

TECHVALVE INDUSTRIES 2014

Assembly and disassembly of Progressive Cavity Pump



DISASSEMBLE AND BREAKDOWN

1. Remove (4) 5.5" screws securing pump stator to stator flange and pump body.



2. Carefully pull and unwind (counter clock wise) pump stator from rotor.



3. Remove (2) 1/4-20 X 2.5" flat head screws from back of upper bearing plate.



4. Carefully remove upper bearing plate.



5. Carefully pull lower bearing plate apart from plastic pump body. Dislodge white plastic seal, and rubber o ring from plastic pump body, and pull entire input shaft and pump rod assembly through the plastic pump body. (Keep white plastic seal secured to input shaft.)

NOTE: Must allow white plastic seal to dislodge from pump body, keeping white plastic seal secured to input shaft. DO NOT attempt to pull input shaft/pump rod assembly through white plastic seal.



6. See (2) black rubber boots on connecting rod. Slide back metal collar on rubber boot to reveal (2) metal pins connecting pump rod/shaft assembly.



7. Remove (2) metal pins and detach connecting rod from pump rod and input shaft.



8. Carefully remove (2) metal retaining rings securing rubber boots to connecting rod



9. Remove (2) rubber boots from connecting rod.



10. Remove white plastic seal from input shaft, and carefully remove input shaft from the lower bearing plate.





REASSEMBLY

1. Insert input shaft through lower bearing plate, and insert input shaft through white plastic seal



3. Insert connecting rod into pump rod, and secure with (1) metal pin through both holes in the input shaft.



4. Slide (1) rubber boot onto connecting rod. Slide and secure rubber boot collar in place over metal pin.



5. Use (1) metal retaining ring to secure rubber boot to connecting rod.



6. Slide (1) metal retaining ring over the other end of connecting rod.



7. Slide (1) rubber boot over the other end of connecting rod with metal collar facing out, and secure in place using retaining ring.



8. Insert end of connecting rod into input shaft, secure with (1) metal pin through both holes in the input shaft.



9. Make sure both rubber boots are securely in place covering metal pins in through holes.

NOTE: White plastic seal must be in place around input shaft before connecting rod is connected to input shaft.



10. Install rubber o'ring into groove on plastic pump body.



11. Very carefully insert pump shaft assembly through the pump body.



12. Press lower bearing plate firmly to pump body, making sure white plastic seal is seated into pump body.

NOTE: Ensure white plastic seal and rubber o’ring are securely seated in place inside pump body.



13. Carefully slide upper bearing plate over end of input shaft, securing upper bearing plate to the lower bearing plate.



14. Secure top bearing plate, middle bearing plate, and pump body together using (2) 1/4-20 X 2.5" flat head screws.



15. Apply approximately 1/4 oz. of light oil (ISO) to the inside rubber cavity of the pump stator.

16. With the main pump assembly resting on its top bearing plate, with rotor pump facing up; carefully slide while screwing clockwise the stator onto the pump rotor. Ensure the stator fits securely into the counter-bore on the plastic pump body.



17. Place the plastic stator flange on the end of the pump stator and ensure the stator fits securely into the counter-bore on the stator flange, then Insert (4) 1/4-20 X 5.5" screws through stator flange and thread screws into the pump body.



19. Torque (4) 1/4-20 X 5.5" screws to 20 - 25in/lbs.

