LN-IC Conversion For Use With ISSS Stationary Syphon

Follow your company’s safety procedures whenever working on Kadant Johnson products. Read all of the instructions before proceeding with installation or repair.

Please refer to the Kadant Johnson assembly drawing for part identification. Assembly drawings are available on request from Kadant Johnson.

Tighten all fasteners in a star pattern. Torque specifications are listed on the product assembly drawing and are available from 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.

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.

STEP 2.
Loosen and remove head bolts (2A). Remove head (2). Remove gasket (8) and clean gasket surfaces.

STEP 3.
Loosen lock nut (30) and remove packing gland (10). Discard lock nut and packing gland.

STEP 4.
Remove lock nut from support rods and set aside for reuse.

STEP 5.
Loosen and remove Q flange retaining nuts (5A). Remove the rotary joint. Remove split wedges (55) and the Q flange (5). Sit the Q flange and split wedges aside for reuse.

STEP 6.
Place the joint into a hole in a work surface with the nipple (4) passing through the hole first, so the joint will rest on the wear plate (16).

STEP 7.
During this step prepare to contain the spring force that is present within the joint. Remove the assembly plate (31) by removing two screws (31A). Inspect assembly plate. Replace if worn.

STEP 8.
Remove the following: seal ring (6), thrust collar (3), spring (7), nipple (4), nipple body (4A), and second seal ring (6). Discard the thrust collar (3). Slide the nipple body (4A) off the nipple. Inside the nipple is an o-ring (4B). Remove and discard it.

STEP 9.
Inspect the following items for scoring or excessive wear and replace as required: seal ring (6, two each), spring (7), nipple (4), nipple body (4A), and wear plate (16). Inspect the nipple. The keys must be in good condition and the area where the nipple body’s o-ring (4B) seals must be smooth, the spherical face must be smooth. Discard nipple if these areas are damaged. Inspect the nipple body’s o-ring groove, keyways, and sealing surface. If any area is damaged, replace the nipple body. If the wear plate (16) is damaged, remove wear plate bolts (16A) and separate wear plate from body (1). Clean gasket surfaces and install a new wear plate gasket (8R). Place a new wear plate on body and secure into position with wear plate bolts.

STEP 10. (See Figure 1)
Lubricate a new o-ring (4B) with silicone o-ring lubricant and place it in the nipple body (4A). Position nipple body over the nipple (4) and slide it down, engaging the keys in the nipple. Place parts into the joint body in the following order: seal ring (6) with the flat face against the wear plate (16), nipple/nipple body assembly against the spherical face of the seal ring (6), and then the spring (7). Install a new thrust collar (3) and seal ring (6) with the spherical face against the thrust collar.
STEP 11.
Place a new gasket (8) between the body (1) and the assembly plate (31). Place a new gasket (8) between the wedge plate (40) and the assembly plate. Compress spring (7) with the wedge plate and assembly plate against the body, while aligning the keyway in the thrust collar (3) with the keys in the nipple (4). Holding down on the wedge plate, secure wedge plate/assembly plate into position using socket head cap screws (31A). Tighten cap screws evenly to 10 ft-lbs.

STEP 12.
Place a new copper gasket (8) into the journal flange and install the rotary joint assembly back onto the support rods. Secure to the roll using the Q flange (5) and split wedges (55). Tighten the Q flange evenly using a star pattern, while making sure the gap between it and the journal flange is even. The gap should be approximately 1/8” (3 mm) around the circumference of the flange. The Q flange should not tighten against the journal flange surface. Check joint alignment by making sure the nipple is centered in the wear plate (16) and the body (1) housing.

STEP 13.
Set up the joint by pulling it away from the roll to make sure the keys in the nipple bottom out in the keyway of the nipple body (4A). Move the joint back towards the roll 1/8” (3 mm). Secure the joint into position on the support rods using hex nuts. Run a second nut down the support rod locking it with the first one to hold the joint into position, so it won’t move.

STEP 14.
Refer to ISSS Stationary Syphon installation instructions to complete this step.

STEP 15.
Place gasket (8) onto head (2) and secure into position using head bolts (2A).

STEP 16.
Attach flex hoses and the rotary joint is ready to be put back into 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.

Figure 1
When completed, the joint is converted to a type LJ-IC without the packing and packing gland.