

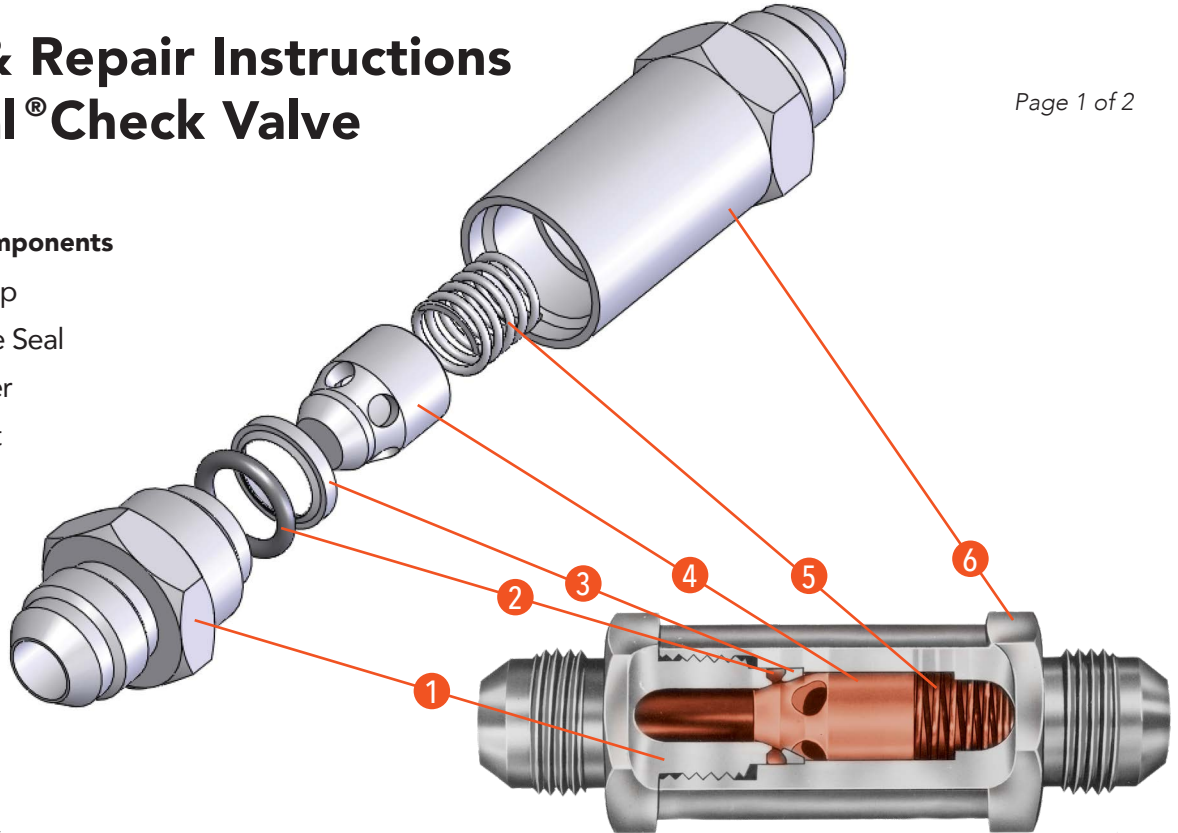


## Cleaning & Repair Instructions Kep-O-seal® Check Valve

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### Valve Components

1. End Cap
2. Flexible Seal
3. Retainer
4. Poppet
5. Spring
6. Body



### A. Valve Disassembly

1. Mount valve vertically with cap (1) up in a vise or suitable holding fixture by clamping on hex of body portion (6) (outlet side). Take care not to damage finish or threaded connections.
2. Using a box-type wrench of proper size on the hex of the cap (1) (inlet side) turn counter-clock-wise. After initial loosening of the cap, it should turn out easily with only finger pressure.
3. Remove wrench and carefully turn out cap by hand for last two or three threads. Lift off cap (1).
4. Remove body portion from vise. Internal parts may now be tapped out by striking body against hand or other soft surface or by inserting small rod in outlet end and gently pushing on poppet (4) from the spring side.
5. Check metal parts for damage, i.e., nicks and scratches caused by fluid contaminants. Replace any damaged parts.
6. Discard old flexible seal (2).

### B. Cleaning Procedure

1. Valve may be cleaned in any good grade of commercial solvent. Brush dirt out of threaded connectors and blow out all internal passages.
2. Allow valve parts to dry thoroughly before reassembling.

### C. Assembly Procedure

1. Mount valve body (6) vertically as noted in disassembly (See Section A above). Internal opening side up.
2. Drop spring (5) into valve making sure it seats properly on spring seat at outlet end.

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3. Assemble seal retainer (3) over nose of poppet (4) making sure that the lip of the seal retainer is outward toward poppet nose.
4. Select new flexible seal (2) of proper size and compound (check correct part number corresponding to valve model).
5. Lubricate seal by dipping in fluid from the hydraulic system or by rubbing with a compatible seal lubricant, such as Dow Corning III Silicone Compound. Proper lubrication is important to obtain correct seal positioning during assembly.
6. Assemble flexible seal (2) over nose of poppet (4) so that seal retainer (3) is now sandwiched between seal and poppet. (Again, make sure seal retainer **LIP** is on flexible seal side).
7. Drop poppet, seal retainer, and flexible seal assembly into valve opening poppet first, so that poppet body slides over the spring. Make sure spring seats properly in poppet.
8. Place small amount of lubricant on threads of cap (1) (Use system fluid or silicone compound).
9. Carefully start cap thread into body thread and snug down with fingers. Cap seat should properly position flexible seal and seal retainer automatically and should turn down with only finger pressure within approximately 1/2 turn of wrench tight. In relief-check valves with heavy springs, poppet (4) must be depressed mechanically during this operation.
10. Tighten cap (1) with box type wrench of proper size.
11. Make sure spring is properly seated at both ends. Check poppet (4) movement by depressing with small rod or dowel from inlet end. Poppet should move 1/8" - 1/4" with no evidence of sticking or binding.
12. Connect outlet to air line (with proper fittings) and apply air pressure in check direction. Check inlet for leaks by immersing in water or with leak detection equipment if available. If leakage occurs O-ring is not properly seated. Disassemble and repeat above paying special attention to Steps 4, 5, 6 and 9. Retest. Once properly seated the seal will hold its position and remain leak-tight for a long service life.

### Maximum recommended torque for installation of caps into bodies

Valve Size	Internal Thread	Assembly Torque				
		ORB (ft-lb)	SAE/JIC (ft-lb)	SAE Grade 2 Bolt (ft-lb)	Kepner Max (ft-lb)	Kepner max (N-m)
04	9/16-18 UNF	22-24	15	79	6	8
06	5/8-18 UNF			110	8	11
08	7/8-14 UNF	43-48	25	184	12	17
10	1-14 UNS			280	25	34
12	1 1/4-12 UNF			553	33	45
16	1 5/8-12 UN	146-161	85		60	82
20/24	2 1/4-16 UN				95	130
32	3-16 UN				150	205

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