

Cabela's Depthmaster II Tutorial (DM30/DM45)

Part 6: Assembly of the Reel Frame

This is Part 6 of a 6 Part Tutorial on assembly and disassembly of Cabela's® Depthmaster™ II reels.

In Part 6 of the tutorial the Levelwind Mechanism and Sides are assembled on the Reel frame. The procedure for synchronizing the Levelwind Mechanism with the spool is also explained.

The DM30 and DM45 assembly and disassembly procedures are identical. The DM30a and DM45a are 98% the same (they are shipped from the factory with "Carbonite" carbon fiber drag washers.) The DM15, DM15a, DM20, and DM20a are 95% the same as the DM30 and DM45 reels.

Use this tutorial at your own risk - see the disclaimer on the last page of this document.

Lubricate the parts as you assemble the reel. Apply grease to all interior metal surfaces to protect them from corrosion. Apply grease to every location where parts rub together unless you are instructed to use oil instead. Many people use special oil on the spool bearings of casting reels. Line counter reels are not used for casting, so special oil is not required for the bearings (it is your choice). Carbon Fiber drag washers should be greased with Drag Grease. "Acid brushes" work great for applying grease.

Use your favorite reel lubricants. In this tutorial I am using Super Lube® Synthetic Grease, Break Free® CLP® oil, Abu Garcia® Silicote® Reel Lube (grease) for packing bearings, and Cal's Universal Reel & Star Drag Grease on the drag washers. I am fishing in fresh water and have observed no degradation of any of these lubricants after 5+ years of use in reels.

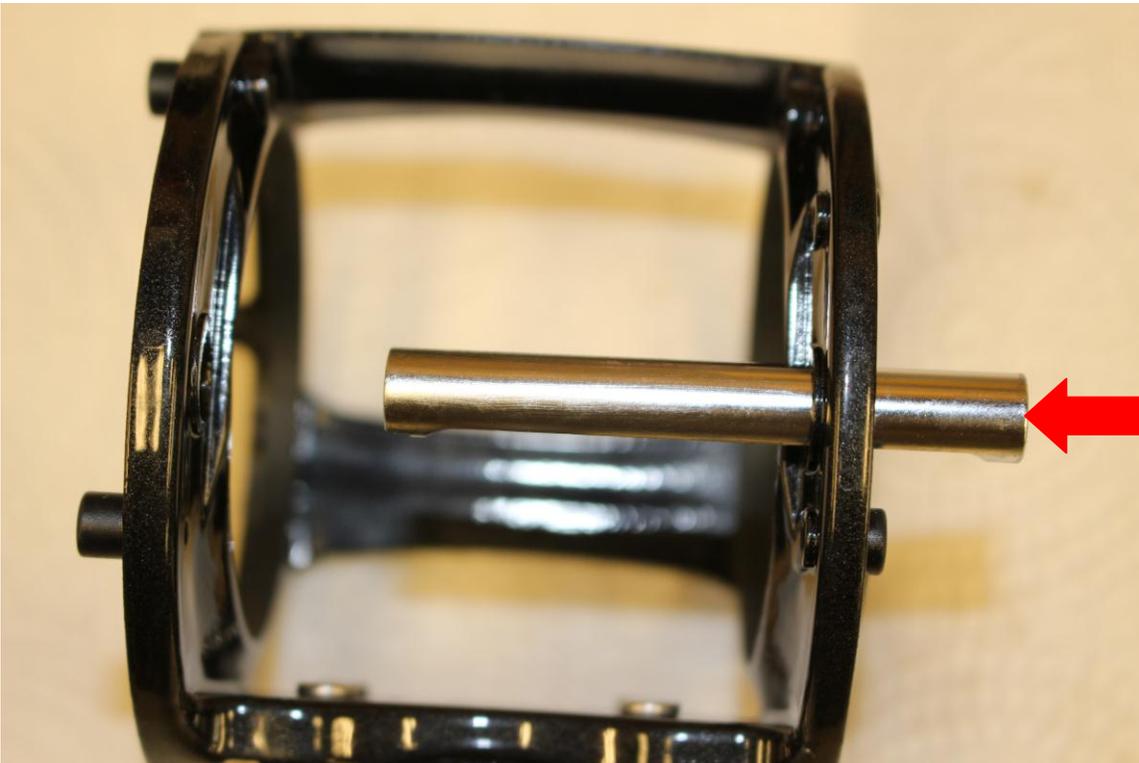


The Reel Frame (a.k.a. Main Body Assembly).

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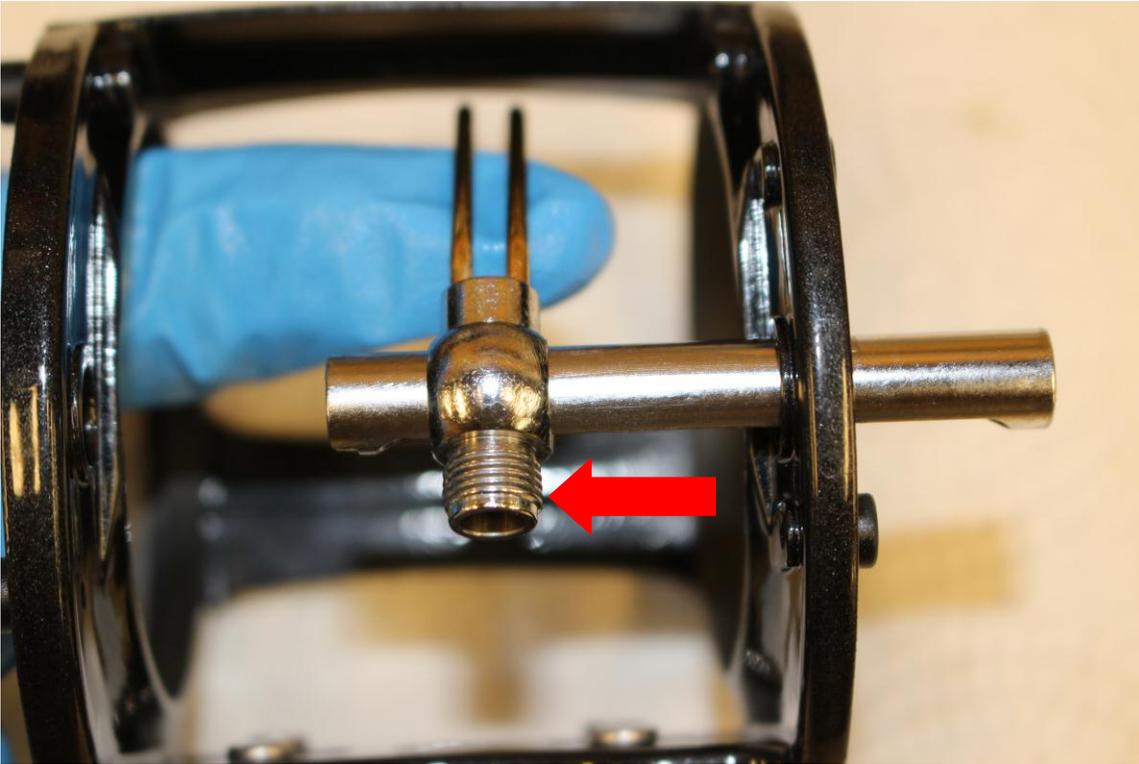


Lightly grease the inside and outside of the Level Wind Guard to prevent corrosion. A cotton swab works well for greasing the inside of the Level Wind Guard.

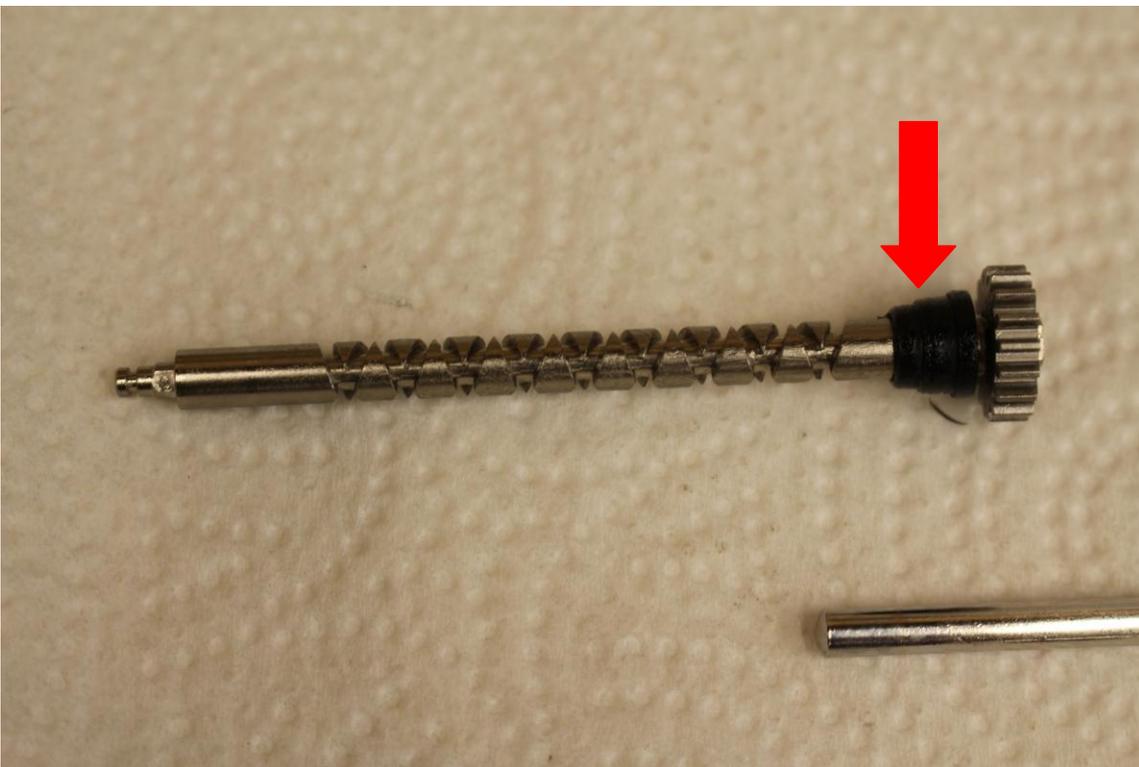


Insert the Level Wind Guard into the right side of the Reel Frame.

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Slide the Line Guide Assembly over the Level Wind Guard and then push the Level Wind Guard all the way to the left side of the Reel Frame. It may be necessary to rotate the Line Guide Assembly slightly to align the notch in the guard with the tab in the Reel Frame.

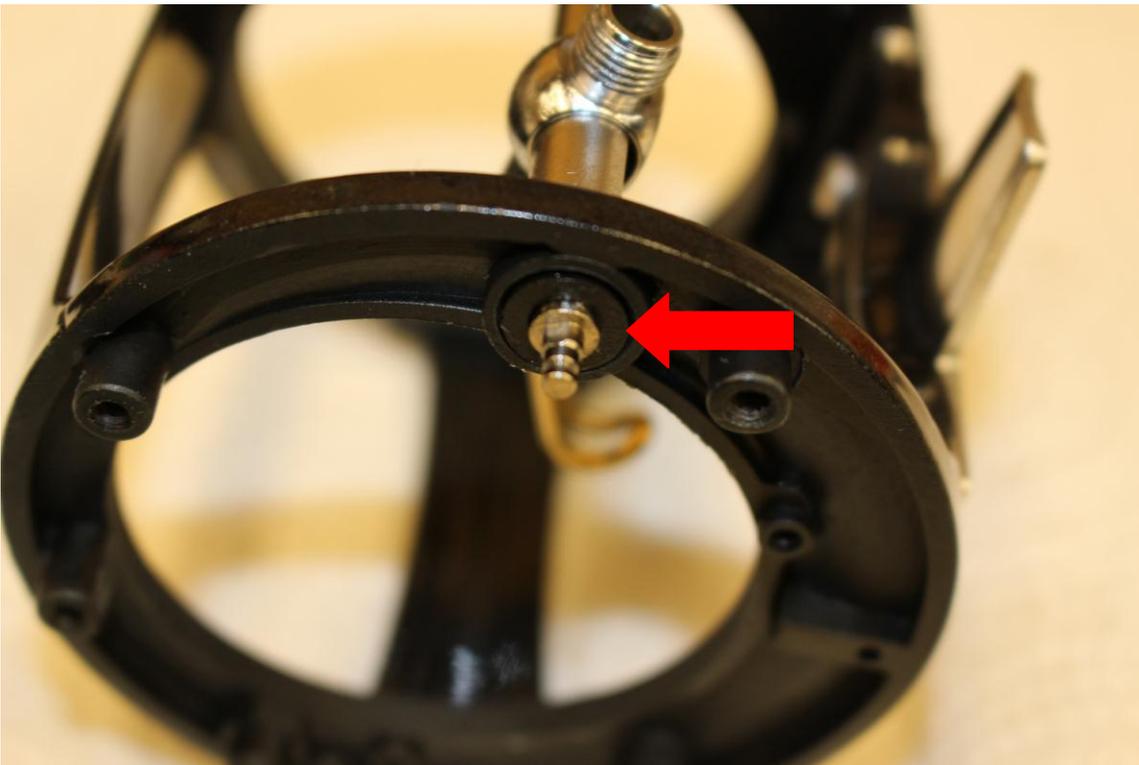


Lightly grease the Worm Shaft and slide the bushing onto the Worm Shaft. The bushings are not identical, try them both and use the bushing which feels like it has the best fit to this end of the shaft.

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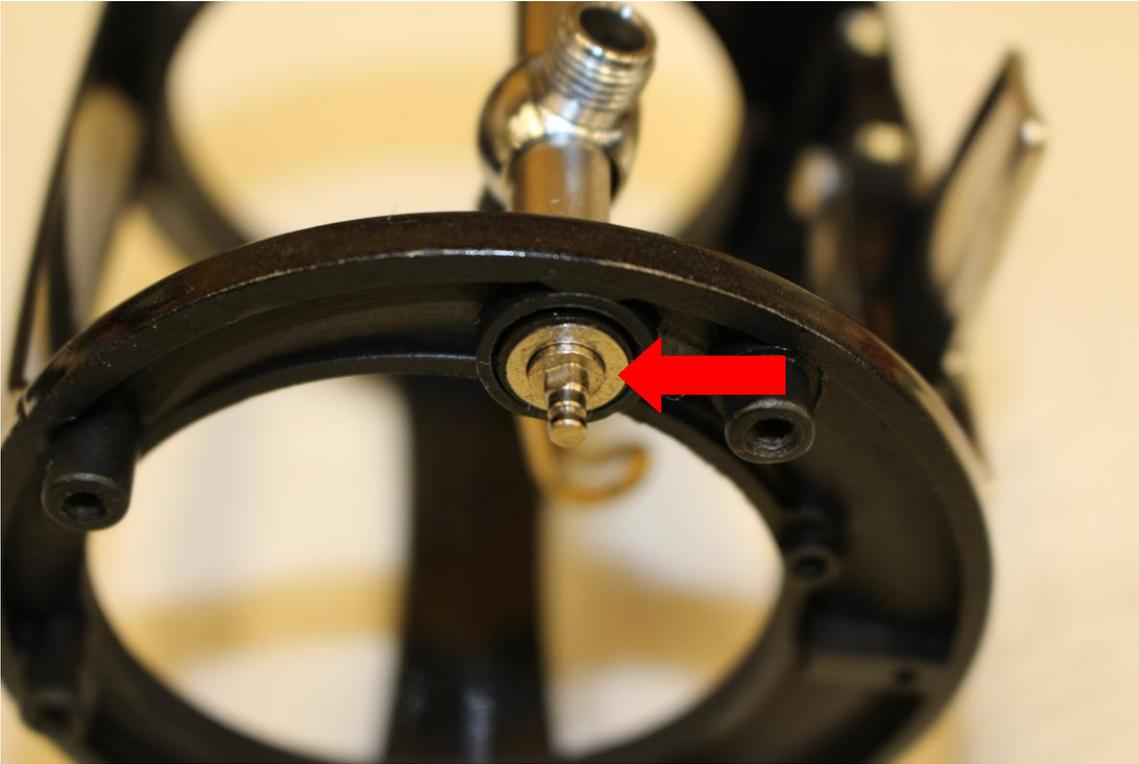


Slide the Worm Shaft and bushing into the right side of the Level Wind Guard.

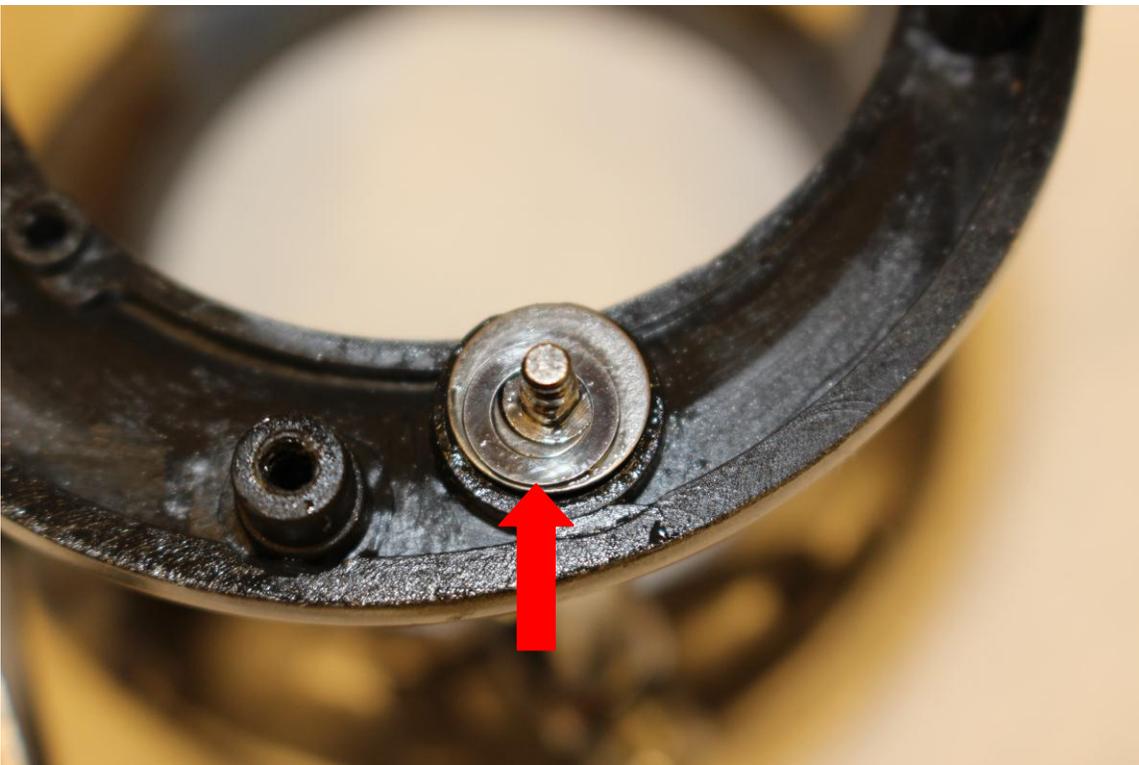


Insert the other bushing over the Worm Shaft and into the frame.

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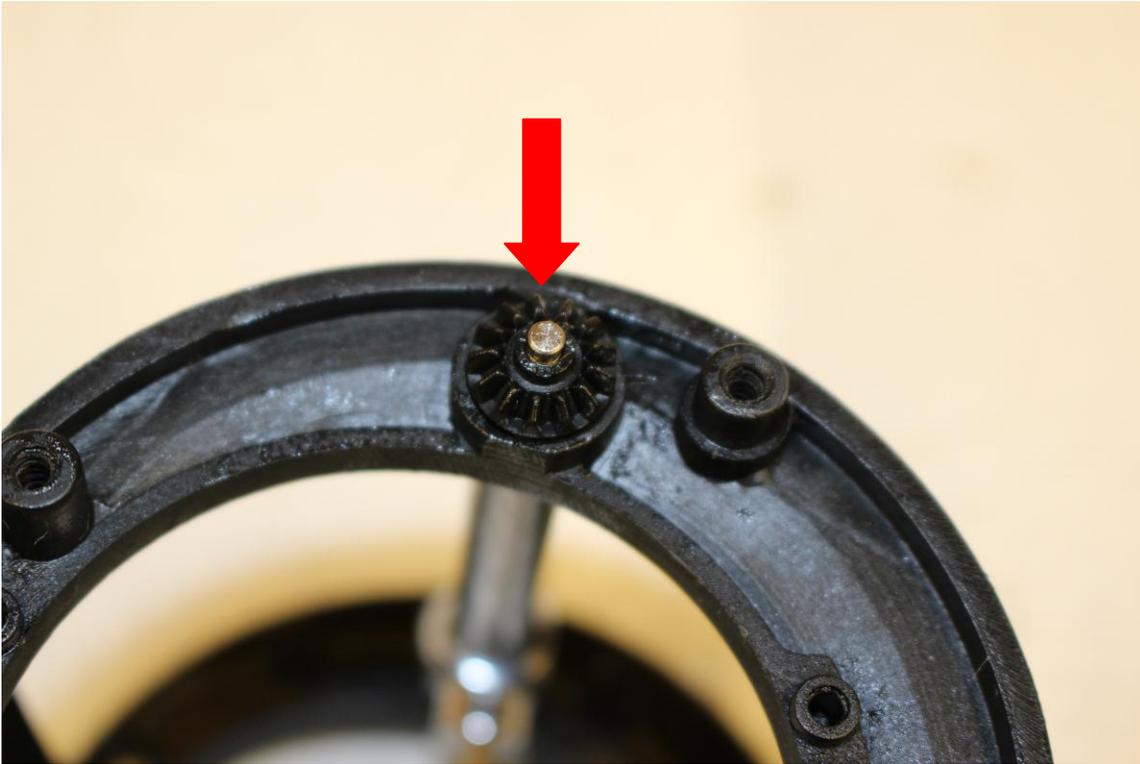


The DM30/DM45 reels have 1 washer on the Worm Shaft under the plastic Transmission Gear. Grease and insert the washer over the Worm Shaft.



The DM30a/DM45s reels have 2 washers on the Worm Shaft under the plastic Transmission Gear. Grease and insert the large diameter washer first, then the small diameter washer over the Worm Shaft.

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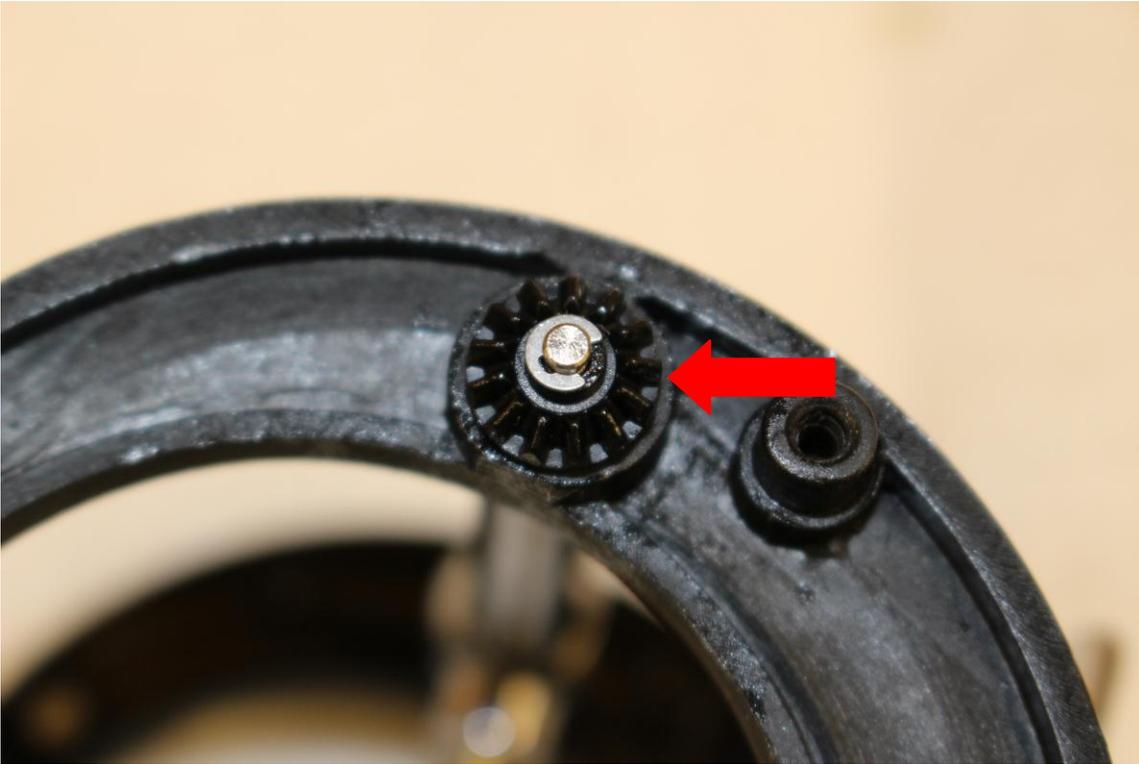


Slide the plastic Transmission Gear onto the Worm Shaft.



Carefully slide the "C" clip into the groove in the Worm Shaft over the plastic Transmission Gear and pinch it into place with a small needle nose pliers. If it pops loose it may fly a long distance, so wear safety glasses and cup your hand around the gear to keep the "C" clip from flying away if it pops out of the slot.

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With the "C" clip installed, you can grease the gear.

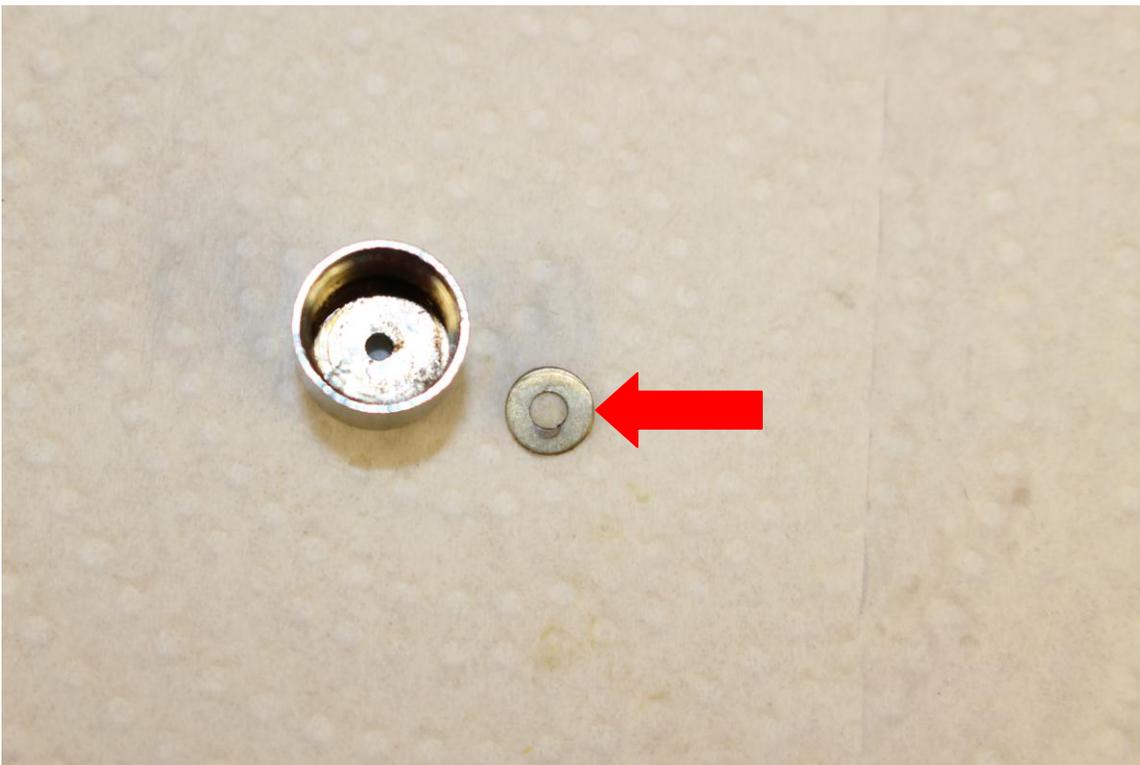


Lightly grease Stabilizer Bar and insert it into the Reef Frame from the right side. Make sure the hook at the top of the Line Guide Assembly hooks around the Stabilizer Bar.

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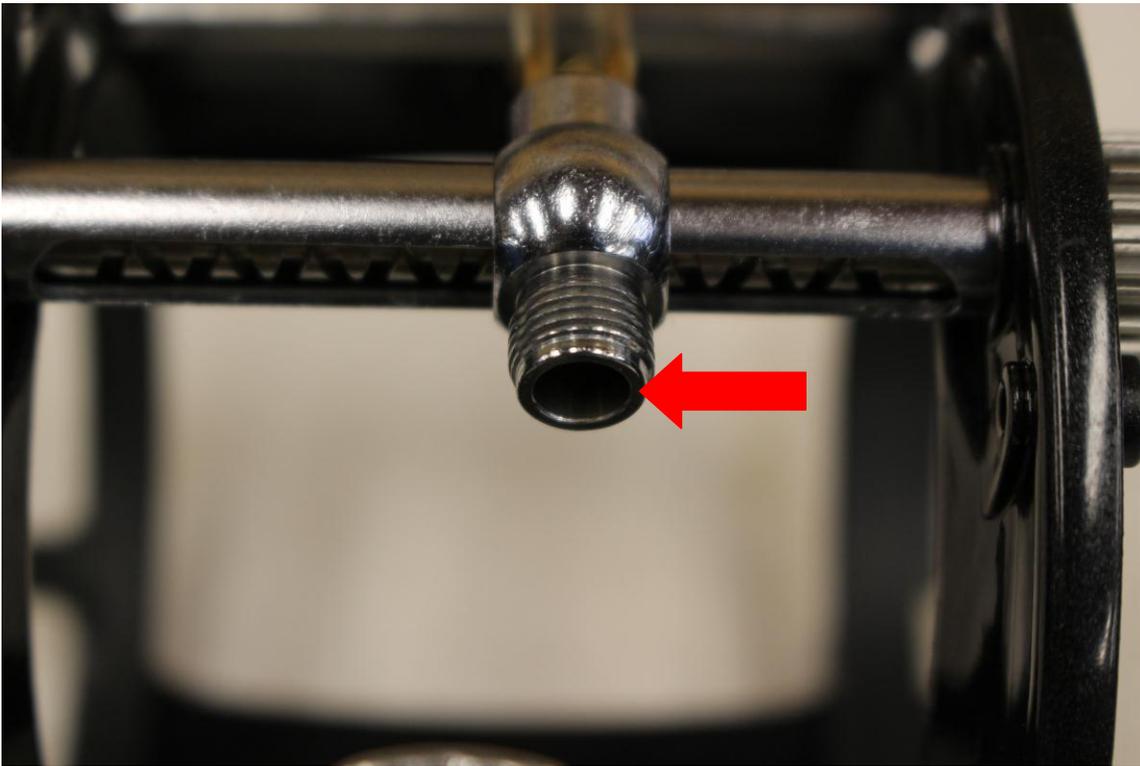


The DM30/DM45 reels do not have a washer inside the Pawl Cap. Apply one drop of oil to the Pawl.

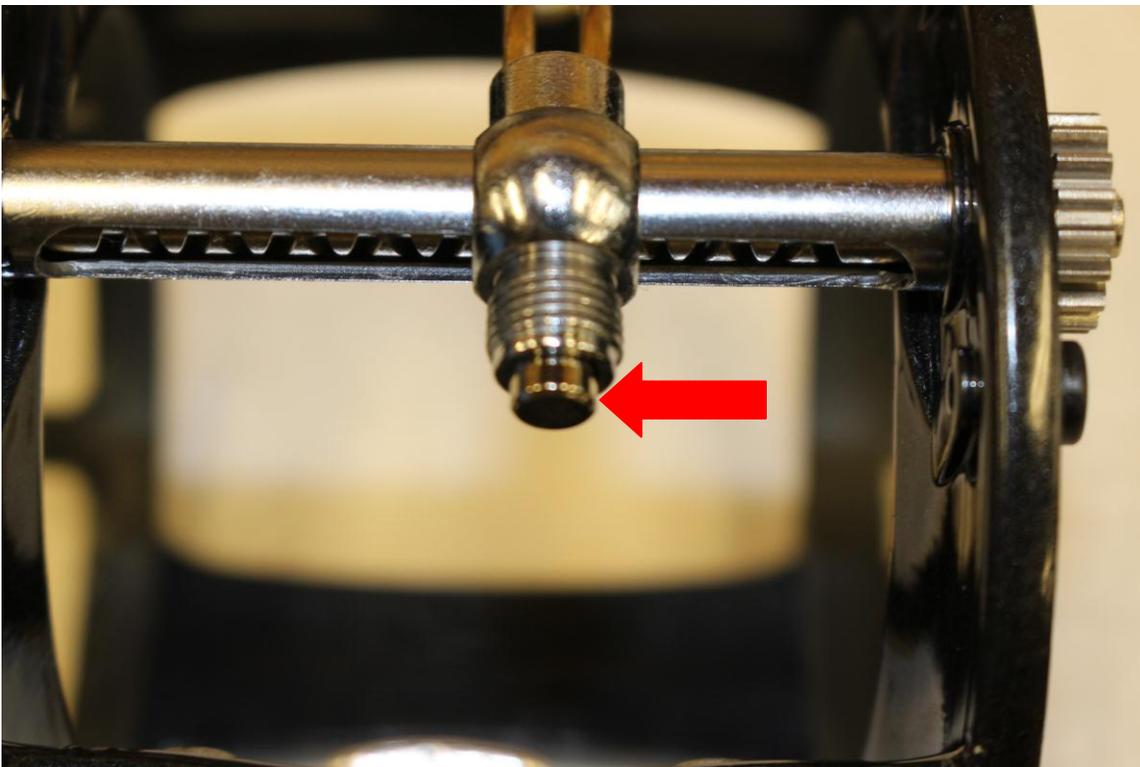


The DM30a/DM45a reels have a small washer inside the Pawl Cap. Do not place it in the Pawl Cap; it will be installed on the bottom of the Pawl before the Pawl Cap is screwed on.

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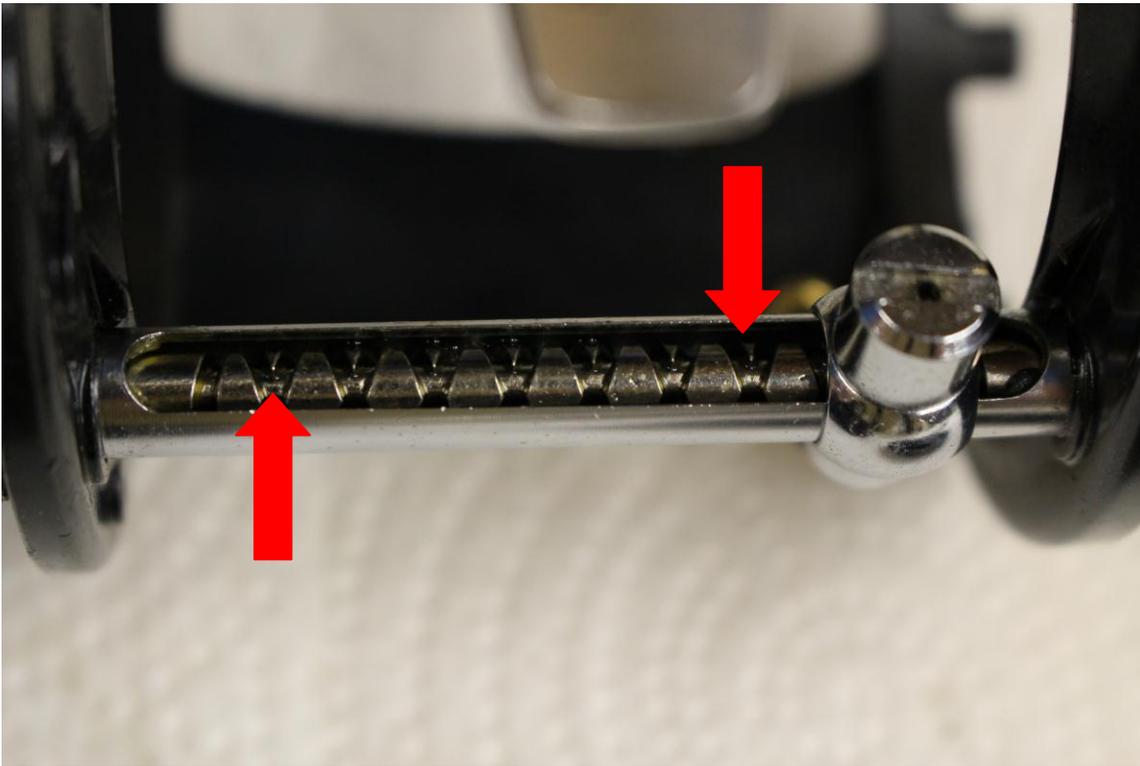


The Pawl is installed by sliding it into the bottom of the Line Guide Assembly (after applying 1 drop of oil to the Pawl).

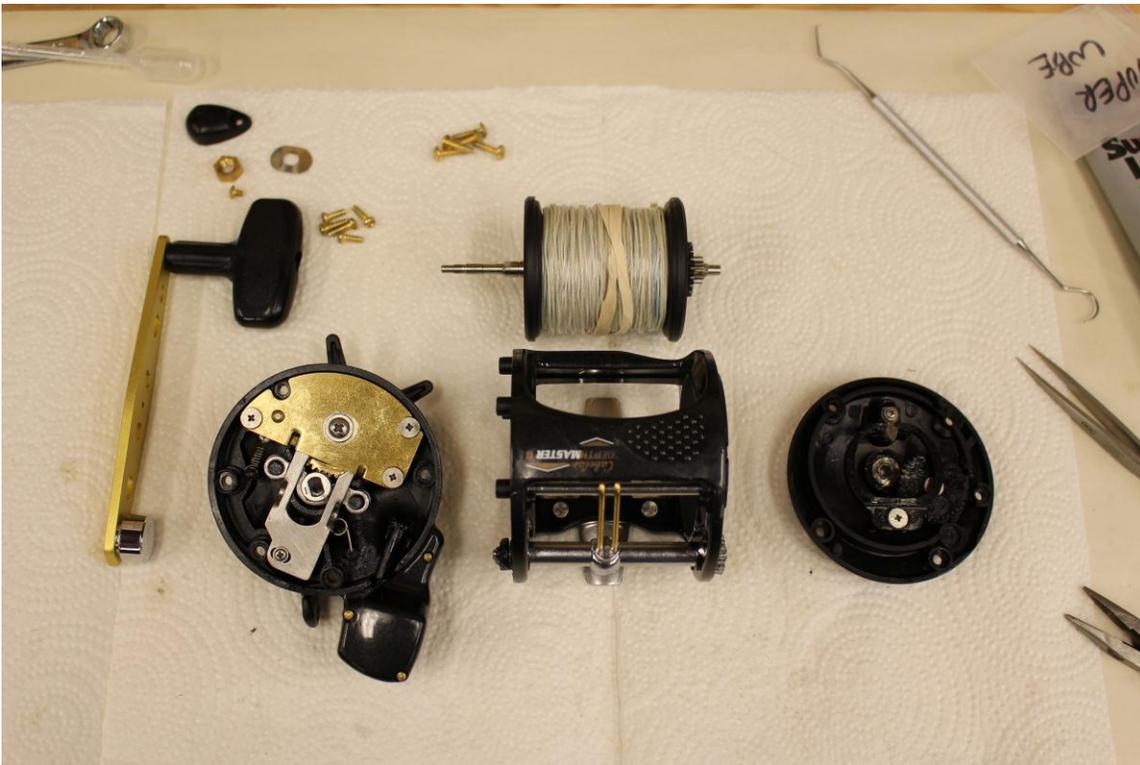


The Pawl partially installed into the Line Guide Assembly. Gently push it in, allowing the end of the Pawl to seat in the Worm Shaft groove. If your reel has a Pawl Washer, place it on the bottom of the Pawl.

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Put 1 drop of oil inside the Pawl Cap. Then screw the Pawl Cap onto the Line Guide Assembly. Apply 2 drops of oil to the Worm Shaft grooves, then rotate the metal gear on the Worm Shaft to test the Levelwind mechanism. The Levelwind should operate smoothly and reverse direction at each end without binding.



At this point your reel will look something like this. The Left Side Plate will be installed next. I like to put a small amount of grease on the surface of each side plate where it touches the reel frame to seal the joint and keep fine sand and dirt from entering the crack.

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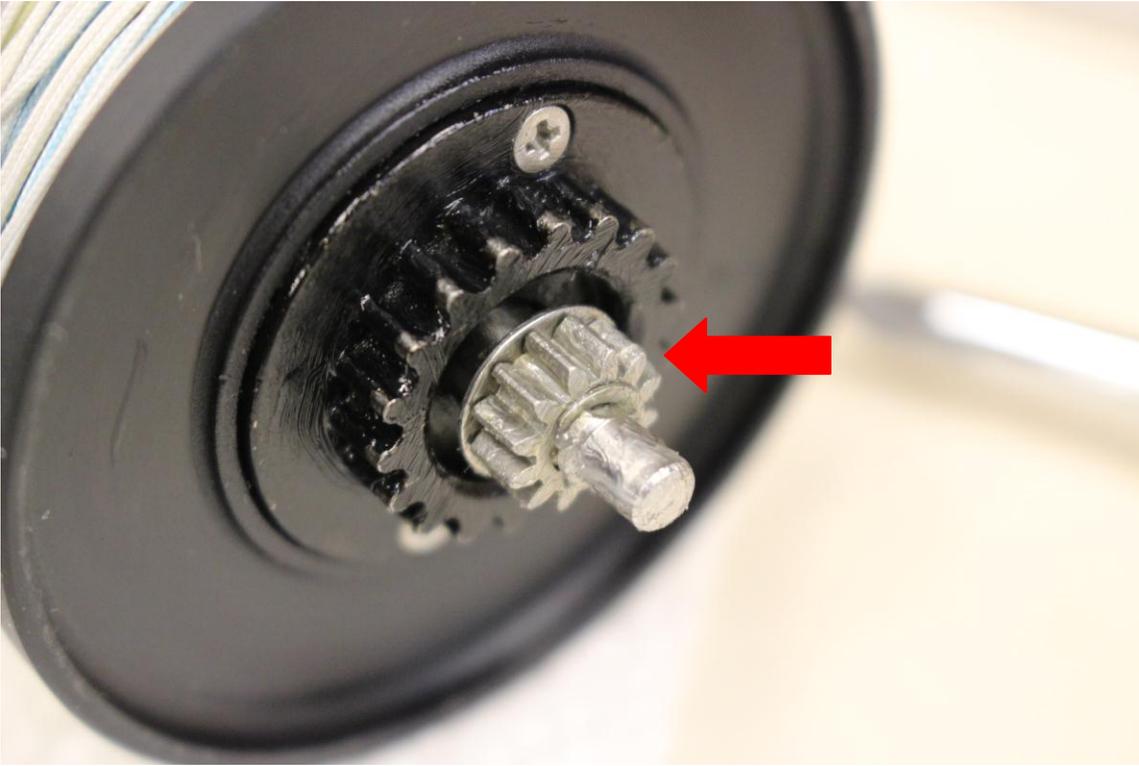


Place the Left Side Plate on the reel frame and wiggle it to allow the metal gear on the Worm Shaft to align to the plastic Transmission Gear in the side plate. Insert the screws into the side plate; the 2 short screws go in the holes closest to the Levelwind mechanism. The DM30 has 5 screws; the DM45 has 6 screws.

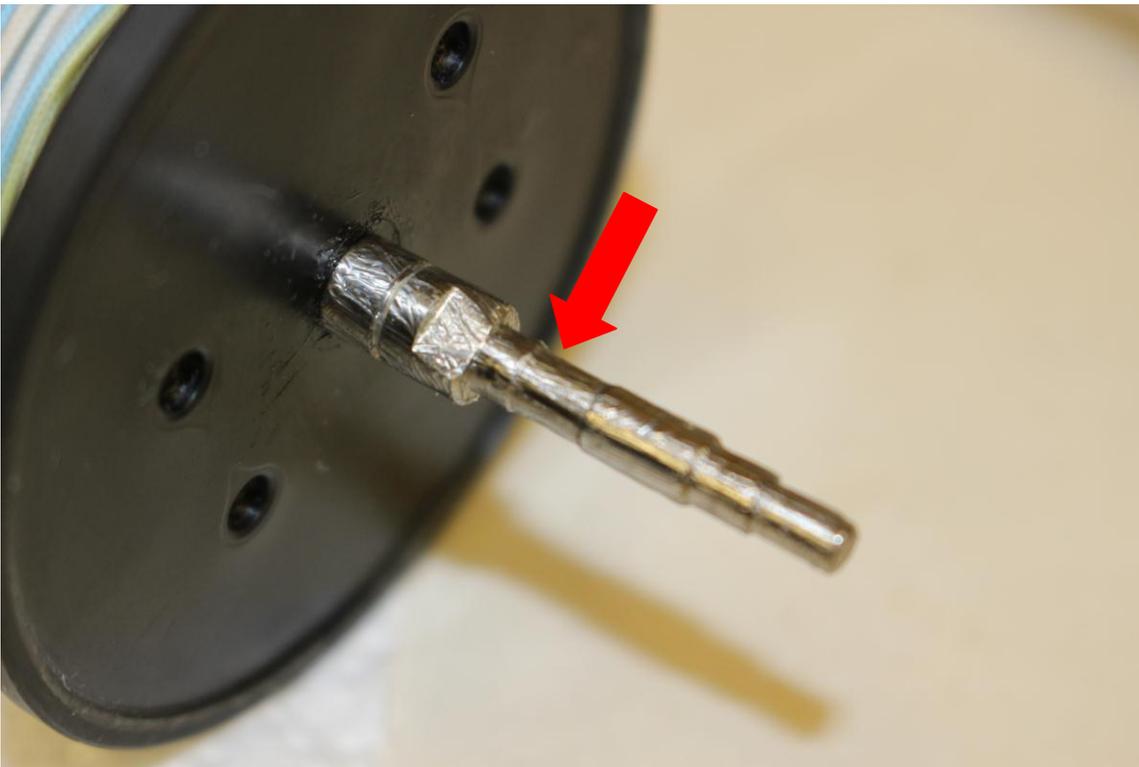


At this point your reel will look similar to this. The side plate screws should be snug, not excessively tight.

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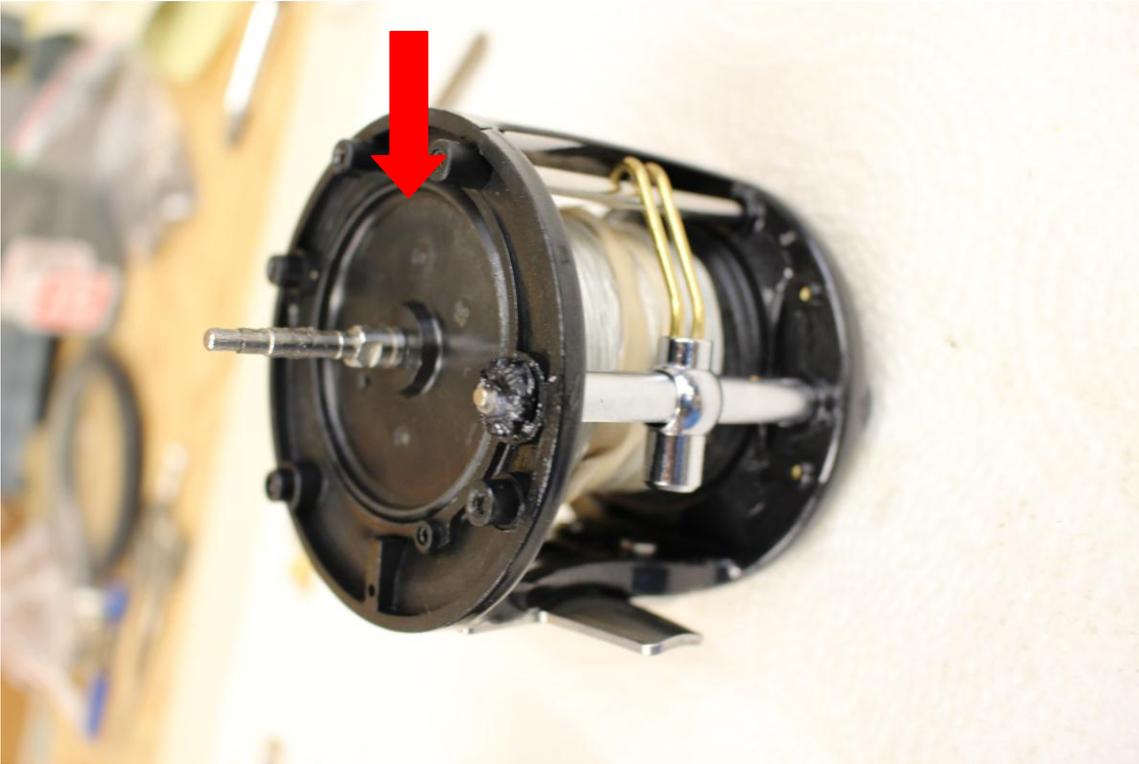


Grease the Spool gears and shaft.

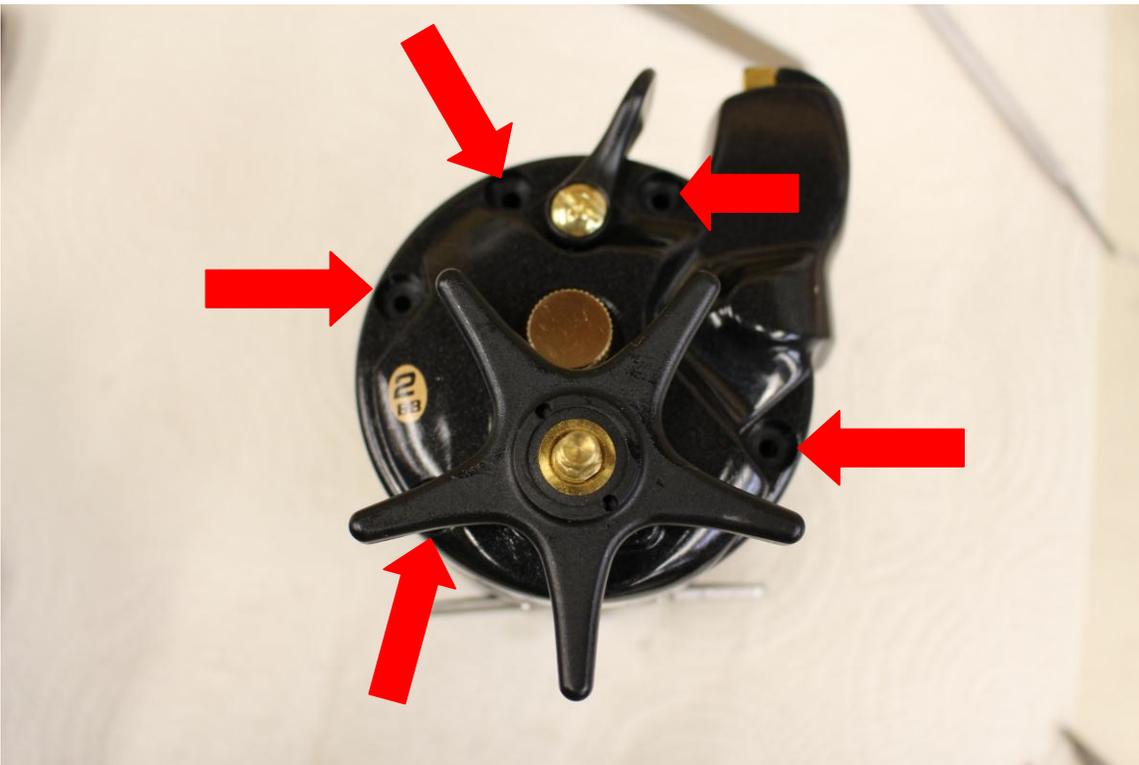


Grease the Spool shaft.

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Insert the spool into the Reel frame and wiggle it so the Spool gears align with the Left Side Plate.

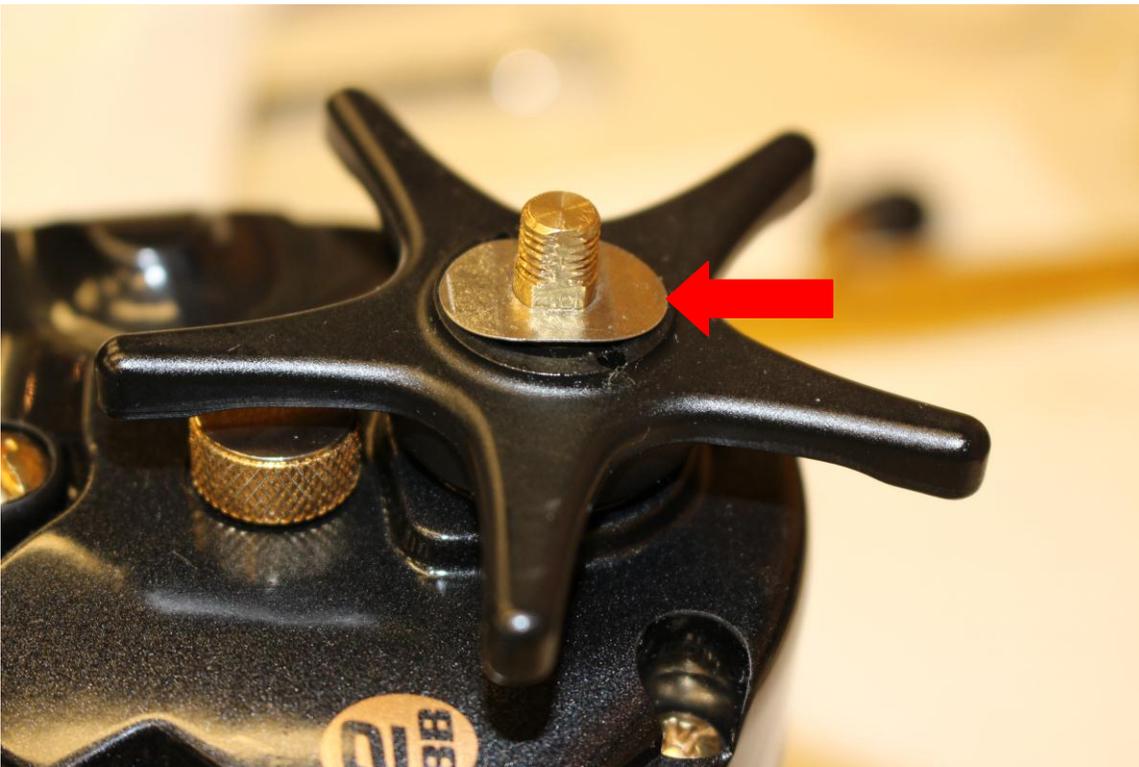


Place the Left Side Plate on the reel frame; rotate the spool if necessary to align the Pinion Gear with the flats on the Spool shaft. Insert the 5 side plate screws. All of the screws are the same length. Make sure that the Cast Control Cap is not screwed down tight before you tighten the side plate screws.

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At this point your reel will look similar to this. The side plate screws should be snug, not excessively tight.

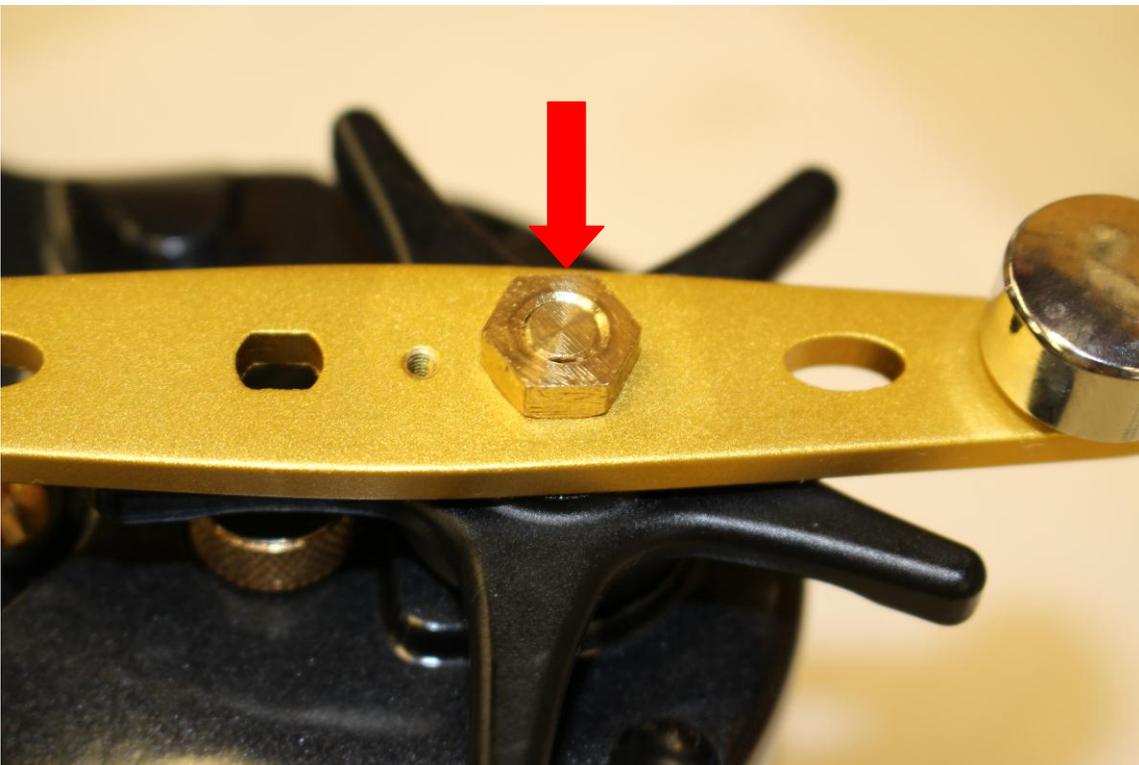


Lightly grease and install the Tension Washer with the concave side down.

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Lightly grease the area of the handle which will contact the Tension Washer on the bottom, and the Handle Nut on top.



Install the Handle Nut and tighten with a 10 mm wrench. When the nut is comfortably tight align a point on the Handle Nut with the small hole in the handle. Lightly grease the Handle Nut.

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Install the Handle Nut Cover. It may be necessary to adjust the Handle Nut position to align the cover hole with the small hole in the handle.



Install the Handle Nut Cover screw.

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Assembly of the reel is complete. Photo of the Right Side showing the aftermarket Power Handle which was purchased from www.tunasreeltroubles.com.



Photo of the fully assembled reel from the Top.

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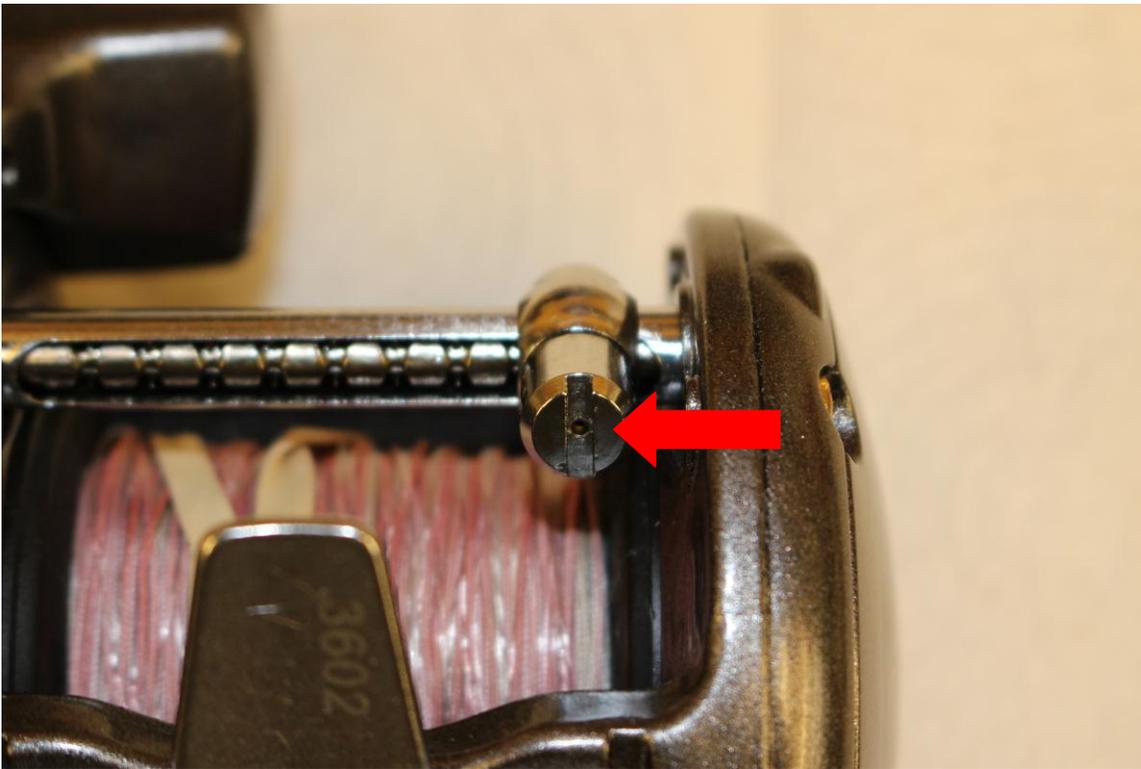


Photo of the fully assembled reel from the front. Rotate the Handle and verify that the Levelwind Mechanism is operating smoothly.

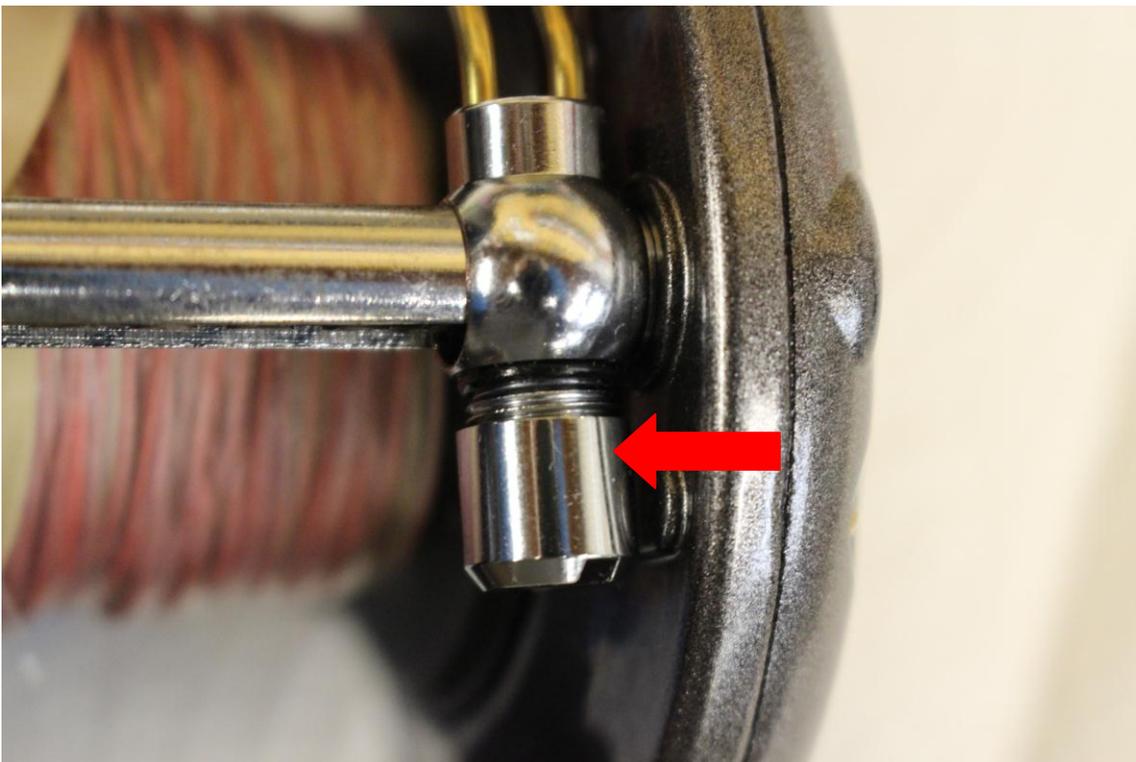
Wipe the outside surfaces of the reel to remove excess oil and grease from the side plates and other exposed parts. If you accidentally applied too much oil to the Worm Gear you can wick the excess oil away with a paper towel or clean rag.

If you have line on the spool already, then you should synchronize the Levelwind Mechanism with the spool before you use the reel. If you don't synchronize the Levelwind, then excessive side pressure may damage the Pawl and Worm Shaft.

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Procedure for synchronizing the Levelwind Mechanism with the spool.



Loosen the Pawl Cap to back the Pawl out of the Worm Shaft grooves. This will allow the Line Guide Assembly to slide freely on the Level Wind Guard.



Front view showing the Pawl Cap partially removed.

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Cut the rubber band holding the fishing line to the spool and find the end of the fishing line.



Thread the end of the fishing line thru the Line Guide. Pull enough line off of the reel to get to where the line was obviously laid on the spool by the Levelwind Mechanism, then align the Line Guide with the line on the spool and tighten the Pawl Cap.

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Levelwind synchronization is complete. Tie something to the end of the fishing line (I used the rubber band that was on the spool) and then wind up the line you pulled off the spool during the synchronization procedure.



Top view of the reel after disassembly, cleaning, assembly, and Levelwind synchronization.

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End of Part 6: Assembly of the Reel frame.

This is a 6 part Tutorial:

Part 1: Disassembly to the Reel frame.

Part 2: Disassembly of the Right Side.

Part 3: Disassembly of the Left Side, and cleaning tips.

Part 4: Assembly of the Left Side.

Part 5: Assembly of the Right Side.

Part 6: Assembly of the Reel frame.

I hope you enjoyed this tutorial. Please address any comments to user: WeyeFisherCO on the Reel Repair forums at alantani.com.

It seems a little silly to put a disclaimer on a reel tutorial, but better safe than sorry, so here it is:

DISCLAIMER: The information in this document is presented without any kind of warranty. The procedures and methods described worked for the author and his circumstances, but there is no guarantee they will work for you, or are the best methods available. Sometimes manufacturers change components or designs without changing the model numbers; two reels with the same model number may not contain exactly the same components or be assembled the same way. Be aware of the hazards associated with chemicals; use extreme care when handling/using hazardous chemicals. Wear safety glasses. USE AT YOUR OWN RISK!

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