

Hydraulic Fluid Replacement

Poweramp, McGuire and DLM hydraulic dock levelers require occasional fluid replacement. Systems, LLC recommends that fluid is changed yearly as regular maintenance, however a fluid drain and refill may also be required during service. This TSB provides an overview of the hydraulic fluid replacement process on Systems, LLC dock levelers. This procedure will also work for Stop-style and Hold-style restraints.

If fluid requires replacement due to full system contamination, contact Systems, LLC Technical Services; an advanced flush and replacement procedure is required. PowerHook restraints and complete system purges also require a special procedure.

Note: When possible, Systems, LLC recommends the use of a manual fluid transfer pump to greatly simplify the replacement process. These pumps are available from a number of suppliers at a very affordable price. This TSB will provide instructions for replacement with and without a transfer pump.

WARNING

These instructions are for use by qualified service professionals only. If you are not qualified to work on hydraulic dock levelers and associated electrical power supplies, **STOP! DO NOT PROCEED!**

Before Servicing (All Units)

1. Raise dock leveler.
2. Support leveler by raising maintenance prop. Lock out and tag out prop according to OSHA regulations until service is complete (Figure 1).
3. Disconnect power to leveler.
4. Temporarily lock out and tag out the power source according to OSHA regulations and approved local electrical codes (Figure 2).
5. Barricade the work area to prevent use of the unit before the installation is completed.
6. Prepare a drain pan or bucket that holds at least two gallons of fluid, along with cleanup supplies.



Figure 1

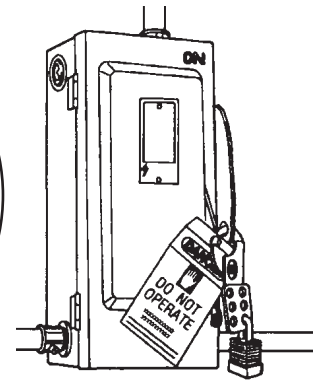


Figure 2

When the dock leveler has been locked out and tagged out, proceed to next steps. Transfer Pump Method can be completed quickly by a single person; if a fluid transfer pump is not available, see specific instructions for Cookpot and Standard Reservoirs. For Standard Reservoirs, two people will be required without a transfer pump.

Hydraulic Fluid Replacement (continued)

Transfer Pump Method



Figure 3

1. If fluid pump (Figure 3) is available, remove fill cap from fluid reservoir and insert suction hose; route output hose to drain pan (Figure 4).
2. Use fluid pump to transfer all fluid from reservoir to drain pan (Figure 5).
3. When empty, remove pump suction hose and refill reservoir with **MIL-H-5606-G** fluid. See TSB# 02-006C for approved fluids, and equipment owner's/user's manual for fill capacity.
4. Remove lock out/tag out and reconnect power to equipment.
5. Cycle equipment, checking for proper operation and fluid leaks.
6. Return dock to service.

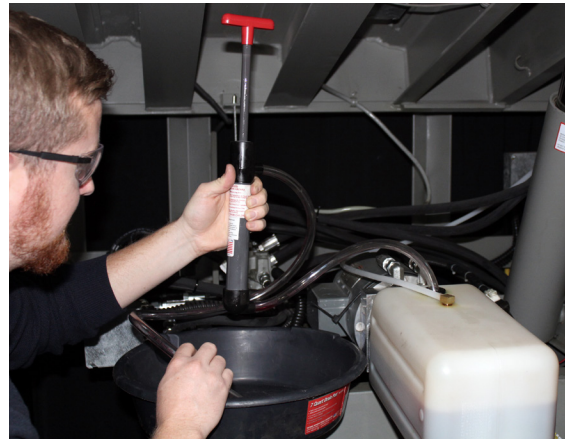


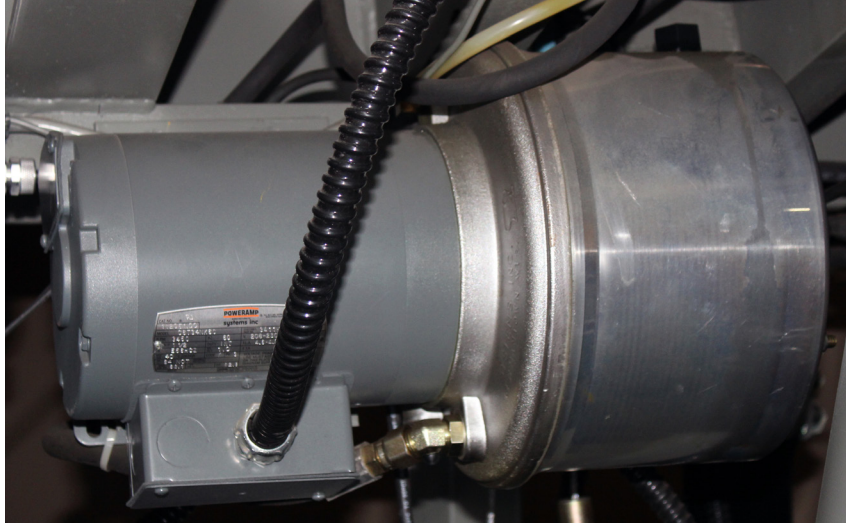
Figure 4



Figure 5

Hydraulic Fluid Replacement (continued)

Cookpot Reservoirs



1. Locate the fluid return hose connection on the bottom side of the reservoir (Figure 6), and position drain pan/bucket underneath.
2. Disconnect return hose fitting and allow fluid to drain into pan.

Note: If reservoir contains ice or debris and cannot be drained, the reservoir must be removed to drain fluid and be cleaned.

3. Reconnect return hose fitting to reservoir.
4. Refill reservoir with **MIL-H-5606-G** fluid. See TSB# 02-006C for approved fluids, and equipment owner's/user's manual for fill capacity.
5. Remove lock out/tag out and reconnect power to equipment.
6. Cycle equipment, checking for proper operation and fluid leaks.
7. Return dock to service.

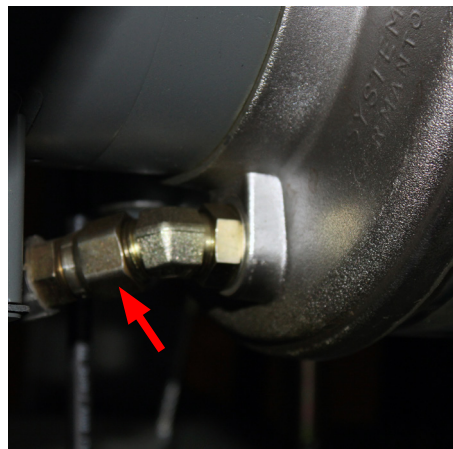
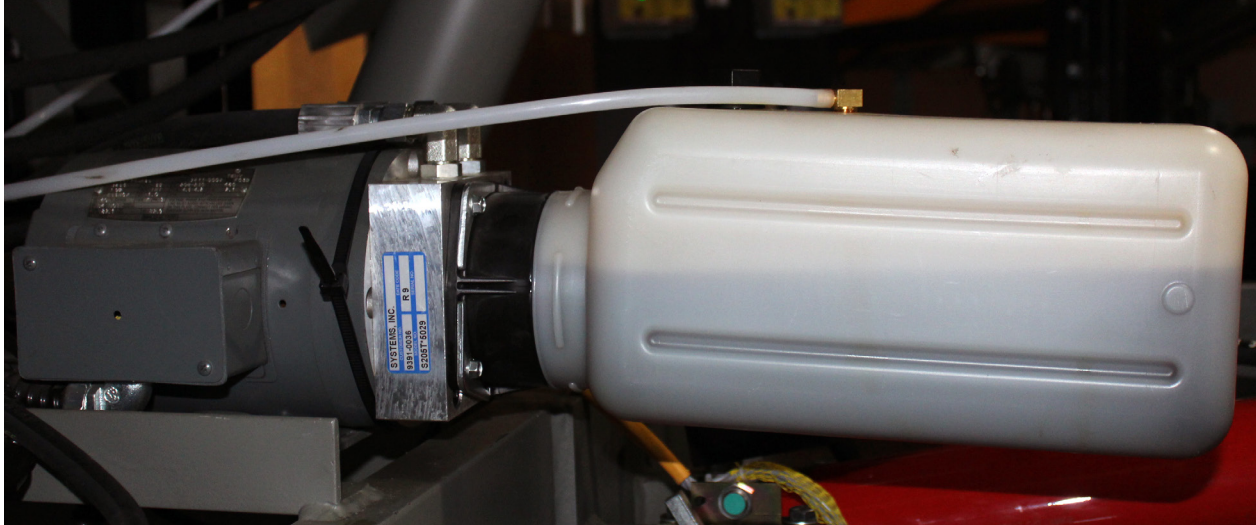


Figure 6

Hydraulic Fluid Replacement (continued)

Standard Reservoirs



1. Locate pressure hose connection at hoist cylinder (Figure 7), and position drain pan nearby.
2. Disconnect pressure hose fitting, and allow fluid to drain into pan/bucket.
3. Temporarily remove power source lock out/tag out and restore power to equipment.
4. Press leveler RAISE button (Figure 8), holding pressure hose in drain pan. Pump will begin to fill pan with fluid.
5. When pump cavitates, disconnect power to equipment and re-install lock out/tag out.
6. Reconnect pressure hose fitting to hoist cylinder.



Figure 7

Note: If reservoir contains ice or debris and the pump is unable to build pressure, the reservoir must be removed to drain fluid and be cleaned.

7. Refill reservoir with **MIL-H-5606-G** fluid. See TSB# 02-006C for approved fluids, and equipment owner's/user's manual for fill capacity.
8. Remove lock out/tag out and reconnect power to equipment.
9. Cycle equipment, checking for proper operation and fluid leaks.
10. Return dock to service.



Figure 8