Inside Blowout Preventer Valve

Disassembly and Assembly Procedures

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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 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. inside blowout preventer valves only.

These written procedures are to be used in conjunction with Global Manufacturing, Inc.'s Inside Blowout Preventer Valve Preventive Maintenance Service Video.

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.

Figure 2

4. Break the service connection and separate the top and bottom subs.

5. Remove the dart and the spring from the bottom sub.

6. Inspect the seat and remove (or machine) as necessary.

7. Remove all seals and o-rings.

Figure 3

8. Inspect all internal parts, including o-ring grooves, to ensure that there are no scratches or excessive wear.

9. Inspect the top and bottom subs to ensure that there are no scratches or excessive wear.

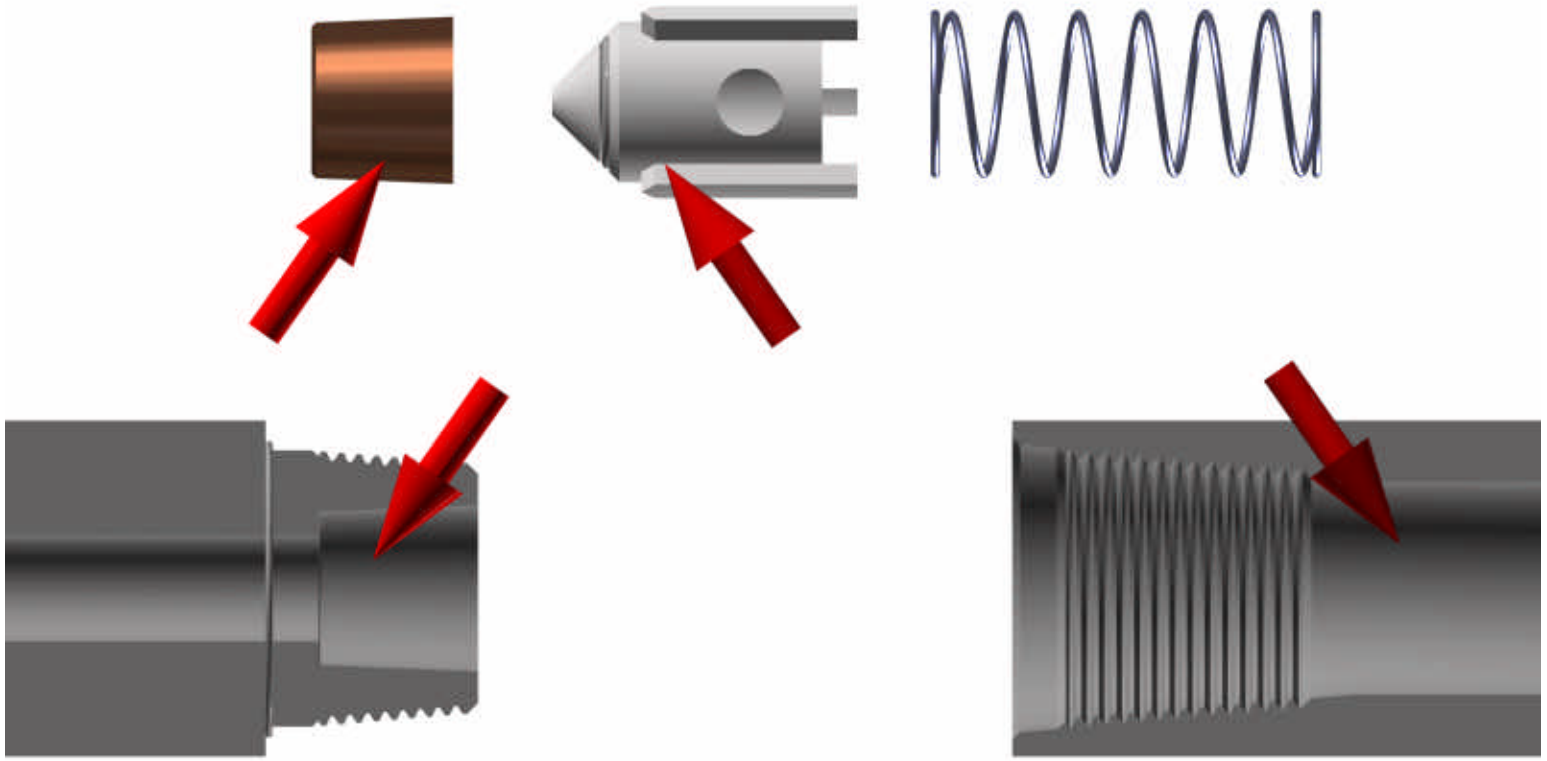
10. Inspect all internal parts, top sub and bottom sub to ensure that there is no pitting (or other forms of corrosion damage), washing, rounded corners or mechanical damage. Any parts found with damage shall be replaced or sent to Global Manufacturing for repair.

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.

INSIDE BLOWOUT PREVENTER VALVE ASSEMBLY

Figure 1

Figure 2



INSPECTION LOCATIONS

Figure 3

VALVE ASSEMBLY

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

2. Apply high grade lithium based grease on the o-ring and install on the top sub.

Figure 4

3. Apply high grade lithium based grease to all internal parts and the inside diameter of the bottom sub. Do not apply the lithium grease to the service connection.

Figure 5

4. Install the seal on the dart.

5. Attach the spring to the dart.

Figure 6

6. Install the dart and the spring into the bottom sub. They should slide freely into the bore.

Figure 7

7. Install the seat into the top sub, and tap lightly with a non-metallic mallet so that the tapered surfaces hold the seat in place.

8. Apply pipe dope (containing 40 to 60% by weight of finely powdered metallic zinc and less than 0.3% active sulfur) to the service connection threads.

9. Screw the top sub and bottom subs together.

10. Make up the service connection to the manufacturer's recommended torque.

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. Open the valve fully and store the valve in the full open position until installed in the drill string.

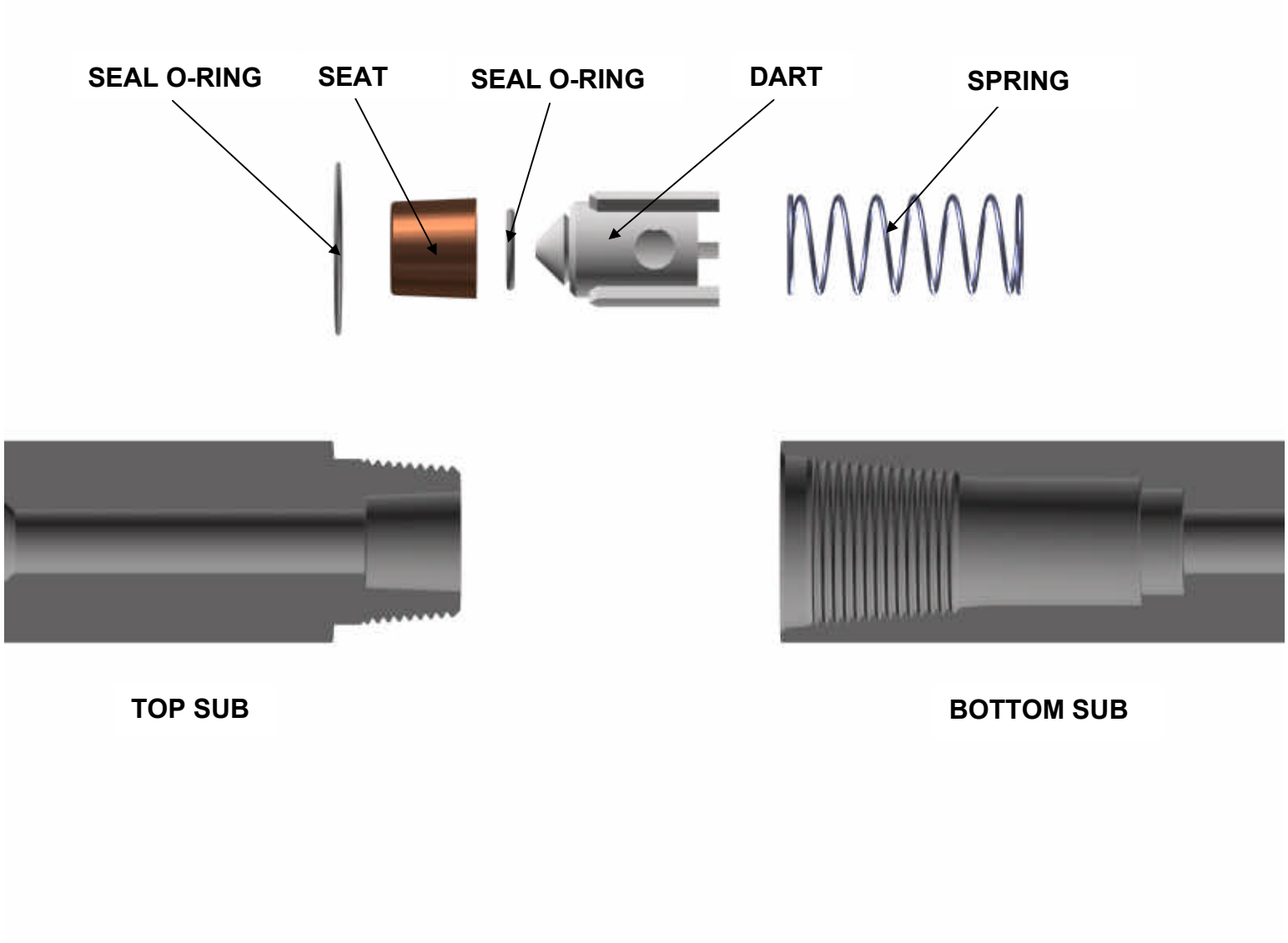


Figure 4

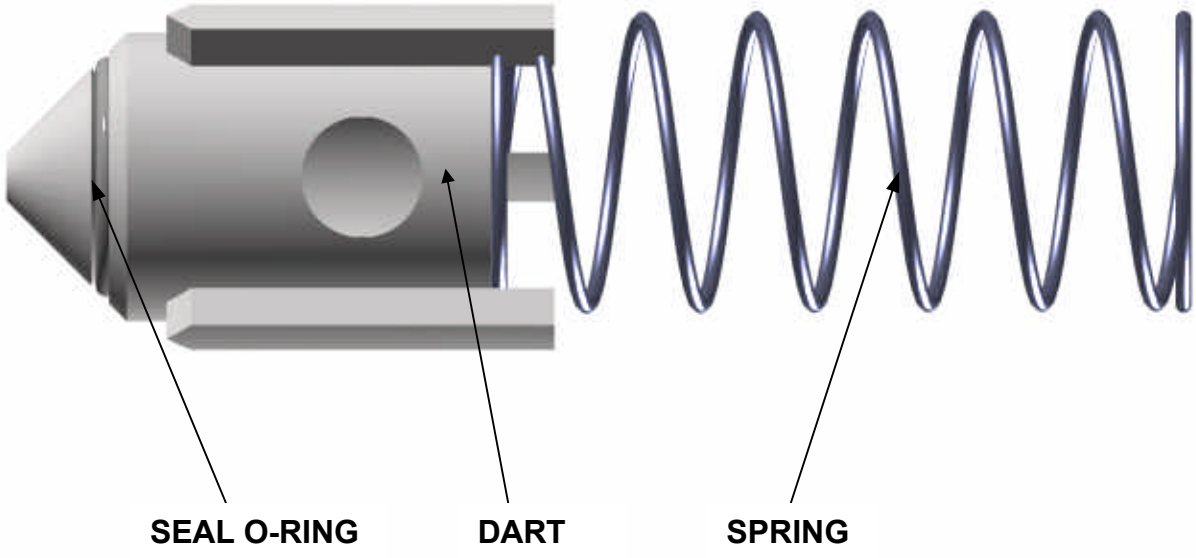


Figure 5

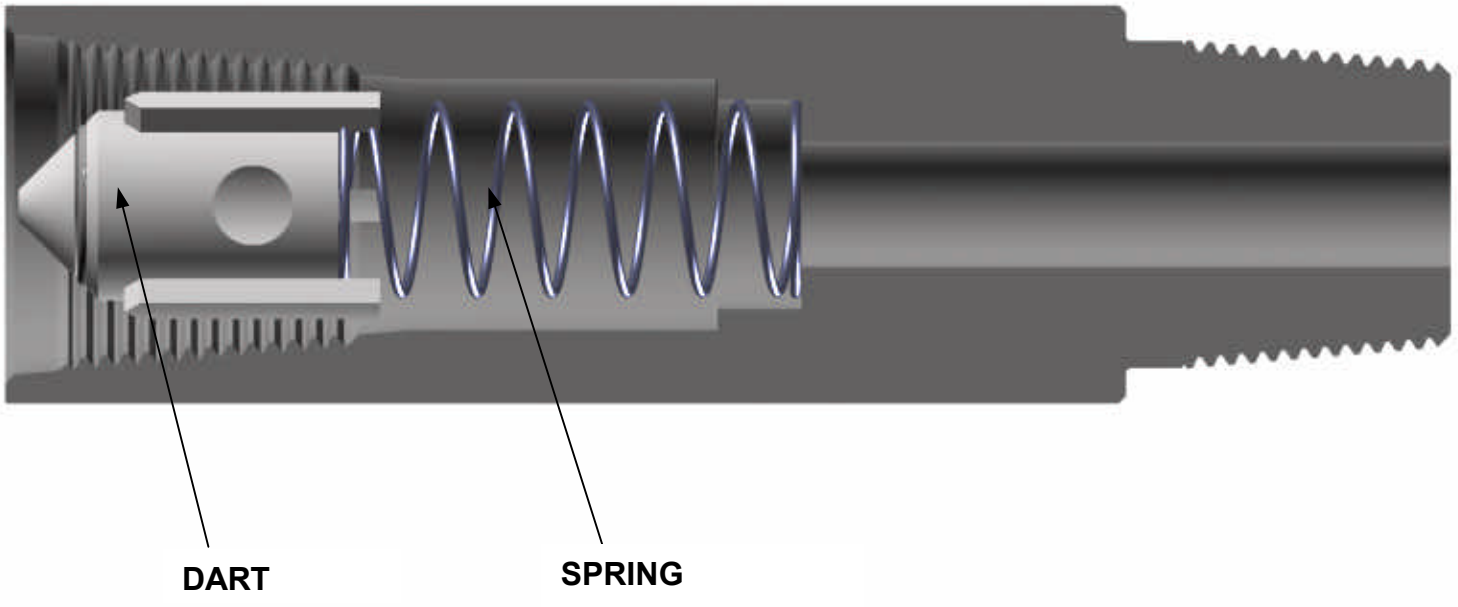


Figure 6

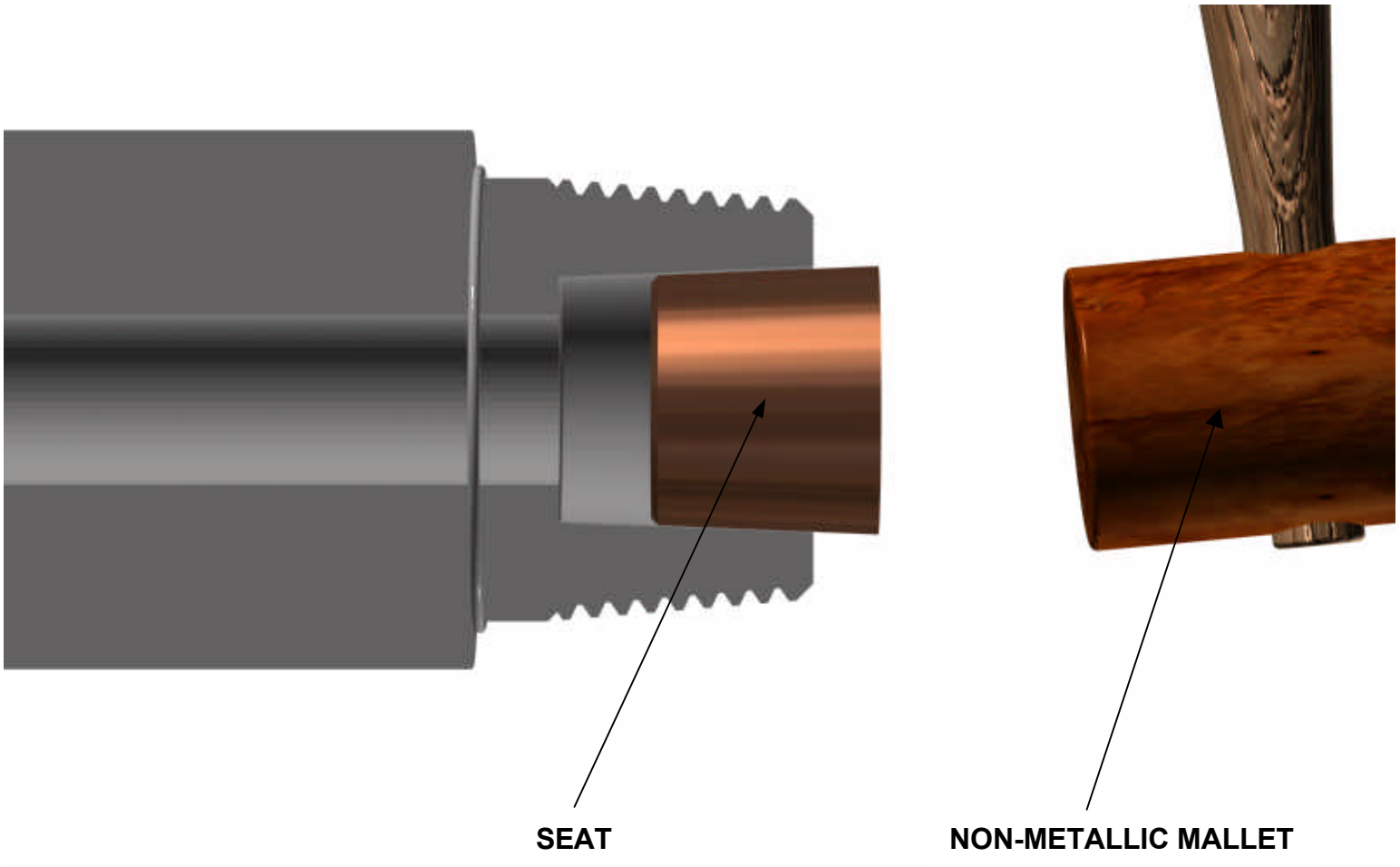


Figure 7

Figure 8

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