



TIP SHEET

**Magnet Proximity
to Float Switch on
Horizontal Pumps
3510000152 & 3510000180**

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#82-L0516, Rev. 0A

WARNING

Keep people clear of the coach prior to turning the leveling system on and while leveling system is in use. Never expose hands or other parts of the body near hydraulic leaks. High-pressure oil leaks may cut and penetrate the skin causing serious injury.

NOTE 1

For procedures to remove and replace the float switch in horizontal tanks, use Tip Sheet 82-L0508

For testing procedures on the float switch used in these horizontal pumps with built in 1K resistor, use Tip Sheet 82-L0511

Labor Time

Diagnostic time = .25 Hour

Repair time = .75 Hour

Total time = 1.0 hour



Read, understand, and follow all instructions in this test before starting.

There is a potential problem with the location of the magnet zip-tied to the pickup tube in the tank of the pump assembly built before June 28, 2011. The leading symptom will be that the touch pad will display the "Jacks Down" light all the time. The magnetic field of the magnet on the tube can interfere with the float switch bobber magnet due to the close proximity. This can cause the switch to not work properly by showing closed all the time, even if the float bobber moves up and down.

If the leveling system is displaying the "Jacks Down" light all the time, and the float switch has tested good when removed from the tank (see Note 1 in side bar on left for details), use this procedure to see if it is the location of the internal magnet on the pickup tube that is the problem.

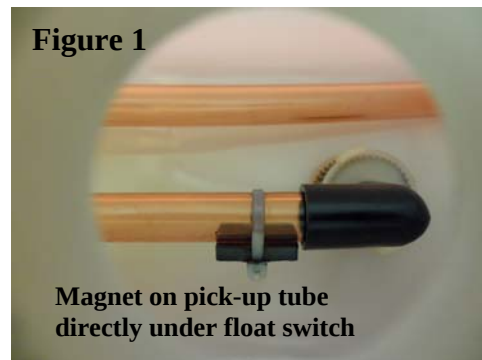
The magnet in the tank is used to collect any small metal fragments or particles that might be suspended in the hydraulic fluid.

NOTE: This only pertains to pumps 3510000152 and 3510000180 built before June 28, 2011.

Instructions

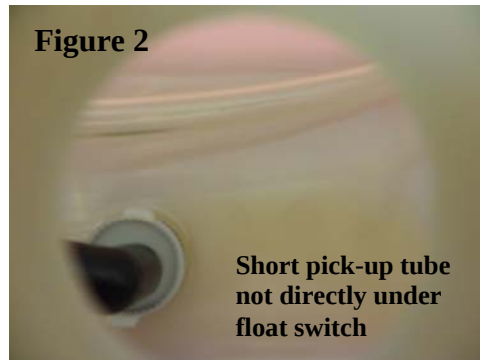
- 1) Determine if the tank is in a location that has access to look inside the float switch port on top of the tank. If no access, skip to step #6.
- 2) If access is possible and tank is full of fluid, extend all jacks to lower fluid level in the tank.
- 3) Use Tip Sheet 82-L0508 for directions to remove the float switch.
- 4) Look inside tank (See Figure 1) to see if the magnet is directly under the float switch opening. This may require the removal of more fluid in order to actually see the pickup tube. Continue with procedure.

Figure 1



Magnet on pick-up tube
directly under float switch

Figure 2



Short pick-up tube
not directly under
float switch

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5) If magnet/pickup tube is not directly under the float switch opening (See Figure 2), this procedure is not required.

6) Remove pump to have access to inspect and update as needed.

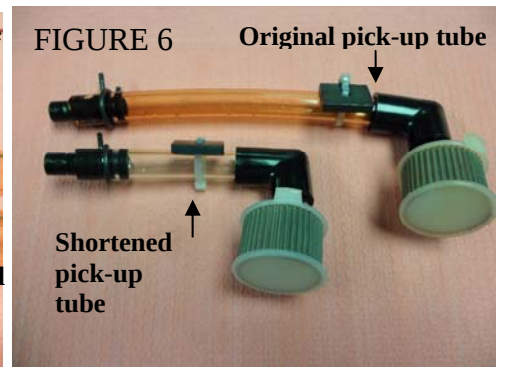
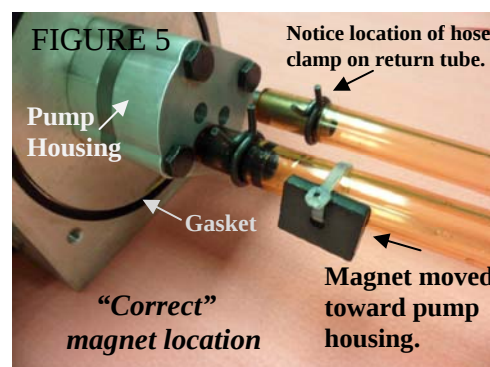
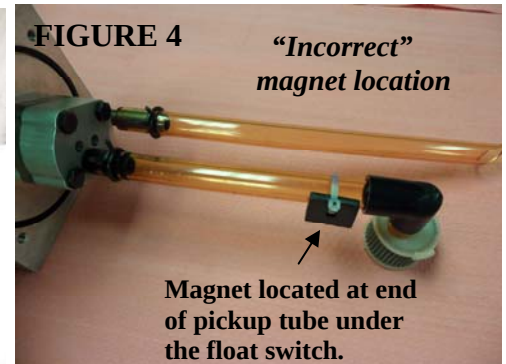
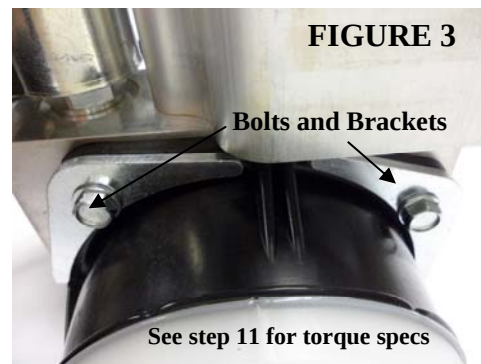
7) Drain as much fluid as possible to diminish leaking fluid before removing the four bolts and brackets that hold the plastic tank to the pump assembly. (See Figure 3)

8) Remove tank and set aside with mounting hardware.

9) OPTION 1: Move the magnet along the pickup tube from under the float switch (See Figure 4) toward the pump. (See Figure 5)

OPTION 2: The solution implemented for the pumps after June 2011 is to shorten the pickup hose by 3 ½ inches to make sure the magnet will never be in close proximity to the float switch again. Slide the magnet toward the pump assembly. Pull off the black 90 degree fitting with the filter attached at the end of the tube, and cut off 3 ½ inches of the tube and discard. Fully seat the 90 degree black fitting with filter to end of shortened tube. Make sure filter is parallel to bottom of tank. (See Figure 6)

10) Be sure the clamp on the return tube is facing up or toward pickup tube or you will have difficulty aligning bolts and brackets to tank mounting holes. (See Figure 5)



11) Make sure gasket is located in circular slot. Re-install tank, using ¼-20 bolts and brackets. Tighten the bolts to 3 to 4 foot pounds using a torque wrench. (See Figure 3)

12) Install float switch into top of tank.

13) If jacks are extended, retract the jacks.

14) Fill tank with fluid and cycle leveling system a few times.

15) Re-check fluid level and make sure "Jacks Down" light is off when jacks are retracted.



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