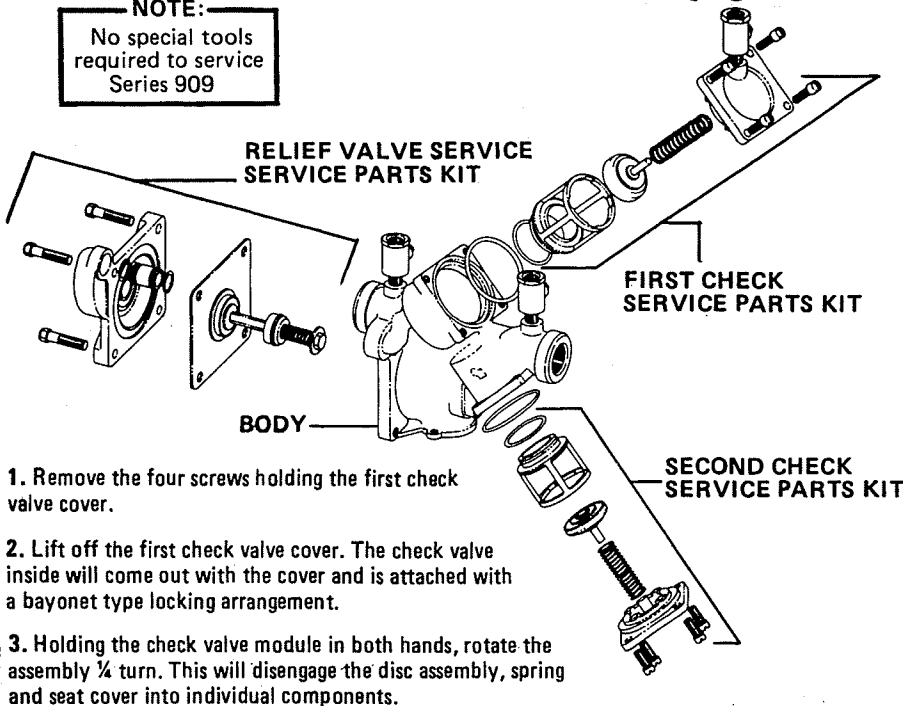


909 3/4-2"

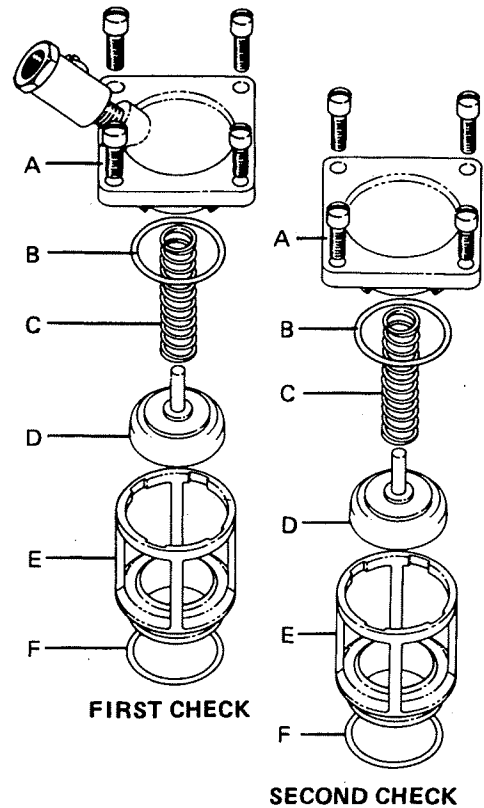
NOTE:

No special tools
required to service
Series 909



1. Remove the four screws holding the first check valve cover.
2. Lift off the first check valve cover. The check valve inside will come out with the cover and is attached with a bayonet type locking arrangement.
3. Holding the check valve module in both hands, rotate the assembly $\frac{1}{4}$ turn. This will disengage the disc assembly, spring and seat cover into individual components.
4. The disc assembly may be cleaned and reassembled, or depending upon its condition, it may be discarded and replaced and replaced with a new assembly from the service kit. "O" rings should be cleaned or replaced as necessary and lightly greased with the FDA approved silicon grease which is also furnished with the service kit.
5. Reassemble the check valve module in the reverse order. Service is identical for both the first and second check valves.

A Cover
B Cover O'Ring
C Spring
D Ck Disc Holder
E Ck Seat
F Ck Seat O'Ring



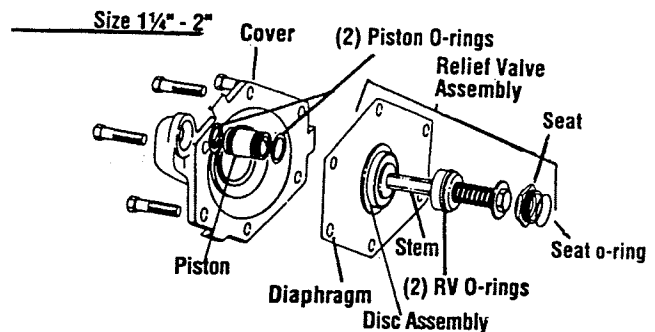
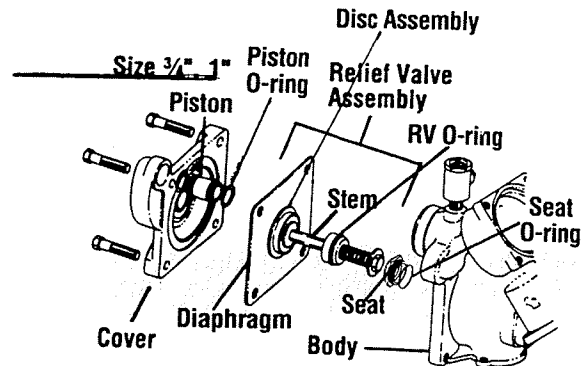
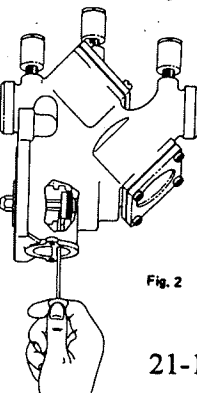
Servicing the Relief Valve $\frac{3}{4}$ - 2"

1. Remove the four bolts that hold the relief valve cover in place.
2. Remove the cover. The stainless steel adapter, with "O" ring attached will be free to be removed simultaneous with the removal of the cover. Pull out the relief valve assembly. Note: the spring tension in the relief valve assembly is contained in the design of the relief valve; therefore, the relief can be removed in a one-piece spool-type assembly.
3. The relief valve seat and disc may be cleaned without disassembly of the relief valve assembly. If it is determined that the relief valve diaphragm and /or disc should be replaced, the relief valve module can be readily disassembled without the use of special tools.

TO PREVENT SHAFT DAMAGE ASSEMBLE AS SHOWN.

CAUTION: If cover will not press against body, assembly is crooked and tightening bolts will bend shaft. Do not force the cover into place as damage may result from misalignment.

To assemble the Relief Valve Assembly have a screwdriver ready. Depress the Relief Valve Assembly, carefully guiding it against the two pound spring load. When properly aligned, the piston is in the cylinder bore. Insert the screwdriver as shown. The Relief Valve Assembly is held encapsulated by the screwdriver. You should now have both hands free to bolt down the cover. Insert and snug two bolts 180° apart to hold the cover. Finish inserting the remaining bolts and snug up evenly and alternating until secure. Remove the screwdriver.



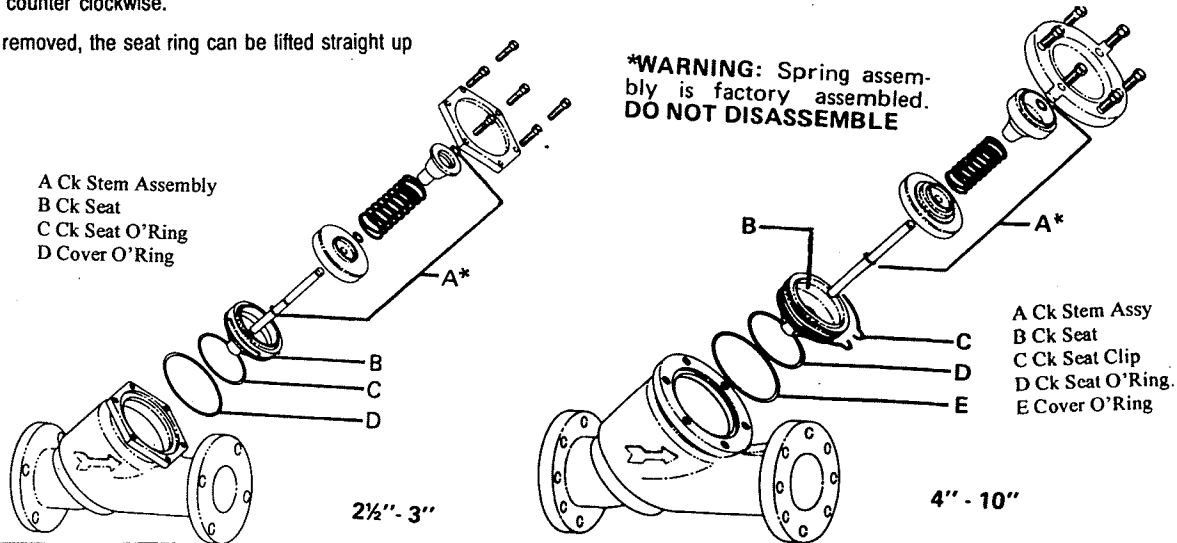
Series 909

Sizes 2½" - 10"

1. Remove the hatch cover bolts. NOTE: The 909 is designed so that when the bolts are backed off ½", all the spring load is released from the cover and retained by the check module. **CAUTION: Be sure to verify this before removing all the bolts.**
2. Lift the check valve module straight out taking care not to hit and damage the seat ring.
3. The seat ring may be removed and replaced by pulling out the two wire retainers on sizes 4" - 10" while on sizes 2½" - 3", one quarter-turn twist removes seat. The wire retainers are 10" long. One is drawn out clockwise and the other is drawn out counter clockwise.
4. With the retainer wires removed, the seat ring can be lifted straight up and removed.

5. **CAUTION:** The check valve spring is in compression. The spring load is captured by the two spring retainers and the stem. The spring retainers are not to be removed for servicing. If there is a need to replace the spring, spring retainer or stem, an assembled module must be obtained from the factory. These modules are **not** interchangeable, be sure to replace the first check with a first check module and the second check with a second check module.

6. To replace the disc on sizes 2½" - 4" simply remove the retaining nut or for sizes 6" - 10" remove the allen head socket screws. Reverse this procedure to install the new disc.



1. Remove the relief valve cover bolts. Note the 909 is designed so that when the bolts are backed off ½" all the relief valve spring load is retained by the bottom plug spring module. **CAUTION: Be sure to verify this before removing all the bolts.**
2. Remove the cover and diaphragm (A). The relief valve piston assembly (B) can be lifted straight up and out.
3. Replace the wiper seal and piston "O" ring and apply grease to the "O" ring.

4. To replace the relief valve disc, hold the upper guide fin and unscrew the diaphragm pressure plate. It may be necessary to lightly tap the cast webs and the pressure plate to loosen. Replace with a new disc holder assembly and "O" ring. Note: the disc rubber is molded into the disc holder and is supplied as a disc holder assembly.

5. Removal of the bottom spring assembly (E). During normal field service there is no need to remove the bottom plug spring assembly other than inspection. It can be removed by simply unscrewing with a large pipe wrench. **CAUTION:** The spring as retained on the bottom plug is highly loaded. NO attempt should be made in the field to remove the spring. For replacement, a complete bottom plug assembly must be obtained from the factory.

