

File: I-3886-C Date: 12/11/2009 9:57:00 AM Page 1 of 5

1200S single split seal

US PAT. 5,615,893

INSTALLATION INSTRUCTIONS

PREPARE PUMP

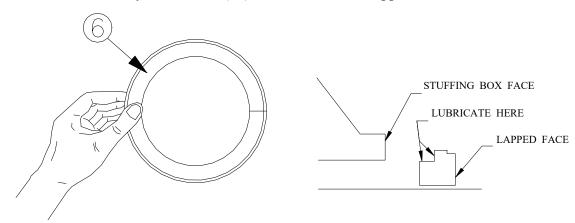
- 1. Remove packing and packing follower. Packing behind lantern ring can be left in place if flush is used through seal gland.
- 2. Remove studs.
- 3. Clean and inspect face of stuffing box. Angular misalignment should not exceed .015". If stuffing box face is pitted, repair with Belzona "super metal" or equivalent epoxy, RTV sealant or use an expanded Teflon gasket material between the gland and the face of the stuffing box.
- 4. Clean, inspect, and lightly lubricate shaft with grease provided. The shaft should not be scratched or grooved (32 finish required).

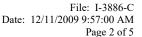
INSTALLING SEAL

Important:

Seal faces should be kept perfectly clean at all times. Faces are easily chipped, please handle with care. Apply a minimum amount of o-ring lubricant to rotary face O.D. shoulder as shown. <u>Caution</u>: Do not get lubricant on split ends and lapped faces.

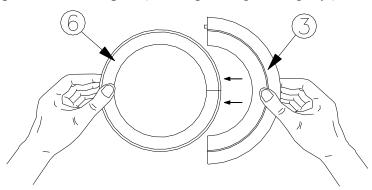
1. Assemble and hold rotary face halves (#6) around shaft with lapped face outward.





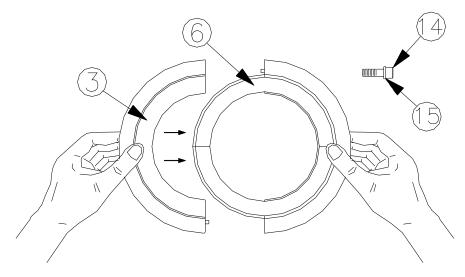


2. Slide one half of rotary collar (#3) over face halves (#6) with collar split approximately **90 degrees apart from face split**. (Do not push together tightly.)

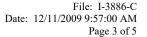


3. Slide remaining half of rotary collar (#3) over face halves (#6), but do not force the collar halves together. Make sure face joints are perfectly matched, push on high side with finger if mismatch occurs. Lapped face surfaces must match as well as outside diameters. Loosely thread the (2) cap screws (#14) with lock washers (#15) into collar halves. Snug down the (2) cap head screws evenly, until only a 1/32" gap remains between metal halves.

Important: DO NOT completely tighten screws at this time.

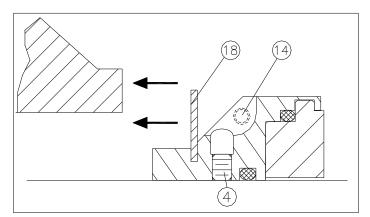


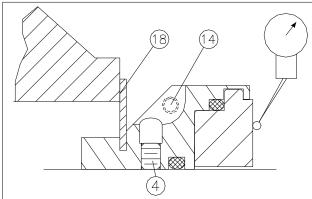
4. Slide rotary unit towards stuffing box until setting spacer (#18) comes in contact with the face of the stuffing box



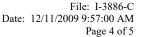


5. Evenly tighten the (2) collar cap head screws (#14). (Seal sizes 1-3/4" thru 2-5/8" to 40 inch-Lbs.; 2-3/4" thru 4-3/4" to 95 inch-Lbs.; 5" and above to 170 inch-Lbs.)



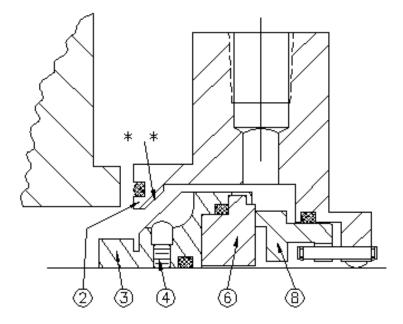


- 6. Tighten the set screws (#4) on rotary collar. NOTE: On larger size seals, 2.750" & above, the rotary face can be dial indicated square to the shaft by lightly tightening one of the set screws. Mark this set screw with a pencil or pen. With the dial indicator touching off on the sealing face, rotate the shaft. Gently pry on the back of the metal rotary collar near the face of the equipment until the rotary face is indicated to within .007" or better. Tighten the initial set screw that has the pencil mark, and then tighten the remaining set screws while observing that the indicator reading has not changed. (Seal sizes 1-1/2" thru 4-7/8" to 70 inch-Lbs.; 5" and above to 130 inch-Lbs.) After initial tightening, retighten each screw for proper torque as they have a tendency to loosen, as the remaining screws are tightened.
- 7. Remove halves of setting spacer and discard.
- 8. Wipe fingerprints from face with the alcohol pad provided.





9. Position gland halves (#2) around rotary unit so that angled lip (**) inside of gland touches angled back of rotary collar (#3) <u>before</u> bringing gland halves together. This will help prevent stationary face (#8) from hitting rotary face (#6) during gland assembly.



- 10. Install and bring gland halves close together, but do not force the gland halves together. Allow the cap head screws (#20) and lock washers (#19) to pull the gland halves together **evenly** until the gland halves are **1/16**" **apart.** Push gland towards pump so that it touches face of stuffing box, then release it. **Evenly tighten** the (4) gland cap head screws (#20) to close the gap between the two halves.
- 11. Start bolting your gland to the pump **stopping just before the gland comes in contact with the stuffing box.** Finish tightening the (4) gland cap head screws (#20). (Seal sizes 1-3/4" thru 2-5/8" to 170 inch-Lbs.; 2-3/4" thru 4-3/4" to 301 inch-Lbs.; 5" and above to 750 inch-Lbs.)
- 12. Finish bolting your gland to the stuffing box, and remember to **tighten the bolts evenly**. Do not over-tighten.
- 13. Connect flush line to seal gland if required.
- 14. Run equipment according to normal operating procedures.

NOTE: Some dripping may occur during initial run-in period.

File: I-3886-C Date: 12/11/2009 9:57:00 AM Page 5 of 5



