AIR ACTUATOR REBUILD KIT (302017-1)

This service procedure is for the installation of the Air Actuator Rebuild Kit (302017-1).

The following parts and tools are required to perform this rebuild:
- 302017-1 (Air Actuator Rebuild Kit)
- 7/16" Wrench
- Bench Vise or Arbor Press
- ¾" Socket
- Snap Ring Pliers

Disassembly:
1. Shut down the system.

**WARNING**

Place the main electrical disconnect in the OFF position and bleed down all high-pressure lines. Place an “Out of Service” tag on the main electrical disconnect and lock it out. Failure to do so may result in damage to equipment or injury to personnel.

2. Remove Air Actuator from Valve Assembly. Apply 60psi to Air Actuator to retract the Poppet.
   
   **Note:** Failure to apply air pressure while tightening will result in premature failure of the poppet.

3. Remove Air Fitting from Actuator Housing with 7/16" wrench. Place assembly and socket in Bench Vise and tighten until Snap Ring can be removed from groove using Snap Ring Pliers as shown in Figure 1.
   
   **Note:** Bench Vise can be substituted with an Arbor Press.

4. Release pressure from Bench Vise and pull apart to remove Actuator Base, piston, and spring from Actuator Housing. See Figure 2.
   
   **Note:** Inspect Actuator Housing bushing for excessive wear as shown in Figure 3.

5. Remove the ‘U’ Cup and ‘O’-Ring from piston.

6. Remove ‘O’-Ring and Quad O-Ring from Actuator Base. The Quad O-Ring is easily removed by pushing it down with a blunt object from the unthreaded end of the Actuator Base.

7. Remove Breather Vent by unscrewing with a 7/16” wrench.

8. Discard all four old seals, the old Breather Vent, and the used spring.
Assembly:

9. Apply light coat of ‘O’-Ring Lubricant to ‘O’-Rings and Quad O-Ring. Do not apply lubricant to ‘U’ Cup. Note proper orientation of ‘U’ Cup with groove facing away from spring. See Figure 4.

10. Fit new ‘O’-Rings on both the Actuator Base and the Piston.

11. Reposition the Actuator Base, piston, and new Spring into the Actuator Housing. Place the assembly and the socket back into Bench Vise, allowing installation of the snap ring.

12. Remove the assembly from the Bench Vise and install the new Quad O-Ring back down into the groove on Actuator Base. Figure 5

13. Install Breather Vent and Air Fitting on Actuator Housing.

14. Thread Valve Body onto Air Actuator until slight contact is made. Do not tighten.

15. Apply 60psi air to fitting to retract the on/off valve poppet. Tighten Valve body to 35-40 ft-lbs (47-54Nm).
   Note: Failure to apply air pressure while tightening will result in premature failure of the poppet.

16. Re-install assembly on machine and attach pneumatic control line (air line) to the Air Actuator.

17. Make sure the orifice assembly is properly installed on the nozzle body.

18. Turn on the high-pressure source and slowly raise the pressure, checking for leaks. Make sure the valve is operating properly.