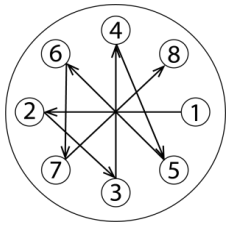
Repair Instructions for the 2000 LN Rotary Joint

fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/2000ln-repair

Effective: March 18, 2025

Introduction

Read all of the instructions before proceeding.



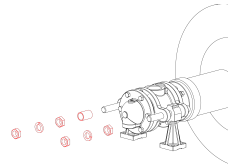
Refer to Kadant Johnson assembly drawing for part identification and to drawing A37640 for torque specifications. For easy identification, parts used in individual steps are often accompanied with their position in the assembly drawing [e.g. gasket (8B)]. Tighten all fasteners in a star pattern. Certified 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 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 hex nuts, lock washers, and spacers (if present) from the support rods.

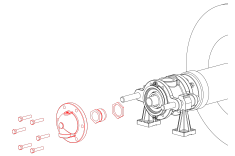


Equipment must be cool and free of pressure.

Note: In some applications, a retaining plate is used on the support rods. Remove it and save it for later use.

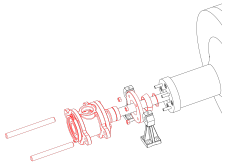
Step 2

Remove the head (2). Loosen the packing gland locknut (30) and remove the packing gland (10).



Step 3

Loosen and remove the nipple flange (5) and slide the rotary joint away from the journal. Remove the metal gasket (8Q) from the journal flange and discard. Remove the split wedges (55) and nipple flange and save for reuse.

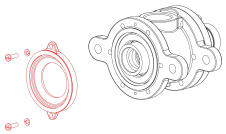


Note: If the rotary joint has a threaded nipple connection, unthread it from the journal flange.

Note: If the support rods use supports, remove the rods prior to loosening the nipple flange.

Step 4 - Servicing the Rotary Joint

Remove the assembly plate (31) by loosening the two cap screws (31).



⚠ Spring force present during assembly plate removal

Step 5

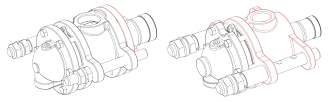
Remove the following, seal ring (6), thrust collar (31), spring (7), nipple (4), and seal ring (6). Remove the packing (35) from the thrust collar.

Step 6

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

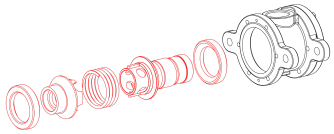
Step 7

Certain sizes have a renewable wear plate, whereas others, the wear plate is part of the body. If the seal ring sealing surface is damaged, remove the renewable wear plate and replace using a new gasket. All other versions will require the body to be replaced.



Step 8

Install a new front seal ring (6) followed by the nipple (4), spring (7), thrust collar (3), and back seal ring (6).



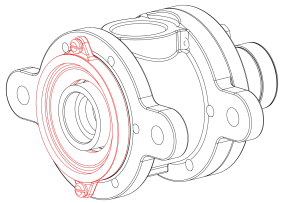
Note: The front seal ring is installed with the concave side facing out. The back seal ring is the opposite with the concave side facing in.

Important: Using the body inlet connection, make sure that the keyway on the thrust collar aligns with the keys on the nipple.

Step 9

Using a new gasket (8), install the assembly plate (31).

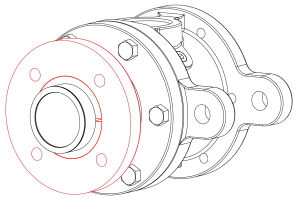
⚠ Spring force present during retention plate installation



Step 10 - Reinstallation

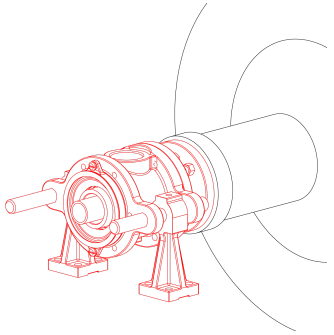
Slide the nipple flange (5) over the rotary joint nipple (4) with the taper facing out. Place the split wedges (55) into the recess of the nipple. Slide the nipple flange over the wedges.

Note: If the rotary joint has a threaded nipple connection, skip steps 12 and 13. Slide the rotary joint onto the support rods and thread the nipple into the journal flange.



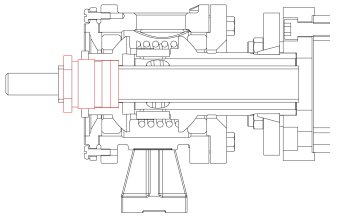
Step 11

Place metal gasket (8Q) into the journal flange. Lift the rotary joint up, slide onto the support rods and into the journal flange. Secure to studs with hex nuts. An even gap of 1/8" to 3/16" (3 to 5 mm) should remain in between the journal flange and nipple flange.



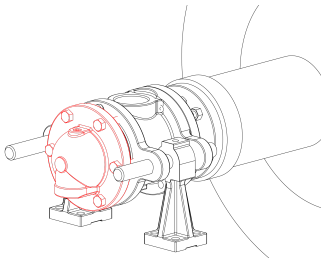
Step 12

Reinstall the packing, packing gland, and locknut. Apply approximately 30 ft-lbs (41 Nm) of torque to the flange and tighten the locknut.



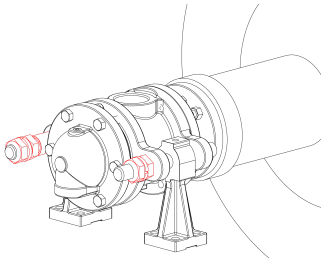
Step 13

Using a new gasket (8), install the head (2).



Step 14

The LN rotary joint uses hex nuts installed on the support rods as seal wear indicators. Install a hex nut on each rod so there is a space between the hex nut and lug on the body (1). Install a lock washer and a second hex nut to each rod and tighten it in place. Refer to the rotary joint drawing for the correct spacing.



Important: Do not lock the rotary joint in place on the supports.

Note: When rod support stands are used, install the rods after the rotary joint is secured to the roll.

Note: In some applications, a retaining plate is used on the support rods. There should be a space in between the head and retaining plate to allow for seal wear.

Note: As the seal ring wears the rotary joint will move away from the roll. When the rotary joint reaches the hex nuts the seal ring is worn.

Step 15

Connect piping to rotary joint using Kadant Johnson flexible metal hose.

Recommended Minimum Hose Lengths

Hose Size	Minimum Length
1/4"	8" (200 mm)
3/8"	10" (250 mm)
1/2"	10" (250 mm)
3/4"	12" (300 mm)
1"	15" (380 mm)
1-1/4"	18" (450 mm)
1-1/2"	18" (450 mm)
2"	21" (530 mm)
2-1/2"	22" (560 mm)
3"	24" (610 mm)

R-2000 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.