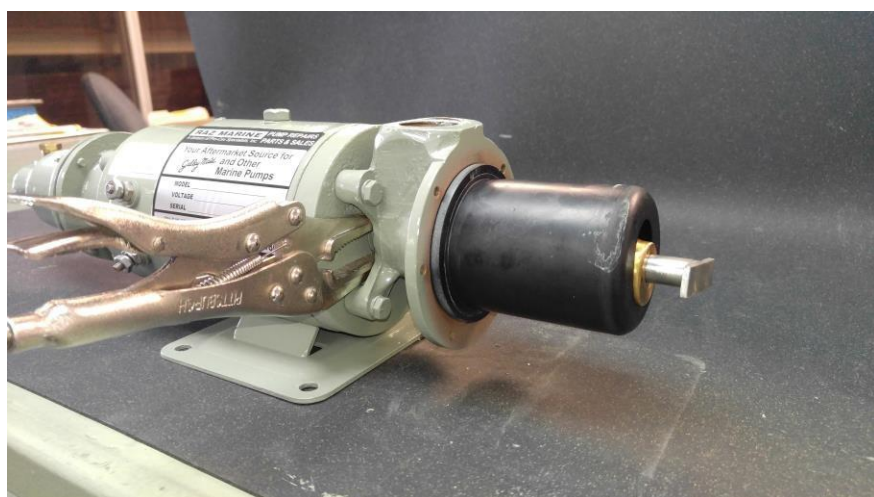


RAZ MARINE INSTRUCTIONS TO REMOVE "DISCHARGE END" OF PUMP

Step 1. Close all seacocks and valves.

Step 2. Turn off breaker (if using screw driver method to lock armature)

Step 3. Remove (6) 5/16 bolts from Nose cone or Housing, remove 2 3/8" hose from discharge end. This may be tight, twist and pull etc.



Step 4. (after nose cone / housing is removed) – the (150) stator and portion of Rotor with T-Bar cutter will be exposed.

Step 5 Lock shaft to keep from spinning. There are two methods.

Use Thin Needle Nose Vise Grips (Best Method) To lock shaft. or
You can remove (1/4" bolt size 7/16" head) remove one bolt from where the solenoid is mounted. Inset a Flat pocket screw driver into motor. You are trying to find the grove

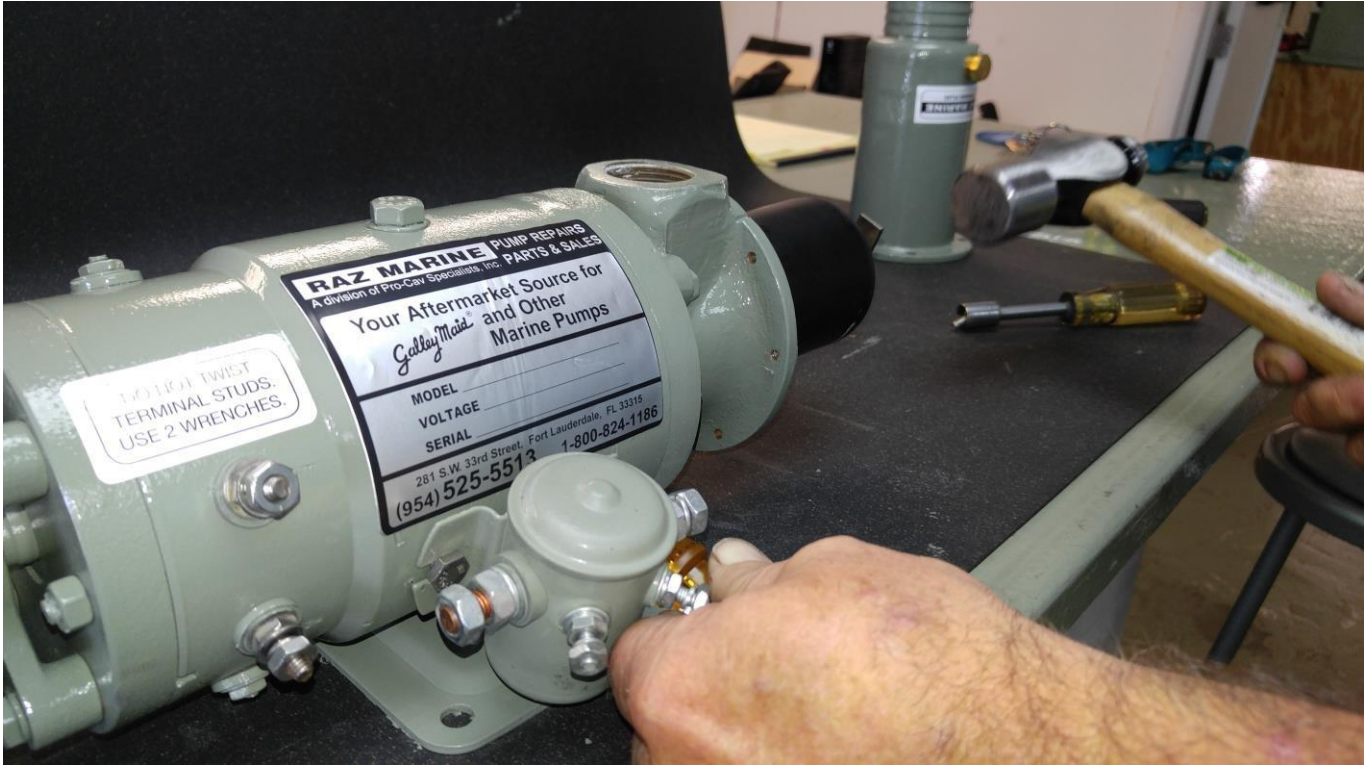
in the armature. (MAKE SURE POWER IS OFF)

There are (2) bolts holding solenoid on, you can remove either one. (the picture only shows one, the other is where the screwdriver is inserted)



Step 6 remove Rotor and Stator as one piece.

Tap/hit the end of the rotor (T-Bar) in the center not on the outer blades. With a hammer, You may have to tap or hit it a few times, The rotor should unscrew fairly easy now. **(unscrews to the LEFT)** Like normal threads.

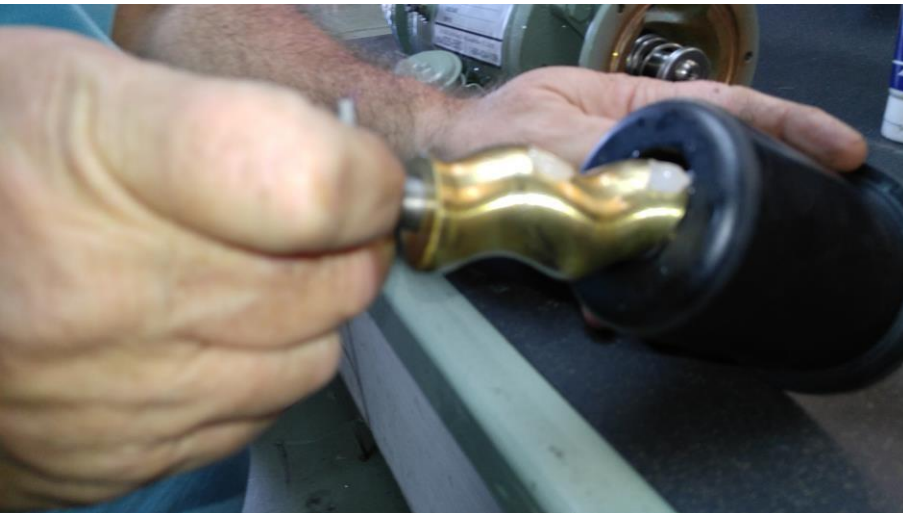


Step 7

Once you have the Stator and Rotor off, be careful not to lose seal spring and washer. If it falls off just put back on before assembly (Spring towards inside motor and washer on end where rotor screws on.

- Remove stator from rotor Replace (#150) stator.
- Inspect Rotor for Pits and Damage (this time is a good time to replace rotor if needed) - Before screwing stator onto Rotor it should fit tight or snugly. If too loose you need a Rotor.

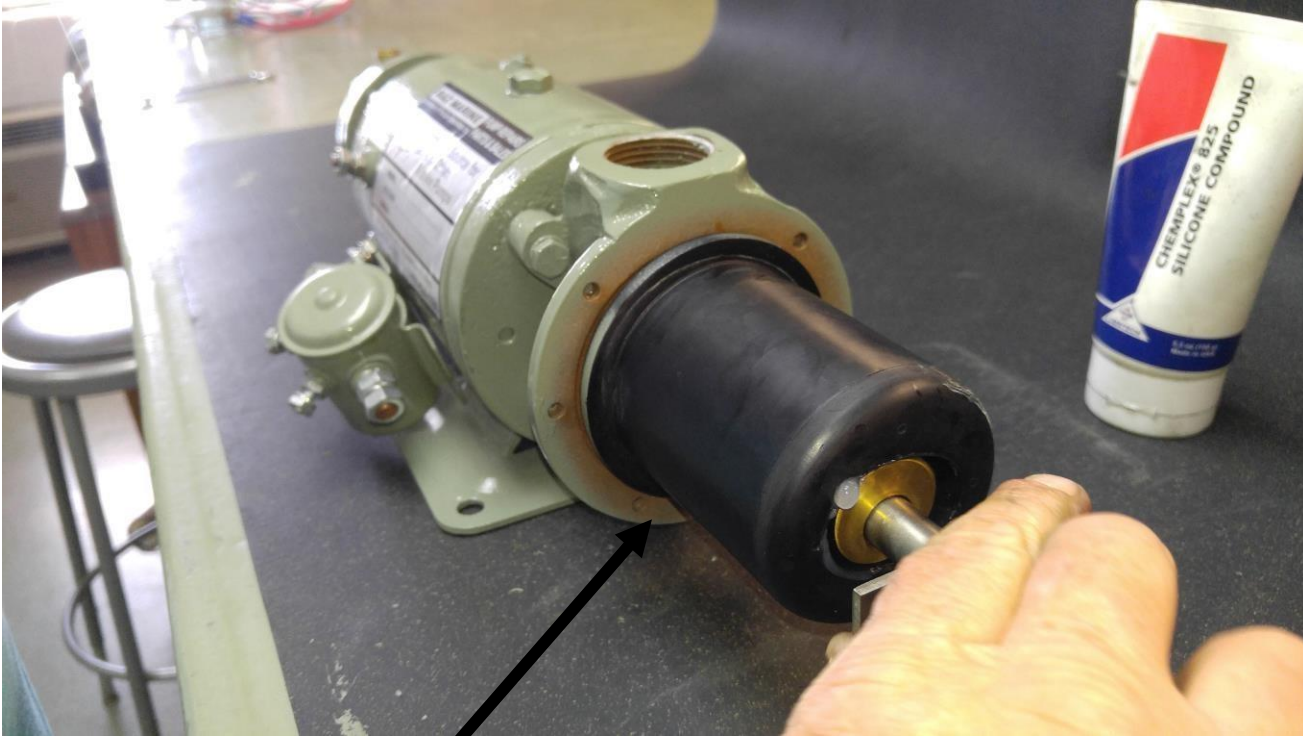
If it fits properly remove stator and Apply Silicone lube or equal to rotor itself. Then install stator and screw Rotor Back on. (Make sure Seal spring is installed)



DO NOT GET SILICONE ON LIP OF STATOR – It is a good Idea to wipe lip off rubbing Alcohol or equal product. Seal must be clean and dry.

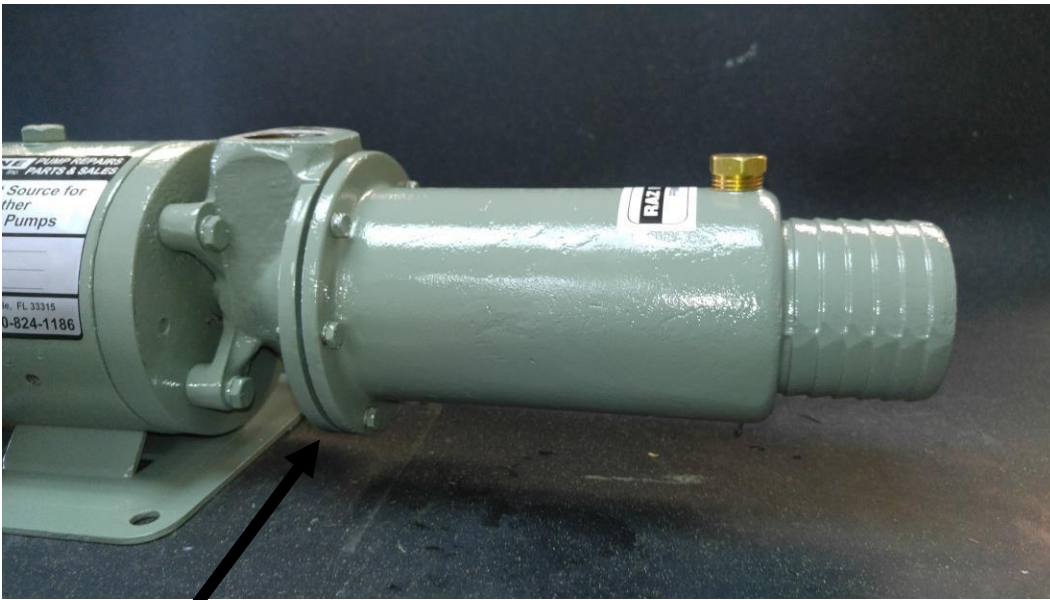
Step 8 Screw Rotor and Stator onto Shaft.

Make sure the lip of the Stator sets in the Groove on the Pump Housing.



Stator Lip Seal in Housing.

Step 9 Install nose cone or Housing. (Make sure Stator does not shift during Install) When reinstalling, put all bolts in first, The Using a 5/16" nut driver only tighten enough to hold housing in place for now. After all bolts are installed and holding housing in place tighten bolts in stages in an "X" pattern. Use Patience and tighten evenly keep tightening in "X" pattern. **(DO NOT OVERTIGHTEN)** The lip of the Stator is the actual seal if you overtighten it – it will LEAK. There should be a gap between pump housings. The bolts should be hand Tighten to ensure a snug fit. Too Loose it will leak, too tight you will pinch the stator and it will leak.



Notice the GAP

Step 10 open all valves, prime pump and test. Then Double check to see if bolts are still tight.

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