

Automated Steering Hydraulic Installation Kit

P/N: ED-SPX4260S

Fits CaseIH Sprayer Models:

SPX3320

SPX4260 (2002-present)

SPX4410

SPX4420

Overview

A series of equipment specific hydraulic installation kits have been developed to work in conjunction with your automated steering system. This kit contains the necessary components and instructions to install automated steering hydraulics on the Case IH SPX sprayer models listed above. Please read this manual thoroughly before beginning the installation.

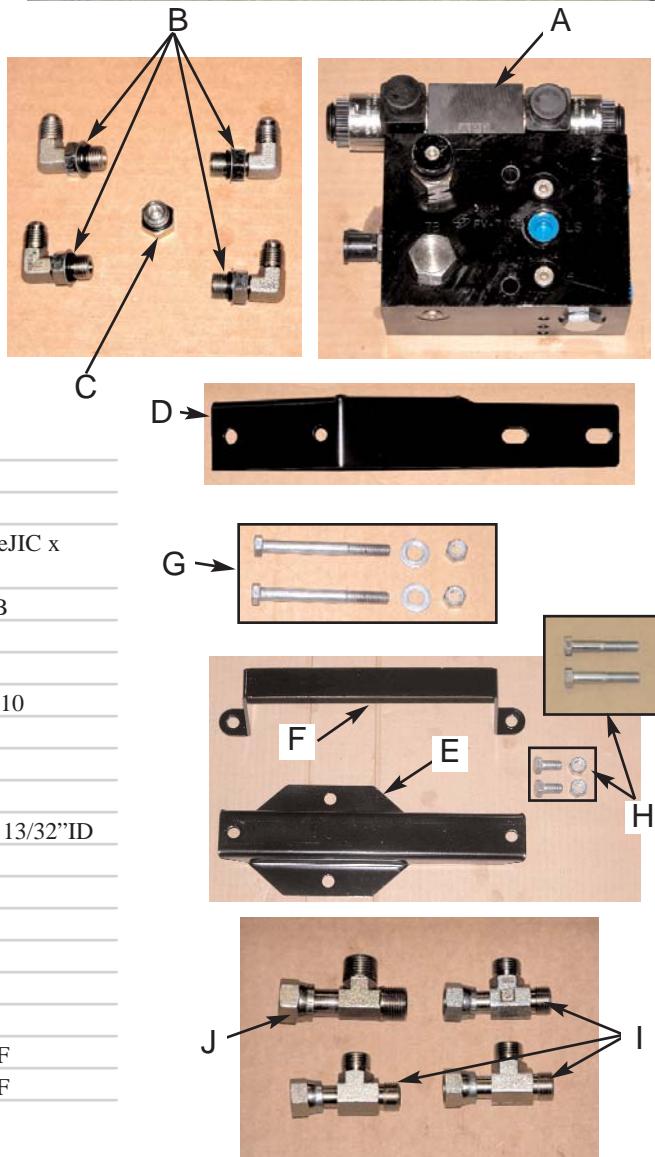
Machine Preparation

Before attempting to install hydraulics, park the Machine on a clean level floor with adequate clearance to work all around.

Kit Contents

Unpack the installation kit and identify the required parts as shown.

| REF | P/N | QTY | DESCRIPTION |
|---------------------------------------|----------|-----|---|
| A | 760-0003 | 1 | Assy, Hyd. Valve Block - LS |
| Bag #1 of 3 includes B & C | | | |
| B | 760-2058 | 4 | Adapter, Hyd. 90 Elbow - #6maleJIC x #6maleORB |
| C | 760-2045 | 1 | Adapter, Hyd. Plug - #6maleORB |
| D | 640-0017 | 1 | Hyd. Block Mnt, SPX4260S |
| E | 640-0015 | 1 | Hyd. Block Mnt, JD4700/SPX4410 |
| F | 640-0035 | 1 | Hyd. Block Mnt, Hammer Strap |
| Bag #2 of 3 includes G & H | | | |
| G | 675-2005 | 2 | Bolt, 3/8NC x 3-1/4 Gr5 ZP |
| | 678-1054 | 2 | Washer, Narrow Flat - 3/4"OD x 13/32"ID x 1/16"thk ZP |
| | 676-1035 | 2 | Nut, NyLock - 3/8NC ZP |
| H | 675-2007 | 2 | Bolt, 3/8NC x 3/4 Gr5 ZP |
| | 676-1035 | 2 | Nut, NyLock - 3/8NC ZP |
| | 675-2021 | 2 | Bolt, 3/8NC x 2 Gr5 ZP |
| Bag #3 of 3 includes I & J | | | |
| I | 760-2046 | 3 | Adapter, Hyd Run Tee - #6 ORFF |
| J | 760-2069 | 1 | Adapter, Hyd Run Tee - #8 ORFF |



Kit Contents (cont.)

| REF | P/N | QTY | DESCRIPTION |
|-----|----------------------------------|--------------|--|
| K | 760-1061 | 2 | Hose, Hyd. - 1/4" x 124", #6femJICswiv x #6femORFFswiv |
| L | 760-1060 | 1 | Hose, Hyd. - 3/8" x 98", #6femJICswiv x #6femORFFswiv 90EL |
| M | 760-1059 | 1 | Hose, Hyd. - 3/8" x 96", #6femJICswiv x #8femORFFswiv 90EL |
| N | 051-0144 677-2001 710-0053 | 1 20 1 | Cable, Interface - 10 ft. Tie Strap, 11" Heavy Duty, Not Shown Kit, Steering Wheel Switch, Not Shown |



WARNING:

HIGH-PRESSURE FLUID HAZARD. Hydraulic oil may be hot and under high pressure. To prevent serious injury or death: Relieve system pressure and allow to cool before repairing or disconnecting. Wear proper hand and eye protection when searching for leaks, using wood or cardboard instead of hands. Keep all hydraulic components in good repair.

PREVENT HYDRAULIC SYSTEM CONTAMINATION.

IMPORTANT: It is essential to thoroughly clean hydraulic system fittings and hose connections prior to disconnecting or removing. Use a spray cleaner such as 'Brake Clean' to prevent hydraulic system contamination. Note that o-rings used on ORB and ORFF type fittings may be damaged by solvent cleaners such as 'Brake Clean'. If a fitting is to be cleaned internally, the o-ring should first be removed and cleaned with a fiberless cloth.

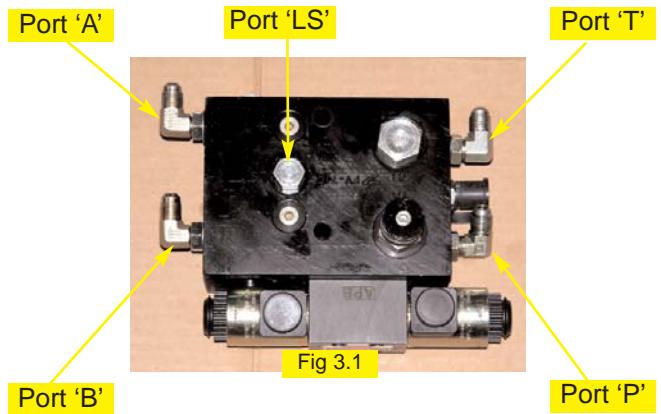
INSTALLATION

1. Prepare Hydraulic Control Block:

Make sure the hydraulic control block is clean and dust free. Remove the plastic plugs and install elbow adapters (**B**) in the **P**, **T**, **A**, and **B** ports. Install the ORB plug fitting (**C**) in the **LS** port. (Figure 3.1)

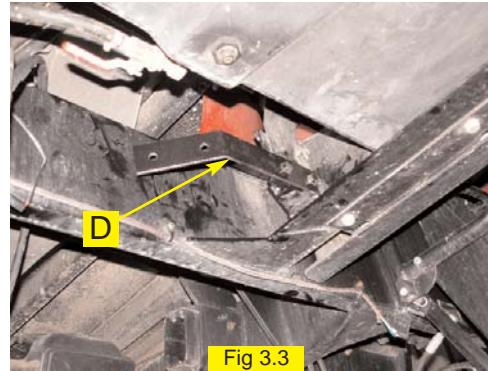
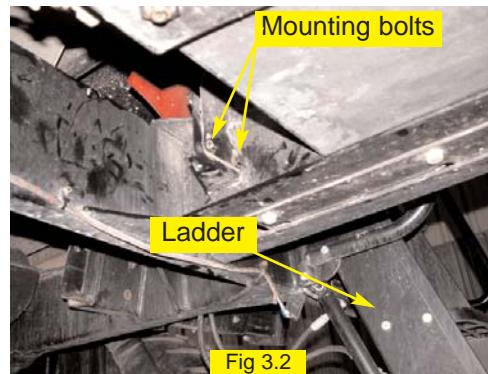
Note: To install the elbow fittings into the **P** and **T** ports, the pressure test port fitting must first be removed. Once the elbows are installed, reinstall the pressure test port fitting.

If your machine is an **SPX4260**, proceed to step 2. If your machine is an **SPX3320**, **SPX4410**, or **SPX4420** proceed to page 4 step 2a.



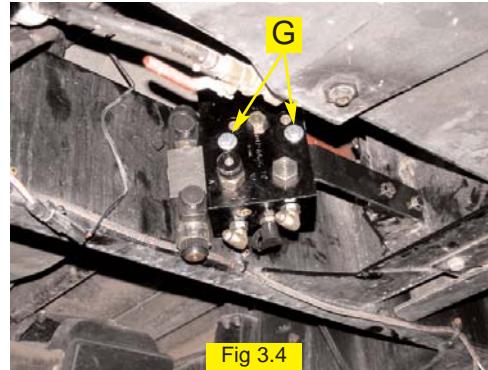
2. Install Mounting Bracket:

Locate the mounting flange inside the frame to the right of the ladder and behind the fuel tank. (Figure 3.2) Remove the lower two mounting bolts from the flange and install the mounting bracket (**D**) as shown. (Figure 3.3)



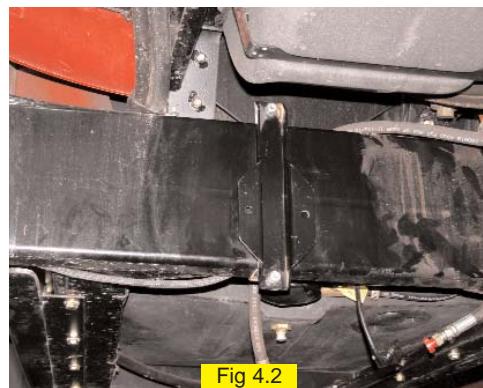
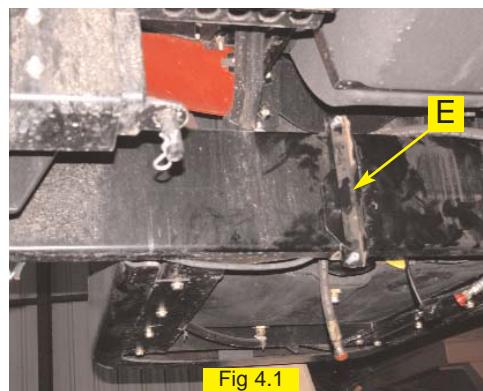
3. Install Hydraulic Control Block:

Using the mounting hardware in group (**G**), install the hydraulic control block, as prepared in step 1, to the mounting bracket. (Figure 3.4) Orient the block with the **A** and **B** ports up as shown. Tighten mounting bolts securely.



2a. Install Mount Bracket:

Locate the 2" x 8" or 3" x 8" frame cross-member behind the fuel tank. Attach the mounting bracket (E) using hammerstrap (F) and mounting hardware (H) to the backside of the frame member as shown. Two lengths of bolts are included in mounting hardware (H) to accommodate variations in frame size. (Figure 4.1 and 4.2)



3a. Install Hydraulic Control Block:

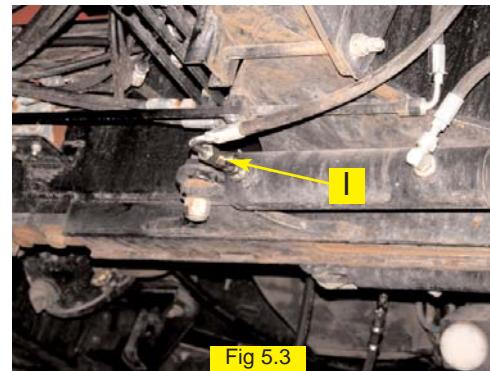
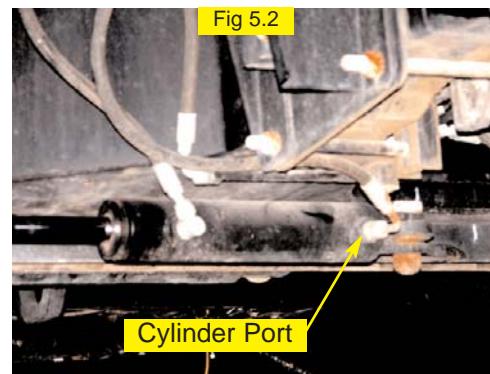
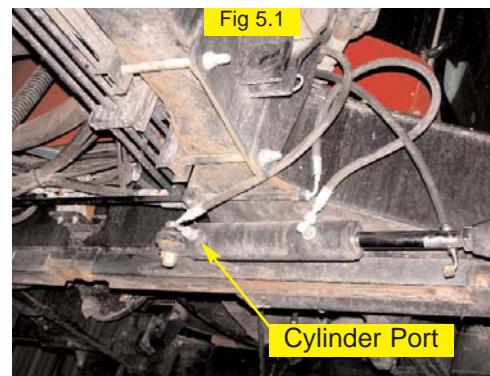
Using the mounting hardware in group (G), install the hydraulic control block, as prepared in step 1, to the mounting bracket. (Figure 4.3) Orient the block with the A and B ports up as shown. Tighten mounting bolts securely.



4. Install Steering Output Fittings:

Locate the right and left steering cylinders on the front axle member. Install the provided run-tee fittings (**I**) onto the blind port of both steering cylinders. (Figures 5.1 - 5.3)

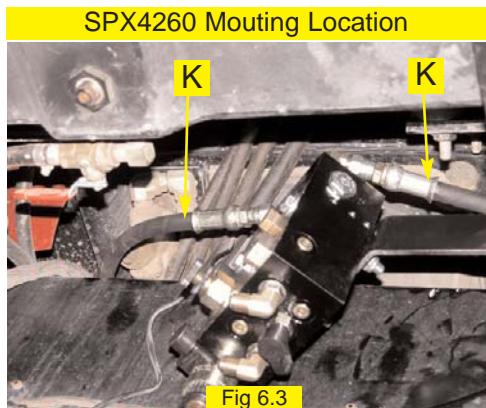
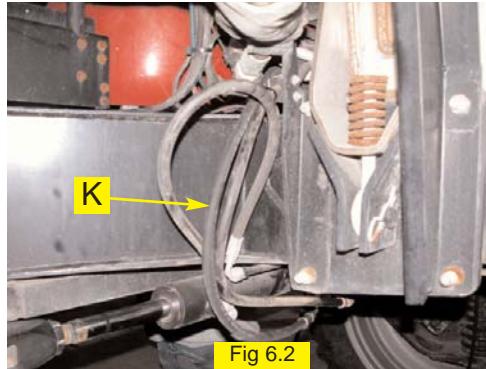
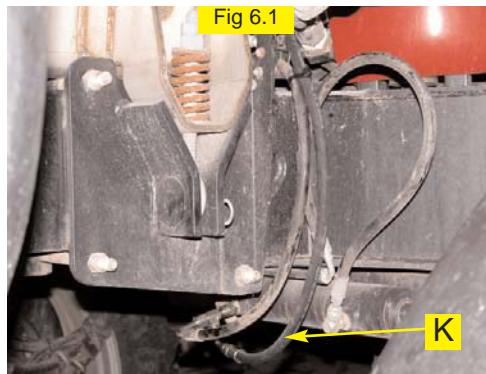
Reattach the machine steering lines to the ends of the run-tee fittings as shown. (Figure 5.3) Leave the run-tee fittings loose to allow for alignment when attaching hoses. Plastic caps placed on the open branches of the run-tee fittings will prevent excessive leakage prior to hose installation.



5. Install Steering Output Hoses:

Install steering output hoses (**K**) on the run-tee fittings installed in the previous step and to the **A** and **B** ports of the hydraulic control block. (Figures 6.1 - 6.4) The ends of the hoses with the o-ring face swivels attach at the run-tee fittings.

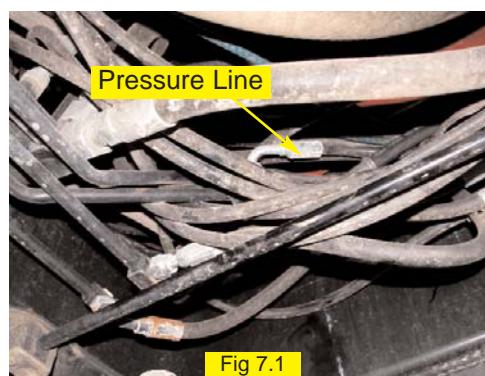
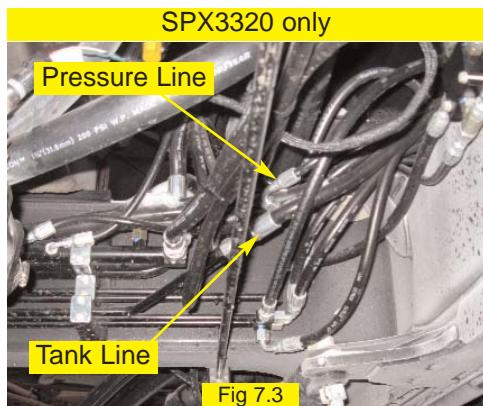
Route the hoses up from the cylinders, forward under the cab, and down to the hydraulic control block. Carefully check the hose routing for clearance of moving parts and secure with heavy tie straps. Securely tighten all steering output hoses and fittings at the run-tees and the hydraulic control block.



6. Install Pressure and Tank Fittings:

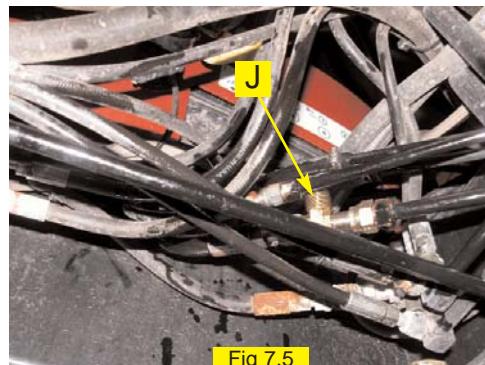
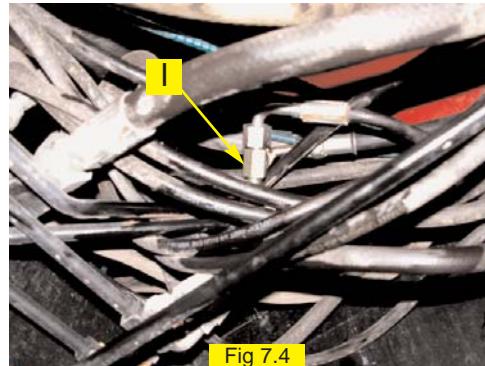
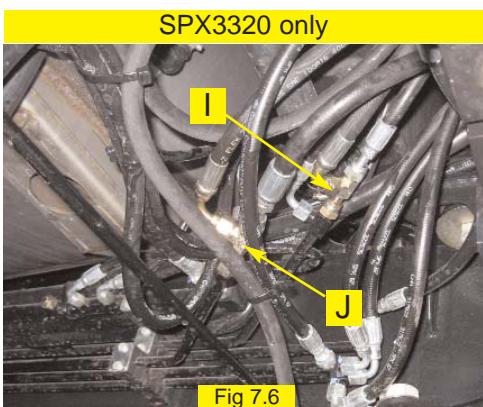
Locate the pressure and tank lines in the hydraulic plumbing behind the front axle member. The pressure line is on the left side above the steering cylinder linkage (Figure 7.1) and the tank return line is on the right side above the steering cylinder linkage. (Figure 7.2) Install the provided run-tee fitting (**I**) to the pressure line at the junction of the steel line and rubber hose. (Figure 7.4) Install the provided run-tee fitting (**J**) to the tank line at the junction of the steel line and the rubber hose. (Figure 7.5)

Note: On SPX3320 sprayer models the pressure and tank lines are both located on the left side as shown in figure 7.3. Install run tees (**I & J**) in the pressure and tank lines respectively. (Figure 7.6).



Consult the photos to confirm the correct installation locations for pressure and tank, or trace the attached rubber hoses forward to the steering orbital under the cab. The rubber hoses should ultimately attach to the ports on the steering orbital stamped **P** and **T**.

Reattach the machine pressure and tank hoses to the respective ends of the run-tee fittings. Leave the run-tee fittings loose to allow for alignment when attaching hoses. Plastic caps placed on the open branches of the run-tee fittings will prevent excessive leakage prior to hose installation.

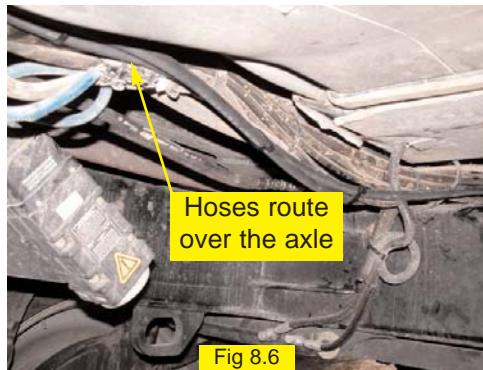
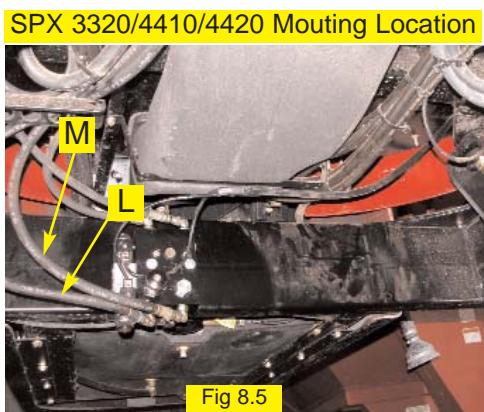
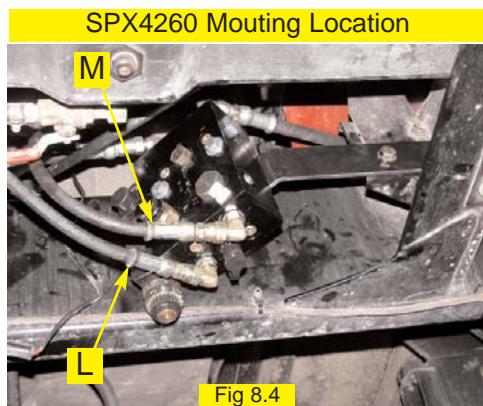
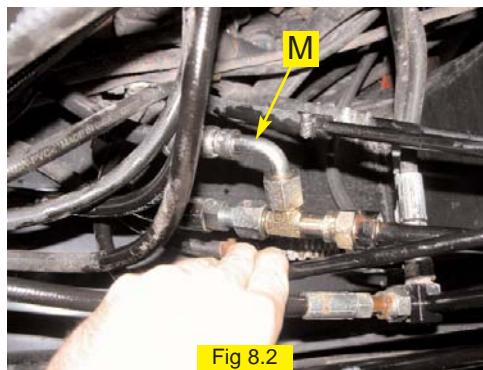
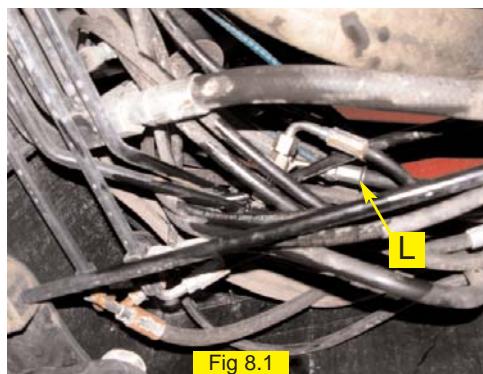
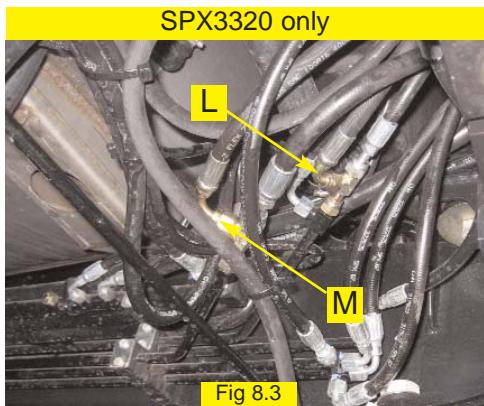


7. Install Pressure and Tank Hoses:

Install the provided pressure hose (**L**) between the run-tee fitting (**I**) and the **P** port of the hydraulic control block. (Figure 8.1) Install the provided tank hose (**M**) between the run-tee fitting (**J**) and the **T** port of the hydraulic control block. (Figure 8.2) The ends of the hoses with the o-ring face elbows attach at the run-tee fittings.

Note: For SPX3320 models refer to figure 8.3.

Route the hoses forward over the axle member and down to the hydraulic control block. Hoses should be routed with other machine hydraulic hoses. (Figures 8.4 - 8.6) Carefully check the hose routing for clearance of moving parts and secure with heavy tie straps (*included*). Securely tighten all hoses and fittings, both at the run-tees and at the hydraulic block.



8. Install the Valve Control Cable:

Route the valve control cable (N) into the cab through a hole in the floor in the right front corner as shown. (Figure 9.1 and 9.2)

Route the DIN connectors back and across to the hydraulic control block and attach as shown. (Figure 9.3 and 9.4)

Remove enough slack out of the cable to prevent entanglement with machine moving parts. Use tie straps as needed.

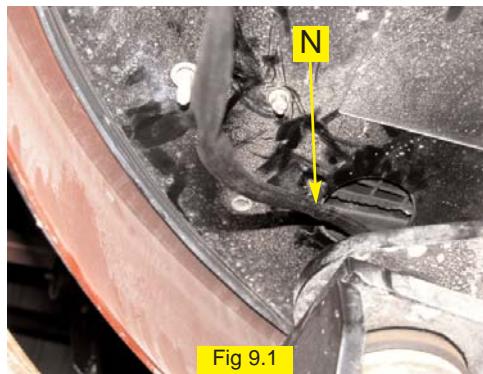


Fig 9.1

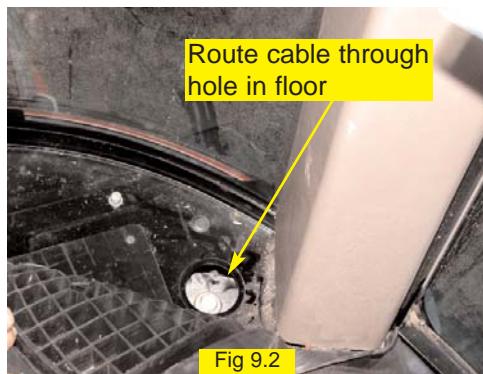


Fig 9.2

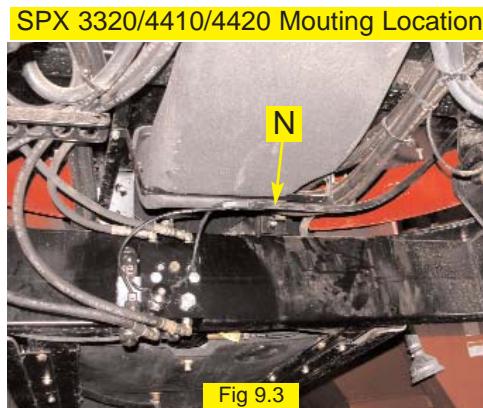


Fig 9.3

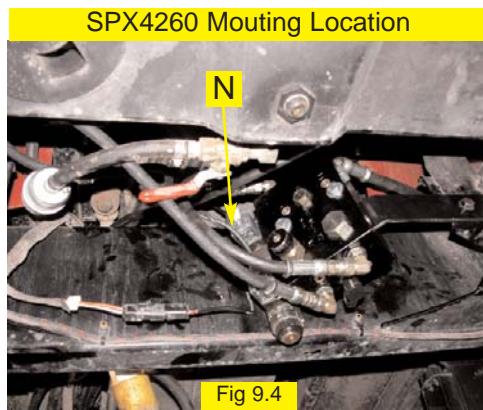


Fig 9.4

9. Verify Operation and Set Steering Control Rate:

Cleanup the installation area around the sprayer and make certain that it is safe to operate. Start the machine and check hydraulic connections for any leaks. Rotate the steering wheel from one extreme to the other, and back.

Adjust the hydraulic oil flow control knob to a starting position of **3 turns** from completely closed. To adjust the knob, lift and turn clockwise to reduce flow, counter-clockwise to increase flow.

The coils on the control block have manual push button overrides. Push either manual override to move the steering tires all the way to one extreme. Count the number of seconds for the steering tires to move all the way in the opposite direction while pressing the manual override of the other coil. (Figure 10.1)

Adjust the hydraulic oil flow control knob to achieve an end to end steering cycle time of approximately **12 seconds**.

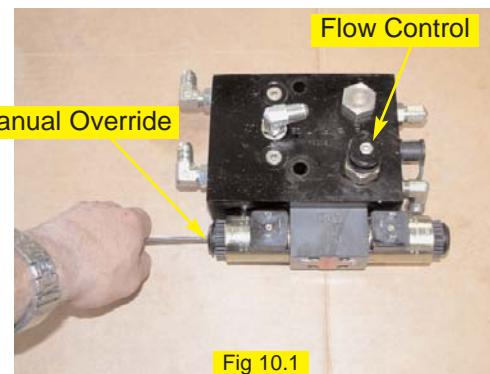


Fig 10.1

Note: To activate the manual overrides, a tool such as a small screw driver or allen wrench must be inserted into the end of the coil to depress the override button.



PINCH POINT HAZARD. To prevent serious injury or death, avoid unsafe practices while manually operating hydraulic steering circuit. Keep others away and stay clear of mechanical steering linkages.

10. Complete Electronic Installation and Setup:

Refer to the owner's manual supplied with your automated steering system to complete the electronic installation and setup.

