

PARTS MANUAL

**H8.0FT, H8.0FT9, H9.0FT
(B299)**

CUSTOMER EDITION

HYSTER

SECTIONS

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This Parts Manual is divided into 15 major sections which are listed above. Quick reference to these sections can be made by placing the right thumb on the tab of the desired section, bending the book back and thumbing the pages to the corresponding tab.

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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.

The diagram illustrates the layout of the illustrated parts manual with numbered callouts 1 through 10 pointing to various sections and tables.

1 points to the **SECTIONS** table.

2 points to the **MAST-TWO STAGE LIMITED** section in the SECTIONS table.

3 points to the **TABLE OF CONTENTS** table.

4 points to the **DESCRIPTION** column in the TABLE OF CONTENTS table.

5 points to the **NUMERICAL INDEX** table.

6 points to the **DESCRIPTION** column in the TRANSMISSION HOUSING table.

7 points to the **TRANSMISSION HOUSING** table title.

8 points to the **ITEM** column in the TRANSMISSION HOUSING table.

9 points to the **QTY** column in the TRANSMISSION HOUSING table.

10 points to the **KEY** section in the TRANSMISSION HOUSING table.

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TRANSMISSION HOUSING
(⇒ S/N G160-2628)

KEY:
A: Diesel
B: Gasoline and LPG

ITEM	PART NO.	DESCRIPTION	QTY	
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	2022547	Transmission	1	1
	2023329	Transmission	2	2
	2023329	Case	4	4
1	2023418	Bearing Cap	1	1
2	296426	Washer	2	2
3	293692	Capscrew	2	2
4	2021390	Cover	4	4
5	1371656	Cotter Pin	1	1
6	2021329	O-Ring	4	4
7	2021915	Plug	22	22
8	2021675	Housing	39	39
9	2021336	Pin	1	1
10	287860	Capscrew	1	1
11	292682	Lockwasher	8	8
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13	2021345	Gasket	1	1
14	214364	Capscrew	1	1
15	296418	Washer	1	1
16	2021388	Temperature Switch	9	9
17	2021389	Breather	9	9
18	2021383	Dipstick	2	2
19	292515	Capscrew	3	3
20	136692	Nut	3	2
21	292527	Capscrew	4	4
22	292531	Capscrew	4	4
23	292693	Lockwasher	4	4
24	293637	Capscrew	1	1
25	296420	Washer	1	1
	996403	Transmission Kit (Include Item 7)		
	996405	Transmission Kit (Include Item 14)		

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

See Service Manual for service procedures.

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3-15

HP990135

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. Parts Supersession Information. Part numbers that have this history will be displayed in the parts list in the order that they were superseded (from oldest to newest). The superseded part numbers will be shown with a line through them.

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.

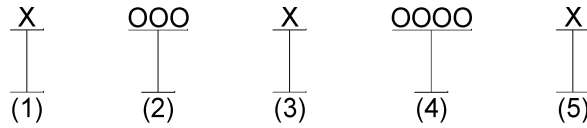
Contact your local dealer for Hyster lift trucks for serial number information for items with a ECN or a date break.

ORDERING PARTS:

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

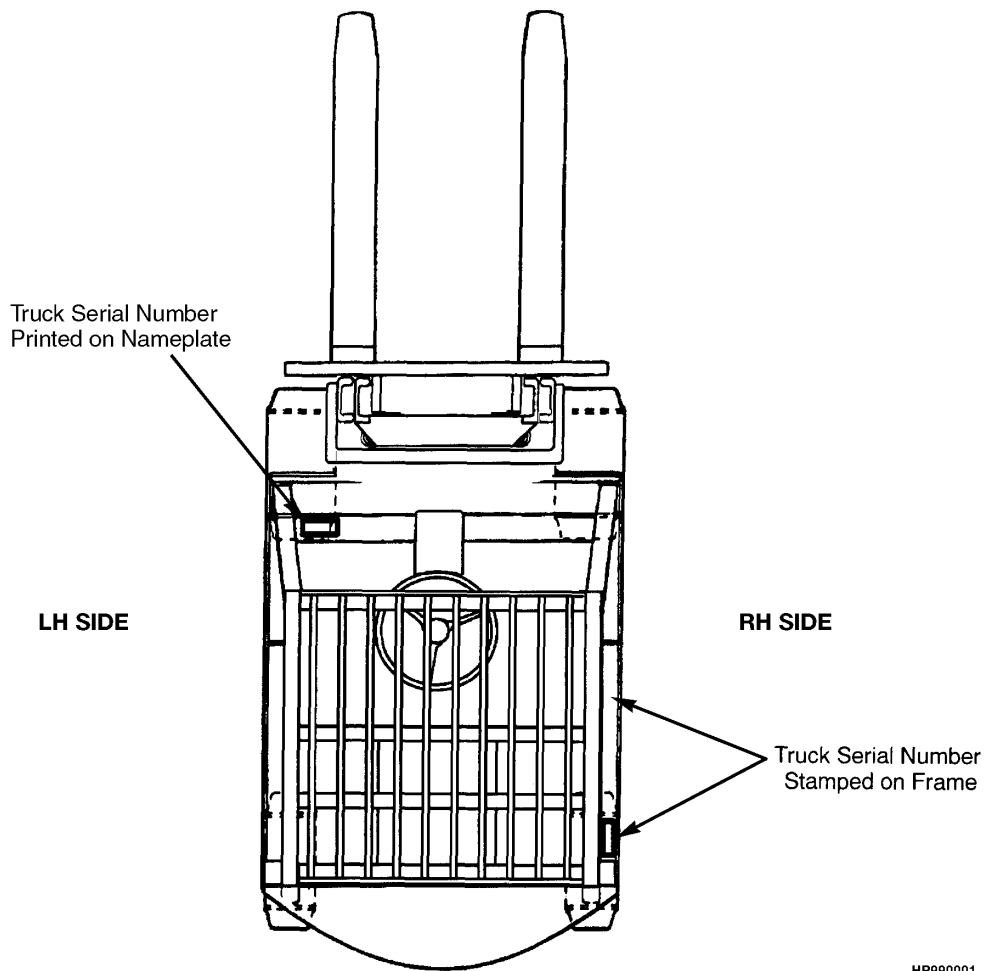
For any further information on parts, service, or ordering, consult your local dealer for Hyster lift trucks.

IDENTIFICATION OF TRUCK SERIAL NUMBERS

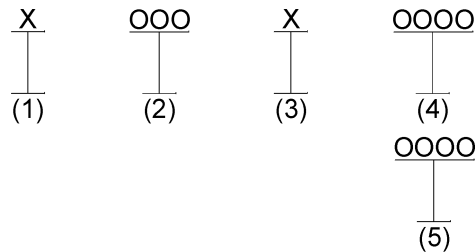


- (1) and (2) The first letter and three numbers indicate the truck unit code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number indicates the production sequence number of the truck.
- (5) The final letter indicates the year of manufacture starting with "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.



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

IDENTIFICATION OF MAST SERIAL NUMBERS

- (1) and (2) The first letter and number indicates the mast 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 mast.
 (5) Carriage travel in millimeters stamped just below the serial number.

Mast Group identification consists of mast unit code (1) and (2) plus carriage travel (5).

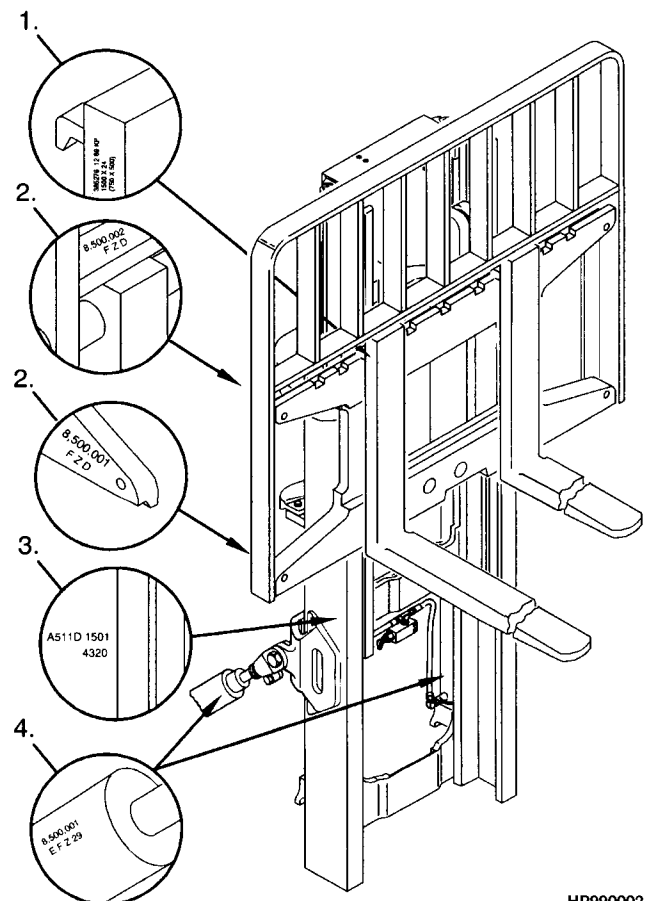
For pending production sequence numbers contact your local dealer for Hyster lift trucks.

LIFT EQUIPMENT IDENTIFICATION

1. Fork part number, capacity rating, plant code letter, and date of manufacture are stamped approximately six inches below the top of most forks.
2. The carriage group number is stamped on the right hand side of the top crossmember (pin type) or on the back of the right hand end of the bottom crossmember (hook type). A date code has two letters in line with or below the carriage group number.
3. The mast identification number has a unit code, a letter indicating the plant of manufacture, and a serial number. Underneath the production sequence number is a four digit number that indicates the carriage travel in millimeters.
4. Tilt and lift cylinder group numbers are stamped on the cylinder shell.

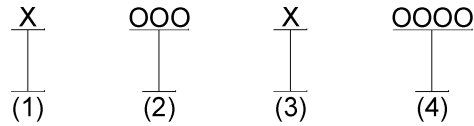
Always refer to the group, serial, or part number when ordering service parts.

Modification of masts and carriages by SPED (Special Products Engineering Department) are identified by a model prefix code beginning with the letter "S". contact your dealer for Hyster lift trucks for information on these assemblies.



HP990002

IDENTIFICATION OF ATTACHMENT AND SIDE-SHIFT CARRIAGE SERIAL NUMBERS

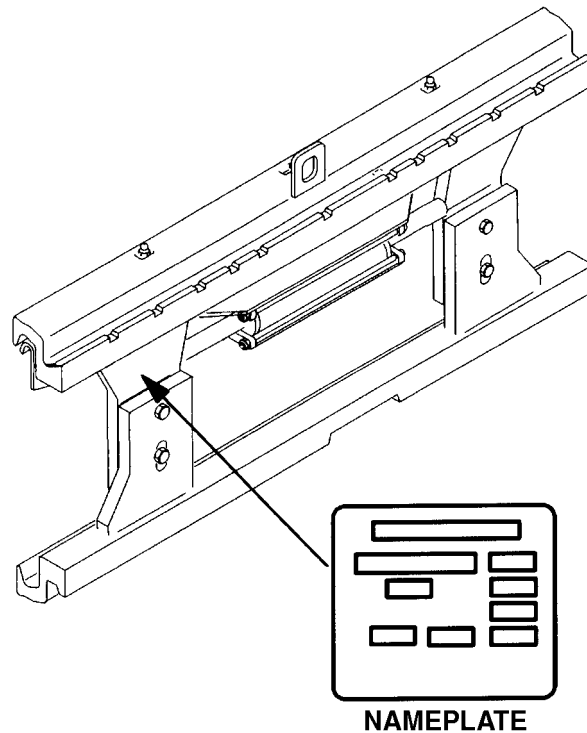


(1) and (2) The first letter and three numbers indicate the attachment unit code.

(3) The second letter indicates the plant of manufacture.

(4) The four or five digit number indicates the production sequence number.

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



HP990003

Side-shift carriages and attachments have nameplates. Use the serial number found on the nameplate to identify the attachment.

Always refer to the group, serial, or part number when ordering service parts.

Modifications of attachments and side-shift carriages by SPED (Special Products Engineering Department) are identified by a model prefix code beginning with the letter "S". Contact your dealer for Hyster lift trucks for information on these assemblies.

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.....	4053619
Service Manual (Complete).....	4053656
Parts Manual.....	4053648

1

FRAME

SECTION 1
FRAME

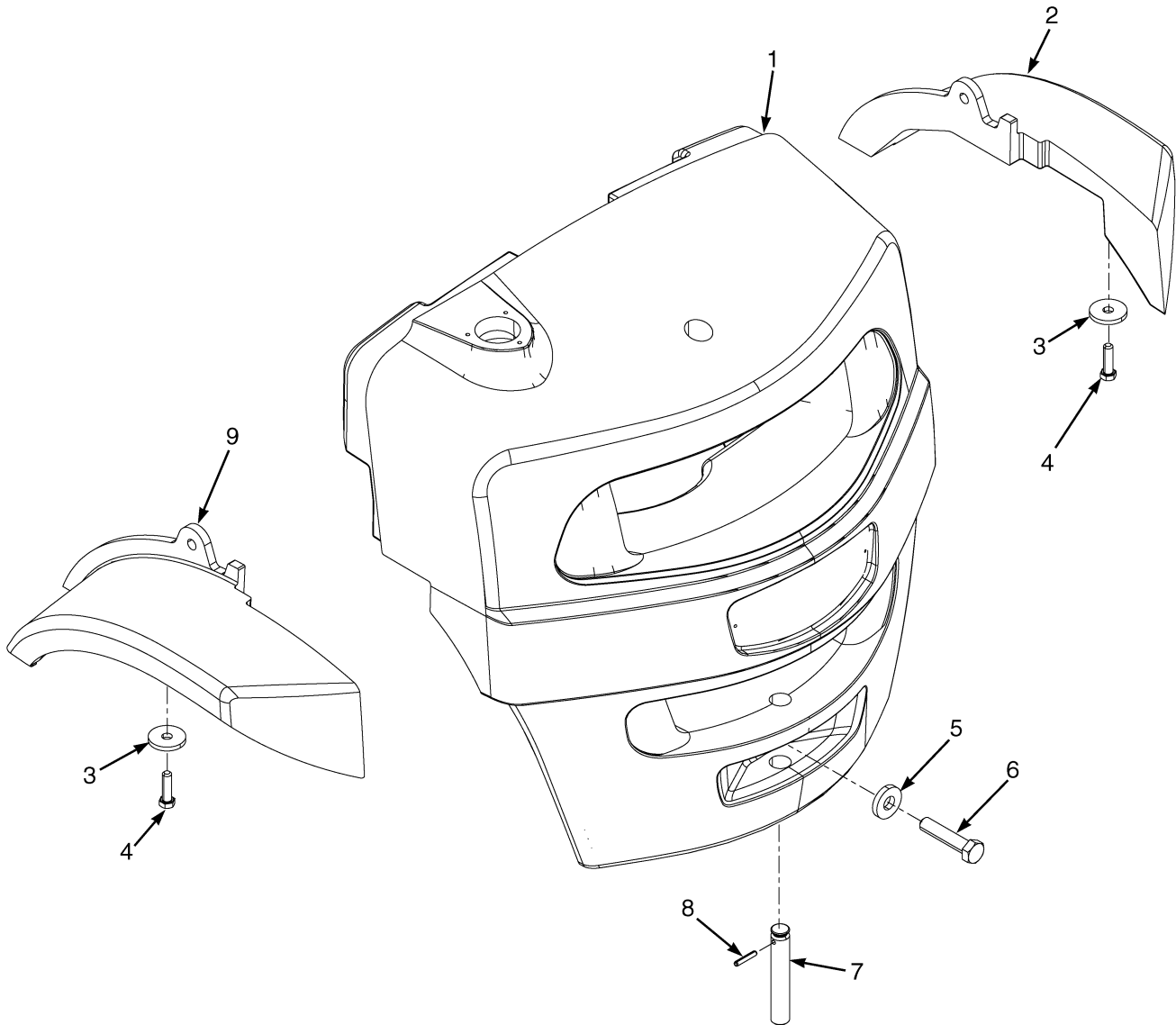
DESCRIPTION	PAGE
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SECTION 1 FRAME

DESCRIPTION	PAGE
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NOTES

COUNTERWEIGHTS AND REAR FENDERS (FIGURE 1-1)



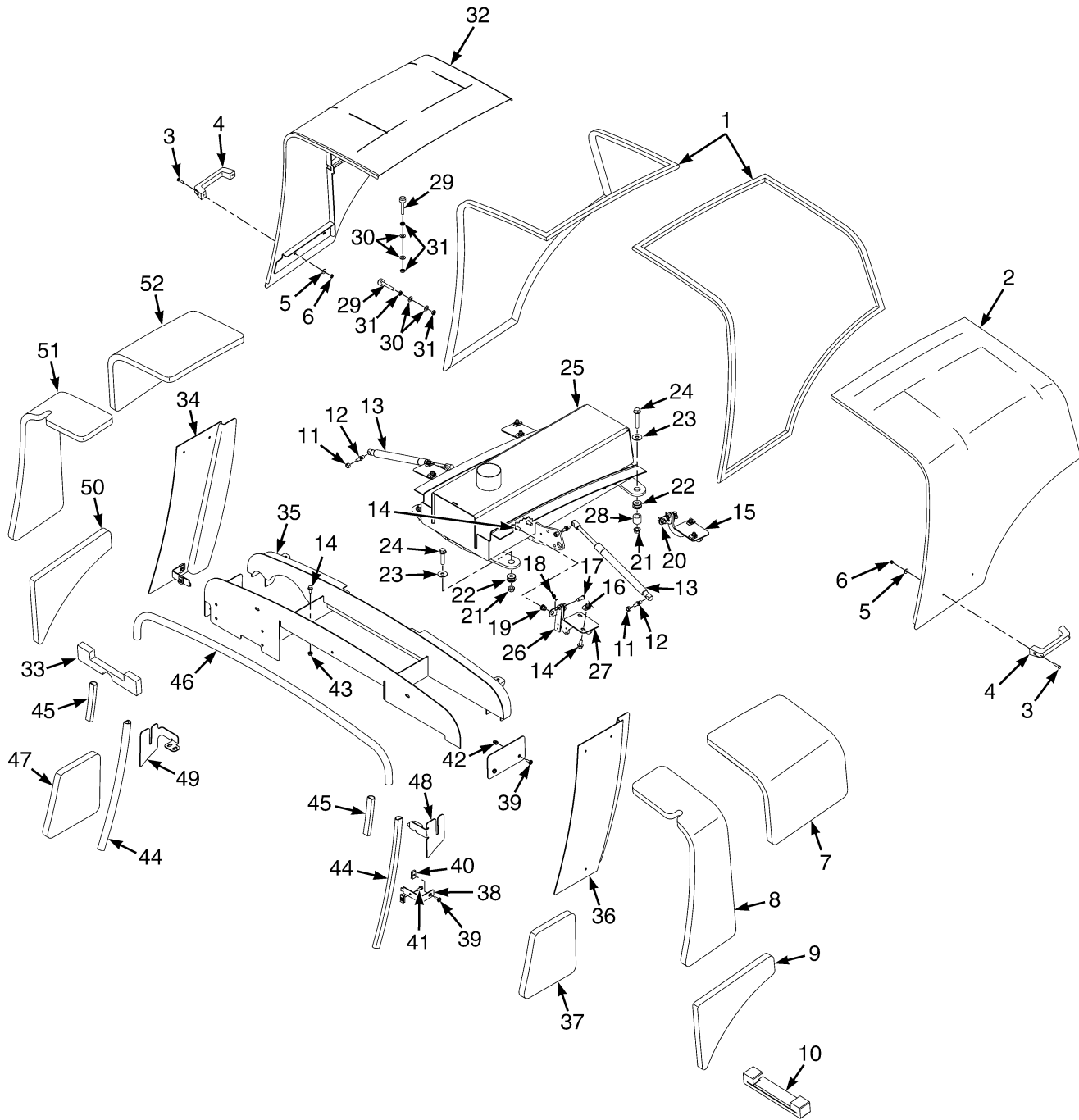
BP120314

COUNTERWEIGHTS AND REAR FENDERS

ITEM	PART NO.	DESCRIPTION	QTY
1	a 1609047	Counterweight (H8.0FT)	1
1	b 4068478	Counterweight (H8.0FT)	1
1	c 4095380	Counterweight (H8.0FT)	1
1	a 1648145	Counterweight (H8.0FT9)	1
1	b 4068479	Counterweight (H8.0FT9)	1
1	c 4095381	Counterweight (H8.0FT9)	1
1	a 1648146	Counterweight (H9.0FT)	1
1	b 4068480	Counterweight (H9.0FT)	1
1	c 4095382	Counterweight (H9.0FT)	1
2	1609049	Fender (RH)	1
3	1301086	Washer	4
4	292586	Capscrew	4
5	1571610	Washer	1
6	292629	Capscrew	1
7	1637881	Tow Pin	1
8	302492	Roll Pin	1
9	1609048	Fender (LH)	1

FOOTNOTES:**a** → 5/2013**c** 10/2015 →**b** 5/2013 ↔ 10/2015

HOOD ASSEMBLY (FIGURE 1-2) (→ S/N B299E01571L)



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HOOD ASSEMBLY
(→ S/N B299E01571L)

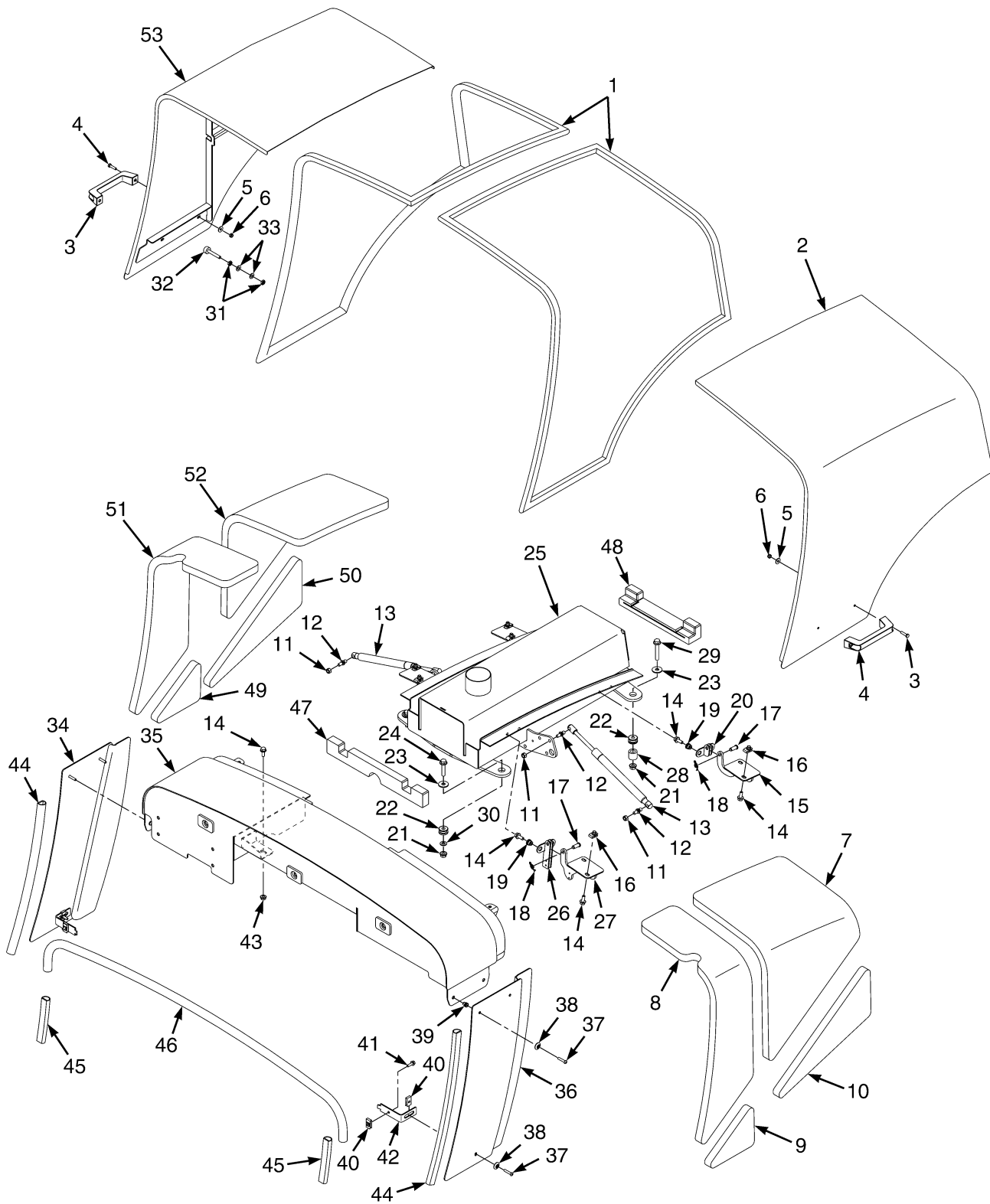
ITEM	PART NO.	DESCRIPTION	QTY
1	1675474	Seal	2
2	1664290	Hood (LH) (With Overhead Guard)	1
2	1687414	Hood (LH) (With Cab)	1
3	287816	Capscrew	4
4	362030	Handle	2
5	1476421	Washer	4
6	1581565	Nut	4
7	1650477	Sound Liner (LH)	1
8	1663631	Sound Liner (LH)	1
9	1650479	Sound Liner (LH) (With Overhead Guard)	1
9	4000085	Liner (LH) (With Cab)	1
10	1615395	Seal	1
11	313828	Nut	4
12	1563369	Ball Stud	4
13	4014557	Gas Spring	2
14	1527880	Capscrew	18
15	1678274	Hinge	2
16	1480237	Nut	8
17	1375391	Pin (Rod End)	4
18	1351689	Locking Cotter Pin	4
19	1531557	Insert	8
20	1678273	Hinge (Base)	2
21	1460477	Nut	4
22	317594	Mount	4
23	1356113	Washer	4
24	1527886	Capscrew (DSL)	2
24	1527887	Capscrew (LPG)	2
25	1695899	Hood Support	1
26	1669446	Hinge (Base)	2
27	1639723	Hinge	2
28	1484643	Spacer (DSL Option)	1
29	1585581	Bumper (Hood)	4
30	320157	Washer	8
31	1593335	Nut	8
32	1687416	Hood (RH) (With Cab)	1
32	1664273	Hood (RH) (With Overhead Guard)	1
33	1610906	Seal	1
34	1687401	Side Plate Wldmt (RH)	1
35	1687388	Hood Support (Without Air Conditioning)	1
35	4062586	Hood Support (With Air Conditioning)	1
36	1687399	Side Plate Wldmt (LH)	1
37	1663612	Sound Liner (LH)	1
38	1707278	Bracket	2
39	1530019	Screw	6
40	325182	Nut	4
41	1527877	Capscrew	2
42	1531558	Insert	4
43	1502543	Nut	2
44	1688045	Seal	2
45	1688046	Seal (With Cab)	2

HOOD ASSEMBLY
(→ S/N B299E01571L)

ITEM	PART NO.	DESCRIPTION	QTY
46	1688042	Seal	1
47	1663611	Sound Liner (RH) (With Overhead Guard)	1
47	4005690	Liner (RH) (With Cab)	1
48	1687895	Plate	1
49	1687892	Plate	1
50	1650480	Sound Liner (RH) (With Overhead Guard)	1
50	4000084	Liner (RH) (With Cab)	1
51	1663630	Sound Liner (RH)	1
52	1650473	Sound Liner (RH)	1

NOTES

HOOD ASSEMBLY (FIGURE 1-3) (S/N B299E01572L →)



BP121125

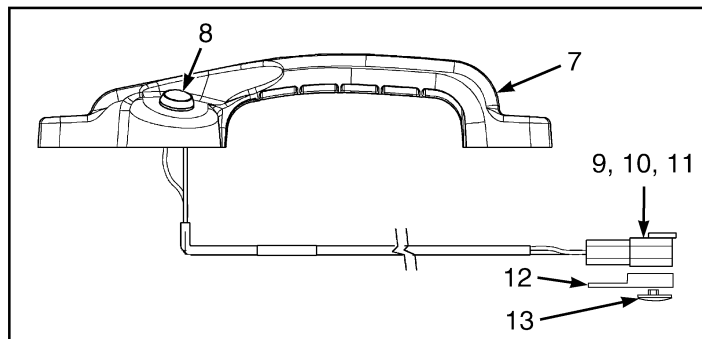
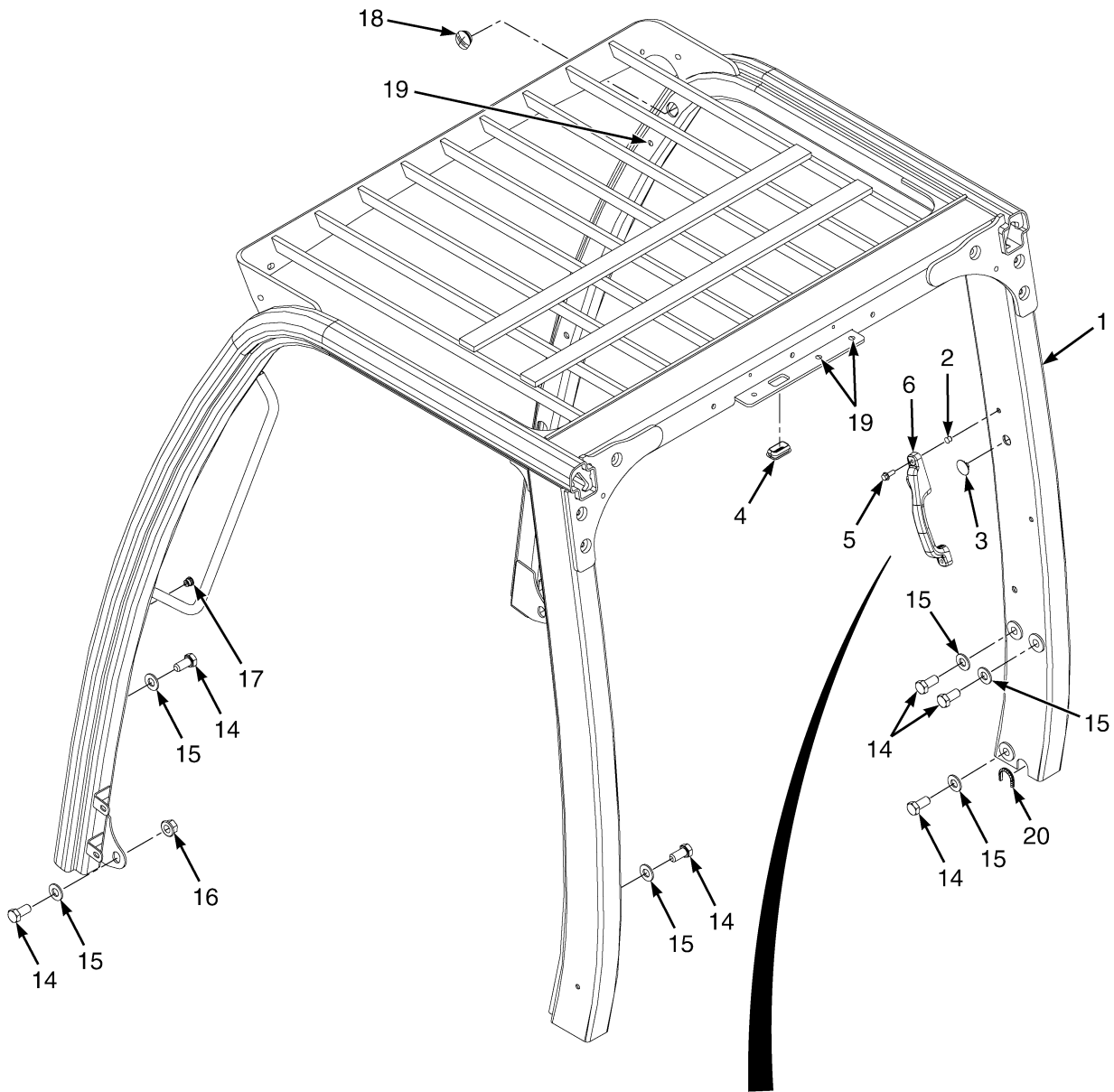
HOOD ASSEMBLY
(S/N B299E01572L →)

ITEM	PART NO.	DESCRIPTION	QTY
1	1675474	Seal	AR
2	4053774	Hood (Without Cab)	1
2	4053775	Hood (With Cab)	1
3	287816	Capscrew	4
4	362030	Handle	2
5	1476421	Washer	4
6	1581565	Nut	4
7	4069748	Liner (LH)	1
8	4069749	Liner (LH)	1
9	4069790	Liner (LH)	1
10	4069750	Liner (LH)	1
11	313828	Nut	4
12	1563369	Ball Stud	4
13	4088039	Gas Spring	2
14	1527880	Capscrew	18
15	1678274	Hinge	2
16	1480237	Nut	8
17	1375391	Pin (Rod End)	4
18	1351689	Locking Cotter Pin	4
19	1531557	Insert	8
20	1678273	Hinge (Base)	2
21	1460477	Nut	4
22	317594	Mount	4
23	1356113	Washer	4
24	1512403	Capscrew	2
25	4058543	Hood Support	1
26	1669446	Hinge (Base)	2
27	1639723	Hinge	2
28	1484643	Spacer (LPG Option)	2
29	1527887	Capscrew (LPG Option)	2
29	1527886	Capscrew (Diesel Option)	2
30	1581557	Washer	4
31	1593335	Nut	10
32	1585581	Bumper (Hood)	6
33	320157	Washer	8
34	4058550	Side Plate	1
35	4059228	Hood Support (Without Air Conditioning)	1
35	4070130	Hood Support (With Air Conditioning)	1
36	4058551	Side Plate	1
37	1710007	Capscrew	6
38	1709980	Washer	6
39	1531558	Insert	4
40	325182	Nut	4
41	1527877	Capscrew	2
42	1707278	Bracket	2
43	1502543	Nut	2
44	1688045	Seal	2
45	4069698	Seal (With Cab)	2
46	1688042	Seal	1
47	1610906	Seal	1

HOOD ASSEMBLY
(S/N B299E01572L →)

ITEM	PART NO.	DESCRIPTION	QTY
48	1615395	Seal	1
49	4069752	Liner (RH)	1
50	4069751	Liner (RH)	1
51	4069747	Liner (RH)	1
52	4069746	Liner (RH)	1
53	4053976	Hood	1

OVERHEAD GUARD (FIGURE 1-4)



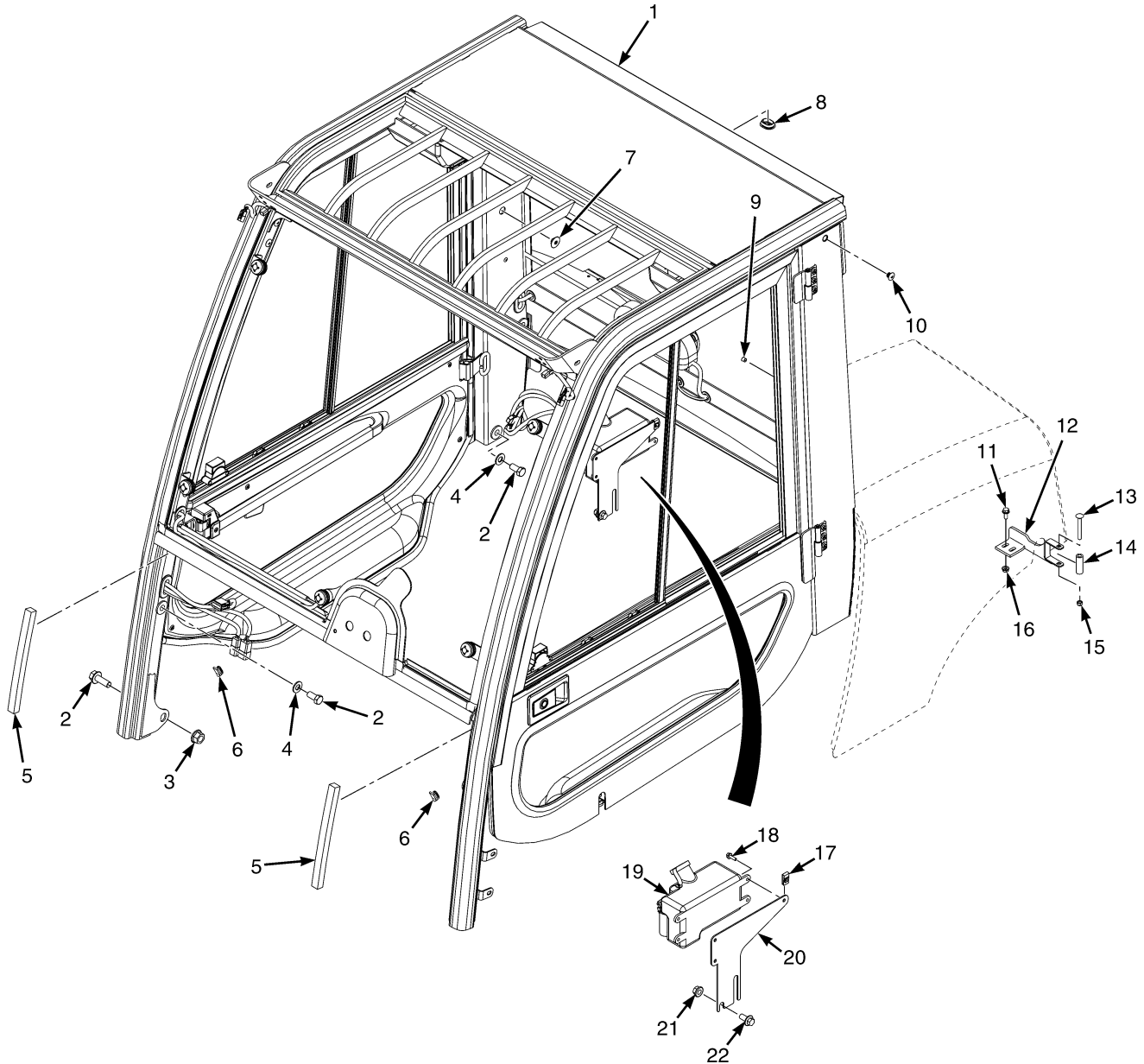
BP120977

OVERHEAD GUARD

ITEM	PART NO.	DESCRIPTION	QTY
1	4036237	Overhead Guard	1
2	a 1531558	Insert	2
2	b 1494888	Plug	2
3	a 1598220	Grommet	1
3	b 1599415	Plug	1
4	1560671	Grommet	1
5	1586495	Capscrew	2
6	2070223	Handle (Assembly)	1
7	2069454	Handle	1
8	1566726	Push Button Switch	1
9	1493465	Connector (2 Pin)	1
10	1330414	Connector (Secondary Lock)	1
11	1330437	Terminal (Pin)	2
12	1500912	Clip	1
13	1582464	Fastener	1
14	226458	Capscrew	10
15	320166	Washer	10
16	1586436	Nut	2
17	1531557	Insert	2
18	1558219	Grommet	2
19	1494888	Plug	4
20	1661321	Grommet	1

FOOTNOTES:**a** With back-up alarm handle**b** Without back-up alarm handle

CAB (FIGURE 1-5) ATTACHING PARTS



BP200161

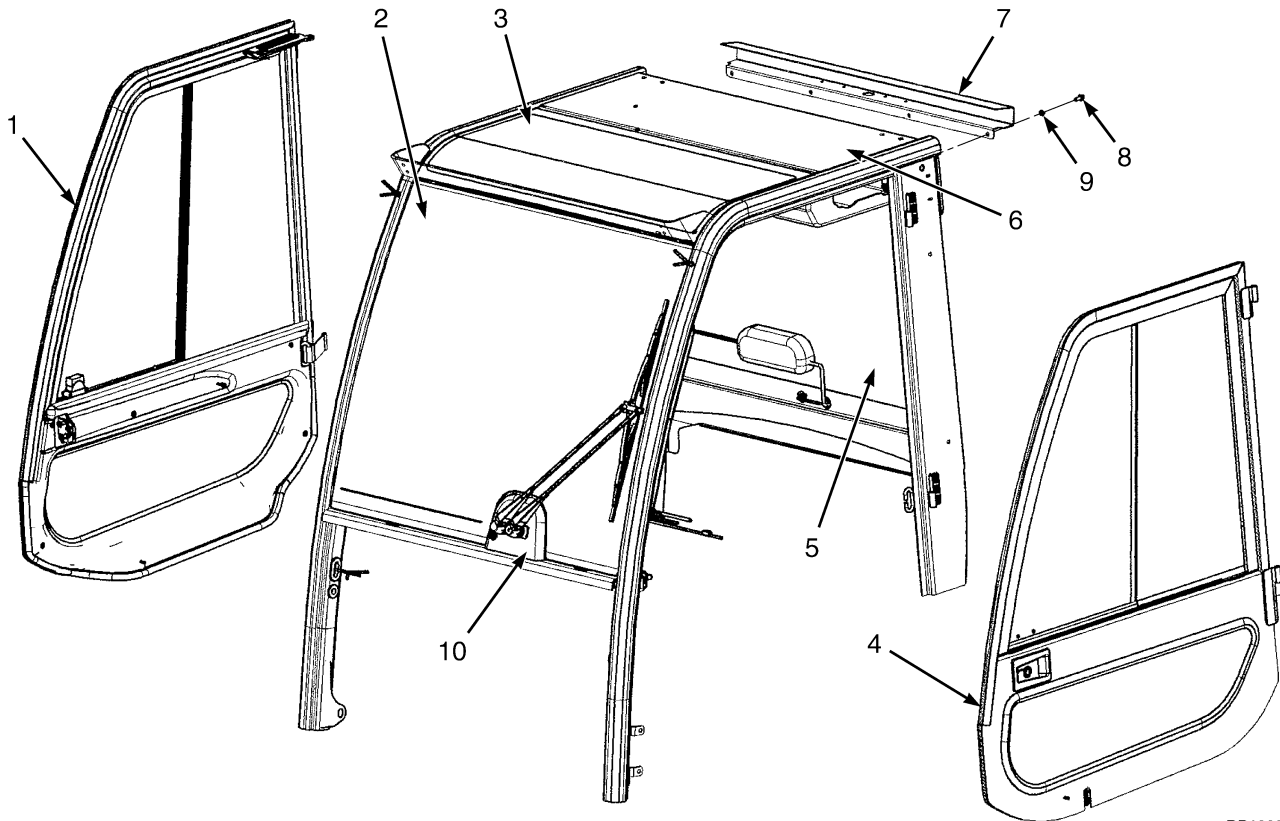
**CAB
ATTACHING PARTS**

ITEM	PART NO.	DESCRIPTION	QTY
1	ef 4040162	Cab (Steel Doors) (☞Figure 1-6).....	1
1	cf 4040163	Cab (Steel Doors) (☞Figure 1-7).....	1
1	dg 4081528	Cab (With Steel Doors)	1
2	226458	Capscrew	10
3	1586436	Nut	2
4	320166	Washer	10
5	4041403	Seal (Cab)	2
6	1589787	Seal (Cowl)	2
7	1599415	Plug	1
8	4601386	Grommet	2
9	1494888	Plug	4
10	1574301	Plug	10
11	1527880	Capscrew	4
12	1668633	Striker	2
12	4054030	Striker (Alternate Part)	2
13	1669114	Bolt	2
14	1650145	Hose Assy	2
15	1581739	Nut	2
16	1502543	Nut	4
17	325182	Nut	3
18	1527877	Capscrew	3
19	1646922	Reservoir	1
19	1635026	Cap	1
19	1705156	Pump (Windshield Washer, 12V)	1
20	4005192	Bracket	1
21	a 1528888	Nut (Shoulder)	2
22	a 1690977	Bolt	2
	b 129563	Strap Clamp	AR
	b 1351681	Connector	1

FOOTNOTES:

- | | | | |
|----------|-----------------------------------|----------|---|
| a | For use with Kubota diesel option | e | Without Air Conditioning |
| b | Not Illustrated | f | → S/N B299E01726N INC. 01730 EXC. 01662, 01681-01682 |
| c | With Air Conditioning | g | S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730 |
| d | With and without Air Conditioning | | |

CAB (FIGURE 1-6) ASSEMBLY — WITHOUT AIR CONDITIONING



BP120988

ITEM	PART NO.	DESCRIPTION	QTY
	b 4040162	Cab (Steel Doors)	1
	c 4081528	Cab (Steel Doors)	1
1	b 4055250	Door (RH) (☞ Figure 1-8).....	1
1	c 4113305	Door (RH)	1
2	1698685	Front Window	1
3	1647522	Window (Skylight)	1
4	b 4076047	Door (LH) (☞ Figure 1-10).....	1
4	c 4113304	Door (LH)	1
5	1656093	Window (Rear)	1
6	.....	Main Assembly (☞ Figure 1-13, ☞ Figure 1-12).....	1
7	1656007	Cover (Tail Light)	1
8	4048756	Bolt	4
9	4048755	Washer	4
10	.....	Window Wipers (☞ Figure 1-15).....	1
	a 1676205	Foam Lining (Top Window)	1
	a 1474709	Block	19
	a 1504083	Kit-Glue	1

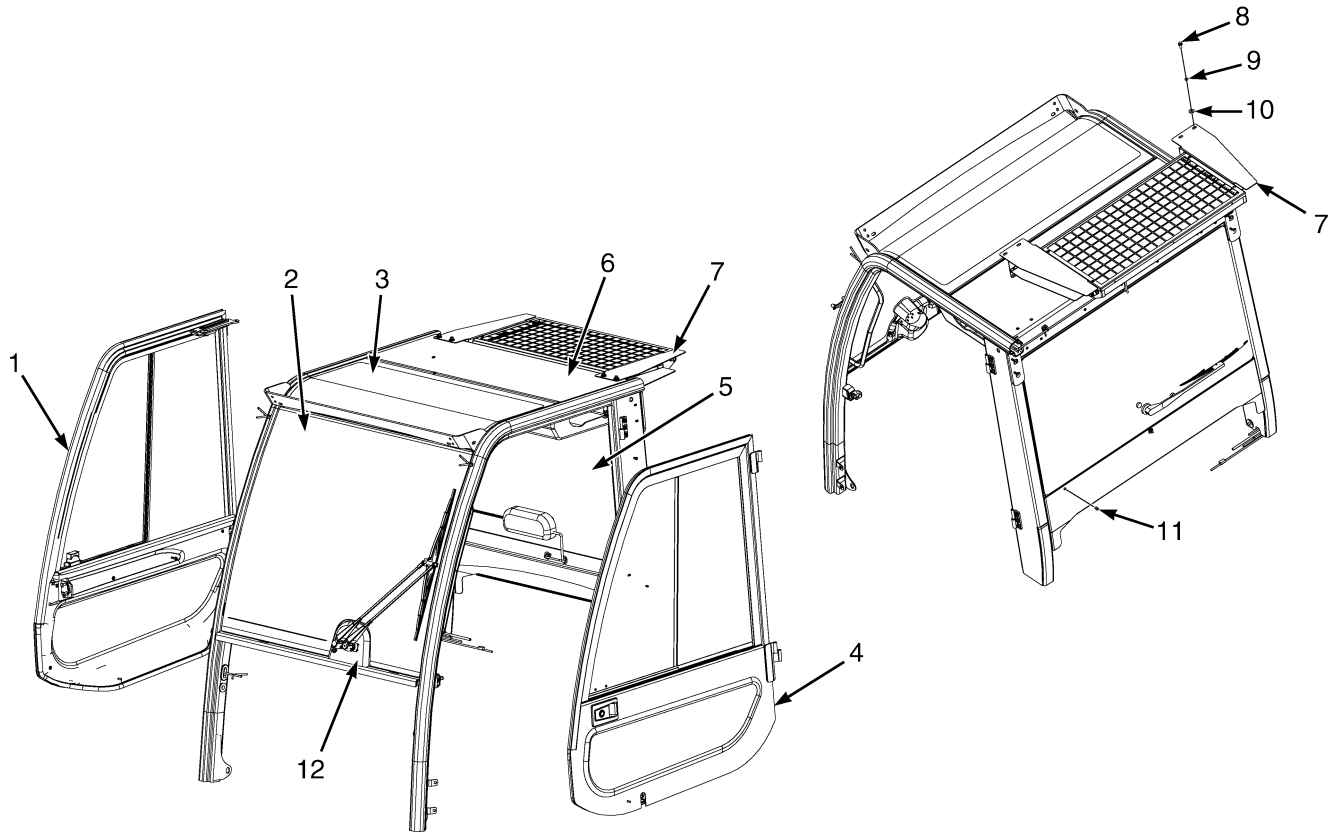
FOOTNOTES:

a Not Illustrated

b → S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683

c S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730

**CAB (FIGURE 1-7)
ASSEMBLY — WITH AIR CONDITIONING**



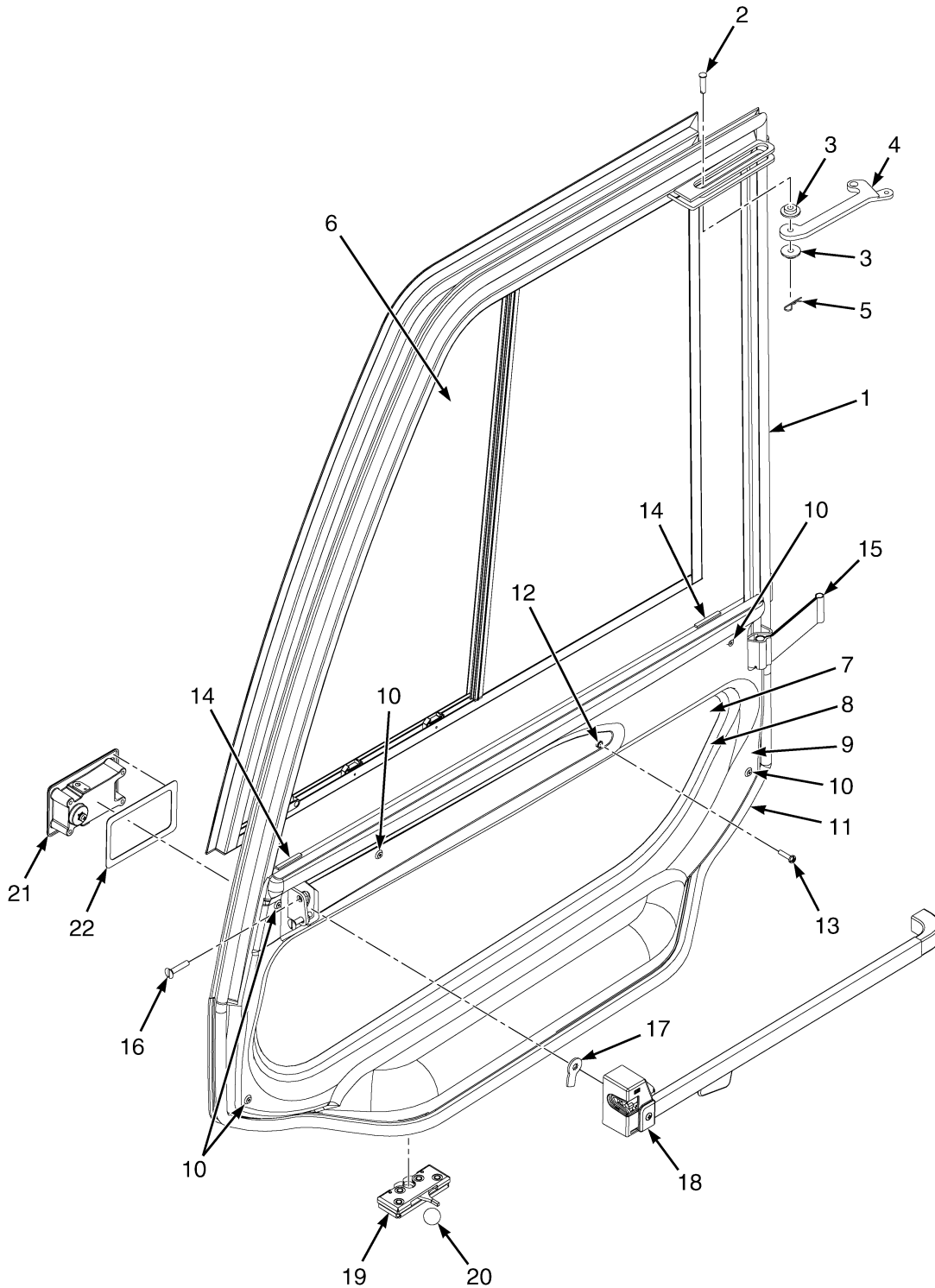
BP120989

ITEM	PART NO.	DESCRIPTION	QTY
	d 4040163	Cab (Steel Doors)	1
	be 4081528	Cab (Steel Doors)	1
1	d 4055250	Door (RH) (☞ Figure 1-8).....	1
1	e 4113305	Door (RH)	1
2	1698685	Front Window	1
3	1647522	Window (Skylight)	1
4	d 4076047	Door (LH) (☞ Figure 1-10).....	1
4	e 4113304	Door (LH)	1
5	1656093	Window (Rear)	1
6	.....	Main Assembly (☞ Figure 1-13, ☞ Figure 1-12).....	1
7	a 4044155	Condenser Assembly (☞ Figure 1-23).....	1
8	4048756	Bolt	10
9	4048755	Washer	8
10	296419	Washer	8
11	1474710	Insert	3
12	.....	Window Wipers (☞ Figure 1-15).....	1
	c 1676205	Foam Lining (Top Window)	1
	c 1474709	Block	19
	c 1504083	Kit-Glue	1

FOOTNOTES:

- a** Condenser Assembly is not included with Cab 4081528
- b** Does not include Condenser Assembly
- c** Not Illustrated
- d** → S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683
- e** S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730

CAB (FIGURE 1-8) RIGHT HAND DOOR ASSEMBLY (→ S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683)



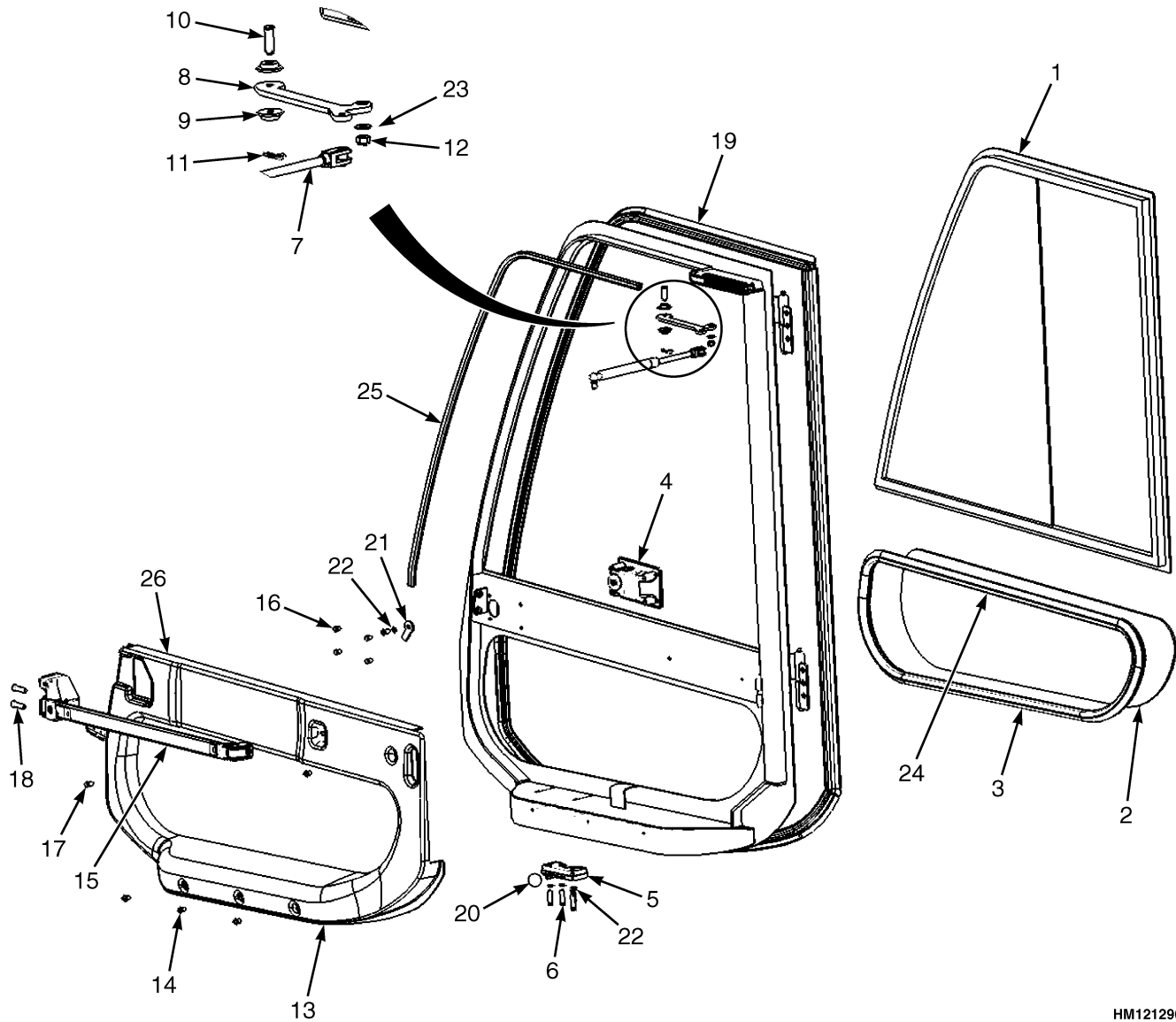
BP120991

CAB**RIGHT HAND DOOR ASSEMBLY (→ S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683)**

ITEM	PART NO.	DESCRIPTION	QTY
	4055250	Door (RH)	1
1	.....	Door (RH)	1
2	.....	Pin	1
3	4055261	Bushing	2
4	4037352	Link	1
5	.....	Cotter Pin	1
6	1656091	Sliding Window (RH Slider)	1
6	1697679	Latch	1
6	4001172	Screw	2
6	4017129	Strip (Plastic)	1
6	4039821	Front Sliding Window, RH (With Rail and Seal)	1
7	1656090	Window (Lower Door)	1
8	1656071	Seal (Lower Door)	1
9	4055249	Door Panel	1
10	1656073	Plug	5
11	1656084	Seal (RH Door)	1
12	1474710	Insert	1
13	1490966	Screw	1
14	1474709	Block	2
15	4055262	Strap (Door Restraint)	1
16	296229	Capscrew	2
17	1647453	Lever	1
18	1393482	Door Handle	1
19	1656068	Latch	1
20	1656069	Knob	1
21	1647451	Latch (Door)	1
22	1647452	Seal (Door Latch)	1
	a 1689908	Door Key	1

FOOTNOTES:**a** Not Illustrated

CAB (FIGURE 1-9) RIGHT HAND DOOR ASSEMBLY (S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730)

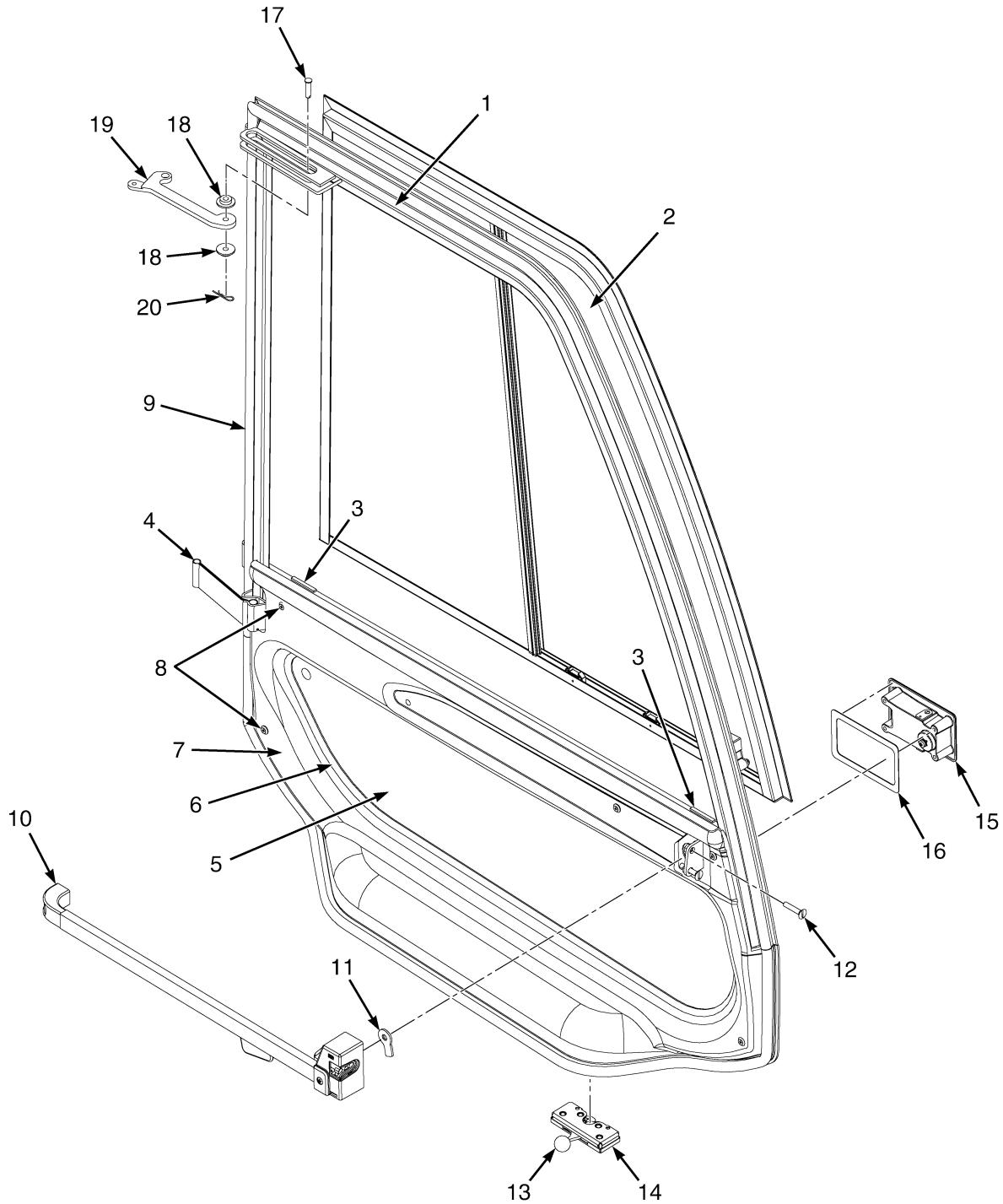


HM121296

CAB**RIGHT HAND DOOR ASSEMBLY (S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730)**

ITEM	PART NO.	DESCRIPTION	QTY
	4113305	Door (RH)	1
1	4113325	Sliding Window	1
2	4113309	Window (Lower)	1
3	4118809	Seal (Glazing)	1
4	1647451	Latch (Door)	1
5	1656068	Latch (Door Stop)	1
5	1647452	Seal (Door Latch)	1
6	4113311	Screw	4
7	4037111	Gas Spring	1
8	4037352	Link	1
9	4055261	Bushing	2
10	.....	Pin	1
11	.....	Cotter Pin	1
12	4113315	Locknut	1
13	4113326	Trim (Door Panel RH)	1
14	4113317	Screw	4
15	1393482	Door Handle	1
16	4113321	Screw	1
17	4147169	Capscrew	1
18	296229	Capscrew	2
19	4118810	Seal (Gasket)	1
20	1656069	Knob	1
21	1647453	Lever	1
22	4113322	Washer	5
23	4113314	Washer	1
24	4118811	Seal (Rubber)	1
25	4118812	Seal (Gasket)	1
26	4055249	Door Panel (RH)	1
	1674109	Kit-Repair (Glue)	1

CAB (FIGURE 1-10) LEFT HAND DOOR ASSEMBLY (→ S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683)



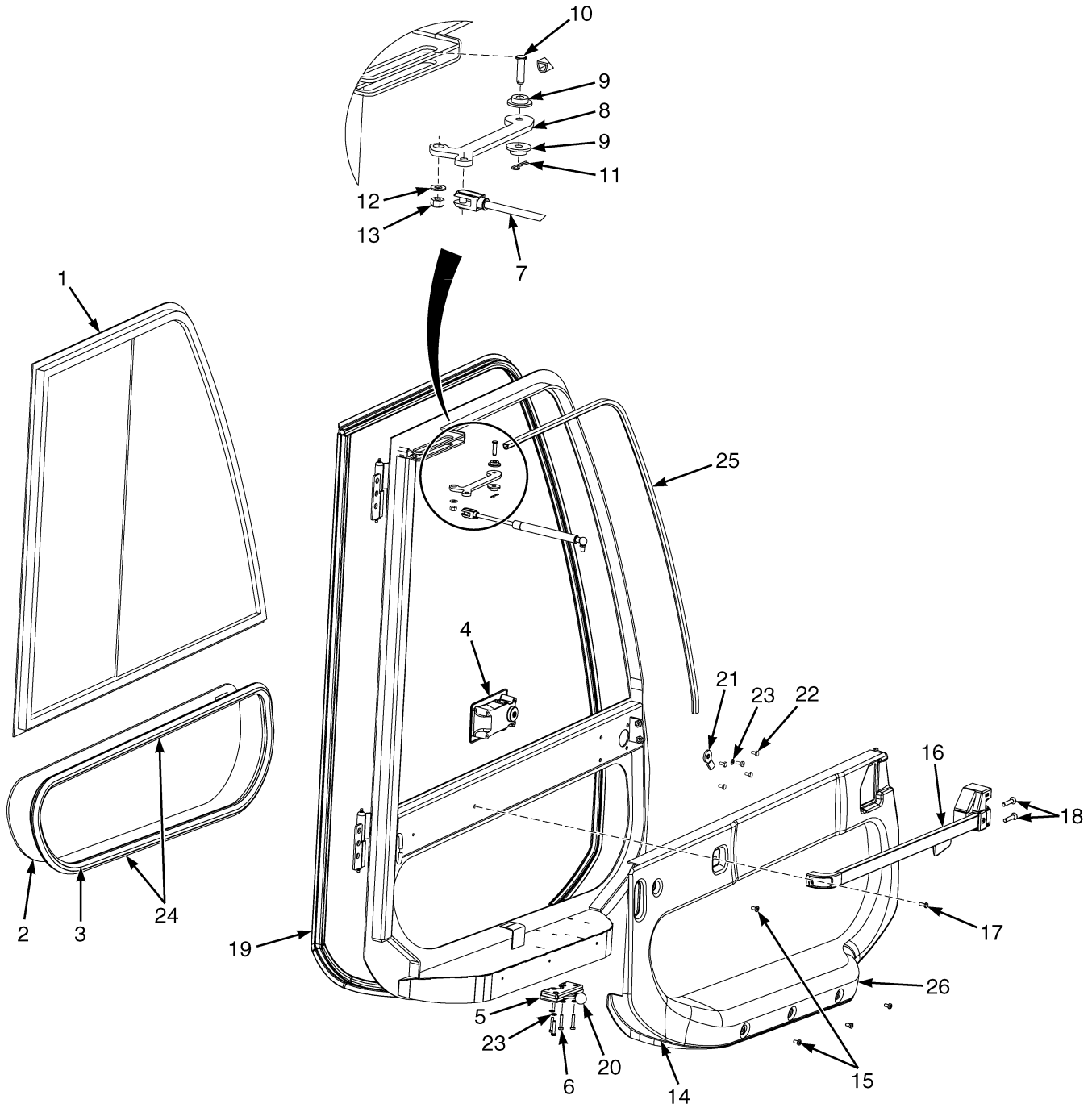
BP120992

CAB**LEFT HAND DOOR ASSEMBLY (→ S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683)**

ITEM	PART NO.	DESCRIPTION	QTY
	4076047	Door (LH)	1
1	.....	Door (LH)	1
2	1656089	Sliding Window (LH Slider)	1
2	1697679	Latch	1
2	4001172	Screw	2
2	4017129	Strip (Plastic)	1
2	4039822	Front Sliding Window, LH (With Rail and Seal)	1
3	1474709	Block	1
4	4055262	Strap (Door Restraint)	1
5	1656090	Window (Lower Door)	1
6	1656071	Seal	1
7	4076048	Door Panel	1
8	1656073	Plug	5
9	1656070	Seal	1
10	1393479	Door Handle	1
11	1647453	Lever	1
12	296229	Capscrew	2
13	1656069	Knob	1
14	1656068	Latch Door Stop	1
15	1647451	Latch (Door)	1
16	1647452	Seal (Door Latch)	1
17	.....	Pin	1
18	4055261	Bushing	2
19	4037352	Link	1
20	.....	Cotter Pin	1
	a 1474710	Insert	1
	a 1689908	Door Key	1
	a 1490966	Screw	1
	a 4067442	Felt	1

FOOTNOTES:**a** Not Illustrated

CAB (FIGURE 1-11) LEFT HAND DOOR ASSEMBLY (S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730)

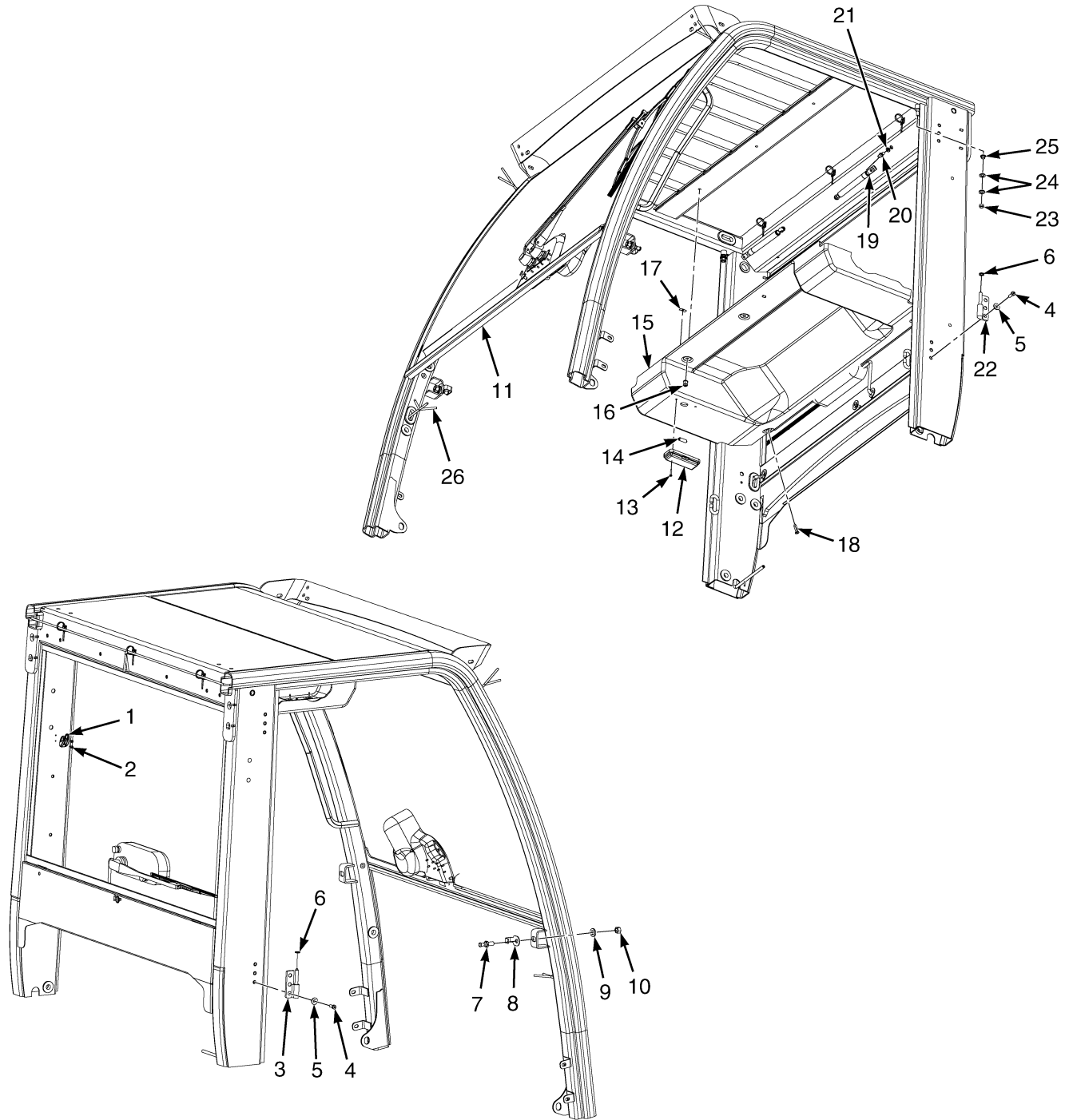


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CAB**LEFT HAND DOOR ASSEMBLY (S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730)**

ITEM	PART NO.	DESCRIPTION	QTY
	4113304	Door (LH)	1
1	4113308	Sliding Window Assembly (LH)	1
2	4113309	Window (Lower)	1
3	4118809	Seal (Glazing)	1
4	1647451	Latch (Door)	1
4	1647452	Seal (Door Latch)	1
5	1656068	Latch	1
6	4113311	Screw	4
7	4037111	Gas Spring	1
8	4037352	Link	1
9	4055261	Bushing	2
10	.....	Pin	1
11	.....	Cotter Pin	1
12	4113314	Washer	1
13	4113315	Locknut	1
14	4113316	Trim (Door Panell LH)	1
15	4113317	Screw	4
16	1393479	Door Handle	1
17	4147169	Capscrew	1
18	296229	Capscrew	2
19	4118810	Seal (Gasket)	1
20	1656069	Knob	1
21	1647453	Lever	1
22	4113321	Screw	4
23	4113322	Washer	5
24	4118811	Seal (Rubber)	1
25	4118812	Seal (Gasket)	1
26	4076048	Door Panel (LH)	1
	1674109	Kit-Repair (Glue)	1

CAB (FIGURE 1-12) MAIN ASSEMBLY (→ S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683)



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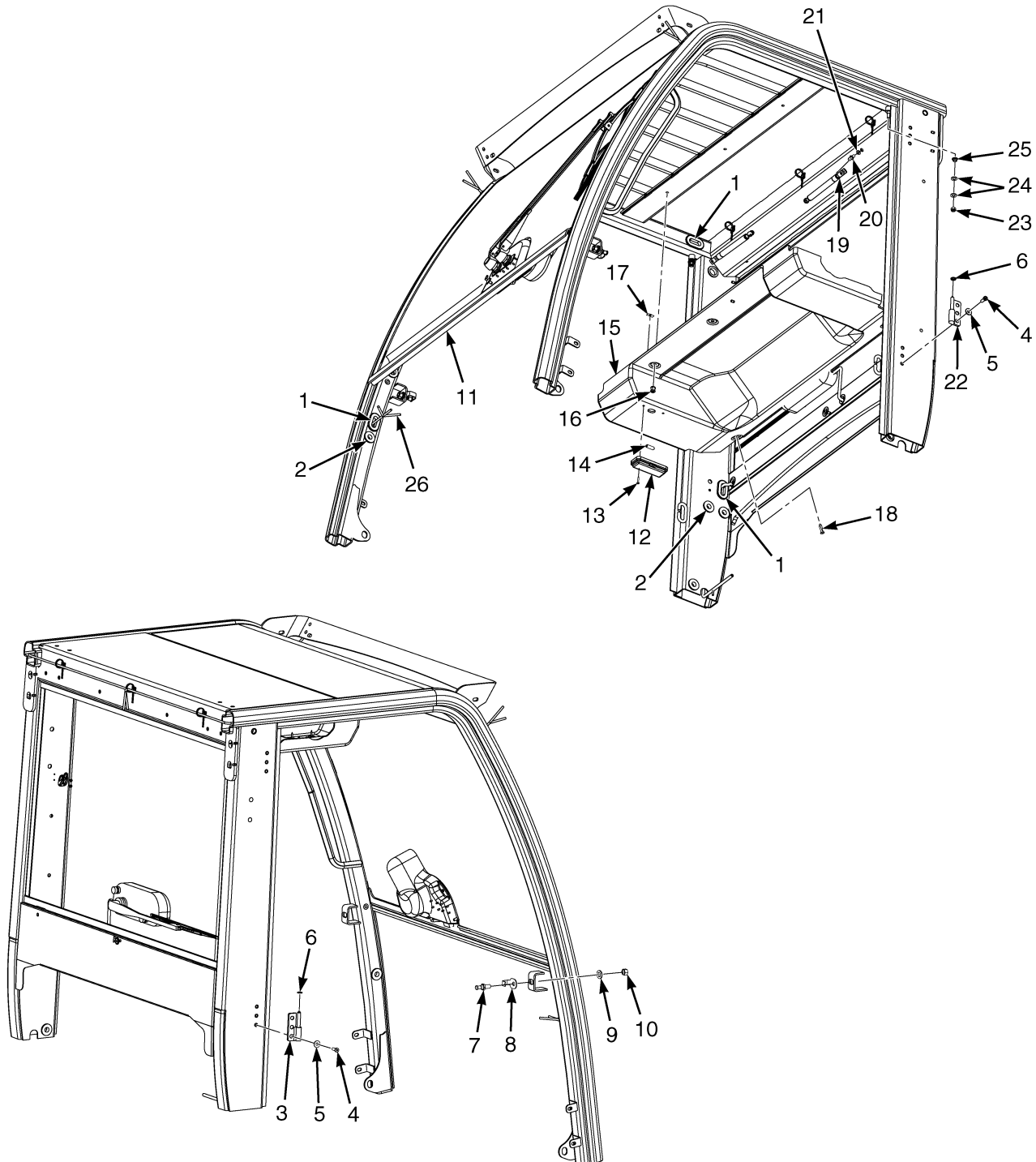
CAB**MAIN ASSEMBLY (→ S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683)**

ITEM	PART NO.	DESCRIPTION	QTY
	c 4040162	Cab (Steel Doors)	1
	b 4040163	Cab (Steel Doors)	1
1	1647423	Coat Hook	1
2	.....	Screw	2
3	1474953	Hinge (RH)	2
4	296010	Capscrew	12
5	296419	Washer	12
6	1468312	Washer	4
7	1656010	Bolt	2
8	1678405	Striker	2
9	.....	Washer	2
10	4018916	Nut	2
11	1647439	Seal	1
12	1393528	Dome Light	1
13	1491220	Screw	2
14	1393527	Bulb	1
15	1709618	Headliner	1
16	1656073	Plug	3
17	1491466	Fastener	2
18	1647456	Plug (screw Type)	2
19	4037111	Gas Spring	2
20	4037113	Ball Stud	2
21	.....	Washer	1
22	1474952	Hinge (LH)	2
23	.....	Nut	2
24	1468321	Washer (Plastic)	2
25	4037112	Bushing	2
25	296419	Washer	2
26	1647440	Wire Harness (Cab)	1
	a 1709623	Seal (Flap)	1
	a 1647444	Trim (Rear Light)	1
	a 1474710	Insert	4

FOOTNOTES:**a** Not Illustrated**b** With Air Conditioning**c** Without Air Conditioning

CAB (FIGURE 1-13)

MAIN ASSEMBLY — PAGE 1 OF 2 (S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730)



BP120990

CAB**MAIN ASSEMBLY – PAGE 1 OF 2 (S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730)**

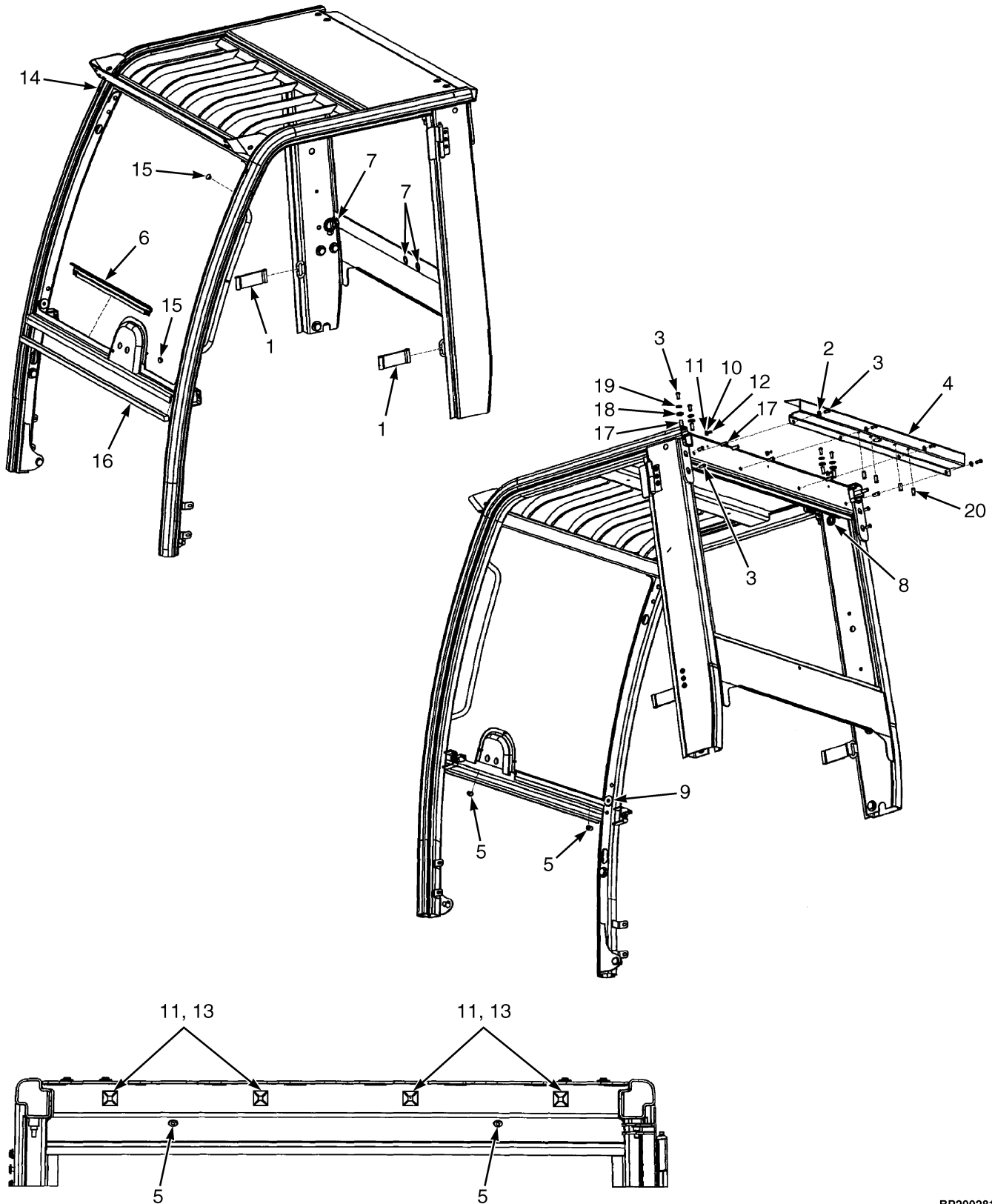
ITEM	PART NO.	DESCRIPTION	QTY
	c 4081528	Cab (With Steel Doors)	1
1	4139294	Grommet	3
2	4139307	Screw	8
3	b 4113312	Hinge (Lower) (RH)	1
4	296010	Capscrew	12
5	296419	Washer	12
6	1468312	Washer	4
7	1656010	Bolt	2
8	1678405	Striker	2
9	4139291	Washer	2
10	4139292	Nut	2
11	1647439	Seal	1
12	1393528	Dome Light	1
13	1491220	Screw	2
14	1393527	Bulb	1
15	1709618	Headliner	1
16	1656073	Plug	3
17	1491466	Fastener	2
18	1647456	Plug (screw Type)	2
19	4037111	Gas Spring	2
20	4037113	Ball Stud	2
21	.....	Washer	1
22	b 4113313	Hinge (Lower LH)	1
23	.....	Nut	2
24	1468321	Washer (Plastic)	2
25	4037112	Bushing	2
25	296419	Washer	2
26	1647440	Wire Harness (Cab)	1
	a 1709623	Seal (Flap)	1
	a 1647444	Trim (Rear Light)	1
	a 1474710	Insert	4

FOOTNOTES:

- a** Not Illustrated **c** With and without Air Conditioning
b Upper Hinge is welded to Door Frame

CAB (FIGURE 1-14)

MAIN ASSEMBLY — PAGE 2 OF 2 (S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730)

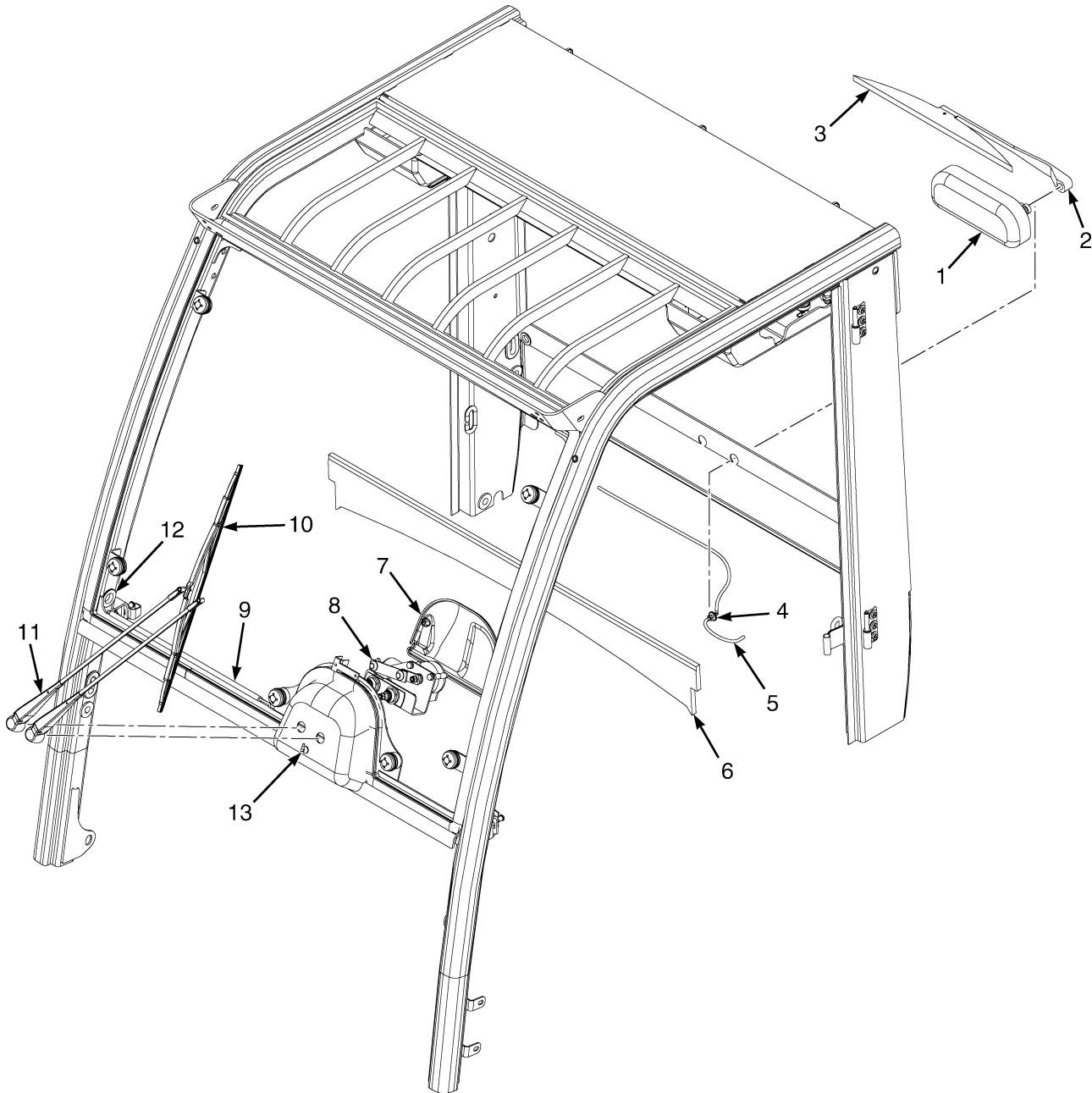


BP200281

CAB**MAIN ASSEMBLY – PAGE 2 OF 2 (S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730)**

ITEM	PART NO.	DESCRIPTION	QTY
	4081528	Cab	1
1	4139293	Belt (Limiter)	1
2	296419	Washer	8
3	296010	Capscrew	12
4	4139295	Plate	1
5	4139296	Rivet (Threaded)	4
6	4141418	Seal (.574 M)	1
7	4139299	Grommet	3
8	1393511	Grommet	1
9	1474704	Grommet	1
10	4139300	Fastener	3
11	4139301	Fastener	7
12	4139302	Screw	4
13	4139303	Fastener (Cable Ties)	4
14	4139304	Grommet	2
15	4139305	Plug	4
16	4139306	Seal-Bulk (M) (1.200 M)	1
17	4139308	Rivet	10
18	4139309	Washer	4
19	4139310	Washer	4
20	4139311	Rivet	4

CAB (FIGURE 1-15) WINDOW WIPER SYSTEM



BP120994

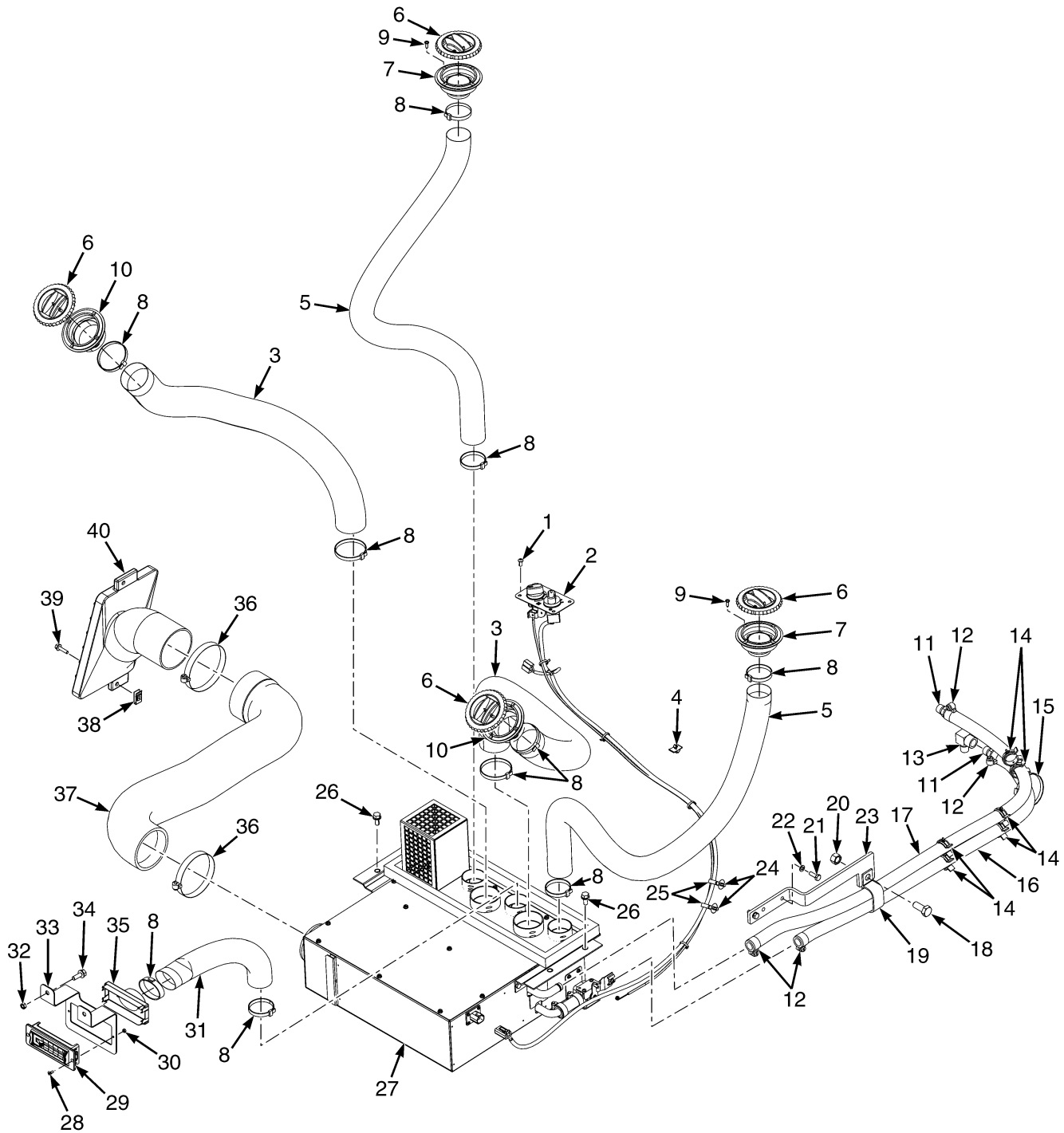
**CAB
WINDOW WIPER SYSTEM**

ITEM	PART NO.	DESCRIPTION	QTY
	de 4040162	Cab (Steel Doors)	1
	be 4040163	Cab (Steel Doors)	1
	cf 4081528	Cab (Steel Doors)	1
1	1656008	Wiper Motor (Rear)	1
2	1393505	Wiper Arm (Rear)	1
3	1656017	Wiper Blade (Rear)	1
4	1393511	Grommet	3
5	1656016	Hose	1
6	1656011	Trim (Rear)	1
7	1709620	Cover (Front Wiper)	1
8	1709619	Wiper Motor (Front)	1
9	1656014	Trim (Front Window)	1
10	1709621	Wiper Blade (Front)	1
11	1623369	Wiper Arm (Front)	1
12	1474704	Grommet	1
13	1647424	Connector	2
	a 1647446	Connector (washer hose)	1

FOOTNOTES:

- | | |
|--|--|
| a Not Illustrated | d Without Air Conditioning |
| b With Air Conditioning | e → S/N B299E01726N INC. 01730 EXC. 01662, 01681, 01683 |
| c With and Without Air Conditioning | f S/N B299E01727N → INC. 01662, 01681, 01683 EXC. 01730 |

CAB (FIGURE 1-16) HEATER AND HOSES — KUBOTA 3.8L DIESEL



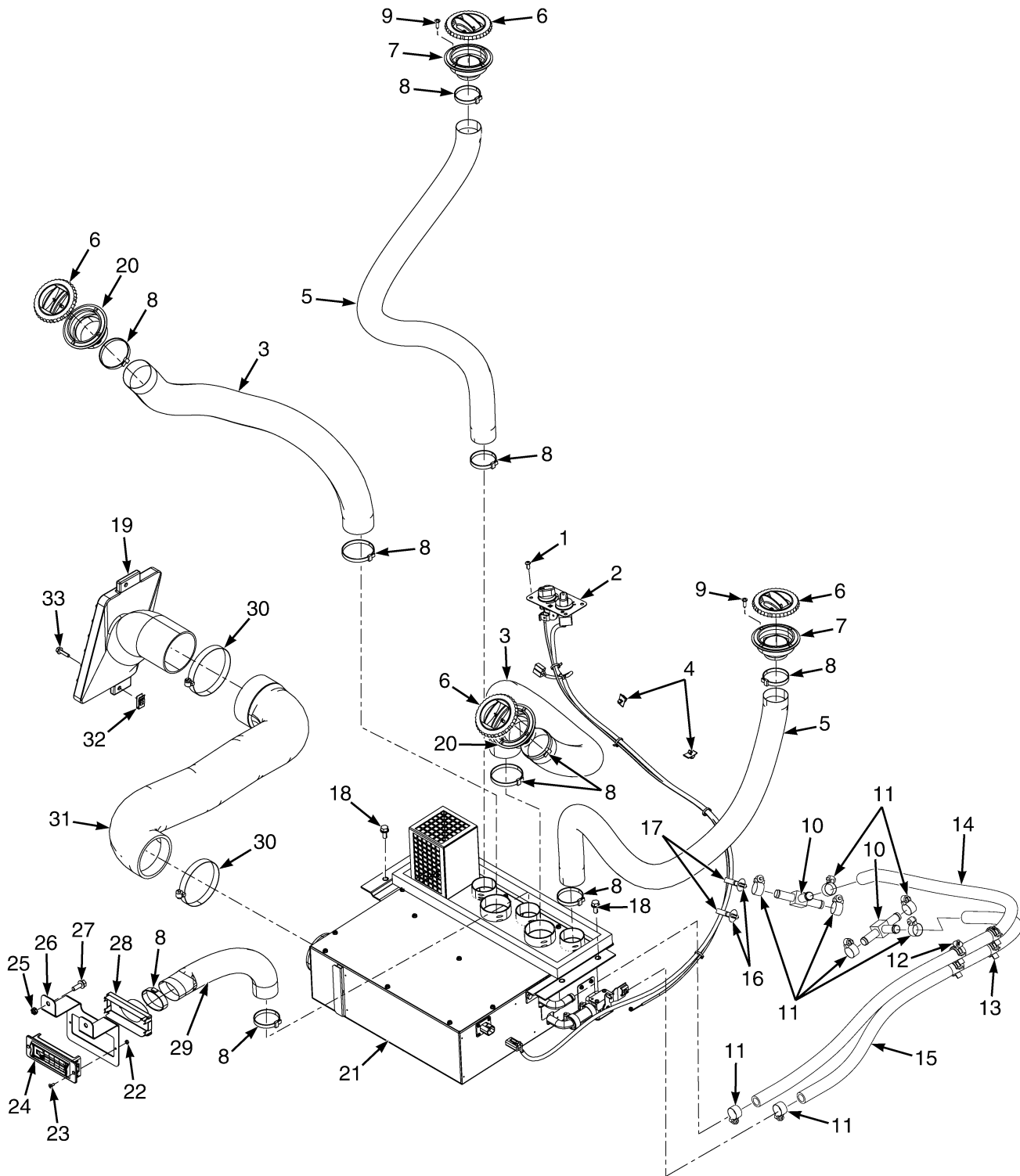
BP120996

CAB
HEATER AND HOSES – KUBOTA 3.8L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
1	353144	Capscrew	4
2	c 1677808	Heater Control (☞ Figure 1-21).....	1
2	b 4047710	Heater Control (☞ Figure 1-22).....	1
3	1640513		
	4073373	Hose (Heater Front Duct)	2
4	1562088	Clip	2
5	1640778	Hose (Heater Rear Duct)	2
6	1636241	Louver	4
7	1636242	Adapter	2
8	397676	Strap Clamp	10
9	1676074	Screw	16
10	1636243	Adapter	2
11	138710	Fitting	2
12	130845	Clamp	4
13	16143	Fitting	1
14	1569465	Clamp (Swivel)	6
15	1502061	Clamp	1
16	4624965	Hose (Heater)	1
17	4624870	Hose (Heater)	1
18	292527	Capscrew	1
19	176455	Clamp	1
20	216877	Nut	1
21	18460	Capscrew	2
22	15154	Lockwasher	2
23	4031207	Bracket	1
24	1644398	Clamp (Swivel)	2
25	1543842	Clamp	2
26	1608654	Capscrew	4
27	c 1629280	Heater (12V) (☞ Figure 1-19).....	1
27	b 4064032	Heater (12V)	1
28	296452	Screw	2
29	1636510		
	4073374	Hose (Floor Vent)	1
30	292667	Nut	2
31	1636244	Vent	1
32	1531557	Insert	2
33	1640770	Bracket	1
34	1583611	Capscrew	2
35	1641103	Adapter (Rectangular)	1
36	78286	Clamp	2
37	4616500	Hose	1
38	325182	Nut	2
39	1527878	Capscrew	2
40	1644840	Vent	1
	a 246108	Sealant	AR

FOOTNOTES:**a** Not Illustrated**b** With Air Conditioning**c** Without Air Conditioning

CAB (FIGURE 1-17) HEATER AND HOSES — GM 5.7L LPG

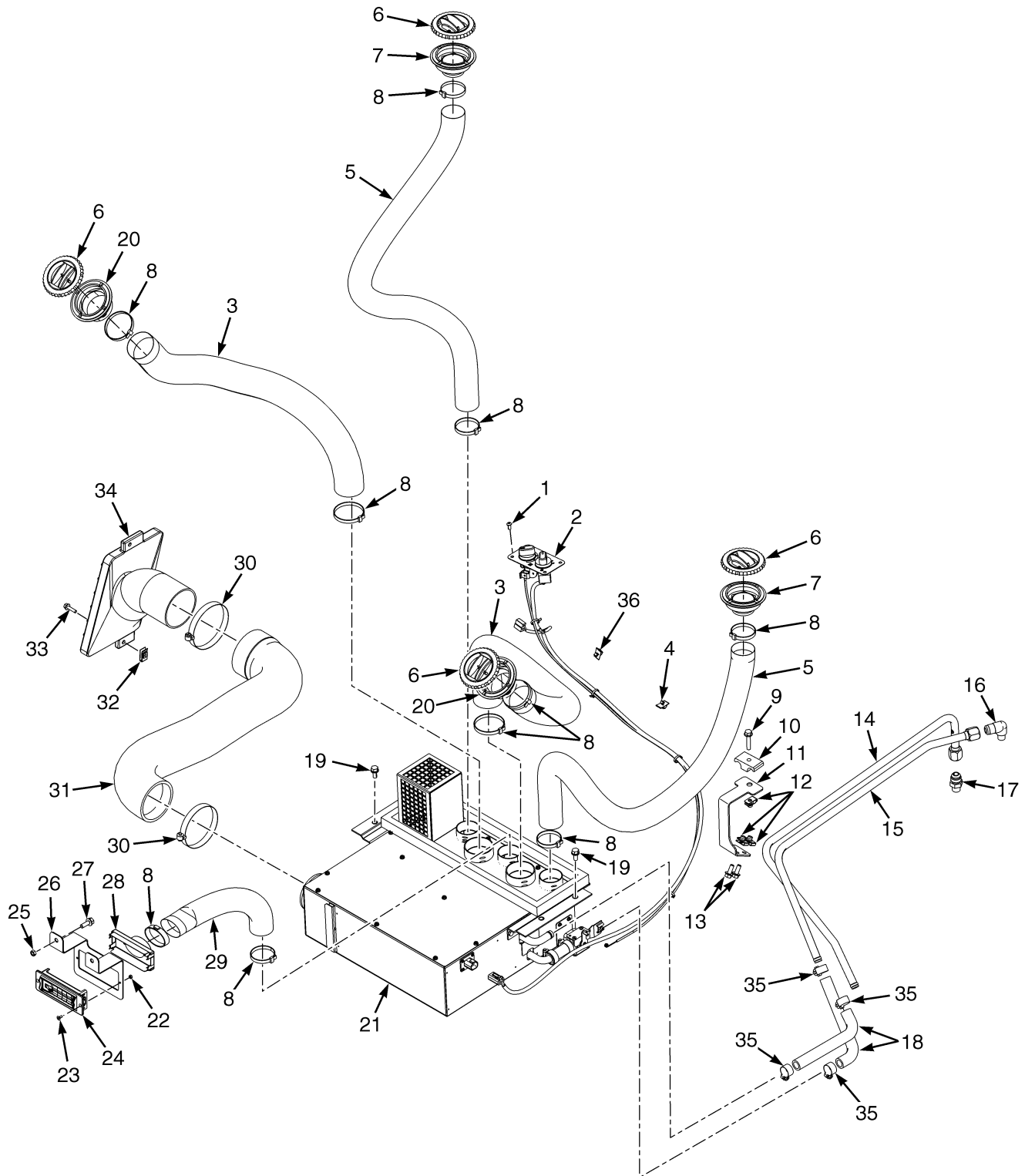


BP121022

CAB
HEATER AND HOSES – GM 5.7L LPG

ITEM	PART NO.	DESCRIPTION	QTY
1	353144	Capscrew	4
2	1677808	Heater Control (☞ Figure 1-21).....	1
3	1640513		
	4073373	Hose (Front)	2
4	1562088	Clip	2
5	1640778	Hose (Rear)	2
6	1636241	Louver	4
7	1636242	Adapter	2
8	397676	Strap Clamp	10
9	1676074	Screw	16
10	366000	Fitting	2
11	130845	Clamp	8
12	1543842	Clamp	1
13	1569465	Clamp (Swivel)	4
14	2070783	Hose	1
15	2092866	Hose	1
16	1644398	Clamp (Swivel)	2
17	1543842	Clamp	2
18	1608654	Capscrew	4
19	1644840	Vent	1
20	1636243	Adapter	2
21	1629280	Heater (12V) (☞ Figure 1-19).....	1
22	292667	Nut	2
23	296452	Screw	2
24	1636244	Vent	1
25	1531557	Insert	2
26	1640770	Bracket	1
27	1583611	Capscrew	2
28	1641103	Adapter (Rectangular)	1
29	1636510		
	4073374	Hose	1
30	78286	Clamp	2
31	4616500	Hose	1
32	325182	Nut	2
33	1527878	Capscrew	2

CAB (FIGURE 1-18) HEATER AND HOSES — CUMMINS QSB 3.3L DIESEL



HP121217

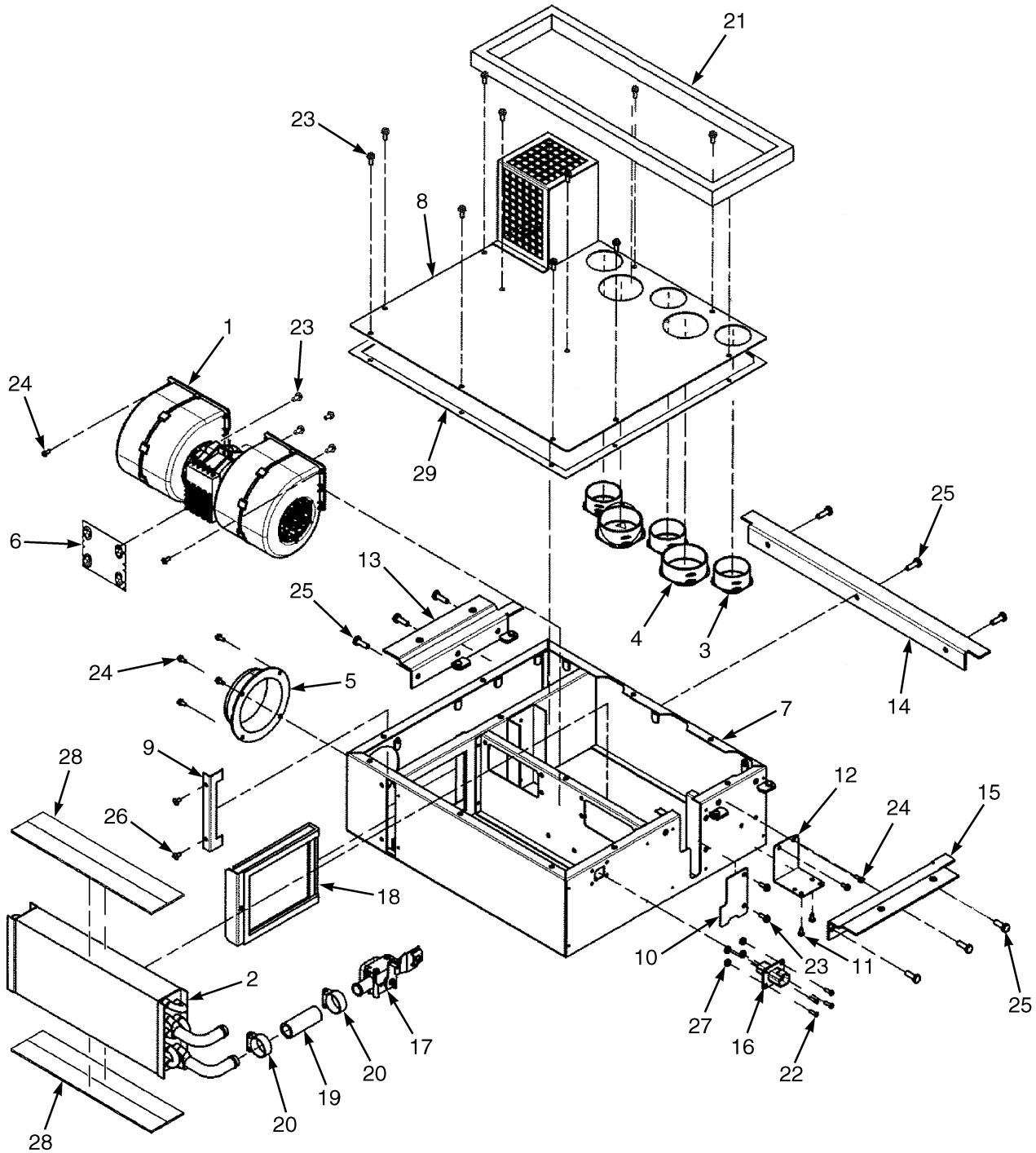
CAB
HEATER AND HOSES – CUMMINS QSB 3.3L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
1	353144	Capscrew	4
2	1677808	Heater Control (☞ Figure 1-21).....	1
3	1640513		
	4073373	Hose	2
4	1562088	Clip	2
5	1640778	Hose	2
6	1636241	Louver	4
7	1636242	Adapter	2
8	397676	Strap Clamp	10
9	1510114	Capscrew	1
10	1605479	Hose Clamp (Dual Hose)	1
11	1678514	Bracket	1
12	1480237	Nut	3
13	1527880	Capscrew	2
14	2101948	Tube Assy (Heater Out)	1
15	2101947	Tube Assy (Heater In)	1
16	17536	Fitting	1
17	16396	Fitting	1
18	2101971	Hose	2
19	1608654	Capscrew	4
20	1636243	Adapter	2
21	1629280	Heater (12V) (☞ Figure 1-19).....	1
22	292667	Nut	2
23	296452	Screw	2
24	1636244	Vent	1
25	1531557	Insert	2
26	1640770	Bracket	1
27	1583611	Capscrew	2
28	1641103	Adapter (Rectangular)	1
29	1636510		
	4073374	Hose	1
30	78286	Clamp	2
31	4616500	Hose	1
32	325182	Nut	2
33	1527878	Capscrew	2
34	1644840	Vent	1
35	130845	Clamp	4
	a 1676074	Screw	16
	a 1543842	Clamp	2
	a 1644398	Clamp (Swivel)	2

FOOTNOTES:

a Not Illustrated

CAB (FIGURE 1-19) HEATER — WITHOUT AIR CONDITIONING

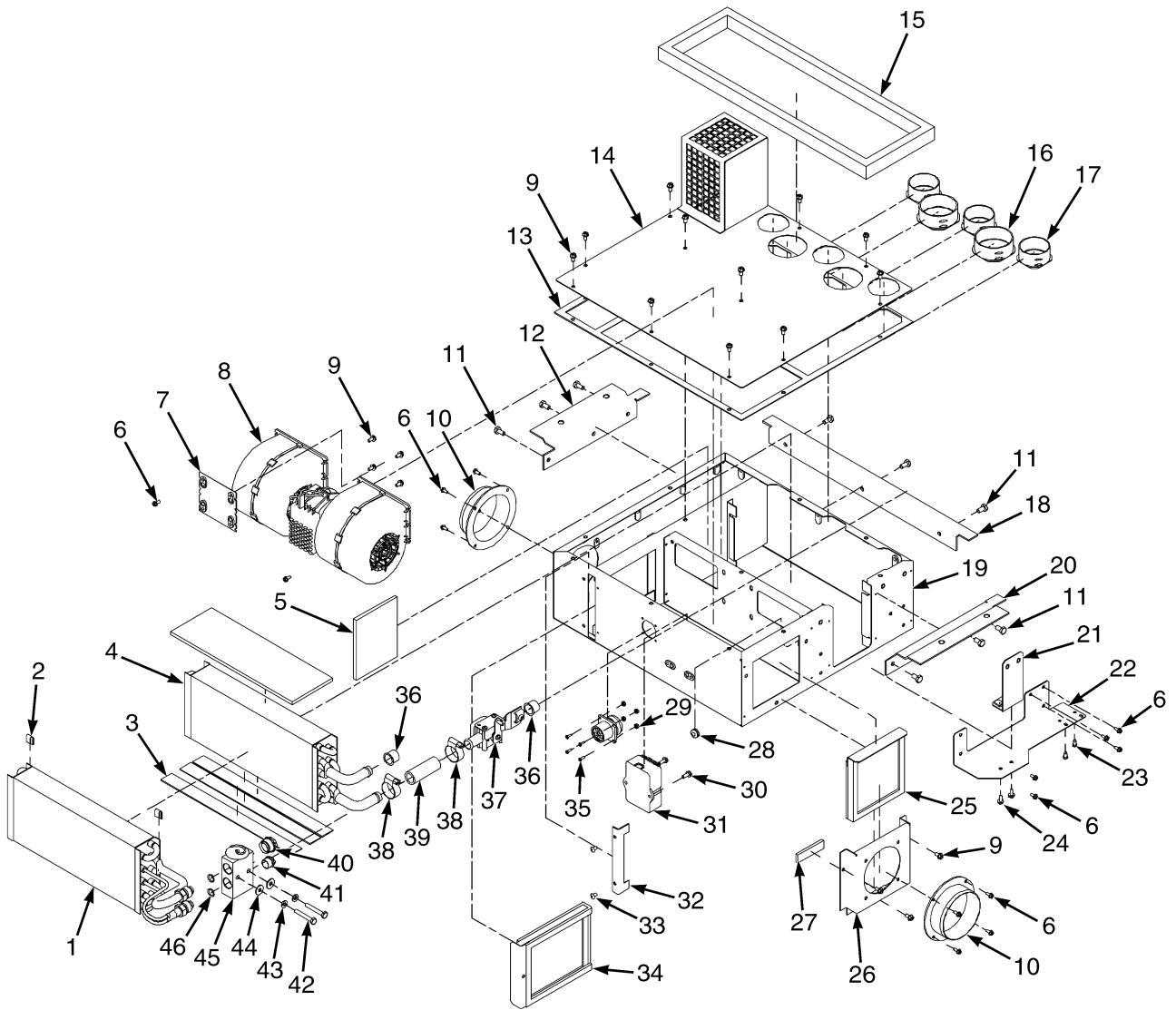


BP121239

CAB
HEATER – WITHOUT AIR CONDITIONING

ITEM	PART NO.	DESCRIPTION	QTY
	1629280	Heater	1
1	1661971	Heater (Blower)	1
2	1661972	Heater (Coil)	1
3	1661973	Adapter (2.0 inch)	3
4	1661974	Adapter (2.5 inch)	2
5	1661975	Adapter (3.5 inch)	1
6	4007013	Plate (Blower)	1
7	4093926	Enclosure	1
8	4093927	Cover	1
9	4093928	Bracket	1
10	4093929	Cover	1
11	1661991	Screw (Plastic)	2
12	4093930	Bracket	1
13	4093931	Flange	1
14	4093932	Flange	1
15	4093933	Flange	1
16	1661986	Wire Harness	1
17	1661987	Valve	1
18	1661988	Filter	1
19	1487954		
	4057160	Hose-Bulk (M)	1
20	1661989	Clamp	2
21	1661990	Gasket	1
22	4007016	Screw	4
23	4007014	Screw	17
24	1662008	Screw	8
25	4007015	Screw	9
26	187727	Rivet	2
27	15049	Nut	4
28	4007017	Foam	4
29	4007018	Seal	1

CAB (FIGURE 1-20) HEATER — WITH AIR CONDITIONING



BP120998

CAB
HEATER – WITH AIR CONDITIONING

ITEM	PART NO.	DESCRIPTION	QTY
	c 4047709	Heater (Assembly)	1
	b 4064032	Heater (Assembly)	1
1	4055641	Coil (Evaporator)	1
2	4055654	Clip	2
3	4055661	Seal	3
4	1661972	Heater (Coil)	1
5	.....	Seal	1
6	1662008	Screw	15
7	4007013	Plate (Blower)	1
8	1661971	Heater (Blower)	1
9	4007014	Screw	18
10	1661975	Adapter (3.5")	2
11	4007015	Screw	9
12	4055643	Bracket (Right)	1
13	4007018	Seal	1
14	c 1661978	Cover	1
14	b 4093927	Cover	1
15	1661990	Gasket	1
16	1661974	Adapter (2.5")	2
17	1661973	Adapter (2")	3
18	c 1661984	Flange	1
18	b 4093932	Flange	1
19	4055642	Case	1
20	4055644	Bracket (Left)	1
21	4055646	Bracket	1
22	4055645	Bracket	1
23	1661991	Screw	2
24	.....	Capscrew	2
25	4055649	Air Filter	1
26	.....	Filter Box	1
27	.....	Seal	1
28	4055650	Grommet	1
29	.....	Locknut	4
30	1662007	Screw	2
31	c 4055656	Thermostat	1
31	b 4066319	Thermostat	1
32	c 1661979	Bracket	1
32	b 4093928	Bracket	1
33	187727	Rivet	2
34	1661988	Filter	1
35	.....	Screw	4
36	.....	Screw	2
37	1661987	Valve	1
38	1661989	Clamp	2
39	1487954		
	4057160	Hose-Bulk (M)	1
40	.....	Cap	1
41	.....	Cap	1
42	.....	Bolt	2
43	4055655	Lockwasher	2

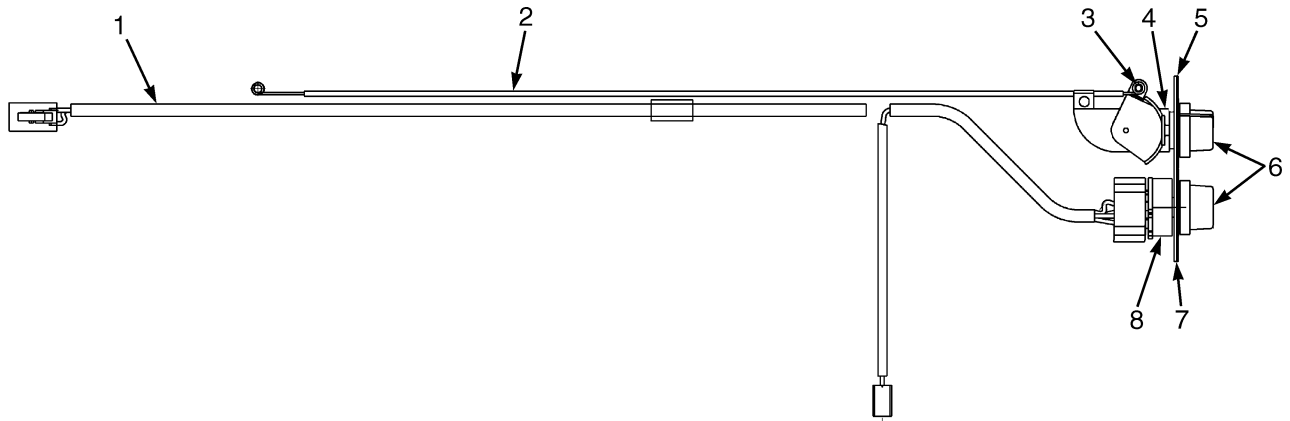
CAB HEATER – WITH AIR CONDITIONING

ITEM	PART NO.	DESCRIPTION	QTY
44	.....	Washer	2
45	1487945	Valve (Block)	1
46	1487122	O-Ring	2
	a 4055648	Wire Harness	1
	a 4044154	Tube (PVC)	2
	a 4044153	Clamp (Tube)	4
	a 4003094		
	4054237	Drain Valve	2
	a 4003095	Connector	2

FOOTNOTES:

- a** Not Illustrated
- b** With Mechanical Thermostat
- c** Without Mechanical Thermostat

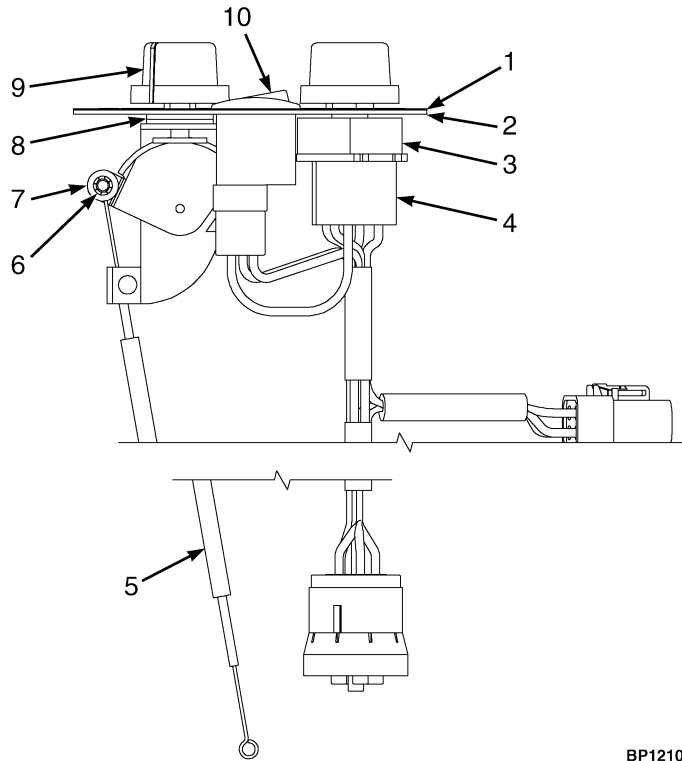
**CAB (FIGURE 1-21)
HEATER CONTROL — WITHOUT AIR CONDITIONING**



BP120564

ITEM	PART NO.	DESCRIPTION	QTY
	1677808	Heater Control	1
1	1690067	Wire Harness (Heater Control)	1
2	1690068	Push-Pull Cable	1
3	1487959	Switch (180 deg)	1
4	1690070	Shim	2
5	1690069	Label	1
6	1487957	Knob	2
7	1690066	Mounting Plate	1
8	1487956	Switch , Blower (with Nut)	1

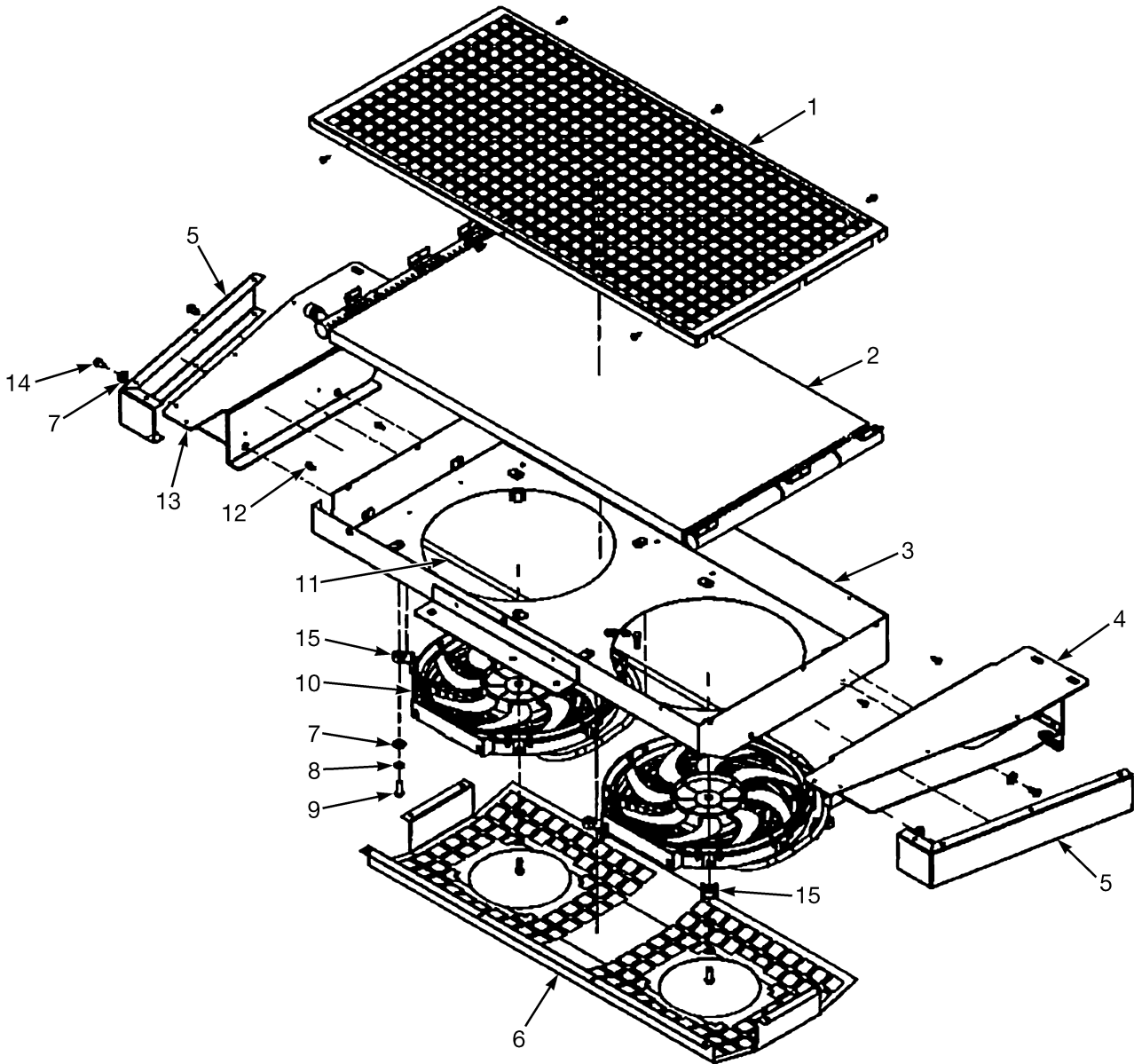
CAB (FIGURE 1-22) HEATER CONTROL — WITH AIR CONDITIONING



BP121046

ITEM	PART NO.	DESCRIPTION	QTY
	4047710	Heater Control	1
1	4055639	Plate (Control Panel)	1
2	4055636	Plate (Control)	1
3	1487956	Switch , Blower (with Nut)	1
4	4055638	Wire Harness	1
5	1690068	Push-Pull Cable	1
6	.....	Nut	1
7	1487959	Switch (180 deg)	1
8	1690070	Shim	2
9	1487957	Knob	2
10	.....	Rocker Switch	1

CONDENSER ASSEMBLY (FIGURE 1-23)



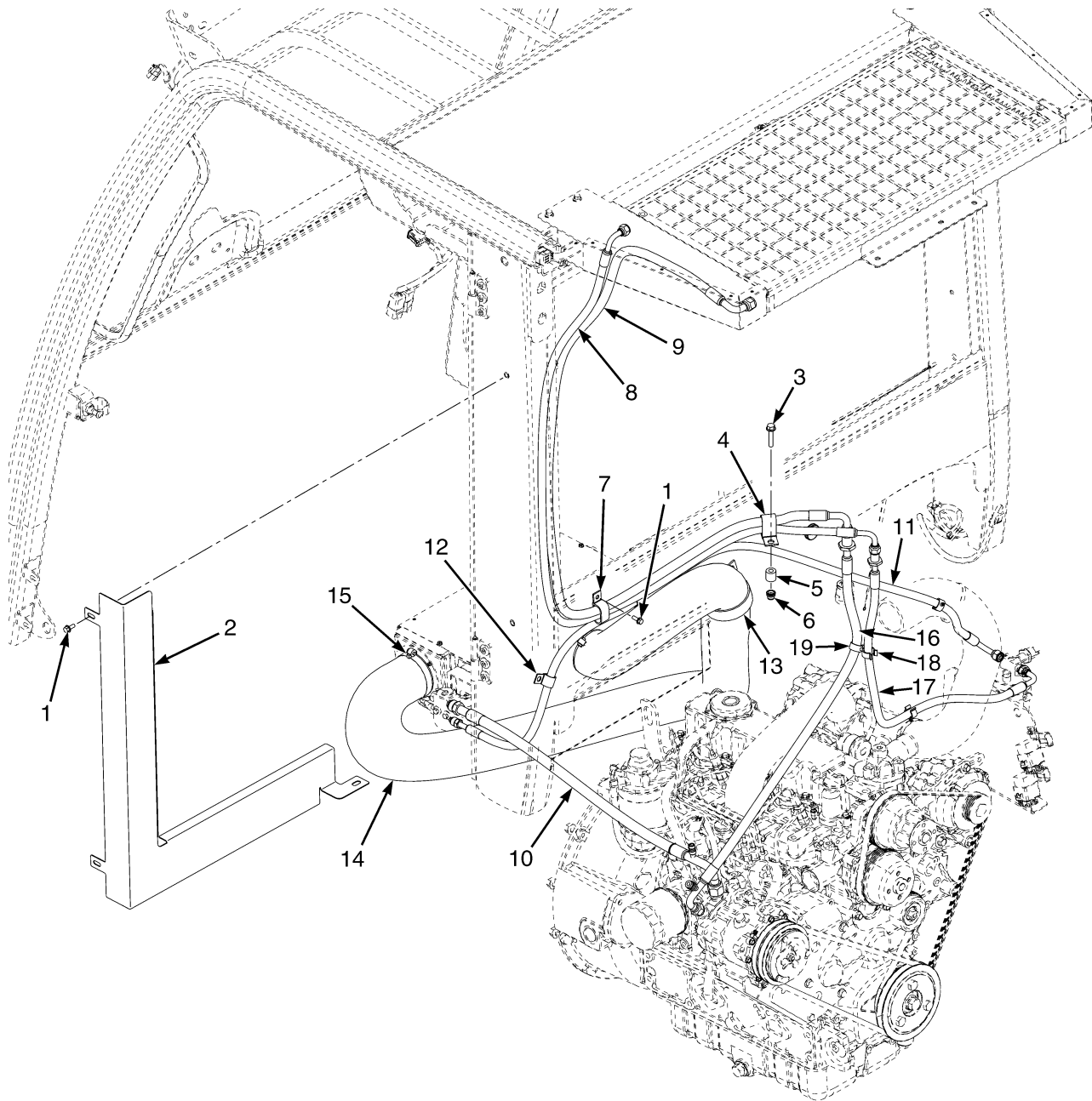
BP200184

CONDENSER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	4044155	Condenser Assembly	1
1	4050750	Cover	1
2	4003079	Condenser (Coil)	1
3	.....	Housing	1
4	.....	Bracket (RH)	1
5	4002494	End Cover	2
6	4002495	Cover	1
7	.....	Washer	12
8	.....	Lockwasher	8
9	.....	Bolt	8
10	4050754	Fan	2
11	.....	Wire Harness	1
12	.....	Screw	23
13	.....	Bracket (LH)	1
14	.....	Bolt	4
15	4050752	Fan Mount	8
	a 4007210	Wire Harness (Work Light)	1
	a 4007211	Wire Harness (Strobe)	1

FOOTNOTES:**a** Not Illustrated

CAB (FIGURE 1-24) AIR CONDITIONING SYSTEM — SHEET 1 OF 2



BP200157

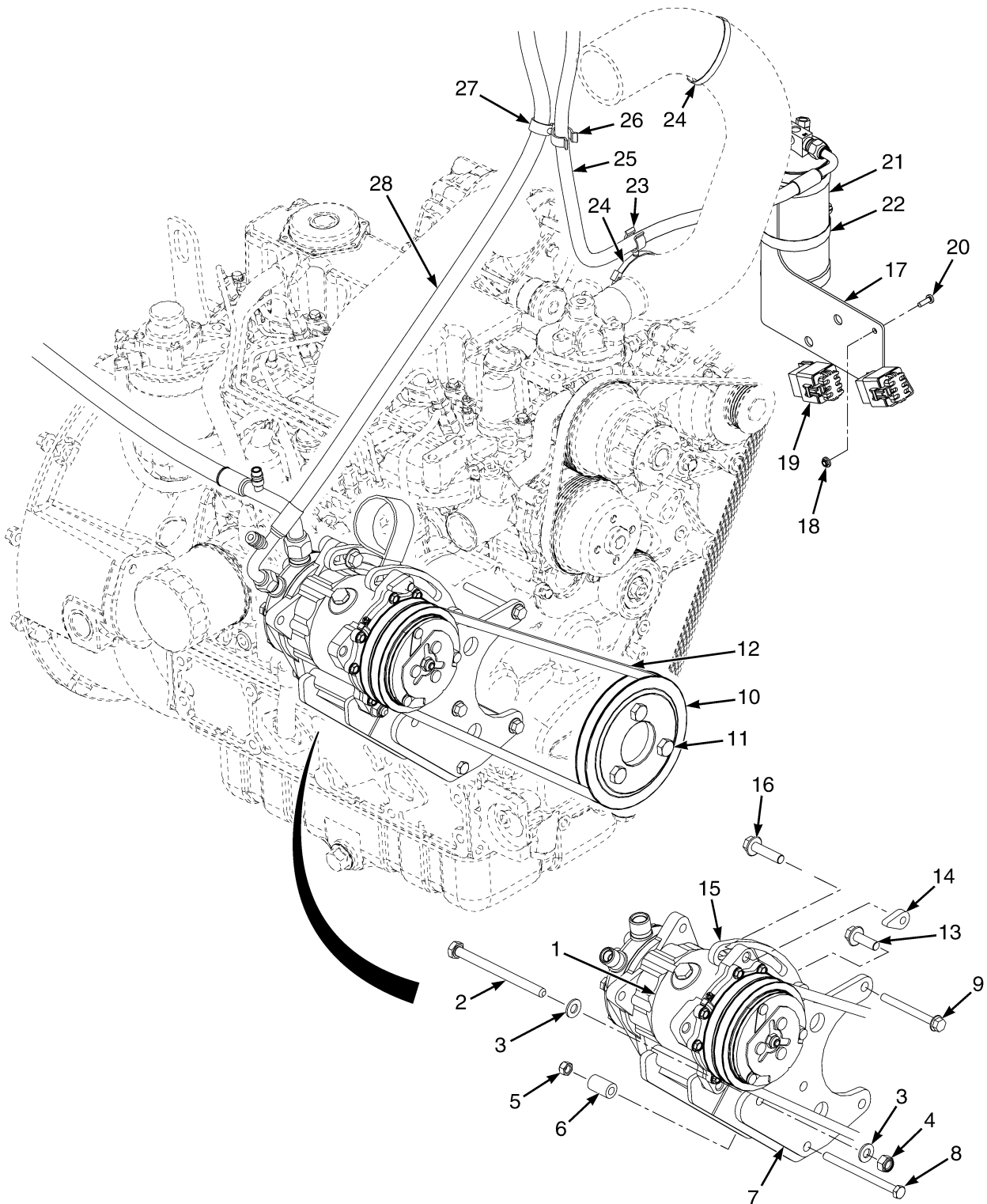
CAB
AIR CONDITIONING SYSTEM – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	1527876	Capscrew	3
2	4047738	Guard (Hose)	1
3	1510116	Capscrew	1
4	1326653	Clamp	1
5	1360538	Tube Assy	1
6	1531557	Insert	1
7	110322	Clamp	1
8	4620472	Hose Assy (Condenser/Compressor)	1
9	4620471	Hose Assy (Condenser/Compressor)	1
10	4620473	Hose Assy (Heater/Compressor)	1
11	4620476	Hose Assy (Heater/Air Conditioner Drier Assembly)	1
12	128408	Clamp	2
13	1502061	Clamp	4
14	4047716	Hose	1
15	78286	Clamp	2
16	4620474	Hose Assy (Compressor/Condenser) (☞ Figure 1-25).....	1
17	4620475	Hose Assy (Compressor/Condenser) (☞ Figure 1-25).....	1
18	4046966	Bracket	1
19	1543842	Clamp	1
	a 1701099	Grommet	1

FOOTNOTES:

a Not Illustrated

CAB (FIGURE 1-25) AIR CONDITIONING SYSTEM — SHEET 2 OF 2



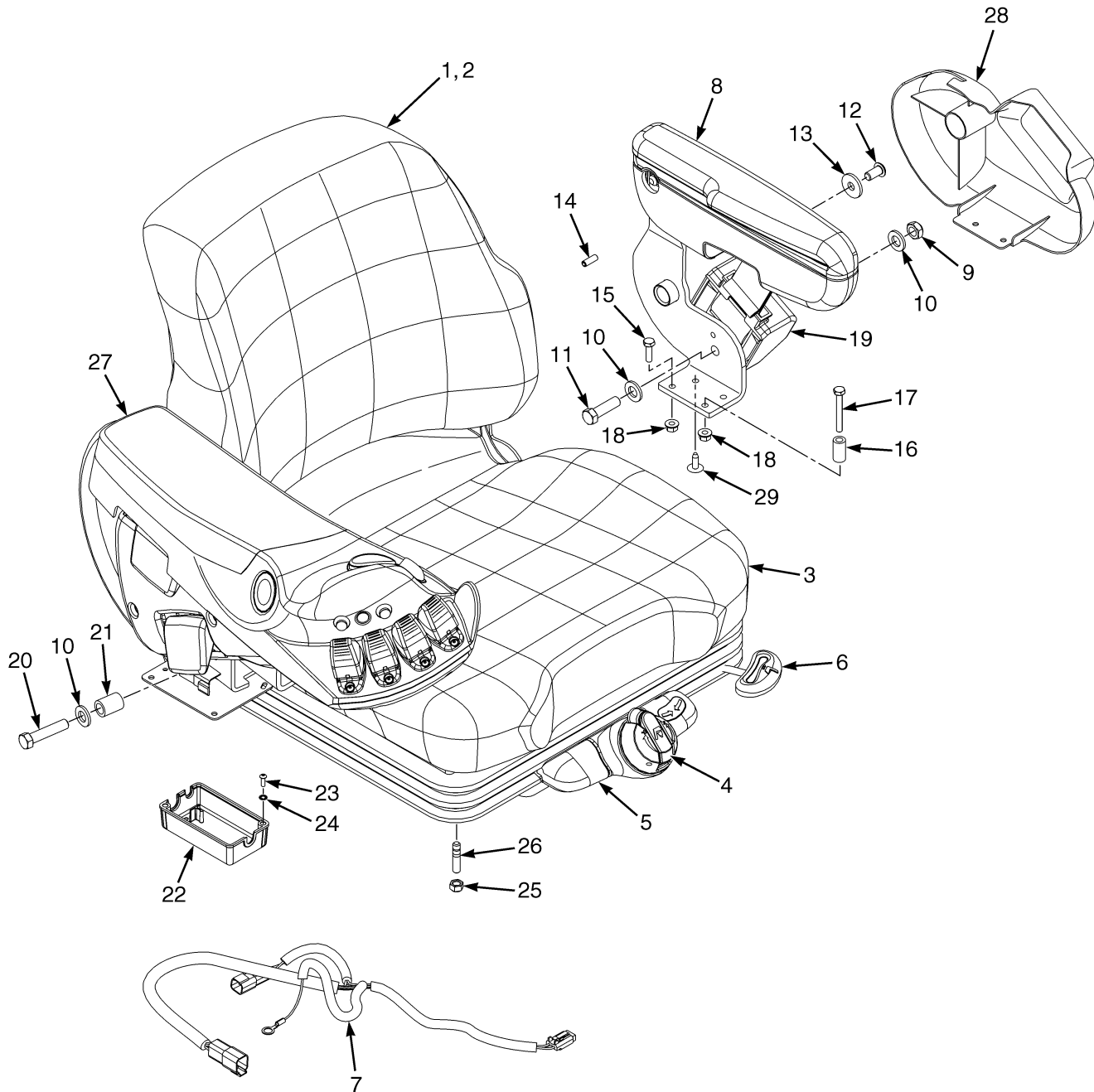
BP200169

CAB
AIR CONDITIONING SYSTEM – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	4047719	Compressor (Refrigerant)	1
2	1390281	Capscrew	1
3	320159	Washer	2
4	302401	Locknut	1
5	302400	Nut	1
6	1554815	Spacer	1
7	4047718	Bracket (Compressor)	1
8	1307994	Capscrew	1
9	1550767	Capscrew	3
10	4047720	Pulley	1
11	4034828	Capscrew	3
12	2098997	V-Belt	1
13	1527883	Capscrew	1
14	4047722	Nut	1
15	4047721	Plate	1
16	1512403	Capscrew	1
17	4062680	Plate	1
18	1586428	Nut	2
19	4620482	Wire Harness (A/C)	1
20	296509	Screw	2
21	4047708	Air Conditioner (Drier Assembly)	1
21	1486637	Pressure Switch	1
21	1475025	Air Dryer	1
22	115696	Hose Clamp	2
23	1502059	Clamp (Swivel)	2
24	1502061	Clamp	3
25	4620475	Hose Assy (Compressor/Condenser)	1
26	1502066	Clamp (Swivel)	1
27	1502053	Clamp (Swivel)	1
28	4620474	Hose Assy (Compressor/Condenser)	1
	a 4047723	Plate	1
	a 4618181	Label (AC Decal)	1

FOOTNOTES:**a** Not Illustrated

FULL SUSPENSION SEAT (FIGURE 1-26) ELECTRO-HYDRAULIC — SHEET 1 OF 2



BP120704

**FULL SUSPENSION SEAT
ELECTRO-HYDRAULIC – SHEET 1 OF 2**

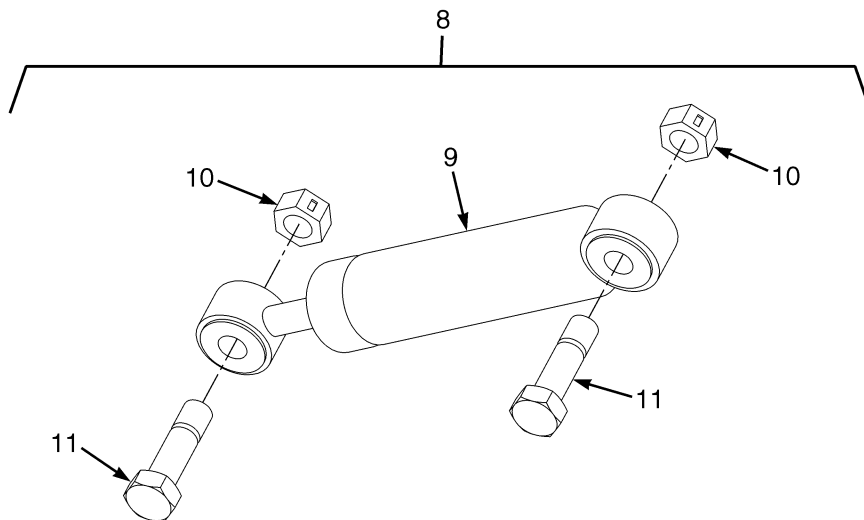
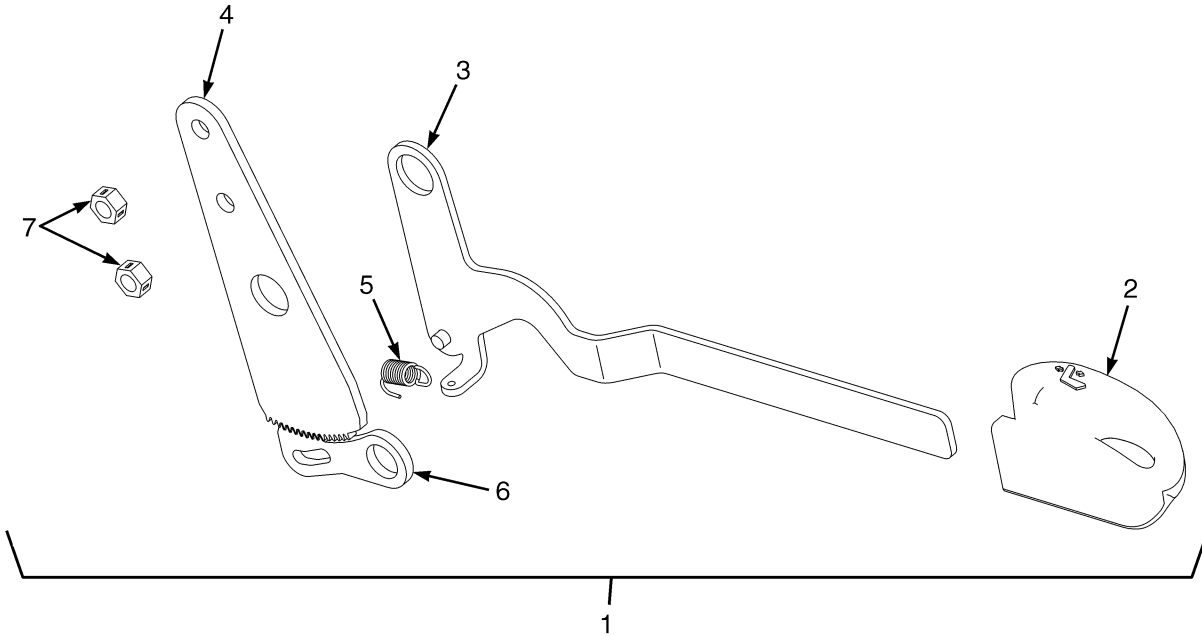
ITEM	PART NO.	DESCRIPTION	QTY
	4603382	Seat-Full Suspension (Vinyl) (Non-Swivel)	1
	4603383	Seat-Full Suspension (Cloth) (Non-Swivel)	1
	4603384	Seat-Full Suspension (Vinyl) (Swivel)	1
	4603385	Seat-Full Suspension (Cloth) (Swivel)	1
1	1703900	Kit-Cushion (Seat and Back, Cloth)	1
1	1703903	Kit-Cushion (Seat and Back, Vinyl)	1
2	1703901	Kit-Cushion (Back Cushion, Vinyl)	1
2	1703898	Kit-Cushion (Back Cushion, Cloth)	1
2	.....	Back Cushion	1
2	.....	Screw	2
3	1703902	Kit-Seat Cushion (Vinyl)	1
3	1703899	Kit-Seat Cushion (Cloth)	1
3	.....	Seat Cushion	1
3	.....	Spring	2
3	.....	Cotter Pin	2
4	1703892	Kit-Weight Adjuster	1
5	1703893	Kit-Service (Front Panel) (Non Swivel)	1
5	1703894	Kit-Service (Front Panel) (With Swivel)	1
6	4043082	Kit-Seat Rail	1
6	.....	Locking Rail	1
6	.....	Slave Rail	1
6	.....	Bolt	4
6	.....	Nut	4
7	4013095	Wire Harness	1
7	1563208	Sensor (Operator Presence)	1
8	2099947	Armrest (Left-Hand Side)	1
9	221353	Locknut	2
10	1581852	Washer	3
11	221536	Capscrew	1
12	18735	Screw	1
13	1512536	Washer	1
14	19901	Roll Pin	1
15	18462	Capscrew	1
16	4007318	Spacer	1
17	18471	Capscrew	1
18	169874	Nut	2
19	1598504	Kit-Seat Belt (Black)	1
19	1636120	Kit-Red Seat Belt High Visibility without Interlock	1
19	4053079	Seat Belt (High Visibility with Interlock)	1
20	221542	Capscrew	1
21	1694700	Spacer	1
22	2107969	Cover (Seat-Side Electrical)	1
23	1694830	Capscrew	2
24	296357	Washer	2
25	313828	Nut	4
26	1677286	Stud (Front M8x30)	2
26	4125619	Stud (Rear M8x20)	2
27	.....	Armrest (☞ Figure 1-32).....	1
28	.....	Cover	1
29	1379945	Fastener	2

**FULL SUSPENSION SEAT
ELECTRO-HYDRAULIC – SHEET 1 OF 2**

ITEM	PART NO.	DESCRIPTION	QTY
	a 1470155	Information Case (Kit)	1
	a 4601499	Wire Harness (Seat Jumper)	1
	a 4027341	Bracket (Angle Controller)	1
	1703895	Kit-Service Internal Tether-80 MM Travel	1
	1703896	Kit-Service Internal Tether-56 MM Travel	1
	1703897	Kit-Service Internal Tether-40 MM Travel	1

FOOTNOTES:**a** Not Illustrated

FULL SUSPENSION SEAT (FIGURE 1-27) RECLINER AND DAMPER KITS — SHEET 2 OF 3

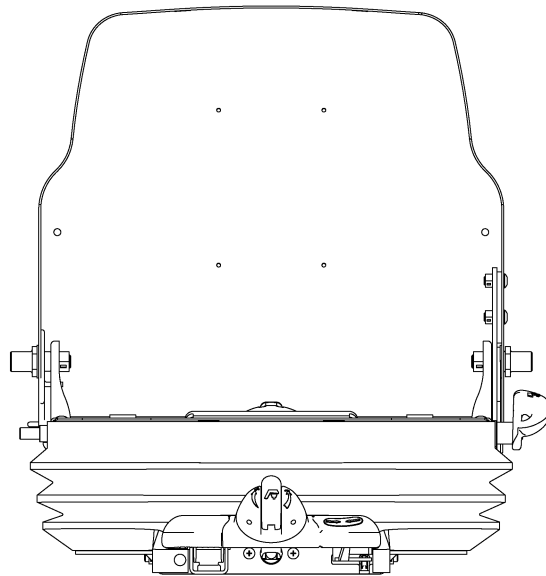
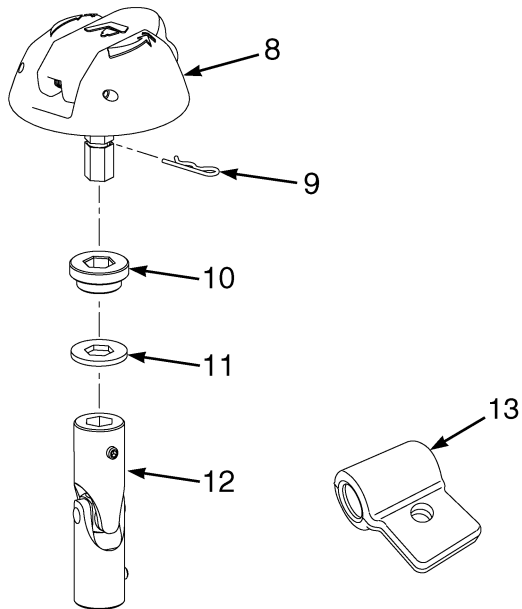
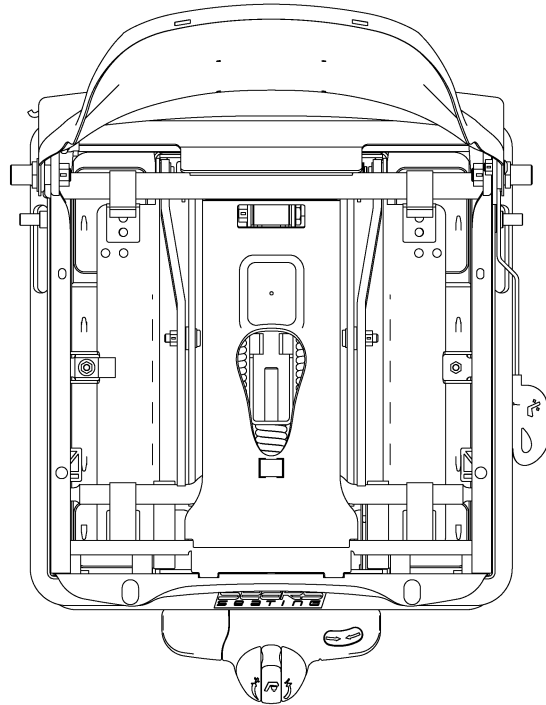
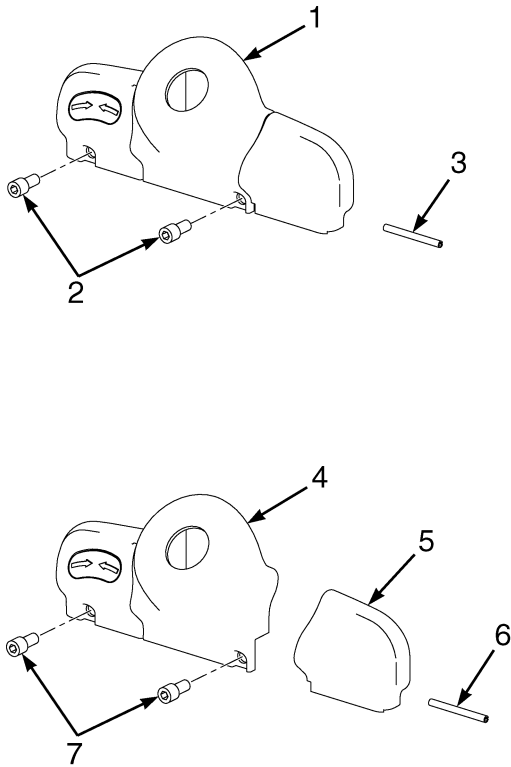


BP120646

**FULL SUSPENSION SEAT
RECLINER AND DAMPER KITS – SHEET 2 OF 3**

ITEM	PART NO.	DESCRIPTION	QTY
1	1703891	Kit-Recliner (Back Seat Adjustment)	1
2	.....	Knob	1
3	.....	Lever	1
4	1482905	Plate	1
5	.....	Spring	1
6	1482906	Latch	1
7	1367150	Nut	2
8	1703890	Kit-Damper Service	1
9	1584632	Damper	1
10	1367150	Nut	2
11	1584638	Bolt	2

FULL SUSPENSION SEAT (FIGURE 1-28) SERVICE KITS FOR NON SWIVEL AND SWIVEL — SHEET 3 OF 3

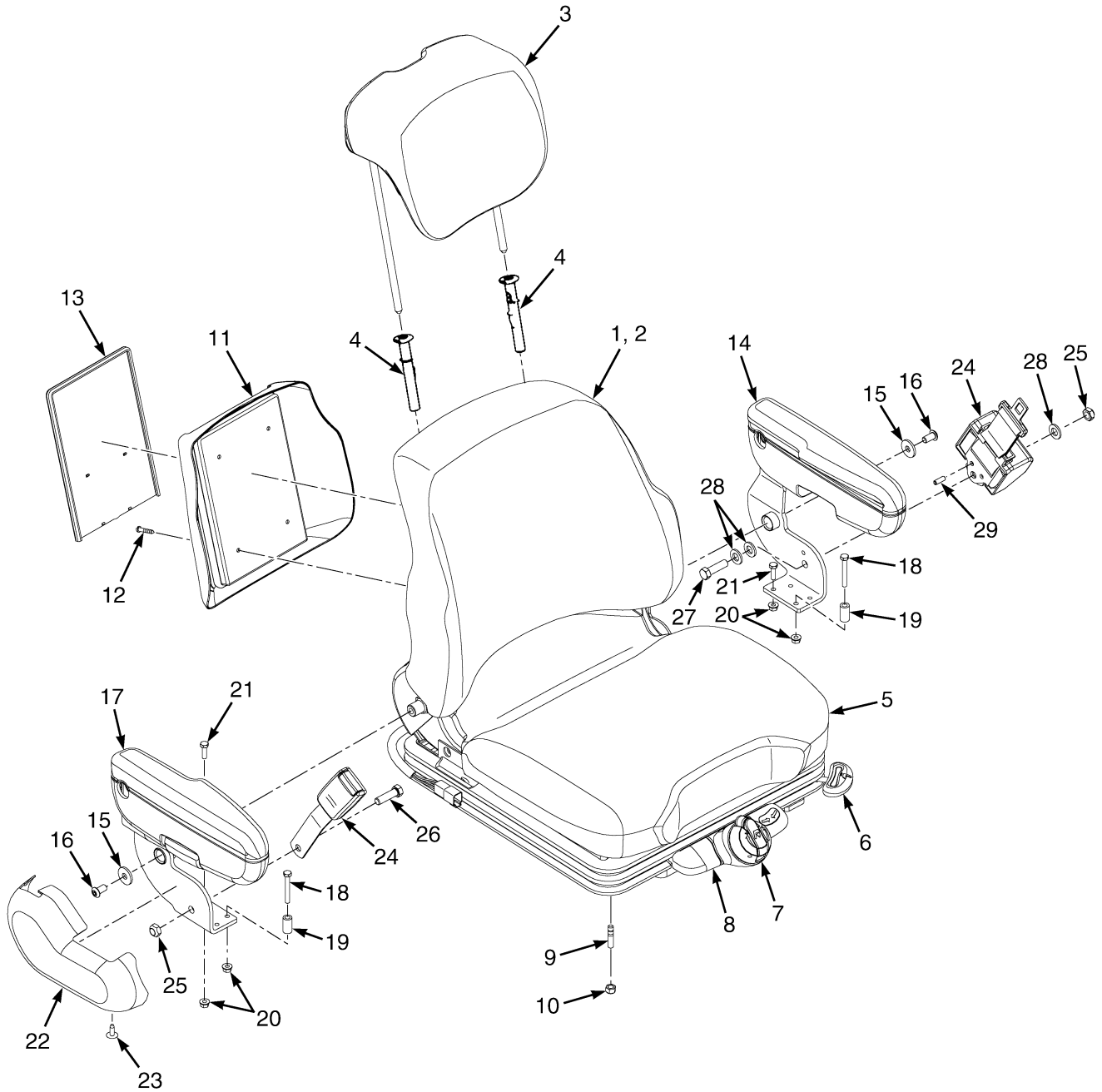


BP121221

**FULL SUSPENSION SEAT
SERVICE KITS FOR NON SWIVEL AND SWIVEL – SHEET 3 OF 3**

ITEM	PART NO.	DESCRIPTION	QTY
	4036586	Kit -Seat Suspension without Swivel	1
	4036587	Kit -Seat Suspension with Swivel	1
1	1703893	Kit-Service (Front Panel) (Non Swivel)	1
1	.....	Front Panel	1
2	.....	Capscrew	2
3	.....	Roll Pin	1
4	1703894	Kit-Service (Front Panel) (With Swivel)	1
4	.....	Front Panel	1
5	.....	Swivel Knob	1
6	.....	Roll Pin	1
7	.....	Capscrew	2
8	1703892	Kit-Weight Adjuster	1
8	.....	Knob	1
9	.....	Cotter Pin	1
10	.....	Bushing	1
11	.....	Washer	1
12	.....	U-Joint	1
13	4046492	Lever Spring Pull	2

SEAT (FIGURE 1-29) FULL SUSPENSION, HIGH BACK WITH LUMBAR ADJUSTMENT — SHEET 1 OF 2



BP120939

SEAT
FULL SUSPENSION, HIGH BACK WITH LUMBAR ADJUSTMENT – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	4614480	Seat-Full Suspension (Vinyl)	1
	4614481	Seat-Full Suspension (Cloth)	1
1	4016924	Kit-Cushion (Seat Back, Vinyl)	1
1	4016928	Kit-Cushion (Seat Back, Cloth)	1
2	.....	Back Cushion	1
2	1584643	Screw	2
3	4016926	Cushion (Head Rest Vinyl)	1
3	4016930	Cushion (Head Rest Cloth)	1
4	1615149	Guide Assembly (Tubes)	2
5	1703903	Kit-Cushion (Seat and Back, Vinyl)	1
5	1703900	Kit-Cushion (Seat and Back, Cloth)	1
5	1703902	Kit-Seat Cushion (Vinyl)	1
5	1703899	Kit-Seat Cushion (Cloth)	1
5	.....	Seat Cushion	1
5	1637285	Spring	2
5	1513089	Cotter Pin (Hair)	2
6	4043082	Kit-Seat Rail	1
6	.....	Locking Rail	1
6	.....	Slave Rail	1
6	.....	Bolt	4
6	1367150	Nut	4
7	1703892	Kit-Weight Adjuster	1
7	.....	Knob	1
7	.....	Bushing	1
7	.....	Washer	1
7	.....	Pin	1
7	.....	U-Joint	1
8	1703893	Kit-Service (Front Panel) (Non Swivel)	1
8	.....	Front Panel	1
8	.....	Socket Head Capscrew	2
8	.....	Roll Pin	1
9	1677286	Stud (Front M8x30)	2
9	4125619	Stud (Rear M8x20)	2
10	313828	Nut	4
11	1482925	Plate (Book Box)	1
12	1482949	Screw	4
13	1453887	Holder	1
14	2099947	Armrest (Left-Hand Side)	1
14	1563230	Cushion (LH Armrest)	1
15	1512536	Washer	2
16	18735	Screw	2
17	2099949	Armrest (Right-Hand Side)	1
17	1563231	Cushion (RH Armrest)	1
18	18471	Capscrew	2
19	4007318	Spacer	2
20	169874	Nut	4
21	18462	Capscrew	2
22	2099950	Seat Cover (Right-Hand Side)	1
23	1379945	Fastener	2
24	1598504	Kit-Seat Belt (Black)	1

SEAT

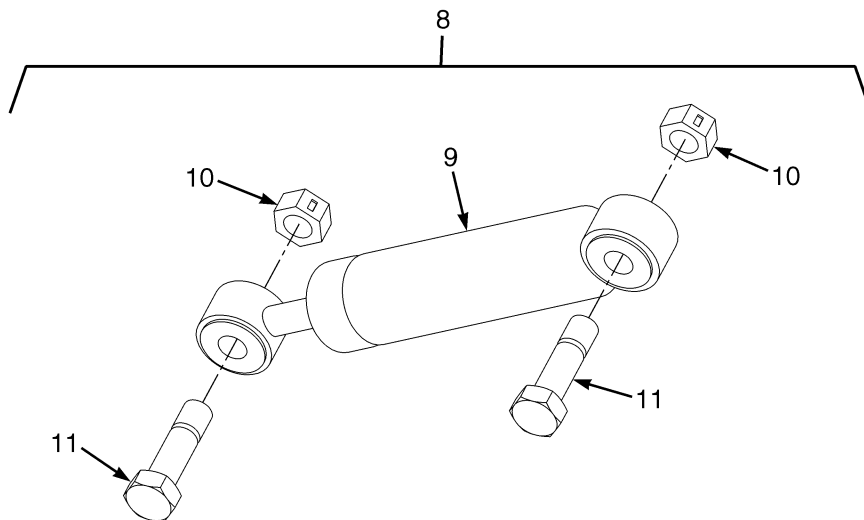
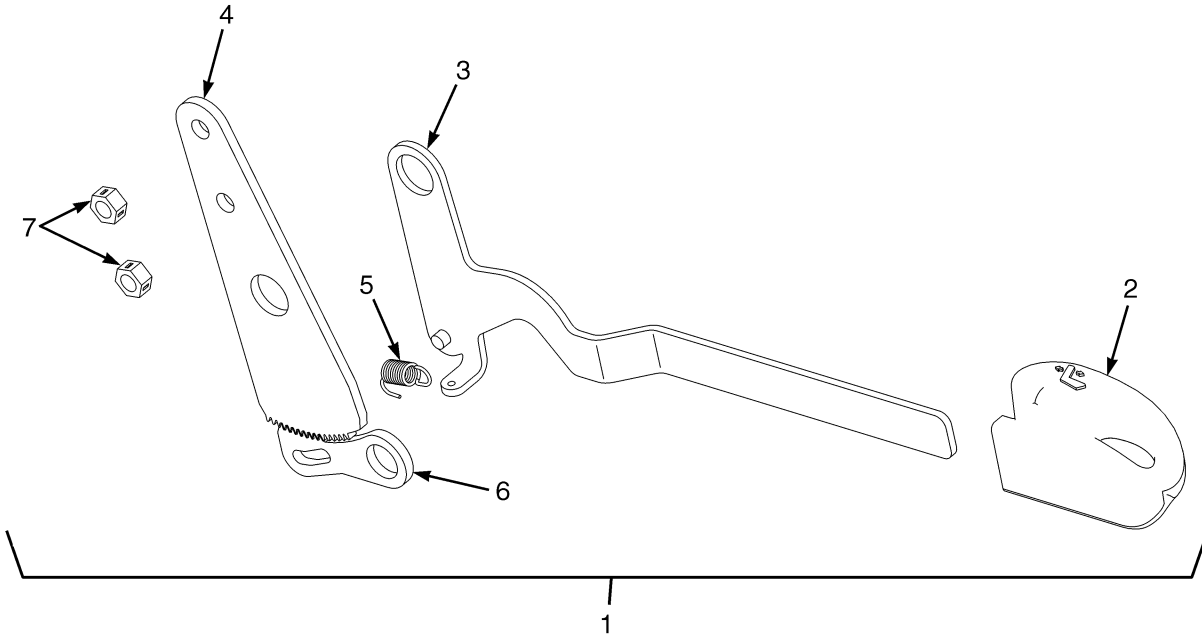
FULL SUSPENSION, HIGH BACK WITH LUMBAR ADJUSTMENT – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
24	1636120	Kit-Red Seat Belt High Visibility without Interlock	1
24	4053079	Seat Belt (High Visibility with Interlock)	1
25	221353	Locknut	2
26	221530	Capscrew	1
27	221536	Capscrew	1
28	1581852	Washer	3
29	19901	Roll Pin	1
	b 4046492	Lever	1
	b 1563208	Sensor (Operator Presence)	1
	b 4027341	Bracket	1
	b 1703895	Kit-Service Internal Tether-80 MM Travel	1
	b 114312	Strap Clamp	1
	b 4013095	Wire Harness	1
	b 4032461	Kit (Mechanical Lumbar)	1
	ab 4032460	Kit Seat Suspension (Non Swivel Seat) (Includes Items 7-8) (☞Figure 1-30).....	1

FOOTNOTES:

- a** Kit includes Tether and Recliner from Sheet 2 of 2. **b** Not Illustrated

SEAT (FIGURE 1-30) FULL SUSPENSION, HIGH BACK WITH LUMBAR ADJUSTMENT — SHEET 2 OF 2

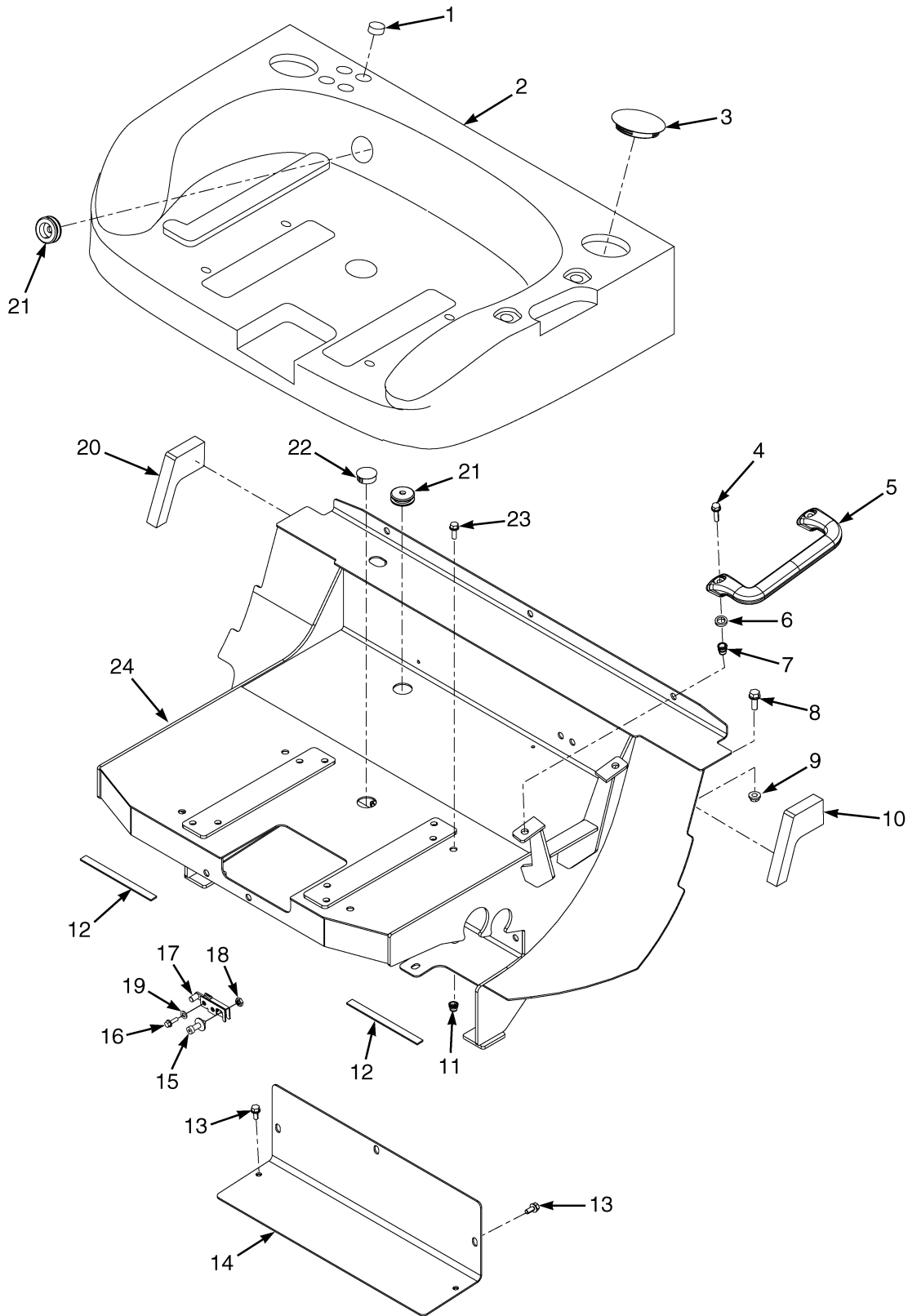


BP120646

SEAT
FULL SUSPENSION, HIGH BACK WITH LUMBAR ADJUSTMENT – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	1703891	Kit-Recliner (Back Seat Adjustment)	1
2	.....	Knob	1
3	.....	Lever	1
4	1482905	Plate	1
5	.....	Spring	1
6	1482906	Latch	1
7	1367150	Nut	2
8	1703890	Kit-Damper Service	1
9	1584632	Damper	1
10	1367150	Nut	2
11	1584638	Bolt	2

SEAT PAN AND COVERS (FIGURE 1-31)



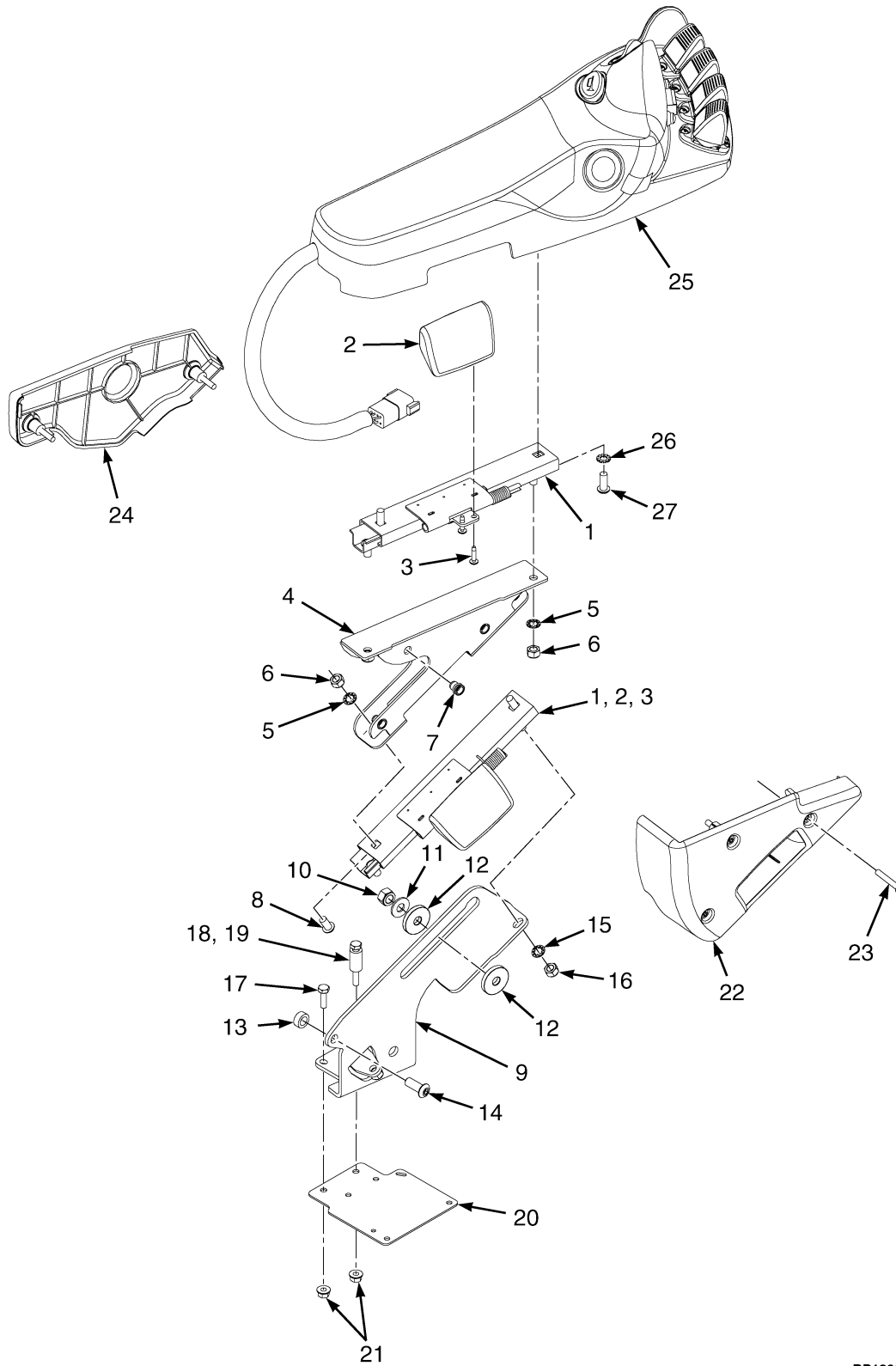
BP120619

SEAT PAN AND COVERS**KEY:****A: With Cab****B: Without Cab**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1660750	Insert	4	..
2	b 1649639	Cover (Seat Surround)	1	..
2	2092189	Cover	1	..
2	2098220	Plug	1	..
2	c 1649640	Cover (Seat Surround) .....	..	1
2	2092188	Cover .....	..	1
2	2098220	Plug .....	..	1
3	2021395	Cap	1	1
4	1586627	Capscrew	2	2
5	1536813	Handle (Grab)	1	1
6	.....	Spacer	2	2
7	1530243	Insert	2	2
8	1605990	Capscrew	4	4
9	1586431	Nut	4	4
10	1615757	Seal (LH)	1	1
11	1531557	Insert	7	7
12	1597959	Seal	2	2
13	1608654	Capscrew	3	5
14	1646593	Cover	1	..
14	1647413	Cover .....	..	1
14	ab 4047715	Cover (With Air Conditioning)	1	..
14	1661975	Adapter	1	..
14	320154	Washer	16	..
14	296149	Capscrew	8	..
14	815597	Nut	8	..
15	1608413	Striker Bolt	1	1
16	199563	Capscrew	2	2
17	1608414	Latch	1	1
18	191534	Nut	1	1
19	15127	Washer	2	2
20	1615758	Seal (RH)	1	1
21	4031944	Grommet	2	2
22	d 1585592	Plug	2	2
22	e 1585592	Plug	1	1
23	1583611	Capscrew	20	20
24	1650191	Seat Pan	1	1

FOOTNOTES:**a** Not Shown**b** With Cab**c** With Overhead Guard**d** With Swivel Seat**e** Without Swivel Seat

ARMREST ASSEMBLY (FIGURE 1-32) MINI-LEVER MODULES

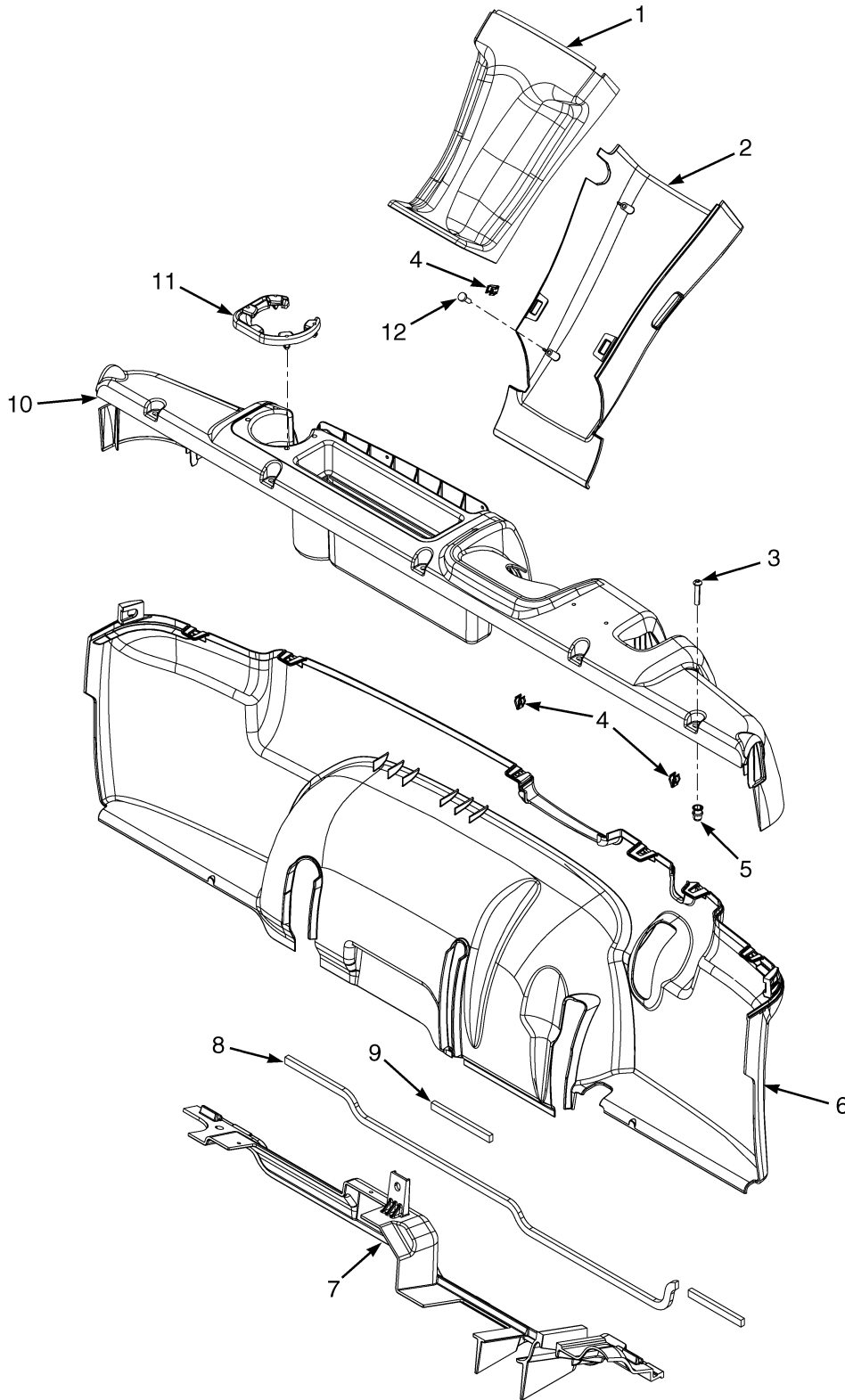


BP120653

**ARMREST ASSEMBLY
MINI-LEVER MODULES**

ITEM	PART NO.	DESCRIPTION	QTY
	4005010	Armrest (Slider for Mini Lever) (Assembly)	1
1	1661511	Armrest (Slider)	2
2	1655865	Handle (Slider)	2
3	227157	Screw	4
4	4007052	Bracket Wldmt	1
5	296360	Washer	4
6	313828	Nut	4
7	1531558	Insert	3
8	296165	Capscrew	2
9	4004775	Bracket	1
10	316826	Nut	1
11	320160	Washer	1
12	1650640	Washer	2
13	4007319	Spacer	1
14	18738	Capscrew	1
15	296360	Washer	2
16	313828	Nut	2
17	18462	Capscrew	1
18	18471	Capscrew	1
19	4007318	Spacer	1
20	4004776	Cover Plate	1
21	169874	Nut	2
22	4603492	Cover (Outer)	1
23	2062875	Capscrew	5
24	4603493	Cover (Inner)	1
25	.....	Mini-Lever Module	1
26	296380	Washer	2
27	296166	Capscrew	2

INTERIOR PANELS AND COVERS (FIGURE 1-33)



BP120386

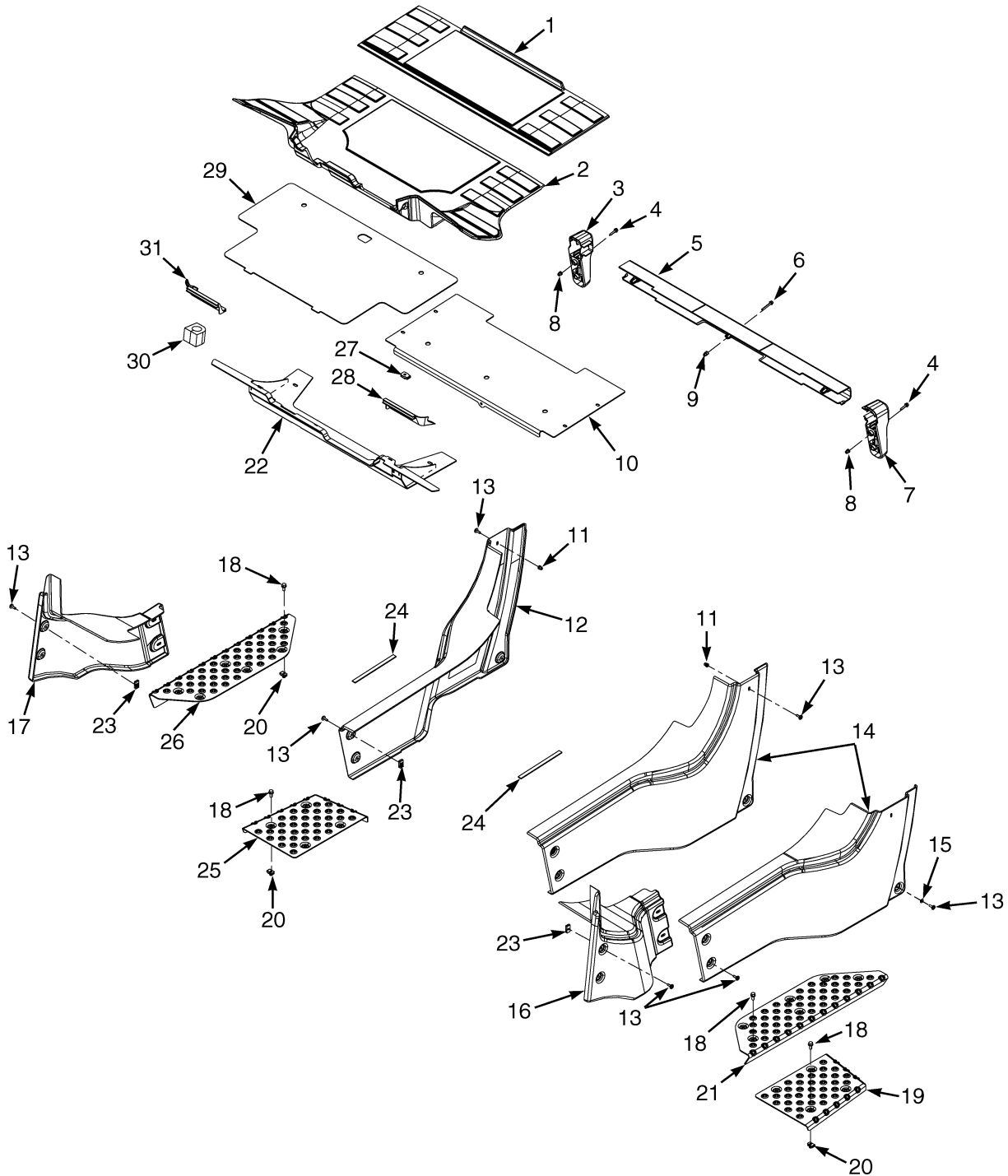
INTERIOR PANELS AND COVERS

ITEM	PART NO.	DESCRIPTION	QTY
1	2098330	Cover (Steering Column Upper)	1
2	2065666	Cover (Steering Column Lower)	1
3	1710007	Capscrew	5
3	a 1710007	Capscrew	4
3	a 1307737	Fastener	1
4	2065667	Clip	8
5	1531001	Insert	5
6	2070726	Panel (Single Pedal)	1
6	2076204	Panel (Dual Pedal)	1
7	1641657	Cover Plate	1
8	1641658	Seal	1
9	1646609	Seal	1
10	1573598	Dash Panel	1
11	2070975	Cup Holder	1
12	2027655	Screw	2

FOOTNOTES:

- a** With Alternate Fastener

FLOORPLATES AND COVERS (FIGURE 1-34)



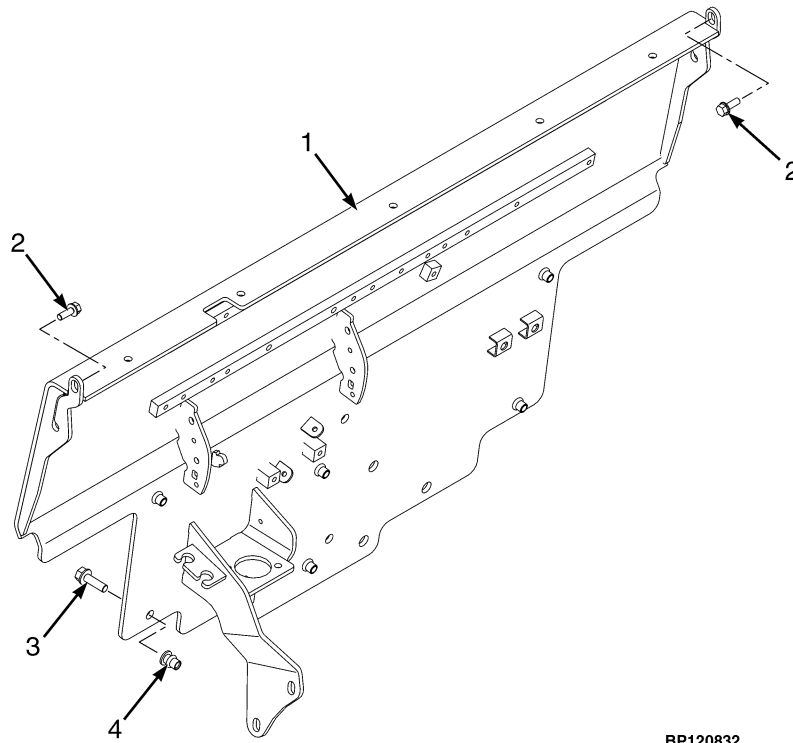
BP120620

FLOORPLATES AND COVERS**KEY:****A: Without Cab****B: With Cab**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	2093343	Floormat (Rear)	1	1
2	c 2093342	Floormat (Front)	1	1
2	d 4628644	Floormat (Front)	1	1
3	2107957	Tail Light Base (RH)	1	1
4	1586495	Capscrew	4	4
5	2067475	Cover (Rear Crossmember)	1	1
6	1540643	Capscrew	3	3
7	2107958	Tail Light Base (LH)	1	1
8	1531558	Insert	4	4
9	1531001	Insert	3	3
10	1659938	Floorplate (Rear)	1	1
11	1531558	Insert	2	..
12	a 1640867	Cover (RH) (Rear)	1	..
12	b 1640868	Cover (RH) (Rear)	1	..
12	a 1640877	Cover (RH) (Rear) .....	..	1
12	b 1640876	Cover (RH) (Rear) .....	..	1
13	1710007	Capscrew	12	12
14	1640865	Cover (LH) (Rear)	1	..
14	1640874	Cover (LH) (Rear) .....	..	1
15	1709980	Washer	12	12
16	1640870	Cover (Front LH)	1	1
17	1640872	Cover (RH)	1	1
18	1608654	Capscrew	20	20
19	1608671	Plate (Lower LH Tread)	1	1
20	1480237	Nut	23	33
21	1608667	Plate (Upper LH Tread)	1	1
22	1607634	Floorplate	1	1
23	325182	Nut	10	12
24	1597960	Seal	2	2
25	1608673	Plate (RH)	1	1
26	1608669	Plate (Upper RH Tread)	1	1
27	1393879	Nut	8	8
28	2092323	Seal (LH)	1	1
29	1608204	Floorplate	1	1
30	1530135	Grommet	1	1
31	2092324	Seal (RH)	1	1

FOOTNOTES:**a** Gas/Diesel Option**b** LPG Option**c** → 4/2014**d** 4/2014 →

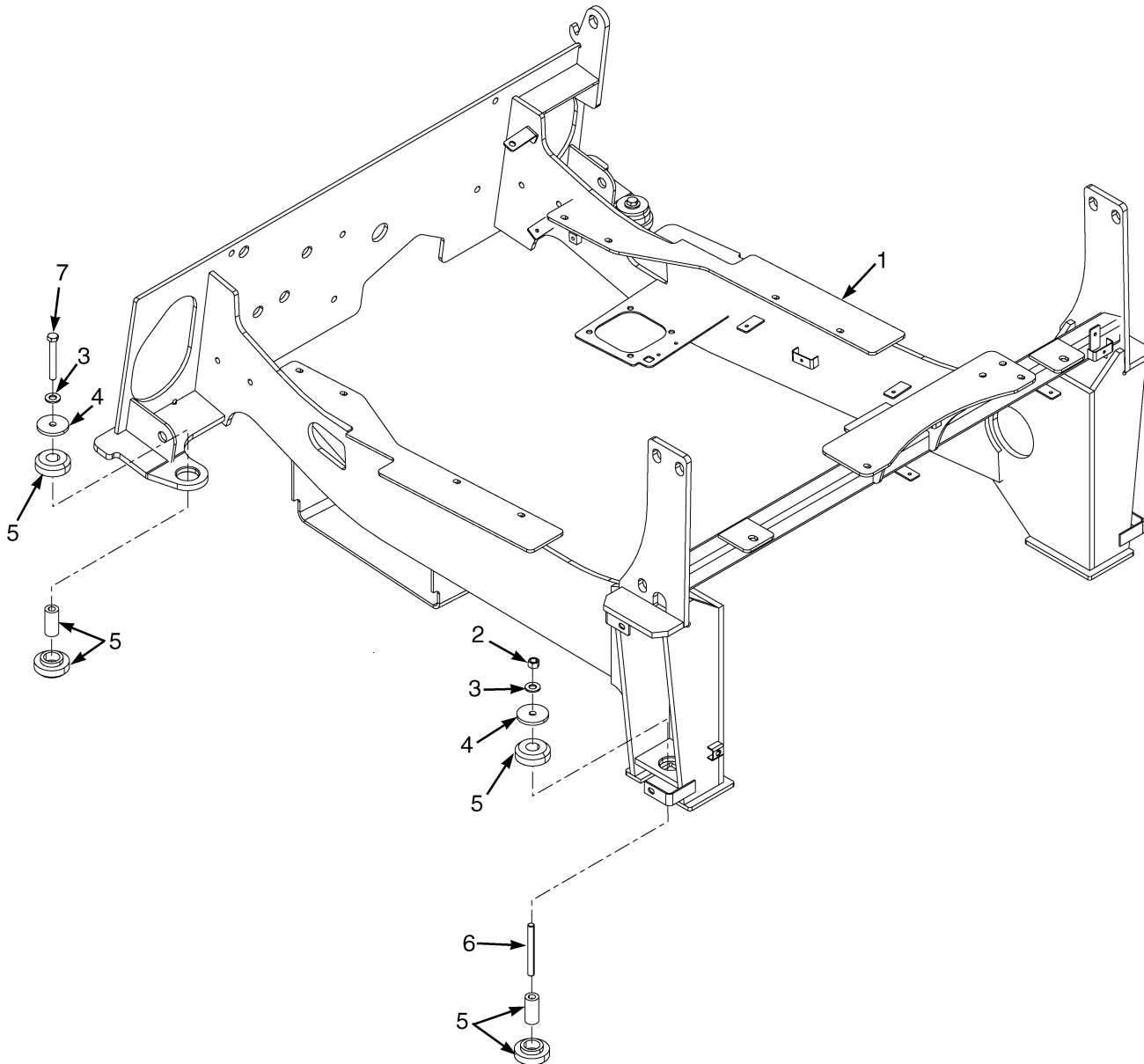
COWL MOUNT (FIGURE 1-35)



BP120832

ITEM	PART NO.	DESCRIPTION	QTY
1	4027155	Cowl	1
2	1583611	Capscrew	2
3	1586629	Capscrew	6
4	1640776	Insert	6

OPERATOR COMPARTMENT PLATFORM (FIGURE 1-36)



BP120335

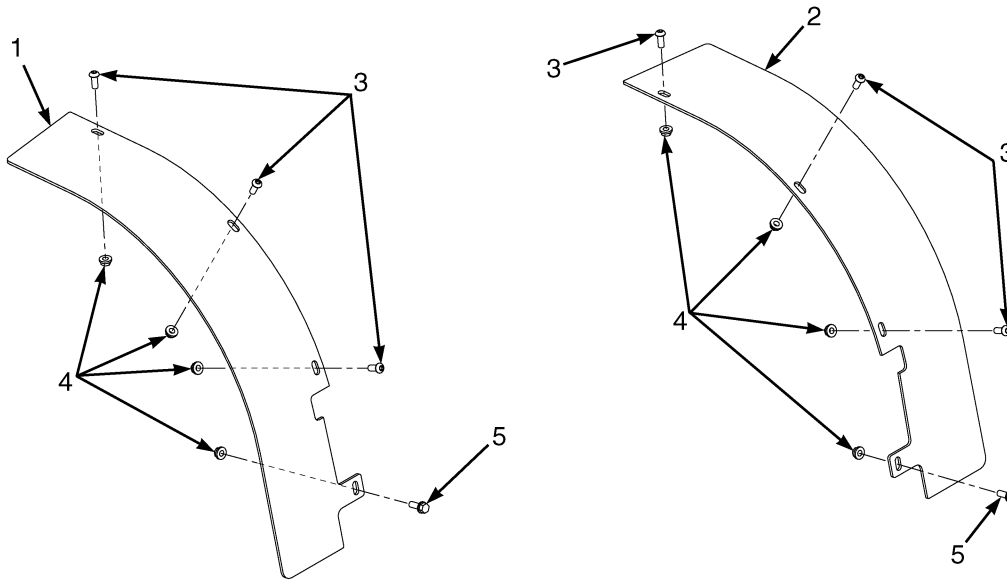
OPERATOR COMPARTMENT PLATFORM

ITEM	PART NO.	DESCRIPTION	QTY
1	4028336	Operator Module	1
2	300937	Nut	2
3	296423	Washer	4
4	300939	Washer	4
5	1660337	Isolator	4
6	2037998	Stud	2
7	293657	Capscrew	2
	a 264134	Loctite	AR

FOOTNOTES:

a Not Illustrated

FENDERS (FIGURE 1-37)



BP120721

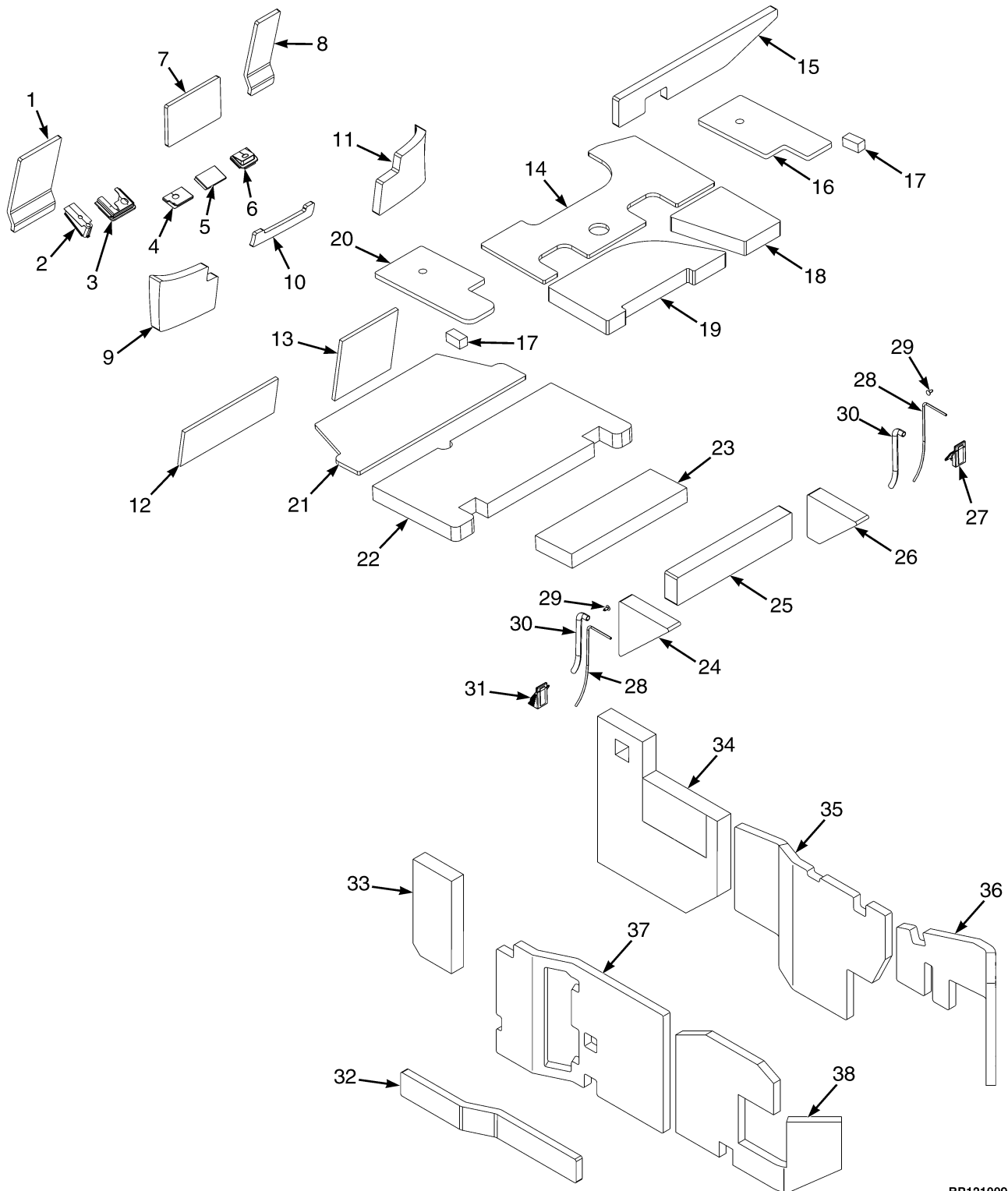
KEY:

A: Pneumatic (Solid)

B: Pneumatic (Non-Solid)

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	4000045	Fender Extension (LH) (Solid)	1	..
1	4000050	Fender Extension (LH) .....	..	1
2	4000049	Fender Extension (RH) (Solid)	1	..
2	1634900	Fender Extension (RH) .....	..	1
3	2072664	Capscrew	6	6
4	1586432	Nut	8	8
5	1586630	Capscrew	2	2

SOUND ABATEMENT (FIGURE 1-38) SHEET 1 OF 2



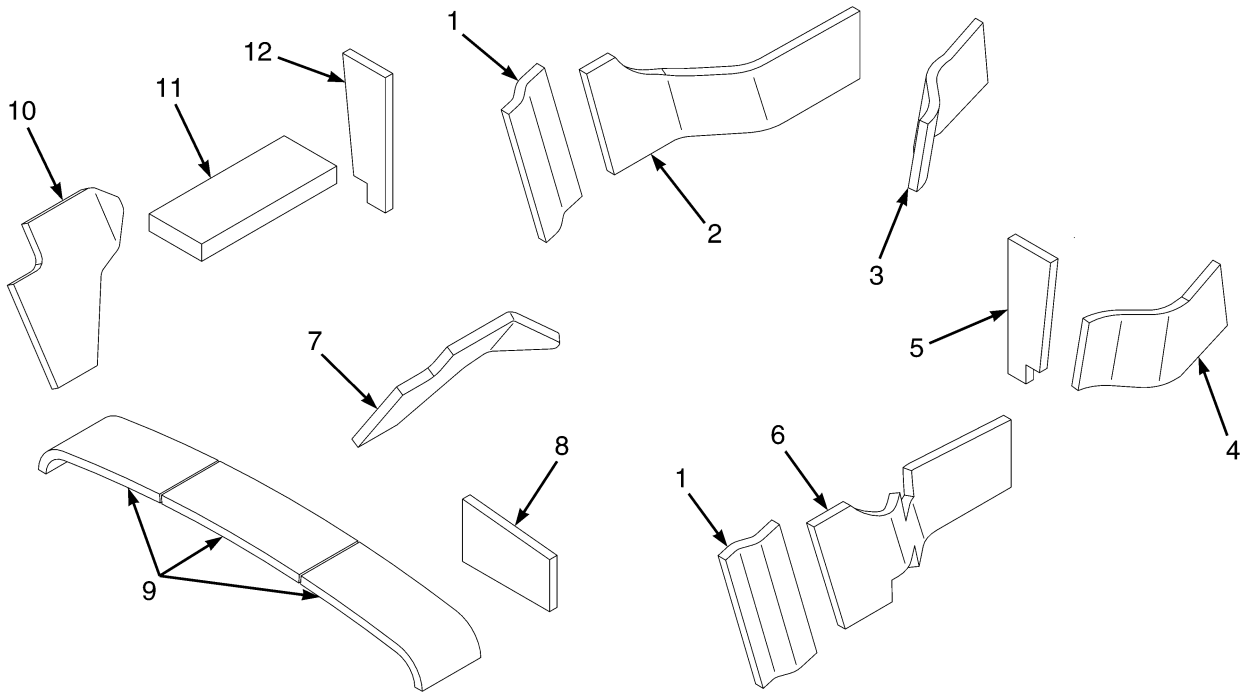
BP121009

**SOUND ABATEMENT
SHEET 1 OF 2****KEY:****A: Cab****B: Overhead Guard**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1651404	Sound Liner (Cowl Plate)	1	1
2	cd 2076134	Seal	1	..
3	cd 2065797	Seal	1	..
4	c 2065827	Seal	1	..
5	c 2065826	Seal	1	..
6	c 2094680	Seal	1	..
7	1616484	Sound Liner	1	1
8	1651405	Sound Liner (Cowl Plate)	1	1
9	1617082	Sound Liner (Dash) (LH)	1	1
10	1616483	Sound Liner	1	1
11	1617081	Sound Liner (Foam) (RH)	1	1
12	1692279	Sound Liner (Frame Cowl)	1	1
13	1692265	Sound Liner (Frame Cowl)	1	1
14	1651116	Sound Liner (Seat Pan)	1	1
15	1651110	Sound Liner	1	1
16	b 1651108	Sound Liner	1	..
17	a 1698474	Sound Liner	2	2
18	1651112	Sound Liner	1	1
19	1651111	Sound Liner	1	1
20	b 1651107	Sound Liner	1	..
21	1651109	Sound Liner (Front Floor Plate)	1	1
22	1692277	Sound Liner (Rear Floor Plate) .....	..	1
23	1692278	Sound Liner (Cover Plate) .....	..	1
24	1651115	Sound Liner (Seat Support LH)	1	1
25	1651113	Sound Liner	1	1
26	1651114	Sound Liner (Seat Support RH)	1	1
27	2098417	Plug (RH)	1	..
28	1670592	Seal	2	..
29	1307737	Fastener	2	..
30	1670593	Seal	2	..
31	2098416	Plug (LH)	1	..
32	1651105	Sound Liner (LH) (Frame)	1	1
33	1692263	Sound Liner (LH) .....	..	1
34	1692261	Sound Liner (RH) .....	..	1
35	4041297	Sound Liner .....	..	1
36	4041296	Sound Liner .....	..	1
37	1695810	Sound Liner (LH) .....	..	1
38	4041295	Sound Liner .....	..	1

FOOTNOTES:**a** Inside Top of Module Plate**b** LPG option only**c** With Electronic Hydraulics**d** With Manual Hydraulics

SOUND ABATEMENT (FIGURE 1-39) SHEET 2 OF 2



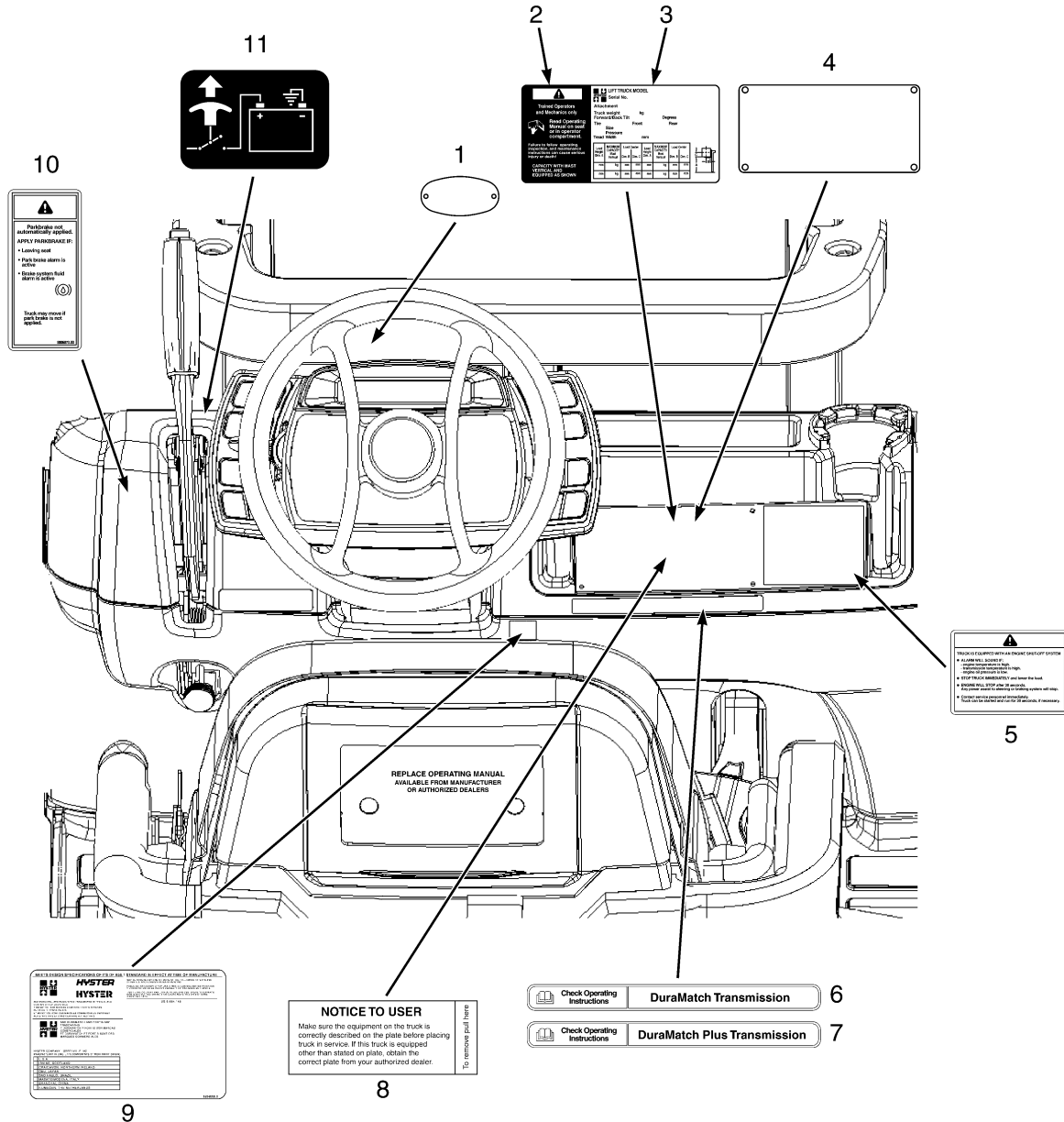
BP121058

ITEM	PART NO.	DESCRIPTION	QTY
1	4005284	Liner (RH)	2
2	4000646	Liner (LH)	1
3	4000644	Liner (LH)	1
4	4000645	Liner (RH)	1
5	4001466	Liner (RH)	1
6	4000647	Liner (RH)	1
7	4004909	Liner	1
8	4004905	Liner	1
9	4004908	Liner	3
10	4004910	Liner	1
11	4001470	Liner	1
12	a 4001465	Liner (LH)	1

FOOTNOTES:

a Kubota 3.6L diesel and GM 4.3L LPG option

LABELS (FIGURE 1-40) INTERIOR



HP121441

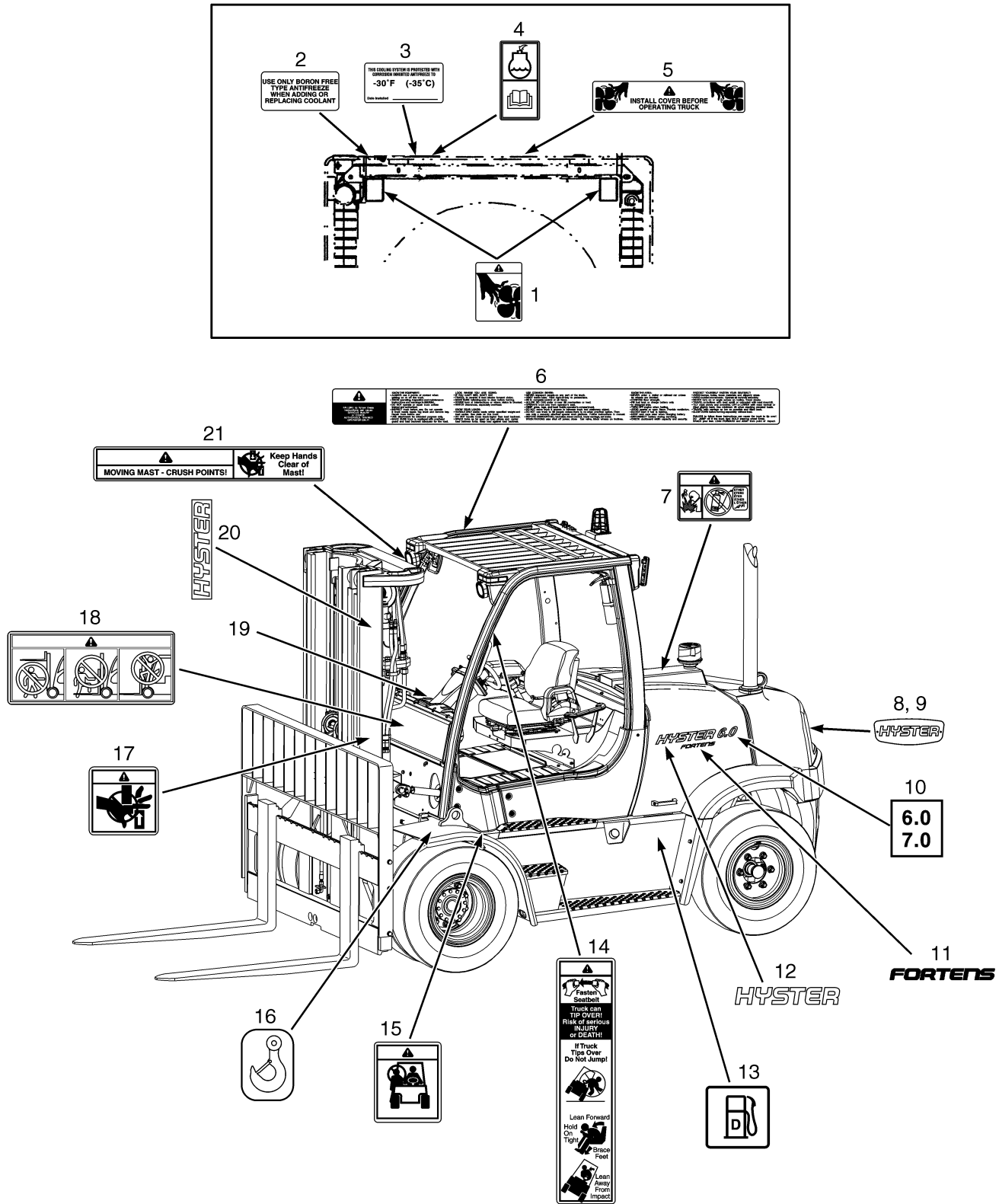
**LABELS
INTERIOR**

ITEM	PART NO.	DESCRIPTION	QTY
1	a	UL Inspection Plate	1
2	a	Label (Nameplate) (EEC)	1
2	a	Nameplate (Non-ECC)	1
3	170658	Rivet	4
3	2307400	Rivet (Alternate part)	4
4	389688	Nameplate Cover	1
5	2038100	Label (Drive Train Protection)	1
6	b 1589397	Label (DuraMatch Transmission)	1
7	b 1589417	Label (DuraMatch Plus Transmission)	1
8	1335138	Label (Complete Truck)	1
9	1534660	Label (Patents and Trademarks)	1
10	4614951	Label (Park Brake Warning)	1
11	d 1324480	Label (Battery Switch)	1
	c 2106332	Label (ECM Code) (Standard Transmission Only)	1
	c 4612321	Label (Radial Tire Warning)	1
	c 4616031	Label (Diesel Particulate Filter)	1
	c 2105036	Label (Engine Warning)	1

FOOTNOTES:

- | | | | |
|----------|----------------------------------|----------|-----------------|
| a | Contact Your Local Hyster Dealer | c | Not Illustrated |
| b | Electronic Transmission | d | UL Type DS |

LABELS (FIGURE 1-41) EXTERIOR



BP120347

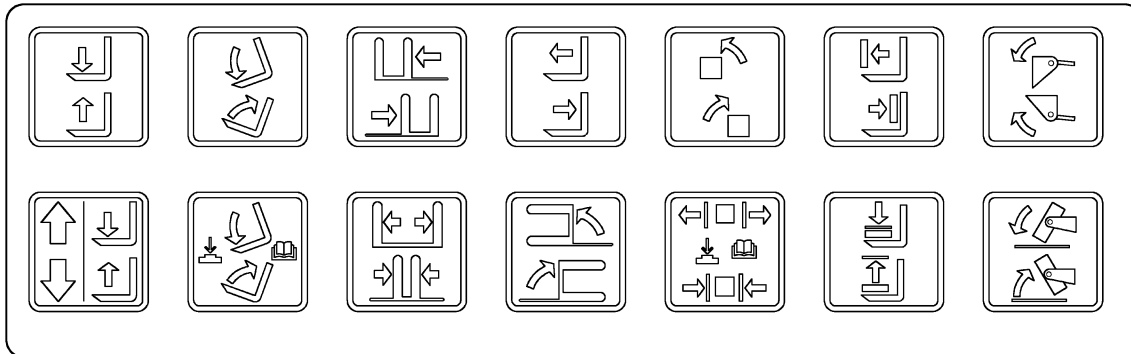
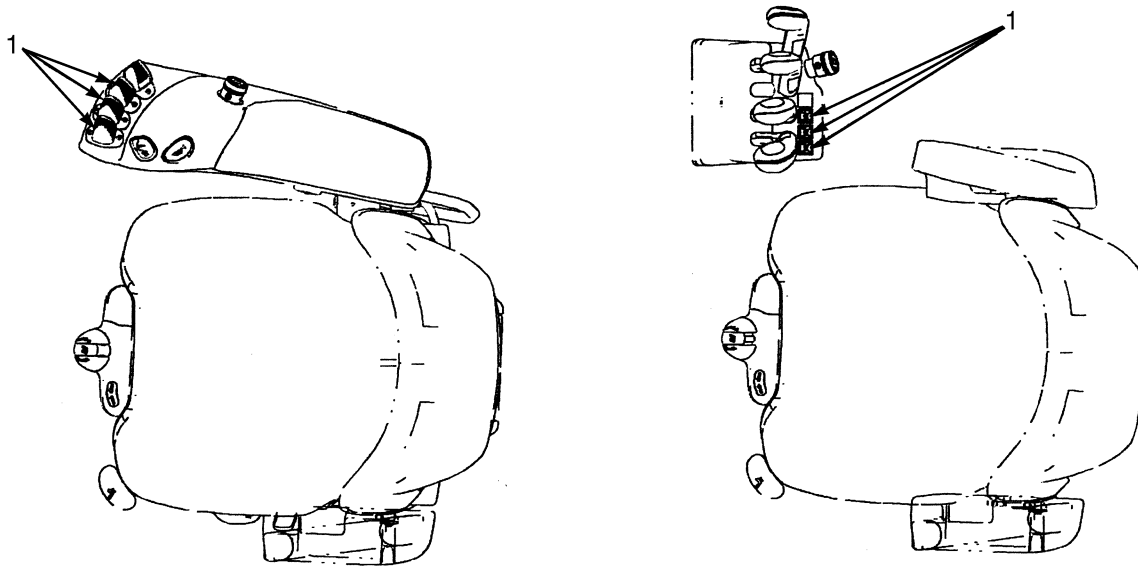
**LABELS
EXTERIOR**

ITEM	PART NO.	DESCRIPTION	QTY
1	1300094	Label (Fan Warning)	2
2	1375676	Label (Boron-Free Antifreeze)	1
3	1354165	Label (Antifreeze)	1
4	2089112	Label (Coolant Fill)	1
5	1345926	Label (Fan Warning)	1
6	e 2073198	Label (Operator Warning)	1
7	b 2034460	Label (Ether Warning)	1
8	316448	Label (Lifting Eye)	1
9	f 1677428	Label (Hyster Logo)	1
9	g 4071575	Label	1
10	1687813	Label (Model 8.0)	2
10	1687814	Label (Model 9.0)	2
11	1601748	Label (Fortens)	2
12	1636393	Label (Hyster)	2
13	2074256	Label (Fuel Fill)	1
14	1359588	Label (Operator Restraint)	2
15	1339828	Label (No Riders)	2
16	316448	Label (Lifting Eye)	3
17	1339832	Label (Pinch Point)	2
18	2075655	Label (Mast Warning)	2
19	a	Inspection Plate	1
20	1562353	Label (Hyster)	2
21	1343276	Label (Mast Warning)	1
	d 1503879	Label (Low Noise)	1
	d 1503880	Label (Noise Level)	1
	d 1503881	Label (Noise Level)	1
	c 1354172	Label (Flammable LPG)	1
	c 2095890	Label (Air Filter Installation)	1
	d 4606609	Label (Fuel Fill)	1

FOOTNOTES:

a	Contact Your Local Hyster Dealer	e	Without Cab
b	Diesel	f	→ 2/2013
c	LPG option only	g	2/2013 →
d	Not Illustrated		

MINI LEVER MODULE LABELS (FIGURE 1-42) HYDRAULIC CONTROL FUNCTIONS

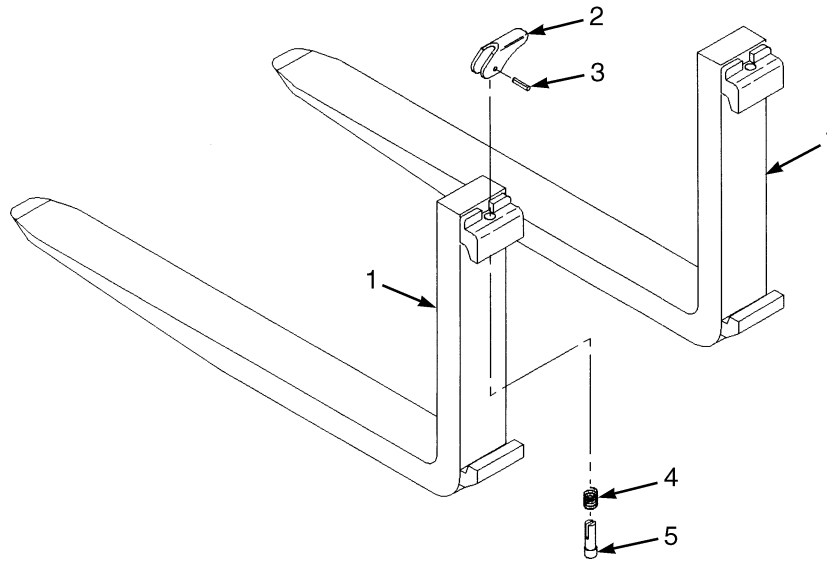


BP120427

**MINI LEVER MODULE LABELS
HYDRAULIC CONTROL FUNCTIONS**

ITEM	PART NO.	DESCRIPTION	QTY
1	2102640	Label	1

FORKS (FIGURE 1-43)



BP290123

ITEM	PART NO.	DESCRIPTION	QTY
1	4039814	Fork (1200 mm)	2
1	4039815	Fork (1500 mm)	2
1	4039816	Fork (1800 mm)	2
1	4039817	Fork (2100 mm)	2
1	4039818	Fork (2400 mm)	2
2	4039810	Lever	1
3	4039811	Roll Pin	1
4	4039812	Spring	1
5	4039813	Pin	1
	4039809	Kit (Fork latch mechanism)	1

2

ENGINE ASSEMBLY - DIESEL

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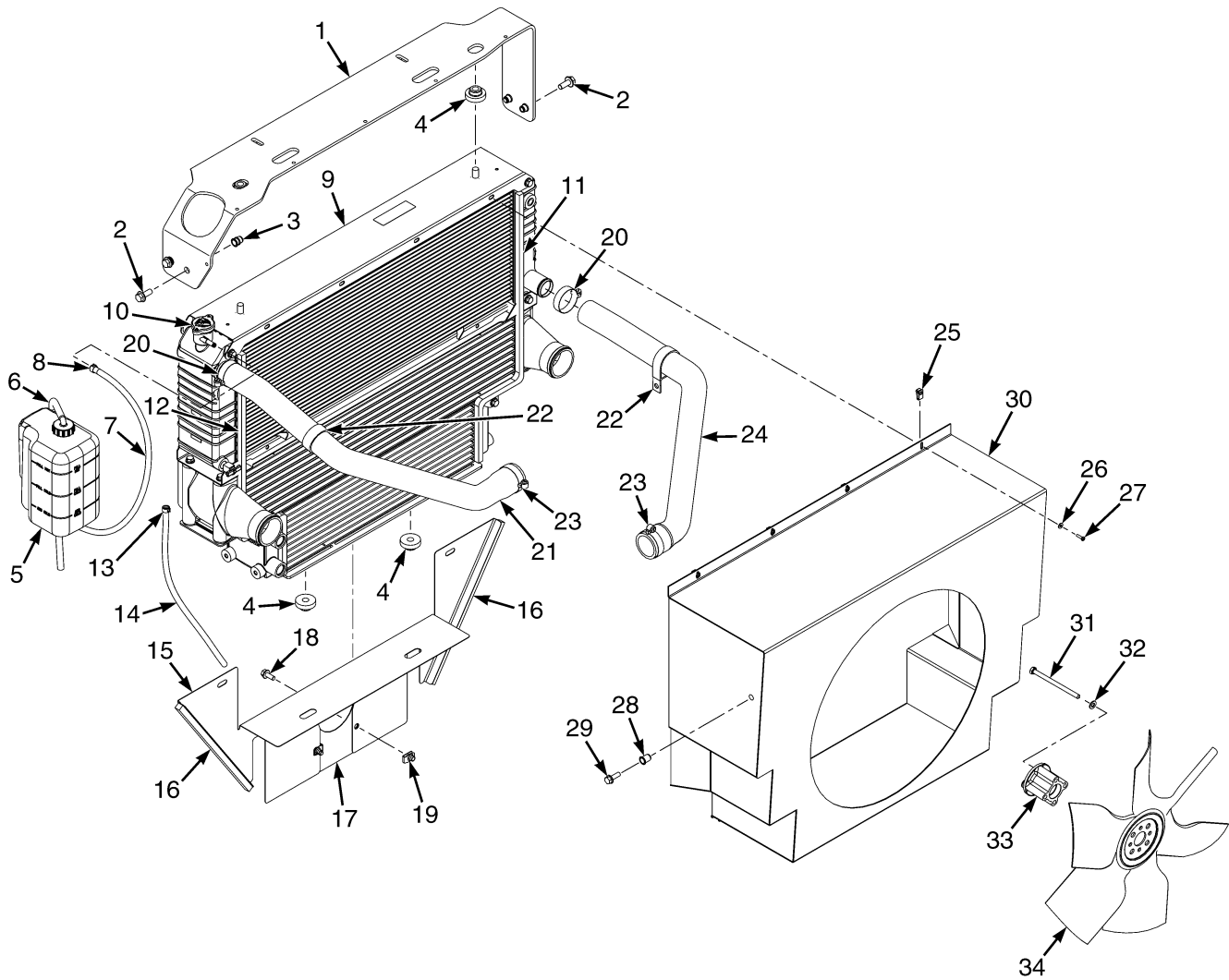
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COOLING SYSTEM (FIGURE 2-1) KUBOTA DIESEL



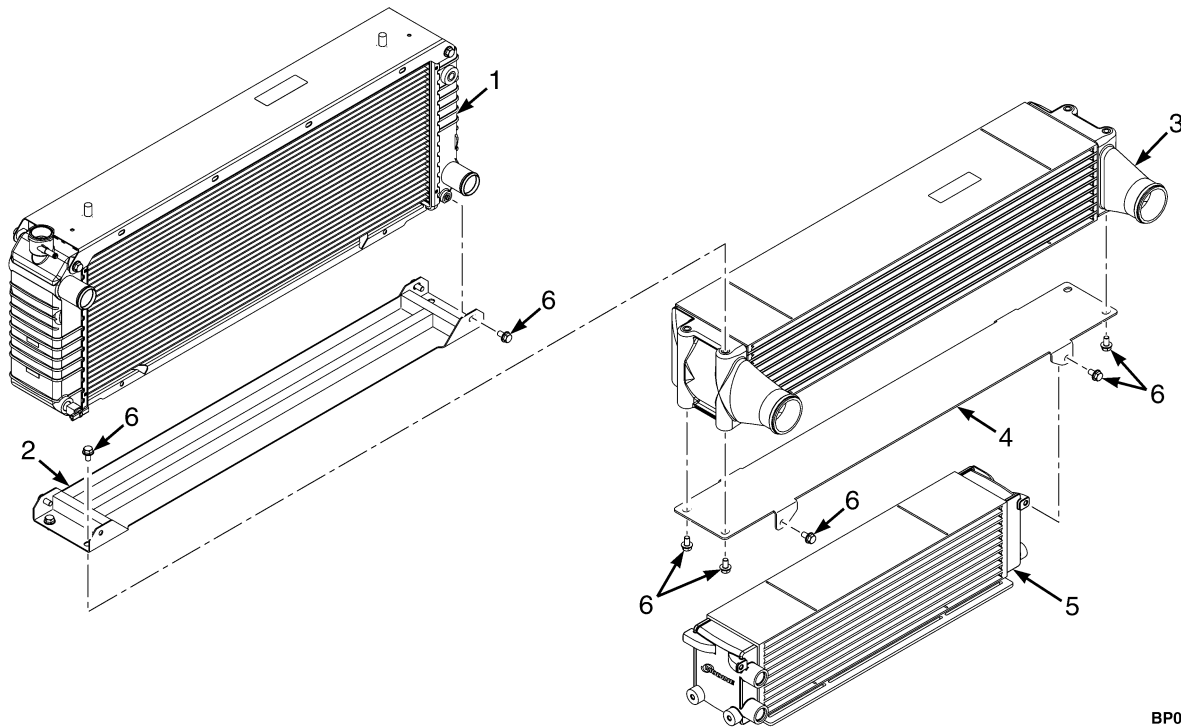
BP060098

**COOLING SYSTEM
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1691356	Bracket	1
2	1510117	Capscrew	4
3	1530244	Insert	4
4	1529787	Isolator	4
5	1643342	Reservoir	1
6	1684273	Cap	1
6	345453	Outlet (Reservoir)	1
6	345454	Cap	1
6	336550	Bushing	1
6	1684256	Hose	1
6	4127425	Seal	1
7	1302955	Hose	1
8	369815	Clamp	2
9	4610654	Radiator Assembly (☞ Figure 2-2).....	1
10	1352140	Radiator Cap	1
11	2107844	Seal	1
12	2107843	Seal	1
13	369815	Clamp	1
14	1567674	Hose	1
15	2108592	Baffle	1
16	1694527	Seal	2
17	2107592	Baffle	1
18	1527880	Capscrew	2
19	1480237	Nut	2
20	369804	Clamp	2
21	4614518	Radiator Hose (Upper)	1
22	313221	Clamp	2
23	119236	Clamp	2
24	4628191	Radiator Hose (Lower)	1
25	1535257	Nut	4
26	197066	Washer	4
27	302023	Screw	4
28	1531557	Insert	2
29	1510113	Capscrew	2
30	4025912	Shroud	1
31	1334820	Capscrew	4
32	296418	Washer	4
33	.....	Fan Spacer	1
34	4612998		
	4634121	Fan (with Scalloped Blades)	1
	a 1531404	Sensor (Low Coolant Level)	1
	a 14385	Fitting (Without Low Cooler Level Sensor)	1
	a 246108	Sealant	1

FOOTNOTES:**a** Not Illustrated

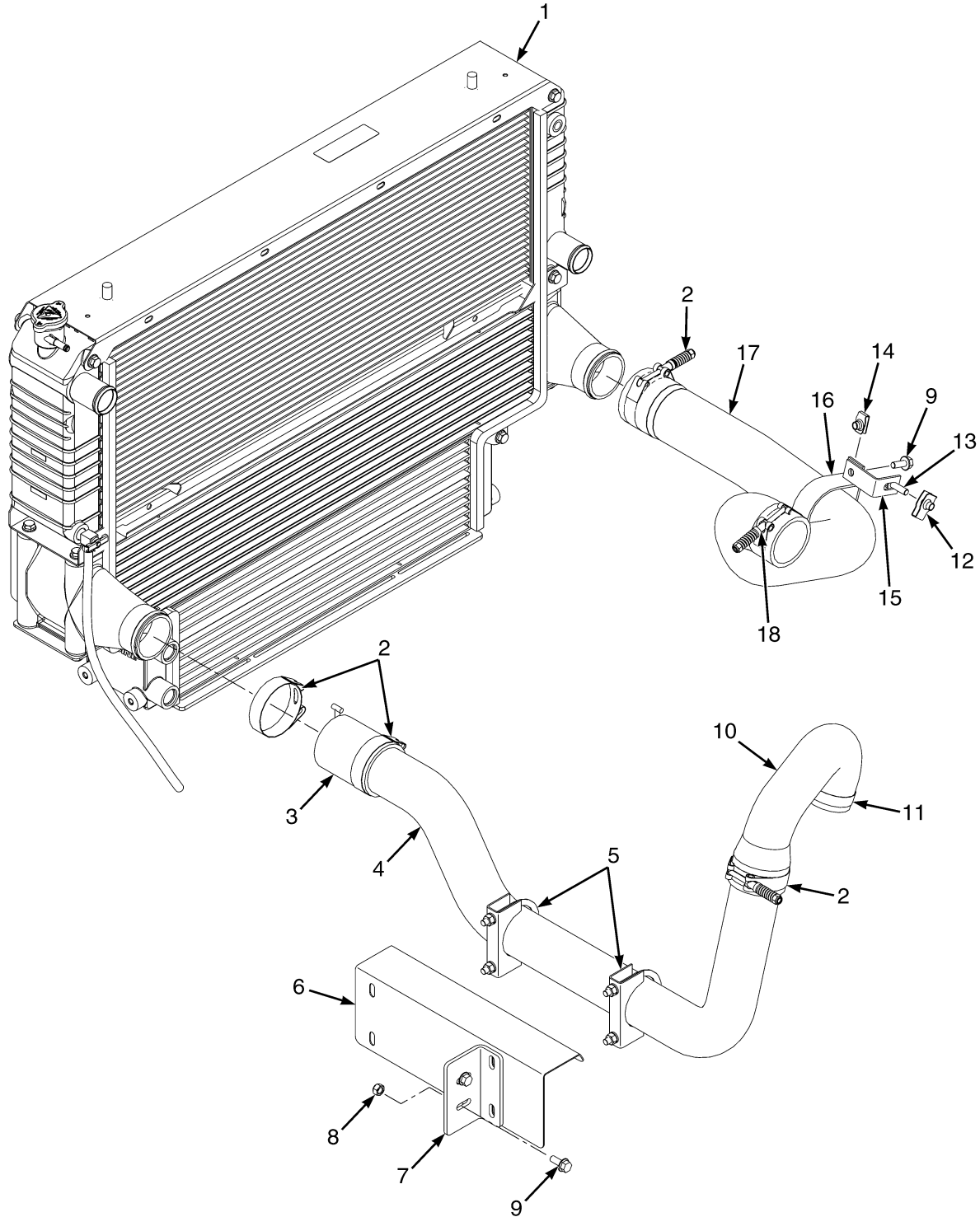
RADIATOR ASSEMBLY (FIGURE 2-2) KUBOTA DIESEL



BP060097

ITEM	PART NO.	DESCRIPTION	QTY
	4610654	Radiator Assembly	1
1	4044334	Radiator	1
1	4044335	Plug	1
2	1709217	Bracket	1
3	1709215	Air Cooler	1
4	1709218	Bracket	1
5	1709216	Oil Cooler	1
6	4044336	Capscrew	16

CHARGE AIR COOLER GROUP (FIGURE 2-3) KUBOTA DIESEL

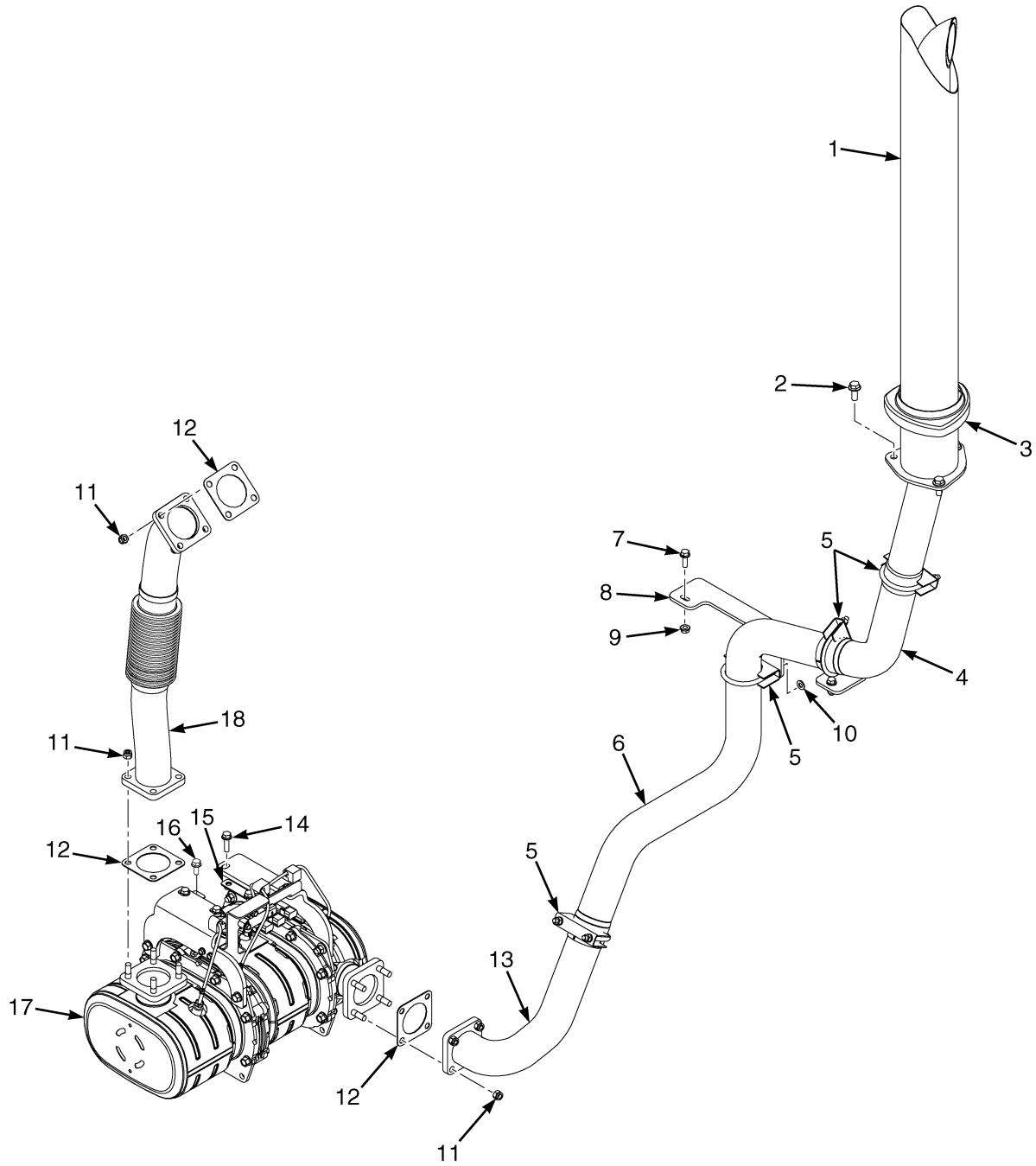


BP060099

**CHARGE AIR COOLER GROUP
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	4610654	Radiator Assembly (☞ Figure 2-2).....	1
2	1666557	Clamp	4
3	4610595	Hose	1
4	4613032	Tube	1
5	30372	Clamp Assembly (Includes Qty. 2 Nuts)	2
6	4031756	Heat Shield	1
7	4026954	Bracket	1
8	302400	Nut	2
9	1527880	Capscrew	3
10	4610545	Hose	1
11	4018397	Hose Clamp	1
12	1393879	Nut	1
13	1510113	Capscrew	1
14	1480237	Nut	1
15	4026830	Bracket	1
16	1384698	Clamp	1
17	4628190	Hose	1
18	1665556	Clamp	1

EXHAUST SYSTEM (FIGURE 2-4) KUBOTA DIESEL

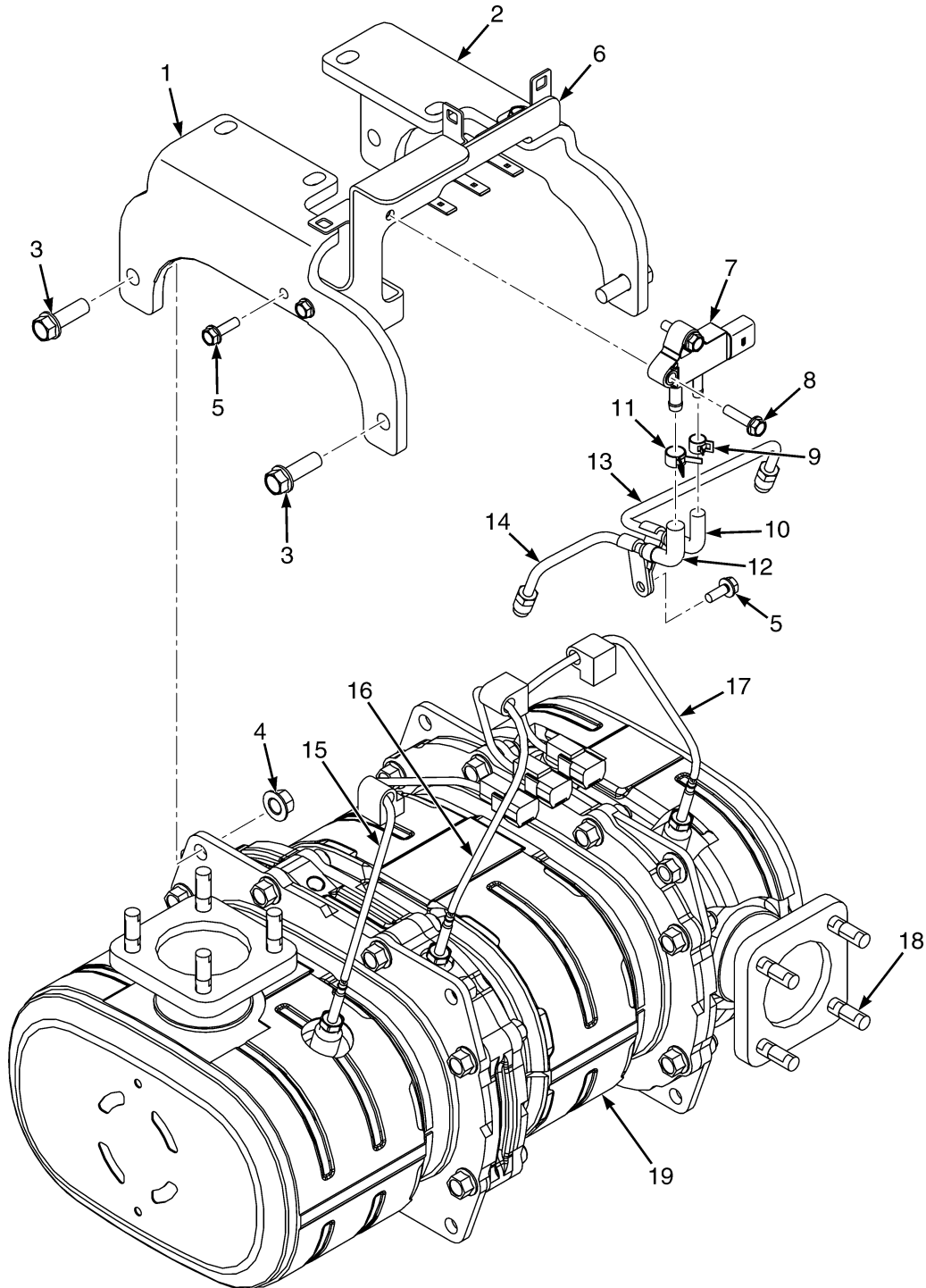


BP110095

**EXHAUST SYSTEM
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1666569	Overhead Exhaust	1
2	1510117	Capscrew	3
3	1668428	Cover	1
4	4032419	Exhaust Pipe	1
5	30372	Clamp Assembly (Includes Qty. 2 Nuts)	5
6	4032417	Exhaust Pipe	1
7	1510113	Capscrew	2
8	4026787	Bracket	1
9	1502543	Nut	2
10	18515	Washer	4
11	4027330	Locknut	12
12	4032888	Gasket	3
13	4032014	Exhaust Pipe	1
14	1527881	Capscrew	4
15	4054202	Plate Wldmt	2
16	1527880	Capscrew	2
17	4616558	Diesel Particulate Filter (☞ Figure 2-5).....	1
18	4031940	Exhaust Pipe	1

DIESEL PARTICULATE FILTER (FIGURE 2-5) ASSEMBLY — KUBOTA DIESEL

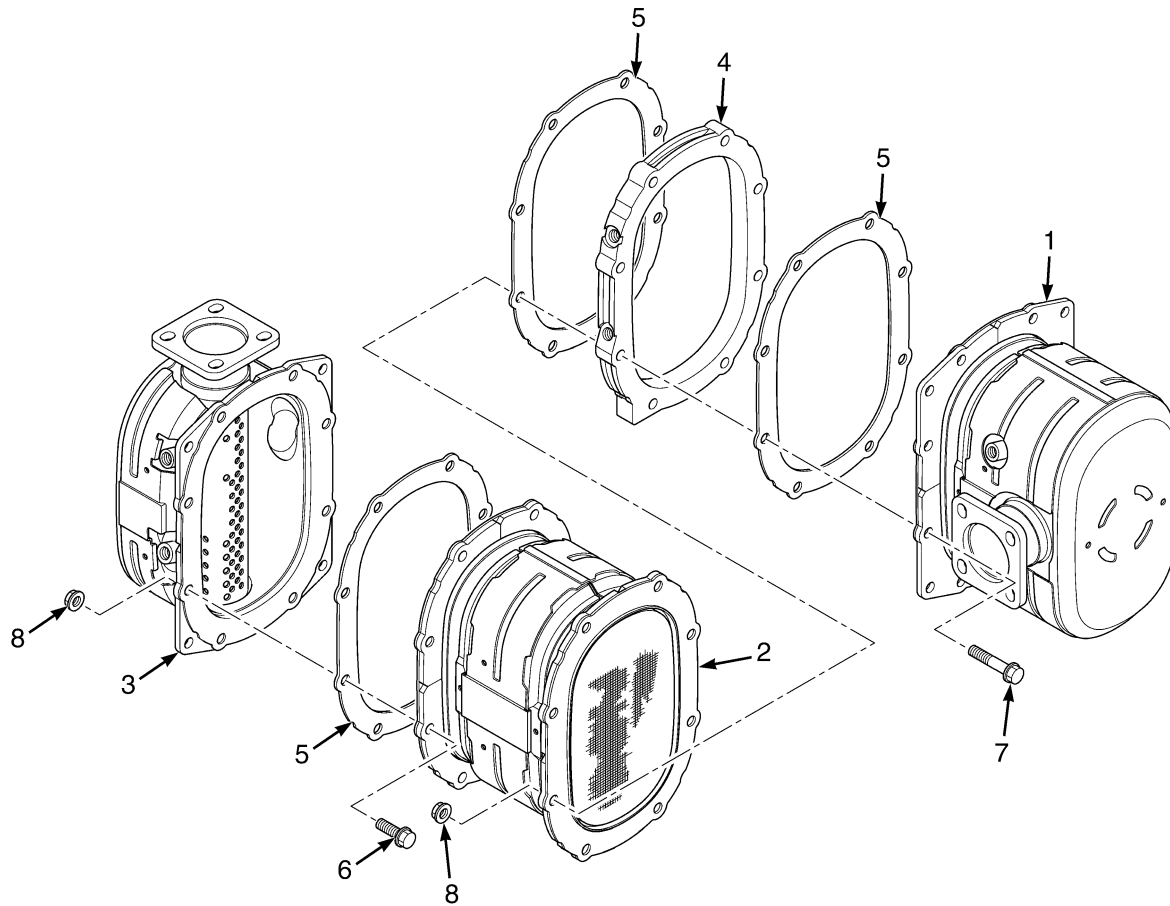


BP110096

**DIESEL PARTICULATE FILTER
ASSEMBLY – KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4616558	Diesel Particulate Filter	1
1	4054794	Bracket	1
2	4054795	Bracket	1
3	4041932	Bolt	4
4	4042108	Nut	4
5	4041944	Bolt	4
6	4054796	Bracket	1
7	4054812	Sensor (Differential Pressure)	1
8	4054747	Bolt	2
9	4054817	Hose Clamp	3
10	4054816	Tube	1
11	4042033	Hose Clamp	1
12	4054815	Tube	1
13	4054813	Pipe	1
14	4054814	Pipe	1
15	4054809	Sensor (Thermo, 0)	1
16	4054810	Sensor (Thermo, 1)	1
17	4054811	Sensor (Thermo, 2)	1
18	4054763	Bolt	8
19	.....	Muffler (☞ Figure 2-6).....	1

DIESEL PARTICULATE FILTER (FIGURE 2-6) MUFFLER ASSEMBLY — KUBOTA DIESEL

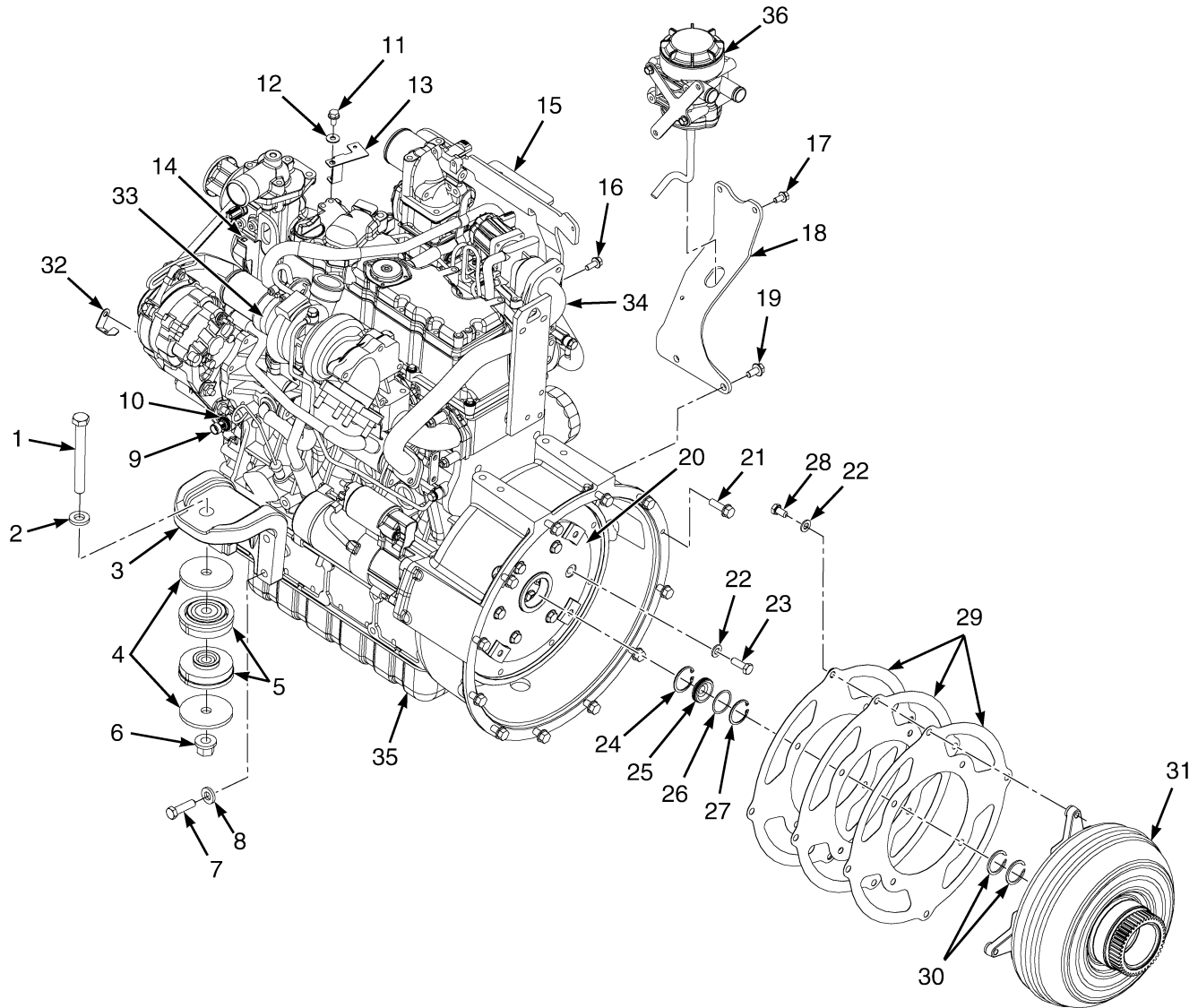


BP110097

**DIESEL PARTICULATE FILTER
MUFFLER ASSEMBLY – KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Muffler	1
1	4054802	Catalytic Converter	1
2	.....	Filter Element	1
3	4054804 4074936	Body	1
4	4054805	Collar	1
5	4054806	Gasket	3
6	4041932	Bolt	8
7	4054807	Bolt	8
8	4054808	Nut	16
	4074188	Kit-Filter Element Diesel Particulate	1

ENGINE MOUNTING AND TORQUE CONVERTER (FIGURE 2-7) KUBOTA DIESEL



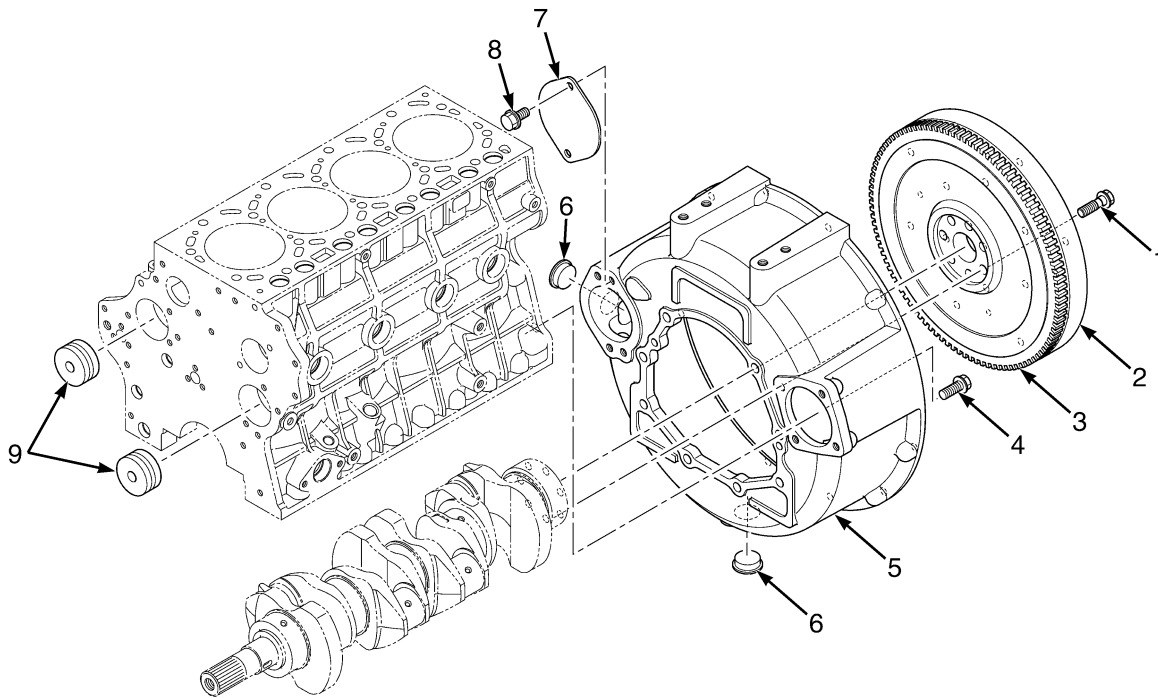
BP090612

**ENGINE MOUNTING AND TORQUE CONVERTER
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	293699	Capscrew	2
2	1504075	Washer	2
3	4018531	Motor Mount (RH)	1
3	a 4018532		
	4093216	Motor Mount (LH)	1
4	1557737	Washer	4
5	2069951	Isolator	4
6	1565453	Nut (Flange)	2
7	2088763	Capscrew	8
8	296423	Washer	8
9	1566654	Pressure Transducer Sensor (Oil Pressure)	1
10	367224	Adapter	1
11	1529366	Capscrew	1
12	320158	Washer	1
13	4048157	Bracket (Harness)	1
14	4048158	Bracket (Harness)	1
15	4048263	Bracket (Engine Harness)	1
16	1527880	Capscrew	2
17	4109993		
	1527879	Capscrew	3
18	4047641	Bracket	1
19	1582462	Bolt	2
20	4022349	Adapter	1
21	1586629	Capscrew	12
22	296420	Washer	14
23	309740	Capscrew	6
24	205222	Snap Ring	1
25	1603286	Plug	1
26	1311840	O-Ring	1
27	1194254	Snap Ring	1
28	1541921	Capscrew	8
29	4020963	Flex Plate	3
30	37065	Snap Ring	2
31	4020962	Torque Converter	1
32	4055414	Bracket	1
33	1394008	Hose Clamp	2
34	4048156	Bracket (Harness)	1
35	4611460	Engine Assy-Diesel (82kw) (☞ Figure 2-10).....	1
36	4042028	Separator (Crankcase Breather Filter) (☞ Figure 4-15).....	1
	a 1569458	Sealant	AR
	a 360387	Loctite	AR
	a 251979	Lubricant	AR

FOOTNOTES:**a** Not Illustrated

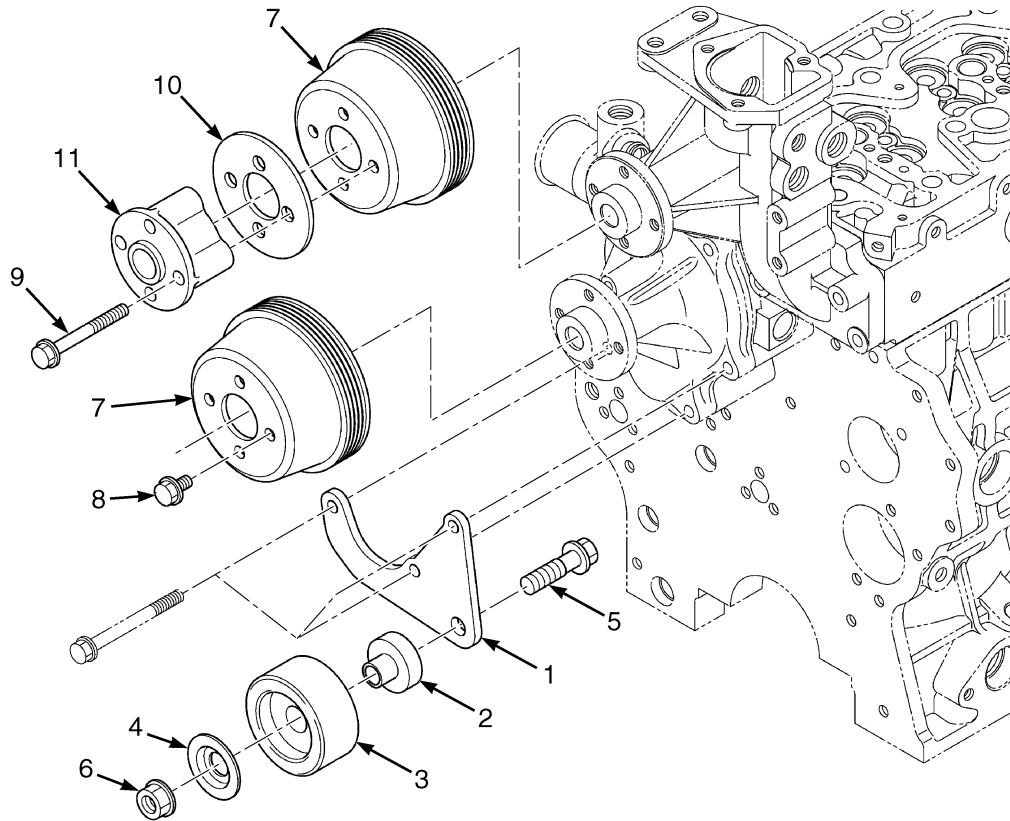
FLYWHEEL AND HOUSING (FIGURE 2-8) KUBOTA DIESEL



BP090566

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042332	Bolt	7
2	4042330	Flywheel (Assembly)	1
3	4042331	Gear	1
4	4042210	Bolt	8
5	4042333	Housing (Flywheel)	1
6	4042334	Cover	2
7	4042335	Cover (Flywheel Housing)	1
8	4042021	Bolt	2
9	.....	Cover	2

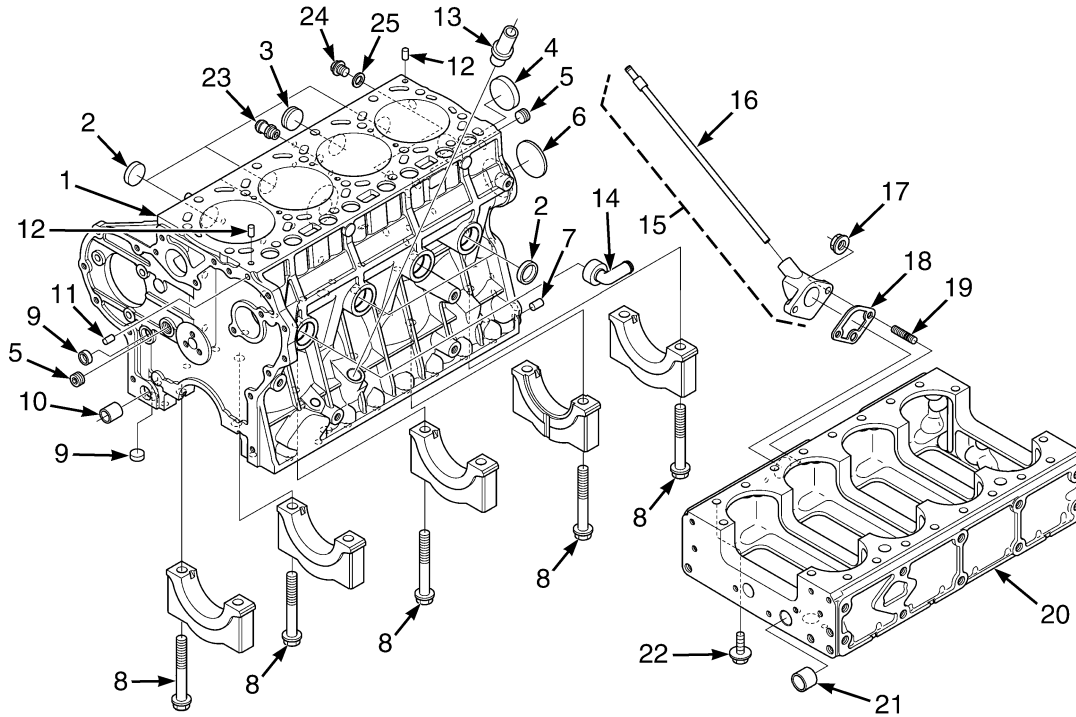
**FAN PULLEY (FIGURE 2-9)
KUBOTA DIESEL**



BP090490

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
	4042325	Pulley Assembly (Idle)	1
1	4042326	Plate	1
2	4042327	Shaft	1
3	4042328	Pulley	1
4	4041916	Cover (Tensioner)	1
5	4041922	Bolt	1
6	4041964	Nut	1
7	4042071	Fan Pulley	2
8	4041992	Bolt	4
9	4042043	Bolt	4
10	4042106	Washer	1
11	4042107	Collar	1

CYLINDER BLOCK (FIGURE 2-10) KUBOTA DIESEL

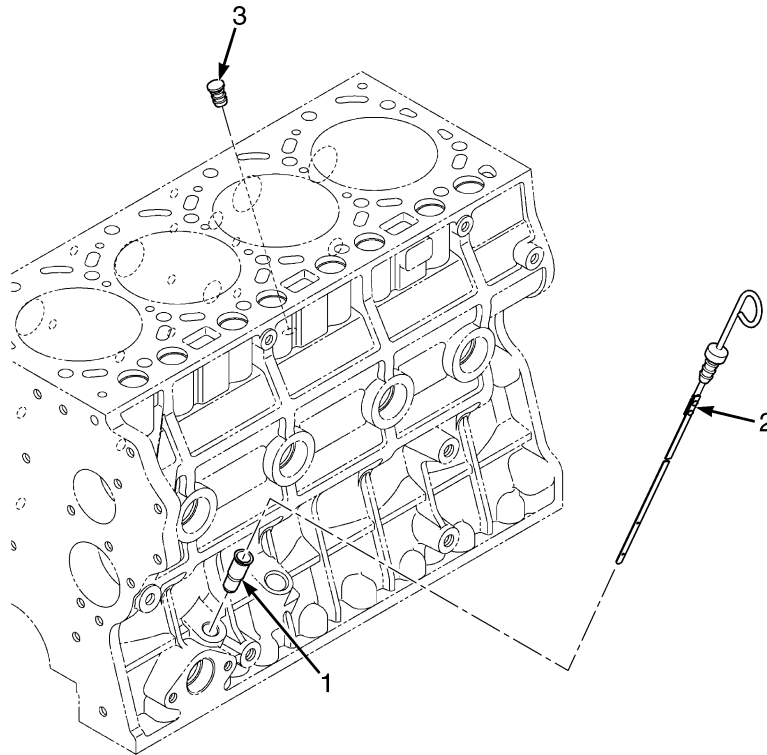


BP090609

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054580	Short Block	1
2	4041910	Cap (Sealing)	6
3	4041908	Plug	1
4	4041911	Cap (Sealing)	1
5	4041907	Plug	2
6	4041917	Plug	1
7	4041919	Pin	4
8	4041914	Bolt (Bearing Case)	10
9	4041909	Cap (Sealing)	2
10	4041921	Pin	1
11	4054581	PIN	1
12	4041920	Pin	2
13	4041923	Pipe (Oil)	1
14	4041925	Pipe Joint	1
15	4042220	Flange Assembly	1
16	4042222	Pipe	1
17	4041946	Nut	2
18	4042223	Gasket	1
19	4042010	Stud	2
20	4054582	Block (Lower)	1
21	4041933	Pin	1
22	4041932	Bolt	16
23	4041928	Joint (Water)	1
24	4041929	Plug	1

ITEM	PART NO.	DESCRIPTION	QTY
25	4041930	Gasket	1

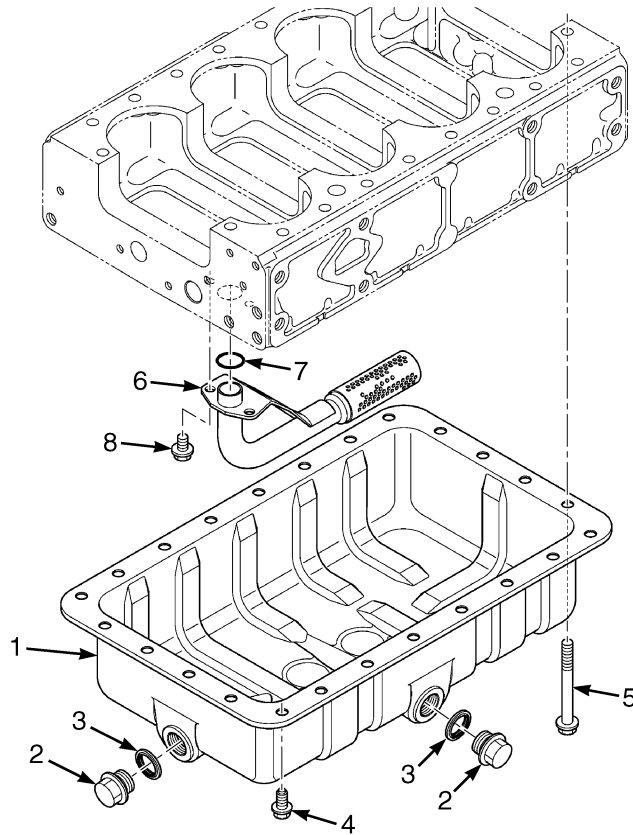
DIPSTICK (FIGURE 2-11) KUBOTA DIESEL



BP090569

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042232	Guide	1
2	4051132	Dipstick	1
3	4042234	Plug	1

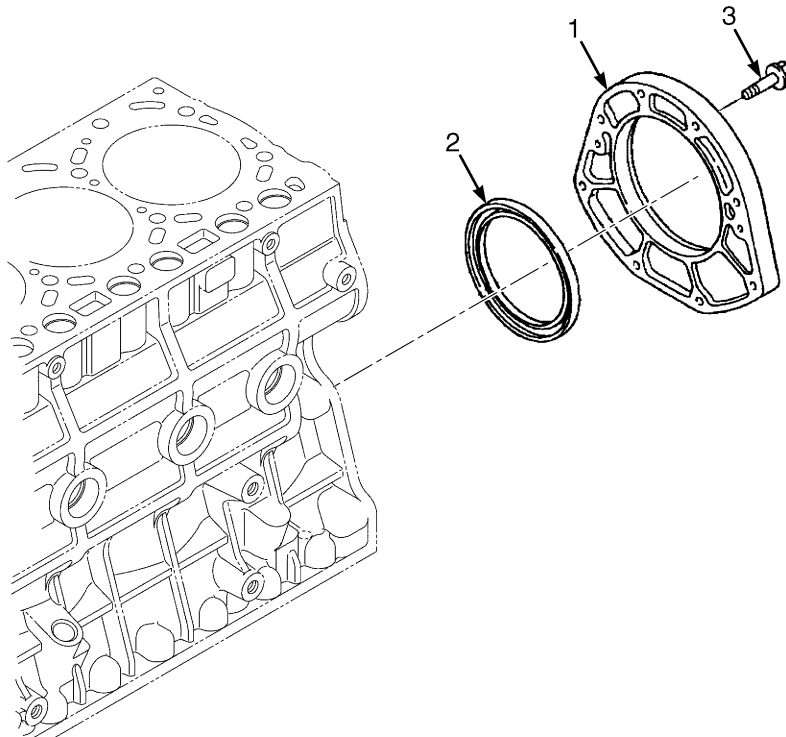
**OIL PAN (FIGURE 2-12)
KUBOTA DIESEL**



BP090479

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4041936	Oil Pan	1
2	4041938	Drain Plug	2
3	4041939	Packing (O-Ring)	2
4	4041940	Bolt	20
5	4041941	Bolt	4
6	4042213	Strainer (For Oil Pan)	1
7	4042214	O-Ring	1
8	4042035	Bolt	2

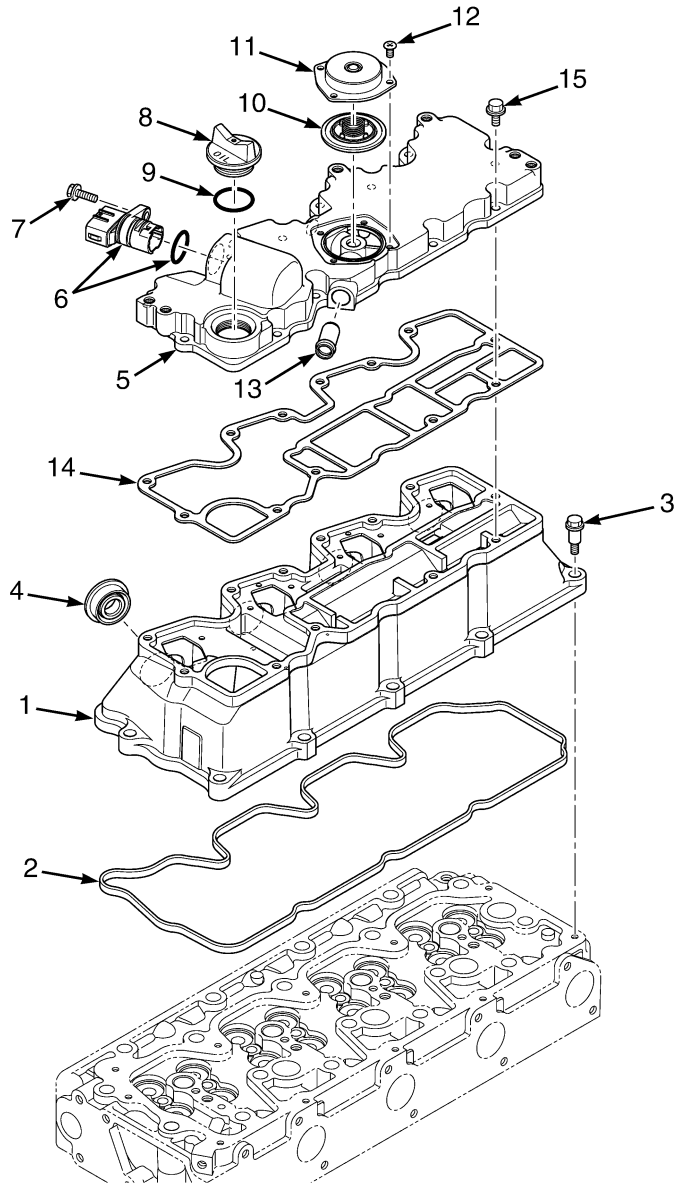
COVER BEARING CASE (FIGURE 2-13) KUBOTA DIESEL



BP090483

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042009	Cover (Bearing Case)	1
2	4042011	Oil Seal	1
3	4041997	Bolt	8

CYLINDER HEAD COVER (FIGURE 2-14) KUBOTA DIESEL

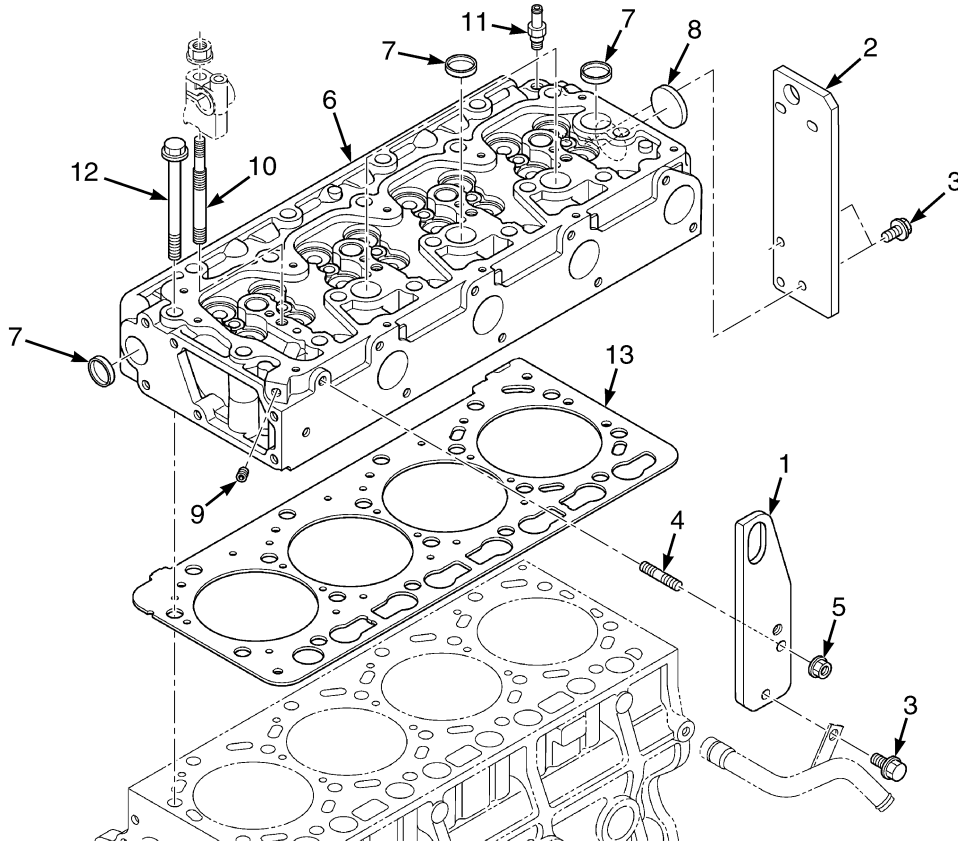


BP090562

**CYLINDER HEAD COVER
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054588	Cover Assembly (Cylinder Head)	1
2	4042114	Gasket	1
3	4042116	Bolt	10
4	4042115	Seal (Injection Pipe)	4
5	4054589	Cover Assembly (Cylinder Head)	1
6	4042127	Connector	1
7	4042128	Bolt	1
8	4042131	O-Ring	1
9	4042130	Plug	1
10	4042124	Valve (Breather)	1
11	4042125	Cover (Breather)	1
12	4042126	Screw	4
13	4042008	Joint (Breather Pipe)	1
14	4054590	Gasket	1
15	4042128	Bolt	13

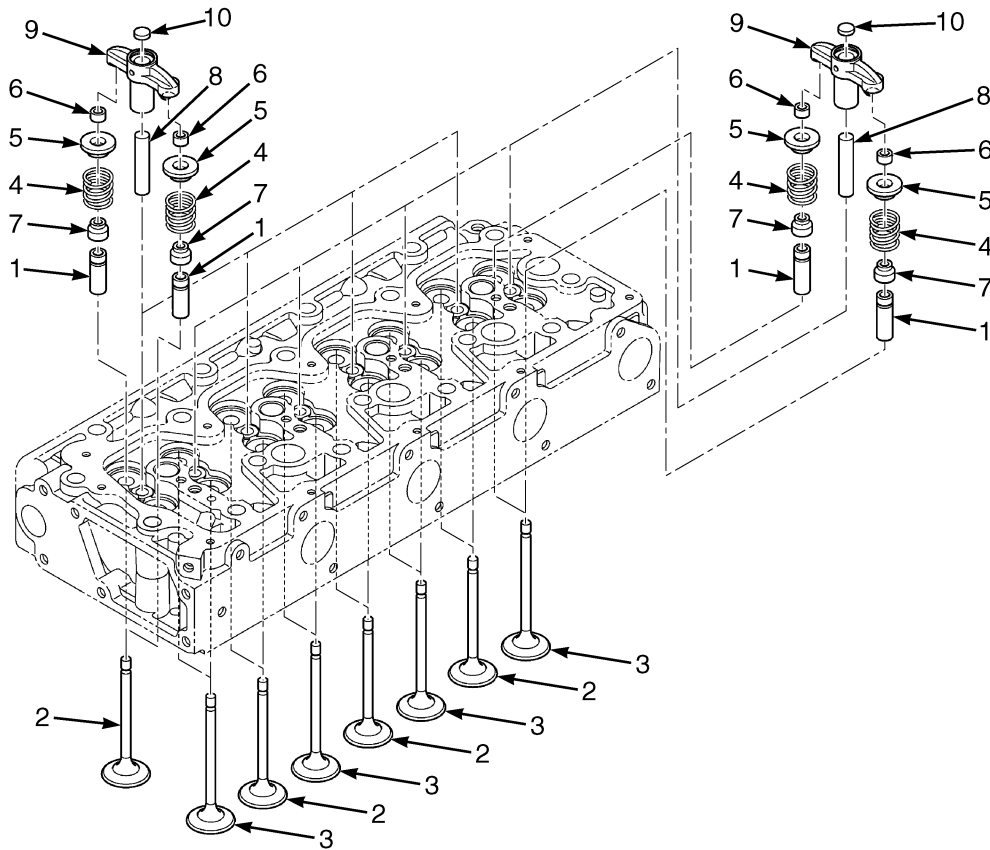
CYLINDER HEAD (FIGURE 2-15) KUBOTA DIESEL



BP090560

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4041968	Lifting Eye	1
2	4054583	Lifting Eye	1
3	4042324	Bolt	3
4	4042010	Stud	1
5	4041946	Nut	1
6	4041947	Cylinder Head (☞ Figure 2-16).....	1
7	4041950	Cap	5
8	4041951	Cap	1
9	4041906	Plug	1
10	4041963	Stud	4
11	4054584	Connector (Water Pipe)	1
12	4041965	Bolt	18
13	4041966	Cylinder Head Gasket (with two notches)	1
13	4048324	Cylinder Head Gasket (with one notch)	1
13	4048325	Cylinder Head Gasket (with no notches)	1

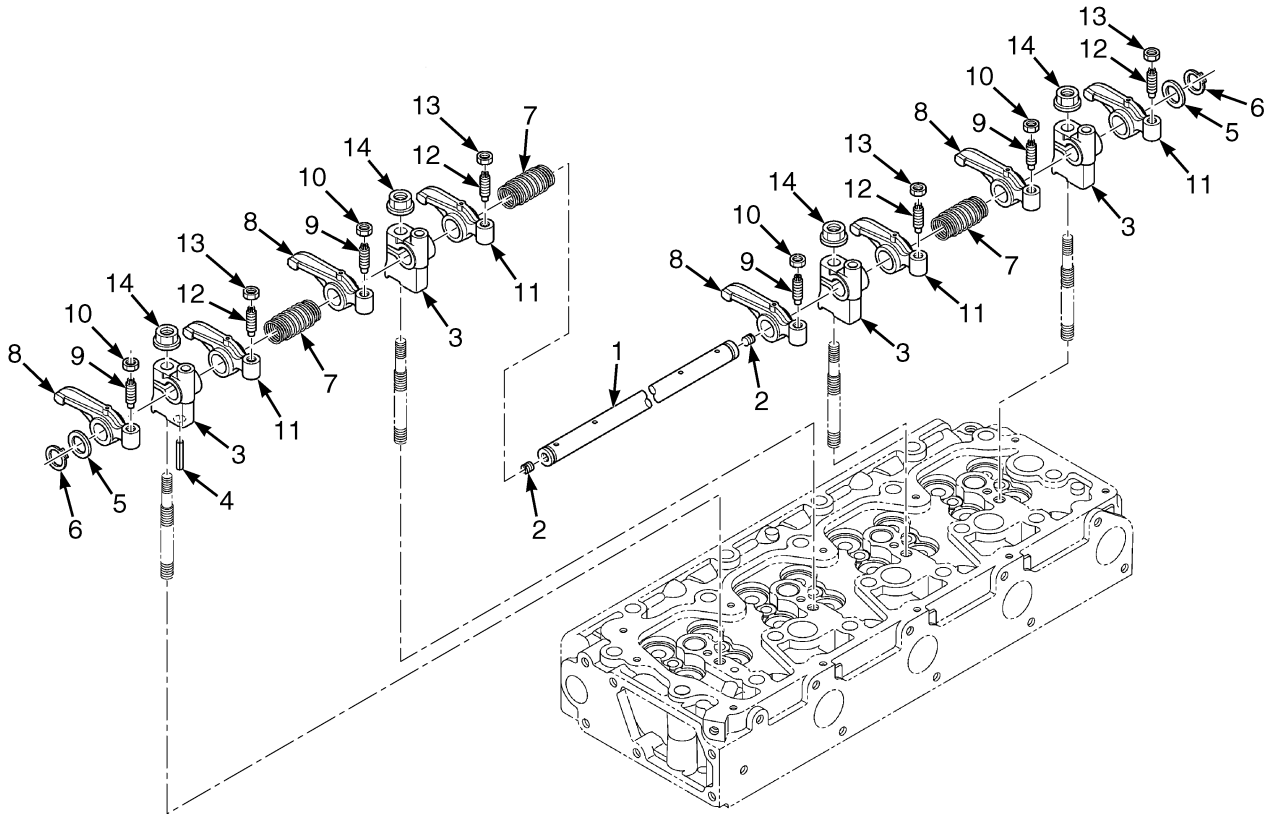
**INLET AND EXHAUST VALVES (FIGURE 2-16)
KUBOTA DIESEL**



BP090507

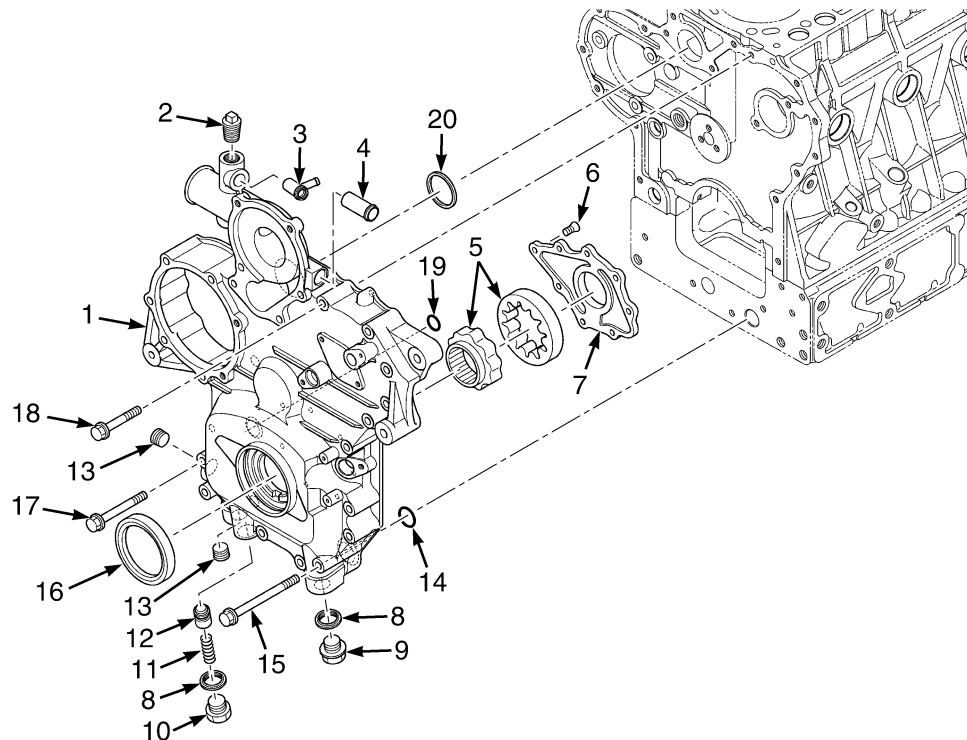
ITEM	PART NO.	DESCRIPTION	QTY
	4041947	Cylinder Head	1
1	4041952	Guide (Exhaust Valve)	16
2	4041955	Inlet Valve	8
3	4041956	Exhaust Valve	8
4	4041957	Spring	16
5	4041958	Retainer	16
6	4041959	Collar	16
7	4041960	Seal (Valve Stem)	16
8	4041962	Shaft	8
9	4042109	Arm	8
10	4042110	Pad	8

ROCKER ARM SHAFT (FIGURE 2-17) KUBOTA DIESEL



BP090504

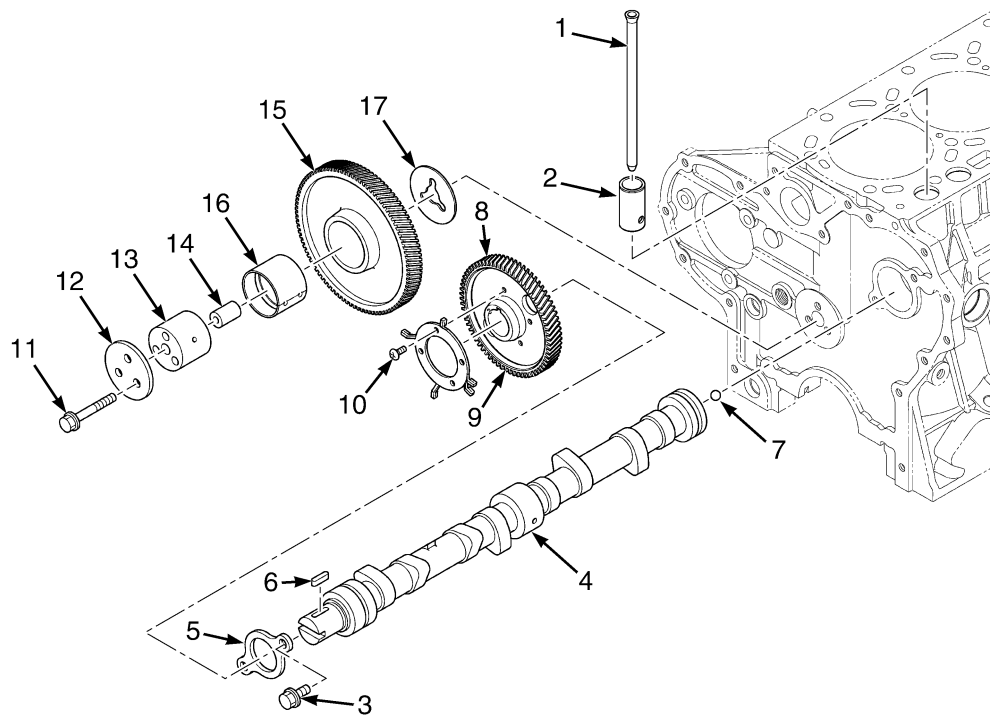
ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042092	Shaft Assy (Rocker Arm)	1
2	4042094	Screw	2
3	4042095	Bracket	4
4	4042096	Pin (Spring)	1
5	4042097	Washer	2
6	4042098	Retaining Ring	2
7	4042099	Spring	3
8	4042100	Rocker Arm Assy (Intake)	4
9	4042155	Screw	1
10	4042103	Nut	1
11	4042104	Rocker Arm Assy (Exhaust)	4
12	4042155	Screw	1
13	4042103	Nut	1
14	4042108	Nut	8

**GEAR CASE (FIGURE 2-18)
KUBOTA DIESEL**

BP090563

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054593	Case (Gear)	1
2	4054594	Plug	1
3	4054595	Pipe	1
4	4042008	Joint (Breather Pipe)	1
5	4041975	Rotor Assembly (Oil Pump)	1
6	4041979	Screw	8
7	4041978	Cover (Oil Pump)	1
8	4041939	Packing (O-Ring)	2
9	4041981	Drain Plug	1
10	4041974	Plug	1
11	4041971	Spring	1
12	4041972	Relief Valve	1
13	4041980	Plug	2
14	4041984	O-Ring	1
15	4041996	Bolt	1
16	4041982	Oil Seal	1
17	4054596	Bolt	2
18	4041992	Bolt	11
19	4041983	O-Ring	1
20	4042322	Gasket	1

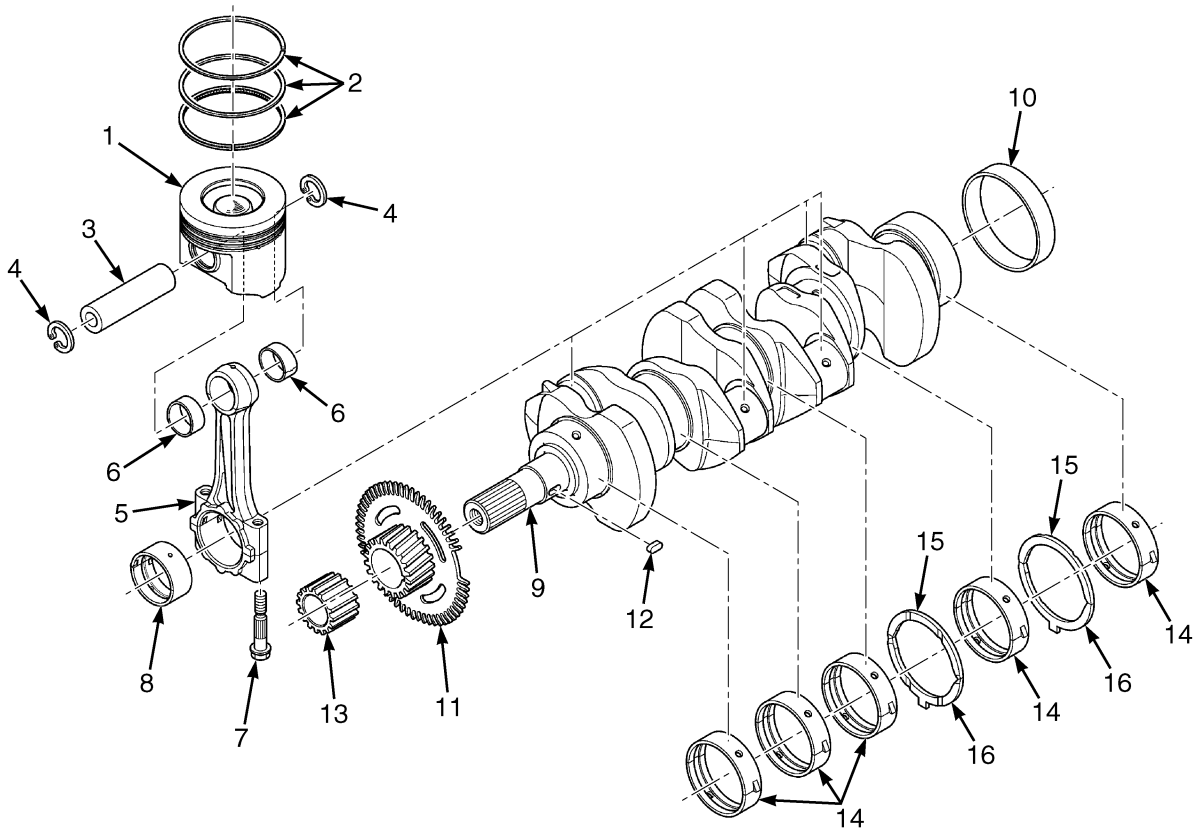
CAMSHAFT AND IDLE GEAR SHAFT (FIGURE 2-19) KUBOTA DIESEL



BP090564

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042135	Push Rod	8
2	4042134	Tappet	8
3	4041992	Bolt	2
4	4042136	Camshaft Assembly	1
5	4042141	Stop	1
6	4042140	Key	1
7	4042138	Ball	1
8	4042139	Gear	1
9	4042145	Gear Pulser	1
10	4042040	Screw	4
11	4042198	Bolt	3
12	4042197	Collar	2
13	4042194	Shaft (Idle Gear)	2
14	4042195	Pin	2
15	4042199	Idler Gear	1
16	4042225	Bushing	1
17	4042196	Collar (Idle Gear)	2

PISTON AND CRANKSHAFT (FIGURE 2-20) KUBOTA DIESEL

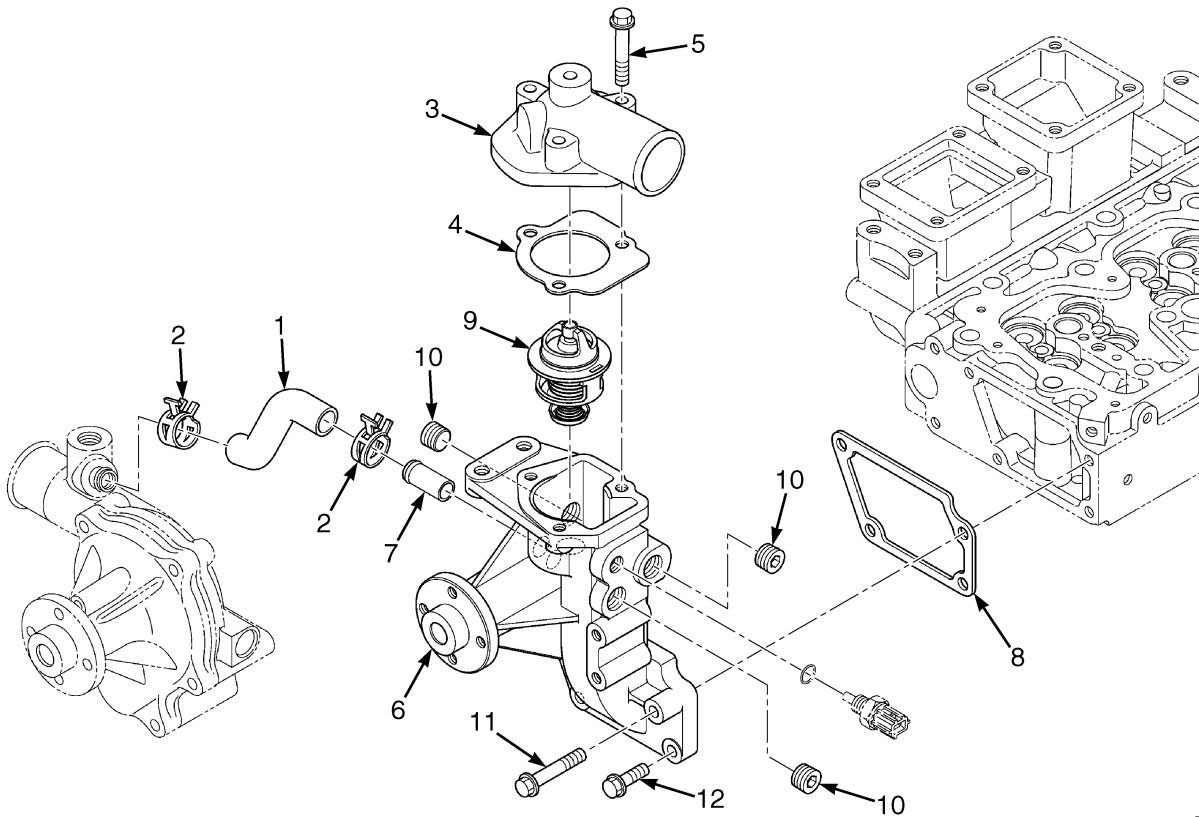


BP090497

**PISTON AND CRANKSHAFT
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042166	Piston (Standard)	4
1	4042144	Piston (+0.50mm)	4
2	4042167	Piston Ring (Standard)	4
2	4042146	Piston Ring (+0.50mm)	4
3	4042173	Pin	4
4	4042174	Retaining Ring	8
5	4042175	Rod Assy	4
6	4042229	Bushing	2
7	4042180	Bolt	2
8	4042181	Piston Rod Bearing (Standard/Blue)	1
8	4042182	Piston Rod Bearing (Standard)	1
8	4042163	Piston Rod Bearing (-0.20mm Green)	1
8	4042165	Piston Rod Bearing (-0.40mm Red)	1
9	4042183	Crankshaft	1
10	4042185	Sleeve	1
11	4042190	Gear (Crankshaft)	1
12	4042189	Key	1
13	4042193	Drive Gear	1
14	4042186	Crankshaft Bearing (Standard)	5
14	4042177	Crankshaft Bearing (-0.20mm)	5
14	4042178	Crankshaft Bearing (-0.40mm)	5
15	4042187	Thrust Washer (Standard)	2
15	4042204	Thrust Washer (+0.20 mm)	2
15	4042215	Thrust Washer (+0.40mm)	2
16	4042188	Thrust Washer (Standard)	2
16	4042219	Thrust Washer (+0.20 mm)	2
16	4042224	Thrust Washer (+0.40mm)	2
	4042239	Kit-Piston (Each Kit Services Only One Piston Assembly)	4
	4042245	Kit-Piston (+0.50mm)(Each Kit Services Only One Piston Assembly)	4
	4042291	Kit-Crankshaft Bearing (Standard)	1
	4042297	Kit-Crankshaft Bearing (-0.20 mm)	1
	4042303	Kit-Crankshaft Bearing (-0.40mm)	1

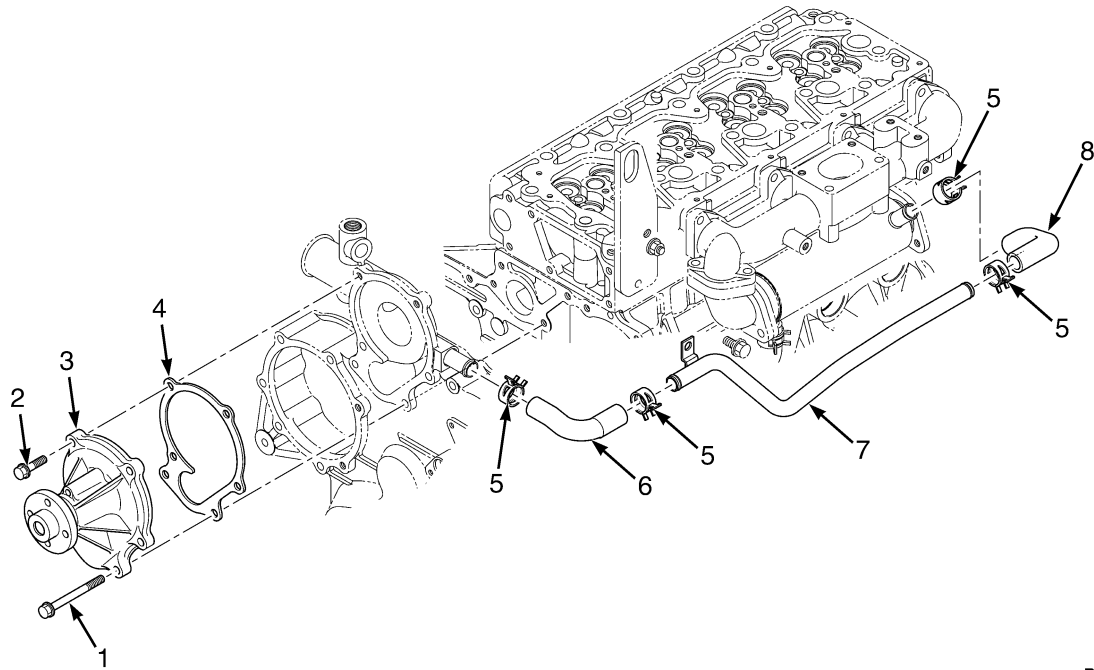
WATER PUMP FLANGE AND THERMOSTAT (FIGURE 2-21) KUBOTA DIESEL



BP090488

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054677	Hose	1
2	4042015	Hose Clamp	2
3	4041973	Cover (Thermostat)	1
4	4041993	Gasket	1
5	4042002	Bolt	3
6	4042003	Flange	1
7	4042008	Joint (Breather Pipe)	1
8	4042030	Gasket (Water Flange)	1
9	4042042	Thermostat	1
10	4042049	Plug	3
11	4042066	Bolt	1
12	4042067	Bolt	3

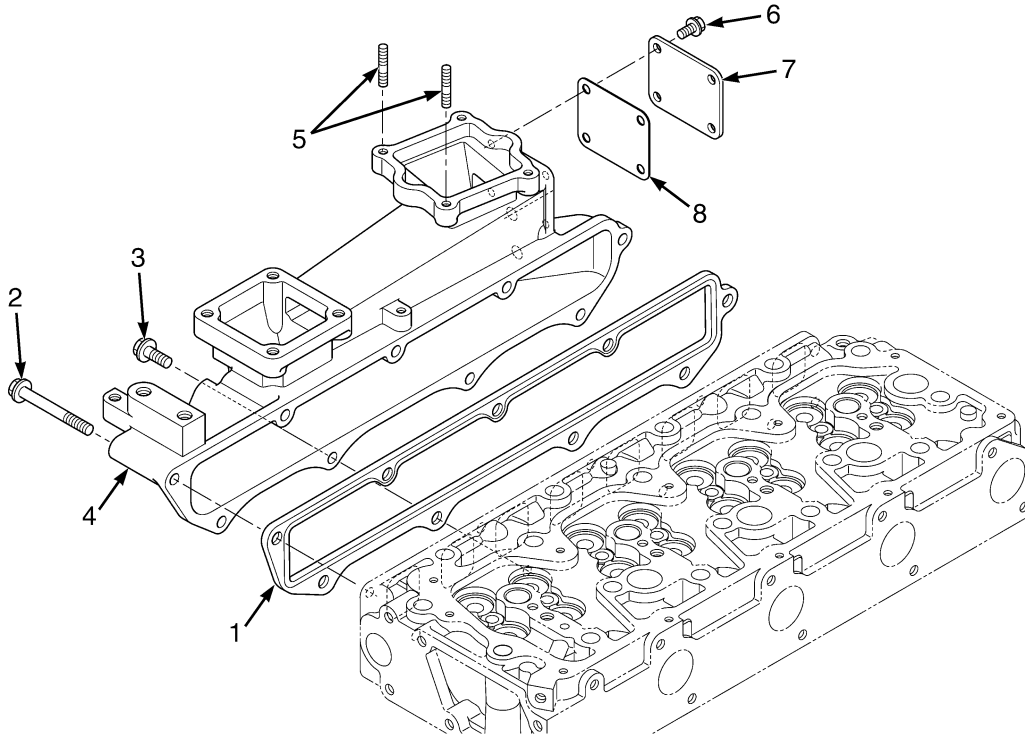
**WATER PUMP (FIGURE 2-22)
KUBOTA DIESEL**



BP090573

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042323	Bolt	4
2	4041997	Bolt	2
3	4042313	Water Pump	1
4	4042318	Gasket	1
5	4042015	Hose Clamp	4
6	4054680	Hose (EGR)	1
7	4054679	Pipe (Water)	1
8	4054678	Tube	1

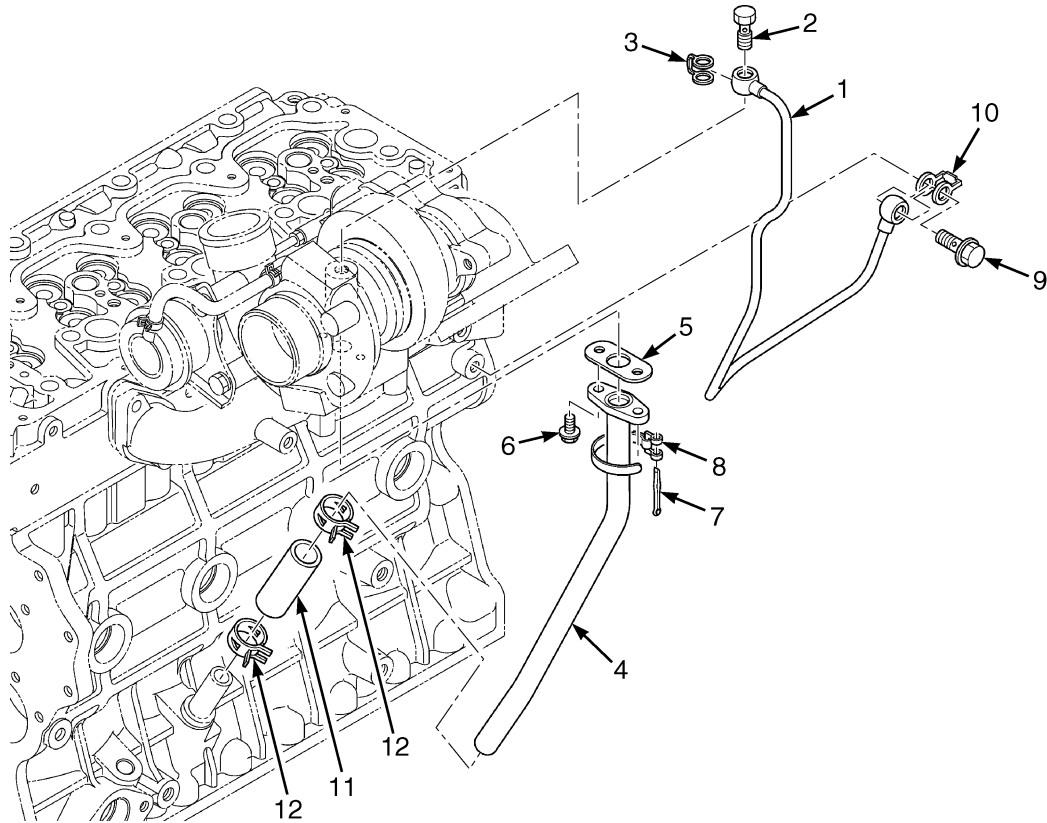
INLET MANIFOLD (FIGURE 2-23) KUBOTA DIESEL



BP090575

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042041	Gasket	1
2	4042043	Bolt	4
3	4041944	Bolt	5
4	4054696	Intake Manifold	1
5	4054699	Bolt	2
6	4042059	Bolt	4
7	4054697	Cover	1
8	4054698	Gasket	1

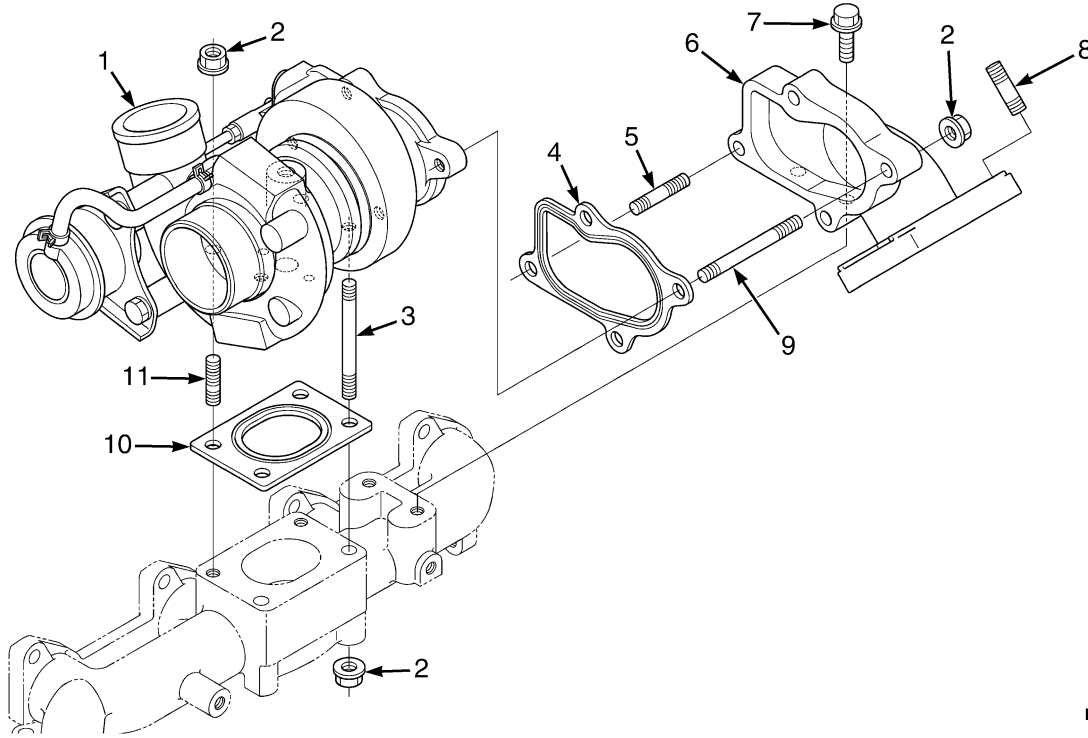
**TURBOCHARGER OIL PLUMBING (FIGURE 2-24)
KUBOTA DIESEL**



BP090499

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042074	Pipe (Oil)	1
2	4042075	Bolt	1
3	4042076	Gasket	1
4	4042077	Pipe (Oil)	1
5	4042078	Gasket	1
6	4042059	Bolt	2
7	4042080	Pin	1
8	4042081	Clamp	1
9	4042226	Bolt	1
10	4120028	Gasket	1
11	4042227	Pipe (Oil)	1
12	4042228	Pipe (Oil)	1
	4042020	Hose Clamp	2

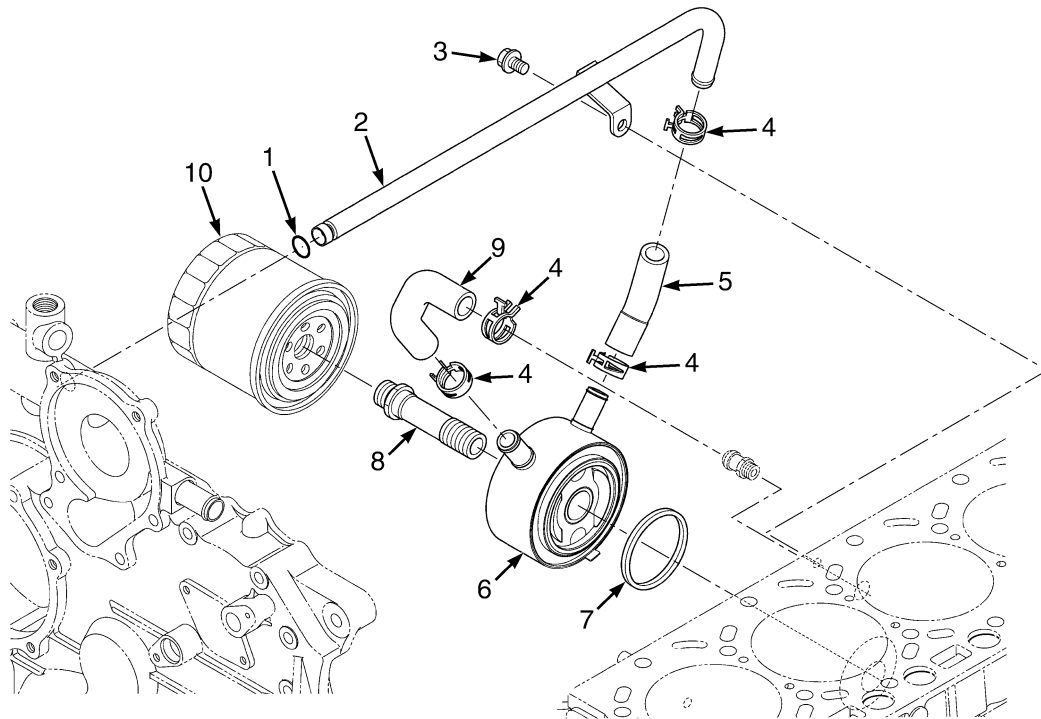
TURBOCHARGER (FIGURE 2-25) KUBOTA DIESEL



BP090606

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042063	Turbocharger	1
2	4051050	Nut	8
3	4051054	Stud	2
4	4042069	Gasket	1
5	4051063	Stud	4
6	4042068	Flange (Muffler)	1
7	4042067	Bolt	2
8	4054763	Bolt	4
9	4051062	Stud	1
10	4042064	Gasket	1
11	4051052	Stud	2

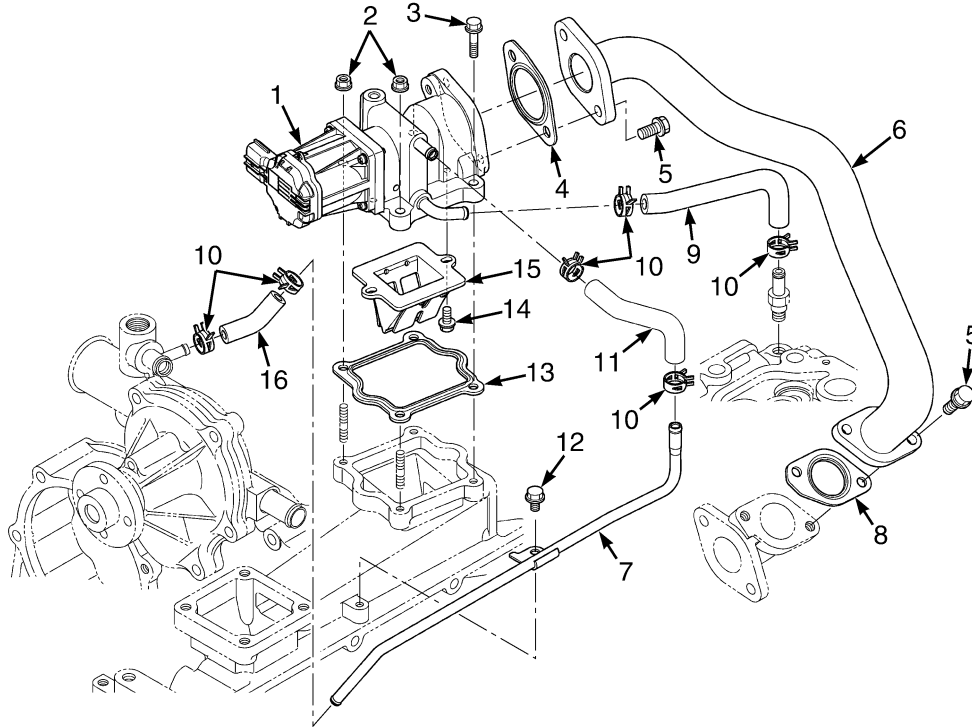
**OIL COOLER (FIGURE 2-26)
KUBOTA DIESEL**



BP090577

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054786	O-Ring	1
2	4054785	Pipe (Oil Cooler)	1
3	4042035	Bolt	1
4	4042015	Hose Clamp	4
5	4054783	Hose	1
6	4054781	Oil Cooler	1
7	4041927	Gasket	1
8	4054784	Joint	1
9	4054782	Hose	1
10	4042216	Cartridge (Oil Filter)	1

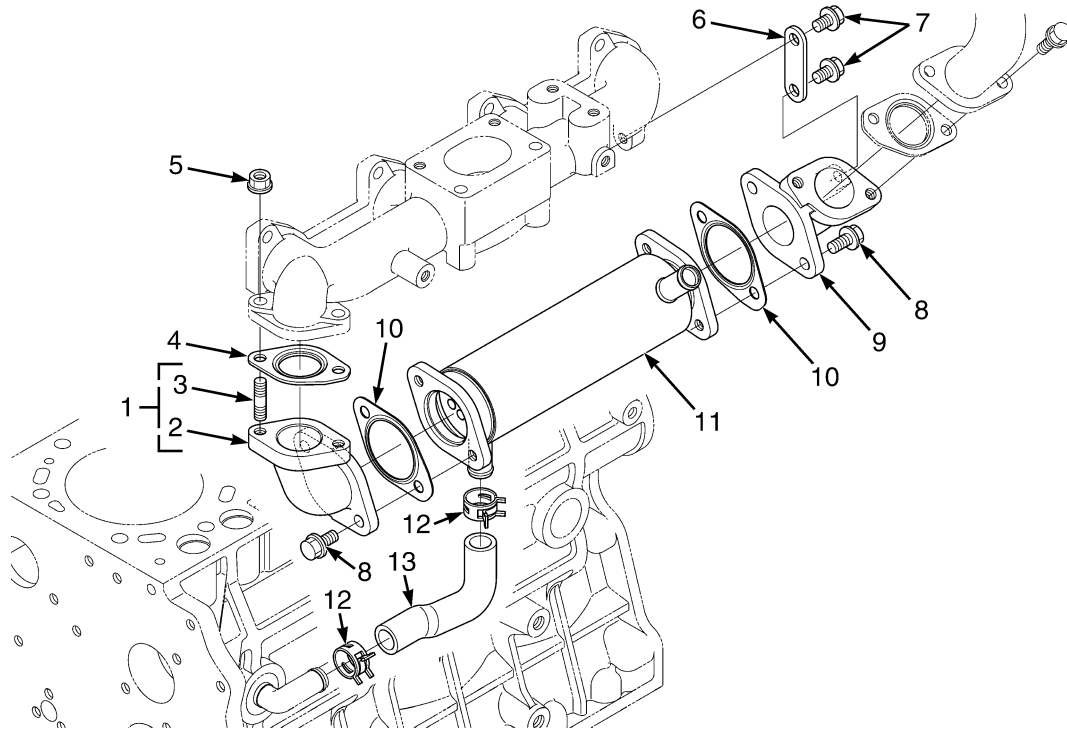
EGR VALVE (FIGURE 2-27) KUBOTA DIESEL



BP090576

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054744	Valve (EGR)	1
2	4050851	Nut (Flange)	2
3	4054747	Bolt	2
4	4042150	Gasket	3
5	4041944	Bolt	4
6	4054748	Pipe (EGR)	1
7	4054751	Pipe	1
8	4042082	Gasket (EGR Pipe)	1
9	4054745	Tube	1
10	4042032	Hose Clamp	6
11	4054750	Tube	1
12	4054753	Bolt (Flange)	1
13	4054746	Gasket (EGR Valve)	1
14	4042059	Bolt	2
15	4042058	Valve	1
16	4054752	Tube	1

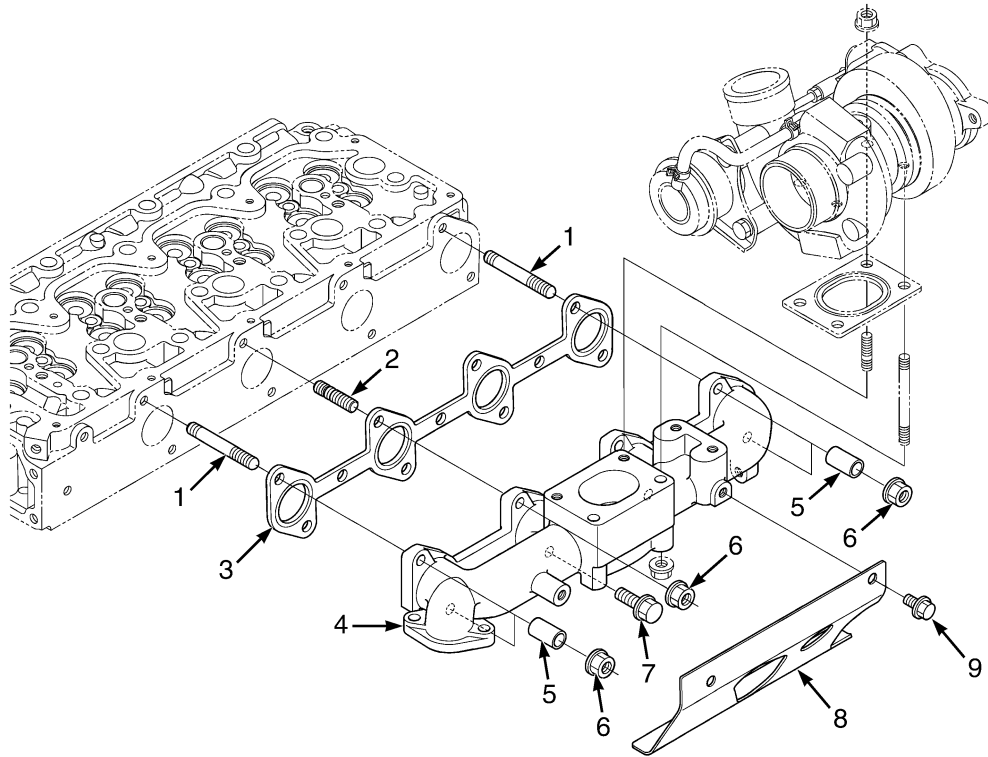
**EGR COOLER (FIGURE 2-28)
KUBOTA DIESEL**



BP090605

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054755	Flange (Assembly)	1
2	4054756	Flange	1
3	4054757	Stud	1
4	4042082		
	4054749	Gasket (EGR Pipe)	1
5	4051050	Nut	2
6	4054761	Bracket (EGR Cooler)	1
7	4042035	Bolt	1
8	4054759	Bolt	4
9	4054760	Flange	1
10	4042150	Gasket	2
11	4054758	Cooler (EGR)	1
12	4042015	Hose Clamp	1
13	4054762	Tube	1

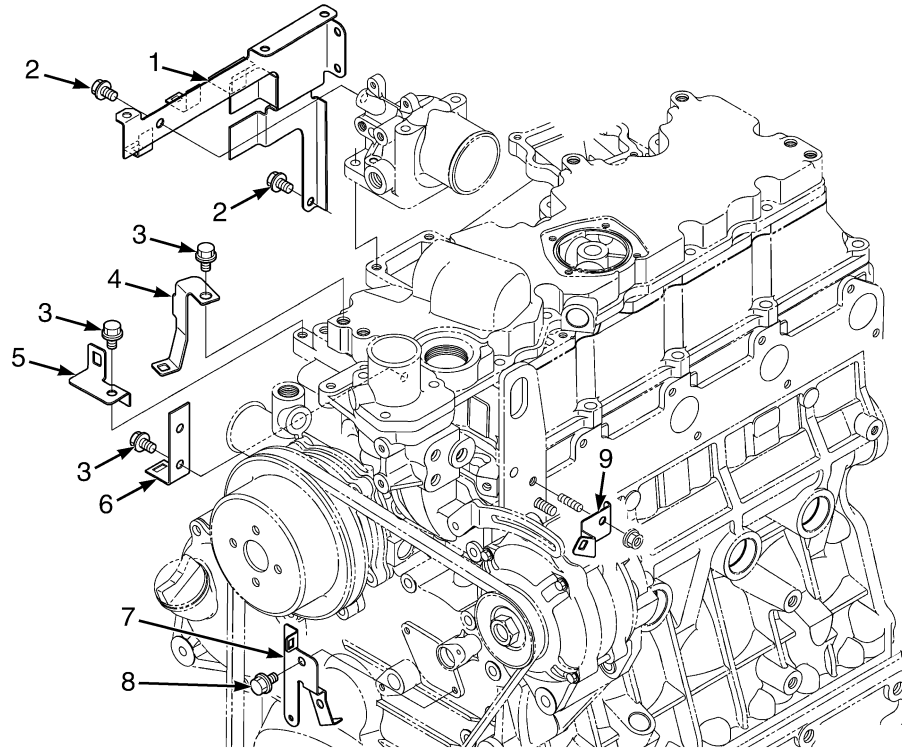
EXHAUST MANIFOLD (FIGURE 2-29) KUBOTA DIESEL



BP090601

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054741	Stud	4
2	4042010	Stud	2
3	4042087	Gasket	1
4	4054738	Exhaust Manifold	1
5	4054742	Collar	4
6	4051050	Nut	6
7	4042088	Bolt	2
8	4054739	Cover	1
9	4054740	Bolt	2

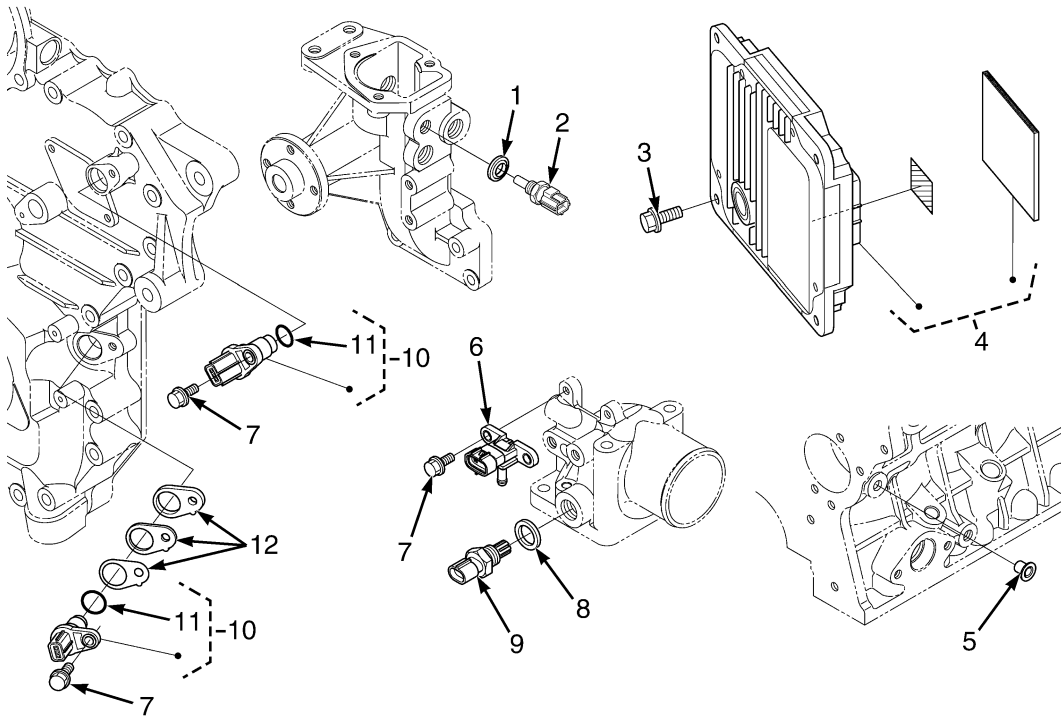
**WIRE HARNESS BRACKET (FIGURE 2-30)
KUBOTA DIESEL**



BP090598

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054675	Bracket	1
2	4041992	Bolt	2
3	4042035	Bolt	3
4	4054673	Bracket	1
5	4054671	Bracket	1
6	4054672	Bracket	1
7	4054674	Bracket	1
8	4041991	Bolt	1
9	4054670	Bracket	1

SENSORS (FIGURE 2-31) KUBOTA DIESEL



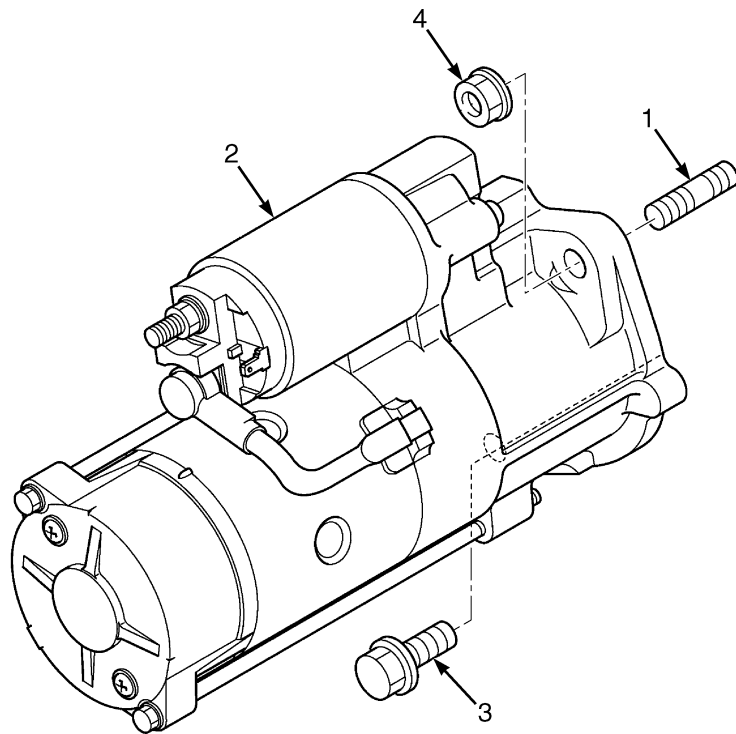
BP090599

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042061	Washer	1
2	4042056	Sensor (Water Temperature)	1
3	4041944	Bolt	2
4	4055271	Kit (E4 ECU)	1
4	4055272	Kit (E4 ECU and Cable)	1
5	4042143	Plug	1
6	4054653	Sensor (Manifold Absolute Pressure (MAP) /Boost Sensor) (Boost)	1
7	4041991	Bolt	4
8	4042050	Packing (O-Ring)	1
9	4042048	Sensor (Air Temperature)	1
10	a 4042000	Sensor	2
11	4042001	O-Ring	1
12	4042005	Shim (0.25)	1
12	4042006	Shim (.050)	1
12	4042007	Shim (.100)	1

FOOTNOTES:

- a** Upper is for Camshaft Position and Lower is for Crankshaft Position

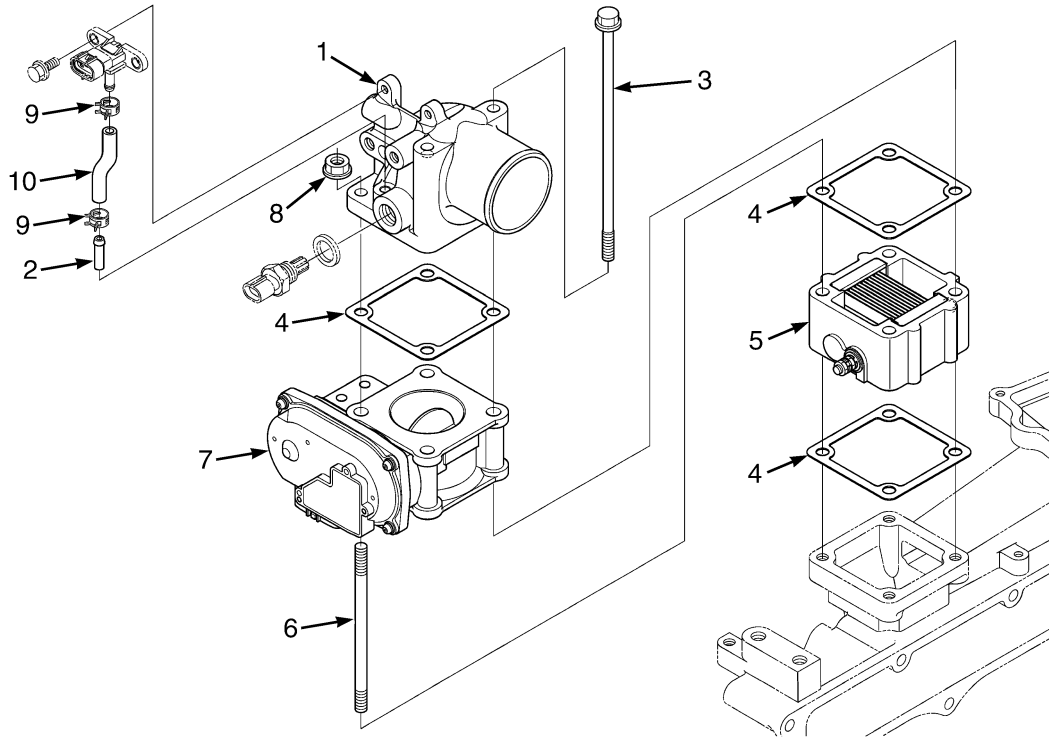
**STARTER (FIGURE 2-32)
KUBOTA DIESEL**



BP090501

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042285	Bolt (Stud)	1
2	4042280	Starter	1
3	4042284	Bolt	1
4	4042108	Nut	1

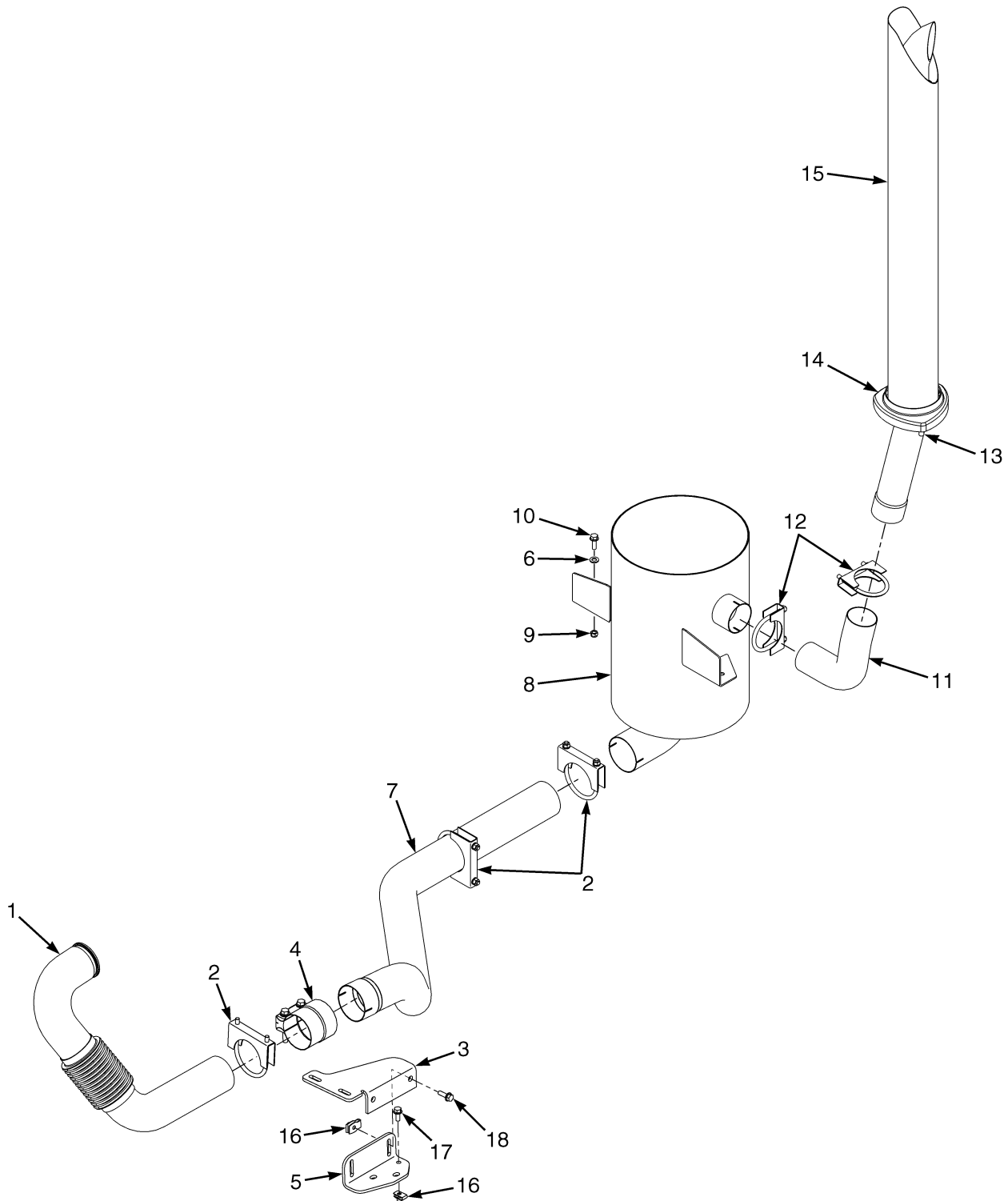
AIR CLEANER FLANGE AND THROTTLE VALVE (FIGURE 2-33) KUBOTA DIESEL



BP090607

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054722	Flange	1
2	4042046	Pipe	1
3	4054725	Bolt	2
4	4054723	Gasket	3
5	4054728	Heater	1
6	4054724	Stud	2
7	4054727	Throttle Body	1
8	4042053	Hose Clamp	2
9	4041946	Nut	2
10	4054726	Tube	1

EXHAUST SYSTEM (FIGURE 2-34) CUMMINS QSB 3.3L DIESEL — WITH CAB

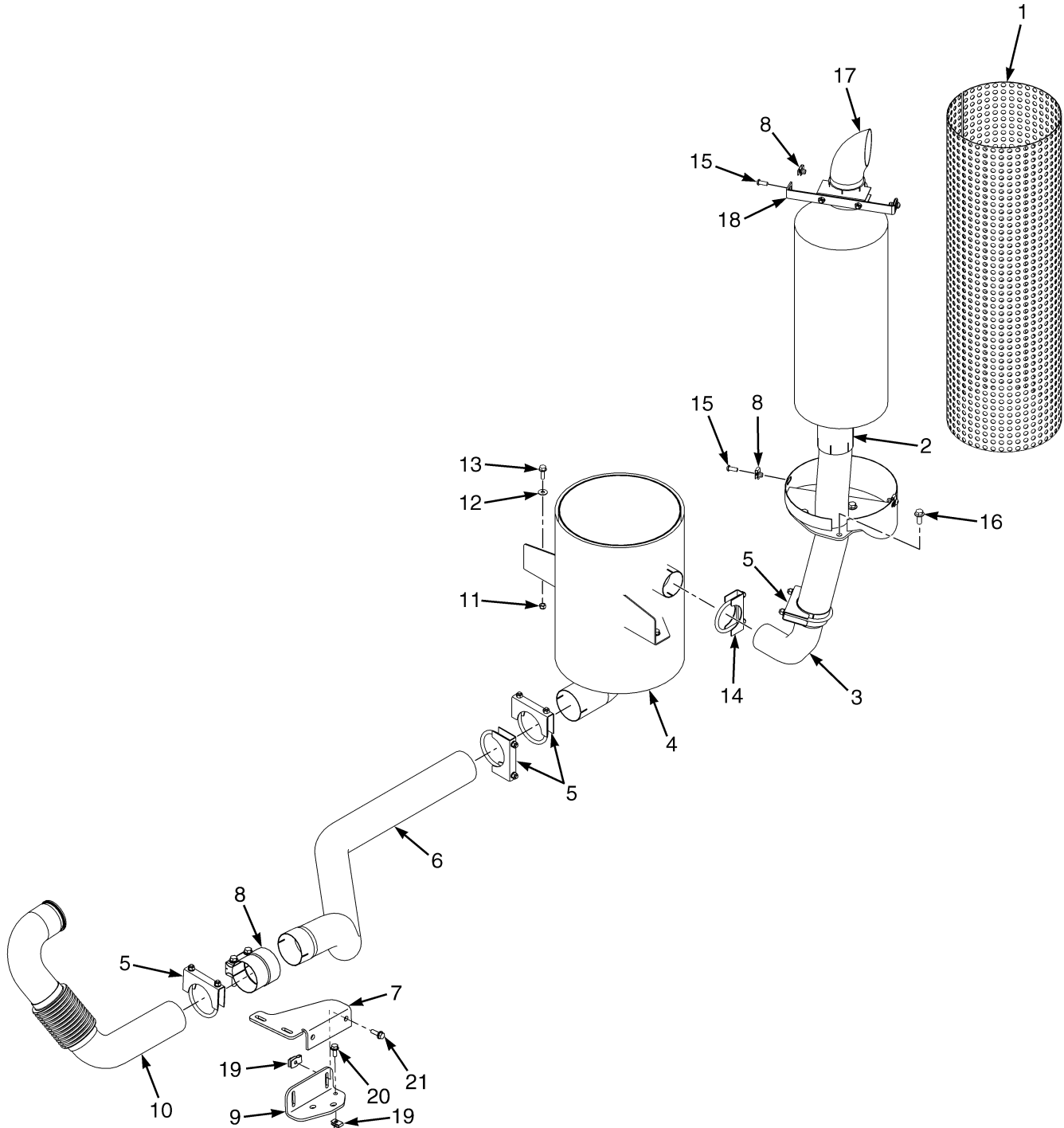


BP110054

**EXHAUST SYSTEM
CUMMINS QSB 3.3L DIESEL – WITH CAB**

ITEM	PART NO.	DESCRIPTION	QTY
1	1663787	Exhaust Pipe	1
2	30375	Clamp (Includes Hardware)	3
3	4010347	Bracket (Exhaust)	1
4	4010349	Clamp	1
5	4010355	Bracket (Exhaust)	1
6	320158	Washer	2
7	1664610	Exhaust Pipe	1
8	2107736	Muffler	1
9	1582222	Locknut	2
10	1510113	Capscrew	2
11	1666570	Exhaust Pipe	1
12	30372	Clamp Assembly (Includes Qty. 2 Nuts)	2
13	1510117	Capscrew	3
14	1668428	Cover	1
15	1666569	Overhead Exhaust	1
16	1393879	Nut	2
17	1527880	Capscrew	3
18	1510113	Capscrew	2

EXHAUST SYSTEM (FIGURE 2-35) CUMMINS QSB 3.3L DIESEL — WITH OVERHEAD GUARD

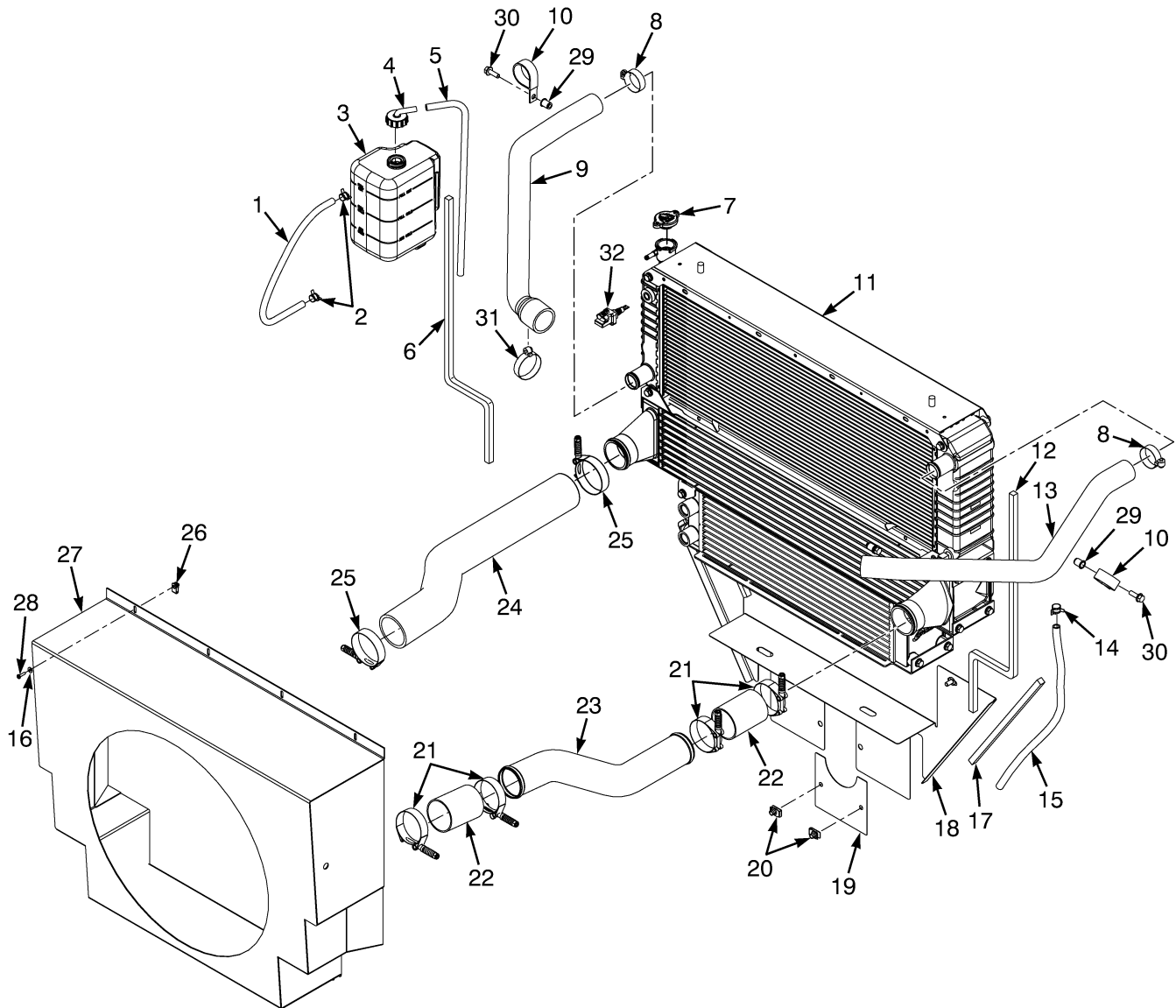


BP110055

EXHAUST SYSTEM
CUMMINS QSB 3.3L DIESEL – WITH OVERHEAD GUARD

ITEM	PART NO.	DESCRIPTION	QTY
1	4004821	Heat Shield	1
2	4006633	Overhead Exhaust	1
3	4004773	Exhaust Pipe	1
4	2107736	Muffler	1
5	30375	Clamp (Includes Hardware)	5
6	1664610	Exhaust Pipe	1
7	4010347	Bracket (Exhaust)	1
8	4010349	Clamp	1
9	4010355	Bracket (Exhaust)	1
10	1663787	Exhaust Pipe	1
11	1582222	Locknut	2
12	320158	Washer	2
13	1510113	Capscrew	2
14	30372	Clamp Assembly (Includes Qty. 2 Nuts)	1
15	369242	Capscrew	4
16	1510117	Capscrew	3
16	1586013	Capscrew (Alternate Part)	3
17	4004820	Tail Pipe	1
18	4004898	Bracket	1
19	1393879	Nut	2
20	1527880	Capscrew	3
21	1510113	Capscrew	2

COOLING SYSTEM (FIGURE 2-36) CUMMINS QSB 3.3L DIESEL

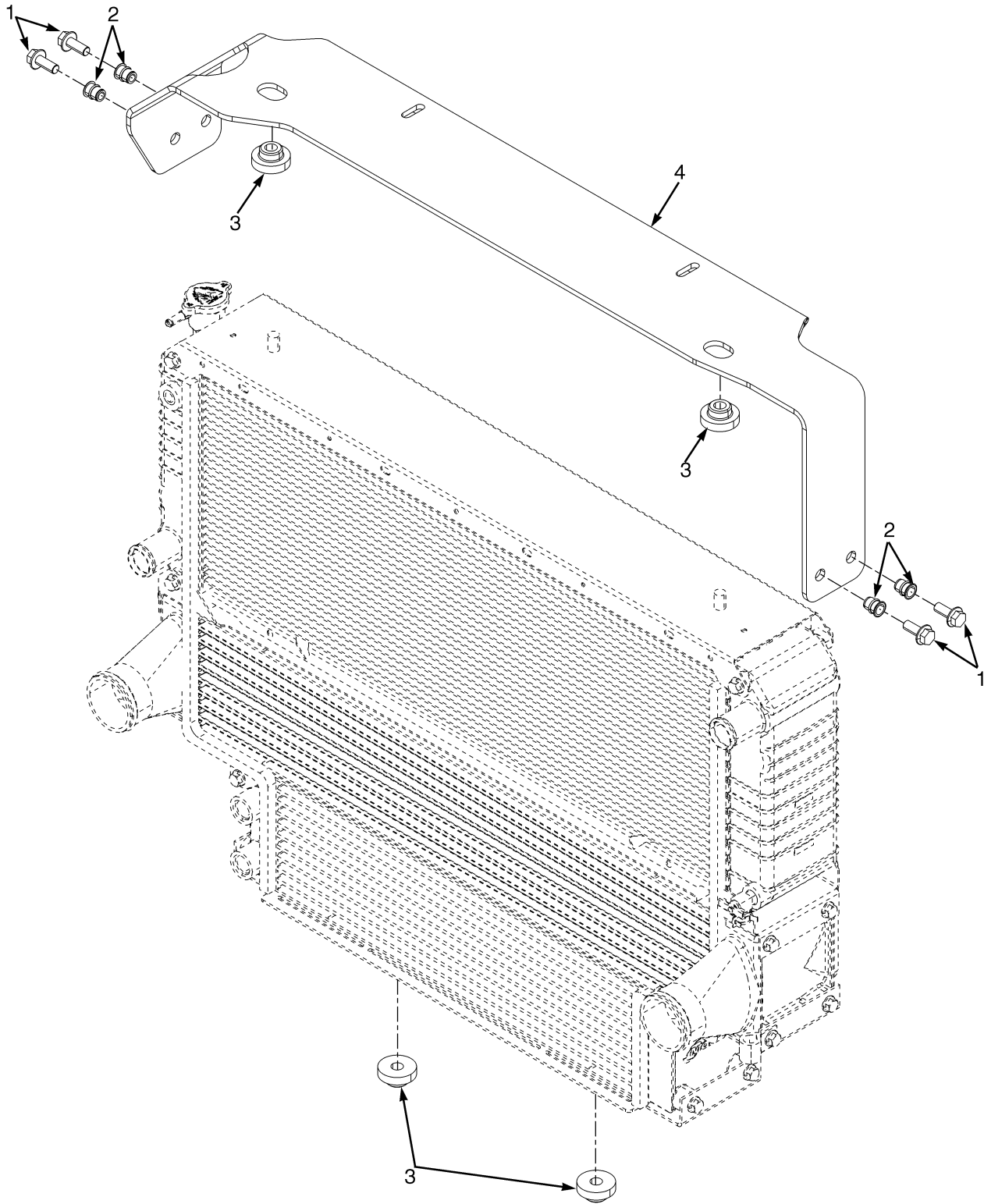


BP060066

**COOLING SYSTEM
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1567674	Hose	1
2	369815	Clamp	2
3	1643342	Reservoir	1
4	1684273	Cap	1
4	345453	Outlet (Reservoir)	1
4	345454	Cap	1
4	336550	Bushing	1
5	1684256	Hose	1
6	2107843	Seal	1
7	1352140	Radiator Cap	1
8	369804	Clamp	3
9	2104193	Radiator Hose (Lower)	1
10	1547845	Clamp	2
11	2103919	Radiator (☞ Figure 2-38).....	1
12	2107844	Seal	1
13	2104194	Radiator Hose (Upper)	1
14	369815	Clamp	1
15	1567674	Hose	1
16	302023	Screw	4
17	1694527	Seal	2
18	2108592	Baffle	1
19	2107592	Baffle	1
20	1480237	Nut	2
20	1527880	Capscrew (Not Illustrated)	2
21	1665556	Clamp	4
22	1665700	Hose	2
23	2102847	Tube	1
24	2102846	Hose	1
25	1666557	Clamp	2
26	1535257	Nut	4
27	1704313	Shroud	1
28	197066	Washer	4
29	1531557	Insert	2
30	1510113	Capscrew	2
31	119236	Clamp	1
32	1689881	Sensor (Coolant Level)	1

RADIATOR MOUNTING (FIGURE 2-37) CUMMINS QSB 3.3L DIESEL

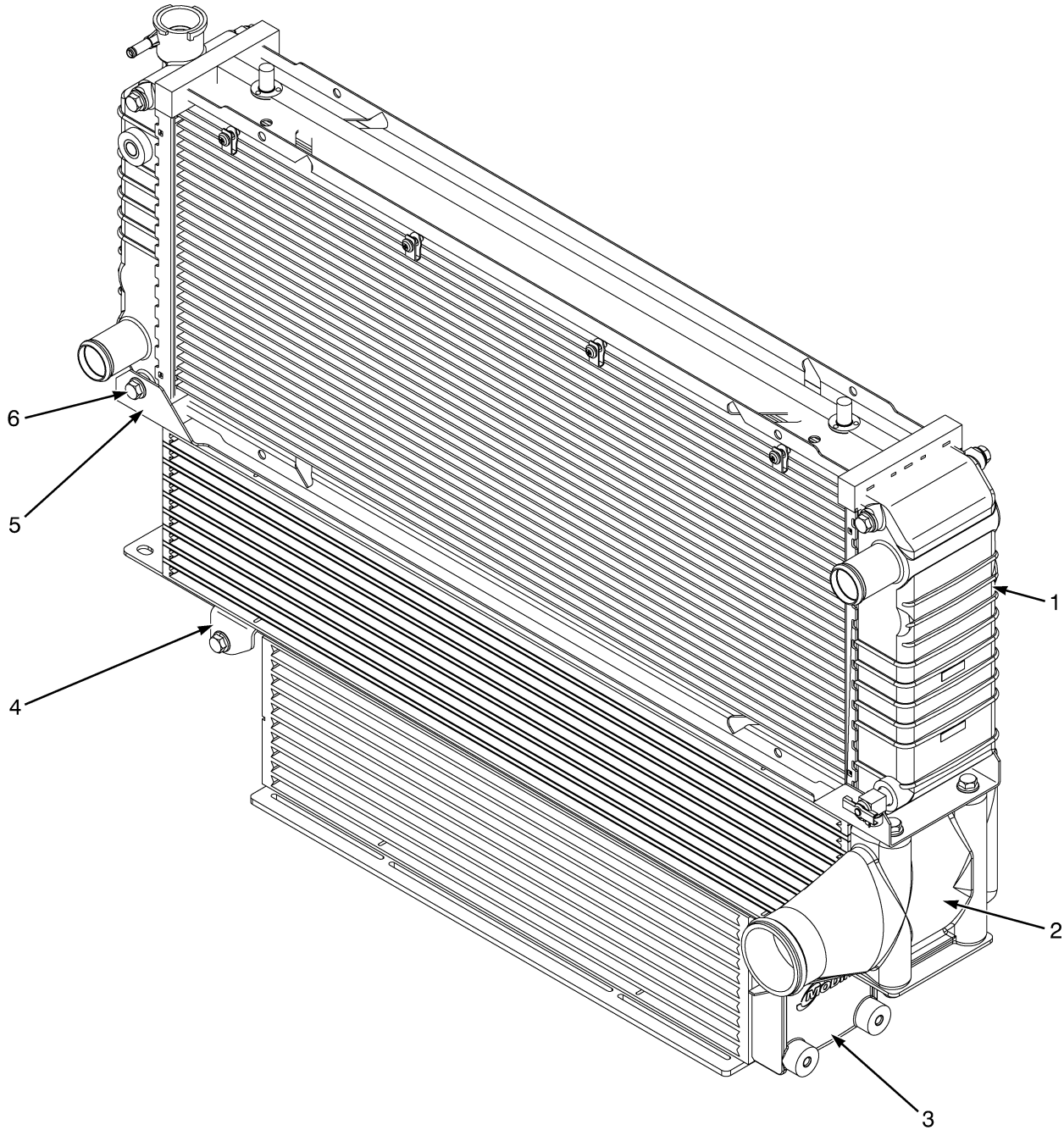


BP060065

**RADIATOR MOUNTING
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1510117	Capscrew	4
2	1530244	Insert	4
3	1529787	Isolator	4
4	1691356	Bracket	1

RADIATOR ASSEMBLY (FIGURE 2-38) CUMMINS QSB 3.3L

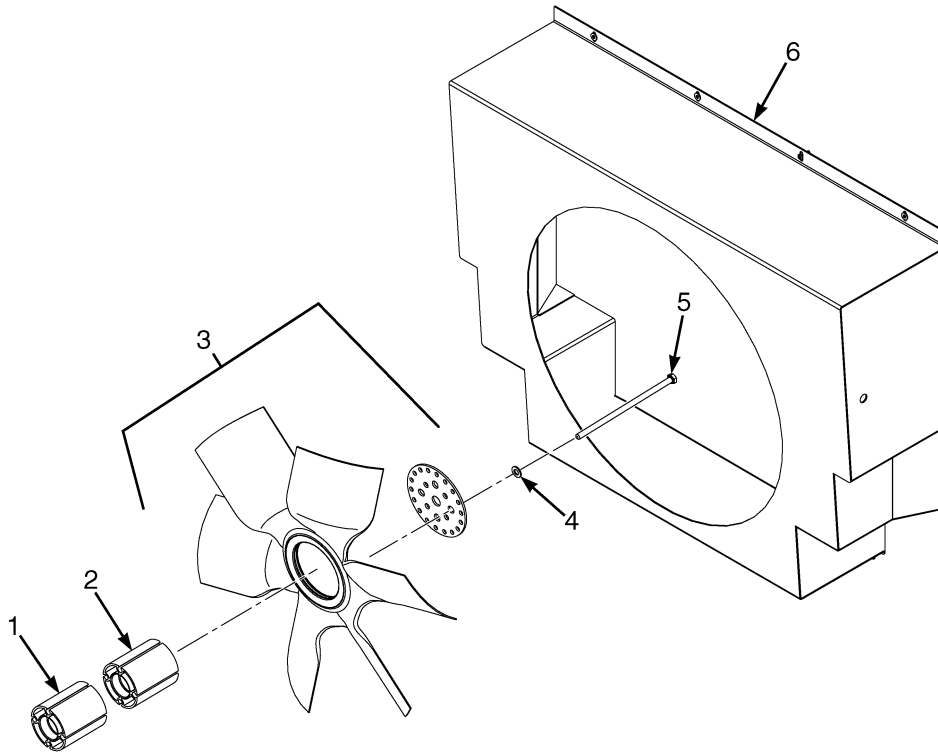


BP060068

RADIATOR ASSEMBLY
CUMMINS QSB 3.3L

ITEM	PART NO.	DESCRIPTION	QTY
	2103919	Radiator	1
1	1709214	Radiator	1
2	1709215	Air Cooler	1
3	1709216	Oil Cooler	1
4	1709218	Bracket	1
5	1709217	Bracket	1

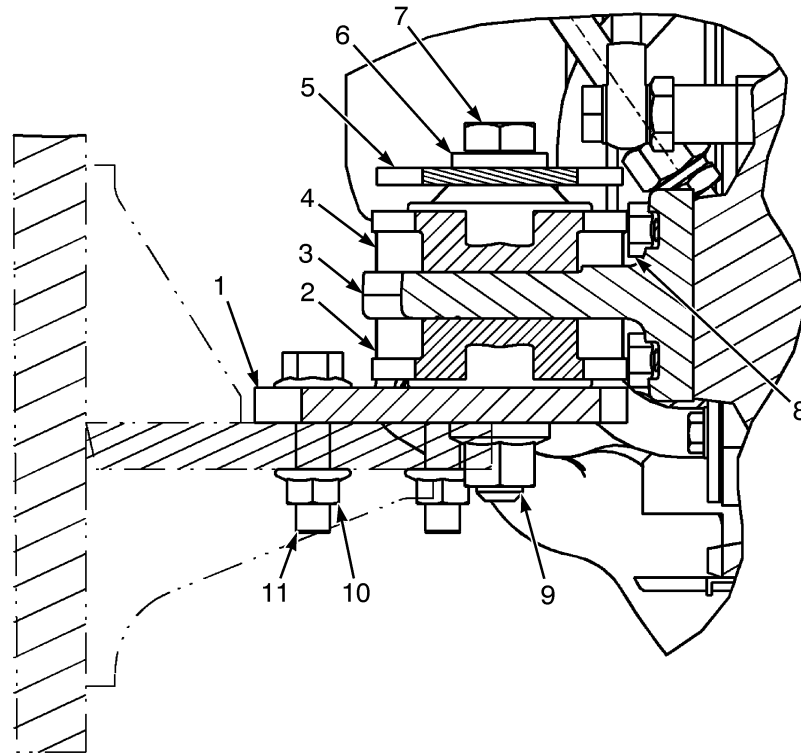
FAN ASSEMBLY (FIGURE 2-39) CUMMINS QSB 3.3L DIESEL



BP060067

ITEM	PART NO.	DESCRIPTION	QTY
1	1691561	Spacer	1
2	1668639	Spacer	1
3	2099480	Fan	1
4	296418	Washer	4
5	176769	Capscrew	4
6	1704313	Shroud	1

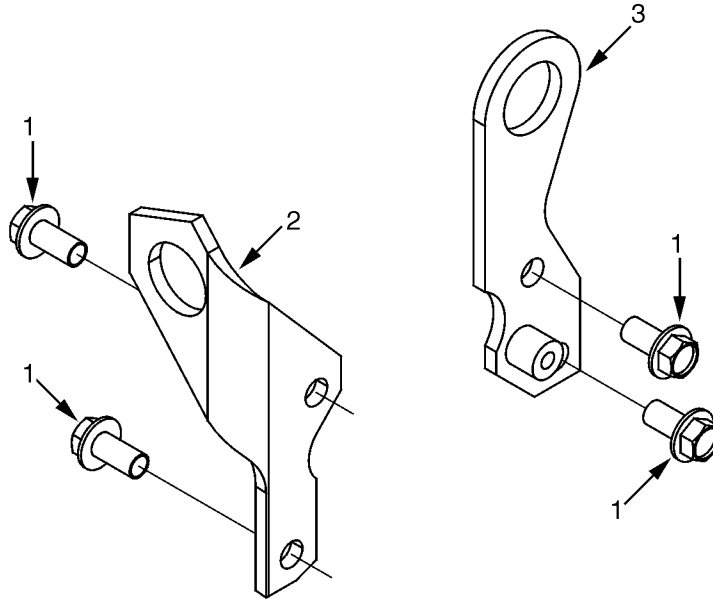
**ENGINE MOUNTING (FIGURE 2-40)
CUMMINS QSB 3.3L DIESEL**



BP090391

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1696332	Mounting Plate (LH)	1
1	1696333	Mounting Plate (RH)	1
2	2069951	Isolator (Yellow Stripe)	2
3	1663183	Motor Mount	2
4	2069951	Isolator	2
5	1557737	Washer	2
6	1504075	Washer	2
7	293697	Capscrew	2
8	1663739	Bolt	8
9	1565453	Nut (Flange)	2
10	1528888	Nut (Shoulder)	6
11	1665557	Capscrew	6

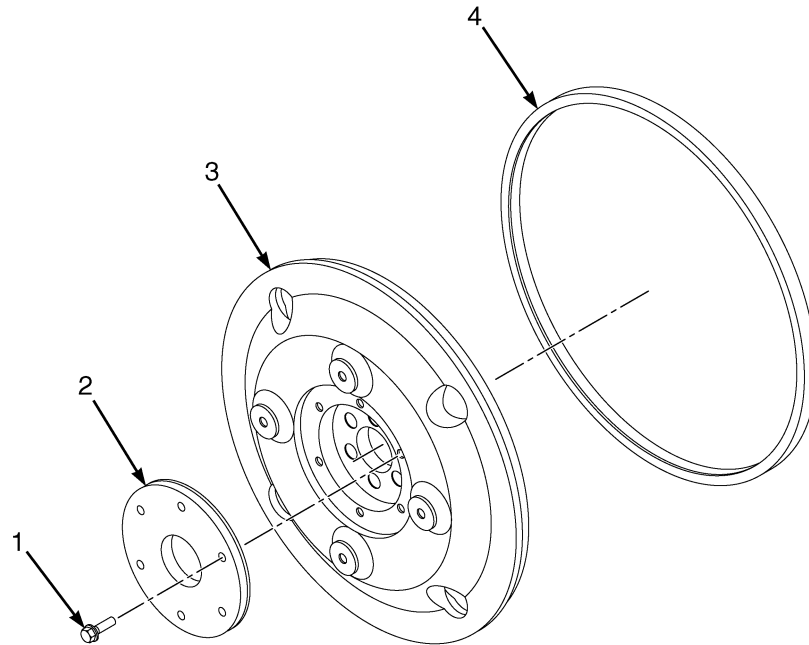
LIFTING BRACKET (FIGURE 2-41) CUMMINS QSB 3.3L DIESEL



BP090402

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691825	Capscrew	4
2	1691679	Bracket	1
3	1696967	Bracket	1

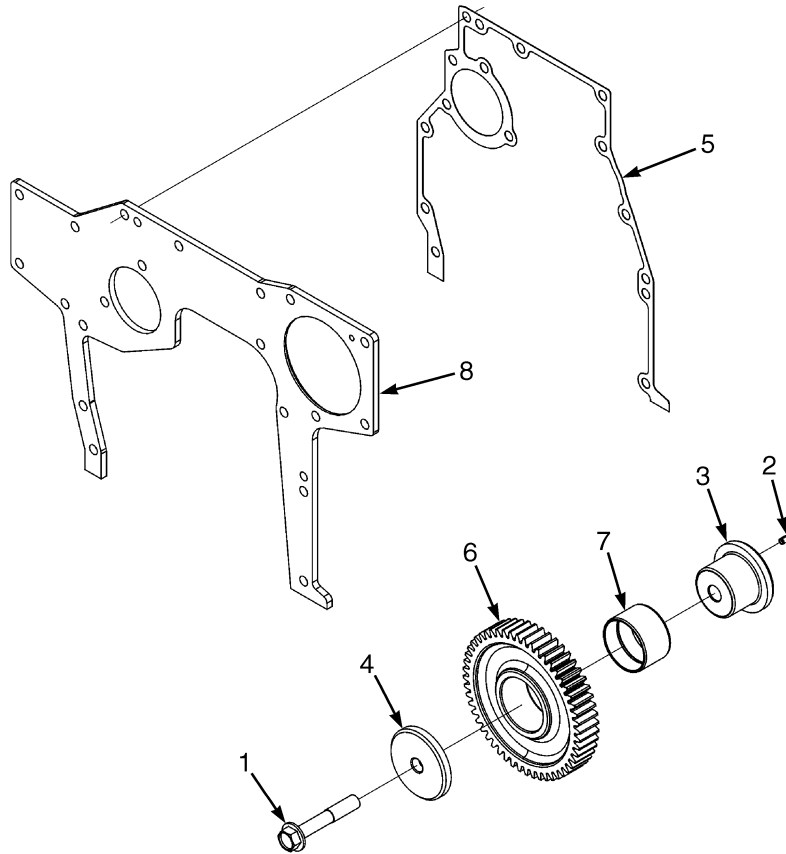
**FLYWHEEL (FIGURE 2-42)
CUMMINS QSB 3.3L**



BP090616

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	4023568	Capscrew	6
2	1691681	Adapter	1
3	1691682	Flywheel	1
4	1639725	Ring Gear	1

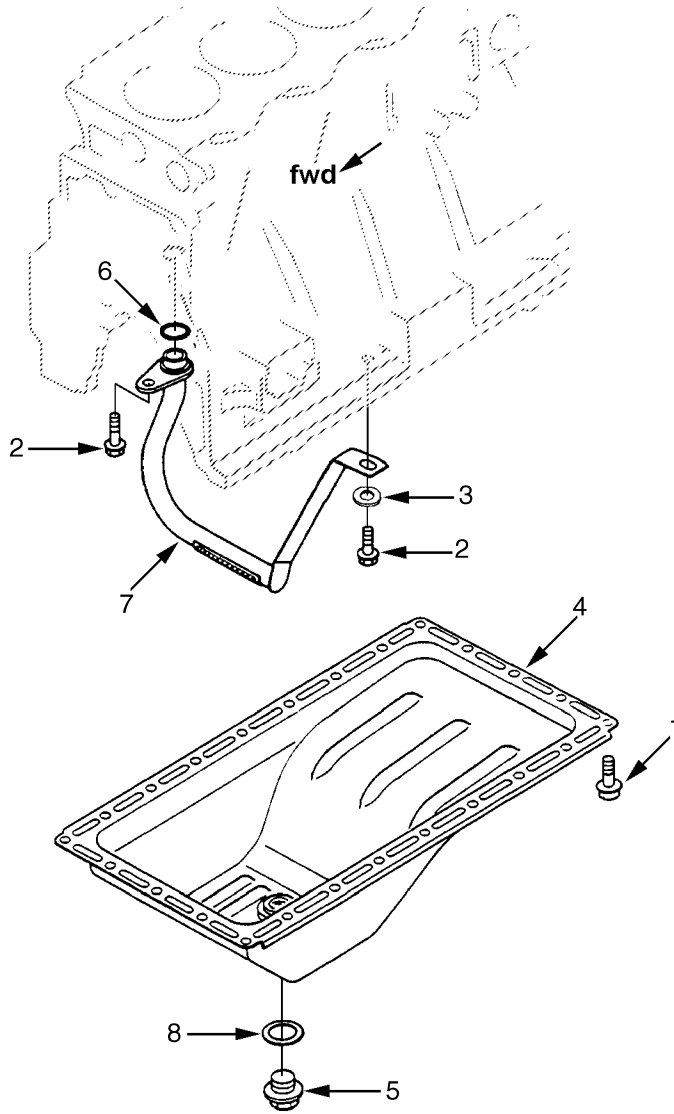
FRONT GEAR HOUSING (FIGURE 2-43) CUMMINS QSB 3.3L DIESEL



BP060410

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691601	Capscrew	1
2	1691602	Cotter Pin	1
3	1691603	Shaft	1
4	1691604	Washer	1
5	1691605	Gasket (Gear Cover)	1
6	1691606	Idler Gear	1
7	.....	Bushing	1
8	1691607	Cover Plate	1

OIL PAN (FIGURE 2-44) CUMMINS QSB 3.3L DIESEL

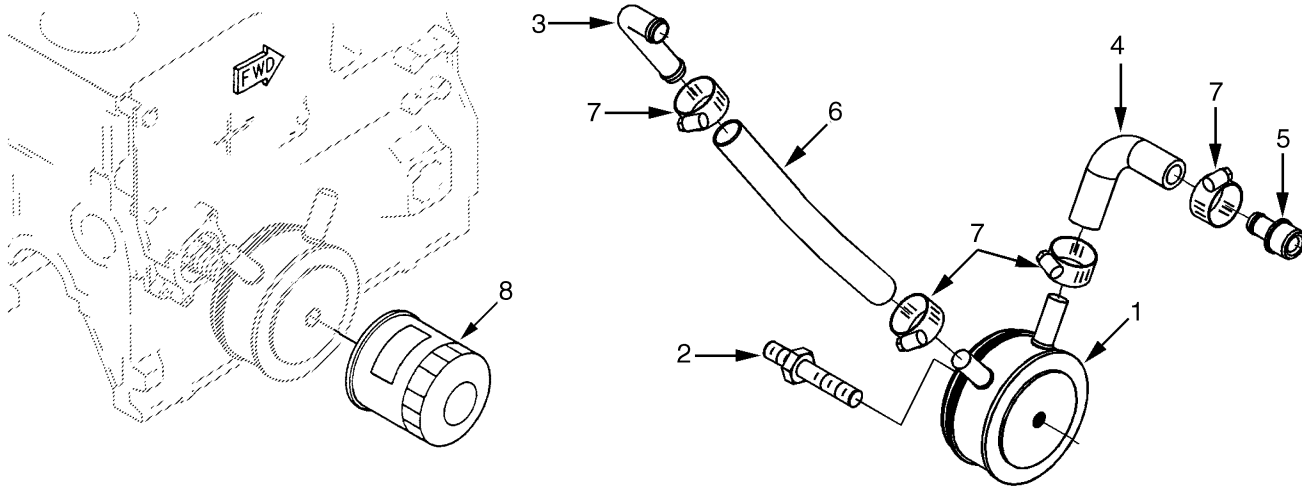


BP090395

**OIL PAN
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691860	Capscrew	24
2	1691853	Capscrew	2
3	1691862	Washer	1
4	2109562	Oil Pan	1
5	1691864	Plug	1
6	1691865	Seal	1
7	1691866	Tube	1
8	1691867	Washer	1

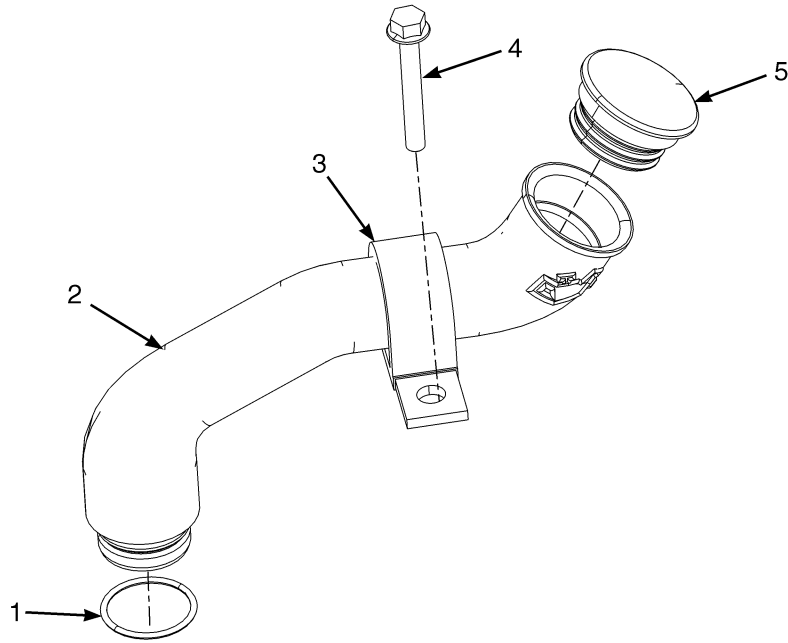
OIL FILTER AND COOLER (FIGURE 2-45) CUMMINS QSB 3.3L DIESEL



BP090403

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691844	Oil Cooler	1
2	1691845	Coupling	1
3	1691841	Coupling	1
4	1691842	Hose	1
5	1691837	Coupling	1
6	1691843	Hose	1
7	1691828	Hose Clamp	4
8	1691846	Oil Filter	1

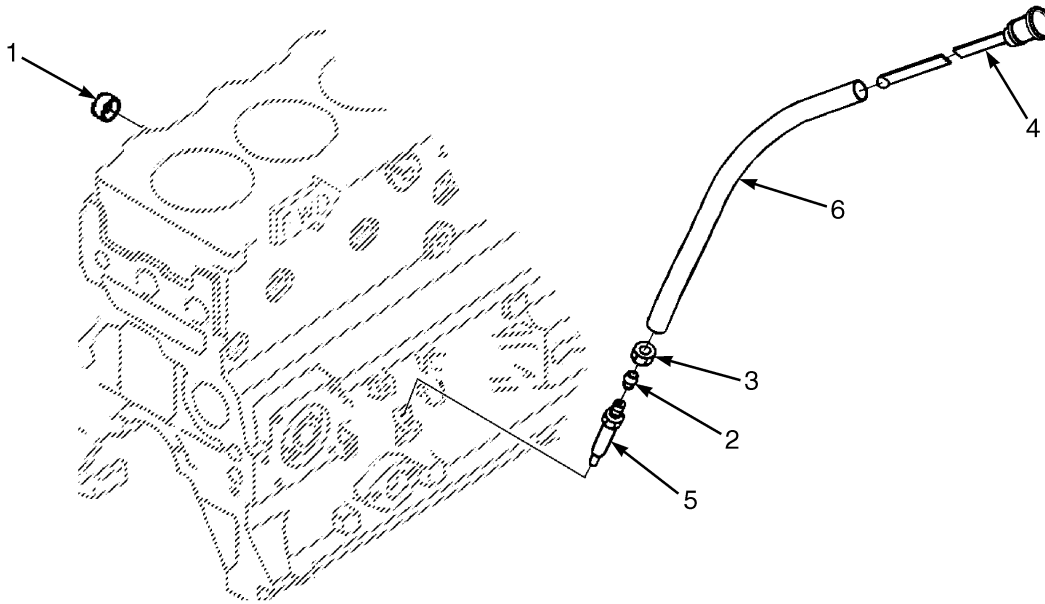
**OIL FILLER ARRANGEMENT (FIGURE 2-46)
CUMMINS QSB 3.3L DIESEL**



BP090413

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	39378	O-Ring	2
2	1691792	Tube	1
3	258590	Clamp	1
4	1510116	Capscrew	1
5	1691858	Cap	1

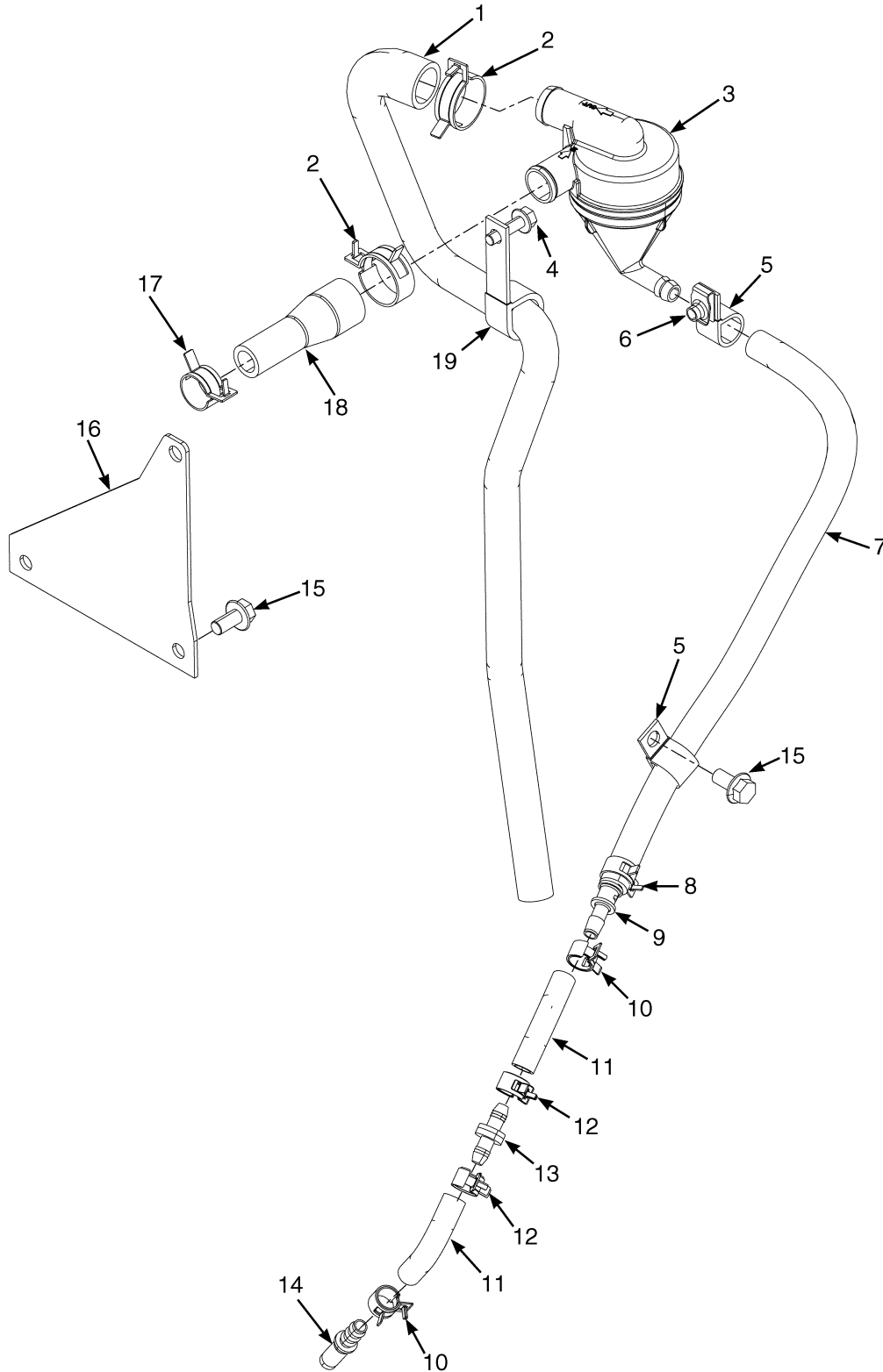
OIL LEVEL GAUGE (FIGURE 2-47) CUMMINS QSB 3.3L DIESEL



BP090409

ITEM	PART NO.	DESCRIPTION	QTY
1	1691847	Plug	1
2	1691848	Collar	1
3	1691849	Nut	1
4	1691850	Dipstick	1
5	1691851	Dipstick Tube (Lower)	1
6	1691852	Dipstick Tube (Upper)	1

CRANKCASE BREATHER (FIGURE 2-48) CUMMINS QSB 3.3L DIESEL

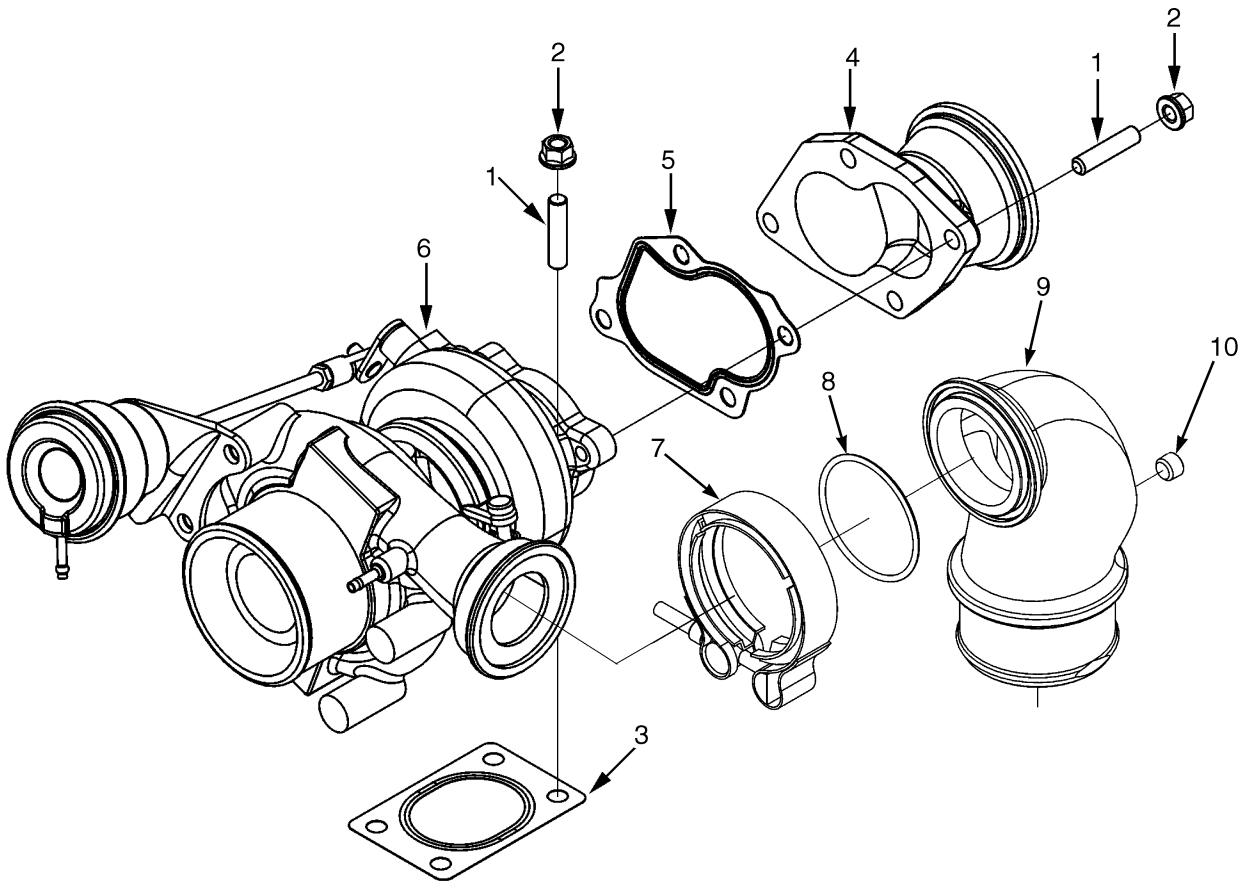


BP090398

**CRANKCASE BREATHER
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	2102765	Hose	1
2	1527980	Hose Clamp	2
3	1676948	Separator	1
4	1527881	Capscrew	1
5	173247	Clamp	2
6	1480237	Nut	1
7	1686731	Hose	1
8	1502006	Hose Clamp	1
9	1677717	Reducer	1
10	1502004	Hose Clamp	1
11	1473099	Hose	2
12	1569616	Hose Clamp	4
13	1677426	Check Valve	1
14	1687413	Fitting	1
15	1527883	Capscrew	3
16	1676949	Bracket	1
17	1501994	Hose Clamp	1
18	2102767	Hose	1
19	1399400	Clamp	1

TURBOCHARGER (FIGURE 2-49)
CUMMINS QSB 3.3L DIESEL

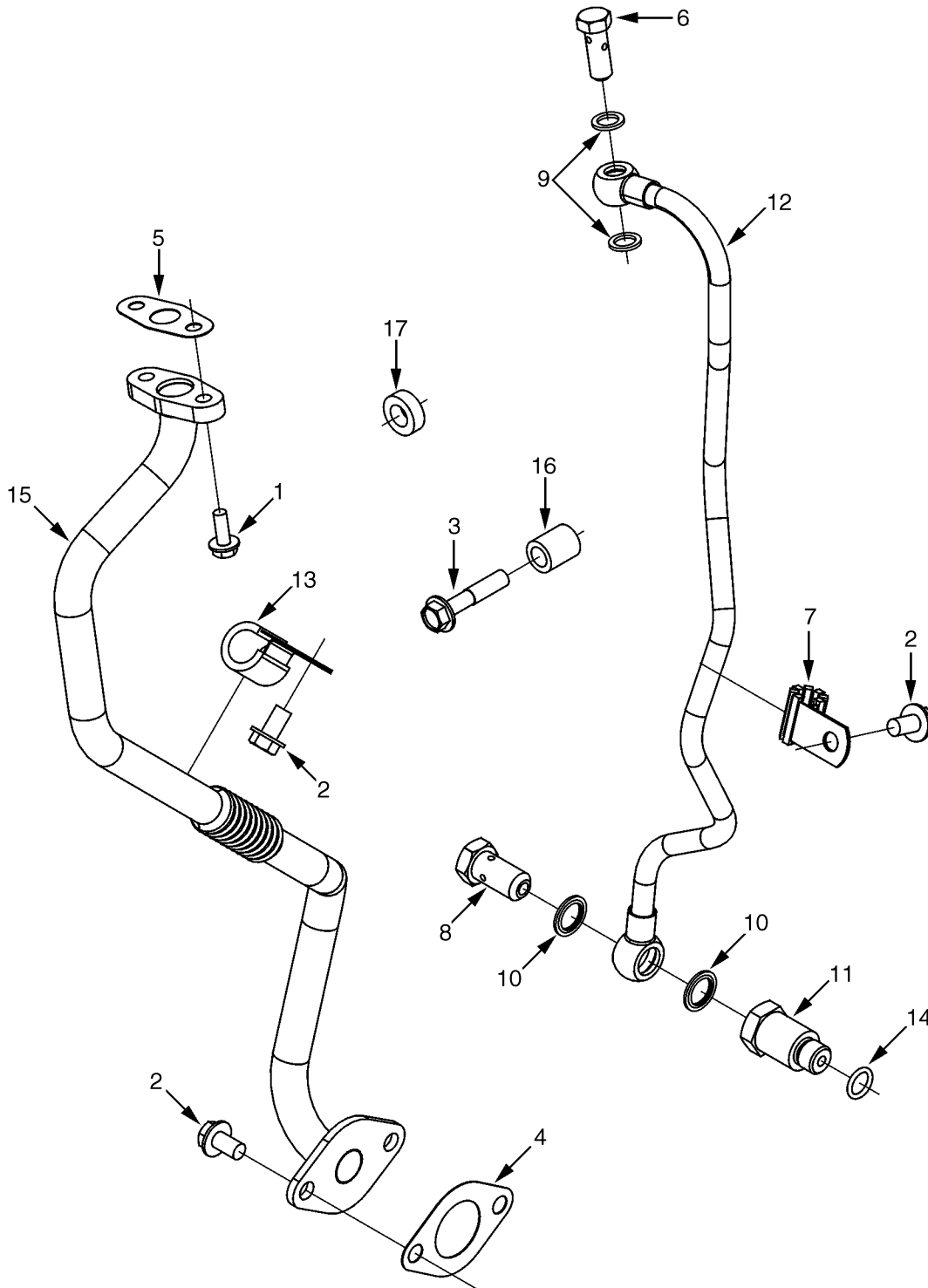


BP090396

**TURBOCHARGER
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	4023964	Stud	4
2	1691987	Nut	4
3	1691988	Gasket	1
4	1691989	Connector	1
5	1691990	Gasket	1
6	.....	Turbocharger	1
7	1691806	Clamp	1
8	1691822	Seal	1
9	1691823	Pipe	1
10	1513191	Fitting	1
	1692003	Kit-Turbocharger and Gasket	1

TURBOCHARGER PLUMBING (FIGURE 2-50) CUMMINS QSB 3.3L DIESEL

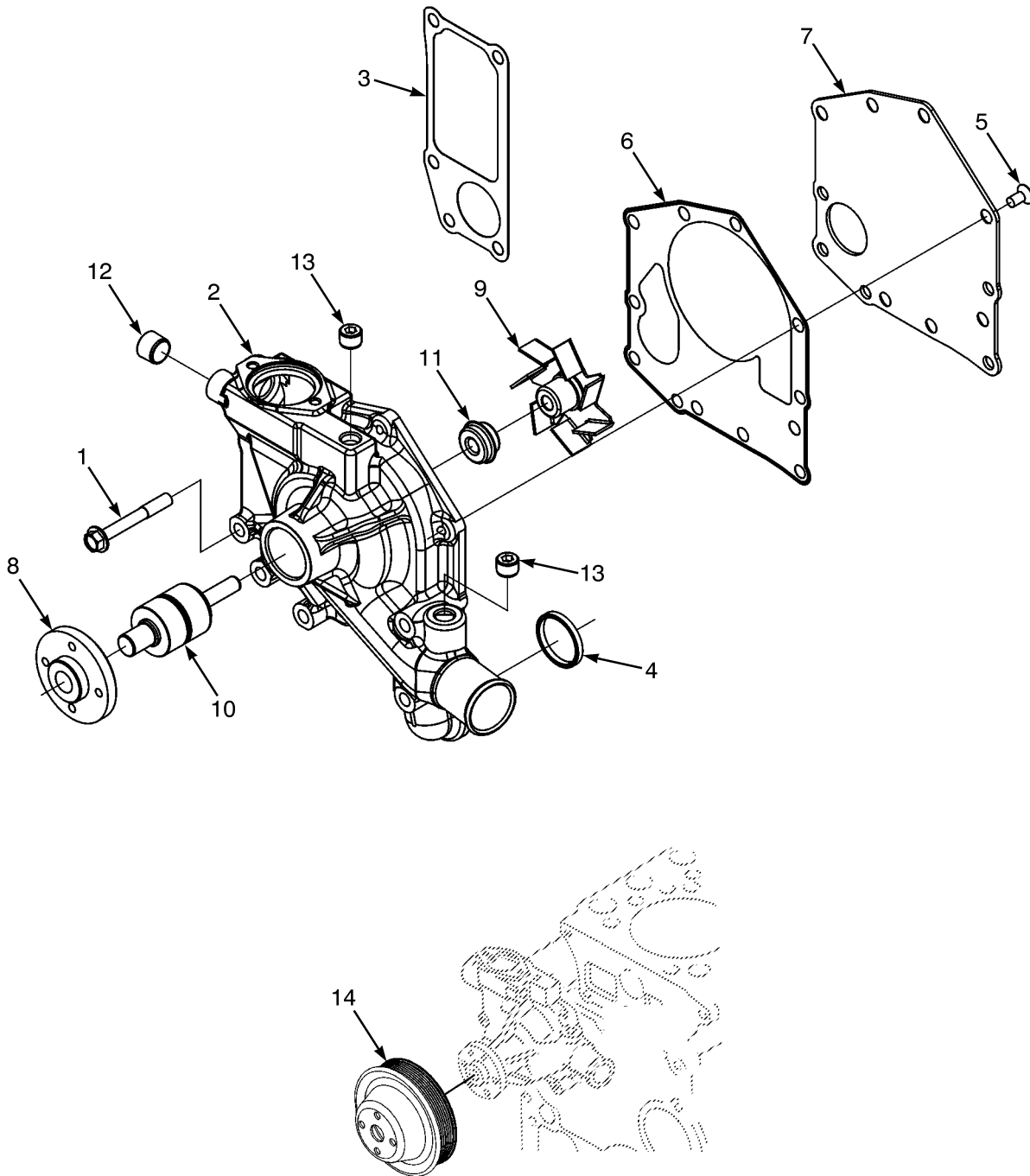


BP090397

**TURBOCHARGER PLUMBING
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1692011	Capscrew	2
2	1691860	Capscrew	2
3	1691909	Capscrew	2
4	1692023	Gasket (Oil Drain)	1
5	1692024	Gasket (Oil Drain)	1
6	1692025	Screw (Banjo Connector)	1
7	1692026	Clip	1
8	1673878	Screw (Banjo Connector)	1
9	1692027	Washer	2
10	1513714	Sealing Ring	2
11	1692028	Boot	1
12	1692029	Tube (Oil Supply)	1
13	1692030	Clip	1
14	1692031	Seal	1
15	1692032	Tube (Oil Drain)	1
16	1692033	Spacer	1
17	1692034	Spacer	1

WATER PUMP AND PULLEY (FIGURE 2-51) CUMMINS QSB 3.3L DIESEL



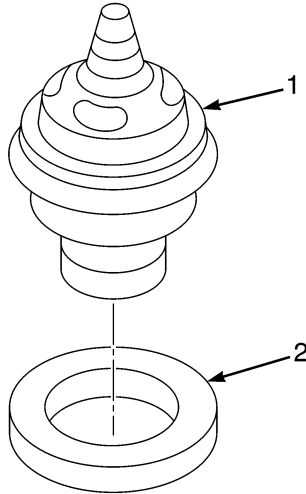
BP090405

**WATER PUMP AND PULLEY
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691840	Capscrew	4
2	1693607	Water Pump	1
3	1692049	Gasket	1
4	1692048	Seal	1
5	1692057	Capscrew	7
6	.....	Gasket (Water Pump)	1
7	.....	Cover Plate	1
8	.....	Boss	1
9	1692054	Impeller	1
10	1692055 4041627	Shaft	1
11	1692056	Seal	1
12	1692051	Plug	1
13	1692050	Plug	2
14	1691647	Water Pump Pulley	1
	a 1692061	V-Belt	1

FOOTNOTES:**a** Not Illustrated

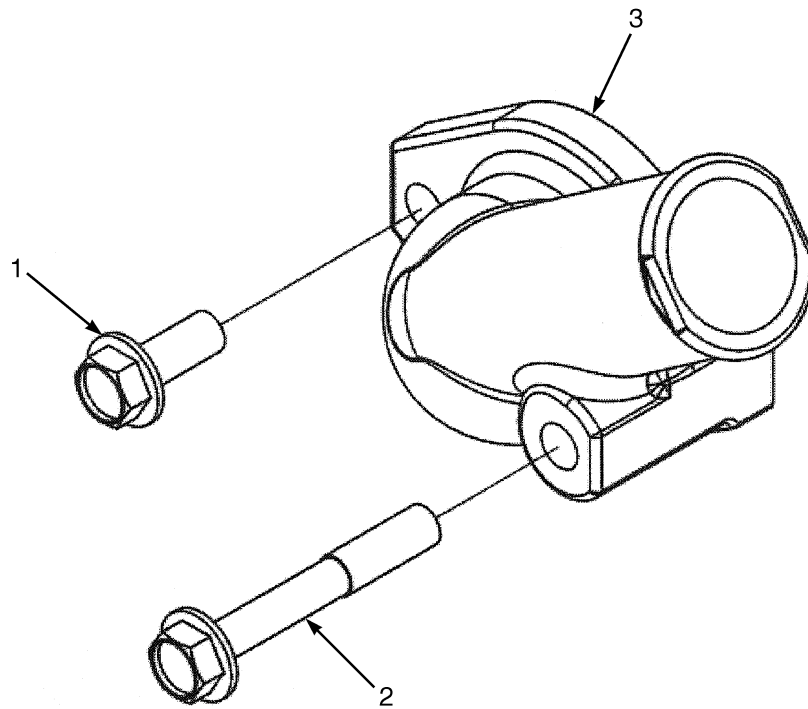
THERMOSTAT (FIGURE 2-52) CUMMINS QSB 3.3L DIESEL



BP090406

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691627	Kit-Thermostat	1
2	1691629	Gasket	1

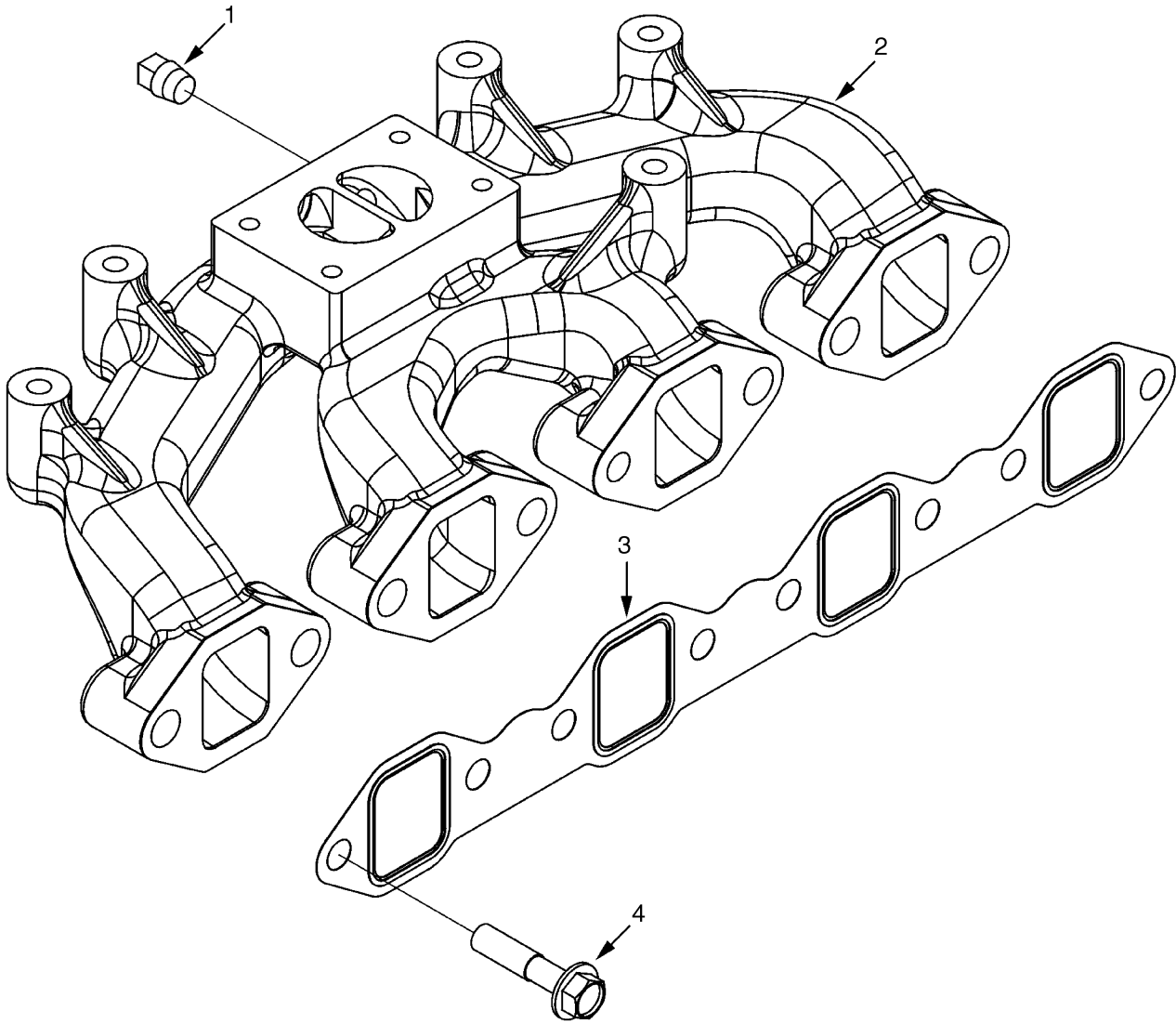
**WATER OUTLET CONNECTION (FIGURE 2-53)
CUMMINS QSB 3.3L DIESEL**



BP090455

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691869	Capscrew	1
2	1691830	Capscrew	1
3	1692046	Connector (Water Outlet)	1

EXHAUST MANIFOLD (FIGURE 2-54)
CUMMINS QSB 3.3L DIESEL



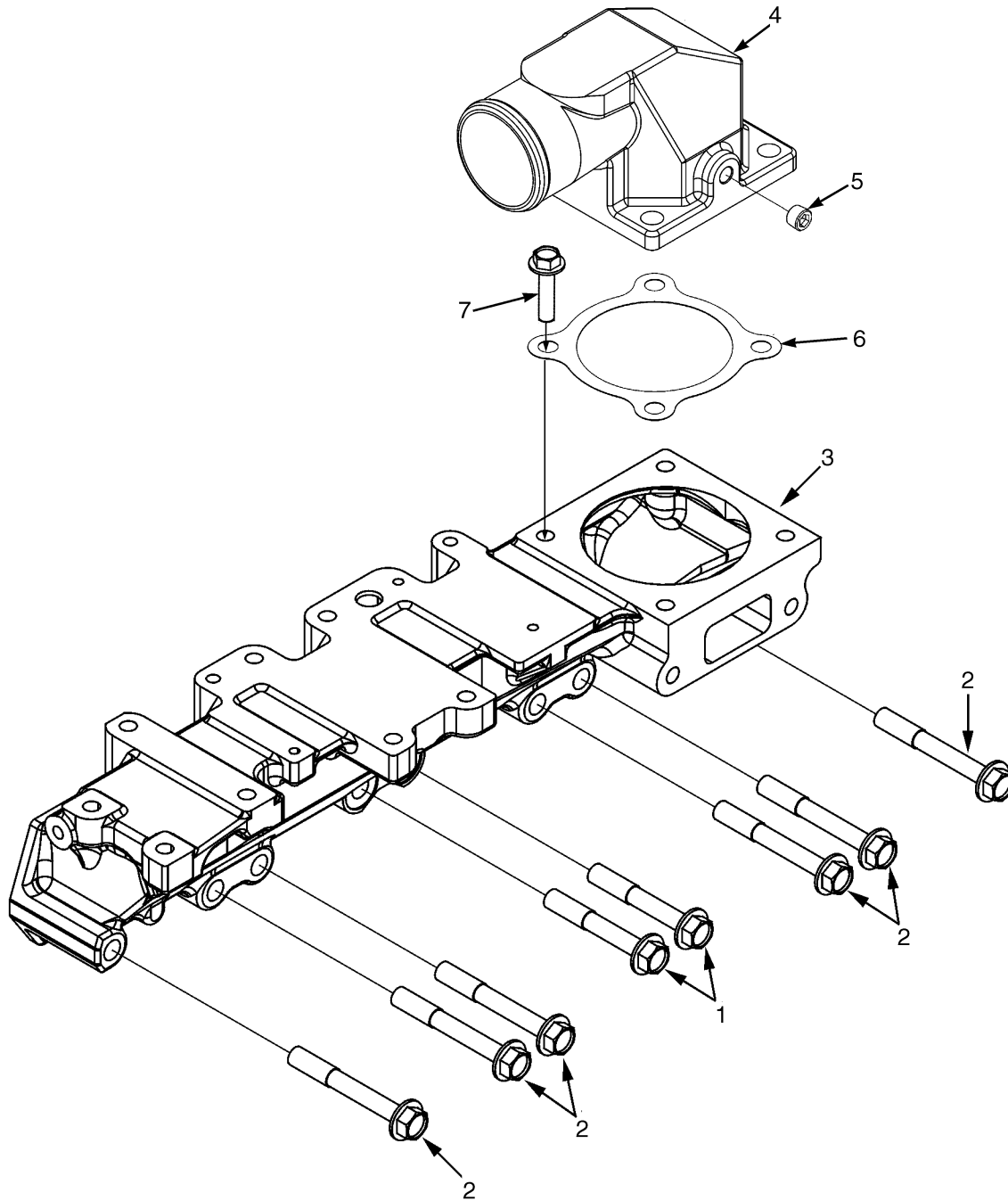
BP090259

**EXHAUST MANIFOLD
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1692009	Plug	1
2	1692010	Exhaust Manifold	1
3	1692008	Gasket	1
4	1644113	Capscrew	7
	a 1373430	Clamp (V Band)	1

FOOTNOTES:**a** Not Illustrated

AIR INTAKE MANIFOLD (FIGURE 2-55) CUMMINS QSB 3.3L DIESEL

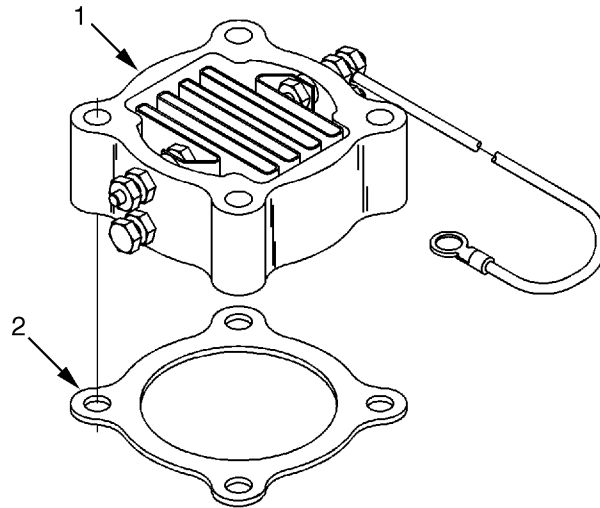


BP090258

**AIR INTAKE MANIFOLD
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691839	Capscrew	2
2	1691840	Capscrew	6
3	1691645	Intake Manifold	1
4	1691838	Connector (Air Intake)	1
5	1513191	Fitting	1
6	1691577	Gasket	1
7	1691835	Capscrew	4

STARTING AID (FIGURE 2-56) CUMMINS QSB 3.3L DIESEL



BP090404

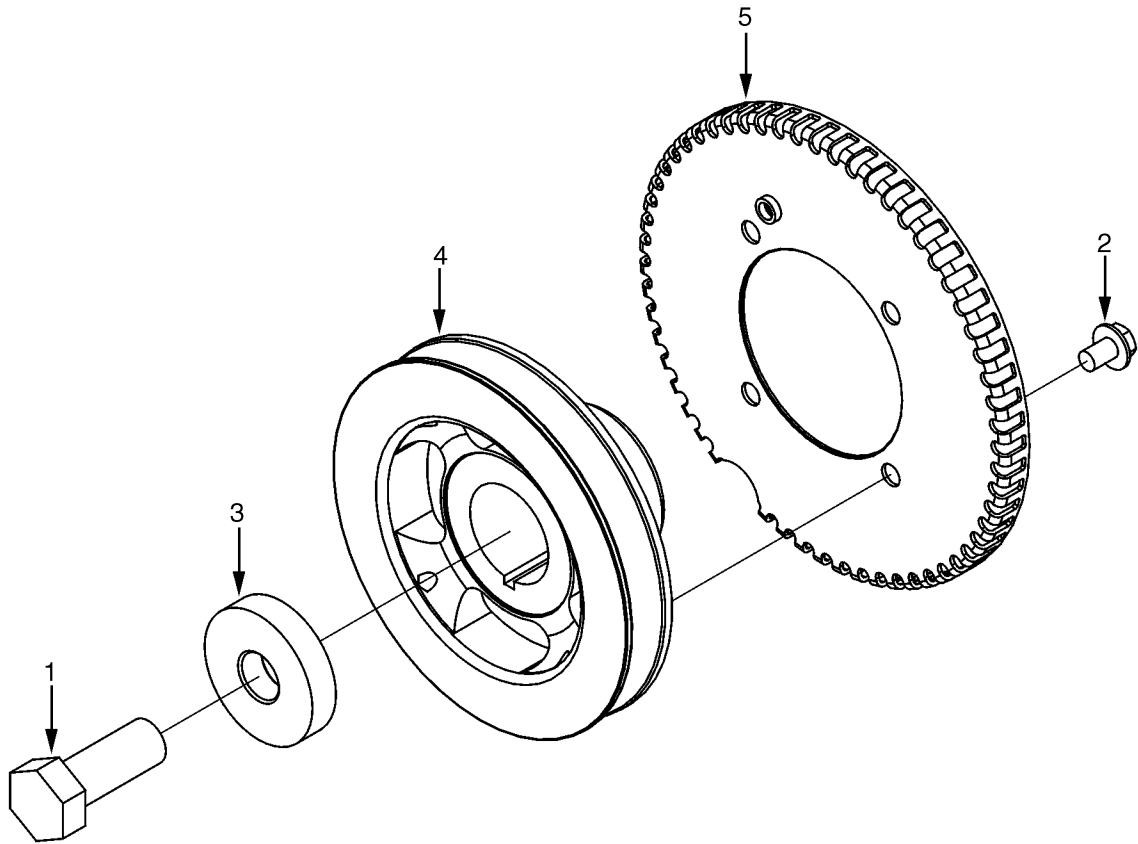
ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1705956	Heater	1
2	1691577	Gasket	1
	ab 1691613	Plug	1

FOOTNOTES:

a Not Illustrated

b When heater is not used

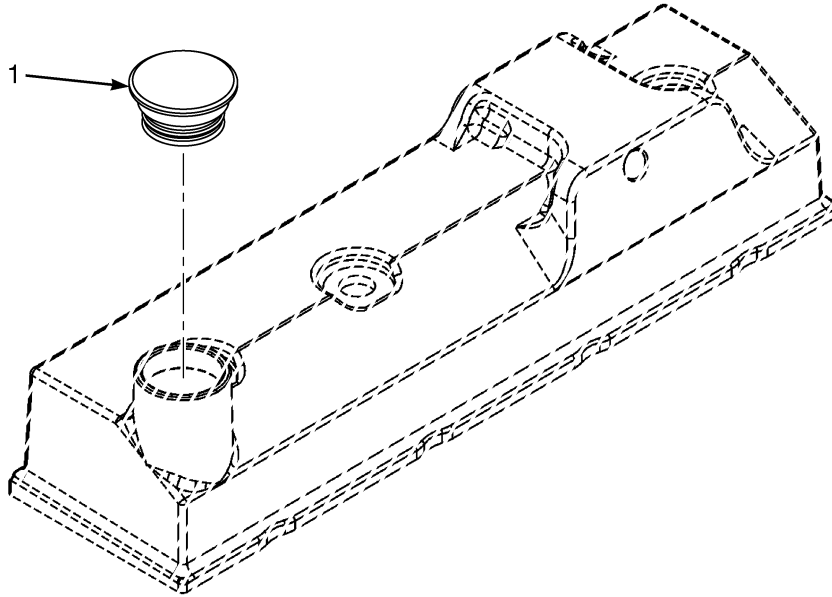
**VIBRATION DAMPER (FIGURE 2-57)
CUMMINS QSB 3.3L DIESEL**



BP090400

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691614	Capscrew	1
2	1691615	Capscrew	4
3	1691624	Plate	1
4	1691625	Crankshaft Pulley	1
5	1691626	Ring (Speed Indicator)	1

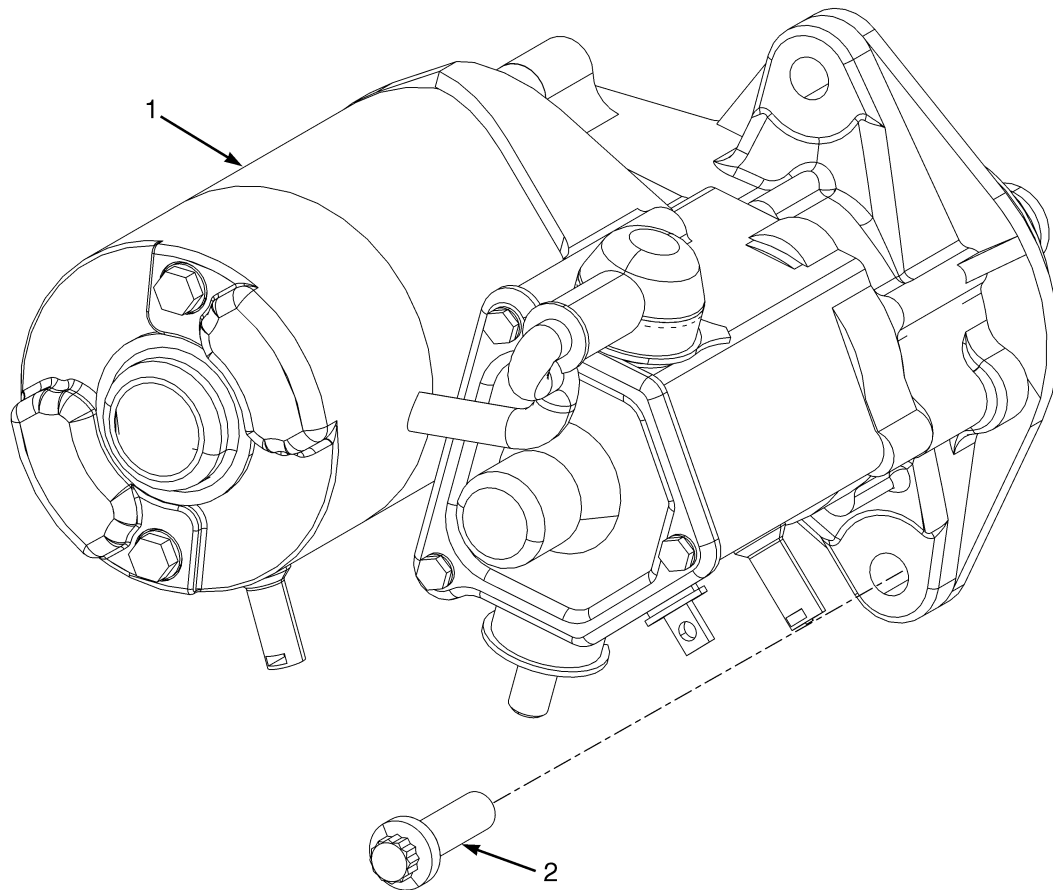
VALVE COVER CAP (FIGURE 2-58)
CUMMINS QSB 3.3L



BP090617

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691858	Cap	1

**STARTER MOTOR (FIGURE 2-59)
CUMMINS QSB 3.3L DIESEL**



BP090305

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1692007	Motor (Starter)	1
2	1707217	Capscrew	3
a	1703318	Shield	1

FOOTNOTES:

a Not Illustrated

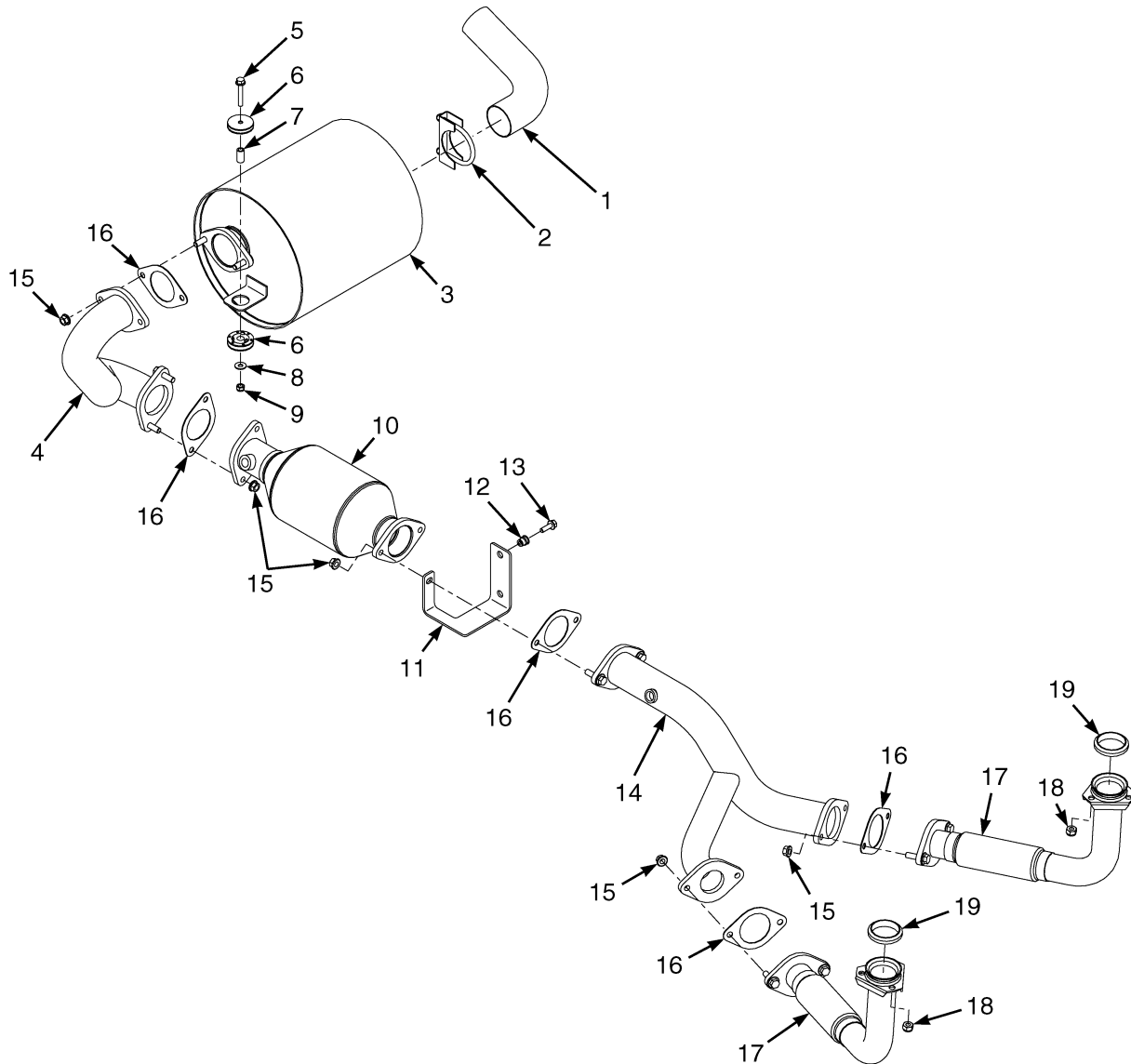
3

ENGINE ASSEMBLY - LPG

**SECTION 3
ENGINE ASSEMBLY - LPG**

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EXHAUST SYSTEM (FIGURE 3-1) WITH CATALYTIC CONVERTER — GM 5.7L LPG

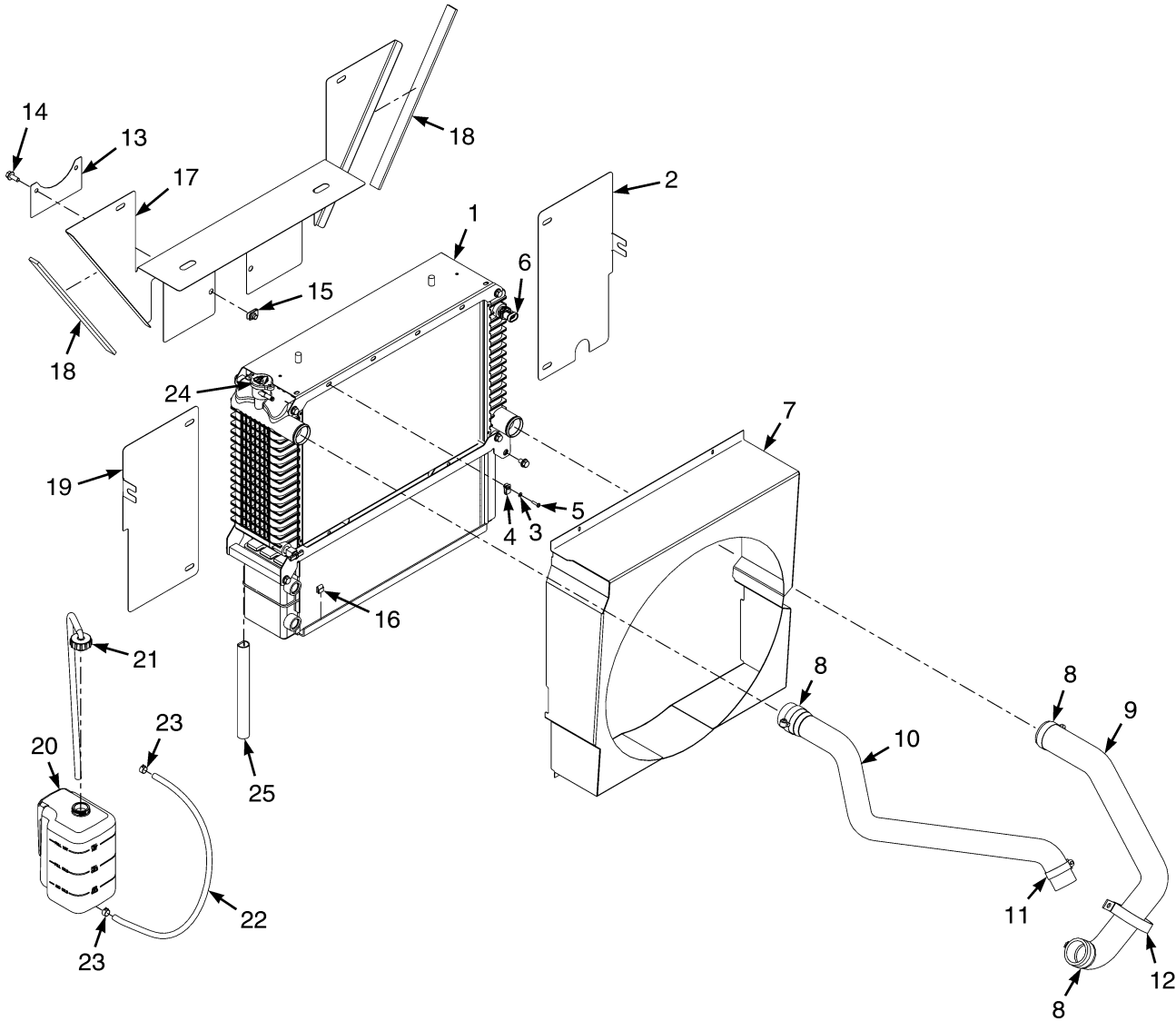


BP110067

**EXHAUST SYSTEM
WITH CATALYTIC CONVERTER – GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	1664482	Exhaust Pipe	1
2	30372	Clamp Assembly (Includes Qty. 2 Nuts)	1
3	4604586	Muffler	1
4	4013250	Exhaust Pipe	1
5	1510115	Capscrew	2
6	1709996	Isolator	4
7	1708371	Spacer	2
8	320158	Washer	2
9	1582222	Locknut	2
10	4604274	Catalytic Converter	1
11	4010633	Bracket	1
12	1530243	Insert	2
13	1510113	Capscrew	2
14	4013244	Exhaust Pipe	1
15	1460477	Nut	10
16	4013249	Gasket	5
17	4013242	Exhaust Pipe	2
18	1580136	Locknut	6
19	4010261	Seal	2

COOLING SYSTEM (FIGURE 3-2) GM 5.7L LPG

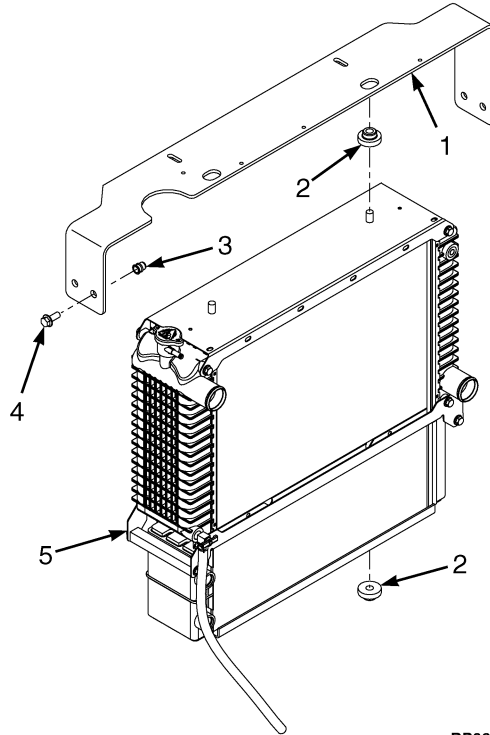


BP060096

**COOLING SYSTEM
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	4603551	Radiator (Assembly) (☞ Figure 3-4).....	1
2	4012589	Baffle	1
3	320154	Washer	2
4	1535257	Nut	2
5	302023	Screw	2
6	1531404	Sensor (Low Coolant Level)	1
6	246108	Sealant	AR
7	1600414	Shroud	1
8	119236	Clamp	3
9	2096559		
	4626267	Hose	1
10	4604127	Hose	1
11	369804	Clamp	1
12	385107	Clamp (Insulated)	1
13	4011212	Baffle	1
14	1527880	Capscrew	2
15	1480237	Nut	2
16	1551663	Clip	2
17	4011211	Baffle	1
18	4008947	Seal	2
19	4012590	Baffle	1
20	1643342	Reservoir	1
21	1684273	Cap	1
21	345453	Outlet (Reservoir)	1
21	345454	Cap	1
21	336550	Bushing	1
21	1684256	Hose	1
21	4127425	Seal	1
22	1567674	Hose	1
23	369815	Clamp	2
24	178899	Radiator Cap	1
25	4015802	Seal	2

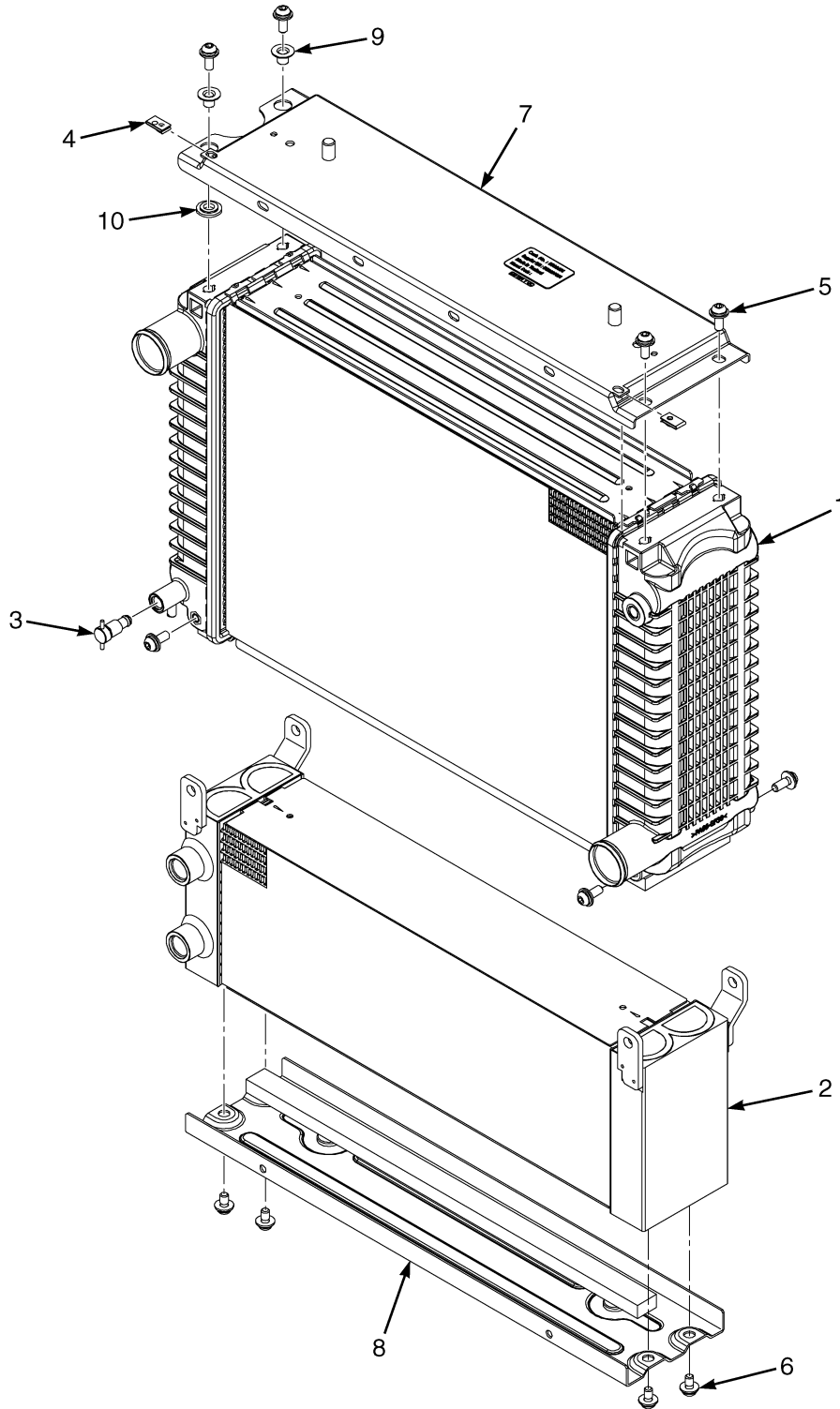
RADIATOR MOUNTING (FIGURE 3-3) GM 5.7L LPG



BP060076

ITEM	PART NO.	DESCRIPTION	QTY
1	4010258	Bracket	1
2	1529787	Isolator	4
3	1530244	Insert	4
4	1510117	Capscrew	4
5	.....	Radiator (☞ Figure 3-2).....	1

RADIATOR ASSEMBLY (FIGURE 3-4) WITH OIL COOLER

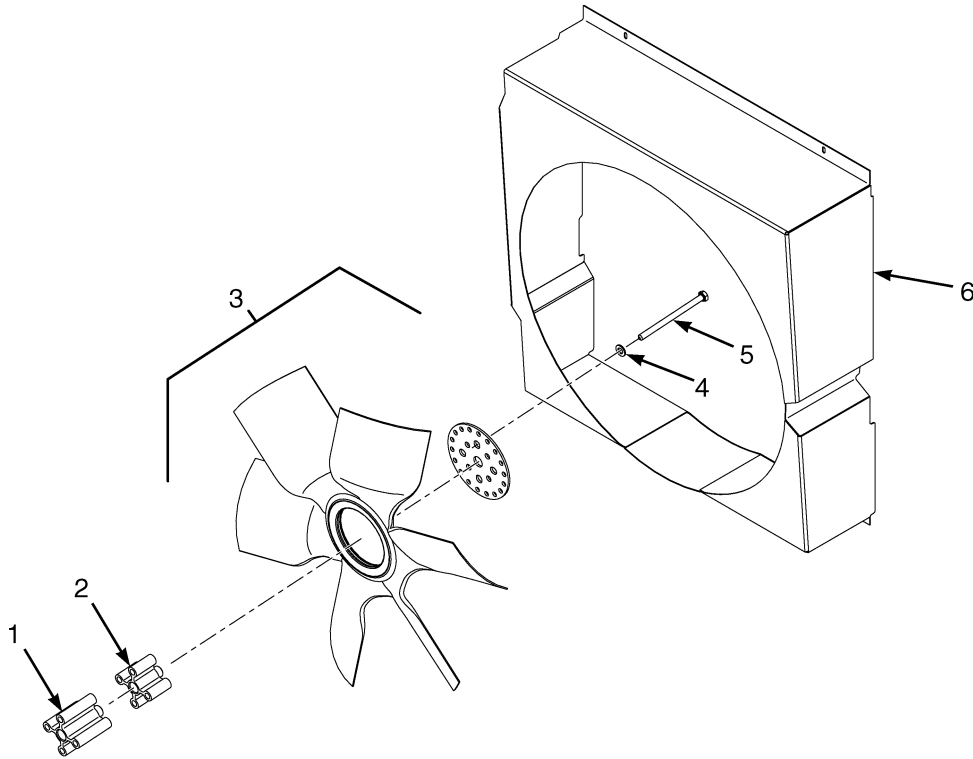


BF060083

**RADIATOR ASSEMBLY
WITH OIL COOLER**

ITEM	PART NO.	DESCRIPTION	QTY
	4603551	Radiator (Assembly)	1
1	4038256	Radiator	1
2	4038262	Oil Cooler	1
3	4038264	Drain Valve	1
4	4038266	Bolt (With Washer)	8
5	4038267	Bolt (With Washer)	4
6	4038265	Nut , Foldover	2
7	4142035	Frame (Top)	1
8	4142040	Frame (Bottom)	1
9	4136558	Isolator	2
10	4136559	Collar	2

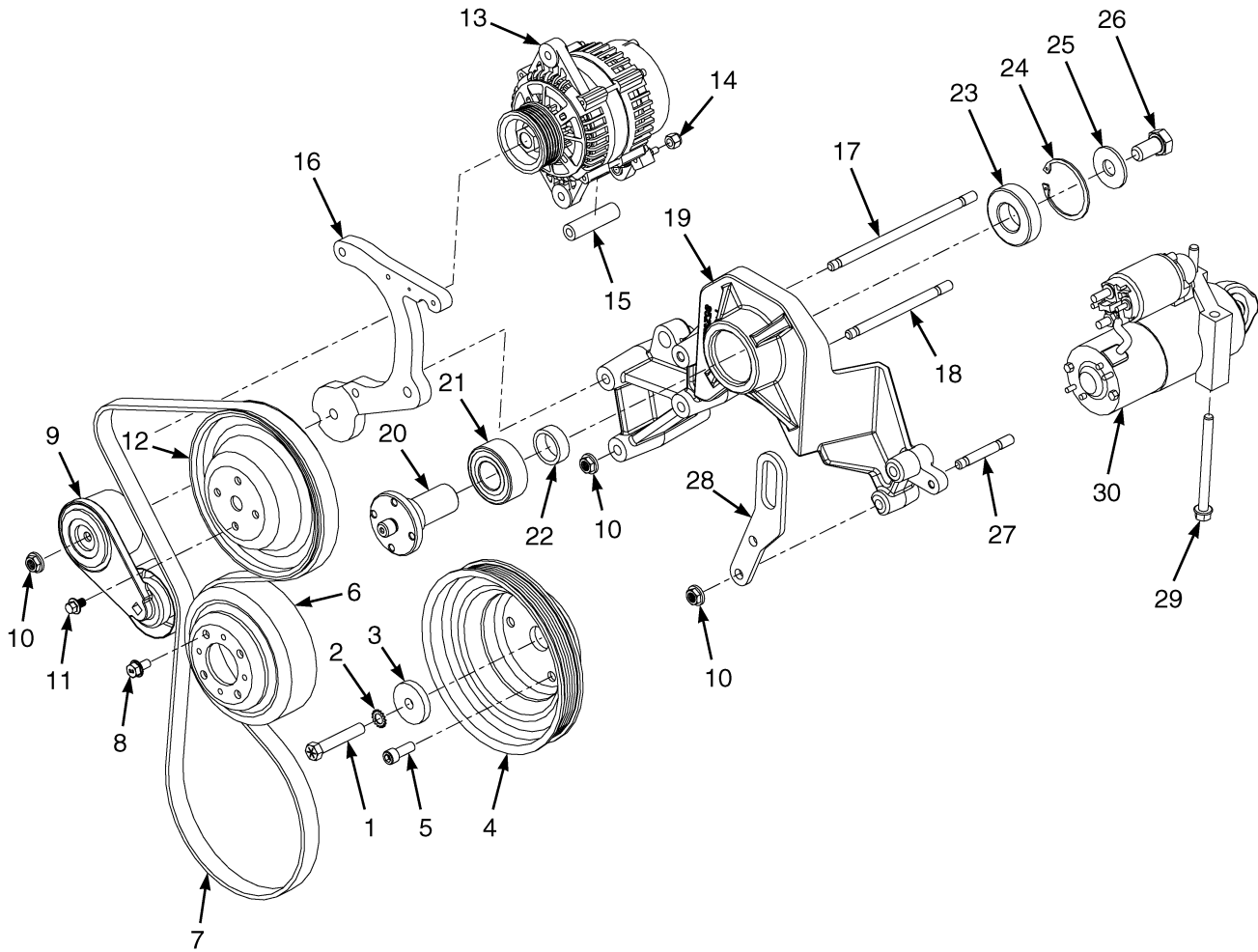
FAN ASSEMBLY (FIGURE 3-5) GM 5.7L LPG



BP060077

ITEM	PART NO.	DESCRIPTION	QTY
1	1676453	Spacer	1
2	1377791	Fan Spacer	1
3	2099480	Fan	1
4	296418	Washer	4
5	1334820	Capscrew	4

PULLEY SYSTEM (FIGURE 3-6) GM 5.7L LPG



BP090430

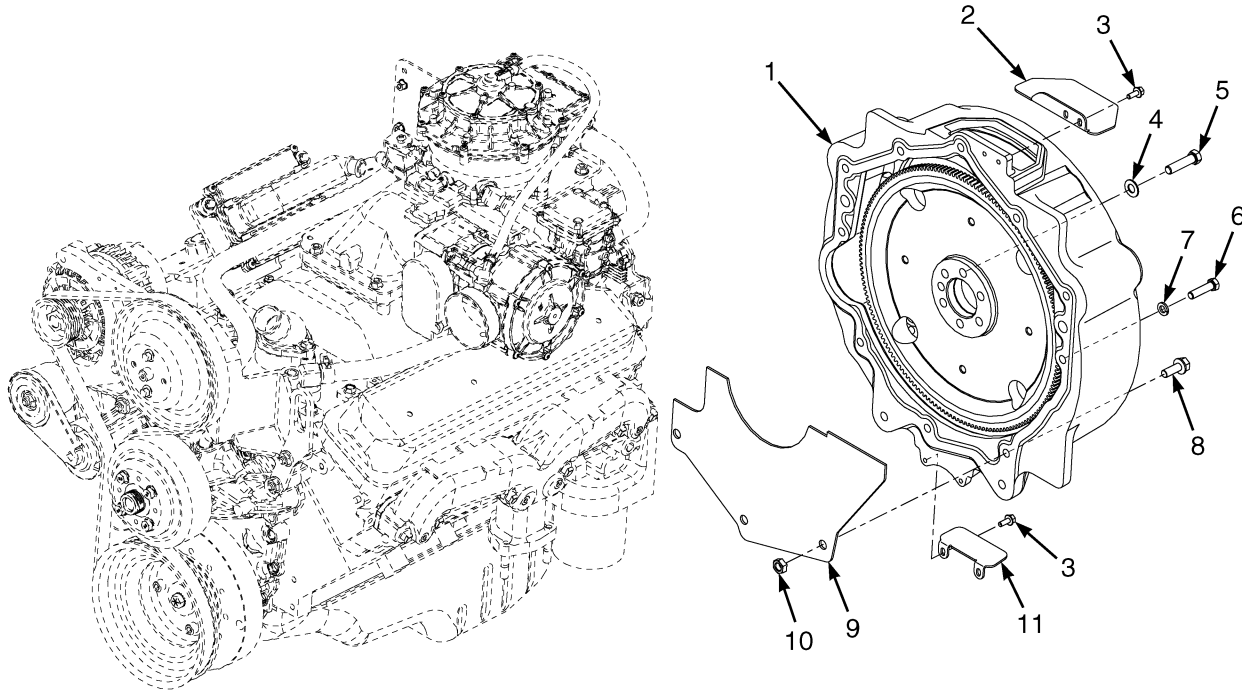
**PULLEY SYSTEM
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	221545	Capscrew	1
2	15917	Lockwasher	1
3	1305165	Washer	1
4	1377750	Pulley	1
5	34811	Screw	3
6	2063017	Pulley (Water Pump)	1
7	2090051	V-Belt (Serpentine 6 Rib Micro)	1
8	4109993		
	1527879	Capscrew	4
9	4019125	Tensioner	1
10	1460477	Nut	4
11	4019122	Bolt	2
12	4019124	Fan Pulley	1
13	1534017	Alternator	1
14	302326	Nut	1
15	1554814	Spacer	1
16	1636803	Bracket (Alternator)	1
17	1578619	Stud	1
18	1578617	Stud	2
19	4019033		
	1615817	Bracket	1
20	2083634	Shaft	1
21	4019035	Ball Bearing	1
22	4019036		
	1615818	Spacer	1
23	4019034	Ball Bearing	1
24	4019038	Snap Ring	1
25	15906	Lockwasher	1
26	292559	Capscrew	1
27	1578620	Stud	2
28	4019016	Bracket	1
29	4019029	Bolt	2
30	4019039	Starter	1
	a 320157	Washer	1
	a 1527885	Capscrew	1
	a 1528482	Capscrew	1

FOOTNOTES:

a Not Illustrated

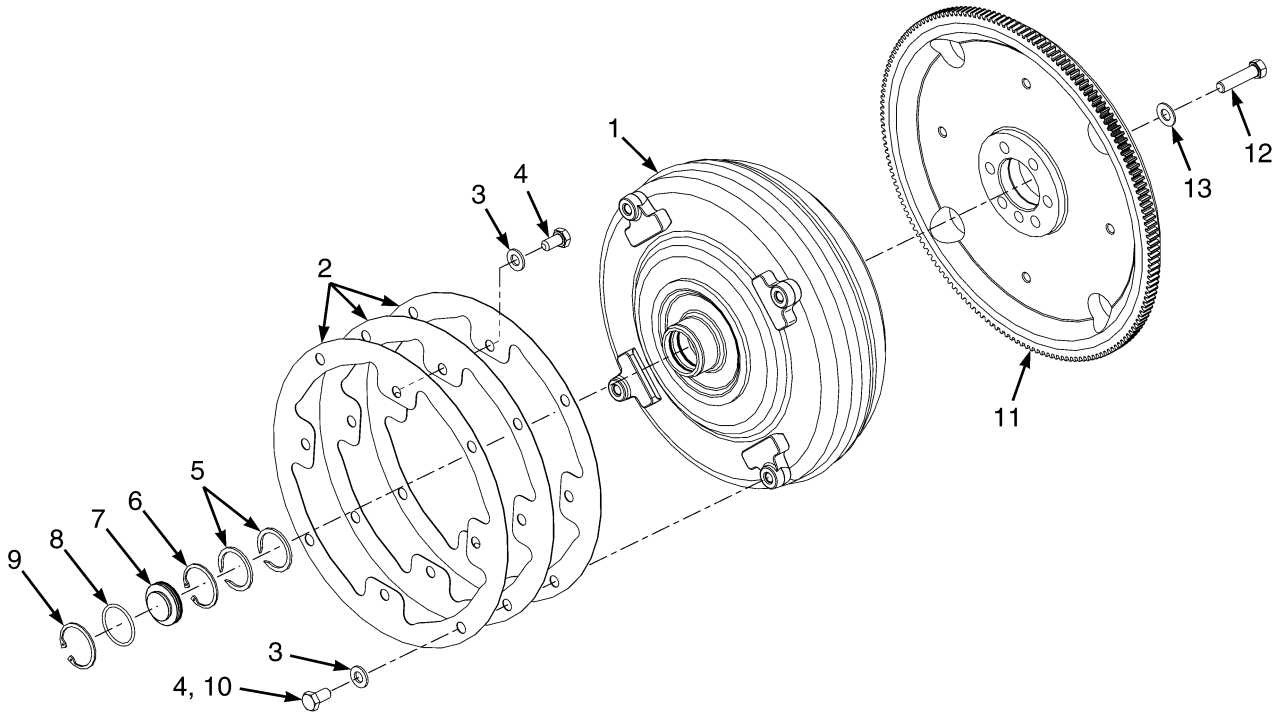
FLYWHEEL HOUSING (FIGURE 3-7) GM 5.7L LPG



BP090437

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	1594029	Housing	1
2	1602835	Cover	1
3	1527876	Capscrew	4
4	4121011	Washer	6
5	221539	Capscrew	6
6	177461	Capscrew	6
7	15156	Lockwasher	6
8	1586629	Capscrew	12
9	4011165	Plate Wldmt	1
10	1605990	Capscrew	3
11	1602836	Cover Plate	1

**TORQUE CONVERTER AND FLYWHEEL (FIGURE 3-8)
GM 5.7L LPG**



BP240183

ITEM	PART NO.	DESCRIPTION	QTY
1	1657917	Torque Converter (3.17 Stall Ratio)	1
2	1636958	Mounting Plate	3
3	296420	Washer	8
4	1541921	Capscrew	8
5	37065	Snap Ring	2
6	1194254	Snap Ring	1
7	1603286	Plug	1
8	1311840	O-Ring	1
8	4085309	O-Ring (Alternate Part)	1
9	205222	Snap Ring	1
10	360387	Loctite	AR
11	a 1636867	Flywheel	1
11	b 4085479	Flywheel	1
11	264749	Ring Gear	1
12	a 221539	Capscrew	6
12	b 221538	Capscrew	6
13	4121011	Washer	6
	251979	Lubricant	AR

FOOTNOTES:

a → S/N B299E01596L

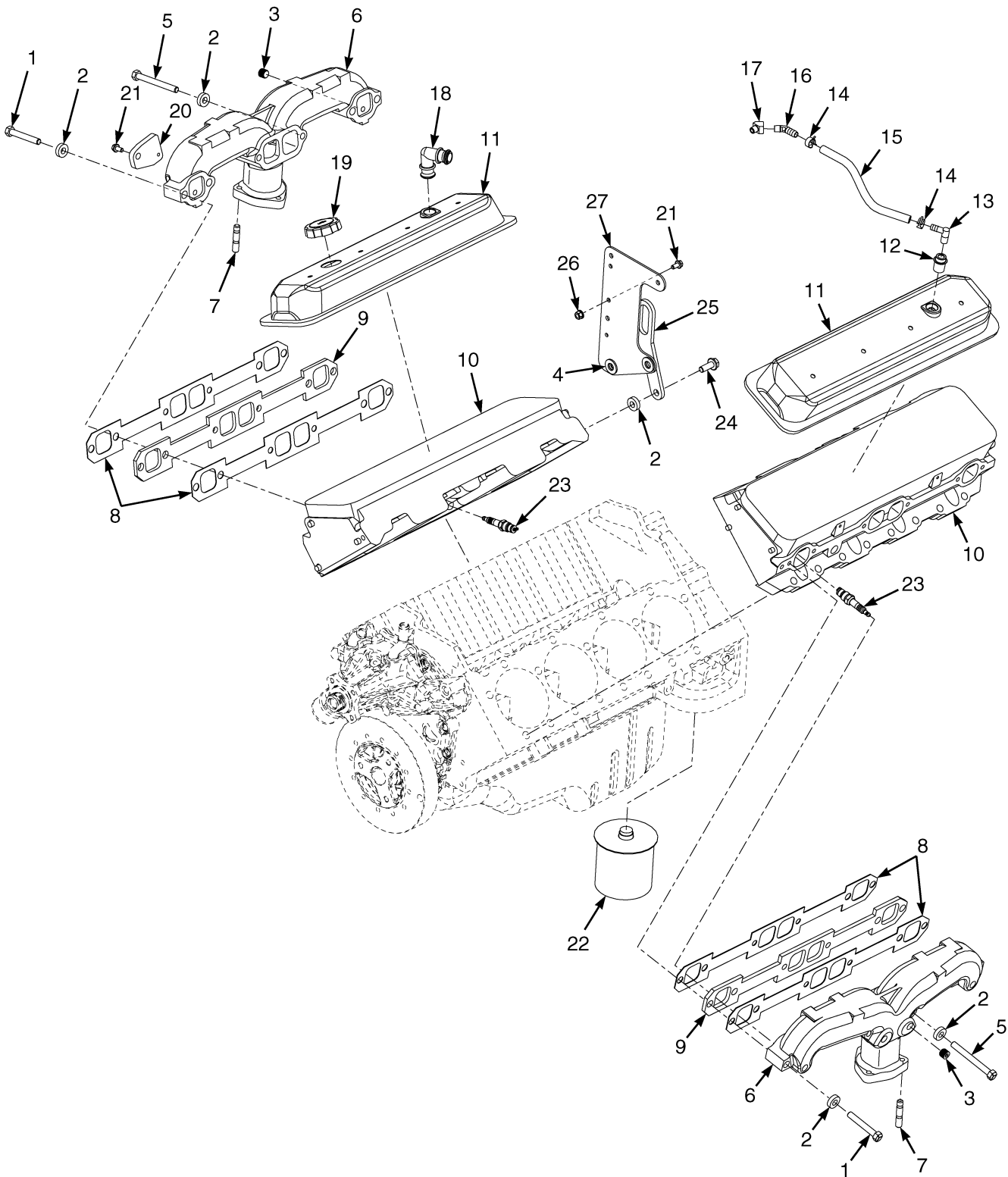
b S/N B299E01597L →

ENGINE MOUNTING
GM 5.7L LPG

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	1628745	Spacer	2
2	15134	Washer	6
3	177461	Capscrew	6
4	1628913	Capscrew	2
5	1605068	Nut	2
6	1597854	Washer	4
7	2076191	Isolator	4
8	1590399	Mount (RH)	1
9	1590397	Mount (LH)	1
10	303150	Dowel	2
11	4018408	Bracket	1
12	1566853	Capscrew	2
13	1591666	Capscrew	4
14	293721	Capscrew	2
15	1605069	Washer	2
	a 360387	Loctite	AR

FOOTNOTES:**a** Not Illustrated

CYLINDER HEAD AND EXHAUST MANIFOLD (FIGURE 3-10) GM 5.7L LPG



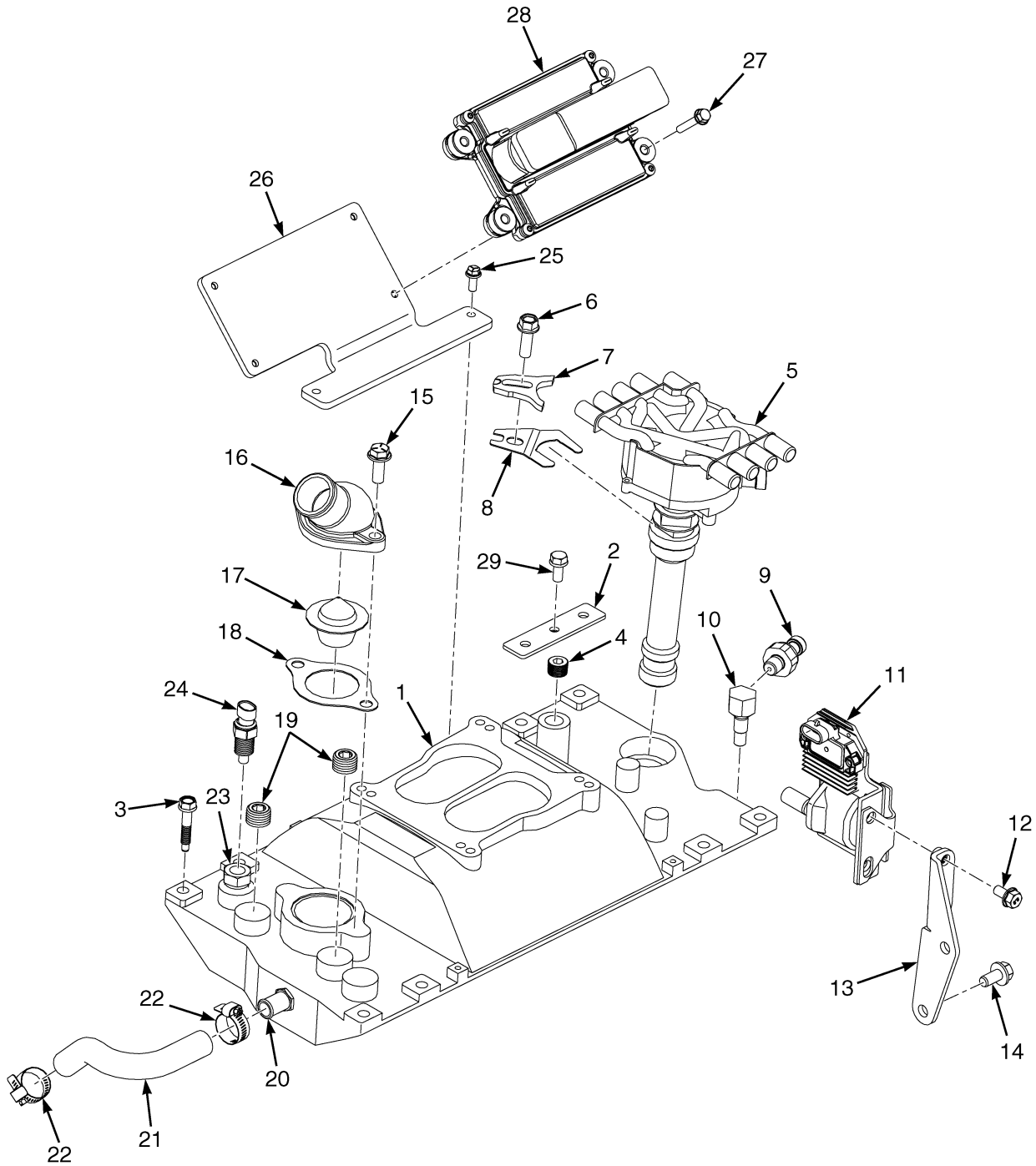
BP090429

**CYLINDER HEAD AND EXHAUST MANIFOLD
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	18537	Capscrew	8
2	15176	Washer	12
3	4019115	Plug	8
4	221767	Washer	2
5	18542	Capscrew	4
6	4019113	Exhaust Manifold	2
7	4019112	Stud	6
8	4019116	Gasket Set	2
9	4019114	Spacer	2
10	4019015	Cylinder Head	2
10	4057294	Head Cylinder (Heavy Duty Engine)	1
11	4019012	Cover (LH)	1
11	4019013	Cover (RH)	1
12	4019111	Grommet	2
13	894521	Pcv Valve	1
14	4019090	Clamp	2
15	4019087	Hose-Bulk (FT)	AR
15	4019101	Conduit	AR
16	4019094	Fitting	1
17	4019091	Elbow	1
18	379407	Fitting	1
19	1369490	Cap	1
20	4019028	Bracket (Dipstick)	1
21	221416	Capscrew	3
22	4018201	Oil Filter	1
22	4019026	Adapter	1
22	4019027	Bolt	1
23	1570595	Spark Plug	8
23	4018203	Kit-Wire (Spark Plug)	1
23	4019059	Conduit	AR
23	4019043	Clamp	2
23	4019060	Cover	4
23	4019061	Separator	4
23	4019079	Bolt	2
23	4019080	Retainer	2
23	221493	Capscrew	2
24	159708	Capscrew	2
25	4019016	Bracket	1
26	264150	Nut	2
27	4019017	Bracket	1
27	.....	Fuse Box Assembly (☞ Figure 3-17).....	1
	a 178794	Clamp	1
	a 18585	Capscrew	1

FOOTNOTES:**a** Not Illustrated

INTAKE MANIFOLD AND ATTACHING PARTS (FIGURE 3-11) GM 5.7L LPG



BP090427

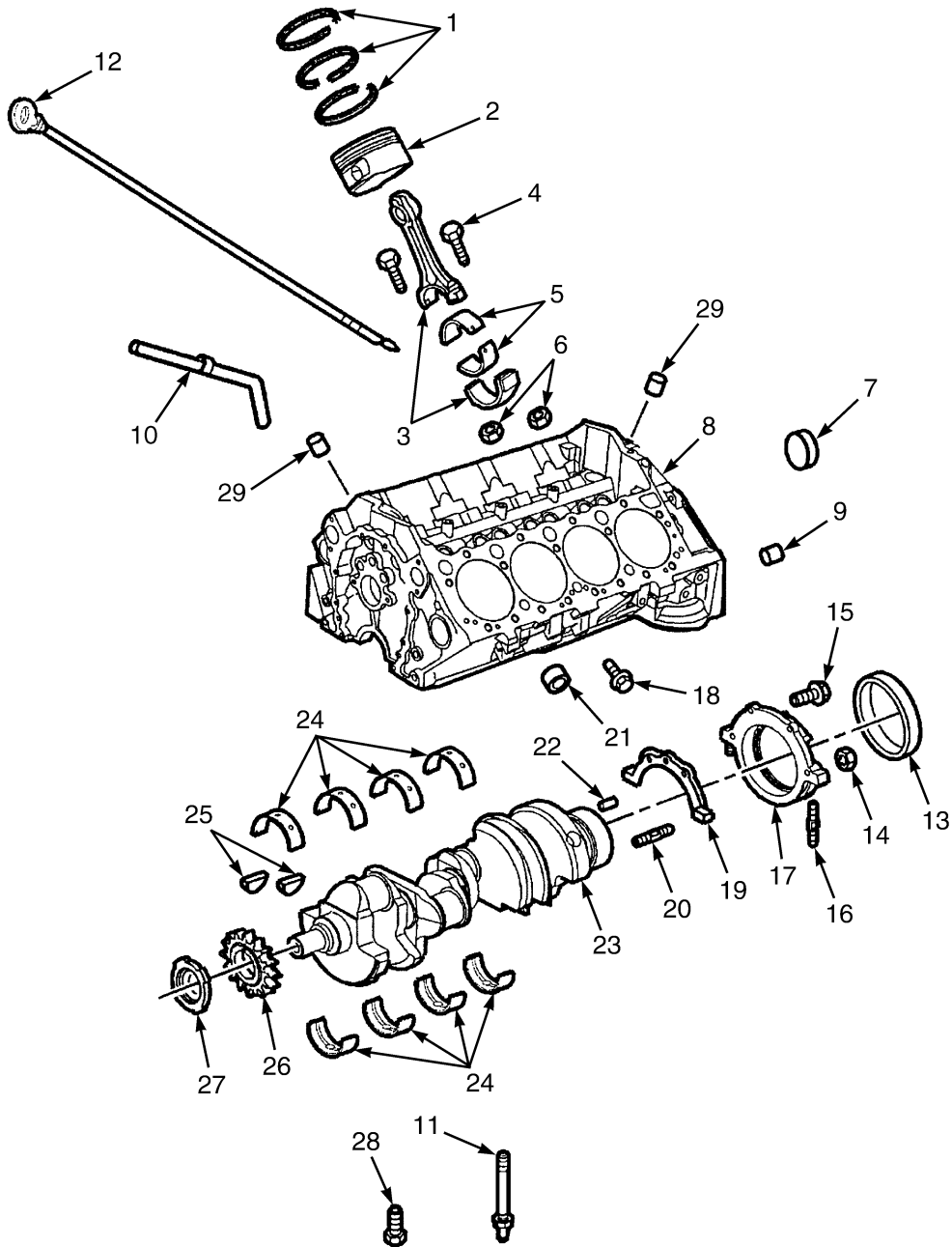
**INTAKE MANIFOLD AND ATTACHING PARTS
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	4019174	Intake Manifold	1
1	4019126	Gasket (Intake Manifold set of two)	1
2	4019048	Bracket	1
3	1389093	Bolt	8
4	4019176	Plug	1
5	4019056	Distributor	1
5	1334423	Gasket	1
5	1687661	Distributor Cap	1
5	1566459	Rotor	1
5	1559922	Kit-Gear	1
5	1559923	Sensor (Cam)	1
5	1687583	Bolt	4
5	1559924	Screw	2
6	1451046	Bolt	1
7	1335497	Clamp	1
8	1569750	Yoke (Distributor)	1
9	4019047		
	4104443	Pressure Sender (Oil Pressure)	1
10	4019052	Fitting	1
11	4019058	Ignition Coil	1
12	4109993		
	1527879	Capscrew	2
13	4019053	Bracket	1
14	162572	Capscrew	1
15	159708	Capscrew	2
16	4019023	Cover	1
17	4019022	Thermostat	1
18	4019021	Gasket	1
19	4019175	Plug	2
20	4019085	Fitting	1
21	4019173	Hose	1
22	4019128	Clamp	1
23	4019040	Bushing	1
24	4019046		
	1314381	Temperature Sender (Coolant)	1
25	221418	Capscrew	2
26	4019081	Bracket	1
27	4019082	Bolt	4
28	4019042	Electronic Control Module	1
29	4019051	Bolt	1
	a 4019049	Wire Harness	1
	a 4019050	Washer	1
	a 221493	Capscrew	1
	a 4019043	Clamp	1
	a 4019044	Clamp	1
	a 1646456	Sensor (Oxygen)	1

FOOTNOTES:

- a Not Illustrated

CYLINDER BLOCK (FIGURE 3-12) GM 5.7L LPG

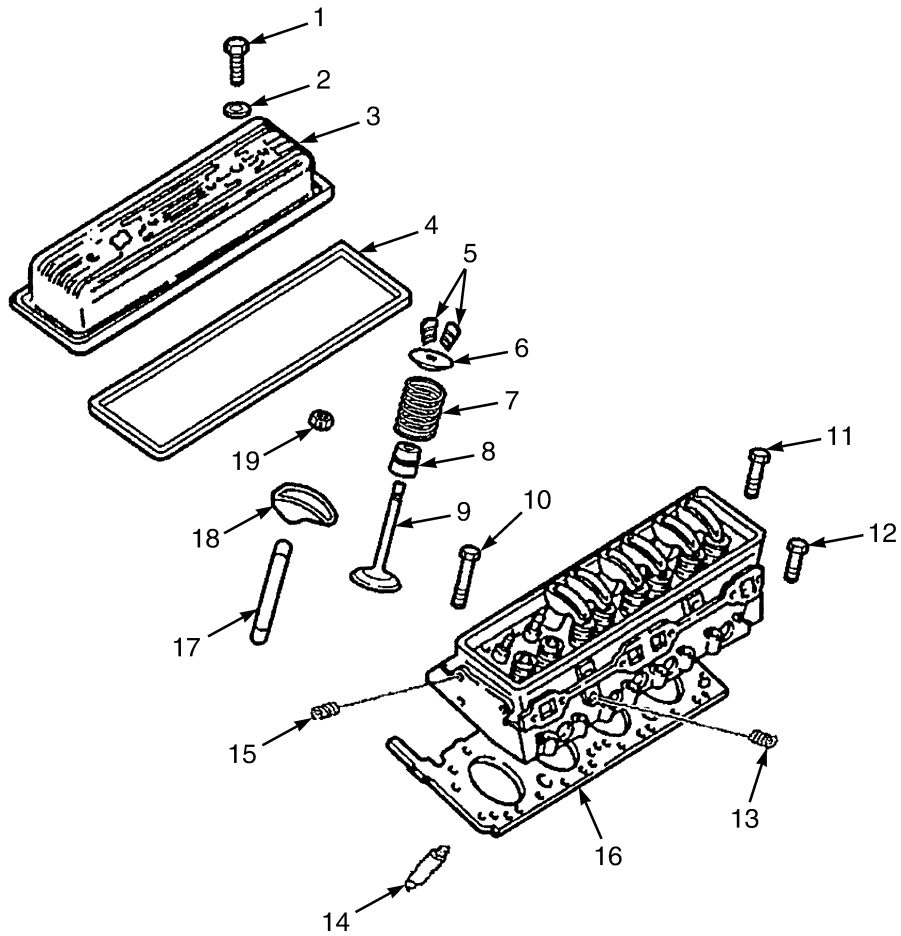


BP090433

**CYLINDER BLOCK
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	1390761	Kit-Piston Ring	8
1	1390765	Kit-Piston Ring (0.5 mm O/S)	8
2	1390759	Kit-Piston with Pin (Standard)	8
2	1390760	Kit-Piston with Pin (0.5 mm O/S)	8
2	1627183	Kit-Piston with Pin (0.127 mm O/S)	8
3	324052	Piston Rod	8
4	289344	Bolt	16
5	4018183	Bearing	8
6	1330450	Nut	16
7	1374313	Plug	1
8	.....	Engine Block	1
9	1335499	Pin	4
10	1634927	Dipstick Tube	1
11	4018189	Stud	AR
12	1635634	Dipstick	1
13	1450556	Seal	1
14	388313	Nut	1
15	375575	Bolt	2
16	388364	Stud	2
17	4018188	Housing	1
18	4018182	Plug	5
19	1500884	Gasket	1
20	388364	Stud	1
21	159971	Plug	8
22	375571	Pin	1
23	4018191	Crankshaft	1
24	1390771	Kit-Crankshaft Bearing	5
25	7882	Woodruff Key	2
26	1358895	Sprocket	1
27	4018202	Seal	1
28	263842	Bolt	10
29	1358026	Plug	4

ROCKER ARM ASSEMBLY (FIGURE 3-13) GM 5.7L LPG



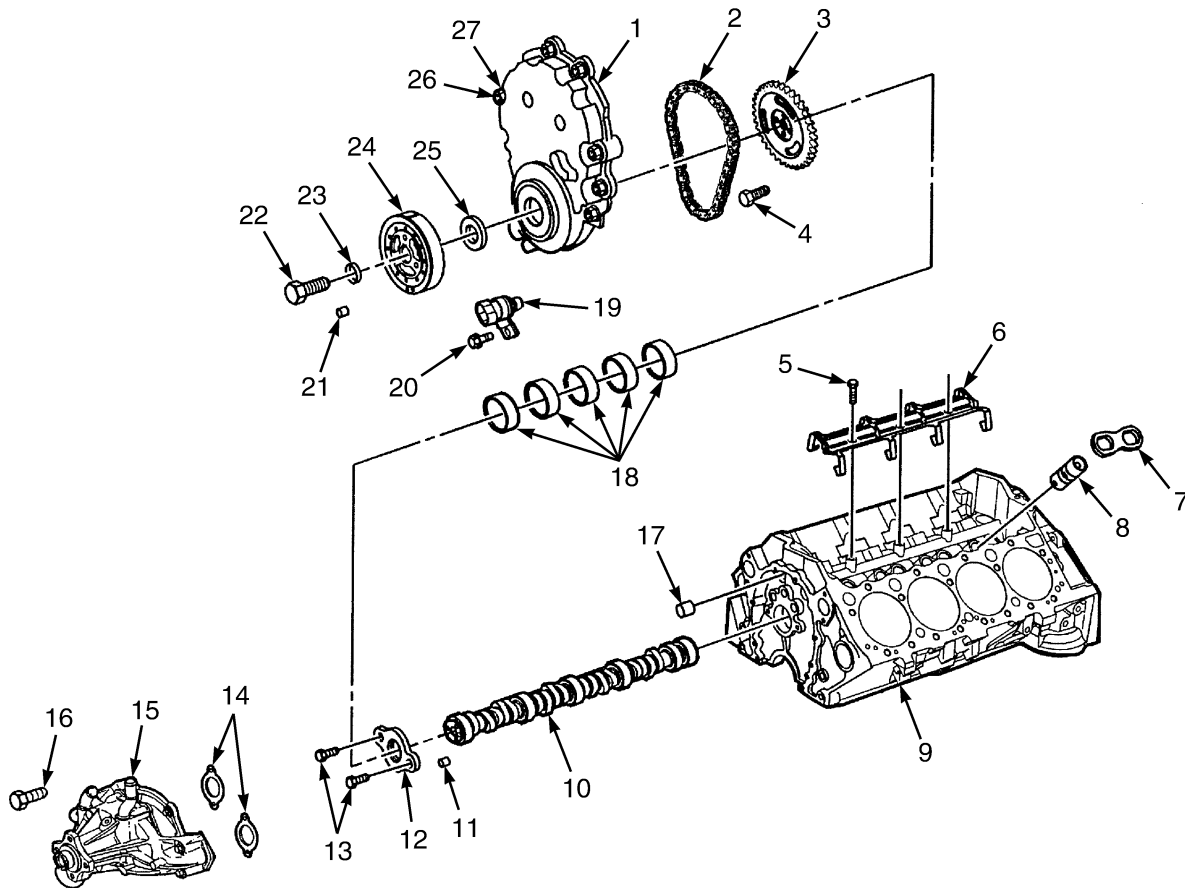
BP090434

**ROCKER ARM ASSEMBLY
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	1335215	Bolt	8
2	.....	Washer	1
3	4019012	Cover	1
3	4019013	Cover	1
4	1335246	Gasket	2
5	1377110	Valve Stop	32
6	1393127	Cap	16
7	1386198	Spring	16
8	1386197	Seal (Black-Intake)	16
8	1460384	Seal (Orange-Exhaust)	8
9	1386195	Inlet Valve	8
9	1482701	Exhaust Valve	8
10	1377792	Bolt (Long)	14
11	1377793	Bolt (Medium)	4
12	1377794	Bolt (Short)	16
13	388359	Plug	AR
14	159977	Pin	8
15	1331341	Plug	AR
16	1312811	Cylinder Head Gasket	2
17	1386189	Push Rod	16
18	1307964	Rocker Arm	16
19	301195	Nut	16
	a 149857	Stud	16

FOOTNOTES:**a** Not Illustrated

CAMSHAFT AND TIMING (FIGURE 3-14) GM 5.7L LPG

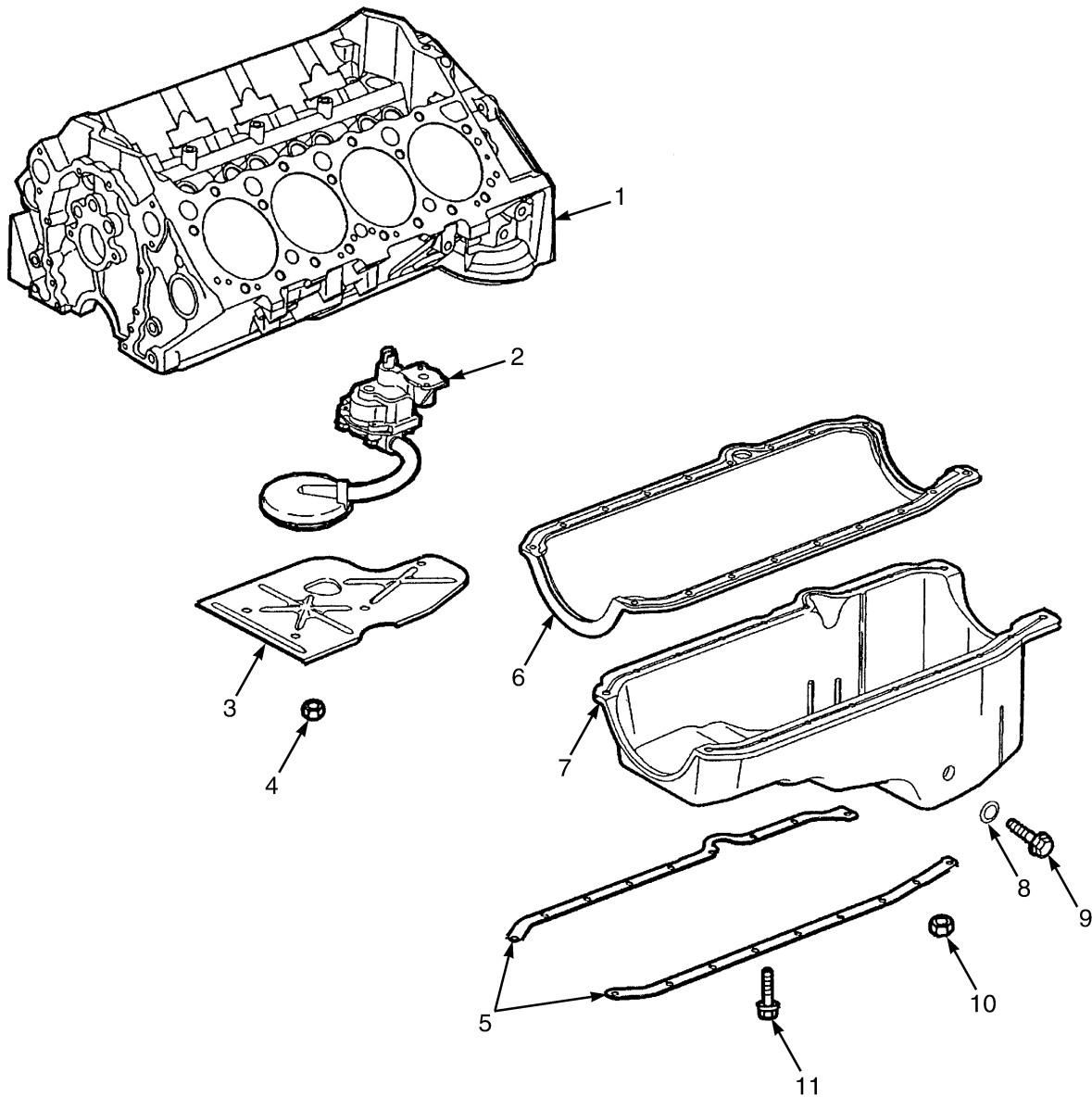


BP090435

**CAMSHAFT AND TIMING
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	4018199	Engine Cover	1
2	1358893	Chain	1
3	4018200	Sprocket	1
4	221453	Capscrew	3
5	4018196	Bolt	3
6	4018198	Retainer	1
7	1335062	Guide	1
8	4019014	Valve Lifter	16
9	.....	Engine Block	1
10	4018194	Camshaft	1
11	.....	Locator Pin	1
12	4018195	Retainer	1
13	1339963	Bolt	4
14	263828	Gasket	2
15	4018193	Water Pump	1
15	4018197	Plug	1
15	1460322	Gasket	1
16	1383257	Bolt	4
17	4018182	Plug	1
18	1454955		
	4128271	Bearing	1
18	1454956	Bearing (2.010)	2
18	1454957	Bearing (2.000)	2
19	1514963	Sensor (Crankshaft Position)	1
19	1514964	O-Ring	1
20	.....	Bolt	1
21	1335499	Pin	1
22	.....	Bolt	1
23	.....	Washer	1
24	4018192	Balancer	1
25	1377104	Seal	1
26	1377103	Bolt	8
27	1389092	Grommet	8

OIL PAN (FIGURE 3-15) GM 5.7L LPG

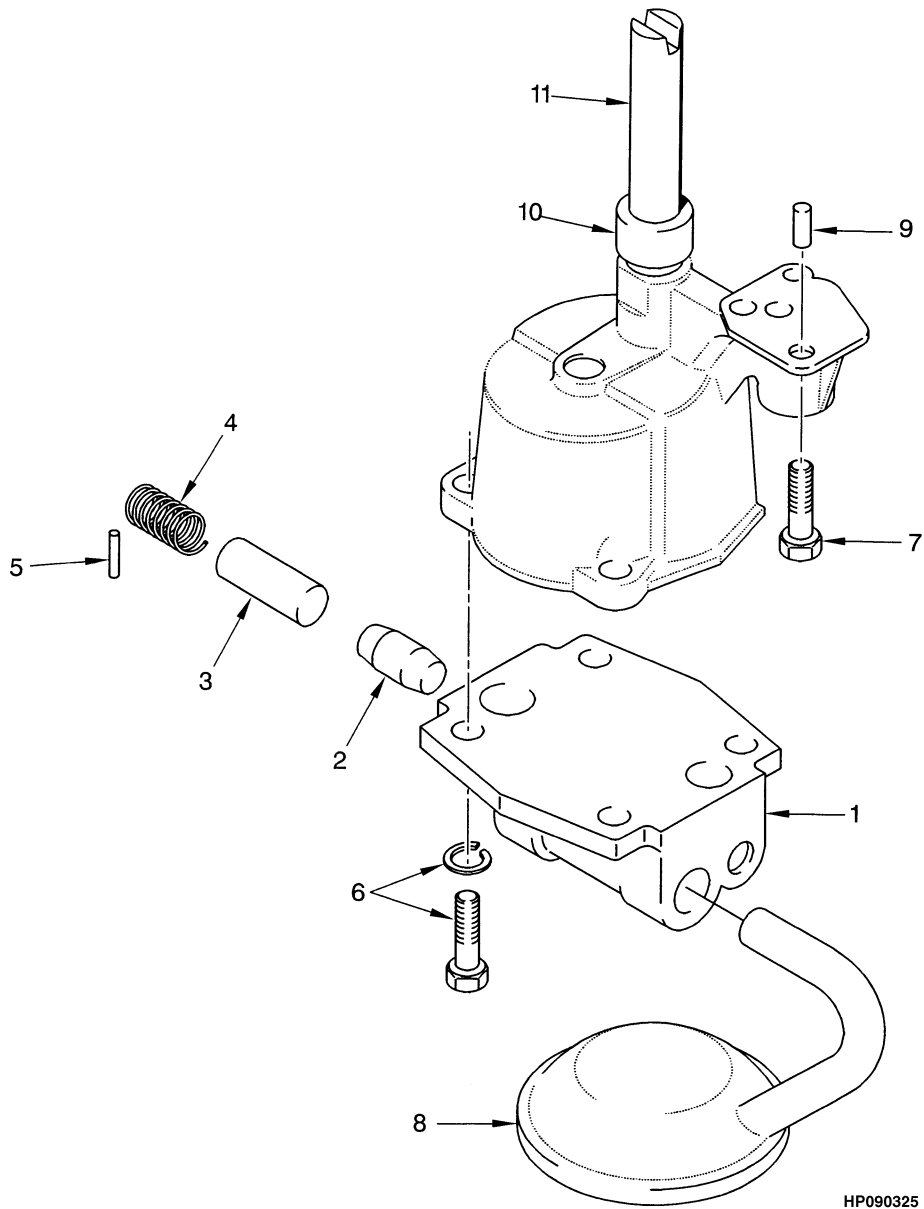


BP090432

**OIL PAN
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
1	.....	Engine Block	1
2	1386176	Engine Oil Pump (☞Figure 3-16).....	1
3	4018186	Deflector	1
4	4018185	Nut	5
5	1335238	Plate	1
6	381254	Gasket	1
7	4018187	Oil Pan	1
8	1460758	Gasket	1
9	1460757	Screw	1
10	1360178	Nut	1
11	16378	Capscrew	28

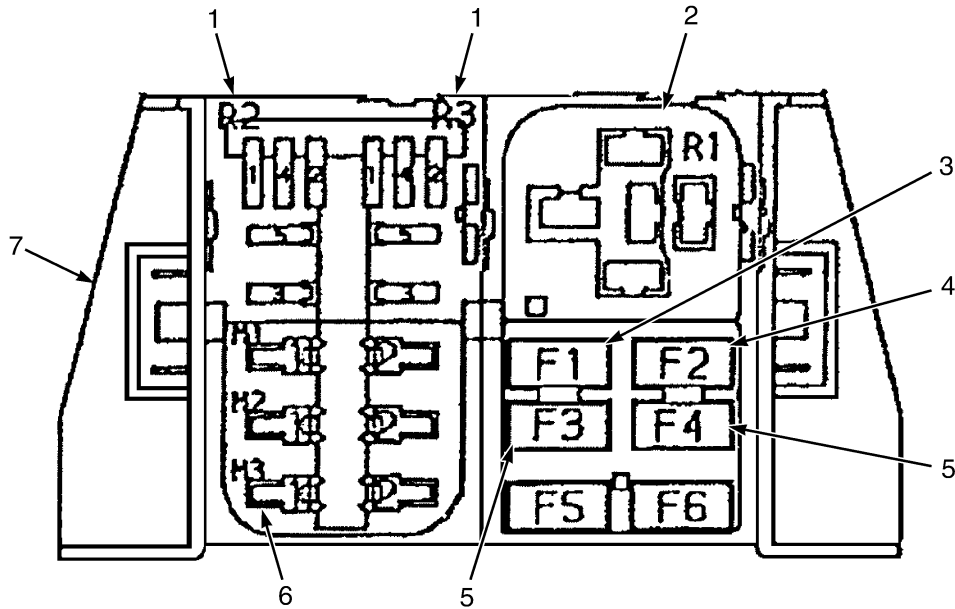
OIL PUMP (FIGURE 3-16) GM 5.7L LPG



**OIL PUMP
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4622284	Engine Assy-LPG (Heavy Duty)	1
	1386176	Engine Oil Pump	1
1	1374319	Cover	1
2	1338223	Stop	1
3	268573	Regulator Valve	1
4	1374320	Spring	1
5	1330453	Pin	1
6	1333541	Kit-Screw	2
7	388306	Bolt	1
8	4018184	Screen	1
9	1450941	Pin	2
10	263795	Retainer	1
11	263794	Shaft	1

FUSE BOX (FIGURE 3-17) GM 5.7L LPG



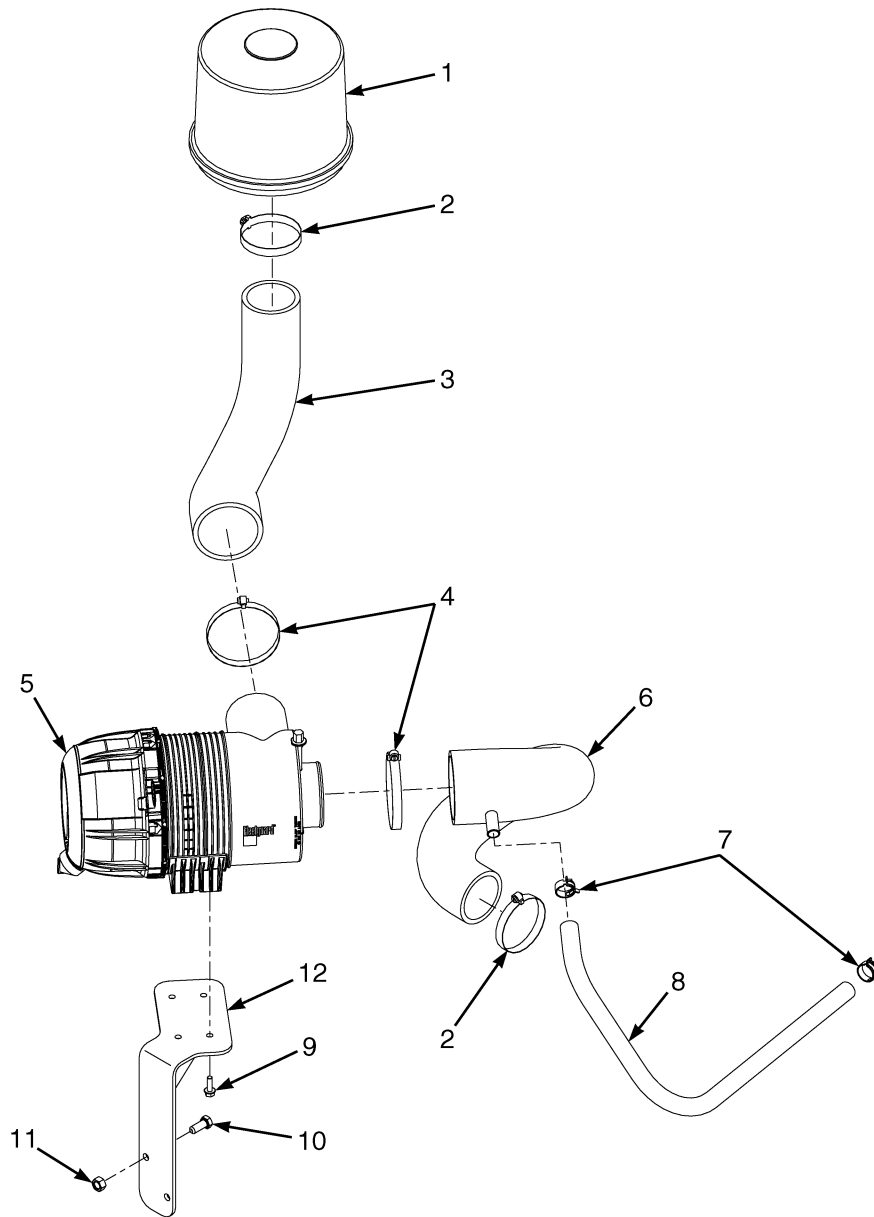
BP090431

ITEM	PART NO.	DESCRIPTION	QTY
1	1567317	Relay (Power and Fuel Pump)	2
2	1567316	Relay (Starter)	1
3	1498046	Fuse (10 Amp)	1
4	1498044	Fuse (5 Amp)	1
5	1498047	Fuse (15 Amp)	2
6	1378418	Fuse (50 Amp)	1
7	4567320		
	1567835	Cover (Bottom-Fuse Box)	1

**SECTION 4
FUEL SYSTEM**

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AIR INTAKE AND FILTER (FIGURE 4-1) GM 5.7L LPG

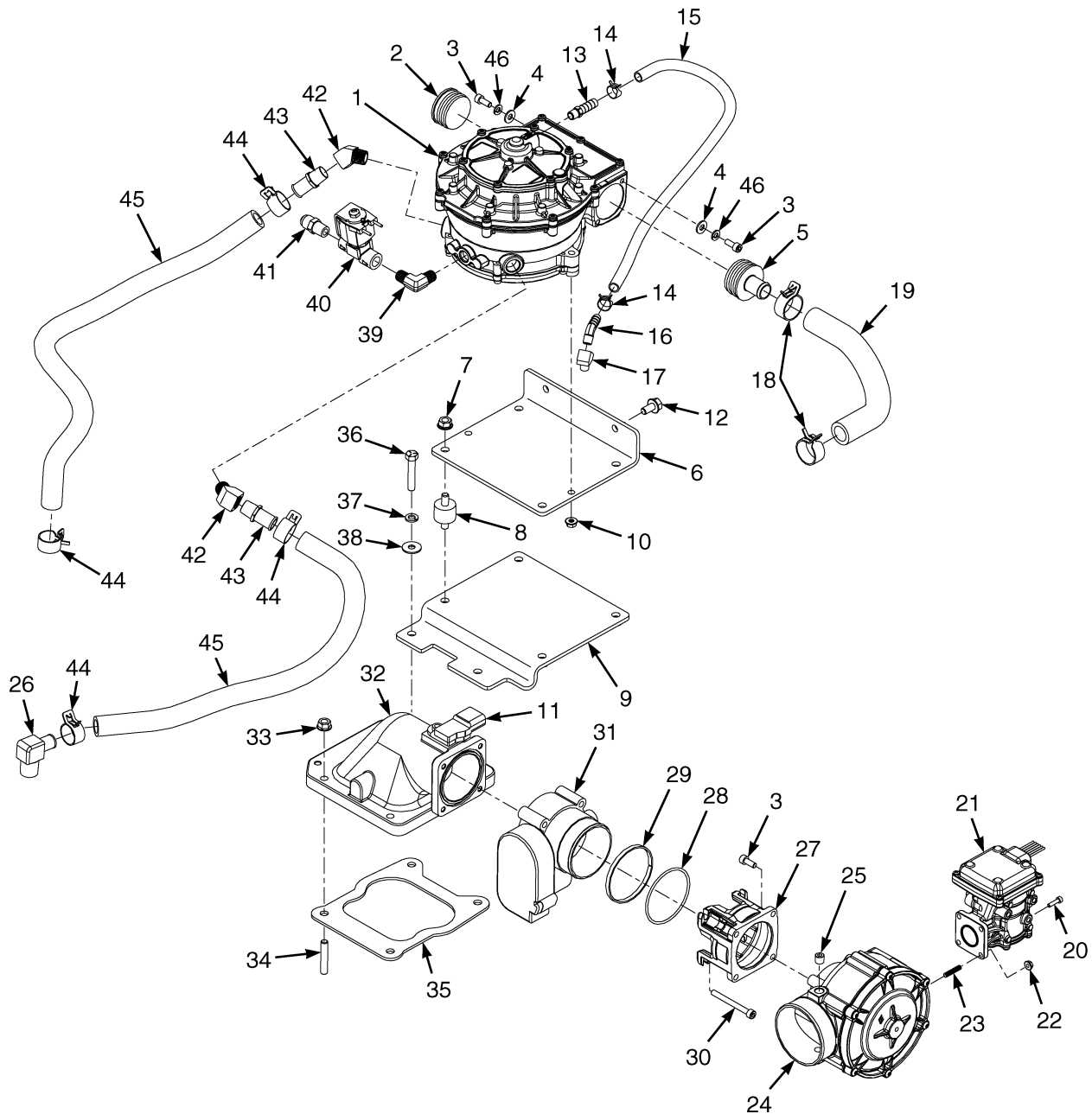


BP130313

**AIR INTAKE AND FILTER
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	2097624	Pre-Cleaner	1
1	1689464	Clamp	1
2	115696	Hose Clamp	2
3	2108050	Hose (Dirty Air)	1
4	227220	Clamp	2
5	2100119	Air Filter	1
5	2103627	Filter Element	1
5	1689296	Kit-Cover	1
5	1703650	Plug	1
6	4604126	Hose (Clean Air)	1
7	1502009	Hose Clamp	2
8	4604466	Hose (PCV Vent)	1
9	1510113	Capscrew	4
10	293645	Capscrew	2
11	292656	Nut	2
12	1664618	Bracket Wldmt	1

FUEL SYSTEM (FIGURE 4-2) GM 5.7L LPG — SHEET 1 OF 2



BP090428

FUEL SYSTEM
GM 5.7L LPG – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	4019093	LPG Converter	1
1	1540643	Capscrew	2
1	4051285	Kit-Repair LPG Converter	1
2	4019096	Plug	1
3	293774	Capscrew	8
4	15127	Washer	4
5	4019095	Fitting	1
6	4019098	Plate	1
7	1502543	Nut	4
8	4019100	Isolator	4
9	4019097	Bracket	1
10	1514429	Nut	2
11	1559567	Sensor (Temperature manifold absolute pressure)	1
11	1527876	Capscrew	1
12	4109993		
	1527879	Capscrew	2
13	.....	Fitting	1
14	4019090	Clamp	2
15	4023531	Hose	AR
16	4019094	Fitting	1
17	4019091	Elbow	1
18	4019099	Clamp	2
19	4019089	Hose-Bulk (FT)	AR
20	292672	Capscrew	4
21	4019119	Regulator	1
21	4019118	Fitting	1
22	1565407	Nut	4
23	4019121	Stud	4
24	4019117	Mixer	1
24	4051286	Kit-Repair	1
25	4019120	Plug	1
26	4019084	Fitting	1
27	4019105	Adapter	1
28	4019106	O-Ring	1
29	4019107	Spacer	1
30	296003	Screw	4
31	4019103	Throttle Body	1
32	4019108	Adapter	1
33	191534	Nut	2
34	4019104	Stud	2
35	4019109	Gasket	1
36	18509	Capscrew	2
37	18515	Washer	2
38	15155	Lockwasher	2
39	4019019	Fitting	1
40	4019020	Valve	1
41	4019018	Fitting	1
42	4019088	Fitting	2
43	4019085	Fitting	2
44	4019092	Clamp	4

FUEL SYSTEM

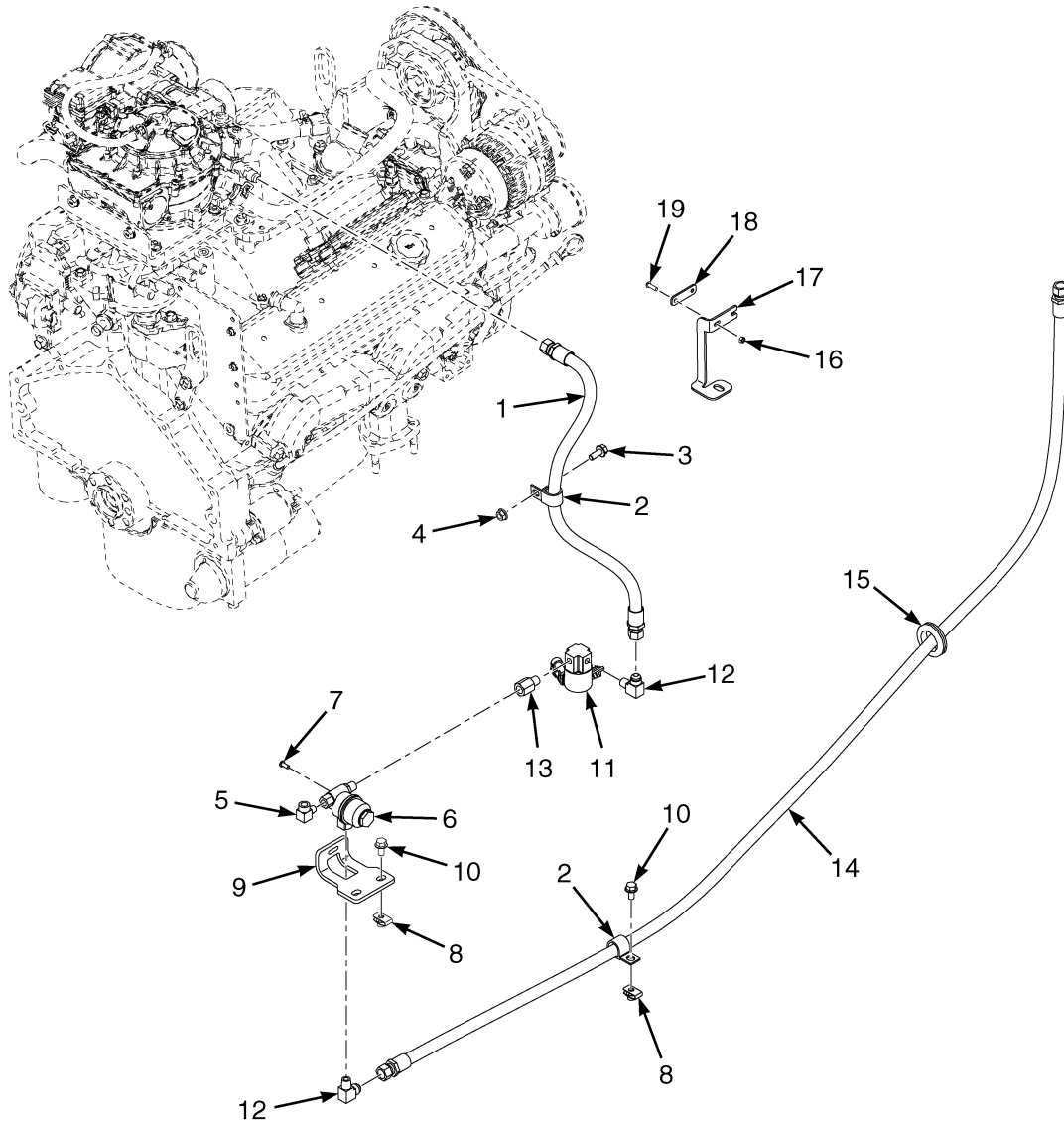
GM 5.7L LPG – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
45	4019086	Hose	2
46	15154	Lockwasher	4
	a 4019083	Conduit	AR
	a 4023529	Conduit	AR
	a 4023530	Conduit	AR
	a 4019102	Clamp	1

FOOTNOTES:

a Not Illustrated

FUEL SYSTEM (FIGURE 4-3) GM 5.7L LPG — SHEET 2 OF 2

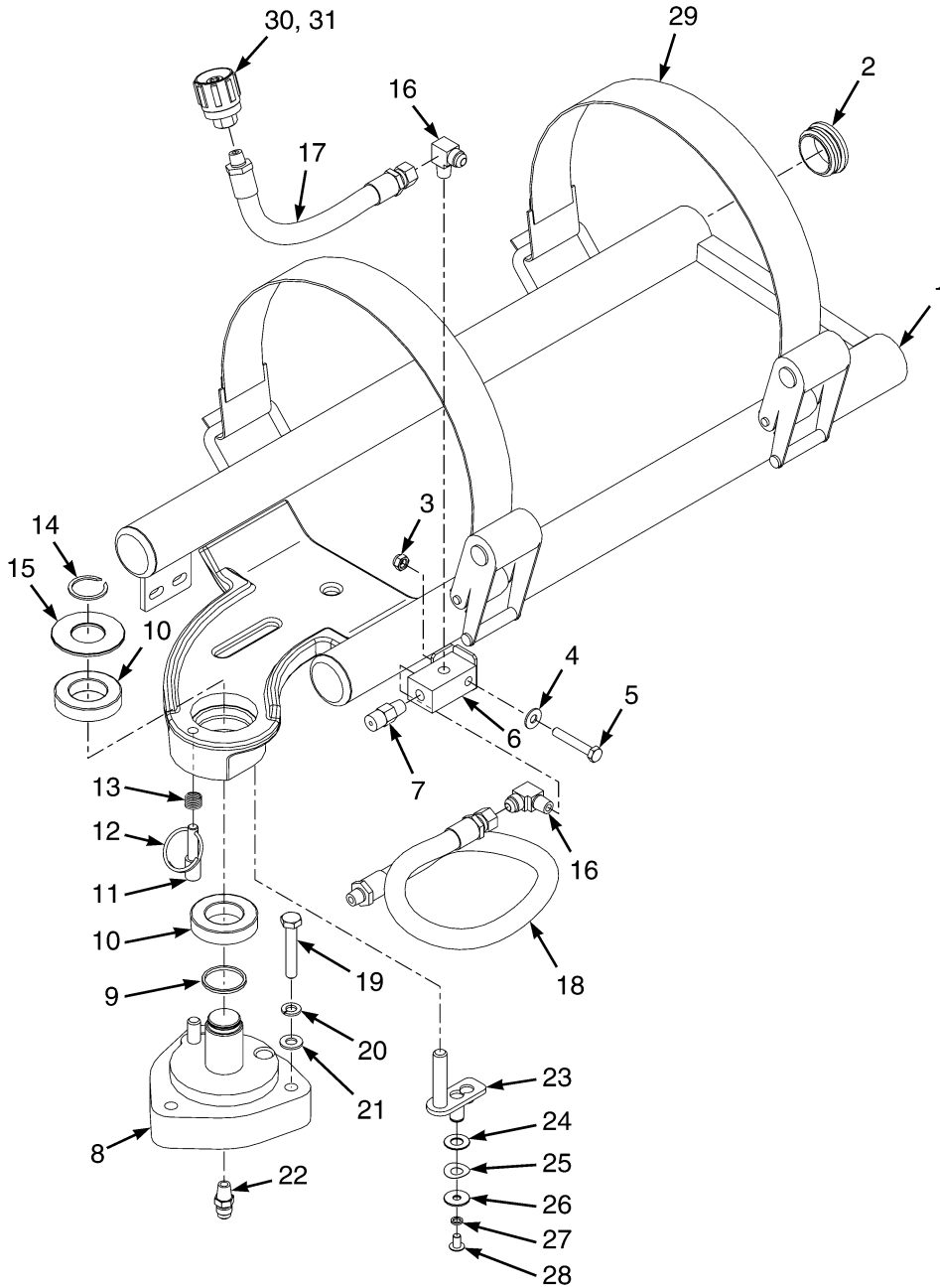


BP130465

FUEL SYSTEM
GM 5.7L LPG – SHEET 2 OF 2**KEY:****A: With Premium Low Fuel Sensor****B: Without Premium Low Fuel Sensor****C: Without Premium Low Fuel Sensor (Optional)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	4606735	Hose Assy	1	1	..
1	4637025	Hose Assy .....	..	..	1
2	173247	Clamp	2	2	2
3	1527880	Capscrew	1	1	1
4	1502543	Nut	1	1	1
5	14349	Fitting (Pipe Plug)	1	..	..
5	16151	Fitting .....	..	1	1
6	2105803	Fuel Filter (LPG)	1	1	1
6	1689544	Kit-Filter Element	1	1	1
7	296152	Capscrew	2	2	2
8	1480237	Nut	3	3	3
9	1639119	Bracket	1	1	1
10	4109993				
	1527879	Capscrew	3	3	3
11	1662253	Sensor	1	..	..
12	14358	Fitting	2	1	1
13	12855	Fitting	1	..	..
13	14372	Fitting .....	..	1	1
14	4606736	Hose Assy	1	1	..
14	4636785	Hose Assy .....	..	..	1
15	339711	Grommet	1	1	1
16	302398	Locknut .....	..	..	2
17	4108842	Plate .....	..	..	1
18	4103675	Plate .....	..	..	1
19	296153	Capscrew .....	..	..	2
	246108	Sealant	AR	AR	AR

LPG FUEL TANK BRACKET (FIGURE 4-4) SWINGOUT BRACKET

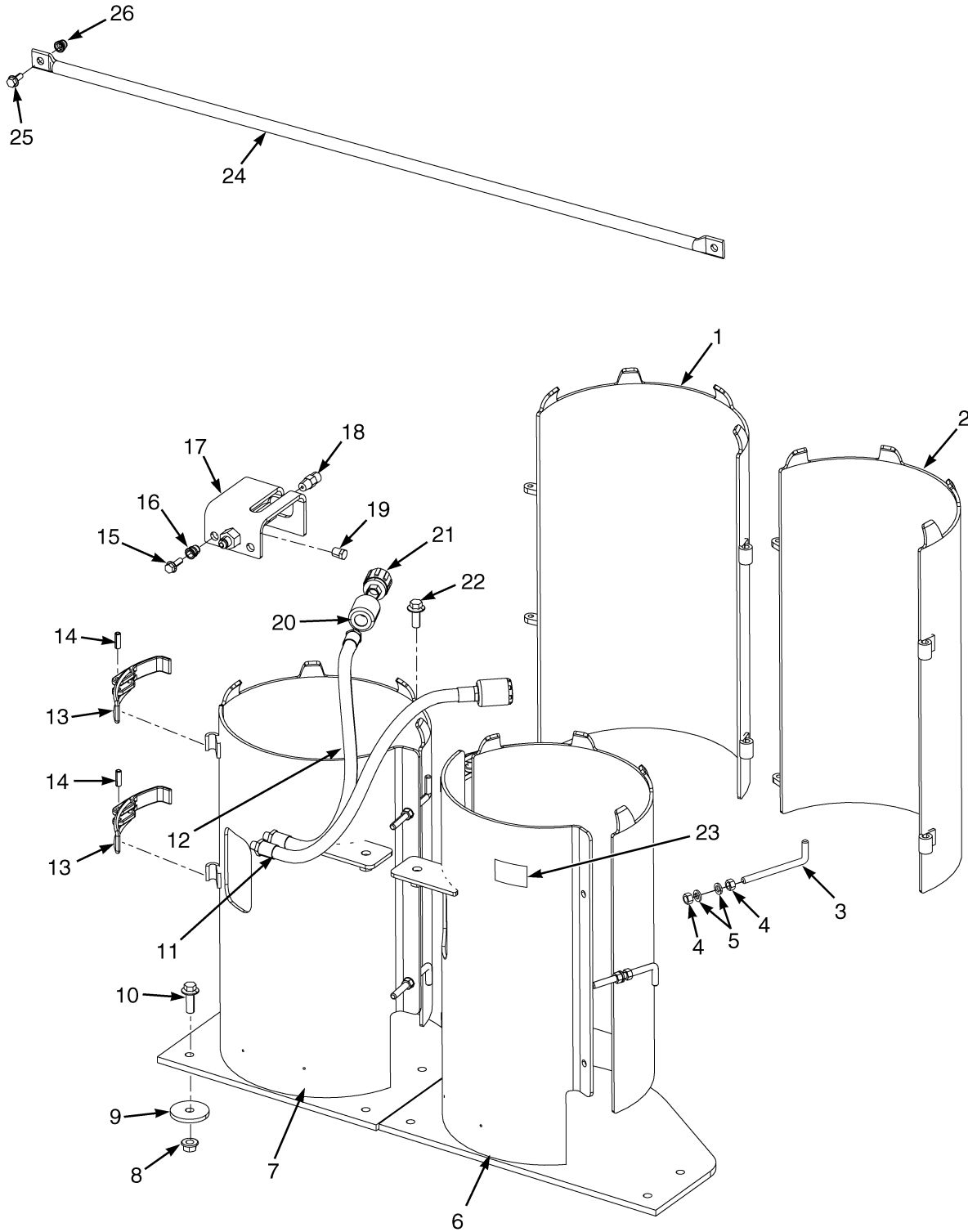


BP130377

**LPG FUEL TANK BRACKET
SWINGOUT BRACKET**

ITEM	PART NO.	DESCRIPTION	QTY
	4017161	LPG Tank Bracket Assembly	1
1	4017168	LPG Tank Bracket	1
2	1398099	Plug	4
3	1581739	Nut	1
4	1581851	Washer	1
5	1581583	Capscrew	1
6	1534675	Fitting (Bulkhead)	1
7	101809	Relief Valve	1
7	246108	Sealant	AR
8	4017162	Base	1
9	1568853	Thrust Washer	1
10	184451	Ball Bearing	2
11	4022706	Pin	1
12	1534672	Ring	1
13	1528903	Spring	1
14	34507	Snap Ring	1
15	1568839	Washer (Pivot)	1
16	14358	Fitting	2
17	4606747	Hose Assy	1
18	2072298	Hose Assy	1
18	17314	Fitting	1
19	292519	Capscrew	3
20	292682	Lockwasher	3
21	320159	Washer	3
22	16134	Fitting	1
23	4032607	Pin	1
24	4029538	Washer	1
25	4029920	Washer	1
26	4032291	Washer	1
27	4032292	Spacer	AR
28	4031146	Capscrew	1
29	1379455	Strap (Retension)	2
30	97999	Fitting	1
31	2071517	Sleeve	1
	246108	Sealant	AR

SINGLE AND DUAL LPG TANK BRACKETS (FIGURE 4-5)



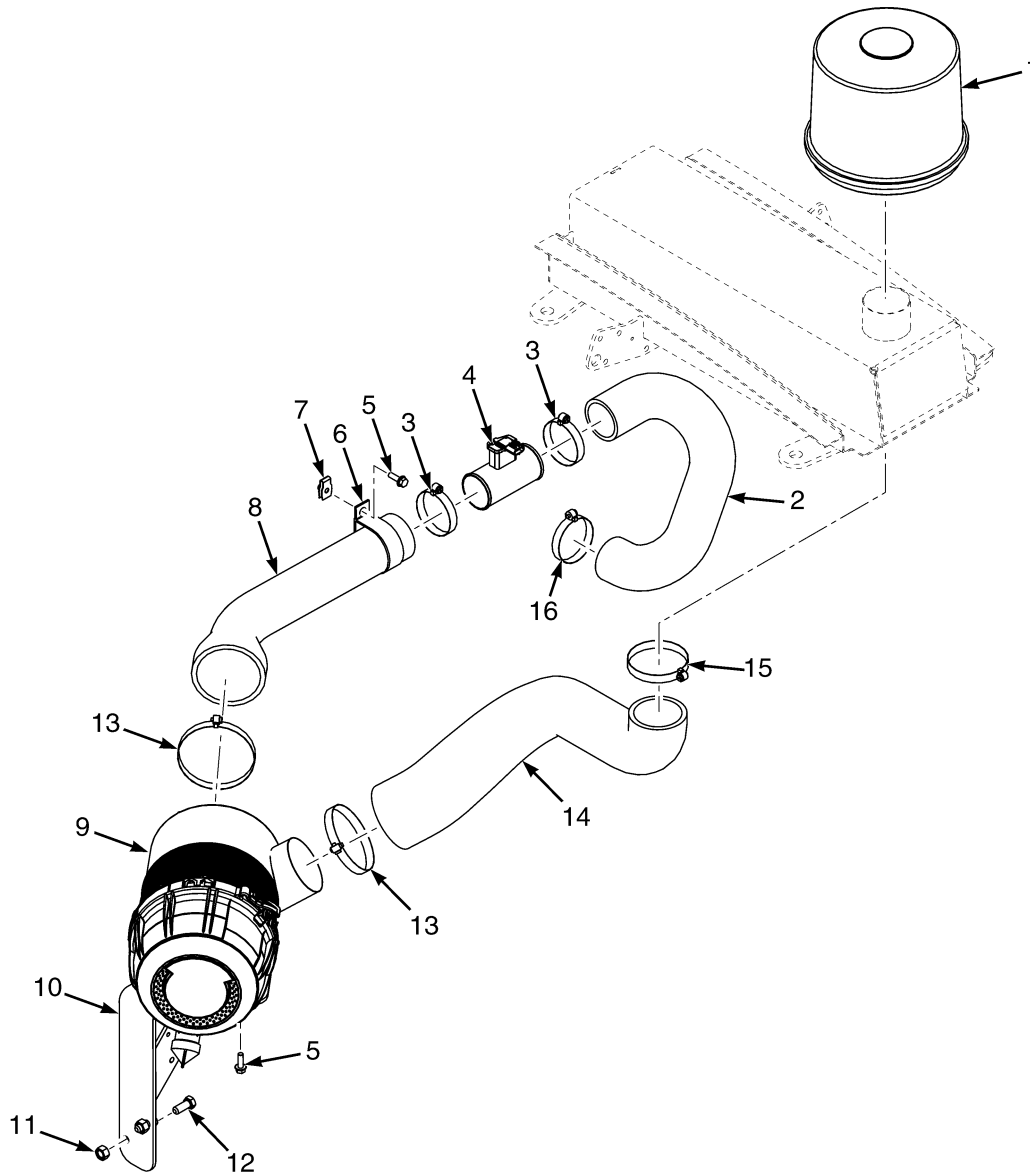
BP130268

SINGLE AND DUAL LPG TANK BRACKETS**KEY:****A: Single****B: Dual**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1649891	Cover (43.5 lb Front)	1	..
1	1649890	Cover (33.5 lb Front) .....	..	1
2	1651063	Cover (43.5 lb Rear) .....	..	1
2	1649889	Cover (33.5 lb Rear) .....	..	1
3	98334	Pin	2	4
4	15006	Nut	4	8
5	15156	Lockwasher	4	8
6	1657439 1669552	Bracket (33.5, 43.5 lb Rear) .....	..	1
7	1657438 1669551	Bracket (33.5, 43.5 lb Front)	1	1
8	1528888	Nut (Shoulder)	5	10
9	300939	Washer	4	8
10	1527888	Capscrew	4	8
11	2094438	Hose Assy (43.5 lb)	1	2
12	2083136	Hose Assy (33.5 lb)	1	2
13	1650496	Latch	2	4
14	19923	Roll Pin	2	4
15	1510113	Capscrew	2	2
16	1530243	Insert	2	2
17	1614156	Bracket Wldmt	1	1
18	101809	Relief Valve	1	1
19	14385	Fitting	1	..
20	2071517	Sleeve	1	2
21	97999	Fitting	1	2
22	1528889	Capscrew	1	2
23	1354171	Label (Flammable LPG)	1	1
24	1661150	Barrier	1	1
25	1527880	Capscrew	2	2
26	1531557	Insert	2	2
	a 1501259	Nameplate (LP Tank)	1	2
	a 1501258	Nameplate (LP Tank) .....	..	2
	a 170658	Rivet	4	6

FOOTNOTES:**a** Not Illustrated

**AIR INTAKE (FIGURE 4-6)
KUBOTA DIESEL**



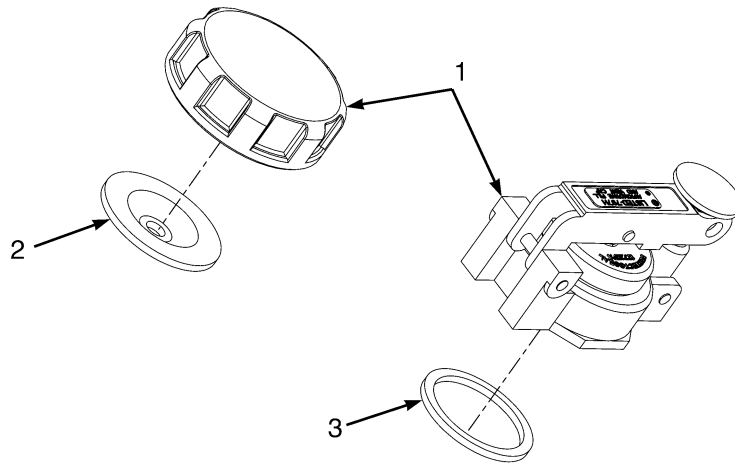
BP130382

**AIR INTAKE
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	154821	Cap (Without Pre-Cleaner)	1
1	2097624	Pre-Cleaner (With Pre-Cleaner)	1
1	1689464	Clamp	1
2	4613029	Hose (Clean Air)	1
3	1394008	Hose Clamp	2
4	.....	Sensor Assembly	1
4	4055658	Sensor (Air Flow)	1
4	4055659	Housing	1
4	4055660	Screw	2
5	1510113	Capscrew	5
6	1384698	Clamp	1
7	1393879	Nut	1
8	4613028	Hose (Clean Air)	1
9	4613140	Air Filter	1
9	2103627	Filter Element	1
9	1689296	Kit-Cover	1
9	1703650	Plug	1
10	4029153	Bracket Wldmt (Attaches to frame)	1
11	292656	Nut	2
12	293645	Capscrew	2
13	227220	Clamp	2
14	4613031	Hose (Dirty Air)	1
15	115696	Hose Clamp	1
16	1394008	Hose Clamp	1
	a 165991	Indicator (Restriction) (Without Electronic Monitoring)	1

FOOTNOTES:**a** Not Illustrated

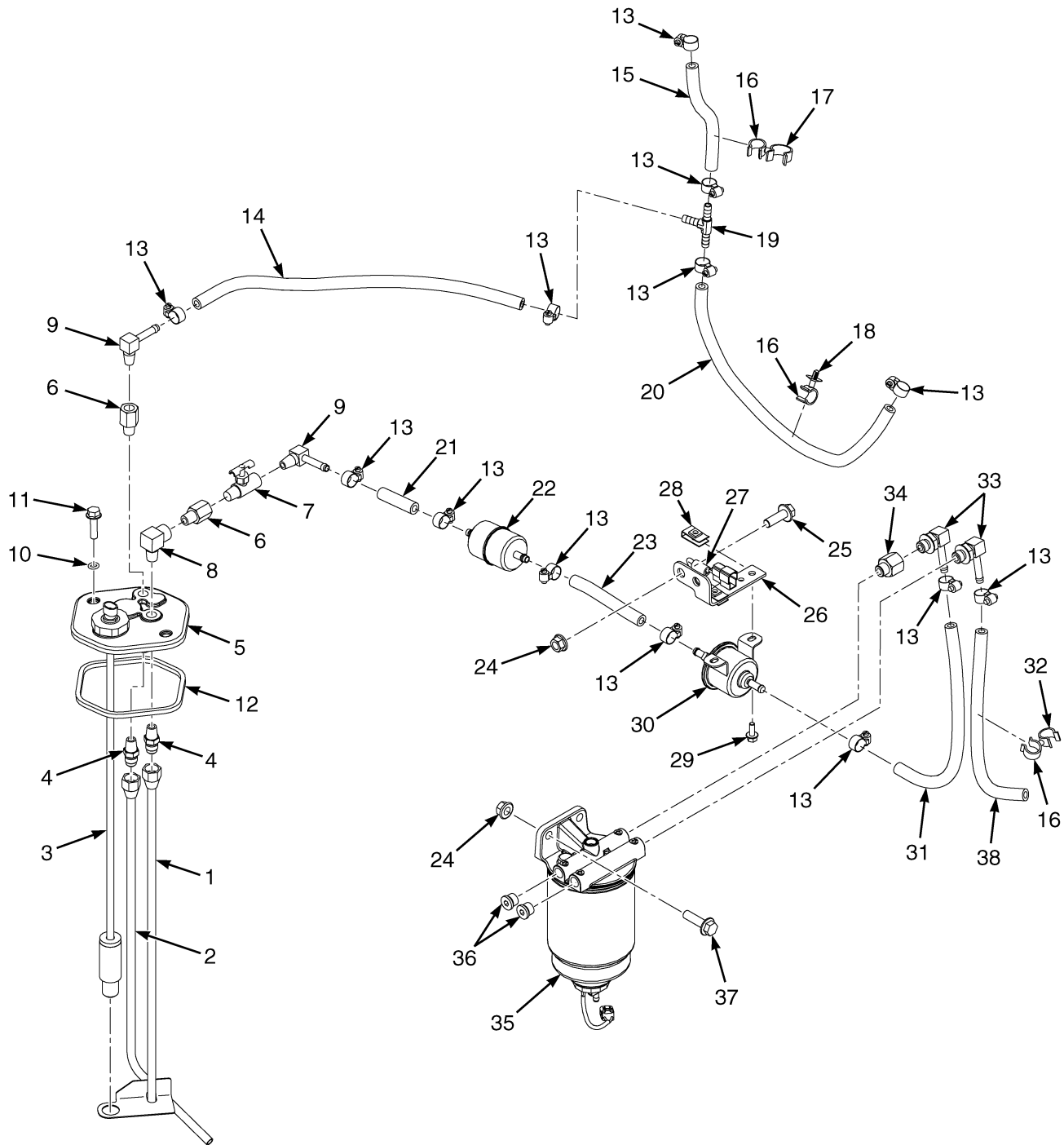
FUEL CAP (FIGURE 4-7) DIESEL



BP130376

ITEM	PART NO.	DESCRIPTION	QTY
1	2081840	Fuel Cap (Standard)	1
1	1579677	Fuel Cap (Safety Option)	1
2	2021683	Gasket	1
2	2021685	Gasket (Safety Option)	1
3	325549	Shim (0,508 mm) (Safety Option)	AR

FUEL SYSTEM (FIGURE 4-8) KUBOTA 3.8L DIESEL (→ 4/2013)

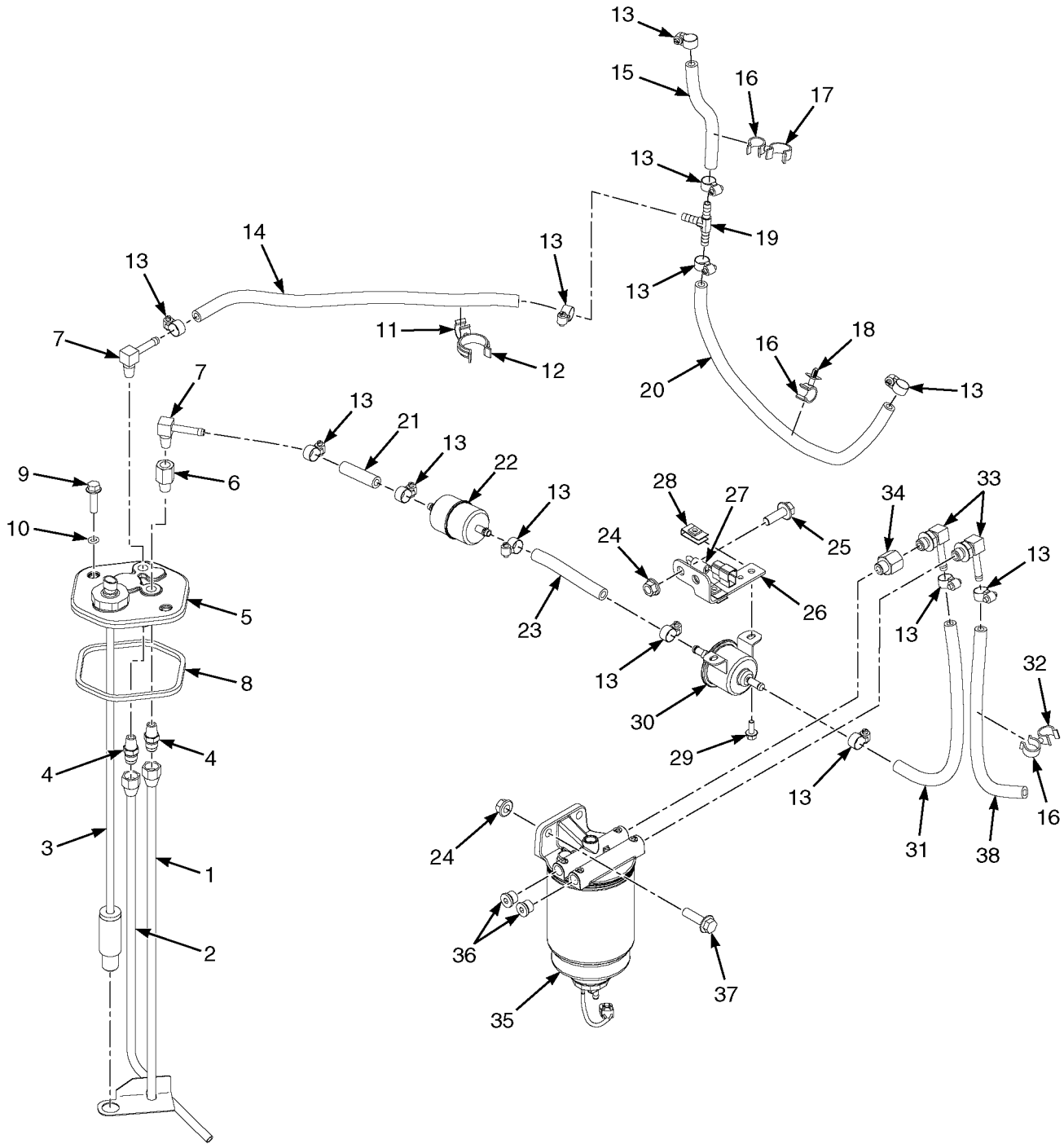


BP130381

FUEL SYSTEM
KUBOTA 3.8L DIESEL (→ 4/2013)

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Fuel Sender	1
1	1590977	Tube-Wldmt	1
2	1640901	Tube	1
3	1551828	Fuel Sender	1
4	16134	Fitting	2
5	1584171	Cover	1
6	12855	Fitting	2
7	16190	Drain Valve (Shutoff)	1
8	17314	Fitting	1
9	192306	Fitting	2
10	353000	O-Ring	2
11	1527881	Capscrew	2
12	1528893	Quad Ring	1
13	168718	Clamp	14
13	166857	Clamp (Optional)	14
14	1301601	Hose	1
15	225465	Hose	1
16	1543698	Clamp (Swivel)	3
17	1502054	Clamp	1
18	1543842	Clamp	1
19	4032490	T-Fitting	1
20	4613580	Hose (To Fuel Injection Pump)	1
21	1551632	Hose	1
22	4617767	Fuel Filter (Inline Strainer)	1
23	1610852	Hose	1
24	1460477	Nut	4
25	1527884	Capscrew	2
26	4028302	Bracket	1
27	124359	Clamp	1
28	1350215	Nut	2
29	1527876	Capscrew	2
30	4032744	Lift Pump	1
31	2063255	Hose	1
32	1606544	Clamp (Swivel)	1
33	4026040	Fitting	2
34	4026085	Fitting	1
35	4024527	Water Separator	1
35	4047982	Water Separator Mounting Head	1
35	4047983	Sensor Drain	1
35	4612789	Water Separator Fuel Filter	1
36	1579809		
	222443	Fitting	2
37	1527885	Capscrew	2
38	4619093	Hose (To Fuel Injection Pump)	1

FUEL SYSTEM (FIGURE 4-9) KUBOTA 3.8L DIESEL (4/2013 →)

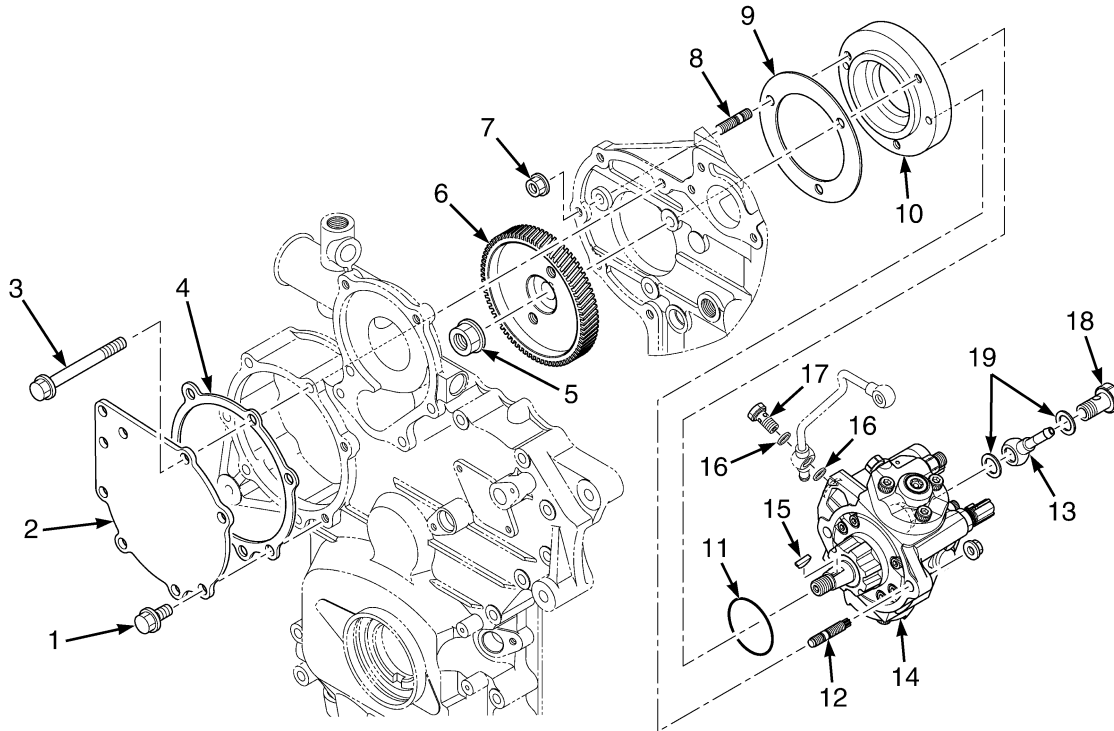


BP130424

FUEL SYSTEM
KUBOTA 3.8L DIESEL (4/2013 →)

ITEM	PART NO.	DESCRIPTION	QTY
	4066390	Fuel Sender (Assembly)	1
1	1590977	Tube-Wldmt	1
2	1640901	Tube	1
3	1551828	Fuel Sender	1
4	16134	Fitting	2
5	1584171	Cover	1
6	12855	Fitting	1
7	192306	Fitting	2
8	1528893	Quad Ring	1
9	1527881	Capscrew	2
10	353000	O-Ring	2
11	1606544	Clamp (Swivel)	1
12	1561759	Clamp (Swivel)	1
13	168718	Clamp	14
13	166857	Clamp (Optional)	14
14	1301601	Hose	1
15	225465	Hose	1
16	1543698	Clamp (Swivel)	3
17	1502054	Clamp	1
18	1543842	Clamp	1
19	4032490	T-Fitting	1
20	4613580	Hose (To Fuel Injection Pump)	1
21	1551632	Hose	1
22	4617767	Fuel Filter (Inline Strainer)	1
23	274334	Hose	1
24	1460477	Nut	4
25	1527884	Capscrew	2
26	4028302	Bracket	1
27	124359	Clamp	1
28	1350215	Nut	2
29	1527876	Capscrew	2
30	4032744	Lift Pump	1
31	2063255	Hose	1
32	1606544	Clamp (Swivel)	1
33	4026040	Fitting	2
34	4026085	Fitting	1
35	4024527	Water Separator	1
35	4047982	Water Separator Mounting Head	1
35	4047983	Sensor Drain	1
35	4612789	Water Separator Fuel Filter	1
36	1579809	Fitting	2
37	1527885	Capscrew	2
38	4619093	Hose (To Fuel Injection Pump)	1

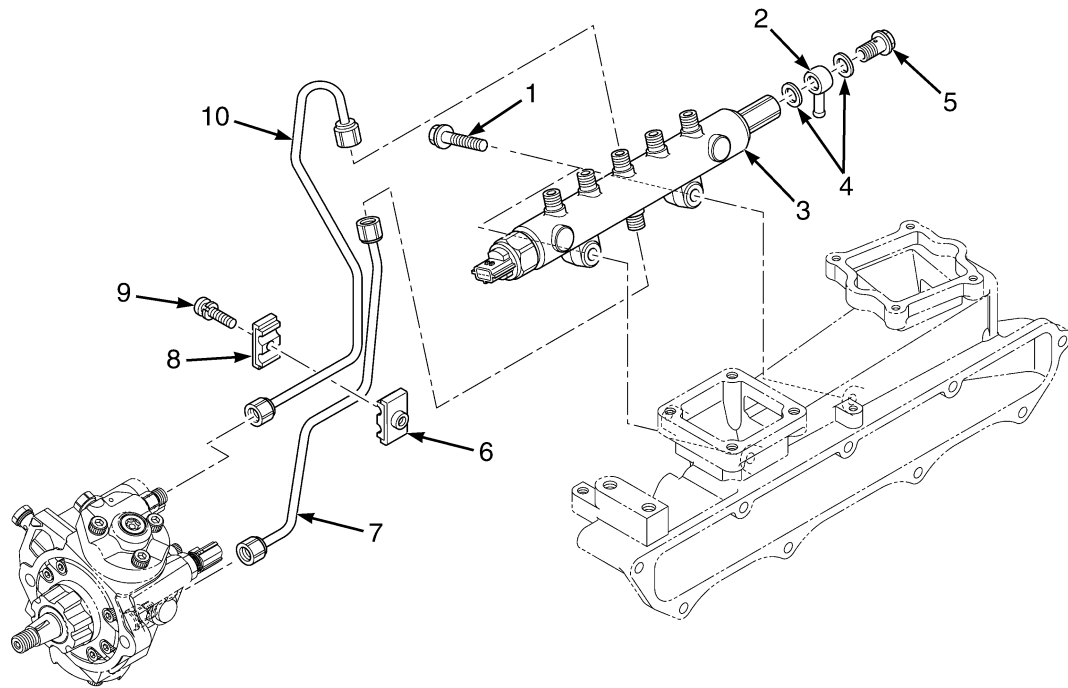
SUPPLY PUMP (FIGURE 4-10) KUBOTA DIESEL



BP090570

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4041944	Bolt	2
2	4054602	Cover	1
3	4041995	Bolt	5
4	4054603	Gasket	1
5	4042256	Nut	1
6	4054607	Gear	1
7	4041946	Nut	5
8	4054600	Stud	3
9	4054601	Gasket	1
10	4054599	Base	1
11	4042254	Gasket	1
12	4041988	Stud	1
13	.....	Pipe	1
14	4054604	Pump	1
14	4094113	Kit-Valve Suction Control (Stop Solenoid)	1
14	4094114	Kit-Sensor Fuel Temperature	1
15	.....	Woodruff Key	1
16	4054606	Gasket	2
17	4042251	Screw	1
18	4042249	Screw	1
19	4054605	Gasket	1

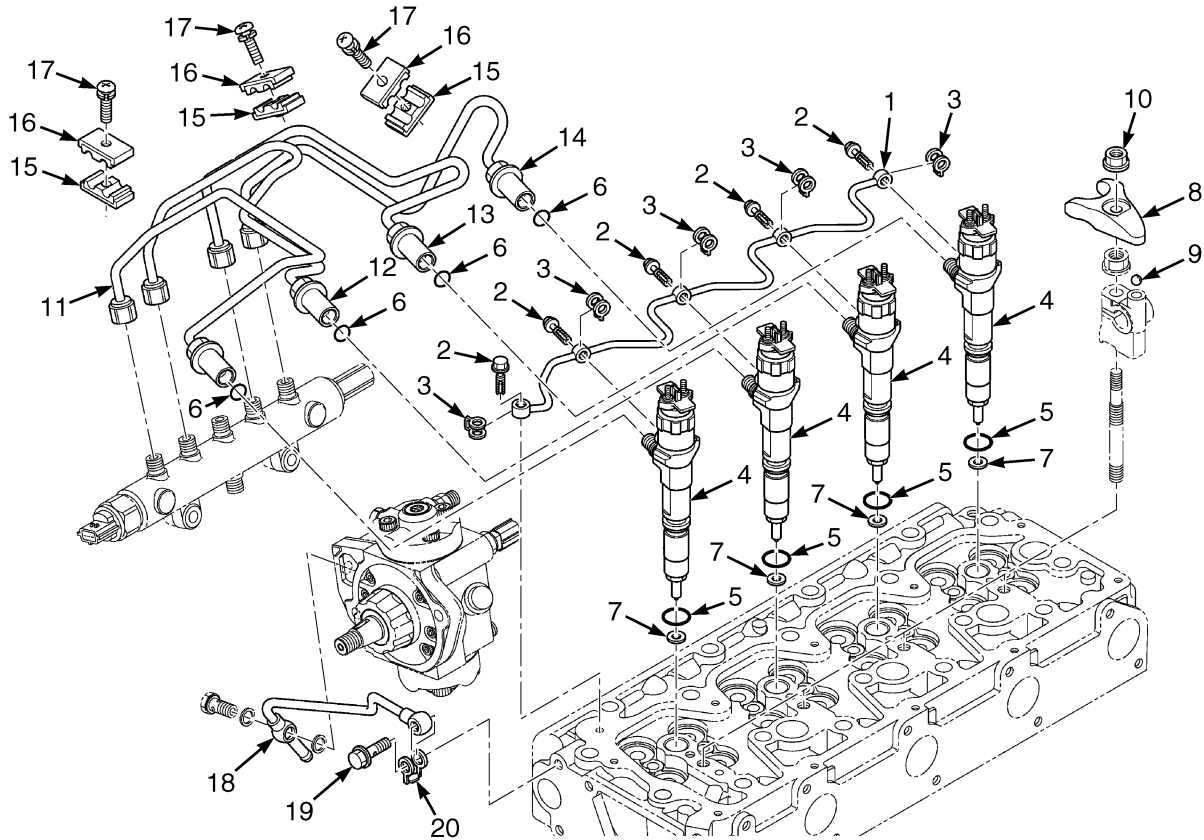
**FUEL RAIL (FIGURE 4-11)
KUBOTA DIESEL**



BP090571

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054646	Bolt (Flange)	2
2	.....	Eye Joint	1
3	4042258	Rail	1
4	.....	Gasket	2
5	.....	Bolt	1
6	4042274	Clamp	1
7	4054648	Pipe (Injection)	1
8	4042275	Clamp	1
9	4042276	Screw	1
10	4054647	Pipe (Injection)	1

INJECTION PIPE (FIGURE 4-12) KUBOTA DIESEL

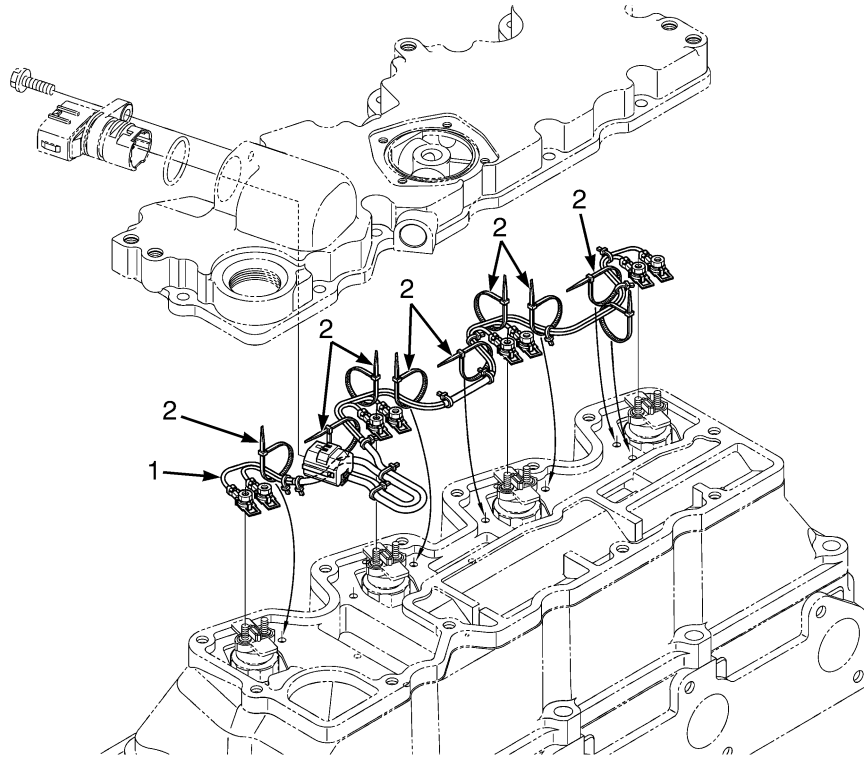


BP090500

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042241	Pipe Assy (Over Flow)	1
2	4042242	Bolt	5
3	4054618	Gasket	5
4	4042264	Injector	4
5	4054619	O-Ring	4
6	4042265	O-Ring	4
7	4042266	Packing (Gasket)	4
8	4042267	Clamp	4
9	4042268	Ball	4
10	4042138	Nut	4
11	4041946	Pipe (Injection)	1
12	4054620	Pipe (Injection)	1
13	4054621	Pipe (Injection)	1
14	4054622	Pipe (Injection)	1
15	4054623	Clamp	3
16	4042274	Clamp	3
17	4042275	Screw	3
18	4042276	Pipe	1
19	4054624	Bolt	1
	4042226	Bolt	1
	4120028	Bolt	1

ITEM	PART NO.	DESCRIPTION	QTY
20	4042227	Gasket	1

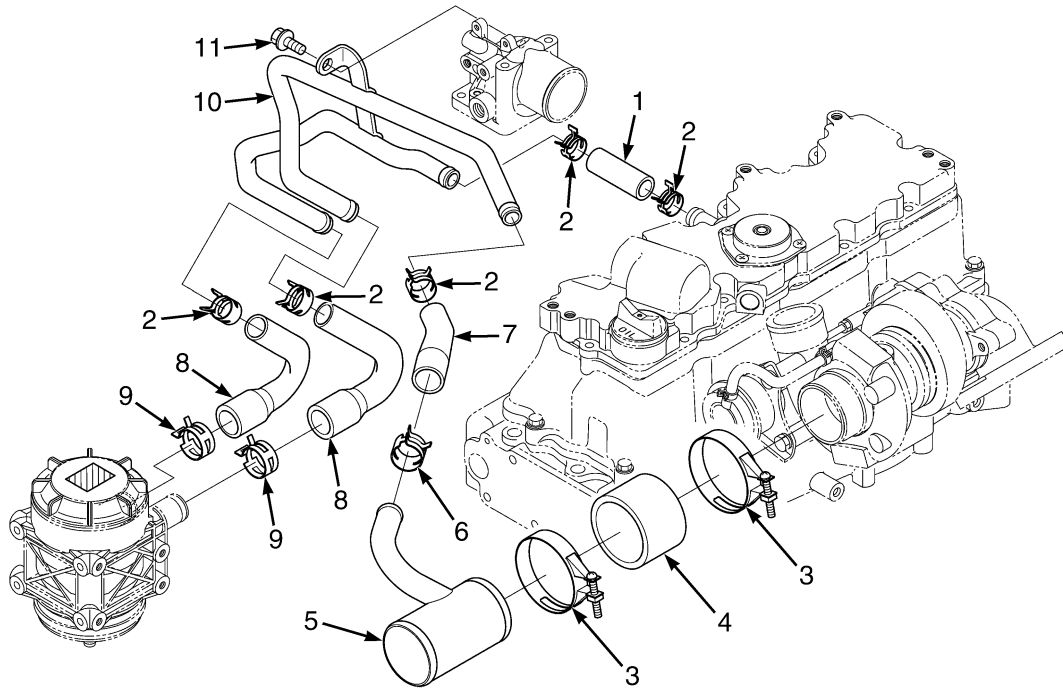
INJECTOR HARNESS (FIGURE 4-13) KUBOTA DIESEL



BP090602

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4054654	Wire Harness (Kubota 3.8L Diesel)	1
2	4042120	Band	9

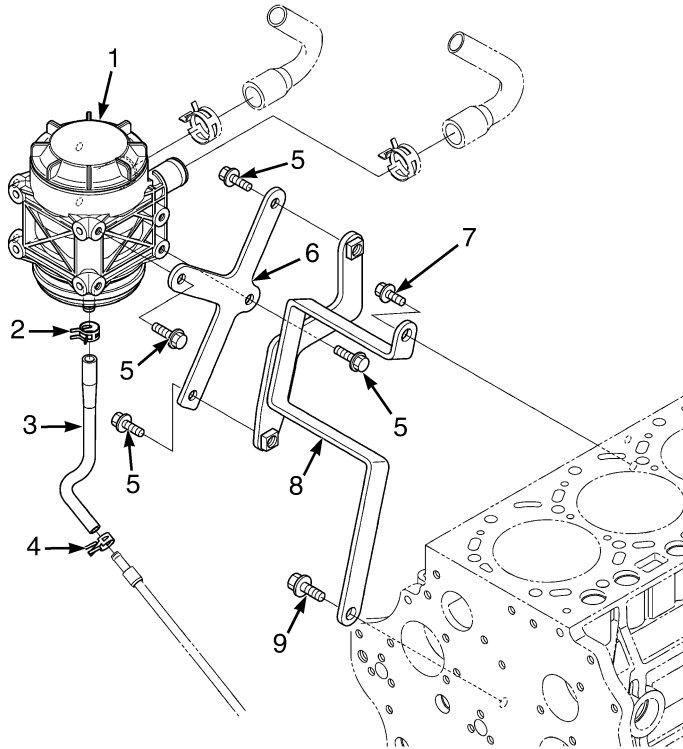
**BREATHER AND SEPARATOR PIPES (FIGURE 4-14)
KUBOTA DIESEL**



BP090603

ITEM	PART NO.	DESCRIPTION	QTY
	4611459	Engine Assy-Diesel (3.8L)	1
1	4042014	Tube (Separator)	1
2	4042015	Hose Clamp	5
3	4042024	Clamp	2
4	4042023	Tube (Intake Turbo)	1
5	4042025	Pipe (Valve Breather)	1
6	4042020	Hose Clamp	1
7	4054768	Tube	1
8	4042017	Tube (Separator)	2
9	4042018	Hose Clamp	2
10	4054767	Pipe	1
11	4041992	Bolt	1

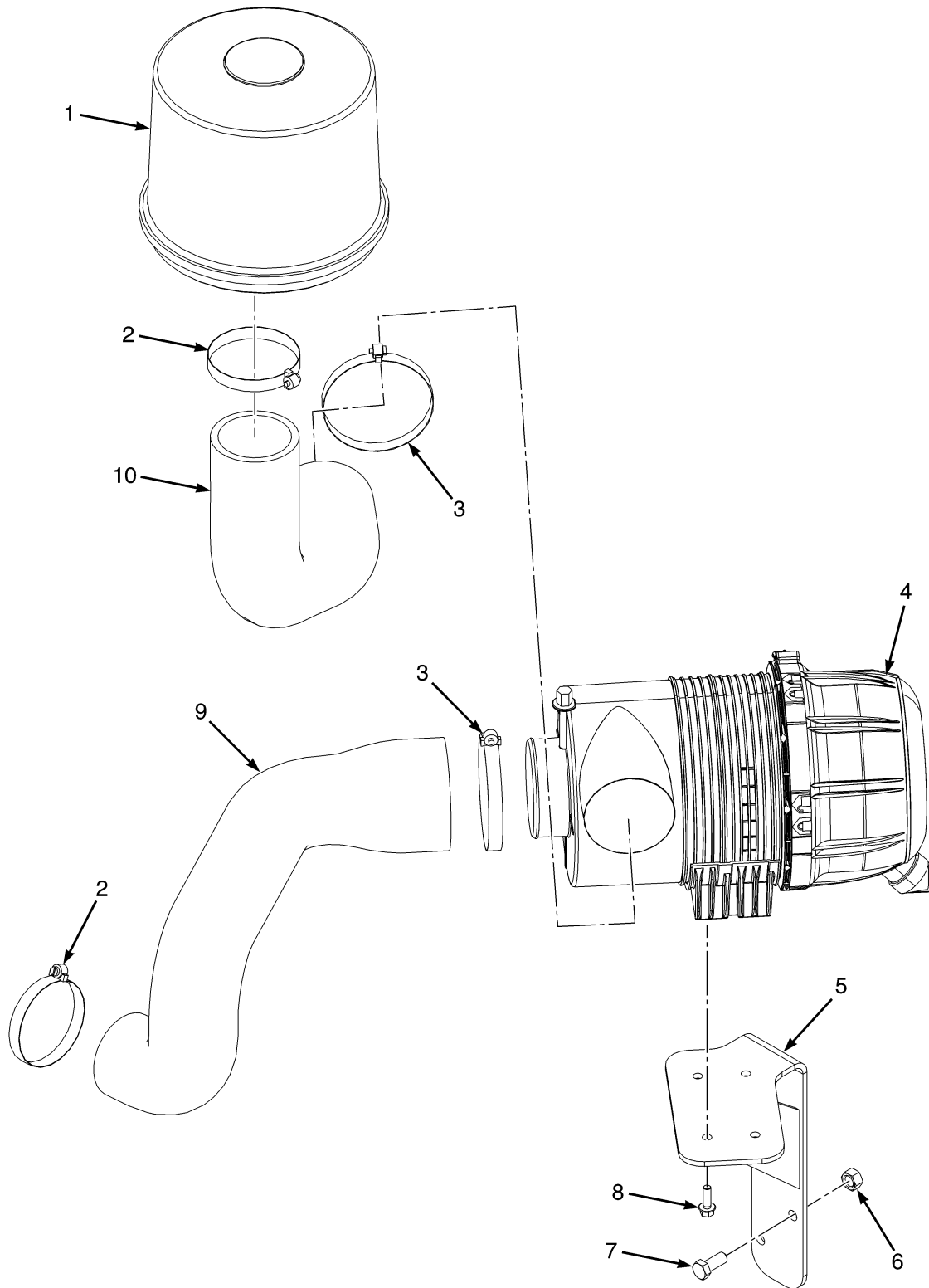
OIL SEPARATOR (FIGURE 4-15) KUBOTA DIESEL



BP090600

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042028	Separator (Crankcase Breather Filter)	1
1	4047237	Kit-Filter Element (Breather Element)	1
2	4042032	Hose Clamp	1
3	4042031	Tube (Oil Return)	1
4	4042033	Hose Clamp	1
5	4041944	Bolt	4
6	4054771	Bracket	1
7	4041992	Bolt	1
8	4054772	Bracket	1
9	4042034	Bolt	1

AIR INTAKE (FIGURE 4-16) CUMMINS QSB 3.3L DIESEL

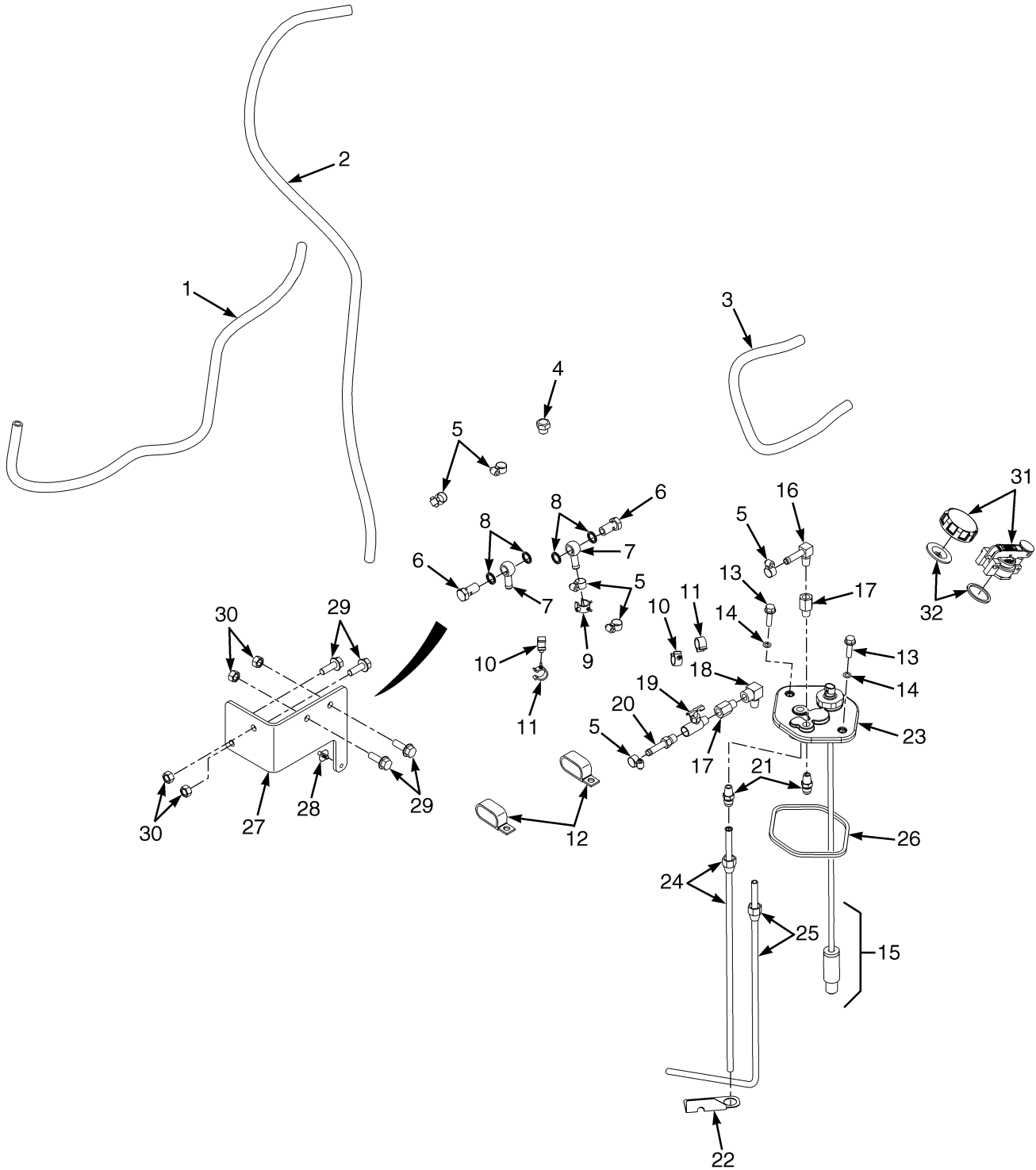


BP130299

**AIR INTAKE
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	2097624	Pre-Cleaner	1
2	115696	Hose Clamp	1
3	227220	Clamp	2
4	2100119	Air Filter	1
4	2103627	Filter Element	1
4	1689296	Kit-Cover	1
4	1703650	Plug	1
5	1664618	Bracket Wldmt	1
6	292656	Nut	2
7	293645	Capscrew	2
8	1510113	Capscrew	4
9	2099080	Hose (Clean Air)	1
10	2108050	Hose (Dirty Air)	1

FUEL SYSTEM (FIGURE 4-17) CUMMINS QSB 3.3L DIESEL (→ 4/2013)



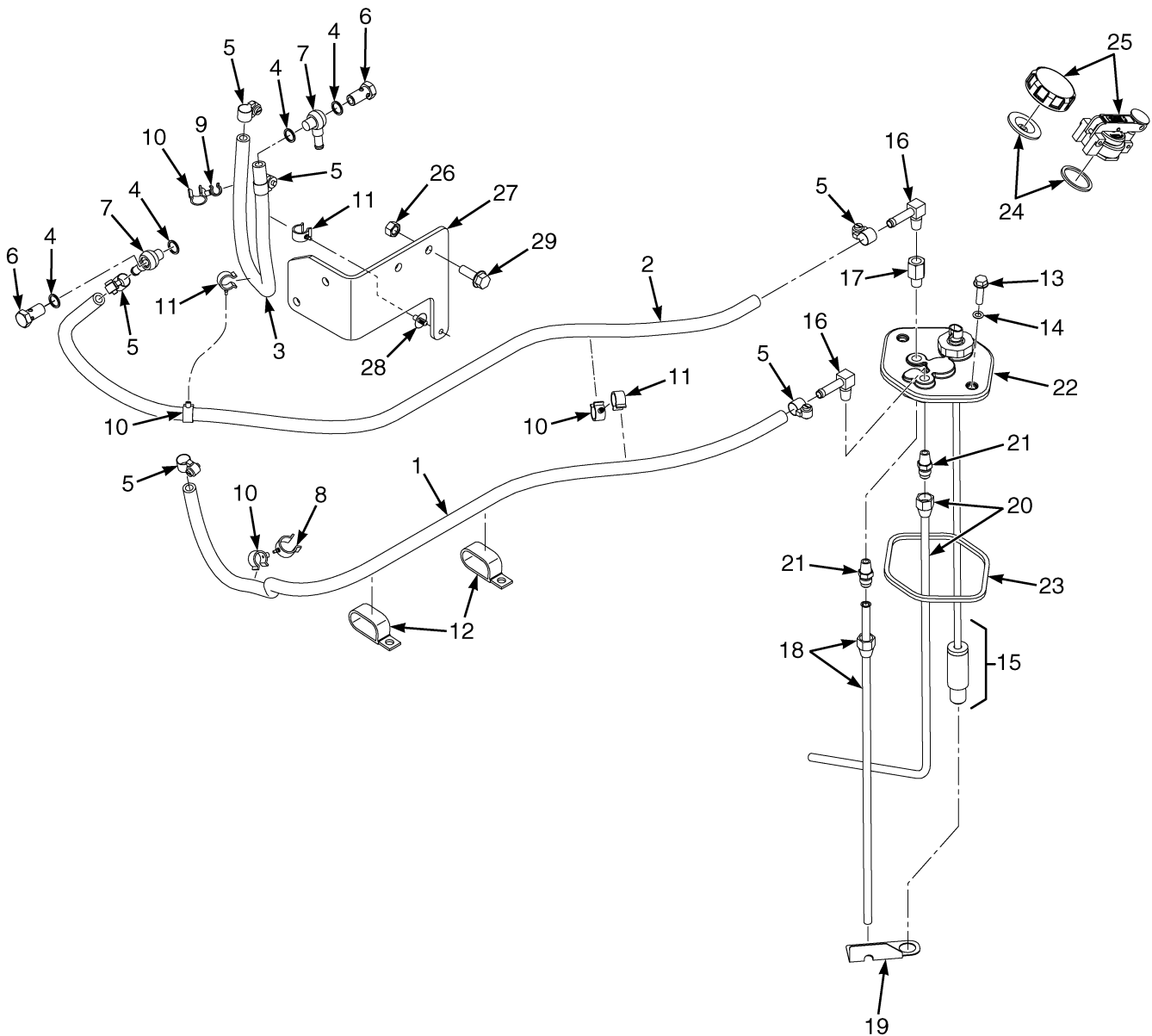
BP130301

FUEL SYSTEM
CUMMINS QSB 3.3L DIESEL (→ 4/2013)

ITEM	PART NO.	DESCRIPTION	QTY
1	1665636	Hose (To Fuel Sending Unit)	1
2	1665637	Hose (To Fitting Item 16)	1
3	1665638	Hose	1
4	.....	Plug	1
5	168718	Clamp	6
6	1673878	Screw	2
7	1673877	Fitting	2
8	4004645	Washer (Copper)	4
9	1573549	Clamp	1
10	1606544	Clamp (Swivel)	4
11	1543698	Clamp (Swivel)	2
12	176454	Clamp	2
13	1527881	Capscrew	2
14	353000	O-Ring	2
15	1676919	Fuel Sender Assembly	1
15	1551828	Fuel Sender	1
16	17353	Fitting	1
17	12855	Fitting	1
18	17314	Fitting	1
19	16190	Drain Valve (Shutoff)	1
20	17352	Fitting	1
21	16134	Fitting	2
22	.....	Bracket	1
23	1584171	Cover	1
24	1590977	Tube-Wldmt	1
25	1640901	Tube	1
26	1528893	Quad Ring	1
27	4040074	Bracket	1
28	1543842	Clamp	1
29	1663739	Bolt	4
30	292655	Nut	4
31	2081840	Fuel Cap (Standard)	1
31	1579677	Fuel Cap (Protectoseal)	1
32	2021683	Gasket (Standard)	1
32	2021685	Gasket (Protectoseal)	1
	a 325549	Shim (0,508 mm) (Protectoseal)	AR
	a 2058000	Adhesive	AR

FOOTNOTES:**a** Not Illustrated

FUEL SYSTEM (FIGURE 4-18) CUMMINS QSB 3.3L DIESEL (4/2013 →)



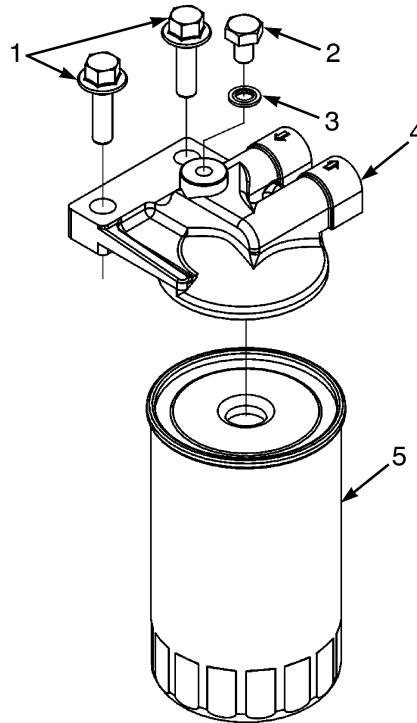
BP130423

FUEL SYSTEM
CUMMINS QSB 3.3L DIESEL (4/2013 →)

ITEM	PART NO.	DESCRIPTION	QTY
1	1665636	Hose (To Fuel Sending Unit)	1
2	4072119	Hose (To Fitting Item 16)	1
3	1665638	Hose	1
4	4004645	Washer (Copper)	4
5	168718	Clamp	6
5	166857	Clamp (Optional)	6
6	1673878	Screw	2
7	1673877	Fitting	2
8	1502066	Clamp (Swivel)	1
9	1573549	Clamp	1
10	1606544	Clamp (Swivel)	4
11	1543698	Clamp (Swivel)	3
12	176454	Clamp	2
13	1527881	Capscrew	2
14	353000	O-Ring	2
15	4066408	Fuel Sender (Assembly)	1
15	1551828	Fuel Sender	1
16	17353	Fitting	2
17	12855	Fitting	1
18	1590977	Tube-Wldmt	1
19	.....	Bracket	1
20	1640901	Tube	1
21	16134	Fitting	2
22	1584171	Cover	1
23	1528893	Quad Ring	1
24	2021685	Gasket (Protectoseal)	1
24	2021683	Gasket (Standard)	1
25	2081840	Fuel Cap (Standard)	1
25	1579677	Fuel Cap (Protectoseal)	1
26	292655	Nut	2
27	4040074	Bracket	1
28	1543842	Clamp	1
29	1663739	Bolt	2
	a 325549	Shim (0,508 mm) (Protectoseal)	AR
	a 2058000	Adhesive	AR

FOOTNOTES:**a** Not Illustrated

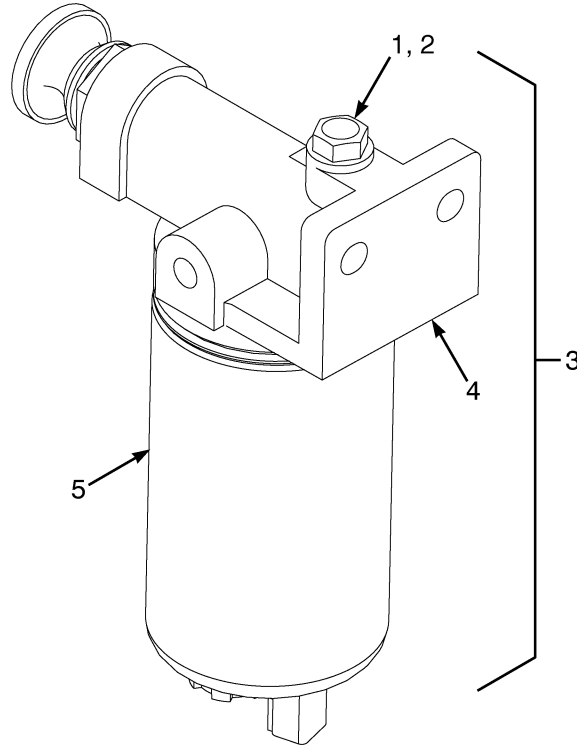
FUEL FILTER (FIGURE 4-19) CUMMINS QSB 3.3L DIESEL



BP130150

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1543337	Capscrew	2
2	1691649	Plug	1
3	1691650	Washer	1
4	1691651	Filter Head	1
5	1691652	Fuel Filter	1

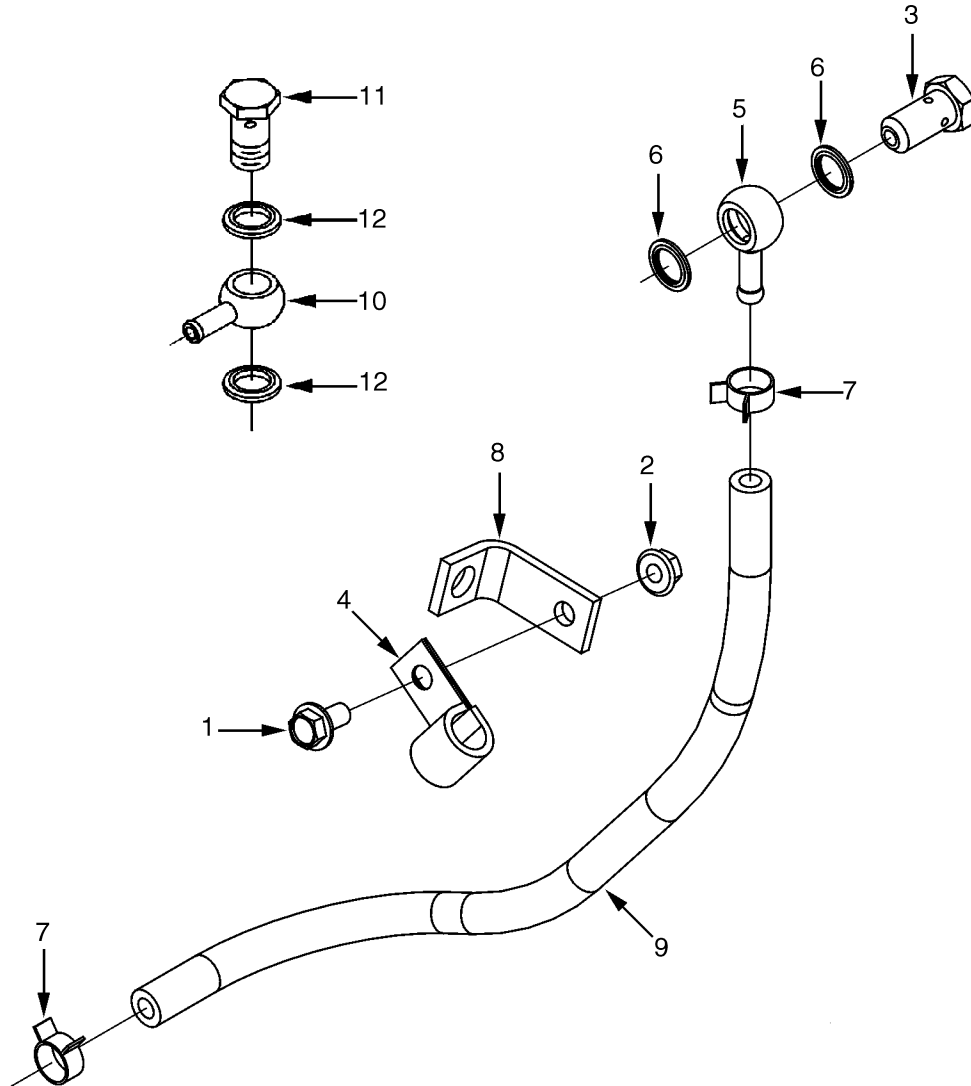
**WATER SEPARATOR (FIGURE 4-20)
CUMMINS QSB 3.3L DIESEL**



BP130138

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691817	Plug	1
2	1691818	Seal	1
3	1691819	Fuel Filter (Fuel Pump)	1
4	.....	Filter Head	1
5	1691821	Cartridge (Includes Sensor)	1

FUEL FILTER PLUMBING (FIGURE 4-21) CUMMINS QSB 3.3L DIESEL



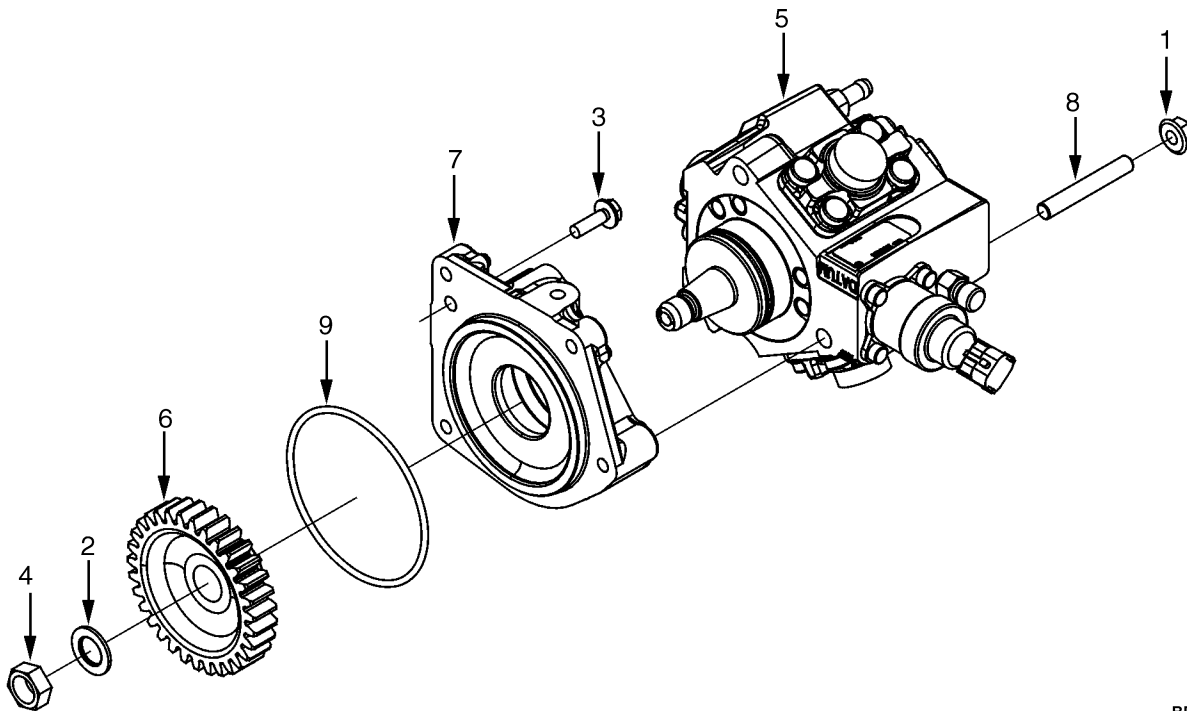
BP130042

**FUEL FILTER PLUMBING
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	b 1691853	Capscrew	1
2	b 1691654	Nut	1
3	b 1673878	Screw (Banjo Connector)	1
4	b 1691655	Clip	1
5	b 1691656	Coupling	1
6	4004645	Washer (Copper)	2
7	b 1691657	Clip	2
8	b 1691658	Plate (Clamping)	1
9	b 1691659	Hose	1
10	a 1673877	Fitting (Banjo Connector)	1
11	a 1673878	Screw	1
12	4004645	Washer (Copper)	2

FOOTNOTES:**a** Fuel Inlet**b** Mounting location: Fuel Pump Side Middle Mount

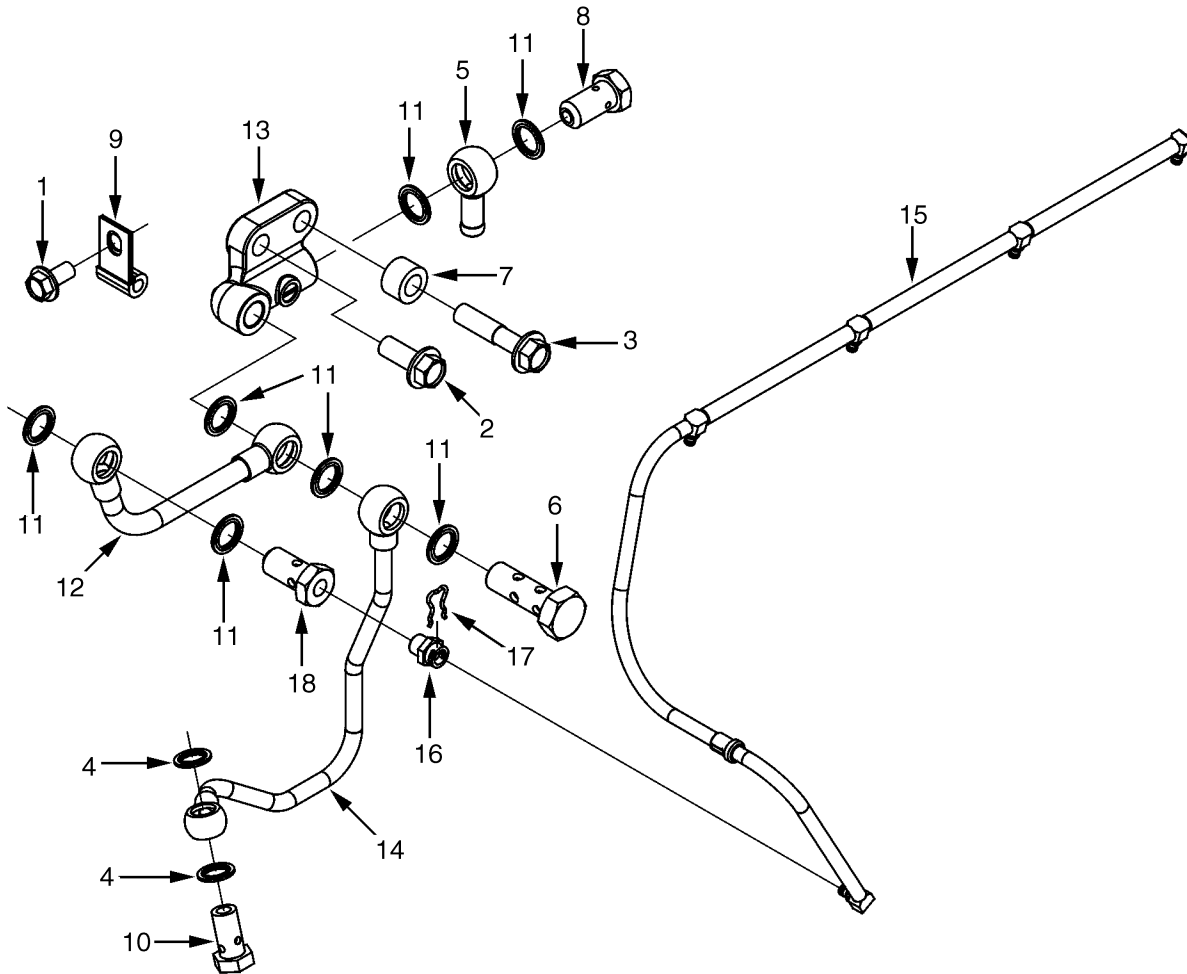
FUEL INJECTION PUMP (FIGURE 4-22) CUMMINS QSB 3.3L DIESEL



BP130035

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691806	Clamp	3
2	1691807	Washer	1
3	1691808	Capscrew	1
4	1691809	Nut	1
5	1691810	Fuel Injection Pump	1
5	4038817	Solenoid Valve	1
6	1691811	Gear	1
7	1691812	Support	1
8	1691813	Stud	3
9	1691816	Seal	1

FUEL PUMP PLUMBING (FIGURE 4-23) CUMMINS QSB 3.3L DIESEL

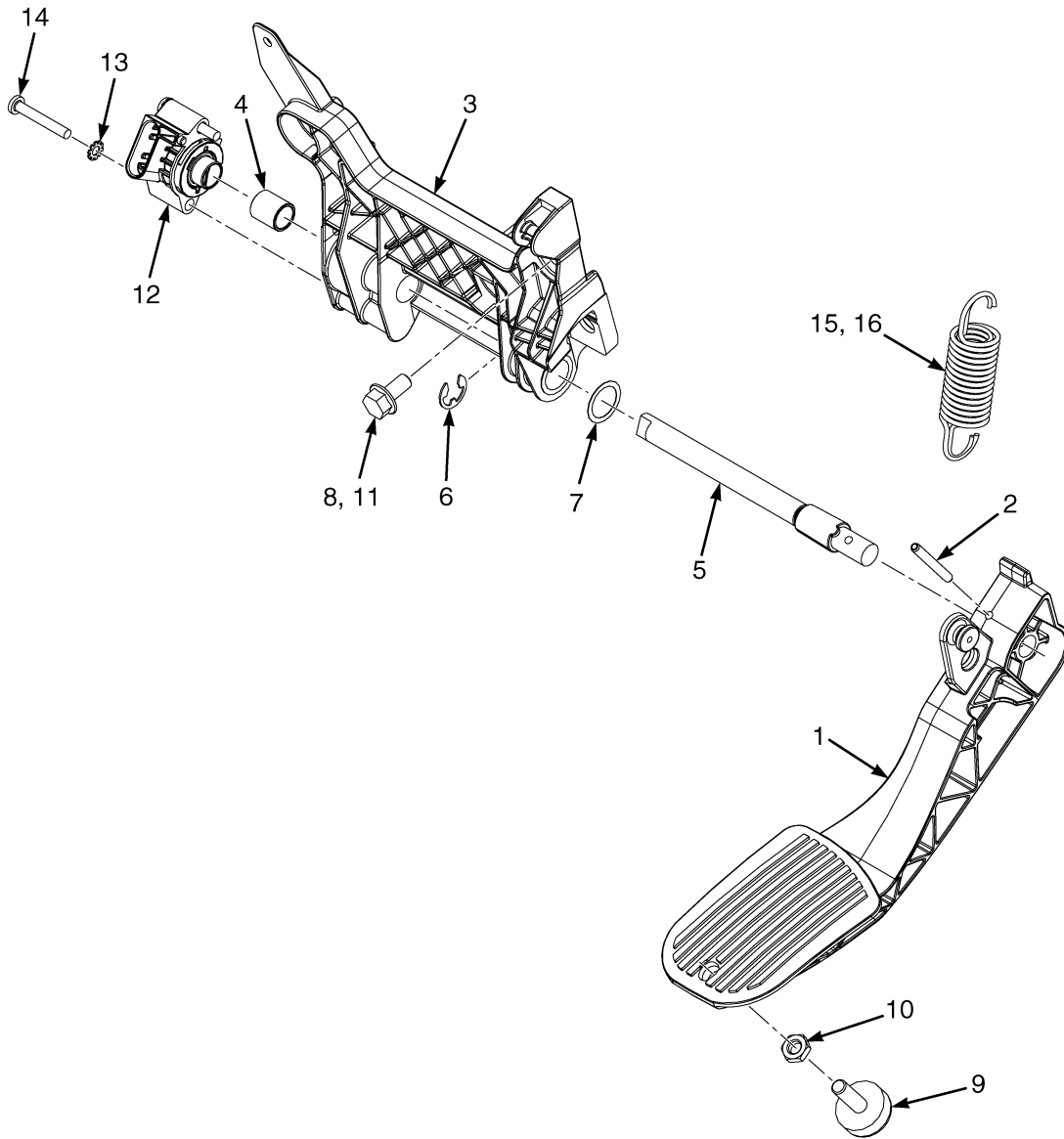


BP130020

**FUEL PUMP PLUMBING
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691853	Capscrew	1
2	1691660	Capscrew	1
3	1644113	Capscrew	1
4	1543359	Sealing Ring	2
5	1673877	Fitting (Banjo Connector)	1
6	1691826	Screw (Banjo Connector)	1
7	1691827	Spacer	1
8	1673878	Screw (Banjo Connector)	1
9	1691669	Clip	1
10	1691670	Screw (Banjo Connector)	1
11	1513714	Sealing Ring	7
12	1691671	Tube (Fuel Supply)	1
13	1691672	Adapter (Fuel Connector)	1
14	1691673	Tube (Fuel Supply)	1
15	1691674	Hose	1
16	4017851	Connector (Banjo)	1
17	1691676	Roll Pin	1
18	1691677	Screw (Banjo Connector)	1

THROTTLE PEDAL ASSEMBLY AND ATTACHING PARTS (FIGURE 4-24) STANDARD PEDAL

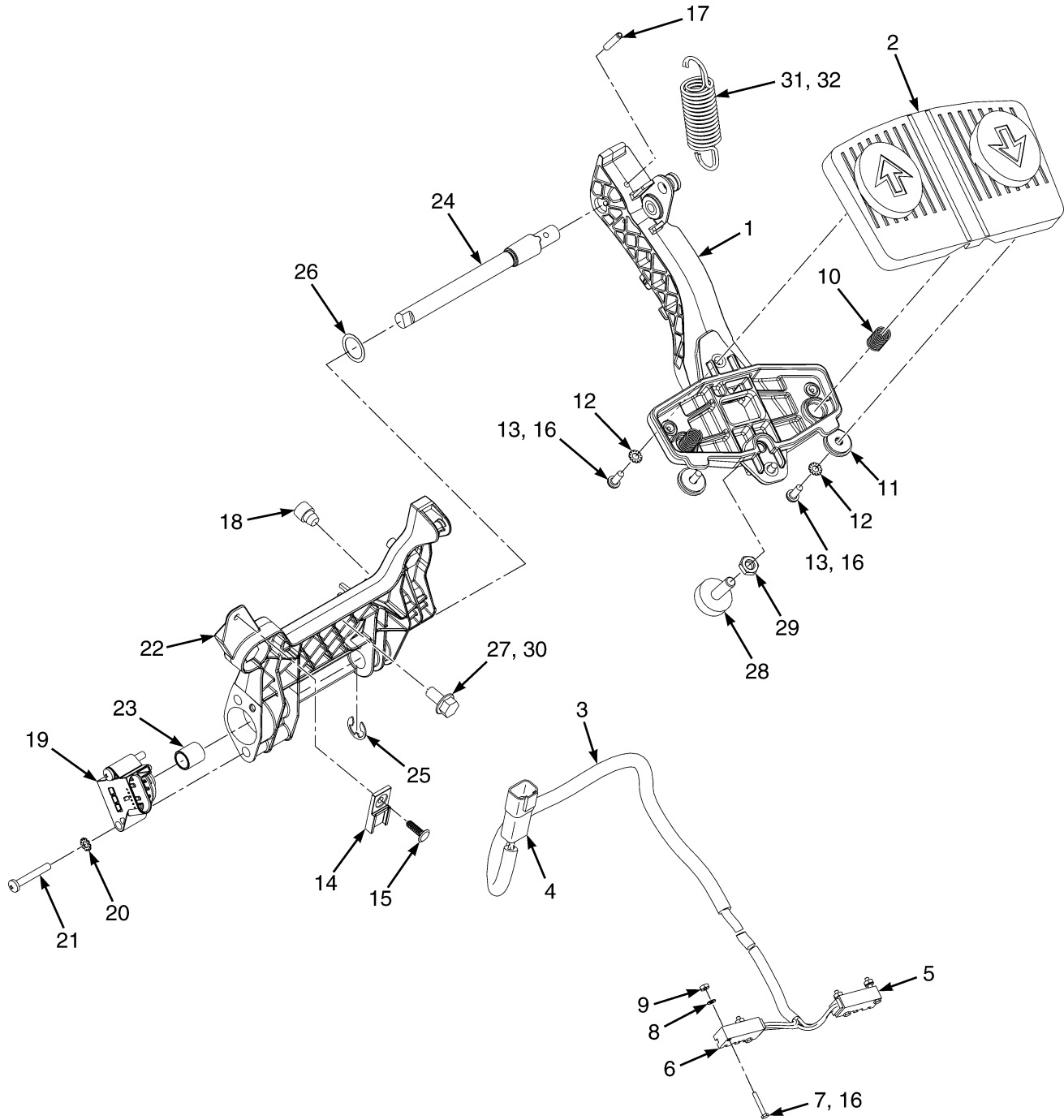


BP130362

**THROTTLE PEDAL ASSEMBLY AND ATTACHING PARTS
STANDARD PEDAL**

ITEM	PART NO.	DESCRIPTION	QTY
1	2071181	Pedal (Standard)	1
2	302443	Roll Pin	1
3	4051924	Base Assembly (Throttle)	1
3	4615964	Molding	1
4	1524267	Bushing	1
5	1654754	Shaft	1
6	1530971	E-Ring	1
7	1654156	Shim	AR
8	4109993		
	1527879	Capscrew	3
9	1530311	Screw (Stop)	1
10	329069	Nut	1
11	251099	Loctite	AR
12	2063842	Sensor (Hall Throttle Position)	1
13	296378	Washer	2
14	1564752	Capscrew	2
15	1582301	Spring (Inner)	1
16	1582300	Spring (Outer)	1

THROTTLE PEDAL ASSEMBLY AND ATTACHING PARTS (FIGURE 4-25) MONOTROL PEDAL



BP130363

**THROTTLE PEDAL ASSEMBLY AND ATTACHING PARTS
MONOTROL PEDAL**

ITEM	PART NO.	DESCRIPTION	QTY
1	4051938	Pedal Assy	1
1	2074702	Pedal	1
2	1340470	Pad	1
3	2072782 4634485	Wire Harness	1
4	.....	Connector Assembly (To Cowl Harness)	1
4	1489655	Connector (4 Way)	1
4	1330416	Connector (Secondary Lock)	1
4	1531312	Terminal	4
5	.....	Switch (Reverse)	1
6	.....	Switch (Forward)	1
7	220428	Screw	4
8	53162	Lockwasher	4
9	16865	Nut	4
10	325699	Spring	2
11	4040523	Washer (Bonded)	2
12	15931	Lockwasher	2
13	16708	Screw	2
14	1500912	Clip	1
15	1582464	Fastener	1
16	360387	Loctite	AR
17	302437	Roll Pin	1
18	4031769	Isolator (Throttle Pedal)	1
19	2063842	Sensor (Hall Throttle Position) (To Cowl Harness)	1
20	296378	Washer	2
21	1564752	Capscrew	2
22	4051924	Base Assembly (Throttle)	1
22	4615964	Molding	1
23	1524267	Bushing	1
24	1654754	Shaft	1
25	1530971	E-Ring	1
26	1654156	Shim	AR
27	4109993 1527879	Capscrew	3
28	1530311	Screw (Stop)	1
29	329069	Nut	1
30	251099	Loctite	AR
31	1582301	Spring (Inner)	1
32	1582300	Spring (Outer)	1

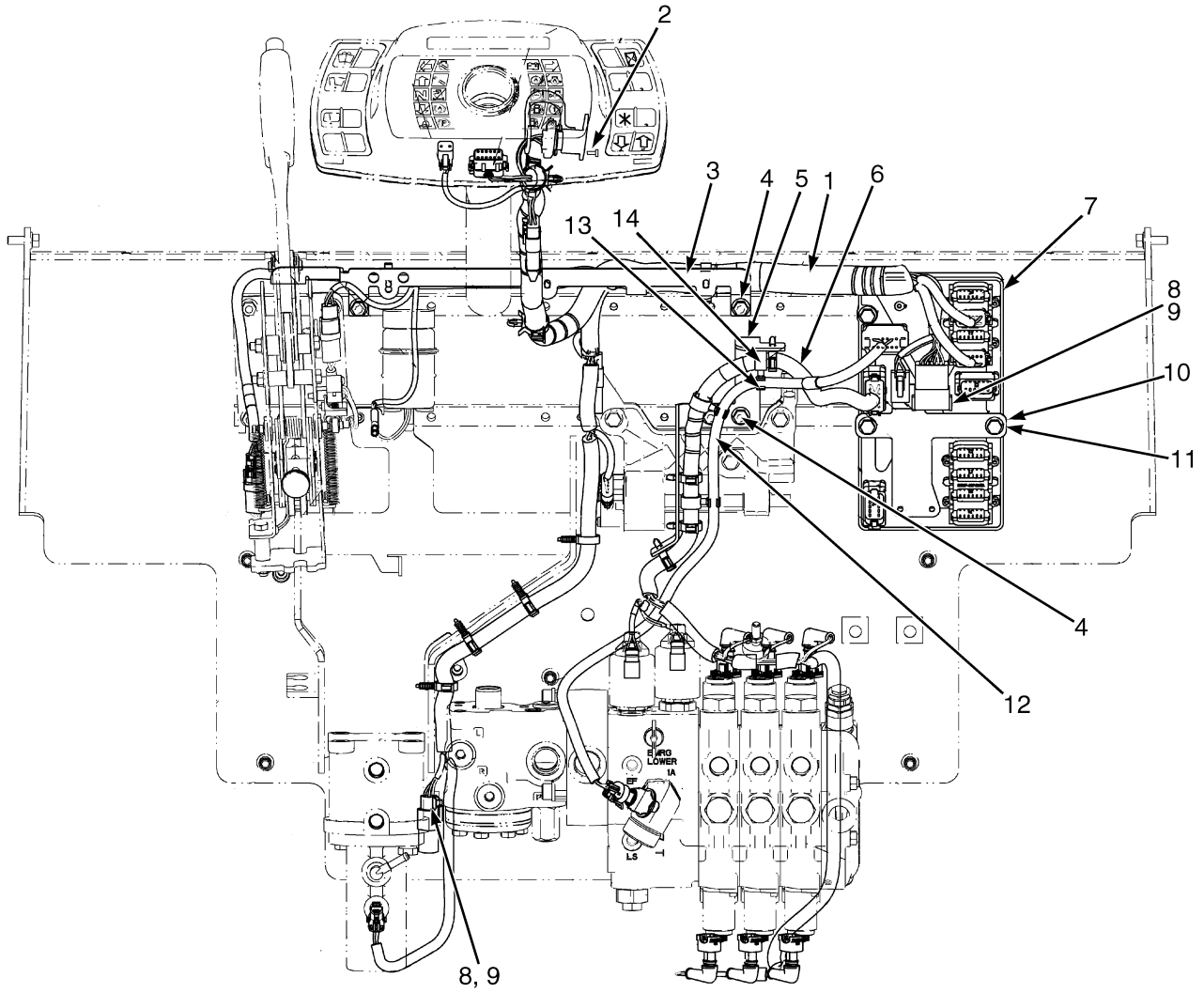
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ELECTRICAL SYSTEM**

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COWL ELECTRICAL (FIGURE 5-1) ELECTRO-HYDRAULIC



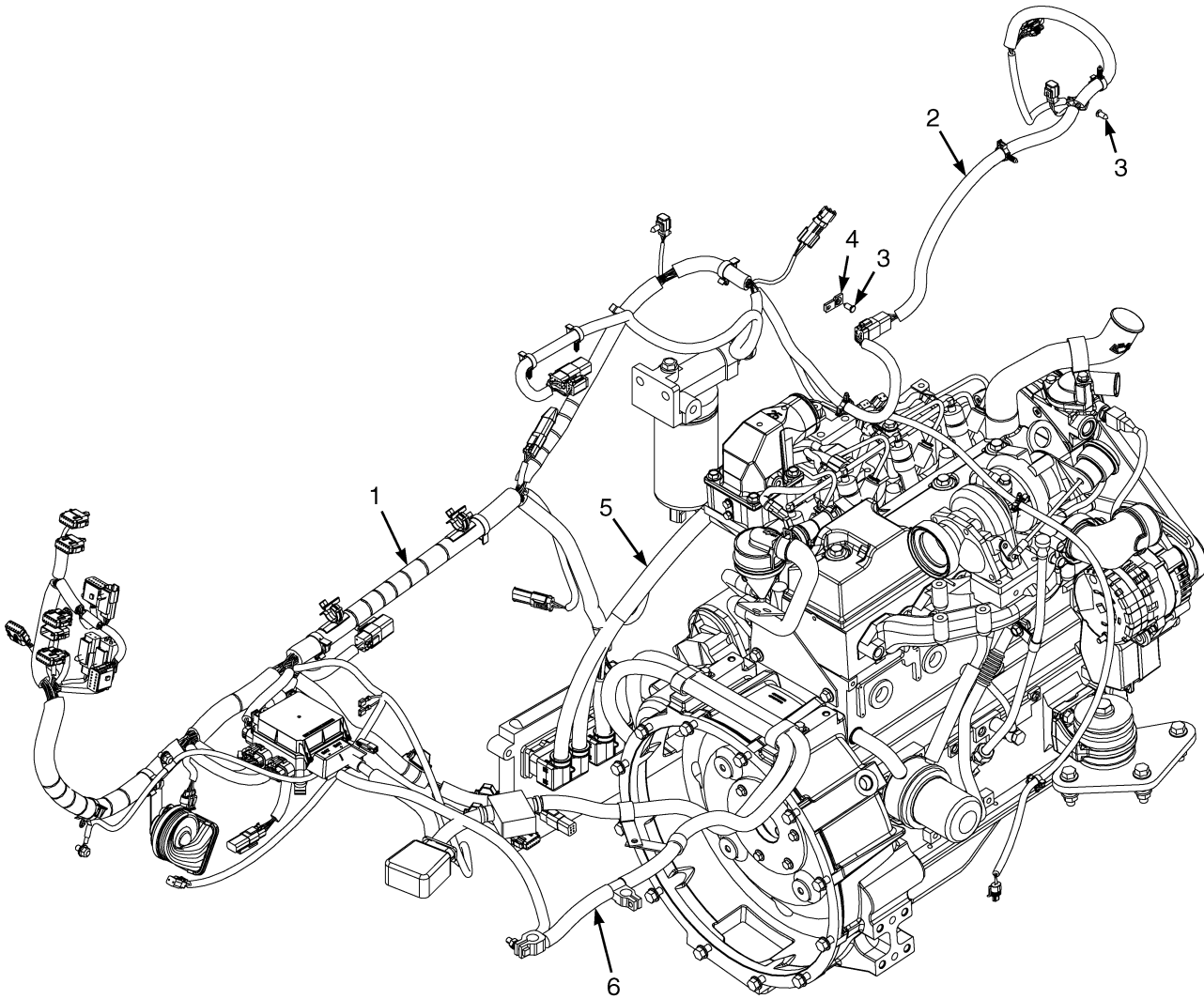
BP081329

**COWL ELECTRICAL
ELECTRO-HYDRAULIC****KEY:****A: With Monotrol or With Return to Set Tilt****B: With Forward Reverse Lever or Without Return to Set Tilt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	4614681	Wire Harness (☞Figure 5-32).....	1	..
1	4614682	Wire Harness (☞Figure 5-33).....	..	1
2	1554902	Screw	2	2
3	2111004	Bracket (Left Hand)	1	1
3	2111005	Bracket (Right Hand)	1	1
4	4011940	Capscrew	4	4
5	1531975	Bracket	1	1
6	2060198	Wire Harness (Control Valve) (3 Function) (☞Figure 5-36).....	1	1
6	2058909	Wire Harness (Control Valve) (4 Function) (☞Figure 5-37).....	1	1
7	2068343	Vehicle System Manager (VSM) (w/ Electro-Hydraulics) (With Overhead Guard)	1	1
7	2068344	Vehicle System Manager (VSM) (w/ Cab and with or without Electro-Hydraulics) (With Cab)	1	1
8	1500912	Clip	4	2
9	1582464	Fastener	4	2
10	4035794	Bracket	1	1
11	1510115	Capscrew	3	3
12	2079326	Wire Harness (Load Weigh) (☞Figure 5-22).....	1	1
13	1573549	Clamp	4	4
14	1606544	Clamp (Swivel)	4	4
	a 1563841	Dust Cap	1	1

FOOTNOTES:**a** Not Illustrated

ELECTRICAL ARRANGEMENT (FIGURE 5-2) CUMMINS QSB 3.3L DIESEL

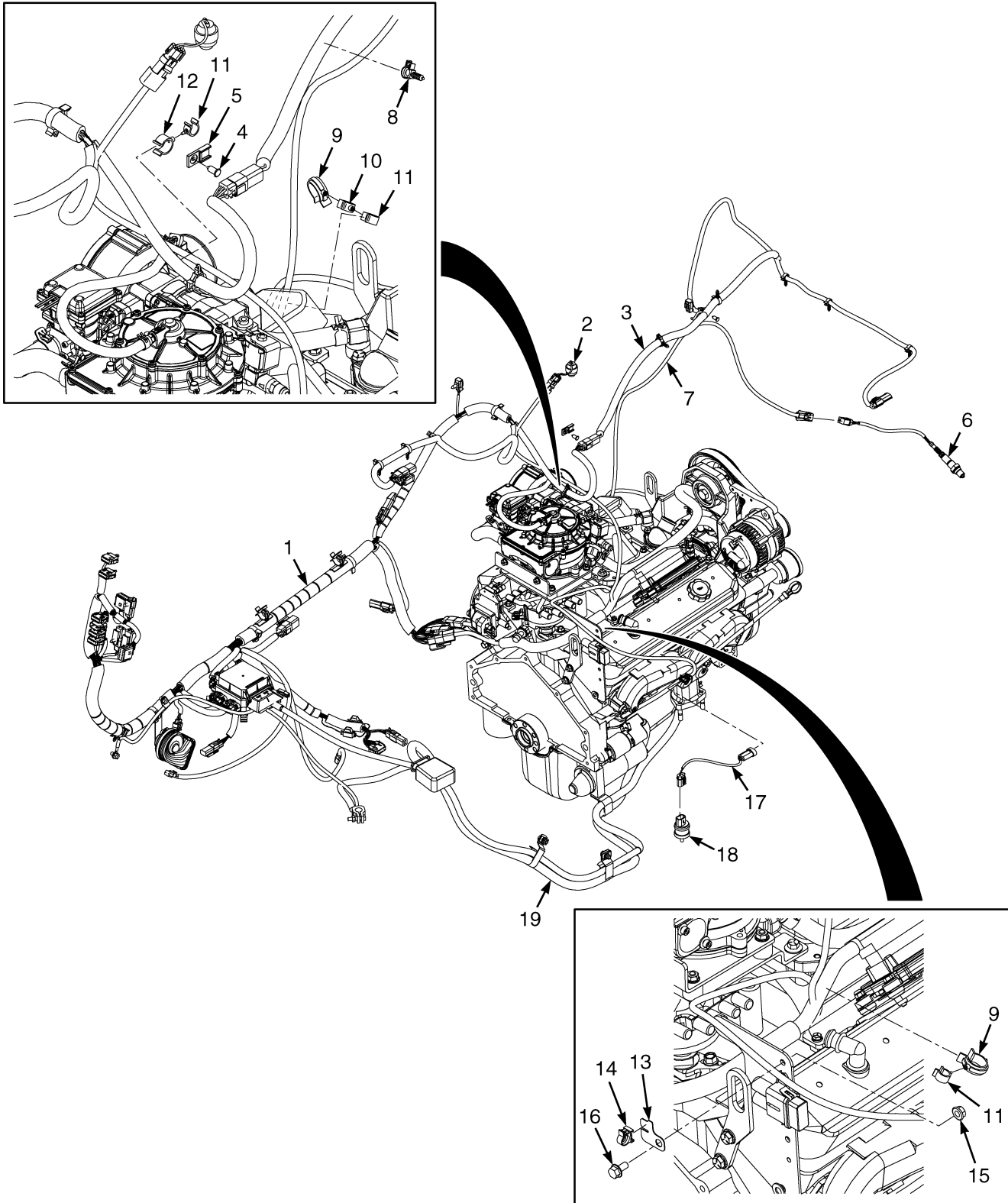


BP080995

**ELECTRICAL ARRANGEMENT
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	4622399	Wire Harness (RH Chassis) (☞ Figure 5-46).....	1
2	2105524	Wire Harness (☞ Figure 5-42).....	1
3	1582464	Fastener	2
4	1531480	Clip	1
5	1700243	Wire Harness (Engine) (☞ Figure 5-39).....	1
6	. . . . .	Battery Cables (☞ Figure 5-18).....	1

ENGINE ELECTRICAL ARRANGEMENT (FIGURE 5-3) GM 5.7L LPG

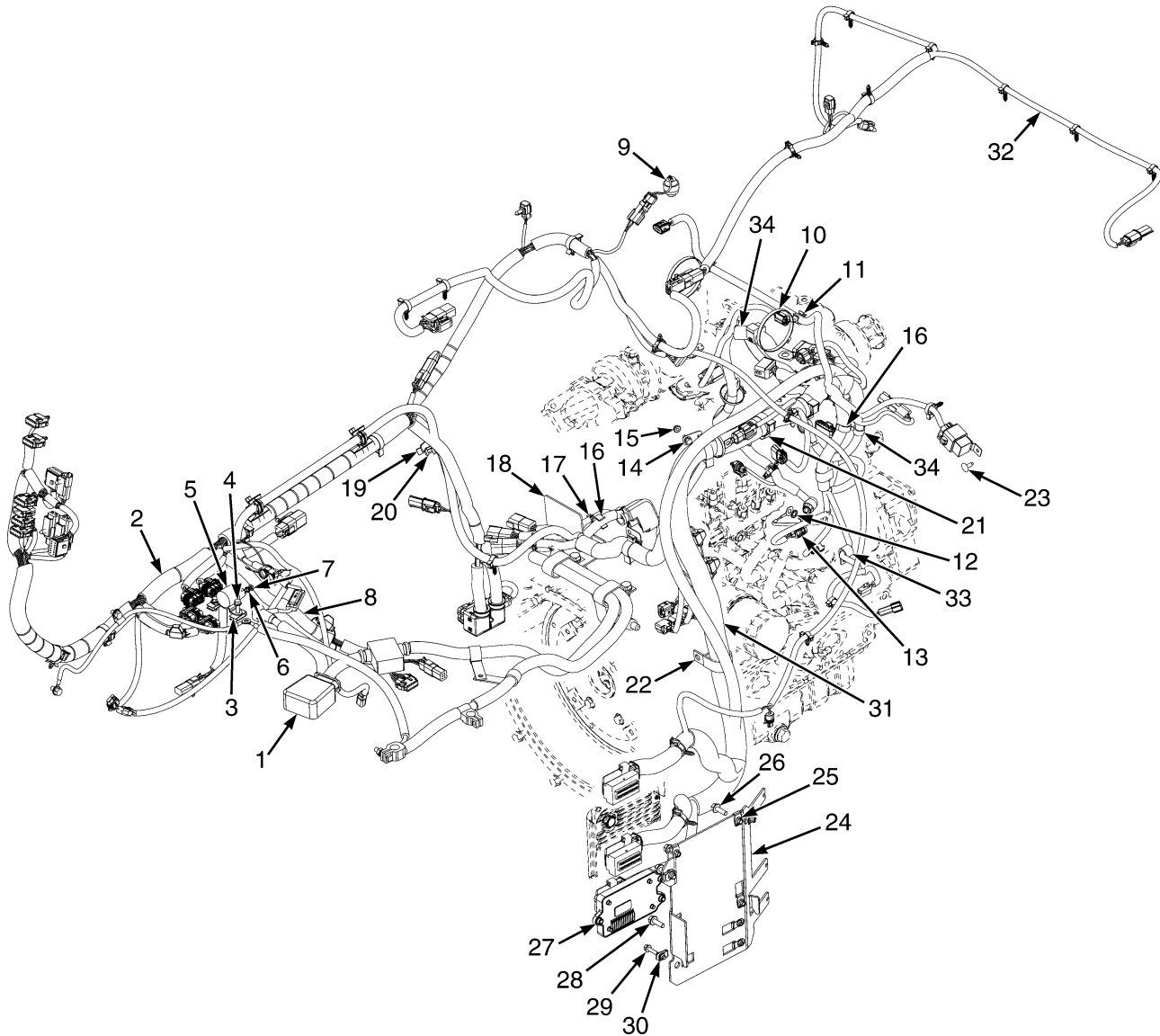


BP080991

**ENGINE ELECTRICAL ARRANGEMENT
GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	4613951	Wire Harness (RH Chassis) (☞Figure 5-43).....	1
2	1529257	Sensor (Air Flow Restriction)	1
3	4608714	Wire Harness (Rear) (☞Figure 5-40).....	1
4	1582464	Fastener	2
5	1500912	Clip	1
6	1646456	Sensor (Oxygen)	2
7	4019049	Wire Harness (Engine)	1
8	1509888	Clip	2
9	1569465	Clamp (Swivel)	2
10	1542439	Clamp (Swivel)	1
11	1502055	Clamp (Swivel)	3
12	1502059	Clamp (Swivel)	1
13	1558228	Clip	1
14	1532774	Clip	1
15	1502543	Nut	1
16	4109993		
	1527879	Capscrew	1
17	4602843	Wire Harness	1
18	1501970	Pressure Switch (Low Fuel)	1
19	.....	Battery Cables (☞Figure 5-16).....	1

ENGINE ELECTRICAL SYSTEM (FIGURE 5-4) KUBOTA DIESEL



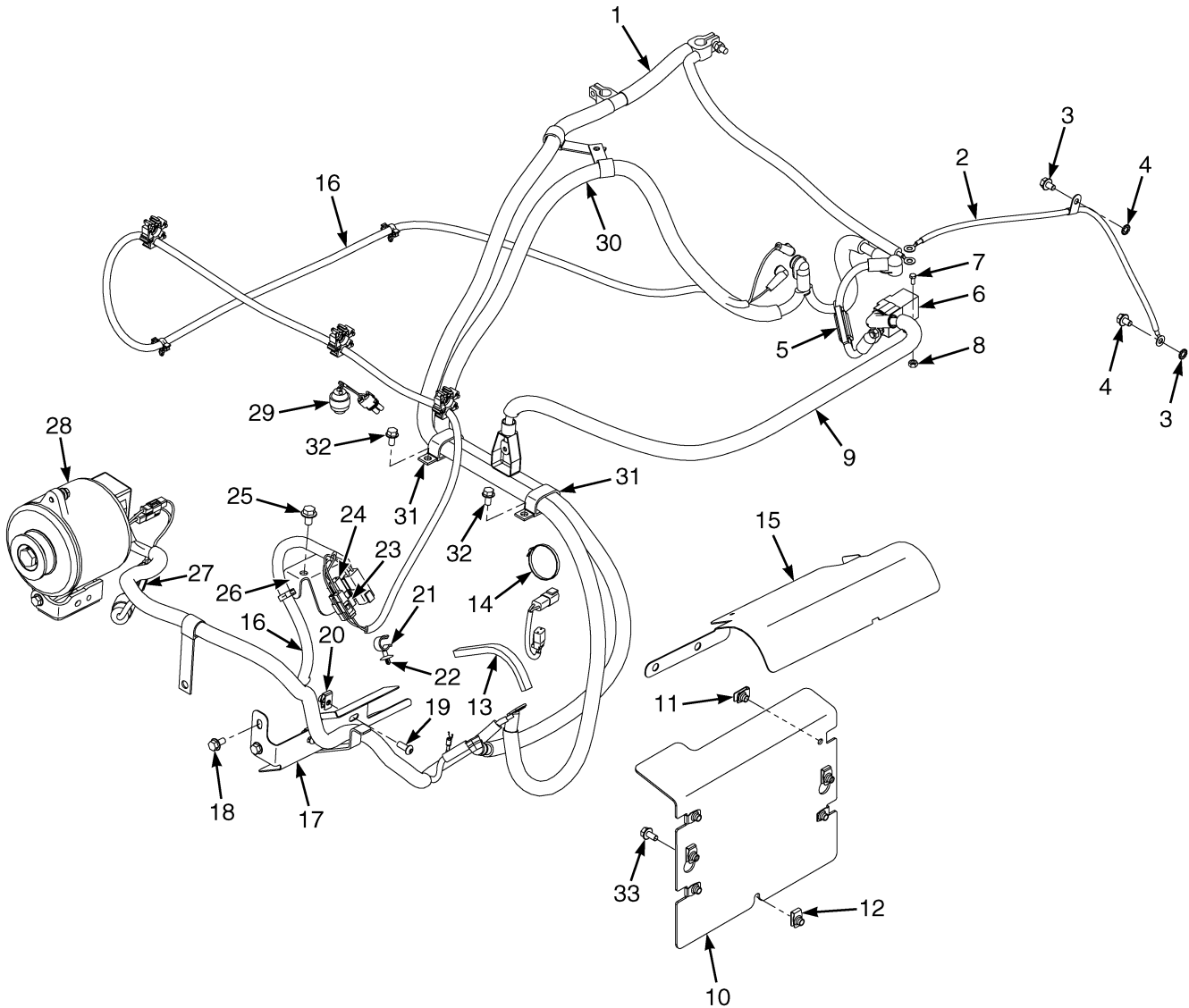
BP081368

**ENGINE ELECTRICAL SYSTEM
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	.....	Battery Cables (Kubota Diesel) (☞ Figure 5-17).....	1
2	4613951	Wire Harness (RH Chassis) (☞ Figure 5-43).....	1
3	1350215	Nut (Foldover)	2
4	1527877	Capscrew	2
5	1454967	Relay (Starter or Glow Plug)	1
6	296379	Washer	2
7	1560678	Nut	2
8	4612882	Battery Cable (Fused 100A UL)	1
9	1529257	Sensor (Air Flow Restriction)	1
10	1502061	Clamp (Swivel-Tie)	2
11	1543691	Clamp (Swivel)	2
12	296380	Washer	1
13	1529366	Capscrew	1
14	1693371	Capscrew	2
15	1514429	Nut	2
16	1502066	Clamp (Swivel)	3
17	1561871	Clamp (Swivel)	2
18	4050687	Bracket (Engine Wire Harness Guide)	1
19	1569465	Clamp (Swivel)	1
20	1543698	Clamp (Swivel)	2
21	1301288	Fastener	2
22	258590	Clamp	1
23	1379945	Fastener	1
24	4054334	Bracket Wldmt	1
25	1480237	Nut (Foldover)	6
26	1510113	Capscrew	4
27	4612918	Control Module (Diesel Interface)	1
28	1527880	Capscrew	2
29	1527878	Capscrew	3
30	1566420	Nut (Foldover) (Foldover)	3
31	4610652	Wire Harness (Engine) (☞ Figure 5-38).....	1
32	4618439	Wire Harness (Rear) (☞ Figure 5-41).....	1
33	166285	Clamp	1
34	1606544	Clamp (Swivel)	2
	a 1573549	Clamp	1

FOOTNOTES:**a** Not Illustrated

ENGINE ELECTRICAL SYSTEM (FIGURE 5-5) CUMMINS QSB 3.3L DIESEL

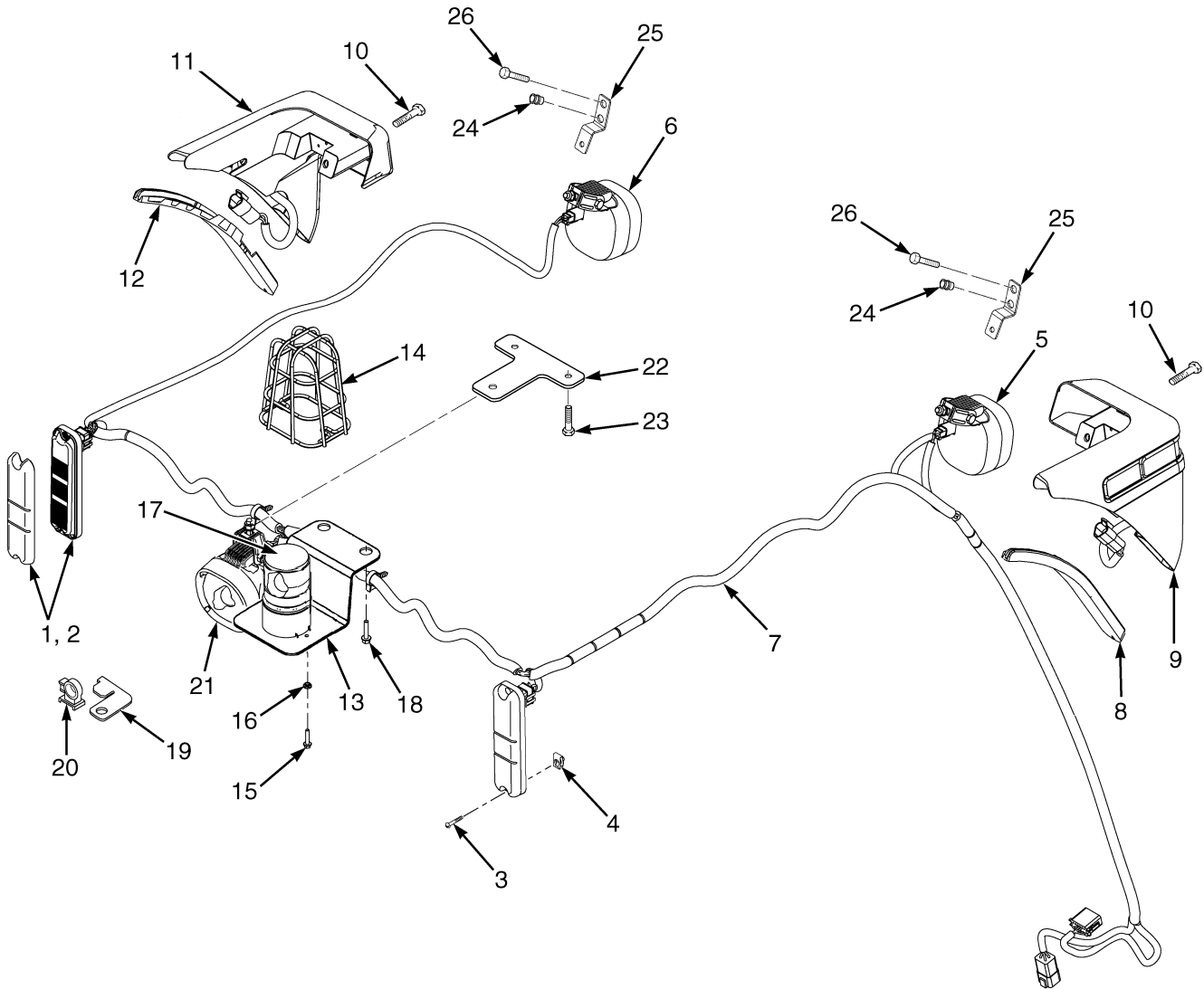


BP080858

**ENGINE ELECTRICAL SYSTEM
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	2099799	Battery Cable (Negative)	1
2	2093220	Battery Cable	1
3	1529366	Capscrew	2
4	296380	Washer	2
5	2106665	Battery Cable (Negative)	1
6	1501896	Contactora (Glow Plug Relay)	1
7	2046866	Capscrew	2
8	1565407	Nut	2
9	2099800	Battery Cable	1
10	1669570	Bracket	1
11	1480237	Nut	7
12	4109993		
	1527879	Capscrew	3
13	2103224	Wire Harness (ECM) (☞Figure 5-35).....	1
14	2004005	Strap Clamp	1
15	1703318	Shield	1
16	2110986	Wire Harness (Alternator) (☞Figure 5-48).....	1
17	1691441	Bracket Wldmt	1
18	4109993		
	1527879	Capscrew	2
19	296166	Capscrew	2
20	1480237	Nut	2
21	1543698	Clamp (Swivel)	1
22	1543842	Clamp	1
23	1500912	Clip	2
24	1582464	Fastener	2
25	1528778	Capscrew	1
26	1678123	Bracket	1
27	2106666	Battery Cable (100 Amp Fuse)	1
28	4007486	Alternator (☞Figure 5-13).....	1
29	1529257	Sensor (Air Flow Restriction)	1
30	2111098	Battery Cable (Positive) (D)	1
31	176454	Clamp	2
32	1528778	Capscrew	2
33	1510115	Capscrew	4

LIGHTS (FIGURE 5-6)
BRAKE, TAIL, BACKUP, SIDE, TURN SIGNALS, WORK, STROBE — WITH CAB

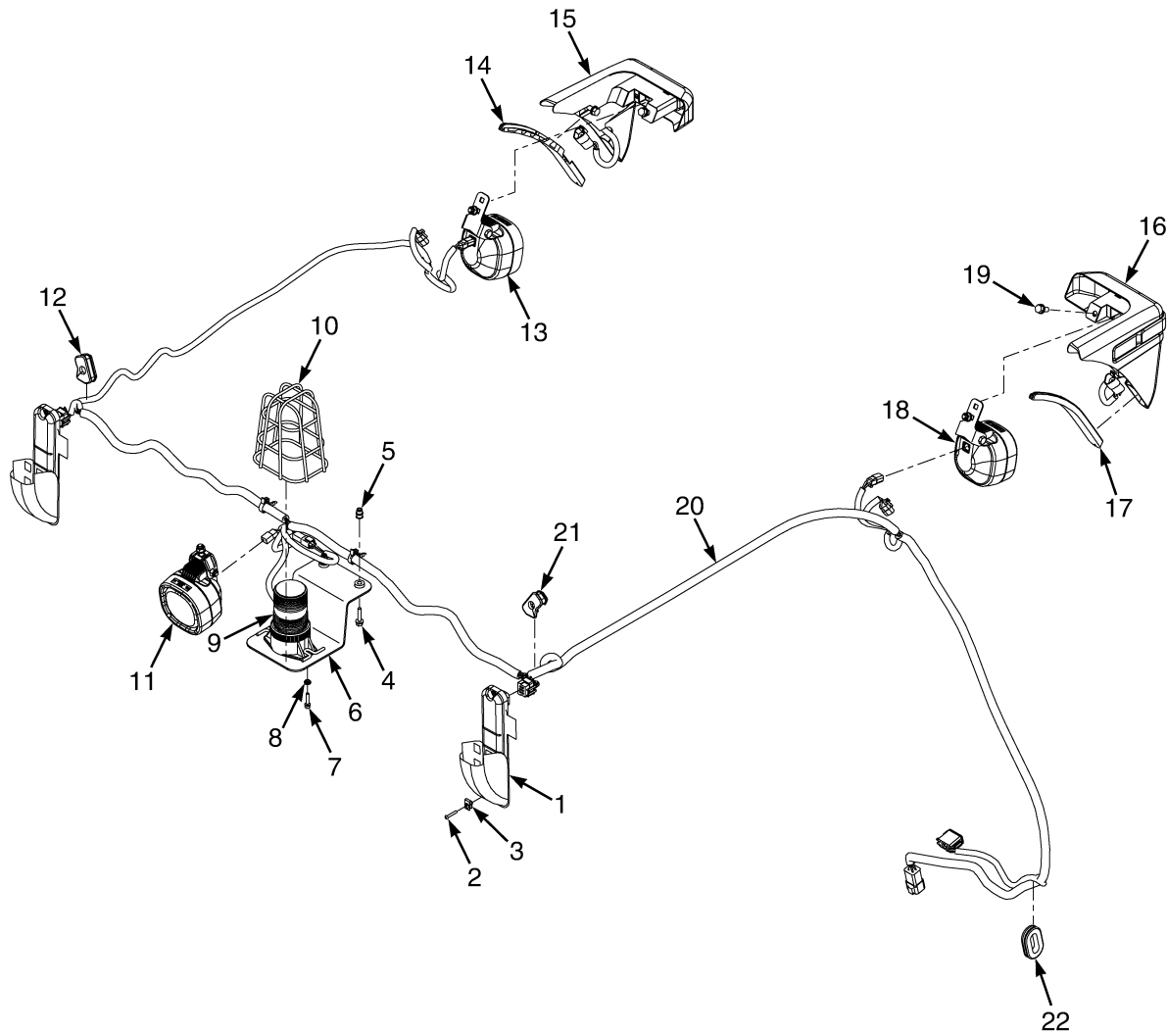


BP080870

LIGHTS
BRAKE, TAIL, BACKUP, SIDE, TURN SIGNALS, WORK, STROBE – WITH CAB

ITEM	PART NO.	DESCRIPTION	QTY
1	2056824	Brake/Backup Light (Stop, Turn, Tail, And Back-Up)	2
1	2107957	Tail Light Base (RH) (☞ Figure 1-34).....	1
1	2107958	Tail Light Base (LH) (☞ Figure 1-34).....	1
2	2056824	Brake/Backup Light (Stop, Turn, Tail, And Back-Up)	2
3	1565125	Screw	4
4	1537551	Nut (Clip)	4
5	2107383	Worklight (RH Front) (LED)	1
5	2098084	Work Light (RH Front) (Halogen)	1
5	2098082	Bulb (Halogen)	1
6	2107384	Worklight (LH Front) (LED)	1
6	2098085	Work Light (LH Front) (Halogen)	1
6	2098082	Bulb (Halogen)	1
7	1647440	Wire Harness (Cab)	1
8	1608591	Trim (RH)	1
9	2070561	Turn Signal Light (RH Front)	1
9	2070563	Cap (Black Plastic)	2
9	1493466	Connector (3-Way)	1
9	1330415	Connector (Secondary Lock)	1
9	1330437	Terminal (Pin)	3
10	1613324	Capscrew	4
11	2070562	Turn Signal Light (LH Front)	1
11	2070563	Cap (Black Plastic)	2
11	1493466	Connector (3-Way)	1
11	1330415	Connector (Secondary Lock)	1
11	1330437	Terminal (Pin)	3
12	1608592	Trim (LH)	1
13	1565076	Bracket Wldmt	1
14	1302024	Guard (Strobe Light)	1
15	1586759	Capscrew	2
16	1586428	Nut	2
17	1654013	Strobe Light Assembly	1
17	1652290	Strobe Light (Amber LED)	1
17	1561559	Connector (2 Pin)	1
17	1561755	Connector (Secondary Lock)	1
17	1463138	Terminal Pin	2
17	275493	Conduit	AR
18	1586495	Capscrew	2
19	1532759	Clip	1
20	1532775	Clip	1
21	2098083	Work Light (Rear) (Halogen)	1
21	2098082	Bulb (Halogen)	1
21	2107382	Worklight (Rear) (LED)	1
22	1698541	Bracket	1
23	1586495	Capscrew	2
24	1531557	Insert	4
25	1698542	Bracket	2
26	1583611	Capscrew	4

LIGHTS (FIGURE 5-7) BRAKE, TAIL, BACKUP, SIDE, TURN SIGNALS, WORK, STROBE — WITH OVERHEAD GUARD

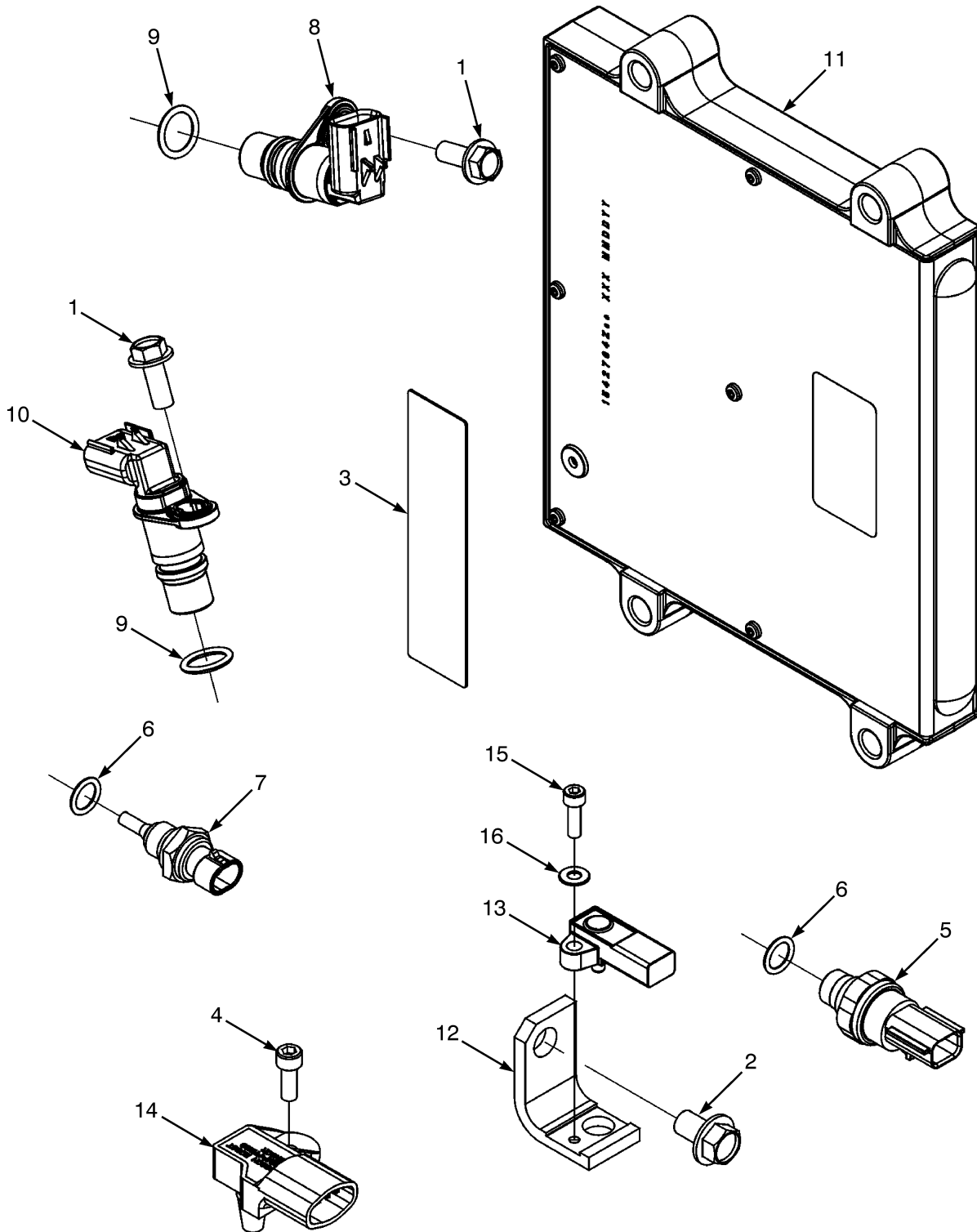


BP080868

LIGHTS**BRAKE, TAIL, BACKUP, SIDE, TURN SIGNALS, WORK, STROBE – WITH OVERHEAD GUARD**

ITEM	PART NO.	DESCRIPTION	QTY
1	2056824	Brake/Backup Light (Stop, Turn, Tail, And Back-Up)	2
1	2107957	Tail Light Base (RH) (☞ Figure 1-34).....	1
1	2107958	Tail Light Base (LH) (☞ Figure 1-34).....	1
2	1565125	Screw	4
3	1537551	Nut (Clip)	4
4	1586495	Capscrew	2
5	1531001	Insert	2
6	1565076	Bracket Wldmt	1
7	1586759	Capscrew	2
8	1586428	Nut	2
9	1654013	Strobe Light Assembly	1
9	1652290	Strobe Light (Amber LED)	1
9	1561559	Connector (2 Pin)	1
9	1561755	Connector (Secondary Lock)	1
9	1463138	Terminal Pin	2
9	275493	Conduit	AR
10	1302024	Guard (Strobe Light)	1
11	2107382	Worklight (Rear) (LED)	1
11	2098083	Work Light (Rear) (Halogen)	1
11	2098082	Bulb (Halogen)	1
12	1560448	Grommet (Left Hand Tail Light)	1
13	2107386	Head/Work Light (LH Front) (LED)	1
13	2098087	Work Light (LH Front) (Halogen)	1
13	2098082	Bulb (Halogen)	1
14	1608590	Trim (Left Hand)	1
15	2070562	Turn Signal Light (LH Front)	1
15	2070563	Cap (Black Plastic)	2
15	1493466	Connector (3-Way)	1
15	1330415	Connector (Secondary Lock)	1
15	1330437	Terminal (Pin)	3
16	2070561	Turn Signal Light (RH Front)	1
16	2070563	Cap (Black Plastic)	2
16	1493466	Connector (3-Way)	1
16	1330415	Connector (Secondary Lock)	1
16	1330437	Terminal (Pin)	3
17	1608589	Trim (Right Hand)	1
18	2107385	Head/Work Light (RH Front) (LED)	1
18	2098086	Work Light (RH Front) (Halogen)	1
18	2098082	Bulb (Halogen)	1
19	1608654	Capscrew	4
20	2101862	Wire Harness (Lights) (☞ Figure 5-49).....	1
21	1560447	Grommet (Right Hand Tail Light)	1
22	1539584	Grommet (Vehicle System Manager)	1

ELECTRONIC CONTROL MODULE AND SENSORS (FIGURE 5-8) CUMMINS QSB 3.3L DIESEL

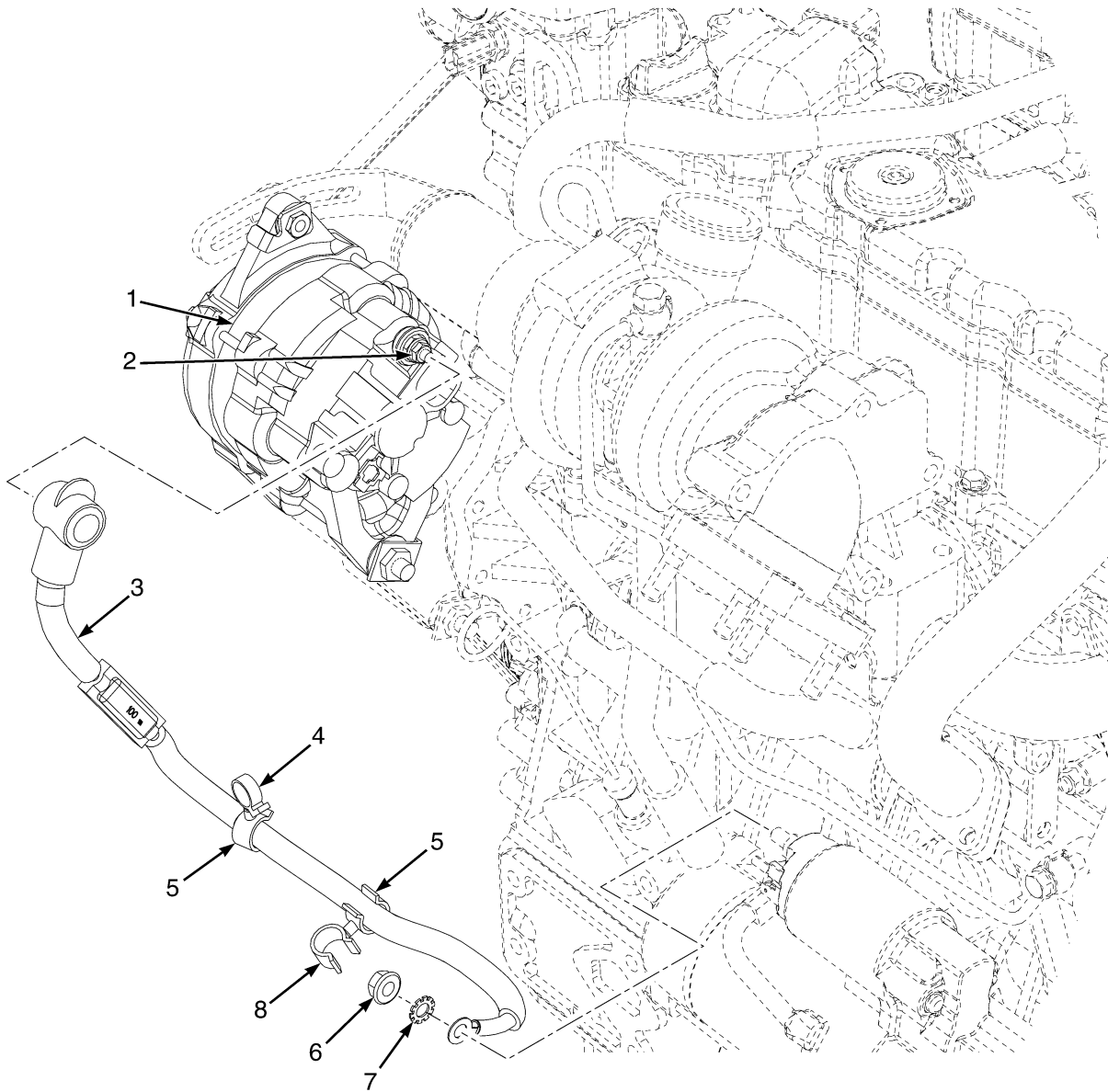


BP090407

**ELECTRONIC CONTROL MODULE AND SENSORS
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1691869	Capscrew	2
2	1691870	Capscrew	1
3	.....	Data Plate	1
4	1691871	Capscrew	1
5	1543439	Switch, Oil Pressure	1
6	.....	O-Ring	2
7	1565040		
	1691873	Sensor Assembly (Temperature)	1
8	1644129	Sensor (Crankshaft Speed and Position)	1
9	.....	O-Ring	2
10	1644131	Cam Position Sensor	1
11	1691861	Electronic Control Module	1
12	1691868	Support	1
13	1691877	Sensor (Ambient Air Pressure)	1
14	1691878	Sensor (Temperature) (Intake Manifold Temperature)	1
15	1691879	Capscrew	1
16	1691880	Washer	1

ALTERNATOR ELECTRICAL (FIGURE 5-9) KUBOTA DIESEL — STANDARD ALTERNATOR

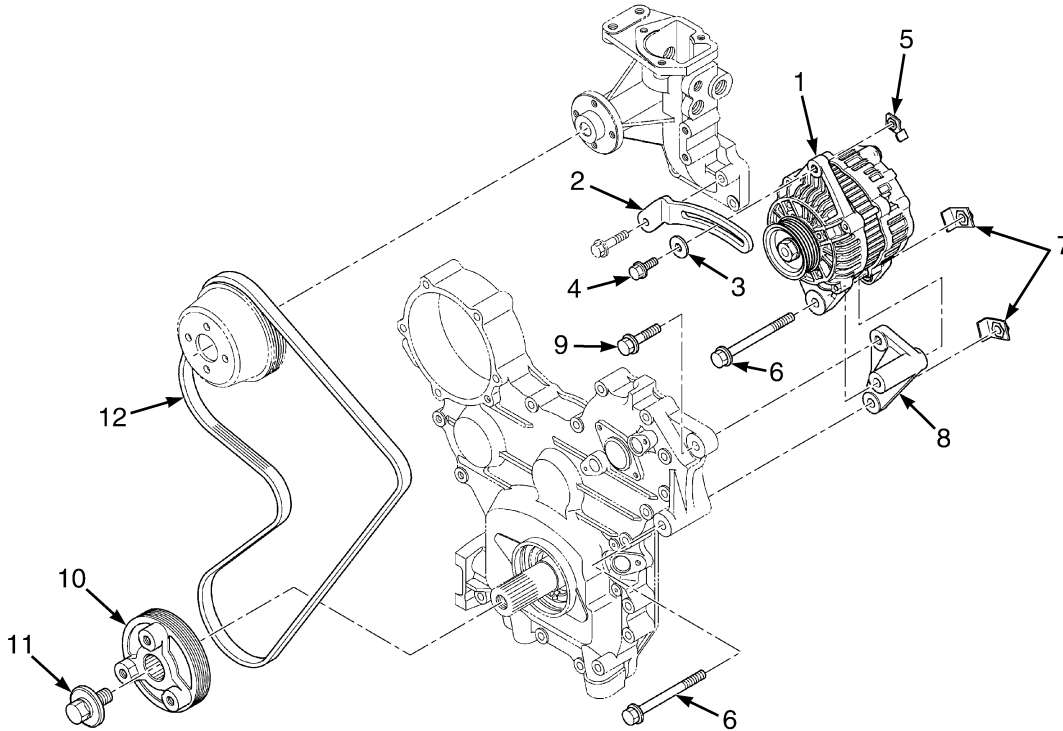


BP081369

ALTERNATOR ELECTRICAL
KUBOTA DIESEL – STANDARD ALTERNATOR

ITEM	PART NO.	DESCRIPTION	QTY
1	4042286	Alternator	1
2	1514429	Nut	1
3	4616862	Battery Cable (Fused 100A UL)	1
4	1543698	Clamp (Swivel)	1
5	1606544	Clamp (Swivel)	2
6	1502543	Nut	1
7	296380	Washer	1
8	1644398	Clamp (Swivel)	1

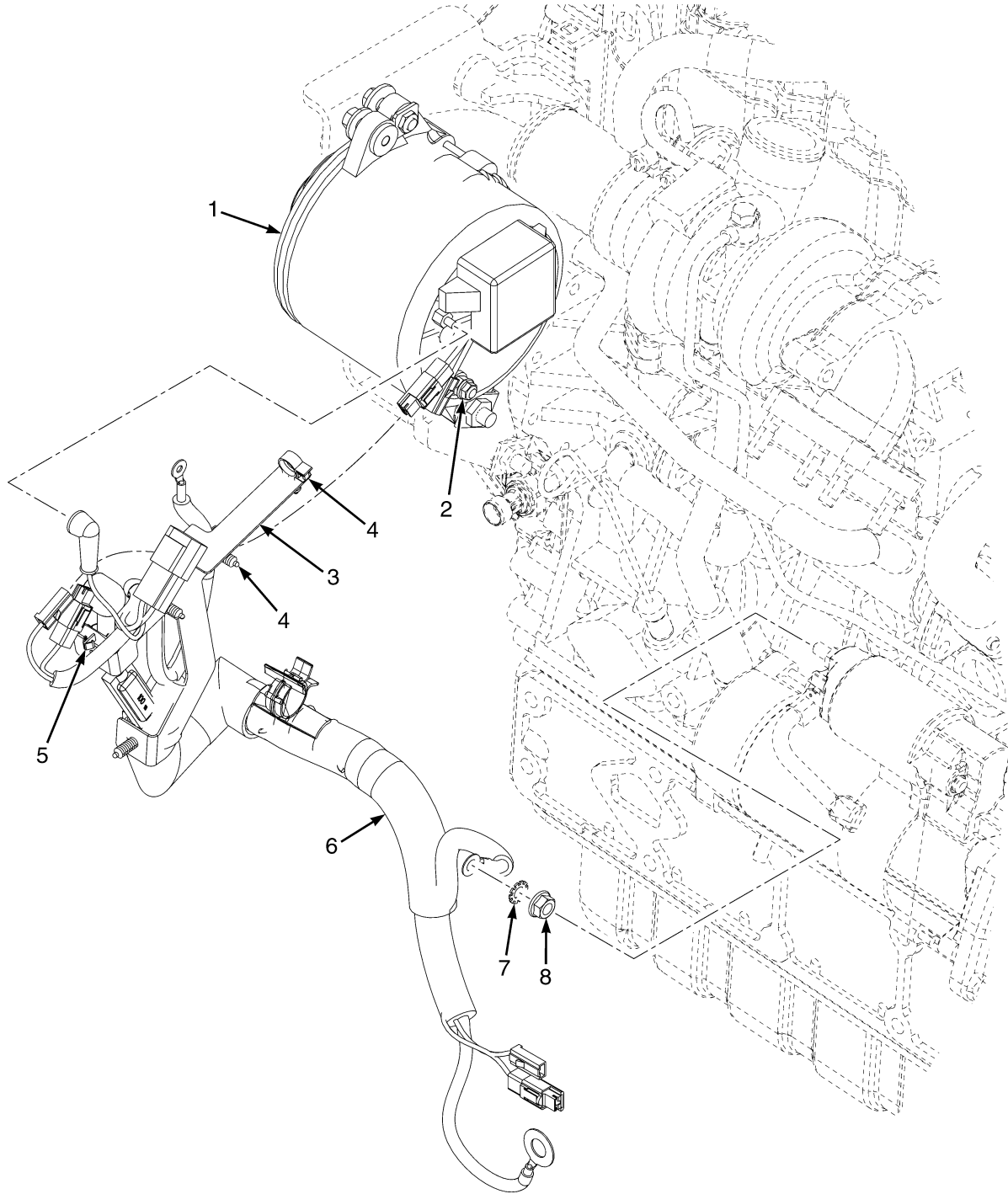
ALTERNATOR AND PULLEY (FIGURE 5-10) KUBOTA DIESEL — STANDARD ALTERNATOR



BP090604

ITEM	PART NO.	DESCRIPTION	QTY
	4611460	Engine Assy-Diesel (82kw)	1
1	4042286	Alternator	1
2	4042288	Bracket	1
3	4074588		
	4042289	Washer	1
4	4042070	Bolt	1
5	4042290	Bracket	1
6	4051043		
	4042295	Bolt	2
7	4042292	Nut (Clip)	2
8	4042293	Bracket	1
9	4042294	Bolt	1
10	4042123	Pulley (Fan Drive)	1
11	4042133	Bolt	1
12	4042142	Belt (multi-ribbed flat)	1

ALTERNATOR ELECTRICAL (FIGURE 5-11) KUBOTA DIESEL — SEALED ALTERNATOR

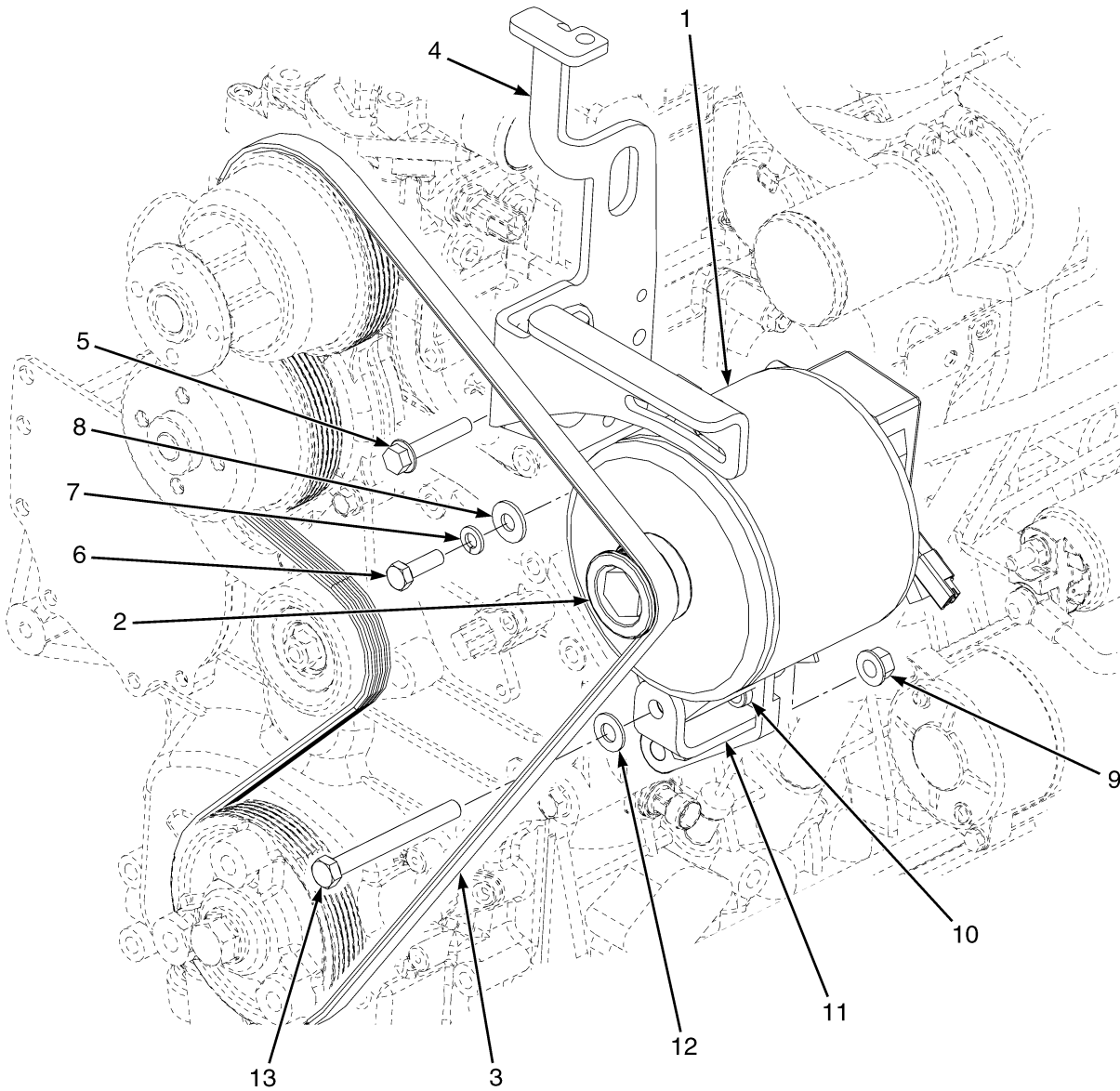


BP081370

**ALTERNATOR ELECTRICAL
KUBOTA DIESEL – SEALED ALTERNATOR**

ITEM	PART NO.	DESCRIPTION	QTY
1	1394001	Alternator (Sealed) (☞Figure 5-12).....	1
2	1514429	Nut	1
3	4048507	Bracket	1
4	1509888	Clip	2
5	1562088	Clip	1
6	4614312	Wire Harness (Sealed Alternator) (☞Figure 5-51).....	1
7	296380	Washer	1
8	1502543	Nut	1

ALTERNATOR AND PULLEY (FIGURE 5-12) KUBOTA DIESEL — SEALED ALTERNATOR



BP081371

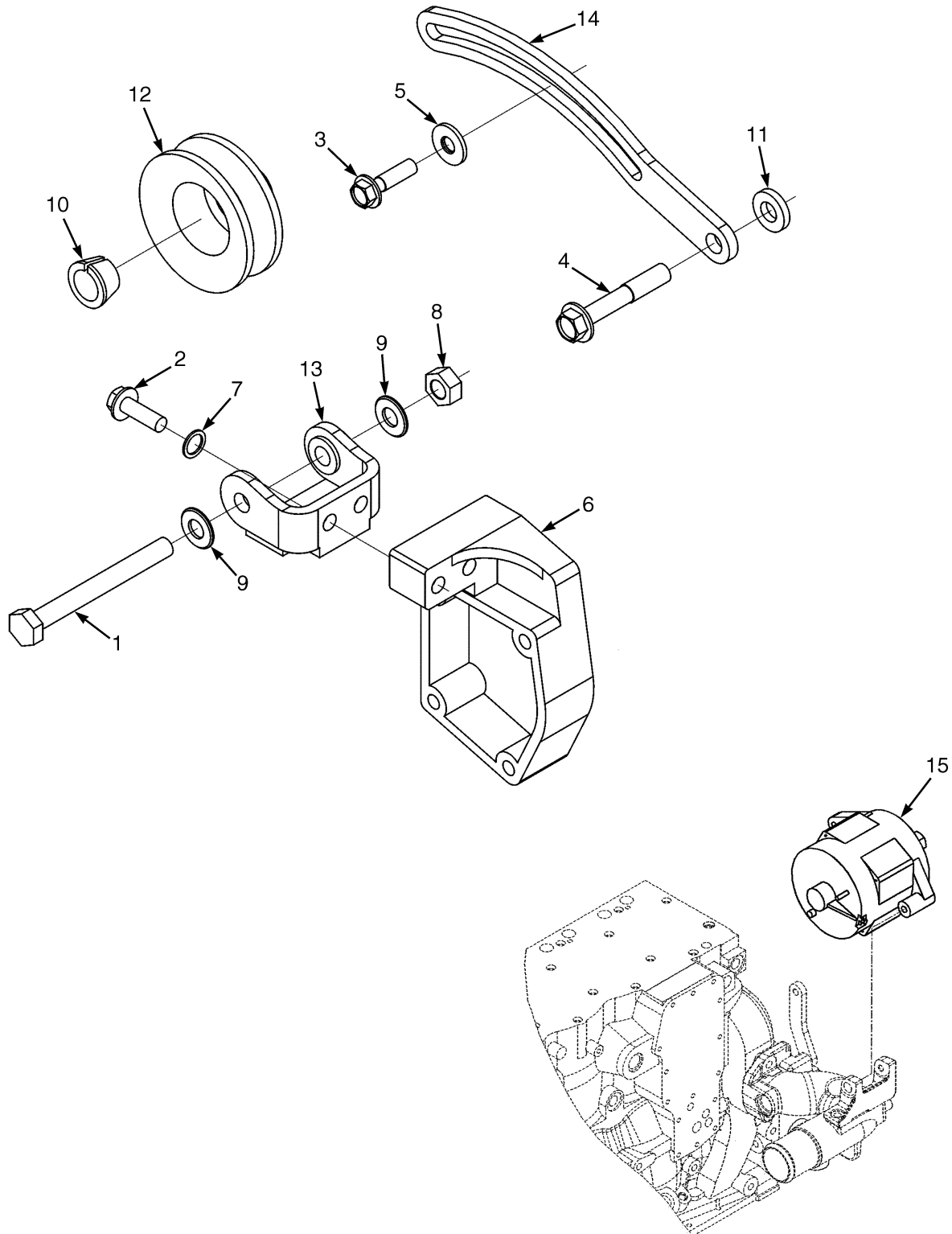
**ALTERNATOR AND PULLEY
KUBOTA DIESEL – SEALED ALTERNATOR**

ITEM	PART NO.	DESCRIPTION	QTY
1	1394001	Alternator (Sealed)	1
2	4610544	Pulley	1
3	4615071	Belt	1
4	4045250	Bracket Wldmt	1
5	1527882	Capscrew	1
6	18497	Capscrew	1
7	15155	Lockwasher	1
8	15175	Lockwasher	1
9	192077	Nut	1
10	1345014	Sleeve	1
11	4035678	Bracket Wldmt	1
12	221767	Washer	1
13	18542	Capscrew	1
	a 383789	Thread Sealant	AR

FOOTNOTES:

a Not Illustrated

ALTERNATOR AND MOUNTING (FIGURE 5-13) CUMMINS QSB 3.3L DIESEL

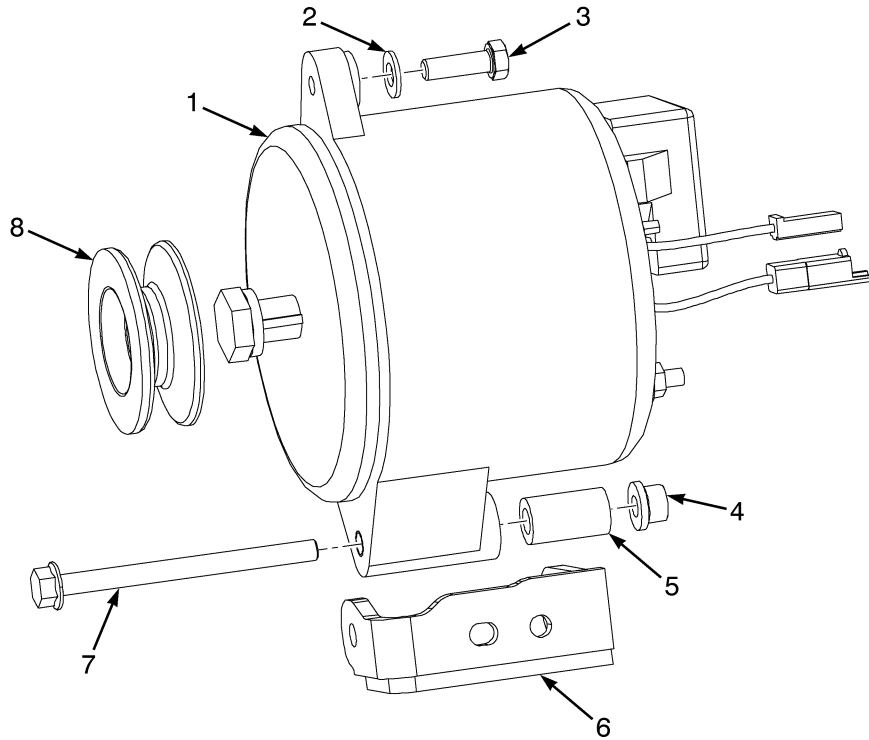


BP090401

**ALTERNATOR AND MOUNTING
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	4023567	Capscrew	1
2	1691632	Capscrew	2
3	4023568	Capscrew	1
4	1691634	Capscrew	1
5	1691635	Spacer	1
6	1691641	Support	1
7	.....	Washer	2
8	1691638	Nut	1
9	1691639	Washer	2
10	1637812	Retainer	1
11	1691636	Spacer	1
12	1691640	Pulley	1
13	1691642	Bracket	1
14	1691637	Plate (Pivot)	1
15	4007486	Alternator	1

SEALED ALTERNATOR AND MOUNTING (FIGURE 5-14) CUMMINS QSB 3.3L DIESEL



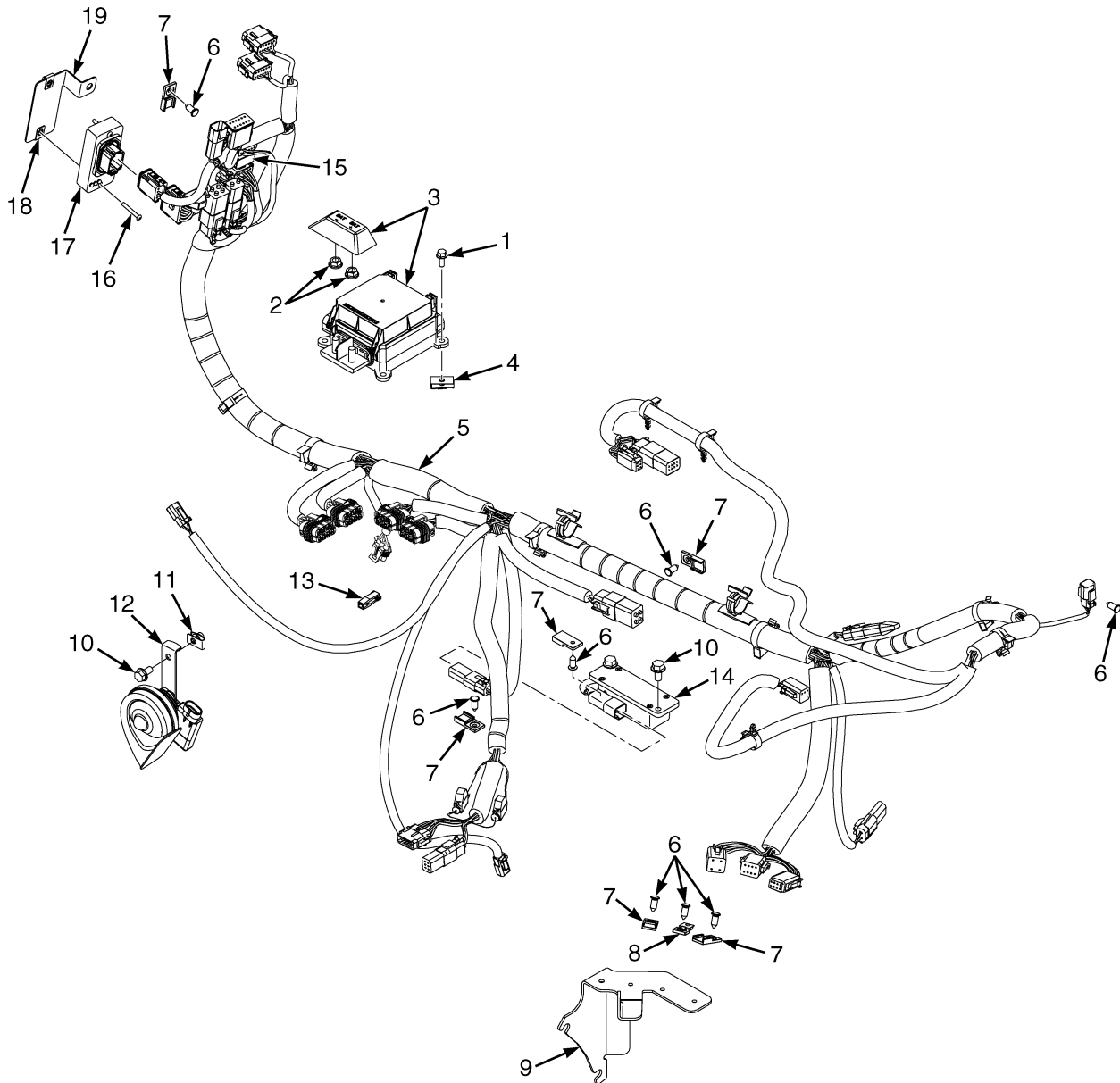
BP080748

ITEM	PART NO.	DESCRIPTION	QTY
	4622254	Engine Assy-Diesel (QSB 3.3L)	1
1	1394001	Alternator (Sealed)	1
2	18515	Washer	1
3	18497	Capscrew	1
4	1544153	Locknut	1
5	1678178	Spacer	1
6	1678069	Bracket Wldmt	1
7	1617601	Bolt	1
8	1677952	Pulley (Alternator)	1
	a 1537422	Spacer	1
	383789	Thread Sealant	AR

FOOTNOTES:

a Not Illustrated

ELECTRICAL SYSTEM (FIGURE 5-15) RIGHT HAND CHASSIS



BP081727

**ELECTRICAL SYSTEM
RIGHT HAND CHASSIS**

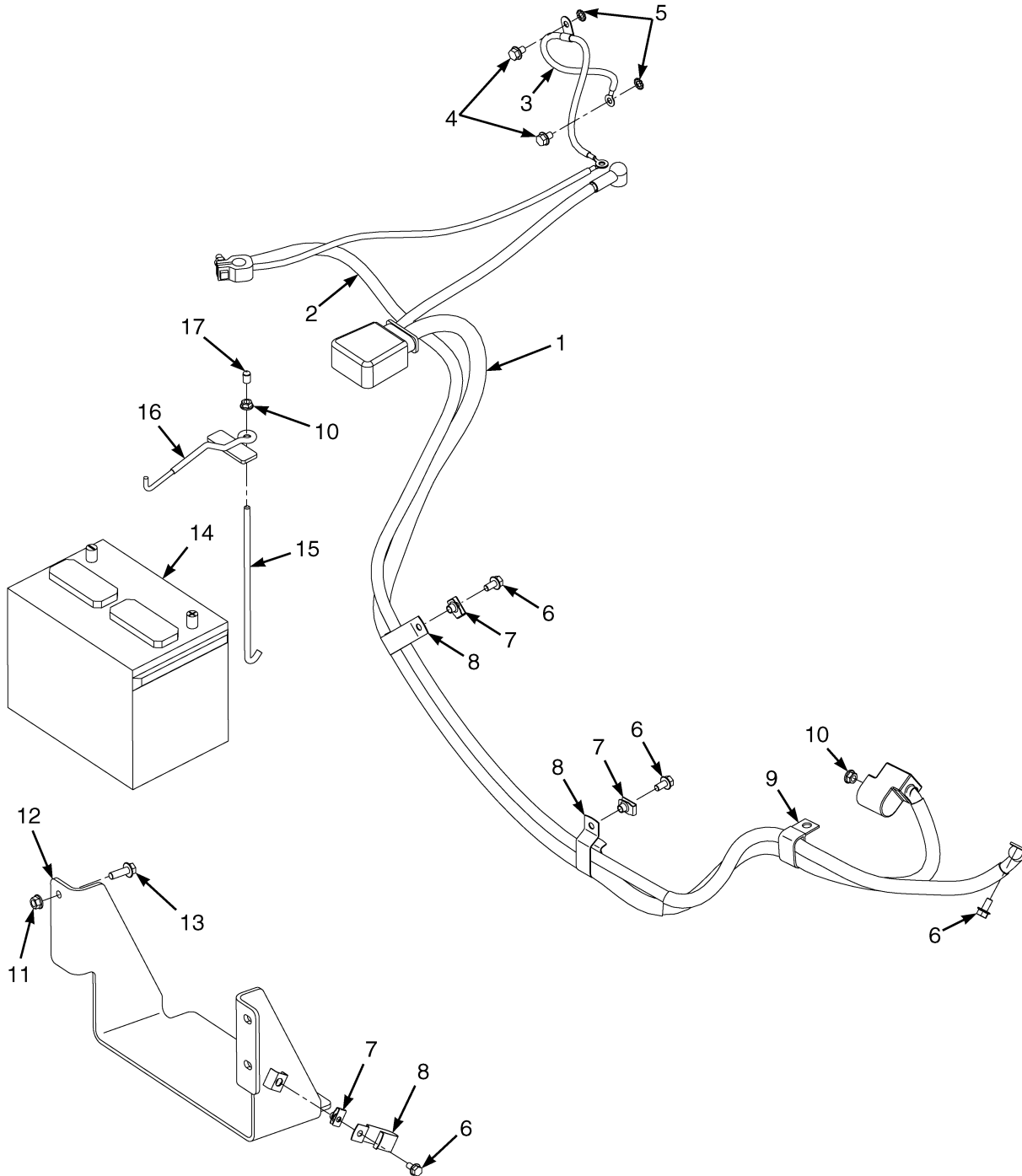
ITEM	PART NO.	DESCRIPTION	QTY
1	1527877	Capscrew	4
2	1502543	Nut	2
3	2090613	Fuse Box (PDM) (☞Figure 5-26).....	1
4	1350215	Nut	4
5	a 4622399	Wire Harness (RH Chassis) (☞Figure 5-46).....	1
5	bce 4613951	Wire Harness (RH Chassis) (☞Figure 5-43).....	1
5	bcb 4630271	Wire Harness (RH Chassis) (☞Figure 5-44).....	1
5	bcd 4635138	Wire Harness (RH Chassis) (☞Figure 5-45).....	1
5	ad 4635139	Wire Harness (RH Chassis) (☞Figure 5-47).....	1
6	a 1582464	Fastener	7
6	bc 1582464	Fastener	10
7	a 1500912	Clip	6
7	bc 1500912	Clip	8
8	1531480	Clip	1
9	b 4032001	Bracket	1
9	c 4048264	Bracket	1
10	4109993 1527879	Capscrew	3
11	1480237	Nut	1
12	4077726	Horn (Electronic)	1
13	1402883	Fuse Puller	1
14	2079843	Sensor (Impact)	1
15	a 1593331	Connector	1
16	d 1672692	Screw	2
17	d 4634955	Control Module (Seat Belt Sequence)	1
18	d 1537551	Nut (Clip)	2
19	d 4102512	Bracket (Seat Belt Sequence Module)	1

FOOTNOTES:

a Cummins Diesel Option
b GM 5.7L LPG Option
c Kubota Diesel Option

d With Seat Belt Sequence Module
e → 4/2014
f 4/2014 →

BATTERY CABLES (FIGURE 5-16) GM 5.7L LPG

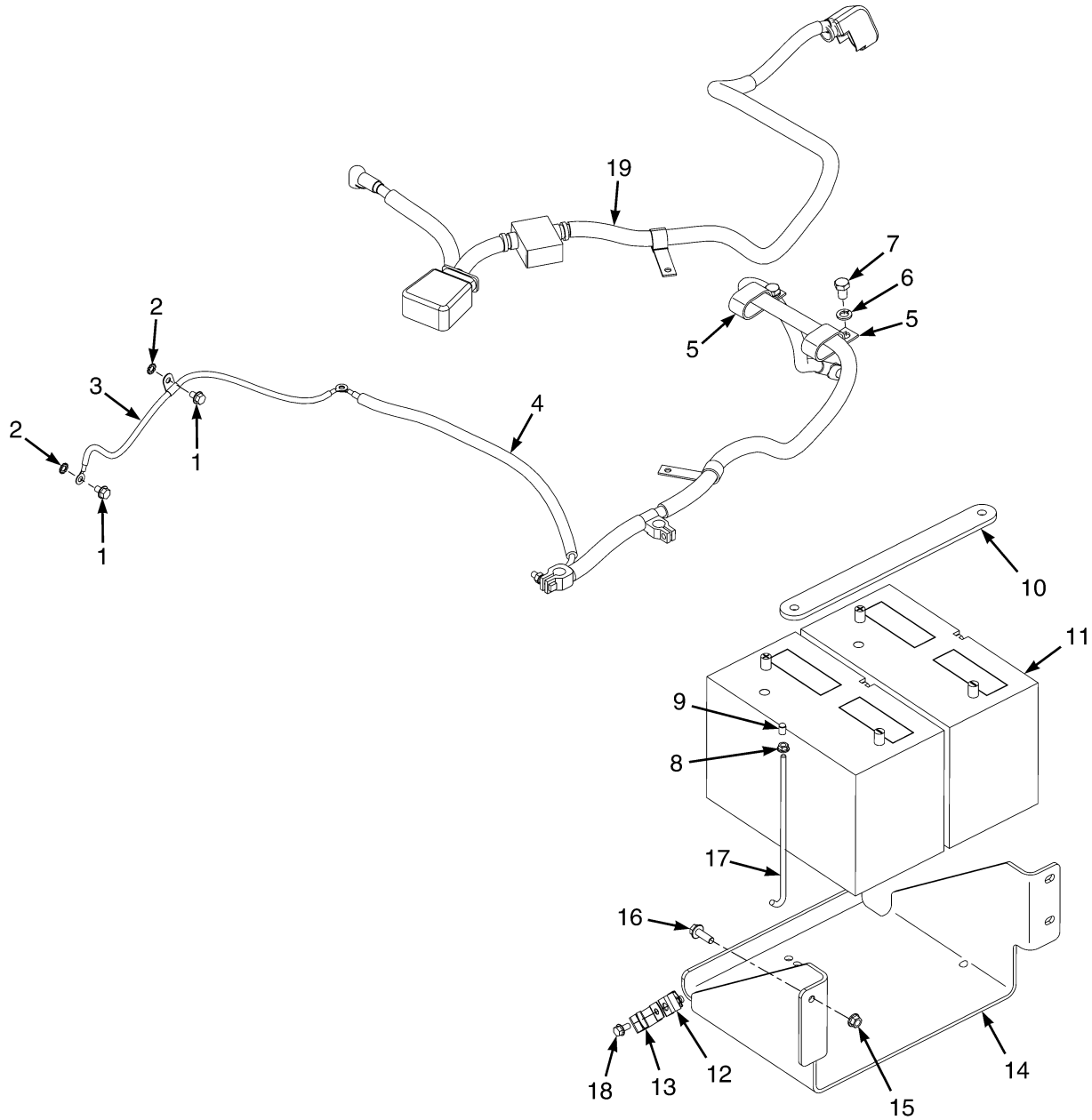


BP080990

BATTERY CABLES
GM 5.7L LPG

ITEM	PART NO.	DESCRIPTION	QTY
1	2098768	Battery Cable (Positive)	1
1	148792	Terminal	1
1	806426	E-Ring	1
1	1590173	Boot	1
1	1536304	Boot	1
1	1566146	Boot	1
2	2098769	Battery Cable (Negative)	1
2	148789	Terminal	1
2	16079	Terminal	1
2	806426	E-Ring	1
3	2093220	Battery Cable (Negative)	1
3	806426	E-Ring	1
3	1564044	E-Ring	1
4	1529366	Capscrew	2
5	296380	Washer	2
6	4109993		
	1527879	Capscrew	5
7	1480237	Nut	4
8	1544157	Clip	4
9	1326653	Clamp	1
10	1502543	Nut	2
11	1460477	Nut	3
12	1663948	Battery Tray	1
13	1527884	Capscrew	3
14	1643937	Start Battery Wet	1
14	1399332	Start Battery Wet (Optional)	1
15	2065745	Link (Battery Hold Down)	1
16	1638706	Link (Battery Hold Down)	1
17	1540805	Cap	1

BATTERY CABLES (FIGURE 5-17) KUBOTA DIESEL

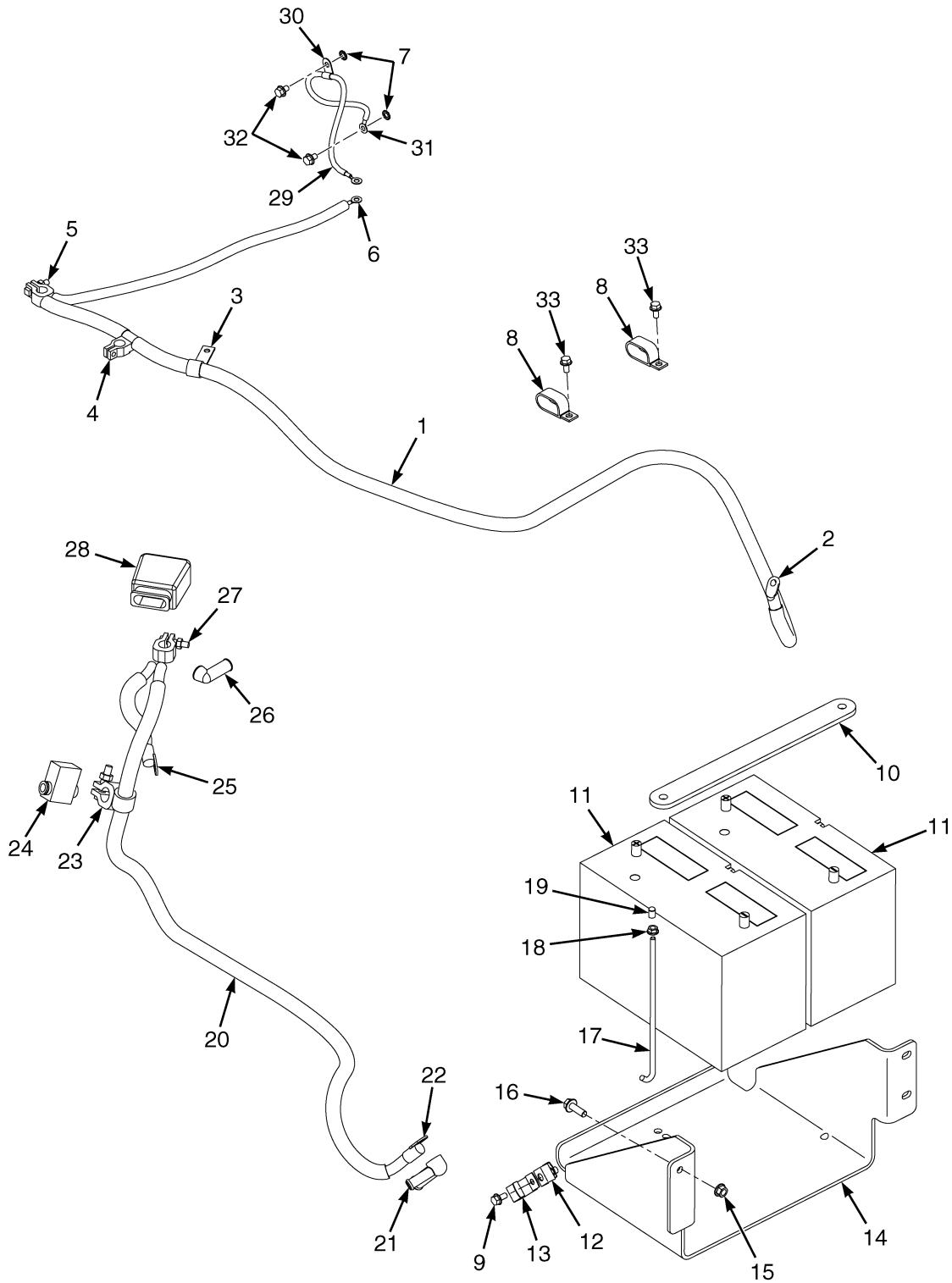


BP081361

**BATTERY CABLES
KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1529366	Capscrew	2
2	296380	Washer	2
3	2093220	Battery Cable (Negative)	1
3	806426	E-Ring	2
3	1564044	E-Ring	1
4	4614233	Battery Cable (Negative)	1
4	148789	Terminal	1
4	148796	Terminal	1
4	148783	Terminal	1
4	806426	E-Ring	1
5	176455	Clamp	2
6	292683	Lockwasher	3
7	4034828	Capscrew	3
8	1502543	Nut	2
9	1540805	Cap	2
10	1663747	Bracket	1
11	1643937	Start Battery Wet	2
11	1399332	Start Battery Wet	2
12	1480237	Nut	1
13	1544157	Clip	1
14	4015631	Battery Tray (Tray)	1
15	1460477	Nut	3
16	1527884	Capscrew	3
17	2065745	Link (Battery Hold Down)	2
18	4109993		
	1527879	Capscrew	3
19	4614232	Battery Cable (Positive)	1
19	148786	Terminal	1
19	148792	Terminal	1
19	148798	Terminal	1
19	4045322	Ring Terminal	1
19	1474893	Clamp	1
19	1536304	Boot	1
19	321158	Boot	1
19	1566146	Boot	1
19	1595774	Boot	1
19	4044099	Boot	1

BATTERY CABLES (FIGURE 5-18) CUMMINS QSB 3.3L DIESEL

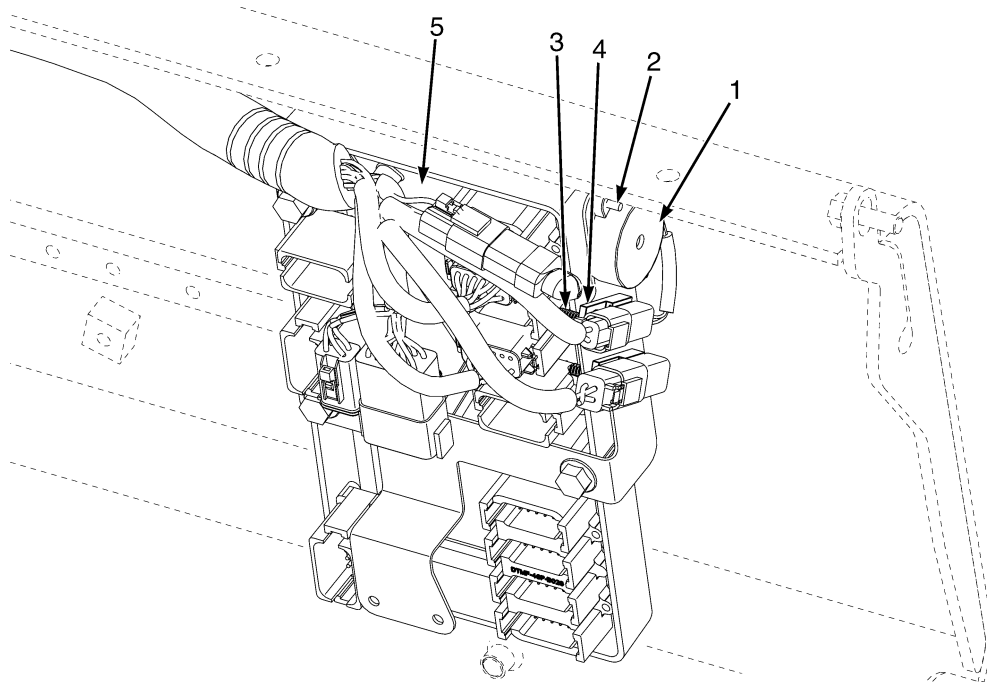


BP081401

BATTERY CABLES
CUMMINS QSB 3.3L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
1	2099799	Battery Cable (Negative)	1
2	.....	Terminal	1
3	1474893	Clamp	1
4	148783	Terminal	1
5	148789	Terminal	1
6	806426	E-Ring	1
7	296380	Washer	2
8	176454	Clamp	2
9	4109993		
	1527879	Capscrew	1
10	1663747	Bracket	1
11	1643937	Start Battery Wet	2
11	1399332	Start Battery Wet	2
12	1480237	Nut	1
13	1544157	Clip	1
14	4015631	Battery Tray	1
15	1460477	Nut	3
16	1527884	Capscrew	3
17	2065745	Link (Battery Hold Down)	2
18	1502543	Nut	2
19	1540805	Cap	2
20	2111098	Battery Cable (Positive)	1
21	204223	Boot	1
22	16079	Terminal	1
23	148786	Terminal	1
24	1595774	Boot	1
25	148798	Terminal	1
26	1566146	Boot	1
27	148792	Terminal	1
28	1536304	Boot	1
29	2093220	Battery Cable (Negative)	1
30	1564044	E-Ring	1
31	806426	E-Ring	2
32	1529366	Capscrew	2
33	1528778	Capscrew	2

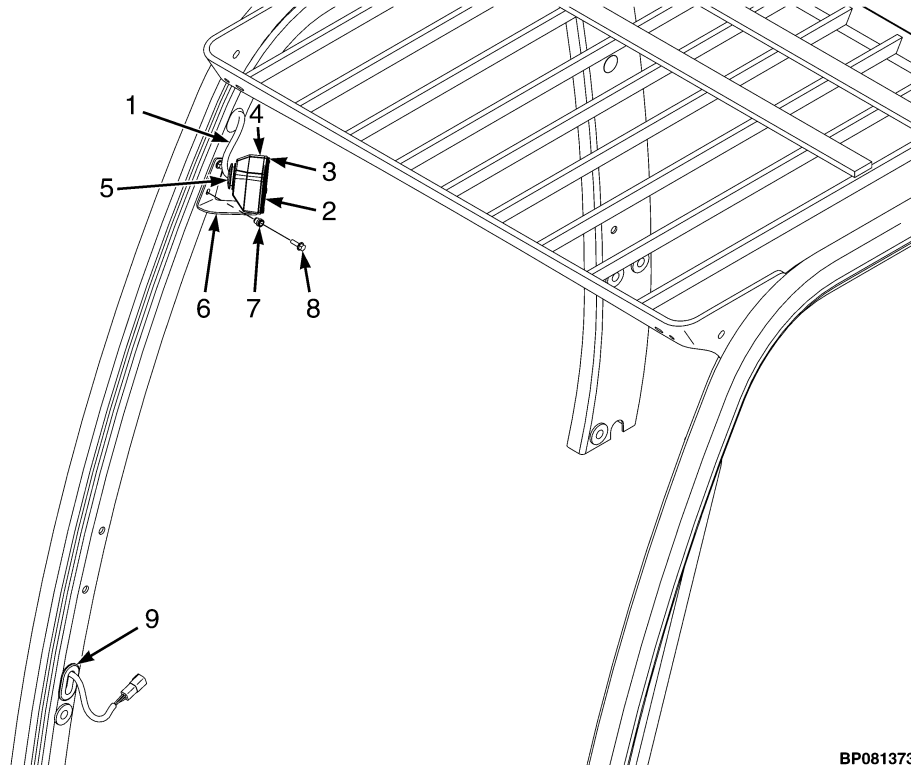
BRAKE BUZZER (FIGURE 5-19)



BP081375

ITEM	PART NO.	DESCRIPTION	QTY
1	1695284	Buzzer Assembly	1
1	1480549	Buzzer	1
1	1561559	Connector (2 Pin)	1
1	1561755	Connector (Secondary Lock)	1
1	1463136	Terminal	2
1	16906	Conduit	AR
2	1554902	Screw	2
3	1582464	Fastener	1
4	1500912	Clip	1
5	.....	Vehicle System Manager (☞ Figure 5-1).....	1

**DISPLAY (FIGURE 5-20)
DIESEL PARTICULATE FILTER**



KEY:

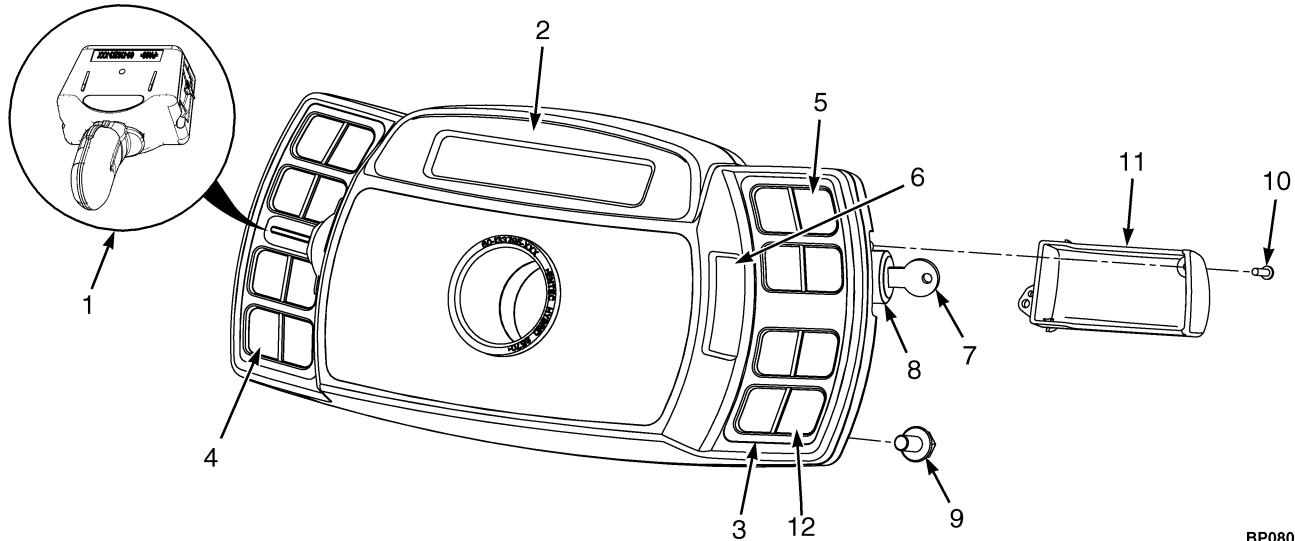
- A:** With Overhead Guard
- B:** With Cab

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	4614617	Wire Harness (DPF Display) (☞ Figure 5-34).....	1	1
2	4033055	Display	1	1
3	4033057	Base	1	1
4	4033056	Cover (DPF Display)	1	1
5	4601386	Grommet (With slits)	1	1
6	4033058	Bracket	1	..
6	4056988	Bracket .....	..	1
6	4036497	Bracket .....	..	1
7	4056983	Bracket .....	..	1
7	1531558	Insert	2	..
7	a 1531557	Insert .....	..	2
8	1527877	Capscrew	2	..
8	a 4016803	Capscrew .....	..	2
9	1539584	Grommet (Oval)	1	1

FOOTNOTES:

- a** Without mirrors

INSTRUMENT CLUSTER (FIGURE 5-21)



BP080816

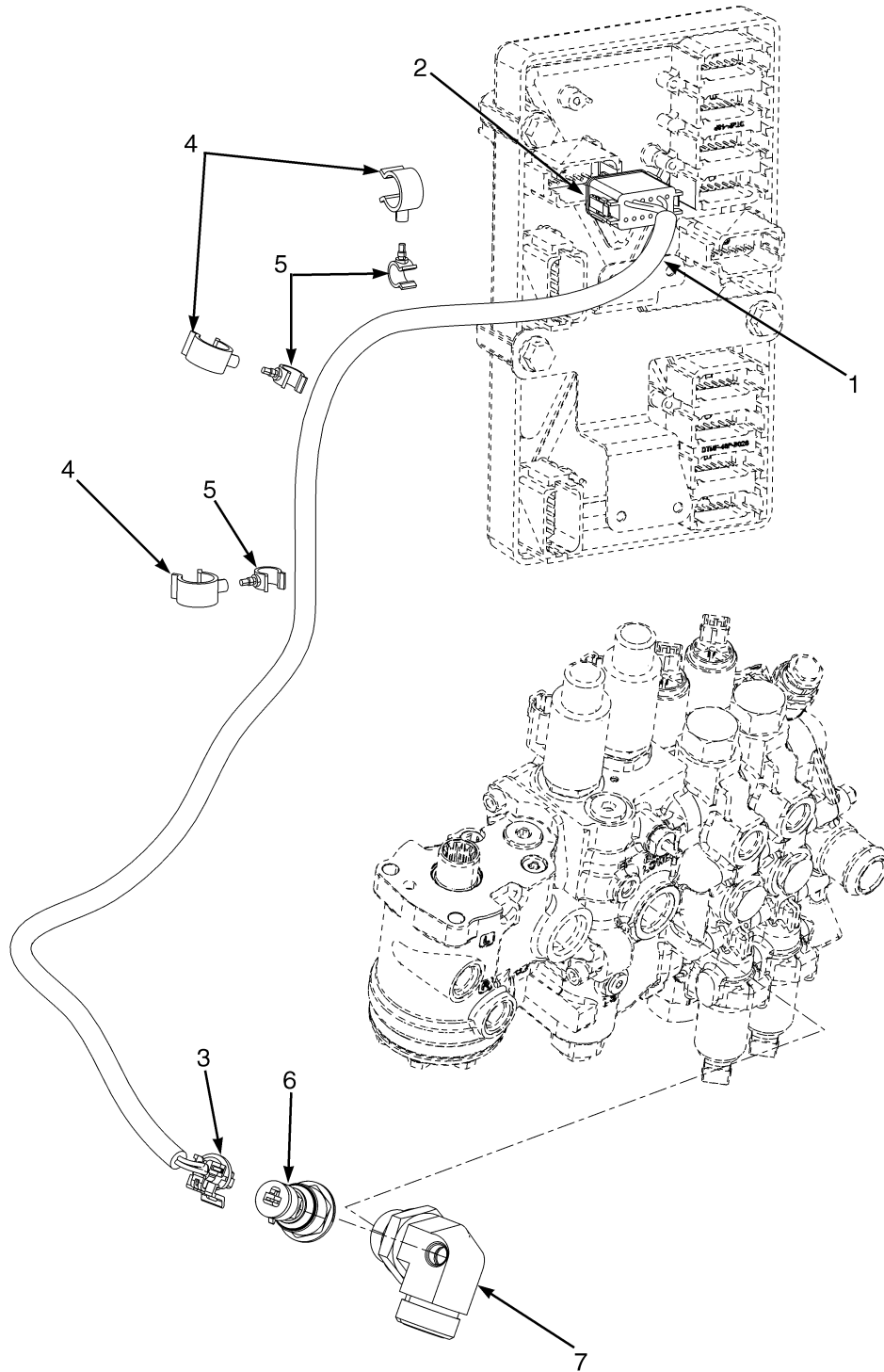
ITEM	PART NO.	DESCRIPTION	QTY
1	4604594	Lever (Detent Forward and Reverse)	1
2	2076696	Display (With Cab)	1
2	2076695	Display (With Overhead Guard)	1
3	2066485	Bezel (Display Cluster)	2
4	2069431	Label (Blank) (LH Display with Overhead Guard)	1
4	2066483	Label (LH Display with Cab)	1
5	2066484	Label (RH Display, All Options)	1
6	2060032	Cover (Without Turn Signals)	1
6	a 4604595	Lever (Turn Signal Lever) (Optional)	1
7	1337197	Key Set	1
8	2057948	Ignition Switch	1
9	4109993	.....	.....
	1527879	Capscrew	4
10	1554902	Screw	5
11	2060033	Cover (Keyswitch)	1
12	b 2066482	Label (RH Display)	1

FOOTNOTES:

a Not Illustrated

b Remove Panels From Overlay as Required For Truck Configuration.

LOAD WEIGH ELECTRICAL (FIGURE 5-22)

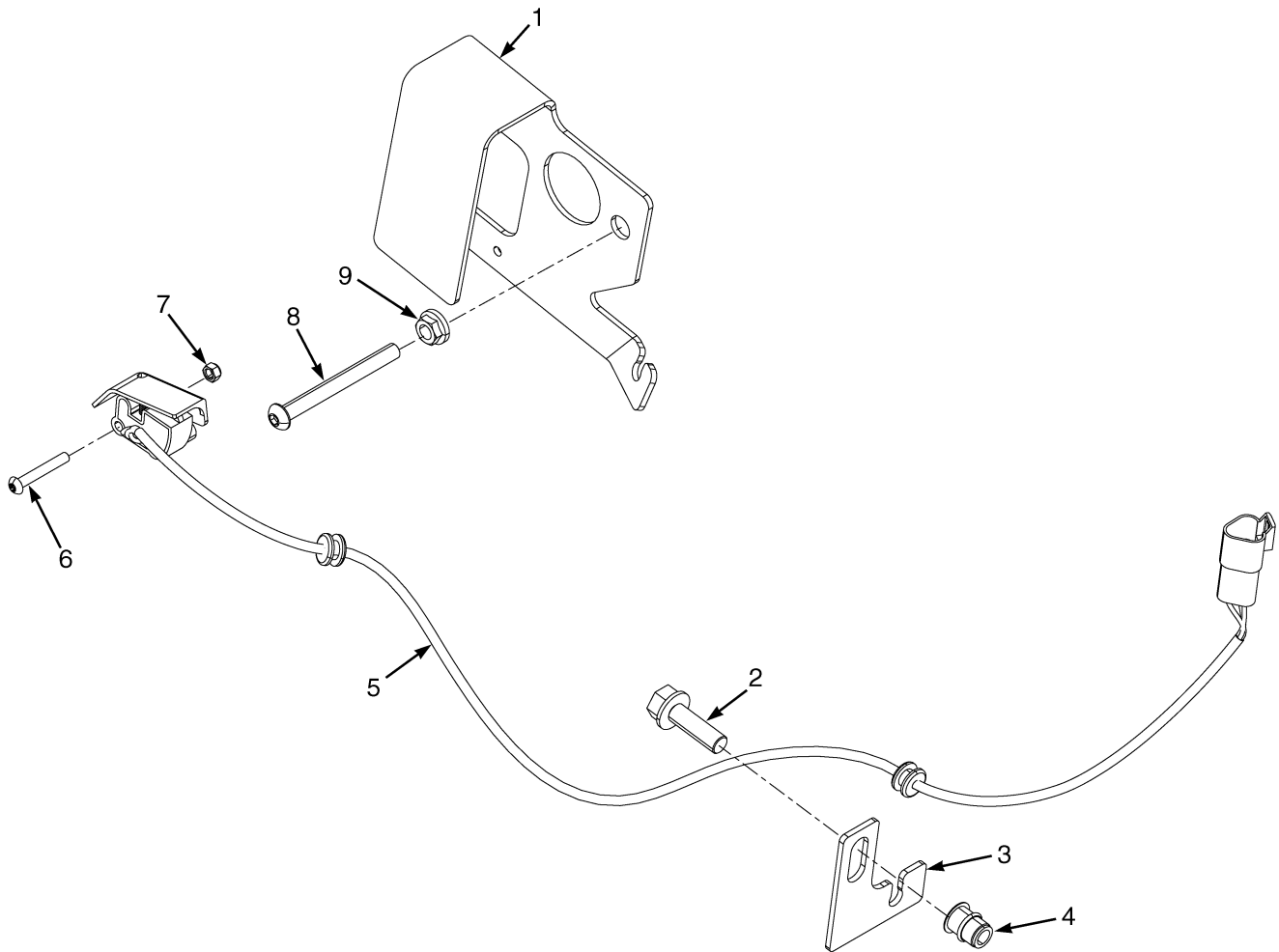


BP080413

LOAD WEIGH ELECTRICAL

ITEM	PART NO.	DESCRIPTION	QTY
1	2079326	Wire Harness (Load Weigh)	1
2	1525565	Connector	1
2	1500913	Connector (Secondary Lock) (Secondary Lock)	1
2	1330438	Terminal (Socket)	3
2	1484377	Plug	9
3	1603021	Connector	1
3	1603236	Connector (Secondary Lock)	1
3	1548517	Terminal (Socket)	3
3	1548519	Seal	3
4	1606544	Clamp (Swivel)	3
5	1573549	Clamp	3
6	1606735	Sensor (Load Sensing)	1
7	1605770	Fitting	1

MAST ELECTRICAL (FIGURE 5-23)

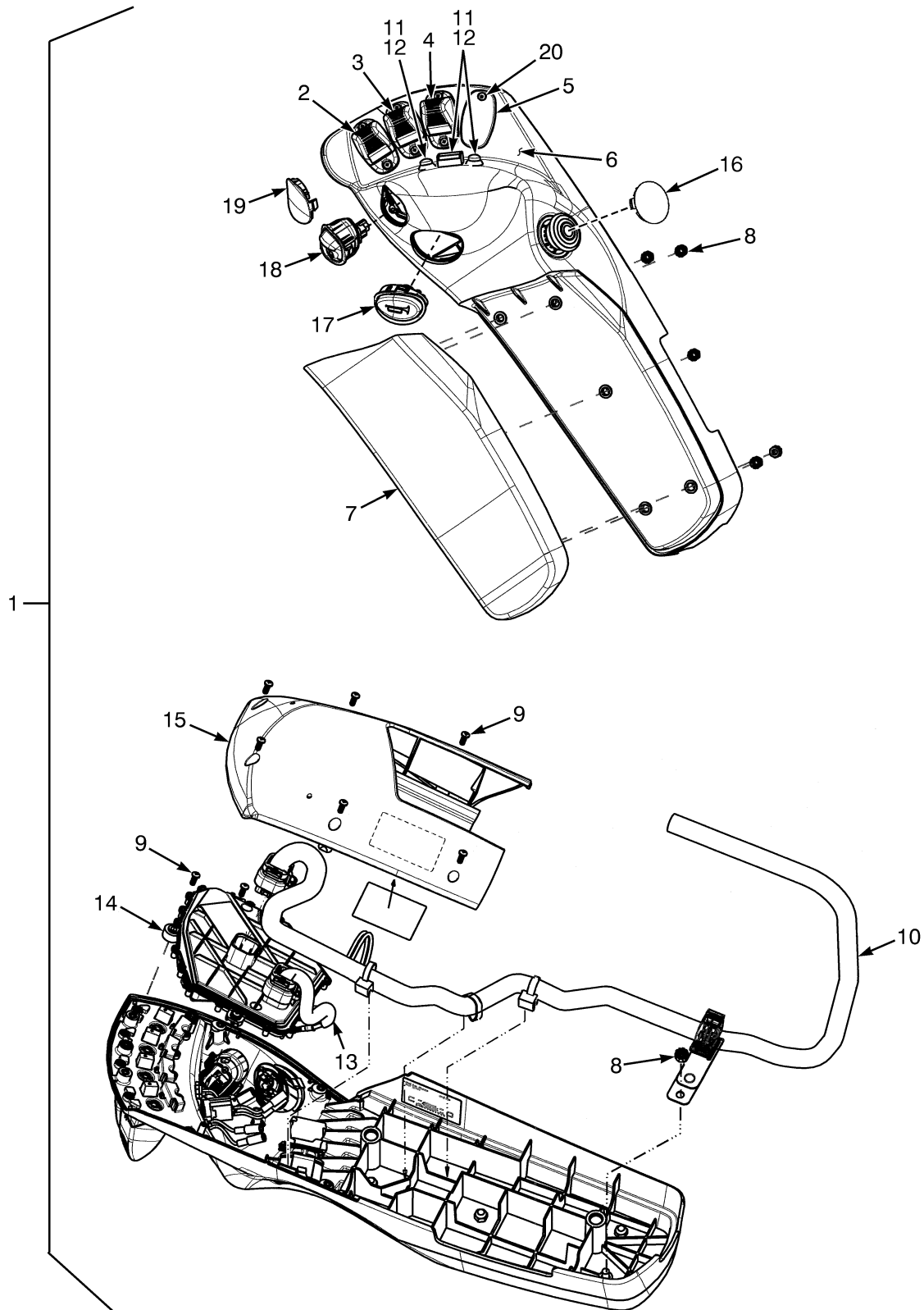


BP080602

MAST ELECTRICAL

ITEM	PART NO.	DESCRIPTION	QTY
1	1695875	Bracket	1
2	1586629	Capscrew	1
3	1695235	Bracket	1
4	1530244	Insert	1
5	1649407	Sensor (Mast Position)	1
5	1493466	Connector (3-Way)	1
5	1330437	Terminal (Pin)	1
5	1330415	Connector (Secondary Lock) (Secondary Lock)	1
5	26284	Grommet	2
5	175944	Heat Shrink	AR
6	1553897	Capscrew	2
7	302398	Locknut	2
8	1597451	Capscrew	1
9	1586430	Nut	1

MINI-LEVER CONTROLS (FIGURE 5-24) WITH ARMREST — THREE FUNCTION



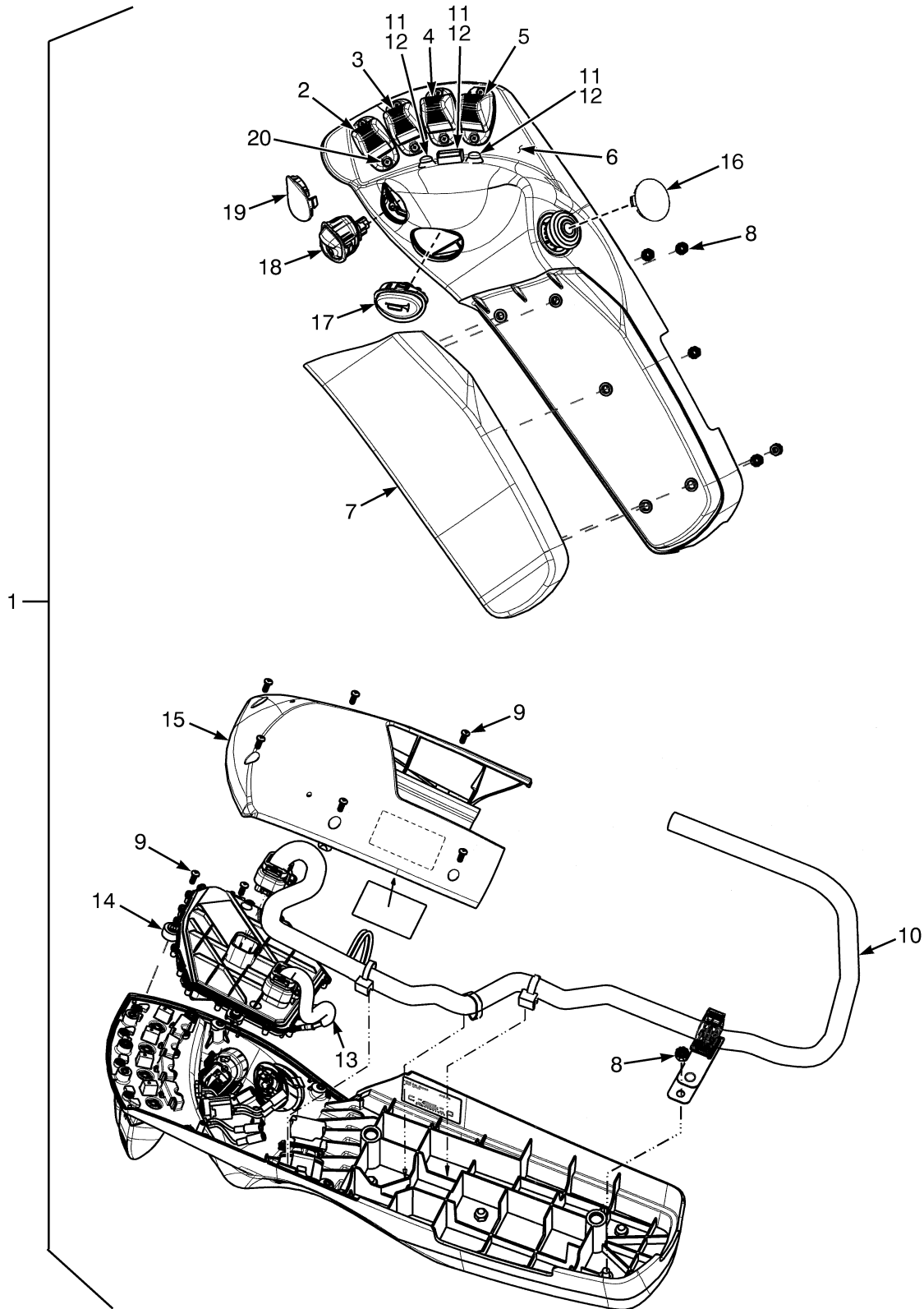
BP080959

**MINI-LEVER CONTROLS
WITH ARMREST – THREE FUNCTION****KEY:****A: Without Directional Control Switch****B: With Directional Control Switch**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	4601093	Mini-Lever Assembly	1	..
1	c 4601265	Mini-Lever Assembly	1	..
1	a 4601097	Mini-Lever Assembly	1	..
1	b 4601099	Mini-Lever Assembly	1	..
1	4601101	Mini-Lever Assembly .....	..	1
1	c 4601103	Mini-Lever Assembly .....	..	1
1	a 4601105	Mini-Lever Assembly .....	..	1
1	b 4601107	Mini-Lever Assembly .....	..	1
2	.....	Lever Position 1	1	1
2	2110791	Lever (Single Function)	1	1
3	.....	Lever Position 2	1	1
3	2110791	Lever (Single Function)	1	1
3	a 2110793	Lever (With Override)	1	1
4	.....	Lever Position 3	1	1
4	2110791	Lever (Single Function)	1	1
4	c 2110792	Lever (Clamping)	1	1
5	2108249	Plug	1	1
6	2111799	Armrest (Without Push Buttons)	1	1
6	ac 4603439	Armrest (With Push Buttons)	1	1
7	2111769	Cushion (Armrest)	1	1
8	1709587	Nut	5	5
9	1698449	Capscrew	6	6
10	4605336	Wire Harness	1	1
11	c 1704528	Push Button (Position 3)	1	1
11	b 1704528	Push Button (Position 2 and 3)	2	2
11	a 1704528	Push Button (Position 2)	1	1
12	c 1705359	Cover (Push Button)	1	1
12	b 1705359	Cover (Push Button)	1	1
13	1704529	Wire Harness (Forward/Reverse Switch in the MLM) (Push Buttons)	1	1
14	4605337	Printed Circuit Board	1	1
15	2111800	Cover (Bottom Armrest)	1	1
16	4601120	Plug	1	1
17	2111770	Horn Button	1	1
18	2110943	Switch (Directional Control) .....	..	1
19	2110942	Plug (Directional Control Switch)	1	..
20	1698449	Capscrew	8	8

FOOTNOTES:**a** Return to Set Tilt**c** With Clamping**b** Three Function Clamp with Return to Set Tilt

MINI-LEVER CONTROLS (FIGURE 5-25) WITH ARMREST — FOUR FUNCTION



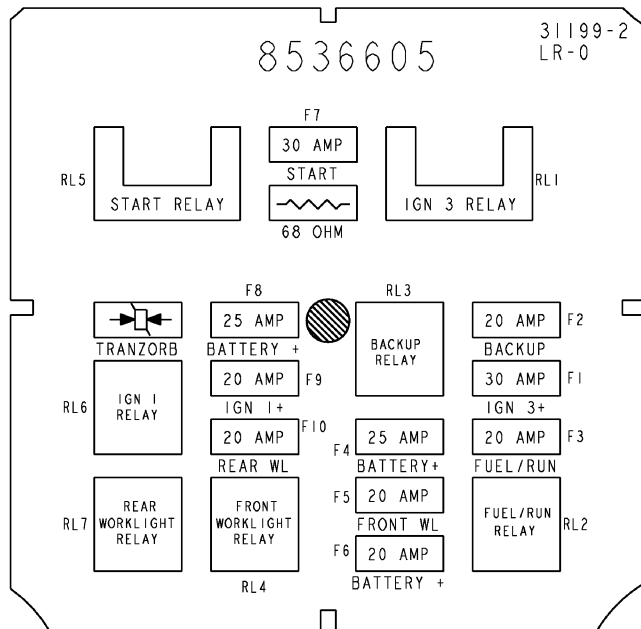
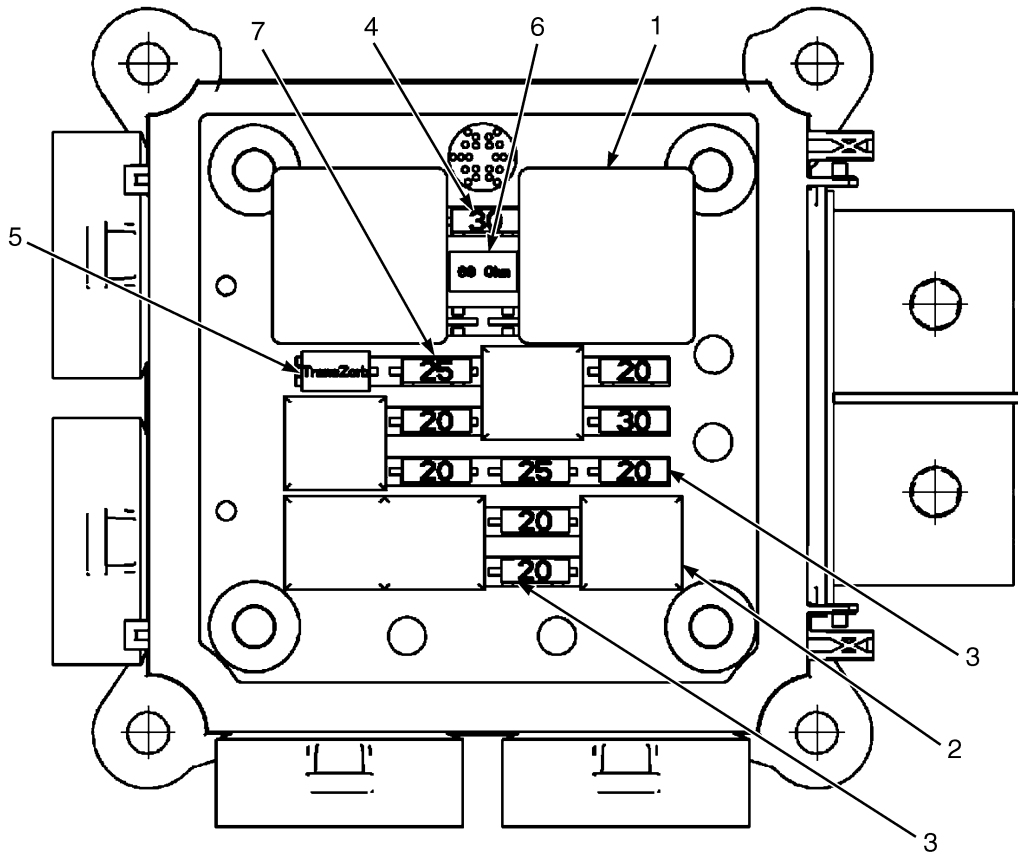
BP080960

**MINI-LEVER CONTROLS
WITH ARMREST – FOUR FUNCTION****KEY:****A: Without Directional Control Switch****B: With Directional Control Switch**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	4601094	Mini-Lever Assembly	1	..
1	a 4601096	Mini-Lever Assembly	1	..
1	c 4601098	Mini-Lever Assembly	1	..
1	b 4601100	Mini-Lever Assembly	1	..
1	4601102	Mini-Lever Assembly .....	..	1
1	a 4601104	Mini-Lever Assembly .....	..	1
1	c 4601106	Mini-Lever Assembly .....	..	1
1	b 4601108	Mini-Lever Assembly .....	..	1
2	.....	Lever Position 1	1	1
2	2110791	Lever (Single Function)	1	1
3	.....	Lever Position 2	1	1
3	2110791	Lever (Single Function)	1	1
3	b 2110793	Lever (With Override)	1	1
4	.....	Lever Position 3	1	1
4	2110791	Lever (Single Function)	1	1
5	.....	Lever Position 4	1	1
5	2110791	Lever (Single Function)	1	1
5	ab 2110792	Lever (Clamping)	1	1
6	2111799	Armrest (Without Push Buttons)	1	1
6	abc 4603439	Armrest (With Push Buttons)	1	1
7	2111769	Cushion (Armrest)	1	1
8	1709587	Nut	5	5
9	1698449	Capscrew	6	6
10	4605336	Wire Harness	1	1
11	a 1704528	Push Button	1	1
11	b 1704528	Push Button	2	2
12	a 1705359	Cover (Push Button)	2	2
12	b 1705359	Cover (Push Button)	1	1
13	1704529	Wire Harness (Forward/Reverse Switch in the MLM) (Push Buttons)	1	1
14	4605337	Printed Circuit Board	1	1
15	2111800	Cover (Bottom Armrest)	1	1
16	4601120	Plug	1	1
17	2111770	Horn Button	1	1
18	2110943	Switch (Directional Control) .....	..	1
19	2110942	Plug (Directional Control Switch)	1	..
20	1698449	Capscrew	8	8

FOOTNOTES:**a** With Clamping**c** With Return to Set Tilt**b** With Clamping and Return to Set Tilt

POWER DISTRIBUTION MODULE (FIGURE 5-26)



BP080485

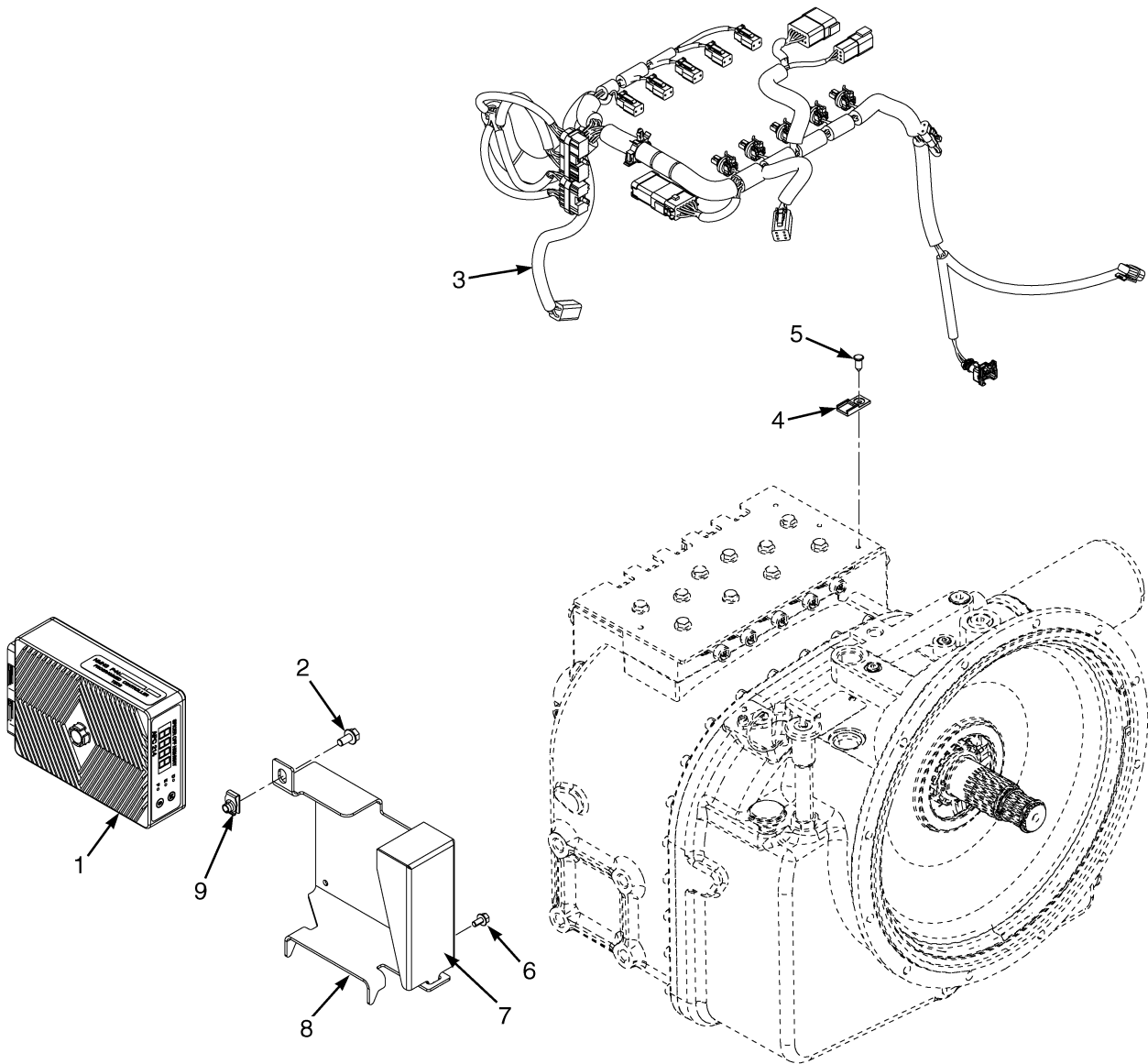
POWER DISTRIBUTION MODULE

ITEM	PART NO.	DESCRIPTION	QTY
	2090613	Fuse Box (PDM)	1
1	2044712	Relay (30 Amp)	2
2	1528315	Relay (20 Amp)	5
3	1528132	Fuse (20 Amp)	6
4	1528133	Fuse (30 Amp)	2
5	1528630	Semiconductor	1
6	1528631	Resistor (68 Ohm, 5 Watt)	1
7	1544255	Fuse (25 Amp)	2
	a 4046933	Fuse Box Cover	1

FOOTNOTES:

a Not Illustrated

TRANSMISSION ELECTRICAL SYSTEM (FIGURE 5-27)



BP240216

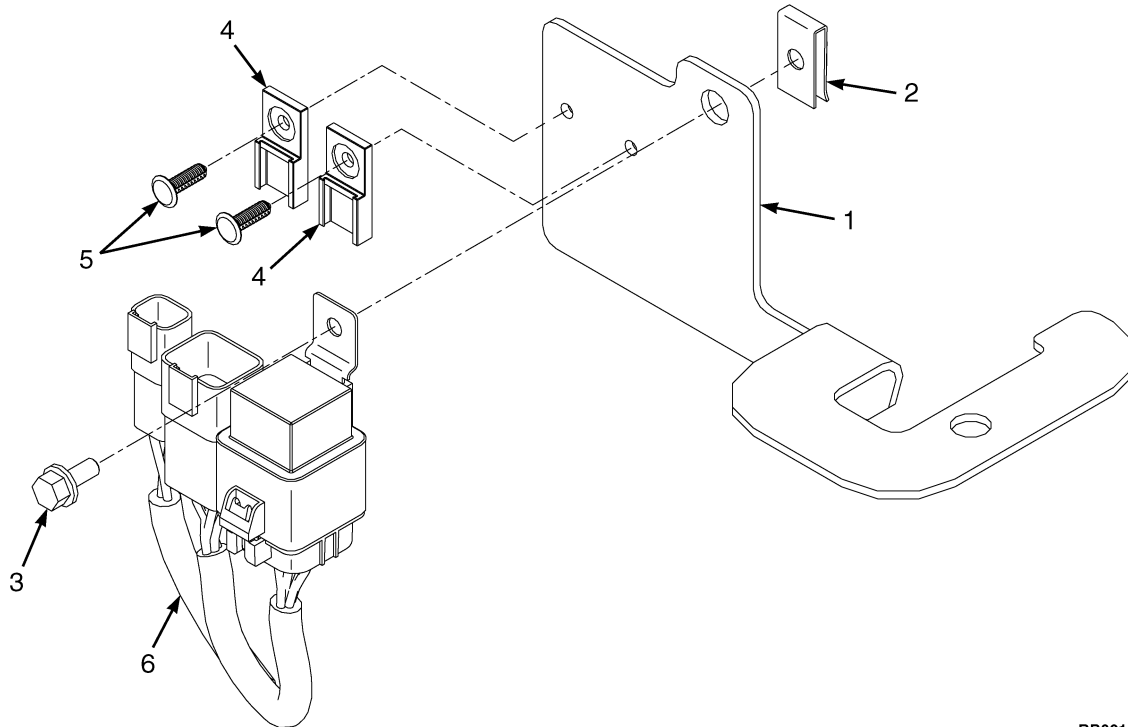
TRANSMISSION ELECTRICAL SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY
1	a 4604097	Controller	1
1	b 4606863	Controller	1
1	c 4616844	Controller	1
1	a 4604100	Controller (With Extended Function)	1
1	c 4616845	Controller (With Extended Function)	1
1	b 4606864	Controller (With Extended Function)	1
2	4109993		
	1527879	Capscrew	1
3	d 2106248	Wire Harness (Transmission, Three Speed) (☞ Figure 5-29).....	1
3	e 4639233	Wire Harness (Transmission, Three Speed) (☞ Figure 5-30).....	1
4	1500912	Clip	3
5	1582464	Fastener	3
6	1534417	Capscrew	4
7	1603367	Cover	1
8	1616013	Bracket	1
9	1480237	Nut	1

FOOTNOTES:

- | | | | |
|----------|-----------------------------------|----------|-------------------|
| a | For Use with Cummins 3.3L | d | → S/N B299E01707N |
| b | For use with GM 5.7L LPG engines | e | S/N B299E01708N → |
| c | For use with Kubota diesel engine | | |

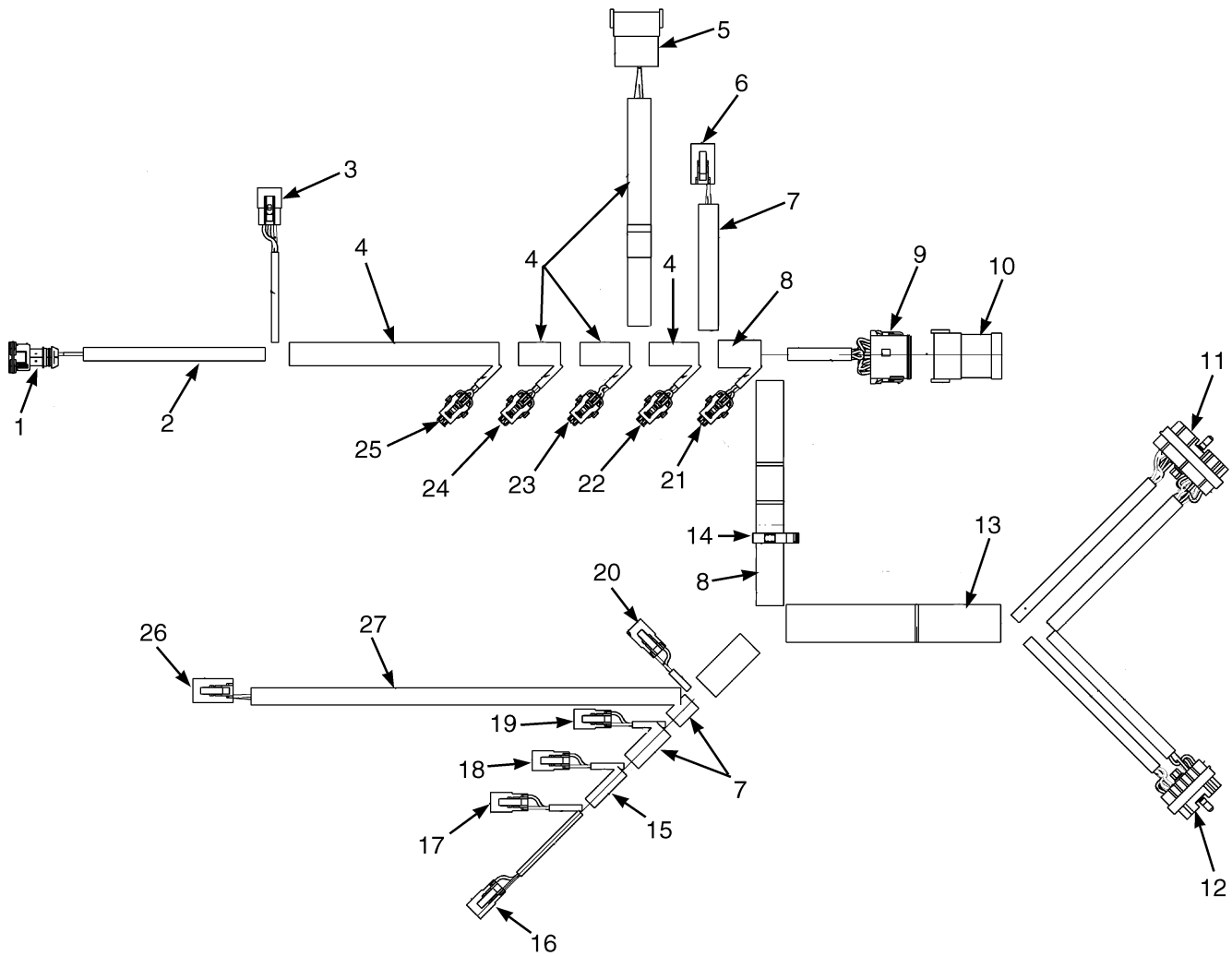
SEAT BELT SWITCH ADAPTER (FIGURE 5-28) (4/2014 →)



BP081695

ITEM	PART NO.	DESCRIPTION	QTY
1	4081689	Bracket	1
2	1566420	Nut (Foldover)	1
3	1693371	Capscrew	1
4	1500912	Clip	2
5	1582464	Fastener	2
6	4620434	Wire Harness (Seat Belt Switch Adapter)	1
6	1493465	Connector (2 Pin) (Seat Belt Switch Harness)	1
6	1330414	Connector (Secondary Lock)	1
6	1363885	Terminal (Pin)	2
6	4047669	Connector (RH Chassis Harness)	1
6	1514598	Connector (Secondary Lock) (Lock)	1
6	866401	Terminal	4
6	4030503	Connector (Relay)	1
6	1330283	Terminal	4
6	1323581	Plug	1
6	4039364	Relay (With Diode)	1

WIRE HARNESS (FIGURE 5-29) TRANSMISSION — THREE SPEED (→ S/N B299E01707N)



BP080766

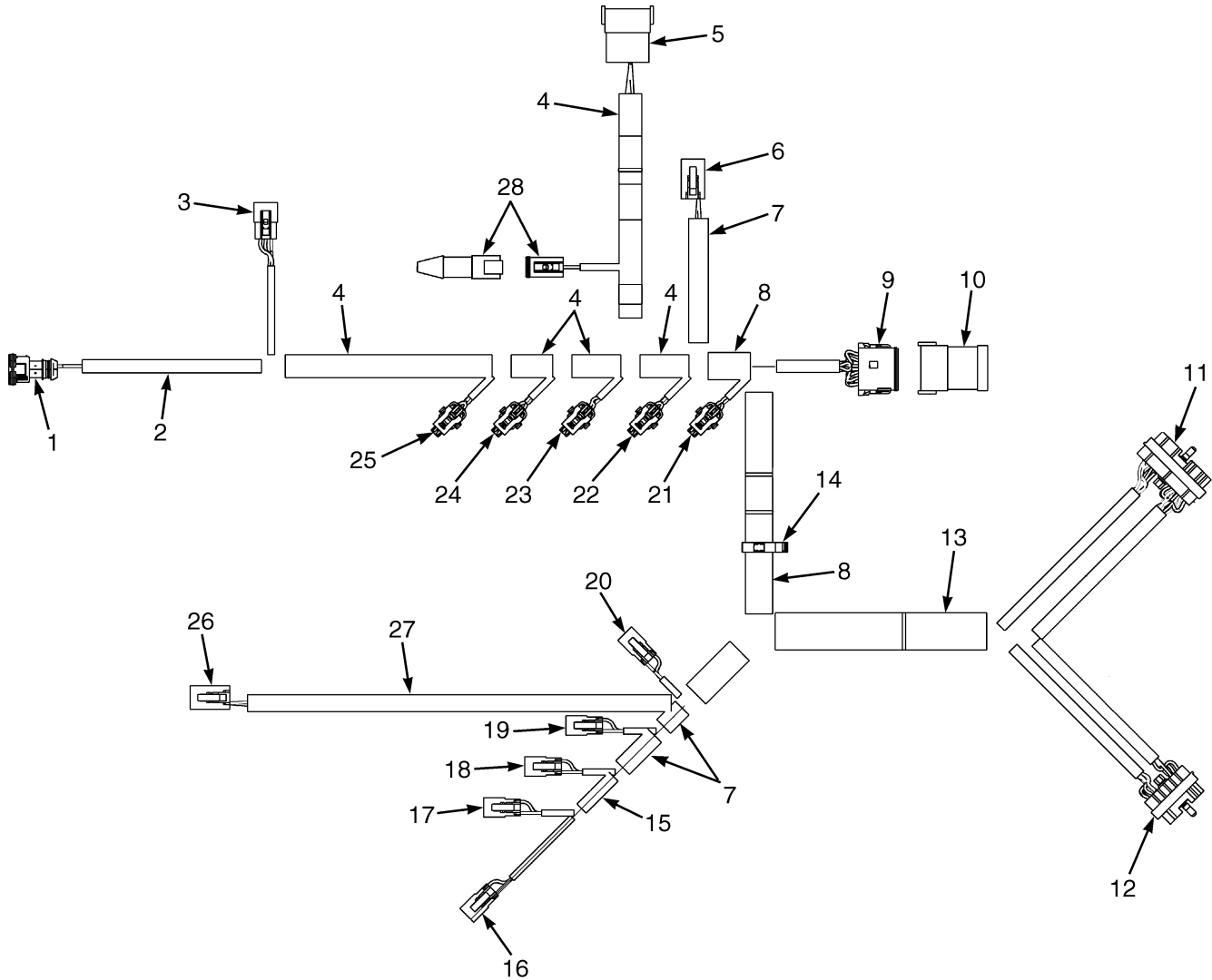
WIRE HARNESS
TRANSMISSION – THREE SPEED (→ S/N B299E01707N)

ITEM	PART NO.	DESCRIPTION	QTY
	2106248	Wire Harness (Transmission, Three Speed)	1
1	.....	Connector Assembly (Sump Temperature)	1
1	1493435	Connector (2-Way)	1
1	1402814	Terminal	2
1	1562649	Seal	2
2	275493	Conduit	AR
3	.....	Connector Assembly (Intermediate Speed)	1
3	1484397	Connector (3-Way)	1
3	1463194	Connector (Secondary Lock)	1
3	1330438	Terminal (Socket)	3
4	275496	Conduit	AR
5	.....	Connector Assembly (To Right Hand Chassis Harness)	1
5	1623280	Connector	1
5	1623281	Connector (Secondary Lock)	1
5	1484377	Plug	6
5	1463138	Terminal Pin	6
6	.....	Connector Assembly (Turbine Shaft RPM)	1
6	1493430	Connector (6 Way Housing)	1
6	1529052	Connector (Secondary Lock)	1
6	1330438	Terminal (Socket)	5
6	1484377	Plug	1
7	275495	Conduit	AR
8	275497	Conduit	AR
9	.....	Connector Assembly (Bus Bar)	1
9	1525564	Connector	1
9	1500913	Connector (Secondary Lock)	1
9	1330438	Terminal (Socket)	12
10	.....	Connector Assembly (Bus Bar)	1
10	1602430	Connector	1
11	.....	Connector Assembly (APC214-CRP129)	1
11	1602432	Connector	1
11	1323581	Plug	10
11	1532571	Terminal	20
12	.....	Connector Assembly (APC-CRP129)	1
12	1602433	Connector	1
12	1323581	Plug	4
12	1532571	Terminal	14
13	1540388	Conduit	AR
14	1608857	Clip	1
15	275493	Conduit	AR
16	.....	Connector Assembly (Forward One Solenoid)	1
16	1490242	Connector (2 Way)	1
16	1490243	Connector (Secondary Lock)	1
16	1330438	Terminal (Socket)	2
17	.....	Connector Assembly (Range Two Solenoid)	1
17	1490242	Connector (2 Way)	1
17	1490243	Connector (Secondary Lock)	1
17	1330438	Terminal (Socket)	2
18	.....	Connector Assembly (Forward Two Solenoid)	1
18	1490242	Connector (2 Way)	1

WIRE HARNESS
TRANSMISSION – THREE SPEED (→ S/N B299E01707N)

ITEM	PART NO.	DESCRIPTION	QTY
18	1490243	Connector (Secondary Lock)	1
18	1330438	Terminal (Socket)	2
19	.....	Connector Assembly (Range One Solenoid)	1
19	1490242	Connector (2 Way)	1
19	1490243	Connector (Secondary Lock)	1
19	1330438	Terminal (Socket)	1
20	.....	Connector Assembly (Reverse One Solenoid)	1
20	1490242	Connector (2 Way)	1
20	1490243	Connector (Secondary Lock)	1
20	1330438	Terminal (Socket)	1
21	.....	Connector Assembly (Reverse One Pressure)	1
21	1603021	Connector	1
21	1603236	Connector (Secondary Lock)	1
21	1548517	Terminal (Socket)	3
21	1548519	Seal	3
22	.....	Connector Assembly (Range One Pressure)	1
22	1603021	Connector	1
22	1603236	Connector (Secondary Lock)	1
22	1548517	Terminal (Socket)	3
22	1548519	Seal	3
23	.....	Connector Assembly (Forward Two Pressure)	1
23	1603021	Connector	1
23	1603236	Connector (Secondary Lock)	1
23	1548517	Terminal (Socket)	3
23	1548519	Seal	3
24	.....	Connector Assembly (Range Two Pressure)	1
24	1603021	Connector	1
24	1603236	Connector (Secondary Lock)	1
24	1548517	Terminal (Socket)	3
24	1548519	Seal	3
25	.....	Connector Assembly (Forward One Pressure)	1
25	1603021	Connector	1
25	1603236	Connector (Secondary Lock)	1
25	1548517	Terminal (Socket)	3
25	1548519	Seal	3
26	.....	Connector Assembly (Tail Shaft RPM)	1
26	1493430	Connector (6 Way Housing)	1
26	1529052	Connector (Secondary Lock)	1
26	1330438	Terminal (Socket)	5
26	1484377	Plug	1
27	275494	Conduit	AR

WIRE HARNESS (FIGURE 5-30) TRANSMISSION-THREE SPEED (S/N B299E01708N →)



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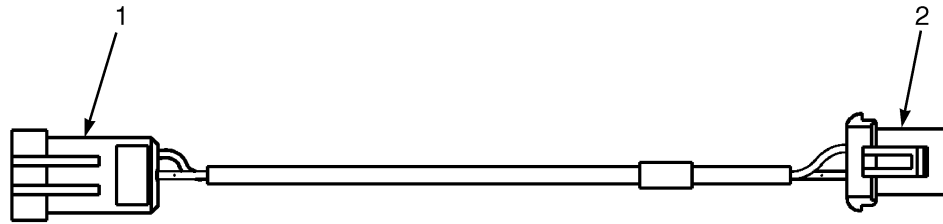
WIRE HARNESS
TRANSMISSION-THREE SPEED (S/N B299E01708N →)

ITEM	PART NO.	DESCRIPTION	QTY
	4639233	Wire Harness (Transmission, Three Speed)	1
1	.....	Connector Assembly (Sump Temperature)	1
1	1493435	Connector (2-Way)	1
1	1402814	Terminal	2
1	1562649	Seal	2
2	275493	Conduit	AR
3	.....	Connector Assembly (Intermediate Speed)	1
3	1484397	Connector (3-Way)	1
3	1463194	Connector (Secondary Lock)	1
3	1330438	Terminal (Socket)	3
4	275496	Conduit	AR
5	.....	Connector Assembly (To Right Hand Chassis Harness)	1
5	1623280	Connector	1
5	1623281	Connector (Secondary Lock)	1
5	1484377	Plug	6
5	1463138	Terminal Pin	6
6	.....	Connector Assembly (Turbine Shaft RPM)	1
6	1493430	Connector (6 Way Housing)	1
6	1529052	Connector (Secondary Lock)	1
6	1330438	Terminal (Socket)	5
6	1484377	Plug	1
7	275495	Conduit	AR
8	275497	Conduit	AR
9	.....	Connector Assembly (Bus Bar)	1
9	1525564	Connector	1
9	1500913	Connector (Secondary Lock)	1
9	1330438	Terminal (Socket)	12
10	.....	Connector Assembly (Bus Bar)	1
10	1602430	Connector	1
11	.....	Connector Assembly (APC214-CRP129)	1
11	1602432	Connector	1
11	1323581	Plug	10
11	1532571	Terminal	20
12	.....	Connector Assembly (APC-CRP129)	1
12	1602433	Connector	1
12	1323581	Plug	4
12	1532571	Terminal	14
13	1540388	Conduit	AR
14	1500899	Clip	1
15	275493	Conduit	AR
16	.....	Connector Assembly (Forward One Solenoid)	1
16	1490242	Connector (2 Way)	1
16	1490243	Connector (Secondary Lock)	1
16	1330438	Terminal (Socket)	2
17	.....	Connector Assembly (Range Two Solenoid)	1
17	1490242	Connector (2 Way)	1
17	1490243	Connector (Secondary Lock)	1
17	1330438	Terminal (Socket)	2
18	.....	Connector Assembly (Forward Two Solenoid)	1
18	1490242	Connector (2 Way)	1

WIRE HARNESS TRANSMISSION-THREE SPEED (S/N B299E01708N →)

ITEM	PART NO.	DESCRIPTION	QTY
18	1490243	Connector (Secondary Lock)	1
18	1330438	Terminal (Socket)	2
19	.....	Connector Assembly (Range One Solenoid)	1
19	1490242	Connector (2 Way)	1
19	1490243	Connector (Secondary Lock)	1
19	1330438	Terminal (Socket)	1
20	.....	Connector Assembly (Reverse One Solenoid)	1
20	1490242	Connector (2 Way)	1
20	1490243	Connector (Secondary Lock)	1
20	1330438	Terminal (Socket)	1
21	.....	Connector Assembly (Reverse One Pressure)	1
21	1603021	Connector	1
21	1603236	Connector (Secondary Lock)	1
21	1548517	Terminal (Socket)	3
21	1548519	Seal	3
22	.....	Connector Assembly (Range One Pressure)	1
22	1603021	Connector	1
22	1603236	Connector (Secondary Lock)	1
22	1548517	Terminal (Socket)	3
22	1548519	Seal	3
23	.....	Connector Assembly (Forward Two Pressure)	1
23	1603021	Connector	1
23	1603236	Connector (Secondary Lock)	1
23	1548517	Terminal (Socket)	3
23	1548519	Seal	3
24	.....	Connector Assembly (Range Two Pressure)	1
24	1603021	Connector	1
24	1603236	Connector (Secondary Lock)	1
24	1548517	Terminal (Socket)	3
24	1548519	Seal	3
25	.....	Connector Assembly (Forward One Pressure)	1
25	1603021	Connector	1
25	1603236	Connector (Secondary Lock)	1
25	1548517	Terminal (Socket)	3
25	1548519	Seal	3
26	.....	Connector Assembly (Tail Shaft RPM)	1
26	1493430	Connector (6 Way Housing)	1
26	1529052	Connector (Secondary Lock)	1
26	1330438	Terminal (Socket)	5
26	1484377	Plug	1
27	275494	Conduit	AR
28	.....	Connector Assembly (Transorb Module)	1
28	1330419	Connector	1
28	4108897	Connector Lock (Secondary Lock)	1
28	1330438	Terminal (Socket)	1
28	4125003	Diode Module (Endcap w/Transorb)	1

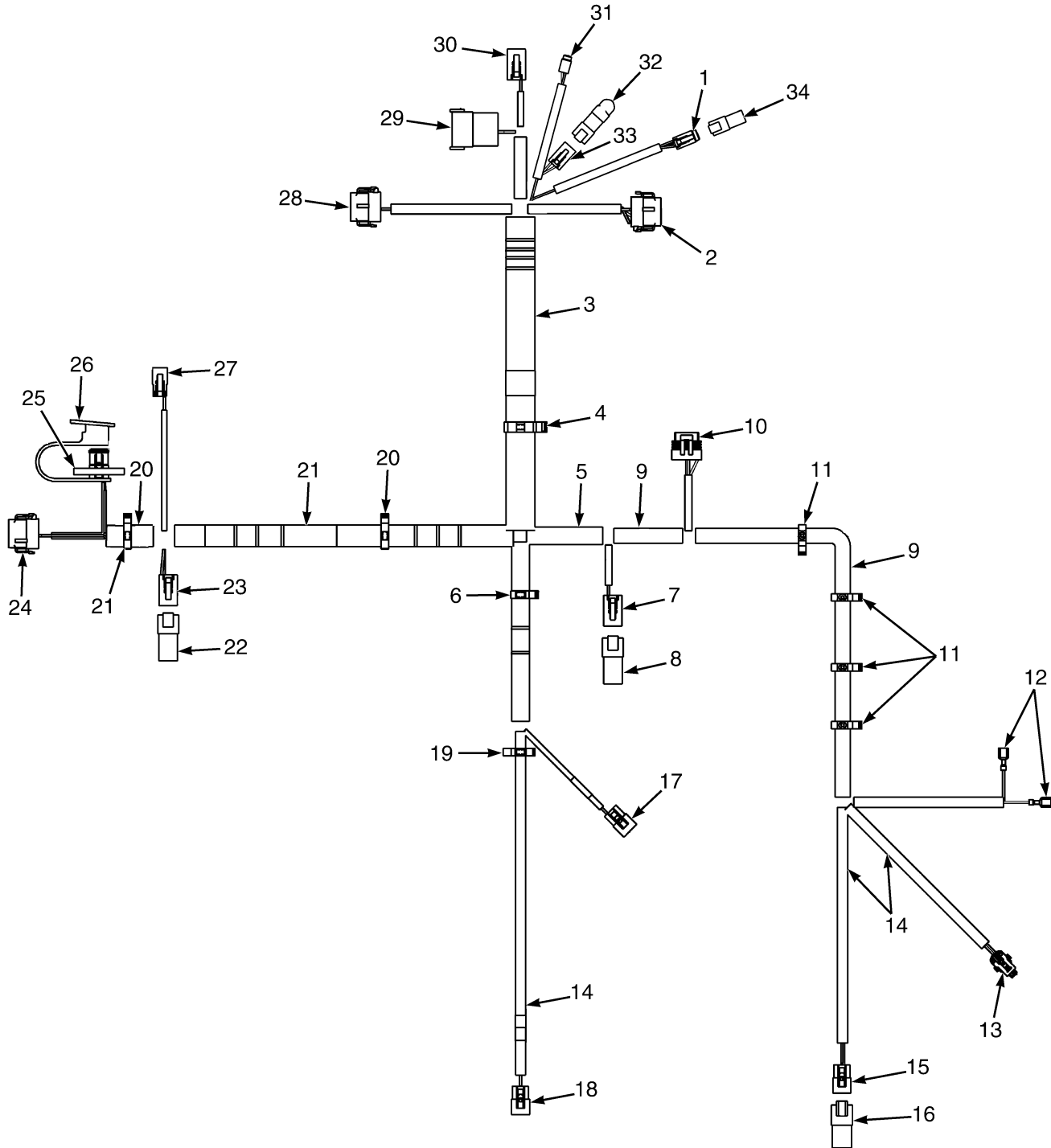
**WIRE HARNESS (FIGURE 5-31)
ADAPTER — LOW FUEL PRESSURE**



HP082028

ITEM	PART NO.	DESCRIPTION	QTY
	4602843	Wire Harness	1
1	.....	Connector Assembly (To LH Chassis Harness)	1
1	2795583	Connector (3 Way)	1
1	2787350	Pin Terminal	2
1	2069381	Plug	1
1	2060555	Wire Seal (Yellow)	2
2	.....	Connector Assembly (Low LPG Switch)	1
2	1329152	Plug	1
2	1329151	Terminal	1
2	1330281	Terminal	2
2	1402888	Seal (Purple)	2

WIRE HARNESS (COWL) (FIGURE 5-32) WITH MONOTROL OR RETURN TO SET TILT



BP081358

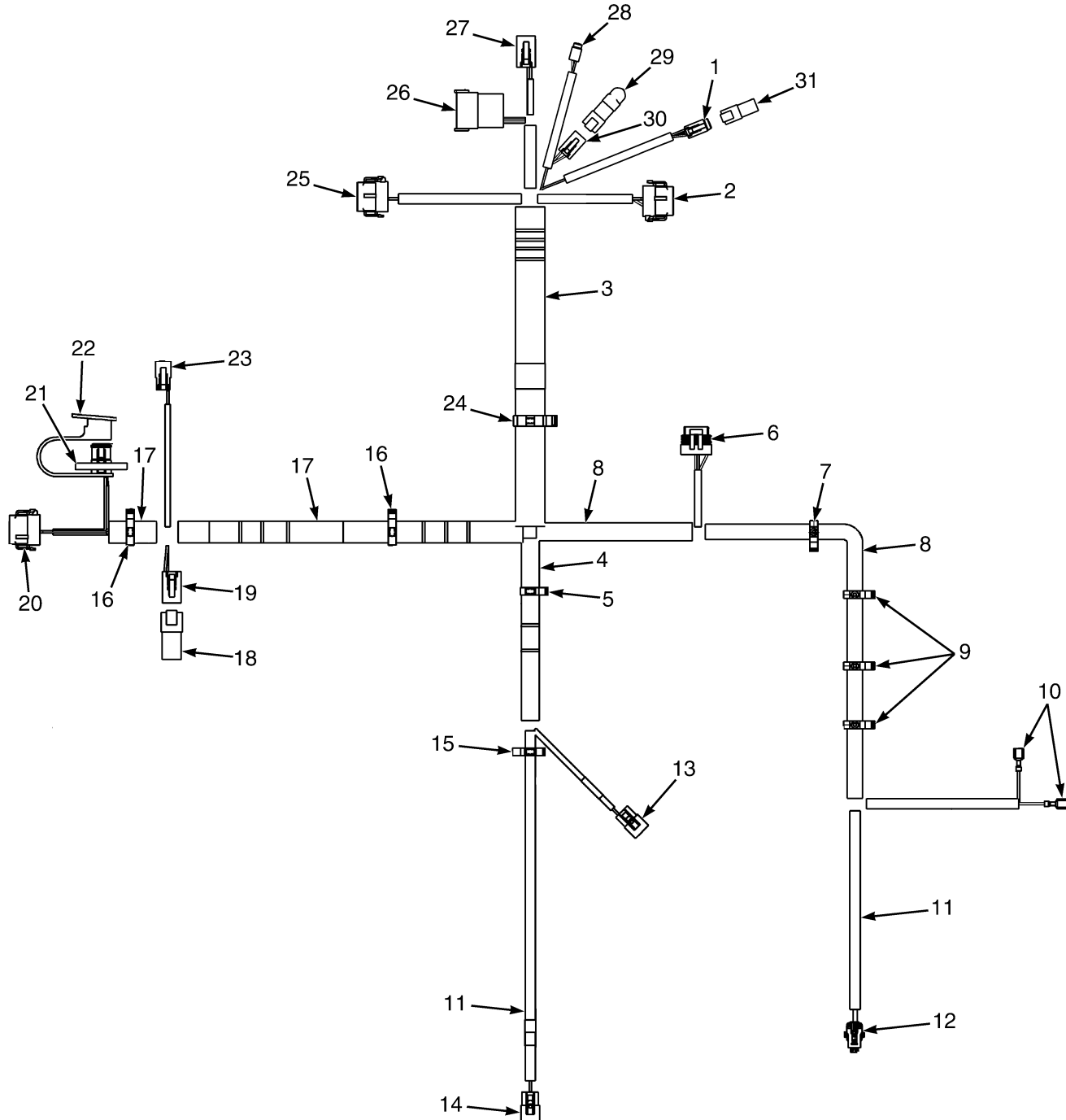
**WIRE HARNESS (COWL)
WITH MONOTROL OR RETURN TO SET TILT**

ITEM	PART NO.	DESCRIPTION	QTY
	4614681	Wire Harness	1
1	.....	Connector Assembly DPF Display	1
1	1463189	Connector	1
1	1463196	Connector	1
1	1463139	Terminal	4
2	.....	Connector Assembly (Vehicle Systems Manager)	1
2	1525568	Connector	1
2	1529046	Connector (Secondary Lock) (Secondary Lock)	1
2	1463139	Terminal	11
2	1484377	Plug	1
3	1540388	Conduit	AR
4	1534282	Clip	1
5	275496	Conduit	AR
6	1534828	Clip	1
7	.....	Connector Assembly (To Monotrol Pedal)	1
7	1489656	Connector (4-Way)	1
7	1489657	Connector (Secondary Lock) (Secondary Lock)	1
7	1330438	Terminal (Socket)	4
8	.....	Connector Assembly (Endcap)	1
8	1525573	Connector	1
9	275495	Conduit	AR
10	.....	Connector Assembly (Accelerator Pedal Sensor)	1
10	1525584	Connector	1
10	1532571	Terminal	6
11	1509890	Clip	4
12	.....	Connector Assembly (Accumulator Pressure)	1
12	1402849	Connector Body	2
13	.....	Connector Assembly (Brake Pressure)	1
13	1603021	Connector	1
13	1603236	Connector (Secondary Lock)	1
13	1548517	Terminal (Socket)	3
13	1548519	Seal	3
14	275493	Conduit	AR
15	.....	Connector Assembly (To Mast Harness)	1
15	1484397	Connector (3-Way)	1
15	1463194	Connector (Secondary Lock)	1
15	1330438	Terminal (Socket)	3
16	.....	Connector Assembly (Endcap)	1
16	1351682	Connector (End Cap)	1
17	.....	Connector Assembly (Park Brake)	1
17	1700460	Connector	1
17	1700461	Terminal	3
18	.....	Connector Assembly (Brake Pedal)	1
18	1700460	Connector	1
18	1700461	Terminal	3
19	1402816	Clip	1
20	1500899	Clip	1
21	275497	Conduit	AR
22	.....	Connector Assembly (Endcap with Resistor)	1
22	1525577	Connector (With Resistor)	1

WIRE HARNESS (COWL) WITH MONOTROL OR RETURN TO SET TILT

ITEM	PART NO.	DESCRIPTION	QTY
23	.....	Connector Assembly) (Bus Terminal 1)	1
23	1489656	Connector (4-Way)	1
23	1489657	Connector (Secondary Lock) (Secondary Lock)	1
23	1330438	Terminal (Socket)	4
24	.....	Connector Assembly (Display)	1
24	1525567	Connector	1
24	1529046	Connector (Secondary Lock) (Secondary Lock)	1
24	1463139	Terminal	5
24	1484377	Plug	7
25	.....	Connector Assembly (J1939 Diagnostic)	1
25	1566116	Connector	1
25	1532664	Connector (Secondary Lock)	1
25	1330438	Terminal (Socket)	3
26	1566117	Dust Cap (For Diagnostic Cable)	1
27	.....	Connector Assembly (Horn Button)	1
27	1490242	Connector (2 Way)	1
27	1490243	Connector (Secondary Lock)	1
27	1330438	Terminal (Socket)	2
28	.....	Connector Assembly (Vehicle Systems Manager)	1
28	1525570	Connector	1
28	1529046	Connector (Secondary Lock) (Secondary Lock)	1
28	1463139	Terminal	7
28	1484377	Plug	5
29	.....	Connector Assembly (To Right Hand Chassis Harness)	1
29	1500925	Connector	1
29	1352603	Secondary Lock	1
29	1330437	Terminal (Pin)	11
29	1484377	Plug	1
30	.....	Connector Assembly (To Right Hand Chassis Harness)	1
30	1489656	Connector (4-Way)	1
30	1489657	Connector (Secondary Lock) (Secondary Lock)	1
30	1330438	Terminal (Socket)	4
31	.....	Connector Assembly (Buzzer)	1
31	1484557	Connector (2 Socket)	1
31	1484558	Connector (Secondary Lock)	1
31	1463139	Terminal	2
32	2094490	Kit-Diode	1
33	.....	Connector Assembly (Diode Pack)	1
33	1489656	Connector (4-Way)	1
33	1489657	Connector (Secondary Lock)	1
33	1330438	Terminal (Socket)	2
33	1484377	Plug	4
34	.....	Connector Assembly (End Cap)	1
34	1463184	Connector	1
34	4046140	Connector	1
34	1463193	Connector	1
34	1484377	Plug	4

WIRE HARNESS (COWL) (FIGURE 5-33) WITH FORWARD AND REVERSE LEVER — OR WITHOUT RETURN TO SET TILT



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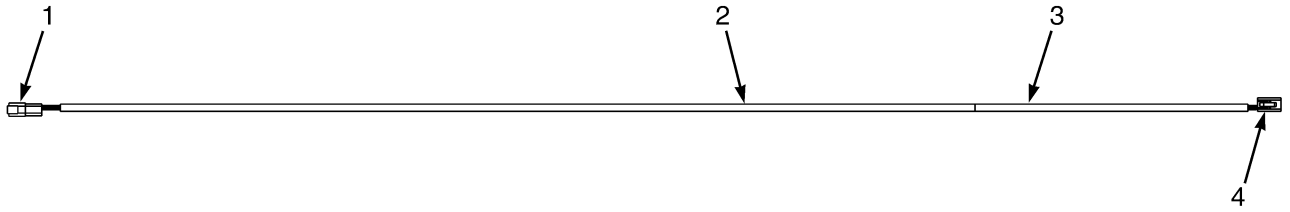
WIRE HARNESS (COWL)
WITH FORWARD AND REVERSE LEVER – OR WITHOUT RETURN TO SET TILT

ITEM	PART NO.	DESCRIPTION	QTY
	4614682	Wire Harness	1
1	.....	Connector Assembly (DPF Display)	1
1	1463189	Connector	1
1	1463196	Connector	1
1	1463139	Terminal	4
2	.....	Connector Assembly (Vehicle Systems Manager)	1
2	1525568	Connector	1
2	1529046	Connector (Secondary Lock) (Secondary Lock)	1
2	1463139	Terminal	7
2	1484377	Plug	5
3	1540388	Conduit	AR
4	275496	Conduit	AR
5	1534828	Clip	1
6	.....	Connector Assembly (Accelerator Pedal Sensor)	1
6	1525584	Connector	1
6	1532571	Terminal	6
7	1509890	Clip	1
8	275495	Conduit	1
9	1509890	Clip	3
10	.....	Connector Assembly (Accumulator Pressure)	2
10	1402849	Connector Body	2
11	275493	Conduit	AR
12	.....	Connector Assembly (Brake Pressure)	1
12	1603021	Connector	1
12	1603236	Connector (Secondary Lock)	1
12	1548517	Terminal (Socket)	3
12	1548519	Seal	3
13	.....	Connector Assembly (Park Brake)	1
13	1700460	Connector	1
13	1700461	Terminal	3
14	.....	Connector Assembly (Brake Pedal)	1
14	1700460	Connector	1
14	1700461	Terminal	3
15	1402816	Clip	1
16	1500899	Clip	2
17	275497	Conduit	AR
18	.....	Connector Assembly (Endcap with Resistor)	1
18	1525577	Connector (With Resistor)	1
19	.....	Connector Assembly (Bus Terminal 1)	1
19	1489656	Connector (4-Way)	1
19	1489657	Connector (Secondary Lock) (Secondary Lock)	1
19	1330438	Terminal (Socket)	4
20	.....	Connector Assembly (Display)	1
20	1525567	Connector	1
20	1529046	Connector (Secondary Lock) (Secondary Lock)	1
20	1484377	Plug	7
20	1463139	Terminal	5
21	.....	Connector Assembly (J1939 Diagnostic)	1
21	1566116	Connector	1
21	1532664	Connector (Secondary Lock)	1

WIRE HARNESS (COWL) WITH FORWARD AND REVERSE LEVER – OR WITHOUT RETURN TO SET TILT

ITEM	PART NO.	DESCRIPTION	QTY
21	1330438	Terminal (Socket)	3
22	1566117	Dust Cap (For Diagnostic Cable)	1
23	.....	Connector Assembly (Horn Button)	1
23	1490242	Connector (2 Way)	1
23	1490243	Connector (Secondary Lock)	1
23	1330438	Terminal (Socket)	2
24	1534282	Clip	1
25	.....	Connector Assembly (Vehicle Systems Manager)	1
25	1525570	Connector	1
25	1529046	Connector (Secondary Lock) (Secondary Lock)	1
25	1463139	Terminal	7
25	1484377	Plug	5
26	.....	Connector Assembly (To Right Hand Chassis Harness)	1
26	1500925	Connector	1
26	1352603	Secondary Lock (Secondary Lock)	1
26	1330437	Terminal (Pin)	8
26	1484377	Plug	4
27	.....	Connector Assembly (To Right Hand Chassis Harness)	1
27	1489656	Connector (4-Way)	1
27	1489657	Connector (Secondary Lock) (Secondary Lock)	1
27	1330438	Terminal (Socket)	4
28	.....	Connector Assembly (Buzzer)	1
28	1484557	Connector (2 Socket)	1
28	1484558	Connector (Secondary Lock)	1
28	1463139	Terminal	2
29	2094490	Kit-Diode	1
30	.....	Connector Assembly (Diode Pack)	1
30	1489656	Connector (4-Way)	1
30	1489657	Connector (Secondary Lock)	1
30	1330438	Terminal (Socket)	2
30	1484377	Plug	2
31	.....	Connector Assembly (End Cap)	1
31	1463184	Connector	1
31	4046140	Connector	1
31	1463193	Connector	1
31	1484377	Plug	1

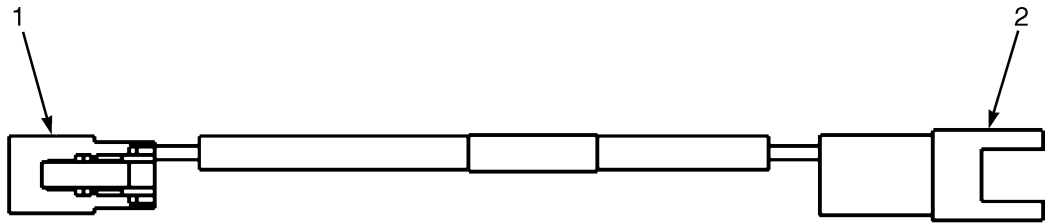
**WIRE HARNESS (FIGURE 5-34)
DPF DISPLAY**



BP081374

ITEM	PART NO.	DESCRIPTION	QTY
	4614617	Wire Harness (DPF Display)	1
1	.....	Connector Assembly	1
1	1463184	Connector	1
1	1463138	Terminal Pin	4
1	4046140	.....	1
	1463193	Connector (Secondary Lock)	1
2	381919	Braiding	AR
3	175944	Heat Shrink	AR
4	.....	Connector Assembly	1
4	1493430	Connector (6 Way Housing)	1
4	1330438	Terminal (Socket)	4
4	1484377	Plug	2
4	1529052	Connector (Secondary Lock) (Secondary Lock)	1

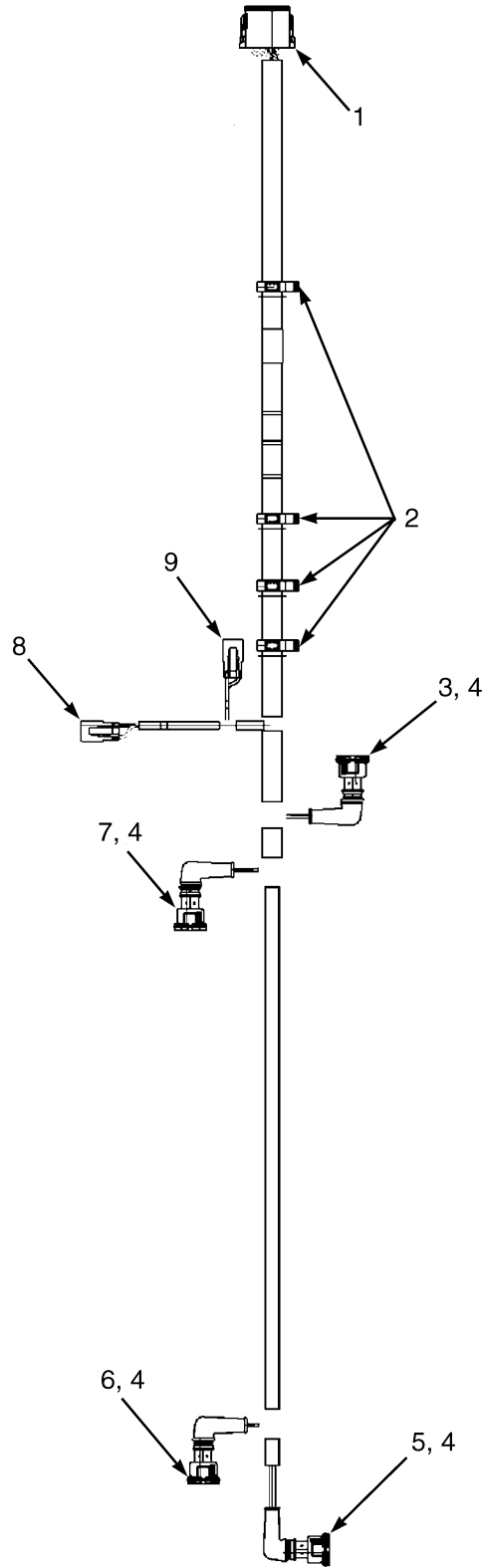
WIRE HARNESS (FIGURE 5-35) ECM



BP081402

ITEM	PART NO.	DESCRIPTION	QTY
	2103224	Wire Harness	1
1	.....	Connector Assembly (CPS181 Plug)	1
1	1490242	Connector (2 Way)	1
1	1490243	Connector (Secondary Lock)	1
1	1363886	Terminal (Socket)	2
2	.....	Connector Assembly (CRP182 Receptacle)	1
2	1493465	Connector (2 Pin)	1
2	1330414	Connector (Secondary Lock)	1
2	1363885	Terminal (Pin)	2

**WIRE HARNESS (FIGURE 5-36)
ELECTRONIC CONTROL VALVE — THREE FUNCTION**

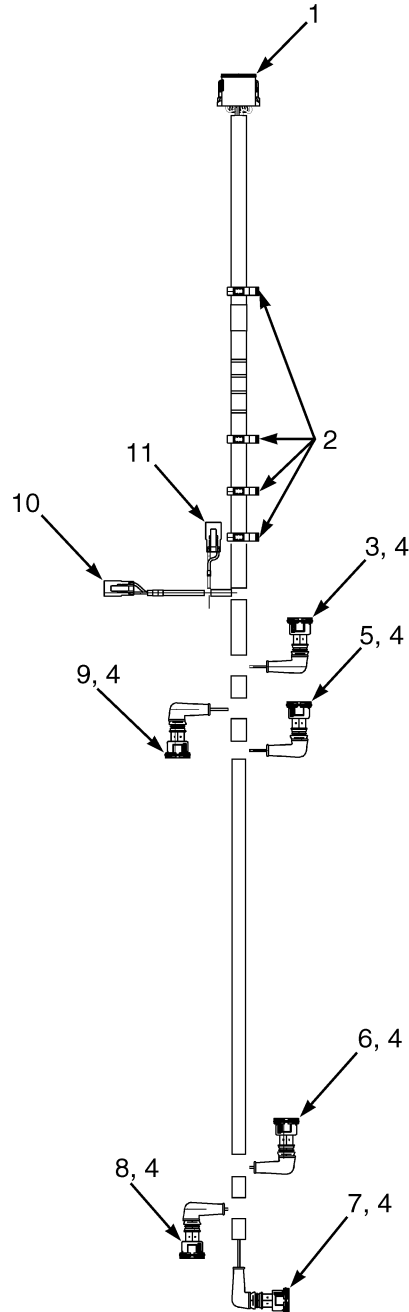


HP081569

**WIRE HARNESS
ELECTRONIC CONTROL VALVE – THREE FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
	2060198	Wire Harness (Control Valve)	1
1	.....	Connector Assembly (Vehicle System Manager)	1
1	1525564	Connector	1
1	1330438	Terminal (Socket)	9
1	1330439	Plug	3
1	1525564	Connector	1
1	1500913	Connector (Secondary Lock)	1
2	1402815	Clip	4
3	.....	Connector Assembly (2A Tilt)	1
3	1531162	Connector	1
3	1562649	Seal	2
3	1402814	Terminal	2
4	190383	Boot	4
5	.....	Connector Assembly (2B Tilt)	1
5	1531162	Connector	1
5	1562649	Seal	2
5	1402814	Terminal	2
6	.....	Connector Assembly (3B Auxiliary 1)	1
6	1493435	Connector (2-Way)	1
6	1562649	Seal	2
6	1402814	Terminal	2
7	.....	Connector Assembly (3A Auxiliary 1)	1
7	1493435	Connector (2-Way)	1
7	1562649	Seal	2
7	1402814	Terminal	2
8	.....	Connector Assembly (Lift)	1
8	1490242	Connector (2 Way)	1
8	1330438	Terminal (Socket)	2
8	1490243	Connector (Secondary Lock)	1
9	.....	Connector Assembly (Lower)	1
9	1490242	Connector (2 Way)	1
9	1330438	Terminal (Socket)	2
9	1490243	Connector (Secondary Lock)	1

WIRE HARNESS (FIGURE 5-37) ELECTRONIC CONTROL VALVE — FOUR FUNCTION

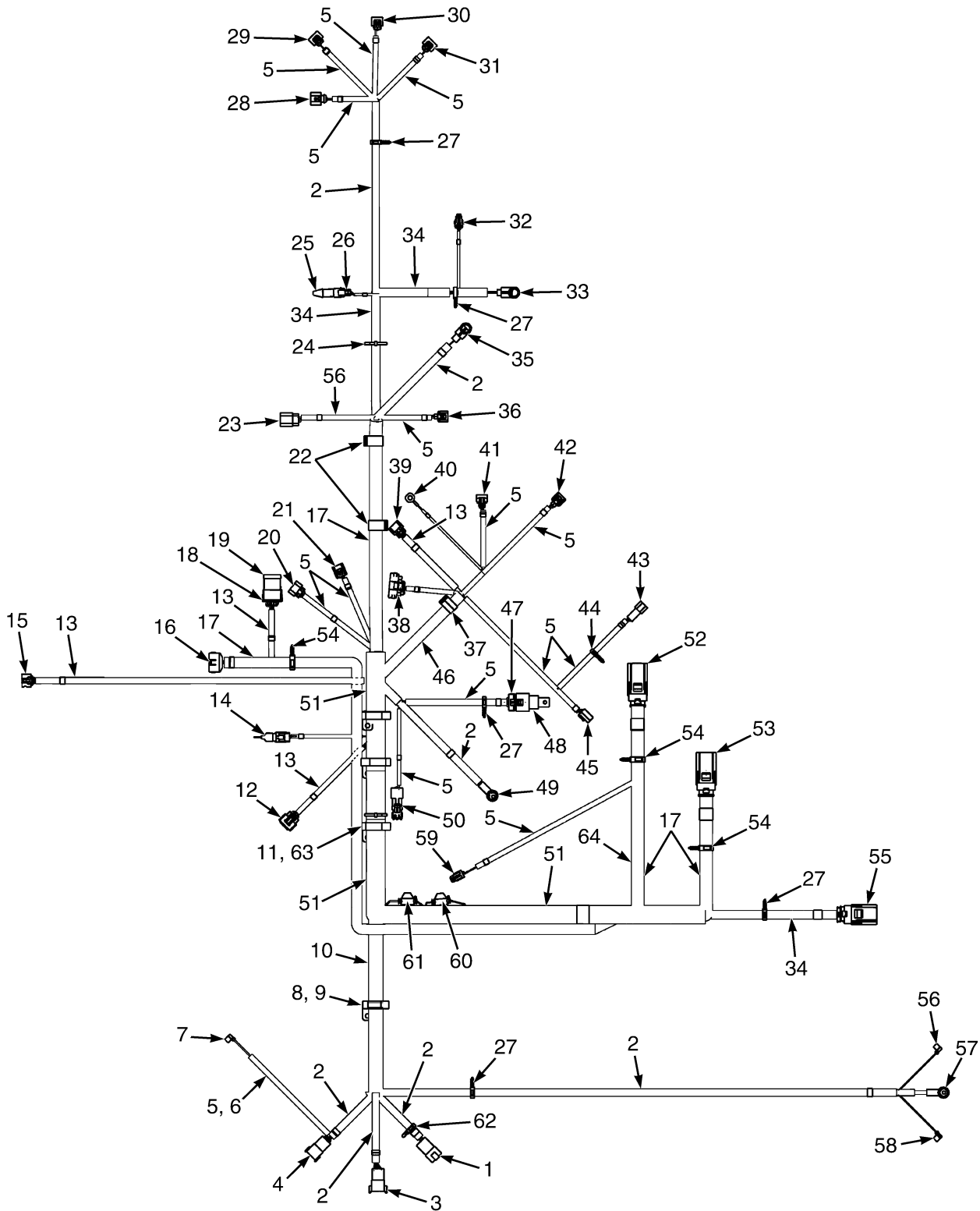


HP081568

**WIRE HARNESS
ELECTRONIC CONTROL VALVE – FOUR FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
	2058909	Wire Harness (Control Valve)	1
1	.....	Connector Assembly (Vehicle System Manager)	1
1	1525564	Connector	1
1	1330438	Terminal (Socket)	12
1	1500913	Connector (Secondary Lock)	1
2	1402815	Clip	4
3	.....	Connector Assembly (2A Tilt)	1
3	1531162	Connector	1
3	1562649	Seal	2
3	1402814	Terminal	2
4	190383	Boot	6
5	1493447	Connector (4A Auxiliary 2)	1
5	1562649	Seal	2
5	1402814	Terminal	2
6	1493447	Connector (4B Auxiliary 2)	1
6	1562649	Seal	2
6	1402814	Terminal	2
7	.....	Connector Assembly (2B Tilt)	1
7	1531162	Connector	1
7	1562649	Seal	2
7	1402814	Terminal	2
8	.....	Connector Assembly (3B Auxiliary 1)	1
8	1493435	Connector (2-Way)	1
8	1562649	Seal	2
8	1402814	Terminal	2
9	.....	Connector Assembly (3A Auxiliary 1)	1
9	1493435	Connector (2-Way)	1
9	1562649	Seal	2
9	1402814	Terminal	2
10	.....	Connector Assembly (Lift)	1
10	1490242	Connector (2 Way)	1
10	1330438	Terminal (Socket)	2
10	1490243	Connector (Secondary Lock)	1
11	.....	Connector Assembly (Lower)	1
11	1490242	Connector (2 Way)	1
11	1330438	Terminal (Socket)	2
11	1490243	Connector (Secondary Lock)	1

WIRE HARNESS (FIGURE 5-38) ENGINE — KUBOTA DIESEL



BP081364

**WIRE HARNESS
ENGINE – KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4610652	Wire Harness (Engine)	1
1	.....	Connector Assembly (RH Chassis Harness)	1
1	1514597	Connector	1
1	866401	Terminal	4
1	1514598	Connector (Secondary Lock) (Secondary Lock)	1
2	275495	Conduit	AR
3	.....	Connector Assembly (RH Chassis Harness)	1
3	1623050	Housing	1
3	1330437	Terminal (Pin)	6
3	1363885	Terminal (Pin)	2
3	1330418	Connector	1
4	.....	Connector Assembly (RH Chassis Harness)	1
4	1541988	Connector (8 Pin)	1
4	1463138	Terminal Pin	8
4	1541989	Connector (Secondary Lock)	1
5	275493	Conduit	AR
6	4044397	Tape-Bulk (FT)	AR
7	1521324	Connector	1
8	1532761	Clip	3
9	1532779	Clip	1
10	1540388	Conduit	AR
11	1532781	Clip	4
12	.....	Connector Assembly (EGR Valve)	1
12	4612971	Connector	1
12	4612978	Terminal	4
12	4614516	Wire Seal	2
12	2314800	Wire Seal	2
13	275494	Conduit	AR
14	.....	Connector Assembly (Can Service Tool)	1
14	2314772	Connector	1
14	2314741	Terminal	4
14	2061333	Wire Seal	4
14	2314773	Connector Lock	1
14	4031365	Resistor (Endcap)	1
15	.....	Connector Assembly (Mass Air Flow)	1
15	4029113	Connector	1
15	4043876	Terminal	5
15	4029117	Wire Seal	5
16	.....	Connector Assembly (Injector)	1
16	4023719	Connector	1
16	4613011	Plug	2
16	1476598	Terminal	8
16	1476599	Seal	8
17	275498	Conduit	AR
18	.....	Connector Assembly (Buss Bar)	1
18	1525564	Connector	1
18	1330438	Terminal (Socket)	12
18	1500913	Connector (Secondary Lock) (Secondary Lock)	1
19	4031497	Connector	1
20	.....	Connector Assembly (Boost Pressure)	1

WIRE HARNESS ENGINE – KUBOTA DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
20	4029387	Connector	1
20	4614848	Wire Seal	3
20	4616915	Terminal	3
21	.....	Connector Assembly (Air Temp)	1
21	4029337	Connector	1
21	1476599	Seal	2
21	4616920	Terminal	2
22	4097704		
	4027764	Clamp	2
23	.....	Connector Assembly (Alternator)	1
23	1302907	Connector	1
23	1302908	Connector Lock	1
23	1302909	Wire Seal	2
23	1302912	Terminal	2
24	137852	Strap Clamp	2
25	4031366	Resistor	1
26	.....	Connector Assembly (Resistor)	1
26	1490242	Connector (2 Way)	1
26	1330438	Terminal (Socket)	2
26	1490243	Connector (Secondary Lock)	1
27	1509890	Clip	5
28	.....	Connector Assembly (Diff Pressure)	1
28	4028634	Connector	1
28	4043877	Terminal	3
28	1607745	Seal	3
29	.....	Connector Assembly (Exhaust Temp 0)	1
29	4043881	Connector	1
29	1476598	Terminal	2
29	1476599	Seal	2
30	.....	Connector Assembly (Exhaust Temp 1)	1
30	4043882	Connector	1
30	1476598	Terminal	2
30	1476599	Seal	2
31	.....	Connector Assembly (Exhaust Temp 2)	1
31	4043880	Connector	1
31	1476598	Terminal	2
31	1476599	Seal	2
32	.....	Connector Assembly (Oil Pressure)	1
32	1603021	Connector	1
32	1548517	Terminal (Socket)	3
32	1548519	Seal	3
32	1603236	Connector (Secondary Lock)	1
33	.....	Connector Assembly (Crank Sensor)	1
33	4029384	Connector	1
33	4029116	Terminal	3
33	4029117	Wire Seal	3
33	4045249	Boot	1
34	275496	Conduit	AR
35	.....	Connector Assembly (Cam Sensor)	1
35	4029383	Connector	1

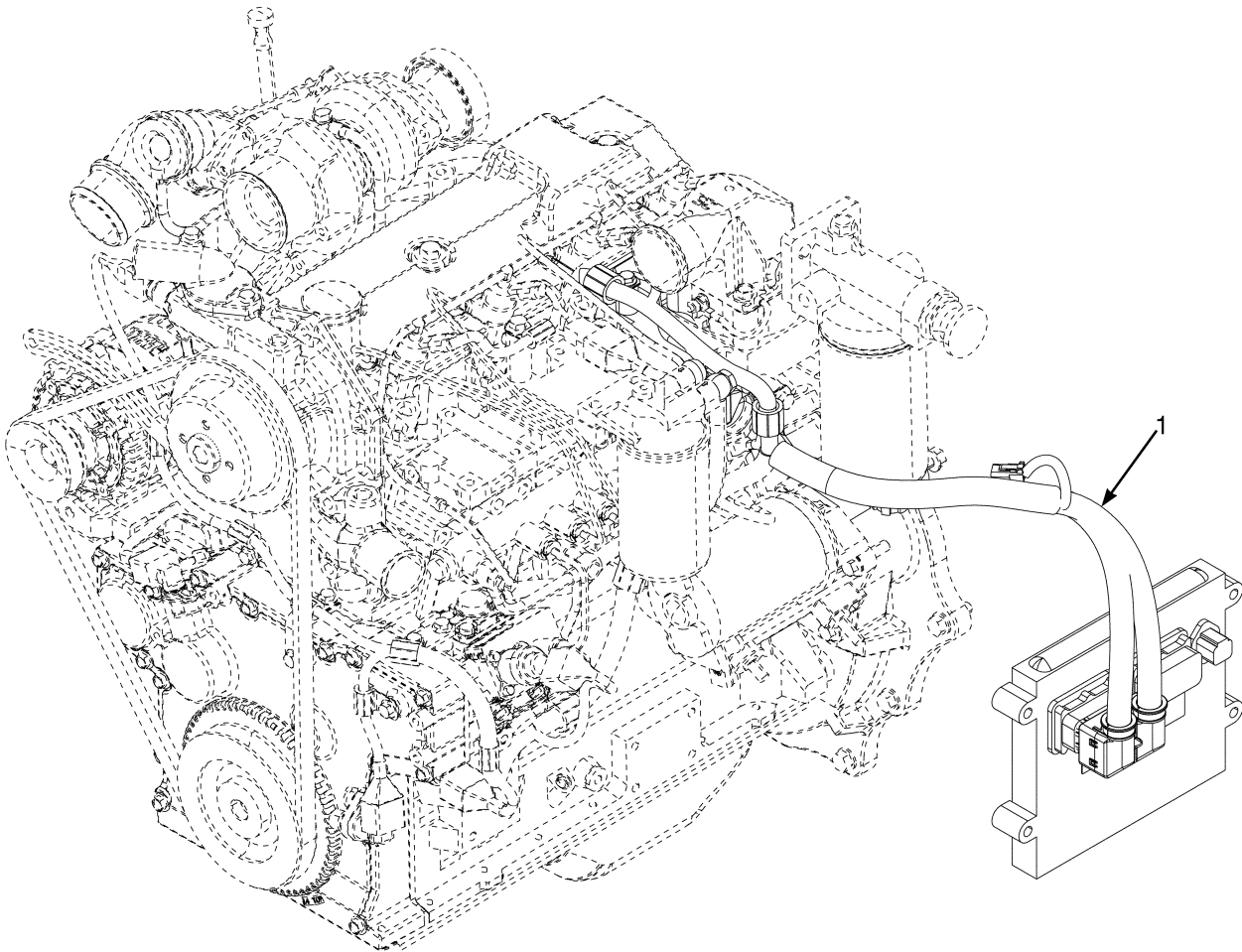
**WIRE HARNESS
ENGINE – KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
35	4029116	Terminal	3
35	4029117	Wire Seal	3
35	4045249	Boot	1
36	.....	Connector Assembly (Coolant Temperature)	1
36	4028633	Connector	1
36	4612829	Terminal	2
36	2061333	Wire Seal	2
37	4027765	Clamp	1
38	.....	Connector Assembly (Intake Throttle)	1
38	1531231	Connector Body	1
38	1476598	Terminal	2
38	4613011	Plug	1
38	4616920	Terminal	3
38	1476599	Seal	5
39	.....	Connector Assembly (Rail Pressure)	1
39	4612835	Connector	1
39	2314741	Terminal	3
39	2061333	Wire Seal	3
39	2314770	Connector Lock	1
40	.....	Connector Assembly (Engine Ground)	1
40	1402620	Ring Terminal	1
41	.....	Connector Assembly (SCV)	1
41	4613118	Connector	1
41	4613092	Terminal	2
41	4613127	Wire Seal	2
42	.....	Connector Assembly (Fuel Temp)	1
42	4028633	Connector	1
42	4612829	Terminal	2
42	2061333	Wire Seal	2
43	.....	Connector Assembly (F/W Separator)	1
43	4028289	Connector	1
43	4036069	Terminal	2
43	4036070	Wire Seal	2
43	4036068	Connector Lock	1
44	1509888	Clip	1
45	.....	Connector Assembly (Feed Pump)	1
45	1308259	Connector Body	1
45	314775	Terminal	2
46	275497	Conduit	AR
47	.....	Connector Assembly (Latch Relay)	1
47	4030503	Connector	1
47	1323581	Plug	1
47	1330283	Terminal	4
48	4039364	Relay	1
49	.....	Connector Assembly (Grid Heater)	1
49	806425	E-Ring	1
49	1520864	Boot	1
50	.....	Connector Assembly (Air Filter)	1
50	1465469	Connector	1
50	1323578	Terminal	2

WIRE HARNESS ENGINE – KUBOTA DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
50	1402888	Seal (Purple)	2
50	1465468	Connector	1
50	1327164	Seal	2
51	1540389	Conduit	AR
52	.....	Connector Assembly (Engine Control Module E01)	1
52	4023784	Connector	1
52	4028287	Plug	36
52	4028286	Terminal	44
53	.....	Connector Assembly (Engine Control Module V01)	1
53	4024084	Connector	1
53	4028287	Plug	46
53	4028286	Terminal	34
54	1509889	Clip	4
55	.....	Connector Assembly (Interface Module)	1
55	4023785	Connector	1
55	4028287	Plug	43
55	4028286	Terminal	13
56	.....	Connector Assembly (Contactor +)	1
56	1402823	Connector	1
57	.....	Connector Assembly (Contactor Out)	1
57	806425	E-Ring	1
57	1520864	Boot	1
58	.....	Connector Assembly (Contactor -)	1
58	1402823	Connector	1
59	.....	Connector Assembly (Fuel Level)	1
59	1476077	Connector	1
59	1323576	Terminal	2
60	.....	Connector Assembly (Start 5A)	1
60	1602431	Fuse Holder	1
60	1498044	Fuse (5 Amp)	1
61	.....	Connector Assembly (IGN 10A)	1
61	1602431	Fuse Holder	1
61	1498046	Fuse (10 Amp)	1
62	1402815	Clip	1
63	1558227	Clip	2
64	275499	Conduit	AR

**WIRE HARNESS (FIGURE 5-39)
ENGINE — CUMMINS QSB 3.3L DIESEL**

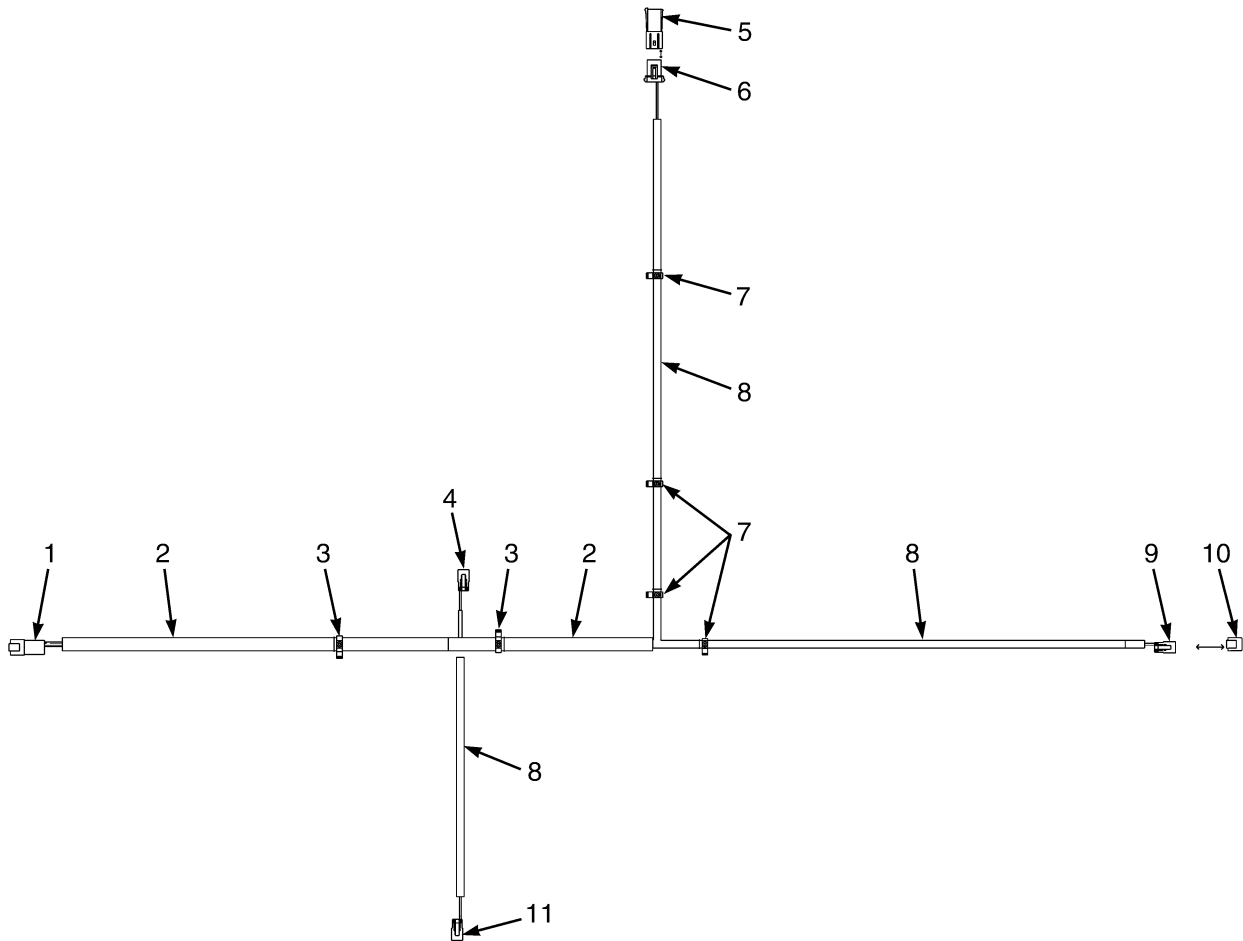


BP090411

WIRE HARNESS
ENGINE – CUMMINS QSB 3.3L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
1	1700243	Wire Harness (Engine)	1

WIRE HARNESS (FIGURE 5-40) REAR — GM 5.7L LPG

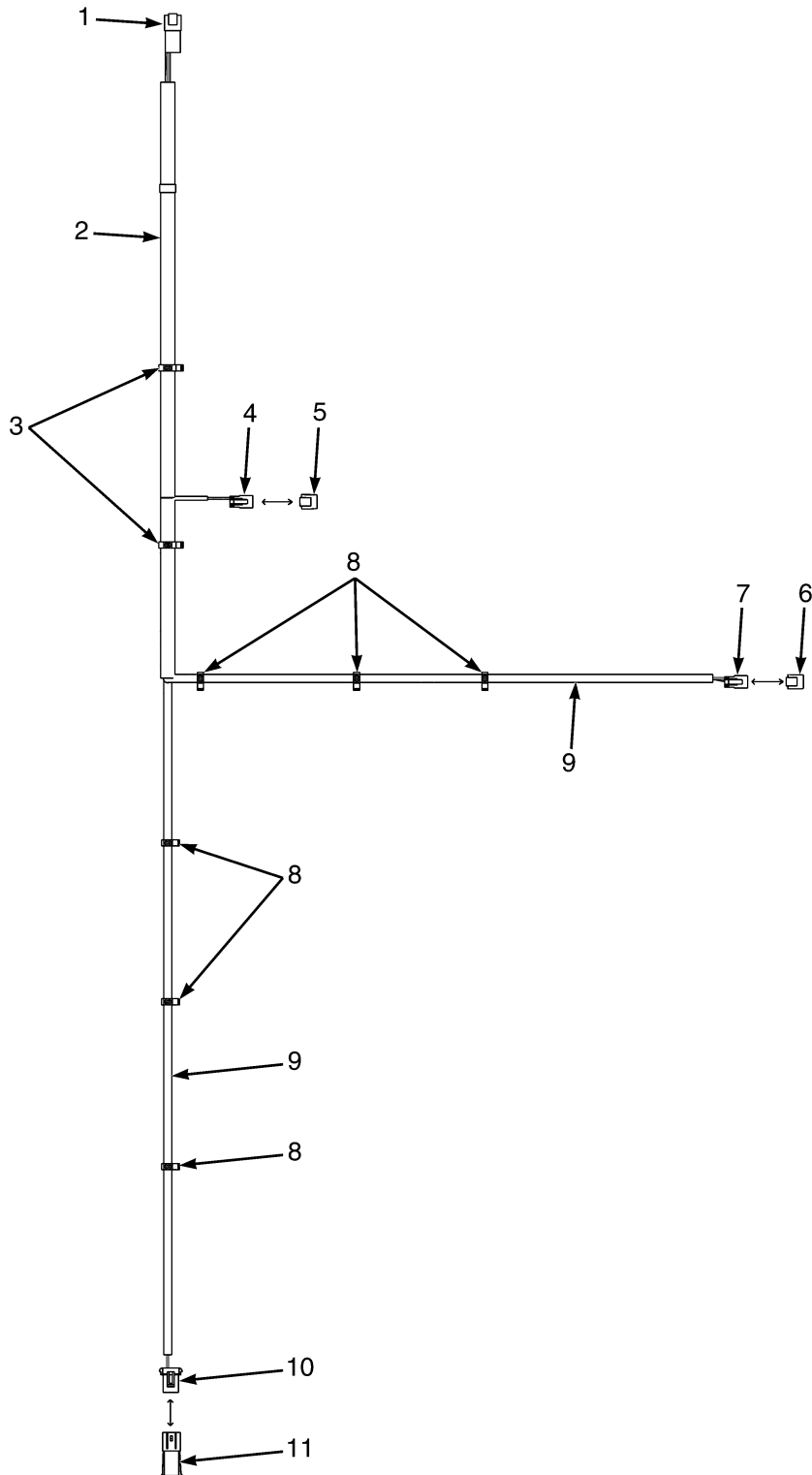


BP080986

**WIRE HARNESS
REAR – GM 5.7L LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	4608714	Wire Harness (Rear)	1
1	.....	Connector Assembly (RH Chassis Harness)	1
1	1402923	Connector	1
1	1330437	Terminal (Pin)	6
1	1330417	Connector (Secondary Lock)	1
2	275496	Conduit	AR
3	1509890	Clip	2
4	.....	Connector Assembly (Hood Switch Harness A)	1
4	1490242	Connector (2 Way)	1
4	1330438	Terminal (Socket)	2
4	1490243	Connector (Secondary Lock)	1
5	.....	Connector Assembly	1
5	1329150	Connector	1
5	1327164	Seal	2
5	1329151	Terminal (Secondary Lock)	1
6	.....	Connector Assembly (Coolant Level)	1
6	4052151	Connector	1
6	1330281	Terminal	2
6	1402888	Seal (Purple)	2
6	1329151	Terminal (Secondary Lock)	1
7	1509888	Clip	4
8	275493	Conduit	AR
9	.....	Connector Assembly (Backup Alarm)	1
9	1490242	Connector (2 Way)	1
9	1330438	Terminal (Socket)	2
9	1490243	Connector (Secondary Lock)	1
10	.....	Connector Assembly	1
10	1402923	Connector	1
11	.....	Connector Assembly (Hood Switch Harness B)	1
11	1490242	Connector (2 Way)	1
11	1330438	Terminal (Socket)	2
11	1490243	Connector (Secondary Lock)	1

WIRE HARNESS (FIGURE 5-41) REAR — KUBOTA DIESEL

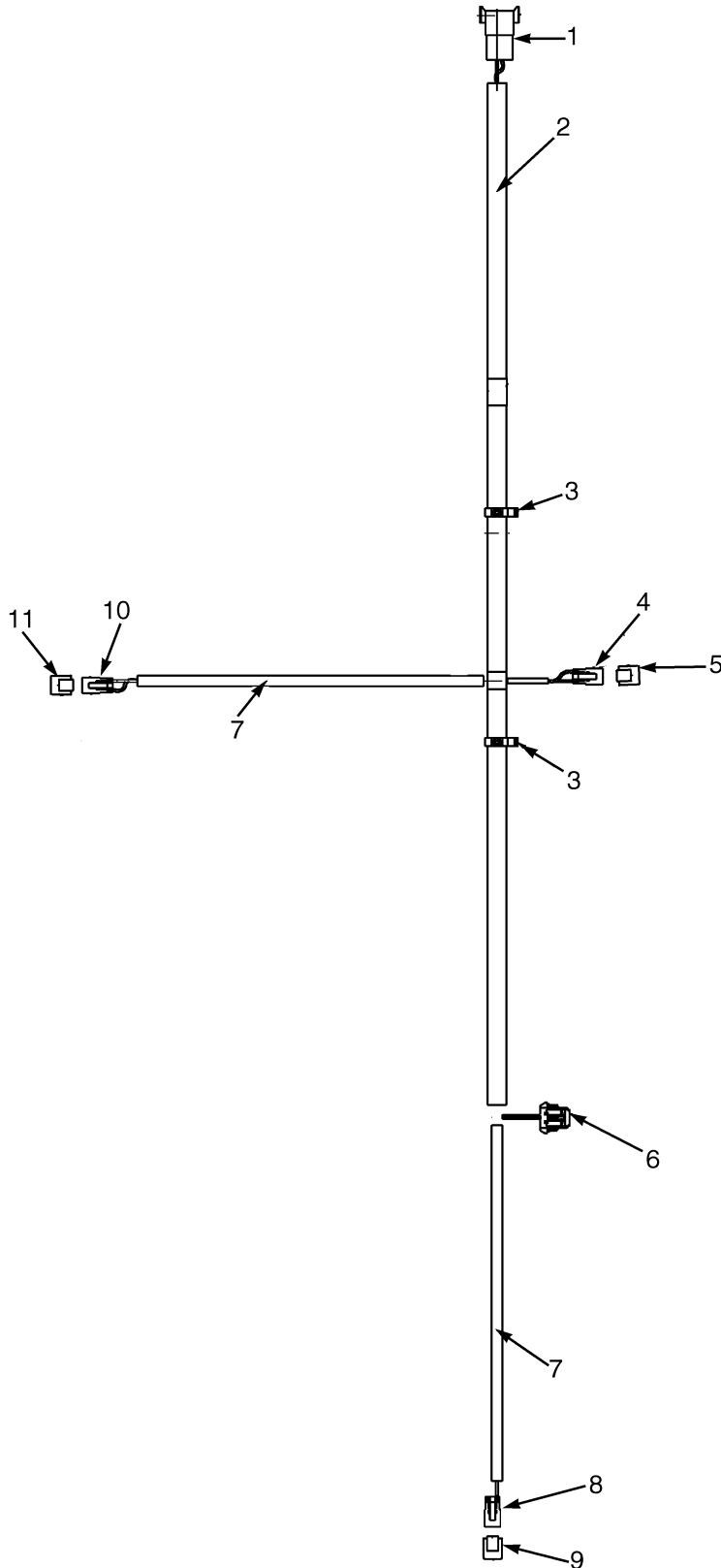


BP081366

**WIRE HARNESS
REAR – KUBOTA DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	4618439	Wire Harness (Rear)	1
1	.....	Connector Assembly (RH Chassis Harness)	1
1	1402923	Connector	1
1	1330437	Terminal (Pin)	6
1	1330417	Connector (Secondary Lock)	1
2	275496	Conduit	AR
3	1509890	Clip	2
4	.....	Connector Assembly (Hood Switch Harness A)	1
4	1490242	Connector (2 Way)	1
4	1330438	Terminal (Socket)	2
4	1490243	Connector (Secondary Lock)	1
5	1626727	Connector (Endcap-Keyswitch Harness Connector)	1
6	1626727	Connector (Endcap-Backup Alarm Connector)	1
7	.....	Connector Assembly (Backup Alarm)	1
7	1490242	Connector (2 Way)	1
7	1330438	Terminal (Socket)	2
7	1490243	Connector (Secondary Lock)	1
8	1509888	Clip	6
9	275493	Conduit	AR
10	.....	Connector Assembly (Coolant Level)	1
10	4052151	Connector	1
10	1330281	Terminal	2
10	1402888	Seal (Purple)	2
10	1329151	Terminal (Secondary Lock)	1
11	.....	Connector Assembly (Endcap-Coolant Level Connector)	1
11	1329150	Connector	1
11	1327164	Seal	2
11	1329151	Terminal (Secondary Lock)	1

**WIRE HARNESS (FIGURE 5-42)
REAR — CUMMINS QSB 3.3L DIESEL**

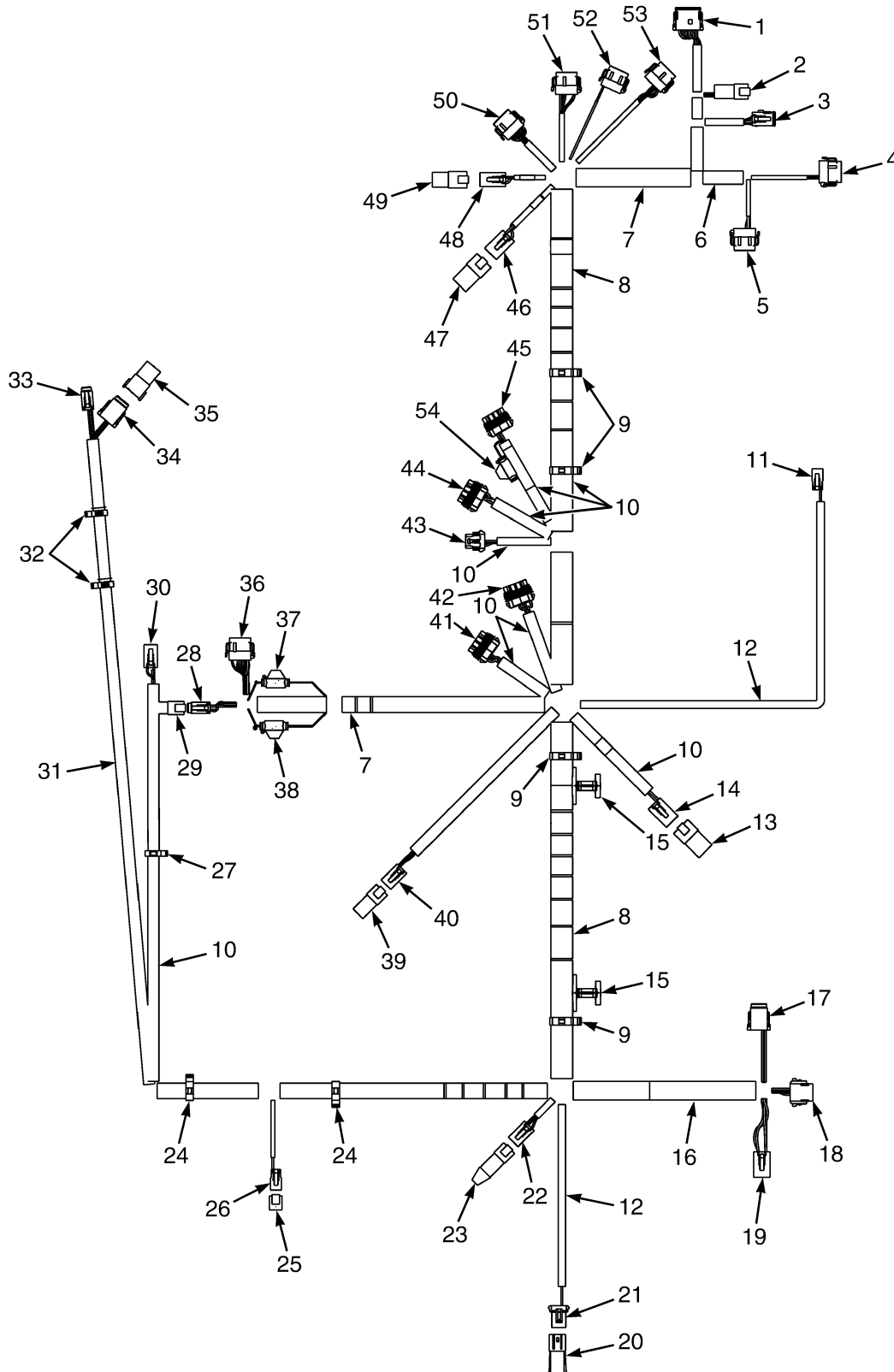


BP080814

**WIRE HARNESS
REAR – CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	2105524	Wire Harness	1
1	.....	Connector Assembly (To Right Hand Chassis Harness)	1
1	1623050	Housing	1
1	1330418	Connector	1
1	1330437	Terminal (Pin)	7
1	1484377	Plug	1
2	275496	Conduit	AR
3	1509890	Clip	2
4	.....	Connector Assembly (To Hood Switch Harness A)	1
4	1490242	Connector (2 Way)	1
4	1490243	Connector (Secondary Lock)	1
4	1330438	Terminal (Socket)	2
5	.....	Connector Assembly (Endcap)	1
5	1626727	Connector	1
6	.....	Connector Assembly (Coolant Level)	1
6	1476067	Connector	1
6	1476109	Connector Lock	1
6	1330355	Terminal	3
6	1476108	Wire Seal (White)	3
7	275493	Conduit	AR
8	.....	Connector Assembly (Back-up Alarm)	1
8	1490242	Connector (2 Way)	1
8	1490243	Connector (Secondary Lock)	1
8	1330438	Terminal (Socket)	2
9	.....	Connector Assembly (Endcap)	1
9	1626727	Connector	1
10	.....	Connector Assembly (To Hood Switch Harness B)	1
10	1490242	Connector (2 Way)	1
10	1490243	Connector (Secondary Lock)	1
10	1330438	Terminal (Socket)	2
11	.....	Connector Assembly (Endcap)	1
11	1626727	Connector	1

WIRE HARNESS (FIGURE 5-43) RH CHASSIS — GM 5.7L AND KUBOTA ENGINES (→ 4/2014)



BP081376

WIRE HARNESS
RH CHASSIS – GM 5.7L AND KUBOTA ENGINES (→ 4/2014)

ITEM	PART NO.	DESCRIPTION	QTY
	4613951	Wire Harness (RH Chassis)	1
1	.....	Connector Assembly (Vehicle System Manager)	1
1	1525563	Connector	1
1	1500913	Connector (Secondary Lock) (Secondary Lock)	1
1	1330438	Terminal (Socket)	8
1	1363886	Terminal (Socket)	4
2	.....	Connector Assembly (To Cowl Harness)	1
2	1489655	Connector (4 Way)	1
2	1330416	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	4
3	.....	Connector Assembly (To Cowl Harness)	1
3	1493428	Connector (12-Way)	1
3	1500913	Connector (Secondary Lock) (Secondary Lock)	1
3	1330438	Terminal (Socket)	11
3	1484377	Plug	1
4	.....	Connector Assembly (Vehicle System Manager)	1
4	1525567	Connector	1
4	1529046	Connector (Secondary Lock) (Secondary Lock)	1
4	1463139	Terminal	3
4	1484377	Plug	9
5	.....	Connector Assembly (Vehicle System Manager)	1
5	1525569	Connector	1
5	1529046	Connector (Secondary Lock) (Secondary Lock)	1
5	1463139	Terminal	3
5	1484377	Plug	9
6	275496	Conduit	AR
7	275497	Conduit	AR
8	1540388	Conduit	AR
9	1534282	Clip	4
10	275495	Conduit	AR
11	.....	Connector Assembly (Hydraulic Solenoid)	1
11	1490242	Connector (2 Way)	1
11	1490243	Connector (Secondary Lock)	1
11	1330438	Terminal (Socket)	2
12	275493	Conduit	AR
13	.....	Connector Assembly (Endcap)	1
13	1514597	Connector	1
13	1330439	Plug	4
14	.....	Connector Assembly (Accessory Two)	1
14	1514602	Connector	1
14	1514603	Connector (Secondary Lock) (Secondary Lock)	1
14	1330439	Plug	1
14	1554359	Terminal	3
15	1620149	Clip	2
16	275498	Conduit	AR
17	.....	Connector Assembly (To Engine Harness)	1
17	1541991	Connector	1
17	1541992	Connector (Secondary Lock) (Secondary Lock)	1
17	1463139	Terminal	8
18	.....	Connector Assembly (To Engine Harness)	1

WIRE HARNESS

RH CHASSIS – GM 5.7L AND KUBOTA ENGINES (→ 4/2014)

ITEM	PART NO.	DESCRIPTION	QTY
18	1502625	Connector	1
18	1502626	Connector (Secondary Lock) (Secondary Lock)	1
18	1330438	Terminal (Socket)	7
18	1363886	Terminal (Socket)	1
19	.....	Connector Assembly (To Engine Harness)	1
19	1514602	Connector	1
19	1514603	Connector (Secondary Lock) (Secondary Lock)	1
19	1554359	Terminal	4
20	.....	Connector Assembly (Endcap)	1
20	1329150	Connector	1
20	1329151	Terminal (Secondary Lock)	1
20	1327164	Seal	2
21	.....	Connector Assembly (Hydraulic Filter)	1
21	1329152	Plug	1
21	1329151	Terminal (Secondary Lock)	1
21	1330281	Terminal	2
21	1402888	Seal (Purple)	2
22	.....	Connector Assembly (Bus Terminal Two)	1
22	1489656	Connector (4-Way)	1
22	1489657	Connector (Secondary Lock)	1
22	1330438	Terminal (Socket)	4
23	.....	Connector Assembly (Endcap)	1
23	1525577	Connector (With Resistor)	1
24	1534329	Clip	2
25	.....	Connector Assembly (Endcap)	1
25	1626727	Connector	1
26	.....	Connector Assembly (Alternate Horn Button)	1
26	1490242	Connector (2 Way)	1
26	1490243	Connector (Secondary Lock)	1
26	1330438	Terminal (Socket)	2
27	1402815	Clip	1
28	.....	Connector Assembly (To Transmission Harness)	1
28	1531973	Connector	1
28	1531974	Connector (Secondary Lock) (Secondary Lock)	1
28	1463139	Terminal	5
28	1484377	Plug	1
29	.....	Connector Assembly (Endcap)	1
29	1530960	Connector	1
29	1484377	Plug	6
30	.....	Connector Assembly (To Rear Harness)	1
30	1493430	Connector (6 Way Housing)	1
30	1529052	Connector (Secondary Lock) (Secondary Lock)	1
30	1330438	Terminal (Socket)	6
31	1699754	Conduit	1
32	1509890	Clip	2
33	.....	Connector Assembly (To Seat Harness)	1
33	1531973	Connector	1
33	1531974	Connector (Secondary Lock) (Secondary Lock)	1
33	1463139	Terminal	4
33	1484377	Plug	2

WIRE HARNESS
RH CHASSIS – GM 5.7L AND KUBOTA ENGINES (→ 4/2014)

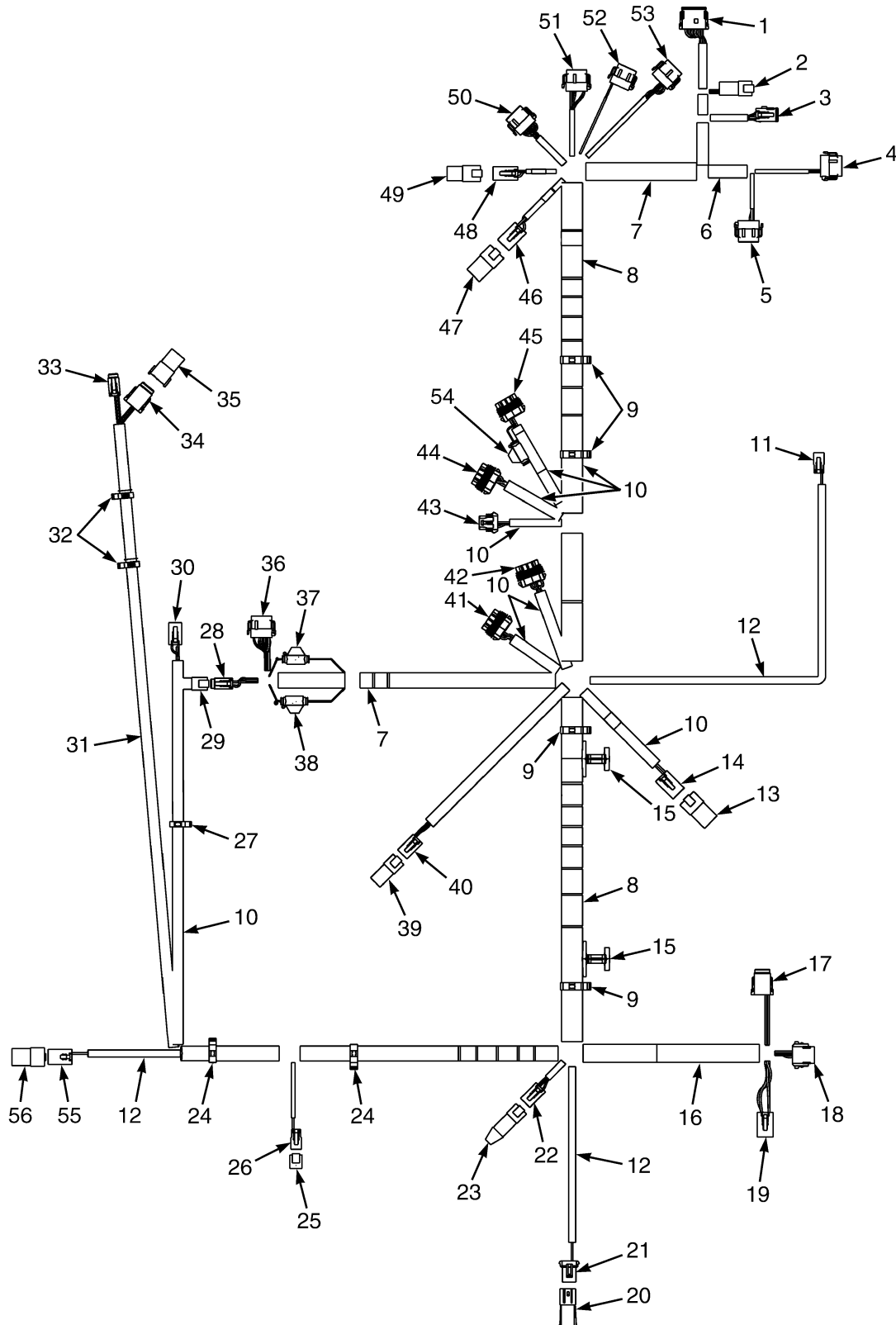
ITEM	PART NO.	DESCRIPTION	QTY
34	.....	Connector Assembly (To MLM Harness)	1
34	1541991	Connector	1
34	1541992	Connector (Secondary Lock) (Secondary Lock)	1
34	1463139	Terminal	5
34	1484377	Plug	3
35	.....	Connector Assembly (Endcap)	1
35	1541988	Connector (8 Pin)	1
35	1484377	Plug	2
36	.....	Connector Assembly (To Transmission Harness)	1
36	1525567	Connector	1
36	1529046	Connector (Secondary Lock) (Secondary Lock)	1
36	1463139	Terminal	12
37	.....	Connector Assembly (Ignition Fuse)	1
37	1602431	Fuse Holder	1
37	1498045	Fuse (7.5 Amp)	1
38	.....	Connector Assembly (Battery Fuse)	1
38	1602431	Fuse Holder	1
38	1498045	Fuse (7.5 Amp)	1
39	.....	Connector Assembly (Endcap)	1
39	1525573	Connector	1
40	.....	Connector Assembly (Impact Sensor)	1
40	1489656	Connector (4-Way)	1
40	1489657	Connector (Secondary Lock) (Secondary Lock)	1
40	1330438	Terminal (Socket)	4
41	.....	Connector Assembly (Power Distribution Module)	1
41	1521183	Connector	1
41	1521188	Lock	1
41	1323579	Seal	7
41	1327164	Seal	1
41	1330281	Terminal	4
41	1521989	Terminal	3
42	.....	Connector Assembly (Power Distribution Module)	1
42	1521184	Connector	1
42	1521188	Lock	1
42	1323579	Seal	6
42	1327164	Seal	1
42	1330281	Terminal	5
42	1521989	Terminal	2
42	1402888	Seal (Purple)	1
43	.....	Connector Assembly (Horn)	1
43	1476064	Connector	1
43	1476109	Connector Lock	1
43	1330356	Seal	2
43	1330355	Terminal	3
43	1476108	Wire Seal (White)	1
44	.....	Connector Assembly (Power Distribution Module)	1
44	1521186	Connector	1
44	1521188	Lock	1
44	1327164	Seal	1
44	1323579	Seal	7

WIRE HARNESS

RH CHASSIS – GM 5.7L AND KUBOTA ENGINES (→ 4/2014)

ITEM	PART NO.	DESCRIPTION	QTY
44	1521989	Terminal	7
45	.....	Connector Assembly (Power Distribution Module)	1
45	1521185	Connector	1
45	1521188	Lock	1
45	1323579	Seal	8
45	1330281	Terminal	5
45	1521989	Terminal	3
46	.....	Connector Assembly (To Lights/Cab Harness)	1
46	1514602	Connector	1
46	1514603	Connector (Secondary Lock) (Secondary Lock)	1
46	1554359	Terminal	4
47	.....	Connector Assembly (Endcap)	1
47	1514597	Connector	1
47	1330439	Plug	4
48	.....	Connector Assembly (Accessory One)	1
48	1546697	Connector (Secondary Lock)	1
48	1545202	Connector	1
48	1554359	Terminal	2
49	.....	Connector Assembly (Endcap)	1
49	1480187	Connector	1
49	1330439	Plug	2
50	.....	Connector Assembly (Vehicle System Manager)	1
50	1525567	Connector	1
50	1530037	Connector (Secondary Lock) (Secondary Lock)	1
50	1463139	Terminal	9
50	1484377	Plug	3
51	.....	Connector Assembly (Vehicle System Manager)	1
51	1525568	Connector	1
51	1530037	Connector (Secondary Lock) (Secondary Lock)	1
51	1463139	Terminal	6
51	1484377	Plug	6
52	.....	Connector Assembly (Vehicle System Manager)	1
52	1525569	Connector	1
52	1530037	Connector (Secondary Lock)	1
52	1484377	Plug	11
52	1463139	Terminal	1
53	.....	Connector Assembly (Vehicle System Manager)	1
53	1525570	Connector	1
53	1530037	Connector (Secondary Lock) (Secondary Lock)	1
53	1463139	Terminal	4
53	1484377	Plug	8
54	.....	Connector Assembly (Aux. Ignition 3 Fuse)	1
54	1602431	Fuse Holder	1

WIRE HARNESS (FIGURE 5-44) RH CHASSIS — GM 5.7L AND KUBOTA ENGINES (4/2014 →)



BP081701

WIRE HARNESS
RH CHASSIS – GM 5.7L AND KUBOTA ENGINES (4/2014 →)

ITEM	PART NO.	DESCRIPTION	QTY
	4630271	Wire Harness (RH Chassis)	1
1	.....	Connector Assembly (Vehicle System Manager)	1
1	1525563	Connector	1
1	1500913	Connector (Secondary Lock) (Secondary Lock)	1
1	1330438	Terminal (Socket)	8
1	1363886	Terminal (Socket)	4
2	.....	Connector Assembly (To Cowl Harness)	1
2	1489655	Connector (4 Way)	1
2	1330416	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	4
3	.....	Connector Assembly (To Cowl Harness)	1
3	1493428	Connector (12-Way)	1
3	1500913	Connector (Secondary Lock) (Secondary Lock)	1
3	1330438	Terminal (Socket)	11
3	1484377	Plug	1
4	.....	Connector Assembly (Vehicle System Manager)	1
4	1525567	Connector	1
4	1529046	Connector (Secondary Lock) (Secondary Lock)	1
4	1463139	Terminal	3
4	1484377	Plug	9
5	.....	Connector Assembly (Vehicle System Manager)	1
5	1525569	Connector	1
5	1529046	Connector (Secondary Lock) (Secondary Lock)	1
5	1463139	Terminal	3
5	1484377	Plug	9
6	275496	Conduit	AR
7	275497	Conduit	AR
8	1540388	Conduit	AR
9	1534282	Clip	4
10	275495	Conduit	AR
11	.....	Connector Assembly (Hydraulic Solenoid)	1
11	1490242	Connector (2 Way)	1
11	1490243	Connector (Secondary Lock)	1
11	1330438	Terminal (Socket)	2
12	275493	Conduit	AR
13	.....	Connector Assembly (Endcap)	1
13	4047669	Connector	1
13	1330439	Plug	4
14	.....	Connector Assembly (Accessory Two)	1
14	1632865	Connector	1
14	1514603	Connector (Secondary Lock) (Secondary Lock)	1
14	1330439	Plug	1
14	1554359	Terminal	3
15	1620149	Clip	2
16	275498	Conduit	AR
17	.....	Connector Assembly (To Engine Harness)	1
17	1541991	Connector	1
17	1541992	Connector (Secondary Lock) (Secondary Lock)	1
17	1463139	Terminal	8
18	.....	Connector Assembly (To Engine Harness)	1

WIRE HARNESS

RH CHASSIS – GM 5.7L AND KUBOTA ENGINES (4/2014 →)

ITEM	PART NO.	DESCRIPTION	QTY
18	1502625	Connector	1
18	1502626	Connector (Secondary Lock) (Secondary Lock)	1
18	1330438	Terminal (Socket)	7
18	1363886	Terminal (Socket)	1
19	.....	Connector Assembly (To Engine Harness)	1
19	1632865	Connector	1
19	1514603	Connector (Secondary Lock) (Secondary Lock)	1
19	1554359	Terminal	4
20	.....	Connector Assembly (Endcap)	1
20	1329150	Connector	1
20	1329151	Terminal (Secondary Lock)	1
20	1327164	Seal	2
21	.....	Connector Assembly (Hydraulic Filter)	1
21	1329152	Plug	1
21	1329151	Terminal (Secondary Lock)	1
21	1330281	Terminal	2
21	1402888	Seal (Purple)	2
22	.....	Connector Assembly (Bus Terminal Two)	1
22	1489656	Connector (4-Way)	1
22	1489657	Connector (Secondary Lock)	1
22	1330438	Terminal (Socket)	4
23	.....	Connector Assembly (Endcap)	1
23	4036523	Cap	1
24	1534329	Clip	2
25	.....	Connector Assembly (Endcap)	1
25	1626727	Connector	1
26	.....	Connector Assembly (Alternate Horn Button)	1
26	1490242	Connector (2 Way)	1
26	1490243	Connector (Secondary Lock)	1
26	1330438	Terminal (Socket)	2
27	1402815	Clip	1
28	.....	Connector Assembly (To Transmission Harness)	1
28	1531973	Connector	1
28	1531974	Connector (Secondary Lock) (Secondary Lock)	1
28	1463139	Terminal	5
28	1484377	Plug	1
29	.....	Connector Assembly (Endcap)	1
29	1530960	Connector	1
29	1484377	Plug	6
30	.....	Connector Assembly (To Rear Harness)	1
30	1493430	Connector (6 Way Housing)	1
30	1529052	Connector (Secondary Lock) (Secondary Lock)	1
30	1330438	Terminal (Socket)	6
31	1699754	Conduit	1
32	1509890	Clip	2
33	.....	Connector Assembly (To Seat Harness)	1
33	1531973	Connector	1
33	1531974	Connector (Secondary Lock) (Secondary Lock)	1
33	1463139	Terminal	4
33	1484377	Plug	2

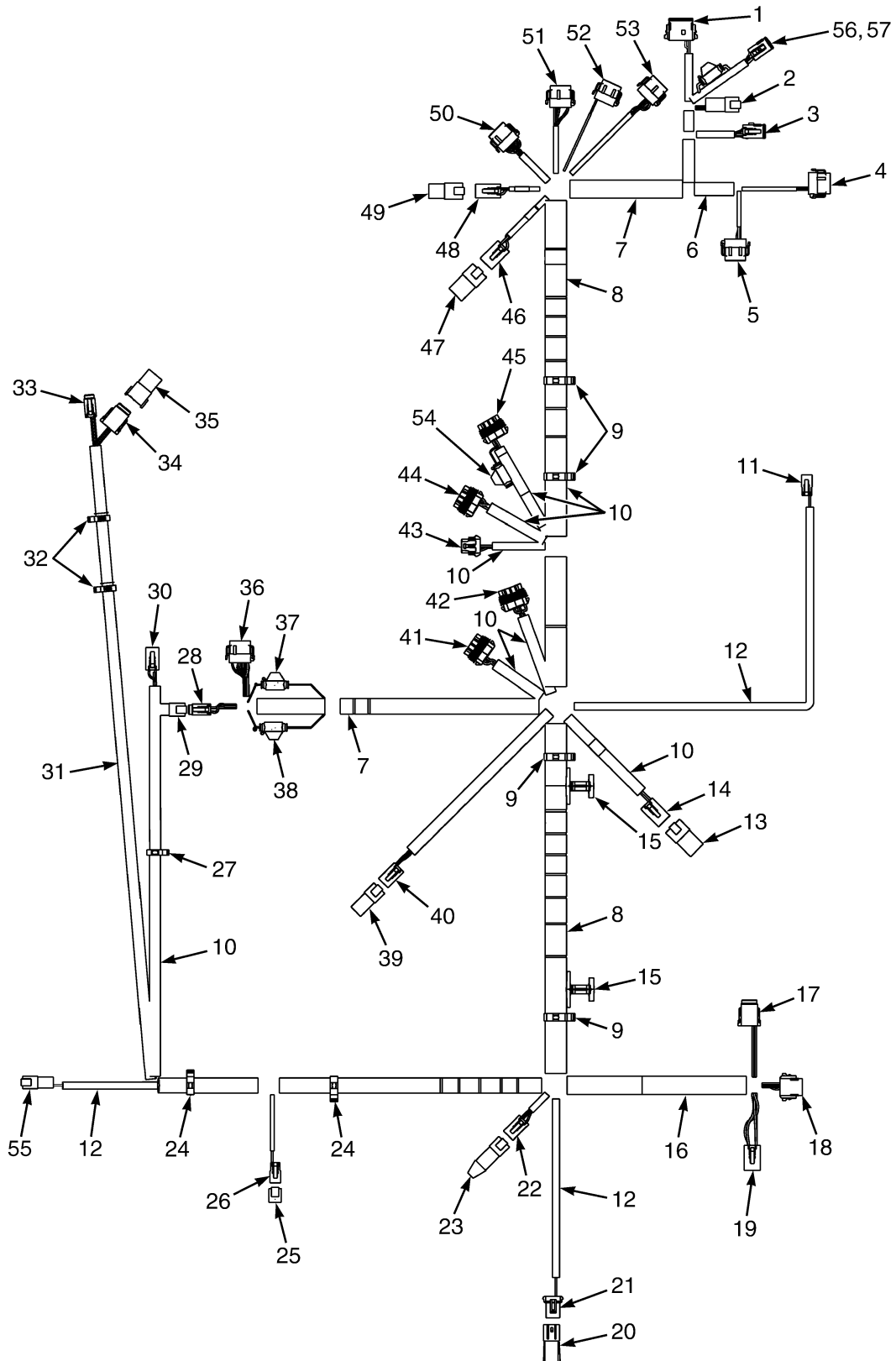
WIRE HARNESS
RH CHASSIS – GM 5.7L AND KUBOTA ENGINES (4/2014 →)

ITEM	PART NO.	DESCRIPTION	QTY
34	.....	Connector Assembly (To MLM Harness)	1
34	1541991	Connector	1
34	1541992	Connector (Secondary Lock) (Secondary Lock)	1
34	1463139	Terminal	5
34	1484377	Plug	3
35	.....	Connector Assembly (Endcap)	1
35	1541988	Connector (8 Pin)	1
35	1484377	Plug	2
36	.....	Connector Assembly (To Transmission Harness)	1
36	1525567	Connector	1
36	1529046	Connector (Secondary Lock) (Secondary Lock)	1
36	1463139	Terminal	12
37	.....	Connector Assembly (Ignition Fuse)	1
37	1602431	Fuse Holder	1
37	1498045	Fuse (7.5 Amp)	1
38	.....	Connector Assembly (Battery Fuse)	1
38	1602431	Fuse Holder	1
38	1498045	Fuse (7.5 Amp)	1
39	.....	Connector Assembly (Endcap)	1
39	1525573	Connector	1
40	.....	Connector Assembly (Impact Sensor)	1
40	1489656	Connector (4-Way)	1
40	1489657	Connector (Secondary Lock) (Secondary Lock)	1
40	1330438	Terminal (Socket)	4
41	.....	Connector Assembly (Power Distribution Module)	1
41	1521183	Connector	1
41	1521188	Lock	1
41	1323579	Seal	7
41	1327164	Seal	1
41	1330281	Terminal	4
41	1521989	Terminal	3
42	.....	Connector Assembly (Power Distribution Module)	1
42	1521184	Connector	1
42	1521188	Lock	1
42	1323579	Seal	6
42	1327164	Seal	1
42	1330281	Terminal	5
42	1521989	Terminal	2
42	1402888	Seal (Purple)	1
43	.....	Connector Assembly (Horn)	1
43	1476064	Connector	1
43	1476109	Connector Lock	1
43	1330356	Seal	2
43	1330355	Terminal	3
43	1476108	Wire Seal (White)	1
44	.....	Connector Assembly (Power Distribution Module)	1
44	1521186	Connector	1
44	1521188	Lock	1
44	1327164	Seal	1
44	1323579	Seal	7

WIRE HARNESS RH CHASSIS – GM 5.7L AND KUBOTA ENGINES (4/2014 →)

ITEM	PART NO.	DESCRIPTION	QTY
44	1521989	Terminal	7
45	.....	Connector Assembly (Power Distribution Module)	1
45	1521185	Connector	1
45	1521188	Lock	1
45	1323579	Seal	8
45	1330281	Terminal	5
45	1521989	Terminal	3
46	.....	Connector Assembly (To Lights/Cab Harness)	1
46	1632865	Connector	1
46	1514603	Connector (Secondary Lock) (Secondary Lock)	1
46	1554359	Terminal	4
47	.....	Connector Assembly (Endcap)	1
47	4047664	Connector	1
47	1330439	Plug	4
48	.....	Connector Assembly (Accessory One)	1
48	1546697	Connector (Secondary Lock)	1
48	4047664	Connector	1
48	1554359	Terminal	2
49	.....	Connector Assembly (Endcap)	1
49	4060737	Connector	1
49	1330439	Plug	2
50	.....	Connector Assembly (Vehicle System Manager)	1
50	1525567	Connector	1
50	1530037	Connector (Secondary Lock) (Secondary Lock)	1
50	1463139	Terminal	9
50	1484377	Plug	3
51	.....	Connector Assembly (Vehicle System Manager)	1
51	1525568	Connector	1
51	1530037	Connector (Secondary Lock) (Secondary Lock)	1
51	1463139	Terminal	6
51	1484377	Plug	6
52	.....	Connector Assembly (Vehicle System Manager)	1
52	1525569	Connector	1
52	1530037	Connector (Secondary Lock)	1
52	1484377	Plug	11
52	1463139	Terminal	1
53	.....	Connector Assembly (Vehicle System Manager)	1
53	1525570	Connector	1
53	1530037	Connector (Secondary Lock) (Secondary Lock)	1
53	1463139	Terminal	4
53	1484377	Plug	8
54	.....	Connector Assembly (Aux. Ignition 3 Fuse)	1
54	1602431	Fuse Holder	1
55	.....	Connector Assembly (To Seat Switch Harness)	1
55	1632865	Connector	1
55	1514603	Connector (Secondary Lock)	1
55	1554359	Terminal	4
56	.....	Connector Assembly (End Cap)	1
56	4047669	Connector	1
56	1330439	Plug	4

WIRE HARNESS (FIGURE 5-45) RH CHASSIS — GM 5.7 AND KUBOTA 3.8L WITH SEAT BELT SEQUENCE MODULE



BP081715

WIRE HARNESS
RH CHASSIS – GM 5.7 AND KUBOTA 3.8L WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
	4635138	Wire Harness (RH Chassis)	1
1	.....	Connector Assembly (Vehicle System Manager)	1
1	1525563	Connector	1
1	1500913	Connector (Secondary Lock)	1
1	1330438	Terminal (Socket)	8
1	1363886	Terminal (Socket)	4
2	.....	Connector Assembly (To Cowl Harness)	1
2	1489655	Connector (4 Way)	1
2	1330416	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	4
3	.....	Connector Assembly (To Cowl Harness)	1
3	1493428	Connector (12-Way)	1
3	1500913	Connector (Secondary Lock)	1
3	1330438	Terminal (Socket)	11
3	1484377	Plug	1
4	.....	Connector Assembly (Vehicle System Manager)	1
4	1525567	Connector	1
4	1529046	Connector (Secondary Lock) (Secondary Lock)	1
4	1463139	Terminal	3
4	1484377	Plug	9
5	.....	Connector Assembly (Vehicle System Manager)	1
5	1525569	Connector	1
5	1529046	Connector (Secondary Lock) (Secondary Lock)	1
5	1463139	Terminal	3
5	1484377	Plug	9
6	275496	Conduit	AR
7	275497	Conduit	AR
8	1540388	Conduit	AR
9	1534282	Clip	4
10	275495	Conduit	AR
11	.....	Connector Assembly (Hydraulic Solenoid)	1
11	1490242	Connector (2 Way)	1
11	1490243	Connector (Secondary Lock)	1
11	1330438	Terminal (Socket)	2
12	275493	Conduit	AR
13	.....	Connector Assembly (Endcap)	1
13	4047669	Connector	1
13	1330439	Plug	4
14	.....	Connector Assembly (Accessory Two)	1
14	1632865	Connector	1
14	1514603	Connector (Secondary Lock)	1
14	1330439	Plug	1
14	1554359	Terminal	3
15	1620149	Clip	2
16	275498	Conduit	AR
17	.....	Connector Assembly (To Engine Harness)	1
17	1541991	Connector	1
17	1541992	Connector (Secondary Lock) (Secondary Lock)	1
17	1463139	Terminal	8
18	.....	Connector Assembly (To Engine Harness)	1

WIRE HARNESS

RH CHASSIS – GM 5.7 AND KUBOTA 3.8L WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
18	1502625	Connector	1
18	1502626	Connector (Secondary Lock) (Secondary Lock)	1
18	1330438	Terminal (Socket)	7
18	1363886	Terminal (Socket)	1
19	.....	Connector Assembly (To Engine Harness)	1
19	1632865	Connector	1
19	1514603	Connector (Secondary Lock)	1
19	1554359	Terminal	4
20	.....	Connector Assembly (Endcap)	1
20	1329150	Connector	1
20	1329151	Terminal	1
20	1327164	Seal	2
21	.....	Connector Assembly (Hydraulic Filter)	1
21	1329152	Plug	1
21	1329151	Terminal	1
21	1330281	Terminal	2
21	1402888	Seal (Purple)	2
22	.....	Connector Assembly (Bus Terminal Two)	1
22	1489656	Connector (4-Way)	1
22	1489657	Connector (Secondary Lock)	1
22	1330438	Terminal (Socket)	4
23	.....	Connector Assembly (Endcap)	1
23	4036523	Cap	1
24	1534329	Clip	2
25	.....	Connector Assembly (Endcap)	1
25	1626727	Connector	1
26	.....	Connector Assembly (Alternate Horn Button)	1
26	1490242	Connector (2 Way)	1
26	1490243	Connector (Secondary Lock)	1
26	1330438	Terminal (Socket)	2
27	1402815	Clip	1
28	.....	Connector Assembly (To Transmission Harness)	1
28	1531973	Connector	1
28	1531974	Connector (Secondary Lock)	1
28	1463139	Terminal	5
28	1484377	Plug	1
29	.....	Connector Assembly (Endcap)	1
29	1530960	Connector	1
29	1484377	Plug	6
30	.....	Connector Assembly (To Rear Harness)	1
30	1493430	Connector (6 Way Housing)	1
30	1529052	Connector (Secondary Lock) (Secondary Lock)	1
30	1330438	Terminal (Socket)	6
31	1699754	Conduit	1
32	1509890	Clip	2
33	.....	Connector Assembly (To Seat Harness)	1
33	1531973	Connector	1
33	1531974	Connector (Secondary Lock)	1
33	1463139	Terminal	4
33	1484377	Plug	2

WIRE HARNESS
RH CHASSIS – GM 5.7 AND KUBOTA 3.8L WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
34	.....	Connector Assembly (To MLM Harness)	1
34	1541991	Connector	1
34	1541992	Connector (Secondary Lock) (Secondary Lock)	1
34	1463139	Terminal	5
34	1484377	Plug	3
35	.....	Connector Assembly (Endcap)	1
35	1541988	Connector (8 Pin)	1
35	1484377	Plug	2
36	.....	Connector Assembly (To Transmission Harness)	1
36	1525567	Connector	1
36	1529046	Connector (Secondary Lock) (Secondary Lock)	1
36	1463139	Terminal	12
37	.....	Connector Assembly (Ignition Fuse)	1
37	1602431	Fuse Holder	1
37	1498045	Fuse (7.5 Amp)	1
38	.....	Connector Assembly (Battery Fuse)	1
38	1602431	Fuse Holder	1
38	1498045	Fuse (7.5 Amp)	1
39	.....	Connector Assembly (Endcap)	1
39	1525573	Connector	1
40	.....	Connector Assembly (Impact Sensor)	1
40	1489656	Connector (4-Way)	1
40	1489657	Connector (Secondary Lock) (Secondary Lock)	1
40	1330438	Terminal (Socket)	4
41	.....	Connector Assembly (Power Distribution Module)	1
41	1521183	Connector	1
41	1521188	Lock	1
41	1323579	Seal	7
41	1327164	Seal	1
41	1330281	Terminal	4
41	1521989	Terminal	3
42	.....	Connector Assembly (Power Distribution Module)	1
42	1521184	Connector	1
42	1521188	Lock	1
42	1323579	Seal	6
42	1327164	Seal	1
42	1330281	Terminal	5
42	1521989	Terminal	2
42	1402888	Seal (Purple)	1
43	.....	Connector Assembly (Horn)	1
43	1476064	Connector	1
43	1476109	Connector Lock	1
43	1330356	Seal	2
43	1330355	Terminal	3
43	1476108	Wire Seal (White)	1
44	.....	Connector Assembly (Power Distribution Module)	1
44	1521186	Connector	1
44	1521188	Lock	1
44	1327164	Seal	1
44	1323579	Seal	7

WIRE HARNESS

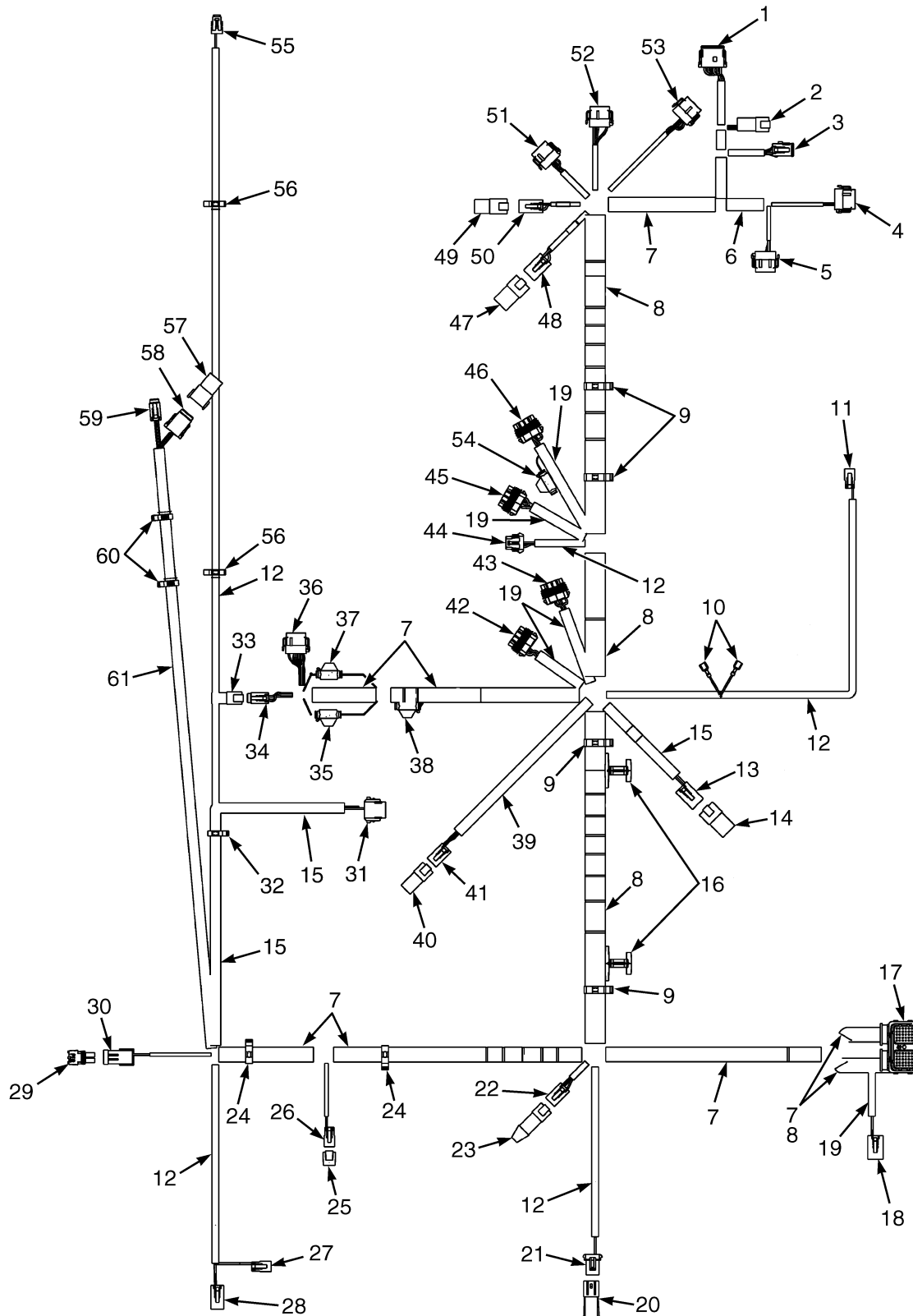
RH CHASSIS – GM 5.7 AND KUBOTA 3.8L WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
44	1521989	Terminal	7
45	.....	Connector Assembly (Power Distribution Module)	1
45	1521185	Connector	1
45	1521188	Lock	1
45	1323579	Seal	8
45	1330281	Terminal	5
45	1521989	Terminal	3
46	.....	Connector Assembly (To Lights/Cab Harness)	1
46	1632865	Connector	1
46	1514603	Connector (Secondary Lock)	1
46	1554359	Terminal	4
47	.....	Connector Assembly (Endcap)	1
47	4047664	Connector	1
47	1330439	Plug	4
48	.....	Connector Assembly (Accessory One)	1
48	1546697	Connector (Secondary Lock)	1
48	4047664	Connector	1
48	1554359	Terminal	2
49	.....	Connector Assembly (Endcap)	1
49	4060737	Connector	1
49	1330439	Plug	2
50	.....	Connector Assembly (Vehicle System Manager)	1
50	1525567	Connector	1
50	1530037	Connector (Secondary Lock) (Secondary Lock)	1
50	1463139	Terminal	9
50	1484377	Plug	3
51	.....	Connector Assembly (Vehicle System Manager)	1
51	1525568	Connector	1
51	1530037	Connector (Secondary Lock) (Secondary Lock)	1
51	1463139	Terminal	6
51	1484377	Plug	6
52	.....	Connector Assembly (Vehicle System Manager)	1
52	1525569	Connector	1
52	1530037	Connector (Secondary Lock)	1
52	1484377	Plug	11
52	1463139	Terminal	1
53	.....	Connector Assembly (Vehicle System Manager)	1
53	1525570	Connector	1
53	1530037	Connector (Secondary Lock) (Secondary Lock)	1
53	1463139	Terminal	4
53	1484377	Plug	8
54	.....	Connector Assembly (Aux. Ignition 3 Fuse)	1
54	1602431	Fuse Holder	1
55	.....	Connector Assembly (To Seat Switch Harness)	1
55	1493465	Connector (2 Pin)	1
55	1330414	Connector (Secondary Lock)	1
55	1330437	Terminal (Pin)	2
56	.....	Connector Assembly (Seat Belt Sequence Module)	1
56	1502625	Connector	1
56	1502626	Connector (Secondary Lock) (Secondary Lock)	1

WIRE HARNESS
RH CHASSIS – GM 5.7 AND KUBOTA 3.8L WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
56	1330438	Terminal (Socket)	6
56	1484377	Plug	2
57	.....	Connector Assembly (Battery + 5A)	1
57	1602431	Fuse Holder (Seat Belt Module)	1
57	1498044	Fuse (5 Amp)	1

WIRE HARNESS (FIGURE 5-46) RH CHASSIS — CUMMINS QSB 3.3L DIESEL



BP081391

WIRE HARNESS
RH CHASSIS – CUMMINS QSB 3.3L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
	4622399	Wire Harness (RH Chassis)	1
1	.....	Connector Assembly (Vehicle System Manager)	1
1	1525563	Connector	1
1	1500913	Connector (Secondary Lock) (Secondary Lock)	1
1	1330438	Terminal (Socket)	8
1	1363886	Terminal (Socket)	4
2	.....	Connector Assembly (To Cowl Harness)	1
2	1489655	Connector (4 Way)	1
2	1330416	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	4
3	.....	Connector Assembly (To Cowl Harness)	1
3	1493428	Connector (12-Way)	1
3	1500913	Connector (Secondary Lock) (Secondary Lock)	1
3	1330438	Terminal (Socket)	11
3	1484377	Plug	1
4	.....	Connector Assembly (Vehicle System Manager)	1
4	1525567	Connector	1
4	1529046	Connector (Secondary Lock) (Secondary Lock)	1
4	1463139	Terminal	3
4	1484377	Plug	9
5	.....	Connector Assembly (Vehicle System Manager)	1
5	1525569	Connector	1
5	1529046	Connector (Secondary Lock) (Secondary Lock)	1
5	1463139	Terminal	3
5	1484377	Plug	9
6	275496	Conduit	AR
7	275497	Conduit	AR
8	1540388	Conduit	AR
9	1534282	Clip	4
10	.....	Connector Assembly (Contactor Ground)	1
10	1402849	Connector Body	1
10	.....	Connector Assembly (Contactor Signal)	1
10	1402849	Connector Body	1
11	.....	Connector Assembly (Hydraulic Solenoid)	1
11	1490242	Connector (2 Way)	1
11	1490243	Connector (Secondary Lock)	1
11	1330438	Terminal (Socket)	2
12	275493	Conduit	1
13	.....	Connector Assembly (Accessory 2)	1
13	1514602	Connector	1
13	1514603	Connector (Secondary Lock) (Secondary Lock)	1
13	1330439	Plug	1
13	1554359	Terminal	3
14	.....	Connector Assembly (Endcap)	1
14	1514597	Connector	1
14	1330439	Plug	6
15	275495	Conduit	AR
16	1620149	Clip	2
17	.....	Connector Assembly (Engine Control Module)	1
17	1664870	Connector	1

WIRE HARNESS RH CHASSIS – CUMMINS QSB 3.3L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
17	1664886	Strain Relief	1
17	1484377	Plug	46
17	1507725	Terminal	14
18	.....	Connector Assembly (Engine Control Module)	1
18	1514602	Connector	1
18	1514603	Connector (Secondary Lock) (Secondary Lock)	1
18	1330439	Plug	2
18	1554359	Terminal	2
19	275495	Conduit	AR
20	.....	Connector Assembly (Endcap)	1
20	1329150	Connector	1
20	1329152	Plug	1
20	1327164	Seal	2
21	.....	Connector Assembly (Hydraulic Filter)	1
21	1329152	Plug	1
21	1329151	Terminal (Secondary Lock)	1
21	1330281	Terminal	1
21	1402888	Seal (Purple)	2
22	.....	Connector Assembly (Bus Terminal 2)	1
22	1489656	Connector (4-Way)	1
22	1489657	Connector (Secondary Lock) (Secondary Lock)	1
22	1330438	Terminal (Socket)	4
23	.....	Connector Assembly (Endcap with Resistor)	1
23	1525577	Connector (With Resistor)	1
24	1534329	Clip	2
25	.....	Connector Assembly (Endcap)	1
25	1626727	Connector	1
26	.....	Connector Assembly (Alternate Horn Button)	1
26	1490242	Connector (2 Way)	1
26	1490243	Connector (Secondary Lock)	1
26	1330438	Terminal (Socket)	2
27	.....	Connector Assembly (To Alternator Harness)	1
27	1490242	Connector (2 Way)	1
27	1490243	Connector (Secondary Lock)	1
27	1330438	Terminal (Socket)	1
27	1484377	Plug	1
28	.....	Connector Assembly (To Alternator Harness)	1
28	1545202	Connector	1
28	1546697	Connector (Secondary Lock) (Secondary Lock)	1
28	1554359	Terminal	2
29	.....	Connector Assembly (Endcap)	1
29	1465468	Connector	1
29	1327164	Seal	2
30	.....	Connector Assembly (Air Restriction Sensor)	1
30	1465469	Connector	1
30	1323578	Terminal	2
30	1402888	Seal (Purple)	2
31	.....	Connector Assembly (To Rear Harness)	1
31	1502625	Connector	1
31	1502626	Connector (Secondary Lock) (Secondary Lock)	1

WIRE HARNESS
RH CHASSIS – CUMMINS QSB 3.3L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
31	1330438	Terminal (Socket)	7
31	1330355	Terminal	1
32	1402815	Clip	1
33	.....	Connector Assembly (Endcap)	1
33	1530960	Connector	1
33	1484377	Plug	6
34	.....	Connector Assembly (To Transmission Harness)	1
34	1531973	Connector	1
34	1531974	Connector (Secondary Lock) (Secondary Lock)	1
34	1463139	Terminal	5
34	1484377	Plug	1
35	.....	Connector Assembly (Battery Fuse)	1
35	1602431	Fuse Holder	1
35	a 1498045	Fuse (7.5 Amp)	1
35	b 4087450	Fuse (7.5 Amp)	1
36	.....	Connector Assembly (To Transmission Harness)	1
36	1525567	Connector	1
36	1529046	Connector (Secondary Lock) (Secondary Lock)	1
36	1463139	Terminal	12
37	.....	Connector Assembly (Ignition Fuse)	1
37	1602431	Fuse Holder	1
37	1498045	Fuse (7.5 Amp)	1
38	.....	Connector Assembly (Ignition Fuse)	1
38	1602431	Fuse Holder	1
38	1498044	Fuse (5 Amp)	1
39	275495	Conduit	AR
40	.....	Connector Assembly (Endcap)	1
40	1525573	Connector	1
41	.....	Connector Assembly (Impact Sensor)	1
41	1489656	Connector (4-Way)	1
41	1489657	Connector (Secondary Lock) (Secondary Lock)	1
41	1330438	Terminal (Socket)	4
42	.....	Connector Assembly (Power Distribution Module)	1
42	1521183	Connector	1
42	1521188	Lock (Secondary Lock)	1
42	1323579	Seal	7
42	1327164	Seal	1
42	1330281	Terminal	4
42	1521989	Terminal	3
43	.....	Connector Assembly (Power Distribution Module)	1
43	1521184	Connector	1
43	1521188	Lock (Secondary Lock)	1
43	1323579	Seal	5
43	1327164	Seal	2
43	1330281	Terminal	5
43	1521989	Terminal	1
43	1402888	Seal (Purple)	1
44	.....	Connector Assembly (Horn)	1
44	1476064	Connector	1
44	1476109	Connector Lock (Secondary Lock)	1

WIRE HARNESS RH CHASSIS – CUMMINS QSB 3.3L DIESEL

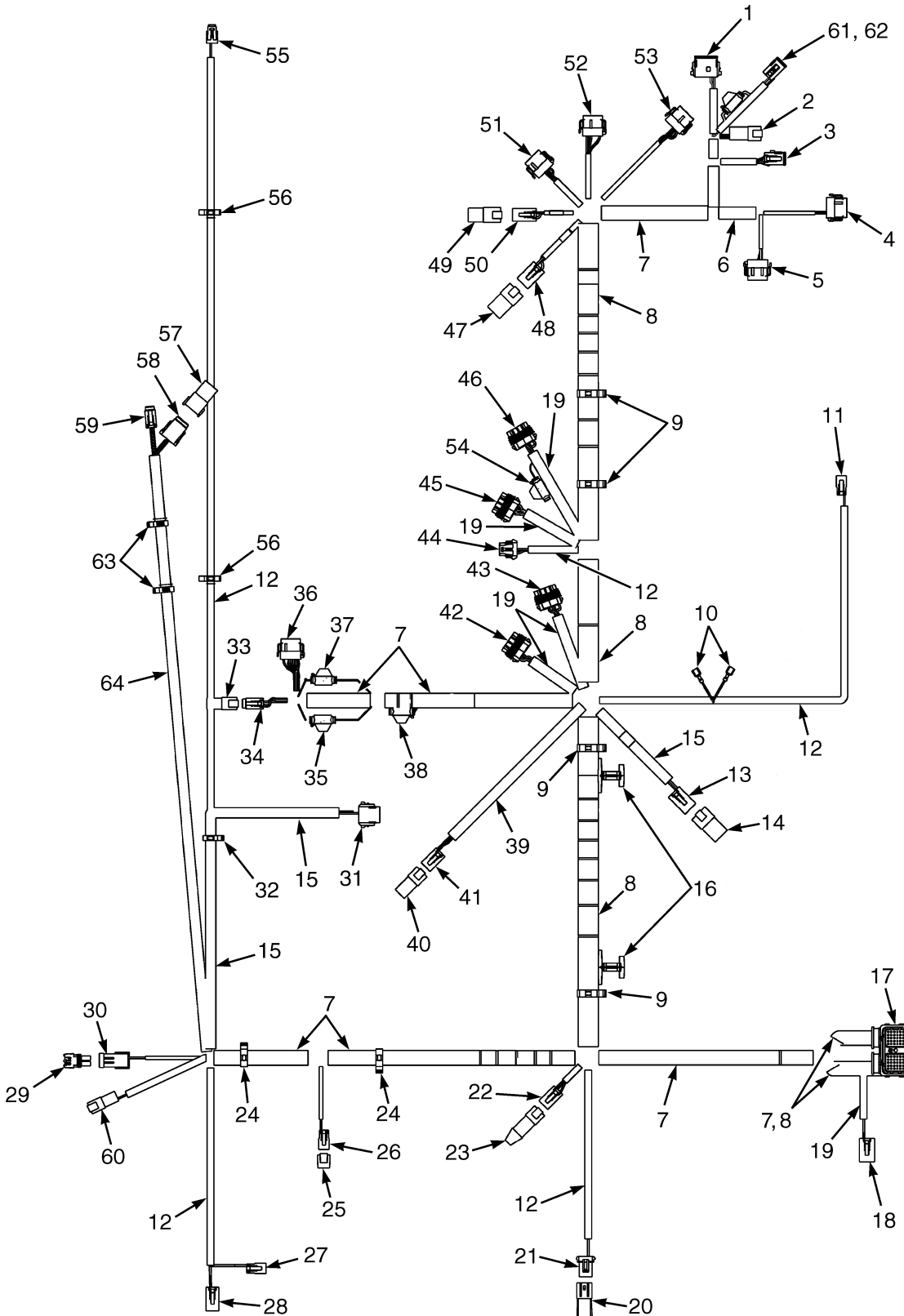
ITEM	PART NO.	DESCRIPTION	QTY
44	1330356	Seal	2
44	1330355	Terminal	3
44	1476108	Wire Seal (White)	1
45	.....	Connector Assembly (Power Distribution Module)	1
45	1521186	Connector	1
45	1521188	Lock (Secondary Lock)	1
45	1323579	Seal	7
45	1327164	Seal	1
45	1521989	Terminal	7
46	.....	Connector Assembly (Power Distribution Module)	1
46	1521185	Connector	1
46	1521188	Lock	4
46	1323579	Seal	7
46	1402888	Seal (Purple)	1
46	1330281	Terminal	5
46	1521989	Terminal	3
47	.....	Connector Assembly (Endcap)	1
47	1514597	Connector	1
47	1330439	Plug	4
48	.....	Connector Assembly (To Lights/Cab Harness)	1
48	1514602	Connector	1
48	1514603	Connector (Secondary Lock) (Secondary Lock)	1
48	1554359	Terminal	4
49	.....	Connector Assembly (Endcap)	1
49	1480187	Connector	1
49	1330439	Plug	2
50	.....	Connector Assembly (Accessory 1)	1
50	1545202	Connector	1
50	1546697	Connector (Secondary Lock) (Secondary Lock)	1
50	1554359	Terminal	2
51	.....	Connector Assembly (Vehicle System Manager)	1
51	1525567	Connector	1
51	1530037	Connector (Secondary Lock) (Secondary Lock)	1
51	1463139	Terminal	8
51	1554359	Terminal	4
52	.....	Connector Assembly (Vehicle System Manager)	1
52	1525568	Connector	1
52	1530037	Connector (Secondary Lock) (Secondary Lock)	1
52	1463139	Terminal	6
52	1484377	Plug	6
53	.....	Connector Assembly (Vehicle System Manager)	1
53	1525570	Connector	1
53	1530037	Connector (Secondary Lock) (Secondary Lock)	1
53	1463139	Terminal	4
53	1484377	Plug	8
54	.....	Connector Assembly (Auxiliary Ignition Fuse)	1
54	1602431	Fuse Holder	1
54	1498044	Fuse (5 Amp)	1
55	.....	Connector Assembly (Fuel Level)	1
55	1476077	Connector	1

WIRE HARNESS
RH CHASSIS – CUMMINS QSB 3.3L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
55	1323576	Terminal	2
56	1402816	Clip	2
57	.....	Connector Assembly (Endcap)	1
57	1541988	Connector (8 Pin)	1
57	1484377	Plug	8
58	.....	Connector Assembly (MLM Harness)	1
58	1541991	Connector	1
58	1541992	Connector (Secondary Lock) (Secondary Lock)	1
58	1463139	Terminal	5
58	1484377	Plug	3
59	.....	Connector Assembly (Seat Harness)	1
59	1531973	Connector	1
59	1531974	Connector (Secondary Lock) (Secondary Lock)	1
59	1463139	Terminal	4
59	1484377	Plug	2
60	1509890	Clip	2
61	1699754	Conduit	AR

FOOTNOTES:**a** → 1/2015**b** 1/2015 →

WIRE HARNESS (FIGURE 5-47) RH CHASSIS — CUMMINS QSB 3.3L DIESEL WITH SEAT BELT SEQUENCE MODULE



BP081716

WIRE HARNESS
RH CHASSIS – CUMMINS QSB 3.3L DIESEL WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
	4635139	Wire Harness	1
1	.....	Connector Assembly (Vehicle System Manager)	1
1	1525563	Connector	1
1	1500913	Connector (Secondary Lock)	1
1	1330438	Terminal (Socket)	8
1	1363886	Terminal (Socket)	4
2	.....	Connector Assembly (To Cowl Harness)	1
2	1489655	Connector (4 Way)	1
2	1330416	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	4
3	.....	Connector Assembly (To Cowl Harness)	1
3	1493428	Connector (12-Way)	1
3	1500913	Connector (Secondary Lock)	1
3	1330438	Terminal (Socket)	11
3	1484377	Plug	1
4	.....	Connector Assembly (Vehicle System Manager)	1
4	1525567	Connector	1
4	1529046	Connector (Secondary Lock) (Secondary Lock)	1
4	1463139	Terminal	3
4	1484377	Plug	9
5	.....	Connector Assembly (Vehicle System Manager)	1
5	1525569	Connector	1
5	1529046	Connector (Secondary Lock) (Secondary Lock)	1
5	1463139	Terminal	3
5	1484377	Plug	9
6	275496	Conduit	AR
7	275497	Conduit	AR
8	1540388	Conduit	AR
9	1534282	Clip	4
10	.....	Connector Assembly (Contactor Ground)	1
10	1402849	Connector Body	1
10	.....	Connector Assembly (Contactor Signal)	1
10	1402849	Connector Body	1
11	.....	Connector Assembly (Hydraulic Solenoid)	1
11	1490242	Connector (2 Way)	1
11	1490243	Connector (Secondary Lock)	1
11	1330438	Terminal (Socket)	2
12	275493	Conduit	1
13	.....	Connector Assembly (Accessory 2)	1
13	1514602	Connector	1
13	1514603	Connector (Secondary Lock)	1
13	1330439	Plug	1
13	1554359	Terminal	3
14	.....	Connector Assembly (Endcap)	1
14	1514597	Connector	1
14	1330439	Plug	6
15	275495	Conduit	AR
16	1620149	Clip	2
17	.....	Connector Assembly (Engine Control Module)	1
17	1664870	Connector	1

WIRE HARNESS

RH CHASSIS – CUMMINS QSB 3.3L DIESEL WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
17	1664886	Strain Relief	1
17	1484377	Plug	46
17	1507725	Terminal	14
18	.....	Connector Assembly (Engine Control Module)	1
18	1514602	Connector	1
18	1514603	Connector (Secondary Lock)	1
18	1330439	Plug	2
18	1554359	Terminal	2
19	275495	Conduit	AR
20	.....	Connector Assembly (Endcap)	1
20	1329150	Connector	1
20	1329152	Plug	1
20	1327164	Seal	2
21	.....	Connector Assembly (Hydraulic Filter)	1
21	1329152	Plug	1
21	1329151	Terminal	1
21	1330281	Terminal	1
21	1402888	Seal (Purple)	2
22	.....	Connector Assembly (Bus Terminal 2)	1
22	1489656	Connector (4-Way)	1
22	1489657	Connector (Secondary Lock) (Secondary Lock)	1
22	1330438	Terminal (Socket)	4
23	.....	Connector Assembly (Endcap with Resistor)	1
23	1525577	Connector (With Resistor)	1
24	1534329	Clip	2
25	.....	Connector Assembly (Endcap)	1
25	1626727	Connector	1
26	.....	Connector Assembly (Alternate Horn Button)	1
26	1490242	Connector (2 Way)	1
26	1490243	Connector (Secondary Lock)	1
26	1330438	Terminal (Socket)	2
27	.....	Connector Assembly (To Alternator Harness)	1
27	1490242	Connector (2 Way)	1
27	1490243	Connector (Secondary Lock)	1
27	1330438	Terminal (Socket)	1
27	1484377	Plug	1
28	.....	Connector Assembly (To Alternator Harness)	1
28	1545202	Connector	1
28	1546697	Connector (Secondary Lock) (Secondary Lock)	1
28	1554359	Terminal	2
29	.....	Connector Assembly (Endcap)	1
29	1465468	Connector	1
29	1327164	Seal	2
30	.....	Connector Assembly (Air Restriction Sensor)	1
30	1465469	Connector	1
30	1323578	Terminal	2
30	1402888	Seal (Purple)	2
31	.....	Connector Assembly (To Rear Harness)	1
31	1502625	Connector	1
31	1502626	Connector (Secondary Lock) (Secondary Lock)	1

WIRE HARNESS
RH CHASSIS – CUMMINS QSB 3.3L DIESEL WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
31	1330438	Terminal (Socket)	7
31	1330355	Terminal	1
32	1402815	Clip	1
33	.....	Connector Assembly (Endcap)	1
33	1530960	Connector	1
33	1484377	Plug	6
34	.....	Connector Assembly (To Transmission Harness)	1
34	1531973	Connector	1
34	1531974	Connector (Secondary Lock)	1
34	1463139	Terminal	5
34	1484377	Plug	1
35	.....	Connector Assembly (Battery Fuse)	1
35	1602431	Fuse Holder	1
35	1498045	Fuse (7.5 Amp)	1
36	.....	Connector Assembly (To Transmission Harness)	1
36	1525567	Connector	1
36	1529046	Connector (Secondary Lock) (Secondary Lock)	1
36	1463139	Terminal	12
37	.....	Connector Assembly (Ignition Fuse)	1
37	1602431	Fuse Holder	1
37	1498045	Fuse (7.5 Amp)	1
38	.....	Connector Assembly (Ignition Fuse)	1
38	1602431	Fuse Holder	1
38	1498044	Fuse (5 Amp)	1
39	275495	Conduit	AR
40	.....	Connector Assembly (Endcap)	1
40	1525573	Connector	1
41	.....	Connector Assembly (Impact Sensor)	1
41	1489656	Connector (4-Way)	1
41	1489657	Connector (Secondary Lock) (Secondary Lock)	1
41	1330438	Terminal (Socket)	4
42	.....	Connector Assembly (Power Distribution Module)	1
42	1521183	Connector	1
42	1521188	Lock (Secondary Lock)	1
42	1323579	Seal	7
42	1327164	Seal	1
42	1330281	Terminal	4
42	1521989	Terminal	3
43	.....	Connector Assembly (Power Distribution Module)	1
43	1521184	Connector	1
43	1521188	Lock (Secondary Lock)	1
43	1323579	Seal	5
43	1327164	Seal	2
43	1330281	Terminal	5
43	1521989	Terminal	1
43	1402888	Seal (Purple)	1
44	.....	Connector Assembly (Horn)	1
44	1476064	Connector	1
44	1476109	Connector Lock	1
44	1330356	Seal	2

WIRE HARNESS

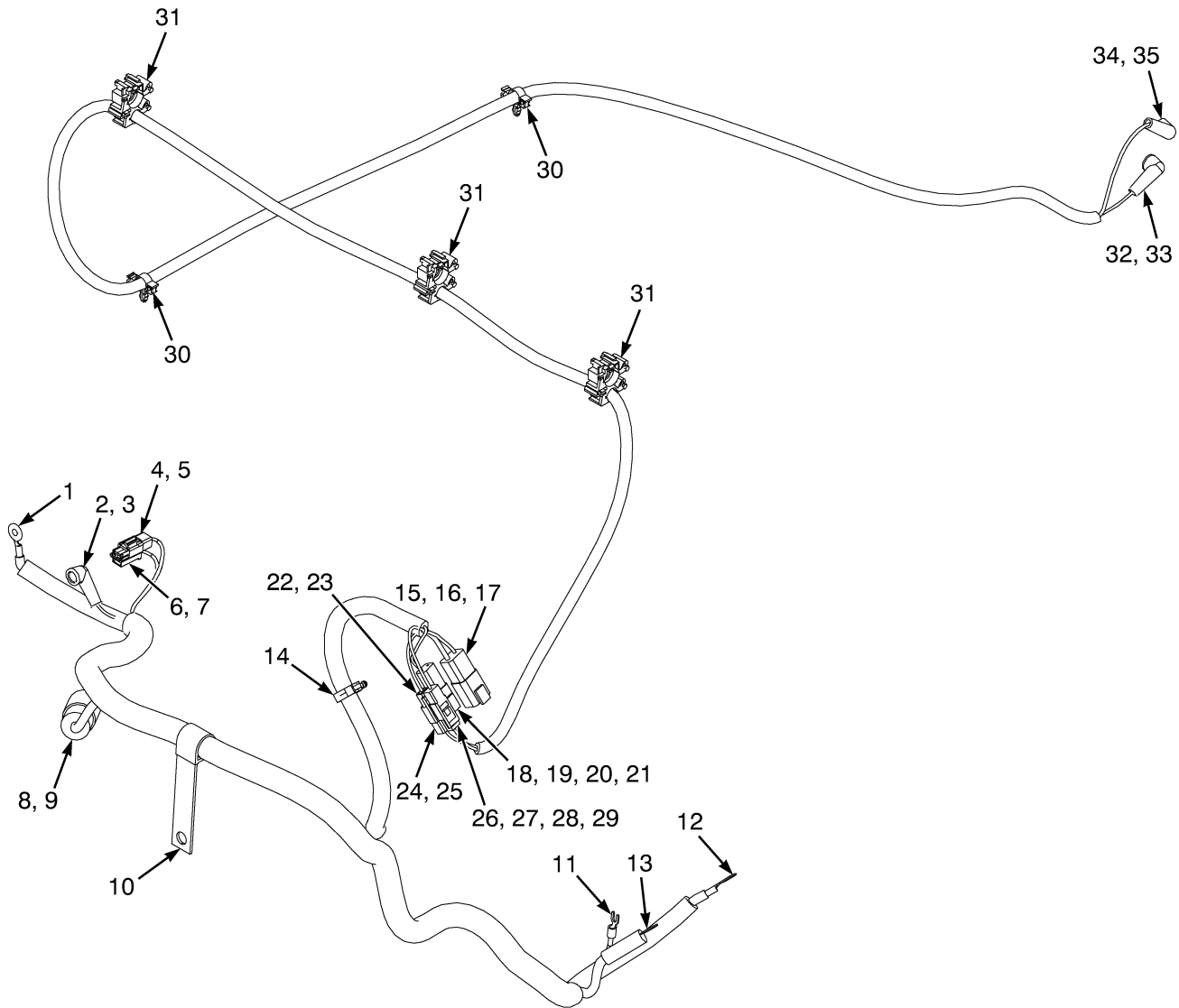
RH CHASSIS – CUMMINS QSB 3.3L DIESEL WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
44	1330355	Terminal	3
44	1476108	Wire Seal (White)	1
45	.....	Connector Assembly (Power Distribution Module)	1
45	1521186	Connector	1
45	1521188	Lock (Secondary Lock)	1
45	1323579	Seal	7
45	1327164	Seal	1
45	1521989	Terminal	7
46	.....	Connector Assembly (Power Distribution Module)	1
46	1521185	Connector	1
46	1521188	Lock	4
46	1323579	Seal	7
46	1402888	Seal (Purple)	1
46	1330281	Terminal	5
46	1521989	Terminal	3
47	.....	Connector Assembly (Endcap)	1
47	1514597	Connector	1
47	1330439	Plug	4
48	.....	Connector Assembly (To Lights/Cab Harness)	1
48	1514602	Connector	1
48	1514603	Connector (Secondary Lock)	1
48	1554359	Terminal	4
49	.....	Connector Assembly (Endcap)	1
49	1480187	Connector	1
49	1330439	Plug	2
50	.....	Connector Assembly (Accessory 1)	1
50	1545202	Connector	1
50	1546697	Connector (Secondary Lock) (Secondary Lock)	1
50	1554359	Terminal	2
51	.....	Connector Assembly (Vehicle System Manager)	1
51	1525567	Connector	1
51	1530037	Connector (Secondary Lock) (Secondary Lock)	1
51	1463139	Terminal	8
51	1554359	Terminal	4
52	.....	Connector Assembly (Vehicle System Manager)	1
52	1525568	Connector	1
52	1530037	Connector (Secondary Lock) (Secondary Lock)	1
52	1463139	Terminal	6
52	1484377	Plug	6
53	.....	Connector Assembly (Vehicle System Manager)	1
53	1525570	Connector	1
53	1530037	Connector (Secondary Lock) (Secondary Lock)	1
53	1463139	Terminal	4
53	1484377	Plug	8
54	.....	Connector Assembly (Auxiliary Ignition Fuse)	1
54	1602431	Fuse Holder	1
54	1498044	Fuse (5 Amp)	1
55	.....	Connector Assembly (Fuel Level)	1
55	1476077	Connector	1
55	1323576	Terminal	2

WIRE HARNESS
RH CHASSIS – CUMMINS QSB 3.3L DIESEL WITH SEAT BELT SEQUENCE MODULE

ITEM	PART NO.	DESCRIPTION	QTY
56	1402816	Clip	2
57	.....	Connector Assembly (Endcap)	1
57	1541988	Connector (8 Pin)	1
57	1484377	Plug	8
58	.....	Connector Assembly (MLM Harness)	1
58	1541991	Connector	1
58	1541992	Connector (Secondary Lock) (Secondary Lock)	1
58	1463139	Terminal	5
58	1484377	Plug	3
59	.....	Connector Assembly (Seat Harness)	1
59	1531973	Connector	1
59	1531974	Connector (Secondary Lock) (Secondary Lock)	1
59	1463139	Terminal	4
59	1484377	Plug	2
60	.....	Connector Assembly (Seat Belt Switch)	1
60	1493465	Connector (2 Pin)	1
60	1330414	Connector (Secondary Lock)	1
60	1330437	Terminal (Pin)	2
61	.....	Connector Assembly (Seat Belt Sequence Module)	1
61	1502625	Connector	1
61	1502626	Connector (Secondary Lock) (Secondary Lock)	1
61	1330438	Terminal (Socket)	6
61	1484377	Plug	2
62	1602431	Fuse Holder	1
62	1498044	Fuse (5 Amp)	1
63	1509890	Clip	2
64	1699754	Conduit	AR

WIRE HARNESS (FIGURE 5-48) ALTERNATOR-D — CUMMINS QSB 3.3L DIESEL



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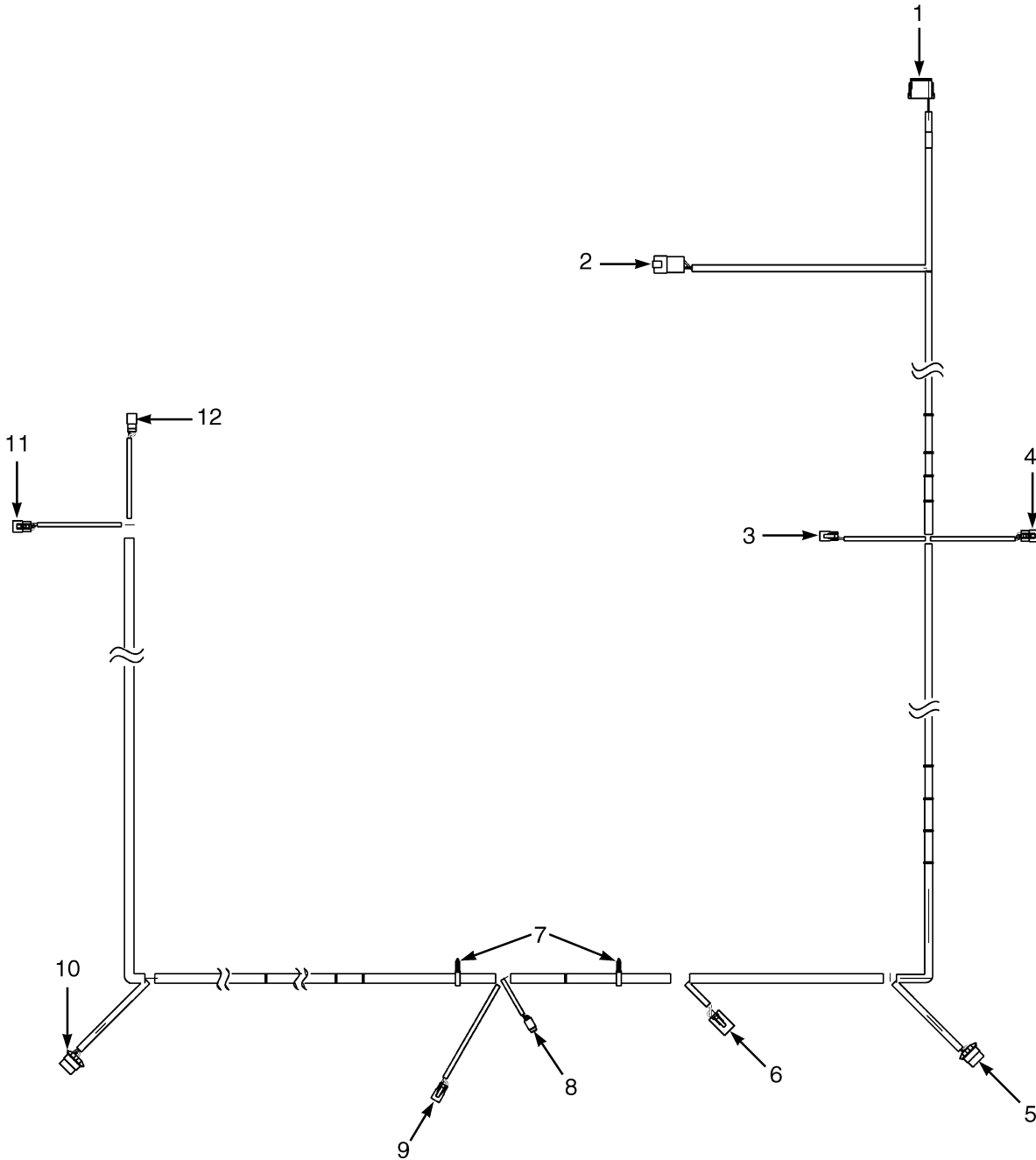
WIRE HARNESS
ALTERNATOR-D – CUMMINS QSB 3.3L DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
	2110986	Wire Harness (Alternator)	1
1	806425	E-Ring (Alternator Ground)	1
2	.....	Connector Assembly (Alternator)	1
2	1501919	Connector	1
3	1482663	Connector	1
4	1330355	Terminal	1
5	1482668	Plug (Cavity Plug)	1
6	1330356	Seal	1
7	.....	Connector Assembly (Alternator Fuse)	1
7	1544731	Receptacle	1
8	1544733	Pin	1
9	1364263	Clamp	1
10	806427	E-Ring	1
11	806427	E-Ring	1
12	148638	E Ftg Spade Term #10	1
13	1402815	Clip	1
14	.....	Connector Assembly (To RH Chassis Harness)	1
14	1493465	Connector (2 Pin)	1
15	1330414	Connector (Secondary Lock)	1
16	1330437	Terminal (Pin)	1
17	1484377	Plug	1
18	.....	Connector Assembly (To RH Chassis Harness)	1
18	1480187	Connector	1
19	1480188	Connector (Secondary Lock) (Secondary Lock)	1
20	866401	Terminal	2
	a 275495	Conduit	1
	a 275497	Conduit	1

FOOTNOTES:

a Not Illustrated

**WIRE HARNESS (FIGURE 5-49)
LIGHTS — WITH OVERHEAD GUARD**



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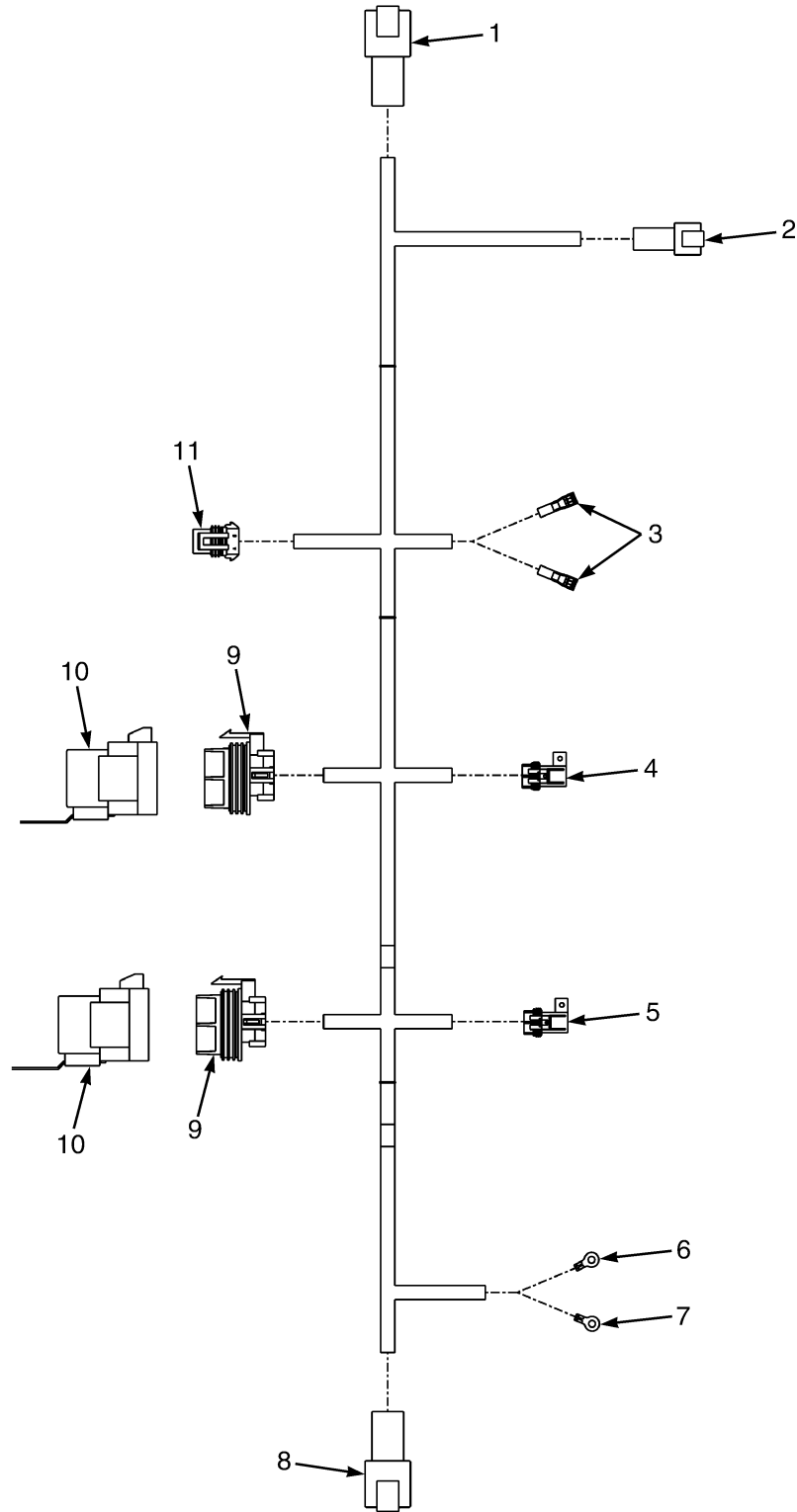
**WIRE HARNESS
LIGHTS – WITH OVERHEAD GUARD**

ITEM	PART NO.	DESCRIPTION	QTY
	2101862	Wire Harness (Lights)	1
1	.....	Connector Assembly (Vehicle System Manager)	1
1	1525566	Connector	1
1	1484377	Plug	7
1	1330438	Terminal (Socket)	5
1	1500913	Connector (Secondary Lock)	1
2	.....	Connector Assembly (To RH Chassis Harness)	1
2	1514597	Connector	1
2	1514598	Connector (Secondary Lock)	1
2	1484709	Terminal (Pin)	4
3	.....	Connector Assembly (RH Front Work Lights)	1
3	1490242	Connector (2 Way)	1
3	1490243	Connector (Secondary Lock)	1
3	1363886	Terminal (Socket)	2
4	.....	Connector Assembly (To RH Front Signal)	1
4	1484397	Connector (3-Way)	1
4	1463194	Connector (Secondary Lock)	1
4	1330438	Terminal (Socket)	3
5	.....	Connector Assembly (RH Rear Signal Lights)	1
5	1531486	Connector	1
5	930591	Connector	1
5	1330356	Seal	1
5	1482668	Plug (Cavity Plug)	1
5	1330355	Terminal	5
5	1476108	Wire Seal (White)	4
6	.....	Connector Assembly (Work Light Resistor)	1
6	1514602	Connector	1
6	1514603	Connector (Secondary Lock)	1
6	1554359	Terminal	4
7	1509890	Clip	2
8	.....	Connector Assembly (Strobe)	1
8	1484557	Connector (2 Socket)	1
8	1484558	Connector (Secondary Lock)	1
8	1463139	Terminal	2
9	.....	Connector Assembly (Rear Front Work Lights)	1
9	1490242	Connector (2 Way)	1
9	1490243	Connector (Secondary Lock)	1
9	1363886	Terminal (Socket)	2
10	.....	Connector Assembly (LH Rear Signal)	1
10	1531486	Connector	1
10	930591	Connector	1
10	1330355	Terminal	5
10	1330356	Seal	1
10	1482668	Plug (Cavity Plug)	1
10	1476108	Wire Seal (White)	4
11	.....	Connector Assembly (LH Front Signal)	1
11	1330438	Terminal (Socket)	3
11	1463194	Connector (Secondary Lock)	1
11	1484397	Connector (3-Way)	1
12	.....	Connector Assembly	1

**WIRE HARNESS
LIGHTS – WITH OVERHEAD GUARD**

ITEM	PART NO.	DESCRIPTION	QTY
12	1363886	Terminal (Socket)	2
12	1490242	Connector (2 Way)	1
12	1490243	Connector (Secondary Lock)	1

WIRE HARNESS (AIR CONDITIONING) (FIGURE 5-50)

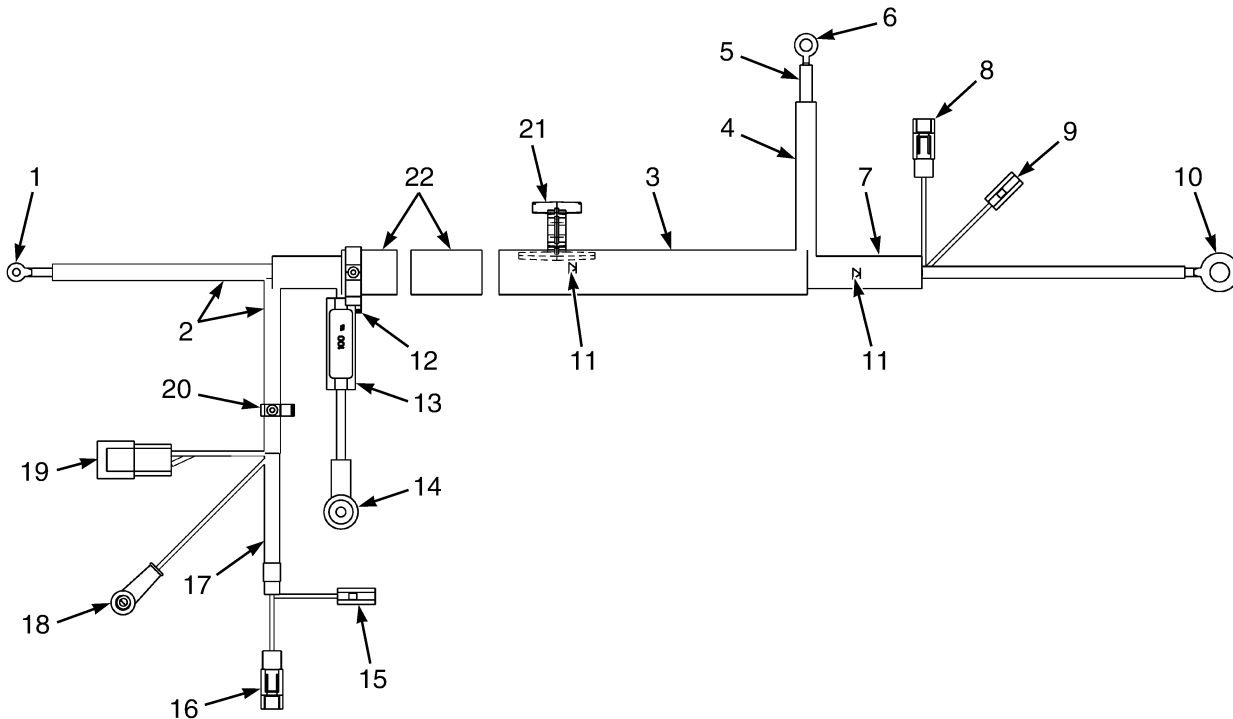


BP081682

WIRE HARNESS (AIR CONDITIONING)

ITEM	PART NO.	DESCRIPTION	QTY
	4620482	Wire Harness (A/C)	1
1	.....	Connector Assembly (To Heater/AC Control Harness)	1
1	1514597	Connector	1
1	1514598	Connector (Secondary Lock) (Secondary)	1
1	866401	Terminal	3
1	1330439	Plug	1
2	.....	Connector Assembly (To Condenser)	1
2	1480187	Connector	1
2	1480188	Connector (Secondary Lock) (Secondary)	1
2	866401	Terminal Pin	2
3	1310142	Terminal Housing (Blue) (E-Fitting)	2
4	.....	Connector Assembly (Fuse Holder Condenser)	1
4	1330292	Connector	1
4	1330283	Terminal	2
4	1330293	Cover (Fuse)	1
4	1300134	Fuse (25 Amp)	1
5	.....	Connector Assembly (Fuse Holder Compressor)	1
5	1330292	Connector	1
5	1330283	Terminal	2
5	1330293	Cover (Fuse)	1
5	370646	Fuse (5 Amp)	1
6	148606	E-Ring	1
7	148611	E-Ring	1
8	.....	Connector Assembly (To CPS18)	1
8	1514597	Connector	2
8	1514598	Connector (Secondary Lock) (Secondary)	2
8	866401	Terminal Pin	3
8	1330439	Plug	1
9	.....	Connector Assembly (To Blower Relay)	1
9	1461744	Connector Body	1
9	1375797	Terminal	4
9	1323579	Seal	1
9	1327164	Seal	1
9	1329147	Seal	3
9	1498483	Sealant	AR
10	1461743	Relay	2
11	.....	Connector Assembly (To Compressor Clutch)	1
11	1329152	Plug (Connector)	1
11	1329151	Terminal (Secondary Lock)	1
11	1330281	Terminal	2
11	1323579	Seal	2

WIRE HARNESS (FIGURE 5-51) SEALED ALTERNATOR — KUBOTA DIESEL



BP081365

ITEM	PART NO.	DESCRIPTION	QTY
	4614312	Wire Harness (Alternator)	1
1	806424	E-Ring (Alternator Ground)	1
2	1673486	Sleeve	AR
3	1540388	Conduit	AR
4	275494	Conduit	AR
5	222523	Heat Shrink	AR
6	148615	E-Ring (Starter B+)	1
7	275497	Conduit	AR
8	.....	Connector Assembly (Disconnect Switch Link)	1
8	181045	Connector Body	1
8	134810	Terminal	1
9	.....	Connector Assembly (Disconnect Switch Link)	1
9	181046	Connector Body	1
9	1542937	Terminal	1
10	806428	E-Ring (Engine Ground)	1
11	1310109	Rectifier	2
12	4034685	Clip	1
13	4616487	Battery Cable	1
14	.....	Connector Assembly (Alternator B+)	1
14	148614	E-Ring	1
14	1520864	Boot	1
15	.....	Connector Assembly (Alternator Excite)	1
15	181046	Connector Body	1
15	1542937	Terminal	1
16	.....	Connector Assembly (Alternator Field)	1
16	181045	Connector Body	1

ITEM	PART NO.	DESCRIPTION	QTY
16	134810	Terminal	1
17	275493	Conduit	AR
18	.....	Connector Assembly (Alternator D+)	1
18	4051383	Terminal	1
18	190383	Boot	1
19	.....	Connector Assembly (Engine Harness)	1
19	4613828	Connector	1
19	.....	Terminal	2
19	1302909	Wire Seal	2
19	1302908	Connector Lock	1
20	1509888	Clip	1
21	1620149	Clip	1
22	4023934	Clip (Conduit Elbow)	2

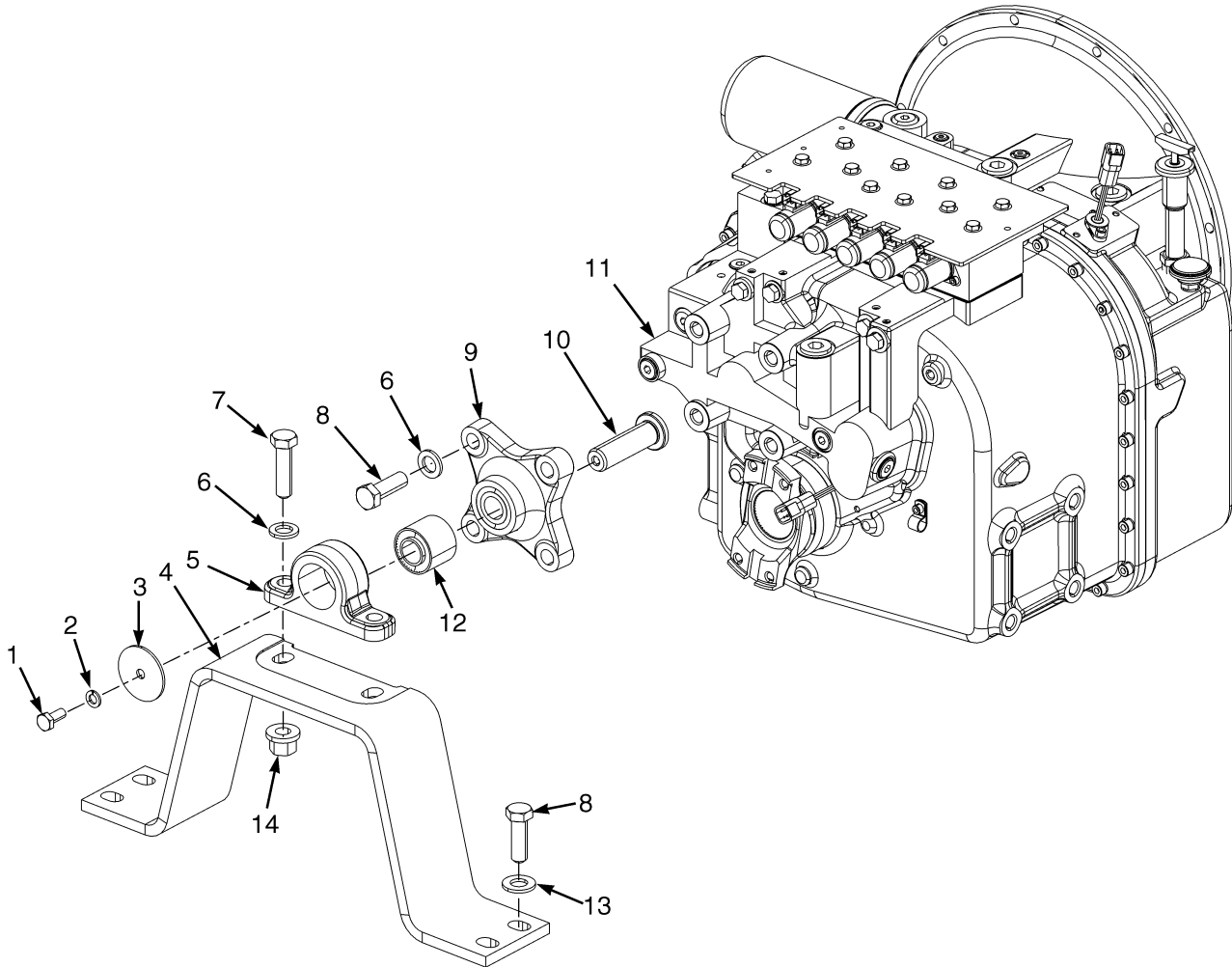
6

TRANSMISSION

**SECTION 6
TRANSMISSION**

DESCRIPTION	PAGE
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TRANSMISSION MOUNT (FIGURE 6-1)

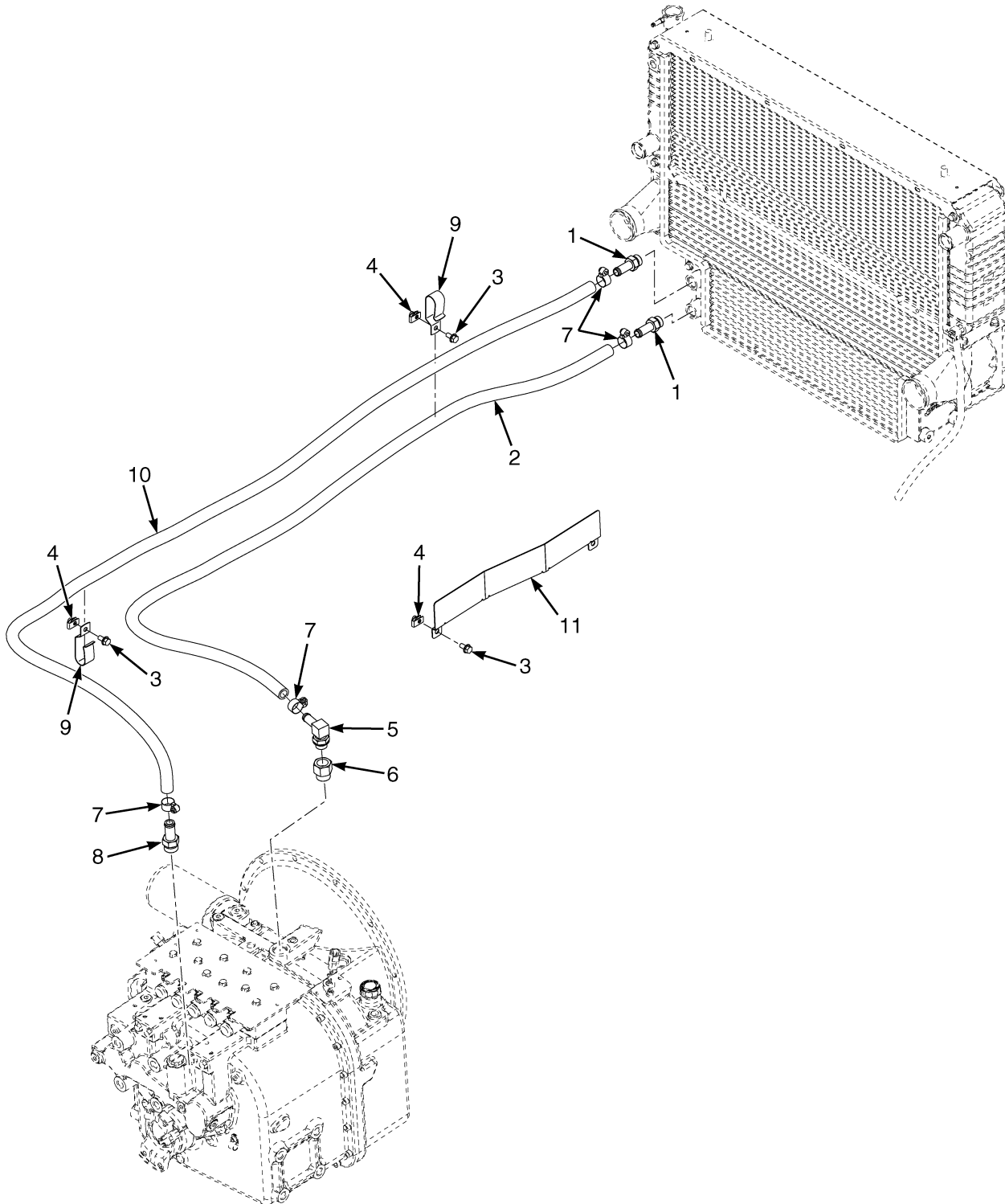


BP240128

TRANSMISSION MOUNT

ITEM	PART NO.	DESCRIPTION	QTY
1	287854	Capscrew	1
2	292682	Lockwasher	1
3	1591721	Washer	1
4	1591719	Crossmember	1
5	1591717	Housing (Bushing)	1
6	296426	Washer	6
7	293688	Capscrew	2
8	293686	Capscrew	8
9	1617487	Bracket (Isolator)	1
10	1591720	Pin	1
11	4010141	Transmission Assy (Three Speed) (☞Figure 6-4, ☞Figure 6-5).....	1
12	1591716	Bushing	1
13	296427	Washer	4
14	1565453	Nut (Flange)	2

TRANSMISSION COOLING (FIGURE 6-2) WITH EXTERNAL OIL COOLER

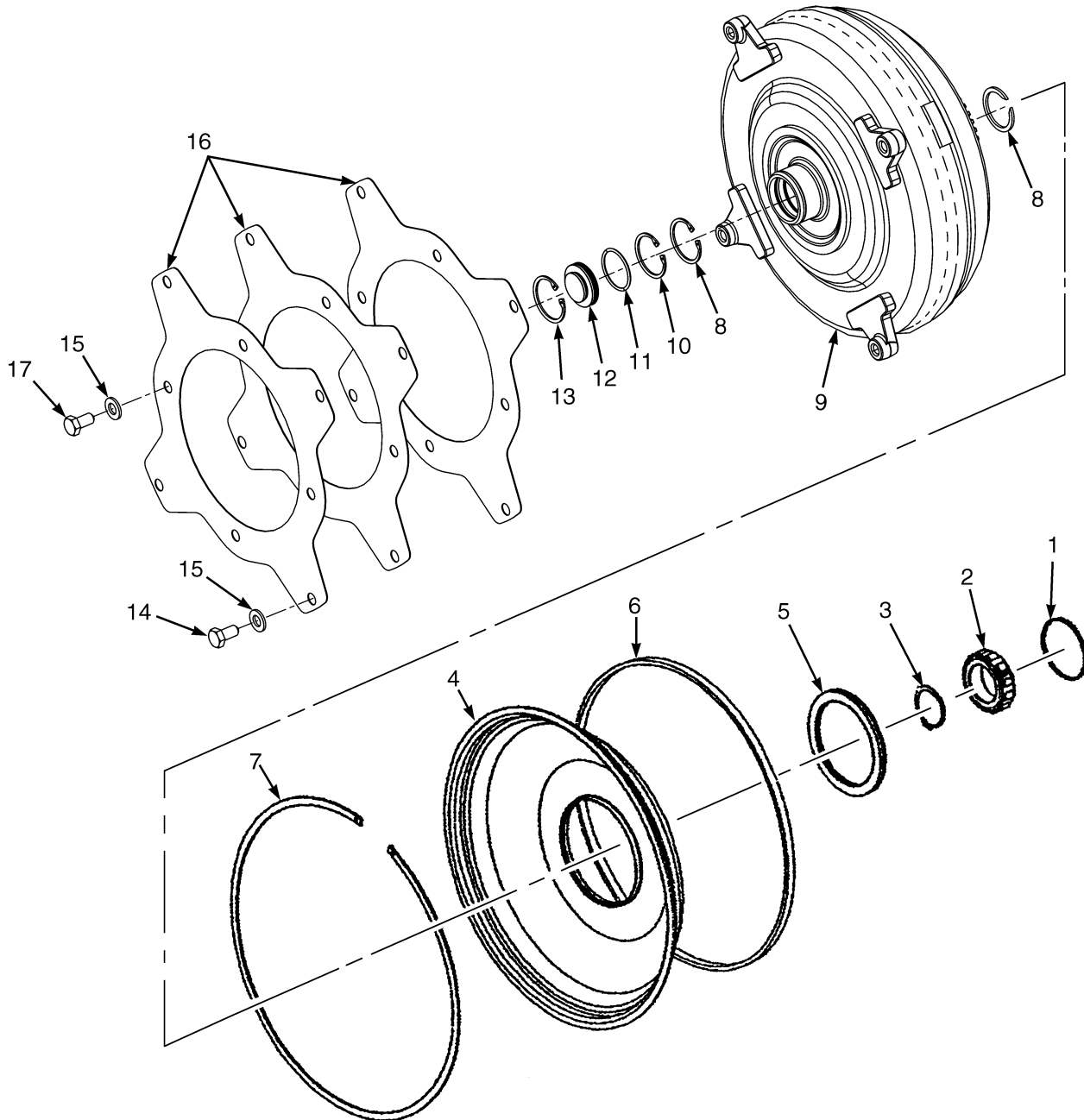


BP240171

**TRANSMISSION COOLING
WITH EXTERNAL OIL COOLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	17223	Fitting	2
1	16485	O-Ring	1
2	2108677	Hose	1
3	4109993		
	1527879	Capscrew	4
4	1480237	Nut	4
5	222512	Fitting	1
5	16485	O-Ring	1
6	222457	Fitting	1
6	1450764		
	16486	O-Ring	1
7	130845	Clamp	4
8	1698434	Fitting	1
9	1562648	Clip	2
10	2108901	Hose	1
11	4083336	Bracket	1

TORQUE CONVERTER (FIGURE 6-3) CUMMINS QSB 3.3L DIESEL



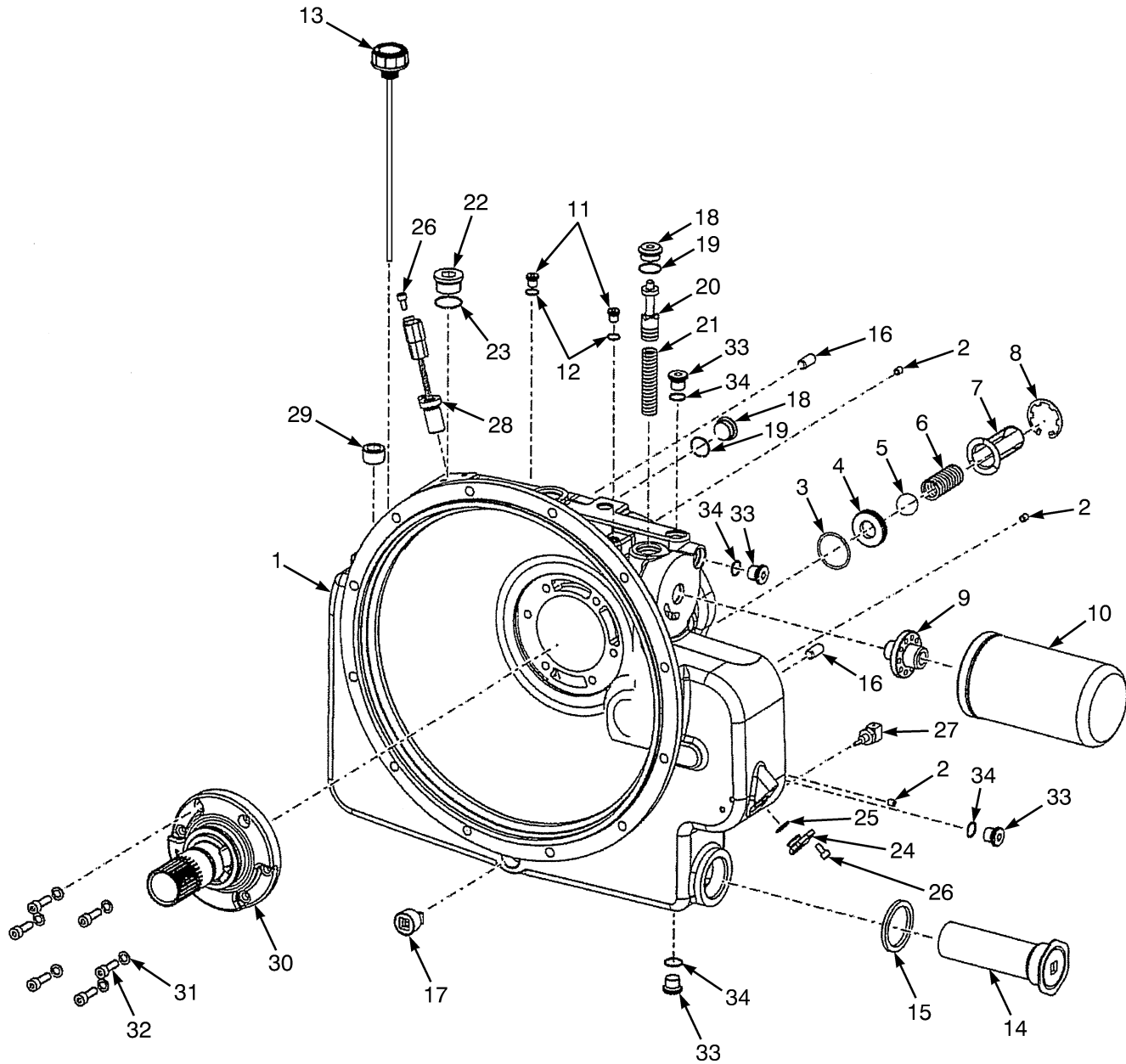
BP240109

**TORQUE CONVERTER
CUMMINS QSB 3.3L DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1655812	Piston Ring	1
2	1655813	Bearing	1
3	1655814	Snap Ring	1
4	1684271	Baffle And Oil Seal	1
5	1684272	Oil Seal	1
6	1312375	Seal	1
7	1312376	Retaining Ring	1
8	1655815	Snap Ring	2
9	1657919	Torque Converter (3.17 Stall Ratio)	1
10	1194254	Snap Ring	1
11	a 1311840	O-Ring	1
11	b 4085309	O-Ring	1
12	1603286	Plug	1
13	205222	Snap Ring	1
14	293626	Capscrew	4
15	296420	Washer	8
16	1671304	Flex Plate	3
17	1541921	Capscrew	4
	1709808	Kit-Gasket	1

FOOTNOTES:**a** → S/N B299E01595L**b** S/N B299E01596L →

TRANSMISSION ASSEMBLY (FIGURE 6-4) THREE SPEED — SHEET 1 OF 2

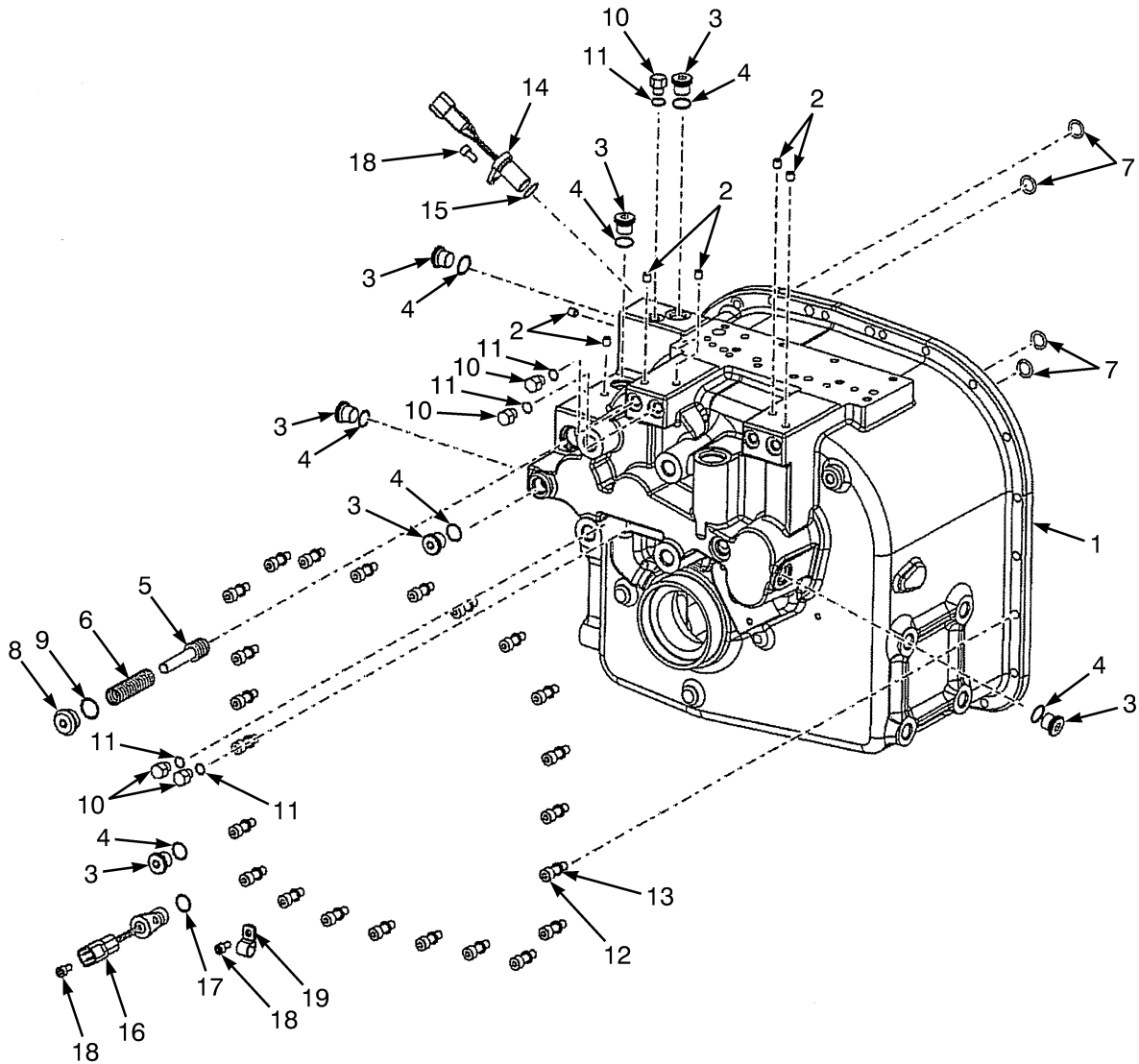


BP240157

TRANSMISSION ASSEMBLY
THREE SPEED – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	4010141	Transmission Assy (Three Speed)	1
1	1707735	Converter Housing	1
2	1655515	Plug	3
3	1707736	O-Ring	1
4	1707737	Spacer	1
5	1655452	Ball	1
6	1655453	Spring	1
7	1655454	Retainer	1
8	1655455	Snap Ring	1
9	1612863	Adapter	1
10	1556992	Transmission Filter	1
11	1655460	Plug	2
12	1557008	O-Ring	2
13	1707738	Dipstick And Breather	1
14	330514	Screen	1
15	330513	Gasket	1
16	330502	Pin	2
17	1311544	Drain Plug	1
18	1624368	Plug	2
19	1612905	O-Ring	1
20	1655466	Spool	1
21	1655467	Spring	1
22	1556918	Plug	1
23	1450764		
	16486	O-Ring	1
24	1655468	Plug	1
25	1530732	O-Ring	1
26	1556910	Capscrew	2
27	1655456	Sensor (Temperature)	1
28	1655469	Sensor (TISS)	1
29	1311552	Plug	1
30	1655457	Support (Stator)	1
31	1590532	Lockwasher	6
32	1655458	Screw	6
33	1655459	Plug	2
34	60653	O-Ring	2
	1709808	Kit-Gasket	1

TRANSMISSION ASSEMBLY (FIGURE 6-5) THREE SPEED — SHEET 2 OF 2

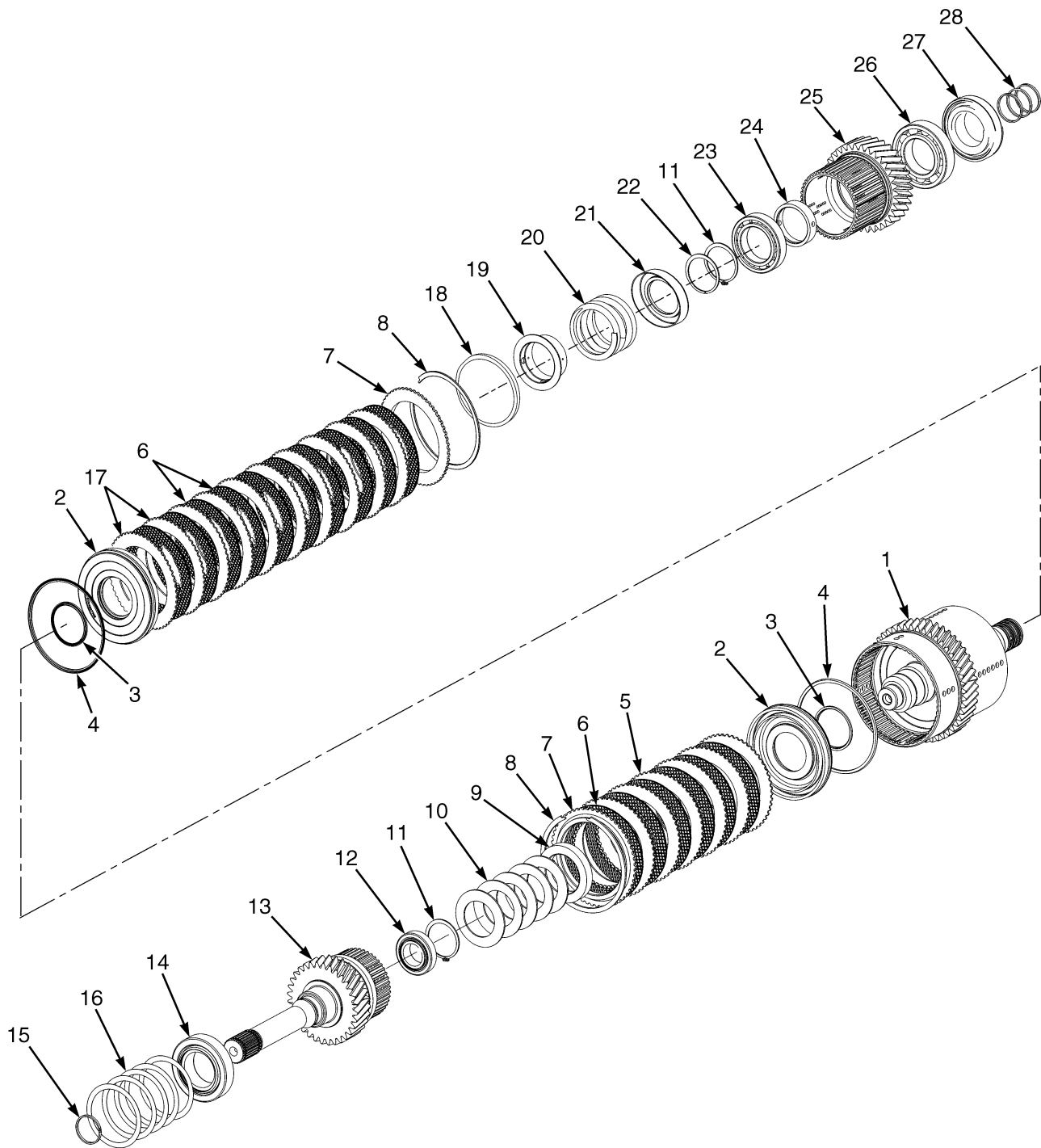


BP240158

TRANSMISSION ASSEMBLY
THREE SPEED – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	4010141	Transmission Assy (Three Speed)	1
1	1707741	Transmission Housing	1
2	1655515	Plug	6
3	1655459	Plug	7
4	60653	O-Ring	7
5	1655517	Spool	1
6	1655518	Spring	1
7	87281	O-Ring	4
8	1624368	Plug	1
9	1612905	O-Ring	1
10	1557007	Plug	5
11	1557008	O-Ring	5
12	1655458	Screw	23
13	1556998	Lockwasher	23
14	1655519	Sensor (Intermediate Speed Sensor)	1
15	1530732	O-Ring	1
16	1655520	Sensor (Output Speed, TOSS)	1
17	1530732	O-Ring	1
18	1556910	Capscrew	3
19	1655522	Clip	1

FORWARD CLUTCH LOW AND SECOND SHAFT (FIGURE 6-6) THREE SPEED TRANSMISSION — FWD1, RANGE2

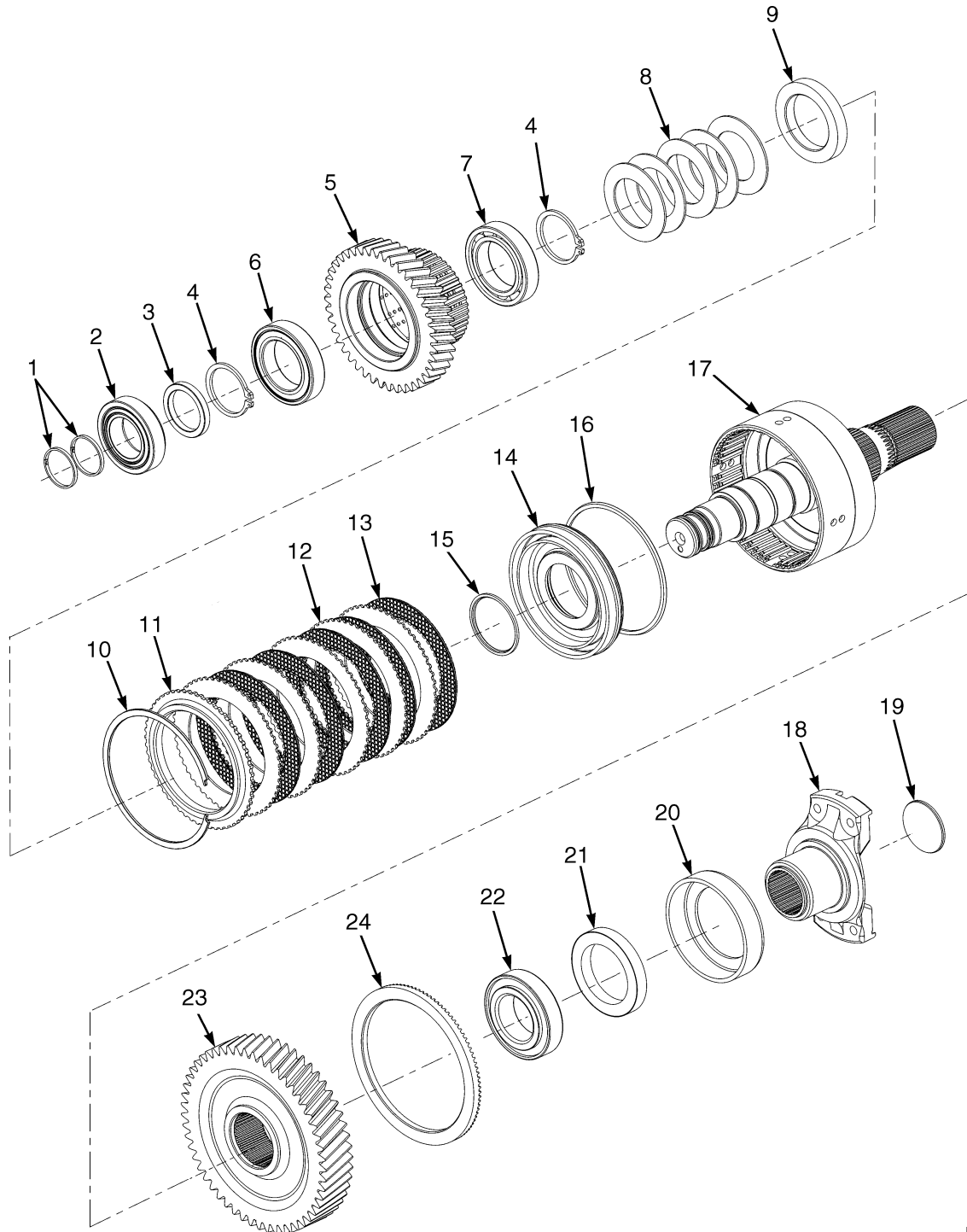


BP240114

**FORWARD CLUTCH LOW AND SECOND SHAFT
THREE SPEED TRANSMISSION – FWD1, RANGE2**

ITEM	PART NO.	DESCRIPTION	QTY
1	1707745	Shaft	1
2	1655546	Clutch Piston	2
3	1655547	Seal	1
4	1311811	Piston Seal	1
5	1655548	Friction Disk (Inner, High Density)	17
6	1556965	Separator Plate (Outer)	6
7	1655552	Plate	2
8	1311810	Snap Ring	2
9	1655558	Spacer	1
10	1655557	Disk Spring	1
11	1655561	Snap Ring	3
12	1655562	Bearing	1
13	1655596	Shaft (Forward)	1
14	1655597	Bearing	1
15	1556985	Piston Ring	1
16	1655598	Shim	AR
16	1655599	Shim	AR
16	1655600	Shim	AR
16	1707749	Shim	AR
17	1655549	Separator Plate (Outer)	11
18	1707746	Sealing Ring	1
19	1655555	Retainer	1
20	1655554	Spring	1
21	1655606	Retainer	1
22	1707750	Retaining Ring	1
23	330590	Bearing	1
24	1707748	Spacer	1
25	1707747	Clutch Gear	1
26	1389220	Bearing	1
27	1655550	Bearing	1
28	1556985	Piston Ring	3

FORWARD CLUTCH HIGH AND OUTPUT SHAFT (FIGURE 6-7) THREE SPEED TRANSMISSION — FWD2



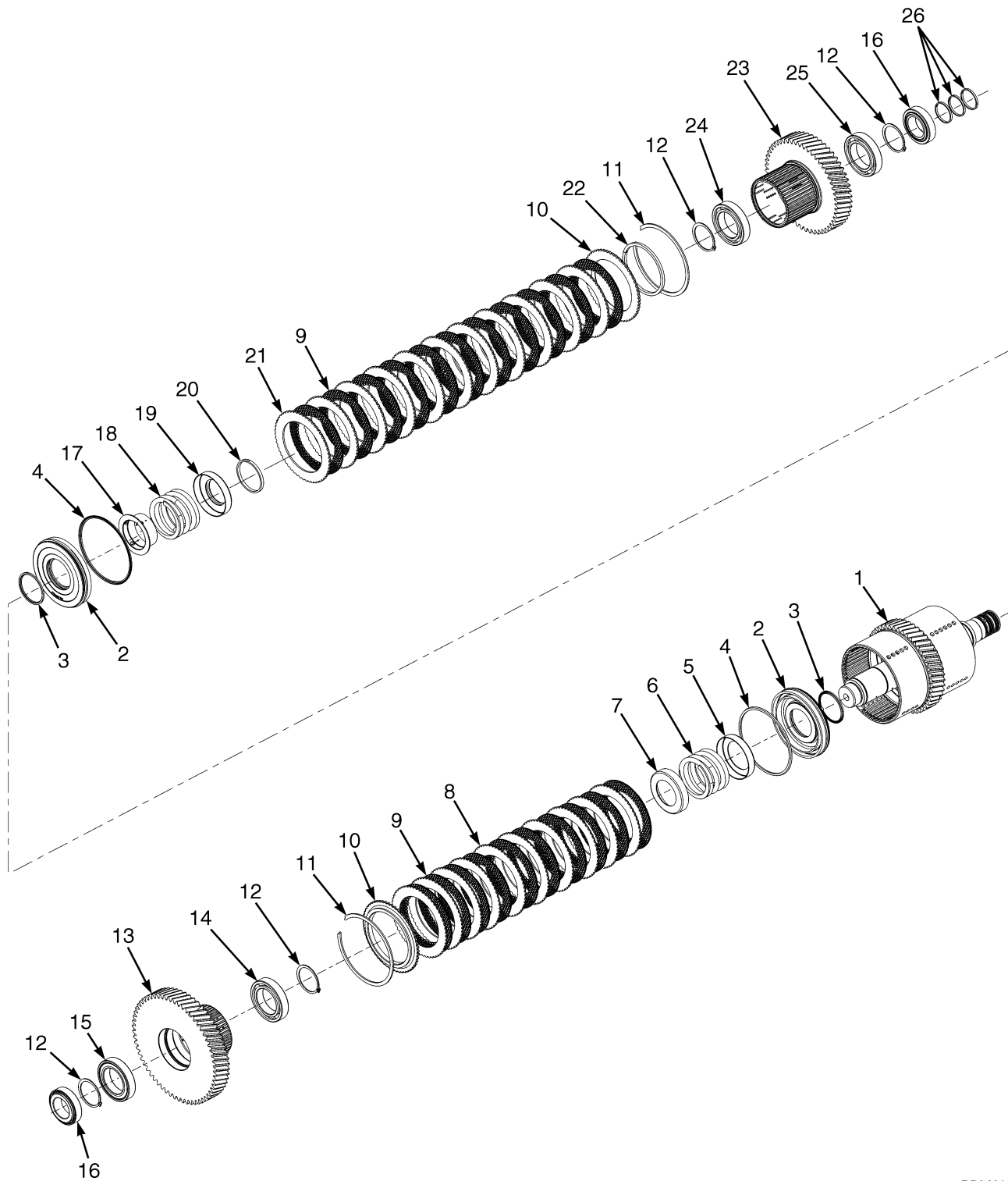
BP240116

**FORWARD CLUTCH HIGH AND OUTPUT SHAFT
THREE SPEED TRANSMISSION – FWD2**

ITEM	PART NO.	DESCRIPTION	QTY
1	1556985	Piston Ring	2
2	1707768	Bearing	1
3	b 1655615	Spacer	1
4	1655561	Snap Ring	2
5	1707767	Gear (Fwd/High)	1
5	a 1707750	Retaining Ring	1
6	1312359	Bearing	1
7	330590	Bearing	1
8	1655557	Disk Spring	1
9	1655558	Spacer	1
10	1311810	Snap Ring	1
11	1655552	Plate	1
12	1556965	Separator Plate (Outer)	5
13	1655548	Friction Disk (Inner, High Density)	5
14	1655546	Clutch Piston	1
15	1655547	Seal	1
16	1311811	Piston Seal	1
17	1707766	Shaft	1
18	1707769	Flange	1
19	1655624	Plug	1
20	1655623	Cover	1
21	1655621	Oil Seal	1
22	1655618	Bearing	1
23	1694403	Transmission Gear (Output with Tone Ring)	1
24	.....	Ring	1

FOOTNOTES:**a** Not Illustrated**b** Not used with this application

REVERSE CLUTCH AND FIRST SHAFT (FIGURE 6-8) THREE SPEED TRANSMISSION — REV1, RANGE 1

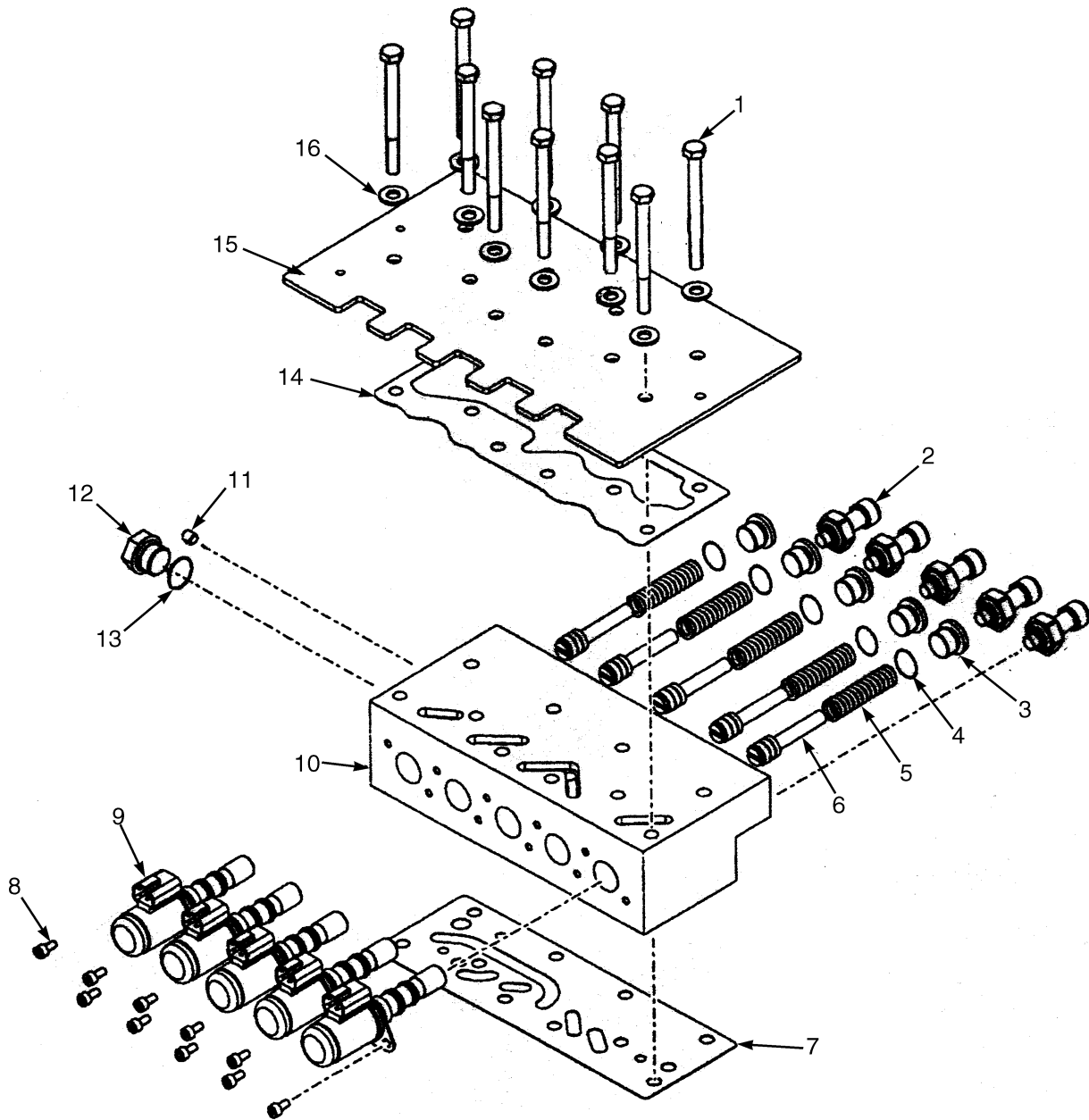


BP240115

**REVERSE CLUTCH AND FIRST SHAFT
THREE SPEED TRANSMISSION – REV1, RANGE 1**

ITEM	PART NO.	DESCRIPTION	QTY
1	1707762	Shaft	1
2	1655546	Clutch Piston	2
3	1655547	Seal	2
4	1311811	Piston Seal	2
5	1655605	Retainer	1
6	1655610	Spring	1
7	1707750	Retaining Ring	1
8	1556965	Separator Plate (Outer)	10
9	1655548	Friction Disk (Inner, High Density)	21
10	1655552	Plate	2
11	1311810	Snap Ring	2
12	1655561	Snap Ring	4
13	1707764	Gear (1st Clutch)	1
13	1707750	Retaining Ring	1
14	330590	Bearing	1
15	1312359	Bearing	1
16	1655607	Bearing	2
17	1655555	Retainer	1
18	1655554	Spring	1
19	1655606	Retainer	1
20	1655601	Snap Ring	1
21	1655549	Separator Plate (Outer)	11
22	1707746	Sealing Ring	1
23	1707763	Gear (Reverse)	1
23	1707750	Retaining Ring	1
24	330590	Bearing	1
25	1312359	Bearing	1
26	1556985	Piston Ring	3

CONTROL VALVE (FIGURE 6-9) THREE SPEED TRANSMISSION

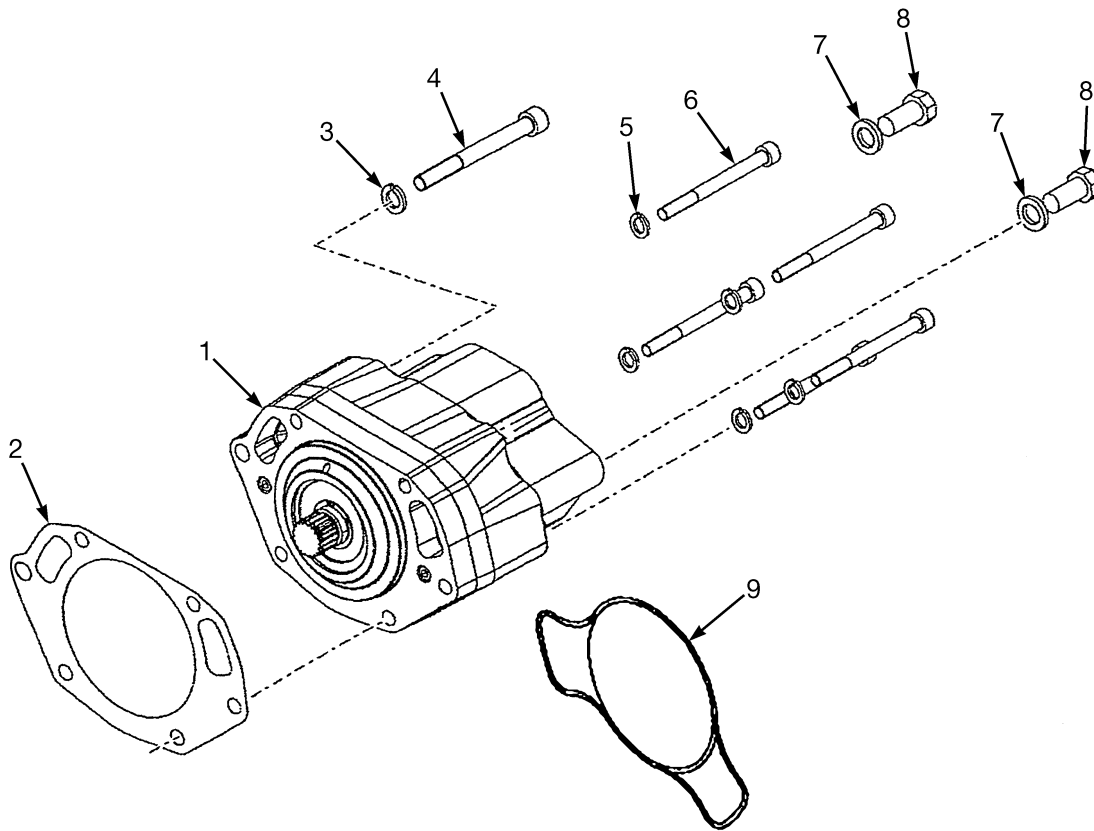


BP240117

**CONTROL VALVE
THREE SPEED TRANSMISSION**

ITEM	PART NO.	DESCRIPTION	QTY
	4015130	Valve Assembly Assembly	1
1	1557009	Capscrew	10
2	1655633	Sensor (Valve Pressure)	5
3	1655639	Plug	5
4	87281	O-Ring	1
5	4024031	Spring	5
6	4015133	Spool	5
6	4015134	Pin	5
7	1655636	Gasket	1
8	1655638	Capscrew	10
9	4015132	Solenoid	5
9	1324792	O-Ring	1
9	1324790	Retainer	2
10	4015131	Valve	1
11	.....	Plug	1
12	14595	Plug Assembly	1
12	199524	Plug	1
13	16484	O-Ring	1
14	1655634	Gasket	1
15	1655635	Cover (Control Valve)	1
16	1590532	Lockwasher	10

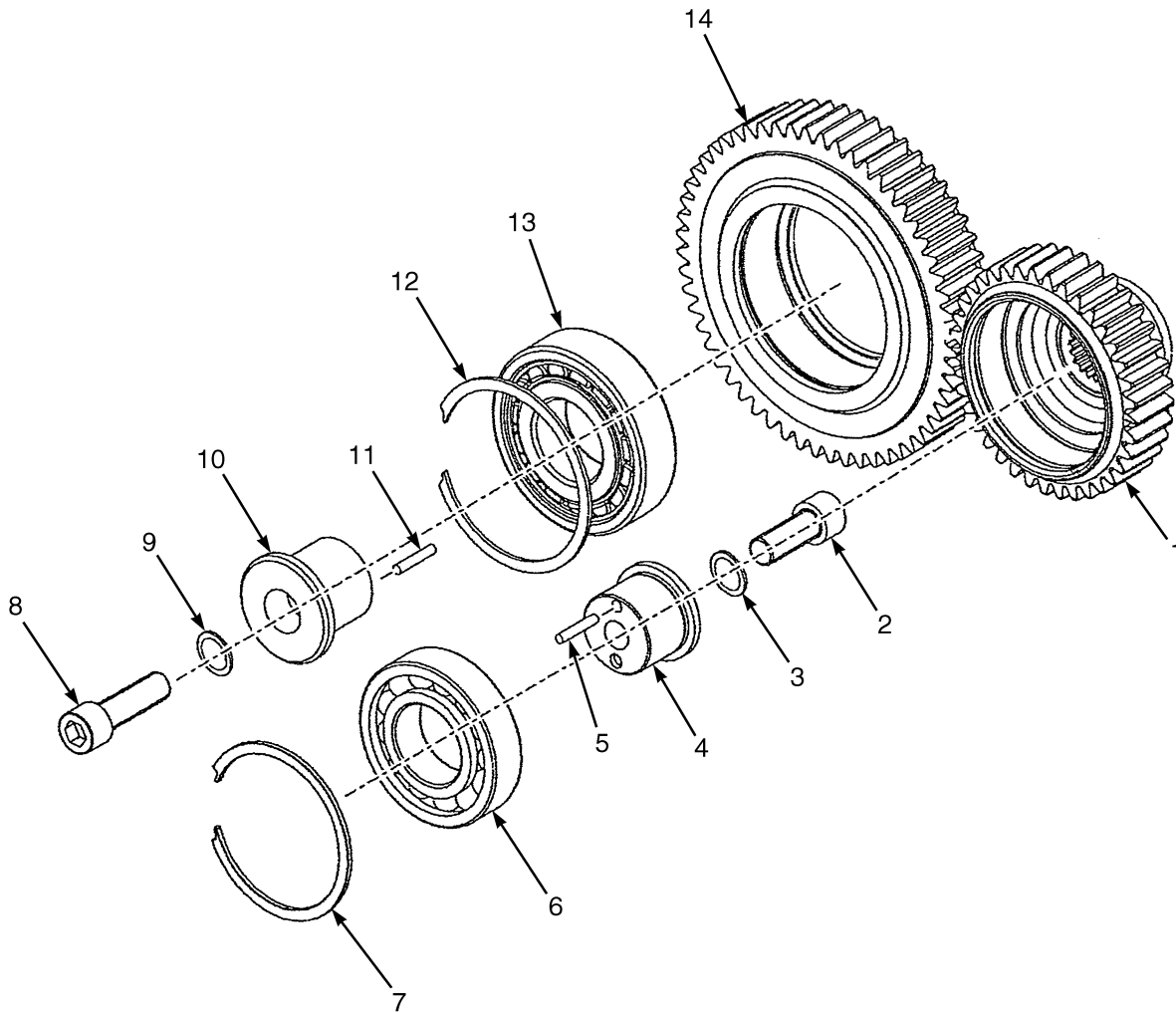
CHARGE PUMP (FIGURE 6-10)



BP240112

ITEM	PART NO.	DESCRIPTION	QTY
1	4104436	Charge Pump	1
2	1655528	Gasket	1
3	1612314	Lockwasher	1
4	1655530	Capscrew	1
5	1590532	Lockwasher	5
6	1655529	Capscrew	5
7	1612870	Lockwasher	2
8	1655531	Capscrew	2
9	4053738	O-Ring	1

PUMP DRIVE (FIGURE 6-11)



BP240113

PUMP DRIVE

ITEM	PART NO.	DESCRIPTION	QTY
1	1684268	Drive Gear	1
2	1655542	Capscrew	1
3	1624602	Lockwasher	1
4	1655541	Support	1
5	1655543	Pin	1
6	1707743	Ball Bearing	1
7	1311803	Retaining Ring	1
8	1655536	Screw	1
9	1655537	Lockwasher	1
10	1655535	Support	1
11	1655534	Pin	1
12	1612711	Snap Ring	1
13	1612710	Bearing	1
14	1684266	Idler Gear (Pump Drive)	1

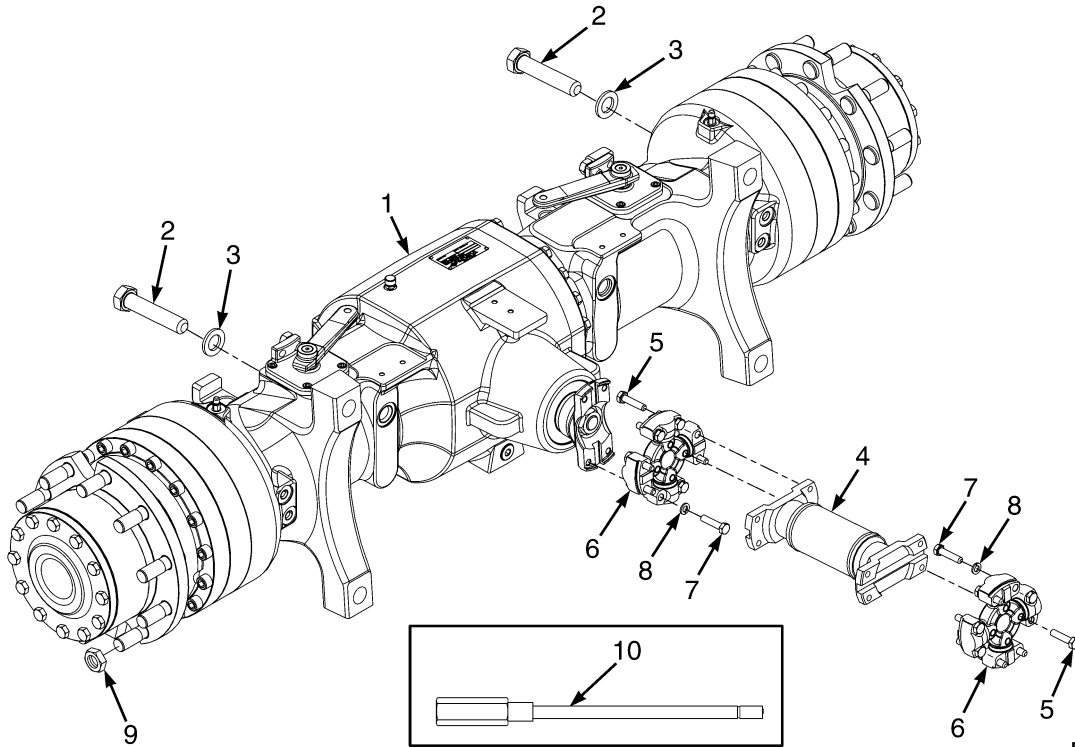
7

DRIVE AXLE

**SECTION 7
DRIVE AXLE**

DESCRIPTION	PAGE
DIFFERENTIAL	7-4
DRIVE AXLE AND ATTACHING PARTS	
WET BRAKE	7-2
DRIVE AXLE HOUSING AND HUB	7-6
DRIVE TIRE AND WHEEL	7-10
WET BRAKE ASSEMBLY	7-8

DRIVE AXLE AND ATTACHING PARTS (FIGURE 7-1) WET BRAKE



BP070177

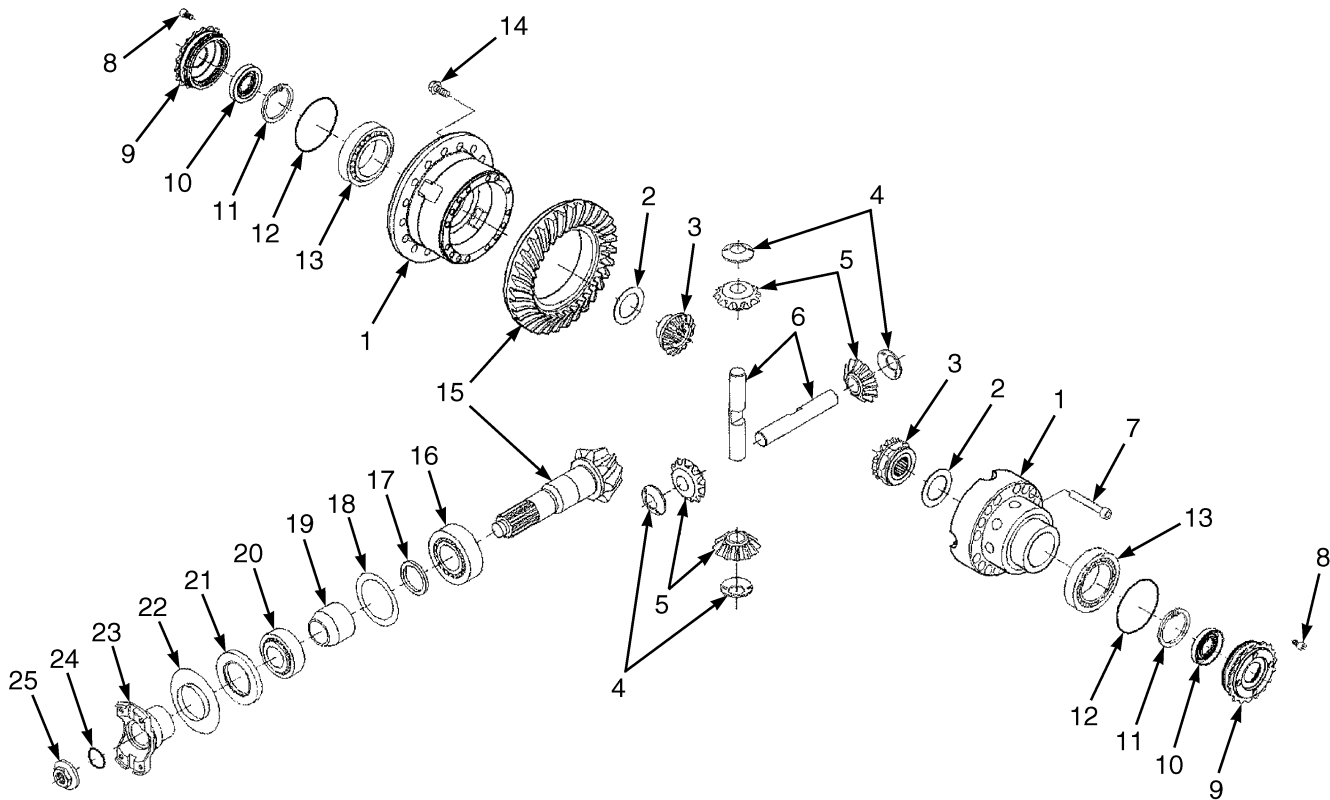
ITEM	PART NO.	DESCRIPTION	QTY
1	2089938	Drive Axle (16.9 Overall Ratio) (☞Figure 7-2, ☞Figure 7-3, ☞Figure 7-4).....	1
2	226430	Capscrew	4
3	296434	Washer	4
4	1598063	Drive Shaft	1
4	1672700	Yoke	1
5	1672699	Capscrew	8
6	1672695	Universal Joint	2
7	1566514	Capscrew	8
8	292682	Lockwasher	8
9	376026	Wheel Nut	20
10	a 49189	Extension (Valve Stem)	2
10	b 2028341	Extension (Valve Stem)	2

FOOTNOTES:

a Used with Bias Ply Tires

b Used with Radial Tires

DIFFERENTIAL (FIGURE 7-2)

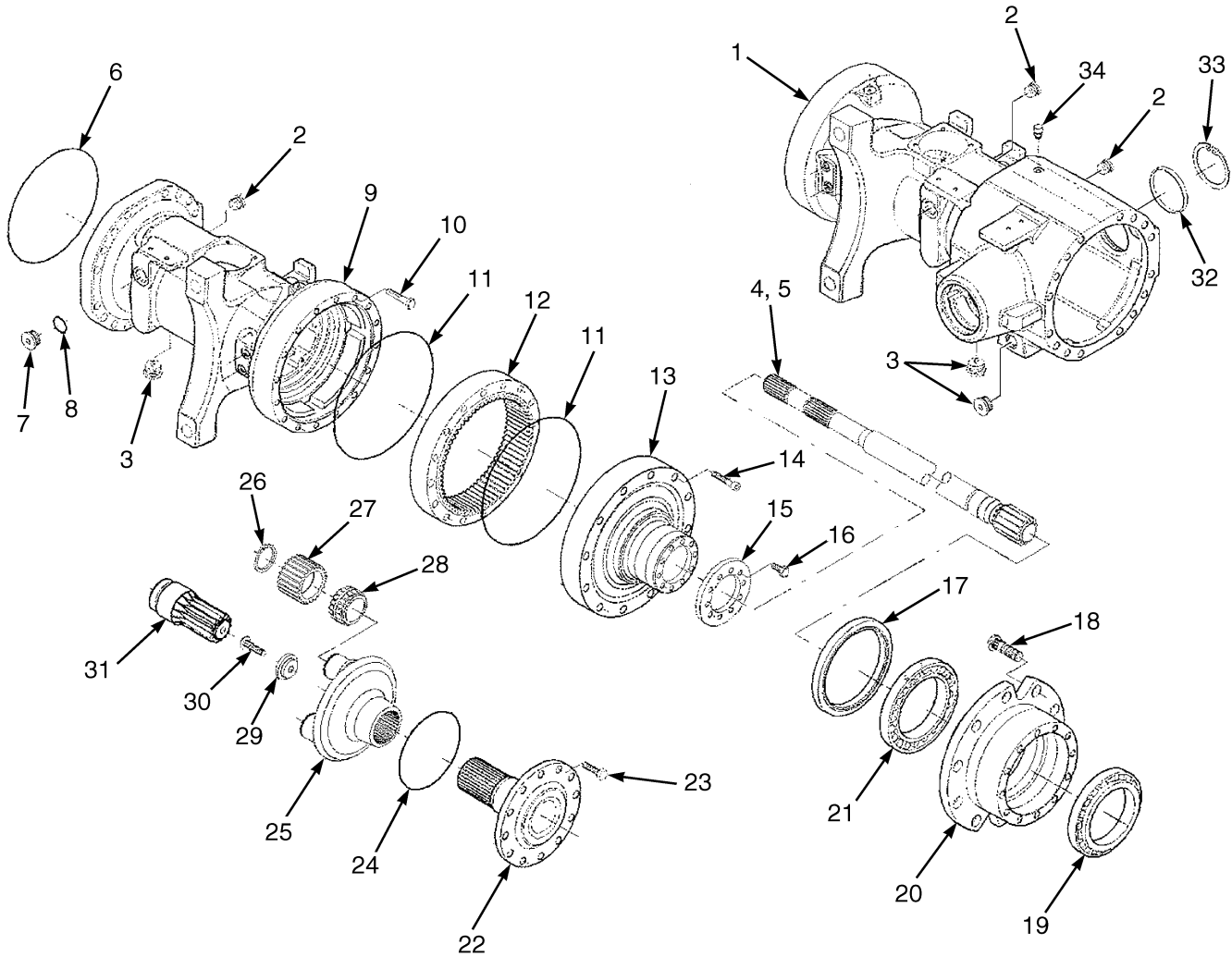


BP070050

DIFFERENTIAL

ITEM	PART NO.	DESCRIPTION	QTY
	2089938	Drive Axle (16.9 Overall Ratio)	1
	1703567	Differential	1
1	1703563	Differential Carrier	1
2	1644251	Washer	2
3	1703564	Gear	2
4	1703566	Friction Disk	4
5	1644255	Pinion	4
6	1703565	Shaft	2
7	1644257	Bolt	15
8	1623672	Bolt	2
9	1644246	Nut	2
10	1644247	Seal	2
11	1612530	Snap Ring	2
12	1644245	O-Ring	2
13	1644248	Bearing	2
14	1644249	Bolt	16
15	1703562	Gear Set	1
16	1644243	Bearing	1
17	1657852	Kit-Shim	1
18	1644238	Shim (0.1 mm)	1
18	1644239	Shim (0.2 mm)	1
18	1644240	Shim (0.5 mm)	1
18	1644241	Shim (0.15 mm)	1
19	1644237	Spacer	1
20	1623573	Bearing	1
21	1644236	Seal	1
22	1644235	Cover Plate	1
23	1644233	Flange	1
24	1644234	O-Ring	1
25	1644232	Nut	1

DRIVE AXLE HOUSING AND HUB (FIGURE 7-3)

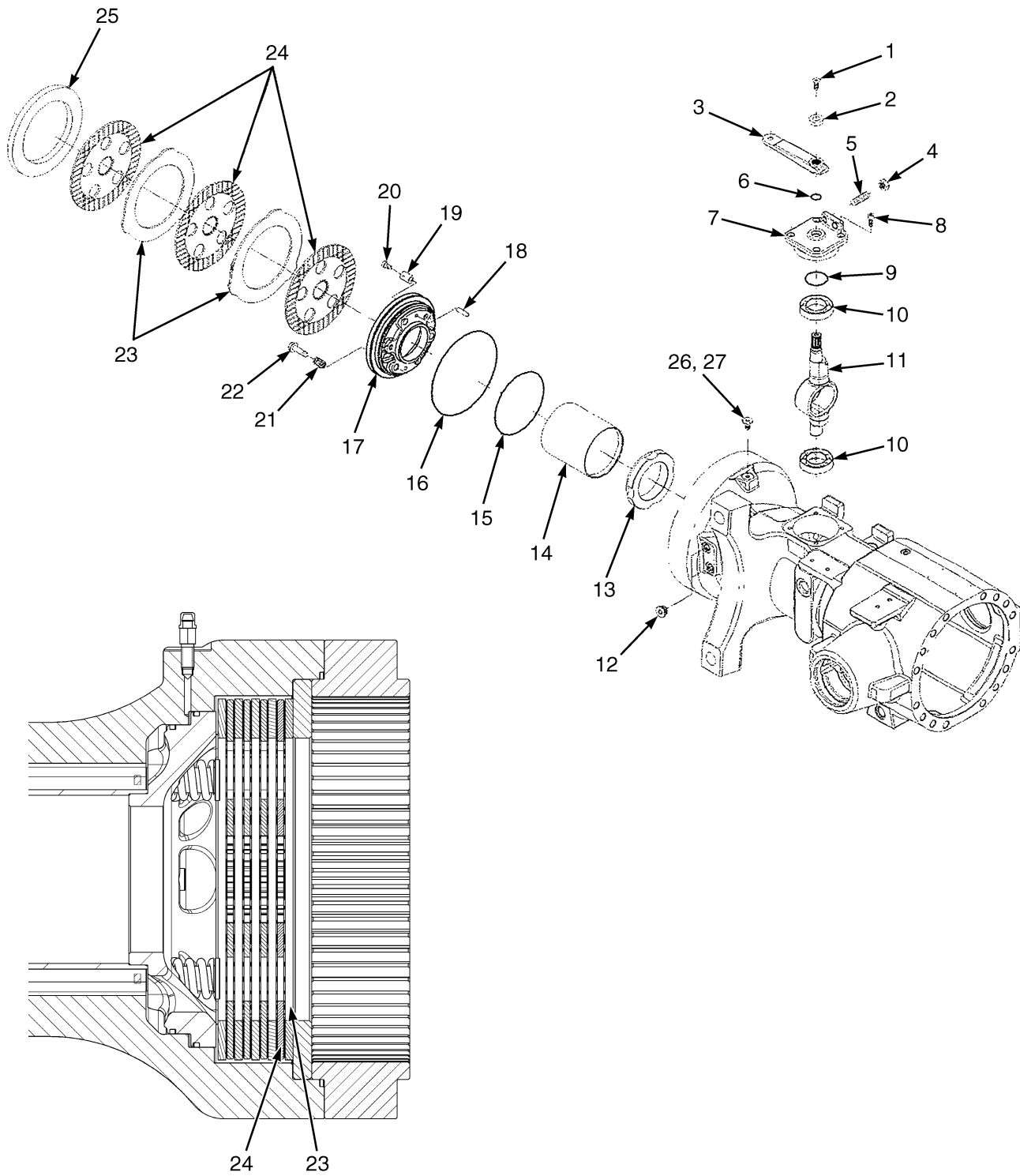


BP070057

DRIVE AXLE HOUSING AND HUB

ITEM	PART NO.	DESCRIPTION	QTY
	2089938	Drive Axle (16.9 Overall Ratio)	1
1	1703570	Drive Axle Housing (LH)	1
2	1623544	Plug	3
3	1623545	Drain Plug	3
4	1703574	Axle Shaft (Short)	1
5	1703575	Axle Shaft (Long)	1
6	1644260	O-Ring	1
7	1641352		
	1703573	Plug	2
8	1623671	O-Ring	2
9	1703576	Drive Axle Housing (RH)	1
10	1657747	Bolt	16
11	1657748	O-Ring	4
12	1657749	Ring Gear	2
13	1657756	Flange	2
14	1657750	Bolt	32
15	1657758	Washer	2
16	1657759	Bolt	20
17	1657751	Ring	2
18	1657754	Stud	20
19	1703571	Bearing	2
20	1657753	Wheel Hub	2
21	1657752	Bearing	2
22	1657760	Shaft (Half)	2
23	1623643	Bolt	24
24	1657755	O-Ring	2
25	1703578	Kit-Carrier	2
25	1703572	Carrier (Planetary)	1
26	1644275	Snap Ring	4
27	1644276	Gear	4
28	1644277	Bearing	4
29	1657763	Spacer	2
30	1657762	Bolt	2
31	1657761	Pinion	2
32	1644229	Plug	1
33	1612530	Snap Ring	1
34	1623576	Plug (Ventilation)	1

WET BRAKE ASSEMBLY (FIGURE 7-4)

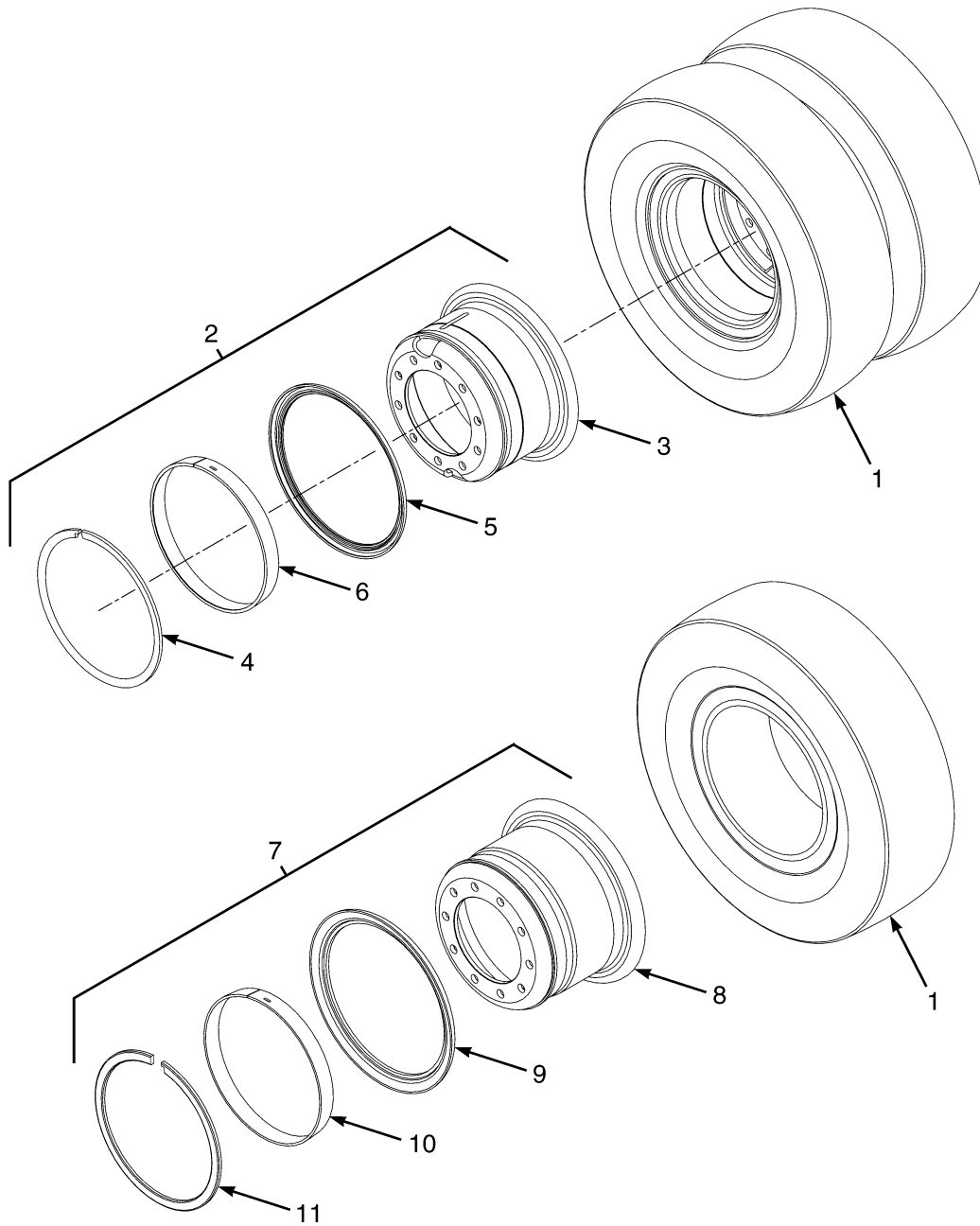


BP070081

WET BRAKE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	2089938	Drive Axle (16.9 Overall Ratio)	1
1	1623669	Bolt	2
2	1623694	Spacer	2
3	1657770	Lever	2
4	1623696	Nut	2
5	1657771	Bolt	2
6	1623671	O-Ring	2
7	1657772	Bushing	2
8	1623672	Bolt	8
9	1623673	O-Ring	2
10	1623674	Bearing	4
11	1623675	Lever	2
12	1644305		
	1703579	Plug	2
13	1627823	Disk	2
14	1703584	Spacer	2
15	1657777	Seal	2
16	1703585	Ring	2
17	1703586	Piston	2
18	1644294	Dowel	4
19	1623690	Spring	6
20	1703587	Bolt	6
21	1703583	Spring	6
22	1657782	Bolt	6
23	1657781	Disk (Intermediate)	10
24	1657780	Disk (Friction)	8
25	1657775	Disk	2
26	1623676	Plug	2
27	1623677	Stud (Bleeding)	2

DRIVE TIRE AND WHEEL (FIGURE 7-5)



BP070159

DRIVE TIRE AND WHEEL**KEY:****A: 8.25 x 15-14PR (Pneumatic)****B: 8.25 x 15R (Radial)****C: 355/50-20 (Solid Pneumatic) H8.0FT****D: 300 x 15 (Solid Pneumatic)**

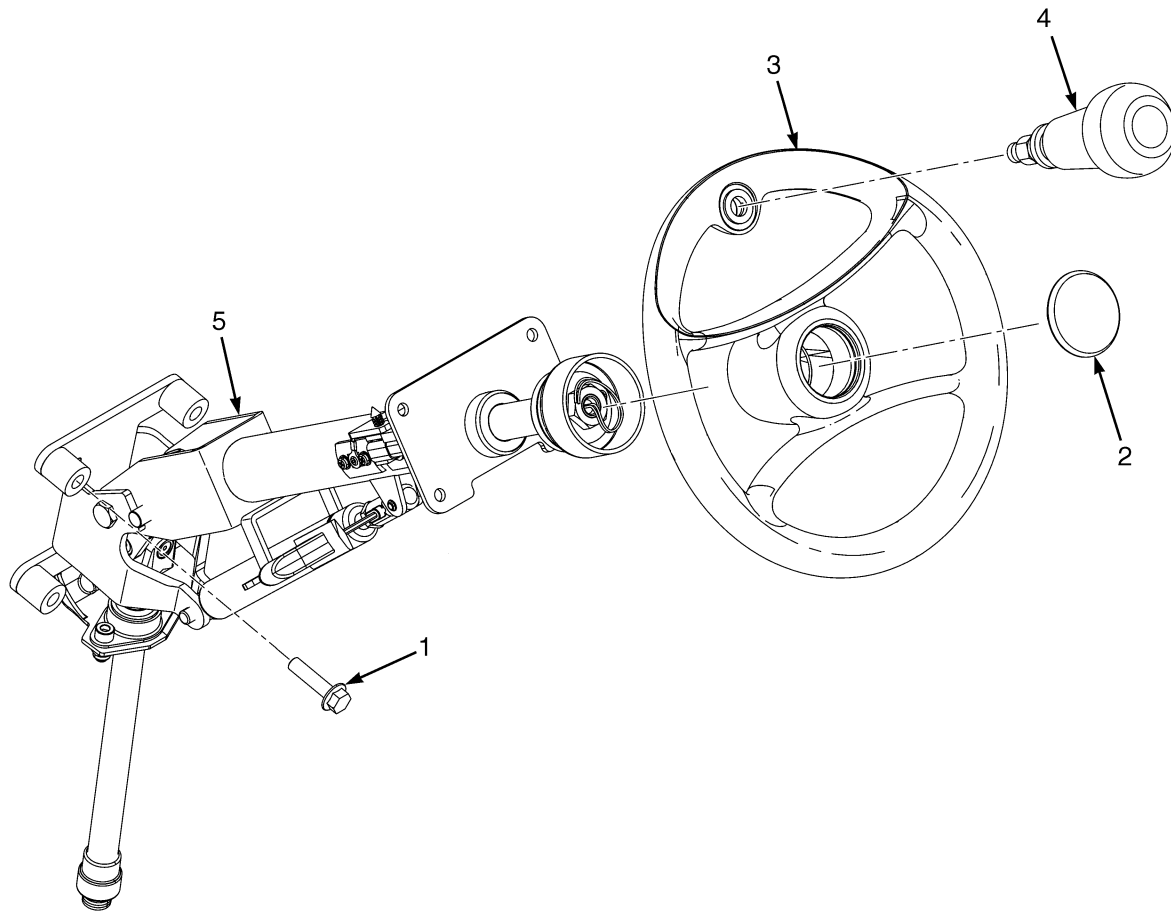
ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
	ac 1606267	Wheel And Tire	4	..	..	..
	1606270	Wheel And Tire .....	..	4	..	..
	c 1709633	Wheel And Tire .....	..	..	2	..
	1709741	Wheel And Tire .....	..	..	..	4
	4120984	Wheel And Tire .....	..	..	2	..
1	a 1547351	Tire	1	..	..	..
1	a 1471838	Pneumatic Tire .....	..	1	..	..
1	c 1688190	Solid Pneumatic Tire .....	..	..	1	..
1	a 1657446	Solid Pneumatic Tire .....	..	..	..	1
1	4640871	Solid Pneumatic Tire .....	..	..	1	..
2	4640529	Wheel Assy .....	..	..	1	..
2	c 2111798	Wheel (10.00 x 20) (Snap on Tire) .....	..	..	1	..
2	a 2094200	Wheel Assy (6.5 x 15)	1	1	..	..
3	4048418	Wheel	1	1	..	..
4	980542	Wheel Lock Ring	1	1	..	..
4	1692614	Wheel Lock Ring .....	..	..	1	..
5	980541	Wheel Side Ring	1	1	..	..
5	1692615	Wheel Side Ring .....	..	..	1	..
6	1584695	Wedge Band	1	1	..	..
6	1692616	Wedge Band .....	..	..	1	..
7	a 2111834	Wheel Assy (8.00 x 15) .....	..	..	..	1
8	4007008	Wheel .....	..	..	..	1
9	321124	Wheel Side Ring .....	..	..	..	1
10	1618586	Ring-Tapered Bead Seat .....	..	..	..	1
11	1618589	Wheel Lock Ring .....	..	..	..	1
	b 1471598	Tubeless Bead Seal (Radial) .....	..	1	..	..
	b 1471922	Tubeless Bead Seal Valve (Radial) .....	..	1	..	..

FOOTNOTES:**a** Dual Drive Wheel**c** Single Drive Wheel**b** Not Illustrated

**SECTION 8
STEERING SYSTEM**

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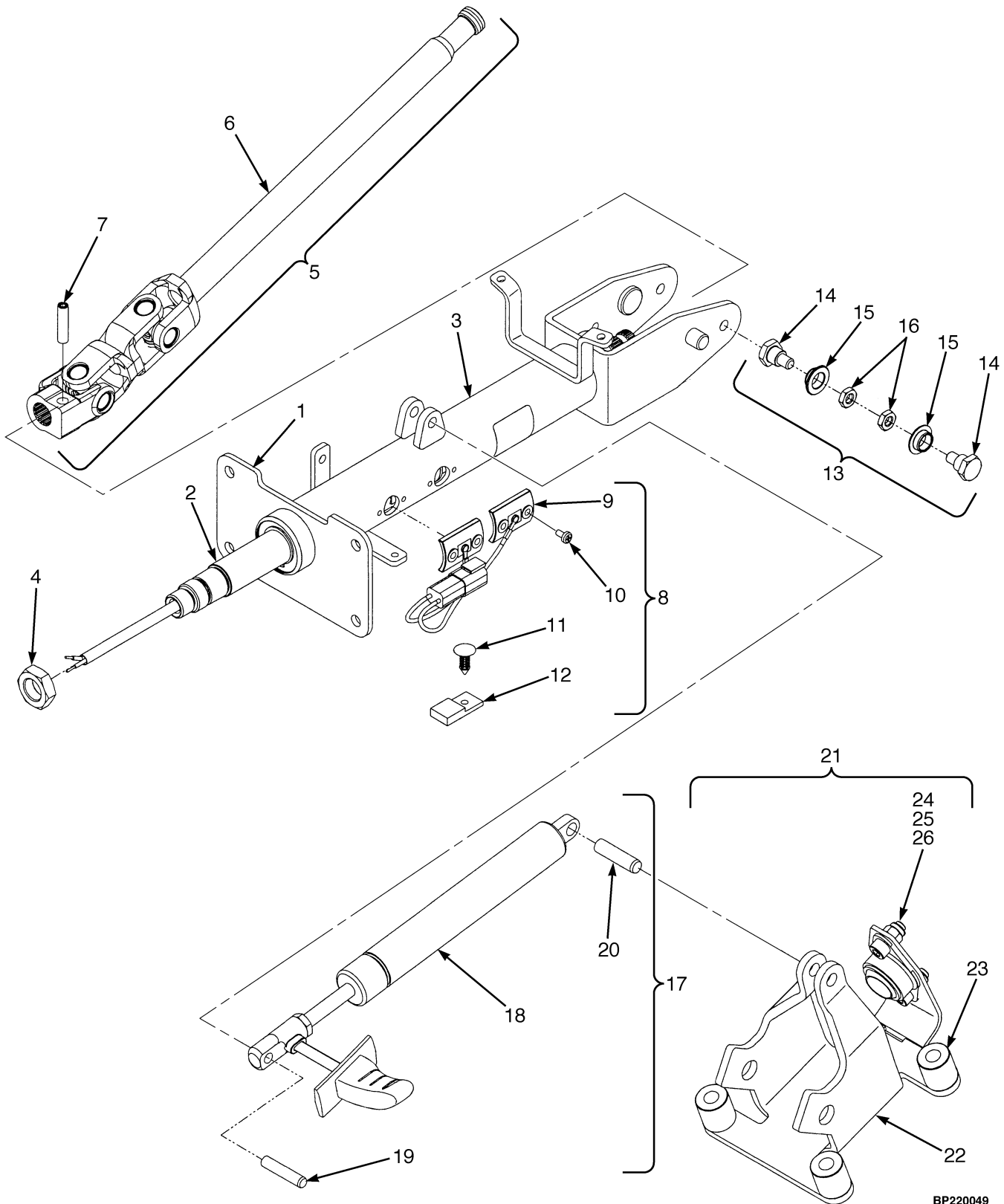
STEERING WHEEL AND COLUMN (FIGURE 8-1)



HP220500

ITEM	PART NO.	DESCRIPTION	QTY
1	1512403	Capscrew	4
2	1608622	Horn Button	1
3	1551839	Steering Wheel (Without Spinner Knob)	1
3	1531563	Steering Wheel (With Spinner)	1
4	1586109	Knob Assembly	1
5	4023450	Steering Column (☞ Figure 8-2).....	1

STEERING COLUMN ASSEMBLY (FIGURE 8-2)

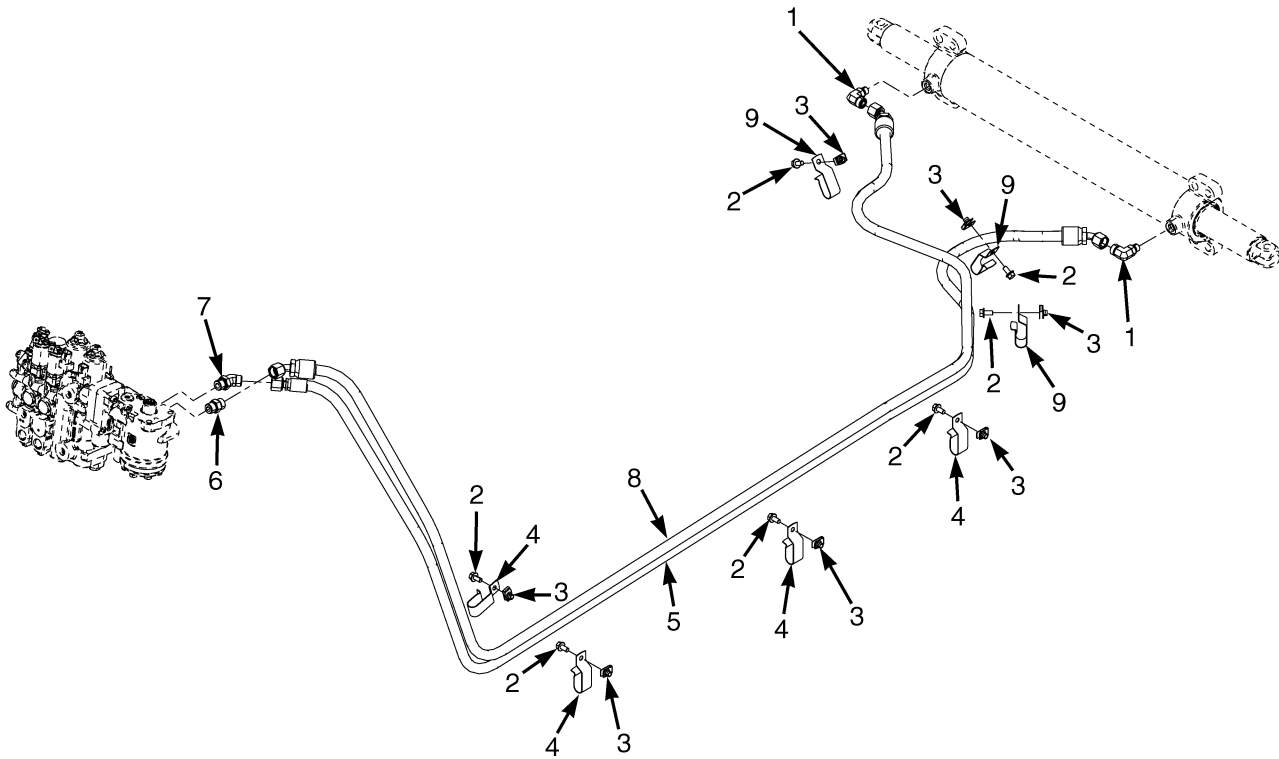


BP220049

STEERING COLUMN ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	4023450	Steering Column	1
1	4028642	Kit (Shaft Upper)	1
2	.....	Shaft Assembly (Upper)	1
3	.....	Housing	1
4	1562492	Kit-Nut	1
4	.....	Nut	2
5	1562493	Kit-Shaft (Lower)	1
6	.....	Shaft Assembly (Lower)	1
7	.....	Pin	1
8	1562496	Kit-Contact	1
9	.....	Contact Assembly (Horn)	1
10	.....	Screw	4
11	.....	Fastener	1
12	.....	Connector	1
13	1562501	Kit-Pivot (Lower)	1
14	.....	Bolt (Pivot)	2
15	.....	Bushing	2
16	.....	Nut	2
17	1562505	Kit-Gas Spring	1
18	.....	Gas Spring	1
19	.....	Pin	1
20	.....	Pin	1
21	1562509	Kit-Support	1
21	.....	Joint	1
22	.....	Support	1
23	.....	Spacer	4
24	.....	Nut	2
25	.....	Washer	2
26	.....	Screw	2

STEERING LINES (FIGURE 8-3)

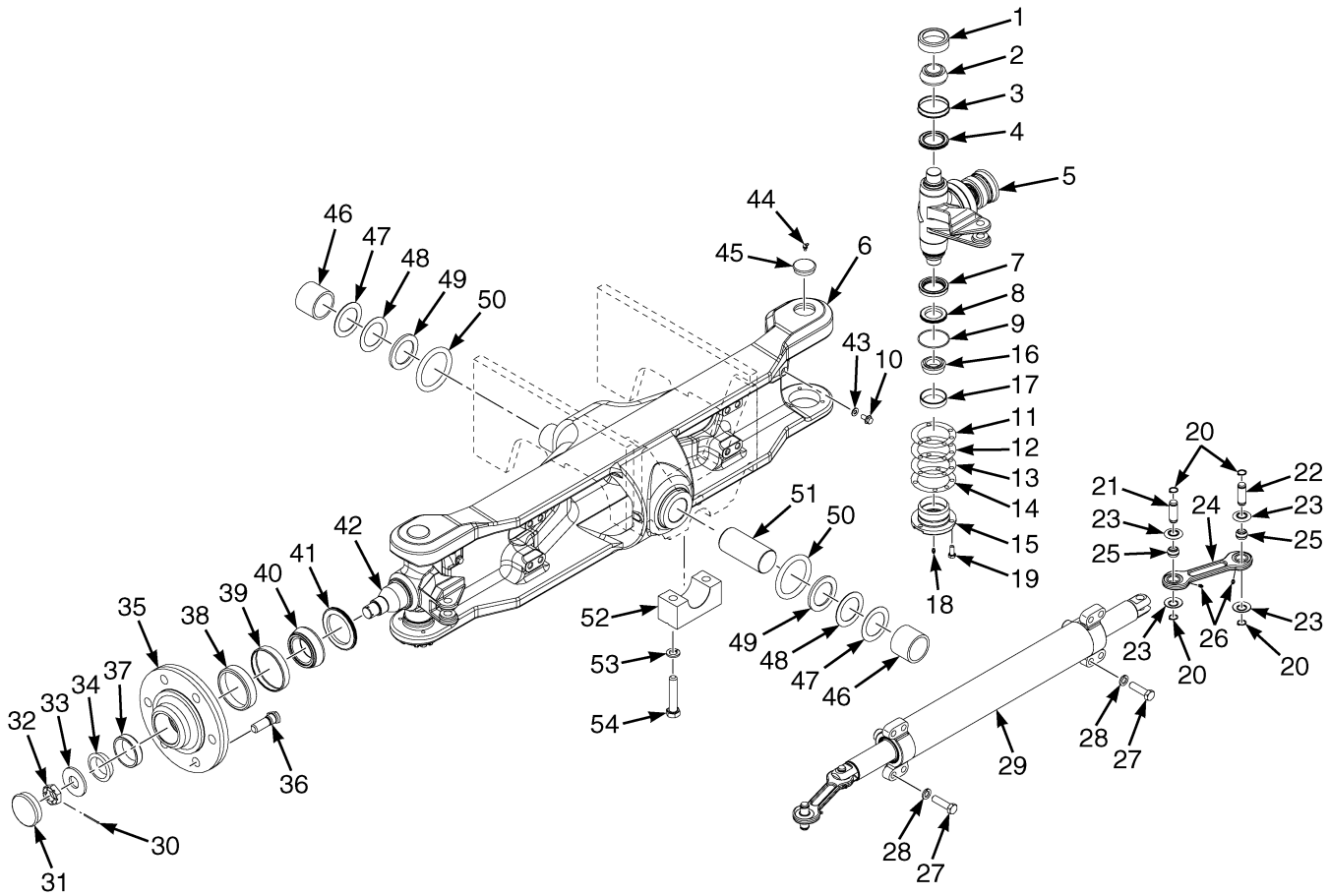


BP220107

STEERING LINES

ITEM	PART NO.	DESCRIPTION	QTY
1	1487064	Fitting	2
2	4109993		
	1527879	Capscrew	7
3	1480237	Nut	7
4	1544157	Clip	4
5	2107595	Hose Assy	1
6	4022961	Fitting	1
7	4022959	Fitting	1
8	2107596	Hose Assy	1
9	1562648	Clip	3

STEER AXLE (FIGURE 8-4)



BP220235

STEER AXLE

ITEM	PART NO.	DESCRIPTION	QTY
	a 1677244	Steering Axle	1
	b 4047112	Steering Axle	1
1	230421	Bearing Cup	2
2	153715	Bearing Cone	2
3	153717	Wear Sleeve	2
4	153716	Seal	2
5	a 4028881	Spindle (RH)	1
5	b 4047111	Spindle (RH)	1
6	1696278	Steering Axle (Frame)	1
7	266733	Seal	2
8	266728	Seal	2
9	39678	O-Ring	2
10	1527883	Capscrew	2
11	185856	Shim (0.127 mm)	3
12	185857	Shim (0.178 mm)	3
13	185858	Shim (0.508 mm)	3
14	1563858	Shim (0.076 mm)	3
15	4009736	Bearing Cap Assembly	1
15	4006723	Bearing Set	1
15	266735	Bearing Cap	1
15	266749	Bearing Cup	1
15	1374823	Bearing Set	1
16	135657	Bearing Cone	2
17	135658	Bearing Cup	1
18	13957	Grease Fitting	2
19	293628	Capscrew	6
20	12929	Snap Ring	8
21	1673481	Pin	2
22	1673482	Pin	2
23	1692130	Seal	8
24	1673444	Tie Rod (Assembly)	2
25	1671760	Bushing	1
26	13957	Grease Fitting	2
27	293688	Capscrew	8
28	292685	Lockwasher	8
29	2108963	Steering Cylinder (☞ Figure 8-5).....	1
30	15225	Cotter Pin	2
30	15226	Cotter Pin (Optional)	2
31	69029	Cap	2
32	53641	Wheel Nut (Spindle)	2
33	1383775	Washer	2
34	153835	Bearing Cone	2
35	1603898	Wheel Hub	2
36	1393348	Wheel Stud	12
37	153834	Bearing Cup	2
38	230324	Bearing Cup	2
39	129499	Wear Sleeve	2
40	230325	Bearing Cone	2
41	129498	Seal	2
42	a 4028880	Spindle (LH)	1
42	b 4047110	Spindle (LH)	1

STEER AXLE

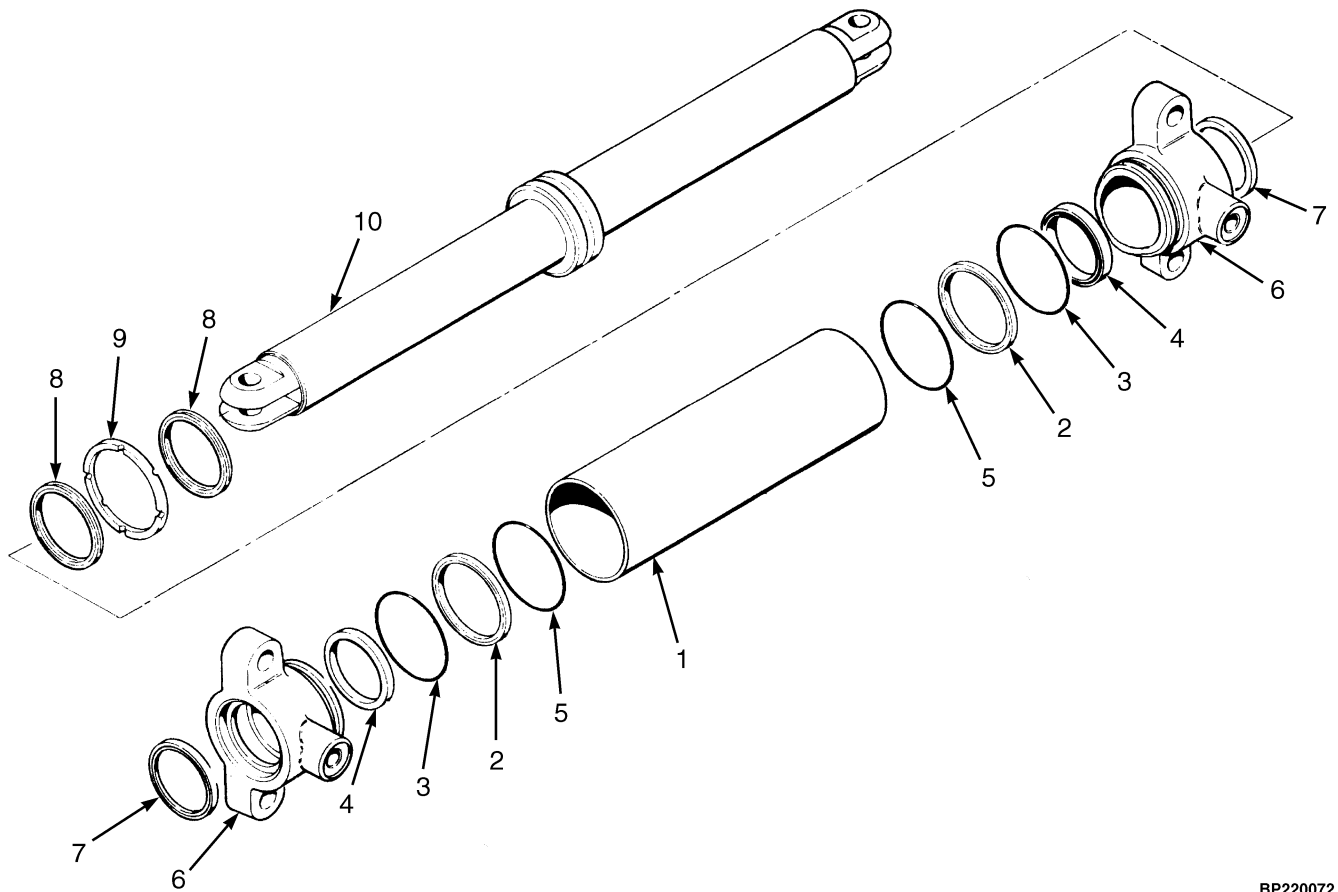
ITEM	PART NO.	DESCRIPTION	QTY
43	320159	Washer	2
44	1388829	Dust Cap	2
45	13963	Grease Fitting	2
46	1335873	Bushing	2
47	131191	Shim (1,016 mm)	AR
48	131190	Shim (2,794 mm)	AR
49	1335870	Flange	2
50	131193	Sealing Ring	2
51	349281	Shaft	2
52	.....	Cap	2
53	292687	Lockwasher	2
54	292590	Capscrew	2
	2064554	Loctite	AR

FOOTNOTES:

a → 4/2014

b 4/2014 →

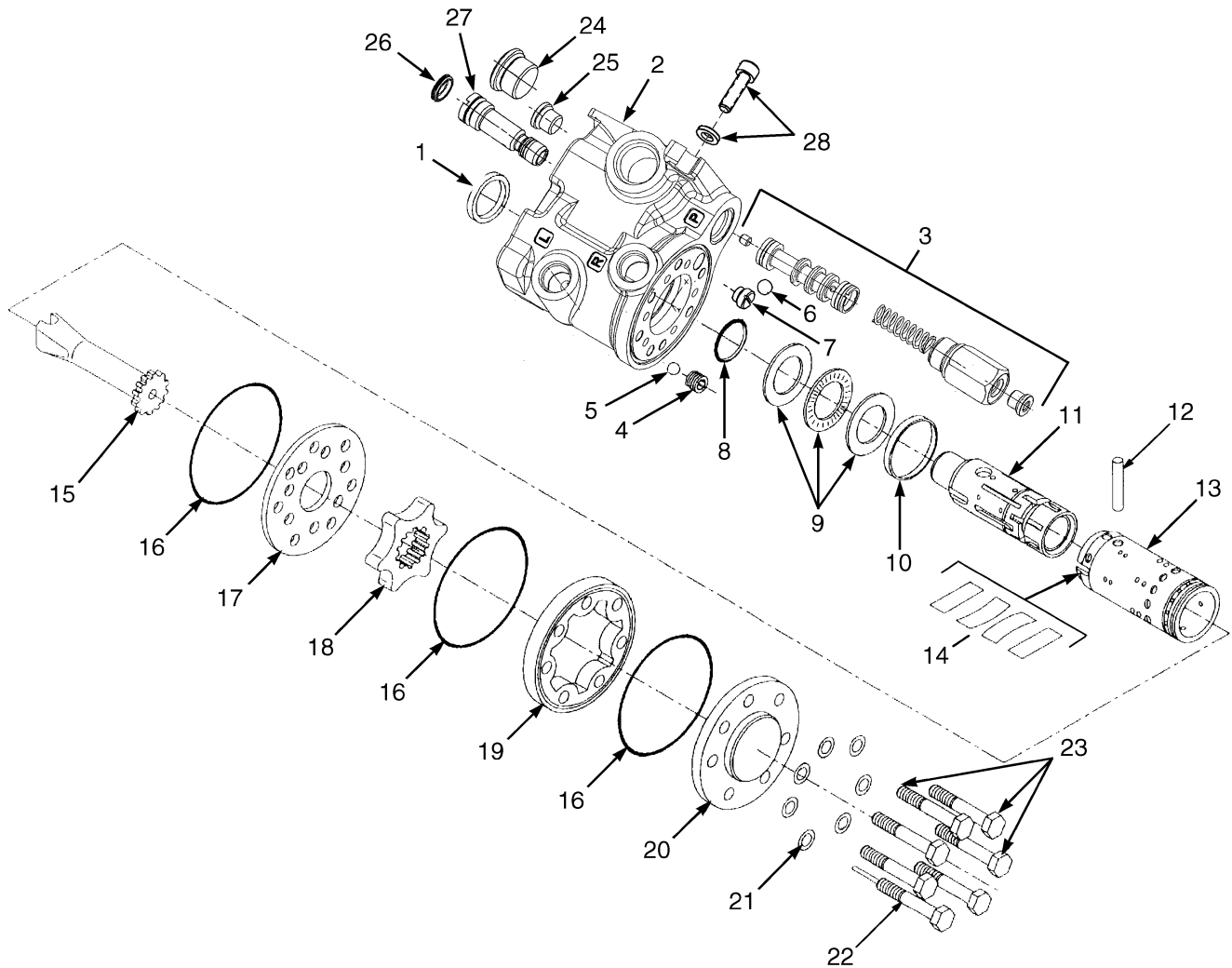
STEER CYLINDER (FIGURE 8-5)



BP220072

ITEM	PART NO.	DESCRIPTION	QTY
	2108963	Steering Cylinder	1
1	344391	Tube Wldmt-Cylinder	1
2	154358	Back-Up Ring	2
3	39679	O-Ring	2
4	1380092	Rod Seal	2
5	15880	O-Ring	2
6	1594137	End Cap	2
7	2071094	Rod Wiper	2
8	1611065	Wear Ring	2
9	2046765	Seal	2
10	1683373	Cylinder Rod	1
	1708573	Kit-Seal	1

STEERING CONTROL UNIT (FIGURE 8-6)

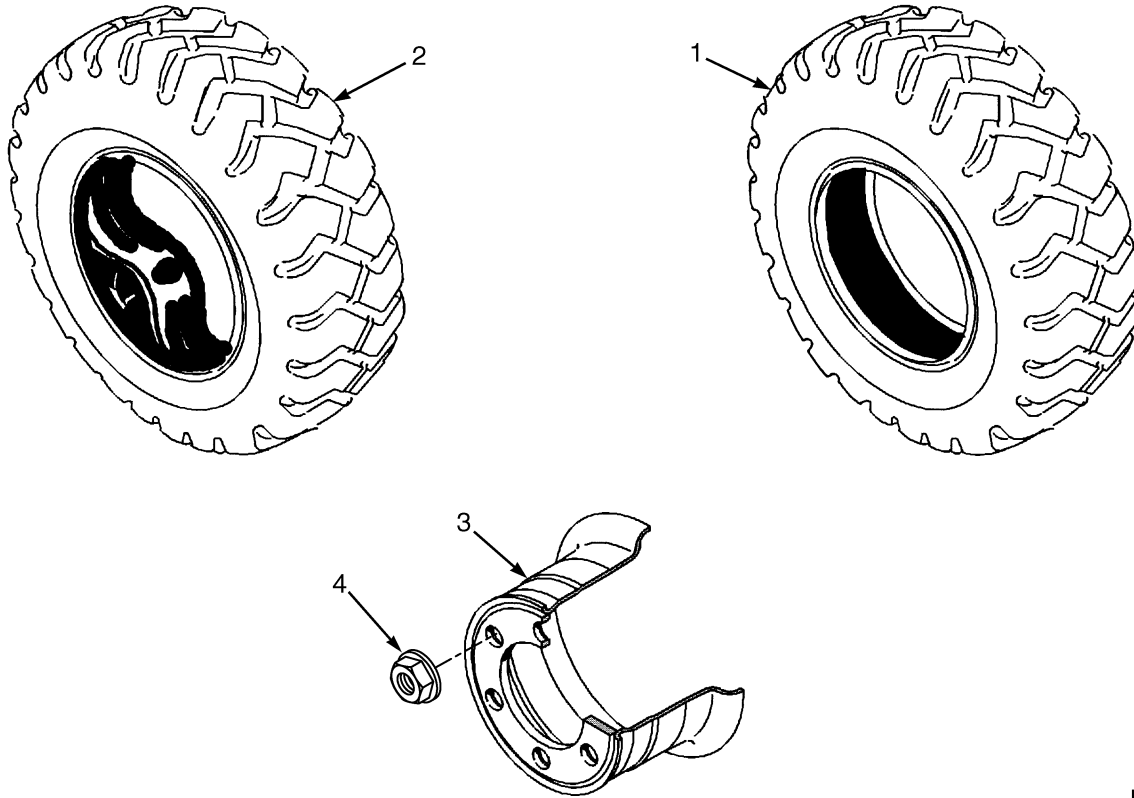


BP220103

STEERING CONTROL UNIT

ITEM	PART NO.	DESCRIPTION	QTY
	2107399	Steering Control Unit	1
	4639748	Steering Control Unit (Alternate Part)	1
1	Dust Seal	1
2	Housing	1
3	Relief Valve	1
4	Bushing	1
5	Check Ball	1
6	Check Ball	1
7	Seat	1
8	O-Ring	1
9	Bearing Set	1
10	Ring	1
11	Spool	1
12	Pin	1
13	Sleeve	1
14	Spring Set	1
15	Shaft	1
16	O-Ring	3
17	Plate	1
18	Gear Set	1
19	Gear Ring	1
20	Cover	1
21	Washer	7
22	Special Screw	2
23	Capscrew	5
24	Priority Valve Plug	1
25	Diagnostic Plug (Supply Pressure)	1
26	Cap	1
27	System Relief Valve	1
28	Mounting Bolts	1
	1579908	Kit-Seal (Steering Control Unit)	1

STEER TIRE AND WHEEL (FIGURE 8-7)



BP220106

KEY:

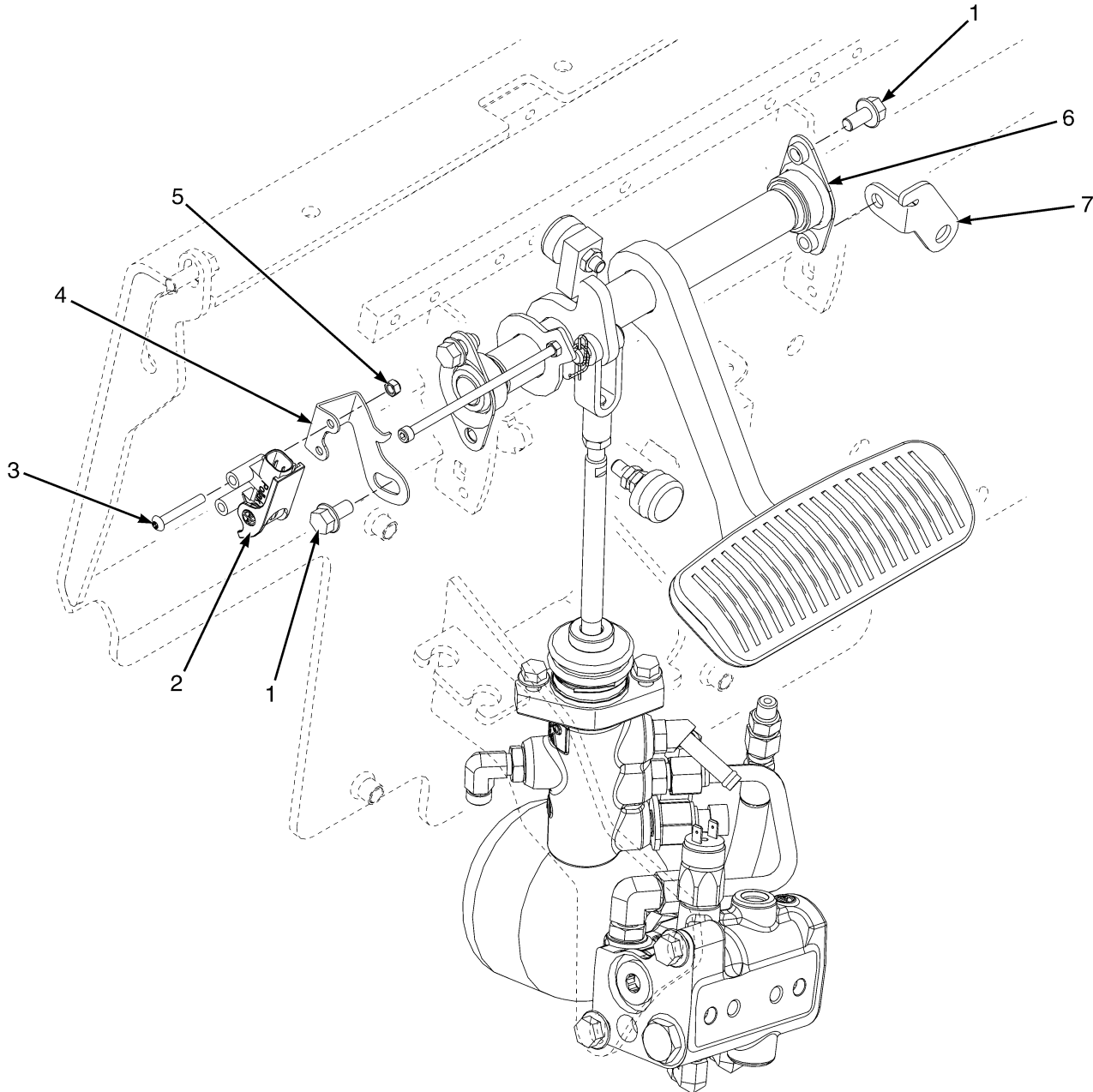
- A: 8.25 x 15-14 PR
- B: 8.25 x 15 Solid Pneumatic
- C: 8.25 R15 Radial
- D: 300x15 Solid Pneu

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
	1606271	Wheel And Tire (Trell)	2	..	..	..
	1636044	Wheel And Tire (Monarch) .....	..	2	..	..
	1606274	Wheel And Tire (Radial) .....	..	..	2	..
	1657447	Wheel And Tire (Trell) .....	..	..	..	2
1	1547351	Tire (Trell)	1	..	..	..
1	1547349	Tire (Monarch) .....	..	1	..	..
1	1471838	Pneumatic Tire (Radial) .....	..	..	1	..
1	1657446	Solid Pneumatic Tire (Trell) .....	..	..	..	1
2	1471598	Tubeless Bead Seal .....	..	..	1	..
2	1471922	Tubeless Bead Seal Valve .....	..	..	1	..
3	2094201	Wheel Assy	1	..	1	..
3	2097726	Wheel Assy	1	..	1
4	376026	Wheel Nut	12	12	12	..

**SECTION 9
BRAKE SYSTEM**

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DUAL PEDAL	9-6
SINGLE PEDAL	9-4
BRAKE PEDAL MOUNTING	9-2
BRAKE VALVE ASSEMBLY	9-8
PARK BRAKE ASSEMBLY	9-10

BRAKE PEDAL MOUNTING (FIGURE 9-1)

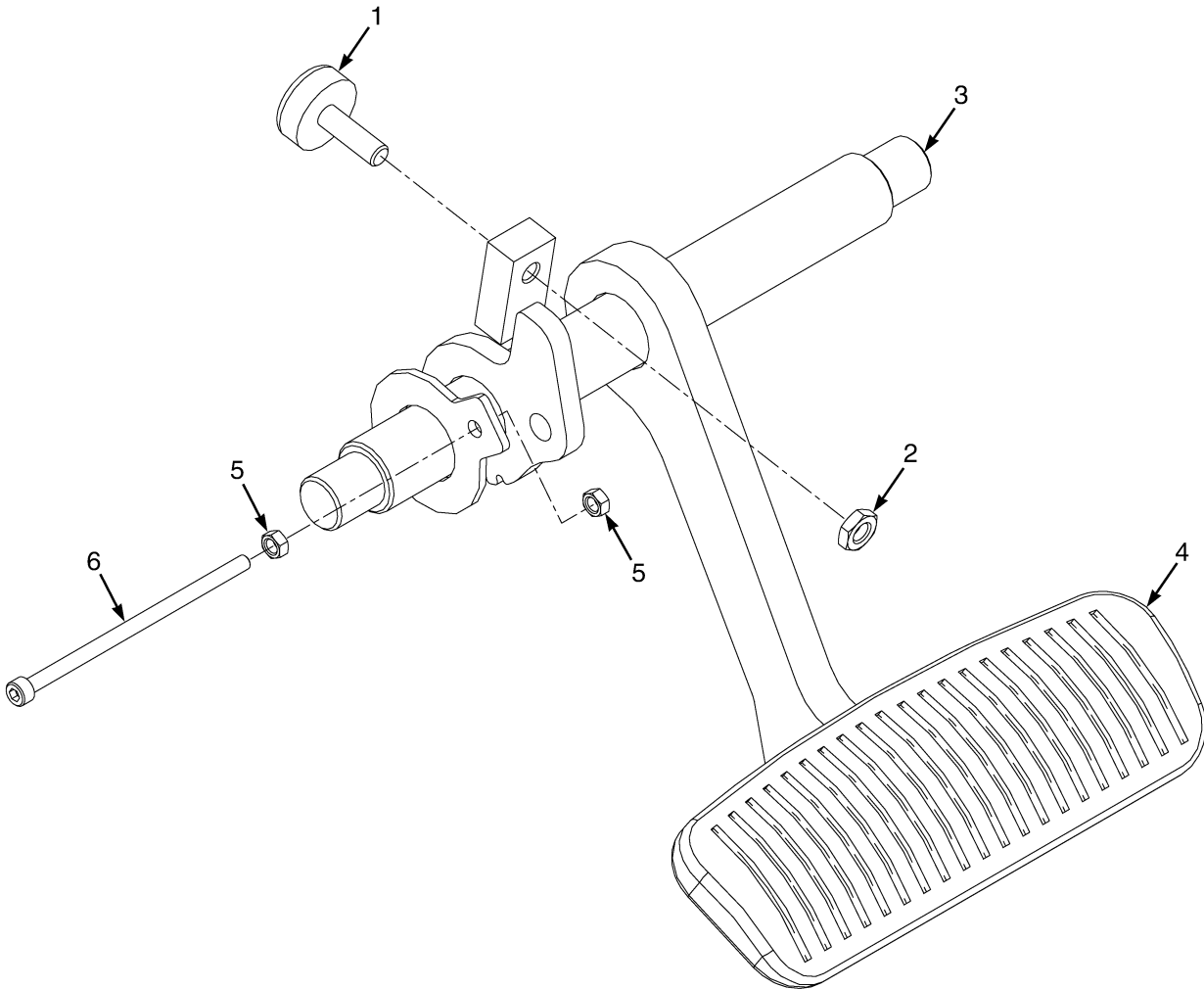


BP040174

BRAKE PEDAL MOUNTING

ITEM	PART NO.	DESCRIPTION	QTY
1	4109993		
	1527879	Capscrew	4
2	1683486	Sensor (Brake Position)	1
3	1553897	Capscrew	2
4	1688503	Mount	1
5	302398	Locknut	2
6	1585575	Bushing	2
7	.....	Plate	1

BRAKE PEDAL (FIGURE 9-2) SINGLE PEDAL

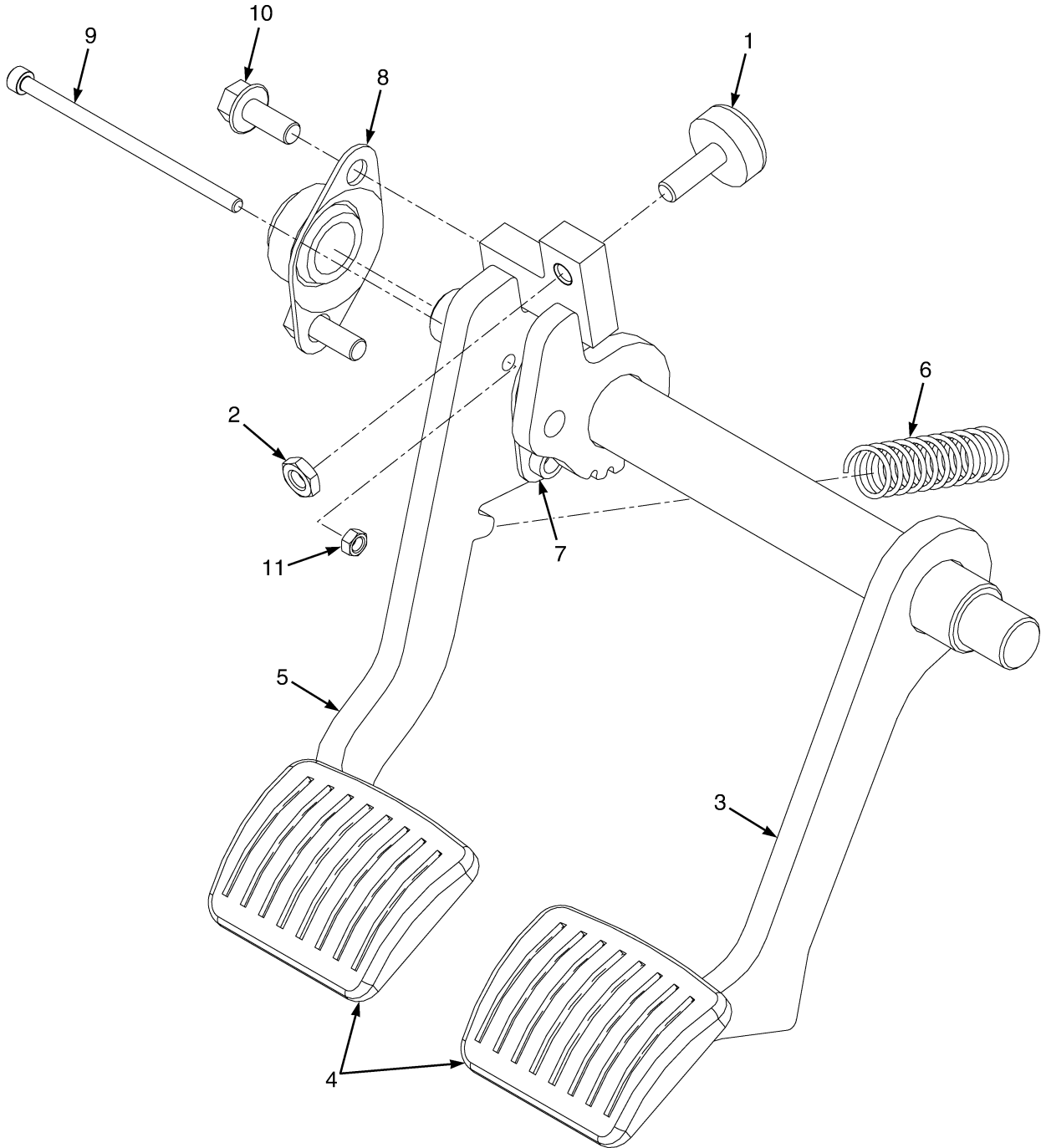


BP040129

**BRAKE PEDAL
SINGLE PEDAL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1530311	Screw (Stop)	2
2	329069	Nut	2
3	1705083	Brake Pedal	1
4	1570298	Rubber Pad	1
5	2056600	Nut	2
6	1673266	Capscrew	1
6	886893	Capscrew	1
	2064554	Loctite	AR

BRAKE PEDAL (FIGURE 9-3) DUAL PEDAL

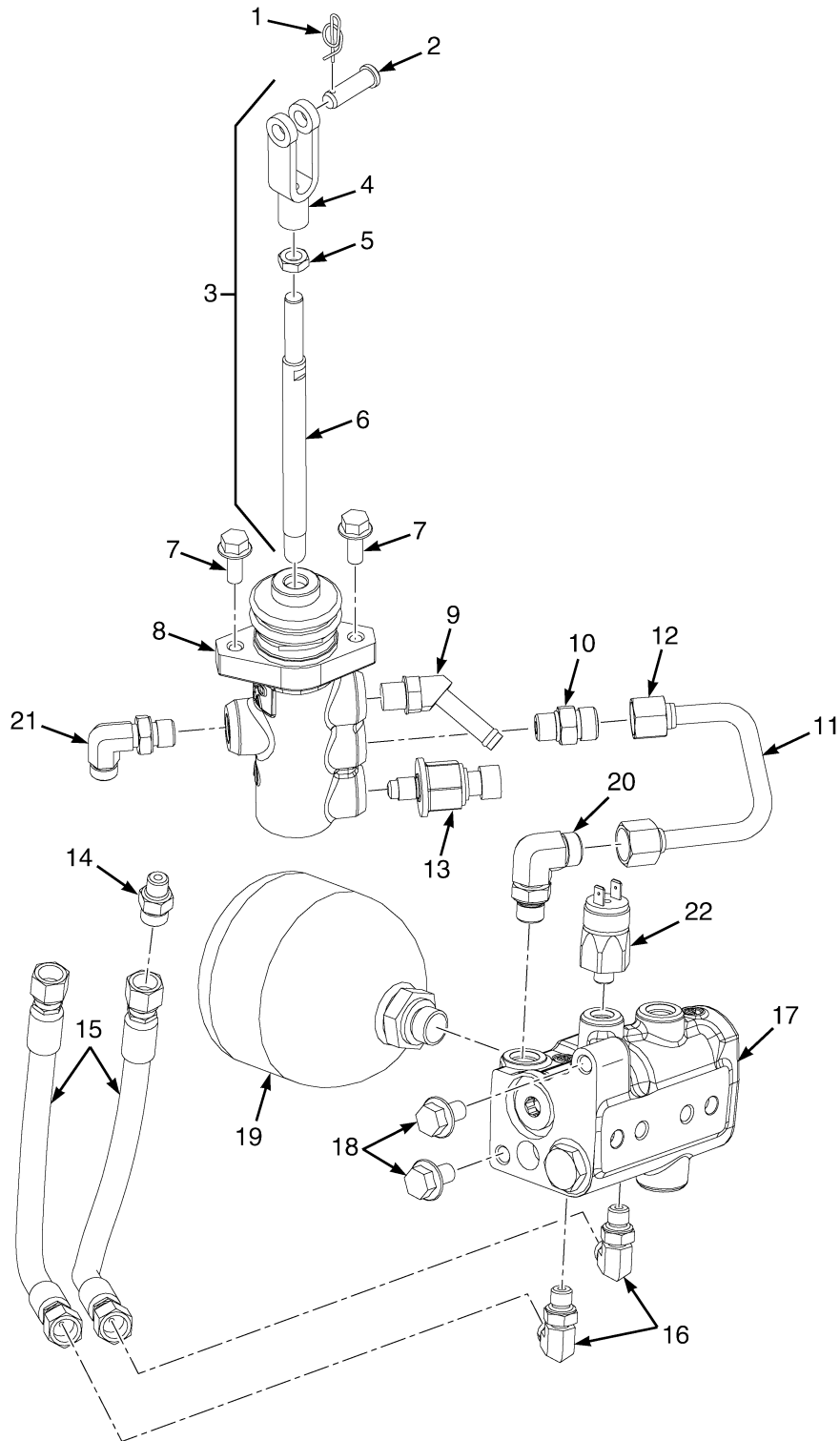


BP040130

**BRAKE PEDAL
DUAL PEDAL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1530311	Screw (Stop)	1
2	329069	Nut	1
3	1705087	Brake Pedal (RH)	1
4	1570300	Pad	2
5	1705090	Brake Pedal (LH)	1
6	1705094	Spring	1
7	1585575	Bushing	1
8	1705093	Bushing	1
9	1673266	Capscrew	1
9	886893	Capscrew	1
10	1527880	Capscrew	2
11	2056600	Nut	2
	2064554	Loctite	AR

BRAKE VALVE ASSEMBLY (FIGURE 9-4)

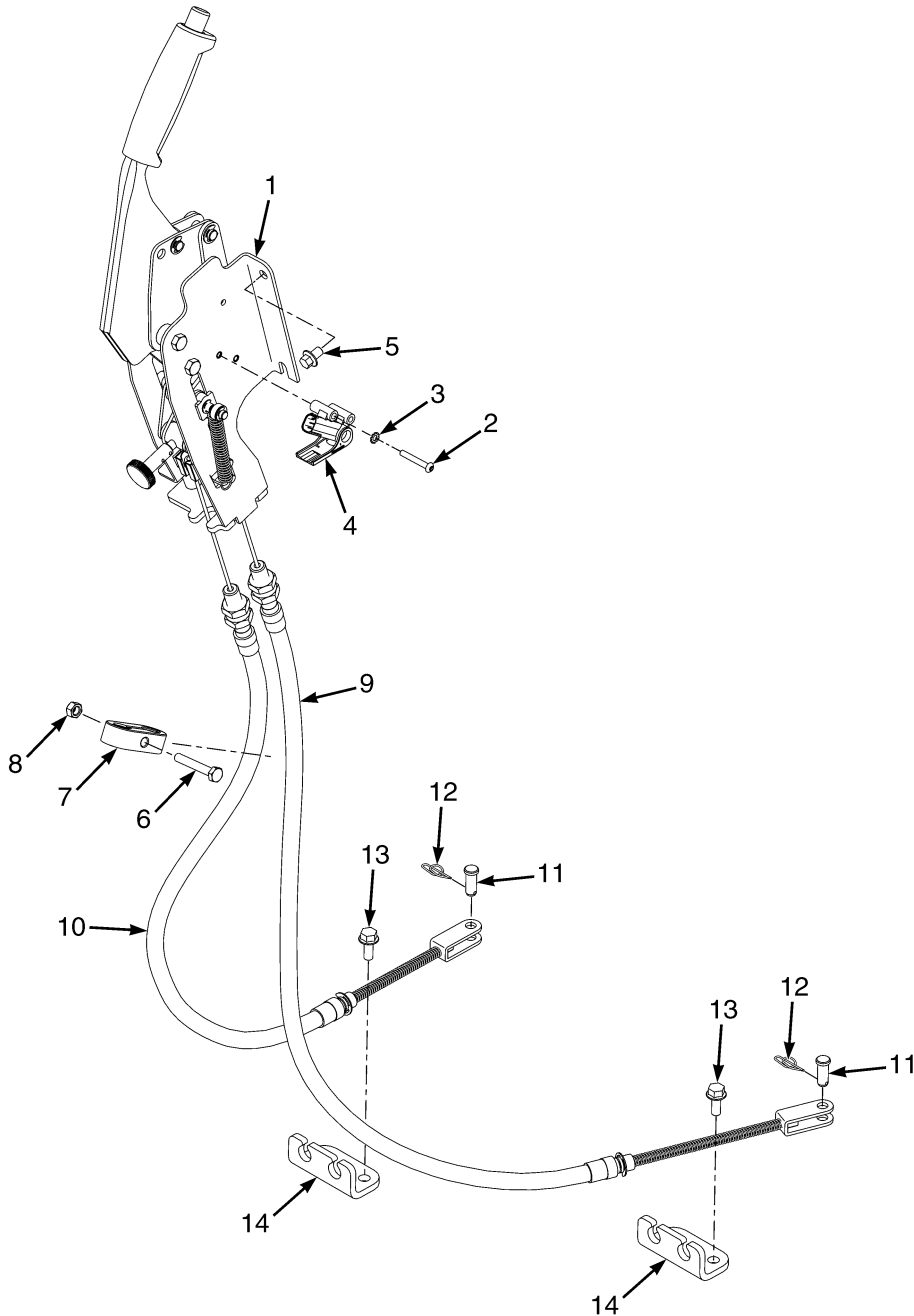


BP040116

BRAKE VALVE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	1351689	Locking Cotter Pin	1
2	237947	Pin	1
3	1674274	Push Rod	1
4	141	Rod End	1
5	15026	Nut	1
6	.....	Push Rod	1
7	1527880	Capscrew	2
8	2101251	Brake Valve	1
9	222501	Fitting	1
9	16483	O-Ring	1
10	1486740	Fitting	1
10	265787	O-Ring	1
11	1673380	Tube Assy	1
12	.....	Fitting	2
13	1590033	Transducer (Brake Pressure)	1
14	1486737	Fitting	1
15	4615115	Hose Assy	2
16	1487058	Fitting	2
17	2101380	Charge Valve	1
17	1707730	Kit-Repair Valve	1
18	1528778	Capscrew	2
19	1694583	Accumulator	1
20	1487063	Fitting	1
21	1487059	Fitting	1
22	1695288	Pressure Switch	1

PARK BRAKE ASSEMBLY (FIGURE 9-5)

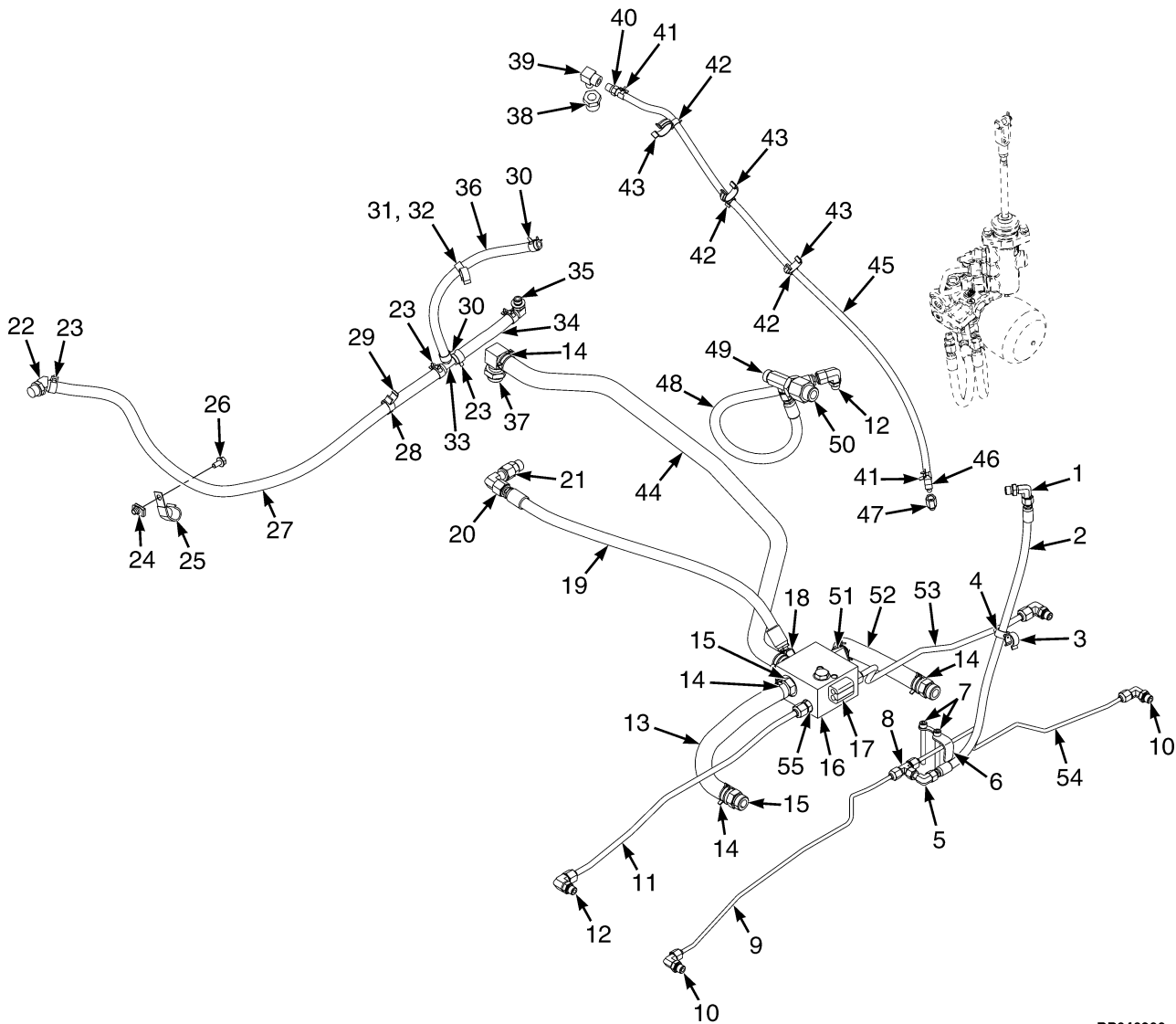


BP040196

PARK BRAKE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	4039377	Parking Brake Assembly (Without Cab)	1
1	4039378	Parking Brake Assembly (With Cab)	1
1	4039370	Parking Brake Lever (Without Cab)	1
1	4039371	Parking Brake Lever (With Cab)	1
2	1701768	Screw	2
3	296378	Washer	2
4	1683486	Sensor (Brake Position)	1
5	4011940	Capscrew	4
6	287844	Capscrew	2
7	2098527	Clamp	2
8	302399	Nut	2
9	4611038	Parking Brake Cable (RH)	1
10	4611039	Parking Brake Cable (LH)	1
11	1375391	Pin (Rod End)	2
12	1351689	Locking Cotter Pin	2
13	1527880	Capscrew	4
14	4029451	Bracket	2

BRAKE COOLING SYSTEM (FIGURE 9-6) SINGLE AND DUAL PEDAL



BP040200

**BRAKE COOLING SYSTEM
SINGLE AND DUAL PEDAL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1487059	Fitting	1
2	4604225	Hose Assy	1
3	1502053	Clamp (Swivel)	2
4	1543691	Clamp (Swivel)	2
5	1486770	Fitting	1
6	1649689	Bracket	1
7	296022	Capscrew	2
8	1522424	Fitting	1
9	4604294	Tube Assy	1
10	1487059	Fitting	2
11	2105554	Tube Assy	1
12	1487063	Fitting	3
13	2093942	Hose	1
14	1502009	Hose Clamp	6
15	17758	Fitting	4
15	1450764		
	16486	O-Ring	1
16	2108745	Manifold	1
16	1616054	Check Valve	1
17	2091513	Block	1
18	1516202	Fitting	1
19	2093939	Hose Assy	1
20	6996273		
	1486772	Fitting	1
21	1473887	Fitting	1
21	265731	O-Ring	1
22	222502	Fitting	1
22	16484	O-Ring	1
23	1502006	Hose Clamp	4
24	1480237	Nut	1
25	325897	Clamp	1
26	4109993		
	1527879	Capscrew	1
27	1486839	Hose Assy	1
28	1502066	Clamp (Swivel)	1
29	1502059	Clamp (Swivel)	1
30	1502005	Hose Clamp	2
31	1502053	Clamp (Swivel)	1
32	1543691	Clamp (Swivel)	1
33	1399248	Fitting	1
34	250576	Hose	1
35	110178	Fitting	1
35	16483	O-Ring	1
36	2078520	Hose	1
37	1654374	Fitting	1
38	100792	Fitting	1
39	17737	Fitting	1
40	17217	Fitting	1
41	1625338	Hose Clamp	2
42	1542439	Clamp (Swivel)	3

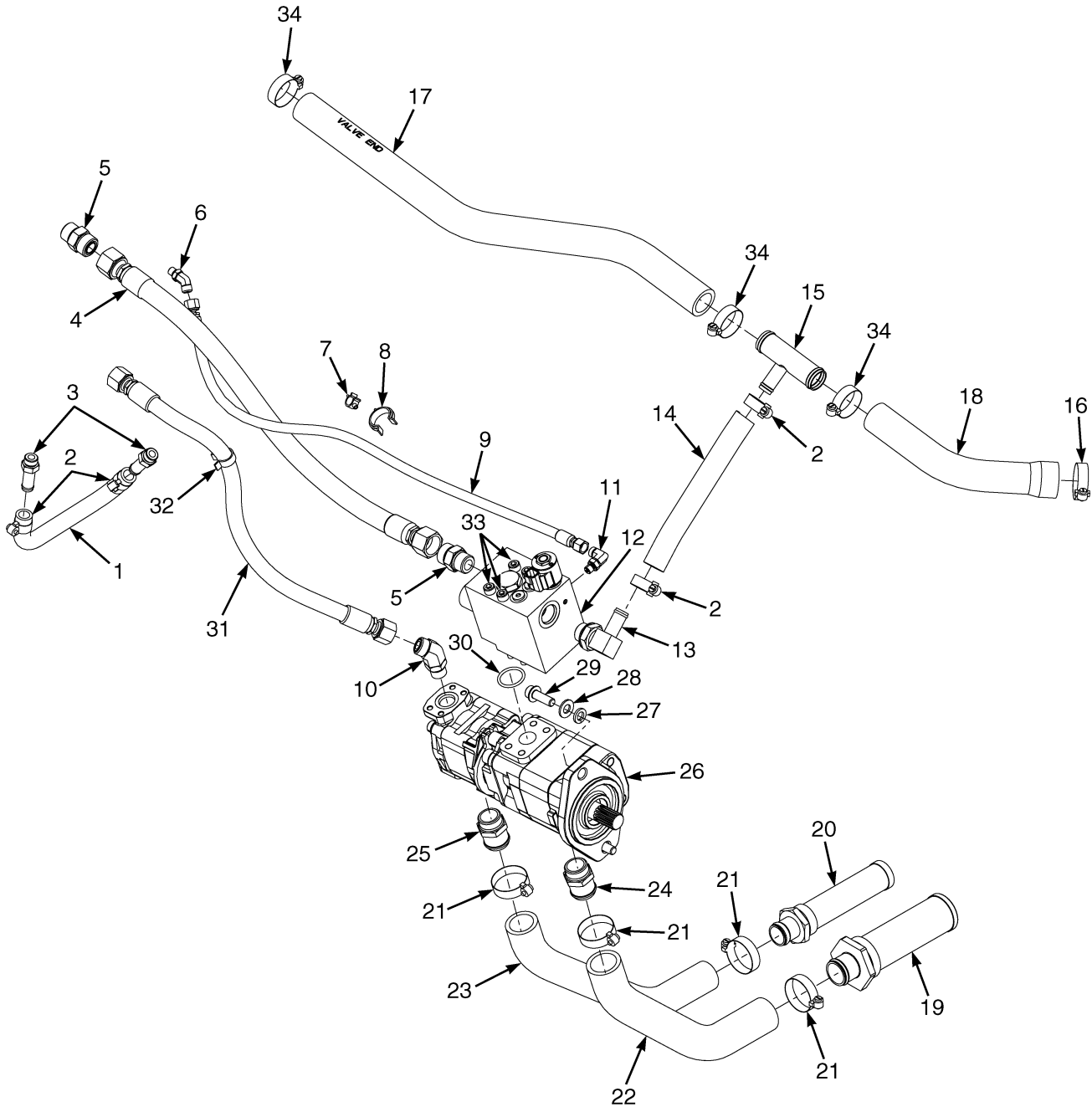
**BRAKE COOLING SYSTEM
SINGLE AND DUAL PEDAL**

ITEM	PART NO.	DESCRIPTION	QTY
43	1561759	Clamp (Swivel)	3
44	2093940	Hose	1
45	2098603	Hose	1
46	17343	Fitting	1
47	1661488	Adapter	1
48	4603373	Hose Assy	1
49	1660336	T-Fitting	1
50	4002394	Fitting	1
50	1450764		
	16486	O-Ring	1
51	222505	Fitting	1
51	1450764		
	16486	O-Ring	1
52	2091442	Hose	1
53	2105555	Tube Assy	1
54	4604295	Tube Assy	1
55	1486740	Fitting	2
55	265787	O-Ring	1

SECTION 10 HYDRAULIC SYSTEM

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ELECTRONIC CONTROL VALVE - THREE AND FOUR FUNCTION	10-18

HYDRAULIC SUPPLY AND RETURN (FIGURE 10-1)

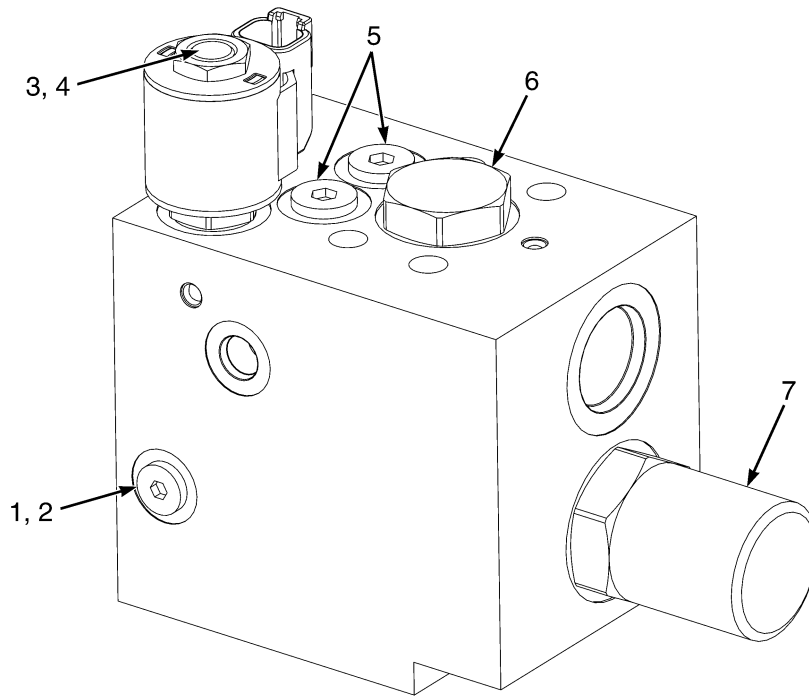


BM150312

HYDRAULIC SUPPLY AND RETURN

ITEM	PART NO.	DESCRIPTION	QTY
1	2105284	Hose (Four Function) (Aux Lowering Return)	1
1	2105640	Hose (Three Function) (Aux Lowering Return)	1
2	130845	Clamp	4
3	222493	Fitting	2
3	16484	O-Ring	1
4	2108203	Hose Assy (To Hydraulic Control Valve)	1
5	1473888	Fitting	2
5	280154	O-Ring	1
6	1516197	Fitting	1
7	1542439	Clamp (Swivel)	1
8	1561759	Clamp (Swivel)	2
9	2108205	Hose Assy (To Hydraulic Control Valve)	1
10	1516205	Fitting	1
11	1487058	Fitting	1
12	2107240	Unloader Valve (☞Figure 10-2).....	1
13	17775	Fitting	1
13	1450764		
	16486	O-Ring	1
14	78776	Hose Hyd	1
15	2108521	T-Fitting (Return Line)	1
16	119236	Clamp	1
17	2108562	Hose (Return Valve)	1
18	2108561	Hose (Return Filter)	1
19	1624905	Strainer	1
19	18909	O-Ring	1
20	1624904	Strainer	1
20	16984	O-Ring	1
21	369804	Clamp	4
22	2082241	Hose (Suction Large)	1
23	2108142	Hose (Suction)	1
24	1566890	Adapter	1
24	16983	O-Ring	1
25	1568199	Adapter (Suction)	1
25	16487	O-Ring	1
26	2098595	Gear Pump (☞Figure 10-3).....	1
27	15158	Washer	2
28	15135	Washer	2
29	1636808	Capscrew	2
30	169787	O-Ring	1
31	2108332	Hose Assy	1
32	1502054	Clamp	1
33	1695993	Capscrew	4
34	369804	Clamp	3
	264159	Adhesive	1

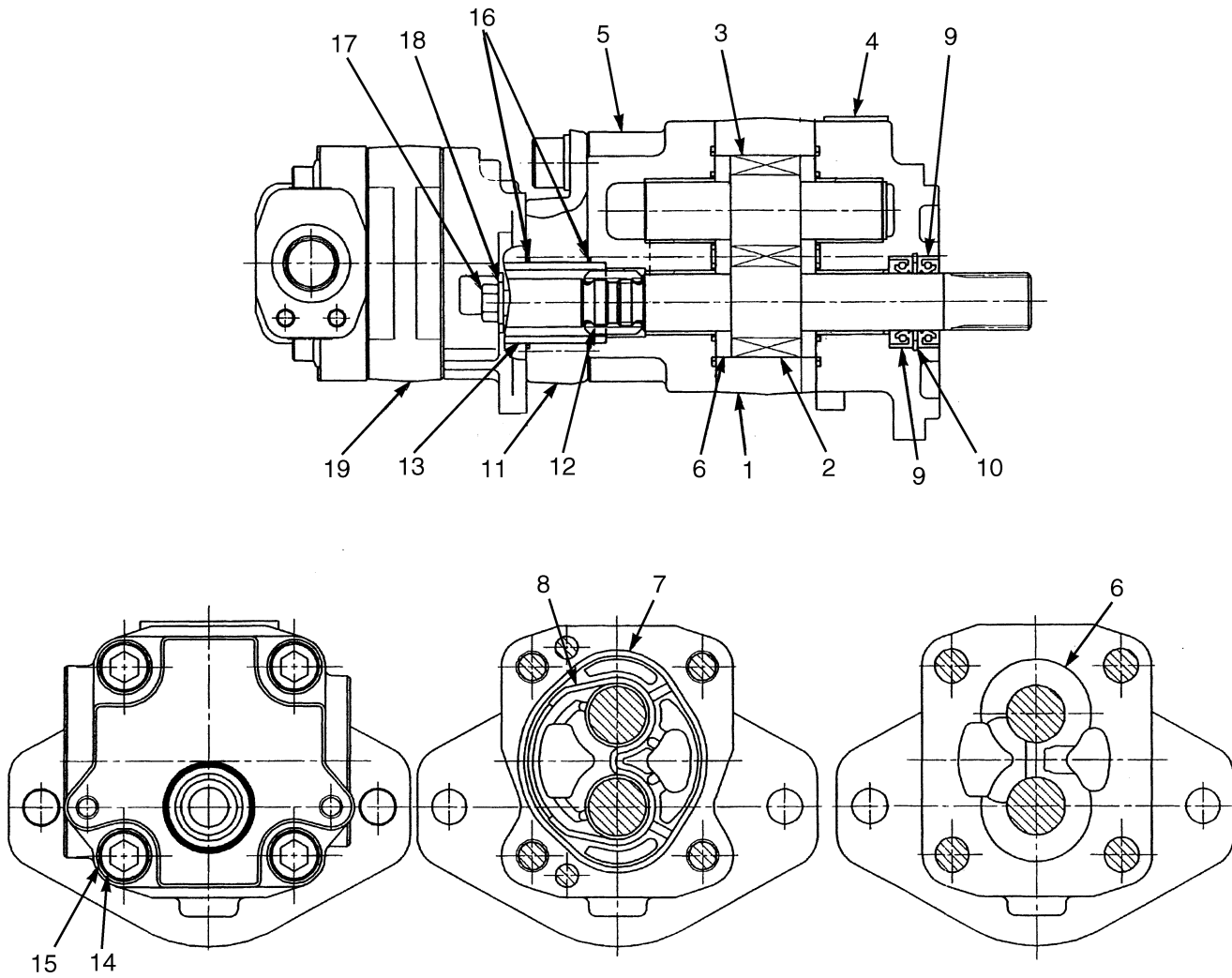
UNLOADER VALVE (FIGURE 10-2)



BP150314

ITEM	PART NO.	DESCRIPTION	QTY
	2107240	Unloader Valve	1
1	1701396	Plug	1
2	222442	Fitting	1
2	204128	Plug	1
2	16481	O-Ring	1
3	1701398	Solenoid Valve	1
3	1618485	Kit-Valve	1
4	1662013	Coil	1
5	4579809		
	222443	Fitting	2
5	16483	O-Ring	1
6	1524195	Valve	1
6	1614945	Kit-Seal	1
7	1701397	Valve	1
7	1618481	Kit-Seal (Flow Control Valve)	1

GEAR PUMP ASSEMBLY (FIGURE 10-3)

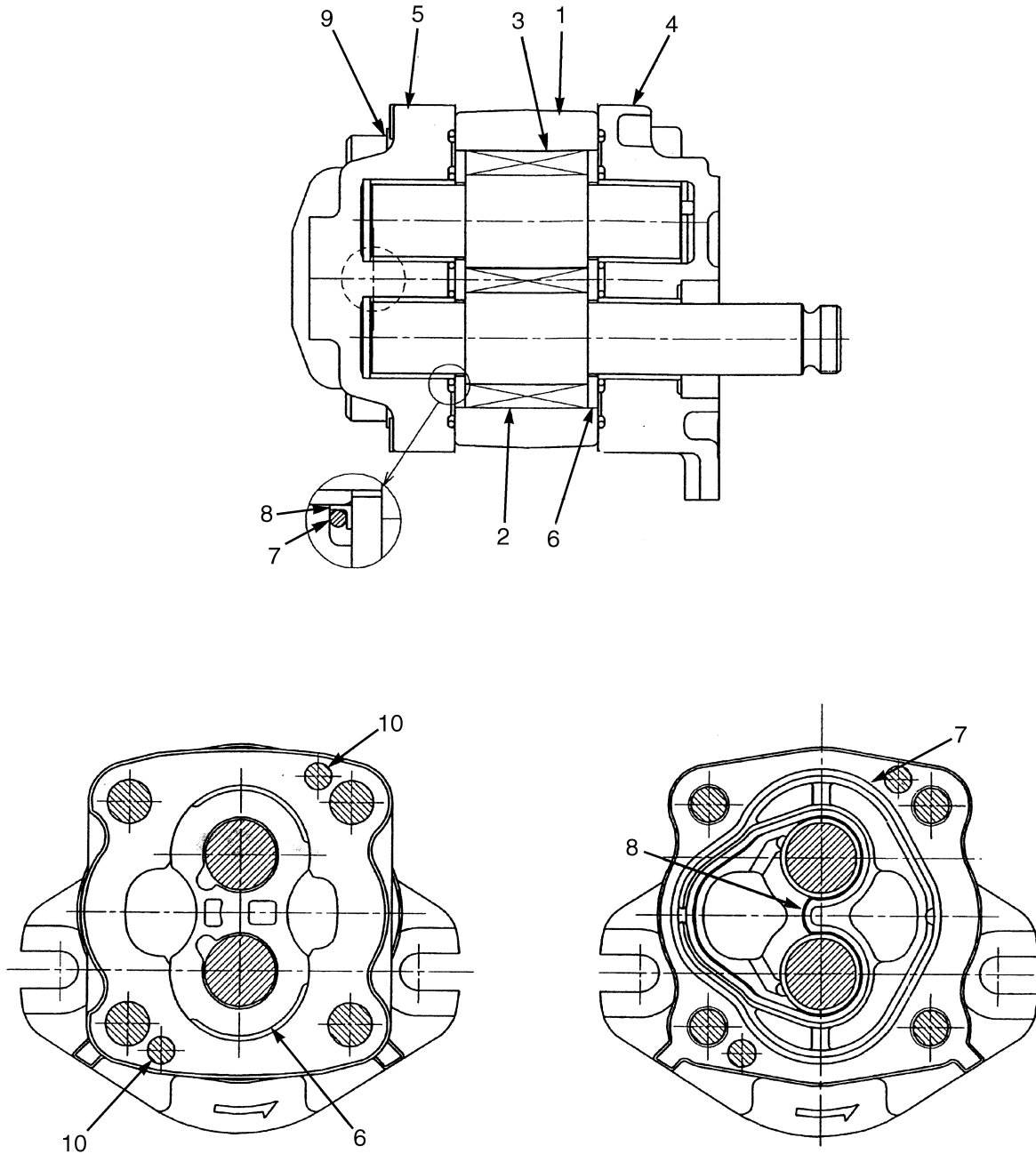


BP150211

GEAR PUMP ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	2098595	Gear Pump	1
1	.....	Housing	1
2	.....	Drive Gear	1
3	.....	Driven Gear	1
4	1657460	Flange	1
5	1662566	Cover Plate	1
6	1624861	Pressure Plate	2
7	1624862	Plate (Seal)	2
8	1624863	Back-Up Ring	2
9	1624866	Oil Seal	2
10	1624867	Snap Ring	1
11	1657462	Plate (Adapter)	1
12	1669541	Coupling	1
13	1657464	Dowel	1
14	1657474	Bolt	4
15	1624865	Washer	4
16	1657465	O-Ring	2
17	1657467	Bolt	2
18	1657468	Washer	2
19	1700082	Gear Pump (☞Figure 10-4).....	1
	1669545	Gear Set	1
	1657471	Kit-Seal	1

GEAR PUMP (FIGURE 10-4)

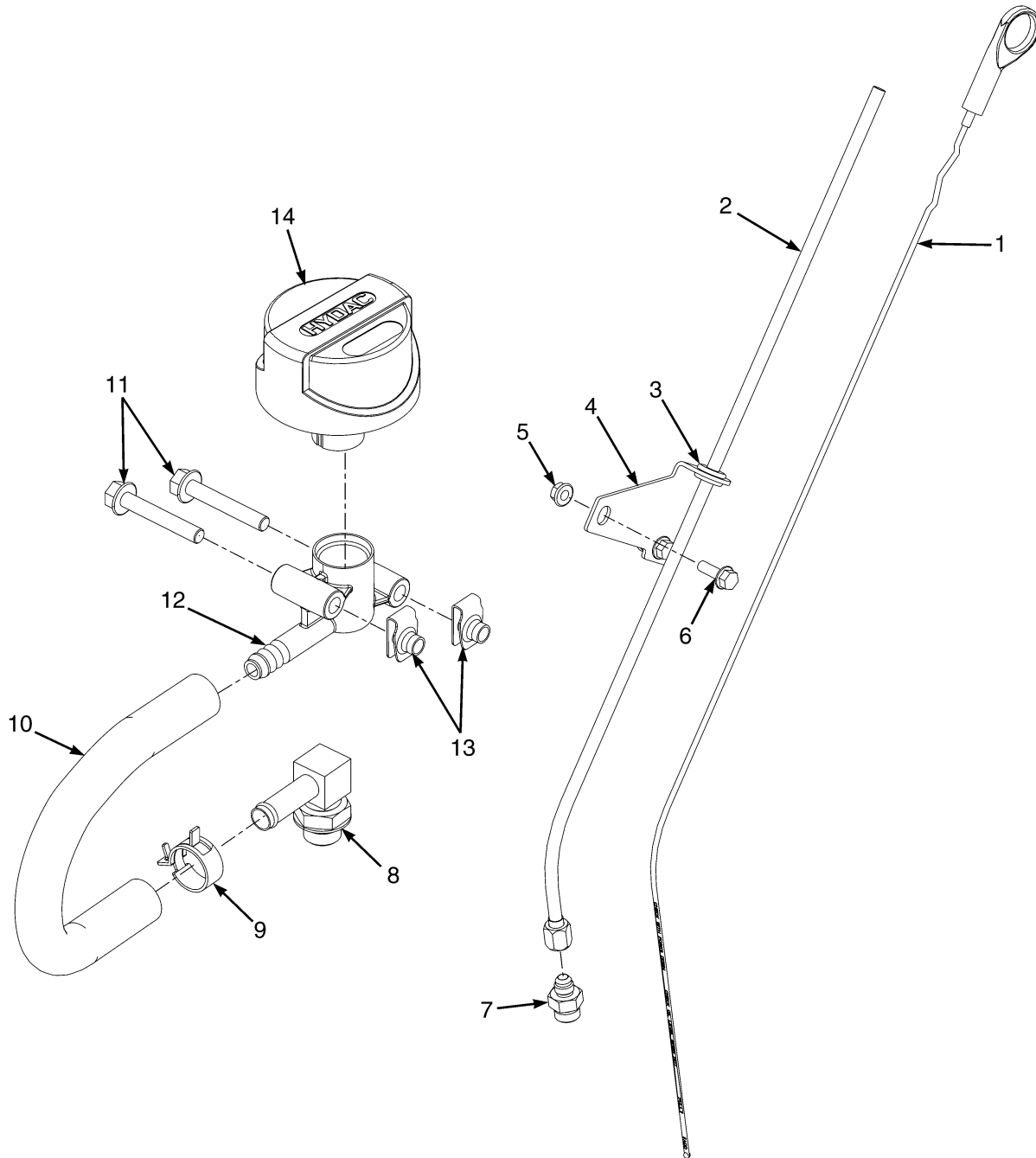


BP150210

GEAR PUMP

ITEM	PART NO.	DESCRIPTION	QTY
	1700082	Gear Pump	1
1	.....	Gear Housing	1
2	1700086	Drive Gear	1
3	1700085	Gear (Driven)	1
4	1657479	Flange	1
5	1657480	Cover	1
6	1700084	Side Plate	2
7	.....	Seal Plate	2
8	.....	Back-Up Ring	2
9	1465135	Screw	4
10	1578672	Dowel	4
	1700083	Gear Set	1
	1657482	Kit-Repair	1

DIPSTICK AND BREATHER (FIGURE 10-5)



BP090454

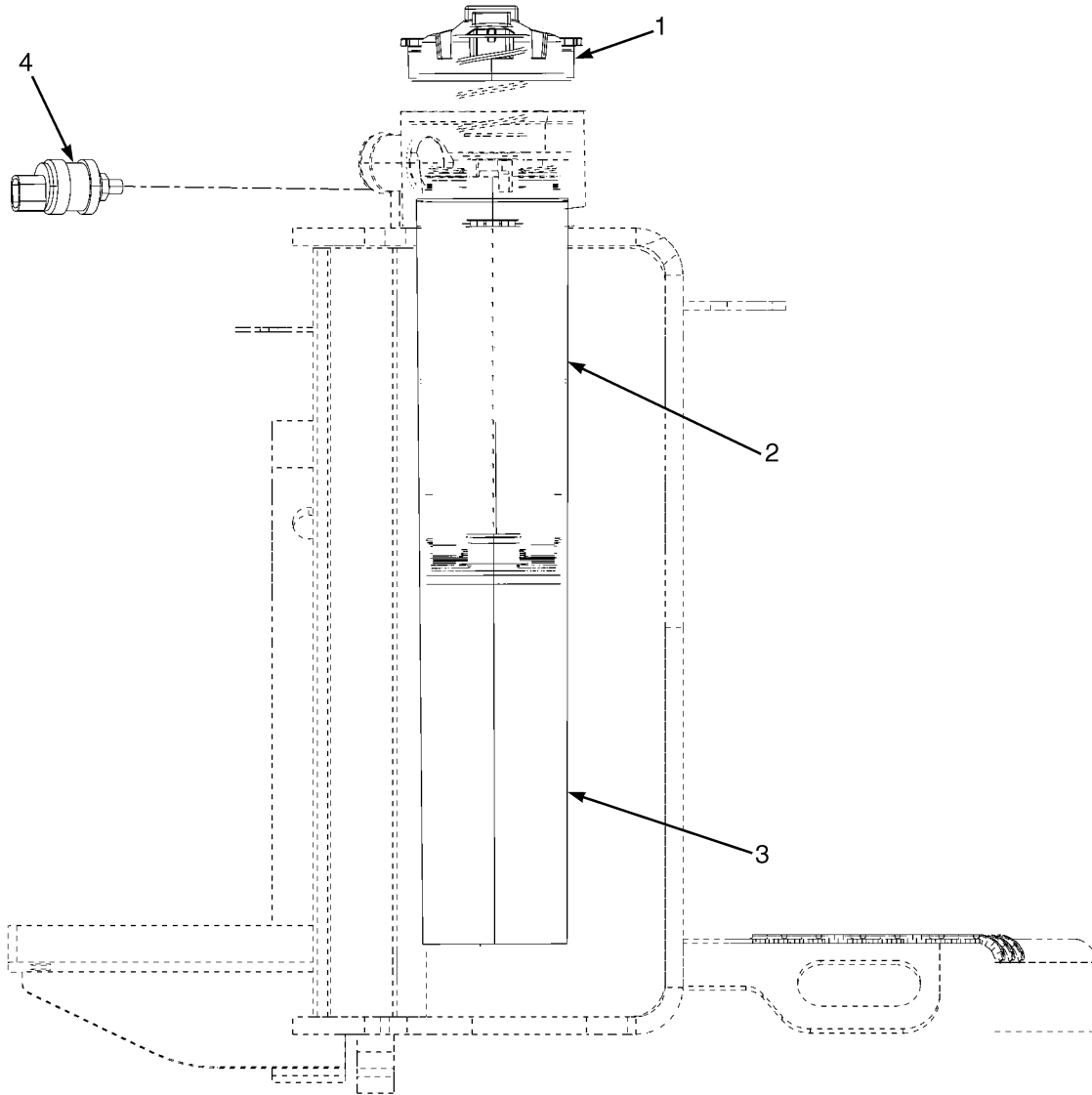
DIPSTICK AND BREATHER

ITEM	PART NO.	DESCRIPTION	QTY
1	4606309	Dipstick	1
2	4615499	Dipstick Tube	1
3	279737	Grommet	1
4	4040075	Bracket	1
5	1460477	Nut	2
6	1565195	Capscrew	2
7	16745	Fitting	1
7	16484	O-Ring	1
8	222510	Fitting	1
8	16484	O-Ring	1
9	1502008	Hose Clamp	1
10	2098246	Hose	1
11	1510115	Capscrew	2
12	1582160	Adapter (Breather)	1
13	1480237	Nut	2
14	1582161	Breather	1
14	1450764		
	16486	O-Ring	1
	a 1528481	Plug (With O-Ring for Drain)	1

FOOTNOTES:

a Not Illustrated

HYDRAULIC FILTER (FIGURE 10-6)



BP150331

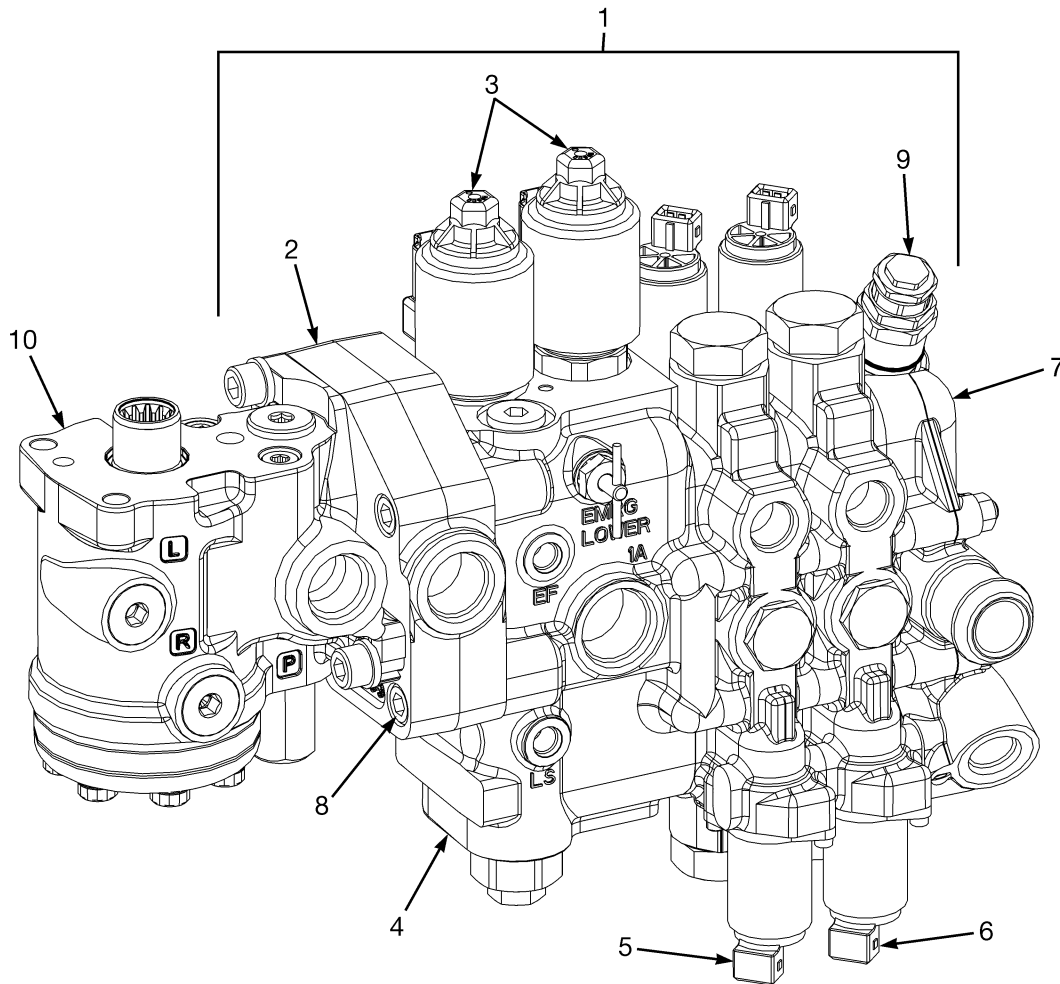
HYDRAULIC FILTER

ITEM	PART NO.	DESCRIPTION	QTY
1	1708697	Cap	1
1	1705549	O-Ring	1
1	.....	Spring	1
2	4001034	Hydraulic Filter Bowl Assembly	1
3	.....	Filter Element	1
4	a 2068337	Pressure Switch	1
	1708691	Kit-O-Ring	1
	4001001	Kit-Filter Element and Cap Seal	1

FOOTNOTES:

- a** With Electronic Monitoring Package

CONTROL VALVE AND STEERING UNIT ASSEMBLY (FIGURE 10-7) THREE FUNCTION



BP140172

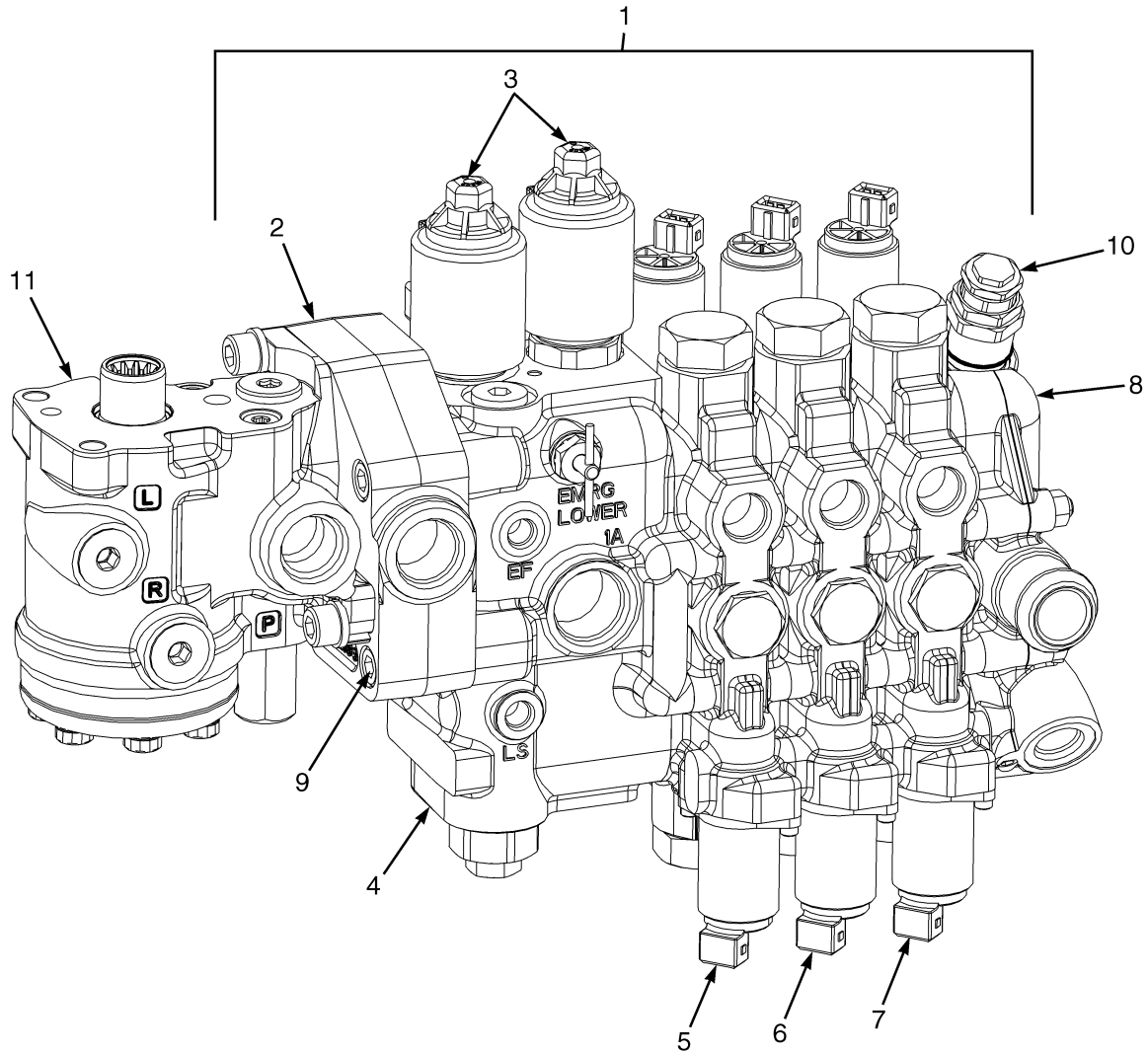
**CONTROL VALVE AND STEERING UNIT ASSEMBLY
THREE FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
	2096665	Hydraulic Control Valve	1
1	2096667	Hydraulic Control Valve	1
2	1657632	Valve Section (Inlet)	1
3	1699590	Poppet Valve (☞Figure 10-11).....	1
3	1590113	Poppet Valve (Lift) (☞Figure 10-11).....	1
4	1707440	Valve Section (Lift and Lower) (☞Figure 10-9).....	1
5	1707444	Valve Section (Tilt) (☞Figure 10-10).....	1
6	1707443	Valve Section (Aux 1) (☞Figure 10-12).....	1
7	1629199	Outlet Section (☞Figure 10-14).....	1
8	1657631	Kit-Capscrew	1
9	1578707	Relief Valve (Secondary) (15.5 MPa)	1
10	2107399	Steering Control Unit (☞Figure 8-6).....	1
10	4639748	Steering Control Unit (Alternate Part) (☞Figure 8-6).....	1
	a 1578909	Kit-Seal (Master 3 Function)	1
	a 1578715	Kit-Tie Rod	1

FOOTNOTES:

a Not Illustrated

**CONTROL VALVE AND STEERING UNIT ASSEMBLY (FIGURE 10-8)
FOUR FUNCTION**



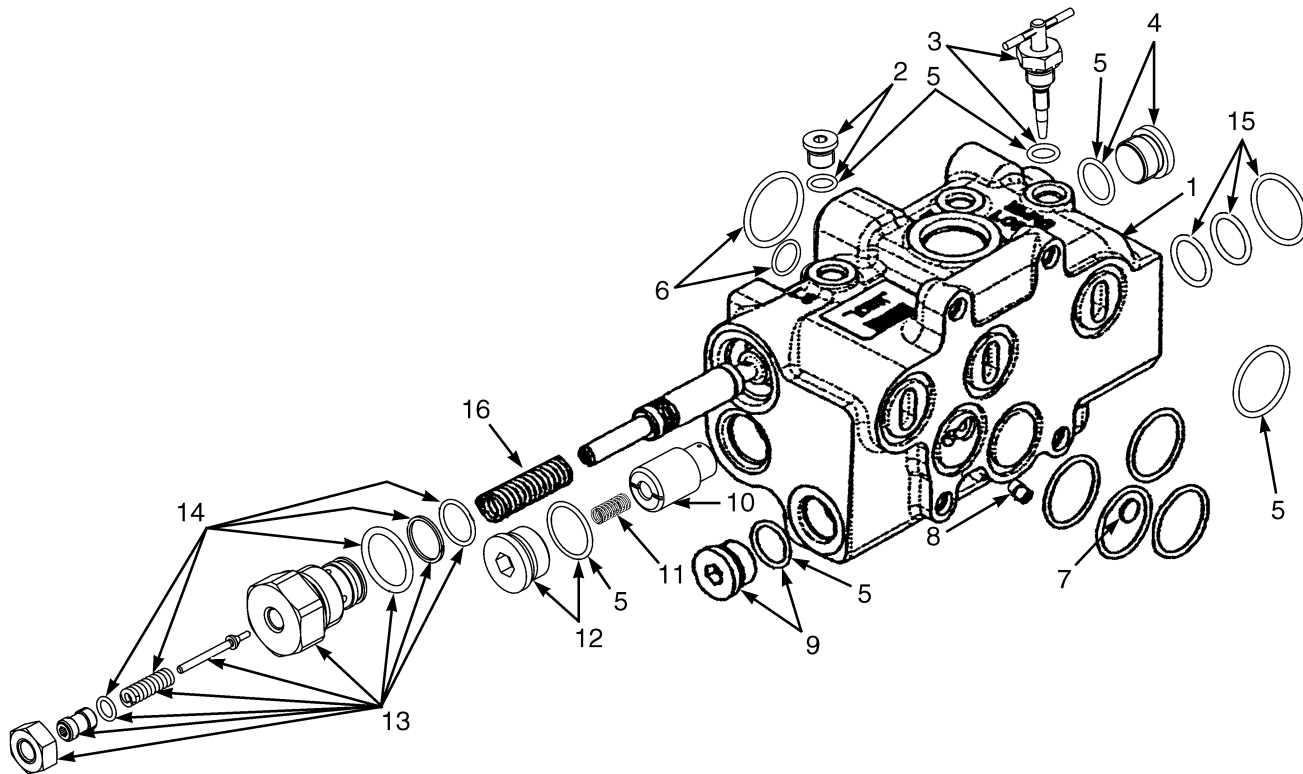
BP140171

**CONTROL VALVE AND STEERING UNIT ASSEMBLY
FOUR FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
	2096666	Hydraulic Control Valve	1
1	2096668	Hydraulic Control Valve	1
2	1657632	Valve Section (Inlet)	1
3	1699590	Poppet Valve (☞Figure 10-11).....	1
3	1590113	Poppet Valve (Lift) (☞Figure 10-11).....	1
4	1707440	Valve Section (Lift and Lower) (☞Figure 10-9).....	1
5	1707444	Valve Section (Tilt) (☞Figure 10-10).....	1
6	1707443	Valve Section (Auxiliary 1) (☞Figure 10-12).....	1
7	1707445	Valve Section (Auxiliary 2) (☞Figure 10-13).....	1
8	1629199	Outlet Section (☞Figure 10-14).....	1
9	1657631	Kit-Capscrew	1
10	1578707	Relief Valve (Secondary) (15.5 MPa)	1
11	2107399	Steering Control Unit (☞Figure 8-6).....	1
11	4639748	Steering Control Unit (Alternate Part) (☞Figure 8-6).....	1
	a 1578908	Kit-Seal (Master 4 Function)	1

FOOTNOTES:**a** Not Illustrated

VALVE ASSEMBLY, LIFT AND LOWER (FIGURE 10-9) ELECTRONIC CONTROL VALVE — THREE AND FOUR FUNCTION



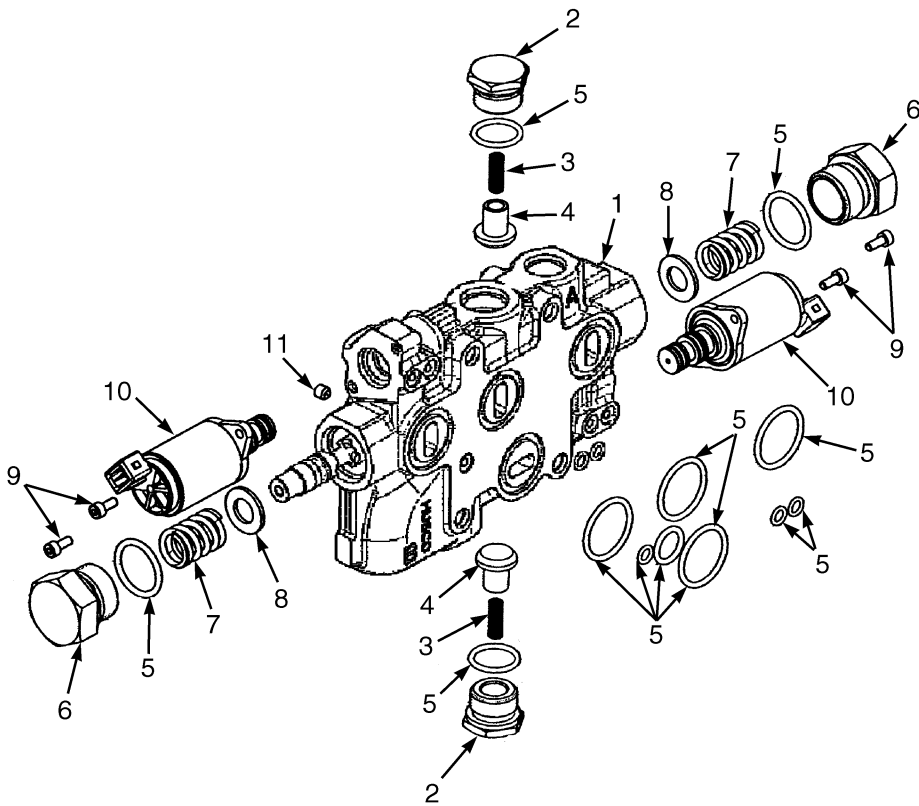
BP140076

VALVE ASSEMBLY, LIFT AND LOWER
ELECTRONIC CONTROL VALVE – THREE AND FOUR FUNCTION

ITEM	PART NO.	DESCRIPTION	QTY
1	1707440	Valve Section	1
2	1578712	Plug Assembly	1
2	204128	Plug	1
3	1581862	Kit-Valve (Manual Lowering)	1
4	1569602	Plug	1
5	1578904	Kit-Seal (Inlet)	1
6	1578911	Kit-Seal (Steering Control Unit Interface)	1
7	1578875	Shuttle Valve	1
8	1578888	Setscrew	1
9	1586279	Kit-Seal (Electro Hydraulic Poppet Valve)	1
10	1586280	Poppet	1
11	1578876	Spring	1
12	1578714	Plug Assembly	1
13	1707442	Relief Valve (Primary)	1
14	1580132	Kit-Relief Valve	1
15	1707441	Spring	1
	b 1578909	Kit-Seal (Master 3 Function)	1
	a 1578908	Kit-Seal (Master 4 Function)	1

FOOTNOTES:**a** Four Function Only**b** Three Function Only

TILT SECTION (FIGURE 10-10) THREE AND FOUR FUNCTION



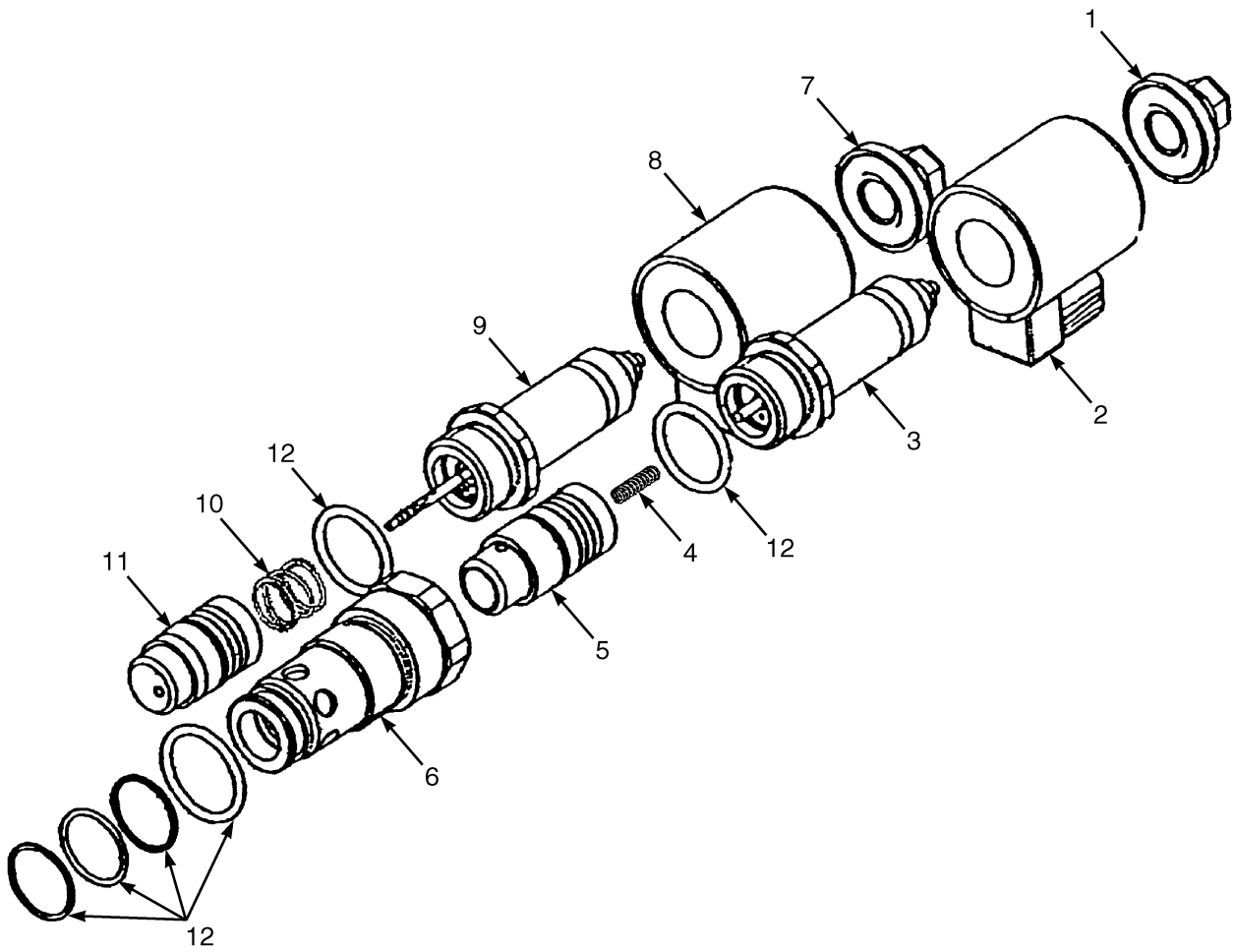
BP140157

**TILT SECTION
THREE AND FOUR FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
1	1707444	Valve Section	1
2	1578713	Plug Assembly	2
3	77442	Spring	2
4	77443	Poppet	2
5	1578905	Kit-Seal (Tilt)	1
6	1578889	Plug	2
7	1578882	Spring	2
8	1578883	Washer	2
9	1664395	Capscrew	4
10	1578711	Valve (Pressure Reducing) (Solenoid)	2
10	1687534	Kit-Seal (Solenoid Pressure Reducing)	1
11	1578887	Setscrew	1
	b 1578909	Kit-Seal (Master 3 Function)	1
	a 1578908	Kit-Seal (Master 4 Function)	1

FOOTNOTES:**a** Four Function Only**b** Three Function Only

**ELECTRO HYDRAULIC POPPET VALVE (FIGURE 10-11)
THREE AND FOUR FUNCTION**

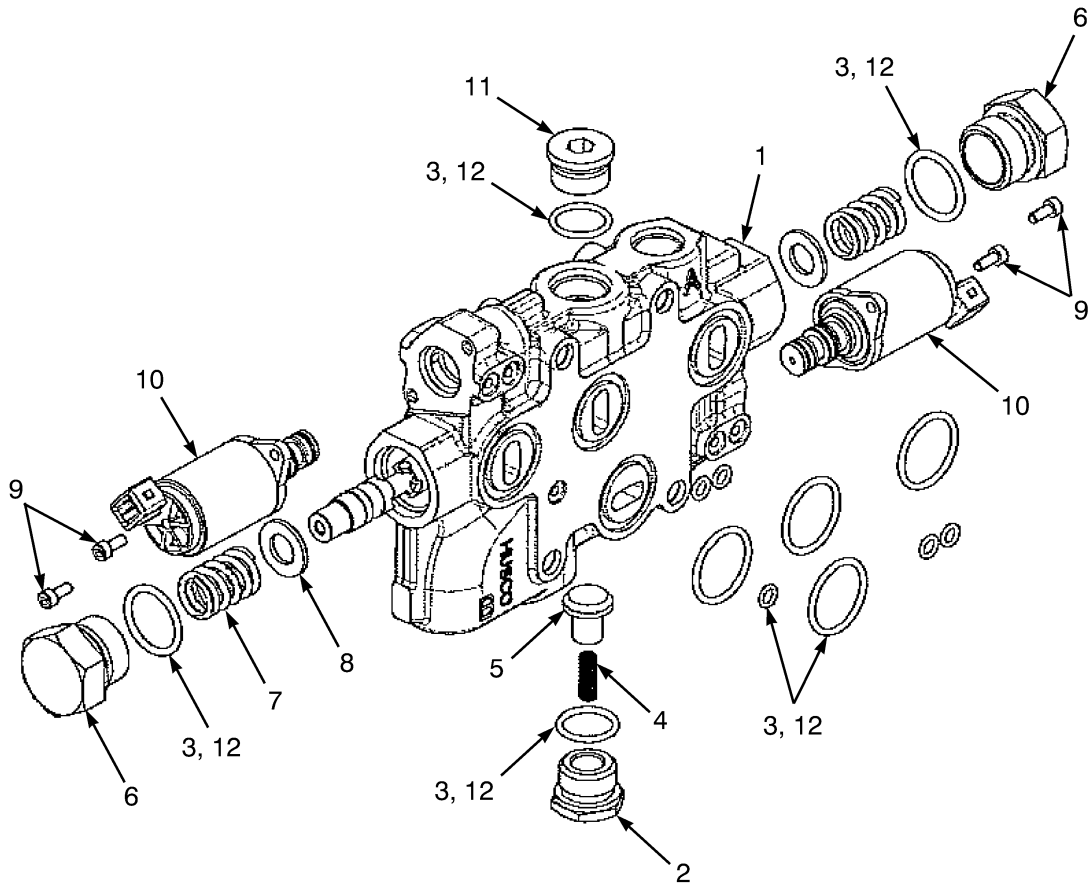


BP140098

**ELECTRO HYDRAULIC POPPET VALVE
THREE AND FOUR FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
	1699590	Poppet Valve	1
1	1629163	Nut	1
2	1578710	Coil	1
3	1629160	Tube (Solenoid)	1
4	1629165	Spring	1
5	1699591	Poppet Valve	1
6	1586020	Sleeve	1
	1590113	Poppet Valve (Lift)	1
7	1629163	Nut	1
8	1629162	Coil	1
9	1629161	Tube Assy (Solenoid)	1
10	1629164	Spring	1
11	1629158	Poppet Valve	1
12	1586279	Kit-Seal (Electro Hydraulic Poppet Valve)	1

AUXILIARY ONE SECTION (FIGURE 10-12) THREE AND FOUR FUNCTION

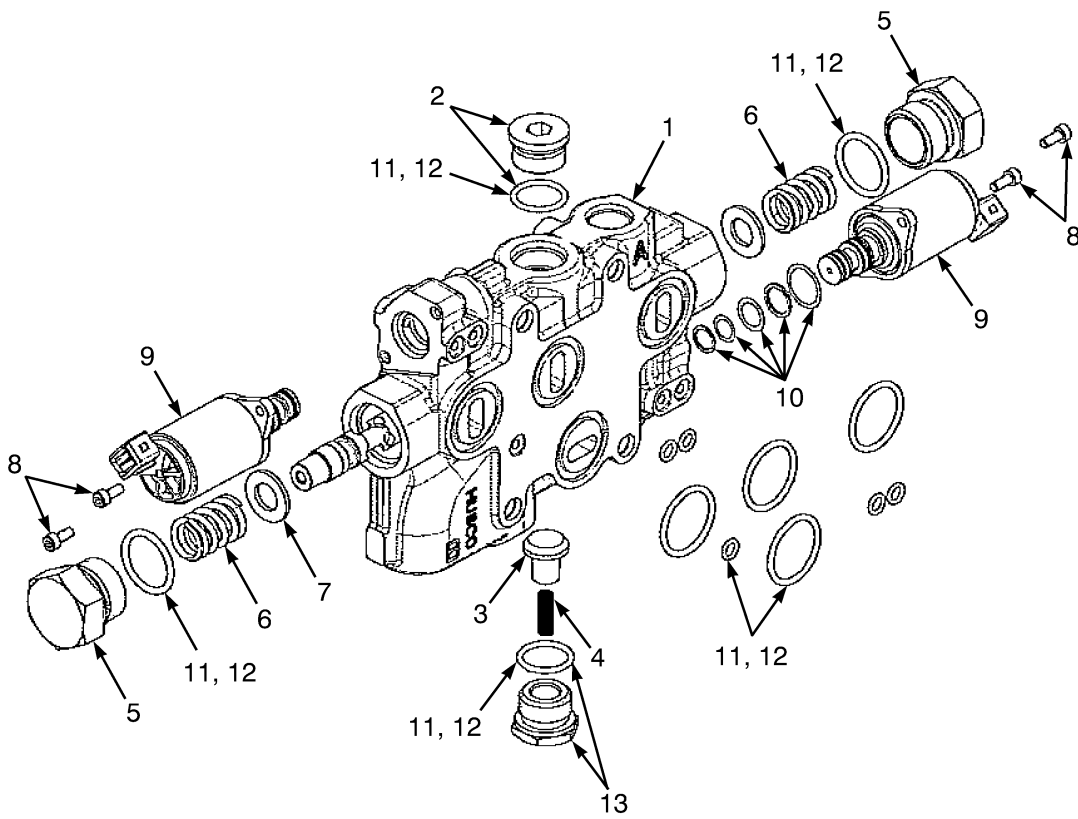


BP140159

**AUXILIARY ONE SECTION
THREE AND FOUR FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
1	1707445	Valve Section	1
2	1578713	Plug Assembly	1
3	1578907	Kit-Seal (Auxiliary Section)	1
4	77442	Spring	1
5	77443	Poppet	1
6	1578889	Plug	2
7	1578882	Spring	2
8	1578883	Washer	2
9	1664395	Capscrew	4
10	1578711	Valve (Pressure Reducing)	2
11	1578714	Plug Assembly	1
	1578908	Kit-Seal (Master 4 Function)	1

AUXILIARY TWO SECTION (FIGURE 10-13) FOUR FUNCTION

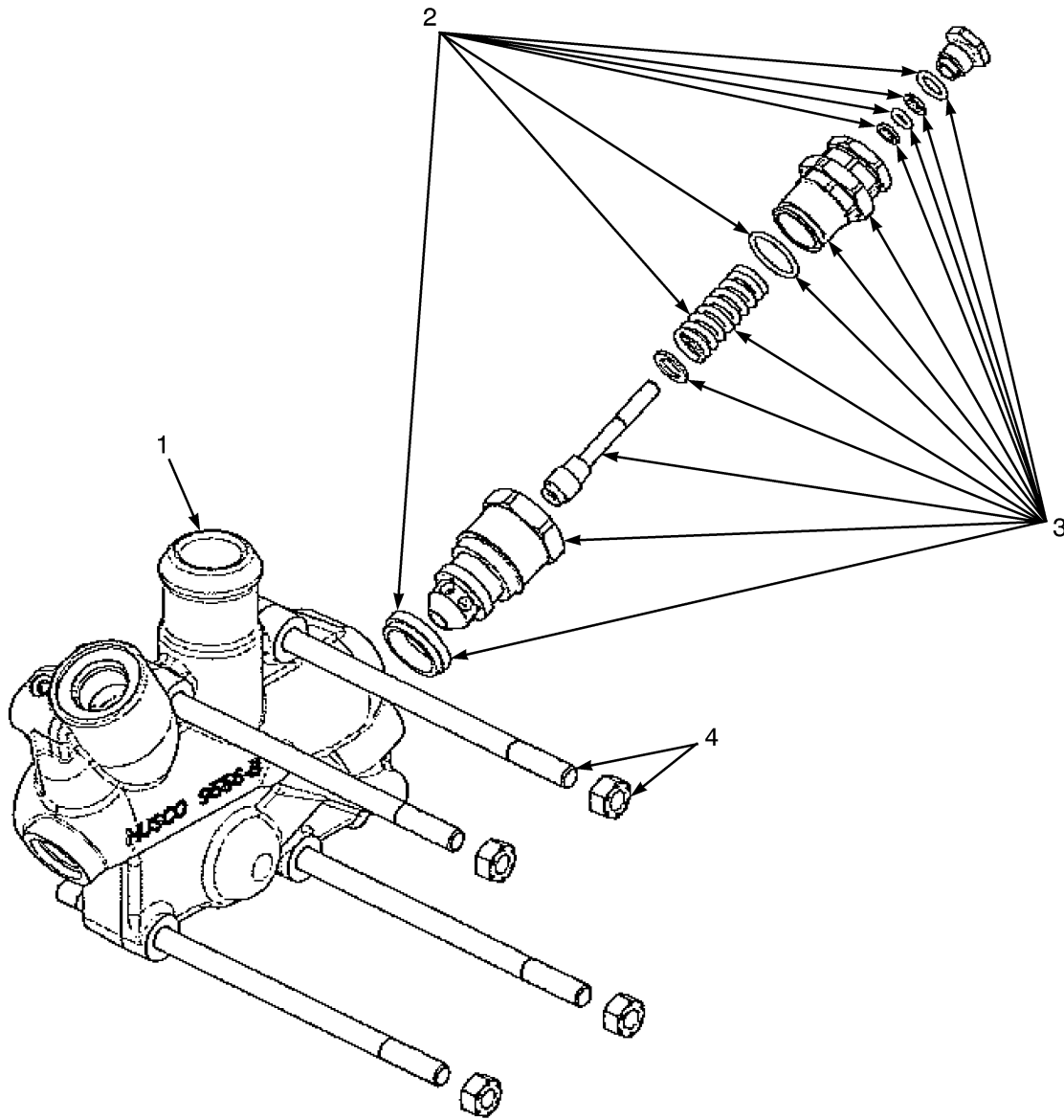


BP140158

**AUXILIARY TWO SECTION
FOUR FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
1	1707443	Valve Section	1
2	1578714	Plug Assembly	1
3	77443	Poppet	1
4	77442	Spring	1
5	1578889	Plug	2
6	1578882	Spring	2
7	1578883	Washer	2
8	1664395	Capscrew	4
9	1578711	Valve (Pressure Reducing) (Solenoid)	2
10	1687534	Kit-Seal (Solenoid Pressure Reducing)	1
11	1578909	Kit-Seal (Master 3 Function)	1
12	1578906	Kit-Seal (Auxiliary Section)	1
13	1578713	Plug Assembly	1

OUTLET SECTION (FIGURE 10-14) THREE AND FOUR FUNCTION

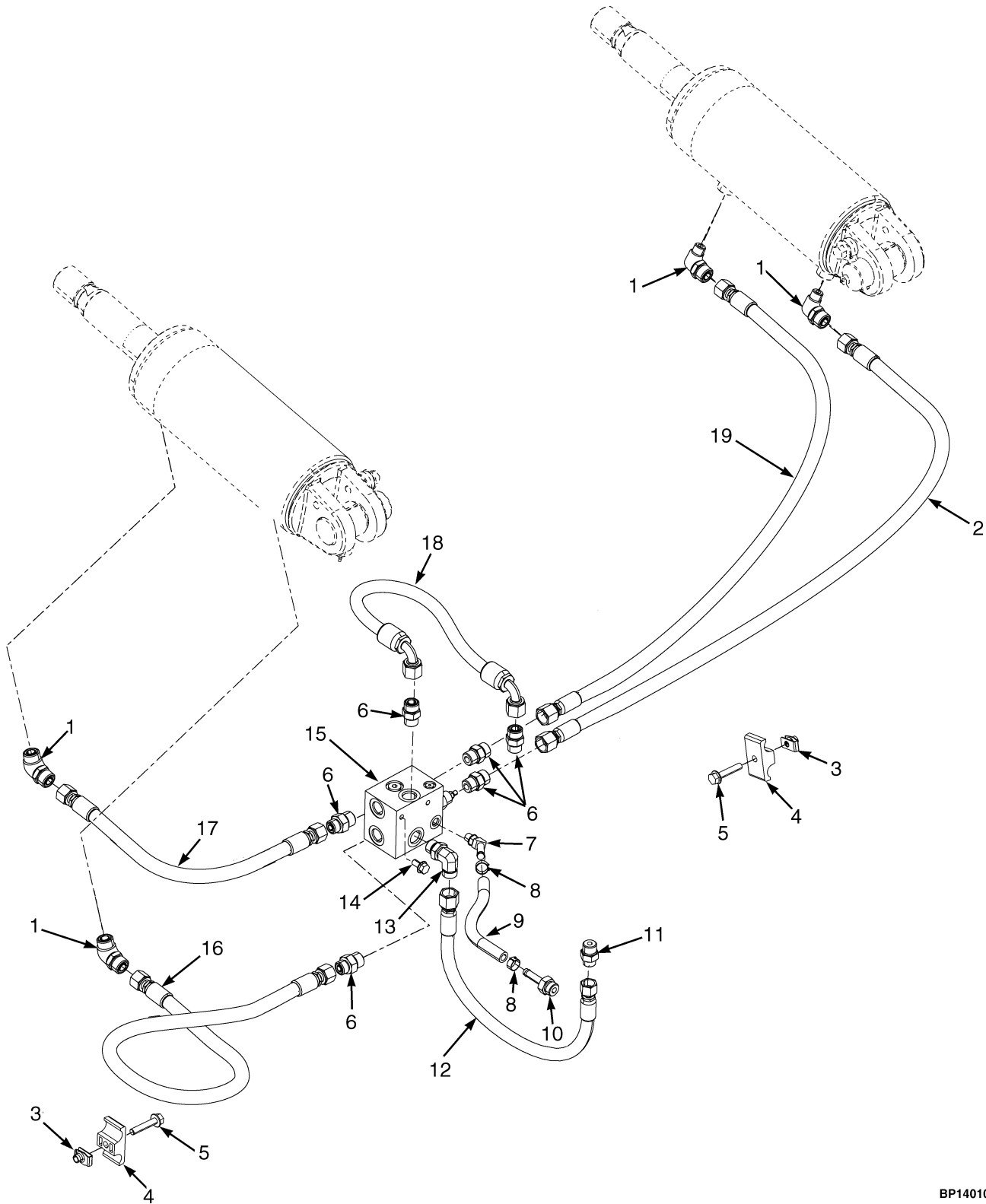


BP140156

**OUTLET SECTION
THREE AND FOUR FUNCTION**

ITEM	PART NO.	DESCRIPTION	QTY
1	1629199	Outlet Section	1
2	1580131	Kit-Seal and Spring	1
3	1578707	Relief Valve (Secondary) (15.5 MPa)	1
4	15055	Nut	4
	1578715	Kit-Tie Rod (Three Function)	1
	1580151	Kit-Tie Rod (Four Function)	1

TILT HYDRAULICS (FIGURE 10-15)



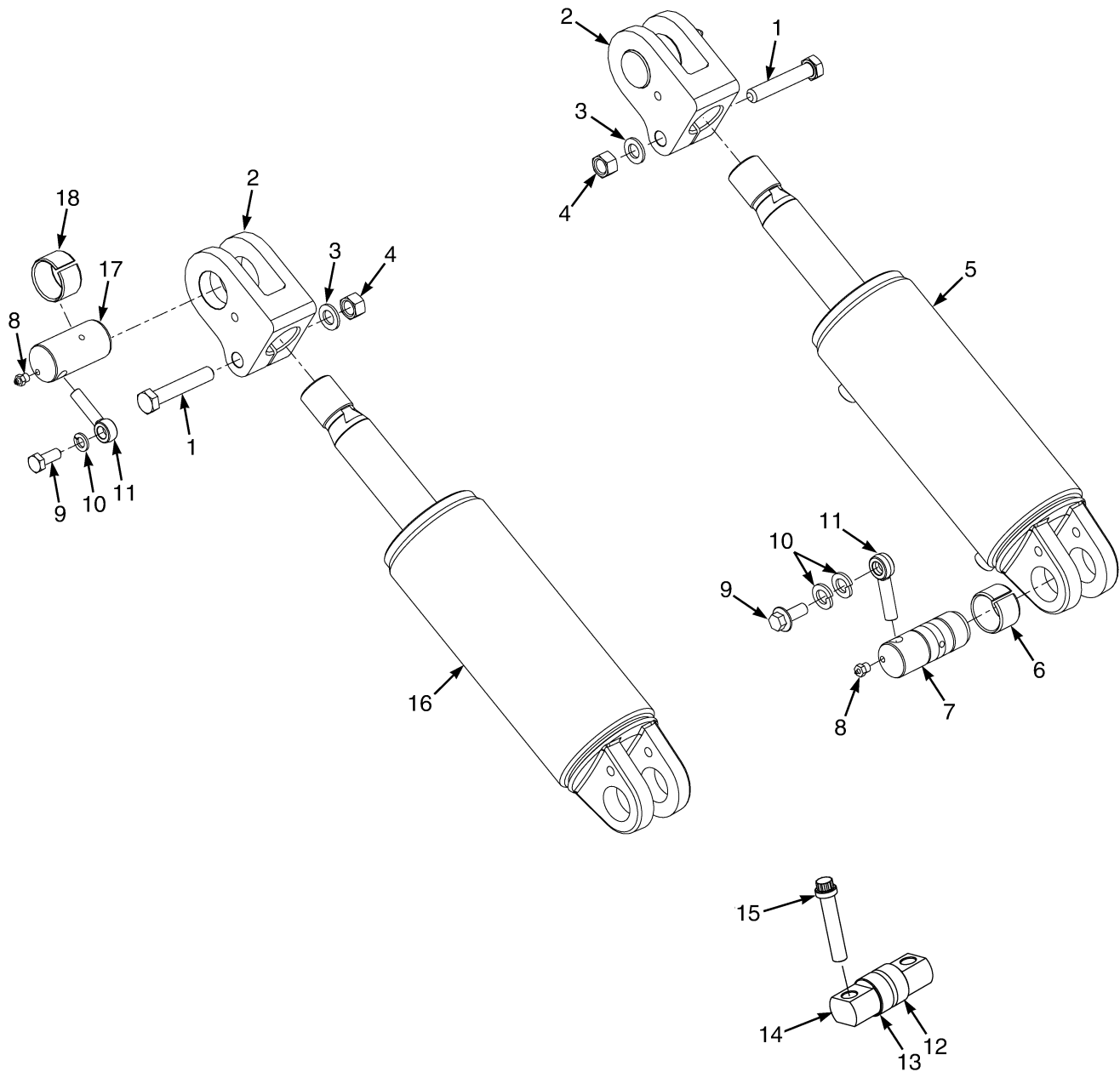
BP140101

TILT HYDRAULICS

ITEM	PART NO.	DESCRIPTION	QTY
1	1487063	Fitting	4
2	2091584	Hose Assy	1
3	1480237	Nut	2
4	1605479	Hose Clamp (Dual Hose)	2
5	1586627	Capscrew	2
6	1473887	Fitting	6
6	265731	O-Ring	1
7	222500	Fitting	1
7	16481	O-Ring	1
8	353198	Clamp	2
9	a 2095409	Hose	1
10	1650229	Fitting	1
11	1486742	Fitting	1
12	b 2091573	Hose Assy	1
13	1473897	Fitting	1
14	4109993		
	1527879	Capscrew	2
15	4002139	Balance Valve	1
15	4601332	Valve Block	1
15	1579809		
	222443	Fitting	1
15	16483	O-Ring	1
15	222442	Fitting	3
15	204128	Plug	1
15	16481	O-Ring	1
15	4006819	Valve (Counter Balance)	1
15	1581308	Kit-Seal	1
16	2091583	Hose Assy	1
17	2091582	Hose Assy	1
18	b 2091581	Hose Assy	1
19	2091585	Hose Assy	1

FOOTNOTES:**a** To Control Valve Inlet Section**b** To Control Valve Tilt Section

TILT CYLINDER AND MAST INSTALLATION (FIGURE 10-16)



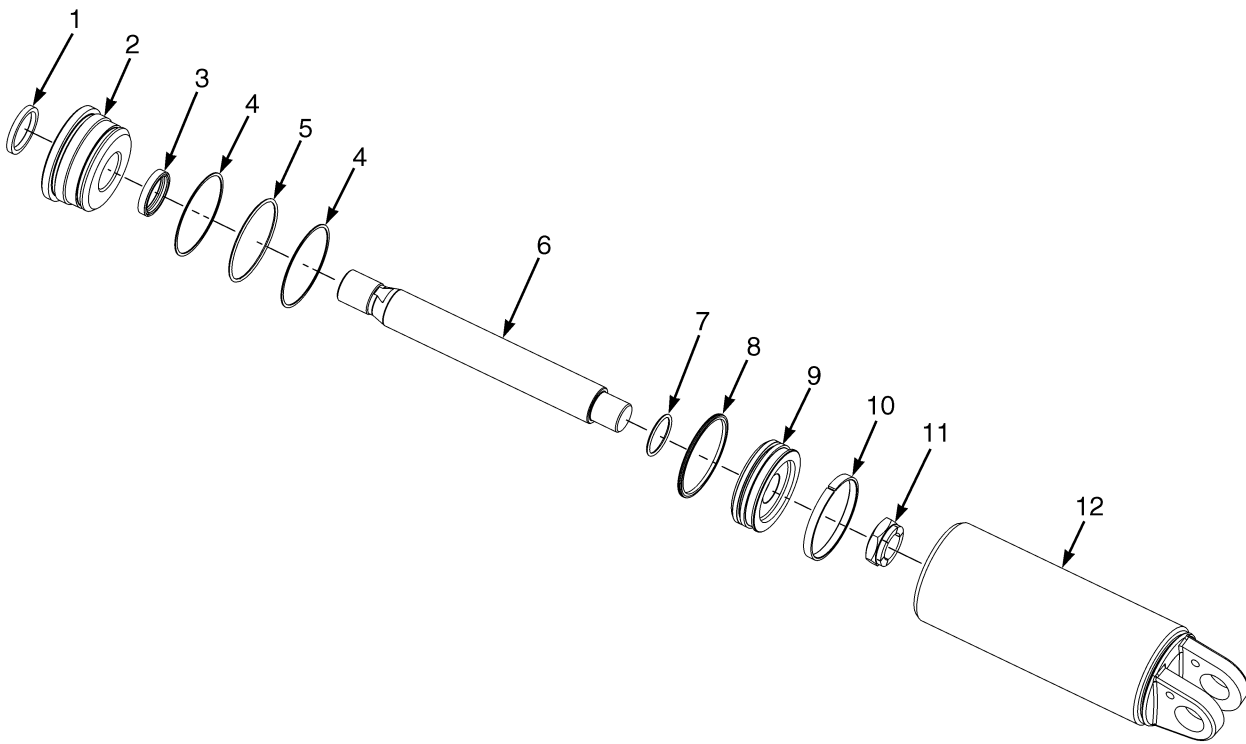
BP150336

TILT CYLINDER AND MAST INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY
1	1690917	Capscrew	2
2	1683473	Rod End	2
3	1581854	Washer	2
4	1690919	Nut	2
5	a 2082991	Tilt Cylinder (RH) (☞Figure 10-17).....	1
5	b 2082992	Tilt Cylinder (RH) (☞Figure 10-17).....	1
6	1673898	Bushing	2
7	1611572	Pin	2
8	16001	Grease Fitting	4
9	1615240	Capscrew	4
10	1581564	Lockwasher	4
11	241079	Anchor	4
12	1611579	Bushing	4
13	1611580	Snap Ring	4
14	1611571	Pin (Mast Mounting) (Mast Mounting)	2
15	293730	Capscrew	4
16	a 2090748	Tilt Cylinder (LH) (☞Figure 10-17).....	1
16	b 2090749	Tilt Cylinder (LH) (☞Figure 10-17).....	1
17	1683501	Pin (Tilt)	2
18	1690084	Bushing	2

FOOTNOTES:**a** 5° Forward/6° Back**b** 5° Forward/9° Back

TILT CYLINDERS (FIGURE 10-17)

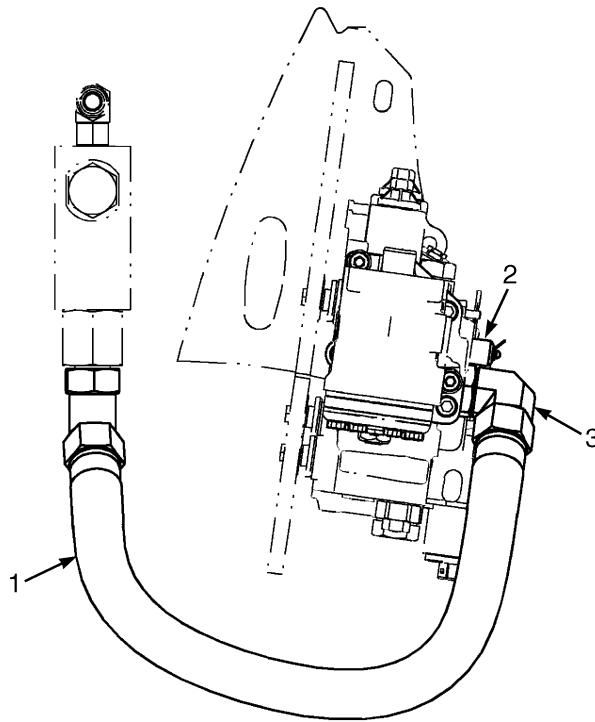


BP150368

TILT CYLINDERS**KEY:****A: 5 Degrees Forward/6 Degrees Back****B: 5 Degrees Forward/10 Degrees Back**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2090748	Tilt Cylinder (LH)	1	..
	2090749	Tilt Cylinder (LH) .....	..	1
	2082991	Tilt Cylinder (RH)	1	..
	2082992	Tilt Cylinder (RH) .....	..	1
1	2083254	Rod Wiper	1	1
2	1614790	End Plug (Gland)	1	1
3	1381087	Rod Seal	1	1
4	15884	O-Ring	2	2
5	1317007	Back-Up Ring	1	1
6	2111681	Piston Rod .....	..	1
6	2111680	Piston Rod	1	..
7	301991	O-Ring	1	1
8	2044378	Piston Seal	1	1
9	1614788	Piston	1	1
10	318067	Wear Ring	1	1
11	2083125	Locknut	1	1
12	1612421	Tube Wldmt-Cylinder (RH)	1	..
12	1612422	Tube Wldmt-Cylinder (RH) .....	..	1
12	1612423	Tube Wldmt-Cylinder (LH)	1	..
12	1612424	Tube Wldmt-Cylinder (LH) .....	..	1
	1614792	Kit-Seal	1	1

HOIST HOSE AND ATTACHING PARTS (FIGURE 10-18)



BP150338

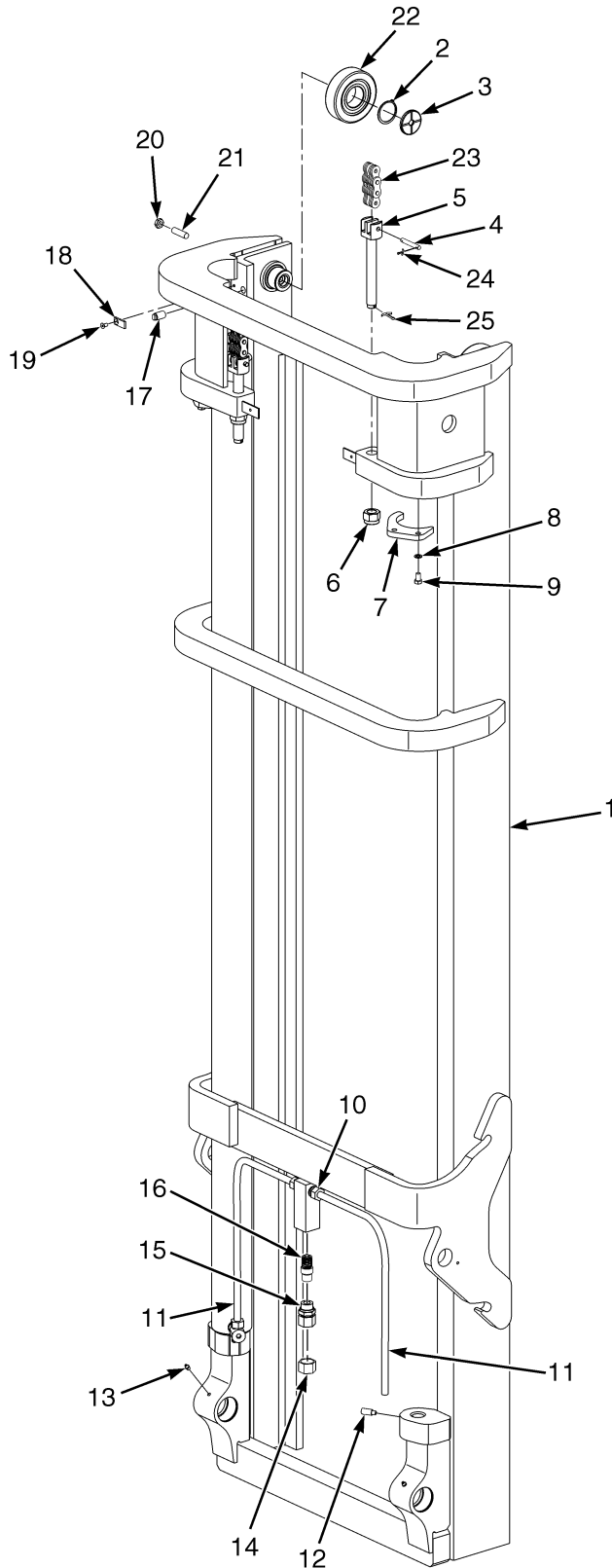
ITEM	PART NO.	DESCRIPTION	QTY
1	2108223	Hose Assy	1
2	2061646	Fitting (Diagnostic)	1
3	1605770	Fitting (With Load Weight Display)	1
3	1594869	Fitting	1
3	244167	O-Ring	1
3	16982	O-Ring	1

SECTION 11

MAST-TWO STAGE LIMITED FREE-LIFT

DESCRIPTION	PAGE
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OUTER MAST (FIGURE 11-1) TWO STAGE LIMITED FREE-LIFT — F80 MAST SERIES



HP290050

OUTER MAST
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES
W/INTEGRAL SIDESHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107123	2107124	2107125	2107126	2107127
1	Outer Mast	4006886	4006887	4006888	4006889	4006890

W/INTEGRAL SIDESHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107128	2107129	2107130	2107131	2107132
1	Outer Mast	4006886	4006887	4006888	4006889	4006890

W/O LOAD BACKREST W/STANDARD CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2111431	2111432	2111433	2111434	2111435
1	Outer Mast	4006886	4006887	4006888	4006889	4006890

W/O LOAD BACKREST W/STANDARD CARRIAGE ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2111436	2111437	2111438	2111439	2111440
1	Outer Mast	4006886	4006887	4006888	4006889	4006890

OUTER MAST
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES
W/O LOAD BACKREST W/STANDARD CARRIAGE TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2111442	2111443	2111444	2111445	2111446
1	Outer Mast	4006886	4006887	4006888	4006889	4006890

W/STANDARD CARRIAGE 1 AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107133	2107134	2107135	2107136	2107137
1	Outer Mast	4006886	4006887	4006888	4006889	4006890

W/STANDARD CARRIAGE 2 AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107138	2107139	4601443	2107140	2107141
1	Outer Mast	4006886	4006887	4006888	4006889	4006890

W/STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107025	2107026	2107027	2107028	2106480
1	Outer Mast	4006886	4006887	4006888	4006889	4006890

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast And Carriage Assy	1
1	a	Outer Mast	1

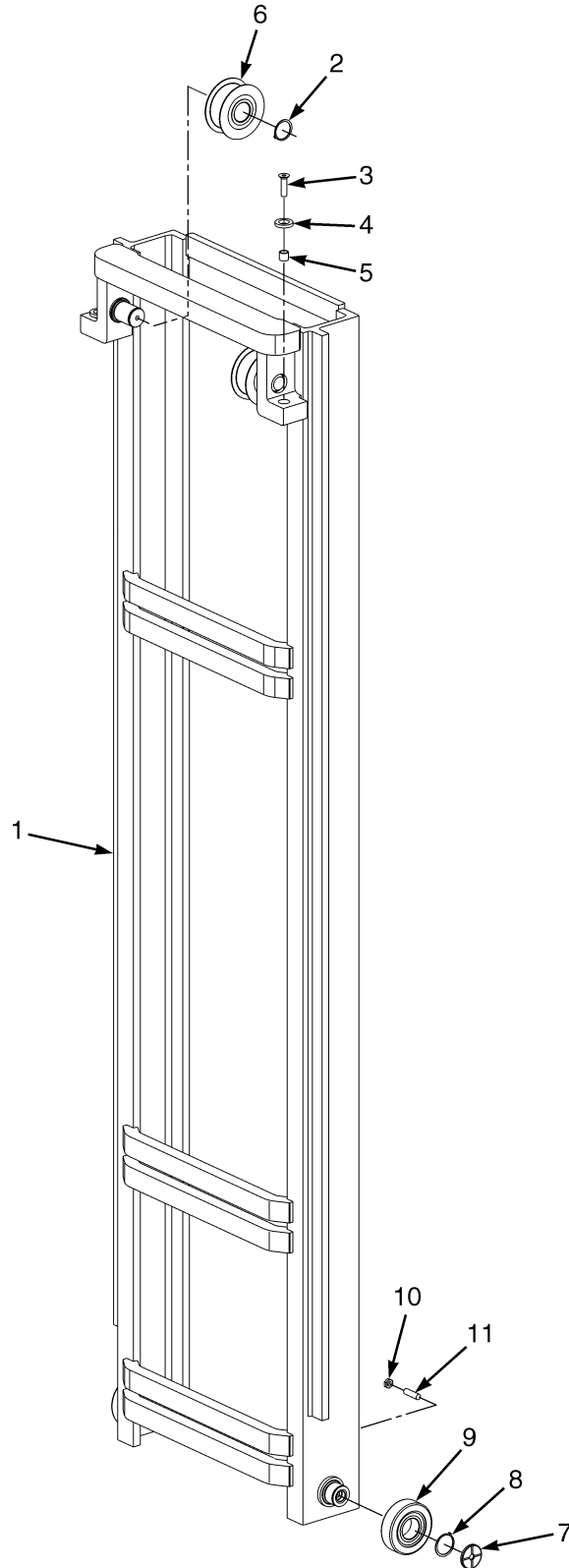
OUTER MAST
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES

ITEM	PART NO.	DESCRIPTION	QTY
2	4000425	Ring	2
3	4000358	Bushing	2
4	1529201	Pin	2
5	1529202	Chain Anchor	2
6	1529203	Locknut	2
7	4000420	Collar	2
8	1529191	Washer	4
9	4006906	Screw	4
10	4005884	Fitting	2
11	4023950	Hose	2
12	4000430	Screw	2
13	1536982	Grease Fitting	2
14	4005883	Fitting	1
15	4000435	Fitting	1
16	1565340	Valve	1
17	4000355	Bushing	2
18	4000356	Plate	2
19	4000372	Screw	2
20	4000429	Nut	2
21	4000379	Screw	2
22	4140388 4000359	Roller	2
23	127543	Chain	AR
24	1565280 15233	Cotter Pin	2
25	4005887	Pin	2

FOOTNOTES:

- a Refer to Table

INNER MAST (FIGURE 11-2) TWO STAGE LIMITED FREE-LIFT — F80 MAST SERIES



HP290051

INNER MAST
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES
W/INTEGRAL SIDESHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107123	2107124	2107125	2107126	2107127
1	Inner Mast	4006891	4006892	4006893	4006894	4006895

W/INTEGRAL SIDESHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107128 2107133	2107129	2107130	2107131	2107132
1	Inner Mast	4006891	4006892	4006893	4006894	4006895

W/O LOAD BACKREST W/STANDARD CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2111431	2111432	2111433	2111434	2111435
1	Inner Mast	4006891	4006892	4006893	4006894	4006895

W/O LOAD BACKREST W/STANDARD CARRIAGE ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2111436	2111437	2111438	2111439	2111440
1	Inner Mast	4006891	4006892	4006893	4006894	4006895

INNER MAST
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES
W/O LOAD BACKREST W/STANDARD CARRIAGE TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2111442	2111443	2111444	2111445	2111446
1	Inner Mast	4006891	4006892	4006893	4006894	4006895

W/STANDARD CARRIAGE 1 AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	----	2107134	2107135	2107136	2107137
1	Inner Mast	4006891	4006892	4006893	4006894	4006895

W/STANDARD CARRIAGE 2 AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107138	2107139	4601443	2107140	2107141
1	Inner Mast	4006891	4006892	4006893	4006894	4006895

W/STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
	Mast And Carriage Assy	2107025	2107026	2107027	2107028	2106480
1	Inner Mast	4006891	4006892	4006893	4006894	4006895

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast And Carriage Assy	1
1	a	Inner Mast	1

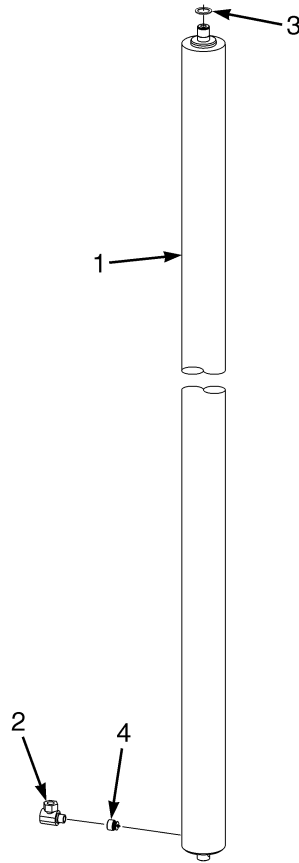
INNER MAST
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES

ITEM	PART NO.	DESCRIPTION	QTY
2	1529198	Snap Ring	2
3	4000433	Screw	2
4	4000419	Washer	2
5	4000423	Spacer	2
6	1529213	Pulley	2
7	4000358	Bushing	2
8	4000425	Ring	2
9	4140388		
	4000359	Roller	2
10	4000429	Nut	2
11	4000379	Screw	2

FOOTNOTES:

- a** Refer to Table

MAIN LIFT CYLINDER (FIGURE 11-3)
TWO STAGE LIMITED FREE-LIFT — F80 MAST SERIES



HP290043

MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES

W/INTEGRAL SIDESHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
1	Cylinder	4006881	4006882	4006883	4006884	4006885

W/INTEGRAL SIDESHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
1	Cylinder	4006881	4006882	4006883	4006884	4006885

MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES
W/O LOAD BACKREST W/STANDARD CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
1	Cylinder	4006881	4006882	4006883	4006884	4006885

W/O LOAD BACKREST W/STANDARD CARRIAGE ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
1	Cylinder	4006881	4006882	4006883	4006884	4006885

W/O LOAD BACKREST W/STANDARD CARRIAGE TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
1	Cylinder	4006881	4006882	4006883	4006884	4006885

W/STANDARD CARRIAGE 1 AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
1	Cylinder	4006881	4006882	4006883	4006884	4006885

W/STANDARD CARRIAGE 2 AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
1	Cylinder	4006881	4006882	4006883	4006884	4006885

**MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES
W/STANDARD HOOK CARRIAGE**

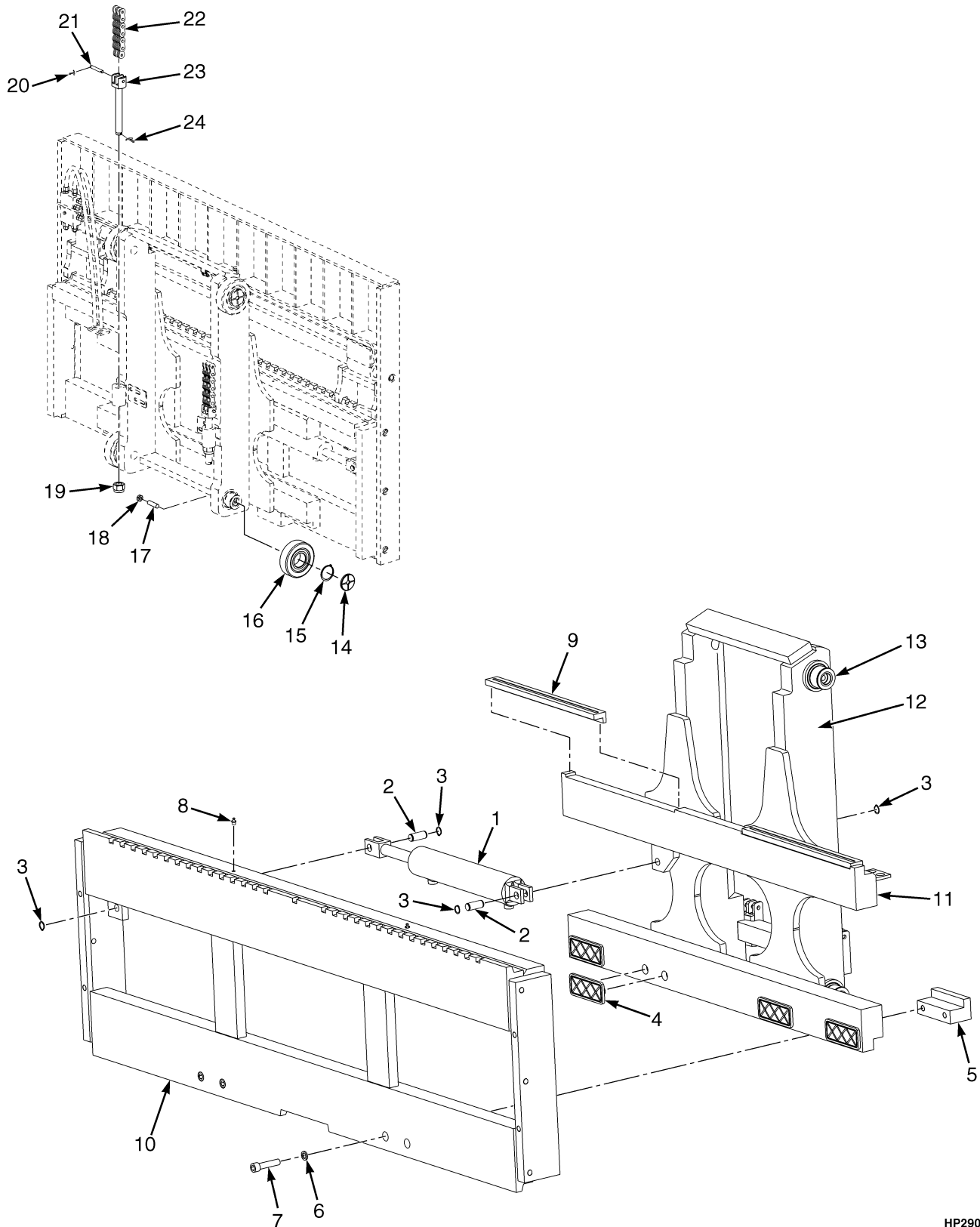
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3000 mm (118.1 in.)	3500 mm (137.8 in.)	4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		A643 3000	A643 3500	A643 4500	A643 5500	A643 6000
1	Cylinder	4006881	4006882	4006883	4006884	4006885

ITEM	PART NO.	DESCRIPTION	QTY
1	a	Cylinder	2
2	4005885	Fitting	2
3	4000381	Washer	2
4	4000428	Valve	2
	4000418	Kit-Seal	1

FOOTNOTES:

a Refer to Table

CARRIAGE (FIGURE 11-4) F80 MAST SERIES (A643)



HP290046

CARRIAGE
F80 MAST SERIES (A643)**KEY:****A: Standard Carriage (Hook Type)****B: Side-Shift Carriage (Without Fork Positioner)****C: Side-Shift Carriage (With Fork Positioner)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2111472	Carriage (Standard) Assy	1	..	..
	2111473	Carriage (Side-Shift) (Without Fork Positioner) Assy .....	..	1	..
	4000424				
	2111474	Carriage (Integral Sideshift with Fork Positioner) .....	..	..	1
1	4000410	Sideshift Cylinder .....	..	1	1
1	4008836	Kit-Seal .....	..	2	2
2	4005985	Pin .....	..	2	2
3	4005986	Ring .....	..	4	4
4	4000417	Bushing .....	..	4	4
5	1536981	Hook (Lower) .....	..	2	2
6	4000415	Washer .....	..	4	4
7	4000416	Screw .....	..	4	4
8	1536982	Grease Fitting .....	..	2	2
9	1536983	Pad (Upper) .....	..	2	2
10	4000412	Side-Shift Carriage (Lower Plate) .....	..	1	1
11	4005958	Carriage (Side Plate) .....	..	1	1
12	4000373	Carriage	1	1	1
13	4018283	Stubshaft	2	2	2
14	4000358	Bushing	4	4	4
15	4000425	Ring	4	4	4
16	4140388				
	4000359	Roller	4	4	4
17	4000379	Screw	4	4	4
18	4000429	Nut	4	4	4
19	1529203	Locknut	2	2	2
20	1565280				
	15233	Cotter Pin	4	4	4
21	1529201	Pin	2	2	2
22	127543	Chain	AR	AR	AR
23	1529202	Chain Anchor	2	2	2
24	4005887	Pin	2	2	2

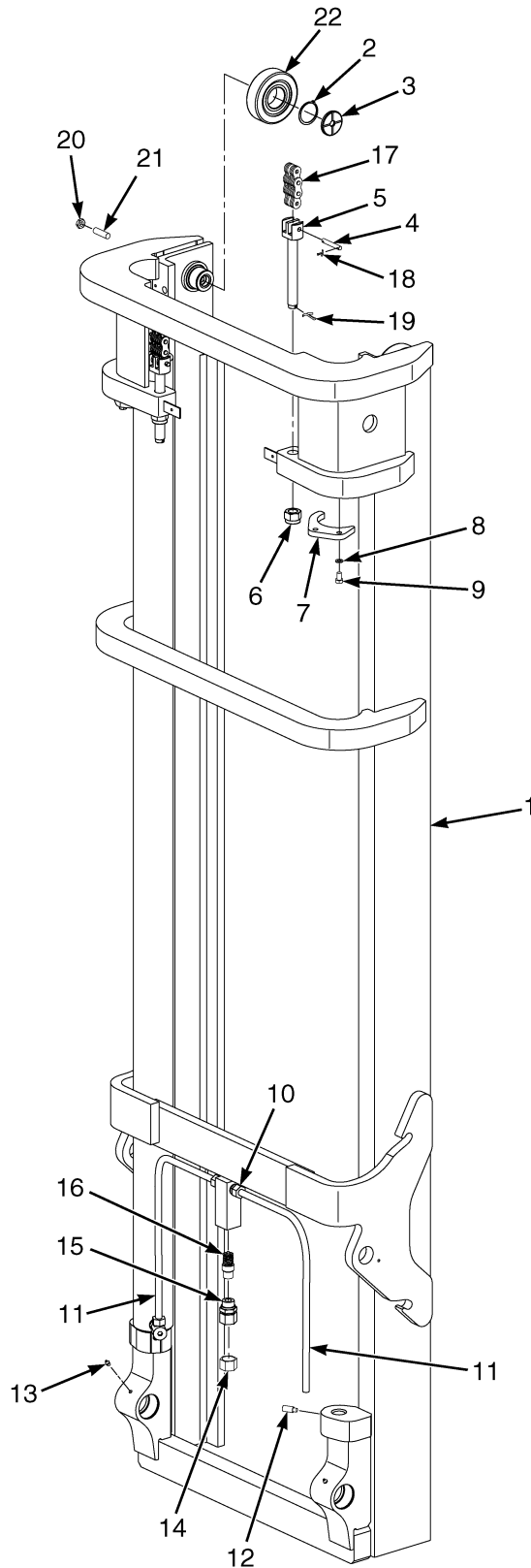
HEADER HOSES

TWO STAGE LIMITED FREE-LIFT – F80 MAST SERIES

KEY:**A: Auxiliary 1****B: Auxiliary 2**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	4000403	Washer	2	4
2	4000387	Pulley	2	4
3	4000388	Pin	1	2
4	1529198	Snap Ring	1	2
5	4023951	Washer	1	2
6	4000406	Screw	1	2
7	1536891	Clamp	2	4
8	4000351	Clamp	6	12
9	4113340	Hose (3500mm)	2	4
9	4122617	Hose (4500mm)	2	4
9	4007389	Hose (5500mm and 6000mm)	2	4
10	4000353	Fitting (Cap)	2	4
11	4023954	Hose	2	2
11	4010601	Hose (5500mm and 6000 mm)	2	2
12	4023952	Fitting	2	4
13	1529221	Fitting	2	4
14	4000407	Hose Clamp	2	4
15	4023937	Screw	2	4
16	4000365	Fitting	2	4
17	4023957			
	4023947	Hose .....	..	1
17	4010601	Hose (5500mm and 6000 mm) .....	..	1
18	4023958			
	4023948	Hose .....	..	1
18	4010601	Hose (5500mm and 6000 mm) .....	..	1

OUTER MAST (FIGURE 11-6) TWO STAGE LIMITED FREE-LIFT — F90 MAST SERIES WITH HOOK CARRIAGE



BP170663

OUTER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE
W/INTEGRAL SIDESHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621498	4621499
1	Outer Mast	4083237	4083240

W/INTEGRAL SIDESHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621501	4621502
1	Outer Mast	4083237	4083240

W/O LOAD BACKREST W/STANDARD CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621510	4621511	4621512
1	Outer Mast	4083237	4083240	4000443

W/O LOAD BACKREST W/STANDARD CARRIAGE ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621513	4621514	4621515
1	Outer Mast	4083237	4083240	4000443

OUTER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE
W/O LOAD BACKREST W/STANDARD CARRIAGE TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621516	4621517	4621518
1	Outer Mast	4083237	4083240	4000443

W/STANDARD CARRIAGE 1 AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621504	4621505
1	Outer Mast	4083237	4083240

W/STANDARD CARRIAGE 2 AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621507	4621508
1	Outer Mast	4083237	4083240

W/STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621495	4621496
1	Outer Mast	4083237	4083240

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	4000425	Ring	2
3	4000358	Bushing	2
4	1529201	Pin	2
5	1529202	Chain Anchor	2

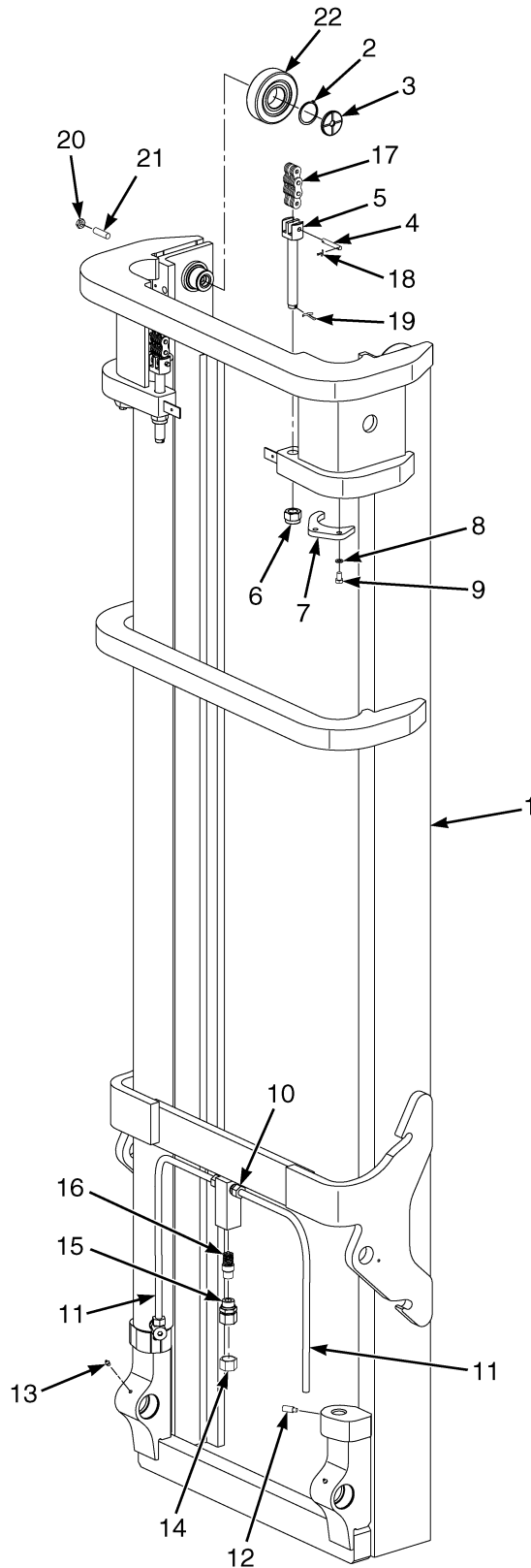
OUTER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE

ITEM	PART NO.	DESCRIPTION	QTY
6	1529203	Locknut	2
7	4000420	Collar	2
8	1529191	Washer	4
9	4006906	Screw	4
10	4005884	Fitting	2
11	4082936	Hose	2
12	4000430	Screw	2
13	1536982	Grease Fitting	2
14	4005883	Fitting	1
15	4000435	Fitting	1
16	1565340	Valve	1
17	127543	Chain	AR
18	1565280 15233	Cotter Pin	2
19	4005887	Pin	2
20	4000429	Nut	2
21	4000379	Screw	2
22	4140388 4000359	Roller	2

FOOTNOTES:

- a Refer to Table

OUTER MAST (FIGURE 11-7) TWO STAGE LIMITED FREE-LIFT — F90 MAST SERIES WITH BASEPLATE WELDMENT



BP170663

OUTER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH BASEPLATE WELDMENT
WITH BASE CARRIAGE 2 AUX HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621522	4621523	4621524
1	Outer Mast	4083237	4083240	4000443

WITH BASE CARRIAGE WITH 1 AUX HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621519	4621520	4621521
1	Outer Mast	4083237	4083240	4000443

WITH NO CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621525	4621526	4621527
1	Outer Mast	4083237	4083240	4000443

WITH NO CARRIAGE WITH 1 AUX HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621528	4621529	4621530
1	Outer Mast	4083237	4083240	4000443

OUTER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH BASEPLATE WELDMENT
WITH NO CARRIAGE WITH 2 AUX HOSES

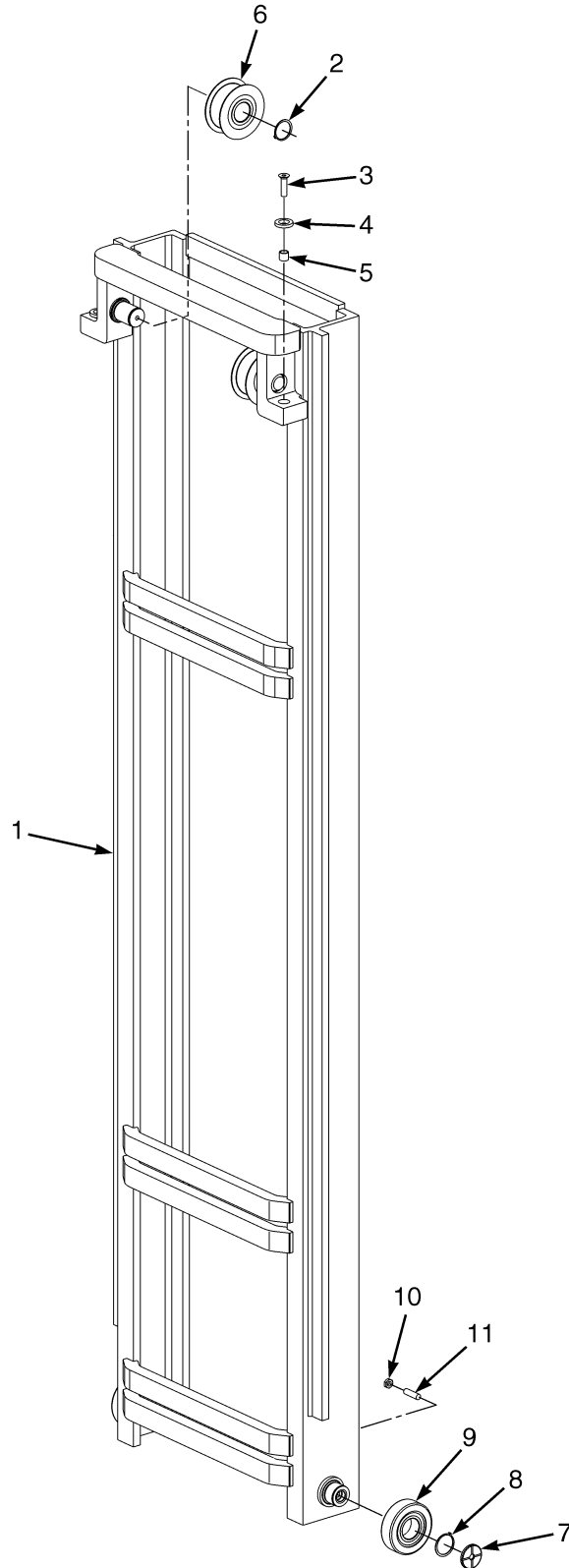
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621531	4621532	4621533
1	Outer Mast	4083237	4083240	4000443

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	4000425	Ring	2
3	4000358	Bushing	2
4	1529201	Pin	2
5	1529202	Chain Anchor	2
6	1529203	Locknut	2
7	4000420	Collar	2
8	1529191	Washer	4
9	4006906	Screw	4
10	4005884	Fitting	2
11	4082936	Hose	2
12	4000430	Screw	2
13	1536982	Grease Fitting	2
14	4005883	Fitting	1
15	4000435	Fitting	1
16	1565340	Valve	1
17	127543	Chain	AR
18	1565280		
	15233	Cotter Pin	2
19	4005887	Pin	2
20	4000429	Nut	2
21	4000379	Screw	2
22	4140388		
	4000359	Roller	2

FOOTNOTES:

a Refer to Table

INNER MAST (FIGURE 11-8) TWO STAGE LIMITED FREE-LIFT — F90 MAST SERIES WITH HOOK CARRIAGE



HP290051

INNER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE
W/INTEGRAL SIDESHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621498	4621499
1	Inner Mast	4083238	4083241

W/INTEGRAL SIDESHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621501	4621502
1	Inner Mast	4083238	4083241

W/O LOAD BACKREST W/STANDARD CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621510	4621511	4621512
1	Inner Mast	4083238	4083241	4000444

W/O LOAD BACKREST W/STANDARD CARRIAGE ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621513	4621514	4621515
1	Inner Mast	4083238	4083241	4000444

INNER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE
W/O LOAD BACKREST W/STANDARD CARRIAGE TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
	Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621516	----	4621518
1	Inner Mast	4083238	4083241	4000444

W/STANDARD CARRIAGE 1 AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
	Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621504	4621505
1	Inner Mast	4083238	4083241

W/STANDARD CARRIAGE 2 AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
	Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621507	4621508 4621517
1	Inner Mast	4083238	4083241

W/STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
	Mast Group Number	A683 4500	A683 5500
	Mast Assy	4621495	4621496
1	Inner Mast	4083238	4083241

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Inner Mast	1
2	1529198	Snap Ring	2
3	4000433	Screw	2
4	4000419	Washer	2

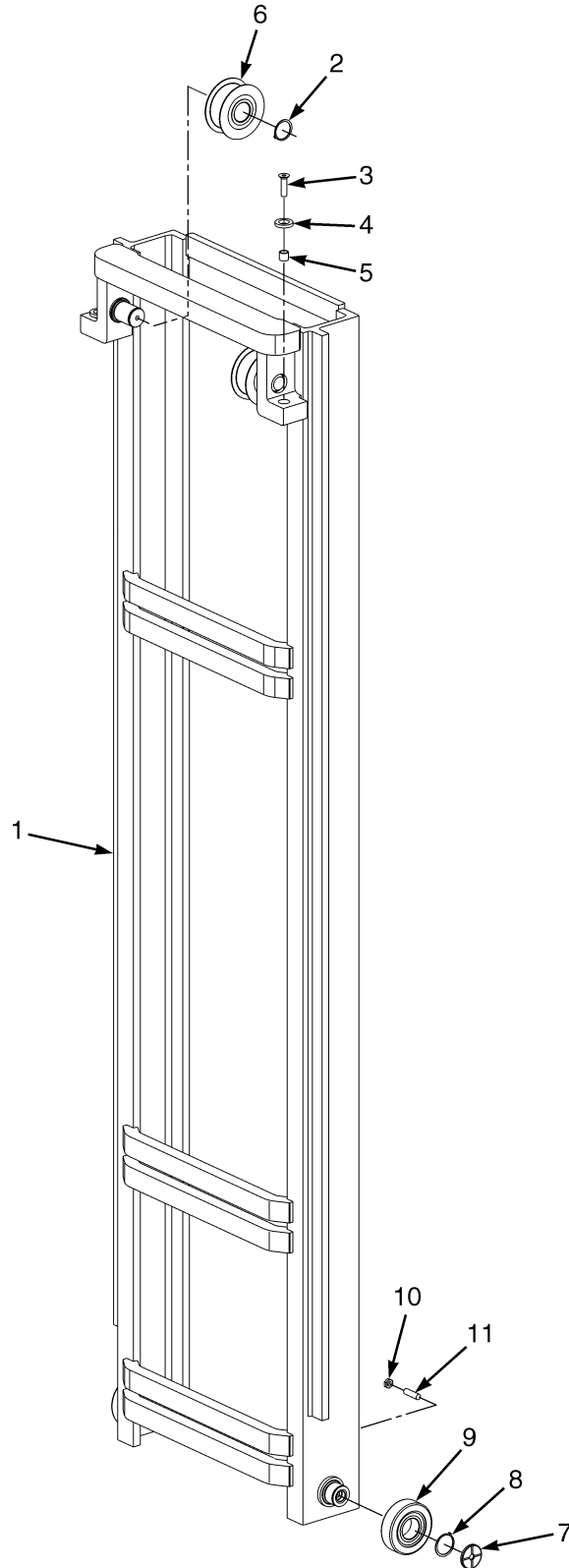
INNER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE

ITEM	PART NO.	DESCRIPTION	QTY
5	4000423	Spacer	2
6	1529213	Pulley	2
7	4000358	Bushing	2
8	4000425	Ring	2
9	4140388 4000359	Roller	2
10	4000429	Nut	2
11	4000379	Screw	2

FOOTNOTES:

- a** Refer to Table

INNER MAST (FIGURE 11-9) TWO STAGE LIMITED FREE-LIFT — F90 MAST SERIES WITH BASEPLATE WELDMENT



HP290051

INNER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH BASEPLATE WELDMENT
WITH BASE CARRIAGE 2 AUX HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621522	4621523	4621524
1	Inner Mast	4083238	4083241	4000444

WITH BASE CARRIAGE WITH 1 AUX HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621519	4621520	4621521
1	Inner Mast	4083238	4083241	4000444

WITH NO CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621525	4621526	4621527
1	Inner Mast	4083238	4083241	4000444

WITH NO CARRIAGE WITH 1 AUX HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621528	4621529	4621530
1	Inner Mast	4083238	4083241	4000444

INNER MAST
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH BASEPLATE WELDMENT
WITH NO CARRIAGE WITH 2 AUX HOSES

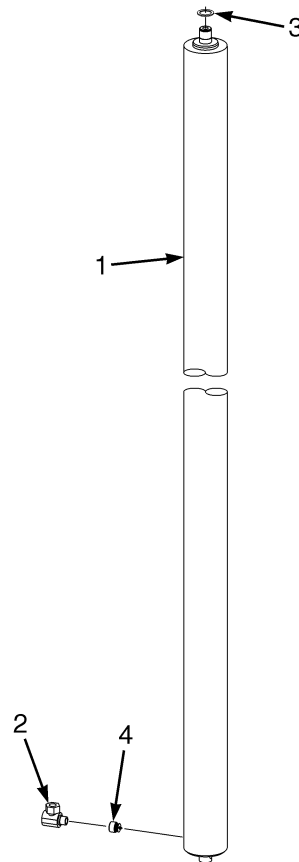
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
	Mast Assy	4621531	4621532	4621533
1	Inner Mast	4083238	4083241	4000444

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Inner Mast	1
2	1529198	Snap Ring	2
3	4000433	Screw	2
4	4000419	Washer	2
5	4000423	Spacer	2
6	1529213	Pulley	2
7	4000358	Bushing	2
8	4000425	Ring	2
9	4140388		
	4000359	Roller	2
10	4000429	Nut	2
11	4000379	Screw	2

FOOTNOTES:

a Refer to Table

MAIN LIFT CYLINDER (FIGURE 11-10)
TWO STAGE LIMITED FREE-LIFT — F90 MAST SERIES WITH HOOK CARRIAGE



MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE

HP290043

W/INTEGRAL SIDESHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
1	Cylinder	4006883	4006884

W/INTEGRAL SIDESHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
1	Cylinder	4006883	4006884

MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE
W/O LOAD BACKREST W/STANDARD CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
1	Cylinder	4006883	4006884	4006885

W/O LOAD BACKREST W/STANDARD CARRIAGE ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
1	Cylinder	4006883	4006884	4006885

W/O LOAD BACKREST W/STANDARD CARRIAGE TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
1	Cylinder	4006883	4006884	4006885

W/STANDARD CARRIAGE 1 AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
1	Cylinder	4006883	4006884

W/STANDARD CARRIAGE 2 AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
1	Cylinder	4006883	4006884

**MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH HOOK CARRIAGE
W/STANDARD HOOK CARRIAGE**

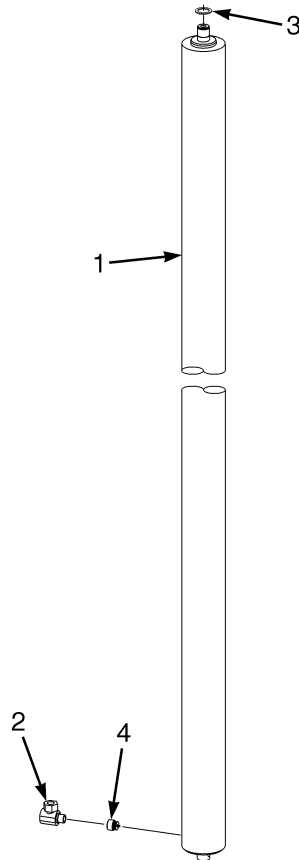
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		4500 mm (177.2 in.)	5500 mm (216.5 in.)
		Mast Group Number	A683 4500	A683 5500
1	Cylinder	4006883	4006884

ITEM	PART NO.	DESCRIPTION	QTY
1	a	Cylinder	2
1	4111580	Gland	1
2	4005885	Fitting	2
3	4000381	Washer	2
4	4000428	Valve	2
	4000418	Kit-Seal	1

FOOTNOTES:

a Refer to Table

MAIN LIFT CYLINDER (FIGURE 11-11)
TWO STAGE LIMITED FREE-LIFT — F90 MAST SERIES WITH BASEPLATE WELDMENT



HP290043

MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH BASEPLATE WELDMENT
WITH BASE CARRIAGE 2 AUX HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
1	Cylinder	4006883	4006884	4006885

WITH BASE CARRIAGE WITH 1 AUX HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
1	Cylinder	4006883	4006884	4006885

MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT – F90 MAST SERIES WITH BASEPLATE WELDMENT
WITH NO CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
1	Cylinder	4006883	4006884	4006885

WITH NO CARRIAGE WITH 1 AUX HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
1	Cylinder	4006883	4006884	4006885

WITH NO CARRIAGE WITH 2 AUX HOSES

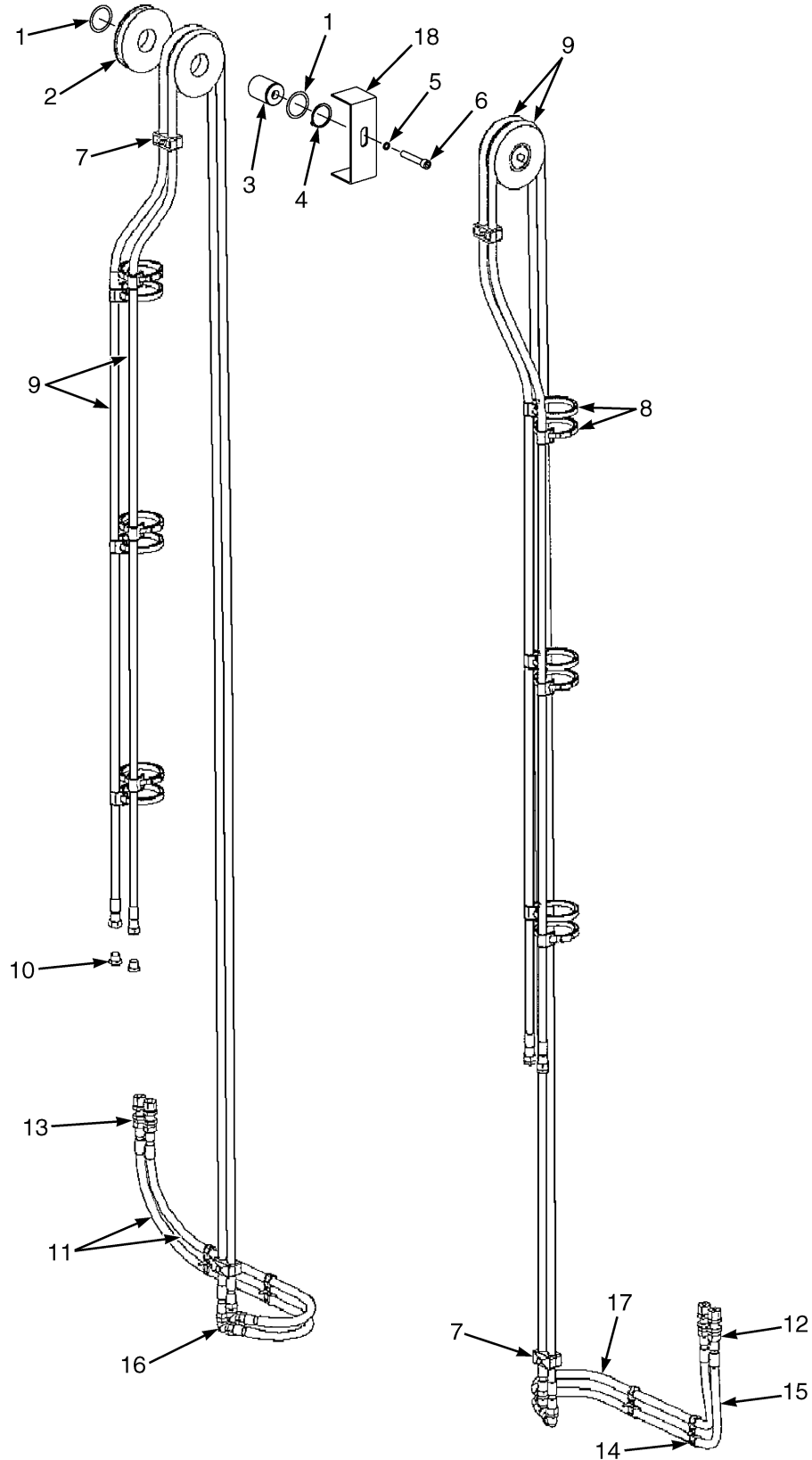
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4500 mm (177.2 in.)	5500 mm (216.5 in.)	6000 mm (236.2 in.)
		Mast Group Number	A683 4500	A683 5500	A683 6000
1	Cylinder	4006883	4006884	4006885

ITEM	PART NO.	DESCRIPTION	QTY
1	a	Cylinder	2
1	4111580	Gland	1
2	4005885	Fitting	2
3	4000381	Washer	2
4	4000428	Valve	2
	4000418	Kit-Seal	1

FOOTNOTES:

a Refer to Table

HEADER HOSES (FIGURE 11-12) TWO STAGE LIMITED FREE LIFT — F90 MAST SERIES



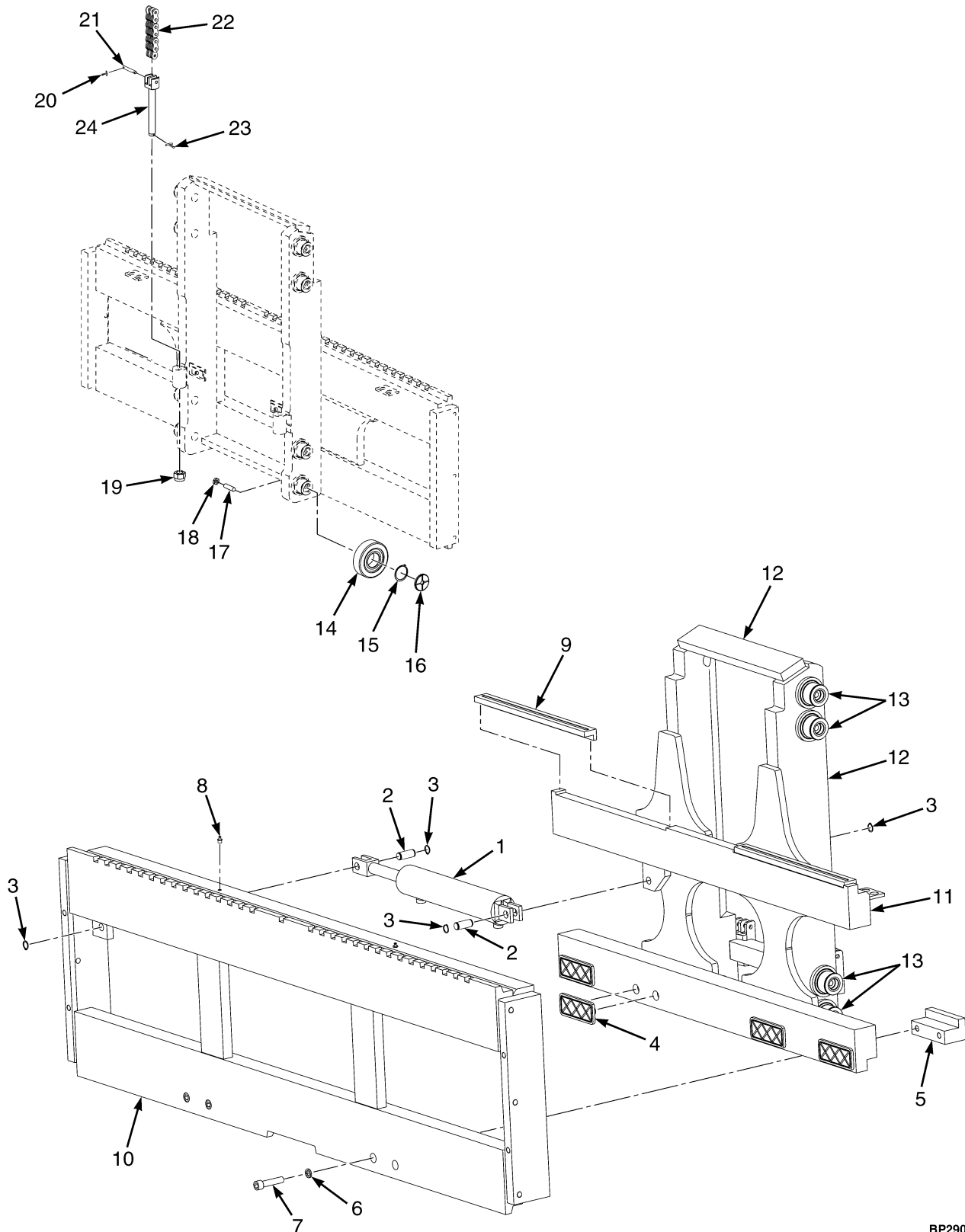
BP170662

HEADER HOSES
TWO STAGE LIMITED FREE LIFT – F90 MAST SERIES

KEY:**A: Auxiliary 1****B: Auxiliary 2**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	4000403	Washer	2	4
2	4000387	Pulley	2	4
3	4000388	Pin	1	2
4	1529198	Snap Ring	1	2
5	4062044	Washer	1	2
6	4062045	Screw	1	2
7	1536891	Clamp	3	6
8	4000351	Clamp	6	12
9	4122617	Hose (4500mm)	2	4
9	4125559	Hose (5500mm and 6000mm)	2	4
10	4000353	Fitting	2	4
11	4023954	Hose	1	2
12	4000352	Fitting .....	..	2
13	1529221	Fitting	2	2
14	1538177	Clamp .....	..	1
15	4023958			
	4023948	Hose	1	1
16	4000365	Fitting	2	4
17	4023957			
	4023947	Hose	1	1
18	4062043	Support	1	2

CARRIAGE (FIGURE 11-13) F90 MAST SERIES (A683)

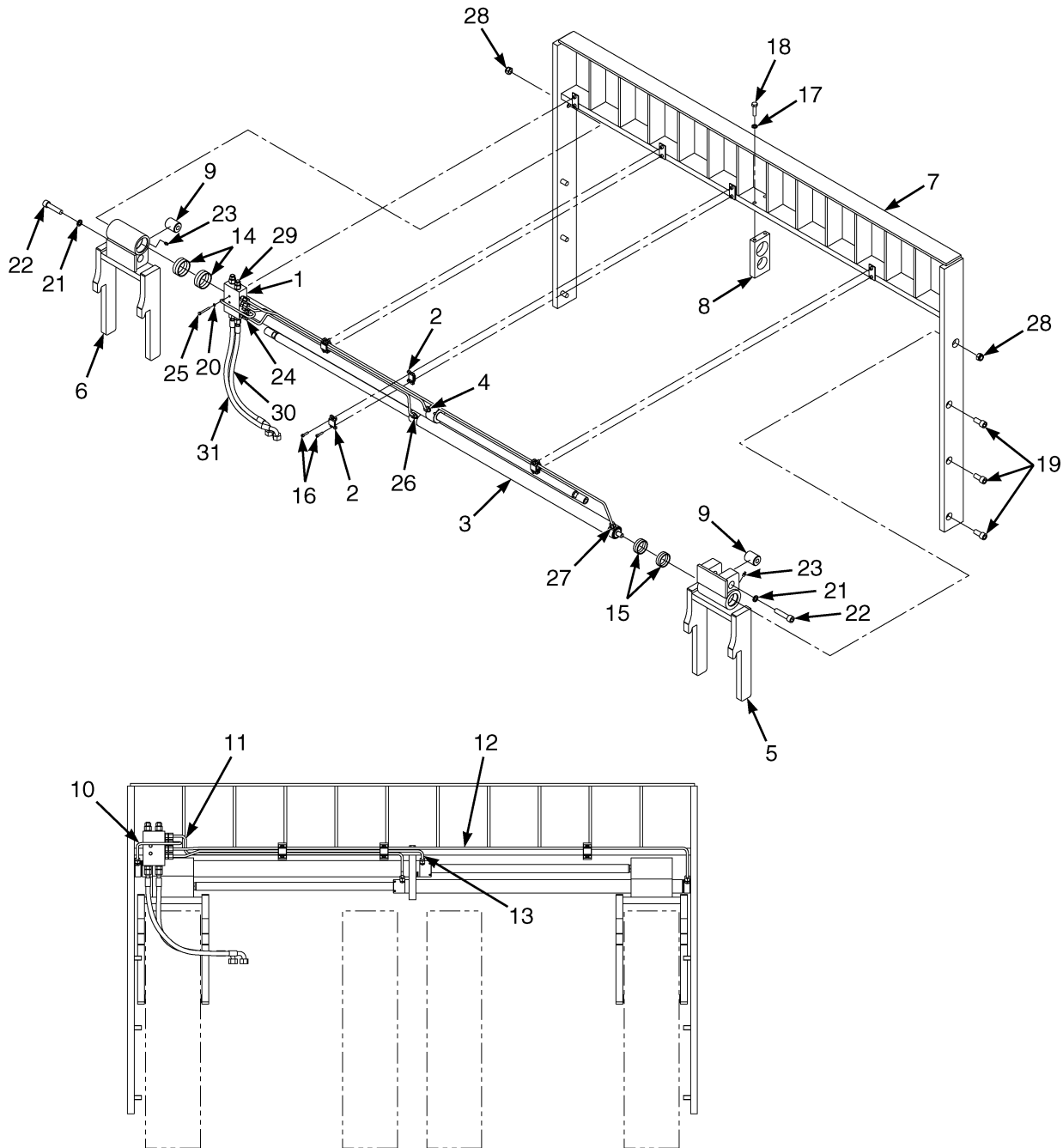


BP290149

CARRIAGE
F90 MAST SERIES (A683)**KEY:****A: Standard Carriage (Hook Type)****B: Side-Shift Carriage (Without Fork Positioner)****C: Side-Shift Carriage (With Fork Positioner)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	4621573	Carriage	1	..	..
	4621574	Carriage .....	..	1	..
	4621575	Carriage .....	..	..	1
1	4000410	Sideshift Cylinder .....	..	1	1
1	4008836	Kit-Seal .....	..	2	2
2	4005985	Pin .....	..	2	2
3	4005986	Ring .....	..	4	4
4	4000417	Bushing .....	..	4	4
5	1536981	Hook (Lower) .....	..	2	2
6	4000415	Washer .....	..	4	4
7	4000416	Screw .....	..	4	4
8	1536982	Grease Fitting .....	..	2	2
9	1536983	Pad (Upper) .....	..	2	2
10	4057983	Side-Shift Carriage .....	..	1	1
11	4058426	Carriage (Frame) .....	..	1	1
12	4621579	Carriage (Base)	1	1	1
13	4018283	Stubshaft	8	8	8
14	4140388 4000359	Roller	8	8	8
15	4000425	Ring	8	8	8
16	4000358	Bushing	8	8	8
17	4000379	Screw	8	8	8
18	4000429	Nut	8	8	8
19	1529203	Locknut	2	2	2
20	1565280 15233	Cotter Pin	4	4	4
21	1529201	Pin	2	2	2
22	127543	Chain	AR	AR	AR
23	1529202	Chain Anchor	2	2	2
24	4005887	Pin	2	2	2

**FORK POSITIONER (FIGURE 11-14)
TWO STAGE LIMITED FREE-LIFT — (A683)**

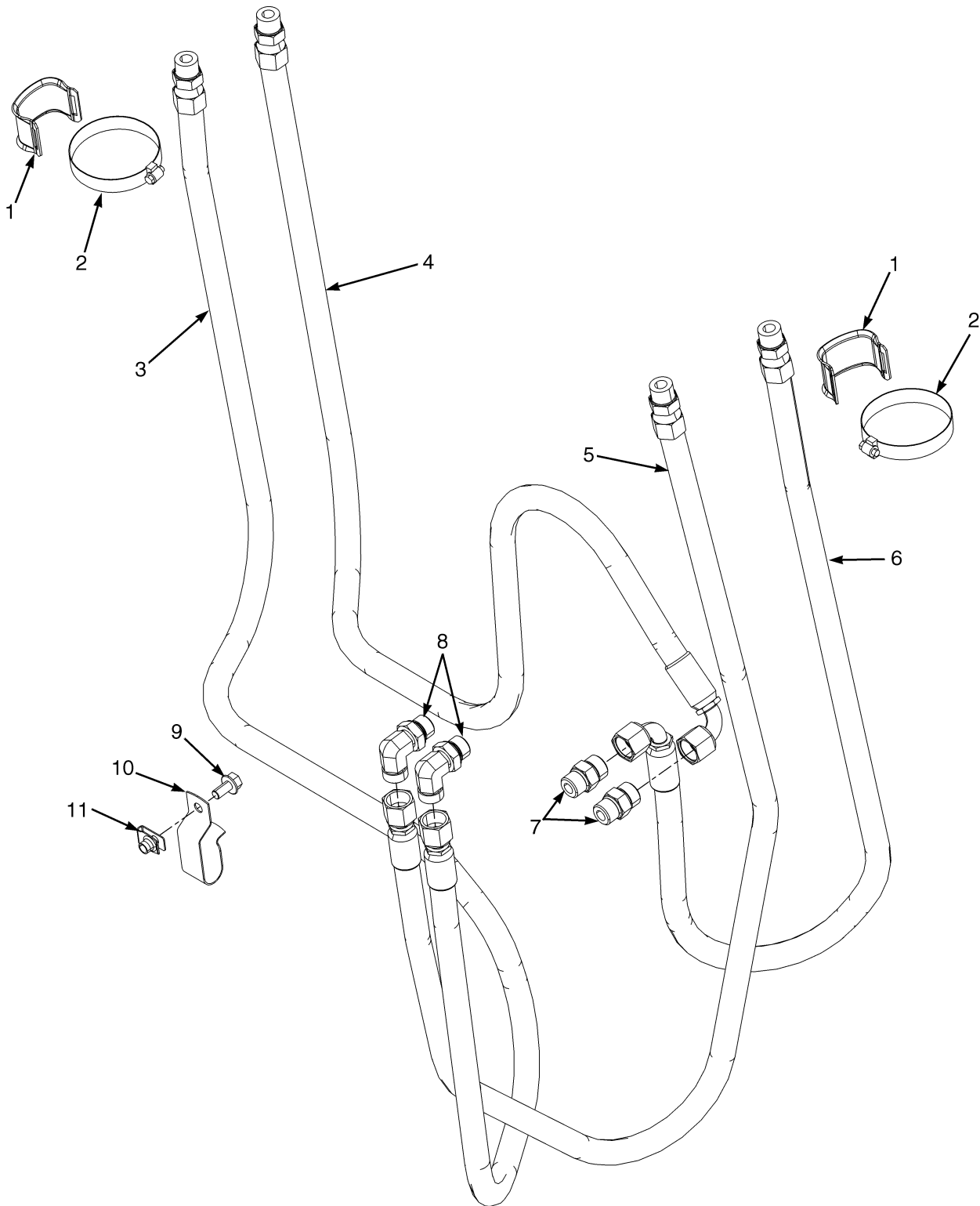


HP290036

**FORK POSITIONER
TWO STAGE LIMITED FREE-LIFT – (A683)**

ITEM	PART NO.	DESCRIPTION	QTY
	4005955	Kit-Fork Positioner	1
1	4005960	Valve	1
2	4005962	Clamp	3
3	4005963	Cylinder	1
	4008834	Kit-Seal	1
4	4005964	Cylinder	1
	4008835	Kit-Seal	1
5	4005965	Bracket	1
6	4005966	Bracket	1
7	1622945	Load Backrest	1
8	4005968	Support	1
9	4005969	Bushing	2
10	4005970	Tube	1
11	4005971	Tube	1
12	4005972	Tube	1
13	4005973	Tube	1
14	4005974	Guide	4
15	4005975	Guide	4
16	4023937	Screw	6
17	1529191	Washer	2
18	4005976	Screw	2
19	4005977	Screw	6
20	1537031	Washer	2
21	4000415	Washer	2
22	4000416	Screw	2
23	1671705	Grease Fitting	2
24	4005978	Fitting	4
25	4005979	Screw	2
26	4005980	Fitting	2
27	4005981	Fitting	2
28	4005982	Nut	2
29	4005983	Fitting	2
30	4023938	Hose	1
31	4023939	Hose	1

AUXILIARY FUNCTION HOSES (FIGURE 11-15) TWO STAGE LIMITED FREE-LIFT



BP150287

**AUXILIARY FUNCTION HOSES
TWO STAGE LIMITED FREE-LIFT****KEY:****A: Three Function****B: Four Function**

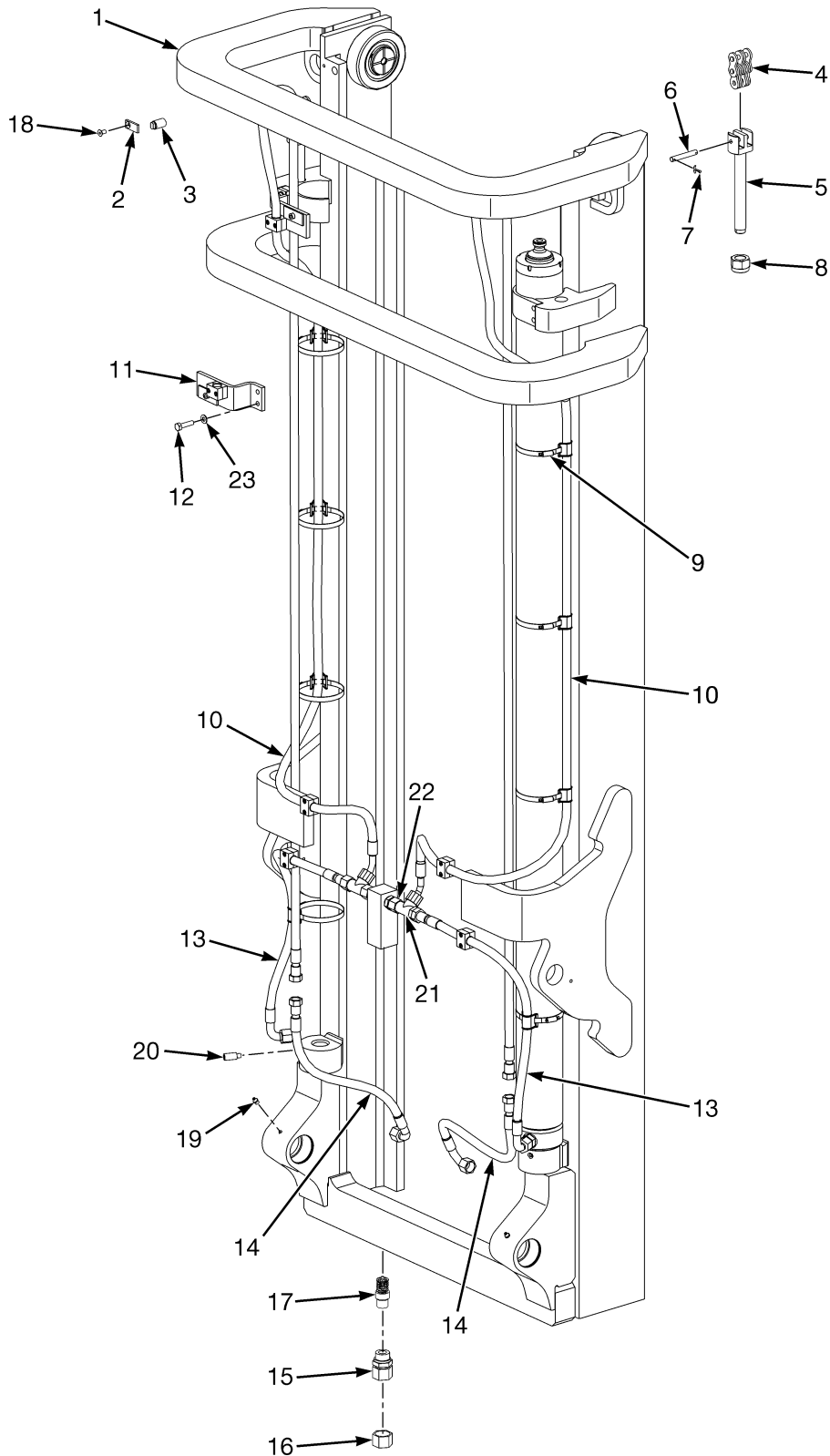
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1502809	Hose Clamp	1	2
2	1399243	Clamp	1	2
3	2108066	Hose Assy .....	..	1
4	2108067	Hose Assy .....	..	1
5	2108064	Hose Assy	1	1
6	2108065	Hose Assy	1	1
7	1473887	Fitting	1	2
8	1473897	Fitting	1	2
9	4109993			
	1527879	Capscrew .....	..	1
10	251994	Clamp	1
11	1480237	Nut	1

SECTION 12

MAST-THREE STAGE FULL FREE-LIFT

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OUTER MAST (FIGURE 12-1) THREE STAGE FULL FREE-LIFT — F80 MAST SERIES (A644)



HP290047

OUTER MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH INTEGRAL SIDE-SHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107142	2107143	2107218
1	Outer Mast	4007337	4007338	4007339

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107145	2107146	2107147
1	Outer Mast	4007337	4007338	4007339

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107149	2107150	2107151
1	Outer Mast	4007337	4007338	4007339

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111412	2111413	2111414
1	Outer Mast	4007337	4007338	4007339

**OUTER MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107153	2107154	2107155
1	Outer Mast	4007337	4007338	4007339

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111416	2111417	2111418
1	Outer Mast	4007337	4007338	4007339

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2106482	2107029	2106484
1	Outer Mast	4007337	4007338	4007339

WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111409	2111410	2111679
1	Outer Mast	4007337	4007338	4007339

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast And Carriage Assy	1
1	a	Outer Mast	1

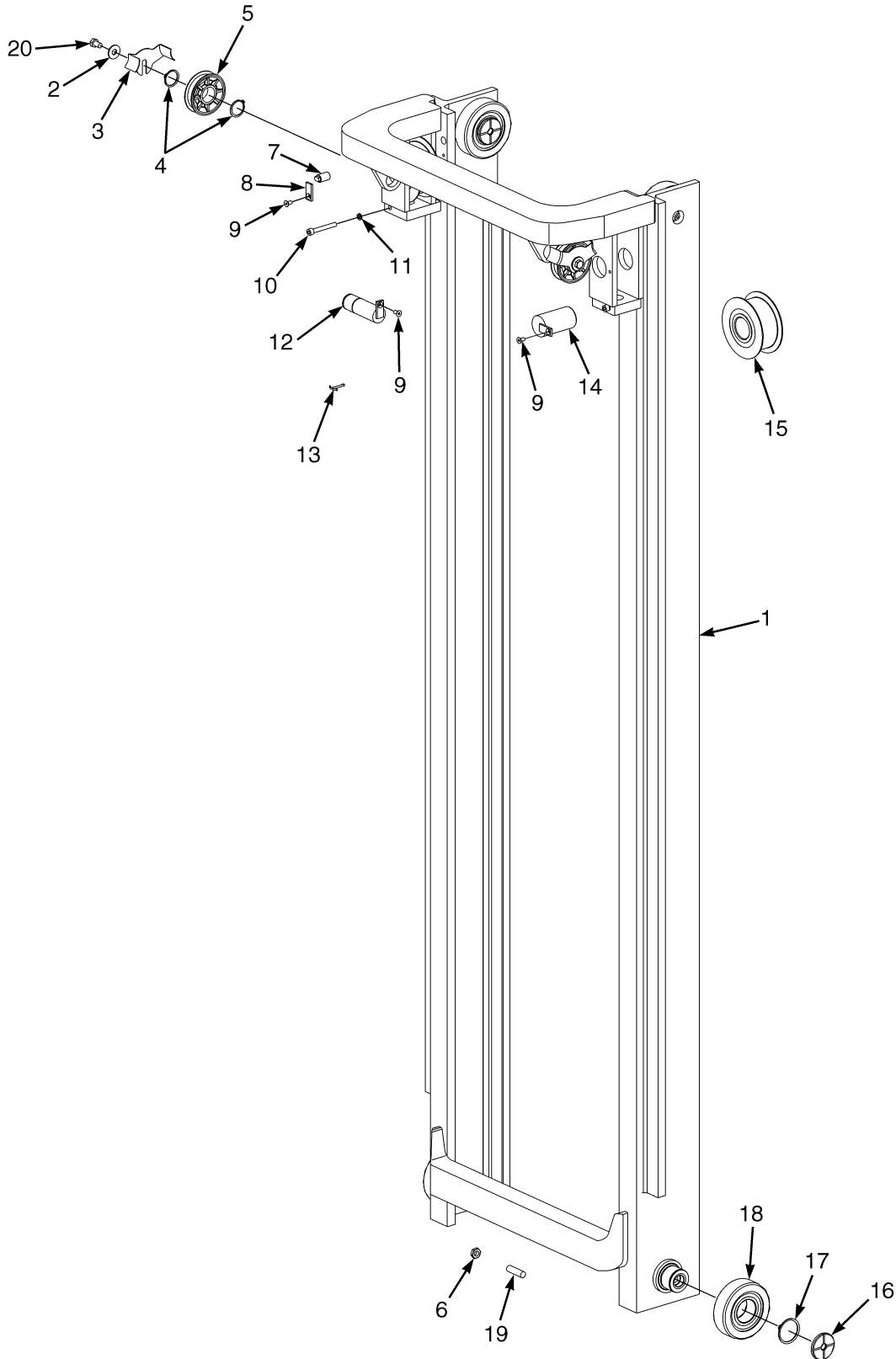
OUTER MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)

ITEM	PART NO.	DESCRIPTION	QTY
2	4000356	Plate	2
3	4000355	Bushing	2
4	127543	Chain	AR
5	1529202	Chain Anchor	2
6	1529201	Pin	2
7	1565280 15233	Cotter Pin	4
8	1529203	Locknut	2
9	4000351	Clamp	4
10	4007357	Hose	AR
11	4000369	Collar	2
12	4000441	Screw	4
13	4007361	Hose	AR
14	4007353	Hose	AR
15	4000435	Fitting	1
16	4005883	Fitting	1
17	1565340	Valve	1
18	4000372	Screw	2
19	1536982	Grease Fitting	2
20	4000430	Screw	2
21	4005886	Fitting	2
22	4005884	Fitting	2
23	4000442	Washer	2

FOOTNOTES:

- a** Refer to Table

INTERMEDIATE MAST (FIGURE 12-2) THREE STAGE FULL FREE-LIFT — F80 MAST SERIES (A644)



HP290048

**INTERMEDIATE MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH INTEGRAL SIDE-SHIFT CARRIAGE**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107142	2107143	2107218
1	Intermediate Mast	4007341	4007342	4007343

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107145	2107146	2107147
1	Intermediate Mast	4007341	4007342	4007343

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107149	2107150	2107151
1	Intermediate Mast	4007341	4007342	4007343

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111412	2111413	2111414
1	Intermediate Mast	4007341	----	4007343 4007343

**INTERMEDIATE MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107153	2107154	2107155
1	Intermediate Mast	4007341	4007342	4007343

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111416	2111417	2111418
1	Intermediate Mast	4007341	4007342	4007343

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2106482	2107029	2106484
1	Intermediate Mast	4007341	4007342	4007343

WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111409	2111410	2111679
1	Intermediate Mast	4007341	4007342	4007343

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast And Carriage Assy	1
1	a	Intermediate Mast	1

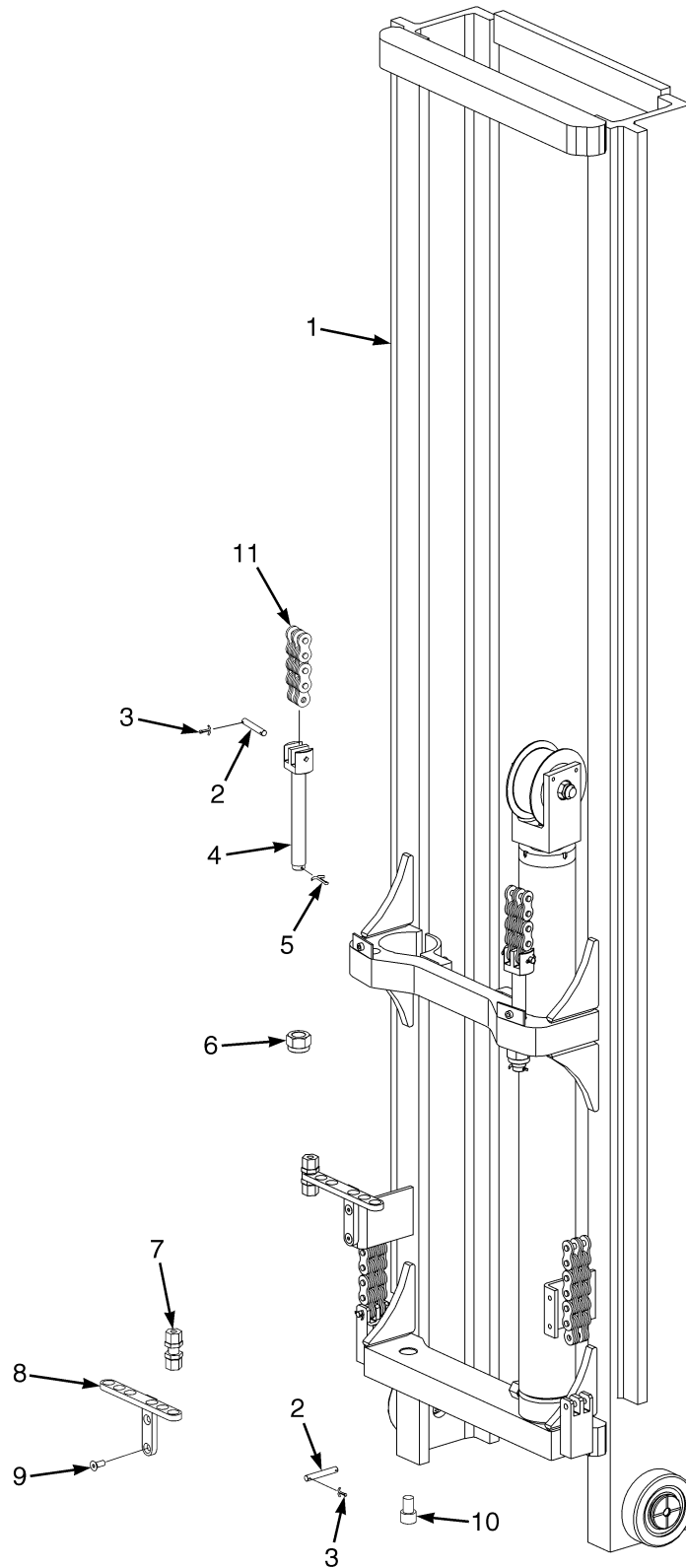
INTERMEDIATE MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)

ITEM	PART NO.	DESCRIPTION	QTY
2	4000375	Washer	2
3	4000360	Protector	2
4	4000439	Ring	4
5	4000357	Pulley	2
6	4000429	Nut	2
7	4000355	Bushing	2
8	4000356	Plate	2
9	4000372	Screw	6
10	4000450	Clamp	2
11	4000367	Washer	2
12	4000362	Pin	2
13	4005887	Pin	2
14	4000361	Pin	2
15	1529213	Pulley	2
16	4000358	Bushing	4
17	4000425	Ring	4
18	4140388 4000359	Roller	4
19	4000379	Screw	2
20	4000426	Screw	2

FOOTNOTES:

- a** Refer to Table

INNER MAST (FIGURE 12-3) THREE STAGE FULL FREE-LIFT — F80 MAST SERIES (A644)



HP290049

INNER MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH INTEGRAL SIDE-SHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107142	2107143	2107218
1	Inner Mast	4007345	4007346	4007347

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107145	2107146	2107147
1	Inner Mast	4007345	4007346	4007347

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107149	2107150	2107151
1	Inner Mast	4007345	4007346	4007347

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111412	2111413	2111414
1	Inner Mast	4007345	4007346	4007347

INNER MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2107153	2107154	2107155
1	Inner Mast	4007345	4007346	4007347

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111416	2111417	2111418
1	Inner Mast	4007345	4007346	4007347

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2106482	2107029	2106484
1	Inner Mast	4007345	4007346	4007347

WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
	Mast And Carriage Assy	2111409	2111410	2111679
1	Inner Mast	4007345	4007346	4007347

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast And Carriage Assy	1
1	a	Inner Mast	1

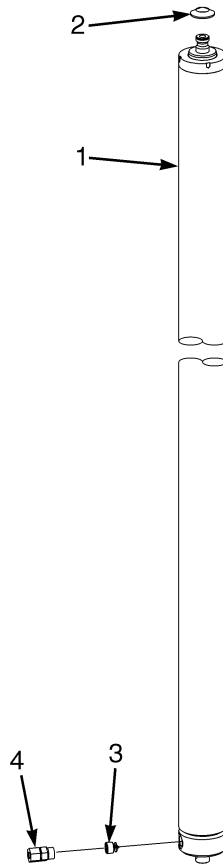
INNER MAST
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)

ITEM	PART NO.	DESCRIPTION	QTY
2	1529201	Pin	2
3	1565280 15233	Cotter Pin	4
4	1529202	Chain Anchor	2
5	4005887	Pin	2
6	1529203	Locknut	2
7	1529221	Fitting	2
8	4000370	Plate	2
9	4000440	Screw	4
10	4000382	Screw	2
11	127543	Chain	AR

FOOTNOTES:

- a** Refer to Table

MAIN LIFT CYLINDER (FIGURE 12-4)
THREE STAGE FULL FREE-LIFT — F80 MAST SERIES (A644)



HP290044

MAIN LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH INTEGRAL SIDE-SHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Lift Cylinder	4007349	4007350	4007351

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Lift Cylinder	4007349	4007350	4007351

MAIN LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Lift Cylinder	4007349	4007350	4007351

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Lift Cylinder	4007349	4007350	4007351

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Lift Cylinder	4007349	4007350	4007351

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Lift Cylinder	4007349	4007350	4007351

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Lift Cylinder	4007349	4007350	4007351

MAIN LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST

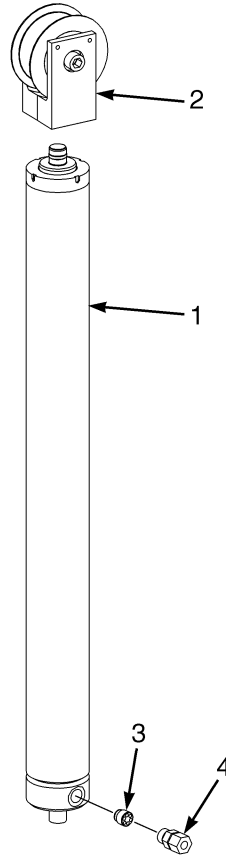
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Lift Cylinder	4007349	4007350	4007351

ITEM	PART NO.	DESCRIPTION	QTY
1	a	Lift Cylinder	2
2	4000381	Washer	2
3	4000428	Valve	2
4	4005885	Fitting	2
	4000418	Kit-Seal	1

FOOTNOTES:

a Refer to Table

**FREE LIFT CYLINDER (FIGURE 12-5)
THREE STAGE FULL FREE-LIFT — F80 MAST SERIES (A644)**



HP290045

**FREE LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH INTEGRAL SIDE-SHIFT CARRIAGE**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Cylinder	4007333	4007334	4007335

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Cylinder	4007333	4007334	4007335

FREE LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Cylinder	4007333	4007334	4007335

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Cylinder	4007333	4007334	4007335

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Cylinder	4007333	4007334	4007335

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Cylinder	4007333	4007334	4007335

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Cylinder	4007333	4007334	4007335

**FREE LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F80 MAST SERIES (A644)
WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST**

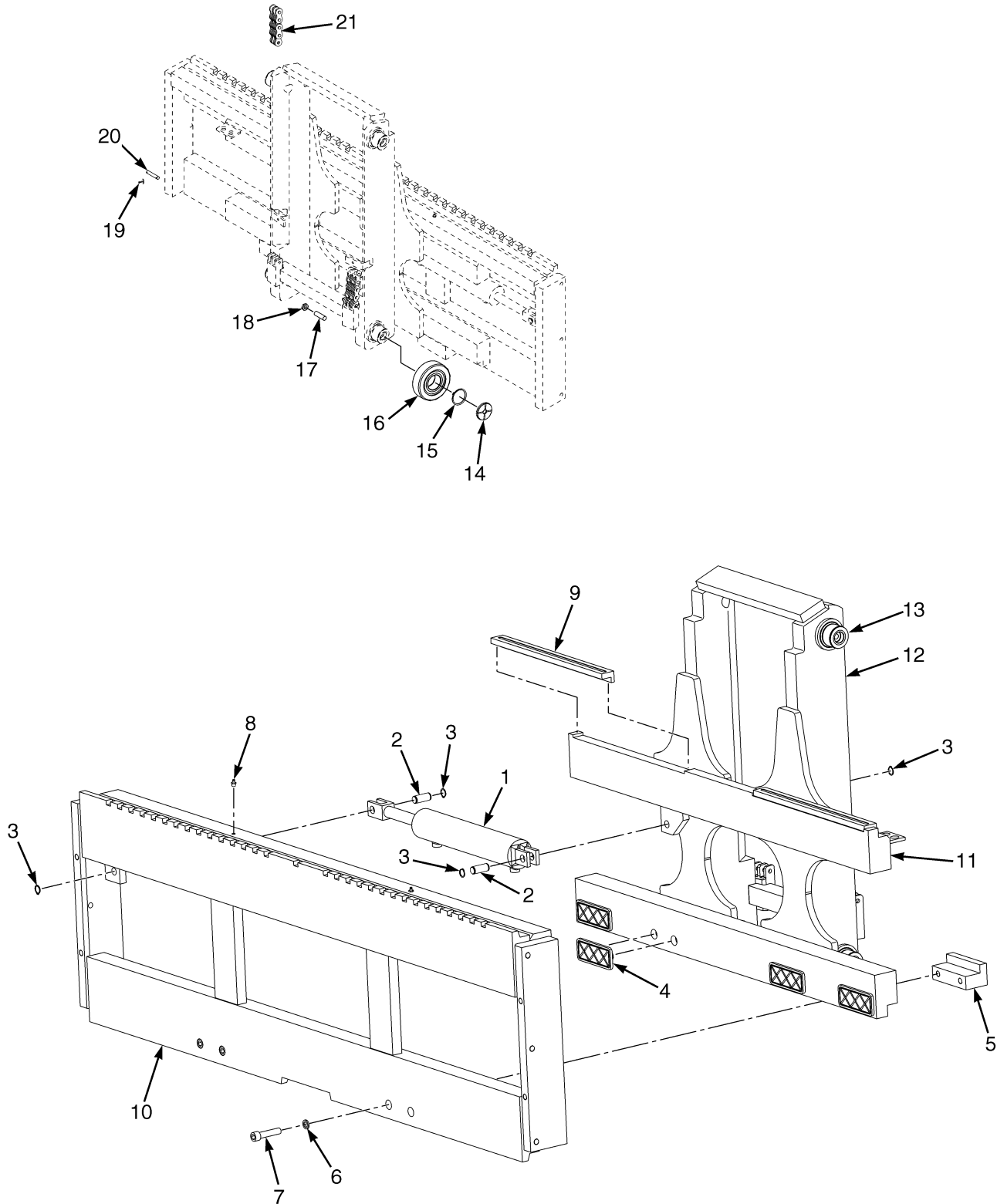
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4550 mm (179.1 in.)	5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A644 4550	A644 5450	A644 5900
1	Cylinder	4007333	4007334	4007335

ITEM	PART NO.	DESCRIPTION	QTY
1	a	Cylinder	2
2	4000364	Pulley	2
3	4000428	Valve	2
4	4005885	Fitting	2
	4000368	Kit-Seal	2

FOOTNOTES:

a Refer to Table

CARRIAGE (FIGURE 12-6) F80 MAST SERIES (A644)

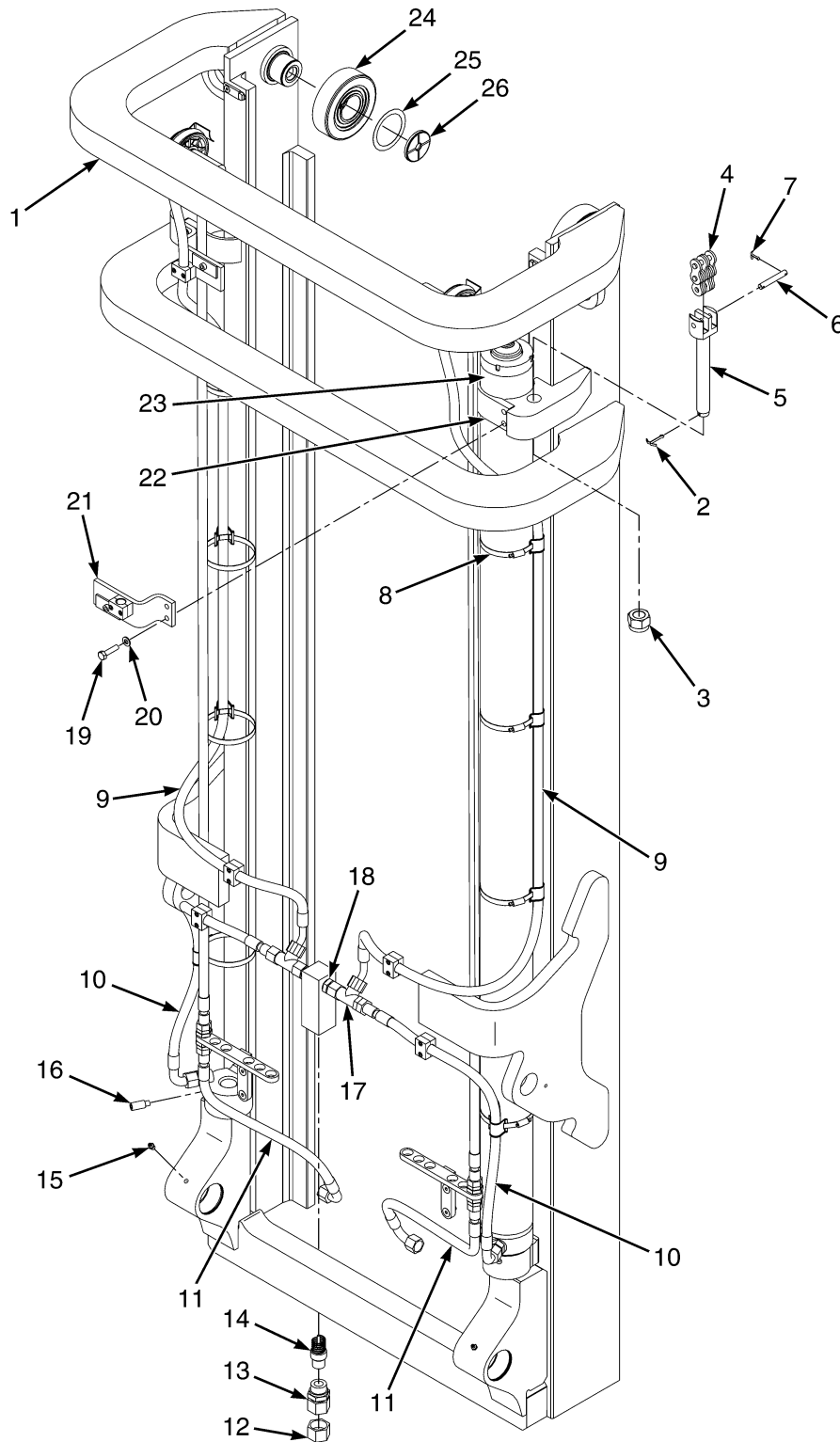


HP290024

CARRIAGE
F80 MAST SERIES (A644)**KEY:****A: Standard Carriage (Hook Type)****B: Side-Shift Carriage (Without Fork Positioner)****C: Side-Shift Carriage (With Fork Positioner)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2111501	Carriage (Standard) Assy	1	..	..
	2111502	Carriage (Side-Shift) (Without Fork Positioner) Assy .....	..	1	..
	4000374				
	2111503	Carriage (Integral Sideshift with Fork Positioner) .....	..	..	1
1	4000410	Sideshift Cylinder .....	..	1	1
1	4008836	Kit-Seal .....	..	1	1
2	4005985	Pin .....	..	2	2
3	4005986	Ring .....	..	4	4
4	4000417	Bushing .....	..	4	4
5	1536981	Hook (Lower) .....	..	2	2
6	4000415	Washer .....	..	4	4
7	4000416	Screw .....	..	4	4
8	1536982	Grease Fitting .....	..	2	2
9	1536983	Pad (Upper) .....	..	2	2
10	4000412	Side-Shift Carriage (Lower Plate) .....	..	1	1
11	4000413	Carriage (Side Plate) .....	..	1	1
12	4000374	Carriage	1	1	1
13	4018283	Stubshaft	2	2	2
14	4000358	Bushing	4	4	4
15	4000425	Ring	4	4	4
16	4140388				
	4000359	Roller	4	4	4
17	4000379	Screw	4	4	4
18	4000429	Nut	4	4	4
19	1565280				
	15233	Cotter Pin	2	2	2
20	1529201	Pin	1	1	1
21	127543	Chain	AR	AR	AR

OUTER MAST (FIGURE 12-7) THREE STAGE FULL FREE-LIFT — F90 MAST SERIES (A684)



BP170673

**OUTER MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH INTEGRAL SIDE-SHIFT CARRIAGE**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621537	4621538
1	Outer Mast	4084242	4084245

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621540	4621541
1	Outer Mast	4084242	4084245

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621543	4621544
1	Outer Mast	4084242	4084245

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621552	4621553
1	Outer Mast	4084242	4084245

OUTER MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621546	4621547
1	Outer Mast	4084242	4084245

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621555	4621556
1	Outer Mast	4084242	4084245

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621534	4621535
1	Outer Mast	4084242	4084245

WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621549	4621550
1	Outer Mast	4084242	4084245

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	4005887	Pin (Split)	2
3	1529203	Locknut	2
4	4062042	Chain	AR
5	1529202	Chain Anchor	2

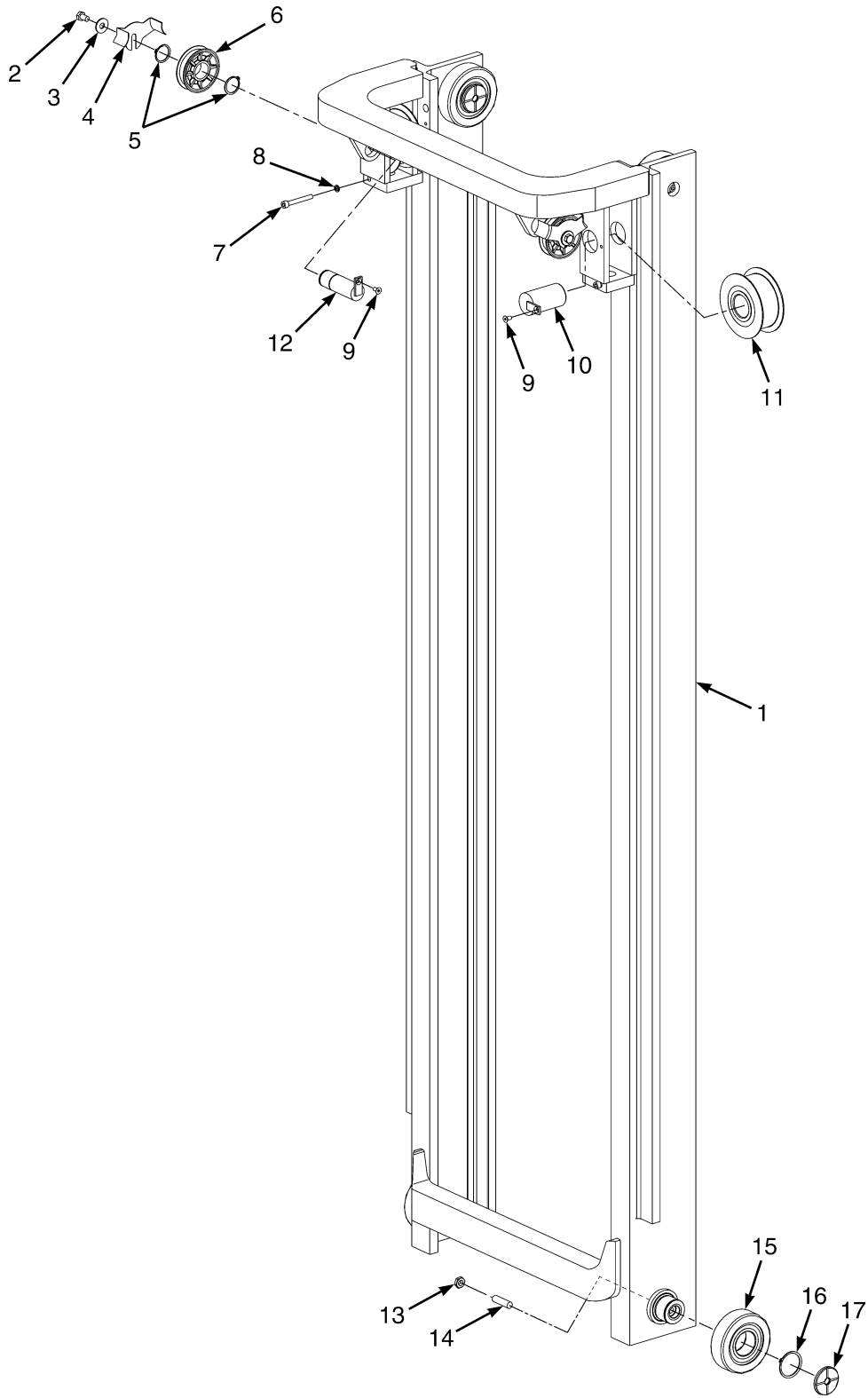
OUTER MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)

ITEM	PART NO.	DESCRIPTION	QTY
6	1529201	Pin	2
7	1565280 15233	Cotter Pin	4
8	4000351	Clamp	8
9	4088010	Hose	2
10	4088009	Hose	2
11	4077384	Hose	2
12	4005883	Fitting	1
13	4000435	Fitting	1
14	1565340	Valve	1
15	1536982	Grease Fitting	2
16	4000430	Screw	2
17	4005886	Fitting	2
18	4005884	Fitting	2
19	4000441	Screw	4
20	4000442	Washer	4
21	4000369	Collar (Support)	2
22	4060822	Collar	2
23	.....	Main Lift Cylinder (☞ Figure 12-10).....	2
24	4140388 4000359	Roller	2
25	4000425	Ring	2
26	4000358	Bushing	2

FOOTNOTES:

- a** Refer to Table

INTERMEDIATE MAST (FIGURE 12-8) THREE STAGE FULL FREE-LIFT — F90 MAST SERIES (A684)



BP170674

**INTERMEDIATE MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH INTEGRAL SIDE-SHIFT CARRIAGE**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621537	4621538
1	Intermediate Mast	4084243	4084246

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621540	4621541
1	Intermediate Mast	4084243	4084246

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621543	4621544
1	Intermediate Mast	4084243	4084246

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621552	4621553
1	Intermediate Mast	4084243	4084246

**INTERMEDIATE MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621546	4621547
1	Intermediate Mast	4084243	4084246

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621555	4621556
1	Intermediate Mast	4084243	4084246

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621534	4621535
1	Intermediate Mast	4084243	4084246

WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621549	4621550
1	Intermediate Mast	4084243	4084246

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Intermediate Mast	1
2	4000426	Screw	2
3	4000375	Washer	2
4	4000360	Protector	2
5	4000439	Ring	4

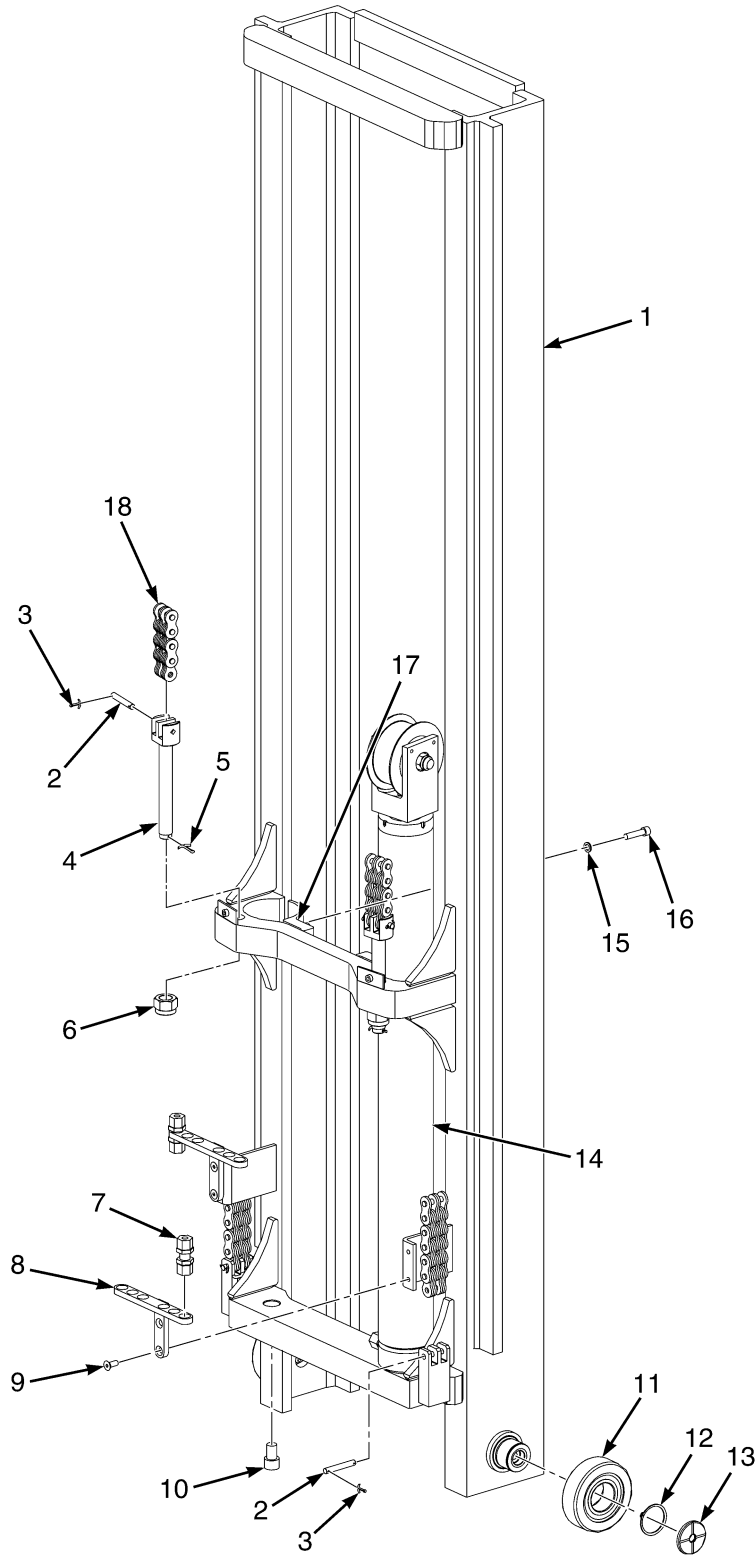
**INTERMEDIATE MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)**

ITEM	PART NO.	DESCRIPTION	QTY
6	4000357	Pulley	2
7	4000450	Clamp	2
8	4000367	Washer	2
9	4000372	Screw	4
10	4000361	Pin	2
11	1529213	Pulley	2
12	4000362	Pin	2
13	4000429	Nut	4
14	4000379	Screw	4
15	4140388 4000359	Roller	4
16	4000425	Ring	4
17	4000358	Bushing	4

FOOTNOTES:

- a** Refer to Table

INNER MAST (FIGURE 12-9) THREE STAGE FULL FREE-LIFT — F90 MAST SERIES (A684)



BP170675

INNER MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH INTEGRAL SIDE-SHIFT CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621537	4621538
1	Inner Mast	4084244	4084247

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621540	4621541
1	Inner Mast	4084244	4084247

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621543	4621544
1	Inner Mast	4084244	4084247

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621552	4621553
1	Inner Mast	4084244	4084247

INNER MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621546	4621547
1	Inner Mast	4084244	4084247

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621555	4621556
1	Inner Mast	4084244	4084247

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621534	4621535
1	Inner Mast	4084244	4084247

WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
	Mast Assy	4621549	4621550
1	Inner Mast	4084244	4084247

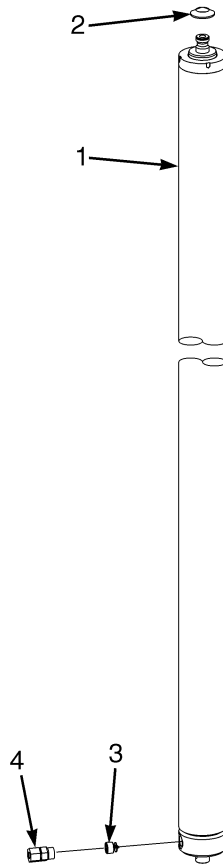
ITEM	PART NO.	DESCRIPTION	QTY
	b	Mast Assy	1
1	b	Inner Mast	1
2	1529201	Pin	4
3	4565280		
	15233	Cotter Pin	8
4	1529202	Chain Anchor	2

INNER MAST
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)

ITEM	PART NO.	DESCRIPTION	QTY
5	4005887	Pin	2
6	1529203	Locknut	2
7	1529221	Fitting	2
8	4000370	Plate	2
9	4000440	Screw	4
10	4000382	Screw	2
11	4140388		
	4000359	Roller	4
12	4000425	Ring	4
13	4000358	Bushing	4
14	.....	Free-Lift Cylinder (☞ Figure 12-11).....	1
15	4084765	Screw	4
16	1529191	Washer	4
17	4058428	Collar	2
18	4062042	Chain	AR
	a 1565274	Washer	1
	a 4062040	Screw	1
	a 4062041	Washer	2
	a 4023940	Spring	2

FOOTNOTES:**a** Not Illustrated**b** Refer to Table

MAIN LIFT CYLINDER (FIGURE 12-10)
THREE STAGE FULL FREE-LIFT — F90 MAST SERIES (A684)



MAIN LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH INTEGRAL SIDE-SHIFT CARRIAGE

HP290044

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Cylinder	4007334	4007335

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Cylinder	4007334	4007335

MAIN LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Cylinder	4007334	4007335

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Cylinder	4007334	4007335

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Cylinder	4007334	4007335

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Cylinder	4007334	4007335

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Cylinder	4007334	4007335

MAIN LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST

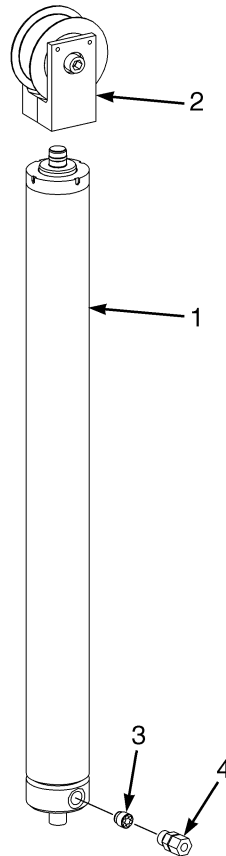
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Cylinder	4007334	4007335

ITEM	PART NO.	DESCRIPTION	QTY
1	a	Cylinder	2
2	4000381	Washer	2
3	4000428	Valve	2
4	4005885	Fitting	2
	4000418	Kit-Seal	1

FOOTNOTES:

a Refer to Table

FREE LIFT CYLINDER (FIGURE 12-11)
THREE STAGE FULL FREE-LIFT — F90 MAST SERIES (A684)



FREE LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH INTEGRAL SIDE-SHIFT CARRIAGE

HP290045

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Lift Cylinder	4007350	4007351

WITH INTEGRAL SIDE-SHIFT CARRIAGE/FORK POSITIONER

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Lift Cylinder	4007350	4007351

FREE LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Lift Cylinder	4007350	4007351

WITH STANDARD CARRIAGE/ONE AUXILIARY HOSE WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Lift Cylinder	4007350	4007351

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Lift Cylinder	4007350	4007351

WITH STANDARD CARRIAGE/TWO AUXILIARY HOSES WITHOUT LOWER BACKREST

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Lift Cylinder	4007350	4007351

WITH STANDARD HOOK CARRIAGE

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Lift Cylinder	4007350	4007351

**FREE LIFT CYLINDER
THREE STAGE FULL FREE-LIFT – F90 MAST SERIES (A684)
WITH STANDARD HOOK CARRIAGE/WITHOUT LOWER BACKREST**

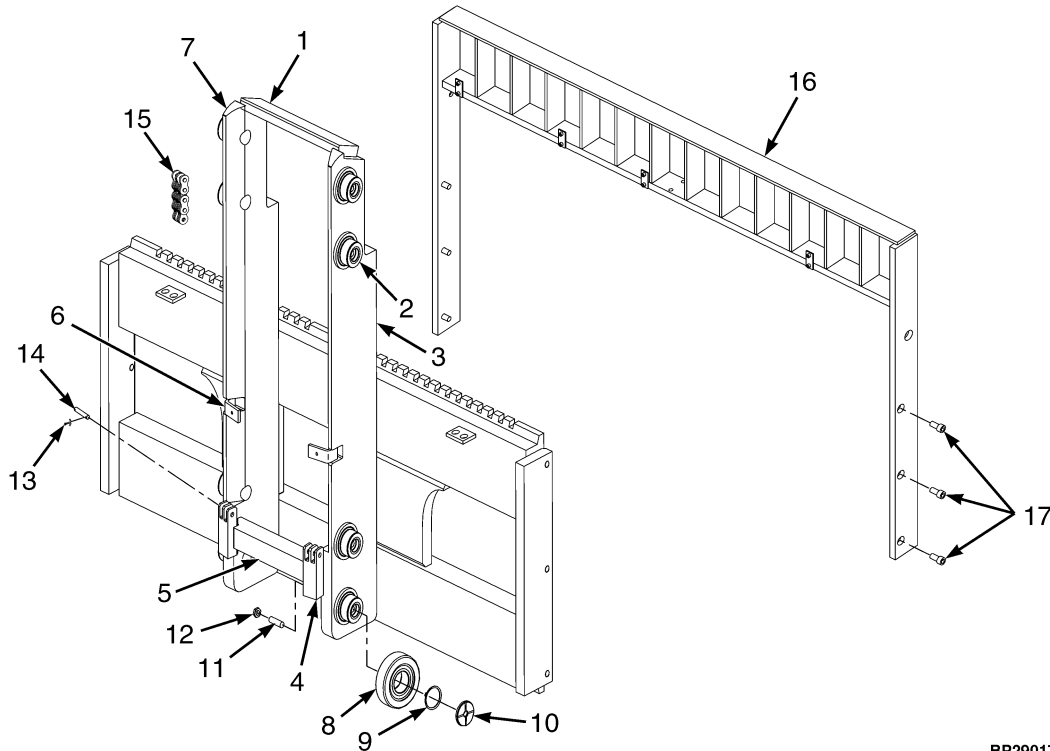
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		5450 mm (214.6 in.)	5900 mm (232.3 in.)
		Mast Group Number	A684 5450	A684 5900
1	Lift Cylinder	4007350	4007351

ITEM	PART NO.	DESCRIPTION	QTY
1	a	Lift Cylinder	2
2	4000364	Pulley	2
3	4000428	Valve	2
4	4005885	Fitting	2
	4000368	Kit-Seal	2

FOOTNOTES:

a Refer to Table

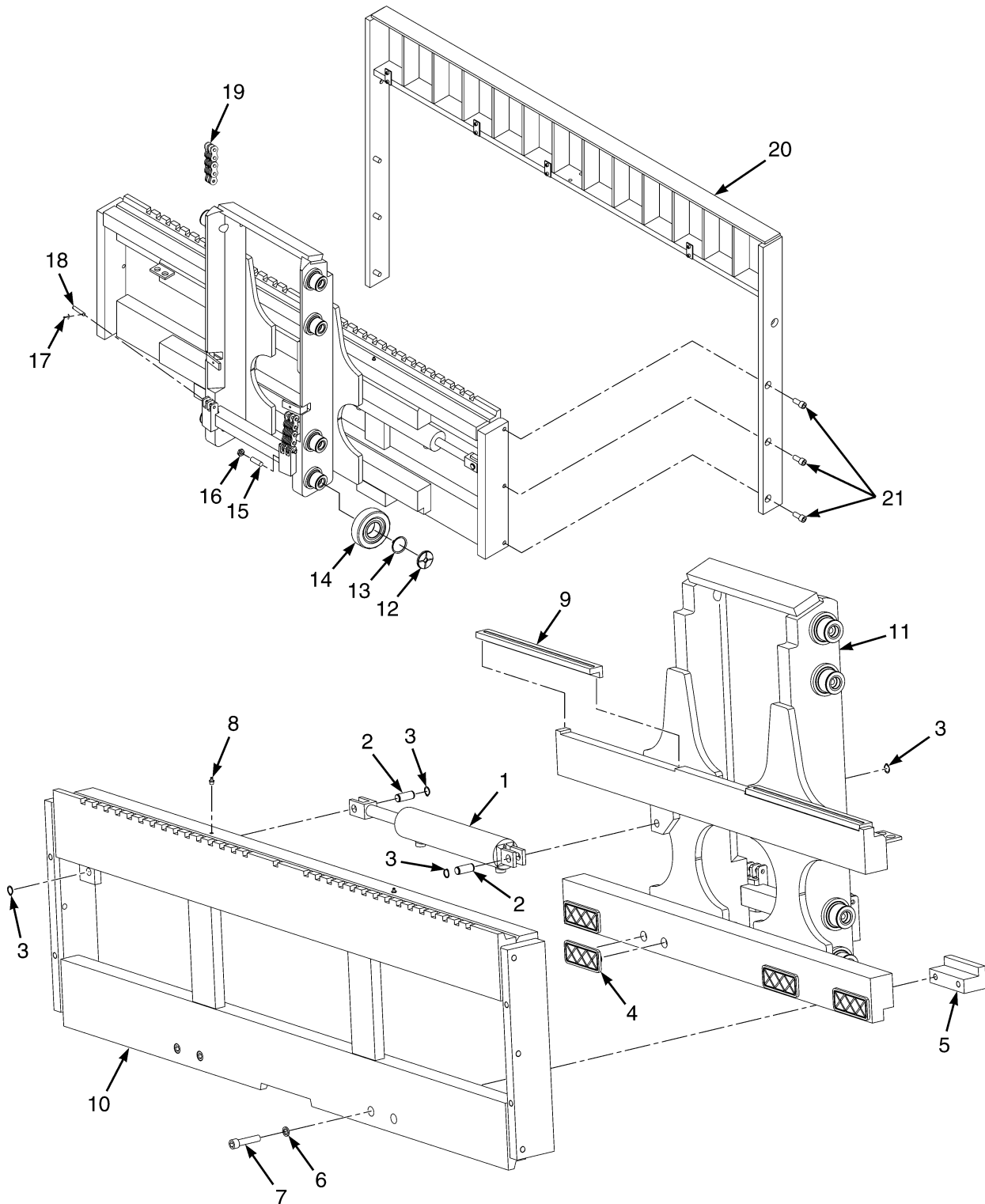
CARRIAGE (FIGURE 12-12) STANDARD HOOK TYPE — F90 MAST SERIES (A684)



BP290176

ITEM	PART NO.	DESCRIPTION	QTY
	4621576	Carriage	1
1	4083862	Plate	1
2	4018283	Stubshaft	8
3	4083867	Panel	1
4	4083897	Chain Anchor	2
5	4083865	Support	1
6	4083859	Support	2
7	4083866	Panel	1
8	4140388		
	4000359	Roller	8
9	4000425	Ring	8
10	4000358	Bushing	8
11	4000379	Screw	8
12	4000429	Nut	8
13	1565280		
	15233	Cotter Pin	4
14	1529201	Pin	2
15	127543	Chain	AR
16	1622945	Load Backrest	1
17	.....	Screw	6

CARRIAGE (FIGURE 12-13) INTEGRAL SIDE-SHIFT — F90 MAST SERIES (A684)



BP290177

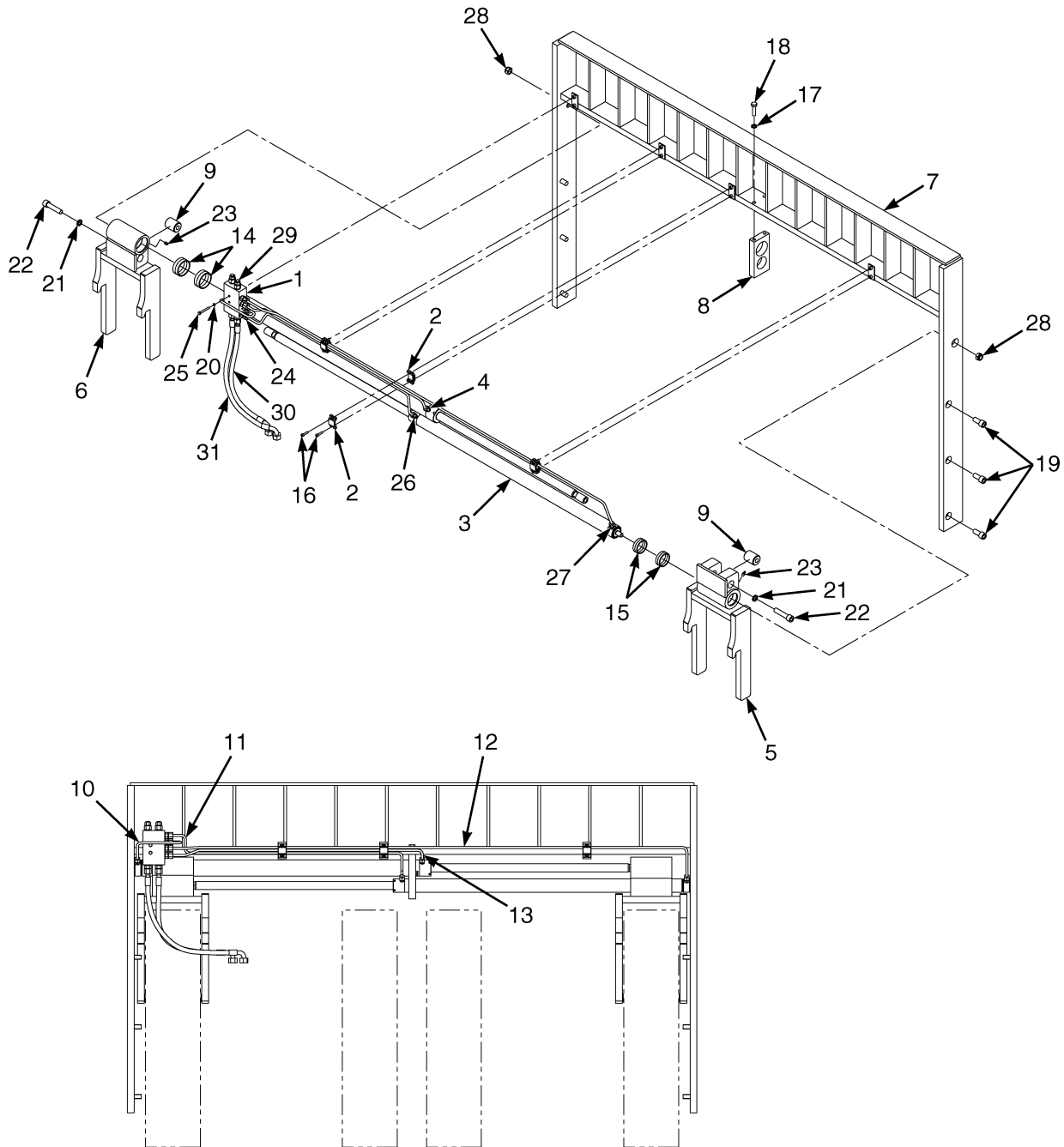
CARRIAGE
INTEGRAL SIDE-SHIFT – F90 MAST SERIES (A684)

KEY:**A: Without Fork Positioner****B: With Fork Positioner**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	4621577	Carriage	1	..
	4621578	Carriage .....	..	1
1	4000410	Sideshift Cylinder	1	1
1	4008836	Kit-Seal	1	1
2	4005985	Pin	2	2
3	4005986	Ring	4	4
4	4000417	Bushing	4	4
5	1536981	Hook (Lower)	2	2
6	4000415	Washer	4	4
7	4000416	Screw	4	4
8	1536982	Grease Fitting	2	2
9	1536983	Pad (Upper)	2	2
10	4000412	Side-Shift Carriage (Lower Plate)	1	1
11	4095318	Side-Shift Carriage	1	1
12	4000358	Bushing	8	8
13	4000425	Ring	8	8
14	4140388			
	4000359	Roller	8	8
15	4000379	Screw	8	8
16	4000429	Nut	8	8
17	1565280			
	15233	Cotter Pin	4	4
18	1529201	Pin	5	5
19	127543	Chain	AR	AR
20	1622945	Load Backrest	1	1
21	.....	Screw	6	6
	a	Kit-Fork Positioner (☞Figure 12-14).....	..	1

FOOTNOTES:**a** Not Illustrated

FORK POSITIONER (FIGURE 12-14) THREE STAGE FULL FREE-LIFT

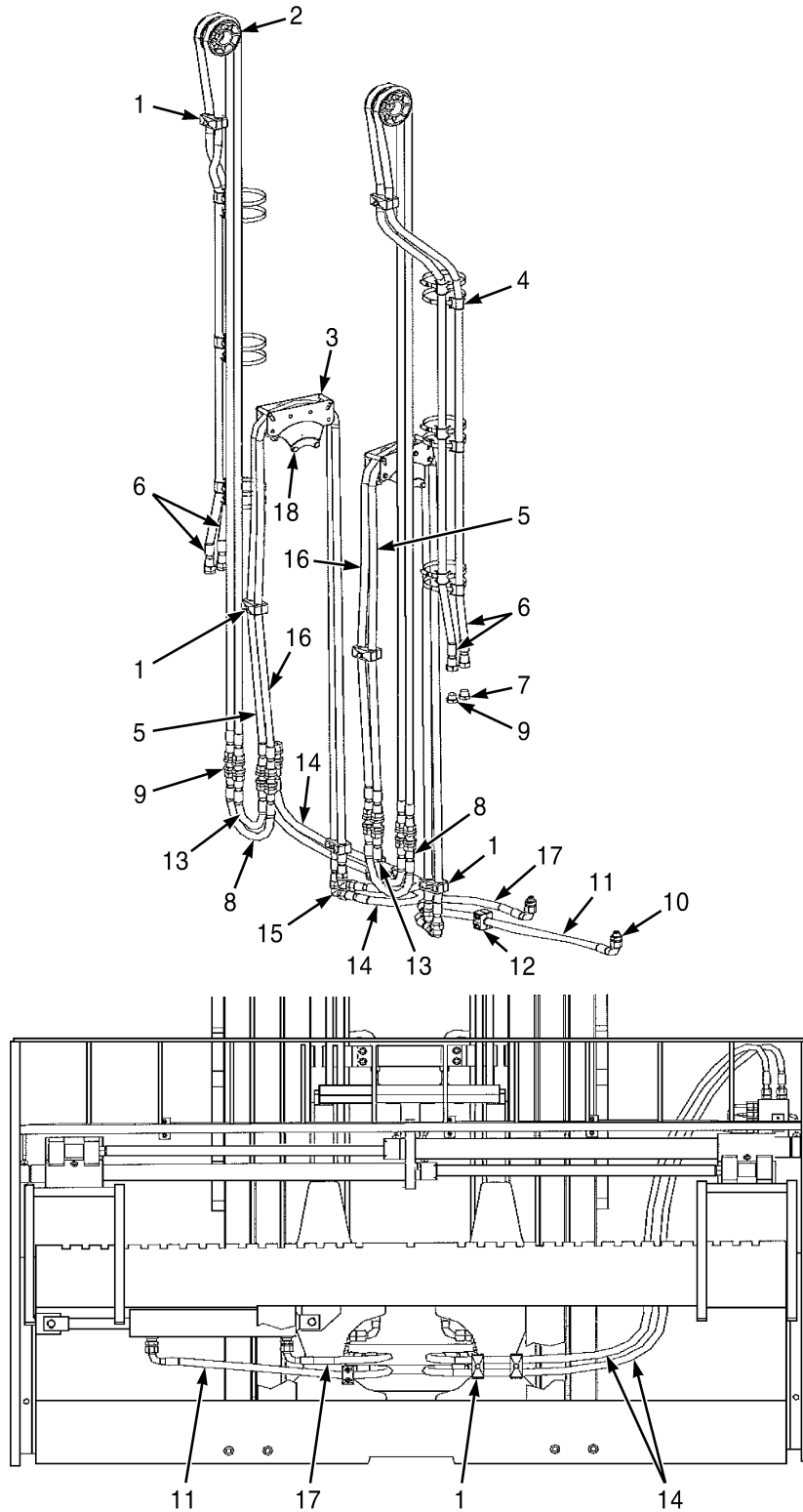


HP290036

**FORK POSITIONER
THREE STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
	4005955	Kit-Fork Positioner	1
1	4005960	Valve	1
2	4005962	Clamp	3
3	4005963	Cylinder	1
	4008834	Kit-Seal	1
4	4005964	Cylinder	1
	4008835	Kit-Seal	1
5	4005965	Bracket	1
6	4005966	Bracket	1
7	1622945	Load Backrest	1
8	4005968	Support	1
9	4005969	Bushing	2
10	4005970	Tube	1
11	4005971	Tube	1
12	4005972	Tube	1
13	4005973	Tube	1
14	4005974	Guide	4
15	4005975	Guide	4
16	4023937	Screw	6
17	1529191	Washer	2
18	4005976	Screw	2
19	4005977	Screw	6
20	1537031	Washer	2
21	4000415	Washer	2
22	4000416	Screw	2
23	1671705	Grease Fitting	2
24	4005978	Fitting	4
25	4005979	Screw	2
26	4005980	Fitting	2
27	4005981	Fitting	2
28	4005982	Nut	2
29	4005983	Fitting	2
30	4023938	Hose	1
31	4023939	Hose	1

**HEADER HOSES (FIGURE 12-15)
THREE STAGE FULL FREE-LIFT**

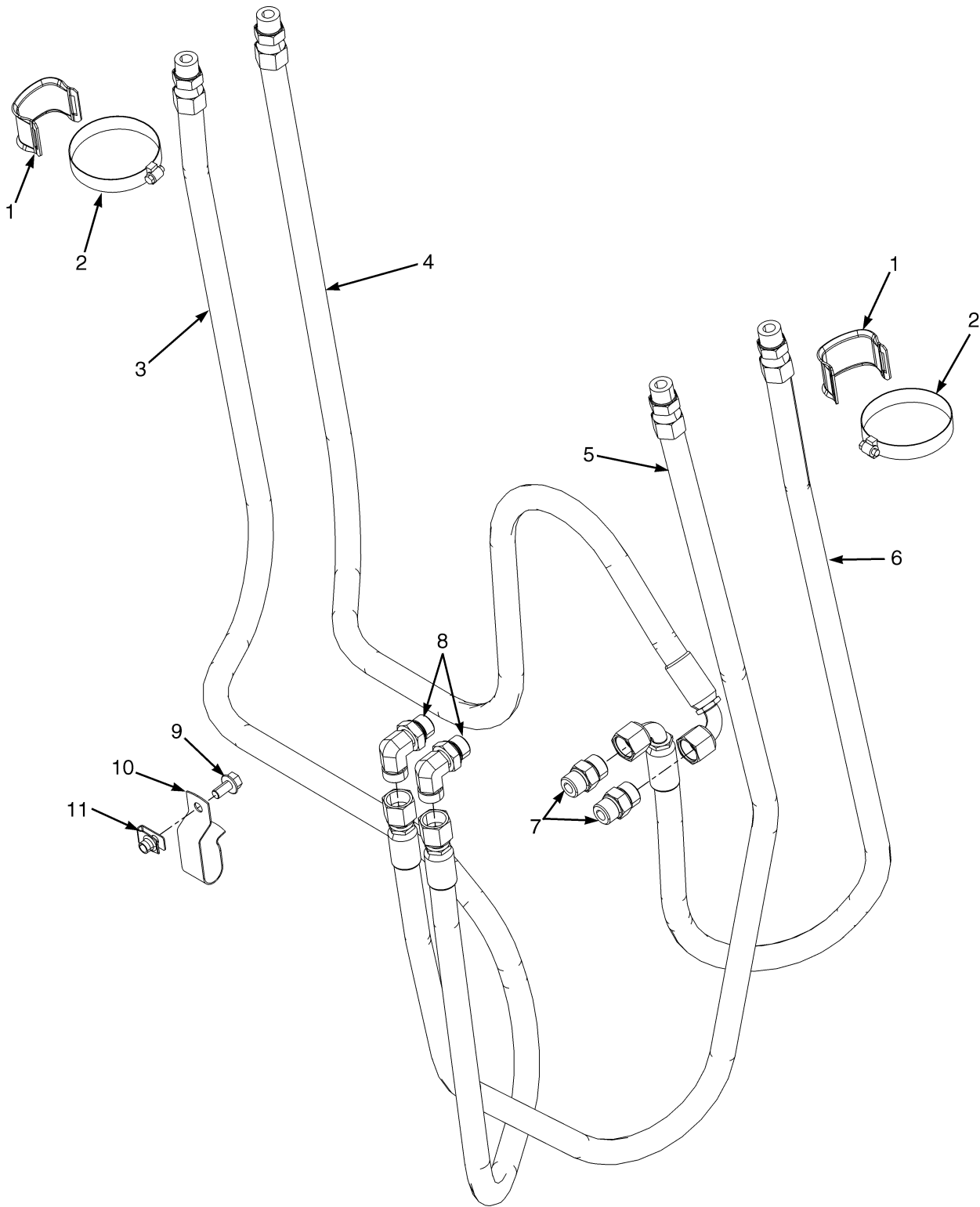


BP000610

**HEADER HOSES
THREE STAGE FULL FREE-LIFT****KEY:****A: Auxiliary 1****B: Auxiliary 2**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1536891	Clamp	4	8
2	4000357	Pulley	2	4
3	4000350	Pulley	1	2
4	4000351	Clamp	6	12
5	4023946	Hose (5450mm)	1	2
5	4125434	Hose (5900mm)	1	2
5	4023945	Hose (4550mm)	1	2
6	4007394	Hose (5450mm)	2	4
6	4125432	Hose (5900mm)	2	4
6	4119183	Hose (4550mm)	2	4
7	4000353	Fitting	2	4
8	4007398	Hose	1	2
9	1529221	Fitting (Bulkhead)	5	10
10	4000352	Fitting	1	2
11	4023958			
	4023948	Hose	1	1
12	1538177	Clamp	1	1
13	4007397	Hose	1	2
14	4023954	Hose	2	4
15	4000365	Fitting	2	4
16	4114838	Hose Assy (5450mm)	1	2
16	4125433	Hose (5900mm)	1	2
16	4122618	Hose (4550mm)	1	2
17	4023957			
	4023947	Hose	1	1
18	4000348	Screw	4	8

AUXILIARY FUNCTION HOSES (FIGURE 12-16) THREE STAGE FULL FREE-LIFT



BP150287

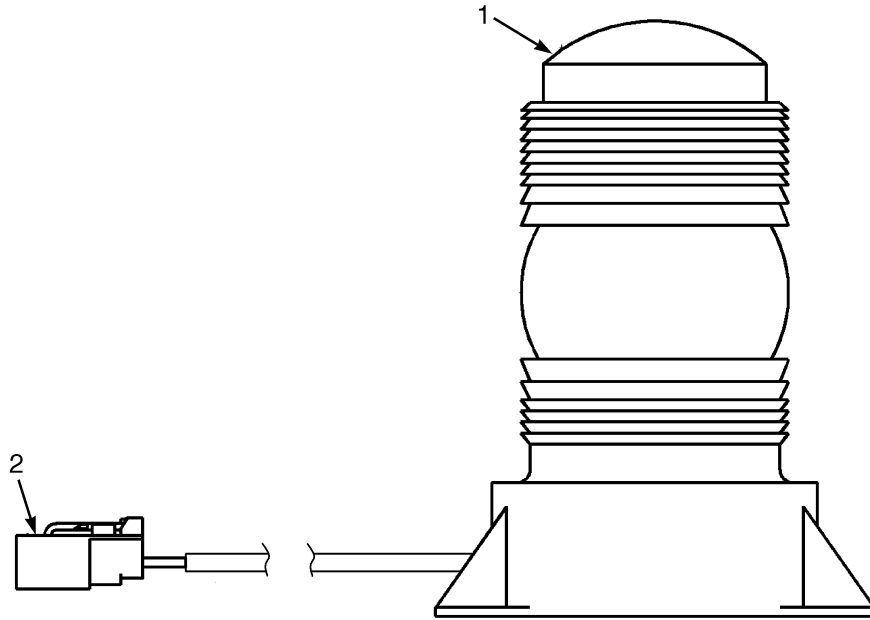
**AUXILIARY FUNCTION HOSES
THREE STAGE FULL FREE-LIFT****KEY:****A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1502809	Hose Clamp	1	2
2	1399243	Clamp	1	2
3	2108066	Hose Assy .....	..	1
4	2108067	Hose Assy .....	..	1
5	2108064	Hose Assy	1	1
6	2108065	Hose Assy	1	1
7	1473887	Fitting	1	2
8	1473897	Fitting	1	2
9	4109993			
	1527879	Capscrew .....	..	1
10	251994	Clamp .....	..	1
11	1480237	Nut .....	..	1

**SECTION 13
OPTIONS**

DESCRIPTION	PAGE
ACCUMULATOR	13-6
BACK-UP ALARM	13-8
DUAL MIRRORS	
WITH CAB	13-4
WITH OVERHEAD GUARD	13-5
LIFTING EYE	13-10
STROBE LIGHT	
LED	13-2

STROBE LIGHT (FIGURE 13-1)
LED

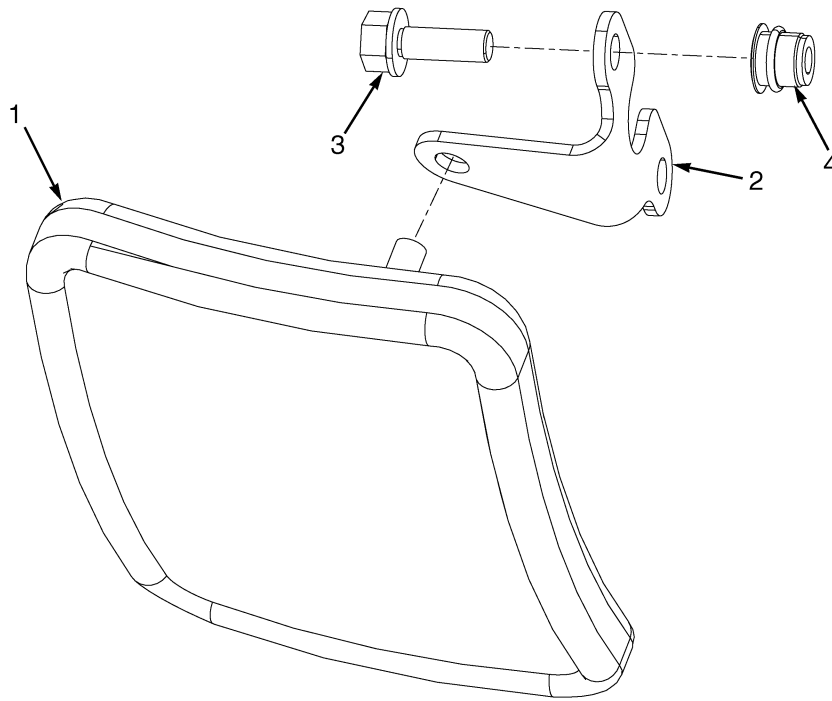


BP000363

**STROBE LIGHT
LED**

ITEM	PART NO.	DESCRIPTION	QTY
	1654013	Strobe Light Assembly	1
1	1652290	Strobe Light (Amber LED)	1
2	1463138	Terminal Pin	1
2	1561559	Connector (2 Pin)	1
2	1561755	Connector (Secondary Lock)	1

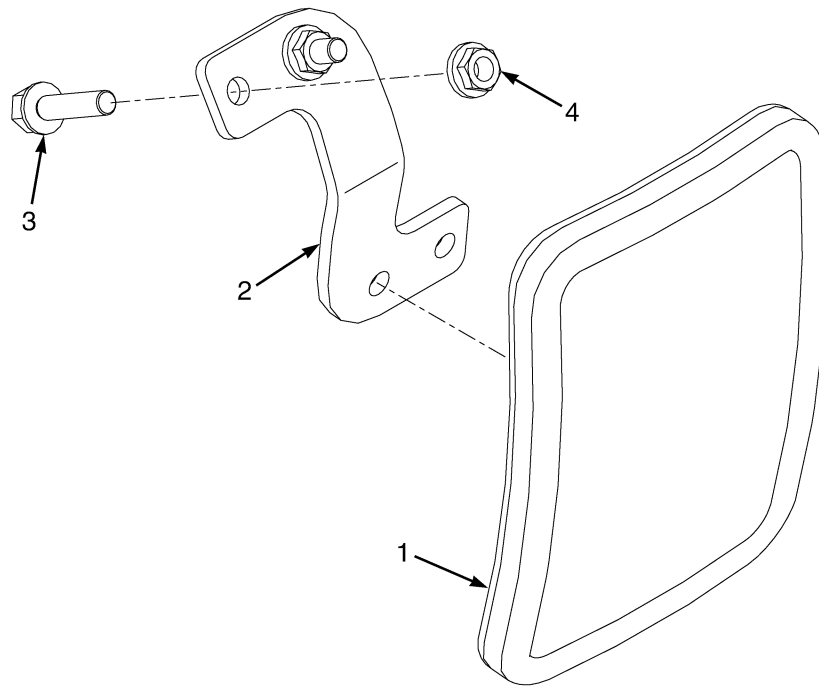
DUAL MIRRORS (FIGURE 13-2) WITH CAB



HP000896

ITEM	PART NO.	DESCRIPTION	QTY
1	4009488	Mirror	2
2	1579412	Bracket	2
3	1583611	Capscrew	4
4	1531557	Insert	4

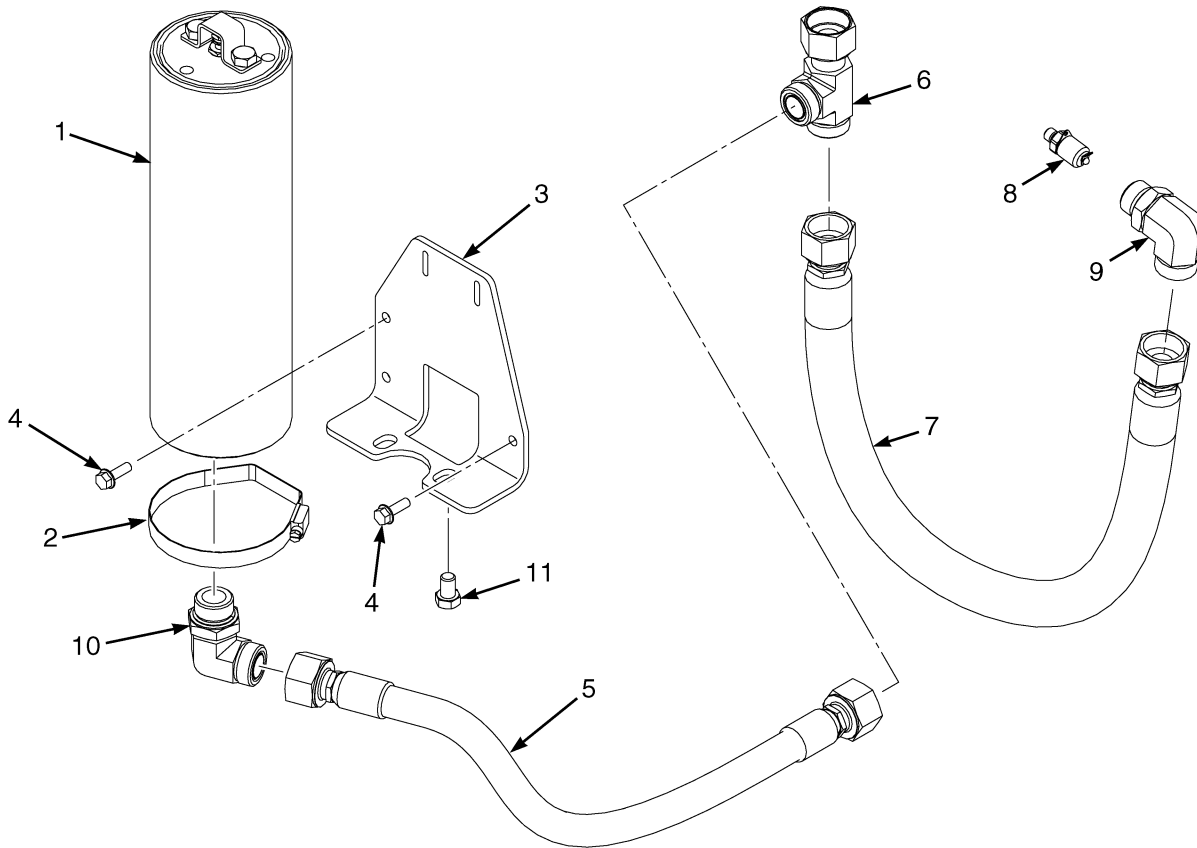
**DUAL MIRRORS (FIGURE 13-3)
WITH OVERHEAD GUARD**



BP000540

ITEM	PART NO.	DESCRIPTION	QTY
1	4009488	Mirror	2
2	1656215	Bracket (RH)	1
2	1656216	Bracket (LH)	1
3	1586627	Capscrew	4
4	1586430	Nut	4

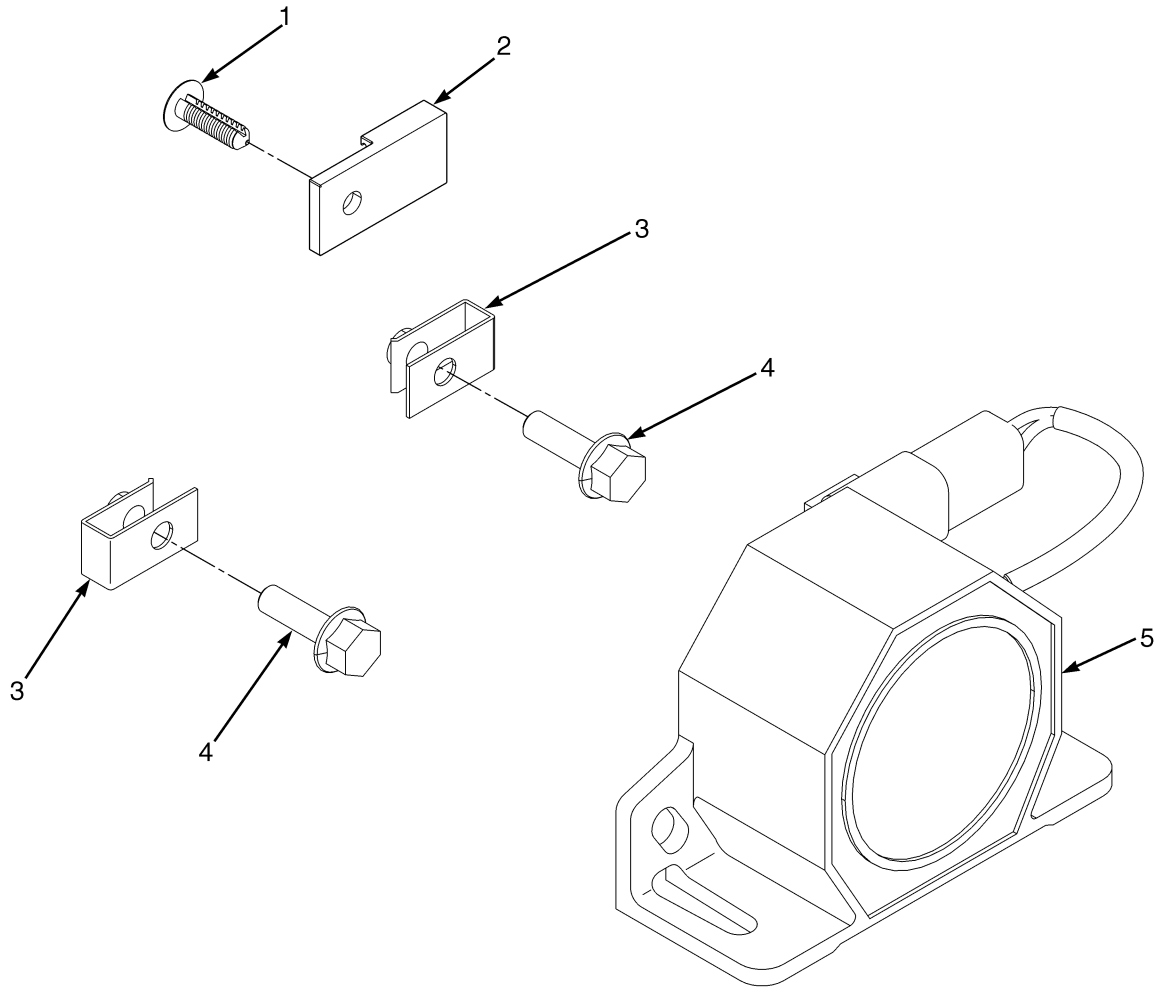
ACCUMULATOR (FIGURE 13-4)



BP000464

ITEM	PART NO.	DESCRIPTION	QTY
1	1651275	Accumulator	1
2	1611564	Clamp	1
3	1698184	Bracket	1
4	1510113	Capscrew	3
5	2108691	Hose Assy	1
6	1487099	Fitting	1
7	4604703	Hose Assy	1
8	2061646	Fitting (Diagnostic)	1
9	1594869	Fitting	1
10	1487075	Fitting	1
11	16642	Capscrew	2

BACK-UP ALARM (FIGURE 13-5)

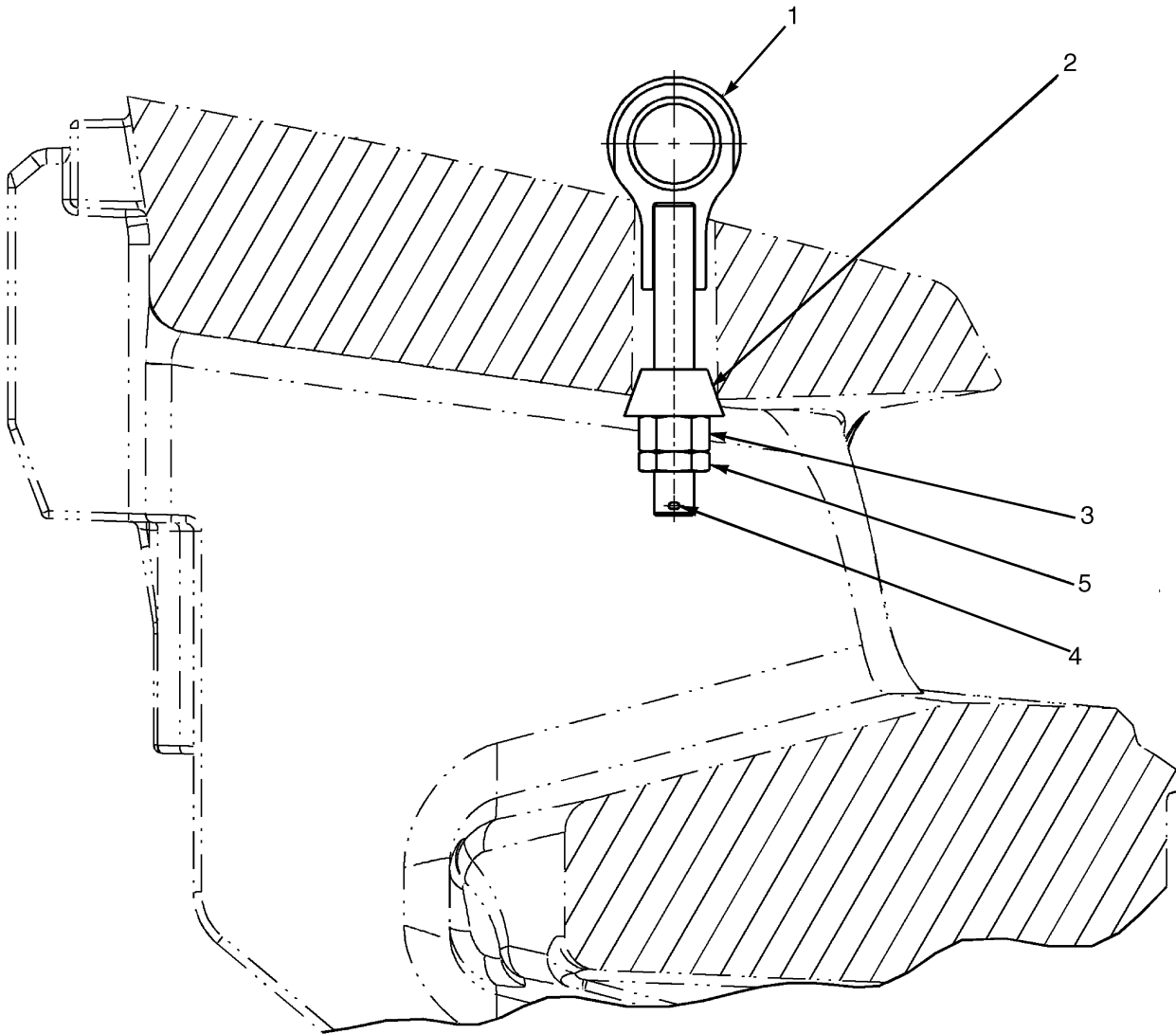


BP000308

BACK-UP ALARM

ITEM	PART NO.	DESCRIPTION	QTY
1	1582464	Fastener	1
2	1500912	Clip	1
3	1350215	Nut	2
4	1527877	Capscrew	2
5	2064929	Back-Up Alarm (82-102 dbA)	1

LIFTING EYE (FIGURE 13-6)



BP000445

LIFTING EYE

ITEM	PART NO.	DESCRIPTION	QTY
1	1651797	Eyebolt	1
2	1474318	Anchor	1
3	292661	Nut	1
4	15246	Cotter Pin	1
5	1593341	Nut	1

SECTION 14
FIELD CONVERSION KITS

DESCRIPTION	PAGE
ADD ON OPTION KITS	
POWERTRAIN PROTECTION	14-2
STROBE LIGHT	14-2
ADD ON TELEMETRY KITS	14-4
CONVERSION KIT	
DIRECTION CONTROL	14-3
ELECTRONIC HYDRAULIC CONTROL VALVES	14-3
FULL SUSPENSION SWIVEL AND NON SWIVEL SEATS	14-2
START OPTIONS	14-3
SWIVEL SEATS	14-4
HYDRAULIC FILTER	14-4

**ADD ON OPTION KITS
POWERTRAIN PROTECTION**

DESCRIPTION	PART NUMBER
Kit-Powertrain Protection (English — Non US)	a1585855
Kit-Powertrain Protection (French Language)	a1585859
Kit-Powertrain Protection (German Language)	a1585860
Kit-Powertrain Protection (Italian Language)	a1585861
Kit-Powertrain Protection (Spanish Language)	a1585864

FOOTNOTES:

a Kit requires dealer installed software. Dealer to Obtain New Configuration Data File from HYPASS

**ADD ON OPTION KITS
STROBE LIGHT**

DESCRIPTION	PART NUMBER
Kit-Light (Flash Tube Strobe with Other Lights and Overhead Guard, w/o Harness)	1583710
Kit-Strobe Light (Amber Flash Tube Strobe Light for Cab)	1625728
Kit-Strobe Light (Amber LED Strobe Light for Cab)	1655298
Kit-Light (LED Strobe with other lights for Overhead Guard, w/o Harness)	1655205

ADD ON OPTION KITS

DESCRIPTION	PART NUMBER
Traction Speed Limit Kit	a1581970
Kit-Impact Monitoring (With Immediate Shutdown)	a1641523
Kit-Impact Monitoring (With 30 Second Shutdown)	a1641524
Kit-Back-Up Alarm (82-102 DB(A))	1626371
Kit-Load Weight on Display (With E-Hydraulics Only)	a1641495
Kit-Electronic Monitoring	a1629208
Kit-Accumulator	1698191
Kit Return to Set Tilt Add On For Trucks that Have Mini Levers	a4075815

FOOTNOTES:

a Kit requires dealer installed software. Dealer to Obtain New Configuration Data File from HYPASS

**CONVERSION KIT
FULL SUSPENSION SWIVEL AND NON SWIVEL SEATS**

DESCRIPTION	PART NUMBER
Kit-Seat-Full Susp Non-Swivel (Vinyl w/o E-Hyd Controls)	4016015
Kit-Seat-Full Susp Non-Swivel (Cloth w/o E-Hyd Controls)	4016016
Kit-Seat-Full Susp Swivel (Vinyl w/o E-Hyd Controls)	a4016017
Kit-Seat-Full Susp Swivel (Cloth w/o E-Hyd Controls)	a4016018

**CONVERSION KIT
FULL SUSPENSION SWIVEL AND NON SWIVEL SEATS
(CONTINUED)**

DESCRIPTION	PART NUMBER
Kit-Seat-Full Susp Non-Swivel (Vinyl with E-Hyd Controls)	4016019
Kit-Seat-Full Susp Non-Swivel (Cloth with E-Hyd Controls)	4016020
Kit-Seat-Full Susp Swivel (Vinyl with E-Hyd Controls)	a 4016021
Kit-Seat-Full Susp Swivel (Cloth with E-Hyd Controls)	a 4016022

FOOTNOTES:

- a** Not used with Low Overhead Guard

**CONVERSION KIT
ELECTRONIC HYDRAULIC CONTROL VALVES**

DESCRIPTION	PART NUMBER
Kit-Mini Lever Conv 3 Way (Without Lockout to with Lockout)	a 1701683
Kit-Mini Lever Conv 3 Way (With Lockout to without Lockout)	a 1701682
Kit-Mini Lever Conv 4 Way (With Lockout to without Lockout)	a 1701684
Kit-Mini Lever Conv 3 Way (Without clamp to 4 way without clamp)	a 4014689
Kit-Mini Lever Conv 3 Way (Without to 4 way with clamp)	a 4014690
Kit-Mini Lever Conv 4 Way (Without Lockout to with Lockout)	a 1701685

FOOTNOTES:

- a** Kit requires dealer installed software. Dealer is to Obtain New Configuration Data from HYPASS

**CONVERSION KIT
DIRECTION CONTROL**

DESCRIPTION	PART NUMBER
Kit-Fwd/Rev Lever to Monotrol	a 1625467
Kit-Monotrol to Fwd/Rev Lever	1583198
Kit-Conversion Ctrl Switch to Monotrol	4040531

FOOTNOTES:

- a** Kit requires dealer installed software. Dealer to Obtain New Configuration Data from HYPASS

**CONVERSION KIT
START OPTIONS**

DESCRIPTION	PART NUMBER
Keyswitch without Operator I.D. to Push Button Start with Operator I.D.	a 1623184
Keyswitch with Operator I.D. to Push Button with I.D.	a 1623199
Kit-Push-Button to Keyswitch	a 1624518

FOOTNOTES:

- a** Kit requires dealer installed software. Dealer to Obtain New Configuration Data from HYPASS

**CONVERSION KIT
SWIVEL SEATS**

DESCRIPTION	PART NUMBER
Kit-Seat-Full Susp Swivel (Vinyl with E-Hyd Controls)	1655411
Kit-Seat-Full Susp Swivel (Cloth with E-Hyd Controls)	1655412

HYDRAULIC FILTER

DESCRIPTION	PART NUMBER
Hydraulic Filter	4001034
Kit-Filter Element and Cap Seal	4001001
Cap	1708697
Kit-O-Ring	1708691

ADD ON TELEMETRY KITS

DESCRIPTION	PART NUMBER
Telemetry Kit (FM1 W/GSM Cellular)	4063808
Telemetry Kit (FM1 W/WIFI)	4063809
Telemetry Kit (IC-Interlock-Hyster)	4075952
Telemetry Kit (W/ISO Prox Card Reader)	4063836
Telemetry Kit (HID Standard Prox Card Reader)	4063837
Telemetry Kit (W/IClass/MiFare Prox Card Reader)	4063838
Telemetry Kit (Hyster Check List)	4063829

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	1-41	2		4-15	9	1691649	4-36	2	1691843	2-68	6
	1-43	2		4-31	4	1691650	4-36	3	1691844	2-68	1
	1-49		1689464	4-3	1	1691651	4-36	4	1691845	2-68	2
1677952	5-30	8		4-15	1	1691652	4-36	5	1691846	2-68	8
1678069	5-30	6	1689544	4-9	6	1691654	4-39	2	1691847	2-70	1
1678123	5-13	26	1689881	2-55	32	1691655	4-39	4	1691848	2-70	2
1678178	5-30	5	1689908	1-23		1691656	4-39	5	1691849	2-70	3
1678273	1-7	20		1-27		1691657	4-39	7	1691850	2-70	4
	1-11	20	1690066	1-49	7	1691658	4-39	8	1691851	2-70	5
1678274	1-7	15	1690067	1-49	1	1691659	4-39	9	1691852	2-70	6
	1-11	15	1690068	1-49	2	1691660	4-43	2	1691853	2-67	2
1678405	1-31	8		1-50	5	1691669	4-43	9		4-39	1
	1-33	8	1690069	1-49	5	1691670	4-43	10		4-43	1
1678514	1-43	11	1690070	1-49	4	1691671	4-43	12	1691858	2-69	5
1683373	8-11	10		1-50	8	1691672	4-43	13		2-88	1
1683473	10-33	2	1690084	10-33	18	1691673	4-43	14	1691860	2-67	1
1683486	9-3	2	1690917	10-33	1	1691674	4-43	15		2-77	2
	9-11	4	1690919	10-33	4	1691676	4-43	17	1691861	5-19	11
1683501	10-33	17	1690977	1-17	22	1691677	4-43	18	1691862	2-67	3
1684256	2-5	6	1691356	2-5	1	1691679	2-62	2	1691864	2-67	5
	2-55	5		2-57	4	1691681	2-63	2	1691865	2-67	6
	3-5	21	1691441	5-13	17	1691682	2-63	3	1691866	2-67	7
1684266	6-23	14	1691561	2-60	1	1691792	2-69	2	1691867	2-67	8
1684268	6-23	1	1691577	2-85	6	1691806	2-75	7	1691868	5-19	12
1684271	6-7	4		2-86	2		4-40	1	1691869	2-81	1
1684272	6-7	5	1691601	2-64	1	1691807	4-40	2		5-19	1
1684273	2-5	6	1691602	2-64	2	1691808	4-40	3	1691870	5-19	2
	2-55	4	1691603	2-64	3	1691809	4-40	4	1691871	5-19	4
	3-5	21	1691604	2-64	4	1691810	4-40	5	1691873	5-19	7
1686731	2-73	7	1691605	2-64	5	1691811	4-40	6	1691877	5-19	13
1687388	1-7	35	1691606	2-64	6	1691812	4-40	7	1691878	5-19	14
1687399	1-7	36	1691607	2-64	8	1691813	4-40	8	1691879	5-19	15
1687401	1-7	34	1691613	2-86		1691816	4-40	9	1691880	5-19	16
1687413	2-73	14	1691614	2-87	1	1691817	4-37	1	1691909	2-77	3
1687414	1-7	2	1691615	2-87	2	1691818	4-37	2	1691987	2-75	2
1687416	1-7	32	1691624	2-87	3	1691819	4-37	3	1691988	2-75	3
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1687583	3-21	5	1691627	2-80	1	1691823	2-75	9	1692003	2-75	
1687661	3-21	5	1691629	2-80	2	1691825	2-62	1	1692007	2-89	1
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1692030	2-77	13	1698474	1-87	17	1703583	7-9	21		5-51	12
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1692032	2-77	15	1698542	5-15	25	1703585	7-9	16	1705956	2-86	1
1692033	2-77	16	1698685	1-18	2	1703586	7-9	17	1707217	2-89	2
1692034	2-77	17		1-19	2	1703587	7-9	20	1707278	1-7	38
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1692051	2-79	12	1699754	5-96	31		1-71	8	1707441	10-19	15
1692054	2-79	9		5-102	31	1703891	1-63	1	1707442	10-19	13
1692056	2-79	11		5-108	31		1-71	1	1707443	10-15	6
1692057	2-79	5		5-117	61	1703892	1-59	4		10-17	6
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1692261	1-87	34		10-9		1703893	1-59	5		10-17	5
1692263	1-87	33	1700083	10-9			1-65	1		10-21	1
1692265	1-87	13	1700084	10-9	6		1-67	8	1707445	10-17	7
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1692278	1-87	23	1700086	10-9	2		1-65	4	1707730	9-9	17
1692279	1-87	12	1700243	5-7	5	1703895	1-60		1707735	6-9	1
1692614	7-11	4		5-87	1		1-68		1707736	6-9	3
1692615	7-11	5	1700460	5-67	17	1703896	1-60		1707737	6-9	4
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1693371	5-11	14		5-71	13	1703898	1-59	2	1707741	6-11	1
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1693607	2-79	2	1700461	5-67	17		1-67	5	1707745	6-13	1
1694403	6-15	23		5-67	18	1703900	1-59	1	1707746	6-13	18
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1695810	1-87	37		5-13	15	1704528	5-49	11		6-17	23
1695875	5-47	1	1703562	7-5	15		5-49	11	1707762	6-17	1
1695899	1-7	25	1703563	7-5	1		5-49	11	1707763	6-17	23
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1696278	8-9	6	1703565	7-5	6		5-51	11	1707766	6-15	17
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1696333	2-61	1	1703567	7-5			5-51	13	1707768	6-15	2
1696967	2-62	3	1703570	7-7	1	1705083	9-5	3	1707769	6-15	18
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1709217	2-6	2	2060033	5-42	11	2070783	1-41	14	2091584	10-31	2
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1709218	2-6	4		5-77		2071094	8-11	7	2092188	1-73	2
	2-59	4	2060555	5-65	1	2071181	4-45	1	2092189	1-73	2
1709587	5-49	8	2061333	5-81	14	2071517	4-11	31	2092323	1-79	28
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1709618	1-31	15		5-83	39	2072298	4-11	18	2092866	1-41	15
	1-33	15		5-83	42	2072664	1-84	3	2093220	5-13	2
1709619	1-37	8	2061646	10-36	2	2073198	1-93	6		5-35	3
1709620	1-37	7		13-6	8	2074256	1-93	13		5-37	3
1709621	1-37	10	2062875	1-75	23	2074702	4-47	1		5-39	29
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2021683	4-16	2	2065826	1-87	5		10-35		2096667	10-15	1
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2021685	4-16	2	2066483	5-42	4	2083125	10-35	11		4-15	1
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2027655	1-77	12	2067475	1-79	5	2083634	3-13	20	2098082	5-15	5
2028341	7-2	10	2068337	10-13	4	2088763	2-17	7		5-15	6
2034460	1-93	7	2068343	5-5	7	2089112	1-93	4		5-15	21
2037998	1-83	6	2068344	5-5	7	2089938	7-2	1		5-17	11
2038100	1-91	5	2069381	5-65	1		7-5			5-17	13
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2046866	5-13	7		2-61	2	2090613	5-33	3	2098084	5-15	5
2056600	9-5	5		2-61	4		5-53		2098085	5-15	6
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2056824	5-15	1	2070561	5-15	9		10-35		2098087	5-17	13
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2098595	10-3	26	2106482	12-4			11-8		2107592	2-5	17
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2098603	9-14	45		12-12			11-8		2107595	8-7	5
2098768	5-35	1	2106484	12-4		2107141	11-4		2107596	8-7	8
2098769	5-35	2		12-8			11-8		2107736	2-51	8
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2099080	4-31	9	2106665	5-13	5		12-8		2107843	2-5	12
2099480	2-60	3	2106666	5-13	27		12-12			2-55	6
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2099799	5-13	1		11-8			12-8			2-55	12
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2099800	5-13	9		11-8		2107145	12-4			5-15	1
2099947	1-59	8	2107027	11-4			12-8			5-17	1
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2099949	1-67	17	2107028	11-4		2107146	12-4			5-15	1
2099950	1-67	22		11-8			12-8			5-17	1
2100119	4-3	5	2107029	12-4			12-12		2107969	1-59	22
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2101380	9-9	17	2107123	11-4			12-12		2108064	11-45	5
2101862	5-17	20		11-8		2107149	12-4			12-49	5
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2102640	1-95	1	2107126	11-4			12-12		2108067	11-45	4
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2102847	2-55	23	2107128	11-4		2107153	12-4		2108205	10-3	9
2103224	5-13	13		11-8			12-8		2108223	10-36	1
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2110793	5-49	3	2111439	11-4			11-39	8	4000362	12-9	12
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4029538	4-11	24		1-27	19	4041917	2-20	6	4041974	2-31	10
4029920	4-11	25		1-29	8	4041919	2-20	7	4041975	2-31	5
4030503	5-56	6	4038256	3-9	1	4041920	2-20	12	4041978	2-31	7
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4031365	5-81	14	4038266	3-9	4	4041925	2-20	14	4041982	2-31	16
4031366	5-82	25	4038267	3-9	5	4041927	2-41	7	4041983	2-31	19
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4032014	2-11	13	4039378	9-11	1	4041933	2-20	21		2-32	3
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4032292	4-11	27	4039810	1-96	2	4041938	2-23	2		4-27	11
4032417	2-11	6	4039811	1-96	3	4041939	2-23	3		4-28	7
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4032607	4-11	23	4039817	1-96	1		2-42	5	4042000	2-46	10
4032744	4-19	30	4039818	1-96	1		2-46	3	4042001	2-46	11
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4033057	5-41	3		4-35	27		2-28	5	4042006	2-46	12
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4042021	2-18	8	4042095	2-30	3	4042174	2-35	4	4042274	4-23	6
4042023	4-27	4	4042096	2-30	4	4042175	2-35	5		4-24	15
4042025	4-27	5	4042097	2-30	5	4042177	2-35	14	4042275	4-23	8
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4042032	2-42	10		2-30	13	4042183	2-35	9	4042284	2-47	3
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4042033	2-13	11	4042106	2-19	10	4042186	2-35	14	4042286	5-21	1
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4042063	2-40	1	4042136	2-32	4	4042225	2-32	16	4042332	2-18	1
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4044335	2-6	1	4048756	1-18	8	4054606	4-22	16	4054755	2-43	1
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4047110	8-9	42	4051054	2-40	3	4054648	4-23	7	4054768	4-27	7
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4047664	5-104	47	4051286	4-5	24	4054672	2-45	6	4054783	2-41	5
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4047669	5-56	6	4051938	4-47	1	4054677	2-36	1	4054794	2-13	1
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4055639	1-50	1	4069747	1-12	51		11-28	1		12-28	1
4055641	1-47	1	4069748	1-11	7		11-28	1		12-28	1
4055642	1-47	19	4069749	1-11	8		11-28	1		12-28	1
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4055644	1-47	20	4069751	1-12	50		11-32	1	4084244	12-32	1
4055645	1-47	22	4069752	1-12	49		11-32	1		12-32	1
4055646	1-47	21	4069790	1-11	9		11-32	1		12-32	1
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4055649	1-47	25	4071575	1-93	9	4083240	11-20	1		12-32	1
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4055655	1-47	43		1-41	3		11-20	1	4084245	12-24	1
4055656	1-47	31		1-43	3		11-20	1		12-24	1
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4055659	4-15	4		1-41	29		11-20	1		12-24	1
4055660	4-15	4		1-43	29		11-20	1		12-24	1
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4056988	5-41	6	4076047	1-18	4		11-24	1		12-24	1
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4058543	1-11	25	4081528	1-17	1		11-28	1		12-28	1
4058550	1-11	34		1-18			11-28	1		12-28	1
4058551	1-11	36		1-19			11-28	1	4084247	12-32	1
4059228	1-11	35		1-33			11-28	1		12-32	1
4060737	5-104	49		1-35			11-32	1		12-32	1
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4062586	1-7	35		11-20	1	4083867	12-40	3	4087450	5-115	35
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4064032	1-39	27		11-20	1	4084242	12-24	1	4088010	12-25	9
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