

PURPOSE

Provides information for inspection, maintenance, and troubleshooting of the DHLT.

SCOPE

Includes all components of the DHLT. Excludes the SHLT.

INSPECTION

1. Daily Inspection (Pre-Start):
 - (a) Oil Leaks – Fittings Tighten or repair.
 - (b) Oil Leaks - Components Determine cause. Repair or replace as necessary
 - (c) Pump/Motor Abnormal Sound Determine cause. Repair or replace as necessary
 - (d) Pressure Switch Setting - ON Confirm pump turns ON between 1750 to 1850 psi. DHLT Shipped after 10/2010, Confirm pump turns ON between 1700 to 1800 psi. Adjust if necessary.
 - (e) Pressure Switch Setting – OFF Confirm pump turns OFF between 2150 to 2250 psi. DHLT Shipped after 10/2010, Confirm pump turns OFF between 2350 to 2450 psi. Adjust if necessary.
 - (f) Loose bolts/nuts Tighten any bolts or nuts that are found to be loose. If Critical Bolt/Nut, ensure properly tightened (see <<later>>).

2. Monthly Inspection – Daily Inspection plus the following:
 - (a) Deformation – Frame & Load Bearing Parts (e.g., shackle) If deformation or cracks found, replace deformed or cracked part.
 - (b) Oil Level Discharge Accumulator and extend the Cylinder. Confirm oil level is within 25 mm of top of reservoir. Add oil if necessary.
 - (d) Limit Switch Function Confirm that pivot beam properly engages limit switch when hoist lifts pivot beam too high. Confirm that when limit switch engaged by pivot beam the hoist UP circuit is disabled and hoist DOWN circuit still functions.
 - (e) Reservoir Vent Cap Confirm clean and unobstructed.
 - (f) Motor Fan Cover Confirm air inlet grill of Motor Fan Cover is clean and unobstructed.

3. Annual Inspection – Daily Inspection plus Monthly Inspection plus the following:

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|---------------------------------|------------------------------------------------------------|
| (a) Oil | Obtain sample of oil. Determine if oil change is required. |
| (b) Accumulator Pressure Charge | <<later>> |

MAINTENANCE

1. Calibration (Annual)
Refer to EDOC0430 "Calibration Procedure" and perform calibration of the DHLT.

2. Proper Tightening of Critical Bolts/Nuts (Monthly)
Refer to <<later>> "Tightening of Critical Bolts/Nuts" and ensure all critical bolts/nuts are properly tightened.

3. Oil Filter (Annual)
Replace oil filter.

TROUBLE-SHOOTING

1. Cannot set proper pressure by control valve
 - a. Defective or damaged Control Valve Repair by replacing the control valve cartridge.
 - b. Pressure Switch improperly adjusted. Reset the ON and OFF setting of the Pressure Switch.

2. Motor/Pump Continues Running
 - a. Pressure Switch OFF setting is greater than pump relief valve setting.

Adjust so that:

 - Pressure Switch OFF setting is between 2150 psi and 2250 psi. DHLT units shipped after 10/2010, Pressure Switch OFF setting is between 2350 psi and 2450 psi.
 - Pump relief valve setting is 2500 psi.

3. Large Difference Between "UP" and "DOWN" values during calibration
 - a. Load cell malfunction Use properly functioning and calibrated load cell.
 - b. Load cell re-zeroed during calibration Zero the load cell only one time just before beginning calibration procedure.

- c. Air is mixed with the oil in the hydraulic system. Use hoist to operate the DHLT in normal manner (exercising the pivot beam up and down) – this action removes air from the hydraulic system.
 - d. Mechanical binding of Pivot Beam or Hydraulic Cylinder Make repairs or replacements to eliminate the mechanical binding.
4. Blown Fuses
- a. Wiring problem causing short circuit. Repair wiring problem to eliminate short circuit.
 - b. Power supply voltage too low. Connect to power supply of proper voltage.
 - c. Defective or damaged pump creates motor overload. Repair or replace to eliminate motor overload.
 - d. Clogged or obstructed Oil Filter or Reservoir Strainer creates difficult pumping and motor overload. Replace Oil Filter or clean Reservoir Strainer to restore easy pumping and eliminate motor overload.

END