


Repair Instructions for the 1400 ELSN Rotary Joint

 fluidhandling.kadant.com/en/knowledge-center/installation-and-repair-instructions/repair-1400-elsn

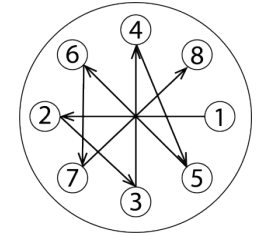
Effective: July 10, 2024




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 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

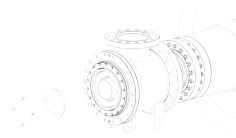
Remove the head (2 and 2A) and gasket (8).

 Equipment must be cool and free of pressure.



Step 2


Remove the lock wire (10B) from the cap screws (10A) and remove the packing gland (10).



Step 3

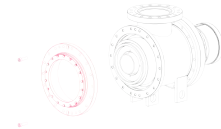
Loosen and remove the nipple flange (5) and slide the rotary joint away from the journal. Remove the metal gasket (8Q) from the journal flange and discard. Remove the split rings (55) and nipple flange from the rotary joint and save for reuse.




 Heavy object. Rigging or hoist recommended.

Step 4 - SERVICING THE ROTARY JOINT

Loosen the cap screws (31A) and break the assembly plate (31) free. Continue to remove the cap screws and remove the assembly plate. Total spring (7) travel is approximately 1.5".



 Spring force present during assembly plate removal.

Step 5

Remove the cap screws (25B) and lock washers (25C) securing the bearing retainer (25). Remove the bearing retainer and the inboard guide (6A) from the assembly plate.



Step 6

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

Note: The spring shoulder may be stuck on the nipple. Separate the two parts for inspection.



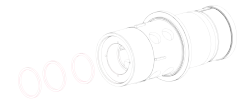
Step 7

Separate the wear plate (16) from the body. Remove the bearing retainer (25) and remove the outboard guide (6A).



Step 8

Remove the packing (35) from the nipple.



Step 9

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

Step 10

Install a new outboard guide (6A) into the wear plate (16) and secure with the bearing retainer (25). Using a new gasket (8), install the wear plate on the body.



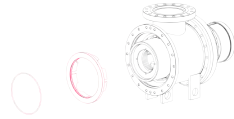
Step 11

Turn the rotary joint upright and install a new seal ring (6), convex side toward the wear plate (16). Install the nipple (4) into the body (1) followed by the spring (7).



Step 12

Install a new O-ring (3A) into the spring shoulder (3). Install over the nipple (4) by aligning the keys with the spring shoulder keyways.



Step 13

Install a new inboard guide (6A) into the assembly plate (31) followed by a new gasket (25A) and the bearing retainer (25). Secure with lock washers (25C) and cap screws (25B).

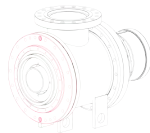


Step 14

Using a new gasket (8), install the assembly plate (31) onto the body (1).

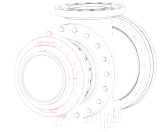
Note: Make sure the keys and keyways are aligned.

Important: Spring force present during assembly plate installation.



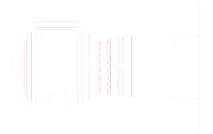
Step 15 - Reinstallation

Slide the nipple flange (5) over the nipple (4). Place the split rings (55) into the recess of the nipple and slide the nipple flange over the split rings.



Step 16

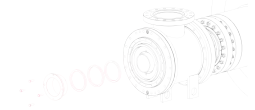
Place metal gasket (8Q) into the journal flange. Lift the rotary joint up, slide it over the horizontal pipe and into the journal flange. Secure to studs with nuts. An even gap should remain between the journal flange and nipple flange (5).



 Heavy object. Rigging or hoist recommended.

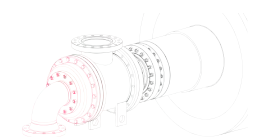
Step 17

Install the packing (35) followed by the packing gland (10). Secure it into place with cap screws and tighten evenly to 30 ft-lbs (41 Nm). Install lock wire (10B).



Step 18

Using a new gasket (8), install the head (2). Reattach the piping and anti-rotation device.



R-1400-ELSN

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.