

PARTS MANUAL

**ELECTRIC
J30-40XMT2
(H160)**

CUSTOMER EDITION

HYSTER

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This Parts Manual is divided into 12 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.

HYSTER UNIT CODE D001 NORTH AMERICA 06/2001

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- 9 MAST-TWO STAGE
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FRAME

ELECTRICAL SYSTEM

TRANSMISSION HOUSING
⇒ S/N D001H-2628

KEY:
A: Diesel
B: Gasoline and LPG

ITEM	PART NO.	DESCRIPTION	QTY	A	B
1	2022547	Transmission	1	1	1
2	2023329	Transmission	2	2	2
3	2021670	Case	4	4	4
4	2023418	Bearing Cap	1	1	1
5	296426	Washer	2	2	2
6	293991	Bolt	2	2	2
7	2021390	Cover	4	4	4
8	1371656	Cotter Pin	1	1	1
9	2021915	O-Ring	4	4	4
10	2021329	Plug	22	22	22
11	2021675	Housing	39	39	39
12	2021336	Pin	1	1	1
13	287860	Bolt	1	1	1
14	292682	Lockwasher	1	1	1
15		Hydraulic Pump	1	1	1
16		⇒ Figure 5-3	8	8	8
17	2021345	Gasket	1	1	1
18	214364	Bolt	1	1	1
19	296418	Washer	1	1	1
20	2021388	Temperature Switch	1	1	1
21	2021389	Breather	9	9	9
22	2021383	Dipstick	2	2	2
23	292515	Bolt	3	3	3
24	136692	Nut	3	3	3
25	292527	Capscrew	4	4	4
26	292531	Lockwasher	4	4	4
27	292583	Bolt	1	1	1
28	293637	Washer	1	1	1
29	296420	Transmission Kit (Includes Item 7)	1	1	1
30	996403	Transmission Kit (Includes Item 14)	1	1	1
31	996405				

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

See Service Manual for service procedures.

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HP990004

HOW TO FIND THE DESIRED PART NUMBER

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

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

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

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

WHEN THE PART NUMBER IS KNOWN:

5. Use the Numerical Index (Page 12-1) to find the part number. Turn to the page listed and locate the part as indicated by the item number.

GENERAL:

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

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

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

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

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

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

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

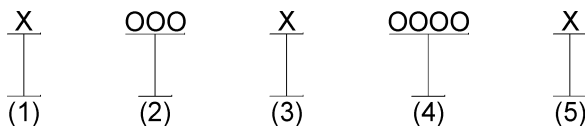
- **D/B 3/00**
Indicates that a change occurred sometime within that month for the item affected.
- D/B 3/00** →
Indicates that a change occurred sometime within that month for the item affected.
- D/B 3/00 ↔ D/B 4/00**
Indicates a range of production dates of the item affected.

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

ORDERING PARTS:

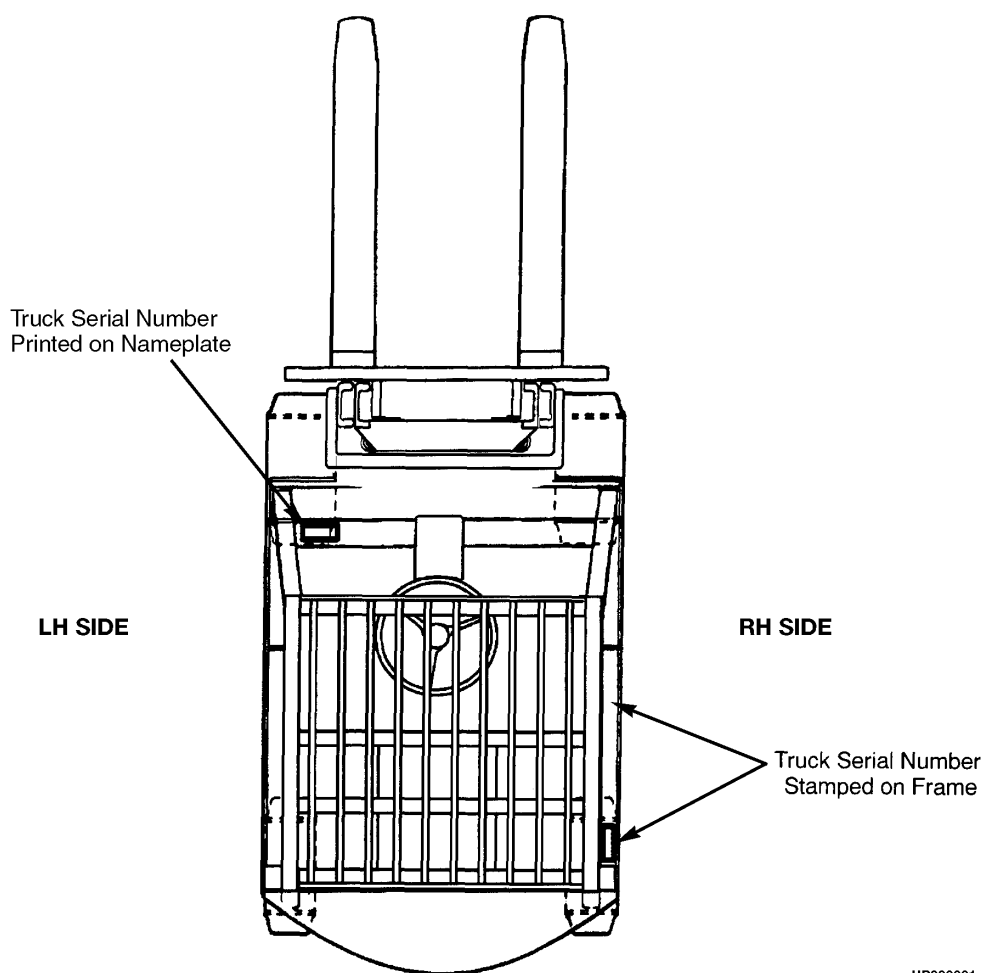
When ordering replacement parts, give the unit serial number, part number, name of part and quantity required.

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

IDENTIFICATION OF TRUCK SERIAL NUMBERS

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

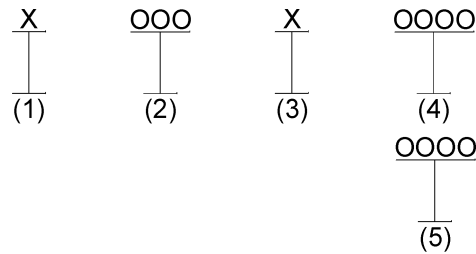
For pending serial numbers contact your local dealer for Hyster lift trucks.



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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).

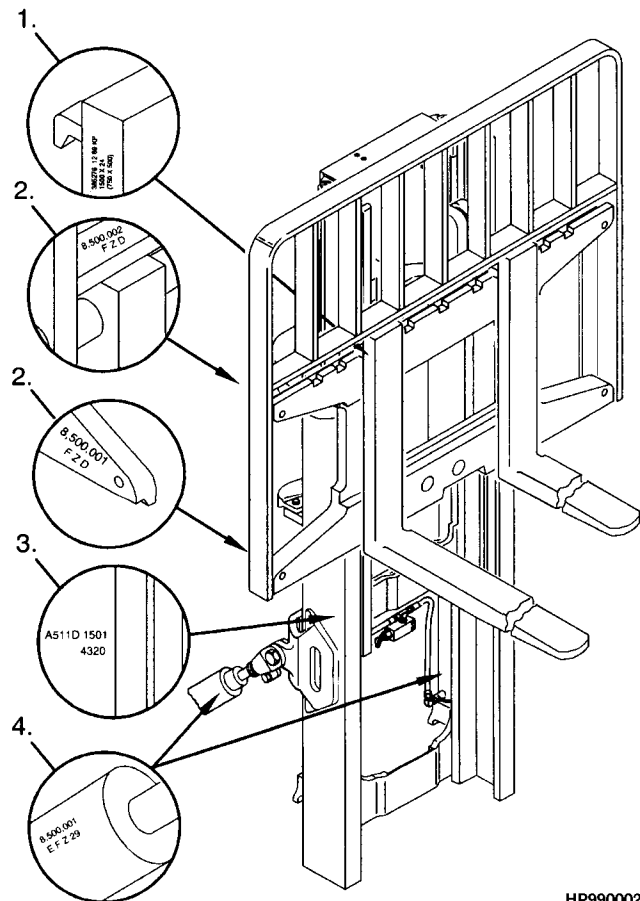
For pending production sequence numbers contact your local dealer for Hyster lift trucks.

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.

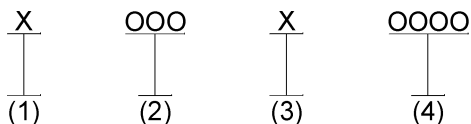
Always refer to the group, serial, or part number when ordering service parts.

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.

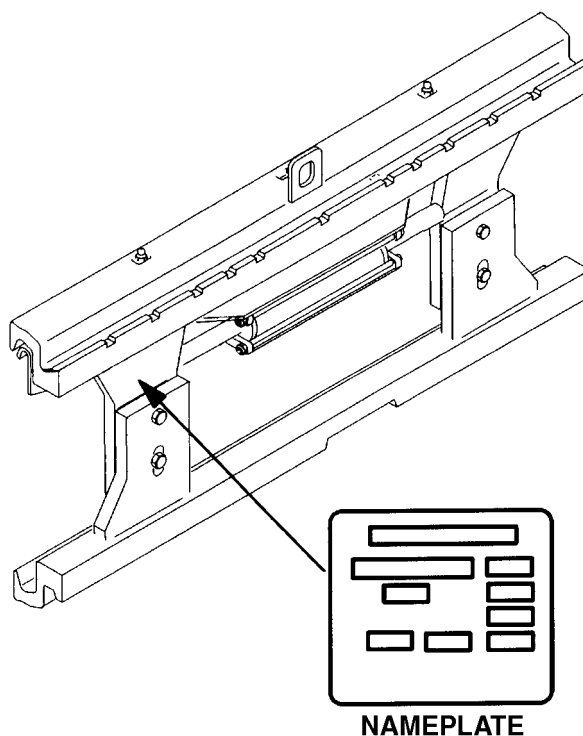


HP990002

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.



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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.....	1463779
Service Manual (Complete).....	1468296
Parts Manual.....	1463774

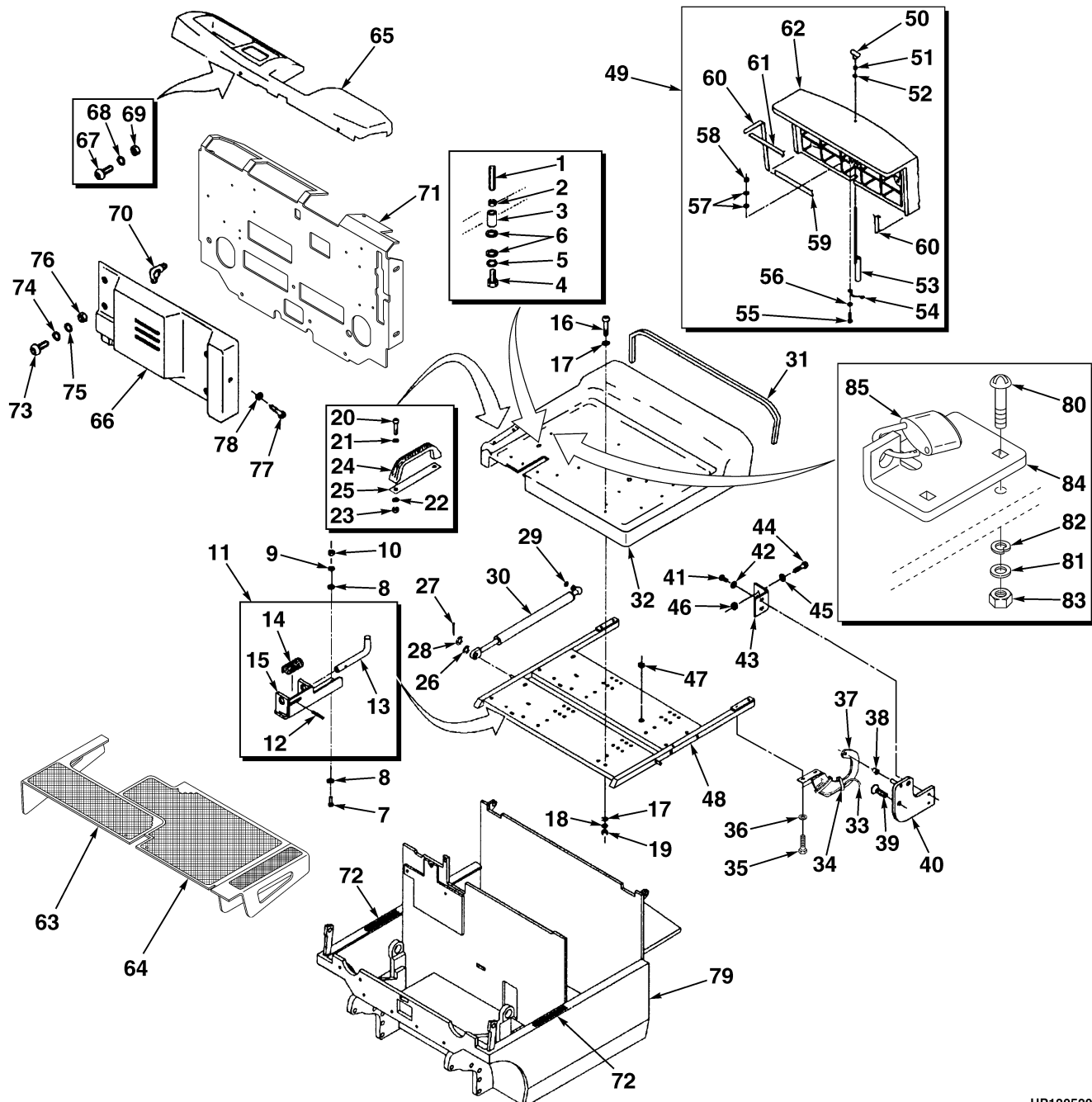
1

FRAME

SECTION 1
FRAME

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FLOOR PLATES AND COVERS (FIGURE 1-1)



HP120520

FLOOR PLATES AND COVERS**KEY:****A: 50.8 in. Wheel Base****B: 54.5 in. Wheel Base**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	2309936	Stud	1	1
2	15026	Nut	1	1
3	1519932	Stand Off	1	1
4	16634	Capscrew	1	1
5	15156	Lockwasher	1	1
6	15176	Lockwasher	2	2
7	292502	Capscrew	2	2
8	320157	Washer	4	4
9	292680	Washer	2	2
10	136887	Valve	2	2
11	2311028	Cover (Battery Latch)	1	1
12	19981	Roll Pin	1	1
13	2305068	Pin	1	1
14	2307799	Spring	1	1
15	2305209	Pin (Guide)	1	1
16	296166	Capscrew	5	5
17	320158	Washer	10	10
18	292681	Lockwasher	5	5
19	292654	Nut	5	5
20	292502	Capscrew	2	2
21	320156	Washer	2	2
22	292680	Washer	2	2
23	136687	Nut	4	4
24	362030	Handle	1	1
25	2310622	Plate (6.90 in.)	1	1
25	1364971	Plate (7.13 in.) (Optional)	1	1
26	2013631	Angle	2	2
27	15223	Cotter Pin	2	2
28	320158	Washer	2	2
29	292681	Lockwasher	2	2
30	1468708	Gas Spring	2	2
31	261164	Foam Tape	1	1
32	1458412	Cover (51 in.)	1	..
32	1458413	Cover (54.5 in.)	..	1
33	e 2311460	Wire Harness	1	1
33	g 1463490	Wire Harness	1	1
34	137852	Strap Clamp	3	2
35	136749	Screw	4	4
36	292681	Lockwasher	4	4
37	2038657	Hinge (RH)	1	1
37	2050208	Hinge (LH)	1	1
38	2310972	Bushing	2	2
39	296252	Capscrew	4	4
40	2038655	Pivot (RH)	1	1
40	2038656	Pivot (LH)	1	1
41	287851	Capscrew	4	4

FLOOR PLATES AND COVERS

KEY:

A: 50.8 in. Wheel Base

B: 54.5 in. Wheel Base

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
42	292681	Lockwasher	4	4
43	2013631	Angle	2	2
44	2311598	Screw	2	2
45	15176	Lockwasher	2	2
46	269200	Nut	2	2
47	143413	Grommet	1	1
48	2036823	Cover (54.5 in. Wheelbase)	..	1
48	2036824	Cover (50.8 in. Wheelbase)	1	..
48	b 2038653	Frame	..	1
48	b 2038654	Frame	1	..
49	1461217	Cover	1	1
50	2014534	Knob	1	1
51	15086	Nut	1	1
52	216735	Grommet	1	1
53	2042928	Tow Pin	1	1
54	2013847	Spring	1	1
55	293603	Capscrew	2	2
56	292680	Washer	2	2
57	296417	Washer	6	6
58	136687	Nut	2	2
59	283259	Tape	AR	AR
60	2013646	Strip Seal	2	2
61	2013644	Strip Seal	1	1
62	1476710	Cover	1	1
63	f 2032522	Floorplate (RH)	1	1
63	h 1545829	Floorplate (RH)	1	1
64	2032521	Floorplate (LH)	1	1
65	1462622	Cowl Cover (Front)	1	1
66	c 2307691	Cover (Front)	1	1
66	d 2309049	Cover (Front)	1	1
67	302047	Screw	4	4
68	320156	Washer	6	6
69	136687	Nut	6	6
70	16458	Fitting	1	1
71	c 1462649	Cowl	1	1
71	d 1462650	Cowl	1	1
72	2309317	Anti-Slip Tread	2	2
73	302048	Screw	4	4
74	222085	Washer	4	4
75	320156	Washer	4	4
76	136687	Nut	4	4
77	1367837	Screw	1	1
78	222085	Washer	1	1
79	1460418	Frame	1	..
79	1460419	Frame	..	1
79	b 1462768	Frame	1	..

FLOOR PLATES AND COVERS**KEY:****A: 50.8 in. Wheel Base****B: 54.5 in. Wheel Base**

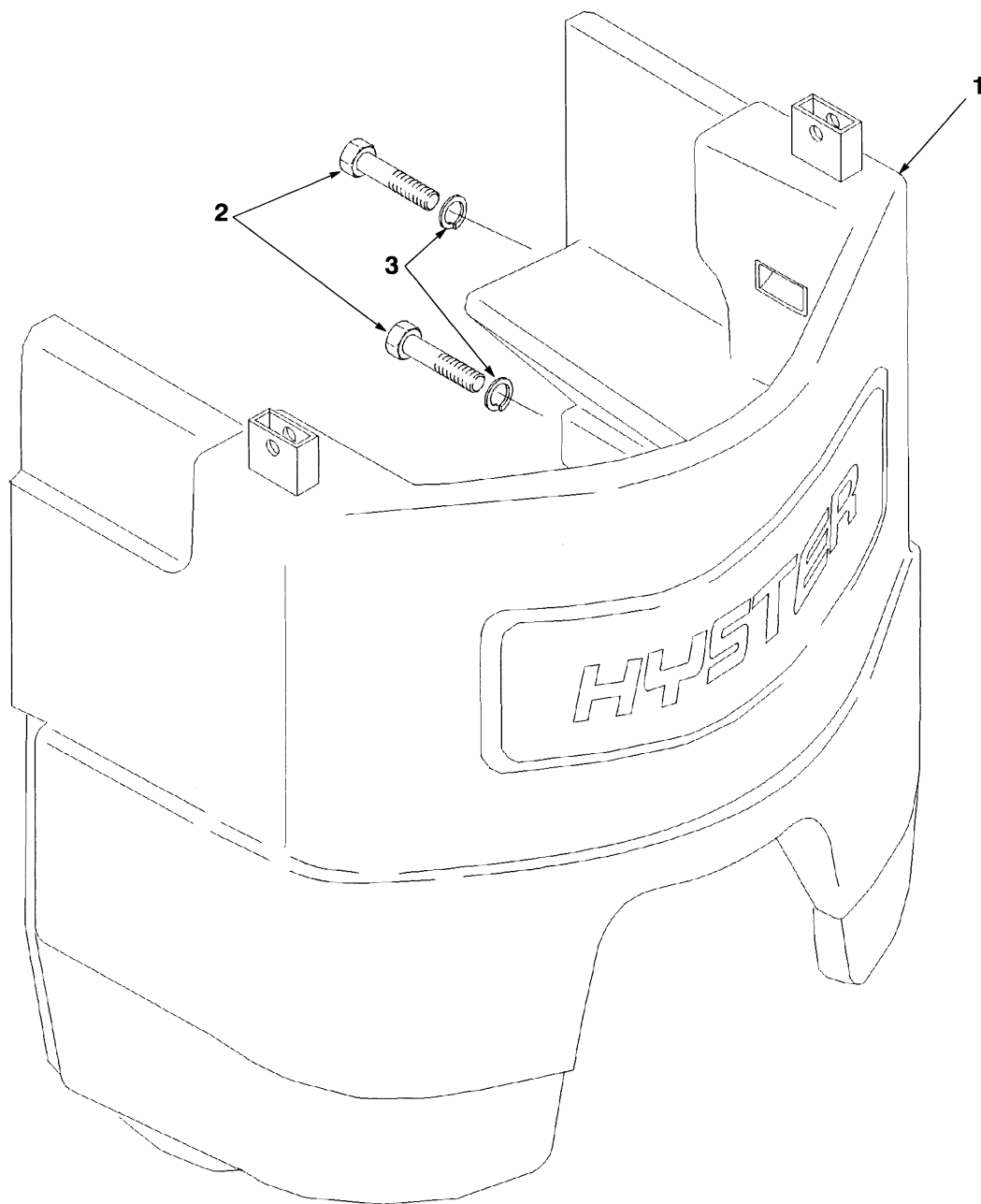
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
79	b 1462769	Frame	..	1
80	a 144669	Bolt	2	2
81	a 15175	Lockwasher	2	2
82	a 15155	Lockwasher	2	2
83	a 221705	Nut	2	2
84	a 2309470	Plate	1	1
85	a 2305060	Padlock	1	1

FOOTNOTES:

a Used on EE Trucks Only
b Used with Battery Side Removal Option
c With Foot Brake
d With Seat Brake

e → S/N H160N01400W
f → S/N H160N03838A
g S/N H160N01401W →
h S/N H160N03839A →

COUNTERWEIGHT (FIGURE 1-2)



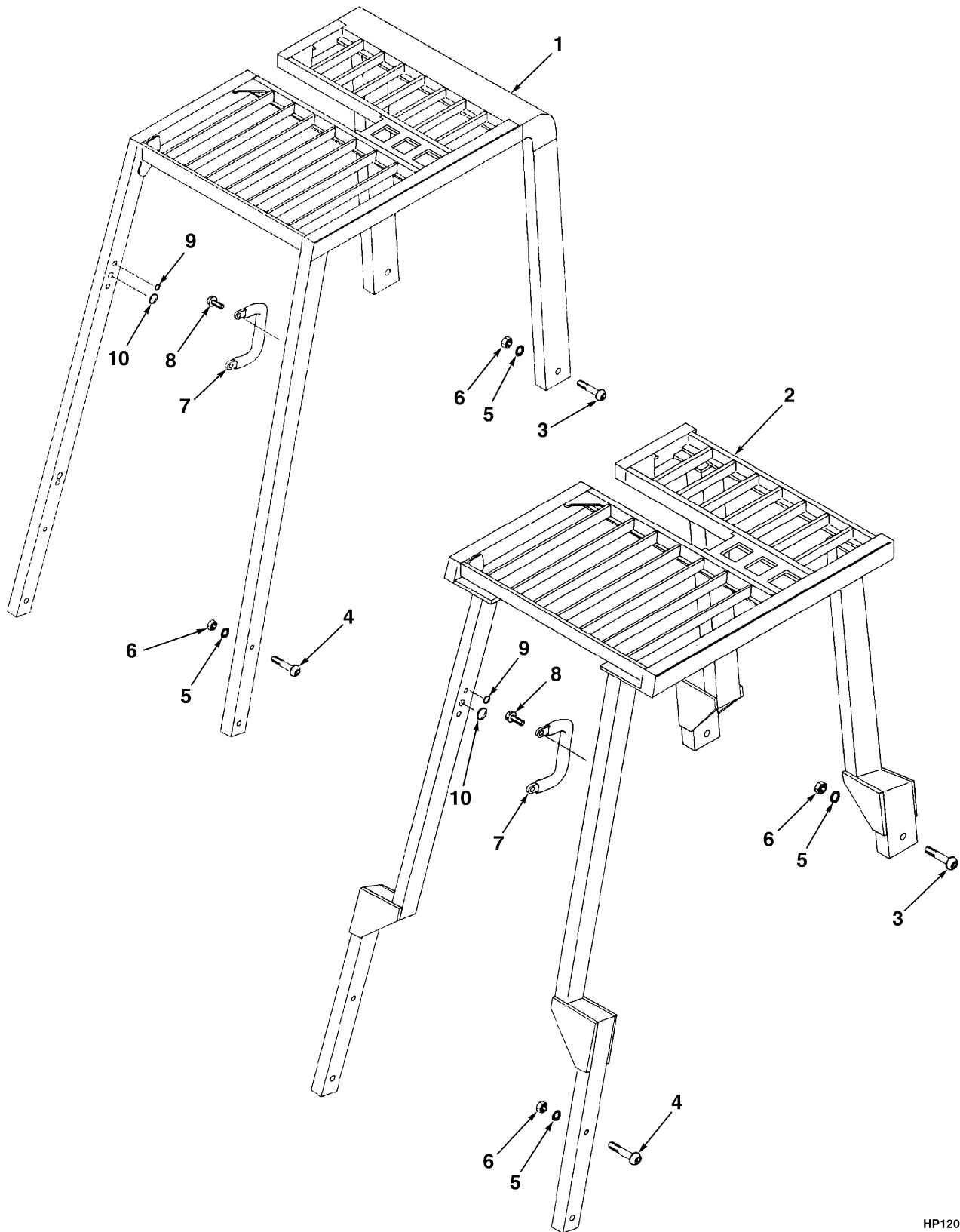
HP120521

ITEM	PART NO.	DESCRIPTION	QTY
1	1458411	Counterweight	1
2	293706	Capscrew	4
3	296431	Washer	4

NOTES

[illegible]

OVERHEAD GUARD (FIGURE 1-3)



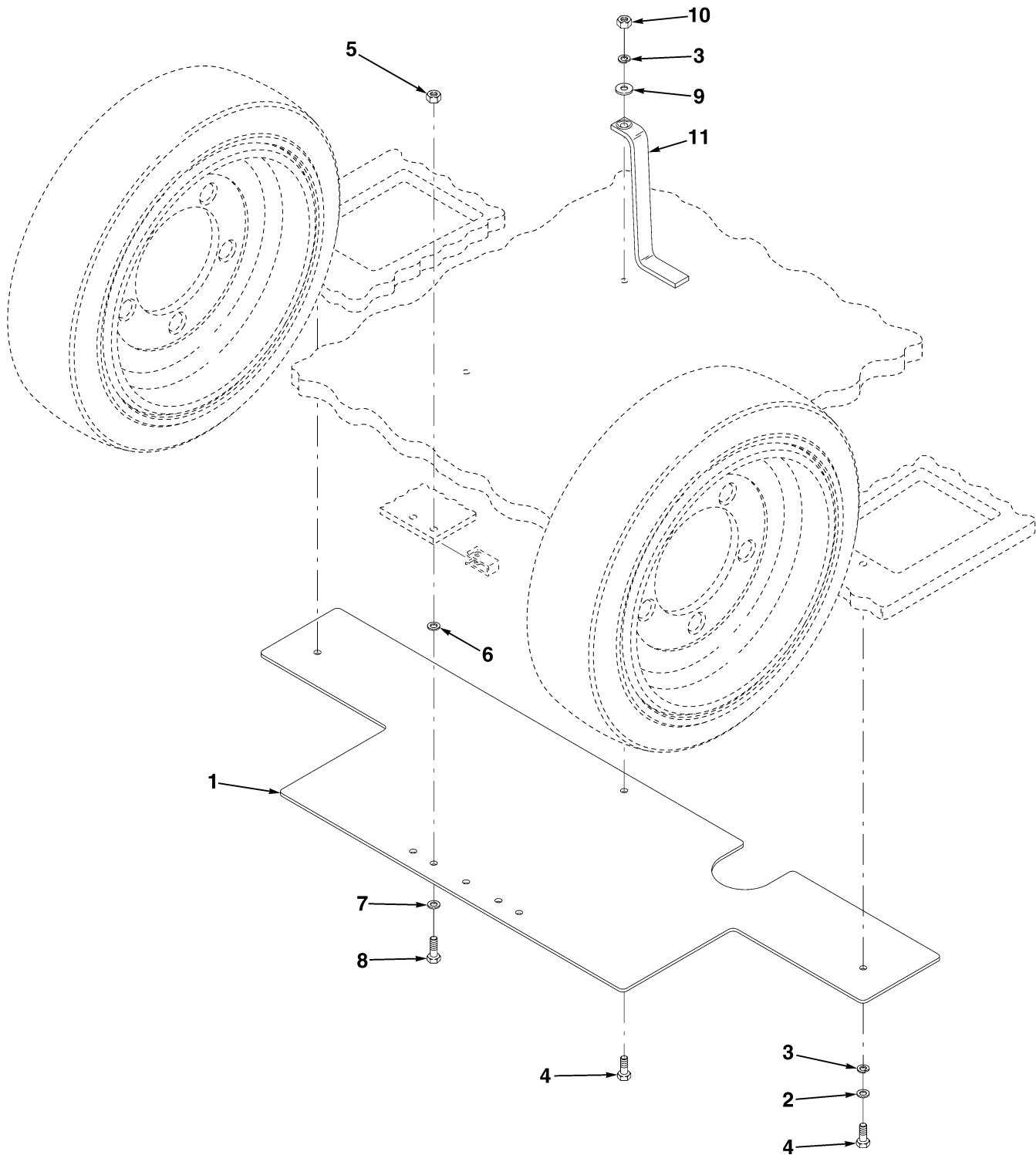
HP120522

OVERHEAD GUARD**KEY:****A:** Standard**B:** Drive-in Rack Option

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	a 1461023	Guard	1	..
1	b 1461024	Guard	1	..
2	a 1461765	Overhead Guard (1495 Wheel Base)	..	1
2	b 1461766	Overhead Guard (1385 Wheel Base)	..	1
3	1353533	Capscrew	5	5
4	1343990	Capscrew	1	1
5	320162	Washer	12	12
6	216877	Nut	6	6
7	1343647	Handle	1	1
8	316678	Screw	2	2
9	1363916	Plug	15	15
10	1363917	Plug	7	7

FOOTNOTES:**a** 50.8 in. Wheel Base**b** 54.5 in. Wheel Base

STATIC STRAP AND DRIP PLATE (FIGURE 1-4) "EE" CONSTRUCTION

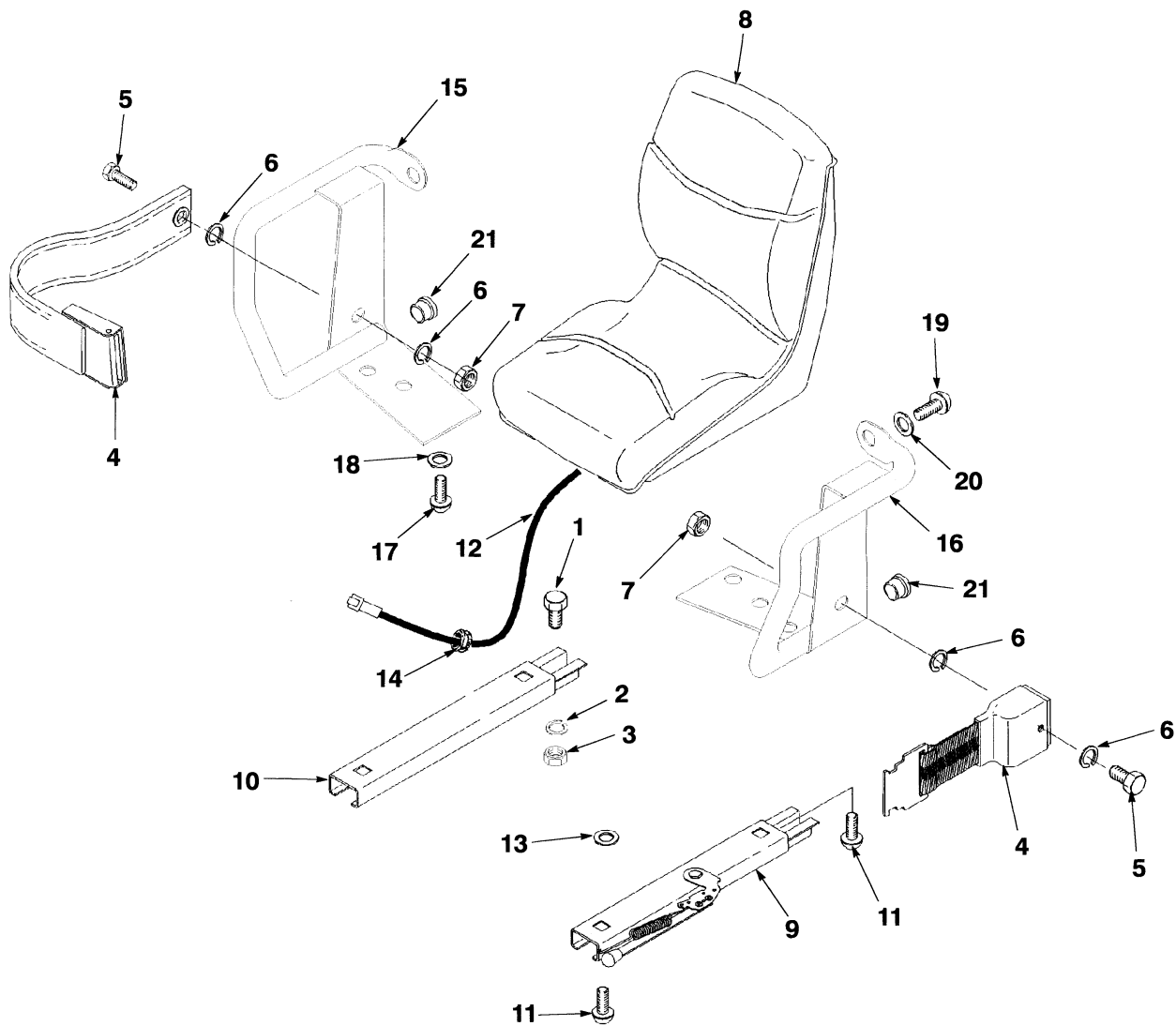


HP120523

**STATIC STRAP AND DRIP PLATE
"EE" CONSTRUCTION**

ITEM	PART NO.	DESCRIPTION	QTY
1	2311313	Drip Shield	1
2	320158	Washer	2
3	292681	Lockwasher	3
4	136681	Capscrew	3
5	325182	Nut	2
6	320156	Washer	2
7	296405	Lockwasher	2
8	292501	Capscrew	2
9	221733	Washer	1
10	239503	Nut	1
11	216895	Static Strap	1

NON-SUSPENSION SEAT (FIGURE 1-5)



HP260409

NON-SUSPENSION SEAT

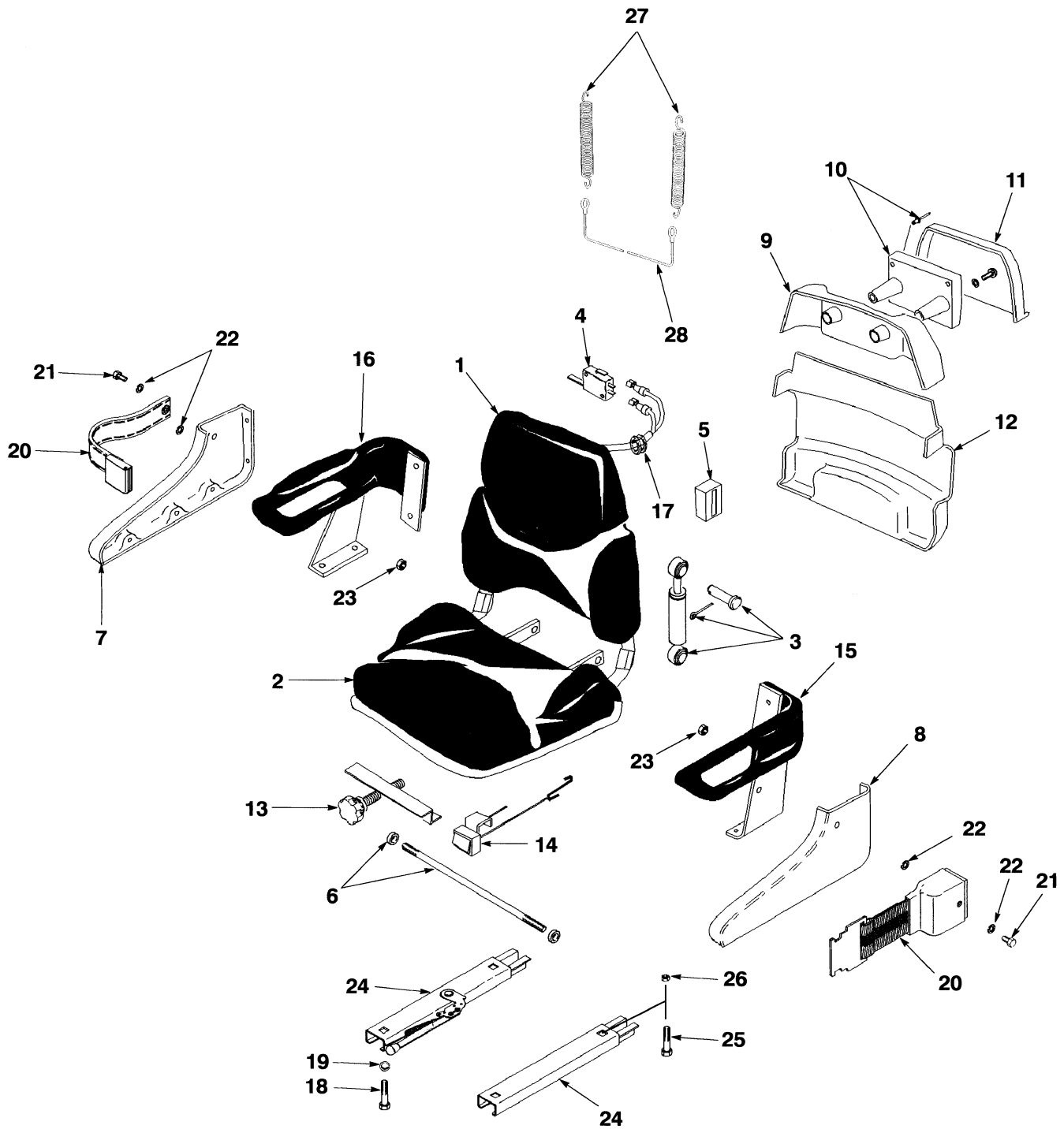
ITEM	PART NO.	DESCRIPTION	QTY
	a 2013588	Seat-Non Suspension	1
	b 2013650	Seat-Non Suspension	1
1	d 18496	Capscrew	4
2	d 15175	Lockwasher	4
3	145639	Locknut	4
4	1374750	Seat Belt	1
5	379199	Capscrew	2
6	379697	Washer	4
7	379698	Nut	2
8	1351473	Seat-Non Suspension	1
8	2087813	Seat-Non Suspension (Black Vinyl)	1
8	1563351	Kit-Seat Cushion (Vinyl)	1
8	335988	Information Case	1
8	335991	Cover (Information Case)	1
9	b 1340171	Seat Rail (LH)	1
9	a 269448	Seat Rail (LH)	1
10	b 1340172	Seat Rail (RH)	1
10	a 269449	Seat Rail (RH)	1
11	18727	Screw	4
12	1354140	Switch	1
13	221733	Washer	4
14	d 26283	Grommet	1
15	c 364807	Hip Restraint	1
16	c 364808	Hip Restraint	1
17	c 18727	Screw	4
18	221733	Washer	4
19	c 379197	Capscrew	2
20	c 379198	Washer	2
21	c 364854	Plug	2
	de 2307190	Clip	1
	de 137852	Strap Clamp	1
	e 320158	Washer	8

FOOTNOTES:

a 50.8 in. Wheel Base
b 54.5 in. Wheel Base
c Hip Restraint Group

d Mounting Hardware
e Not Illustrated

SUSPENSION SEAT (FIGURE 1-6)



HP120525

SUSPENSION SEAT

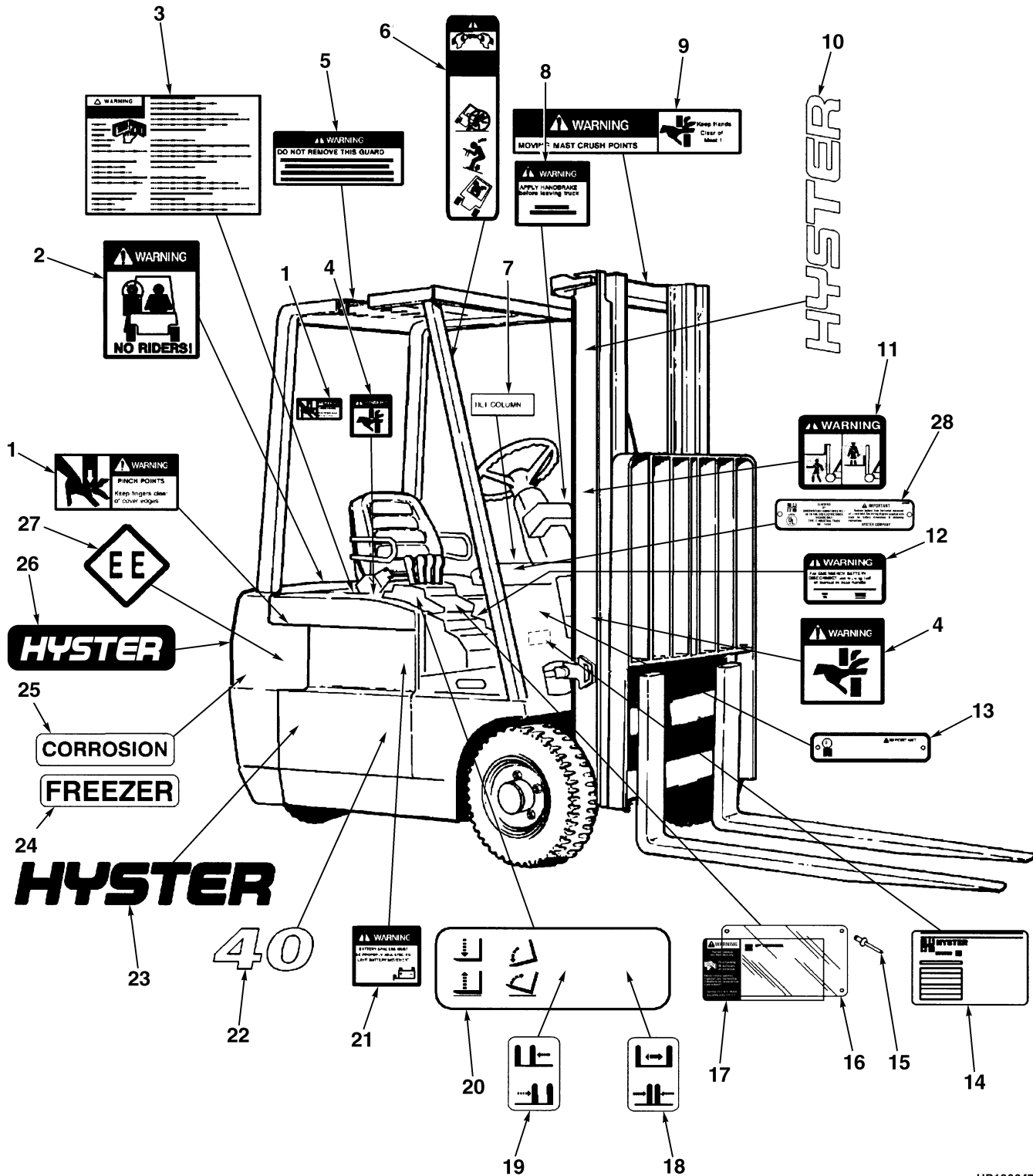
ITEM	PART NO.	DESCRIPTION	QTY
	b 1376681	Seat-Semi Suspension	1
	a 1376682	Seat-Semi Suspension	1
	e 1376677	Seat-Semi Suspension	1
	d 1376678	Seat-Semi Suspension	1
1	de 1362047	Seat Cushion (Back Cushion)	1
1	ab 1374179	Seat Cushion (Back Cushion)	1
1	1382111	Seat Cushion (Back Cushion)	1
1	1382112	Seat Cushion	1
2	de 1362048	Seat Cushion	1
2	ab 1374180	Seat Cushion	1
3	1362049	Kit-Shock Absorber	1
4	1354140	Switch	1
5	1362052	Block	1
6	1362053	Kit-Shaft	1
7	1650385	Cover (RH) (RH)	1
8	1392495	Cover (LH)	1
9	1374188	Kit-Cover	1
10	1362058	Information Case	1
11	1374190	Cover	1
12	1360872	Cover	1
13	1362061	Kit-Weight Adjuster	1
14	1362062	Kit-Weight Adjuster	1
15	1362063	Hip Restraint	1
16	1362064	Hip Restraint	1
17	143413	Grommet	1
18	18496	Capscrew	4
19	15175	Lockwasher	4
20	1374750	Seat Belt	1
21	379199	Capscrew	2
22	379697	Washer	4
23	379698	Nut	2
24	be 1459112	Kit-Seat Rail	1
24	ade 1459114	Kit-Seat Rail	1
25	16836	Capscrew	8
26	1367150	Nut	4
27	1367137	Kit-Spring	1
28	1378307	Kit-Suspension Cable	1
	c 1362065	Kit-Hardware	1
	c 893818	Wire	1

FOOTNOTES:

a Fabric Seat on 50.8 in. Wheel Base
b Fabric Seat on 54.5 in. Wheel Base
c Not Illustrated

d Vinyl Seat on 50.8 in. Wheel Base
e Vinyl Seat on 54.5 in. Wheel Base

DECAL AND PLATE LOCATION (FIGURE 1-7)



HP120647

DECAL AND PLATE LOCATION

ITEM	PART NO.	DESCRIPTION	QTY
1	2306179	Label (Pinch Point)	3
2	1330920	Label (No Riders)	1
3	1336605	Label (Operator Warning)	1
4	1335129	Label (Pinch Point)	3
5	1339843	Label (Overhead Guard)	1
6	1330917	Label (Operator Restraint)	2
7	2303178	Label (Tilt Column)	1
8	2306476	Label (Parking Brake)	1
8	2309799	Label (Parking Brake)	1
9	1343276	Label (Mast Warning)	1
10	1529041	Label (Hyster)	2
11	2075656	Label (Mast Warning)	2
12	1330922	Label (Battery Disconnect)	1
13	325956	U.L. Plate (Type EE)	1
13	325958	U.L. Plate (Type E)	1
14	1534660	Label (Patents and Trademarks)	1
15	222023	Rivet	4
16	389687	Cover Plate	1
17	a	Nameplate	1
18	2308226	Label (Fork Spread)	1
19	2309076	Label (Side-Shift)	1
20	2307591	Label (Fork Function)	1
21	1330924	Label (Battery Spacer)	1
22	2307049	Label (Model 35)	1
22	2308078	Label (Model 40)	1
22	2309830	Label (Model 30)	1
23	1529042	Label (Hyster)	2
24	275661	Label (Freezer)	2
25	275663	Label (Corrosion)	2
26	1476709	Label	1
27	196927	Label (UL Type EE)	1
28	1495277	U.L. Plate (Type E)	1

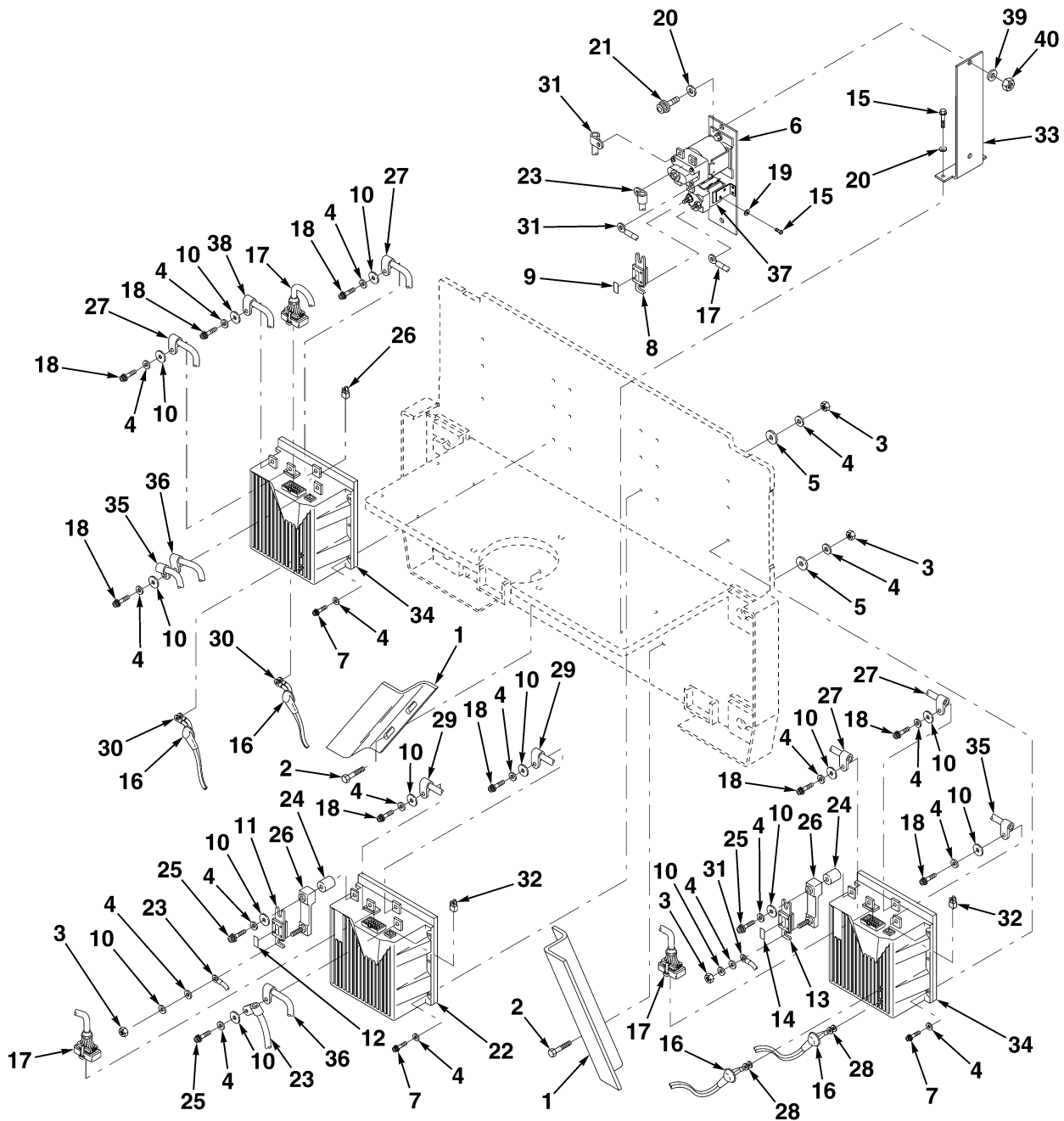
FOOTNOTES:**a** Contact Your Local Hyster Dealer

[illegible]

**SECTION 2
ELECTRICAL SYSTEM**

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ELECTRICAL ASSEMBLY (FIGURE 2-1) (→ S/N H160N02761Y)



HP081083

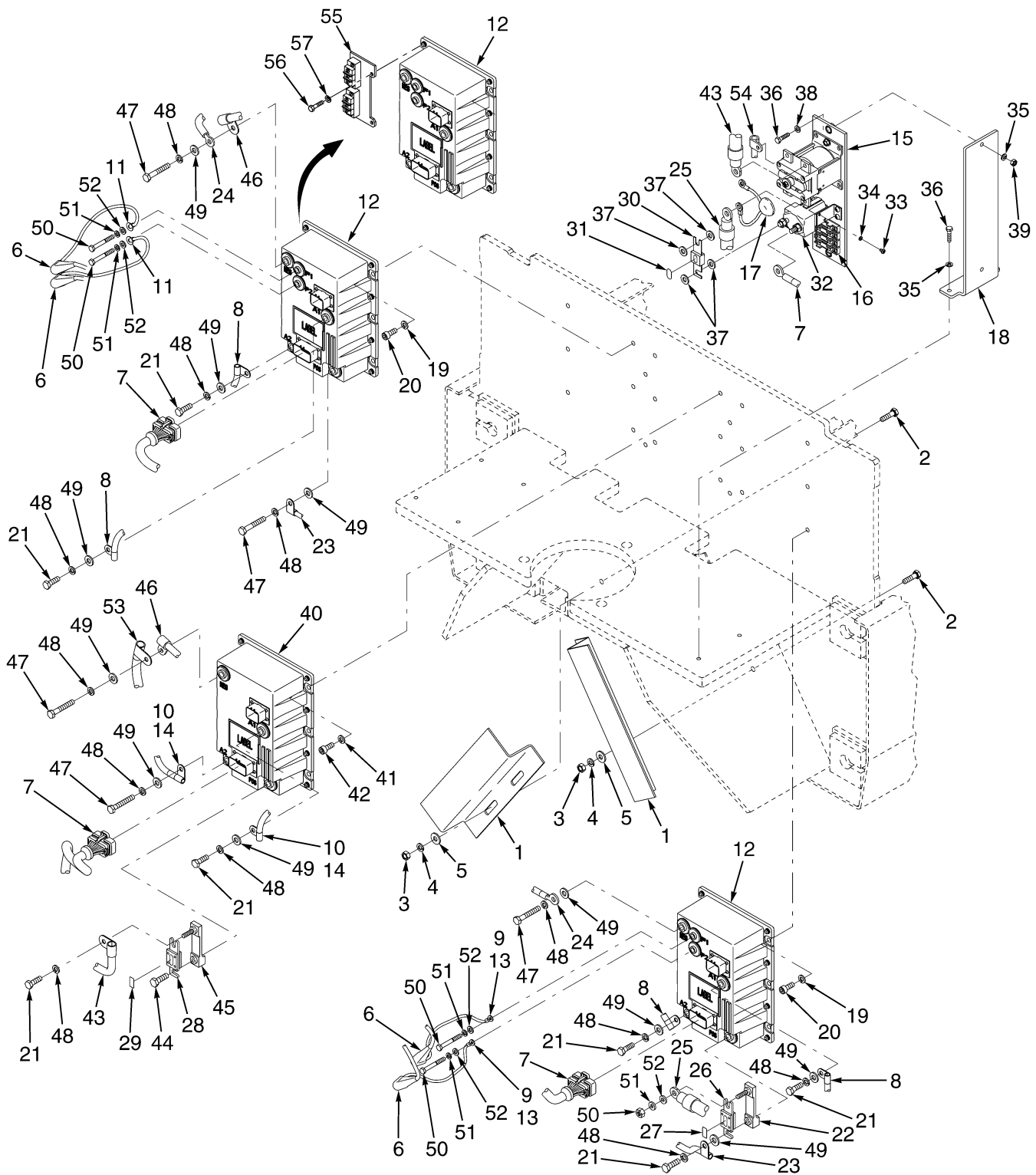
ELECTRICAL ASSEMBLY

(→ S/N H160N02761Y)

ITEM	PART NO.	DESCRIPTION	QTY
1	2014774	Clamp	2
2	176640	Bolt	2
3	239503	Nut	4
4	292681	Lockwasher	36
5	320158	Washer	2
6	1466921	Control Panel (36/48 Volt)	1
7	296010	Capscrew	18
8	1364262	Fuse (40 Amp)	1
9	1364270	Label (Fuse, 40 Amp)	1
10	320157	Washer	14
11	1331362	Fuse (400 Amp)	1
12	359821	Label	1
13	325809	Fuse (325 Amp)	1
14	359819	Label (Fuse, 325 Amp)	1
15	287816	Capscrew	2
16	204223	Boot	4
17	1462884	Wire Harness (Main) (☞ Figure 2-16).....	1
18	136681	Capscrew	10
19	292678	Lockwasher	2
20	292680	Washer	2
21	287816	Capscrew	4
22	1394831	Control Panel (☞ Figure 2-5).....	1
22	1394839	Controller	1
23	1462503	Power Cable	1
24	1459661	Spacer	2
25	292512	Capscrew	2
26	1465757	Plug	2
27	b 1462803	Power Cable	1
27	a 1462809	Power Cable	1
28	b 1462804	Power Cable	1
28	a 1462810	Power Cable	1
29	b 1462805	Power Cable	1
29	a 1462877	Power Cable	1
30	a 1462523	Gear Pump	1
30	b 1462806	Power Cable	1
31	1462504	Power Cable	1
32	1465757	Plug	3
33	1463291	Bracket	1
34	1462886	Controller (Traction)	2
35	1462500	Power Cable	1
36	1462502	Power Cable	1
37	1330938	Contactor	1
38	1462499	Power Cable	1
39	320156	Washer	2
40	136687	Nut	2

FOOTNOTES:**a** Used on 50.8 Wheel Base**b** Used on 54.5 Wheel Base

ELECTRICAL ASSEMBLY (FIGURE 2-2) (S/N H160N02762Y →)



YP081151

ELECTRICAL ASSEMBLY
(S/N H160N02762Y →)

ITEM	PART NO.	DESCRIPTION	QTY
1	2014774	Clamp	2
2	176640	Bolt	2
3	239503	Nut	2
4	292681	Lockwasher	2
5	320158	Washer	2
6	204223	Boot	4
7	1503460	Wire Harness (Main) (☞ Figure 2-18).....	1
7	2035275	Connector	3
7	2035276	Connector	55
8	1462803	Power Cable	1
8	1462809	Power Cable	1
9	1462804	Power Cable	1
10	1462805	Power Cable	1
11	1462806	Power Cable	1
11	1462878	Power Cable	1
12	1489650	Controller	2
13	1462810	Power Cable	1
14	1462877	Power Cable	1
15	1466921	Control Panel (36/48 Volt)	1
16	2034678	Fuse (15 Amp)	3
17	1393356	Current Limiter (Blue)	1
18	1463291	Bracket	1
19	292681	Lockwasher	10
20	296010	Capscrew	10
21	292512	Capscrew	1
22	1459659	Fuse Block	1
23	1462499	Power Cable	1
24	1489143	Power Cable	1
25	1462504	Power Cable	1
26	325810	Fuse (500 Amp)	1
27	359820	Label	1
28	325809	Fuse (325 Amp)	1
29	359819	Label (Fuse, 325 Amp)	1
30	1364262	Fuse (40 Amp)	1
31	1364270	Label (Fuse, 40 Amp)	1
32	1330938	Contactactor	1
33	302018	Screw	2
34	292678	Lockwasher	2
35	292680	Washer	4
36	287816	Capscrew	4
37	198956	Washer	4
38	296417	Washer	2
39	136687	Nut	2
40	1489651	Controller	1
41	292681	Lockwasher	6
42	296010	Capscrew	6
43	1462503	Power Cable	1
44	136703	Capscrew	1
45	1459659	Fuse Block	1
46	1462502	Power Cable	1

ELECTRICAL ASSEMBLY (S/N H160N02762Y →)

ITEM	PART NO.	DESCRIPTION	QTY
47	136681	Capscrew	5
48	292681	Lockwasher	11
49	320157	Washer	11
50	302018	Screw	4
51	292681	Lockwasher	4
52	320154	Washer	4
53	1489143	Power Cable	1
54	1462504	Power Cable	1
55	b 1546549	Seat Adapter	1
56	b 296012	Capscrew	2
57	b 292681	Lockwasher	4
	a 1505179	Plate	1
	a 2052806	Wire Harness	4

FOOTNOTES:

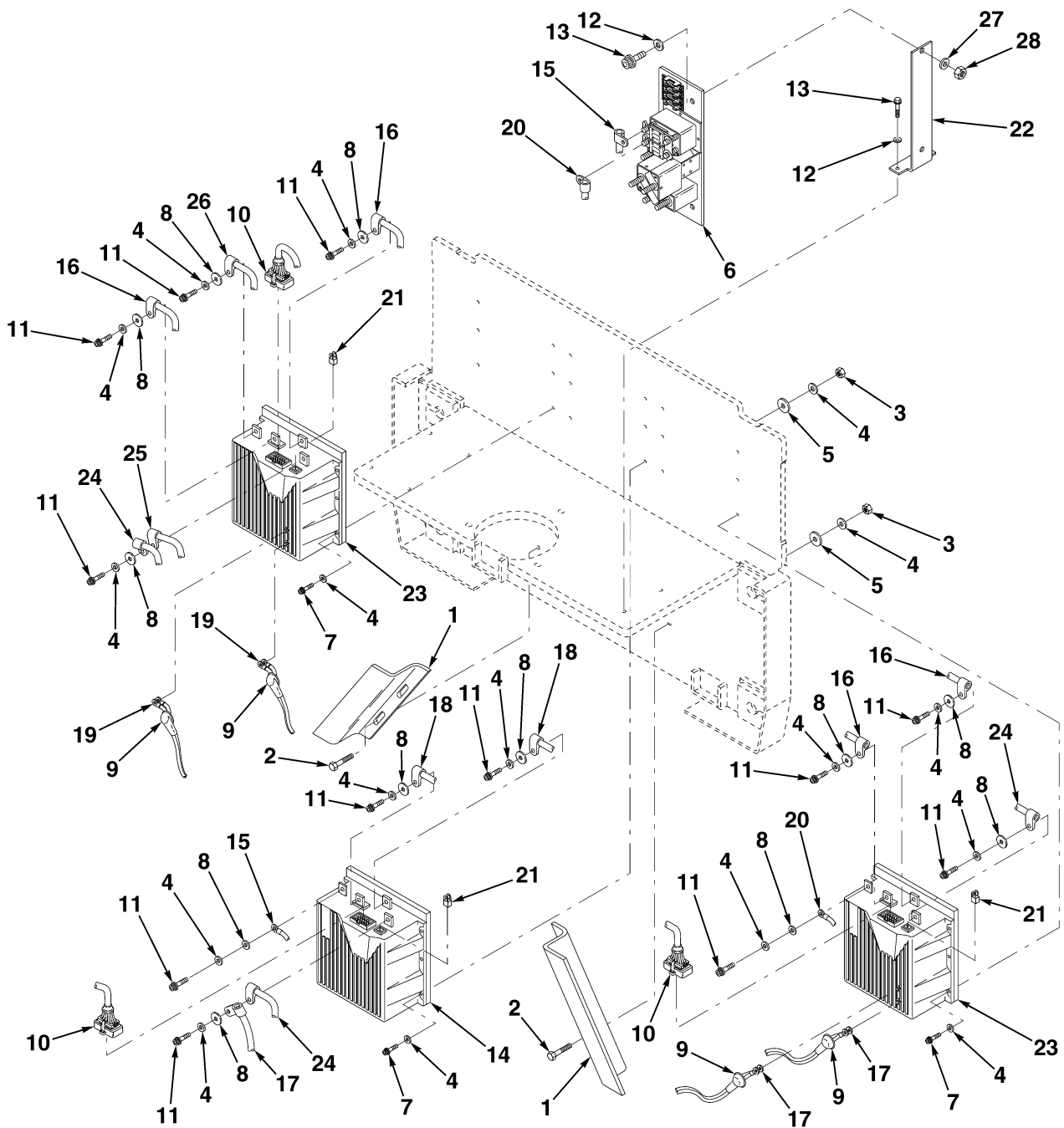
a Not Illustrated

b S/N H160N03888A →

NOTES

[illegible]

ELECTRICAL ASSEMBLY (FIGURE 2-3) "EE" CONSTRUCTION



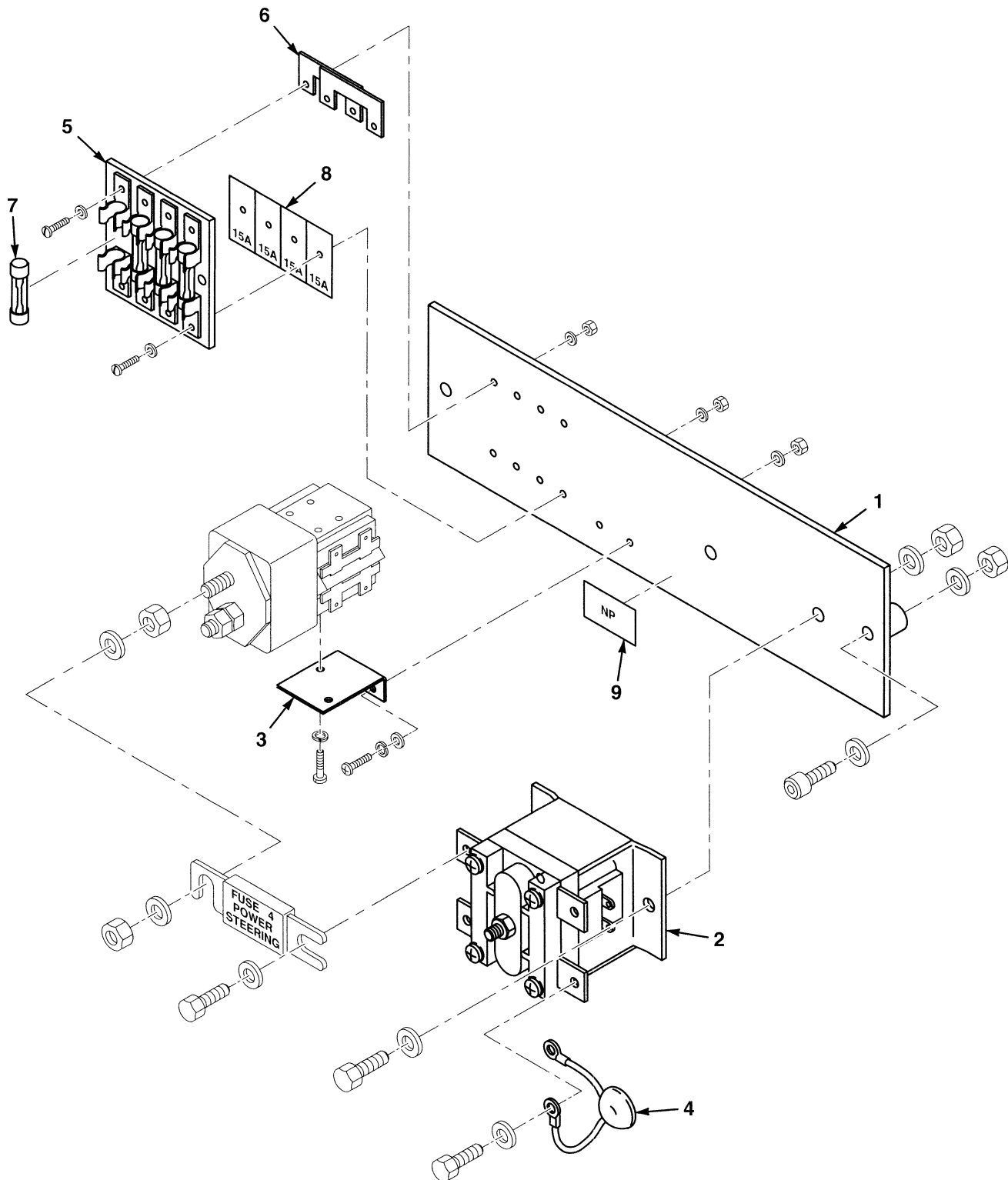
HP081085

ELECTRICAL ASSEMBLY
"EE" CONSTRUCTION

ITEM	PART NO.	DESCRIPTION	QTY
1	216895	Static Strap	2
2	176640	Bolt	2
3	239503	Nut	2
4	292681	Lockwasher	16
5	320158	Washer	2
6	2038636	Control Panel	1
7	296010	Capscrew	12
8	320157	Washer	12
9	204223	Boot	4
10	1462884	Wire Harness (Main)	1
11	136681	Capscrew	12
12	292680	Washer	4
13	287816	Capscrew	4
14	1394839	Controller	1
14	2038635	Control Panel (Type EE) (☞ Figure 2-6).....	1
15	1462503	Power Cable	1
16	b 1462803	Power Cable	1
16	a 1462809	Power Cable	1
17	b 1462804	Power Cable	1
17	a 1462810	Power Cable	1
18	b 1462805	Power Cable	1
18	a 1462877	Power Cable	1
19	a 1462523	Gear Pump	1
19	b 1462806	Power Cable	1
20	1462504	Power Cable	1
21	1465757	Plug	3
22	1463291	Bracket	1
23	1462886	Controller (Traction)	2
24	1462500	Power Cable	1
25	1462502	Power Cable	1
26	1462499	Power Cable	1
27	320156	Washer	2
28	136687	Nut	2

FOOTNOTES:**a** Used on 50.8 Wheel Base**b** Used on 54.5 Wheel Base

CONTACTOR PANEL (FIGURE 2-4)



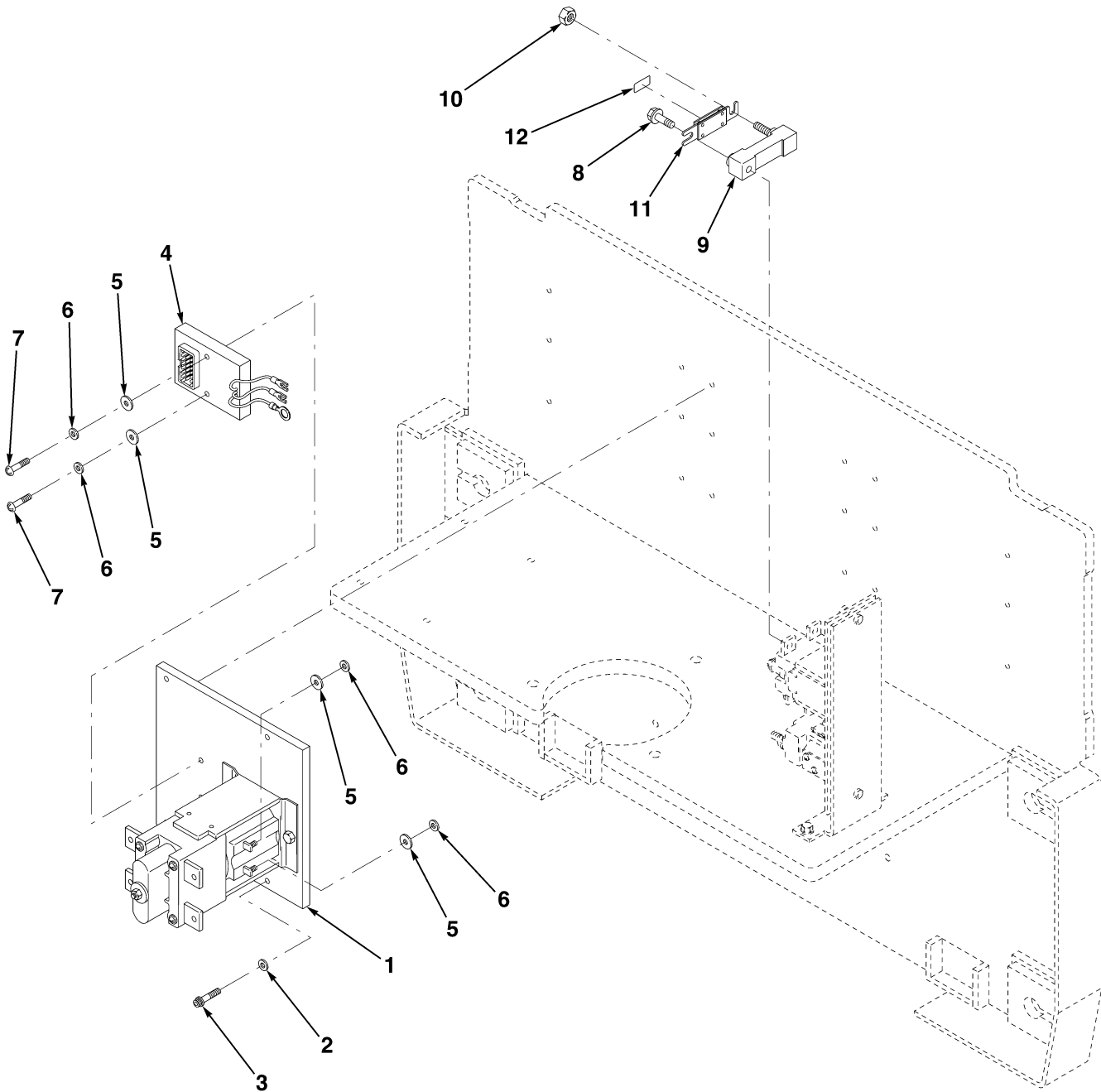
HP080199

CONTACTOR PANEL

ITEM	PART NO.	DESCRIPTION	QTY
	1466921	Control Panel (36/48 Volt)	1
1	1462322	Base	1
2	1467047	Contactor (36/48 Volt)	1
3	1374236	Bracket	1
4	1393356	Current Limiter (Blue)	1
5	1374210	Fuse Block	1
6	1301510	Buss Bar	3
7	314878	Fuse (15 Amp)	3
8	1308958	Label (Fuse) (15 Amp)	4
9	379235	Nameplate	1
	a 1564247	Fuse	1
	a 1514966	Wire Harness	1

FOOTNOTES:**a** Not Illustrated

PUMP CONTACTOR PANEL (FIGURE 2-5)

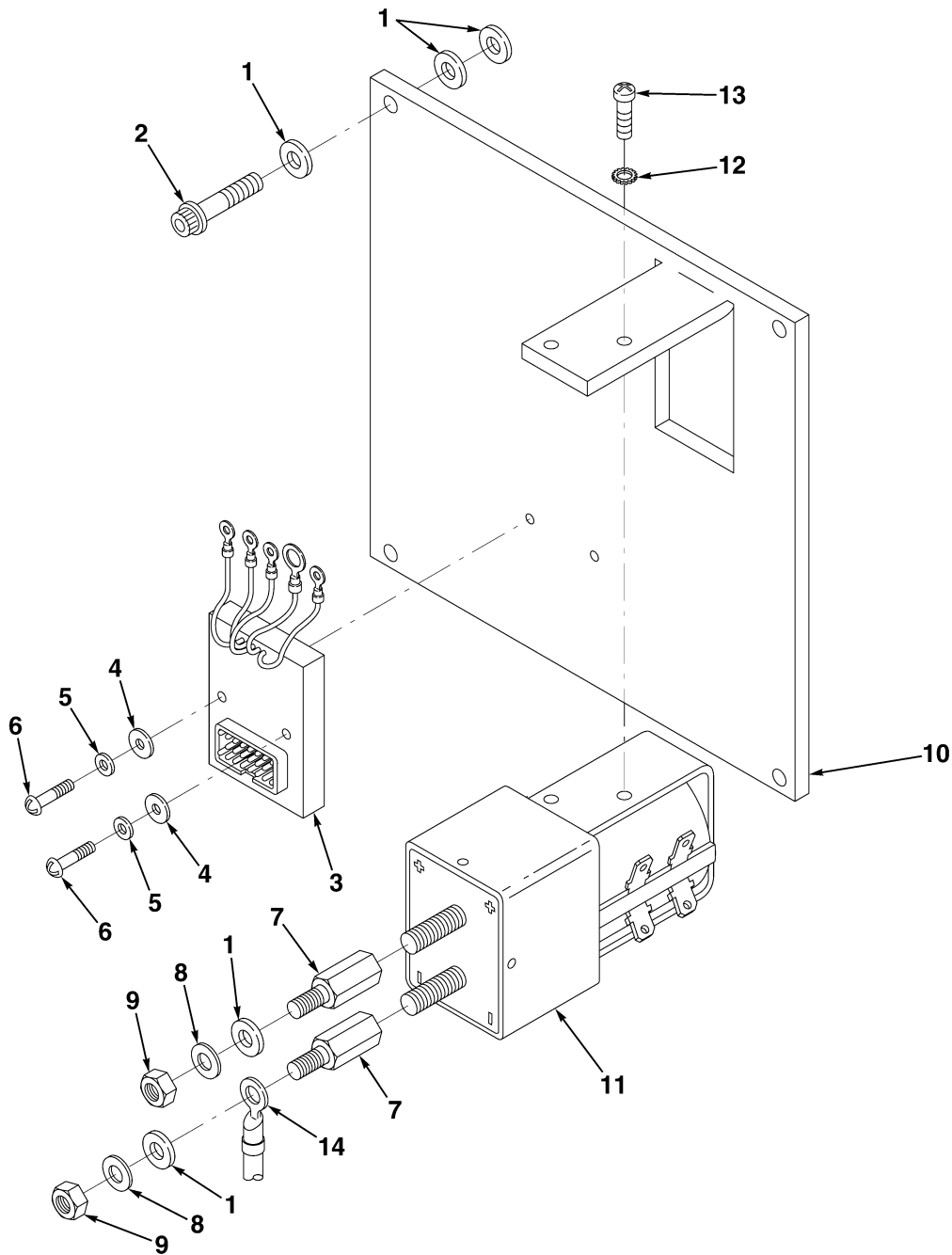


HP081086

PUMP CONTACTOR PANEL

ITEM	PART NO.	DESCRIPTION	QTY
1	1394831	Control Panel	1
2	292681	Lockwasher	4
3	296010	Capscrew	4
4	2038829	Drive Module	1
5	292678	Lockwasher	4
6	320154	Washer	4
7	302026	Screw	2
8	214364	Capscrew	1
9	389193	Fuse Block	1
10	239503	Nut	1
11	325809	Fuse (325 Amp)	1
12	359819	Label (Fuse, 325 Amp)	1

PUMP CONTACTOR PANEL (FIGURE 2-6) "EE" CONSTRUCTION

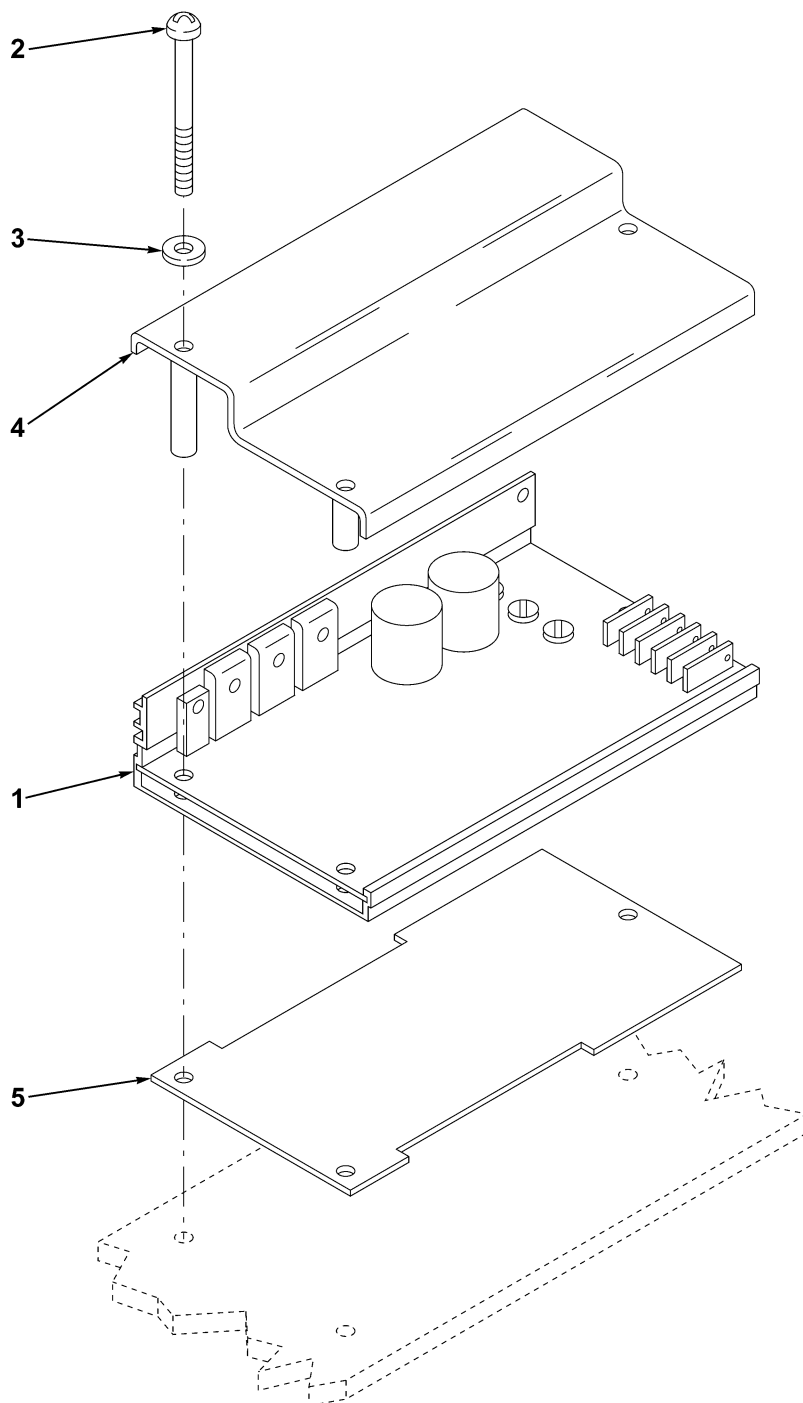


HP081087

**PUMP CONTACTOR PANEL
"EE" CONSTRUCTION**

ITEM	PART NO.	DESCRIPTION	QTY
	2038635	Control Panel (Type EE)	1
1	292681	Lockwasher	6
2	296010	Capscrew	4
3	2038615	Drive Module	1
4	292678	Lockwasher	2
5	320154	Washer	2
6	302026	Screw	2
7	2039032	Stud	2
8	292682	Lockwasher	2
9	239503	Nut	2
10	1474888	Baseplate	1
11	1474889	Contactor	1
12	2304170	Washer	2
13	2303821	Screw	1
14	2039033	Power Cable	1
14	320157	Washer	8

POWER STEERING ASSEMBLY (FIGURE 2-7) WITH ON DEMAND CONTROL

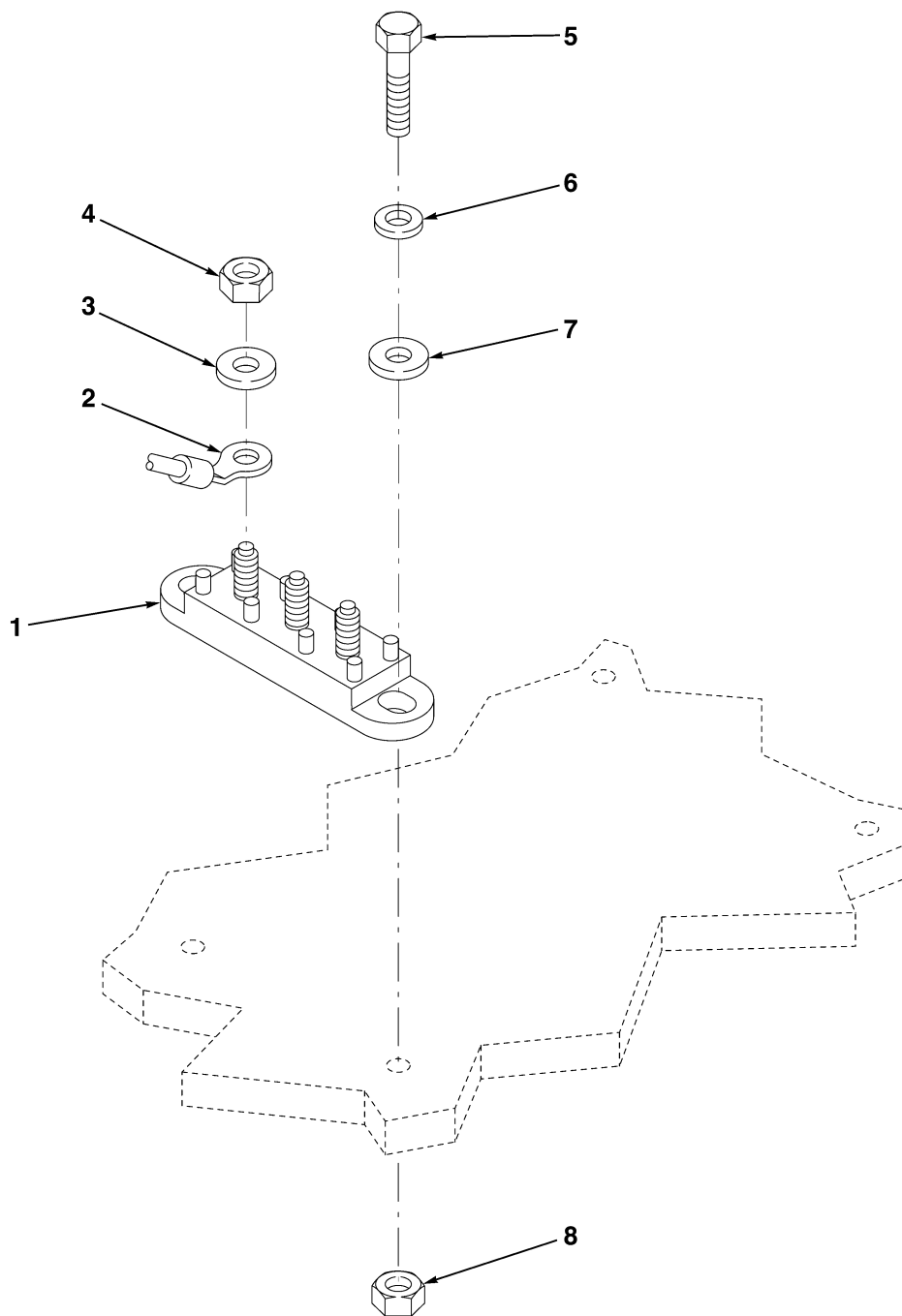


HP081088

**POWER STEERING ASSEMBLY
WITH ON DEMAND CONTROL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1390218	Controller	1
2	302240	Capscrew	3
3	292678	Lockwasher	3
4	1394840	Cover	1
5	1390202	Plate	1

POWER STEERING (FIGURE 2-8) WITHOUT ON DEMAND CONTROL



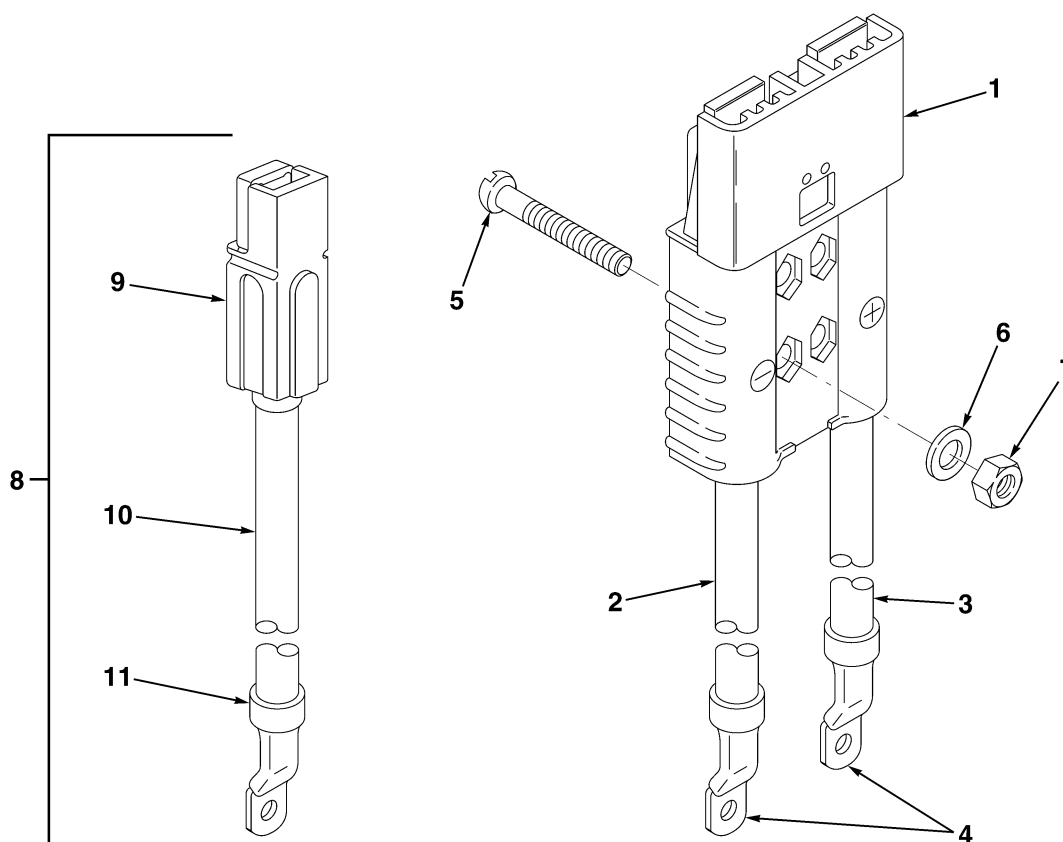
HP081089

**POWER STEERING
WITHOUT ON DEMAND CONTROL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1459846	Terminal Block	1
2	a 1459850	Wire	1
2	b 2059535	Wire	1
3	18423	Lockwasher	3
4	15002	Nut	3
5	302262	Capscrew	2
6	320156	Washer	4
7	292680	Washer	2
8	136687	Nut	2

FOOTNOTES:**a** → 11/2002**b** 11/2002 →

BATTERY CONNECTOR (FIGURE 2-9)



BP080019

ITEM	PART NO.	DESCRIPTION	QTY
	a 2037205	Connector (48 Volt)	1
	b 2037207	Connector (48 Volt)	1
	a 2037204	Connector (36 Volt)	1
	b 2037206	Connector (36 Volt)	1
1	195293	Battery Connector (Gray)	1
2	195296	Battery Connector	1
2	2302912	Cable (-)	1
3	2302912	Cable (+)	1
4	364537	E-Ring	2
5	302052	Screw	2
6	292680	Washer	2
6	320156	Washer	4
7	136687	Nut	2
8	2305197	Battery Connector and Cable (Truck Side)	1
8	2307562	Battery Connector and Cable (Battery Side)	1
9	2309298	Battery Connector	1
10	2302831	Cable	1
11	2310636	Terminal	1
	c 129563	Strap Clamp	1

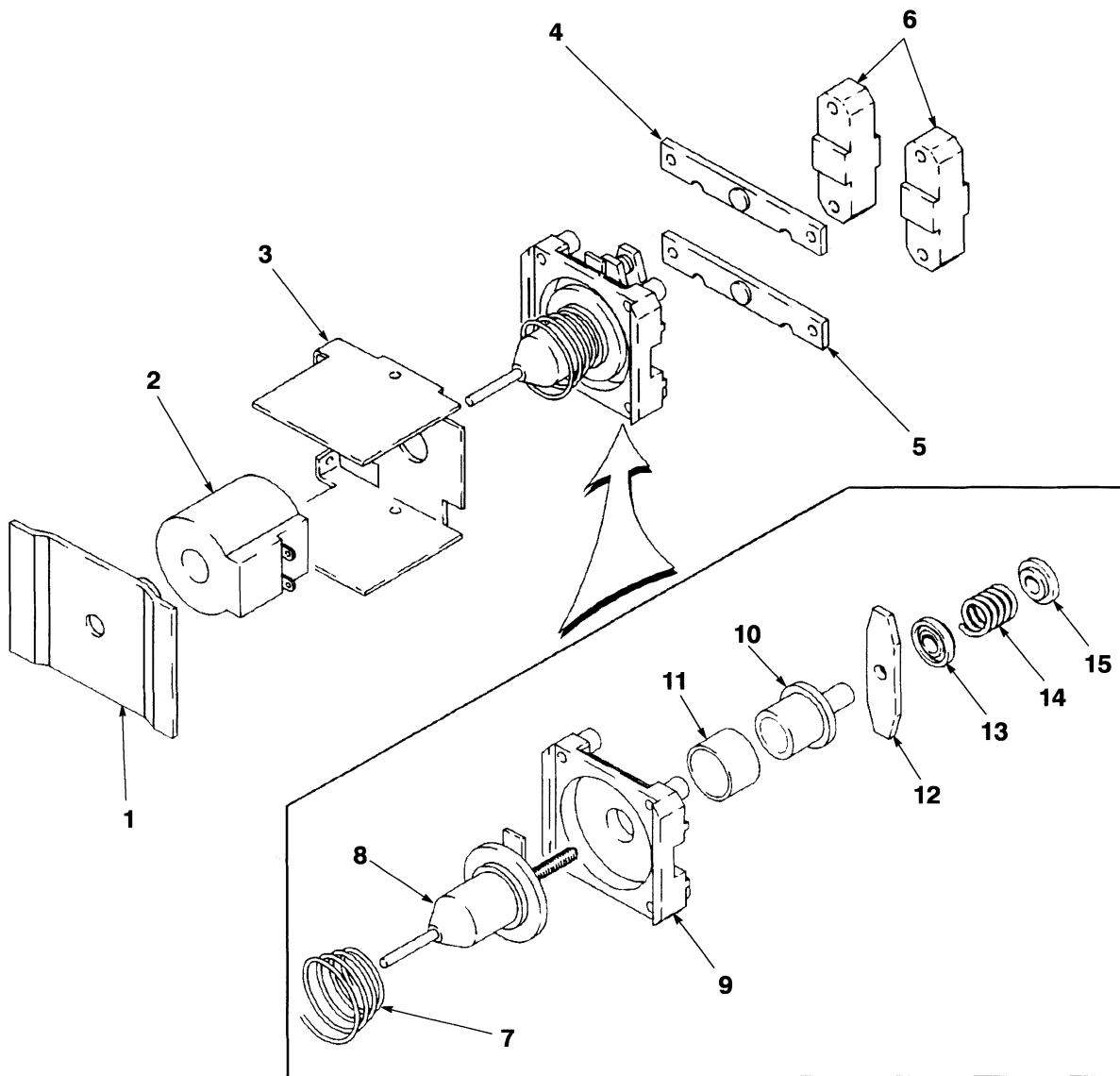
FOOTNOTES:

a 50.8 in. Wheel Base

b 54.5 in. Wheel Base

c Not Illustrated

PUMP CONTACTOR (FIGURE 2-10)

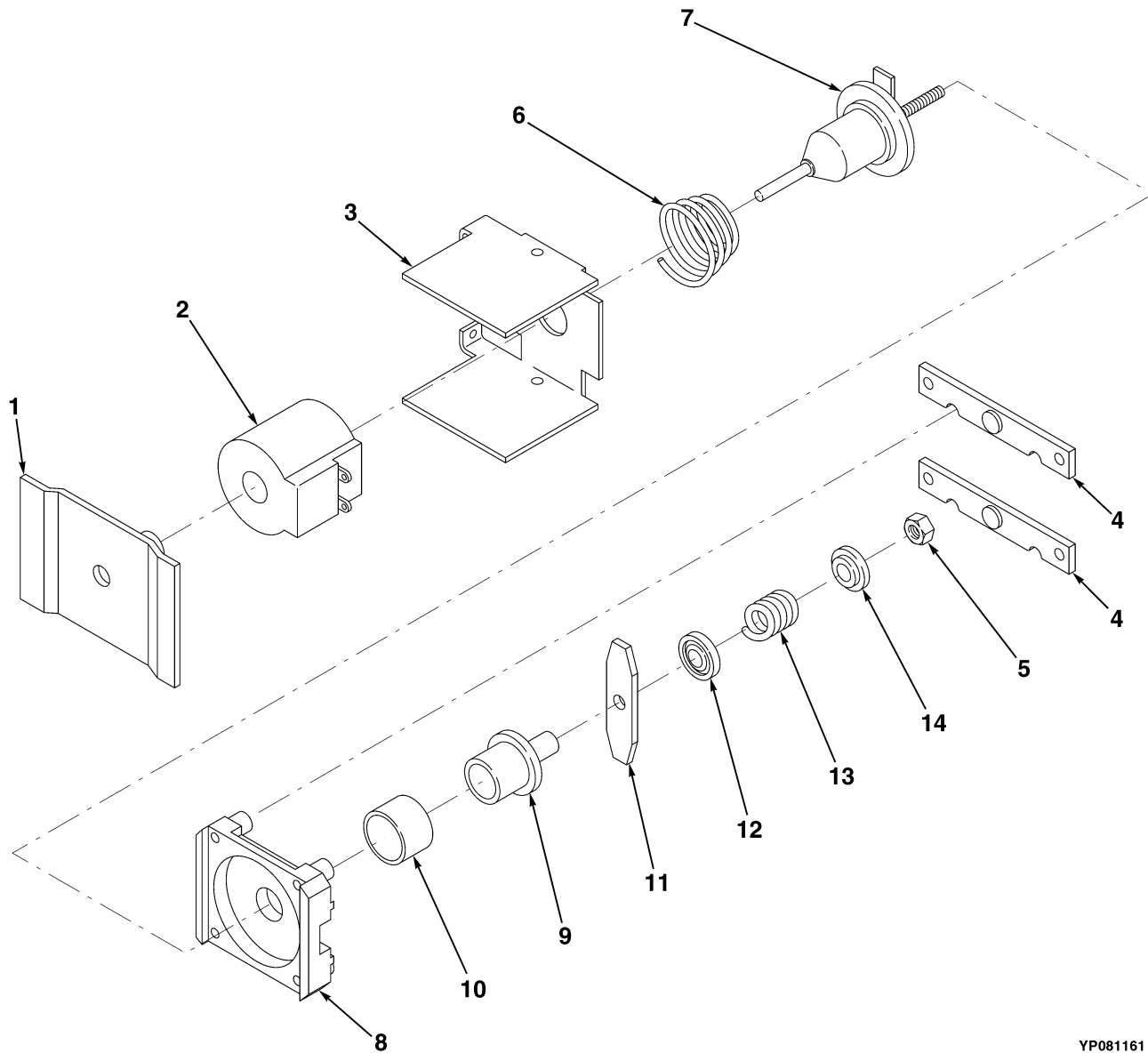


HP081091

PUMP CONTACTOR

ITEM	PART NO.	DESCRIPTION	QTY
	2302058	Contactor	1
1	1300292	Base (Magnet)	1
2	1300276	Coil	1
3	388238	Coil and Frame	1
4	1306706	Contact (Fixed)	1
5	1306705	Contact (Fixed)	1
6	388235	Clamp	2
7	271892	Spring	1
8	388230	Armature	1
9	388234	Base	1
10	388233	Carrier	1
11	388231	Bushing	1
12	1300278	Contact (Moving)	1
13	388232	Spring Seat	1
14	271893	Spring	1
15	274075	Retainer	1

LINE CONTACTOR (FIGURE 2-11)



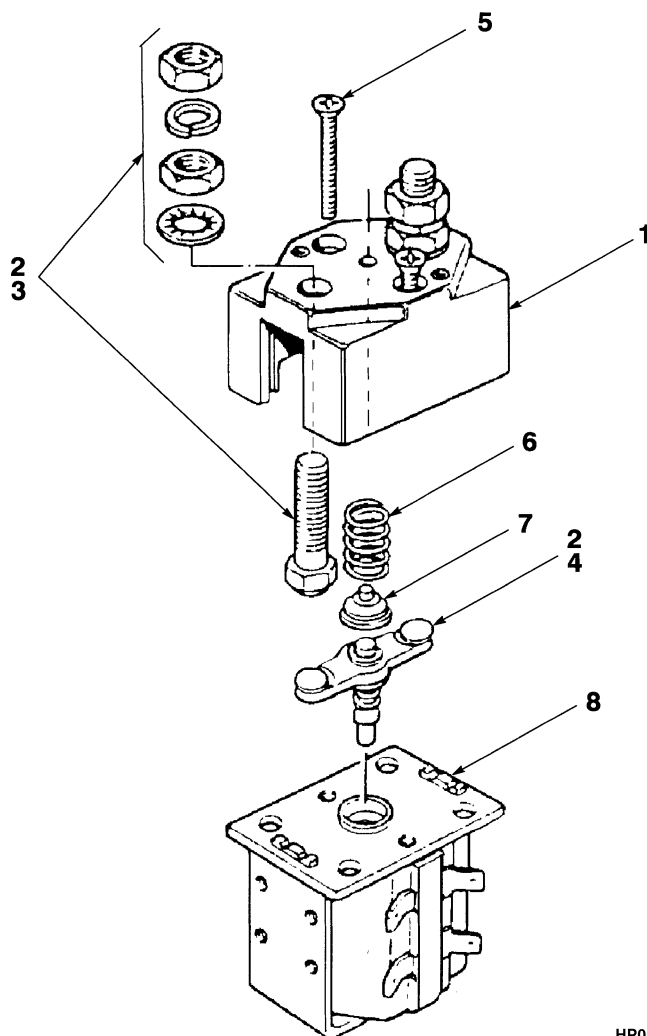
YP081161

LINE CONTACTOR

ITEM	PART NO.	DESCRIPTION	QTY
	1467047	Contact (36/48 Volt)	1
1	1300292	Base (Magnet)	1
2	1467048	Coil	1
3	388238	Coil and Frame	1
4	1300945	Contact (Fixed)	1
5	2308208	Locknut	1
6	271892	Spring	1
7	388230	Armature	1
8	388234	Base	1
9	388233	Carrier	1
10	388231	Bushing	1
11	1300278	Contact (Moving)	1
12	388232	Spring Seat	1
13	271893	Spring	1
14	274075	Retainer	1
	a 388235	Clamp	1

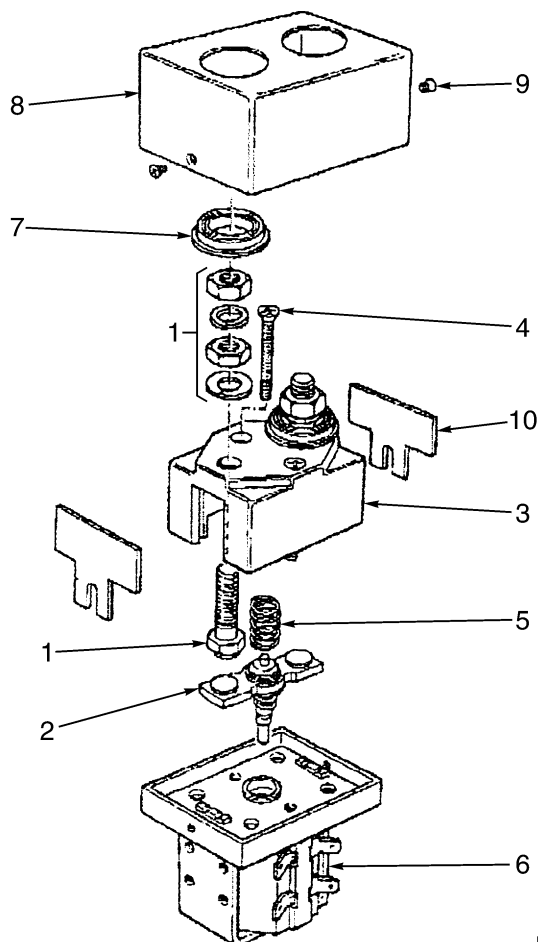
FOOTNOTES:**a** Not Illustrated

POWER STEERING CONTACTOR (FIGURE 2-12)



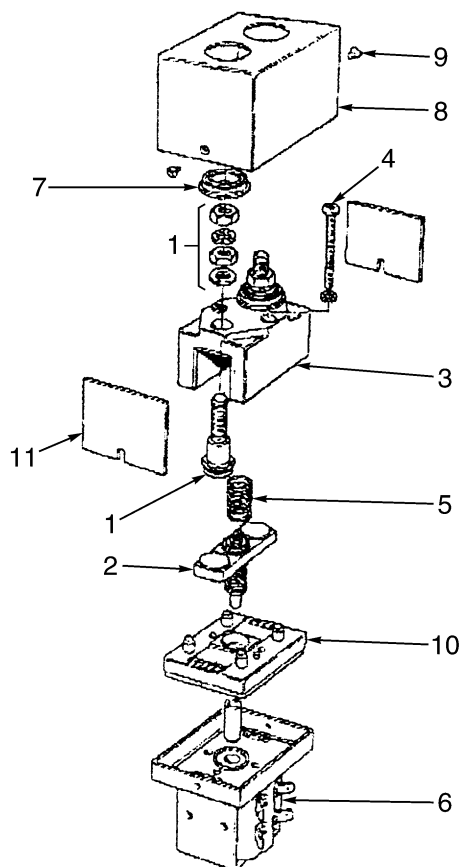
HP081093

ITEM	PART NO.	DESCRIPTION	QTY
	1330938	Contact (Figure 2-1, Figure 2-2).....	1
1	384398	Cover (Top) (Top)	1
2	1345908	Kit-Contact	1
3	378547	Contact (Fixed)	1
4	383984	Contact (Moving)	1
5	379522	Screw	2
6	1345909	Return Spring	1
7	379524	Insulator	1
8	1335620	Coil and Frame	1

POWER STEERING CONTACTOR (FIGURE 2-13)
EE MODELS (12/2000 →)

HP081094

ITEM	PART NO.	DESCRIPTION	QTY
	1476578	Contactor	1
1	378547	Contact (Fixed)	2
2	383984	Contact (Moving)	1
2	1495696	Contact	1
3	384398	Cover (Top) (Top)	1
4	2304652	Screw	2
5	1495697	Return Spring	2
6	1495698	Coil and Frame	1
7	2311972	Insulator	2
8	2310577	Shroud (Upper)	1
9	379522	Screw	2
10	2307023	Shield	2

POWER STEERING CONTACTOR (FIGURE 2-14)
EE MODELS

HP081095

ITEM	PART NO.	DESCRIPTION	QTY
	a 1474889	Contactor	1
	b 1476577	Contactor	1
1	2034484	Contact (Fixed)	2
2	2035396	Contact (Moving)	1
3	383978	Cover (Top)	1
4	383977	Screw	2
5	1495699	Spring	1
5	b 1495701	Return Spring	1
6	1495700	Magnet	1
6	b 1495702	Magnet	1
7	2305096	Insulator	2
8	2302583	Shroud	1
9	2304652	Screw	2
10	383981	Base	1
11	1456865	Shield	2
	c 2034488	End Cap	1

FOOTNOTES:

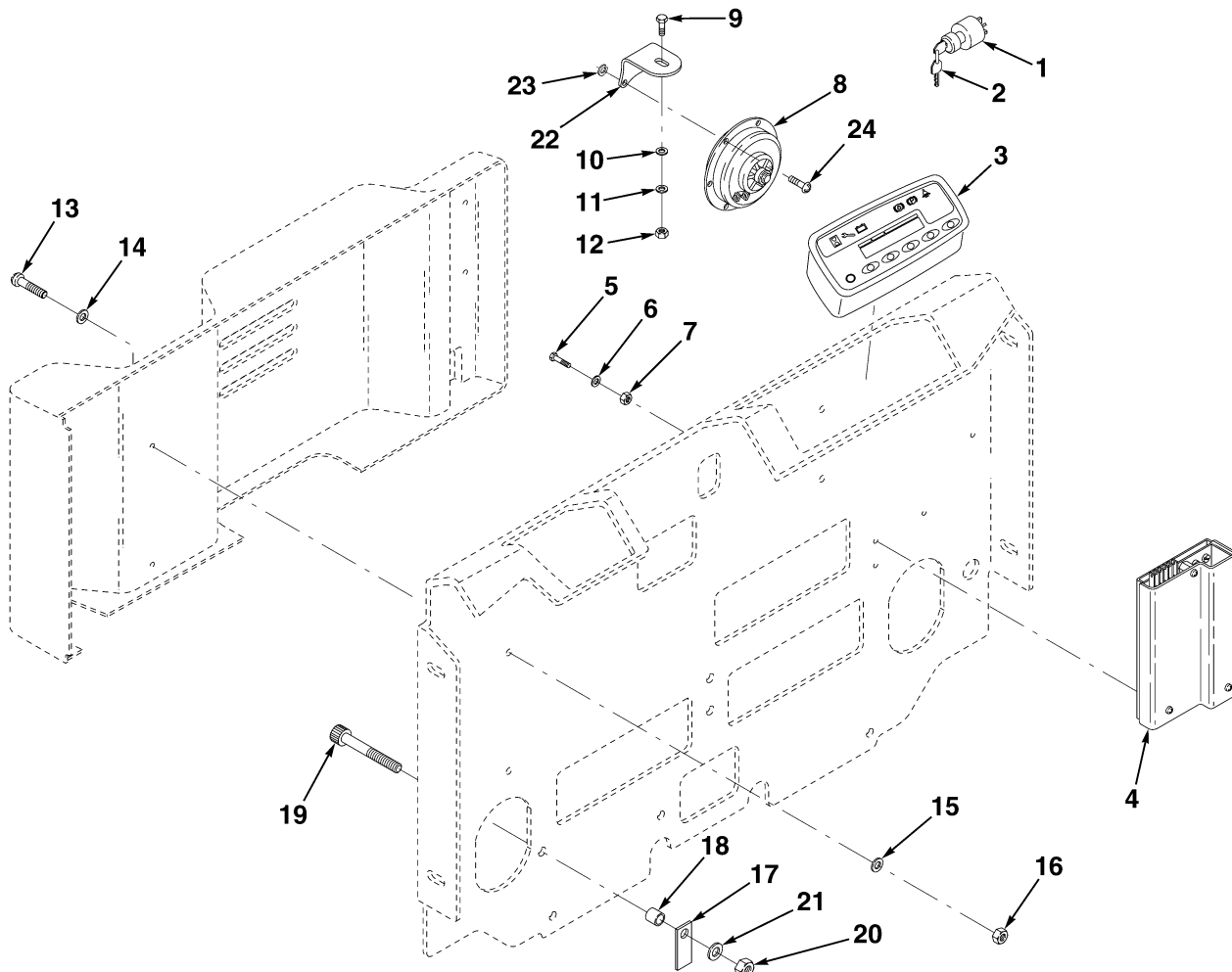
a 1 Speed Hydraulic Contactor Panel
b Line Contactor Panel

c Not Illustrated

NOTES

[illegible]

DASH DISPLAY (FIGURE 2-15)



HP081217

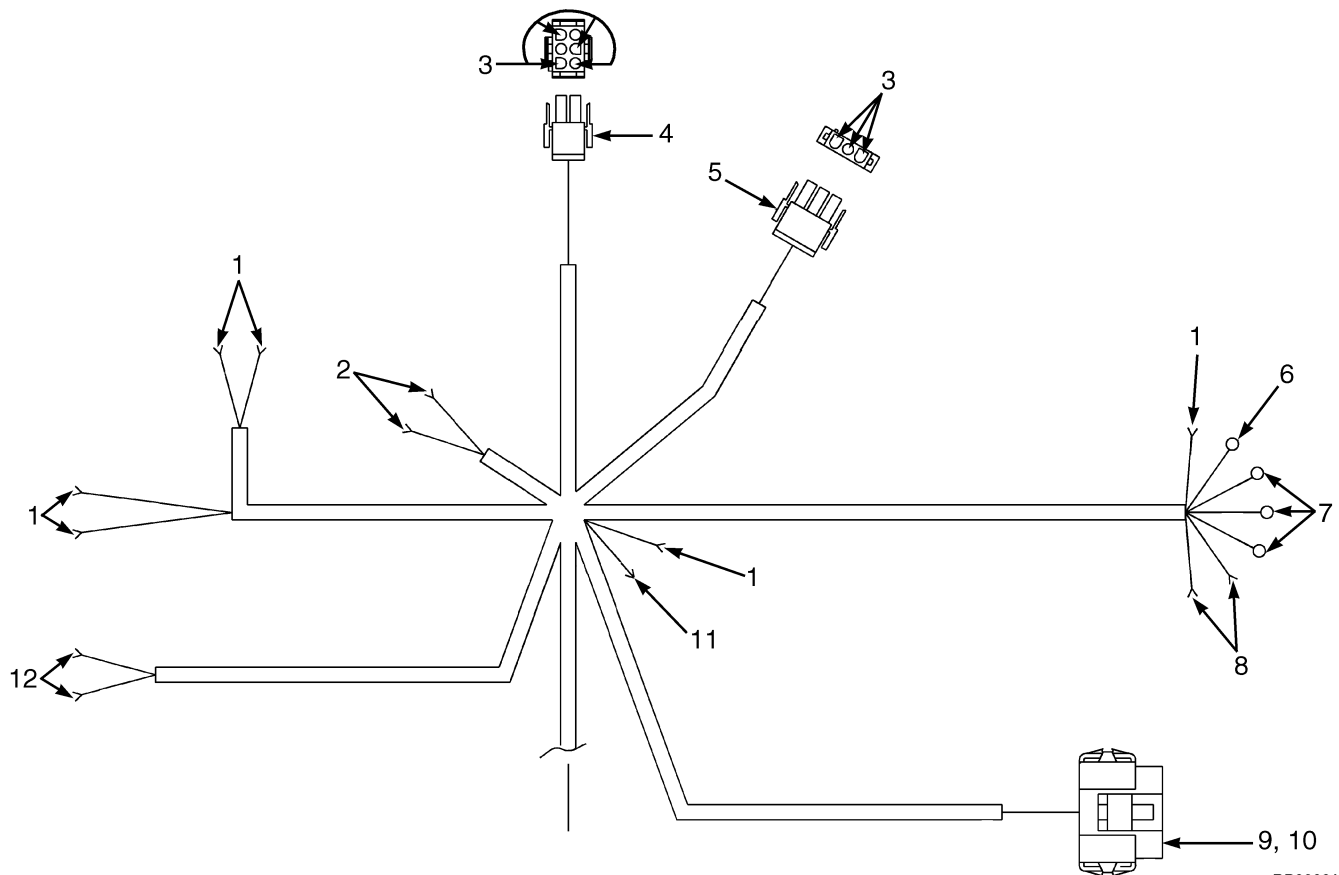
DASH DISPLAY

ITEM	PART NO.	DESCRIPTION	QTY
1	379902	Ignition Switch	1
2	186304	Key	1
3	1460400	Dash Display (Without Function Keys)	1
3	1482558	Dash Display (With Function Keys)	1
4		Control Assembly (Power Steering On-Demand) (☞Figure 2-7).....	1
5	302047	Screw	4
6	320156	Washer	6
7	136687	Nut	6
8	a 1360566	Horn (36 Volt Mechanical)	1
8	a 1360568	Horn (48 Volt Mechanical)	1
9	136749	Screw	1
10	292681	Lockwasher	1
11	320157	Washer	1
12	239503	Nut	1
13		Dataplate	1
14	302048	Screw	2
15	222085	Washer	2
16	320156	Washer	6
17	136687	Nut	6
18	2038413	Plate	1
19	2038414	Sleeve	1
20	296050	Capscrew	1
21	216877	Nut	1
22	292683	Lockwasher	1
23		Bracket	1
24	292680	Washer	2
25	292501	Capscrew	2
27	c 1484267	Horn (Electric)	1
27	b 2046874	Bracket	1

FOOTNOTES:**a** → S/N H160N02769Y**c** S/N H160N02770Y →**b** S/N H160N02270Y →

WIRE HARNESS (FIGURE 2-16)

MAIN — SHEET 1 OF 2 (→ S/N H160N02761Y)



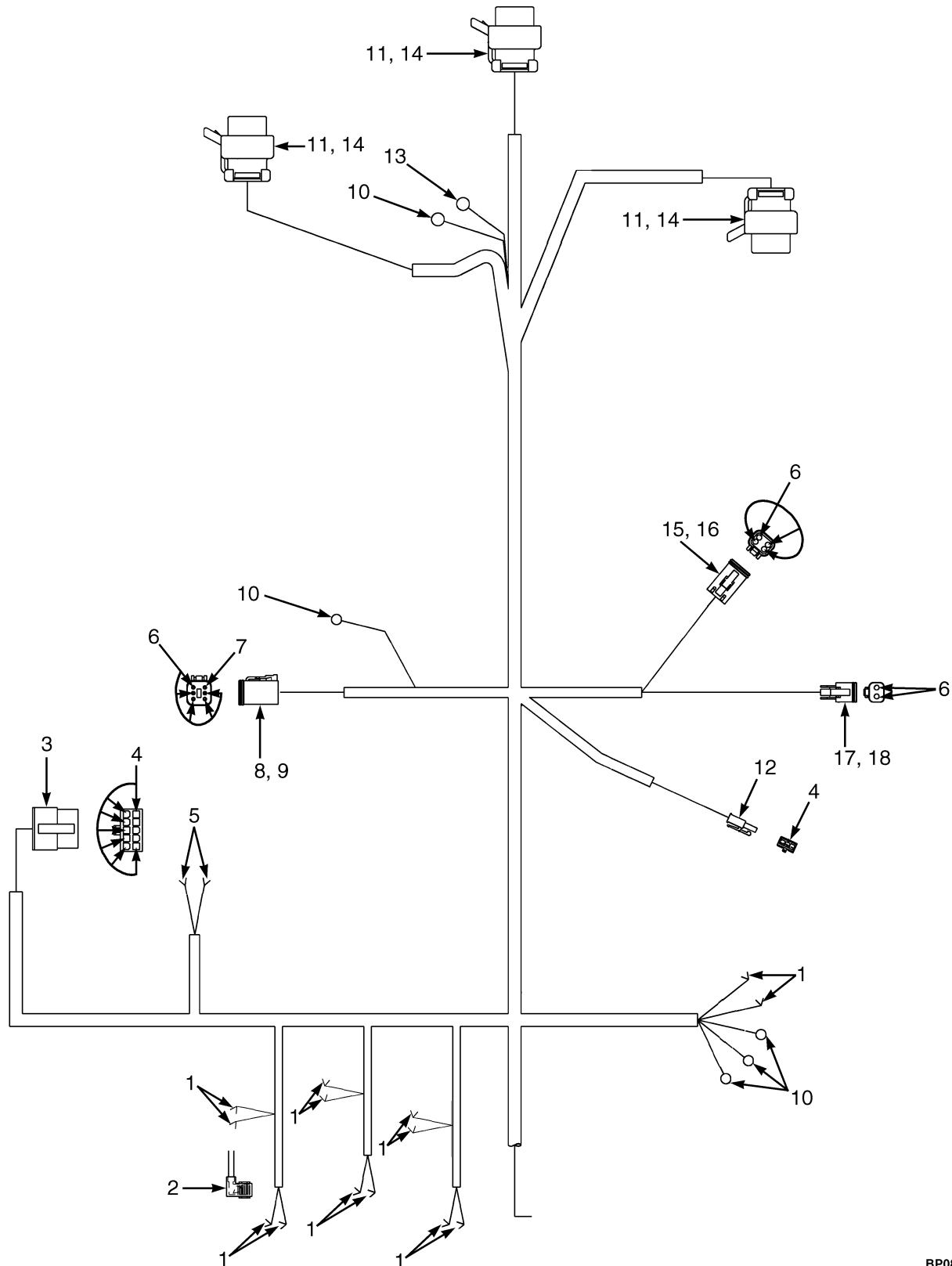
BP080311

ITEM	PART NO.	DESCRIPTION	QTY
	1462884	Wire Harness (Main)	1
1	1306270	Terminal	6
2	248196	Terminal	2
3	381413	Contact	7
4	2310523	Plug	1
5	2308915	Plug	1
6	1301783	Ring Terminal	1
7	148610	E-Ring	3
8	2062873	Fitting	2
9	1340958	Terminal	13
10	1340785	Connector Body	1
11	1306271	Terminal	1
12	2037545	Terminal	2

NOTES

[illegible]

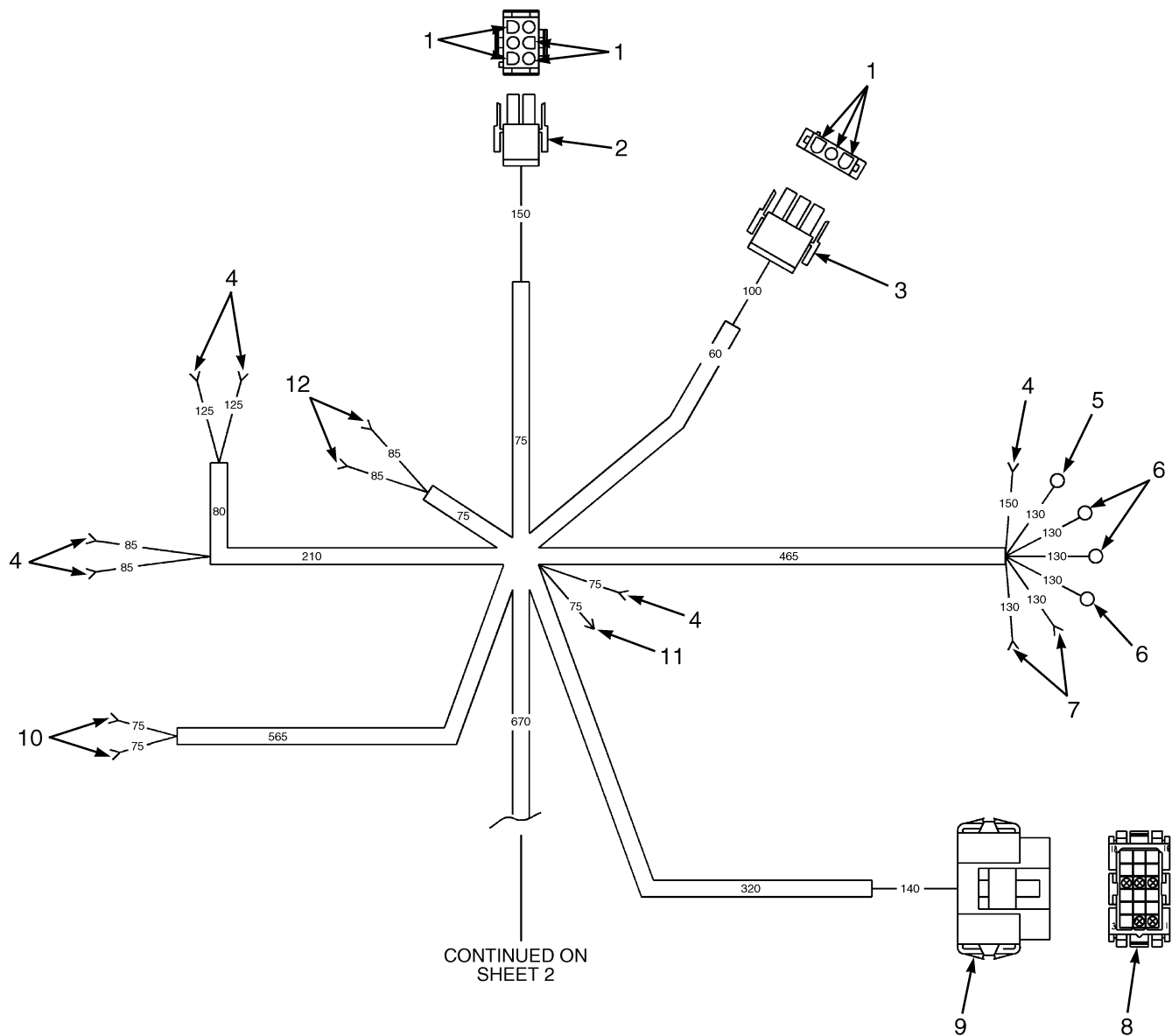
WIRE HARNESS (FIGURE 2-17)
MAIN — SHEET 2 OF 2 (→ S/N H160N02761Y)



BP080312

WIRE HARNESS
MAIN – SHEET 2 OF 2 (→ S/N H160N02761Y)

ITEM	PART NO.	DESCRIPTION	QTY
	1462884	Wire Harness (Main)	1
1	1350904	Terminal	14
2	1480409	Insulator	14
3	2303758	Socket	1
4	2309579	Socket	10
5	2037545	Terminal	2
6	1330438	Terminal (Socket)	11
7	1330439	Plug	1
8	1330422	Connector	1
9	1330428	Connector	1
10	148611	E-Ring	5
11	2035275	Connector	3
12	2037544	Receptacle	1
13	206028	E-Ring	1
14	2035276	Connector	56
15	1330421	Connector	1

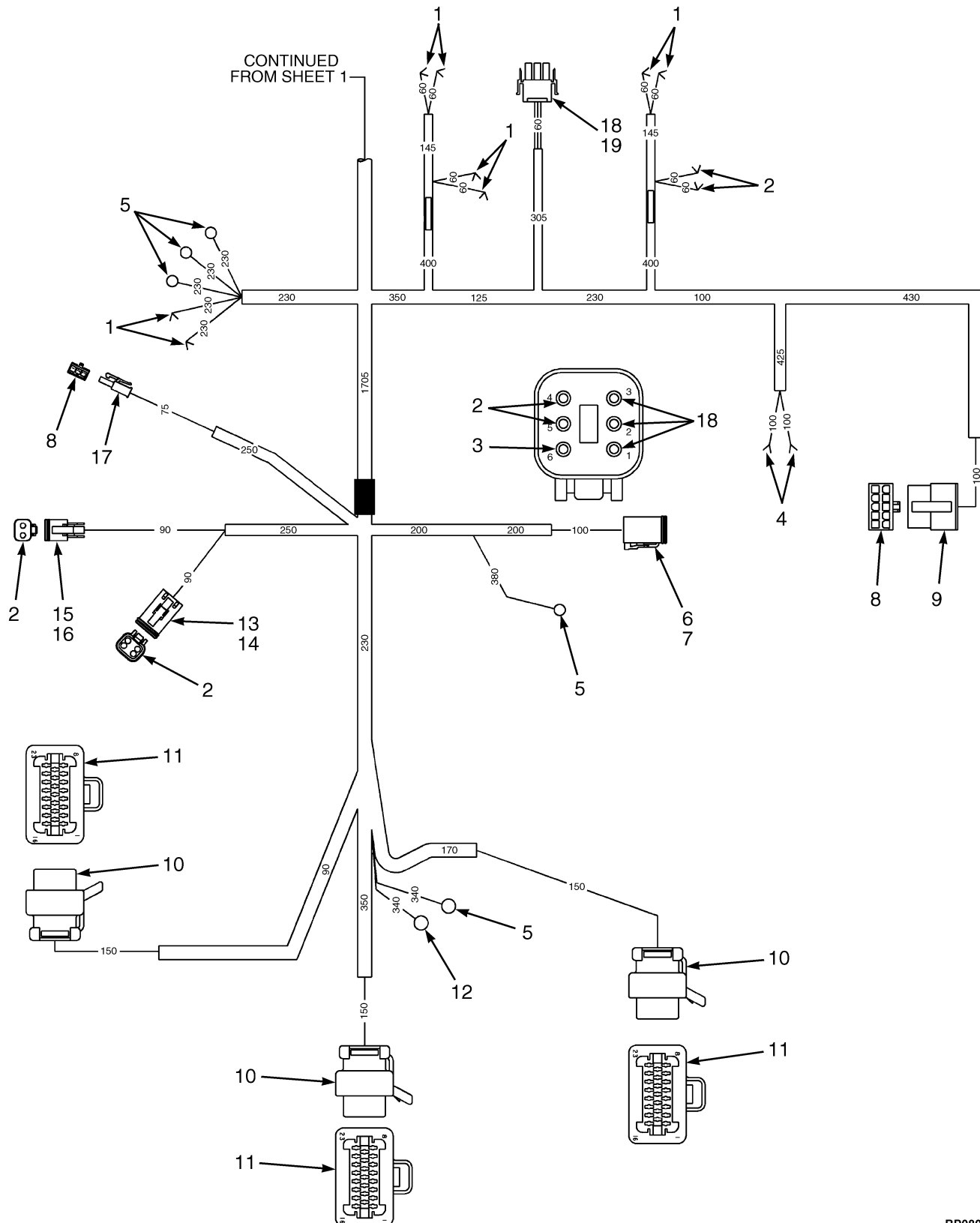
WIRE HARNESS (FIGURE 2-18)
MAIN — SHEET 1 OF 2 (S/N H160N02762Y →)

bp080178

WIRE HARNESS
MAIN – SHEET 1 OF 2 (S/N H160N02762Y →)

ITEM	PART NO.	DESCRIPTION	QTY
	1503460	Wire Harness (Main)	1
1	381413	Contact	7
2	2310523	Plug	1
3	2308915	Plug	1
4	1306270	Terminal	6
5	1301783	Ring Terminal	1
6	148610	E-Ring	3
7	2062873	Fitting	2
8	1340958	Terminal	13
9	1340785	Connector Body	1
10	2037545	Terminal	2
11	1306271	Terminal	1
12	248196	Terminal	2

WIRE HARNESS (FIGURE 2-19) MAIN — SHEET 2 OF 2 (S/N H160N02762Y →)



BP080179

WIRE HARNESS
MAIN – SHEET 2 OF 2 (S/N H160N02762Y →)

ITEM	PART NO.	DESCRIPTION	QTY
	1503460	Wire Harness (Main)	1
1	1350904	Terminal	10
2	1330438	Terminal (Socket)	11
3	1330439	Plug	1
4	2037545	Terminal	2
5	148611	E-Ring	5
6	1330422	Connector	1
7	1330428	Connector	1
8	2309579	Socket	10
9	2303758	Socket	1
10	2035275	Connector	3
11	2035276	Connector	55
12	206028	E-Ring	1
13	1330421	Connector	1
14	1330427	Connector	1
15	1330419	Connector	1
16	1330424	Connector	1
17	2037544	Receptacle	1
18	381413	Contact	3
19	2308915	Plug	1

[illegible]

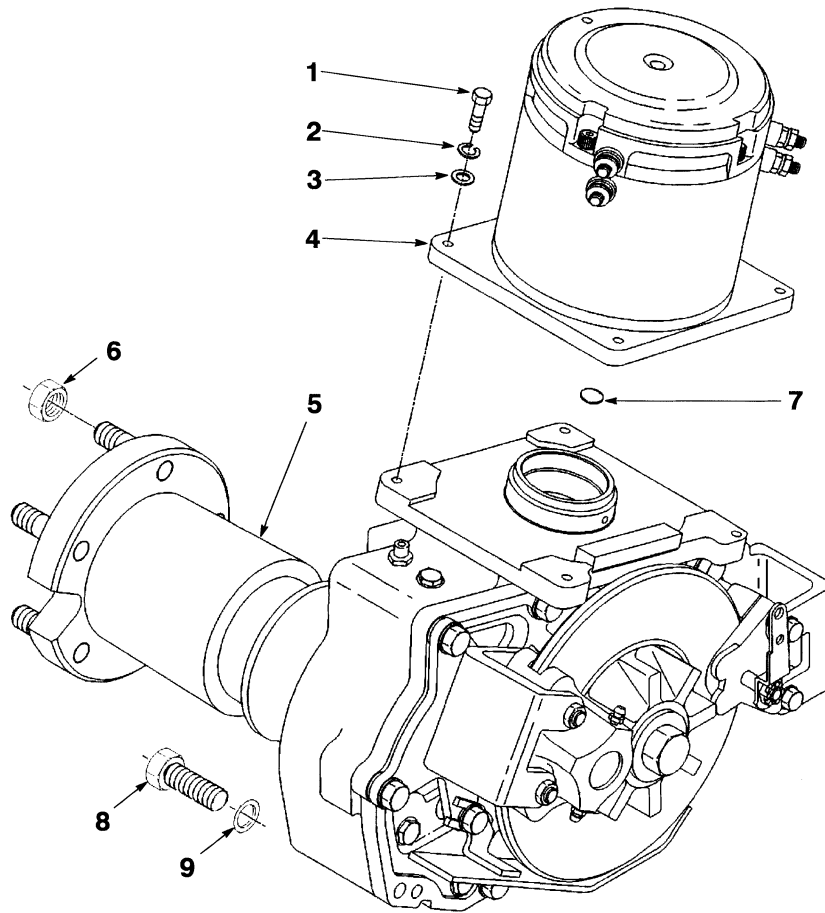
3

DRIVE UNIT

**SECTION 3
DRIVE UNIT**

DESCRIPTION	PAGE
DRIVE TIRE AND WHEEL ASSEMBLY	
PNEUMATIC	3-15
SOLID CUSHION	3-16
SUPER CUSHION - J30XMT2/J35XMT2	3-17
SUPER CUSHION - J40XMT2	3-18
MASTER DRIVE UNIT	3-2
MOUNTING, TIRES, AND WHEELS	3-14
TRACTION MOTOR	
S/N H160N02438 →	3-12
PREMIUM (→ S/N H160N02437)	3-10
STANDARD (→ S/N H160N02437)	3-8
TRANSMISSION	3-4

MASTER DRIVE UNIT (FIGURE 3-1)



HP160101

KEY:

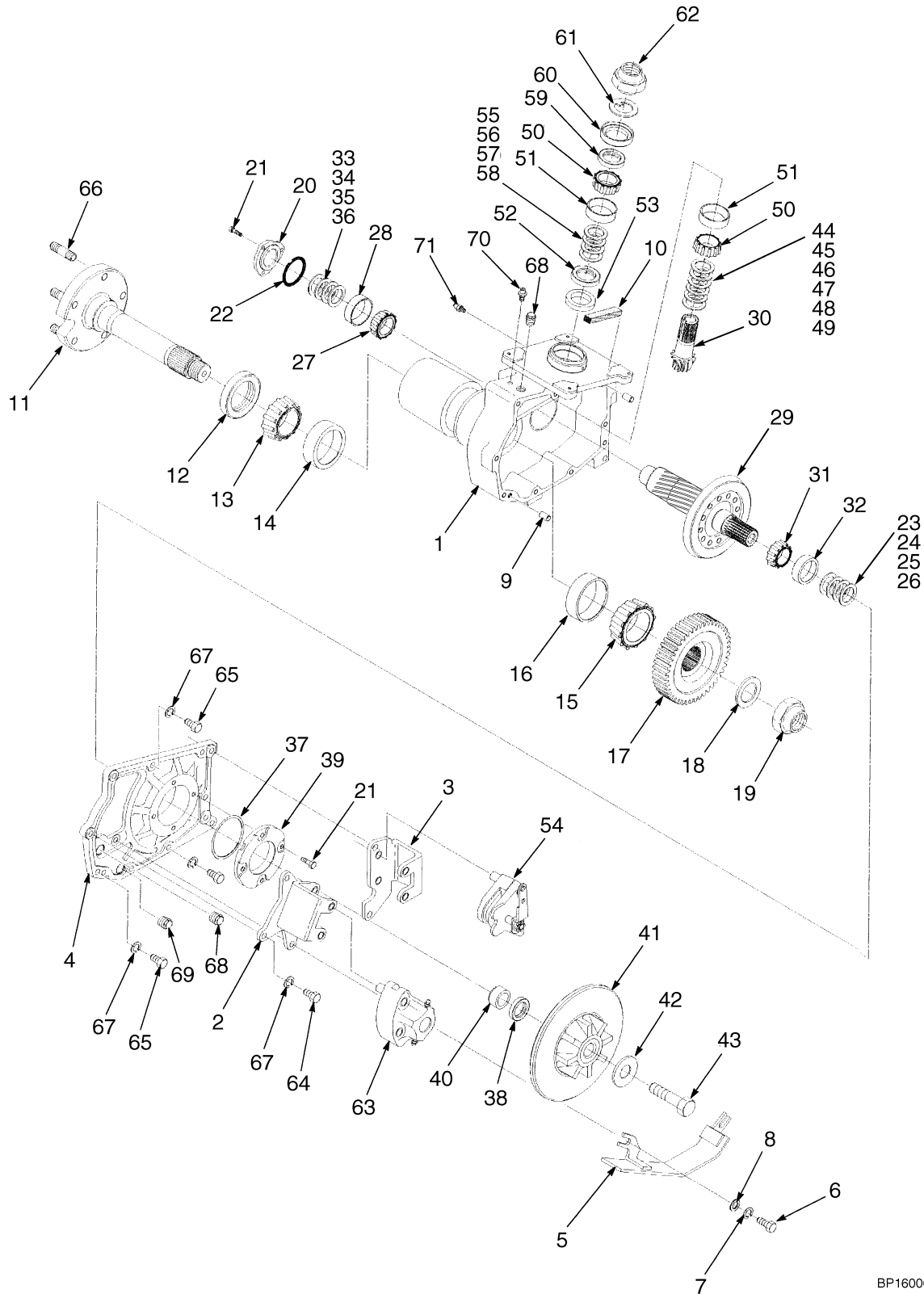
- A: Right Hand Drive Unit without BWI
- B: Right Hand Drive Unit with BWI
- C: Left Hand Drive Unit without BWI
- D: Left Hand Drive Unit with BWI

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	287860	Capscrew	4	4	4	4
2	292682	Lockwasher	4	4	4	4
3	320159	Washer	4	4	4	4
4	2044165	Traction Motor (Standard Without BWI) (Premium) (☞ Figure 3-4).....	..	1	..	1
4	2040810	Traction Motor (With BWI) (Standard) (☞ Figure 3-3).....	1	..	1	..
5	1480491	Transaxle (RH) (☞ Figure 3-2).....	1	1	..	..
5	1480490	Transaxle (LH) (☞ Figure 3-2).....	..	..	1	1
6	302977	Wheel Nut	5	5	5	5
7	39349	O-Ring	1	1	1	1
8	293688	Capscrew	5	5	5	5
9	296426	Washer	5	5	5	5

NOTES

[illegible]

TRANSMISSION (FIGURE 3-2)



BP160001

TRANSMISSION

ITEM	PART NO.	DESCRIPTION	QTY
	1480490	Transaxle (LH)	1
	1480491	Transaxle (RH)	1
1	1383730	Case (LH)	1
1	1383731	Case (RH)	1
1	1381105	Housing (LH)	1
1	1381111	Housing (RH)	1
2	1385093	Bracket (LH)	1
2	1385095	Bracket (RH)	1
3	1385094	Bracket (LH)	1
3	1385096	Bracket (RH)	1
4	1381106	Cover (LH)	1
4	1381112	Cover (RH)	1
5	1382591	Shield (LH)	1
5	1382592	Shield (RH)	1
6	293628	Capscrew	2
7	292682	Lockwasher	11
8	320159	Washer	2
9	302385	Dowel	2
10	178901	Tape	AR
11	1521438	Drive Shaft	1
12	34820	Seal	1
13	167971	Bearing Cone	1
14	167970	Bearing Cup	1
15	361676	Bearing Cone	1
16	361675	Bearing Cup	1
17	1521437	Gear	1
18	2021914	Washer	1
19	304406	Nut	1
20	1382502	Bearing Cap	1
21	293614	Capscrew	7
22	39366	O-Ring	1
23	1382517	Shim (0.005 in.)	AR
24	1382518	Shim (0.007 in.)	AR
25	1382519	Shim (0.011 in.)	AR
26	1382520	Shim (0.020 in.)	AR
27	1375440	Bearing Cone	1
28	1374899	Bearing Cup	1
29	1503547	Gear and Pinion	1
29	1503546	Shaft (With Bevel Gear)	1
30	1381108	Pinion	1
31	153835	Bearing Cone	1
32	153834	Bearing Cup	1
33	1382521	Shim (0.005 in.)	AR
34	1382522	Shim (0.007 in.)	AR
35	1382523	Shim (0.011 in.)	AR
36	1382524	Shim (0.020 in.)	AR
37	39369	O-Ring	1
38	1382595	Oil Seal	1
39	1381122	Bearing Cap	1
40	1382594	Wear Sleeve	1
41	1381104	Brake Disk (Brake Disc)	1

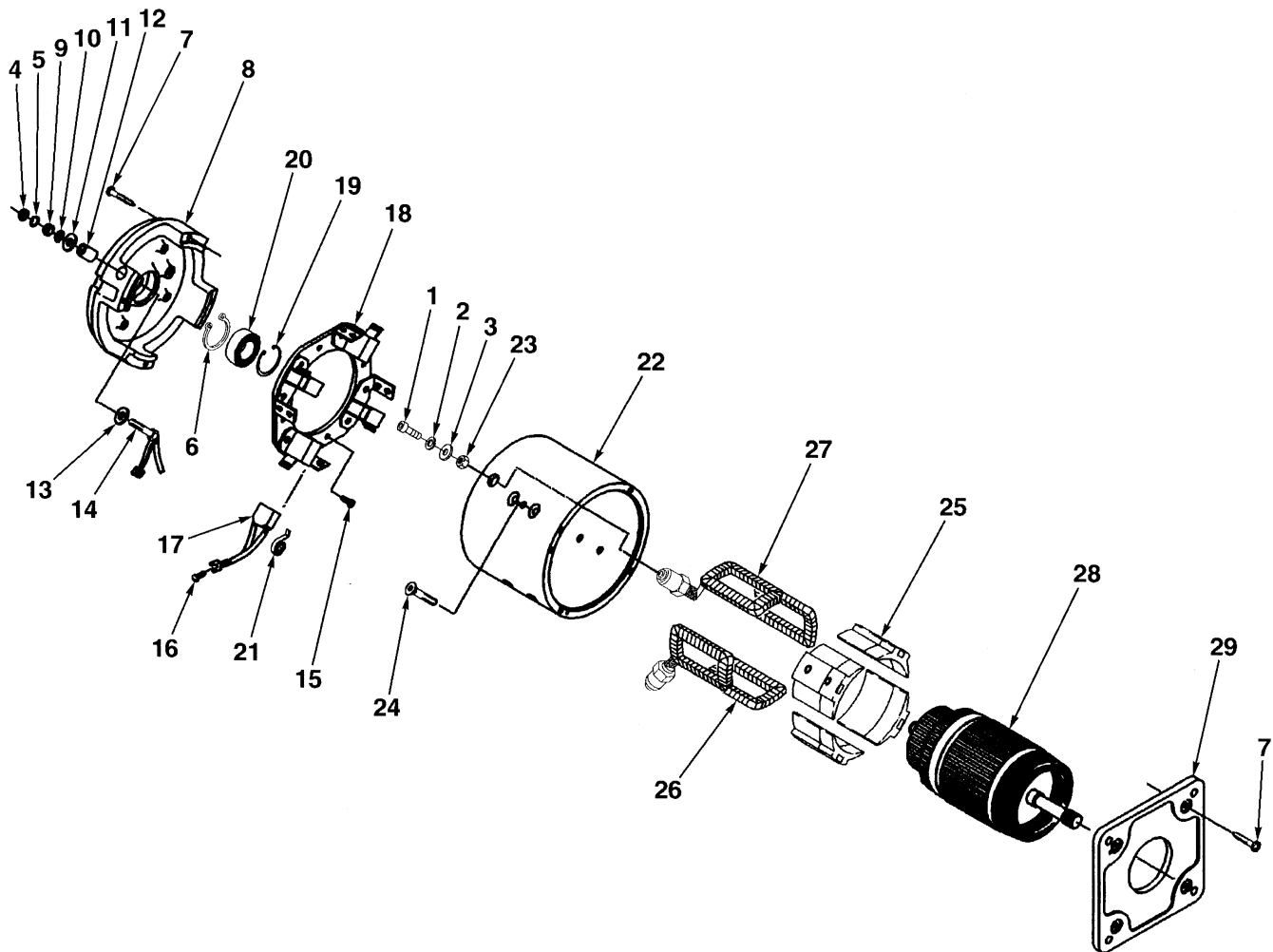
TRANSMISSION

ITEM	PART NO.	DESCRIPTION	QTY
42	182907	Spacer	1
43	293651	Capscrew	1
44	1382507	Shim (0.017 in.)	AR
45	1382508	Shim (0.018 in.)	AR
46	1382509	Shim (0.020 in.)	AR
47	1382510	Shim (0.022 in.)	AR
48	1382511	Shim (0.024 in.)	AR
49	1382512	Shim (0.025 in.)	AR
50	1382506	Bearing Cone	2
51	135658	Bearing Cup	2
52	1382504	Oil Seal	1
53	1381124	Spacer	1
54	2302735	Brake Disk (Park Brake)	1
55	1382513	Shim (0.005 in.)	AR
56	1382514	Shim (0.007 in.)	AR
57	1382515	Shim (0.011 in.)	AR
58	1382516	Shim (0.020 in.)	AR
59	156205	Seal	1
60	1381123	Spacer	1
61	1381119	Washer	1
62	1381120	Nut	1
63	1516092	Kit-Brake (Service Brake)	1
64	293633	Capscrew	4
65	293631	Capscrew	5
66	2310841	Wheel Stud	5
67	292682	Lockwasher	11
68	21420	Breather	1
69	15290	Fitting	1
70	14387	Fitting	2
71	16041	Grease Fitting	1
	264134	Loctite	AR
	264159	Adhesive	AR
	251099	Loctite	AR

NOTES

[illegible]

TRACTION MOTOR (FIGURE 3-3) STANDARD (→ S/N H160N02437)

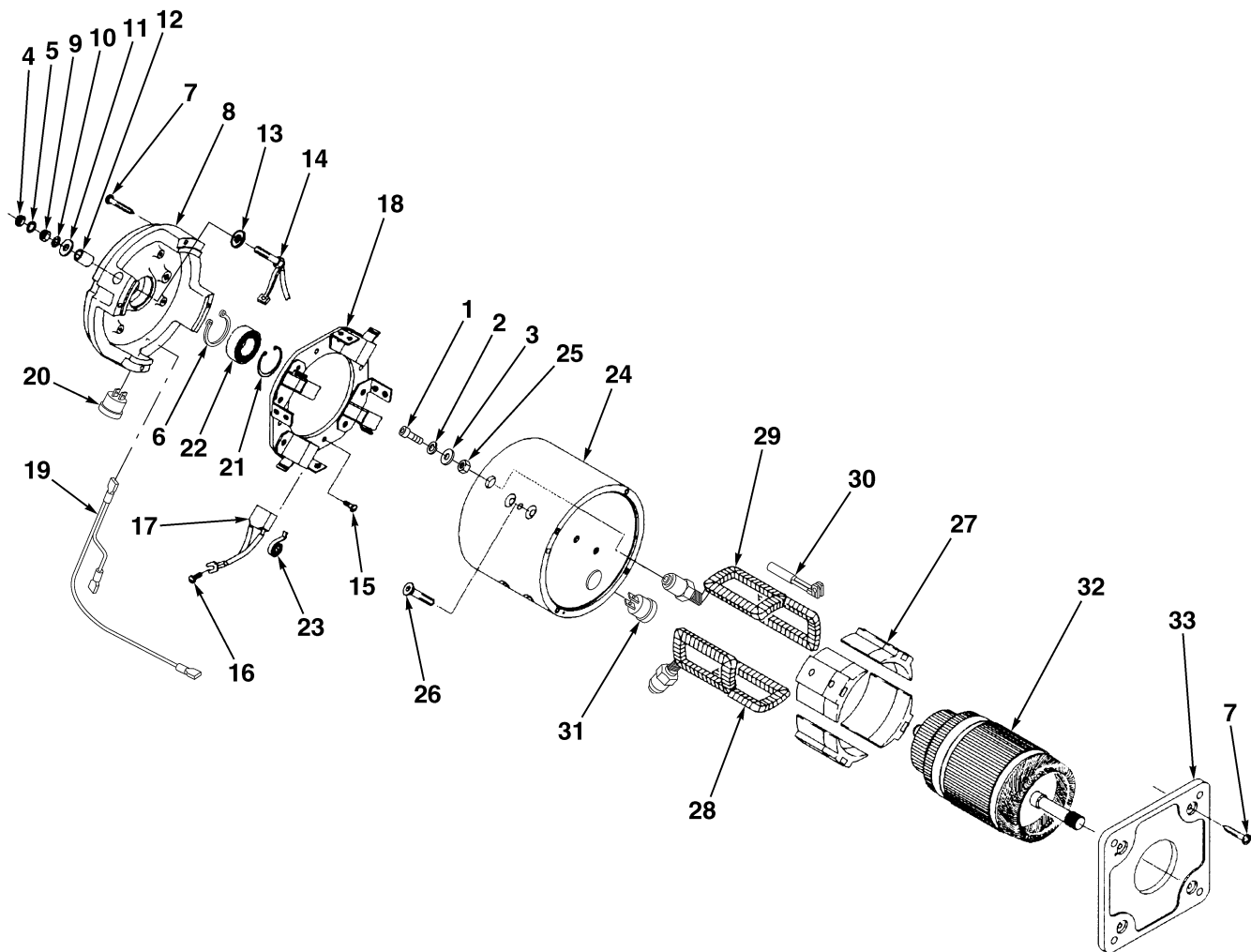


HP160103

TRACTION MOTOR
STANDARD (→ S/N H160N02437)

ITEM	PART NO.	DESCRIPTION	QTY
	2034971	Traction Motor (Without BWI)	1
1	287851	Capscrew	2
2	2033800	Lockwasher	2
3	2035576	Washer	2
4	2309525	Nut	2
5	2311684	Lockwasher	2
6	1385089	Retaining Ring	1
7	2306090	Screw	8
8	1385091	End Head	1
8	2308141	End Head	1
9	2309525	Nut	2
10	15905	Lockwasher	2
11	2307351	Washer	2
12	2302673	Insulator	2
13	2302290	Insulator	2
14	2310512	Terminal	2
15	2309528	Screw	4
16	2311308	Screw	8
17	2307052	Brush	4
17	2308510	Kit-Brush	1
18	2307969	Brush Holder	1
19	2304615	Snap Ring	1
20	2311415	Ball Bearing	1
21	2308954	Brush Spring	4
22	2036900	Housing	1
23	1326871	Nut	2
24	17151	Capscrew	8
25	2034176	Pole Shoe	4
26	2036132	Field Coil	1
26	1385079	Screw	1
26	2035280	Field Coil	1
26	1326870	Insert	1
27	2036133	Field Coil	1
27	1385079	Screw	1
27	2035281	Field Coil	1
27	1326870	Insert	1
28	2034120	Armature	1
28	2034121	Shaft	1
28	32415	Woodruff Key (Woodruff)	1
28	2310529	Washer	1
29	2310338	End Head	1
	2308510	Kit-Brush	1
	2034670	Kit-Field Coil	1
	2035730	Kit-Field Coil	1

TRACTION MOTOR (FIGURE 3-4) PREMIUM (→ S/N H160N02437)



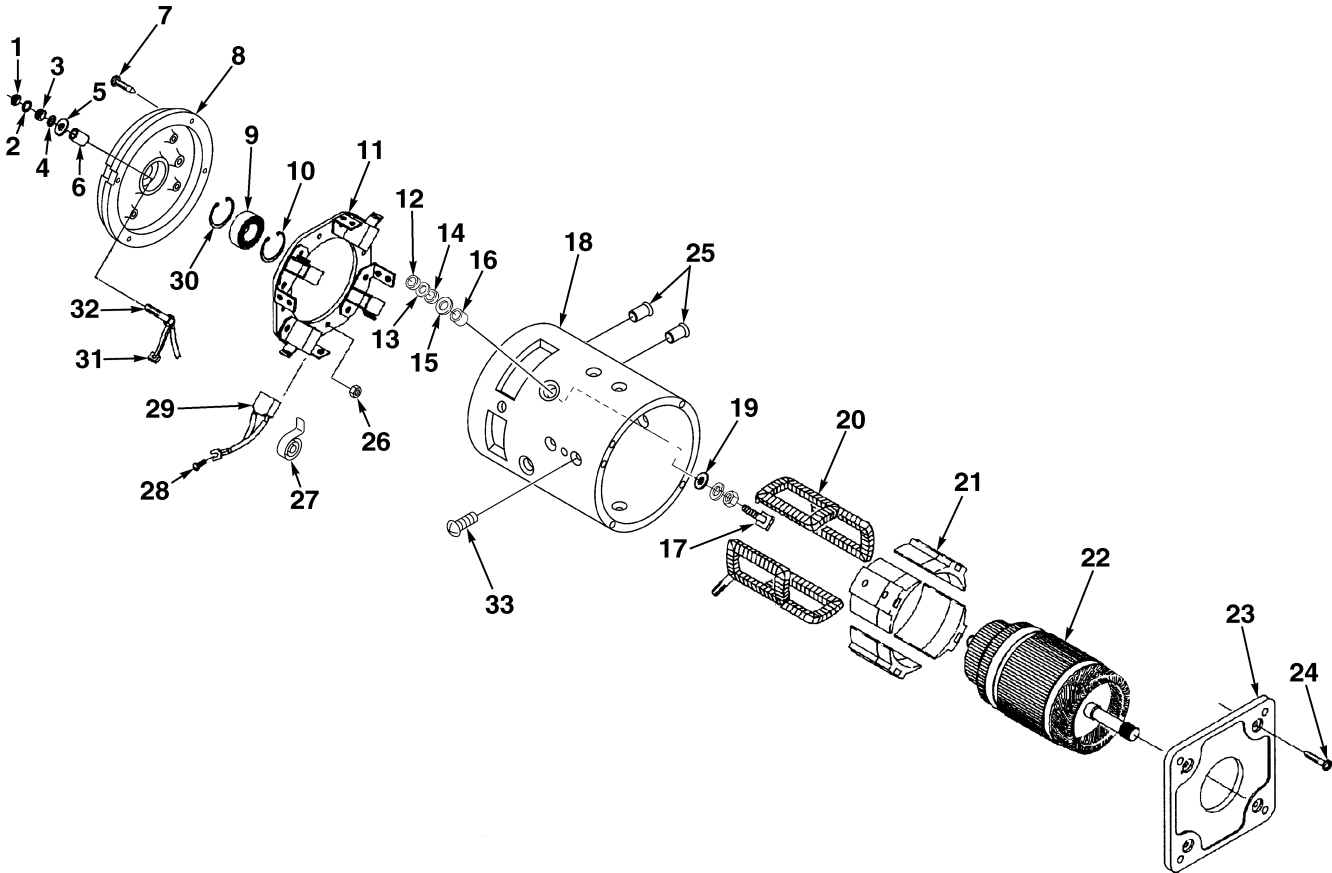
HP160104

TRACTION MOTOR
PREMIUM (→ S/N H160N02437)

ITEM	PART NO.	DESCRIPTION	QTY
	2034968	Traction Motor (With BWI)	1
1	287851	Capscrew	2
2	2033800	Lockwasher	2
3	2035576	Washer	2
4	2309525	Nut	2
5	2311684	Lockwasher	2
6	1385089	Retaining Ring	1
7	2306090	Screw	8
8	1385088	End Head	1
8	2308377	End Head	1
9	2309525	Nut	1
10	15905	Lockwasher	2
11	2307351	Washer	2
12	2302673	Insulator	2
13	2035486	Insulator	2
14	2310512	Terminal	2
15	2309528	Screw	4
16	2311308	Screw	8
17	2305203	Brush	4
18	2307969	Brush Holder	1
19	2310058	Jumper	2
20	2308373	Connector	1
21	2304615	Snap Ring	1
22	2311415	Ball Bearing	1
23	2308954	Brush Spring	4
24	2036901	Housing	1
25	1326871	Nut	2
26	17151	Capscrew	8
27	2309528	Screw	4
28	1326870	Insert	1
28	2308954	Brush Spring	1
28	1385079	Screw	1
28	2305203	Brush (Optional)	1
29	2036133	Field Coil	1
29	1385079	Screw	1
29	2302290	Insulator (Optional)	1
29	1326870	Insert	1
30	2310597	Sensor	1
30	1385087	Thermal Sensor	1
31	2308373	Connector	1
32	2034120	Armature	1
32	2310529	Washer	1
32	32415	Woodruff Key (Woodruff)	1
32	2034121	Shaft	1
33	2310338	End Head	1
	2308516	Kit-Brush	1
	2034670	Kit-Field Coil	1
	2304670	Spacer	1

TRACTION MOTOR (FIGURE 3-5)

(S/N H160N02438 →)



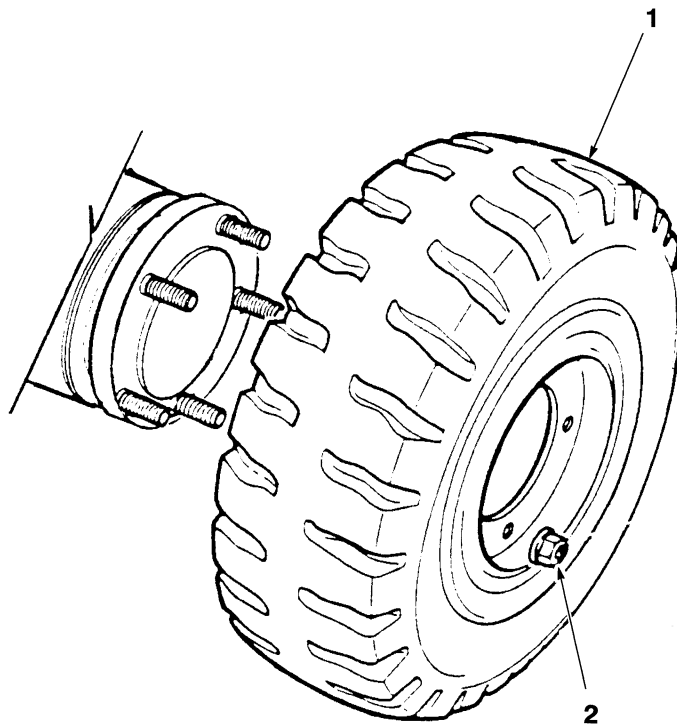
HP081073

ITEM	PART NO.	DESCRIPTION	QTY
	2040810	Traction Motor (With BWI)	1
	2044165	Traction Motor (Standard Without BWI)	1
1	1494618	Nut	4
2	1494614	Spring Washer	2
3	1504364	Nut	4
4	a 1494613	Disk	2
4	b 1307208	Disk	2
5	388049	Washer	4
6	1494615	Washer	4
7	1494630	Screw	8
7	388048	Disk	14
8	a 1494623	End Head	1
8	1494624	Cover	1
8	b 1495335	End Head	1
9	1462067	Ball Bearing	1
10	12921	Snap Ring	1
11	1494625	Brush Holder	1
12	292654	Nut	12
13	1494611	Spring Washer	1

ITEM	PART NO.	DESCRIPTION	QTY
14	1494610	Nut	2
15	1307208	Disk	1
16	1494609	Washer	2
17	1494608	Screw	1
18	1494598	Housing	1
19	296418	Washer	2
20	a 1494620	Kit-Field Coil	1
20	b 1495331	Kit-Field Coil	1
21	384187	Pole Shoe	4
22	1494780	Armature	1
23	1494621	Plate	1
24	1494622	Screw	4
25	1494612	Plug	2
26	1494629	Nut	2
27	1462098	Brush Spring	4
28	1494626	Screw	4
29	1494627	Brush (Qty. 4 without BWI)	2
29	1494628	Brush (Signal) (Not used without BWI)	2
30	58908	Snap Ring	1
31	1494616	Connector	1
31	1494617	Connector	1
32	1306874	Screw	2
33	296321	Capscrew	8

FOOTNOTES:**a** Premium**b** Standard

MOUNTING, TIRES, AND WHEELS (FIGURE 3-6)

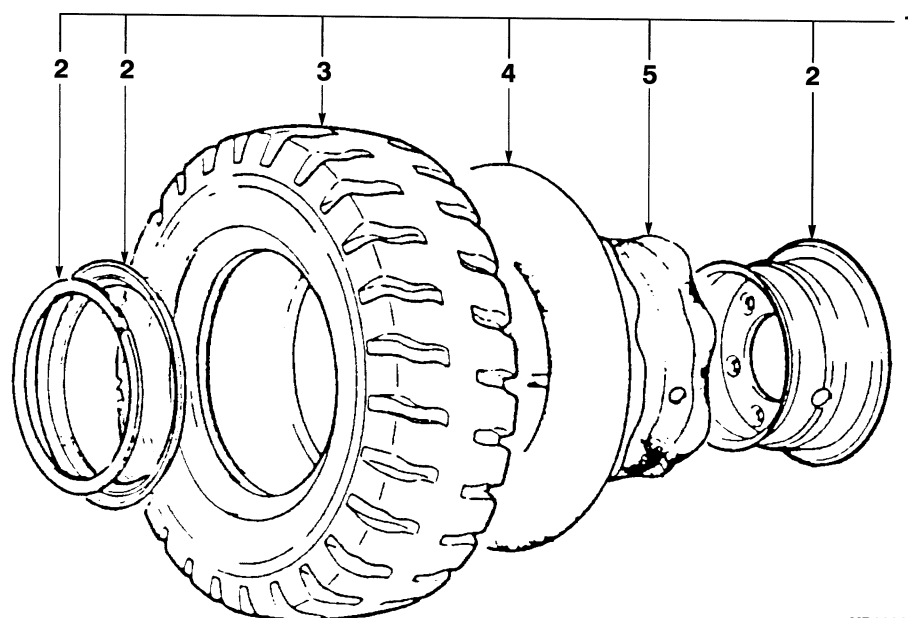


YP160160

ITEM	PART NO.	DESCRIPTION	QTY
1	2306727	Wheel and Tire (Super Cushion)	2
1	2303299	Wheel and Tire (Super Cushion)	2
1	a 2311663	Wheel and Tire (Pneumatic)	2
1	2031121	Wheel and Tire (Cushion)	2
	302977	Wheel Nut	5

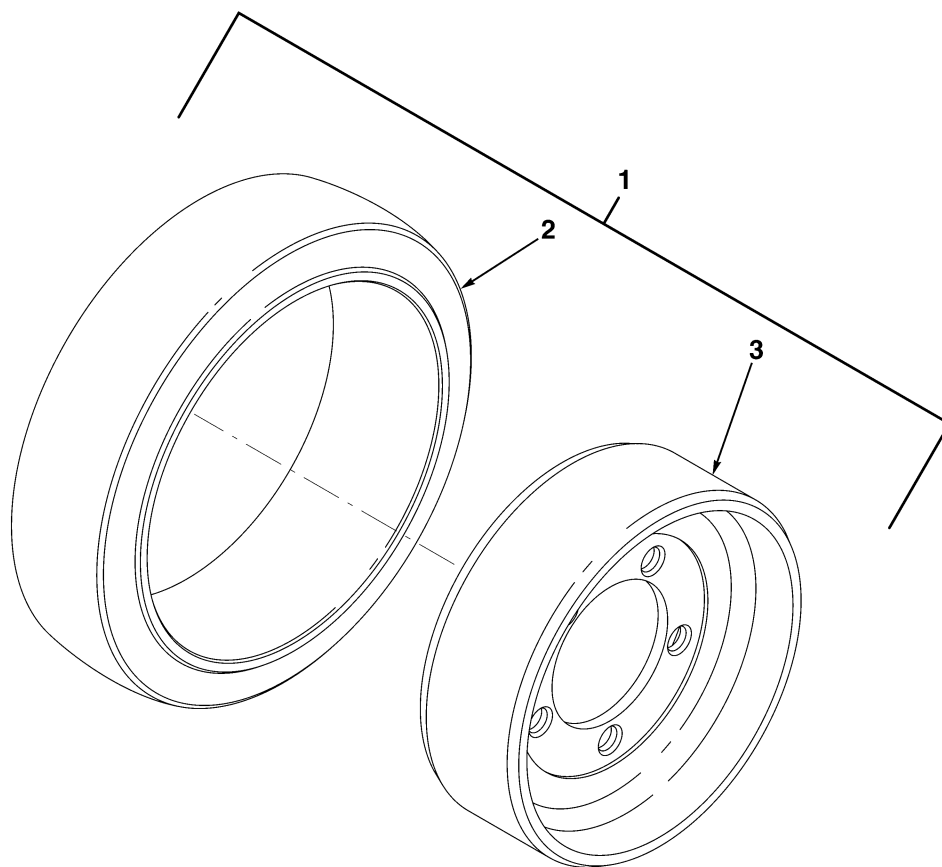
FOOTNOTES:

a Pneumatic Tires Not Available on 4,000 lb. Trucks

DRIVE TIRE AND WHEEL ASSEMBLY (FIGURE 3-7)
PNEUMATIC

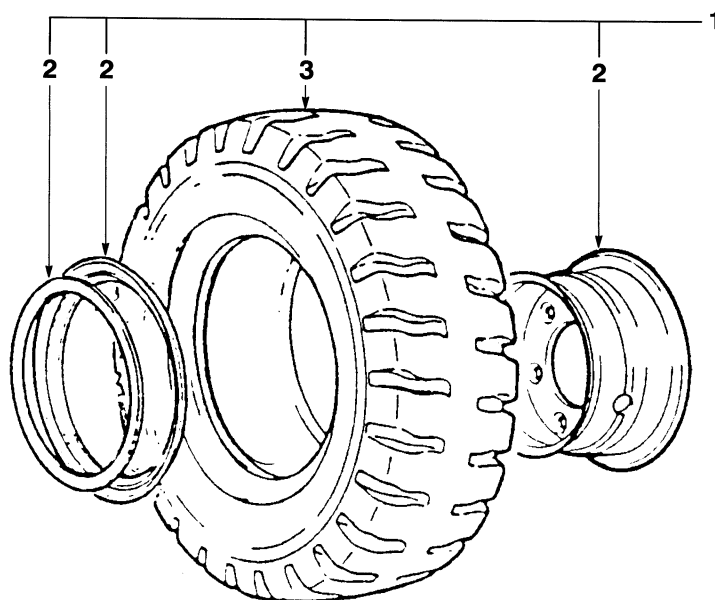
YP160163

ITEM	PART NO.	DESCRIPTION	QTY
1	2311663	Wheel and Tire	2
2	2309956	Wheel Rim	1
3	2303302	Pneumatic Tire (18 in. x 7 in. x 8 in.)	1
4	2305057	Tube (Inner)	1
5	2307266	Flap	1

DRIVE TIRE AND WHEEL ASSEMBLY (FIGURE 3-8)
SOLID CUSHION

HP000637

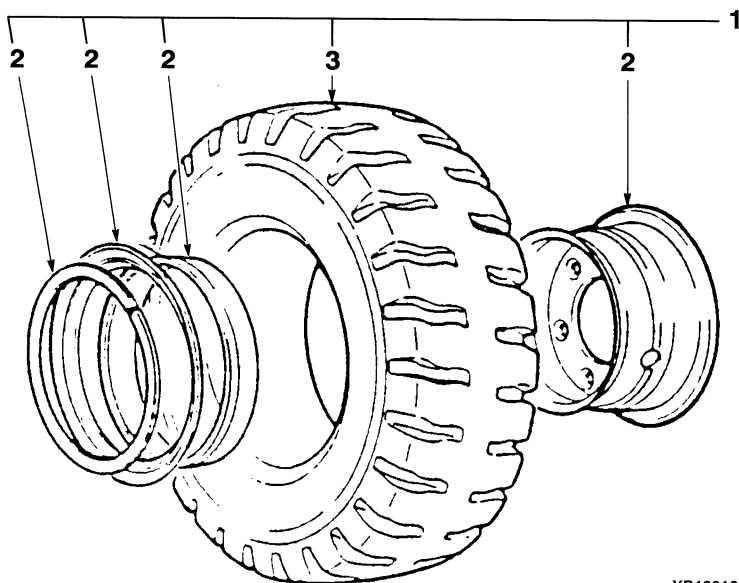
ITEM	PART NO.	DESCRIPTION	QTY
1	2031121	Wheel and Tire	2
2	259645	Cushion Tire (18 in. x 7 in. x 12-1/8 in.)	1
3	2031120	Wheel	1

DRIVE TIRE AND WHEEL ASSEMBLY (FIGURE 3-9)
SUPER CUSHION — J30XMT2/J35XMT2

YP160161

ITEM	PART NO.	DESCRIPTION	QTY
1	2306727	Wheel and Tire	2
2	2309956	Wheel Rim	1
3	2307016	Solid Pneumatic Tire	1

DRIVE TIRE AND WHEEL ASSEMBLY (FIGURE 3-10) SUPER CUSHION — J40XMT2



YP160162

ITEM	PART NO.	DESCRIPTION	QTY
1	2303299	Wheel and Tire	2
2	2303180	Wheel Rim	1
3	2303247	Solid Pneumatic Tire	1

SECTION 4 STEERING SYSTEM

DESCRIPTION	PAGE
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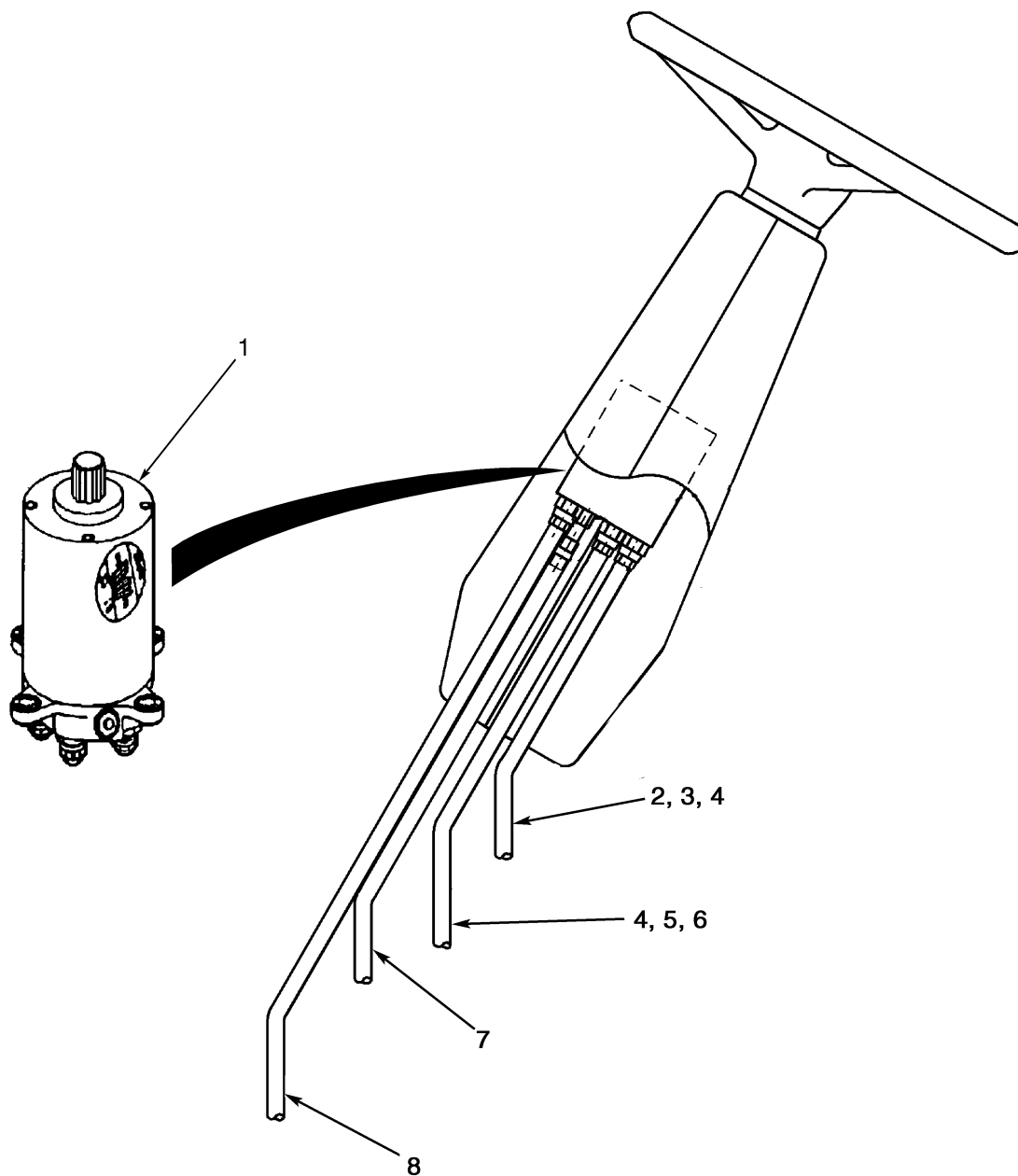
YP220104

STEERING HYDRAULIC SYSTEM
(S/N H160N03778A →)

ITEM	PART NO.	DESCRIPTION	QTY
1	1462468	Steering Hand Pump	1
2	2306145	Tube Assy	1
3	c 2060695	Hose Assy (118 in.)	1
4	c 1462549	Hose Assy (120 in.)	1
5	259665	Guard	4
6	a 1537518	Hose Assy (110 in.)	1
7	a 1462534	Hose Assy (112 in.)	1
8	d 1457330	Hose (42 in.)	1
9	b 2035566	Hose Assy (Pressure) (50 in.)	1
10	2310182	Hose	1
11	130845	Clamp	3
11	222512	Fitting	1

FOOTNOTES:**a** Hand Pump Port "L" to Steer Actuator-Left Port**b** Hand Pump Port "P" from Steer Pump Motor**c** Hand Pump Port "R" to Steer Actuator-Right Port**d** Hand Pump Port "T" to Tank

STEERING HYDRAULIC SYSTEM (FIGURE 4-2) (→ S/N H160N03777A)



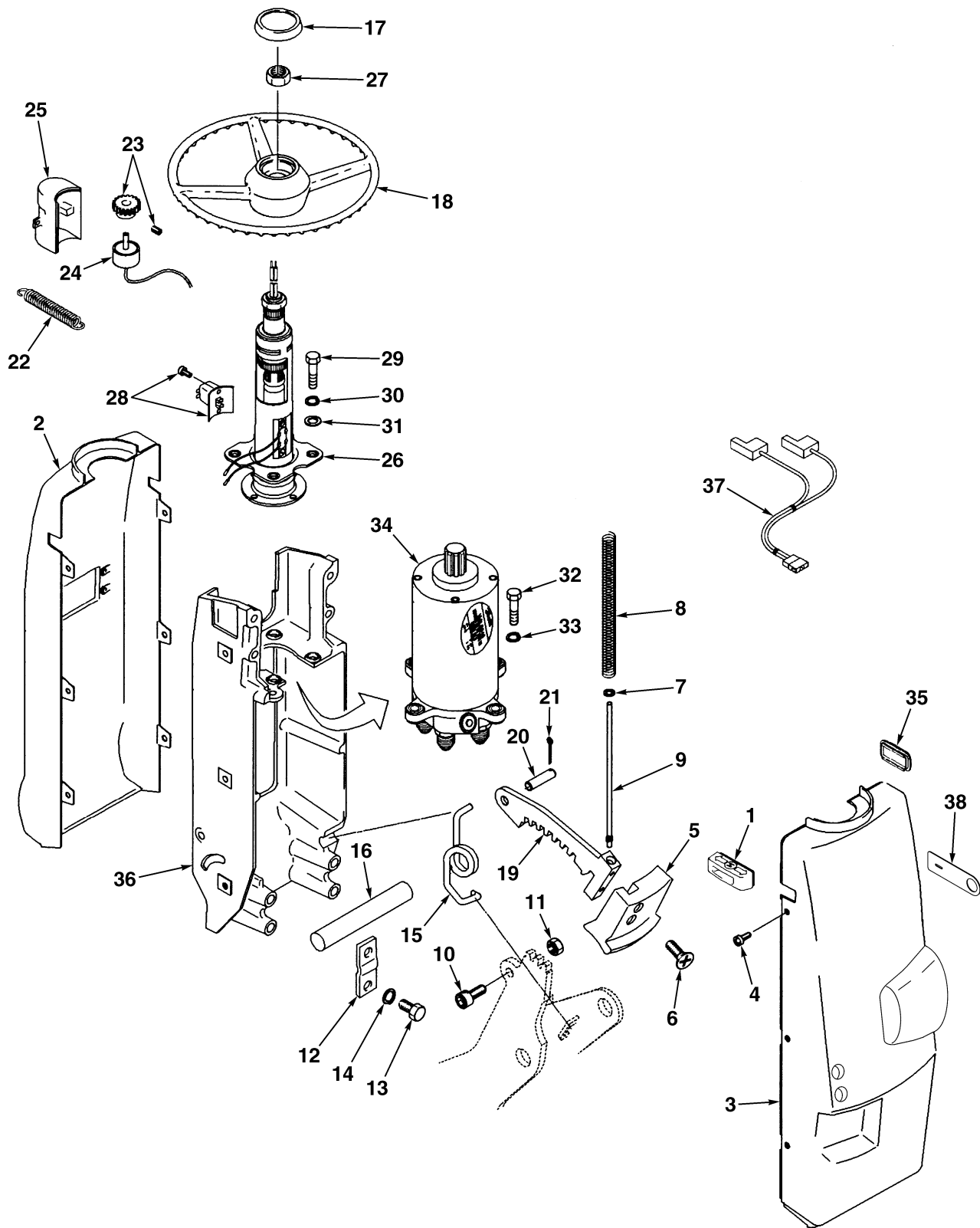
YP220033

ITEM	PART NO.	DESCRIPTION	QTY
1	1462468	Steering Hand Pump	1
2	c 2037169	Hose Assy (118 in.)	1
3	c 1462549	Hose Assy (120 in.)	1
4	259665	Guard	4
5	a 1462531	Hose Assy (110 in.)	1
6	a 1462534	Hose Assy (112 in.)	1
7	d 1457330	Hose (42 in.)	1
8	b 2035566	Hose Assy (Pressure) (50 in.)	1
	e 2306145	Tube Assy	1
	e 166857	Clamp	2

FOOTNOTES:

- | | |
|--|-------------------------------------|
| a Hand Pump Port "L" to Steer Actuator-Left Port | d Hand Pump Port "T" to Tank |
| b Hand Pump Port "P" from Steer Pump Motor | e Not Illustrated |
| c Hand Pump Port "R" to Steer Actuator-Right Port | |

STEERING POD (FIGURE 4-3)



HP220004

STEERING POD**KEY:****A: With Power Steering On-Demand****B: Without Power Steering On-Demand**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	a 1343596	Bracket	1	1
1	b 1343597	Plug	1	1
2	1397863	Cover (Upper)	1	1
3	1397864	Cover (Lower)	1	1
4	1337196	Screw	6	6
4	292678	Lockwasher	6	6
5	1343574	Handle Grip (Latch)	1	1
6	296472	Screw	2	2
7	320155	Washer	1	1
8	1343537	Spring	1	1
9	1343572	Rod	1	1
10	296010	Capscrew	1	1
11	302400	Nut	1	1
12	1335967	Plate	2	2
13	136749	Screw	4	4
14	292681	Lockwasher	4	4
15	1378600	Spring	1	1
16	1335987	Shaft	1	1
17	1450503	Horn Button	1	1
18	1329250	Steering Wheel	1	1
19	1364271	Latch	1	1
20	1343607	Pin	1	1
21	15212	Cotter Pin	1	1
22	1339034	Spring	1	..
23	1336821	Gear	1	..
24	1390205	Encoder	1	..
25	1339030	Housing	1	..
26	b	Steering Column (63 cc Pump)	..	1
26	a	Steering Column (63 cc Pump)	..	1
26	b	Steering Column (63 cc Pump)	1	..
26	a	Steering Column (63 cc Pump)	1	..
26	1453542	Steering Column	1	..
26	1453543	Steering Column	..	1
27	345423	Nut	1	1
28	1391205	Kit-Horn	1	1
29	16815	Capscrew	4	4
30	15156	Lockwasher	4	4
31	15134	Washer	4	4
32	293762	Capscrew	4	4
33	293779	Lockwasher	4	4
34	1462468	Steering Hand Pump (☞Figure 4-4).....	1	1
35	1376743	Plug	1	1
36	1343573	Bracket	1	1
37	1510874	Wire Harness	3	3
38	1520609	Static Strap	1	1
	373301	Strap Clamp	3	3

FOOTNOTES:

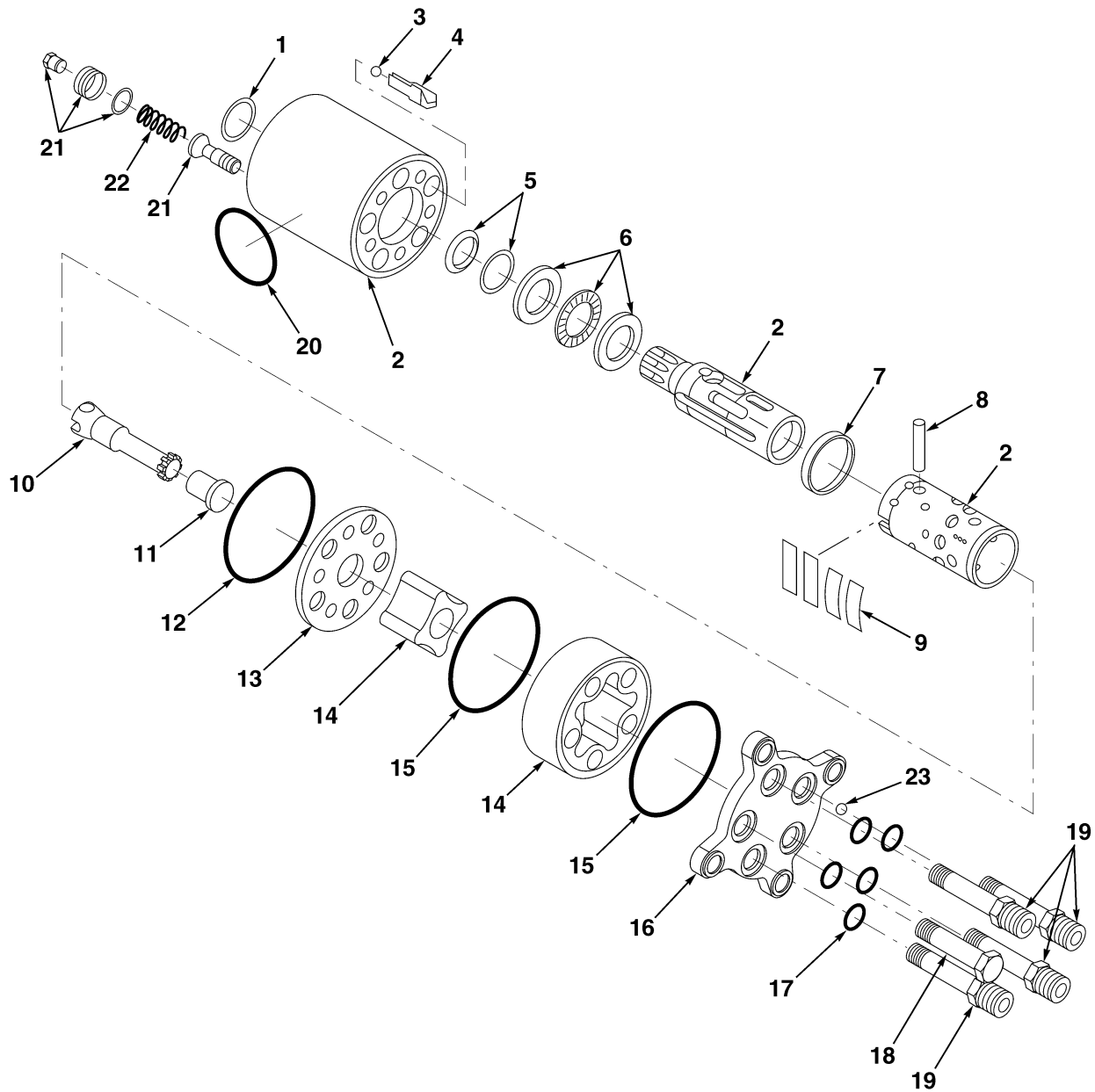
a Forward/Reverse Lever

b Monotrol Pedal

NOTES

[illegible]

HAND PUMP (FIGURE 4-4)

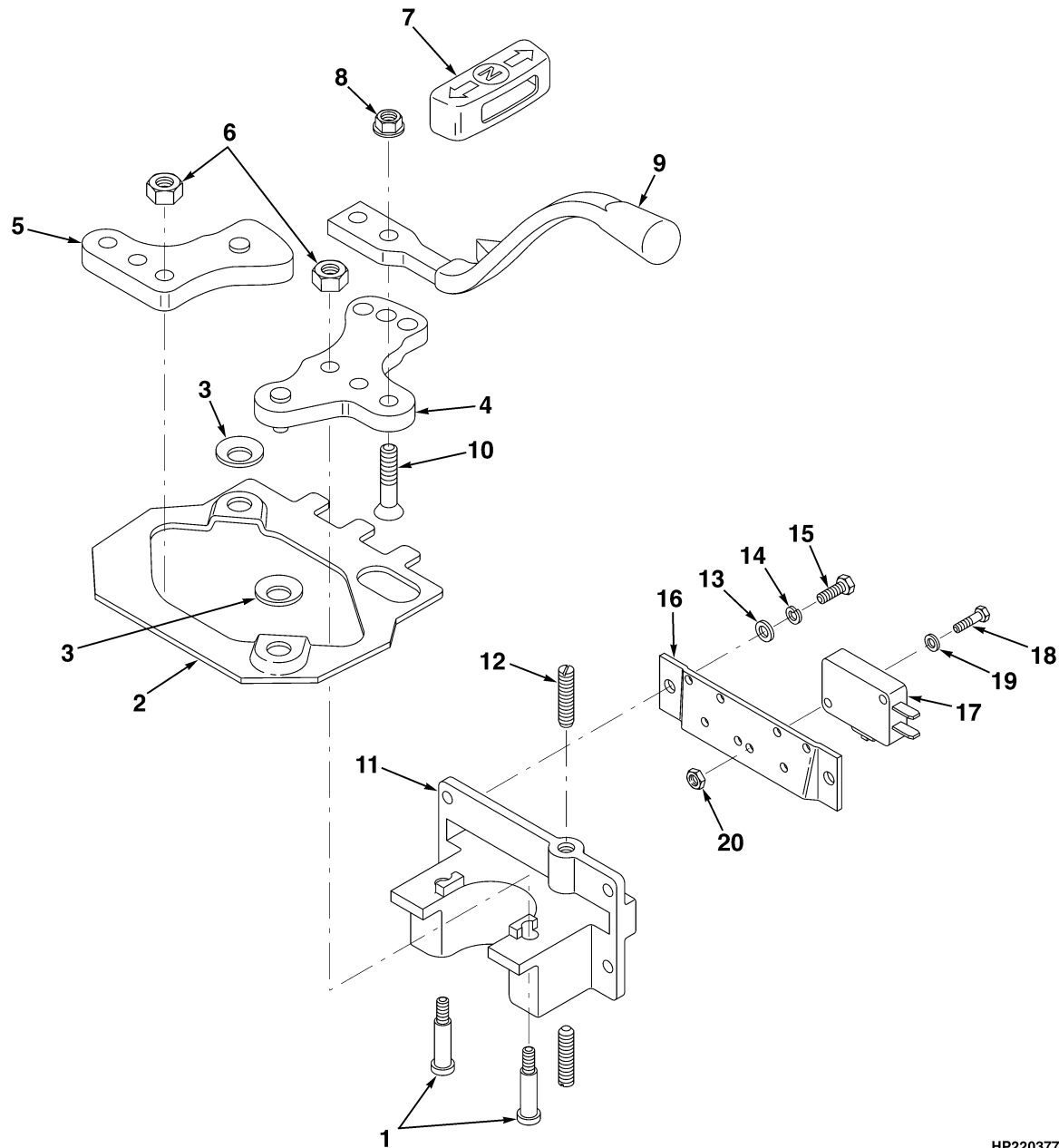


HP220375

HAND PUMP

ITEM	PART NO.	DESCRIPTION	QTY
	1462468	Steering Hand Pump	1
1	1467390	Dust Seal	1
2		Housing	1
3	1355335	Ball	1
4	1451696	Stop	1
5		Dust Ring Seal	1
5	1467424	Seal	1
6	1451697	Bearing	1
7	1455770	Ring	1
8	1451698	Pin (Cross)	1
9	1455771	Kit-Spring	1
10		Shaft	1
11		Spacer	1
12		O-Ring	1
13	1451703	Plate	1
14		Gear Set	1
15		O-Ring	2
16		End Cover	1
17		O-Ring	5
18	1467392	Screw	1
19		Screw	5
20		Nameplate	1
21		Relief Valve	1
22	1455779	Spring	1
23	1451707	Ball	1
	1467430	Kit-Seal	1

SHIFT LEVER (FIGURE 4-5)



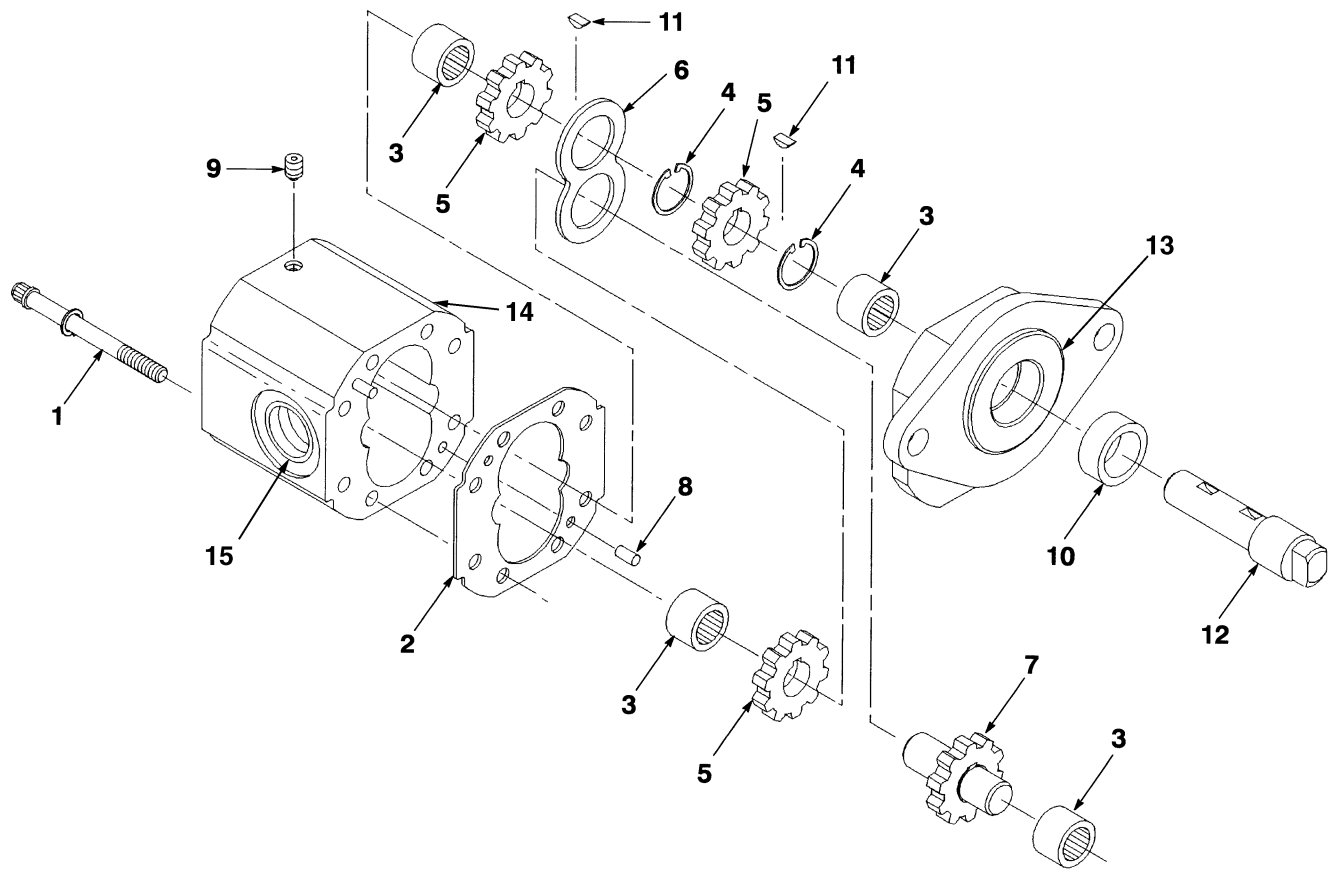
HP220377

SHIFT LEVER

ITEM	PART NO.	DESCRIPTION	QTY
1	1343594	Bolt	2
2	1343578	Link	1
3	1354300	Spring Washer	2
4	1343579	Crank	1
5	1343598	Crank	1
6	136687	Nut	2
7	1343596	Bracket	2
8	302398	Locknut	4
9	1343593	Lever	1
10	296205	Screw	4
11	1343577	Base	1
12	1491830	Spring	2
13	320156	Washer	4
14	292680	Washer	4
15	292501	Capscrew	4
16	1343595	Plate	1
17	1498406	Switch	2
18	220426	Screw	4
19	53162	Lockwasher	4
20	16865	Nut	4
	a 1510874	Wire Harness	1

FOOTNOTES:**a** Not Illustrated

STEERING PUMP (FIGURE 4-6)



YP220371

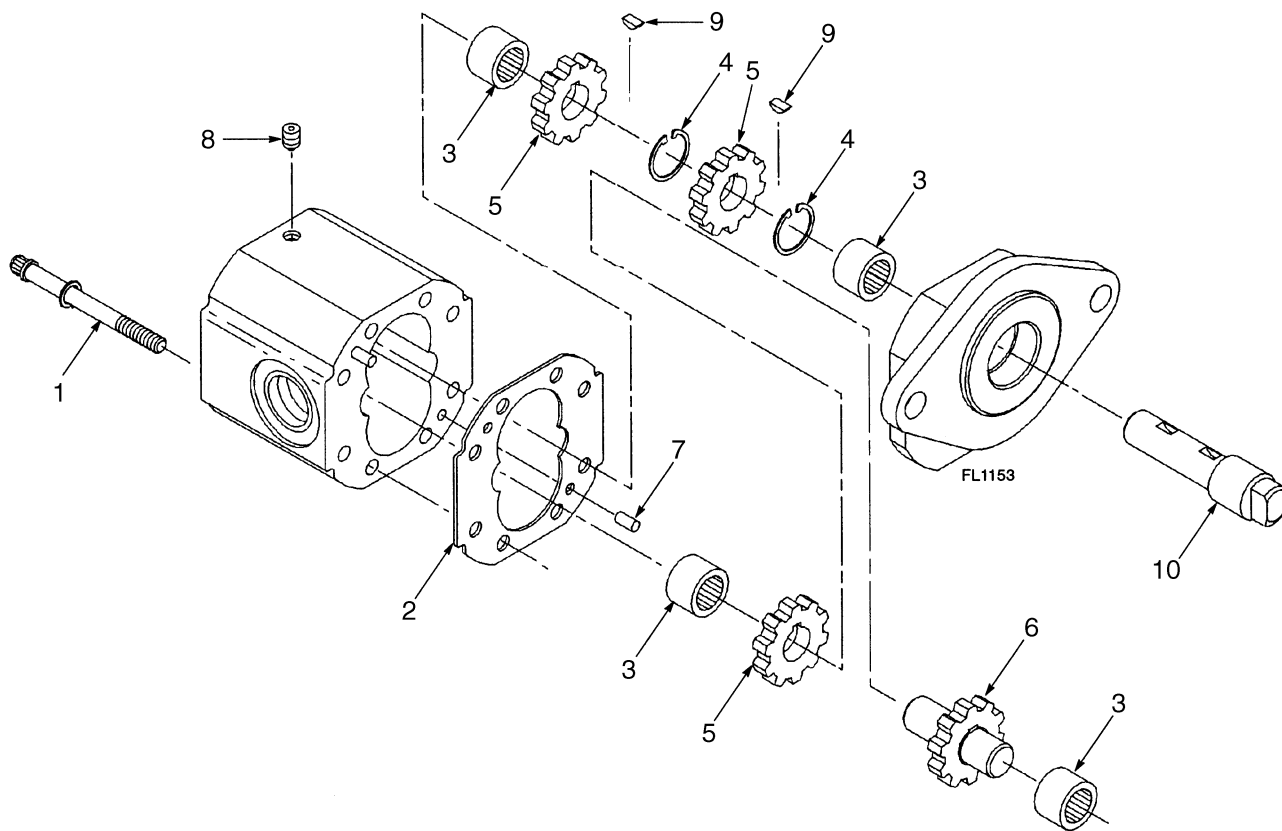
STEERING PUMP

(→ 1/2002)

ITEM	PART NO.	DESCRIPTION	QTY
	2033614	Gear Pump (48 Volt)	1
	2035719	Gear Pump	1
	2042515	Gear Pump (Optional)	1
1	1322360	Capscrew	8
2	2034266	Kit-Gasket	1
3	354669	Needle Bearing	4
4	358072	Snap Ring	2
5	358069	Gear	3
6	380770	Spacer	1
7	2034265	Drive Shaft	1
8	354671	Pin	4
9	358076	Plug	1
10	2306507	Oil Seal	1
11	358073	Key	2
12	2309808	Drive Shaft	1
13	39362	O-Ring	1
14	16745	Fitting	1
14	2035566	Hose Assy (Pressure)	1
15	222512	Fitting	1
15	1302007	Screen	1
15	2310182	Hose	1
15	130845	Clamp	1
	a 1322446	Plug (Plastic)	1
	a 1322447	Plug (Plastic)	1
	a 1322448	Plug (Steel)	1

FOOTNOTES:**a** Not Illustrated

STEERING PUMP (FIGURE 4-7) (1/2002 →)



BP220009

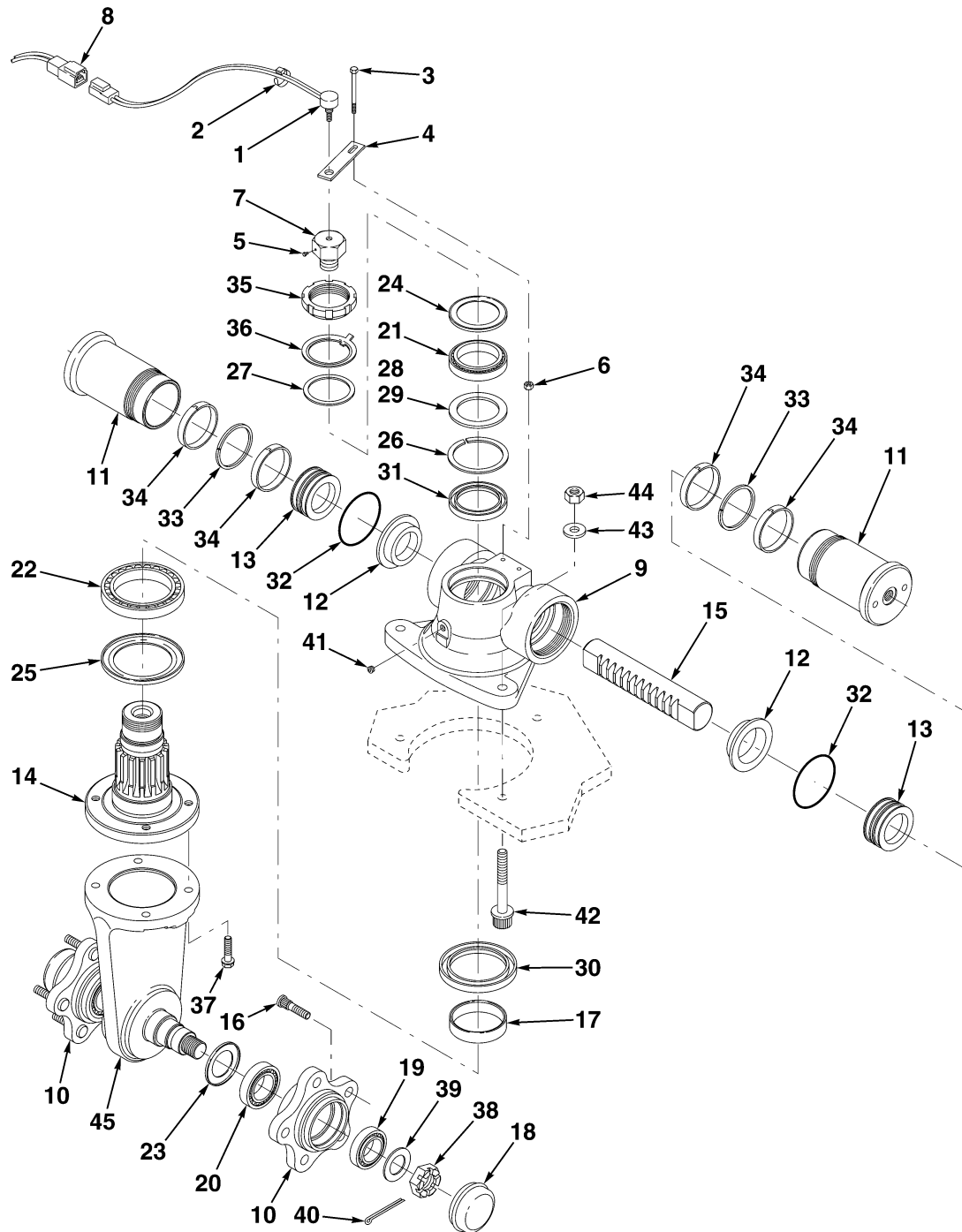
STEERING PUMP

(1/2002 →)

ITEM	PART NO.	DESCRIPTION	QTY
	2035719	Gear Pump (36 Volt)	1
	b 2043078	Gear Pump	1
	c 2033614	Gear Pump	1
	2042515	Gear Pump (Optional)	1
1	1452459	Screw	8
2	2034266	Kit-Gasket	1
3	354669	Needle Bearing	4
4	358072	Snap Ring	2
5	358069	Gear	3
6	2034265	Drive Shaft	1
7	354671	Pin	2
8	358076	Plug	1
9	358073	Key	2
10	1309877	Drive Shaft	1
	a 39362	O-Ring	1
	a 222512	Fitting	1
	a 16485	O-Ring	1
	a 16745	Fitting	1
	a 16484	O-Ring	1
	a 2035566	Hose Assy (Pressure)	1
	a 1302007	Screen	1
	a 2310182	Hose	1
	a 130845	Clamp	1
	a 1322446	Plug	1
	a 1322447	Plug	1
	a 1322448	Plug	1

FOOTNOTES:**a** Not Illustrated**b** → S/N H160N03842A**c** S/N H160N03843A →

STEER AXLE (FIGURE 4-8) (→ S/N H160N02705Y)



YP220370

STEER AXLE
(→ S/N H160N02705Y)

ITEM	PART NO.	DESCRIPTION	QTY
	1462274	Master Drive Unit	1
1	2034281	Potentiometer	1
2	2004005	Strap Clamp	AR
3	1367822	Capscrew	1
4	1339396	Bracket	1
5	302191	Setscrew	1
6	136687	Nut	1
7	1391077	Fitting	1
8	1462884	Wire Harness (Main)	1
9	1465784	Housing	1
10	1465786	Wheel Hub	2
11	1465787	Cylinder	2
12	1465790	Liner	2
13	1465792	Piston	2
14	1465793	Shaft	1
15	1465794	Gear	1
16	1465795	Wheel Stud	10
	a 302977	Wheel Nut	10
17	1465796	Wear Ring	1
18	1465797	Cap	2
19	1465800	Bearing Set	2
20	1465801	Bearing Set	2
21	1465813	Bearing	1
22	1465814	Bearing	1
23	1465815	Sealing Ring	2
24	1465817	Sealing Ring	1
25	1465818	Sealing Ring	1
26	1465819	Ring	1
27	1465820	Shim	1
28	1465821	Shim	2
29	1465822	Shim	1
30	1465823	Sealing Ring	1
31	1465824	Sealing Ring	1
32	1465825	O-Ring	2
33	1465826	Seal	2
34	1465827	Rod Wiper	4
35	1465828	Nut	1
36	1465829	Lockwasher	1
37	1471650	Screw	8
38	1465831	Nut	2
39	1465832	Washer	2
40	1465833	Cotter Pin	2
41	1465834	Plug	1
42	1462527	Capscrew	3
43	296426	Washer	6
44	1462528	Nut	3
45	1465785	Yoke	1
	1475399	Kit-Seal	1
	1475400	Kit-Seal	1

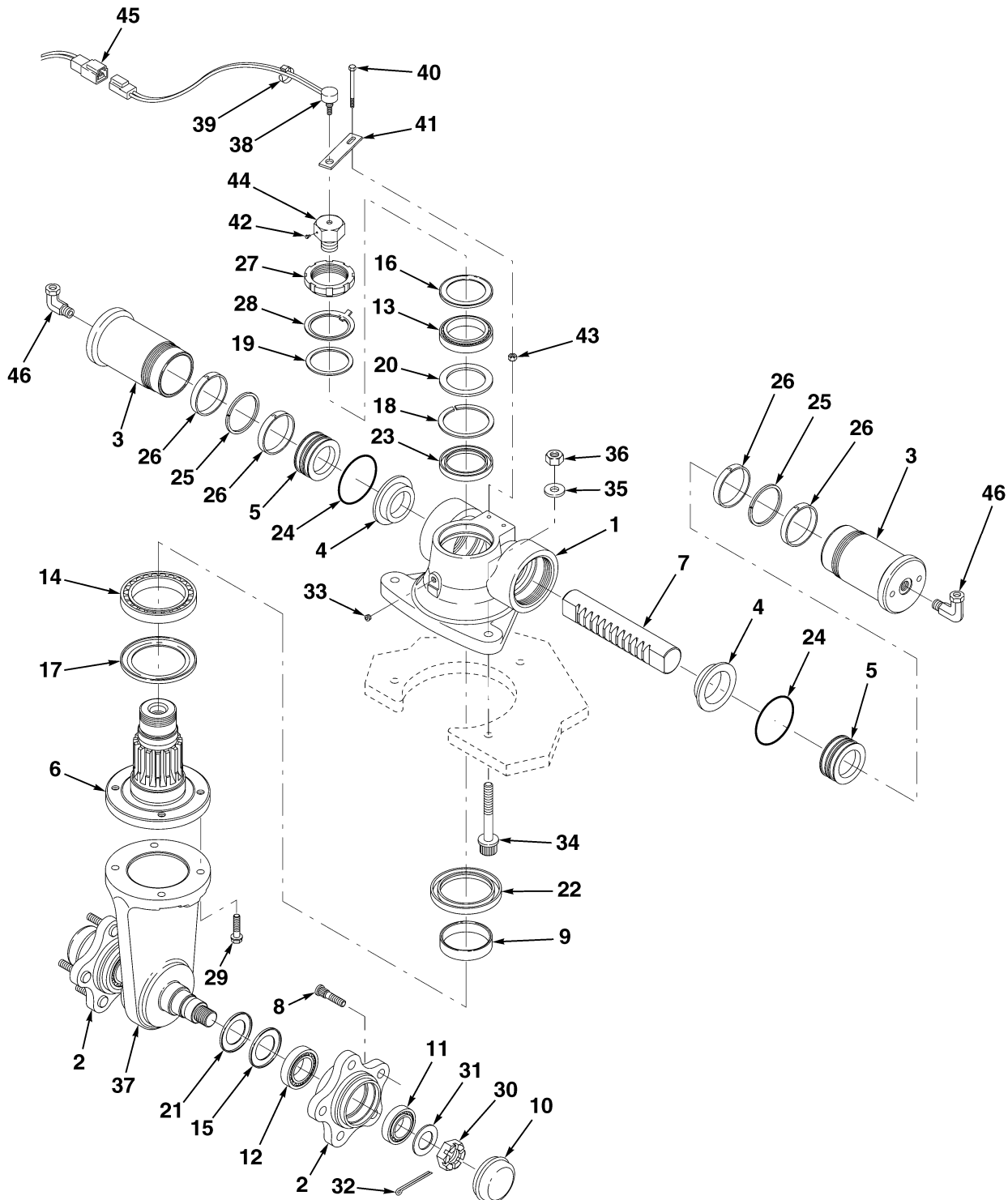
FOOTNOTES:

- a** Not Illustrated

NOTES

[illegible]

TRAIL AXLE (FIGURE 4-9) (S/N H160N02706Y →)



HP220379

TRAIL AXLE
(S/N H160N02706Y →)

ITEM	PART NO.	DESCRIPTION	QTY
	1494373	Steering Control Unit	1
1	1465784	Housing	1
2	1495390	Wheel Hub	2
3	1465787	Cylinder	2
4	1495391	Bushing	2
5	1465792	Piston	2
6	1465793	Shaft	1
7	1465794	Gear	1
8	1465795	Wheel Stud	10
9	1465796	Wear Ring	1
10	1465797	Cap	2
11	1465800	Bearing Set	2
12	1465801	Bearing Set	2
13	1465813	Bearing	1
14	1465814	Bearing	1
15	1495395	Sealing Ring	2
16	1465817	Sealing Ring	1
17	1465818	Sealing Ring	1
18	1465819	Ring	1
19	1465820	Shim	1
20	1465821	Shim	2
20	1465822	Shim	1
20	1495394	Shim	1
21	1495392	Ring	2
22	1465824	Sealing Ring	1
23	1465823	Sealing Ring	1
24	1465825	O-Ring	2
25	1465826	Seal	2
26	1465827	Rod Wiper	4
27	1465828	Nut	1
28	1465829	Lockwasher	1
29	1471650	Screw	8
30	1495397	Nut	2
31	1495398	Washer	2
32	1495399	Cotter Pin	2
33	1465834	Plug	1
34	1462527	Capscrew	3
35	296426	Washer	6
36	1462528	Nut	3
37	1628932	Yoke	1
37	b 1495389	Yoke	1
37	b 1495388	Axle	1
38	2034281	Potentiometer	1
39	2004005	Strap Clamp	AR
40	1367822	Capscrew	1
41	1339396	Bracket	1
42	1508484	Setscrew	1
43	136687	Nut	1
44	1462795	Fitting	1
45	1503460	Wire Harness (Main)	1

TRAIL AXLE (S/N H160N02706Y →)

ITEM	PART NO.	DESCRIPTION	QTY
46	c 1462529	Fitting	2
46	d 222399	Fitting	2
	a 259665	Guard	AR
	a 1495393	Nameplate	1
	a 1471658	Pin	2
	1497558	Kit-Seal	1
	1475400	Kit-Seal	1
	1475399	Kit-Seal	1

FOOTNOTES:

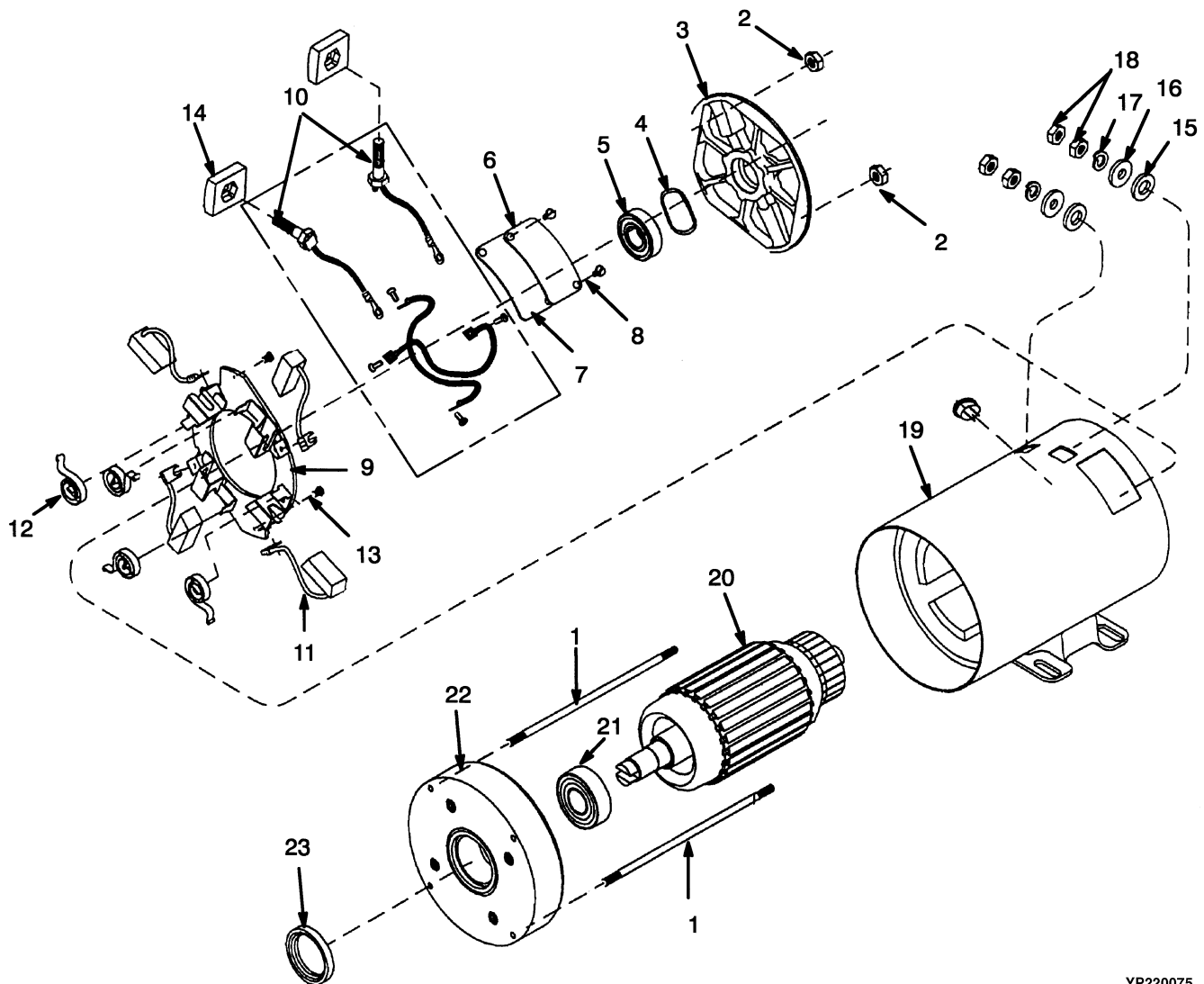
a Not Illustrated
b Not Serviced separately

c → S/N H160N03777A
d S/N H160N03778A →

NOTES

[illegible]

STEERING MOTOR (FIGURE 4-10) STANDARD (→ S/N H160N03759A)

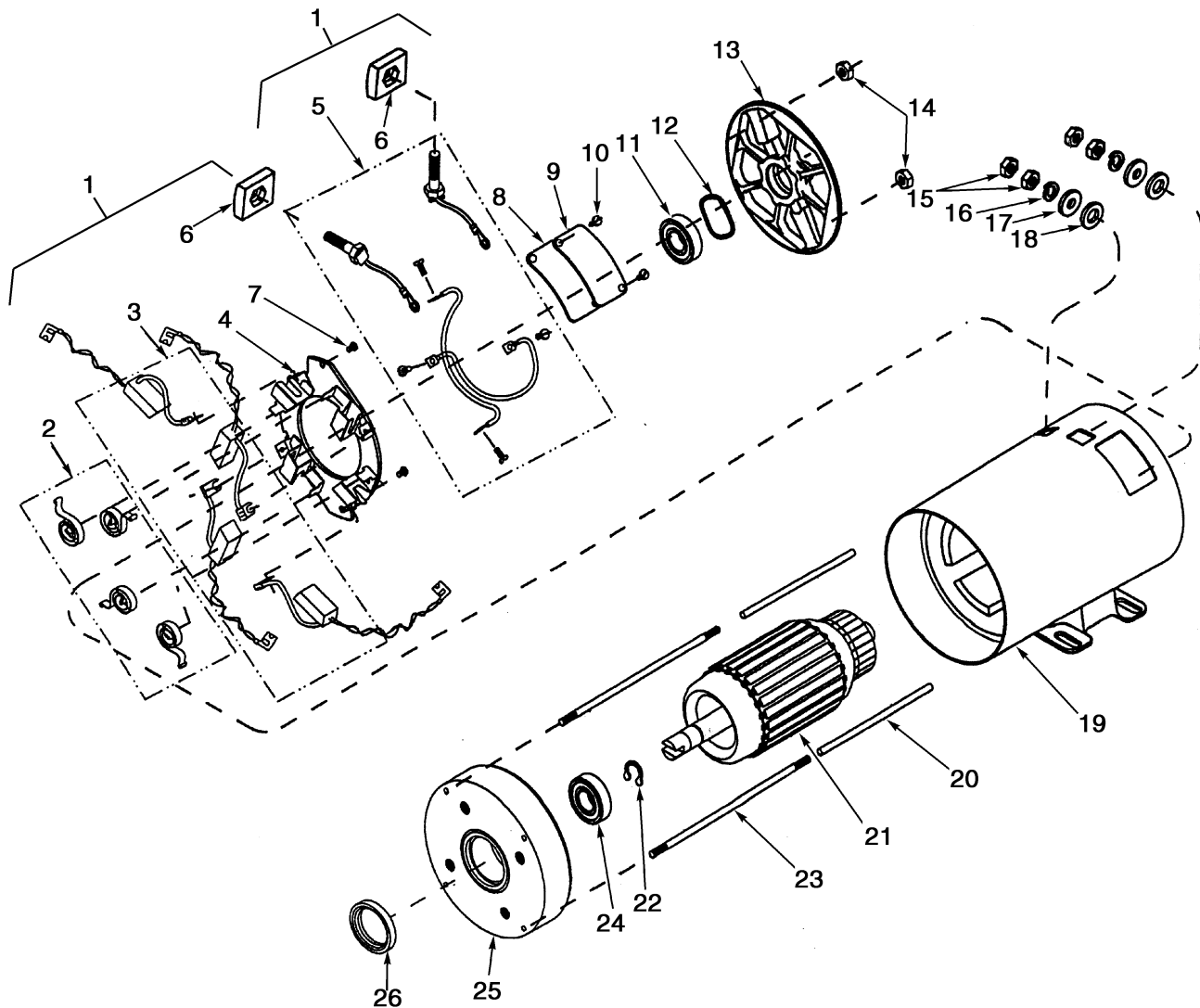


YP220075

STEERING MOTOR
STANDARD (→ S/N H160N03759A)

ITEM	PART NO.	DESCRIPTION	QTY
	2034301	Steering Motor (Without BWI)	1
1	1452878	Stud	2
2	1391760	Nut	2
3	1452879	Shield	1
4	1391762	Shim (Spring)	1
5	1452880	Ball Bearing	1
6	1452881	Cover	1
7	1452882	Gasket	1
8	1450475	Screw	2
9	1452892	Brush Holder	1
9	1391769	Brush Holder	1
10	1459683	Kit-Terminal	2
11	1459684	Kit-Brush	1
12	1459685	Kit-Brush Spring	1
13	1376961	Screw (Holder)	2
14	1391773	Bushing	2
15	1308875	Washer	2
16	1334933	Washer	2
17	15155	Lockwasher	2
18	1308893	Nut	4
19	1500861	Stator	1
20	1452894	Armature	1
21	1376960	Bearing	1
22	1452889	Shield	1
23	301181	Seal	1

STEERING MOTOR (FIGURE 4-11) STANDARD (S/N H160N03760A →)

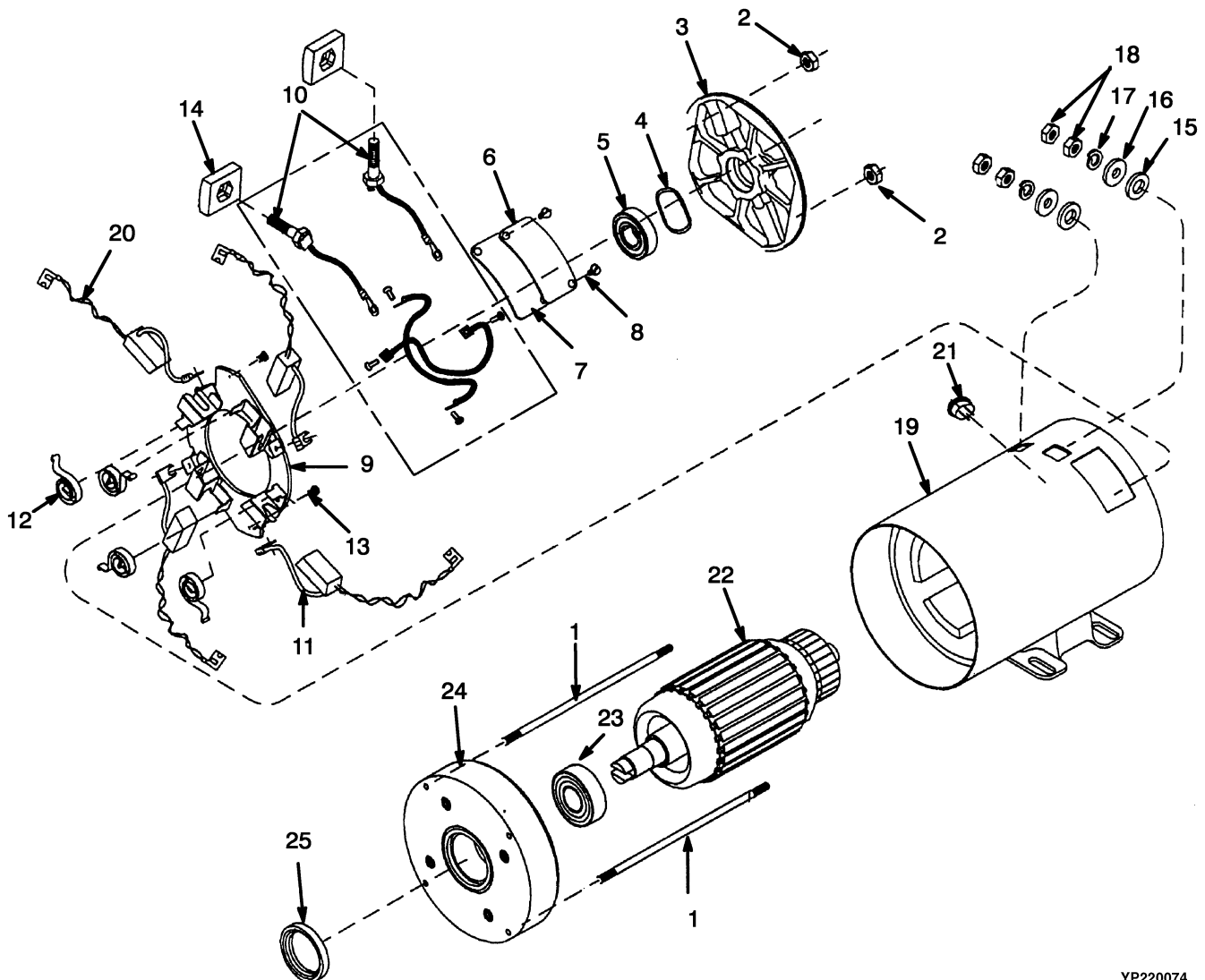


BP220033

STEERING MOTOR
STANDARD (S/N H160N03760A →)

ITEM	PART NO.	DESCRIPTION	QTY
	2054861	Steering Motor (Without BWI)	1
1	1452892	Brush Holder	1
2	1459685	Kit-Brush Spring	1
3	1459684	Kit-Brush	1
4	1391769	Brush Holder	1
5	1459683	Kit-Terminal	1
6	1391773	Bushing	2
7	1376961	Screw	2
8	1452882	Gasket	1
9	1452881	Cover	1
10	1450475	Screw	2
11	1376960	Bearing	1
12	1310930	Spring Washer	1
13	1452879	Shield	1
14	1391760	Nut	2
15	1308893	Nut	4
16	15155	Lockwasher	2
17	197068	Washer	2
18	1308875	Washer	2
19	1500861	Stator	1
20	1458470	Sleeve	2
21	1526012	Armature	1
22	1526007	Retaining Ring	1
23	1452878	Stud	2
24	1461259	Bearing	1
25	1526008	Shield	1
26	1526009	Seal	1

STEERING MOTOR (FIGURE 4-12) PREMIUM (→ S/N H160N03749A)

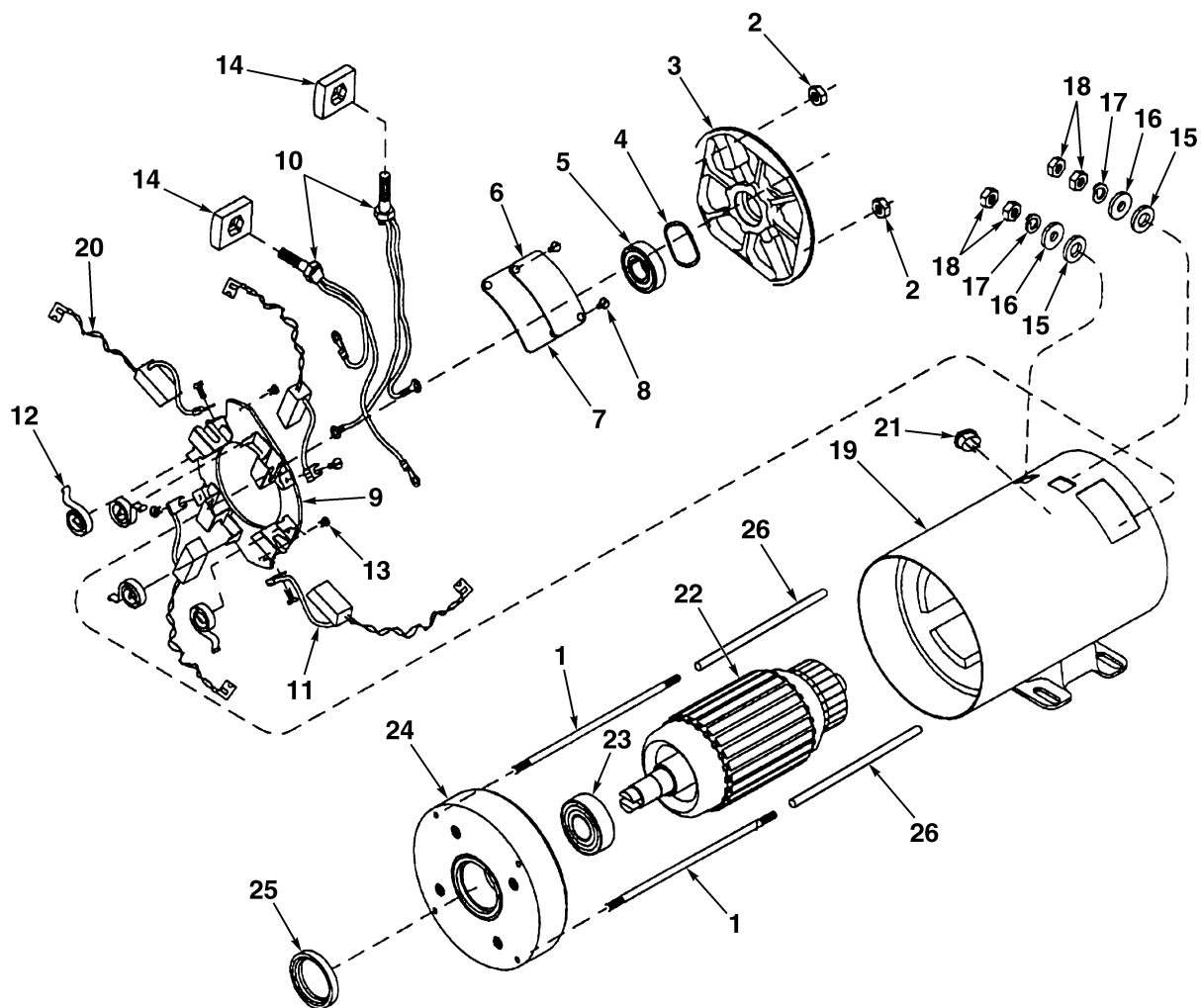


YP220074

STEERING MOTOR
PREMIUM (→ S/N H160N03749A)

ITEM	PART NO.	DESCRIPTION	QTY
	2034300	Steering Motor (With BWI)	1
1	1452878	Stud	2
2	1391760	Nut	2
3	1452879	Shield	1
4	1391762	Shim (Spring)	1
5	1452880	Ball Bearing	1
6	1452881	Cover	1
7	1452882	Gasket	1
8	1450475	Screw	2
9	1452883	Brush Holder	1
9	1391769	Brush Holder	1
10	1459683	Kit-Terminal	2
11	1459693	Brush	1
12	1459685	Kit-Brush Spring	1
13	1376961	Screw	2
14	1391773	Bushing	2
15	1308875	Washer	2
16	1334933	Washer	2
17	15155	Lockwasher	2
18	1308893	Nut	4
19	1452886	Stator	1
20	1452884	Wire	1
21	1452890	Connector	1
22	1452887	Armature	1
23	1376960	Bearing	1
24	1452889	Shield	1
25	301181	Seal	1

STEERING MOTOR (FIGURE 4-13) PREMIUM (S/N H160N03750A →)

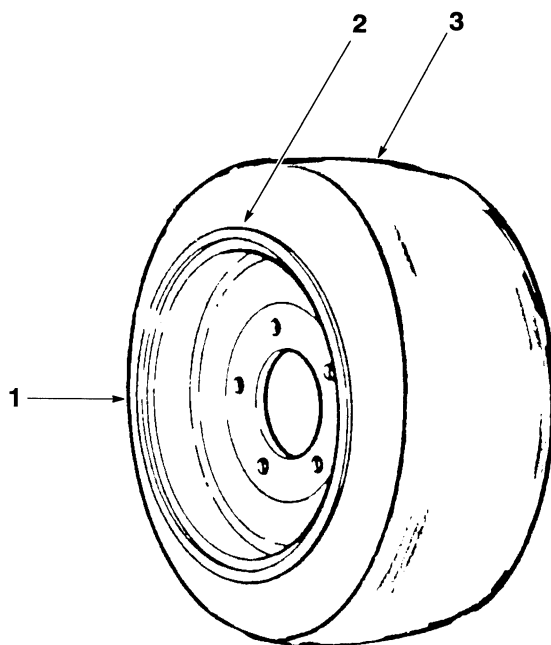


HP220180

STEERING MOTOR
PREMIUM (S/N H160N03750A →)

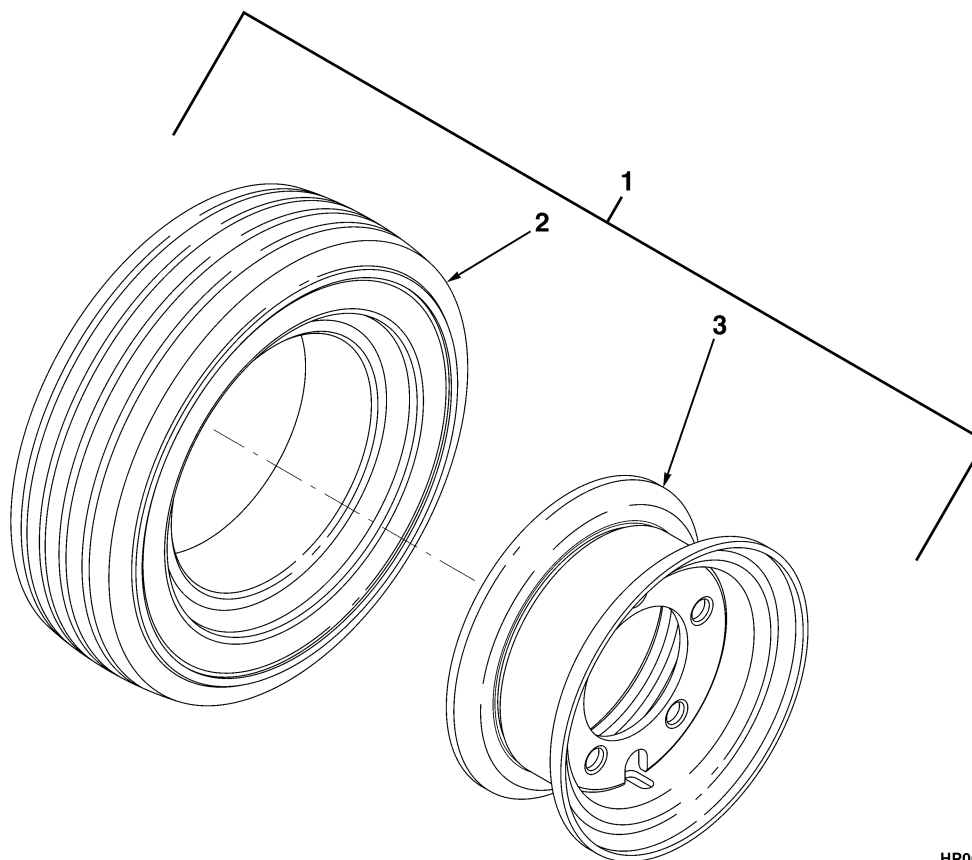
ITEM	PART NO.	DESCRIPTION	QTY
	2054860	Steering Motor (With BWI)	1
1	1452878	Stud	2
2	1391760	Nut	2
3	1452879	Shield	1
4	1310930	Spring Washer	1
5	1376960	Bearing	1
6	1452881	Cover	1
7	1452882	Gasket	1
8	1450475	Screw	2
9	1452883	Brush Holder	1
9	1391769	Brush Holder	1
10	1459683	Kit-Terminal	1
11	1459693	Brush	1
12	1459685	Kit-Brush Spring	1
13	1376961	Screw	2
14	1391773	Bushing	2
15	1308875	Washer	2
16	197068	Washer	2
17	15155	Lockwasher	2
18	1308893	Nut	4
19	1452886	Stator	1
20	1452884	Wire	1
21	1452890	Connector	1
22	1526011	Armature	1
22	1526007	Retaining Ring	2
23	1461259	Bearing	1
24	1526008	Shield	1
25	1526009	Seal	1
26	1458470	Sleeve	2
	a 2308963	Mounting Plate	1

FOOTNOTES:**a** Not Illustrated

STEER TIRE AND WHEEL ASSEMBLY (FIGURE 4-14)
CUSHION

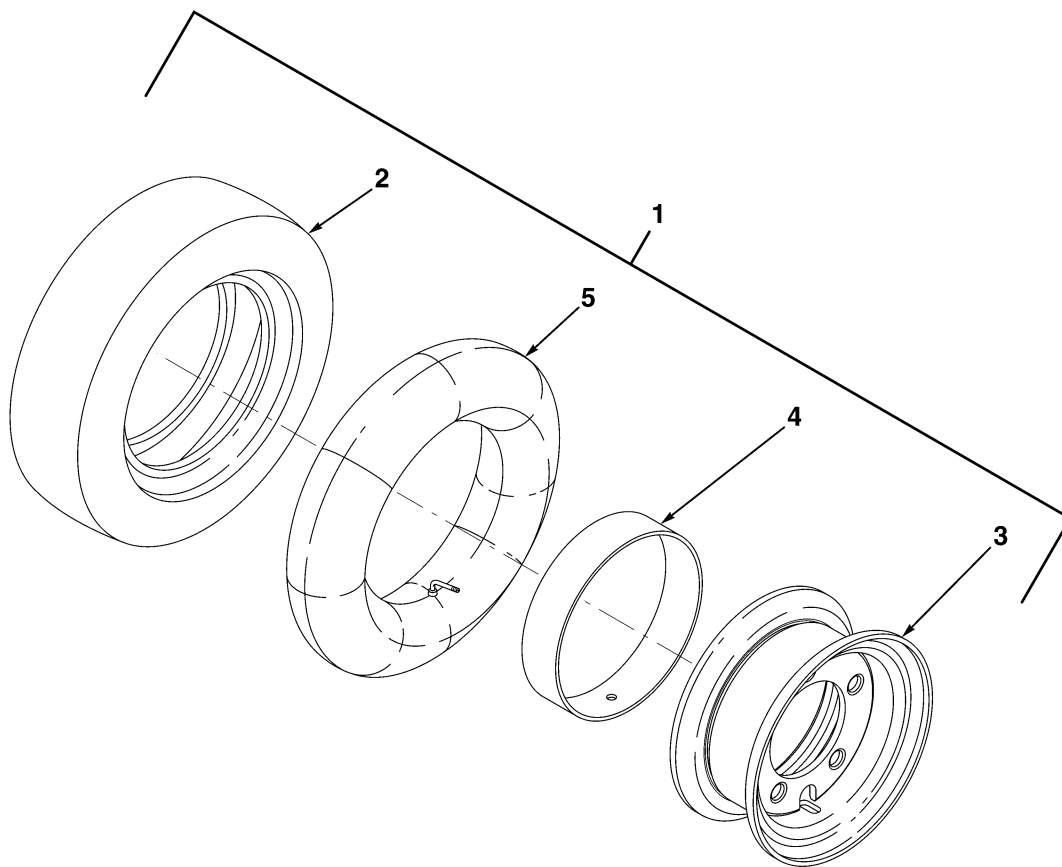
YP160164

ITEM	PART NO.	DESCRIPTION	QTY
1	1460482	Wheel and Tire (Cushion)	2
2	1460480	Wheel (11.25 in.)	1
3	1460484	Cushion Tire (15 in. x 4 in. x 11.25 in.)	2

STEER TIRE AND WHEEL ASSEMBLY (FIGURE 4-15)
SOLID PNEUMATIC

HP000639

ITEM	PART NO.	DESCRIPTION	QTY
1	893576	Steer Tire Assy (Solid Pneumatic)	2
2	2013472	Steer Tire Assy (15 x 4.5-8)	1
3	893575	Wheel	1

STEER TIRE AND WHEEL ASSEMBLY (FIGURE 4-16)
PNEUMATIC

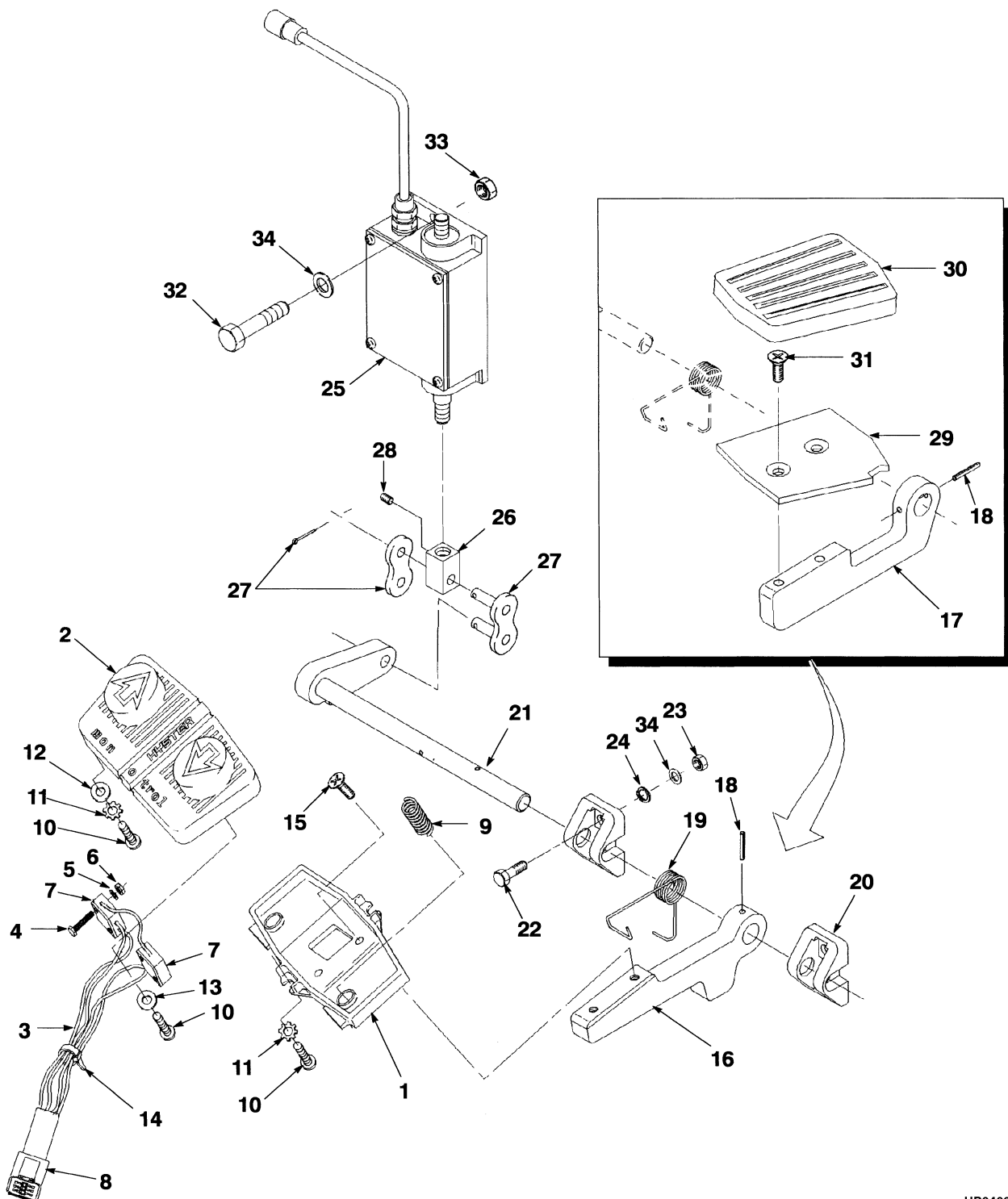
HP000638

ITEM	PART NO.	DESCRIPTION	QTY
1	1462226	Wheel and Tire (Pneumatic)	2
2	2015020	Pneumatic Tire (15 in. x 4.5-8 in.)	1
3	893575	Wheel	1
4	2015041	Flap	1
5	2015042	Tube	1

SECTION 5 BRAKE/ACCELERATOR SYSTEM

DESCRIPTION	PAGE
ACCELERATOR/MONOTROL PEDAL	
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ACCELERATOR/MONOTROL PEDAL (FIGURE 5-1) (→ 11/2002)



HP040301

ACCELERATOR/MONOTROL PEDAL

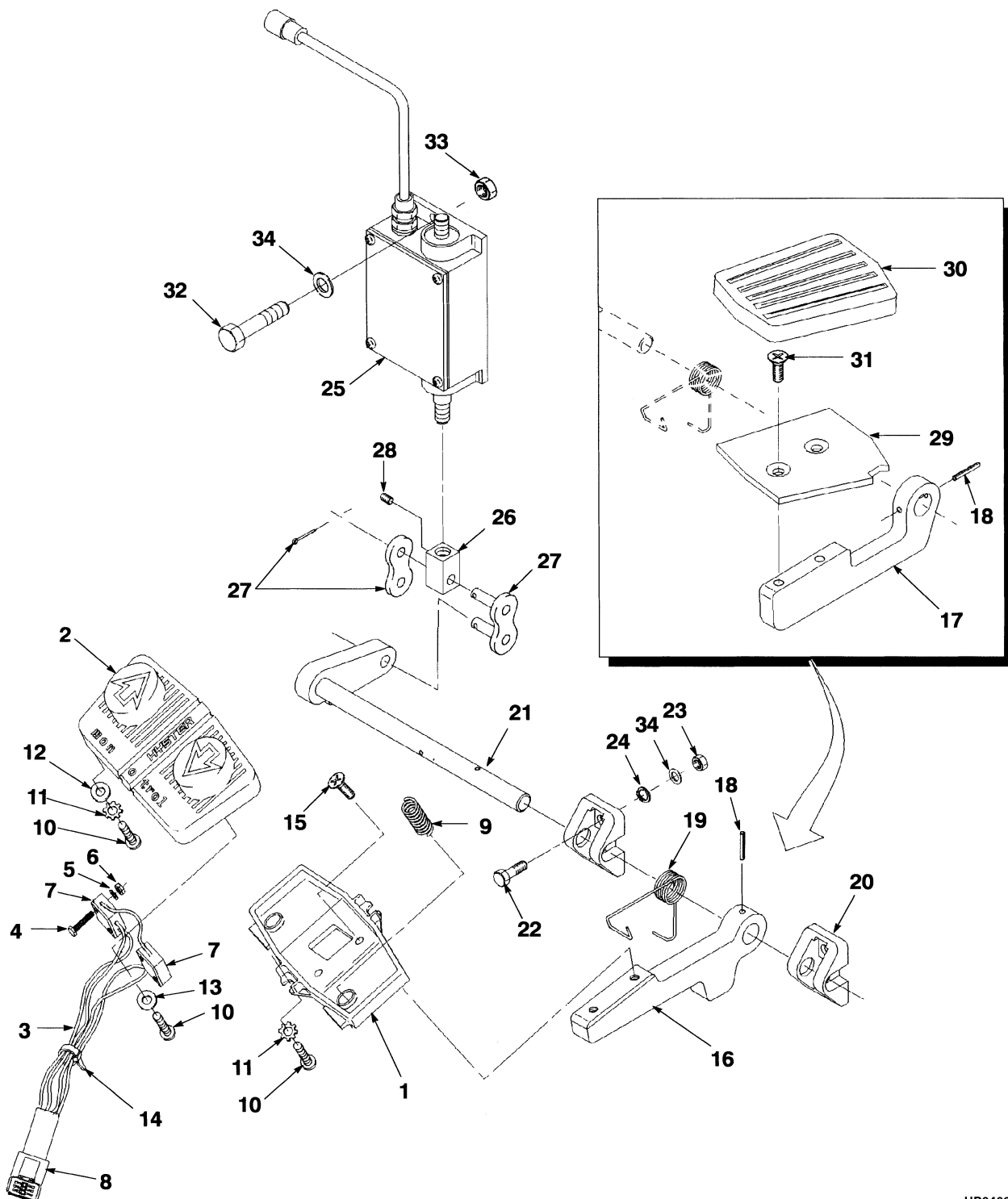
(→ 11/2002)

KEY:**A: Standard Accelerator****B: Monotrol Pedal**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1466613	Kit-Service (Monotrol)	..	1
1	2032999	Pedal Assy	..	1
2	1340470	Pad	..	1
3	1460611	Wire Harness	..	1
4	220428	Screw	..	4
5	53162	Lockwasher	..	4
6	16865	Nut	..	4
7	1451008	Switch	..	2
8	2013436	Pedal	..	1
9	325699	Spring	..	2
10	220493	Screw	..	6
11	320156	Washer	..	4
12	362036	Washer	..	2
13	1306621	Washer	..	2
14	114312	Strap Clamp	..	2
15	296215	Capscrew	..	2
16	2033119	Arm	..	1
17	2033815	Arm	1	..
18	1508031	Pin	1	1
19	2033120	Spring	1	1
20	325588	Clamp	2	2
21	2032996	Shaft	1	1
22	292501	Capscrew	4	4
23	136687	Nut	4	4
24	15127	Washer	4	4
25	2306739	Switch	1	1
25	2306862	Switch	1	1
26	2309911	Block	1	1
27	30411	Link	1	1
28	302141	Setscrew	1	1
29	2033816	Pedal	1	..
30	352885	Rubber Pad	1	..
31	296215	Capscrew	2	..
32	292501	Capscrew	2	2
33	325182	Nut	2	2
34	292680	Washer	6	6
	a 251099	Loctite	..	AR
	a 360387	Loctite	..	AR

FOOTNOTES:**a** Not Illustrated

ACCELERATOR/MONOTROL PEDAL (FIGURE 5-2) (11/2002 →)



HP040301

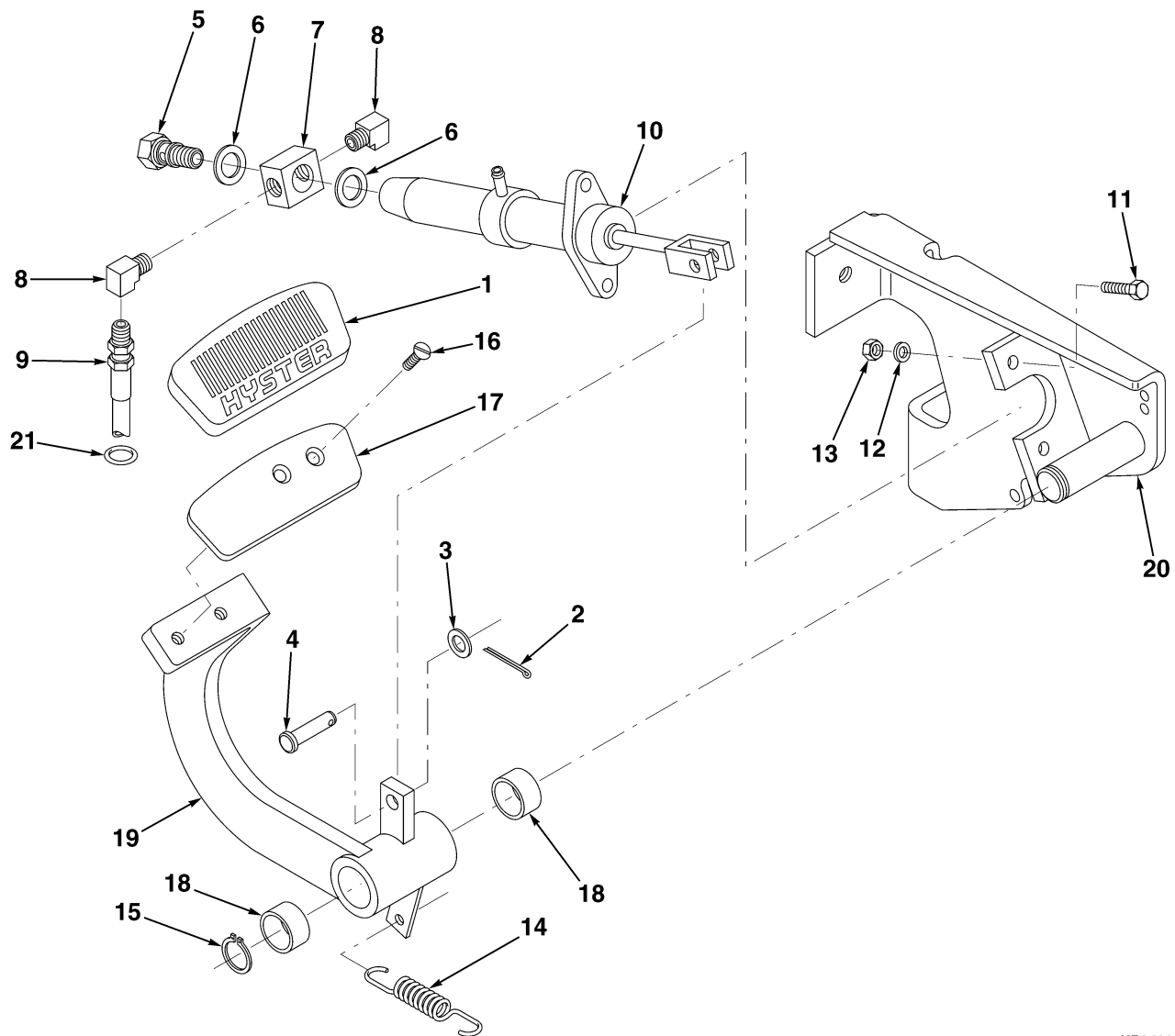
ACCELERATOR/MONOTROL PEDAL

(11/2002 →)

ITEM	PART NO.	DESCRIPTION	QTY
	1460612	Accelerator Pedal Mounting (Monotrol)	1
1	2032999	Pedal Assy	1
2	1340470	Pad	1
3	2054436	Switch (with Switches)	1
4	220428	Screw	4
5	53162	Lockwasher	4
6	16865	Nut	4
7	1468471	Switch	1
7	1475249	Switch	1
8	2044998	Wire Seal	1
9	325699	Spring	2
10	220493	Screw	6
11	320156	Washer	4
12	362036	Washer	2
13	1306621	Washer	2
14	114312	Strap Clamp	2
15	296215	Capscrew	2
16	2033119	Arm	1
17	2034576	Accelerator Pedal Mounting (Standard)	1
17	2033815	Arm	1
18	1508031	Pin	1
19	2033120	Spring	1
20	325588	Clamp	2
21	2032996	Shaft	1
22	292501	Capscrew	4
23	136687	Nut	4
24	2041014	Washer	4
25	2306739	Switch	1
25	2306862	Switch	1
26	2309911	Block	1
27	30411	Link	1
28	302141	Setscrew	1
29	2033816	Pedal	1
30	352885	Rubber Pad	1
31	296215	Capscrew	2
32	292501	Capscrew	2
33	325182	Nut	2
34	292680	Washer	6
	a 15931	Lockwasher	1

FOOTNOTES:**a** Not Illustrated

BRAKE PEDAL LINKAGE (FIGURE 5-3)



HP040302

BRAKE PEDAL LINKAGE

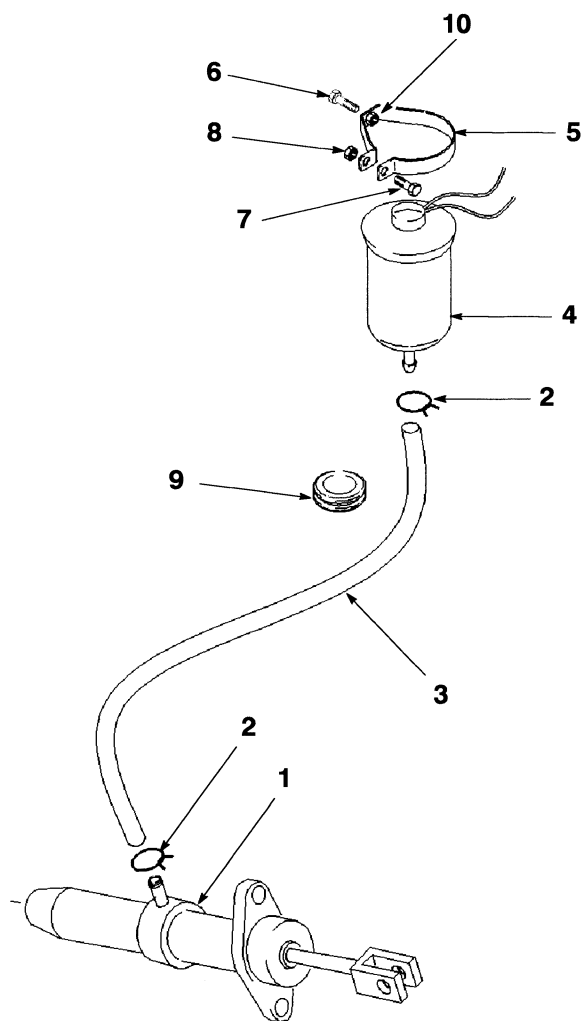
ITEM	PART NO.	DESCRIPTION	QTY
1	1343630	Rubber Pad	1
2	15212	Cotter Pin	1
3	320157	Washer	1
4	133683	Pin	1
5	2311664	Bolt	1
6	2310172	Washer	2
7	2303235	Manifold	1
8	14269	Fitting	2
9	2303788	Hose Assy	2
10	2311873	Master Cylinder	1
10	2306125	Rod	1
10	2304690	Kit-Repair Parking Brake	1
11	293615	Capscrew	2
12	320157	Washer	2
13	302400	Nut	2
14	2306538	Spring	1
15	1344820	Snap Ring	1
16	296226	Capscrew	2
17	b 2033236	Plate	1
17	a 2033646	Plate	1
18	2306828	Bushing	2
19	2036100	Brake Pedal	1
20	2036090	Bracket	1
21	133484	Grommet	1
	c 339068	Lubricant	AR
	c 251099	Loctite	AR

FOOTNOTES:

- a** Forward/Reverse Lever
b Monotrol Pedal

- c** Not Illustrated

BRAKE MASTER CYLINDER (FIGURE 5-4)



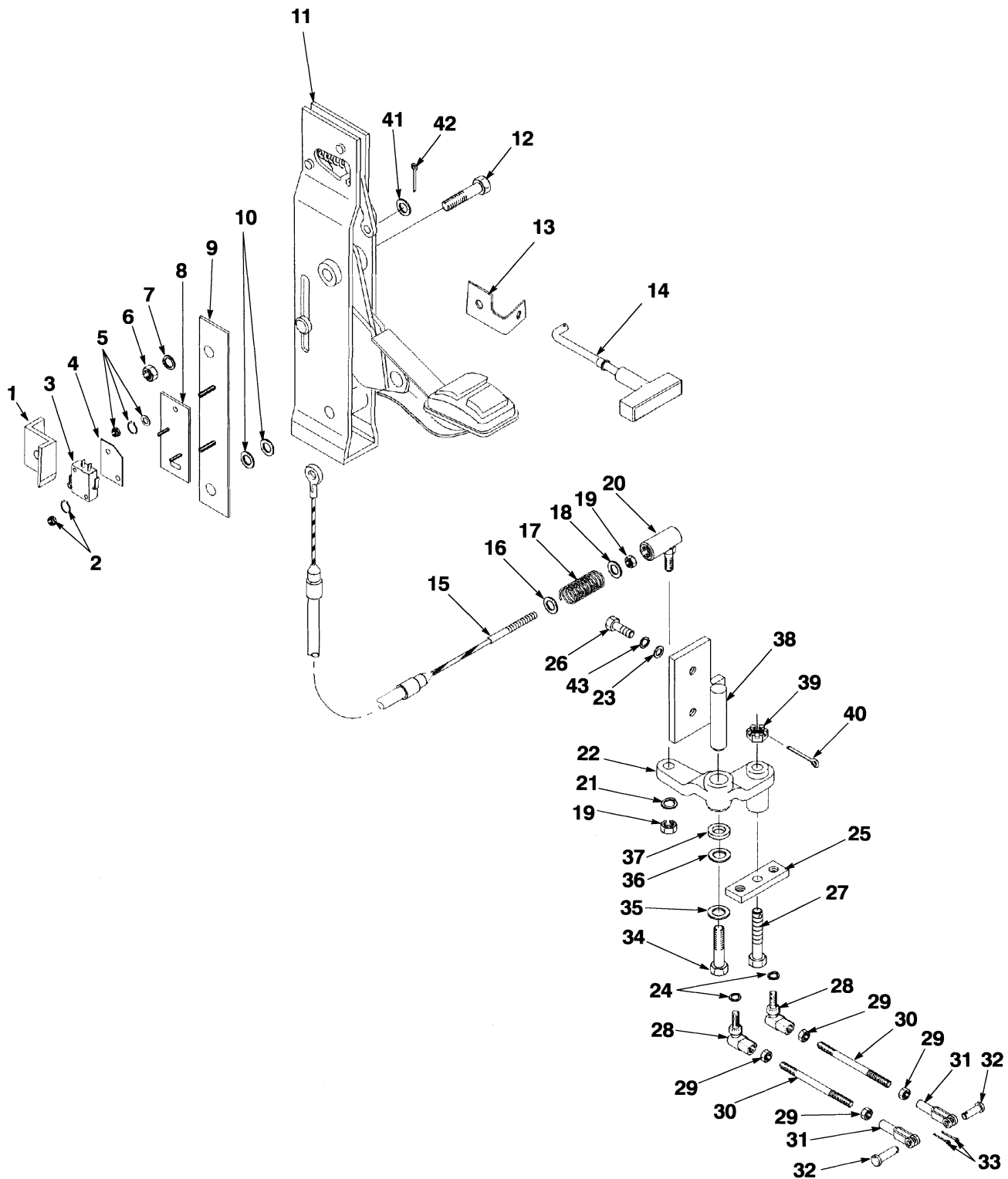
HP040303

ITEM	PART NO.	DESCRIPTION	QTY
1	2311873	Master Cylinder	1
1	2306125	Rod	1
1	2304690	Kit-Repair Parking Brake	1
2	2303739	Clamp	2
3	2309267	Hose	1
4	2309541	Reservoir	1
5	2305157	Clamp	1
6	292500	Capscrew	1
7	292501	Capscrew	1
8	136687	Nut	1
9	133484	Grommet	1
10	313805	Nut	1

NOTES

[illegible]

PARK BRAKE LINKAGE (FIGURE 5-5)



HP040304

PARK BRAKE LINKAGE

ITEM	PART NO.	DESCRIPTION	QTY
1	2304966	Cam	1
2	16865	Nut	2
2	18419	Lockwasher	2
3	2056480	Switch	1
3	2037379	Microswitch	1
4	2302902	Insulator	1
5	15151	Lockwasher	2
5	197065	Washer	2
5	230880	Locknut	2
6	239503	Nut	2
7	292681	Lockwasher	2
8	2306881	Plate	1
9	2311058	Plate	1
10	320157	Washer	2
11	930451	Parking Brake Lever	1
11	323617	Pad	1
11	355172	Spring	1
12	136704	Capscrew	2
13	2308749	Bracket	1
14	2305554	Handle	1
15	2310764	Parking Brake Cable	1
16	15176	Lockwasher	1
17	2306742	Spring	1
18	15134	Washer	2
19	15026	Nut	2
20	2305981	Ball Joint	1
21	15156	Lockwasher	1
22	2310295	Bellcrank	1
23	320159	Washer	2
24	15155	Lockwasher	2
25	2305287	Link	1
26	292515	Capscrew	2
27	2302308	Pin	1
28	2302565	Ball Joint	2
29	15025	Nut	4
30	2311335	Rod	2
31	138	Rod End	2
32	139	Pin	2
33	15212	Cotter Pin	2
34	221454	Capscrew	1
35	15175	Lockwasher	1
36	2306738	Washer	AR
37	2307100	Thrust Washer	1
38	2033571	Bracket Wldmt	1
39	38848	Nut	1
40	15213	Cotter Pin	2
41	320156	Washer	1
42	15200	Cotter Pin	2
43	292682	Lockwasher	2
	a 251099	Loctite	AR
	a 339068	Lubricant	AR

PARK BRAKE LINKAGE

ITEM	PART NO.	DESCRIPTION	QTY
	2302512	Kit-Park Brake	1
	2311979	Kit-Park Brake	1

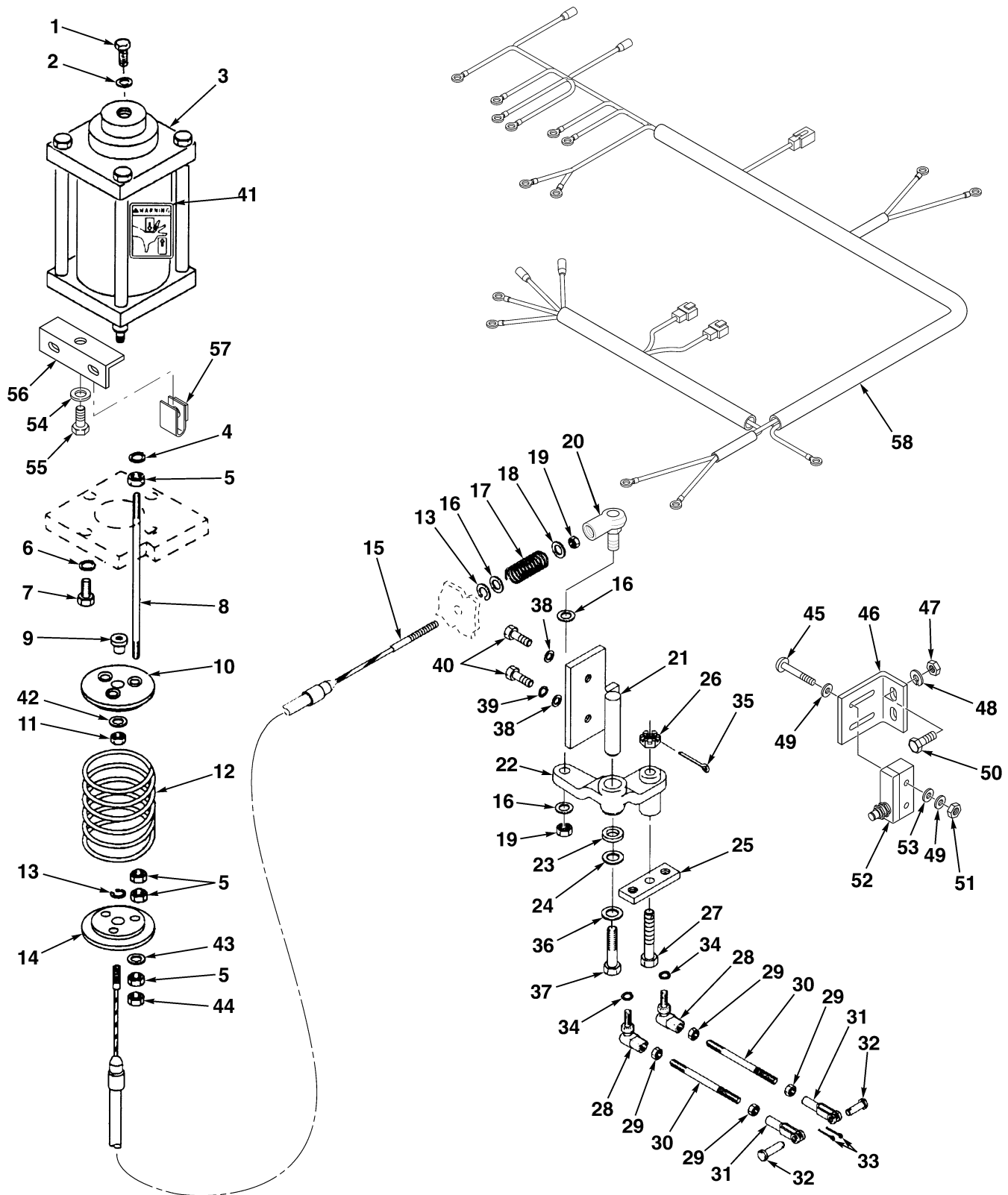
FOOTNOTES:

a Not Illustrated

NOTES

[illegible]

ELECTRICALLY RELEASED PARK BRAKE (FIGURE 5-6)



HP040305

ELECTRICALLY RELEASED PARK BRAKE

ITEM	PART NO.	DESCRIPTION	QTY
1	16820	Capscrew	1
2	15158	Washer	1
3	2305661	Kit-Solenoid	1
3	2310476	Solenoid	1
4	15155	Lockwasher	4
5	221705	Nut	12
6	15156	Lockwasher	4
7	16805	Capscrew	4
8	2305308	Guide	3
9	2306112	Adapter	1
10	2304932	Plate	1
10	2309212	Bearing	1
10	2310589	Plate	1
11	221706	Nut	1
12	2037362	Spring	1
13	2038638	E-Ring	2
14	2305279	Plate	1
15	2035145	Parking Brake Cable	3
16	15176	Lockwasher	1
17	2306742	Spring	1
18	15134	Washer	2
19	15026	Nut	2
20	2305981	Ball Joint	1
21	2033571	Bracket Wldmt	1
22	2310295	Bellcrank	1
23	15176	Lockwasher	2
24	15155	Lockwasher	2
25	2305287	Link	1
26	38848	Nut	1
27	2302308	Pin	1
28	2302565	Ball Joint	2
29	15025	Nut	4
30	2311335	Rod	2
31	138	Rod End	2
32	139	Pin	2
33	15212	Cotter Pin	2
34	15155	Lockwasher	2
35	15213	Cotter Pin	1
36	15175	Lockwasher	1
37	221454	Capscrew	1
38	292682	Lockwasher	4
39	320159	Washer	2
40	292515	Capscrew	3
41	2305941	Label (Pinch Warning)	1
42	15155	Lockwasher	4
43	221765	Washer	4
44	145639	Locknut	3
45	302015	Screw	2
46	2033822	Bracket	1
47	136687	Nut	4
48	292600	Nut	10

ELECTRICALLY RELEASED PARK BRAKE

ITEM	PART NO.	DESCRIPTION	QTY
49	320152	Washer	4
50	302261	Capscrew	2
51	292665	Nut	2
52	2307677	Switch	1
53	296375	Washer	2
54	15156	Lockwasher	4
55	16805	Capscrew	4
56	2304907	Bar	1
57	2310704	Nut	2
58	2038106	Wire Harness	1
	a 251099	Loctite	AR
	a 251979	Lubricant	AR

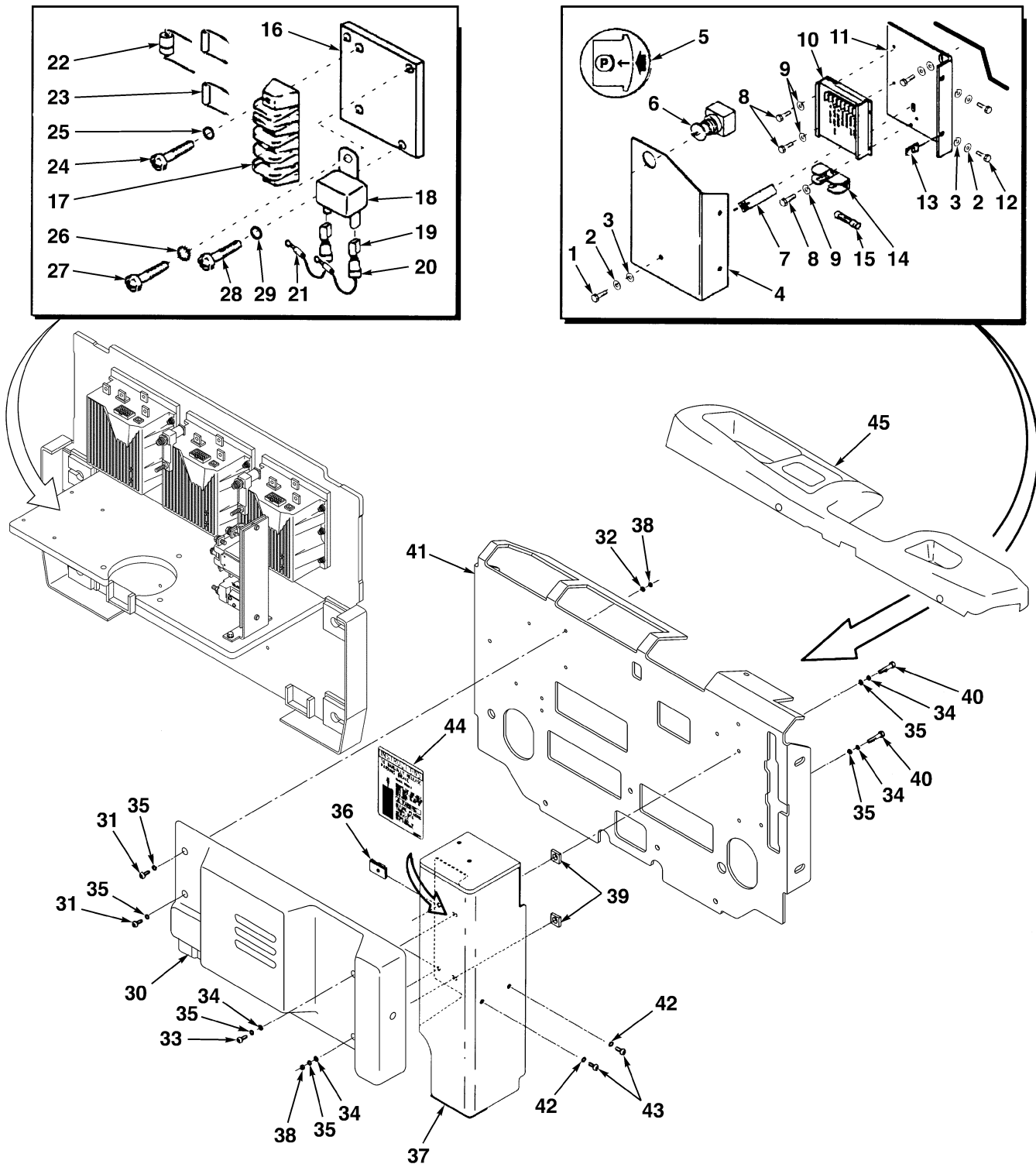
FOOTNOTES:

a Not Illustrated

NOTES

[illegible]

PARK BRAKE ELECTRICAL COMPONENTS COVERS (FIGURE 5-7)



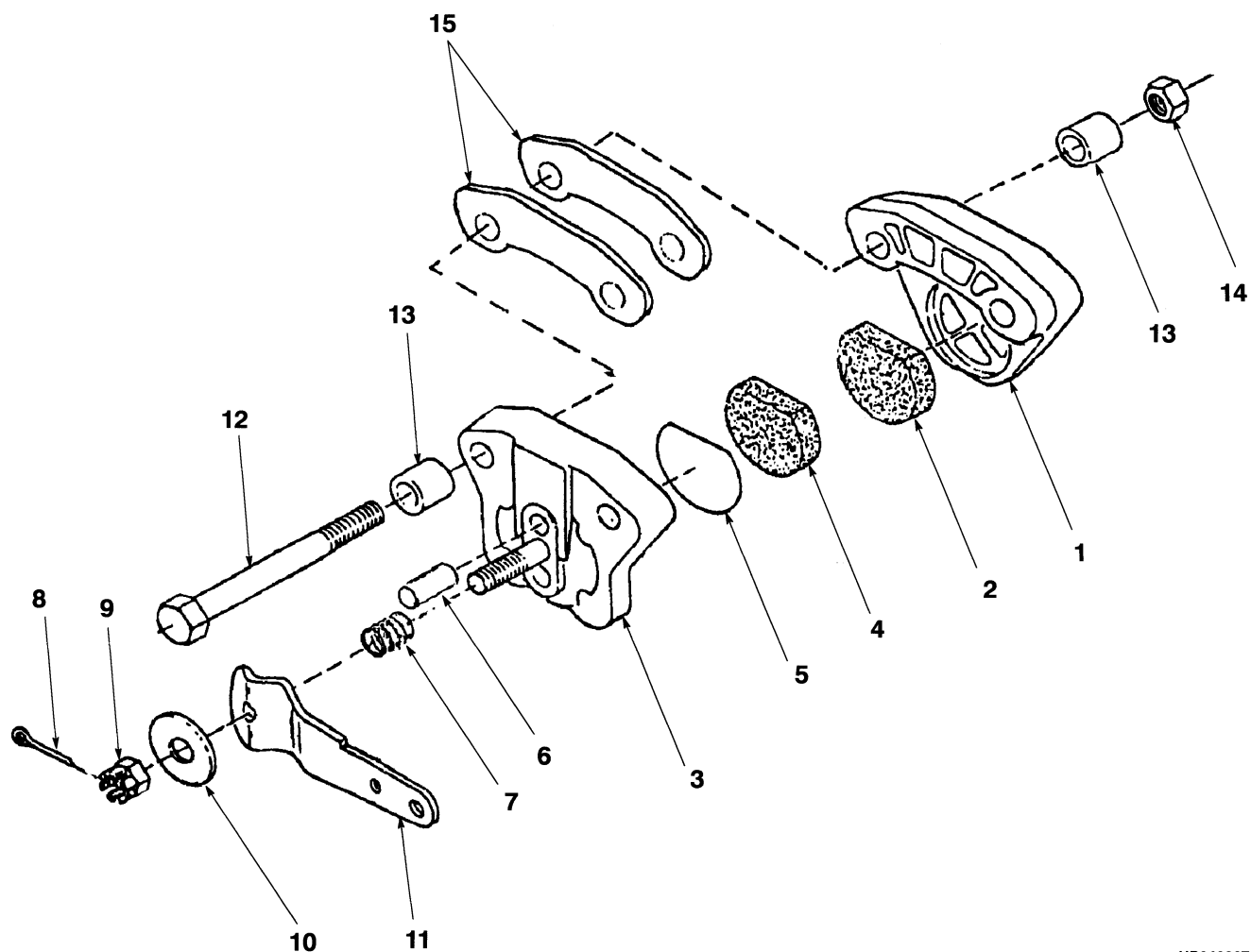
HP040306

PARK BRAKE ELECTRICAL COMPONENTS COVERS**KEY:****A: Foot Parking Brake****B: Seat Parking Brake**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	292515	Capscrew	2	2
2	292680	Washer	2	2
3	320156	Washer	4	4
4	2310722	Plate	1	1
5	2311971	Label (Park Brake Button)	1	..
6	2308430	Push Button Switch (Push Button)	1	1
6	1465584	Button (Red)	1	1
7	2307716	Stand Off	1	1
8	302020	Screw	6	6
9	292678	Lockwasher	6	6
10	2311350	Control Module	1	1
11	2305201	Plate	1	1
12	287816	Capscrew	2	2
13	325182	Nut	2	2
14	2310373	Fuse Block	1	1
15	2310839	Fuse (30 Amp)	1	1
16	2309219	Plate	1	1
17	2308736	Terminal Block	1	1
18	1307687	Relay (24 Volt)	1	1
19	2305754	Terminal	2	2
20	2311669	Wire	2	2
21	2303345	Terminal (Ring)	2	2
22	2307261	Diode	1	1
23	2310615	Resistor (2 Watt - 150 Ohm)	2	2
24	302021	Screw	2	2
25	292678	Lockwasher	2	2
26	296377	Washer	1	1
27	302018	Screw	1	1
28	1367837	Screw	2	2
29	296397	Washer	2	2
30	2307691	Cover (Front)	1	1
31	302048	Screw	2	2
32	222085	Washer	2	2
33	292500	Capscrew	2	2
34	292680	Washer	2	2
35	320156	Washer	8	8
36	325182	Nut	2	2
37	2309698	Cover	1	1
38	136687	Nut	2	2
39	2033823	Spacer	2	2
40	2303291	Capscrew	2	2
41	1462649	Cowl	1	..
41	1462650	Cowl	..	1
42	15175	Lockwasher	2	2
43	18728	Capscrew	2	2
44	2305454	Label (Instructions)	1	1

PARK BRAKE ELECTRICAL COMPONENTS COVERS**KEY:****A: Foot Parking Brake****B: Seat Parking Brake**

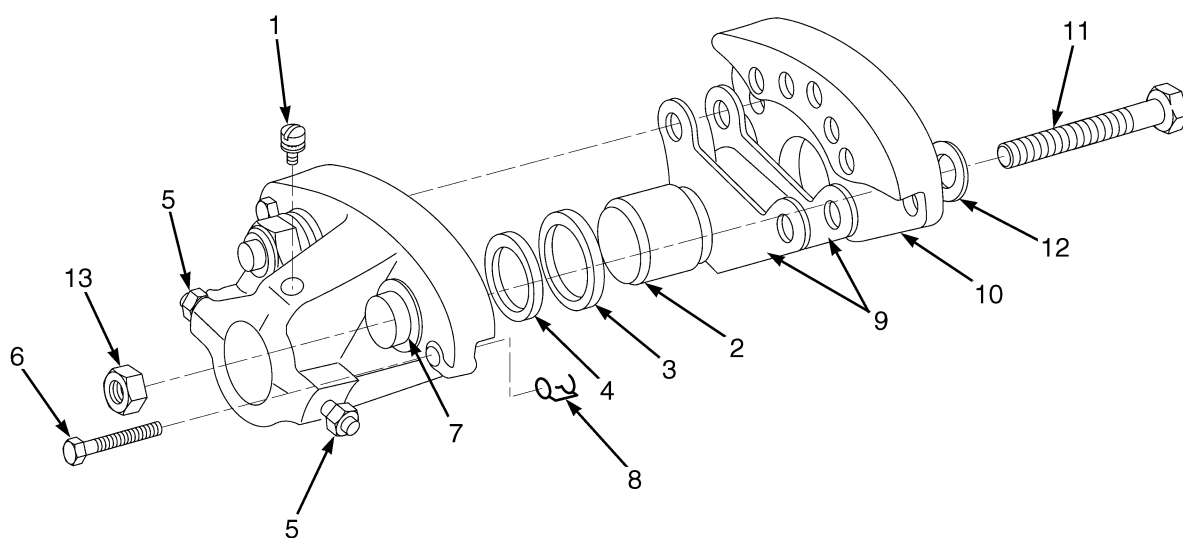
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
45	1462623	Cowl Cover (Cowl)	1	..
45	1462624	Cover (Cowl)	..	1

PARK BRAKE (FIGURE 5-8)

HP040307

ITEM	PART NO.	DESCRIPTION	QTY
------	----------	-------------	-----

ITEM	PART NO.	DESCRIPTION	QTY
	2302735	Brake Disk	1
1	2013879	Carrier Side	1
1	2013881	Carrier	1
2	2013880	Brake Lining	1
3	2013876	Cam	1
3	2013877	Cam	1
4	281971	Brake Lining	1
5	303652	Backplate	1
6	303653	Pin	2
7	303654	Spring	1
8	15241	Cotter Pin	1
9	303669	Nut	1
10	303668	Washer	1
11	2013878	Plate	1
12	303672	Capscrew	2
13	319667	Bushing	4
14	303674	Nut	2
15	303660	Spacer	2

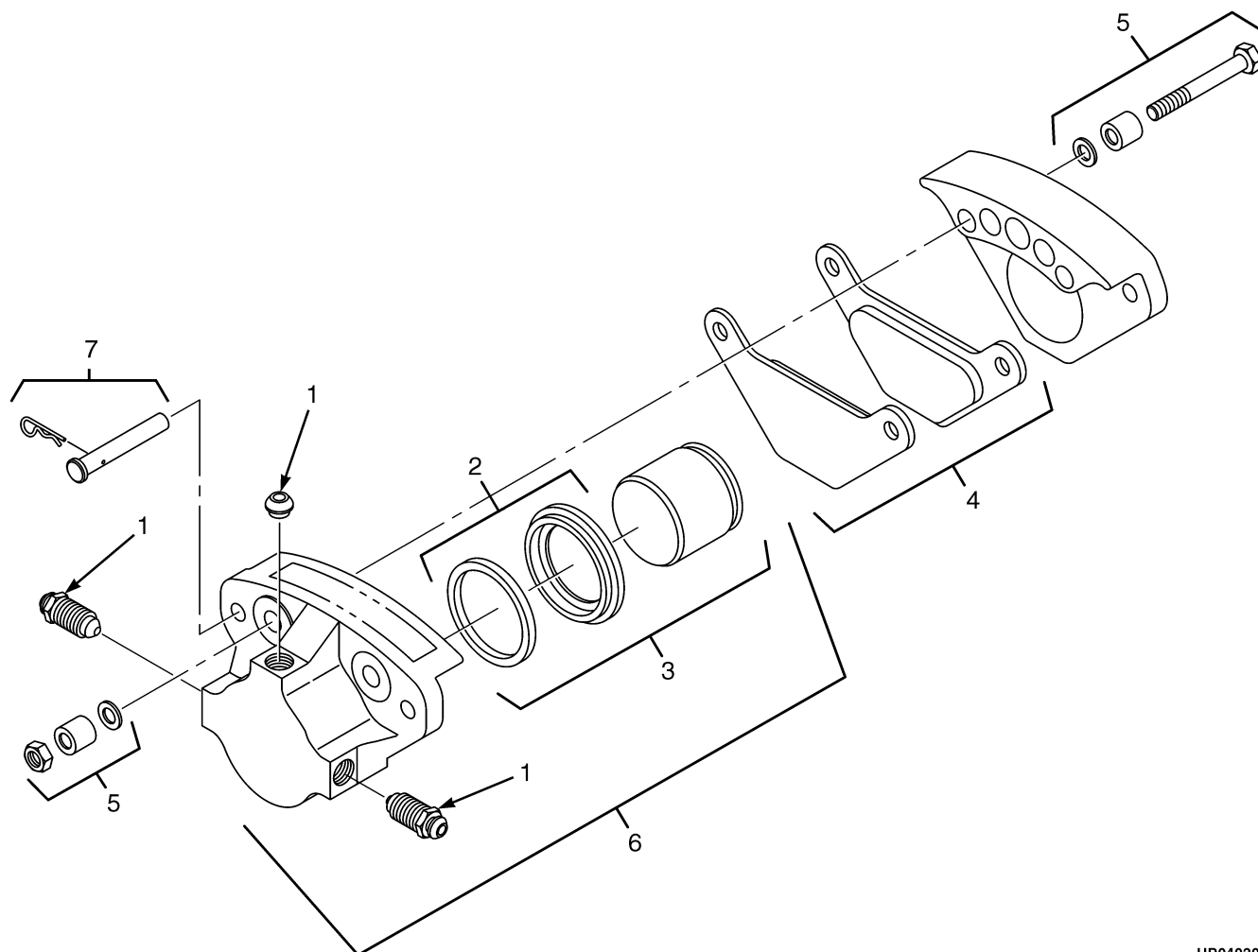
HYDRAULIC CALIPER ASSEMBLY (FIGURE 5-9)
(→ 4/2002)

HP040423

ITEM	PART NO.	DESCRIPTION	QTY
	260034	Brake Assembly	1
1	301995	Insert	1
2	292778	Piston	1
3	292780	Boot	1
4	292779	Piston Seal	1
5	301994	Bleeder Screw	2
6	301997	Pin	2
7	319667	Bushing	4
8	292777	Clip	2
9	1323956	Brake Pad	2
9	1324049	Brake Pad	1
10	301996	Carrier Side	1
11	1323955	Capscrew	2
12	303673	Washer	2
13	303674	Nut	2

HYDRAULIC CALIPER ASSEMBLY (FIGURE 5-10)

(4/2002 →)



HP040308

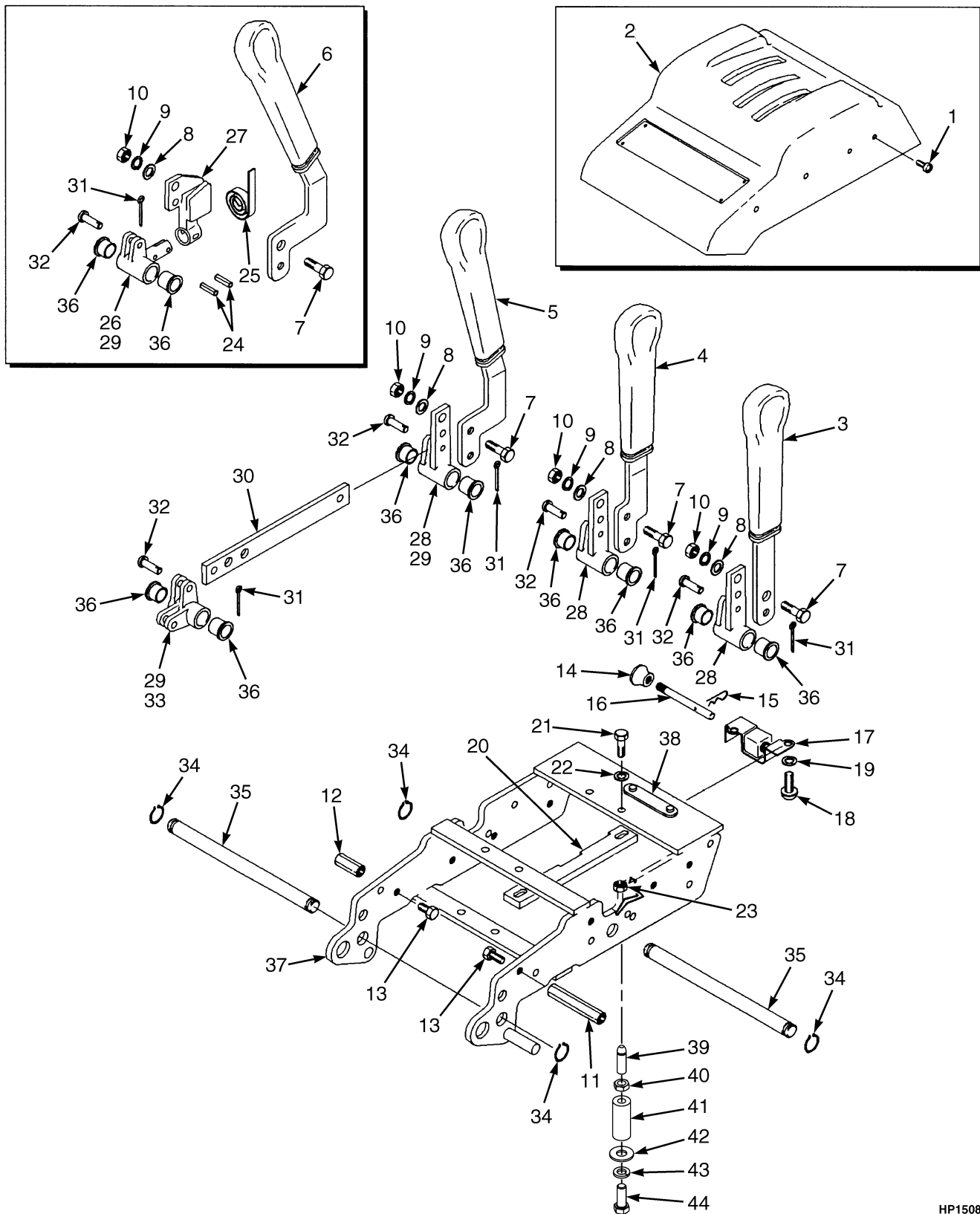
ITEM	PART NO.	DESCRIPTION	QTY
	1516092	Kit-Brake	2
1	1550883	Kit-Service Caliper Brake	2
1		Bleeder	3
1		Insert	2
2	1550888	Kit-Seal	2
2		Dust Boot	1
2		Seal	1
2		O-Ring	1
3	1550892	Kit-Repair	2
3		Piston	1
3		Dust Boot	1
3		Seal	1
3		O-Ring	1
4	1550901	Brake Pad	2
4		Insulator	2
4		Pad and Holder	3
5	1550903	Bolt	1
5		Bolt	2

ITEM	PART NO.	DESCRIPTION	QTY
5		Bushing	4
5		Washer	4
5		Nut	2
6	1550907	Brake Disk	1
6		Piston Side Casting	1
6		Seal	1
6		Dust Boot	1
6		Piston	1
6		O-Ring	1
6		Insert	1
6		Bleeder	3
7	1550910	Kit-Service Caliper Brake	1
7		Hairpin	2
7		Pad Pin	2

SECTION 6 HYDRAULIC SYSTEM

DESCRIPTION	PAGE
CONTROL VALVE	
S/N H160N03839A →	6-14
→ S/N H160N03838A	6-16
HANDLEVER	6-2
HYDRAULIC HOSE AND FITTINGS	
→ S/N H160N03838A	6-36
S/N H160N03839A →	6-40
HYDRAULIC LIFT PUMP ASSEMBLY	
12 CC	6-30
HYDRAULIC MOTOR	
12 CC PUMP (→ S/N H160N03152Z)	6-20
12 CC PUMP (S/N H160N03152Z →)	6-26
19 CC PUMP (→ S/N H160N03152Z)	6-22
19 CC PUMP (S/N H160N03152Z →)	6-24
HYDRAULIC PUMP	
12 CC	6-28
HYDRAULIC PUMP ASSEMBLY	
19 CC	6-32
HYDRAULIC VALVE AND ATTACHING PARTS	
S/N H160N03839A →	6-6
→ S/N H160N03838A	6-10
TILT CYLINDER	6-34

HANDLEVER (FIGURE 6-1)



HP150885

HANDLEVER**KEY:****A: Two Function****B: Three Function (With Detent Levers)****C: Three Function (Without Detent Levers)****D: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	302044	Screw	8	8	8	8
2	2014604	Cover (Upper)	1	1	1	1
3	2013234	Lever (Lift)	1	1	1	1
4	2013235	Lever (Tilt)	1	1	1	1
5	2013236	Lever (Third Function)	..	1	1	..
6	2013237	Lever (Fourth Function)	..	..	..	1
7	292501	Capscrew	4	6	6	8
8	320156	Washer	2	3	3	4
9	292680	Washer	4	6	6	8
10	136687	Nut	4	6	6	8
11	2309924	Stand Off	4	4	4	4
12	2306052	Stand Off	4	4	4	4
13	287817	Capscrew	8	8	8	8
14	2303365	Knob	1	1	1	1
15	15200	Cotter Pin	1	1	1	1
16	2308059	Rod	1	1	1	1
17	2305669	Latch	1	1	1	1
18	296153	Capscrew	2	2	2	2
19	293778	Lockwasher	2	2	2	2
20	2302179	Plate	2	2	2	2
21	287816	Capscrew	..	2	..	2
22	320156	Washer	..	2	..	2
23	302399	Nut	..	2	..	2
24	19979	Roll Pin	..	2	..	2
25	175861	Spring	..	1	..	1
26	2304767	Pivot	..	1	..	1
27	2309570	Crank	..	1	..	1
28	2304087	Crank	2	2	3	3
29	2307513	Spacer	4	2	2	..
30	2303898	Link	2	3	3	4
31	221877	Cotter Pin	4	6	6	8
32	2013239	Pin	4	6	6	8
33	2309978	Rocker Arm	2	3	3	4
34	307253	Snap Ring	4	4	4	4
35	2311392	Pin	2	2	2	2
36	2310972	Bushing	8	12	12	16
37	a 2040755	Frame	1	1	1	1
37	2310125	Frame	1	1	1	1
38	1510861	Nut	1	1	1	1
39	2309936	Stud	1	1	1	1
40	15026	Nut	1	1	1	1
41	1519932	Stand Off	1	1	1	1
42	17176	Fitting	2	2	2	2
43	15156	Lockwasher	1	1	1	1

HANDLEVER

KEY:

A: Two Function

B: Three Function (With Detent Levers)

C: Three Function (Without Detent Levers)

D: Four Function

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
44	16634	Capscrew	1	1	1	1

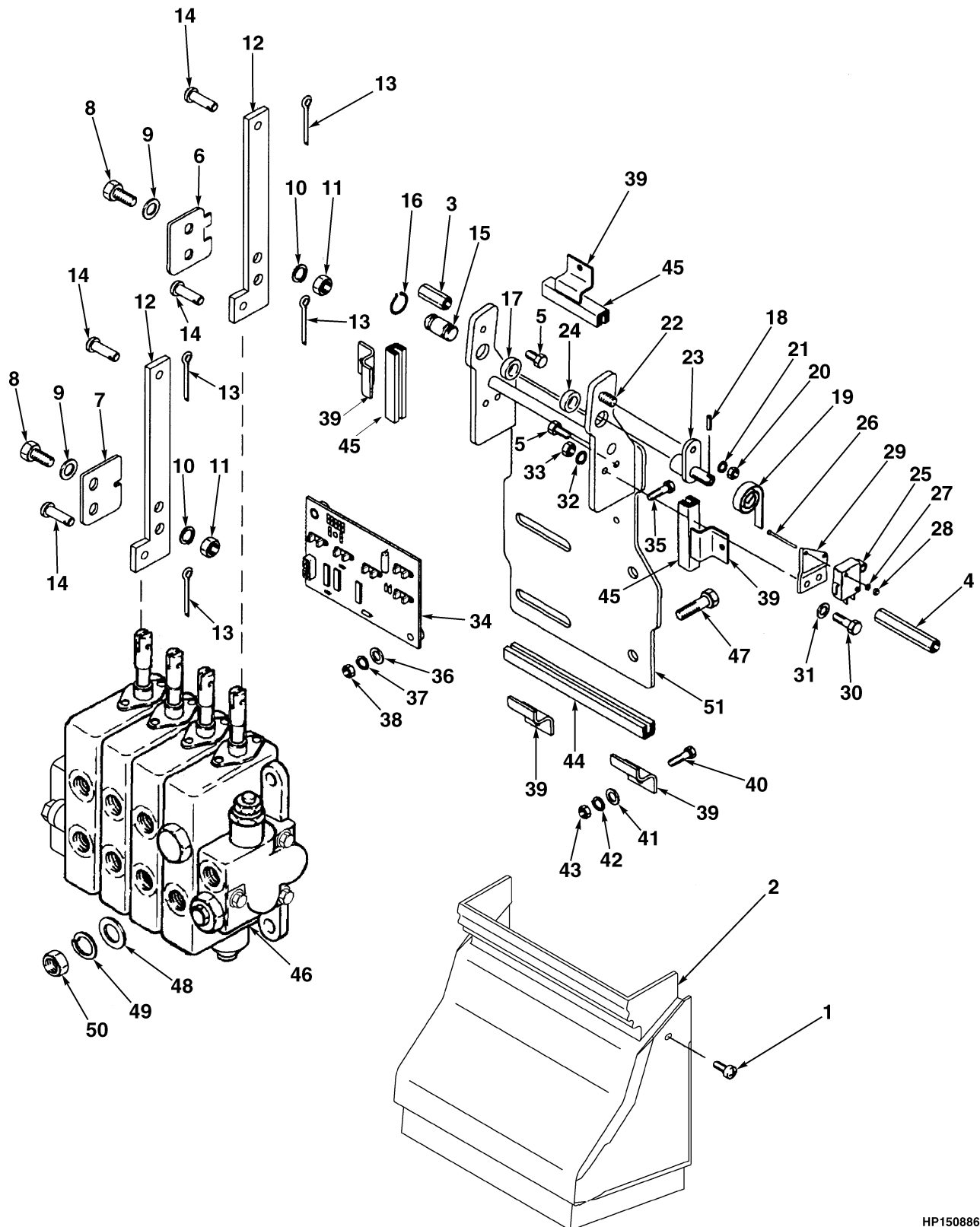
FOOTNOTES:

a EE Application Only

NOTES

[illegible]

HYDRAULIC VALVE AND ATTACHING PARTS (FIGURE 6-2) (S/N H160N03839A →)



HP150886

HYDRAULIC VALVE AND ATTACHING PARTS
(S/N H160N03839A →)**KEY:****A: Two Function****B: Three Function (With Detent Levers)****C: Three Function (Without Detent Levers)****D: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	302044	Screw	2	2	2	2
2	2309387	Cover (Lower)	1	1	1	1
3	2311384	Stand Off	1	1	1	1
4	2303448	Stand Off	1	1	1	1
5	287817	Capscrew	2	2	2	2
6	2303324	Plate (Lift) (Two Speed)	1	1	1	1
7	2310715	Switch (Tilt) (Three and Four Speed)	1	2	2	3
8	292500	Capscrew	4	6	6	8
9	320156	Washer	4	6	6	8
10	292680	Washer	4	6	6	8
11	136687	Nut	4	6	6	8
12	2061645	Link	2	3	3	4
13	15200	Cotter Pin	4	6	6	8
14	2013239	Pin	4	6	6	8
15	2303498	Pin	1	1	1	1
16	58903	Snap Ring	2	2	2	2
17	2307900	Washer	AR	AR	AR	..
18	19979	Roll Pin	1	1	1	1
19	175861	Spring	1	1	1	1
20	136687	Nut	1	1	1	1
21	292680	Washer	1	1	1	1
22	2303104	Stud	1	1	1	1
23	2307042	Pin	1	1	1	1
24	2303162	Spacer	2	2	2	2
25	2309240	Switch	1	1	1	1
25	a 2037379	Microswitch	1	1	1	1
26	220271	Screw	2	2	2	2
27	18419	Lockwasher	2	2	2	2
28	16865	Nut	2	2	2	2
29	2311130	Bracket	1	1	1	1
30	292501	Capscrew	1	1	1	1
31	320156	Washer	1	1	1	1
32	292680	Washer	1	1	1	1
33	136687	Nut	1	1	1	1
34	2302217	Printed Circuit Board	1	1	1	1
35	287816	Capscrew	2	2	2	2
36	320156	Washer	2	2	2	2
37	292680	Washer	2	2	2	2
38	136687	Nut	2	2	2	2
39	324972	Bracket	5	5	5	5
40	136681	Capscrew	5	5	5	5
41	320158	Washer	5	5	5	5
42	292681	Lockwasher	5	5	5	5

HYDRAULIC VALVE AND ATTACHING PARTS (S/N H160N03839A →)

KEY:

A: Two Function

B: Three Function (With Detent Levers)

C: Three Function (Without Detent Levers)

D: Four Function

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
43	239503	Nut	5	5	5	5
44	325057	Strip Seal	1	1	1	1
45	325056	Strip Seal (Rubber)	3	3	3	3
46	2063766	Hydraulic Control Valve (Two Spool Valve) (☞Figure 6-4).....	1	..	..	..
46	2064003	Hydraulic Control Valve (Three Spool Valve) (☞Figure 6-4)....	..	1	1	..
46	2064004	Hydraulic Control Valve (Four Spool Valve) (☞Figure 6-4).....	..	..	..	1
47	287860	Capscrew	1	1	1	1
48	320159	Washer	1	1	1	1
49	292682	Lockwasher	1	1	1	1
50	136692	Nut	1	1	1	1
51	2061643	Bracket Wldmt	1	1	1	1

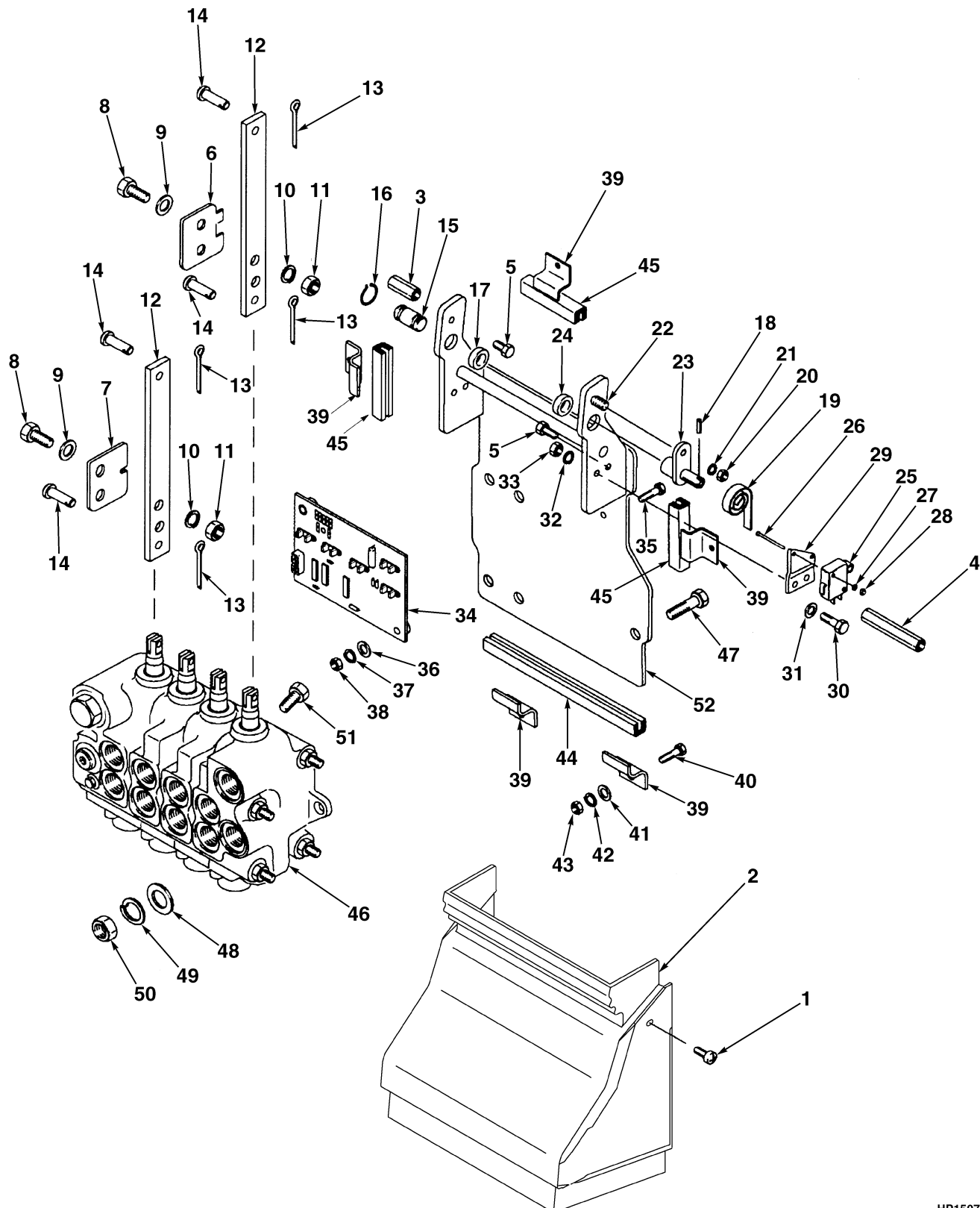
FOOTNOTES:

a → 4/2003

NOTES

[illegible]

HYDRAULIC VALVE AND ATTACHING PARTS (FIGURE 6-3) (→ S/N H160N03838A)



HP150744

HYDRAULIC VALVE AND ATTACHING PARTS

(→ S/N H160N03838A)

KEY:**A: Two Function****B: Three Function (With Detent Levers)****C: Three Function (Without Detent Levers)****D: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	302044	Screw	2	2	2	2
2	2309387	Cover (Lower)	1	1	1	1
3	2311384	Stand Off	1	1	1	1
4	2303448	Stand Off	1	1	1	1
5	287817	Capscrew	2	2	2	2
6	2303324	Plate (Lift)	1	1	1	1
7	2310715	Switch (Tilt)	1	2	2	3
8	292500	Capscrew	4	6	6	8
9	320156	Washer	4	6	6	8
10	292680	Washer	4	6	6	8
11	136687	Nut	4	6	6	8
12	2303898	Link	2	3	3	4
13	15200	Cotter Pin	4	6	6	8
14	2013239	Pin	4	6	6	8
15	2303498	Pin	1	1	1	1
16	58903	Snap Ring	2	2	2	2
17	2307900	Washer	AR	AR	AR	..
18	19979	Roll Pin	1	1	1	1
19	175861	Spring	1	1	1	1
20	136687	Nut	1	1	1	1
21	292680	Washer	1	1	1	1
22	2303104	Stud	1	1	1	1
23	2307042	Pin	1	1	1	1
24	2303162	Spacer	2	2	2	2
25	2309240	Switch	1	1	1	1
25	a 2037379	Microswitch	1	1	1	1
26	220271	Screw	2	2	2	2
27	18419	Lockwasher	2	2	2	2
28	16865	Nut	2	2	2	2
29	2311130	Bracket	1	1	1	1
30	292501	Capscrew	1	1	1	1
31	320156	Washer	1	1	1	1
32	292680	Washer	1	1	1	1
33	136687	Nut	1	1	1	1
34	2302217	Printed Circuit Board	1	1	1	1
35	287816	Capscrew	2	2	2	2
36	320156	Washer	2	2	2	2
37	292680	Washer	2	2	2	2
38	136687	Nut	2	2	2	2
39	324972	Bracket	5	5	5	5
40	136681	Capscrew	5	5	5	5
41	320158	Washer	5	5	5	5
42	292681	Lockwasher	5	5	5	5

HYDRAULIC VALVE AND ATTACHING PARTS (→ S/N H160N03838A)

KEY:

A: Two Function

B: Three Function (With Detent Levers)

C: Three Function (Without Detent Levers)

D: Four Function

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
43	239503	Nut	5	5	5	5
44	325057	Strip Seal	1	1	1	1
45	325056	Strip Seal (Rubber)	3	3	3	3
46	2307559	Hydraulic Control Valve (☞Figure 6-5).....	1	1	1	..
46	2033619	Hydraulic Control Valve (☞Figure 6-5).....	1	..	..	1
47	287860	Capscrew	1	1	1	1
48	320159	Washer	1	1	1	1
49	292682	Lockwasher	1	1	1	1
50	136692	Nut	1	1	1	1
51	293627	Capscrew	2	2	2	2
52	2305146	Bracket	1	1	1	1

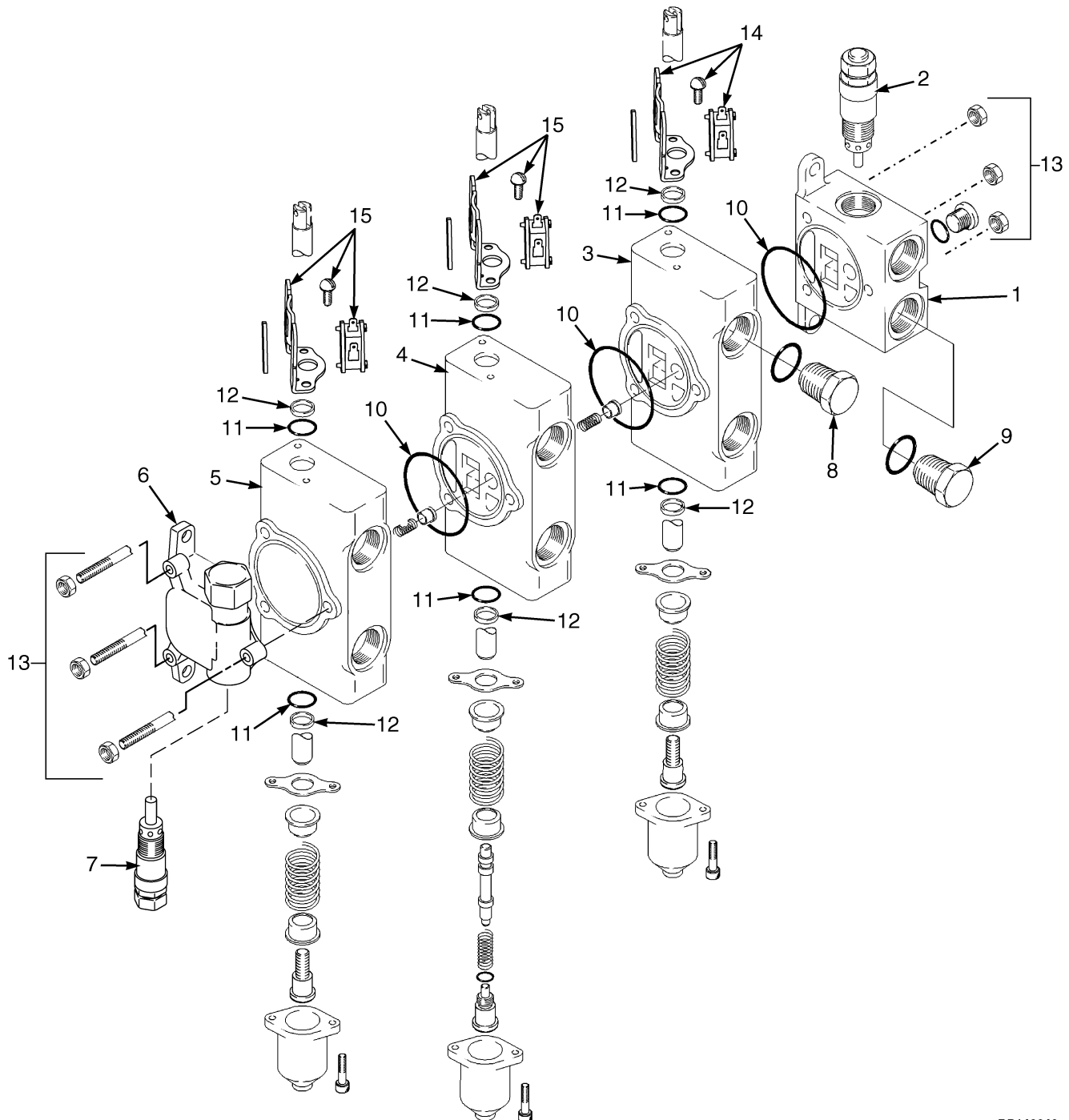
FOOTNOTES:

a → 4/2003

NOTES

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, typical of notebook paper or primary-ruled paper used for writing practice. There are no margins, text, or other markings on the page.

CONTROL VALVE (FIGURE 6-4) (S/N H160N03839A →)



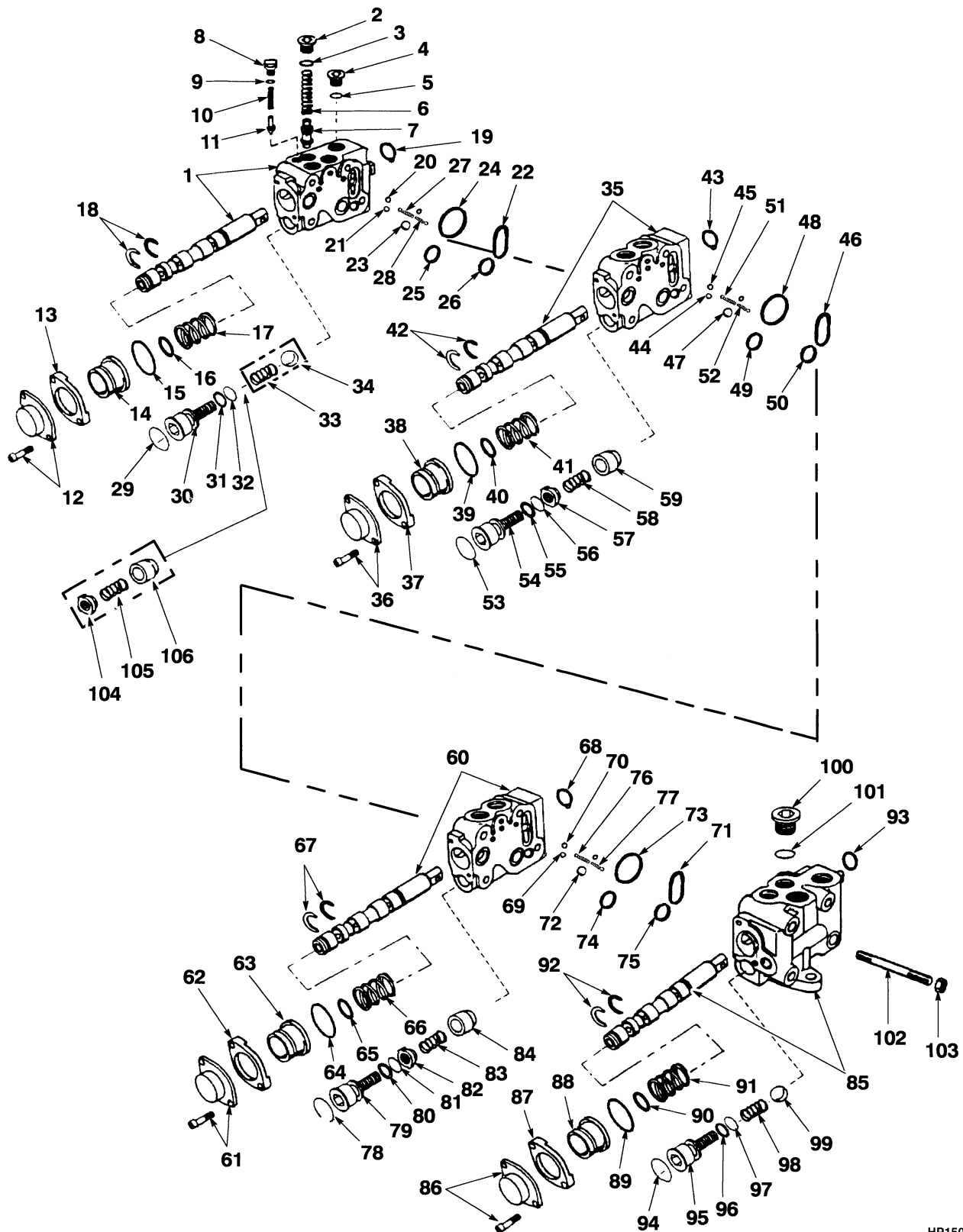
BP140040

CONTROL VALVE
(S/N H160N03839A →)**KEY:****A: Two Spool****B: Three Spool****C: Four Spool**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2063766	Hydraulic Control Valve	1	..	..
	2064003	Hydraulic Control Valve	..	1	..
	2064004	Hydraulic Control Valve	..	..	1
1	1547585	Valve Section	1	1	1
1	1569601	Insert	1	1	1
1	14591	Plug	1	1	1
2	1547590	Relief Valve	1	1	1
3	1547587	Valve Section	1	1	1
4	1547588	Valve Section	1	1	1
5	1547589	Valve Section	..	1	1
	a 1551398	Valve Section	..	..	1
6	1547586	Valve Section	1	1	1
7	1547591	Relief Valve	..	1	1
8	1547593	Plug	2	4	6
9	1547592	Plug	1	1	1
10	57664	O-Ring	AR	AR	AR
11	1357361	O-Ring	AR	AR	AR
12	205122	Wiper	AR	AR	AR
13	328890	Kit-Tie Rod	1	..	..
13	328891	Kit-Tie Rod	..	1	..
13	328892	Kit-Tie Rod	..	..	1
14		Switch Assembly (Lift Section)	1	1	1
15		Switch Assembly (Tilt/Auxiliary Sections)	1	2	3
	b 1557699	Kit-Seal	1	1	1

FOOTNOTES:**a** Not Illustrated**b** Service Use Only

CONTROL VALVE (FIGURE 6-5) (→ S/N H160N03838A)



HP150745

CONTROL VALVE

(→ S/N H160N03838A)

KEY:**A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2033619	Hydraulic Control Valve	..	1
	2307559	Hydraulic Control Valve	1	..
1	2302838	Valve Section	1	..
1	2034634	Valve Section	..	1
2	230518	Plug	1	1
3	16482	O-Ring	1	1
4	233693	Fitting	1	1
5	16485	O-Ring	1	1
6	236024	Screw	1	1
7	2311490	Relief Valve	1	1
8	2308353	Plug	1	1
9	16484	O-Ring	6	6
10	1199287	Spring	1	1
11	1199286	Poppet	1	1
12	1327419	Screw	2	2
12	1327421	Dust Cover	1	1
13	144128	Retainer	1	1
14	144127	Sleeve	1	1
15		O-Ring	1	1
16		O-Ring	1	1
17	2309228	Spring	1	1
18	144125	Washer	2	2
19		Ring	1	1
20		O-Ring	3	3
21	2304422	Ball	2	2
22		Retainer	1	1
23		O-Ring	1	1
24		Seal	1	1
25		Seal	1	1
26	127656	O-Ring	1	1
27	2304785	Spring	1	1
28	2302537	Spring	1	1
29		Retaining Ring	1	1
30	2307158	Plug	1	1
31		Back-Up Ring	1	1
32		O-Ring	1	1
33	2307877	Spring	1	..
34	2311960	Ball	1	..
35	2308061	Valve Section (Center)	..	1
36	1327419	Screw	..	2
36	1327421	Dust Cover	..	1
37	144128	Retainer	..	1
38	144127	Sleeve	..	1
39		O-Ring	..	1
40		O-Ring	..	1

CONTROL VALVE (→ S/N H160N03838A)

KEY:

A: Three Function

B: Four Function

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
41	2309228	Spring	..	1
42	144125	Washer	..	2
43		Ring	..	1
44		O-Ring	..	4
45	2304422	Ball	..	1
46		Retainer	..	1
47		O-Ring	..	1
48		Seal	..	1
49		Seal	..	1
50	127656	O-Ring	..	1
51	2304785	Spring	..	1
52	2302537	Spring	..	1
53		Retaining Ring	..	1
54	2307158	Plug	..	1
55		Back-Up Ring	..	1
56		O-Ring	..	1
57	2308069	Seat Assy	..	1
58	2307877	Spring	..	1
59	2308154	Poppet	..	1
60	2302661	Valve Section (Tilt)	1	1
61	1327419	Screw	2	2
61	1327421	Dust Cover	2	2
62	144128	Retainer	1	1
63	144127	Sleeve	1	1
64		O-Ring	1	1
65		O-Ring	1	1
66	2309228	Spring	1	1
67	144125	Washer	2	2
68		Ring	1	1
69		O-Ring	2	2
70	2304422	Ball	1	1
71		Retainer	1	1
72		O-Ring	1	1
73		Seal	1	1
74		Seal	1	1
75	127656	O-Ring	1	1
76	2304785	Spring	1	1
77	2302537	Spring	1	1
78		Retaining Ring	1	1
79	2307158	Plug	1	1
80		Back-Up Ring	1	1
81		O-Ring	1	1
82	2308069	Seat Assy	1	1
83	2307877	Spring	1	1
84	2308154	Poppet	1	1

CONTROL VALVE

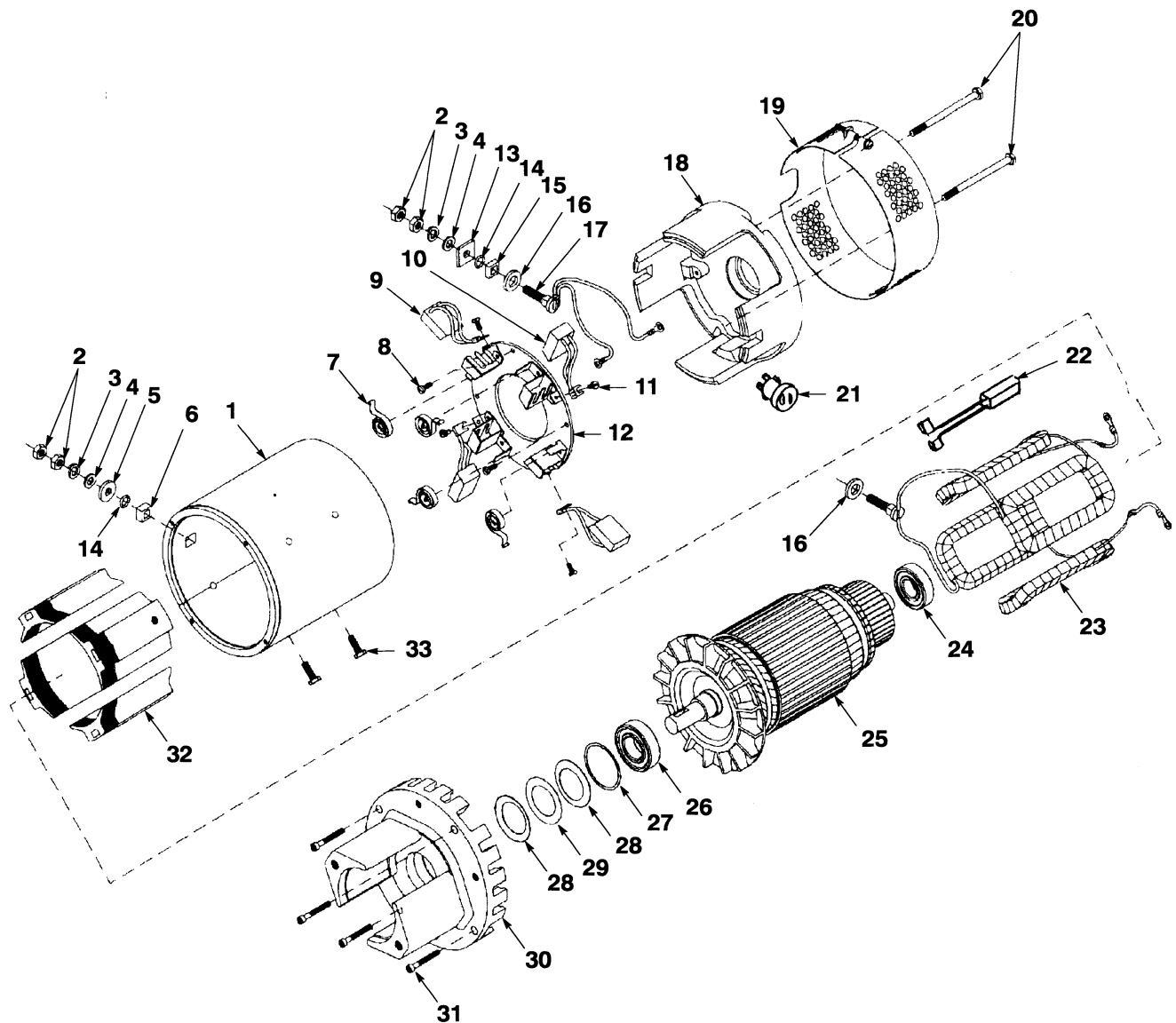
(→ S/N H160N03838A)

KEY:**A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
85	2310233	Valve Section (Lift)	1	1
86	1327419	Screw	2	2
86	1327421	Dust Cover	2	2
87	144128	Retainer	1	1
88	144127	Sleeve	1	1
89		O-Ring	1	1
90		O-Ring	1	1
91	2309228	Spring	1	1
92	144125	Washer	2	2
93		Ring	1	1
94		Retaining Ring	1	1
95	2307158	Plug	1	1
96		Back-Up Ring	1	1
97		O-Ring	1	1
98	2307877	Spring	1	1
99	2311960	Ball	1	1
100	230518	Plug	1	1
101		O-Ring	1	1
102	2306560	Kit-Stud	..	1
102	2311048	Kit-Stud	1	..
103	2307364	Nut	8	8
104	2308069	Seat Assy	..	1
105	2307877	Spring	..	1
106	2308154	Poppet	..	1
	a 2063382	Seal (Wiper)	3	4
	2303944	Kit-Seal	3	4
	2311128	Kit-Gasket	3	4

FOOTNOTES:**a** Not Illustrated

HYDRAULIC MOTOR (FIGURE 6-6) 12 CC PUMP (→ S/N H160N03152Z)

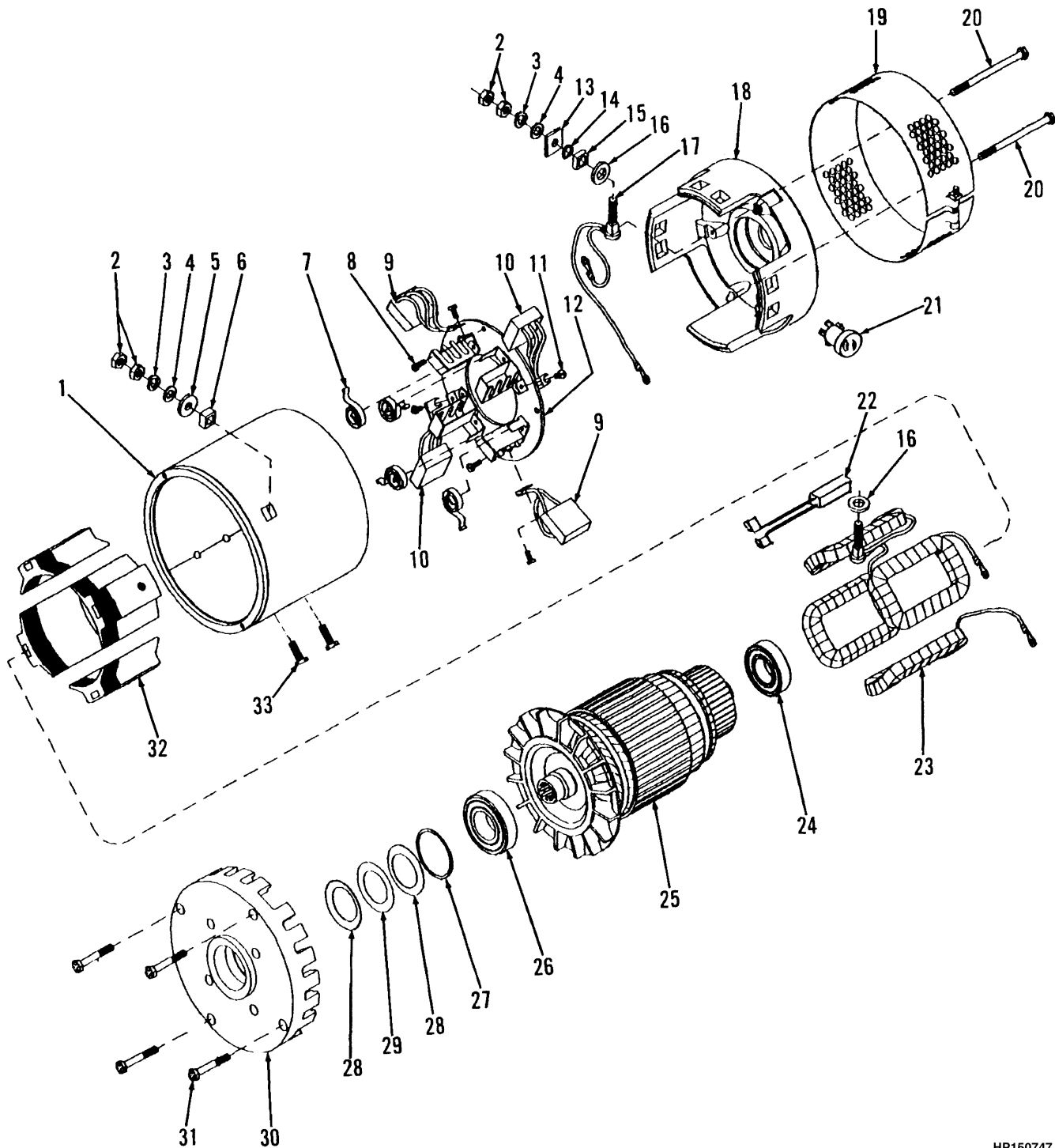


HP150746

HYDRAULIC MOTOR
12 CC PUMP (→ S/N H160N03152Z)**KEY:****A: Without Brush Wear Indicators (Standard)****B: With Brush Wear Indicators (Premium)**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2039070	Hydraulic Motor	..	1
	2039069	Pump Motor	1	..
1	1478728	Stator	1	..
1	1478733	Stator	..	1
2	1308893	Nut	4	4
3	15155	Lockwasher	2	2
4	1308849	Washer	2	2
5	1308880	Washer	1	1
6	1308879	Bushing	1	1
7	2013456	Spring	4	4
8	2013336	Screw	4	4
9	2026351	Brush	4	2
10	2026352	Brush With Brush Wear Indicator	..	2
11	2013524	Screw	4	4
12	2032401	Brush Holder	1	1
13	1308878	Washer	1	1
14	1308877	O-Ring	2	2
15	1308876	Bushing	1	1
16	1308875	Washer	2	2
17	1308827	Terminal	1	1
17	2013521	Connector	1	1
18	1478724	Shield	1	..
18	1478731	Shield	..	1
19	1308837	Cover	1	..
19	2013531	Cover	..	1
20	2013331	Screw	2	2
21	2013533	Plug	2	2
22	2026589	Thermostat	1	1
23	1308844	Kit-Field Coil	1	1
24	1308884	Bearing	1	1
25	1478729	Armature	1	..
25	1478735	Armature	..	1
25	2026357	Key	1	1
26	1308891	Ball Bearing	1	1
27	1473622	Kit-Window Washer	1	1
28	1308888	Thrust Washer	2	2
29	1308889	Washer	1	1
30	1478727	Shield	1	1
31	17948	Capscrew	4	4
32	1308843	Pole Shoe	4	4
33	18460	Capscrew	8	8
	2026350	Brush Holder	1	1

HYDRAULIC MOTOR (FIGURE 6-7) 19 CC PUMP (→ S/N H160N03152Z)



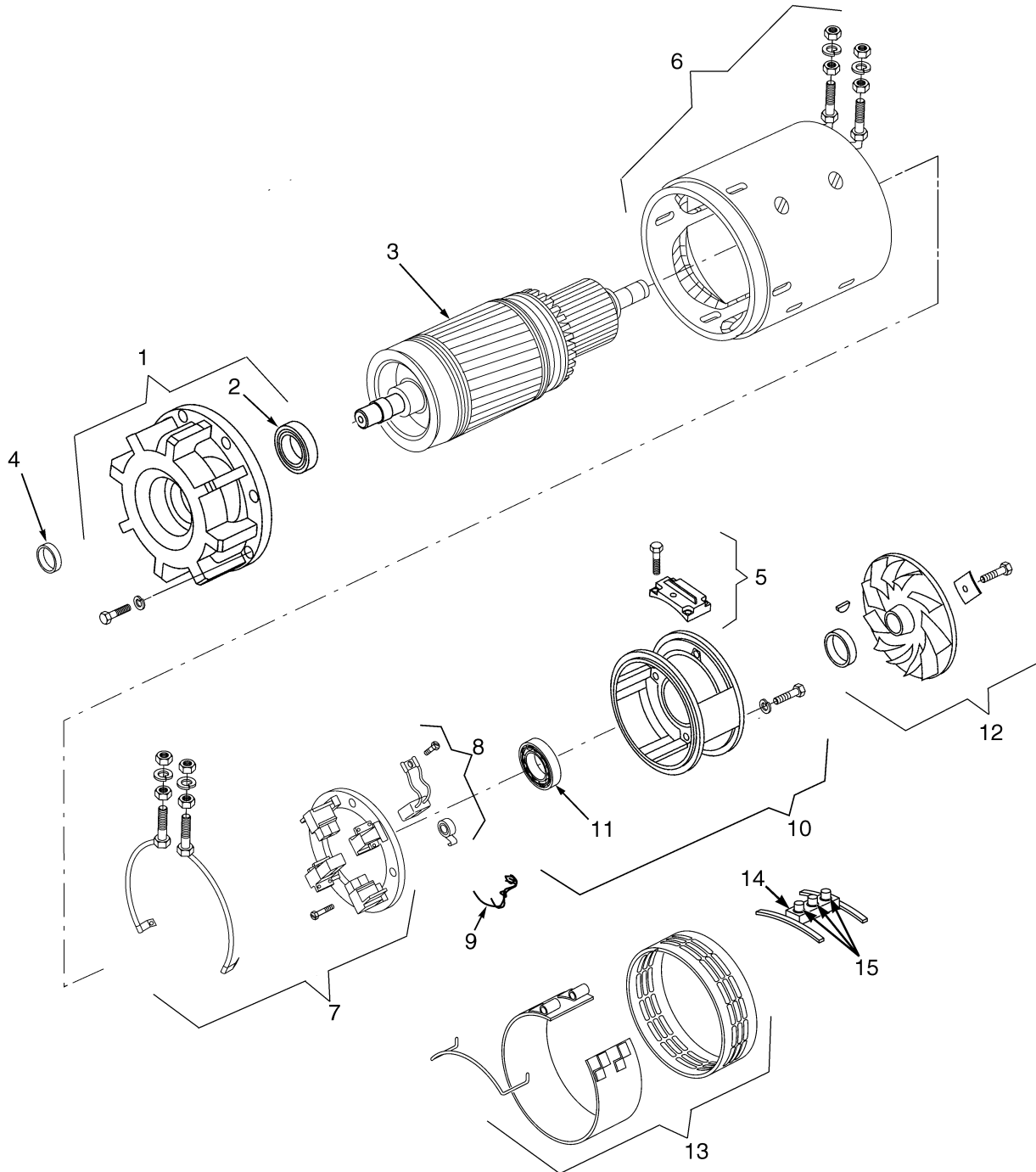
HP150747

HYDRAULIC MOTOR
19 CC PUMP (→ S/N H160N03152Z)**KEY:****A: Without Brush Wear Indicators (Standard)****B: With Brush Wear Indicators (Premium)**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2305353	Pump Motor	..	1
	2306485	Pump Motor	1	..
1	2013526	Housing	1	1
2	1308893	Nut	4	4
3	15155	Lockwasher	2	2
4	1308849	Washer	2	2
5	1308880	Washer	1	1
6	1308879	Bushing	1	1
7	2013456	Spring	4	4
8	2013336	Screw	4	4
9	2013525	Brush	4	4
10	2013534	Brush (With Wear Indicator)	4	4
11	2013524	Screw	4	4
12	2013523	Brush Holder	1	1
13	1308878	Washer	1	1
14	1308877	O-Ring	2	2
15	1308876	Bushing	1	1
16	1308875	Washer	2	2
17	1308827	Terminal	1	1
17	2013521	Connector	1	1
18	2013520	Shield	1	1
19	1308837	Cover	1	..
19	2013531	Cover	..	1
20	2013331	Screw	2	2
21	2013533	Plug	6	6
22	2026589	Thermostat	1	1
23	2013527	Field Coil	1	1
24	1308884	Bearing	1	1
25	2014512	Armature	1	1
25	2032510	Armature	..	1
26	1308891	Ball Bearing	1	1
27	1473622	Kit-Window Washer	1	1
28	1308888	Thrust Washer	2	2
29	1308889	Washer	1	1
30	2013529	Frame	1	1
31	2013530	Screw	4	4
32	1308833	Pole Shoe	4	4
32	1335399	Pole Shoe	4	4
33	18460	Capscrew	16	16
	a 2033870	Bracket	1	1

FOOTNOTES:**a** Not Illustrated

HYDRAULIC MOTOR (FIGURE 6-8) 19 CC PUMP (S/N H160N03152Z →)



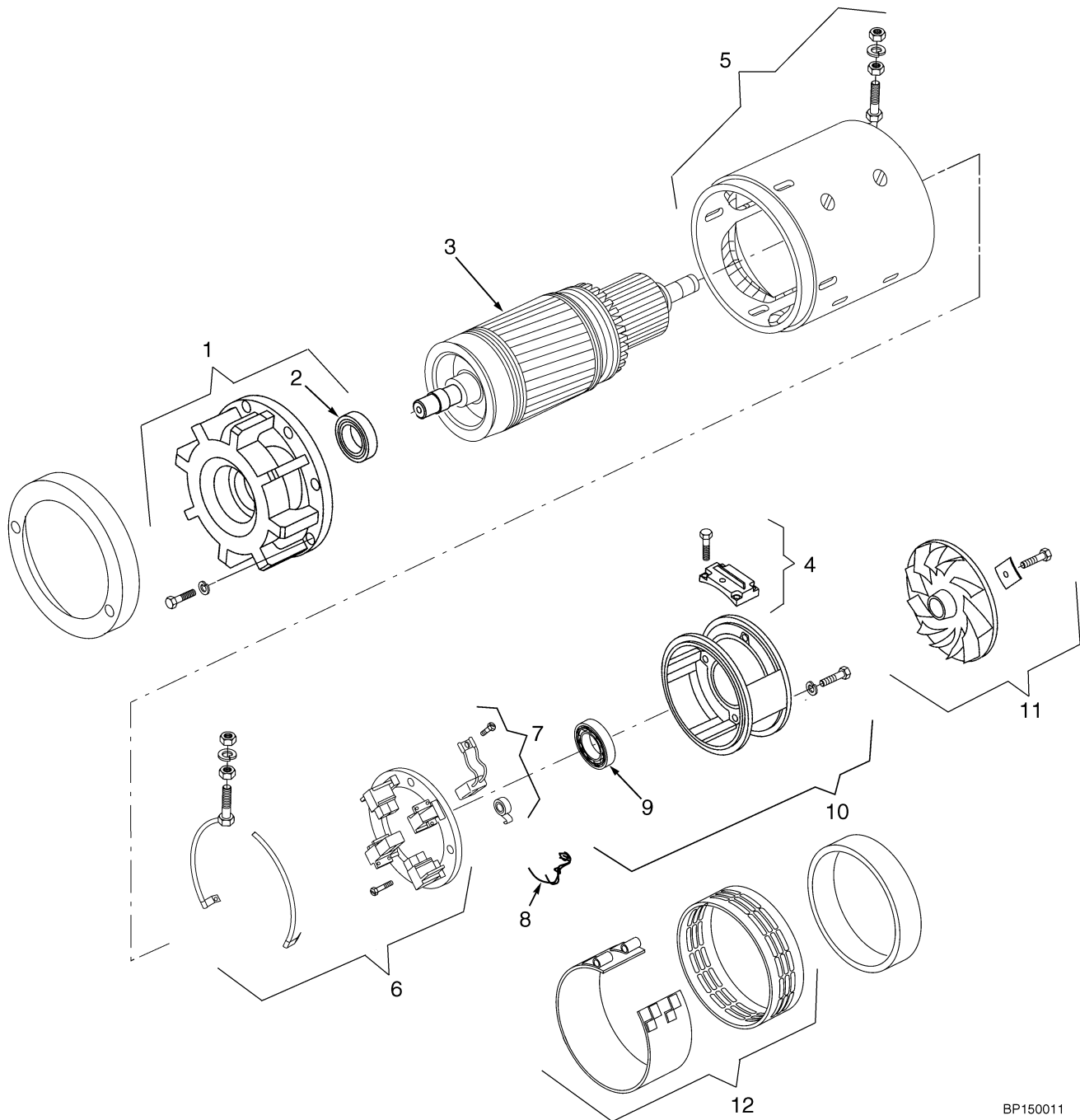
BP150086

HYDRAULIC MOTOR
19 CC PUMP (S/N H160N03152Z →)

ITEM	PART NO.	DESCRIPTION	QTY
	2046700	Pump Motor	1
1	1502724	Bracket	1
2	1502725	Bearing	1
3	1502726	Armature	1
4	1502727	Gasket	1
5	1502728	Plate	1
6	1504802	Stator	1
7	1502730	Brush Holder	1
8	1502731	Brush and Spring	1
9	1509703	Protector	1
10	1502733	End Head	1
11	1500182	Bearing	1
12	1502735	Fan	1
13	1502736	Cover	1
14	2305725	Cap	1
15	1305672	Pin	3
	a 2033870	Bracket	1

FOOTNOTES:**a** Not Illustrated

HYDRAULIC MOTOR (FIGURE 6-9) 12 CC PUMP (S/N H160N03152Z →)



BP150011

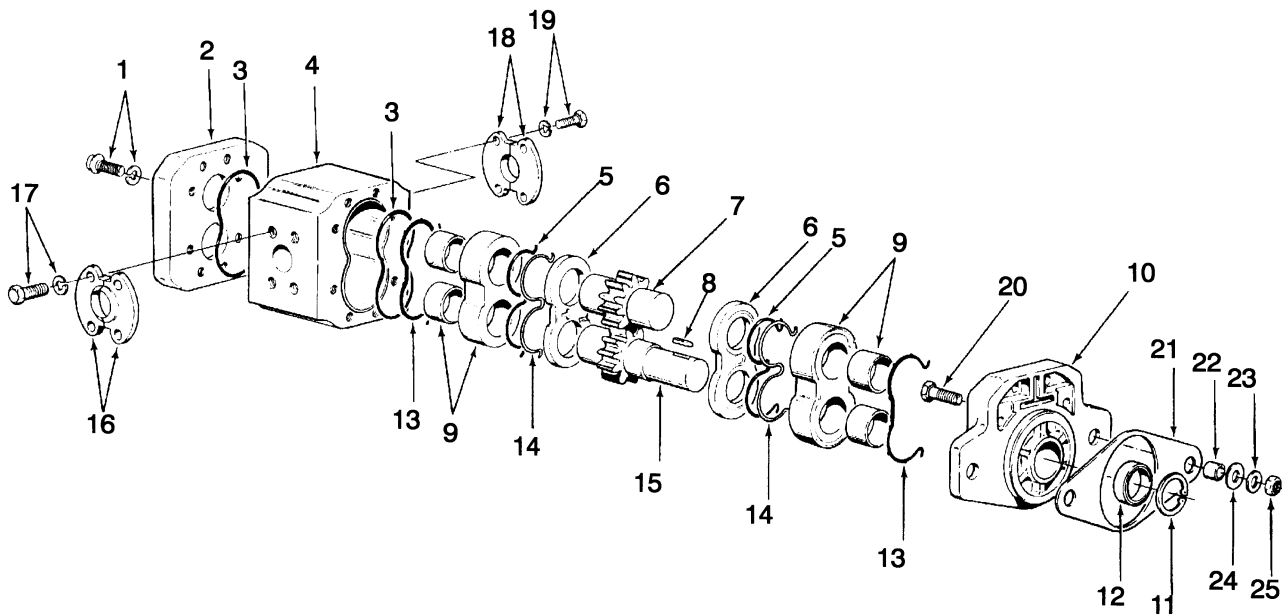
HYDRAULIC MOTOR
12 CC PUMP (S/N H160N03152Z →)

ITEM	PART NO.	DESCRIPTION	QTY
	2046764	Pump Motor (Group No. 8510653)	1
1	1509697	Bracket	1
2	1502725	Bearing	1
3	1509698	Armature	1
3	7882	Woodruff Key	1
4	1509699	Plate	1
5	1509700	Stator	1
6	1509701	Brush Holder	1
7	1509702	Kit-Brush and Spring	1
8	1509703	Protector	1
9	1500182	Bearing	1
10	1509704	End Head	1
11	1509705	Fan	1
12	1509706	Cover	1

HYDRAULIC PUMP (FIGURE 6-10) 12 CC

PARTS SERVICE GRAM

ITEM	GRAM
340219	J-A-3 (E)
1367711	

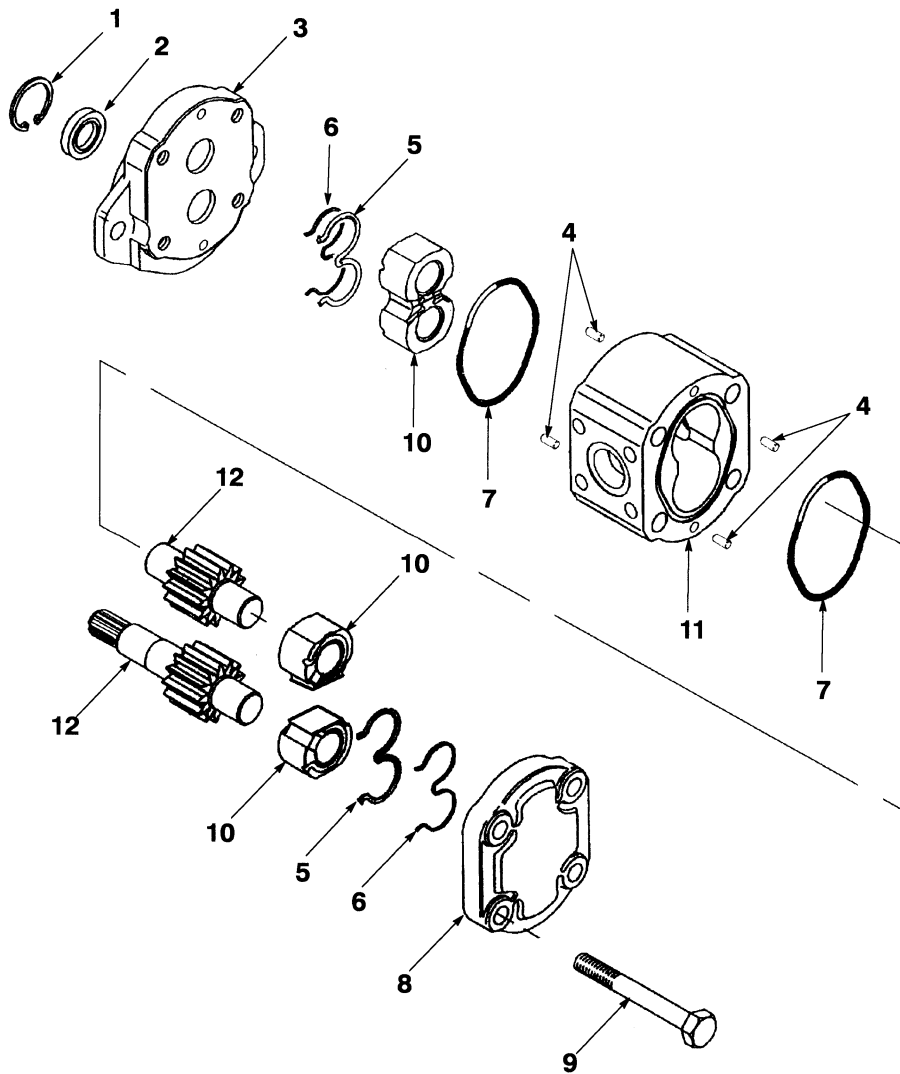


HP150147

**HYDRAULIC PUMP
12 CC**

ITEM	PART NO.	DESCRIPTION	QTY
	1455066	Pump	1
1	1459239	Cover	1
2		Body	1
3	1459372	Gear Set	1
4		Bushing	2
5		Bushing	2
6		Drive Gear	1
7		Driven Gear	1
8	1459240	Flange	1
9		Seal (Body)	2
10		Seal (Bushing)	2
11	1459371	Bolt	4
12		Oil Seal	1
13		Snap Ring	1
14	26617	Woodruff Key	1
	1459238	Kit-Seal	1

HYDRAULIC LIFT PUMP ASSEMBLY (FIGURE 6-11) 12 CC

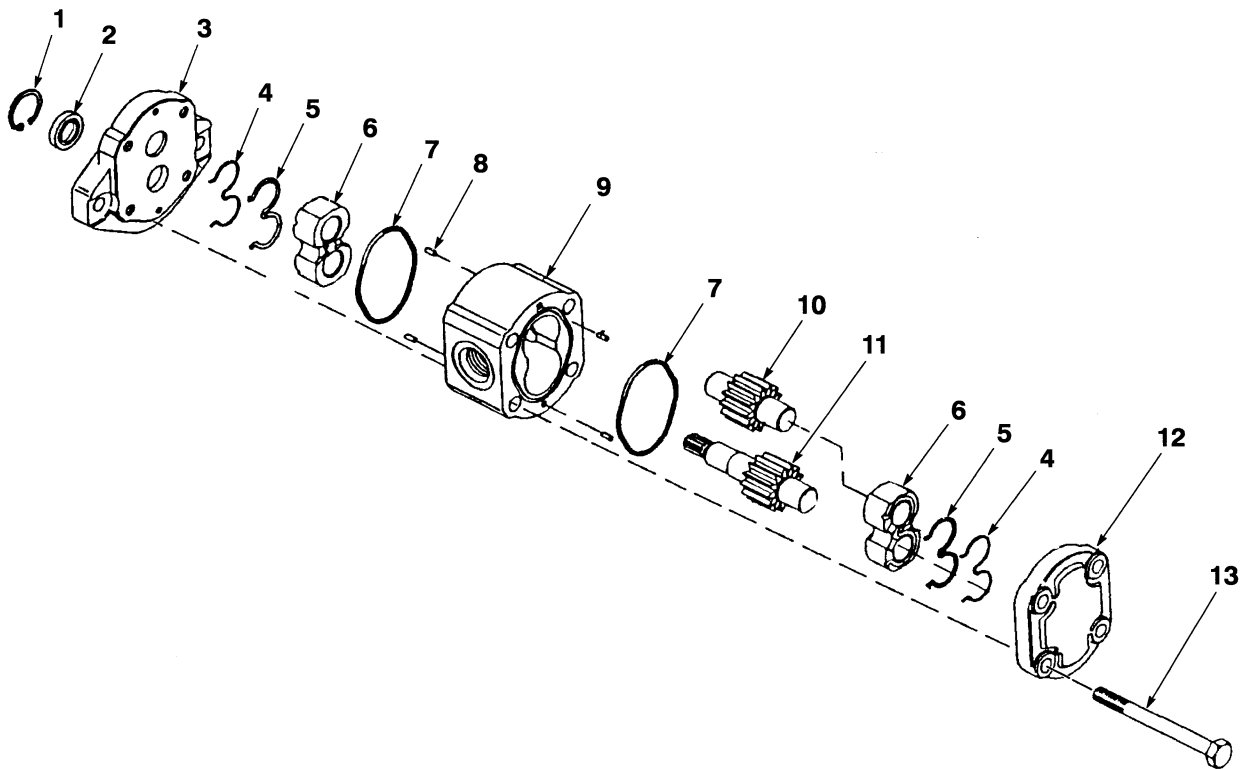


HP150748

HYDRAULIC LIFT PUMP ASSEMBLY
12 CC

ITEM	PART NO.	DESCRIPTION	QTY
	1374878	Pump	1
1	2303239	Retaining Ring	1
2	1371741	Seal	1
3	2308872	Flange	1
4	2309481	Dowel	4
5	1371743	Seal	2
6	1371744	Back-Up Ring	2
7	2052235	O-Ring	2
8	1376425	End Cover	1
9	1376426	Bolt	4
10	b	Bushing	4
11	b	Housing	1
12	b	Gear Set	1
	a 1510058	Key	1
	a 1460539	O-Ring	2
	384383	Kit-Seal	1
	1376427	Kit-Flange	1
	1371746	Kit-Seal	1

FOOTNOTES:**a** Not Illustrated**b** Not Serviced Separately

HYDRAULIC PUMP ASSEMBLY (FIGURE 6-12)
19 CC

HP150749

HYDRAULIC PUMP ASSEMBLY
19 CC

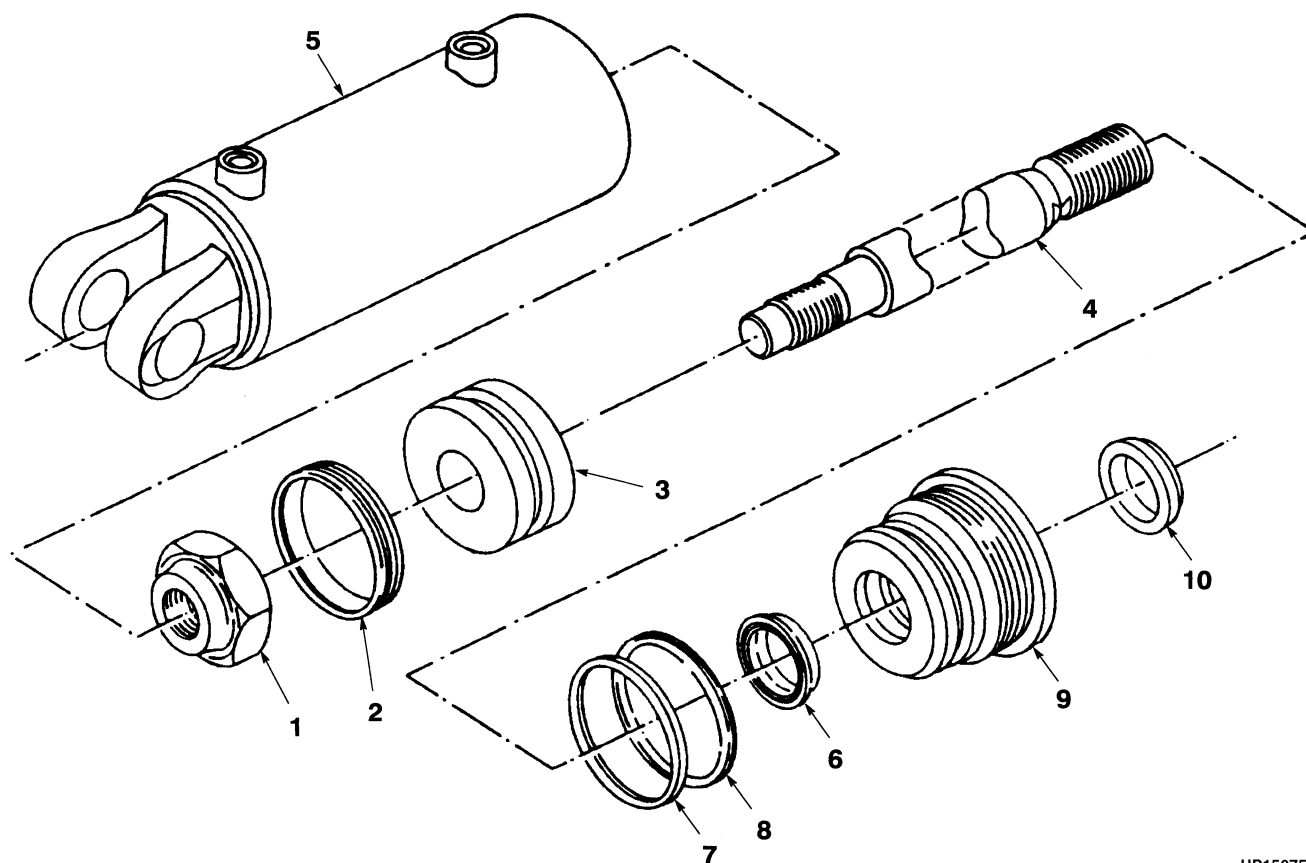
ITEM	PART NO.	DESCRIPTION	QTY
	c 2302338	Gear Pump (Barnes)	1
	d 2042621	Pump (Kayaba)	1
1	2303239	Retaining Ring	1
2	1371741	Seal	1
3	1459240	Flange	1
4	1371744	Back-Up Ring	2
5	1371743	Seal	2
6	b	Bushing	2
7	2052235	O-Ring	2
8	b	Pin	4
9	b	Housing	1
10	b	Idler Gear	1
11	b	Drive Gear	1
12	1459239	Cover	1
13	1459241	Bolt	4
	a 1460539	O-Ring	2
	2043313	Kit-Gear	1
	2043314	Kit-Repair	1
	1371746	Kit-Seal	1

FOOTNOTES:

a Not Illustrated
b Not Serviced Separately

c → S/N H160N02273X
d S/N H160N02274X →

TILT CYLINDER (FIGURE 6-13)



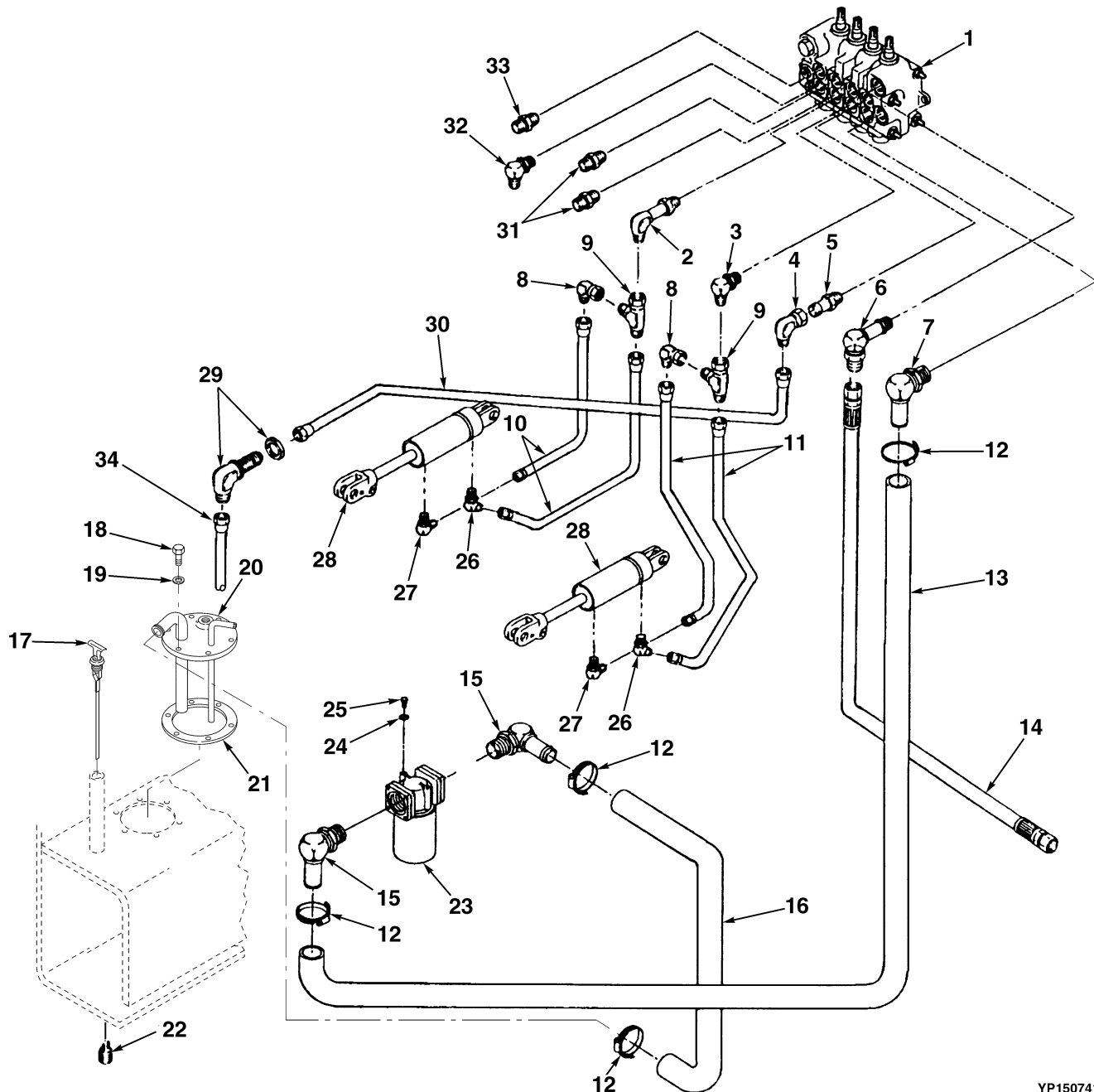
HP150750

KEY:**A: 5° Forward Tilt/7° Back Tilt****B: 10° Forward Tilt/5° Back Tilt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2033757	Cylinder Assy (Group No. 8603353)	..	2
	2033818	Cylinder Assy (Group No. 8603351)	2	..
1	2302899	Locknut	1	1
2		Seal	1	1
3	2308174	Piston	1	1
4	2307659	Cylinder Rod	1	..
4	2311444	Cylinder Rod	..	1
5	2307114	Tube Wldmt-Cylinder	1	..
5	2308691	Tube Wldmt-Cylinder	..	1
6		Seal	1	1
7		O-Ring	1	1
8		Back-Up Ring	1	1
9	2047064	Gland	1	1
10		Wiper Ring	1	1
	a 39374	O-Ring	1	1
	1494719	Kit-Seal	1	1

FOOTNOTES:**a** Not Illustrated

HYDRAULIC HOSE AND FITTINGS (FIGURE 6-14) (→ S/N H160N03838A)



YP150741

HYDRAULIC HOSE AND FITTINGS

(→ S/N H160N03838A)

ITEM	PART NO.	DESCRIPTION	QTY
1	2307559	Hydraulic Control Valve (Three Spool)	1
1	2033619	Hydraulic Control Valve (Four Spool)	1
2	2308281	Fitting	1
2	16484	O-Ring	1
3	110174	Fitting	1
3	16484	O-Ring	6
4	16989	Fitting	1
5	16541	Fitting	1
5	16484	O-Ring	1
6	182557	Fitting	1
6	16485	O-Ring	1
7	181957	Fitting	1
7	16485	O-Ring	1
8	16883	Fitting	2
9	17061	Fitting	2
10	2303903	Hose Assy (RH)	2
11	2306266	Hose Assy (LH)	2
12	130845	Clamp	4
13	2034110	Hose	1
14	2038851	Hose Assy (To Lift Pump)	1
15	17775	Fitting	2
15	16486	O-Ring	1
16	2309475	Hose	1
17	2302129	Dipstick	1
18	309637	Screw	6
19	292680	Washer	6
20	2036170	Cover	1
20	1302665	Breather (Not Illustrated)	1
21	2311215	Gasket	1
22	10389	Fitting	1
23	2307397	Hydraulic Filter (With Element)	1
23	2305543	Hydraulic Filter (Element)	1
24	15156	Lockwasher	2
25	16805	Capscrew	2
26	16565	Fitting	2
26	16481	O-Ring	1
27	16556	Fitting	2
27	16481	O-Ring	1
28	2033818	Cylinder Assy	2
28	2033757	Cylinder Assy	2
29	16458	Fitting	1
30	2302520	Hose Assy	1
31	235691	Fitting	2
31	16745	Fitting (Three Spool)	2
31	16484	O-Ring	1
32	110174	Fitting (Four Spool)	1
32	16484	O-Ring	1
33	16745	Fitting (Four Spool)	1
33	16484	O-Ring	1
34	2306034	Hose Assy	1

HYDRAULIC HOSE AND FITTINGS
(→ S/N H160N03838A)

ITEM	PART NO.	DESCRIPTION	QTY
	ab 2033612	Strap Clamp	1

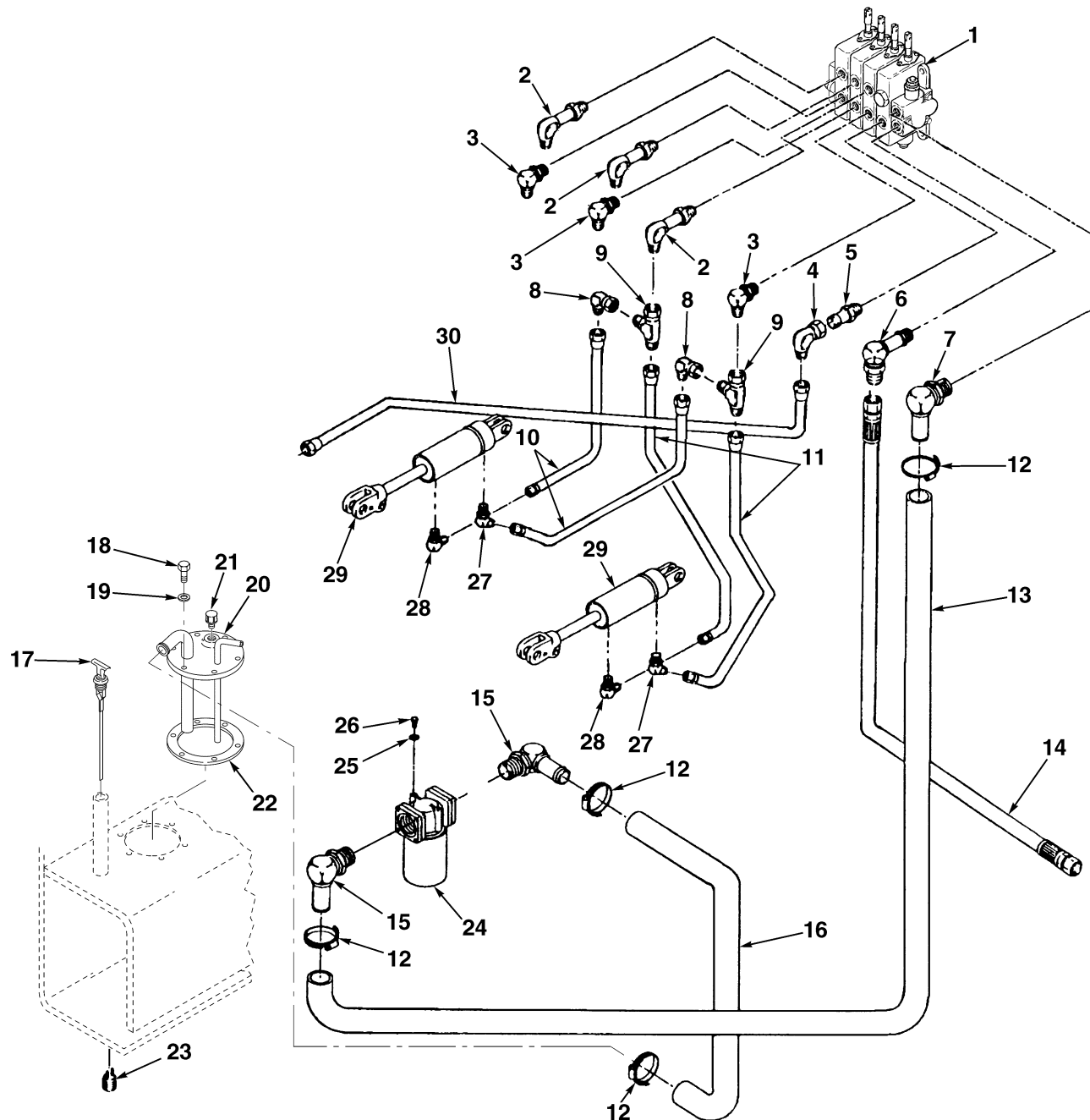
FOOTNOTES:

- a** Not Illustrated
- b** Tie Down Left Side Tilt Hoses (Item 10) Attatching
(-) Negative Battery Cable to Clear Lift Motor
Commutator End

NOTES

[illegible]

HYDRAULIC HOSE AND FITTINGS (FIGURE 6-15) (S/N H160N03839A →)



BP150063

HYDRAULIC HOSE AND FITTINGS

(S/N H160N03839A →)

ITEM	PART NO.	DESCRIPTION	QTY
1	2063766	Hydraulic Control Valve (Two Spool Valve) (☞ Figure 6-4).....	1
1	2064003	Hydraulic Control Valve (Three Spool Valve) (☞ Figure 6-4).....	1
1	2064004	Hydraulic Control Valve (Four Spool Valve) (☞ Figure 6-4).....	1
2	b 2308281	Fitting	1
2	b 16484	O-Ring	1
3	b 110174	Fitting	1
3	b 16484	O-Ring	1
4	16989	Fitting	1
5	16541	Fitting	1
5	16484	O-Ring	1
6	16560	Fitting	1
6	16485	O-Ring	1
7	1545540	Fitting	1
8	16883	Fitting	2
9	17061	Fitting	2
10	2063764	Hose Assy	2
11	2063765	Hose Assy	2
12	130845	Clamp	4
13	893731	Hose	1
14	2038851	Hose Assy	1
15	17775	Fitting	2
15	16486	O-Ring	2
16	2309475	Hose	1
17	2302129	Dipstick	1
18	309637	Screw	6
19	292680	Washer	6
20	2036170	Cover	1
21	1302665	Breather	1
22	2311215	Gasket	1
23	10389	Fitting	1
24	2307397	Hydraulic Filter (With Element)	1
24	2305543	Hydraulic Filter (Element)	1
25	15156	Lockwasher	2
26	16805	Capscrew	2
27	16565	Fitting	2
27	16481	O-Ring	2
28	16556	Fitting (For use up to 180 in. Mast height)	2
28	16481	O-Ring	2
28	1546295	Fitting (Special) (For use with 181 in. - 240 in. Mast height)	2
28	1556828	Fitting (Special) (For use above 240 in. Mast height)	2
29	2033818	Cylinder Assy	2
29	2033757	Cylinder Assy	2
30	2302520	Hose Assy	1
	a 2033612	Strap Clamp	2
	a 222443	Fitting (For use with 180 in. and above 240 in. Mast height)	2

FOOTNOTES:**a** Not Illustrated**b** Qty. 2 on Three Spool; Qty. 3 on Four Spool

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7

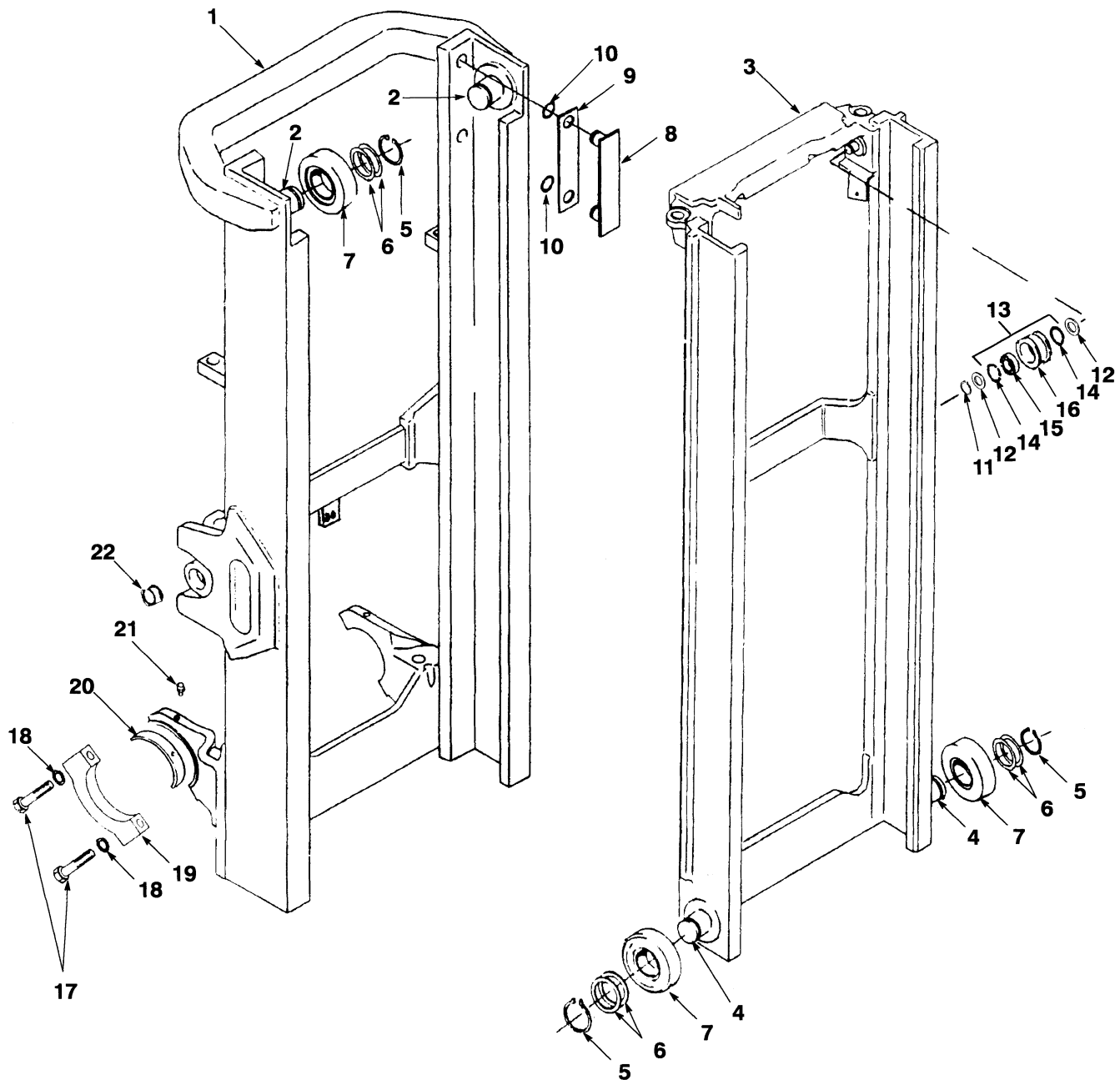
MAST-TWO STAGE LIMITED FREE-LIFT

SECTION 7

MAST-TWO STAGE LIMITED FREE-LIFT

DESCRIPTION	PAGE
CARRIAGE	
TWO STAGE LIMITED FREE-LIFT	7-9
FORK	
TWO STAGE LIMITED FREE-LIFT	7-18
HEADER HOSE	
TWO STAGE LIMITED FREE-LIFT	7-16
HEADER HOSE ATTACHING PARTS	
TWO STAGE LIMITED FREE-LIFT	7-14
INNER AND OUTER MAST	
TWO STAGE LIMITED FREE-LIFT	7-2
INTEGRAL SIDE-SHIFT CARRIAGE	
TWO STAGE LIMITED FREE-LIFT	7-20
INTEGRAL SIDE-SHIFT HYDRAULIC HOSES	
TWO AND THREE STAGE FULL FREE-LIFT	7-24
TWO STAGE LIMITED FREE-LIFT	7-23
LOAD BACKREST EXTENSION	
TWO STAGE LIMITED FREE-LIFT	7-10
MAIN CYLINDER	
TWO STAGE LIMITED FREE-LIFT	7-6
MAIN LIFT	
TWO STAGE LIMITED FREE-LIFT	7-4
SIDE-SHIFT CYLINDER	7-22
TILT CYLINDER ATTACHING PARTS	
TWO STAGE LIMITED FREE-LIFT	7-12

INNER AND OUTER MAST (FIGURE 7-1) TWO STAGE LIMITED FREE-LIFT



HP171124

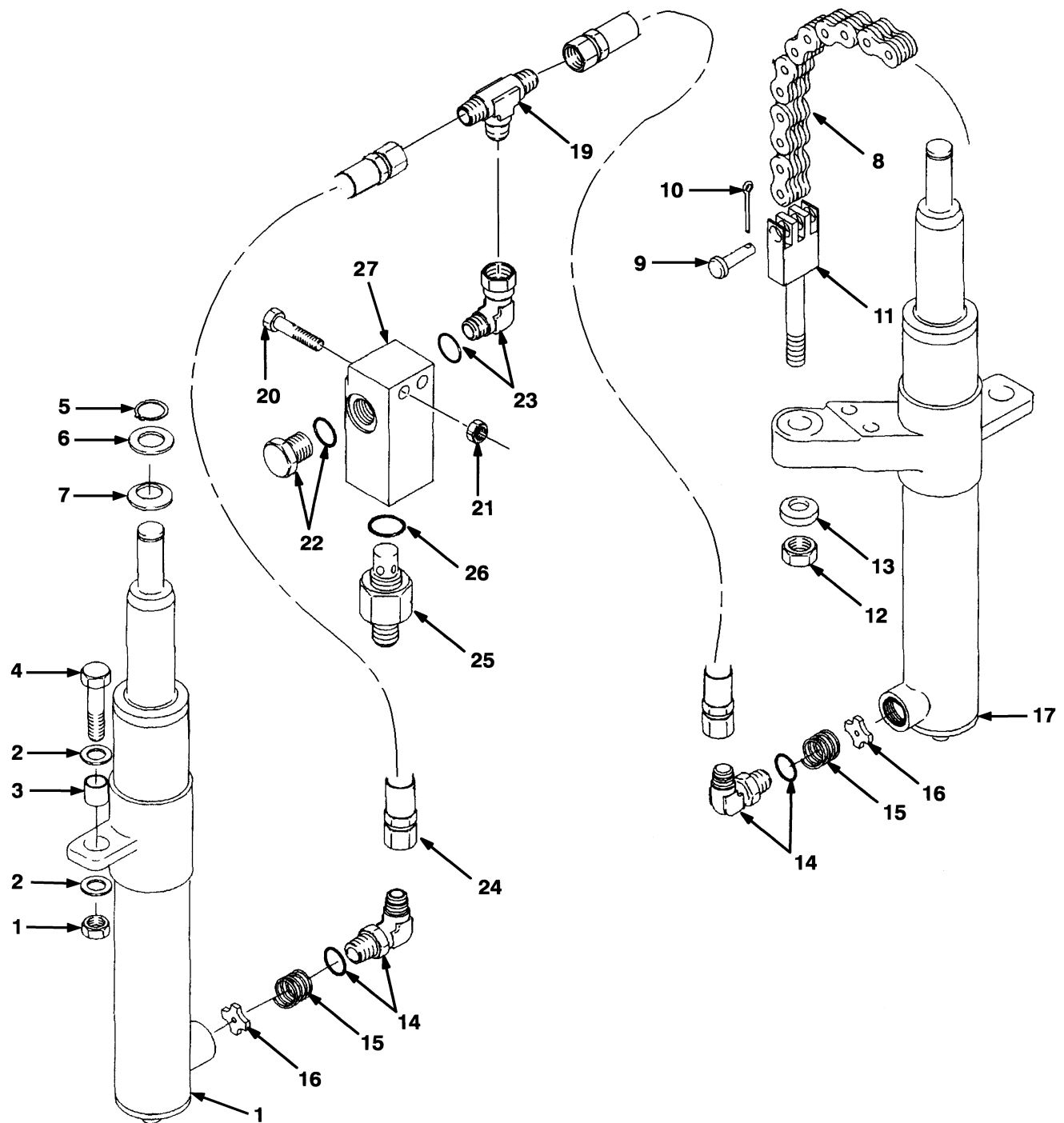
**INNER AND OUTER MAST
TWO STAGE LIMITED FREE-LIFT****A552**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		2992 mm (117.8 in.)	3292 mm (129.6 in.)	3792 mm (149.3 in.)	3992 mm (157.2 in.)	4292 mm (169.0 in.)
	Mast Group Number	A552 2992	A552 3292	A552 3792	A552 3992	A552 4292
	Mast Assy	2048878	2048881	2048886	2048888	2048892
1	Outer Mast	1348056	1348059	1348064	1348067	1348070
3	Inner Mast	1349256	1349259	1349264	1349266	1349269

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	1345216	Stubshaft	2
3	a	Inner Mast	1
4	1345216	Stubshaft	2
5	58901	Snap Ring	4
6	129387	Shim (0.020 in.)	AR
7	1333399	Load Roller	4
8	215212	Wear Strip	2
9	131716	Shim (0.020 in.)	4
10	104506	O-Ring	4
11	304526	Snap Ring	2
12	137907	Spacer	4
13	1379685	Chain Sheave	2
14	37752	Snap Ring	2
15	1378699	Ball Bearing	1
16	1378698	Chain Sheave	1
17	293651	Capscrew	4
18	292683	Lockwasher	4
19	1370722	Cap	2
20	2053761	Bushing (Trunnion)	2
21	16001	Grease Fitting	2
22	1348185	Bushing	2

FOOTNOTES:**a** Refer to Table

MAIN LIFT (FIGURE 7-2) TWO STAGE LIMITED FREE-LIFT



HP171125

**MAIN LIFT
TWO STAGE LIMITED FREE-LIFT****A552**

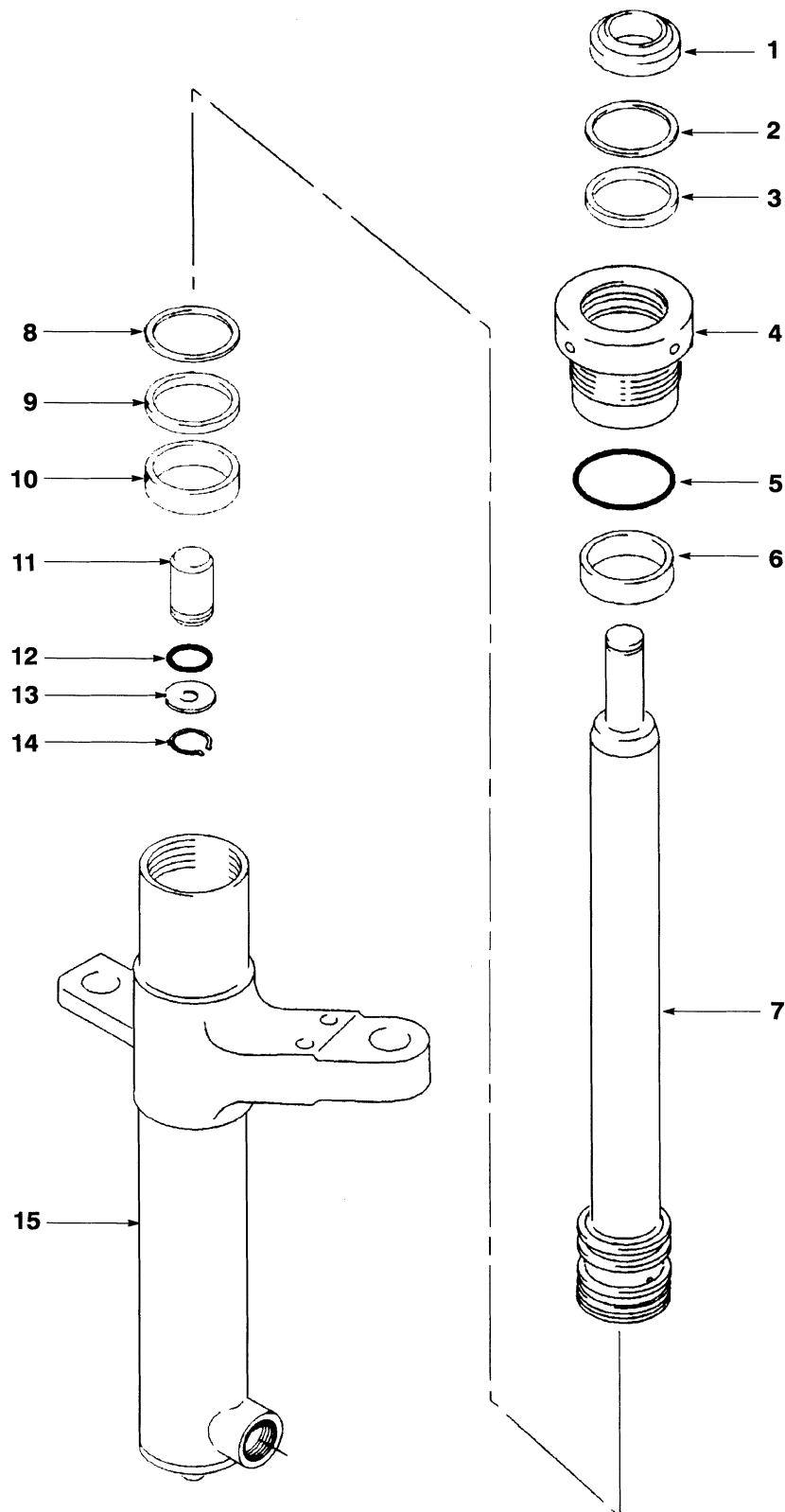
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		2992 mm (117.8 in.)	3292 mm (129.6 in.)	3792 mm (149.3 in.)	3992 mm (157.2 in.)	4292 mm (169.0 in.)
	Mast Group Number	A552 2992	A552 3292	A552 3792	A552 3992	A552 4292
8	Chain	182343	135634	177352	304200	336391

ITEM	PART NO.	DESCRIPTION	QTY
1	300937	Nut	2
2	296422	Washer	4
3	323090	Spacer	2
4	292531	Capscrew	2
5	131358	Snap Ring	2
6	1333382	Washer (0.060 in.)	2
7	1354915	Washer (0.010 in.)	AR
7	1354916	Washer (0.030 in.)	AR
7	1354917	Washer (0.060 in.)	AR
8	a	Chain	2
9	1514866	Pin	2
10	15211	Cotter Pin	2
11	1369357	Chain Anchor	2
12	161003	Nut	2
13	296426	Washer	2
14	189595	Fitting	2
14	16485	O-Ring	1
15	120938	Spring	2
16	323160	Washer	2
17		Cylinder (RH) (☞ Figure 7-3).....	1
18		Cylinder (LH) (☞ Figure 7-3).....	1
19	17051	Fitting	1
20	292509	Capscrew	2
21	313828	Nut	2
22	14603	Plug	1
22	16486	O-Ring	1
23	16560	Fitting	1
23	16485	O-Ring	1
24	1376101	Hose Assy	2
25	323061	Lowering Control Valve	1
25	16982	O-Ring	1
27	1333392	Housing	1

FOOTNOTES:

a Refer to Table

MAIN CYLINDER (FIGURE 7-3) TWO STAGE LIMITED FREE-LIFT



HP171126

**MAIN CYLINDER
TWO STAGE LIMITED FREE-LIFT****LEFT HAND**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		2992 mm (117.8 in.)	3292 mm (129.6 in.)	3792 mm (149.3 in.)	3992 mm (157.2 in.)	4292 mm (169.0 in.)
	Mast Group Number	A552 2992	A552 3292	A552 3792	A552 3992	A552 4292
	Cylinder Group Number	8601606	8601609	8601614	8601616	8601619
	Cylinder Assy	1361354	1361372	1362527	1362539	1362557
7	Cylinder Rod	1361356	1361374	1362529	1362541	1362559
15	Tube Wldmt- Cylinder	1361355	1361373	1362528	1362540	1362558
16	Spacer	----	----	----	a1355189	a1355189

RIGHT HAND

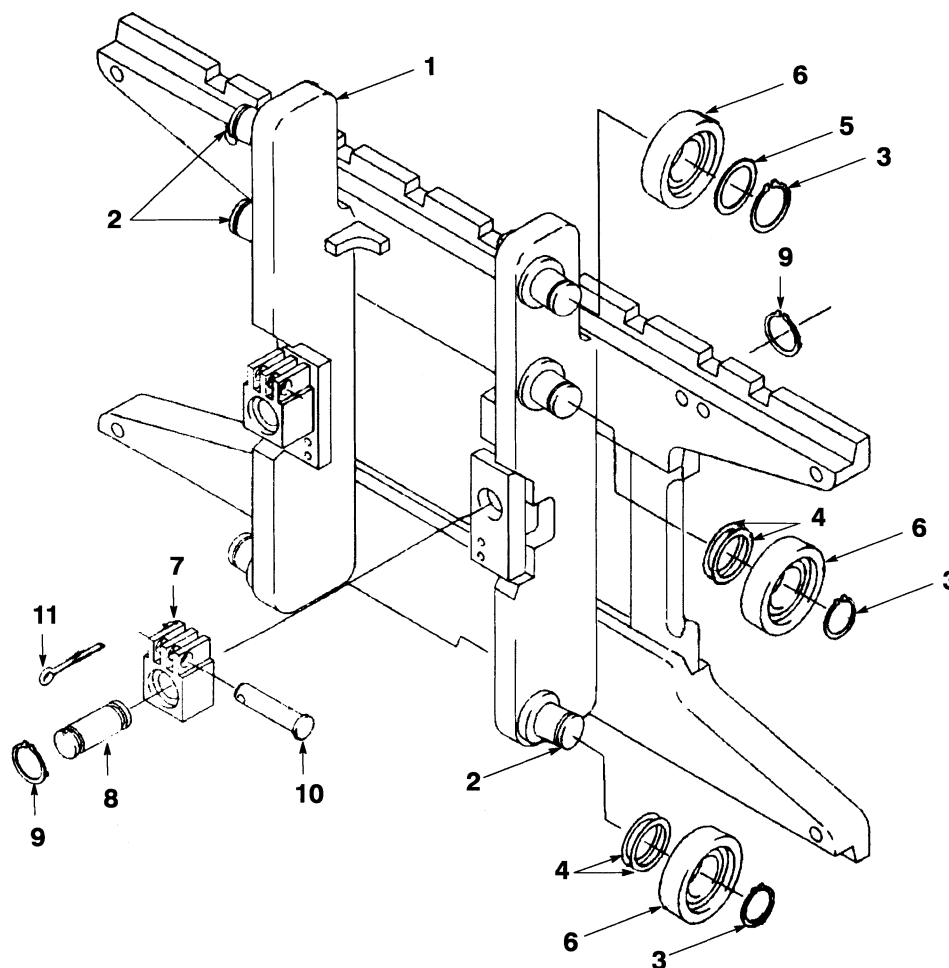
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		2992 mm (117.8 in.)	3292 mm (129.6 in.)	3792 mm (149.3 in.)	3992 mm (157.2 in.)	4292 mm (169.0 in.)
	Mast Group Number	A552 2992	A552 3292	A552 3792	A552 3992	A552 4292
	Cylinder Group Number	8601656	8601659	8601664	8601666	8601669
	Cylinder Assy	1361358	1361376	1362531	1362543	1362561
7	Cylinder Rod	1361356	1361374	1362529	1362541	1362559
15	Tube Wldmt- Cylinder	1361359	1361377	1362532	1362544	1362562
16	Spacer	----	----	----	a1355189	a1355189

ITEM	PART NO.	DESCRIPTION	QTY
	b	Cylinder Assy	1
1	1319668	Rod Wiper	1
2	322824	Back-Up Ring	1
3	1356749	Rod Seal	1
4	1371653	Gland	1
5	55407	O-Ring	1
6	322902	Wear Ring	1
7	b	Cylinder Rod	1
8	322824	Back-Up Ring	1
9	330692	Rod Seal	1
10	1362871	Wear Ring	1
11	257913	Check Valve	1
12	39348	O-Ring	1
13	297531	Washer	1
14	187388	Snap Ring	1

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

ITEM	PART NO.	DESCRIPTION	QTY
15	b	Tube Wldmt-Cylinder	1
16	b	Spacer	1
	1360140	Kit-Seal	1

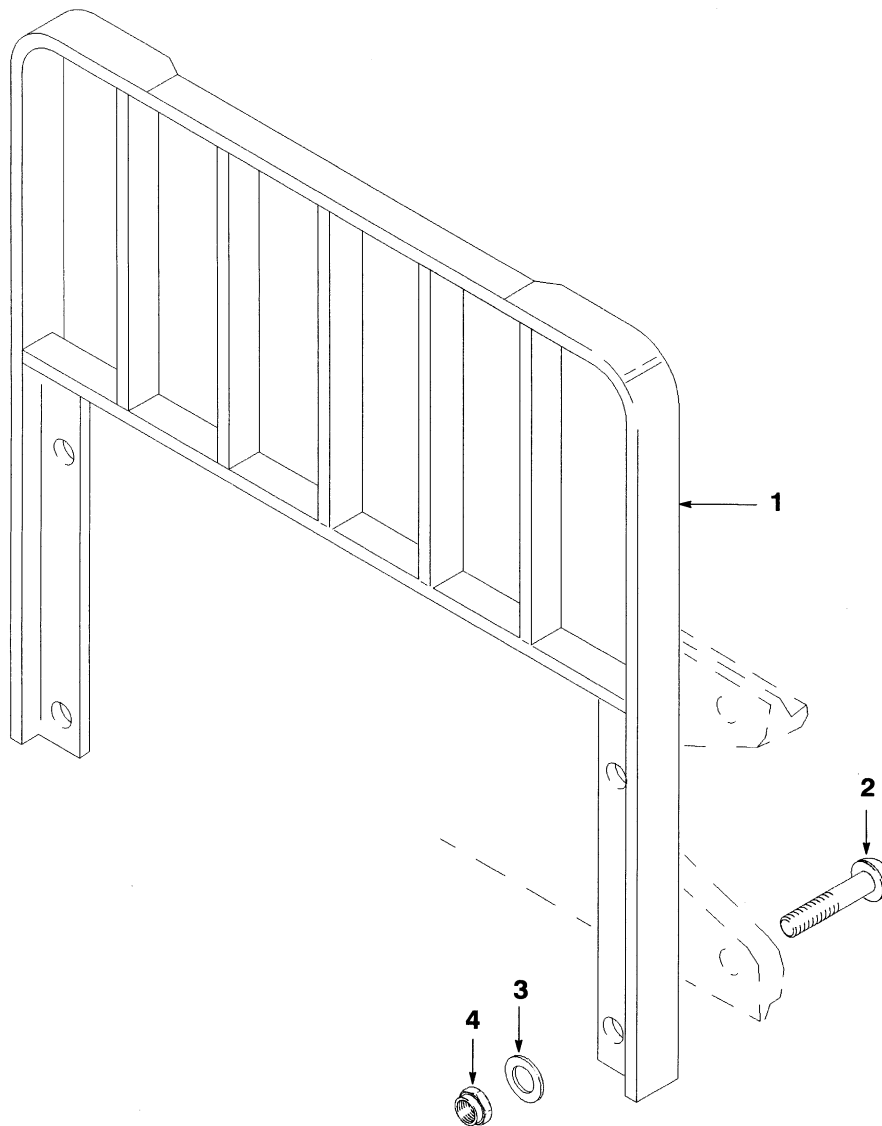
FOOTNOTES:**a** Not Illustrated**b** Refer to Table

**CARRIAGE (FIGURE 7-4)
TWO STAGE LIMITED FREE-LIFT**

HP171127

ITEM	PART NO.	DESCRIPTION	QTY
	1353329	Carriage	1
1	1353324	Carriage Wldmt	1
2	1345216	Stubshaft	6
3	58901	Snap Ring	6
4	129387	Shim (0.020 in.)	AR
5	366115	Spacer	2
6	1333399	Load Roller	6
6	1393132	Load Roller (Optional)	6
6	1395175	Load Roller (Optional)	6
7	1369345	Chain Anchor (Dual Hole)	2
7	1504010	Chain Anchor (Single Hole) (Optional)	2
8	1353408	Pin	2
9	131358	Snap Ring	4
10	1514866	Pin	2
11	15211	Cotter Pin	2

LOAD BACKREST EXTENSION (FIGURE 7-5) TWO STAGE LIMITED FREE-LIFT

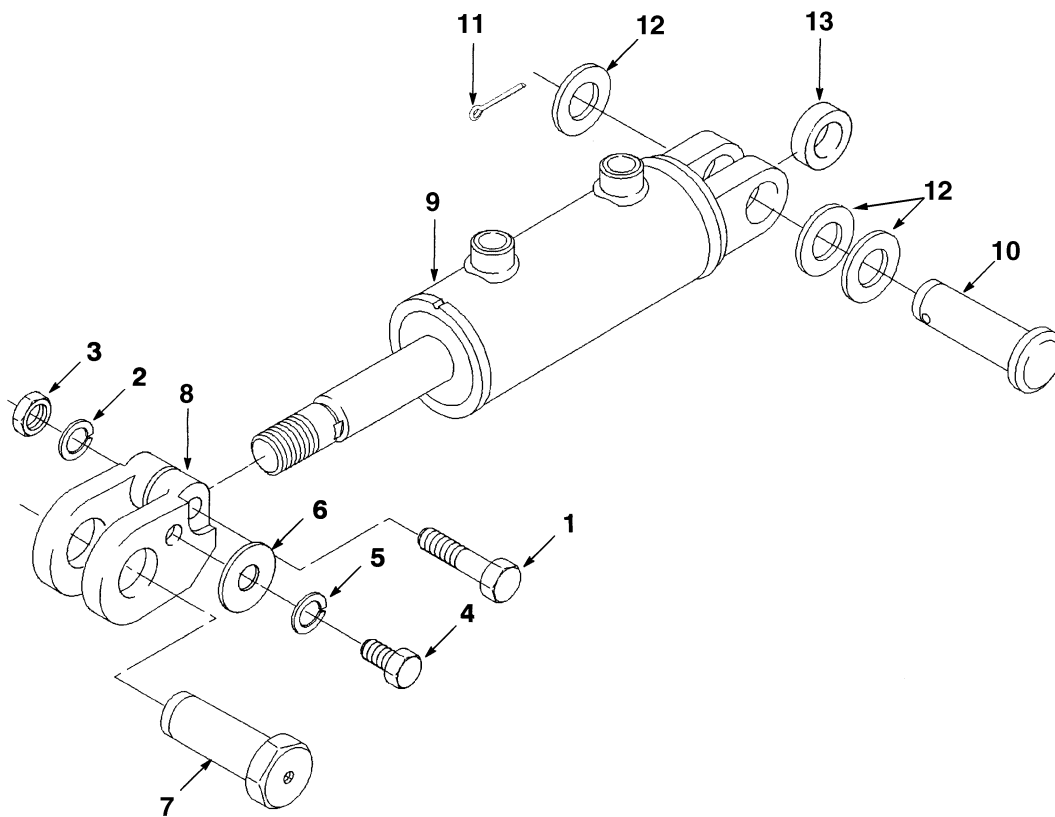


HP171128

ITEM	PART NO.	DESCRIPTION	QTY
1	1349446	Load Backrest (38.5 in.)	1
2	1353533	Capscrew	4
3	221771	Washer	4
3	296423	Washer (Optional HD)	4
	292683	Lockwasher	4
4	292656	Nut	4

NOTES

[illegible]

TILT CYLINDER ATTACHING PARTS (FIGURE 7-6)
TWO STAGE LIMITED FREE-LIFT

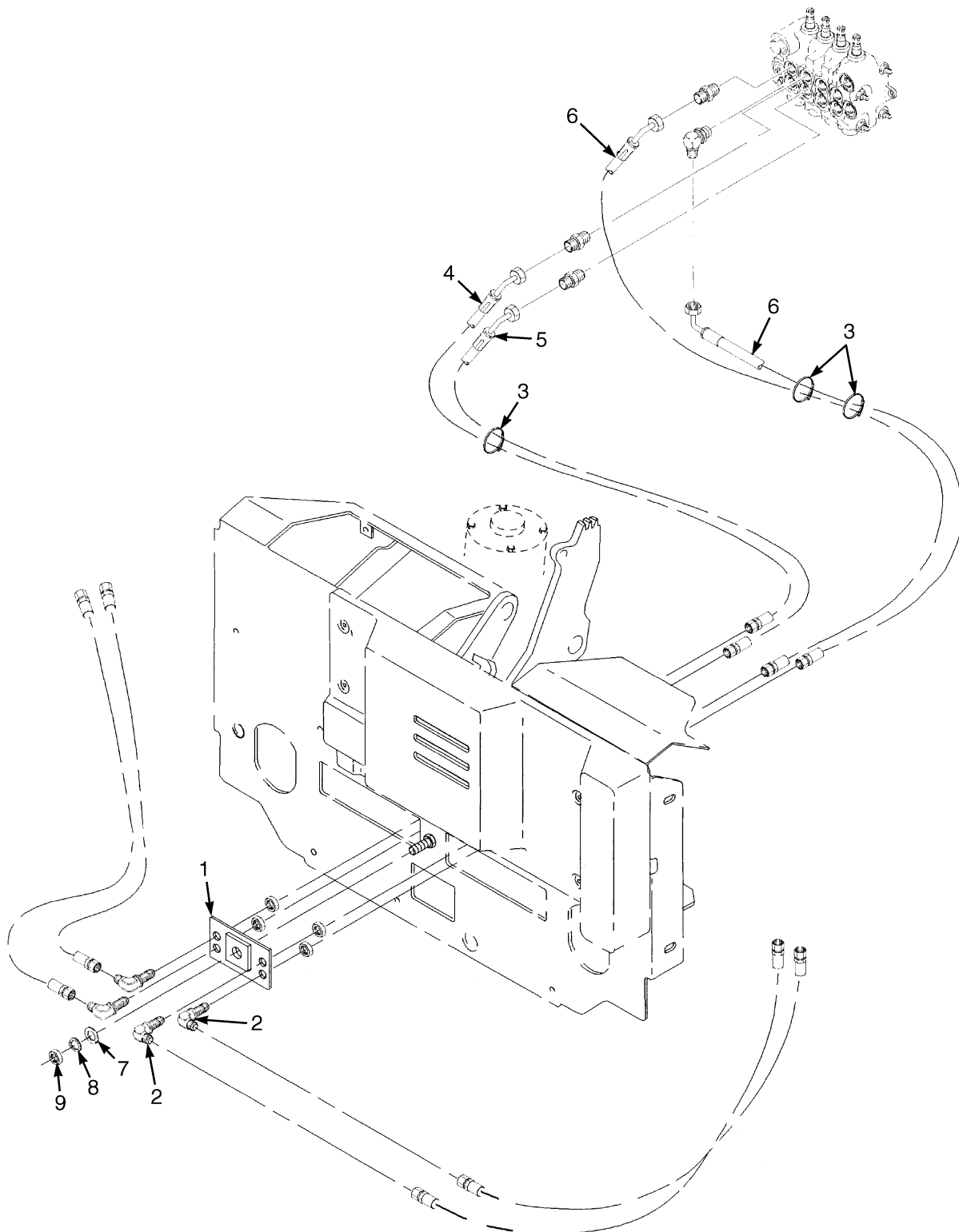
HP171129

**TILT CYLINDER ATTACHING PARTS
TWO STAGE LIMITED FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
1	292531	Capscrew	2
2	292683	Lockwasher	2
3	216877	Nut	2
4	292514	Capscrew	2
5	292682	Lockwasher	2
6	1345190	Washer	2
7	16001	Grease Fitting	2
8	1348187	Pin	2
9	1363260	Rod End	2
10	2033818	Cylinder Assy (☞ Figure 6-13).....	2
10	2033757	Cylinder Assy (☞ Figure 6-13).....	2
11	308117	Pin	2
12	15236	Cotter Pin	2
13	197069	Washer	6
14	300982	Bushing	2
15	a 1363252	Spacer	2
16	a 15865	O-Ring	2
17	a 1363268	Shim (0.068 in.)	AR
18	a 1363269	Shim (0.032 in.)	AR

FOOTNOTES:**a** 5° Tilt/5° Back Tilt

HEADER HOSE ATTACHING PARTS (FIGURE 7-7) TWO STAGE LIMITED FREE-LIFT

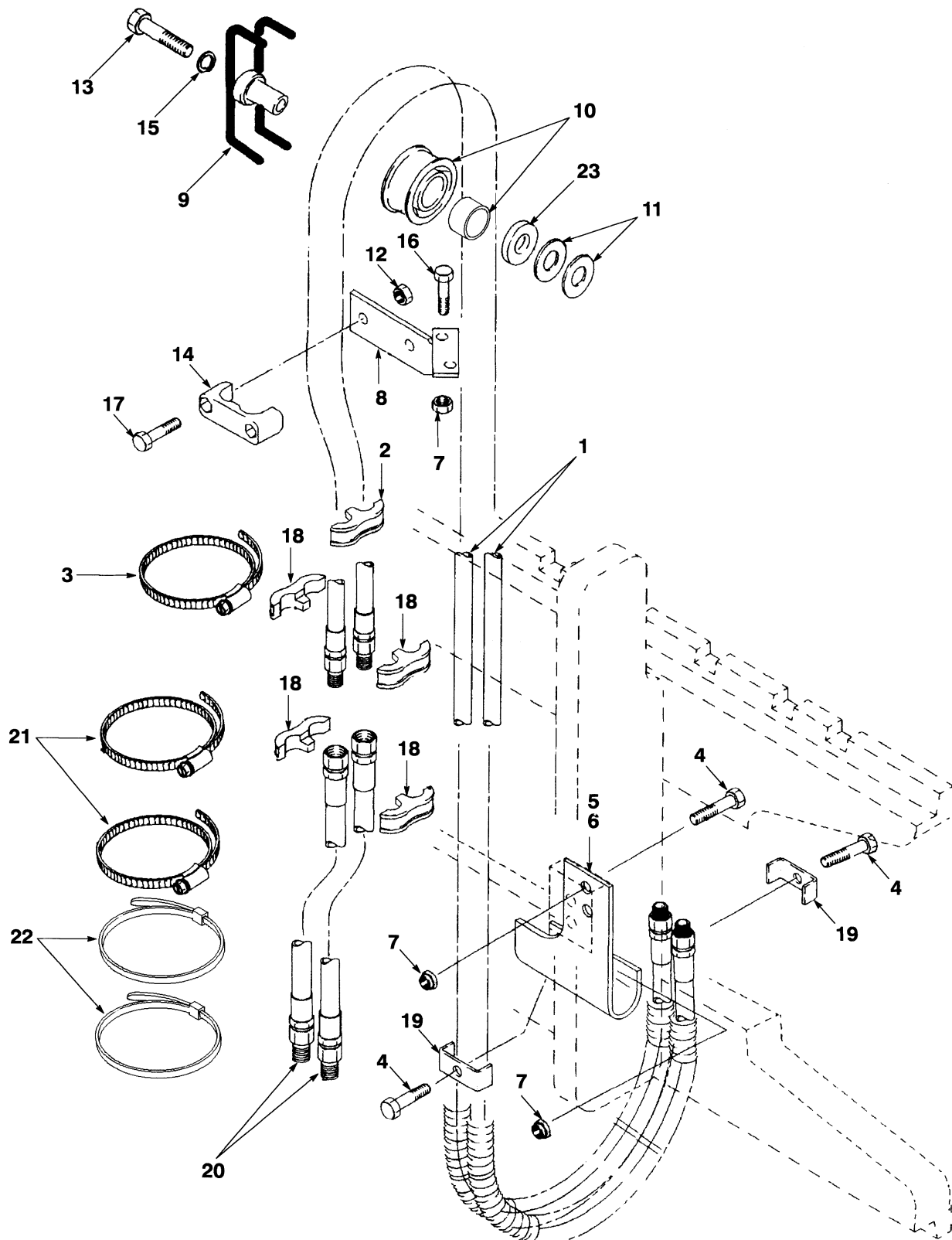


HP171130

**HEADER HOSE ATTACHING PARTS
TWO STAGE LIMITED FREE-LIFT****KEY:****A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	2038931	Plate	1	1
2	16457	Fitting	2	4
3	137852	Strap Clamp	2	4
4	2036000	Hose Assy	1	1
5	2036000	Hose Assy	1	1
6	2033598	Hose Assy	..	2
7	296420	Washer	1	1
8	292682	Lockwasher	1	1
9	292654	Nut	1	1

HEADER HOSE (FIGURE 7-8) TWO STAGE LIMITED FREE-LIFT



HP171131

**HEADER HOSE
TWO STAGE LIMITED FREE-LIFT****A552**

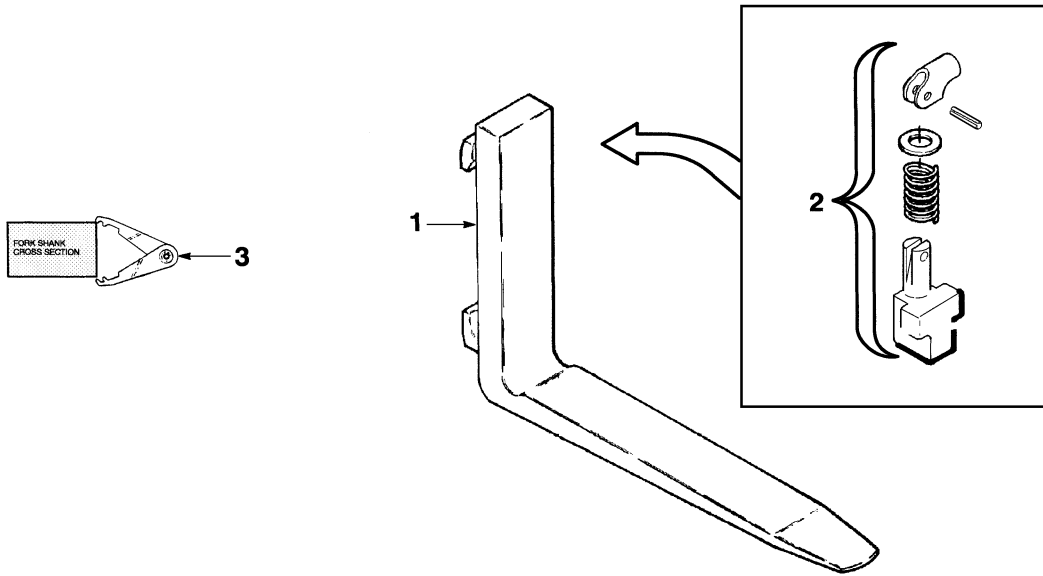
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		2992 mm (117.8 in.)	3292 mm (129.6 in.)	3792 mm (149.3 in.)	3992 mm (157.2 in.)	4292 mm (169.0 in.)
	Mast Group Number	A552 2992	A552 3292	A552 3792	A552 3992	A552 4292
1	Hose Assy	1398494	1398500	1398513	1398520	1398527

KEY:**A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	b	Hose Assy	2	4
2	a 1353530	Hose Clamp	4	8
3	a 1360508	Clamp	1	2
4	292508	Capscrew	4	8
5	1345412	Bracket (RH)	1	1
6	1345413	Bracket (LH)	..	1
7	313828	Nut	6	12
8	1363486	Bracket	1	2
9	1360548	Stubshaft	1	2
10	1353521	Bushing	1	1
10	1494017	Hose Sheave	1	2
11	1345190	Washer	2	4
12	313805	Nut	2	4
13	292533	Capscrew	1	2
14	1360386	Clamp	1	2
15	292683	Lockwasher	1	2
16	136704	Capscrew	2	4
17	287816	Capscrew	2	4
18	1360507	Clamp	4	8
19	1345348	Clamp	2	4
20	365115	Hose Assy	2	4
21	1360508	Clamp	2	4
22	1375574	Strap	2	4
23	1360549	Spacer	1	2

FOOTNOTES:**a** 149 in., 157 in., and 168 in. Lifts**b** Refer to Table

FORK (FIGURE 7-9) TWO STAGE LIMITED FREE-LIFT



HP171132

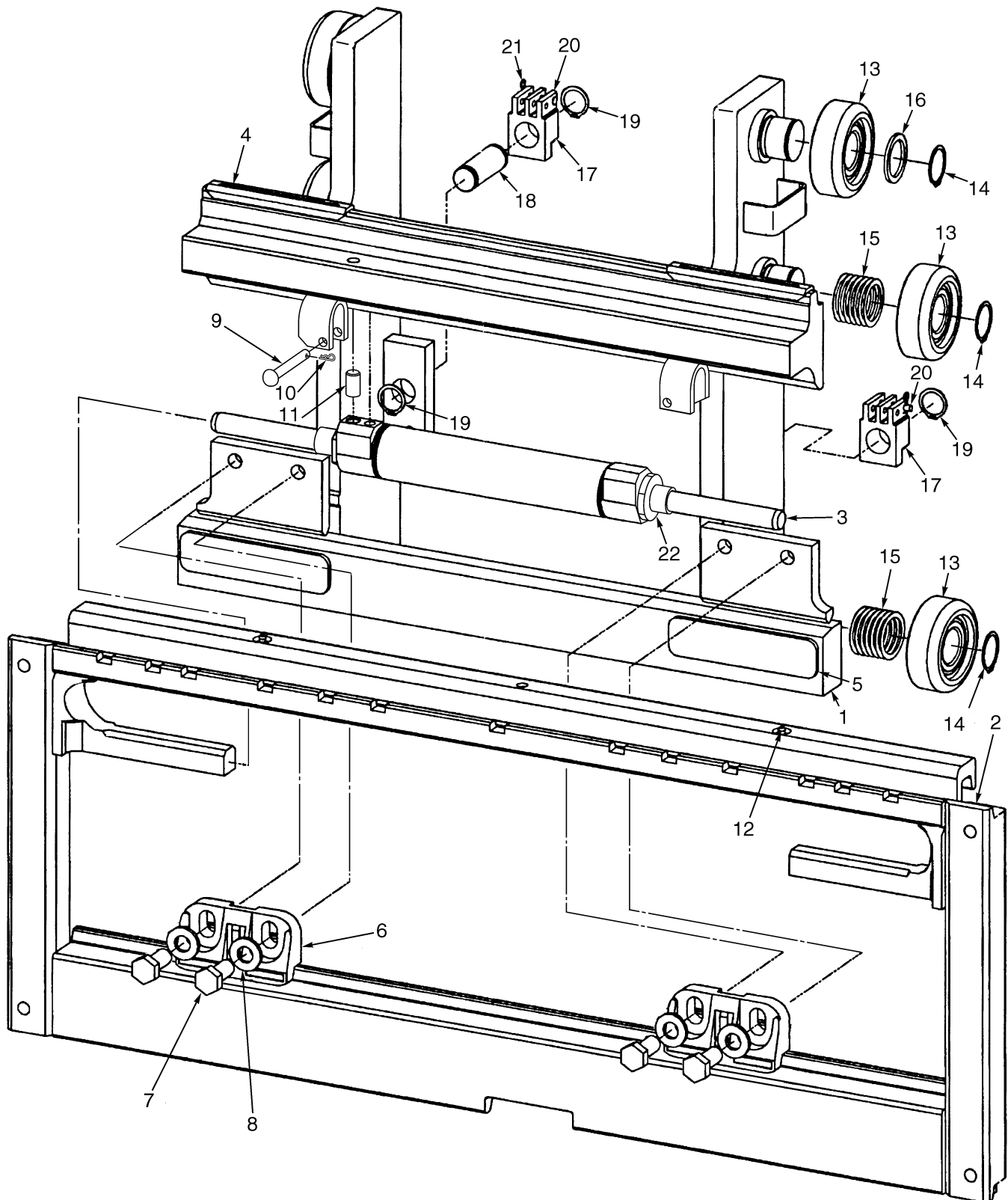
KEY:

- A: Standard Taper (3.1 in. x 1.5 in.)
- B: Standard Taper (3.9 in. x 1.5 in.)
- C: Full Bottom Taper (3.9 in. x 1.5 in.)

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	1378775	Fork (35 in.)	2	..	..
1	1378771	Fork (36 in.)	2	..	..
1	1378776	Fork (39 in.)	2	..	..
1	1378772	Fork (42 in.)	2	..	..
1	1378777	Fork (43 in.)	2	..	..
1	1378778	Fork (45 in.)	2	..	..
1	1378779	Fork (47 in.)	2	..	..
1	1378773	Fork (48 in.)	2	..	..
1	1338133	Fork (35 in.)	..	2	..
1	384211	Fork (36 in.)	..	2	..
1	1333043	Fork (39 in.)	..	2	..
1	384213	Fork (42 in.)	..	2	..
1	1333044	Fork (43 in.)	..	2	..
1	1338135	Fork (45 in.)	..	2	..
1	1333045	Fork (47 in.)	..	2	..
1	384214	Fork (48 in.)	..	2	..
1	384215	Fork (54 in.)	..	2	..
1	384216	Fork (60 in.)	..	2	..
1	1338076	Fork (36 in.)	..	..	2
1	1338077	Fork (42 in.)	..	..	2
1	1338078	Fork (48 in.)	..	..	2
2	369795	Kit-Latch	1	1	1
3	3020387	Tool	AR	AR	AR

NOTE: Other Fork Dimensions Available on Request, Contact Your Hyster Lift Truck Dealer.

INTEGRAL SIDE-SHIFT CARRIAGE (FIGURE 7-10) TWO STAGE LIMITED FREE-LIFT



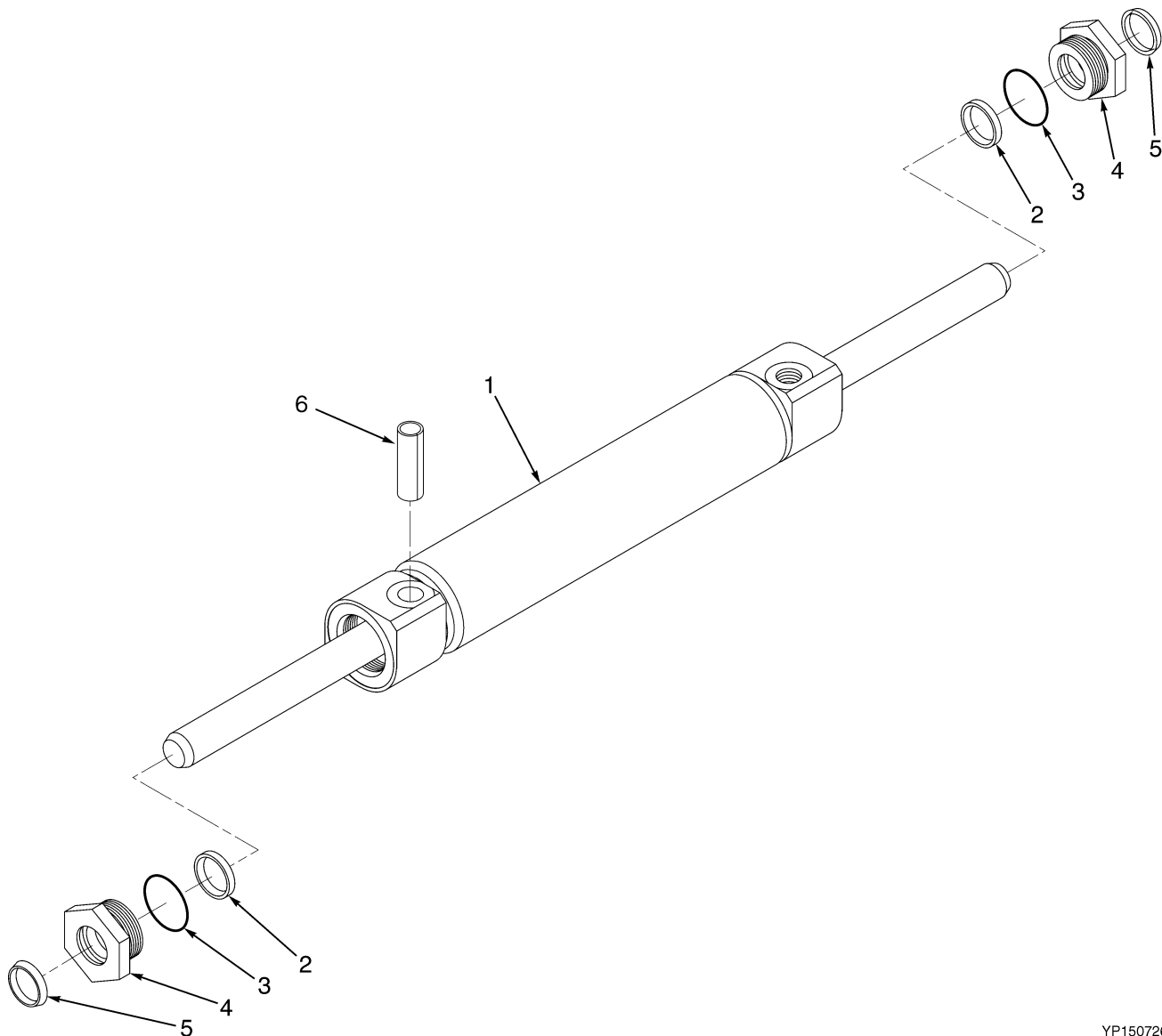
BP000000

**INTEGRAL SIDE-SHIFT CARRIAGE
TWO STAGE LIMITED FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
	1486175	Side-Shift Carriage (38 in.)	1
1	1488992	Carriage Wldmt (Inner) (36 in.)	1
2	1489009	Carriage Wldmt (36 in.)	1
3	2043528	Sideshift Cylinder (☞ Figure 7-11).....	1
4	2043531	Bearing (Upper)	2
4	a 2046243	Bearing (Upper) (Bronze) (Service Option)	2
5	2043533	Bearing (Lower)	2
5	a 2046244	Bearing (Lower) (Bronze) (Service Option)	2
6	2043530	Hook (Lower)	2
7	226458	Capscrew	4
8	296426	Washer	4
9	1401746	Pin	2
10	18832	Cotter Pin	2
11	302397	Dowel	1
12	16041	Grease Fitting	2
13	1333399	Load Roller	6
14	58901	Snap Ring	6
15	129387	Shim (0.020 in.)	28
16	366115	Spacer	6
17	1369345	Chain Anchor (Dual Hole)	2
18	1353408	Pin	2
19	131358	Snap Ring	4
20	1514866	Pin	2
21	15200	Cotter Pin	2
22	1498326	Shim	3

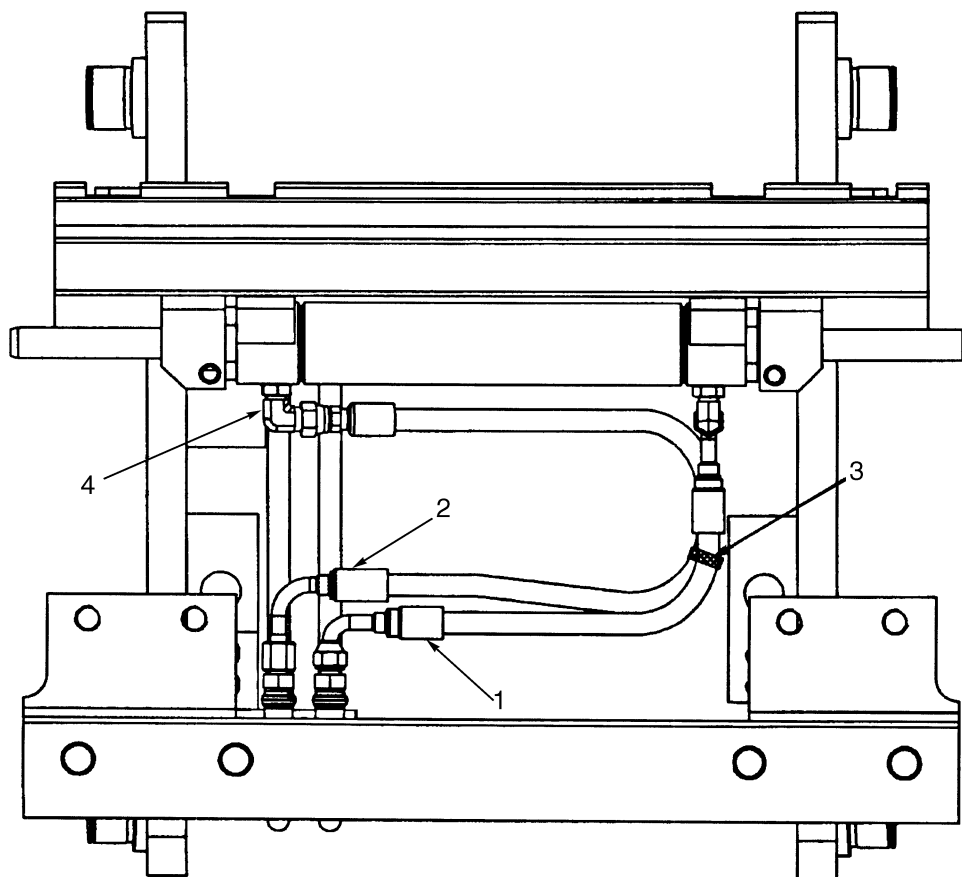
FOOTNOTES:**a** 6/2001 →

SIDE-SHIFT CYLINDER (FIGURE 7-11)



VP150726

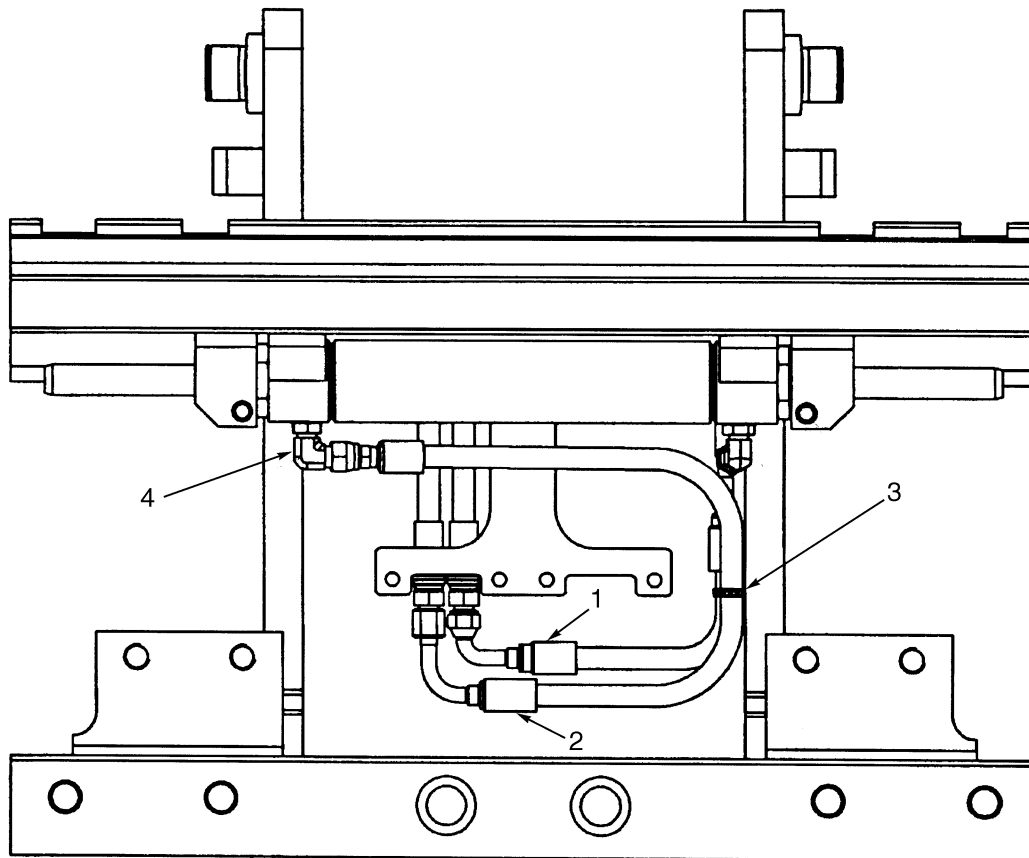
ITEM	PART NO.	DESCRIPTION	QTY
	2043528	Sideshift Cylinder	1
1	1489016	Sideshift Cylinder	1
2	1489037	Rod Seal	2
3	1489035	O-Ring	2
4	1498325	Retainer	2
5	1489039	Rod Wiper	2
6	302487	Roll Pin	1
	1503096	Kit-Seal	1

INTEGRAL SIDE-SHIFT HYDRAULIC HOSES (FIGURE 7-12)
TWO STAGE LIMITED FREE-LIFT

BP000004

ITEM	PART NO.	DESCRIPTION	QTY
1	1503476	Hose Assy	1
2	1503478	Hose Assy	1
3	114312	Strap Clamp	1
4	16558	Fitting	2

INTEGRAL SIDE-SHIFT HYDRAULIC HOSES (FIGURE 7-13) TWO AND THREE STAGE FULL FREE-LIFT



BP000003

ITEM	PART NO.	DESCRIPTION	QTY
1	b 1489050	Hose Assy	1
1	a 1489050	Hose Assy	1
2	b 1503481	Hose Assy	1
2	a 1489051	Hose Assy	1
3	114312	Strap Clamp	1
4	16558	Fitting	2

FOOTNOTES:

a Three Stage Full Free-Lift

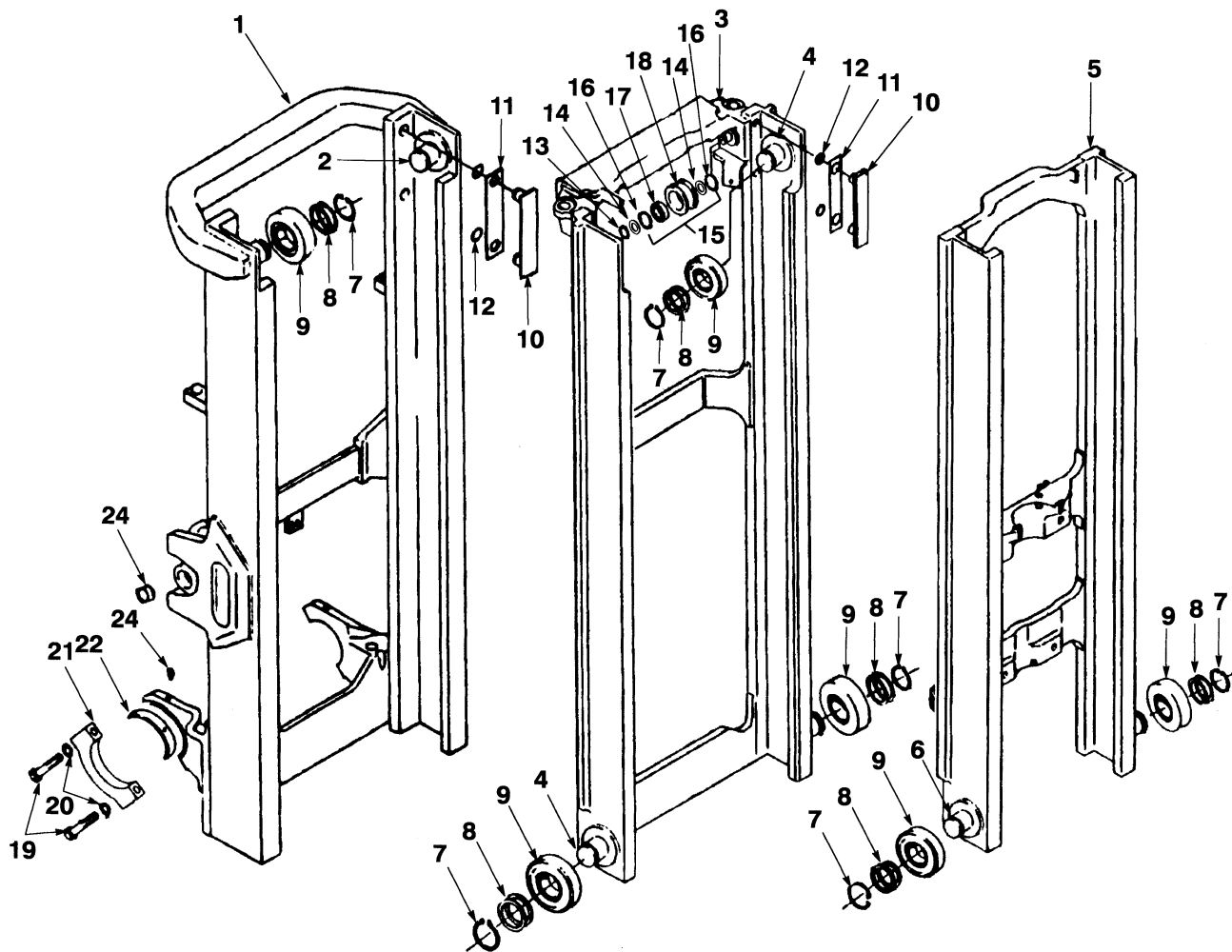
b Two Stage Full Free-Lift

SECTION 8

MAST-THREE STAGE FULL FREE-LIFT

DESCRIPTION	PAGE
CARRIAGE	
THREE STAGE FULL FREE-LIFT	8-16
FORK	
THREE STAGE FULL FREE-LIFT	8-27
FREE-LIFT	
THREE STAGE FULL FREE-LIFT	8-8
FREE-LIFT CYLINDER	
THREE STAGE FULL FREE-LIFT	8-14
HEADER HOSE	
THREE STAGE FULL FREE-LIFT	8-24
HEADER HOSE ATTACHING PARTS	
THREE STAGE FULL FREE-LIFT	8-22
INNER, INTERMEDIATE, AND OUTER MAST	
THREE STAGE FULL FREE-LIFT	8-2
INTEGRAL SIDE-SHIFT CARRIAGE	
TWO AND THREE STAGE FULL FREE-LIFT	8-28
LOAD BACKREST EXTENSION	
THREE STAGE FULL FREE-LIFT	8-18
MAIN CYLINDER	
THREE STAGE FULL FREE-LIFT	8-10
MAIN LIFT	
THREE STAGE FULL FREE-LIFT	8-4
TILT CYLINDER ATTACHING PARTS	
THREE STAGE FULL FREE-LIFT	8-20

INNER, INTERMEDIATE, AND OUTER MAST (FIGURE 8-1) THREE STAGE FULL FREE-LIFT



HP171133

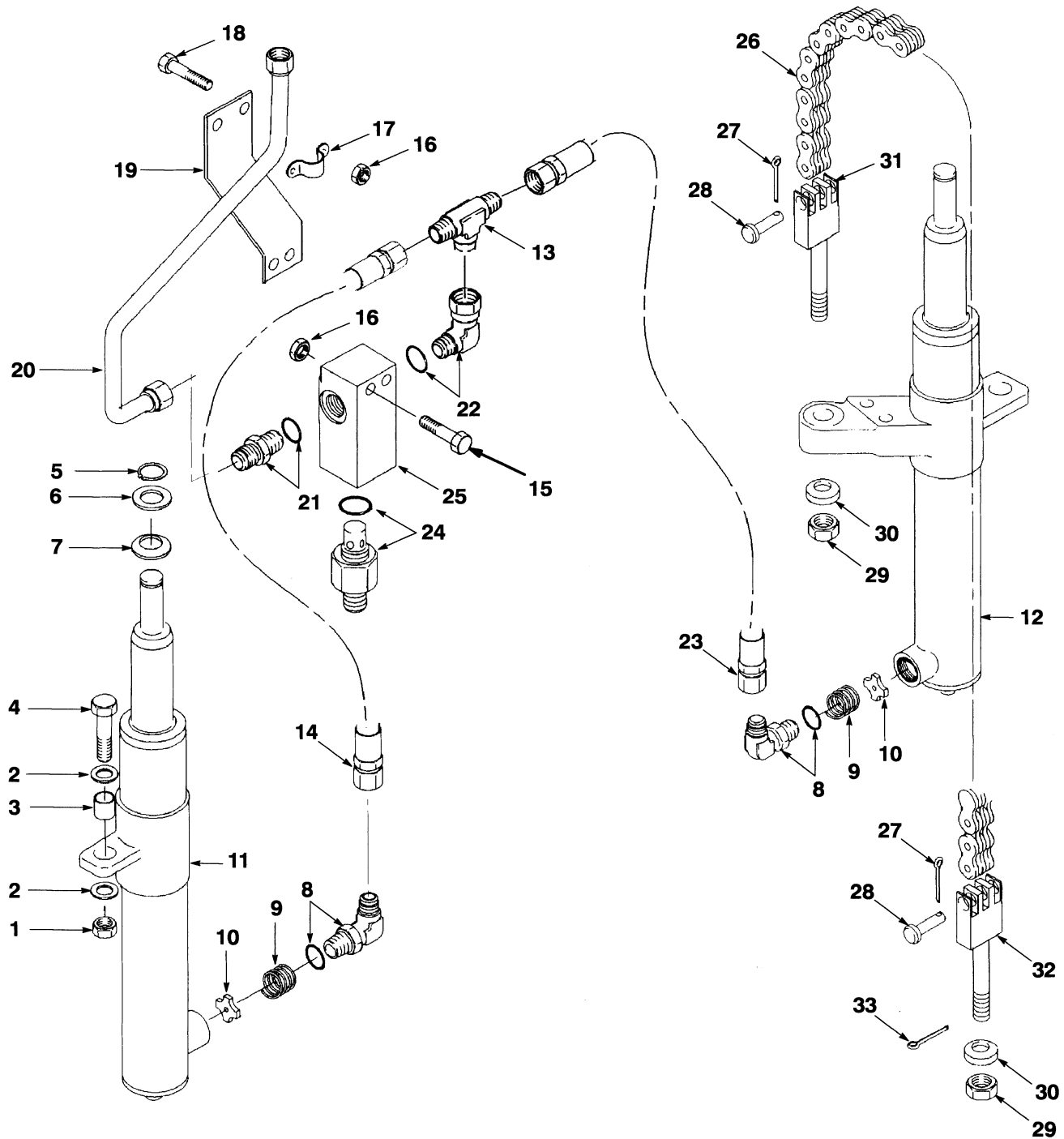
**INNER, INTERMEDIATE, AND OUTER MAST
THREE STAGE FULL FREE-LIFT****A556**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		4460 mm (175.6 in.)	4760 mm (187.4 in.)	5510 mm (216.9 in.)	5960 mm (234.6 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510	A556 5960
	Mast Assy	2049067	2049069	2049074	2049077
1	Outer Mast	1348056	1348058	1348064	1348067
3	Intermediate Mast	1352956	1352958	1352963	1352966
5	Inner Mast	1352856	1352858	1352863	1352866

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	1360534	Stubshaft	2
3	a	Intermediate Mast	1
4	1360534	Stubshaft	4
5	a	Inner Mast	1
6	1360534	Stubshaft	2
7	58901	Snap Ring	2
8	129387	Shim (0.020 in.)	AR
9	1333399	Load Roller	2
10	215212	Wear Strip	4
11	131716	Shim (0.020 in.)	8
12	104506	O-Ring	8
13	304526	Snap Ring	2
14	1379707	Spacer	2
15	1379685	Chain Sheave	2
16	37752	Snap Ring	2
17	1378699	Ball Bearing	1
18	1378698	Chain Sheave	1
19	293651	Capscrew	4
20	292683	Lockwasher	4
21	1370722	Cap	2
22	2053761	Bushing (Trunnion)	2
23	16001	Grease Fitting	2
24	1348185	Bushing	2
	1343989	Hose Sheave	1
	1354901	Bushing	1
	292532	Capscrew	1
	292683	Lockwasher	1

FOOTNOTES:**a** Refer to Table

MAIN LIFT (FIGURE 8-2) THREE STAGE FULL FREE-LIFT



HP171134

**MAIN LIFT
THREE STAGE FULL FREE-LIFT****A556**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		4460 mm (175.6 in.)	4760 mm (187.4 in.)	5510 mm (216.9 in.)	5960 mm (234.6 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510	A556 5960
26	Chain	164474	88441	177352	304200

ITEM	PART NO.	DESCRIPTION	QTY
1	300937	Nut	2
2	296422	Washer	4
3	323090	Spacer	2
4	292531	Capscrew	2
5	131358	Snap Ring	2
6	1333382	Washer (0.060 in.)	2
7	1354915	Washer (0.010 in.)	AR
7	1354916	Washer (0.030 in.)	AR
7	1354917	Washer (0.060 in.)	AR
8	189595	Fitting	2
8	16485	O-Ring	1
9	120938	Spring	2
10	323160	Washer	2
11		Cylinder (LH) (☞ Figure 8-4).....	1
12		Cylinder (RH) (☞ Figure 8-4).....	1
13	17051	Fitting	1
14	1376101	Hose Assy	1
15	292509	Capscrew	2
16	313828	Nut	4
17	1363251	Clamp	1
18	136681	Capscrew	2
19	1363250	Plate	1
20	1376322	Tube Assy	1
21	16543	Connector	1
21	16486	O-Ring	1
22	16560	Fitting	1
22	16485	O-Ring	1
23	1376100	Hose Assy	1
24	323061	Lowering Control Valve	1
24	16982	O-Ring	1
25	1333392	Housing	1
26	a.....	Chain	2
27	15201	Cotter Pin	4
28	1514866	Pin	4
29	161003	Nut	4
30	296426	Washer	4
31	1369357	Chain Anchor	2
32	1365140	Chain Anchor	2
33	15223	Cotter Pin	2

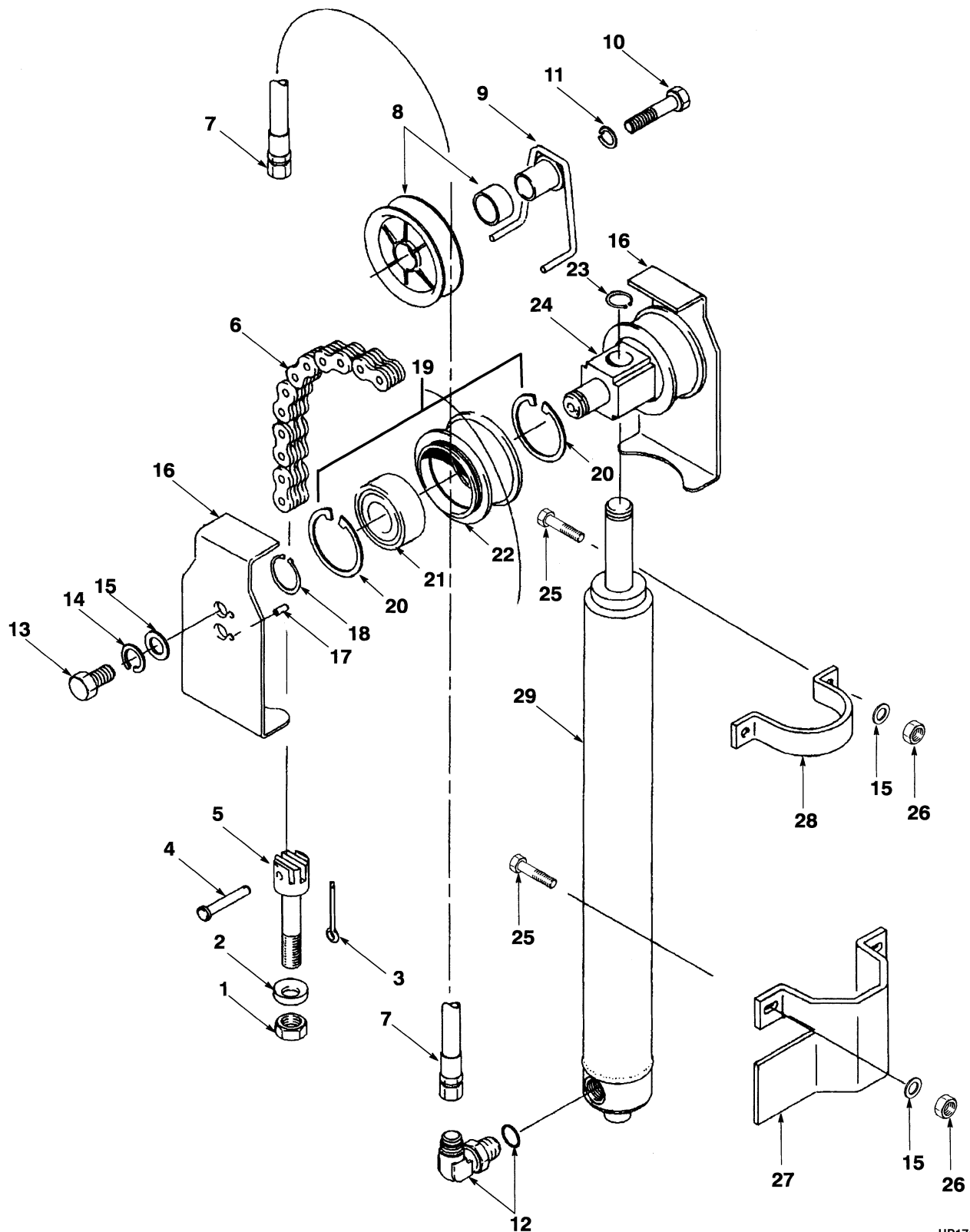
FOOTNOTES:

- a Refer to Table

NOTES

[illegible]

FREE-LIFT (FIGURE 8-3) THREE STAGE FULL FREE-LIFT



HP171135

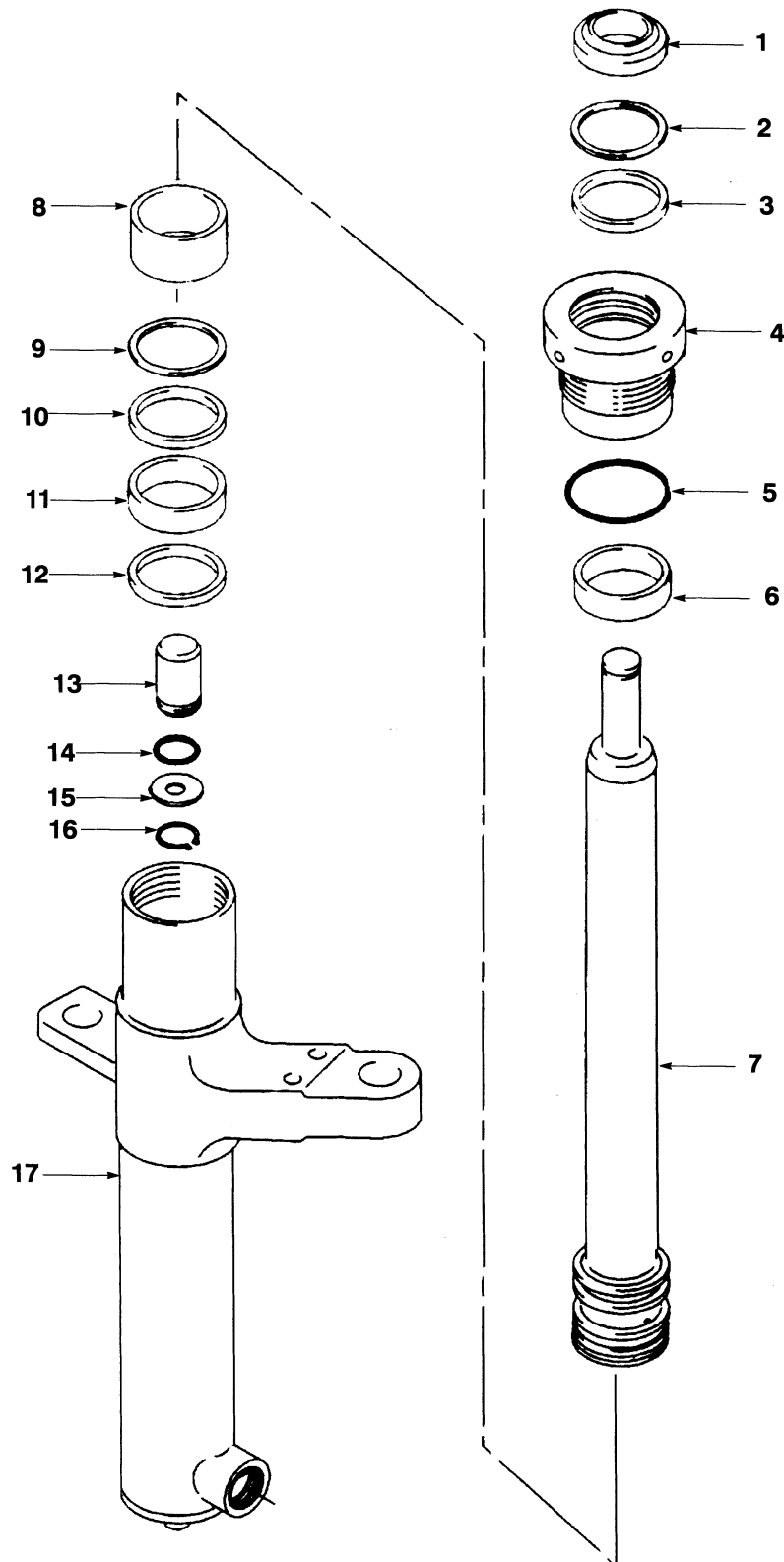
**FREE-LIFT
THREE STAGE FULL FREE-LIFT****A556**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		4460 mm (175.6 in.)	4760 mm (187.4 in.)	5510 mm (216.9 in.)	5960 mm (234.6 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510	A556 5960
6	Chain	231082	231083	88436	135634
7	Hose Assy	1363306	1363308	1363313	1363316

ITEM	PART NO.	DESCRIPTION	QTY
1	161003	Nut	2
2	297649	Ring	2
3	15211	Cotter Pin	2
4	1514866	Pin	2
5	1369357	Chain Anchor	2
6	a	Chain	2
7	a	Hose Assy	1
8	1343989	Hose Sheave	1
8	1354901	Bushing	1
9	1360534	Stubshaft	1
10	292533	Capscrew	1
11	292683	Lockwasher	1
12	1379496	Flow Valve	1
12	16485	O-Ring	1
13	292528	Capscrew	2
14	292683	Lockwasher	2
15	320161	Washer	6
16	1395285	Chain Guard	2
17	302461	Roll Pin	2
18	304526	Snap Ring	2
19	1379682	Chain Sheave	2
20	37752	Snap Ring	2
21	1378699	Ball Bearing	1
22	1378692	Chain Sheave	1
23	131358	Snap Ring	1
24	1378690	Crosshead	1
25	292528	Capscrew	4
26	300937	Nut	4
27	1353547	Bracket	1
28	1489972	Bracket	1
29		Free-Lift Cylinder (☞ Figure 8-5).....	1

FOOTNOTES:**a** Refer to Table

MAIN CYLINDER (FIGURE 8-4) THREE STAGE FULL FREE-LIFT



HP171136

**MAIN CYLINDER
THREE STAGE FULL FREE-LIFT****LEFT HAND**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		4460 mm (175.6 in.)	4760 mm (187.4 in.)	5510 mm (216.9 in.)	5960 mm (234.6 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510	A556 5960
	Cylinder Group Number	8601706	8601708	8601713	8601716
	Cylinder Assy	1362702	1362715	1362745	1362763
7	Cylinder Rod	1362704	1362717	1362746	1362765
8	Spacer	----	----	1355610	1355626
17	Tube Wldmt- Cylinder	1362703	1362716	1366057	1362764

RIGHT HAND

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		4460 mm (175.6 in.)	4760 mm (187.4 in.)	5510 mm (216.9 in.)	5960 mm (234.6 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510	A556 5960
	Cylinder Group Number	8601756	8601758	8601763	8601766
	Cylinder Assy	1362706	1362719	1362749	1362767
7	Cylinder Rod	1362704	1362717	1362746	1362765
8	Spacer	----	----	1355610	1355626
17	Tube Wldmt- Cylinder	1362713	1362726	1362756	1362774

ITEM	PART NO.	DESCRIPTION	QTY
	a	Cylinder Assy	1
1	1319668	Rod Wiper	1
2	322824	Back-Up Ring	1
3	1356749	Rod Seal	1
4	1371653	Gland	1
5	55407	O-Ring	1
6	322902	Wear Ring	1
7	a	Cylinder Rod	1
8	a	Spacer	1
9	322824	Back-Up Ring	1
10	330692	Rod Seal	1
11	1362871	Wear Ring	1
12	1362875	Piston Ring	1
13	257913	Check Valve	1
14	39348	O-Ring	1

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

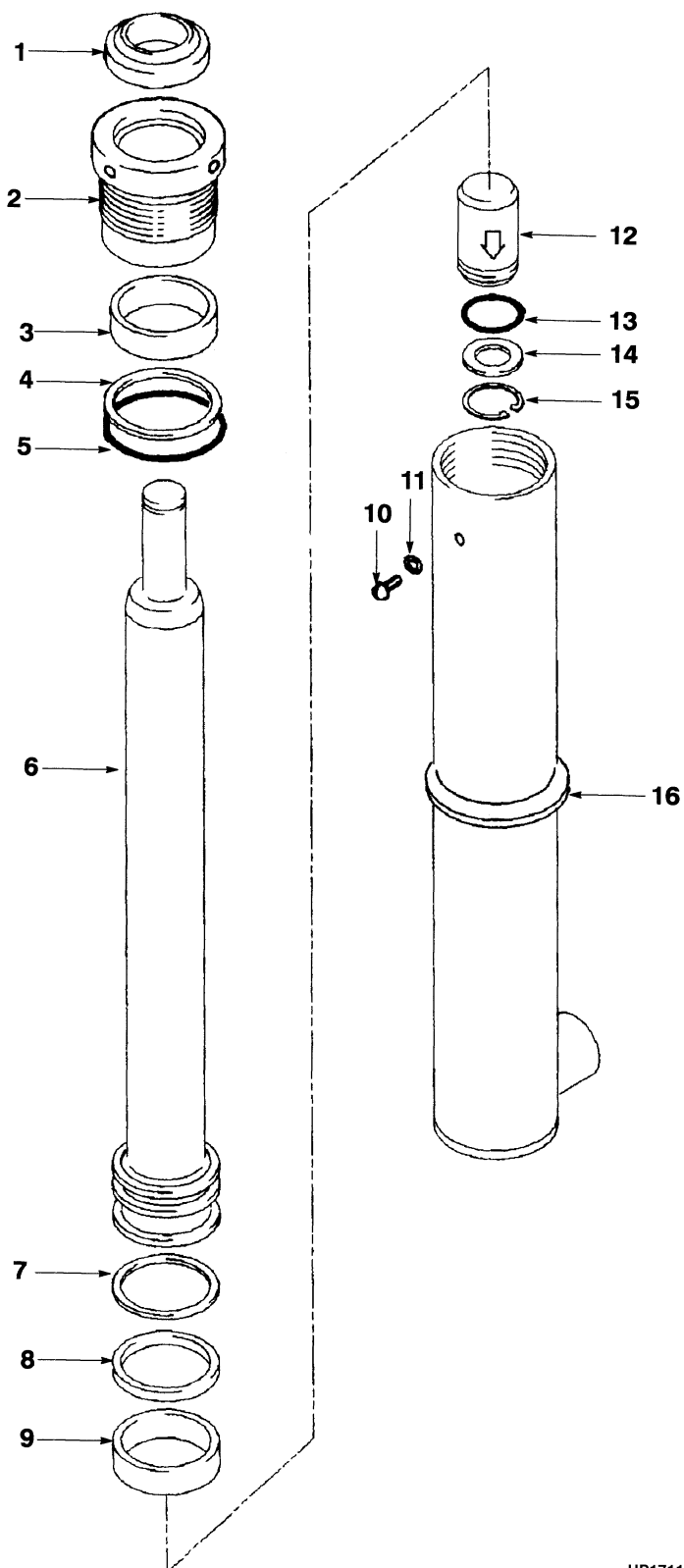
ITEM	PART NO.	DESCRIPTION	QTY
15	297531	Washer	1
16	187388	Snap Ring	1
17	a	Tube Wldmt-Cylinder	1
	1360139	Kit-Seal	1

FOOTNOTES:**a** Refer to Table

NOTES

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, typical of notebook paper. There are no margins, text, or other markings on the page.

FREE-LIFT CYLINDER (FIGURE 8-5) THREE STAGE FULL FREE-LIFT



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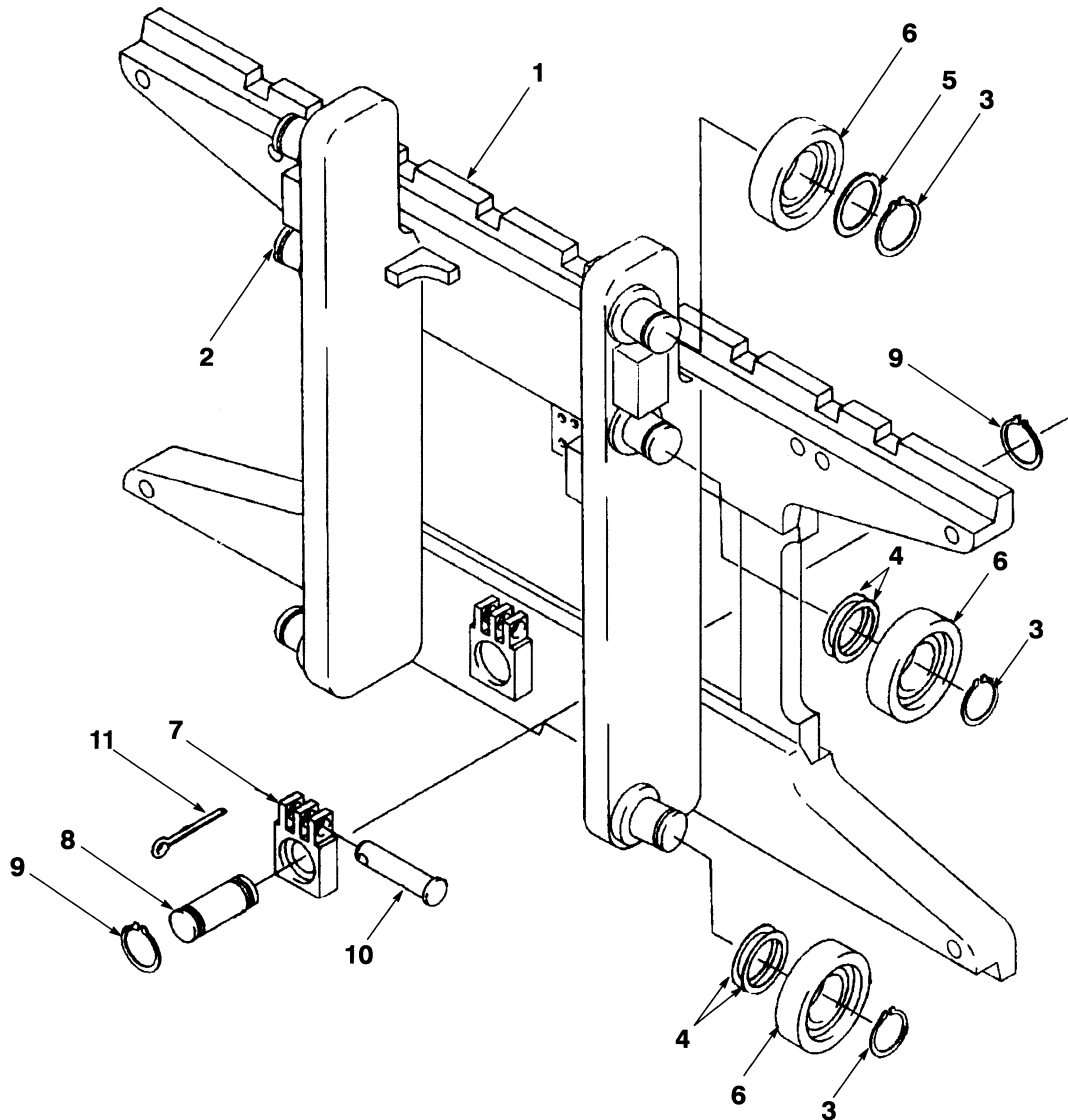
**FREE-LIFT CYLINDER
THREE STAGE FULL FREE-LIFT****A556**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		4460 mm (175.6 in.)	4760 mm (187.4 in.)	5510 mm (216.9 in.)	5960 mm (234.6 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510	A556 5960
	Cylinder Group Number	8601906	8601908	8601914	8601917
	Cylinder Assy	1362886	1362888	1362894	1362897
6	Cylinder Rod	1362960	1362962	1362968	1362965
16	Tube Wldmt- Cylinder	1362923	1362925	1362931	1362928

ITEM	PART NO.	DESCRIPTION	QTY
	a	Cylinder Assy	1
1	2013099	Rod Wiper	1
2	1362880	Gland	1
3	1358970	Rod Seal	1
4	615135	Back-Up Ring	1
5	55146	O-Ring	1
6	a	Cylinder Rod	1
7	638250	Back-Up Ring	1
8	201829	Rod Seal	1
9	1362881	Wear Ring	1
10	1361302	Screw	1
11	190887	Sealing Ring	1
12	257913	Check Valve	1
13	39348	O-Ring	1
14	297531	Washer	1
15	187388	Snap Ring	1
16	a	Tube Wldmt-Cylinder	1
	1360141	Kit-Seal	1

FOOTNOTES:**a** Refer to Table

CARRIAGE (FIGURE 8-6) THREE STAGE FULL FREE-LIFT

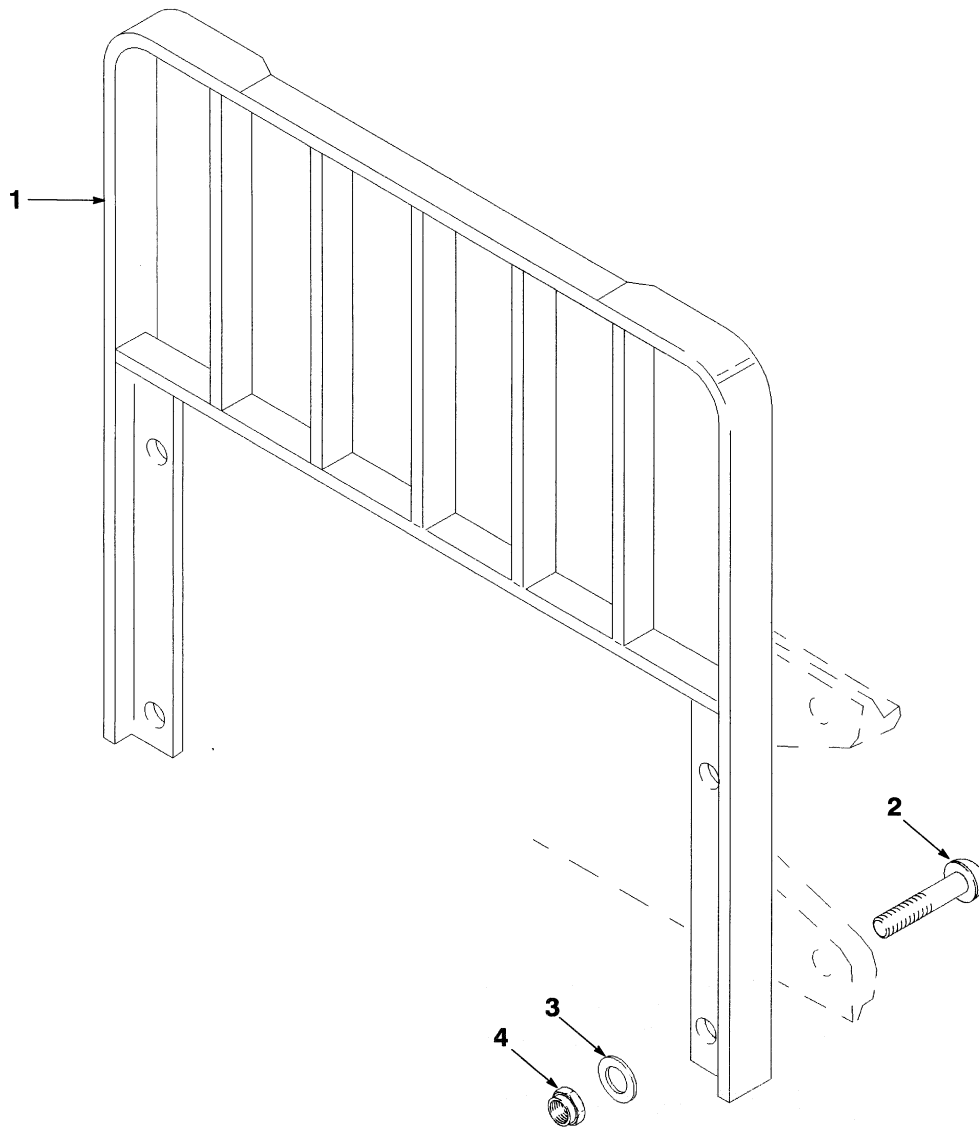


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ITEM	PART NO.	DESCRIPTION	QTY
	1353527	Carriage	1
1	1353467	Carriage Wldmt	1
2	1345216	Stubshaft	6
3	58901	Snap Ring	6
4	129387	Shim (0.020 in.)	AR
5	366115	Spacer	2
6	1363272	Load Roller	6
6	1393142	Load Roller (Optional)	6
6	1395174	Load Roller (Optional)	6
6	1395176	Load Roller (Optional)	6
7	1369345	Chain Anchor (Dual Hole)	2
7	1504010	Chain Anchor (Single Hole) (Optional)	2
8	1353408	Pin	2
9	131358	Snap Ring	4
10	1514866	Pin	2

ITEM	PART NO.	DESCRIPTION	QTY
11	15211	Cotter Pin	2

LOAD BACKREST EXTENSION (FIGURE 8-7) THREE STAGE FULL FREE-LIFT

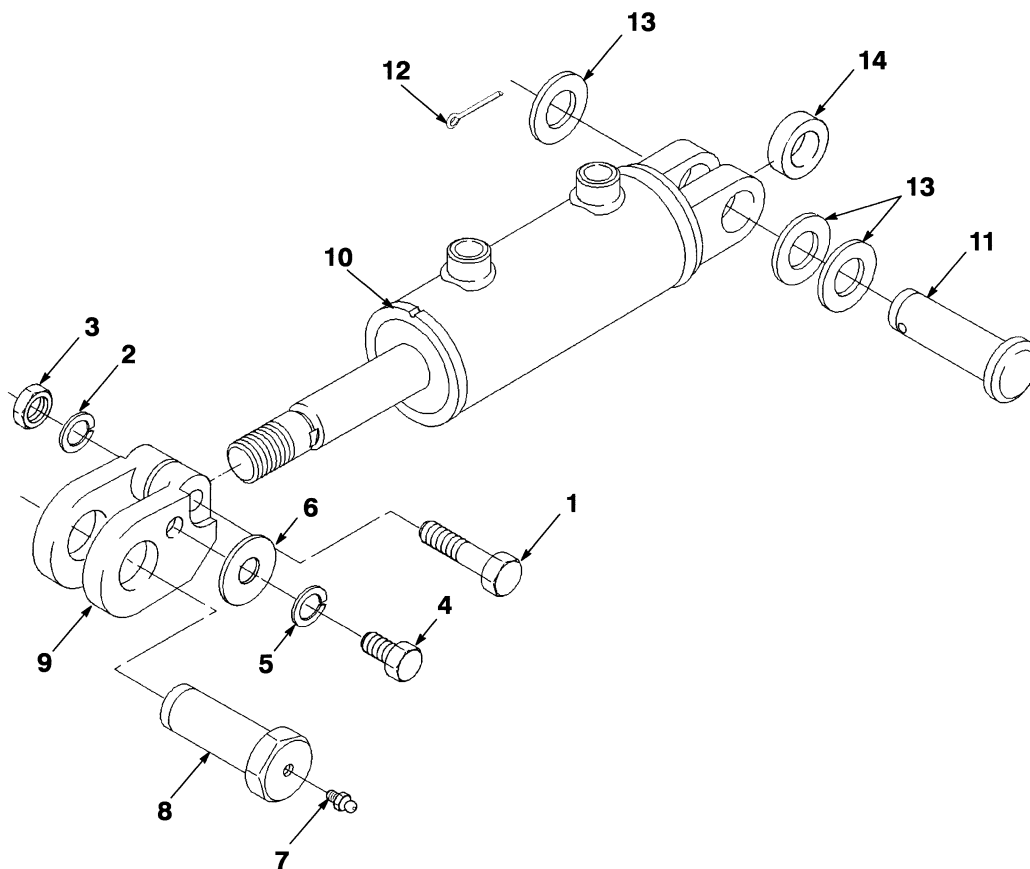


HP171139

ITEM	PART NO.	DESCRIPTION	QTY
1	1349446	Load Backrest (38.5 in.)	1
2	1353533	Capscrew	4
3	221771	Washer	4
3	296423	Washer (Optional HD)	4
	292683	Lockwasher	4
4	292656	Nut	4

NOTES

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**TILT CYLINDER ATTACHING PARTS (FIGURE 8-8)
THREE STAGE FULL FREE-LIFT**

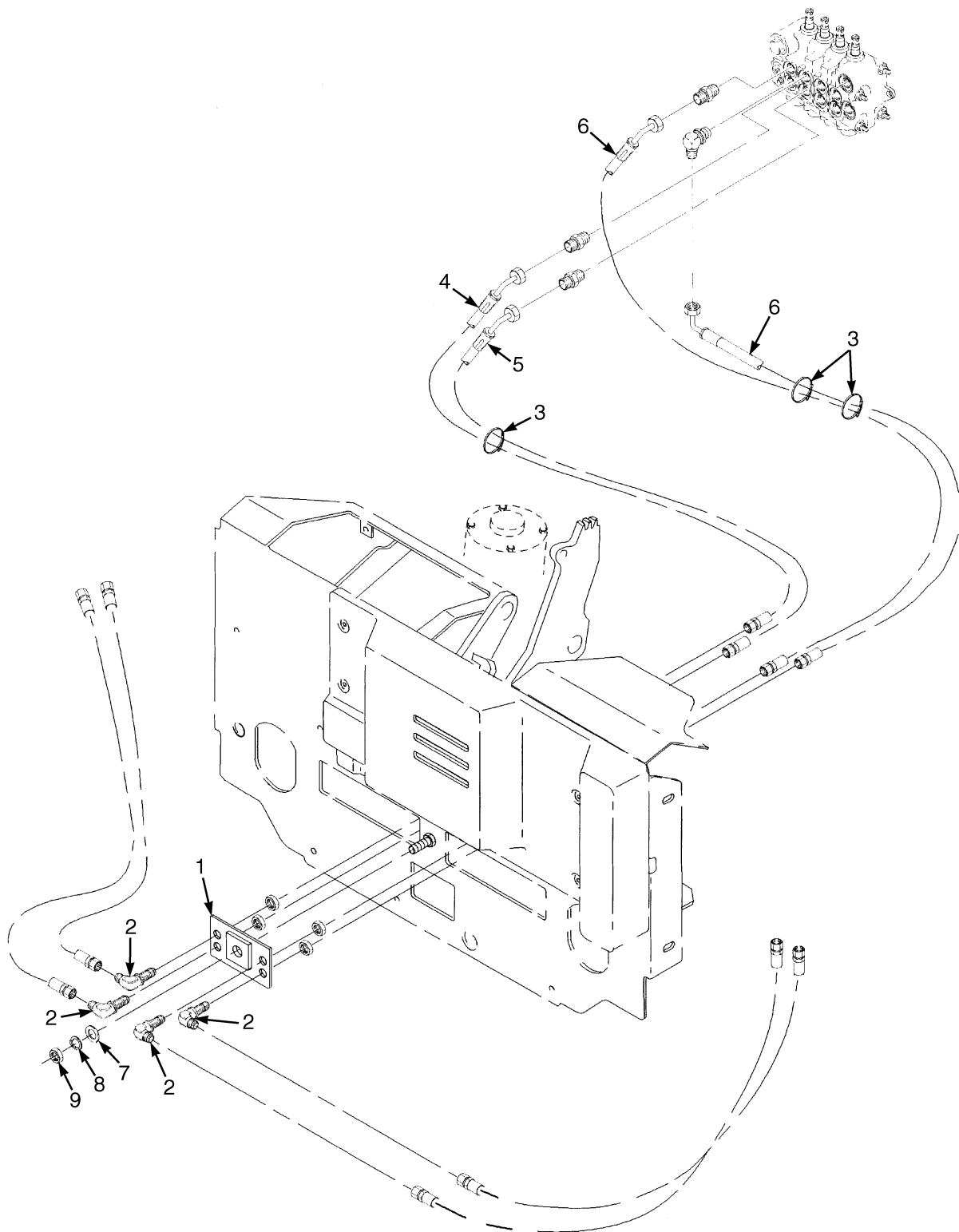
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**TILT CYLINDER ATTACHING PARTS
THREE STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
1	293651	Capscrew	2
2	292683	Lockwasher	2
3	292656	Nut	2
4	292514	Capscrew	2
5	292682	Lockwasher	2
6	1371287	Washer	2
7	16001	Grease Fitting	2
8	1348187	Pin	2
9	1363260	Rod End	2
10	2033818	Cylinder Assy (☞ Figure 6-13).....	2
10	2033757	Cylinder Assy (☞ Figure 6-13).....	2
11	1371526	Pin	2
12	15236	Cotter Pin	2
13	197069	Washer	6
14	300982	Bushing	2
15	a 1363252	Spacer	2
16	a 15865	O-Ring	2
17	a 1363268	Shim (0.068 in.)	AR
18	a 1363269	Shim (0.032 in.)	AR

FOOTNOTES:**a** 5° Forward Tilt/5° Back Tilt

HEADER HOSE ATTACHING PARTS (FIGURE 8-9) THREE STAGE FULL FREE-LIFT

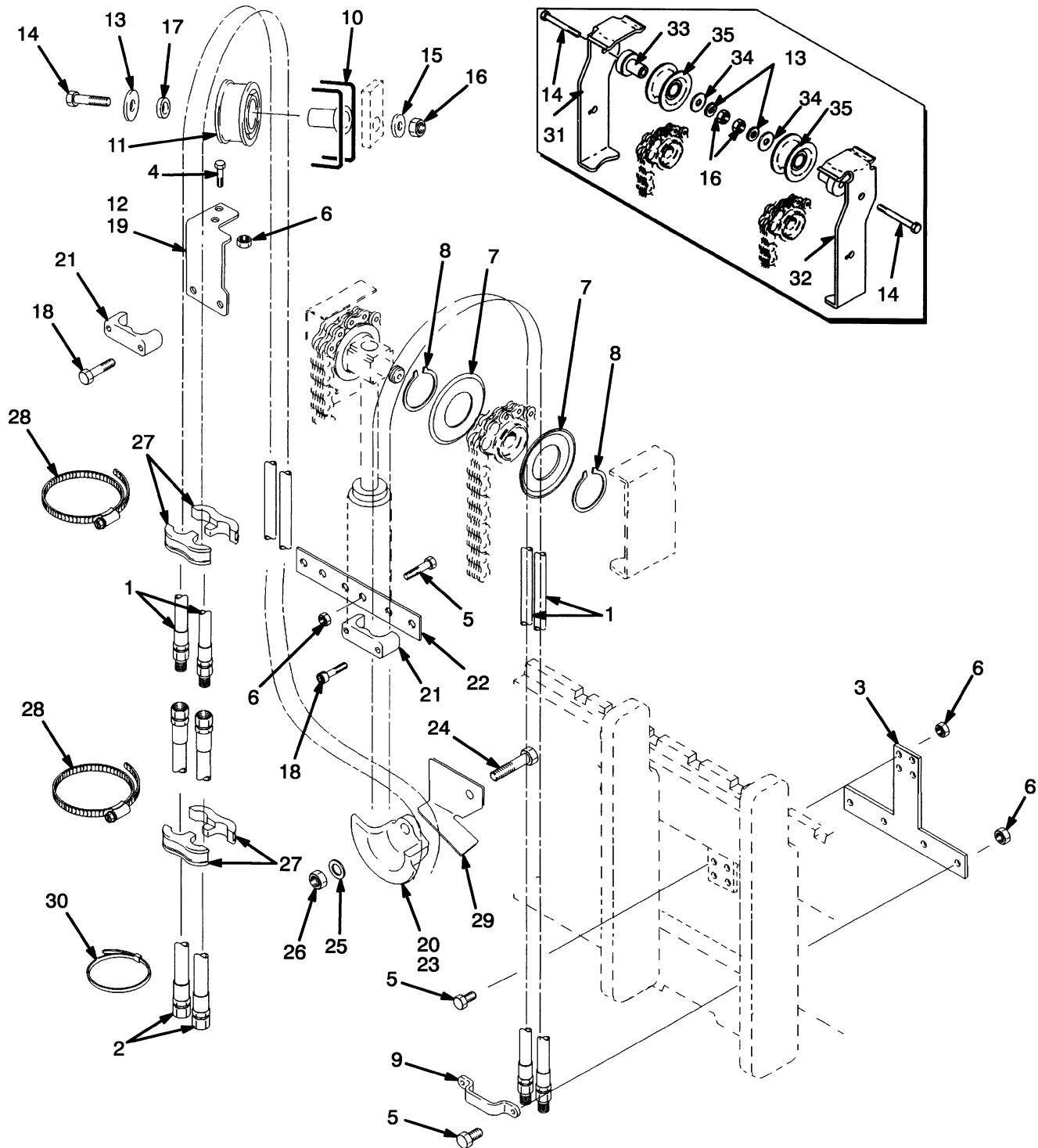


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**HEADER HOSE ATTACHING PARTS
THREE STAGE FULL FREE-LIFT****KEY:****A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	2038931	Plate	1	1
2	16457	Fitting	2	4
3	137852	Strap Clamp	2	4
4	2036000	Hose Assy	1	1
5	2036000	Hose Assy	1	1
6	2033598	Hose Assy	..	2
7	296420	Washer	1	1
8	292682	Lockwasher	1	1
9		Nut	1	1

HEADER HOSE (FIGURE 8-10) THREE STAGE FULL FREE-LIFT



HP170632

**HEADER HOSE
THREE STAGE FULL FREE-LIFT****A556**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		4460 mm (175.6 in.)	4760 mm (187.4 in.)	5510 mm (216.9 in.)	5960 mm (234.6 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510	A556 5960
1	Hose Assy	1398584	1398586	1398593	1398600

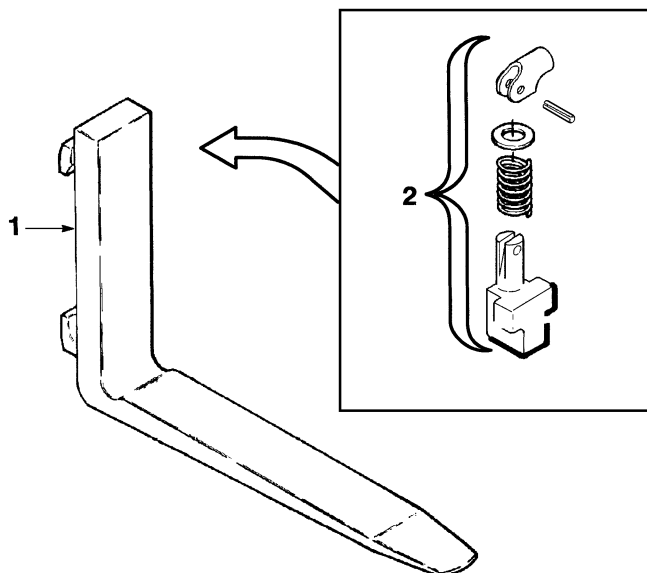
KEY:**A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	a	Hose Assy	2	4
2	1365752	Hose Assy	2	4
3	1381771	Bracket	1	1
4	136704	Capscrew	2	4
5	136749	Screw	6	12
6	313828	Nut	6	12
7	1345199	Hose Guide	2	4
8	1345204	Snap Ring	2	4
9	1643405	Hose Clamp	1	2
10	1360548	Stubshaft	1	2
11	1353521	Bushing	1	1
11	1494017	Hose Sheave	1	2
12	1381598	Bracket (RH)	1	1
13	1345190	Washer	1	2
14	292533	Capscrew	1	2
15	320161	Washer	1	2
16	300937	Nut	1	2
17	1360549	Spacer	1	2
18	293795	Capscrew	2	4
19	1381599	Bracket (LH)	..	1
20	1348246	Hose Guide	..	1
21	1360386	Clamp	2	4
22	1353464	Plate	1	1
23	1348247	Hose Guide	1	1
24	292521	Capscrew	1	2
25	320160	Washer	2	4
26	316826	Nut	1	2
27	1353530	Hose Clamp	4	8
28	1360507	Clamp	2	4
29	1363255	Bracket (RH)	1	1
29	1363256	Bracket (LH)	..	1
30	1375574	Strap	2	4
31	1395291	Bracket	1	1
32	1395292	Bracket	..	1
33	1396406	Stubshaft	1	2

**HEADER HOSE
THREE STAGE FULL FREE-LIFT****KEY:****A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
34	320171	Washer	1	2
35	1494017	Hose Sheave	1	2

FOOTNOTES:**a** Refer to Table

**FORK (FIGURE 8-11)
THREE STAGE FULL FREE-LIFT**

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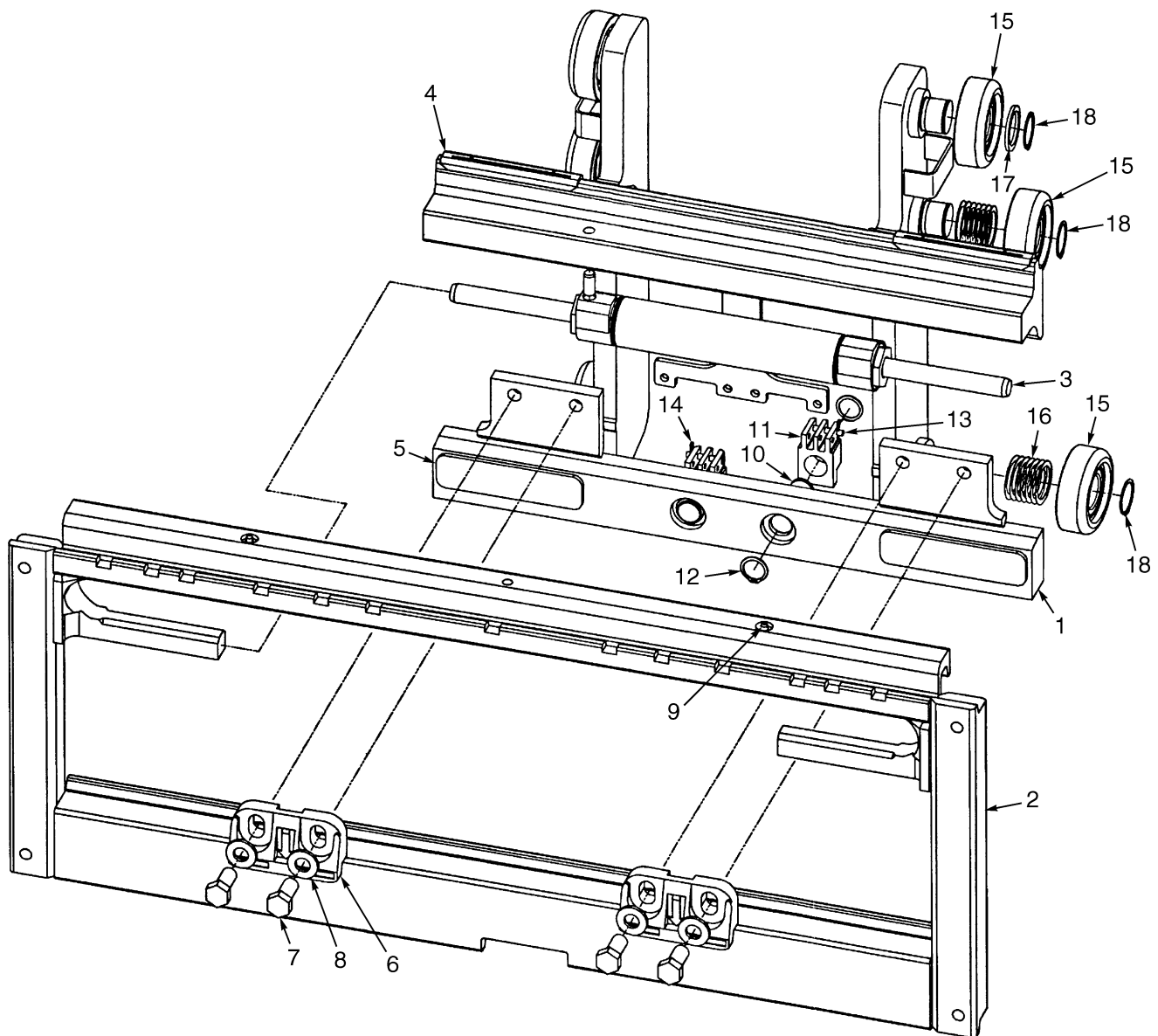
KEY:

- A: Standard Taper (3.1 in. x 1.5 in.)**
B: Standard Taper (3.9 in. x 1.5 in.)
C: Full Bottom Taper (3.9 in. x 1.5 in.)

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	1378775	Fork (35 in.)	2	..	..
1	1378771	Fork (36 in.)	2	..	..
1	1378776	Fork (39 in.)	2	..	..
1	1378772	Fork (42 in.)	2	..	..
1	1378777	Fork (43 in.)	2	..	..
1	1378778	Fork (45 in.)	2	..	..
1	1378779	Fork (47 in.)	2	..	..
1	1378773	Fork (48 in.)	2	..	..
1	1338133	Fork (35 in.)	..	2	..
1	384211	Fork (36 in.)	..	2	..
1	1333043	Fork (39 in.)	..	2	..
1	384213	Fork (42 in.)	..	2	..
1	1333044	Fork (43 in.)	..	2	..
1	1338135	Fork (45 in.)	..	2	..
1	1333045	Fork (47 in.)	..	2	..
1	384214	Fork (48 in.)	..	2	..
1	384215	Fork (54 in.)	..	2	..
1	384216	Fork (60 in.)	..	2	..
1	1338076	Fork (36 in.)	..	..	2
1	1338077	Fork (42 in.)	..	..	2
1	1338078	Fork (48 in.)	..	..	2
2	1378765	Kit-Latch (Class II)	1	1	1

NOTE: Other Fork Dimensions Available on Request, Contact Your Hyster Lift Truck Dealer.

INTEGRAL SIDE-SHIFT CARRIAGE (FIGURE 8-12) TWO AND THREE STAGE FULL FREE-LIFT



HP170453

**INTEGRAL SIDE-SHIFT CARRIAGE
TWO AND THREE STAGE FULL FREE-LIFT****KEY:****A: A: Two Stage Full Free-Lift****B: B: Three Stage Full Free-Lift**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1486176	Side-Shift Carriage (38 in.)	1	..
	1486177	Side-Shift Carriage (38 in.)	..	1
1	1488996	Carriage Wldmt (Inner) (38 in.)	1	..
1	1488997	Carriage Wldmt (Inner) (38 in.)	..	1
2	1489010	Carriage Wldmt (Outer) (38.5 in.)	1	1
3	2043528	Sideshift Cylinder (☞ Figure 7-11).....	1	1
4	2043531	Bearing (Upper)	2	2
5	2043533	Bearing (Lower)	2	2
6	2043530	Hook (Lower)	2	2
7	226458	Capscrew	4	2
8	296426	Washer	4	4
9	16041	Grease Fitting	2	2
10	317735	Pin	2	2
11	1369345	Chain Anchor (Dual Hole)	2	2
11	a 1504010	Chain Anchor (Single Hole)	2	2
12	131358	Snap Ring	4	4
13	1514866	Pin	2	2
14	15211	Cotter Pin	2	2
15	1333399	Load Roller	6	..
15	a 1393132	Load Roller	6	..
15	1395169	Load Roller (Alternate Part)	6	..
15	1363272	Load Roller	..	6
15	a 1393142	Load Roller	..	6
15	1363272	Load Roller (Alternate Part)	..	6
16	129387	Shim (0.020 in.)	28	28
17	366115	Spacer	6	6
18	58901	Snap Ring	6	6

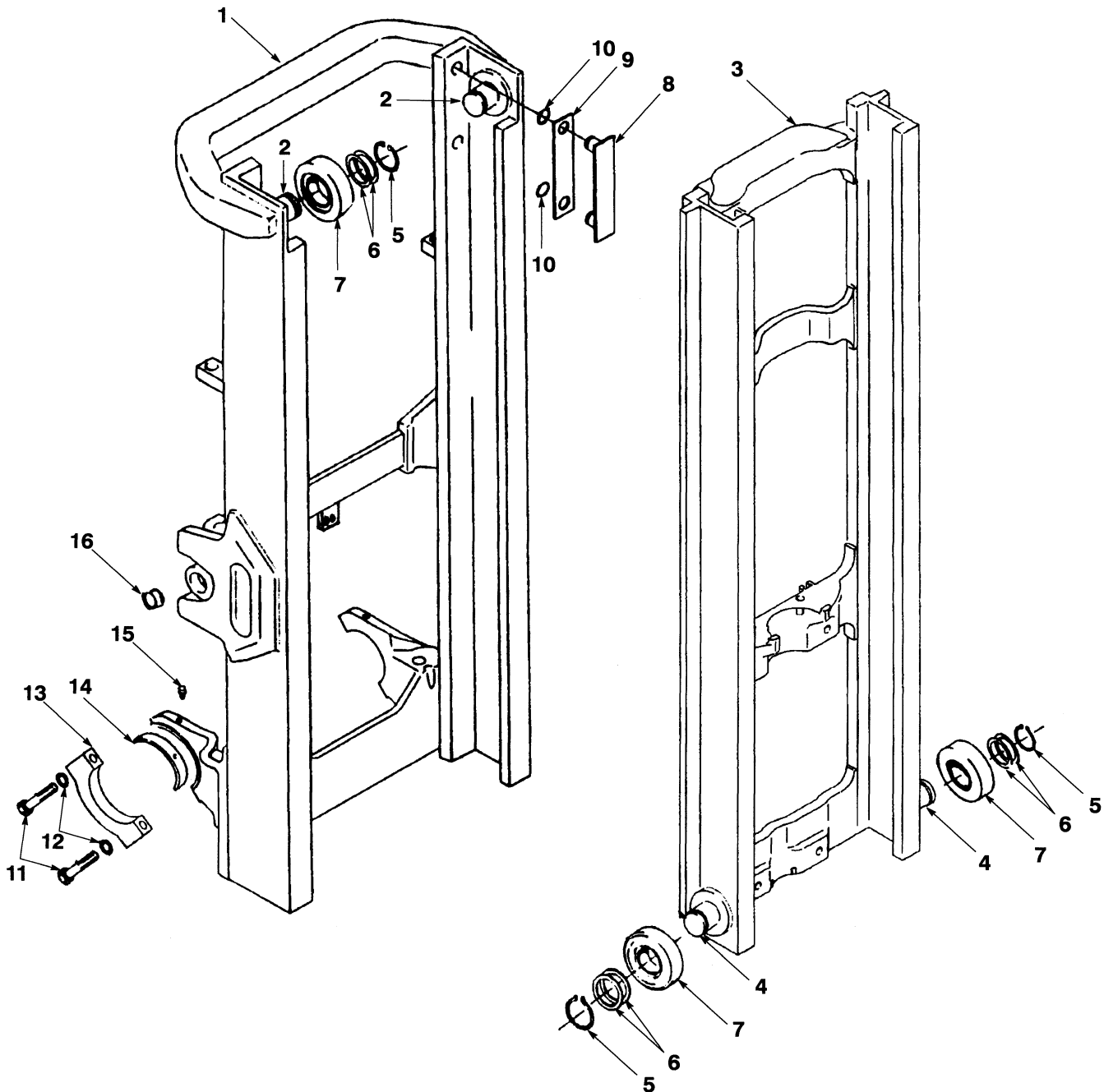
FOOTNOTES:**a** Optional

[illegible]

SECTION 9
MAST-TWO STAGE FULL FREE-LIFT

DESCRIPTION	PAGE
CARRIAGE	
TWO STAGE FULL FREE-LIFT	9-16
FORK	
TWO STAGE FULL FREE-LIFT	9-27
FREE-LIFT	
TWO STAGE FULL FREE-LIFT	9-8
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TWO STAGE FULL FREE-LIFT	9-2
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INNER AND OUTER MAST (FIGURE 9-1) TWO STAGE FULL FREE-LIFT



HP171145

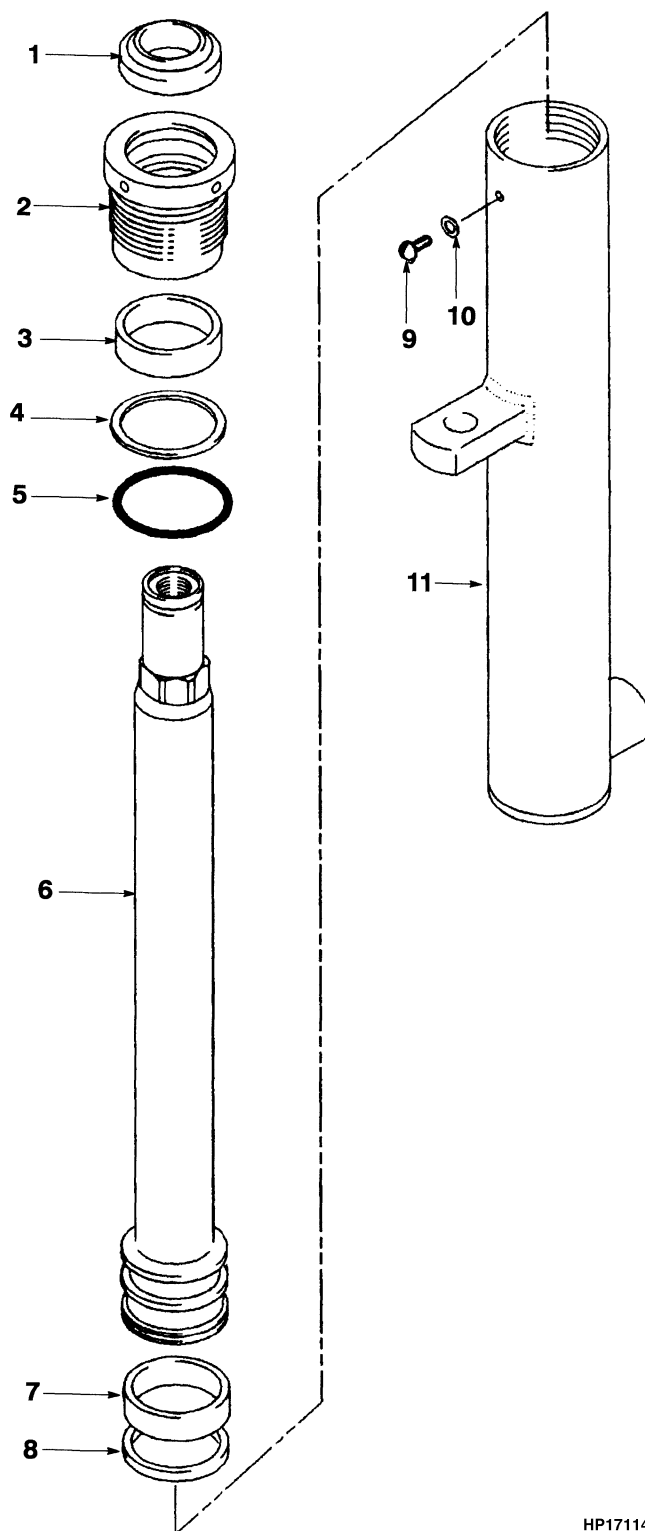
**INNER AND OUTER MAST
TWO STAGE FULL FREE-LIFT****A560**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3028 mm (119.2 in.)	3228 mm (127.1 in.)	3828 mm (150.7 in.)
	Mast Group Number	A560 3028	A560 3228	A560 3828
	Mast Assy	2049162	2049164	2049170
1	Outer Mast	1348056	1348058	1348064
3	Inner Mast	1353706	1353708	1353714

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	1345216	Stubshaft	2
3	a	Inner Mast	1
4	1345216	Stubshaft	2
5	58901	Snap Ring	4
6	129387	Shim (0.020 in.)	AR
7	1333399	Load Roller	4
8	215212	Wear Strip	2
9	131716	Shim (0.020 in.)	4
10	104506	O-Ring	4
11	292531	Capscrew	4
12	292683	Lockwasher	4
13	1370722	Cap	2
14	2053761	Bushing (Trunnion)	2
15	16001	Grease Fitting	2
16	1348185	Bushing	2

FOOTNOTES:**a** Refer to Table

LIFT CYLINDER (FIGURE 9-2) TWO STAGE FULL FREE-LIFT



HP171148

**LIFT CYLINDER
TWO STAGE FULL FREE-LIFT****LEFT HAND**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3028 mm (119.2 in.)	3228 mm (127.1 in.)	3828 mm (150.7 in.)
	Mast Group Number	A560 3028	A560 3228	A560 3828
	Cylinder Group Number	8510256	8510258	8510264
	Cylinder Assy	2046365	2046367	2046373
6	Cylinder Rod	1365664	1365666	1365672
11	Tube Wldmt- Cylinder	1365605	1365607	1365613

RIGHT HAND

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3028 mm (119.2 in.)	3228 mm (127.1 in.)	3828 mm (150.7 in.)
	Mast Group Number	A560 3028	A560 3228	A560 3828
	Cylinder Group Number	8510206	8510208	8510214
	Cylinder Assy	2046334	2046336	2046342
6	Cylinder Rod	1365635	1365637	1365643
11	Tube Wldmt- Cylinder	1365605	1365607	1365613

KEY:**A: Left Hand Cylinder****B: Right Hand Cylinder**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	a	Cylinder Assy	1	1
1	1310369	Rod Wiper	1	1
2	1498116	Gland	1	1
3	1381082	Rod Seal	1	1
4	132834	Back-Up Ring	1	1
5	55407	O-Ring	1	1
6	a	Cylinder Rod	1	1
7	1362871	Wear Ring	..	1
7	1374802	Wear Ring	1	..
8	1362875	Piston Ring	1	..
9	295649	Screw	1	1
10	190887	Sealing Ring	1	1
11	a	Tube Wldmt-Cylinder	1	1

**LIFT CYLINDER
TWO STAGE FULL FREE-LIFT****KEY:****A:** Left Hand Cylinder**B:** Right Hand Cylinder

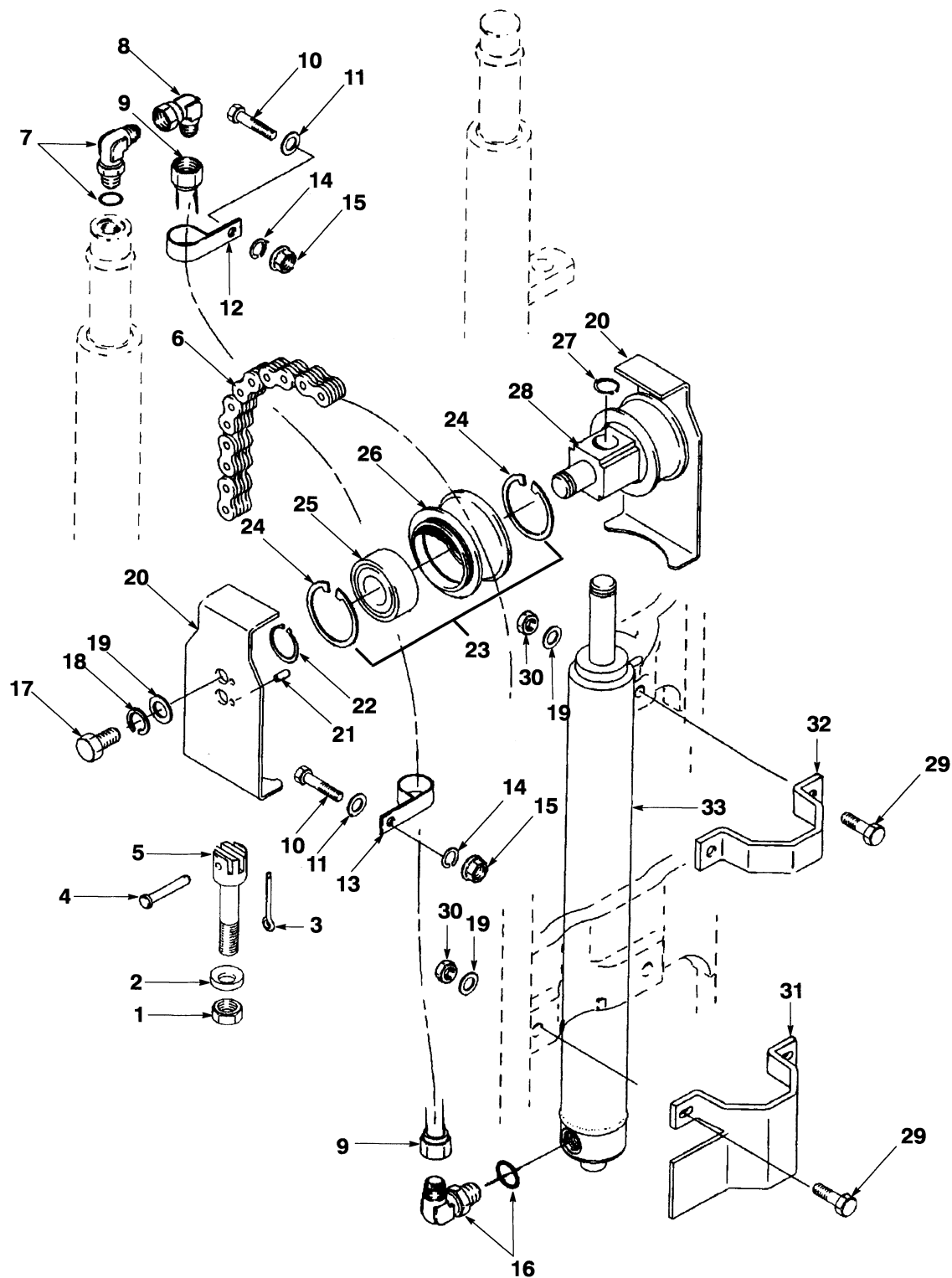
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2307196	Kit-Seal	1	1
	1360138	Kit-Seal	1	1

FOOTNOTES:**a** Refer to Table

NOTES

[illegible]

FREE-LIFT (FIGURE 9-3) TWO STAGE FULL FREE-LIFT



HP171147

**FREE-LIFT
TWO STAGE FULL FREE-LIFT****A560**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3028 mm (119.2 in.)	3228 mm (127.1 in.)	3828 mm (150.7 in.)
	Mast Group Number	A560 3028	A560 3228	A560 3828
6	Chain	231082	231083	88436
9	Hose Assy	1365306	1365308	1365314

ITEM	PART NO.	DESCRIPTION	QTY
1	161003	Nut	2
2	296426	Washer	2
3	15211	Cotter Pin	2
4	1514866	Pin	2
5	1369357	Chain Anchor	2
6	a	Chain	2
7	1380035	Fitting	1
7	16484	O-Ring	1
8	16882	Fitting	1
9	a	Hose Assy	1
10	132861	Capscrew	2
11	320158	Washer	2
12	166112	Clamp	1
13	178119	Clamp	1
14	292681	Lockwasher	2
15	239503	Nut	2
16	1379496	Flow Valve	1
16	16485	O-Ring	1
17	292527	Capscrew	2
17	296422	Washer	2
18	292683	Lockwasher	2
19	320161	Washer	2
20	1395285	Chain Guard	2
21	302461	Roll Pin	2
22	304526	Snap Ring	2
23	1379682	Chain Sheave	2
24	37752	Snap Ring	2
25	1378699	Ball Bearing	1
26	1378692	Chain Sheave	1
27	131358	Snap Ring	1
28	1378690	Crosshead	1
29	292528	Capscrew	4
30	300937	Nut	4
31	1353546	Bracket	1
32	1489972	Bracket	1
33		Free-Lift Cylinder (☞ Figure 9-5).....	1

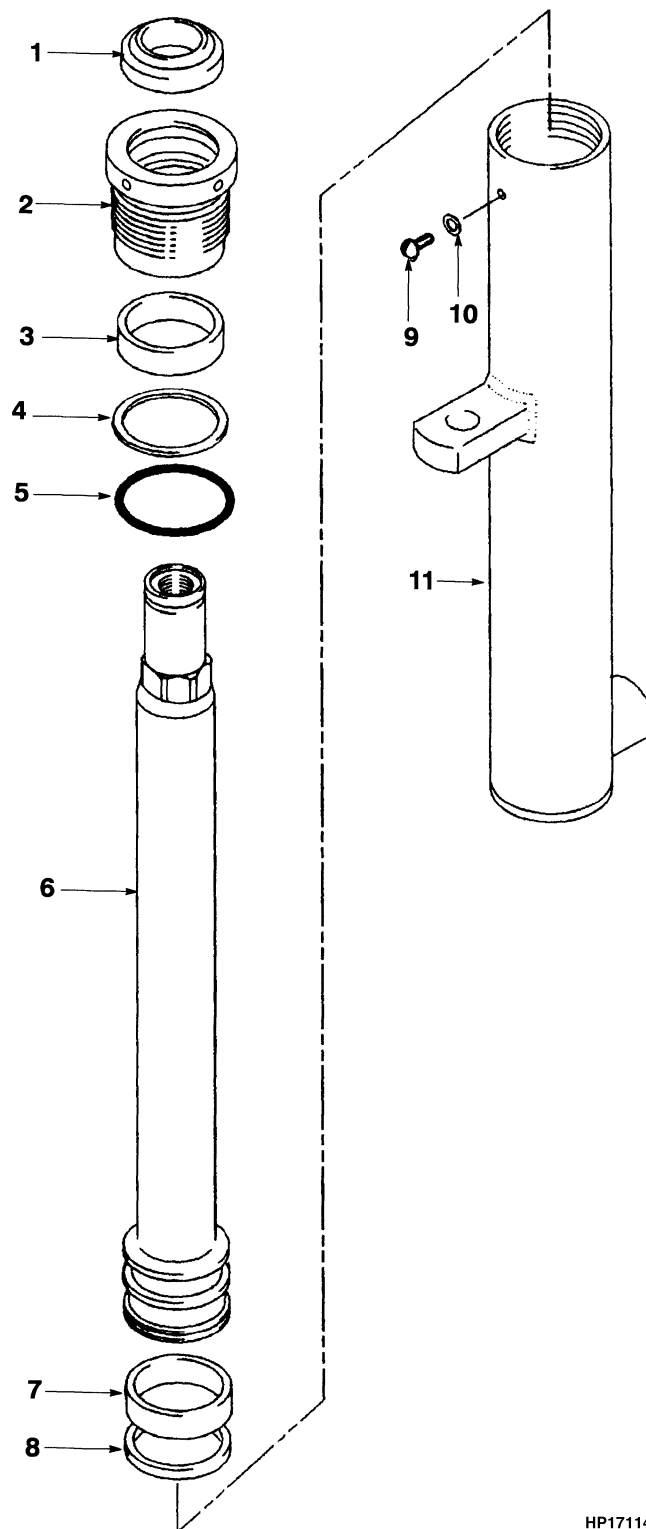
FOOTNOTES:

- a** Refer to Table

NOTES

[illegible]

MAIN CYLINDER (FIGURE 9-4) TWO STAGE FULL FREE-LIFT



HP171148

**MAIN CYLINDER
TWO STAGE FULL FREE-LIFT****KEY:****A: Left Hand Cylinder****B: Right Hand Cylinder**

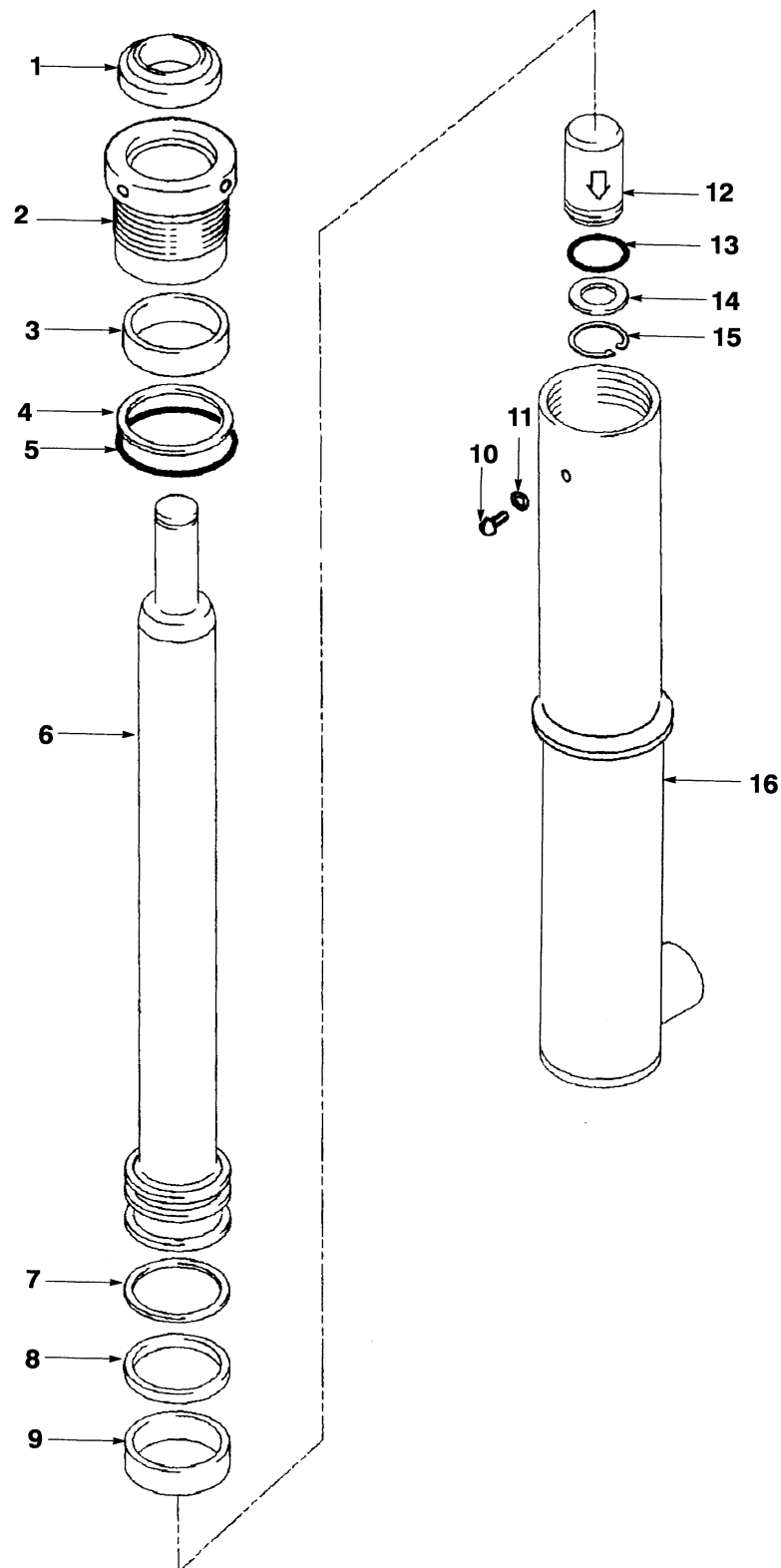
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	ad 1365576	Cylinder Assy	1	..
	bd 1365578	Cylinder Assy	1	..
	cd 1365584	Cylinder Assy	1	..
	de 1362997	Cylinder Assy	..	1
	df 1362999	Cylinder Assy	..	1
	dg 1365555	Cylinder Assy	..	1
1	1310369	Rod Wiper	1	1
2	1365689	Gland	1	1
3	1371654	Rod Seal	1	1
4	132834	Back-Up Ring	1	1
5	55407	O-Ring	1	1
6	ad 1365664	Cylinder Rod	1	..
6	bd 1365666	Cylinder Rod	1	..
6	cd 1365672	Cylinder Rod	1	..
6	de 1365635	Cylinder Rod	..	1
6	df 1365637	Cylinder Rod	..	1
6	dg 1365643	Cylinder Rod	..	1
7	1362871	Wear Ring	..	1
7	1374802	Wear Ring	1	..
8	1362875	Piston Ring	1	..
9	295649	Screw	1	1
10	190887	Sealing Ring	1	1
11	ad 1365605	Tube Wldmt-Cylinder	1	..
11	bd 1365607	Tube Wldmt-Cylinder	1	..
11	cd 1365613	Tube Wldmt-Cylinder	1	..
11	de 1365605	Tube Wldmt-Cylinder	..	1
11	df 1365607	Tube Wldmt-Cylinder	..	1
11	dg 1365613	Tube Wldmt-Cylinder	..	1
12	186061	Lubricant	1	1
	2307196	Kit-Seal	1	1
	1360138	Kit-Seal	1	1

FOOTNOTES:

a LEFT HAND A560-3048 (8601856)
b LEFT HAND A560-3248 (8601858)
c LEFT HAND A560-3848 (8601864)
d Refer to Table

e RIGHT HAND A560-3048 (8601806)
f RIGHT HAND A560-3248 (8601808)
g RIGHT HAND A560-3848 (8601814)

FREE-LIFT CYLINDER (FIGURE 9-5) TWO STAGE FULL FREE-LIFT



HP171149

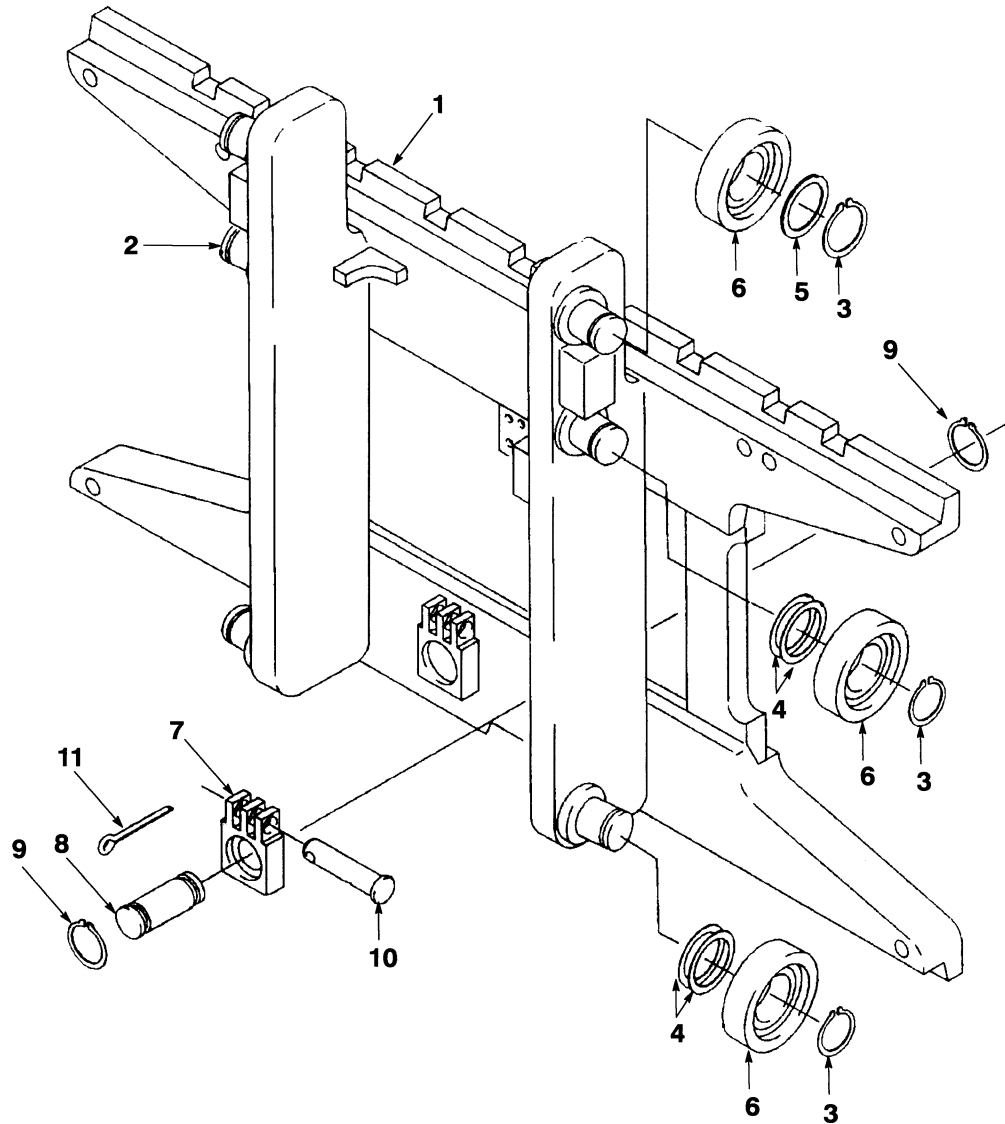
**FREE-LIFT CYLINDER
TWO STAGE FULL FREE-LIFT****A560**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3028 mm (119.2 in.)	3228 mm (127.1 in.)	3828 mm (150.7 in.)
	Mast Group Number	A560 3028	A560 3228	A560 3828
	Cylinder Group Number	8601906	8601908	8601914
	Cylinder Assy	1362886	1362888	1362894
6	Cylinder Rod	1362960	1362962	1362968
16	Tube Wldmt- Cylinder	1362923	1362925	1362931

ITEM	PART NO.	DESCRIPTION	QTY
	a	Cylinder Assy	1
1	2013099	Rod Wiper	1
2	1362880	Gland	1
3	1358970	Rod Seal	1
4	615135	Back-Up Ring	1
5	55146	O-Ring	1
6	a	Cylinder Rod	1
7	638250	Back-Up Ring	1
8	201829	Rod Seal	1
9	1362881	Wear Ring	1
10	1361302	Screw	1
11	190887	Sealing Ring	1
12	257913	Check Valve	1
13	39348	O-Ring	1
14	297531	Washer	1
15	187388	Snap Ring	1
16	a	Tube Wldmt-Cylinder	1
	1360141	Kit-Seal	1

FOOTNOTES:**a** Refer to Table

CARRIAGE (FIGURE 9-6) TWO STAGE FULL FREE-LIFT

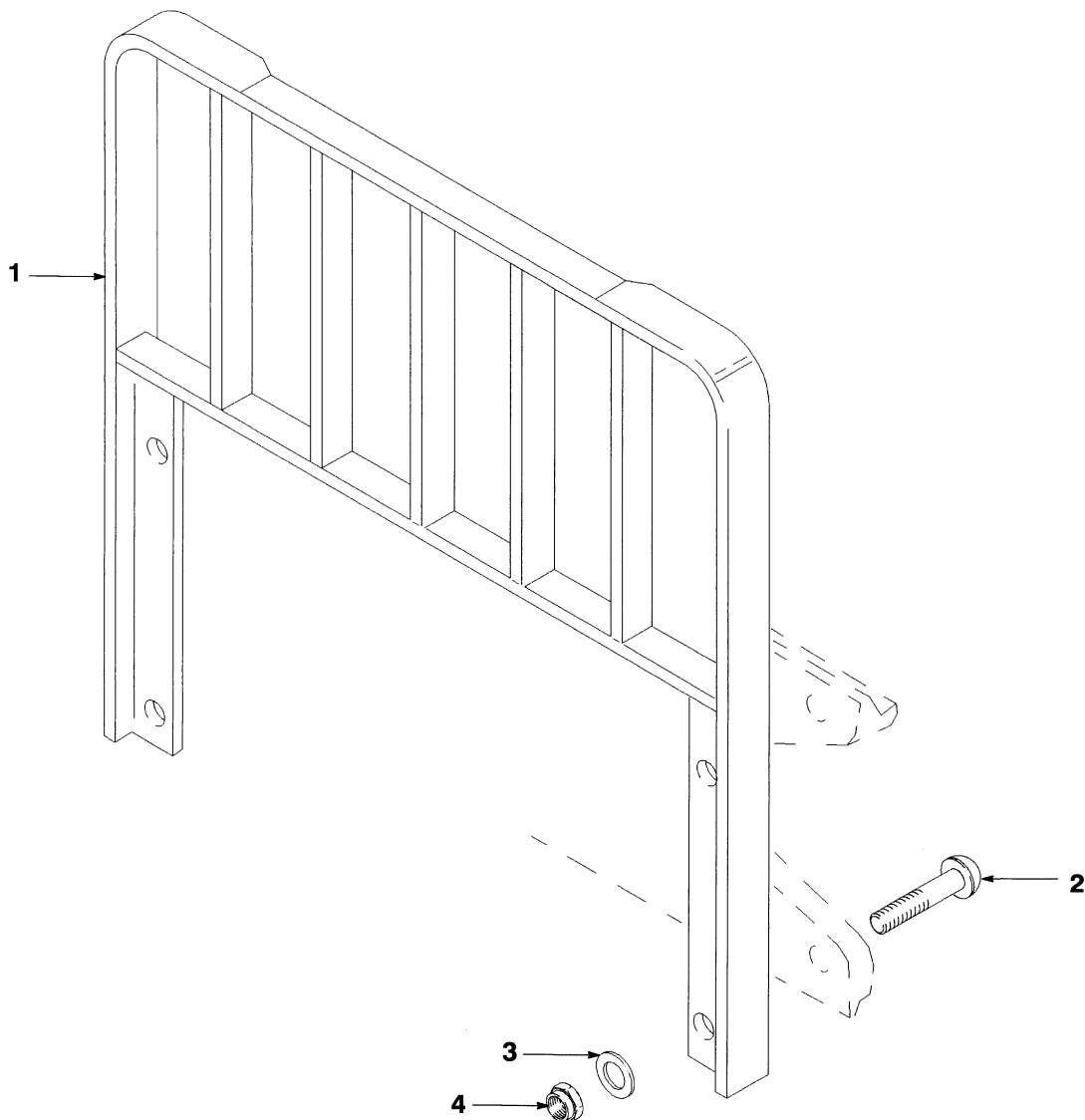


HP171150

ITEM	PART NO.	DESCRIPTION	QTY
	1353529	Carriage	1
1	1353469	Carriage Wldmt	1
2	1345216	Stubshaft	6
3	58901	Snap Ring	6
4	129387	Shim (0.020 in.)	AR
5	366115	Spacer	2
6	1333399	Load Roller	6
6	1393132	Load Roller (Optional)	6
6	1395175	Load Roller (Optional)	6
7	1369345	Chain Anchor (Dual Hole)	2
7	1504010	Chain Anchor (Single Hole) (Optional)	2
8	1353408	Pin	2
9	131358	Snap Ring	4
10	1514866	Pin	2

ITEM	PART NO.	DESCRIPTION	QTY
11	15211	Cotter Pin	2

LOAD BACKREST EXTENSION (FIGURE 9-7) TWO STAGE FULL FREE-LIFT



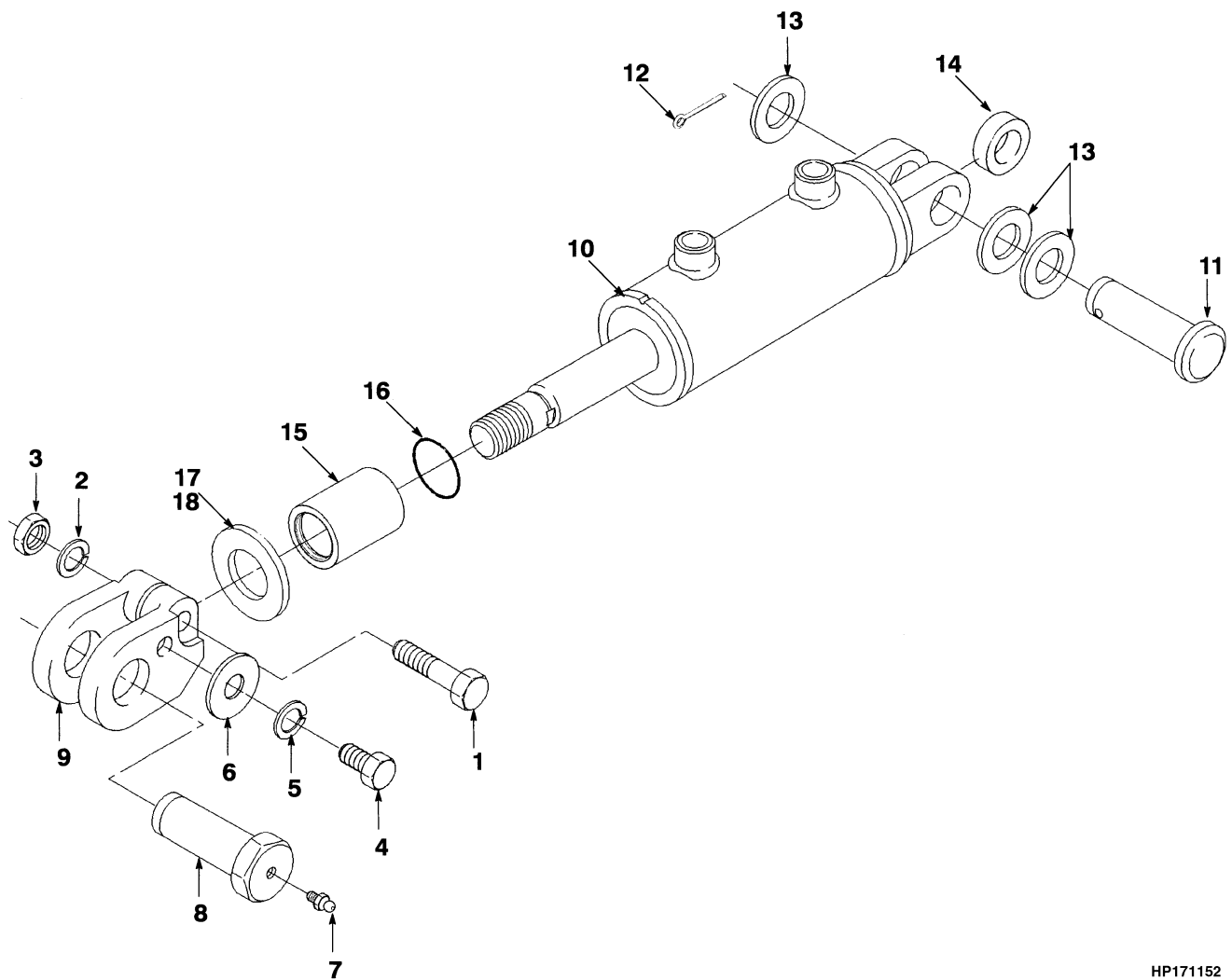
HP171151

ITEM	PART NO.	DESCRIPTION	QTY
1	1349446	Load Backrest (38.5 in.)	1
2	1353533	Capscrew	4
3	221771	Washer	4
3	296423	Washer (Optional HD)	4
	292683	Lockwasher	4
4	292656	Nut	4

NOTES

[illegible]

TILT CYLINDER ATTACHING PARTS (FIGURE 9-8) TWO STAGE FULL FREE-LIFT



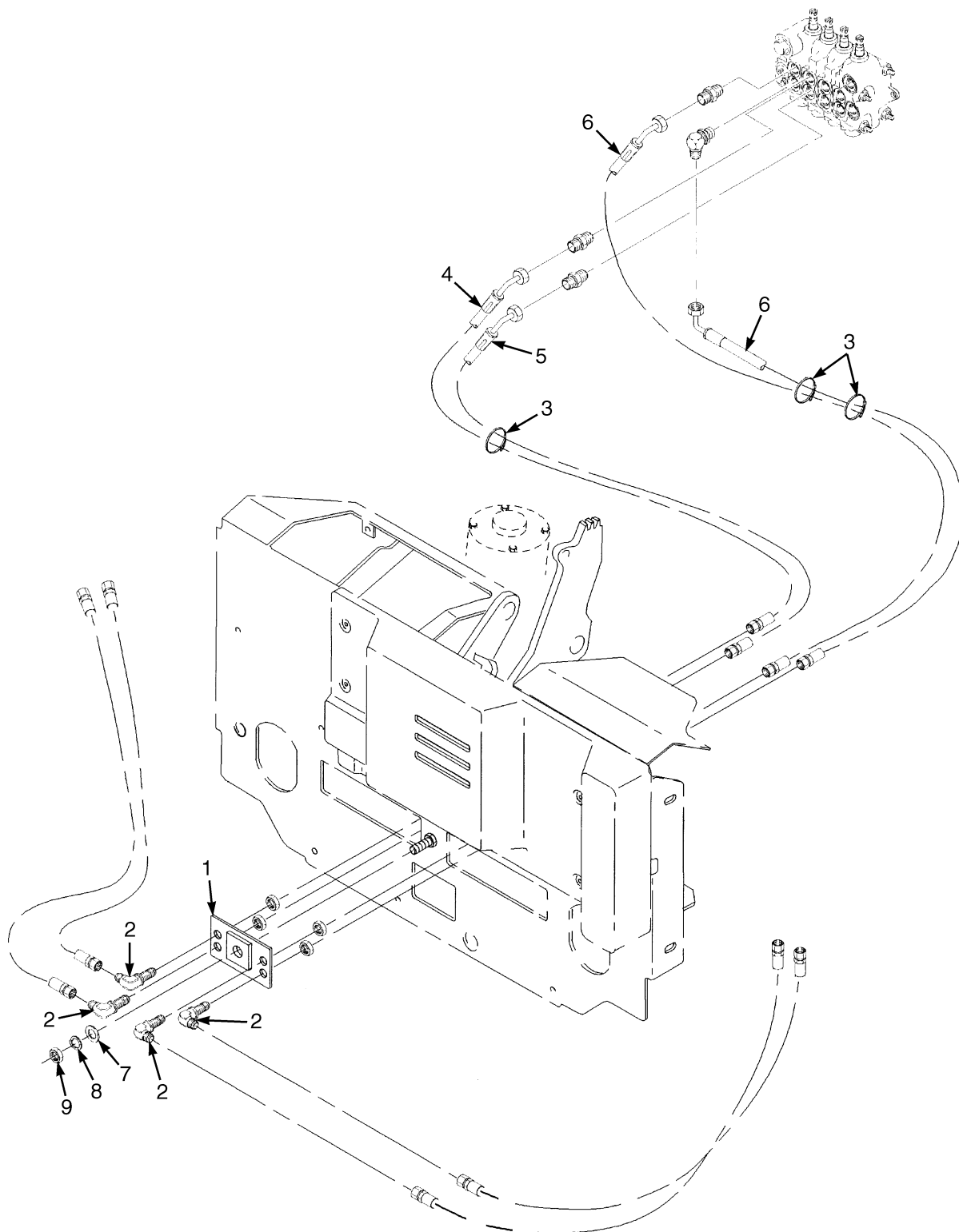
HP171152

**TILT CYLINDER ATTACHING PARTS
TWO STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
1	293651	Capscrew	2
2	292683	Lockwasher	2
3	292656	Nut	2
4	292514	Capscrew	2
5	292682	Lockwasher	2
6	1371287	Washer	2
7	16001	Grease Fitting	2
8	1348187	Pin	2
9	1363260	Rod End	2
10	2033818	Cylinder Assy (☞ Figure 6-13).....	2
10	2033757	Cylinder Assy (☞ Figure 6-13).....	2
11	308117	Pin	2
12	15236	Cotter Pin	2
13	197069	Washer	6
14	300982	Bushing	2
15	a 1363252	Spacer	2
16	a 15865	O-Ring	2
17	a 1363268	Shim (0.068 in.)	AR
18	1363269	Shim (0.032 in.)	AR

FOOTNOTES:**a** 5° Forward Tilt/5° Back Tilt

HEADER HOSE ATTACHING PARTS (FIGURE 9-9) TWO STAGE FULL FREE-LIFT

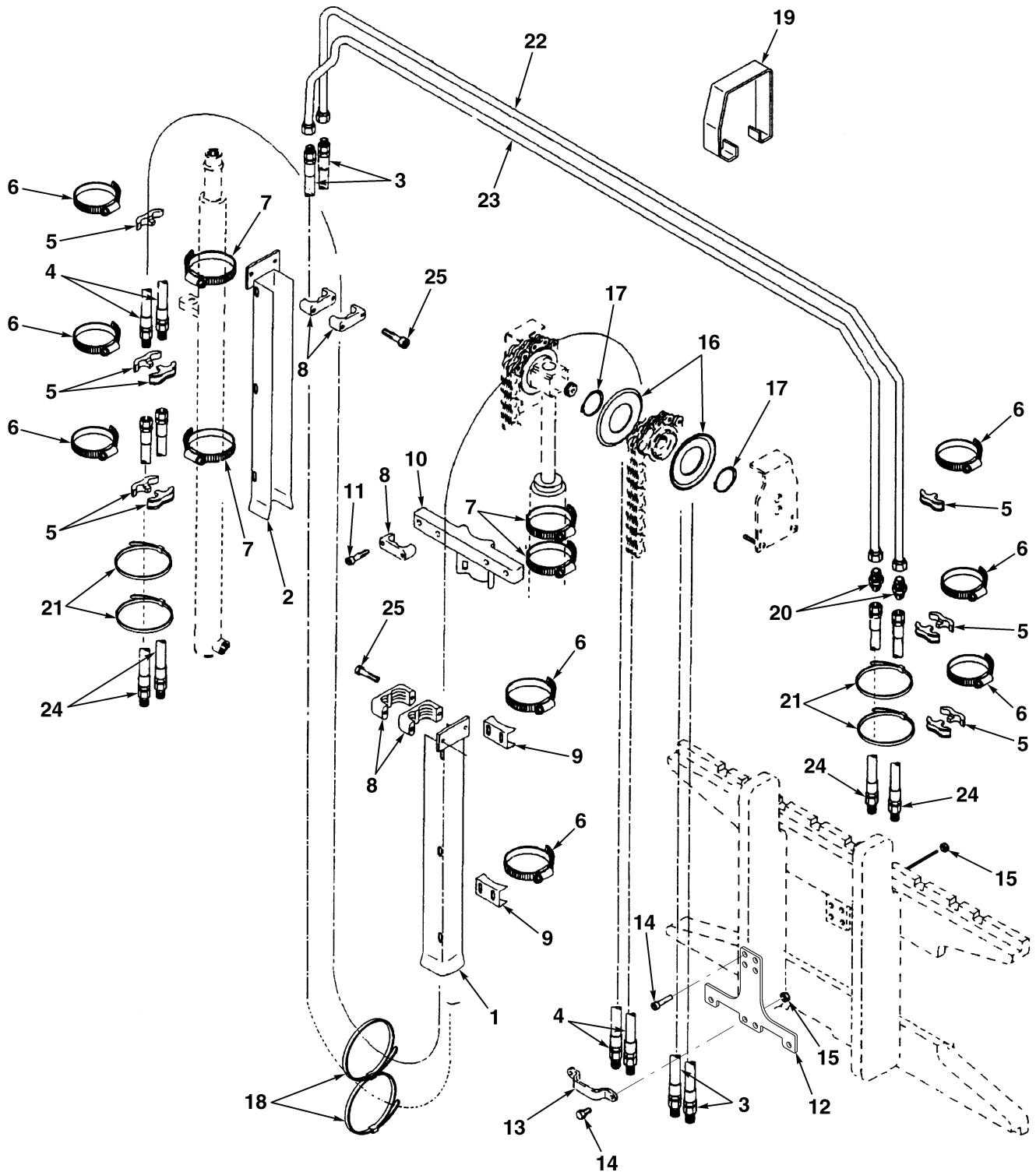


HP171153

**HEADER HOSE ATTACHING PARTS
TWO STAGE FULL FREE-LIFT****KEY:****A: Three Function****B: Four Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	2038931	Plate	1	1
2	16457	Fitting	2	4
3	137852	Strap Clamp	2	4
4	2036000	Hose Assy	1	1
5	2036000	Hose Assy	1	1
6	2033598	Hose Assy	..	2
7	296420	Washer	1	1
8	292682	Lockwasher	1	1
9	292654	Nut	1	1

HEADER HOSE (FIGURE 9-10) TWO STAGE FULL FREE-LIFT



HP171154

**HEADER HOSE
TWO STAGE FULL FREE-LIFT****A560**

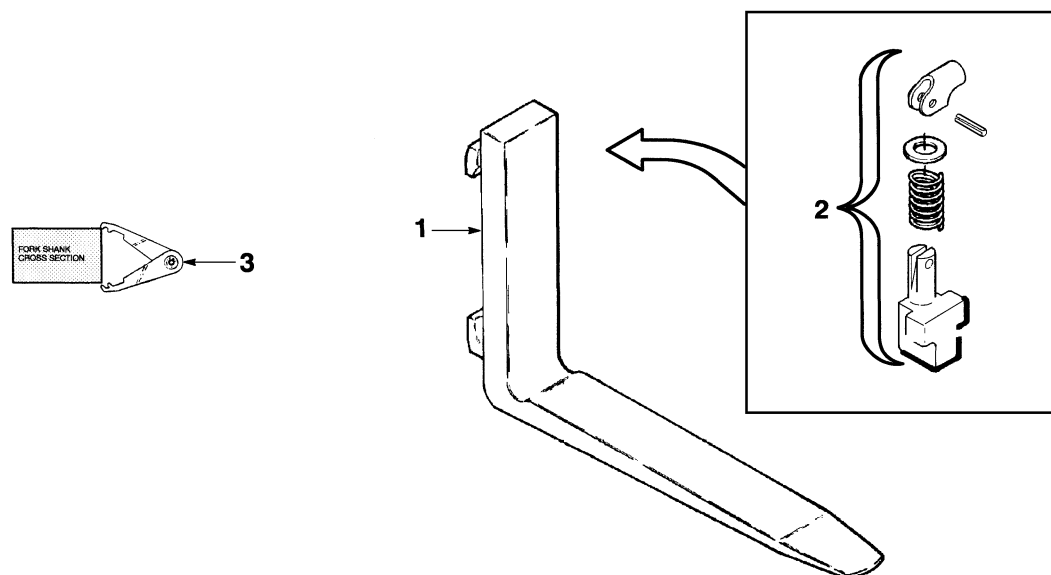
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3028 mm (119.2 in.)	3228 mm (127.1 in.)	3828 mm (150.7 in.)
	Mast Group Number	A560 3028	A560 3228	A560 3828
1	Hose Guard	1365501	1365504	1365510
2	Hose Guard	1365514	1365516	1365523
3	Hose Assy	1358350	1345573	1345575
4	Hose Assy	1368348	1345576	1369627
22	Tube Assy	1368576	1368578	1368584
23	Tube Assy	1368546	1368548	1368554

KEY:**A: Three-Function****B: Four-Function**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	a	Hose Guard	1	1
2	a	Hose Guard	1	1
3	a	Hose Assy	2	2
4	a	Hose Assy	..	2
5	1353530	Hose Clamp	5	10
6	1360508	Clamp	4	4
7	1360507	Clamp	4	8
8	1360386	Clamp	3	6
9	1345423	Clamp	2	2
10	1354918	Bracket	1	1
11	293795	Capscrew	6	8
12		Bracket	1	1
13	1643405	Hose Clamp	1	2
14	136749	Screw	2	8
15	313828	Nut	2	8
16	1345199	Hose Guide	2	4
17	1345204	Snap Ring	2	4
18	2004005	Strap Clamp	1	2
19	1365061	Clip	1	1
20	14692	Fitting	2	2
21	1375574	Strap	2	4
22	a	Tube Assy	1	1
23	a	Tube Assy	1	1
24	365115	Hose Assy	2	4
25	293799	Capscrew	..	4

FOOTNOTES:

- a Refer to Table

**FORK (FIGURE 9-11)
TWO STAGE FULL FREE-LIFT**

HP171155

KEY:**A: Standard Taper (3.1 in. x 1.5 in.)****B: Standard Taper (3.9 in. x 1.5 in.)****C: Full Bottom Taper (3.9 in. x 1.5 in.)**

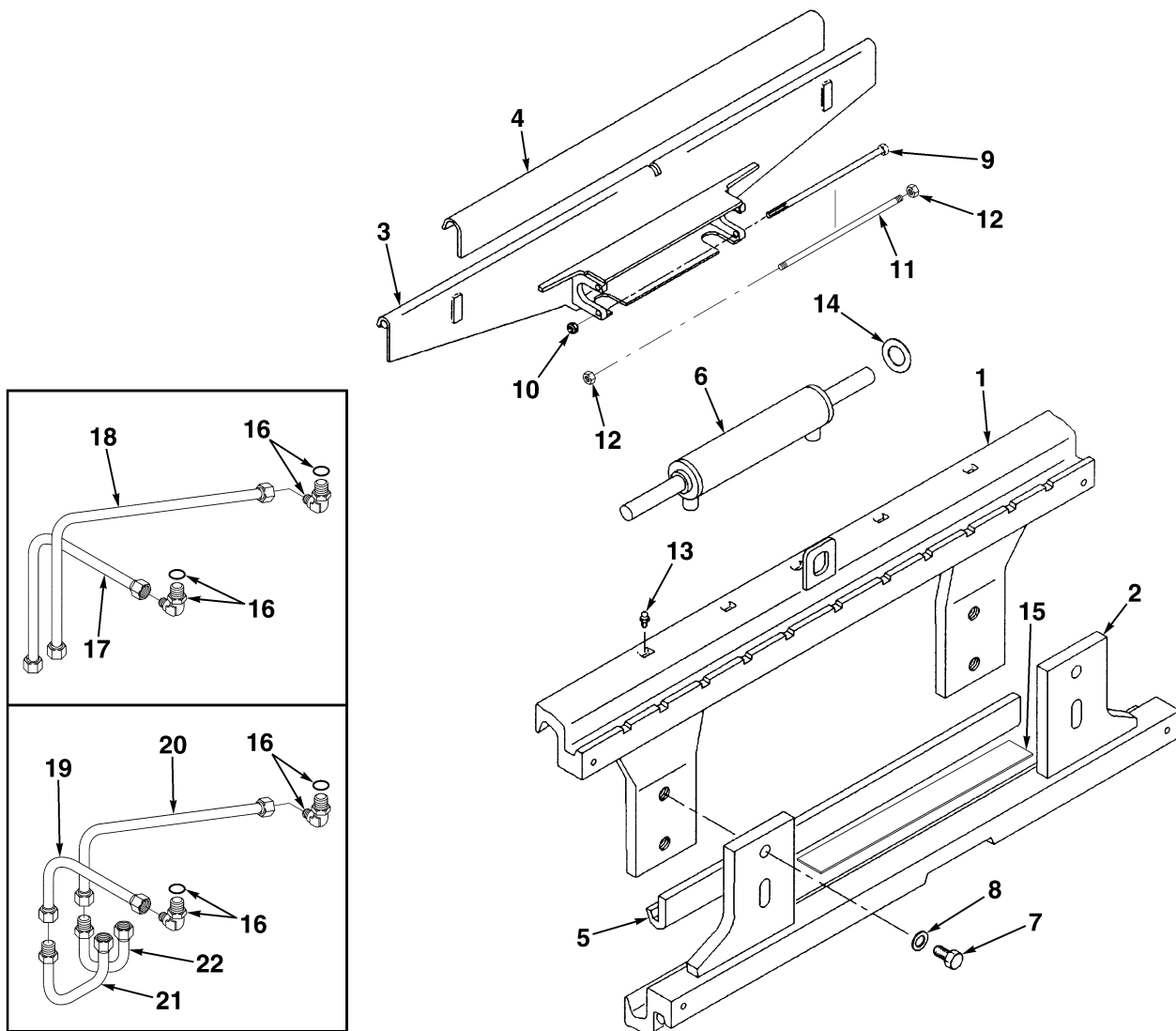
ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	1378775	Fork (35 in.)	2	..	..
1	1378771	Fork (36 in.)	2	..	..
1	1378776	Fork (39 in.)	2	..	..
1	1378772	Fork (42 in.)	2	..	..
1	1378777	Fork (43 in.)	2	..	..
1	1378778	Fork (45 in.)	2	..	..
1	1378779	Fork (47 in.)	2	..	..
1	1378773	Fork (48 in.)	2	..	..
1	1338133	Fork (35 in.)	..	2	..
1	384211	Fork (36 in.)	..	2	..
1	1333043	Fork (39 in.)	..	2	..
1	384213	Fork (42 in.)	..	2	..
1	1333044	Fork (43 in.)	..	2	..
1	1338135	Fork (45 in.)	..	2	..
1	1333045	Fork (47 in.)	..	2	..
1	384214	Fork (48 in.)	..	2	..
1	384215	Fork (54 in.)	..	2	..
1	384216	Fork (60 in.)	..	2	..
1	1338076	Fork (36 in.)	..	..	2
1	1338077	Fork (42 in.)	..	..	2
1	1338078	Fork (48 in.)	..	..	2
2	369795	Kit-Latch	1	1	1
3	3020387	Tool	AR	AR	AR

NOTE: Other Fork Dimensions Available on Request, Contact Your Hyster Lift Truck Dealer.

SECTION 10
OPTIONS

DESCRIPTION	PAGE
BACK-UP ALARM	10-20
BATTERY ROLLER AND RETAINER	10-26
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8/2000 →	10-5
STROBE LIGHT	10-14
STROBE LIGHT/REAR LIGHT COMBINATION	10-16
TAIL LIGHT	10-18

SIDE-SHIFT ASSEMBLY (FIGURE 10-1)



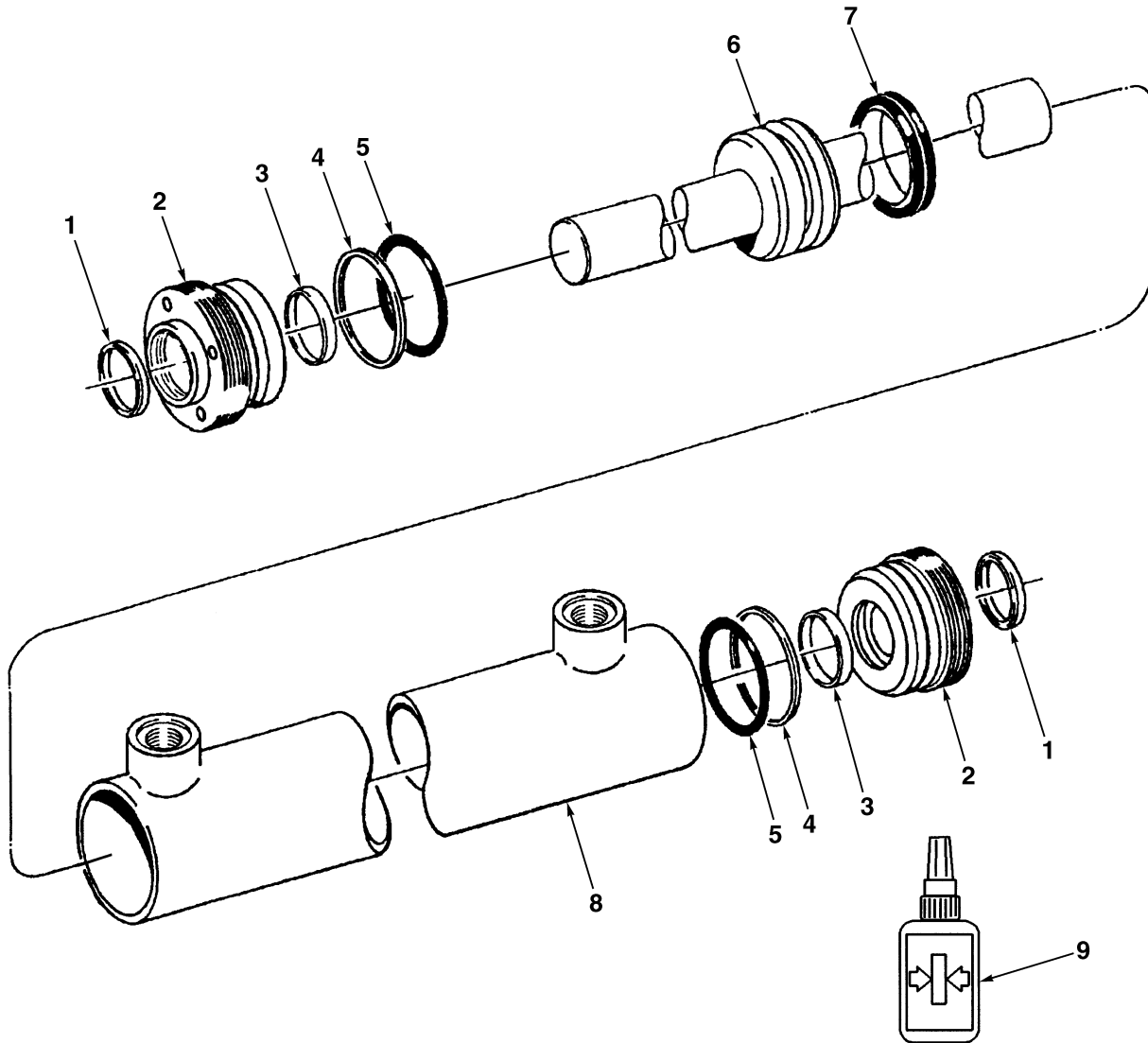
HP000625

SIDE-SHIFT ASSEMBLY**KEY:****A: Two Stage Limited Free-Lift****B: Two Stage and Three Stage Full Free-Lift**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1399039	Side-Shift Carriage (38 in.)	1	1
1	1355533	Carriage Wldmt (Top) (38 in.)	1	1
2	1378053	Carriage Wldmt (Lower) (38 in.)	1	1
3	1399004	Support (38 in.)	1	1
4	1396458	Bearing (Top)	1	1
5	1378063	Bearing (Lower)	1	1
6	a 1360125	Cylinder Assy (☞ Figure 10-2).....	1	1
6	b 2043528	Sideshift Cylinder (☞ Figure 10-3).....	1	1
7	293704	Capscrew	4	4
8	296431	Washer	4	4
9	1371289	Capscrew	2	2
10	313828	Nut	2	2
11	1358809	Rod (Optional)	2	2
12	313828	Nut (Optional)	4	4
13	16041	Grease Fitting	3	3
14	1358821	Shim (0.020 in.)	AR	AR
15	1396429	Shim (Lower Bearing) (38 in.)	AR	AR
16	239784	Fitting	2	2
16	16481	O-Ring	1	1
17	1360275	Tube Assy	1	..
18	1360276	Tube Assy	1	..
19	1381766	Tube Assy	..	1
20	1390366	Hose Assy	..	1
21	1381765	Tube Assy	..	1
22	1390365	Hose Assy	..	1

FOOTNOTES:**a** → 8/2000**b** 8/2000 →

SIDE-SHIFT CYLINDER ASSEMBLY (FIGURE 10-2) (→ 8/2000)

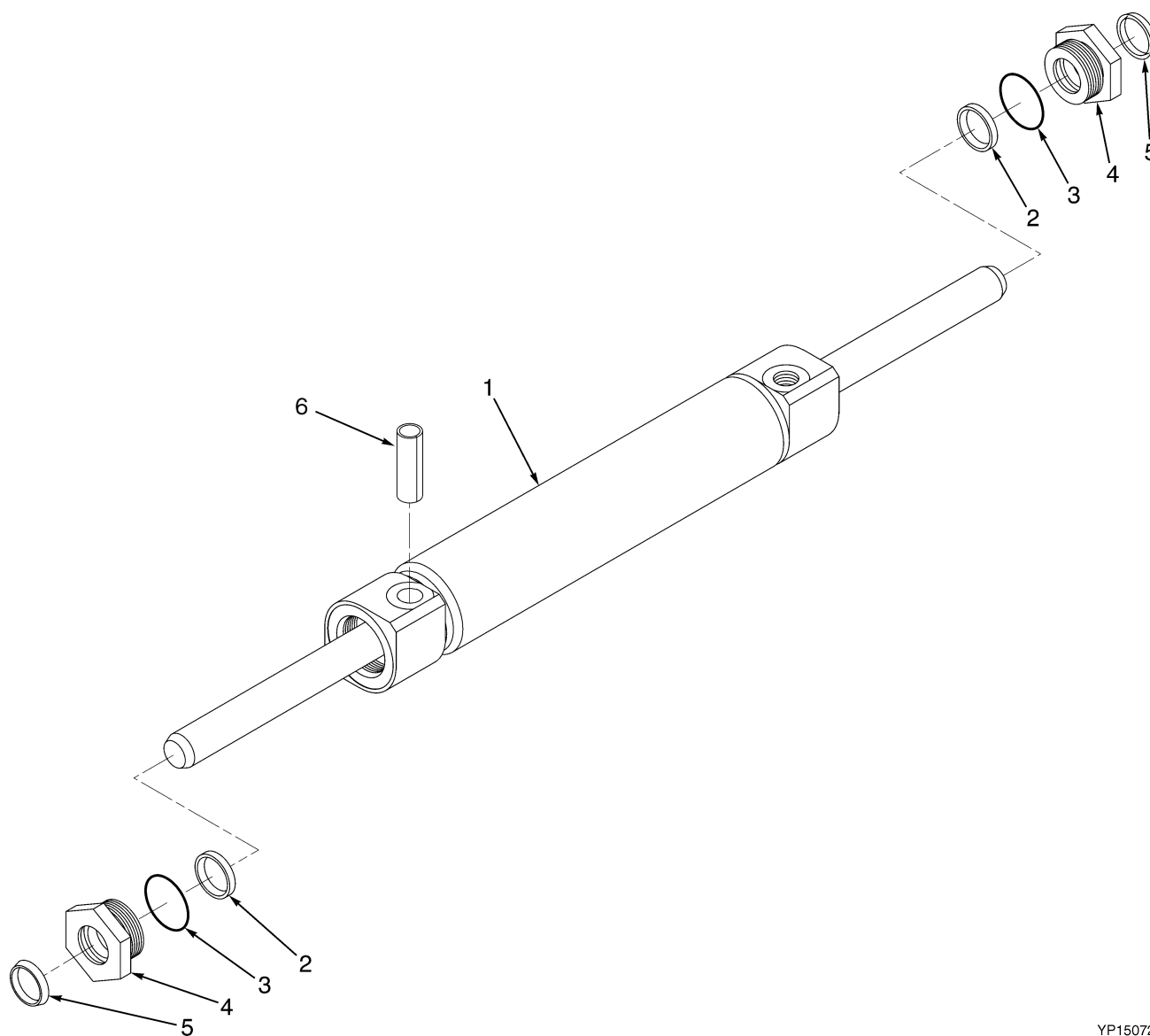


HP000626

ITEM	PART NO.	DESCRIPTION	QTY
	1360125	Cylinder Assy	1
1	636851	Rod Wiper	2
2	2310768	Gland	2
3	1383037	Rod Seal	2
4	153919	Back-Up Ring	2
5	55407	O-Ring	2
6	2309719	Rod Assy	1
7	2306755	Seal	2
8	2311471	Tube Wldmt-Cylinder	1
9	383789	Thread Sealant	AR
	2311624	Kit-Seal	1

SIDE-SHIFT CYLINDER ASSEMBLY (FIGURE 10-3)

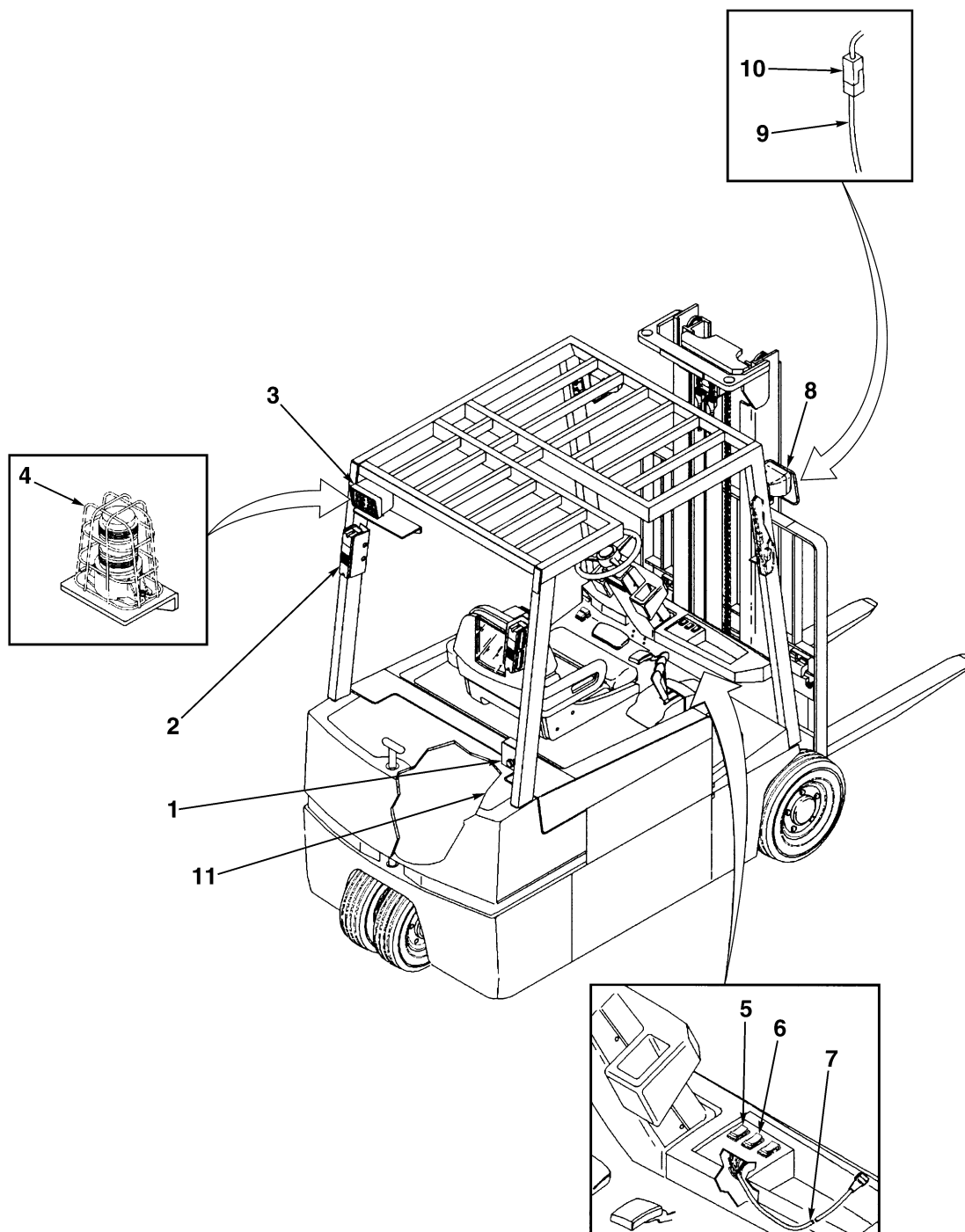
(8/2000 →)



YP150726

ITEM	PART NO.	DESCRIPTION	QTY
	2043528	Sideshift Cylinder	1
	1489016	Sideshift Cylinder	1
2	1489037	Rod Seal	1
3	1489035	O-Ring	2
4	1498325	Retainer	2
5	1489039	Rod Wiper	1
6	302487	Roll Pin	1
	1503096	Kit-Seal	2

LIGHTING SYSTEM (FIGURE 10-4)

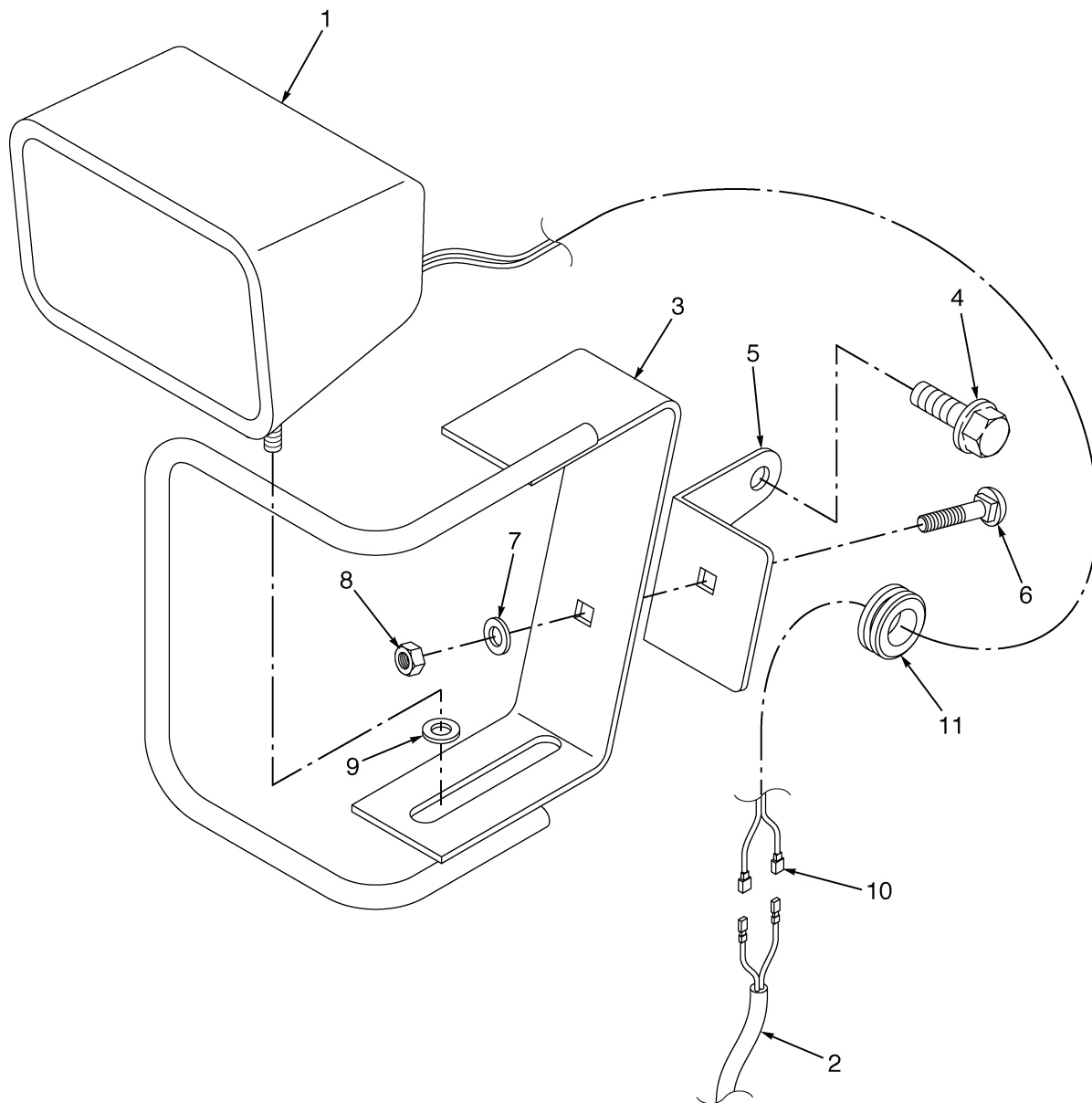


HP000628

LIGHTING SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY
1	2305651	Back-Up Alarm (☞ Figure 10-11).....	1
2	2303953	Rear Light (☞ Figure 10-10).....	2
3		Rear Light (☞ Figure 10-7).....	1
4	1382130	Strobe Light (☞ Figure 10-8).....	1
5	1301618	Switch (Front Drive Lights)	1
6	1377393	Switch (Strobe/Rear Drive Lights)	1
7	2013611	Wire Harness	1
8		Front Light (☞ Figure 10-6).....	2
9	2307813	Wire Harness	2
10	2307413	Connector	2
11	1390575	Dc-Dc Converter (☞ Figure 10-13).....	1

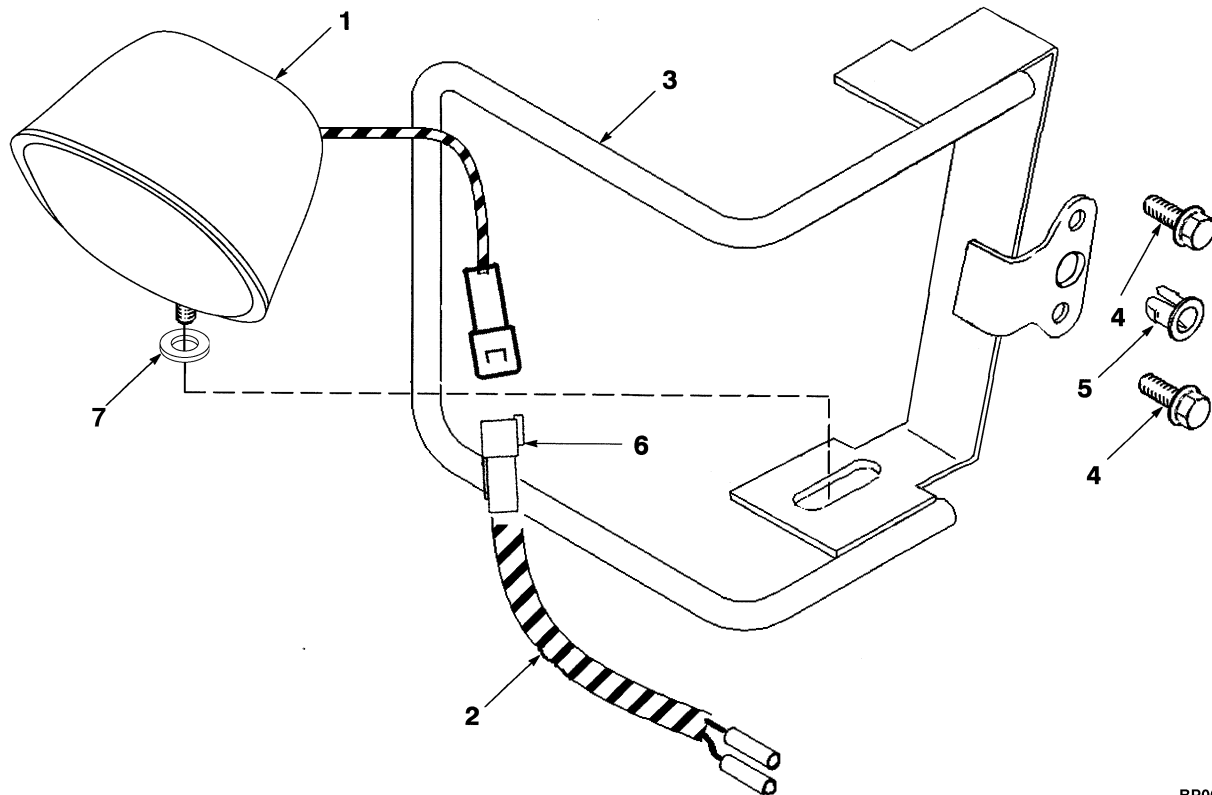
FRONT HEADLIGHTS (FIGURE 10-5) (→ S/N H160N03723A)



HP000629

ITEM	PART NO.	DESCRIPTION	QTY
1	2303169	Headlight	2
1	1354119	Headlight	1
1	1363016	Lens	1
1	1379799	Bulb	1
2	2307813	Wire Harness	2
3	1356130	Bracket Wldmt (RH) (RH)	1
3	2303349	Bracket Wldmt (LH) (LH)	1
4	316678	Screw	4
5	1375169	Plate	2
6	1375168	Bolt	2
7	296418	Washer	2
8	316835	Nut	2
9	320158	Washer	2
10	2307413	Connector	4
11	1356354	Bushing	4

FRONT LIGHTS (FIGURE 10-6) (S/N H160N03724A →)

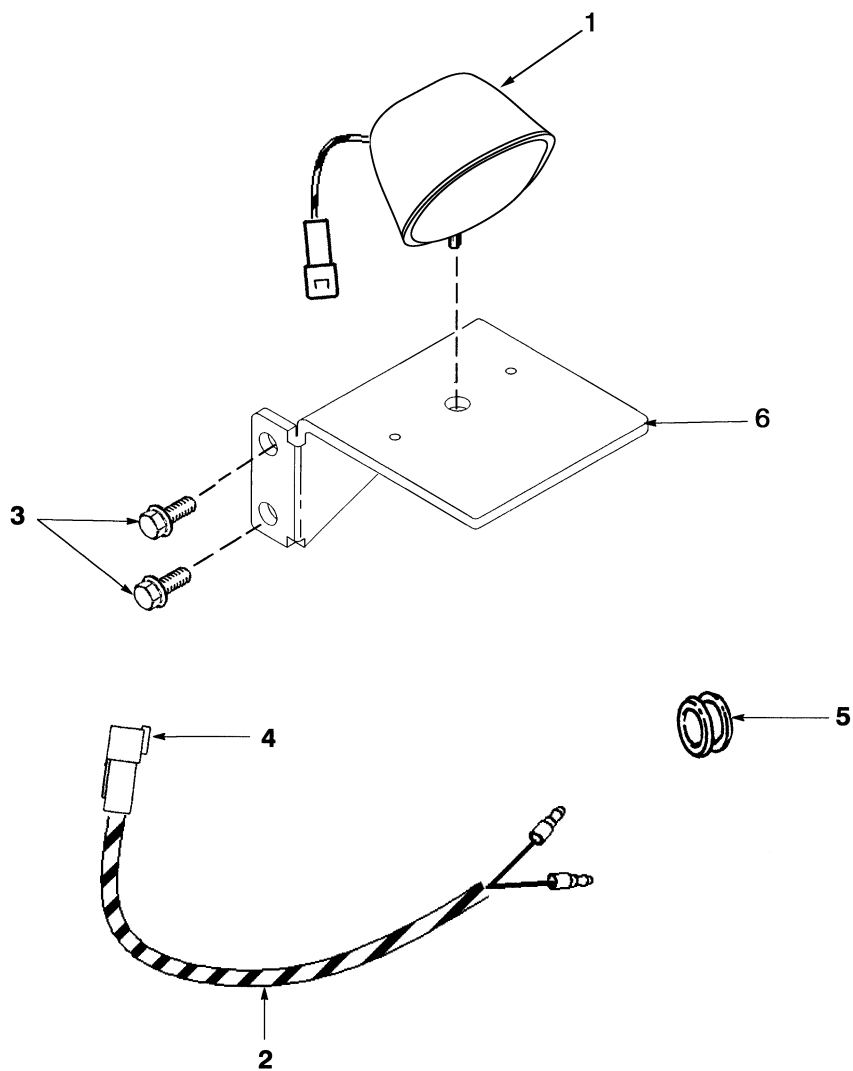


BP000044

ITEM	PART NO.	DESCRIPTION	QTY
1	1531985	Headlight	2
1	1544764	Bulb	1
1	1544784	Wire Harness	1
2	2307813	Wire Harness	2
3	1539464	Bracket Wldmt (RH)	1
3	1539465	Bracket Wldmt (LH)	1
4	316678	Screw	4
5	1356354	Bushing	2
6	2307413	Connector	2
7	379198	Washer	2

NOTES

[illegible]

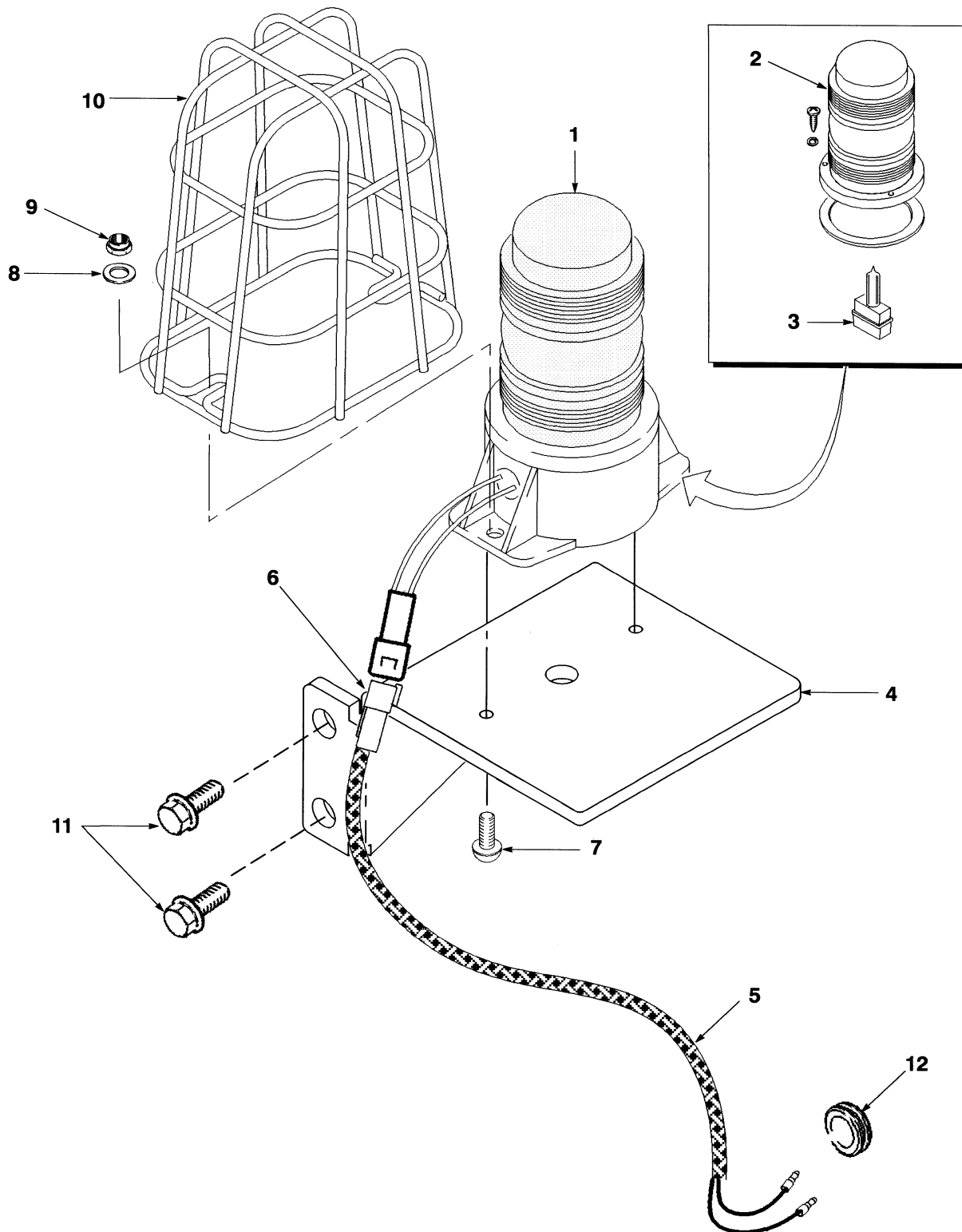
REAR LIGHT (FIGURE 10-7)

HP000470

REAR LIGHT

ITEM	PART NO.	DESCRIPTION	QTY
1	1531985	Headlight	2
1	1544764	Bulb	1
1	1544784	Wire Harness	1
2	2308796	Wire Harness	2
3	316678	Screw	4
4	2307413	Connector	2
5	1367645	Grommet	1
6	1539958	Bracket	1

STROBE LIGHT (FIGURE 10-8)



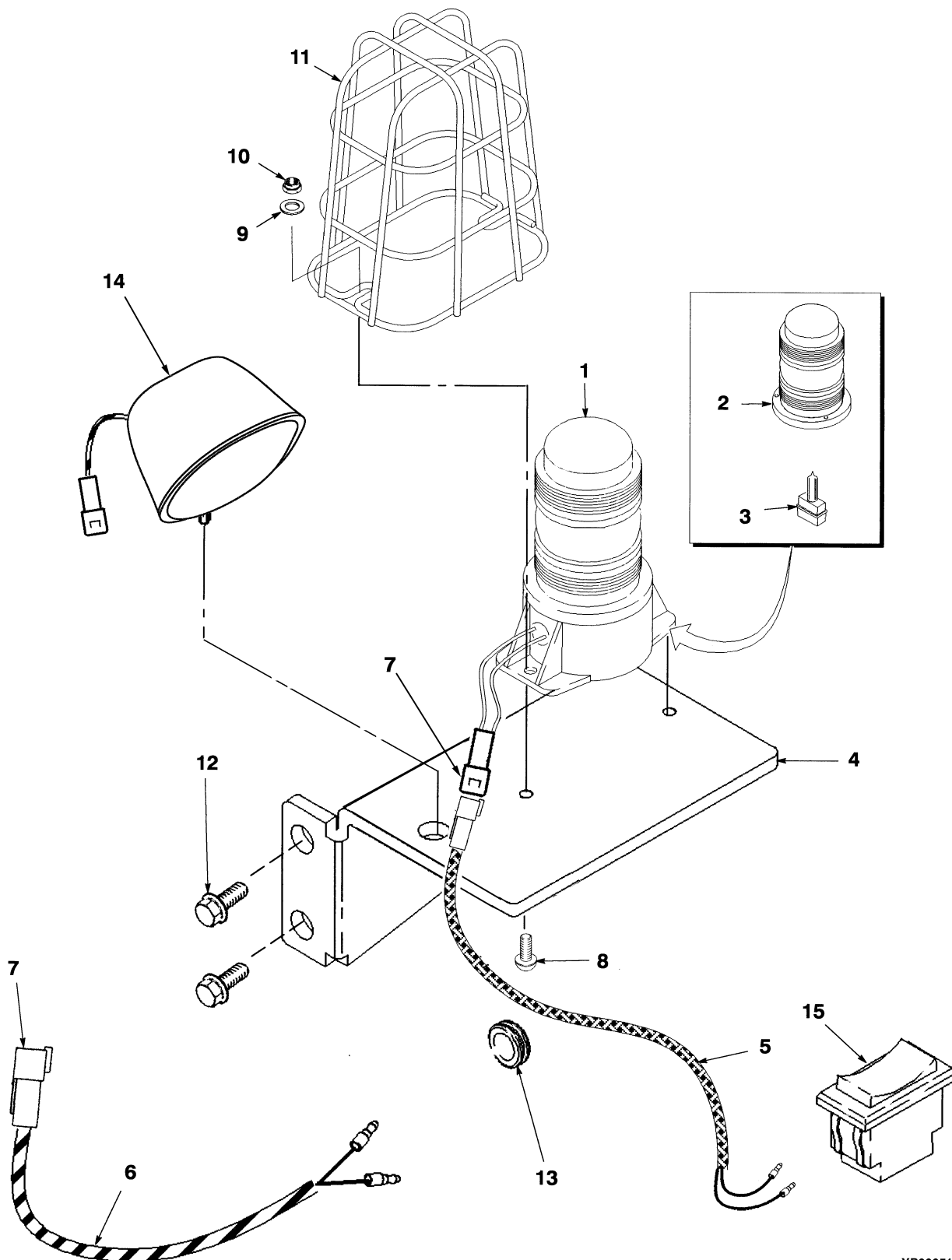
HP000471

STROBE LIGHT

ITEM	PART NO.	DESCRIPTION	QTY
1	1382130	Strobe Light	1
2	1526082	Lens (Amber)	1
3	1309775	Strobe Light	1
4	1539958	Bracket	1
5	2306035	Wire Harness	1
6	2307413	Connector	1
7	2311628	Capscrew	2
8	293777	Lockwasher	2
9	292667	Nut	2
10	1302024	Guard	1
11	316678	Screw	2
12	1367645	Grommet	1
	a 2034482	Tube	AR
	a 320155	Washer	2

FOOTNOTES:**a** Not Illustrated

STROBE LIGHT/REAR LIGHT COMBINATION (FIGURE 10-9)



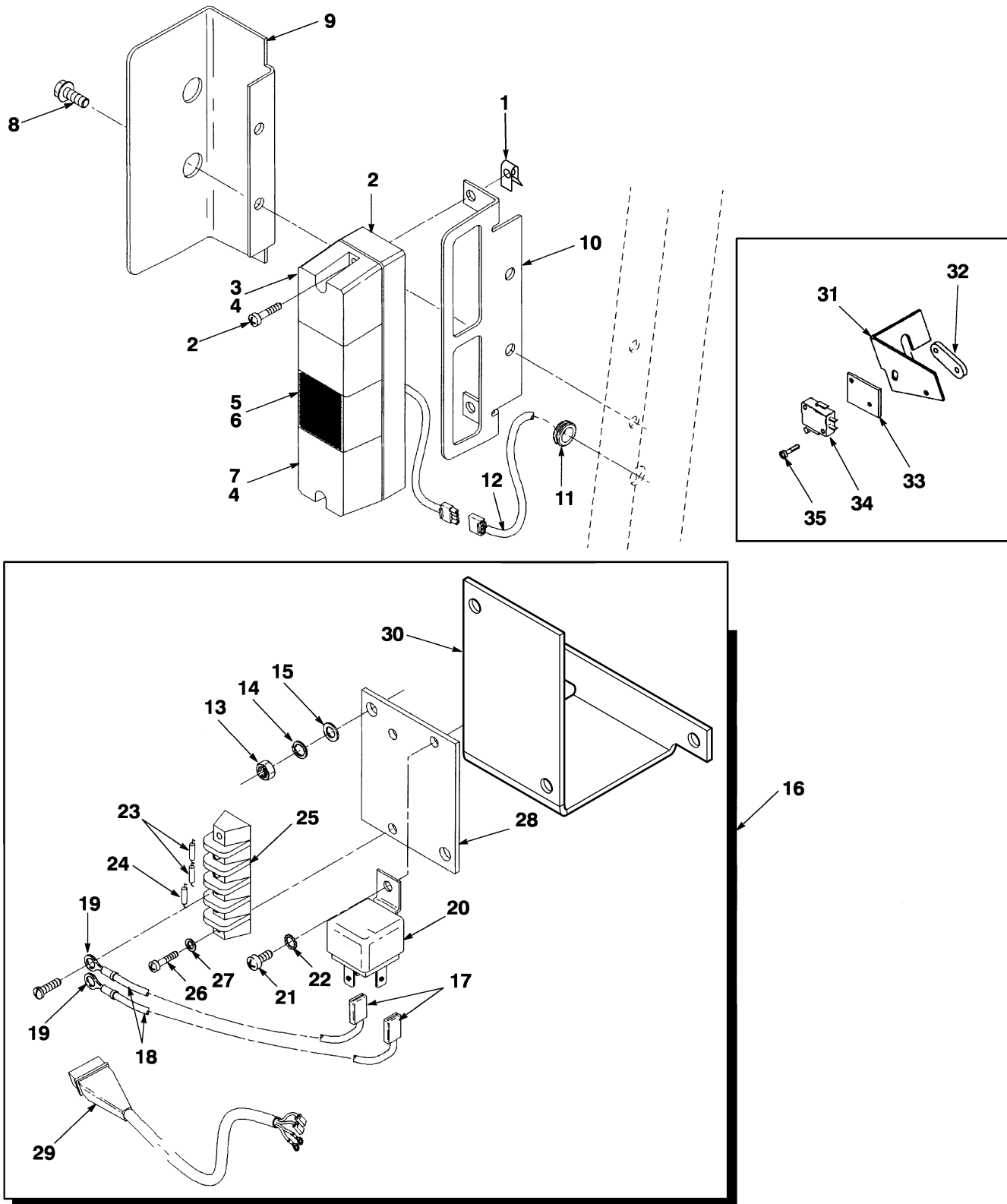
YP000515

STROBE LIGHT/REAR LIGHT COMBINATION

ITEM	PART NO.	DESCRIPTION	QTY
1	2033509	Strobe Light	1
1	1382130	Strobe Light	1
2	1526082	Lens (Amber)	1
3	1309775	Strobe Light	1
4	1539957	Bracket	1
5	2306035	Wire Harness (Strobe Light)	1
6	2307813	Wire Harness (Rear Light)	1
7	2307413	Connector (Male)	2
8	2311628	Capscrew	2
9	293777	Lockwasher	2
10	292667	Nut	2
11	1302024	Guard	1
12	2311628	Capscrew	2
13	1367645	Grommet	1
14	1531985	Headlight	1
14	1544764	Bulb	1
14	1544784	Wire Harness	1
15	1303711	Switch	1
	a 320155	Washer	2

FOOTNOTES:**a** Not Illustrated

TAIL LIGHT (FIGURE 10-10)

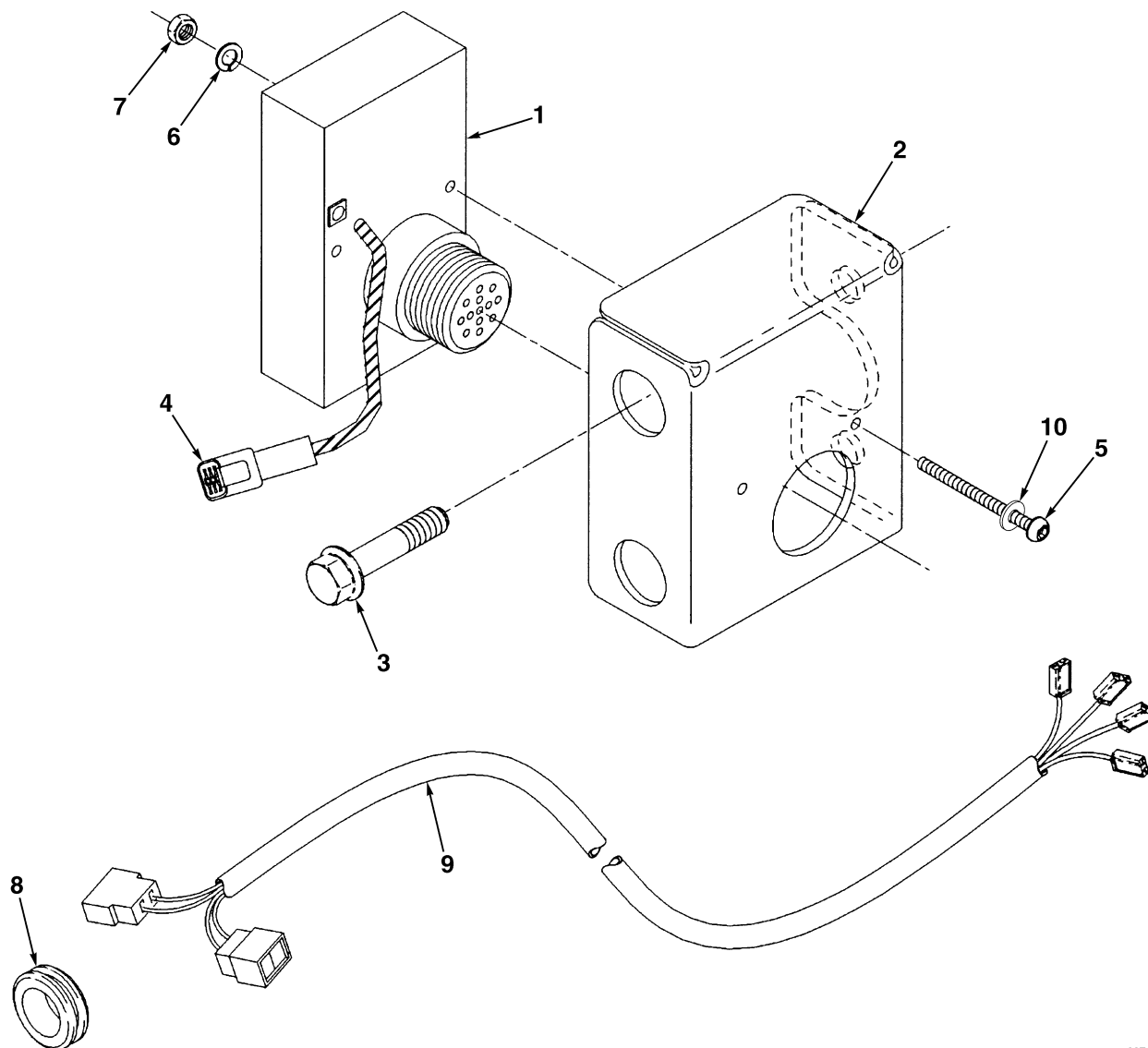


HP000228

TAIL LIGHT

ITEM	PART NO.	DESCRIPTION	QTY
1	1364542	Nut	4
2	2303953	Rear Light	2
2	1376446	Screw	4
3	1376441	Lens (Red) (Red)	1
4	1302258	Bulb	2
5	1376440	Lens (Red) (Red)	1
6	264007	Bulb	1
7	1376439	Lens (Clear) (Clear)	1
8	316678	Screw	4
9	1364264	Plate	2
10	1364265	Plate	2
11	1367645	Grommet	2
12	2311300	Wire Harness	2
13	136687	Nut	2
14	292680	Washer	2
15	320156	Washer	2
16	2306436	Control Panel	1
17	2305754	Terminal	2
18	2311669	Wire	2
19	2303345	Terminal (Ring)	2
20	1307687	Relay (24 Volt)	1
21	302018	Screw	1
22	296377	Washer	1
23	2310615	Resistor	2
24	2307261	Diode	1
25	2308736	Terminal Block	1
26	302021	Screw	2
27	292678	Lockwasher	2
28	2309219	Plate	1
29	2013611	Wire Harness	1
30	2037359	Bracket	1
31	2036099	Bracket	1
32	2309196	Mounting Plate	1
33	2309196	Mounting Plate	1
34	2037379	Microswitch	1
35	220273	Screw	1

BACK-UP ALARM (FIGURE 10-11)



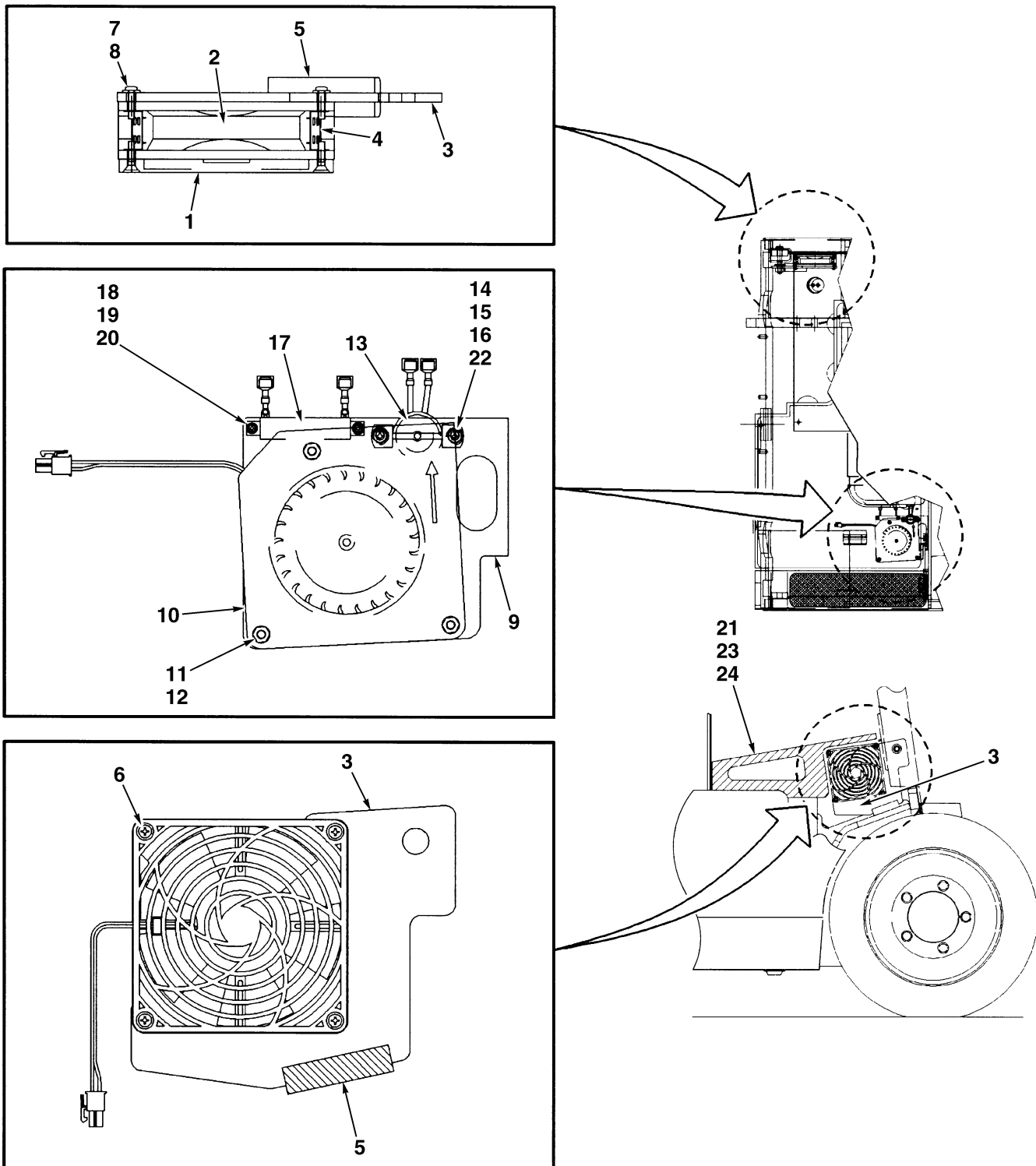
HP000633

ITEM	PART NO.	DESCRIPTION	QTY
1	2305651	Back-Up Alarm	1
2	2311577	Plate	1
3	316678	Screw	2
4	2309627	Connector	1
5	2307909	Capscrew	2
6	293775	Lockwasher	2
7	292665	Nut	2
8	1367645	Grommet	1
9	2311300	Wire Harness	1
10	320152	Washer	2

NOTES

[illegible]

MOTOR COOLING FAN (FIGURE 10-12)



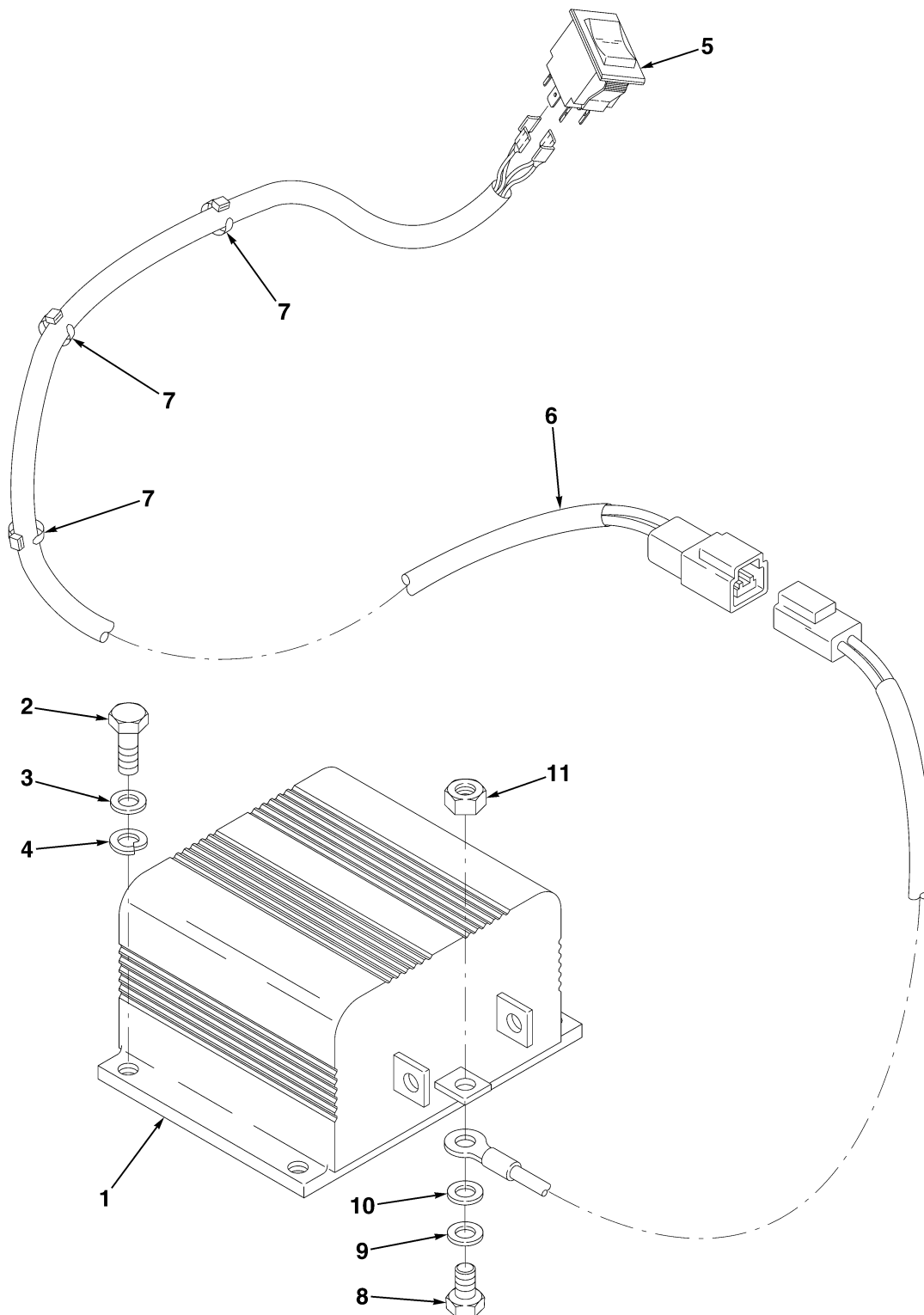
HP000634

MOTOR COOLING FAN**KEY:****A: 36 Volt****B: 48 Volt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	2311583	Guard	1	1
2	2311029	Fan	1	1
3	2308933	Bracket	1	1
4	2309472	Clip	4	4
5	325056	Strip Seal (Rubber)	1	1
6	220646	Screw	4	4
7	16728	Screw	3	3
8	197065	Washer	3	3
9	2311405	Bracket	1	1
10	2305266	Blower	1	1
11	123991	Screw	3	3
12	15049	Nut	3	3
13	2308948	Thermostat	1	1
14	296199	Capscrew	2	2
15	296357	Washer	2	2
16	292667	Nut	2	2
17	2306182	Resistor	1	..
17	2310896	Resistor	..	1
18	296186	Capscrew	2	2
19	296355	Washer	2	2
20	292665	Nut	2	2
21	b 1452982	Floorplate (RH)	1	1
21	c 1545831	Floorplate (RH)	1	1
22	2305520	Spacer	2	2
23	2032521	Floorplate (LH)	1	1
24	2309317	Anti-Slip Tread	1	1
	a 2038108	Wire Harness	1	1

FOOTNOTES:**a** Not Illustrated**c** S/N H160N03839A →**b** → S/N H160N03838A

DC CONVERTER (FIGURE 10-13) 36/48 VOLT TO 12 VOLT

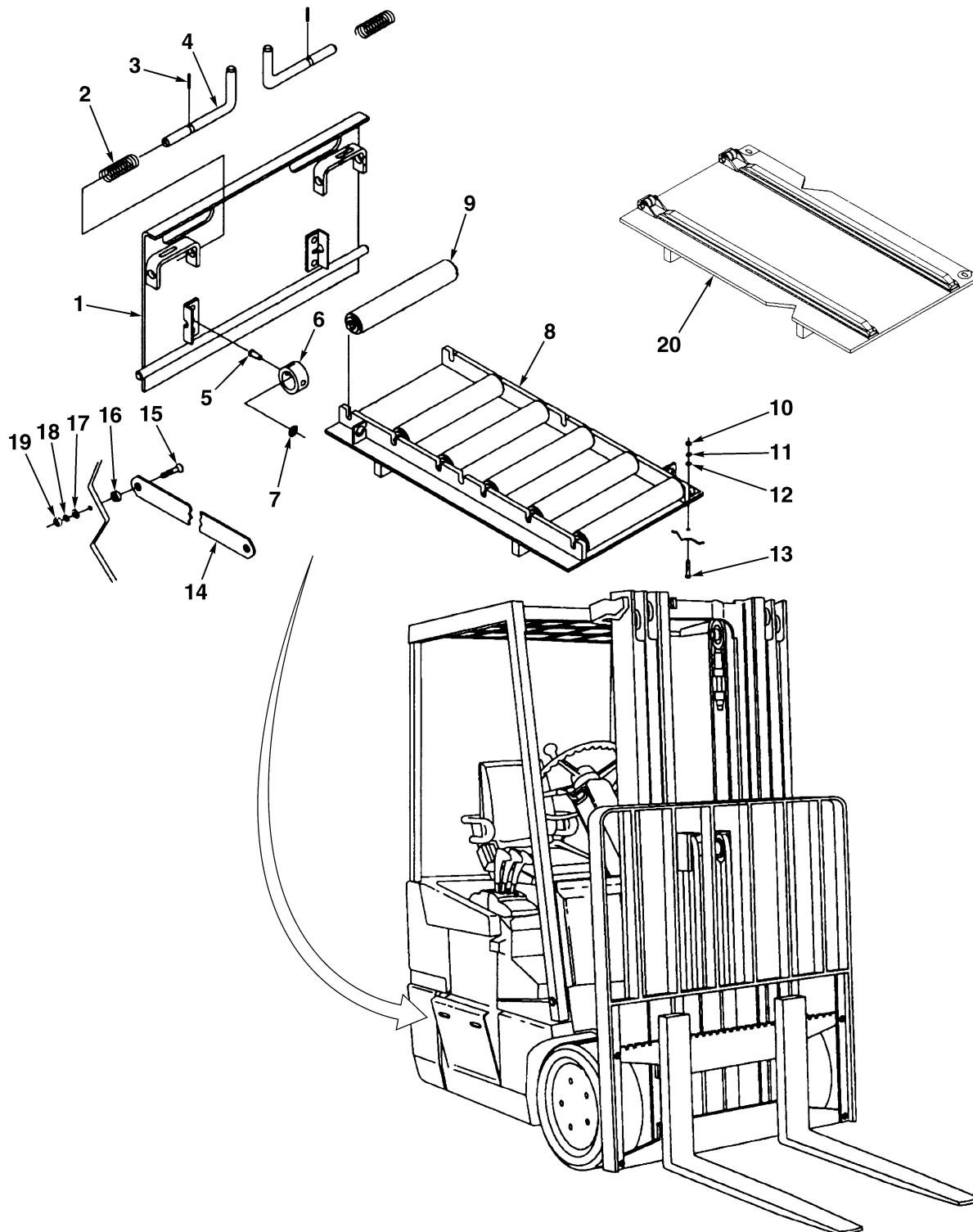


HP000635

DC CONVERTER
36/48 VOLT TO 12 VOLT

ITEM	PART NO.	DESCRIPTION	QTY
1	1390575	Dc-Dc Converter	1
2	287816	Capscrew	4
3	320156	Washer	4
4	292680	Washer	4
5	1303711	Switch (Red)	1
6	2013611	Wire Harness	1
7	137852	Strap Clamp	5
8	136681	Capscrew	3
9	320158	Washer	3
10	292681	Lockwasher	3
11	239503	Nut	3

BATTERY ROLLER AND RETAINER (FIGURE 10-14)

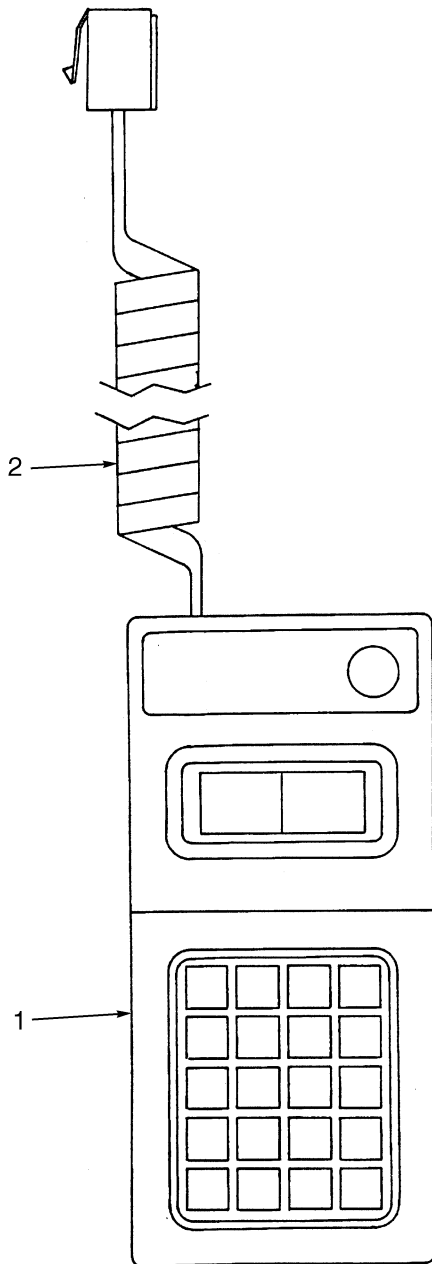


HP000636

BATTERY ROLLER AND RETAINER**KEY:****A: 50.8 in. Wheel Base****B: 54.5 in. Wheel Base**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	2014602	Panel	1	..
1	2014603	Panel	..	1
2	2307799	Spring	2	2
3	19890	Roll Pin	2	2
4	2307965	Pin	2	2
5	167218	Pin	2	2
6	2309362	Bumper	2	2
7	2307542	Retainer	2	2
8	2033939	Platform (3,000 lb. Capacity Truck)	1	..
8	2042861	Battery Tray (Acid Tray)	1	1
8	2306472	Platform (3,500 lb. Capacity Truck)	..	1
8	2307808	Platform (4,000 lb. Capacity Truck)	..	1
8	2308565	Battery Tray	1	1
9	2302952	Roller	6	..
9	2303748	Roller	..	6
10	136692	Nut	2	2
11	292682	Lockwasher	2	2
12	320159	Washer	2	2
13	292519	Capscrew	2	2
14	2302146	Plate	1	1
15	296247	Capscrew	2	2
16	361973	Spacer	2	2
17	320159	Washer	2	2
18	292682	Lockwasher	2	2
19	136692	Nut	2	2
20	2033623	Slide Platform (3,000 lb. Capacity Truck)	1	..
20	2304042	Slide Platform (3,500 lb. Capacity Truck)	..	1
20	2305935	Slide Platform (4,000 lb. Capacity Truck)	..	1

DIAGNOSTIC HANDSET (FIGURE 10-15)



BP000100

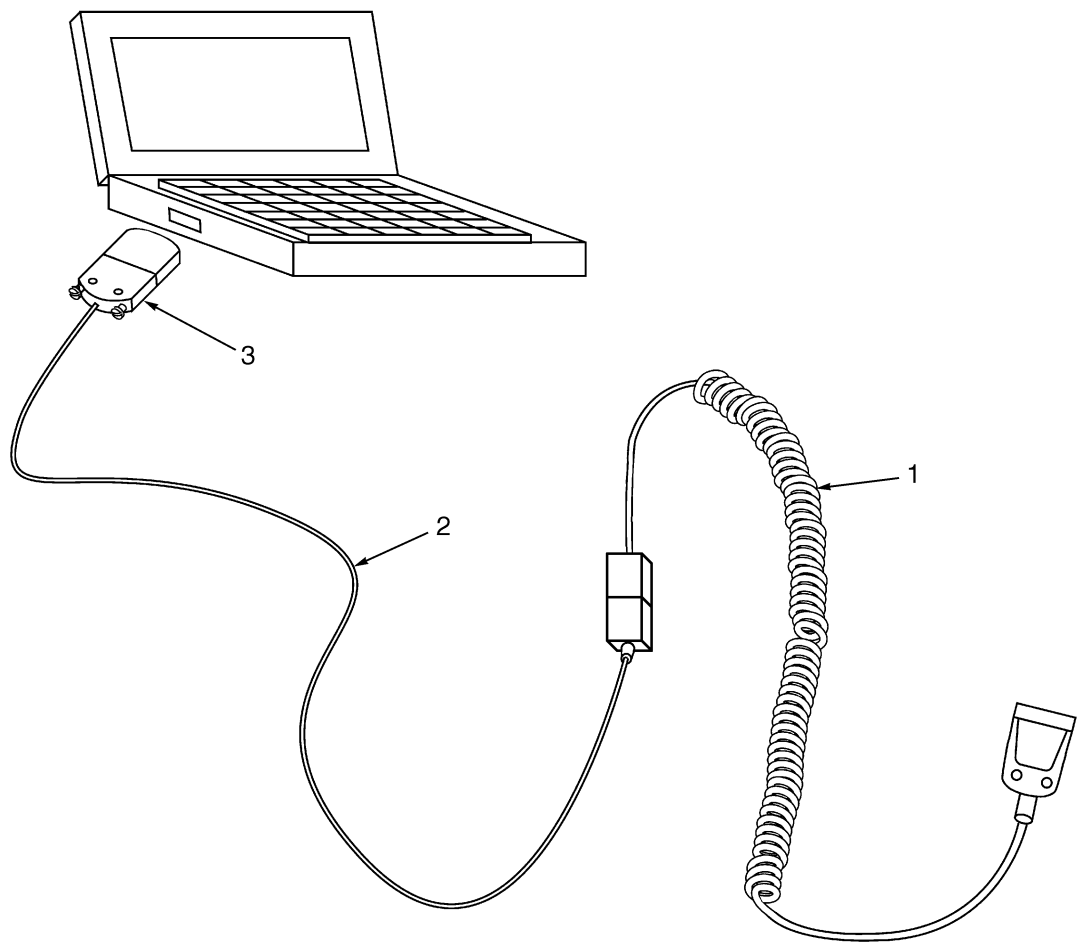
ITEM	PART NO.	DESCRIPTION	QTY
1	a 1361415	Electronic Analyzer	1
1	b 2045469	Electronic Analyzer	1
2	a 1361414	Kit-Cable For Laptop Pc (Included with 1361415)	1
2	b 2045467	Kit-Cable For Laptop Pc (Included with 2045469)	1

FOOTNOTES:

a GEN II

b GEN III

DIAGNOSTIC PC KIT (FIGURE 10-16)



BP000099

ITEM	PART NO.	DESCRIPTION	QTY
	b 1495834	Kit-Pc Cable	1
	a 1361412	Kit-Pc Cable	1
1	b 2045468	Kit-Cable For Laptop Pc (PC to Controller)	1
1	a 1361413	Kit-Cable For Laptop Pc (PC to Controller)	1
2	1358470	Kit-Cable For Laptop Pc (Extension to PC)	1
3	1379653	Adapter (9 Pin to 25 Pin)	1

FOOTNOTES:

a GEN II

b GEN III

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FIELD CONVERSION KITS

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DIRECTION CONTROL	11-2
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MAST TILT	11-2
OVERHEAD GUARD	11-2
VOLTAGE	11-2

LIGHTS, FAN, AND BACK-UP ALARM

DESCRIPTION	PART NUMBER
Kit-Strobe Light (Less Convertor)	1466484
Kit-Strobe Light (12 Volt)	1466479
Kit-Strobe Light	1466480
Kit-Strobe Light (12 Volt)	1466481
Kit-Strobe Light (12 Volt) (S/T/BU)	1466482
Kit-Strobe Light	1466483
Fan (36 Volt)	1467265
Fan (48 Volt)	1467266

OVERHEAD GUARD

DESCRIPTION	PART NUMBER
Overhead Guard (50.8 in Wheel Base)	1466488
Overhead Guard (54.5 in Wheel Base)	1466489

MAST TILT

DESCRIPTION	PART NUMBER
Kit-Tilt	2014481

VOLTAGE

DESCRIPTION	PART NUMBER
Kit-Voltage Conversion	1466523
Kit-Voltage Conversion	1466524

CONTROL VALVE

DESCRIPTION	PART NUMBER
Kit-Hyd Valve 3 to 4 Way (3 Function with Lockout to 4 Function One-Piece Cover)	2032399

DIRECTION CONTROL

DESCRIPTION	PART NUMBER
Kit-Fwd/Rev Lever to Monotrol	1466616
Kit-Monotrol to Fwd/Rev Lever	1466617

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	2-5	14	1465820	4-19	27	1476578	2-27		1494612	3-13	25
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1462886	2-3	34	1465824	4-19	31	1478733	6-21	1	1494621	3-13	23
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1463291	2-3	33	1465825	4-19	32	1480409	2-35	2	1494623	3-12	8
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1463490	1-3	33		4-23	25	1480491	3-2	5	1494626	3-13	28
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