

PARTS MANUAL

**E30HSD, E35HSD,
E40HSD
(A219)**

CUSTOMER EDITION

HYSTER

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This Parts Manual is divided into 11 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
EPROM	Electrically Programmable Read Only Memory	UL Type GS	Gasoline-Powered Safety Rating
		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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TRANSMISSION HOUSING ⇒ S/N D001H-2628

KEY:
A: Diesel
B: Gasoline and LPG

ITEM	PART NO.	DESCRIPTION	QTY
1	2029547	Transmission.....	1
2	2023329	Transmission.....	2
3	2021670	Case.....	4
4	2023418	Bearing Cap.....	4
5	296420	Washer.....	1
6	293599	Bolt.....	2
7	2021390	Cover.....	4
8	1371656	Collar Pin.....	4
9	2021329	O-Ring.....	1
10	2021575	Plug.....	4
11	2021336	Housing.....	22
12	287960	Pin.....	39
13	292682	Lockwasher.....	1
14	2021345	Hydraulic Pump.....	1
15	214364	gasket Figure 5-3.....	8
16	296418	Gasket.....	8
17	2021368	Bolt.....	1
18	2021389	Washer.....	1
19	2021383	Temperature Switch.....	1
20	292515	Breather.....	9
21	136692	Dipstick.....	9
22	292527	Bolt.....	2
23	292531	Nut.....	3
24	292683	Bolt.....	3
25	293637	Lockwasher.....	2
26	296420	Washer.....	4
	996403	Transmission Kit (Includes Item 7).....	1
	996405	Transmission Kit (Includes Item 14).....	1

This Parts Manual is divided into 11 major sections which are listed above. Quick reference may be made by placing the right thumb on the tab of the desired section, bending the 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 on 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 on Page 11-1 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 D001H-2628**
Indicates last serial number affected.
 - S/N D001H-2629** ⇒
Indicates the first serial number affected.
 - S/N D001H-1553 ⇔ S/N D001H-3291**
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.

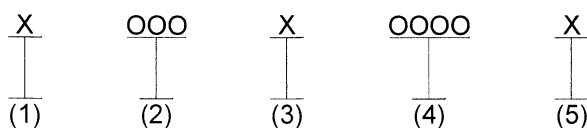
Contact your local dealer for Hyster lift trucks for serial number information for items with a ECN or a date break.

ORDERING PARTS:

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

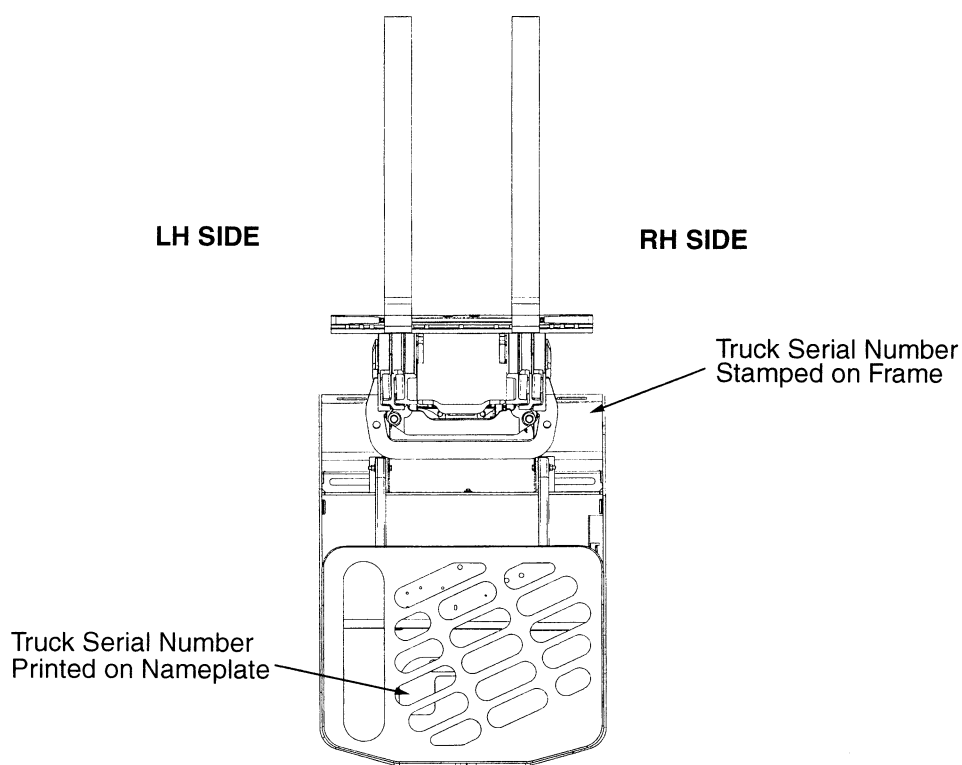
For any further information on parts, service, or ordering, consult your local dealer for Hyster lift trucks.

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 and 1980. The letters "I", "O", and "Q" will not be used.

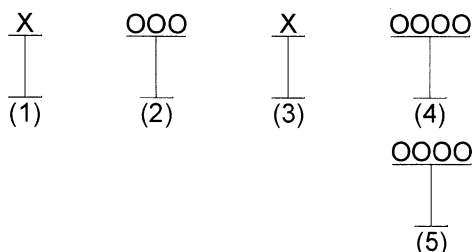
For pending serial numbers contact your local dealer for Hyster lift trucks.



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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).

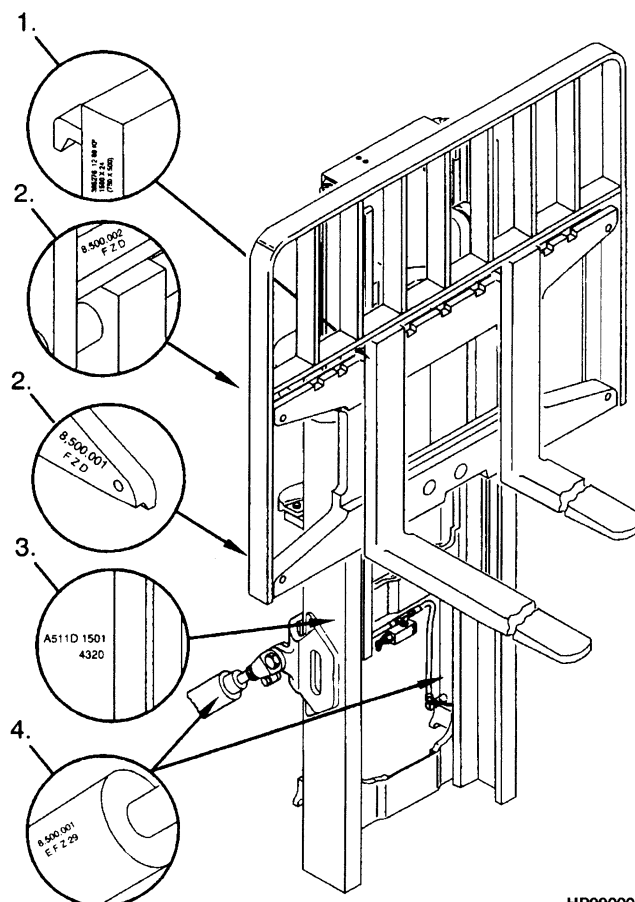
For pending production sequence numbers contact your local dealer for Hyster lift trucks.

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.

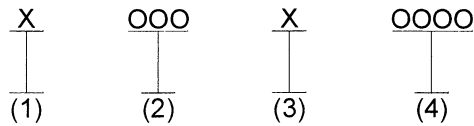
Always refer to the group, serial, or part number when ordering service parts.

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

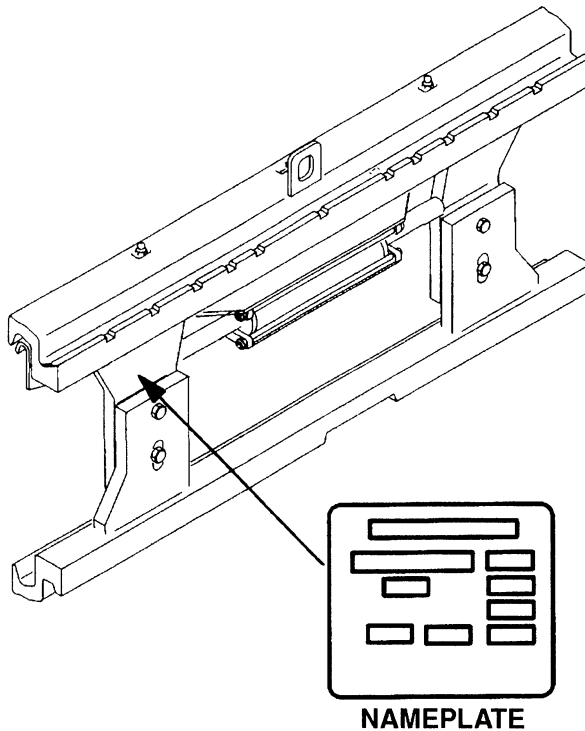


(1) and (2) The first letter and three numbers indicate the attachment unit code.

(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.



HP990003

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

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

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

PUBLICATIONS

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

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

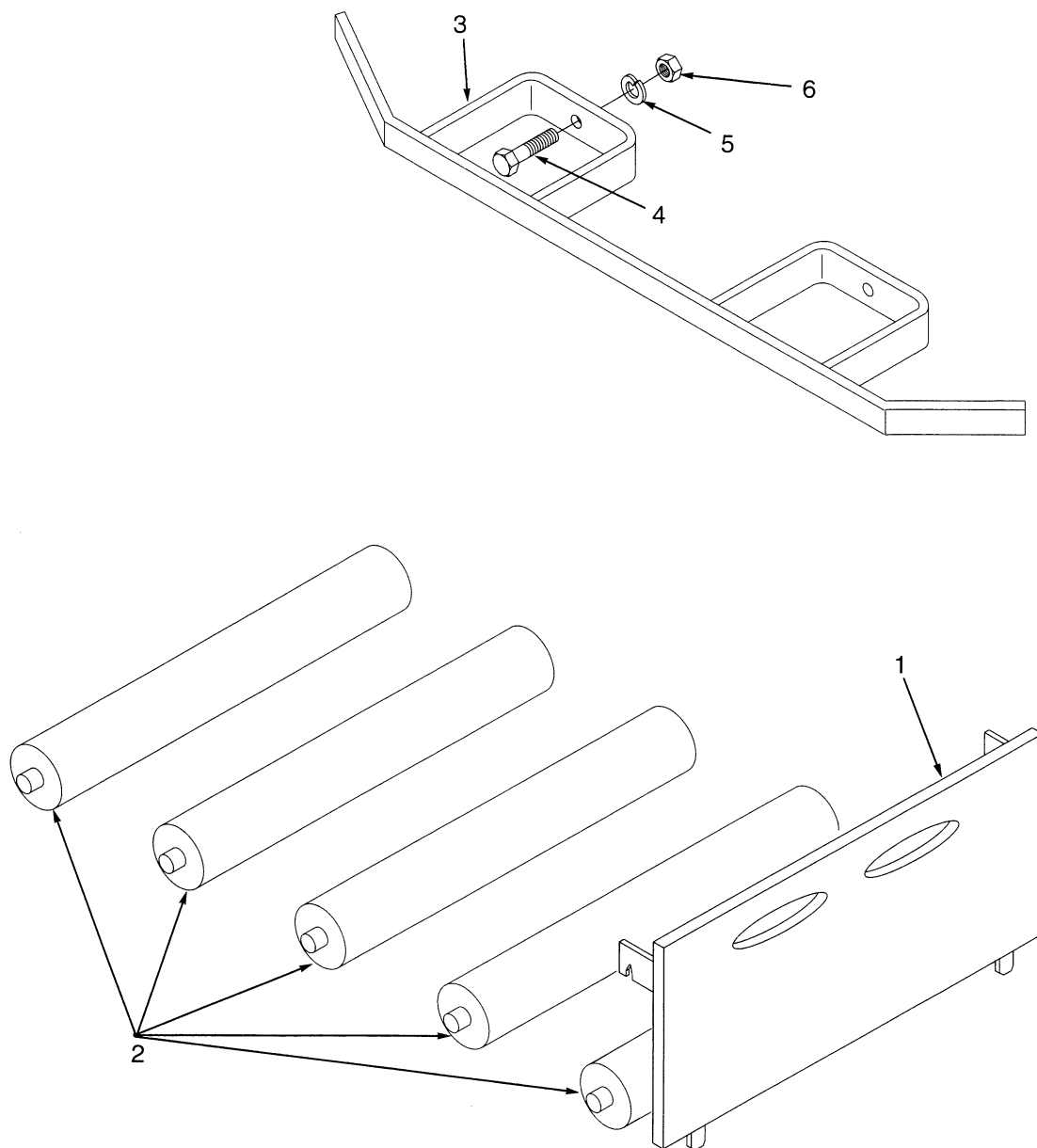
PUBLICATION	HYSTER PART NUMBER
Operating Manual	1495938
Service Manual (Complete)	1495902
Parts Manual	1495939

1	FRAME
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SECTION 1
FRAME

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BATTERY RETENTION (Figure 1-1)



BP120000

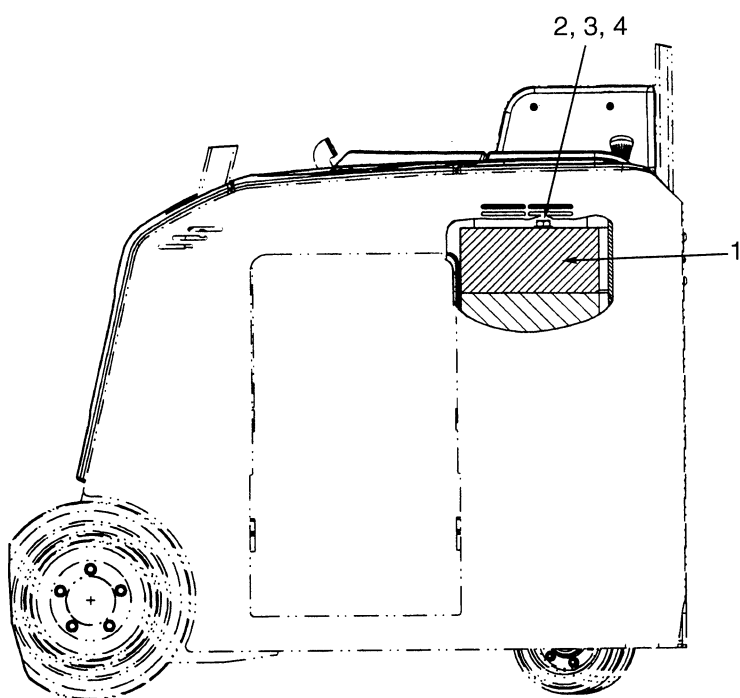
BATTERY RETENTION

ITEM	PART NO.	DESCRIPTION	QTY
1	a 1479958	Wldmt-batt gate	2
1	b 1479959	Wldmt-batt gate	2
2	a 2305145	Battery Roller.....	5
2	b 2302495	Battery Roller.....	5
3	a 2042648	Battery Spacer.....	1
3	b 2042649	Battery Spacer.....	1
4	176640	Capscrew.....	2
5	320157	Washer	2
6	239503	Nut	2

FOOTNOTES:

- a** Used on 16 in (SWB)
b Used on 18 in (LWB)

COUNTERWEIGHT (Figure 1-2)



BP120002

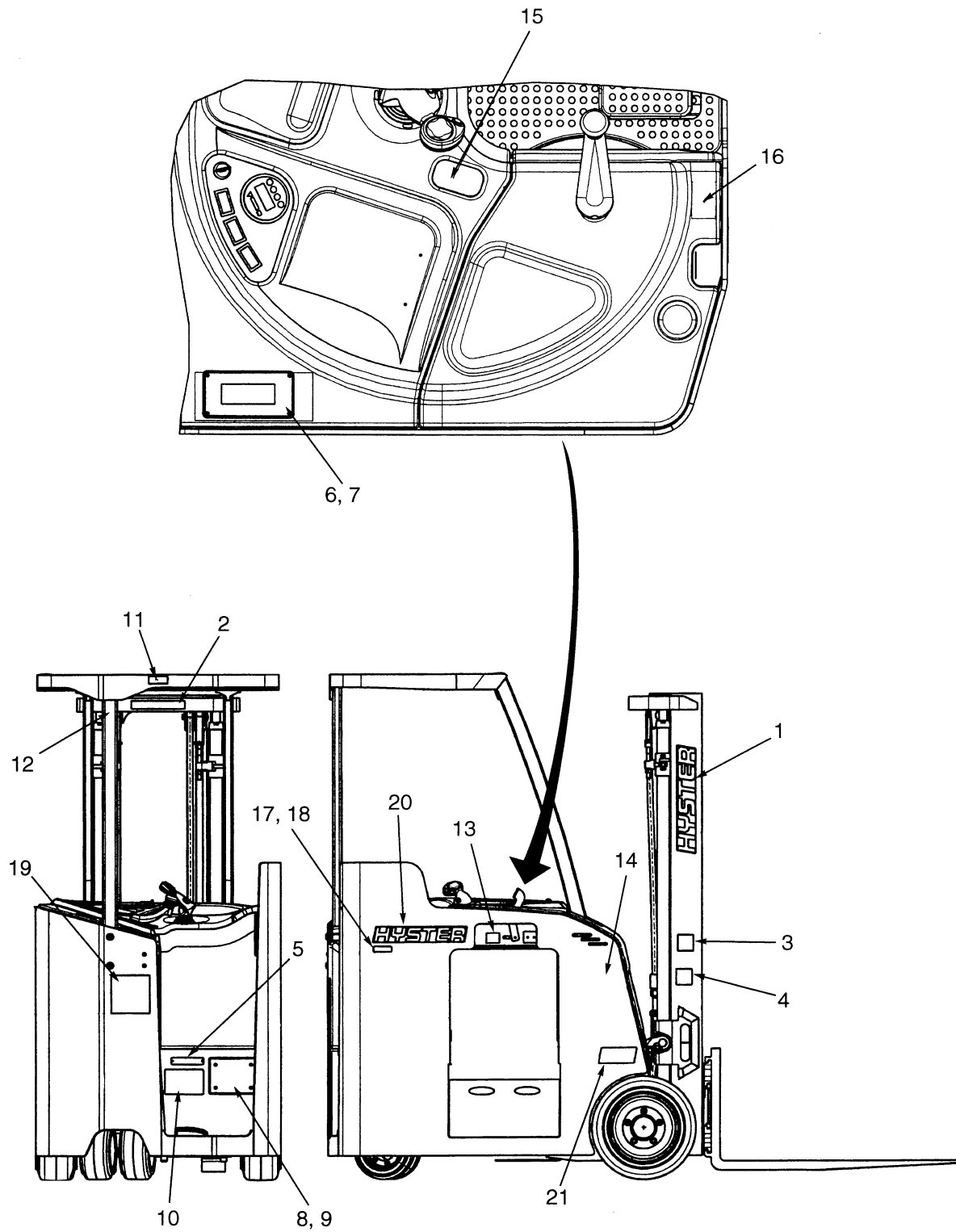
COUNTERWEIGHT

ITEM	PART NO.	DESCRIPTION	QTY
1	a 2044160	Counterweight	1
2	a 221780	Washer	1
3	a 1492929	Capscrew	1
4	a 383789	Thread Sealer	AR

FOOTNOTES:

a Used on 3500 SWB and 4000 LWB.

DECAL AND PLATE LOCATION (Figure 1-3)

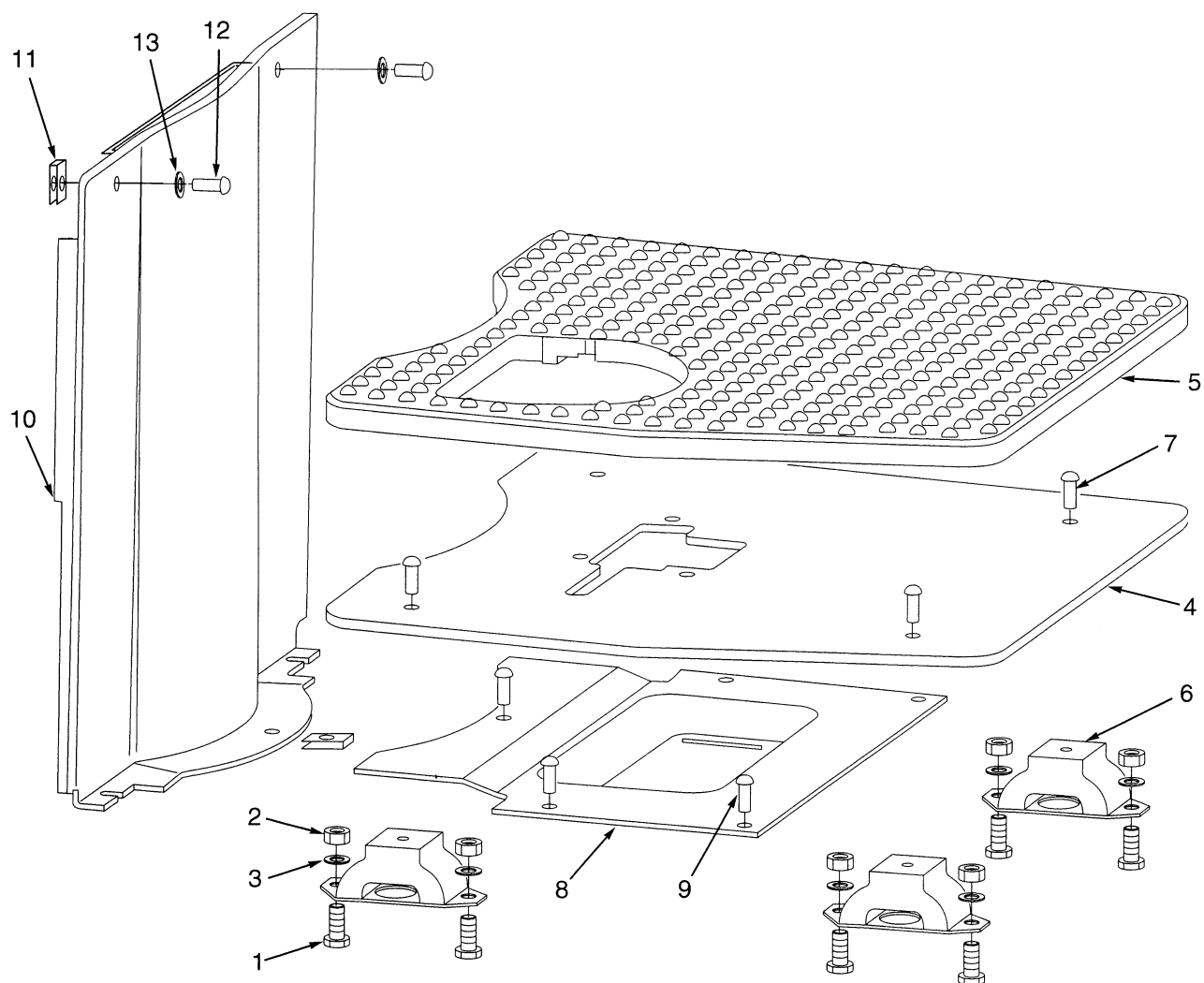


HP120597

DECAL AND PLATE LOCATION

ITEM	PART NO.	DESCRIPTION	QTY
1	2306018	Label (Hyster)	2
2	1330919	Label (Mast Warning)	1
3	1338178	Label (Mast Warning)	2
4	1335129	Label (Pinch Point)	2
5	1495277	UL Inspection Plate (E)	1
6	1473843	Label (Nameplate)	1
7	389688	Cover	1
7	15139	Washer	4
7	222024	Rivet	4
8	335989	Base	1
9	335991	Cover	1
9	15140	Washer	4
9	222030	Rivet	4
10	389692	Label (US Patents and Trademarks)	1
11	1339843	Label (Overhead Guard)	1
12	2045088	Label (Operator Warning)	1
13	2033511	Label (Battery Connector Caution)	1
14	1385099	Label (Hydraulic Oil Fill)	1
15	1495421	Decal-handle function	1
16	2045293	Label (Operator Warning)	1
17	275661	Label (Freezer)	2
18	1490805	Label (Cooler)	2
19	1495468	Decal (Hyster tm logo)	1
20	2305417	Label (Hyster)	2
21	2309830	Label (Model 30)	2
21	2307049	Label (Model 35)	2
21	2308078	Label (Model 40)	2

FLOOR PLATES AND COVERS (Figure 1-4)

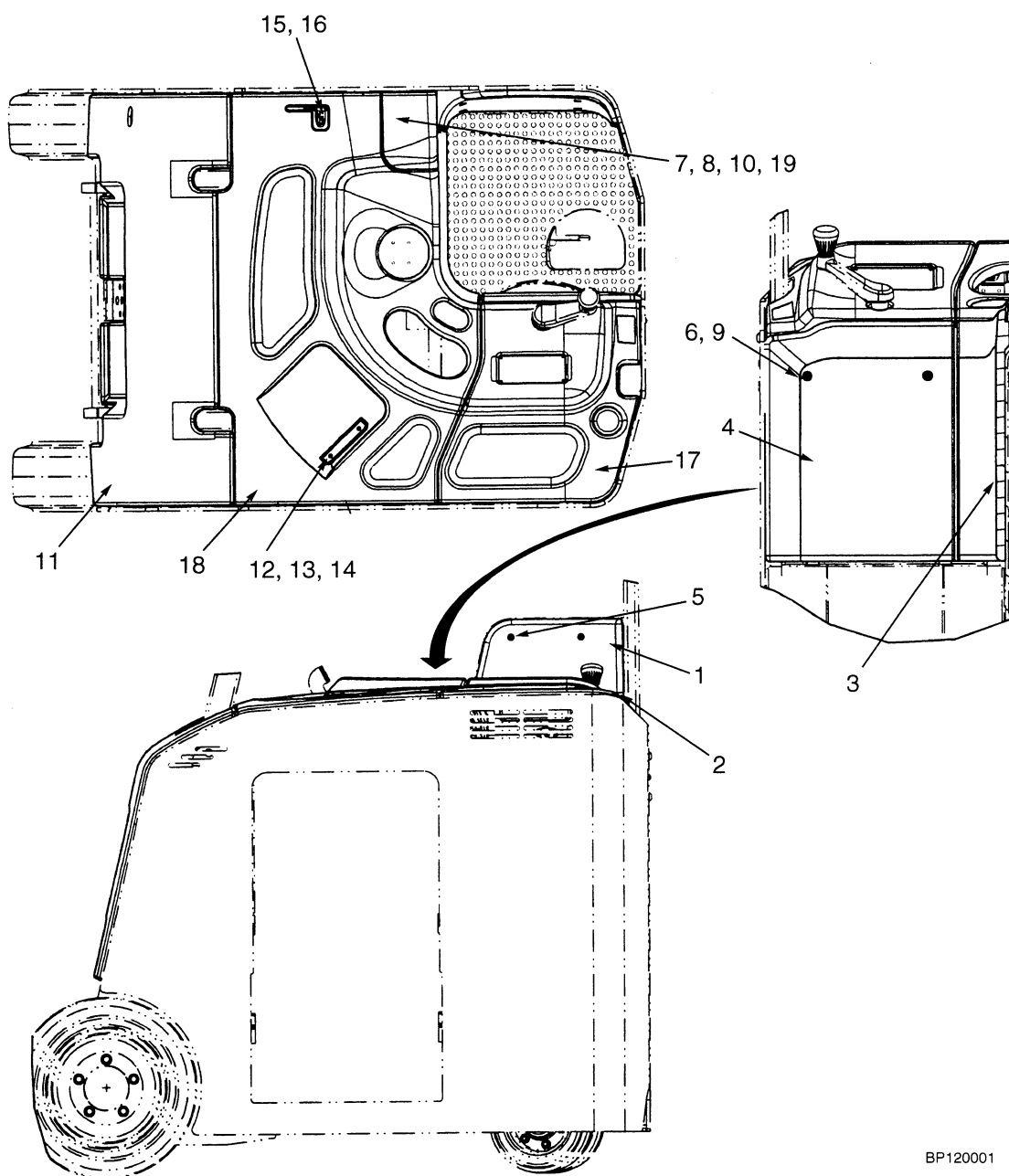


BP120003

FLOOR PLATES AND COVERS

ITEM	PART NO.	DESCRIPTION	QTY
1	136749	Capscrew.....	8
2	292654	Nut.....	8
3	292681	Lockwasher.....	8
4	1479228	Floorplate.....	1
5	1479230	Floormat	1
6	1480540	Isolator.....	4
7	369242	Capscrew.....	4
8	2043245	Shield.....	1
9	227110	Capscrew.....	4
10	2043255	Cover	1
11	325182	Nut.....	3
12	296160	Capscrew.....	3
13	1506738	Washer	2

HOOD AND COVERS (Figure 1-5)



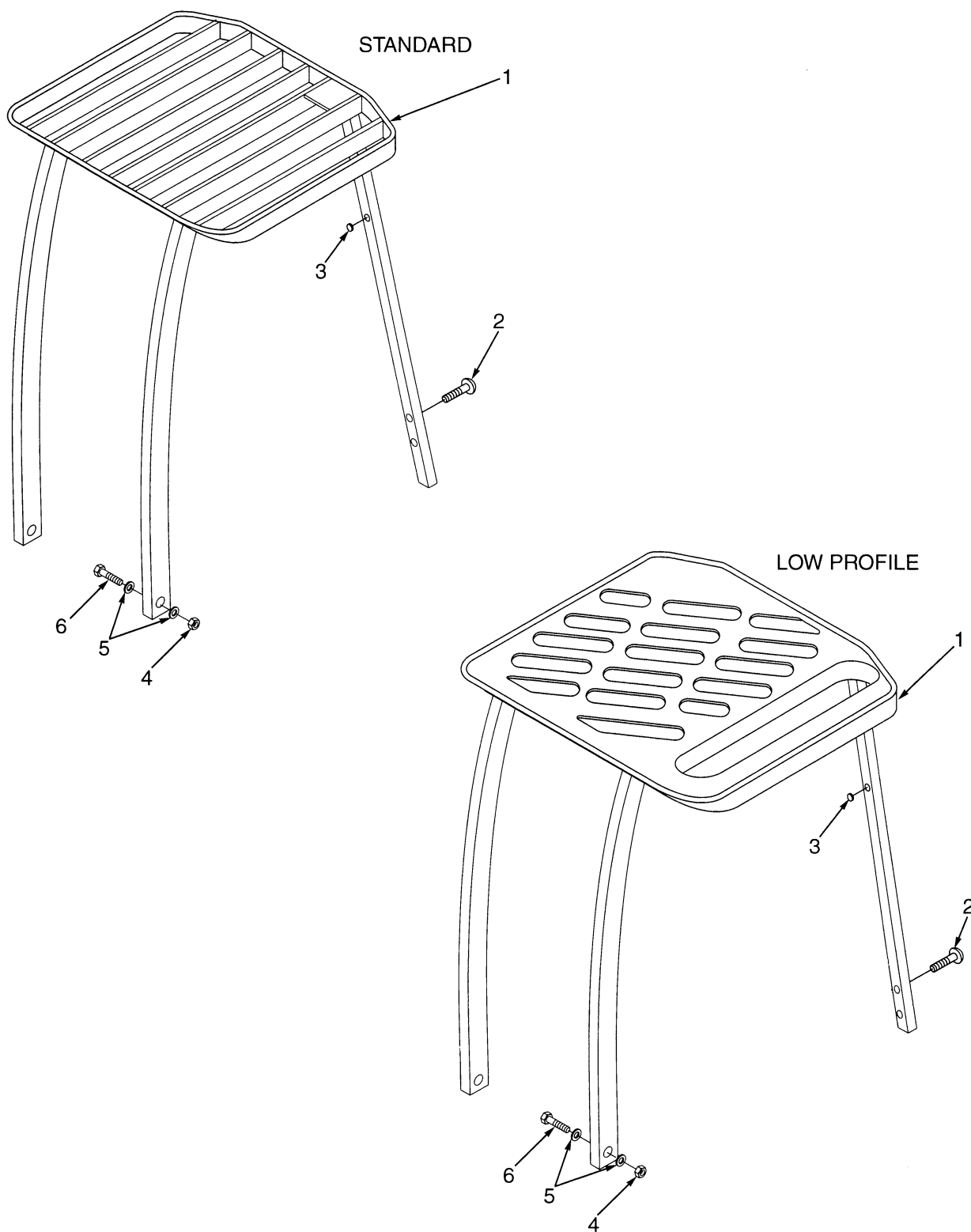
BP120001

HOOD AND COVERS

ITEM	PART NO.	DESCRIPTION	QTY
1	2043229	Pad- top	1
2	2043230	Pad- bottom	1
3	2043231	Pad- hip	1
4	2043232	Pad- knee	1
5	1330574	Capscrew	8
6	353144	Capscrew	3
7	320156	Washer	7
8	292501	Capscrew	4
9	1350215	Nut	3
10	136687	Nut	3
11	2047694	Hydraulic Cover	1
12	227089	Screw	2
13	2306899	Clip	1
14	2036141	Plate	1
15	2047693	Bracket Weldment	1
16	227110	Capscrew	1
17	1483214	Top back	1
18	b 1483216	Top front	1
18	a 1483215	Top front	1
19	1492043	Elbow pad-Hyster	1

FOOTNOTES:**a** Used on 3000 and 3500lb SWB.**b** Used on 3500 and 4000lb LWB.

OVERHEAD GUARD (Figure 1-6)



BP120004

OVERHEAD GUARD

ITEM	PART NO.	DESCRIPTION	QTY
1	a 1476593	Overhead Guard-standard.....	1
1	b 1495580	Overhead Guard-standard.....	1
1	a 1476594	Overhead Guard-low profile.....	1
1	b 1495586	Overhead Guard-low profile.....	1
2	1498443	Capscrew.....	2
3	1363917	Plug	1
4	300937	Nut	2
5	320162	Washer	4
6	293655	Capscrew.....	2

FOOTNOTES:

- a** Used on 3000 and 3500lb SWB.
b Used on 3500 and 4000lb LWB.

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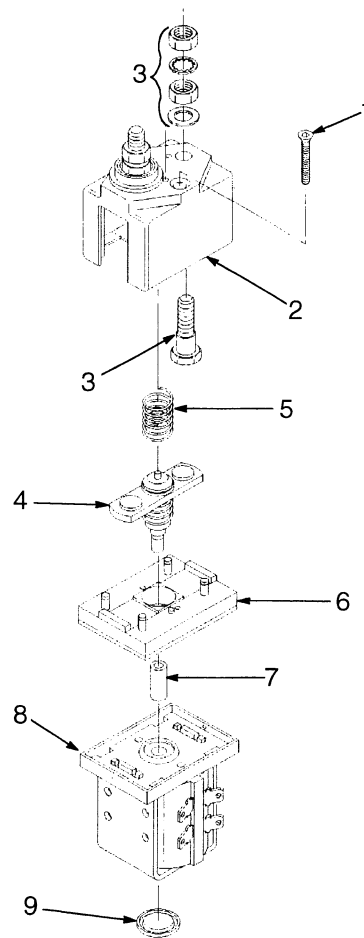
2

ELECTRICAL SYSTEM

SECTION 2

ELECTRICAL SYSTEM

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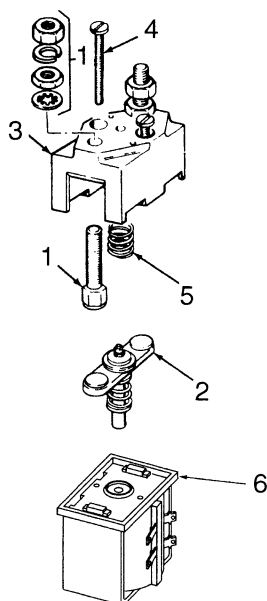
LIFT CONTACTOR (Figure 2-1)

BP000026

LIFT CONTACTOR

ITEM	PART NO.	DESCRIPTION	QTY
	1498834	Lift Contactor	1
1	383977	Screw	2
2	2034483	Cover	1
3	2034484	Contactor (Fixed).....	2
4	2035396	Contactor (Moving).....	1
5	2307575	Spring-return	1
6	383981	Base	1
7	383979	Plunger.....	1
8	1513999	Frame and Coil Assembly	1
9	2034488	End Cap	1

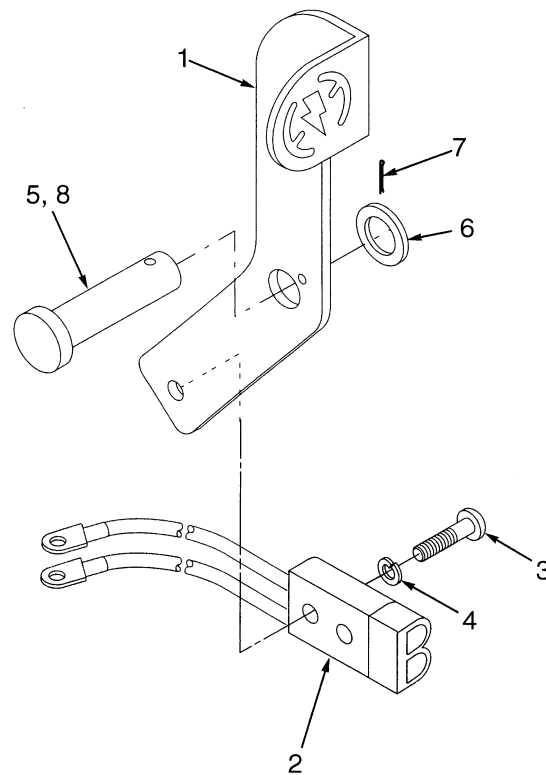
STEER CONTACTOR (Figure 2-2)



BP220012

ITEM	PART NO.	DESCRIPTION	QTY
	1498833	Steer Contactor	1
1	378547	Fixed Contact	2
2	383984	Moving Contact	1
3	384398	Cover	1
4	379522	Screw	2
5	379523	Spring	1
6	1514055	Frame and Coil Assembly	1

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

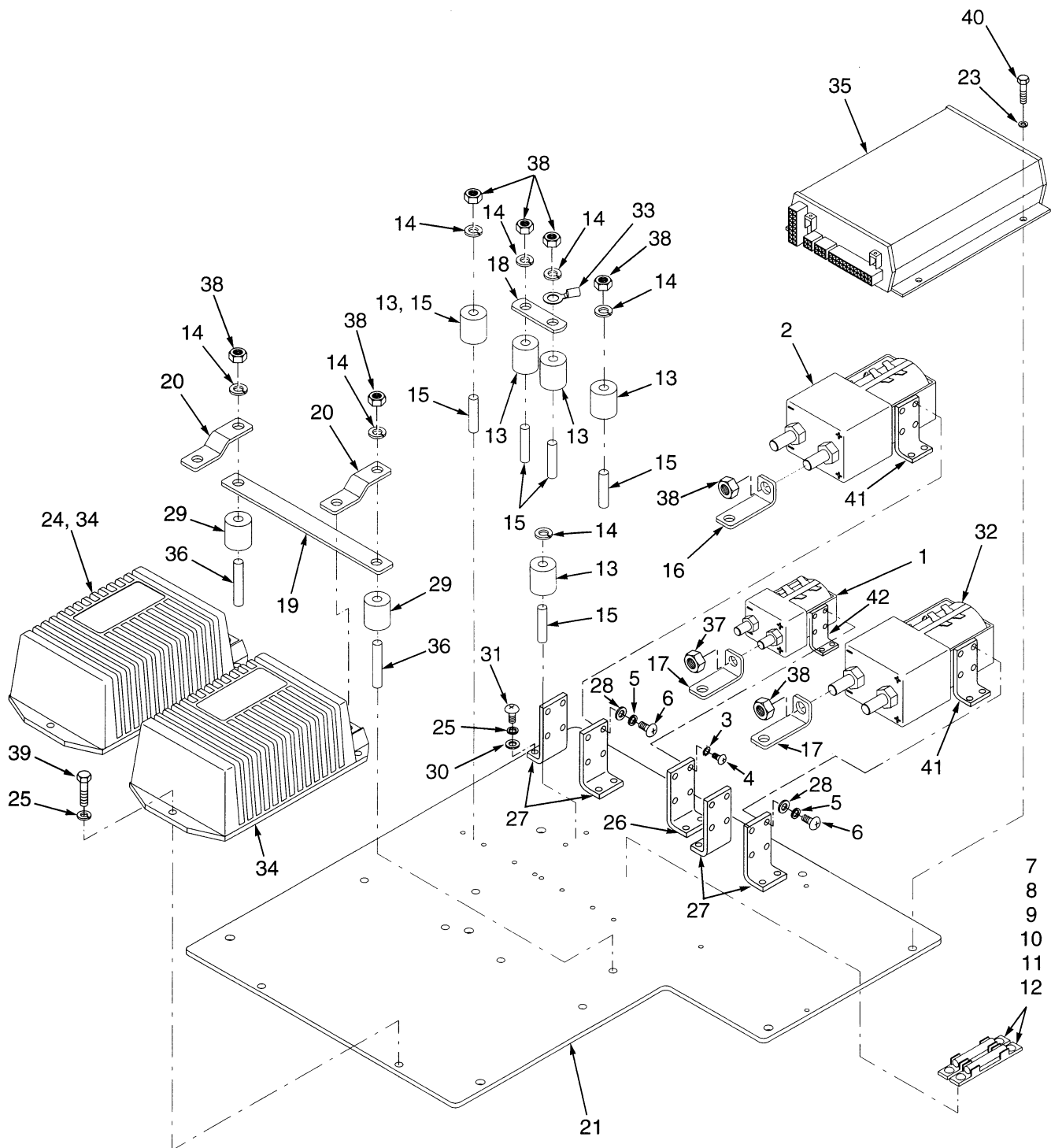
BATTERY DISCONNECT (Figure 2-3)

BP080018

BATTERY DISCONNECT

ITEM	PART NO.	DESCRIPTION	QTY
1	2049392	Disconnect Lever	1
2	1495532	Battery Connector.....	1
3	302052	Capscrew	2
4	292680	Lockwasher.....	2
5	177590	Rod End Pin	1
6	18515	Washer	1
7	15212	Cotter Pin.....	1
8	251979	Lubricant.....	AR

CONTROL PANEL (Figure 2-4)



BP080028

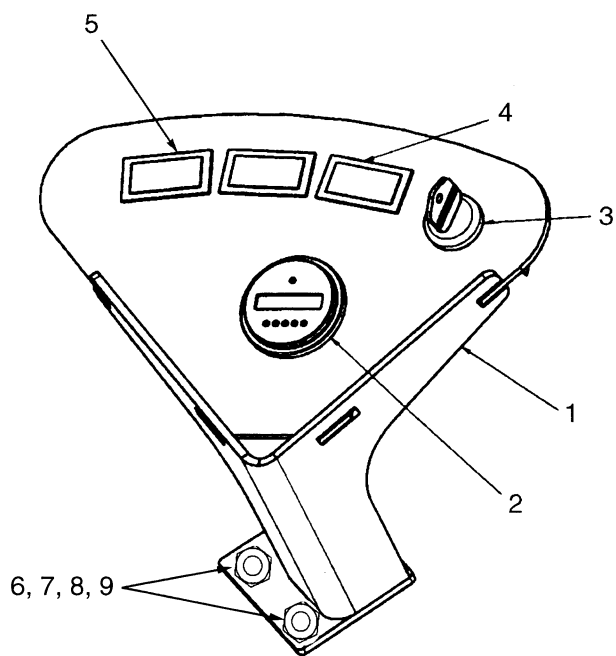
CONTROL PANEL

ITEM	PART NO.	DESCRIPTION	QTY
	2044193	Control Panel	1
1	Steer Contactor (☞ Figure 2-2)	1
2	Lift Contactor (☞ Figure 2-1)	1
3	2303249	Lockwasher	2
4	2303801	Screw	2
5	2304572	Washer	10
6	2303821	Screw	10
7	1356217	Two-Way Fuse Holder	1
8	1498840	Screw	2
9	1356209	Lockwasher	2
10	2307803	Washer	2
11	1374793	Fuse (10 Amp).....	1
12	1454484	Fuse (15 Amp).....	1
13	1454478	Terminal Post.....	5
14	2305855	Washer	14
15	176640	Capscrew	5
16	1498849	Link.....	2
17	1498850	Link.....	1
18	1498851	Link.....	1
19	1498852	Insulator.....	1
20	1498853	Link.....	2
21	1498854	Base Plate	1
22	2303211	Screw	4
23	2304771	Washer	4
24	1356213	Capscrew	6
25	2303787	Washer	10
26	2304244	Bracket	1
27	1498860	Bracket	4
28	275672	Washer	8
29	1498862	Terminal Post.....	2
30	1356214	Washer	4
31	1454479	Screw	4
32	Contactor (☞ Figure 3-2)	1
33	1498968	Harness.....	1
34	1508555	Traction Controller.....	2
35	1500425	Controller	1
36	292508	Capscrew.....	2
37	136692	Nut	4
38	239503	Nut	9
39	148962	Capscrew.....	6
40	302234	Screw.....	4
41	a 1498860	Bracket.....	4
42	2304244	Bracket	2

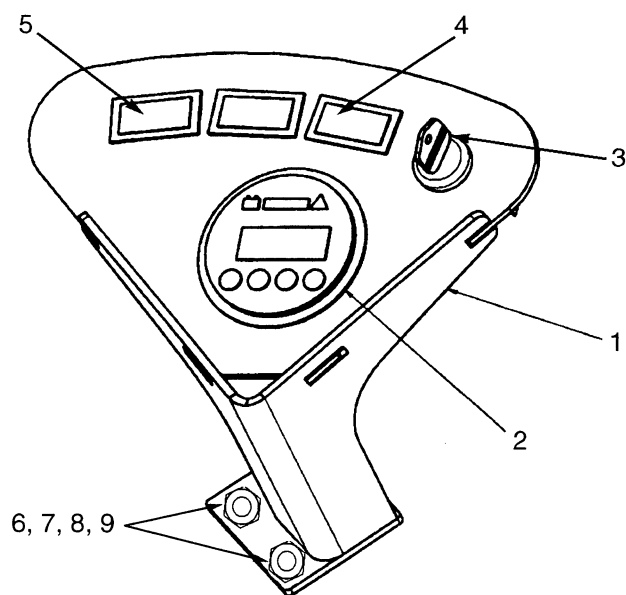
FOOTNOTES:

a Optional.

DASH DISPLAY (Figure 2-5)



STANDARD DISPLAY



PREMIUM DISPLAY

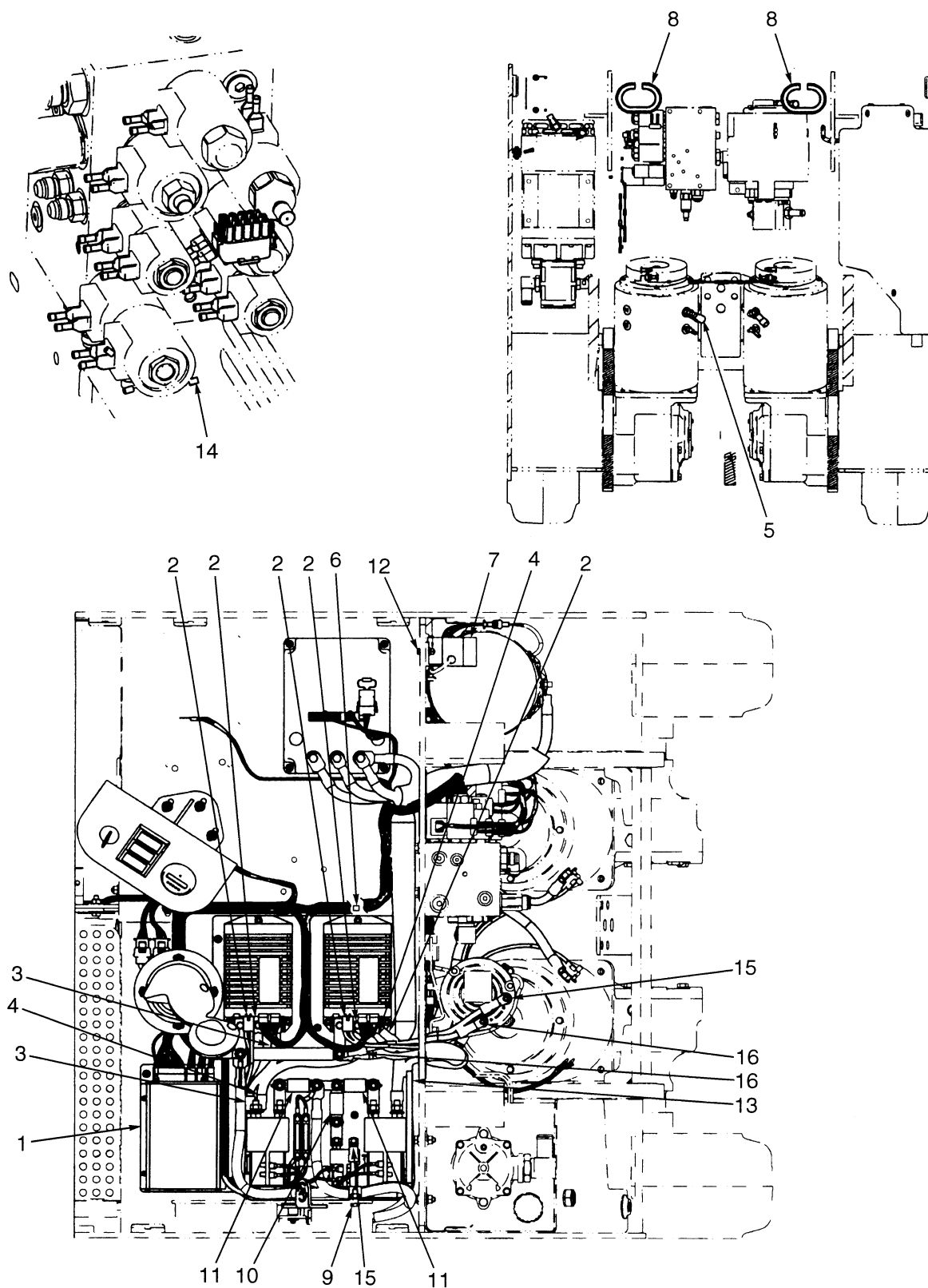
HP081216

DASH DISPLAY

ITEM	PART NO.	DESCRIPTION	QTY
1	b 1497780	Display assembly - standard.....	1
1	1489487	Display assembly - premium.....	1
1	1489486	Display assembly - standard.....	1
1	b 1489488	Display bracket - standard	1
1	1489489	Display bracket - premium	1
2	1479040	Gauge (Standard)	1
2	2045327	Gauge (Premium)	1
2	1479042	Gauge (Freezer)	1
3	379902	Ignition Switch	1
3	186304	Key.....	1
4	376949	Cover	3
5	a 1301616	Switch assembly	1
6	136749	Capscrew.....	3
7	320157	Washer	3
8	292681	Lockwasher.....	3
9	239503	Nut	3

FOOTNOTES:**a** Optional.**b** Used on Cold Storage.

ELECTRICAL ARRANGEMENT (Figure 2-6)

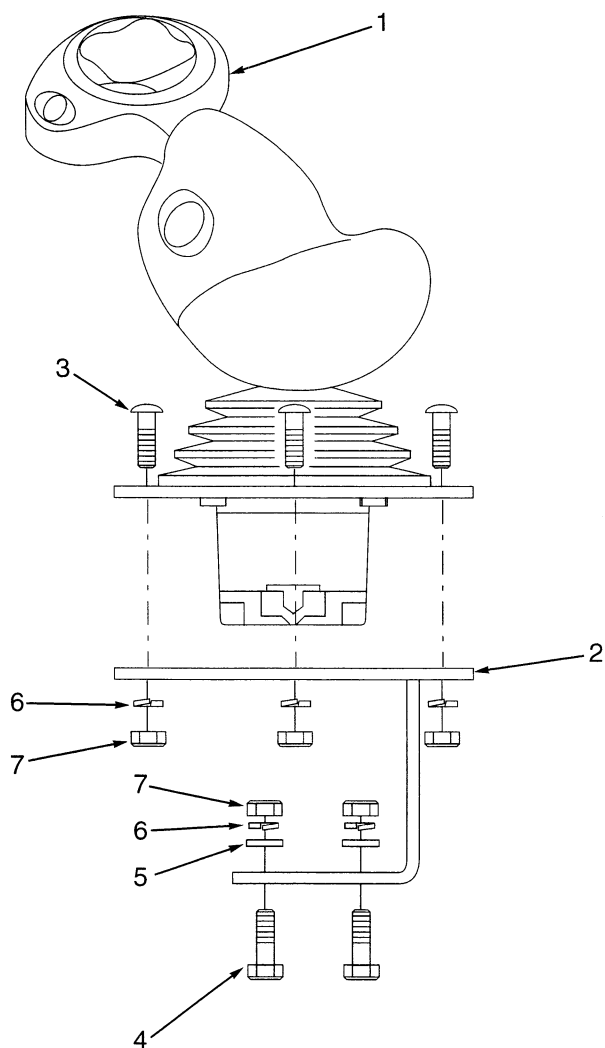


BP080029

ELECTRICAL ARRANGEMENT

ITEM	PART NO.	DESCRIPTION	QTY
1	Control Panel (☞ Figure 2-4)	1
2	2045956	Power Cable	1
3	2049983	Power Cable	1
4	2049984	Power Cable	1
5	2048357	Power Cable	1
6	2049985	Wire Harness.....	1
7	1483422	Horn.....	1
8	2043844	Trim-rubber	2
9	203230	Clamp	1
10	2008858	Fuse (60 Amp)	1
11	1331362	Fuse (400 Amp).....	2
12	287816	Capscrew.....	2
13	2004005	Strap Clamp.....	AR
14	2046590	Wire Harness.....	1
15	2047075	Power Cable (PS2)	1
16	2047076	Power Cable (PS3)	1

MULTI-FUNCTION CONTROL HANDLE ASSEMBLY (Figure 2-7)



BP080011

MULTI-FUNCTION CONTROL HANDLE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	a 1482696	Control Handle (Multifunction)	1
1	b 1494201	Control Handle (Multifunction)	1
2	2042912	Bracket.....	1
3	353144	Capscrew.....	4
4	292501	Capscrew.....	4
5	320156	Washer	4
6	292680	Lockwasher.....	8
7	136687	Nut	8

FOOTNOTES:

- a** Used on 2 and 3 Function Hydraulics.
b Used on 4 Function Hydraulics.

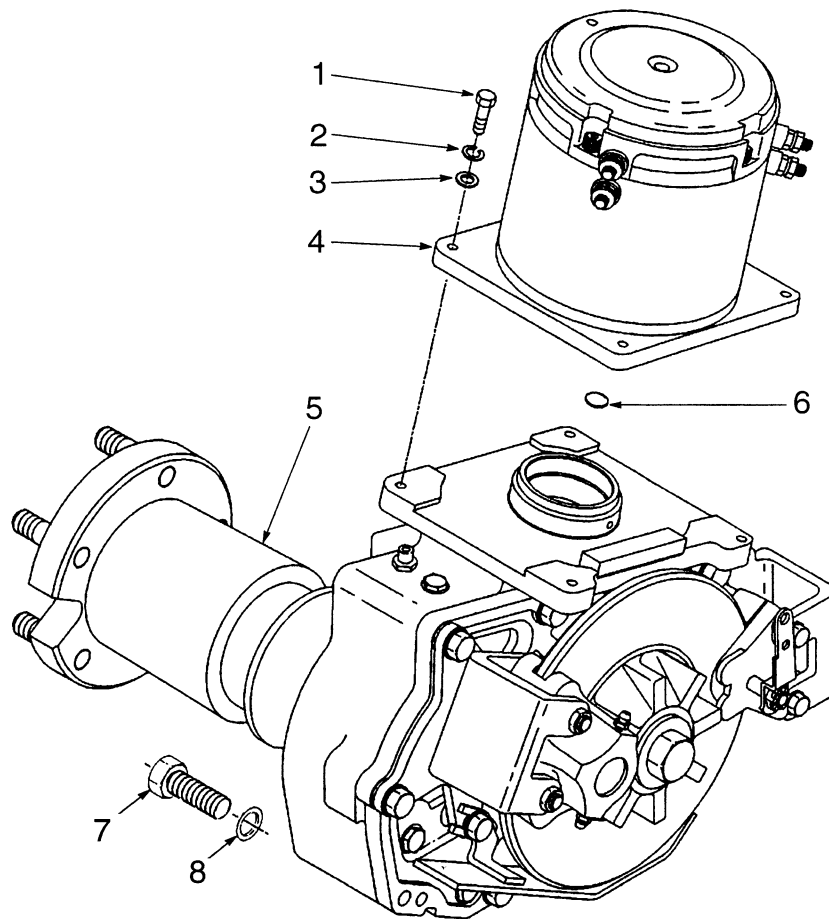
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3	DRIVE UNIT	
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SECTION 3
DRIVE UNIT

DESCRIPTION	PAGE
MASTER DRIVE UNIT	3-2
TRACTION CONTACTOR	3-4
TRACTION MOTOR	3-6
TRANSAXLE ASSEMBLY	3-8

MASTER DRIVE UNIT (Figure 3-1)

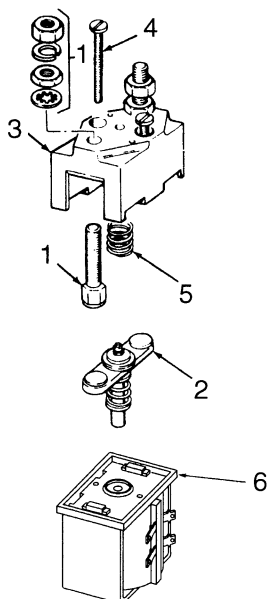


BP160000

MASTER DRIVE UNIT

ITEM	PART NO.	DESCRIPTION	QTY
1	287860	Capscrew.....	8
2	292682	Lockwasher.....	8
3	320159	Washer	8
4	Traction Motor (☞ Figure 3-3)	2
5	Transaxle assembly - LH (☞ Figure 3-4)	1
5	Transaxle assembly - RH (☞ Figure 3-4)	1
6	39349	O-Ring	2
7	293688	Capscrew.....	10
8	296426	Washer	10

TRACTION CONTACTOR (Figure 3-2)

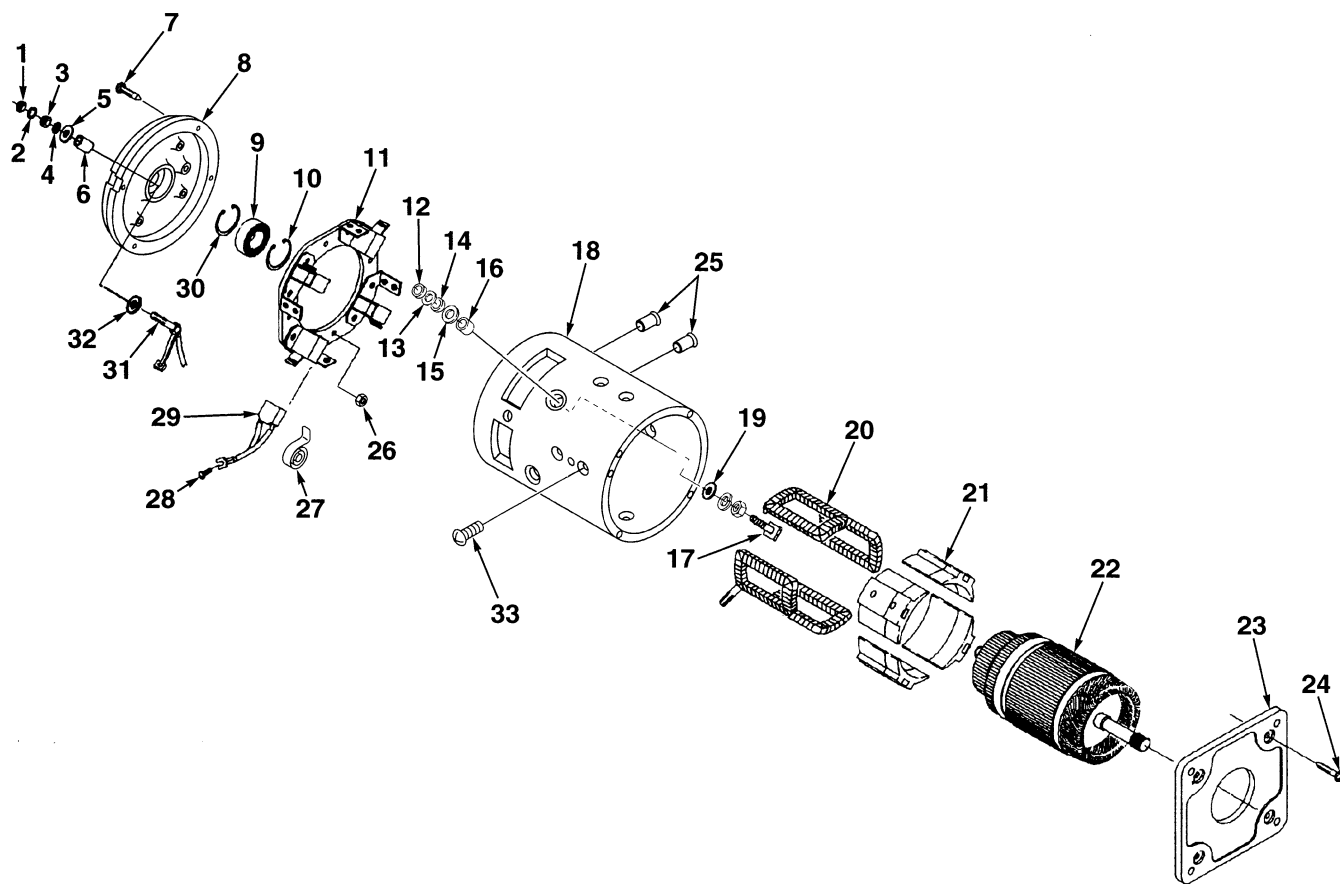


BP080025

ITEM	PART NO.	DESCRIPTION	QTY
	1498967	Contactors	1
1	383977	Screw	2
2	2034483	Cover	1
3	2034484	Contactors (Fixed)	2
4	2035396	Contactors (Moving)	1
5	383980	Spring-return	1
6	383981	Base	1
7	383979	Plunger	1
8	1513996	Frame and Coil Assembly	1
9	2034488	End Cap	1

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

TRACTION MOTOR (Figure 3-3)



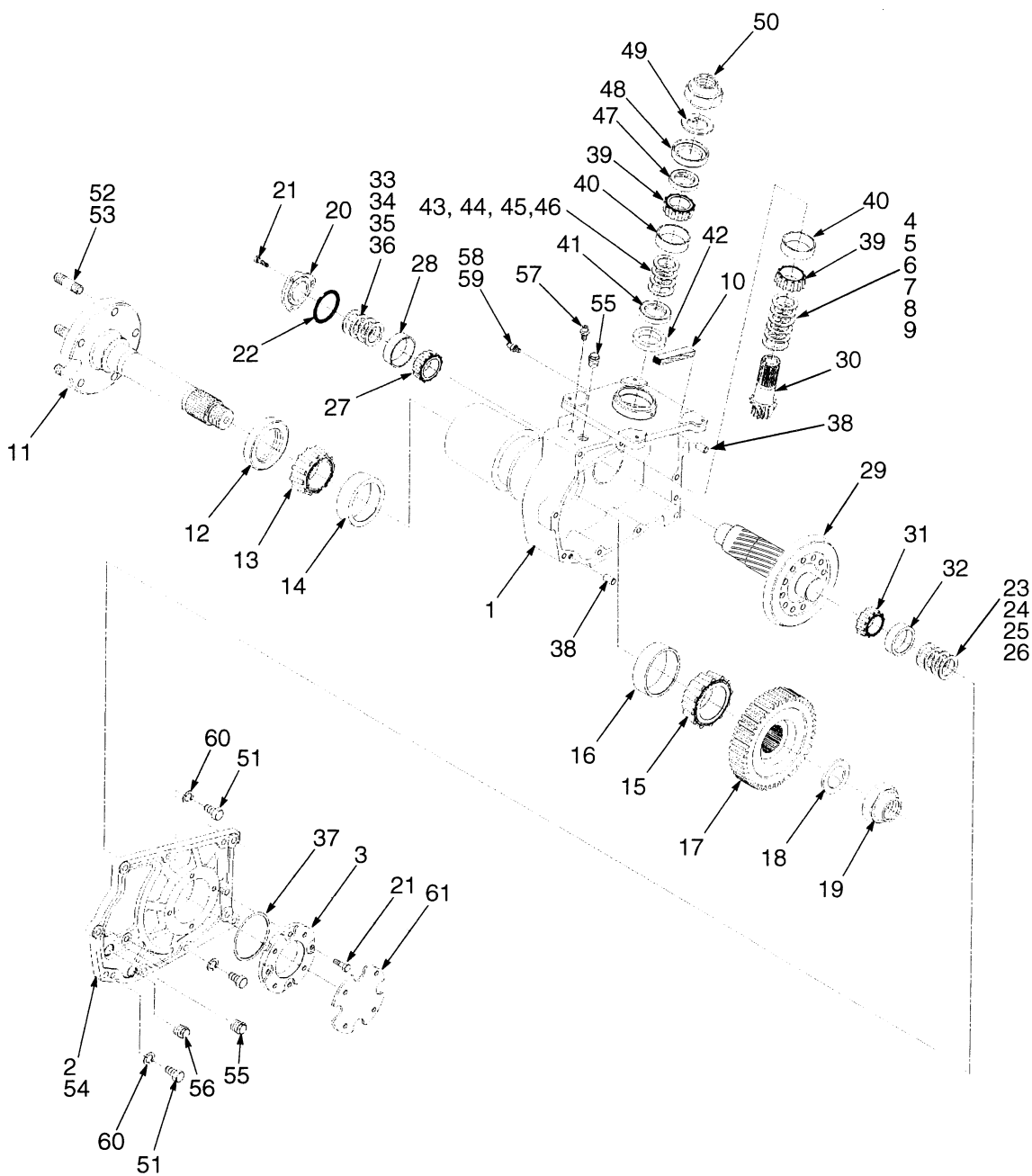
HP081073

TRACTION MOTOR

ITEM	PART NO.	DESCRIPTION	QTY
	2040292	Traction Motor	2
1	1494618	Nut.....	2
2	1494614	Spring Ring	2
3	1494619	Nut.....	2
4	388049	Washer	2
5	1494613	Washer	4
6	1494615	Isolation Disk.....	4
7	388048	Washer	14
7	1494630	Screw	8
8	1494623	Commutator End Assembly.....	1
8	1494624	Cover	1
9	1462067	Ball Bearing.....	1
10	12921	Snap Ring.....	1
11	1494625	Brush Ring Assembly.....	1
12	292654	Nut.....	1
13	1494611	Spring Ring	1
14	1494610	Nut.....	2
15	1307208	Washer	1
16	1494609	Isolation Disk.....	2
17	1494608	Screw	1
18	1494598	Housing	1
19	296418	Washer	2
20	a 1494620	Field Coil Set.....	1
21	384187	Pole Shoe	4
22	1494631	Armature	1
23	1494621	Plate	1
24	1494622	Screw	4
25	1494612	Plugs	2
26	1494629	Nut.....	2
27	1462098	Brush Spring	4
28	1494626	Screw	4
29	1494627	Brush.....	2
29	1494628	Signal brush	2
30	58908	Snap Ring.....	1
31	1494616	Connector.....	1
31	1494617	Connector.....	1
32	1306874	Screw	2
33	296321	Capscrew	8

FOOTNOTES:**a** Field Coil Set includes the thermal sensor.

TRANSAXLE ASSEMBLY (Figure 3-4)



BP160009

TRANSAXLE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	1480492	Transaxle assembly - LH	1
	1480493	Transaxle assembly - RH	1
1	1383730	Case (LH)	1
1	1383731	Case (RH)	1
2	1381112	Cover (RH)	1
2	1381106	Cover (LH)	1
3	1479820	Bearing Cap	1
4	1382507	Shim (0.017 in.)	1
5	1382508	Shim (0.018 in.)	AR
6	1382509	Shim (0.020 in.)	AR
7	1382510	Shim (0.022 in.)	1
8	1382511	Shim (0.024 in.)	1
9	1382512	Shim (0.025 in.)	1
10	178901	Foam Tape	AR
11	1381103	Axle Shaft	1
12	34820	Oil Seal	1
13	167971	Bearing Cone	1
14	167970	Bearing Cup	1
15	361676	Bearing Cone	1
16	361675	Bearing Cup (0.127 mm)	1
17	1381100	Helical Gear (0.178 mm)	1
18	2021914	Washer (0.279 mm)	1
19	304406	Nut (0.508 mm)	1
20	1382502	Bearing Cap	1
21	293614	Capscrew	7
22	39366	O-Ring	1
23	1382517	Shim (0.005 in.)	1
24	1382518	Shim (0.007 in.)	1
25	1382519	Shim (0.011 in.)	1
26	1382520	Shim (0.020 in.)	1
27	1375440	Bearing	1
28	1374899	Bearing Race	1
29	1503544	Shaft- intermediate	1
30	1381108	Pinion-bevel	1
31	153835	Bearing Cone	1
32	153834	Bearing Cup	1
33	1382521	Shim (0.005 in.)	AR
34	1382522	Shim (0.007 in.)	1
35	1382523	Shim (0.011 in.)	1
36	1382524	Shim (0.020 in.)	1
37	39369	O-Ring	1
38	302385	Pin	1
39	1382506	Bearing	2
40	135658	Bearing Cup	2
41	1382504	Oil Seal	1
42	1381124	Spacer	1
43	1382513	Shim (0.005 in.)	AR
44	1382514	Shim (0.007 in.)	AR
45	1382515	Shim (0.011 in.)	AR
46	1382516	Shim (0.020 in.)	AR
47	156205	Oil Seal	1

TRANSAXLE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
48	1381123	Spacer	1
49	1381119	Washer	1
50	1381120	Nut	1
51	293631	Capscrew	4
52	2310841	Bolt Stud	5
53	264134	Sealant	AR
54	264159	Adhesive	AR
55	14387	Fitting	2
56	15290	Fitting	1
57	21420	Vent	1
58	16041	Lube Fitting	1
59	251099	Adhesive	AR
60	292682	Lockwasher	9
61	1479821	Cap	1

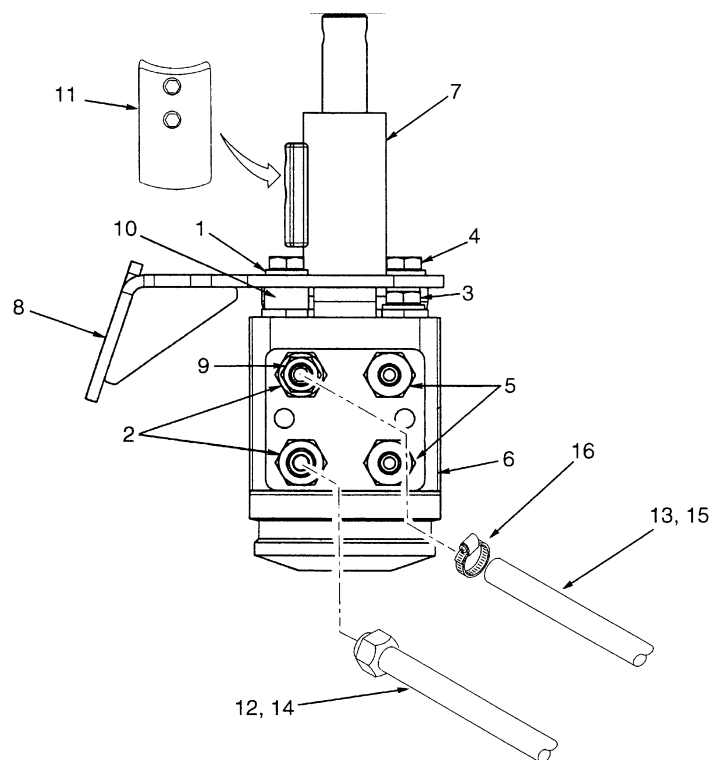
4

STEERING SYSTEM

SECTION 4
STEERING SYSTEM

DESCRIPTION	PAGE
STEER CONTROL UNIT.....	4-2
STEER PUMP AND MOTOR	4-6
STEER WHEEL AND TIRE ASSEMBLY	4-8
STEERING PUMP	4-4
TRAIL AXLE	4-10

STEER CONTROL UNIT (Figure 4-1)



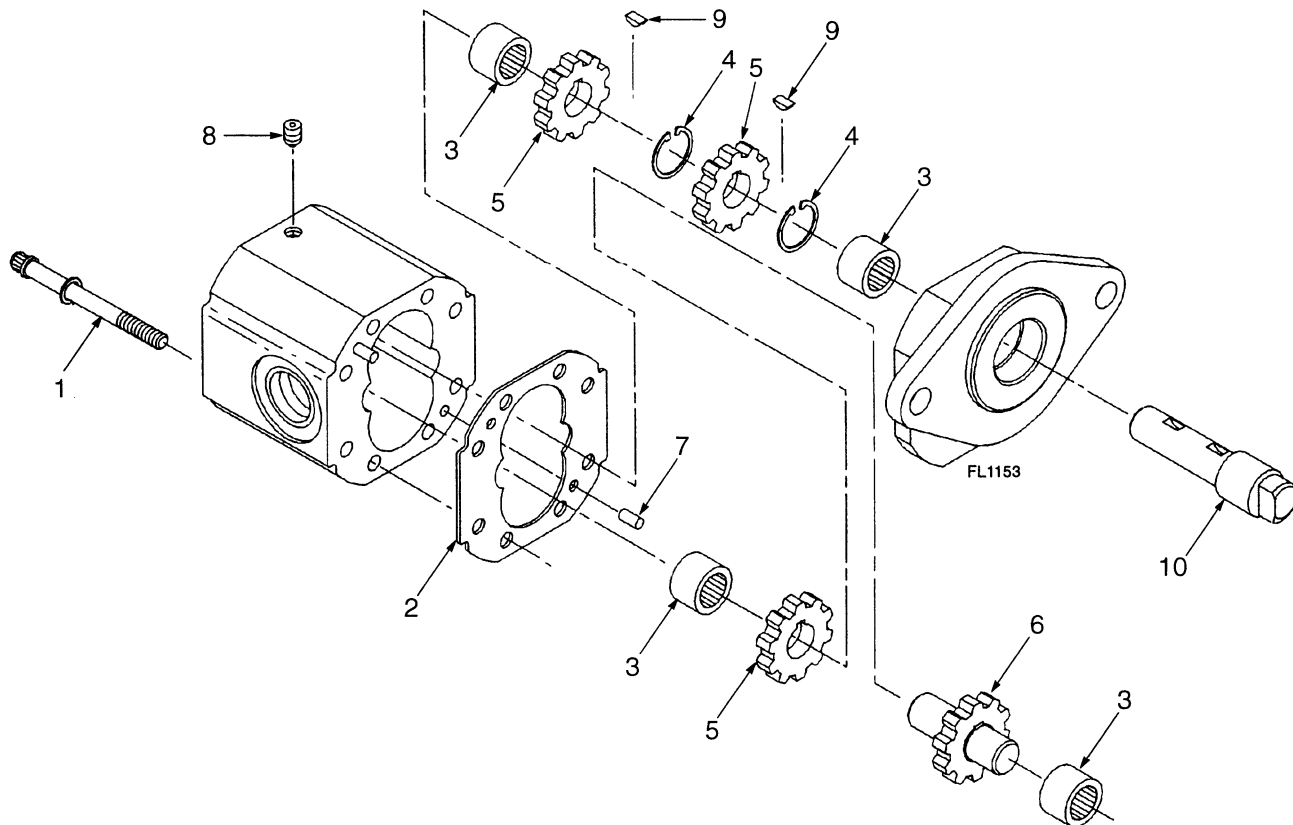
BP220007

STEER CONTROL UNIT

ITEM	PART NO.	DESCRIPTION	QTY
1	292683	Lockwasher.....	4
2	16745	Fitting.....	2
3	287854	Capscrew.....	2
4	287860	Capscrew.....	2
5	222381	Fitting.....	2
6	2041648	Steer Control Unit.....	1
7	1494237	Steer Column.....	1
8	2047827	Steer Bracket.....	1
9	2306145	Tube.....	1
10	1300165	Spacer.....	2
11	1504125	Sensor.....	1
12	b 2049551	Hose.....	1
13	b 78005	Hose.....	1
14	a 2305032	Hose assembly.....	1
15	a 1327894	Hose.....	1
16	166857	Clamp.....	2

FOOTNOTES:**a** Used on Long Wheel Base.**b** Used on Short Wheel Base.

STEERING PUMP (Figure 4-2)



BP220009

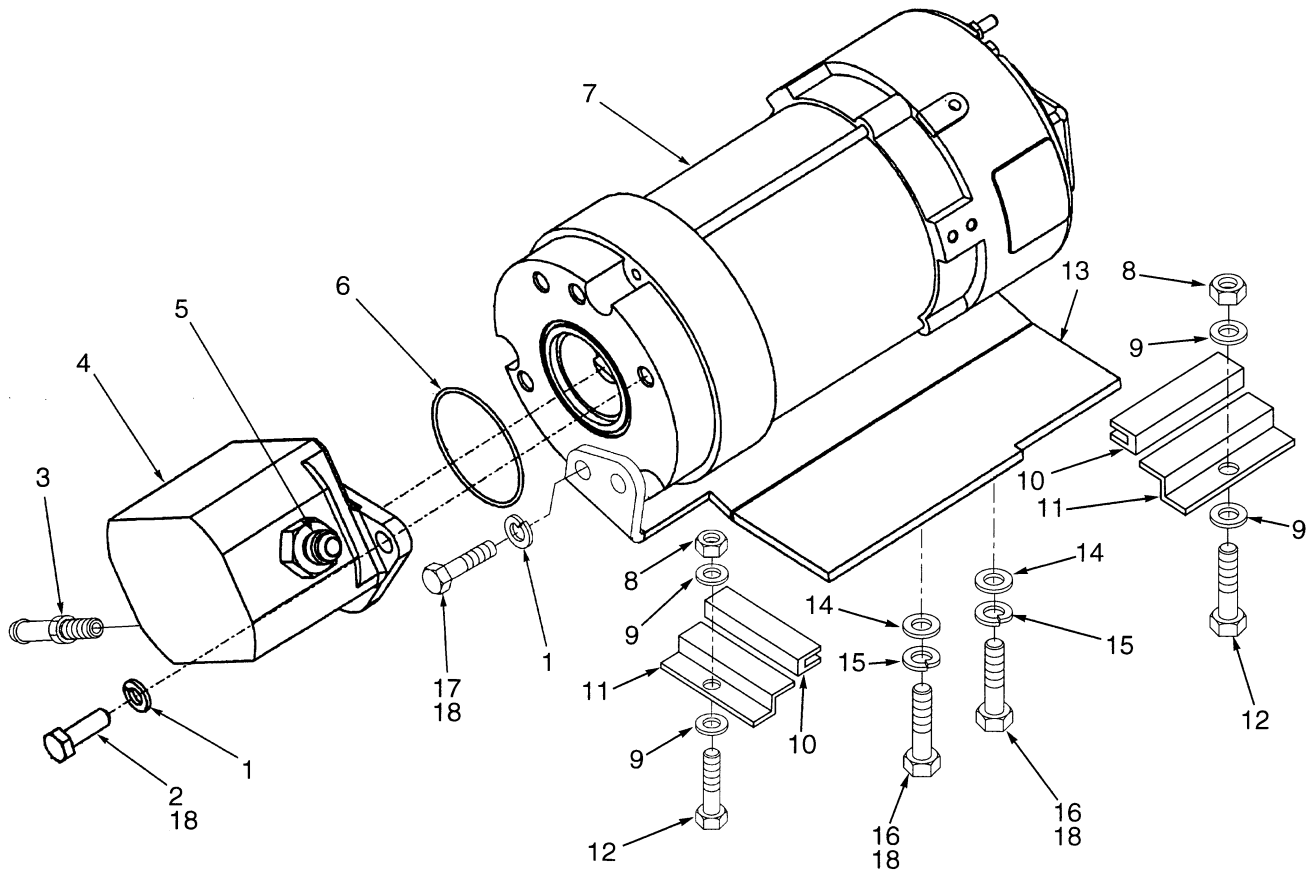
STEERING PUMP

ITEM	PART NO.	DESCRIPTION	QTY
	2033614	Gear Pump	1
1	1452459	Screw	8
2	2034266	Gasket Kit.....	1
3	354669	Needle Bearing	4
4	358072	Snap Ring.....	2
5	358069	Gear	3
6	2034265	Idler Shaft Kit.....	1
7	354671	Pin	2
8	358076	Plug	1
9	358073	Key	2
10	1309877	Shaft.....	1
	a 1322446	Plug	1
	a 1322447	Plug	1
	a 1322448	Plug	1

FOOTNOTES:

a Not Illustrated.

STEER PUMP AND MOTOR (Figure 4-3)

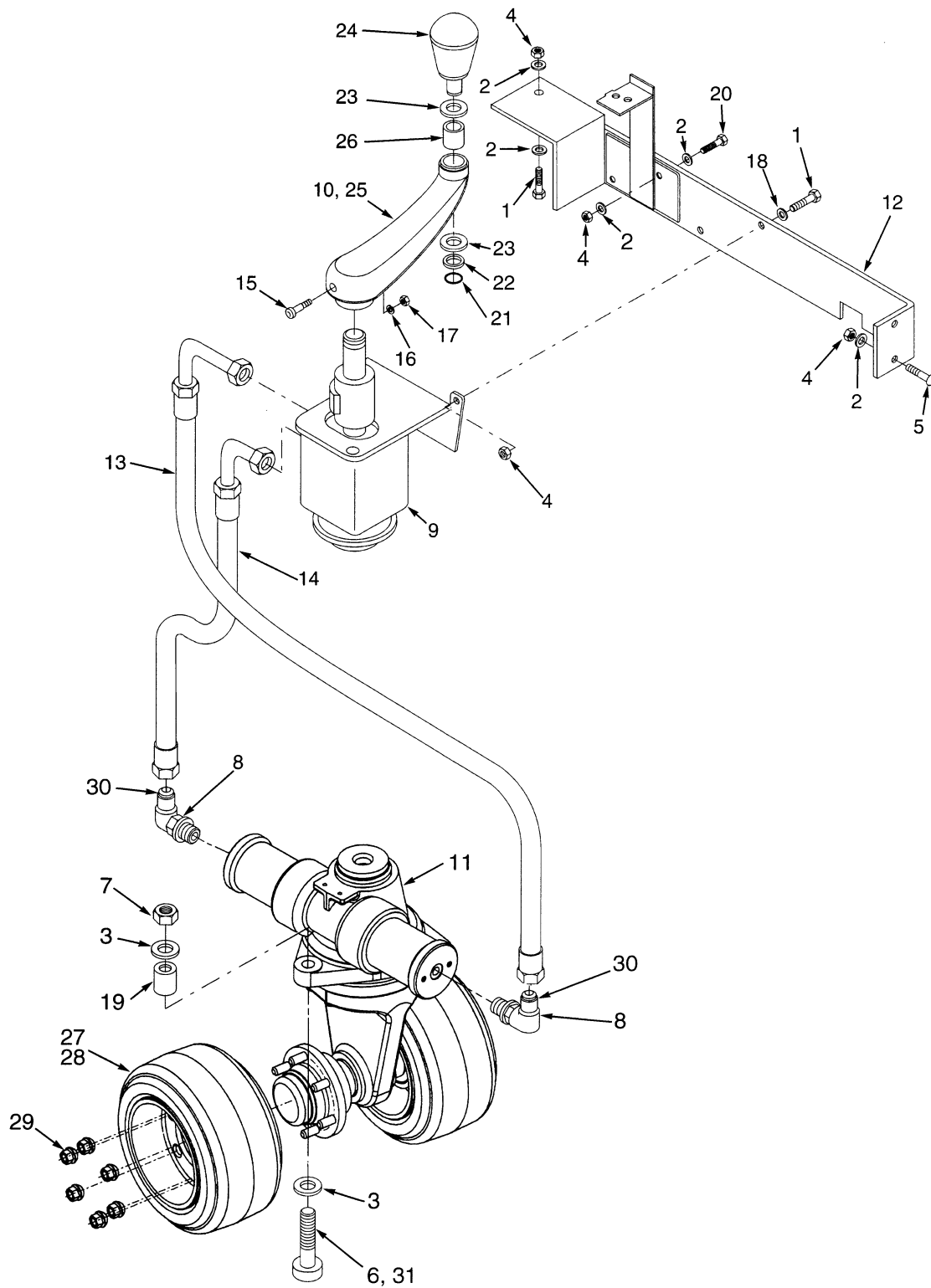


BP220004

STEER PUMP AND MOTOR

ITEM	PART NO.	DESCRIPTION	QTY
	2049628	Steering Pump and Motor Assembly	1
1	292681	Lockwasher	4
2	293614	Capscrew	2
3	17223	Fitting.....	1
4	Gear Pump	1
5	16745	Fitting.....	1
6	39362	O-Ring	1
7	2046252	Steer Motor.....	1
8	316826	Nut	4
9	320159	Washer	8
10	325056	Channel (Rubber)	4
11	324972	Bracket.....	4
12	293629	Capscrew.....	4
13	2046555	Plate	1
14	320155	Washer	2
15	292679	Lockwasher	2
16	302244	Screw	2
17	293613	Capscrew	2
18	383789	Thread Sealer	AR

STEER WHEEL AND TIRE ASSEMBLY (Figure 4-4)



BP220003

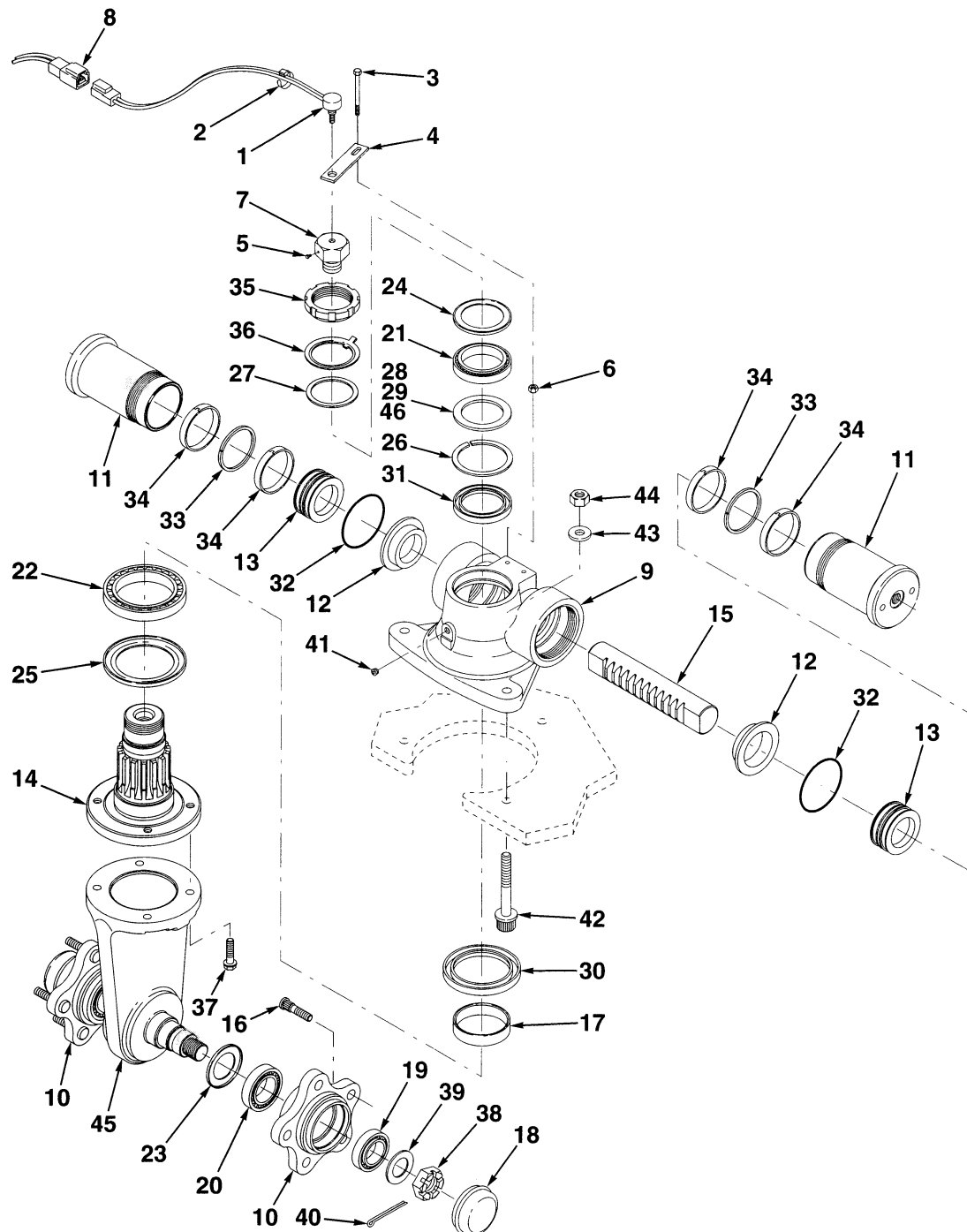
STEER WHEEL AND TIRE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	136749	Capscrew.....	4
2	296418	Washer	10
3	1504075	Washer	6
4	302400	Locknut	8
5	2048064	Capscrew.....	2
6	1504068	Capscrew.....	3
7	1462528	Nut	3
8	1492024	Fitting.....	2
9	1482724	Steer Control Unit	1
10	1502494	Handle and Knob Assembly	1
11	Steer Unit Actuator (☞ Figure 4-5)	1
12	2041741	Assy - hand pump bracket	1
12	2041736	Plate	1
13	2044397	Hose assembly	1
14	2044396	Hose Assembly.....	1
15	1502530	Screw.....	1
16	292680	Lockwasher.....	1
17	136687	Nut	1
18	296419	Washer	2
19	1504076	Spacer	3
20	293615	Capscrew.....	2
21	190930	Snap Ring.....	1
22	2304085	Back-Up Washer.....	1
23	2307519	Thrust Washer	2
24	2311843	Knob	1
25	1502493	Steer Handle Assembly	1
26	2302721	Bushing	1
27	b 1506512	Wheel and Tire	2
27	338603	Tire	2
27	2045999	Wheel Hub.....	1
28	c 1506513	Wheel and Tire	2
28	c 1483107	Tire	2
29	2045998	Lug Nut.....	12
	a 2303797	Adhesive	AR
	a 383789	Thread Sealer.....	AR

FOOTNOTES:

- a** Not Illustrated
b Used on all 3 capacities.
c Used only on 3000lb. capacities.

TRAIL AXLE (Figure 4-5)



HP220379

TRAIL AXLE

ITEM	PART NO.	DESCRIPTION	QTY
	2045997	Steer Unit Actuator	1
1	2034281	Potentiometer	1
2	2004005	Strap Clamp	AR
3	1367822	Capscrew	1
4	1339396	Bracket	1
5	1508484	Setscrew.....	1
6	136687	Nut.....	1
7	1462795	Fitting.....	1
8	2049985	Wire Harness	1
9	1465784	Housing	1
10	2045999	Wheel Hub.....	2
11	1465787	Cylinder	2
12	1495391	Bushing	2
13	1465792	Piston	2
14	1503106	Shaft.....	1
15	1465794	Gear Rack	1
16	1503107	Wheel Bolt.....	10
17	1465796	Bushing	1
17	1495391	Bushing	1
18	1465797	Bearing Cover	2
19	1465800	Bearing.....	2
20	1465801	Bearing.....	2
21	1465813	Bearing.....	1
22	1465814	Bearing.....	1
23	1495395	Seal	2
24	1465817	Seal	1
25	1465818	Seal	1
26	1465819	Safety Ring.....	1
27	1465820	Shim	1
28	1465821	Shim	2
29	1465822	Shim	1
30	1465823	Shaft Seal.....	1
31	1465824	Shaft Seal.....	1
32	1465825	O-Ring.....	2
33	1465826	Compact Seal.....	2
34	1465827	Guide Ring	4
35	1465828	Nut.....	1
36	1465829	Washer.....	1
37	1471650	Screw	8
38	1495397	Nut.....	2
39	1495398	Seal	2
40	1495399	Split Pin	2
41	1465834	Plug Screw	1
42	1462527	Bolt	3
43	296426	Washer.....	6
44	1503110	Nut.....	3
45	2044989	Yoke.....	1
46	1495394	Shim	1
	a 1503108	Nameplate	1

TRAIL AXLE

ITEM	PART NO.	DESCRIPTION	QTY
	1497588	Seal Kit (Includes Item)	1
	1475400	Seal Kit (Includes Items 17, 23-25, 30-34, 41)	1

FOOTNOTES:

a Not Illustrated.

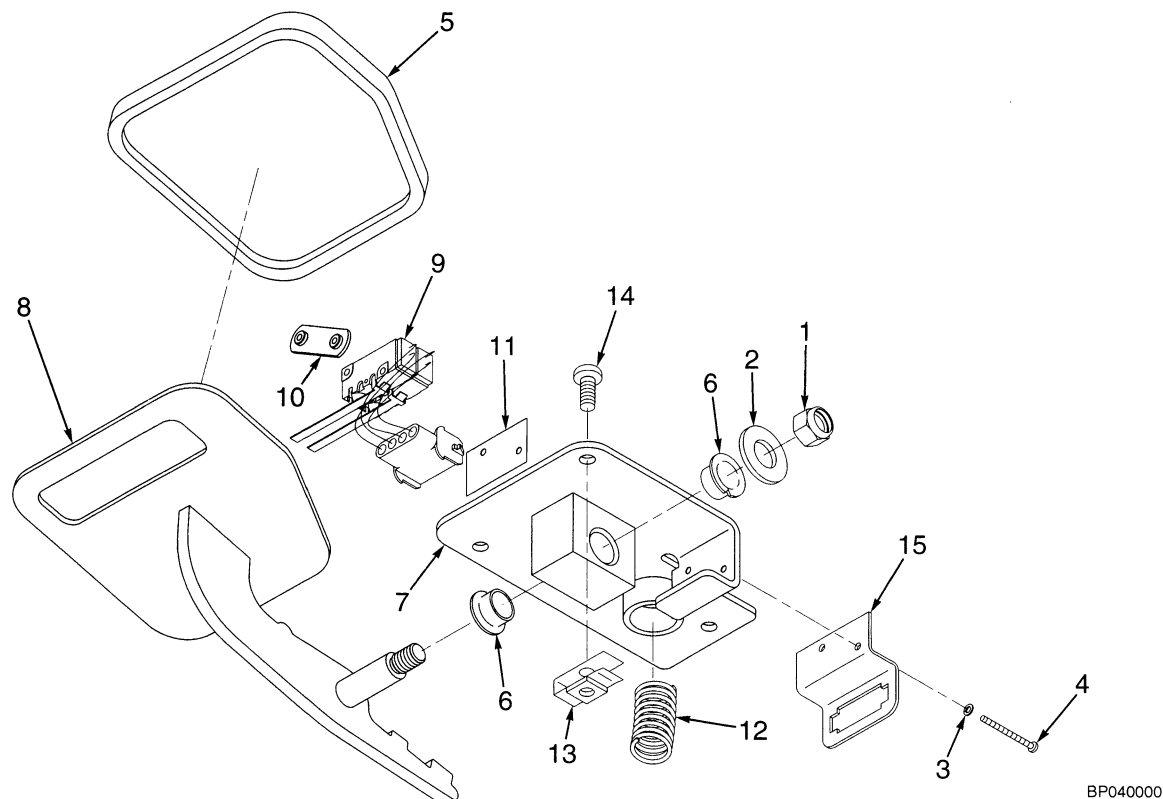
5

BRAKE/ACCELERATOR SYSTEM

SECTION 5
BRAKE/ACCELERATOR SYSTEM

DESCRIPTION	PAGE
BRAKE PEDAL ASSEMBLY	5-2
ELECTRIC BRAKE.....	5-4

BRAKE PEDAL ASSEMBLY (Figure 5-1)

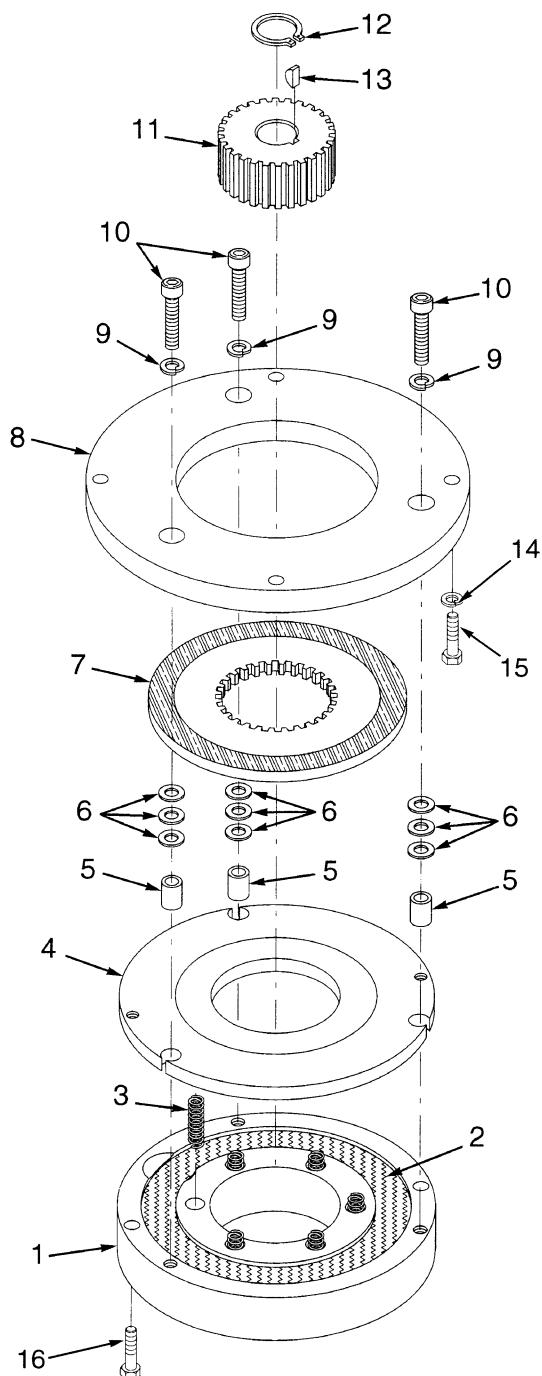


BP040000

ITEM	PART NO.	DESCRIPTION	QTY
	2044819	Brake pedal assembly	1
1	15115	Nut.....	1
2	15135	Washer	1
3	18419	Lockwasher	2
4	220281	Screw	2
5	1493972	Pad	1
6	1468714	Bushing	2
7	1480498	Brake Pedal	1
8	1480500	Brake Arm	1
9	1486370	Switch Assembly	1
10	2309196	Plate	1
11	374160	Insulator.....	1
12	1480504	Compression Spring.....	1
13	325182	Nut.....	3
14	296159	Capscrew	3
15	1486527	Bracket	1

.....

ELECTRIC BRAKE (Figure 5-2)



BP040003

ELECTRIC BRAKE

ITEM	PART NO.	DESCRIPTION	QTY
	1493858	Electric Brake.....	2
1	1495864	Coil housing.....	1
2	1495865	Coil.....	1
3	1486150	Spring.....	8
4	1486151	Armature	1
5	1486156	Spacer.....	3
6	1486159	Shim.....	12
7	1486152	Friction Disc.....	1
8	1486155	Adapter.....	1
9	1479795	Lockwasher	3
10	1486157	Capscrew	3
11	1479798	Hub.....	1
12	58929	Snap Ring.....	1
13	7882	Key	1
14	292680	Lockwasher	8
15	287816	Capscrew	8
16	18466	Capscrew	2

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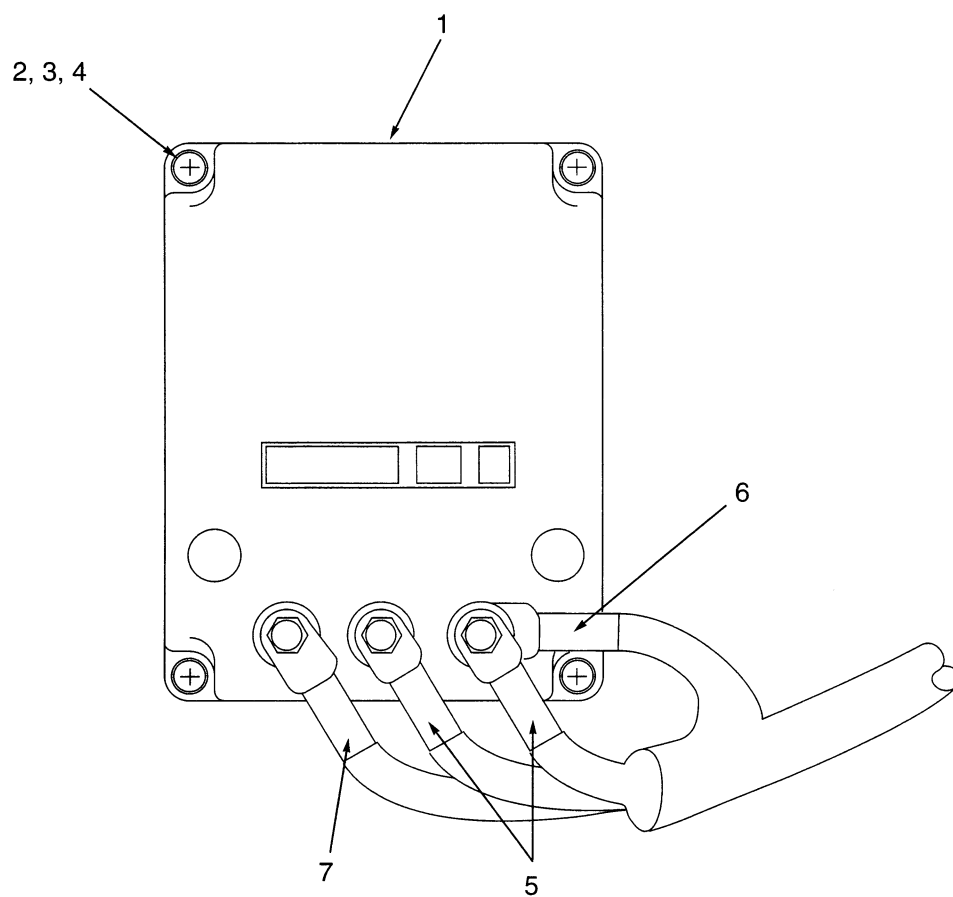
6

HYDRAULIC SYSTEM

SECTION 6

HYDRAULIC SYSTEM

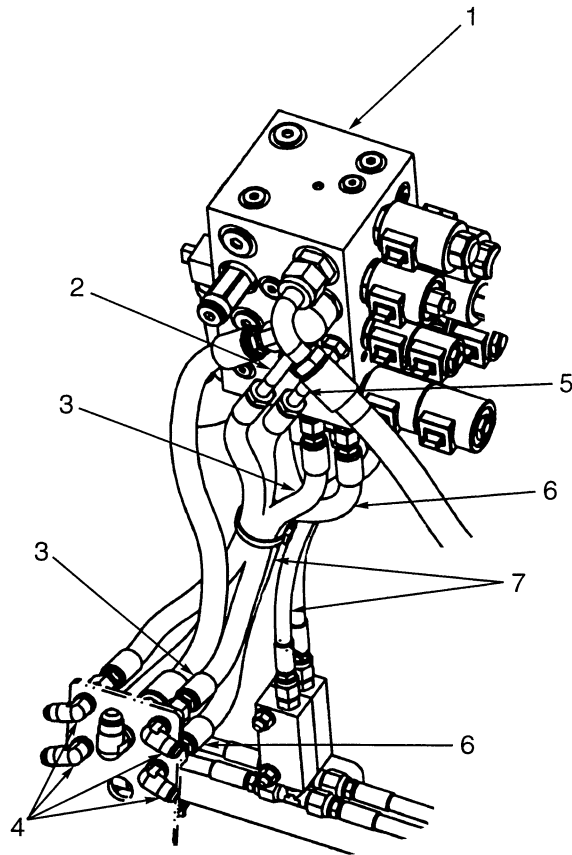
DESCRIPTION	PAGE
CONTROL VALVE AND ATTACHING PARTS	6-4
HYDRAULIC CONTROL VALVE	6-6
HYDRAULIC PUMP.....	6-8
HYDRAULIC PUMP MOTOR	6-10
HYDRAULIC SYSTEM	6-12
HYDRAULIC TANK ASSEMBLY	6-14
PUMP CONTROLLER.....	6-2

PUMP CONTROLLER (Figure 6-1)

BP150013

PUMP CONTROLLER

ITEM	PART NO.	DESCRIPTION	QTY
1	2043586	Pump Controller.....	1
2	292502	Capscrew.....	4
3	292680	Lockwasher.....	4
4	136687	Nut	4
5	2045958	Power Cable	1
6	2049843	Power Cable	1
7	2049844	Power Cable	1

CONTROL VALVE AND ATTACHING PARTS (Figure 6-2)

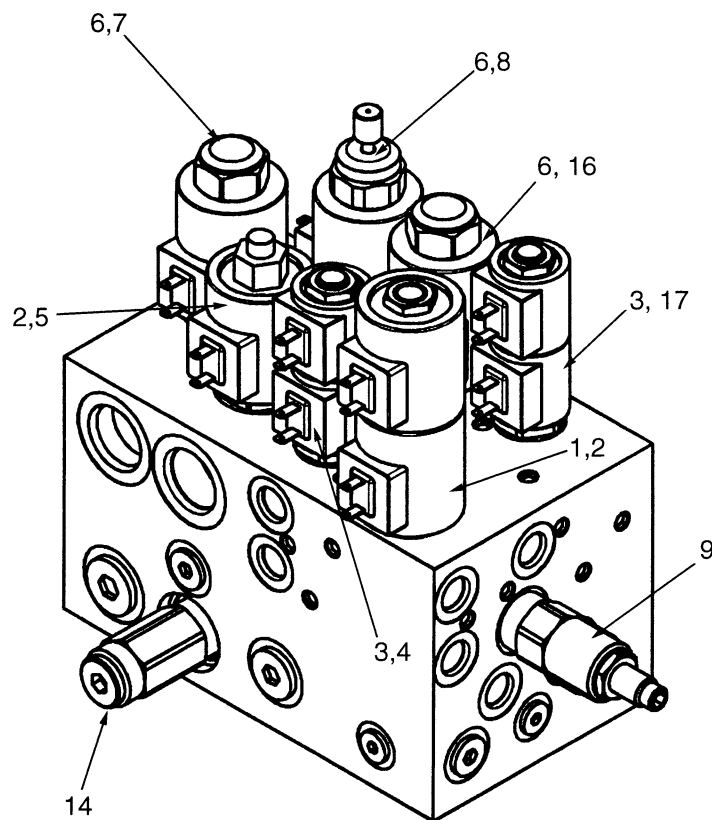
BP140004

CONTROL VALVE AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	2044922	Hydraulic Control Valve assembly (2 Function)	1
1	2043642	Hydraulic Control Valve assembly (3 Function)	1
1	2043643	Hydraulic Control Valve assembly (4 Function)	1
2	b 2048183	Hose assembly	1
3	c 2044381	Hose assembly	1
4	ab 16457	Fitting	2
5	b 2044384	Hose assembly	1
6	c 2044383	Hose assembly	1
7	129563	Strap Clamp	AR

FOOTNOTES:

- a** 4 Function uses 4 fittings.
- b** Used only on 3 and 4 function.
- c** Used only on 4 function.

HYDRAULIC CONTROL VALVE (Figure 6-3)

BP140005

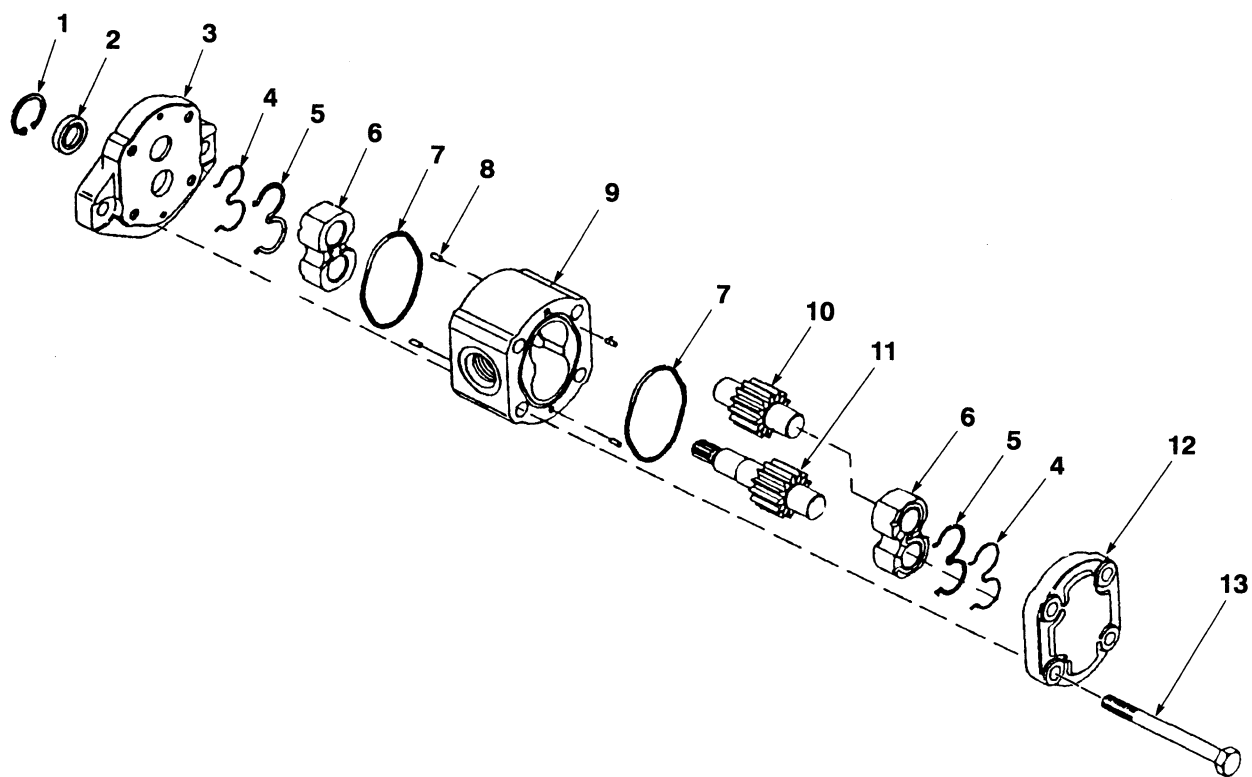
HYDRAULIC CONTROL VALVE

ITEM	PART NO.	DESCRIPTION	QTY
1	e 2045623	Solenoid (Aux. 2).....	1
2	1496177	Coil	3
3	2045620	Valve (24 Volt).....	4
4	d 2045619	Solenoid (Aux. 1).....	1
5	2045621	Solenoid (Lift/Lower Control)	1
6	1496175	Coil	3
7	2045618	Flow Valve (Lift)	1
8	2045617	Flow Valve (Lower)	1
9	2045614	Pressure reducer	1
	ac 2045624	Cavity plug	1
	ab 2045613	Cavity plug	1
	a 1498192	Check Valve.....	1
	a 2047572	Flow Valve	1
	a 2047573	Relief Valve.....	1
	a 2047574	Counterbalance Valve.....	1
	a 2047575	Auxiliary Proportional Control.....	1
	a 2047576	Solenoid (Tilt)	1
	a 2047577	Plug	1
	a 16540	Fitting.....	6
	a 201783	Fitting.....	1
	a 138811	Fitting.....	1
	a 127574	Fitting.....	1

FOOTNOTES:

- a** Not Illustrated
- b** Used on 2 and 3 function valves.
- c** Used on 2 function valve.
- d** Used on 3 and 4 function valves.
- e** Used on 4 function valve.

HYDRAULIC PUMP (Figure 6-4)

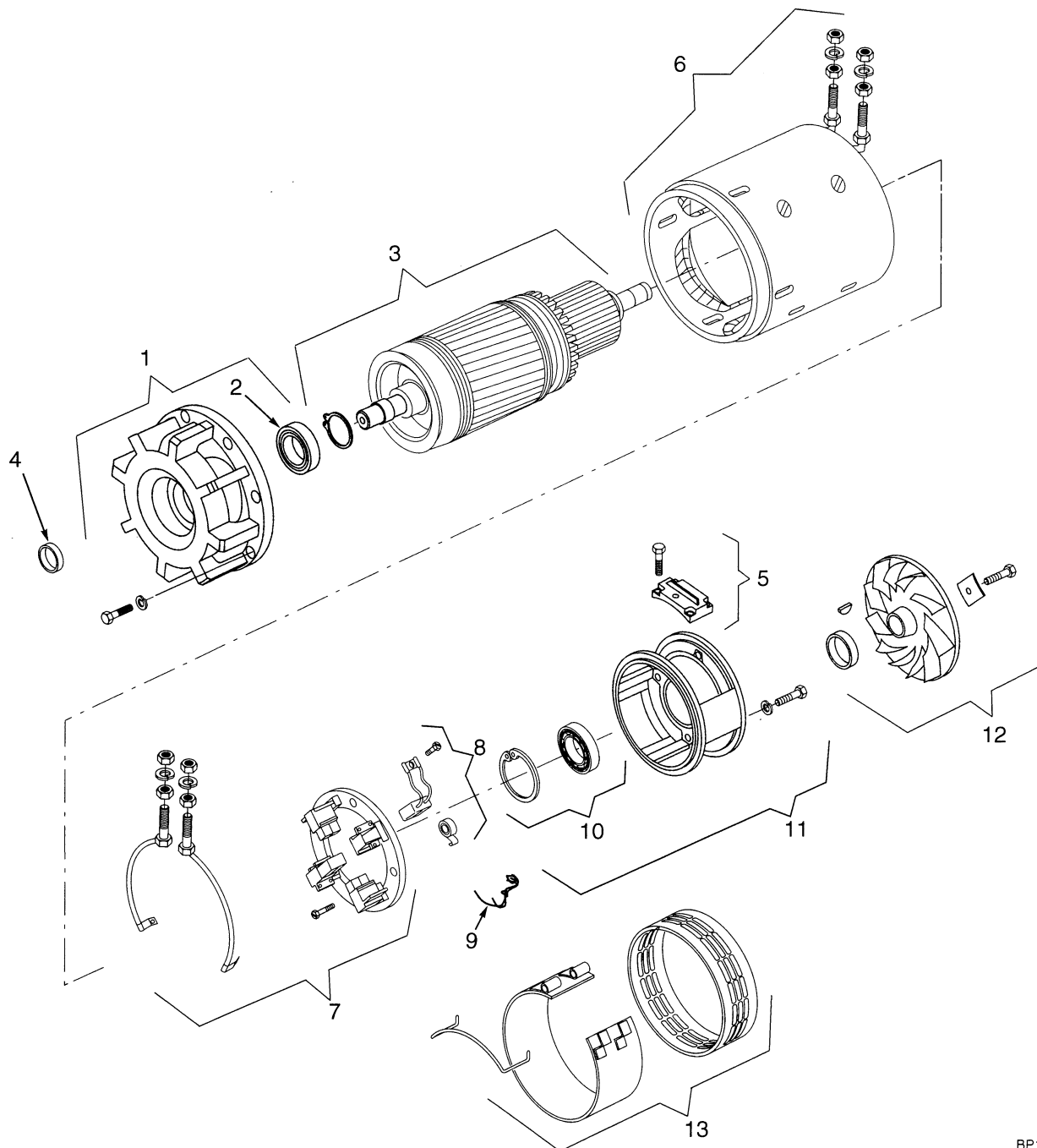


HP150749

HYDRAULIC PUMP

ITEM	PART NO.	DESCRIPTION	QTY
	2042621	Hydraulic Pump	1
1	Snap Ring.....	1
2	Oil Seal.....	1
3	1459240	Mounting Flange.....	1
4	Backup Ring	2
5	Seal	2
6	Bushing.....	2
7	O-Ring	2
8	Dowel Pin.....	4
9	Housing	1
10	Idler Gear.....	1
11	Drive Gear	1
12	1459239	Cover	1
13	1459241	Bolt	4
	2043313	Gear Kit (Includes Items 10-11).....	1
	2043314	Repair Kit (Includes Items 1-2, 4-7, 9).....	1

HYDRAULIC PUMP MOTOR (Figure 6-5)

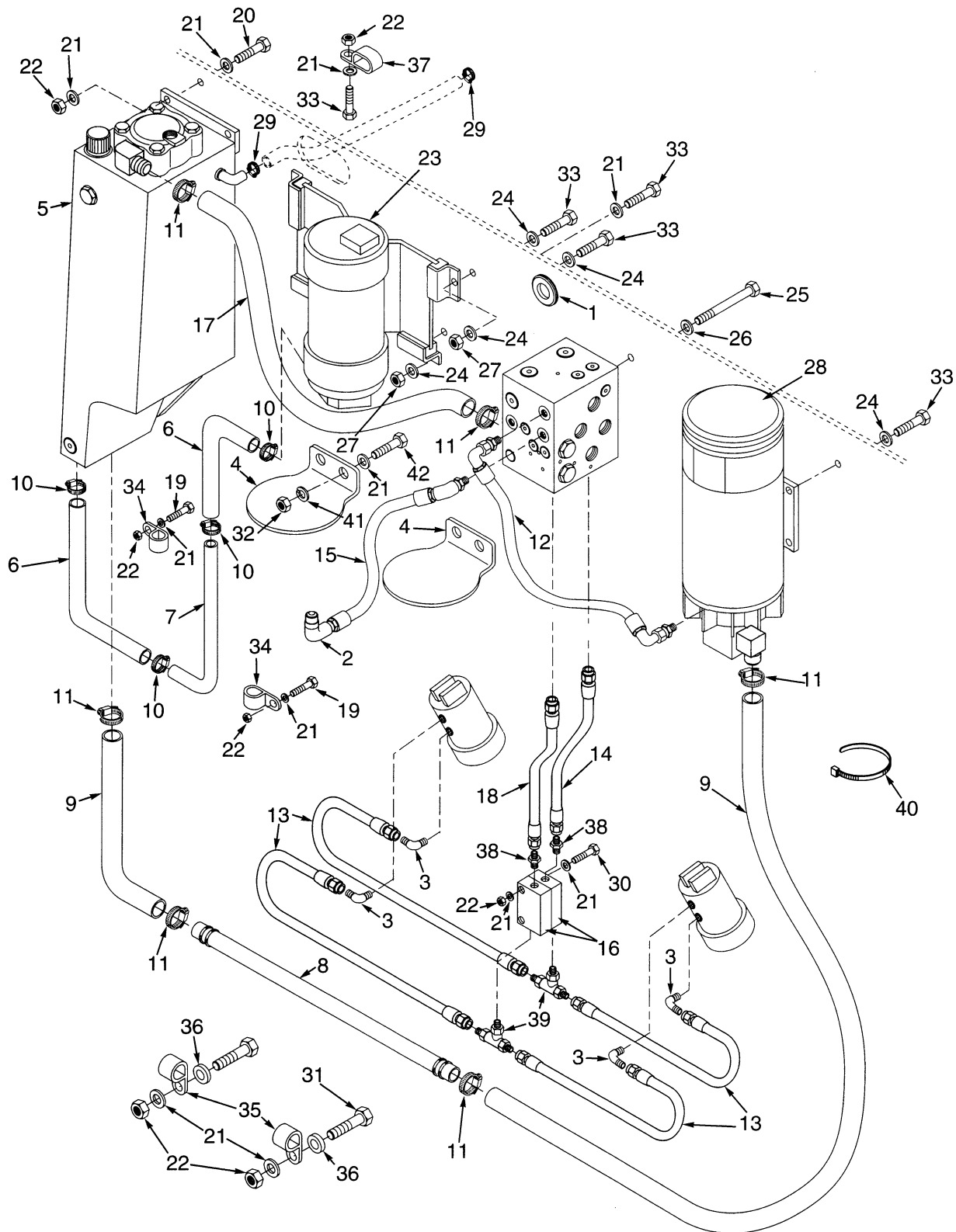


BP150008

HYDRAULIC PUMP MOTOR

ITEM	PART NO.	DESCRIPTION	QTY
	2040809	Hydraulic pump motor.....	1
1	1502724	Bracket	1
2	1502725	Bearing	1
3	1502726	Armature	1
4	1502727	Gasket	1
5	1502728	Plate	1
6	1502729	Stator	1
7	1502730	Brush Holder	1
8	1502731	Brush Spring	1
9	1509703	Protector	1
10	1500182	Bearing	1
11	1502733	Commutator	1
12	1502735	Fan	1
13	1502736	Cover	1

HYDRAULIC SYSTEM (Figure 6-6)



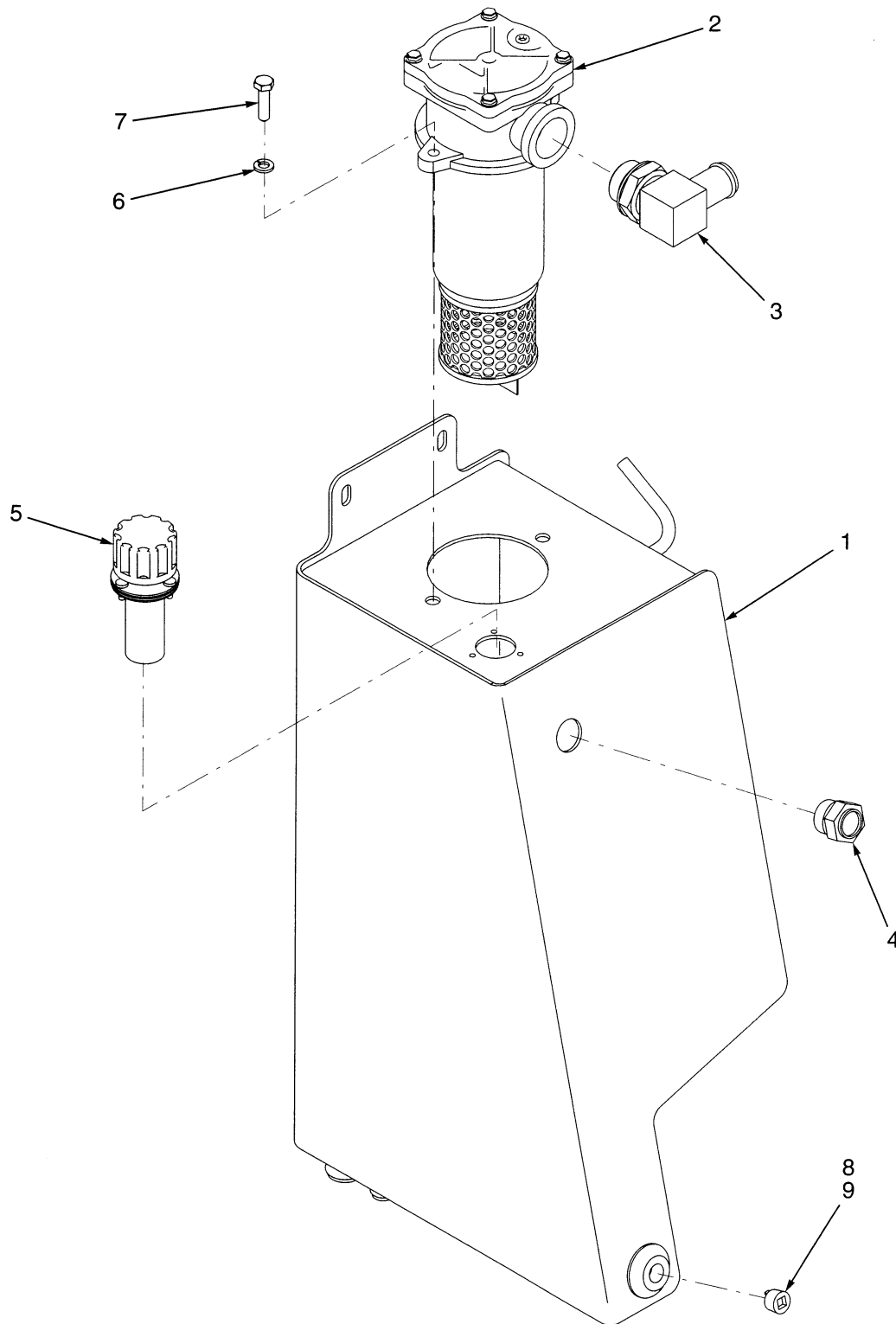
BP150015

HYDRAULIC SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY
1	352802	Grommet.....	1
2	16458	Fitting.....	1
3	16556	Fitting.....	4
4	2044232	Drip shield	2
4	a 1450356	Plug	4
5	1478897	Tank Assembly	1
6	2042263	Molded hose - steer suction	2
7	2042264	Tube - steer suction	1
8	2042417	Tube-hoist suction	1
9	2042418	Molded hose-hoist suction	2
10	130845	Clamp	4
11	127045	Clamp	6
12	2046713	Hose Assembly.....	1
13	2044385	Hose Assembly	4
14	2044386	Hose Assembly	1
15	2302520	Hose Assembly.....	1
16	2302063	Block	2
17	2043888	Molded hydraulic return line	1
18	2044387	Hose assembly	1
19	132861	Capscrew.....	2
20	293615	Capscrew.....	3
21	320157	Washer	22
22	313828	Nut	11
23	Steering Pump and Motor Assembly	1
24	320159	Washer	12
25	16805	Capscrew.....	4
26	15134	Washer	4
27	316826	Nut	4
28	Hydraulic Pump Motor	1
29	166857	Clamp	2
30	292512	Capscrew.....	2
31	292508	Capscrew.....	2
32	239503	Nut	6
33	293629	Capscrew.....	6
34	128408	Clamp	2
35	1310611	Clamp	2
36	1300165	Spacer	2
37	203230	Clamp	2
38	16540	Fitting.....	2
39	16576	Fitting.....	2
40	129563	Strap Clamp.....	AR
41	292681	Lockwasher.....	4
42	176640	Capscrew.....	6
	a 2303797	Adhesive	AR
	a 251099	Adhesive	AR

FOOTNOTES:**a** Not Illustrated.

HYDRAULIC TANK ASSEMBLY (Figure 6-7)



BP150014

HYDRAULIC TANK ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	2041384	Hydraulic Tank	1
2	2042698	Hydraulic Oil Filter Assembly	1
2	2045606	Oil Filter Element	1
3	112470	Fitting	1
4	1302100	Window Sight	1
5	2043982	Breather	1
6	292681	Lockwasher	2
7	176640	Capscrew	2
8	150879	Plug	1
9	246108	Sealant	AR

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

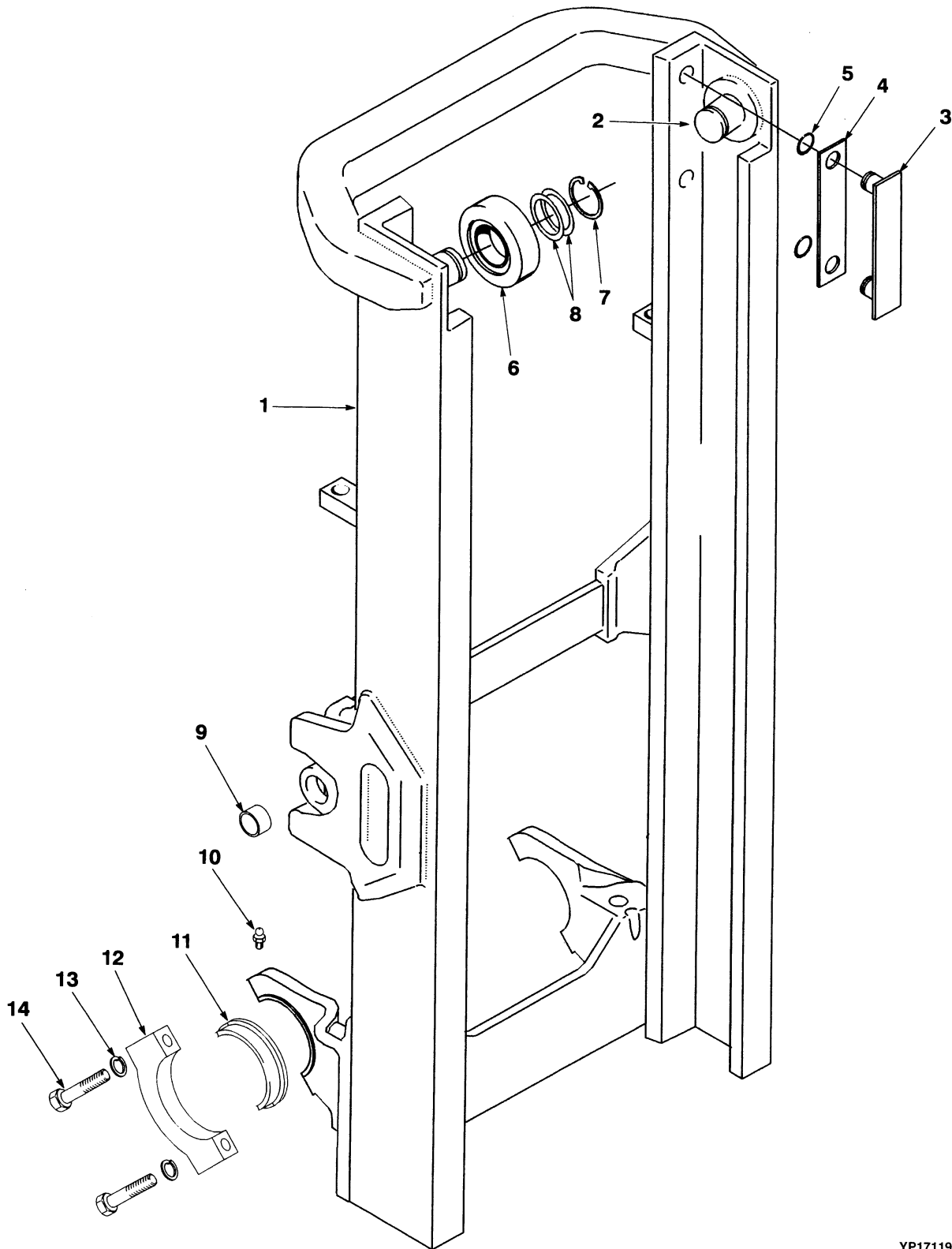
7	MAST-TWO STAGE LIMITED FREE-LIFT	
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SECTION 7

MAST-TWO STAGE LIMITED FREE-LIFT

DESCRIPTION	PAGE
CARRIAGE	
TWO STAGE LIMITED FREE-LIFT.....	7-10
HEADER HOSE	
TWO STAGE LIMITED FREE-LIFT.....	7-16
INNER MAST	
TWO STAGE LIMITED FREE-LIFT.....	7-4
INTEGRAL SIDE-SHIFT CARRIAGE	
TWO STAGE LIMITED FREE-LIFT.....	7-18
INTEGRAL SIDE-SHIFT HYDRAULIC HOSES	
TWO AND THREE STAGE FULL FREE-LIFT	7-22
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TWO STAGE LIMITED FREE-LIFT.....	7-6
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TWO STAGE LIMITED FREE-LIFT.....	7-2
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TILT CYLINDER	
TWO STAGE LIMITED FREE-LIFT.....	7-12
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TWO STAGE LIMITED FREE-LIFT.....	7-14

OUTER MAST (Figure 7-1) TWO STAGE LIMITED FREE-LIFT



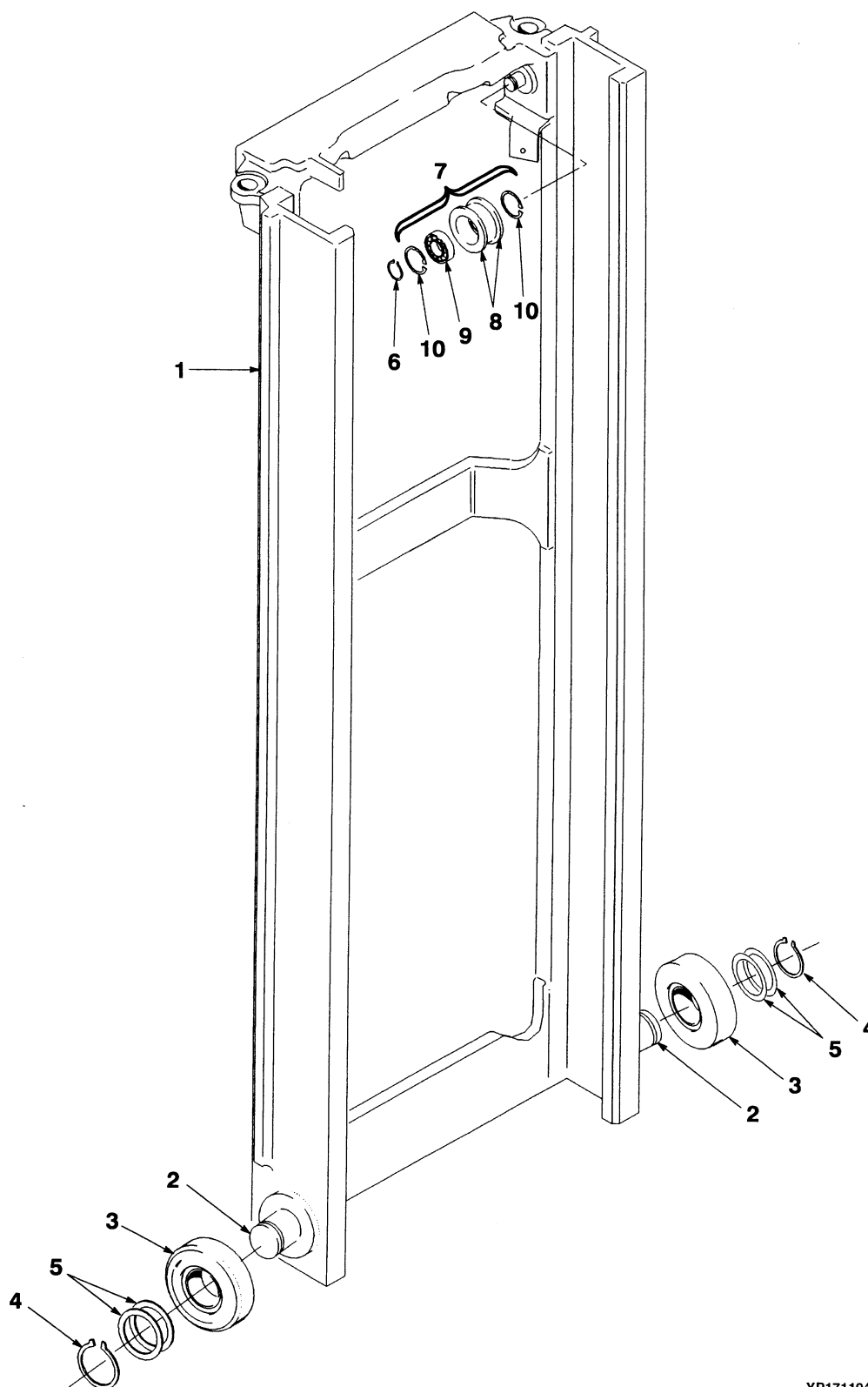
YP171193

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

ITEM	PART NO.	DESCRIPTION	QTY
	ab 2048880	Mast Assembly (127.0 in)	1
1	ab 1348058	Outer Mast.....	1
2	1345216	Stubshaft.....	2
3	215212	Bearing Strip	2
4	131716	Shim (0.020 in.)	4
5	104506	O-Ring	4
6	1353192	Load Roller	2
7	58901	Snap Ring.....	2
8	129387	Shim (0.020 in.)	AR
9	1348185	Bushing	2
10	16001	Lube Fitting.....	2
11	1370721	Bushing (2 Bushings)	1
12	1370722	Cap.....	2
13	292683	Lockwasher	4
14	292531	Capscrew	4

FOOTNOTES:**a** A552 Mast**b** Mast Group Number 3192

INNER MAST (Figure 7-2) TWO STAGE LIMITED FREE-LIFT



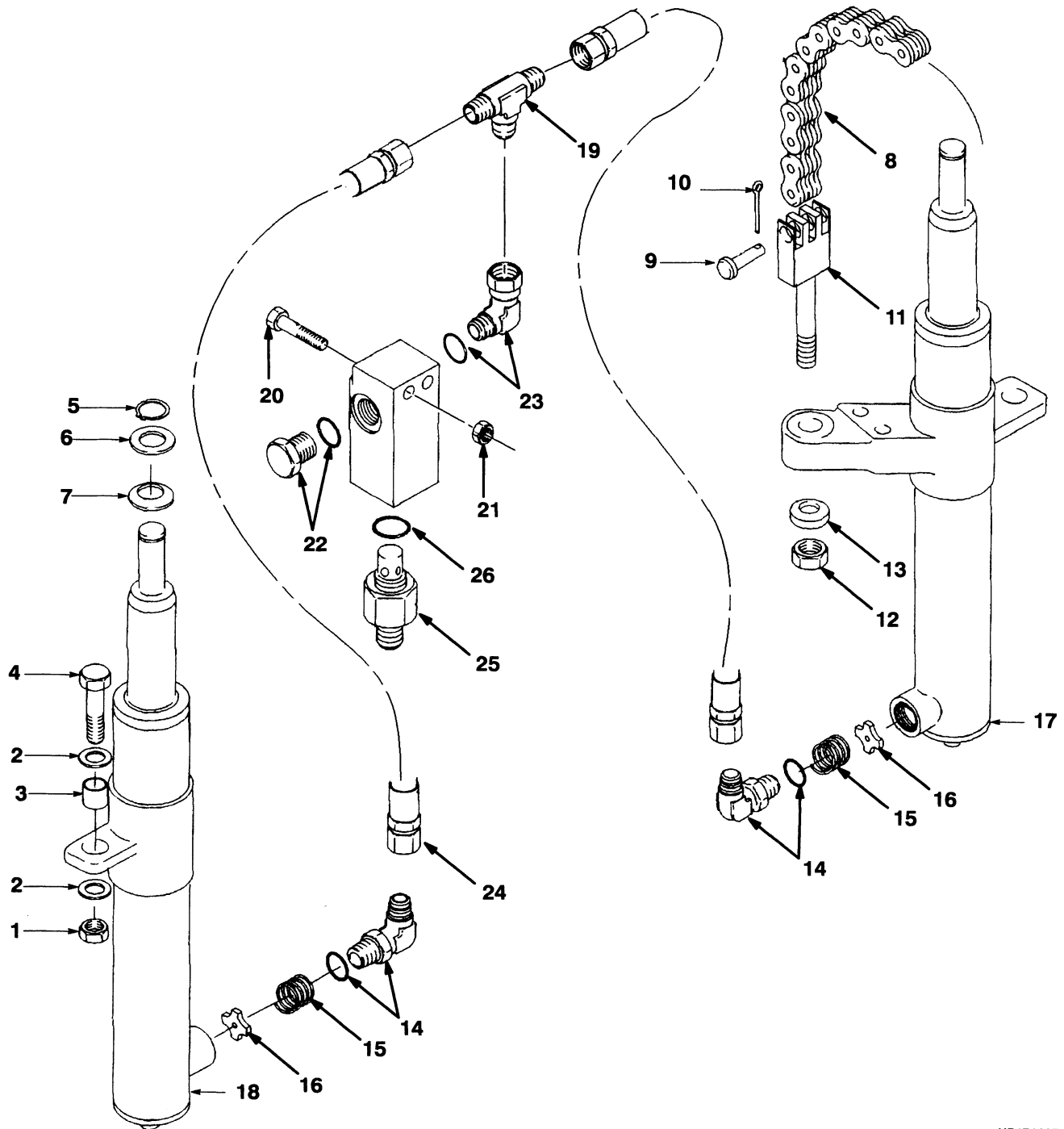
YP171194

INNER MAST TWO STAGE LIMITED FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	ab 2048880	Mast Assembly (127.0 in)	1
1	ab 1349258	Inner Mast.....	1
2	1345216	Stubshaft.....	2
3	1353192	Load Roller	2
4	58901	Snap Ring.....	2
5	129387	Shim (0.020 in.).....	AR
6	304526	Snap Ring.....	2
7	1345183	Chain Sheave	2
8	1345181	Sheave	1
9	231020	Bearing.....	1
10	37752	Snap Ring	2

FOOTNOTES:**a** A552 Mast**b** Mast Group Number 3192

MAIN LIFT (Figure 7-3) TWO STAGE LIMITED FREE-LIFT



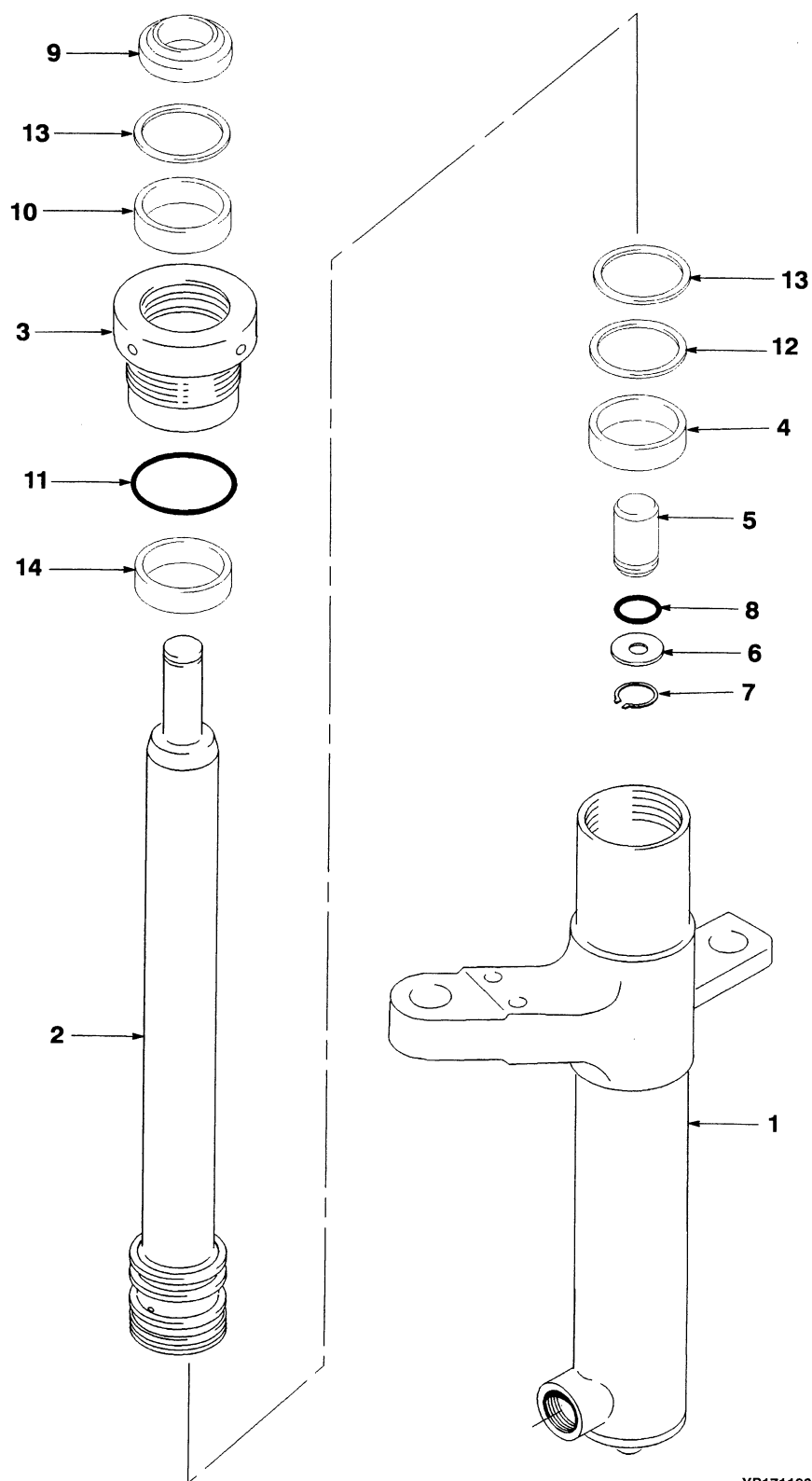
HP171125

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

ITEM	PART NO.	DESCRIPTION	QTY
	ab 2048880	Mast Assembly (127.0 in)	1
1	Lift Cylinder (LH) (☞ Figure 7-4)	1
2	Lift Cylinder (RH) (☞ Figure 7-4)	1
3	161003	Nut	2
4	297649	Ring	2
5	292531	Capscrew	2
6	296422	Washer	4
7	323090	Spacer	2
8	161003	Nut	2
9	16560	Fitting	1
9	16485	O-Ring	1
10	16982	O-Ring	1
10	323061	Control Valve	1
11	1333392	Housing	1
12	292509	Capscrew	2
13	313828	Nut	2
14	17051	Fitting	1
15	120938	Spring	2
16	323160	Washer	2
17	16485	O-Ring	1
17	189595	Fitting	2
18	16486	O-Ring	1
18	14603	Fitting	1
19	131358	Snap Ring	2
20	1333382	Washer	2
21	1354915	Washer (0.010 in.)	AR
21	1354917	Washer (0.030 in.)	AR
21	1354916	Washer (0.060 in.)	AR
22	323161	Pin	2
23	15200	Cotter Pin	2
24	1369357	Chain Anchor	2
25	88441	Chain	2
26	1376101	Hose	2

FOOTNOTES:**a** A552 Mast**b** Mast Group Number 3192

MAIN CYLINDER (Figure 7-4) TWO STAGE LIMITED FREE-LIFT



YP171196

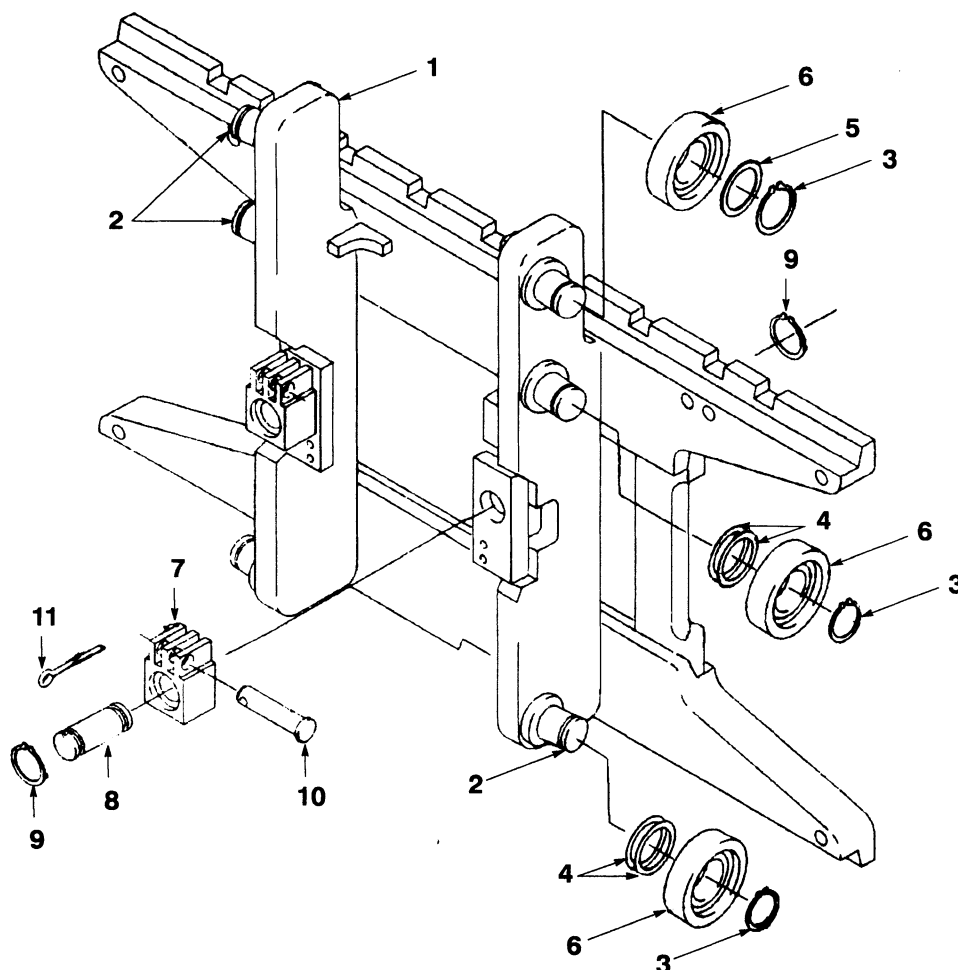
**MAIN CYLINDER
TWO STAGE LIMITED FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
	abc 1361366	Lift Cylinder (LH).....	1
	abc 1361370	Lift Cylinder (RH)	1
1	abc 1361367	Shell (LH)	1
1	abc 1361371	Shell (RH).....	1
2	abc 1361368	Rod (LH).....	1
2	abc 1361368	Rod (RH)	1
3	1371653	Gland.....	1
4	1362871	Wear Ring	1
5	257913	Check Valve.....	1
6	297531	Washer	1
7	187388	Snap Ring.....	1
8	190580	O-Ring.....	1
9	1319668	Wiper Ring.....	1
10	1381095	Seal	1
11	55407	O-Ring	1
12	330692	Seal	1
13	322824	Back-Up Ring	2
14	322902	Wear Ring	1
	1360140	Seal Kit (Includes Item)	1

FOOTNOTES:

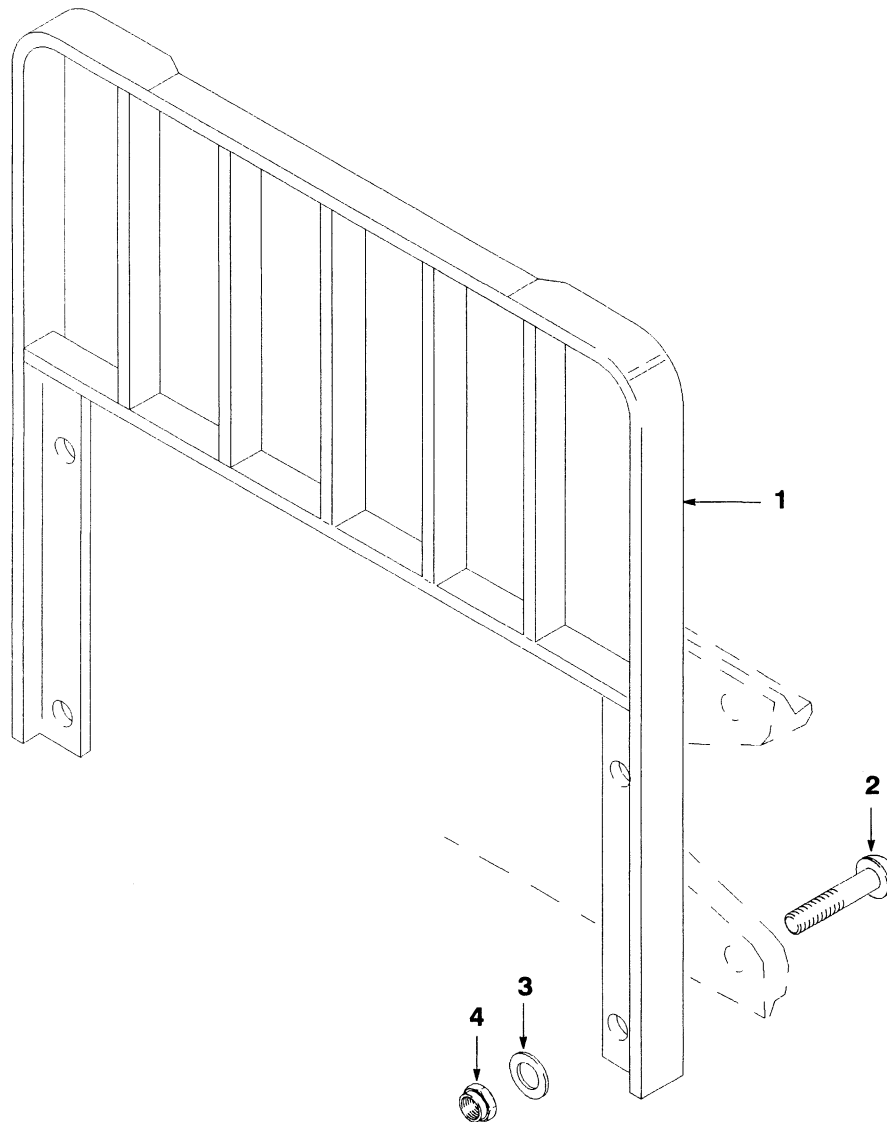
- a** A552 Mast
b Cylinder Group Number 8601608
c Mast Group Number 3192

CARRIAGE (Figure 7-5) TWO STAGE LIMITED FREE-LIFT



HP171127

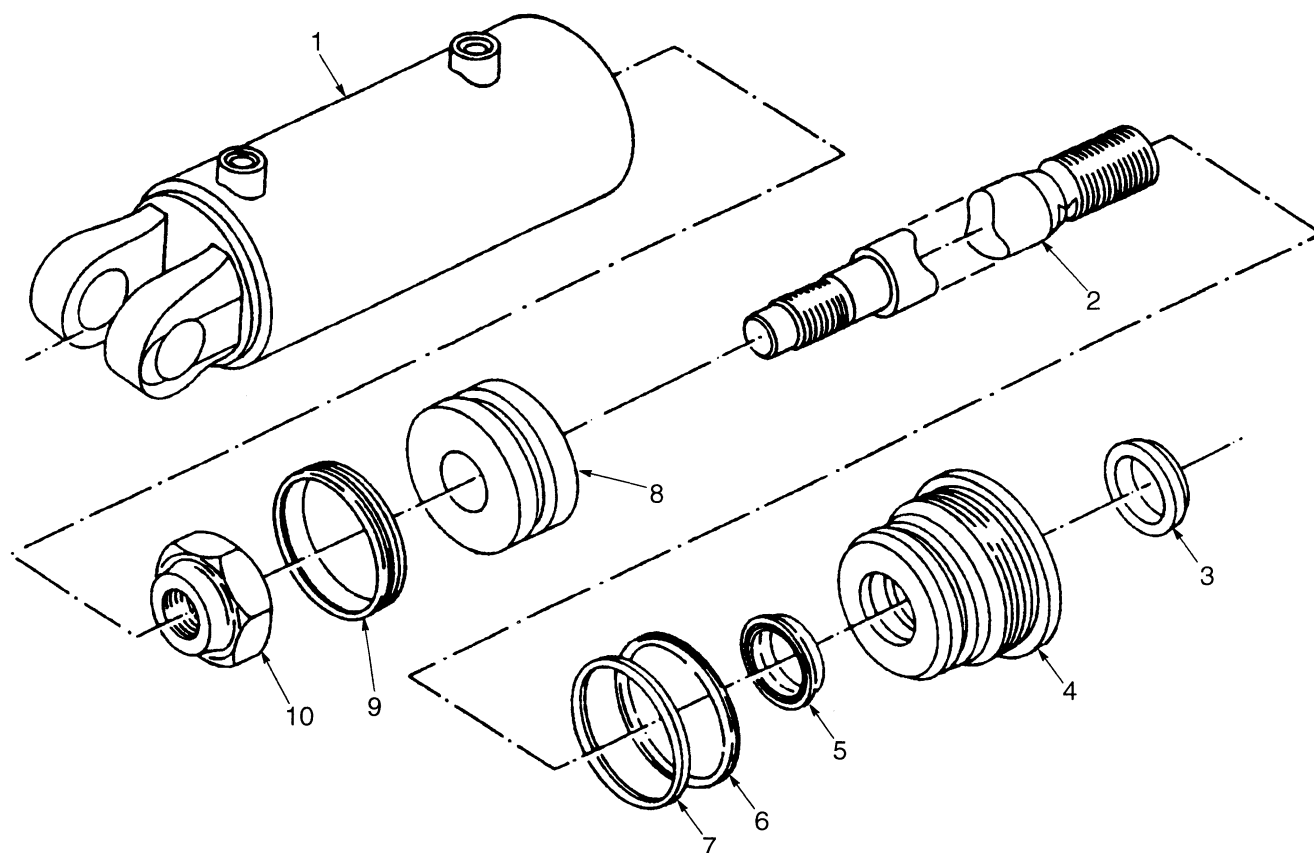
ITEM	PART NO.	DESCRIPTION	QTY
1	1353324	Frame	1
2	1345216	Stubshaft	6
3	58901	Snap Ring	6
4	129387	Shim (0.020 in.)	AR
5	366115	Spacer	2
6	1353192	Load Roller	6
7	1369345	Chain Anchor	2
8	1353408	Pin	2
9	131358	Snap Ring	4
10	323161	Pin	2
11	15200	Cotter Pin	2

LOAD BACKREST EXTENSION (Figure 7-6)
TWO STAGE LIMITED FREE-LIFT

HP171128

ITEM	PART NO.	DESCRIPTION	QTY
1	1349446	Load Backrest Extension (48 in.).....	1
2	1353533	Capscrew.....	4
3	221771	Washer	4
3	296423	Washer (Optional).....	4
4	300937	Nut.....	4

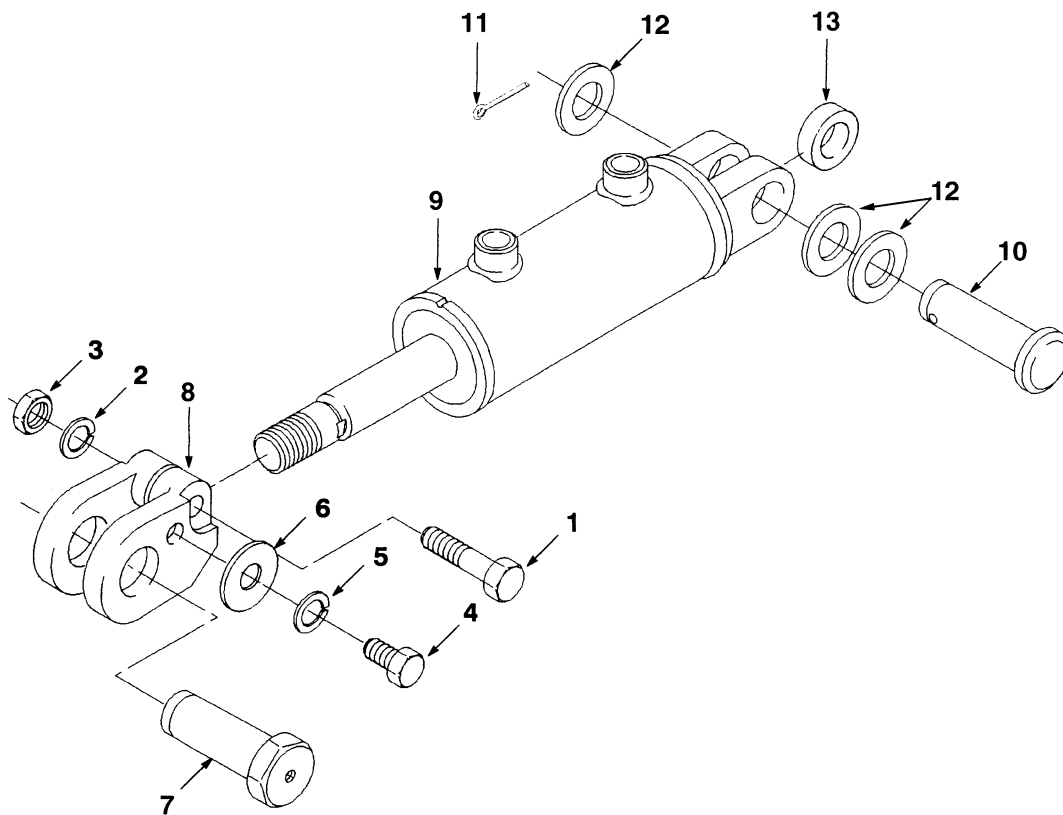
TILT CYLINDER (Figure 7-7) TWO STAGE LIMITED FREE-LIFT



BP170011

**TILT CYLINDER
TWO STAGE LIMITED FREE-LIFT****KEY:****A: 5° Forward Tilt/5° Back Tilt****B: 10° Forward Tilt/5° Back Tilt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2047065	Tilt Cylinder (Group No. 8603390)	2	..
	2033757	Tilt Cylinder (Group No. 8603353)	2
1	2302899	Nut	1	1
2	Seal	1	1
3	2308174	Piston.....	1	1
4	2050282	Rod cylinder (Standard).....	1	..
4	2311444	Rod cylinder (Bottlers')	1
5	2308691	Tube (Bottlers')	1
5	2307114	Tube (Standard).....	1	..
6	Seal	1	1
7	O-Ring	1	1
8	Backup Ring	1	1
9	2047064	Gland	1	1
10	Wiper Ring.....	1	1
	1494719	Seal Kit (Includes Items 2, 6-8, 10)	1	1

TILT CYLINDER ATTACHING PARTS (Figure 7-8)
TWO STAGE LIMITED FREE-LIFT

HP171129

**TILT CYLINDER ATTACHING PARTS
TWO STAGE LIMITED 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	1348188	Rod End Pin	2
8	1363260	Rod End (RH)	1
8	1363261	Rod End (LH).....	1
9	b 2047065	Tilt Cylinder (Standard).....	2
9	a 2033757	Tilt Cylinder.....	2
10	308117	Rod End Pin	2
11	15236	Cotter Pin.....	2
12	197069	Washer	6
13	300982	Bushing.....	2

FOOTNOTES:**a** 10° Tilt/5° Back Tilt**b** 5° Tilt/5° Back Tilt

This technical diagram illustrates the assembly of a mechanical component, likely a bracket or support structure. The parts are numbered as follows:

- 1**: Main vertical support plate.
- 2**: Small L-shaped bracket.
- 3**: Ring with a clasp.
- 4**: Small pin or screw.
- 5**: Small rectangular plate.
- 6**: Small rectangular plate.
- 7**: Small circular washer or spacer.
- 8**: Small L-shaped bracket.
- 9**: U-shaped bracket.
- 10**: Large circular flange or pulley.
- 11**: Three small circular washers or spacers.
- 12**: Small circular washer or spacer.
- 13**: Small pin or screw.
- 14**: Small L-shaped bracket.
- 15**: Small pin or screw.
- 16**: Small circular washer or spacer.
- 17**: Small pin or screw.
- 18**: Four small L-shaped brackets.
- 19**: Small L-shaped bracket.
- 20**: Ring with a clasp.
- 21**: Two rings with clasps.
- 22**: Small circular washer or spacer.

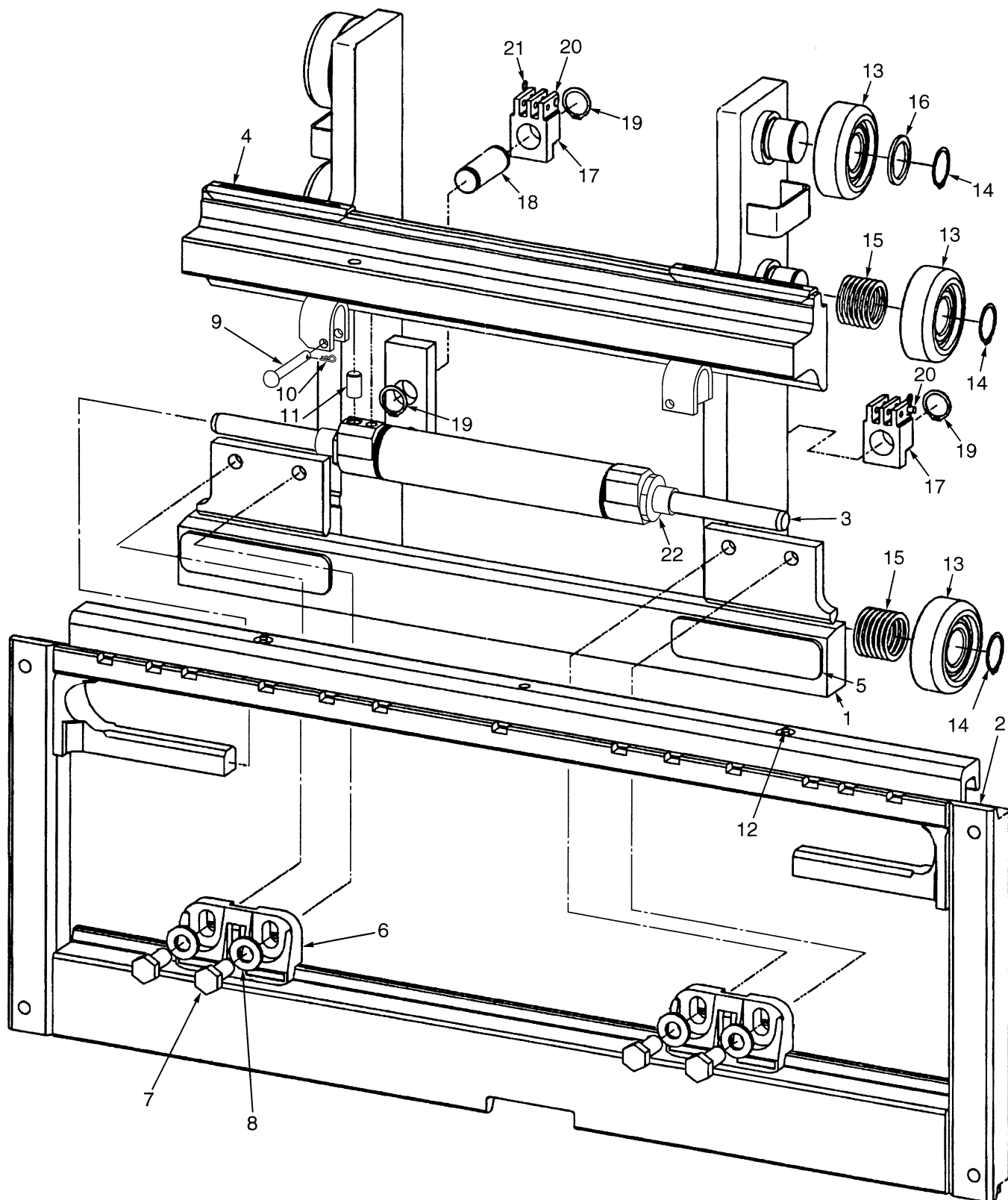
The diagram shows the assembly process using dashed lines to indicate the placement of parts. Key features include a main vertical plate (1) with multiple mounting points, a large circular flange (10) at the top, and various brackets (2, 8, 9, 14, 18, 19) and pins (4, 7, 13, 15, 16, 17) used for assembly. The bottom section shows a cable or hose assembly with connectors (19) and a bracket (5, 6).

HP171131

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

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1398497	Hose	2	4
2	1345348	Clamp	1	2
3	1353530	Clamp	4	8
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	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	1353530	Clamp	4	8
19	1345348	Clamp	2	4
20	1360508	Clamp	2	4
21	1375574	Strap	2	4
22	1360549	Spacer	1	2

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

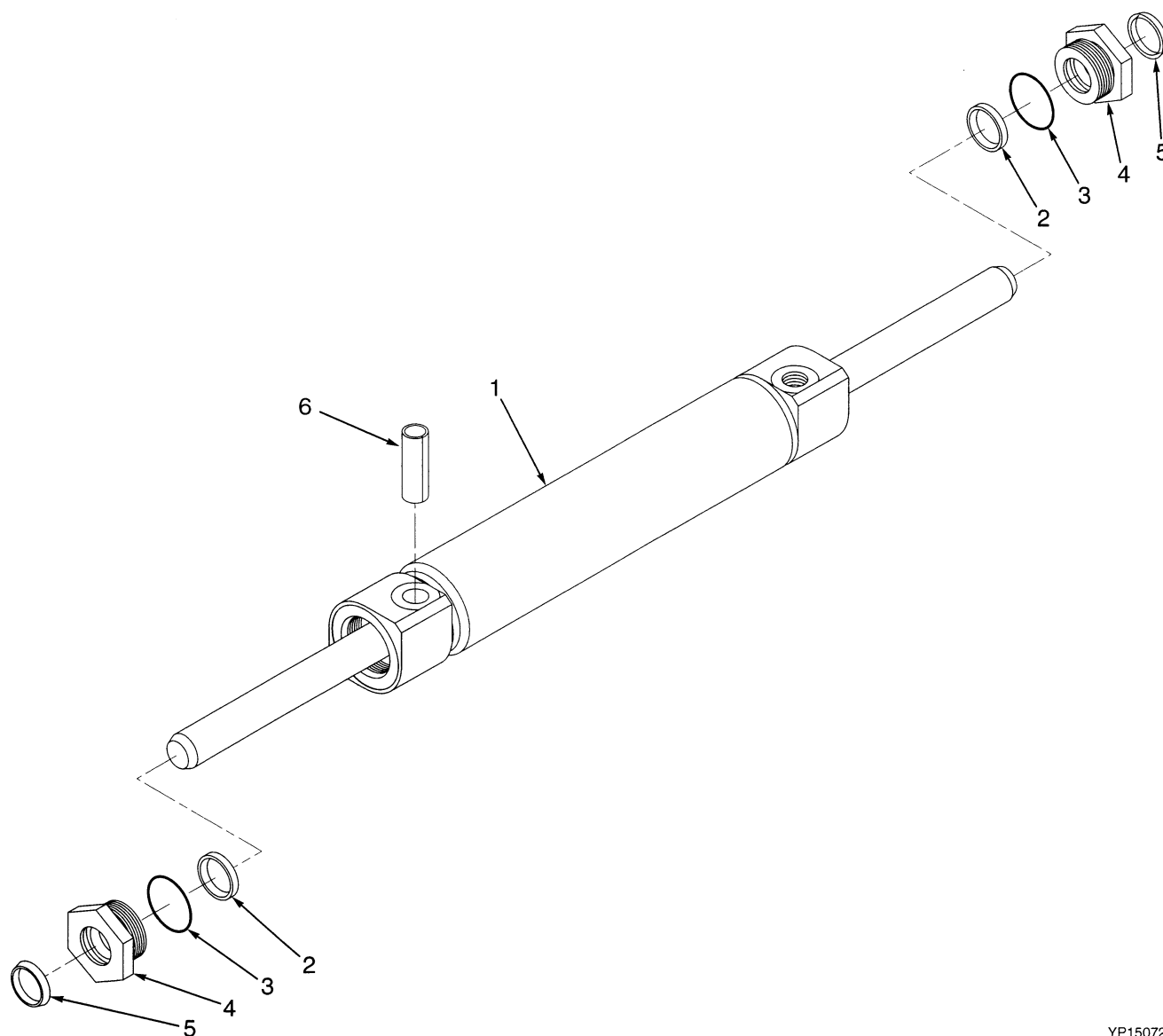


BP000000

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

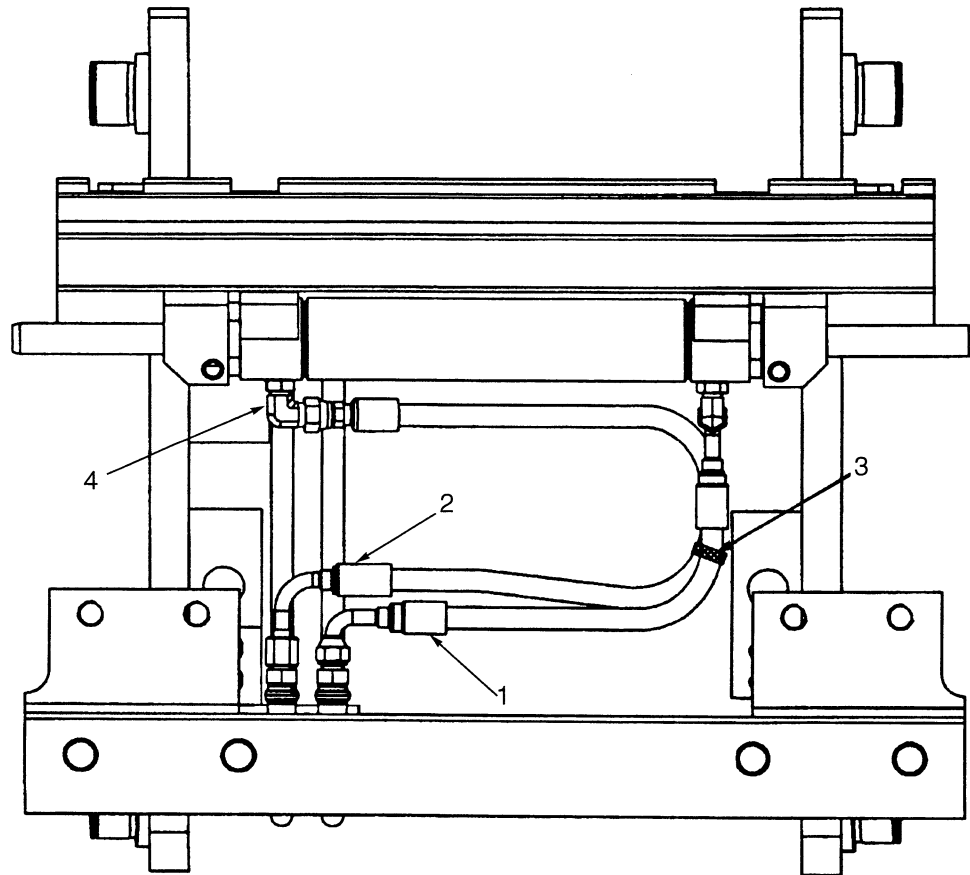
ITEM	PART NO.	DESCRIPTION	QTY
	1486175	Side-Shift Carriage	1
1	1488995	Side-Shift Carriage	1
2	1489010	Frame (Outer)	1
3	Side-Shift Cylinder (☞ Figure 7-11)	1
4	2043531	Bearing (Upper)	1
5	2043533	Bearing (Lower)	2
6	2043530	Hook (Lower)	2
7	226458	Capscrew	2
8	221775	Washer	4
9	1401746	Clevis Pin	4
10	18832	Cotter Pin	2
11	302397	Pin	2
12	16041	Lube Fitting	1
13	1353192	Load Roller	2
14	58901	Snap Ring	6
15	129387	Shim (0.020 in.)	6
16	366115	Spacer	28
17	1369345	Chain Anchor	6
18	1353408	Pin	2
19	131358	Snap Ring	2
20	323161	Pin	4
21	15200	Cotter Pin	2
22	1498326	Shim	3

SIDE-SHIFT CYLINDER (Figure 7-11) TWO STAGE LIMITED FREE-LIFT



YP150726

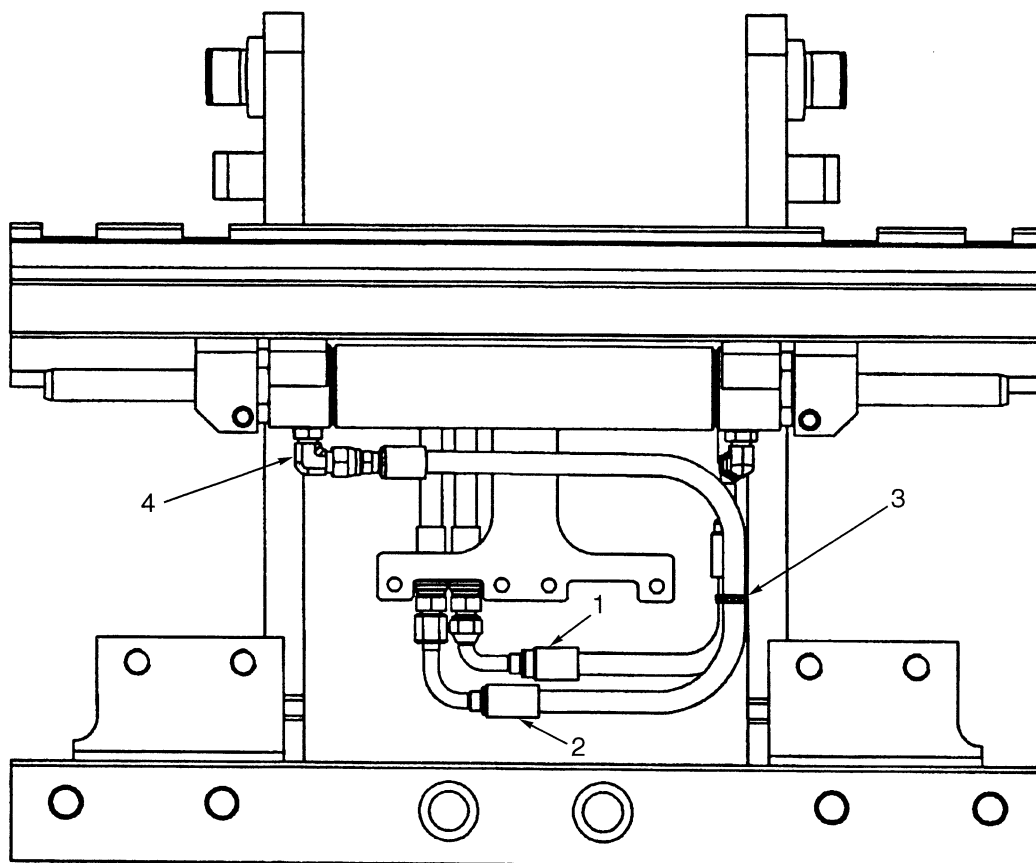
ITEM	PART NO.	DESCRIPTION	QTY
	2043528	Side-Shift Cylinder	1
1	1489016	Cylinder	1
2	1489037	Rod Seal	2
3	1489035	O-Ring	2
4	1498325	Retainer	2
5	1489039	Rod Wiper	2
6	302487	Pin	1
	1503096	Seal Kit (Includes Items 1-6)	1

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

BP000004

ITEM	PART NO.	DESCRIPTION	QTY
1	1503476	Hose	1
2	1503478	Hose	1
3	16558	Fitting	2
4	2033612	Strap Clamp	1

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	1
1	a 1489050	Hose	1
2	b 1503481	Hose Assembly	1
2	a 1489051	Hose	1
3	16558	Fitting	2
4	129563	Strap Clamp	1

FOOTNOTES:

a Three Stage Full Free-Lift

b Two Stage Full Free-Lift

8

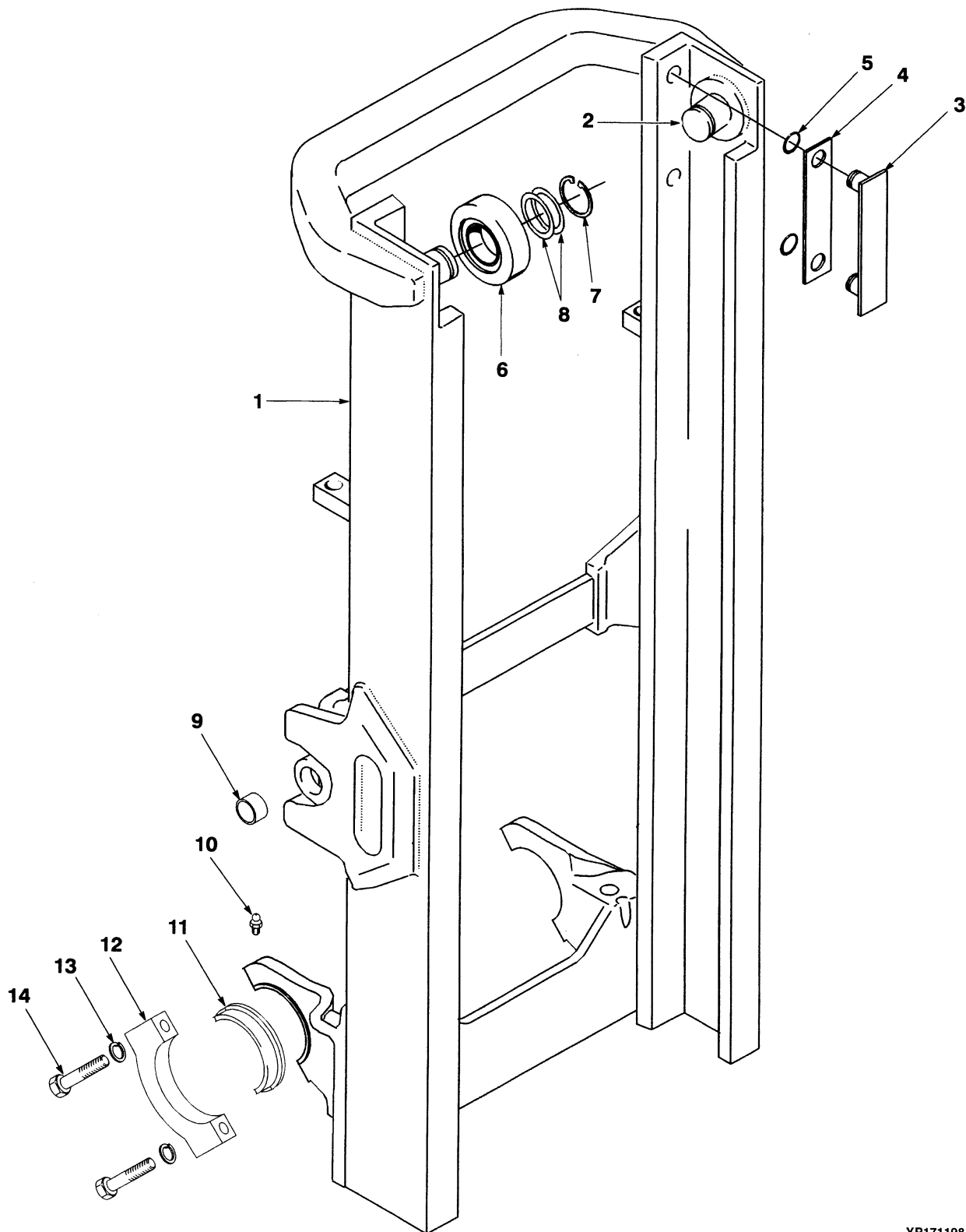
MAST-THREE STAGE FULL FREE-LIFT

SECTION 8

MAST-THREE STAGE FULL FREE-LIFT

DESCRIPTION	PAGE
CARRIAGE	
THREE STAGE FULL-FREE LIFT	8-18
FREE LIFT	
THREE STAGE FULL FREE-LIFT	8-12
FREE LIFT CYLINDER	
THREE STAGE FULL FREE-LIFT	8-16
HEADER HOSE	
THREE STAGE FULL FREE-LIFT	8-24
INNER MAST	
THREE STAGE FULL FREE-LIFT	8-6
INTEGRAL SIDE-SHIFT CARRIAGE	
THREE STAGE FULL FREE-LIFT	8-20
INTERMEDIATE MAST	
THREE STAGE FULL FREE-LIFT	8-4
LOAD BACKREST EXTENSION	
THREE STAGE FULL FREE-LIFT	8-22
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THREE STAGE FULL FREE-LIFT	8-14
MAIN LIFT	
THREE STAGE FULL FREE-LIFT	8-8
OUTER MAST	
THREE STAGE FULL FREE-LIFT	8-2
TILT CYLINDER	
THREE STAGE FULL FREE-LIFT	8-26
TILT CYLINDER - ATTACHING PARTS	
THREE STAGE FULL FREE-LIFT	8-28

OUTER MAST (Figure 8-1) THREE STAGE FULL FREE-LIFT



YP171198

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

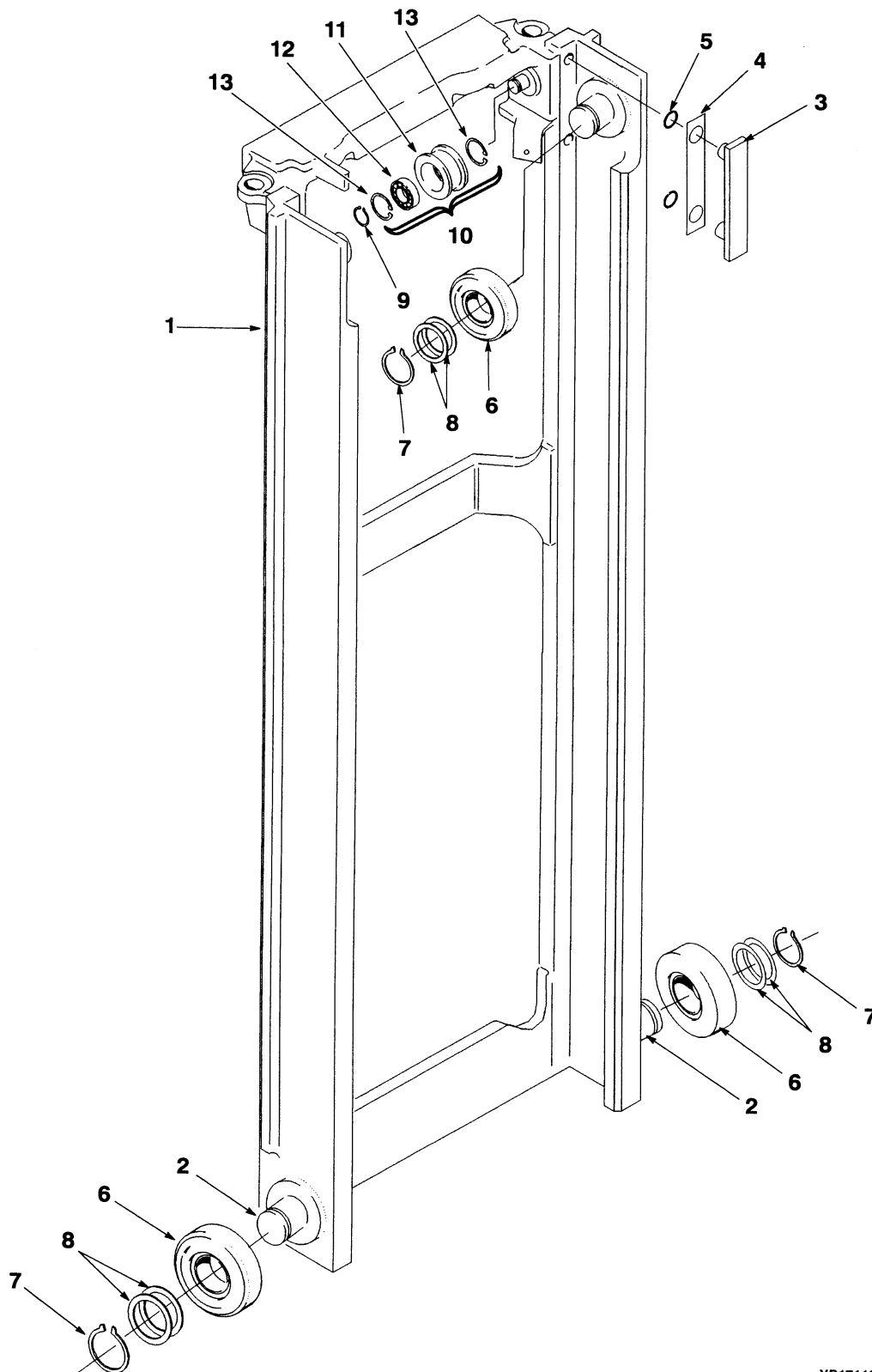
ITEM	DESCRIPTION	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177. in.)	4801 mm (189. in.)	5550 mm (218.5 in.)
	1 2 3 4 Mast Group Number	A556 4460	A556 4760	A556 5510
	Mast Assembly	2049067	2049069	2049074
1	Outer Mast	1348056	1348058	1348064

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assembly	1
1	a	Outer Mast.....	1
2	1345216	Stubshaft.....	2
3	215212	Bearing Strip	2
4	131716	Shim (0.020 in.)	4
5	104506	O-Ring	4
6	1353192	Load Roller	2
7	58901	Snap Ring.....	2
8	129387	Shim (0.020 in.)	AR
9	1348185	Bushing	2
10	16001	Lube Fitting.....	2
11	1370721	Bushing (2 Bushings)	1
12	1370722	Cap.....	2
13	292683	Lockwasher	4
14	292531	Capscrew	4

FOOTNOTES:

a Refer to Table

INTERMEDIATE MAST (Figure 8-2) THREE STAGE FULL FREE-LIFT



YP171199

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

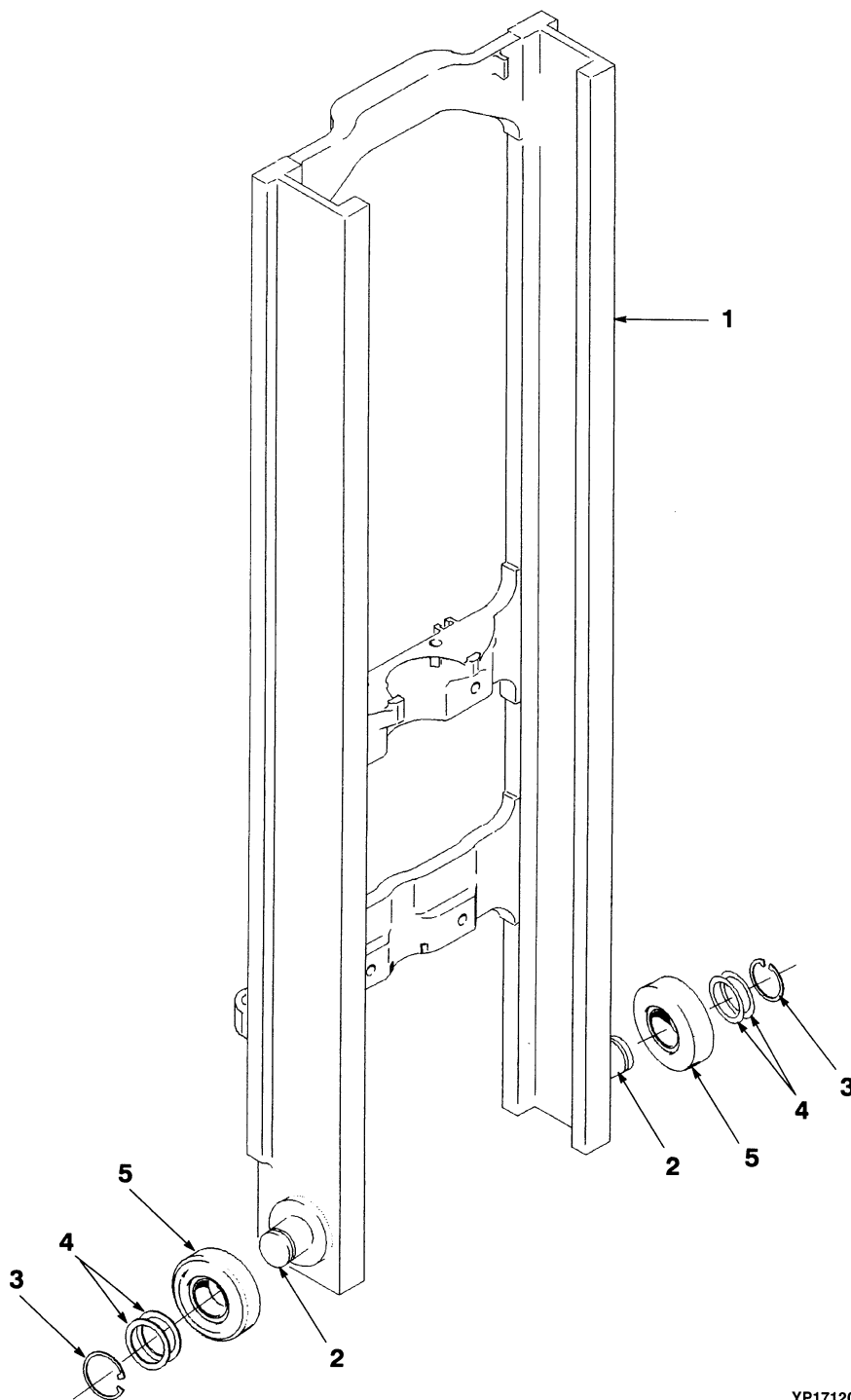
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177. in.)	4801 mm (189. in.)	5550 mm (218.5 in.)
		A556 4460	A556 4760	A556 5510
	Mast Assembly	2049067	2049069	2049074
1	Intermediate Mast	1352956	1352958	1352963

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assembly	1
1	a	Intermediate Mast	1
2	1345216	Stubshaft.....	4
3	215212	Bearing Strip	2
4	131716	Shim (0.020 in.)	4
5	104506	O-Ring	4
6	1353192	Load Roller	4
7	58901	Snap Ring.....	4
8	129387	Shim (0.020 in.)	AR
9	230518	Plug	2
10	1345183	Chain Sheave	2
11	1345181	Sheave	1
12	231020	Bearing.....	1
13	37752	Snap Ring	2

FOOTNOTES:

a Refer to Table

INNER MAST (Figure 8-3) THREE STAGE FULL FREE-LIFT



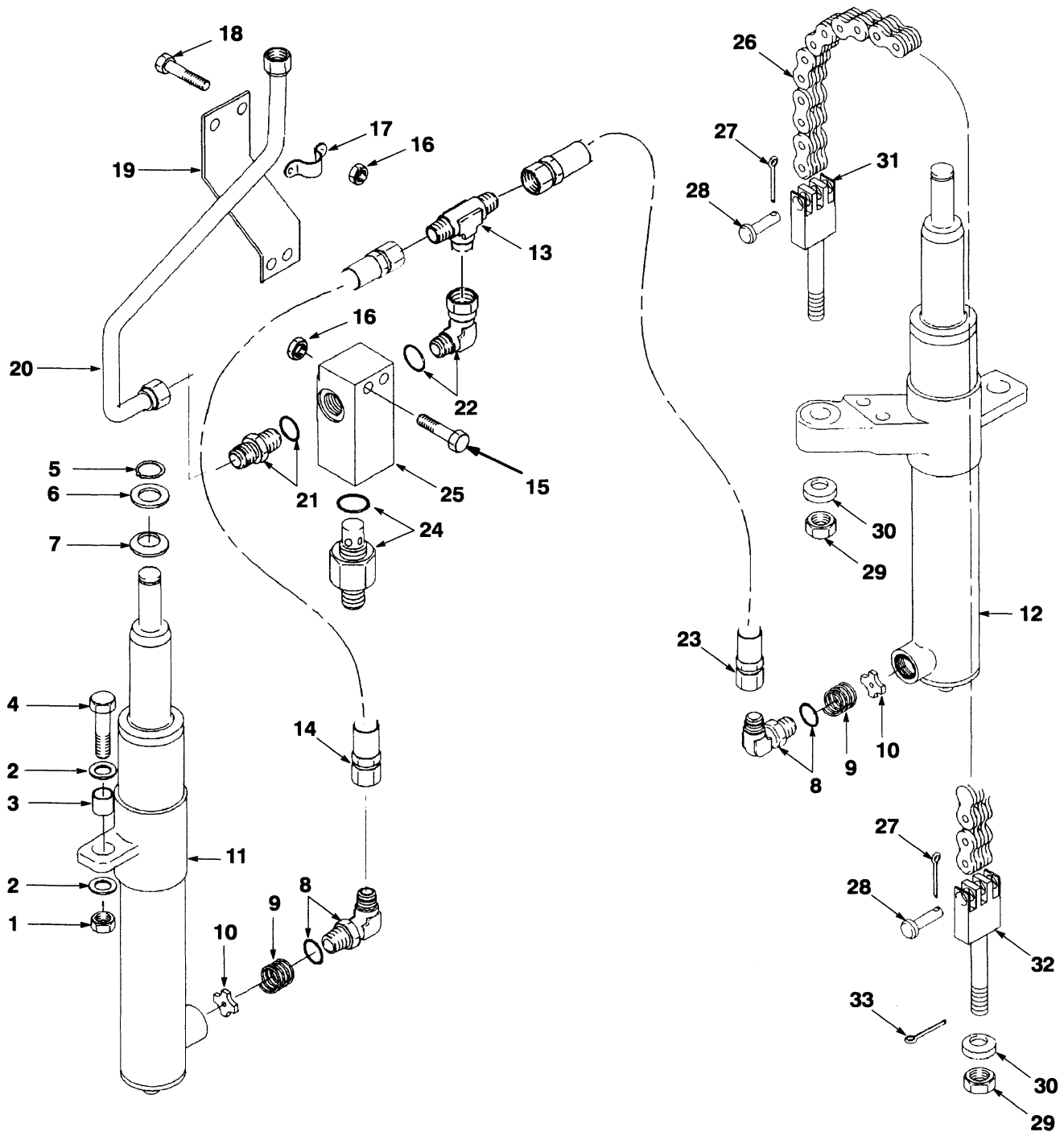
INNER MAST THREE STAGE FULL FREE-LIFT

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177. in.)	4801 mm (189. in.)	5550 mm (218.5 in.)
		A556 4460	A556 4760	A556 5510
	Mast Assembly	2049067	2049069	2049074
1	Inner Mast	1352856	1352858	1352863

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assembly	1
1	a	Inner Mast	1
2	1345216	Stubshaft.....	2
3	58901	Snap Ring.....	2
4	129387	Shim (0.020 in.).....	AR
5	1353192	Load Roller	2

FOOTNOTES:**a** Refer to Table

MAIN LIFT (Figure 8-4) THREE STAGE FULL FREE-LIFT



HP171134

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

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177. in.)	4801 mm (189. in.)	5550 mm (218.5 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510
	Mast Assembly	2049067	2049069	2049074
1	Chain	180057	135634	1301870

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assembly	1
1	a	Chain	2
2	Lift Cylinder (LH) (☞ Figure 8-6)	1
3	Lift Cylinder (RH) (☞ Figure 8-6)	1
4	292531	Capscrew	2
5	296422	Washer	4
6	323090	Spacer	2
7	300937	Nut	2
8	131358	Snap Ring	2
9	1333382	Washer	2
10	1354915	Washer (0.010 in.)	AR
10	1354916	Washer (0.030 in.)	AR
10	1354917	Washer (0.060 in.)	AR
11	136681	Capscrew	2
12	313828	Nut	4
13	1363250	Plate	1
14	287851	Capscrew	2
15	1363251	Clamp	1
16	1353399	Tube	1
17	323061	Control Valve	1
17	16982	O-Ring	1
18	1333392	Housing	1
19	16560	Fitting	1
19	16485	O-Ring	1
20	16543	Fitting	1
20	16486	O-Ring	1
21	1376100	Hose	1
22	1376101	Hose	1
23	17051	Fitting	1
24	120938	Spring	2
25	323160	Washer	2
26	189595	Fitting	2
26	16485	O-Ring	1
27	1369357	Chain Anchor	2
28	323161	Pin	4
29	15200	Cotter Pin	4
30	1365140	Chain Anchor	2
31	15223	Cotter Pin	2

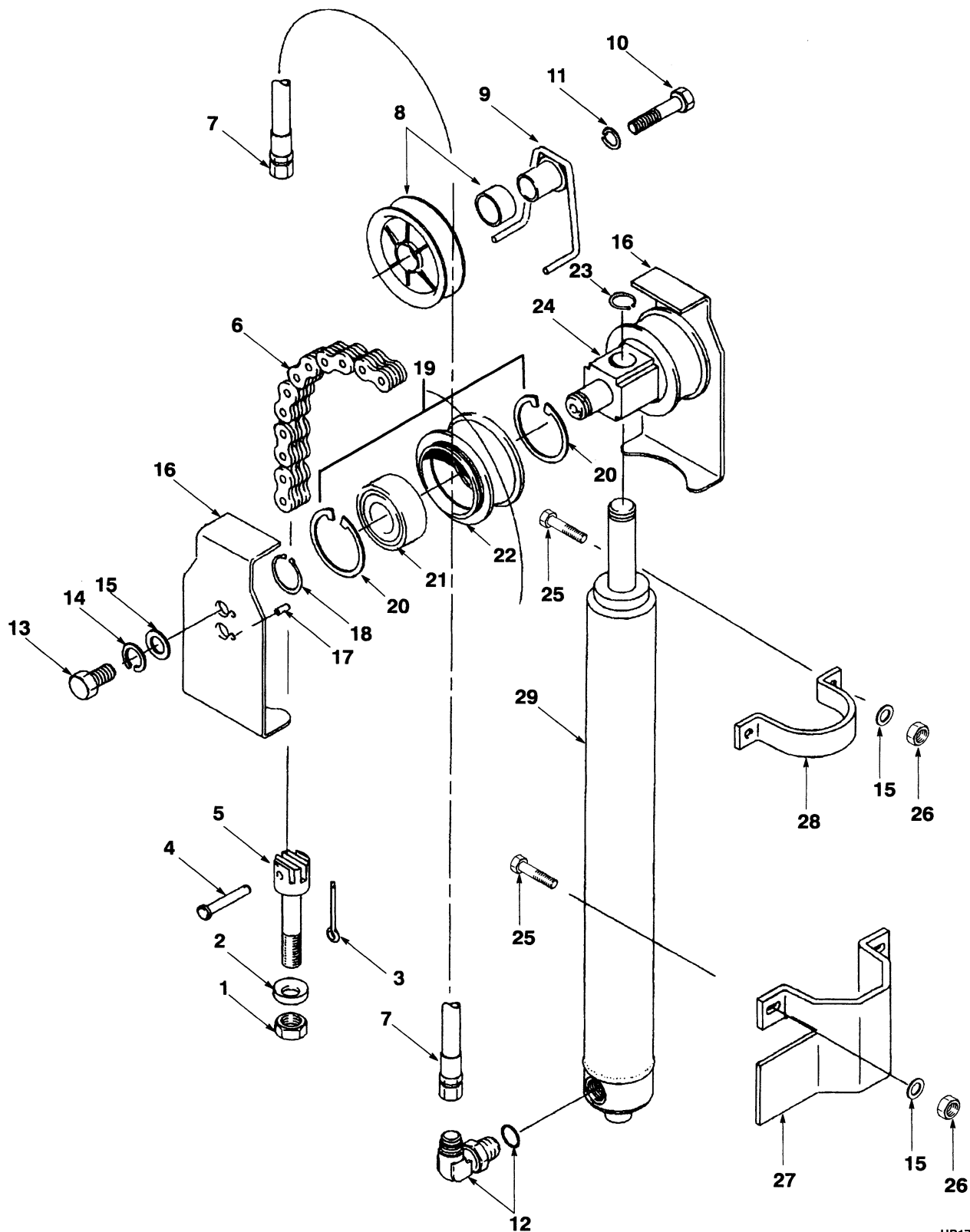
**MAIN LIFT
THREE STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
32	161003	Nut	4
33	297649	Ring	4

FOOTNOTES:**a** Refer to Table

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

FREE LIFT (Figure 8-5) THREE STAGE FULL FREE-LIFT



HP171135

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

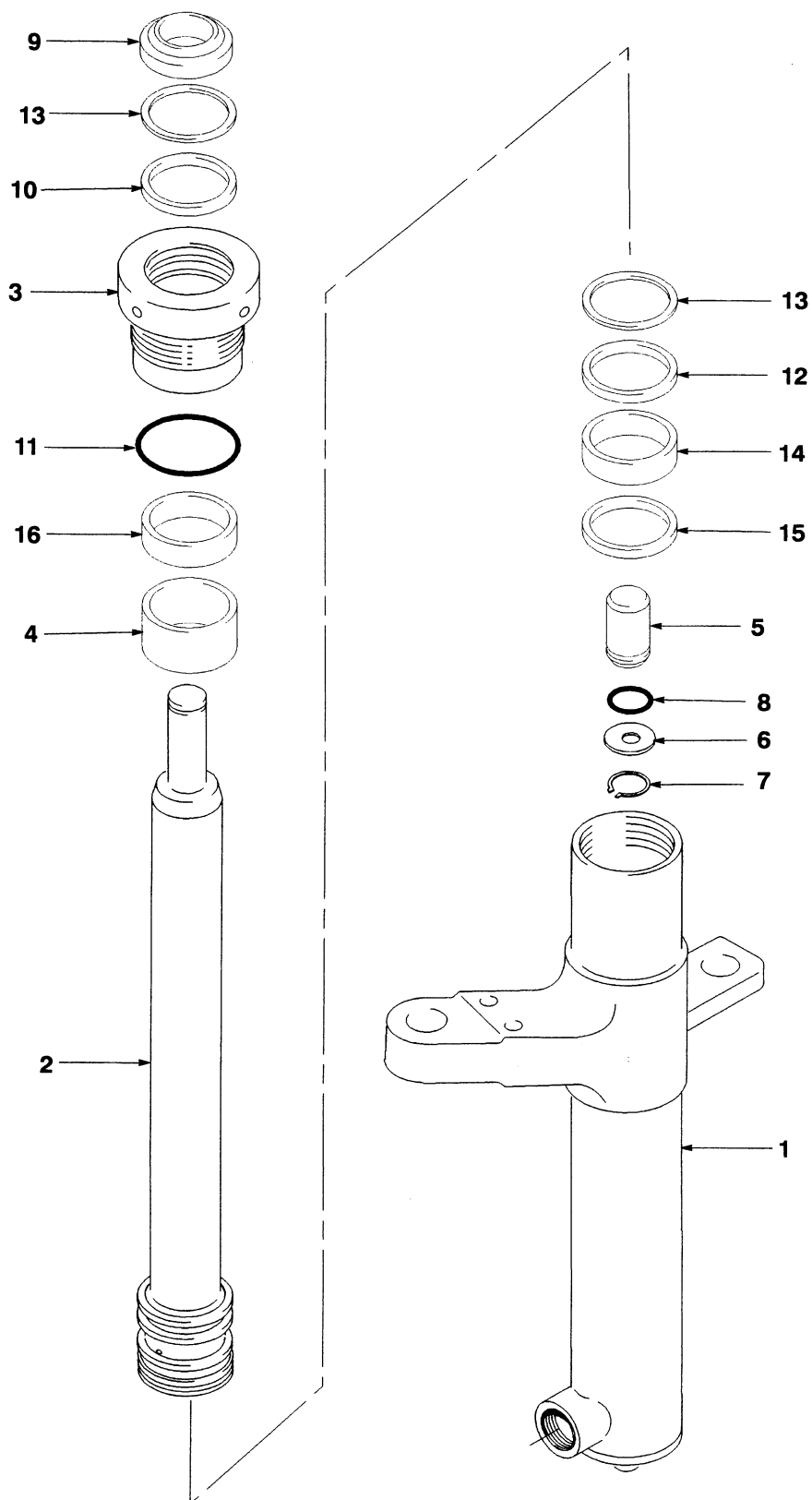
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177. in.)	4801 mm (189. in.)	5550 mm (218.5 in.)
		A556 4460	A556 4760	A556 5510
	Mast Assembly	2049067	2049069	2049074
1	Chain	231082	231083	88436
2	Hose	1363306	1363308	1363313

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assembly	1
1	a	Chain	2
2	a	Hose	1
3	161003	Nut	2
4	297649	Ring	2
5	323161	Pin	2
6	15200	Cotter Pin	2
7	1369357	Chain Anchor	2
8	1395285	Guard	2
9	292527	Capscrew	2
10	292683	Lockwasher	3
11	1353547	Bracket	1
12	302461	Pin	2
13	1344323	Bracket	1
14	292528	Capscrew	4
15	320161	Washer	6
16	300937	Nut	4
17	1333243	Flow Valve	1
18	1337905	Crosshead	1
19	292533	Capscrew	1
20	1360534	Stubshaft	1
21	1343989	Sheave	1
21	1354901	Bushing	1
22	1354912	Chain Sheave	2
23	37752	Snap Ring	2
24	231020	Bearing	1
25	1354911	Sheave	1
26	304526	Snap Ring	2
27	131358	Snap Ring	1
28	Free Lift Cylinder (☞ Figure 8-7)	1

FOOTNOTES:

a Refer to Table

MAIN CYLINDER (Figure 8-6) THREE STAGE FULL FREE-LIFT



YP171203

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

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177. in.)	4801 mm (189. in.)	5550 mm (218.5 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510
	Cylinder Group Number	8601706	8601708	8601713
	Lift Cylinder	1362702	1362715	1362745
1	Shell	1362703	1362716	1366057
2	Rod	1362704	1362717	1362746

RIGHT HAND

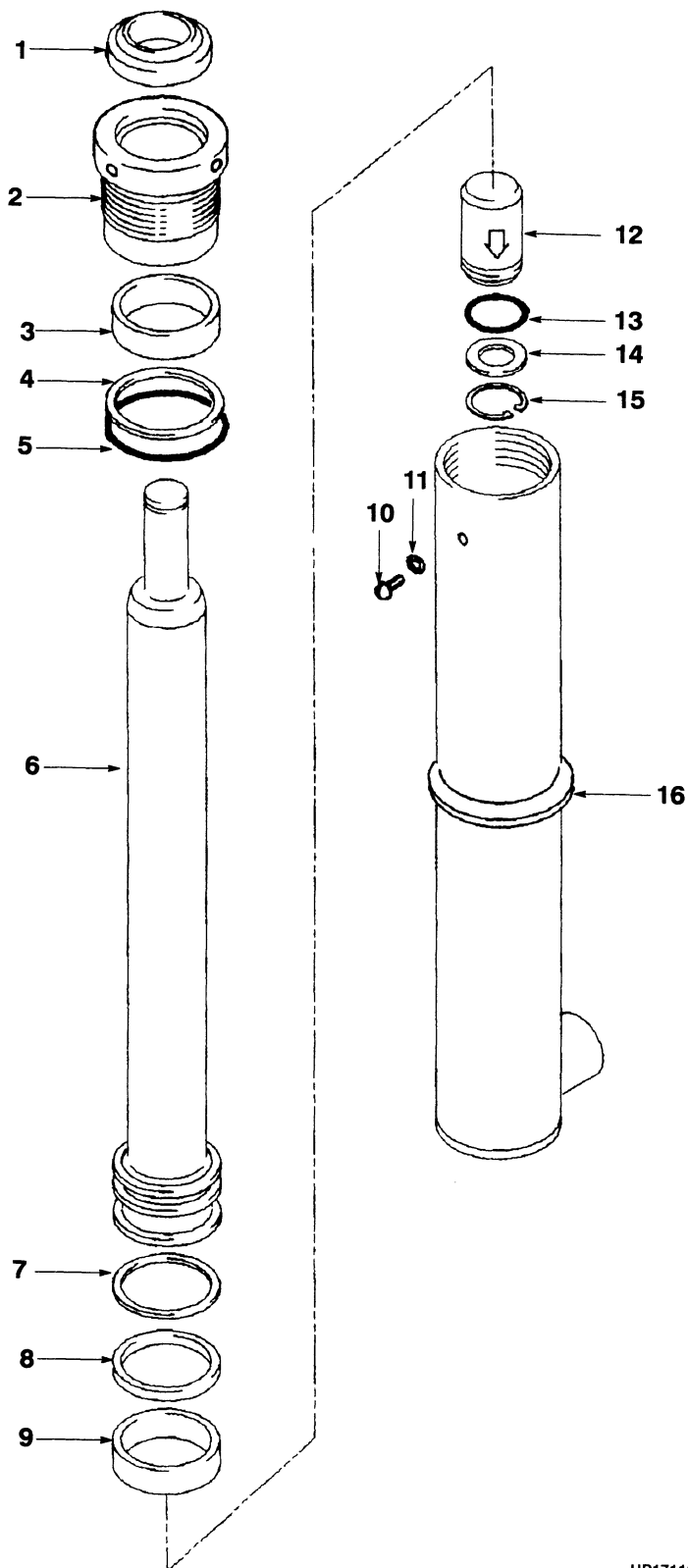
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177. in.)	4801 mm (189. in.)	5550 mm (218.5 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510
	Cylinder Group Number	8601756	8601758	8601763
	Lift Cylinder	1362706	1362719	1362749
1	Tube	1362713	1362726	1362756
2	Rod	1362704	1362717	1362746

ITEM	PART NO.	DESCRIPTION	QTY
	a	Lift Cylinder.....	1
1	a	Shell	1
2	a	Rod.....	1
3	1371653	Gland.....	1
4	1355610	Spacer	1
5	257913	Check Valve.....	1
6	297531	Washer	1
7	187388	Snap Ring.....	1
8	190580	O-Ring	1
9	1319668	Wiper Ring.....	1
10	1381095	Seal	1
11	55407	O-Ring	1
12	330692	Seal	1
13	322824	Back-Up Ring	2
14	1362871	Wear Ring	1
15	1362875	Piston Ring	1
16	322902	Wear Ring	1
	1360139	Seal Kit (Includes Items 9-16)	1

FOOTNOTES:

a Refer to Table

FREE LIFT CYLINDER (Figure 8-7) THREE STAGE FULL FREE-LIFT



HP171137

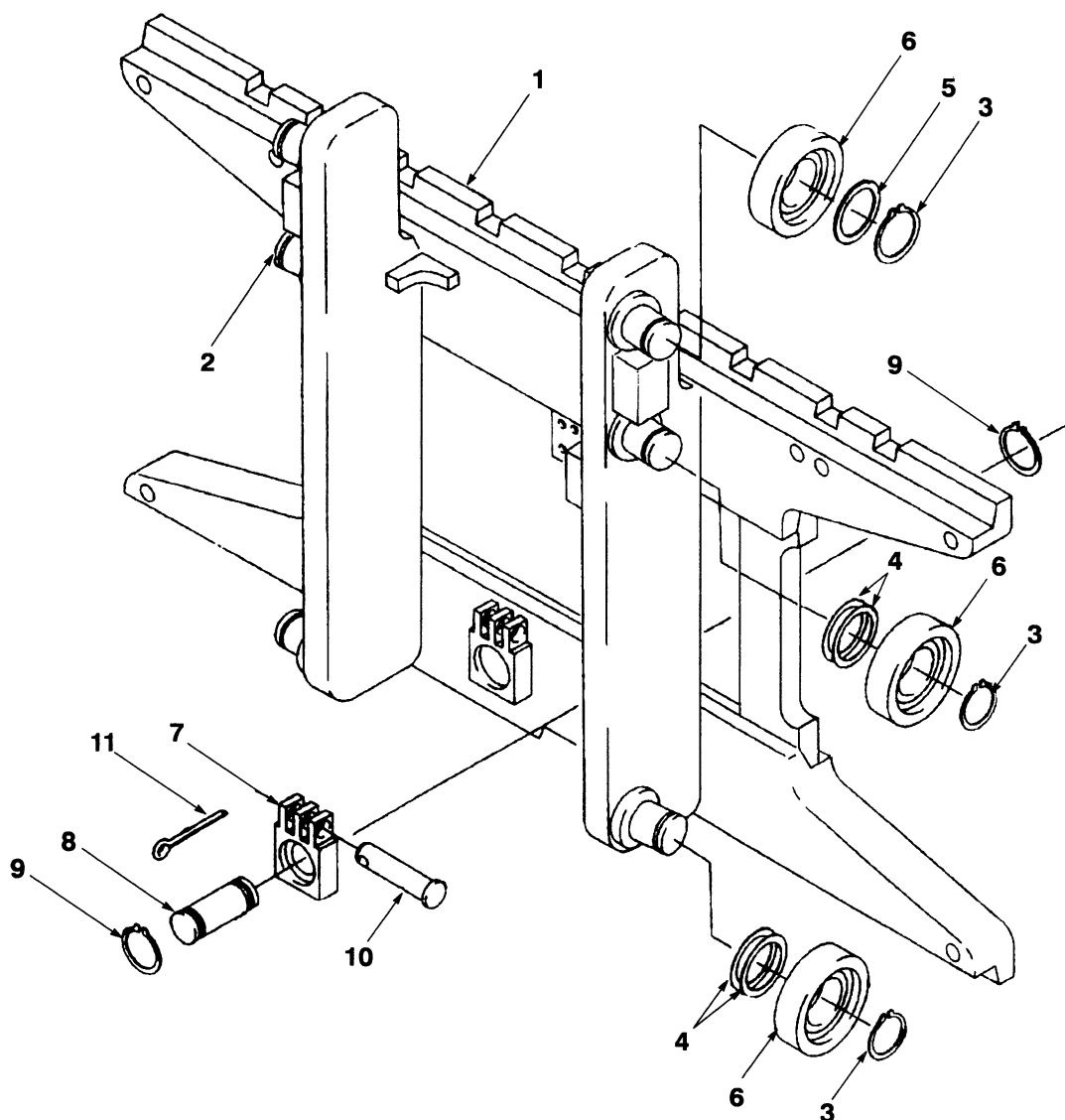
**FREE LIFT CYLINDER
THREE STAGE FULL FREE-LIFT**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177. in.)	4801 mm (189. in.)	5550 mm (218.5 in.)
	Mast Group Number	A556 4460	A556 4760	A556 5510
	Cylinder Group Number	8601706	8601708	8601713
	Lift Cylinder	1362886	1362888	1362894
1	Shell	1362923	1362925	1362931
2	Rod	1362960	1362962	1362968

ITEM	PART NO.	DESCRIPTION	QTY
	a	Lift Cylinder.....	1
1	a	Shell	1
2	a	Rod.....	1
3	2013099	Wiper.....	1
4	1358970	Seal	1
5	1362880	Gland.....	1
6	147973	Back-Up Ring	1
7	55146	O-Ring.....	1
8	2013089	Back-Up Ring	1
9	201829	Wiper Ring.....	1
10	1362881	Wear Ring	1
11	257913	Check Valve.....	1
12	190580	O-Ring.....	1
13	297531	Washer	1
14	187388	Snap Ring.....	1
15	1361302	Screw	1
16	190887	Seal	1
	1360141	Seal Kit (Includes Items 3-4, 6-10, 12, 16)	1

FOOTNOTES:**a** Refer to Table

CARRIAGE (Figure 8-8) THREE STAGE FULL-FREE LIFT

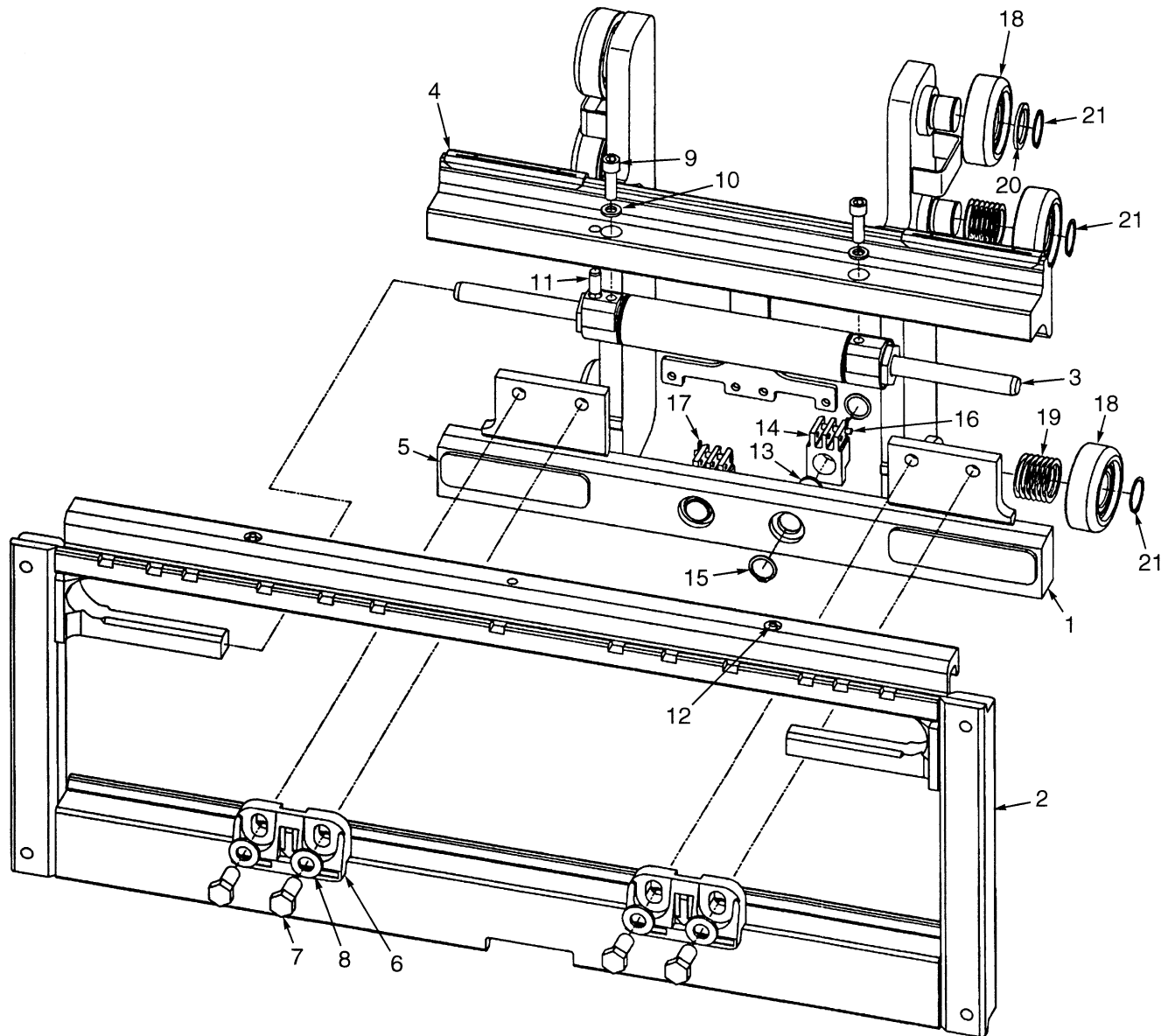


HP171138

ITEM	PART NO.	DESCRIPTION	QTY
1	1353467	Frame	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
7	1369345	Chain Anchor	2
8	1353408	Pin	2
9	131358	Snap Ring	4
10	323161	Pin	2
11	15200	Cotter Pin	2

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal black lines running across the width of the page, typical of notebook or legal stationery. The background is a solid off-white color, and there are no margins, text, or other markings present.

INTEGRAL SIDE-SHIFT CARRIAGE (Figure 8-9) THREE STAGE FULL FREE-LIFT

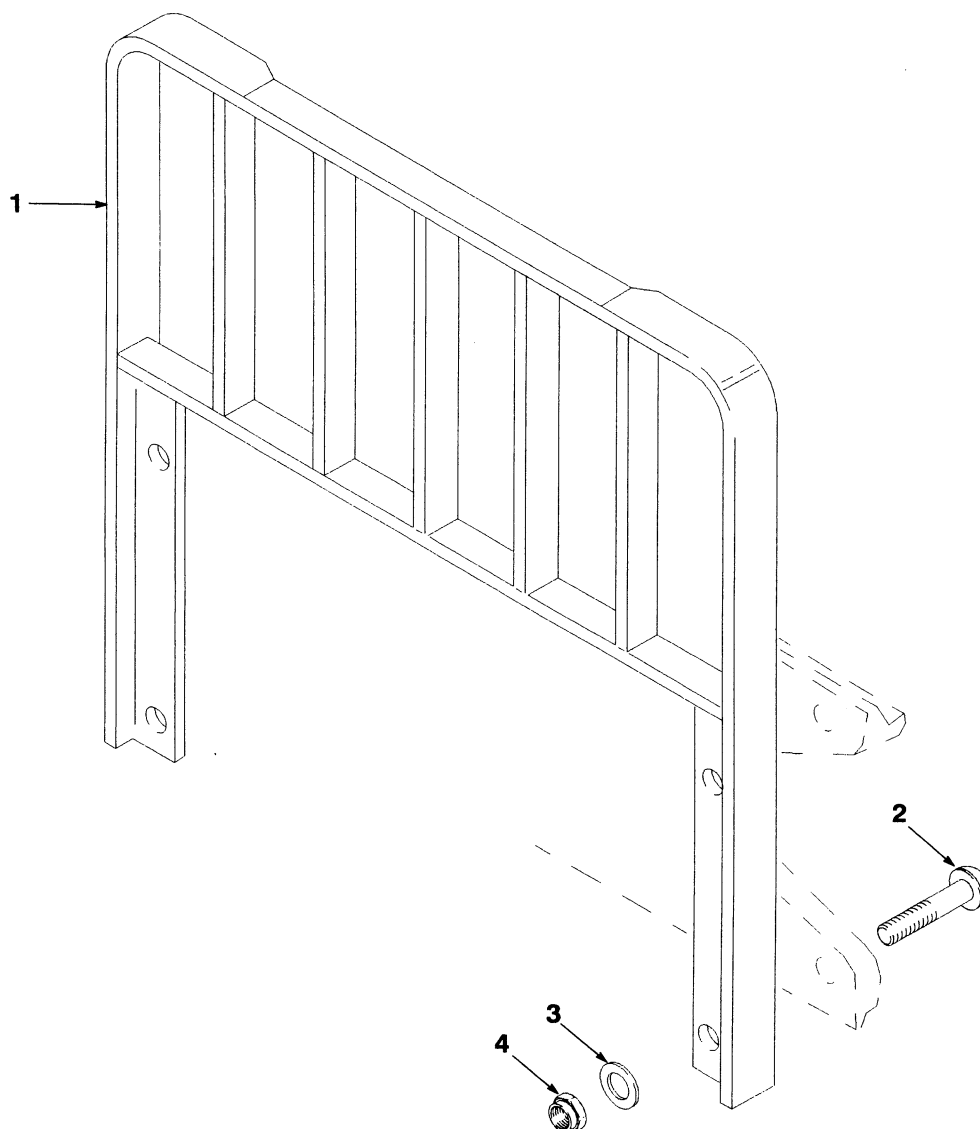


YP171214

**INTEGRAL SIDE-SHIFT CARRIAGE
THREE STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
	1486177	Side-Shift Carriage	1
1	1488997	Carriage (Inner)	1
2	1489010	Frame (Outer)	1
3	Side-Shift Cylinder (See Figure 10-8)	1
4	2043521	Connector	2
5	2043533	Bearing (Lower)	2
6	2043530	Hook (Lower)	2
7	226458	Capscrew	4
8	15160	Lockwasher	4
9	293646	Capscrew	2
10	1493304	Washer	2
11	302397	Pin	1
12	16041	Lube Fitting	2
13	1353192	Load Roller	2
14	58901	Snap Ring	2
15	129387	Shim (0.020 in.)	4
16	366115	Spacer	2
17	1369345	Chain Anchor	2
18	1353408	Pin	6
19	131358	Snap Ring	28
20	323161	Pin	6
21	15200	Cotter Pin	6

LOAD BACKREST EXTENSION (Figure 8-10) THREE STAGE FULL FREE-LIFT

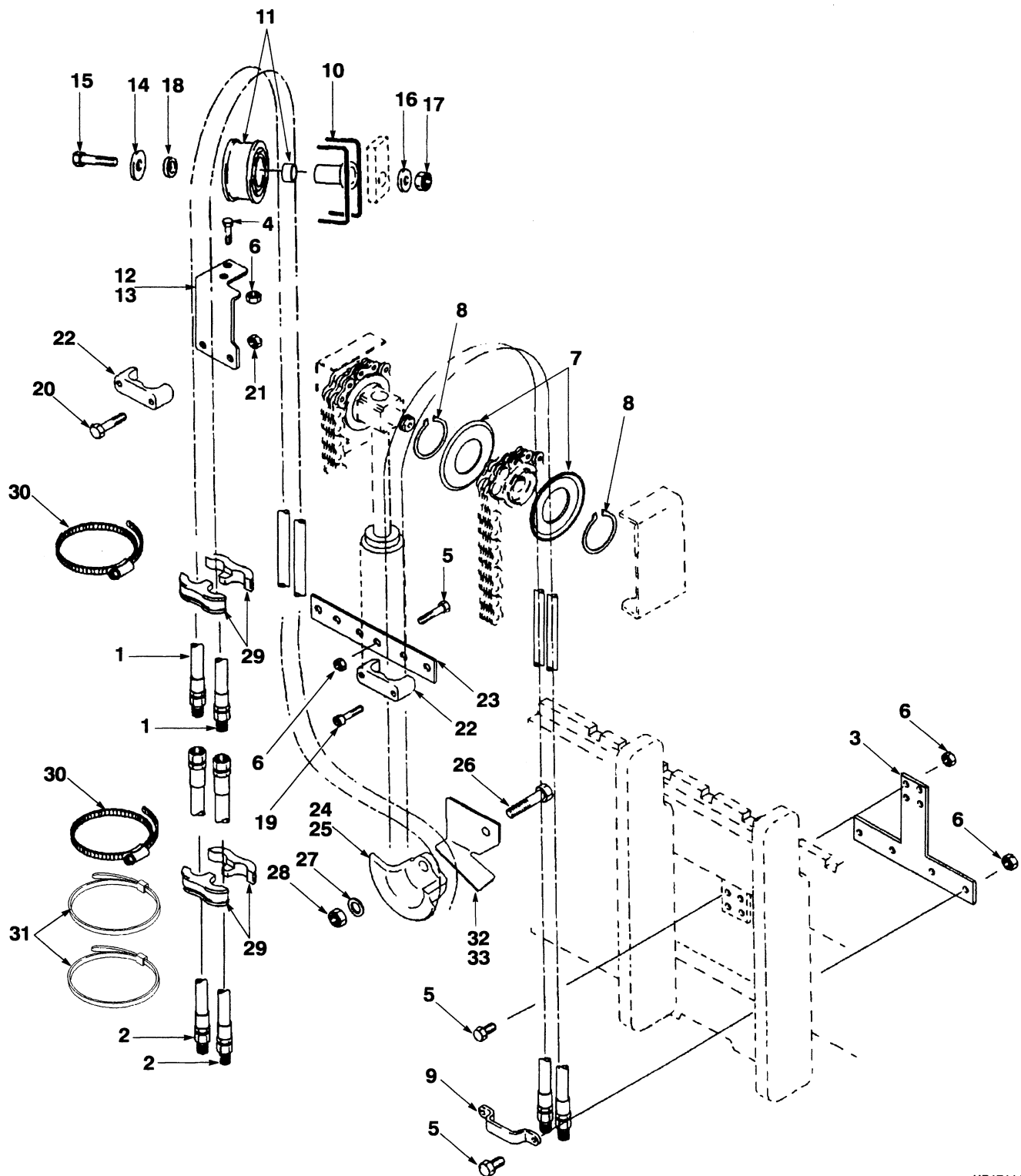


HP171139

ITEM	PART NO.	DESCRIPTION	QTY
1	1349446	Load Backrest Extension (48 in.)	1
2	1353533	Capscrew	4
3	221771	Washer	4
3	296423	Washer	4
4	300937	Nut	4

[illegible]

HEADER HOSE (Figure 8-11) THREE STAGE FULL FREE-LIFT



HP171142

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

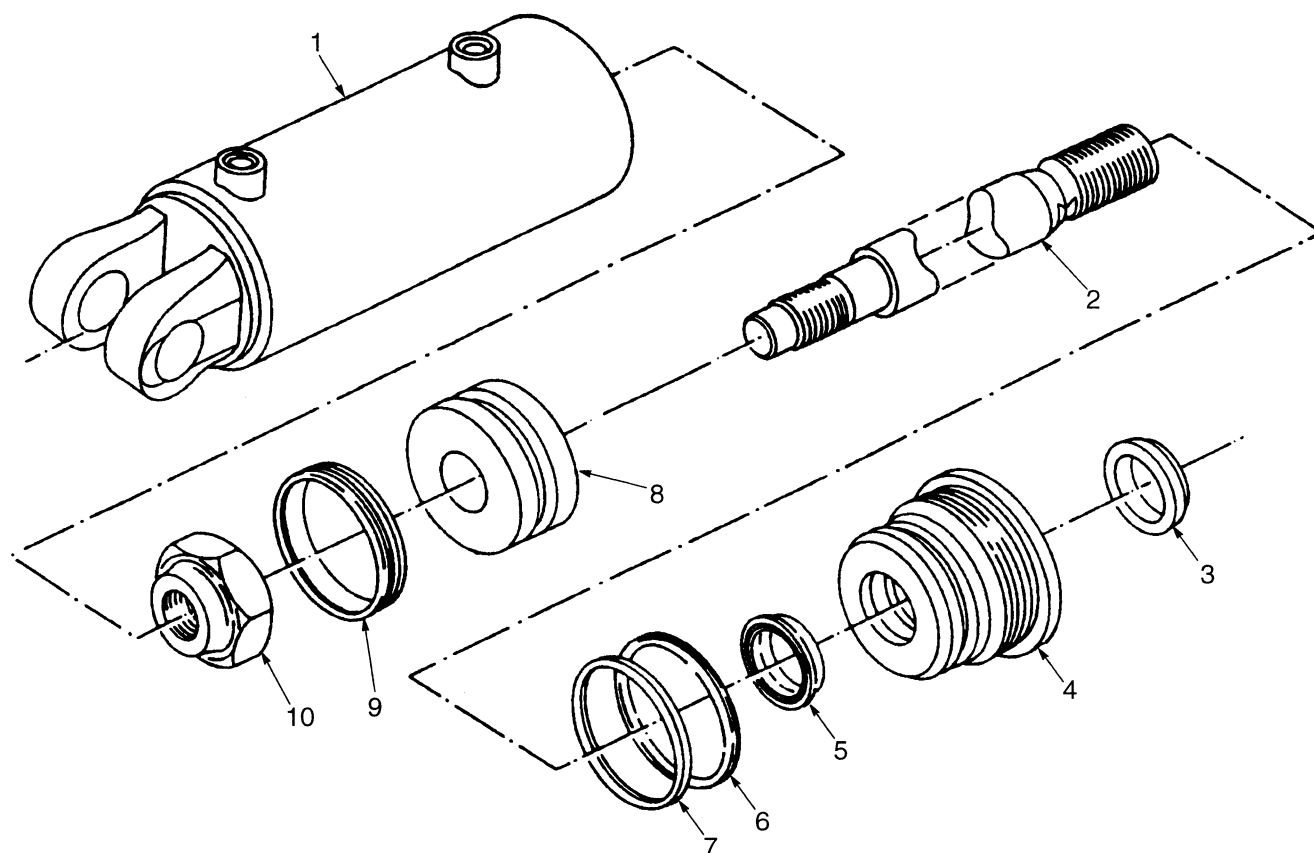
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		4496 mm (177.0 in.)	4801 mm (189.0 in.)	5550 mm (218.5 in.)
		A556 4460	A556 4760	A556 5510
1	Hose	1398584	1398586	1398593

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

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	a	Hose	2	4
2	365115	Hose	2	4
3	1381771	Bracket.....	1	1
4	136704	Capscrew.....	2	4
5	136749	Capscrew.....	10	12
6	313828	Nut	10	12
7	1345199	Hose Guide.....	2	4
8	1345204	Snap Ring.....	2	4
9	1369333	Clamp	1	2
10	1396406	Stubshaft	1	2
11	1353521	Bushing	1	1
11	1494017	Sheave.....	1	2
12	1381598	Bracket (RH)	1	1
13	1381599	Bracket (LH).....	..	1
14	1345190	Washer	1	2
15	292533	Capscrew.....	1	2
16	320161	Washer	1	2
17	300937	Nut	1	2
18	1360549	Spacer	1	2
19	293795	Capscrew.....	2	4
20	293796	Capscrew.....	2	4
21	313805	Nut	2	4
22	1360386	Clamp	2	4
23	1353464	Plate	1	1
24	1348247	Hose Guide.....	1	1
25	1348246	Hose Guide.....	..	1
26	292521	Capscrew.....	1	2
27	320160	Washer	2	4
28	316826	Nut	1	2
29	1353530	Clamp	4	8
30	1360507	Clamp	2	4
31	1375574	Strap	2	4
32	1363255	Bracket (RH)	1	1
33	1363256	Bracket (LH).....	..	1

FOOTNOTES:**a** Refer to Table

TILT CYLINDER (Figure 8-12) THREE STAGE FULL FREE-LIFT

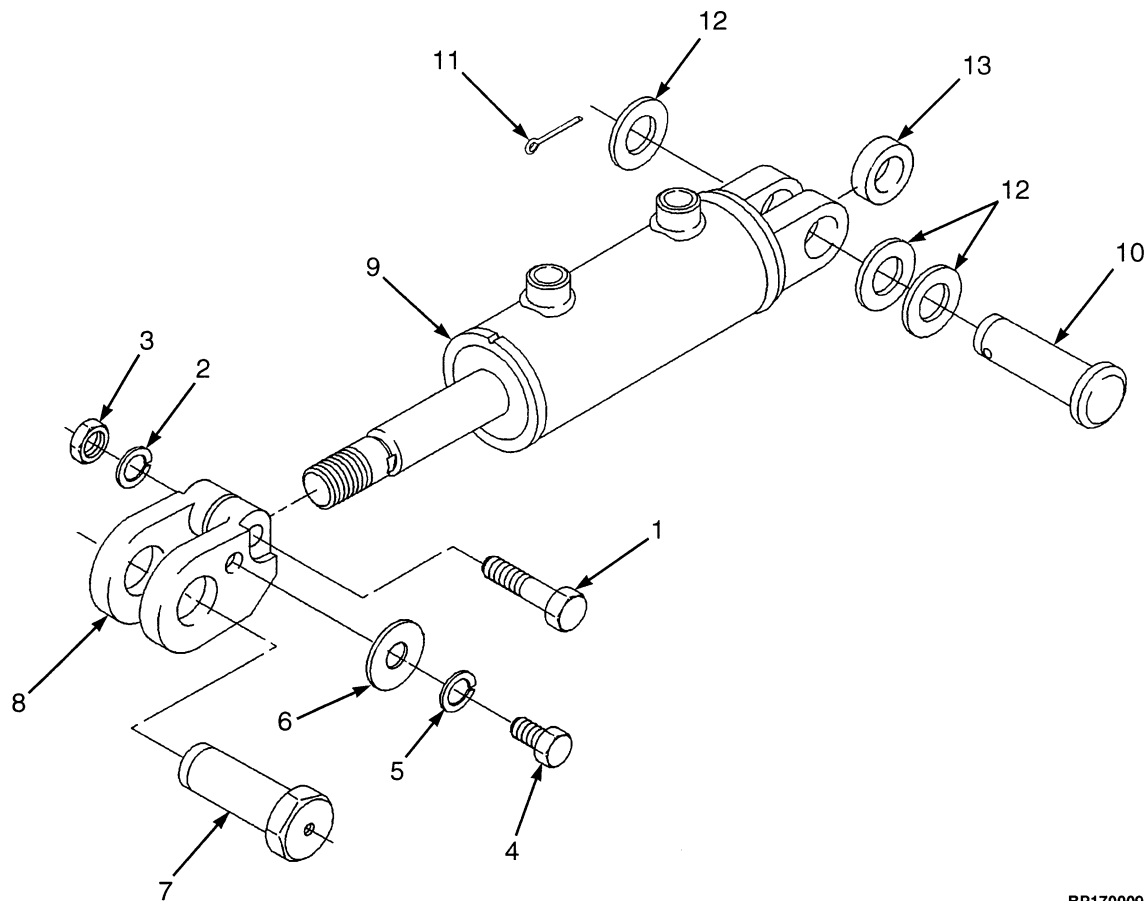


BP170011

**TILT CYLINDER
THREE STAGE FULL FREE-LIFT****KEY:****A: 5° Forward Tilt/5° Back Tilt****B: 10° Forward Tilt/5° Back Tilt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2047065	Tilt Cylinder (Group No. 8603390)	2	..
	2033757	Tilt Cylinder (Group No. 8603353)	2
1	2302899	Nut	1	1
2	Seal	1	1
3	2308174	Piston.....	1	1
4	2050282	Rod cylinder (Standard).....	1	..
4	2311444	Rod cylinder	1
5	2308691	Tube	1
5	2307114	Tube (Standard).....	1	..
6	Seal	1	1
7	O-Ring	1	1
8	Backup Ring	1	1
9	2047064	Gland	1	1
10	Wiper Ring.....	1	1
	1494719	Seal Kit (Includes Items 2, 6-8, 10)	1	1

TILT CYLINDER - ATTACHING PARTS (Figure 8-13) THREE STAGE FULL FREE-LIFT



BP170009

**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	1348188	Rod End Pin	2
8	1363260	Rod End (RH)	1
8	1363261	Rod End (LH).....	1
9	b 2047065	Tilt Cylinder (Standard).....	2
9	a 2033757	Tilt Cylinder.....	2
10	308117	Rod End Pin	2
11	15236	Cotter Pin.....	2
12	197069	Washer	6
13	300982	Bushing.....	2

FOOTNOTES:**a** 10° Tilt/5° Back Tilt**b** 5° Tilt/5° Back Tilt

[illegible]

9

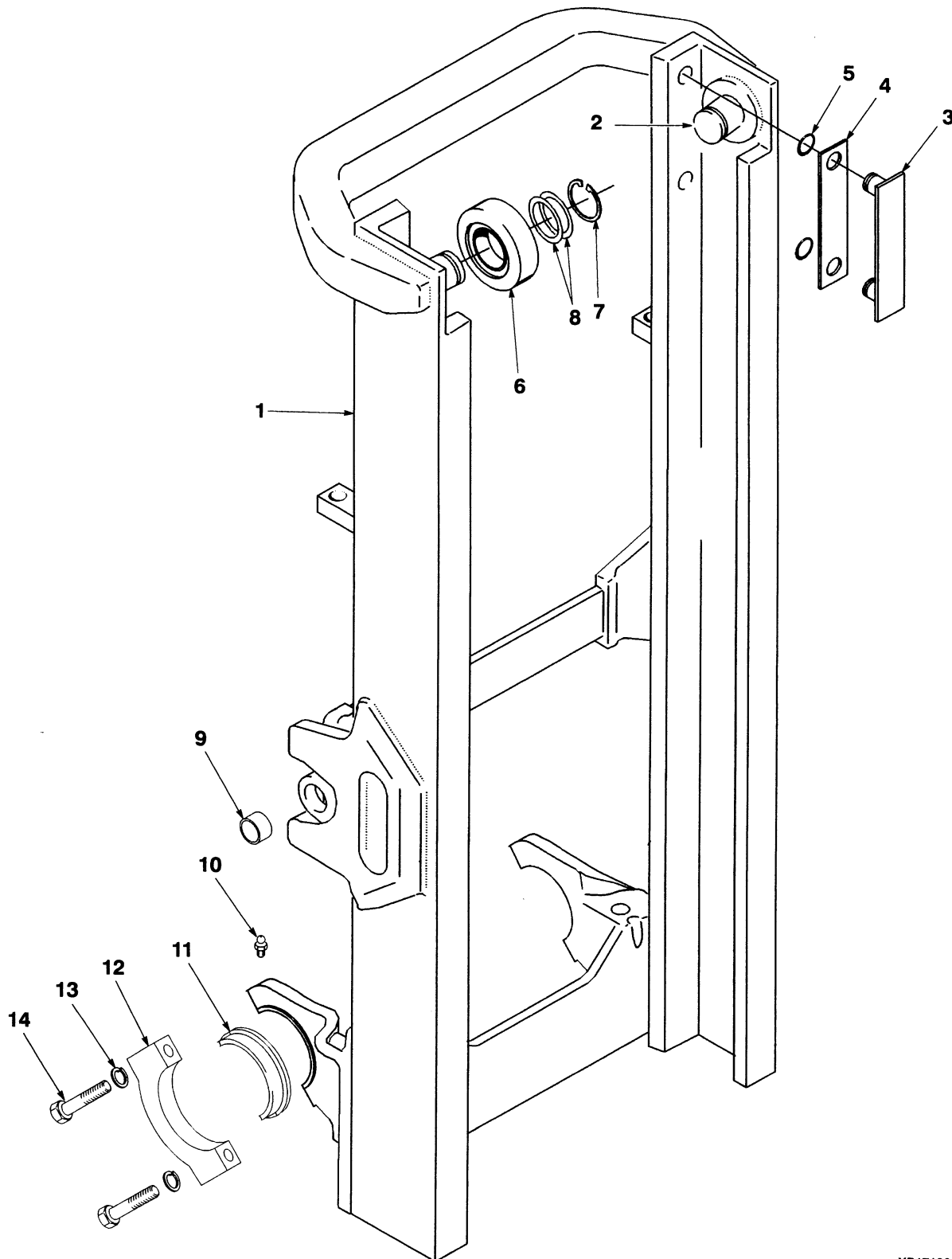
MAST-TWO STAGE FULL FREE-LIFT

SECTION 9

MAST-TWO STAGE FULL FREE-LIFT

DESCRIPTION	PAGE
CARRIAGE	
TWO STAGE FULL FREE-LIFT	9-16
FREE LIFT	
TWO STAGE FULL FREE-LIFT	9-8
FREE LIFT CYLINDER	
TWO STAGE FULL FREE-LIFT	9-10
HEADER HOSE	
TWO STAGE FULL FREE-LIFT	9-26
INNER MAST	
TWO STAGE FULL FREE-LIFT	9-4
INTEGRAL SIDE-SHIFT CARRIAGE	
TWO STAGE FULL FREE-LIFT	9-18
LOAD BACKREST EXTENSION	
TWO STAGE FULL FREE-LIFT	9-20
MAIN CYLINDER	
LEFT HAND	
TWO STAGE FULL FREE-LIFT	9-14
RIGHT HAND	
TWO STAGE FULL FREE-LIFT	9-12
MAIN LIFT	
TWO STAGE FULL FREE-LIFT	9-6
OUTER MAST	
TWO STAGE FULL FREE-LIFT	9-2
TILT CYLINDER	
TWO STAGE FULL FREE-LIFT	9-22
TILT CYLINDER - ATTACHING PARTS	
TWO STAGE FULL FREE-LIFT	9-24

OUTER MAST (Figure 9-1) TWO STAGE FULL FREE-LIFT



YP171206

**OUTER MAST
TWO STAGE FULL FREE-LIFT**

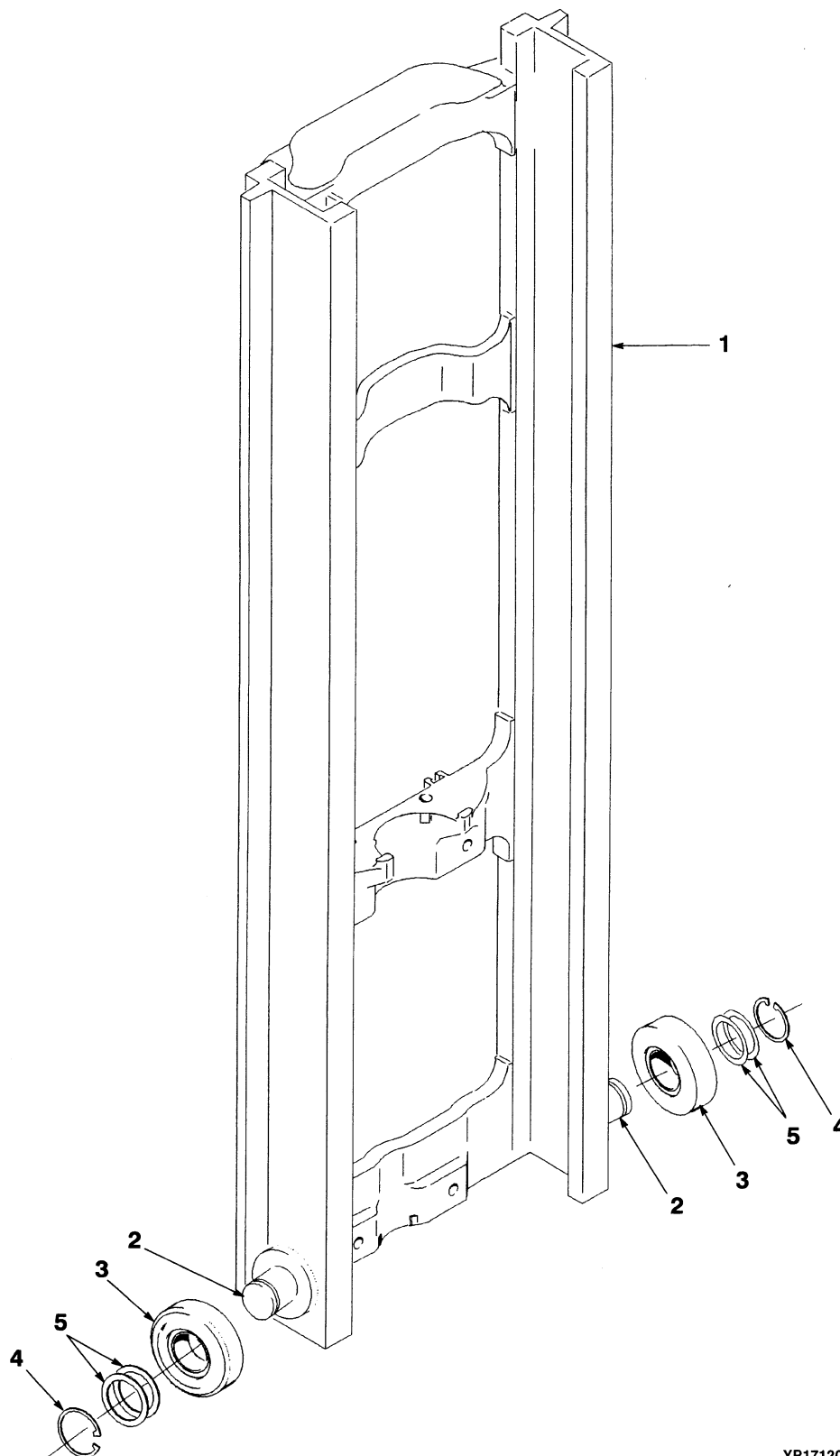
ITEM	DESCRIPTION	LIFT HEIGHT TO BOTTOM OF FORKS			
		3061 mm (120.5 in.)	3264 mm (128.5 in.)	3658 mm (144 in.)	3886 mm (153 in.)
	1 2 3 4 Mast Group Number	A560 3028	A560 3228	A560 3628	A560 3828
	Mast Assembly	2049162	2049164	2049168	2049170
1	Outer Mast	1348056	1348058	1348062	1348064

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assembly	1
1	a	Outer Mast.....	1
2	1345216	Stubshaft.....	2
3	215212	Bearing Strip	2
4	131716	Shim (0.020 in.)	4
5	104506	O-Ring	4
6	1353192	Load Roller	2
7	58901	Snap Ring.....	2
8	129387	Shim (0.020 in.)	AR
9	1348185	Bushing	2
10	16001	Lube Fitting.....	2
11	1370721	Bushing (2 Bushings)	1
12	1370722	Cap.....	2
13	292683	Lockwasher	4
14	292531	Capscrew	4

FOOTNOTES:

a Refer to Table

INNER MAST (Figure 9-2) TWO STAGE FULL FREE-LIFT



YP171207

**INNER MAST
TWO STAGE FULL FREE-LIFT**

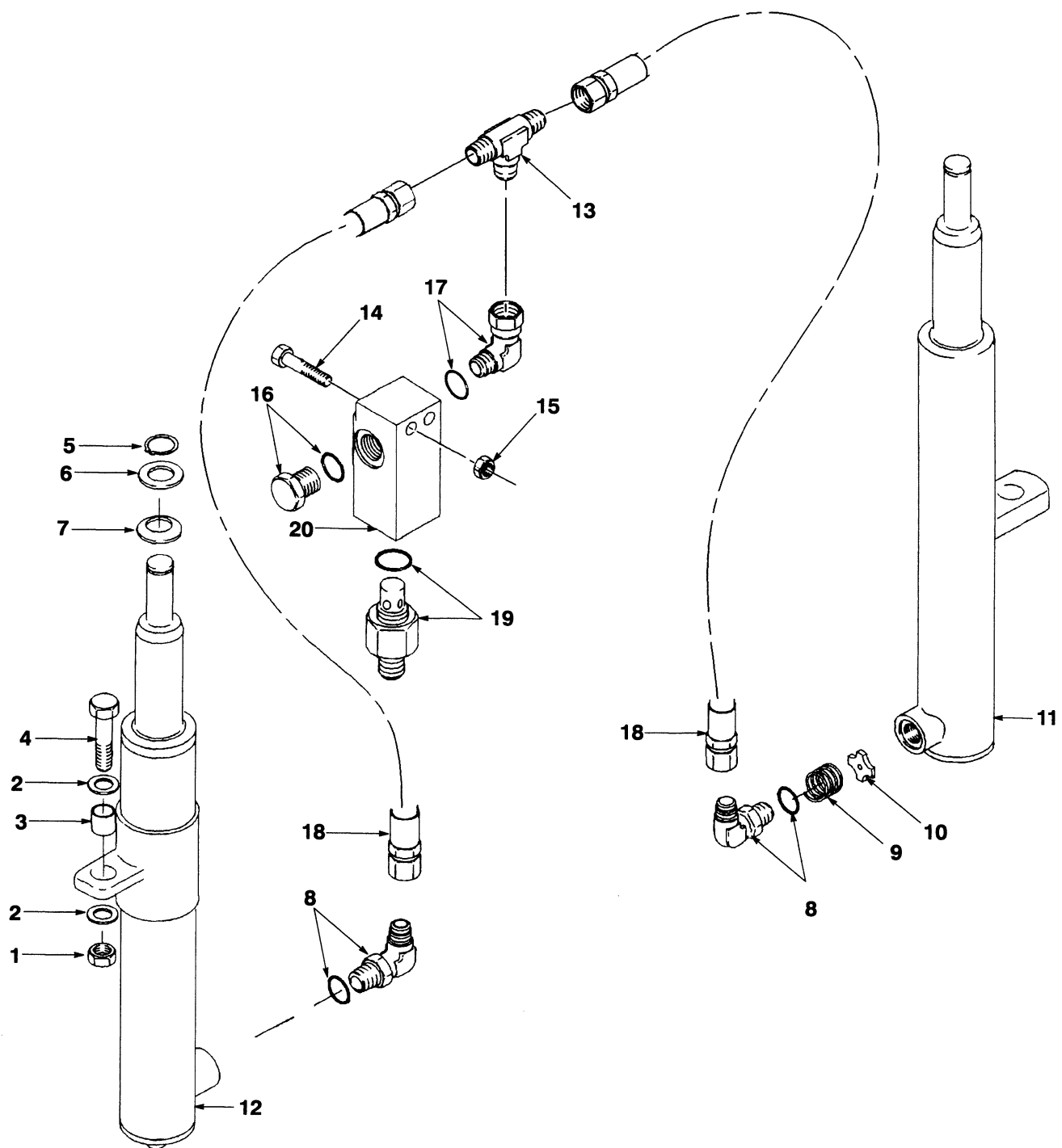
ITEM	DESCRIPTION	LIFT HEIGHT TO BOTTOM OF FORKS			
		3061 mm (120.5 in.)	3264 mm (128.5 in.)	3658 mm (144 in.)	3886 mm (153 in.)
	1 2 3 4 Mast Group Number	A560 3028	A560 3228	A560 3628	A560 3828
	Mast Assembly	2049162	2049164	2049168	2049170
1	Inner Mast	1353706	1353708	1353712	1353714

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assembly	1
1	a	Inner Mast	1
2	1345216	Stubshaft.....	2
3	1353192	Load Roller	2
4	58901	Snap Ring.....	2
5	129387	Shim (0.020 in.)	AR

FOOTNOTES:**a** Refer to Table

MAIN LIFT (Figure 9-3)

TWO STAGE FULL FREE-LIFT

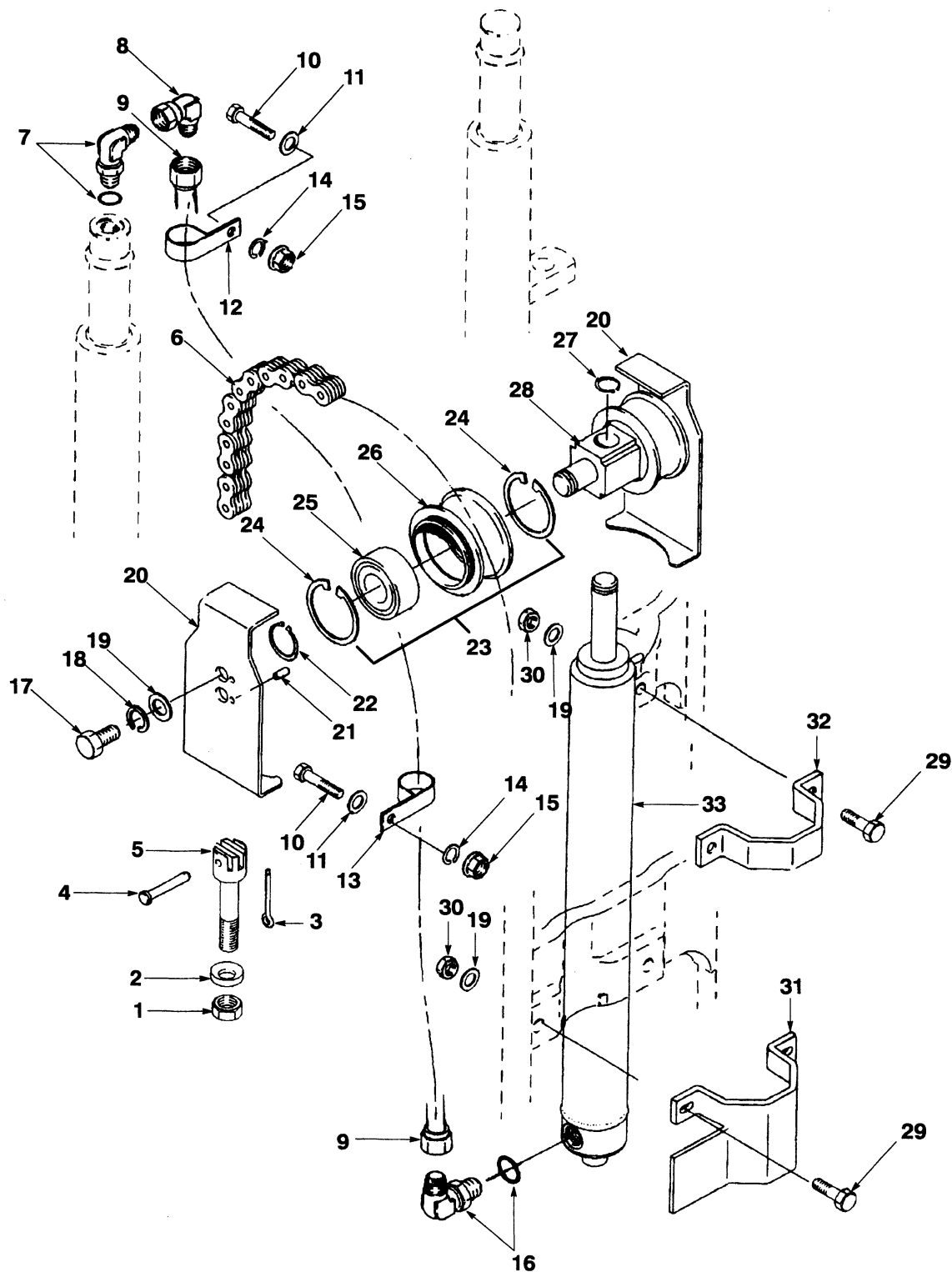


HP171146

**MAIN LIFT
TWO STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
1	Lift Cylinder (LH) (☞ Figure 9-7)	1
2	Lift Cylinder (RH) (☞ Figure 9-6)	1
3	292531	Capscrew.....	2
4	296422	Washer	4
5	323090	Spacer	2
6	161003	Nut.....	2
7	131358	Snap Ring.....	2
8	1333382	Washer	2
9	1354915	Washer (0.010 in.)	AR
9	1354916	Washer (0.030 in.)	AR
9	1354917	Washer (0.060 in.)	AR
10	323061	Control Valve	1
10	16982	O-Ring.....	1
11	1333392	Housing	1
12	292509	Capscrew.....	2
13	313828	Nut	2
14	17051	Fitting.....	1
15	120938	Spring	1
16	323160	Washer	1
17	189595	Fitting.....	2
17	16485	O-Ring.....	1
18	14603	Fitting.....	1
18	16486	O-Ring.....	1
19	16560	Fitting.....	1
19	16485	O-Ring.....	1
20	1376101	Hose	2

FREE LIFT (Figure 9-4) TWO STAGE FULL FREE-LIFT



HP171147

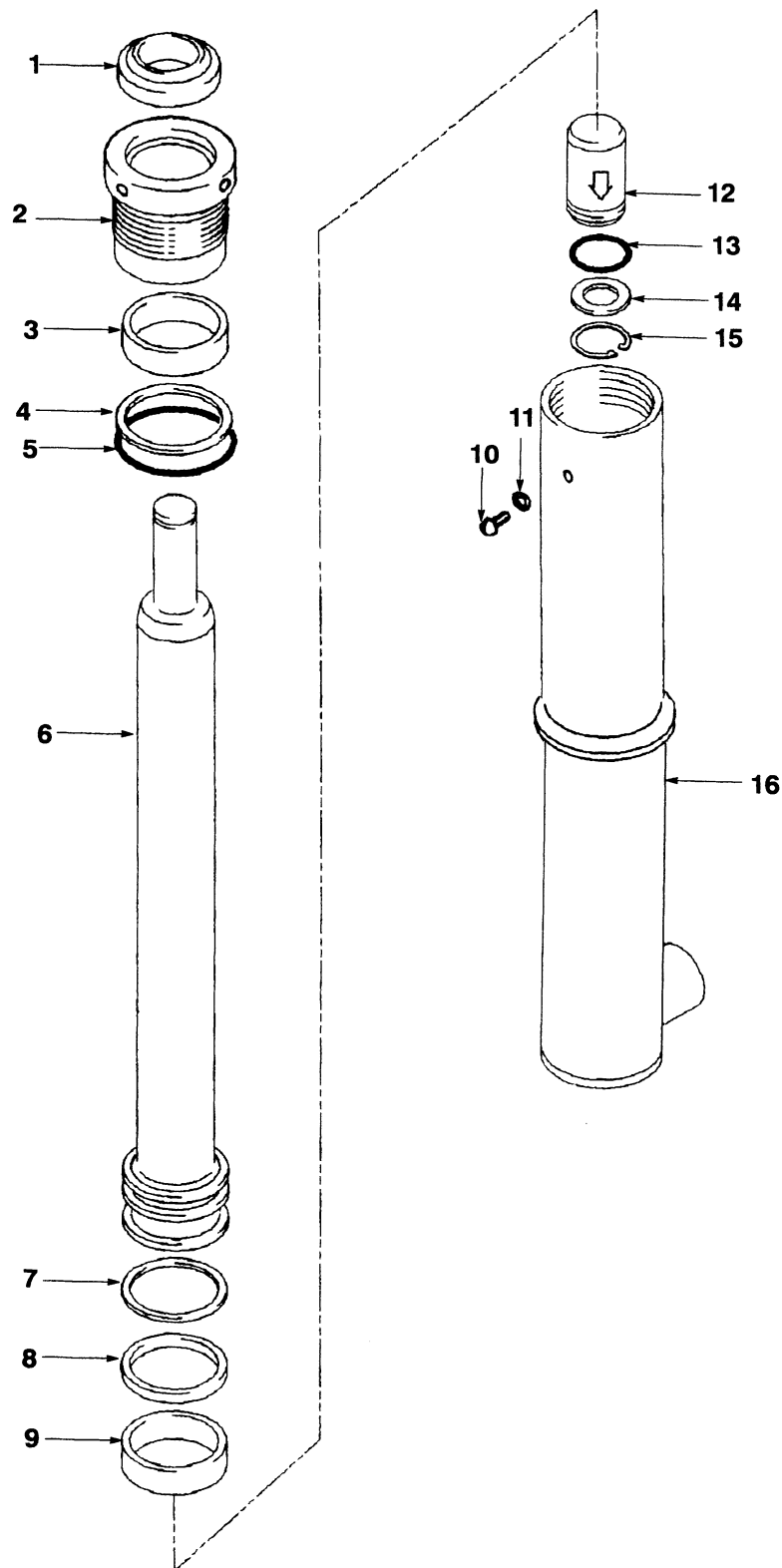
**FREE LIFT
TWO STAGE FULL FREE-LIFT**

ITEM	DESCRIPTION	LIFT HEIGHT TO BOTTOM OF FORKS			
		3061 mm (120.5 in.)	3264 mm (128.5 in.)	3658 mm (144 in.)	3886 mm (153 in.)
	1 2 3 4 Mast Group Number	A560 3028	A560 3228	A560 3628	A560 3828
	Mast Assembly	2049162	2049164	2049168	2049170
1	Chain	231082	231083	249805	88436
2	Hose	1365306	1365308	1365312	1365314

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assembly	1
1	a	Chain	2
2	a	Hose	1
3	161003	Nut	2
4	297649	Ring	2
5	323161	Pin	2
6	15200	Cotter Pin	2
7	1369357	Chain Anchor	2
8	1395285	Guard	2
9	292527	Capscrew	2
10	292683	Lockwasher	2
11	1353546	Bracket	1
12	302461	Pin	2
13	1344323	Bracket	1
14	287837	Capscrew	4
15	320161	Washer	6
16	300937	Nut	4
17	1333243	Flow Valve	1
17	16485	O-Ring	1
18	1337905	Crosshead	1
19	320158	Washer	2
20	292683	Lockwasher	2
21	132861	Capscrew	2
22	178119	Clamp	1
23	239503	Nut	2
24	17197	Fitting	1
24	16484	O-Ring	1
25	16882	Fitting	1
26	304526	Snap Ring	2
27	1354912	Chain Sheave	2
28	37752	Snap Ring	2
29	231020	Bearing	1
30	1354911	Sheave	1
31	Free Lift Cylinder (See Figure 9-5)	1
32	131358	Snap Ring	1
33	166112	Clamp	1

FOOTNOTES:**a** Refer to Table

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



HP171149

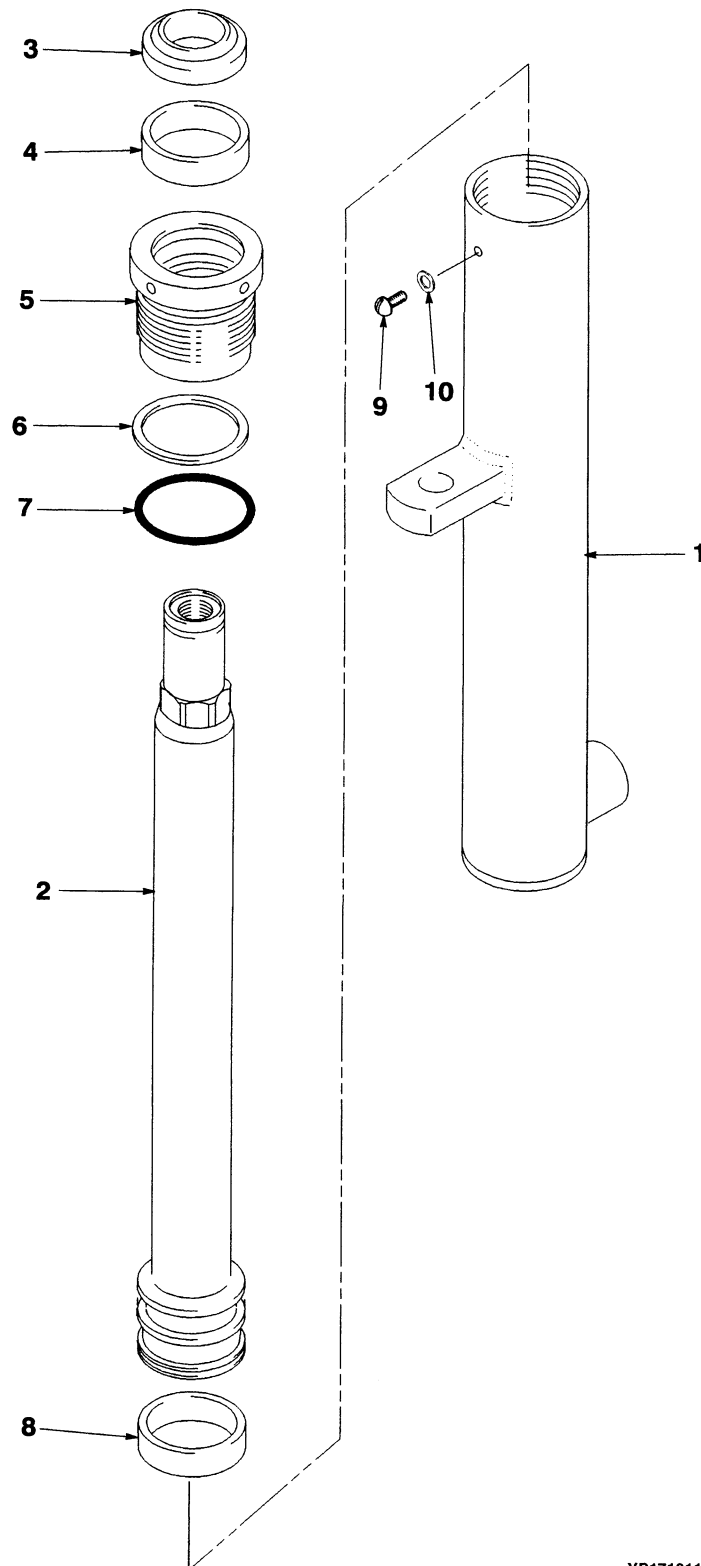
**FREE LIFT CYLINDER
TWO STAGE FULL FREE-LIFT**

ITEM	DESCRIPTION	LIFT HEIGHT TO BOTTOM OF FORKS			
		3061 mm (120.5 in.)	3264 mm (128.5 in.)	3658 mm (144.0 in.)	3886 mm (153.0 in.)
	1 2 3 4				
	Mast Group Number	A560 3028	A560 3228	A560 3628	A560 3828
	Cylinder Group Number	8601906	8601908	8601912	8601914
	Lift Cylinder	1362886	1362888	1362892	1362894
6	Rod	1362960	1362962	1362966	1362968
16	Shell	1362923	1362925	1362929	1362931

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

FOOTNOTES:**a** Refer to Table

MAIN CYLINDER (Figure 9-6) RIGHT HAND TWO STAGE FULL FREE-LIFT



YP171211

MAIN CYLINDER RIGHT HAND TWO STAGE FULL FREE-LIFT

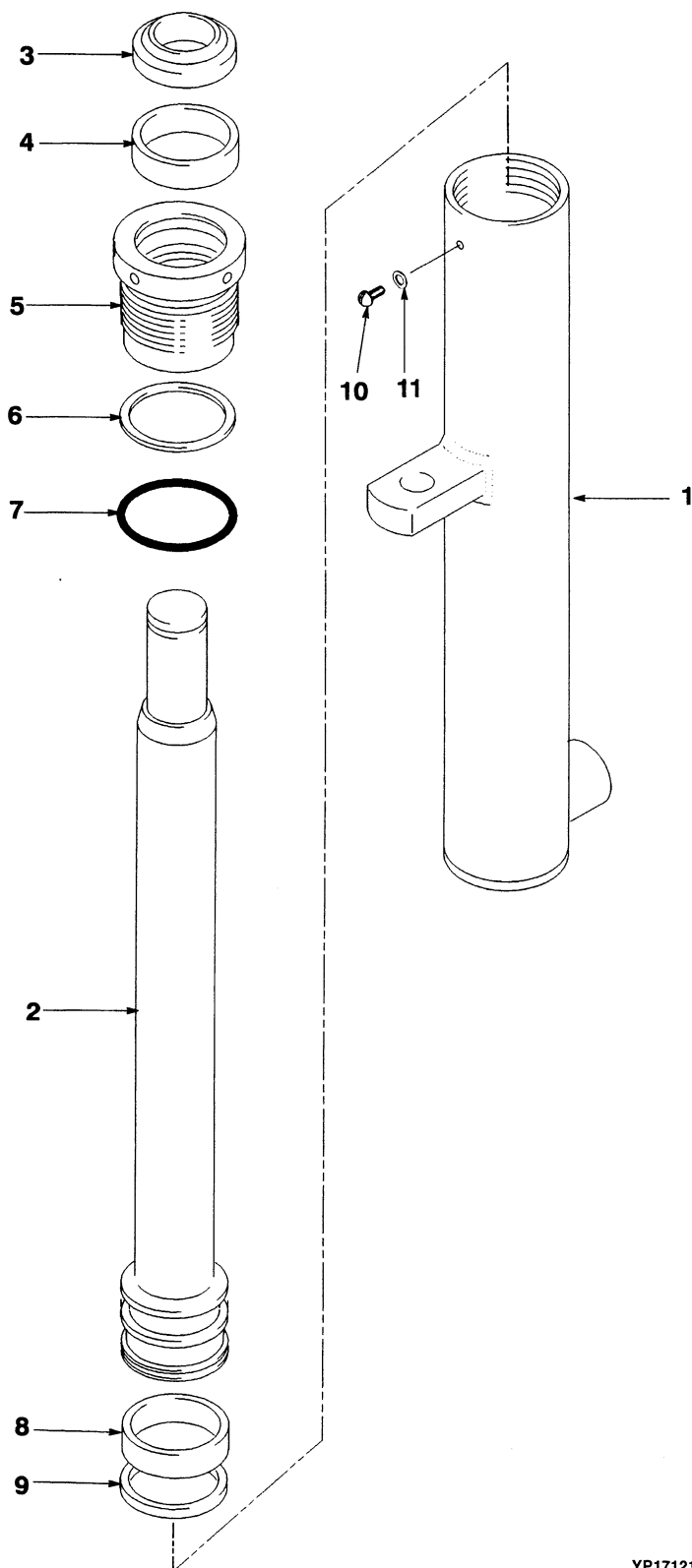
ITEM	DESCRIPTION	LIFT HEIGHT TO BOTTOM OF FORKS			
		3061 mm (120.5 in.)	3264 mm (128.5 in.)	3658 mm (144 in.)	3886 mm (153 in.)
	1 2 3 4				
	Mast Group Number	A560 3028	A560 3228	A560 3628	A560 3828
	Cylinder Group Number	8510206	8510208	8510212	8510214
	Lift Cylinder	2046334	2046336	2046340	2046342
1	Shell	1365605	1365607	1365611	1365613
2	Rod	1365635	1365637	1365641	1365643

ITEM	PART NO.	DESCRIPTION	QTY
	a	Lift Cylinder.....	1
1	a	Shell	1
2	a	Rod.....	1
3	1310369	Wiper Ring.....	1
4	1381082	Seal-Rod	1
5	1498116	Gland.....	1
6	132834	Back-Up Ring	1
7	55407	O-Ring	1
8	1374802	Wear Ring	1
9	295649	Capscrew	1
10	190887	Seal	1
	1498115	Seal Kit (Includes Items 3-4, 6-8)	1

FOOTNOTES:

a Refer to Table

MAIN CYLINDER (Figure 9-7) LEFT HAND TWO STAGE FULL FREE-LIFT



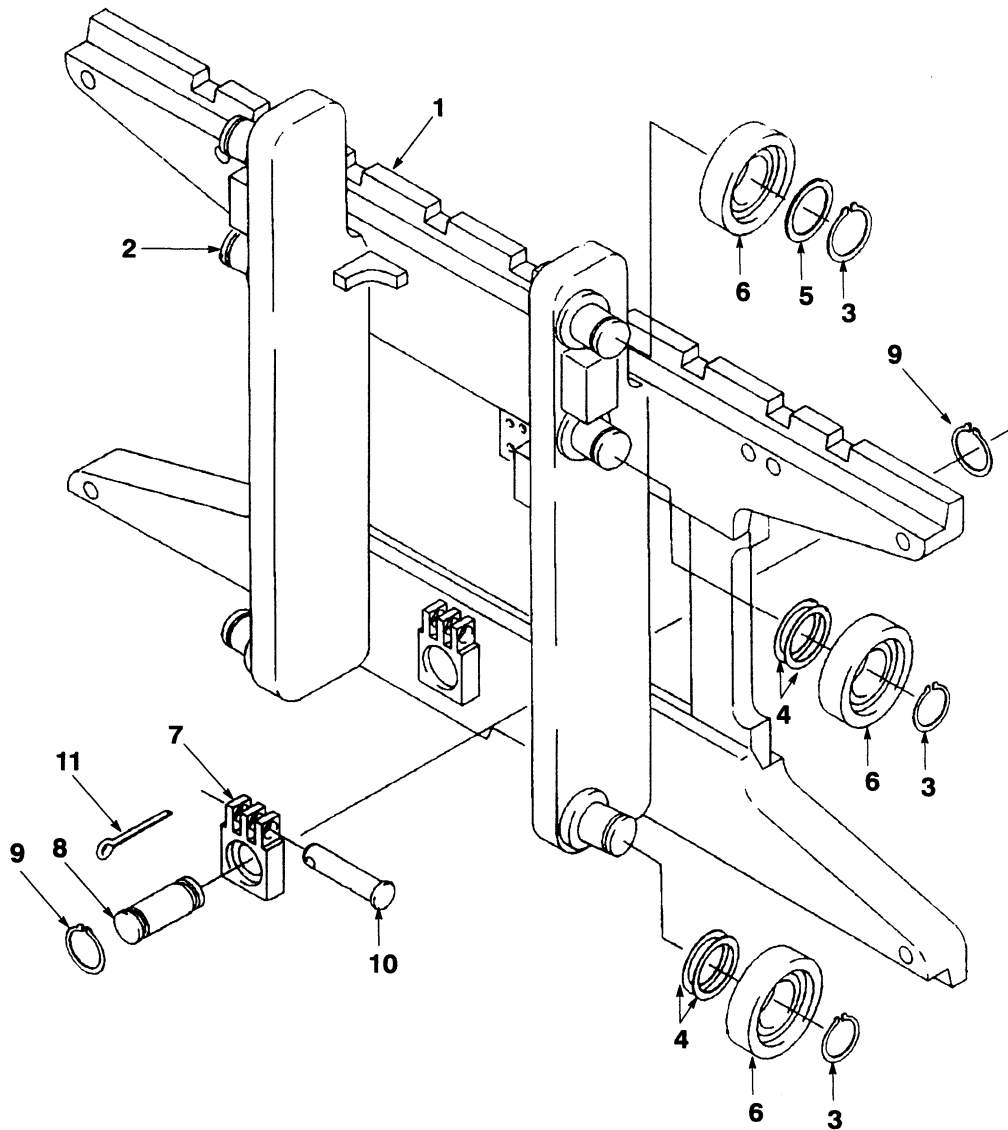
MAIN CYLINDER LEFT HAND TWO STAGE FULL FREE-LIFT

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		3061 mm (120.5 in.)	3264 mm (128.5 in.)	3658 mm (144 in.)	3886 mm (153 in.)
	Mast Group Number	A560 3028	A560 3228	A560 3628	A560 3828
	Cylinder Group Number	8510256	8510258	8510262	8510264
	Lift Cylinder	2046365	2046367	2046371	2046373
1	Shell	1365605	1365607	1362612	1365613
2	Rod	1365635	1365637	1365670	1365643

ITEM	PART NO.	DESCRIPTION	QTY
	a	Lift Cylinder.....	1
1	a	Shell	1
2	a	Rod.....	1
3	1310369	Wiper Ring.....	1
4	1381082	Seal-Rod	1
5	1498116	Gland.....	1
6	132834	Back-Up Ring	1
7	55407	O-Ring	1
8	1374802	Wear Ring	1
9	1362875	Piston Ring	1
10	295649	Capscrew	1
11	190887	Seal	1
	1498115	Seal Kit (Includes Items 3-4, 7-9)	1

FOOTNOTES:**a** Refer to Table

CARRIAGE (Figure 9-8) TWO STAGE FULL FREE-LIFT

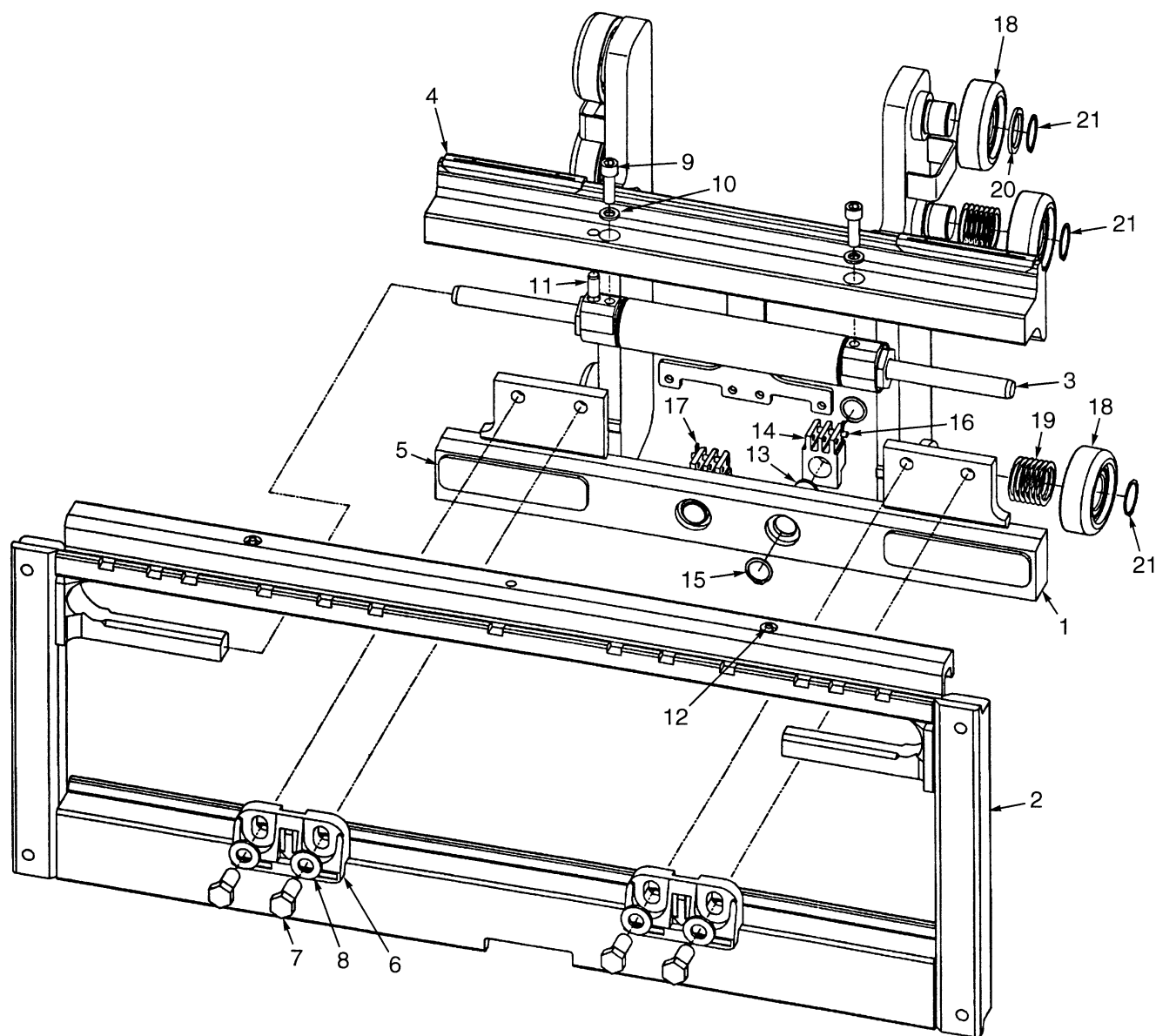


HP171150

ITEM	PART NO.	DESCRIPTION	QTY
1	1353469	Frame	1
2	1345216	Stubshaft	6
3	58901	Snap Ring	6
4	129387	Shim (0.020 in.)	AR
5	366115	Spacer	2
6	1353192	Load Roller	6
7	1369345	Chain Anchor	2
8	1353408	Pin	2
9	131358	Snap Ring	4
10	323161	Pin	2
11	15200	Cotter Pin	2

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

INTEGRAL SIDE-SHIFT CARRIAGE (Figure 9-9) TWO STAGE FULL FREE-LIFT

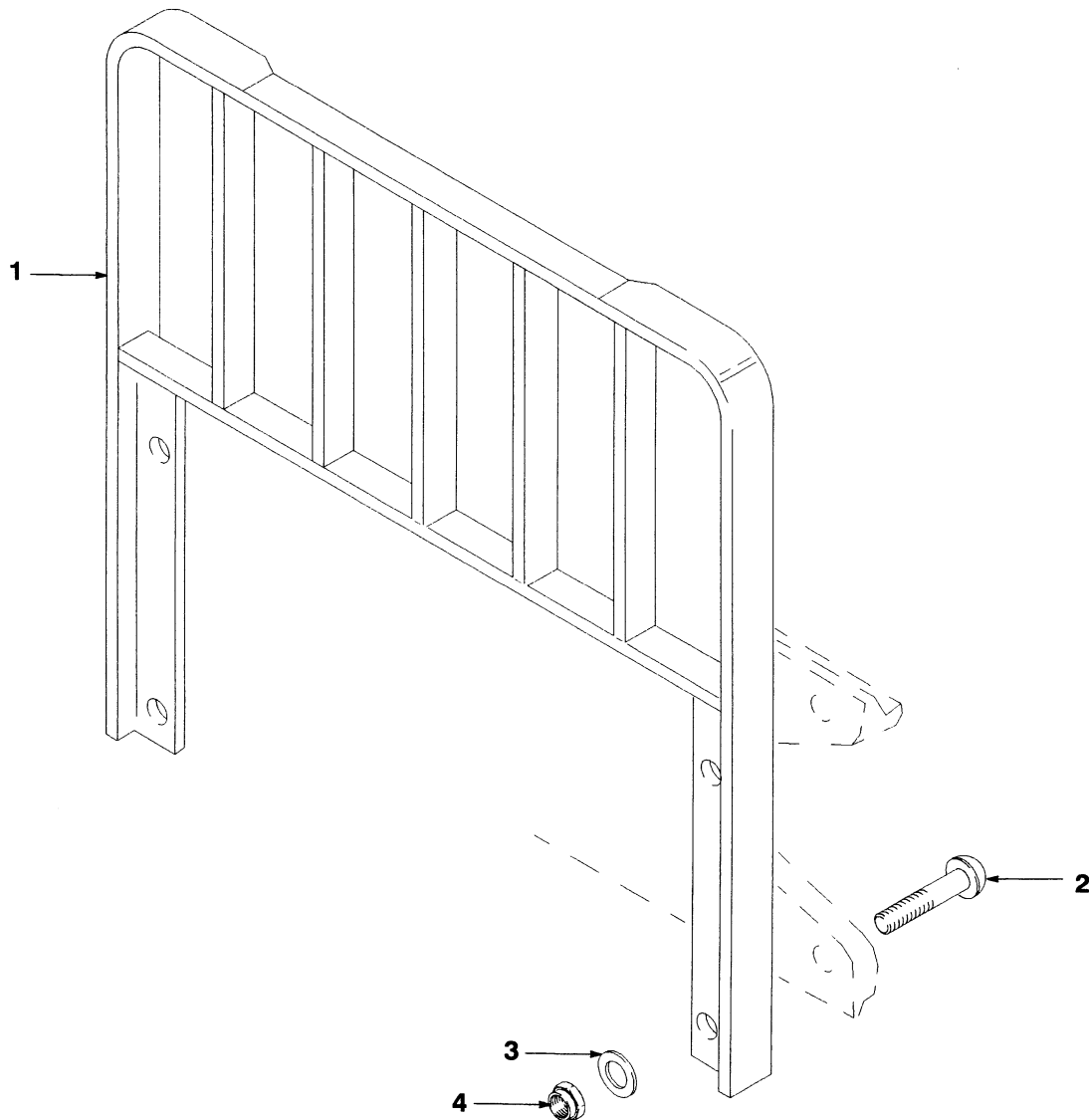


YP171213

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

ITEM	PART NO.	DESCRIPTION	QTY
	1486176	Side-Shift Carriage	1
1	1488996	Side-Shift Carriage	1
2	1489009	Frame (Outer)	1
3	Side-Shift Cylinder (☞ Figure 10-8)	1
4	1488921	Bearing (Upper)	2
5	1488873	Bearing (Lower)	2
6	2043530	Hook (Lower)	2
7	226458	Capscrew	2
8	221775	Washer	4
9	293646	Capscrew	2
10	1493304	Washer	2
11	302397	Pin	1
12	16041	Lube Fitting	2
13	317735	Pin	2
14	1369345	Chain Anchor	2
15	131358	Snap Ring	4
16	300987	Pin	2
17	15200	Cotter Pin	2
18	1363272	Load Roller	6
19	129387	Shim (0.020 in.)	28
20	366115	Spacer	6
21	58901	Snap Ring	6

LOAD BACKREST EXTENSION (Figure 9-10) TWO STAGE FULL FREE-LIFT

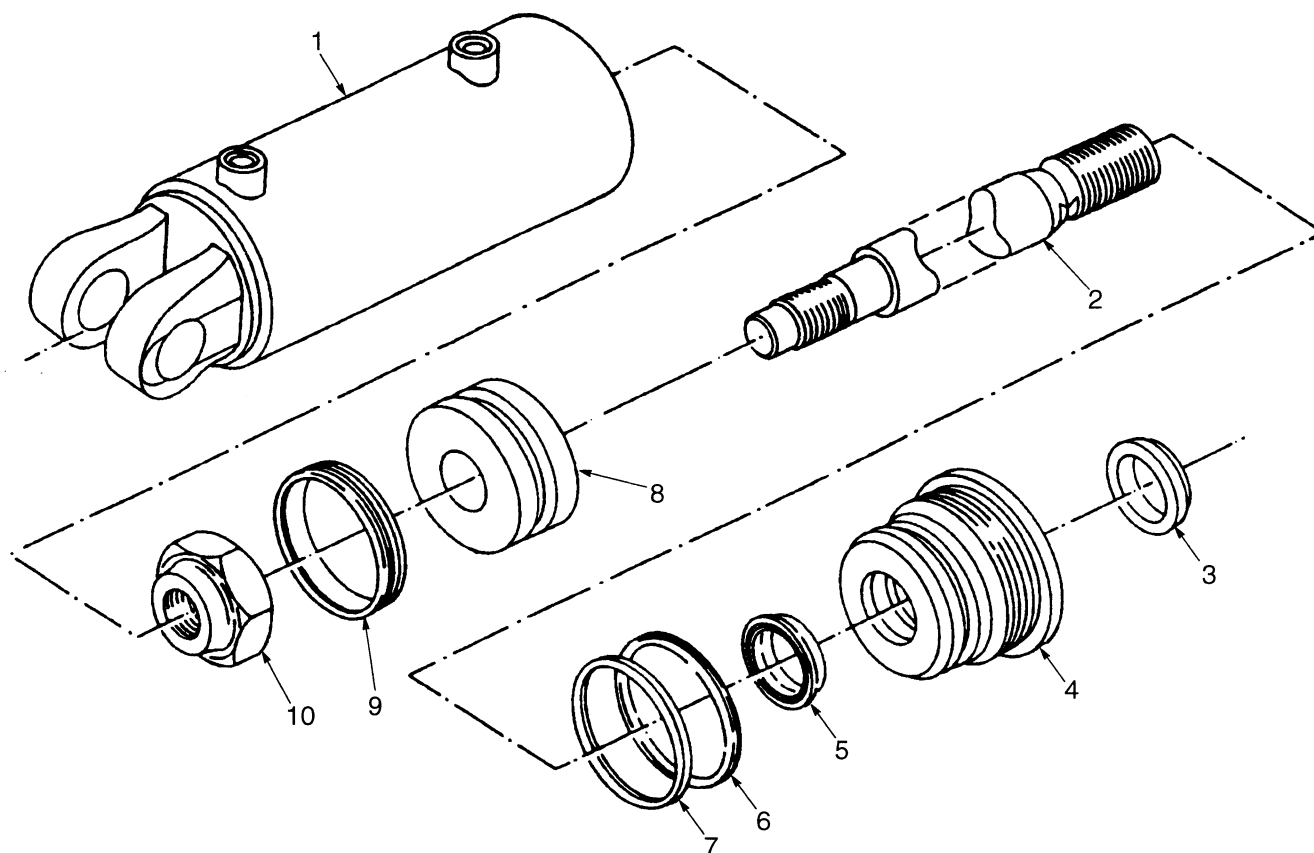


HP171151

ITEM	PART NO.	DESCRIPTION	QTY
1	1349446	Load Backrest Extension (48 in.).....	1
2	1353533	Capscrew.....	4
3	221771	Washer	4
3	296423	Washer (Optional).....	4
4	300937	Nut	4

[illegible]

TILT CYLINDER (Figure 9-11) TWO STAGE FULL FREE-LIFT

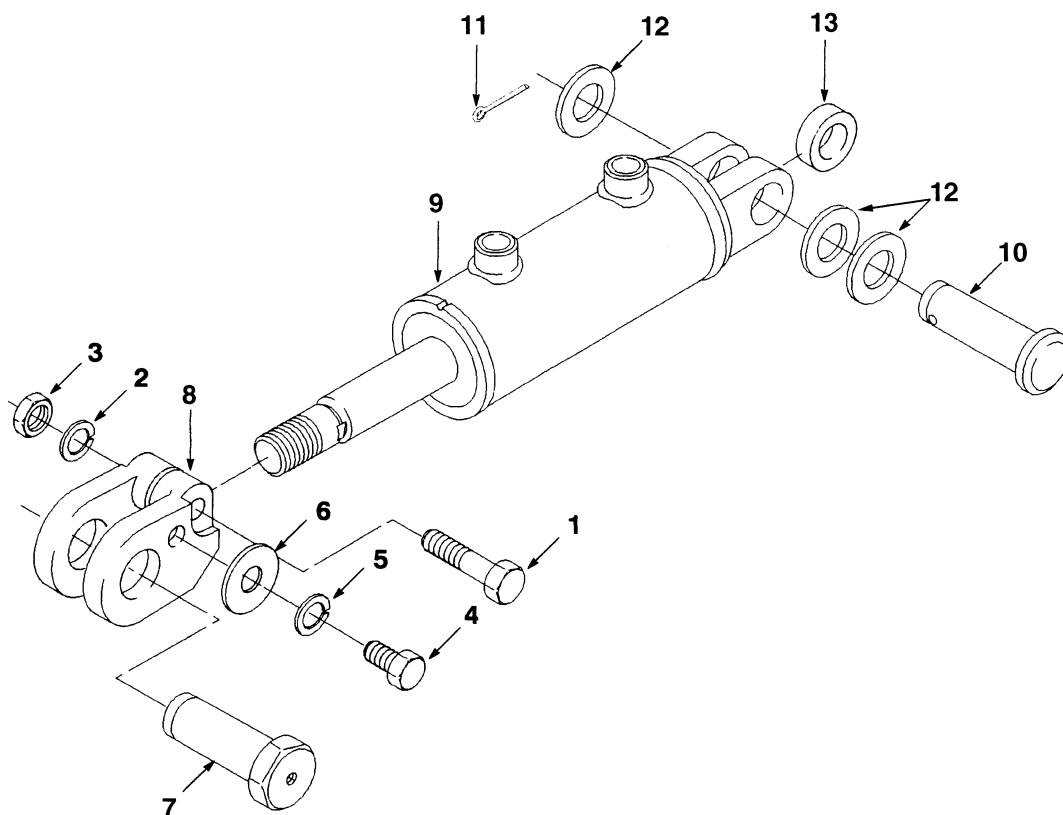


BP170011

**TILT CYLINDER
TWO STAGE FULL FREE-LIFT****KEY:****A: 5° Forward Tilt/5° Back Tilt****B: 10° Forward Tilt/5° Back Tilt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2047065	Tilt Cylinder (Group No. 8603390)	2	..
	2033757	Tilt Cylinder (Group No. 8603353)	2
1	2302899	Nut	1	1
2	Seal	1	1
3	2308174	Piston.....	1	1
4	2050282	Rod cylinder (Standard).....	1	..
4	2311444	Rod cylinder	1
5	2308691	Tube	1
5	2307114	Tube (Standard).....	1	..
6	Seal	1	1
7	O-Ring	1	1
8	Backup Ring	1	1
9	2047064	Gland	1	1
10	Wiper Ring	1	1
	1494719	Seal Kit (Includes Items 2, 6-8, 10)	1	1

TILT CYLINDER - ATTACHING PARTS (Figure 9-12) TWO STAGE FULL FREE-LIFT

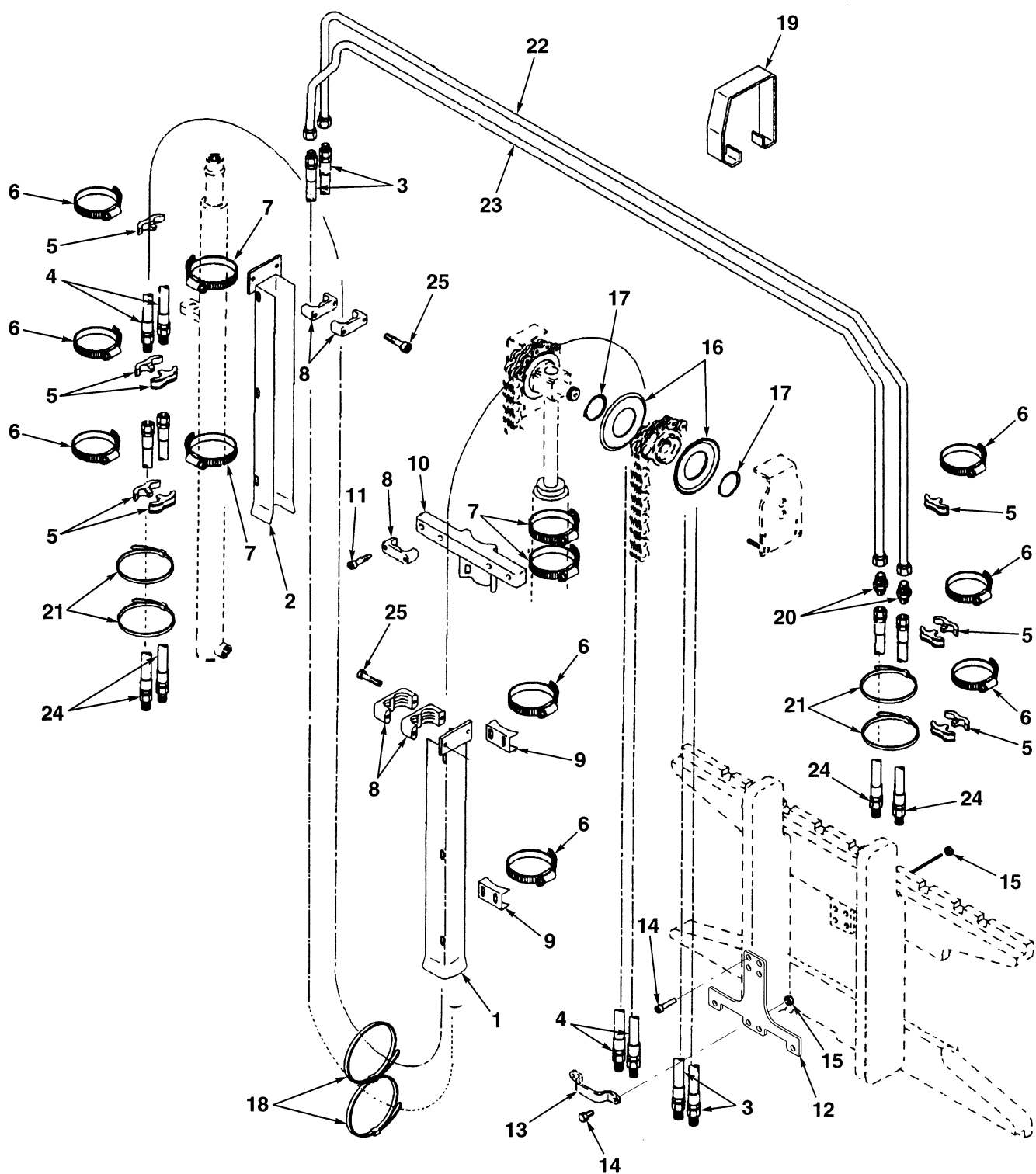


HP171129

**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	1348188	Rod End Pin.....	2
8	1363260	Rod End (RH).....	1
8	1363261	Rod End (LH).....	1
9	2047065	Tilt Cylinder (Standard).....	2
9	2033757	Tilt Cylinder (Bottlers).....	2
10	308117	Rod End Pin.....	2
11	15236	Cotter Pin.....	2
12	197069	Washer.....	6
13	300982	Bushing.....	2

HEADER HOSE (Figure 9-13) TWO STAGE FULL FREE-LIFT



HP171154

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

ITEM	DESCRIPTION	LIFT HEIGHT TO BOTTOM OF FORKS			
		3061 mm (120.5 in.)	3264 mm (128.5 in.)	3658 mm (144 in.)	3886 mm (153 in.)
	1 2 3 4 Mast Group Number	A560 3028	A560 3228	A560 3628	A560 3828
1	Channel	1365501	1365504	1365508	1365510
2	Channel	1365514	1365516	1365521	1365523
3	Hose	1358350	1345573	1390417	1345575
4	Hose	1368348	1345576	1345579	1369627
22	Tube	1368576	1368578	1368582	1368584
23	Tube	1368546	1368548	1368552	1368554

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

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	a	Channel	1	1
2	a	Channel	1	1
3	a	Hose	2	2
4	a	Hose	2
5	1353530	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	1381771	Bracket.....	1	1
13	1369333	Clamp	1	2
14	136749	Capscrew.....	6	8
15	313828	Nut.....	6	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	1	1
23	a	Tube	1	1
24	365115	Hose	2	4
25	293799	Capscrew.....	..	4

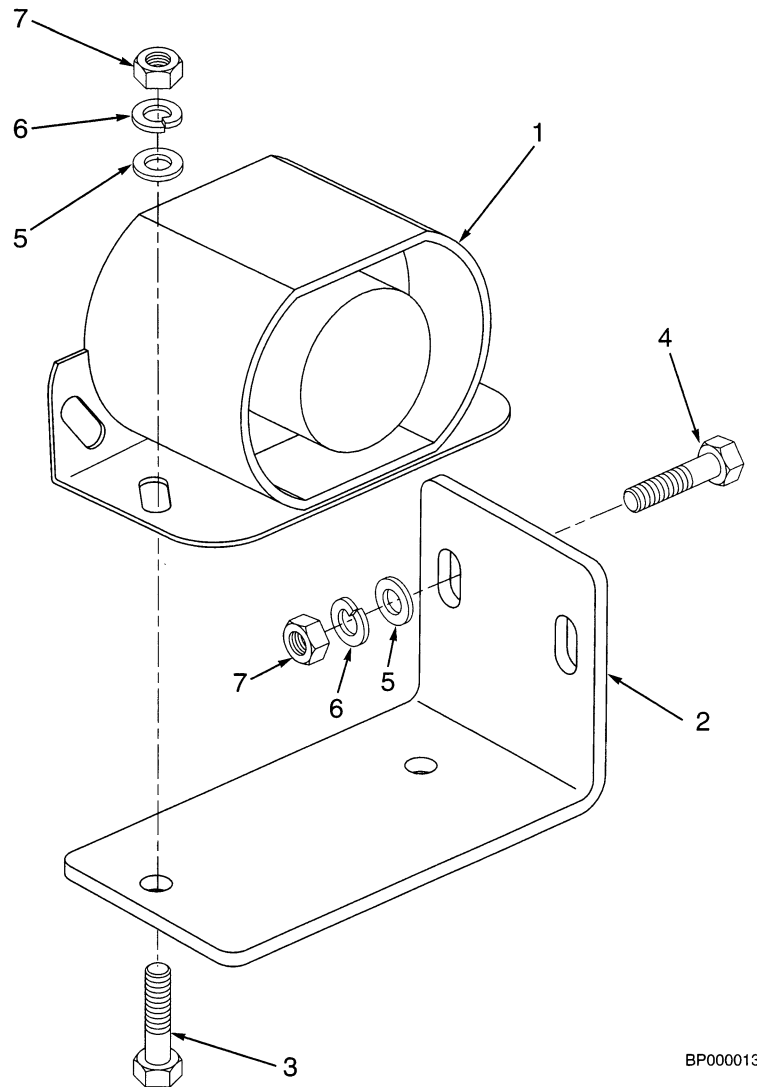
FOOTNOTES:**a** Refer to Table

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

10	OPTIONS	
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SECTION 10
OPTIONS

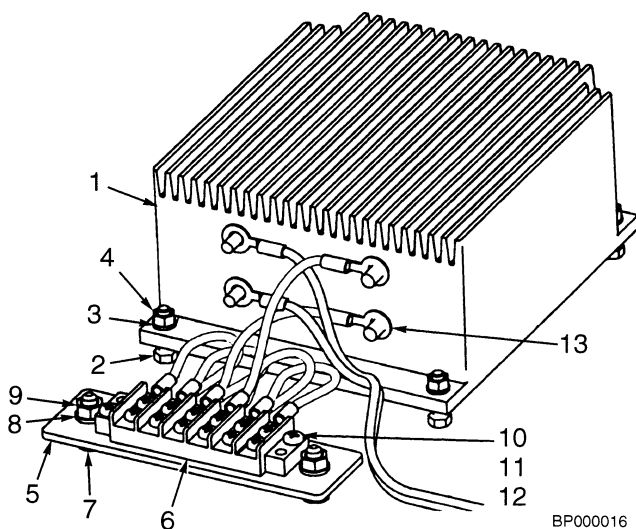
DESCRIPTION	PAGE
BACKUP ALARM	10-2
DC-DC CONVERTER	
24-36V	10-4
36-48V	10-6
FORKS	10-8
LIGHT AND FAN ASSEMBLY	10-10
MAST MOUNTED HEADLIGHTS	10-12
SIDE-SHIFT ASSEMBLY	10-14
SIDE-SHIFT CYLINDER ASSEMBLY	10-16
STROBE LIGHT	10-18
TIRE AND WHEEL ASSEMBLY	10-20

BACKUP ALARM (Figure 10-1)

BACKUP ALARM

ITEM	PART NO.	DESCRIPTION	QTY
1	3025529	Audible Alarm	1
2	2044930	Back-Up Alarm Bracket	1
3	136749	Capscrew	2
4	176640	Capscrew	2
5	320157	Washer	4
6	292681	Lockwasher.....	4
7	239503	Nut	4

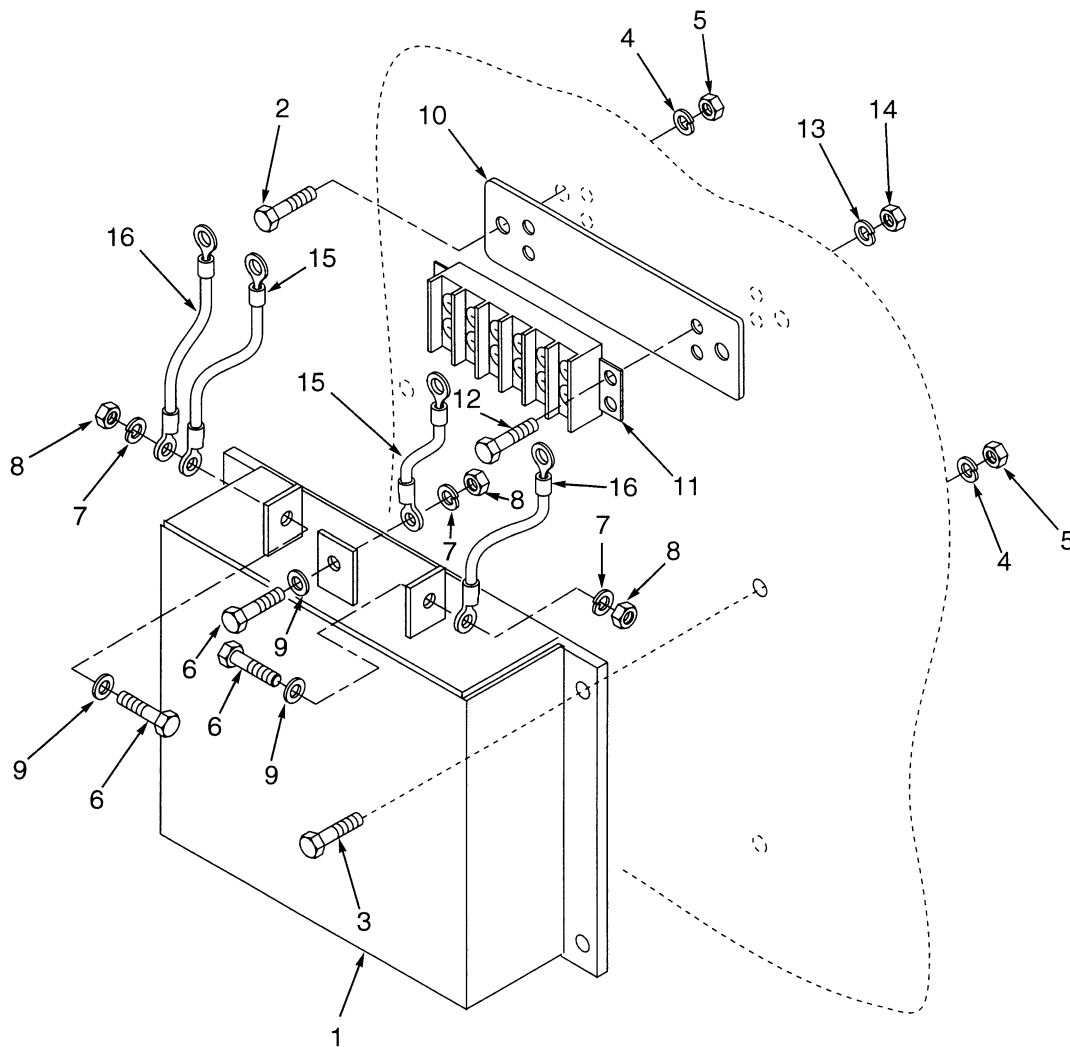
DC-DC CONVERTER (Figure 10-2) 24-36V



DC-DC CONVERTER
24-36V

ITEM	PART NO.	DESCRIPTION	QTY
1	1383194	DC-DC Converter	1
2	302248	Screw	4
3	292679	Lockwasher	4
4	292668	Nut	4
5	2044934	Bracket	1
6	2305629	Terminal Block	1
7	292501	Capscrew	2
8	292680	Lockwasher	2
9	136687	Nut	2
10	302023	Screw	2
11	292678	Lockwasher	2
12	292667	Nut	2
13	2045406	Wire harness - 12 volt power	2

DC-DC CONVERTER (Figure 10-3) 36-48V

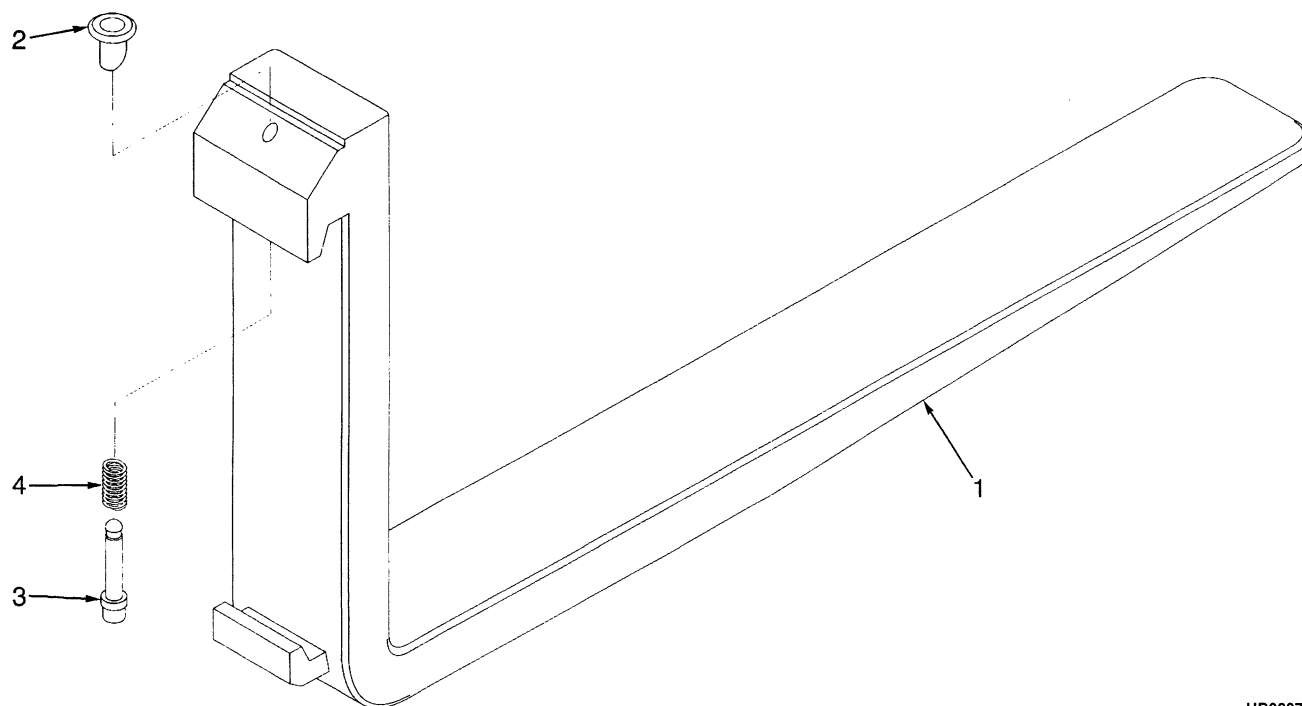


BP000015

DC-DC CONVERTER
36-48V

ITEM	PART NO.	DESCRIPTION	QTY
1	1390575	DC-DC Converter	1
2	292501	Capscrew	2
3	287816	Capscrew	4
4	292680	Lockwasher.....	6
5	136687	Nut	6
6	287851	Capscrew	3
7	292681	Lockwasher.....	3
8	239503	Nut	3
9	320158	Washer	3
10	2044934	Bracket.....	1
11	2305629	Terminal Block	1
12	302023	Screw.....	2
13	292678	Lockwasher.....	2
14	292667	Nut	2
15	2044928	Harness - 12 volt power supply	2
16	2049309	Wire terminal	2

FORKS (Figure 10-4)

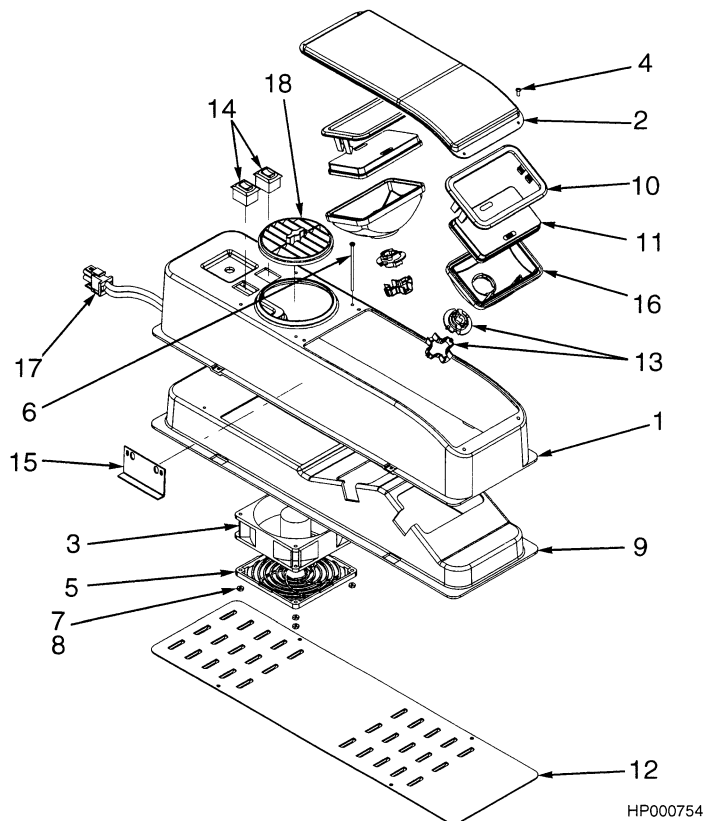


HP000720

ITEM	PART NO.	DESCRIPTION	QTY
1	384211	Fork (36 in.)	2
1	384213	Fork (42 in.)	2
1	384214	Fork (48 in.)	2
2	1500780	Knob	1
3	1500781	Pin	1
4	1500782	Spring	1

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LIGHT AND FAN ASSEMBLY (Figure 10-5)



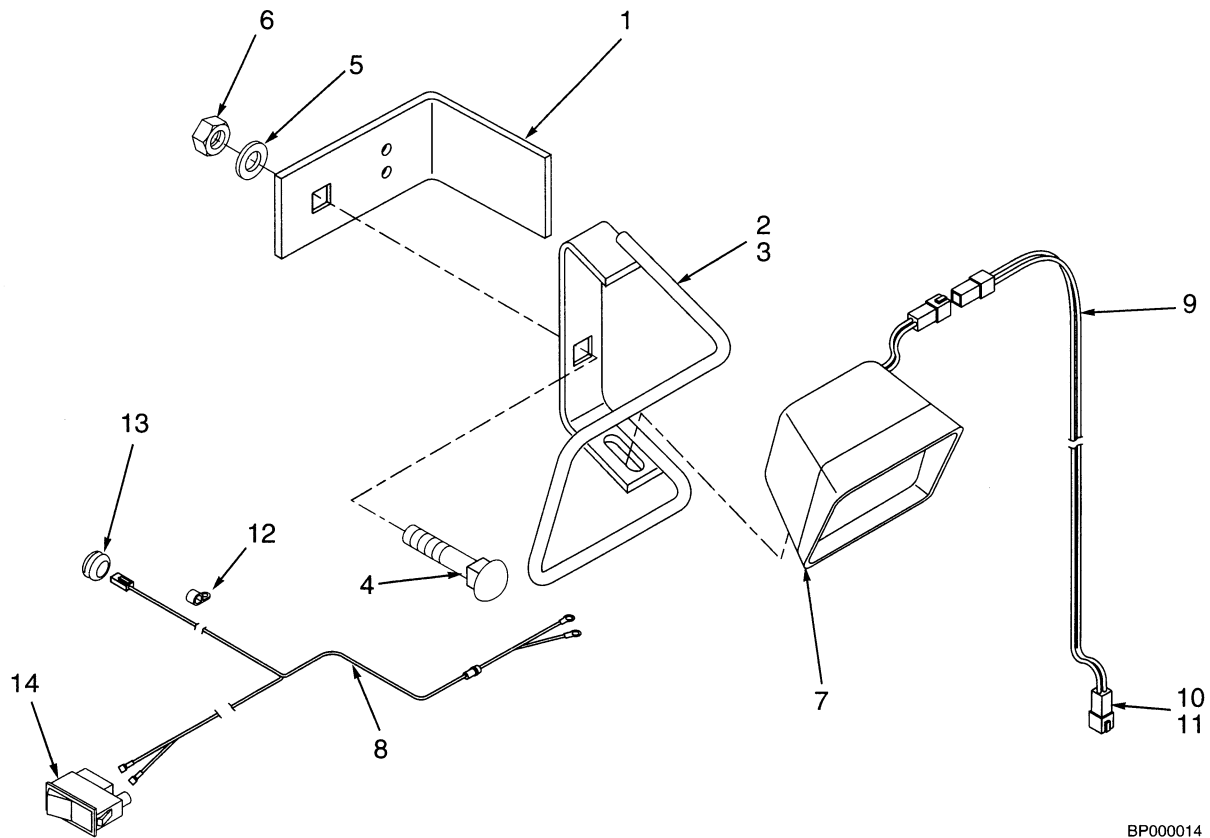
LIGHT AND FAN ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	d 2048767	Light and Fan without Spotlight	1
	c 2044942	Light & fan assy w/o spotlight	1
1	b	Housing	1
2	1363016	Lens	1
3	1464085	Fan	1
4	b	Screw	5
5	b	Fan Guard	1
6	b	Screw	4
7	b	Washer	4
8	b	Nut	4
9	b	Lamp Holder	1
10	b	Snap	2
11	b	Wide Lens	2
12	b	Cover Plate	1
13	1302258	Bulb	1
14	1464093	Switch	1
14	1464094	Switch	1
15	d 1507049	Hardware Bag	1
15	c 1494396	Hardware Bag	1
16	b	Reflector	2
17	2044926	Wire Harness	1
18	b	Louver Fan	1
	a 1464067	Switching Circuit	1
	a 1367645	Grommet	1
	a 1301727	Clamp	1

FOOTNOTES:

- a** Not Illustrated
- b** Not Serviced Separately
- c** Used on Low Overhead Guard.
- d** Used on Standard Overhead Guard.

MAST MOUNTED HEADLIGHTS (Figure 10-6)

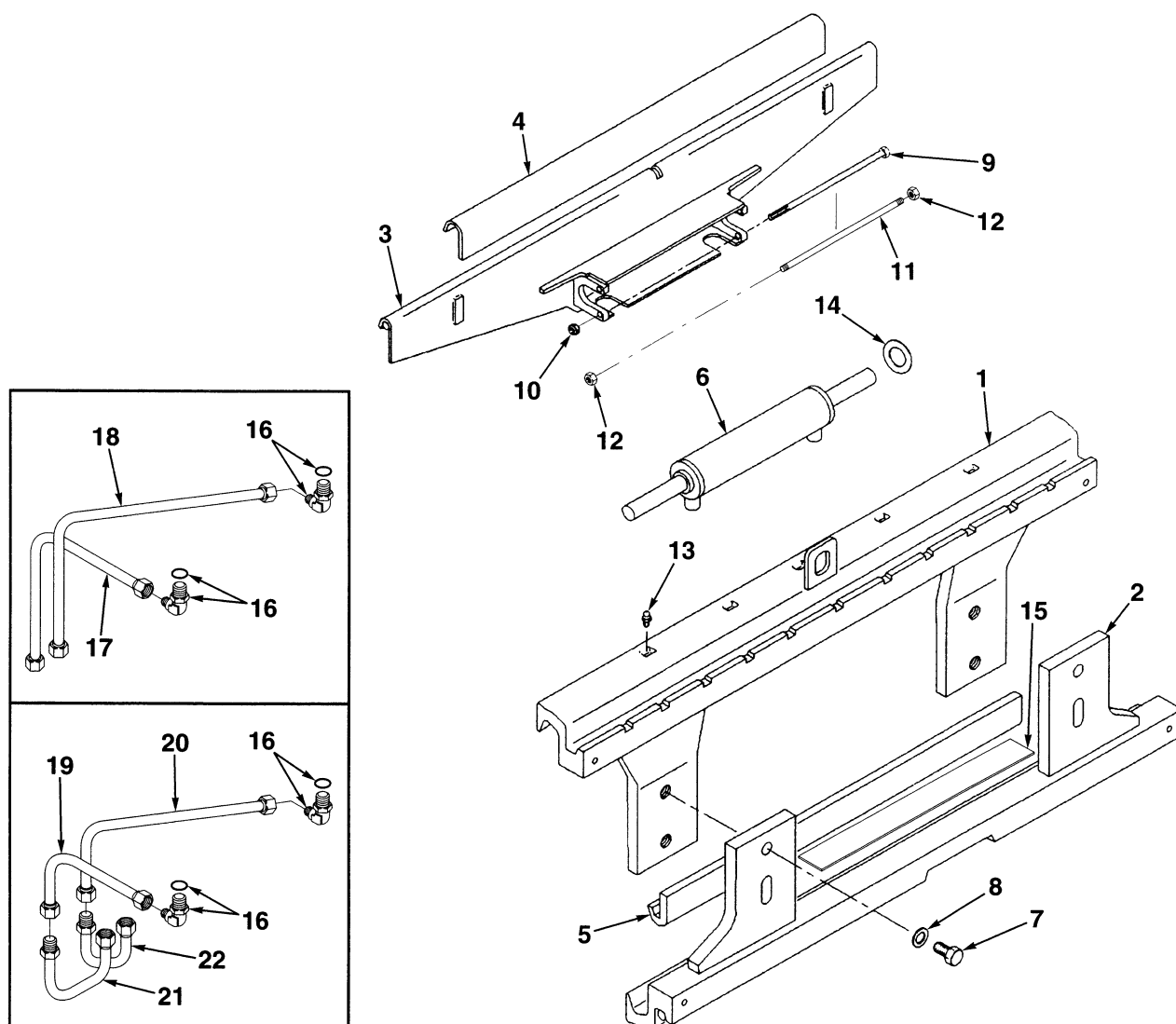


BP000014

MAST MOUNTED HEADLIGHTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1483829	Bracket - head light mounting	2
2	1375171	Bracket (RH)	1
3	1375172	Bracket (LH)	1
4	1493770	Bolt	2
5	296418	Washer	2
6	316835	Nut	2
7	2303169	Headlight Assembly	2
8	2044925	Harness - mast headlight	1
9	2044927	Harness - mast headlights	2
10	1330411	Connector	1
11	1330416	Lock	1
12	114312	Strap Clamp	17
12	2004005	Strap Clamp	12
13	216735	Grommet	1
14	1301616	Switch assembly	1

SIDE-SHIFT ASSEMBLY (Figure 10-7)

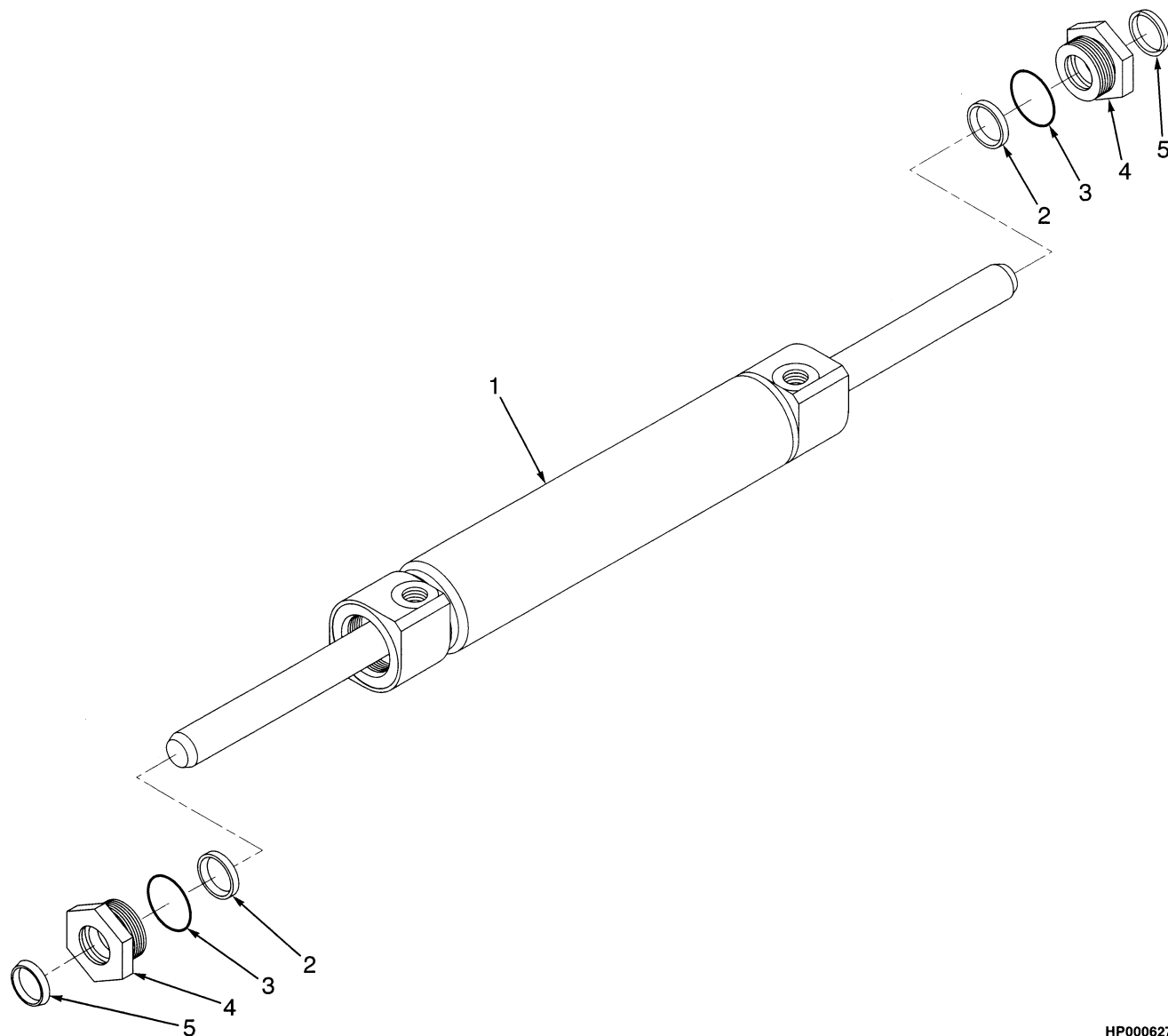


HP000625

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	Apron (38 in.) (Top)	1	1
2	1378053	Apron (38 in.) (Bottom)	1	1
3	1399004	Support (38 in.)	1	1
4	1396458	Bearing (38 in.) (Top)	1	1
5	1378063	Bearing (38 in.) (Bottom)	1	1
6	Side-Shift Cylinder Assembly (☞ Figure 10-8)	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	Lube Fitting	3	3
14	1358821	Shim (0.020 in.)	AR	AR
15	1396429	Shim (Lower Bearing)	AR	AR
16	239784	Fitting	2	2
16	16481	O-Ring	1	1
17	1360275	Tube	1	..
18	1360276	Tube	1	..
19	1390365	Hose	1
20	1390366	Hose	1
21	1381765	Tube	1
22	1390365	Hose	1

SIDE-SHIFT CYLINDER ASSEMBLY (Figure 10-8)



HP000627

ITEM	PART NO.	DESCRIPTION	QTY
	1489016	Cylinder	1
1	1489018	Cylinder Shell	1
2	1489031	Piston Seal	2
3	1489035	O-Ring	2
4	1489020	Cylinder Retainer (LH).....	1
4	1489021	Cylinder Retainer (RH)	1
5	1489029	Back-up Ring	2

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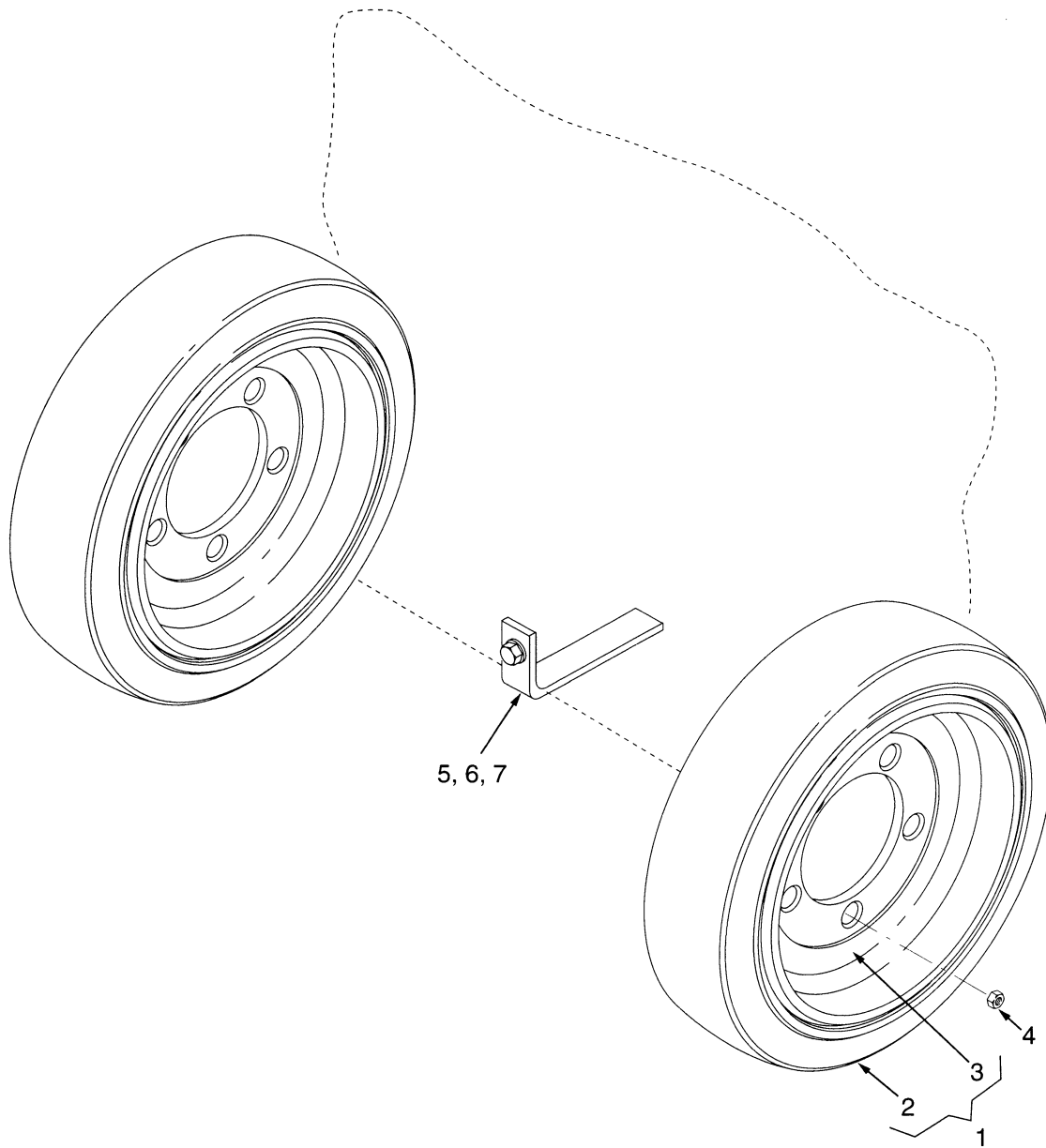
BP000007

STROBE LIGHT**KEY:****A: Standard****B: Low Profile**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1382130	Strobe Light	1	1
1	1382131	Lens.....	1	1
1	1309775	Strobe Lamp.....	1	1
2	1302024	Guard.....	1	1
3	2311628	Screw.....	2	2
4	296415	Washer	4	4
5	296417	Lockwasher.....	4	4
6	815597	Nut	2	2
7	2044926	Wire Harness.....	1	1
8	1367645	Grommet.....	1	1
9	1301727	Clamp	1	1
10	b 2044933	Bracket.....	2	..
10	a 2045966	Bracket.....	..	1
11	b 2044932	Bracket.....	1	..
12	296167	Capscrew.....	4	3
13	296418	Washer	4	3
14	313828	Nut	4	3

FOOTNOTES:

- a** Used only on Low Profile Overhead Guard.
b Used only on Standard Overhead Guard.

TIRE AND WHEEL ASSEMBLY (Figure 10-10)

BP000006

TIRE AND WHEEL ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	d 2042967	Drive Wheel Assembly.....	2
1	a 2042968	Drive Wheel Assembly.....	2
1	c 2042969	Drive Wheel Assembly.....	2
1	b 2042970	Drive Wheel Assembly.....	2
1	f 2044226	Wheel and Tire	2
2	g 259645	Tire	1
2	g 237210	Tire	1
2	g 237196	Tire	1
2	b 2042971	Tire	1
2	e 2044225	Tire	1
3	2039168	Drive Wheel.....	1
4	302977	Lug Nut.....	10
5	216895	Static Strap	1
6	316678	Screw.....	1
7	320162	Washer	1

FOOTNOTES:

- a** Non-marking rubber
- b** Poly-Durometer 80
- c** Poly-Durometer 92
- d** Rubber
- e** Rubber Wide Lug
- f** Rubber-Cold Storage
- g** Solid Cushion

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

11	NUMERICAL INDEX
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**SECTION 11
NUMERICAL INDEX**

PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM
7882	5-5	13	16543	8-9	20		9-16	3	132834	9-13	6
12921	3-7	10	16556	6-13	3		9-19	21		9-15	6
14387	3-10	55	16558	7-21	3	58908	3-7	30	132861	6-13	19
14603	7-7	18		7-22	3	58929	5-5	12		9-9	21
	9-7	18	16560	7-7	9	78005	4-3	13	135634	8-9	1
14692	9-27	20		8-9	19	88436	8-13	1	135658	3-9	40
15115	5-2	1		9-7	19		9-9	1	136681	8-9	11
15134	6-13	26	16576	6-13	39	88441	7-7	25	136687	1-11	10
15135	5-2	2	16745	4-3	2	104506	7-3	5		2-15	7
15139	1-7	7		4-7	5		8-3	5		4-9	17
15140	1-7	9	16805	6-13	25		8-5	5		4-11	6
15160	8-21	8	16882	9-9	25		9-3	5		6-3	4
15200	7-7	23	16982	7-7	10	112470	6-15	3		10-5	9
	7-10	11		8-9	17	114312	10-13	12		10-7	5
	7-19	21		9-7	10	120938	7-7	15	136692	2-9	37
	8-9	29	17051	7-7	14		8-9	24	136704	7-17	16
	8-13	6		8-9	23		9-7	15		8-25	4
	8-18	11		9-7	14	127045	6-13	11	136749	1-9	1
	8-21	21	17197	9-9	24	127574	6-7	22		2-11	6
	9-9	6	17223	4-7	3	128408	6-13	34		4-9	1
	9-16	11	18419	5-2	3	129387	7-3	8		8-25	5
	9-19	17	18466	5-5	16		7-5	5		9-27	14
15212	2-7	7	18515	2-7	6		7-10	4		10-3	3
15223	8-9	31	18832	7-19	10		7-19	15	138811	6-7	21
15236	7-15	11	21420	3-10	57		8-3	8	147973	8-17	6
	8-29	11	34820	3-9	12		8-5	8	148962	2-9	39
	9-25	11	37752	7-5	10		8-7	4	150879	6-15	8
15290	3-10	56		8-5	13		8-18	4	153834	3-9	32
16001	7-3	10		8-13	23		8-21	15	153835	3-9	31
	8-3	10		9-9	28		9-3	8	156205	3-9	47
	9-3	10	39348	9-11	13		9-5	5	161003	7-7	3
16041	3-10	58	39349	3-3	6		9-16	4		7-7	8
	7-19	12	39362	4-7	6		9-19	19		8-9	32
	8-21	12	39366	3-9	22	129563	6-5	7		8-13	3
	9-19	12	39369	3-9	37		6-13	40		9-7	6
	10-15	13	55146	8-17	7		7-22	4		9-9	3
16457	6-5	4		9-11	5	130845	6-13	10	166112	9-9	33
16458	6-13	2	55407	7-9	11	131358	7-7	19	166857	4-3	16
16481	10-15	16		8-15	11		7-10	9		6-13	29
16484	9-9	24		9-13	7		7-19	19	167970	3-9	14
16485	7-7	9		9-15	7		8-9	8	167971	3-9	13
	7-7	17	58901	7-3	7		8-13	27	176640	1-3	4
	8-9	19		7-5	4		8-18	9		2-9	15
	8-9	26		7-10	3		8-21	19		6-13	42
	9-7	17		7-19	14		9-7	7		6-15	7
	9-7	19		8-3	7		9-9	32		10-3	4
	9-9	17		8-5	7		9-16	9	177590	2-7	5
16486	7-7	18		8-7	3		9-19	15	178119	9-9	22
	8-9	20		8-18	3	131716	7-3	4	178901	3-9	10
	9-7	18		8-21	14		8-3	4	180057	8-9	1
16540	6-7	19		9-3	7		8-5	4	186304	2-11	3
	6-13	38		9-5	4		9-3	4	187388	7-9	7

NUMERICAL INDEX (Continued)

PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM
	8-15	7		9-9	1	292528	8-13	14	293613	4-7	17
	8-17	14	237196	10-21	2	292531	7-3	14	293614	3-9	21
	9-11	15	237210	10-21	2		7-7	5		4-7	2
189595	7-7	17	239503	1-3	6		8-3	14	293615	4-9	20
	8-9	26		2-9	38		8-9	4		6-13	20
	9-7	17		2-11	9		9-3	14	293629	4-7	12
190580	7-9	8		6-13	32		9-7	3		6-13	33
	8-15	8		9-9	23	292533	7-17	13	293631	3-10	51
	8-17	12		10-3	7		8-13	19	293646	8-21	9
190887	8-17	16		10-7	8		8-25	15		9-19	9
	9-11	11	239784	10-15	16	292654	1-9	2	293651	7-15	1
	9-13	10	246108	6-15	9		3-7	12		8-29	1
	9-15	11	249805	9-9	1	292656	7-15	3		9-25	1
190930	4-9	21	251099	3-10	59		8-29	3	293655	1-13	6
197069	7-15	12		6-13	44		9-25	3	293688	3-3	7
	8-29	12	251979	2-7	8	292667	10-5	12	293704	10-15	7
	9-25	12	257913	7-9	5		10-7	14	293795	8-25	19
201783	6-7	20		8-15	5	292668	10-5	4		9-27	11
201829	8-17	9		8-17	11	292678	10-5	11	293796	8-25	20
	9-11	8		9-11	12		10-7	13	293799	9-27	25
203230	2-13	9	259645	10-21	2	292679	4-7	15	295649	9-13	9
	6-13	37	264134	3-10	53		10-5	3		9-15	10
215212	7-3	3	264159	3-10	54	292680	2-7	4	296159	5-2	14
	8-3	3	275661	1-7	17		2-15	6	296160	1-9	12
	8-5	3	275672	2-9	28		4-9	16	296167	10-19	12
	9-3	3	287816	2-13	12		5-5	14	296321	3-7	33
216735	10-13	13		5-5	15		6-3	3	296415	10-19	4
216895	10-21	5		7-17	17		10-5	8	296417	10-19	5
220281	5-2	4		10-7	3		10-7	4	296418	3-7	19
221771	7-11	3	287837	9-9	14	292681	1-9	3		4-9	2
	8-22	3	287851	8-9	14		2-11	8		10-13	5
	9-20	3		10-7	6		4-7	1		10-19	13
221775	7-19	8	287854	4-3	3		6-13	41	296419	4-9	18
	9-19	8	287860	3-3	1		6-15	6	296422	7-7	6
221780	1-5	2		4-3	4		10-3	6		8-9	5
222024	1-7	7	292501	1-11	8		10-7	7		9-7	4
222030	1-7	9		2-15	4	292682	3-3	2	296423	7-11	3
222381	4-3	5		10-5	7		3-10	60		8-22	3
226458	7-19	7		10-7	2		7-15	5		9-20	3
	8-21	7	292502	6-3	2		8-29	5	296426	3-3	8
	9-19	7	292508	2-9	36		9-25	5		4-11	43
227089	1-11	12		6-13	31	292683	4-3	1	296431	10-15	8
227110	1-9	9		7-17	4		7-3	13	297531	7-9	6
	1-11	16	292509	7-7	12		7-15	2		8-15	6
230518	8-5	9		9-7	12		7-17	15		8-17	13
231020	7-5	9	292512	6-13	30		8-3	13		9-11	14
	8-5	12	292514	7-15	4		8-13	10	297649	7-7	4
	8-13	24		8-29	4		8-29	2		8-10	33
	9-9	29		9-25	4		9-3	13		8-13	4
231082	8-13	1	292521	8-25	26		9-9	10		9-9	4
	9-9	1	292527	8-13	9		9-9	20	300937	1-13	4
231083	8-13	1		9-9	9		9-25	2		7-11	4

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PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM
	8-9	7		2-15	5	358069	4-5	5	1302100	6-15	4
	8-13	16	320157	1-3	5	358072	4-5	4	1302258	10-11	13
	8-22	4		2-11	7	358073	4-5	9	1306874	3-7	32
	8-25	17		6-13	21	358076	4-5	8	1307208	3-7	15
	9-9	16		10-3	5	361675	3-9	16	1309775	10-19	1
	9-20	4	320158	9-9	19	361676	3-9	15	1309877	4-5	10
300982	7-15	13		10-7	9	365115	8-25	2	1310369	9-13	3
	8-29	13	320159	3-3	3		9-27	24		9-15	3
	9-25	13		4-7	9	366115	7-10	5	1310611	6-13	35
300987	9-19	16		6-13	24		7-19	16	1319668	7-9	9
302023	10-5	10	320160	8-25	27		8-18	5		8-15	9
	10-7	12	320161	8-13	15		8-21	16	1322446	4-5	11
302052	2-7	3		8-25	16		9-16	5	1322447	4-5	12
302234	2-9	40		9-9	15		9-19	20	1322448	4-5	13
302244	4-7	16	320162	1-13	5	369242	1-9	7	1327894	4-3	15
302248	10-5	2		10-21	7	374160	5-2	11	1330411	10-13	10
302385	3-9	38	322824	7-9	13	376949	2-11	4	1330416	10-13	11
302397	7-19	11		8-15	13	378547	2-4	1	1330574	1-11	5
	8-21	11	322902	7-9	14	379522	2-4	4	1330919	1-7	2
	9-19	11		8-15	16	379523	2-4	5	1331362	2-13	11
302400	4-9	4	323061	7-7	10	379902	2-11	3	1333243	8-13	17
302461	8-13	12		8-9	17	383789	1-5	4		9-9	17
	9-9	12		9-7	10		4-7	18	1333382	7-7	20
302487	7-20	6	323090	7-7	7		4-9	31		8-9	9
302977	10-21	4		8-9	6	383977	2-3	1		9-7	8
304406	3-9	19		9-7	5		3-4	1	1333392	7-7	11
304526	7-5	6	323160	7-7	16	383979	2-3	7		8-9	18
	8-13	26		8-9	25		3-4	7		9-7	11
	9-9	26		9-7	16	383980	3-4	5	1335129	1-7	4
308117	7-15	10	323161	7-7	22	383981	2-3	6	1337905	8-13	18
	8-29	10		7-10	10		3-4	6		9-9	18
	9-25	10		7-19	20	383984	2-4	2	1338178	1-7	3
313805	7-17	12		8-9	28	384187	3-7	21	1339396	4-11	4
	8-25	21		8-13	5	384211	10-8	1	1339843	1-7	11
313828	6-13	22		8-18	10	384213	10-8	1	1343989	8-13	21
	7-7	13		8-21	20	384214	10-8	1	1344323	8-13	13
	7-17	7		9-9	5	384398	2-4	3		9-9	13
	8-9	12		9-16	10	388048	3-7	7	1345181	7-5	8
	8-25	6	324972	4-7	11	388049	3-7	4		8-5	11
	9-7	13	325056	4-7	10	389688	1-7	7	1345183	7-5	7
	9-27	15	325182	1-9	11	389692	1-7	10		8-5	10
	10-15	10		5-2	13	615135	9-11	4	1345190	7-17	11
	10-15	12	330692	7-9	12	638250	9-11	7		8-25	14
	10-19	14		8-15	12	815597	10-19	6	1345199	8-25	7
316678	10-21	6	335989	1-7	8	1300165	4-3	10		9-27	16
316826	4-7	8	335991	1-7	9		6-13	36	1345204	8-25	8
	6-13	27	338603	4-9	27	1301616	2-11	5		9-27	17
	8-25	28	352802	6-13	1		10-13	14	1345216	7-3	2
316835	10-13	6	353144	1-11	6	1301727	10-11	26		7-5	2
317735	9-19	13		2-15	3		10-19	9		7-10	2
320155	4-7	14	354669	4-5	3	1301870	8-9	1		8-3	2
320156	1-11	7	354671	4-5	7	1302024	10-19	2		8-5	2

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PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM
	8-7	2	1353324	7-10	1	1360140	7-9	15	1362894	8-17	
	8-18	2	1353399	8-9	16	1360141	8-17	17		9-11	
	9-3	2	1353408	7-10	8		9-11	17	1362923	8-17	1
	9-5	2		7-19	18	1360275	10-15	17		9-11	16
	9-16	2		8-18	8	1360276	10-15	18	1362925	8-17	1
1345348	7-17	2		8-21	18	1360386	7-17	14		9-11	16
	7-17	19		9-16	8		8-25	22	1362929	9-11	16
1345412	7-17	5	1353464	8-25	23		9-27	8	1362931	8-17	1
1345413	7-17	6	1353467	8-18	1	1360507	8-25	30		9-11	16
1345423	9-27	9	1353469	9-16	1		9-27	7	1362960	8-17	2
1345573	9-27	3	1353521	7-17	10	1360508	7-17	20		9-11	6
1345575	9-27	3		8-25	11		9-27	6	1362962	8-17	2
1345576	9-27	4	1353530	7-17	3	1360534	8-13	20		9-11	6
1345579	9-27	4		7-17	18	1360548	7-17	9	1362966	9-11	6
1348056	8-3	1		8-25	29	1360549	7-17	22	1362968	8-17	2
	9-3	1		9-27	5		8-25	18		9-11	6
1348058	7-3	1	1353533	7-11	2	1361302	8-17	15	1363016	10-11	2
	8-3	1		8-22	2		9-11	10	1363250	8-9	13
	9-3	1		9-20	2	1361366	7-9		1363251	8-9	15
1348062	9-3	1	1353546	9-9	11	1361367	7-9	1	1363255	8-25	32
1348064	8-3	1	1353547	8-13	11	1361368	7-9	2	1363256	8-25	33
	9-3	1	1353706	9-5	1		7-9	2	1363260	7-15	8
1348185	7-3	9	1353708	9-5	1	1361370	7-9			8-29	8
	8-3	9	1353712	9-5	1	1361371	7-9	1		9-25	8
	9-3	9	1353714	9-5	1	1362612	9-15	1	1363261	7-15	8
1348188	7-15	7	1354901	8-13	21	1362702	8-15			8-29	8
	8-29	7	1354911	8-13	25	1362703	8-15	1		9-25	8
	9-25	7		9-9	30	1362704	8-15	2	1363272	8-18	6
1348246	8-25	25	1354912	8-13	22	1362706	8-15			9-19	18
1348247	8-25	24		9-9	27	1362713	8-15	1	1363306	8-13	2
1349258	7-5	1	1354915	7-7	21	1362715	8-15		1363308	8-13	2
1349446	7-11	1		8-9	10	1362716	8-15	1	1363313	8-13	2
	8-22	1		9-7	9	1362717	8-15	2	1363486	7-17	8
	9-20	1	1354916	7-7	21	1362719	8-15		1363917	1-13	3
1350215	1-11	9		8-9	10	1362726	8-15	1	1365061	9-27	19
1352856	8-7	1		9-7	9	1362745	8-15		1365140	8-9	30
1352858	8-7	1	1354917	7-7	21	1362746	8-15	2	1365306	9-9	2
1352863	8-7	1		8-9	10	1362749	8-15		1365308	9-9	2
1352956	8-5	1		9-7	9	1362756	8-15	1	1365312	9-9	2
1352958	8-5	1	1354918	9-27	10	1362871	7-9	4	1365314	9-9	2
1352963	8-5	1	1355533	10-15	1		8-15	14	1365501	9-27	1
1353192	7-3	6	1355610	8-15	4	1362875	8-15	15	1365504	9-27	1
	7-5	3	1356209	2-9	9		9-15	9	1365508	9-27	1
	7-10	6	1356213	2-9	24	1362880	8-17	5	1365510	9-27	1
	7-19	13	1356214	2-9	30		9-11	2	1365514	9-27	2
	8-3	6	1356217	2-9	7	1362881	8-17	10	1365516	9-27	2
	8-5	6	1358350	9-27	3		9-11	9	1365521	9-27	2
	8-7	5	1358809	10-15	11	1362886	8-17		1365523	9-27	2
	8-21	13	1358821	10-15	14		9-11		1365605	9-13	1
	9-3	6	1358970	8-17	4	1362888	8-17			9-15	1
	9-5	3		9-11	3		9-11		1365607	9-13	1
	9-16	6	1360139	8-15	17	1362892	9-11			9-15	1

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PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM
1365611	9-13	1	1374899	3-9	28	1382523	3-9	35	1465819	4-11	26
1365613	9-13	1	1375171	10-13	2	1382524	3-9	36	1465820	4-11	27
	9-15	1	1375172	10-13	3	1383194	10-5	1	1465821	4-11	28
1365635	9-13	2	1375440	3-9	27	1383730	3-9	1	1465822	4-11	29
	9-15	2	1375574	7-17	21	1383731	3-9	1	1465823	4-11	30
1365637	9-13	2		8-25	31	1385099	1-7	14	1465824	4-11	31
	9-15	2		9-27	21	1390365	10-15	19	1465825	4-11	32
1365641	9-13	2	1376100	8-9	21		10-15	22	1465826	4-11	33
1365643	9-13	2	1376101	7-7	26	1390366	10-15	20	1465827	4-11	34
	9-15	2		8-9	22	1390417	9-27	3	1465828	4-11	35
1365670	9-15	2		9-7	20	1390575	10-7	1	1465829	4-11	36
1366057	8-15	1	1378053	10-15	2	1395285	8-13	8	1465834	4-11	41
1367645	10-11	25	1378063	10-15	5		9-9	8	1468714	5-2	6
	10-19	8	1381082	9-13	4	1396406	8-25	10	1471650	4-11	37
1367822	4-11	3		9-15	4	1396429	10-15	15	1473843	1-7	6
1368348	9-27	4	1381095	7-9	10	1396458	10-15	4	1475400	4-12	49
1368546	9-27	23		8-15	10	1398497	7-17	1	1476593	1-13	1
1368548	9-27	23	1381100	3-9	17	1398584	8-25	1	1476594	1-13	1
1368552	9-27	23	1381103	3-9	11	1398586	8-25	1	1478897	6-13	5
1368554	9-27	23	1381106	3-9	2	1398593	8-25	1	1479040	2-11	2
1368576	9-27	22	1381108	3-9	30	1399004	10-15	3	1479042	2-11	2
1368578	9-27	22	1381112	3-9	2	1399039	10-15		1479228	1-9	4
1368582	9-27	22	1381119	3-10	49	1401746	7-19	9	1479230	1-9	5
1368584	9-27	22	1381120	3-10	50	1450356	6-13	4	1479795	5-5	9
1369333	8-25	9	1381123	3-9	48	1452459	4-5	1	1479798	5-5	11
	9-27	13	1381124	3-9	42	1454478	2-9	13	1479820	3-9	3
1369345	7-10	7	1381598	8-25	12	1454479	2-9	31	1479821	3-10	61
	7-19	17	1381599	8-25	13	1454484	2-9	12	1479958	1-3	1
	8-18	7	1381765	10-15	21	1459239	6-9	12	1479959	1-3	1
	8-21	17	1381771	8-25	3	1459240	6-9	3	1480492	3-9	
	9-16	7		9-27	12	1459241	6-9	13	1480493	3-9	
	9-19	14	1382130	10-19	1	1462067	3-7	9	1480498	5-2	7
1369357	7-7	24	1382131	10-19	1	1462098	3-7	27	1480500	5-2	8
	8-9	27	1382502	3-9	20	1462527	4-11	42	1480504	5-2	12
	8-13	7	1382504	3-9	41	1462528	4-9	7	1480540	1-9	6
	9-9	7	1382506	3-9	39	1462795	4-11	7	1482696	2-15	1
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	8-3	11	1382509	3-9	6	1464093	10-11	14	1483214	1-11	17
	9-3	11	1382510	3-9	7	1464094	10-11	14	1483215	1-11	18
1370722	7-3	12	1382511	3-9	8	1465784	4-11	9	1483216	1-11	18
	8-3	12	1382512	3-9	9	1465787	4-11	11	1483422	2-13	7
	9-3	12	1382513	3-9	43	1465792	4-11	13	1483829	10-13	1
1371287	7-15	6	1382514	3-9	44	1465794	4-11	15	1486150	5-5	3
	8-29	6	1382515	3-9	45	1465796	4-11	17	1486151	5-5	4
	9-25	6	1382516	3-9	46	1465797	4-11	18	1486152	5-5	7
1371289	10-15	9	1382517	3-9	23	1465800	4-11	19	1486155	5-5	8
1371653	7-9	3	1382518	3-9	24	1465801	4-11	20	1486156	5-5	5
	8-15	3	1382519	3-9	25	1465813	4-11	21	1486157	5-5	10
1374793	2-9	11	1382520	3-9	26	1465814	4-11	22	1486159	5-5	6
1374802	9-13	8	1382521	3-9	33	1465817	4-11	24	1486175	7-19	
	9-15	8	1382522	3-9	34	1465818	4-11	25	1486176	9-19	

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1486370	5-2	9	1494617	3-7	31	1498853	2-9	20		10-13	12
1486527	5-2	15	1494618	3-7	1	1498854	2-9	21	2008858	2-13	10
1488873	9-19	5	1494619	3-7	3	1498860	2-9	27	2013089	8-17	8
1488921	9-19	4	1494620	3-7	20		2-9	41	2013099	8-17	3
1488995	7-19	1	1494621	3-7	23	1498862	2-9	29		9-11	1
1488996	9-19	1	1494622	3-7	24	1498967	3-4		2021914	3-9	18
1488997	8-21	1	1494623	3-7	8	1498968	2-9	33	2033511	1-7	13
1489009	9-19	2	1494624	3-7	8	1500182	6-11	10	2033612	7-21	4
1489010	7-19	2	1494625	3-7	11	1500425	2-9	35	2033614	4-5	
	8-21	2	1494626	3-7	28	1500780	10-8	2	2033757	7-13	
1489016	7-20	1	1494627	3-7	29	1500781	10-8	3		7-15	9
	10-16		1494628	3-7	29	1500782	10-8	4		8-27	
1489018	10-16	1	1494629	3-7	26	1502493	4-9	25		8-29	9
1489020	10-16	4	1494630	3-7	7	1502494	4-9	10		9-23	
1489021	10-16	4	1494631	3-7	22	1502530	4-9	15		9-25	9
1489029	10-16	5	1494719	7-13	11	1502724	6-11	1	2034265	4-5	6
1489031	10-16	2		8-27	11	1502725	6-11	2	2034266	4-5	2
1489035	7-20	3		9-23	11	1502726	6-11	3	2034281	4-11	1
	10-16	3	1495277	1-7	5	1502727	6-11	4	2034483	2-3	2
1489037	7-20	2	1495391	4-11	12	1502728	6-11	5		3-4	2
1489039	7-20	5		4-11	17	1502729	6-11	6	2034484	2-3	3
1489050	7-22	1	1495394	4-11	46	1502730	6-11	7		3-4	3
	7-22	1	1495395	4-11	23	1502731	6-11	8	2034488	2-3	9
1489051	7-22	2	1495397	4-11	38	1502733	6-11	11		3-4	9
1489486	2-11	1	1495398	4-11	39	1502735	6-11	12	2035396	2-3	4
1489487	2-11	1	1495399	4-11	40	1502736	6-11	13		3-4	4
1489488	2-11	1	1495421	1-7	15	1503096	7-20	7	2036141	1-11	14
1489489	2-11	1	1495468	1-7	19	1503106	4-11	14	2039168	10-21	3
1490805	1-7	18	1495532	2-7	2	1503107	4-11	16	2040292	3-7	
1492024	4-9	8	1495580	1-13	1	1503108	4-11	47	2040809	6-11	
1492043	1-11	19	1495586	1-13	1	1503110	4-11	44	2041384	6-15	1
1492929	1-5	3	1495864	5-5	1	1503476	7-21	1	2041648	4-3	6
1493304	8-21	10	1495865	5-5	2	1503478	7-21	2	2041736	4-9	12
	9-19	10	1496175	6-7	6	1503481	7-22	2	2041741	4-9	12
1493770	10-13	4	1496177	6-7	2	1503544	3-9	29	2042263	6-13	6
1493858	5-5		1497588	4-11	48	1504068	4-9	6	2042264	6-13	7
1493972	5-2	5	1497780	2-11	1	1504075	4-9	3	2042417	6-13	8
1494017	7-17	10	1498115	9-13	11	1504076	4-9	19	2042418	6-13	9
	8-25	11		9-15	12	1504125	4-3	11	2042621	6-9	
1494201	2-15	1	1498116	9-13	5	1506512	4-9	27	2042648	1-3	3
1494237	4-3	7		9-15	5	1506513	4-9	28	2042649	1-3	3
1494396	10-11	15	1498192	6-7	12	1506738	1-9	13	2042698	6-15	2
1494598	3-7	18	1498325	7-20	4	1507049	10-11	15	2042912	2-15	2
1494608	3-7	17	1498326	7-19	22	1508484	4-11	5	2042967	10-21	1
1494609	3-7	16	1498443	1-13	2	1508555	2-9	34	2042968	10-21	1
1494610	3-7	14	1498833	2-4		1509703	6-11	9	2042969	10-21	1
1494611	3-7	13	1498834	2-3		1513996	3-4	8	2042970	10-21	1
1494612	3-7	25	1498840	2-9	8	1513999	2-3	8	2042971	10-21	2
1494613	3-7	5	1498849	2-9	16	1514055	2-4	6	2043229	1-11	1
1494614	3-7	2	1498850	2-9	17	2004005	2-13	13	2043230	1-11	2
1494615	3-7	6	1498851	2-9	18		4-11	2	2043231	1-11	3

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2043255	1-9	10	2045614	6-7	9	2048767	10-11			9-23	1
2043313	6-9	14	2045617	6-7	8	2048880	7-3		2303169	10-13	7
2043314	6-9	14	2045618	6-7	7		7-5		2303211	2-9	22
2043521	8-21	4	2045619	6-7	4		7-7		2303249	2-9	3
2043528	7-20		2045620	6-7	3	2049067	8-3		2303787	2-9	25
2043530	7-19	6	2045621	6-7	5		8-5		2303797	4-9	30
	8-21	6	2045623	6-7	1		8-7			6-13	43
	9-19	6	2045624	6-7	10		8-9		2303801	2-9	4
2043531	7-19	4	2045956	2-13	2		8-13		2303821	2-9	6
2043533	7-19	5	2045958	6-3	5	2049069	8-3		2304085	4-9	22
	8-21	5	2045966	10-19	10		8-5		2304244	2-9	26
2043586	6-3	1	2045997	4-11			8-7			2-9	42
2043642	6-5	1	2045998	4-9	29		8-9		2304572	2-9	5
2043643	6-5	1	2045999	4-9	27		8-13		2304771	2-9	23
2043844	2-13	8		4-11	10	2049074	8-3		2305032	4-3	14
2043888	6-13	17	2046252	4-7	7		8-5		2305145	1-3	2
2043982	6-15	5	2046334	9-13			8-7		2305417	1-7	20
2044160	1-5	1	2046336	9-13			8-9		2305629	10-5	6
2044193	2-9		2046340	9-13			8-13			10-7	11
2044225	10-21	2	2046342	9-13		2049162	9-3		2305855	2-9	14
2044226	10-21	1	2046365	9-15			9-5		2306018	1-7	1
2044232	6-13	4	2046367	9-15			9-9		2306145	4-3	9
2044381	6-5	3	2046371	9-15		2049164	9-3		2306899	1-11	13
2044383	6-5	6	2046373	9-15			9-5		2307049	1-7	21
2044384	6-5	5	2046555	4-7	13		9-9		2307114	7-13	5
2044385	6-13	13	2046590	2-13	14	2049168	9-3			8-27	5
2044386	6-13	14	2046713	6-13	12		9-5			9-23	5
2044387	6-13	18	2047064	7-13	9		9-9		2307519	4-9	23
2044396	4-9	14		8-27	9	2049170	9-3		2307575	2-3	5
2044397	4-9	13		9-23	9		9-5		2307803	2-9	10
2044819	5-2		2047065	7-13			9-9		2308078	1-7	21
2044922	6-5	1		7-15	9	2049309	10-7	16	2308174	7-13	3
2044925	10-13	8		8-27		2049392	2-7	1		8-27	3
2044926	10-11	17		8-29	9	2049551	4-3	12		9-23	3
	10-19	7		9-23		2049628	4-7		2308691	7-13	5
2044927	10-13	9		9-25	9	2049843	6-3	6		8-27	5
2044928	10-7	15	2047075	2-13	15	2049844	6-3	7		9-23	5
2044930	10-3	2	2047076	2-13	16	2049983	2-13	3	2309196	5-2	10
2044932	10-19	11	2047572	6-7	13	2049984	2-13	4	2309830	1-7	21
2044933	10-19	10	2047573	6-7	14	2049985	2-13	6	2310841	3-10	52
2044934	10-5	5	2047574	6-7	15		4-11	8	2311444	7-13	4
	10-7	10	2047575	6-7	16	2050282	7-13	4		8-27	4
2044942	10-11		2047576	6-7	17		8-27	4		9-23	4
2044989	4-11	45	2047577	6-7	18		9-23	4	2311628	10-19	3
2045088	1-7	12	2047693	1-11	15	2302063	6-13	16	2311843	4-9	24
2045293	1-7	16	2047694	1-11	11	2302495	1-3	2	3025529	10-3	1
2045327	2-11	2	2047827	4-3	8	2302520	6-13	15			
2045406	10-5	13	2048064	4-9	5	2302721	4-9	26			

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

