Repair Instructions for Type 61050 PT Joints

Please follow your company’s safety procedures whenever working on Kadant Johnson rotary joints and read all of the instructions completely before proceeding.

Please refer to the assembly drawings supplied with your Kadant Johnson rotary joint for part identification. If you have questions, please contact your representative or Kadant Johnson.

Tighten all fasteners in a star pattern. See joint assembly drawing for torque specifications.

**STEP 1.**
Relieve all pressure from the steam system. Disconnect flex hose from head (2).

**STEP 2.**
Prepare to capture the seal ring (6) while performing this step. Install two spacers, washers, and cap screws (14B, 14C, and 14D) 180° apart onto torque pin (14) and tighten bolts. When the bolts are tightened, the nipple (4) will retract into the end cap (3) and the seal ring (6) will fall free.

**STEP 3.**
Remove head (2) from bracket (20) and set aside. Clean gasket surface on the head and bracket.

**STEP 4.**
Remove bolts that secure bracket (20) to mounting pad and slide rotary joint assembly away from journal. The rotary joint is now ready to service.

**STEP 5.**
Prepare to support the weight of the end cap assembly (3, 4, and 7) during this step. Remove socket head cap screws (3A) that secure the end cap assembly to the bracket (20) and separate the bracket from the end cap assembly. Remove gasket (8) and clean gasket surface on the bracket and end cap.

**END CAP ASSEMBLY SERVICE INSTRUCTION**

**STEP 6.**
Place the end cap assembly (3, 4, and 7) in a press with the flanged end down. Protect the flat face of the nipple (4) with a block of wood. Compress the nipple with the press and remove the bolts and spacers from Step 3. Remove retaining clips (18). Release the press and push the nipple (4) out of the end cap (3).

**STEP 7.**
Inspect the flat face of the nipple (4) for wear. It should be smooth, not scored or pitted. Remove o-rings (25), clean and inspect o-ring grooves for wear or steam cutting. If the nipple is damaged in these locations, replace it.

Clean and inspect the bore of the end cap (3). It should be smooth and free of steam cuts. Replace end cap if damaged.

Clean and inspect the guide pins (14 and 14A). Replace if worn.

Inspect the springs (7). Replace if broken.

**STEP 8.**
Lubricate o-rings (25) with silicone o-ring lube and install them into the o-ring grooves on the nipple (4).

**STEP 9.**
Place the end cap (3) into the press with the flanged end facing down. Install springs (7) over guide pins (14 and 14A). Place nipple into the end cap and push into position. Align the holes in the nipple flange with the guide pins (14) and continue to push into position using the press.

**STEP 10.**
When the nipple (4) and end cap (3) are assembled, install retaining clips (18) onto guide pins (14) to hold assembly together. Slide spacers, washers, and cap screws (14B, 14C, and 14D) over the guide pins, 180° apart. Compress nipple into
end cap until there is a 5/8” (16 mm) gap between the face of the flange on the nipple and the retaining clip. This is the (X) dimension. See Figure 1.

STEP 11.
Place a new gasket (8A) onto end cap (3). Place end cap assembly onto bracket (20) and secure using socket head cap screws (3A).

STEP 12.
Inspect wear plate (16) for steam cuts or scoring. If necessary, replace wear plate by removing socket head cap screws (16A) and installing a new wear plate using a new gasket (8B).

STEP 13.
Position rotary joint assembly onto mounting pad. Place a new seal ring (6) into the wear plate (16) and push the rotary joint assembly into position securing the seal ring. Make sure the seal ring is centered on the nipple (4) and the rotary joint is square to the machine.

STEP 14.
Secure rotary joint assembly into position using bolts from Step 4 and tighten.

STEP 15.
Remove spacers, washers, and bolts (14B, 14C, and 14D). This will allow spring force to be applied to the seal ring (6).

STEP 16.
Place a new gasket (8) between head (2) and bracket (20). Secure head into position with the hex head cap screws.

STEP 17.
Reattach the flex hose. The rotary joint is ready to be put back into service.

Dimensions are for reference only and subject to change. Certified drawings are available on request. Please refer to Kadant Johnson Drawing Number A37640 for torque specifications.

The Kadant Johnson Warranty
Kadant Johnson products are built to a high standard of quality. Performance is what you desire; that is what we provide. Kadant Johnson products are warranted against defects in materials and workmanship for a period of one year after date of shipment. It is expressly understood and agreed that the limit of Kadant Johnson’s liability shall, at Kadant Johnson’s sole option, be the repair or resupply of a like quantity of non-defective product.