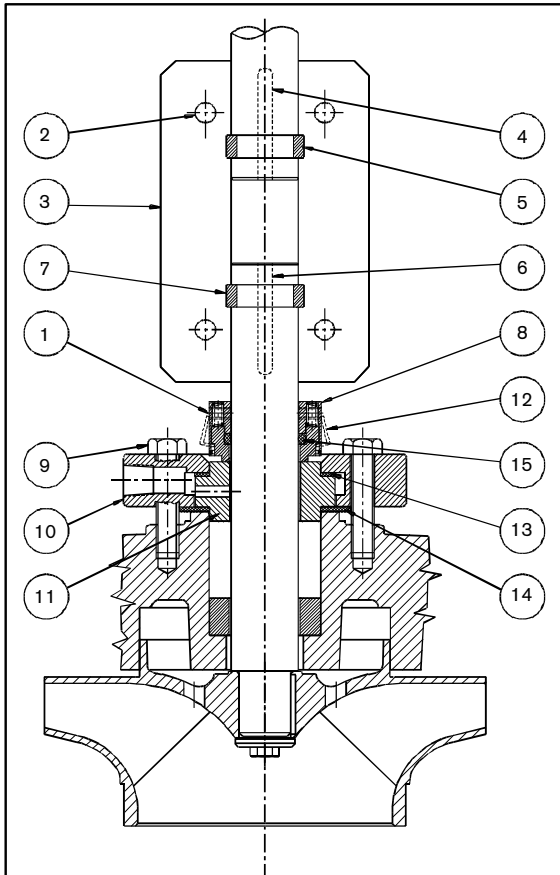


## MECHANICAL SEAL REPLACEMENT INSTRUCTIONS

### SERIES 4300 & 4302

#### OUTSIDE MECHANICAL SEAL WITH P-BASE & TCZ MOTOR FRAME



#### SEAL REMOVAL

An important feature of the Series 4300 and 4302 pump is that the design permits removal of the mechanical seal without disturbing the pump, motor or electrical wiring.

- Disconnect the power supply at the main switch and close the isolating valves on the suction and discharge. Empty casing by removing drain plug(s) located at the bottom.
- Loosen off the seal collar set screws (1) Remove the coupling bolts (2) and separate the coupling halves (3).
- Remove the motor shaft key (4) and the pump shaft key and collar (4 & 5) and the pump shaft key and collar (6 & 7).
- Remove the mechanical seal rotating assembly (8) through the gap between the pump and motor shafts.

#### SEAL REPLACEMENT

Handle mechanical seal carefully to protect seal faces from damage. Do not contaminate seal faces with finger prints.

- Replace the stationary seat (11) with gaskets (13 & 14). Ensure the large diameter gasket (14) is on the bottom. Replace seal plate (10) and tighten the seal plate bolts (9) evenly and diagonally. (DO NOT OVERTIGHTEN)

*TIP: For best seal flush, align seat flush hole with seal plate flush line connection (10 A)*

- When installing the mechanical seal (8), make sure that all parts are perfectly clean.
- Apply a sparse amount of silicone lubricant (provided) to the seal 'O' ring (15). Carefully slide the mechanical seal rotating assembly (8) down the shaft onto the stationary seat (11). Care must be taken not to cut the seal 'O' ring on the keyways. Do not tighten the set screws (1) on the side of the mechanical seal yet. Do not remove holding clips (12).
- Coupling halves (3) are machined together and identified by match marks, (a letter or numeral stamped on each coupling half). Make sure that the match marks correspond with each other before installing the coupling.
- Fit the motor shaft key and collar (4 & 5) and the pump shaft key and collar (6 & 7) and install the keyed coupling halves (3). Tighten the coupling bolts (2) evenly and firmly. For easier coupling installation, motor and pump shaft keys (4 & 6) should be 180 degrees from the working area. To automatically locate the impeller in the pump, lift the pump shaft until the pump shaft collar is positioned in the coupling groove, then rotate coupling to locate the pump shaft key (6) into the (Sometimes blind) keyway in the coupling. A wooden 2"x4" piece may be firmly positioned to allow a pry-bar to be placed securely under the pump shaft collar; the rotating assembly may be levered and raised-up in this manner until the pump shaft collar is positioned in the coupling groove. For the 20x20x19 size pump refer to File 43.803 for rotating assembly lifting instructions and File 43.806 for seal service instructions.
- Push mechanical seal (8) firmly onto the stationary seat (11) and tighten the setscrews (1). Remove the holding clips (12) for operation.

#### NOTE

- The mechanical seal is preset at the correct working length.
  - Installation of the coupling automatically locates the impeller in the pump.
- Replace the seal flush piping (10A) and drain plug(s). Series 4302: Equalize pump pressure within dualArm pump by temporarily opening valve on connecting tubing.
  - Open all isolating valves prior to operating pump(s). Reconnect power supply.

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