

WARNING!!!

To avoid damage to Tractor or Chandler Spreader use following procedure when hooking up the hydraulic spinner option to the tractors hydraulic system.

Hydraulic System Pumps:

Today's tractors are equipped with either Constant Displacement or Variable Displacement Hydraulic Pumps. Constant Displacement Pumps put out a constant flow regardless of pressure (until the relief valve bypasses the flow). The only way to vary the flow on this type of pump is to change the engine speed. Variable Displacement Pumps will produce only the flow required by the implement until total pump output is reached. If less than total pump output is required, an automatic stroke control mechanism decreases the pump output to maintain a constant pressure and flow. The output varies according to demand.

Hydraulic Controls:

There are two types of hydraulic control or spool valve used on tractors today. They are named after the design of the spool valves themselves. One is called "Open Center" because in the neutral (or center) position it is open to allow flow back to the hydraulic reservoir. Open Center Valves are used exclusively on Constant Displacement Pumps. The other valve type is called a "Closed Center" because in the neutral (or center) position all hydraulic flow is stopped on the circuit. Closed Center Valves are used exclusively on Variable Displacement Pumps.

There are four basic positions for each type of spool valve. They are Raise, Neutral, Lower, and Float (in order, from back to front). The names used for these positions vary somewhat between manufactures, but the order of the positions does not.

To properly operate a hydraulic motor on a tractor hydraulic circuit, only the **Lower** and **Float** positions should be used. **Use Lower for "On" and Float for "Off"**. The Float position is recommend for turning the motor off because it allows the remote circuit to flow in a continuous loop allowing the motor to free wheel to a stop and also does not trap pressure in the circuit.

Both Open and Closed Center Valves can trap oil on both sides of the circuit in the Neutral position. Use of this position for "off" will cause premature failure of the hydraulic motor.

The Raise position is not recommend for "On" because the valve must travel through the Neutral position to get to Float.

Many tractor hydraulic systems route return lines through filters or other restrictive elements, which can cause an increase in the return circuit pressure. It is recommend to utilize either a standard (or purchase an optional) **low-pressure return circuit**. This will allow for less oil heat generation, lower horsepower consumption, and longer oil seal life.

Consult with your tractor manufacturer to see if your tractor is or can be equipped in this way.

Hooking up Hydraulic Spinner Option to Tractor Remotes

1) When hooking up Hydraulic Spinner Option use the following procedure.

- A) Connect Pressure Hose to tractor remote using coupler marked for the Lower Position.



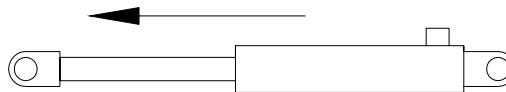
(Symbol indicates Lower Position)

This will turn the spinners in proper direction when lever is in the Lower position.

- B) If tractor is equipped with hydraulic motor return option (low pressure return circuit) Connect Return Line here

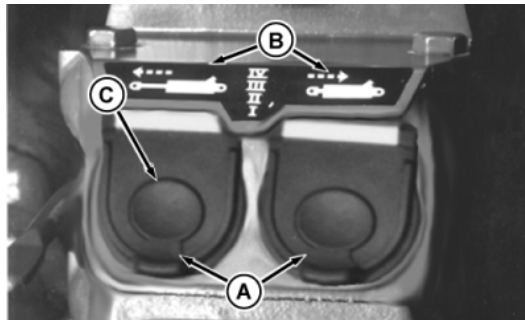
Or

- C) Connect Return Hose to tractor remote using coupler marked for the Raise Position.



(Symbol indicates Raise Position)

Many of today's tractors you can select for a motor or cylinder. Be sure that you have selected Motor not Cylinder. (This will also allow oil to flow similar to a low-pressure circuit)



(John Deere Tractor shown symbols may vary on different manufactures)

Caution: When hooking up any hydraulic lines to tractor turn engine “OFF” and make sure all Remote Levers are in the neutral position.

Important: Hydraulic hoses can fail due to physical damage, kinks, age and exposure.

Check hoses daily and replace faulty hoses immediately to avoid possible personal injury or damage to equipment.

2) To check spinners for proper rotation use the following procedure.

- A) Start engine on tractor.
 - B) Start spinners by pushing remote lever forward into the “Lower” position. Check to be sure spinners are turning the proper direction (see drawing page 5)
 - C) If spinners are not turning proper direction switch hoses in remotes.
 - D) When turning spinners “OFF” push Lever forward into the Float Position.
 - E) **Never** turn spinners **“OFF”** by pushing Lever into **“Neutral”** this will stop spinners suddenly, not let them free spin to a stop and will damage spinner motors or tractor hydraulic system.
- 3) If you are not certain how to hookup the pressure and return line contact Chandler Equipment Co. or your local dealer.

NOTE: All Chandler Spreaders with the hydraulic spinner option will run with an Open or Closed System. If running with an Open System the ball valve underneath the flow control valve must be “ON”. If running with a “CLOSED” System the ball valve should be “OFF”. (See drawing page 5)

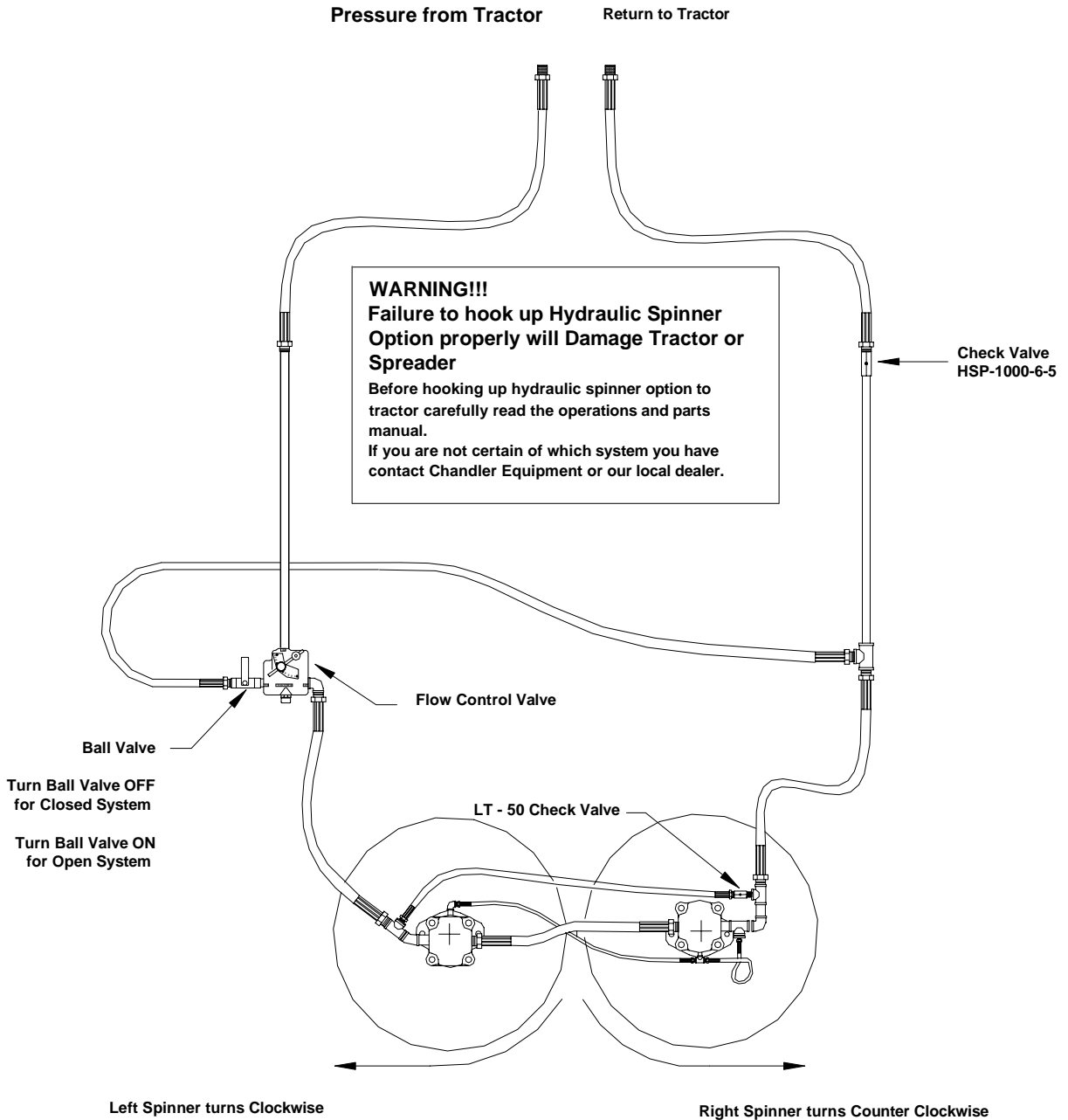
Setting Spinner Speed using Hydraulic Spinner Option

Proper spinner speed for most common applications of Fertilizer and Lime is 650 RPM. The Flow Control Valve located on the side of the spreader controls this speed.

Use the following procedure to set spinner speed:

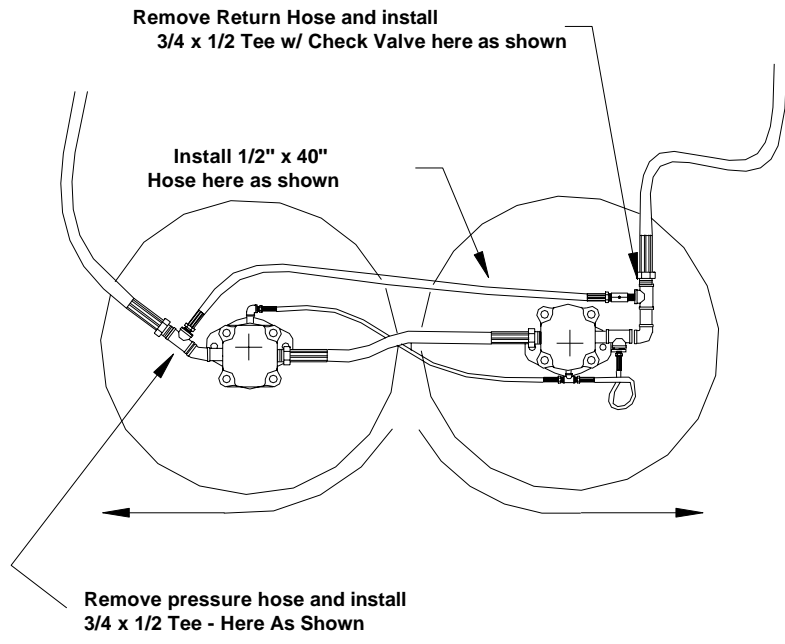
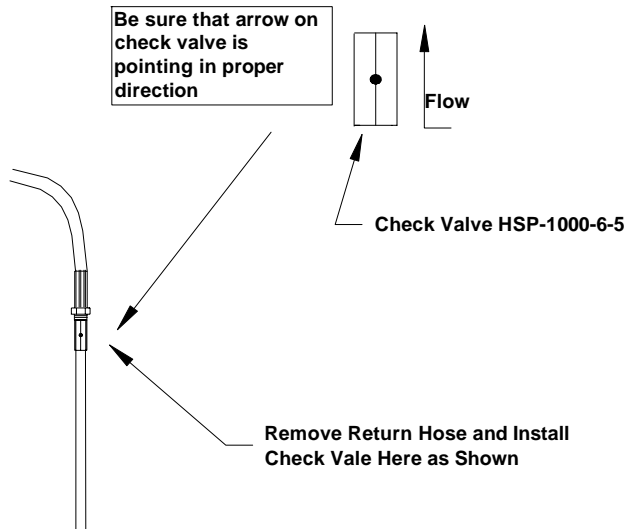
(After reading pervious pages and determining which hydraulic system you are using)

- 1) After hooking up Pressure / Return lines and making sure they are turning in the proper direction.
 - A) Set Flow Control Valve on “6”
 - B) Start Tractor engine
 - C) Engage spinners by pushing remote lever forward into the lower position.
 - D) This should start turning the spinners.
 - E) Using a hand tact check spinner speed.
 - F) If spinner speed is not 650 RPM use flow control valve to adjust spinners to proper speed.
 - G) Repeat this process if needed.
- H) Some material may take a different spinner speed.
(Such as with lime spinner speed may need to be turned up to 700 – 750 RPM, lighter materials may need slower spinner speed)
- I) If have any questions on spinner speed contact Chandler Equipment Co. or you local dealer.



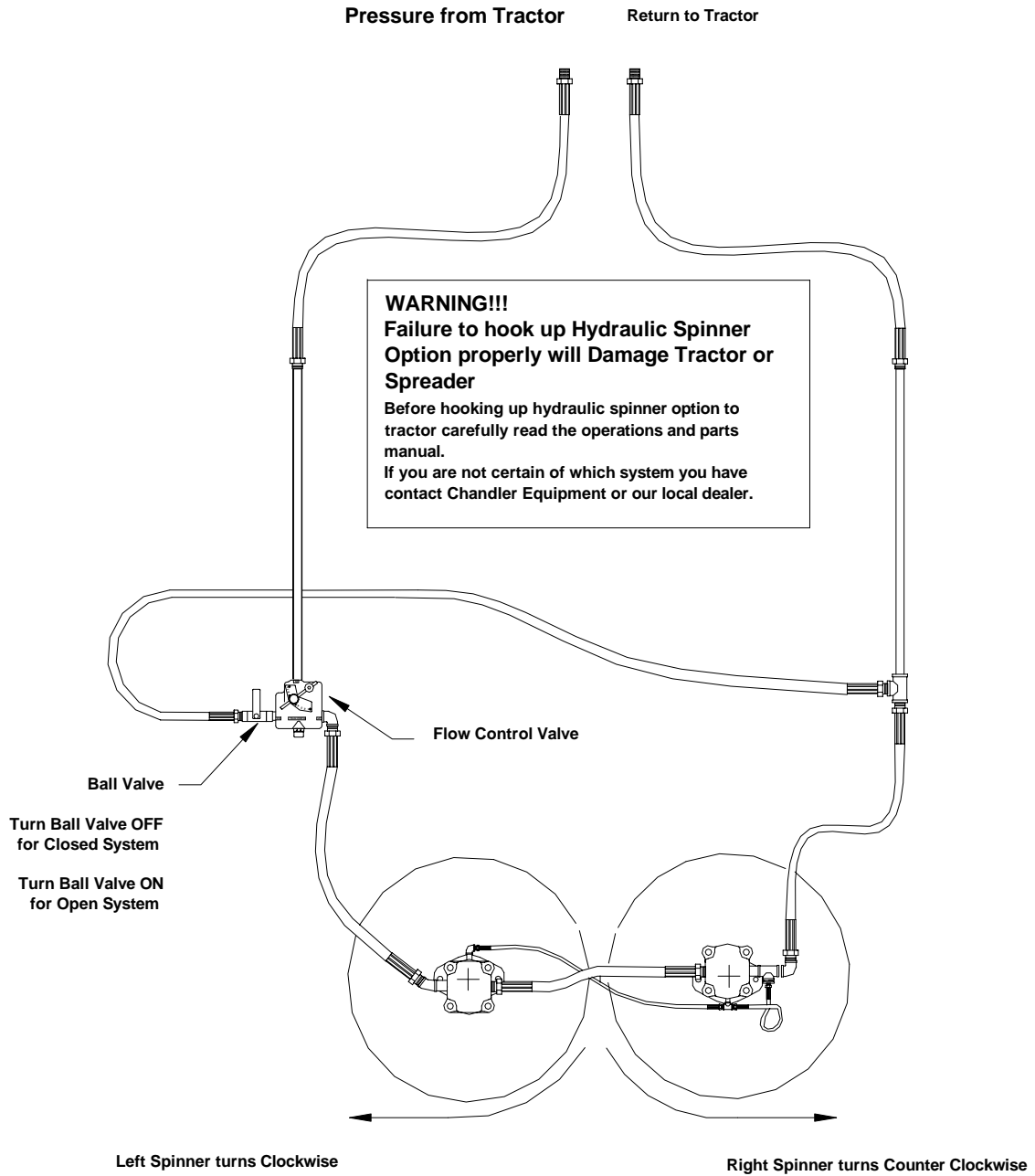
Hydraulic Spinner Option Pull Type Fertilizer and Lime Spreader

(units built after 05/01/2005)



- Kit Includes**
- 1 - 1/2" x 40" Hose
 - 2 - 3/4" x 1/2" Tee
 - 1 - LT-50 Check Valve
 - 1 - 3/4" Check Valve HSp-1000-6-5

Check Valves to protect Spinner Motors



Hydraulic Spinner Option Pull Type Fertilizer and Lime Spreader

(units built before 05/01/2005)