

Third Function Valve Kit

#380-354A Installation Instructions



For B2301 & B2601 Kubota Tractors with LA434 & LA435 Loaders

Manual No. 380-353M

Before You Start



When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

California Proposition 65



WARNING: Cancer and reproductive harm.
www.P65Warnings.ca.gov

IMPORTANT: Before you begin, thoroughly read these instructions and check to be sure all parts are accounted for. Please retain these installation instructions for future reference and parts ordering information.

General Information

Your Third Function Valve Kit is exclusively designed for your Kubota B2301 and B2601 tractors. Please read these installation instructions thoroughly before assembling this kit to your Kubota tractor and loader.

These assembly instructions apply to the Third Function Valve Kit listed below:

• **380-354A: 3FVK FF B2601** **page 3**

Further Assistance

Your Land Pride dealer wants you to be satisfied with your new Third Function Valve Kit. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss any problems you have with your Third Function Valve Kit with your dealership service personnel so they can address the problem.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the question/problem, and request assistance.
3. For further assistance write to:

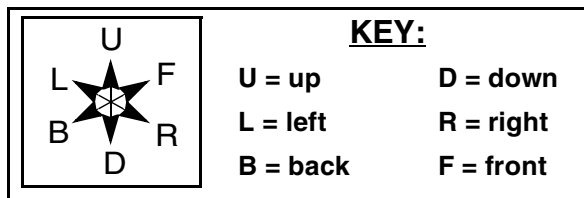
Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060
E-mail address
lp servicedept@landpride.com

Assembly Instructions

A detailed listing of parts for this kit is provided on page 8 for kits. Use the list that is for your specific Third Function Valve Kit as a checklist to inventory parts received. Please contact your local Land Pride dealer for any missing hardware.

Direction Reference

All directional references are made from the operator seat while facing the direction the machine will operate.



Directional Arrows Used in Illustrations

Initial Preparations

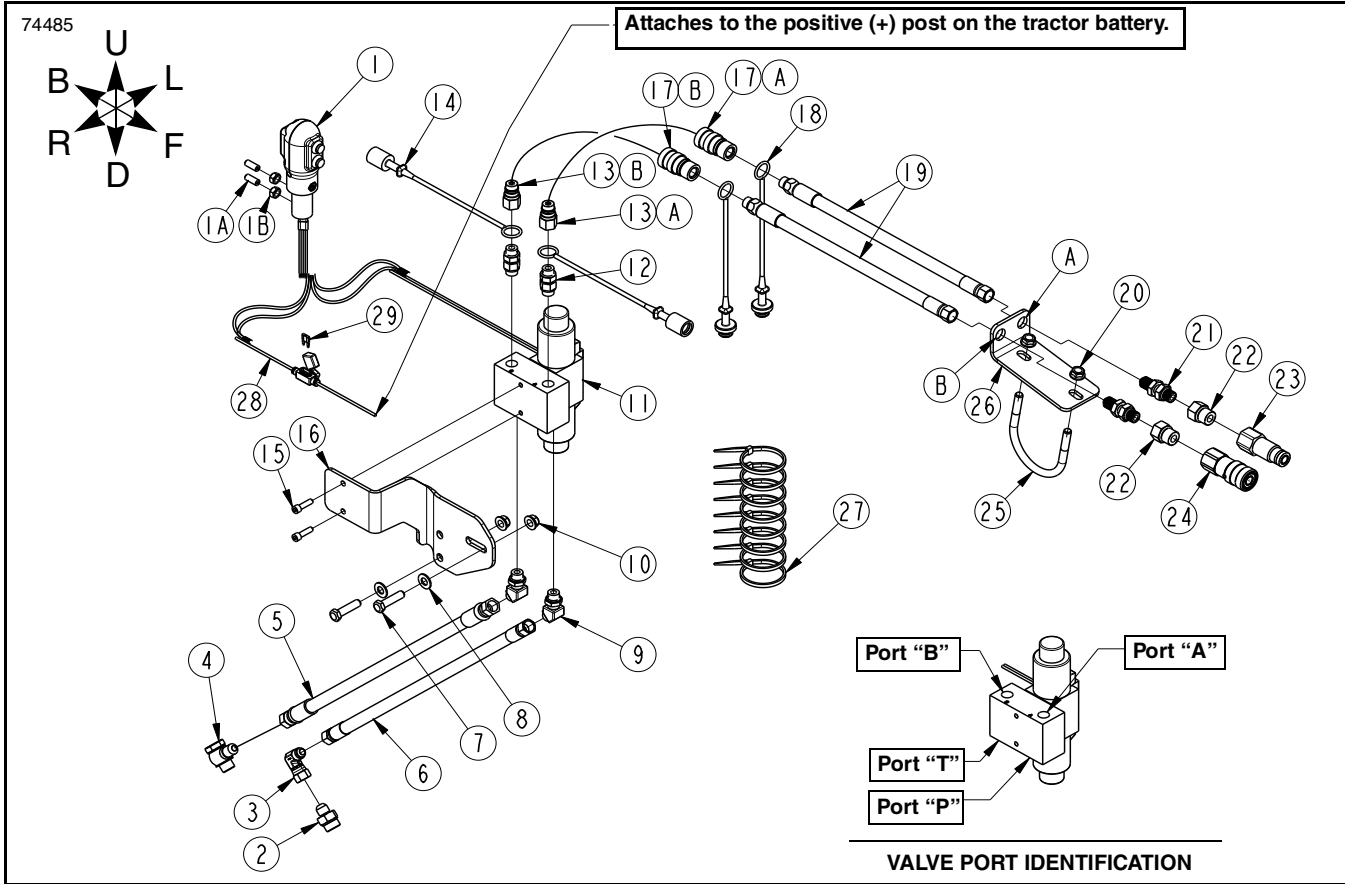


WARNING

To avoid serious injury or death: Hydraulic fluid under high pressure can penetrate the skin and/or eyes causing a serious injury. Wear protective gloves and safety glasses or goggles when working with hydraulic systems.

The steps listed below must be followed before installing this kit:

1. If the front loader is not attached to the tractor, skip to step 8. Otherwise, continue with step 2 below.
2. Lower loader arms fully down, turn tractor off, and relieve all hydraulic pressure to the front loader couplers by operating the loader control lever(s) in all directions.
3. Having released all hydraulic pressure, lock the control lever(s) from moving.
4. Remove all mechanical connections securing the front loader to the tractor.
5. Disconnect all hydraulic lines from the front loader.
6. Refer to your tractor/loader Operator's Manual for additional unhooking instructions.
7. Restart tractor and slowly back away from the loader.
8. Park tractor on a flat, level surface. Put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
9. Place chocks in front and back of the tractor's left rear wheel.
10. As a safety precaution, disconnect the battery cable from the battery's negative (-) terminal. Move negative cable away from the terminal to avoid accidental contact.



Third Function Valve Kit
Figure 1

Valve Mount & Valve Assembly

Refer to Figure 1 & Figure 2:

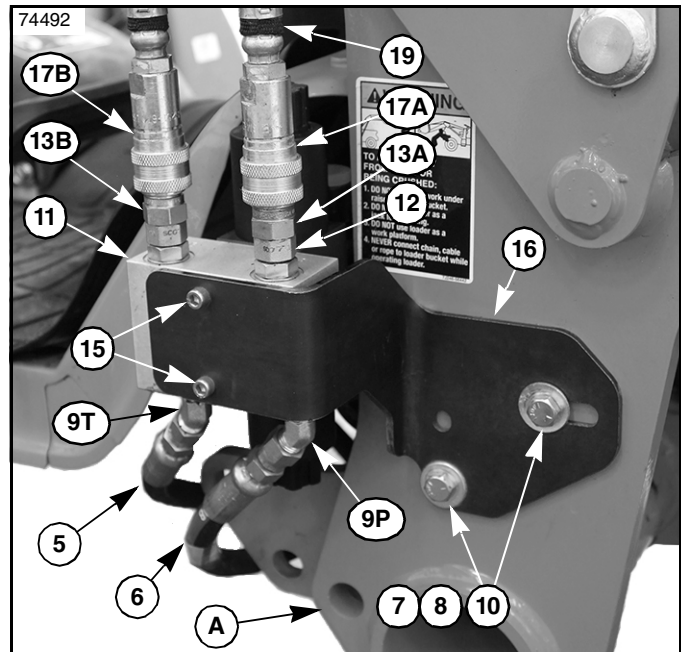
1. Install valve (#11) to bracket (#16) with 1/4"-20 x 7/8" hex socket bolts (#15). Tighten bolts to the correct torque.
2. Attach adapters (#12) to ports "A" & "B" in valve (#11) and tighten.
3. Install dust caps (#14) over adapters (#12).
4. Attach male couplers (#17) to adapters (#13) and tighten.
5. Attach elbows (#9) to ports "T" & "P" in valve (#11). Do not tighten elbows at this time.

Refer to Figure 2:

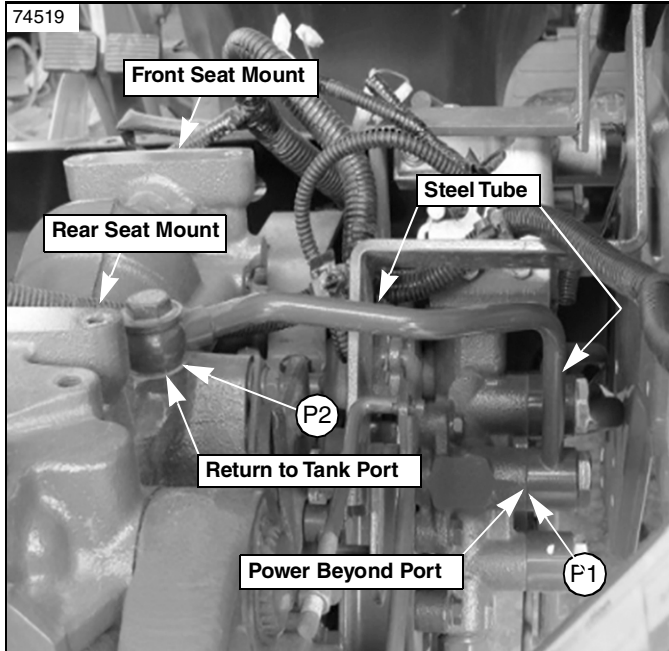
6. Attach mount (#16) to existing holes in front loader mount (A) using 3/8"-16 x 1 1/2" bolts (#7), flat washers (#8), and flange lock nuts (#10). Tighten flange lock nuts to the correct torque.
7. Attach 62" long hose (#5) to elbow (#9T) in port "T". Do not tighten hose to the elbow at this time.
8. Attach 48" long hose (#6) to elbow (#9P) in port "P". Do not tighten hose to the elbow at this time.

Refer to Figure 3:

9. Tighten elbows (#9) to valve (#11).
10. Tighten hoses (#5 & #6) to elbows (#9).



Valve Location
Figure 2



Remove Power Beyond Steel Tube
Figure 3

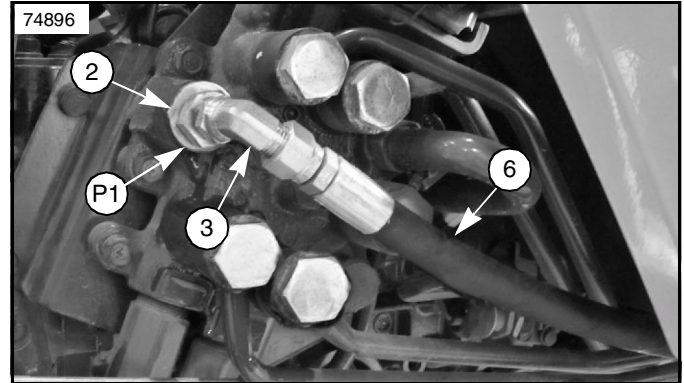
Connect to Power Beyond Ports

Refer to Figure 3:

IMPORTANT: Land Pride recommends that your dealer connect hydraulic hoses (#5 & #6) to your tractor's power beyond port and loader valve port. Improper hook-up could cause damage to your tractor.

IMPORTANT: DO NOT connect hydraulic hoses (#5 & #6) to the loader valve and power beyond port if the outer block feeds equipment mounted on the back of the tractor such as a backhoe. The instructions below do not apply in this situation. Have your nearest dealer hook-up these hoses. Improper hook-up can damage your tractor.

1. Verify the tractor's left rear wheel has been chocked in-front and in-back of the wheel.
2. Loosen lug nuts on the right rear wheel. Do not remove lug nuts at this time.
3. Jack right rear wheel off the ground and place a jack stand under the right rear axle.
4. Lower right rear axle onto a jack stand. The rear wheel should be slightly off the ground. Make sure the jack stand is secured and will not slip out from under the tractor axle.
5. Remove lug nuts and right rear wheel.
6. Locate and remove steel tube that is connected to the power beyond port (P1).
7. Locate power beyond port on the right side of the tractor where steel tube in step 6 was removed. Screw the large hydraulic straight adapter (#2) into the power beyond port until tight.
8. Screw 90° elbow (#3) to adapter (#2). Do not tighten at this time.
9. Screw the 48" long hose (#6) from "P" port to 90° elbow (#3). Do not tighten hose at this time.
10. Locate return to tank port (P2) under the tractor seat where steel tube in step 6 was removed. Screw the banjo fitting (#4) into the tank port. Do not tighten fitting at this time.
11. Screw 60" long hydraulic hose (#5) from "T" port to banjo fitting (#4). Do not tighten at this time.
12. Route hydraulic hoses (#5 & #6) under the tractor platform to the right side of the tractor.
13. Secure hoses (#5 & #6) to underside of tractor with cable ties (#27)
14. Replace right rear wheel and screw lug nuts on until snug.
15. Jack axle up and remove jack stand.
16. Lower tractor down and tighten lug nuts in a crisscross pattern. Refer to tractor Operator's Manual for proper torque value.
17. Remove chocks.
18. Check tractor hydraulic fluid level. If low, add recommended hydraulic fluid. Refer to your tractor Operator's Manual for recommended hydraulic fluid and procedure for checking hydraulic fluid level.



Connect 48" Long Hose
Figure 4

NOTE: Depending on the tractor model and/or options, the seat support frame may need to be removed to performing the following steps.

Refer to Figure 4:

7. Locate power beyond port on the right side of the tractor where steel tube in step 6 was removed. Screw the large hydraulic straight adapter (#2) into the power beyond port until tight.
8. Screw 90° elbow (#3) to adapter (#2). Do not tighten at this time.
9. Screw the 48" long hose (#6) from "P" port to 90° elbow (#3). Do not tighten hose at this time.

Refer to Figure 1 on page 2 & Figure 3:

10. Locate return to tank port (P2) under the tractor seat where steel tube in step 6 was removed. Screw the banjo fitting (#4) into the tank port. Do not tighten fitting at this time.
11. Screw 60" long hydraulic hose (#5) from "T" port to banjo fitting (#4). Do not tighten at this time.
12. Route hydraulic hoses (#5 & #6) under the tractor platform to the right side of the tractor.
13. Secure hoses (#5 & #6) to underside of tractor with cable ties (#27)
14. Replace right rear wheel and screw lug nuts on until snug.
15. Jack axle up and remove jack stand.
16. Lower tractor down and tighten lug nuts in a crisscross pattern. Refer to tractor Operator's Manual for proper torque value.
17. Remove chocks.
18. Check tractor hydraulic fluid level. If low, add recommended hydraulic fluid. Refer to your tractor Operator's Manual for recommended hydraulic fluid and procedure for checking hydraulic fluid level.

Control Lever Assembly

Refer to Figure 1 on page 2 & Figure 5:

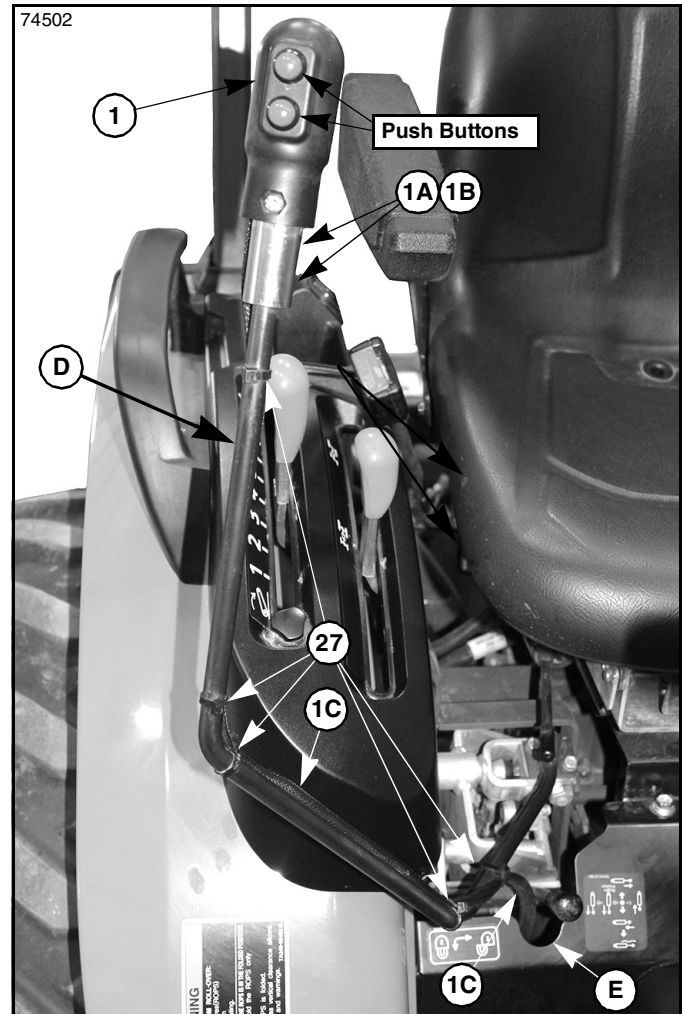
1. Remove existing knob (not shown) from end of control lever "D".
2. Install new control handle (#1) onto control lever (D). Adjust control handle (#1) to align the push buttons to suit the operator and then tighten set screws (#1A). Tighten jam nuts (#1B) to lock set screws.
3. Thread control handle wiring harness (#1C) through hole "E" and forward under the tractor platform.
4. Secure wire harness (#1C) with cable ties (#7) along control lever (D) as needed.

Refer to Figure 6:

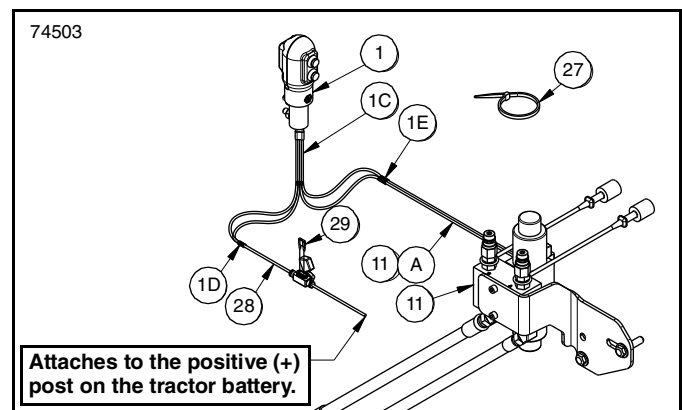
NOTE:

Wire harness (#1C) is attached to control knob (#1).
Wire harness (#11A) is attached to valve (#11).
Wire harness (#28) includes fuse (#29) and attaches to the tractor battery.

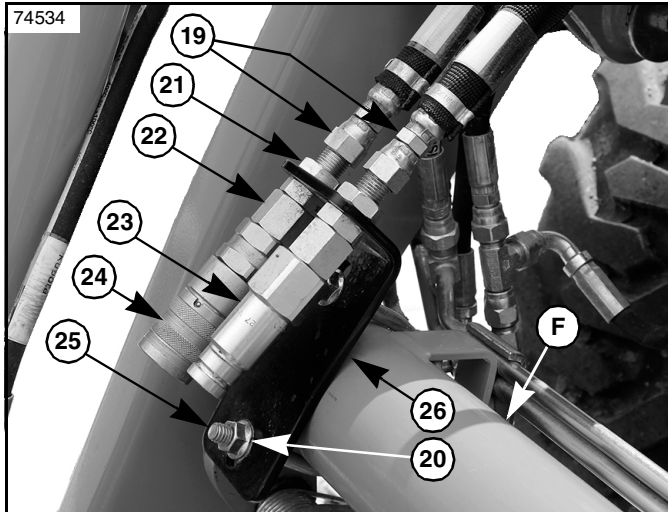
5. **Reference Connections (#1E):**
 - a. Connect one black wire in wire harness (#1C) to the black wire in harness (#11A).
 - b. Connect the other black wire in harness (#1C) to the white wire in harness (#11A).
6. **Reference Connection (#1D):**
 - a. Connect the two red wires in wire harness (#1C) to one end of the fused red wire harness (#28).
 - b. Connect opposite end of wire harness (#28) to the positive (+) post on the tractor battery.
7. Secure wire harness (#1C, #28, & #11A) with cable ties (#27) as needed.
8. Reconnect the disconnected battery cable in step 10 on page 1 to the battery's negative (-) terminal.



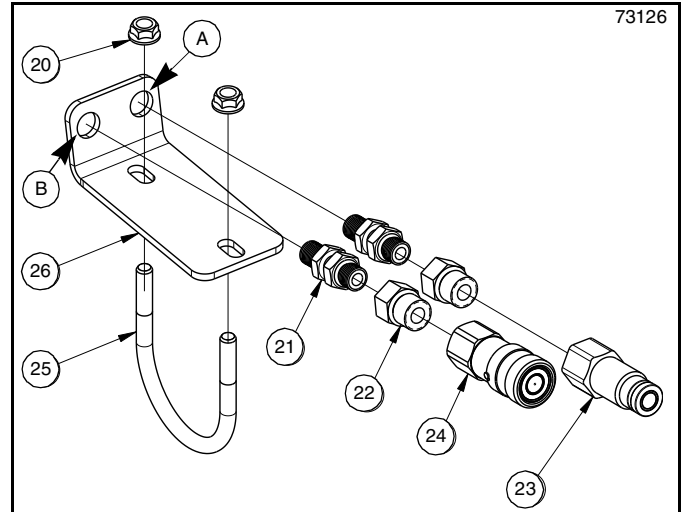
Control Stick Assembly
Figure 5



Connect Wire Harness
Figure 6



Cross Beam & Hose Holder Assembly
Figure 7



Bulkhead Mount with Flat Faced Couplers
Figure 8

Bulkhead Mount Assembly

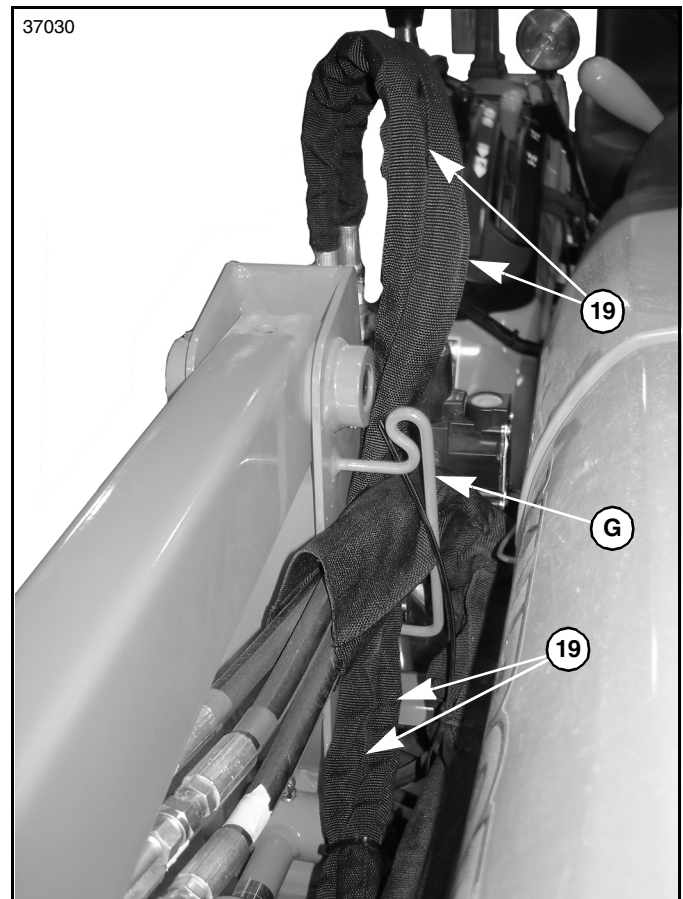
Refer to Figure 3 on page 3, Figure 7, & Figure 8:

1. Orient as shown and attach bulk head mount (#26) to the right-hand side of loader crossbeam "F". Secure mount with u-bolt (#25) and hex whiz nuts (#20). Tighten hex whiz nuts to the correct torque.
2. Remove jam nuts on bulkhead adapters (#21). Insert bulkheads through holes (A & B) in mount (#26) and secure with removed jam nuts. Tighten jam nuts.
3. Attach adapters (#22) to the bulkhead fittings (#21).
4. Attach male coupler (#23) to adapter (#22) in line with hole (A). Tighten coupler to the adapter.
5. Attach female coupler (#24) to adapter (#22) in line with hole (B). Tighten coupler to the adapter.
6. Attach 72" long hydraulic hoses (#19) to bulkhead adapters (#21).

Refer to Figure 3 on page 3 & Figure 9:

NOTE: Quick couplers (#17A & #13A) are in line with male coupler (#23). Quick couplers (#17B & #13B) are in line with female coupler (#24).

7. Install female couplers (#17) and black dust plugs (#18) to hydraulic hoses (#19).
8. Route hydraulic hoses (#19) along the loader arm and through loader hose loop bracket "G" to the third function valve assembly (#11).
9. Connect quick coupler (#17A) to quick coupler (#13A), port "A" on valve block (#11).
10. Connect quick coupler (#17B) to quick coupler (#13B), port "B" on valve block (#11).
11. Secure hydraulic hoses (#19) as needed with cable ties (#27).



Hose Route Along Loader Arm
Figure 9

Check Operation and Fluid Level

The Third Function Valve is now ready to be used with a multitude of attachments. Be sure to familiarize yourself with a complete understanding of how to operate the Third Function Valve Kit.

DANGER

To avoid serious injury or death:

Do not allow bystanders to be near the attachment, loader arms, or tractor during operation. They can become entangled, pinched, or crushed by the equipment. Disconnect and lockout power source before making adjustments or servicing tractor and attachment.

1. Hook attachment to the tractor front loader and couple hydraulic hoses to the bulkhead couplers at the front of the loader.
2. Raise attachment off the ground and operate the third function hydraulics using the push-buttons on the newly installed control handle.
 - The top red button switch will actuate the attachment in one direction.
 - The bottom red button switch will actuate the attachment in the opposite direction.
3. Switch couplers on the attachment's hydraulic hoses if the hydraulic cylinder(s) operate in the opposite direction intended.

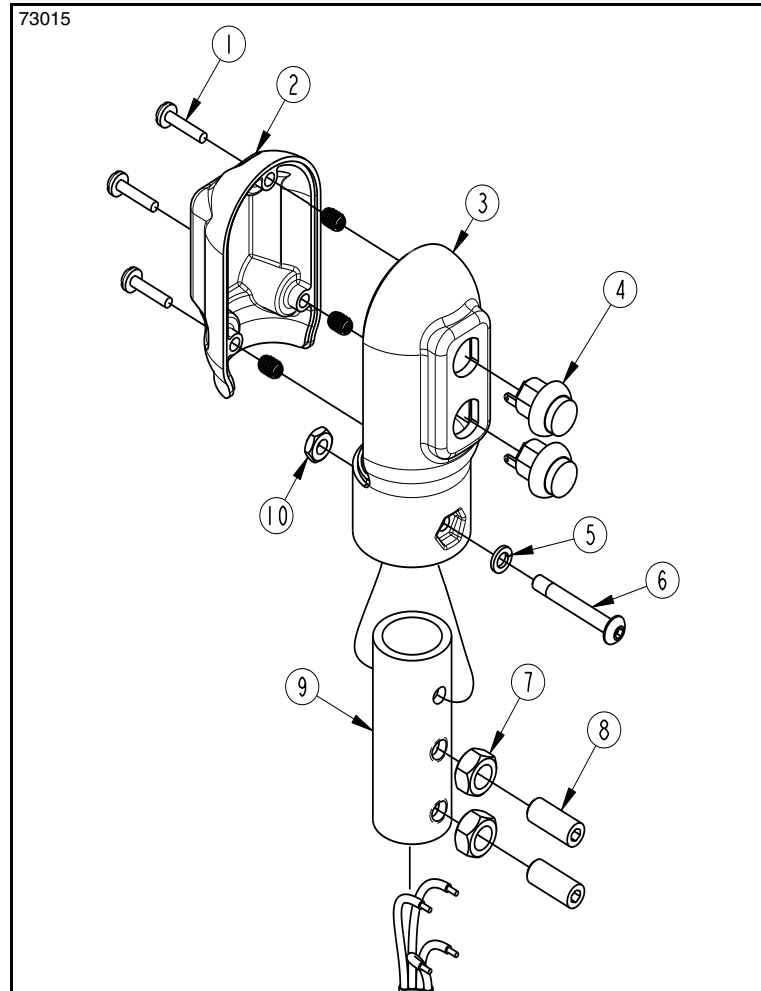
IMPORTANT: Refer to your tractor Operator's Manual for recommended hydraulic fluid and procedure for checking hydraulic fluid level.

4. Once hoses and cylinder(s) are full of hydraulic fluid, check tractor hydraulic fluid level.
5. If low, add recommended hydraulic fluid.

Relieve Hydraulic System Pressure

Be sure to lower the attachment to the ground and to relieve all hydraulic pressure to the attachment before leaving the tractor seat. Relieve hydraulic pressure to the attachment as follows:

1. Turn tractor switch key to off.
2. Press and hold both red buttons down on the control handle until all movement at the attachment stops.



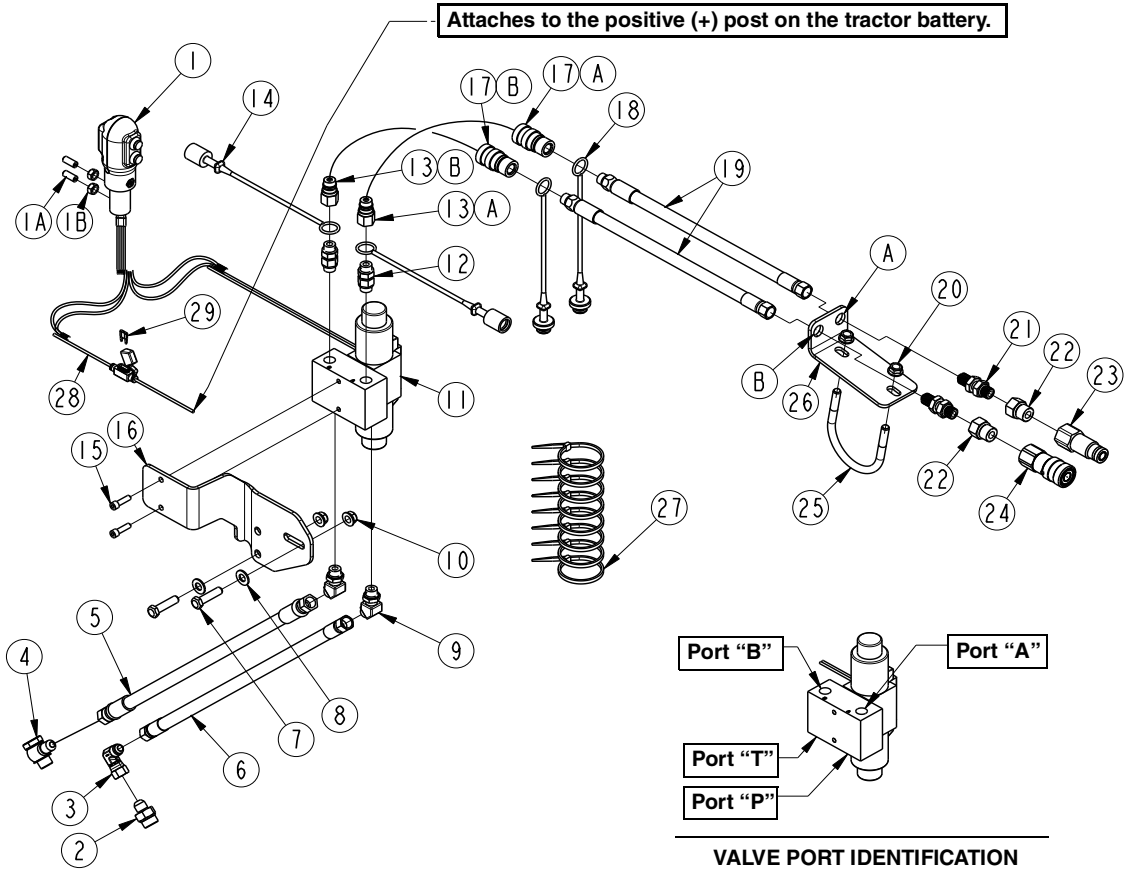
Control Handle
Figure 10

380-165S Push Button Control Handle

Refer to Figure 10:

Item	Part No.	Description	Qty
1	801-091C	CRPHMS 6-32X5/8 SS	3
2	837-053C	COVER, PUSH BUTTON CNTRL HNDL	1
3	837-054C	BASE, PUSH BUTTON CNTRL HNDL	1
4	833-739C	SWITCH, P9 PB NO SPST MOM RED	2
5	804-054C	WASHER LOCK #10	1
6	801-250C	HSBHCS #10-32X1 3/8	1
7	803-008C	NUT HEX 5/16-18 PLT	2
8	801-204C	SCREW SET SCKT HD 5/16-18X3/4	2
9	380-225D	MOUNT TUBE, CONTROL STICK	1
10	803-269C	NUT HEX 10-32 PLT	1

74485



Hydraulic Hose Identification Chart

851-350C - (#19)		
811-253C - (#5)		
841-563C - (#6)		73128

**Third Function Valve Kit
Figure 11**



Kit No. 380-354A THIRD FUNCTION VALVE KIT (Equipped with flat faced couplers)

Refer to Figure 11 on page 8:

Item	Part No.	Description	Qty
1	380-165S	ASY, PUSH BUTTON CNTRL HNDL (See page 7 for component breakdown).	1
2	811-133C	AD 9/16MJIC 3/4MORB	1
3	811-169C	EL 9/16MJIC 9/16FJIC	1
4	871-106C	AD BANJO 3/8 MBSPP - 9/16 MJIC	1
5	811-253C	HH3/8R2 062 9/16FJIC	1
6	841-563C	HH3/8R2 048 9/16FJIC	1
7	802-022C	HHC 3/8-16X 1 1/2 GR5	2
8	804-012C	WASHER FLAT 3/8 SAE PLT	2
9	811-416C	EL 45 9/16MJIC 9/16MORB	2
10	803-209C	NUT FLANGE LOCK 3/8-16 PLT	2
11	810-926C	VALVE, THIRD FUNCTION	1
12	811-636C	AD 9/16MORB STRAIGHT UNION.	2
13	841-467C	CP 9/16 FORB QD 1/4 BODY MALE	2
14	851-976C	DUST CAP, 1/4" QD AG	2
15	802-418C	HSHCS 1/4-20X7/8	2
16	380-256C	BRKT, VALVE MOUNT	1
17	841-466C	CP 9/16FORB QD 1/4BODY FEMALE	2
18	851-977C	DUST PLUG, 1/4" QD AG	2
19	851-350C	HH1/4R2 072 9/16MORB 9/16FJIC.	2
20	803-198C	NUT HEX WHIZ 3/8-16 PLT	2
21	851-276C	AD 9/16MJIC9/16MORB BLKHD W/LN	2
22	841-103C	AD 3/4MORB 9/16FORB	2
23	841-099C	CP 3/4FORB QD FLATFACE	1
24	861-543C	CP 3/4FORB QD FML FLATFACE	1
25	806-261C	U-BOLT 3/8-16X3X3 5/8 RND	1
26	380-223D	PLATE, BX BLKHD MOUNT.	1
27	800-112C	CABLE TIE .19X7.25 1.75D 50LB	8
28	833-650C	BLADE FUSE HOLDER, MINI	1
29	833-495C	FUSE, 10 AMP MINI BLADE	1



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