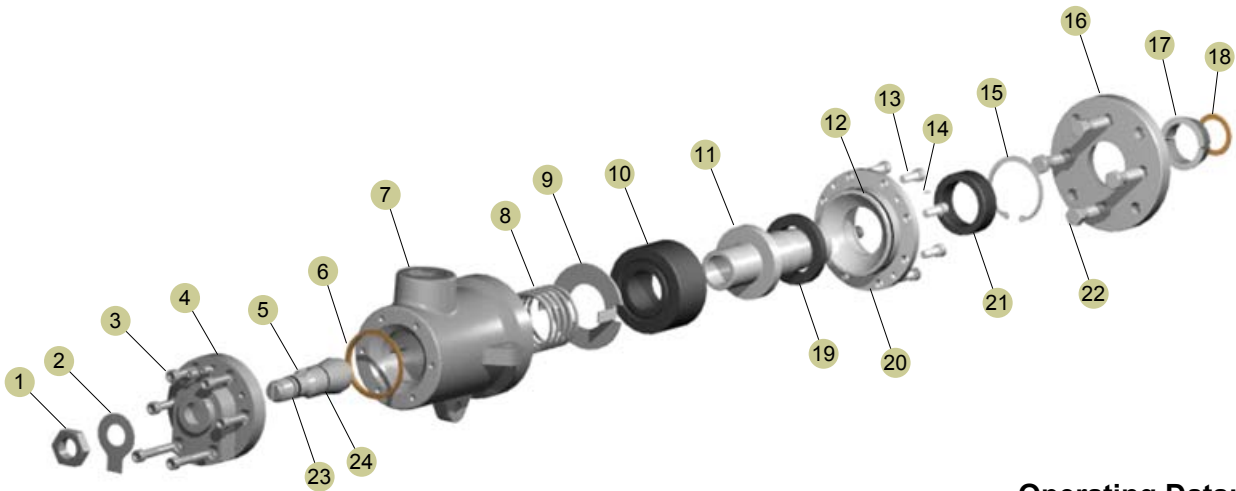




HPS SERIES STEAM JOINTS

The HPS joint is a self-supported design. Two bearings support the housing allowing the rotor to rotate easily within the joint body. In the seal assembly, the Convex Special Material Carbon Graphite Seal Ring mates against a concave metallic surface.



Operating Data:

Max Speed:

400 rpm

(for higher speeds consult
Deublin Engineering)

Pressure:

250 psi (17.2 Bar)

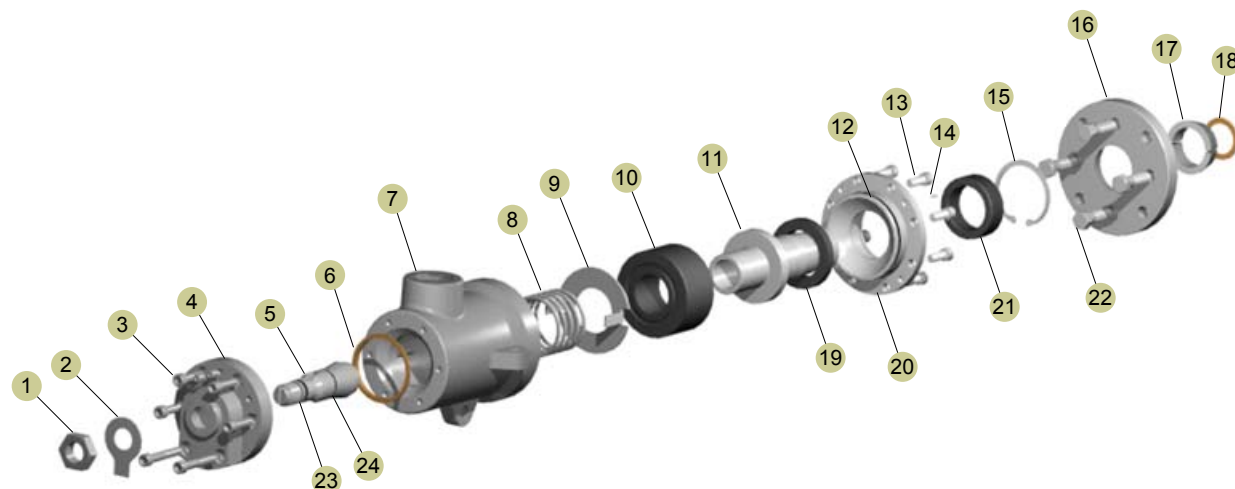
Media:

Steam

- | | |
|---------------------------|-------------------------|
| 1 Jam Nut | 13 Cap Screw (8) |
| 2 Tab Washer | 14 Key Pin |
| 3 Cap Screw (6) | 15 Snap Ring |
| 4 Rear End Cap | 16 Mounting Flange |
| 5 Siphon Bushing | 17 Split Collars |
| 6 Copper Seal Ring | 18 Copper Rotor Gasket |
| 7 Housing | 19 Seal Ring |
| 8 Coil Spring | 20 Front End Cap |
| 9 Spring Retaining Washer | 21 Bearing |
| 10 Carbon Bearing | 22 Mounting Flange Bolt |
| 11 Rotor | 23 O-Ring |
| 12 O-Ring | 24 O-Ring |



Repair Instructions for HPS SERIES STEAM JOINTS



**REPAIR KITS AND REBUILD KITS ARE AVAILABLE
CONSISTING OF:**

QTY	ITEM	DESCRIPTION	PARTS CONTAINED IN MODELS:	
			C15D-004C (REPAIR KIT)	C15D-004B02 (REBUILD KIT)
1	18	COPPER GASKET	X	X
1	11	ROTOR, DUAL BEARING		X
1	14	KEY PIN	X	X
1	15	SNAP RING	X	X
1	21	BEARING	X	X
1	20	END CAP		X
1	12	O-RING (FOR END CAP)	X	X
1	19	SEAL	X	X
1	10	BEARING	X	X
1	9	SPRING RETAINING WASHER	X	X
1	8	COIL SPRING	X	X
1	6	COPPER SEAL RING	X	X
1	23	O-RING (SIPHON BUSHING)	X	X
1	2	TAB WASHER	X	X
1	24	O-RING	X	X

DISASSEMBLY:

STEP 1.

Remove Jam Nut (1) and Tab Washer (2). Remove all six cap screws (3) and remove rear end cap (4). Discard copper seal ring (6). Un-thread siphon bushing (5) from pipe using screwdriver slot in end. Remove and discard O-rings (23, 24).

STEP 2.

Remove mounting flange hardware (22). Back off mounting flange (16) and remove split collar (17).

STEP 3.

Slide joint and gasket off siphon pipe; discard copper rotor gasket (18).

STEP 4.

Remove cap screws (13) and pull end cap assembly off (12, 14, 20, 21). There are four 3/8" tapped holes in between bolts to be used for jacking screws if necessary. Remove snap ring (15) and discard. Remove and discard o-ring (12) from end cap (20).

FOR REPAIR KITS ONLY: Disassemble bearing (21) and key pin (14) from end cap (20) and discard (not required for rebuild kits).

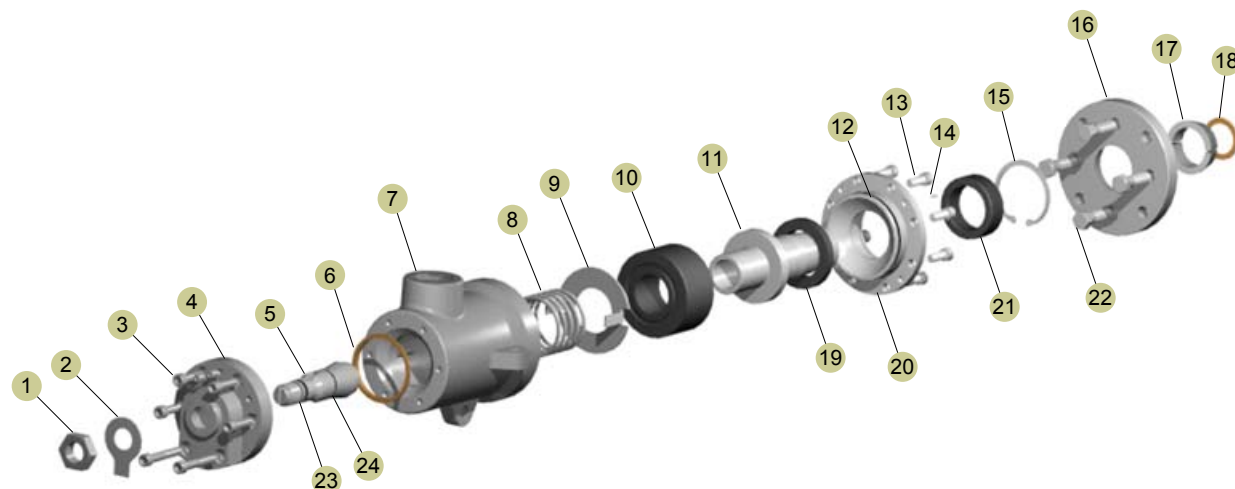
STEP 5.

Remove Seal Ring (19) and discard. Remove rotor (11); Rebuild Kit includes rotor.

Remove and discard bearing (10), spring retaining washer (9), and coil spring (8).



Repair Instructions for HPS SERIES STEAM JOINTS



ASSEMBLY:

STEP 6.

Assemble coil spring (8) into bore. Align tabs on spring retaining washer (9) with grooves in housing (7) and place on top of spring (8). Press down a few times to verify that washer can glide freely with the compression of the spring.

STEP 7.

Assemble bearing (10) with groove side down into bore. Slide rotor (11) into bearing (10).

STEP 8.

Assemble seal (19) with convex side up.

STEP 9.

FOR REPAIR KITS ONLY: Assemble key pin (14) into hole in end cap (20). Assemble bearing (21) so that hole in bearing aligns with key pin (14). Secure with snap ring (15).

STEP 10.

Clean bore in housing (7) and groove of end cap (20) where o-ring will sit with a lint-free wipe and alcohol. Verify surfaces are clean and free of lint.

STEP 11.

Place new o-ring (12) into groove in end cap (20).

STEP 12.

Assemble end cap (20) into housing (7) being careful not to damage o-ring (12). Align clearance holes in end cap with tapped holes in housing.

STEP 13.

Assemble eight socket head cap screws (13) with loctite #246. Tighten in a cross pattern succession and torque to 25 ft-lbs.

STEP 14.

After end cap (20) is assembled, place copper gasket (18) in journal pilot and assemble siphon pipe into roll. Mount joint rotor to roll with split collar (17) and flange (16). Check gap between flange and roll to verify that it is consistent all the way around (gasket must be compressed evenly). Assemble remaining items at rear of joint.

NOTE: Refer to appropriate "HPS Series Installation Instructions" for assembly details.