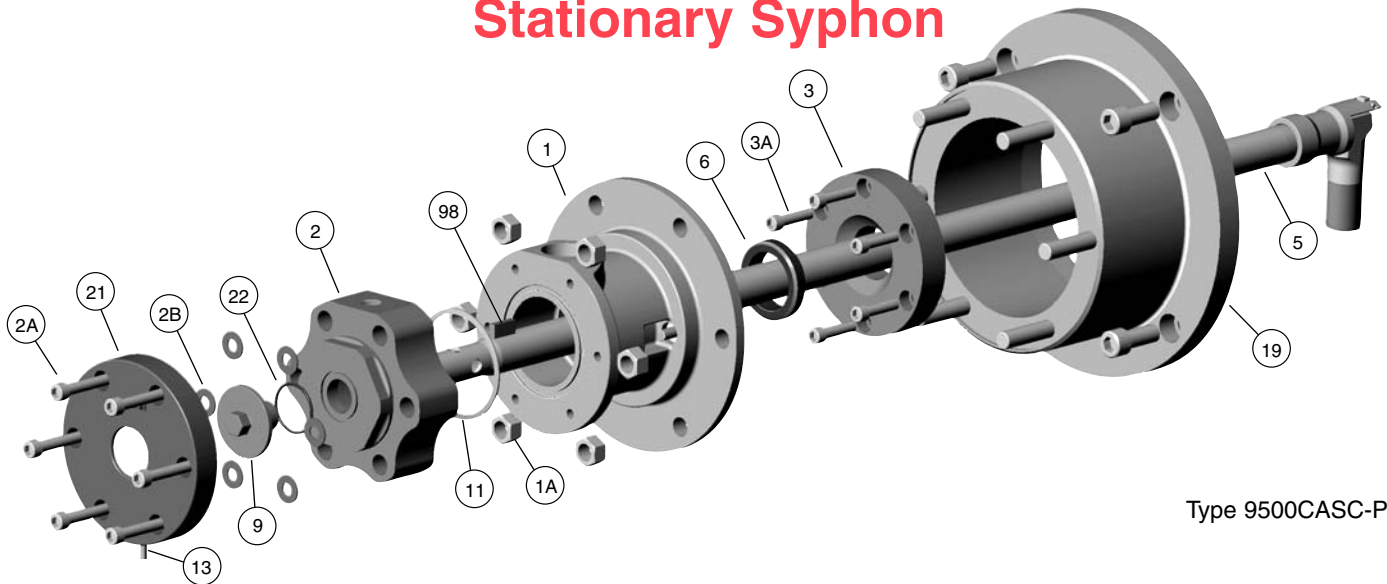


Disassembly and Repair of CorrPro™ Joint and Stationary Syphon

R-CorrPro & Stationary Syphon-2

Effective July 2007

Replaces R-CorrPro & Syphon-1



Type 9500CASC-PT

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.

NOTE: Do not use anti-seize or petroleum-based products on o-rings. Only lubricate the o-rings with the silicone lubricant supplied with the Kadant Johnson repair kit. Prior to handling lubricants, consult MSDS information.

REPAIR KITS ARE AVAILABLE CONSISTING OF:

Item #	Qty	Description
6	1	Seal Ring
11	1	Energized Seal
12	1	Cup Seal
22	1	Cup Seal
*	1	Wear Plate Gasket
*	1	CSS800-3, Seal Ring Fluid
*	1	CSS800-1, O-Ring Lube
2B	6	CSF246-044-1, Disc Spring

* Refer to Kadant Johnson assembly drawing.

REMOVAL AND DISASSEMBLY:

STEP 1.

Release residual pressure in the system. Disconnect the inlet and outlet piping from the joint.

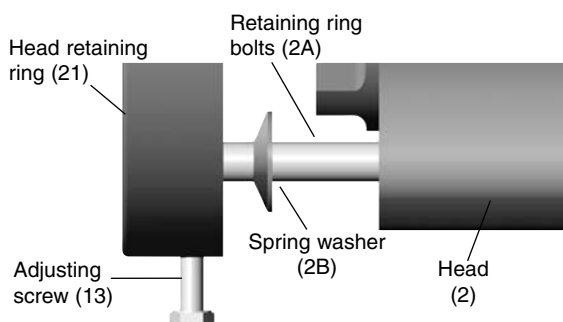


Figure 1

STEP 2.

Make sure the syphon adjusting screw (Figure 1, Item 13) is tight. This will prevent making adjustments to the syphon after the joint is rebuilt. Loosen the horizontal support tube nut (9) approximately two turns and give it a sharp hit with a hammer. This will disengage the horizontal support tube (5). Remove the head bolts (2A), spring washers (2B), and the head retaining ring (21). Once this is done, remove the support tube nut, cup seal (22), head (2), and energized seal (11). Discard the cup seal, spring washers, and energized seal. Let the support tube rest. Leave it in this position and work around it.

STEP 3.

Remove the nuts (1A) that secure the body (1) to the ring bracket (19). While this is being done, the body will push away from the ring bracket. Holding onto the seal ring (6), remove body by sliding it over the support tube (5).

SERVICING THE JOINT:

STEP 4.

Inspect the sealing surface of the wear plate (3). If it is scored, steam cut, or otherwise damaged, it must be replaced. Do so by removing the bolts (3A) that fasten the wear plate to the journal. Remove and discard the old gasket or o-ring and clean the surface. Install a new gasket or o-ring and reattach the wear plate. Tighten the bolts evenly using a star pattern and the proper torque. The wear plate, gasket, and o-ring are not part of the repair kit. They are purchased separately.

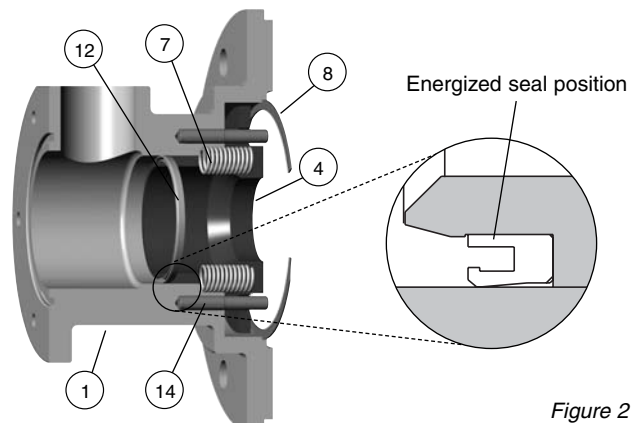


Figure 2

STEP 5.

Please refer to Figure 2. Be aware that there is spring force present during this operation. Place the body (1) and piston (4) assembly into a press with the flat face of the piston facing up. Place a block of wood on the flat face of the piston to protect it. Push the piston into the body and remove the retaining ring (8). Release the press, spring force will push the piston out of the body most of the way. Once the spring force is relaxed, separate the piston from the body.

STEP 6.

Clean the body (1) using solvent and a Scotch Brite® pad. Inspect the bore of the body. Inspect the inlet and outlet connections of the body. If there is wear, scoring, or steam cutting in any of these areas, the body will have to be replaced. The body is not part of the repair kit. It is purchased separately.

STEP 7.

Remove the energized seal (12) from the piston. Clean the piston using a Scotch Brite® pad and solvent. Inspect the energized seal groove for wear, scoring, or steam cuts. Inspect the flat faced sealing area of the piston for wear, scoring, or steam cuts. If either surface is damaged, the piston must be replaced. The piston is not part of the repair kit. It is purchased separately.

STEP 8.

Install a new energized seal (12) onto the piston. Install the energized seal with the cup or U shaped portion facing the end of the piston opposite the seal ring's sealing surface. See Figure 2.

STEP 9.

Inspect groove pins (14). Replace if worn.

STEP 10.

Inspect the springs (7). The free length should be no less than 1.75" (45 mm). Replace if too short or damaged.

STEP 11.

Place the body (1) back into the press with the body flange facing up. Install springs (7) into the spring guide holes. Lubricate the energized seal and bore of the body with silicone lubricant. Place the piston/energized seal (4 and 12) into the body and guide into position with the press aligning the groove pins (14) with the appropriate holes in the piston flange. Make sure the lip of the energized seal does not fold during this operation. Install the retaining ring (8) and release the press. The energized lip seal can be viewed from the back side of the body to make sure it is not folded. If the energized lip seal is damaged during installation, replace it with a new one. Do not reuse the damaged part.

REASSEMBLY AND REINSTALLATION:

STEP 12.

Before installing the joint body (1) an initial measurement needs to be taken from the seal ring indicator as show in Figure 3. This can be done using a snap gauge and calipers. Record this measurement for later use.

STEP 13.

Place three drops of seal ring installation fluid (supplied), equally spaced, on the spherical face of the seal ring (6). The installation fluid will allow the seal ring to stick to the wear plate (3) long enough to install the body. Place the seal ring onto the wear plate making sure that it is centered. CAUTION: Make sure the seal ring does not fall from the wear plate.

STEP 14.

Place the body assembly (1) over the support tube and up to the

bracket (19) making sure that the piston inside of the body lines up with the flat face of the seal ring. Line up the holes in the body with the studs on the bracket. Make sure that the inlet connection is in the desired orientation. Fasten the body to the bracket. Tighten fasteners to 110 to130 ft-lbs (149 to 176 Nm).

STEP 15.

With the joint body (1) installed, remeasure the seal ring wear indicator as in Step 12. Subtract the measurement taken in Step 12 from this number. This number should be between 0.225" (6 mm) and 0.350" (9 mm). This is the amount of seal ring wear that is available at room temperature. Record this number for future reference when measuring seal ring wear.

STEP 16.

Make sure the groove for the energized seal (11) is clean. Lubricate a new energized seal with o-ring lubricant and install it in the groove. Using a new cup seal (22), apply a thin film of o-ring lubricant and install it into the cup seal groove.

STEP 17.

Apply never seize to the tapered portion of the support tube. Orient the outlet connection in the desired position and slide the head (2) over the horizontal support tube (5), making sure that the key (98) on the pipe engages the groove in the head. Apply never seize to the support tube nut (9) threads and install into the end of the support tube. Do not fully tighten the nut at this time.

STEP 18.

Slide the retaining ring bolts (2A) into the head retaining ring (21). Slide the new spring washers (2B) over the retaining ring bolts. Make sure that the washer is installed with the cone facing the ring as shown in Figure 2. Install the retaining ring in a manner so that the head is sitting on the adjusting screw (13). Pushing down on the head to ensure that it is in the lowest position, tighten the retaining ring bolts and the support tube nut. Tighten the retaining ring bolts to 30 to 42 ft-lbs (41 to 57 Nm) and the support tube nut to 175 to 200 ft-lbs (237 to 271 Nm).

STEP 19.

Turn the roll to make sure the syphon is not touching the shell. If it is, loosen the retaining ring bolts that secure the head and turn the adjusting screw to raise the syphon. Maximum adjustment is 0.250" (6 mm). When finished make sure all fasteners are tightened in a star pattern using the proper torque. Reattach the inlet and outlet piping.

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.

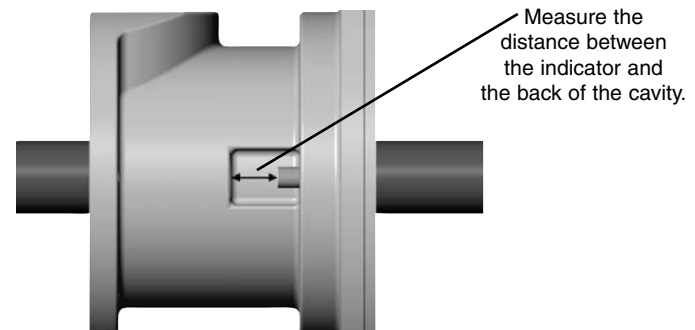


Figure 3. Initial seal ring indicator measurement

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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