Disassembly and Repair of Type SJS Joints

REPAIR KITS ARE AVAILABLE CONSISTING OF:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Qty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>1</td>
<td>Carbon Seal</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>Carbon Guide</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Gasket</td>
</tr>
<tr>
<td>8A</td>
<td>1</td>
<td>Gasket</td>
</tr>
<tr>
<td>8B</td>
<td>1</td>
<td>Gasket</td>
</tr>
<tr>
<td>8Q</td>
<td>1</td>
<td>Copper Gasket</td>
</tr>
</tbody>
</table>

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.

REMOVAL:

STEP 1.
Close the inlet and outlet valves and allow the joint to cool down. Disconnect piping from joint, remove anti-rotation rod, and restraining yoke if used.

STEP 2.
Remove head bolts (2A) and remove head (2) from the joint body (1). Slide head back far enough to disconnect syphon pipe. Secure the head in a fashion so the flexible hose is not strained or bent.

In some cases the syphon must be disconnected after the joint is moved away from the roll (Step 4).

STEP 3.
Uncouple the nipple (4) from the journal flange. Remove hex nuts from the studs at the nipple flange (5) and slide nipple flange away from journal to expose two tapered split wedges (55). Remove tapered split wedges and set aside for reuse.

In some cases the nipple is threaded into the journal. Loosen the nipple using a pipe wrench, un-thread from the roll, and remove the joint.

STEP 4.
Slide joint forward (away from dryer) to expose syphon pipe. Using a pipe wrench, unscrew the pipe from the head (2), and slide the joint off the pipe. The copper gasket (8Q) located in the journal flange should be removed and discarded. The joint is now ready to be serviced.

DISASSEMBLY:

STEP 5.
Take caution while performing this step. Place the nipple end of the joint so that it is facing down and the weight of the joint is supported by the body. The assembly plate (31) retains the spring force that is present within the joint. Loosen the two allen head screws (31A) that secure the assembly plate to the body (1) three turns. Break the gasket (8B) loose from the body/assembly plate. Prepare to resist the spring force and remove socket head cap screws.

STEP 6.
Lift the assembly plate (31) and remove the following internal parts: outer guide (10), spring(s) (7), nipple (4), inner guide (10), and seal ring (6).
STEP 7.
Turn joint over and remove wear plate bolts (16B). Break loose and remove wear plate (16) and wear plate adapter (if equipped 16A).

INSPECT THE WEAR SURFACES:

STEP 8.
THE WEAR PLATE. The wear surface should be flat and smooth, not worn, scored, or pitted. Clean the gasket surface and inspect it for steam cuts. Inspect the hole in the wear plate (16) where the nipple passes through it. Replace the wear plate if any of these areas are damaged.

THE NIPPLE. The spherical face of the nipple (4) should be smooth, not worn, scored, or pitted. Clean the gasket surfaces where the guides ride should be in good condition, not worn, scored, or pitted. Inspect the nipple tube where it passes through the wear plate. Check the end of the nipple where the copper gasket seals for steam cuts or damage. Replace the nipple if any of these areas are damaged.

THE BODY. The inside of the body (1) where the guides ride should be in good condition, smooth, not scored, or pitted. Clean the gasket surfaces and inspect them for steam cuts. Check the lug hole where the anti-rotation device passes through it for wear. Replace the body if any of these areas are damaged.

THE ASSEMBLY PLATE. The wear surface should be flat and smooth, not worn, scored, or pitted. Clean the gasket surfaces and inspect them for steam cuts. Replace the assembly plate (31) if any of these areas are damaged.

If equipped, clean the wear plate adapter (16A). Inspect the gasket surfaces for steam cuts. The surfaces should be smooth. Replace adapter if damaged.

REASSEMBLY:

NOTE: Lubricate all bolt threads with an anti-seize compound.

STEP 9.
Place the body (1) so the wear plate (16) end is up. Place a new wear plate adapter gasket (8A) onto the body. Place wear plate adapter (16A) on the gasket. Place wear plate gasket (8) onto wear plate adapter or body and install the wear plate (16). Secure wear plate into position with wear plate bolts. Tighten the bolts using a star pattern and the specified torque value. See Kadant Johnson drawing A37640 for torque values.

STEP 10.
Turn the body (1) over. Install internal parts in the following order: seal ring (6) (with flat face down), nipple (4), inner guide (10), spring(s) (7), outer guide (10), and assembly plate gasket (8B).

STEP 11.
Place assembly plate (31) over the outer guide (10) and compress the spring(s) (7). Align the assembly plate with the body, making sure the gasket is in place, and secure into position using the socket head cap screws.

STEP 12.
If the syphon pipe was removed when the joint was separated from the roll, install the head gasket (8) and head (2) (Step 4). Secure into position using head bolts. Tighten the bolts using a star pattern and the specified torque value.

If the syphon was removed with the joint head (Step 2), install head and head gaskets after the joint has been installed on the roll.

REINSTALLATION:

STEP 13.
Place quick release nipple flange (5) over the nipple (4). The side with the tapered opening must face towards the machine.

STEP 14.
Install a new copper gasket (8Q) into the recess in the journal flange. Place the joint into position and if necessary attach syphon at this time by threading it into the head (2). Continue moving the joint into position until the nipple (4) fits into the recess in the journal flange and seats against the copper gasket (8Q). Install the tapered split wedges (55) into the machined groove in the nipple (taper facing quick release flange). Slide the quick release nipple flange (5) over the tapered split wedges (55) and studs. Secure into position using the nuts. When properly tightened there will be an even gap of 1/8" to 3/16" between the face of the journal flange and the face of the quick release nipple flange.

If the nipple (4) is threaded, apply pipe sealer to the threads, place it into the roll end, and tighten securely.

STEP 15.
If the syphon was removed as in Step 2, reinstall the syphon into the head (2) and tighten. Install the head (2) using a new gasket and secure into position with the heads bolts. Tighten the bolts using a star pattern and the specified torque value.

STEP 16.
Reinstall the anti-rotation rod and the restraining yoke (if used). The rod and bar must be free to allow the joint to move outward as it compensates for seal wear.

STEP 17.
Re-attach the inlet and outlet piping. Turn the valves on. The Kadant Johnson joint is now ready to be placed back into service.

Dimensions and specifications 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.

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.