

Bleed air from the hydraulic system:

- 1) Use the installed spreader or install a loop into the pressure & return line for both auger/conveyor & spinner circuit.
 - 2) Engage spreader circuit (electrical or manual over-ride) at “mid range” running speed;
 - 3) Actuate each implement and “dead head” (hold in maximum position) for 30 seconds in each direction (up and then down); (electric or manual overrides ok to dead head the implement);
 - a) Start with implement whose valve is closest to the valve inlet – normally the hoist;
 - b) Repeat steps in order for each implement on truck;
 - c) Entrapped air has been minimized if implement moves smoothly when actuated;
 - d) For single acting implements, consult the implement manufacturer for proper bleeding of air.
- Remove installed plumbing loop (if you used one).
 - Air bleeding is complete.

Common Startup issues in Hydraulic Systems

- Entrapped air in system
 - Bleed air from system;
 - Seal fittings properly;
- Debris in fluid
 - Clean all hoses after installing fittings to remove hose debris before installing hoses;
 - Run system for 30 minutes. Check filter element for debris and replace if debris is present;

For more detailed information

- Consult manual and drawings contained on the CD with this shipment

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Installation of Mobile Hydraulic Valve Assembly for Snow & Ice Applications

Rev C 1/08

Hydraulic hose pressure rating must exceed the inlet pressure relief setting of the valve:

3,000 psi minimum

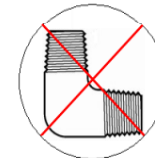


Hose Cleanliness – **critical performance factor**

- Blow out hose debris after terminating hose with fittings and before installing hose onto system;

Hose Routing

- 1) Hoses must be routed to achieve maximum saturation with fluid at the pump with the fewest number of **90 degree fittings**.

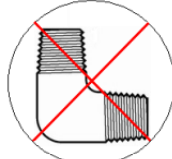
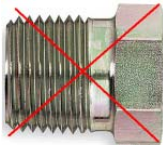


- 2) Improper routing of hoses can increase the noise of the system in operation. Avoid contact between truck frame and any fittings; Isolate and wrap any places where fitting to frame contact must occur.

Hose and fittings sizing must match the port size of the pump and the valve:

Do not use reducing fittings;

Avoid elbow fittings



Plumbing to the valve:

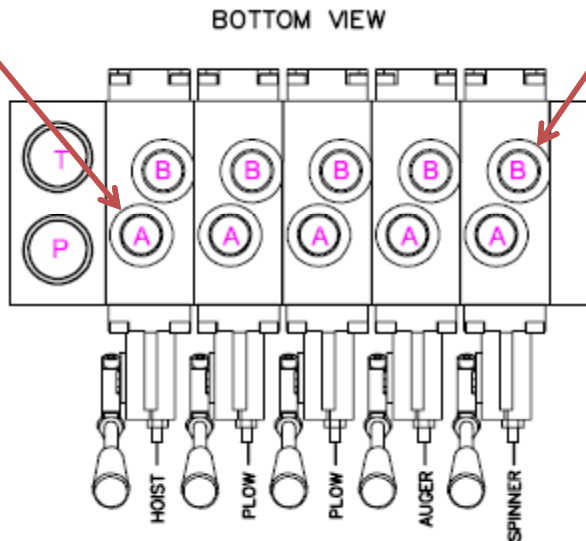
Port A is always for “return line” (cylinder rod)

e.g.: hoist down, plow down, wing toe down, etc.

Port B is always for “power line” (cylinder base)

e.g.: hoist up, plow up, wing toe up, etc

Consult master drawing for A/B port location on your valve.



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| <h1>Warning</h1> | | <p>Potential for injury due to unexpected operation of system. Entanglement with implements will cause severe injury to extremities;</p> <p>Stay clear of all implements during all startup, programming and operation procedures. Implements may move without warning.</p> |
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Pressure Settings are Critical for Proper Operation

- Complete all hydraulic plumbing to allow operation of all functions and complete the pump commissioning procedure before beginning valve commissioning;
- Install gauge at valve inlet (if not installed);
- Start up vehicle, engage prime mover (or PTO), allow truck to idle;
- **Observe pressure on valve inlet -Standby Pressure– 250-400 psi;** if not in this range, see pump pressure setting procedure to adjust;
- To **check system pressure**, briefly “dead head” and observe gauge. Release immediately if pressure exceeds 2500psi.
- **Main System pressure – 2500 psi (factory setting).**
Consult manufacturer’s recommendations for special applications or other pressure settings;



- **Individual section relief valves**
Consult your manual to determine if your valve has settable section reliefs.