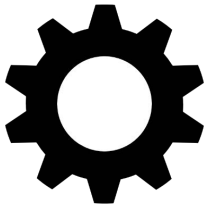


2 SPOOL PLUMBING KIT FOR JOHN DEERE 4000 SERIES TRACTORS

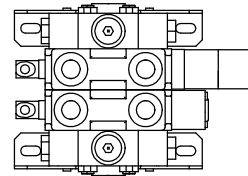


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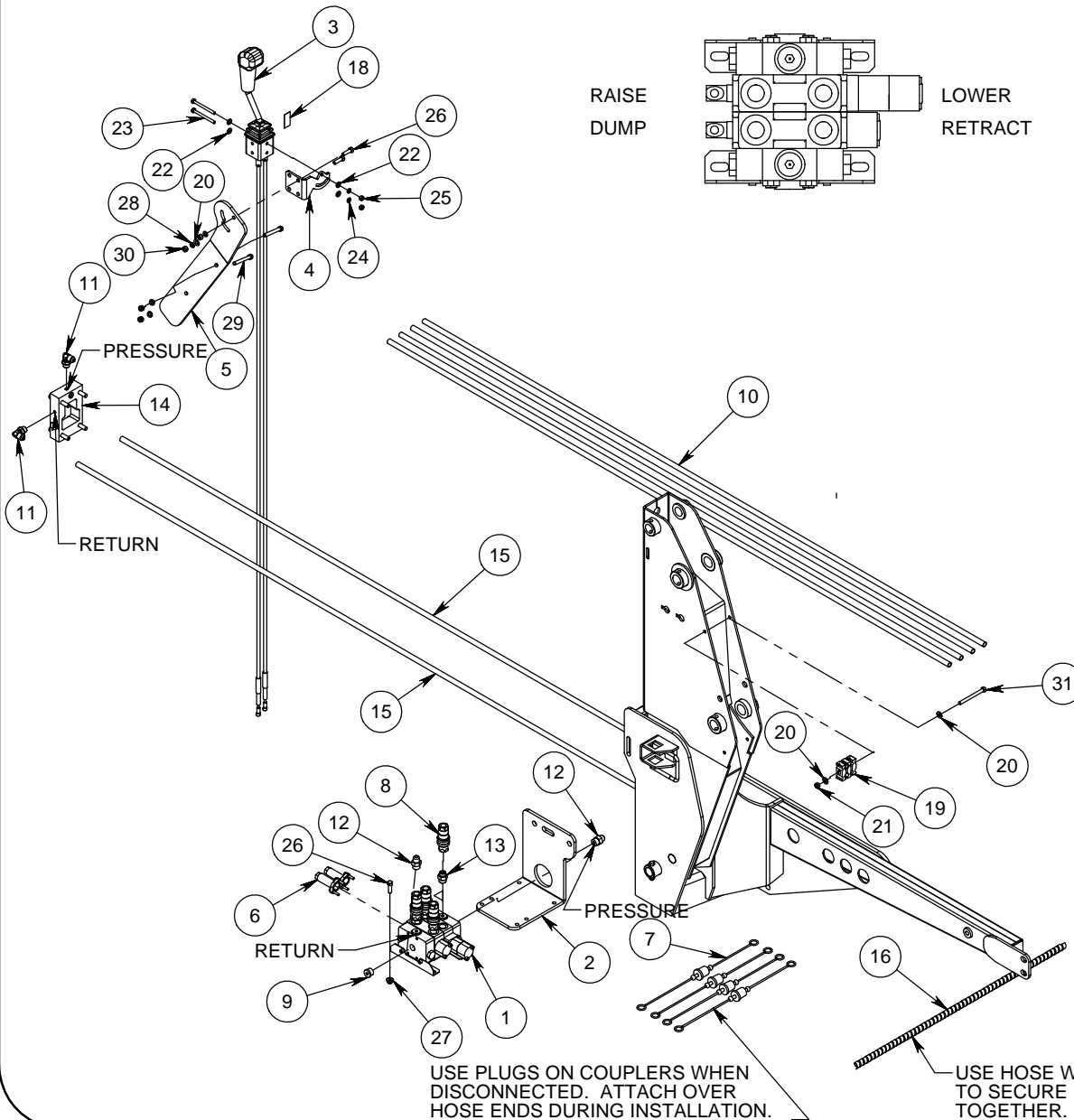
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www.shortlineparts.com
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TOP VIEW OF WORKING PORTS ON THE VALVE

RAISE
DUMP



LOWER
RETRACT



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	668962	2 SPOOL LOAD SENSING VALVE	1
2	669376	VALVE MOUNT PLATE	1
3	683154	KIT-JOYSTICK BENT 78" 2 SP	1
4	684725	JOYSTICK HANDLE PLATE	1
5	669899	HANDLE PLATE	1
6	669298	CABLE CONNECTOR KIT	2
7	673956	COLOR COUPLER PLUG KIT	1
8	673780	1/2" QUICK COUPLER SET	4
9	6408-10	PLUG: 10ORM	1
10	673390	HYD HOSE .5-96 8ORM-8MJX	4
11	6801-8-8	HYD 90 ELB 8 MJX - 8 ORM - (6801-8-8)	2
12	6400-8-10	FITTING - HYD ADA 8MJX-10ORM	2
13	6403-10-8	FITTING - HYD ADA 10ORM-8ORM	4
14	669375	MANIFOLD BLOCK KIT	1
15	680344	HYD HOSE .375-96 8FJX-8FJX90S	2
16	669686	36" HOSE WRAP	1
17	652393	14.25 NYLON CABLE TIE	5
18	663708	OPERATIONAL JOYSTICK DECAL	1
19	672503	OIL LINE CLAMP TWIN .500	3
20	640154	WASHER - 3/8" FLAT	3
21	700560	NUT - .375-16 GR 2 CENTER LOCK	1
22	640152	WASHER - 5/16" FLAT	4
23	669618	SCREW-.3125-18 X 3.50 GR 5 HHC	2
24	640151	WASHER - 5/16" SPRING LOCK	2
25	652360	NUT - .313-18 GR 2 HEX	2
26	640032	SCREW-.375-16 X 1.25 GR 5 HHC	6
27	682413	NUT - .375 X 16 FLANGE	4
28	640153	WASHER - 3/8" SPRING LOCK	4
29	640043	SCREW-.375-16 X 3.50 GR 5 HHC	2
30	640132	NUT - .0375 - 16 GR 2 HEX	4
31	640046	SCREW-.375-16 X 4.00 GR 5 HHC	1

NOTE:

- BEFORE INSTALLING KIT ATTACH MANIFOLD BLOCK TO THE LEFT HAND VALVE STOCK KIT FIRST. REFER TO THE INSTRUCTIONS PROVIDED WITH THAT KIT.
- REFER TO WRITTEN INSTRUCTIONS ON ADDITIONAL INFORMATION TO INSTALL KIT.
- USE HOSE WRAP AND NYLON TIES TO SECURE HOSES TOGETHER.

2 SPOOL PLUMBING KIT #683394

JOHN DEERE 4000 SERIES TRACTORS

INSTALLATION INSTRUCTIONS:

1. First attach manifold block kit (#669375) (Part #14) to the left hand valve stack of the tractor **See fig (1-1) & (1-2) below**. Also, see instruction Sheet (669375) attached with that kit. **INSTALL BLOCK ON LEFT SIDE REMOTE VALVE.**
2. Mount kit should be installed before proceeding to ensure that there is no interference.
3. Once that has been done attach the valve plate (Part #2) onto the RH side of the tractor behind the rear mount. **See fig (1-3) below**. Secure with two mount bolts.
4. Install plug (Part #9) into the port on the return end of the valve. Then install the two adapters (Part #12) into the pressure and return ports and install four adapters (Part #13) onto the working ports on the top of the valve. **TIGHTEN ALL THE CONNECTIONS SECURELY!** Next, attach the four female halves of quick coupler (Part #8) onto the adapters already installed in the working ports on the valve. Note: At this point, install the male half of the colored plugs (Part #7) along with the couplers.
5. Install the valve (Part #1) onto the valve plate with two 3/8" x 1.25" HH cap screws, lockwashers and hexnuts (Part #26, 28 & 27).
6. Next the joystick handle bracket (Part #4) must be attached to the joystick cable control kit (Part #3) **NOTE**; the lock tab on the base of the joystick should face to the rear of the tractor. Attach with two 5/16" x 3 1/2" HH cap screws, lockwashers, hexnuts and one flatwasher (Part #23, 24, 22 & 25). If the joystick needs to be rotated a 1/4 turn, remove the two metal sleeves for the mounting bolts from the base and reinsert them at a 1/4 turn. Then attach this assembly to the handle bracket adapter plate (Part #5) with two 3/8" x 1.25" HH cap screws, lockwashers, hexnuts and flatwashers (Part #26, 28, 20 & 30). **Note:** Attach all fasteners loosely to allow for desired adjustment later.
7. Then custom fit the handle bracket adapter plate (Part #5) onto the fender wall just ahead of the side counsel in the cab of the tractor. (For non-cab tractors, it may require further customizing to fit.) Attach with two 3/8" x 3 1/2" HH cap screws, lockwashers and hexnuts (Part #29, 28 & 30). You will need to route the cable ends down through the access hole in the cab floor just ahead of the side counsel. Adjust the according brackets to acquire the most desirable position for the joystick handle.
8. When this has been done attach the cable ends to the valve body with the connector kits (Part #6) **Note: Make sure the joystick is in the locked position.** Center the joystick and push the joystick lock tab in (located on the base of joystick) to lock joystick. First screw the large nut on to the cable then put the small o-ring on the cable past the threads. Slide large o-ring on the connector, thread the cable connector, and slide the valve controller on the cable. Now thread the small nut and the pin connector onto the cable and tighten. Then push pin connector onto the valve push rod and slide the pin through the holes. Thread the cable connector to the valve by hand. **Note: Only hand tighten the valve connector, if over tightened the joystick will not be right.** Now push large o-ring to the valve into the groove of cable connector. Then slide the valve connector to the valve and bolt together with given Allen head bolts. Slide the small o-ring to cable connector groove on the end and thread the large nut to cable connector and tighten. **Note: Make sure the cable connector does not move. See in Fig. 1-3.**
9. Then attach the two 90 elbows (Part #11) onto the manifold block (Part #14). Attach the elbow ends of the 96" hose (Part # 15) onto the adapters installed into the pressure and return ports on the valve.
10. Route the other ends of the 96" hoses (Part #15) underneath the tractors cab and attach to the proper ports on the manifold block already installed on the back of the tractor. See instruction sheet for proper connections.

11. After this has been done attach the male half of the quick coupler (Part #8) onto the 96" hoses (Part #14). Note: At this point, install the female half of the colored plugs (Part #7). Attach the other end of the hoses to the steel oil lines on the loader frame. Then attach to the working ports on the valve. Refer to the top view of the working port diagram and the loader manual to determine the function of the port. Group hoses together using three line clamps (Part #19) and fasten to loader upright with the 3/8" X 4" HH cap screw, flat washers, and lock nut (Part #31, 22 & 21).
12. Finally start the tractor, actuate the loader to charge the hydraulic system with oil and add hydraulic fluid to the tractor as required using the recommended fluid for your tractor. Refer to the hydraulic section of the tractor owner's manual for the specific details regarding hydraulic fluid levels.

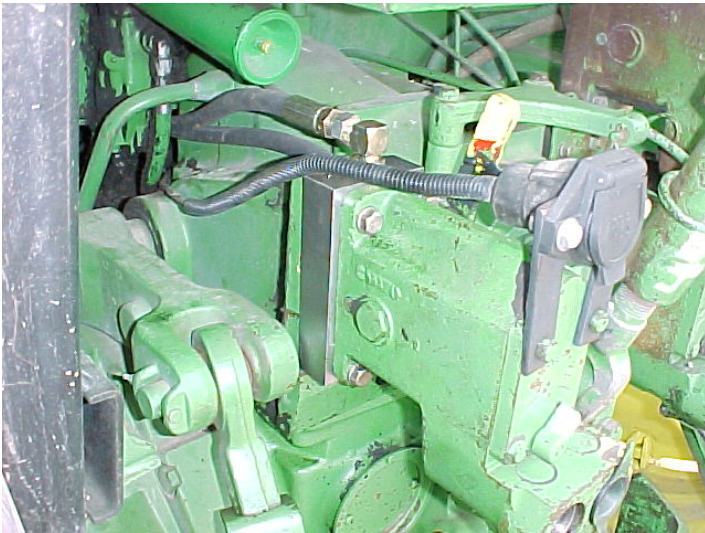
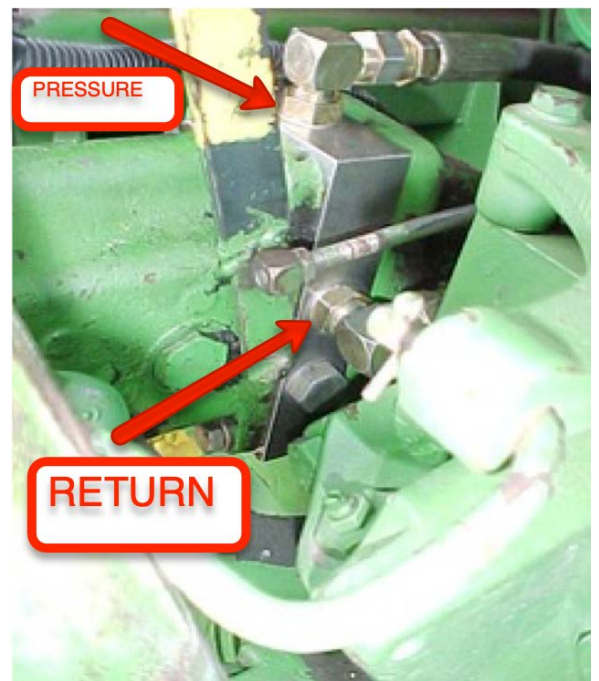


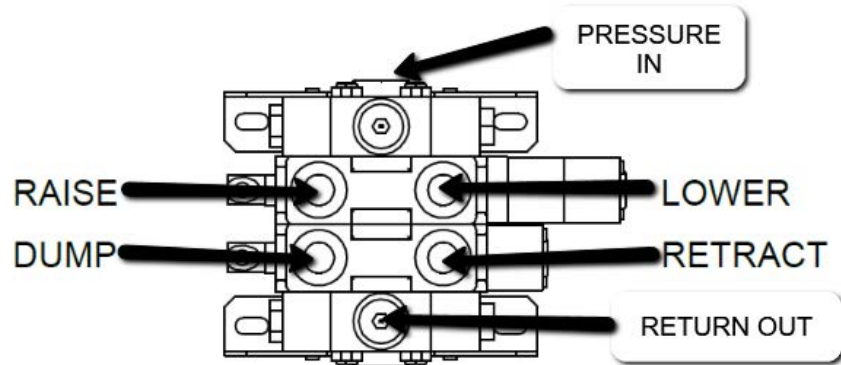
Fig 1-1



Fig 1-2

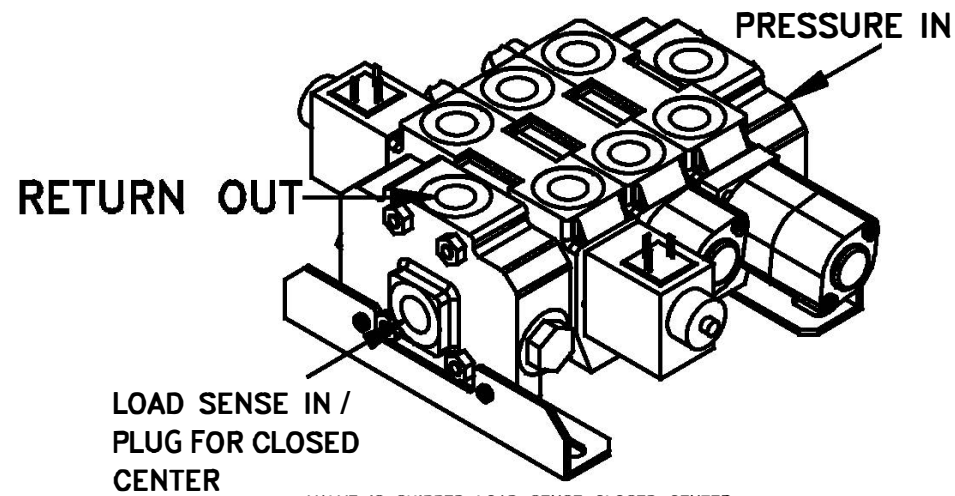
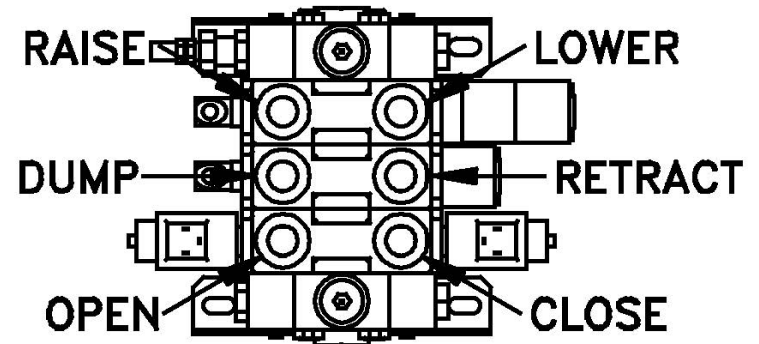


2 SPOOL LOAD SENSING/CLOSED CENTER VALVE
PORTS LABELED



LOAD SENSE IN /
PLUG FOR CLOSED
CENTER

3 SPOOL LOAD SENSING/CLOSED CENTER
VALVE PORTS LABELED



VALVE IS SHIPPED LOAD SENSE CLOSED CENTER.

VIDEOS:

CONNECTING CABLES TO VALVE:

<https://youtu.be/AOKy1CnuU4o>



CONNECTING CABLES TO JOYSTICK:

<https://youtu.be/vbcYCtpPtaw>



COMPLETE JOYSTICK KIT INSTALLED ON
JD 4440:

<https://youtu.be/b3lDZq2pe48>

