

Basic Lumberjack Hydraulic Troubleshooting

Steering System

1. Faulty pump or closed shutoff valve.
2. Faulty relief.
3. Linkage out of adjustment - unit can freewheel.
4. Transmission low on or out of oil. Faulty charging pump.
5. Low on hydraulic oil.
6. Faulty or leaking suction hoses.
7. Check restrictors on anchor end of steering cylinders.
8. Faulty Char-Lynn valve. Internal sleeve in a bind, hot oil could stick sleeve. Check tubing cooler column bolts 280 inch-lbs. and mounting plate 250 inch-lbs, bottom cap 150 inch-lbs. Do not over tighten or valve will stick. Valve must be timed. Do not install ball check spring backwards. Unit will, or can, freewheel.
9. Stuck valve spool (unit can freewheel).
10. Faulty steering cylinder (packing, loose nut, etc.).
11. Faulty slave cylinder.
12. Centering spring screw loose, broken spring, weak spring, or broken cap.
13. Check for dirty transmission filters or stuck cold oil relief in transmission regulator valve.

Basic procedure to troubleshoot the above:

1. Check transmission fluid level and pressure.
2. Check hydraulic fluid level.
3. Check slave system.
4. Check hydraulic pressure.

Hold down and Kickoff System

1. Faulty pump or closed shutoff valve.
2. Faulty main or circuit relief.
3. Faulty pilot controls system.
4. Faulty or stuck valve spool.
5. Faulty power beyond check valve.
6. Faulty cylinders (packing, loose nut, etc.).
7. Improperly adjusted hold down restrictors.
8. Loose centering spring screw or broken spring, bad O-ring seal.
9. Faulty or leaking suction hoses.
10. Faulty load check.
11. Faulty component in series spool.
12. Low hydraulic oil level.
13. Check relief on auxiliary hold downs. If applicable to your unit, set 3,000 psi, P/L kit 7329

Basic procedure to troubleshoot the above:

1. Check hydraulic tank level.
2. Check pilot control system.
3. Check pressures.
4. Diagnose in your mind the area problem exists and check all items listed above.

Hold down and Kickoff System

1. Faulty main or circuit relief.
2. Faulty cylinder (packing, loose nut, etc.).
3. Low oil level.
4. Faulty loadlocks or restrictors.
5. Stuck hydraulic valve spool.
6. Check for broken centering spring or faulty component in this area: loose bolt hoist spool, bad spool O-ring seal, broken spring hoist spool will cause boom to go up and back. Check for loose sleeve insert on centering spring end. Only applicable to a few valves.
7. Faulty pilot control system such as low oil in transmission or low transmission pressure.
8. Faulty power beyond check valves or power beyond plug out of downstream systems.

Basic procedure to troubleshoot above:

1. Check hydraulic tank level.
2. Check steering hold down and kickoffs.
3. Determine if both hoist and tilt are malfunctioning.
4. Check pilot control system.
5. Check power beyond plugs.
6. Check main or circuit reliefs.
7. Diagnose in your mind the area problem exists and check all items listed above.

Miscellaneous

Check for kinked or bent tubes or hoses.

Check 100 mesh hydraulic tank screens or for foreign material in tank.

Check quality of hydraulic oil.

Check for damaged pump drive adapters.

Check for additional safety reliefs (L-90, L-120 with Clark).

Check pressure reducer valve for malfunction, on older units for pilot controls.