

Keep With Loader Operator's Manual

LOADER VALVE AND PLUMBING KIT INSTRUCTIONS

NEW HOLLAND 7312 & 7314 LOADERS

NEW HOLLAND TRACTORS

MODEL	2WD	4WD	LESS CAB	WITH CAB
8160	X	X	X	X
8260	X	X	X	X
8360	X	X	X	X
8560	X	X		X

Valve and plumbing kit can be installed on tractor using tools ordinarily available. Valve control handle assembly has been factory preassembled for ease of installation. Shut off the tractor engine and engage tractor brakes during installation.

NOTE: Apply sealant only to all tapered threads unless coupled with swivel adapters. When using teflon tape, wrap tape clockwise (as viewed from end) and wrap tape only twice. Keep sealant away from first two threads of tapered end to prevent contamination of hydraulic fluid. Do not use sealant on o-ring or flare adapter threads.

ATTACHING VALVE TO VALVE MOUNTING BRACKET (Figures 3 & 4)

1. Install 3/8 O-ring x 1/2 NPT adapter fittings (37) and female couplers (18) to working ports of valve (1).
2. Install 9/16 O-ring x 7/16 JIC adapter (36) to load sense port of valve. Install 1-1/16 O-ring x 7/8 JIC adapter fittings (10) to pressure and tank ports of valve.
3. Mount valve (1) to valve mounting bracket (2) using 8MM x 25MM cap screws (8) and 3/8 lockwashers (12).

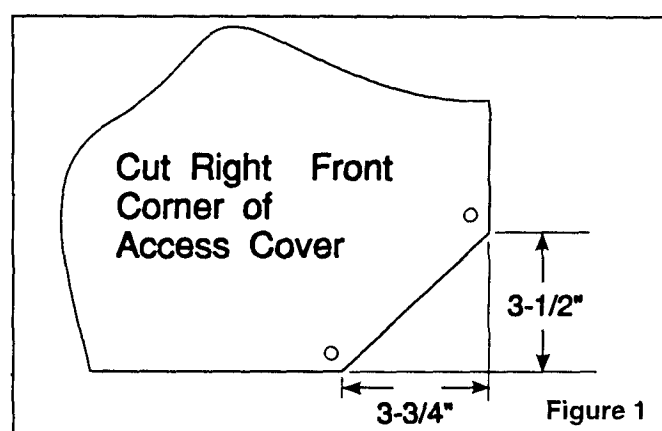
ATTACHING VALVE MOUNTING BRACKET TO RIGHT MIDMOUNTING BRACKET (Figure 4)

1. Mount valve mounting bracket (2) with valve (1) to right midmounting bracket using 1/2 x 1-3/4 cap screws (14) and 1/2 lock nuts (23).

INSTALLING REMOTE HANDLE AND CONTROL CABLES (Figure 4)

1. Remove rubber floor mat from cab.
2. Install remote handle mounting stand (4) to inside of cab using existing 3/4 cap screw and 3/4 lock nut. Torque 3/4 cap screw and 3/4 lock nut to 262 ft lbs.

3. Remove access cover from floor of cab. Cut corner of access cover as shown (Figure 1).



4. Install control cables (28) to remote handle (29). Install remote handle (29) and decal mounting bracket (15) to stand using 5/16 x 4 cap screws (22), 5/16 flat washer (38) and 5/16 lock nuts (35). Refer to instruction sheet provided with remote handle for proper cable installation procedure.

IMPORTANT: Cable activated when handle is moved forward or backward is connected to float spool of valve (spool with longer end cover).

5. Route control cables through access hole in floor of cab and forward to valve.
6. Replace access cover on floor of cab. Cut rubber mat as needed to fit around mounting stand and replace rubber mat.

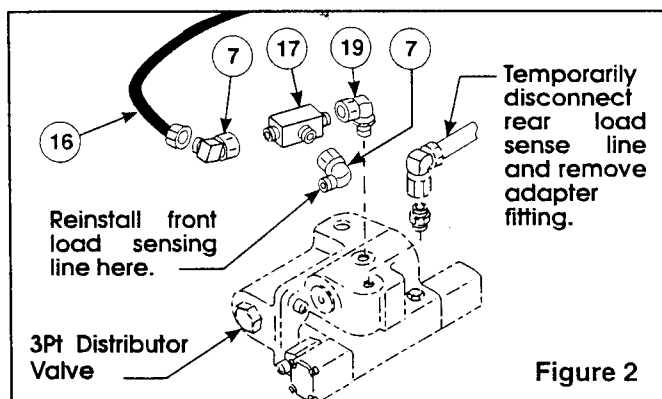
PLUMBING CONTROL VALVE TO TRACTOR HYDRAULICS (Figures 3 & 4)

NOTE: Plumbing is similar for one or two sets of rear hydraulic valves (Two sets shown in illustrations).

1. Remove and discard existing steel pressure tube which feeds right bank of hydraulic valves (Figure 3).
2. Install washer (26), 7/8 x 90° degree elbow fitting (11), and 7/8 tee (9) to pressure port on top of existing hydraulic valve. Point elbow fitting (11) toward right. Point tee (9) toward front and approximately 45° downward. Install 90° elbow fitting (34), 1/2 x 84 hose (5) and 1/2 x 11 hose (20) to 7/8 tee (9) as shown (Figure 3).
3. Connect 1/2 x 11 hose (20) to existing 90° elbow fitting on three point distributor valve (where original steel pressure tube was connected).
4. Temporarily disconnect rear load sense line from top of three point distributor valve and remove 7/16 adapter fitting. Disconnect front load sense line and push slightly rearward (Refer to Figure 2).
5. Remove existing 90° elbow fitting connected to front load sense line and replace with 7/16 x 90° elbow fitting (19). Point elbow fitting (19) same direction as original elbow.
6. Install shuttle valve (17), and 7/16 x 90° elbow fittings (7) as shown. Reconnect 7/16 adapter fitting and load sense line (Figure 2).

IMPORTANT: Shuttle valve must be installed as shown in figure 2 to function properly.

7. Install 1/4 x 78 load sense hose (16) to 7/16 x 90° elbow fitting (7) and 7/16 adapter fitting (36) on auxiliary valve (1).



8. Remove and discard banjo plug on hydraulic filler tube. Install 3/4 x 7/8 adapter (33), 7/8 x 90° elbow (34) and 1/2 x 96 hose (6) (Figure 3).

NOTE: To ease installation of control cables to valve, do not connect pressure and return hoses to valve until after control cables have been installed and adjusted.

9. Connect control cables (28) to valve using connector kits (30). Refer to instructions with connector kit for proper assembly and adjustment.
10. Install tie strap (24) around control cables (28) and handle mounting bracket (4) to keep control cables away from accelerator pedal.

PLUMBING LOADER TO CONTROL VALVE

1. Install 1/2 x 72 hoses (27) onto boom oil line tubes. Install and tighten hose fittings one at a time from bottom up. Loosening closest oil line clamp will ease installation.
2. Install 45° adapter fittings (21), male quick couplers (31), and colored rings (32) onto free ends of hoses (27). Do not overtighten male couplers.
3. Connect hoses from upper two boom oil lines to upper quick couplers and connect hoses from lower boom oil lines to lower two female quick couplers.
4. After all plumbing has been completed and all parts have been tightened, start engine and slowly cycle lift and bucket cylinders several times to purge air out of system, then retract cylinders and shut off tractor engine. Add additional tractor hydraulic fluid as specified in tractor owners manual to bring level of hydraulic fluid up to full.

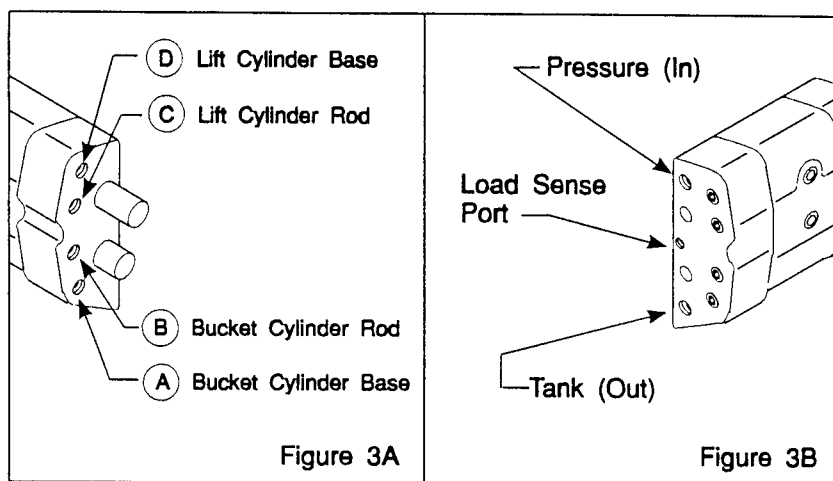
NOTE: When cycling loader, operate loader according to operation decal (25). If direction of control lever is wrong, or loader will not lower, recheck connections shown.



WARNING: Escaping hydraulic fluid under pressure can have sufficient force to penetrate skin causing serious personal injury. If injured by escaping hydraulic fluid, obtain medical treatment immediately.

PARTS LIST

ITEM	SMC NO.	NH NO.	DESCRIPTION	QTY.
1	44753	SML44753	VALVE, Walvoil	1
2	44751	SML44751	BRACKET, Valve Mounting	1
3	7438-1	SML74381	STRAP, Tarp	1
4	44750	SML44750	STAND, Remote, Handle	1
5	36698-9	SML366989	HOSE, 1/2 x 84" (Pressure)	1
6	36698-3	SML366983	HOSE, 1/2 x 96" (Tank)	1
7	34128-4	86512933	FITTING, Elbow, 7/16-20 JIC x 7/16-20 JIC x 90° (on shuttle valve)	2
8	6090-121	00043127	SCREW, Cap, 8MM-1.25 x 25MM	4
9	37850-1	86513016	FITTING, TEE, 7/8 JIC	1
10	32844-9	86507102	FITTING, 1-1/16-12 O-Ring x 7/8-14 JIC	2
11	32845-3	00164910	FITTING, Elbow, 7/8-16 x 7/8-16 x 90°	1
12	G120382	00080680	WASHER, Lock, 3/8	4
13	44274-1	SML442741	PLUG, Square, Plastic	1
14	G180179	09707516	SCREW, Cap, 1/2-13 x 1-3/4	2
15	44287	SML44287	BRACKET, Decal Mounting	1
16	40656-2	SML406562	HOSE, 1/4 x 78"	1
17	44275	E5NNR960AA	SHUTTLE VALVE	1
18	6147-8	SML61478	COUPLER, Female	4
19	44277-1	00216773	FITTING, Elbow, 7/16-20 O-ring x 7/16-20 JIC Swivel x 90°	1
20	44273-1	SML442731	HOSE, 1/2 x 11"	1
21	6098-5	SML60985	FITTING, Adapter, 1/2 NPTF x 1/2 NPSM Swivel, 45°	4
22	G189298	00088964	SCREW, Cap, 5/16-18 x 4	3
23	G9414074	09636698	NUT, Lock, 1/2-13	2
24	8137-3	SML81373	STRAP, Adjustable, Tie, 1/2-x 20	4
25	38929	SML38929	DECAL, Loader Operation	1
26	44276-1	SML442761	WASHER, (To be Added to #11)	1
27	36845-9	SML368459	HOSE, 1/2 x 72"	4
28	44795-1	SML447951	CABLE, Control (45")	2
29	44471	SML44471	HANDLE, Remote	1
30	44762	SML44762	CONNECTOR KIT, Cable	2
31	6137-6	SML61376	COUPLER, Male	4
32	36240-9	SML362409	RING, 1", Blue	2
	36240-10	SML3624010	RING, 1", Red	2
	36240-11	SML3624011	RING, 1", Yellow	2
	36240-12	SML3624012	RING, 1", Green	2
33	36249-2	SML362492	FITTING, Adapter, 3/4 BSPP x 7/8-14 JIC	1
34	34128-1	00182977	FITTING, Elbow, 7/8-14 JIC Swivel x 7/8-14 JIC	2
35	G9413477	00087382	NUT, Lock, 5/16-18	3
36	32844-12	00139398	FITTING, Adapter, 9/16-18 O-ring x 7/16-20 JIC	1
37	39280-10	SML3928010	FITTING, Adapter, 7/8-14 O-ring x 1/2 NPT	4
38	G120393	0087362	WASHER, Flat, 5/16	3



NOTE: Remove and discard existing steel pressure oil line.

NOTE: Disconnect steel load sense oil line and remove adapter fitting before installing elbow fitting (19).

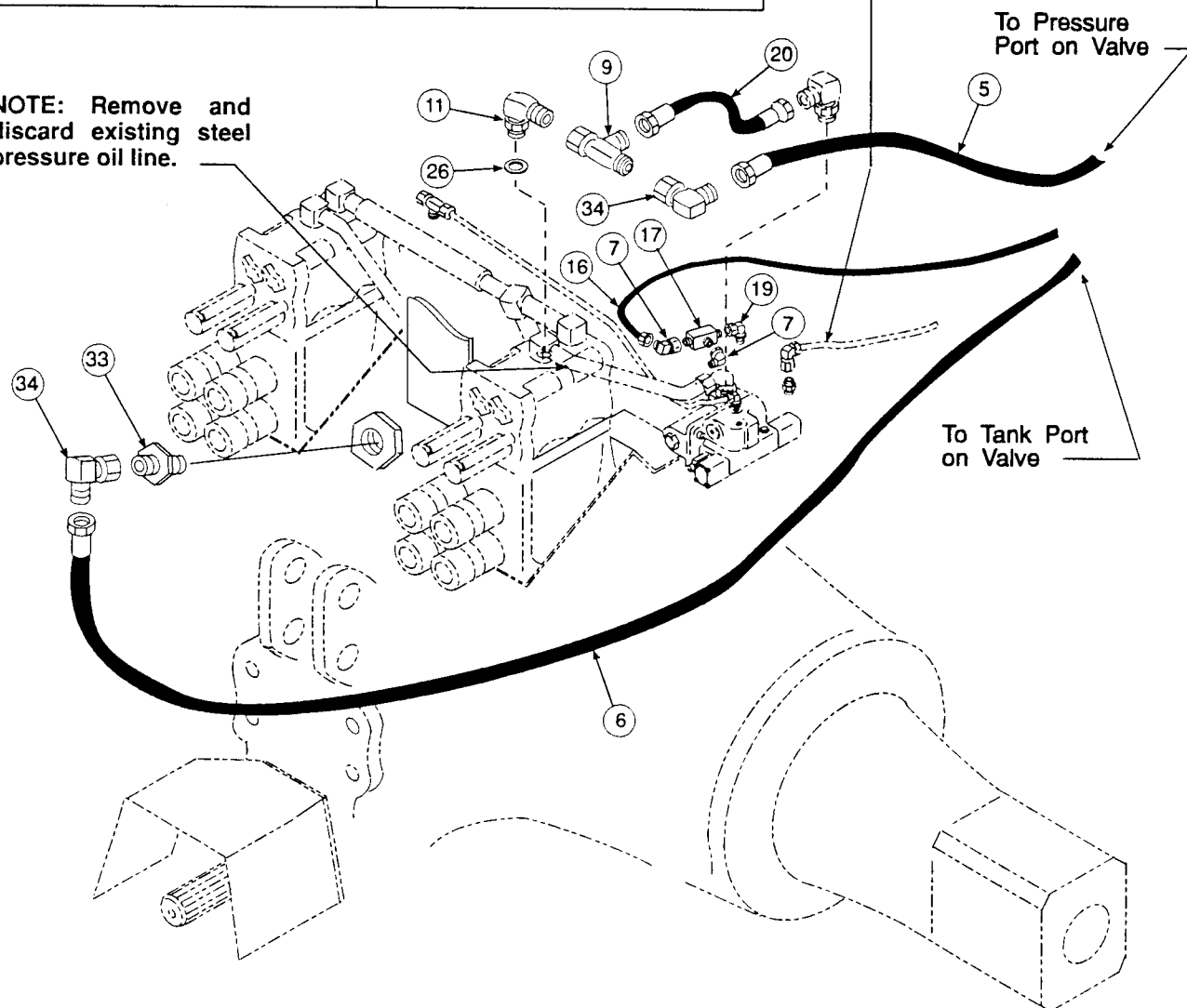


Figure 3
Valve and Plumbing
Kit

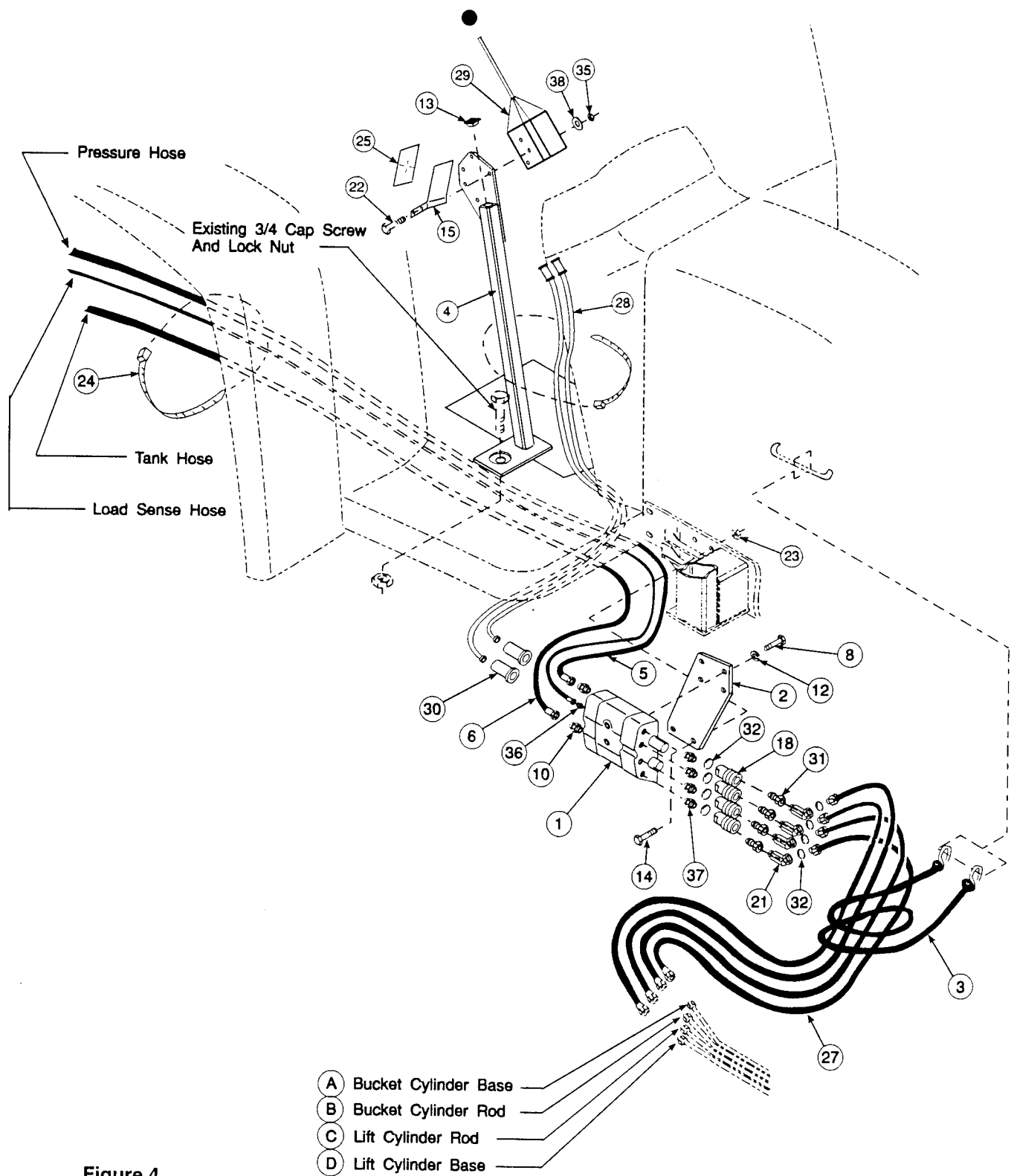


Figure 4
Valve and Plumbing
Kit

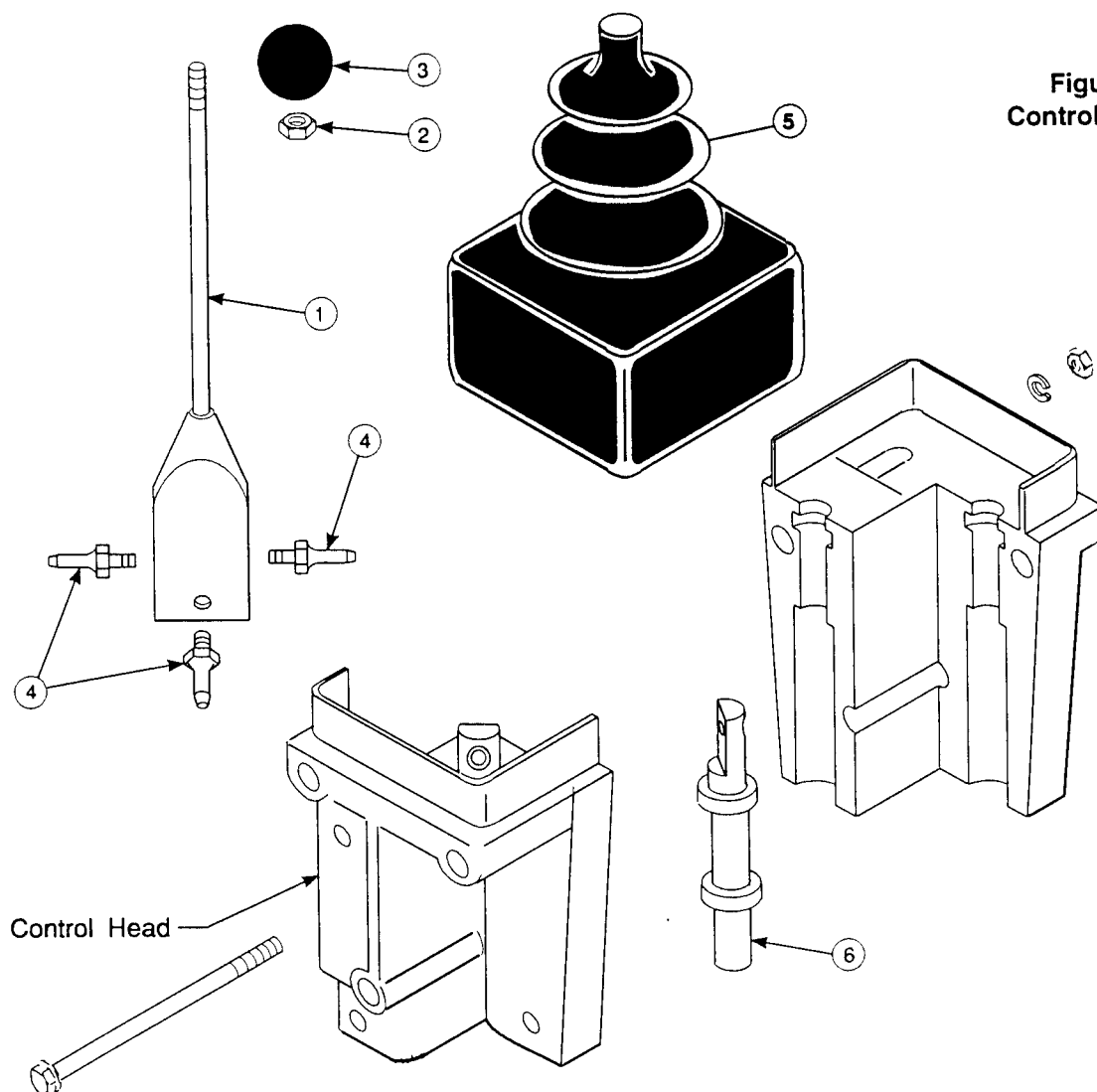


Figure 5
Control Handle

PARTS LIST - CONTROL HANDLE REPAIR PARTS

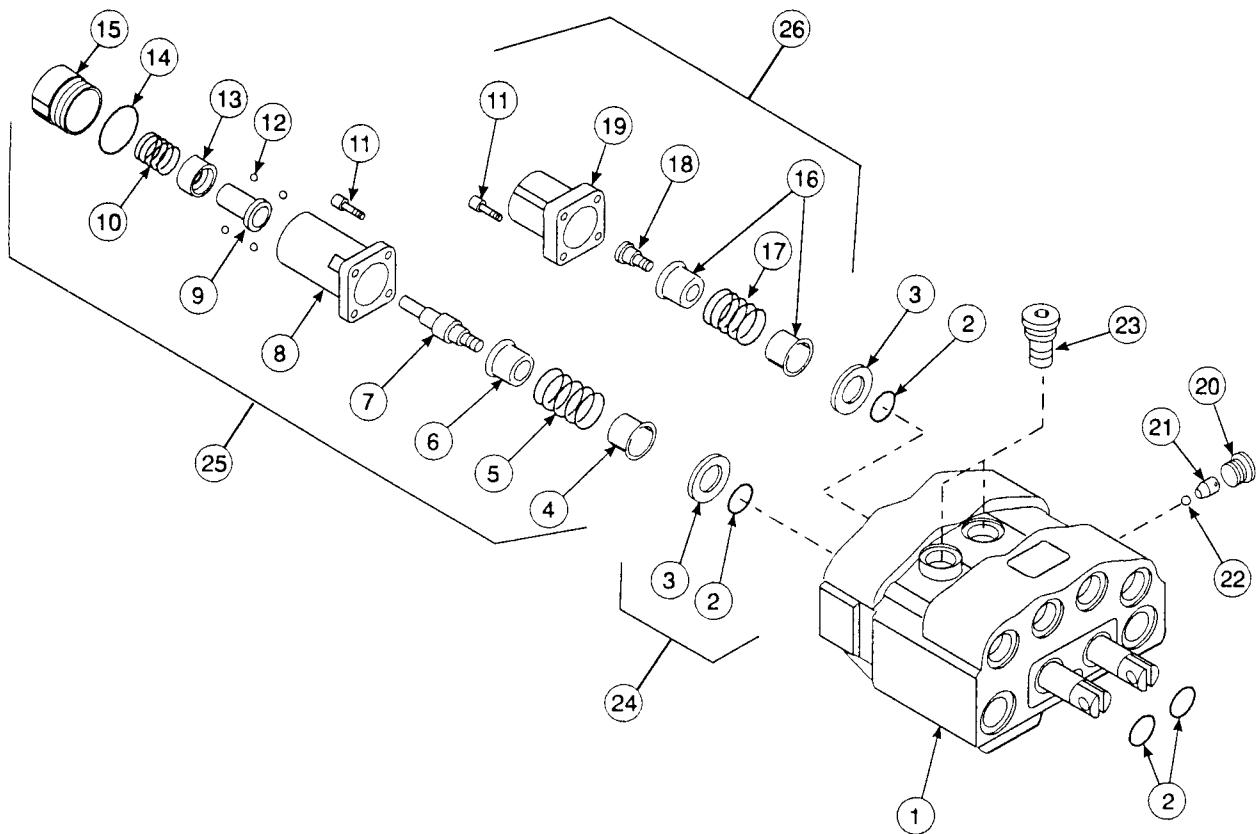
ITEM	SMC NO.	NH NO.	DESCRIPTION	QTY.
1	44336	SML44336	LEVER ASSEMBLY	1
2	G124925	00087307	NUT, Jamb, 3/8-24	1
3	44279	SML44279	KNOB	1
4	44337	SML44337	BALL STUD	3
5	44335	SML44335	BOOT	1

CONTROL HANDLE SERVICE (Figure 5)

Control handle parts shown can be replaced if necessary. To replace lever assembly (1) or ball studs (4):

1. Remove control handle from mounting stand.
2. Slide boot (5) up on shaft of lever assembly.
3. Split halves of control head by removing screws which hold them together. Lever assembly can now be removed from head.
4. Replace lever assembly (1) or ball studs (4) as needed.
5. Insert ball studs (4) into pivot points while joining halves of control head. Secure halves using screws previously removed.
6. Grease ball studs at pivot points. Slide boot (5) down to cover top of control head.
7. Replace control head onto mounting stand.

NOTE: Individual parts inside control heads are not available as repair parts.

**PARTS LIST - WALVOIL VALVE - 44753**

ITEM	SMC NO.	NH NO.	DESCRIPTION	QTY.
1	*		VALVE BODY (Includes spools)	1
2	*		SEAL, O-Ring	4
3	*		WASHER, 18MM x 34MM x 4MM	2
4	45024	SML45024	BUSHING	1
5	45025	SML45025	SPRING	1
6	45026	SML45026	BUSHING	1
7	45027	SML45027	PIN, Spool Anchor	1
8	*		COVER	1
9	45029	SML45029	BUSHING, Carrier	1
10	45030	SML45030	SPRING	1
11	45028	SML45028	SCREW, Cap, Socket Head, 5MM x 16MM	8
12	45032	SML45032	BALL BEARING	4
13	45033	SML45033	RING, Thrust	1
14	45031	SML45031	O-Ring	1
15	*		END CAP	1
16	45034	SML45034	BUSHING	2
17	45035	SML45035	SPRING	1
18	45036	SML45036	SCREW, Spool Control	1
19	*		ENDCAP	1
20	45041	SML45041	PLUG,	1
21	45042	SML45042	PLUG, with seat	1
22	45043	SML45043	BALL BEARING	1
23	45023	SML45023	LOAD CHECK PLUG, VR10	2
24	45020	SML45020	SEAL KIT, Body [item #2 (Qty. 4) and item #3 (Qty. 2)]	1
25	45021	SML45021	REPAIR KIT [items 4, 5, 6, 7, 9, 10, 11 (Qty. 4), 12 (Qty. 4), 13, 14 & 15]	1
26	45022	SML45022	REPAIR KIT [items 11 (Qty. 4), 16 (Qty. 2), 17, 18 & 19]	1

* Not available as repair part. Order appropriate repair kit or complete valve (44753).