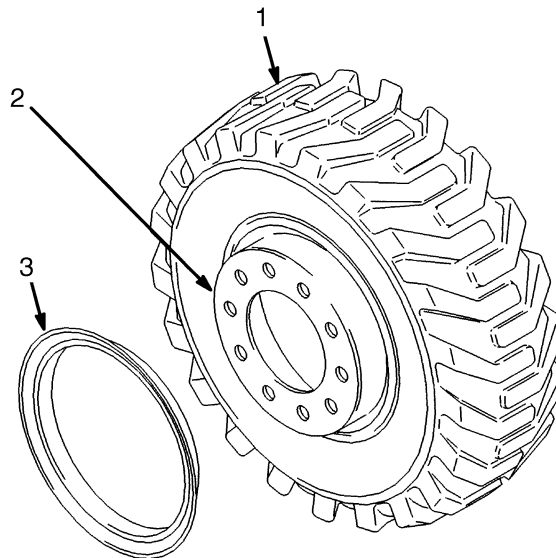
STEER TIRES AND WHEELS (FIGURE 7-6)
BRIDGESTONE

BP000318

KEY:**A: 9.00 x 20 - 14****B: 10.00 x 20 - 16**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1393119	Pneumatic Tire	1	..
	1369100	Pneumatic Tire	..	1
1	1393120	Pneumatic Tire	1	..
1	1369101	Pneumatic Tire	..	1
1	21655	Pneumatic Tire	1	..
1	1369104	Pneumatic Tire	..	1
1	130587	Pneumatic Tire	1	1
2	1688640	Wheel Assy	1	1
2	1391651	Wheel Rim	1	1
2	1391652	Wheel Side Ring	1	1
3	1391650	Wheel Lock Ring	1	1

STEER TIRES AND WHEELS (FIGURE 7-7) MICHELIN



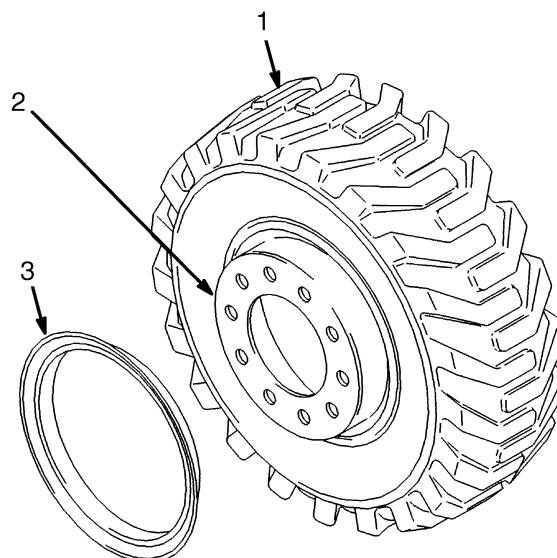
BP000318

KEY:

A: 9.00 x 20

B: 10.00 x 20

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1562020	Pneumatic Tire (Tubeless)	1	..
	1471839	Pneumatic Tire (Tubeless)	..	1
1	1562021	Pneumatic Tire (Radial)	1	..
1	1366718	Pneumatic Tire (Radial)	..	1
1	1471922	Tubeless Bead Seal Valve	1	1
1	1471600	Tire Flap	1	1
2	1688641	Rim	1	1
2	1377130	Ring	1	1
2	1377131	Shoulder Ring	1	1
3	1377132	Wheel Lock Ring	1	1

STEER TIRES AND WHEELS (FIGURE 7-8)
TRELLEBORG

BP000318

KEY:**A: 10.00 x 20 - 16****B: 9.00 x 20 - 14**

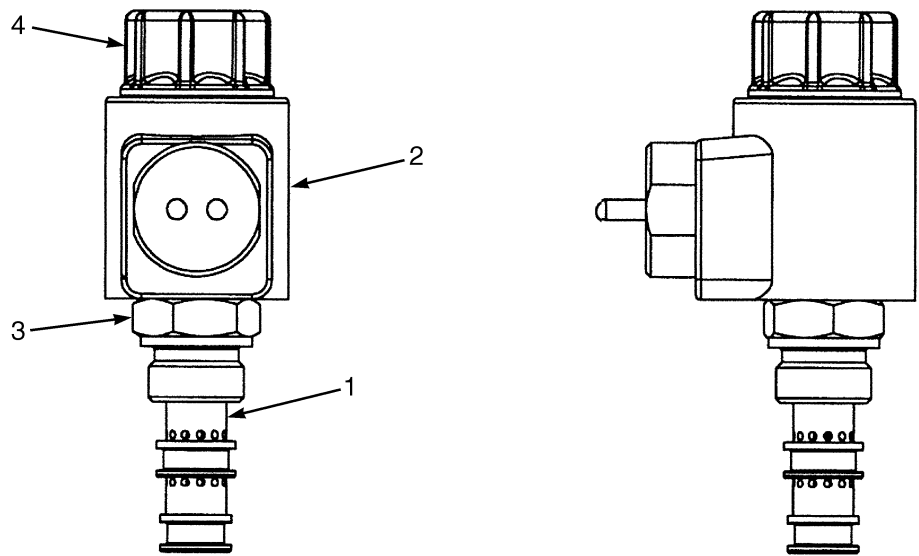
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1369100	Pneumatic Tire	1	..
	1594931	Pneumatic Tire	..	1
1	1369101	Pneumatic Tire	1	..
1	1594936	Pneumatic Tire	..	1
1	1369104	Pneumatic Tire	1	..
1	21655	Pneumatic Tire	..	1
1	130587	Pneumatic Tire	1	1
2	1688640	Wheel Assy	1	1
2	1391651	Wheel Rim	1	1
2	1391652	Wheel Side Ring	1	1
3	1391650	Wheel Lock Ring	1	1

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**SECTION 8
BRAKE SYSTEM**

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PARK BRAKE SOLENOID VALVE (FIGURE 8-1)



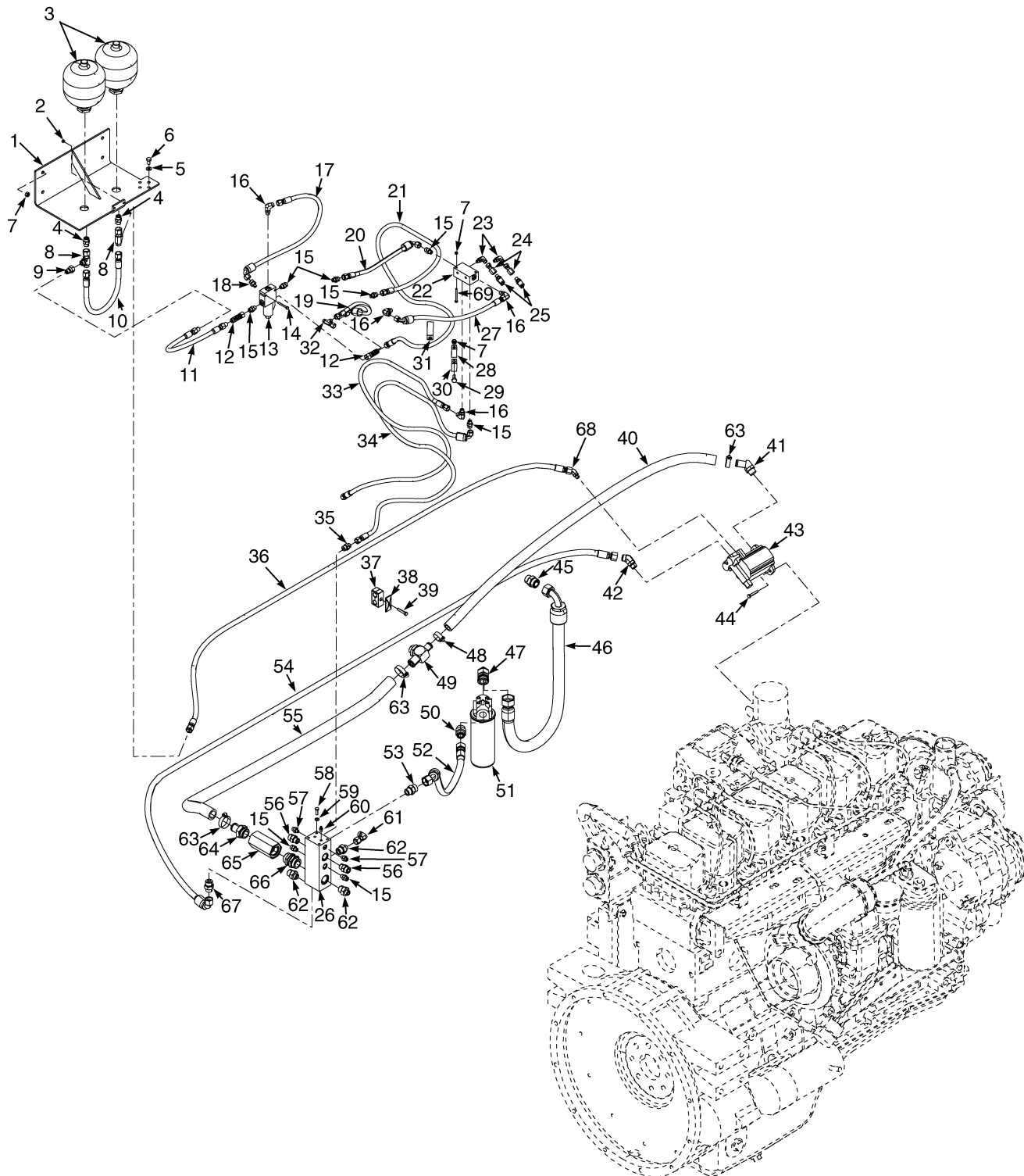
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ITEM	PART NO.	DESCRIPTION	QTY
	1688689	Cartridge	1
1	4007612	Plunger	1
2	4007613	Coil	1
3	4007614	Kit-Seal	1
4	4007615	Kit-Nut (Coil)	1

NOTES

[illegible]

WET BRAKE SYSTEM (FIGURE 8-2) LPG ENGINE



HP040474

**WET BRAKE SYSTEM
LPG ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	1488551	Bracket Wldmt	1
2	302401	Locknut	9
3	1494147	Accumulator (☞ Figure 8-16).....	2
4	1473887	Fitting	2
5	320159	Washer	10
6	292514	Capscrew	4
7	302399	Nut	4
8	1487095	Fitting	2
9	1473949	Fitting	1
10	1486081	Hose Assy	1
11	1486082	Hose Assy	1
12	1487097	Fitting	2
13	1655098	Manifold	1
13	a 1655099	Cartridge	1
13	b 1688689	Cartridge (☞ Figure 8-1).....	1
14	292505	Capscrew	2
15	1486740	Fitting	8
16	1487063	Fitting	4
17	1486085	Hose Assy	1
18	1486741	Fitting	1
19	2096932	Hose Assy	1
20	1486084	Hose Assy	1
21	1486093	Hose Assy	1
22	1384517	Manifold	1
23	1487058	Fitting	2
24	1490813	Fitting	2
25	1473927	Quick Disconnect Fitting	2
26	1459178	Manifold	1
27	1486094	Hose Assy	1
28	110322	Clamp	1
29	136985	Capscrew	1
30	173247	Clamp	1
31	258590	Clamp	1
32	1487094	Fitting	1
33	1486083	Hose Assy	1
34	1486095	Hose Assy	1
35	1486742	Fitting	1
36	1486080	Hose Assy	1
37	1533664	Clamp	4
38	1533649	Cover Plate	4
39	214364	Capscrew	4
40	1486079	Hose	1
40	56985	Hose-Bulk (FT)	AR
41	89056	Fitting	1
42	1516205	Fitting	1
43	1480609	Hydraulic Pump (☞ Figure 8-14).....	1
44	296026	Capscrew	2
45	1473889	Fitting	1
46	2096071	Hose Assy	1
47	1473923	Fitting	1

WET BRAKE SYSTEM
LPG ENGINE

ITEM	PART NO.	DESCRIPTION	QTY
48	127045	Clamp (Hose)	2
49	1486246	Fitting	1
50	1473919	Fitting	1
51	2043084	Hydraulic Filter	1
51	2043981	Filter Element	1
52	1486092	Hose Assy	1
53	1473888	Fitting	1
54	2088240	Hose Assy (High Pressure)	1
55	1486091	Hose	1
56	1486749	Fitting	2
57	1486737	Fitting	2
58	136749	Screw	4
59	320157	Washer	4
60	267262	Plug	2
61	1486772	Fitting	1
62	1486747	Fitting	2
63	369804	Clamp	2
64	78459	Fitting	1
64	16983	O-Ring	1
65	816232	Check Valve	1
66	1459254	Fitting	1
67	1486751	Fitting	1
68	1516203	Fitting	1
69	292507	Capscrew	2

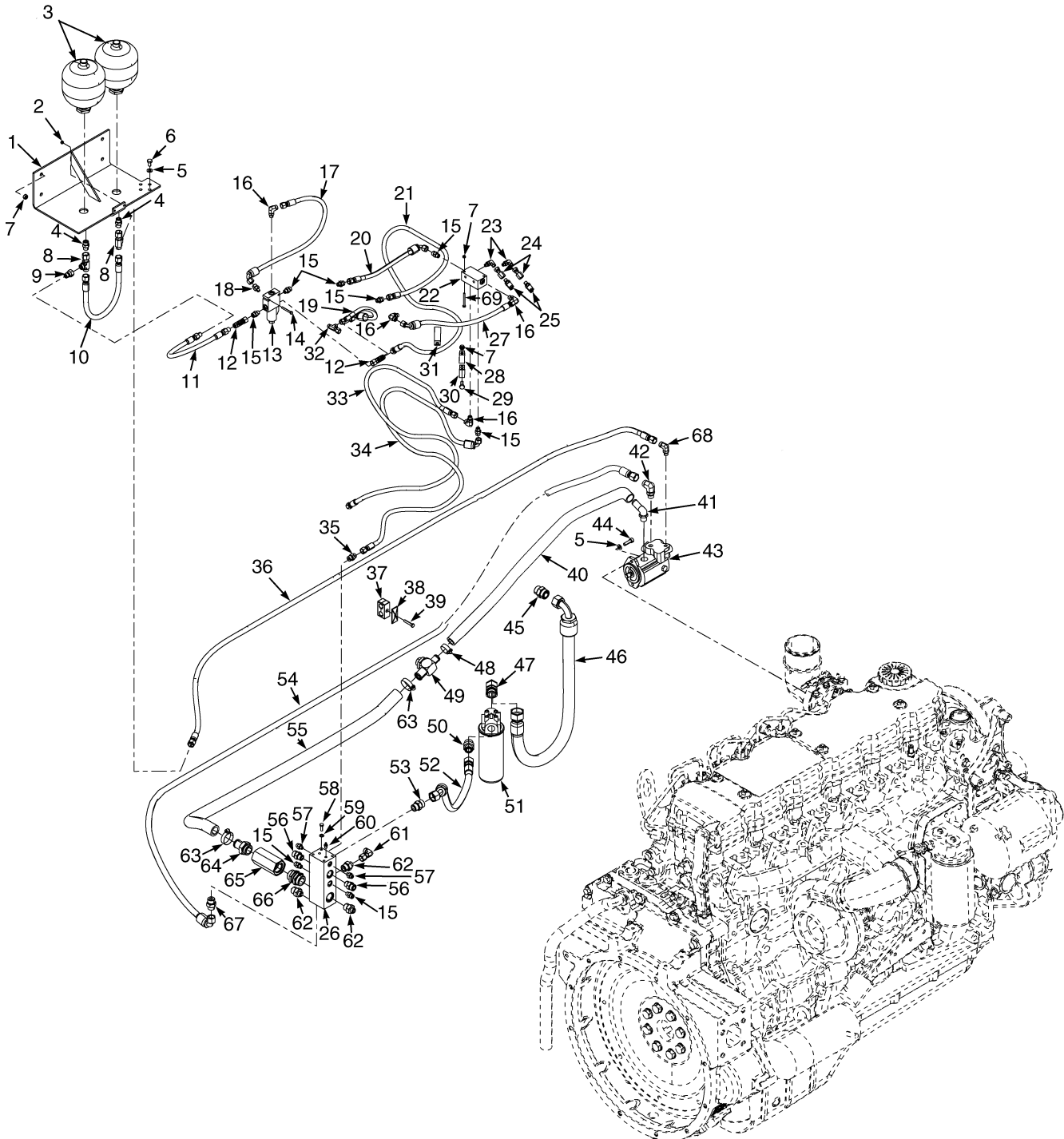
FOOTNOTES:

a → PENDING PER ECN 68424**b** PENDING PER ECN 68424 →

NOTES

[illegible]

WET BRAKE SYSTEM (FIGURE 8-3) DIESEL ENGINE



HP040475

**WET BRAKE SYSTEM
DIESEL ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	1488551	Bracket Wldmt	1
2	302401	Locknut	9
3	1494147	Accumulator (☞ Figure 8-16).....	2
4	1473887	Fitting	2
5	320159	Washer	10
6	292514	Capscrew	4
7	302399	Nut	4
8	1487095	Fitting	2
9	1473949	Fitting	1
10	1486081	Hose Assy	1
11	1486082	Hose Assy	1
12	1487097	Fitting	2
13	1655098	Manifold	1
13	a 1655099	Cartridge	1
13	b 1688689	Cartridge (☞ Figure 8-1).....	1
14	292505	Capscrew	2
15	1486740	Fitting	8
16	1487063	Fitting	4
17	1486085	Hose Assy	1
18	1486741	Fitting	1
19	2096932	Hose Assy	1
20	1486084	Hose Assy	1
21	1486093	Hose Assy	1
22	1384517	Manifold	1
23	1487058	Fitting	2
24	1490813	Fitting	2
25	1473927	Quick Disconnect Fitting	2
26	1459178	Manifold	1
27	1486094	Hose Assy	1
28	110322	Clamp	1
29	136985	Capscrew	1
30	173247	Clamp	1
31	258590	Clamp	1
32	1487094	Fitting	1
33	1486083	Hose Assy	1
34	1486095	Hose Assy	1
35	1486742	Fitting	1
36	2099159	Hose Assy	1
37	1533664	Clamp	4
38	1533649	Cover Plate	4
39	214364	Capscrew	4
40	1486091	Hose	1
40	56985	Hose-Bulk (FT)	AR
41	89056	Fitting	1
42	1487064	Fitting	1
43	1656022	Hydraulic Pump (☞ Figure 8-15).....	1
44	296026	Capscrew	2
45	1473889	Fitting	1
46	1486081	Hose Assy	1
47	1473923	Fitting	1

**WET BRAKE SYSTEM
DIESEL ENGINE**

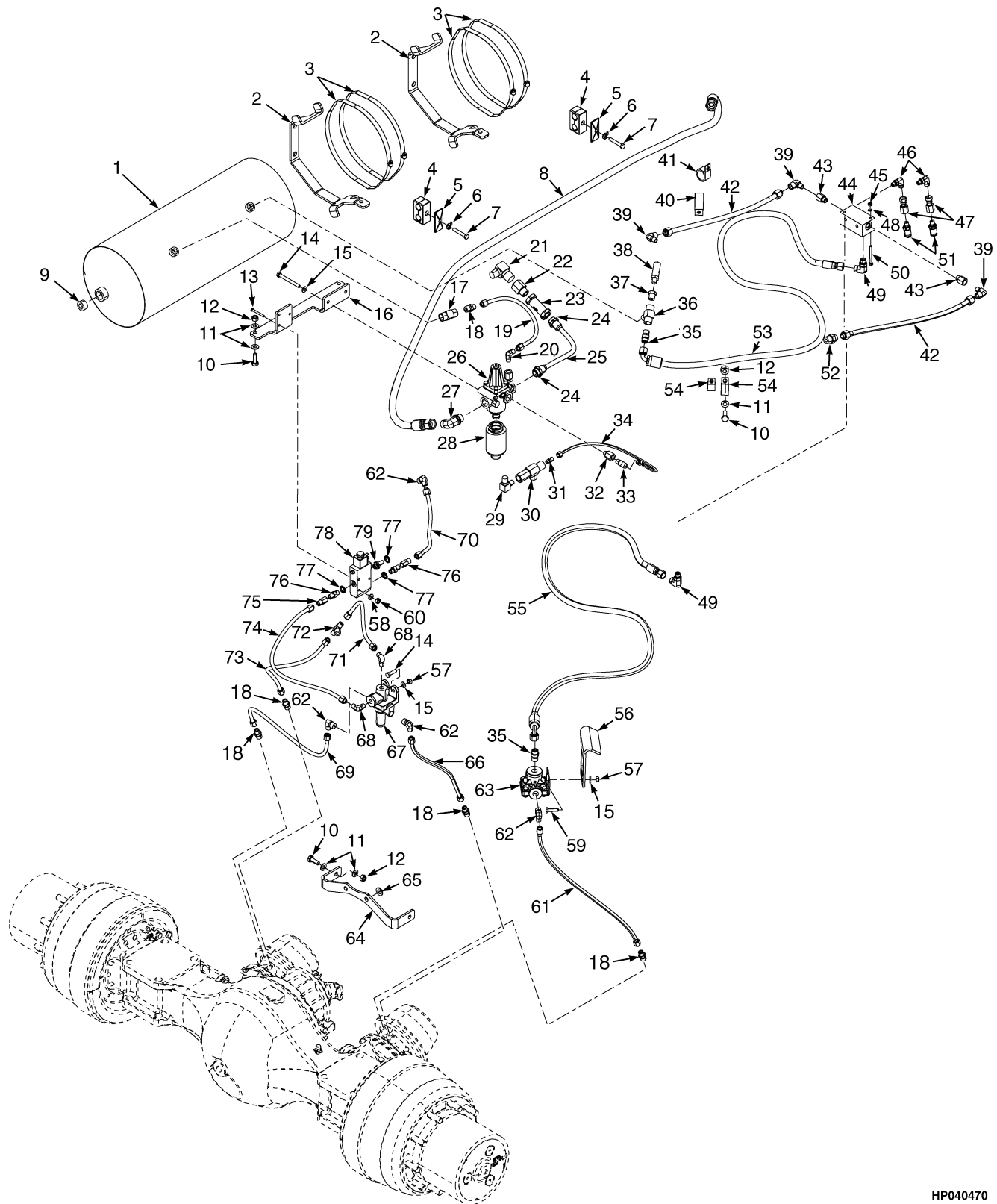
ITEM	PART NO.	DESCRIPTION	QTY
48	127045	Clamp (Hose)	2
49	1486246	Fitting	1
50	1473919	Fitting	1
51	2043084	Hydraulic Filter	1
51	2043981	Filter Element	1
52	1486092	Hose Assy	1
53	1473888	Fitting	1
54	2099157	Hose Assy	1
55	2101355	Hose	1
56	1486749	Fitting	2
57	1486737	Fitting	2
58	136749	Screw	4
59	320157	Washer	4
60	267262	Plug	2
61	1486772	Fitting	1
62	1486747	Fitting	2
63	369804	Clamp	2
64	78459	Fitting	1
64	16983	O-Ring	1
65	816232	Check Valve	1
66	1459254	Fitting	1
67	1486751	Fitting	1
68	1487067	Fitting	1
69	292507	Capscrew	2

FOOTNOTES:**a** → PENDING PER ECN 68424**b** PENDING PER ECN 68424 →

NOTES

[illegible]

DRY BRAKE SYSTEM (FIGURE 8-4)



HP040470

DRY BRAKE SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY
1	295197	Reservoir	1
2	1494476	Bracket	2
3	162562	Hose Clamp	4
4	1533664	Clamp	2
5	1533649	Cover Plate	2
7	214364	Capscrew	2
8	1476542	Hose	1
9	15963	Fitting	1
10	136985	Capscrew	5
11	320159	Washer	14
12	302401	Locknut	9
13	2043980	Capscrew	3
14	292512	Capscrew	2
15	320157	Washer	8
16	1646837	Plate	1
17	17665	Fitting	1
18	1301539	Fitting	5
19	217979	Hose	1
20	1331034	Fitting	1
21	17745	Fitting	1
22	1614664	Adapter	1
23	1614661	Check Valve	1
24	1603613	Fitting	2
25	1646845	Tube	1
26	1646791	Unloader Valve	1
27	1580823	Fitting	1
28	1498368	Damper	1
29	17144	Fitting	1
30	128398	Drain Valve (☞ Figure 8-7).....	1
31	1488747	Fitting	1
32	1547766	Adapter (Male)	2
33	1646944	Fitting	1
34	241157	Tube	1
35	1488408	Fitting	2
36	17665	Fitting	1
37	63108	Fitting	1
38	319050	Valve (Safety)	1
39	1332128	Fitting (Elbow)	2
40	144067	Clamp	1
41	166112	Clamp	2
42	1494519	Tube	2
43	1490617	Fitting	2
44	1384517	Manifold	1
45	302399	Nut	2
46	1487058	Fitting	2
47	1490813	Fitting	2
48	320156	Washer	2
49	1487063	Fitting	2
50	292507	Capscrew	2
51	1473927	Quick Disconnect Fitting	2
52	1332125	Fitting	1

DRY BRAKE SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY
53	1490711	Hose Assy	1
54	173247	Clamp	2
55	1490712	Hose Assy	1
56	1494655	Bracket	1
57	302400	Nut	6
58	320155	Washer	3
59	176640	Bolt	4
60	302398	Locknut	3
61	1490713	Tube	1
62	1309503	Fitting	4
63	1519701	Brake Valve	1
63	1525711	Kit-Seal	1
64	1639100	Bracket	1
65	320161	Washer	2
66	217980	Tube	1
67	1331033	Check Valve	1
68	1331034	Fitting	2
69	217977	Hose	1
70	245521	Tube	1
71	1326041	Tube	1
72	1519702	Fitting	1
73	266535	Hose	1
74	217973	Tube	1
75	1490612	Fitting	2
76	1478838	Fitting	2
77	888329	Seal	3
78	1475075	Brake Valve (Park Brake)	1
78	1492369	Connector	1
78	1492370	Coil	1
79	1658153	Silencer	1
	a 14387	Fitting	3
	a 14604	Plug	1
	a 1311356	Fitting	1

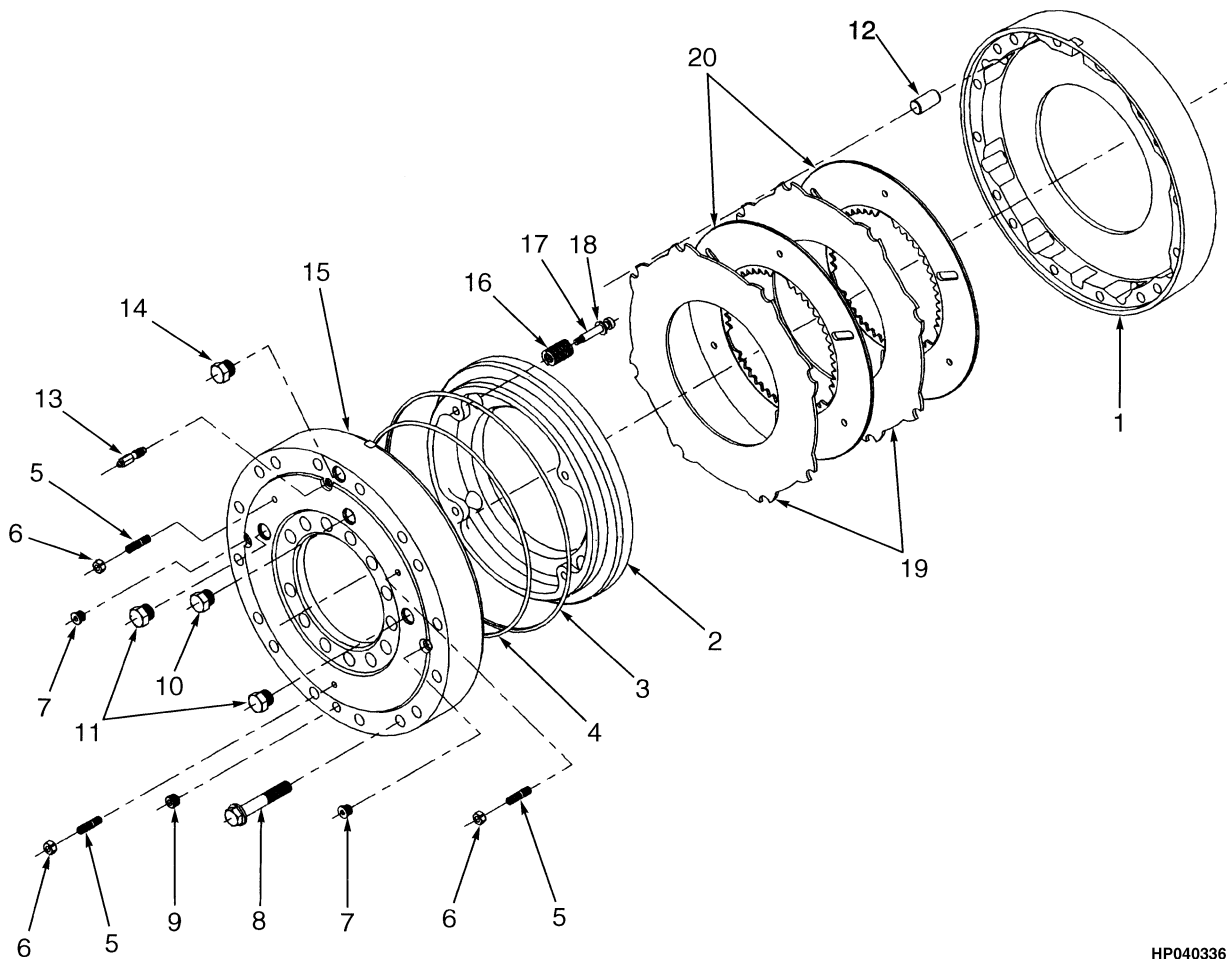
FOOTNOTES:

a Not Illustrated

NOTES

[illegible]

BRAKE ASSEMBLY (FIGURE 8-5) WET BRAKE

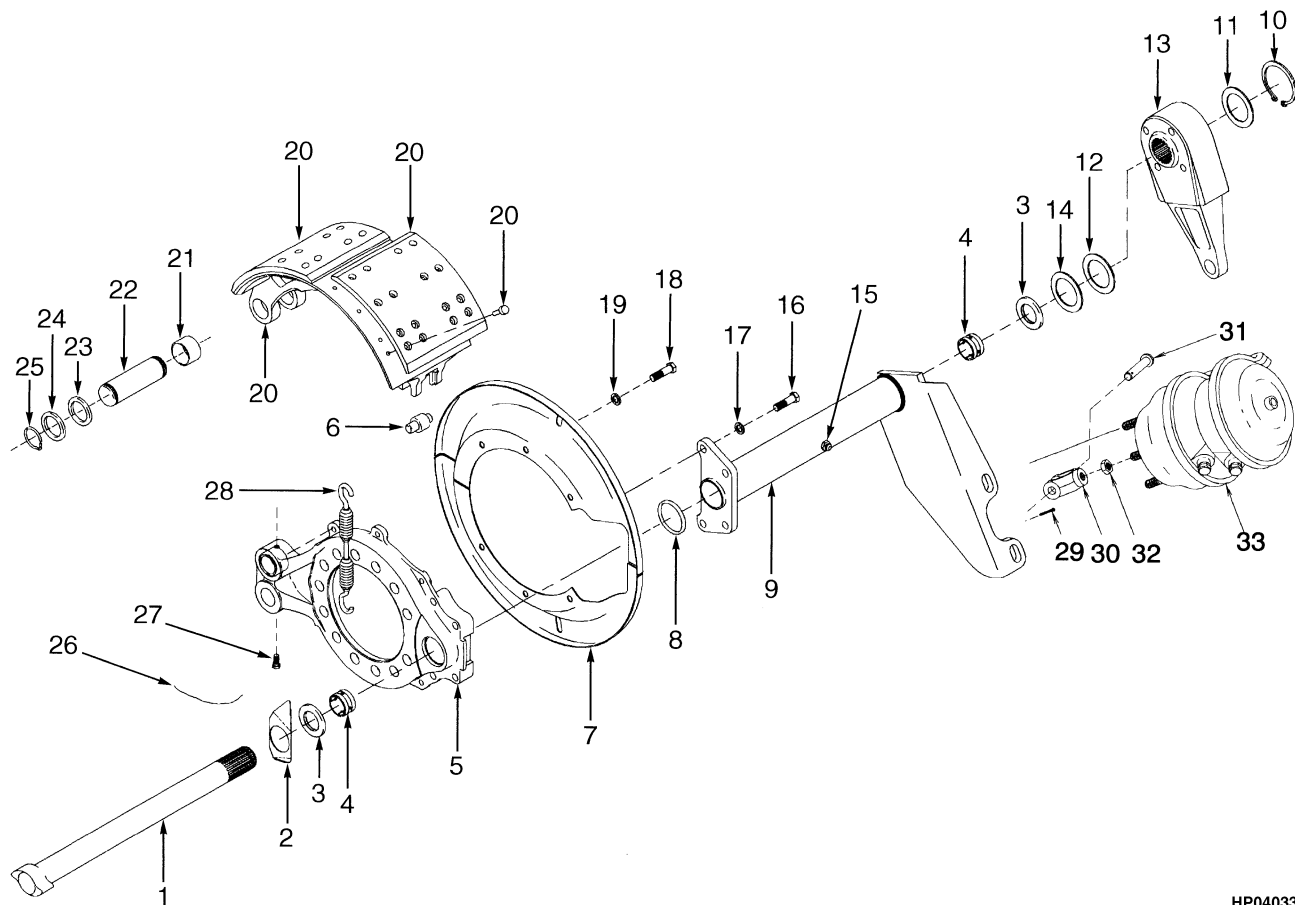


HP040336

**BRAKE ASSEMBLY
WET BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	1489424	Brake Assembly	1
1	1489425	Housing	1
2	1489426	Piston	1
3	1489427	Piston Seal (Outer)	1
4	1489428	Piston Seal (Inner)	1
5	1489429	Screw	3
6	1489430	Nut	3
7	1384859	Plug	2
7	1382902	O-Ring	1
8	1489431	Capscrew	16
9	1482765	Washer	16
10	1384864	Plug	1
11	1384865	Plug	1
11	1384863	O-Ring	1
12	1489441	Dowel	8
13	1489432	Screw (Bleeder)	1
14	1489433	Plug	1
14	1384863	O-Ring	1
15	1489434	Cover (RH)	1
15	1489435	Cover (LH)	1
16	1489436	Spring	4
17	1489437	Screw	4
18	1489438	Washer	4
19	1489439	Separator Plate (Brake)	4
20	1489440	Friction Disk	4

BRAKE ASSEMBLY (FIGURE 8-6) DRY BRAKE

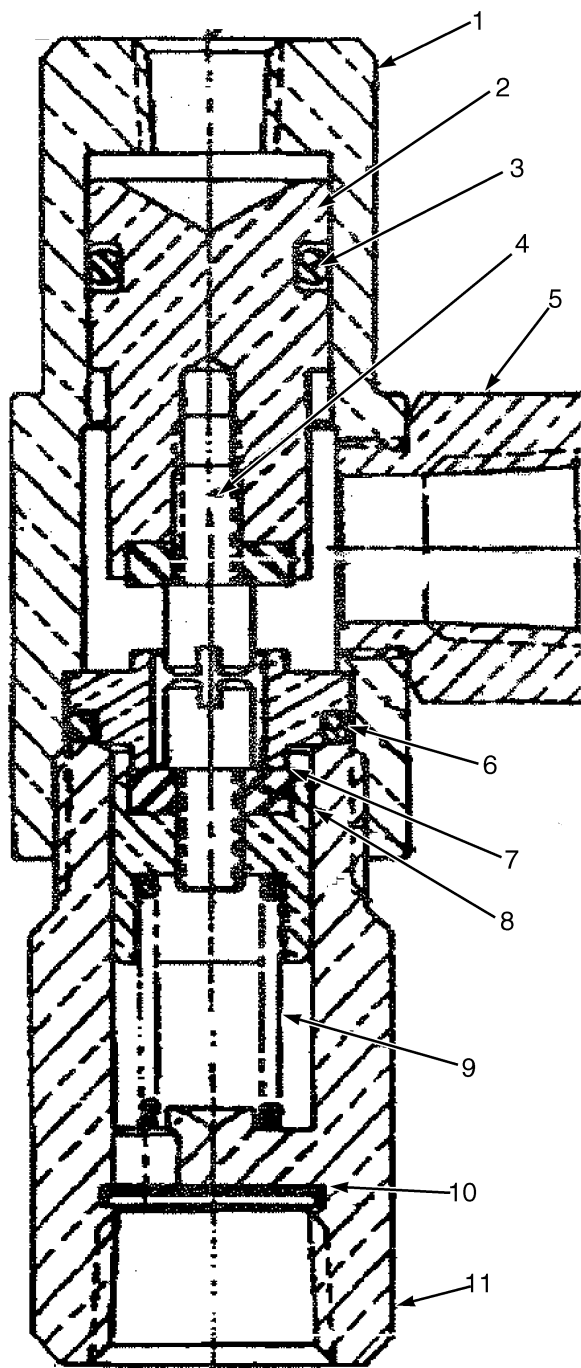


HP040337

**BRAKE ASSEMBLY
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	1482782	Brake Assembly (LH)	1
	1482780	Brake Assembly (RH)	1
1	1489313	Brake Camshaft (LH)	1
1	1489314	Brake Camshaft (RH)	1
2	1455057	Washer	1
3	301986	Seal	1
4	97647	Bushing	1
5	1498271	Spider	2
6	1329710	Roller	4
7	1346961	Dust Shield (LH)	1
7	1346962	Dust Shield (RH)	1
8	1374086	O-Ring	1
9	1312614	Clamp	1
9	1333923	Bracket (RH)	1
9	1333924	Bracket (LH)	1
9	1482784	Capscrew	7
9	221767	Washer	4
10	1489315	Retainer	2
11	322428	Washer	2
12	1489316	Washer	2
13	1489317	Adjuster	2
14	1374588	Washer	6
15	16015	Grease Fitting	1
16	1489318	Capscrew	4
17	88587	Washer	4
18	221491	Capscrew	12
19	321717	Lockwasher	12
20	1493176	Brake Shoe	4
21	321703	Bushing	4
22	1315648	Pin (Brake Shoe Anchor)	4
23	97656	Felt	8
24	97657	Retainer	8
25	99037	Snap Ring	8
26	296734	Cable (Lock)	4
27	1489320	Capscrew	4
28	97859	Spring (Return)	1
29		Split Pin	1
30		Yoke	1
31		Pin (Yoke)	1
32	15030	Nut	1
33	1498303	Brake Chamber (Brake)	1
	1384412	Yoke	1

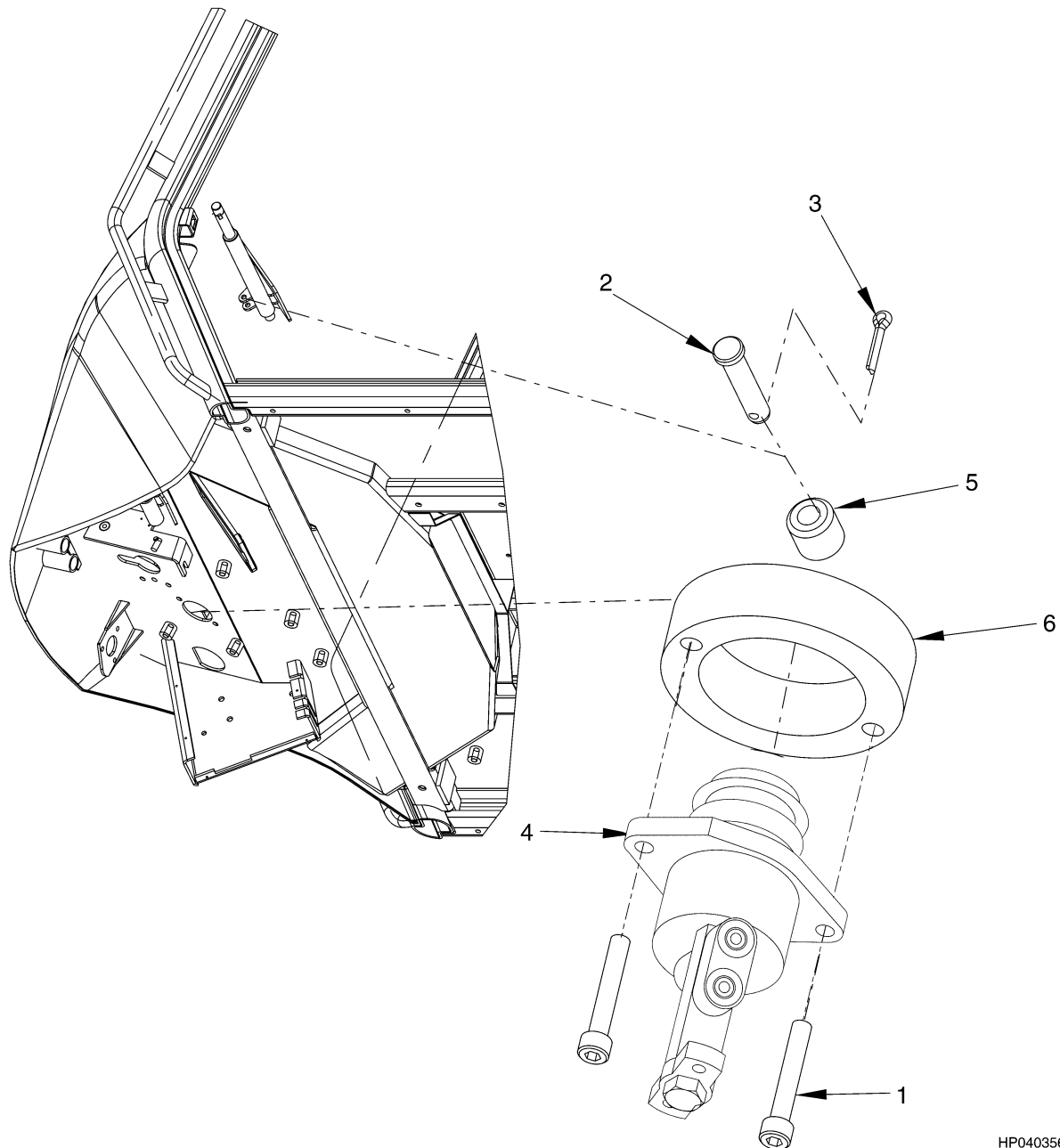
DRAIN VALVE (FIGURE 8-7) DRY BRAKE



HP040471

**DRAIN VALVE
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	128398	Drain Valve	1
1	166620	Plunger	1
2	166621	Plunger	1
3	166622	O-Ring (Plunger)	1
4	1368111	Screw	2
5	1368112	Adapter	1
6	166626	O-Ring (Valve Seat)	1
7	166623	Valve	2
8	166628	Valve	1
9	166630	Spring	1
10	166631	Screen	1
11	166629	Valve Block	1
	1368113	Kit-Repair	1

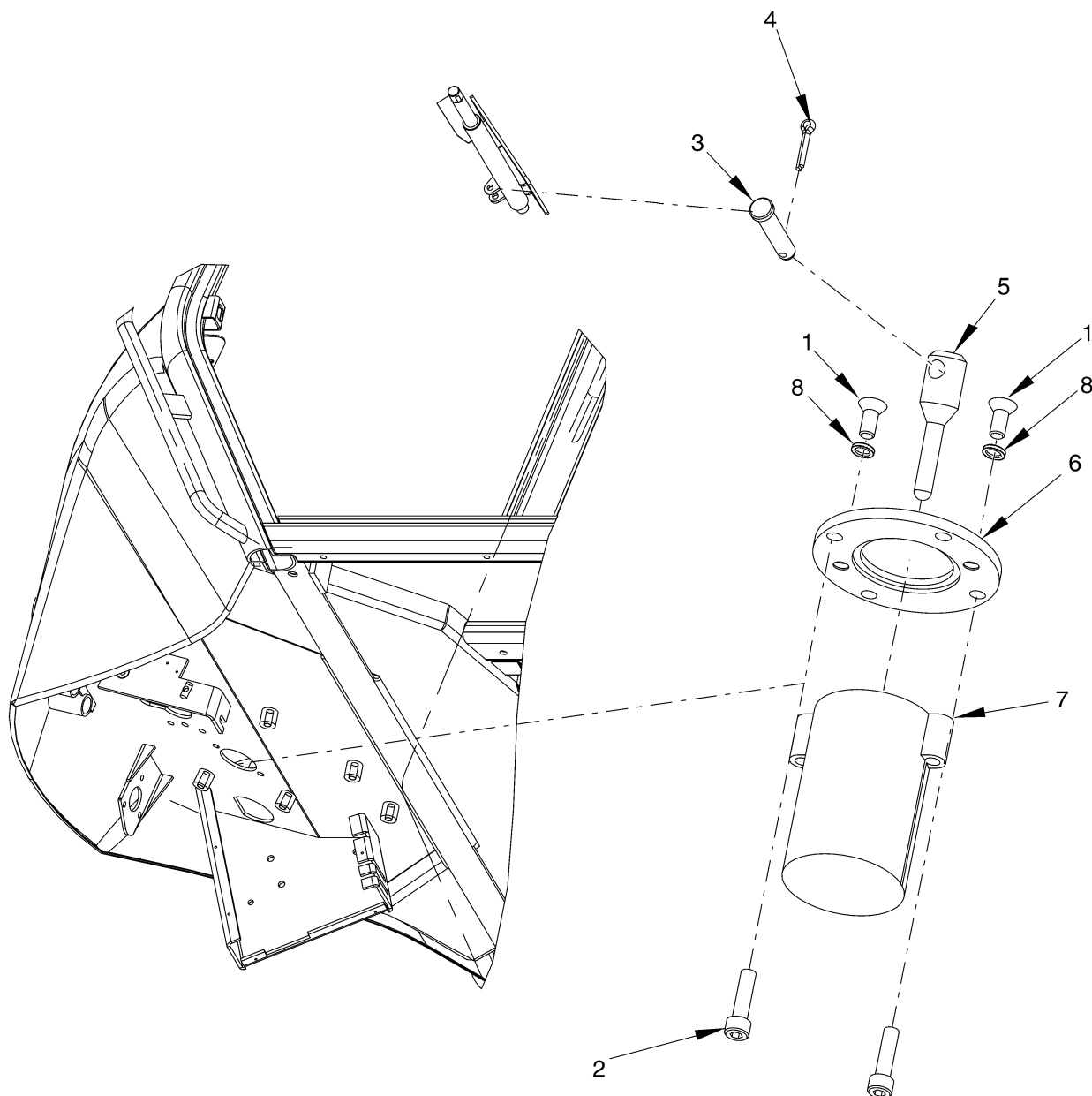
**BRAKE VALVE (FIGURE 8-8)
WET BRAKE**

HP040356

**BRAKE VALVE
WET BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
1	296012	Capscrew	2
2	327591	Pin	1
3	15212	Cotter Pin	1
4	1487209	Brake Valve	1
4	1391744	Kit-Seal	1
4	1391745	Kit-Hardware	1
4	1450390	Kit-Shim	1
5	1480674	Roller	1
6	1487208	Spacer	1

BRAKE VALVE (FIGURE 8-9) DRY BRAKE

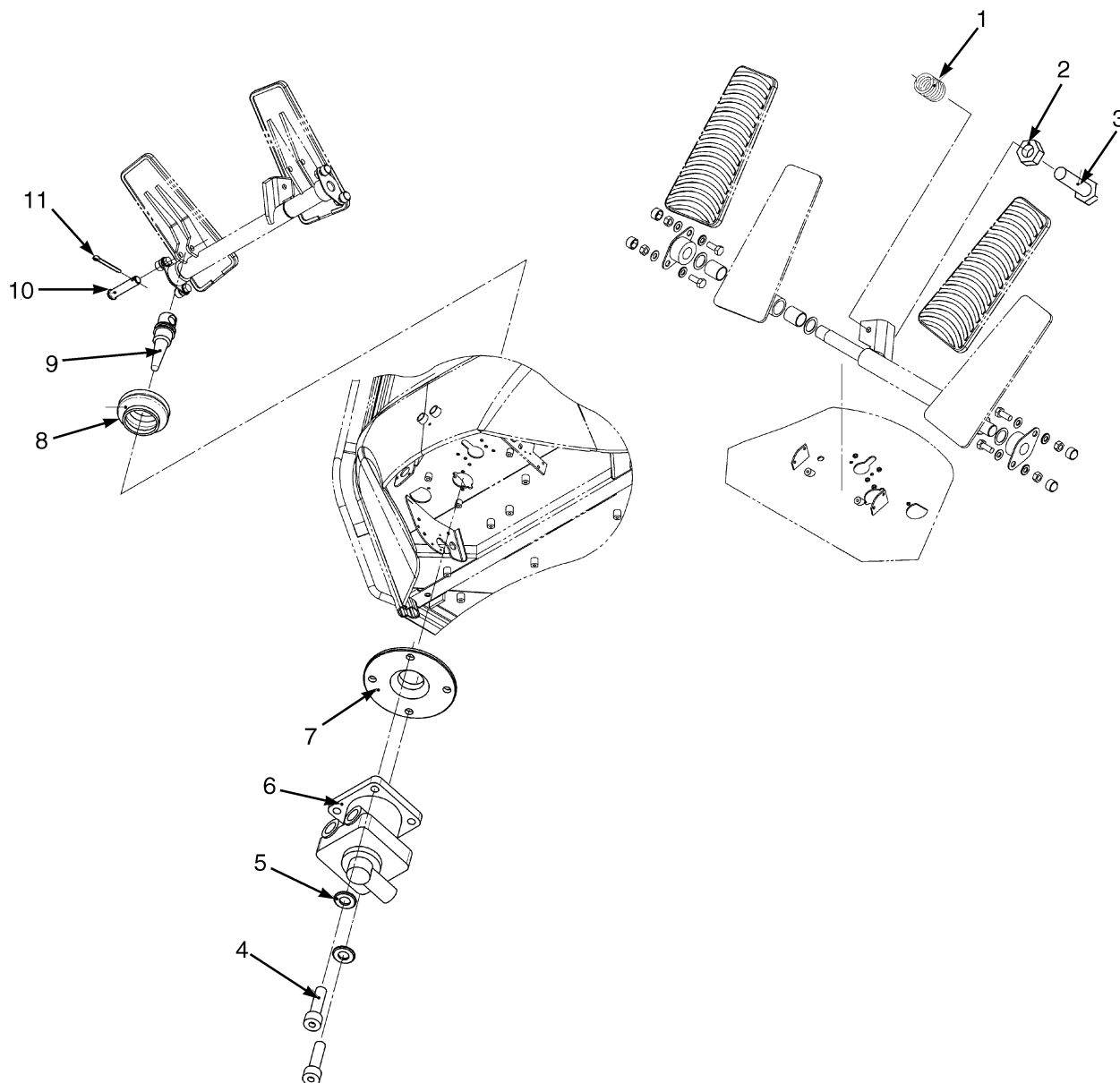


HP040465

**BRAKE VALVE
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
1	1655361	Screw	2
2	296010	Capscrew	2
3	327591	Pin	1
4	15212	Cotter Pin	1
5	1646626	Rod	1
6	1655362	Washer	1
7	1646627	Brake Valve	1
7	1332084	Spring	1
7	357427	Kit-Repair Valve	1
8	320158	Washer	2

BRAKE VALVE (AIR BRAKE) (FIGURE 8-10)



HP040484

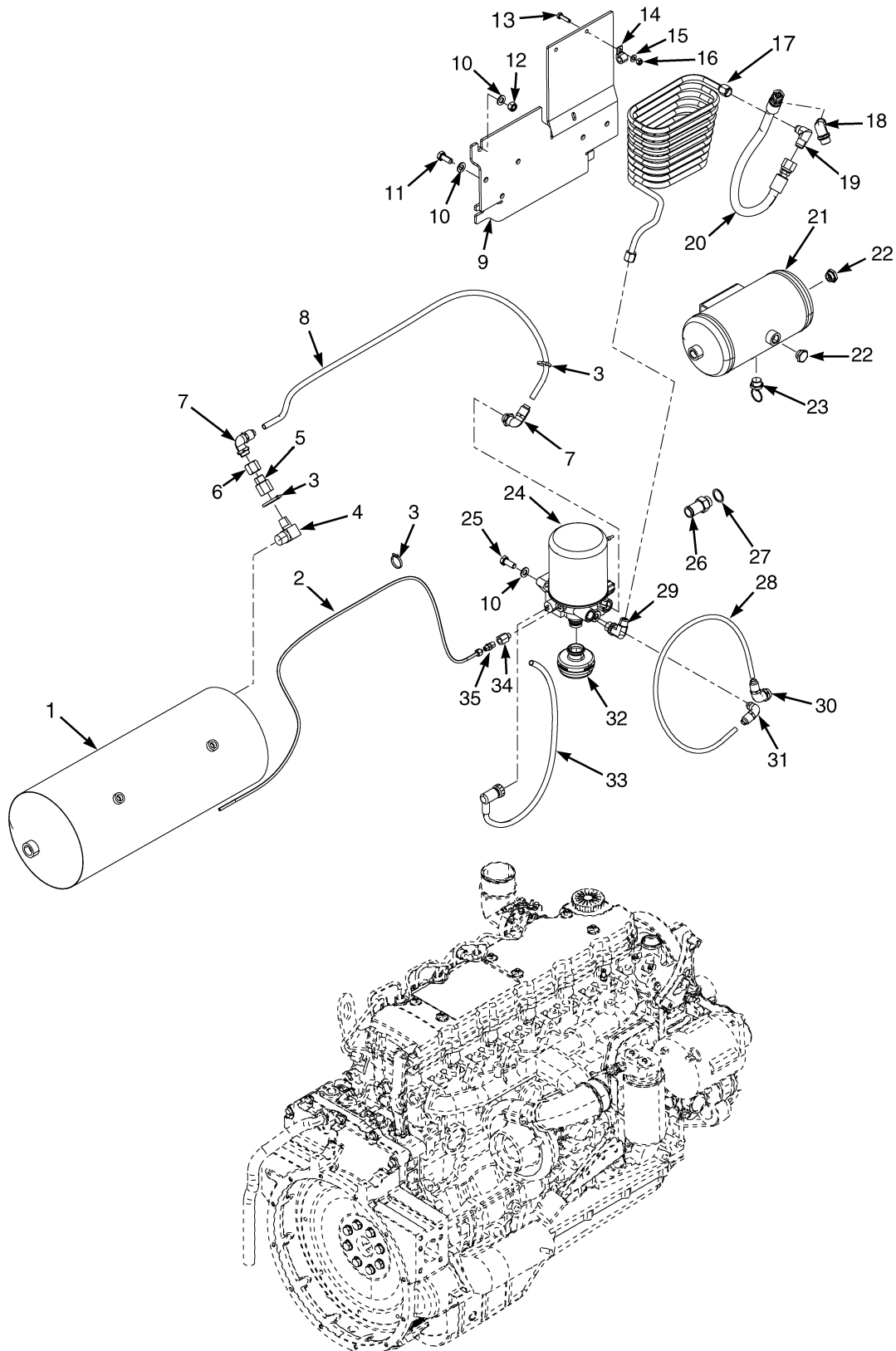
BRAKE VALVE (AIR BRAKE)

ITEM	PART NO.	DESCRIPTION	QTY
1	1677891	Spring (Inching/Brake Pedal)	1
1	4000982	Spring (Alternate Part)	1
2	136692	Nut	1
3	1706985	Screw	1
4	296012	Capscrew	2
5	320158	Washer	2
6	1678421	Valve	1
6	a 1708446	Kit-Repair	1
7	1671274	Plate	1
8	1671570	Dust Cover	1
9		Pin	1
10	327591	Pin	1
11	15212	Cotter Pin	1

FOOTNOTES:

a Repair Kit contains (11) items.

AIR DRYER SYSTEM (FIGURE 8-11) DIESEL ENGINE — DRY BRAKE

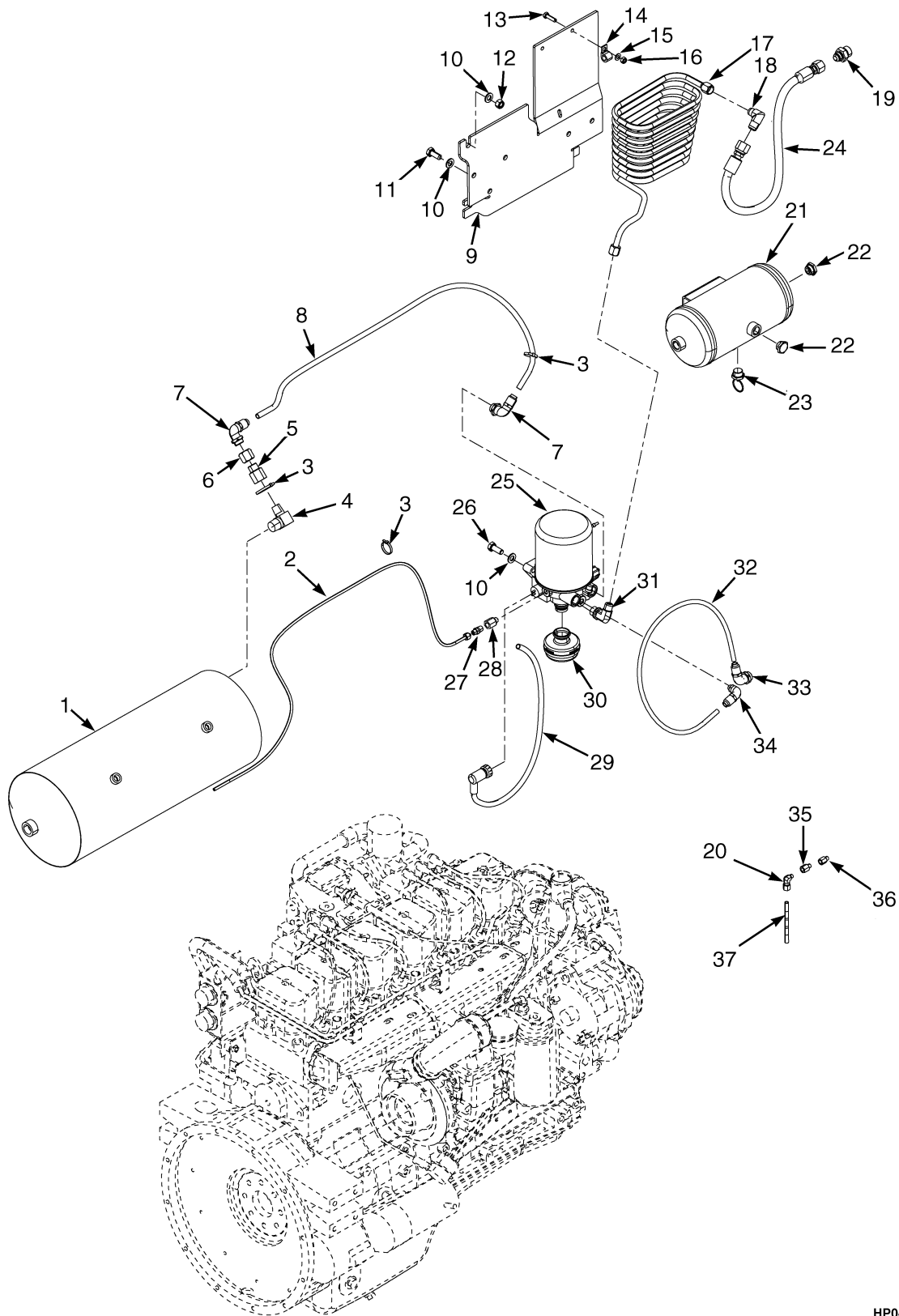


HP040468

**AIR DRYER SYSTEM
DIESEL ENGINE – DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
1	295197	Reservoir	1
2	1624074	Tube (H170HD, H190HD, H210HD)	1
2	128216	Tube (H230HD, H250HD, H280HD)	1
3	137852	Strap Clamp	4
4	17745	Fitting	1
5	1614664	Adapter	1
6	1651353	Fitting (Air Dryer)	1
7	1613799	Fitting (Quick Disconnect)	2
8	1613929	Tube (H170HD, H190HD, H210HD)	1
8	1601764	Tube (H230HD, H250HD, H280HD)	1
9	1601267	Plate	1
10	320161	Washer	8
11	1547492	Capscrew	3
12	302402	Locknut	3
13	176640	Bolt	3
14	173246	Clamp	3
15	320157	Washer	6
16	302400	Nut	3
17	1660786	Tube Assy	1
18	1580823	Fitting	1
19	1510811	Fitting	1
20	1624698	Hose Assy (Air)	1
21	1603302	Air Tank	1
22	1603304	Fitting	2
23	1603525	Drain Valve	1
24	1603300	Air Dryer (24 V) (☞ Figure 8-13).....	1
25	292527	Capscrew	2
26	1352671	Fitting	1
27	992522	Washer	1
28	1647751	Tube	1
29	1580820	Fitting	1
30	1613771	Fitting (Quick Disconnect)	1
31	1613740	Fitting (Quick Connect)	1
32	2066064	Silencer	1
33	1602329	Wire Harness (Air Dryer) (☞ Figure 4-38).....	1
34	1547766	Adapter (Male)	1
35	1646944	Fitting	1

AIR DRYER SYSTEM (FIGURE 8-12) LPG ENGINE — DRY BRAKE

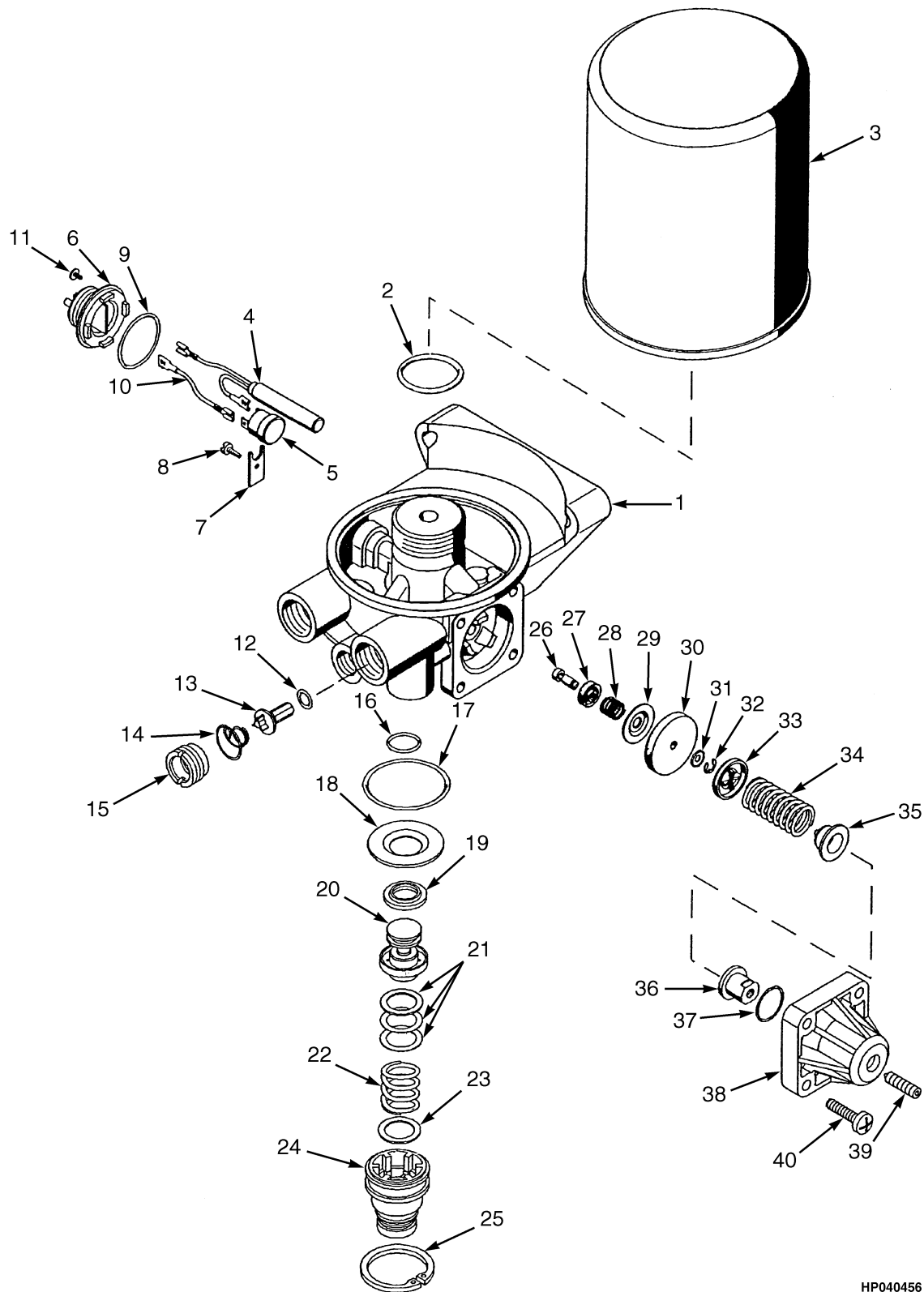


HP040469

**AIR DRYER SYSTEM
LPG ENGINE – DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
1	295197	Reservoir	1
2	1624074	Tube (H170HD, H190HD, H210HD)	1
2	128216	Tube (H230HD, H250HD, H280HD)	1
3	137852	Strap Clamp	3
4	17745	Fitting	1
5	1614664	Adapter	1
6	1651353	Fitting (Air Dryer)	1
7	1613799	Fitting (Quick Disconnect)	2
8	1613929	Tube (H170HD, H190HD, H210HD)	1
8	1601764	Tube (H230HD, H250HD, H280HD)	1
9	1601267	Plate	1
10	320161	Washer	8
11	1547492	Capscrew	3
12	302402	Locknut	3
13	176640	Bolt	3
14	173246	Clamp	3
15	320157	Washer	6
16	302400	Nut	3
17	1660786	Tube Assy	1
18	1510811	Fitting	1
19	1511889	Fitting (Adapter)	1
20	1301542	Fitting	1
21	1603302	Air Tank	1
22	1603304	Fitting	2
23	1603525	Drain Valve	1
24	1610669	Hose Assy	1
25	1603300	Air Dryer (24 V) (☞ Figure 8-13).....	1
26	292527	Capscrew	2
27	1646944	Fitting	1
28	1547766	Adapter (Male)	1
29	1602329	Wire Harness (Air Dryer) (☞ Figure 4-38).....	1
30	2066064	Silencer	1
31	1580820	Fitting	1
32	1647751	Tube	1
33	1613771	Fitting (Quick Disconnect)	1
34	1613740	Fitting (Quick Connect)	1
35	28584	Fitting	1
36	1475493	Fitting (Adapter)	1
37	1312214	Tube	1

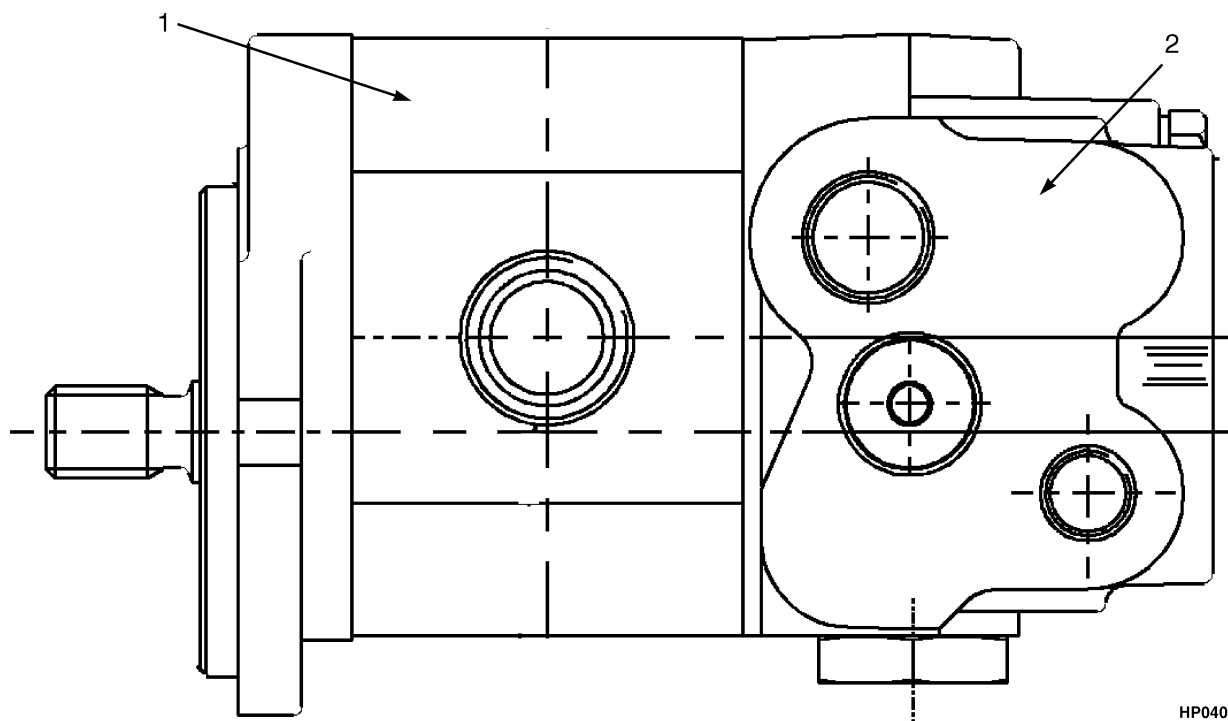
AIR DRYER ASSEMBLY (FIGURE 8-13)



HP040456

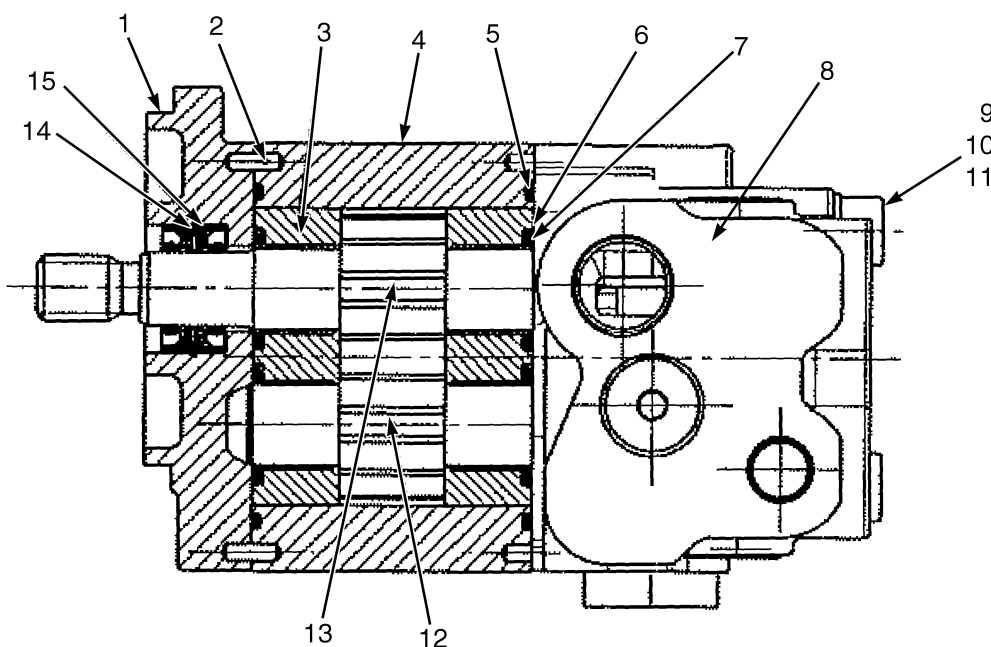
AIR DRYER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	1603300	Air Dryer (24 V)	1
1		Body	1
2		O-Ring	1
3	1585138	Cartridge	1
4	1585133	Heater (24 Volt)	1
4	1585134	Heater Element	1
5	1585135	Switch	1
6	1585215	Connector	1
7		Support	1
8		Screw	1
9		O-Ring	1
10		Cable	1
11		Screw	2
12		O-Ring	1
13		Valve Body	1
14		Conical Spring	1
15		Valve Seat	1
16		O-Ring	1
17		O-Ring	2
18		Valve Head	1
19		Valve	1
20		Piston	1
21		Disc	AR
22		Pressure Spring	1
23	1634764	Washer	3
24		Button	1
25		Retaining Ring	1
26	1332113	Piston and Rod	1
26	1332114	Valve	1
26	1332115	Piston (Leather)	1
27		Valve	1
28		Pressure Spring	1
29		Cap	1
30		Piston Cup	1
31		Cap	1
32		Retaining Washer	1
33		Cap	1
34		Pressure Spring	1
35		Cap	1
36	1332116	Nut	1
37		O-Ring	1
38		Cover	1
39		Set Screw	1
40		Oval Head Screw	4
	1634763	Kit-Repair Air Dryer	1

HYDRAULIC GEAR PUMP (FIGURE 8-14)
LPG ENGINE — WET BRAKE

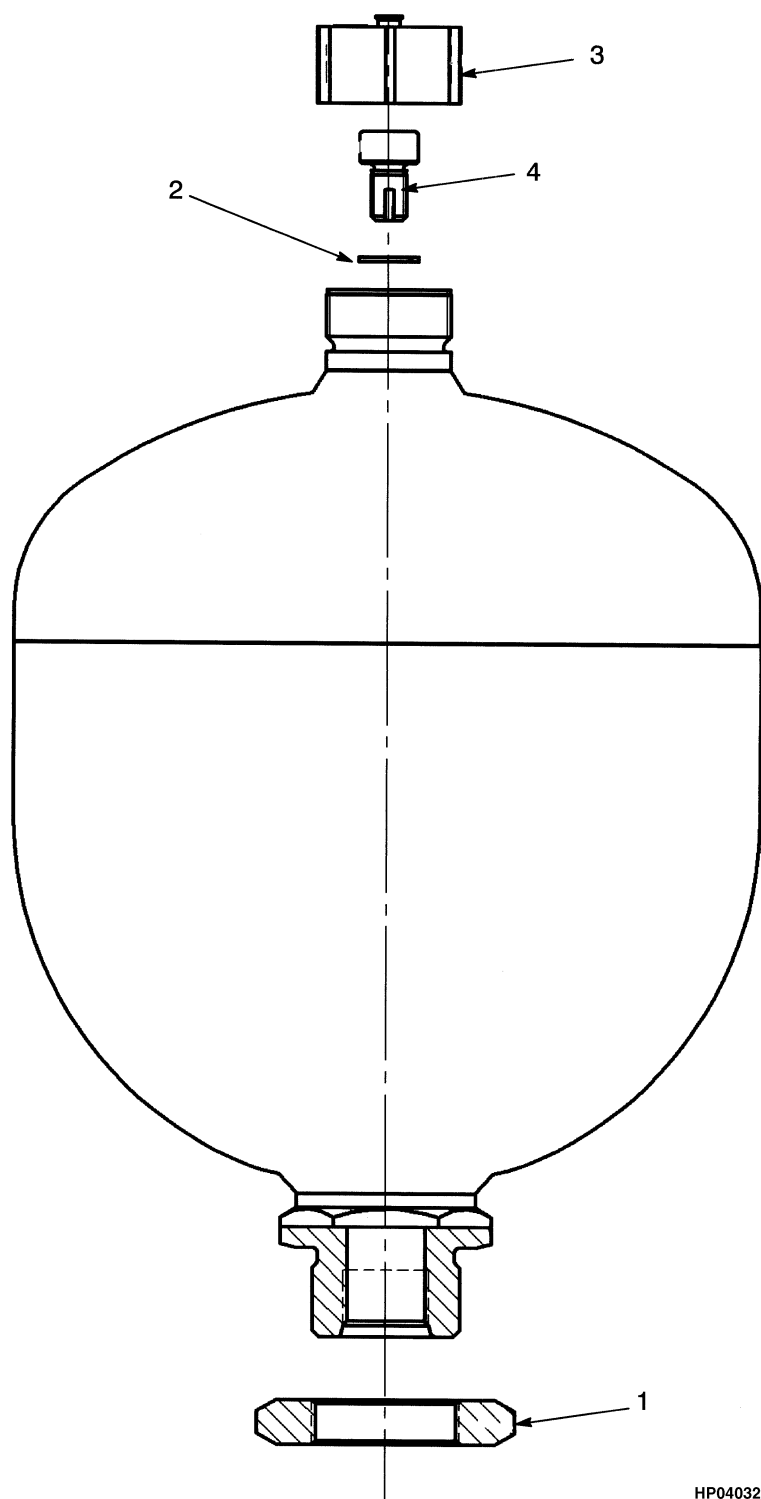
HP040467

ITEM	PART NO.	DESCRIPTION	QTY
1	1480609	Hydraulic Pump	1
	1492368	Charge Valve (☞ Figure 8-17).....	1
	1492367	Kit-Seal	1

HYDRAULIC GEAR PUMP (FIGURE 8-15)
DIESEL ENGINE — WET BRAKE

HP040466

ITEM	PART NO.	DESCRIPTION	QTY
	1656022	Hydraulic Pump	1
1	1660034	Housing	1
2	1457466	Dowel	2
3	1660039	Bushing	2
4	1590856	Body	1
5	1590854	O-Ring	2
6	1476378	Seal	2
7	1660041	Seal (Back-Up)	2
8	1492368	Charge Valve (☞ Figure 8-17).....	1
9	1457459	Washer	4
10	1660037	Screw	3
11	1660038	Screw	1
12	1660036	Gear	1
13	1660035	Drive Gear	1
14	1496282	Clamp	1
15	1590861	Seal (Shaft)	2

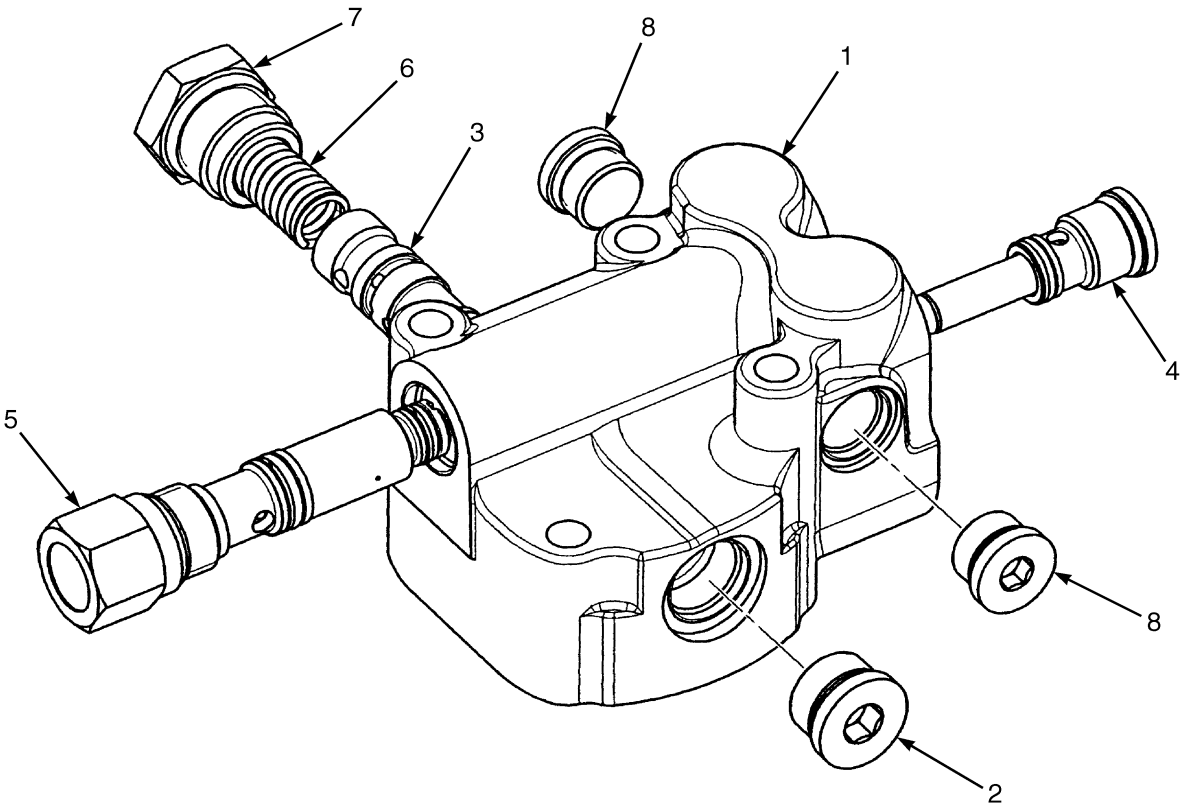
BRAKE ACCUMULATOR (FIGURE 8-16)

HP040328

BRAKE ACCUMULATOR

ITEM	PART NO.	DESCRIPTION	QTY
	1494147	Accumulator	1
1	1492358	Nut	1
2	1492359	Seal	1
3	1492360	Cap	1
4	1492361	Bolt	1

ACCUMULATOR CHARGE VALVE (FIGURE 8-17)

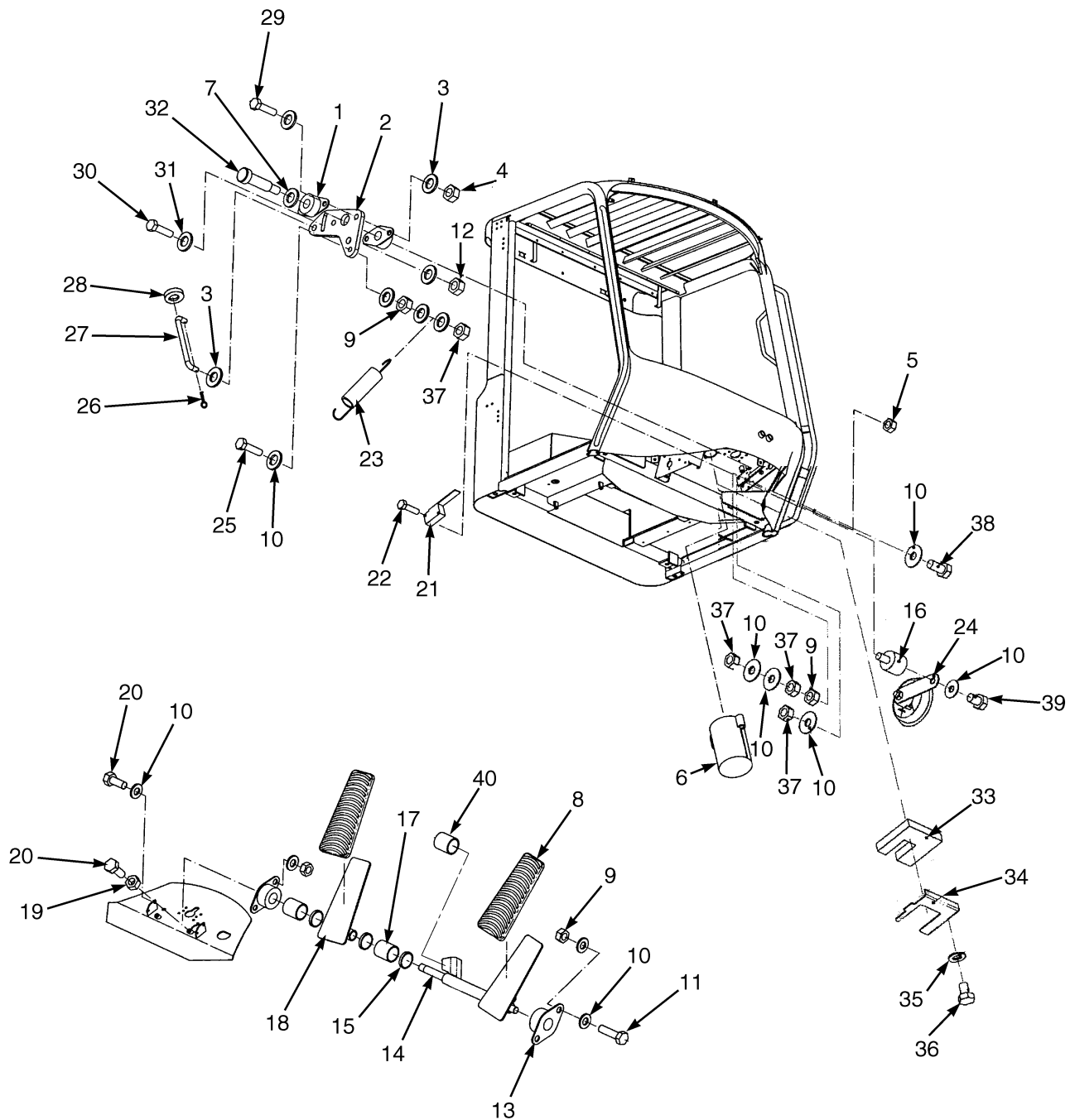


BP040049

ITEM	PART NO.	DESCRIPTION	QTY

ITEM	PART NO.	DESCRIPTION	QTY
	1492368	Charge Valve	1
1		Body	1
2	1591320	Plug	1
3		Spool Assembly	1
4	1591322	Check Valve	1
5	1591323	Valve (Unloader)	1
6	1591324	Spring	1
7	1591325	Spring Seat	1
8	1358860	Plug	2

BRAKE AND INCHING PEDAL LINKAGE (FIGURE 8-18)



HP040464

BRAKE AND INCHING PEDAL LINKAGE

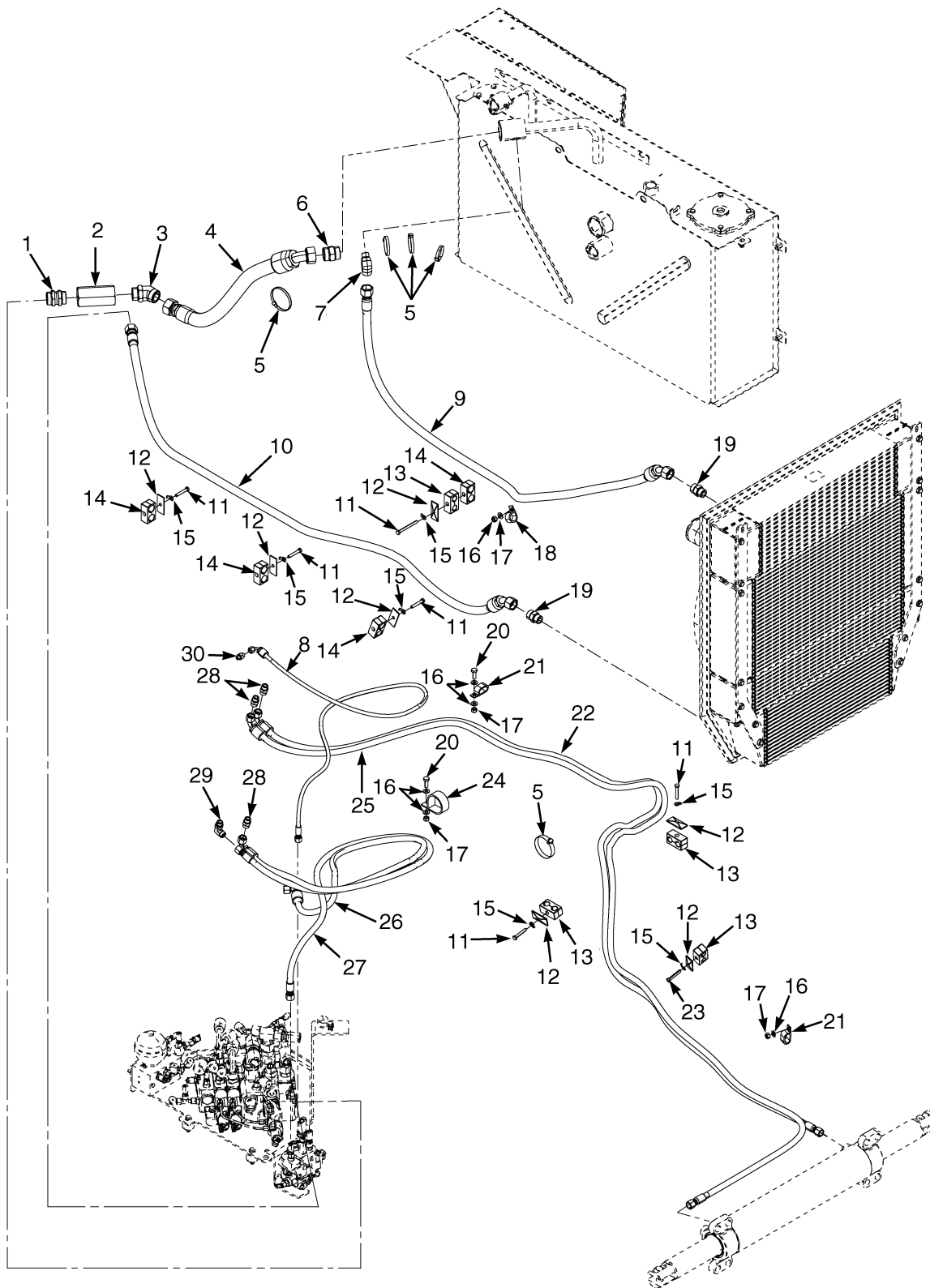
ITEM	PART NO.	DESCRIPTION	QTY
1	313860	Flange	2
2	1571631	Plate	1
3	320156	Washer	4
4	316834	Nut	3
5	1492221	Nut	2
6	1487209	Brake Valve (☞ Figure 8-8).....	1
7	1493386	Washer	1
8	1520596	Cover (Pedal)	2
9	239503	Nut	5
10	320158	Washer	12
11	287851	Capscrew	4
12	136687	Nut	1
13	1492225	Bearing	2
14	1491015	Shaft (Brake Pedal)	1
15	1520841	Shim	3
16	353453	Mount	1
17	1493380	Bearing	2
18	1491016	Inching Pedal	1
19	136692	Nut	3
20	287854	Capscrew	2
21	374159	Switch (Inching)	1
22	302014	Screw	2
23	1498387	Spring	1
23	4001209	Return Spring (Alternate Part)	1
24	1483425	Horn (24 Volt)	1
25	1558040	Screw	1
26	15201	Cotter Pin	2
27	1491020	Rod (Inching Pedal)	1
28	1558039	Grommet	1
29	292501	Capscrew	2
30	292502	Capscrew	1
31	1476421	Washer	2
32	340213	Capscrew	1
33	1623197	Foam (Throttle Pedal)	1
34	1623196	Bracket (Holding)	1
35	1506738	Washer	1
36	1623195	Capscrew	1
37	316835	Nut	1
38	1558038	Screw	1
39	287805	Capscrew	1
40	1634993	Spring	1

[illegible]

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HYDRAULIC SUPPLY AND RETURN (FIGURE 9-1) SHEET 1 OF 3



HP151175

HYDRAULIC SUPPLY AND RETURN
SHEET 1 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
1	1459254	Fitting	1
2	816232	Check Valve	1
3	1516214	Fitting	1
3	16983	O-Ring	1
3	1527821	O-Ring	1
4	2090882	Hose Assy	1
5	129563	Strap Clamp	4
6	1473924	Fitting	1
6	16983	O-Ring	1
6	1527821	O-Ring	1
7	1516209	Fitting	1
7	16982	O-Ring	1
7	16485	O-Ring	1
8	1494372	Hose Assy	1
9	2090885	Hose Assy	1
10	2090883	Hose Assy	1
11	b 292509	Capscrew	6
11	c 214364	Capscrew	4
12	1533649	Cover Plate	7
13	1533664	Clamp	4
14	1618452	Clamp	4
15	1533661	Lockwasher	7
16	320159	Washer	6
17	302401	Locknut	4
18	178119	Clamp	1
19	1473888	Fitting	2
19	16486	O-Ring	1
19	16982	O-Ring	1
20	136985	Capscrew	3
21	110322	Clamp	2
22	2091404	Hose Assy (To Steering Pump) (H170HD, H190HD, H210HD)	1
22	2091406	Hose Assy (To Steering Pump) (H230HD, H250HD, H280HD)	1
23	287750	Capscrew	1
24	1384699	Clamp	1
25	2091403	Hose Assy (To Steering Pump) (H170HD, H190HD, H210HD)	1
25	2091405	Hose Assy (To Steering Pump) (H230HD, H250HD, H280HD)	1
26	1476696	Hose Assy (To Steering Pump)	1
27	1476697	Hose Assy (To Steering Pump)	1
28	1473887	Fitting	3
28	265731	O-Ring	1
28	16484	O-Ring	1
29	1473897	Fitting	1
29	265731	O-Ring	1
29	16484	O-Ring	1
30	1486737	Fitting	1
30	16481	O-Ring	1
30	16483	O-Ring	1
	a 177303	Clamp	1

FOOTNOTES:

a Not Illustrated

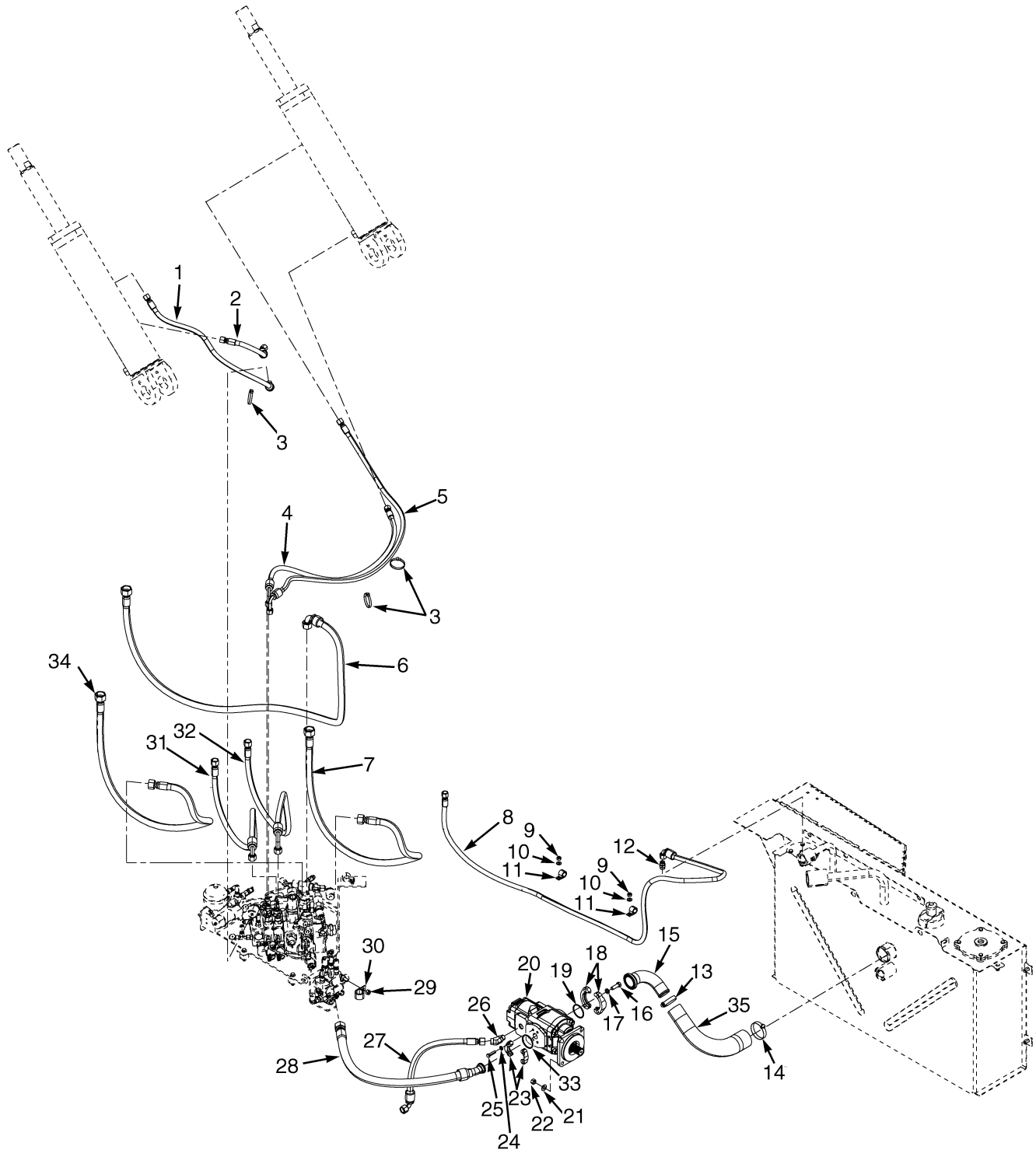
b → S/N H007E02295F

c S/N H007E02296F →

NOTES

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HYDRAULIC SUPPLY AND RETURN (FIGURE 9-2) SHEET 2 OF 3



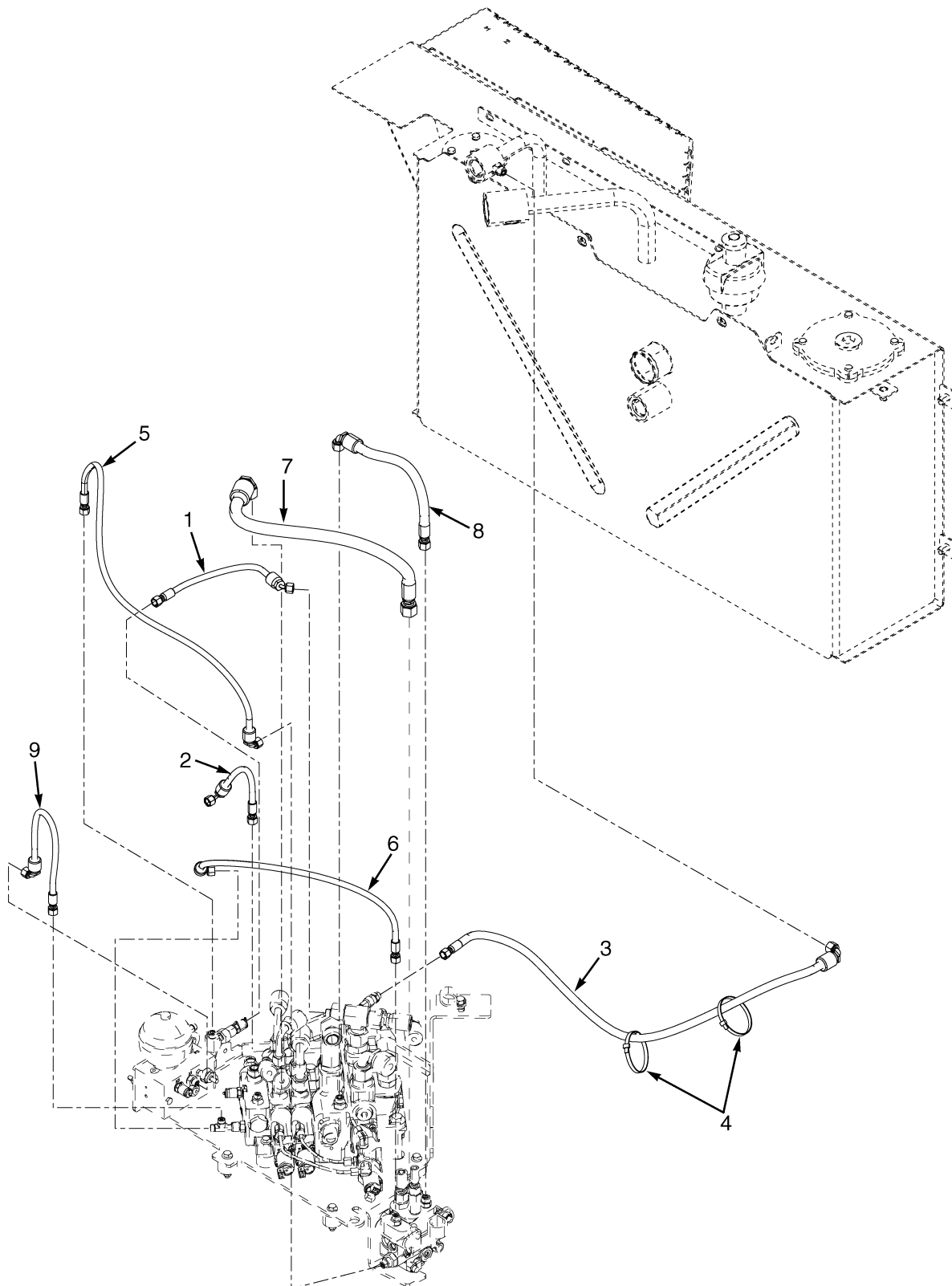
HP151177

HYDRAULIC SUPPLY AND RETURN
SHEET 2 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
1	1476691	Hose Assy	1
2	1476689	Hose Assy	1
3	129563	Strap Clamp	2
4	1476692	Hose Assy	1
5	1476694	Hose Assy	1
6	1476736	Hose Assy (To Hoist Cylinder)	1
7	1476735	Hose Assy (To Hoist Cylinder)	1
8	b 1490266	Hose Assy (To Hoist Cylinder)	1
8	c 2107546	Hose Assy (To Hoist Cylinder)	1
9	302401	Locknut	2
10	320159	Washer	2
11	101625	Clamp	2
12	1473887	Fitting	1
12	16484	O-Ring	1
12	265731	O-Ring	1
13	1673489	Clamp	1
14	1673488	Clamp	1
15	222590	Fitting	1
16	18588	Capscrew	4
17	15158	Washer	4
18	222531	Clamp (Split Half)	2
19	198518	O-Ring	1
20	1625617	Hydraulic Pump (LPG)	1
20	1625615	Hydraulic Pump (Diesel)	1
21	15135	Washer	4
22	221711	Nut	4
23	190757	Clamp (Split Half)	2
24	15156	Lockwasher	4
25	16815	Capscrew	4
26	1516205	Fitting	1
26	252729	O-Ring	1
26	16485	O-Ring	1
27	1476705	Hose Assy	1
28	1476737	Hose Assy	1
29	302402	Locknut	1
30	279033	Clamp	1
31	2056208	Hose Assy (To Header Hose T)	1
32	2056209	Hose Assy (To Header Hose P)	1
33	169787	O-Ring	1
34	2101641	Hose Assy (To Header Hose) (4,5,6 Function Only)	1
35	1625612	Hose (Suction) (LPG)	1
35	1532908	Hose (Suction) (Diesel)	1
	a 1529016	Fitting (3 Function, Dual Side-Shift)	1

FOOTNOTES:**a** Not Illustrated**c** S/N H007E02296F →**b** → S/N H007E02295F

HYDRAULIC SUPPLY AND RETURN (FIGURE 9-3) SHEET 3 OF 3

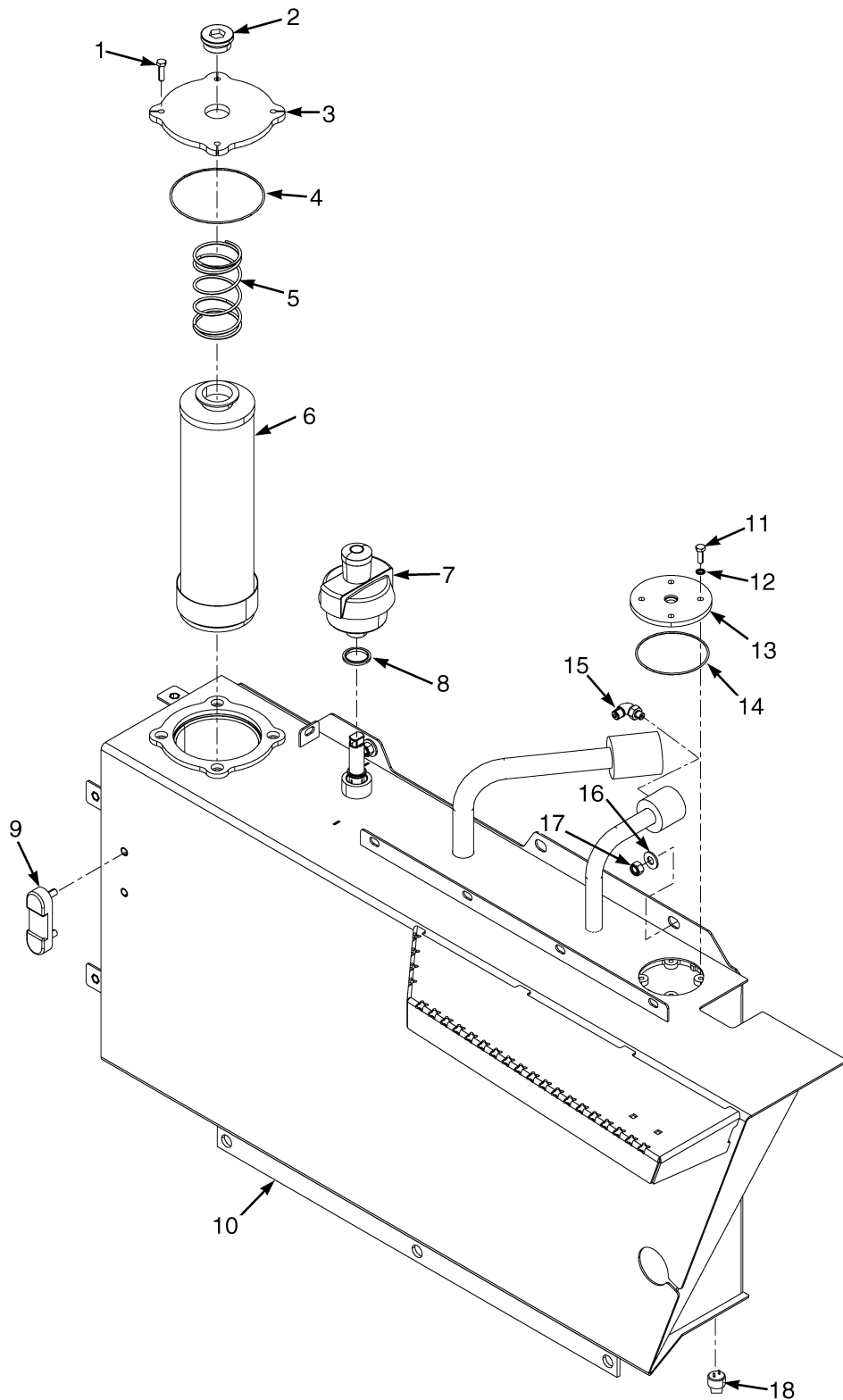


HP151178

HYDRAULIC SUPPLY AND RETURN
SHEET 3 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
1	1476682	Hose Assy	1
2	1476681	Hose Assy	1
3	1490566	Hose Assy	1
4	129563	Strap Clamp	2
5	2046767	Hose Assy	1
6	1500217	Hose Assy	1
7	1476704	Hose Assy	1
8	1476688	Hose Assy	1
9	1476678	Hose Assy	1

HYDRAULIC TANK AND ATTACHING PARTS (FIGURE 9-4) (→ S/N H007E02295F)



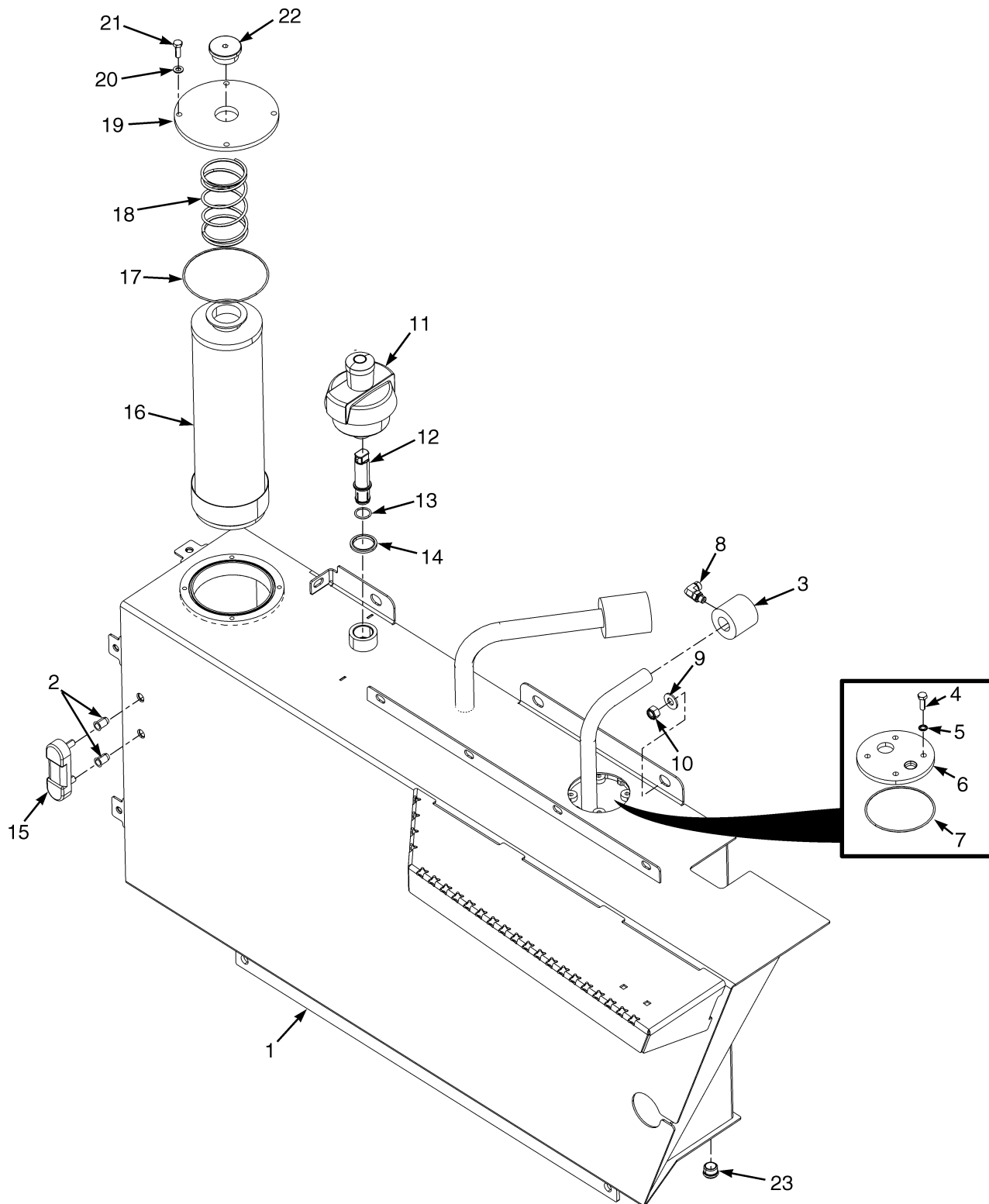
HP151168

HYDRAULIC TANK AND ATTACHING PARTS

(→ S/N H007E02295F)

ITEM	PART NO.	DESCRIPTION	QTY
1	176640	Bolt	4
2	1538936	Plug	1
3	1528456	Filter Head	1
4	39756	O-Ring	1
5	1533477	Spring	1
6	2059720	Hydraulic Filter	1
7	1564721	Breather (With Indicator and Sandpipe)	1
7	1494312	Filter Element	1
7	1563867	Pipe	1
7	39373	O-Ring	1
8	888333	Seal	1
9	1528144	Indicator	1
10	1640074	Hydraulic Tank	1
11	136749	Screw	4
12	1536311	Sealing Ring	4
13	1536288	Cover	1
14	39743	O-Ring	1
15	1487058	Fitting	1
15	1527813	O-Ring	1
15	16481	O-Ring	1
16	320162	Washer	3
17	302402	Locknut	3
18	35503	Fitting	1

HYDRAULIC TANK AND ATTACHING PARTS (FIGURE 9-5) (S/N H007E02296F →)

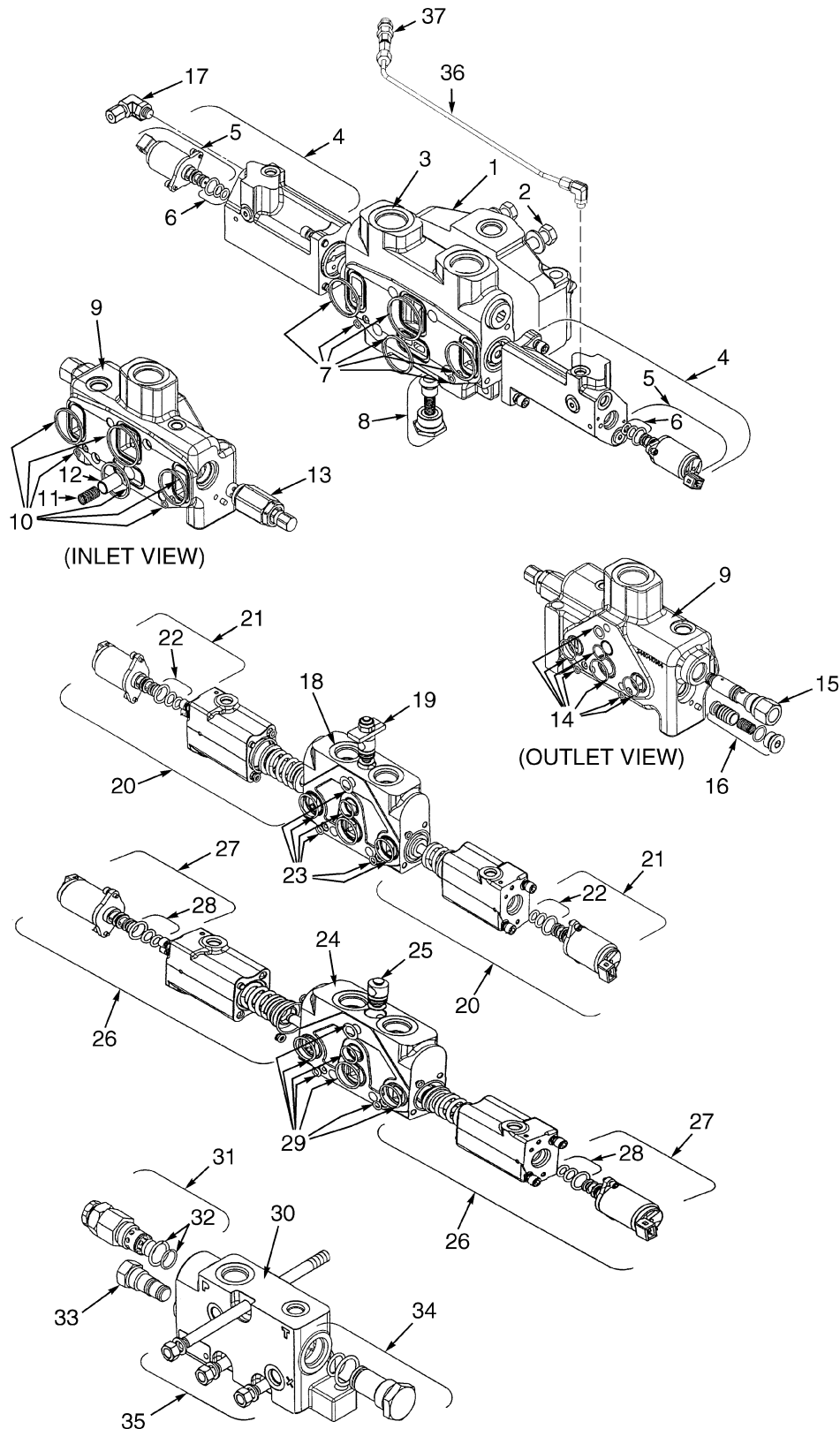


BP150277

HYDRAULIC TANK AND ATTACHING PARTS
(S/N H007E02296F →)

ITEM	PART NO.	DESCRIPTION	QTY
1	1676971	Hyd Tank Wldmt	1
2	1676814	Rivet	2
3	1677640	Boss (O Ring)	1
4	136749	Screw	4
5	1536311	Sealing Ring	4
6	1694274	Cover	1
7	39743	O-Ring	1
8	1487058	Fitting	1
8	1527813	O-Ring	1
8	16481	O-Ring	1
9	320162	Washer	3
10	302402	Locknut	3
11	1564721	Breather (With Indicator and Sandpipe)	1
12	1563867	Pipe	1
13	39373	O-Ring	1
14	888333	Seal	1
15		Oil Level Indicator	1
16	2059720	Hydraulic Filter	1
17	39747	O-Ring	1
18	1533477	Spring	1
19	1676979	Plate	1
20	1581556	Washer	4
21	1581581	Capscrew	4
22	1538936	Plug	1
23	1689346	Drain Plug	1

HYDRAULIC CONTROL VALVE ASSEMBLY (FIGURE 9-6)



BP140071

HYDRAULIC CONTROL VALVE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	2052832	Hydraulic Control Valve	1
1	1502570	Valve Section (Outlet)	1
2	1491779	Kit-Tie Rod (Outlet)	1
2	1636372	Washer	1
2	1636373	Capscrew	1
3	1502571	Valve Section (Lift)	1
4	1491772	Kit-End Cap	1
5	1491773	Solenoid	2
6	1496902	Kit-Seal	2
7	1491765	Kit-Seal	1
8	1491775	Valve	2
8	16486	O-Ring	1
9	1513597	Valve Section (Center)	1
10	1491765	Kit-Seal (Inlet Side)	1
11		Spring	1
12		Check Valve	1
13	1502582	Relief Valve	1
13	1491767	Kit-Seal	1
14	1491764	Kit-Seal (Outlet Side)	1
15	1527128	Cartridge Valve	1
16	1491855	Connector	1
17	1491777	Kit-Check Valve	1
17	1613901	Kit-Piping (Without Check Valve)	1
17	1635556	Kit-Piping	1
17	1635557	Fitting	1
17	1613902	Kit-Check Valve	1
18	1520807	Valve Section	1
19	1615156	Kit-Check Valve	1
20	1491771	End Cap (With Spring and Check Valve)	1
21	1491773	Solenoid	2
22	1496902	Kit-Seal	2
23	1491764	Kit-Seal	1
23	1494320	O-Ring	1
23	1514865	Shim	1
24	1502574	Valve Section (Tilt)	1
25	1491774	Check Valve	1
26	1491771	End Cap (With Spring and Check Valve)	1
27	1491773	Solenoid	2
28	1496902	Kit-Seal	2
29	1491764	Kit-Seal	1
30	1502576	Valve Section (Inlet)	1
31	1615157	Relief Valve	1
32	1467948	Kit-Relief Valve	1
32	1495260	O-Ring	1
32	1495259	O-Ring	1
32	1619729	Sealing Ring	1
33	1491768	Plug	1
33	1495263	O-Ring	1
33	1495262	O-Ring	1
34	1496901	Kit-Plug	1
34	16486	O-Ring	1

HYDRAULIC CONTROL VALVE ASSEMBLY

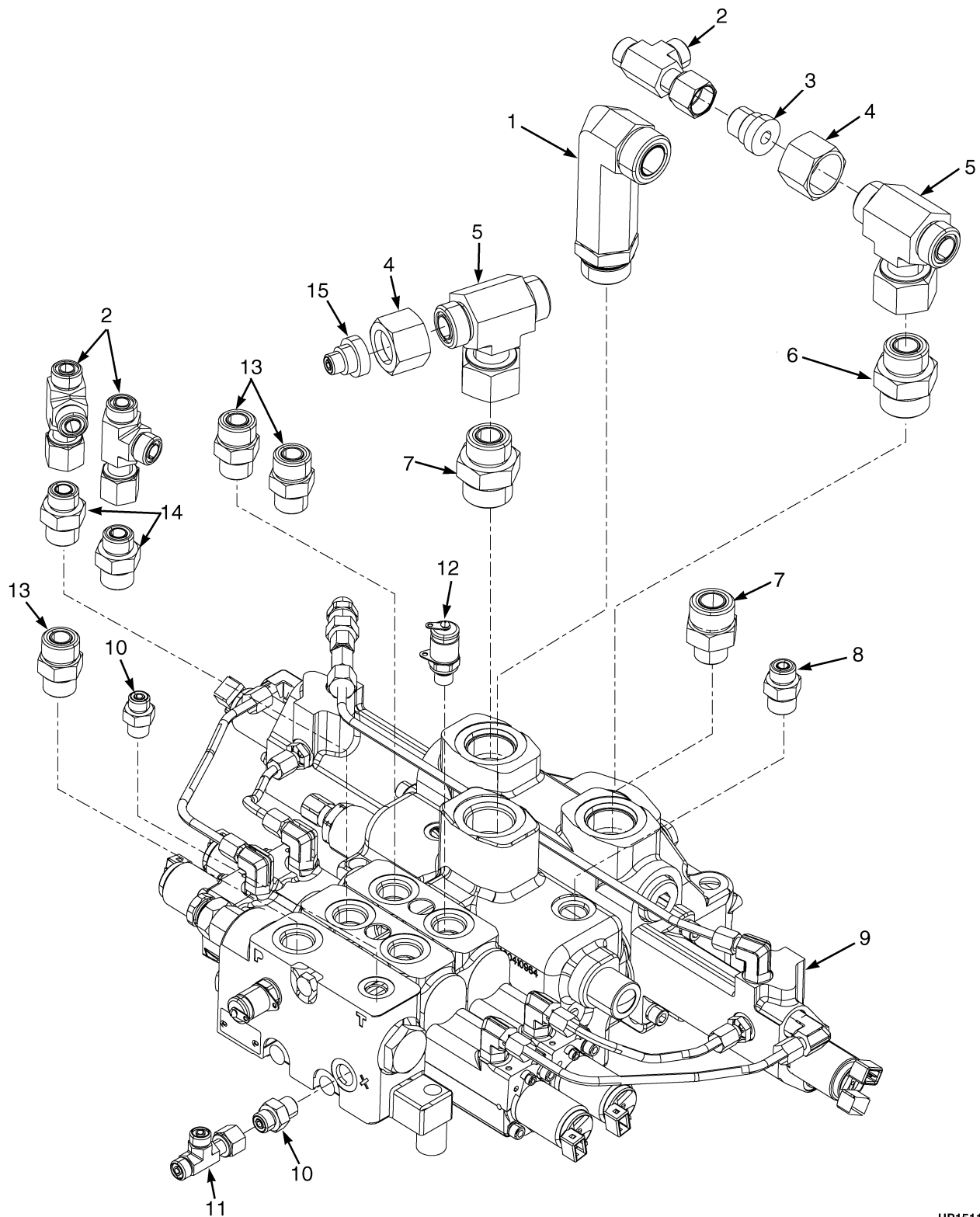
ITEM	PART NO.	DESCRIPTION	QTY
34	1615154	O-Ring	1
35	1520332	Kit-Tie Rod (Inlet)	1
36	1613901	Kit-Piping (Without Check Valve)	1
37	1613902	Kit-Check Valve	1
	1496900	Kit-Seal (Main Valve)	1

NOTES

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HYDRAULIC CONTROL VALVE AND ATTACHING PARTS (FIGURE 9-7)

SHEET 1 OF 2

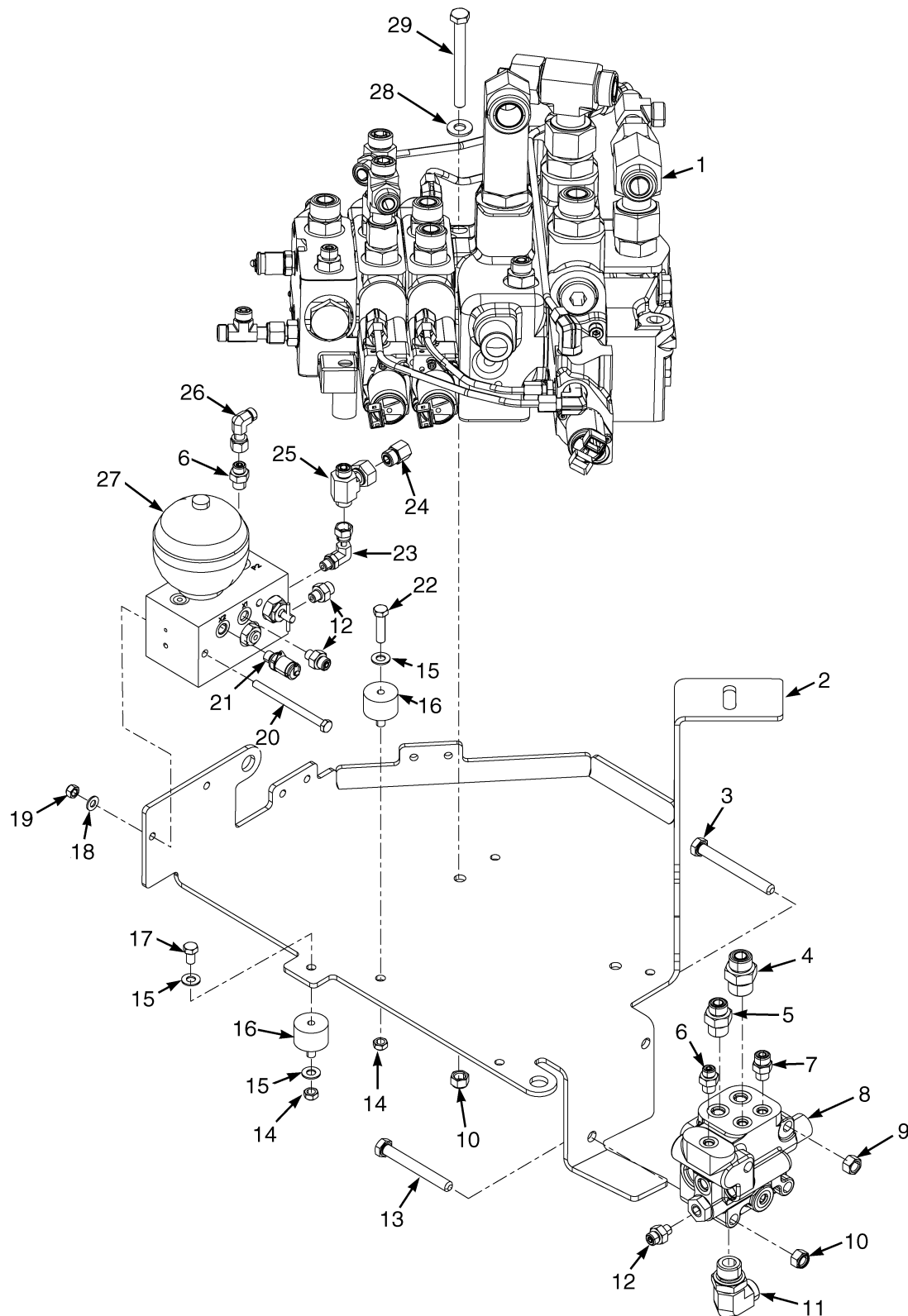


HP151169

HYDRAULIC CONTROL VALVE AND ATTACHING PARTS
SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	1486557	Fitting	1
1	244167	O-Ring	1
1	16487	O-Ring	1
2	1487095	Fitting	3
2	265731	O-Ring	3
3	1487150	Fitting	1
3	265731	O-Ring	1
3	16982	O-Ring	1
3	1487166	Fitting	1
3	280154	O-Ring	1
4	1487166	Fitting	2
4	280154	O-Ring	1
5	1487088	Fitting	2
5	280154	O-Ring	3
6	1486754	Fitting	1
6	280154	O-Ring	1
6	16485	O-Ring	1
7	1473919	Fitting	2
7	280154	O-Ring	1
7	16487	O-Ring	1
8	1486742	Fitting	1
8	265787	O-Ring	1
8	16484	O-Ring	1
9	2052832	Hydraulic Control Valve (☞Figure 9-6).....	1
10	1486738	Fitting	2
10	16483	O-Ring	1
10	1527813	O-Ring	1
11	1487094	Fitting	1
11	1527813	O-Ring	3
12	1473927	Quick Disconnect Fitting	1
13	1486749	Fitting	3
13	16485	O-Ring	1
13	252729	O-Ring	1
14	1486746	Fitting	2
14	265731	O-Ring	1
14	16485	O-Ring	1
15	1487148	Fitting	1
15	16982	O-Ring	1
15	1527813	O-Ring	1
15	1487166	Fitting	1
15	280154	O-Ring	1

HYDRAULIC CONTROL VALVE AND ATTACHING PARTS (FIGURE 9-8) SHEET 2 OF 2



HYDRAULIC CONTROL VALVE AND ATTACHING PARTS
SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	2052832	Hydraulic Control Valve (☞ Figure 9-6).....	1
2	a 1492530	Plate	1
2	b 1687881	Plate	1
3	292539	Capscrew	1
4	1486751	Fitting	1
4	265787	O-Ring	1
4	1527813	O-Ring	1
5	1486746	Fitting	1
5	265731	O-Ring	1
5	16485	O-Ring	1
6	1486738	Fitting	2
6	16483	O-Ring	1
6	1527813	O-Ring	1
7	1486740	Fitting	1
7	265787	O-Ring	1
7	16483	O-Ring	1
8	1500407	Flow Valve (Steering Priority Valve)	1
8	1613877	Cartridge	1
9	216877	Nut	1
10	302402	Locknut	3
11	1487069	Fitting	1
11	252729	O-Ring	1
11	16486	O-Ring	1
12	1486737	Fitting	3
12	16481	O-Ring	1
12	1527813	O-Ring	1
13	292538	Capscrew	1
14	145641	Locknut (Prevailing Torque)	5
15	15134	Washer	10
16	1307730	Mount	5
17	18535	Capscrew	4
18	320157	Washer	2
19	302400	Nut	2
20	1307994	Capscrew	2
21	1473927	Quick Disconnect Fitting	3
22	16815	Capscrew	1
23	1486578	Fitting	1
23	265787	O-Ring	1
23	16483	O-Ring	1
24	1502373	Fitting	1
25	1488464	Fitting	1
25	265787	O-Ring	3
26	1486770	Fitting	1
26	1527813	O-Ring	2
27	1494804	Pilot Valve (☞ Figure 9-9).....	1
28	320162	Washer	2
29	292540	Capscrew	2

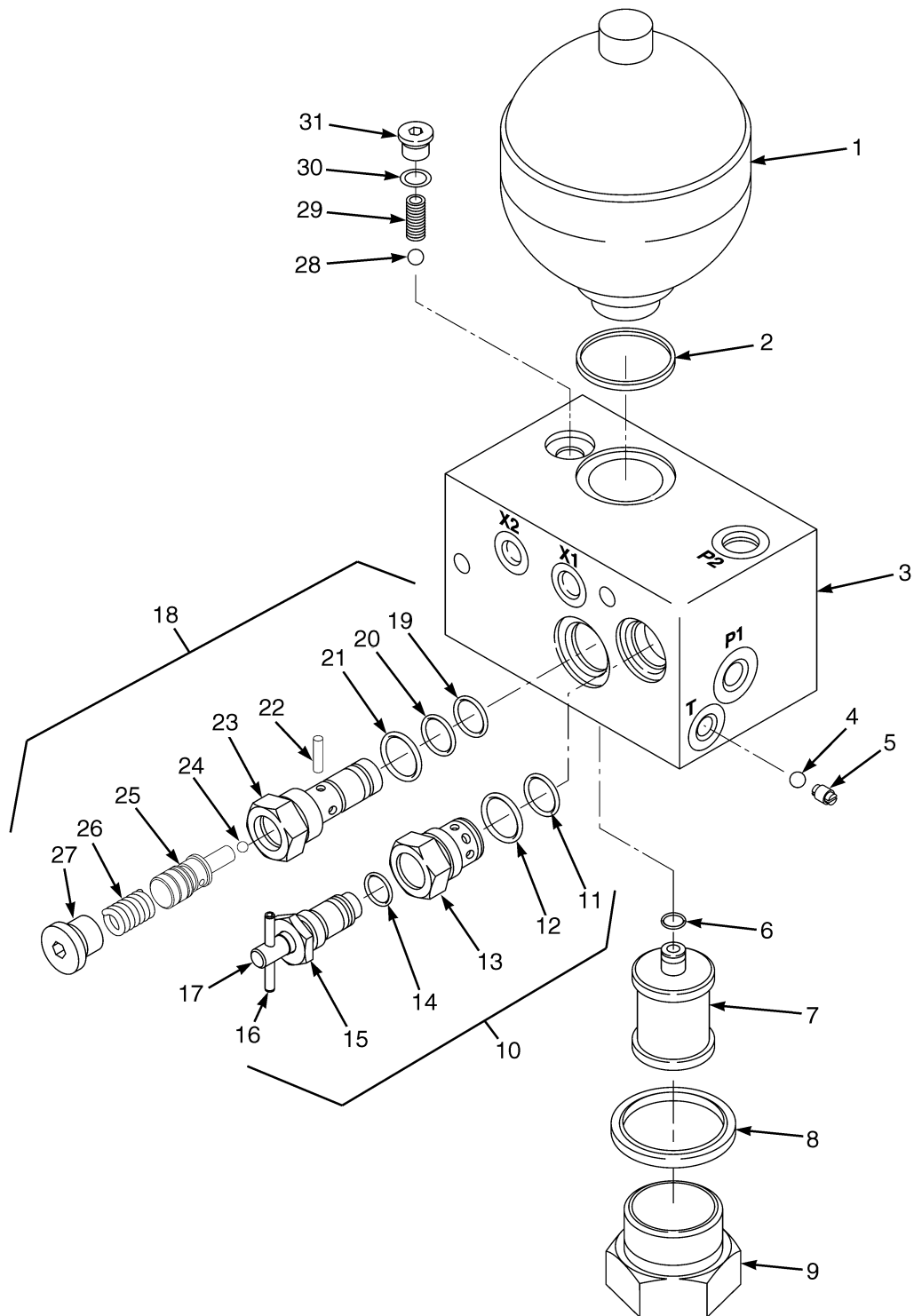
FOOTNOTES:

- a** → PENDING PER ECN 68424
- b** PENDING PER ECN 68424 →

NOTES

[illegible]

PILOT VALVE ASSEMBLY (FIGURE 9-9)

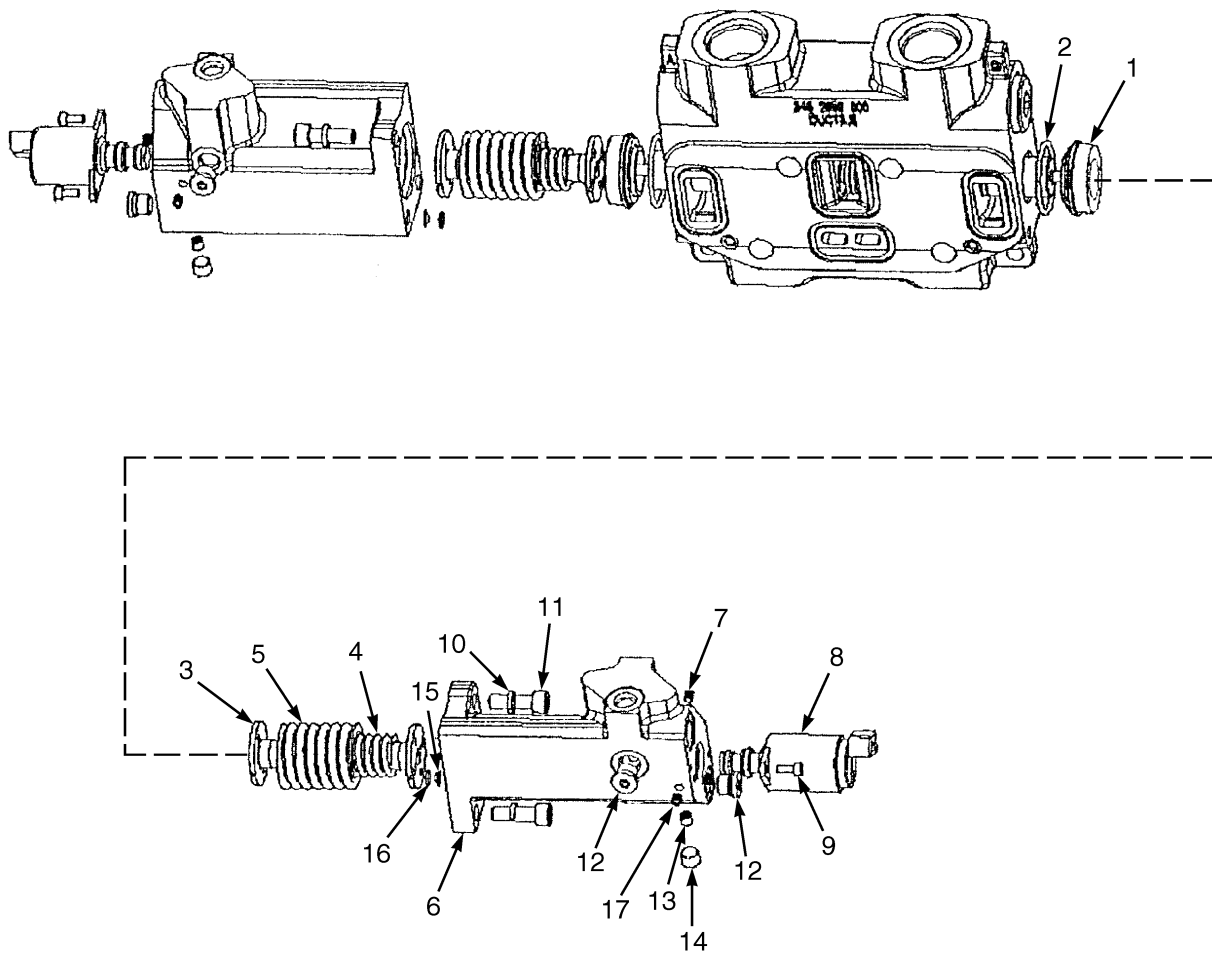


HP151117

PILOT VALVE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	1494804	Pilot Valve	1
1	1491782	Accumulator	1
2	1495267	Seal	1
3		Block	1
4	1495289	Ball (0.20 in.)	1
5	1495288	Setscrew	1
6	1495266	O-Ring	1
7	1491783	Hydraulic Filter	1
8	1491786	Seal	1
9	1495258	Plug	1
10	1491784	Converter	1
11	1495259	O-Ring	1
12	1495260	O-Ring	1
13		Cartridge	1
14	1495261	O-Ring	1
15	1636539	Plug	1
16	1636540	Pin	1
17		Spindle	1
18	1495187	Cartridge (Pressure Reducing)	1
19	1495262	O-Ring	1
20	1467940	O-Ring	1
21	1491719	O-Ring	1
22	1636536	Pin	1
23		Cartridge	1
24	1636535	Ball	1
25		Piston	1
26	1636543	Spring	1
27	1636534	Plug	1
28	1495287	Ball (0.25 in.)	1
29	1495286	Spring	1
30	1495265	O-Ring	1
31	1491858	Plug	1
31	1495265	O-Ring	1
	1491787	Kit-Seal	1
	1495188	Kit-Seal (Valve)	1

END CAP PARTS (FIGURE 9-10) LIFT SECTION

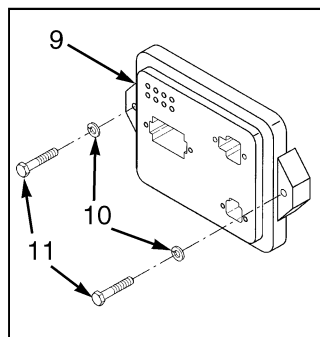
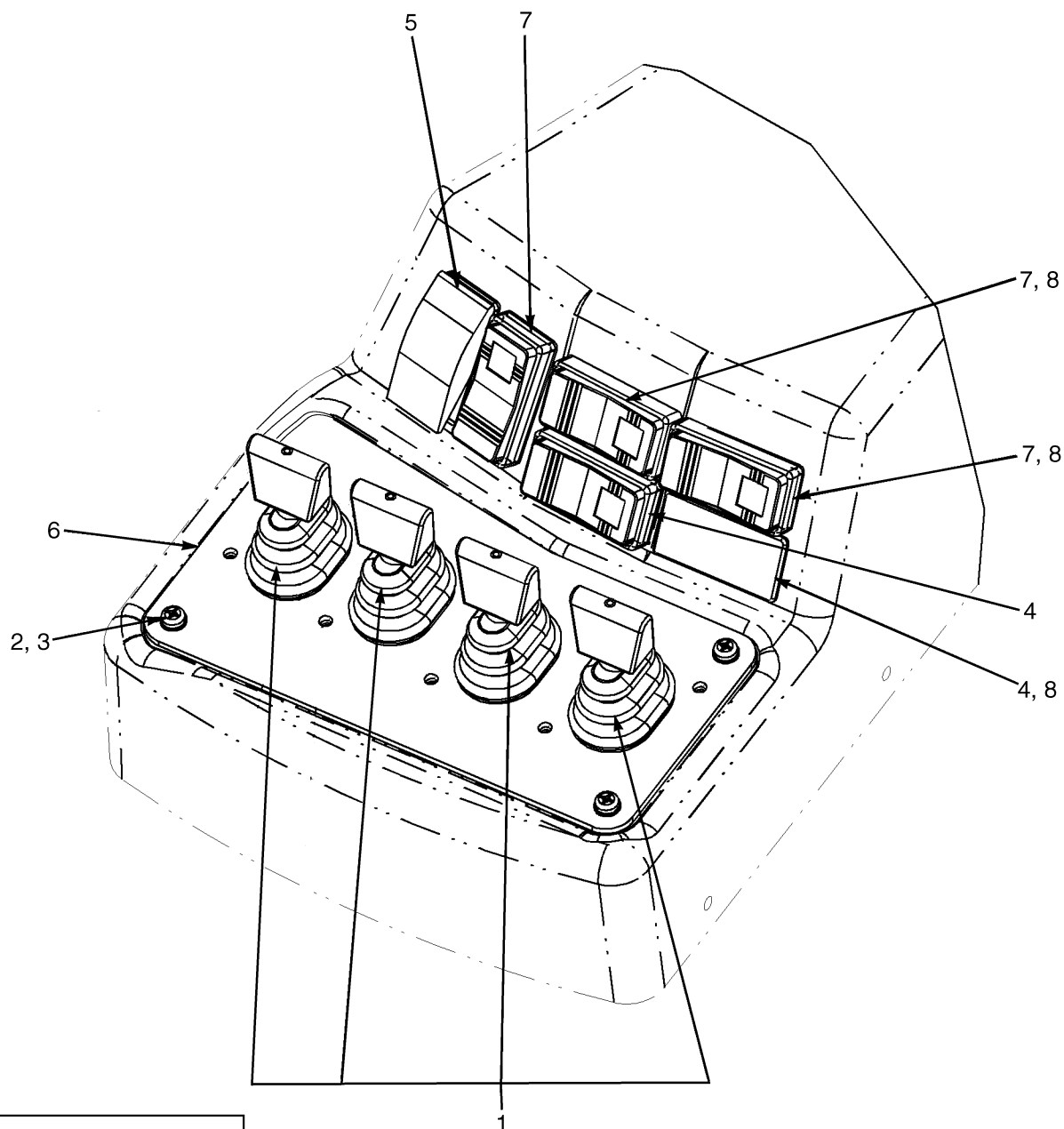


BP140072

**END CAP PARTS
LIFT SECTION**

ITEM	PART NO.	DESCRIPTION	QTY
	1491772	Kit-End Cap	2
1	1624020	Seal	2
2	1619731	O-Ring	2
3	1624021	Spring Guide	4
4	1624022	Spring	2
5	1624023	Spring	2
6	1624024	End Cap	2
7	1624025	Plug	6
8	1491773	Solenoid	2
8	1496902	Kit-Seal	1
9	1624026	Capscrew	4
10	1624027	Lockwasher	4
11	1624028	Capscrew	4
12	1491858	Plug	4
12	1495265	O-Ring	1
13	1624029	Plug	2
14	1624030	Plug	2
15	1619734	Filter	2
16	1619732	O-Ring	2
17	1672803	Plug	2
	1496900	Kit-Seal (Main Valve)	1

HYDRAULIC CONTROLS (FIGURE 9-11) LEVERS

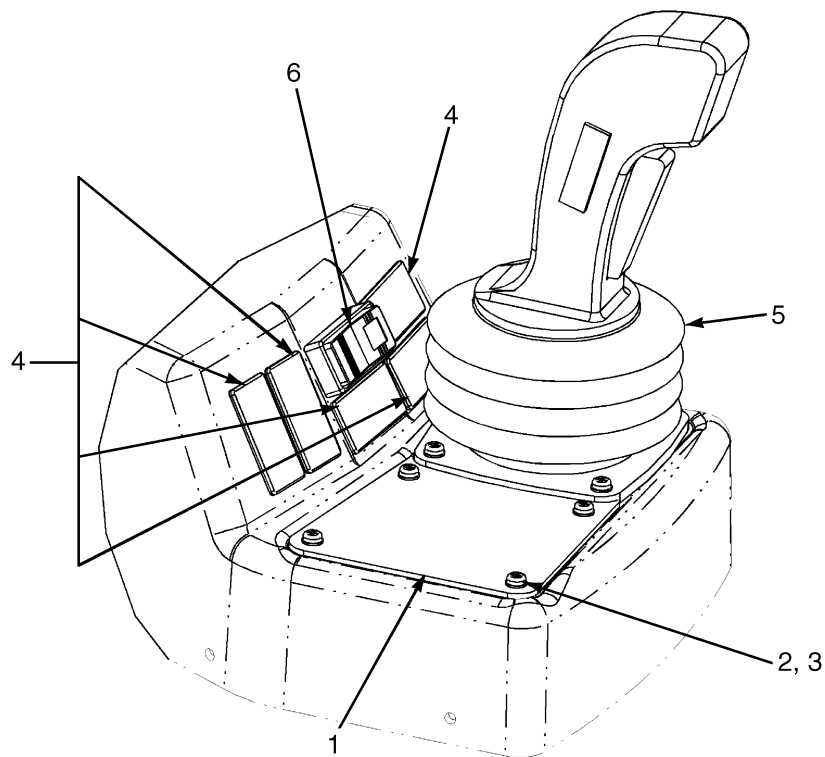


HP151176

**HYDRAULIC CONTROLS
LEVERS****KEY:****A: Three Function With SideShift Only****B: Three Function -2 Lever-1 Switch with Fork Positioner****C: Four Function****D: Five Function****E: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY				
			A	B	C	D	E
1	1518879	Mini-Lever (Electronic)	3	4	4	4	4
2	1494516	Screw	4	4	4	4	4
3	1494518	Washer	4	4	4	4	4
4	1487428	Switch (Blank)	2	2	2	2	2
5	2043344	Switch (Horn)	1	1	1	1	2
6	1524147	Plate (Cover)	1	..	1	1	..
6	1524148	Plate (Cover)	..	1	1	..	..
6	1524146	Plate (Cover)	..	..	1	1	1
7	1487428	Switch (Blank)	3	3	..	..	..
7	1487428	Switch (Blank)	..	2	..	..	..
7	1487428	Switch (Blank)	..	..	3	..	..
7	1487428	Switch (Blank)	..	..	2	..	..
7	1487428	Switch (Blank)	..	..	1	..	..
7	1487428	Switch (Blank)	..	..	3	..	..
7	1487428	Switch (Blank)	..	..	2	..	..
7	1487428	Switch (Blank)	..	..	..	2	..
7	1487428	Switch (Blank)	..	..	..	1	..
7	1487428	Switch (Blank)	..	..	..	2	..
7	1487428	Switch (Blank)	..	..	..	1	..
7	1487428	Switch (Blank)	..	..	..	..	1
8	2054005	Switch	..	1	..	..	..
8	2054005	Switch	..	..	1	..	..
8	2054005	Switch	..	..	2	..	..
8	2054005	Switch	..	..	..	1	..
8	2054005	Switch	..	..	..	2	..
8	2054005	Switch	..	..	..	1	..
8	2054005	Switch	..	..	..	2	..
8	2054005	Switch	..	..	1	..	..
8	2054005	Switch	..	..	..	..	2
9	2041923	Controller (I/O)	..	1	1	1	1
10	292680	Washer	..	2	2	2	2
11	292503	Capscrew	..	2	2	2	2

HYDRAULIC CONTROLS (FIGURE 9-12) JOYSTICK



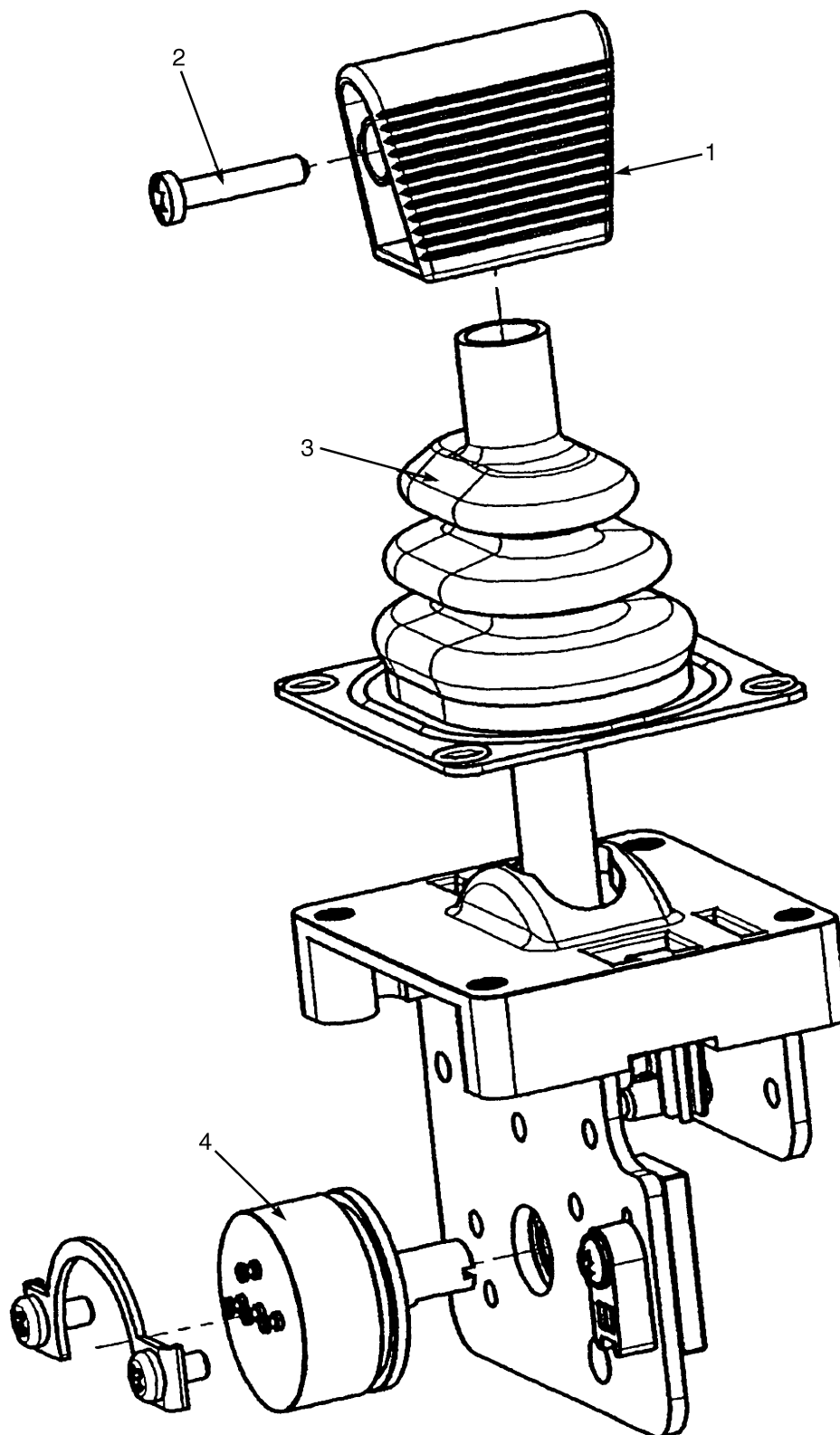
HP151171

KEY:**A: Three Function****B: Three Function (With Simultaneous Fork Positioner)****C: Four Function****D: Five Function**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	1487427	Plate	1	1	1	1
2	1494516	Screw	8	8	8	8
3	1494518	Washer	8	8	8	8
4	1487428	Switch (Blank)	6	5	5	4
5	1504059	Joystick (☞ Figure 4-6, ☞ Figure 4-7).....	1	1	1	1
6	2054005	Switch	..	1	1	2

NOTES

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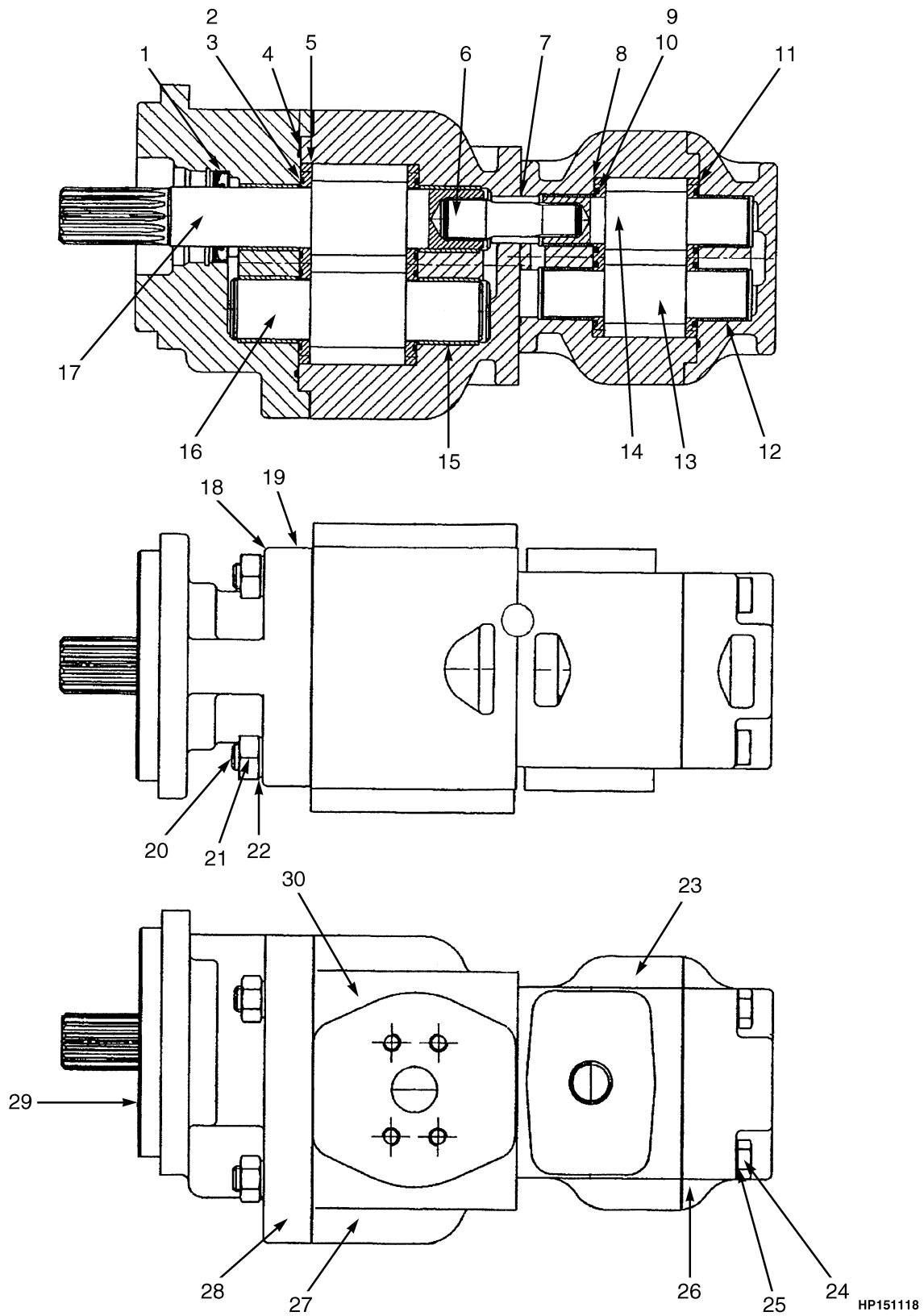
ELECTRONIC LEVER ASSEMBLY (FIGURE 9-13)

BP150108

ELECTRONIC LEVER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	1518879	Mini-Lever (Electronic)	1
1	1592671	Knob	1
2	1592672	Screw	1
3	1583721	Boot	1
4	1592673	Potentiometer	1

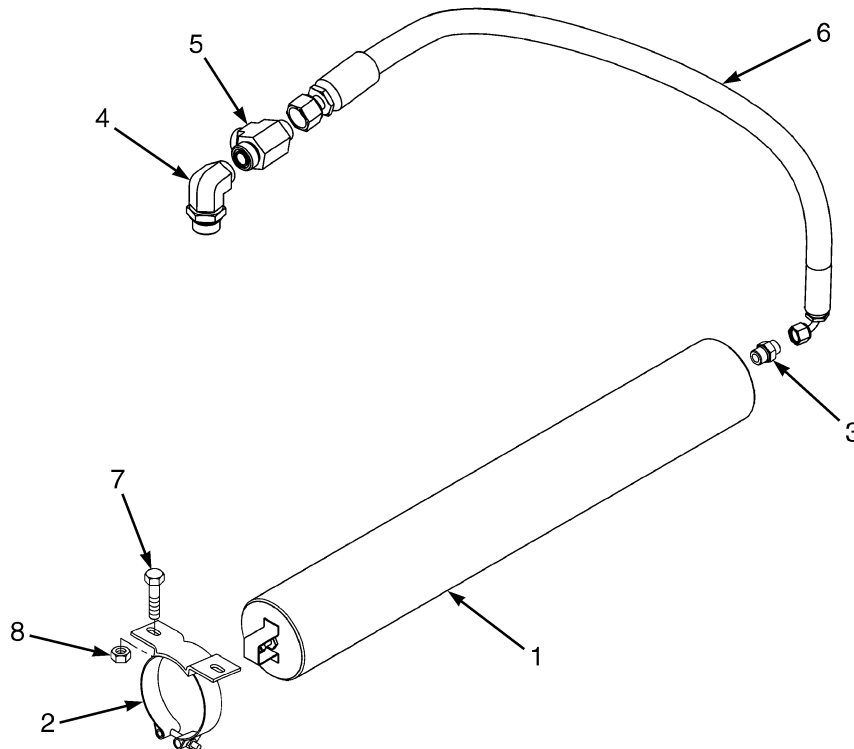
HYDRAULIC PUMP (FIGURE 9-14)



HYDRAULIC PUMP**KEY:****A: Diesel****B: LPG**

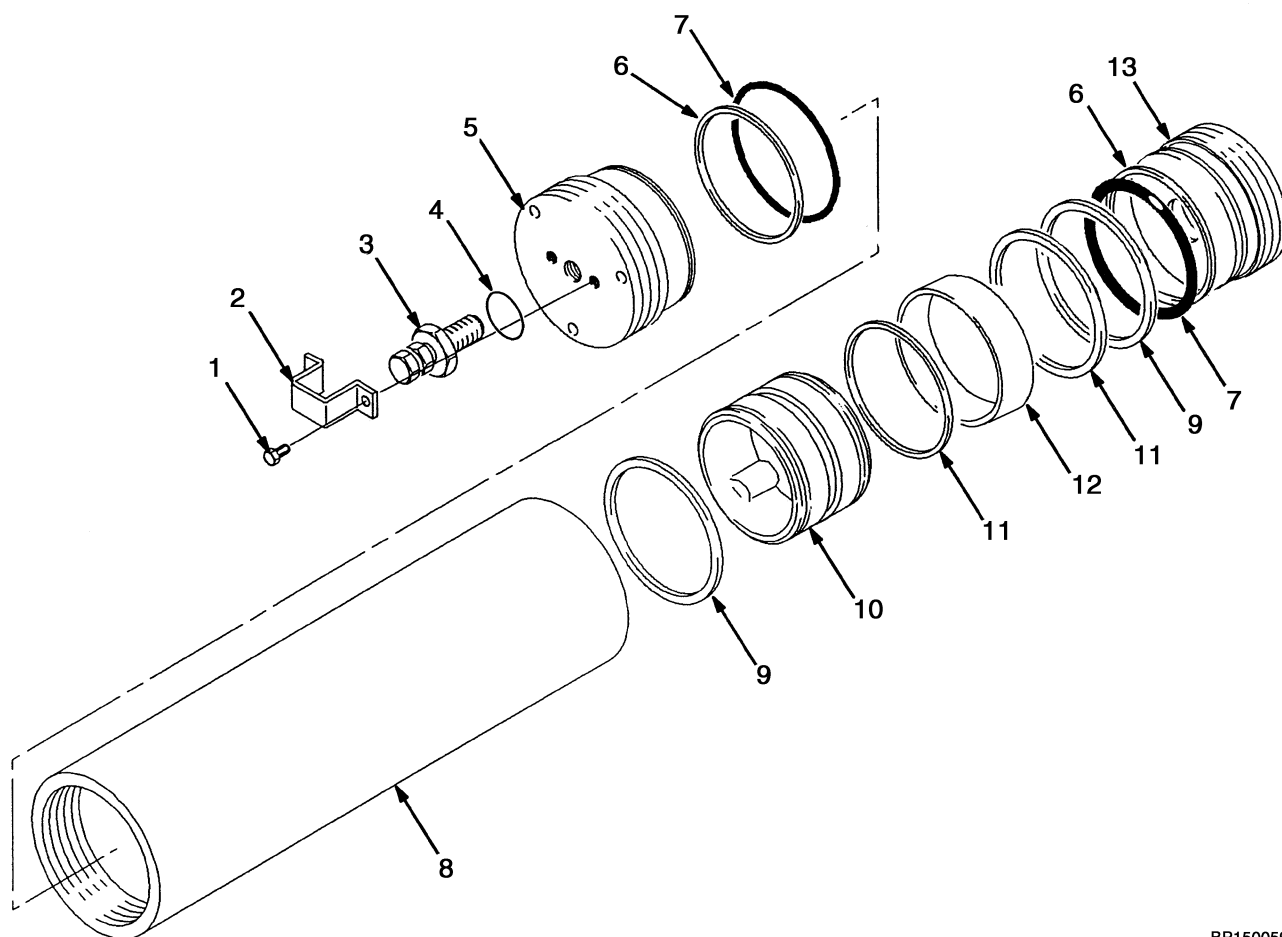
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1625615	Hydraulic Pump	1	..
	1625617	Hydraulic Pump	..	1
1	189996	Seal (Lip)	1	1
2	1638375	Seal (Channel)	2	2
3	1638376	Seal (Back-Up)	2	2
4	1638377	Seal (Section)	1	1
5	1638374	Thrust Plate	2	2
6	1638381	Shaft	1	..
6	1638509	Shaft	..	1
7	1638379	O-Ring	3	3
8	1638371	Thrust Plate	2	2
9	1638372	Seal (Energizer)	2	2
10	1638373	Seal (Element)	2	2
11	1638380	Seal	1	1
12	1638370	Bushing	4	4
13		Driven Gear	1	1
14		Drive Gear	1	1
15	1638356	Bushing	4	4
16		Driven Gear	1	1
17		Drive Gear	1	1
18		Nameplate	1	1
19	1311790	Screw (For Nameplate)	2	2
20	1638366	Screw	4	4
21	1638367	Nut	4	4
22	1638365	Washer	4	4
23		Body	1	1
24	313850	Capscrew	4	..
24	1638803	Screw	..	4
25	1638368	Washer	4	4
26	1638351	Cover	1	1
27		Body	1	1
28	1638350	Flange	1	1
29	176159	Plug	1	1
30	1638378	Sleeve	2	2

LIFT ACCUMULATOR AND ATTACHING PARTS (FIGURE 9-15)



HP150860

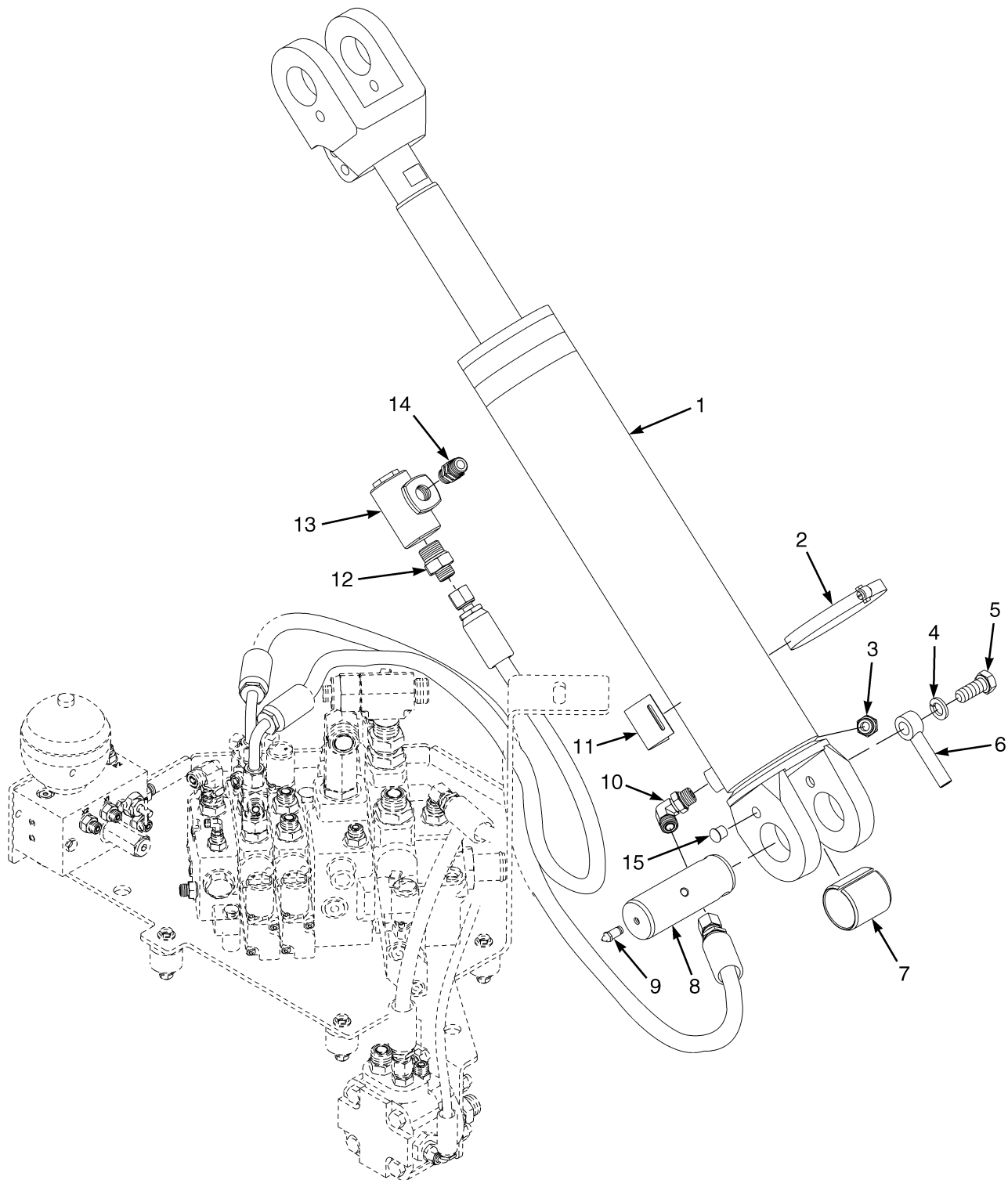
ITEM	PART NO.	DESCRIPTION	QTY
1	1500717	Accumulator (☞ Figure 9-16).....	1
2	1500718	Clamp	2
3	1486746	Fitting	1
4	1487073	Fitting	1
5	1473892	Fitting	1
6	2046552	Hose Assy	1
7	136749	Screw	4
8	302400	Nut	4

LIFT ACCUMULATOR ASSEMBLY (FIGURE 9-16)

BP150059

ITEM	PART NO.	DESCRIPTION	QTY
	1500717	Accumulator	1
1	1502888	Screw	2
2	1503082	Protector	1
3		Gas Valve	1
4	1502887	O-Ring	1
5		Gasoline End Cap	1
6		Back-Up Washer	2
7		O-Ring	2
8		Shell	1
9	1503078	Washer	2
10	1503083	Piston	1
11	1503079	Wear Strip	2
12		O-Ring	1
13		Hydraulic End Cap	1
	1503076	Kit-Accumulator	1

TILT CYLINDER AND ATTACHING PARTS (FIGURE 9-17)

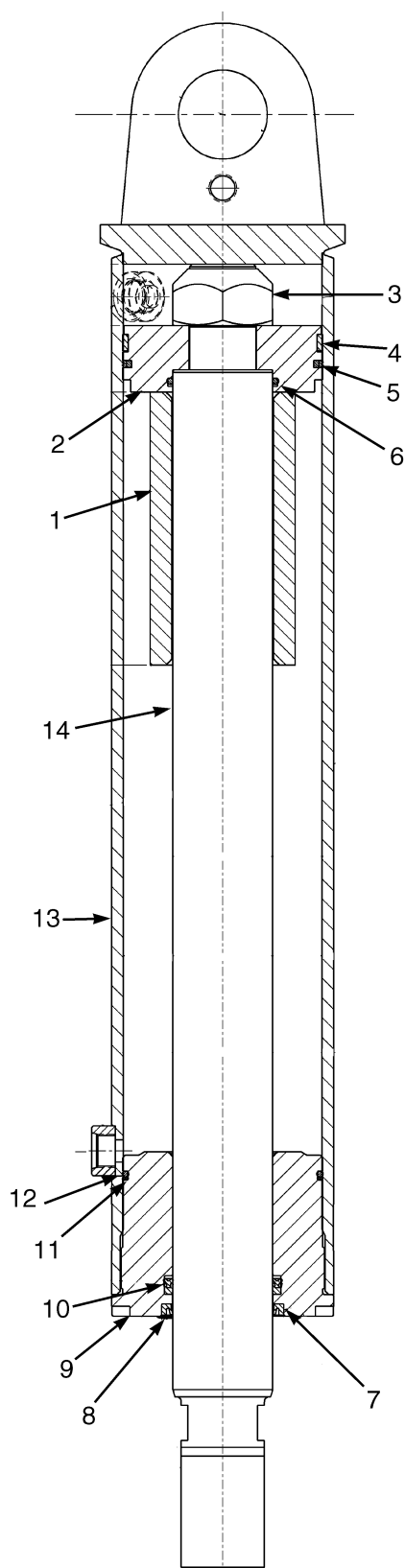


HP151173

TILT CYLINDER AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	2037391	Tilt Cylinder (15° Forward/12° Back, 20.5° Forward/7° Back)	2
1	2055486	Tilt Cylinder (15° Forward/10° Back)	2
1	1455573	Tilt Cylinder (5° Forward/6° Back)	2
1	2013801	Tilt Cylinder (5° Forward/12° Back)	2
2	227220	Clamp	2
3	14595	Plug	2
4	292685	Lockwasher	2
5	292560	Capscrew	2
6	1347861	Anchor	2
7	376051	Bushing	2
8	1347862	Pin	2
9	16001	Grease Fitting	2
10	1473897	Fitting	2
11	87911	Clamp	2
12	1473887	Fitting	2
13	1564349	Relief Valve	2
13	1580023	Cartridge	1
14	1336112	Fitting	2
15	1662578	Plug	2

TILT CYLINDER ASSEMBLY (FIGURE 9-18)



HP151174

TILT CYLINDER ASSEMBLY**KEY:****A: 15° Forward/12° Back, 20.5° Forward/7° Back****B: 15° Forward/10° Back****C: 5° Forward/6° Back****D: 5° Forward/12° Back**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
	2037391	Tilt Cylinder	2	..	..	..
	2055486	Tilt Cylinder	..	2	..	..
	1455573	Tilt Cylinder	..	..	2	..
	2013801	Tilt Cylinder	..	..	..	2
1	1526203	Spacer	..	1	..	..
1	1455599	Spacer	..	..	1	..
1	1301631	Spacer	..	..	..	1
2	376182	Piston	1	1	1	1
3	221377	Locknut	1	1	1	1
4	376187	Wear Ring	1	1	1	1
5	2049287	Seal	1	1	1	1
6	198518	O-Ring	1	1	1	1
7	816578	Rod Wiper	1	1	1	1
8	1599242	Plug	2	2	2	2
9	2013364	End Plug	1	1	1	1
10	816580	Rod Seal	1	1	1	1
11	615148	Back-Up Ring	1	1	1	1
12	15887	O-Ring	1	1	1	1
13	2013370	Tube Wldmt-Cylinder	1	1	1	1
14	2013810	Cylinder Rod (Piston)	1	..	..	1
14	1526202	Cylinder Rod (Piston)	..	1	..	..
14	1455574	Cylinder Rod (Piston)	..	..	1	..
	376385	Kit-Seal	1	1	1	1

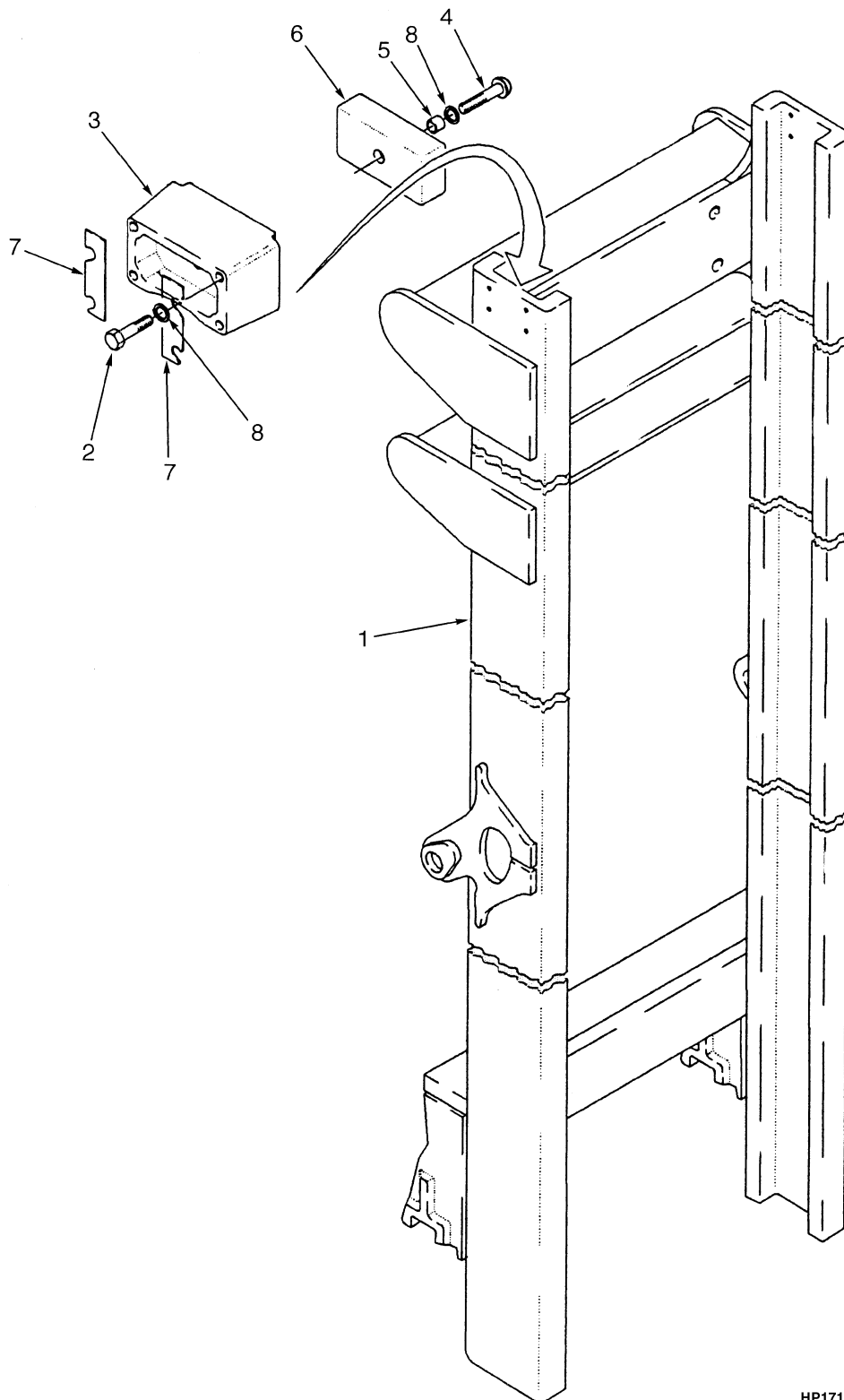
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SECTION 10

MAST-TWO STAGE LIMITED FREE-LIFT

DESCRIPTION	PAGE
FORK POSITIONING CYLINDER	10-34
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TWO STAGE LIMITED FREE-LIFT	10-16
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TWO STAGE LIMITED FREE-LIFT	10-4
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TWO STAGE LIMITED FREE-LIFT	10-6
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TWO STAGE LIMITED FREE-LIFT	10-10
MAST INSTALLATION	
TWO STAGE LIMITED FREE-LIFT	10-14
OUTER MAST	
TWO STAGE LIMITED FREE-LIFT	10-2
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INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) - TWO STAGE LIMITED FREE-LIFT	10-20
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THREE FUNCTION WITHOUT HOSE GROUP - TWO STAGE LIMITED FREE-LIFT	10-28
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OUTER MAST (FIGURE 10-1) TWO STAGE LIMITED FREE-LIFT



HP171276

**OUTER MAST
TWO STAGE LIMITED FREE-LIFT****H170HD-H210HD**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
	Mast Group Number	-	-	-
	Mast Assy	2071678	2071679	2071680
1	Outer Mast	1488098	1488099	1488100

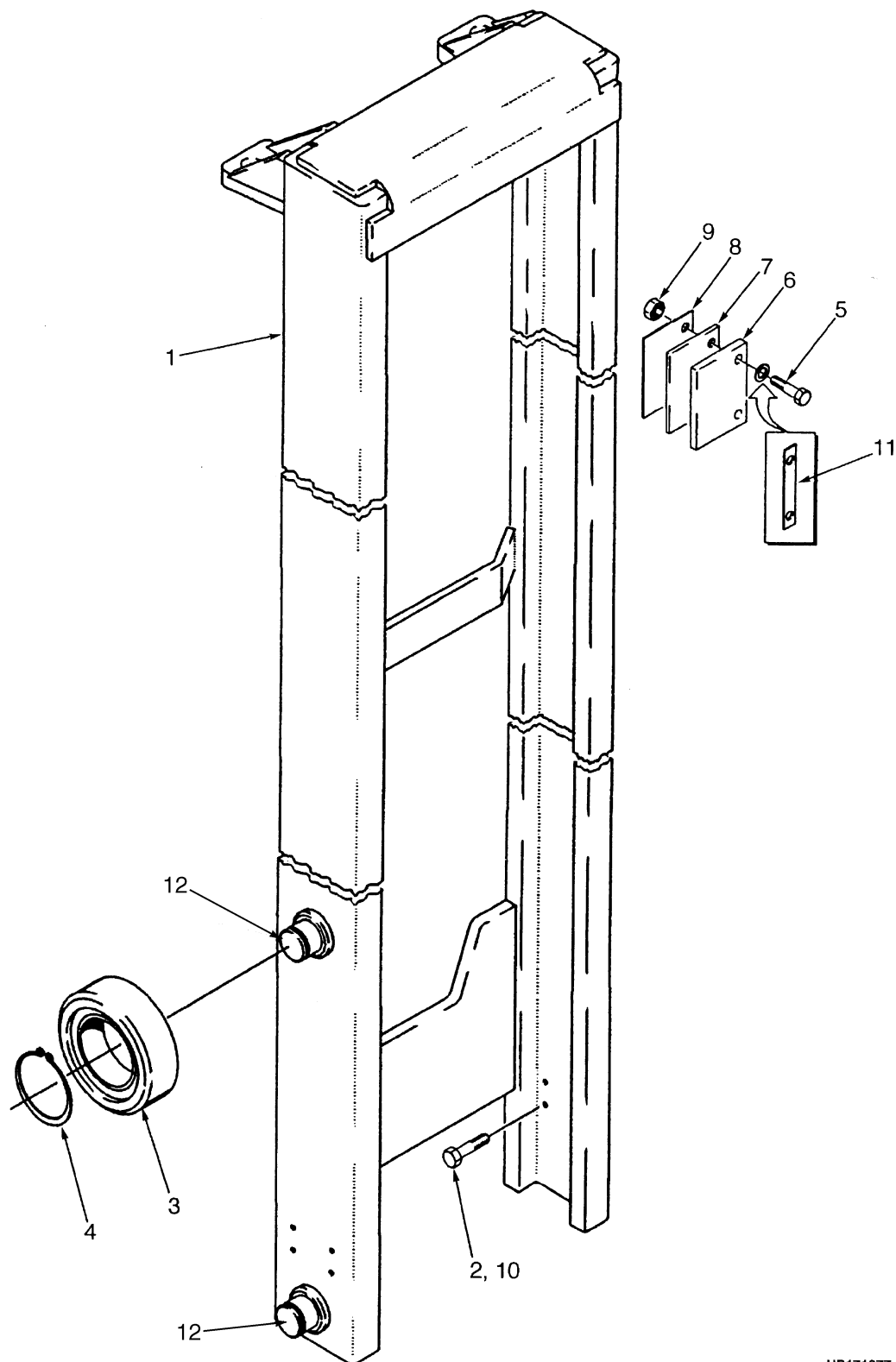
H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
	Mast Group Number	-	-	-	-	-
	Mast Assy	2071681	2071674	2071675	2071676	2071677
1	Outer Mast	1487787	1487788	1487789	1487790	1487791

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	177461	Capscrew (H170HD, H190HD, H210HD)	8
2	221506	Capscrew (H230HD, H250HD, H280HD)	8
3	1301018	Bracket	4
4	376203	Capscrew	4
5	1301016	Spacer	4
6	1335179	Bearing	4
7	1310592	Shim (0.030 in.)	AR
8	15156	Lockwasher	12

FOOTNOTES:**a** Refer to Table

INNER MAST (FIGURE 10-2) TWO STAGE LIMITED FREE-LIFT



HP171277

**INNER MAST
TWO STAGE LIMITED FREE-LIFT****H170HD-H210HD**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
	Mast Group Number	-	-	-
	Mast Assy	2071678	2071679	2071680
1	Inner Mast	1487849	1487850	1487851

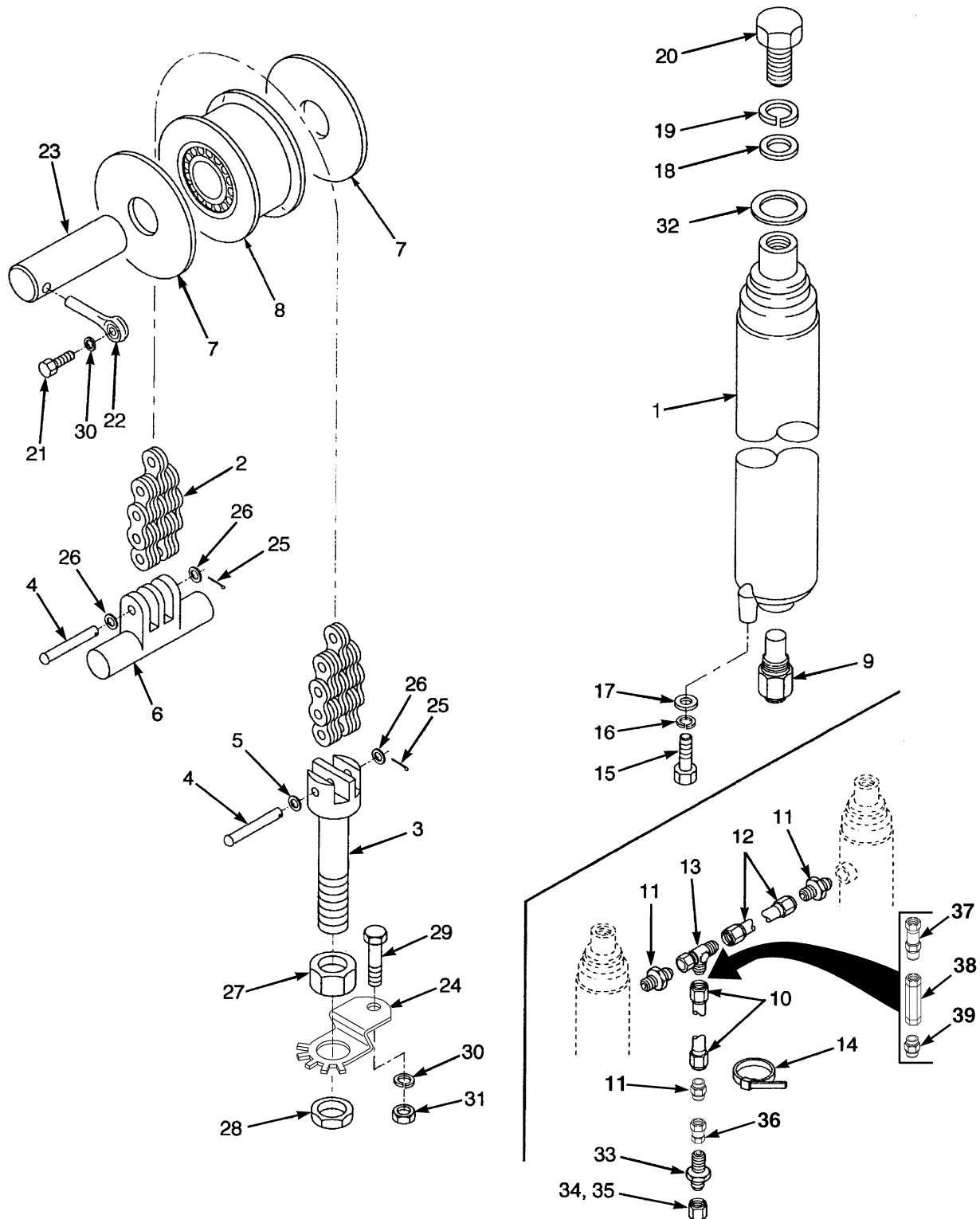
H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
	Mast Group Number	-	-	-	-	-
	Mast Assy	2071681	2071674	2071675	2071676	2071677
1	Inner Mast	1487860	1487861	1487863	1487864	1487865

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Inner Mast	1
2	139140	Capscrew (H170HD, H190HD, H210HD)	8
2	220159	Capscrew (H230HD, H250HD, H280HD)	8
3	b 376056	Load Roller	4
3	c 1691113	Load Roller	4
4	41459	Snap Ring	4
5	292529	Capscrew	6
6	1346892	Wear Plate	2
7	1346973	Shim	AR
8	1346974	Shim	AR
9	300937	Nut	4
10	321197	Loctite	AR
11	1347851	Plate	2
12	376624	Stubshaft	4

FOOTNOTES:**a** Refer to Table**c** S/N H007E02269F →**b** → S/N H007E02268F

LIFT (FIGURE 10-3) TWO STAGE LIMITED FREE-LIFT



HP171359

LIFT
TWO STAGE LIMITED FREE-LIFT
H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
	Mast Group Number	-	-	-
	Mast Assy	2071678	2071679	2071680
2	Chain	355770	376643	376644
10	Hose Assy	2071665	2071666	2071667

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
	Mast Group Number	-	-	-	-	-
	Mast Assy	2071681	2071674	2071675	2071676	2071677
2	Chain	1311469	98883	98885	376646	376647
10	Hose Assy	2071668	2071669	2071670	2071671	2071672

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	a	Mast Assy	1	1
1		Lift Cylinder	2	2
2	a	Chain	2	2
3	1301377	Chain Anchor	2	..
3	271693	Chain Anchor	..	2
4	1565022	Pin	4	..
4	1301301	Pin	..	4
5	320162	Washer	2	..
6	1565021	Chain Anchor	2	..
6	98877	Chain Anchor	..	2
7	25633	Washer	..	4
7	270173	Spacer	4	..
8	b 1328932	Sheave Assembly	2	..
8	b 1328933	Chain Sheave	1	..
8	c 1699689	Chain Sheave Assembly	2	..
8	c 1691164	Chain Sheave	1	..
8	40667	Snap Ring	2	..
8	126764	Load Roller	2	..
8	b 1328934	Sheave Assembly	..	2
8	b 1328935	Chain Sheave	..	1

LIFT

TWO STAGE LIMITED FREE-LIFT

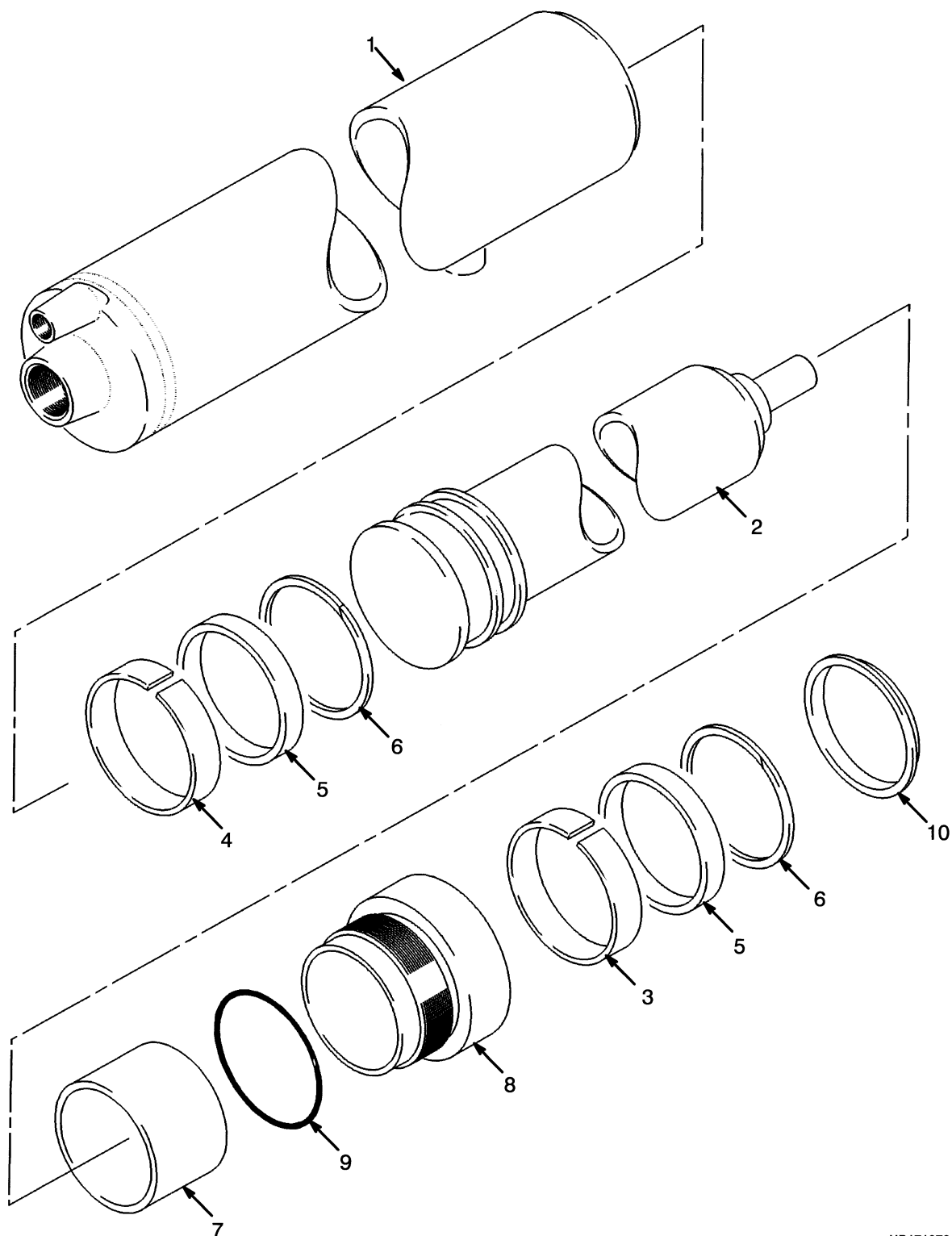
KEY:
A: H170HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
8	c 1699688	Chain Sheave Assembly	..	2
8	c 1691165	Chain Sheave	..	1
8	67551	Snap Ring	..	2
8	334932	Ball Bearing	..	2
9	2043536	Lowering Control Valve	2	..
9	2043537	Lowering Control Valve	..	2
9	244167	O-Ring	1	1
9	16983	O-Ring	1	1
10	a	Hose Assy	1	1
11	1486738	Fitting	2	2
11	1527817	O-Ring	1	1
11	16483	O-Ring	1	1
12	2071664	Hose Assy	1	1
13	1487094	Fitting	1	1
13	1527817	O-Ring	2	2
14	273775	Strap Clamp	2	2
15	136985	Capscrew	2	2
16	292682	Lockwasher	2	2
17	1303391	Washer	2	2
18	15181	Washer	2	2
19	292687	Lockwasher	2	2
20	292580	Capscrew	2	2
21	292527	Capscrew	2	2
22	82270	Eyebolt	2	2
23	98571	Pin	2	2
24	1563927	Lockplate	2	2
25	15235	Cotter Pin	4	4
26	320162	Washer	4	4
27	221725	Nut	2	2
28	17411	Locknut	2	2
29	292529	Capscrew	6	6
30	292683	Lockwasher	4	4
31	216877	Nut	2	2
32	192830	Shim (0.060 in.)	AR	AR
33	816591	Fitting	1	1
34	816593	Locknut	1	1
35	383789	Thread Sealant	AR	AR
36	1487144	Fitting	1	1
37	1573001	Fitting (Swivel)	1	1
38	1572993	Check Valve	1	1
39	1486737	Fitting	1	1

FOOTNOTES:**a** Refer to Table**b** → PENDING PER ECN 68533-59**c** PENDING PER ECN 68533-59 →

MAIN LIFT CYLINDER (FIGURE 10-4) TWO STAGE LIMITED FREE-LIFT



HP171279

**MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT****H170HD-H210HD**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
	Mast Group Number	-	-	-
	Cylinder Group Number	8526385	8526386	8526387
	Cylinder Assy	2071035	2071036	2071037
1	Tube Wldmt- Cylinder	1385901	1385902	1385903
2	Cylinder Rod	1568380	1568381	1568382

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
	Mast Group Number	-	-	-	-	-
	Cylinder Group Number	8526388	8526389	8526390	8526391	8526392
	Cylinder Assy	2071038	2071039	2071040	2071041	2071042
1	Tube Wldmt- Cylinder	1385915	1385916	1385917	1385918	1385919
2	Cylinder Rod	1568383	1568384	1568385	1568386	1568387

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	a	Cylinder Assy	2	2
1	a	Tube Wldmt-Cylinder	1	1
2	a	Cylinder Rod	1	1
3	636949	Wear Ring	1	..
3	636951	Wear Ring	..	1
4	636950	Wear Ring	1	..
4	636952	Wear Ring	..	1
5	637162	Rod Seal	2	..
5	637164	Rod Seal	..	2
6	636071	Back-Up Ring	2	..
6	638253	Back-Up Ring	..	2
7	376192	Spacer	1	..
7	376193	Spacer	..	1

MAIN LIFT CYLINDER TWO STAGE LIMITED FREE-LIFT

KEY:

A: H170HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
8	1328944	Retainer	1	..
8	1328945	Retainer	..	1
9	376398	O-Ring	..	1
9	376547	O-Ring	1	..
10	1332404	Rod Wiper	1	..
10	815615	Rod Wiper	..	1
	1385962	Kit-Seal	1	..
	1385964	Kit-Seal	..	1

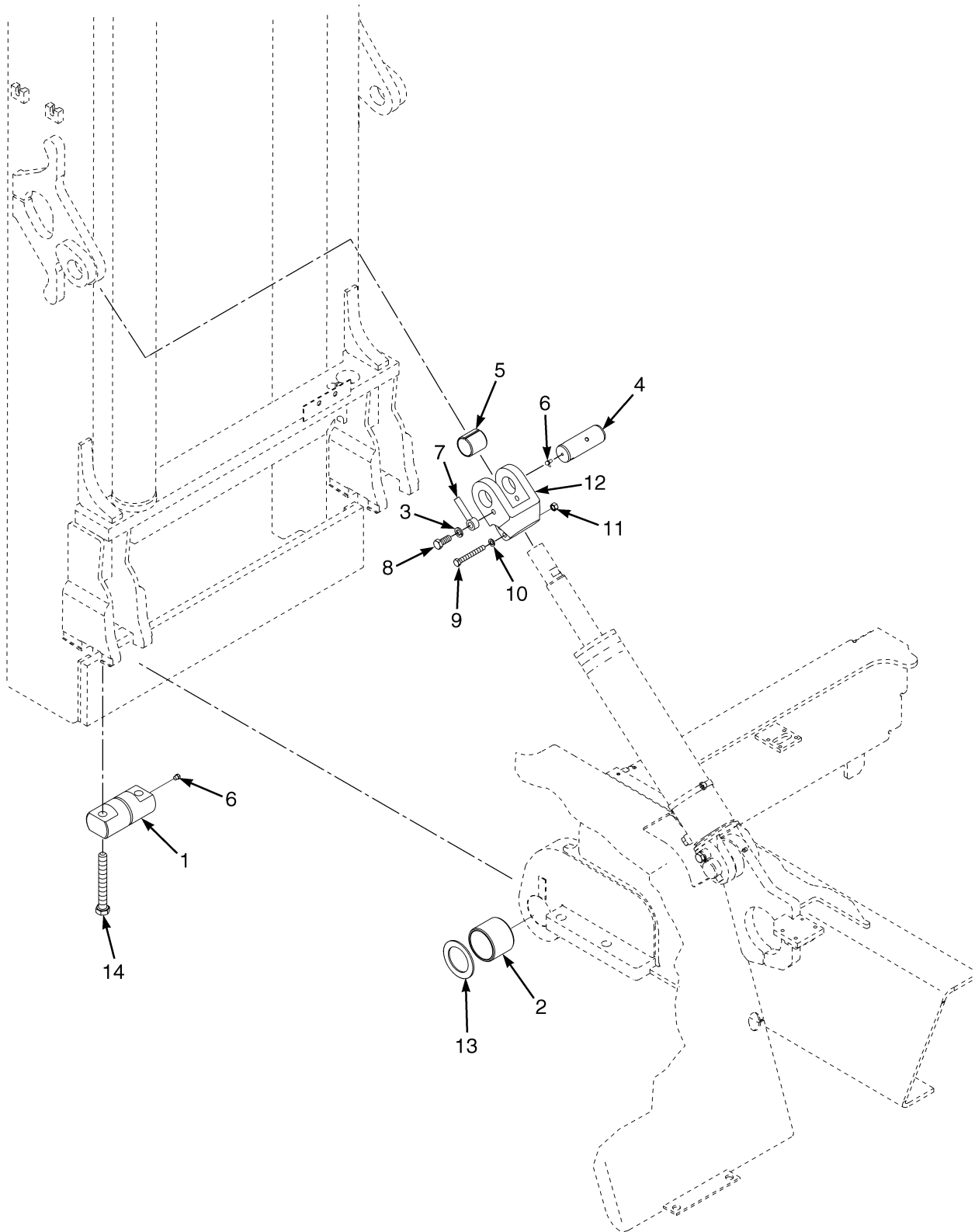
FOOTNOTES:

a Refer to Table

NOTES

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MAST INSTALLATION (FIGURE 10-5) TWO STAGE LIMITED FREE-LIFT



HP290054

**MAST INSTALLATION
TWO STAGE LIMITED FREE-LIFT**

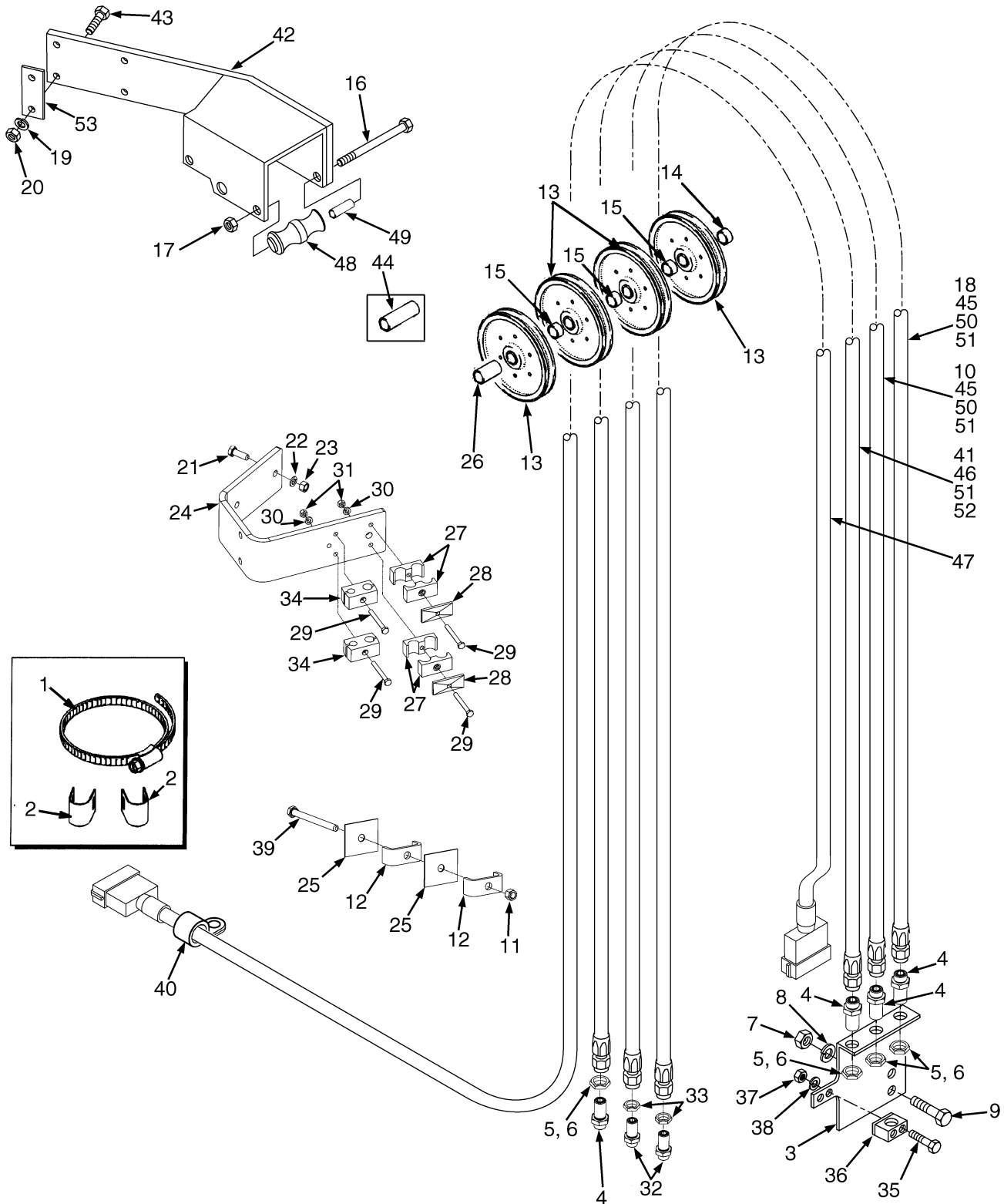
ITEM	PART NO.	DESCRIPTION	QTY
1	1385549	Pin (Mast Mounting)	2
2	376038	Bushing (Mast Mounting)	2
3	292685	Lockwasher	2
4	1347862	Pin (Mast Tilt)	2
5	376051	Bushing (Mast Tilt)	2
6	16001	Grease Fitting	4
7	1347861	Anchor	2
8	292560	Capscrew	2
9	292538	Capscrew	4
9	292539	Capscrew (Alternate Part)	4
10	292683	Lockwasher	4
11	216877	Nut	4
12	ac 1347863	Rod End	2
12	bd 1347864	Rod End	2
13	1359101	Shim	AR
14	293720	Capscrew	4

FOOTNOTES:

a 15° Forward/12° Back
b 20.5° Forward/7° Back

c 5° Forward/12° Back
d 5° Forward/6° Back

HEADER HOSE (FIGURE 10-6) TWO STAGE LIMITED FREE-LIFT



BP170167

**HEADER HOSE
TWO STAGE LIMITED FREE-LIFT****H170HD-H210HD**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
	Mast Group Number	-	-	-
45	Hose Assy	2058685	2058167	2058168
46	Hose Assy	2058180	2058181	2058182
47	Wire Harness	2054251	2054252	2054253

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
	Mast Group Number	-	-	-	-	-
45	Hose Assy	2058169	2058170	2058171	2058172	2058173
46	Hose Assy	2058183	2058184	2058185	2058186	2058187
47	Wire Harness	2054254	2054255	2054256	2054257	2054258

KEY:**A: Three Function****B: Four, Five, And Six Function****C: Dual Side-Shift Fork Positioner**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	144157	Hose Clamp	2	4	4
2	87911	Clamp	4	8	6
3	1529355	Bracket	1	1	1
4	816591	Fitting	2	4	2
5	816593	Locknut	2	4	2
6	383789	Thread Sealant	AR	AR	AR
7	136692	Nut	2	2	2
8	292682	Lockwasher	2	2	2
9	136985	Capscrew	2	2	2
10	342675	Identification Band	2	2	2
11	300937	Nut	1	1	1
12	254950	Clamp	1	2	2
13	189451	Hose Sheave	2	4	3
14	1301650	Spacer	1	1	1
15	280610	Spacer	1	3	1
16	221155	Capscrew	3	3	3
17	221357	Locknut	3	3	3
18	342676	Identification Band	2	2	2
19	292685	Lockwasher	4	4	4

HEADER HOSE

TWO STAGE LIMITED FREE-LIFT

KEY:**A:** Three Function**B:** Four, Five, And Six Function**C:** Dual Side-Shift Fork Positioner

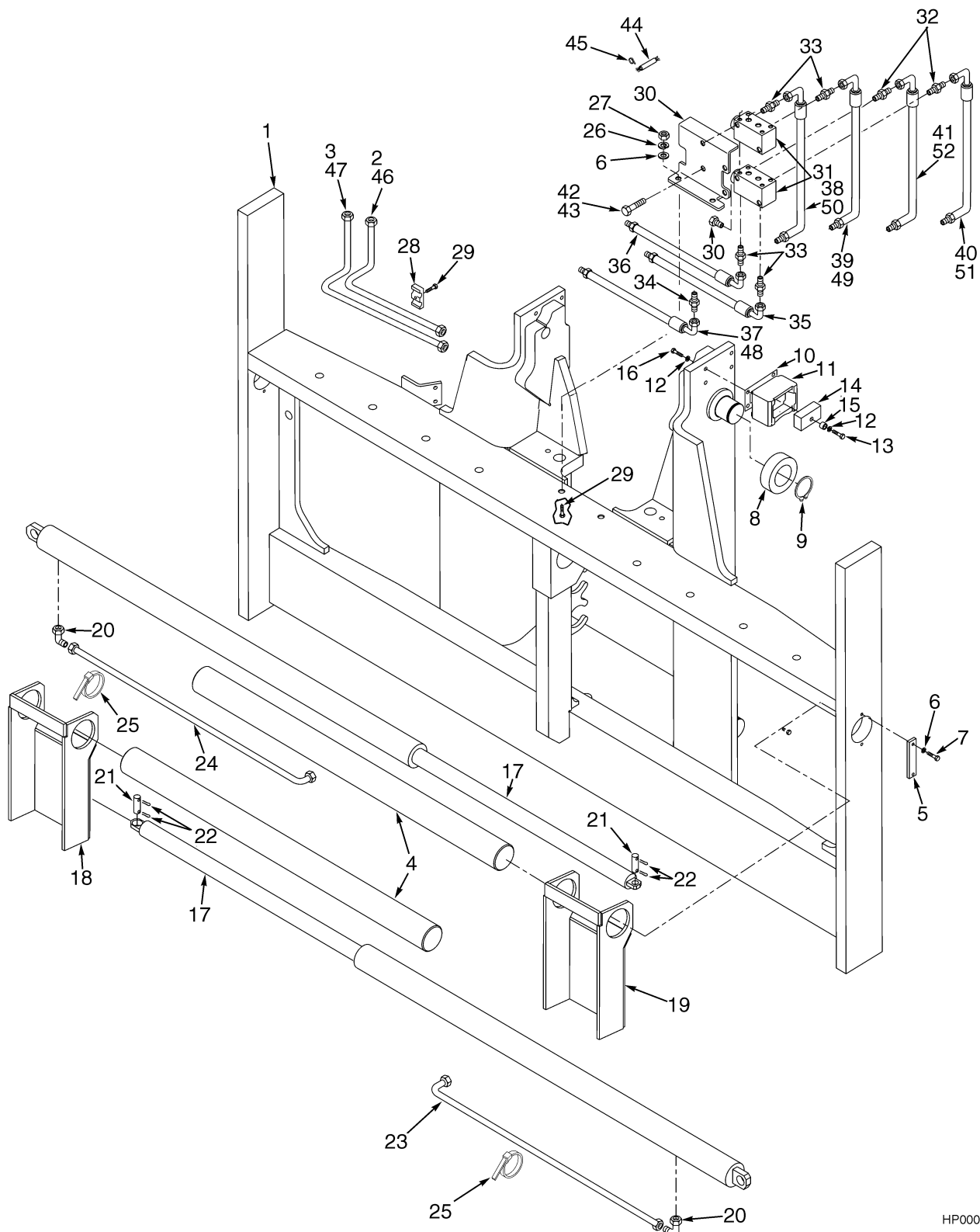
ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
20	292600	Nut	4	4	4
21	292528	Capscrew	2	2	2
22	292683	Lockwasher	2	2	2
23	216877	Nut	2	2	2
24	1491107	Bracket	1	1	1
25	138929	Plate	1	2	2
26	356237	Spacer	..	1	1
27	1533665	Clamp	4	4	4
28	1530668	Cover Plate	2	2	2
29	136703	Capscrew	2	4	4
30	292681	Lockwasher	2	4	4
31	239503	Nut	2	4	4
32	1498506	Fitting	2	2	2
33	1528603	Locknut	2	2	2
34	1569803	Clamp	..	2	2
35	18475	Capscrew	..	2	2
36	1569747	Clamp	..	1	1
37	221703	Nut	..	2	2
38	15127	Washer	..	2	2
39	292533	Capscrew	1	..	..
39	292538	Capscrew	..	1	1
40	101625	Clamp	..	1	1
41	342677	Identification Band	..	2	..
42	a 1510788	Bracket Wldmt	1	1	1
42	b 1496482	Bracket Wldmt	1	1	1
43	a 292568	Capscrew	4	4	4
43	b 292564	Capscrew	4	4	4
44	1510841	Spacer	1	..	..
44	342691	Spacer	..	..	1
45	c	Hose Assy	2	2	2
46	c	Hose Assy	..	1	..
47	c	Wire Harness	..	1	1
48	1574072	Roller	..	2	2
49	1574093	Spacer	..	2	2
50	1564900	Strap Clamp (Green)	6	8	..
51	1564897	Strap Clamp (Yellow)	2	6	..
52	1564902	Strap Clamp (White)	..	2	..
53	a 1489621	Plate	4	4	4

FOOTNOTES:**a** H170HD, H190HD, H210HD**c** Refer to Table**b** H230HD, H250HD, H280HD

NOTES

[illegible]

STANDARD PIN CARRIAGE (FIGURE 10-7) INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) — TWO STAGE LIMITED FREE-LIFT



HP000440

STANDARD PIN CARRIAGE

INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD-H210HD**B:** H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2056660	Carriage	1	..
	2056661	Carriage	..	1
1	1501170	Frame	1	..
1	376624	Stubshaft	4	..
1	1501172	Frame	..	1
1	376624	Stubshaft	..	4
2	2046711	Tube Assy	1	..
2	2047066	Tube Assy	..	1
3	2046712	Tube Assy	1	..
3	2047067	Tube Assy	..	1
4	376127	Pin	2	2
5	376776	Plate	2	2
6	292683	Lockwasher	6	6
7	293647	Capscrew	4	4
8	a 376056	Load Roller	4	4
8	b 1691113	Load Roller	4	4
9	41459	Snap Ring	4	4
10	1310592	Shim (0.030 in.)	AR	AR
11	1301018	Bracket	4	4
12	15156	Lockwasher	20	20
13	221506	Capscrew	16	16
14	1335179	Bearing	4	4
15	1301016	Spacer	4	4
16	376203	Capscrew	4	4
17	2046669	Cylinder Assy (☞Figure 12-2).....	2	2
18	1501460	Guide (RH)	1	1
19	1501461	Guide (LH)	1	1
20	1487064	Fitting	4	4
20	16483	O-Ring	2	2
20	1527817	O-Ring	2	2
21	1502390	Pin	4	4
22	15236	Cotter Pin	8	8
23	2046745	Tube Assy	1	1
24	2046746	Tube Assy	1	1
25	112989	Hose Clamp	4	4
26	320162	Washer	2	2
27	302402	Locknut	2	2
28	1393802	Clamp	1	1
29	221463	Capscrew	1	1
30	1527372	Bracket Wldmt	1	1
31	2092483	Directional Control Valve, Two-Section (Deutsch) (☞Figure 12-1).....	1	1
31	2055960	Directional Control Valve, Two-Section (AMP) (☞Figure 12-1).....	1	1
32	1487069	Fitting	2	2
32	16485	O-Ring	2	2
32	1527818	O-Ring (Straight)	2	2

STANDARD PIN CARRIAGE

INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:
A: H170HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
33	1486743	Fitting	4	4
33	16484	O-Ring	2	2
33	1527817	O-Ring	2	2
34	1486740	Fitting	1	1
34	16483	O-Ring	2	2
34	1527816	O-Ring	2	2
35	2056760	Hose Assy	1	1
36	2056756	Hose Assy	1	1
37	2057864	Hose Assy	1	1
38	2056759	Hose Assy	1	1
39	2056757	Hose Assy	1	1
40	2056761	Hose Assy	1	1
41	2056758	Hose Assy	1	1
42	16836	Capscrew	4	4
43	3066037	Loctite	AR	AR
44	2092486	Wire Harness (Front End) (☞ Figure 4-46).....	1	1
45	137852	Strap Clamp	16	16
46	342675	Identification Band	4	4
47	342676	Identification Band	4	4
48	342677	Identification Band	2	2
49	1332233	Identification Band	2	2
50	1332234	Identification Band	2	2
51	1332235	Identification Band	2	2
52	1332236	Identification Band	2	2

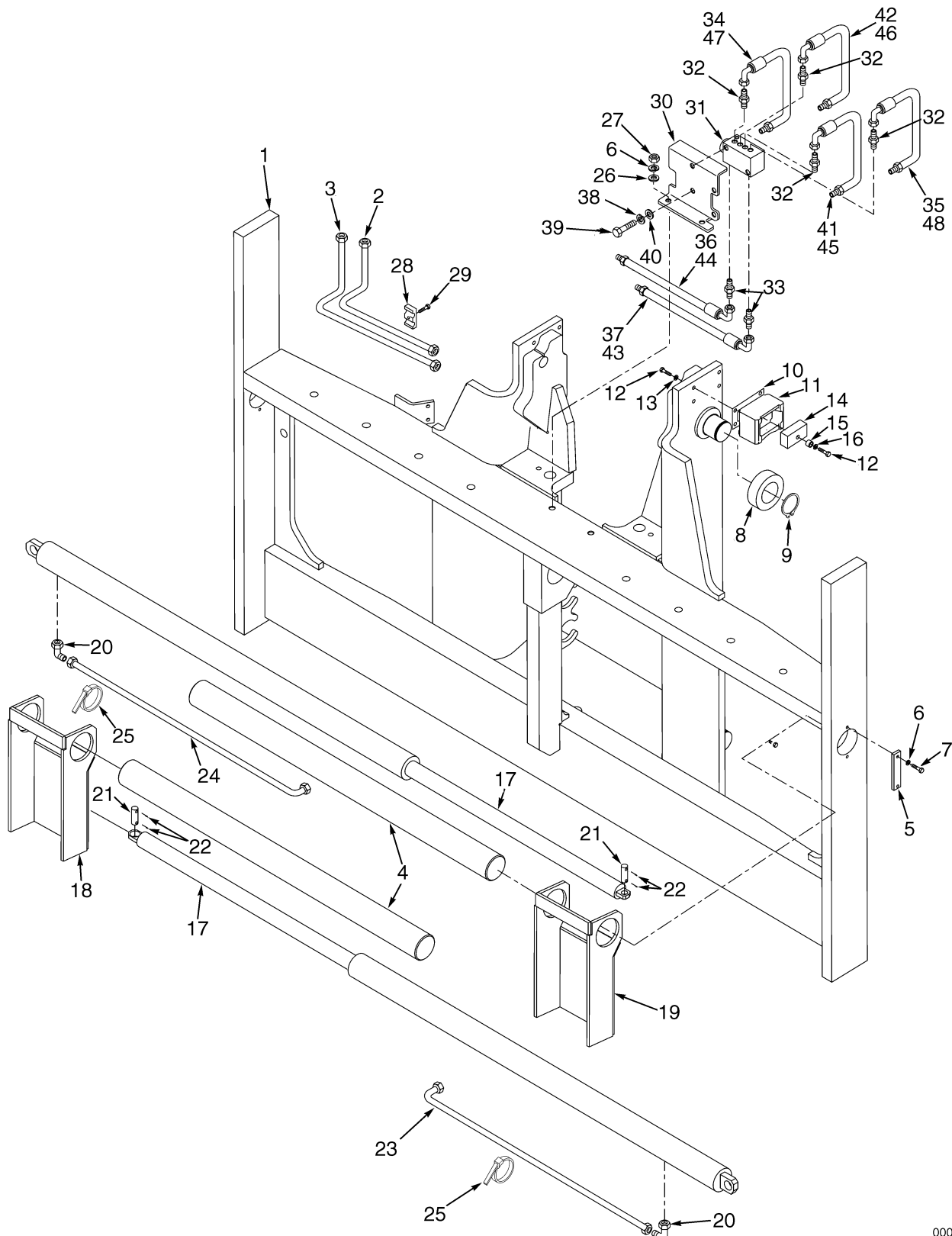
FOOTNOTES:
a → S/N H007E02268F

b S/N H007E02269F →

NOTES

[illegible]

STANDARD PIN CARRIAGE (FIGURE 10-8) SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) — TWO STAGE LIMITED FREE-LIFT



000445

STANDARD PIN CARRIAGE

SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD-H210HD**B:** H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2047071	Carriage	1	..
	2047072	Carriage	..	1
1	1501170	Frame	1	..
1	376624	Stubshaft	4	..
1	1501172	Frame	..	1
1	376624	Stubshaft	..	4
2	2046711	Tube Assy	1	..
2	1491350	Fitting	2	..
2	1487164	Fitting	2	..
2	2047066	Tube Assy	..	1
2	1491350	Fitting	..	2
2	1487164	Fitting	..	2
3	2046712	Tube Assy	1	..
3	1491350	Fitting	2	..
3	1487164	Fitting	2	..
3	2047067	Tube Assy	..	1
3	1491350	Fitting	..	2
3	1487164	Fitting	..	2
4	376127	Pin	2	2
5	376776	Plate	2	2
6	292683	Lockwasher	6	6
7	293647	Capscrew	4	4
8	a 376056	Load Roller	4	4
8	b 1691113	Load Roller	4	4
9	41459	Snap Ring	4	4
10	1310592	Shim (0.030 in.)	AR	AR
11	1301018	Bracket	4	4
12	15156	Lockwasher	20	20
13	221506	Capscrew	16	16
14	1335179	Bearing	4	4
15	1301016	Spacer	4	4
16	376203	Capscrew	4	4
17	2046669	Cylinder Assy (☞ Figure 12-2).....	2	2
18	1501460	Guide (RH)	1	1
19	1501461	Guide (LH)	1	1
20	1487064	Fitting	4	4
20	16483	O-Ring	1	1
20	1527816	O-Ring	1	1
21	1502390	Pin	4	4
22	15236	Cotter Pin	8	8
23	2046745	Tube Assy	1	1
23	1491350	Fitting	2	2
23	1487164	Fitting	2	2
24	2046746	Tube Assy	1	1
24	1491350	Fitting	2	2

STANDARD PIN CARRIAGE

SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:
A: H170HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
24	1487164	Fitting	2	2
25	112989	Hose Clamp	4	4
26	320162	Washer	2	2
27	302402	Locknut	2	2
28	1393802	Clamp	1	1
29	221463	Capscrew	1	1
30	1503084	Bracket Wldmt	1	1
31	1551865	Hydraulic Control Valve	1	1
31	1600818	Manifold	1	1
31	1560246	Manifold	1	1
31	1589219	Cartridge	1	1
31	1600819	Valve	1	1
31	1560248	Relief Valve	2	2
32	1486740	Fitting	2	2
32	16483	O-Ring	1	1
32	1527816	O-Ring	1	1
33	1486745	Fitting	4	4
33	16483	O-Ring	1	1
33	1527817	O-Ring	1	1
34	2047116	Hose Assy	1	1
35	2047117	Hose Assy	1	1
36	2046072	Hose Assy	1	1
37	2049945	Hose Assy	1	1
38	292681	Lockwasher	1	1
39	136749	Screw	1	1
40	320157	Washer	1	1
41	2047554	Hose Assy	1	1
42	2047555	Hose Assy	4	4
43	342675	Identification Band	AR	AR
44	342676	Identification Band (Front End)	1	1
45	1332233	Identification Band	16	16
46	1332234	Identification Band	4	4
47	1332235	Identification Band	4	4
48	1332236	Identification Band	2	2

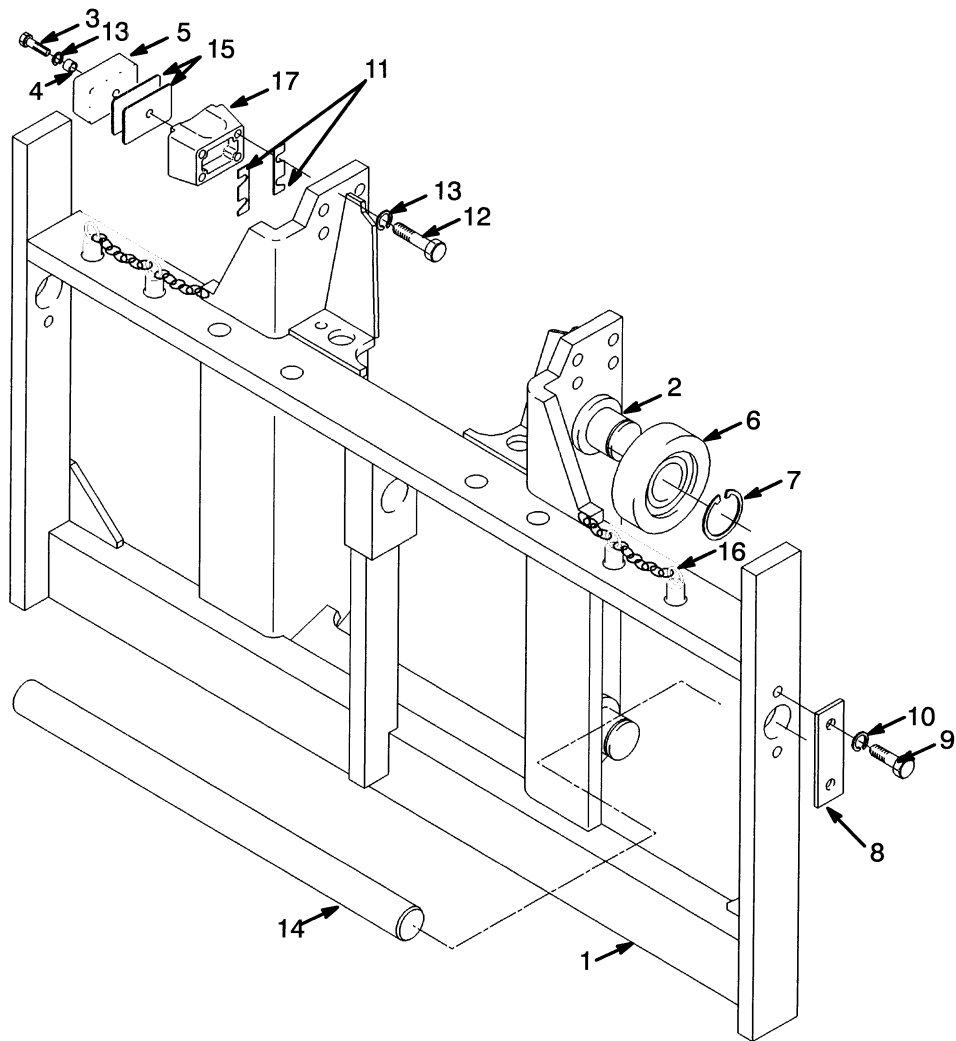
FOOTNOTES:
a → S/N H007E02268F

b S/N H007E02269F →

NOTES

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STANDARD PIN CARRIAGE (FIGURE 10-9) THREE FUNCTION WITHOUT HOSE GROUP — TWO STAGE LIMITED FREE-LIFT



HP171280

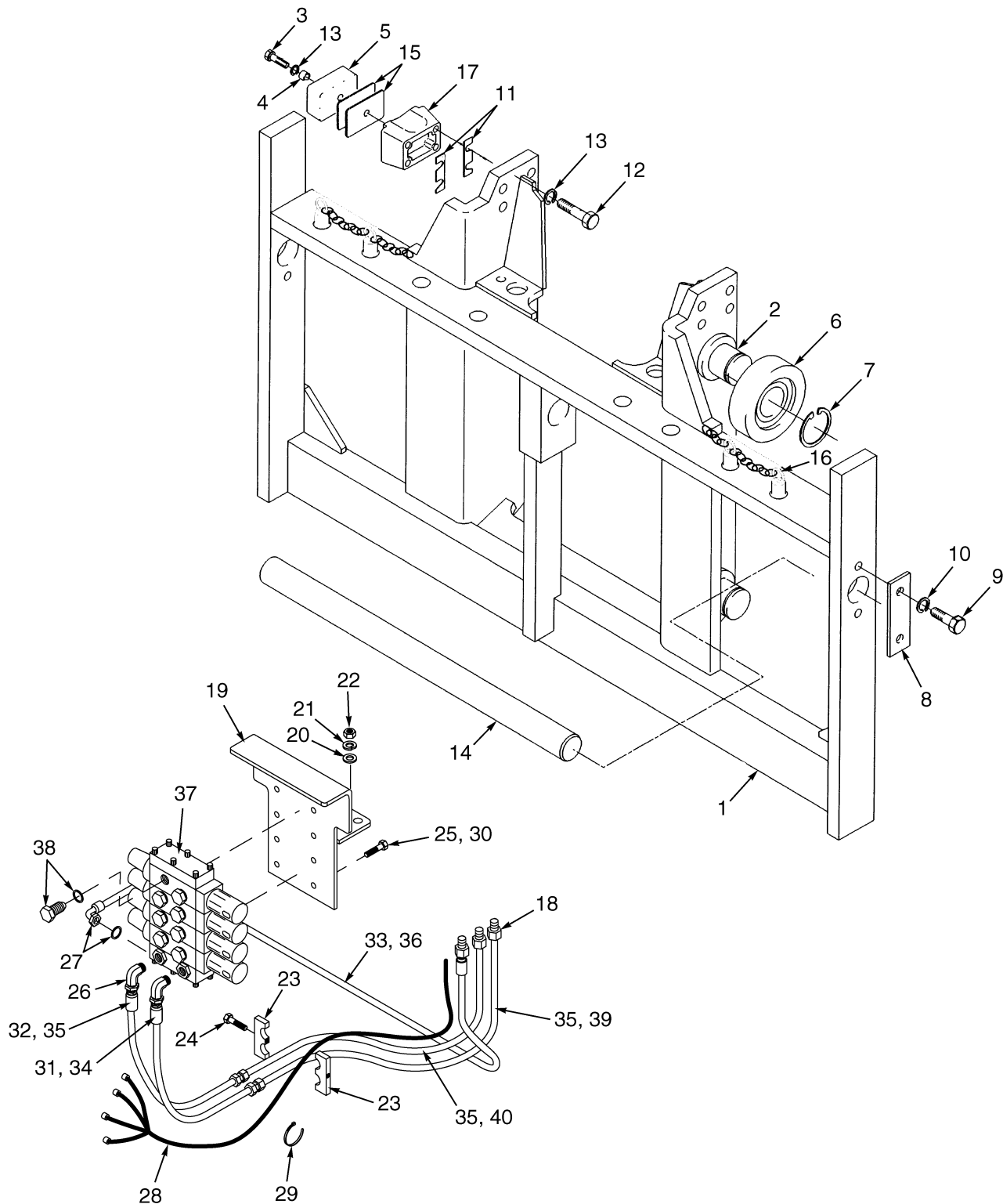
STANDARD PIN CARRIAGE **THREE FUNCTION WITHOUT HOSE GROUP – TWO STAGE LIMITED FREE-LIFT**

KEY:**A:** H170HD-H210HD**B:** H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2056927	Carriage	1	..
	2056928	Carriage	..	1
1	1499579	Carriage Wldmt	1	..
1	376624	Stubshaft	4	..
1	1499578	Frame	..	1
2	376624	Stubshaft	..	4
3	376203	Capscrew	4	4
4	1301016	Spacer	4	4
5	1335179	Bearing	4	4
6	a 376056	Load Roller	4	4
6	b 1691113	Load Roller	4	4
7	41459	Snap Ring	4	4
8	376776	Plate	2	2
9	293647	Capscrew	4	4
10	292683	Lockwasher	4	4
11	1310592	Shim (0.030 in.)	AR	AR
12	221506	Capscrew	16	16
13	15156	Lockwasher	20	20
14	376127	Pin	2	2
15	1301014	Shim (0.050 in.) (Optional)	AR	AR
16	1334581	Pin (Fork Locking)	2	2
17	1301018	Bracket	4	4

FOOTNOTES:**a** → S/N H007E02268F**b** S/N H007E02269F →

STANDARD PIN CARRIAGE (FIGURE 10-10) WITH HOSE GROUP — TWO STAGE LIMITED FREE-LIFT



HP170465

**STANDARD PIN CARRIAGE
WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT****KEY:****A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2046319	Carriage	1	..
	2056657	Carriage	1	..
	2056658	Carriage	1	..
	2056659	Carriage	1	..
	2046322	Carriage	..	1
	2056666	Carriage	..	1
	2056667	Carriage	..	1
	2056668	Carriage	..	1
1	1499579	Carriage Wldmt	1	..
1	376624	Stubshaft	4	..
1	1499578	Frame	..	1
2	376624	Stubshaft	..	4
3	376203	Capscrew	4	4
4	1301016	Spacer	4	4
5	1335179	Bearing	4	4
6	b 376056	Load Roller	4	4
6	c 1691113	Load Roller	4	4
7	41459	Snap Ring	4	4
8	376776	Plate	2	2
9	293647	Capscrew	4	4
10	292683	Lockwasher	4	4
11	1310592	Shim (0.030 in.)	AR	AR
12	221506	Capscrew	16	16
13	15156	Lockwasher	20	20
14	376127	Pin	2	2
15	1301014	Shim (0.050 in.) (Optional)	AR	AR
16	1334581	Pin (Fork Locking)	2	2
17	1301018	Bracket	4	4
18		Cap (Three Function)	2	2
19	1527372	Bracket Wldmt	1	1
20	320162	Washer	2	2
21	292683	Lockwasher	2	2
22	302402	Locknut	2	2
23	1393802	Clamp	2	2
24	221463	Capscrew	1	1
25	16836	Capscrew	4	4
26	1487069	Fitting	2	2
26	16485	O-Ring	1	1
26	1527818	O-Ring	1	1
27	1486740	Fitting	1	1
27	16483	O-Ring	1	1
27	1527813	O-Ring	1	1
28	2092486	Wire Harness (Front End) (Four, Five, And Six Function) (Figure 4-46).....	1	1
29	137852	Strap Clamp	16	16

STANDARD PIN CARRIAGE

WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD-H210HD**B:** H230HD-H280HD

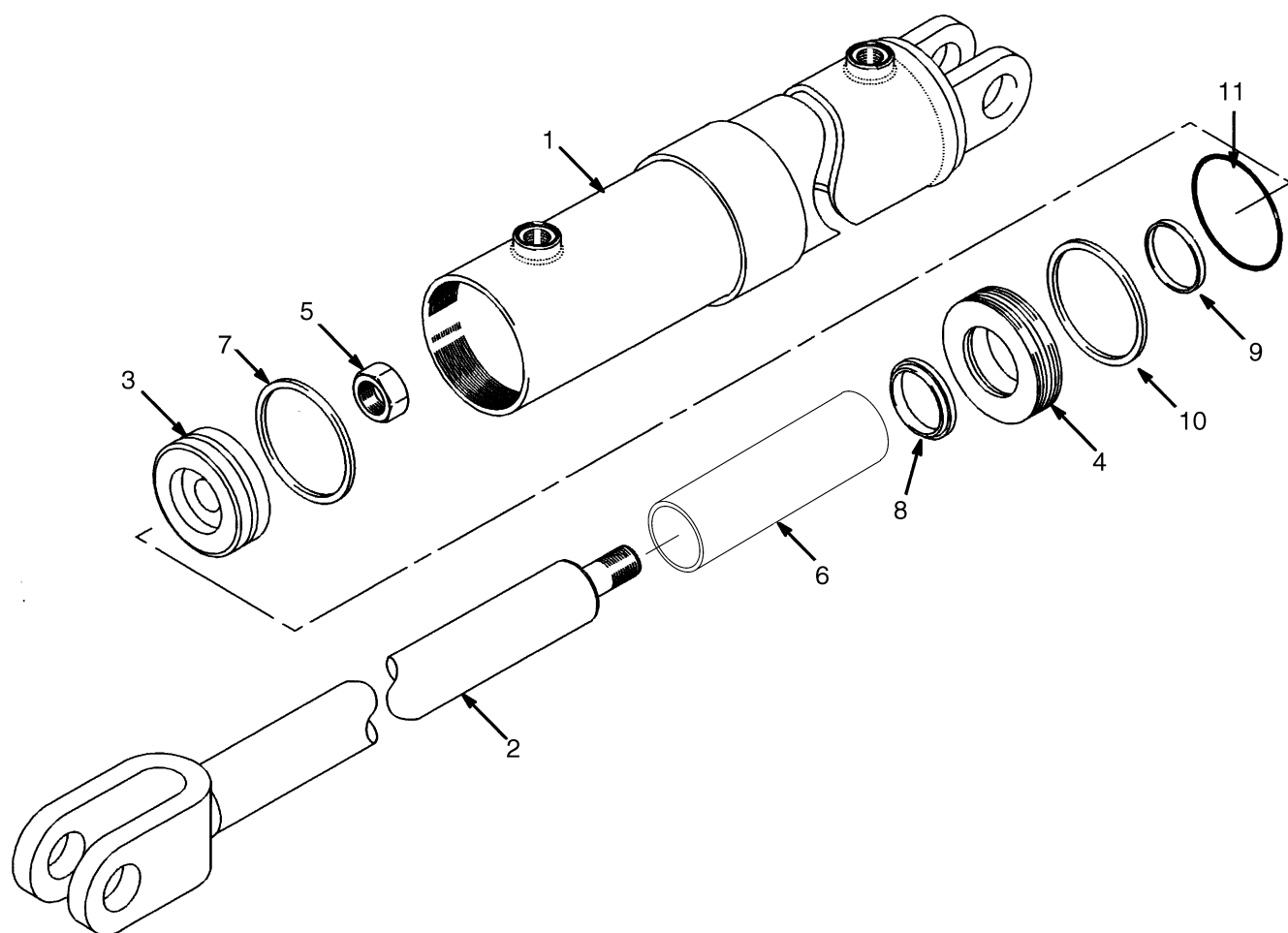
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
30	3066037	Loctite	AR	AR
31	2056068	Hose Assy	1	1
31	2056069	Hose Assy (Alternate Part)	1	1
32	2056069	Hose Assy	1	1
33	2057864	Hose Assy	1	1
34	342675	Identification Band	4	4
35	342676	Identification Band	4	4
36	342677	Identification Band	2	2
37	2092483	Directional Control Valve, Two-Section (Deutsch, Four Function) (☞ Figure 12-1).....	1	1
37	2092484	Directional Control Valve, Three-Section (Deutsch, Five Function) (☞ Figure 12-1).....	1	1
37	2092485	Directional Control Valve, Four-Section (Deutsch, Six Function) (☞ Figure 12-1).....	1	1
37	2055960	Directional Control Valve, Two-Section (AMP, Four Function) (☞ Figure 12-1).....	1	1
37	2055961	Directional Control Valve, Three-Section (AMP, Five Function) (☞ Figure 12-1).....	1	1
37	2055962	Directional Control Valve, Four-Section (AMP, Six Function) (☞ Figure 12-1).....	1	1
38	216590	Fitting (Four Function)	4	4
38	16485	O-Ring	1	1
38	216590	Fitting (Five Function)	6	6
38	16485	O-Ring	1	1
38	216590	Fitting (Six Function)	8	8
38	16485	O-Ring	1	1
39	2056662	Tube	1	..
39	2056664	Tube	..	1
40	2056663	Tube	1	..
40	2056665	Tube	..	1
	a 1486772	Fitting	1	1

FOOTNOTES:**a** Not Illustrated**c** S/N H007E02269F →**b** → S/N H007E02268F

NOTES

[illegible]

FORK POSITIONING CYLINDER (FIGURE 10-11)



HP171339

FORK POSITIONING CYLINDER

ITEM	PART NO.	DESCRIPTION	QTY
	2046669	Cylinder Assy	1
1	1504621	Tube Wldmt-Cylinder	1
2	1504622	Cylinder Rod	1
3	1504623	Piston	1
4	1504624	Retainer	1
5	1504625	Nut	1
6	1504635	Spacer	1
7	1504628	Piston Seal (Piston)	1
8	1504629	Rod Seal (Rod)	1
9	1504632	Wiper	1
10	1504633	Back-Up Ring	1
11	1504634	O-Ring	1
12	1504626	Kit-Seal	1

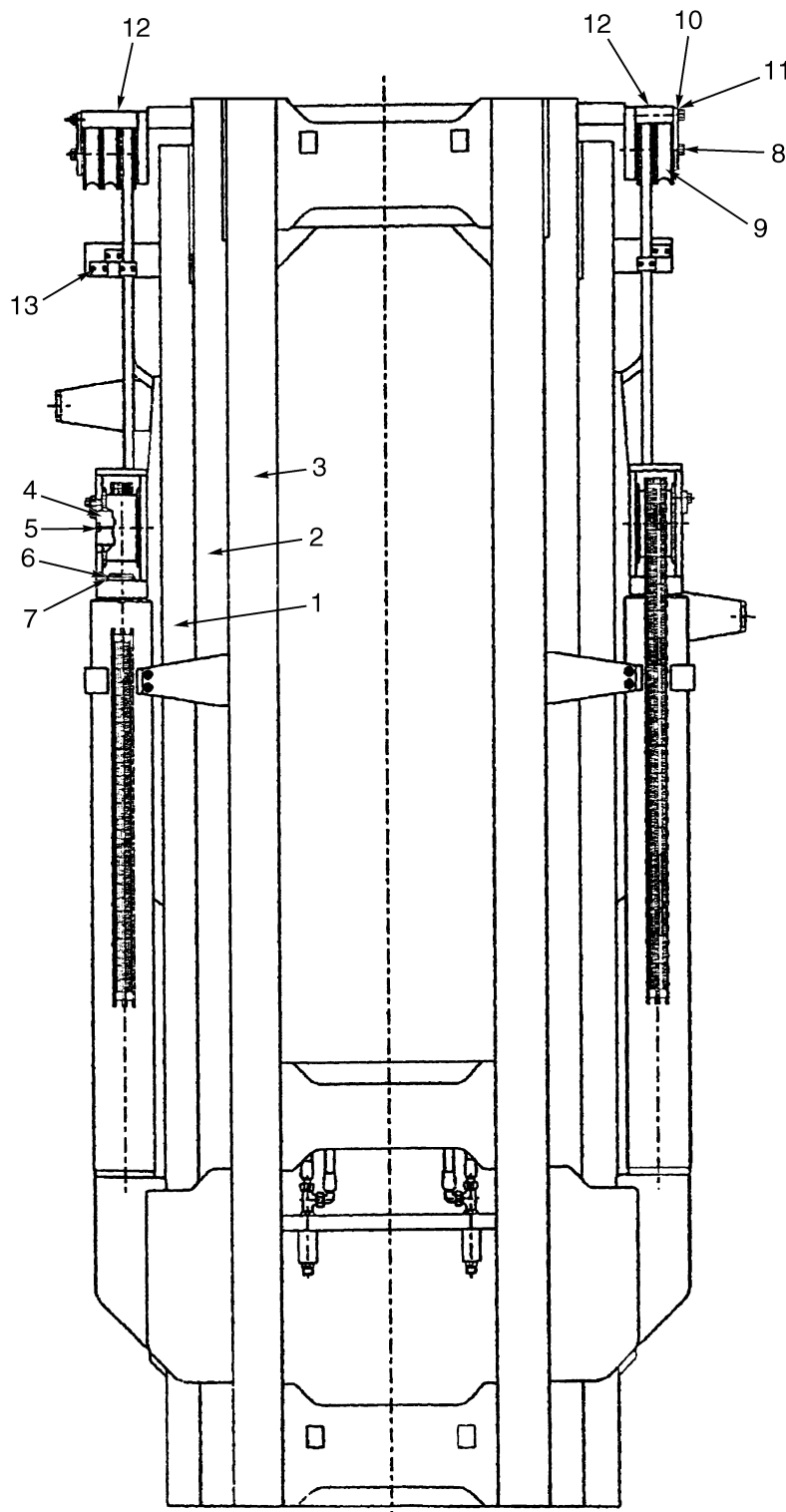
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SECTION 11

MAST-THREE STAGE FULL FREE-LIFT

DESCRIPTION	PAGE
FREE-LIFT CYLINDER	
THREE STAGE FULL FREE-LIFT	11-9
HEADER HOSE	
THREE STAGE FULL FREE-LIFT	11-14
MAIN LIFT CYLINDER	
THREE STAGE FULL FREE-LIFT	11-11
MAST ASSEMBLY	
THREE STAGE FULL FREE-LIFT - SHEET 1 OF 3	11-2
THREE STAGE FULL FREE-LIFT - SHEET 2 OF 3	11-4
THREE STAGE FULL FREE-LIFT - SHEET 3 OF 3	11-6
MAST INSTALLATION	
THREE STAGE FULL FREE-LIFT	11-12
STANDARD PIN CARRIAGE	
FOUR, FIVE, AND SIX FUNCTION - THREE STAGE FULL FREE-LIFT (→ S/N H007E01502E)	11-18
FOUR, FIVE, AND SIX FUNCTION - THREE STAGE FULL FREE-LIFT (S/N H007E01503E →)	11-20
INDIVIDUAL FORK POSITIONER (FOUR FUNCTION)	11-22
SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) - THREE STAGE FULL FREE-LIFT	11-24
THREE FUNCTION - THREE STAGE FULL FREE-LIFT	11-16

MAST ASSEMBLY (FIGURE 11-1) THREE STAGE FULL FREE-LIFT — SHEET 1 OF 3



HP170446

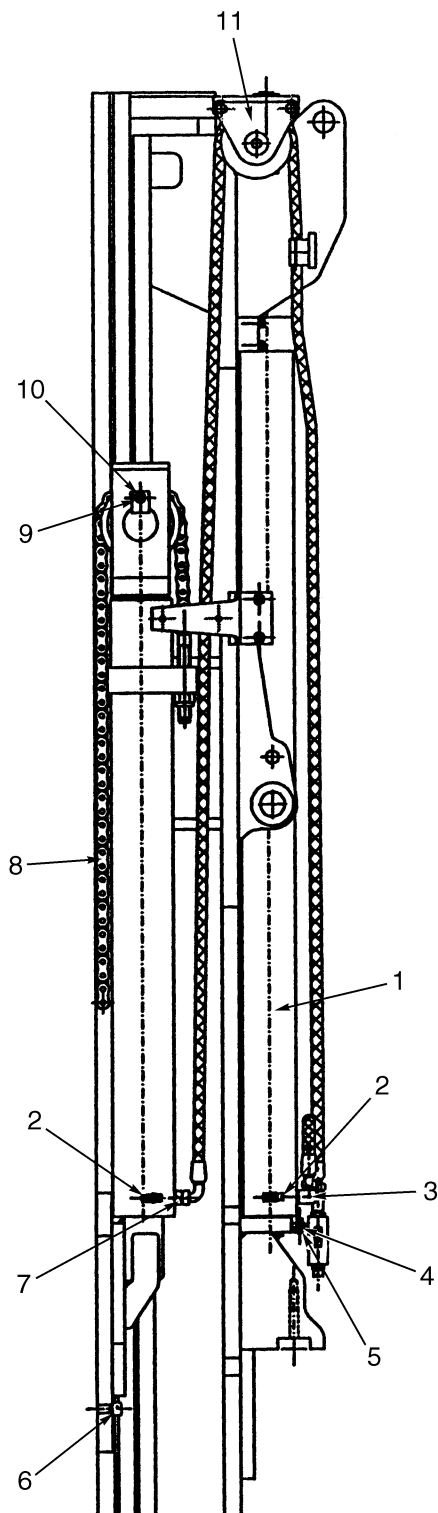
MAST ASSEMBLY
THREE STAGE FULL FREE-LIFT – SHEET 1 OF 3**A024**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
	Mast Group Number	-	-	-	-
	Mast Assy	2054512	2054513	2054514	2054515
1	Outer Mast	1528803	1529161	1529170 1529170	1529179
2	Intermediate Mast	1528804	1529162	1529171	1529180
3	Inner Mast	1529152	1529163	1529172	1529181

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	a	Intermediate Mast	1
3	a	Inner Mast	1
4	1529196	Pulley	2
5	1529197	Grease Fitting	2
6	1529198	Snap Ring	2
7	1529199	Ring	2
8	1529209	Screw	2
9	1529210	Hose Reel	5
10	1529211	Washer	6
11	1529212	Nut	4
12	1538899	Roller (Hose)	4
13	1529227	Clamp	5

FOOTNOTES:**a** Refer to Table

MAST ASSEMBLY (FIGURE 11-2) THREE STAGE FULL FREE-LIFT — SHEET 2 OF 3



HP170447

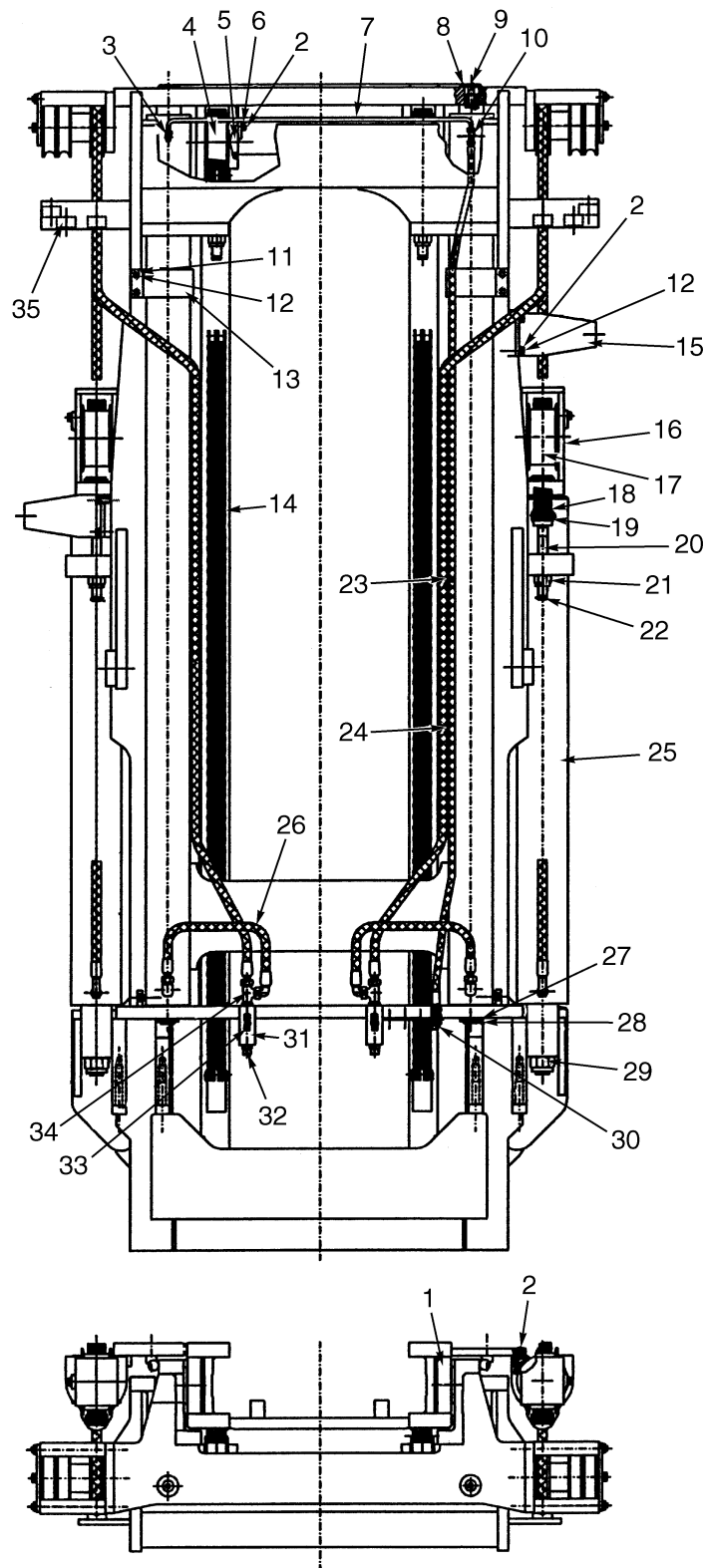
MAST ASSEMBLY
THREE STAGE FULL FREE-LIFT – SHEET 2 OF 3**A024**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
	Mast Group Number	-	-	-	-
	Mast Assy	2054512	2054513	2054514	2054515
8	Chain	1538182	1538475	1538476	1538477

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1		Lift Cylinder (☞ Figure 11-5).....	2
2	1529219	Valve	2
3	1529228	Fitting	2
4	1529222	Washer	4
5	1529220	Screw	4
6	1538485	Screw	2
7	1529223	Fitting	2
8	a	Chain	2
9	1529191	Washer	2
10	1529193	Screw	2
11	1529226	Flange	2

FOOTNOTES:**a** Refer to Table

MAST ASSEMBLY (FIGURE 11-3) THREE STAGE FULL FREE-LIFT — SHEET 3 OF 3



HP170448

MAST ASSEMBLY
THREE STAGE FULL FREE-LIFT – SHEET 3 OF 3**A024**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
	Mast Group Number	-	-	-	-
	Mast Assy	2054512	2054513	2054514	2054515
14	Chain	1538185	1538472	1538473	1538474
23	Hose Assy (Drainage)	1538179	1538478	1538479	1538480
24	Hose Assy	1538178	1538481	1538482	1538483

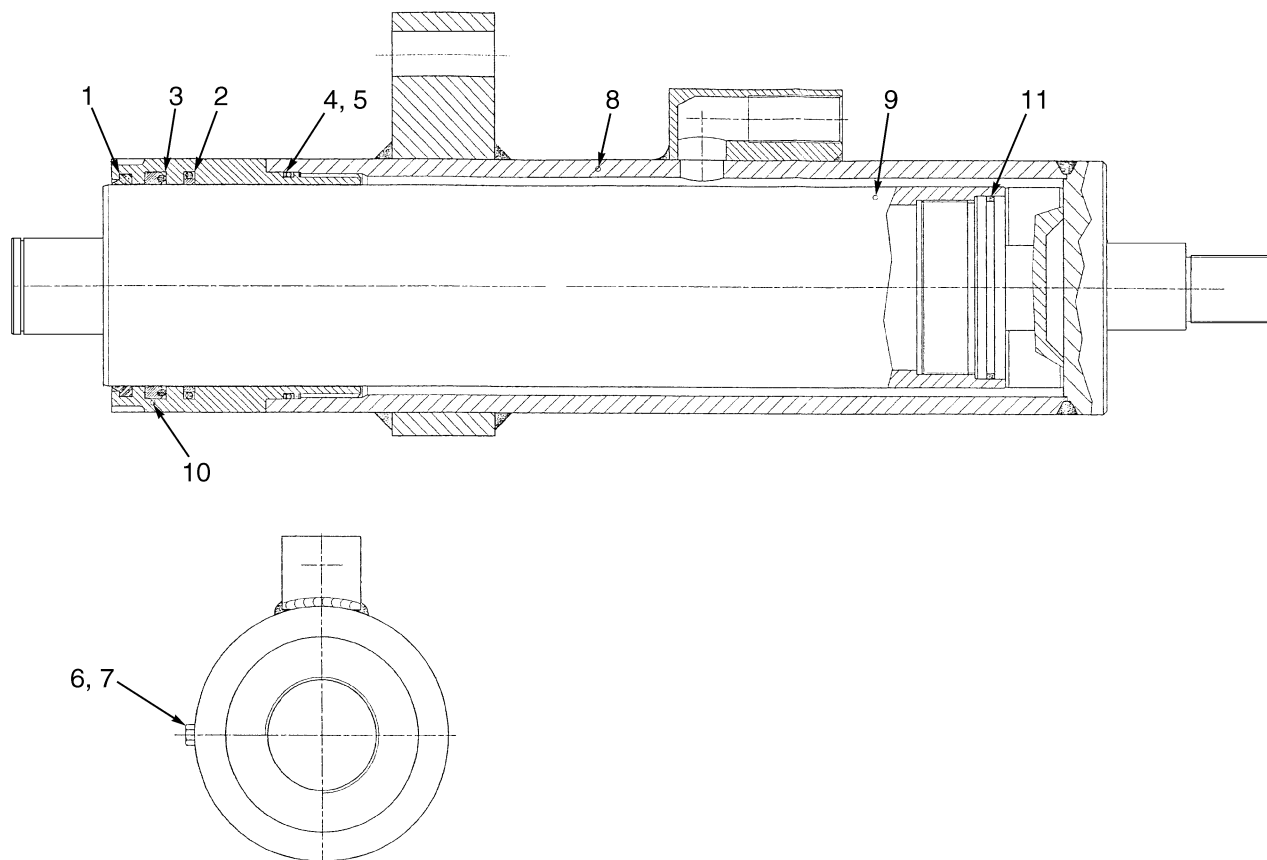
ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	1529236	Load Roller (Combined)	8
1	1532830	Kit-Load Roller	1
1	1532831	Kit-Side Roller	1
2	1529208	Screw	6
3	1529238	Capscrew	1
4	1529213	Pulley (Chain)	2
5	1529214	Pin (Pulley)	2
6	1529191	Washer	2
7	1529234	Hose	1
8	1529216	Ring	2
9	1529188	Screw	2
10	1529235	Fitting	1
11	1529190	Screw	4
12	1529191	Washer	6
13	1529189	Support	2
14	a	Chain	2
15	1529192	Bracket (Light)	2
16	1529194	Support (Pulley)	2
17	1529200	Pulley	2
18	1529237	Cotter Pin	16
19	1529201	Pin (Chain)	8
20	1529202	Chain Anchor	4
21	1529203	Locknut	4
22	1529204	Cotter Pin	4
23	a	Hose Assy (Drainage)	1
24	a	Hose Assy	2
25		Free-Lift Cylinder (☞ Figure 11-4).....	2
26	1529230	Hose	2
27	1529206	Ring	2
28	1529207	Snap Ring	2
29	1529205	Locknut	2
30	1529221	Fitting	1
31	1529218	Block (Connection)	2
32	1529217	Fitting	2

MAST ASSEMBLY
THREE STAGE FULL FREE-LIFT – SHEET 3 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
33	1529219	Valve	2
34	1529229	Fitting	2
35	1538177	Clamp	1

FOOTNOTES:

- a** Refer to Table

FREE-LIFT CYLINDER (FIGURE 11-4)
THREE STAGE FULL FREE-LIFT

HP170445

FREE-LIFT CYLINDER
THREE STAGE FULL FREE-LIFT**A024**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
	Mast Group Number	-	-	-	-
	Cylinder Assy	1538468	1538469	1538470	1538471

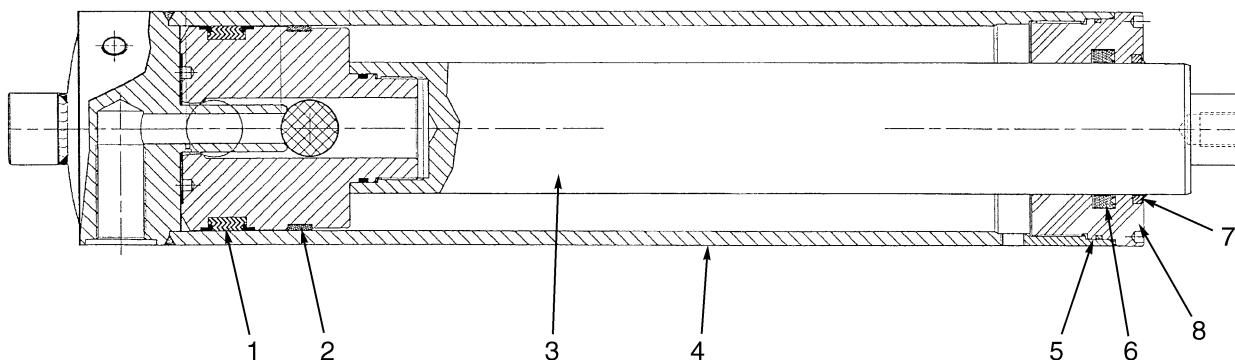
ITEM	PART NO.	DESCRIPTION	QTY
	a	Cylinder Assy	1
1		Wiper Ring	1
2		Gasket	2
3		Gasket	1
4		O-Ring	1
5		Retaining Ring	1
6		Washer	1
7		Screw	1
8		Tube	1

**FREE-LIFT CYLINDER
THREE STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
9		Piston Rod	1
10		Plug	1
11		O-Ring	1
	1529215	Kit-Seal	1

FOOTNOTES:

a Refer to Table

MAIN LIFT CYLINDER (FIGURE 11-5)
THREE STAGE FULL FREE-LIFT

HP170444

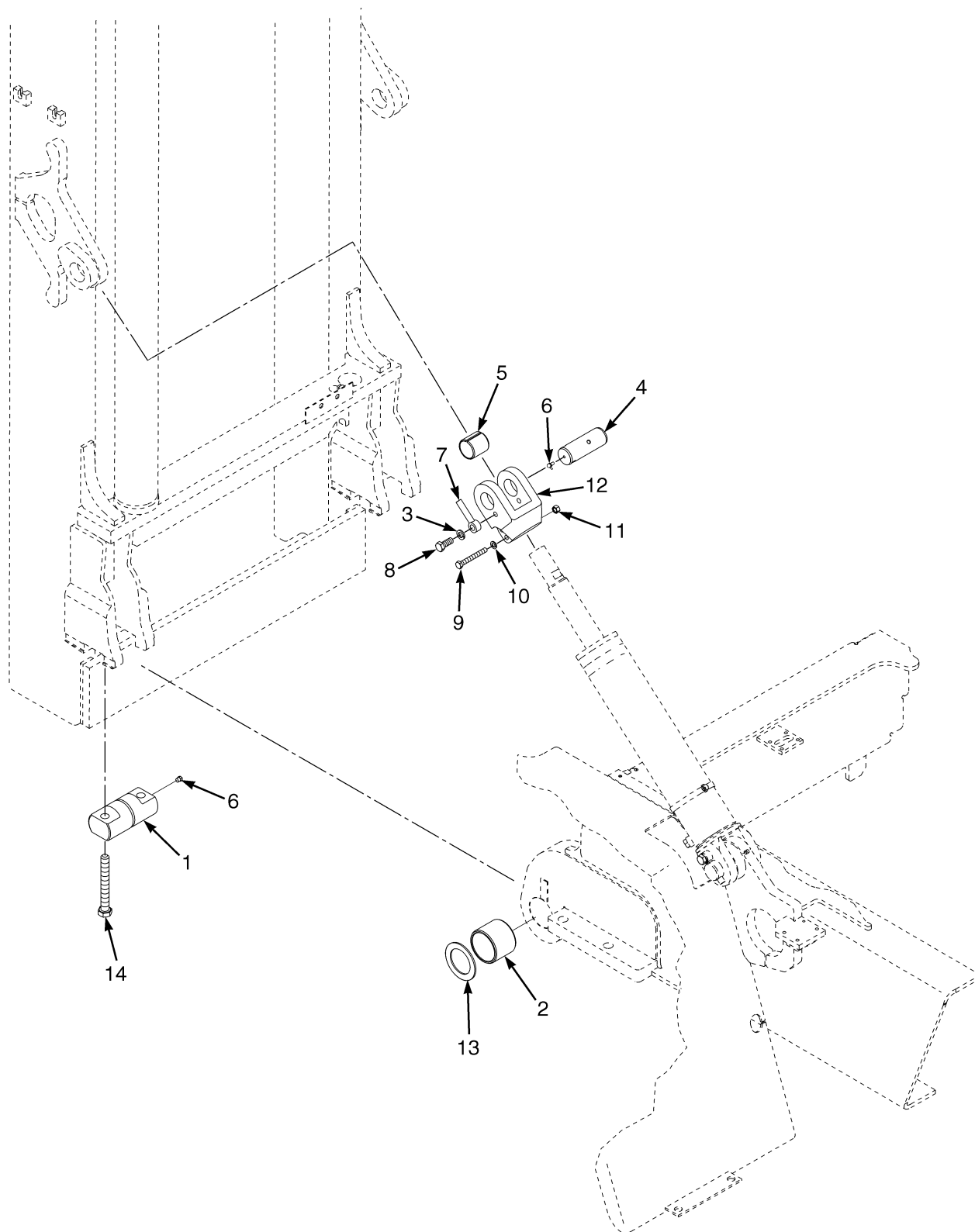
MAIN LIFT CYLINDER
THREE STAGE FULL FREE-LIFT**A024**

ITEM	DESCRIPTION	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
	1 2 3 4 Mast Group Number	-	-	-	-
	Cylinder Assy	1529154	1529165	1529174	1529183

ITEM	PART NO.	DESCRIPTION	QTY
	a	Cylinder Assy	2
1		Wear Ring	1
2		Slide Ring	1
3		Piston Rod	1
4		Tube	1
5		O-Ring	1
6		Seal	1
7		Wiper Ring	1
8		Plug	1
	1529259	Kit-Seal	1

FOOTNOTES:**a** Refer to Table

MAST INSTALLATION (FIGURE 11-6) THREE STAGE FULL FREE-LIFT



HP290054

**MAST INSTALLATION
THREE STAGE FULL FREE-LIFT**

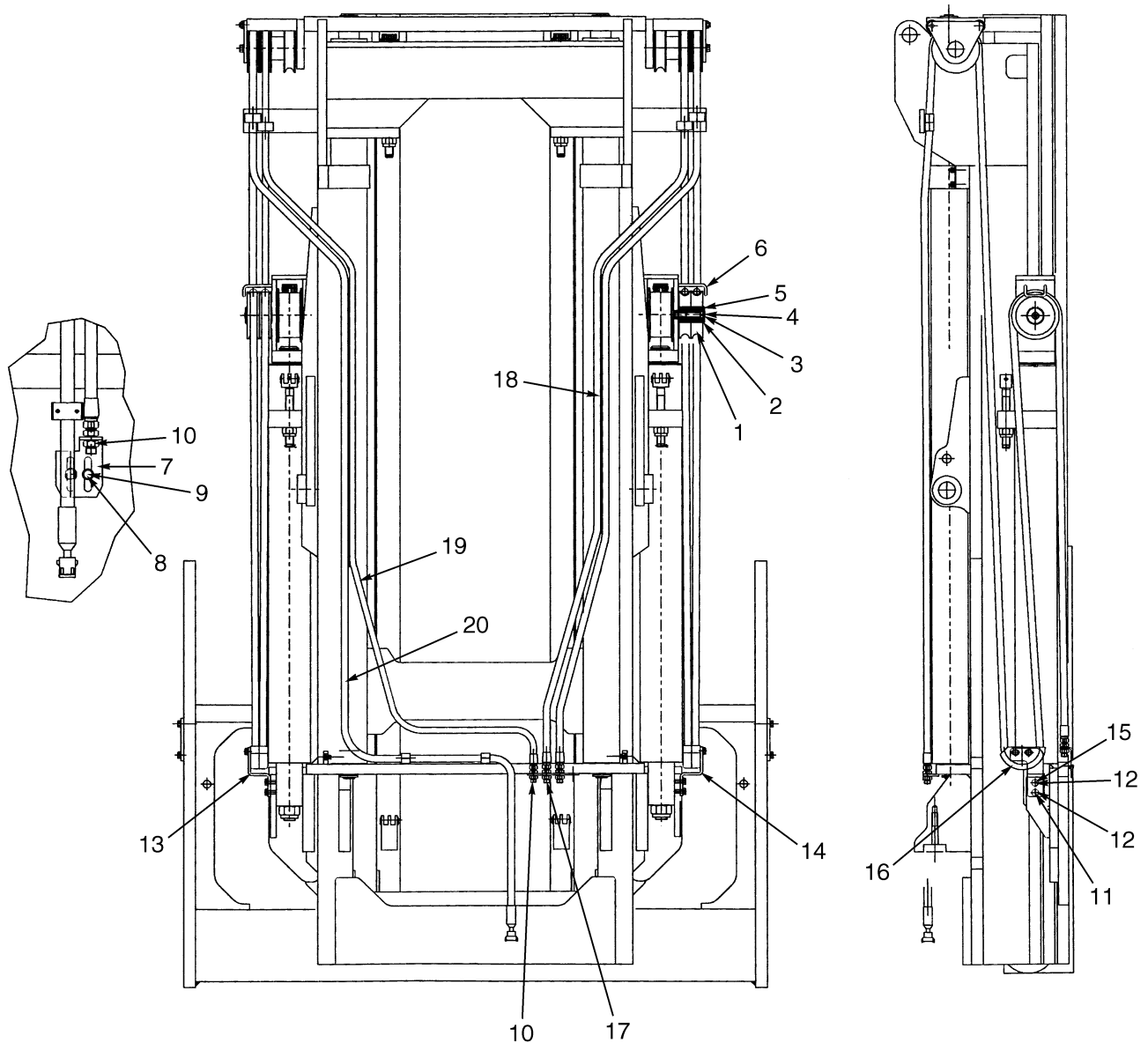
ITEM	PART NO.	DESCRIPTION	QTY
1	1385549	Pin (Mast Mounting)	2
2	376038	Bushing (Mast Mounting)	2
3	292685	Lockwasher	2
4	1347862	Pin (Mast Tilt)	2
5	376051	Bushing (Mast Tilt)	2
6	16001	Grease Fitting	4
7	1347861	Anchor	2
8	292560	Capscrew	2
9	292538	Capscrew	4
9	292539	Capscrew (Alternate Part)	4
10	292683	Lockwasher	4
11	216877	Nut	4
12	ac 1347863	Rod End	2
12	bd 1347864	Rod End	2
13	1359101	Shim	AR
14	293720	Capscrew	4

FOOTNOTES:

a 15° Forward/12° Back
b 20.5° Forward/7° Back

c 5° Forward/12° Back
d 5° Forward/6° Back

HEADER HOSE (FIGURE 11-7) THREE STAGE FULL FREE-LIFT



HP170476

**HEADER HOSE
THREE STAGE FULL FREE-LIFT****A024**

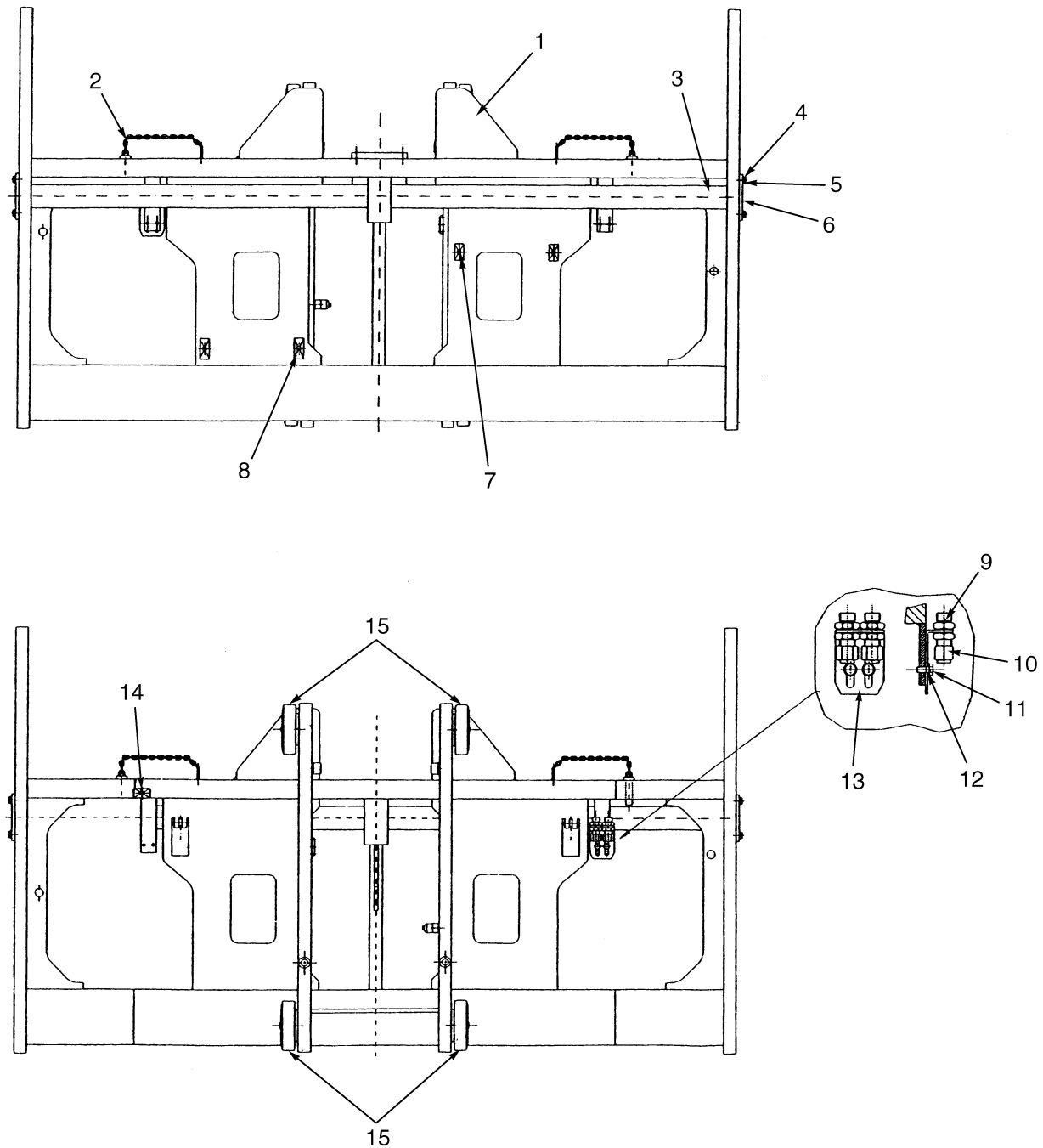
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
	Mast Group Number	-	-	-	-
	Mast Assy	2054512	2054513	2054514	2054515
18	Hose Assy	1534548	1534610	1534613	1534616
19	Hose Assy	1534549	1534611	1534614	1534617
20	Wire Harness	1534550	1534612	1534615	1534618

KEY:**A: Three Function****B: Four, Five, And Six Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	a	Mast Assy	1	1
1	1529210	Hose Reel	4	4
2	1529198	Snap Ring	2	2
3	1534505	Screw	2	2
4	1529211	Washer	2	2
5	1534506	Bracket	2	2
6	1534507	Pulley (Shaft) (Hose Pulley)	2	2
7	1534508	Support	..	1
8	1534509	Screw	..	2
9	1534510	Washer	..	2
10	1529221	Fitting	..	2
11	1534511	Screw	4	4
12	1529191	Washer	8	8
13	1534543	Plate (LH)	..	1
14	1534545	Plate (RH)	1	1
15	1534546	Screw	4	4
16	1534547	Pulley	2	2
17	1534551	Fitting	2	2
18	a	Hose Assy	2	2
19	a	Hose Assy	..	1
20	a	Wire Harness	..	1

FOOTNOTES:**a** Refer to Table

STANDARD PIN CARRIAGE (FIGURE 11-8) THREE FUNCTION — THREE STAGE FULL FREE-LIFT

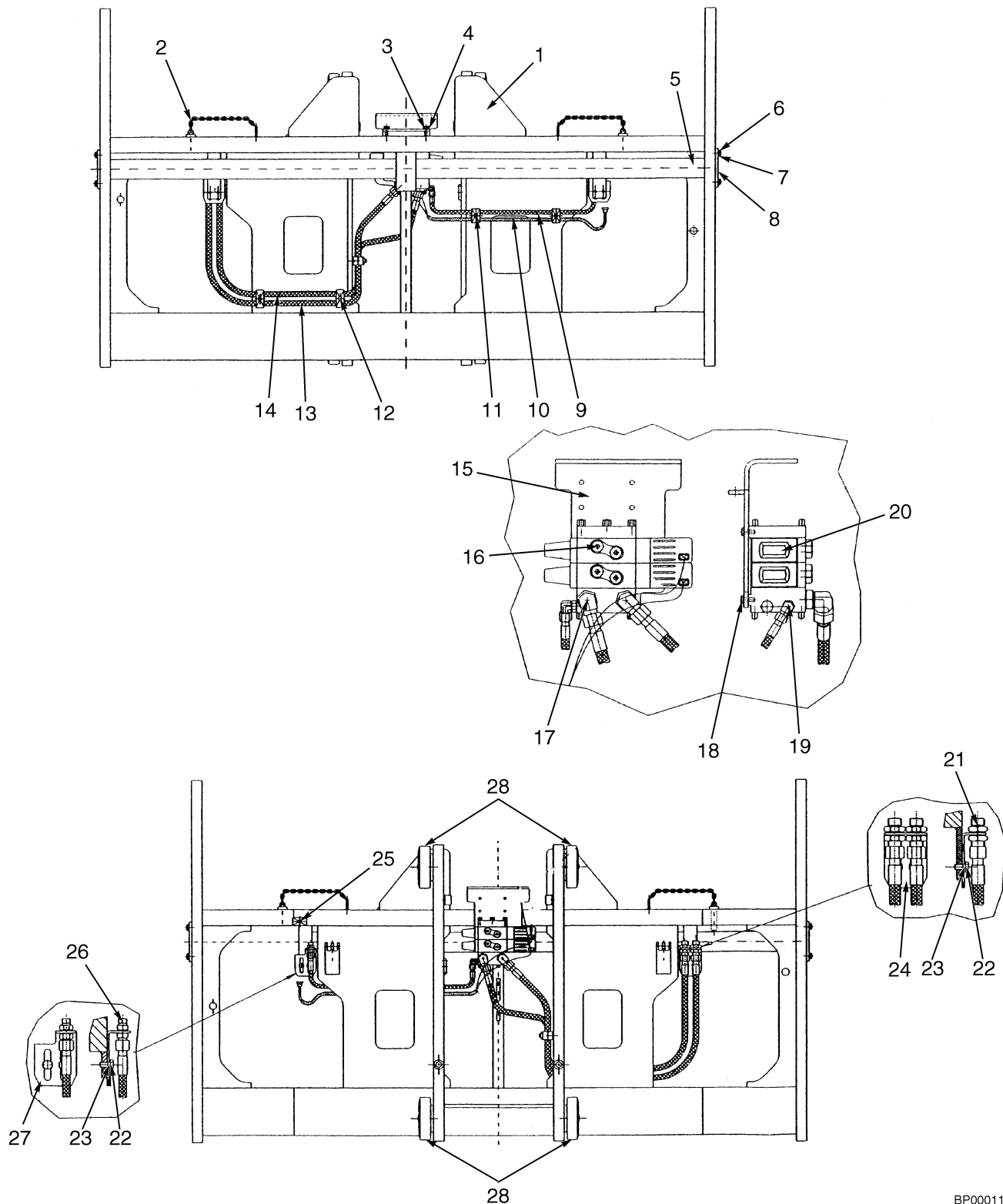


BP000111

STANDARD PIN CARRIAGE
THREE FUNCTION – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	2055513	Carriage	1
1		Frame	1
2	1536893	Pin (Fork Locking)	2
3	1536894	Pin (Load Arm)	1
4	1529191	Washer	4
5	1529190	Screw	4
6	1536892	Support (Shaft)	2
7	1536890	Clamp	2
8	1536891	Clamp	3
9	1534551	Fitting	2
10	1536887	Fitting	2
11	1536888	Bolt	2
12	1534510	Washer	2
13	1536889	Support	1
14	1529227	Clamp	1
15	1529236	Load Roller	4
15	1532830	Kit-Load Roller	1
15	1532831	Kit-Side Roller	1

STANDARD PIN CARRIAGE (FIGURE 11-9) FOUR, FIVE, AND SIX FUNCTION — THREE STAGE FULL FREE-LIFT (→ S/N H007E01502E)



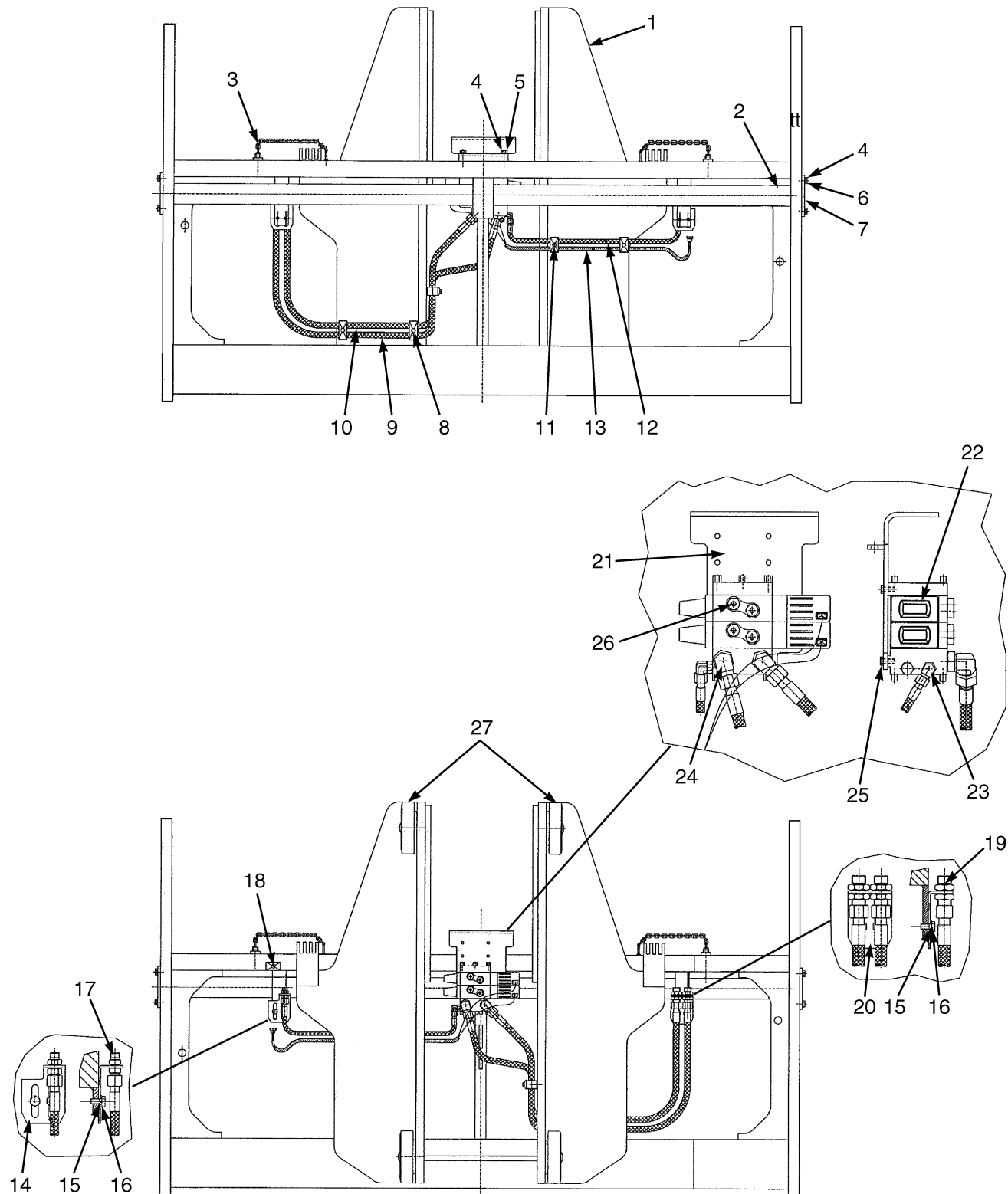
BP000112

STANDARD PIN CARRIAGE**FOUR, FIVE, AND SIX FUNCTION – THREE STAGE FULL FREE-LIFT (→ S/N H007E01502E)****KEY:****A: Four Function****B: Five Function****C: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2055514	Carriage (Four Function)	1	..	..
	2055515	Carriage (Five Function)	..	1	..
	2055516	Carriage (Six Function)	..	..	1
1		Frame	1	1	1
2	1536893	Pin (Fork Locking)	2	2	2
3	1529191	Washer	2	2	2
4	1536906	Bolt	2	2	2
5	1536894	Pin (Load Arm)	2	2	2
6	1529191	Washer	4	4	4
7	1529190	Screw	4	4	4
8	1536892	Support (Shaft)	2	2	2
9	1536903	Hose	1	1	1
10	2092486	Wire Harness (Front End) (☞ Figure 4-46).....	1	1	1
11	1536890	Clamp	2	2	2
12	1536891	Clamp	3	3	3
13	1536905	Hose	1	1	1
14	1536904	Hose	1	1	1
15	1536901	Support	1	1	1
16	1536897	Fitting	4	6	8
17	1536899	Fitting	2	2	2
18	1536898	Bolt	4	4	4
19	1536900	Fitting	1	1	1
20	2092483	Directional Control Valve, Two-Section (Deutsch) (☞ Figure 12-1).....	1	..	..
20	2092484	Directional Control Valve, Three-Section (Deutsch) (☞ Figure 12-1).....	..	1	..
20	2092485	Directional Control Valve, Four-Section (Deutsch) (☞ Figure 12-1).....	..	..	1
20	2055960	Directional Control Valve, Two-Section (AMP) (☞ Figure 12-1)....	1	..	..
20	2055961	Directional Control Valve, Three-Section (AMP) (☞ Figure 12-1).....	..	1	..
20	2055962	Directional Control Valve, Four-Section (AMP) (☞ Figure 12-1).....	..	..	1
21	1534551	Fitting	2	2	2
22	1536888	Bolt	4	4	4
23	1534510	Washer	4	4	4
24	1536889	Support	1	1	1
25	1529227	Clamp	1	1	1
26	1529221	Fitting	1	1	1
27	1534508	Support	1	1	1
28	1529236	Load Roller	4	4	4
28	1532830	Kit-Load Roller	1	1	1
28	1532831	Kit-Side Roller	1	1	1

STANDARD PIN CARRIAGE (FIGURE 11-10)

FOUR, FIVE, AND SIX FUNCTION — THREE STAGE FULL FREE-LIFT (S/N H007E01503E →)

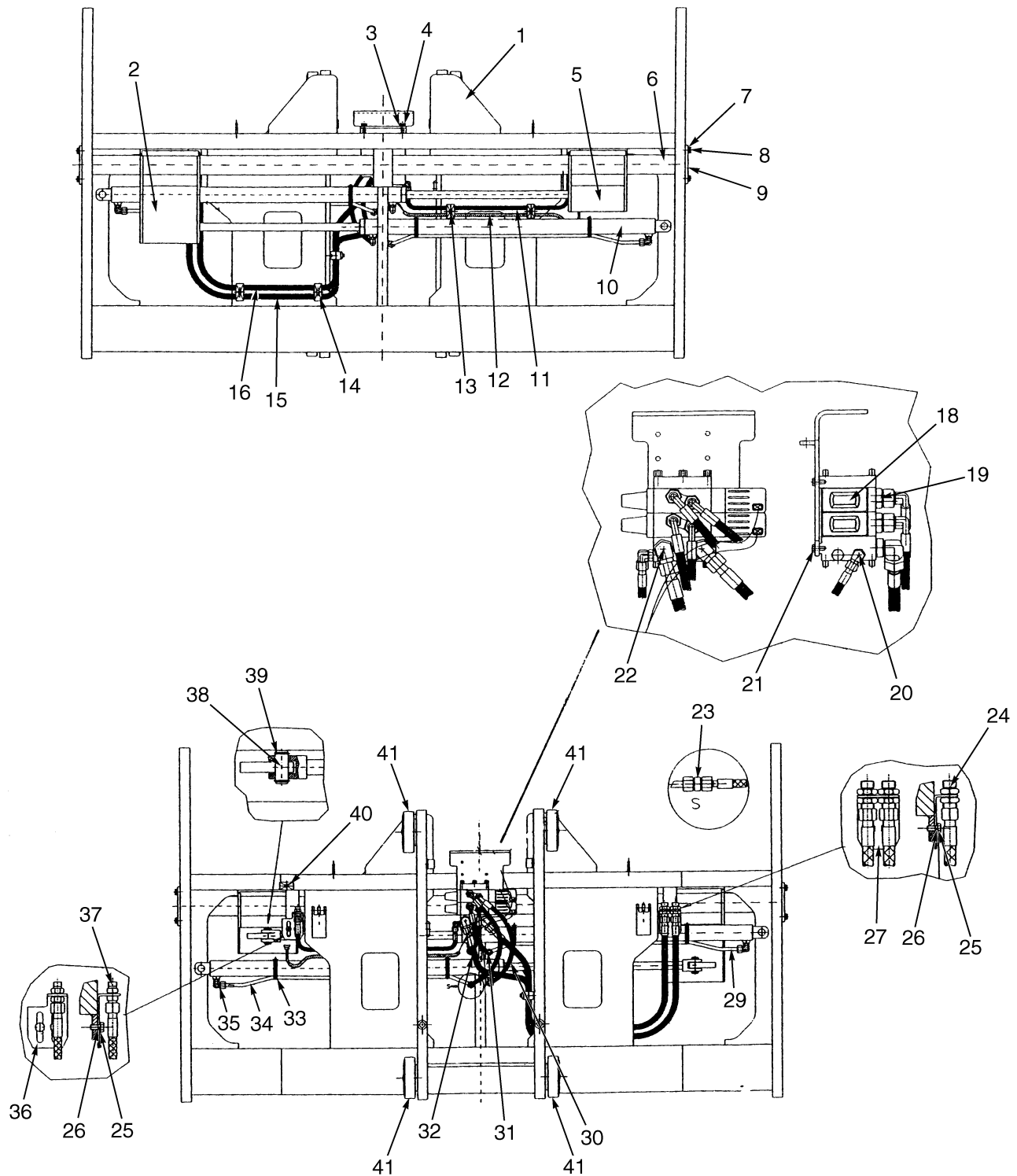


BP000395

STANDARD PIN CARRIAGE**FOUR, FIVE, AND SIX FUNCTION – THREE STAGE FULL FREE-LIFT (S/N H007E01503E →)****KEY:****A: Four Function****B: Five Function****C: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2097286	Carriage (Four Function)	1	..	..
	2097287	Carriage (Five Function)	..	1	..
	2097288	Carriage (Six Function)	..	..	1
1		Frame	1	1	1
2	1536894	Pin (Load Arm)	2	2	2
3	1334581	Pin (Fork Locking)	2	2	2
4	1529191	Washer	6	6	6
5	1536906	Bolt	2	2	2
6	1529190	Screw	4	4	4
7	1536892	Support (Shaft)	2	2	2
8	1536891	Clamp	3	3	3
9	1536905	Hose	1	1	1
10	1536904	Hose	1	1	1
11	1536890	Clamp	1	1	1
12	1536903	Hose	1	1	1
13	2092486	Wire Harness (Front End)	1	1	1
14	1534508	Support	1	1	1
15	1536888	Bolt	4	4	4
16	1534510	Washer	4	4	4
17	1529221	Fitting	1	1	1
18	1529227	Clamp	1	1	1
19	1534551	Fitting	2	2	2
20	1536889	Support	1	1	1
21	1536901	Support	1	1	1
22	2092483	Directional Control Valve, Two-Section (Deutsch) (☞Figure 12-1).....	1	..	..
22	2092484	Directional Control Valve, Three-Section (Deutsch) (☞Figure 12-1).....	..	1	..
22	2092485	Directional Control Valve, Four-Section (Deutsch) (☞Figure 12-1).....	..	..	1
22	2055960	Directional Control Valve, Two-Section (AMP) (☞Figure 12-1)....	1	..	..
22	2055961	Directional Control Valve, Three-Section (AMP) (☞Figure 12-1).....	..	1	..
22	2055962	Directional Control Valve, Four-Section (AMP) (☞Figure 12-1).....	..	..	1
23	1536900	Fitting	1	1	1
24	1536899	Fitting	2	2	2
25	1536898	Bolt	4	4	4
26	1536897	Fitting	4	4	4
27	1529236	Load Roller	4	4	4
	1532830	Kit-Load Roller	1	1	1
	1532831	Kit-Side Roller	1	1	1

STANDARD PIN CARRIAGE (FIGURE 11-11) INDIVIDUAL FORK POSITIONER (FOUR FUNCTION)



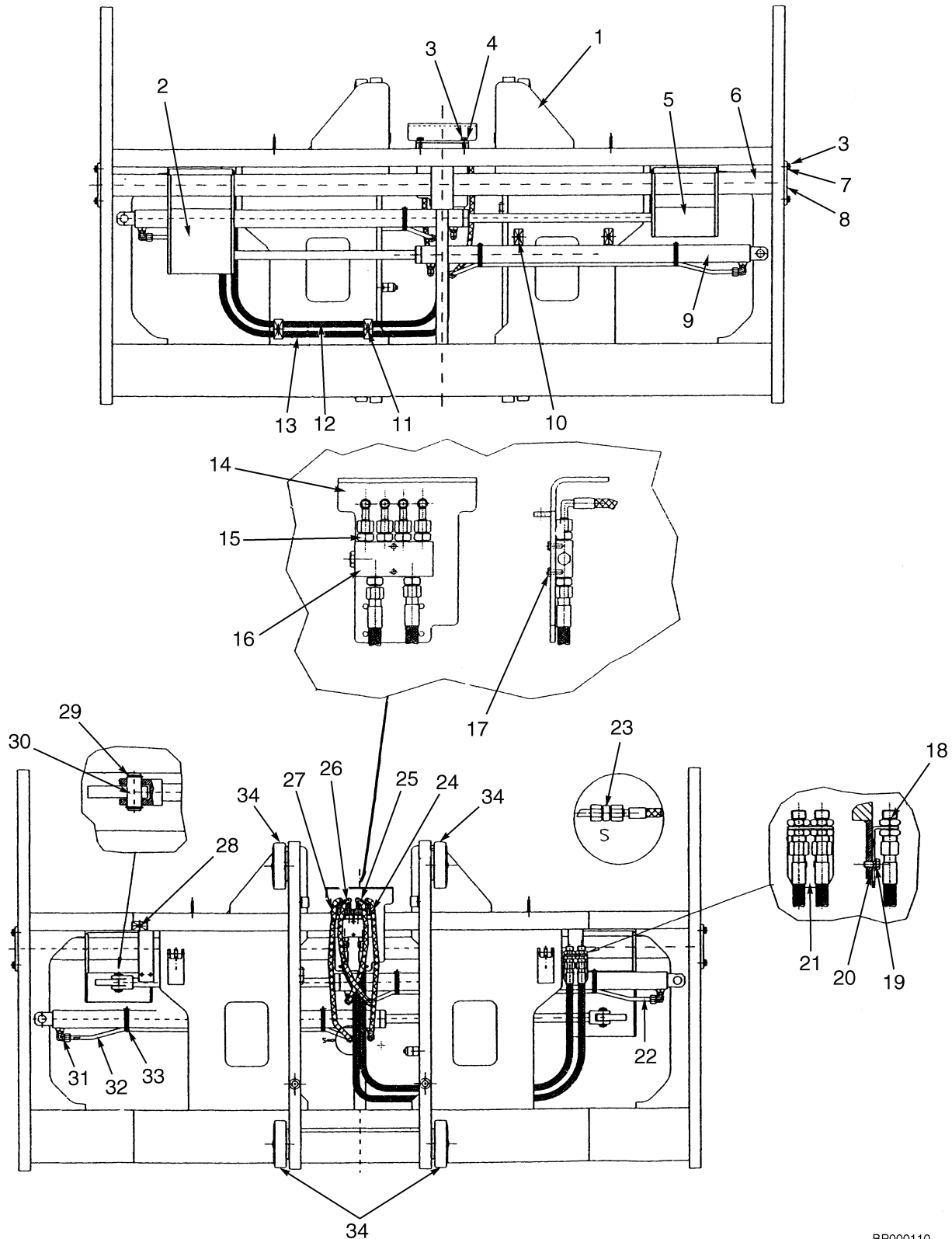
BP000109

STANDARD PIN CARRIAGE

INDIVIDUAL FORK POSITIONER (FOUR FUNCTION)

ITEM	PART NO.	DESCRIPTION	QTY
	2055517	Carriage (Individual Fork Positioner)	1
1		Frame	1
2	1537025	Guide (RH)	1
3	1529191	Washer	2
4	1536906	Bolt	2
5	1537024	Guide (LH)	1
6	1536894	Pin (Load Arm)	1
7	1529191	Washer	4
8	1529190	Screw	4
9	1536892	Support (Shaft)	2
10	2046669	Cylinder Assy (☞ Figure 12-2).....	2
11	1536903	Hose	1
12	2092486	Wire Harness (Front End) (☞ Figure 4-46).....	1
13	1536890	Clamp	2
14	1536891	Clamp	3
15	1536905	Hose	1
16	1536904	Hose	1
17	1536901	Support	1
18	2092483	Directional Control Valve, Two-Section (Deutsch) (☞ Figure 12-1).....	1
18	2055960	Directional Control Valve, Two-Section (AMP) (☞ Figure 12-1).....	1
19	1536972	Fitting	4
20	1536900	Fitting	1
21	1536898	Bolt	4
22	1536899	Fitting	2
23	1536902	Fitting	2
24	1534551	Fitting	2
25	1536888	Bolt	3
26	1534510	Washer	4
27	1536889	Support	1
28	1537118	Hose	1
29	1537015	Tube	1
30	1537177	Hose	1
31	1537122	Hose	1
32	1537123	Hose	1
33	1537017	Clamp	4
34	1537016	Tube	1
35	1536900	Fitting	4
36	1534508	Support	1
37	1529221	Fitting	1
38	1537023	Pin (Fork Position Cylinder)	4
39	1537022	Snap Ring	8
40	1529227	Clamp	1
41	1529236	Load Roller	4
41	1532830	Kit-Load Roller	1
41	1532831	Kit-Side Roller	1

STANDARD PIN CARRIAGE (FIGURE 11-12) SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) — THREE STAGE FULL FREE-LIFT



BP000110

STANDARD PIN CARRIAGE

SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) – THREE STAGE FULL FREE-LIFT

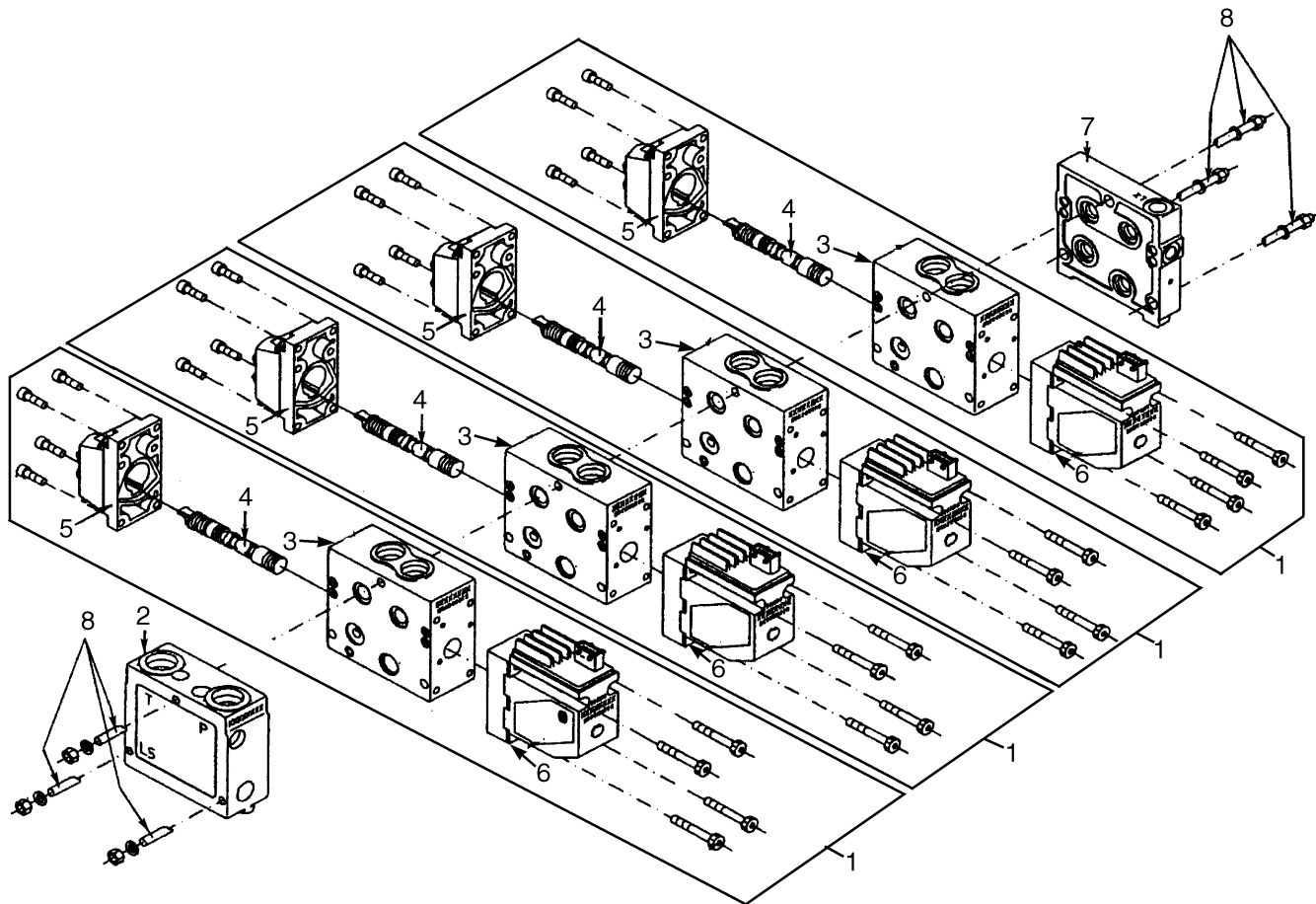
ITEM	PART NO.	DESCRIPTION	QTY
	2055518	Carriage (Simultaneous Fork Positioner)	1
1		Frame	1
2	1537025	Guide (RH)	1
3	1529191	Washer	6
4	1536906	Bolt	2
5	1537024	Guide (LH)	1
6	1536894	Pin (Load Arm)	1
7	1529190	Screw	4
8	1536892	Support (Shaft)	2
9	2046669	Cylinder Assy (☞ Figure 12-2).....	2
10	1536890	Clamp	2
11	1536891	Clamp	3
12	1537120	Hose	1
13	1537121	Hose	1
14	1536901	Support	1
15	1537033	Connector	6
16	1551865	Hydraulic Control Valve	1
16	1600818	Manifold	1
16	1560246	Manifold	1
16	1589219	Cartridge	1
16	1600819	Valve	1
16	1560248	Relief Valve	2
17	1537032	Bolt	2
18	1534551	Fitting	2
19	1536888	Bolt	2
20	1534510	Washer	2
21	1536889	Support	1
22	1537015	Tube	1
23	1536902	Fitting	2
24	1537119	Hose	1
25	1537118	Hose	1
26	1537117	Hose	1
27	1537116	Hose	1
28	1529227	Clamp	1
29	1537022	Snap Ring	8
30	1537023	Pin (Fork Position Cylinder)	4
31	1536900	Fitting	4
32	1537016	Tube	1
33	1537017	Clamp	4
34	1529236	Load Roller	4
34	1532830	Kit-Load Roller	1
34	1532831	Kit-Side Roller	1

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**SECTION 12
ATTACHMENTS**

DESCRIPTION	PAGE
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TWO STAGE LIMITED FREE-LIFT AND THREE STAGE FULL FREE-LIFT	12-38

DIRECTIONAL CONTROL VALVE (FIGURE 12-1)

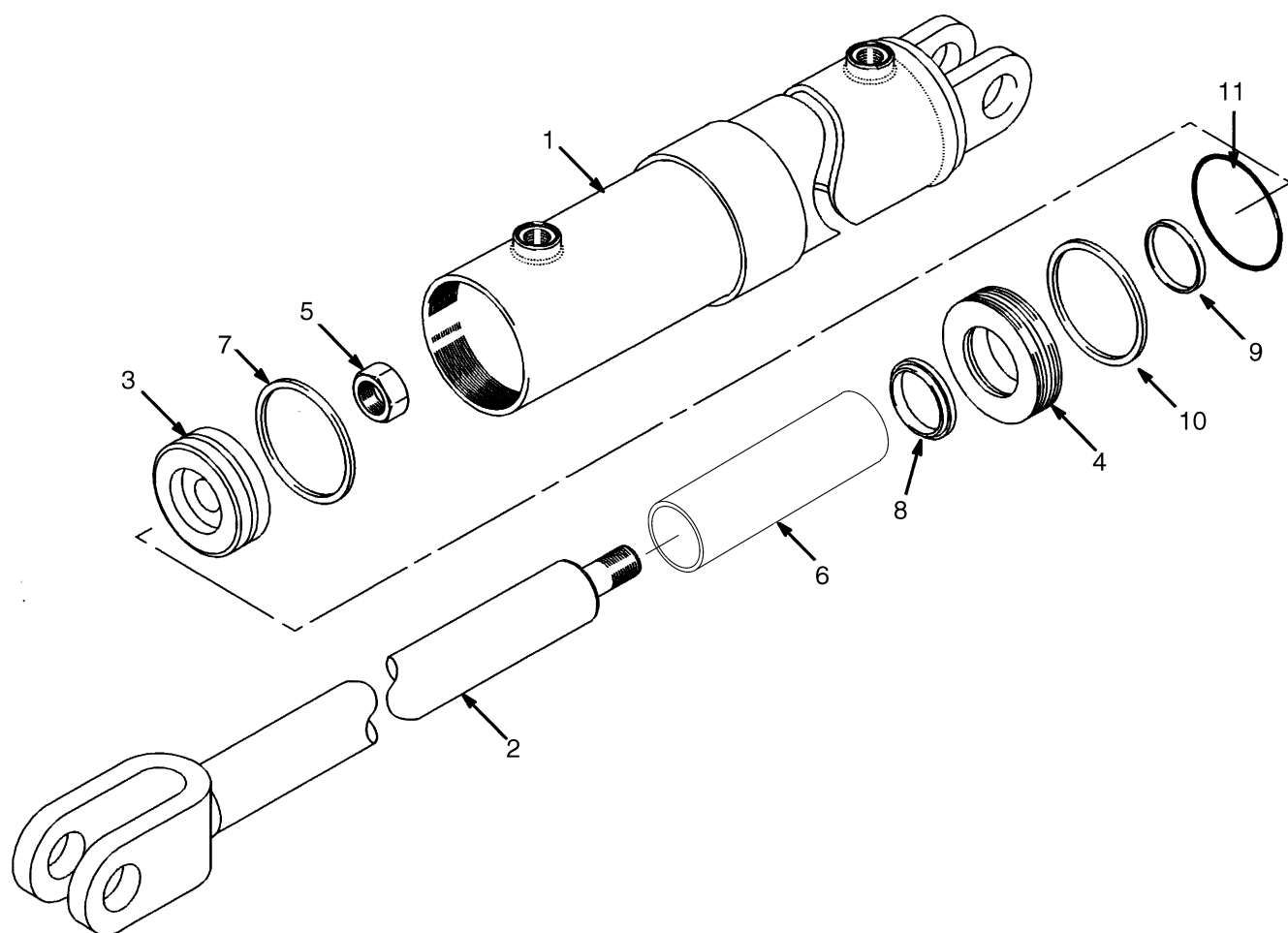


HP140042

DIRECTIONAL CONTROL VALVE**KEY:****A: Four Function****B: Five Function****C: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2092483	Directional Control Valve, Two-Section (Deutsch)	1	..	..
	2092484	Directional Control Valve, Three-Section (Deutsch)	..	1	..
	2092485	Directional Control Valve, Four-Section (Deutsch)	..	..	1
	2055960	Directional Control Valve, Two-Section (AMP)	1	..	..
	2055961	Directional Control Valve, Three-Section (AMP)	..	1	..
	2055962	Directional Control Valve, Four-Section (AMP)	..	..	1
	1662993	Valve Section (Deutsch)	2	3	4
1	1560160	Valve Section (AMP)	2	3	4
2	1539225	Module (Inlet)	1	1	1
3	1539226	Valve	1	1	1
4	1539227	Spool	1	1	1
5	1539228	Manifold (End Cap)	1	1	1
5	1539234	Kit-Seal	1	1	1
6	1662992	Module (Electrical) (Deutsch)	2	3	4
6	1539235	Kit-Seal	1	1	1
6	1539229	Module (Electrical) (AMP)	2	3	4
6	1539235	Kit-Seal	1	1	1
7	1539230	Module (End)	1	1	1
8	1539231	Kit-Valve (Tie Bolts - Two-Section)	1	..	..
8	1539232	Kit-Valve (Tie Bolts - Three-Section)	..	1	..
8	1539233	Kit-Valve (Tie Bolts - Four-Section)	..	..	1

FORK POSITIONING CYLINDER (FIGURE 12-2)

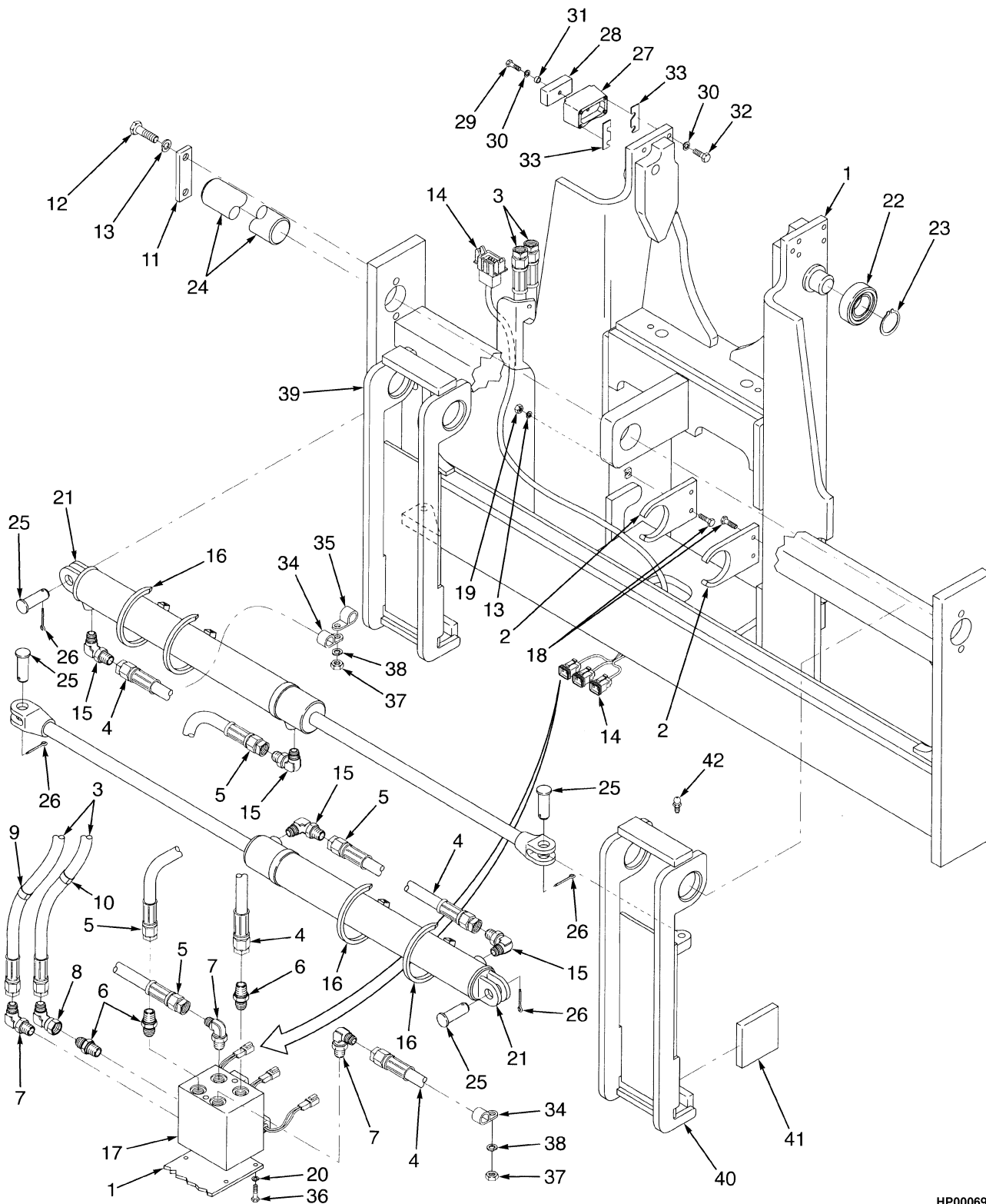


HP171339

FORK POSITIONING CYLINDER

ITEM	PART NO.	DESCRIPTION	QTY
	2046669	Cylinder Assy	1
1	1504621	Tube Wldmt-Cylinder	1
2	1504622	Cylinder Rod	1
3	1504623	Piston	1
4	1504624	Retainer	1
5	1504625	Nut	1
6	1504635	Spacer	1
7	1504628	Piston Seal (Piston)	1
8	1504629	Rod Seal (Rod)	1
9	1504632	Wiper	1
10	1504633	Back-Up Ring	1
11	1504634	O-Ring	1
12	1504626	Kit-Seal	1

SIDE-SHIFT CARRIAGE (FIGURE 12-3) DUAL FUNCTION WITH FORK POSITIONER — TWO STAGE LIMITED FREE-LIFT



HP000690

SIDE-SHIFT CARRIAGE

DUAL FUNCTION WITH FORK POSITIONER – TWO STAGE LIMITED FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	a 2043328	Carriage	1
	b 2043330	Carriage	1
1	b 1451134	Carriage Wldmt	1
1	a 1451318	Carriage Wldmt	1
1	376624	Stubshaft	4
2	1451155	Bracket	2
3	1490466	Hose Assy	2
4	1490489	Hose Assy	2
5	1490490	Hose Assy	2
6	1486746	Fitting	3
6	16485	O-Ring	1
6	1527817	O-Ring	1
7	1487065	Fitting	3
7	16485	O-Ring	1
7	1527817	O-Ring	1
8	1486772	Fitting	1
8	1527817	O-Ring	1
9	342675	Identification Band (B)	2
10	342676	Identification Band (C)	2
11	1453728	Plate (Keeper)	2
12	293647	Capscrew	4
13	292683	Lockwasher	8
14	2054264	Wire Harness (Selector Valve)	1
14	1330419	Connector	1
14	1330424	Connector	1
14	1352602	Connector	1
14	1352603	Connector	1
14	1330434	Terminal	4
15	1473897	Fitting	4
15	16484	O-Ring	1
15	1527817	O-Ring	1
16	323864	Strap Clamp	4
17	1372994	Selector Valve	1
17	1452130	Cartridge (Includes Solenoid)	3
17	1452131	Kit-Seal	1
17	1452132	Plug	3
17	1452138	Bolt	4
17	1452134	Cover Plate	1
17	1452135	Washer	4
18	292529	Capscrew	4
19	216877	Nut	4
20	292682	Lockwasher	2
21	1451149	Cylinder Assy (☞ Figure 12-11).....	2
22	c 376056	Load Roller	4
22	d 1691113	Load Roller	4
23	41459	Snap Ring	4
24	1528881	Pin	1
25	1373216	Pin	4
26	302456	Roll Pin	8
27	1301018	Bracket (Bearing)	4

SIDE-SHIFT CARRIAGE
DUAL FUNCTION WITH FORK POSITIONER – TWO STAGE LIMITED FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
28	1335179	Bearing	4
29	376203	Capscrew	4
30	15156	Lockwasher	20
31	1301016	Spacer	4
32	221510	Capscrew (2.0 in.)	16
33	1310592	Shim (0.030 in.)	AR
34	198678	Clamp	2
35	251994	Clamp	1
36	292515	Capscrew	2
37	239503	Nut	2
38	292681	Lockwasher	2
39	1451923	Carrier (RH)	1
40	1451786	Carrier (LH)	1
41	1451839	Block (Bearing)	2
42	16001	Grease Fitting	2

FOOTNOTES:

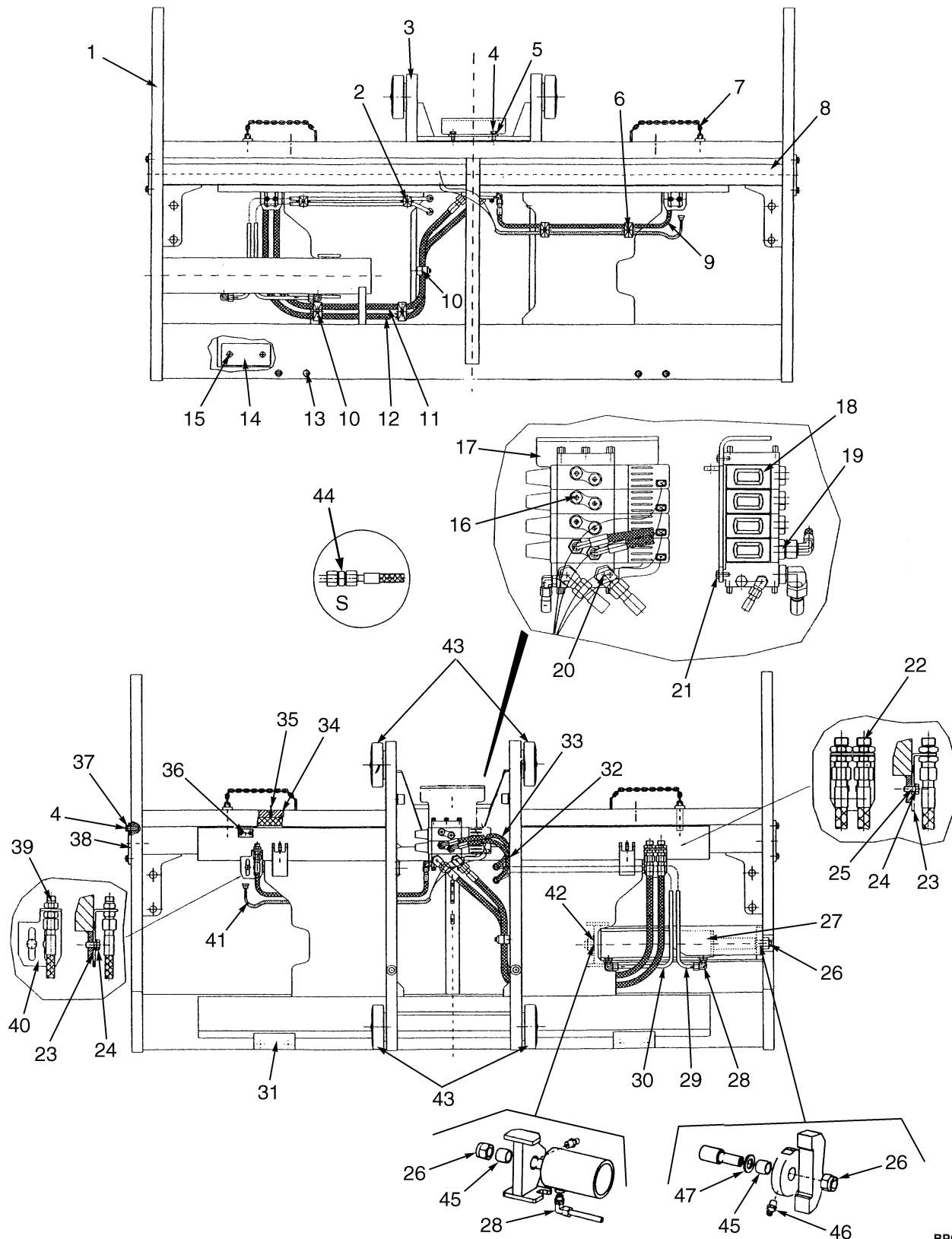
a H170HD, H190HD, H210HD
b H230HD, H250HD, H280HD

c → S/N H007E02268F
d S/N H007E02269F →

NOTES

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface. There is no handwriting or other markings on the paper.

SIDE-SHIFT CARRIAGE (FIGURE 12-4) FOUR, FIVE, AND SIX FUNCTION — THREE STAGE FULL FREE-LIFT



BP020018

SIDE-SHIFT CARRIAGE

FOUR, FIVE, AND SIX FUNCTION – THREE STAGE FULL FREE-LIFT

KEY:**A: Four Function****B: Five Function****C: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2097286	Carriage (Four Function)	1	..	..
	2097291	Carriage (Three Stage)	..	1	..
	2097288	Carriage (Six Function) (Illustrated)	..	..	1
1		Frame	1	1	1
2	1536973	Clamp	2	2	2
3		Frame (Mobile)	1	1	1
4	1529191	Washer	6	6	6
5	1536906	Bolt	2	2	2
6	1536890	Clamp	2	2	2
7	1536893	Pin (Fork Locking)	2	2	2
8	1536894	Pin (Load Arm)	1	1	1
9	1536904	Hose	1	1	1
10	1536891	Clamp	3	3	3
11	1536904	Hose	1	1	1
12	1536905	Hose	1	1	1
13	1536980	Bolt	4	4	4
14	1536985	Pad (Lower)	3	3	3
15	1536984	Bolt	6	6	6
16	1536897	Fitting	2	4	6
17	1536901	Support	1	..	..
18	2092483	Directional Control Valve, Two-Section (Deutsch) (☞Figure 12-1).....	1	..	..
18	2092484	Directional Control Valve, Three-Section (Deutsch) (☞Figure 12-1).....	..	1	..
18	2092485	Directional Control Valve, Four-Section (Deutsch) (☞Figure 12-1).....	..	..	1
18	2055960	Directional Control Valve, Two-Section (AMP) (☞Figure 12-1)....	1	..	..
18	2055961	Directional Control Valve, Three-Section (AMP) (☞Figure 12-1).....	..	1	..
18	2055962	Directional Control Valve, Four-Section (AMP) (☞Figure 12-1).....	..	..	1
19	1536972	Fitting	2	2	2
20	1536899	Fitting	2	2	2
21	1536898	Bolt	4	4	4
22	1534551	Fitting	2	2	2
23	1536889	Support	1	1	1
24	1534510	Washer	1	1	1
25	1536888	Bolt	4	4	4
26	1536979	Nut	2	2	2
27	376770	Sideshift Cylinder (☞Figure 12-12).....	1	1	1
28	1536900	Fitting	2	2	2
29	1536975	Tube	1	1	1
30	1536974	Tube	1	1	1
31	1536981	Hook (Lower)	2	2	2

SIDE-SHIFT CARRIAGE **FOUR, FIVE, AND SIX FUNCTION – THREE STAGE FULL FREE-LIFT**

KEY:**A: Four Function****B: Five Function****C: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
32	1536976	Hose Assy	1	1	1
33	1536977	Hose Assy	1	1	1
34	1536983	Pad (Upper)	3	3	3
35	1536982	Grease Fitting	3	3	3
36	1529227	Clamp	1	1	1
37	1529190	Screw	4	4	4
38	1536892	Support (Shaft)	2	2	2
39	1529221	Fitting	1	1	1
40	1534508	Support	1	1	1
41	2092486	Wire Harness (Front End) (☞ Figure 4-46).....	1	1	1
42	1536978	Pin	1	1	1
43	1529236	Load Roller	1	1	1
43	1532830	Kit-Load Roller	1	1	1
43	1532831	Kit-Side Roller	1	1	1
44	1536902	Fitting	2	2	2
45	1624055	Bushing (Spherical)	2	2	2
	1671705	Grease Fitting	2	2	2
47	15133	Washer	1	1	1

NOTES

[illegible]

This technical drawing is an exploded view of a mechanical assembly, likely a vehicle chassis or frame component. The diagram shows the following parts and their assembly sequence:

- Main Frame (1):** The central longitudinal beam.
- Side Rails (2, 3):** Components that attach to the main frame.
- Mounting Brackets (4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79):** Various brackets, bolts, and fasteners used to secure the frame and other components.
- Curved Component (67):** A U-shaped part, possibly a spring or a guide.
- Assembly Sequence:** Indicated by curved arrows showing the order of assembly, starting from the main frame (1) and moving through various sub-assemblies.

HP000432

SIDE-SHIFT CARRIAGE

INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2086191	Side-Shift Carriage	..	1
	2086189	Side-Shift Carriage	1	..
1	1503376	Frame	1	..
1	376624	Stubshaft	4	..
1	1503462	Frame	..	1
1	376624	Stubshaft	..	4
2	1503450	Apron	1	1
3	2056106	Tube	1	..
3	2056110	Tube	..	1
4	2056107	Tube	1	..
4	2056111	Tube	..	1
5	2056108	Tube	1	..
5	2056112	Tube	..	1
6	2056109	Tube	1	..
6	2056113	Tube	..	1
7	376127	Pin	2	2
8	376776	Plate	6	6
9	292683	Lockwasher	14	14
10	293647	Capscrew	12	12
11	b 376056	Load Roller	4	4
11	c 1691113	Load Roller	4	4
12	41459	Snap Ring	4	4
13	1310592	Shim (0.030 in.)	AR	AR
14	1301018	Bracket	4	4
15	15156	Lockwasher	20	20
16	221506	Capscrew	16	16
17	1301016	Spacer	4	4
18	1335179	Bearing	4	4
19	376203	Capscrew	4	4
20	376770	Sideshift Cylinder (☞ Figure 12-12).....	1	1
21	53157	Locknut	2	2
22	68551	Roll Pin	1	1
23	1487064	Fitting	2	2
24	376128	Bar	2	2
25	376773	Bushing	4	4
26	183609	Snap Ring	4	4
27	16001	Grease Fitting	2	2
28	351458	Bearing	6	6
29	2046669	Cylinder Assy (☞ Figure 12-2).....	2	2
30	1501460	Guide (RH)	1	1
31	1501461	Guide (LH)	1	1
32	1487064	Fitting	4	4
33	1502390	Pin	4	4
34	15236	Cotter Pin	8	8
35	2046745	Tube Assy	1	1

SIDE-SHIFT CARRIAGE

INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:
A: H170HD, H190HD, H210HD

B: H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
35	1491350	Fitting	2	2
35	1487164	Fitting	2	2
36	2046746	Tube Assy	1	1
36	1491350	Fitting	2	2
36	1487164	Fitting	2	2
37	112989	Hose Clamp	4	4
38	1527372	Bracket Wldmt	1	1
39	320162	Washer	2	2
40	302402	Locknut	2	2
41	1393802	Clamp	2	2
42	221463	Capscrew	1	1
43	1496449	Clamp	4	4
44		Washer	1	1
45	1487069	Fitting	2	2
45	16485	O-Ring	1	1
45	1527818	O-Ring	1	1
46	1486743	Fitting	2	2
46	16484	O-Ring	1	1
46	1527817	O-Ring	1	1
47	1486740	Fitting	1	1
47	16483	O-Ring	1	1
47	1527816	O-Ring	1	1
48	2092486	Wire Harness (Front End) (☞Figure 4-46).....	1	1
49	137852	Strap Clamp	16	16
50	3066037	Loctite	AR	AR
51	2056066	Hose Assy	1	1
52	2056067	Hose Assy	1	1
53	2056068	Hose Assy	1	1
53	2056069	Hose Assy (Alternate Part)	1	1
54	2056069	Hose Assy	1	1
55	2056776	Hose Assy	1	1
56	342675	Identification Band	4	4
57	342676	Identification Band	4	4
58	342677	Identification Band	2	2
59	1332237	Identification Band	4	4
60	1350854	Identification Band	4	4
61	1506110	Bracket	1	1
62	320157	Washer	2	2
63	302400	Nut	2	2
64	1506109	Hose Clamp	2	2
65	292681	Lockwasher	1	1
66	293615	Capscrew	1	1
67	239308	Sleeve	2	2
68	2092484	Directional Control Valve, Three-Section (Deutsch) (☞Figure 12-1).....	1	1
68	2055961	Directional Control Valve, Three-Section (AMP) (☞Figure 12-1).....	1	1

SIDE-SHIFT CARRIAGE

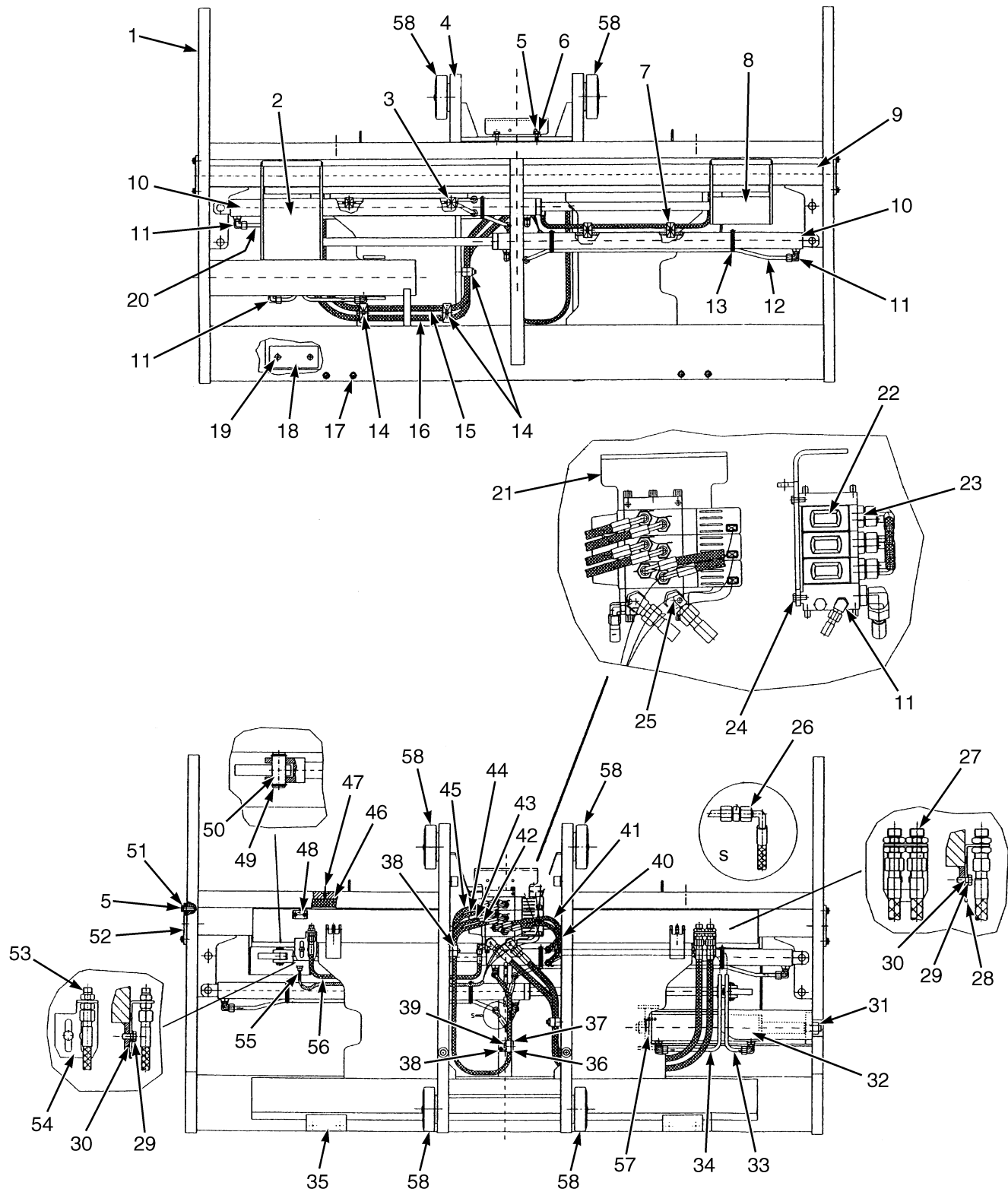
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
69	1486743	Fitting	4	4
69	16484	O-Ring	1	1
69	1527817	O-Ring	1	1
70	2056070	Hose Assy	1	1
71	2056071	Hose Assy	1	1
72	2056072	Hose Assy	1	1
73	2056073	Hose Assy	1	1
74	1506109	Hose Clamp	1	1
75	293615	Capscrew	1	1
76	1350855	Identification Band	2	2
77	1350856	Identification Band	2	2
78	1350857	Identification Band	2	2
79	1350858	Identification Band	2	2
	a 15133	Washer	1	1
	a 1671705	Grease Fitting	2	2
	a 1624055	Bushing (Spherical)	2	2
	a 1486772	Fitting	1	1

FOOTNOTES:**a** Not Illustrated**c** S/N H007E02269F →**b** → S/N H007E02268F

SIDE-SHIFT CARRIAGE (FIGURE 12-6) **INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) — THREE STAGE FULL FREE-LIFT**



BP000392

SIDE-SHIFT CARRIAGE

INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	2086270	Side-Shift Carriage (Individual Fork Positioner)	1
1		Frame	1
2	1537025	Guide (RH)	1
3	1536973	Clamp	2
4		Frame (Mobile)	1
5	1529191	Washer	6
6	1536906	Bolt	2
7	1536890	Clamp	2
8	1537024	Guide (LH)	1
9	1536894	Pin (Load Arm)	1
10	2046669	Cylinder Assy (☞ Figure 12-2).....	2
11	1536900	Fitting	7
12	1537016	Tube	1
13	1537017	Clamp	4
14	1536891	Clamp	3
15	1536904	Hose	1
16	1536905	Hose	1
17	1536980	Bolt	4
18	1536985	Pad (Lower)	3
19	1536984	Bolt	6
20	1537015	Tube	1
21	1536901	Support	1
22	2092484	Directional Control Valve, Three-Section (Deutsch) (☞ Figure 12-1).....	1
22	2055960	Directional Control Valve, Two-Section (AMP) (☞ Figure 12-1).....	1
23	1536972	Fitting	6
24	1536898	Bolt	4
25	1536899	Fitting	2
26	1536902	Fitting	2
27	1534551	Fitting	1
28	1534510	Washer	4
29	1536889	Support	2
30	1536888	Bolt	4
31	1536979	Nut	2
32	376770	Sideshift Cylinder (☞ Figure 12-12).....	1
33	1536975	Tube	1
34	1536974	Tube	1
35	1536981	Hook (Lower)	2
36	1537011	Nut	2
37	1537010	Support	1
38	1537014	Support	2
39	1537012	Bolt	2
40	1536976	Hose Assy	1
41	1536977	Hose Assy	1
42	1537018	Hose Assy	1
43	1537019	Hose Assy	1
44	1537020	Hose Assy	1
45	1537021	Hose Assy	1
46	1536983	Pad (Upper)	3
47	1536982	Grease Fitting	3
48	1529227	Clamp	1

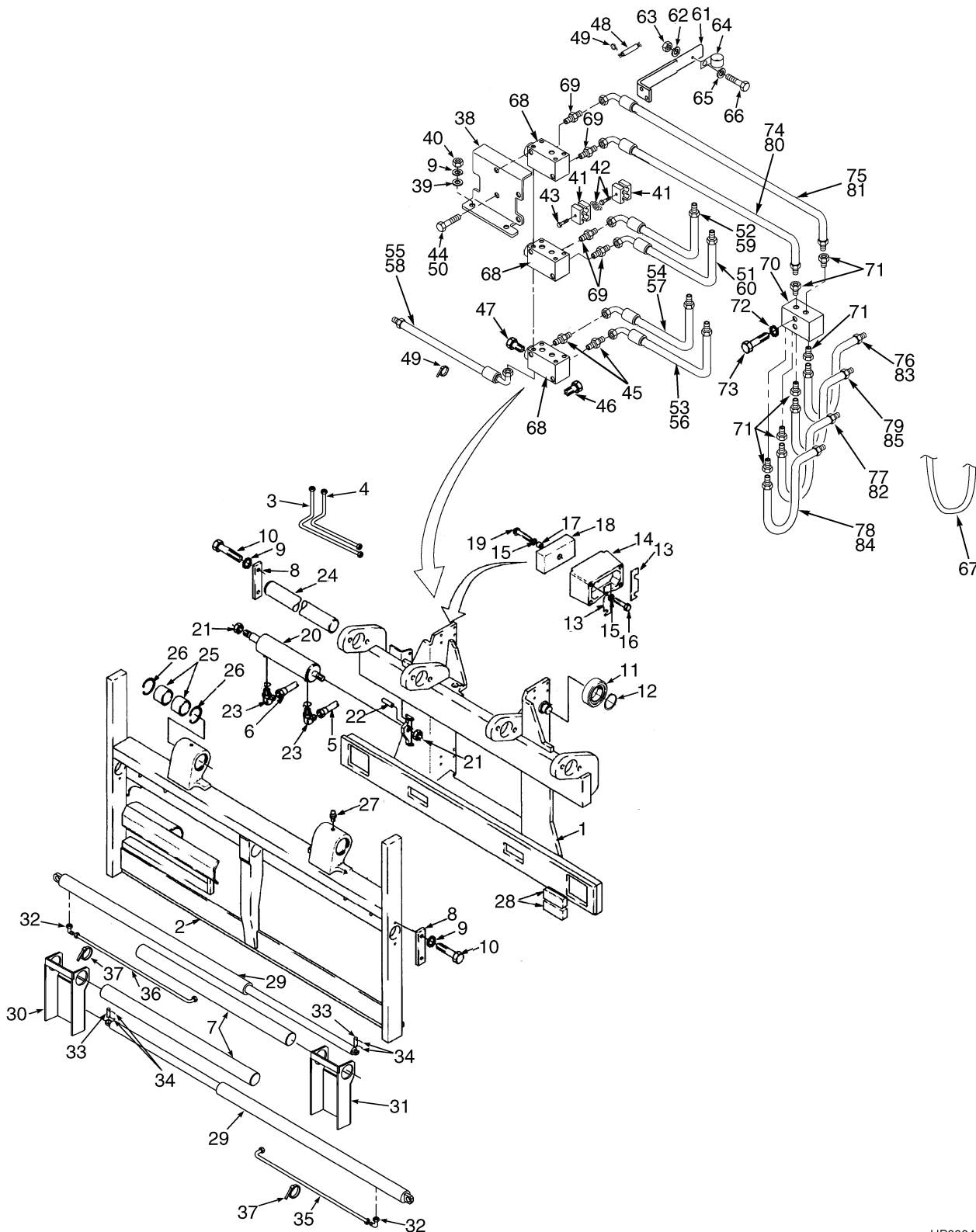
SIDE-SHIFT CARRIAGE
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
49	1537022	Snap Ring	8
50	1537023	Pin (Fork Position Cylinder)	4
51	1529190	Screw	4
52	1536892	Support (Shaft)	2
53	1529221	Fitting	1
54	1534508	Support	1
55	2092486	Wire Harness (Front End) (☞ Figure 4-46).....	1
56	1536903	Hose	1
57	1536978	Pin	1
58	1529236	Load Roller	4
	1532830	Kit-Load Roller	1
	1532831	Kit-Side Roller	1
	1671705	Grease Fitting	2

NOTES

[illegible]

SIDE-SHIFT CARRIAGE (FIGURE 12-7) SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) — TWO STAGE LIMITED FREE-LIFT



HP000439

SIDE-SHIFT CARRIAGE

SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2086192	Side-Shift Carriage	..	1
	2086190	Side-Shift Carriage	1	..
1	1503376	Frame	1	..
1	376624	Stubshaft	4	..
1	1503462	Frame	..	1
1	376624	Stubshaft	..	4
2	1503450	Apron	1	1
3	2056106	Tube	1	..
3	2056110	Tube	..	1
4	2056107	Tube	1	..
4	2056111	Tube	..	1
5	2056108	Tube	1	..
5	2056112	Tube	..	1
6	2056109	Tube	1	..
6	2056113	Tube	..	1
7	376127	Pin	2	2
8	376776	Plate	6	6
9	292683	Lockwasher	14	14
10	293647	Capscrew	12	12
11	b 376056	Load Roller	4	4
11	d 1691113	Load Roller	4	4
12	41459	Snap Ring	4	4
13	1310592	Shim (0.030 in.)	AR	AR
14	1301018	Bracket	4	4
15	15156	Lockwasher	20	20
16	221506	Capscrew	16	16
17	1335179	Bearing	4	4
18	1301016	Spacer	4	4
19	376203	Capscrew	4	4
20	376770	Sideshift Cylinder (☞ Figure 12-12).....	1	1
21	53157	Locknut	2	2
22	68551	Roll Pin	1	1
23	1487064	Fitting	2	2
23	16483	O-Ring	1	1
23	1527817	O-Ring	1	1
24	376128	Bar	2	2
25	376773	Bushing	4	4
26	183609	Snap Ring	4	4
27	16001	Grease Fitting	2	2
28	351458	Bearing	6	6
29	2046669	Cylinder Assy (☞ Figure 12-2).....	2	2
30	1501460	Guide (RH)	1	1
31	1501461	Guide (LH)	1	1
32	1487064	Fitting	4	4
32	16483	O-Ring	1	1

SIDE-SHIFT CARRIAGE

SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
32	1527817	O-Ring	1	1
33	1502390	Pin	4	4
34	15236	Cotter Pin	8	8
35	2046745	Tube Assy	1	1
36	2046746	Tube Assy	1	1
37	112989	Hose Clamp	4	4
38	1527372	Bracket Wldmt	1	1
39	320162	Washer	2	2
40	302402	Locknut	2	2
41	1393802	Clamp	2	2
42	1496449	Clamp	1	1
43	221463	Capscrew	1	1
44	16836	Capscrew	4	4
45	1487069	Fitting	2	2
45	16485	O-Ring	1	1
45	1527818	O-Ring	1	1
46	1486743	Fitting	2	2
46	16484	O-Ring	1	1
46	1527817	O-Ring	1	1
47	1486740	Fitting	1	1
47	16483	O-Ring	1	1
47	1527816	O-Ring	1	1
48	c 2092486	Wire Harness (Front End) (☞ Figure 4-46).....	1	1
49	137852	Strap Clamp	16	16
50	3066037	Loctite	AR	AR
51	2056066	Hose Assy	1	1
52	2056067	Hose Assy	1	1
53	2056068	Hose Assy	1	1
53	2056069	Hose Assy (Alternate Part)	1	1
54	2056069	Hose Assy	1	1
55	2056776	Hose Assy	1	1
56	342675	Identification Band	4	4
57	342676	Identification Band	4	4
58	342677	Identification Band	2	2
59	1332237	Identification Band	4	4
60	1350854	Identification Band	4	4
61	1506110	Bracket	1	1
62	320157	Washer	2	2
63	302400	Nut	2	2
64	1506109	Hose Clamp	2	2
65	292681	Lockwasher	1	1
66	293615	Capscrew	1	1
67	239308	Sleeve	2	2
68	c 2092483	Directional Control Valve, Two-Section (Deutsch) (☞ Figure 12-1).....	1	1
68	2055960	Directional Control Valve, Two-Section (AMP) (☞ Figure 12-1).....	1	1

SIDE-SHIFT CARRIAGE

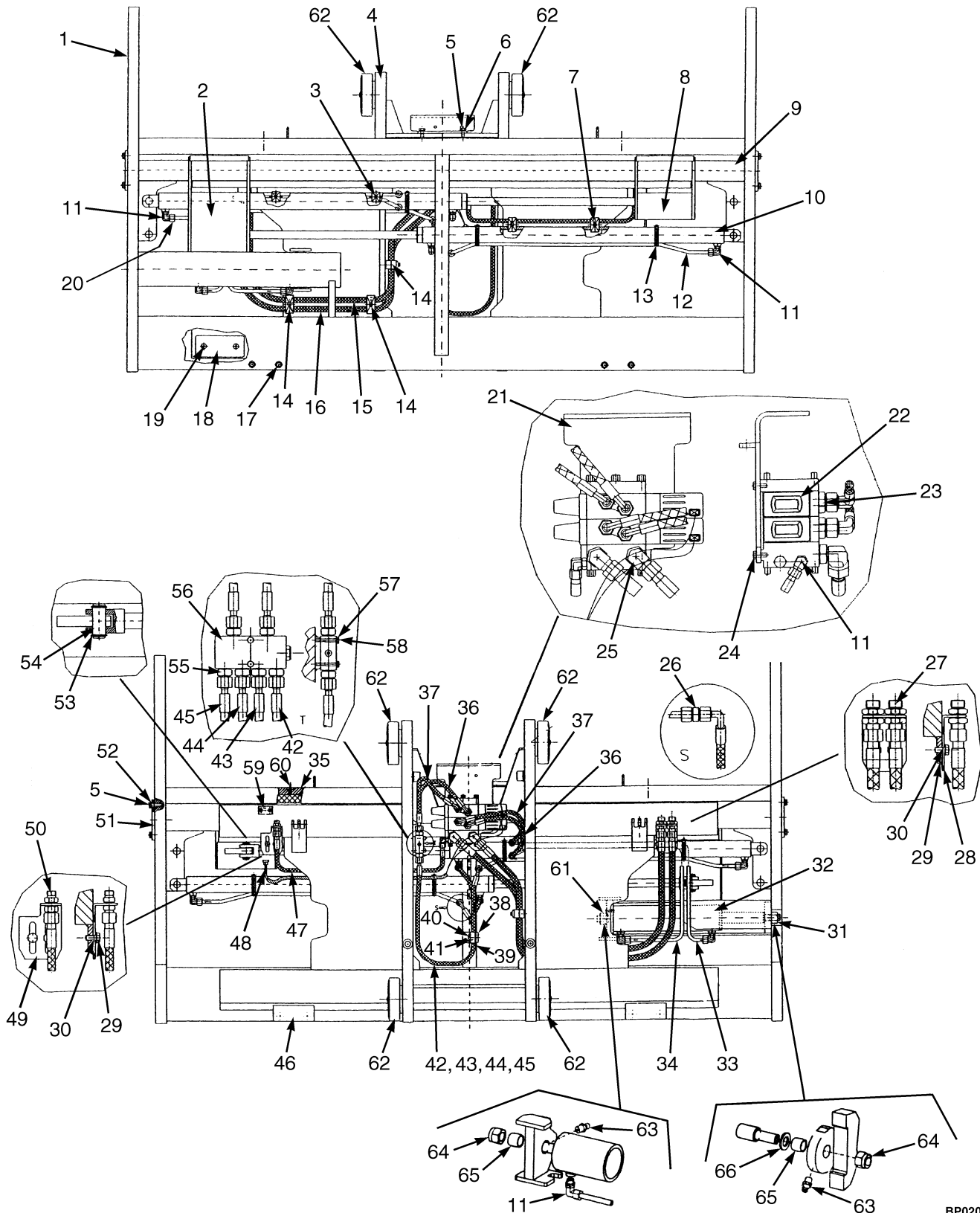
SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
69	1486743	Fitting	2	2
69	16484	O-Ring	1	1
69	1527817	O-Ring	1	1
70	1551865	Hydraulic Control Valve	1	1
70	1600818	Manifold	1	1
70	1560246	Manifold	1	1
70	1589219	Cartridge	1	1
70	1600819	Valve	1	1
70	1560248	Relief Valve	2	2
71	1486740	Fitting	6	6
71	16483	O-Ring	1	1
71	1527816	O-Ring	1	1
72	320156	Washer	2	2
73	293606	Capscrew	2	2
74	2056074	Hose Assy	1	1
75	2056075	Hose Assy	1	1
76	2047812	Hose Assy	1	1
77	2047813	Hose Assy	1	1
78	2047814	Hose Assy	1	1
79	2047815	Hose Assy	1	1
80	1332233	Identification Band	2	2
81	1332234	Identification Band	2	2
82	1350855	Identification Band	2	2
83	1350856	Identification Band	2	2
84	1350857	Identification Band	2	2
85	1350858	Identification Band	2	2
	a 15133	Washer	1	1
	a 1671705	Grease Fitting	2	2
	ac 1624055	Bushing (Spherical)	2	2
	a 1486772	Fitting	1	1

FOOTNOTES:**a** Not Illustrated**b** → S/N H007E02268F**c** S/N H007E01503E →**d** S/N H007E02269F →

SIDE-SHIFT CARRIAGE (FIGURE 12-8) SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) — THREE STAGE FULL FREE-LIFT



BP020016

SIDE-SHIFT CARRIAGE

SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	2086271	Side-Shift Carriage (Simultaneous Fork Positioner)	1
1		Frame	1
2	1537025	Guide (RH)	1
3	1536973	Clamp	2
4		Frame (Mobile)	1
5	1529191	Washer	6
6	1536906	Bolt	2
7	1536890	Clamp	2
8	1537024	Guide (LH)	1
9	1536894	Pin (Load Arm)	1
10	2046669	Cylinder Assy (☞ Figure 12-2).....	2
11	1536900	Fitting	7
12	1537016	Tube	1
13	1537017	Clamp	4
14	1536891	Clamp	3
15	1536904	Hose	1
16	1536905	Hose	1
17	1536980	Bolt	4
18	1536985	Pad (Lower)	3
19	1536984	Bolt	6
20	1537015	Tube	1
21	1536901	Support	1
22	2092483	Directional Control Valve, Two-Section (Deutsch) (☞ Figure 12-1).....	1
22	2055960	Directional Control Valve, Two-Section (AMP) (☞ Figure 12-1).....	1
23	1536972	Fitting	6
24	1536898	Bolt	4
25	1536899	Fitting	2
26	1536902	Fitting	2
27	1534551	Fitting	2
28	1536889	Support	1
29	1534510	Washer	4
30	1536888	Bolt	4
31	1536979	Nut	2
32	376770	Sideshift Cylinder (☞ Figure 12-12).....	1
33	1536975	Tube	1
34	1536974	Tube	1
35	1536983	Pad (Upper)	3
36	1536976	Hose Assy	2
37	1536977	Hose Assy	2
38	1537010	Support	1
39	1537011	Nut	2
40	1537012	Bolt	2
41	1537014	Support	2
42	1537027	Hose	1
43	1537028	Hose	1
44	1537029	Hose	1
45	1537030	Hose	1
46	1536981	Hook (Lower)	2
47	1536903	Hose	1
48	2092486	Wire Harness (Front End) (☞ Figure 4-46).....	1

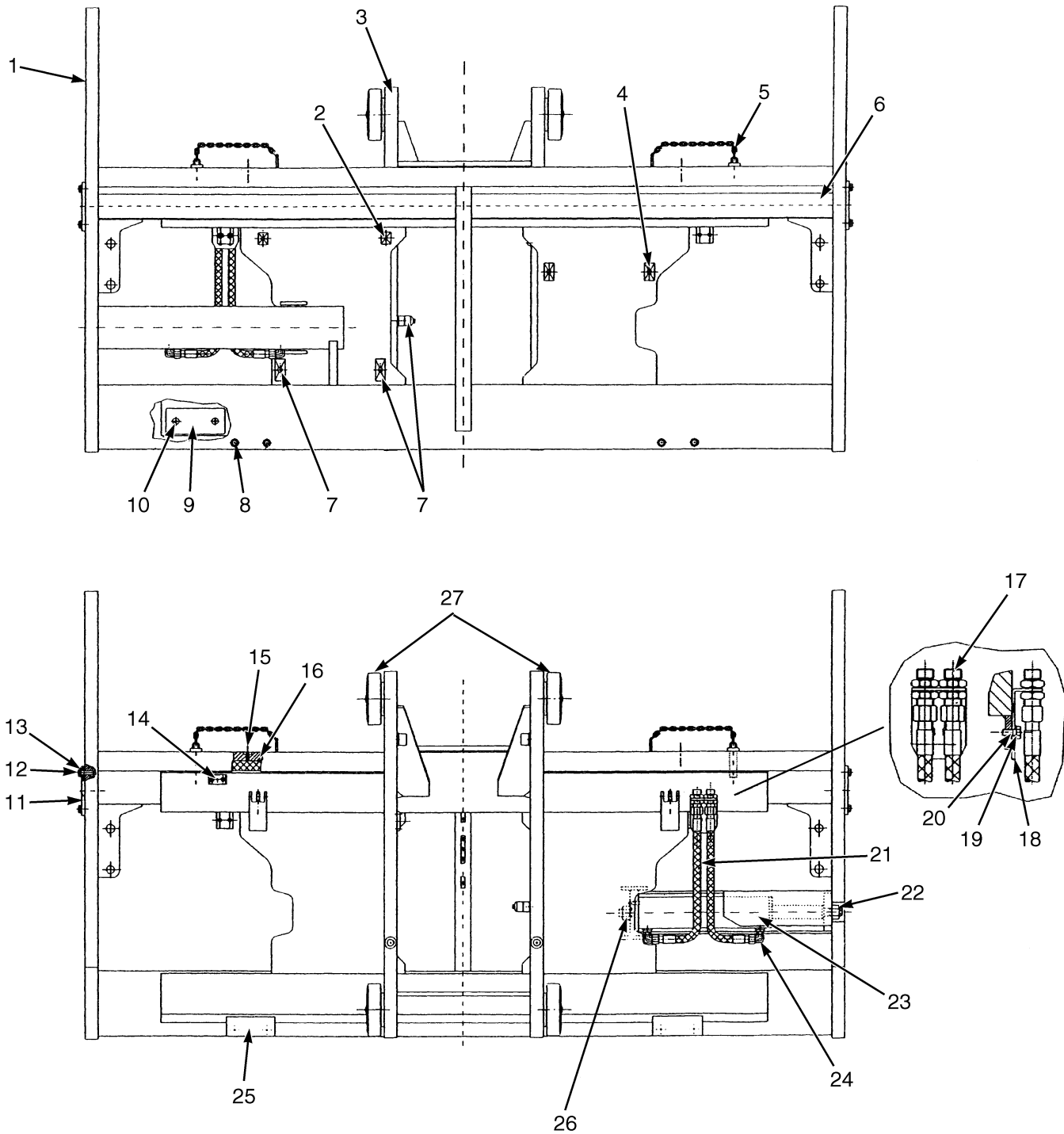
SIDE-SHIFT CARRIAGE
SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
49	1534508	Support	1
50	1529221	Fitting	1
51	1536892	Support (Shaft)	2
52	1529190	Screw	4
53	1537022	Snap Ring	8
54	1537023	Pin (Fork Position Cylinder)	4
55	1537033	Connector	6
56	1551865	Hydraulic Control Valve	1
56	1600818	Manifold	1
56	1560246	Manifold	1
56	1589219	Cartridge	1
56	1600819	Valve	1
56	1560248	Relief Valve	2
57	1537032	Bolt	2
58	1537031	Washer	2
59	1529227	Clamp	1
60	1536982	Grease Fitting	3
61	1536978	Pin	1
62	1529236	Load Roller	4
	1532830	Kit-Load Roller	1
	1532831	Kit-Side Roller	1
63	1671705	Grease Fitting	2
64	1536979	Nut	2
65	1624055	Bushing (Spherical)	2
66	15133	Washer	1

NOTES

[illegible]

SIDE-SHIFT CARRIAGE (FIGURE 12-9) THREE FUNCTION — THREE STAGE FULL FREE-LIFT

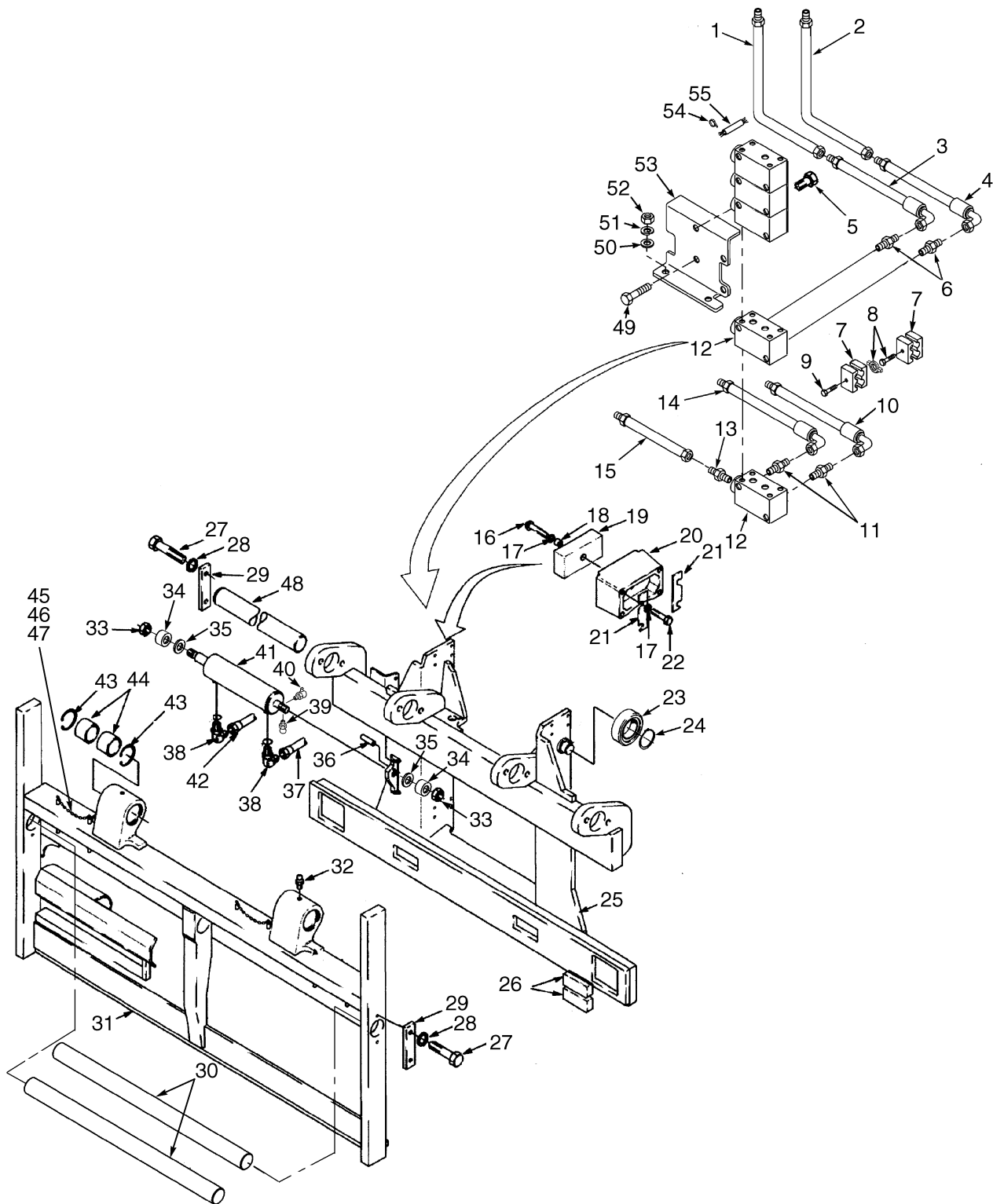


BP000390

SIDE-SHIFT CARRIAGE THREE FUNCTION – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	2086266	Side-Shift Carriage (Three Function)	1
1		Frame	1
2	1536973	Clamp	2
3		Frame (Mobile)	1
4	1536890	Clamp	2
5	1334581	Pin (Fork Locking)	1
6	1536894	Pin (Load Arm)	1
7	1536891	Clamp	3
8	1536980	Bolt	4
9	1536985	Pad (Lower)	3
10	1536984	Bolt	6
11	1536892	Support (Shaft)	2
12	1529191	Washer	6
13	1529190	Screw	4
14	1529227	Clamp	1
15	1536982	Grease Fitting	3
16	1536983	Pad (Upper)	3
17	1534551	Fitting	2
18	1536889	Support	1
19	1536888	Bolt	4
20	1534510	Washer	4
21	1537128	Hose	2
22	1536979	Nut	2
23	376770	Sideshift Cylinder (☞ Figure 12-12).....	1
24	1536900	Fitting	2
25	1536981	Hook (Lower)	1
26	1536978	Pin	1
27	1532830	Kit-Load Roller	4
	1529236	Load Roller	1
	1532831	Kit-Side Roller	1
28	1671705	Grease Fitting	2
29	15133	Washer	1
29	1624055	Bushing (Spherical)	2

SIDE-SHIFT CARRIAGE (FIGURE 12-10) WITH HOSE GROUP — TWO STAGE LIMITED FREE-LIFT



HP290041

SIDE-SHIFT CARRIAGE

WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2086258	Side-Shift Carriage (3 Function)	1	..
	2086262	Side-Shift Carriage (3 Function)	..	1
	2086259	Side-Shift Carriage (4 Function)	1	..
	2086263	Side-Shift Carriage (4 Function)	..	1
	2086260	Side-Shift Carriage (5 Function)	1	..
	2086264	Side-Shift Carriage (5 Function)	..	1
	2086261	Side-Shift Carriage (6 Function)	1	..
	2086265	Side-Shift Carriage (6 Function)	..	1
1	2056106	Tube	1	..
1	2056110	Tube	..	1
2	2056107	Tube	1	..
2	2056111	Tube	..	1
3	2056067	Hose Assy	1	1
4	2056066	Hose Assy	1	1
5	216590	Fitting	2	2
5	16485	O-Ring	1	1
5	216590	Fitting	4	4
5	16485	O-Ring	1	1
5	216590	Fitting	6	6
5	16485	O-Ring	1	1
6	1486743	Fitting	2	2
6	16484	O-Ring	1	1
6	1527817	O-Ring	1	1
7	1393802	Clamp	2	2
8	1496449	Clamp	1	1
9	221463	Capscrew	1	1
10	2056069	Hose Assy	1	1
11	1487069	Fitting	2	2
11	16485	O-Ring	1	1
11	1527818	O-Ring	1	1
12	2092483	Directional Control Valve, Two-Section (Deutsch) (☞Figure 12-1).....	1	1
12	2092484	Directional Control Valve, Three-Section (Deutsch) (☞Figure 12-1).....	1	1
12	2092485	Directional Control Valve, Four-Section (Deutsch) (☞Figure 12-1).....	1	1
12	2055960	Directional Control Valve, Two-Section (AMP) (☞Figure 12-1).....	1	1
12	2055961	Directional Control Valve, Three-Section (AMP) (☞Figure 12-1).....	1	1
12	2055962	Directional Control Valve, Four-Section (AMP) (☞Figure 12-1).....	1	1
13	1486740	Fitting	1	1
13	16483	O-Ring	1	1
13	1527816	O-Ring	1	1
14	2056068	Hose Assy	1	1
14	2056069	Hose Assy (Alternate Part)	1	1
15	2056776	Hose Assy	1	1
16	376203	Capscrew	4	4
17	15156	Lockwasher	20	20
18	1301016	Spacer	4	4

SIDE-SHIFT CARRIAGE **WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT**

KEY:**A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

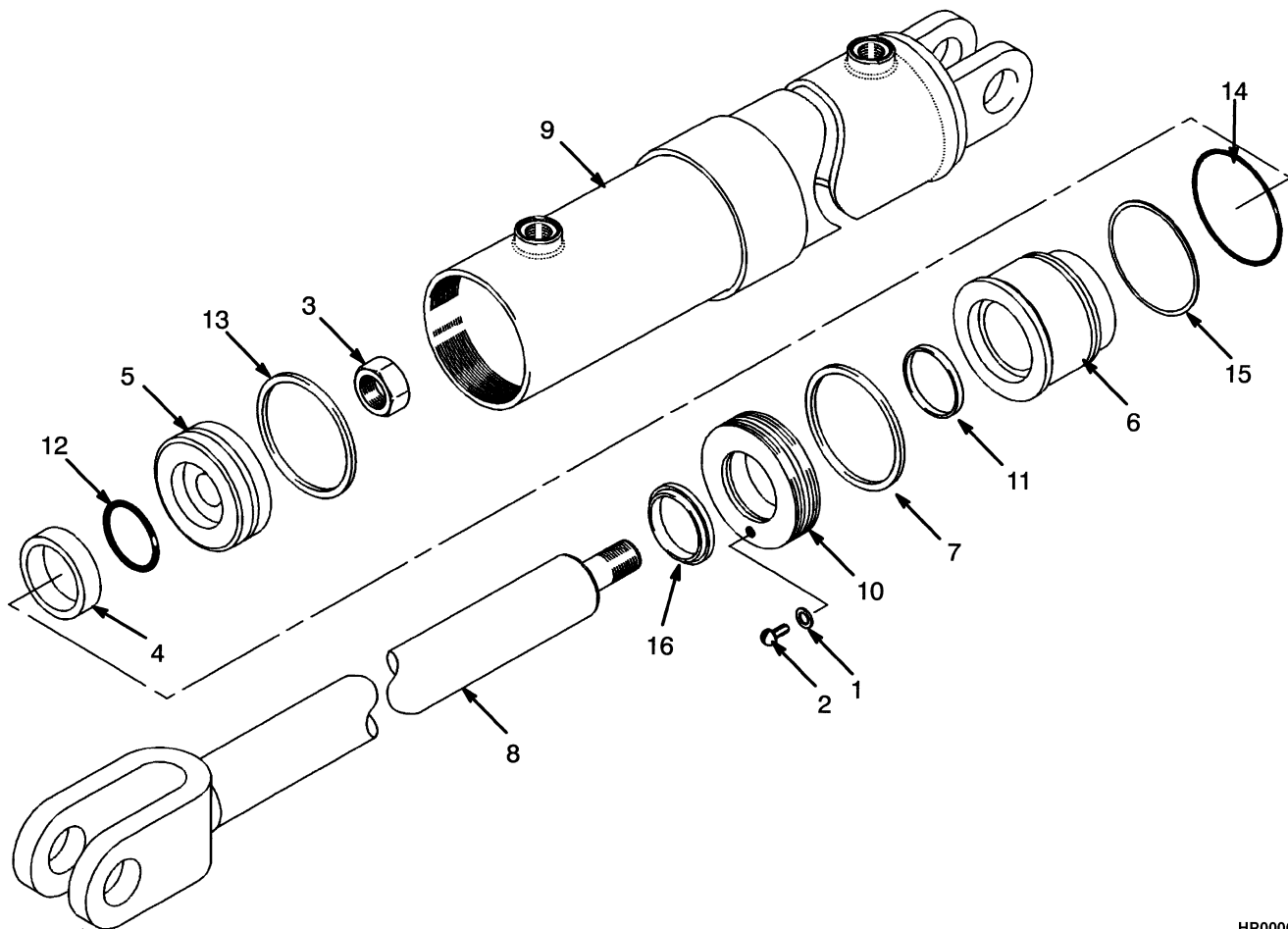
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
19	1335179	Bearing	4	4
20	1301018	Bracket	4	4
21	1310592	Shim (0.030 in.)	AR	AR
22	221506	Capscrew	16	16
23	b 376056	Load Roller	4	4
23	c 1691113	Load Roller	4	4
24	41459	Snap Ring	4	4
25	1503376	Frame	1	..
25	1503462	Frame	..	1
25	376624	Stubshaft	4	4
26	351458	Bearing	6	6
27	293647	Capscrew	12	12
28	292683	Lockwasher	12	12
29	376776	Plate	6	6
30	376127	Pin	2	1
31	1503450	Apron	1	1
32	16001	Grease Fitting	2	2
33	53157	Locknut	2	2
34	1624055	Bushing (Spherical)	2	2
35	15133	Washer	1	1
36	68551	Roll Pin	1	1
37	2049840	Tube	1	1
37	2056109	Tube	1	..
37	2056113	Tube	..	1
38	1487064	Fitting	2	2
38	16483	O-Ring	1	1
38	1527817	O-Ring	1	1
39	16041	Grease Fitting	1	1
40	16046	Grease Fitting	1	1
41	376770	Sideshift Cylinder (☞ Figure 12-12).....	1	1
42	2049842	Tube	1	1
42	2056108	Tube	1	..
42	2056112	Tube	..	1
43	183609	Snap Ring	4	4
44	376773	Bushing	4	4
45	1456622	Cable	2	2
46	1334581	Pin (Fork Locking)	4	4
47	815848	Shackle	2	2
48	376128	Bar	2	2
49	16836	Capscrew	4	4
50	320162	Washer	2	2
51	292683	Lockwasher	2	2
52	302402	Locknut	2	2
53	1527372	Bracket Wldmt	1	1
54	137852	Strap Clamp	16	16

SIDE-SHIFT CARRIAGE
WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT**KEY:****A:** H170HD, H190HD, H210HD**B:** H230HD, H250HD, H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
55	2092486	Wire Harness (Front End) (☞ Figure 4-46).....	1	1
	a 1486772	Fitting	1	1

FOOTNOTES:**a** Not Illustrated**c** S/N H007E02269F →**b** → S/N H007E02268F

SIDE-SHIFT CYLINDER (FIGURE 12-11) TWO STAGE LIMITED FREE-LIFT — DUAL FUNCTION WITH FORK POSITIONER

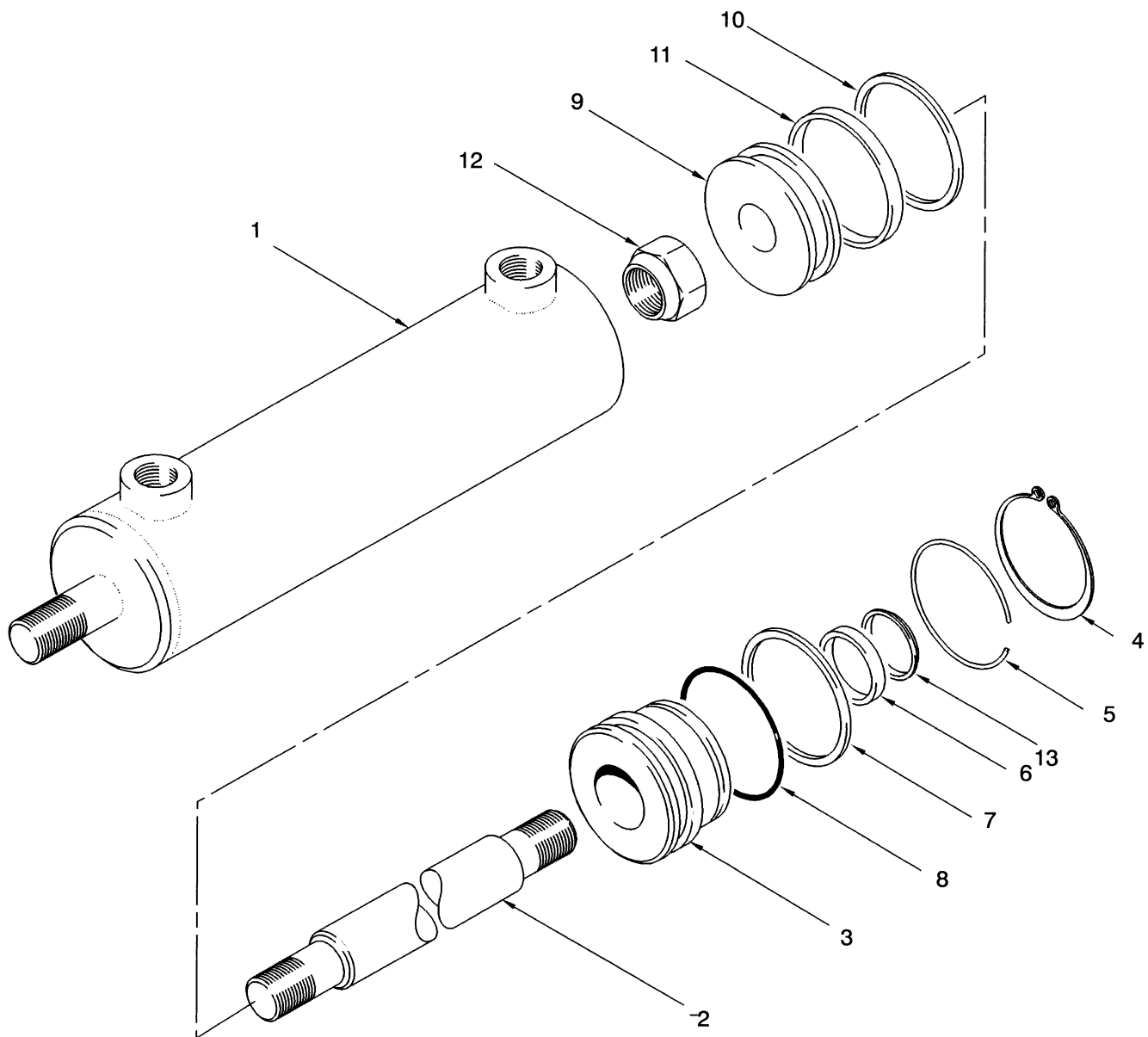


HP000691

SIDE-SHIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – DUAL FUNCTION WITH FORK POSITIONER

ITEM	PART NO.	DESCRIPTION	QTY
	1451149	Cylinder Assy	1
1	1347405	Lockwasher	1
2	18704	Capscrew	1
3	1455367	Nut	1
4	1455368	Spacer	1
5	1455369	Piston	1
6	1455363	Bearing	1
7	1455364	Retainer	1
8	1455365	Rod Assy	1
9	1455366	Tube Assy	1
10	1455370	Rod Wiper	1
11	1455371	Ring	1
12	1455373	O-Ring	1
13	1455372	Seal	1
14	15880	O-Ring	1
15	154358	Back-Up Ring	1
16	361000	Plug	1
	1455362	Kit-Seal	1

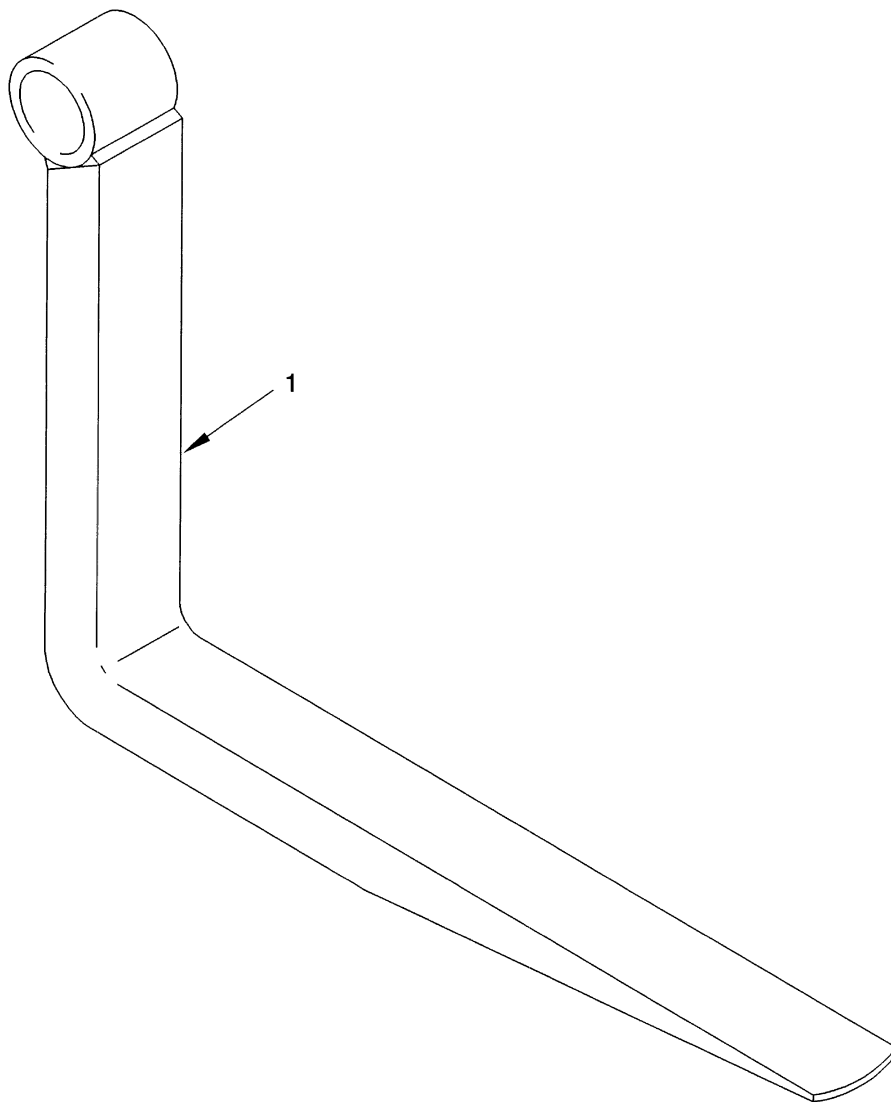
SIDE-SHIFT CYLINDER (FIGURE 12-12) TWO STAGE LIMITED FREE-LIFT AND THREE STAGE FULL FREE-LIFT



HP000689

SIDE-SHIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT AND THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	376770	Sideshift Cylinder	1
1	376817	Tube Wldmt-Cylinder	1
2	376813	Cylinder Rod	1
3	376815	Retainer	1
4	307275	Snap Ring	1
5	376839	Retaining Ring	1
6	330692	Rod Seal	1
7	154358	Back-Up Ring	1
8	15880	O-Ring	1
9	376814	Piston	1
10	638292	Back-Up Ring	1
11	637161	Rod Seal	1
12	53157	Locknut	1
13	203367	Wiper	1
	376883	Kit-Seal	1

FORKS (FIGURE 12-13)
IDENTIFY BY PART NUMBER

HP171282

FORKS

IDENTIFY BY PART NUMBER

KEY:**A: Standard Taper and SS (H170-210HD)****B: Standard Taper (H170-280HD)****C: Polished And Full Bottom Taper****D: Dual Function Side-Shift With Fork Positioner**

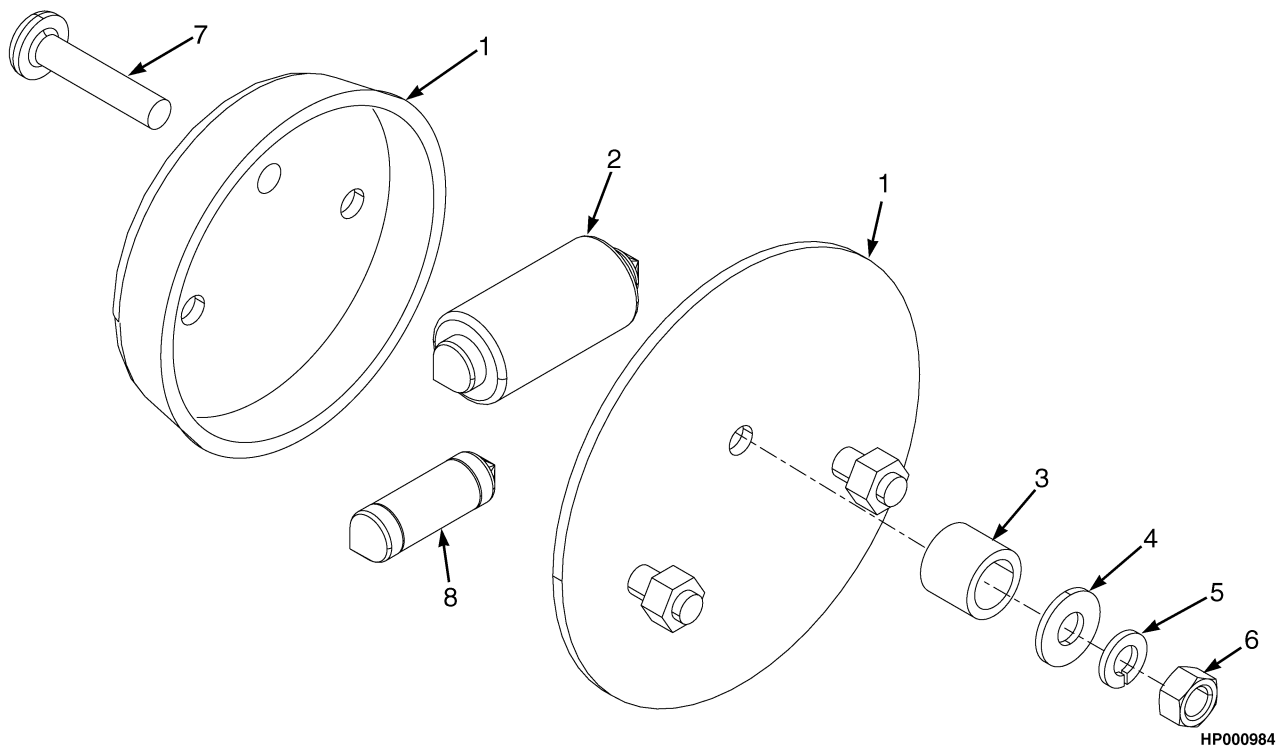
ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	1333400	Fork (48 in.)	2	..	..	..
1	1567090	Fork (48 in.)	..	..	2	..
1	1454457	Fork (48 in.)	..	..	..	2
1	1333401	Fork (54 in.)	2	..	..	..
1	1507084	Fork (54 in.)	..	2	..	..
1	1567091	Fork (54 in.)	..	..	2	..
1	1454458	Fork (54 in.)	..	..	..	2
1	1333402	Fork (60 in.)	2	..	..	..
1	1507085	Fork (60 in.)	..	2	..	..
1	1567092	Fork (60 in.)	..	..	2	..
1	1454459	Fork (60 in.)	..	..	..	2
1	1507086	Fork (72 in.)	..	2	..	..
1	1567087	Fork (72 in.)	..	2	..	..
1	1567093	Fork (72 in.)	..	..	2	..
1	1454460	Fork (72 in.)	..	..	..	2
1	1454461	Fork (84 in.)	..	..	..	2
1	1507088	Fork (96 in.)	..	2	..	..
1	1567089	Fork (96 in.)	..	2	..	..
1	1454462	Fork (96 in.)	..	..	..	2
1	1333404	Fork (72 in.)	2	..	..	..
1	1333405	Fork (96 in.)	2	..	..	..
1	1333403	Fork (64 in.)	2	..	..	..
1	1452066	Bushing	..	..	..	1
1	1454339	Snap Ring	..	..	..	2

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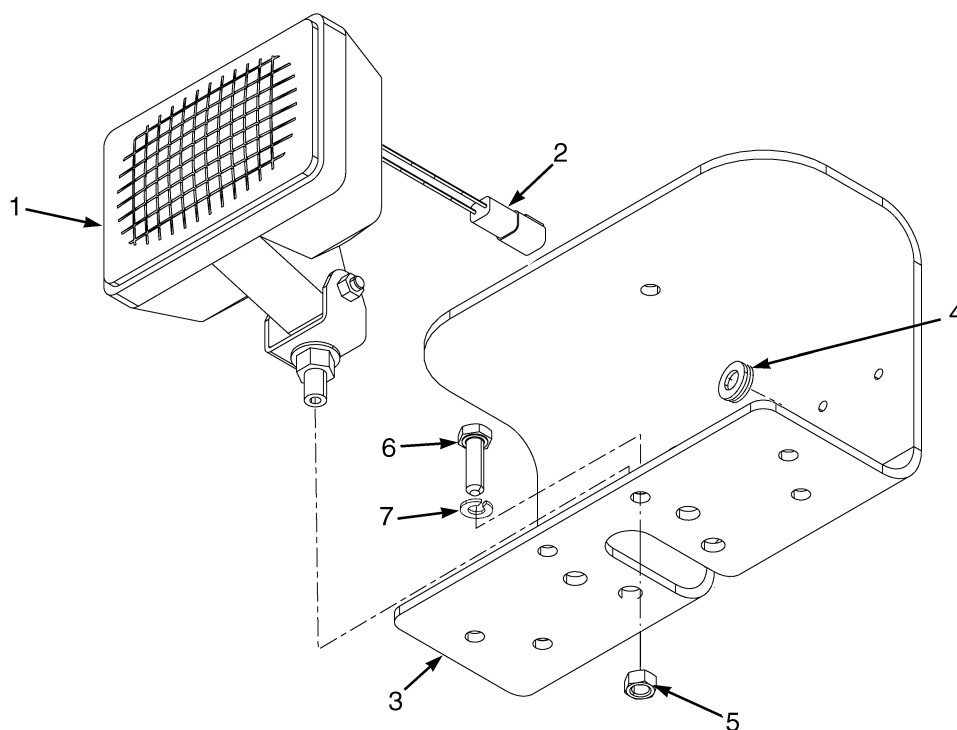
SECTION 13
OPTIONS

DESCRIPTION	PAGE
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CAB-MOUNTED DRIVE LIGHTS	13-6
DIRECTIONAL MARKER	13-2
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DIRECTIONAL MARKER (FIGURE 13-1)



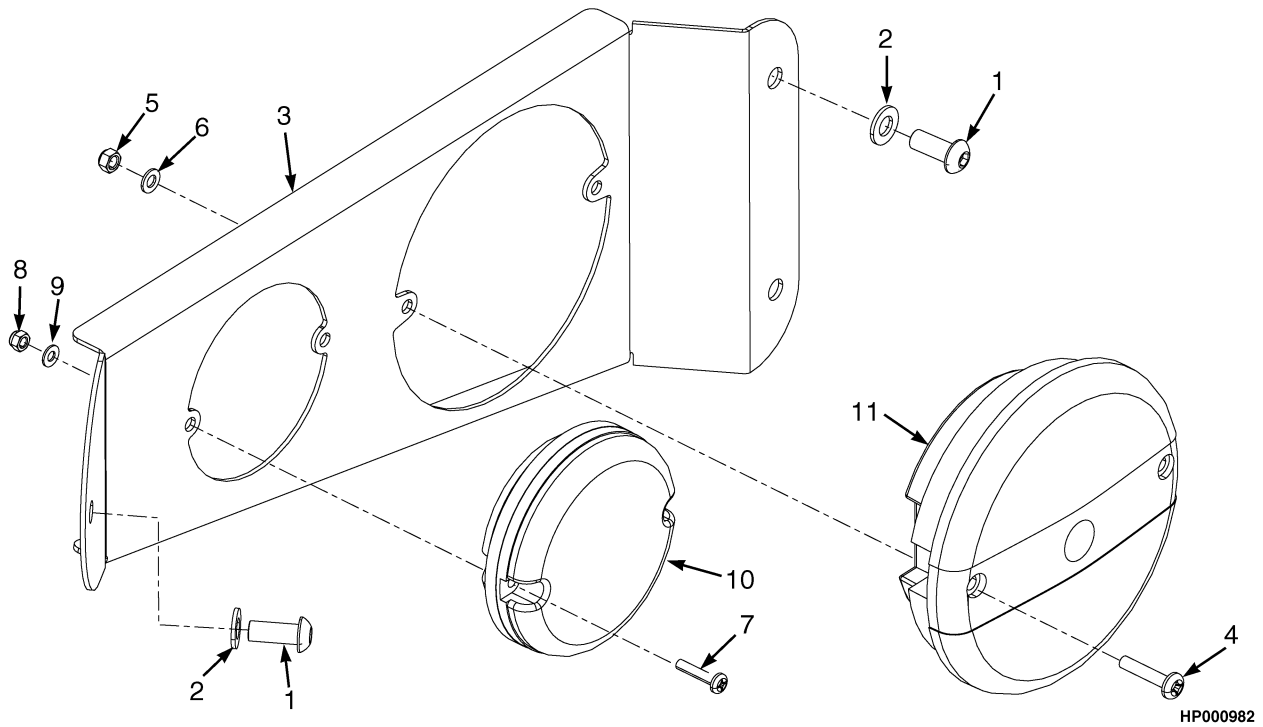
ITEM	PART NO.	DESCRIPTION	QTY
1	373091	Turn Signal Light	2
2	1310638	Bulb	2
3	376505	Spacer	4
4	197067	Washer	4
4	320155	Washer (Alternate Part, Use Without P/N 292679)	1
5	292679	Washer	4
6	292668	Nut	4
6	302398	Locknut (Alternate Part)	1
7	302037	Screw	4
8	384014	Bulb	2

FRONT FENDER LIGHTS (FIGURE 13-2)

HP000983

ITEM	PART NO.	DESCRIPTION	QTY
1	1382867	Head/Work Light (Halogen)	2
1	1476614	Work Light (24 Volt)	1
1	1383998	Head/Work Light	1
1	1330409	Connector	1
1	1330414	Connector (Secondary Lock)	1
1	1363885	Terminal (Pin)	1
1	1664559	Work Light (Alternate Part)	2
1	1310668	Bulb	1
2	1330409	Connector	1
2	1330414	Connector (Secondary Lock)	1
2	1363885	Terminal (Pin)	2
3	1545532	Bracket	2
3	1670701	Plate (Alternate Part)	2
4	339969	Grommet	6
5	136692	Nut	4
5	302401	Locknut (Alternate Part)	4
6	287860	Capscrew	4
7	292682	Lockwasher	4
7	320160	Washer (Alternate Part)	8

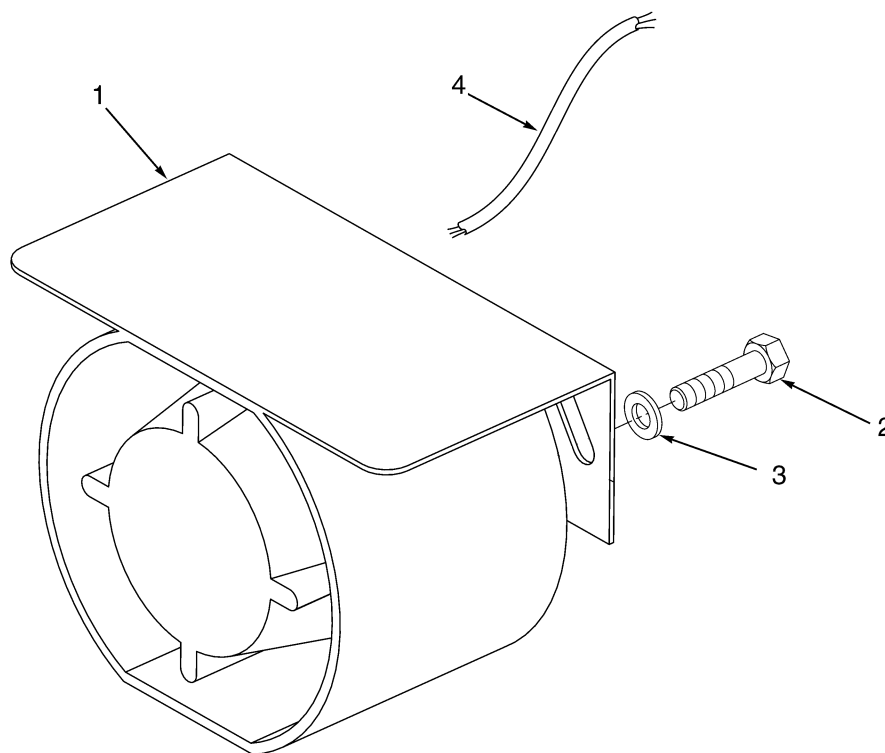
TAIL LIGHT ASSEMBLY (FIGURE 13-3)



ITEM	PART NO.	DESCRIPTION	QTY
1	1597448	Capscrew	6
2	1581556	Washer	6
3	1647825	Rear Light (RH)	1
3	1647826	Rear Light (LH)	1
3	1646704	Bracket (RH)	1
3	1646705	Bracket (LH)	1
4	302037	Screw	2
5	302398	Locknut	2
6	320155	Washer	2
7	302024	Screw	2
8	815597	Nut	2
9	320154	Washer	2
10	1643621	Module (Reverse)	1
11	1643562	Module (Stop And Tail Light)	1
	a 2099414	Wire Harness (Tail Lights) (☞ Figure 4-49).....	1

FOOTNOTES:

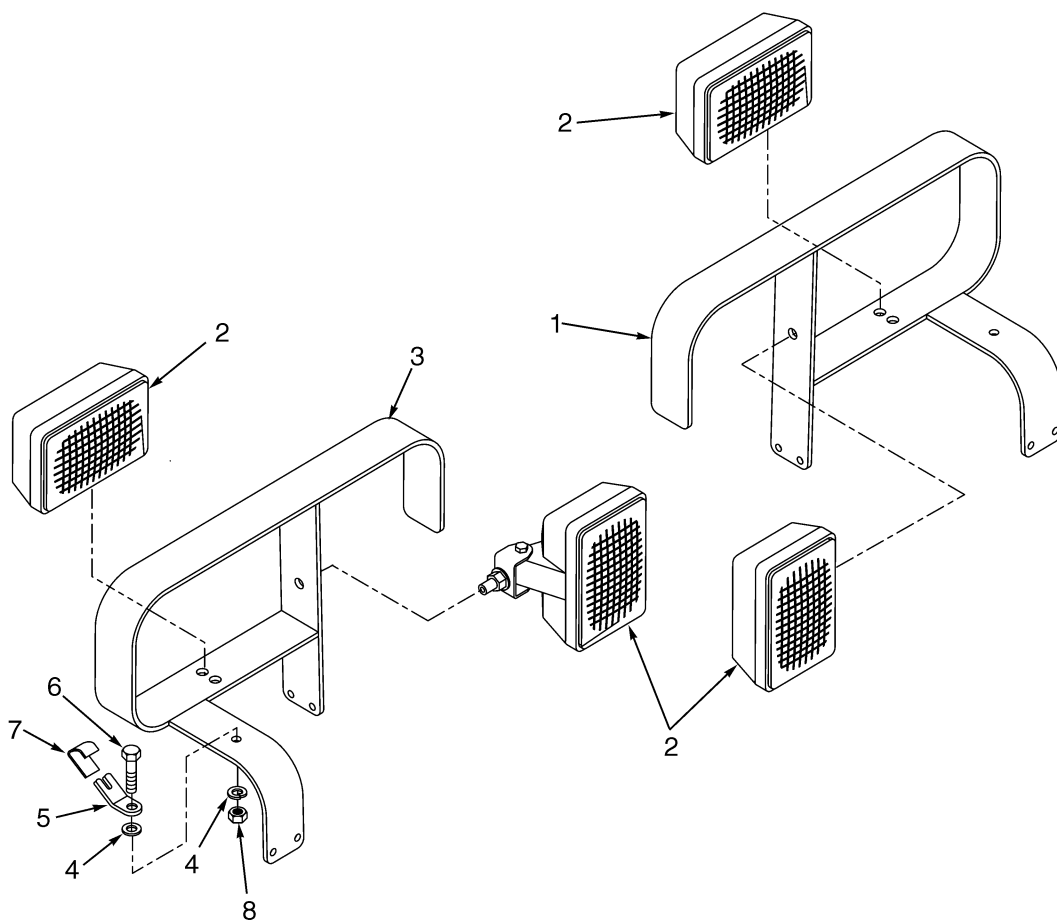
a Not Illustrated

ALARM (FIGURE 13-4)

HP000981

ITEM	PART NO.	DESCRIPTION	QTY
1	1646834	Back-Up Alarm	1
1	1646833	Alarm	1
1	1330419	Connector	1
1	1330424	Connector	1
1	1330438	Terminal (Socket)	2
2	283149	Capscrew	2
3	320157	Washer	2
4	2045885	Wire Harness (Back-Up Alarm) (☞ Figure 4-28).....	1

CAB-MOUNTED DRIVE LIGHTS (FIGURE 13-5)



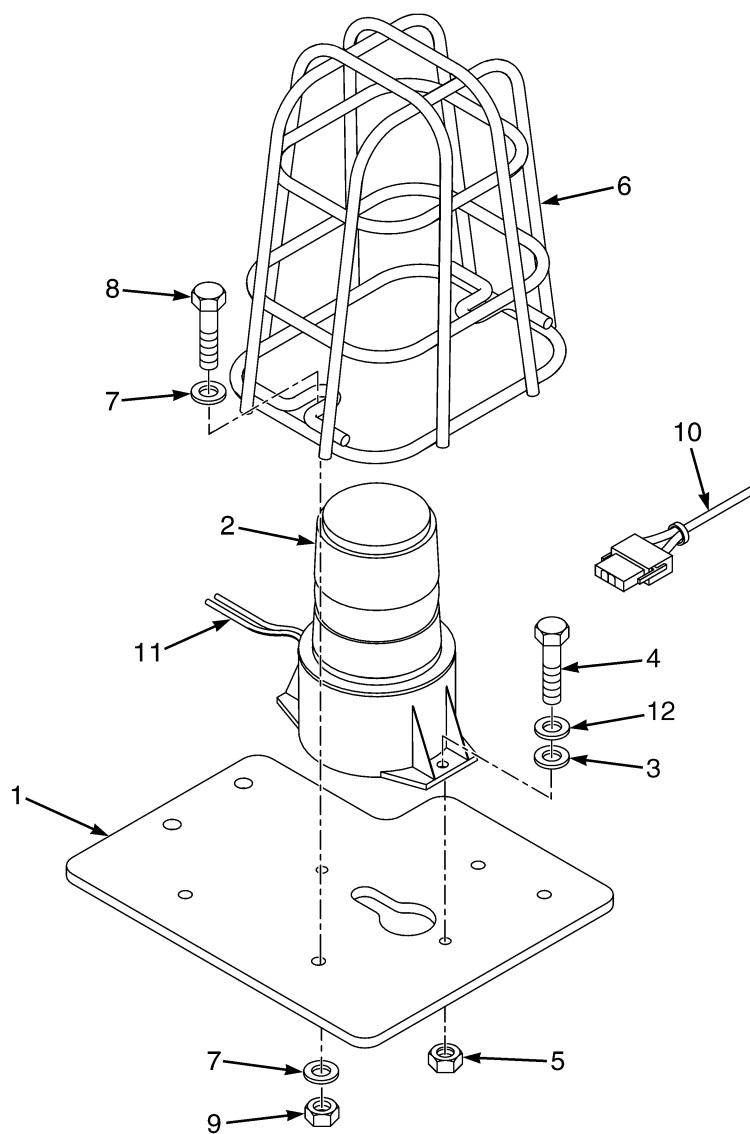
HP000979

CAB-MOUNTED DRIVE LIGHTS**KEY:****A: Halogen Lights****B: HID Lights**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1660765	Bracket Wldmt (LH)	1	1
2	1382867	Head/Work Light (Halogen)	4	..
2	1476614	Work Light (24 Volt)	1	..
2	1383998	Head/Work Light	1	..
2	1330409	Connector	1	..
2	1330414	Connector (Secondary Lock)	1	..
2	1363885	Terminal (Pin)	2	..
2	1664559	Work Light (Alternate Part)	4	..
2	1310668	Bulb	1	..
2	1330409	Connector	1	..
2	1330414	Connector (Secondary Lock)	1	..
2	1610936	Work Light (High Intensity Discharge)	..	4
2	1635114	Bulb	..	1
2	1363885	Terminal (Pin)	2	..
3	1660766	Bracket Wldmt (RH)	1	1
4	320159	Washer	2	..
4	320159	Washer	..	4
5	1356947	Strap	2	2
6	136985	Capscrew	2	..
6	136985	Capscrew	..	6
7	137852	Strap Clamp	2	2
8	302401	Locknut	..	4
	a 2099166	Wire Harness	1	1

FOOTNOTES:**a** Not Illustrated

STROBE LIGHT (FIGURE 13-6)



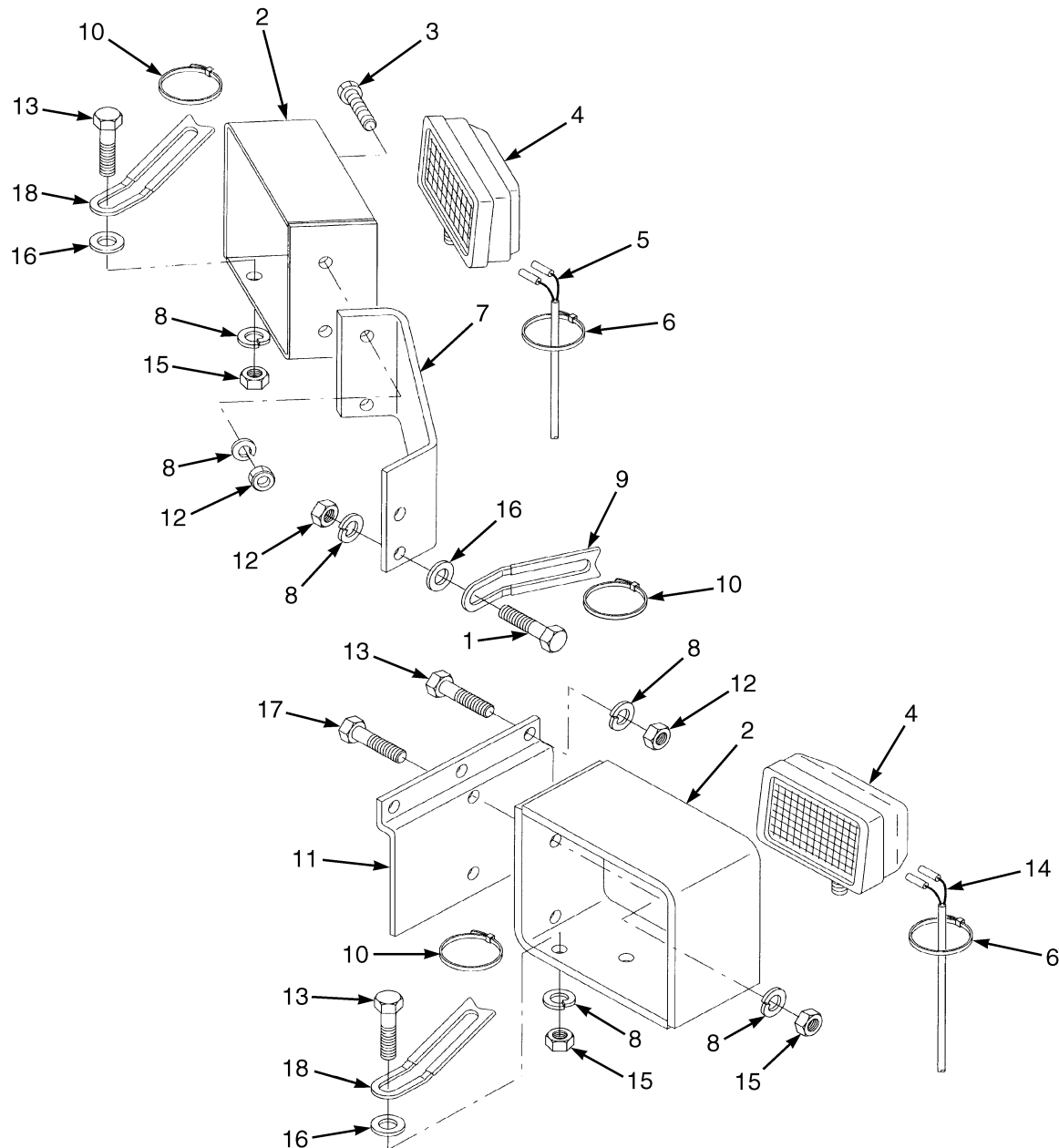
HP000985

STROBE LIGHT**KEY:****A: With Condensor****B: Without Condensor**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1480236	Bracket	1	1
2	1616202	Strobe Light	1	1
2	1616213	Strobe Light	1	1
2	1636383	Lens (Amber)	1	1
2	1636384	Bulb (12 to 80 Volts DC)	1	1
2	1324308	Terminal	1	1
2	1324307	Terminal	1	1
2	1324310	Terminal	1	1
2	1324309	Sleeve	1	1
3	320157	Washer	2	2
4	136749	Screw	..	2
4	136704	Capscrew	2	..
5	302400	Nut	..	2
6	1302024	Guard	1	1
7	320155	Washer	4	4
8	2072353	Capscrew	2	2
8	2064919	Capscrew (Alternate Part)	2	2
9	302398	Locknut	2	2
10	1497230	Terminal	2	2
11	2099164	Wire Harness (Strobe Light) (☞ Figure 4-37).....	1	1
12	1645064	Spacer	2	..
	a 2043879	Wire Harness (Strobe Light Adaptor) (Without Switch)	1	1
	a 1497230	Terminal	2	2
	a 1484383	Heat Shrink	2	2
	a 1492329	Plug Assembly (For Use With Strobe Light Adaptor)	1	1
	a 1330423	Connector	1	1
	a 1330429	Connector	1	1
	a 1330439	Plug	8	8

FOOTNOTES:**a** Not Illustrated

MAST WORKLIGHTS (FIGURE 13-7) TWO AND THREE STAGE MAST



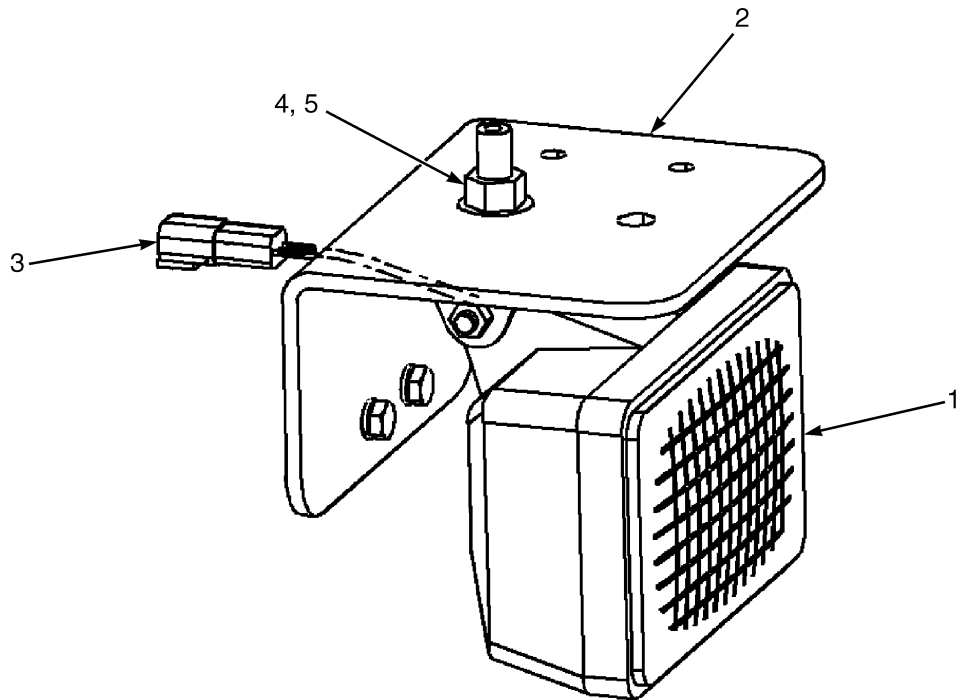
HP000980

**MAST WORKLIGHTS
TWO AND THREE STAGE MAST**

ITEM	PART NO.	DESCRIPTION	QTY
1	287837	Capscrew	2
2	816442	Bracket Wldmt	2
3	136985	Capscrew	2
4	1382867	Head/Work Light (Halogen)	2
4	1476614	Work Light (24 Volt)	1
4	1383998	Head/Work Light	1
4	1330409	Connector	1
4	1330414	Connector (Secondary Lock)	1
4	1363885	Terminal (Pin)	2
4	1664559	Work Light (Halogen) (Alternate Part)	2
4	1310668	Bulb	1
4	1610936	Work Light (High Intensity Discharge)	2
4	1635114	Bulb	1
4	1330409	Connector	1
4	1330414	Connector (Secondary Lock)	1
4	1363885	Terminal (Pin)	1
5	2043478	Wire Harness (Mast Light Extension, RH) (☞ Figure 4-34).....	1
6	323864	Strap Clamp	6
7	1311209	Bracket (Mast)	1
8	292683	Lockwasher	6
8	320161	Washer (Alternate Part)	6
9	1350911	Strap	1
10	137852	Strap Clamp	3
11	1460312	Bracket	1
12	216877	Nut	4
12	302402	Locknut (Alternate Part)	4
13	287854	Capscrew	6
14	2043480	Wire Harness (Mast Light Extension, LH) (☞ Figure 4-35).....	1
15	136692	Nut	6
15	302401	Locknut (Alternate Part)	6
16	292682	Lockwasher	12
16	320159	Washer (Alternate Part)	12
17	292528	Capscrew	2
18	1356947	Strap	2
	a 2043677	Wire Harness (☞ Figure 4-33).....	1

FOOTNOTES:**a** Not Illustrated

REAR WORK LIGHTS (FIGURE 13-8)



KEY:

A: With Condensor

B: Without Condensor

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1646407	Light	2	2
1	1664559	Work Light (Alternate Part)	2	2
1	1310668	Bulb	1	1
2	1480201	Plate	..	2
3	2102536	Wire Harness (Rear Work Lights) (☞ Figure 4-36).....	1	1
5	296026	Capscrew	2	..
6	1661095	Spacer	2	..

SECTION 14
FIELD CONVERSION KITS

DESCRIPTION	PAGE
ENGINE FUEL PRESSURE SENDER	14-2
FORWARD AND REVERSE LEVER TO MONOTROL KIT	14-2
MONOTROL TO FORWARD AND REVERSE LEVER KIT	14-2

ENGINE FUEL PRESSURE SENDER

DESCRIPTION	PART NUMBER
Pressure Sender (Engine/Fuel)	1684024

MONOTROL TO FORWARD AND REVERSE LEVER KIT

DESCRIPTION	PART NUMBER
Kit-Monotrol to Fwd/Rev Lever	1543665
Kit-Fwd/Rev Lever to Monotrol	1543664

FORWARD AND REVERSE LEVER TO MONOTROL KIT

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1332116	8-33	36	1345939	1-125	24	1350856	12-17	77		13-7	2
1332125	8-13	52	1346892	10-5	6		12-25	83		13-7	2
1332128	8-13	39	1346893	1-125	39	1350857	12-17	78		13-11	4
1332206	4-5	22	1346961	8-19	7		12-25	84		13-11	4
	4-9	25	1346962	8-19	7	1350858	12-17	79	1363886	4-39	1
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1333401	12-41	1		6-9	6		4-47	2		4-86	1
1333402	12-41	1		6-13	12		4-102	5	1366712	6-24	2
1333403	12-41	1	1347819	6-9	3		4-103	4		7-12	2
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1486737	8-6	57		12-35		1487123	7-3	15	1487791	10-3	1
	8-10	57	1487058	8-5	23	1487124	7-3	1	1487849	10-5	1
	9-3	30		8-9	23	1487126	7-3	13	1487850	10-5	1
	9-21	12		8-13	46	1487129	7-3	33	1487851	10-5	1
	10-8	39		9-11	15	1487130	7-3	22	1487860	10-5	1
1486738	9-19	10		9-13	8	1487131	7-3	5	1487861	10-5	1
	9-21	6	1487063	8-5	16	1487132	7-3	10	1487863	10-5	1
	10-8	11		8-9	16	1487133	7-3	18	1487864	10-5	1
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1488730	1-55	1	1489429	8-17	5		4-16	17		4-60	24
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1488736	1-55	1	1489434	8-17	15		4-40	24		4-75	6
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1488747	8-13	31	1489436	8-17	16		4-41	40		4-79	1
1488751	1-53	3	1489437	8-17	17		4-43	8		4-79	2
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1489306	6-21	9		4-101	4		4-79	4		4-15	6
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1489313	8-19	1		4-89	10		4-81	8		4-16	16
1489314	8-19	1		4-96	6		4-82	1		4-16	18
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1491246	6-17	1		1-107	19		1-117	2		1-71	3
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1543885	2-65	6	1556941	5-11	10		5-47	14	1558021	1-19	17
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1543889	2-65	2	1556946	5-31	2	1556982	5-41	2	1558024	1-29	10
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1543895	2-41	3	1556949	5-31	5	1556984	5-45	21		4-13	3
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1579011	5-9	17	1584820	2-63	9	1584853	4-19	27		4-31	2
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1591323	8-39	5	1601267	8-29	9	1607528	4-45	27		4-47	9
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1592671	9-33	1		8-31	8		4-95	27		4-65	1
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1592673	9-33	4	1601935	1-45	9		4-95	26		4-65	6
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