



**One Piece  
Inside Blowout Preventer Valve**

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Disassembly and Assembly Procedures

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**Disassembly and Assembly Procedures for  
Global Manufacturing, Inc. One Piece Inside Blowout Preventer Valves**

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**SAFETY CONSIDERATIONS**

- Safety glasses should be worn along with other protective clothing as required.
- Proper tools and restraining devices (vises, clamps, etc.) should be used to secure the valve in a safe manner.
- Valve maintenance should be performed in a safe and suitable work area as designated by your supervisor.
- Personnel performing these operations should be familiar with Global inside blowout preventer valves and their uses.
- If unsure of any part of the operation, check with the valve manufacturer before proceeding.

*These instructions are intended for disassembly and assembly of Global Manufacturing, Inc. One Piece Inside Blowout Preventer Valves only.*

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**VALVE DISASSEMBLY**

**Figure 1**

1. Remove the valve from the drill string. Clean the outside and inside in preparation for disassembly.
2. Loosen the lock screw and slide back the releasing rod.
3. Remove the cap and the releasing rod.
4. Remove the spiral retainer ring and the solid retainer ring through the box end of the valve.
5. Slide the four segments of the split ring toward the valve bore and remove them from the valve.
6. Remove the seat from the body.
7. Remove the dart and the spring from the body.

**Figure 2**

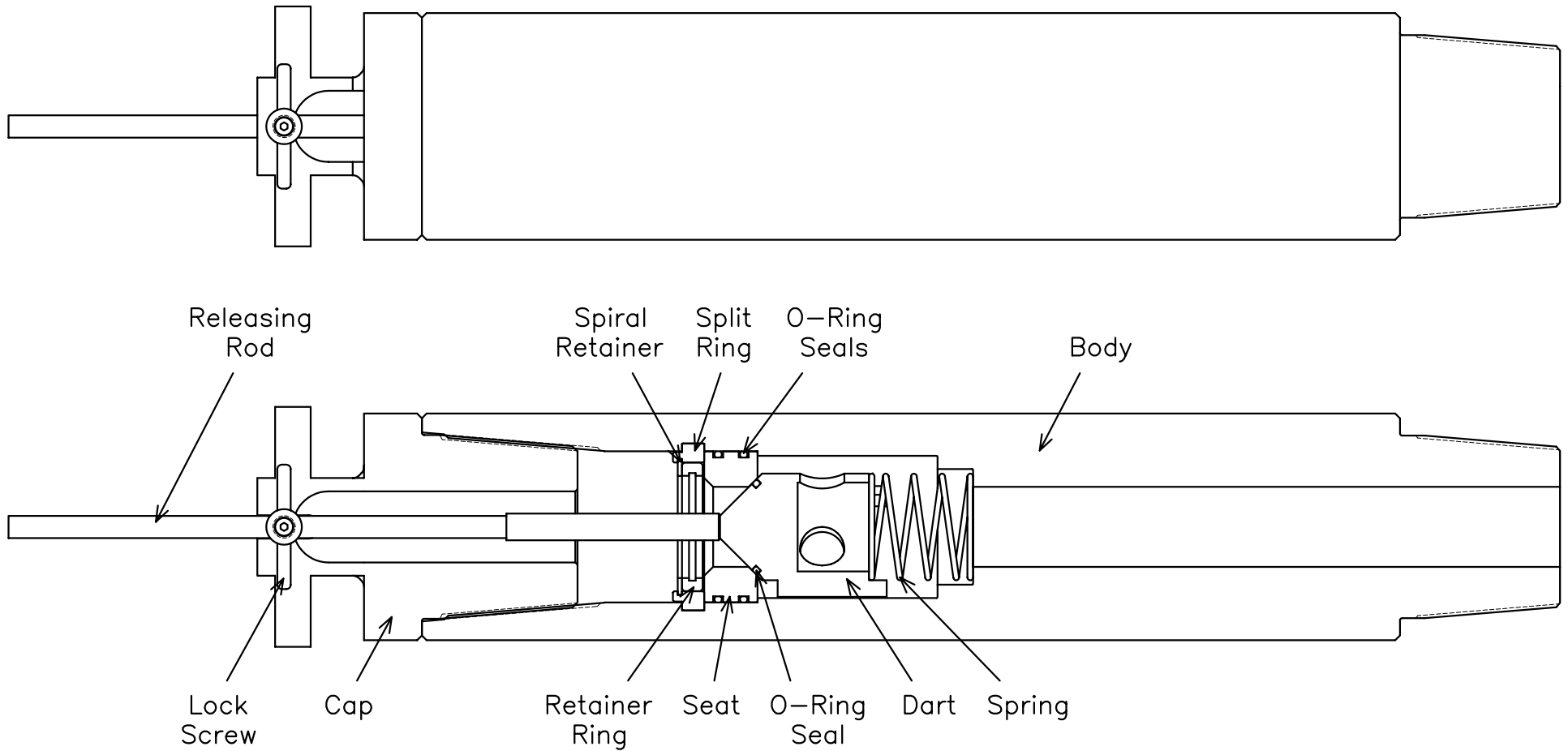
8. Remove all seals and o-rings.

**Figure 3**

9. Inspect all internal parts, particularly the o-ring grooves and seal surfaces, to ensure that there are no burrs, scratches, excessive wear, pitting (or other forms of corrosion damage), washing, rounded corners or mechanical damage. Any parts found with damage shall be replaced or sent to Global Manufacturing for repair.
10. Inspect the body to ensure that there are no burrs, scratches, excessive wear, pitting (or other forms of corrosion damage), washing, rounded corners or mechanical damage. Any parts found with damage shall be replaced or sent to Global Manufacturing for repair.
11. Inspect the box and pin threaded connections for excessive wear, galling damage and shoulder damage. Any valves with connection damage shall be sent to Global Manufacturing for repair.

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One Piece Inside Blowout Preventer Valve

Figure 1

# Disassembly and Assembly Procedures for Global Manufacturing, Inc. One Piece Inside Blowout Preventer Valves

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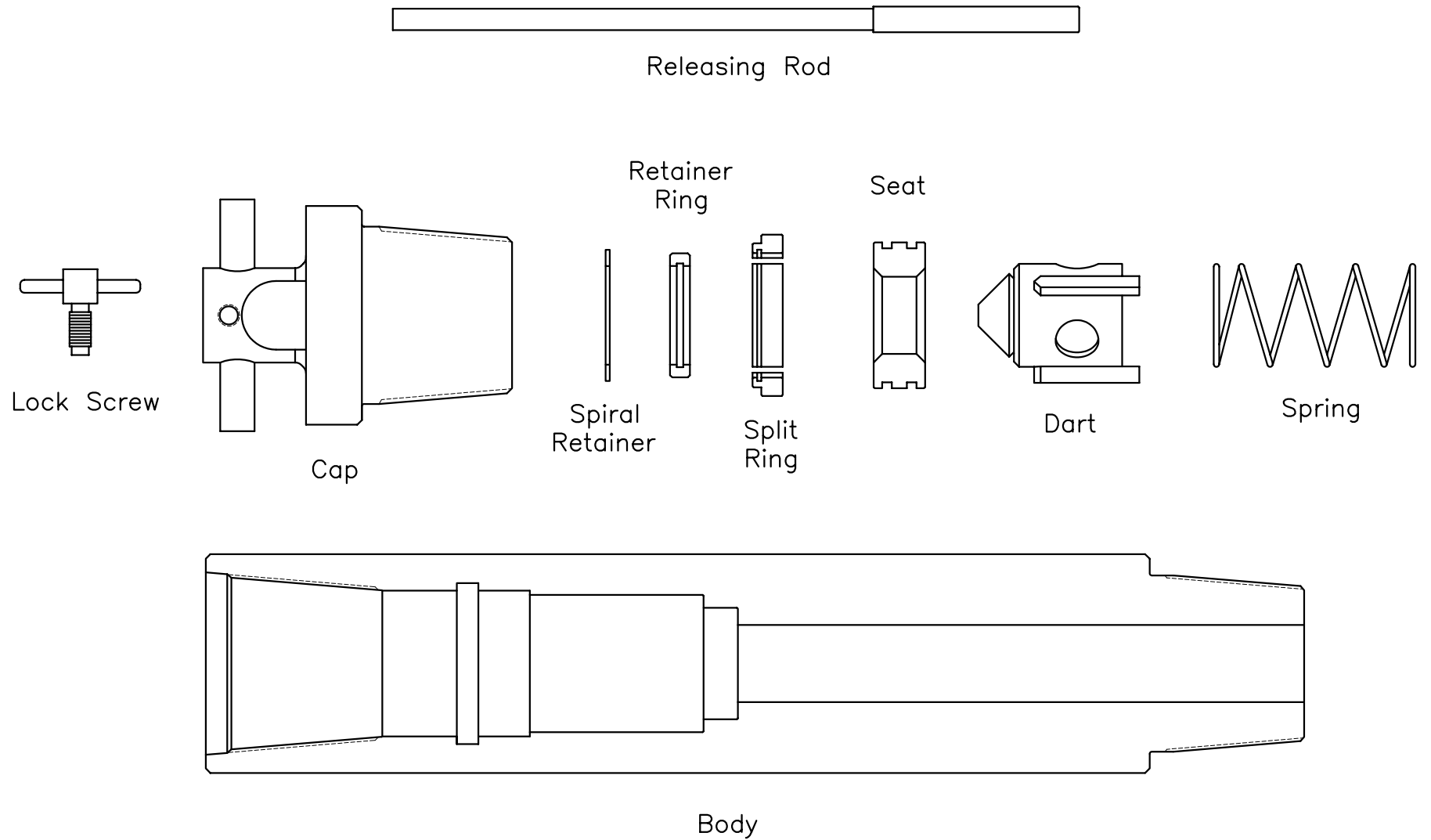
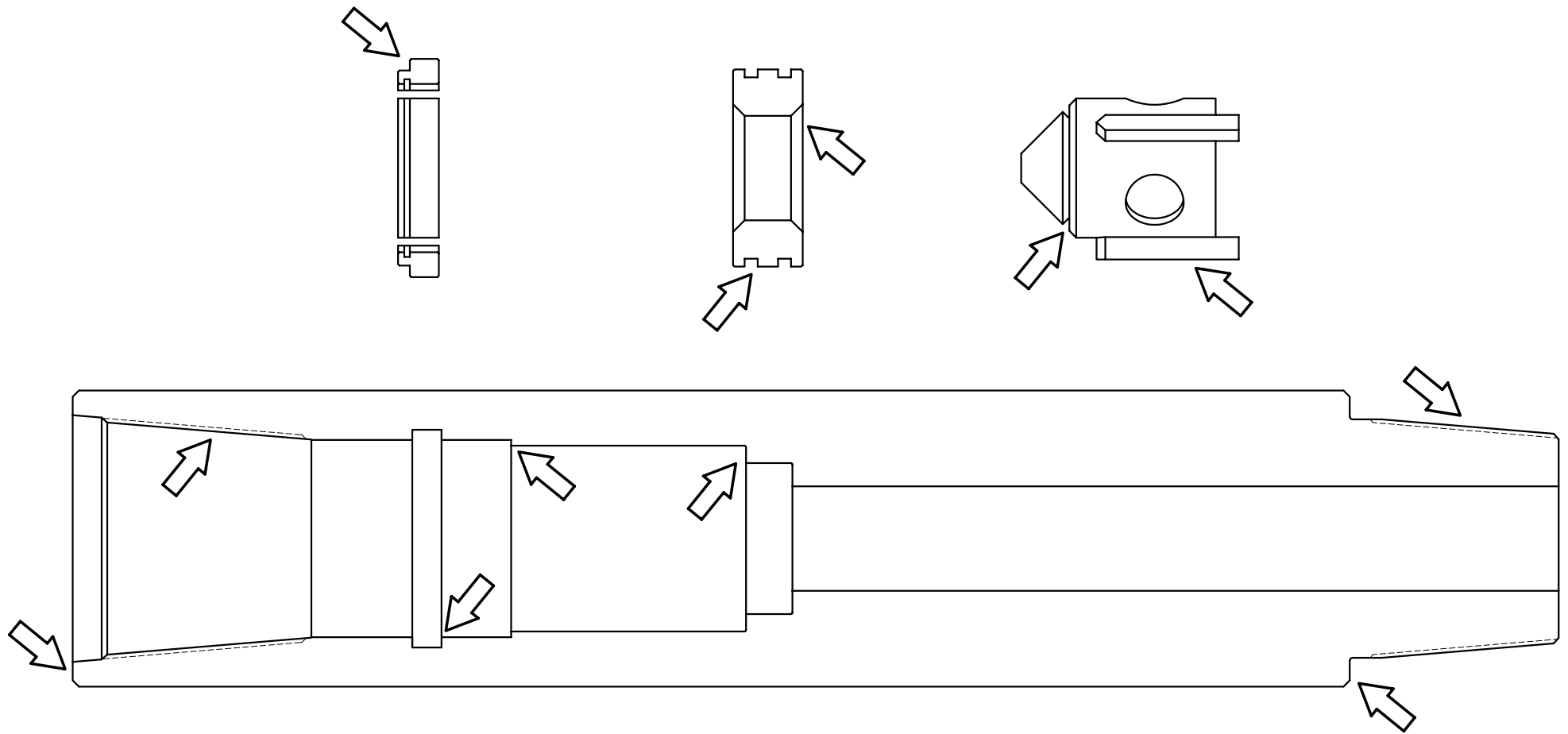


Figure 2

Disassembly and Assembly Procedures for  
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Critical Inspection Locations

Figure 3

**Disassembly and Assembly Procedures for  
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**VALVE ASSEMBLY**

1. Replace all seals, o-rings and any worn or damaged parts (dart, seat, etc.).

**Figure 4**

2. Apply high grade lithium based grease to all internal parts and the bore of the body. Do not apply lithium grease to the rotary shouldered end connections.

**Figure 5**

3. Install the seal on the dart.
4. Attach the spring to the dart.

**Figure 6**

5. Install the dart and the spring into the body. They should slide freely into the bore.
6. Install the seals on the seat. Carefully slide the seat into the body until it contacts the shoulder in the body.
7. Install the two longest pieces (from opposing sides) of the split ring by pressing on the dart and inserting the split ring pieces fully into opposite sides of the split ring groove.
8. Insert the remaining two pieces of the split ring into the split ring groove.

**Figure 7**

9. Install the solid retainer ring into the bore of the split ring.
10. Install the spiral retainer ring in the groove of the split ring.
11. Test the valve to the manufacturer's specifications to ensure no leakage.

**Figure 8**

12. Install the releasing rod and the cap with the lock screw.
13. Check for smooth operation of the valve by opening and closing the valve with the releasing rod.
14. Store the valve in the position required by rig floor operations.

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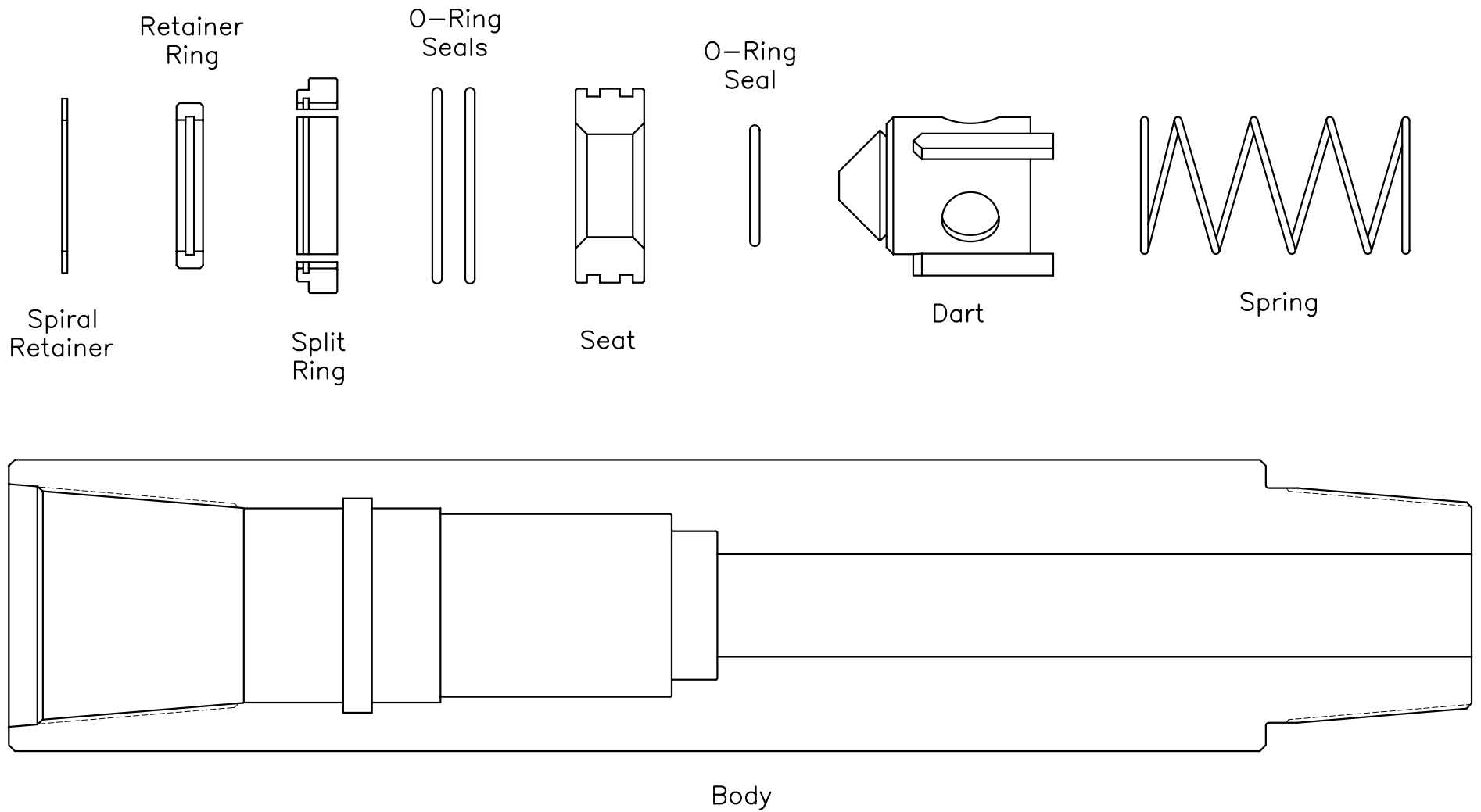


Figure 4



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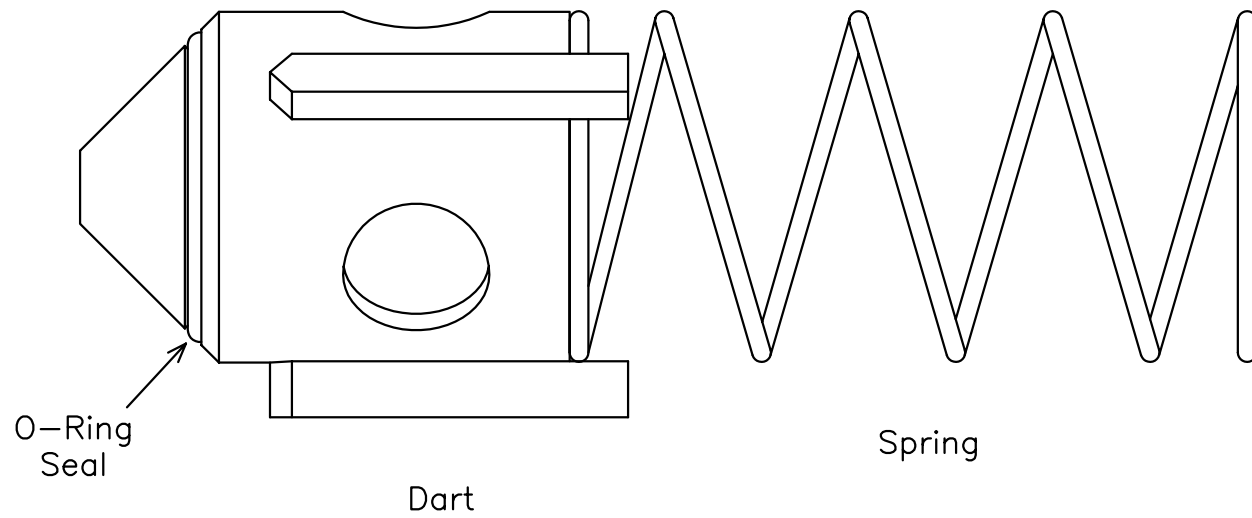


Figure 5

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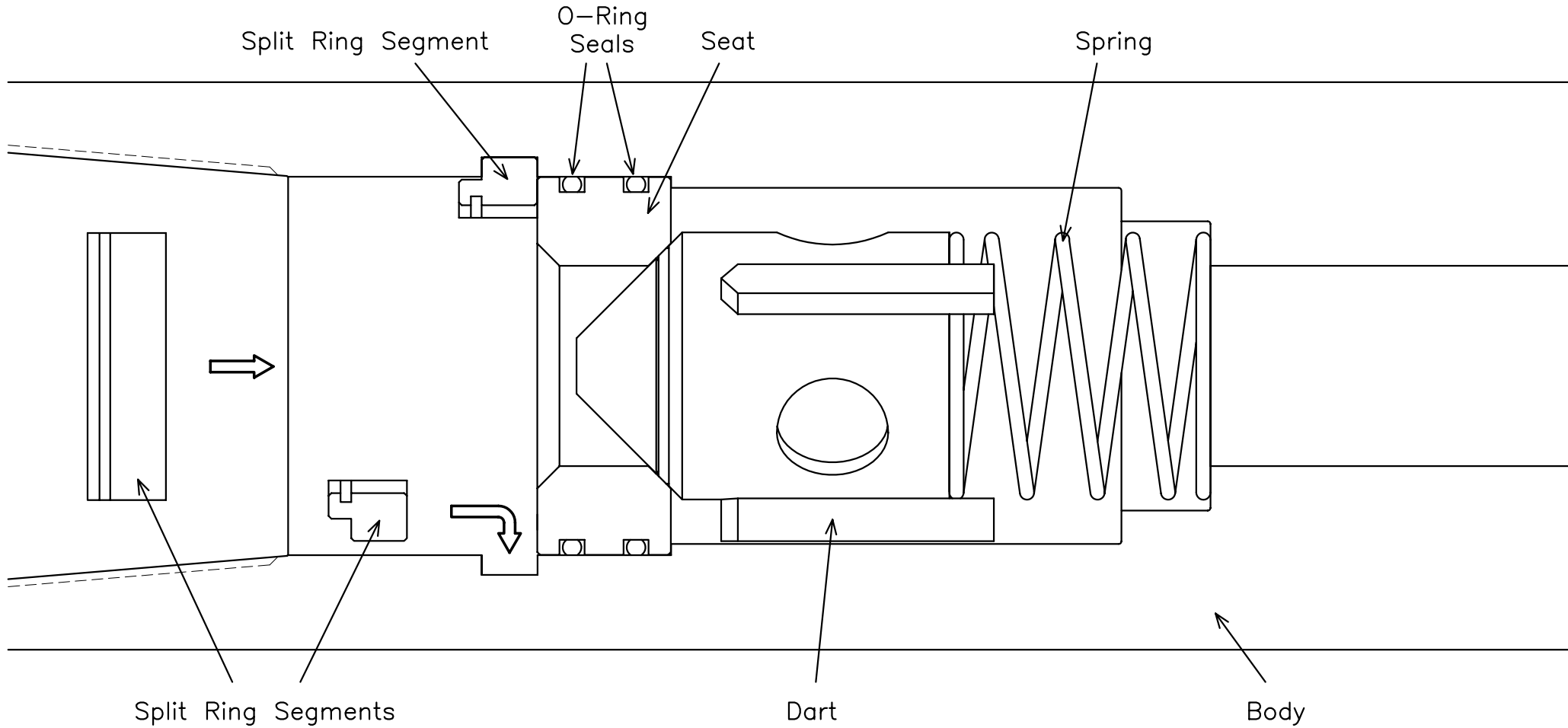


Figure 6

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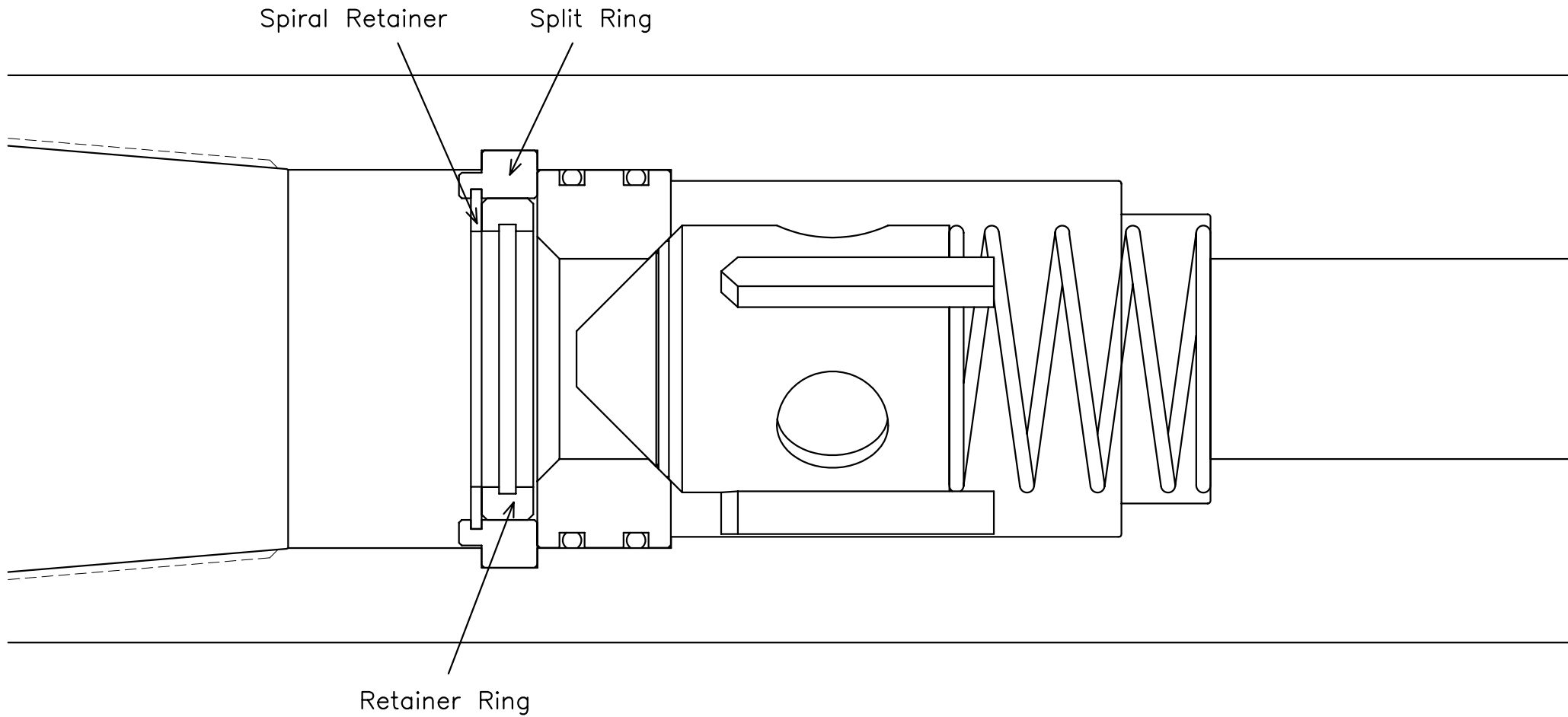


Figure 7

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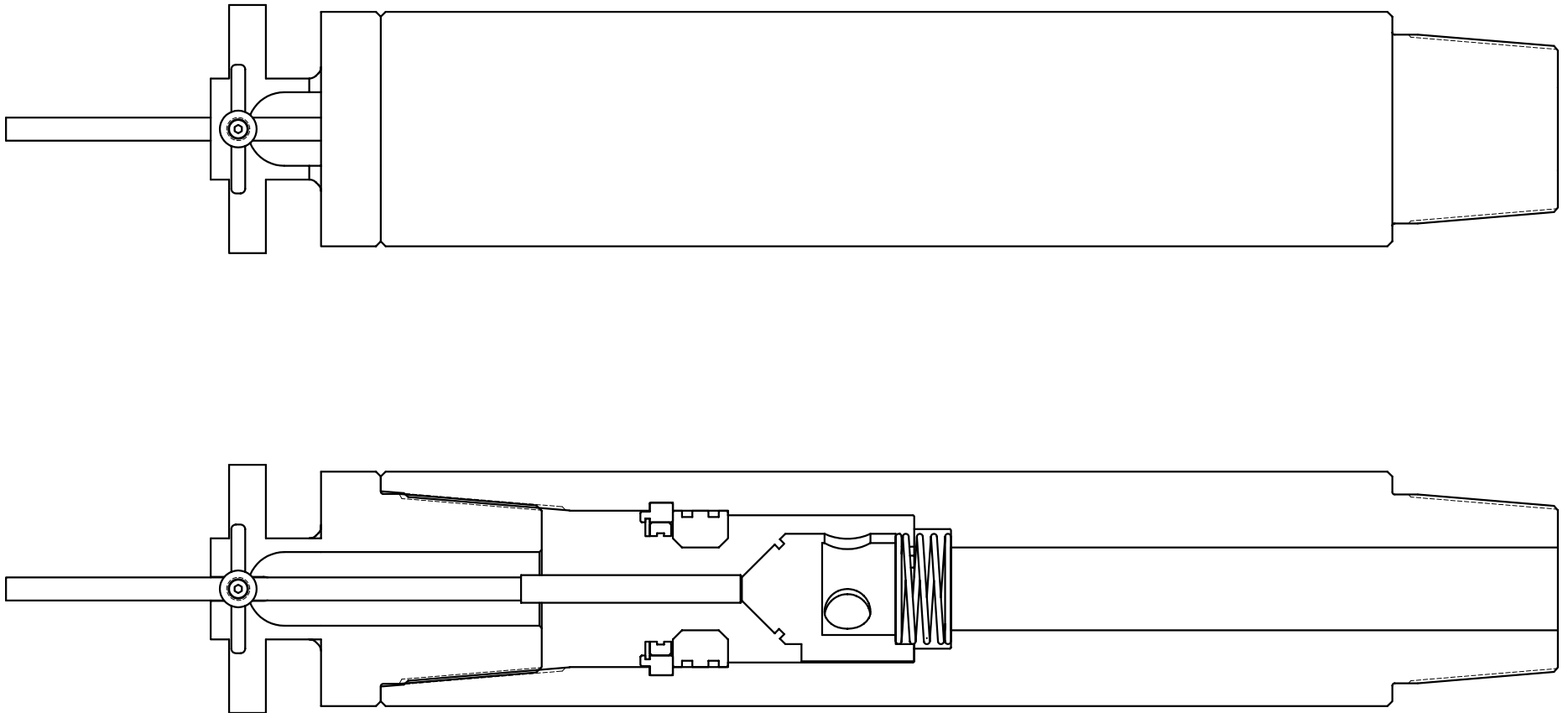


Figure 8