"83DXL" SERIES BALL VALVE MAINTENANCE INSTRUCTIONS

MS-CRD-0266
Rev -
November, 2019

Kit Contents:

Ball	Stem
Trunnion Bearings (2)	O-Rings (3)
Seat Carrier Back-up Rings (4)	Seat Carrier Assemblies (2)
Seat Springs (12)	End Screw Seals (2)
Stem Bearing	Stem Back-up Rings (3)
Lubricant	Instruction Sheet
Seat Carrier Guides (2)	Material Safety Data Sheet

⚠ **WARNING:** Before servicing any installed valve, to avoid personal injury, you must
- depressurize the system
- cycle the valve
- purge the system to remove any residual system media left in the valve

NOTE: It is important to refer to the exploded view drawing while following the maintenance instructions.

DISASSEMBLY

End Screws:

1. Remove end screws from valve body.
2. Discard the backup rings, carrier o-rings, seat spring, seat carrier assemblies, end screw seals, and seat carrier guides.

Ball & Stem:

3. Remove the set screw (not pictured) in handle and remove handle. Note the position of the handle for reassembly.
4. Remove the ball assembly through the bottom of the valve body. Note the position of the ball orifices for reassembly. (It may be necessary to place an object into the ball orifice and press down to release the ball. Discard the ball.
5. Press down on the top of the stem and remove through the bottom of valve body.
6. Remove and discard the stem o-rings, back-up rings, stem bearing, and stem.
7. Carefully, remove all lubricants and contaminants from inside the valve body.

REASSEMBLY

End Screws:

1. Clean all lubricant or contaminants from end screws (reusable).
2. Apply a moderate coating of MS-LT-WL7 lubricant to the seat carrier back-up rings, carrier O-rings, and end screw seals.
3. Place seat springs onto the shank of the seat carrier assembly.
4. Place other components onto the shank of the seat carrier assembly in the following order:
   1. Metal seat carrier guide
   2. One plastic back-up ring
   3. Seat carrier o-ring
   4. One plastic back-up ring
5. Insert the seat carrier assemblies into the end screws. Place an end screw seal over each seat carrier assembly and position on the end screws.

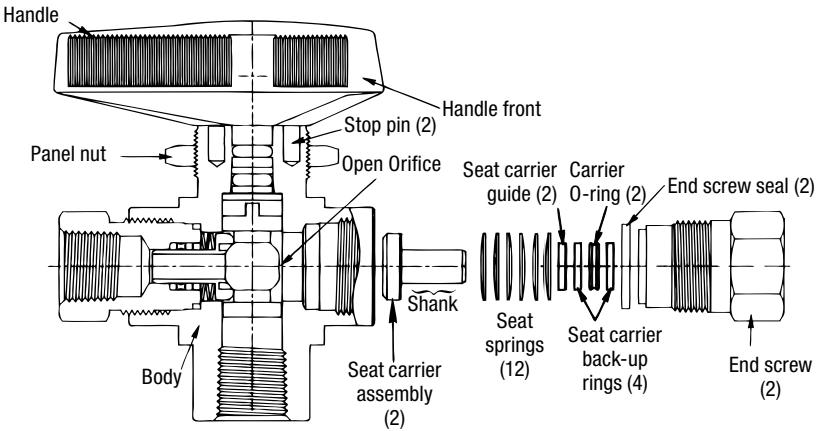
End screw assemblies are now complete.

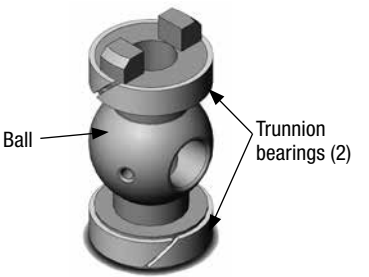
Ball & Stem:

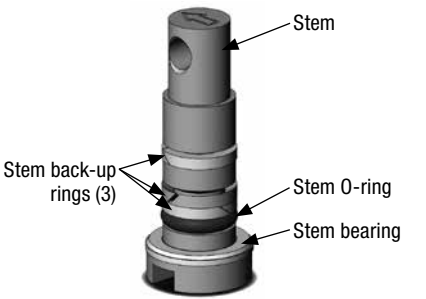
6. **STEM Preparation:**
   - Apply a moderate coating of MS-LT-WL7 lubricant to the stem O-ring.
   - With the chamfer side up, place the stem bearing on the stem.
   - Place the O-ring, PTFE back-up ring, and the PEEK back-up ring (concave up) in the lower stem groove.
   - Place the remaining PTFE back-up ring in the upper stem groove.

   BALL Preparation:
   - Place the upper and lower trunnion bearings into the ball grooves.

   Stem assembly is now complete.
7. Insert the stem through the bottom of the valve body and gently press the stem up into position using a blunt instrument. Gently press upwards until the stem reaches its uppermost position against the body bore. Take care not to score the inside walls of the body bore, or to clip the stem o-rings during installation. The stem hole should be perpendicular to the end screw holes to allow proper alignment with the handle.
8. Place the handle over the stem. The handle should be installed by aligning the arrow on the top of the stem with the arrow on the underside of the handle. Align the handle set screw hole with the stem hole. Place the set screw in handle and tighten.
9. Lightly lubricate the new ball and the trunnion bearings with MS-LT-WL7 lubricant and insert (tang up) through bottom of valve body. Press upward until the ball tang engages the stem slot. To test; turn handle, if ball rotates tang is engaged.
   Note: Be sure the open orifice is positioned towards the handle front.
10. **Turn the valve handle 90 degrees from the inlet** to avoid damage to the seats while torqueing the end screws.
11. Insert the end screw assemblies and torque to 500 in.·lb each. (56.5 N·m).







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