

Keep With Loader Operator's Manual

VALVE AND PLUMBING KIT INSTRUCTIONS NEW HOLLAND TRACTORS WITH CCLS DELUXE REMOTES

MODEL	2WD	4WD	LESS CAB	WITH CAB
3230, 3430	x	x	x	
3930, 4630	x	x	x	

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

INSTALLING VALVE AND VALVE STAND TO TRACTOR (Figures 1 & 1A)

1. Attach valve box assembly and valve mounting bracket (1) to clutch housing using 3/4-10 x 2 cap screws (15), 3/4 lock washers (16) and spacer plate (14). Tractors with loader use no spacer plate, and tractors without loader use spacer plate.
2. Route hoses down and rearward to hydraulic combining valve, securing hoses behind tractor oil lines as shown in figure 1 and 1A. Be sure hoses do not interfere with tractor controls or foot throttle linkages.

PLUMBING CONTROL VALVE TO TRACTOR HYDRAULICS (Figures 1 & 1A)

NOTE: To identify pressure, load sense and tank hoses, refer to Figure 1.

1. Disconnect small load sense line from left side of tractor combining valve and remove 90° fitting from load sense port.

NOTE: In some cases the front left bolt of the combining valve must be removed to facilitate removal of the 90 fitting in the load sense port.

Install adapter swivel (6) into port vacated. Connect shuttle valve (7) to adapter swivel (6). Connect steel load sense line to shuttle valve (7). Connect 90° elbow (8) to open end of shuttle valve (7) and attach 1/4 x 58 load sense hose (22) to 90° elbow (8), refer to Figure 1.

NOTE: 1/4 x 58 load sense hose (22) and 1/2 x 54 pressure hose (21) are wrapped with a protective sleeve. Do not remove.

2. Disconnect pressure line from right side of combining valve. Remove 90° fitting and install branch tee (17) into pressure port of combining valve. Connect steel pressure line to branch tee (17) and attach 1/2 x 54 pressure hose (21) to branch tee (17).
3. Remove plug from hydraulic tank port on tractor rear axle and install adapter fitting (2). Connect street tee (3) to adapter (2). Install plug (5) into street tee (3). Connect 90° elbow (4) into street tee (3) (see figure 1A). Route tank hose (20) around rear of tractor, behind 3-pt. hitch top linkage yoke and attach to 90° elbow (4).
4. Use small plastic tie straps (11) to hold tank, pressure and load sensing hoses from rubbing against 3-point lift arms, brake levers, shift levers, etc., on tractor that could cause hose wear.
5. Tighten fittings as required. The auxiliary valve installation is now complete.



WARNING: Escaping hydraulic fluid under pressure can penetrate skin causing serious injury.

- DO NOT use your hands to check for leaks. Use a piece of cardboard or paper to search for leaks.
- Stop engine and relieve pressure before connecting or disconnecting lines.
- Tighten all connections before starting engine or pressurizing lines.

If any fluid is injected into skin, obtain medical attention immediately or gangrene may result.

PLUMBING LOADER TO CONTROL VALVE

NOTE: For a simplified view of Plumbing Loader to Control Valve and Self Leveling Valve see (Figures 3 & 4). Refer to Figure 4 for location of straps (11) and rubber tie straps (12) on a typical loader installation.

1. Install 1/2 x 120 hoses (19) 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.

NOTE: Adapter fittings (13) required on some model loaders.

2. Install male quick couplers (9), and colored rings (10) onto free ends of hoses. Do not overtighten male couplers.

3. Connect hoses as shown in Figures 1 and 1A.

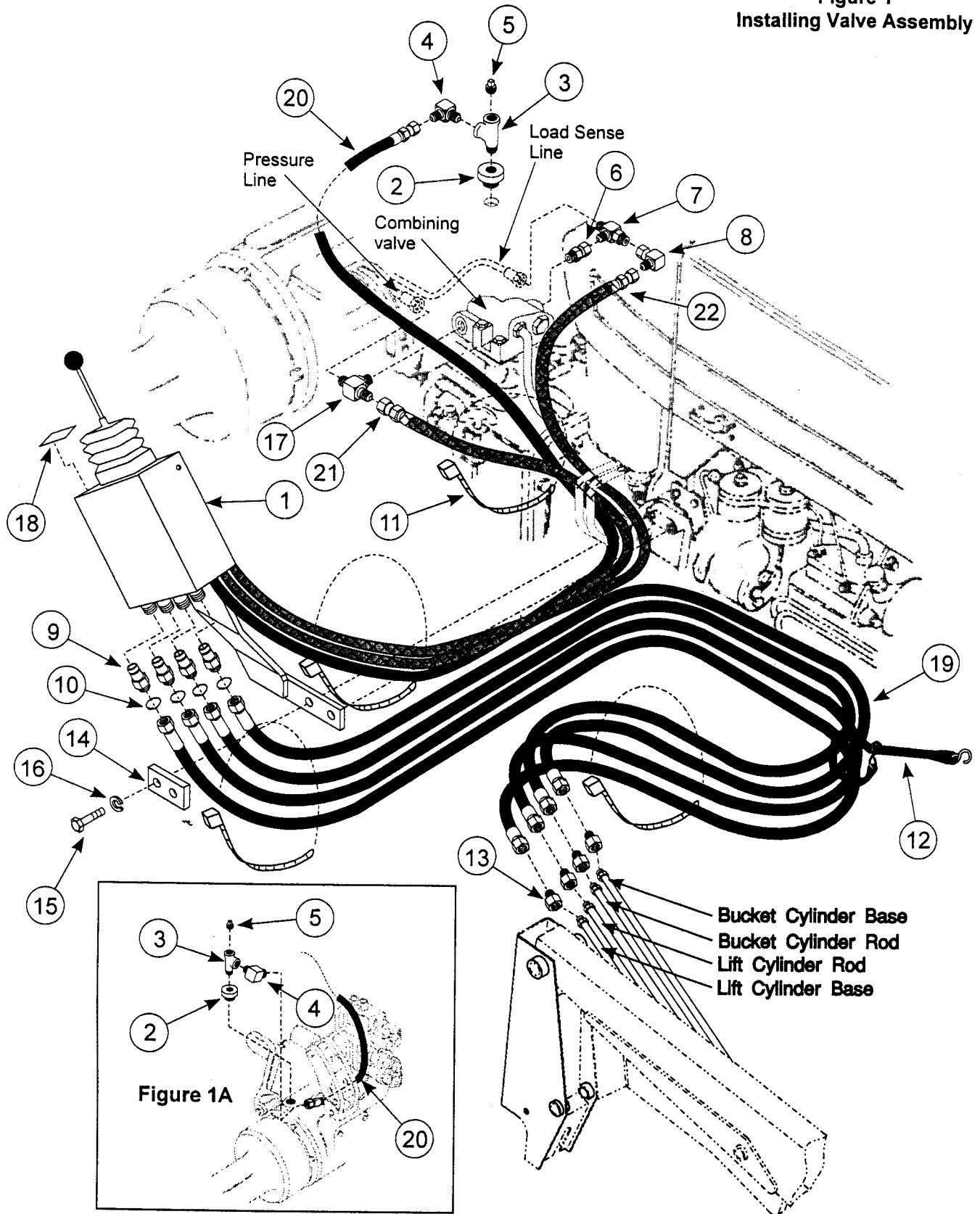
4. After all plumbing has been completed and all parts have been tightened, start engine and slowly cycle lift and bucket cylinders several times to purge air out of system, then retract cylinders and shut off tractor engine. Add additional tractor hydraulic fluid as specified in tractor owners manual to bring level of hydraulic fluid up to full.

NOTE: When cycling loader, operate loader according to operation decal (18) . If direction of control lever is wrong, or loader will not lower, recheck connections shown.

PARTS LIST - VALVE AND PLUMBING KIT

ITEM	SMC NO.	NH NO.	DESCRIPTION	QTY.
1	46150	SML46150	VALVE BOX ASSEMBLY	1
2	34643	SML34643	FITTING, Adapter, 1-3/8-12 x 1/2 NPT	1
3	37050-4	509959	FITTING, Street Tee, 1/2	1
4	39609-4	76352	FITTING, Elbow, 1/2 NPT x 3/4-16, 90°	1
5	G103868	84296	FITTING, Plug, Square head, 1/2 NPT	1
6	42062-4	SML420624	FITTING, Adapter, 7/16-20 x 7/16-20 JIC, Swivel	1
7	44275	SML44275	SHUTTLE VALVE Assembly	1
8	34128-4	86512933	FITTING, Elbow, 7/16-20 x 7/16-20 JIC, 90°	1
9	6137-6	SML61376	FITTING, Adapter, Coupling, 1/2-14	4
10	36240-9 thru 12	SML36240	BAND, Spiral Identification, 1 inch, Blue, Red, Yellow, Green	1 ea.
11	8137-1	SML81371	STRAP, Reusable Tie, 3/16 x 11	4
12	7438-1	SML74381	STRAP, Rubber	2
13	41054-1	SML410541	ADAPTER, 7/8-14 x 3/4-16 (Used with 7/8-14 JIC Oil Lines Only)	4
14	36772-6	SML367726	SPACER, .50 Thick x 1.50 Wide x 4.50 Long	1
15	G271771	88557	SCREW, Cap, 3/4-10 x 2	2
16	G131046	87340	WASHER, Lock, 3/4	2
17	46161-1	SML461611	FITTING, Branch Tee	1
18	38929	SML38929	DECAL, Single handle control	1
19	41053	SML41053	HOSE, 1/2 x 120	4
20	38792-11	SML3879211	HOSE, 1/2 x 86	1
21	46138-1	SML461381	HOSE, 1/2 x 54	1
22	46147-1	SML461471	HOSE, 1/4 x 58	1

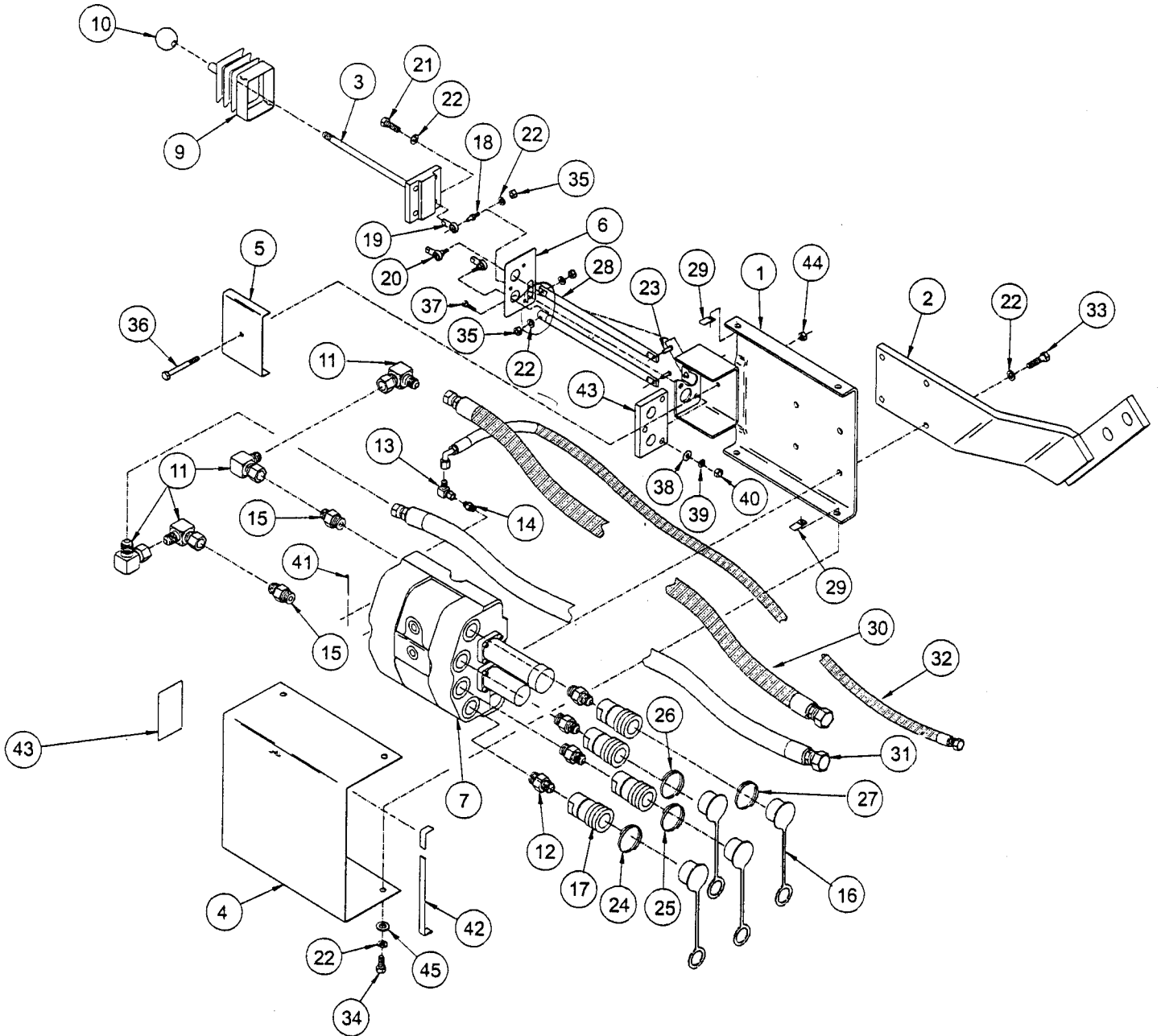
Figure 1
Installing Valve Assembly

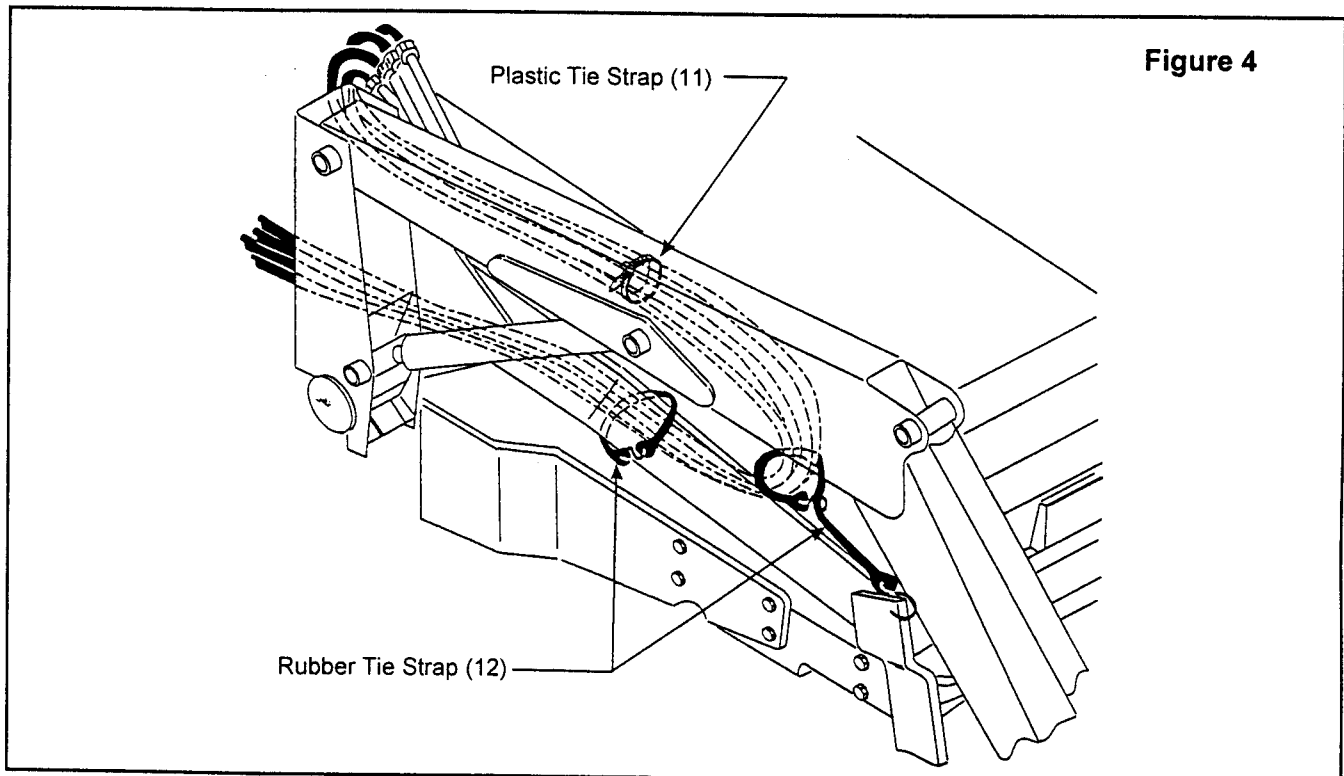
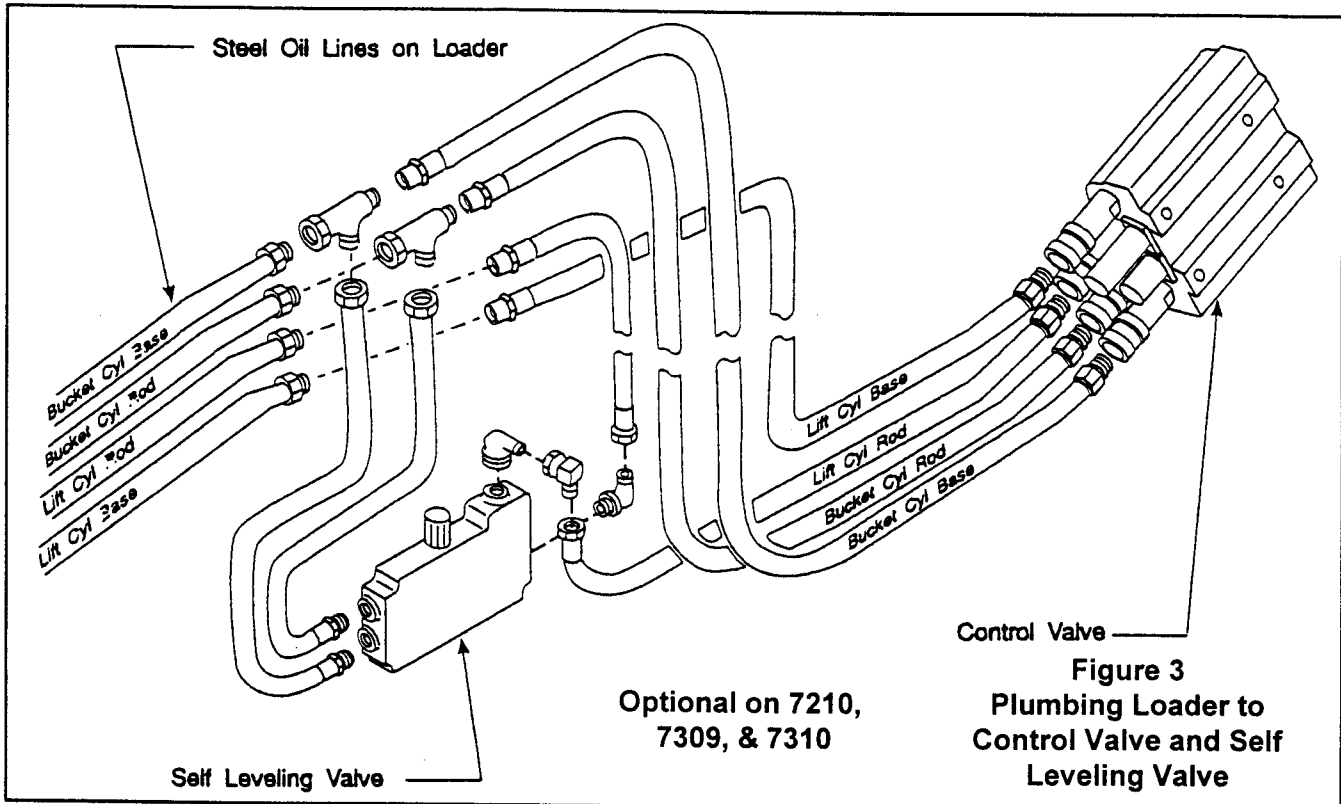


VALVE ASSEMBLY - PREASSEMBLED

ITEM	SMC NO.	NH NO.	DESCRIPTION	QTY.
1	46148	SML46148	BRACKET ASSEMBLY, Valve Mounting	1
2	46160	SML46160	BRACKET ASSEMBLY	1
3	46155	SML46155	HANDLE ASSEMBLY	1
4	46153	SML46153	VALVE BOX COVER	1
5	46154	SML46154	COVER	1
6	40828	SML40828	BOOT PLATE	1
7	46605	SML46605	VALVE, Walvoil	1
8	40811	SML40811	GUIDE PLATE	1
9	36077	SML36077	BOOT	1
10	38902	SML38902	KNOB, Valve Handle	1
11	34128-1	182977	FITTING, Elbow, 7/8-14 JIC Swivel x 7/8-14 JIC x 90	4
12	39280-10	SML3928010	FITTING, Straight, 7/8-14 O-Ring x 1/2-14 NPTF	4
13	34128-4	86512933	FITTING, Elbow, 7/16-20 x 7/16-20 Flare x 90	1
14	32844-12	139398	FITTING, Adapter, 9/16-18 O-ring x 7/16-20 JIC	1
15	32844-9	86507102	FITTING, Adapter, 1-1/16-12 O-ring x 7/8-14-JIC	2
16	4838-4	SML48384	DUST CAP, 1/2	4
17	6147-8	SML61478	COUPLER, Female Quick, 1/2-14	4
18	38904-2	SML389042	STUD, Ball Joint, 5/16-24	1
19	38900-4	SML389004	BALL JOINT	1
20	26009-4	SML260094	ROD END	2
21	G181608	280483	SCREW, Cap, 5/16-24 x 1	3
22	G120214	80681	WASHER, Lock, 5/16	14
23	6021-16	SML602116	PIN, Clevis, 5/16 x 1	2
24	36240-9	SML36240	BAND, Spiral Identification, 1 inch, Blue	1
25	36240-10	SML36240	BAND, Spiral Identification, 1 inch, Red	1
26	36240-11	SML36240	BAND, Spiral Identification, 1 inch, Yellow	1
27	36240-12	SML36240	BAND, Spiral Identification, 1 inch, Green	1
28	46157	SML46157	ROD, Spool Extension	2
29	6067-1	9626645	NUT, Speed Clip, 5/16-18	4
30	46138-1	SML461381	HOSE, 1/2 x 54	1
31	38792-11	SML3879211	HOSE, 1/2 x 86	1
32	46147-1	SML461471	HOSE, 1/4 x 58	1
33	6090-46	43128	SCREW, Cap, 8MM-1.25 x 30MM Class 8.8	4
34	G180077	87872	SCREW, Cap, 5/16-18 x 3/4	4
35	G120368	12628	NUT, Hex, 5/16-24	1
36	G180048	87405	SCREW, Cap, 1/4-20 x 2-1/2	1
37	G180022	88146	SCREW, Cap, 1/4-20 x 1	3
38	G120392	87361	WASHER, Flat, 1/4	3
39	G120380	80682	WASHER, Lock, 1/4	3
40	G120375	.7770	NUT, Hex, 1/4-20	3
41	G121222	280250	PIN, Cotter, 3/32 x 3/4	2
42	24765-3	SML247653	TRIM, Plastic, 13 inches	1
43	38929	SML38929	DECAL, Valve Operation	1
44	G9424215	280129	NUT, Lock, 1/4-20	1
45	G120393	87362	WASHER, Flat, 5/16	4

Figure 2
Control Valve





SECURING HOSES USING RUBBER TARP STRAPS (Figure 4)

Install loader onto tractor according to instructions included with mounting kit. Use larger plastic tie strap (not shown) to bundle 1/2 x 120 hoses together. Loop

one rubber strap (12) around hoses onto itself, and secure other end near front mounting. Wrap remaining rubber strap around bundled hoses and loader side frame. Make sure rubber straps secure hoses away from tractor axle, wheel or moving loader parts.

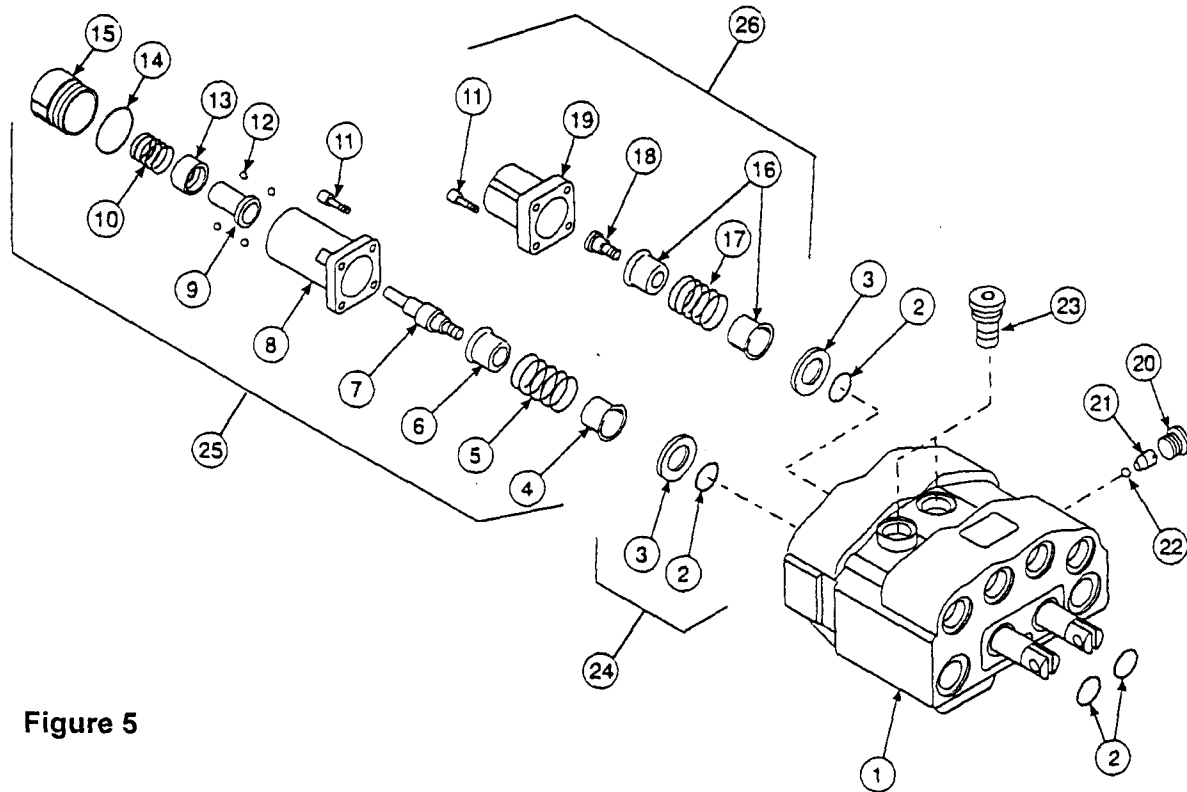


Figure 5

PARTS LIST - WALVOIL VALVE - 46605

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).

INSTALLATION INSTRUCTIONS