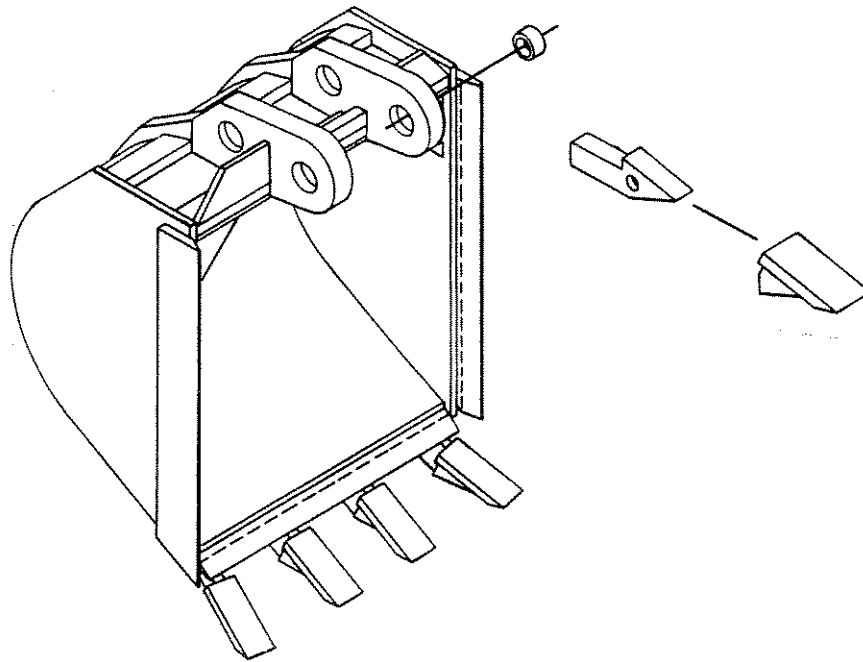
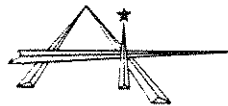




LD SERIES BACKHOES



PARTS MANUAL



American Trencher Inc.

P.O. Box 266 Delhi, Iowa 52223
1-800-922-2981

PM390
REV. 4

4768 2-26-93-3

75290

LIMITED WARRANTY

EFFECTIVE MARCH 1, 1986

All new unused American Trencher products are warranted to be free from defects in materials or workmanship which may cause failure under normal usage and service when used for the purpose intended.

In the event of failure within 12 months from initial retail sale, lease or rental date (excluding cable, ground engaging parts such as sprockets, digging chain, bearings, teeth, tamping and demolition heads, and blade cutting edges), if after examination, American Trencher determines failure was due to defective material and/or workmanship, parts will be repaired or replaced by American Trencher. American Trencher may request defective part or parts be returned prepaid to them for inspection at their place of business at Delhi, Iowa, or to a location specified by American Trencher.

Any claims under this warranty must be made within fifteen (15) days after the Buyer learns of the facts upon which such claim is based. All claims not made in writing and received by American Trencher within the time period specified above shall be deemed waived.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED AND THERE ARE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL AMERICAN TRENCHER BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGE.

AMERICAN TRENCHER'S LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES TO BUYER, RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING AMERICAN TRENCHER'S NEGLIGENCE, IRRESPECTIVE OF WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PARTICULAR PRODUCTS WITH RESPECT TO WHICH LOSSES OR DAMAGES ARE CLAIMED, OR, AT THE ELECTION OF AMERICAN TRENCHER, THE REPAIR OR REPLACEMENT OF DEFECTIVE OR DAMAGED PRODUCTS.

4374 10-25-88

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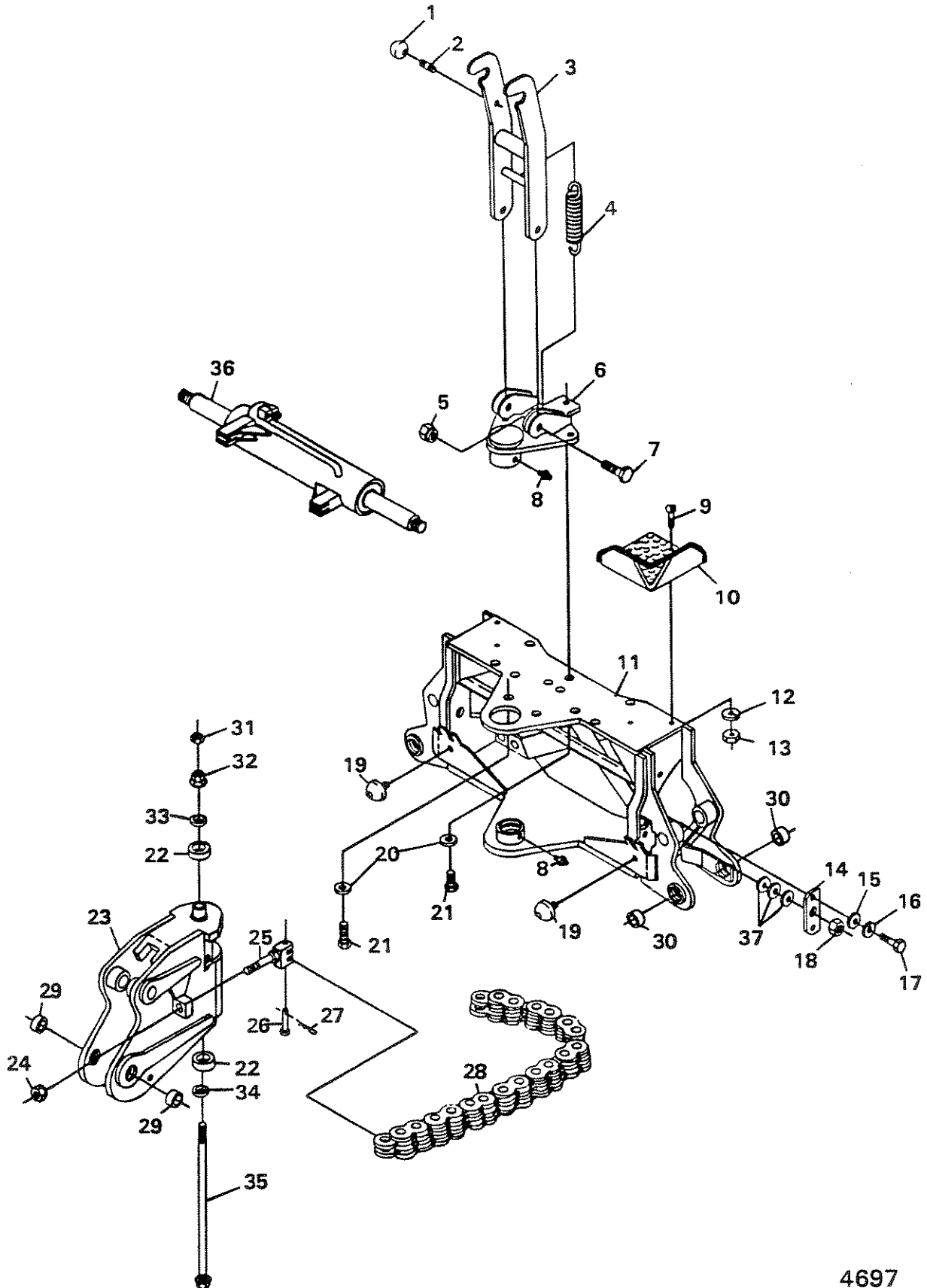
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4769 9-12-89-2

MAINFRAME ASSEMBLY

ASSEMBLY #62932

EFFECTIVE 8-10-87



MAINFRAME ASSEMBLY

ASSEMBLY #62932

EFFECTIVE 8-10-87

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	63284	Knob
2	1	63287	Stud
3	1	62900	Boom Hook
4	1	7440	Spring
5	2	1542	.40" UNC Lock Nut
6	1	66415	Top Bearing Mounting
7	2	1091	.50" UNC X 1.75" Hex Capscrew
8	2	6616	Grease Zerk
9	4	1760	.25" X 1.25" Roundhead Slotted Machine Screw
10	2	65482	Step
11	1	79123	Mainframe
12	4	1501	.25" Lock Washer
13	4	1224	.25" UNC Hex Nut
14	1	62942	Cylinder Mounting Plate
15	2	1516	.50" Flat Washer
16	2	1505	.50" Lock Washer
17	2	1088	.50" UNC X 1.00" Hex Capscrew
18	2	1481	.75" UNF Hex Nut
19	2	6886	Rubber Bumper
20	7	1646	.50" Hard Flat Washer
21	7	1090	.50" UNC X 1.50" Hex Capscrew
22	2	82647*	Self-Aligning Bushing
23	1	82644*	Swing Post (New Style)
		82705**	Swing Post Conversion Assembly (Order when converting from Swing Post #68460 to Swing Post #82644)
24	2	1534	.75" Lock Nut
25	2	61165	Swing Chain Bolt
26	4	54418	Swing Chain Pin
27	4	1611	Cotter Pin
28	2	61159	Swing Chain
29	2	65202	Bushing
30	4	56814	Bushing
31	1	1242	.50" UNC Jam Nut
32	1	1790	.50" Flange Nut
33	1	6252*	Bellville Washer
34	1	1845*	.88 Hard Flat Washer
35	1	79263	Swing Post Bolt
36	1	62540	Swing Cylinder Assembly (Includes Item #37)
37	4	82696*	Shim (Included in Swing Cylinder Assy #62540)
	1	82786*	Shim (Included in Swing Cylinder Assy #62540)

** When replacing swing post #68460 with new style swing post #82644 ORDER swing post conversion assembly #82705 which includes all parts marked with an asterisk (*).

NOTES: Swing cylinder #62540 was added to mainframe assembly #62932 effective 3-29-89.

Swing post #82644 and bushings #82647 replaced swing post #68460 and bushings #62523 on 1-1-95

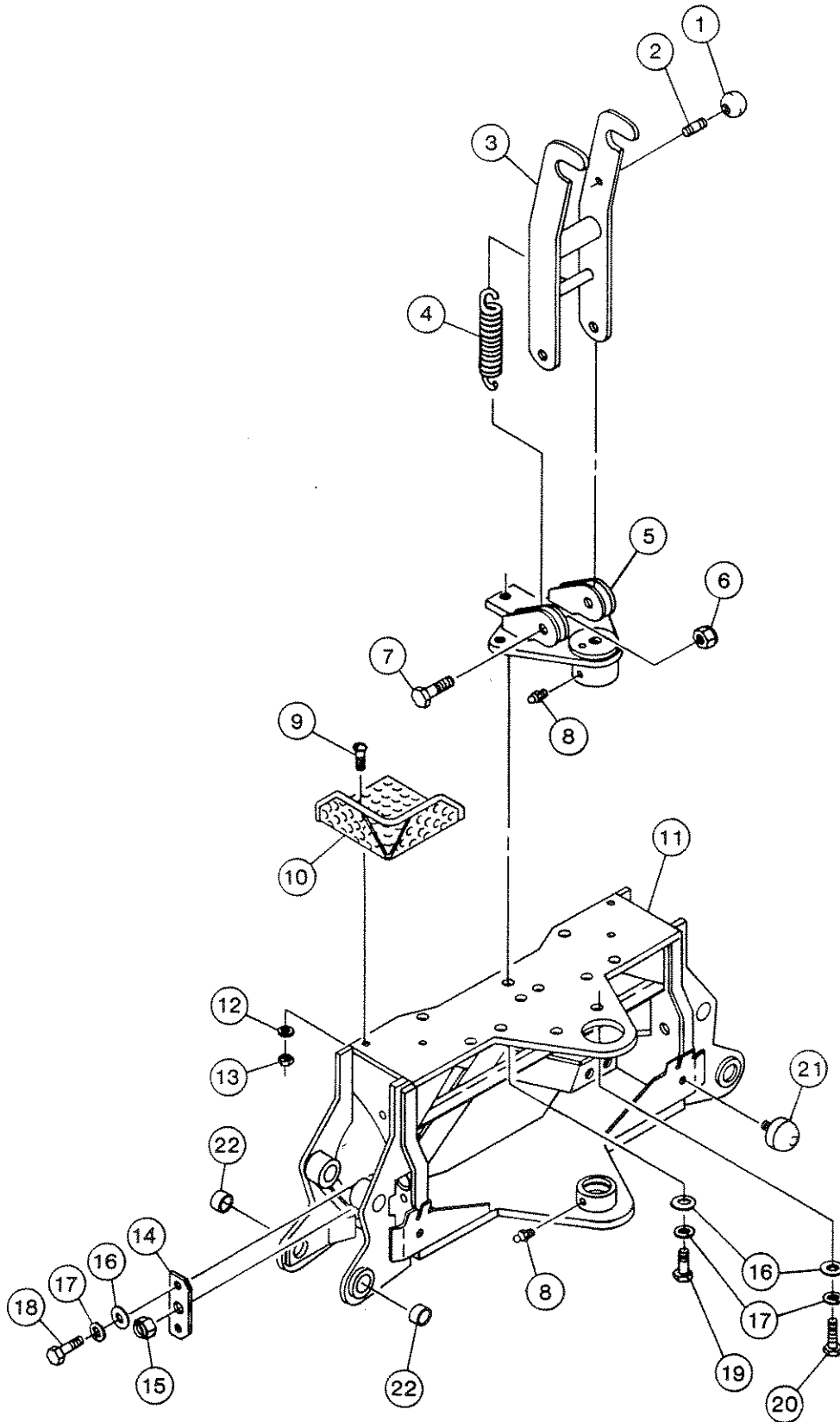
4698
2-3-95-7

MAINFRAME ASSEMBLY

LD SERIES BACKHOE

ASSEMBLY #62932

EFFECTIVE THROUGH 8-9-87



4762 3-29-89

MAINFRAME ASSEMBLY

LD SERIES BACKHOE
ASSEMBLY #62932

EFFECTIVE THROUGH 8-9-87

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	63284	Knob
2	1	63287	Stud
3	1	62900	Boom Hook
4	1	7440	Spring
5	1	64387(1)	Top Bearing Mounting
6	2	1542	.50" Lock Nut
7	2	1091	.50" UNC X 1.75" Hex Capscrew
8	2	6616	Grease Zerk
9	4	1900	.25 X .75" Roundhead Slotted Machine Screw
10	2	65482	Step
11	1	62490	Mainframe (Includes Four #56814 Bushings)
12	4	1501	.25" Lock Washer
13	4	1224	.25" UNC Nut
14	1	62942	Cylinder Mounting Plate
15	2	1481	.75" UNF Nut
16	9	1516	.50" Flat Washer
17	9	1505	.50" Lock Washer
18	2	1088	.50" UNC X 1.00" Hex Capscrew
19	3	1089	.50" UNC X 1.25" Hex Capscrew
20	4	1090	.50" UNC X 1.50" Hex Capscrew
21	2	6886	Rubber Bumper
22	4	56814	Bushing

4763

2-26-93-2

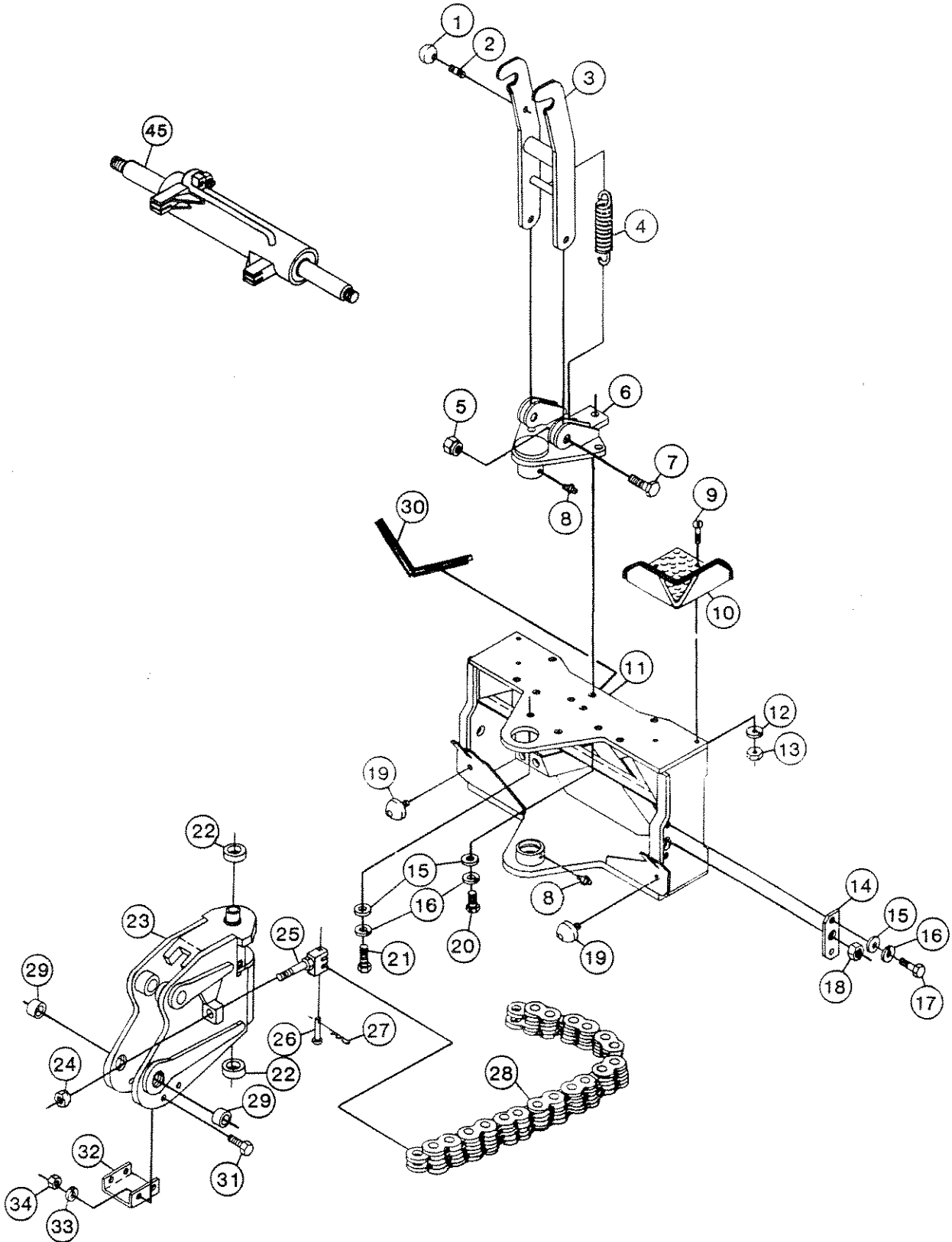
NOTE:

(1) Top bearing mounting #65468 replaces top bearing mounting #64387 effective 3-2-87.

MAINFRAME ASSEMBLY

LD SERIES BACKHOE
ASSEMBLY #65010

EFFECTIVE 8-10-87



4699 3-22-89

MAINFRAME ASSEMBLY

LD SERIES BACKHOE

ASSEMBLY #65010

EFFECTIVE 8-10-87

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	63284	Knob
2	1	63287	Stud
3	1	62900	Boom Hook
4	1	7440	Spring
5	2	1542	.50" Lock Nut
6	1	65468 (2)	Top Bearing Mounting
7	2	1091	.50" UNC X 1.75" Hex Capscrew
8	2	6616	Grease Zerk
9	4	1900	.25" X .75" Roundhead Slotted Machine Screw
10	2	65482	Step
11	1	65011(2)	Mainframe
12	4	1501	.25" Lock Washer
13	4	1224	.25" UNC Nut
14	1	62942	Cylinder Mounting Plate
15	9	1516	.50" Flat Washer
16	9	1505	.50" Lock Washer
17	2	1088	.50" UNC X 1.00" Hex Capscrew
18	2	1481	.75" UNF Nut
19	2	6886	Rubber Bumper
20	3	1089	.50" UNC X 1.25" Hex Capscrew
21	4	1090	.50" UNC X 1.50" Hex Capscrew
22	2	62523	Self-Aligning Bushing
23	1	68460	Swing Post
24	2	1534	.75" Lock Nut
25	2	61165	Swing Chain Bolt
26	4	54418	Swing Chain Pin
27	4	1611	Cotter Pin
28	2	61159	Swing Chain
29	2	65202	Bushing
30	1	34100	Rubber Edge 18"
31	4	1022	.31" UNC X 1.00" Hex Capscrew
32	1	69838	Hose Guard
33	4	1502	.31" Lock Washer
34	4	1225	.31" UNC Hex Nut
45	1	62540(1)	Swing Cylinder

NOTES:

(1) Swing cylinder #62540 was added to mainframe assembly #65010 effective 3-29-89.

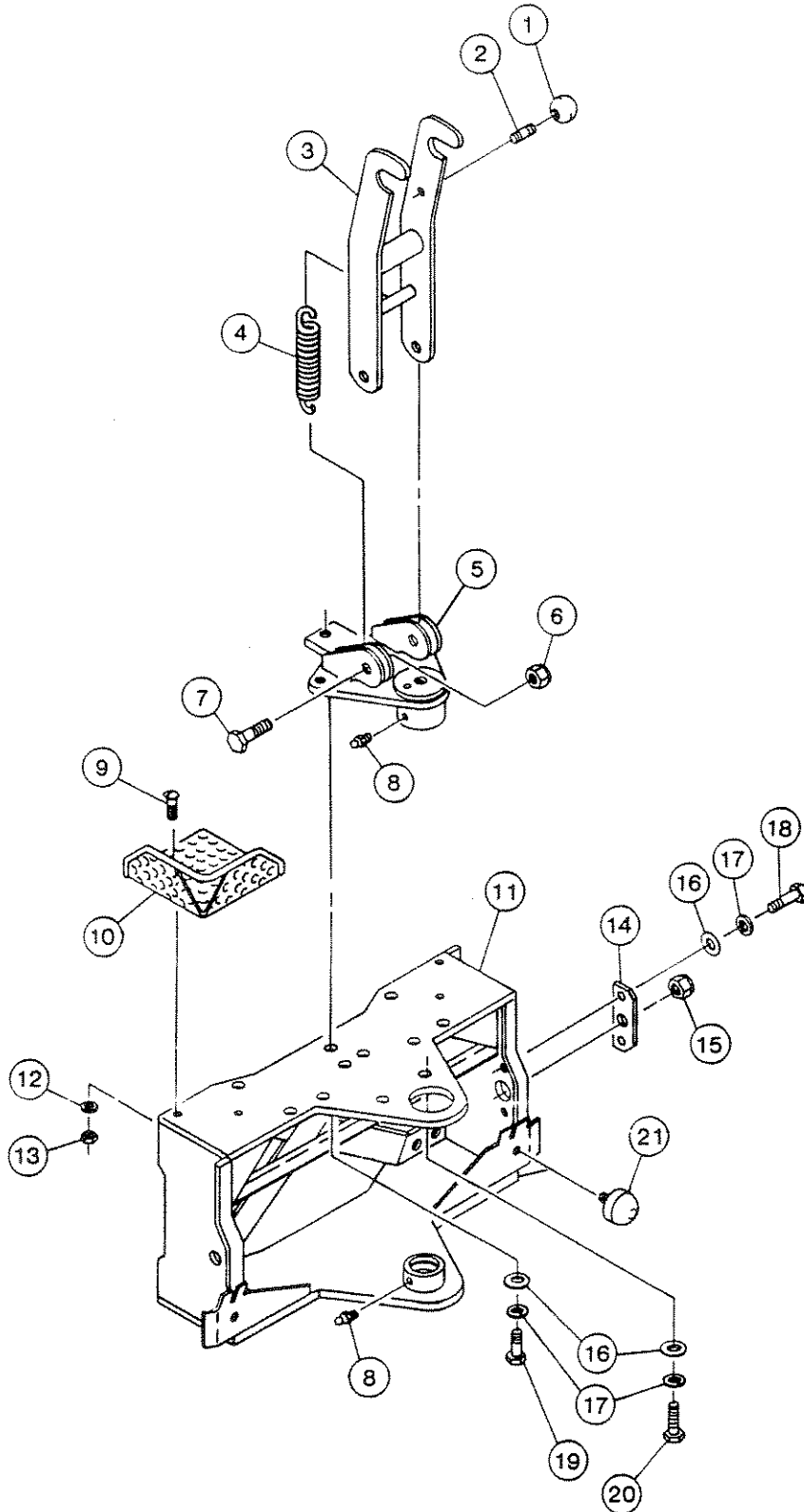
(2) Mainframe #69900 and top bearing mount #66415 replaces mainframe #65011 and top bearing mount #65468 effective 3-30-89.

4700 2-26-93-2

MAINFRAME ASSEMBLY

LD SERIES BACKHOE
ASSEMBLY #65010

EFFECTIVE THROUGH 8-9-87



4760 3-29-89

MAINFRAME ASSEMBLY

LD SERIES BACKHOE
ASSEMBLY #65010

EFFECTIVE THROUGH 8-9-87

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	63284	Knob
2	1	63287	Stud
3	1	62900	Boom Hook
4	1	7440	Spring
5	1	64387(1)	Top Bearing Mounting
6	2	1542	.50" Lock Nut
7	2	1091	.50" UNC X 1.75" Hex Capscrew
8	2	6616	Grease Zerk
9	4	1900	.25 X .75" Roundhead Slotted Machine Screw
10	2	65482	Step
11	1	65011	Mainframe
12	4	1501	.25" Lock Washer
13	4	1224	.25" UNC Nut
14	1	62942	Cylinder Mounting Plate
15	2	1481	.75" UNF Nut
16	9	1516	.50" Flat Washer
17	9	1505	.50" Lock Washer
18	2	1088	.50" UNC X 1.00" Hex Capscrew
19	3	1089	.50" UNC X 1.25" Hex Capscrew
20	4	1090	.50" UNC X 1.50" Hex Capscrew
21	2	6886	Rubber Bumper

4761
2-26-93-2

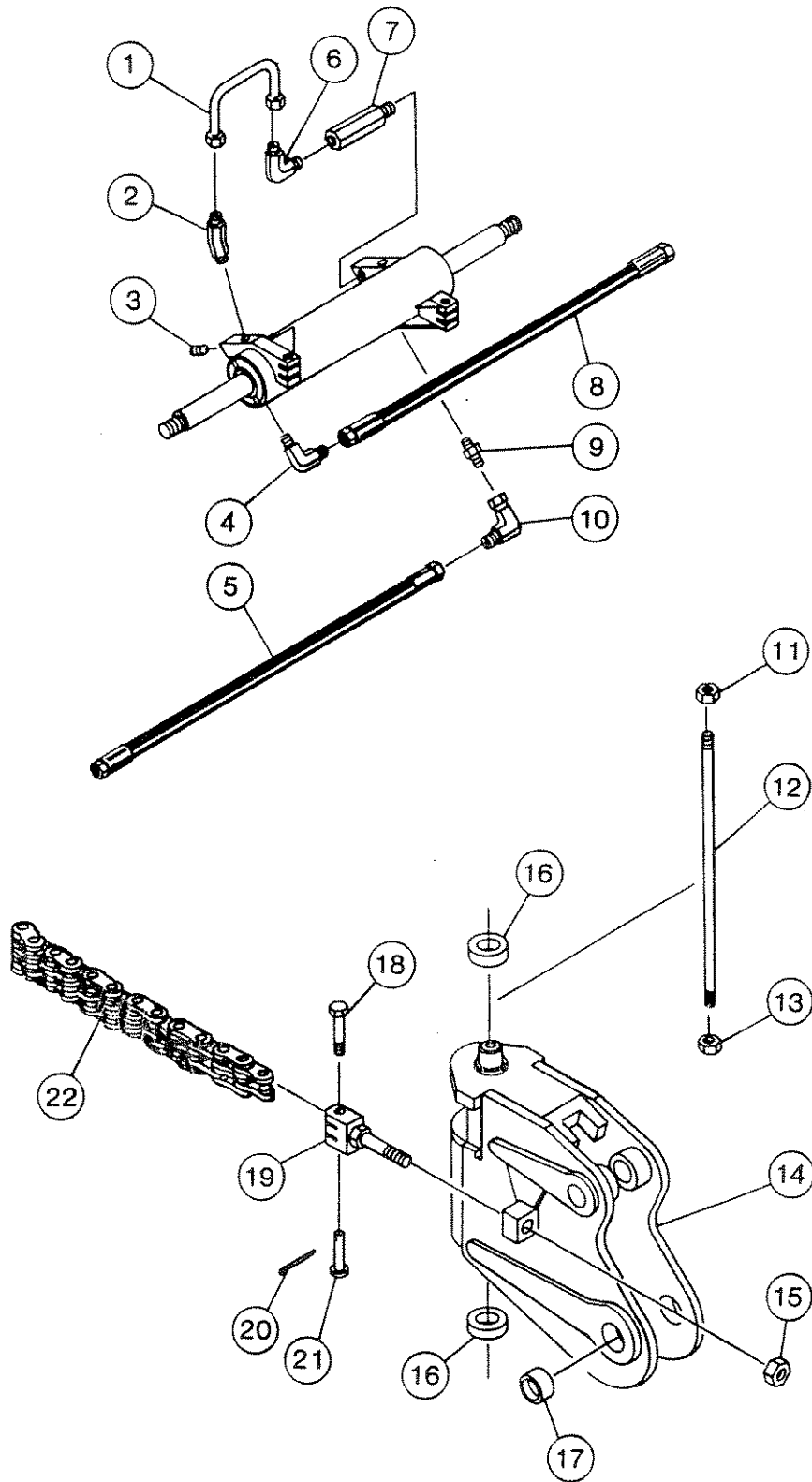
NOTE:

(1) Top bearing mounting #65468 replaces top bearing mounting #64387 effective 3-3-87.

SWING POST ASSEMBLY

LD SERIES BACKHOE
ASSEMBLY #62932 & 65010

EFFECTIVE THROUGH 8-9-87



4764 3-29-89

SWING POST ASSEMBLY

LD SERIES BACKHOE
ASSEMBLY #62932 & 65010

EFFECTIVE THROUGH 8-9-87

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	64406(1)	Hydraulic Tube
2	2	3120(1)	45° Adapter 4MP-6MJ
3	2	3226(1)	Hex Socket Plug
4	1	3001(1)	90° Adapter 4MP-6MJ
5	1	35725(1)	Hose .25" X 30.00" (SAE 100R2-2Wire) 6FJX-6FJX
6	2	3002(1)	90° Adapter 6MP-6MJ
7	2	57547(1)	Relief Valve
8	1	35696(1)	Hose .25" X 28.00" (SAE 100R2-2Wire) 6FJX-6FJX
9	1	3137(1)	Street Adapter 4MP-6MJ
10	1	3430(1)	90° Adapter 6MJ-6FJX
11	1	1242(2)	.50" UNC Jam Nut
12	1	62526(2)	Swing Post Bolt
13	1	1542(2)	.50" Lock Nut
14	1	62493(4)	Swing Post (Includes two #56814 Bushings)
15	2	1534	.75" UNC Lock Nut
16	2	62523	Self Aligning Bushing
17	2	56814	Bushing
18	4	1740(3)	.38" UNC X 2.00" Hex Capscrew Grade 5
19	2	61165	Bolt Weldment
20	4	1611	Cotter Pin
21	4	54418	Swing Chain Pin
22	2	61159	Swing Chain

4765 3-29-89

NOTES:

(1) These parts are used only with swing cylinder #64405.

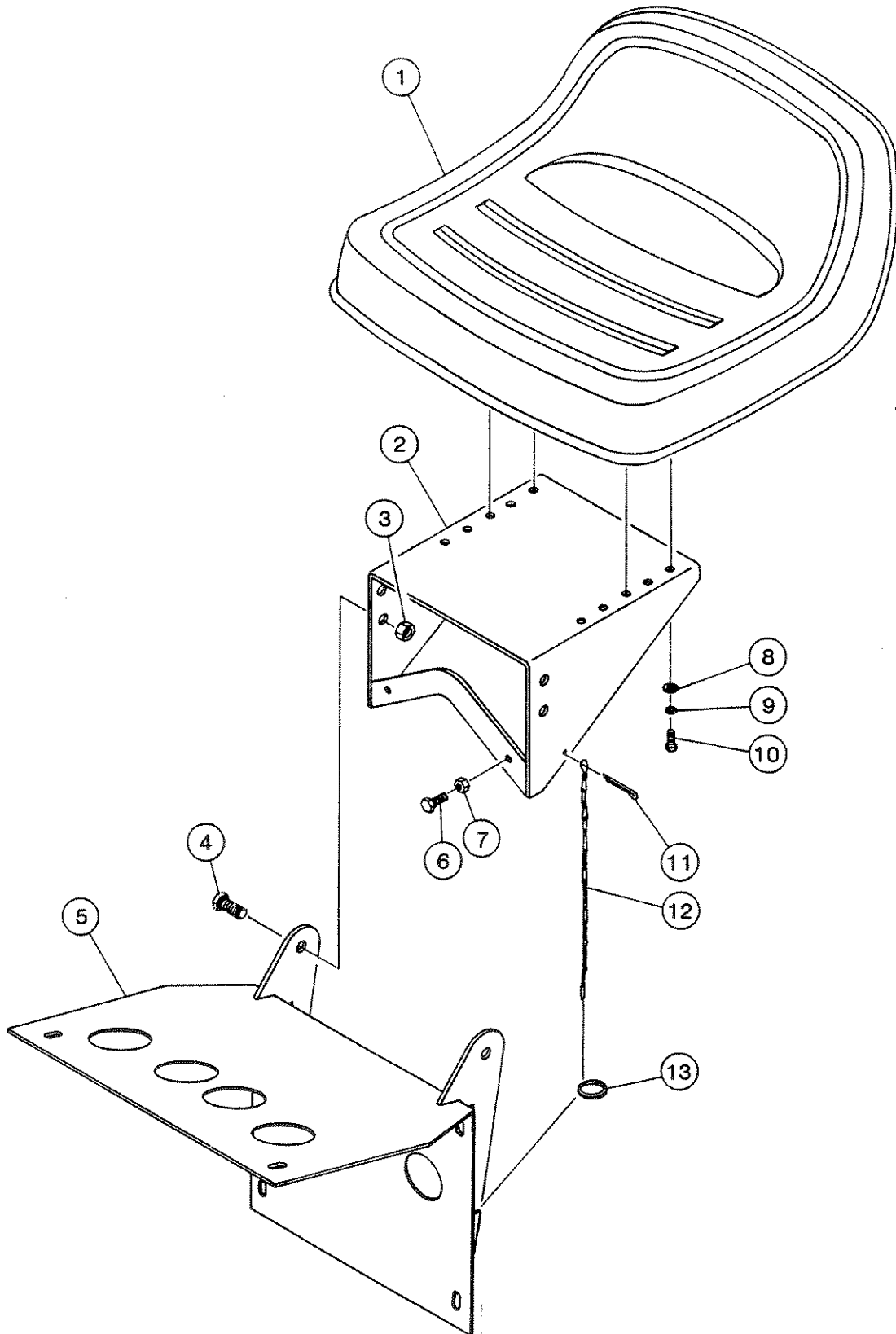
(2) Swing post bolt #62526, jam nut #1242, and lock nut #1542 are no longer used effective 3-2-87 due to redesign of the backhoe mainframe.

(3) Swing post pin #54418 and cotter pin #1611 replace capscrew #1740 effective 7-8-87. Bolt weldment #61165 is no longer tapped.

(4) Swing post #68460 (without center hole) replaces swing post #62493 (with center hole) effective 6-25-88.

SEAT ASSEMBLY

ASSEMBLY #64046



4381 3-7-90-2

SEAT ASSEMBLY

ASSEMBLY #64046

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	6980	Seat
2	1	63389	Seat Mount
3	2	1542	.50" UNC Lock Nut
4	2	1088	.50" UNC X 1.00" Hex Capscrew
5	1	63946(1)	Console Cover
6	2	1043	.38" UNC X 1.00" Hex Capscrew
7	2	1226	.38" UNC Hex Nut
8	4	1513	.31" Flat Washer
9	4	1502	.31" Lock Washer
10	4	1021	.31" UNC X .75" Hex Capscrew
11	1	1611(1)	.12" X 1.00" Cotter Pin
12	1	63997(1)	Seat Tilt Chain
13	1	65072(1)	Key Ring

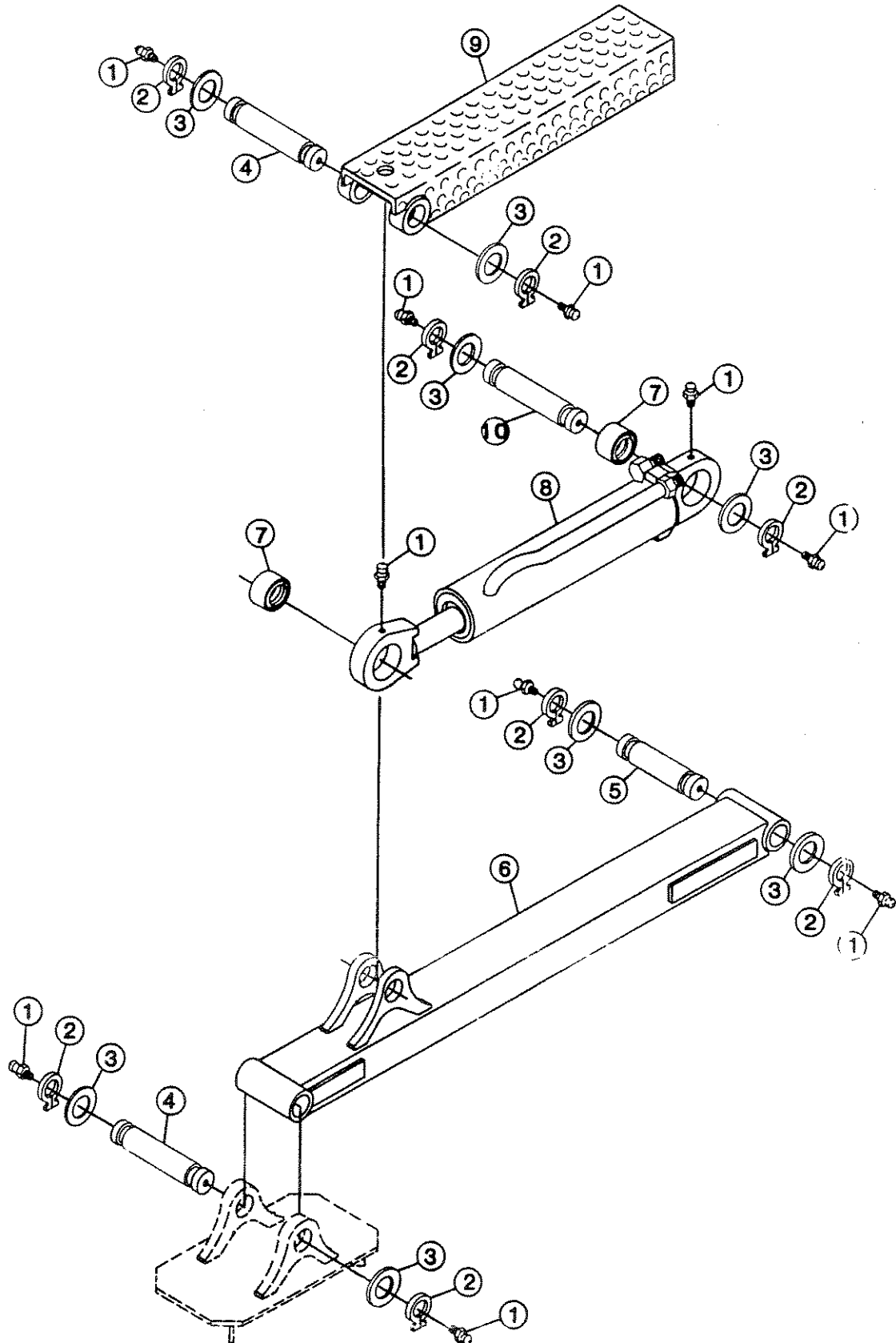
4382 3-7-90-3

NOTES:

- (1) Cotter pin #1611, seat tilt chain #63997, and key ring #65072 have been deleted from assembly #64046 due to modification of console cover #63946, effective 8-22-89.

STABILIZER ASSEMBLY

ASSEMBLY #62934



STABILIZER ASSEMBLY

ASSEMBLY #62934

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	20	6616	Grease Zerk
2	16	1652	Snap Ring
3	VARIES	64728	Thrust Washer 1.25" Dia. X .031"
	VARIES	57693	Thrust Washer 1.25" Dia. X .078"
	VARIES	64727	Thrust Washer 1.25" Dia. X .125"
4	4	62661 (1)	Pivot Pin 1.25" Dia. X 5.81"
5	2	62660 (2)	Pivot Pin 1.25" Dia. X 6.69"
6	2	62575	34.00" Stabilizer Arm
7	4	62523	Self Aligning Bushing
8	2	62544	Stabilizer Cylinder
9	2	62882	Stabilizer Cylinder Cover
10	2	60784 (3)	Pivot Pin 1.25" Dia. X 6.09"

NOTES:

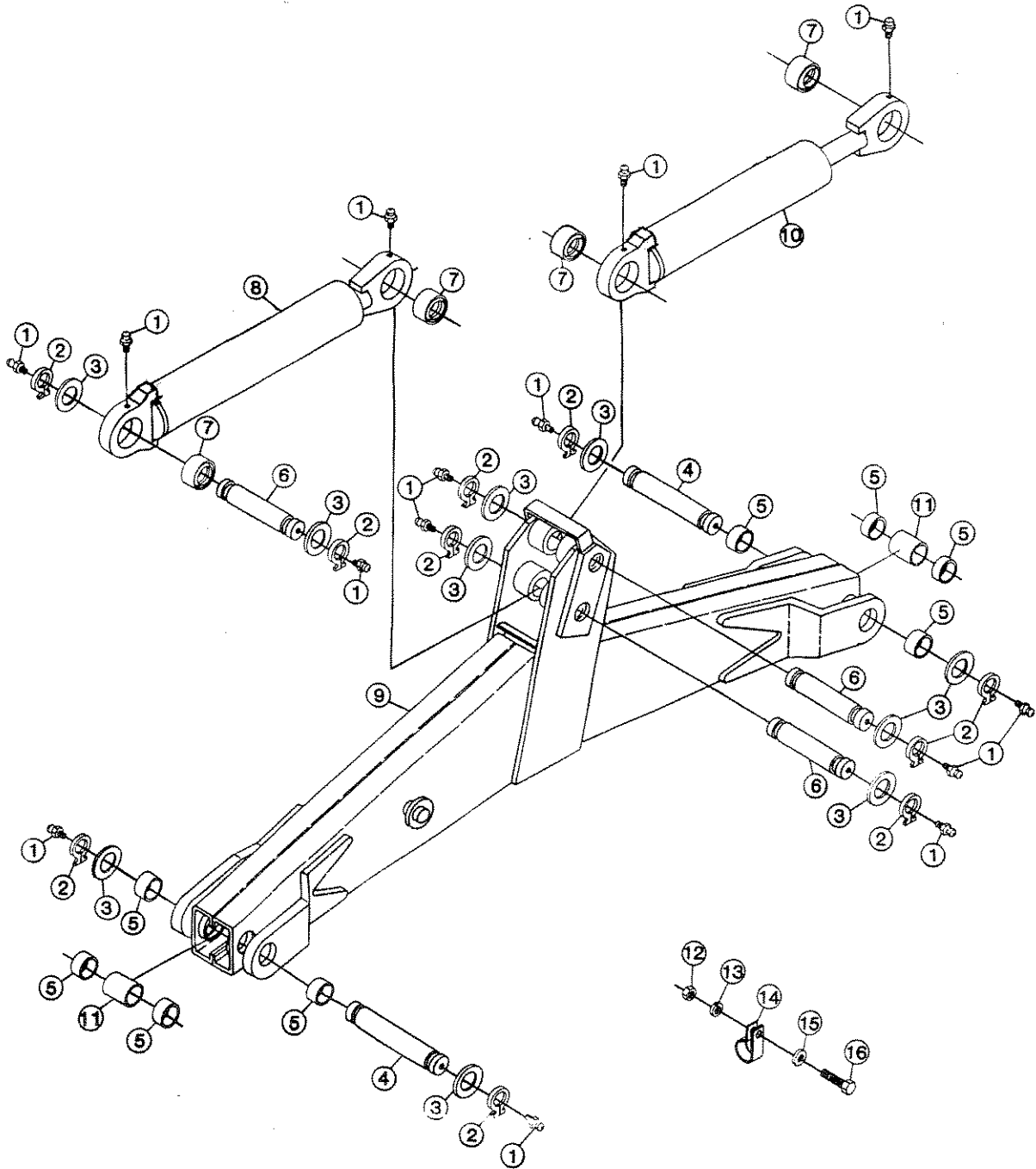
(1) Pivot pin #62661 is sold only in pin kit #69907. Kit includes one pin #62661, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.

(2) Pivot pin #62660 is sold only in pin kit #69906. Kit includes one pin #62660, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.

(3) Pivot pin #60784 is sold only in pin kit #74031. Kit includes one pin #60784, two thrust washers #64728, two snap rings #1652, and two grease zerks #6616.

BOOM ASSEMBLY

6LD BACKHOE
ASSEMBLY #62933



4703 8-31-89-2

BOOM ASSEMBLY

6LD BACKHOE
ASSEMBLY #62933

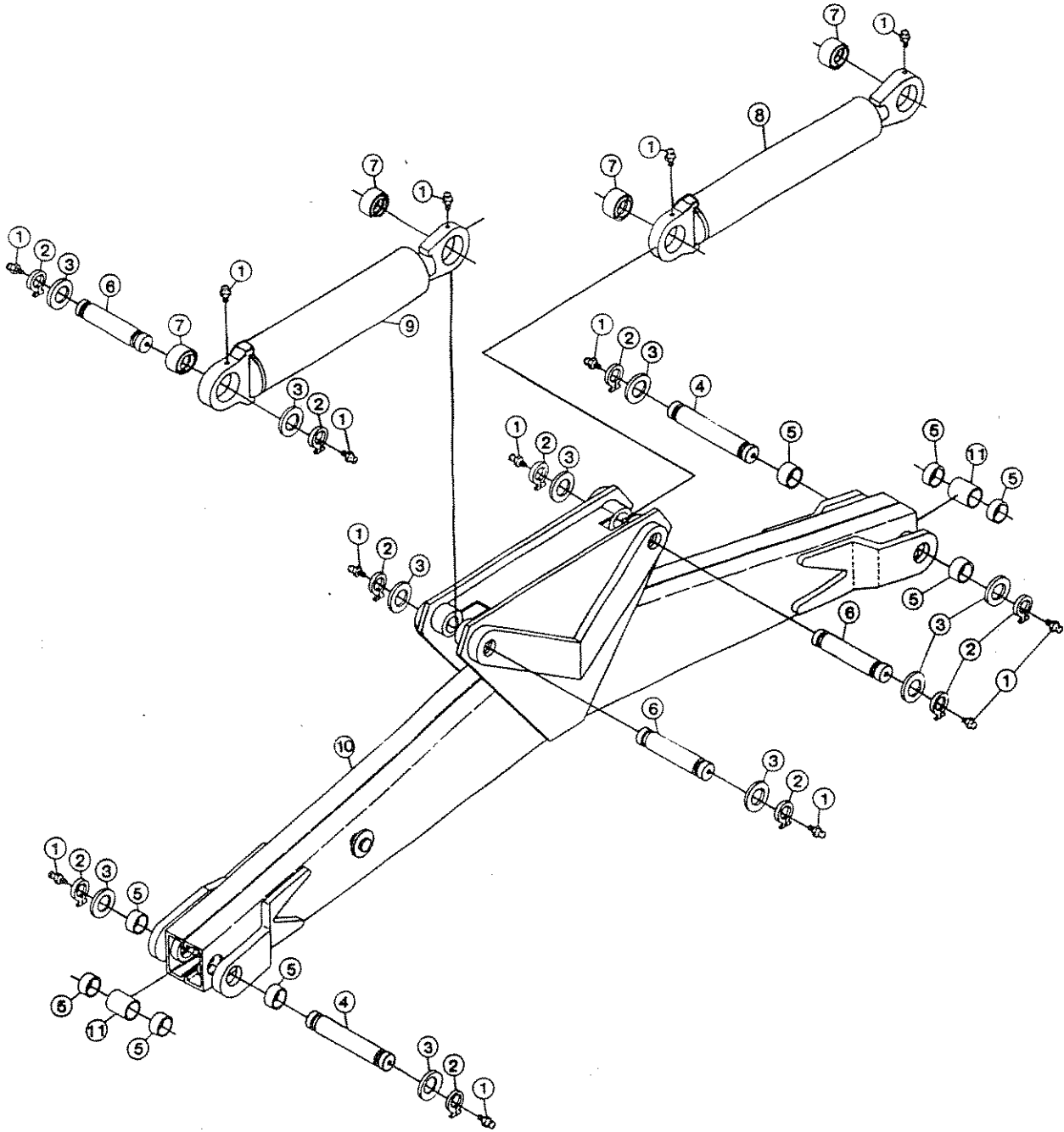
<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	14	6616	Grease Zerk
2	10	1652	Snap Ring 1.25" I.D.
3	VARIES	64728	Thrust Washer 1.25" X .031"
	VARIES	57693	Thrust Washer 1.25" X .078"
	VARIES	64727	Thrust Washer 1.25" X .125"
4	4	62662 (1)	Pivot Pin 1.25" Dia. X 6.69"
5	8	56814	Bushing 1.25" Dia.
6	3	62561 (2)	Pivot Pin 1.25" Dia. X 5.81"
7	4	62523	Self Aligning Bushing
8	1	62887	Boom Cylinder
9	1	62491	Boom (Includes 8 #56814 Bushings & 2 #68697 Spacer Tubes)
10	1	62544	Dipper Cylinder
11	2	68697	Spacer Tube 1.38" Dia. X 1.88"
12	2	1225	.31" UNC Hex Nut
13	2	1502	.31" Lock Washer
14	2	52209	.31" Hose Clamp
15	2	1524	.31" Flat Washer
16	2	1022	.31" UNC X 1.00" Hex Capscrew

NOTES:

- (1) Pivot pin #62662 is sold only in pin kit #69908. Kit includes one pin #62662, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.
- (2) Pivot pin #62661 is sold only in pin kit #69907. Kit includes one pin #62661, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.

BOOM ASSEMBLY

ASSEMBLY #63137



4705 3-7-90-2

BOOM ASSEMBLY

ASSEMBLY #63137

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	14	6616	Grease Zerk
2	10	1652	Snap Ring 1.25" I.D.
3	VARIES	64728	Thrust Washer 1.25" X .031"
	VARIES	57693	Thrust Washer 1.25" X .078"
	VARIES	64727	Thrust Washer 1.25" X .125"
4	2	62662(1)	Pivot Pin 1.25" Dia. X 7.56"
5	8	56814	Bushing 1.25" Dia.
6	3	62661(2)	Pivot Pin 1.25" Dia. X 5.81"
7	4	62523	Self-Aligning Bushing
8	1	62887	Dipper Cylinder
9	1	63105	Boom Cylinder
10	1	63029	Boom (Includes 8 #56814 Bushings & 2 #68697 Spacer Tubes)
11	2	68697	Spacer Tube 1.38" Dia. X 1.88"

4706
3-7-90-2

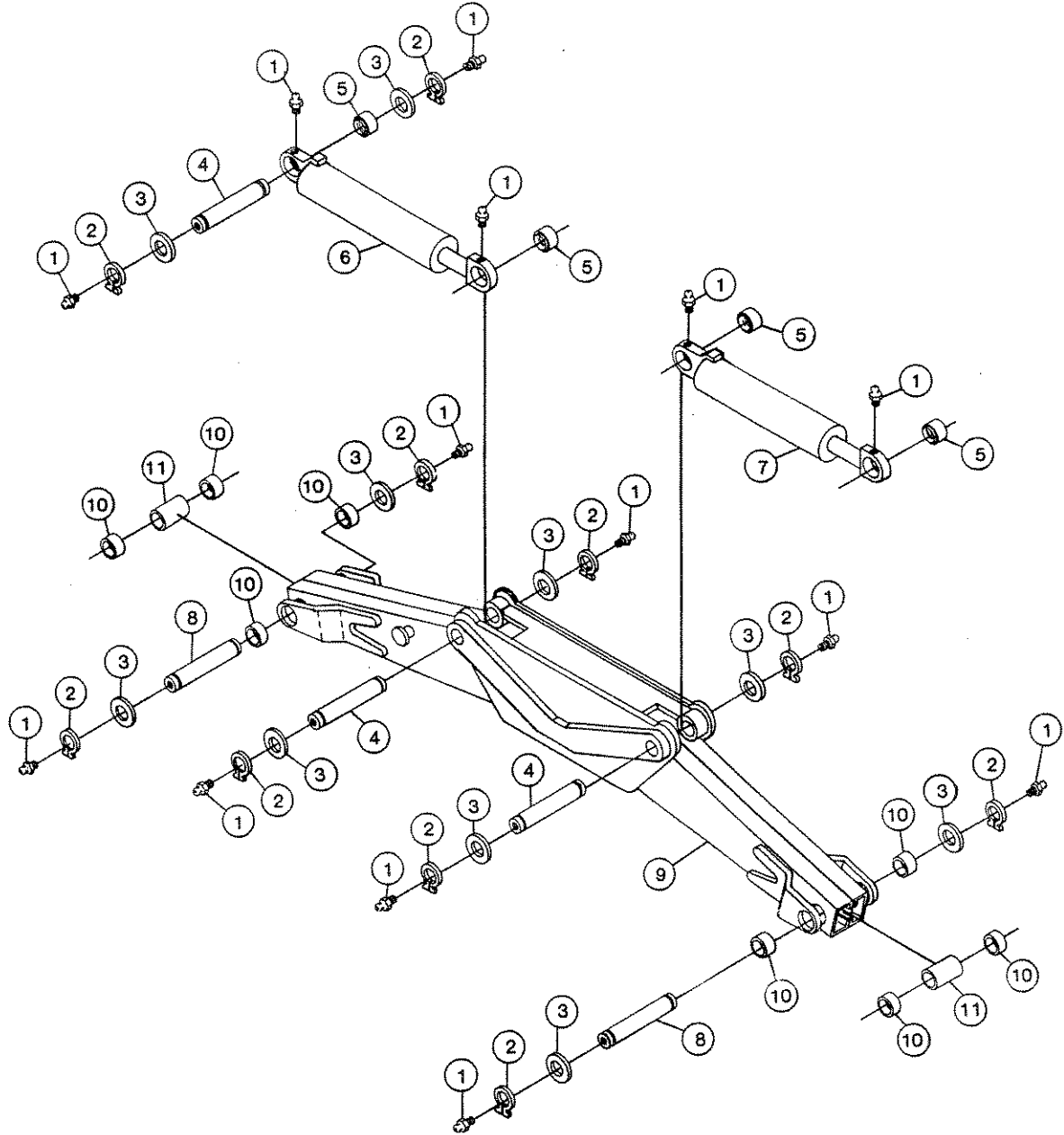
NOTES:

(1) Pivot pin #62662 is sold only in pin kit #69908. Kit includes one pin #62662, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.

(2) Pivot pin 62661 is sold only in pin kit #69907. Kit includes one pin #62661, two thrust washers #64727, two snap rings #1652, two grease zerks #6616.

BOOM ASSEMBLY

10LD BACKHOE
ASSEMBLY #63138



4770 4-5-89

BOOM ASSEMBLY

10LD BACKHOE
ASSEMBLY #63138

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	14	6616	Grease Zerk
2	10	1652	Snap Ring 1.25" I.D.
3	VARIES	64728	Thrust Washer 1.25" X .031"
	VARIES	57693	Thrust Washer 1.25" X .078"
	VARIES	64727	Thrust Washer 1.25" X .125"
4	3	62661(1)	Pivot Pin 1.25" Dia. X 5.81"
5	4	62523	Self Aligning Bushing
6	1	64395	Boom Cylinder
7	1	63105	Dipper Cylinder
8	2	62662(2)	Pivot Pin 1.25" Dia. X 7.56"
9	1	63093	Boom (Includes Eight #56814 Bushings And Two #68697 Spacer Tubes)
10	8	56814	Bushing 1.25" Dia.
11	2	68697	Spacer Tube 1.38" Dia. X 1.75"

4771 4-5-89

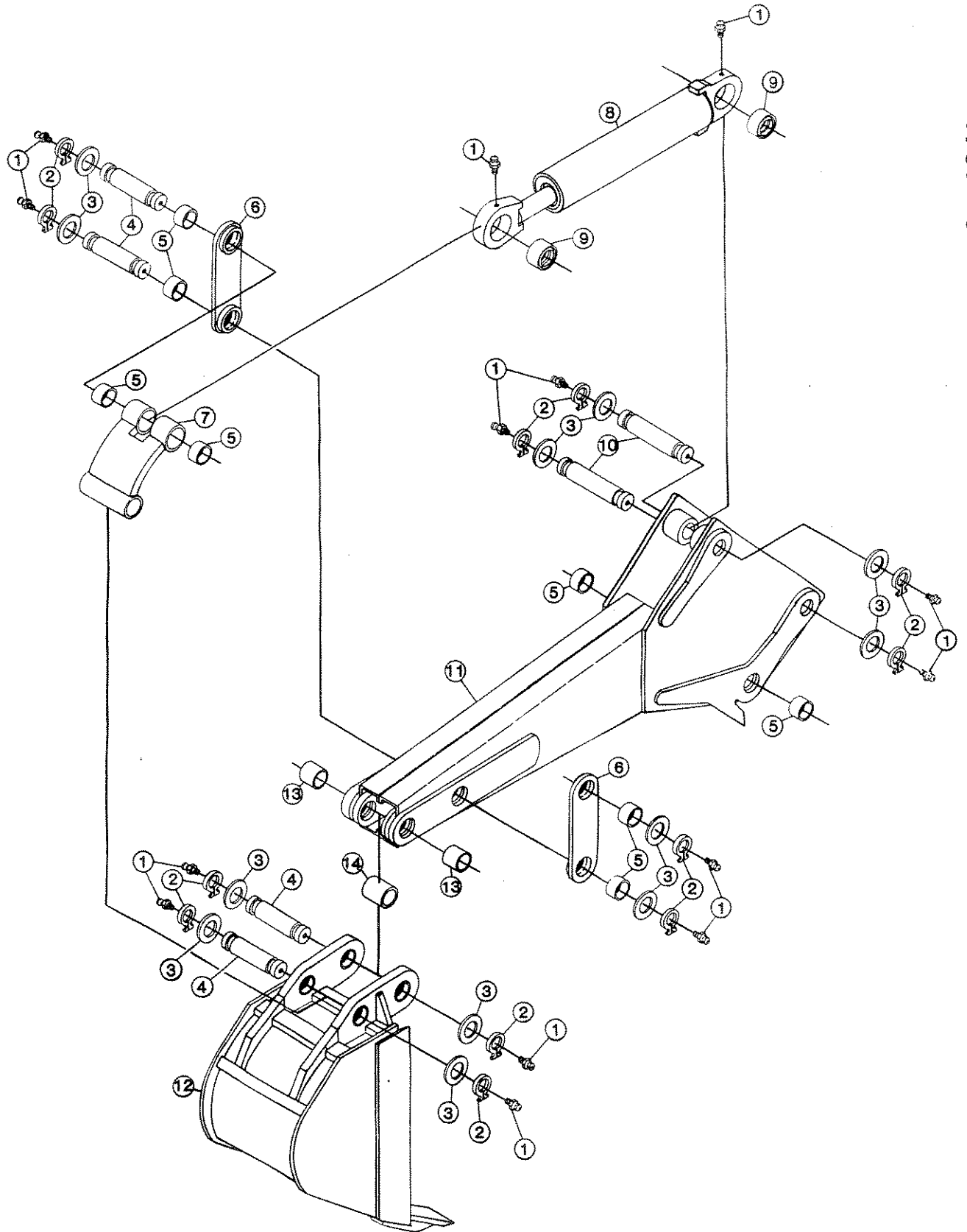
NOTES:

(1) Pivot pin #62661 is sold only in pin kit #69907. Kit includes one pin #62661, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.

(2) Pivot pin 62662 is sold only in pin kit #69908. Kit includes one pin #62660, two thrust washers #64727, two snap rings #1652, two grease zerks #6616.

DIPPER ASSEMBLY

6LD BACKHOE
ASSEMBLY #63919



4707 3-22-89

DIPPER ASSEMBLY

6LD BACKHOE
ASSEMBLY #63919

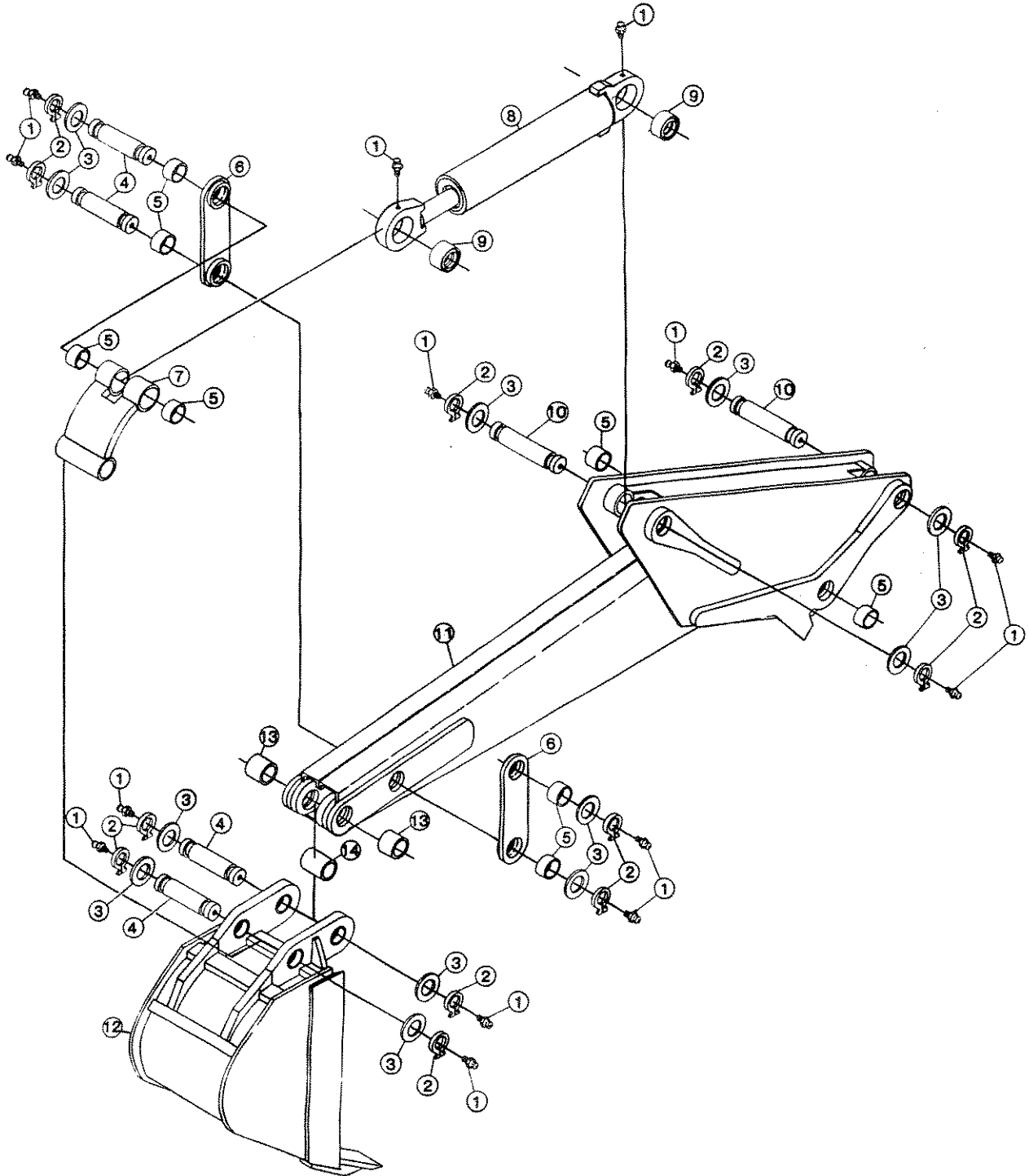
<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	14	6616	Grease Zerk
2	12	1652	Snap Ring 1.25" I.D.
3	VARIES	64728	Thrust Washer 1.25" X .031"
	VARIES	57693	Thrust Washer 1.25" X .078"
	VARIES	64727	Thrust Washer 1.25" X .125"
4	4	62660 (1)	Pivot Pin 1.25" Dia. X 6.69"
5	8	56814	Bushing 1.25" Dia.
6	2	62560	Dipper Link (Includes 2 #56814 Bushings)
7	1	67795	Bucket Link (Includes 2 #56814 Bushings)
8	1	78501 (3)	Bucket Cylinder
9	2	62523	Self Aligning Bushing
10	2	62661 (2)	Pivot Pin 1.25" Dia. X 5.81"
11	1	66110	Dipper (Includes 2 #56814 Bushings, 2 #51036 Bushings, & 1 #67191 Spacer Tube)
12	1	-----	Standard Heavy Duty Bucket
13	2	51036	Bushing
14	1	67191	Spacer Tube, 1.38" OD X 1.62"

NOTES:

- (1) Pivot pin #62660 is sold only in pin kit #69906. Kit includes one pin #62660, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.
- (2) Pivot pin #62661 is sold only in pin kit #69907. Kit includes one pin #62661, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.
- (3) Bucket Cylinder #78501 replaces Bucket Cylinder #62544.

DIPPER ASSEMBLY

ASSEMBLY #63920



4709 3-7-90-2

DIPPER ASSEMBLY

ASSEMBLY #63920

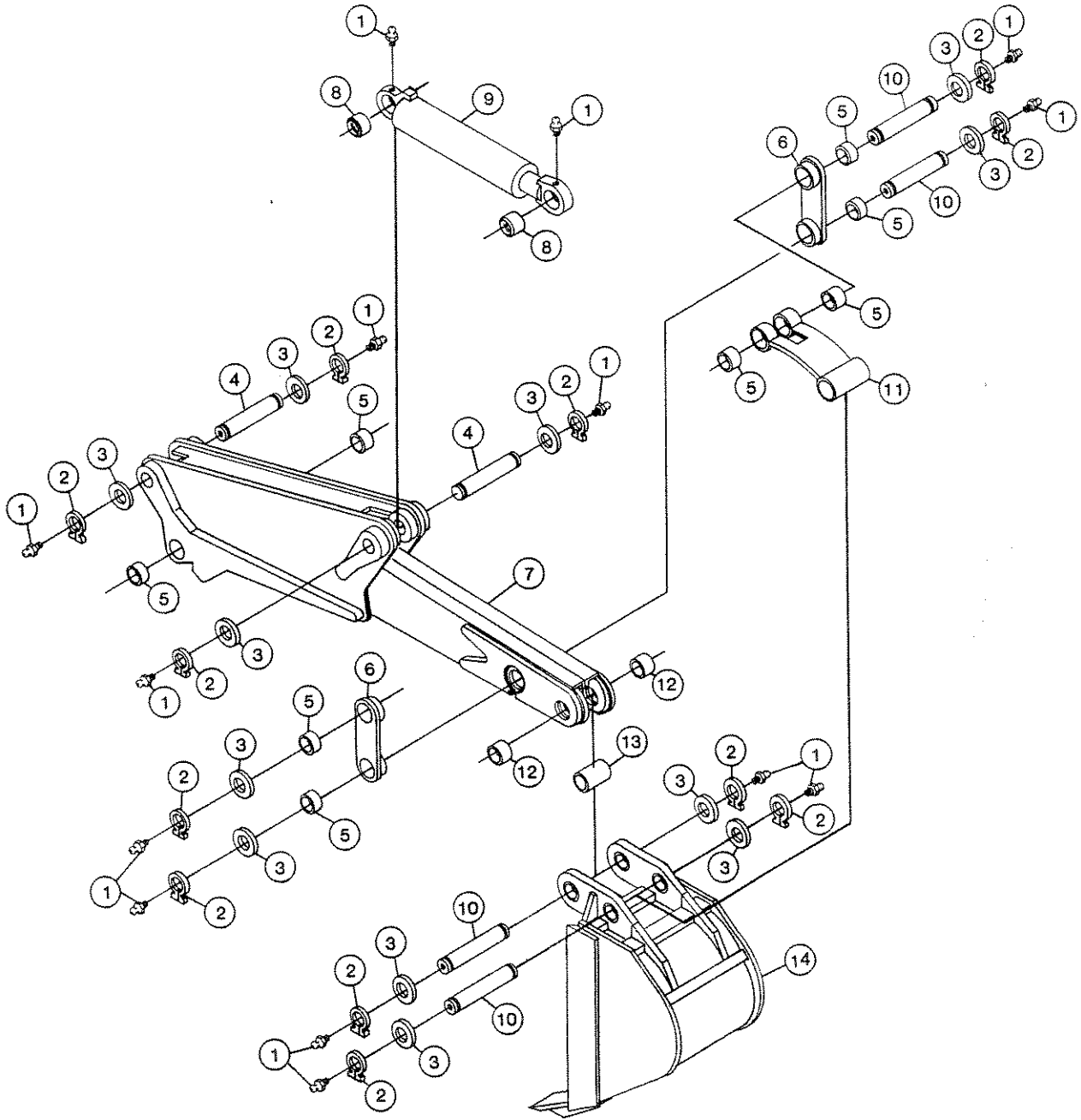
<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	14	6616	Grease Zerk
2	12	1652	Snap Ring 1.25" I.D.
3	VARIES	64728	Thrust Washer 1.25" X .031"
	VARIES	57693	Thrust Washer 1.25" X .078"
	VARIES	64727	Thrust Washer 1.25" X .125"
4	4	62660 (1)	Pivot Pin 1.25" Dia. X 6.69"
5	8	56814	Bushing 1.25" Dia.
6	2	62560	Dipper Link (Includes 2 #56814 Bushings)
7	1	67795	Bucket Link (Includes 2 #56814 Bushings)
8	1	78501 (3)	Bucket Cylinder
9	2	62523	Self Aligning Bushing
10	2	62661 (2)	Pivot Pin 1.25" Dia. X 5.81"
11	1	63028	Dipper (Includes 2 #56814 Bushings, 2 #51036 Bushings, & 1 #67191 Spacer Tube)
12	1	-----	Standard Heavy Duty Bucket
13	2	51036	Bushing
14	1	67191	Spacer Tube, 1.38" OD X 1.62"

NOTES:

- (1) Pivot pin #62660 is sold only in pin kit #69906. Kit includes one pin #62660, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.
- (2) Pivot pin #62661 is sold only in pin kit #69907. Kit includes one pin #62661, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.
- (3) Bucket Cylinder #78501 replaces Bucket Cylinder #62544.

DIPPER ASSEMBLY

10LD BACKHOE
ASSEMBLY #63961



4772 4-5-89

DIPPER ASSEMBLY

10LD BACKHOE
ASSEMBLY #63961

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	14	6616	Grease Zerk
2	12	1652	Snap Ring 1.25" I.D.
3	VARIES	64728	Thrust Washer 1.25" X .031
	VARIES	57693	Thrust Washer 1.25" X .078"
	VARIES	64727	Thrust Washer 1.25" X .125"
4	2	62661(1)	Pivot Pin 1.25" Dia. X 5.81"
5	8	56814	Bushing
6	2	62560	Dipper Link (Includes Two #56814 Bushings)
7	1	63094	Dipper (Includes Two #56814 Bushings, Two #51036 Bushings, And One #67191 Spacer Tube)
8	2	62523	Self Aligning Bushing
9	1	62544	Bucket Cylinder
10	4	62660(2)	Pivot Pin 1.25" Dia. X 6.69"
11	1	67795	Bucket Link (Includes two #56814 Bushings)
12	2	51036	Bushing
13	1	67191	Spacer Tube 1.38" Dia. X 1.62"
14	1	-----	Standard Heavy Duty Bucket

4773 4-5-89

NOTES:

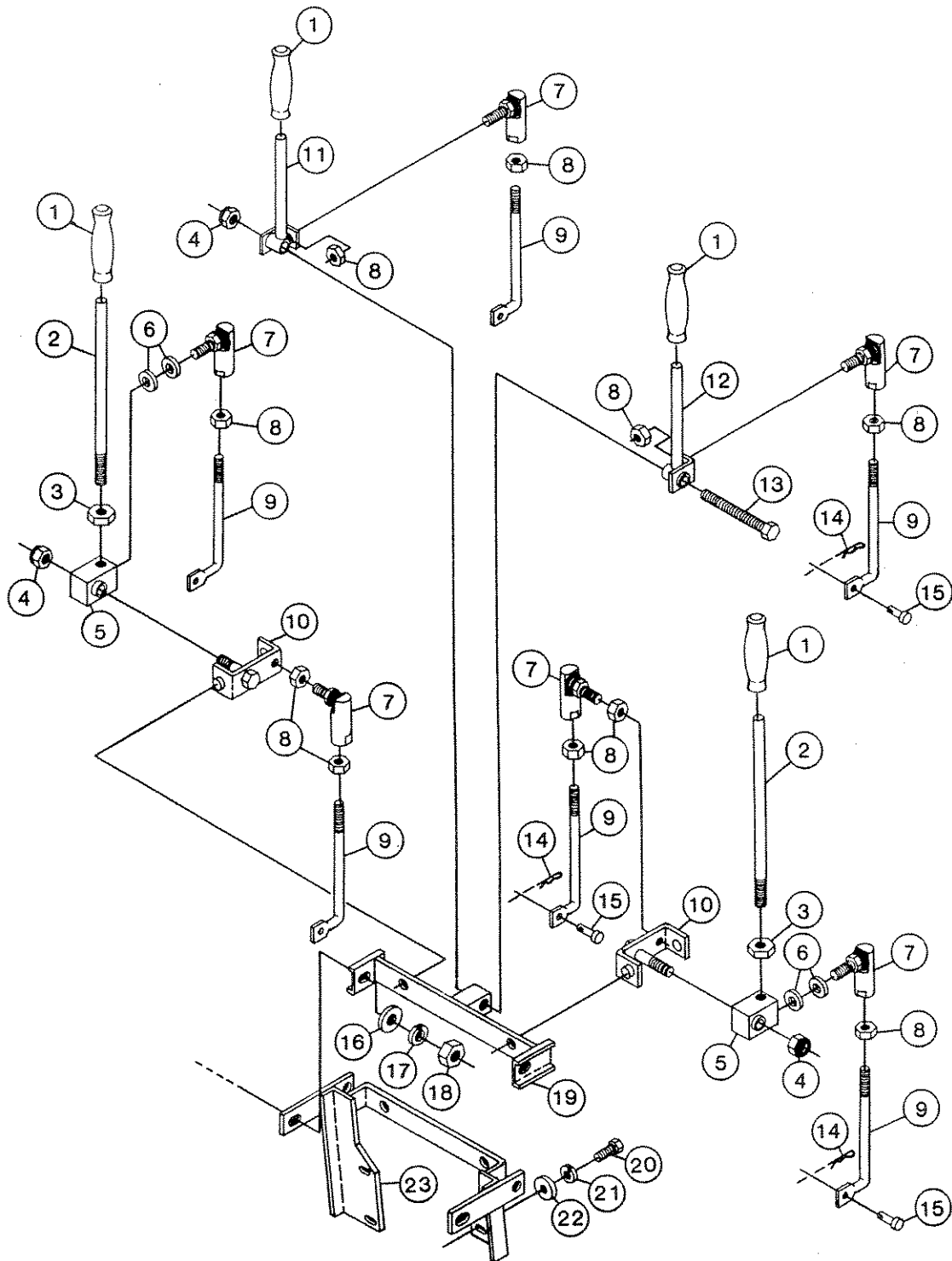
(1) Pivot pin #62661 is sold only in pin kit #69907. Kit includes one pin #62661, two thrust washers #64727, two snap rings #1652, and two grease zerks #6616.

(2) Pivot pin 62660 is sold only in pin kit #69906. Kit includes one pin #62660, two thrust washers #64727, two snap rings #1652, two grease zerks #6616.

CONSOLE ASSEMBLY

DUKES VALVE CONSOLE BOX
ASSEMBLY #69905

DIAGRAM 1 OF 2



4866 7-5-89

CONSOLE ASSEMBLY

DUKES VALVE CONSOLE BOX
ASSEMBLY #69905

LIST 1 OF 2

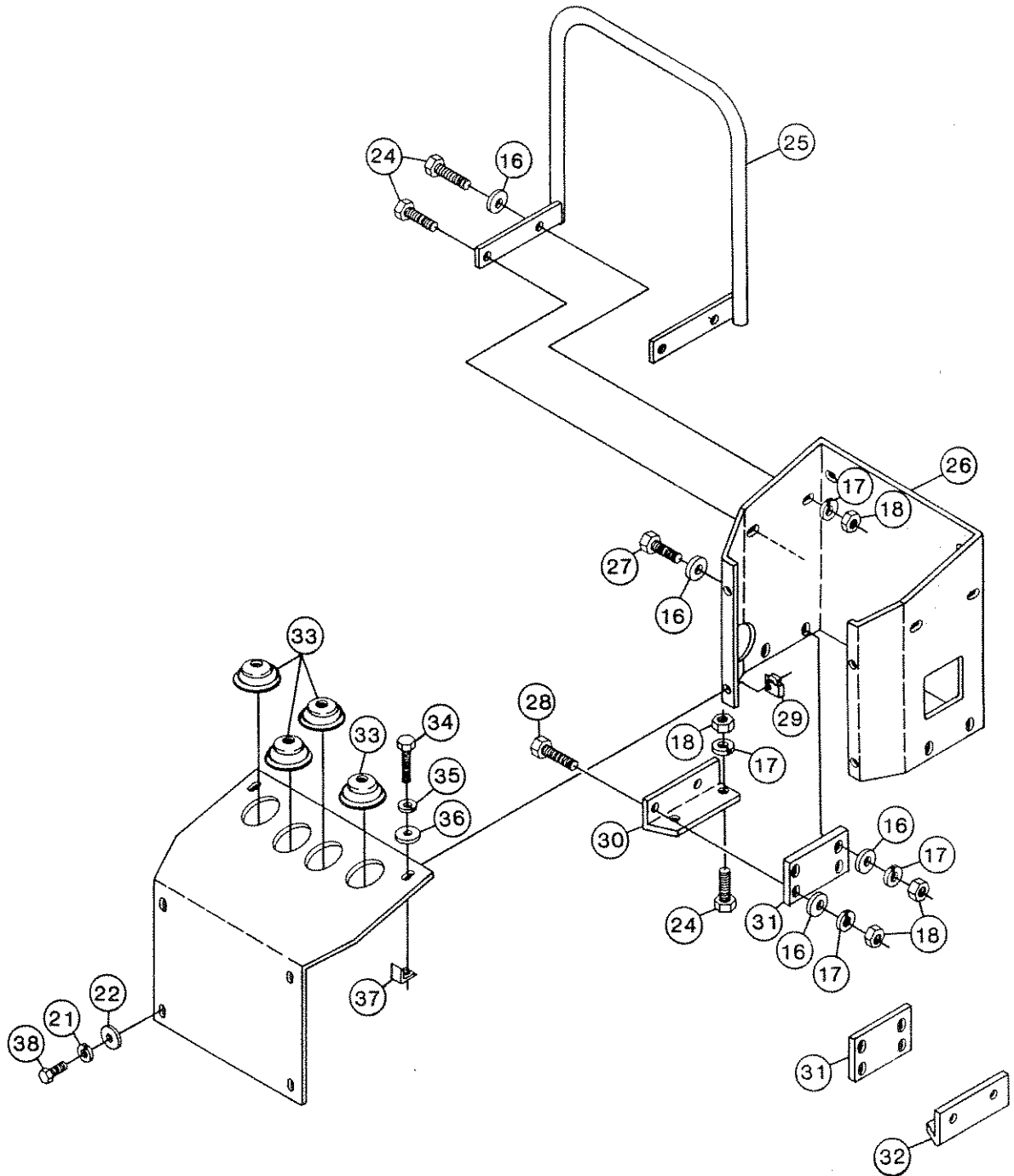
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4	5655	Handle Grip
2	2	63393	Main Control Lever
3	2	1244	.62" UNC Hex Nut
4	3	1542	.50" UNC Nylock Nut
5	2	63960	Pivot Block
6	4	1525	.38" SAE Flat Washer
7	6	5545	.38" Ball Joint
8	10	1490	.38" UNF Jam Nut
9	6	68911	Push Rod
10	2	63984	Pivot Yoke
11	1	63950	Left Stabilizer Control Lever
12	1	63949	Right Stabilizer Control Lever
13	1	1101	.50" UNC X 4.50" Hex Capscrew
14	6	1659	Cotter Pin
15	6	6776	Clevis Pin
16	2	1516	.50" Flat Washer
17	2	1505	.50" Lock Washer
18	2	1228	.50" Hex Nut
19	1	63988	Valve Control Hanger
20	3	1271	.31" UNF X .75" Hex Capscrew
21	3	1502	.31" Lock Washer
22	3	1513	.31" Flat Washer
23	1	63955	Valve Mounting Plate

4867 7-5-89

CONSOLE ASSEMBLY

DUKES VALVE CONSOLE BOX
ASSEMBLY #69905

DIAGRAM 2 OF 2



4868 7-5-89

CONSOLE ASSEMBLY

DUKES VALVE CONSOLE BOX

ASSEMBLY #69905

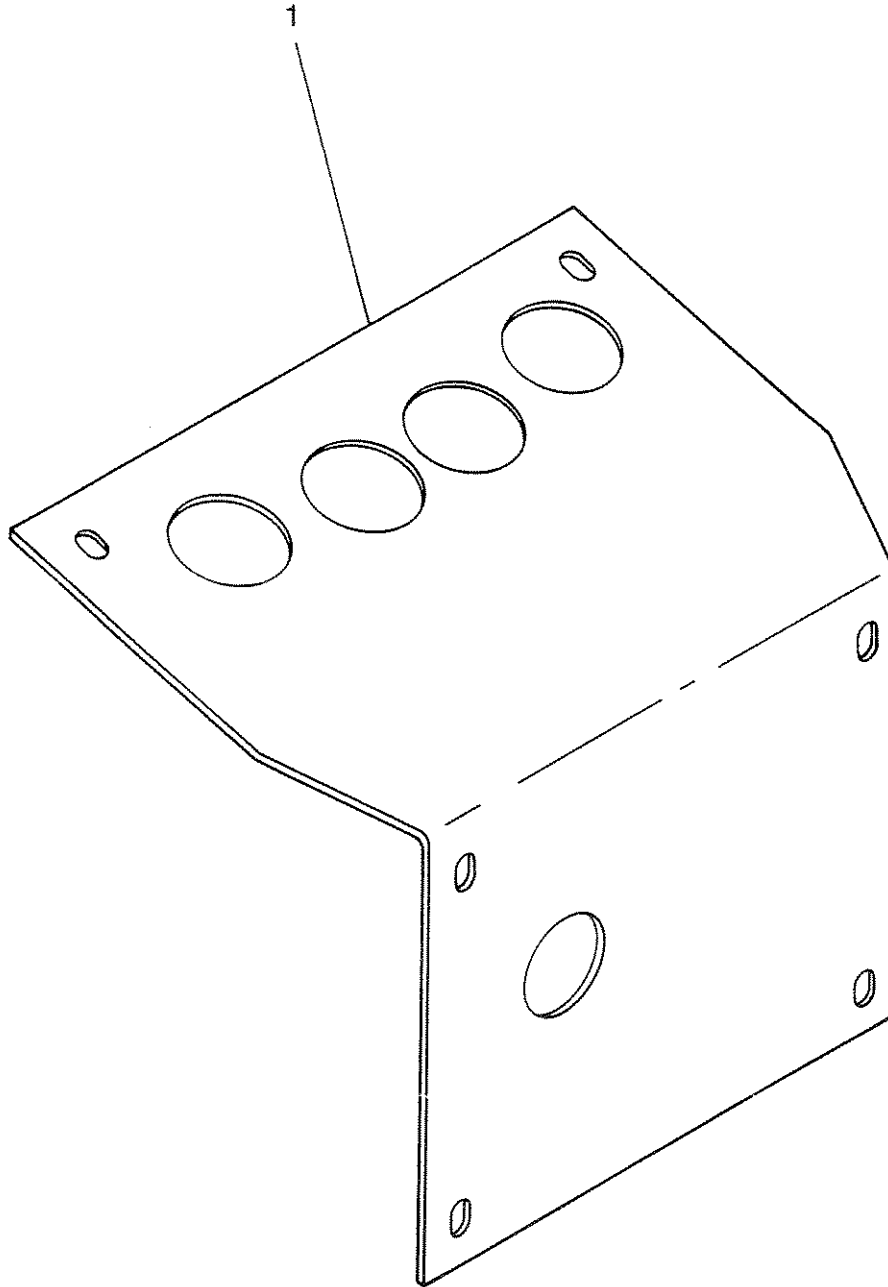
LIST 2 OF 2

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
16	14	1516	.50" Flat Washer
17	14	1505	.50" Lock Washer
18	14	1228	.50" Hex Nut
21	4	1502	.31" Lock Washer
22	4	1513	.31" Flat Washer
24	8	1090	.50" UNC X 1.50" Hex Capscrew
25	1	63993	Grab Bar
26	1	63948	Console Box
27	4	1089	.50" UNC X 1.25" Hex Capscrew
28	4	1091	.50" UNC X 1.75" Hex Capscrew
29	4	1756	.31" UNC J Type Cage Nut
30	1	63387	Left Angle Mount
31	2	62930	Console Mounting Plate
32	1	63386	Right Angle Mount
33	4	9010	Rubber Boot
34	2	1046	.38" UNC X 1.75" Hex Capscrew
35	2	1503	.38" Lock Washer
36	2	1514	.38" Flat Washer
37	2	63392	Angle Mounting
38	4	1021	.31" UNC X .75" Capscrew

4869 7-5-89

CONSOLE ASSEMBLY

CONSOLE COVER
ASSEMBLY #63947



4912 9-5-89

CONSOLE ASSEMBLY

CONSOLE COVER
ASSEMBLY #63947

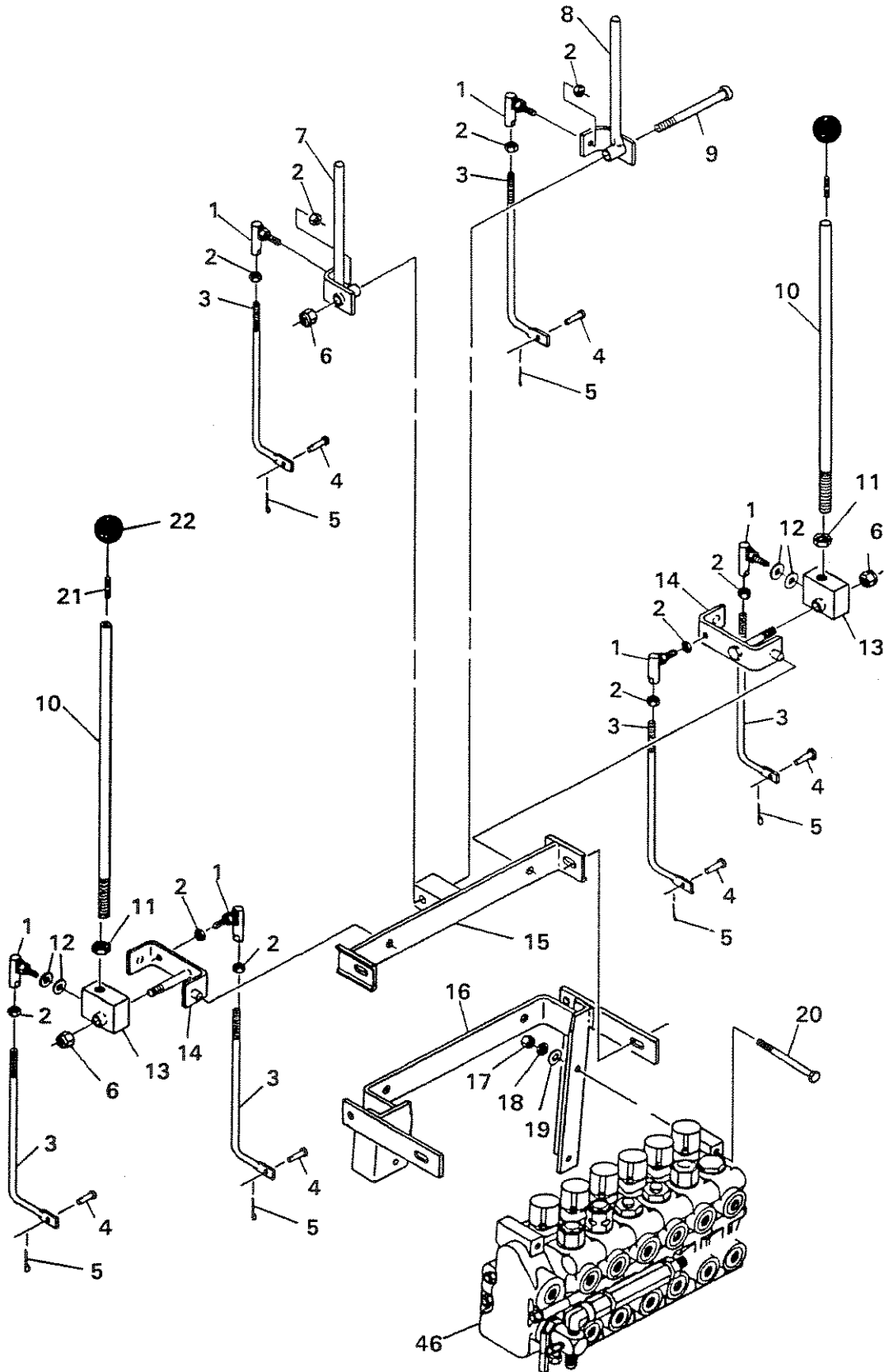
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	63947	Console Cover (Without Seat Mounting Ears)

4913 9-5-89

CONSOLE ASSEMBLY

GRESEN VALVE CONSOLE BOX
ASSEMBLY #80547

DIA. 1 OF 2



6077
6-14-94-2

CONSOLE ASSEMBLY

GRESEN VALVE CONSOLE BOX
ASSEMBLY #80547

LIST 1 OF 2

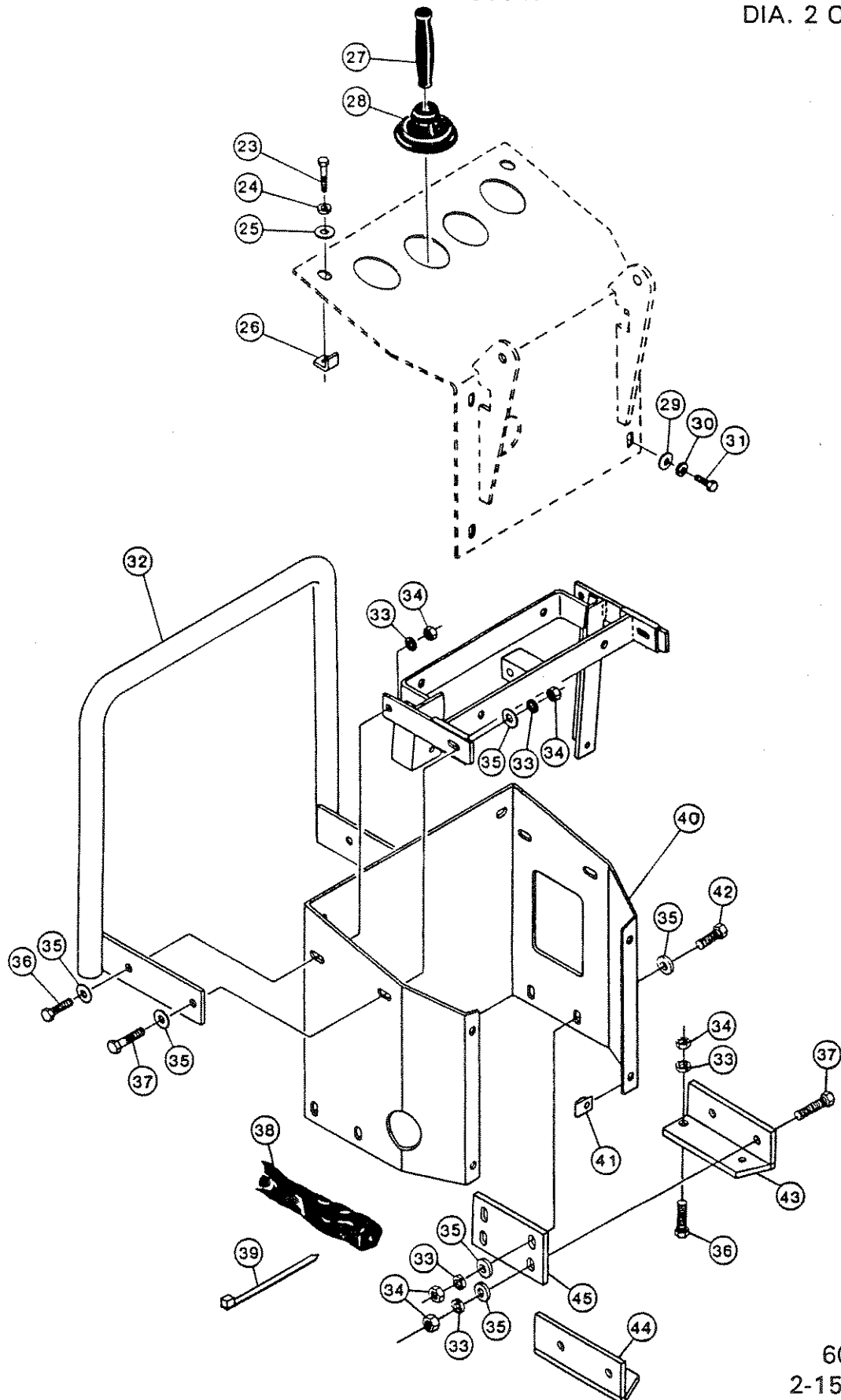
<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	6	5545	.38" Ball Joint
2	10	1490	.38" UNF Jam Nut
3	6	77935	Push Rod
4	6	6776	Clevis Pin
5	6	1659	.06" X 1.00" Cotter Pin
6	3	1542	.50" Nylock Nut
7	1	63950	Left Stabilizer Control Lever
8	1	63949	Right Stabilizer Control Lever
9	1	1101	.50" UNC X 4.50" Hex Capscrew
10	2	77954	Control Lever
11	2	1244	.62" UNC Hex Nut
12	4	1525	.38" SAE Flat Washer
13	2	63960	Pivot Block
14	2	63984	Pivot Yoke
15	1	63988	Valve Control Hanger
16	1	68656	Valve Mounting Plate
17	3	1225	.31" UNC Hex Nut
18	3	1502	.31" Lock Washer
19	3	1513	.31" Flat Washer
20	3	1030	.31" UNC X 3.00" Hex Capscrew
21	2	63287	Stud
22	2	63284	Knob
46	1	- - - -	6-Spool Gresen Valve Assembly
	1	57515	Hydraulic Tube

6078
6-14-94-2

CONSOLE ASSEMBLY

GRESEN VALVE CONSOLE BOX
ASSEMBLY #80547

DIA. 2 OF 2



6079
2-15-93

CONSOLE ASSEMBLY

GRESEN VALVE CONSOLE BOX
ASSEMBLY #80547

LIST 2 OF 2

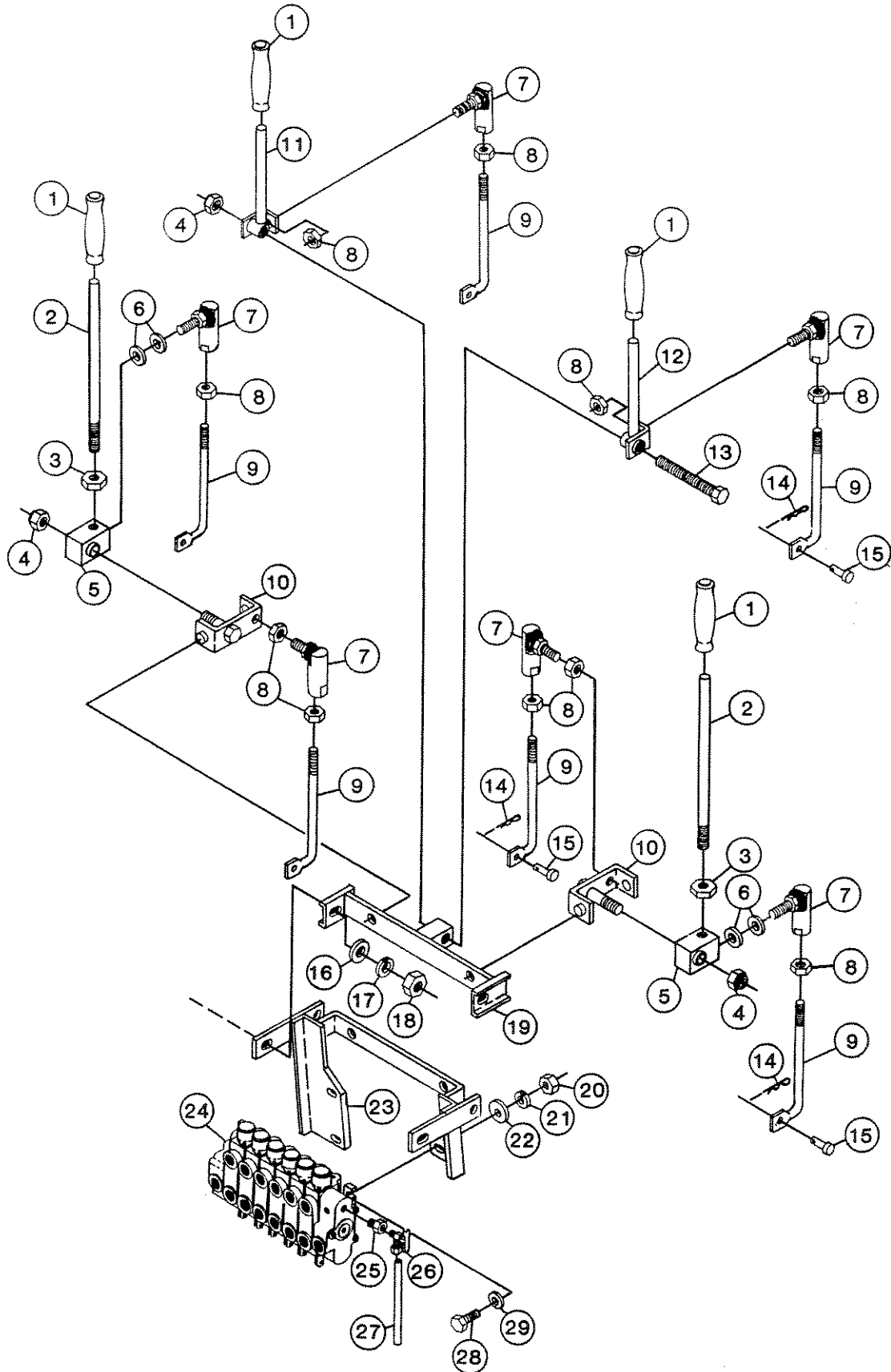
<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
23	2	1046	.38" UNC X 1.75" Hex Capscrew
24	2	1503	.38" Lock Washer
25	2	1514	.38" Flat Washer
26	2	63392	Angle Mounting
27	4	5655	Handle Grip
28	4	9010	Rubber Boot
29	4	1513	.31" Flat Washer
30	4	1502	.31" Lock Washer
31	4	1021	.31" UNC X .75" Hex Capscrew
32	1	63993	Grab Bar
33	16	1505	.50" Lock Washer
34	16	1228	.50" UNC Hex Nut
35	18	1516	.50" Flat Washer
36	6	1090	.50" UNC X 1.50" Hex Capscrew
37	6	1091	.50" UNC X 1.75" Hex Capscrew
38	4	34060	2.00" X 48.00" Flat Hose Sock
39	4	1550	Small Panduit Tie
40	1	63948	Console Box
41	4	1756	.31" UNC "J" Type Cage Nut
42	4	1089	.50" UNC X 1.25" Hex Capscrew
43	1	63386	Right Angle Mounting
44	1	63387	Left Angle Mounting
45	2	62930	Console Mounting Plate

CONSOLE ASSEMBLY

HIDROVER VALVE CONSOLE BOX

ASSEMBLY #66170

DIAGRAM 1 OF 2



4711 3-22-89

CONSOLE ASSEMBLY

HIDROVER VALVE CONSOLE BOX

ASSEMBLY #66170

LIST 1 OF 2

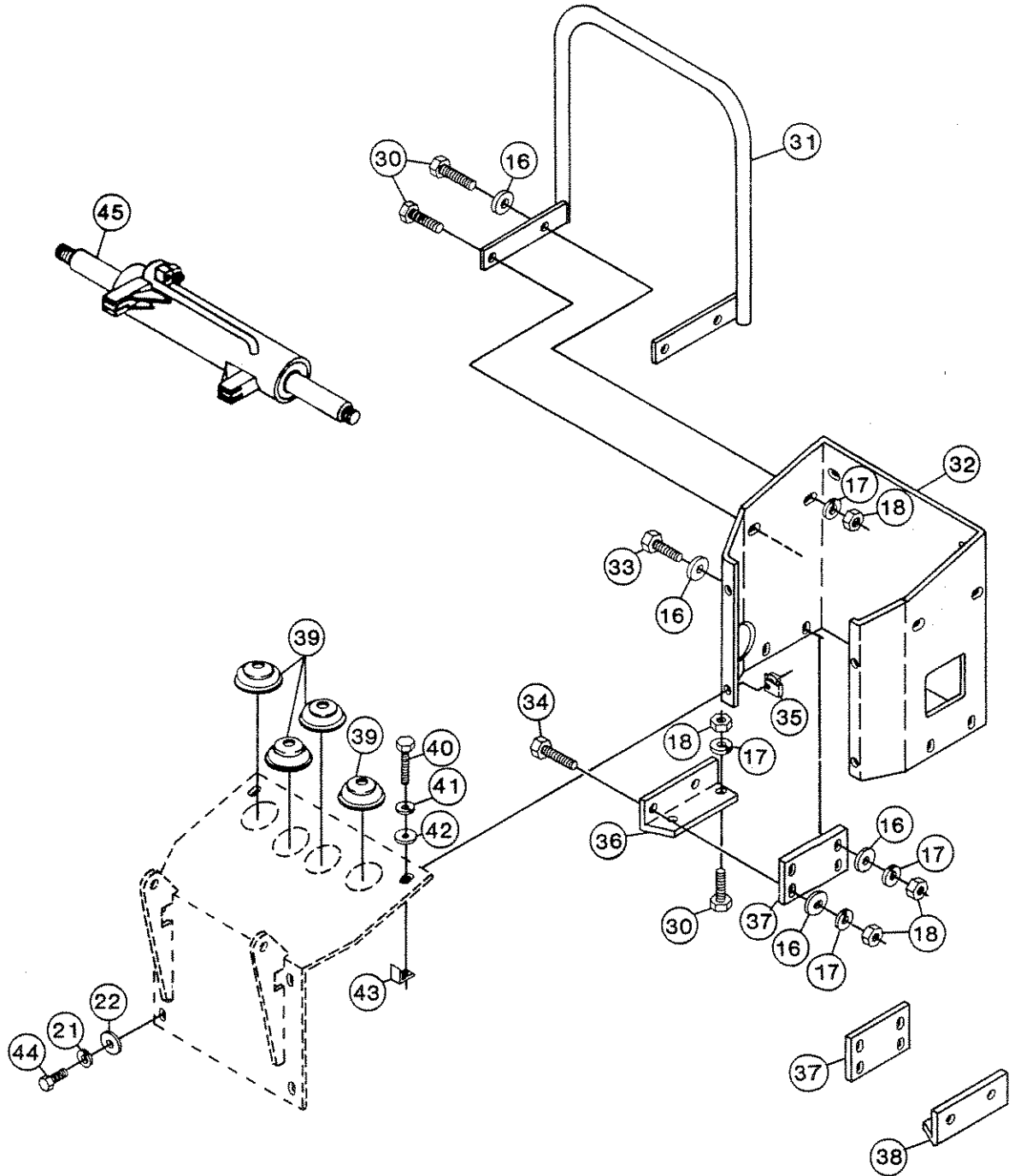
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4	5655	Handle Grip
2	2	63393	Main Control Lever
3	2	1244	.62" UNC Hex Nut
4	3	1542	.50" Nylock Nut
5	2	63960	Pivot Block
6	4	1525	.38" SAE Flat Washer
7	6	5545	.38" Ball Joint
8	10	1476	.38" UNF Hex Nut
9	6	63954	Push Rod
10	2	63984	Pivot Yoke
11	1	63950	Left Stabilizer Control Lever
12	1	63949	Right Stabilizer Control Lever
13	1	1101	.50" UNC X 4.50" Capscrew
14	6	1611	.12" X 1.00" Cotter Pin
15	6	1757	.31" X .88" Clevis Pin
16	2	1516	.50" Flat Washer
17	2	1505	.50" Lock Washer
18	2	1228	.50" Hex Nut
19	1	63988	Valve Control Hanger
20	3	1225	.31" UNC Hex Nut
21	3	1502	.31" Lock Washer
22	3	1513	.31" Flat Washer
23	1	63955	Valve Mounting Plate
24	1	2158	6 Spool Hidrover Valve Assy.
25	1	3016	4MP-2FP Bushing
26	1	3360	Needle Valve
27	1	35110	.25" X 20" Hose
28	3	1023	.31" UNC X 1.25" Capscrew
29	3	1524	.31" SAE Flat Washer

4712 3-22-89

CONSOLE ASSEMBLY

HIDROVER VALVE CONSOLE BOX
ASSEMBLY #66170

DIAGRAM 2 OF 2



4713 3-22-89

CONSOLE ASSEMBLY

HIDROVER VALVE CONSOLE BOX

ASSEMBLY #66170

LIST 2 OF 2

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
16	14	1516	.50" Flat Washer
17	14	1505	.50" Lock Washer
18	14	1228	.50" Hex Nut
21	4	1502	.31" Lock Washer
22	4	1513	.31" Flat Washer
30	8	1090	.50" UNC X 1.50" Capscrew
31	1	63993	Grab Bar
32	1	63948	Console Box
33	4	1089	.50" UNC X 1.25" Capscrew
34	4	1091	.50" UNC X 1.75" Capscrew
35	4	1756	.31" UNC J Type Cage Nut
36	1	63387	Left Angle Mount
37	2	62930	Console Mounting Plate
38	1	63386	Right Angle Mount
39	4	9010	Rubber Boot
40	2	1046	.38" X 1.75" Capscrew
41	2	1503	.38" Lock Washer
42	2	1514	.38" Flat Washer
43	2	63392	Angle Mounting
44	4	1021	.31" UNC X .75" Capscrew
45	1	62540(1)	Swing Cylinder Assembly

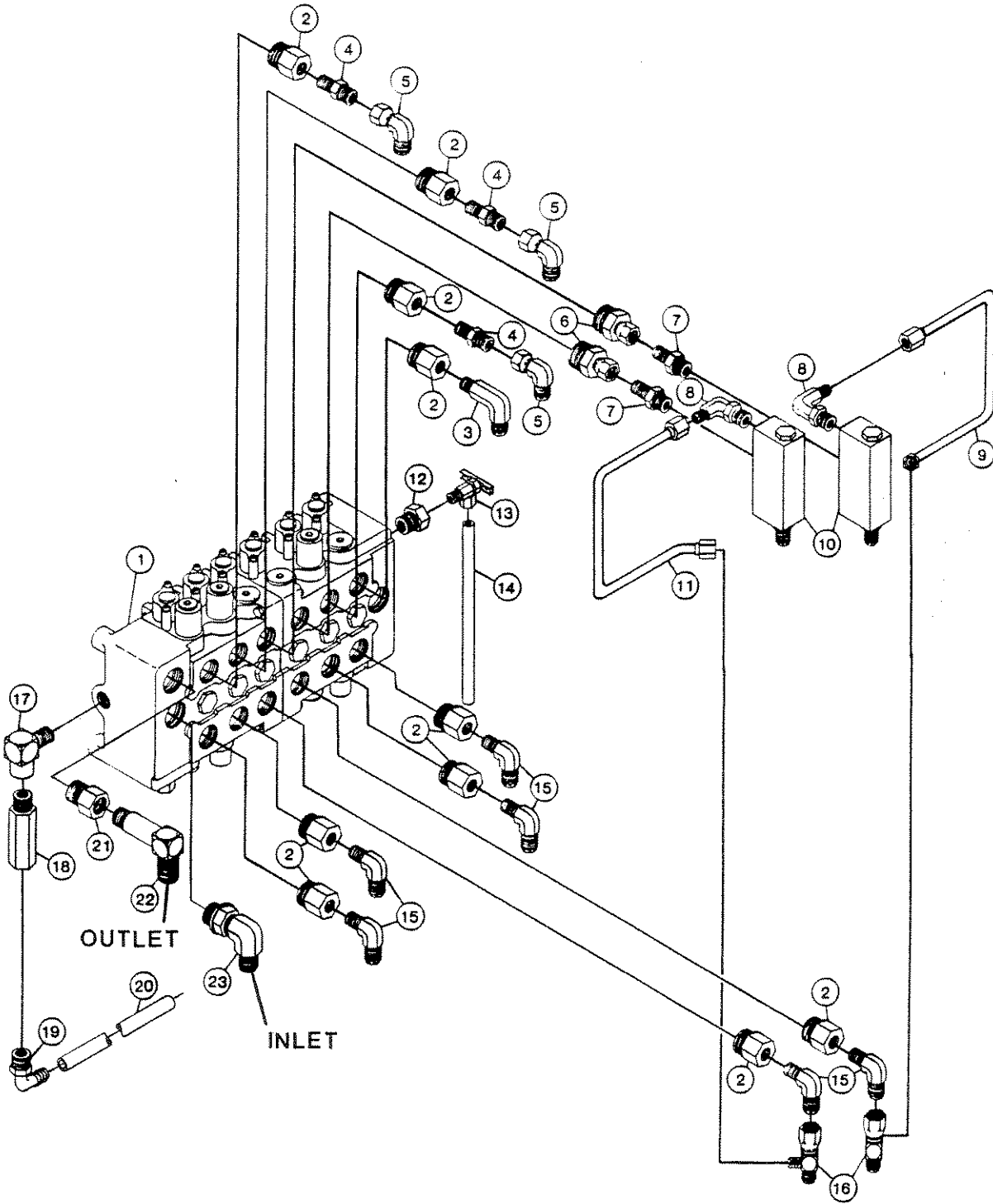
NOTES:

(1) Swing cylinder #62540 is no longer included in console assembly #66170, but is now part of the mainframe assembly effective 3-29-89.

4714 3-22-89

VALVE ASSEMBLY

DUKES VALVE WITHOUT P.T.O.
ASSEMBLY #2196



4931 9-12-89

VALVE ASSEMBLY

DUKES VALVE WITHOUT P.T.O.

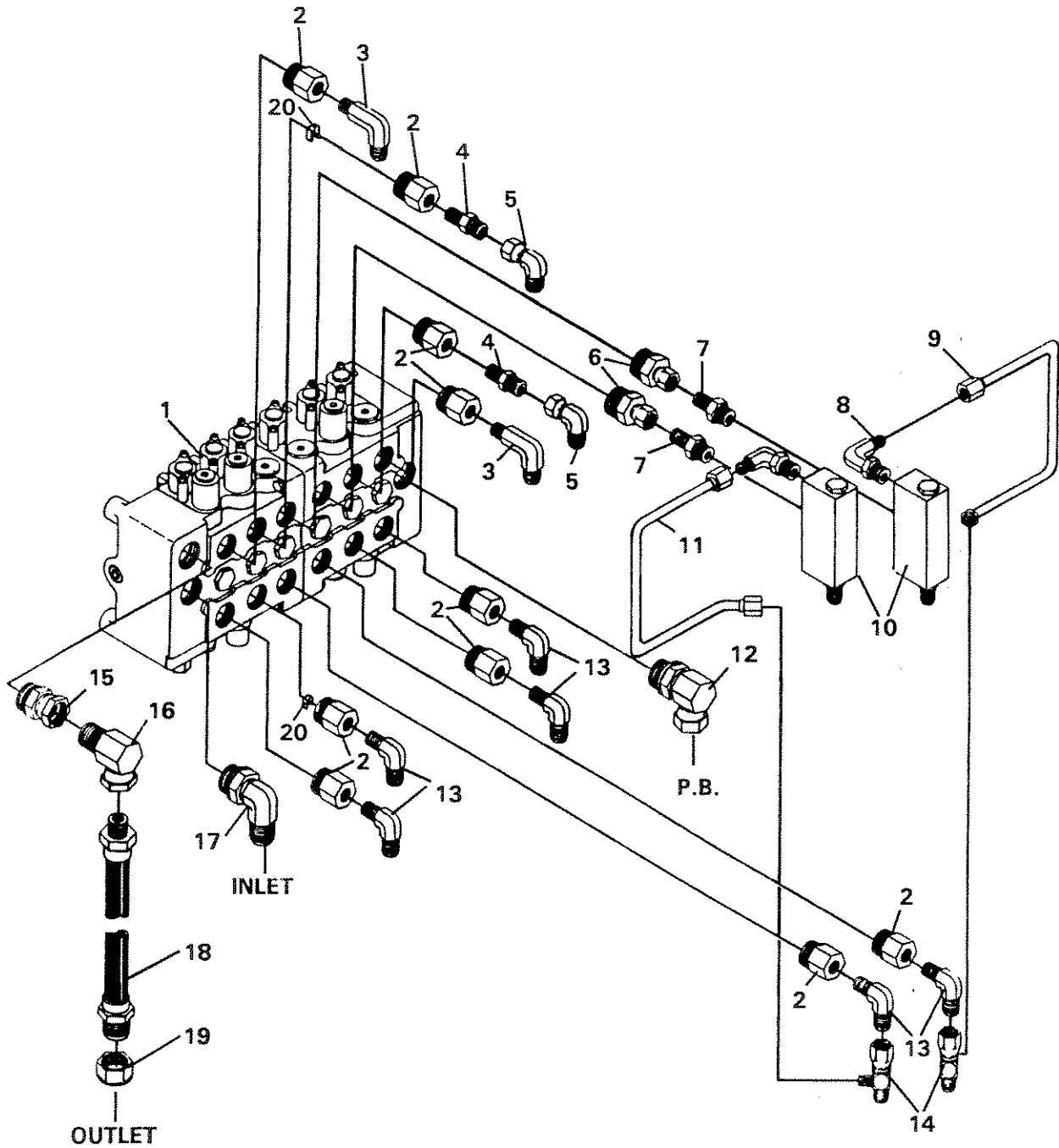
ASSEMBLY #2196

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	68796	6 Spool Dukes Valve
2	10	3368	O-Ring Adapter 8MBo-4FP
3	1	3088	90° Adapter (Long) 4MP-6MJ
4	3	3137	Straight Adapter 4MP-6MJ
5	3	3430	90° Adapter 6MJ-6FJX
6	2	3499	Straight Adapter
7	2	3355	Straight Adapter 8MP-6MP
8	2	3434	90° Adapter 6MBo-6MJ
9	1	70166	Left Hydraulic Tube
10	2	70167	Stabilizer Lock Valve Assembly
11	1	70168	Right Hydraulic Tube
12	1	71361	Special Fitting
13	1	3360	Needle Valve
14	1	35110	Hose .25"OD X 20" Plastic Tube
15	6	3001	90° Adapter 4MP-6MJ
16	2	3346	Tee 6MJ-6MJ-6FJX
17	1	3320	90° Street Elbow
18	1	57547	Relief Valve
19	1	30004	90° Hose Barb
20	1	37104	Hose .38"ID X 14" Plastic Tube
21	1	3487	SAE O-Ring Bushing
22	1	3325	90° Male Adapter (Long)
23	1	3283	90° Male Connector

4932 9-12-89

VALVE ASSEMBLY

DUKES VALVE W/POWER BEYOND & MAIN RELIEF
ASSEMBLY #2185



VALVE ASSEMBLY

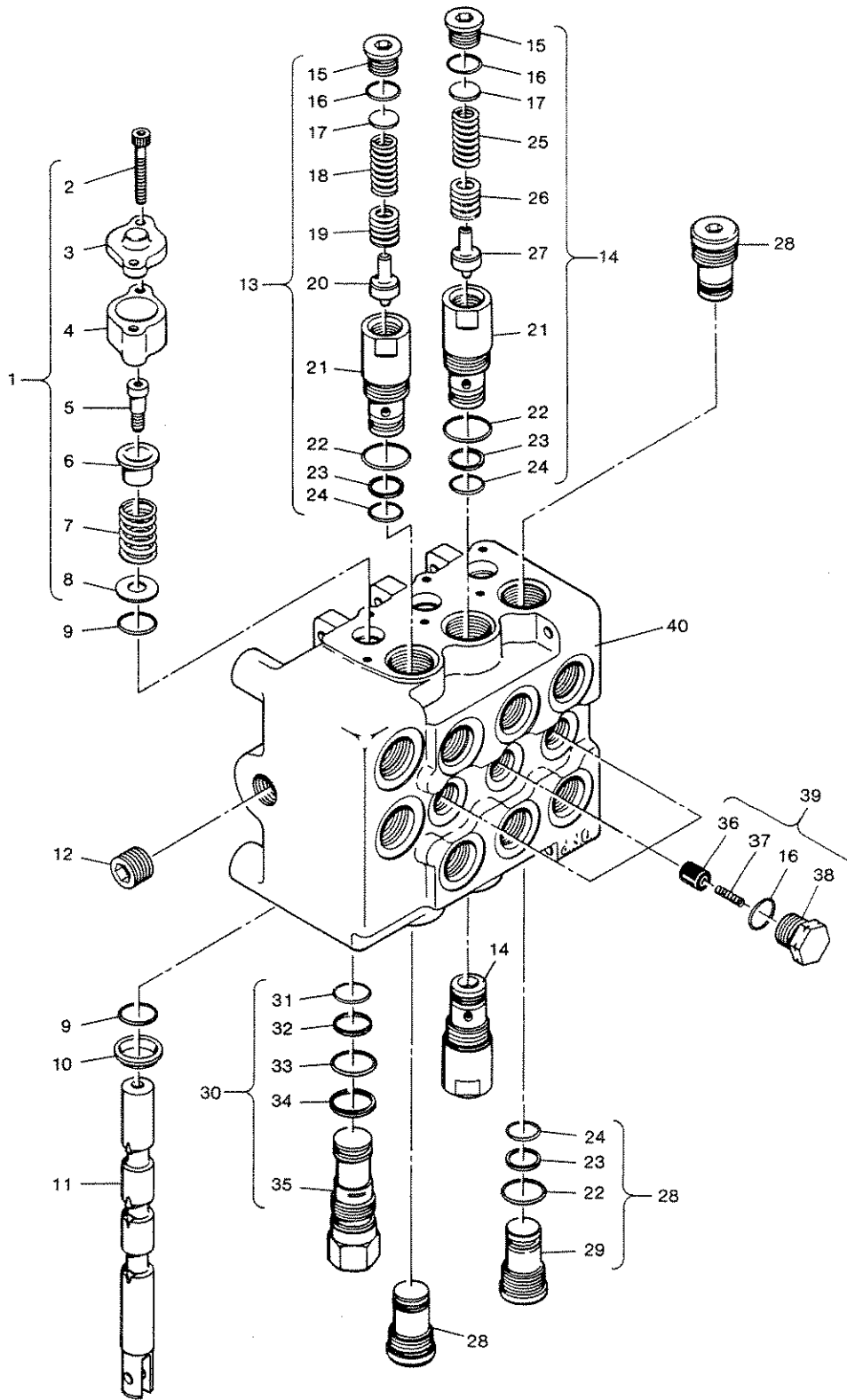
DUKES VALVE W/POWER BEYOND & MAIN RELIEF
ASSEMBLY #2185

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	68796	6 Spool Dukes Valve
2	10	3368	O-Ring Adapter 8MBo-4FP
3	2	3088	90° Adapter (Long) 4MP-6MJ
4	2	3137	Straight Adapter 4MP-6MJ
5	2	3430	90° Adapter 6MJ-6FJX
6	2	3499	Straight Adapter
7	2	3355	Straight Adapter 8MP-6MBo
8	2	3434	90° Adapter 6MBo-6MJ
9	1	70166	Left Hydraulic Tube
10	2	70167	Stabilizer Lock Valve Assembly
11	1	70168	Right Hydraulic Tube
12	1	3127	90° Adapter 10MBo-8FPSM
13	6	3001	90° Adapter 4MP-6MJ
14	2	3346	Tee 6MJ-6MJ-6FJX
15	1	3416	Straight Adapter 10MBo-8FPSM
16	1	3033	90° Adapter 8MP-8FPSM
17	1	3122	90° Adapter 10MBo-10MJ
18	1	37119	Hose .50" X 32" (SAE 100R2-2Wire) 8MP-10MJ
19	1	3271	Cap
20	2	45598	Restrictor .042 O.D. Orifice

VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #68796

DIAGRAM 1 OF 4



4894 8-31-89

VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #68796

LIST 1 OF 4

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	3	45417(1)	Spool Positioner Assembly (Includes Items 2-8)
2	2	---	Capscrew (Torque To 4-6 Ft.Lbs.)
3	1	---	Bonnet Cap
4	1	---	Bonnet Body
5	1	---	Collar Spool (Torque To 2-3 Ft.Lbs.)
6	1	---	Collar Stop
7	1	---	Collar Spring
8	1	---	Washer
9	6	---	Spool O-Ring Seal
10	3	---	Spool Wiper
11	3	---	Spool
12	1	3227	Pipe Plug (Torque To 30-40 Ft.Lbs.)
13	1	45421	Cylinder Port Relief Assembly 2250 PSI(Includes Items 15-24)
14	2	45423	Relief/Anti-Cav. Check Assembly-2250 PSI (Includes Items 15-17, 21-24, & 25-27)
15	1	---	Relief Cap (Torque To 25-30 Ft.Lbs.)
16	1	45425	O-Ring Seal
17	1	---	Puck
18	1	---	Relief Spring
19	VARIES	---	Shim(s)
20	1	---	Relief Poppet
21	1	---	Relief Body (Torque To 25-30 Ft.Lbs.)
22	1	---	Outer O-Ring Seal
23	1	---	Inner Back-Up Washer
24	1	---	Inner O-Ring Seal

NOTE:

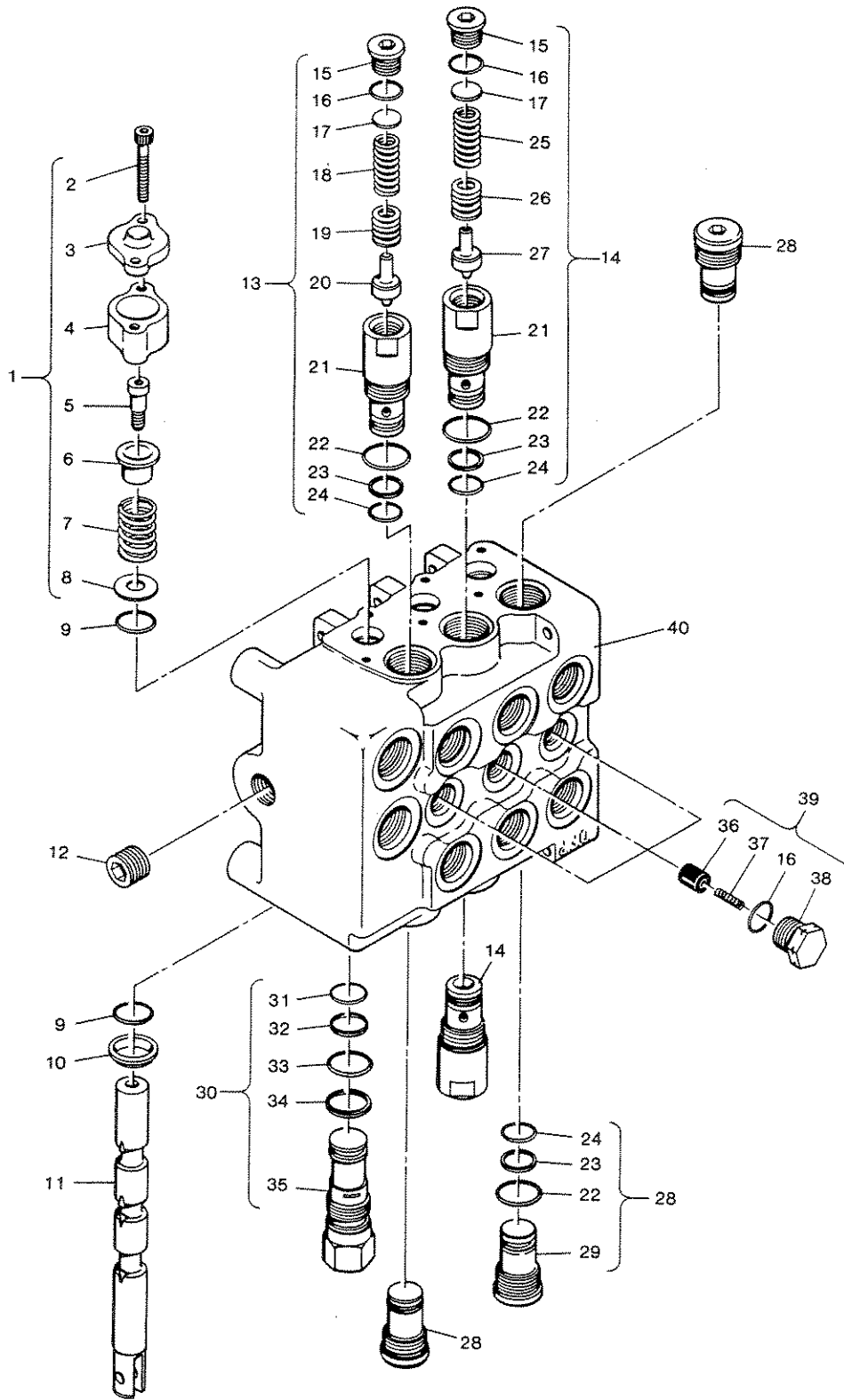
(1) Spool positioner assembly #45417 has been revised effective 2/12/90. The new assembly incorporates a combined bonnet cap and body, and a new collar spring. Complete spool positioner assemblies are interchangeable, however individual parts between the new and the old assemblies are not.

4895 3-6-90-2

VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #68796

DIAGRAM 2 OF 4



4896 8-31-89

VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #68796

LIST 2 OF 4

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
25	1	----	Relief Spring
26	VARIABLES	---	Shim(s)
27	1	----	Anti-Cavitation Poppet
28	3	45424	Cylinder Port Plug Assembly (Includes Items 22-24 & 29)
29	1	----	Cylinder Port Plug (Torque To 25-30 Ft.Lbs.)
30	1	4926	Main Relief Plug Assembly (Includes Items 31-35)
31	1	---	Inner O-Ring Seal
32	1	---	Inner Back-Up Washer
33	1	---	Outer O-Ring Seal
34	1	---	Outer Back-Up Washer
35	1	---	Main Relief Plug (Torque To 35-40 Ft.Lbs.)
36	1	---	Load Check Poppet
37	1	---	Load Check Spring
38	1	---	Load Check Plug (Torque To 15-20 Ft.Lbs.)
39	3	45418	Load Check Plug Assembly (Includes Items 36-38 & 16)
40	1	----	Valve Inlet Section Casting

4897 8-31-89

NOTE: Items without part numbers are not sold separately.

Spool Seal Kit #45430 contains two of item 9 and one of item 10.

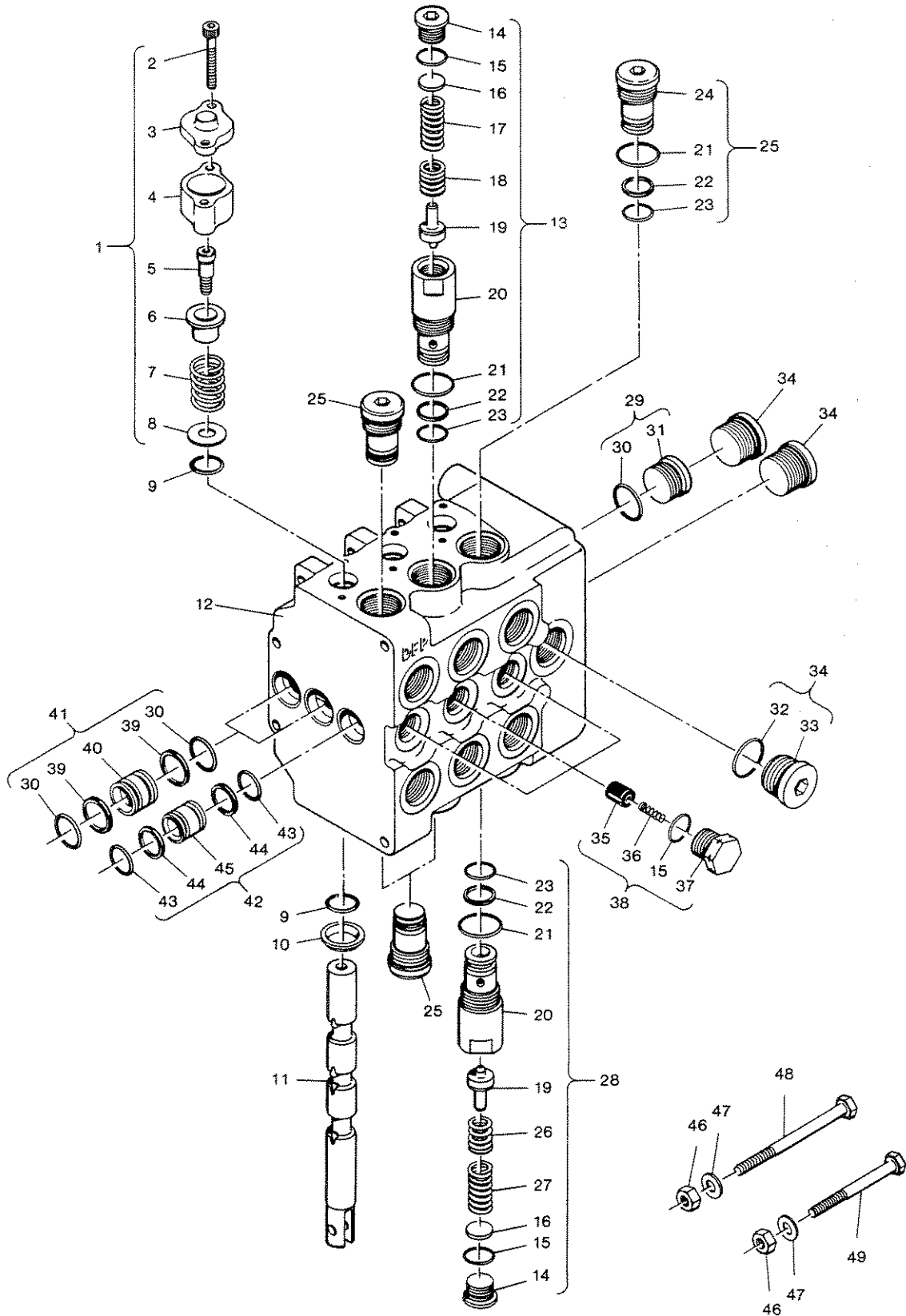
Cylinder Port Seal Kit #45431 contains one each of items 16, 22, 23, & 24.

Main Relief Port Seal Kit #45432 contains one each of items 31 through 34.

VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #68796

DIAGRAM 3 OF 4



4898 8-31-89

VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #68796

LIST 3 OF 4

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	3	45417(1)	Spool Positioner Assembly (Includes Items 2-8)
2	2	---	Capscrew (Torque To 4-6 Ft.Lbs.)
3	1	---	Bonnet Cap
4	1	---	Bonnet Body
5	1	---	Collar Spool (Torque To 2-3 Ft.Lbs.)
6	1	---	Collar Stop
7	1	---	Collar Spring
8	1	---	Washer
9	6	---	Spool O-Ring Seal
10	3	---	Spool Wiper
11	3	---	Spool
12	1	---	Valve Outlet Section Casting
13	1	45422	Cylinder Port Relief Assembly 3500 PSI(Includes Items 14-23)
14	1	---	Relief Cap (Torque To 25-30 Ft.Lbs.)
15	1	45425	O-Ring Seal
16	1	---	Puck
17	1	---	Relief Spring
18	VARIES	---	Shim(s)
19	1	---	Relief Poppet
20	1	---	Relief Body (Torque To 25-30 Ft.Lbs.)
21	1	---	Outer O-Ring Seal
22	1	---	Inner Back-Up Washer
23	1	---	Inner O-Ring Seal
24	1	---	Cylinder Port Plug (Torque To 25-30 Ft.Lbs.)
25	4	45424	Cylinder Port Plug Assembly (Includes Items 21-24)
26	VARIES	---	Shim(s)
27	1	---	Relief Spring
28	1	45421	Cylinder Port Relief Assembly 2250 PSI (Includes Items 14-16, 19-23, 26, & 27)
29	OPTIONAL	45428	Inner Power Beyond Plug Assy. (Includes Items 30 & 31)
30	1	---	O-Ring Seal

NOTE:

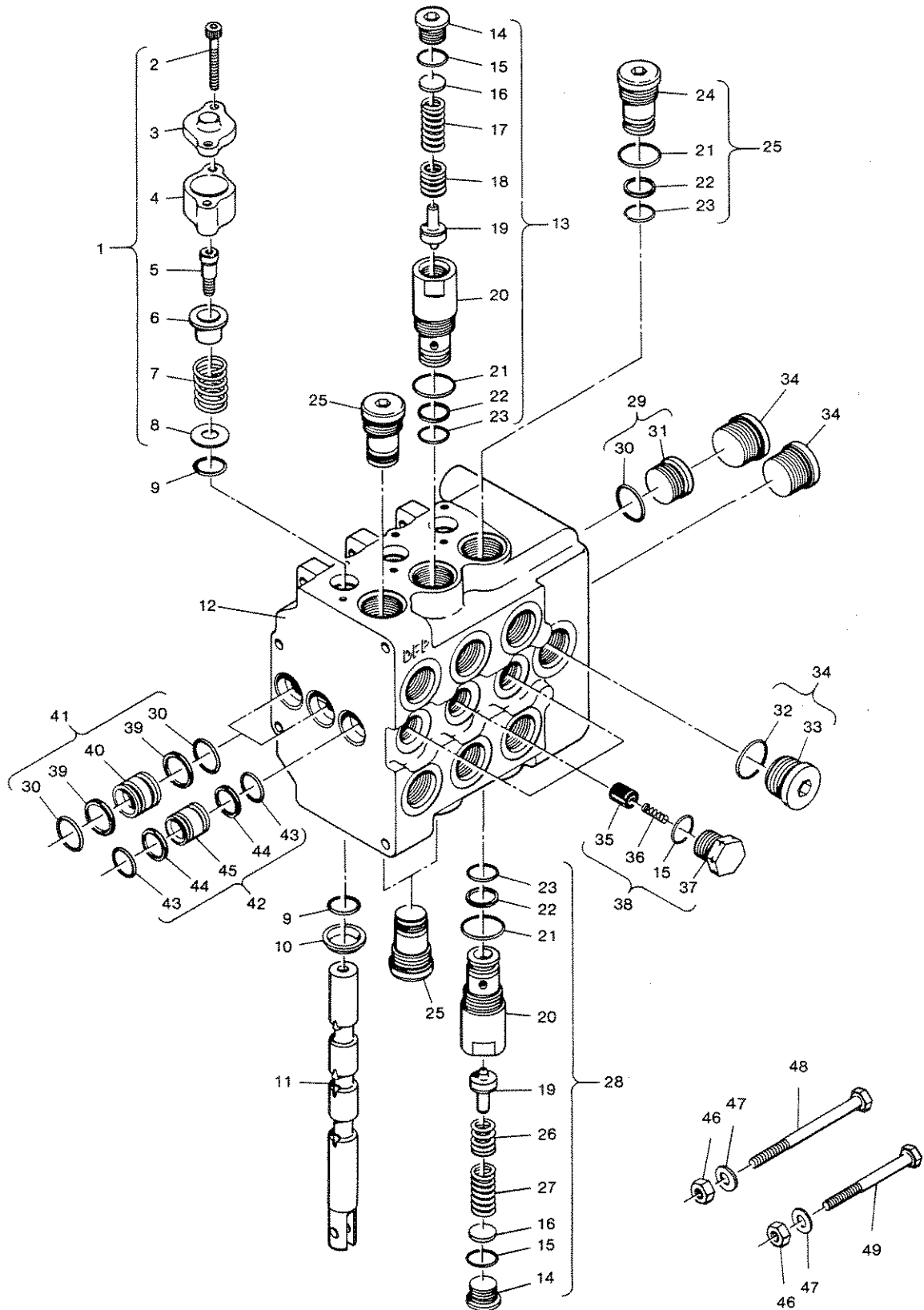
(1) Spool positioner assembly #45417 has been revised effective 2/12/90. The new assembly incorporates a combined bonnet cap and body, and a new collar spring. Complete spool positioner assemblies are interchangeable, however individual parts between the new and the old assemblies are not.

4899 3-6-90-2

VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #68796

DIAGRAM 4 OF 4



4900 8-31-89

VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #68796

LIST 4 OF 4

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
31	1	---	Inner Power Beyond Plug (Torque To 25-30 Ft.Lbs.)
32	1	45427	O-Ring Seal
33	1	---	Main Power Beyond Plug (Torque To 35-40 Ft.Lbs.)
34	3	45429	Main Power Beyond Plug Assy. (Includes Items 32 & 33)
35	1	---	Load Check Poppet
36	1	4942	Load Check Spring
37	1	---	Load Check Plug (Torque To 15-20 Ft.Lbs.)
38	3	45418	Load Check Plug Assembly (Includes Items 35-37 & 15)
39	2	---	Back-Up Washer
40	1	---	Large Feeder Tube
41	2	45419	Large Feeder Tube Assembly (Includes Items 30, 39, & 40)
42	2	45420	Small Feeder Tube Assembly (Includes Items 43-45)
43	2	---	O-Ring Seal
44	2	---	Back-Up Washer
45	1	---	Small Feeder Tube
46	4	1474	.25" UNF Hex Nut (Torque To 8-10 Ft.Lbs.)
47	4	1523	.25" SAE Washer
48	2	1261	.25" UNF X 3.00" Capscrew
49	2	1258	.25" UNF X 2.25" Capscrew

NOTE: Items without part numbers are not sold separately.

Spool Seal Kit #45430 contains two of item 9 and one of item 10.

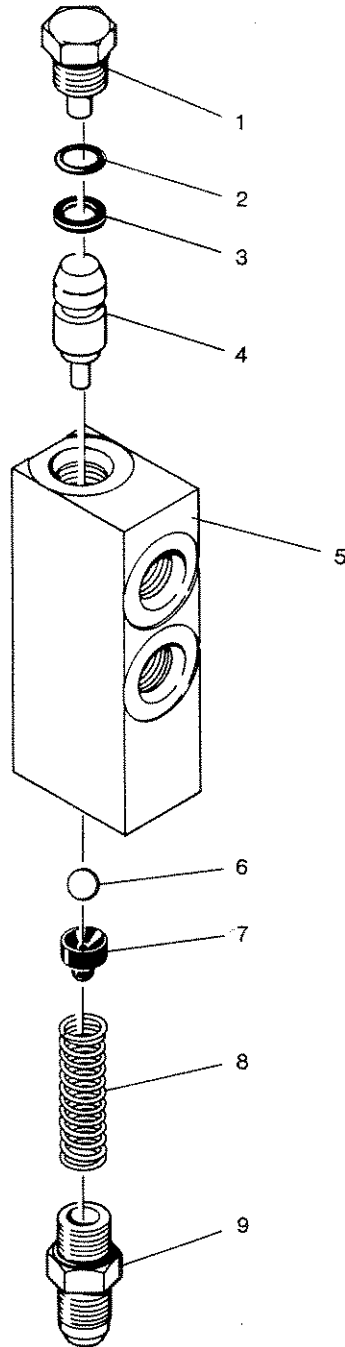
Cylinder Port Seal Kit #45431 contains one each of items 15, 21, 22, & 23.

Complete Valve Seal Kit #45433 contains six spool seal kits #45430, twelve cylinder port seal kits #45431, two large feeder tube assemblies #45419, one small feeder tube assembly #45420, one main relief port seal kit #45432, six additional o-rings #45425, three o-rings #45427, and one o-ring #45426.

4901 8-31-89

STABILIZER LOCK VALVE ASSEMBLY

DUKES VALVE
ASSEMBLY #70167



4902 8-31-89

STABILIZER LOCK VALVE ASSEMBLY

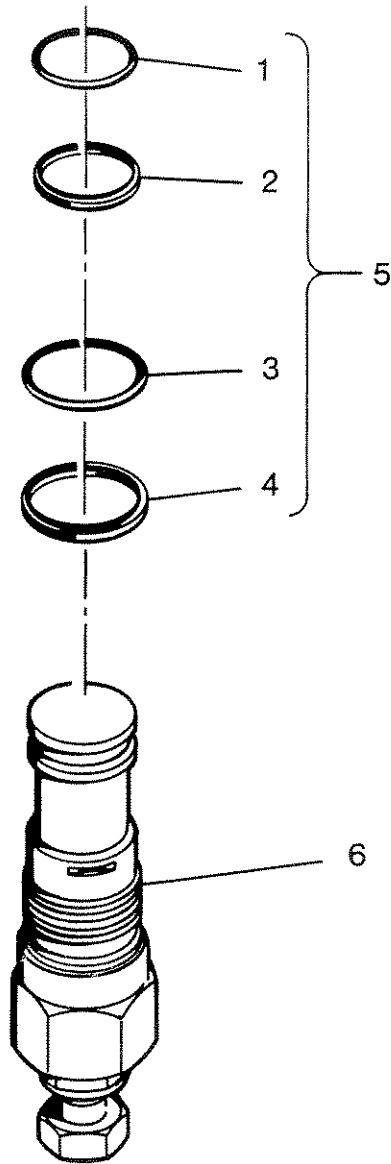
DUKES VALVE
ASSEMBLY #70167

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	3311	Plug/Pin Stop Assembly
2	1	45385	O-Ring
3	1	45386	Back-Up Washer
4	1	69333	Piston
5	1	70164	Lock Valve Block
6	1	8140	Ball
7	1	66147	Ball Guide
8	1	45394	Spring
9	1	3457	Straight Adapter

4903 8-31-89

MAIN SYSTEM RELIEF ASSEMBLY

DUKES VALVE
ASSEMBLY #45400



4904 8-31-89

MAIN SYSTEM RELIEF ASSEMBLY

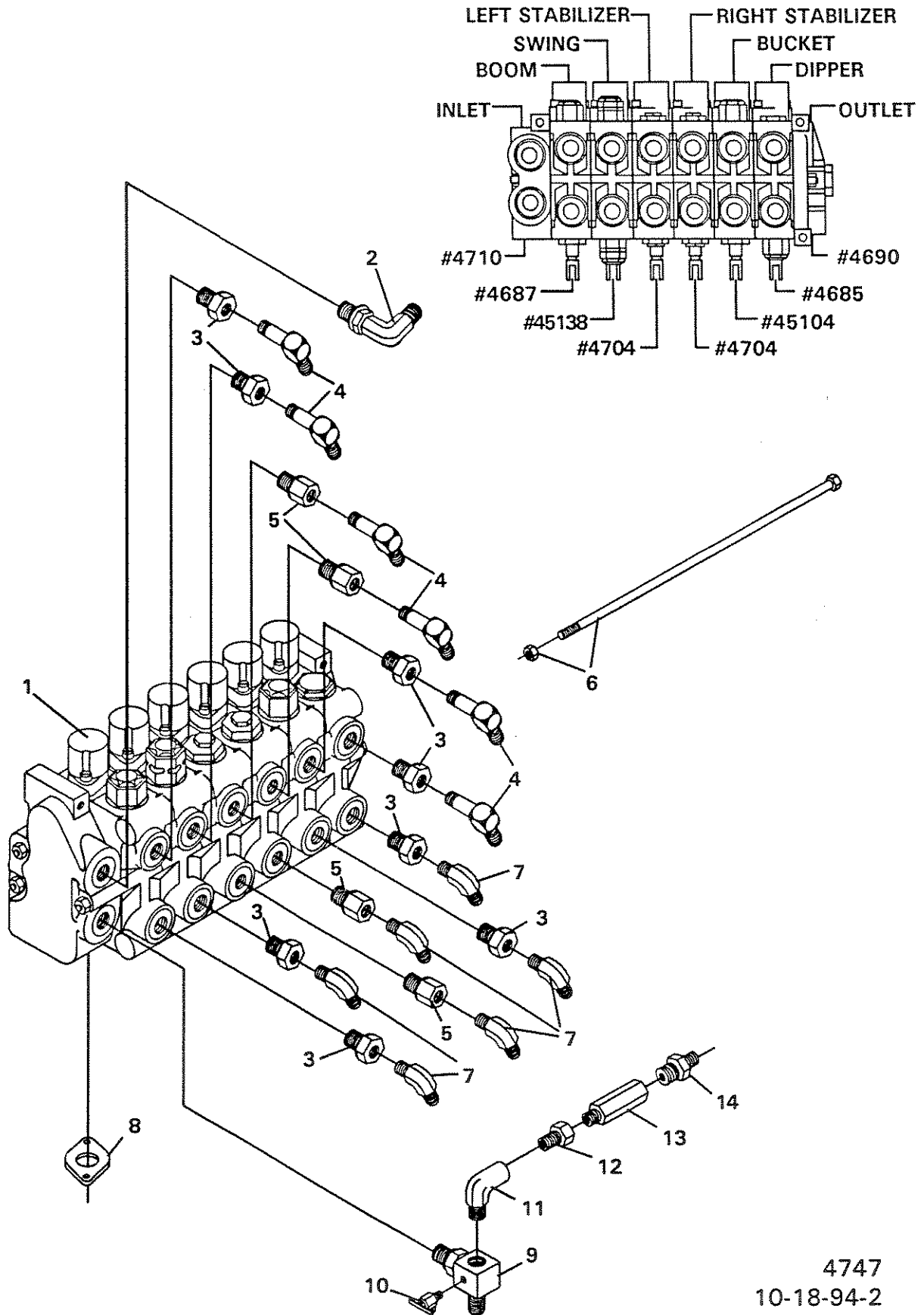
DUKES VALVE
ASSEMBLY #45400

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	---	Inner O-Ring Seal
2	1	---	Inner Back-Up Washer
3	1	---	Outer O-Ring Seal
4	1	---	Outer Back-Up Washer
5	1	45432	Main Relief Port Seal Kit (Contains Items 1 Through 4)
6	1	---	Main System Relief Cartridge

4905 8-31-89

VALVE ASSEMBLY

GRESEN VALVE
ASSEMBLY #2119



4747
10-18-94-2

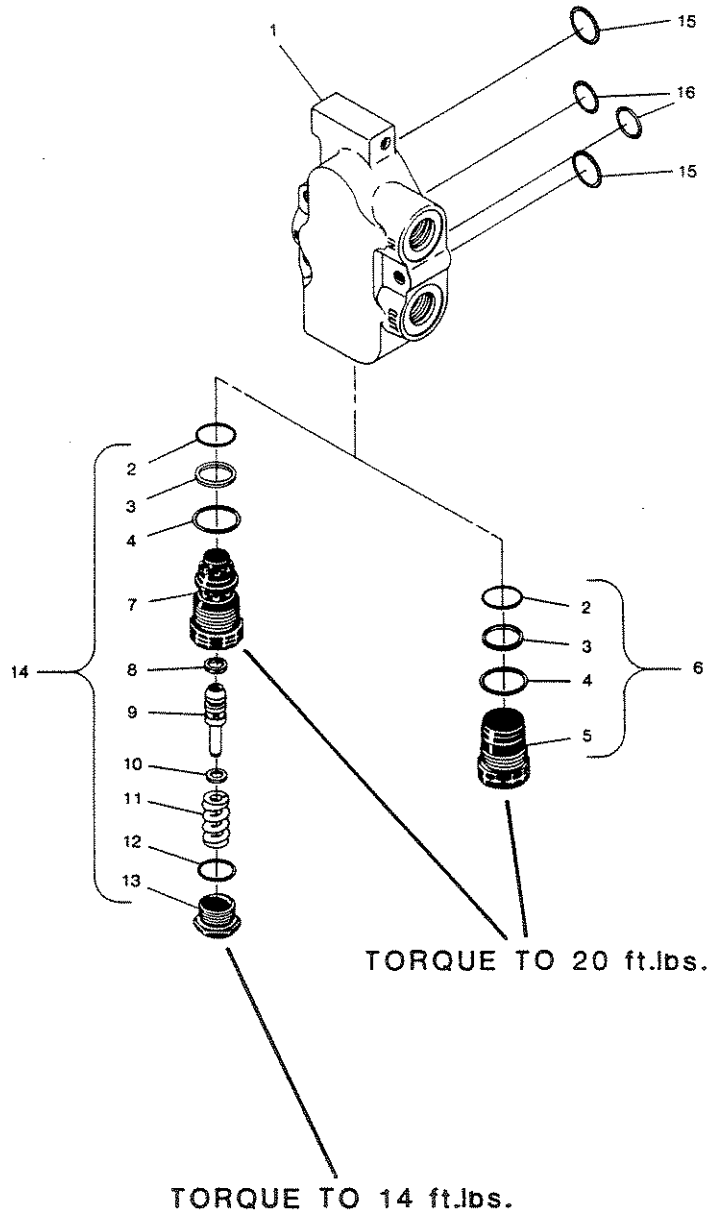
VALVE ASSEMBLY

GRESEN VALVE
ASSEMBLY #2119

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	63577	6-Spool Gresen V20 Valve
2	1	3283	90° Adapter 8MJ-10MBo
3	8	3336	O-Ring Adapter 10MBo-4FP
4	6	3088	90° Adapter (Long) 4MP-6MJ
5	4	3368	O-Ring Adapter 8MBo-4FP
6	3	4726	Replacement Tie Rod Assembly
7	6	3001	90° Adapter 4MP-6MJ
8	6	54631	Retainer
9	1	69012	Custom 90° Fitting
10	1	3360	Needle Valve
11	1	3171	90° Street Elbow
12	1	3394	Pipe Expander 4MP-6FP
13	1	57547	Relief Valve
14	1	3138	Male Adapter 6MP-6MJ

VALVE ASSEMBLY

GRESEN INLET COVER



4629 8-29-90-2

VALVE ASSEMBLY

GRESEN INLET COVER

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	4710	Inlet Cover (#10 Ports)
2	1		Inner O-Ring Seal
3	1		Inner Back-Up Washer
4	1		Main O-Ring Seal
5	1		Main Relief Plug
6		45141	Main Relief Plug Assembly (Includes One Each Of Items 2 - 5.)
7	1		WH Main Relief Body
8	1		Relief Poppet Piston Ring
9	1		Relief Poppet
10	VARIABLES		Shim(s)
11	1		Relief Spring
12	1		Relief Cap O-Ring Seal
13	1		Relief Cap
14		45148*	Optional WH Main Relief Valve Assembly (Includes One Each Of Items 2, 3, 4, and 7 - 13.)
15	2		Exhaust Passage O-Ring Seal
16	2		Pressure Passage O-Ring Seal

* PLEASE STATE BACKHOE MODEL NUMBER WHEN ORDERING MAIN RELIEF VALVE ASSEMBLY.

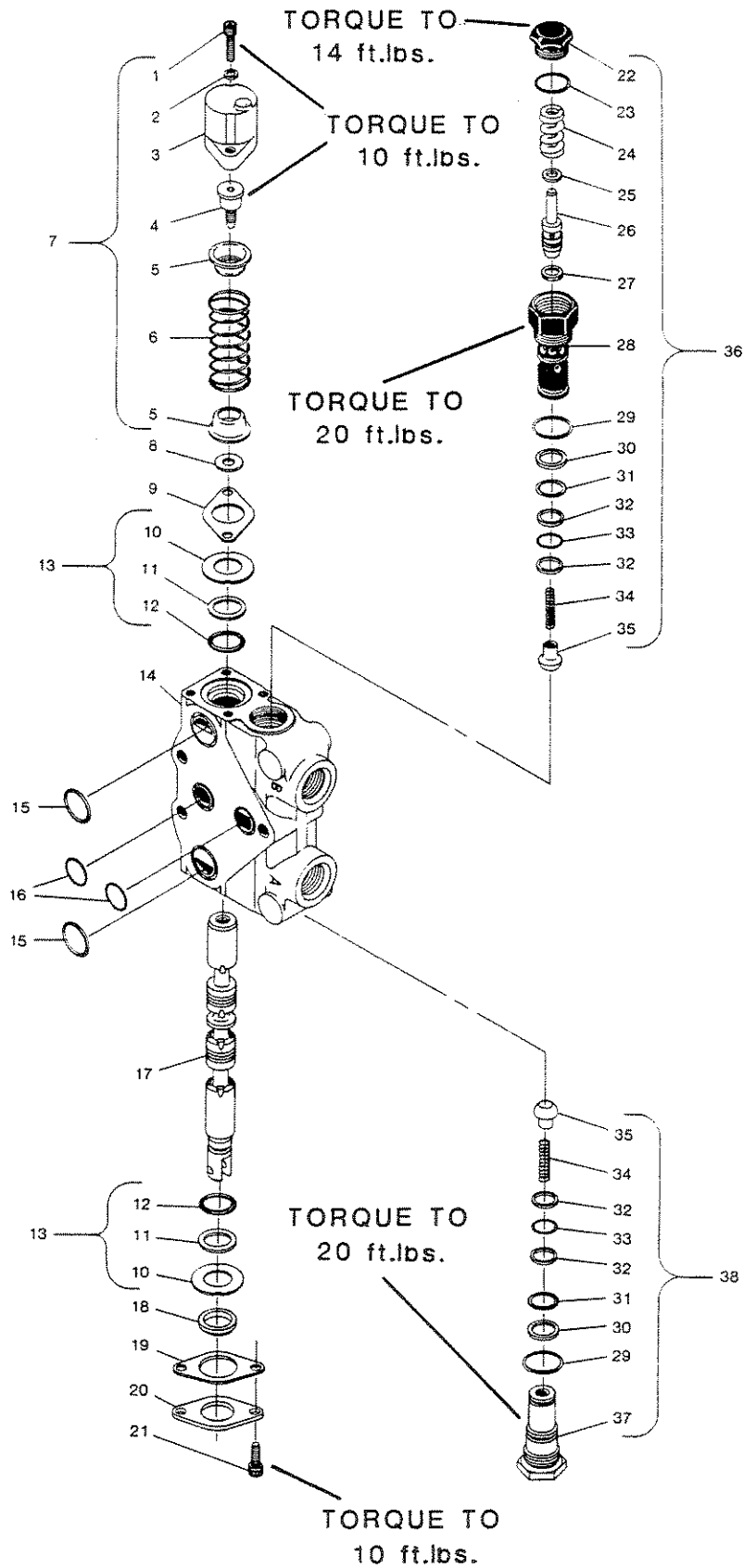
NOTE: Items without part numbers are not sold separately. These parts are only available in the various subassemblies shown on the diagram, or in the seal kits listed below.

Valve Section Seal Kit #4653 contains two each of items 15 & 16.

Main Relief Assembly Seal Kit #45142 contains one each of items 2, 3, 4, & 12.

VALVE ASSEMBLY

GRESEN VALVE SECTION
ASSEMBLY #4687



4635 8-29-90-3

VALVE ASSEMBLY

GRESEN VALVE SECTION
ASSEMBLY #4687

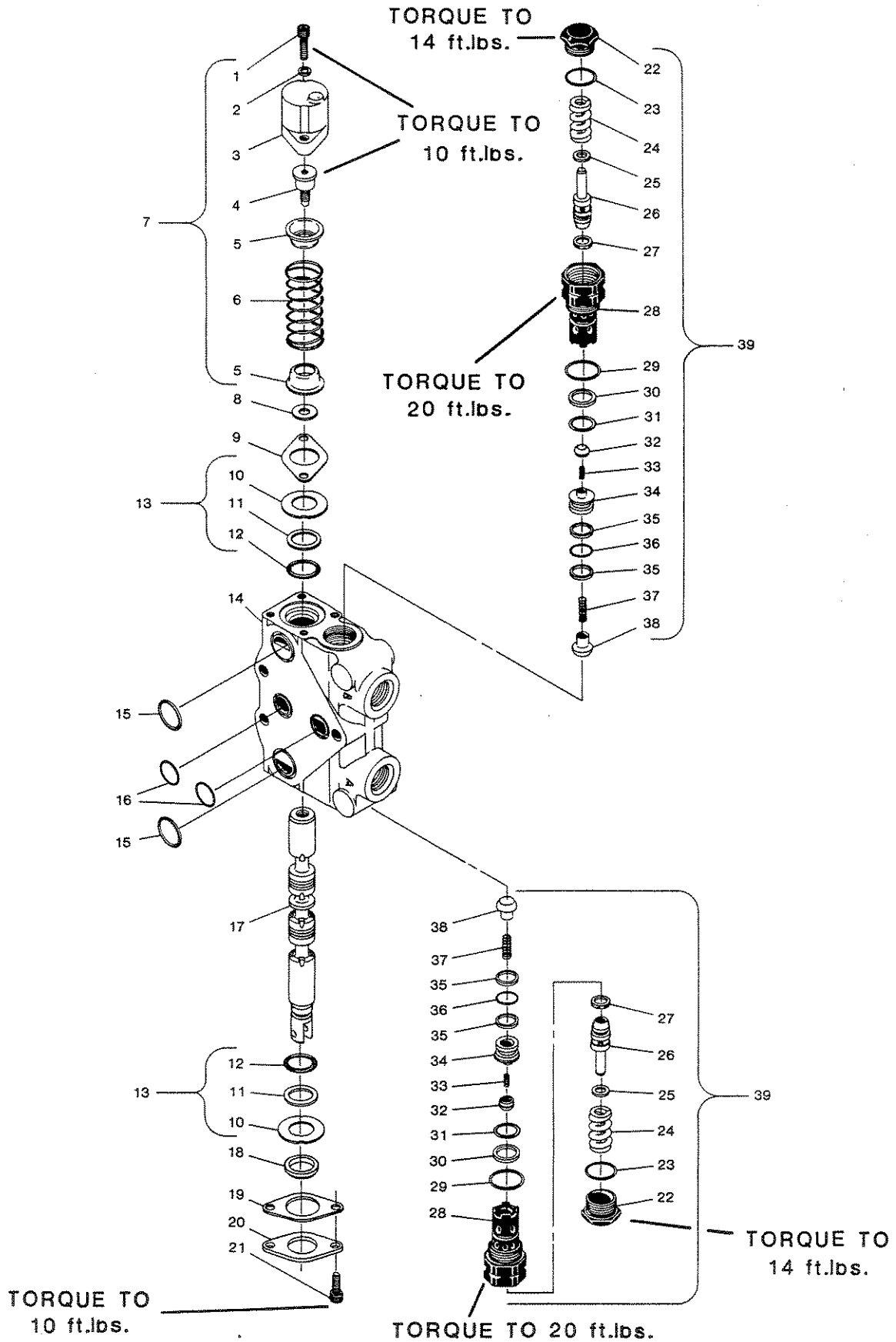
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2		.25" X .88" Screw
2	2		.25" Lock Washer
3	1		Bonnet
4	1		Collar Spool
5	2		Collar Stop
6	1		Collar Spring
7		4717	Spool Positioner Assembly (Includes Items 1 - 6)
8	1		Washer
9	1	45287	Upper Retainer Plate
10	2		Retainer Plate Washer
11	2		Back-Up Washer
12	2		Spool O-Ring Seal
13		4688	Spool Seal Kit (Includes One Each Of Items 10,11, & 12)
14	1		Valve Section Casting
15	2		Exhaust Passage O-Ring Seal
16	2		Pressure Passage O-Ring Seal
17	1		Spool
18	1	4793	Spool Wiper
19	1	45288	Seal Plate
20	1	54631	Lower Retainer Plate
21	2	4658	.25" X .75" Screw
22	1		Relief Cap
23	1		Relief Cap O-Ring Seal
24	1		Relief Spring
25	VARIES		Shim(s)
26	1		Relief Poppet
27	1		Relief Poppet Piston Ring
28	1		Relief Body
29	2		Main O-Ring Seal
30	2		Outer Back-Up Washer
31	2		Outer O-Ring Seal
32	4		Inner Back-Up Washer
33	2		Inner O-Ring Seal
34	2		Check Spring
35	2		Check Poppet
36		4665	Cylinder Port Relief Assembly (Includes Items 22 - 35)
37	1		Load Check Plug
38		4673	Load Check Plug Assembly (Includes Items 29 - 35, & 37)

NOTE: Items without part numbers are not sold separately.
Valve Section Seal Kit #4653 contains two of items 15 & 16.
Port Relief/Load Check Assembly Seal Kit #4666 includes one
each of items 23, 27, 29, 30, 31, 33 and two of item 32.
Complete Dipper Section Seal Kit #45103 includes two of seal
kits #4666, #4688, and one of seal kit #4653 and item 18.

4636 7-3-89-2

VALVE ASSEMBLY

GRESEN SWING SECTION
ASSEMBLY #45138



4639 8-29-90-2

VALVE ASSEMBLY

GRESEN SWING SECTION
ASSEMBLY #45138

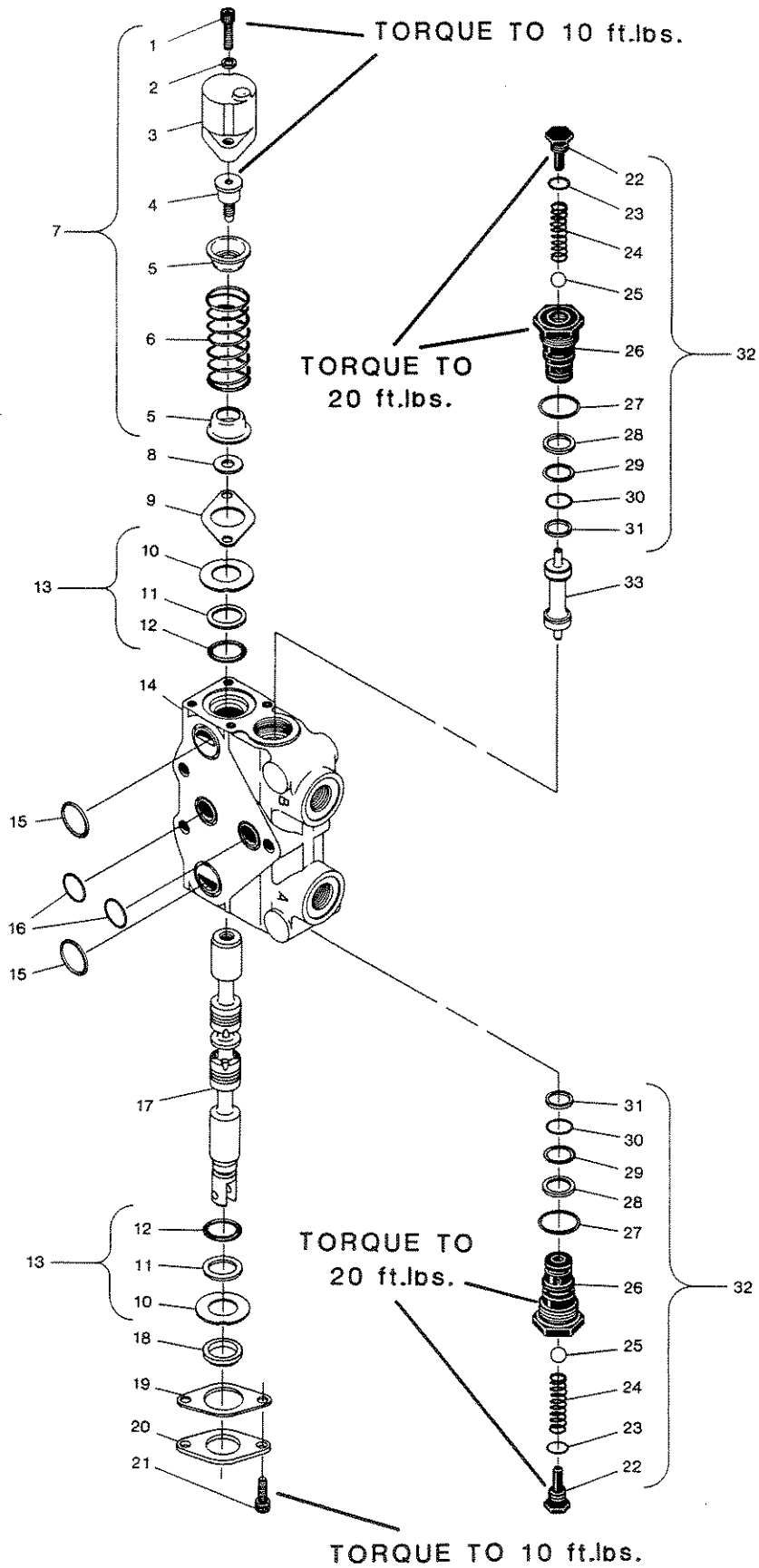
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2		.25" X .88" Screw
2	2		.25" Lock Washer
3	1		Bonnet
4	1		Collar Spool
5	2		Collar Stop
6	1		Collar Spring
7		4717	Spool Positioner Assembly (Includes Items 1 - 6)
8	1		Washer
9	1	45287	Upper Retainer Plate
10	2		Retainer Plate Washer
11	2		Back-Up Washer
12	2		Spool O-Ring Seal
13		4688	Spool Seal Kit (Includes One Each Of Items 10,11, & 12)
14	1		Valve Section Casting
15	2		Exhaust Passage O-Ring Seal
16	2		Pressure Passage O-Ring Seal
17	1		Spool
18	1	4793	Spool Wiper
19	1	45288	Seal Plate
20	1	54631	Lower Retainer Plate
21	2	4658	.25" X .75" Screw
22	2		Relief Cap
23	2		Relief Cap O-Ring Seal
24	2		Relief Spring
25	VARIES		Shim(s)
26	2		Relief Poppet
27	2		Relief Poppet Piston Ring
28	2		Relief/Anti-Cav. Check Body
29	2		Main O-Ring Seal
30	2		Outer Back-Up Washer
31	2		Outer O-Ring Seal
32	2		Anti-Cavitation Poppet
33	2		Anti-Cavitation Spring
34	2		Poppet Retainer
35	4		Inner Back-Up Washer
36	2		Inner O-Ring Seal
37	2		Check Spring
38	2		Check Poppet
39		45139	Relief/Anti-Cav. Check Assy. (Includes One Of Items 22-38)

NOTE: Items without part numbers are not sold separately.
 Valve Section Seal Kit #4653 contains two of items 15, & 16.
 Relief/Anti-Cavitation Check Assembly Seal Kit #4666 contains
 one of items 23, 27, 29, 30, 31, 36, and two of item 35.
 Complete Swing Section Seal Kit #45103 contains two of seal
 kits #4666, and #4688, and one of seal kit #4653 and item 18.

4640 2-22-89

VALVE ASSEMBLY

GRESEN STABILIZER SECTION
ASSEMBLY #4704



4631 8-29-90-2

VALVE ASSEMBLY

GRESEN STABILIZER SECTION
ASSEMBLY #4704

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2		.25" X .88" Screw
2	2		.25" Lock Washer
3	1		Bonnet
4	1		Collar Spool
5	2		Collar Stop
6	1		Collar Spring
7		4717	Spool Positioner Assembly (Includes Items 1 - 6)
8	1		Washer
9	1	45287	Upper Retainer Plate
10	2		Retainer Plate Washer
11	2		Back-Up Washer
12	2		Spool O-Ring Seal
13		4688	Spool Seal Kit (Includes One Each Of Items 10, 11 & 12)
14	1		Lockout Valve Section Casting
15	2		Exhaust Passage O-Ring Seal
16	2		Pressure Passage O-Ring Seal
17	1		Spool
18	1	4793	Spool Wiper
19	1	45288	Seal Plate
20	1	54631	Lower Retainer Plate
21	2	4658	.25" X .75" Screw
22	2		Check Cap
23	2		Check Cap O-Ring Seal
24	2		Spring
25	2		Steel Ball
26	2		Lockout Check Body
27	2		Main O-Ring Seal
28	2		Outer Back-Up Ring
29	2		Outer O-Ring Seal
30	2		Inner O-Ring Seal
31	2		Inner Back-Up Ring
32		4819	Lockout Check Assembly (In- cludes One Of Items 22 - 31)
33	1		Unlocking Piston

NOTE: Items without part numbers are not sold separately.
Spool Seal Kit #4688 contains one of items 10, 11, & 12.
Valve Section Seal Kit #4653 contains two of items 15 & 16.
Lockout Check Assembly Seal Kit #4829 contains one of items
23, and 27 - 31.

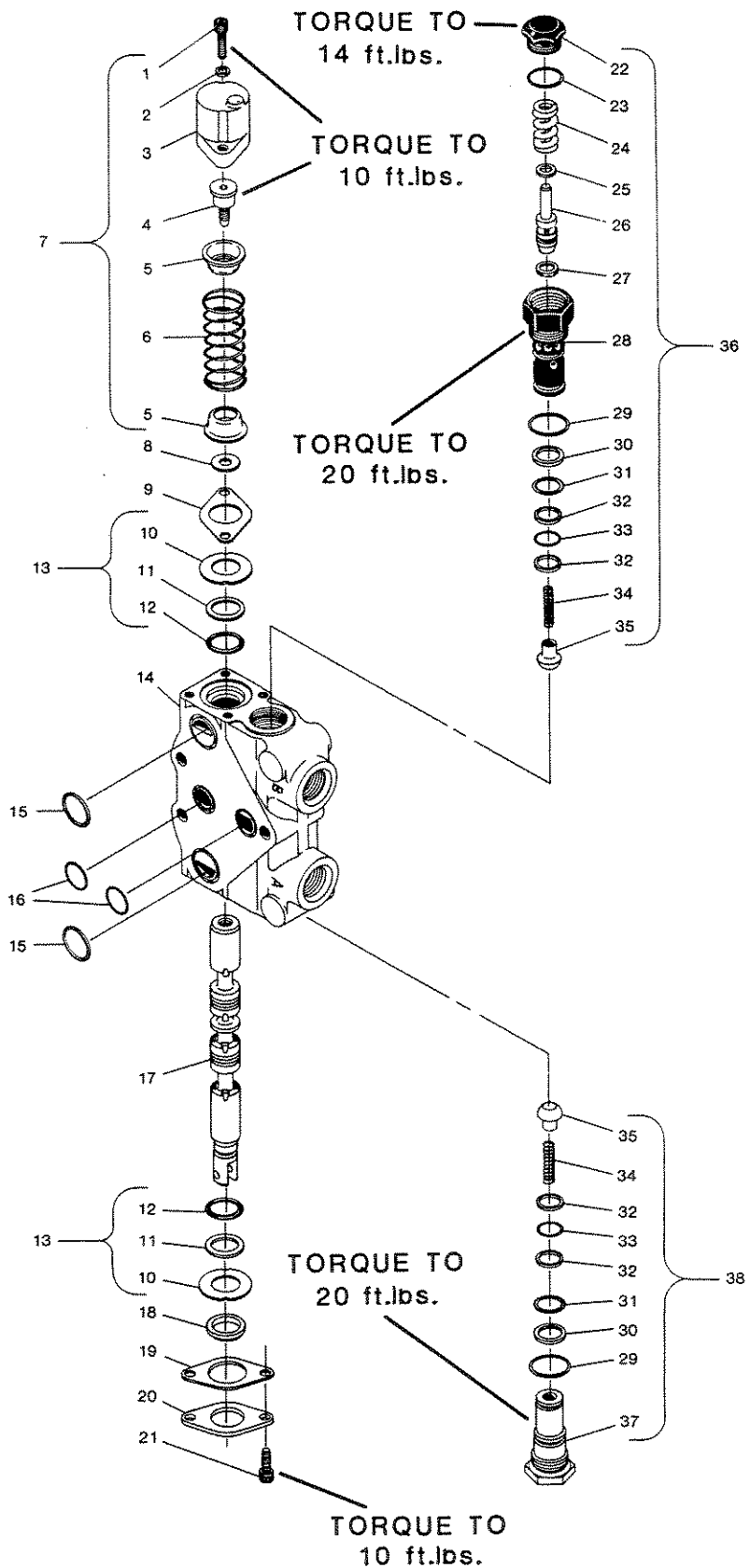
Complete Stabilizer Section Seal Kit #45102 contains two of
seal kits #4688 & #4829, and one seal kit #4653 & item 18.

4632 2-22-89

VALVE ASSEMBLY

GRESEN BUCKET SECTION

ASSEMBLY #45104



4633 8-29-90-2

VALVE ASSEMBLY

GRESEN BUCKET SECTION

ASSEMBLY #45104

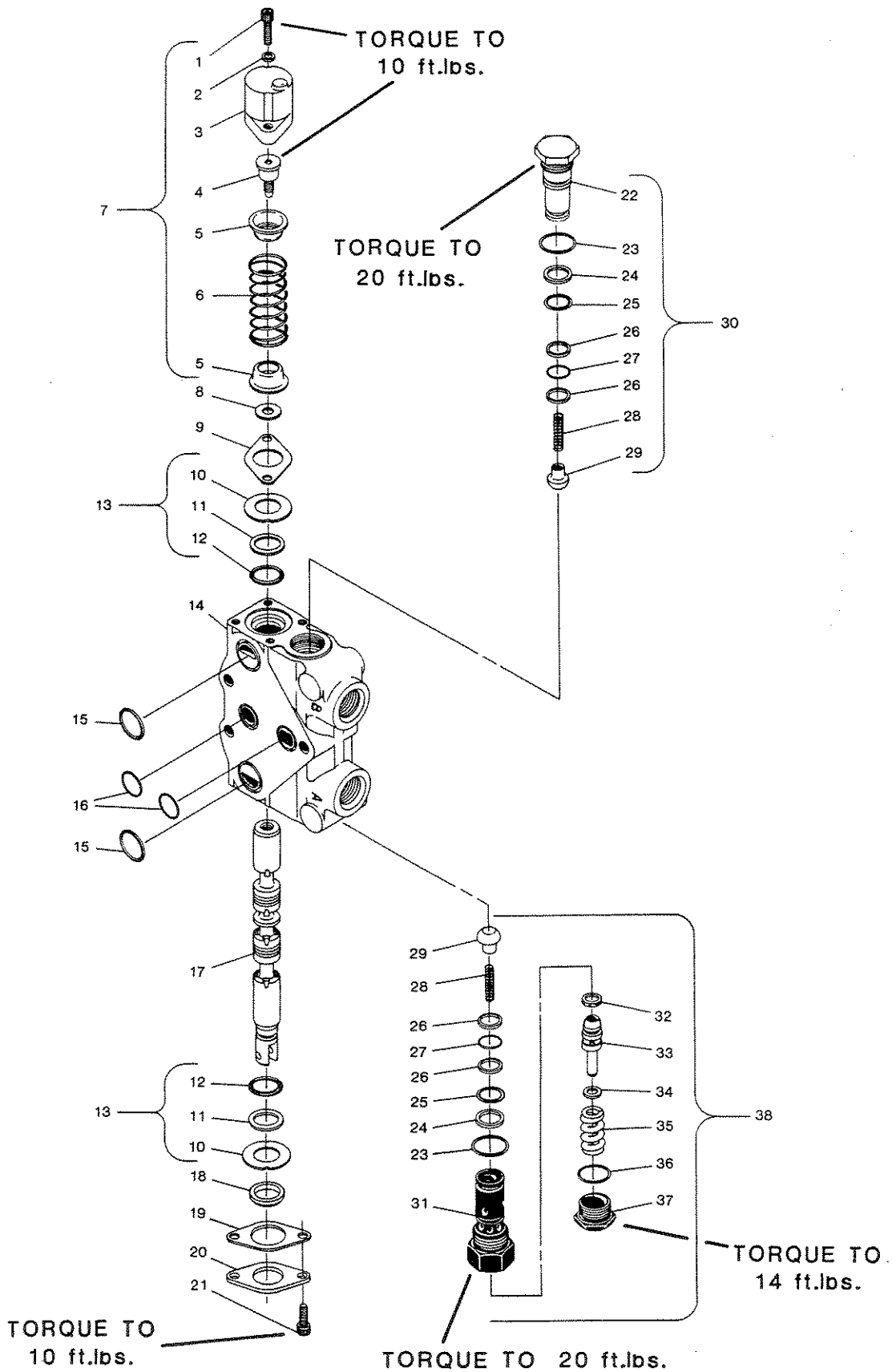
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2		.25" X .88" Screw
2	2		.25" Lock Washer
3	1		Bonnet
4	1		Collar Spool
5	2		Collar Stop
6	1		Collar Spring
7		4717	Spool Positioner Assembly (Includes Items 1 - 6)
8	1		Washer
9	1	45287	Upper Retainer Plate
10	2		Retainer Plate Washer
11	2		Back-Up Washer
12	2		Spool O-Ring Seal
13		4688	Spool Seal Kit (Includes One Each Of Items 10,11, & 12)
14	1		Valve Section Casting
15	2		Exhaust Passage O-Ring Seal
16	2		Pressure Passage O-Ring Seal
17	1		Spool
18	1	4793	Spool Wiper
19	1	45288	Seal Plate
20	1	54631	Lower Retainer Plate
21	2	4658	.25" X .75" Screw
22	1		Relief Cap
23	1		Relief Cap O-Ring Seal
24	1		Relief Spring
25	VARIES		Shim(s)
26	1		Relief Poppet
27	1		Relief Poppet Piston Ring
28	1		Relief Body
29	2		Main O-Ring Seal
30	2		Outer Back-Up Washer
31	2		Outer O-Ring Seal
32	4		Inner Back-Up Washer
33	2		Inner O-Ring Seal
34	2		Check Spring
35	2		Check Poppet
36		45100	Cylinder Port Relief Assembly (Includes Items 22 - 35)
37	1		Load Check Plug
38		4673	Load Check Plug Assembly (Includes Items 29 - 35, & 37)

NOTE: Items without part numbers are not sold separately.
Valve Section Seal Kit #4653 contains two of items 15 & 16.
Port Relief/Load Check Assembly Seal Kit #4666 includes one
each of items 23, 27, 29, 30, 31, 33 and two of item 32.
Complete Bucket Section Seal Kit #45103 includes two of seal
kits #4666, #4688, and one of seal kit #4653 and item 18.

4634 2-22-89

VALVE ASSEMBLY

GRESEN VALVE SECTION
ASSEMBLY #4685



4637 8-29-90-3

VALVE ASSEMBLY

GRESEN VALVE SECTION

ASSEMBLY #4685

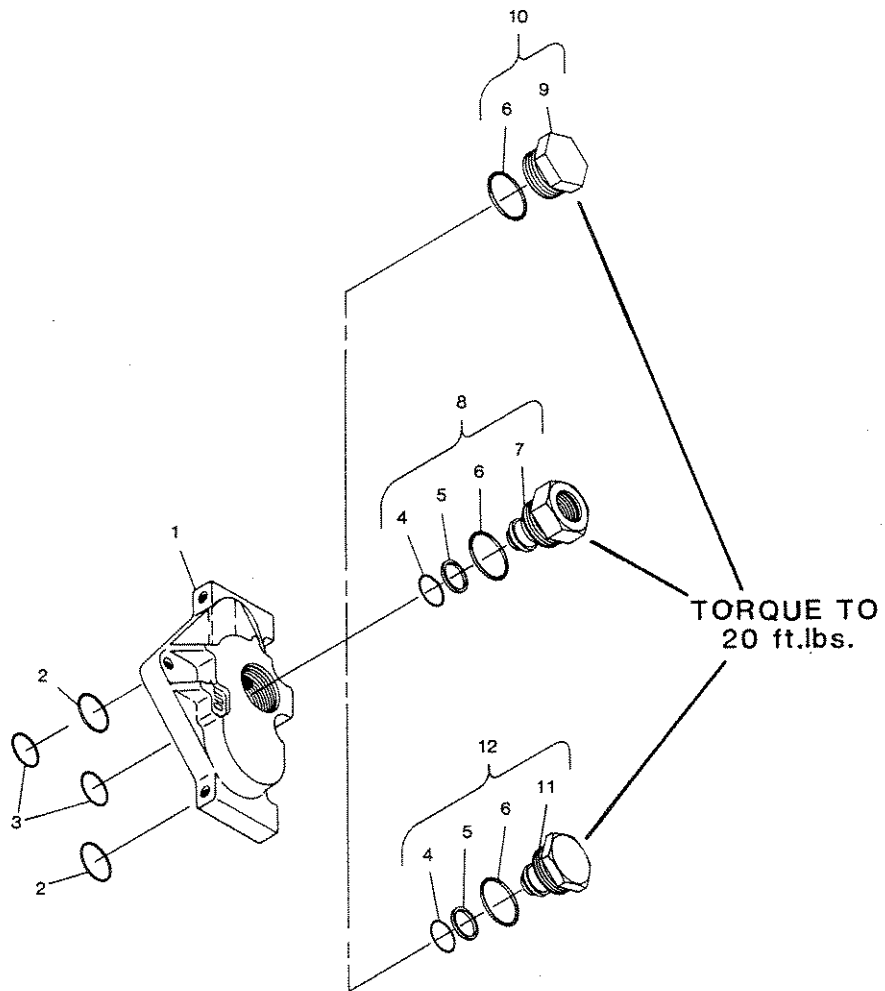
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2		.25" X .88" Screw
2	2		.25" Lock Washer
3	1		Bonnet
4	1		Collar Spool
5	2		Collar Stop
6	1		Collar Spring
7		4717	Spool Positioner Assembly (Includes Items 1 - 6)
8	1		Washer
9	1	45287	Upper Retainer Plate
10	2		Retainer Plate Washer
11	2		Back-Up Washer
12	2		Spool O-Ring Seal
13		4688	Spool Seal Kit (Includes One Each Of Items 10, 11, & 12)
14	1		Valve Section Casting
15	2		Exhaust Passage O-Ring Seal
16	2		Pressure Passage O-Ring Seal
17	1		Spool
18	1	4793	Spool Wiper
19	1	45288	Seal Plate
20	1	54631	Lower Retainer Plate
21	2	4658	.25" X .75" Screw
22	1		Load Check Plug
23	2		Main O-Ring Seal
24	2		Outer Back-Up Washer
25	2		Outer O-Ring Seal
26	4		Inner Back-Up Washer
27	2		Inner O-Ring Seal
28	2		Check Spring
29	2		Check Poppet
30		4673	Load Check Plug Assembly (Includes Items 22 - 29)
31	1		Relief Body
32	1		Relief Poppet Piston Ring
33	1		Relief Poppet
34	VARIES		Shim(s)
35	1		Relief Spring
36	1		Relief Cap O-Ring Seal
37	1		Relief Cap
38	1	4665	Cylinder Port Relief Assembly (Includes Items 23-29, & 31-33)

NOTE: Items without part numbers are not sold separately.
 Valve Section Seal Kit #4653 contains two of items 15 & 16.
 Cylinder Port Relief/Load Check Assembly Seal Kit #4666 includes one of items 23 - 25, 27, 32, 36, and two of item 26.
 Complete Boom Section Seal Kit #45103 includes two of seal kits #4666, #4688, and one of seal kit #4653 and item 18.

4638 7-3-89-2

VALVE ASSEMBLY

GRESEN OUTLET COVER



4641 8-29-90-2

VALVE ASSEMBLY

GRESEN OUTLET COVER

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	4690	Outlet Cover Casting
2	2		Exhaust Passage O-Ring Seal
3	2		Pressure Passage O-Ring Seal
4	1		Inner O-Ring Seal
5	1		Inner Back-Up Washer
6	1	4693	Main O-Ring Seal
7	1		Power Beyond Sleeve
8		4698	Power Beyond Sleeve Assembly (Includes Items 4,5,6, & 7)
9	1		Open-Center Plug
10		4691	Open-Center Plug Assembly (Includes Items 9 & 10)
11	1		Close-Center Plug
12		6977	Close-Center Plug Assembly (Includes Items 4,5,6, & 11)

4642 2-22-89

NOTE: Items without part numbers are not sold separately. These parts are only available in the various subassemblies noted on the diagram, or in the seal kits listed below.

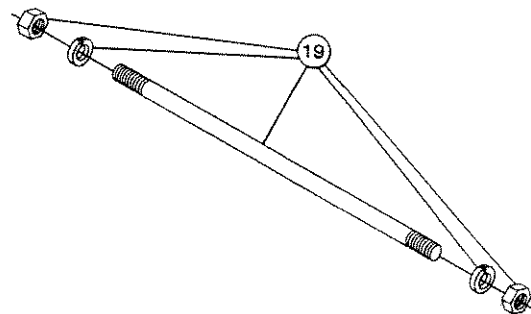
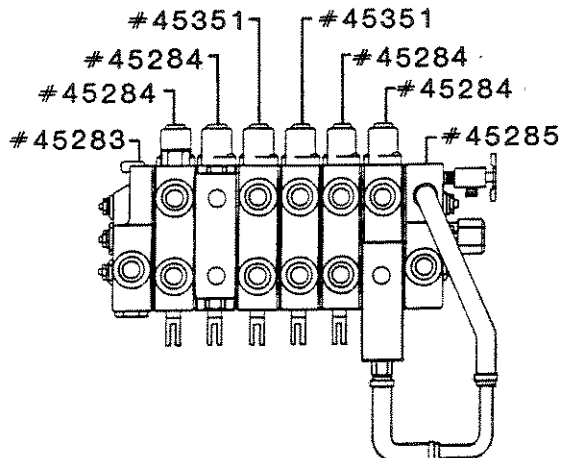
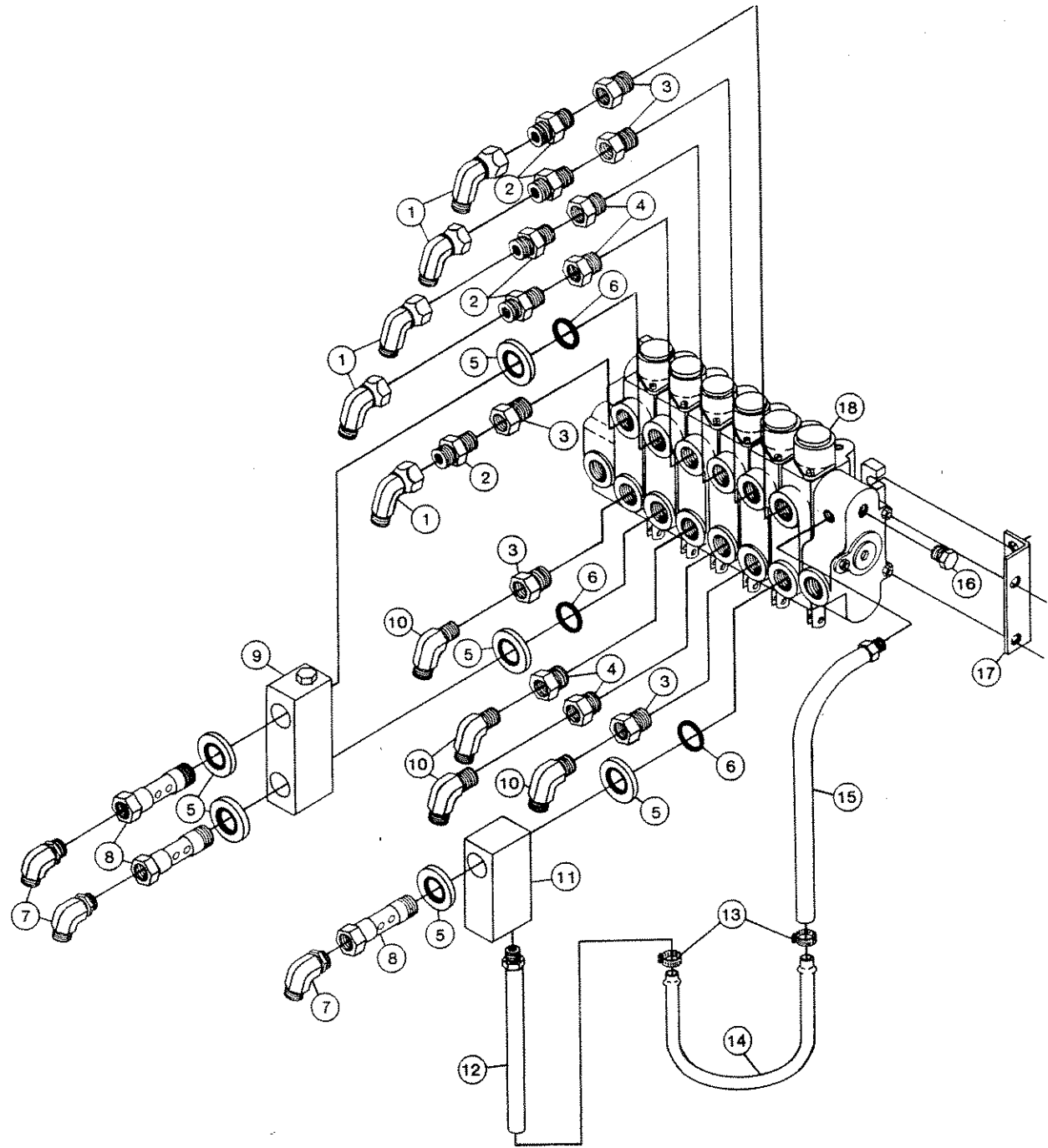
Valve Section Seal Kit #4653 contains two each of items 2 & 3.

Outlet Cover Port Seal Kit #4966 contains one each of items 4, 5, & 6.

VALVE ASSEMBLY

HIDROVER VALVE
ASSEMBLY #2158

4715 3-22-89



VALVE ASSEMBLY

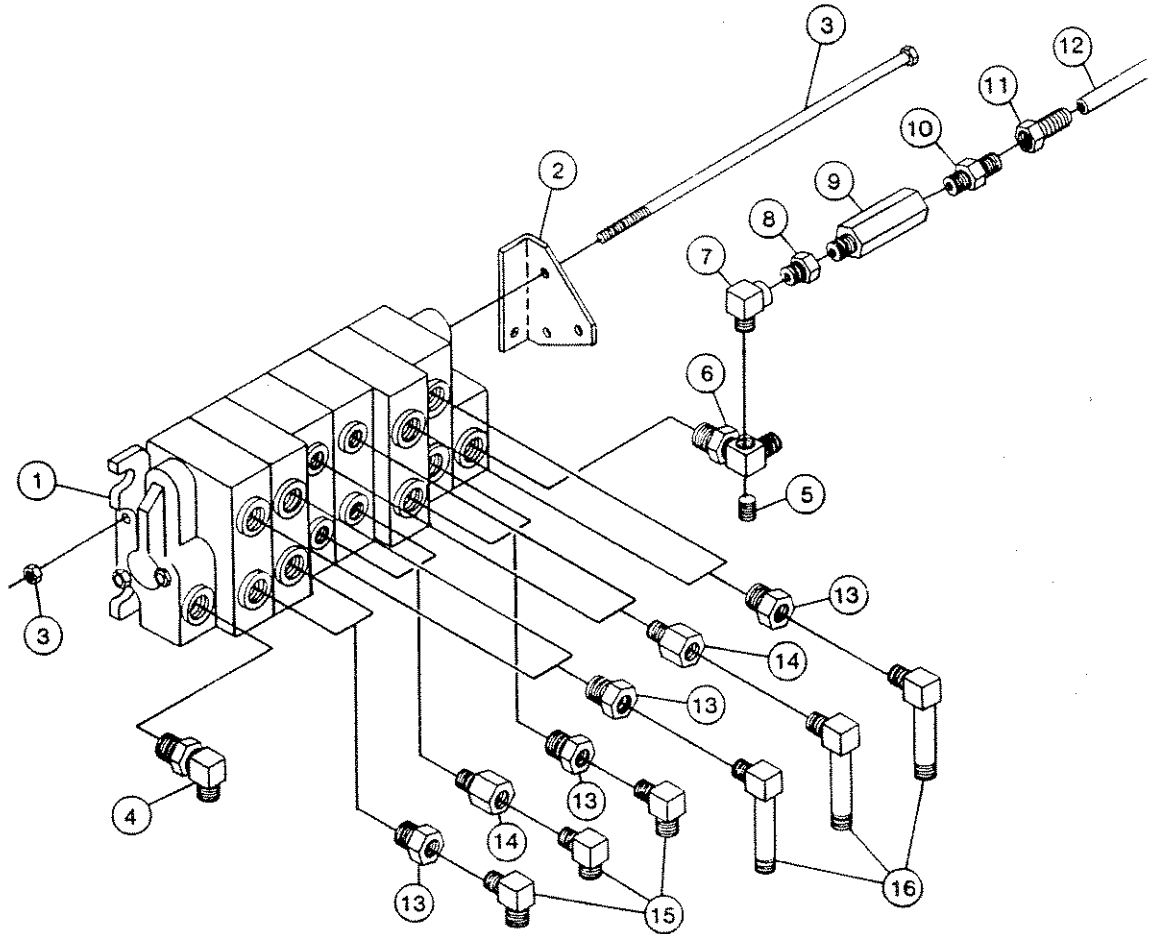
HIDROVER VALVE
ASSEMBLY #2158

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	5	3430	90° Adaptor 6MJ-6FJX
2	5	3137	Straight Adaptor 4MP-6MJ
3	5	3336	Straight Adaptor 10MBo-4FP
4	4	3368	Straight Adaptor 8MBo-4FP
5	6	45306	Seal Washer
6	3	4991	O-Ring
7	3	3434	90° Adaptor 6MBo-6MJ
8	3	66020	Banjo Bolt
9	1	66166	Cross Over Relief Block Assy.
10	4	3001	90° Adaptor 4MP-6MJ
11	1	66167	Circuit Relief Block Assy.
12	1	35850	Hose .38" X 12.00" (SAE 100R1-1Wire) 6MB-Open
13	2	53167	Hose Clamp
14	1	66174	Hydraulic Tube
15	1	35858	Hose .38" X 21.00" (SAE 100R1-1Wire) 4MP-Open
16	1	3359	.25" NPT Plug
17	1	64408	Valve Mounting Plate
18	1	65521	6 Spool Hidrover Valve w/o Circuit Relief
19	3	45291	Tie Rod Assy.

4716 3-22-89

VALVE ASSEMBLY

HIDROVER VALVE
ASSEMBLY #2130



4774 4-5-89

VALVE ASSEMBLY

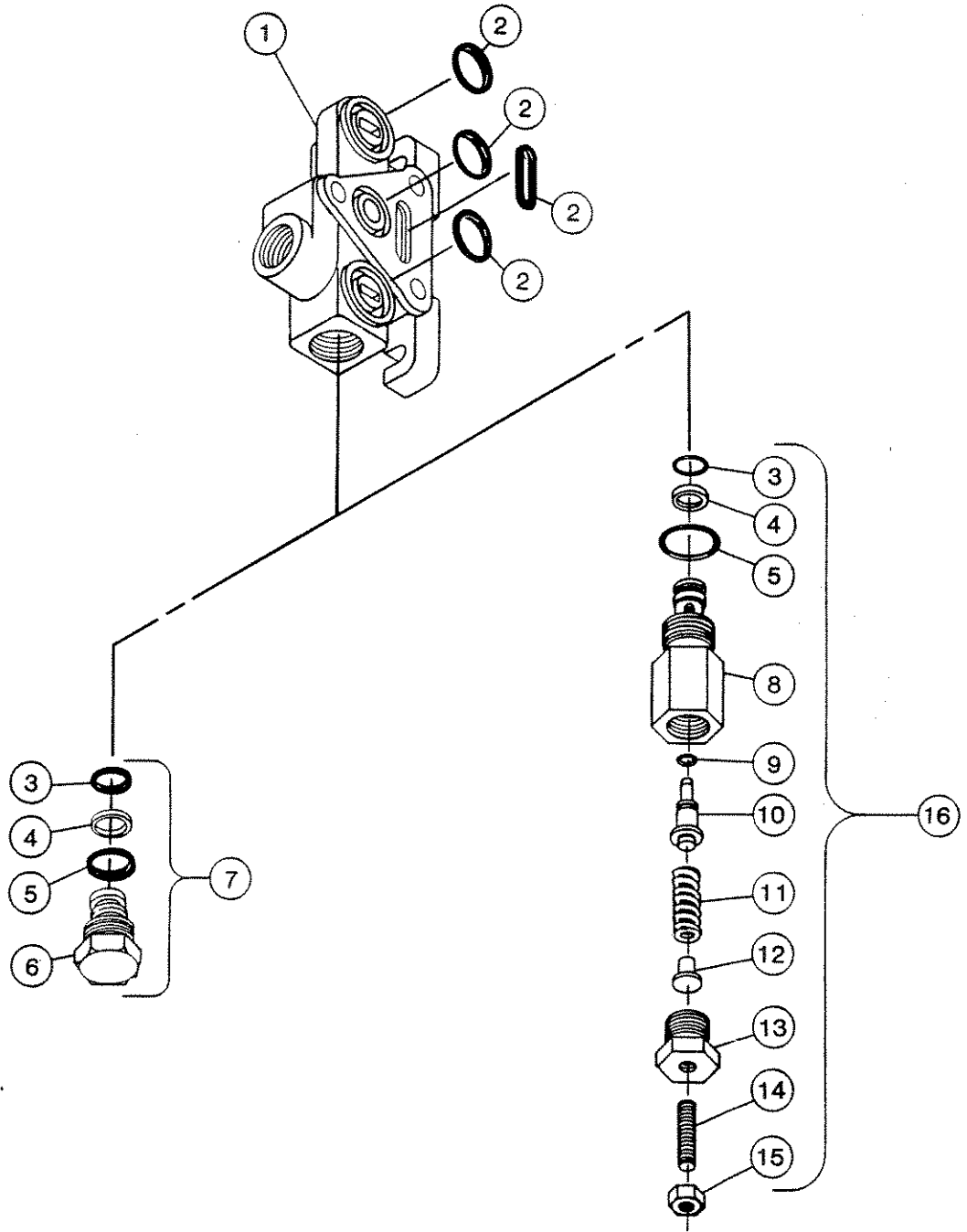
HIDROVER VALVE
ASSEMBLY #2130

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	61884	Hidrover 6-Spool Valve
2	1	64408	Valve Mounting Plate
3	3	45291	Tie Rod Assembly
4	1	3283	90° O-Ring Elbow 10MB-8MJ
5	1	3226	Hex Socket Plug 2MP
6	1	57514	Custom 90° Fitting
7	1	3171	Street Elbow 4MP-4FP
8	1	3394	Pipe Expander 4MP-6FP
9	1	57547	Check Valve
10	1	3089	Bushing 6MP-4MP
11	1	3361	Hose Barb 4MP .19" I.D.
12	1	35730	Plastic Hose, .19" I.D. X 16.00"
13	8	3336	Adapter 10MBo-4FP
14	4	3368	Adapter 8MBo-4FP
15	6	3001	90° Elbow 4MP-6MJ
16	6	3088	90° Long Elbow 4MP-6MF

4775
4-5-89

VALVE ASSEMBLY

HIDROVER INLET COVER
ASSEMBLY #45283



4622 2-22-89

VALVE ASSEMBLY

HIDROVER INLET COVER
ASSEMBLY #45283

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1		Inlet Cover Casting (CH12)
2	4		Section O-Ring Seal
3	1		Inner O-Ring Seal
4	1		Inner Back-Up Washer
5	1		Outer O-Ring Seal
6	1		Non-Relief Plug
7	1	45281	Non-Relief Plug Assembly
8	1		Main Relief Body
9	1		Relief Poppet O-Ring Seal
10	1		Relief Poppet
11	1		Relief Spring
12	1		Relief Spring Positioner
13	1		Relief Cap
14	1		Adjusting Rod
15	1		Lock Nut
16		45307	Main Relief Assembly. (Includes one each of items 3-5, and 8-15)

NOTE: Items without part numbers are not sold separately. These parts are only available in the complete Inlet Cover Assembly #45283 or in subassemblies and seal kits as noted.

Non-Relief Plug Seal Kit #45296 includes one each of items 3, 4, & 5.

Section Seal Kit #45295 includes four of item 2.

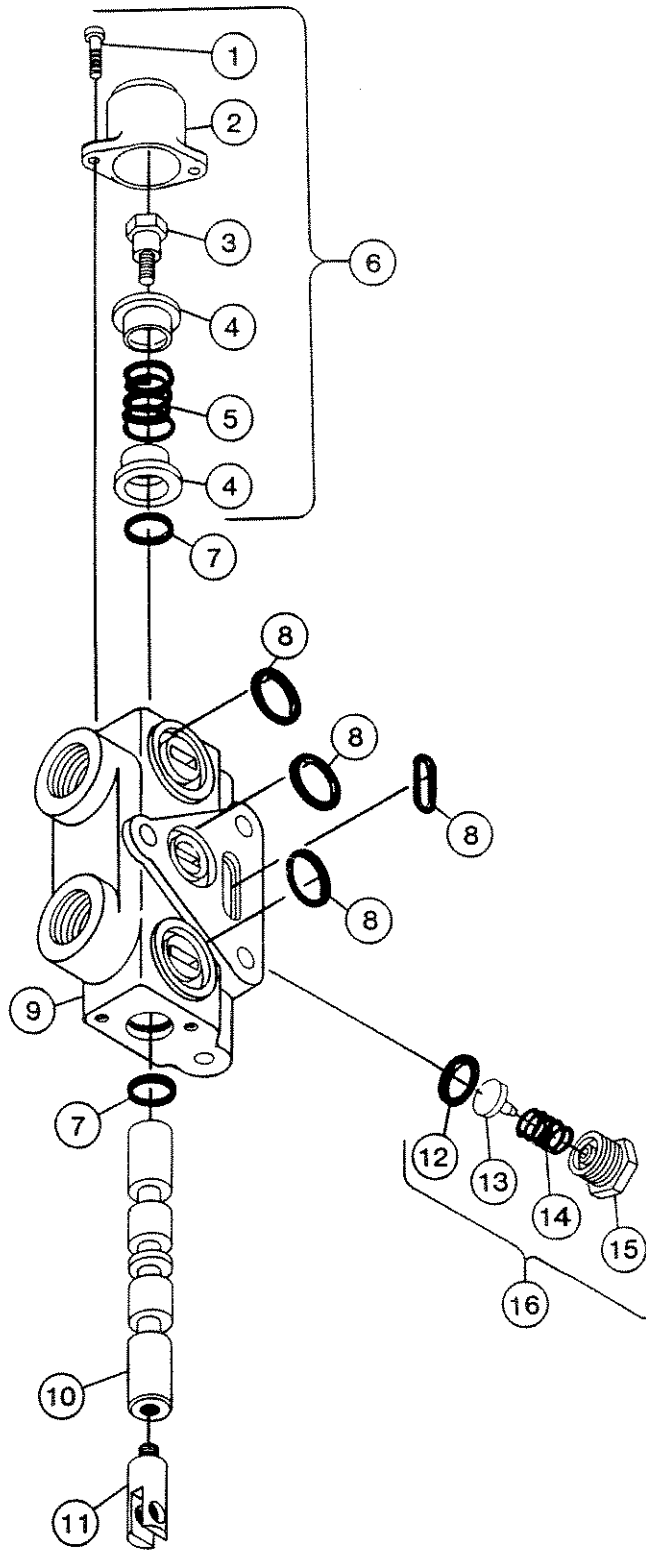
Inlet Body Seal Kit #45279 includes one each of items 3, 4, 5, and four of item 2.

Main Relief Assembly #45307 is optional and is not included in Hidrover Inlet Cover Assembly #45283.

4623 2-22-89

VALVE ASSEMBLY

HIDROVER CENTRAL VALVE BODY
ASSEMBLY #45284



4624 2-22-89

VALVE ASSEMBLY

HIDROVER CENTRAL VALVE BODY
ASSEMBLY #45284

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2		Bonnet Screw
2	1		Bonnet
3	1		Collar Spool
4	2		Collar Stop
5	1		Collar Spring
6	1	45403	Spool Positioner Assembly (Includes Items 1 Through 5)
7	2		Spool O-Ring Seal
8	4		Section O-Ring Seal
9	1		Central Valve Body Casting
10	1		Valve Spool
11	1		Female Spool End
12	1		Load Check O-Ring Seal
13	1		Load Check Piston
14	1		Load Check Spring
15	1		Load Check Body
16	1	45402	Load Check Assembly (Includes Items 12 Through 15)

4625 1-14-91-2

NOTE: Items without part numbers are not sold separately. These parts are only available in the complete Central Valve Body Assembly #45284 or in the various subassemblies and seal kits as noted.

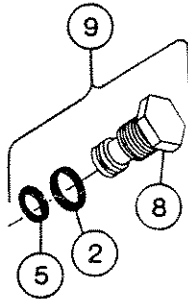
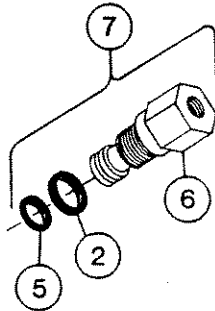
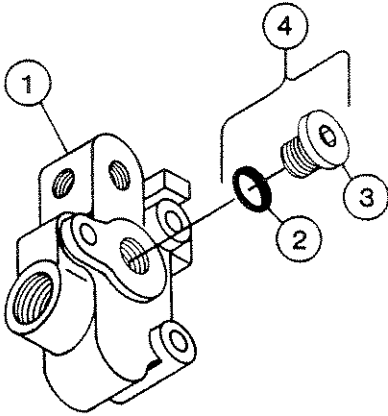
Spool Seal Kit #45294 includes two of item #7, Spool O-Ring Seal.

Section Seal Kit #45295 includes four of item #8, Section O-Ring Seal.

Central Body Seal Kit #45278 includes Spool Seal Kit #45294, Section Seal Kit #45295, and item #12, Load Check O-Ring Seal.

VALVE ASSEMBLY

HIDROVER OUTLET COVER



4626 2-22-89

VALVE ASSEMBLY

HIDROVER OUTLET COVER

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	45285	Outlet Cover Casting (Includes Item 4, Open Center Plug Assembly)
2	1		Outer O-Ring Seal
3	1		Open Center Plug
4	1	45401	Open Center Plug Assembly
5	1		Inner O-Ring Seal
6	1		Power Beyond Plug
7	1	45320	Power Beyond Plug Assembly
8	1		Close Center Plug
9	1	45318	Close Center Plug Assembly

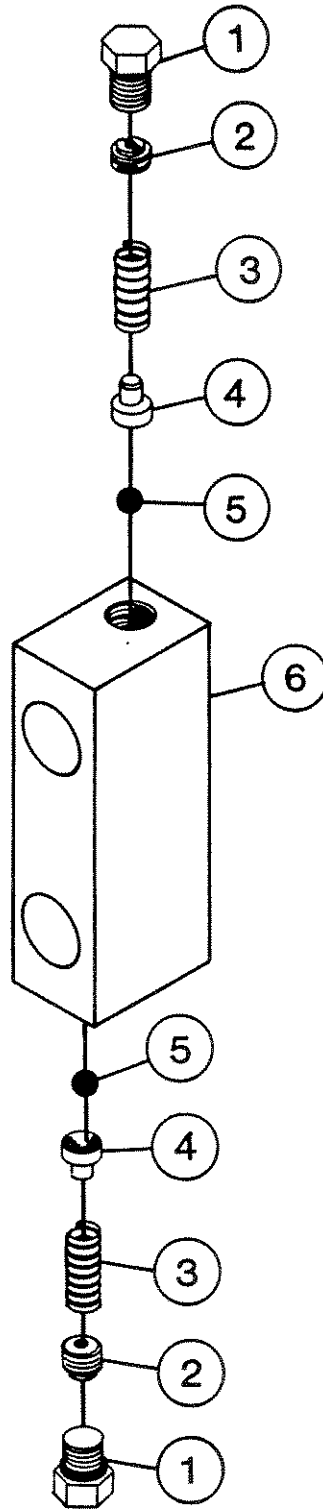
4627 2-22-89

NOTE: Items without part numbers are not sold separately. These parts are only available in the various subassemblies and the seal kit as noted.

Outlet Port Seal Kit #45404 includes one each of item #2, Outer O-ring Seal and item #5, Inner O-Ring Seal.

CROSSOVER RELIEF ASSEMBLY

HIDROVER VALVE
ASSEMBLY #66166



4717 3-22-89

CROSSOVER RELIEF ASSEMBLY

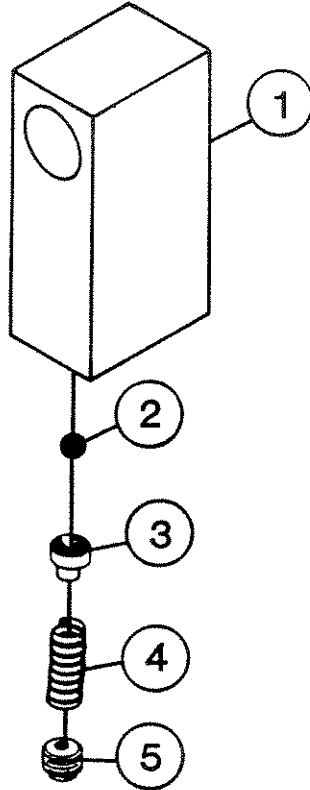
HIDROVER VALVE
ASSEMBLY #66166

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	3311	#6 O-Ring Plug
2	2	66169	Adjusting Screw
3	2	66184	Relief Spring
4	2	66147	Ball Retainer
5	2	8140	.31" Ball
6	1	66018	Crossover Relief Block

4718 3-22-89

CIRCUIT RELIEF ASSEMBLY

HIDROVER VALVE
ASSEMBLY # 66167



4719 3-22-89

CIRCUIT RELIEF ASSEMBLY

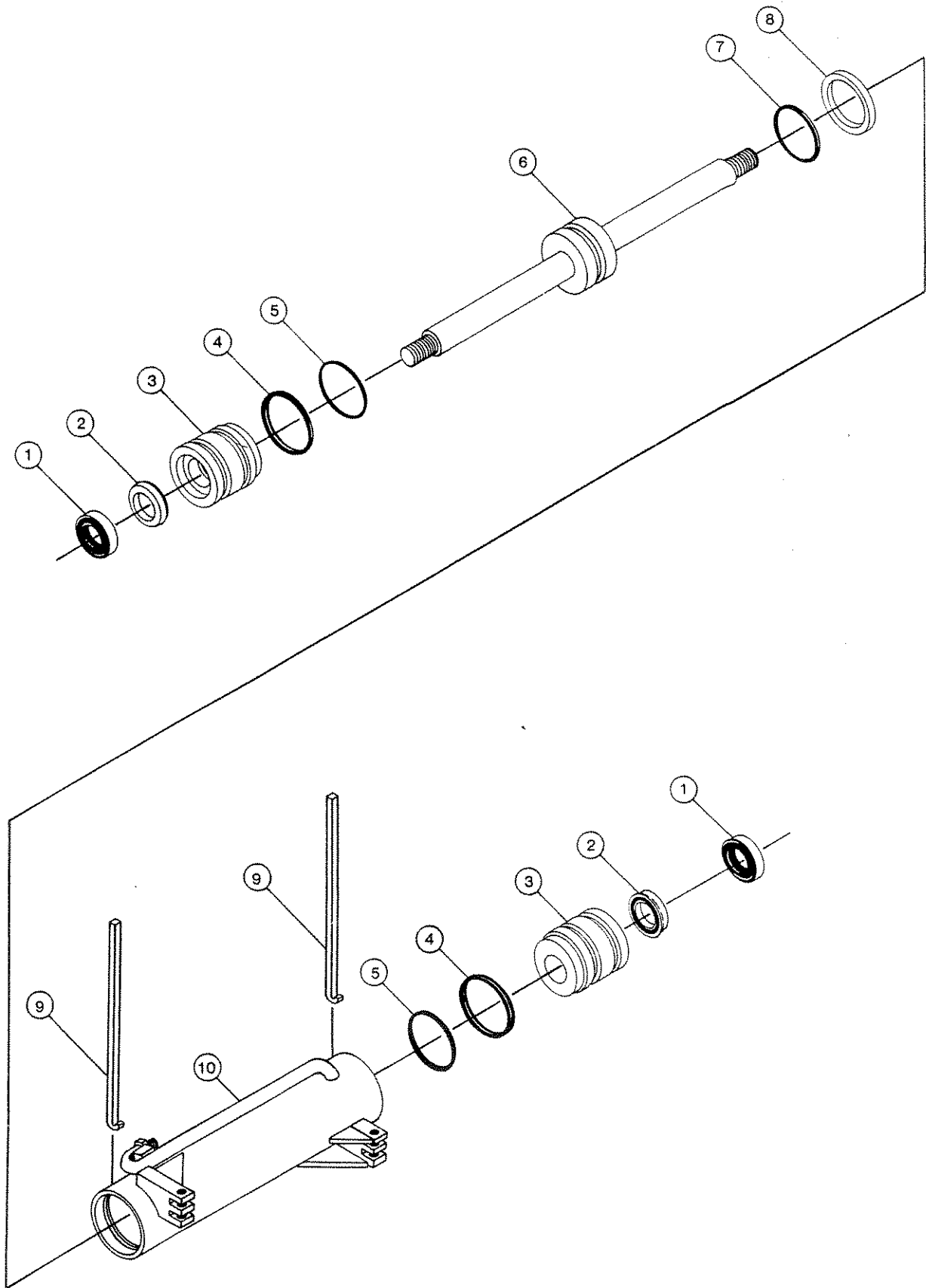
HIDROVER VALVE
ASSEMBLY #66167

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	66022	Circuit Relief Block
2	1	8140	.31" Ball
3	1	66147	Ball Retainer
4	1	66184	Relief Spring
5	1	66169	Adjusting Screw

4720 3-22-89

CYLINDER ASSEMBLY

SWING CYLINDER
ASSEMBLY #62540



4721 3-22-89

CYLINDER ASSEMBLY

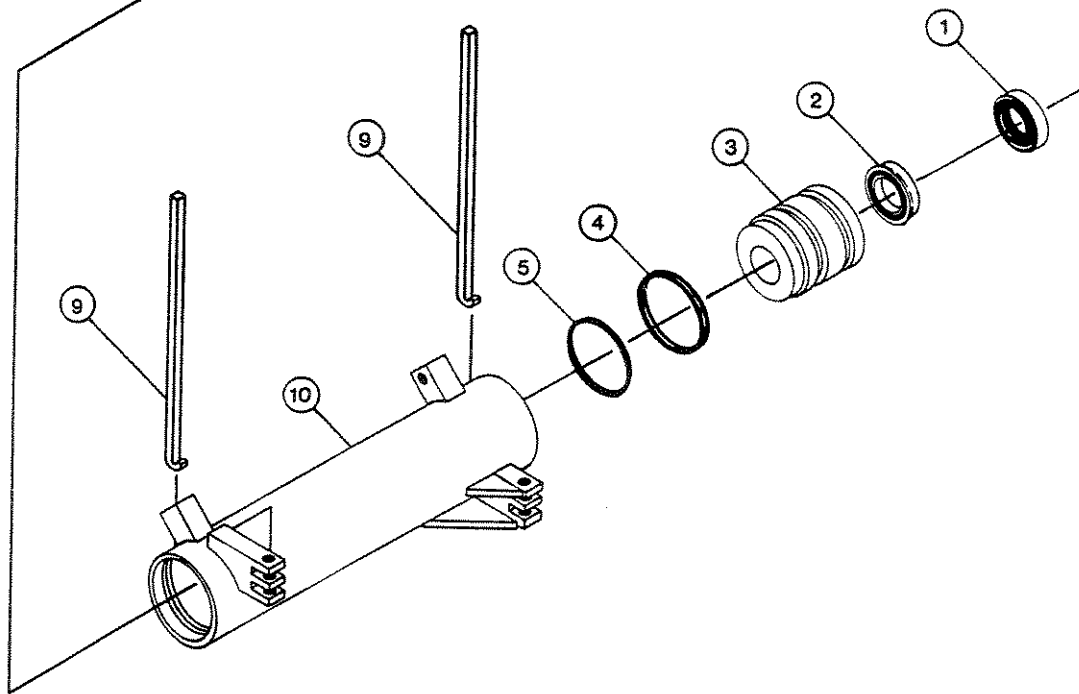
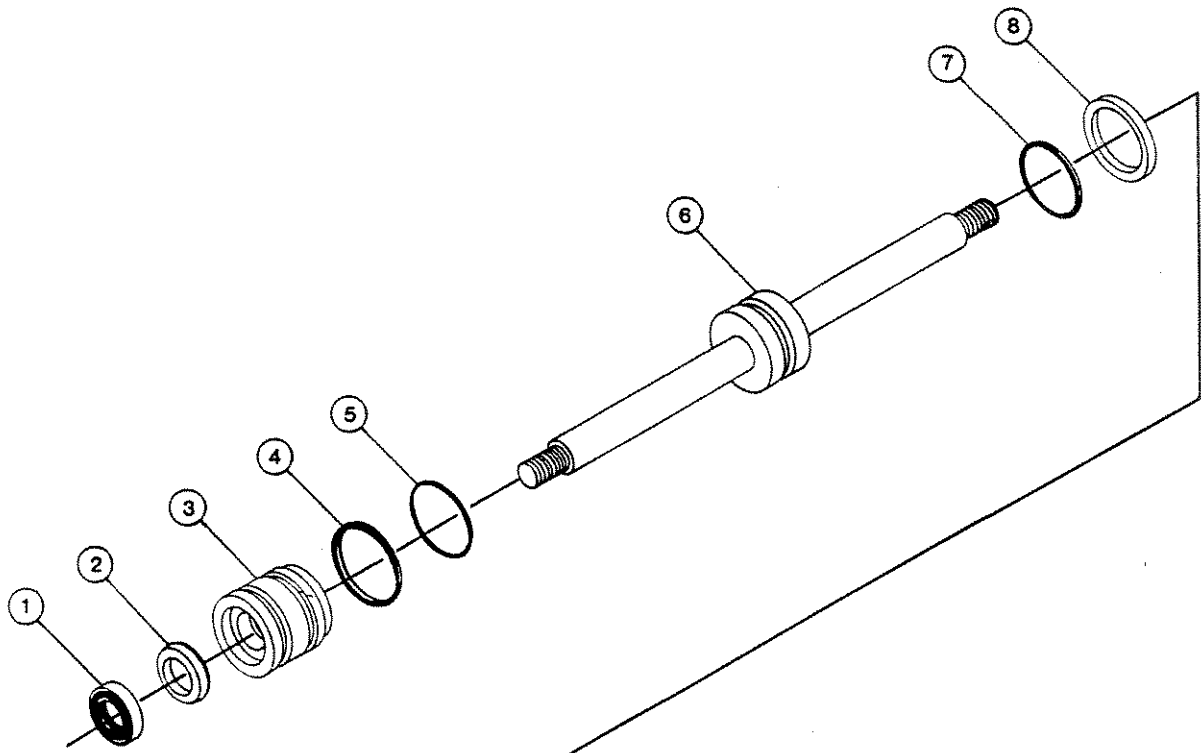
SWING CYLINDER
ASSEMBLY #62540

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	4974*	Rod Wiper
/2	2	45219*	Cylinder Rod Seal
3	2	62770	Cylinder Gland
4	2	4510*	Back-Up Washer
5	2	4509*	O'Ring
6	1	62539	Cylinder Rod
7	1	4645*	O'Ring
8	1	4644*	Piston Ring
9	2	7165	Gland Retainer Rod/Ring
10	1	62674	Cylinder Tube
11	4	82696	Shim (Shown on mainframe assembly page.)
	1	82786	Shim (Shown on mainframe assembly page.)

NOTE: Seal Kit #45263 includes all parts marked with an asterisk (*).
Parts are not sold separately.

CYLINDER ASSEMBLY

SWING CYLINDER
ASSEMBLY #64405



4749 3-28-89

CYLINDER ASSEMBLY

SWING CYLINDER
ASSEMBLY #64405

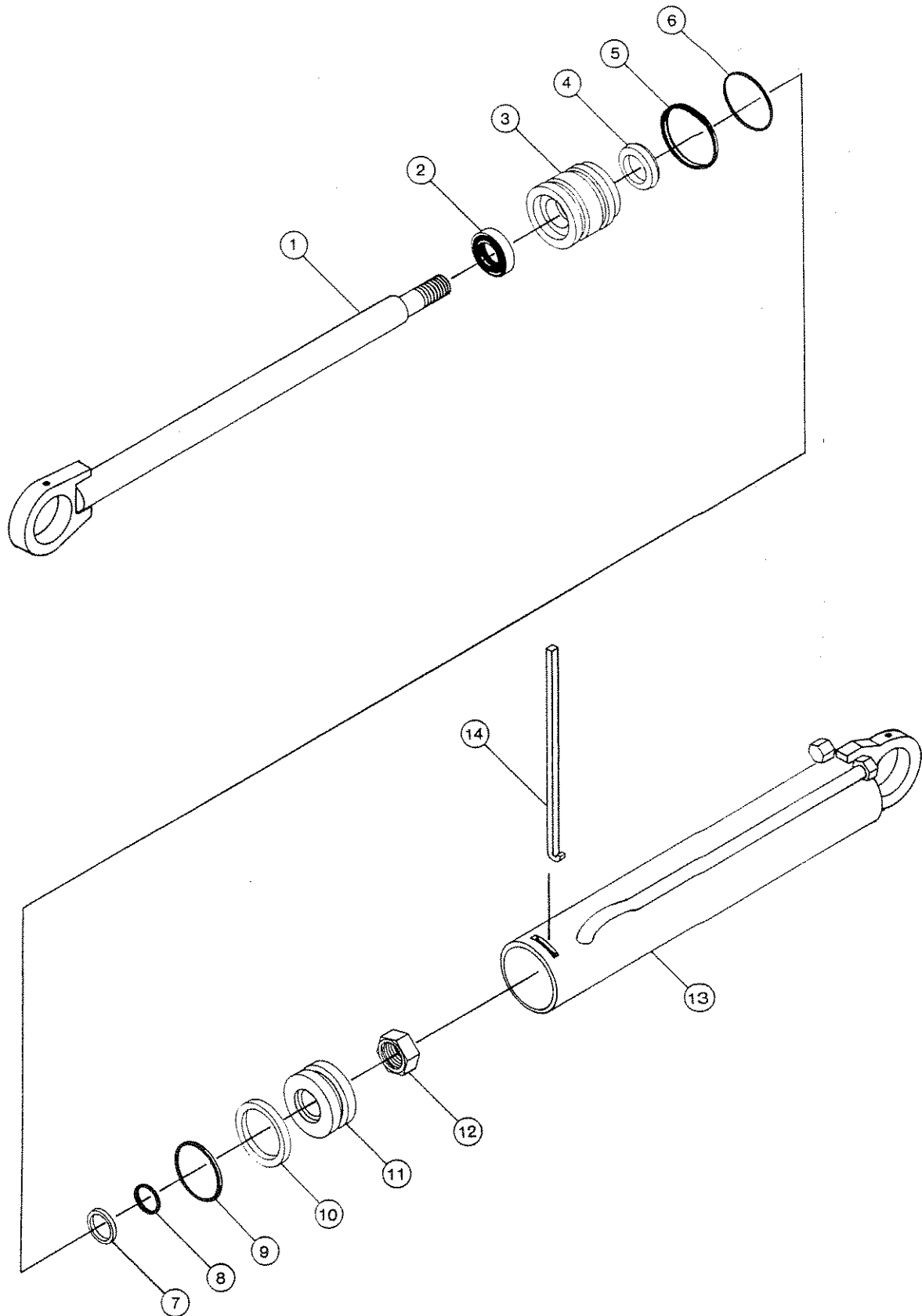
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	4974*	Rod Wiper
2	2	45219*	Cylinder Rod Seal
3	2	62770	Cylinder Gland
4	2	4510*	Back-Up Washer
5	2	4509*	O-Ring
6	1	62539	Cylinder Rod
7	1	4645*	O-Ring
8	1	4644*	Piston Ring
9	2	7165*	Gland Retainer Rod/Ring
10	1	64389	Cylinder Tube

4750 3-28-89

NOTE: Seal Kit #45263 includes all parts marked with an asterisk (*). Parts are not sold separately.

CYLINDER ASSEMBLY

ASSEMBLY #62544



4723 3-22-89

CYLINDER ASSEMBLY

ASSEMBLY #62544

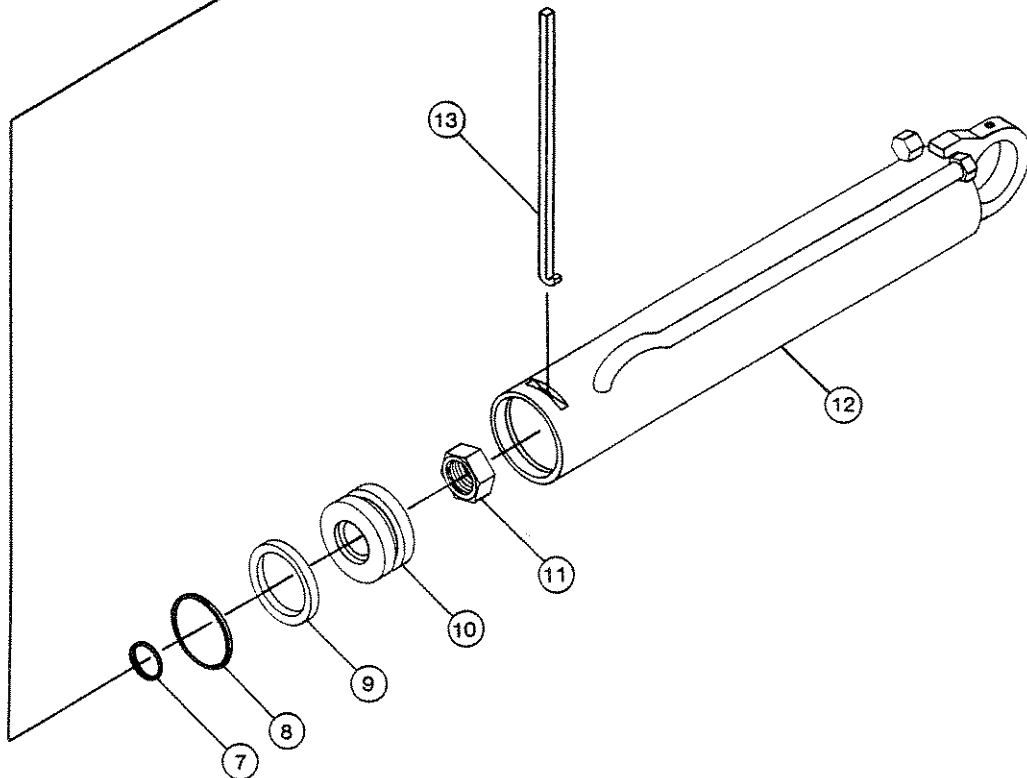
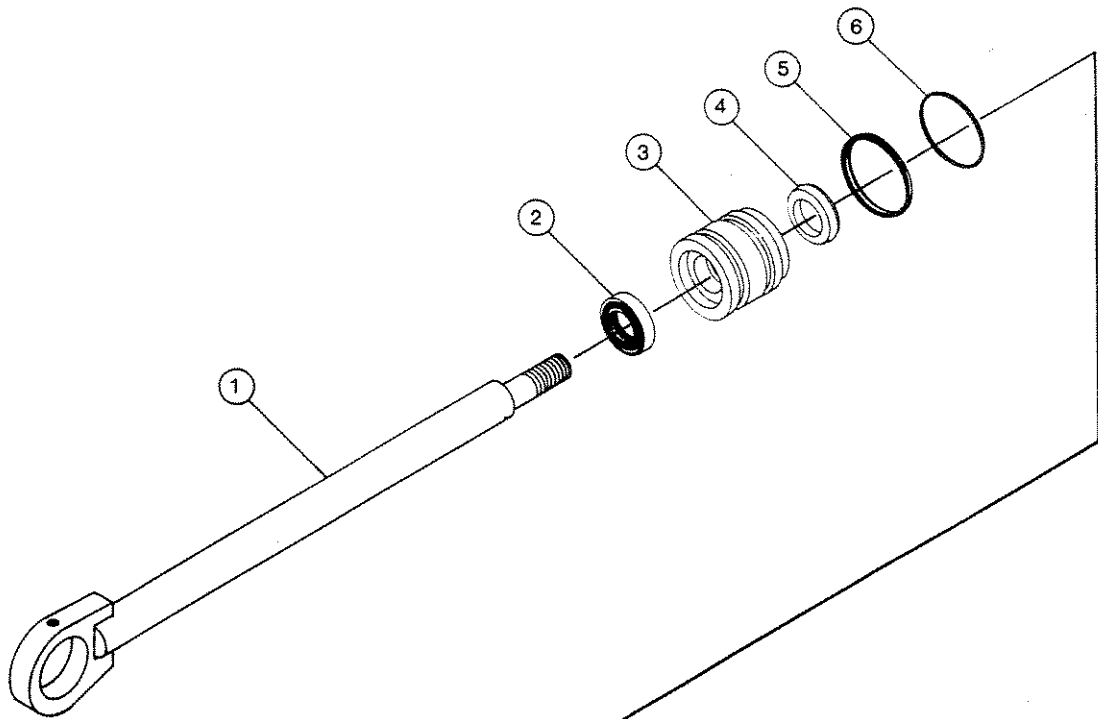
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	62546	Cylinder Rod
2	1	4974*	Rod Wiper
3	1	62770	Cylinder Gland
4	1	45219*	Cylinder Rod Seal
5	1	4510*	Back-Up Washer
6	1	4509*	O-Ring
7	1	5421	Washer
8	1	4641*	O-Ring
9	1	4645*	O-Ring
10	1	4644*	Piston Ring
11	1	50252	Piston
12	1	1483	Hex Nut
13	1	62545	Cylinder Tube
14	1	7165*	Gland Retainer Rod/Ring

4724 3-22-89

NOTE: Seal kit #45258 includes all parts marked with an asterisk (*). Parts are not sold separately.

CYLINDER ASSEMBLY

ASSEMBLY #63105



4725 3-22-89

CYLINDER ASSEMBLY

ASSEMBLY #63105

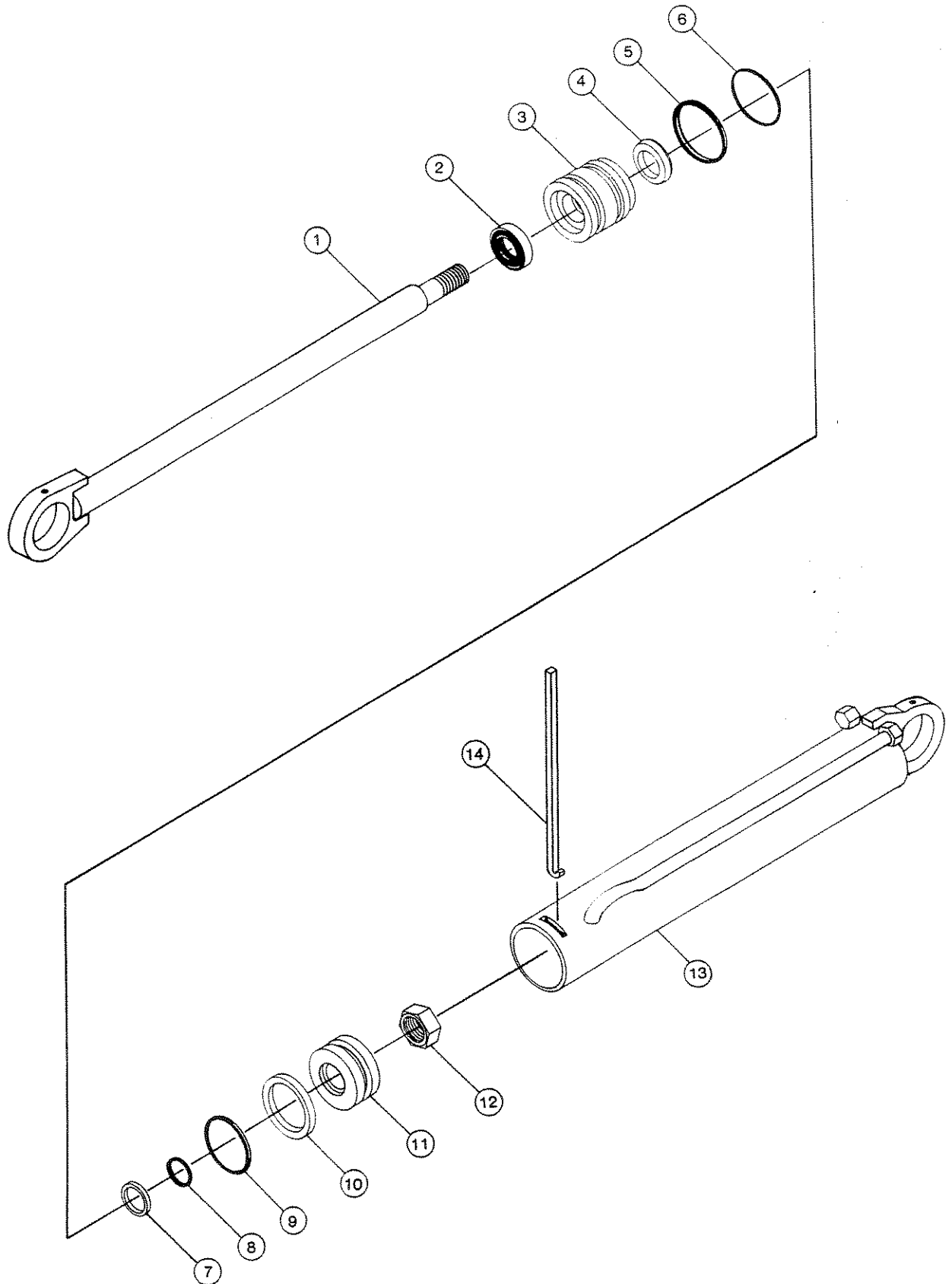
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	63107	Cylinder Rod
2	1	4914*	Rod Wiper
3	1	63108	Cylinder Gland
4	1	45225*	Cylinder Rod Seal
5	1	4631*	Back-Up Washer
6	1	4507*	O-Ring
7	1	4641*	O-Ring
8	1	4570*	O-Ring
9	1	4569*	Piston Ring
10	1	6731	Piston
11	1	1483	Hex Nut
12	1	63106	Cylinder Tube
13	1	7166*	Gland Retaining Rod/Ring

4726 1-28-91-2

NOTE: Seal kit #45539 includes all parts marked with an asterisk (*). Parts are not sold separately.

CYLINDER ASSEMBLY

ASSEMBLY #62887



4727 3-22-89

CYLINDER ASSEMBLY

ASSEMBLY #62887

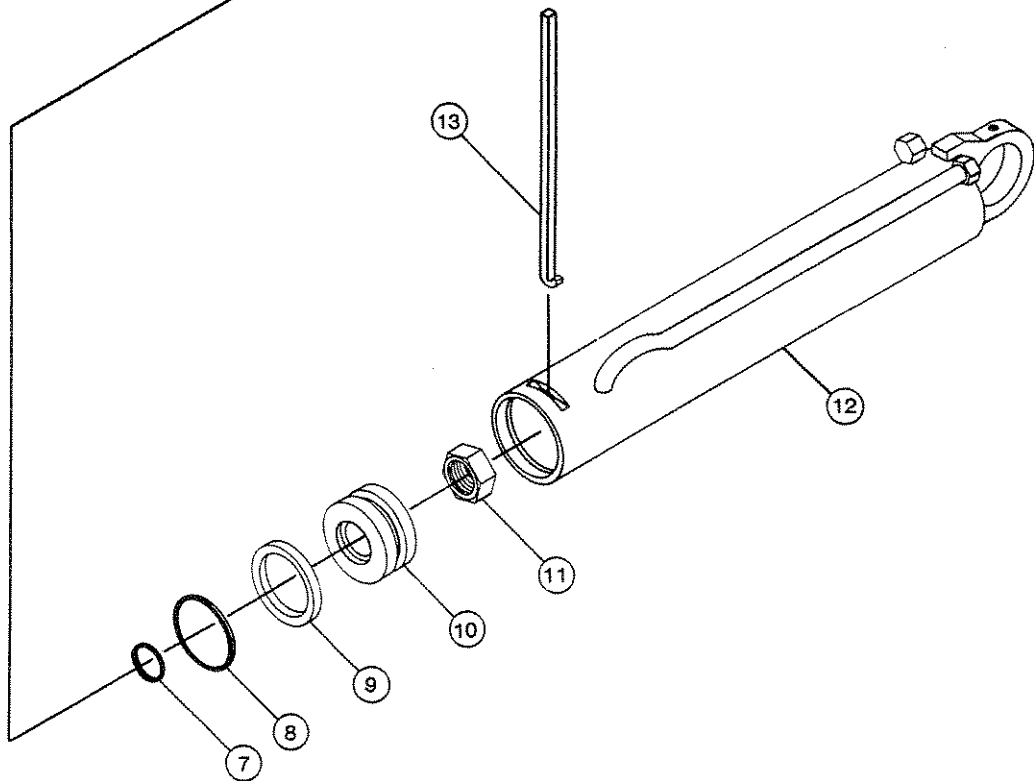
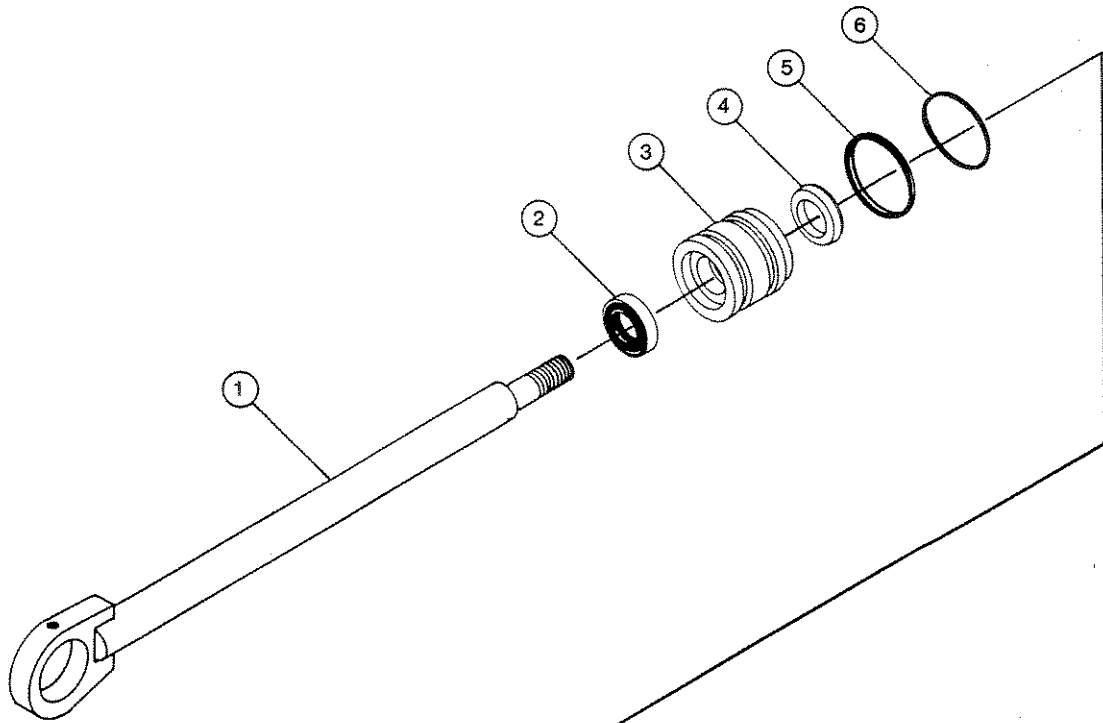
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	62546	Cylinder Rod
2	1	4974*	Rod Wiper
3	1	62770	Cylinder Gland
4	1	45219*	Cylinder Rod Seal
5	1	4510*	Back-Up Washer
6	1	4509*	O-Ring
7	1	5421	Washer
8	1	4641*	O-Ring
9	1	4645*	O-Ring
10	1	4644*	Piston Ring
11	1	50252	Piston
12	1	1483	Hex Nut
13	1	62888	Cylinder Tube
14	1	7165*	Gland Retainer Rod/Ring

4728 3-22-89

NOTE: Seal kit #45258 includes all parts marked with an asterisk (*). Parts are not sold separately.

CYLINDER ASSEMBLY

ASSEMBLY #64395



4751 3-28-89

CYLINDER ASSEMBLY

ASSEMBLY #64395

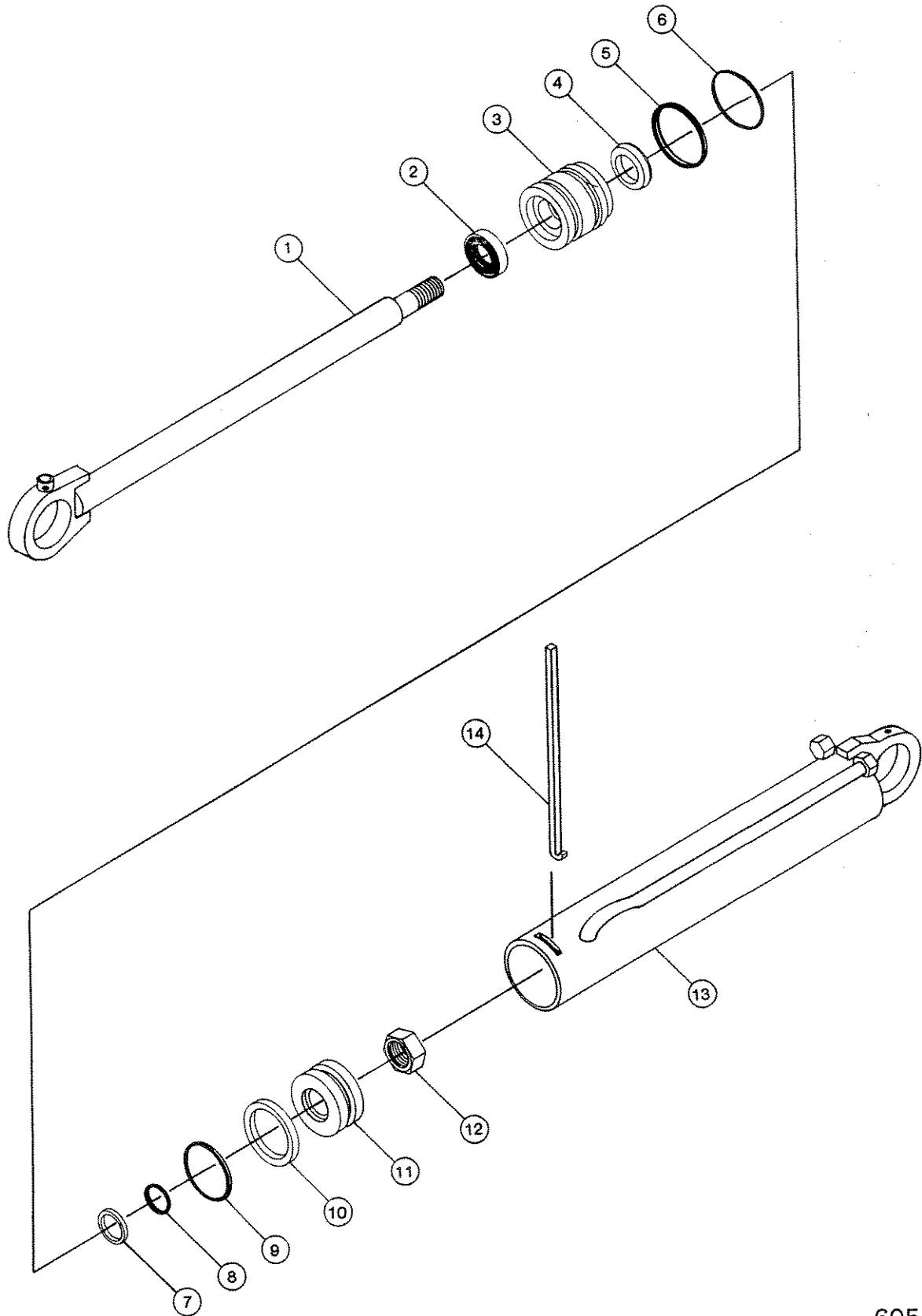
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	63107	Cylinder Rod
2	1	4914*	Rod Wiper
3	1	64396	Cylinder Gland
4	1	45225*	Cylinder Rod Seal
5	1	45243*	Back-Up Washer
6	1	45242*	O-Ring
7	1	4641*	O-Ring
8	1	45245*	O-Ring
9	1	45244*	Piston Ring
10	1	64397	Piston
11	1	1483	Hex Nut
12	1	64398	Cylinder Tube
13	1	64399*	Gland Retaining Rod/Ring

4752 3-28-89

NOTE: Seal Kit #45246 includes all parts marked with an asterisk (*). Parts are not sold separately.

CYLINDER ASSEMBLY

ASSEMBLY #78501



6059
1-26-93

CYLINDER ASSEMBLY

ASSEMBLY #78501

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	78502	Cylinder Rod
2	1	4974*	Rod Wiper
3	1	62770	Cylinder Gland
4	1	45219*	Cylinder Rod Seal
5	1	4510*	Back-Up Washer
6	1	4509*	O-Ring
7	1	5421	Washer
8	1	4641*	O-Ring
9	1	4645*	O-Ring
10	1	4644*	Piston Ring
11	1	50252	Piston
12	1	1483	Hex Nut
13	1	62545	Cylinder Tube
14	1	7165*	Gland Retainer Rod/Ring

NOTE: Seal Kit #45258 includes all parts marked with an asterisk (*).
Parts are not sold separately.

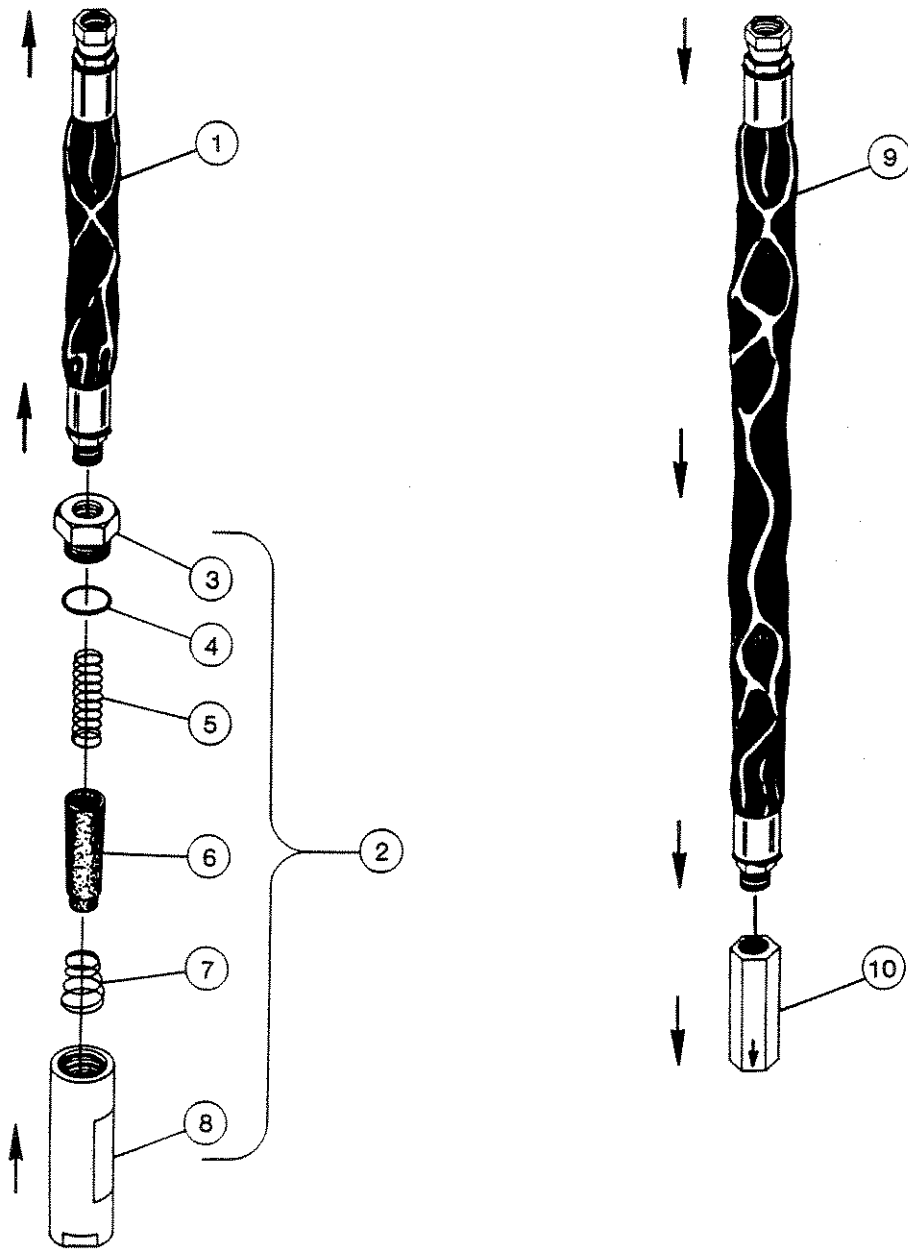
6060
1-26-93

SUB HYDRAULIC KIT

DUKES & GRESEN VALVE
ASSEMBLY #65009

TO "INLET" PORT OF VALVE

TO "OUTLET" PORT OF VALVE



4910 8-31-89

SUB HYDRAULIC KIT

DUKES & GRESEN VALVE

ASSEMBLY #65009

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	35761	Hose Assembly .38" X 8" (SAE 100R2-2Wire) 8FJX-8MP-HS
2	1	45132	Inline Filter (Includes Items 3 Through 8)
3	1	---	End Plug
4	1	45405	O-Ring Seal
5	1	45135	Support Spring
6	1	45133	Filter Element (25 Micron)
7	1	45094	Spring
8	1	---	Filter Housing
9	1	37130	Hose Assembly .38" X 24" (SAE 100R2-2Wire) 8FJX-8MP-HS
10	1	45137	Check Valve

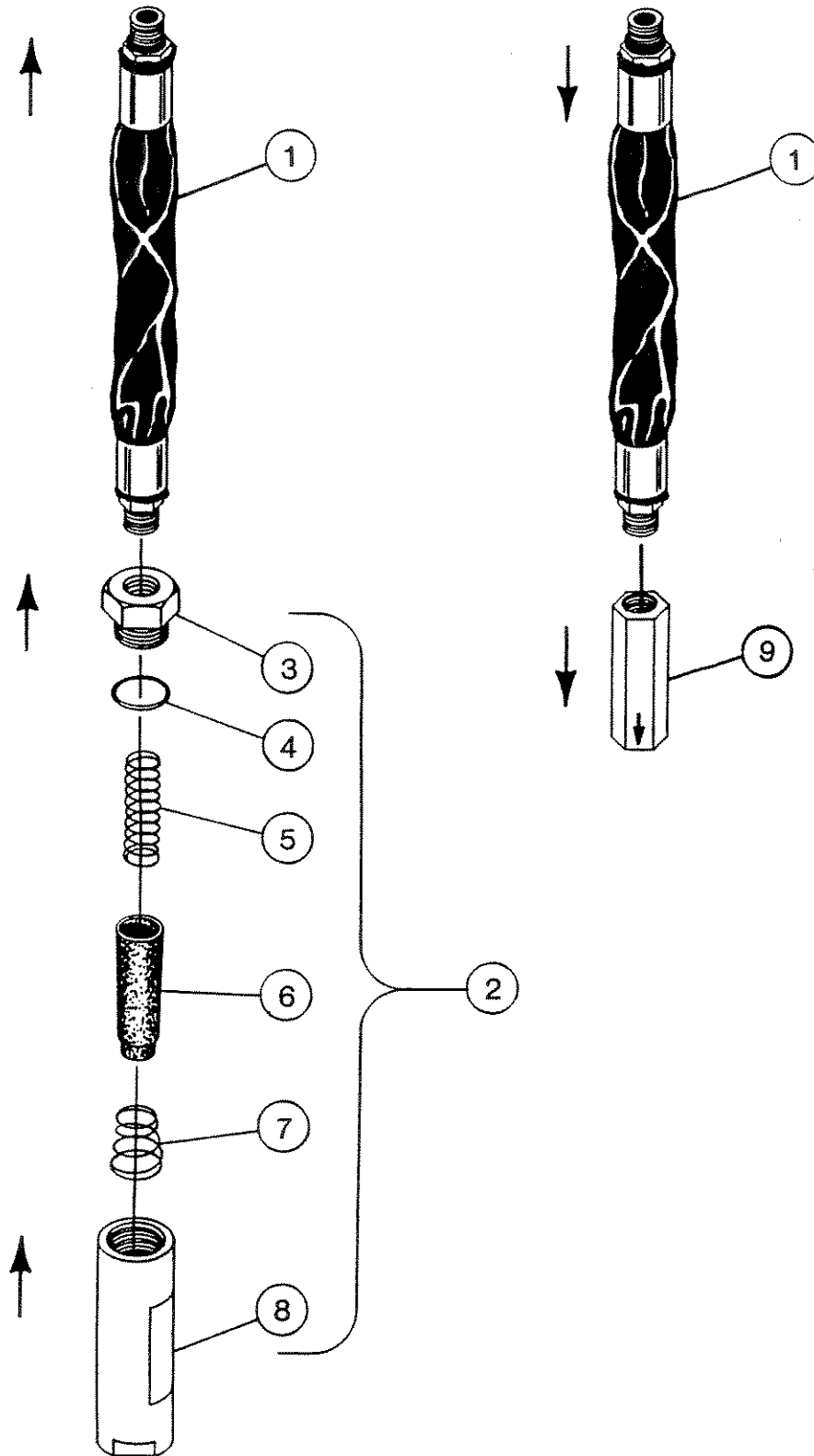
4911 8-31-90-2

IMPORTANT: The arrows used on this diagram show the direction of hydraulic flow through the hydraulic kit. This flow pattern must be maintained for proper operation of the backhoe. Improper hose routing could result in possible damage to the backhoe or vehicle.

NOTE: Items without part numbers are not sold separately. These parts are only available in the complete inline filter assembly #45132.

SUB HYDRAULIC KIT

HIDROVER VALVE
ASSEMBLY #66186



4929 9-11-89

SUB HYDRAULIC KIT

HIDROVER VALVE
ASSEMBLY #66186

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	35854	Hose Assembly .50" X 16" (SAE 100R2-2Wire) 10MB-8MP-HS
2	1	45132	Inline Filter (Includes Items 3 Through 8)
3	1	---	End Plug
4	1	45405	O-Ring Seal
5	1	45135	Support Spring
6	1	45133	Filter Element (25 Micron)
7	1	45094	Spring
8	1	---	Filter Housing
9	1	45137	Check Valve

4930 9-11-89

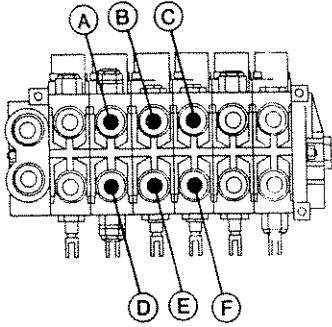
IMPORTANT: The arrows used on this diagram show the direction of hydraulic flow through the hydraulic kit.. This flow pattern must be maintained for proper operation of the backhoe. Improper hose routing could result in possible damage to the backhoe or vehicle.

NOTE: Items without part numbers are not sold separately. These parts are only available in the complete inline filter assembly #45132.

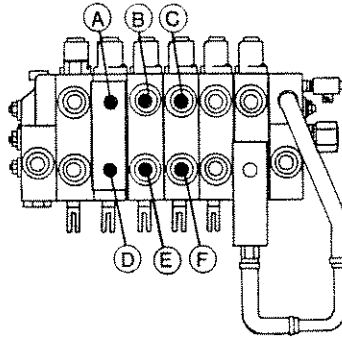
HOSE SET

ASSEMBLY # 63924

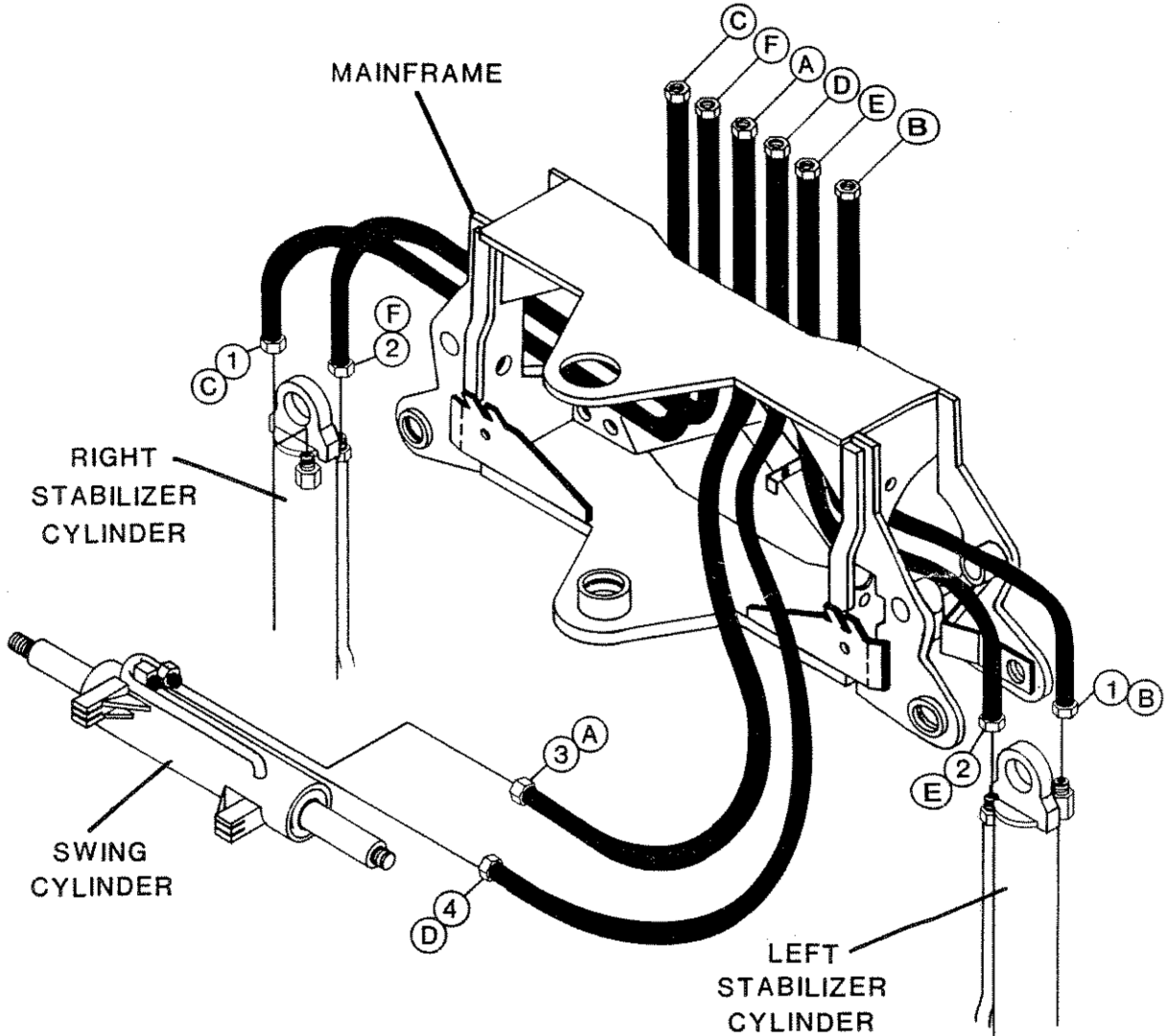
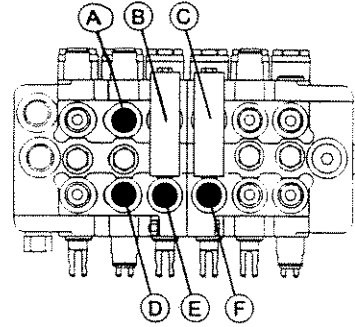
GRESEN VALVE



HIDROVER VALVE



DUKES VALVE



4729 2-16-93-4

HOSE SET

ASSEMBLY #63924

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	35698	Hose, .25" X 35" (SAE 100R2-2Wire) 6FJX-6FJX
2	2	35697	Hose, .25" X 33" (SAE 100R2-2Wire) 6FJX-6FJX
3	1	35725	Hose, .25" X 30" (SAE 100R2-2Wire) 6FJX-6FJX
4	1	35696	Hose, .25" X 28" (SAE 100R2-2Wire) 6FJX-6FJX

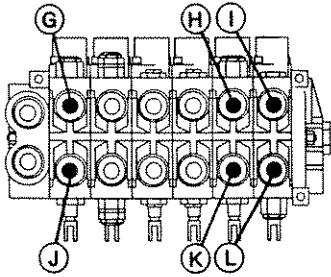
4730 3-7-90-2

NOTE: Letters on the hose set diagram show the hydraulic hose routing between the backhoe control valve and the various hydraulic cylinders. Simply match the letter on the control valve port to the same letter on the hydraulic hose ends. Example: Hose assembly labeled "D" runs from the lower swing port "D" on the hydraulic valve, through the mainframe, and to the right side fitting of the swing cylinder.

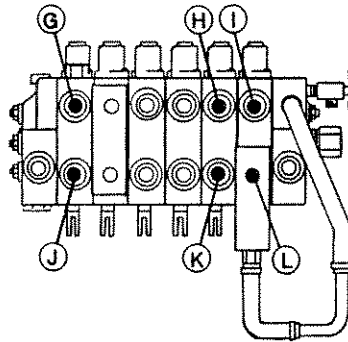
HOSE SET

6LD BOOM & DIPPER HOSES
ASSEMBLY #63921

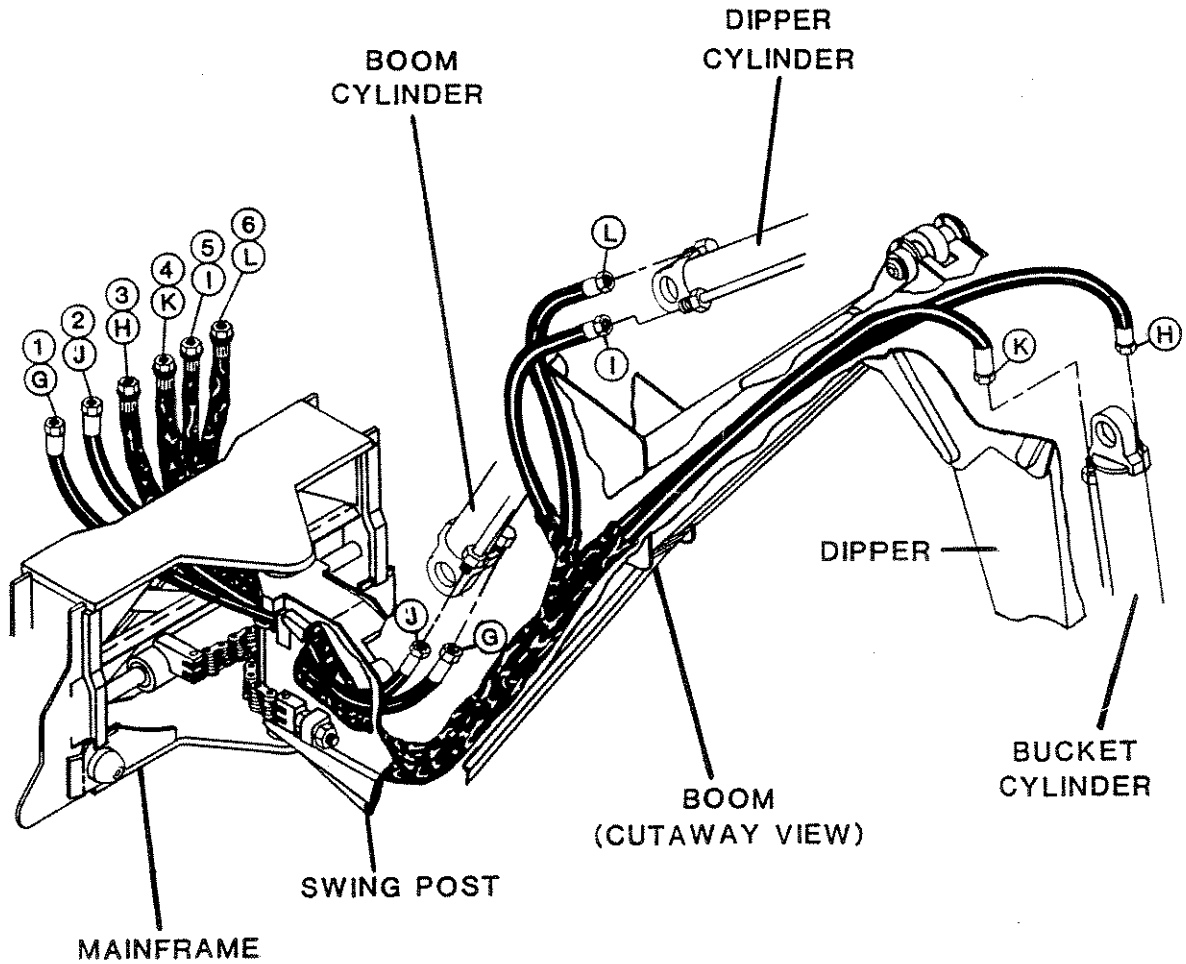
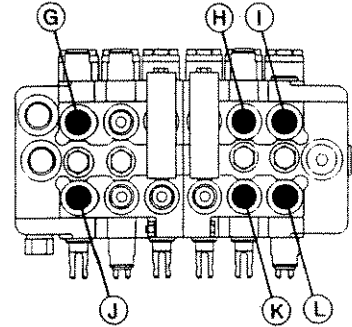
GRESEN VALVE



HIDROVER VALVE



DUKES VALVE



4731
3-12-93-4

HOSE SET

6LD BOOM & DIPPER HOSES

ASSEMBLY #63921

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	35695	Hose, .25" X 36" (SAE 100R2-2Wire) 6FJX-6FJX
2	1	35694	Hose, .25" X 34" (SAE 100R2-2Wire) 6FJX-6FJX
3	1	35693	Hose, .25" X 105" (SAE 100R2-2Wire) 6FJX-6FJX
4	1	35692	Hose, .25" X 103" (SAE 100R2-2Wire) 6FJX-6FJX
5	1	35424	Hose, .25" X 76" (SAE 100R2-2Wire) 6FJX-6FJX
6	1	35594	Hose, .25" X 74" (SAE 100R2-2Wire) 6FJX-6FJX

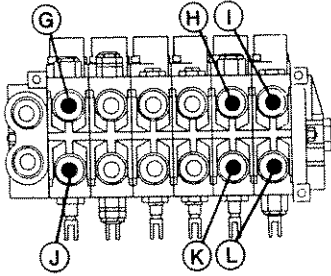
4732 3-22-89

NOTE: Letters on the hose set diagram show the hydraulic hose routing between the backhoe control valve and the various hydraulic cylinders. Simply match the letter on the control valve port to the same letter on the hydraulic hose ends. Example: Hose assembly labeled "G" runs from the upper boom port "G" on the hydraulic valve, through the main-frame and swing post, and to the hydraulic tube fitting of the boom cylinder.

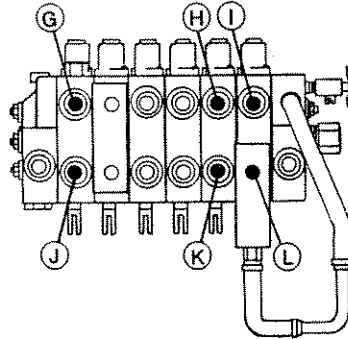
HOSE SET

ASSEMBLY # 63922

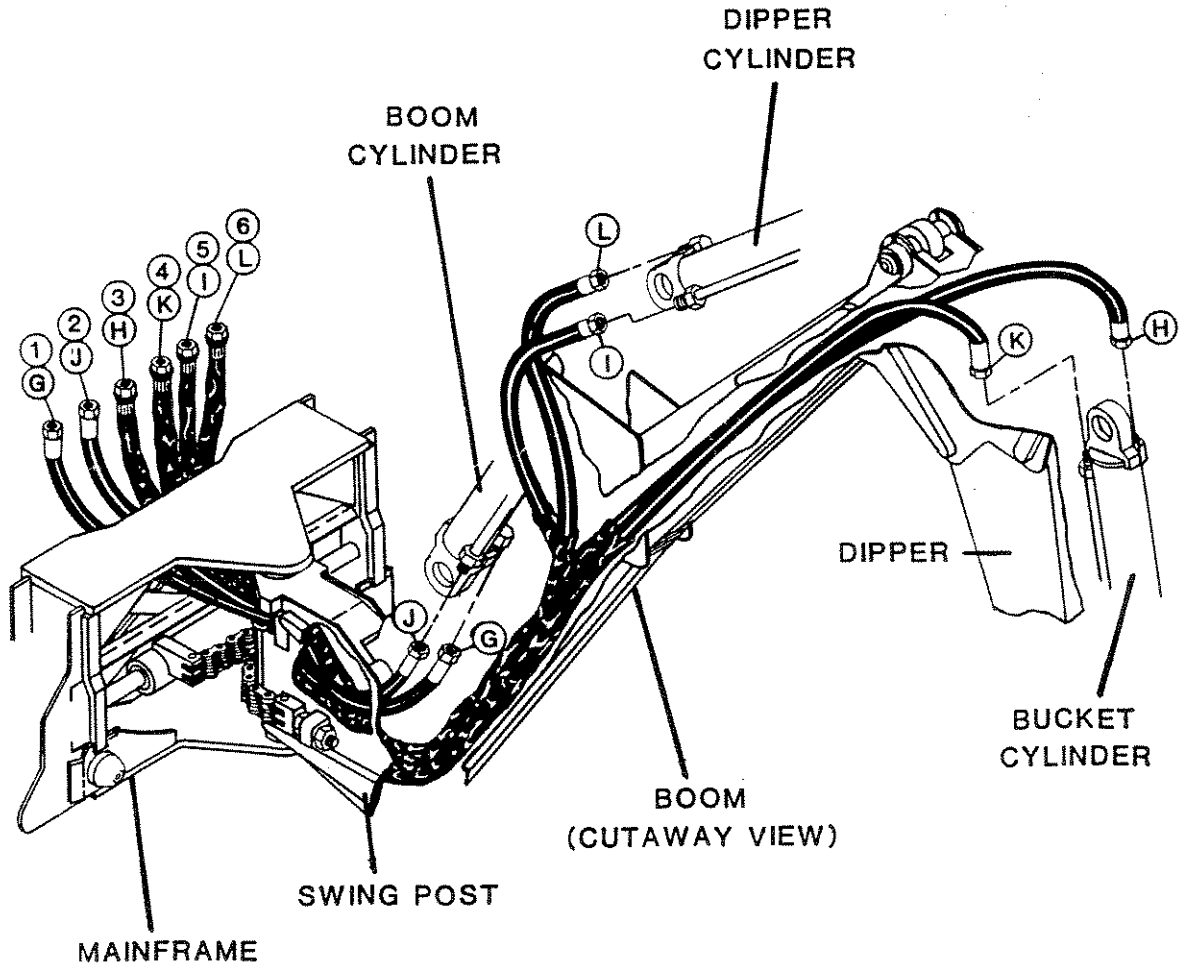
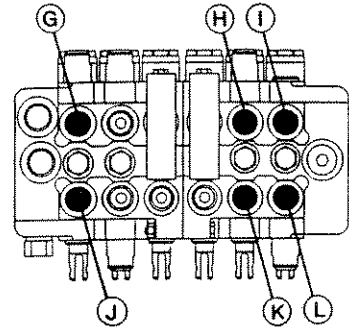
GRESEN VALVE



HIDROVER VALVE



DUKES VALVE



4733 3-12-93-5

HOSE SET

ASSEMBLY #63922

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	35695	Hose, .25" X 36" (SAE 100R2-2Wire) 6FJX-6FJX
2	1	35694	Hose, .25" X 34" (SAE 100R2-2Wire) 6FJX-6FJX
3	1	35704	Hose, .25" X 129" (SAE 100R2-2Wire) 6FJX-6FJX
4	1	35703	Hose, .25" X 127" (SAE 100R2-2Wire) 6FJX-6FJX
5	1	35706	Hose, .25" X 87" (SAE 100R2-2Wire) 6FJX-6FJX
6	1	35705	Hose, .25" X 85" (SAE 100R2-2Wire) 6FJX-6FJX

4734

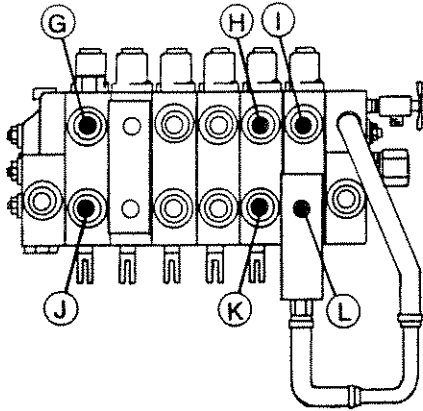
3-7-90-2

NOTE: Letters on the hose set diagram show the hydraulic hose routing between the backhoe control valve and the various hydraulic cylinders. Simply match the letter on the control valve port to the same letter on the hydraulic hose ends. Example: Hose assembly labeled "G" runs from the upper boom port "G" on the hydraulic valve, through the main-frame and swing post, and to the hydraulic tube fitting of the boom cylinder.

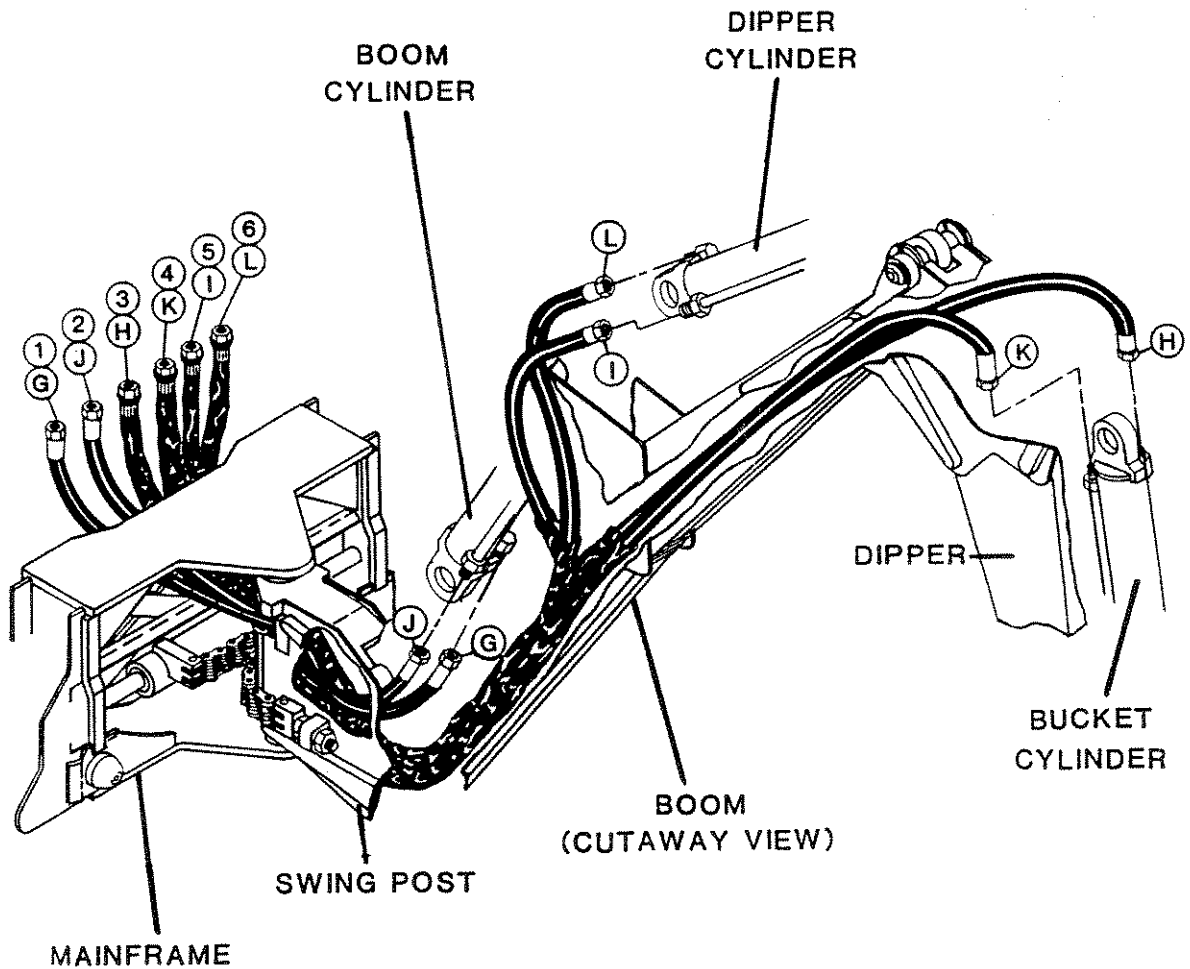
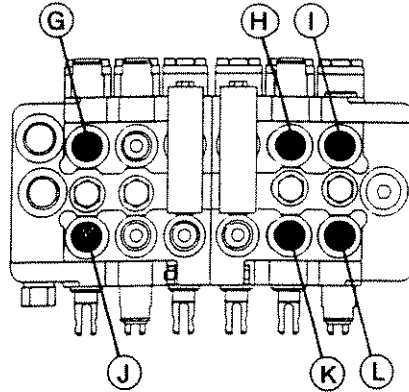
HOSE SET

10LD BOOM & DIPPER HOSES
ASSEMBLY #63923

HIDROVER VALVE



DUKES VALVE



4735 3-12-93-3

HOSE SET

10LD BOOM & DIPPER HOSES

ASSEMBLY #63923

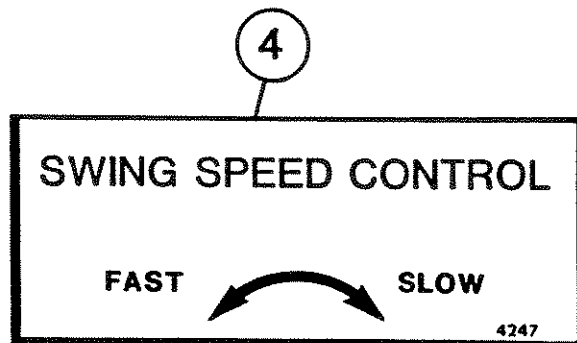
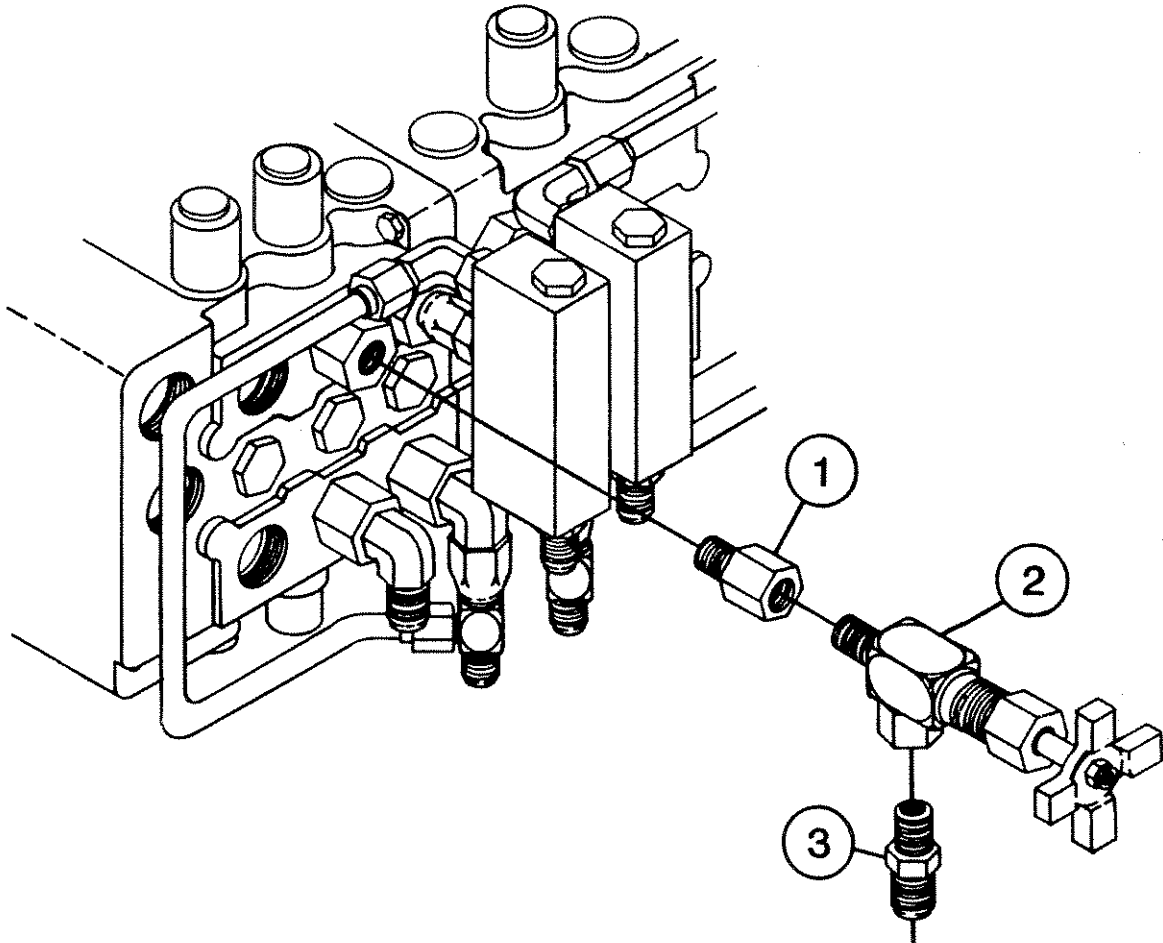
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	35695	Hose, .25" X 36" (SAE 100R2-2Wire) 6FJX-6FJX
2	1	35694	Hose, .25" X 34" (SAE 100R2-2Wire) 6FJX-6FJX
3	1	35702	Hose, .25" X 164" (SAE 100R2-2Wire) 6FJX-6FJX
4	1	35701	Hose, .25" X 166" (SAE 100R2-2Wire) 6FJX-6FJX
5	1	35700	Hose, .25" X 108" (SAE 100R2-2Wire) 6FJX-6FJX
6	1	35699	Hose, .25" X 106" (SAE 100R2-2Wire) 6FJX-6FJX

4736 3-22-89

NOTE: Letters on the hose set diagram show the hydraulic hose routing between the backhoe control valve and the various hydraulic cylinders. Simply match the letter on the control valve port to the same letter on the hydraulic hose ends. Example: Hose assembly labeled "G" runs from the upper boom port "G" on the hydraulic valve, through the main-frame and swing post, and to the hydraulic tube fitting of the boom cylinder.

SWING SPEED CONTROL

DUKES & GRESEN VALVE
ASSEMBLY #69785



4906 3-7-90-2

SWING SPEED CONTROL

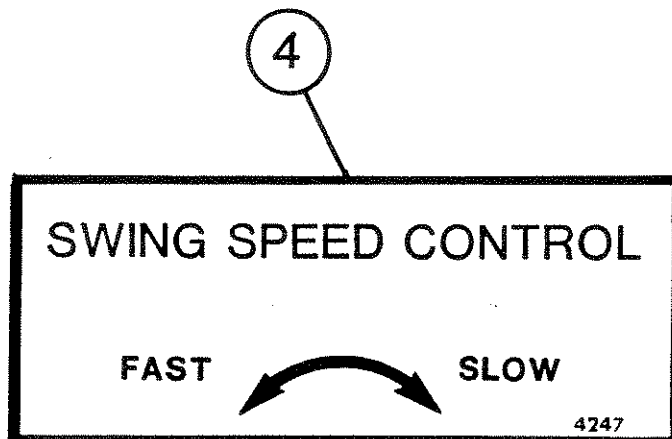
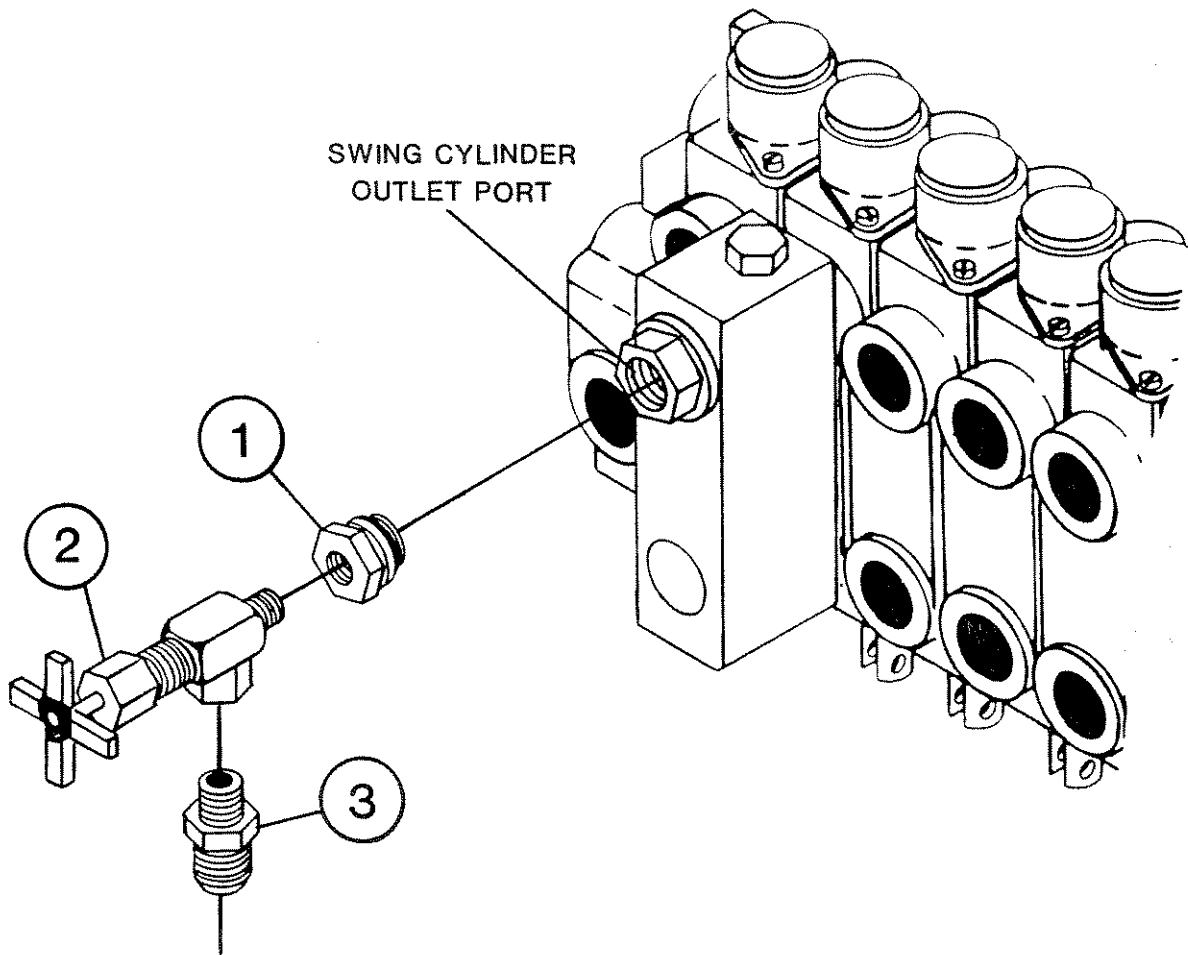
DUKES & GRESEN VALVE
ASSEMBLY #69785

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	3356	Pipe Extender 4MP-4FP
2	1	3185	Swing Speed Control Valve
3	1	3137	Male Adapter 4MP-6MJIC
4	1	4247	Decal

4907 3-7-90-2

SWING SPEED CONTROL

HIDROVER VALVE-LD BACKHOE
ASSEMBLY #66314



4737 3-22-89

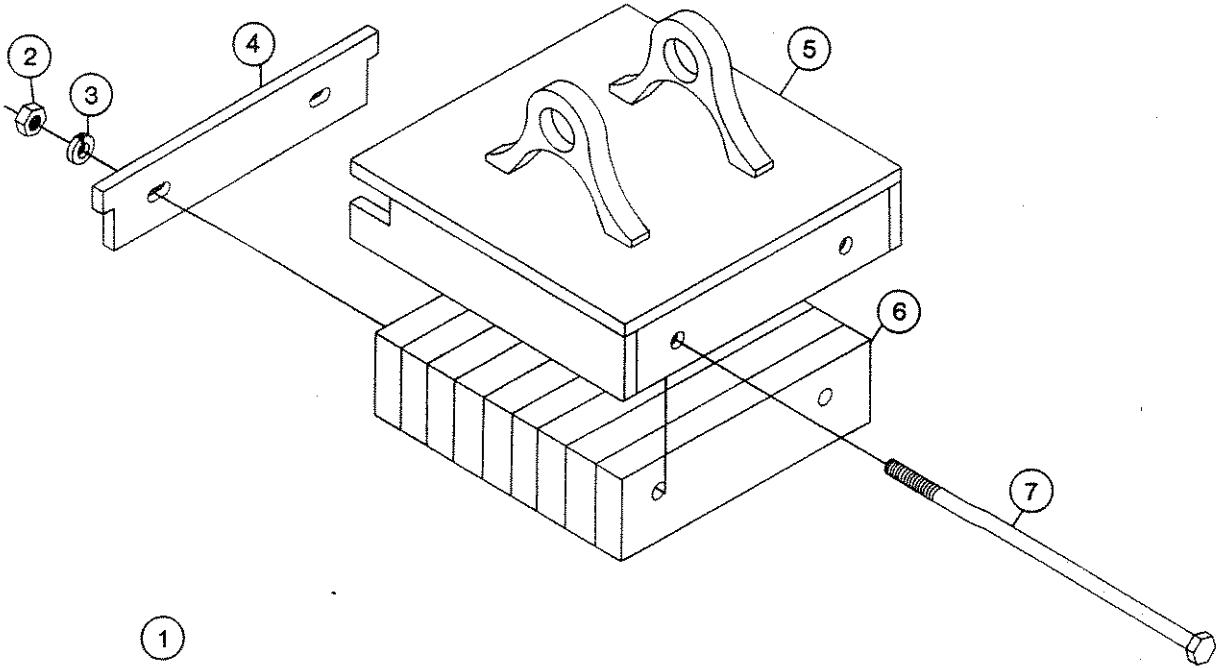
SWING SPEED CONTROL

HIDROVER VALVE-LD BACKHOE
ASSEMBLY #66314

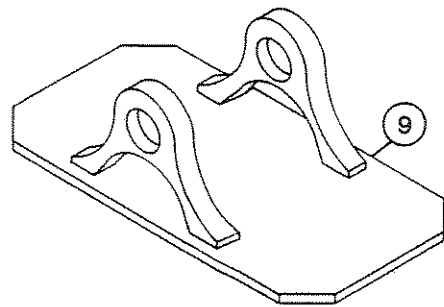
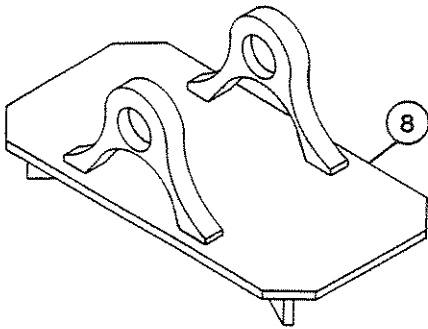
<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	3461	SAE O-Ring Boss Adaptor 6MBo-4FP
2	1	3185	Swing Speed Control Valve
3	1	3137	Male Adaptor
4	1	4247	Decal

4738 3-22-89

STABILIZER PAD OPTIONS



4739 3-7-90-2



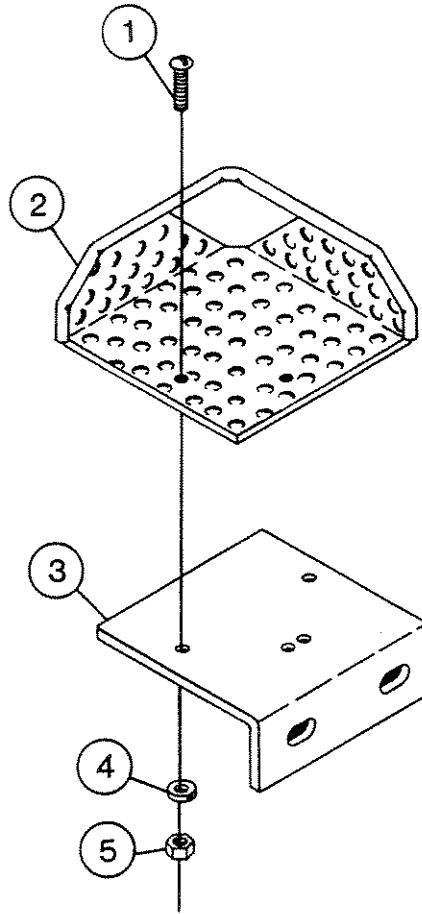
STABILIZER PAD OPTIONS

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	64386	Rubber Stabilizer Pad (Includes Parts 2 through 7)
2	2	1226	.38" UNC Hex Nut
3	2	1503	.38" Lock Washer
4	1	51190	Slide Plate
5	1	66261	Stabilizer Pad
6	1	64412	Rubber Strip Bundle
7	2	1661	.38" UNC X 10.50" Capscrew
8	2	62624	Standard Stabilizer Pad
9	2	64384	Flat Stabilizer Pad

4740 3-7-90-2

STEP ASSEMBLY

RAISED STEP



4766 3-29-89

STEP ASSEMBLY

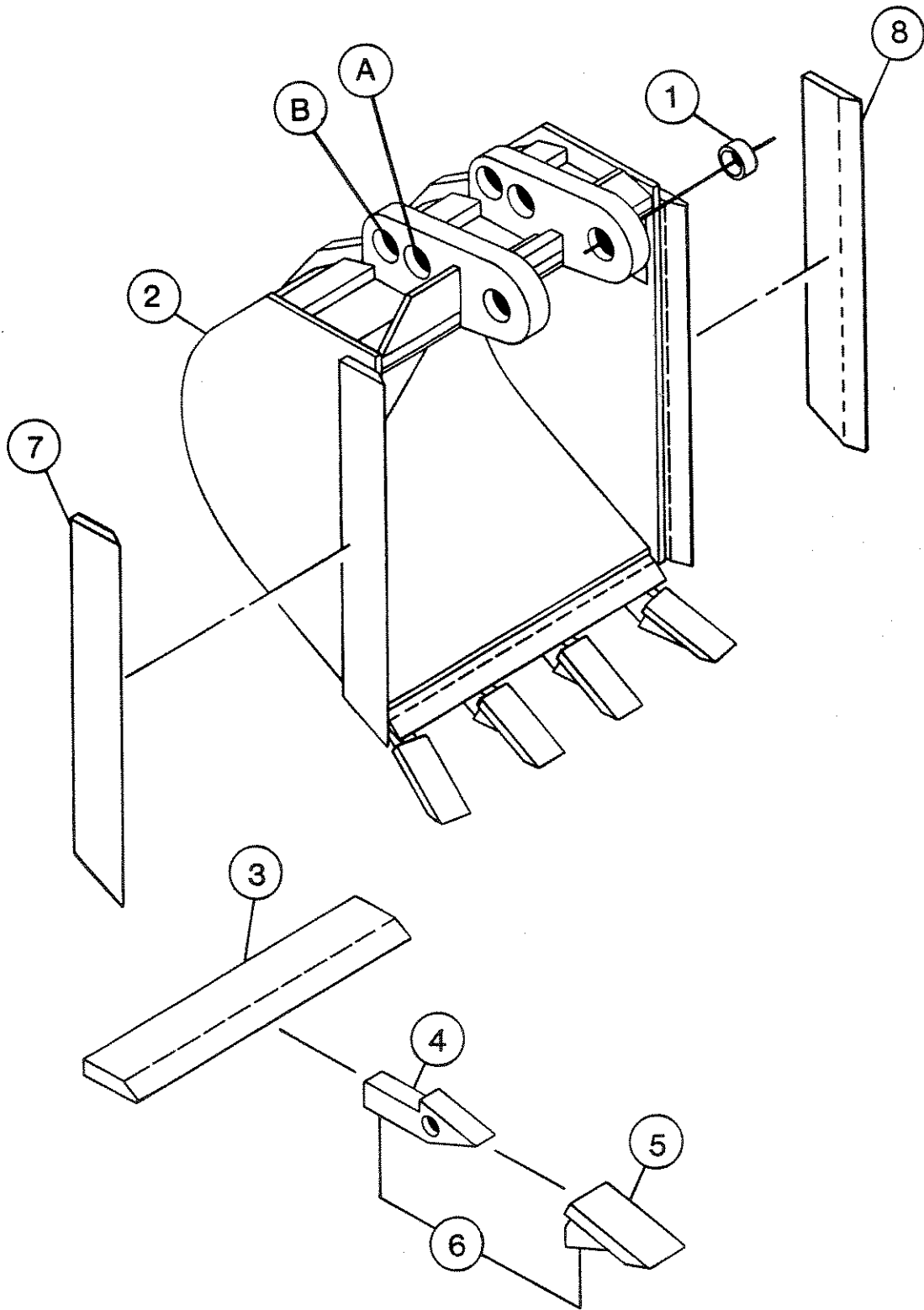
RAISED STEP

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4	1760	.25" X 1.25" UNC Roundhead Slotted Machine Screw
2	2	65482	Step
3	2	63850	Step Plate
4	4	1501	.25" Lock Washer
5	4	1224	.25" UNC Hex Nut

4767 3-29-89

BUCKET ASSEMBLIES

POWER DIG BUCKETS



4981 10-22-90-3

BUCKET ASSEMBLIES

POWER DIG BUCKETS

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	6	56814	Replacement Bushing
2	1	68010	10" Bucket (Includes Bushings)
		68012	12" Bucket (Includes Bushings)
		68016	16" Bucket (Includes Bushings)
		68018	18" Bucket (Includes Bushings)
		68020	20" Bucket (Includes Bushings)
		68024	24" Bucket (Includes Bushings)
3	1	63016	10" Replacement Cutting Edge
		51178	12" Replacement Cutting Edge
		51708	16" Replacement Cutting Edge
		51033	18" Replacement Cutting Edge
		64324	20" Replacement Cutting Edge
		66189	24" Replacement Cutting Edge
4	VARIABLES	6398	Replacement Tooth Shank
5	VARIABLES	6397	Replacement Tooth Point
6	VARIABLES	8274	Replacement Tooth & Shank Assy
7	1	62643	Left Replacement Cutting Edge
8	1	62642	Right Replacement Cutting Edge

4982 10-18-90-3

NOTE:

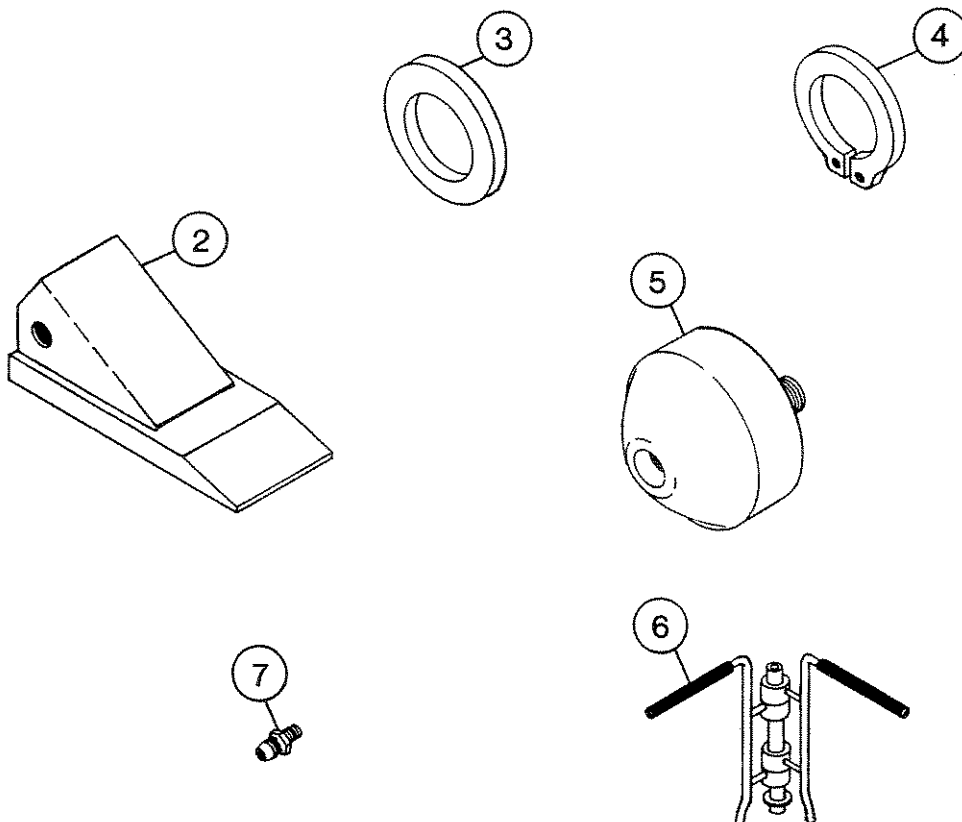
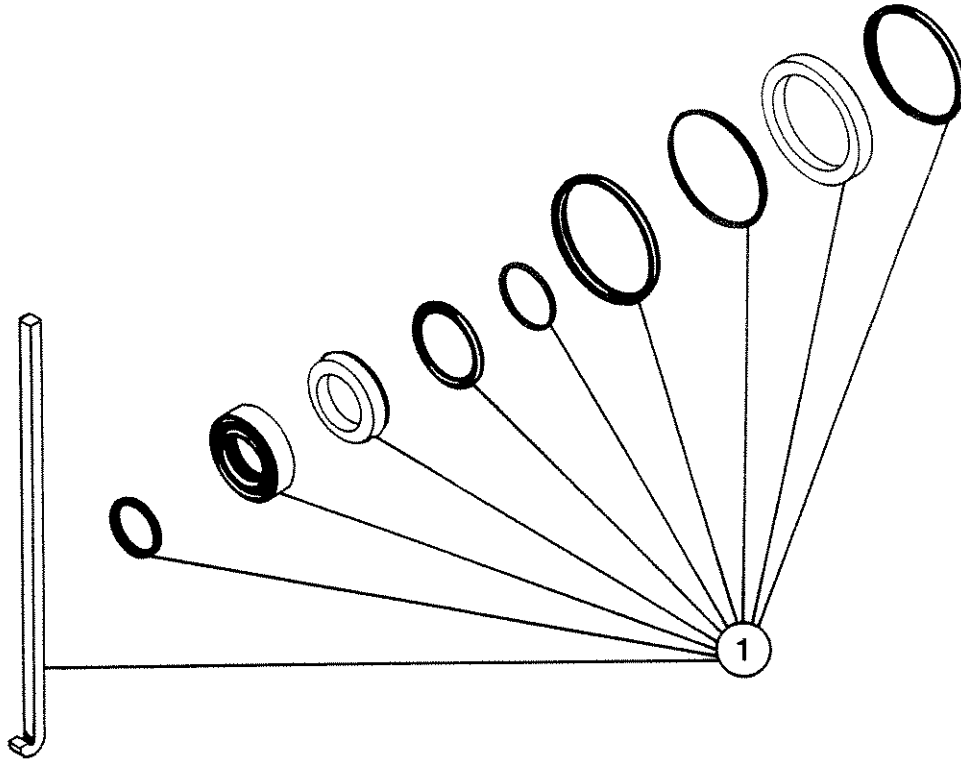
Power dig buckets have two different bucket link positions for different digging needs.

Position "A" standard digging position with a good balance of digging force and bucket rotation for general digging use.

Position "B" power digging position for added digging force in hard ground.

FIRST LINE REPAIR KIT

6LD BACKHOES
ASSEMBLY #64741



4807 5-17-89

FIRST LINE REPAIR KIT

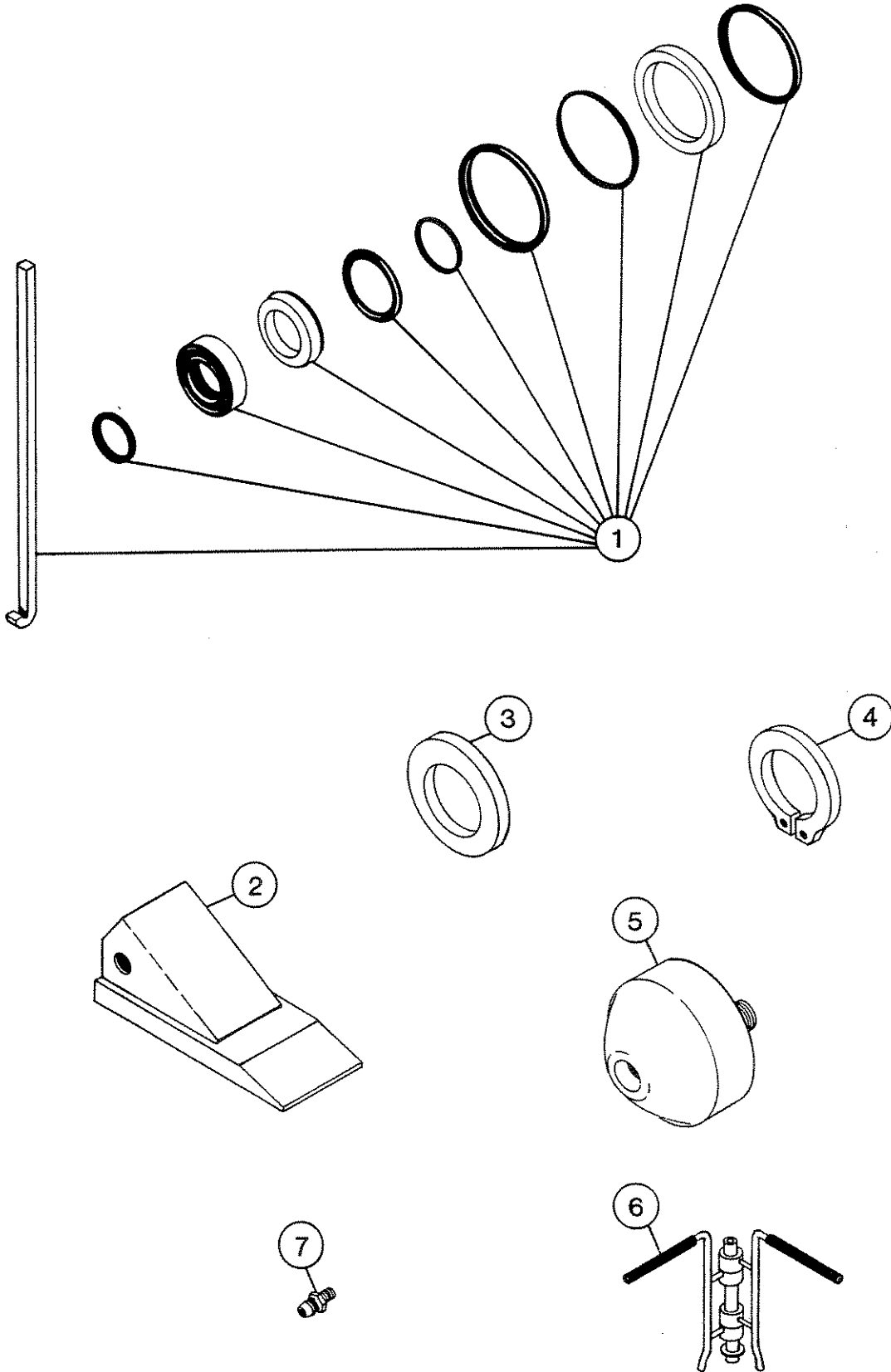
6LD BACKHOES
ASSEMBLY #64741

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	45263	Swing Cylinder Seal Kit
	2	45258	Cylinder Seal Kit (One Seal Kit Contains All Necessary Seals To Repair One Boom, Dipper, Bucket, Or Stabilizer Cylinder)
2	4	6397	Bucket Tooth
3	4	57693	Thrust Washer 1.25" X .078"
4	4	1652	Snap Ring 1.25" I.D.
5	1	6886	Rubber Bumper
6	1	65349	Cylinder Seal Install-Tool
7	4	6616	Grease Zerk

4808 5-17-89

FIRST LINE REPAIR KIT

ASSEMBLY #64740



4809 3-7-90-2

FIRST LINE REPAIR KIT

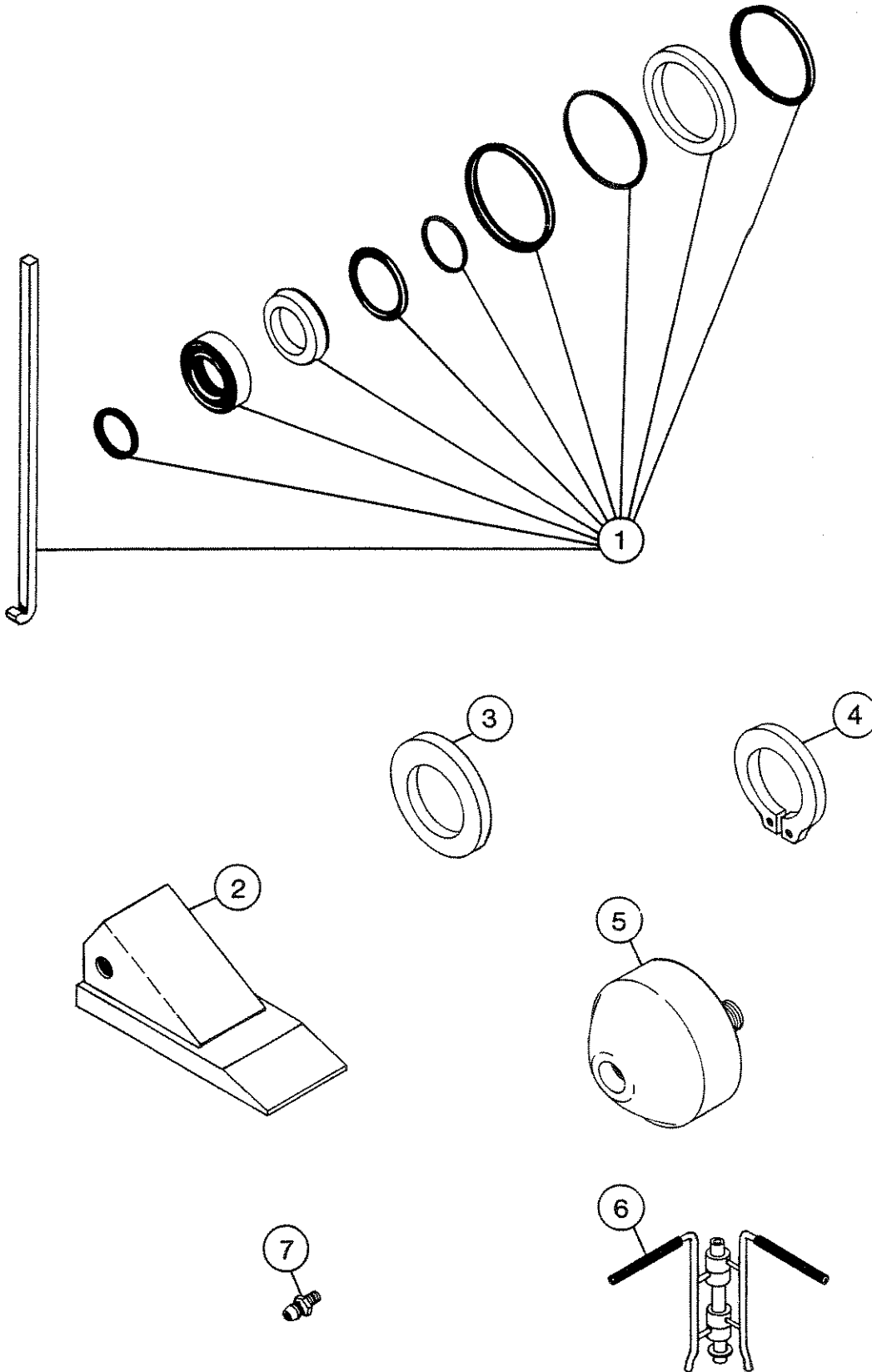
ASSEMBLY #64740

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	45263	Swing Cylinder Seal Kit
	1	45539	Boom Cylinder Seal Kit
	2	45258	Cylinder Seal Kit (One Seal Kit Contains All Necessary Seals To Repair One Dipper, Bucket, Or Stabilizer Cylinder)
2	4	6397	Bucket Tooth
3	4	57693	Thrust Washer 1.25" X .078"
4	4	1652	Snap Ring 1.25" I.D.
5	1	6886	Rubber Bumper
6	1	65349	Cylinder Seal Install-Tool
7	4	6616	Grease Zerk

4810 3-7-90-2

FIRST LINE REPAIR KIT

10LD BACKHOES
ASSEMBLY #65103



4811 5-17-89

FIRST LINE REPAIR KIT

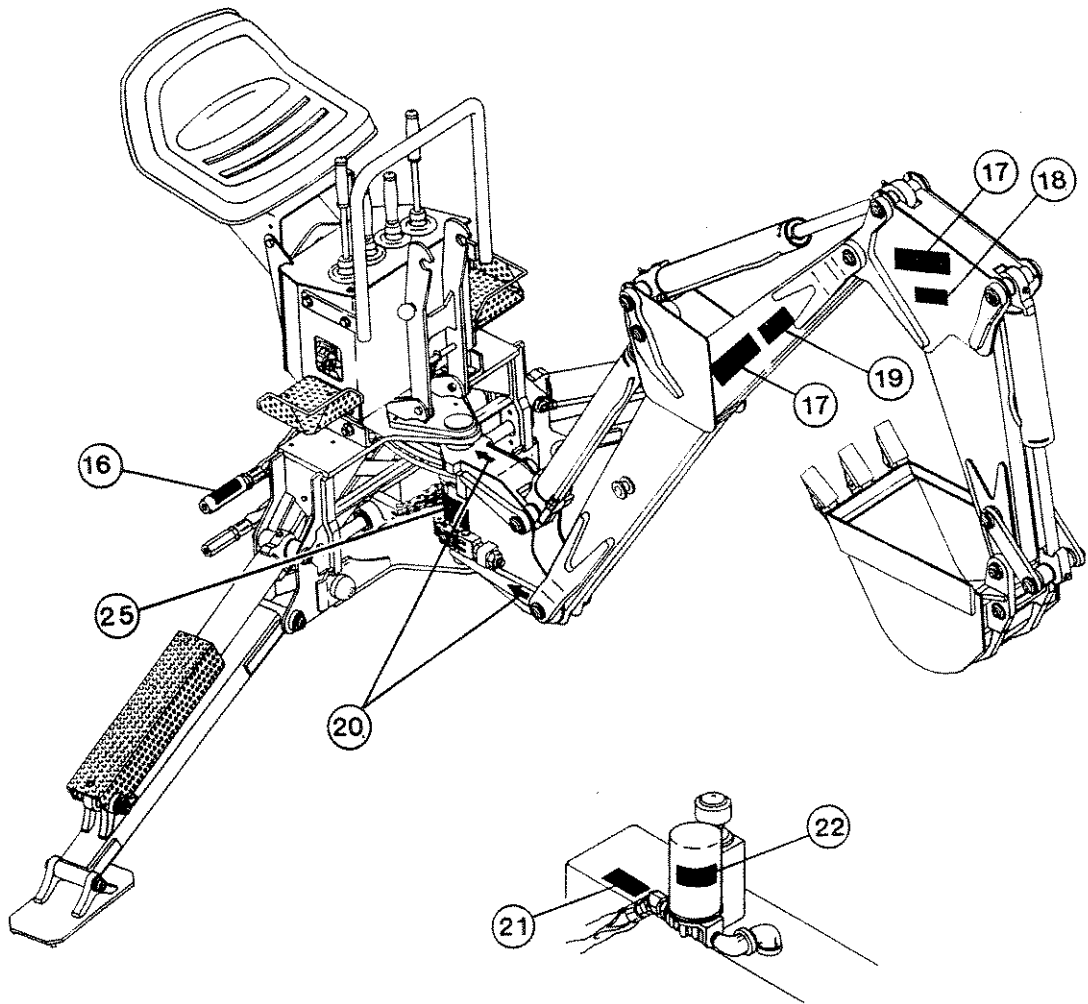
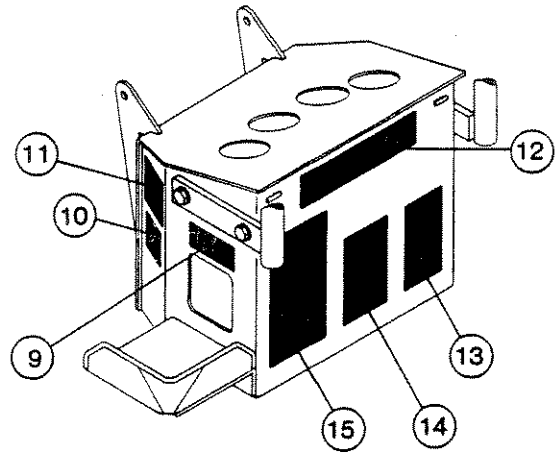
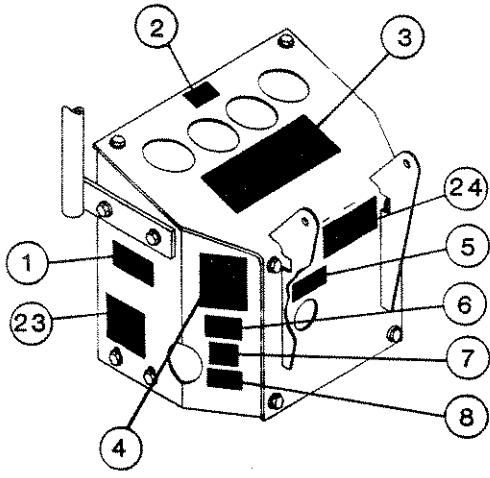
10LD BACKHOES
ASSEMBLY #65103

<u>NO.</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	45263	Swing Cylinder Seal Kit
	1	45246	Boom Cylinder Seal Kit
	1	45539	Dipper Cylinder Seal Kit
	2	45258	Cylinder Seal Kit (One Seal Kit Contains All Necessary Seals To Repair One Bucket, Or Stabilizer Cylinder)
2	4	6397	Bucket Tooth
3	4	57693	Thrust Washer 1.25" X .078"
4	4	1652	Snap Ring 1.25" I.D.
5	1	6886	Rubber Bumper
6	1	65349	Cylinder Seal Install-Tool
7	4	6616	Grease Zerk

4812 5-17-89

DECALS

LD SERIES BACKHOES



4776 11-11-92-2

DECALS

LD SERIES BACKHOES

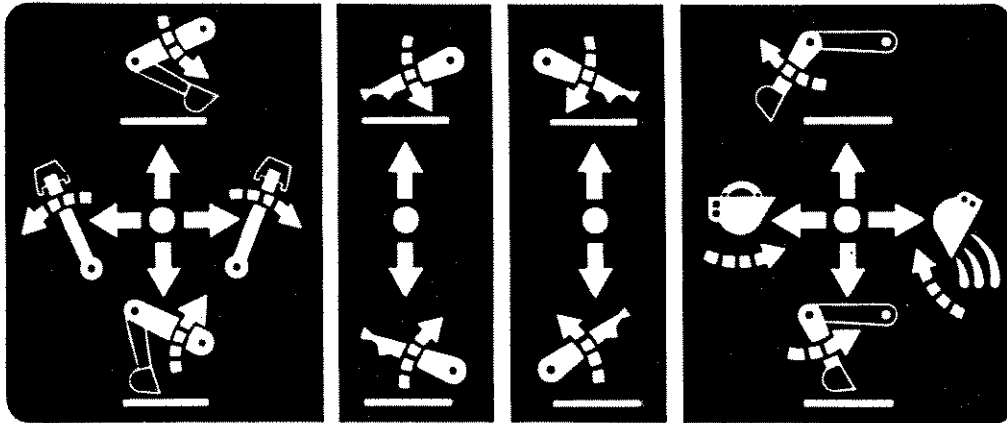
<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	4350	ATI Serial No. Tag
2	1	4338	Made In USA Decal
3	1	4368	Operating Controls Decal
4	1	4493	Manlift Warning Decal
5	Optional	4247	Swing Speed Control Decal
6	1	4496	Swing Post Caution Decal
7	1	4075	Tow Chain Caution Decal
8	1	4150	Preparation For Storage Decal
9	Optional	4170	Petcock Operation Decal
10	Optional	4270	Backhoe Owner's Notice Decal
11	Optional	4159	Hydraulic Fuse Decal
12	1	4497	Bodily Injury Warning Decal
13	1	4494	Operator's Warning Decal
14	1	4136	Swing Chain Adjustment Decal
15	1	4291	Quick-Coupler Decal
16	1	4271	Inline Filter Service Decal
17	2	40083	Bradco Logo Decal - Black
		40092	Bradco Logo Decal - White
18	2	4323	6LD - Black Model No. Decal
		4228	6LD - White Model No. Decal
19	2	4324	8LD - Black Model No. Decal
		4315	8LD - White Model No. Decal
	2	4325	10LD - Black Model No. Decal
		4229	10LD - White Model No. Decal
20	2	4084	Grease 8 Hours Decal
21	Optional	4137	Change Oil Filter Decal
22	Optional	4238	Original Filter Decal
23	1	40151	High-Pressure Fluid Hazard Warning Decal
24	1	40150	Read Operator's Manual Warning Decal
25	2	40149	Pinch Points Danger Decal

4777

11-11-92-3

DECALS.

LD SERIES BACKHOES



Part #4368
Operating Controls

4778 4-5-89

HYDRAULIC QUICK COUPLER HOOK-UP
RECOMMENDED PRACTICE AND DEFINITIONS.

- Always install quick couplers so the oil flows out of the male tip and into the female coupler.

FEMALE SHOWN CLEAR **FLOW DIRECTION**
MALE SHOWN SHADED

- Quick couplers must be fully engaged to provide full freeflow. There are several reasons that may cause the coupler not to fully engage.
 - A Dirt may block the male tip from engaging.
 - B The coupler or male tip may be damaged or worn.
 - C The coupler halves may not be matched to fully open the valve when the coupler is engaged. (The dimension from the face of a male tip to the locking groove must match the corresponding coupler.)
 - D Some couplers with poppet style valve may not connect with ball type.
- Coupler lock-up- Some quick couplers which may not have a "positive valve stop" or "Valve shield" feature may have a problem called "Lock Up" or "Flow Checking." This occurs when a valve closes during flow conditions, usually in return lines subjected to high surge flows, such as when quickly lowering a backhoe boom.

Surge flows -- A dramatic, almost instantaneous increase in fluid flow.

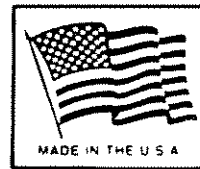
NOTE: All couplers or halves supplied with our units have positive valve stop feature. Both coupler and male tip must have the feature or lock up may occur.

SUGGESTED PRACTICE

 - If possible, always use quick couplers, pairs or identical make (brand) and model or style numbers when coupling hoses.
 - Be sure the brand or model used does not include the design feature to prevent "flow checking", or "lock up" during surge flow conditions.
 - Always be scrupulously clean when coupling quick couplers.
 - After coupling, perform first backhoe operations at engine idle to ascertain proper flow exists. **NOTE:** Many of our models of backhoes include a relief valve, vented to atmosphere (small tube down the back) which will vent excessive return flow oil pressure to the air. If you see oil squirting out of the vent, check for a restricted return flow coupling.

What if: 4291
In the event the coupler is blocked, even for just a instant, causing excessive back pressure build up in the valve assembly, you may experience valve failure. This will usually show up as stretched tie bolts, leaking spool seals or a ruptured casting.

Part #4291
Quick-Coupler



Part #4338
Made In U.S.A.

! WARNING

NEVER USE A BACKHOE AS A MANLIFT

Bradco backhoe geometry and valving are not suitable for manlifting purposes. Do not under any circumstances use your backhoe for manlifting purposes. Serious injury or death may result.

#4493

Part #4493
Manlift Warning

DECALS

LD SERIES BACKHOES

4779 9-11-90-2

! WARNING

To avoid bodily injury:
Read Operator's Manual and follow instructions.
Operate backhoe control levers only from operator's seat.
Lower stabilizers and bucket to ground before leaving operator's seat.
Prevent instability or tipover of backhoe during attaching or detaching by first extending boom and dipperstick and lowering bucket to the ground.
Prevent accidental backhoe movement during transport by first engaging boom latch and swing pin lock.

94497

Part #4497
Bodily Injury Warning

IMPORTANT
DO NOT ATTACH TOW CHAIN TO DIPPER OR BUCKET. DAMAGE TO BACKHOE MAY OCCUR.

4075

Part #4075
Tow Chain Caution

PREPARATION FOR STORAGE
LUBRICATE ALL GREASE POINTS.
LEAVE AS MANY CYLINDERS IN CLOSED POSITION AS POSSIBLE.
COVER ALL EXPOSED CYLINDER RODS WITH A LIGHT COAT OF GREASE.

4150

Part #4150
Prep. For Storage

NOTICE!
REPEATED SLAMMING OF SWING POST INTO STOPS WILL DAMAGE THE RUBBER BUMPERS WHICH ARE PROVIDED FOR INADVERTENT CONTACT ONLY.

4496

Part #4496
Swing Post Caution

MANUFACTURED BY
bradco MODEL SER AMERICAN TRENCHER INC. DELHI, IOWA 52223

Part #4350
A.T.I. Serial No. Tag

PETCOCK
OPEN TO RELIEVE PRESSURE WHEN HOOKING UP HYDRAULIC COUPLERS.
ALWAYS CLOSE PETCOCK BEFORE OPERATING BACKHOE.

4170

Part #4170 (Optional)
Petcock Operation

! WARNING

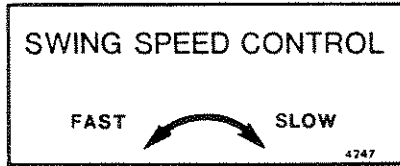
- THIS MACHINE IS DESIGNED TO BE OPERATED BY ONE OPERATOR. DO NOT CARRY PASSENGERS ON THIS UNIT.
- DO NOT OPERATE THIS MACHINE WITH GUARDS AND COVERS REMOVED.
- ALL OPERATORS SHOULD READ OPERATORS INSTRUCTION MANUAL OR BE THOROUGHLY TRAINED BEFORE OPERATING MACHINE.

4494

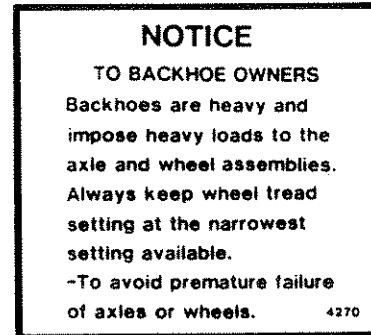
Part #4494
Operator's Warning

DECALS

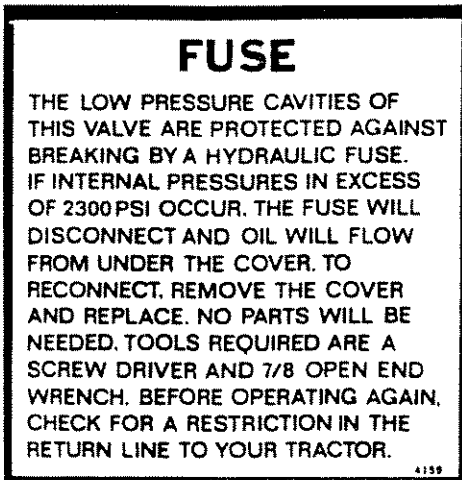
LD SERIES BACKHOES



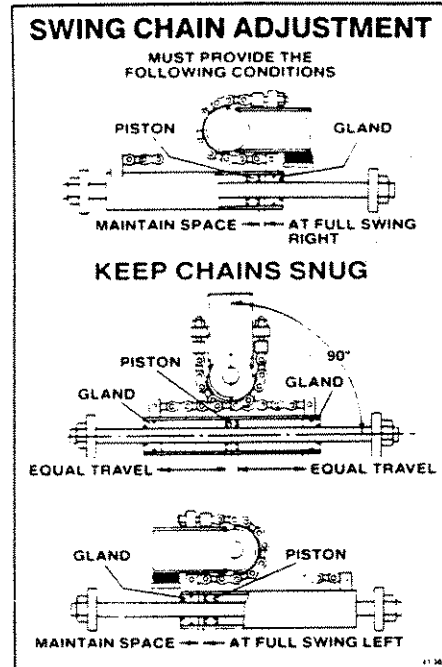
Part #4247 (Optional)
Swing Speed Control



Part #4270 (Optional)
Backhoe Owner's
Notice



Part #4159 (Optional)
Hydraulic Fuse



Part #4136
Swing Chain Adjustment

BRADCO

BRADCO LOGO (2 Required)
PART # 40083 - black
40092 - white

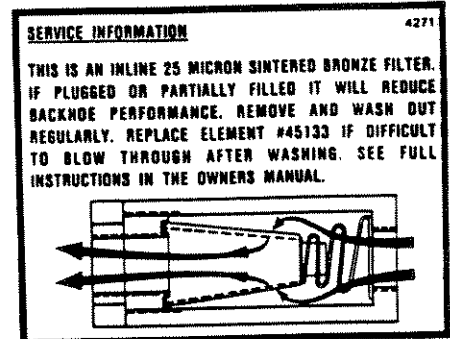
4780 11-11-92-2

DECALS

LD SERIES BACKHOES

6LD

6LD Model No. Decal (2 Required)
Part #4323 - Black
#4228 - White



Part #4271
Inline Filter Service

8LD

8LD Model No. Decal (2 Required)
Part #4324 - Black
#4315 - White



Part #4138 (Optional)
Original Filter

10LD

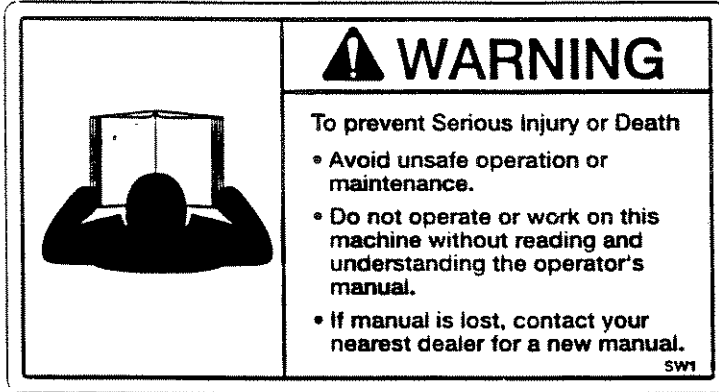
10LD Model No. Decal (2 Required)
Part #4325 - Black
#4229 - White



Part #4084 (2 Required)
Grease 8 Hours

4781 11-11-92-2

DECALS



**WARNING! READ MANUAL
PART #40150**



**WARNING! HIGH PRESSURE FLUID
PART #40151**



**DANGER! PINCH POINTS
PART #40149 (2 req'd)**