

Automated Steering Hydraulic Installation Kit

P/N: ED-SC7000

Fits Spra-Coupe Models:

7450

7650

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 Spra-Coupe models listed above. Please read this manual thoroughly before beginning the installation.



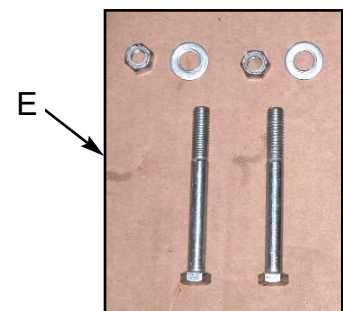
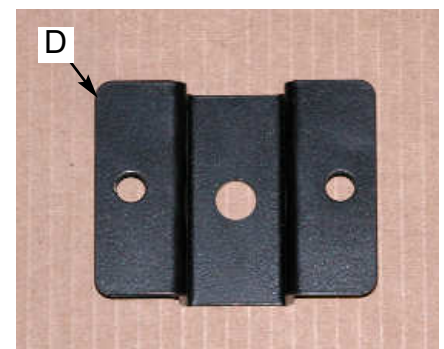
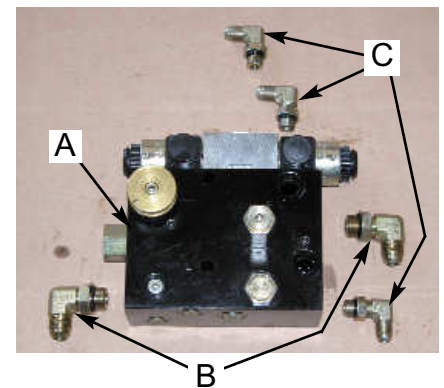
Sprayer Preparation

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

Kit Contents

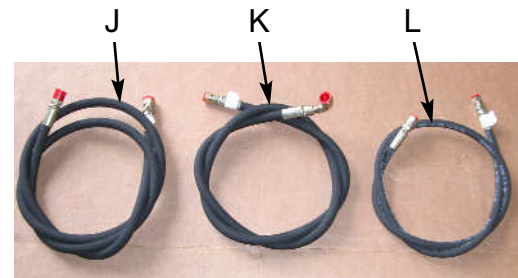
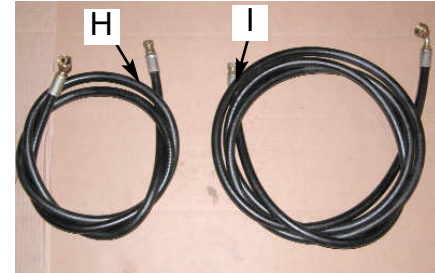
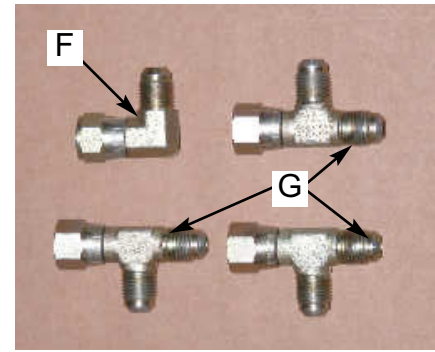
Unpack the installation kit and identify the required parts as shown.

REF	P/N	QTY	DESCRIPTION
A	760-0005	1	Assy, Hyd. Valve Block - OC
Bag #1 of 3 includes B & C			
B	760-2080	2	Adapter, Hyd. 90 Elbow - #8maleJIC x #8maleORB
C	760-2058	3	Adapter, Hyd. 90 Elbow - #6maleJIC x #6maleORB
Bag #2 of 3 includes E			
D	640-0020	1	Hyd. Block Mnt, SPX3200
E	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



Kit Contents (cont.)

REF	P/N	QTY	DESCRIPTION
Bag #3 of 3 includes F & G			
F	760-2055	1	Adapter, Hyd. 90 Elbow - #6maleJIC x #6femJIC
G	760-2054	3	Adapter, Hyd. Run Tee - #6 JIC
H	760-1170	1	Hose, Hyd. - 1/4x65, #6fJIC x #6fJIC90
I	760-1171	1	Hose, Hyd. - 1/4x91, #6fJIC x #6fJIC90
J	760-1173	1	Hose, Hyd. - 3/8x62, #6mJIC x #8fJIC
K	760-1172	1	Hose, Hyd. - 3/8x62, #6fJIC x #8fJIC90
L	760-1142	1	Hose, Hyd. - 1/4 x 56, #6fJS x #6fJS
M	051-0143	1	Cable, Interface - 15ft
	677-2001	20	Tie Strap, 11" Heavy Duty, Not Shown
	710-0053	1	Kit, Steering Wheel Switch, Not Shown



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.



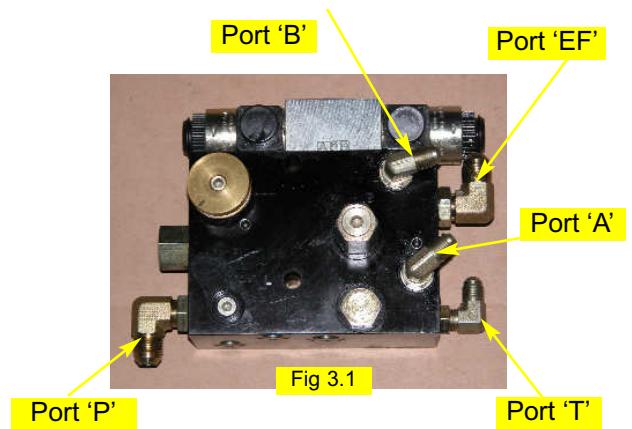
PREVENT HYDRAULIC SYSTEM CONTAMINATION.

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:

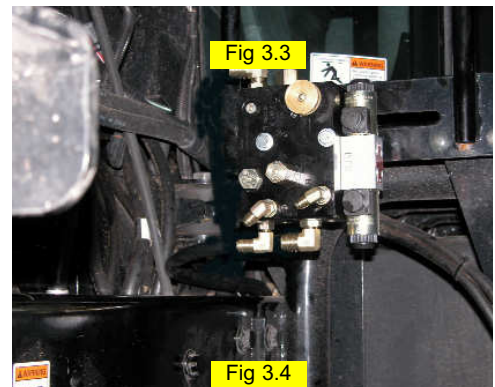
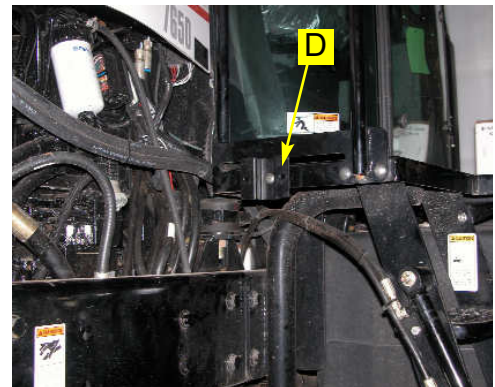
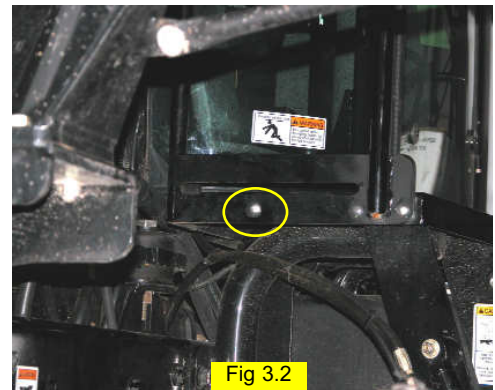
Make sure the hydraulic control block is clean and dust free. Remove the plastic plugs and install the elbow adapters (C) in the T, A, and B ports. Install the larger elbows (B) in the P and EF ports of the hydraulic control block. (Figure 3.1)



2. Mount Hydraulic Control Block:

Install the hydraulic mounting bracket (D) to the existing bolt on the front of the ladder platform. (Figure 3.2 and 3.3)

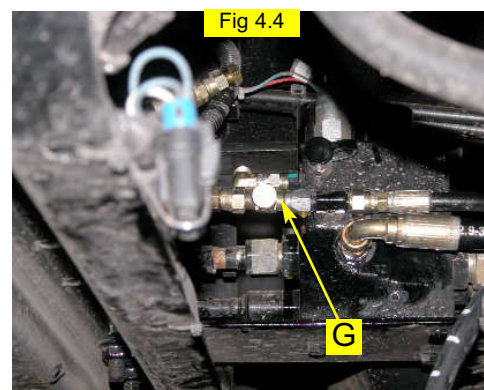
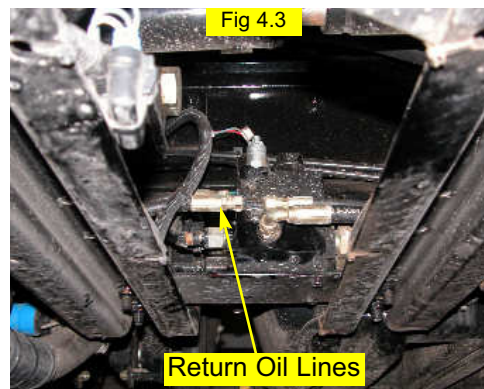
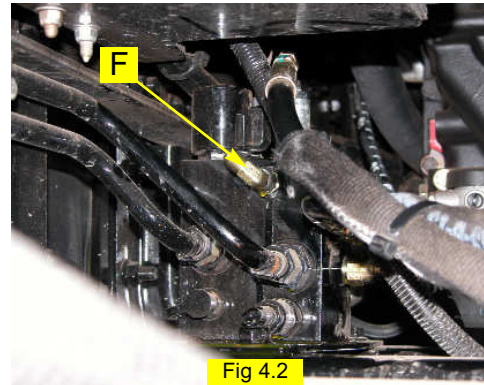
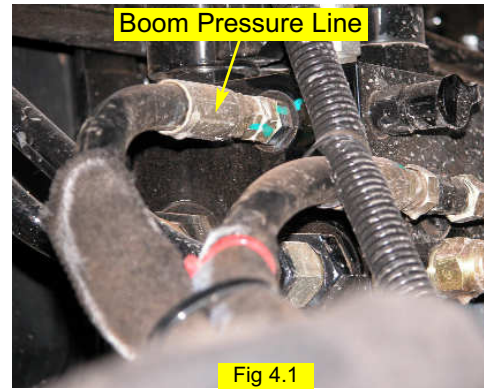
Use the provided mounting hardware in group (E) to attach the prepared hydraulic control block to the mounting bracket in the orientation shown. (Figure 3.4)



3. Pressure, Tank, and Excess Flow Connection Locations:

The hydraulic control block will receive pressure from the boom pressure port on the hydraulic flow divider valve located behind the fuel tank inside the left frame rail. (Figure 4.1) Remove the boom pressure line from the hydraulic flow divider and install the elbow fitting (F). (Figure 4.2)

Tank flow from hydraulic control block will be returned to the return oil line on the same hydraulic flow divider. (Figure 4.3) Install the provided run-tee (G) in the return oil line. (Figure 4.4)



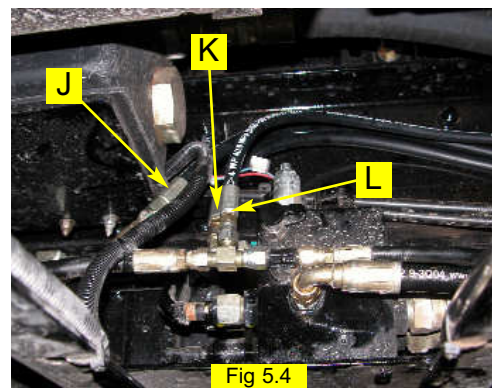
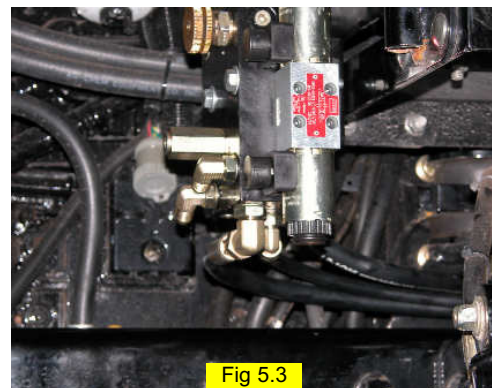
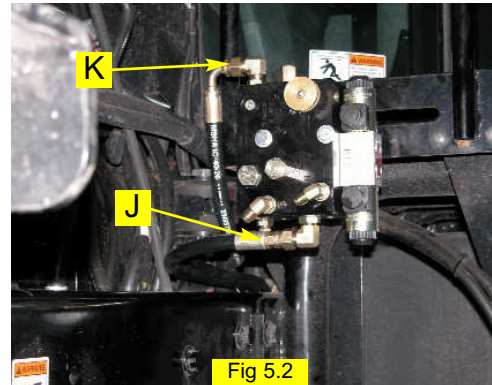
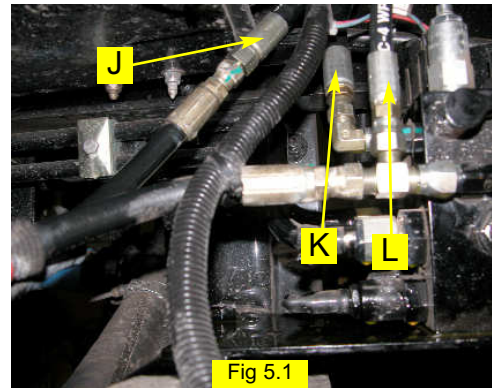
4. Install Pressure, Tank, and Excess Flow Hoses:

Install the provided tank hose (L) between the T port of the hydraulic control block and the branch of the run-tee (G) installed in step 3. (Figure 5.1)

Connect the pressure hose (K) to the P port of the hydraulic control block and the elbow (F) installed in step 3. (Figure 5.1 and 5.2)

Install the excess flow hose (J) between the EF port of the hydraulic control block and the boom pressure hose removed from the hydraulic flow divider valve. (Figure 5.1 and 5.2)

The pressure, tank, and excess flow hoses should be routed along the frame from the hydraulic control block to the hydraulic flow divider valve. (Figure 5.3 and 5.4) Use heavy tie-straps, provided, to secure the hoses to the machine frame away from moving parts. Tighten all hydraulic connections securely to prevent leaks.



5. Install Steering Output Fittings:

Locate the steering lines on the head end of the steering cylinders. (Figure 6.1 and 6.2) Install the provided run-tees (G) in the steering lines as shown. (Figure 6.3 and 6.4) Use plastic caps to prevent excess leakage from the open run-tee ports.

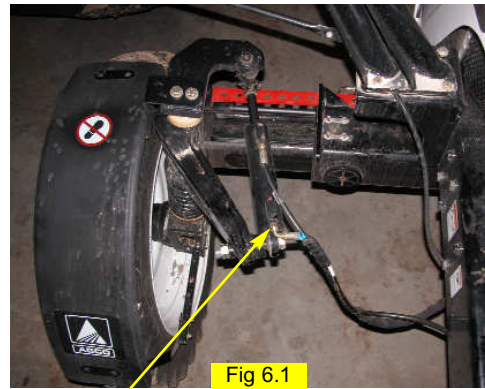


Fig 6.1

Steering Lines

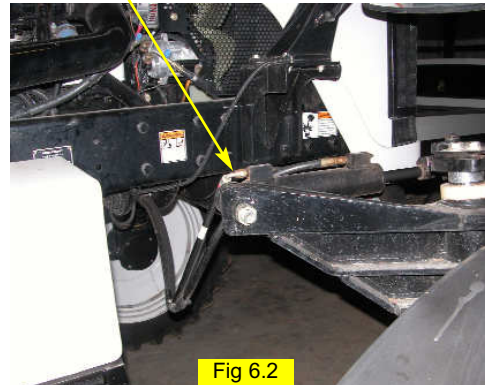


Fig 6.2

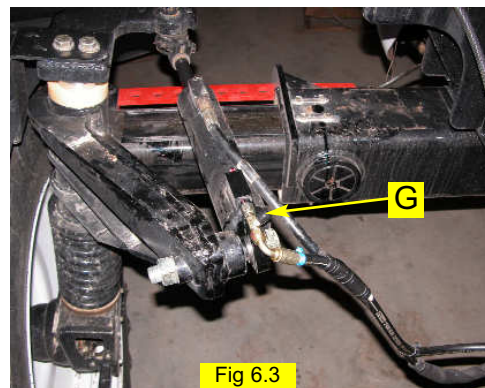


Fig 6.3

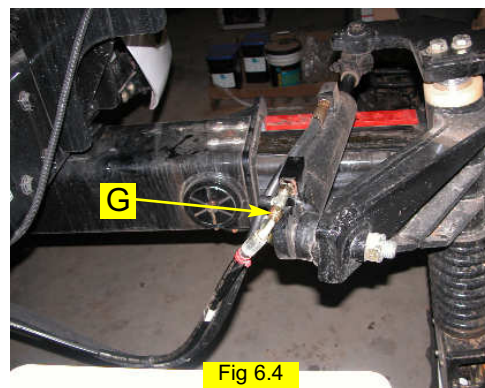


Fig 6.4

6. Install Steering Output Hoses:

Install the provided steering output hoses (**H** and **I**) between the run-tees installed in step **5** and the **A** and **B** ports of the hydraulic control block. (Figure 7.1, 7.2, and 7.3) Attach hose ends equipped with 90-degree elbows to the hydraulic cylinders and attach the straight hose ends to the hydraulic control block. Route hoses with existing steering lines as shown. (Figure 7.4) Use the heavy tie-straps provided to secure the hoses away from moving parts.

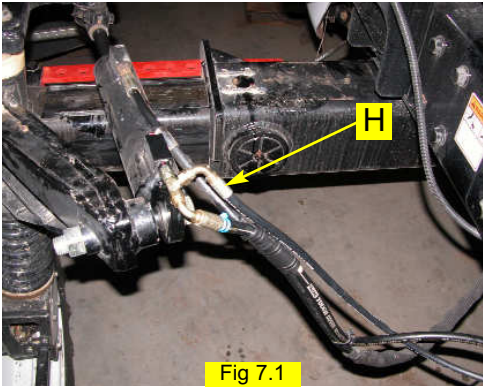


Fig 7.1

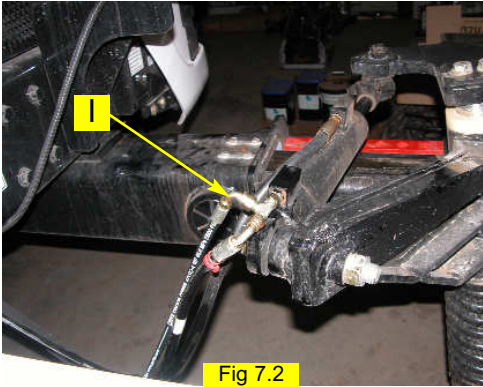


Fig 7.2

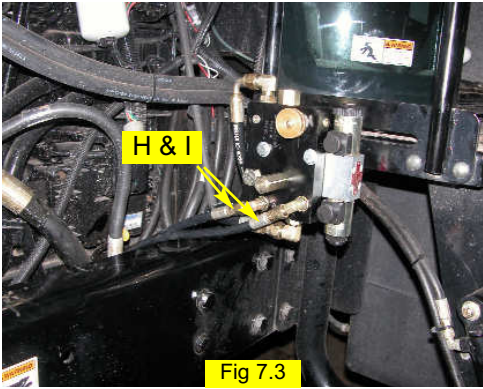


Fig 7.3

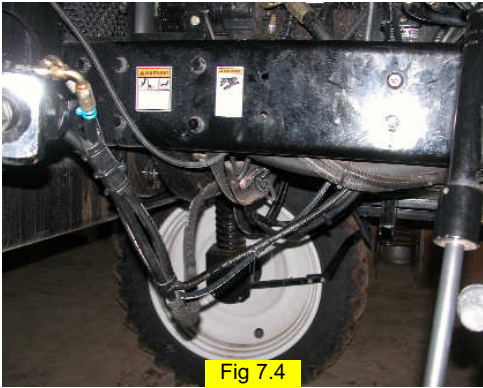
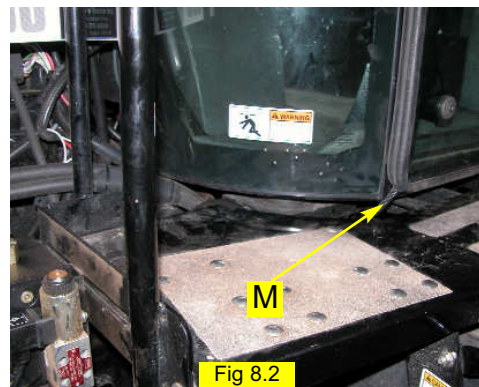
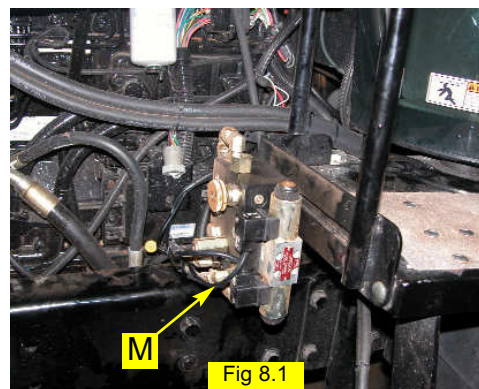


Fig 7.4

7. Install the Valve Control Cable:

Install the hydraulic valve control cable (**M**) at the hydraulic block by attaching the DIN connectors to the coils. (Figure 8.1) Route the cable into the cab through the door seal. (Figure 8.2) Secure the cable using the provided tie straps as necessary.



8. Verify Operation and Set Steering Control Rate:

Cleanup the installation area around the machine 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.

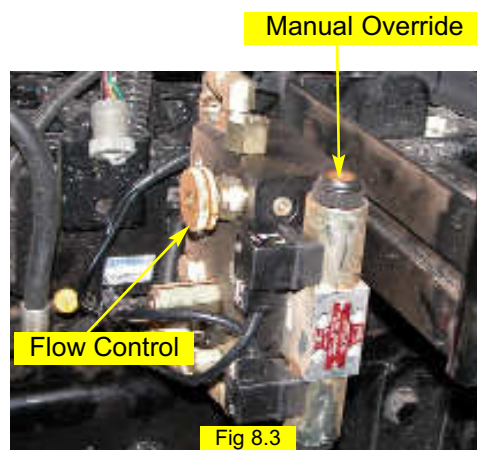
Adjust the hydraulic oil flow control knob to a starting position of **2 1/2 turns** from completely closed. To adjust the knob, turn clockwise to reduce flow, counter-clockwise to increase flow.

The coils on the control block have manual push button overrides. Push either manual override to turn the sprayer wheels all the way to one extreme. Count the number of seconds for the sprayer wheels to turn all the way in the opposite direction while pressing the manual override of the other coil. (Figure 8.3)

Adjust the hydraulic oil flow control to achieve an end to end steering cycle time of approximately **14 seconds**. Use the knurled locking nut to secure the final steering speed.

9. Complete Electronic Installation and Setup:

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



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.



WARNING:

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.