lubecore™ NEXT GENERATION AUTOMATED LUBRICATION

LCC13-003

Lubecore Communication

Subject: Solenoid Check

This document is to help you perform a solenoid inspection. With this check, you can quickly determine if the solenoid is a warranty item or not. It has been discovered that a solenoid that is submitted for warranty is actually not valid. The solenoid will still work and the source of the problem is elsewhere. Solenoid can be checked for two possible failures;

A – Solenoid not working or B – Solenoid leaking air

A – Solenoid not working

- Check if LED is off when not activated and on bright when activated
- If LED is glowing continuous, you have a connection problem
  Check connection by removing DIN connector.
- When Din connector is removed, check resistance of coil.
  Needs to be 14 – 17 ohm (coil can be replaced separate)
- Check if the manual override valve can be freely operated using a screwdriver
  if you can't open up solenoid and check for dirt.
- If you can open up the solenoid, make sure there is no dirt in the inside the stainless steel cylinder that holds the piston. Clean out, clean up re-assemble.
- Most solenoids are not defective and dirt in the air is the cause of the contamination inside the solenoid.
- The solenoid can be serviced and cleaned in a large number of cases.
- Please see process of dis-assembling and cleaning explained in appendix A

B – Solenoid is Leaking Air

- Is it leaking air only during cycle or continuous?.
- If continuous, the air is going from P to R this means that the valve is not closing off the seat, disassemble the solenoid and check for dirt on seat.
- Clean dirt out , re-assemble and find out the source of the dirt. (air system of truck?)
- If pump is leaking air from the side only when the solenoid is applied, it might be an air seal in the pump.
- Disconnect the line from R to T on the pump and observe where the air is leaking from.
- If the leak is coming from R clean out the solenoid.
- If the leak is coming from T replace air seal in pump.
- If there is evidence of dirt or rust water in the air we recommend to the end user to make sure the air dryer is functioning and tanks are drained regularly.

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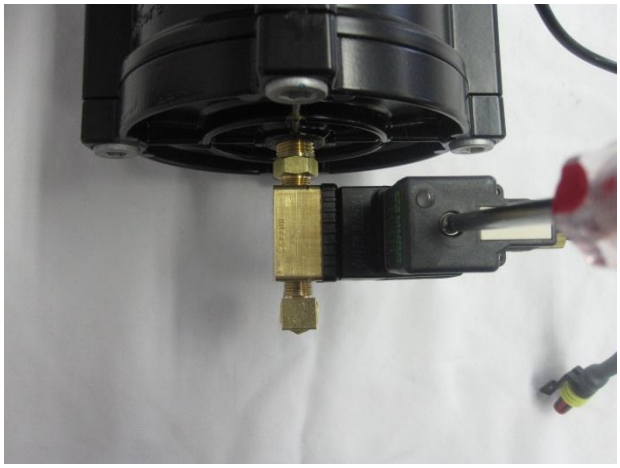
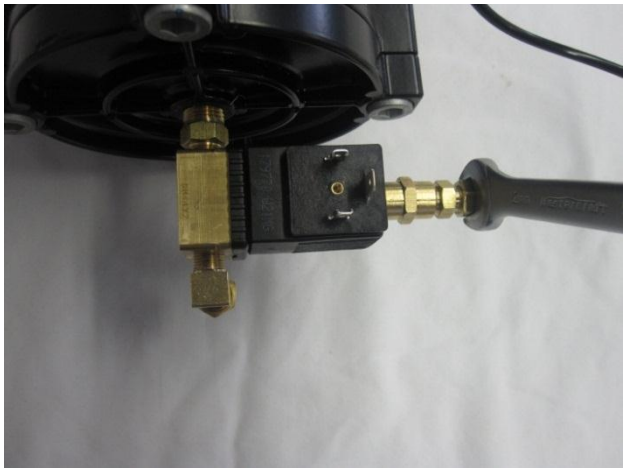
Please follow along the step by step instructions attached on how to service the solenoid.

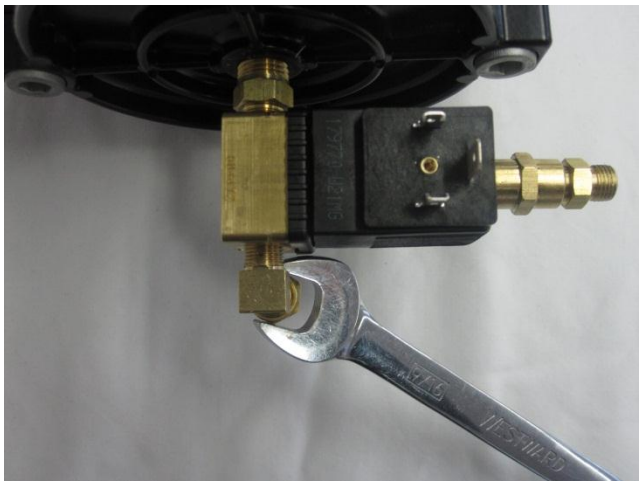
Remove the electrical connection to the solenoid using a Phillips head screwdriver.



Remove the short piece of empty single line from the side of the solenoid using a 12 mm wrench.



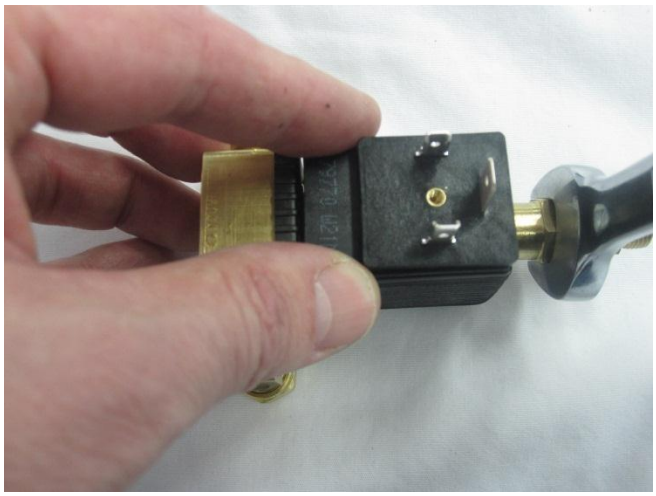
Remove the airline connection from the air source on the equipment using a 9/16” wrench.



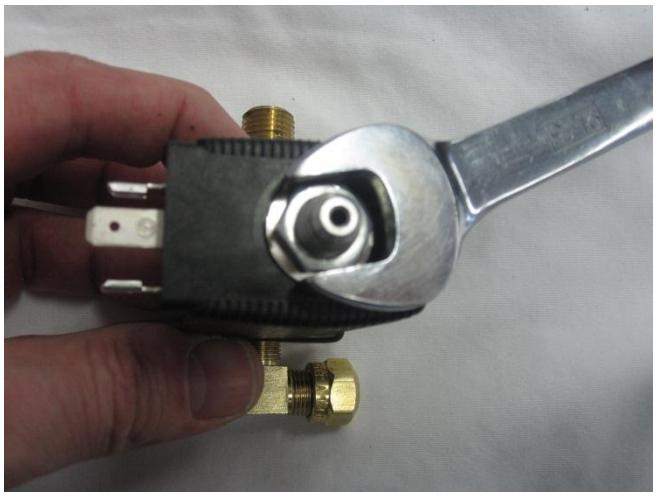
Remove the solenoid assembly from the bottom of the pump using a 9/16” wrench.

Now you will have the solenoid in hand and will look like this. Ready for you to disassemble.

First you need to remove the brass straight connector from the head of the solenoid using a 9/16” wrench.



Now you can loosen the nut holding the solenoid assembly together by using a 9/16” wrench.

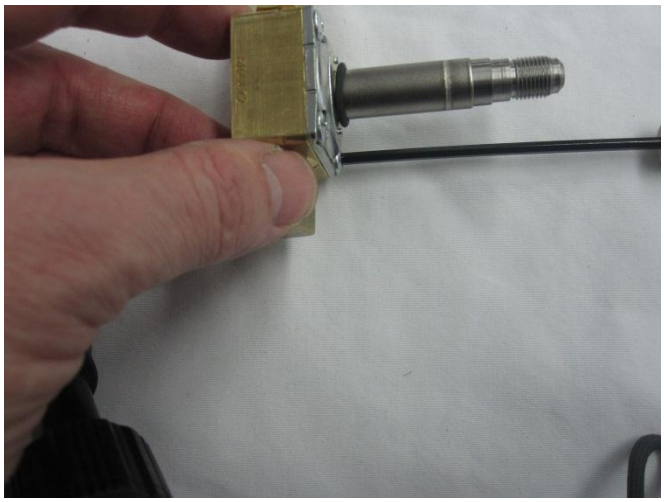


Remove the nut and you will be able to slide the black assembly off of the solenoid spine

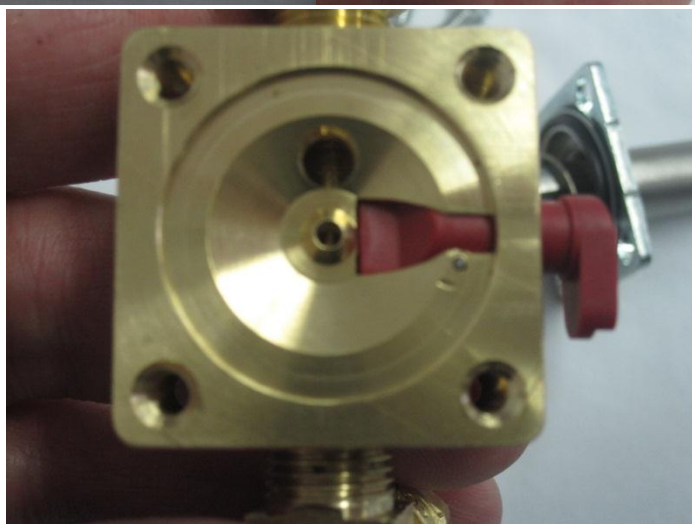
Remove the black plastic cover from the assembly as shown below. This will expose the four socket head cap screws that hold the solenoid spring assembly in place.

Use a 7/64” allen key to remove the 4 screws.

- Note, this part is uder slight pressure due to the spring so hold the metal plate to the brass body when loosening the screws so that it does not pop apart.

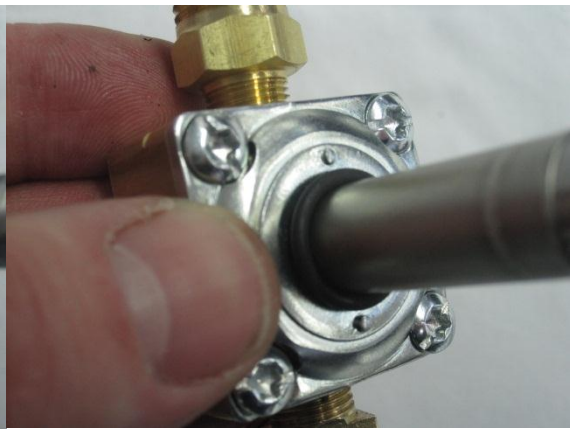


Once the screws are removed, the bottom of your solenoid will look like this.



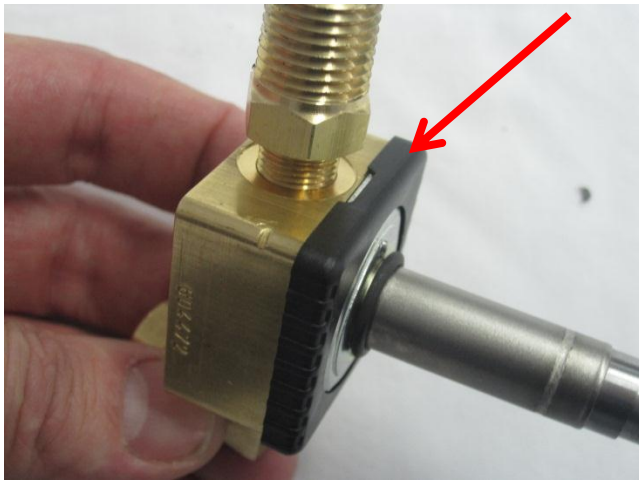
Once you have cleaned all the parts and ensured that there isn't any dirt or moisture inside the solenoid, you can re-assemble the solenoid.

While holding the solenoid spine and spring assembly in place to the brass body, screw the 4 socket head cap screws back in place using the 7/64" allen key.



Place the black plastic cover over the spine and in place over the screws.

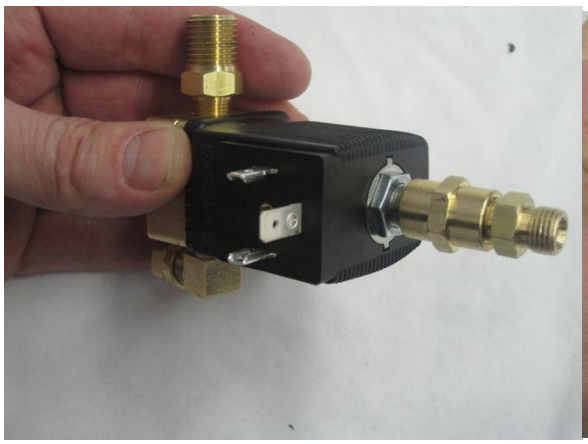
- Important, the plastic cover is notched so that it will fit on a certain way. The notched areas must face the top and bottom of the solenoid where the connections are made



Slide the black plastic body of the solenoid over the spine and line it up the same direction as it was before you dis-assembled.

Place the nut on the end of the spine and while hold the assembly in place facing the correct direction; you can tighten the nut with a 9/16” wrench.

Install the brass straight connector back on the solenoid and tighten using a 9/16” wrench.



Install the solenoid assembly back on the bottom of the pump using a 9/16” wrench remembering to face the solenoid in the same direction as was when you took it off so that all your connections will line up.

Connect the airlines and electrical wire. Test to ensure solenoid is functioning properly.