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

Hose Cleanliness — critical performance factor
• Blow out hose debris after terminating hose with fittings and before installing hose onto system;

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

3,000 psi minimum

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 valve:
• Do not use reducing fittings;
• Avoid elbow fittings

Installation of Mobile Hydraulic Valve Assembly for Snow & Ice Applications

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.
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Hose and fittings sizing must match the port size of the pump and valve:
• Do not use reducing fittings;
• Avoid elbow fittings

Common Startup issues in Hydraulic Systems
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Hose Cleanliness — critical performance factor
• Blow out hose debris after terminating hose with fittings and before installing hose onto system;

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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 valve:
• Do not use reducing fittings;
• Avoid elbow fittings

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
Choose Hydraulic Oil that matches your operating condition;

Typical: ATF oil or choose by ISO for operating temperature range

Plumbing to the valve:

<table>
<thead>
<tr>
<th></th>
<th>Port &quot;A&quot;</th>
<th>Port &quot;B&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGLE ACTING (SA)</td>
<td>PLUMB TO BASE END OF CYL (POWER UP)</td>
<td>PLUGGED (GRAVITY DOWN)</td>
</tr>
<tr>
<td>CYLINDER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOUBLE ACTING (DA)</td>
<td>PLUMB TO ROD END OF CYL (POWER DOWN)</td>
<td>PLUMB TO BASE END OF CYL (POWER UP)</td>
</tr>
<tr>
<td>CYLINDER</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Commissioning (initial startup) of valve:

Potential for injury due to unexpected operation of system.
Entanglement with implements will cause severe injury to extremities;
Before machine start up, all implements MUST be locked in place;
All personnel must stay clear of all implements during all startup,
programming and operation procedures. Implements may move without warning.

Warning

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.