

# REPLACE SHAFT BOTTOM BEARING #25

INSTRUCTION VERSION 1.0 – MARCH 2018

## SHAFT BOTTOM BEARING #25

The Bottom Bearing is a friction fit inside the Tube. If it is only the Shaft Bottom Bearing that needs replacement, this can be done without removing the Drive Unit or the Shaft Assembly.

### Remove Shaft Bottom Collar

1. Use a hex/Allen key to loosen Bottom Collar Screw #46
2. Remove Bottom Collar #26

### Idea #1 – Clamp and Hammer

3. Tighten a jawed pipe wrench onto the visible lip of the Bottom Bearing – so tight that you pinch it
4. Wack the wrench with a big hammer... might take a few hits

### Idea #2 – Destroy and Pull

5. If the above doesn't work, go about destroying the Bottom Bearing
6. Drill little holes into the plastic
7. Once you have enough holes, devise a puller to hook inside and pull the bearing out

### Replace Bottom Bearing

8. Line up the new Bottom Bearing – it will be important to tap evenly inside the tube
9. Gently use a hammer directly on the Bearing and tap it inside
10. If you can find a 1.5" OD tube that is at least 8" tall to hold the Bearing in position from below, this allows you to apply more even pressure with the hammer

### Replace Bottom Collar

11. Ensure *at least* a business card sized gap between the Bottom Bearing and Bottom Collar
12. Best is to hold the Shaft Bottom Collar on the Shaft as you put the Rudder on and insert the Rudder Locking Pin to hold Rudder on
13. Position the Bottom Collar just a hair above the Rudder (to help you to know where to pull the rudder up to) and tighten down on the Bottom Collar Screw
14. Spin the Shaft to ensure no binding! If there is binding, reposition the Collar slightly further away from the Bottom Bearing.