

Shimano Trinidad\Torium Drag Upgrade Tutorial

Introduction:

This tutorial is provided to assist those of you who may be interested in performing upgrade of the drag system of your Shimano Trinidad 16, 16N, 20 and 30, and Torium 16, 20 and 30. These upgrades are designed to enhance the performance of your Shimano Trinidad or Torium reel by increasing the drag range in the above listed reels manufactured prior to 2005. Reels manufactured in 2005 will already have these upgrades already installed.

Please use safety glasses and exercise caution when using tools. For further assistance, please feel free to contact our highly trained customer service representatives at 877-577-0600 Mon.-Fri. (8:00am-5:00pm PST). Also, please note that our Reel Schematics are now available on - line.



Parts included in Drag Upgrade Kit:

1. Upgraded side plate
2. Upgraded drive shaft
3. Upgraded drag plate (key washer)



Tools needed to perform Upgrade:

1. 10MM nut driver
2. Small Philips Screwdriver
3. Medium Philips Screwdriver
4. Small Flat Screwdriver
5. Medium Flat Screwdriver
6. Shimano Wrench (TGT0355) supplied with Trinidad/Torium reels
7. Needle nose pliers
8. Rubber mallet or hammer
9. Safety glasses



Step1: Removal of left side plate and spool assembly

Remove spool assembly by removing the four left side plate screws with a medium Phillips or flathead screwdriver.



Step 2: Removal of handle assembly

Remove handle nut plate screw and handle nut using a small Philips screwdriver. Remove handle assembly by using the Shimano Wrench.



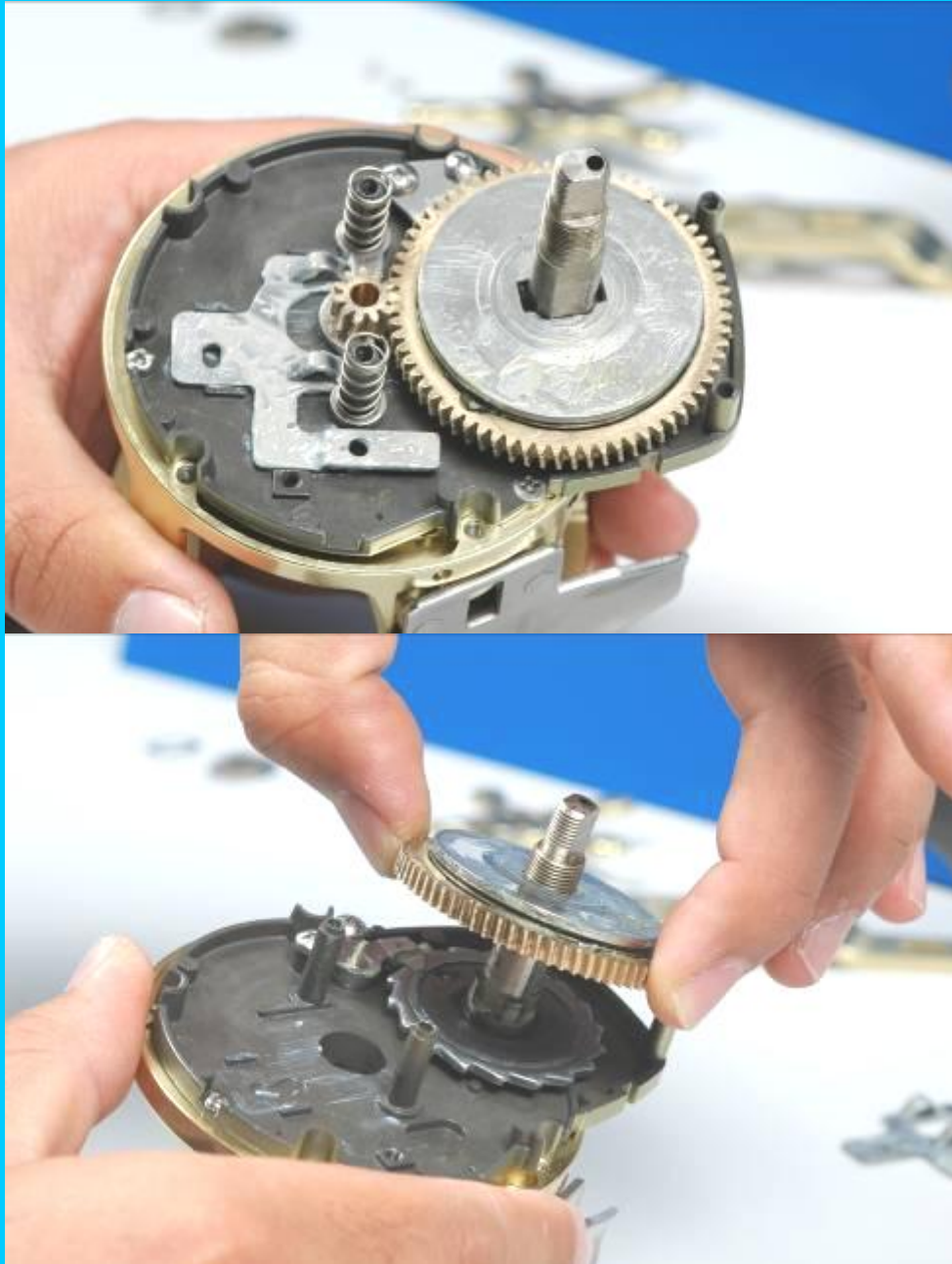
Step 3: Removal of star drag assembly

Back off star drag (caution: click pin TGT0295 may pop out!) and remove all washers and bearing seal located under star drag.



Step 4: Removal of right side plate

Remove all right side plate screws (8 total). Side plate and line clip can be removed now.



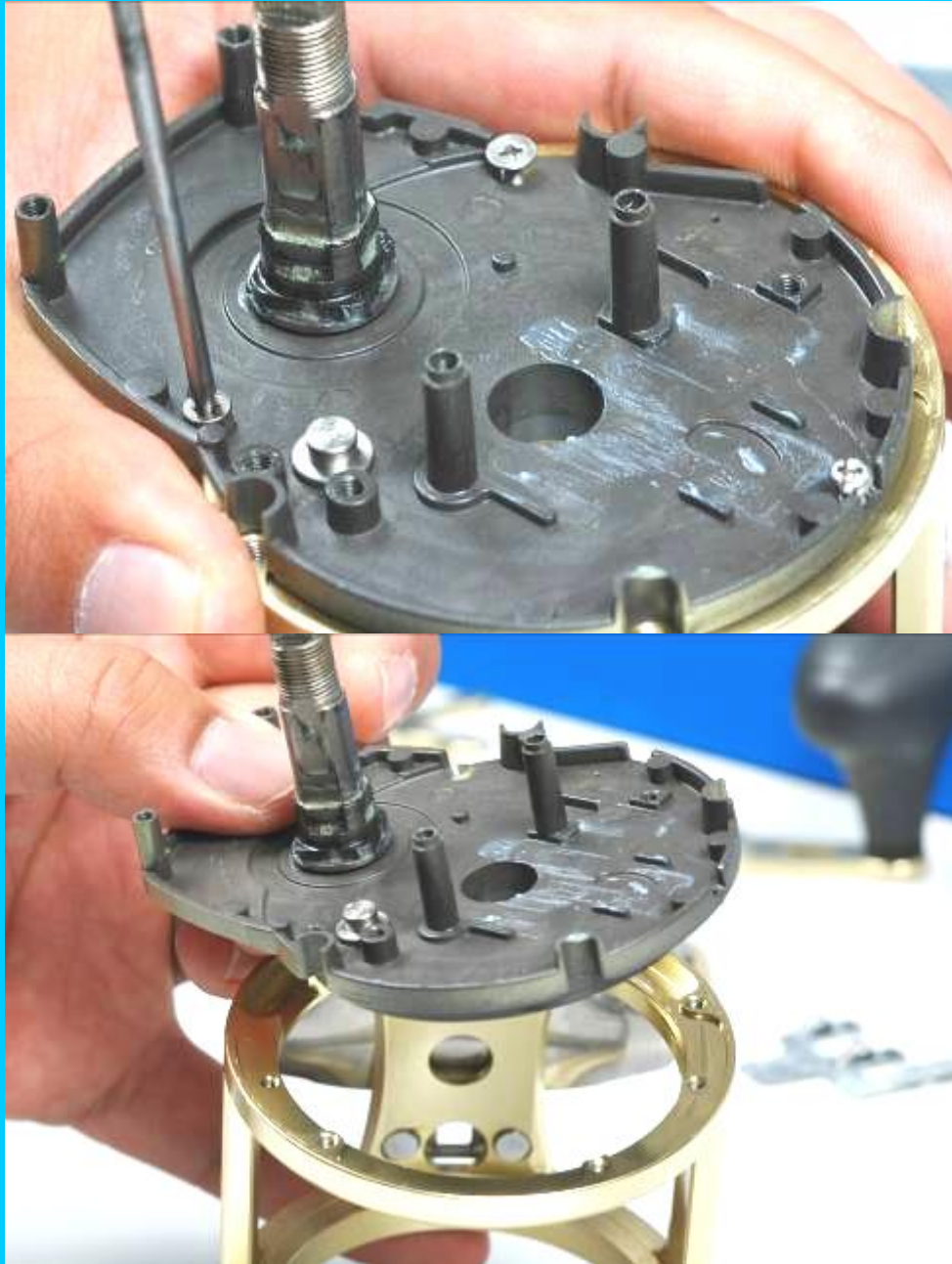
Step 5: Removal of drive gears

Remove the roller clutch inner tube, drive gear assembly, drag washer (A) (located under drive gear), yoke springs (2 total), pinion gear, yoke, yoke plate.



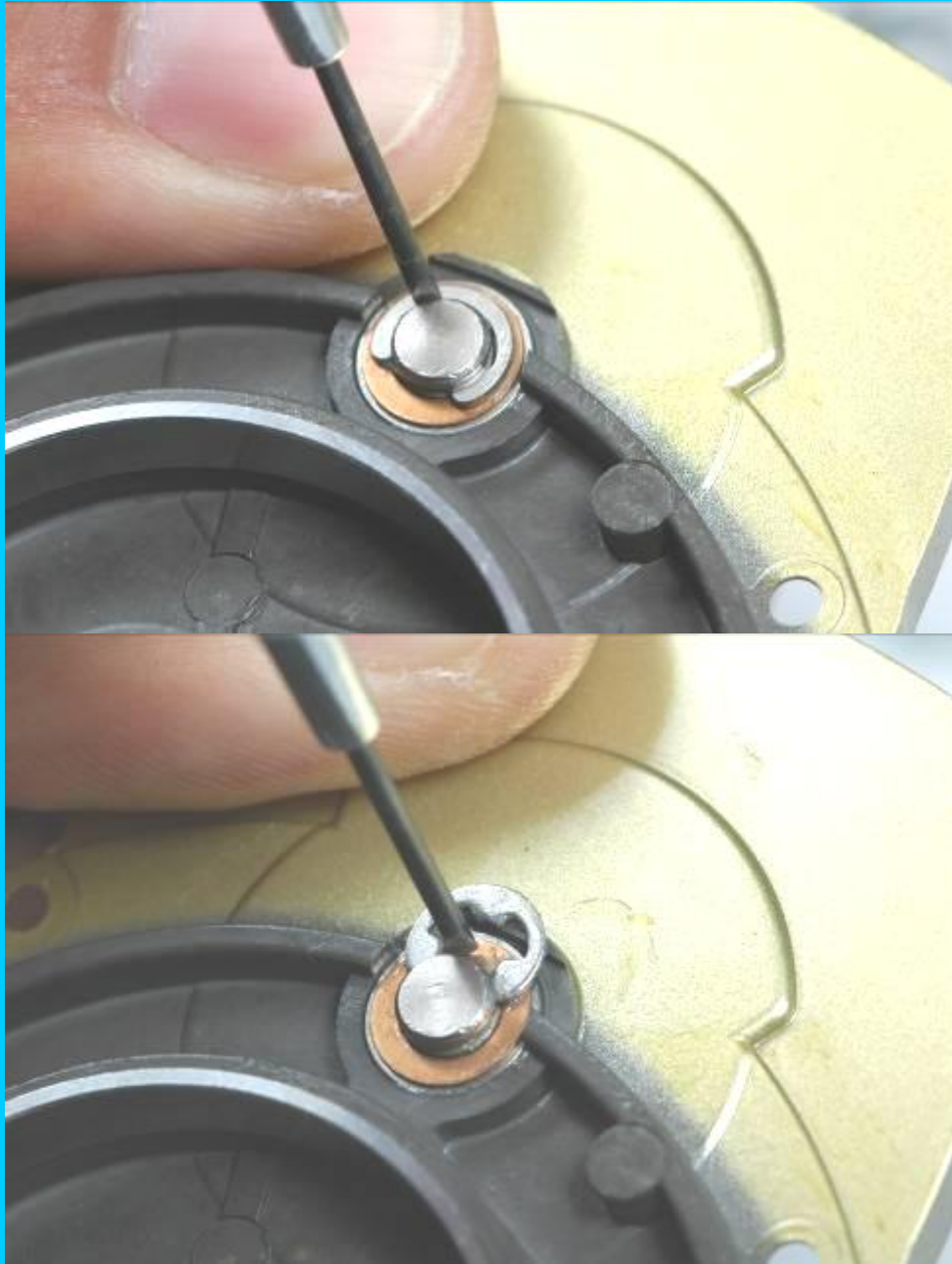
Step 6: Removal of anti-reverse assembly

Remove anti-reverse pawl keeper screws (2 total) and anti-reverse pawl keeper. Remove anti-reverse pawl and anti-reverse ratchet.



Step 7: Removal of Trinidad set plate

On Trinidad reels, remove set plate screws (3 total). Thereafter, remove set plate from one-piece frame. Torium reels do not have a removable set plate. Please skip this step if you are working on a Torium reel.



Step 8: Removal of drive shaft retainer clip for Trinidad reels
Using a small flathead screwdriver, carefully remove the drive shaft retainer clip. Remove drive shaft.

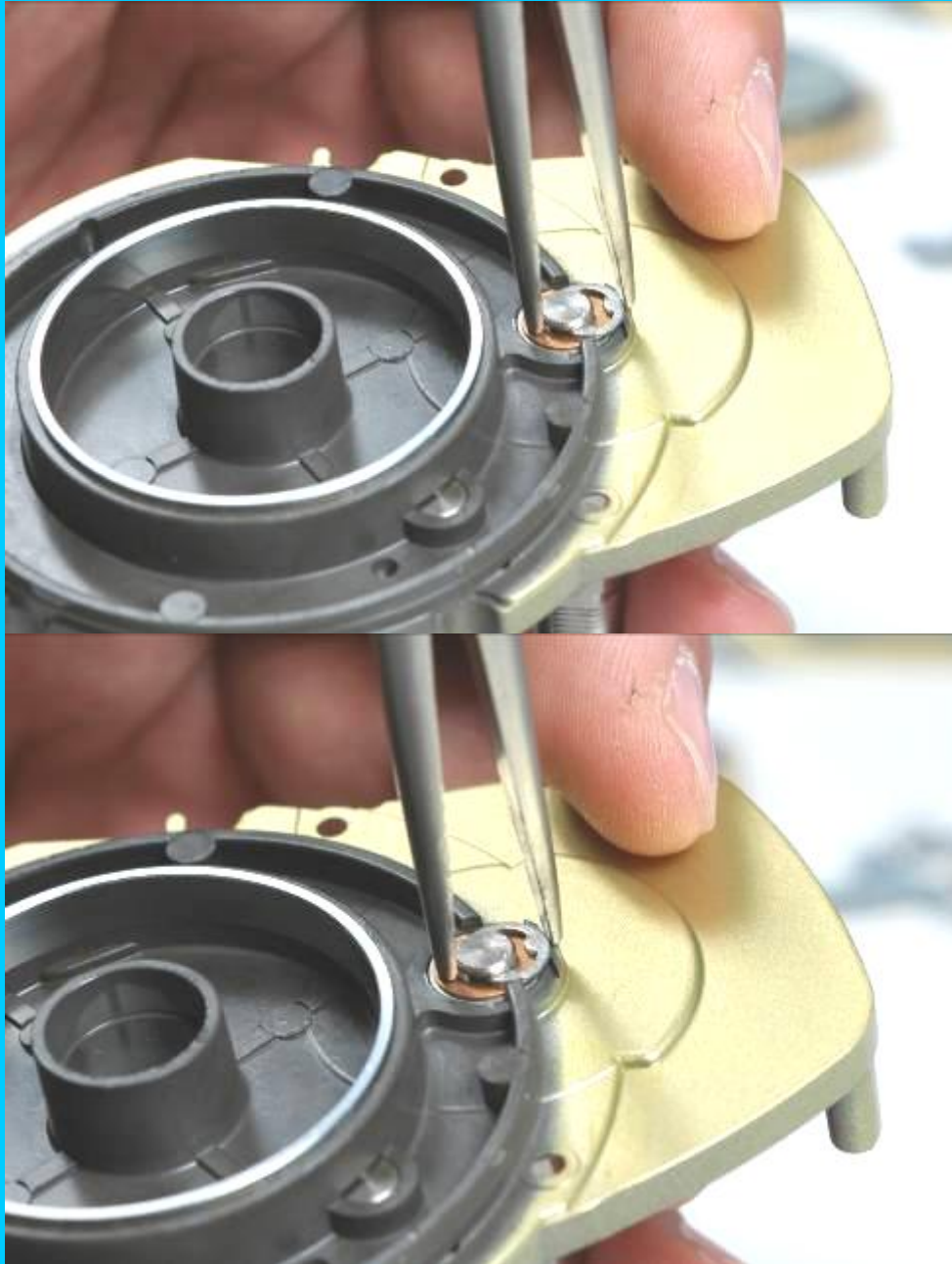


Step 8: Removal of drive shaft retainer clip for Torium reels
The drive shaft retainer clip is located on the frame and is exposed when the spool assembly is removed.

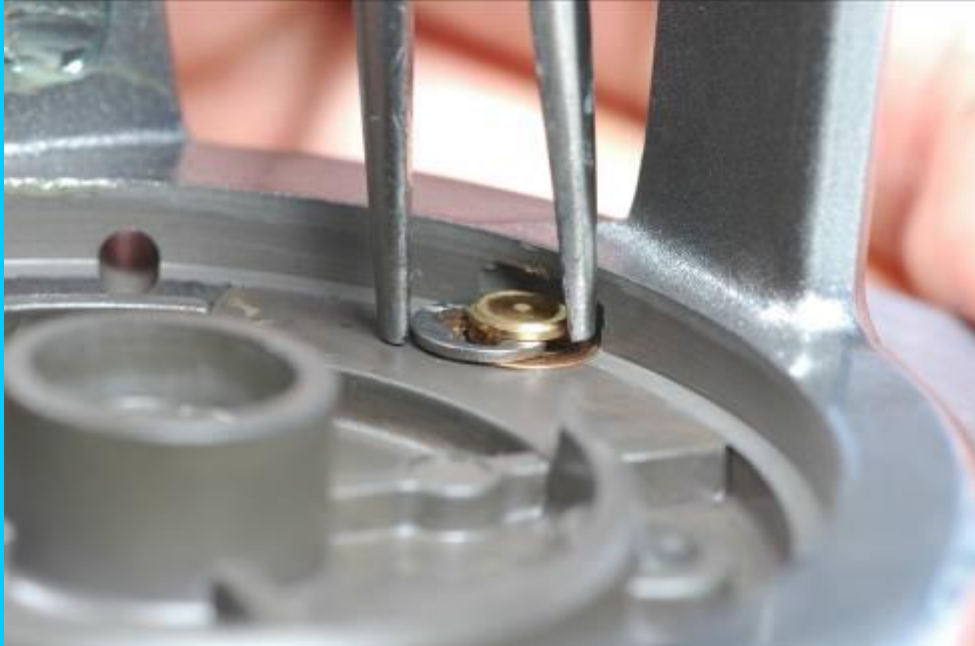


Step 9: Drive shaft washer (B)

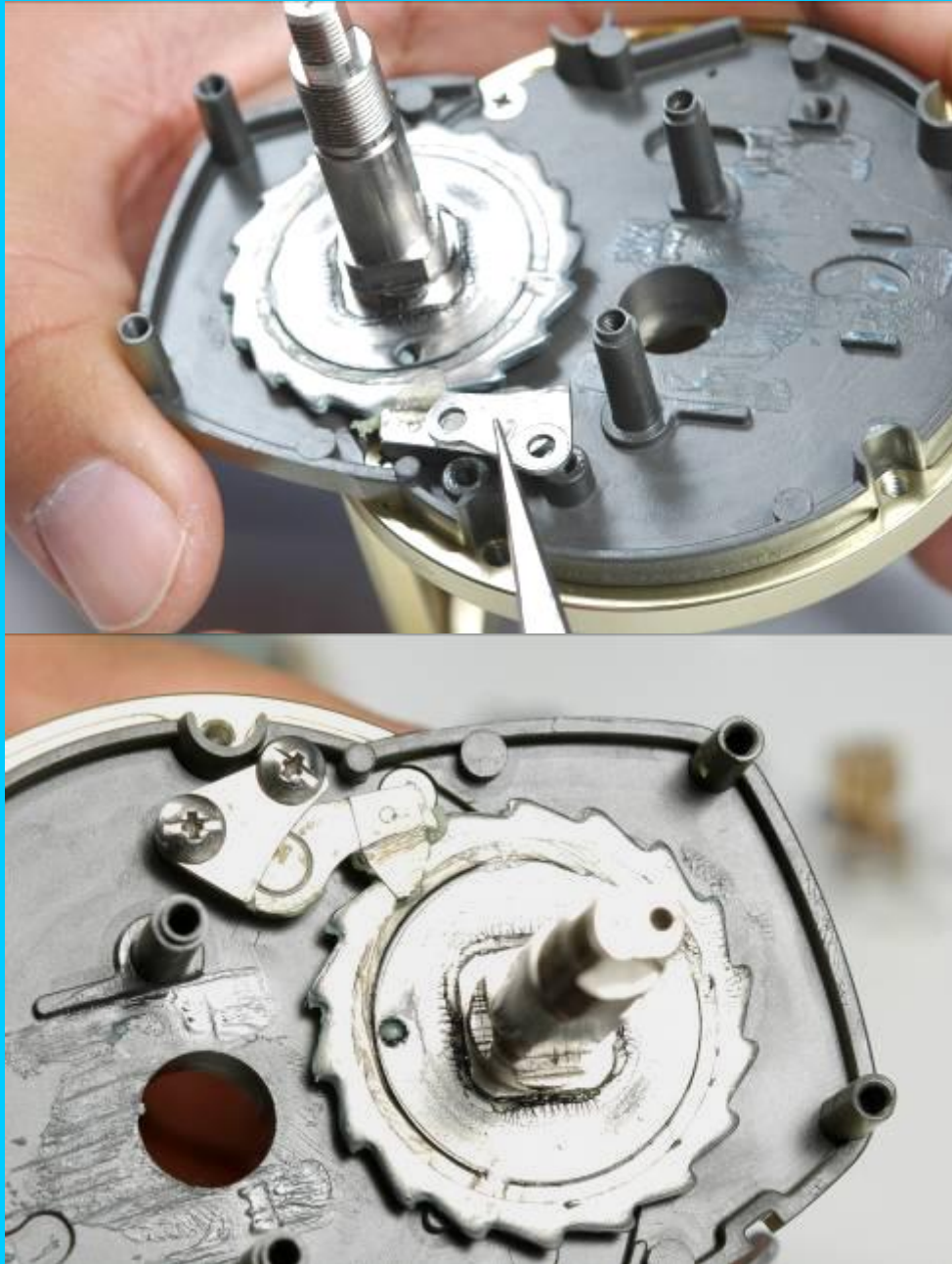
Remove drive shaft washer (B). Transfer washer (B) onto new upgraded drive shaft. Also, remove the click spring from original drive shaft and transfer to upgraded drive shaft. (TGT0296)



Step 10: Installation of upgraded drive shaft on Trinidad reels
Install new drive shaft and install drive shaft retainer clip by using needle nose pliers.



Step 10: Installation of upgraded drive shaft on Torium reels.
Use needle nose pliers to install drive shaft retainer clip.

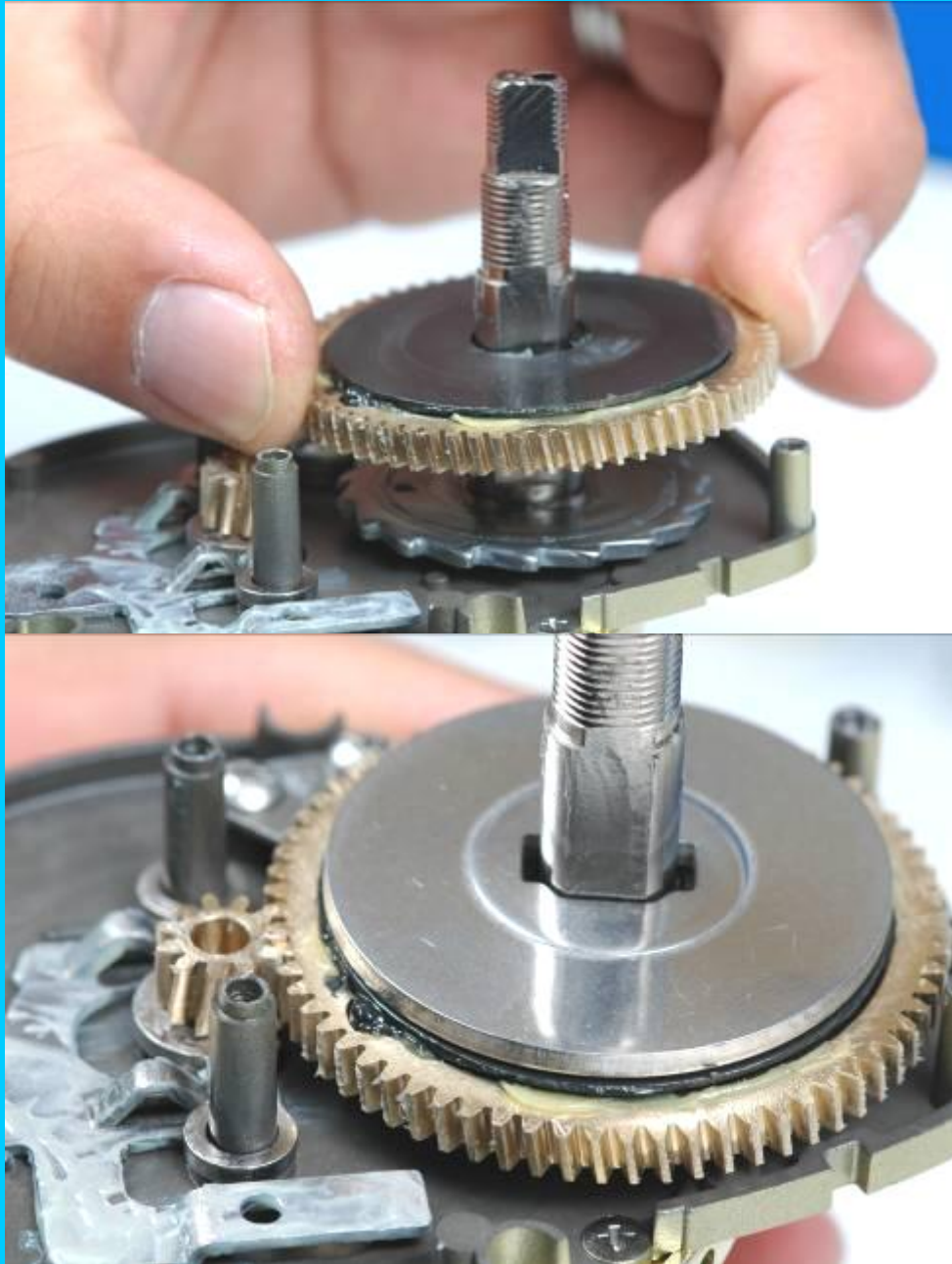


Step 11: Re-installation of anti-reverse assembly

Re-install anti-reverse pawl and anti-reverse ratchet. Be cautious not to damage the anti-reverse pawl. Re-install anti-reverse pawl keeper and anti-reverse pawl keeper screws with a small Phillips or flathead screwdriver.

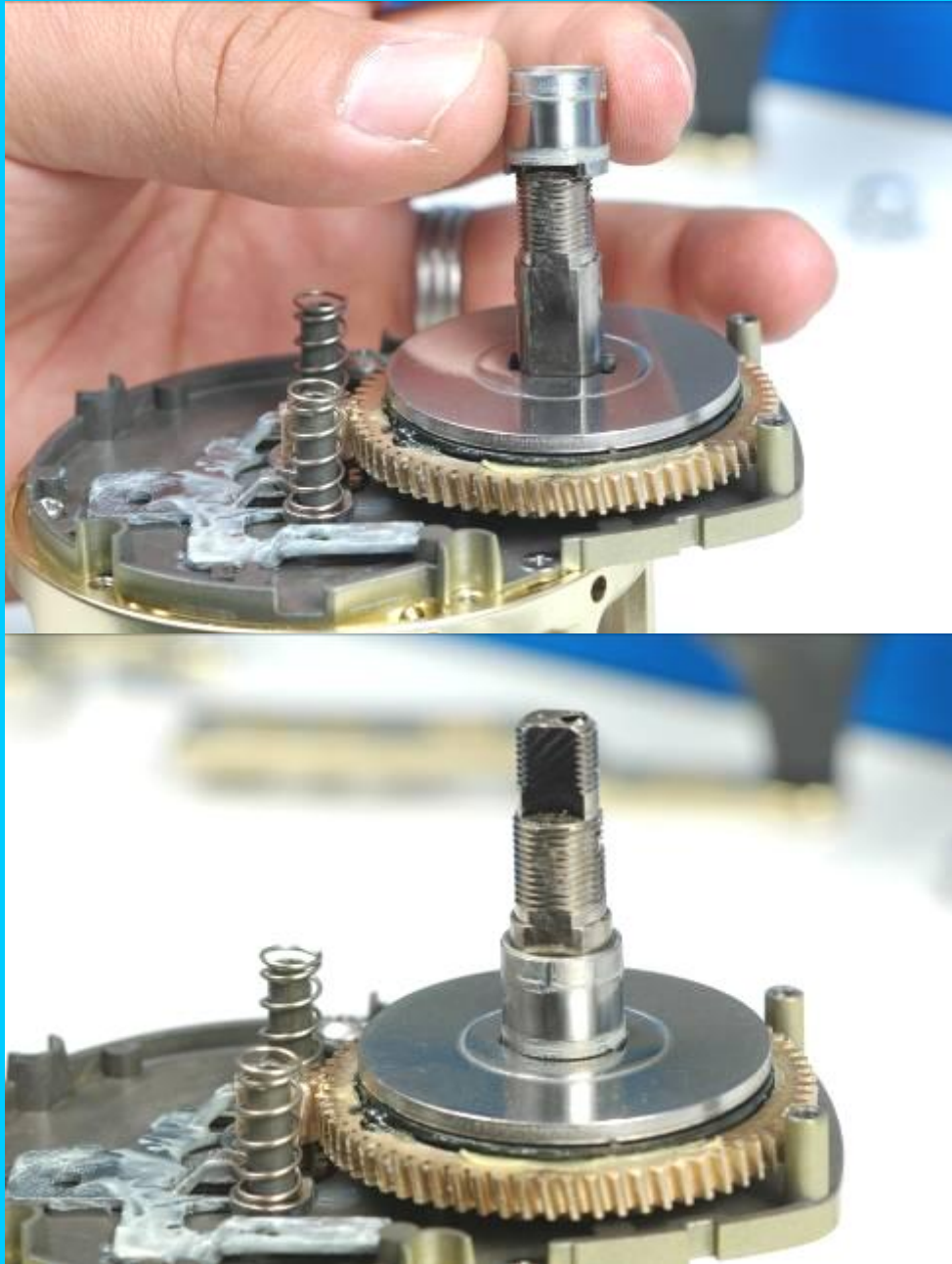


Step 12: Reinstallation of yoke plate, yoke and pinion gear
Re-install yoke plate, pinion gear and yoke, and yoke springs (2 total). Note: the yoke has bevels on one side. Make sure that the bevels face down towards the yoke plate.



Step 13: Re-installation of main drive gear and upgraded drag plate (key washer)

Re-install drag washer (A) (located under the drive gear assembly).
Re-install drive gear assembly with new drag plate (key washer).
Ensure that the key washer is positioned with the flat side down as pictured above on right.



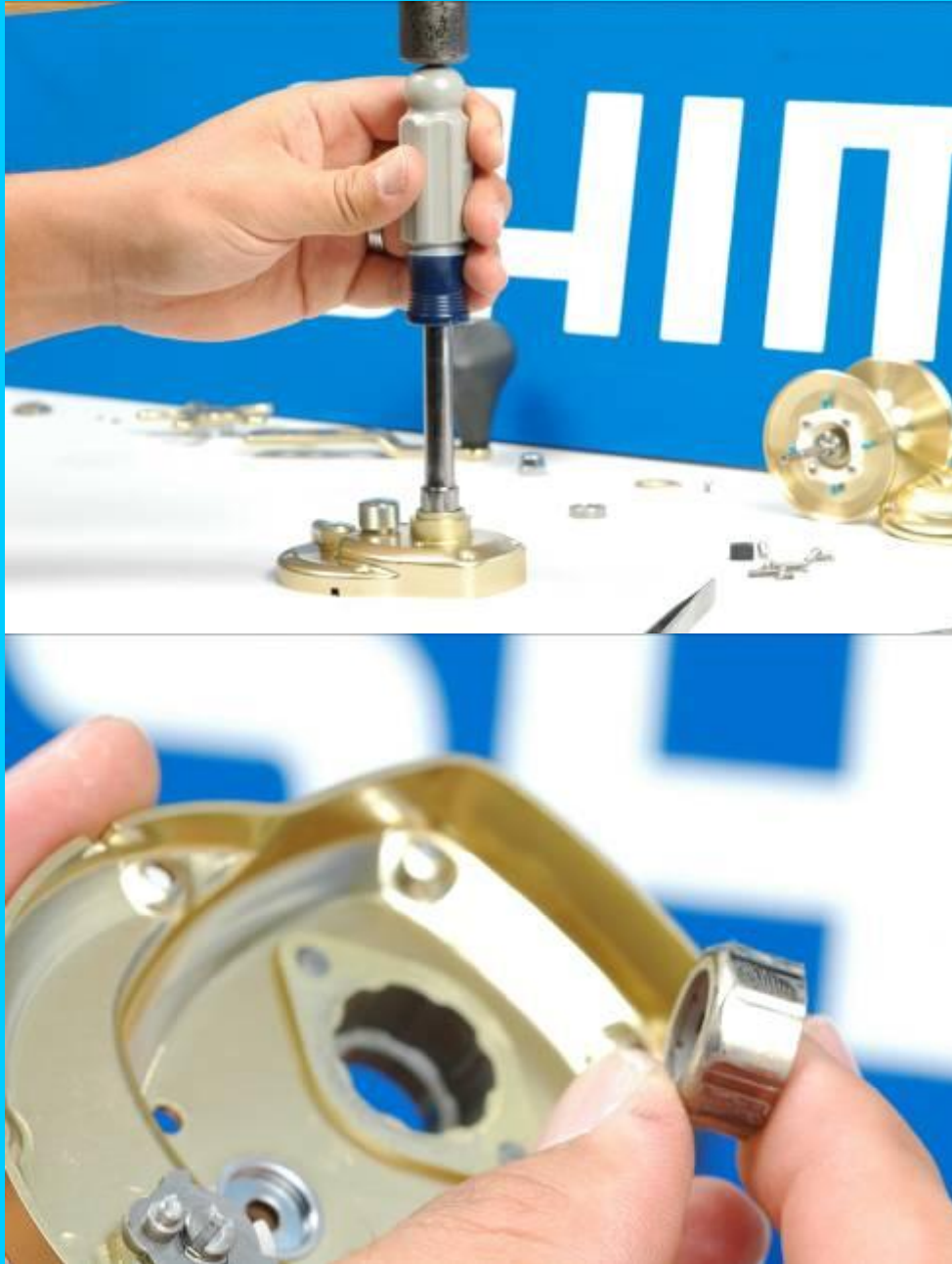
Step 14: Re-installation of roller clutch inner tube

Re-install roller clutch inner tube. Make sure that the tongues on the inner tube engage the grooves on the drag plate (key washer).



Step 15: Removal of side plate bearing

Remove side plate bearing from original side plate.



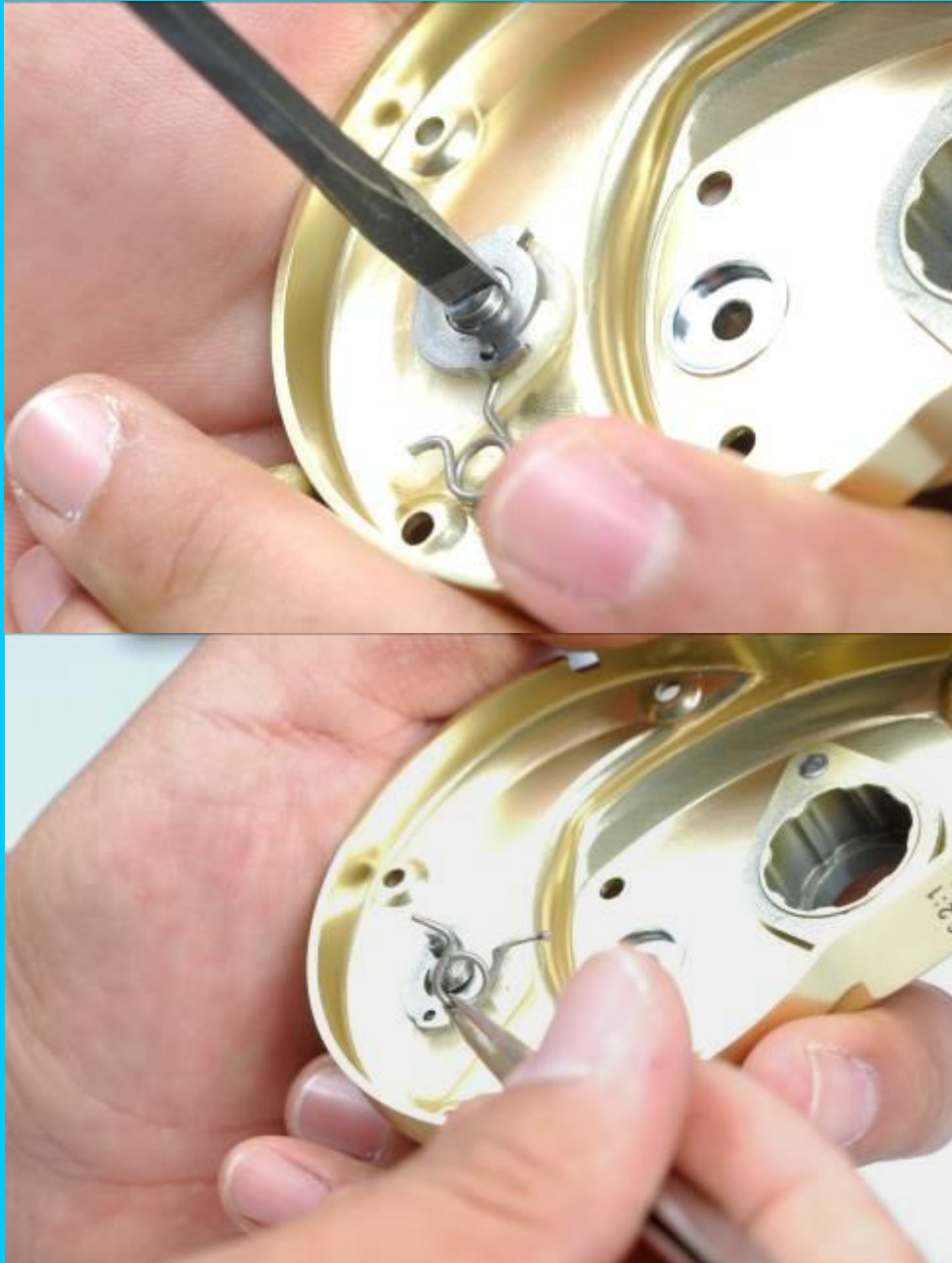
Step 16: Removal of roller clutch bearing

Remove roller clutch bearing from original side plate using 10MM nut driver and rubber mallet or hammer.



Step 17: Installation of roller clutch bearing into upgraded side plate

Install roller clutch bearing into new upgraded side plate by using 10MM nut driver and rubber mallet or hammer. Make sure that the roller clutch bearing sits flush with the inside edge of side plate.



Step 18: Removal of clutch lever assembly

Use a medium flathead screwdriver to remove clutch lever screw, eccentric cam, clutch spring, eccentric cam bushing, smoother (nylon washer) and clutch lever from original side plate.



Step 19: Installation of clutch lever assembly onto upgraded side plate

Install smoother (nylon washer), clutch lever, eccentric cam bushing, clutch spring, clutch cam and clutch lever screw onto new upgraded side plate.



Step 20: Cast control cap and “o” ring

Remove cast control cap from original side plate. Use a small flathead screwdriver to remove “O” ring from original sideplate. Install “O” ring and cast control cap onto new upgraded sideplate.



Step 21: Installation of new side plate and line clip

Install side plate and line clip onto reel with the 8 side plate screws. Make sure that the clutch cam and yoke plate engage one another, otherwise, the clutch will not work.



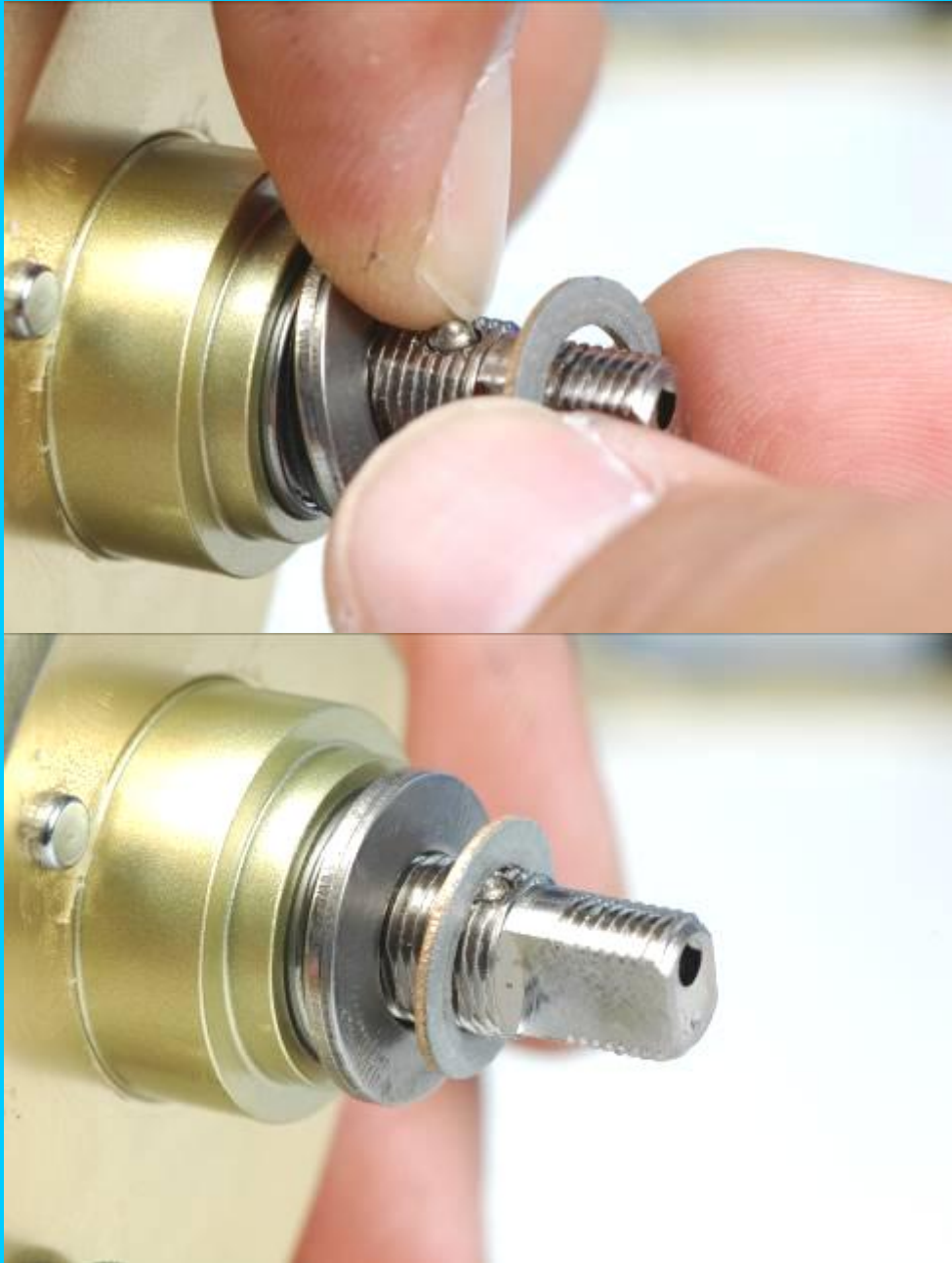
Step 22: Side plate bearing, bearing seal and thrust washer
Install side plate bearing, bearing seal, and bearing thrust washer in this order.



Step 23: Re-installation of drag spring washers

Re-install drag spring washer (heavy) and drag spring washer (light).

Springs should face each other like this: “()”



Step 24: Re-installation of click spring

Re-install click pin by using the star drag washer (TGT0266) to hold it in place.



Step 25: Re-installation of star drag

Re-install star drag by turning it clockwise until click pin engages the star drag.



Step 26: Re-installation of handle assembly

Re-install handle shaft shield, handle assembly, handle nut using the Shimano Wrench. Re-install handle nut plate and handle nut plate screw.



Step 27: Re-installation of spool and left side plate

Insert spool assembly into reel. Re-install left side plate and side plate screws (4 total) with a medium Phillips or flathead screwdriver. Congratulations! Your drag upgrade is now complete!