

70 SERIES 4" SUBMERSIBLE PUMP

Disassembly/Assembly Instructions

⚠ WARNING **Hazardous voltage. Can shock, burn, or kill.** Disconnect power before working on pump or motor. Ground pump and motor according to National Electrical Code when reinstalling. Make sure all wiring meets code for your area.

70 Series Disassembly

1. Remove pump from motor and clamp pump in chain vise.
2. Unscrew pump suction bracket (turn clockwise – left-hand threads!); remove bracket. See Figure 1.
3. Tap collet out of first stage impeller (See Figure 2); slide impeller and collet off of shaft.
4. Unscrew 1st stage bowl (left-hand threads) from 2nd stage bowl; remove bowl. Tap collet out of 2nd stage impeller and slide impeller and collet off of shaft.
5. Repeat for remaining bowls.
6. Check rubber bearings and discharge bearing for wear and tear; replace any worn parts.

70 Series Assembly

1. Insert new rubber bearings into bowls. Press new discharge bearing into last stage bowl with an arbor press.
2. Thread pump shaft onto fixture, Part No. 3776.
3. Bolt suction bracket to fixture.
4. Slide 1st stage impeller and collet onto shaft. Lock impeller to shaft with collet (see Figure 3). Use collet driver to seat the collet; two or three solid raps with the collet driver should be enough.
NOTICE: Don't drive the collet too hard – the screw securing the shaft to the assembly fixture may break. When impeller is locked tight on shaft and collet is flush with top of impeller or just slightly below it, impeller should be tight.
5. Install 1st stage bowl. Thread onto bracket (turn counter clockwise – left-hand threads) until it is tight.
6. Install 2nd stage impeller and collet as you did the first one.
7. Install 2nd stage bowl.
8. Repeat with remaining stages, up to but not including the last stage bowl.

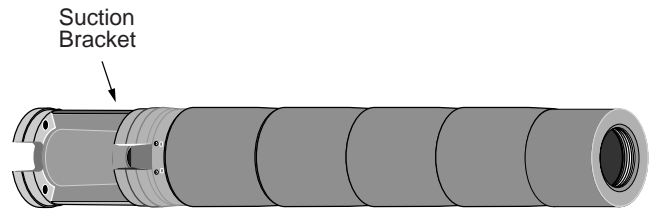


Figure 1: Disassemble pump, starting with suction bracket (left-hand threads).

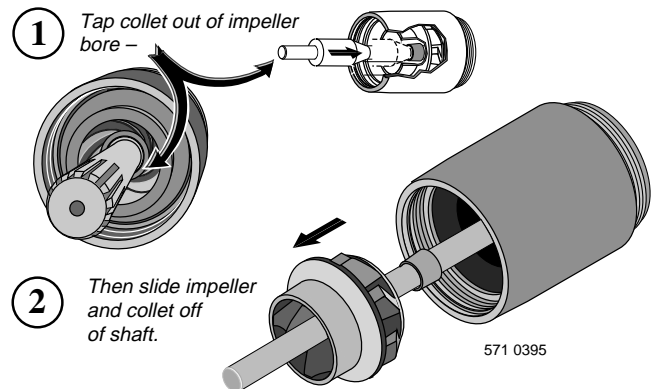


Figure 2: Remove Impeller.

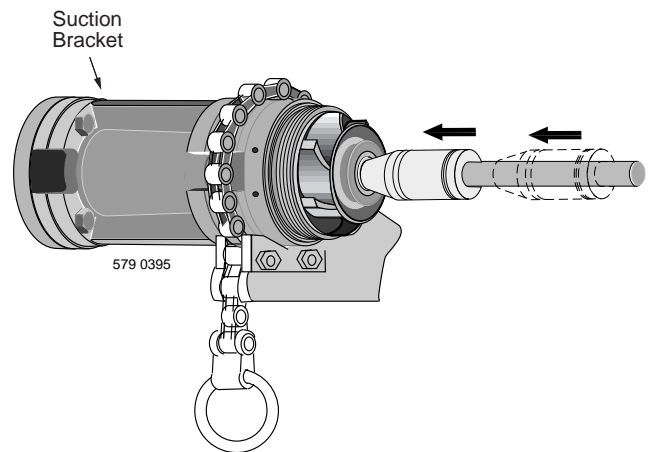


Figure 3: Lock impeller to shaft with collet.

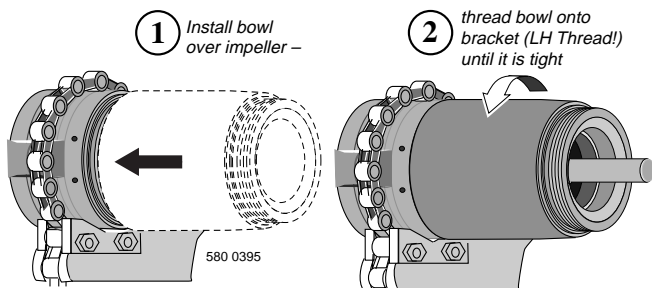


Figure 4: Install bowl.

9. Lubricate thrust screw threads with Loctite 767 Anti-Seize Thread Compound¹ or equal; install thrust screw in the discharge bearing, but do not tighten thrust screw yet.
10. Install Loctite 767 Anti-Seize Thread Compound¹ over end of shaft so that all of the shaft which projects into the discharge bearing is covered (see Figure 5).
11. Install last stage bowl; make sure that the thrust screw is backed off as far as possible in the discharge bearing (see Figure 5).
12. Install discharge on last stage bowl and tighten it.
13. Unbolt and remove fixture from bottom of pump (unscrew off of shaft). Install pump on motor or motor-height fixture for thrust bearing adjustment (Figure 6).
14. Use Tool AST-3878 or a special 9/16" deep-well socket (at least 3" deep) with a screwdriver inserted through it to install and tighten thrust screw in discharge bearing. Tighten until thrust screw bottoms on the end of the shaft (see Figure 7).
15. Back off the thrust screw 3/4 to one turn with the screwdriver (Figure 8). Hold it there and use the socket to tighten the lock nut (Figure 9).
16. Check shaft end play on motor and adjust if necessary. When shaft end play is correct, install shaft coupling and reinstall pump on motor.
17. Install lead guard.

Pump is ready for service.

¹Loctite 767 Anti-Seize Thread Compound
Loctite Corporation, Newington, CT 06111
Loctite Canada, Inc., Mississauga, Ontario

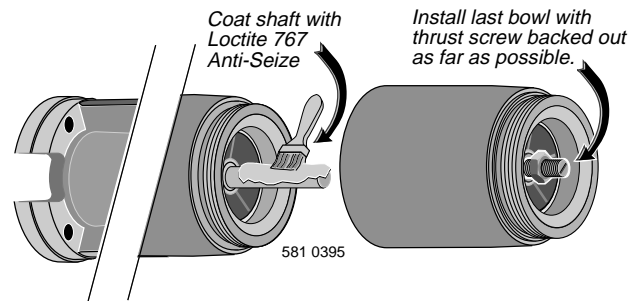


Figure 5: Coat shaft with Never-Seez and back out thrust bearing before installing last stage bowl.

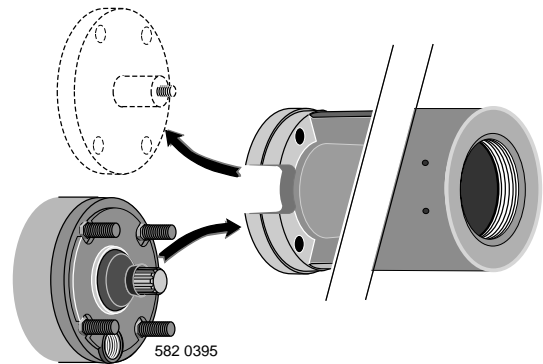


Figure 6: Remove fixture and mount pump on motor for thrust bearing setting.

Thrust Screw Adjustment

Figure 7: Hold lock nut and tighten thrust screw until pump shaft and motor shaft are solidly touching.

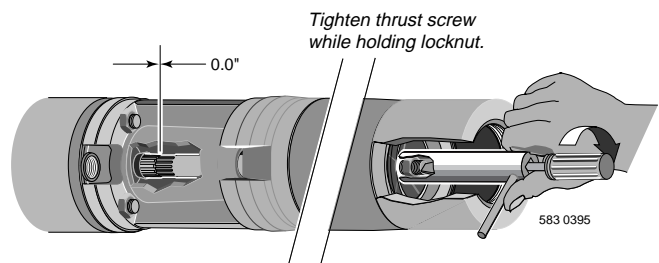


Figure 8: Back off thrust screw 3/4 to one turn, giving .045" to .060" clearance between shafts.

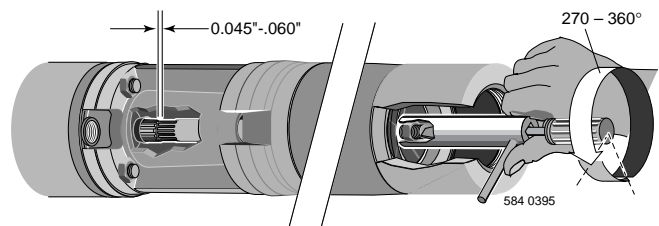


Figure 9: Hold thrust screw and tighten locknut. Thrust screw setting must not change when tightening locknut.

