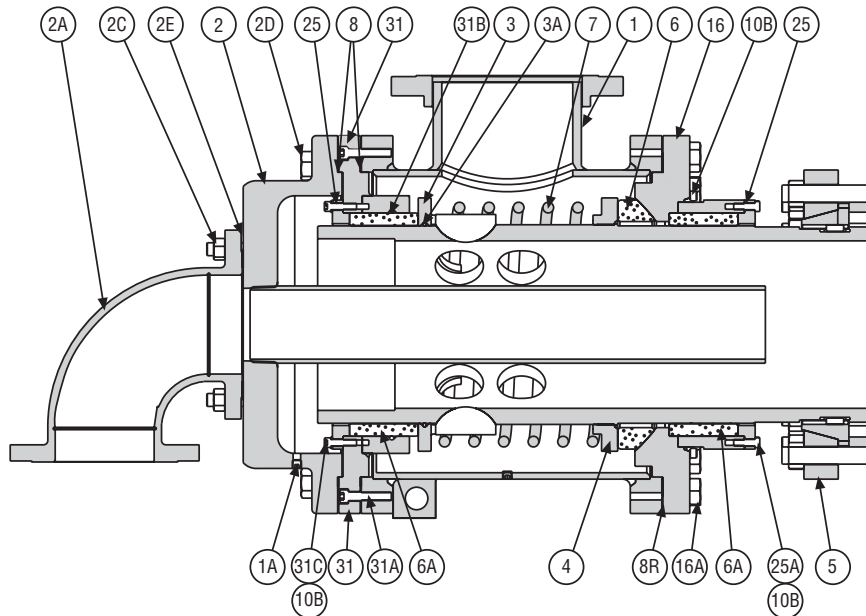


Sub-Assembly Instructions for Large ELSJ Joints

R-Sub-Assy for Lg ELSJ

Effective February 2007

Replaces R-1200ELSJ-1



NOTE: 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 any questions, please contact your Representative or Kadant Johnson.

Lubricate all fasteners prior to installation. Refer to drawings number A37640 and A32050 for recommended torque values and bolt torquing procedures. These and other drawings may be found in the drawing section of this manual.

Before final assembly of the joint, there are three sub-assemblies that need to be put together, the wear plate, assembly plate, and the nipple.

WEAR PLATE CONSTRUCTION

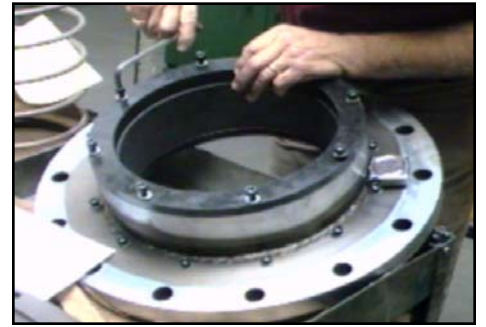
Step 1. Turn wear plate over.

Step 2. Insert carbon guide, (Item 6A) with slots up, into bore of wear plate.

Step 3. Insert bearing (guide) retainer (Item 25) into wear plate while aligning dowel pins in the retainer with the slots in guide.



Step 4. Secure bearing retainer with 3/8" socket head cap screws and lock washers (Items 25A and 10B). Set wear plate assembly aside.



ASSEMBLY PLATE CONSTRUCTION

Before you begin place the smaller side of the assembly plate (Item 31) on a cushioned surface. This will protect the guide as it is positioned in the assembly plate.

Step 1. Place the o-ring (Item 31B) over carbon guide (Item 6A) and pull one side approximately 1 inch lower than the opposite side. This stretches the o-ring, slightly, and eases the assembly process. Remove the o-ring from the carbon guide.



Step 2. Lubricate and insert Teflon o-ring (Item 31B) into groove on assembly plate (Item 31).



Step 3. Insert carbon guide (Item 6A), with slots facing up, into bore on the assembly plate. Do not push guide the past o-ring at this time.



Step 4. Align dowel pins in bearing (guide) retainer (Item 25) with slots in carbon guide. Using four 3/8" x 2-1/2" cap screws and the bearing retainer, push the carbon guide past the o-ring. Tighten the cap screws evenly as this is done, to prevent damage to guide.



Step 5. Remove the four 3/8" x 2-1/2" screws and install the remaining 3/8" socket head cap screws and lock washers (Items 31C and 10B).

Step 6. Set assembly plate aside.



NIPPLE ASSEMBLY CONSTRUCTION

It will be necessary to compress the spring (Item 7), the spring shoulder, (Item 3) and the assembly plate (Item 31), previously constructed, over the nipple (Item 4).

Please see photo of the jig used for this application.



Step 1. Place nipple (Item 4) in a vertical position, resting on the end opposite the steam ports.



Step 2. Slide the o-ring (Item 3A) over the nipple (Item 4), and pull one side approximately 1 inch lower than the opposite side. This stretches the o-ring, slightly, and eases the assembly process. Remove the o-ring from the nipple.



Step 3. Place spring (Item 7) over nipple.



Step 4. Lubricate and place o-ring (Item 3A) into groove in the spring shoulder (Item 3).



Step 5. Place the spring shoulder over the nipple, with the key-way slots in alignment with the keys on the nipple tube.



Step 6. Install gasket (Item 8) onto assembly plate (Item 31). Apply never seize on it to help hold it into place.



Step 7. Slide the assembly plate over nipple. The carbon guide protruding from the assembly plate must be installed so that it will contact the spring shoulder.



Step 8. Compress the components with the tool.



Align the key-way in the spring shoulder with the key in the nipple while compressing the assembly. Complete spring compression is achieved when the keys are bottomed out in the key-way on the spring shoulder.



Step 9. The nipple assembly is ready to be installed into the joint at this time.

INSTALLING THE SUB-ASSEMBLIES TO JOINT BODY

Step 1. Place body (Item 1) in a vertical position. The wear plate assembly is attached to body on the end opposite the anti-rotation lugs.



Step 2. Place gasket (Item 8R) onto face of body flange.

Step 3. Position the wear plate assembly on body. Secure into place using 1" bolts (Item 16A).



Step 4. Position body so that it is resting on the outer portion of the wear plate. The large hole in center of the wear plate/carbon guide needs to be clear to allow the nipple to pass through.



Step 5. Place the seal ring (Item 6) with the spherical surface towards its mating surface in the wear plate (Item 16).



Step 6. Carefully lower the nipple assembly into the body. Use caution with this step so the carbon guide is not damaged when the nipple passes through it.



Step 7. Align the assembly plate and gasket with the bolt holes in the body flange and secure into place using 2 socket head cap screws (Item 31A).



Step 8. Release the compression on the spring, and remove the assembly tool.



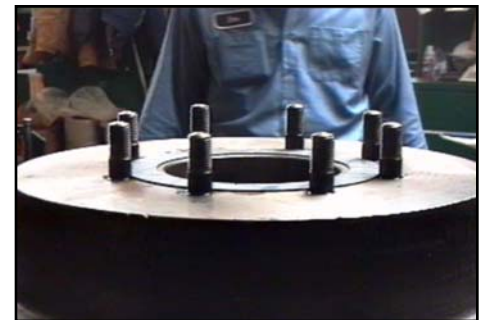
Step 9. Place gasket (Item 8) into head (Item 2).



Step 10. Install head (Item 2) and secure into place using 1" cap screws (Item 2D).



Step 11. Place gasket (Item 2E) onto head.



Step 12. Install the flanged elbow (Item 2A) onto head and secure with nuts (Item 2C).



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.

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