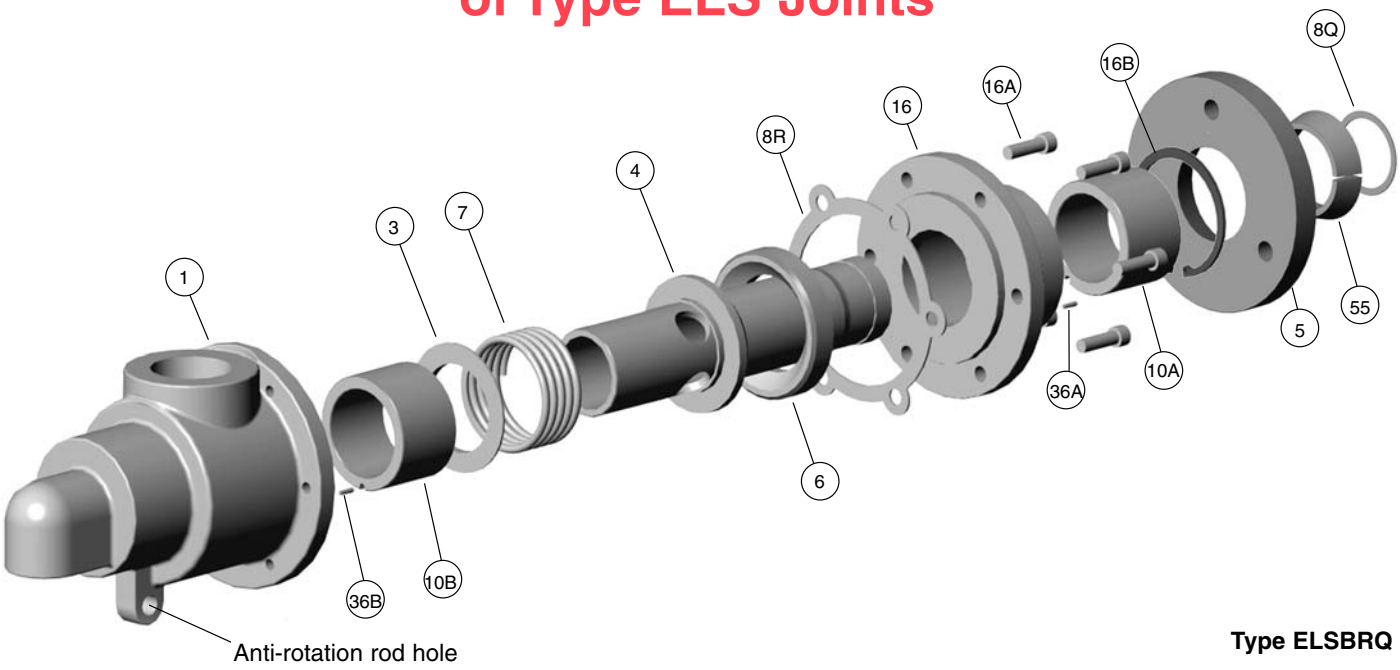
Disassembly and Repair of Type ELS Joints



Type ELSBRQ

Please follow your company's safety procedures whenever working on Kadant Johnson rotary joints. 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, contact your Representative or Kadant Johnson.

REPAIR KITS ARE AVAILABLE CONSISTING OF:

Item #	Qty	Description
6	1	Carbon Seal
10	2	Carbon Guide
16B	1	Snap Ring
8Q	1	Copper Gasket
8R	1	Body Gasket

REMOVAL:

STEP 1.
Release residual pressure in the system. Close the inlet and outlet valve. Allow the joint to cool sufficiently and then disconnect the inlet and outlet piping from the joint. Remove anti-rotation rod.

STEP 2.
Uncouple the nipple from the journal flange. For threaded nipple joints, unscrew nipple from journal. For joints with quick release nipples, remove hex nuts from the studs at the nipple flange (5). Slide nipple flange away from journal to expose two split taper wedges (55). Remove wedges and set aside for reuse.

STEP 3.
Slide the joint away from machine to expose the syphon pipe. Using pipe wrench, unscrew the pipe from the joint body (1) and slide the joint off the pipe. For joints with a quick release nipple, remove and discard the copper gasket (8Q) located in the journal adapter. The joint is now ready to be serviced.

DISASSEMBLY:

STEP 4.
The wear plate (16) retains a spring force. Prepare to contain this force before proceeding by placing the joint into a press resting it on the wear plate (16). Remove socket head cap screw (16A) and separate the wear plate (16) from body (1) using a screwdriver to break the gasket free. Relieve spring force by releasing the press.

STEP 5.
Lift off the wear plate (16) and remove all internal components: seal ring (6), nipple (4), spring (7), spring shoulder (3), and guide (10B).

STEP 6.
Remove snap ring (16B) from the wear plate (16). Lift out the guide (10A). The joint is now fully disassembled.

SERVICING THE JOINT:

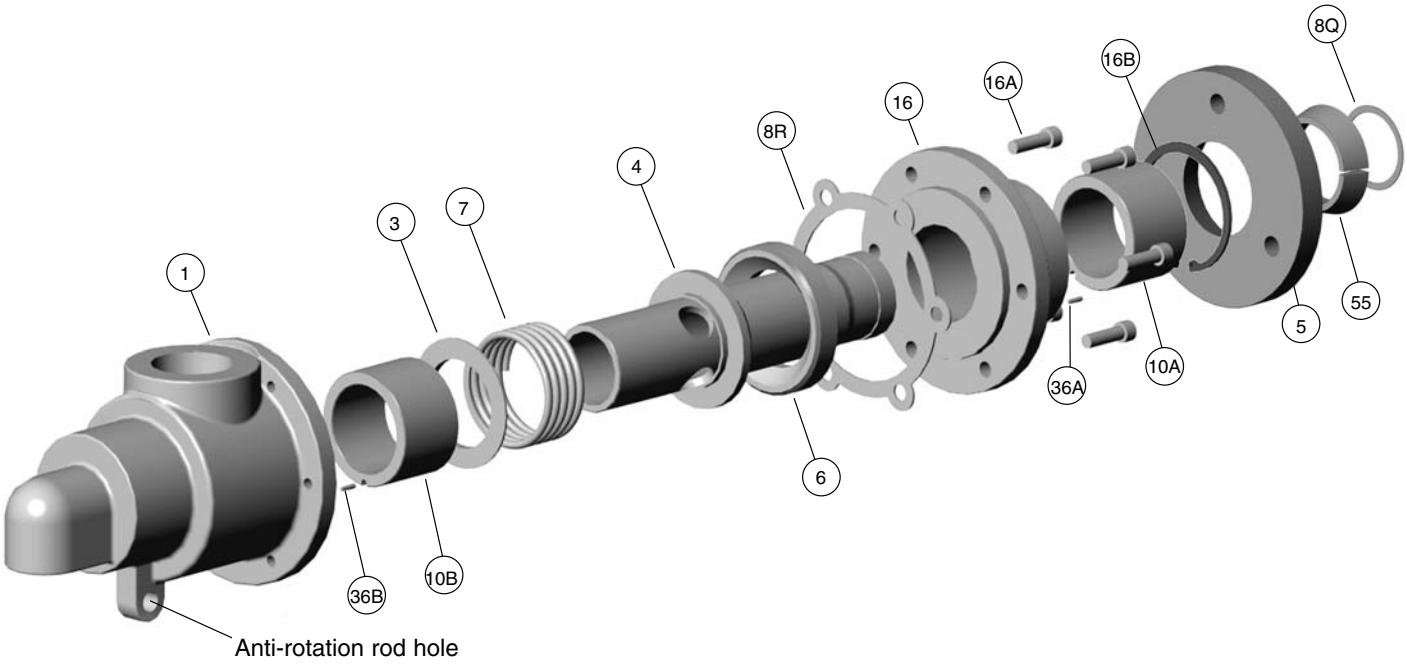
STEP 7.
With a Scotch Brite® pad and solvent, clean all wear surfaces on the nipple (4). Inspect all wear surfaces for scratching, grooving, and pitting. If worn or severely scored, replace nipple.

STEP 8.
Remove old gasket, and clean all gasket material from mating surfaces on body (1) and wear plate (16).

STEP 9.
Check to ensure groove pins (36A and 36B) are in place in wear plate (16) and body (1). These pins hold guides in place to keep the guides from rotating.

REASSEMBLY:

STEP 10.
Place a new nipple guide (10A) into wear plate (16), aligning slot in guide with the guide pin (36A). Secure guide in place by



installing snap ring (16B). Insert the other new guide (10B) into the joint body (1), taking care to align guide slot with guide pins (36B).

STEP 11.
Place a new seal ring (6) on nipple (4) so that concave side of seal ring faces convex side of nipple shoulder. Insert nipple into wear plate (16).

STEP 12.
Slide spring (7) onto nipple (4). Slide spring shoulder (3) on nipple until it rests on spring. Lip of spring shoulder fits inside spring.

STEP 13.
Using a new gasket (8R), slide the joint body (1) over the nipple/wear plate assembly (4 and 16). While pushing down on the body, install bolts (16A) and tighten. The joint is now ready for installation.

STEP 14.
Thread syphon pipe into the joint body and tighten with a pipe wrench.

REINSTALLATION:

STEP 15.
With quick release style joints, install new copper gasket (8Q) into the recess in the journal flange.

STEP 16.
Place the quick release nipple flange (5) over the syphon pipe/nipple (4) with the tapered hole facing away from the joint body. Place the split wedges (55) into the recess in the nipple and slide the flange over them. Position the joint/syphon into the journal flange recess and secure into position with the quick release flange and nuts. There will be a 1/16˝ to 1/8˝ (1.5 to 3.0 mm) space between the Q flange and the journal flange. This space should be equal around the circumference of the flange to keep the joint centered on the roll and prevent run-out.

STEP 17.
Install anti-rotation rod in the lug of the joint body. The lug hole is machined to accept a properly sized Schedule 80 pipe. The anti-rotation device should be free to slide in the lug hole. Please avoid the use of all thread rod. No more than two joints to the anti-rotation rod. Independent joints need to have their own device.

STEP 18.
Attach the piping and open the valves. The Kadant Johnson joint is now ready to be placed back in service.

Dimensions are for reference only and subject to change. Certified drawings are available on request. Please refer to Kadant Johnson Drawing Number A37640 for torque specifications.