

4D-100/200/600/700 2 1/2-10"

IV. CHECK VALVE MAINTENANCE

If the valve experiences inadequate test readings, often it is a sign of foreign particles or debris collected on the seat disc of one of the check valves. The check assembly must be removed for inspection. Clean or replace the seat disc as necessary. Also inspect the sealing lip on the seat for damage. A deep scratch or knick can affect the check readings.

CHECK ASSEMBLY REMOVAL See Figure 4:

Make sure there is no pressure on the valve by opening the test cock on the lid. Remove the upper groove connection coupling by removing the bolts and nuts.

Slide away the coupling clamps and remove the rubber gasket. Lift off the lid. The valve should be drained of water (the relief valve will open releasing the water in the zone when the source pressure is off).

Either check valve assembly can be removed without disturbing the other. Remove the nuts from the studs that are screwed into the body. The nuts can be removed using standard tools (socket wrench and extension shown).

2.5"-4" sizes: Remove the four (4) lock hex nuts holding each check assembly using 1/2" hex socket wrench. Lift out the check assembly.

6" size: Remove the six (6) lock hex nuts holding each check assembly using 9/16" hex socket wrench. Lift out the check assembly.

8" & 10" sizes: Remove the six (6) hex nuts holding each check assembly using 3/4" hex socket. Lift out the check assembly.

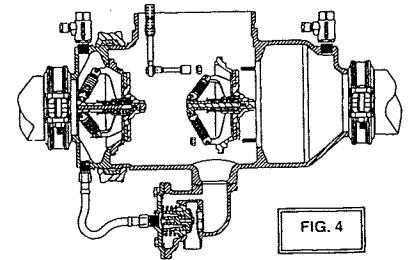


FIG. 4

SEAT DISC INSPECTION OR REPLACEMENT See Figure 5:

To inspect or replace the seat disc remove the long socket head cap screw that holds the spring hub assembly in place. This will release the load from the spring and allow the disc holder to slide away from the front of the assembly.

2.5"-4" sizes: Remove the cap screw with a 3/16" hex drive (Allen wrench). With the disc holder loose, remove the three (3) screws that hold the disc plate with a 5/32" hex drive (Allen wrench). Remove the rubber disc and clean or replace.

6" size: Remove the cap screw with a 5/16" hex drive (Allen wrench). With the disc holder loose, remove the four (4) screws that hold the disc plate with a 7/32" hex drive (Allen wrench). Remove the rubber disc and clean or replace.

8" & 10" sizes: Remove the cap screw with a 1/2" hex drive (Allen wrench). With the disc holder loose, remove the six (6) screws that hold the disc plate. Use a 7/32" hex drive (Allen wrench). Remove the rubber disc and clean or replace.

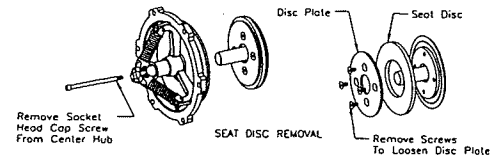


FIG. 5

RE-ASSEMBLING THE CHECK ASSEMBLY:

Install the screws firmly. Use of a medium strength thread locking Loctite® is recommended on all threads. Re-install the cap screw that holds the assembly together and applies the spring load. This screw is designed to be screwed in all the way until it runs out of threads.

When re-installing the checks, make certain the o-ring is seated in its groove. Use a non-toxic grease to aid retention of the o-ring in its groove. Tighten the hex nuts to hold the check assembly in place. These should be tightened firmly and evenly for the o-ring to seal.

WARNING: Do not mix springs between first and second checks (item 2a & 2b or item 3a & 3b).

ITEM	DESCRIPTION
1	Screw, Socket Head Cap
2a	Kit, Joint Assembly, RP
2b	Kit, Joint Assembly, DC
3a	Spring, Center, RP
3b	Spring, Center, DC
4	Sleeve, Stem
5	Stem, Check
6	O-Ring (stem)
7	O-Ring (seat)
8a	Seat, First Check, Mach.
8b	Seat, Second Check, Mach.
9	Screw, Flat Head Hex Drive
10	Plate, Disc, Mach.
11	Disc, Seat
12	Retainer, Seat, Mach.
13	Washer
14	Nut, Jam

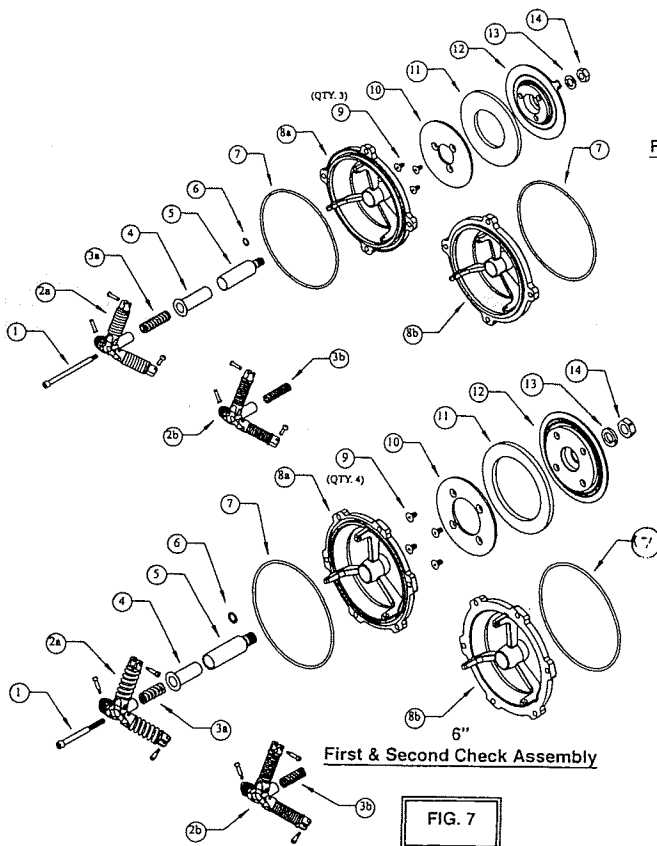
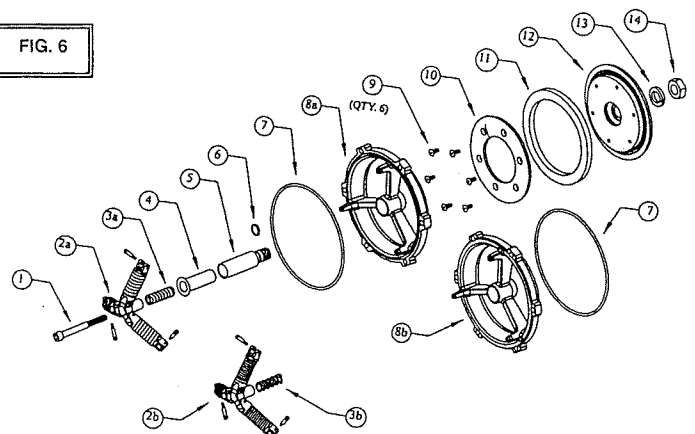


FIG. 7

2 1/2" - 4"
First & Second Check Assembly

FIG. 6



8" & 10"
First & Second Check Assembly

FIG. 8