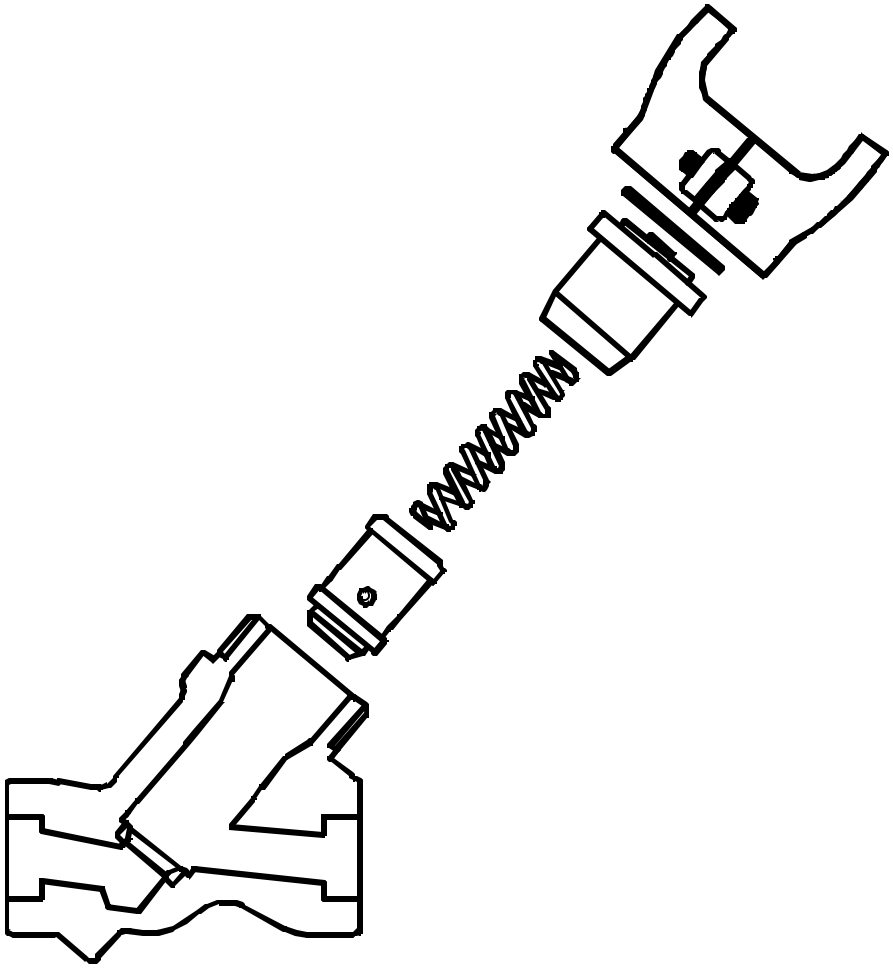
CONVAL

CHECK VALVE

INSTALLATION INSTRUCTIONS



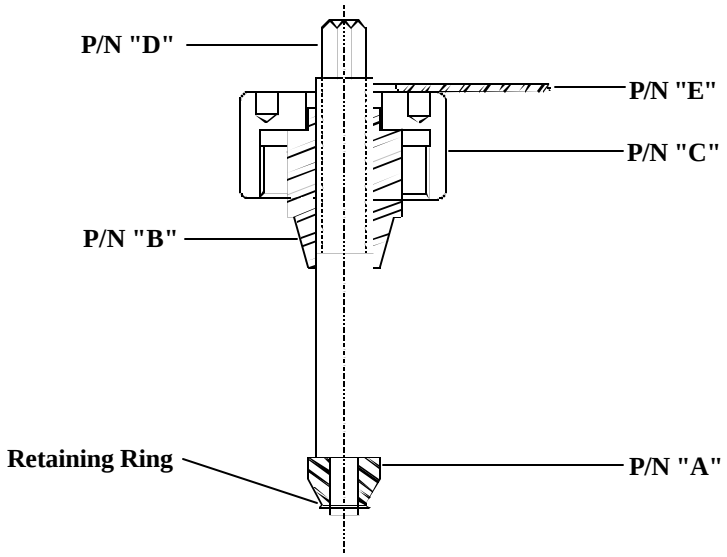
Installation Instructions for Check Valves

A. Dissassembly of Check Valve

1. Mount new Conval CLAMPSEAL® Check Valve securely in vice.

2. Completely remove the clampbolt from the check valve and screw it into the opposite (threaded) side of the clampbolt lug. Place a metal flat (like a fender washer) into the yoke split to stop the clampbolt. Tighten clampbolt, using it as a jacking screw, until the yoke split expands by 1/16" (This is to relieve check yoke thread friction).

Figure A



Welding Seat Plug

3. Unscrew the yoke, using a Conval Yoke Wrench. Remove the check yoke assembly carefully so that the check bonnet does not come out of the valve and fall to the ground.

4. Remove timing shims (if supplied) from bonnet. Shims are provided in some valves to maintain proper yoke orientation. Keep the original shim set with the valve for reassembly.

5. Remove check bonnet, spring and piston from the valve body. Hold these parts along with the timing shim (if applicable) in a clean area.

6. In small check valves (size codes 3 through 6) insert welding seat plug assembly (Figure A) into valve, P/N "A" should rest on valve seat, and screw P/N "C" down hand tight. Using P/N "E" further tighten P/N "C" 1/4 to 1/2 turn.

In larger size valves (size codes 7 through 10) insert welding seat plug (Figure B) into valve, P/N "A" should rest on valve seat. After inserting welding seat plug, screw on check yoke (Figure C) from the disassembled valve components and tighten hand tight. Using a Conval

Yoke Wrench tighten the yoke 1/4 to 1/2 turn.

Note: The yoke, bonnet, and stem assembly of a Conval stop valve of **of the same size,** may be used in place of the Welding Seat Plug shown in Figure A & B.

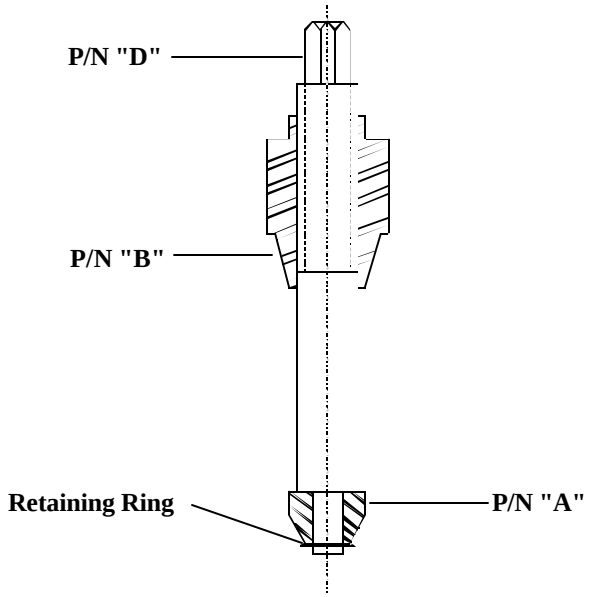
7. Perform installation welding in accordance with ASME Boiler and Pressure Vessel Code, Sec. I, Part PW, or ANSI B31.1 Para 127.

B. Reassembly of Check Valve

1. After valve has cooled, using P/N "E" (Figure A) for small valves (size codes 3 through 6) or Conval Yoke Wrench on larger valves (size codes 7 through 10) loosen P/N "C" or check yoke and remove welding seat plug assembly (Figure A) or welding seat plug (Figure B) from the valve.

2. Coat body/yoke thread with anti-seize lubricant.

Figure B



Welding Seat Plug

3. Assemble the valve components in the following order:

   a. Piston should be inserted into valve body so that the closed end rests on the seat.

   b. Spring should be inserted into the open end of the piston.

   c. Check bonnet should be inserted into the valve so that the open end covers the top portion of the spring.

   d. Replace timing shims (if shims were provided originally) onto bonnet chamber

keep timing shims flat on bonnet ledge.

e. Screw yoke onto body. Apply torque as specified on Table I. **DO NOT OVER TORQUE!**

f. Replace clampbolt. Apply torque as specified on Table I.

Figure C

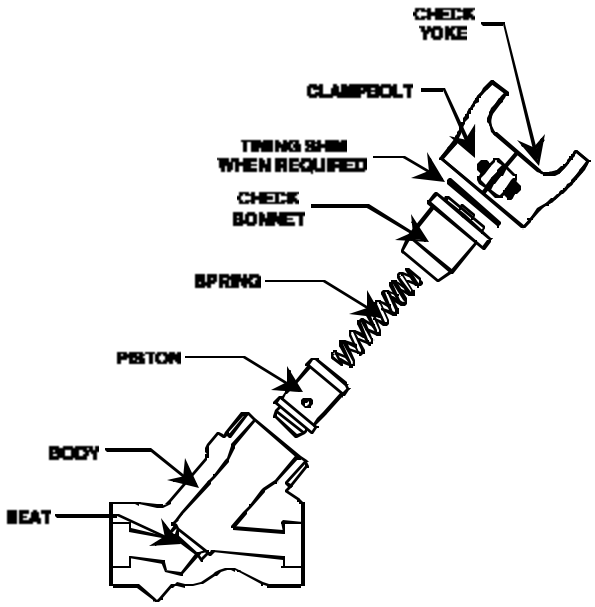


Figure C

Table I. (ft - lbs)

SIZE CODE	YOKE	CLAMPBOLT
3C 3D	100	15
5C 5D	150	15
5E 5F 5G	150	15
6E 6F 6G 6H	200	15
7E	250	25
7F 7G 7H 7J	250	25
8F	350	25
8G 8H 8J 8K	350	25
9G 9H	425	60
9J 9K 9L	425	60
10H	600	105
10J	600	105
10K 10L 10M	600	105

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