

Repair Instructions for the LJX-PT Rotary Joint

 fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/lj-pt-rotary-joint/repair-ljx-pt

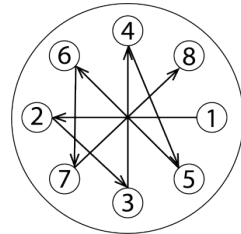
Effective: January 10, 2025



Introduction

Read all of the instructions before proceeding.

Refer to Kadant Johnson assembly drawing for part identification and to drawing A37640 for torque specifications. For easy identification, parts used in individual steps are often accompanied with their position in the assembly drawing [e.g. gasket (8B)]. Tighten all fasteners in a star pattern. Certified drawings are available upon request. Dimensions are for reference only and subject to change.



Safety



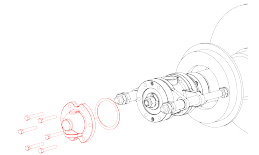
This safety symbol alerts you to risk of death or injury if the instructions are not followed. In all steps, death or injury may result if the machine is not de-energized, depressurized, cooled, and stopped. Death or injury may occur if the product is operated with a fluid type or at a pressure, temperature, or speed that do not meet its specifications. Death or injury may occur if heavy parts and pinch hazards are not handled properly. Follow your company's safety procedures.

Step 1

Disconnect the piping. Remove the head (2) and gasket (8) from the rotary joint.

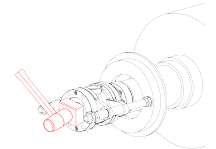


Equipment must be cool and free of pressure.



Step 2

Bend the tab back on the multi-tab washer and loosen the retention nut. Do not fully remove the nut. Using a soft hammer or block of wood, strike the end of the horizontal pipe. This will break the tapered seal.



Step 3

Remove the nuts, lock washers, and spacers (if applicable) from the support rods. Be prepared to capture the seal ring (6). It should fall and rest on the syphon. Slide the rotary joint off of the support rods.



Step 4

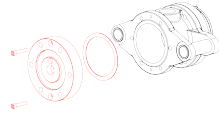
Continue to loosen the retention nut on the syphon. Remove the syphon. Set the retention nut, multi-tab washer, and syphon aside for reuse.

Note: Your rotary joint may use a SuperCurve syphon. This syphon is curved and does not have a locking elbow. Both syphons attach to the retention plate in the same way.



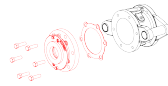
Step 5 - Servicing the Rotary Joint

Remove the gasket (8) and retention plate (31) from the body (1).



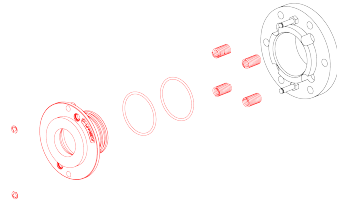
Step 6


Remove the gasket (8R) and end cap assembly (32) from the body (1).



Step 7

Remove the nipple (4) from the end cap (32) by placing the assembly in a press. Compress the nipple far enough to remove the retaining rings (15) from the hex pins (14). Separate the nipple from the end cap. Remove the O-rings (11) and springs (7).



 Spring force present.

Step 8

Discard the seal ring, gaskets, O-rings, and springs. Inspect and clean all gasket and sealing surfaces. Replace any damaged parts.

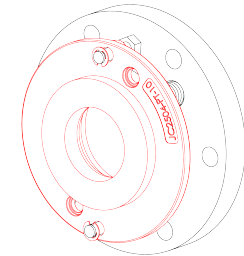
Step 9

Install and lubricate new O-rings (11) on the nipple (4). Install new springs (7) into the spring nests on the end cap (32).



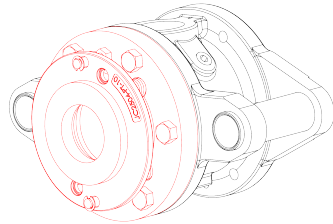
Step 10

Place the end cap (32) back in the press. Compress the nipple (4) into the end cap and secure with retaining rings (15).



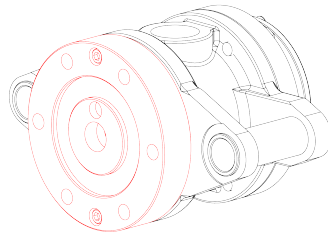
Step 11

Using a new gasket (8R), install the end cap assembly (32) on the body (1).



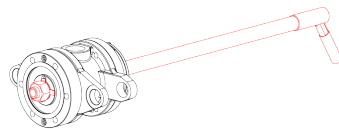
Step 12

Using a new gasket (8) install the retention plate (31) on the body (1).



Step 13 - Installation

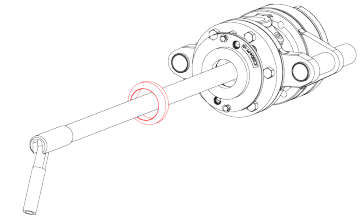
Carefully pass the horizontal pipe through the nipple (4) until the key on the horizontal pipe is engaged with the keyway in the retention plate (31). Install the multi-tab washer and the retention nut on the horizontal pipe. Do not fully tighten the nut.



NOTE: The retention plate allows for multiple syphon locations. Refer to the assembly drawing for the correct location.

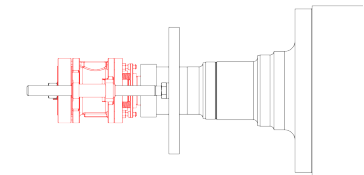
Step 14

Carefully slide the seal ring (6) over the syphon and position it near the nipple (4) with the convex side facing away from the rotary joint.



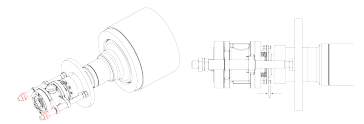
Step 15

Lift the rotary joint up and slide onto the support rods while passing the syphon through the journal. Carefully guide the seal ring (6) into position against the wear plate (16). The syphon vertical leg should fall downward into position.



Step 16

Check that the rotary joint is making firm contact with the seal ring. If using spacers on the support rods, install one on each rod followed by a nut on each rod. Tighten evenly moving the joint toward the roll until the correct "X" dimension is obtained. Install lock washers and the remaining nuts to lock the rotary joint in place.



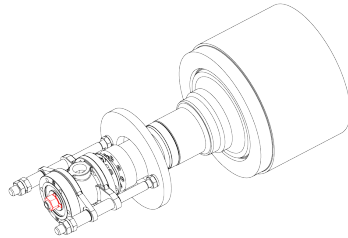
Important: Make sure the rotary joint is on center and perpendicular to the roll centerline.

Reference the Kadant Johnson drawing for the correct "X" dimension.

Note: As the seal ring wears, the "X" dimension will decrease. Maximum seal ring wear can be found on the Kadant Johnson drawing.

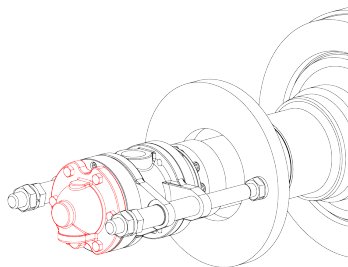
Step 17

Tighten the retention nut to 75 ft-lbs (102 Nm). Bend multi-tab lock washer over the retention nut.



Step 18

Install the gasket (8) and head.



Step 19

Attach the flexible hose to the rotary joint.

KADANT

R-LJX-PT-Rotary-Joints

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 the 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.

Kadant Johnson Rotary joints and accessories are (could be) subject to European Pressure Equipment Directive 2014/68/EU (PED). Modifications or changes to the Rotary joints and/or accessories are only permitted upon approval of Kadant Johnson. Only genuine Kadant parts and original accessories will ensure the safety of these assemblies. The use of other than original parts voids the warranty and will lead to forfeiture of the declaration of conformity and will invalidate any liability for damages cause thereby.