Repair Instructions for the 1150 LN Rotary Joint

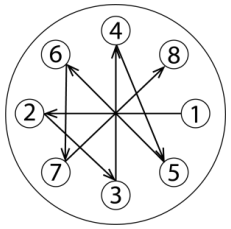
fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/lj-ln-ljx-rotary-joints/1150ln-repair

Effective: December 2, 2024

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.

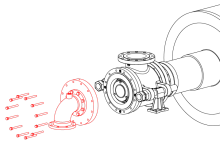
Safety

⚠ 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 does 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

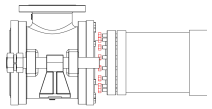
Disconnect the piping. Remove the head (2) and flanged head (2A) assembly.

⚠ Equipment must be cool and free of pressure.



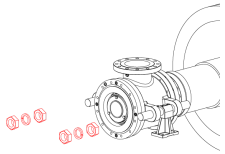
Step 2

Disconnect the nipple flange (5).



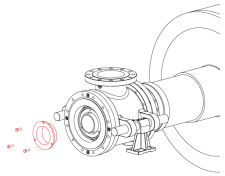
Step 3

Remove the nuts and lock washers from the support rods.



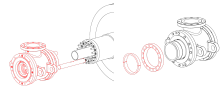
Step 4

Remove the lock wire (10C) and cap screws (10A). Remove the packing gland (10).



Step 5

Remove the rotary joint from the roll. Remove the nipple flange (5) and split wedges (55).



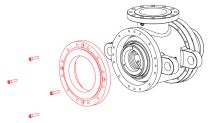
Note: In some cases the support rods may have to be removed in order to remove the rotary joint.

⚠ Heavy object. Rigging or hoist recommended for removal.

Step 6 - Servicing the Rotary Joint

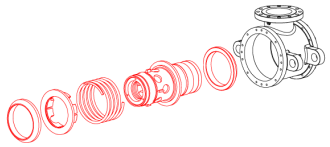
Remove the four caps screws (31A) containing the assembly plate (31).

⚠ Spring force present during assembly plate removal.



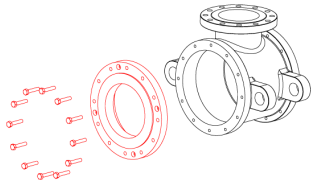
Step 7

Remove the seal ring (6), spring shoulder (3), spring (7), nipple (4), and seal ring (6).



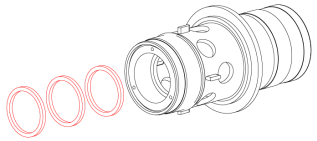
Step 8

Remove the cap screws (16B) and wear plate (16).



Step 9

Remove the packing (35) from the nipple.

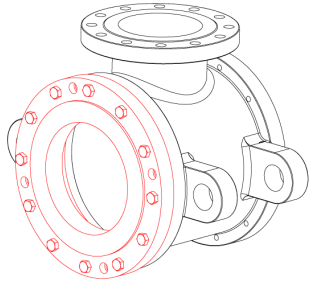


Step 10

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

Step 11

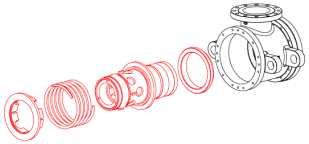
Install the wear plate (16) using a new gasket (8R).



Step 12

Install a new O-ring (3A) into the spring shoulder. Turn the rotary joint upright and install a new seal ring, convex side toward the wear plate. Install the nipple into the body followed by the spring and spring shoulder.

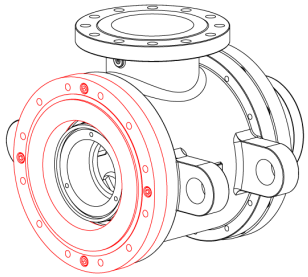
Important: Be sure to align the keyways on the spring shoulder with the keys on the nipple.



Step 13

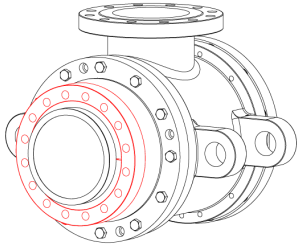
Install a new seal ring (6) followed by a new gasket (8R) and assembly plate (31).

⚠ Spring force present during assembly plate installation.



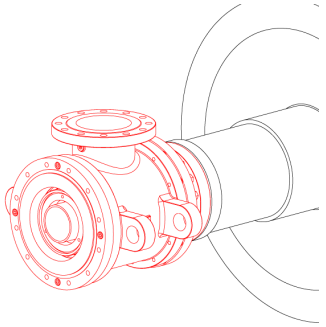
Step 14 - Reinstallation

Slide the nipple flange over the nipple with the taper facing out. Place the split wedges into the recess of the nipple. Slide the nipple flange over the wedges.



Step 15

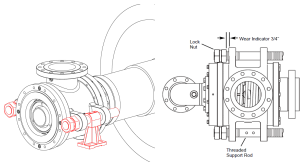
Place the metal gasket (8Q) into the journal flange. Lift the rotary joint up and slide it over the horizontal pipe until the nipple engages the journal flange. Secure the nipple flange. An even gap of 1/8" to 3/16" (3 to 5 mm) should remain in between the journal flange and nipple flange.



⚠ Heavy object. Rigging or hoist is recommended for installation.

Step 16

Install the support rods followed by the hex huts. There should be a space in between the lugs on the body and the hex nuts. Refer to the equipment drawing for the proper spacing.

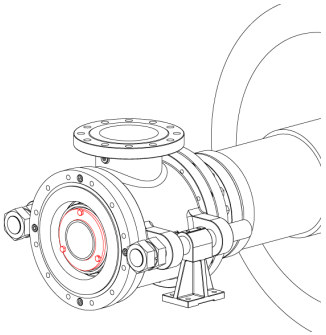


Note: As the seal ring wears, the gap between the hex nuts and lugs will decrease.

Important: Verify that the rotary joint is centered on the axis of the journal. Check the clearance where the nipple passes through the wear plate and assembly plate. There should be an even gap around the nipple. Refer to drawing A20366.

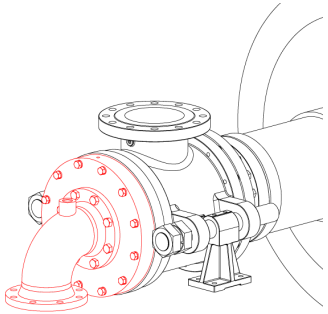
Step 17

Install new packing (35) into the nipple (4) followed by the packing gland (10) and cap screws (10A). Secure with lock wire (10C).



Step 18

Using a new gasket (8), reinstall the head (2) and flanged head (2A) assembly.



R-1150 LN

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 could be subject to European Pressure Equipment Directive 2014/68/EU (PED). Modifications or changes to 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.