DMN Bearing Toolkit

Worn out bearings or incorrect placement of new bearings can cause serious damage to a rotary valve. For this reason, DMN has developed a 'Bearing Toolkit' to help operators properly replace the bearings and achieve optimum valve functionality.

Valve sizes

- 150 to 175 mm
- 200 to 250 mm
- 300 to 350 mm

Required Tools

- Dead blow hammer
- Drift punch
- Hex keys (4 & 6 mm)
- Torque wrench

Toolkit contents

1 Disassembly impact tool with brass end
1A Assembly ring MZC
2 Bearing disassembly ring
3 Disc spring Adjusting ring
5 Assembly tool lineair bearing MCZ
6 Assembly bearing MZC outer ring
7 Assembly bearing MZC inner ring
7a Extension tool Assembly bearing MZC
8 Impact tool MZC
Instructions

Depending on the size of the rotary valve, DMN offers 3 toolkits. Additional tools required include: a dead blow hammer, a drift punch, hex keys (4 & 6mm) and a torque wrench.

Open the rotary valve according to the DMN procedures and then remove the rotor.

Disassemble the bearing ring and the support ring from the non-drive side. Assemble tools 1 + 1A. Insert the brass end of 1A into the endcover and proceed to tap the bearing bush from the inside out of the non-drive side endcover. Assemble tools 6 and 8. Remove the retainer ring, and place the bearing and bearing bush on the tools. Tap the bearing bush out of the bearing with tools 1 + 1A.

Assemble tools 7, 7a, and 8 together, and mount the new bearing on the bearing bush. Put the retainer ring back onto the bearing bush. Assemble tools 6 and 8. Place the bearing bush back into the end cover of the non-drive side. Tap the bearing a bit further into the end cover with tool 2.

Disassemble the drive and bearing housing on the drive side, and remove the adjusting screw from the drive shaft. Tap back the bent tab of the safety ring. Assemble tools 1 + 1A. Insert the brass end of 1A into the endcover and proceed to tap the drive shaft and bearings from the inside out of the drive side end cover. Place the drive shaft on the rotor and loosen the lock nut. Assemble tools 6 and 8 together and place the drive shaft with the bearings on the tools. Tap the drive shaft out of the bearings. Assemble tools 7, 7a, and 8 together. Mount the new bearings and shims on the drive shaft. Reattach all parts.

Assemble tools 6 and 8. Place the drive shaft with the bearings back into the drive-side end cover. Install the rotor into the valve, and close the valve according to DMN procedures in our O&M manual. Pre-set the tension of the disc springs using tool 4 and a torque wrench. Lock disc springs in place with the grub screw. Center the rotor in the rotary valve with the adjusting screw in the drive shaft. Reinstall the drive. Disassemble tool 2, mount the bearing ring and the support ring on the non-drive side and re-tighten axial locking bolt.

The rotary valve is now ready for use.