

# Shimano Baitrunner 6500B from BigT

« on: June 07, 2010, 09:14:28 PM »

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guys, go pour yourselves a drink, first..... 🍷

Quote from: BigT on June 07, 2010, 05:19:49 PM

So I've had a few people ask me whether I could do a Baitrunner rebuild tutorial. Hope you've got some stamina, coz this is a biggie. Settle in a comfy spot and here goes...

First, the schematics can be found here:

<http://www.mikesreelrepair.com/schematics/displayimage.php?album=8&pos=38>

Here's our patient... a Shimano Baitrunner 6500B, belonging to a fishing buddy.

Shimano's Baitrunner series are great reels and deservedly popular but they've caused a lot of fishos sleepless nights and high blood pressure when they opened up their favourite reel. The next one I see in a pieces in a plastic zip-lock bag won't be the last



This reel's only relatively new. Lucky these are tough reels because even with relatively little use,

this one's already showing the effects of less than meticulous maintenance. Salt is visible in a lot of places, even some sand, and several of the visible screws are corroding. We can fix all that.

Let's start by removing the drag knob (ref #3296) and spool.





The only way I could free up the drag seal plate screws (ref #3293) was to give them a little spray with Innox, then use the tradies trick of first tightening each a nudge before unscrewing them. Then the drag seal plate (ref #2165) can be lifted off.



Remove the drag washers and give the metal washers and the spool a thorough clean.





The fibre drag washers (ref #3178) in this particular reel were badly compressed and full of crud. They went into the bin.



**I didn't have any Carbontex washers on-hand to suit so I replaced them with a spare set of fibre washers from a previous upgrade. These were greased with Shimano drag grease, which can be worked in thoroughly with your fingers.**



**Before reinstalling the drag, the drag recess in the spool can be given a coat of drag grease with a paintbrush.**



With the drag reassembled, let's give the clicker under the spool a smear of grease while we're at it.



Now we can move on to the main body of the reel. Begin by removing the handle (ref #7374) and the handle screw cap (ref #7436) (from the opposite side)



Next, the baitrunner lever can be disassembled by removing the lever screw (ref #2615) and washer (ref #2616). The left-side baitrunner lever arm (ref #3036) slips off and the baitrunner lever bridge (ref #3044) comes off the right hand lever arm (ref #3045).



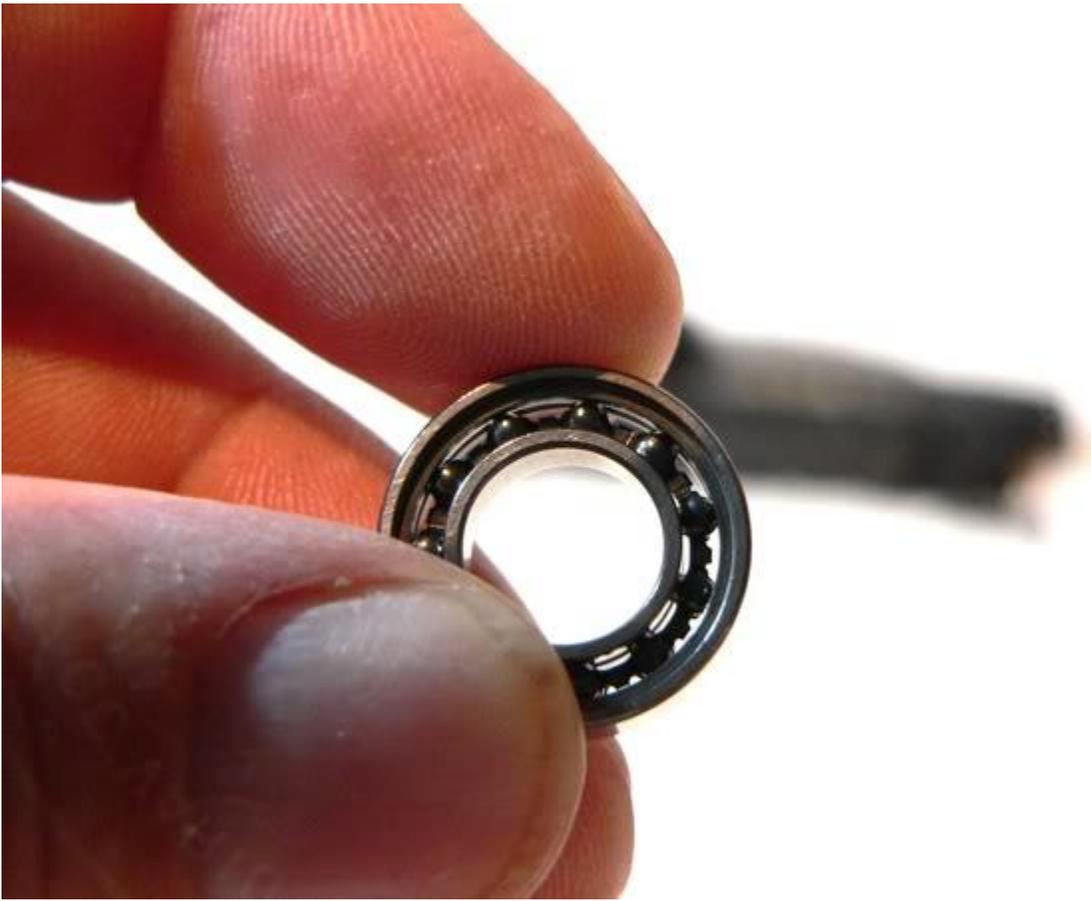


**Undo the left side plate screws and lift of the left side plate (ref #7435). Note that the 4 side plate screws are not all identical... the upper rear screw (ref #543) is smaller**



With the side plate out of the way, remove and clean the left side plate bearing (I neglected to get measurements... oops)





**Remove and put aside the drive gear spacer (ref #3032) and thrust washers (ref #743 x2)**



**Time to start on that baitcaster mechanism... this is where it can go horribly wrong if you don't keep your wits about you (and a copy of the schematics close by!!)**



**Start by detaching the baitrunner clicker spring (ref #2963). Remove the 2 screws (ref #642) securing the baitrunner clutch assembly (ref #3037) which will then just lift out as a unit.**

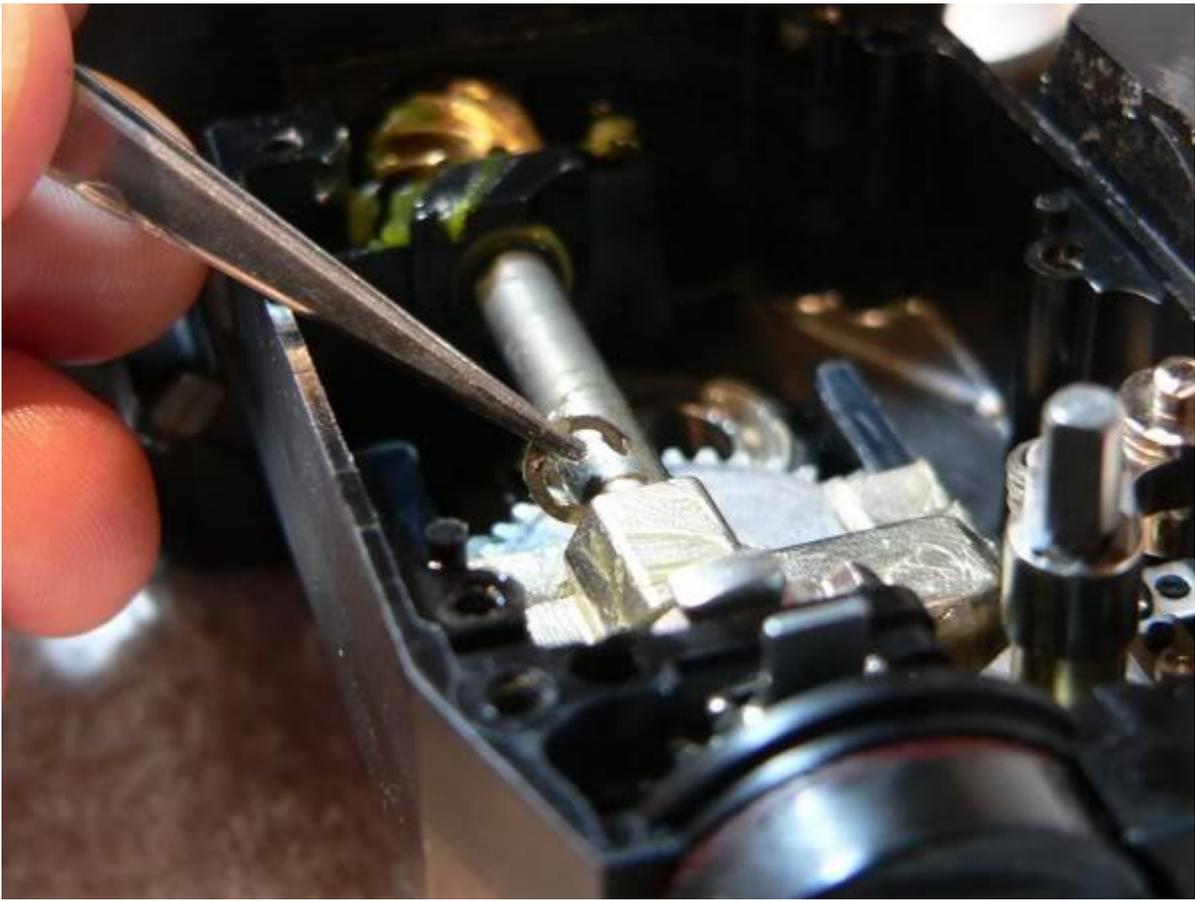




**Put the clutch assembly aside carefully (watch all those springs!!) and lift out the main drive gear (ref #3031)**

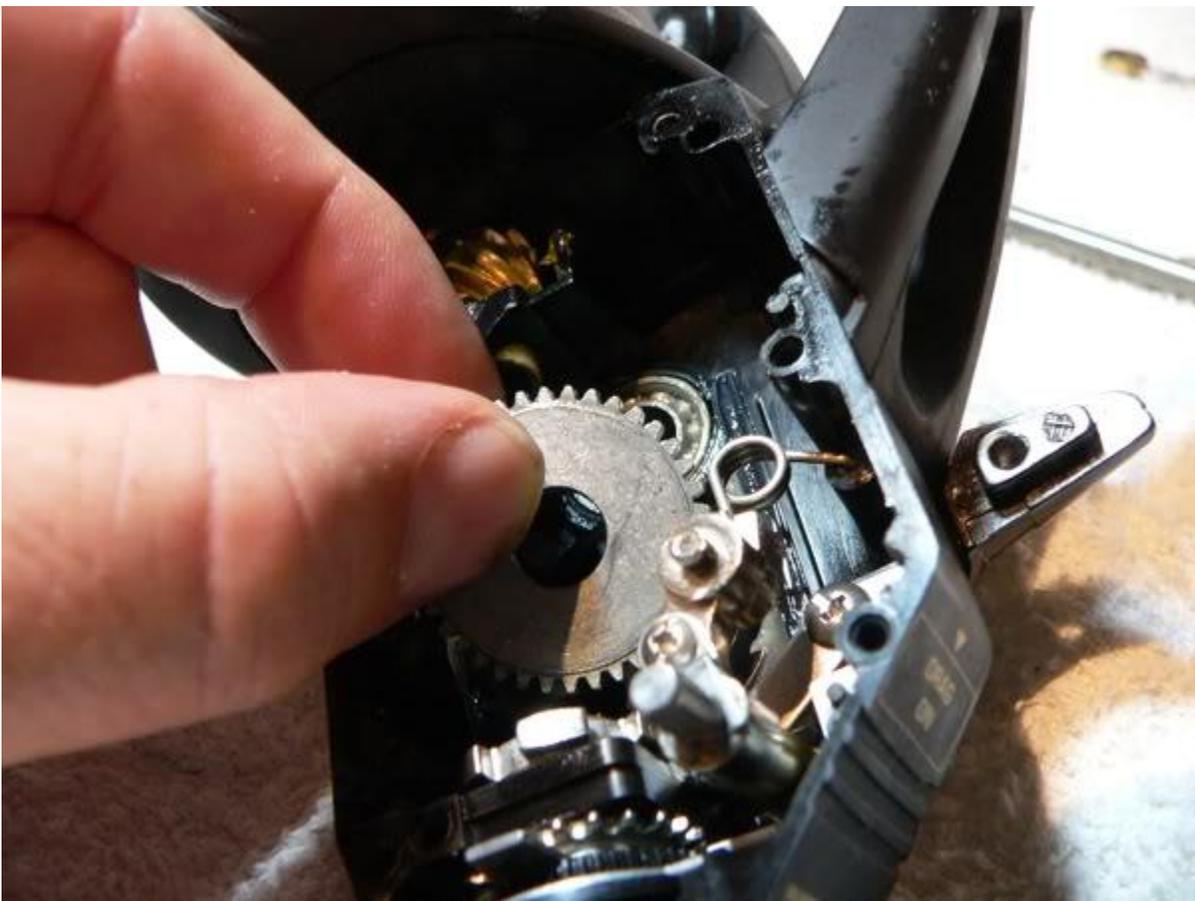


To remove the main shaft (ref #7421), you'll need to remove 2 c-clips (ref #262) that secure it on either side of the oscillating slider (ref #261). The main shaft will then slip right out.



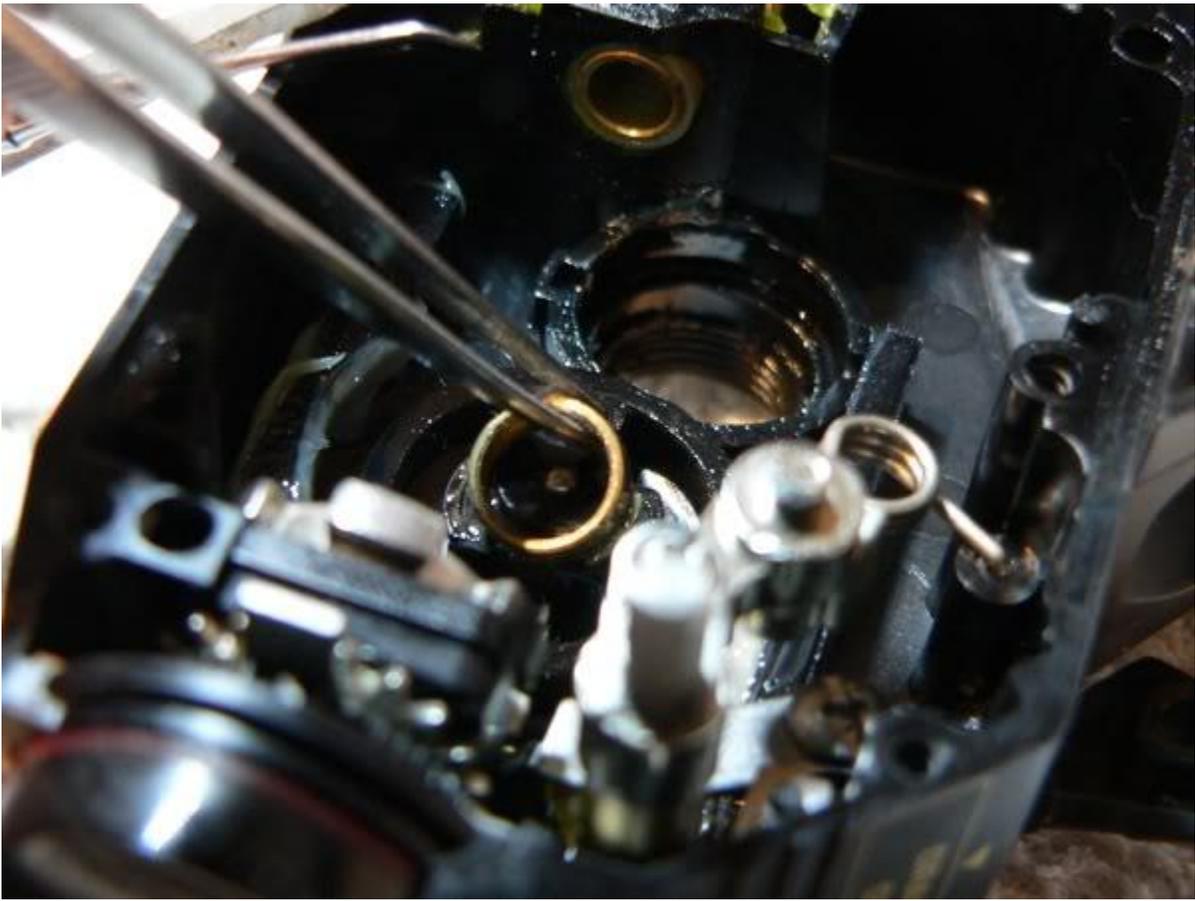


Remove the oscillating slider (ref #261), then the oscillating gear (ref #741)



And then you can get at the right side plate bearing (this one has lovely emulsified grease inside it) and the oscillating gear bushing (ref #740). Remove the oscillating gear bushing (ref #740) while you're in there.





Now, it's back to the baitrunner mechanisms.



The clutch spring (ref #3002) can be detached from the mounting hole in the side plate with a pair of long nose pliers (it's easier with the baitrunner lever in the rear position which takes some pressure off the spring).

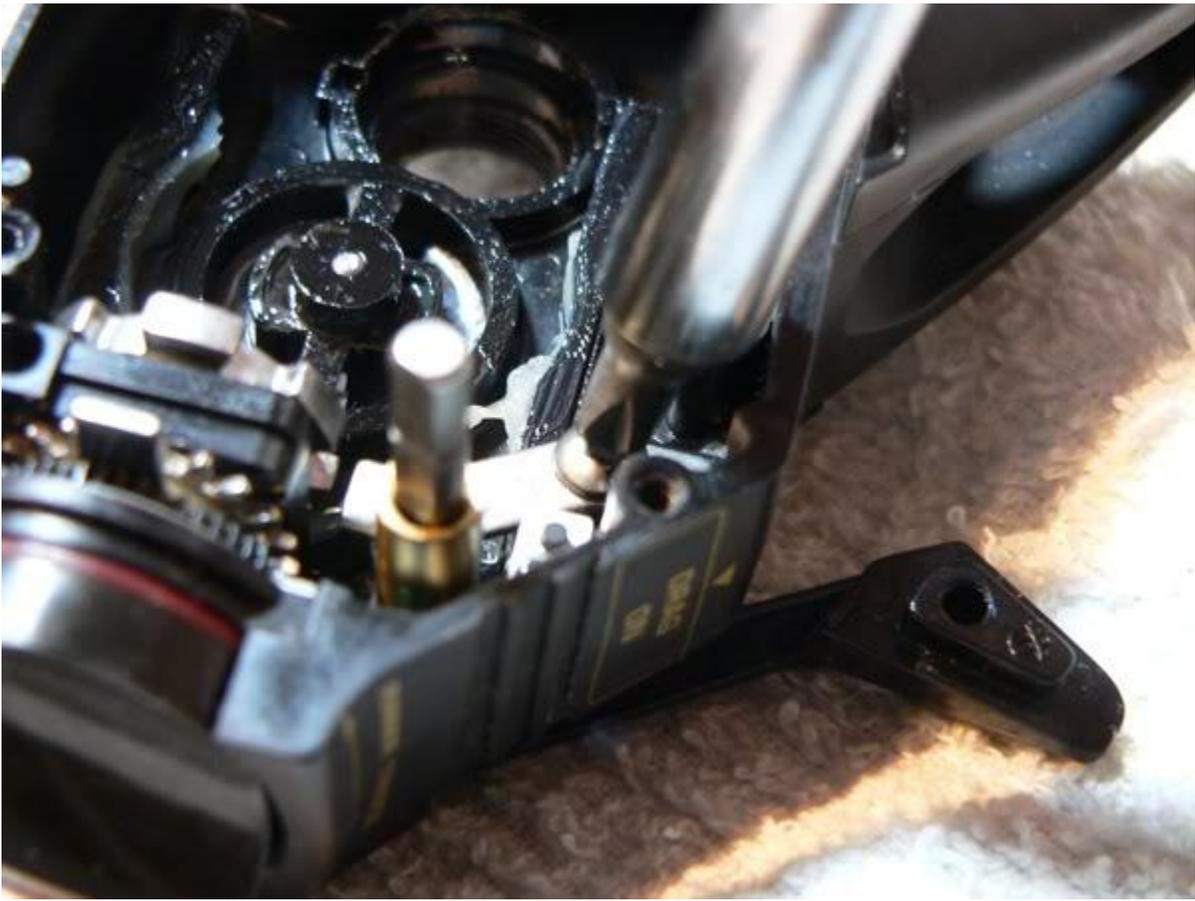


**Back out the screw securing the lever shaft retainer (ref #2959 and remove it, then lift off the clutch arm (ref #3007)**





**Back out the screw holding the baitrunner pawl guide (ref #3013) and remove the guide**



Move onto the baitrunner dial retainer (ref #3010)... you might need a small precision screwdriver... I used one of my trusty dental probes). If you look closely at the photo you can see that salt has intruded here in even this quite new reel.



Then the baitrunner dial assmebly (made up of ref #'s 3019, 3020, 3021, washer 113 x2, & freespool tension spring 2971) will just lift out.



**Remove the baitrunner ratchet retaining c-clip (ref #266), the ratchet (ref #3033) and spacer (ref #3034)**





**Next, slip out the freespool eared washer (ref #3018), the single eared washer (ref #6780) and finally the click gear (ref #3016) between the 2 tension washers (ref #'s 3017 & 693)**





The freespool tension shaft (ref #3043) just slips out.



The last few bits for the baitrunner assembly start with slipping the clutch cam spacer (ref #3038) off the shaft of the baitrunner lever arm (ref #3045)



**Then detaching the pawl spring (ref #3012) from the mounting point on the right side plate and lifting out the baitrunner pawl (ref #3041)**



And finally, slip out the right side baitrunner lever arm (ref #3045) and put aside the clutch cam (ref #3009) and clutch cam spacer (ref #2966)



So now let's move to the rotor. Look at that salt 😞

Back out the nut-lock screws (ref #3600), remove the rotor nut retainer (ref #5799), undo the rotor nut (ref #714) and remove the rotor. Clean everything up and put it aside.





There are 3 roller clutch screws (ref #5040) that mount the roller clutch (ref #4763) to the reel body. DON'T remove the 2 roller clutch cover screws (thoughtfully a different colour on this reel). Unless you're way more curious or risk loving than me... or just plain nuts... leave the clutch bearing assembly (ref #4763) in one piece.

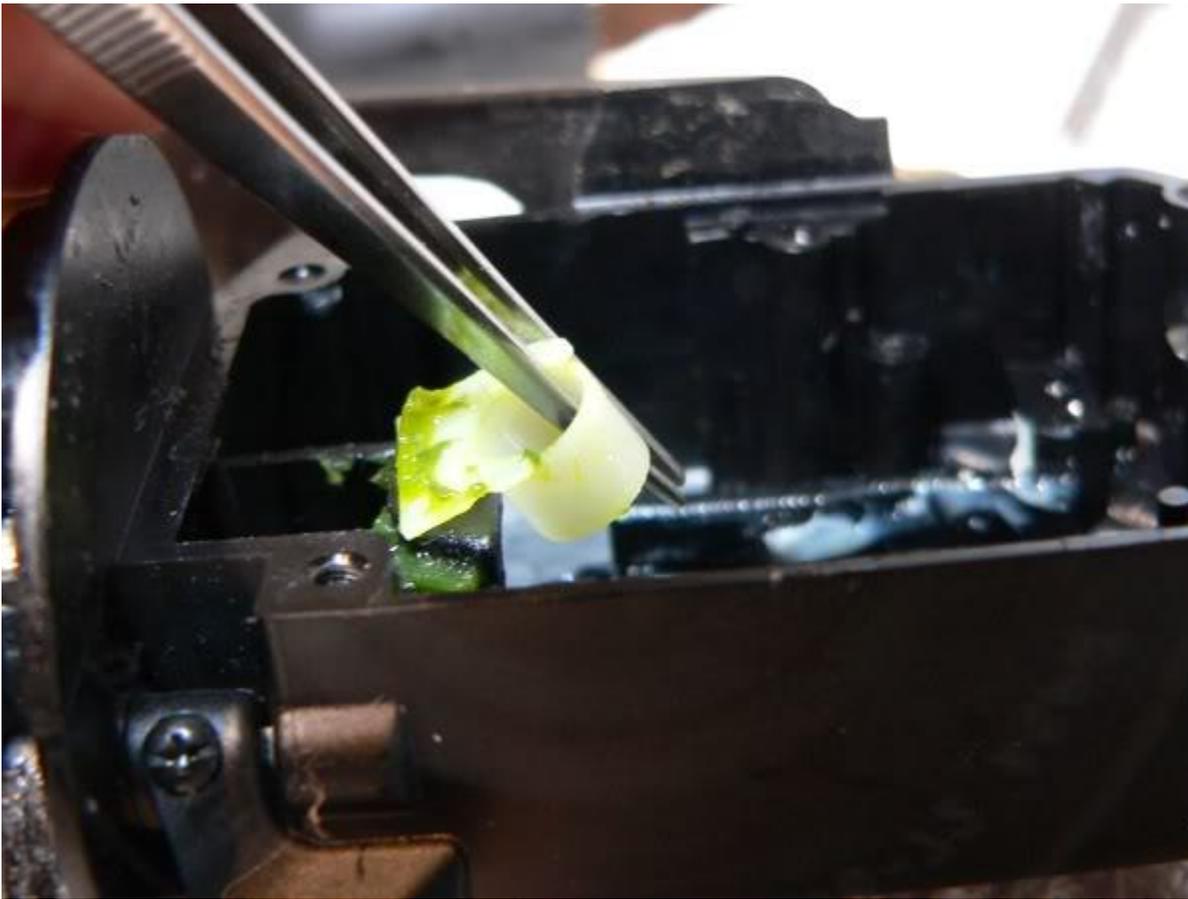
The alternative involves a lot of crawling around on the floor looking for bearing pins and then hair pulling as you try to reassemble all those pins and springs. Just lift off the clutch bearing, thank the kind people at Shimano, and put it carefully aside (with the collar still in place)



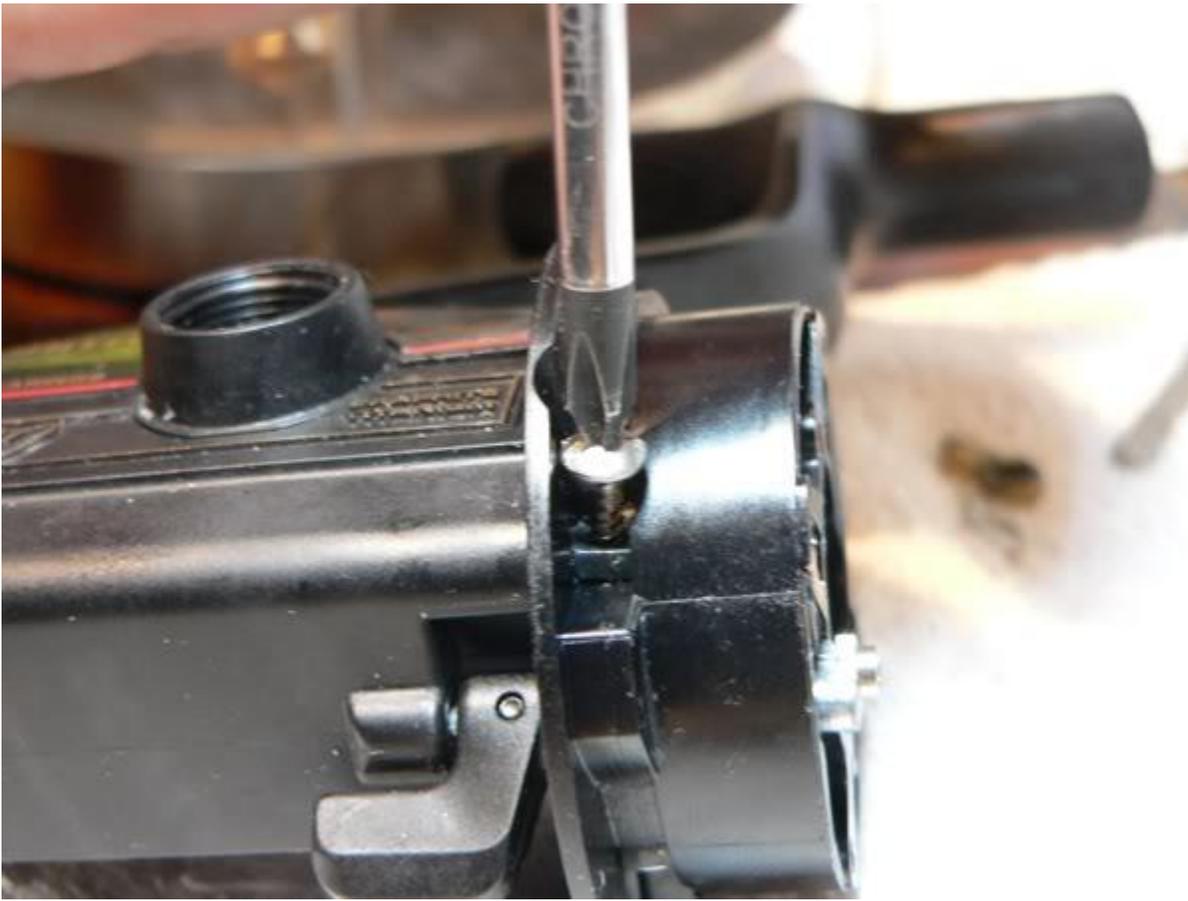


**The pinion gear (ref #7429) and main bearing (ref #244) will then be accessible... slip them out and remove the pinion gear bushing as well (ref #733)**





**2 screws (ref #4416), secure the friction ring (ref #7430), which can be removed, cleaned and replaced. Interestingly, the friction ring on this reel seems to have stretched so that it's no longer a snug fit to the reel. I can't remember whether this was the case on previous baitrunners I've serviced and can't imagine it's role if it's deliberate... anyone know?**



**HOORAY... we're well on the way and can start rebuilding again. 😊**

**Because of my buddy's maintenance regime, I decided to pack the reel's bearings with grease for increased protection. So that the grease doesn't slow the reel down too much I used 'Lighting Lube' reel grease... a lighter grease than the Evinrude marine grease you've seen me use before.**



**A touch of grease on the pinion gear (ref #7429), then the cleaned-up and lightly greased pinion bushing (ref #733) can be replaced followed by the pinion gear and bearing (ref #244).**

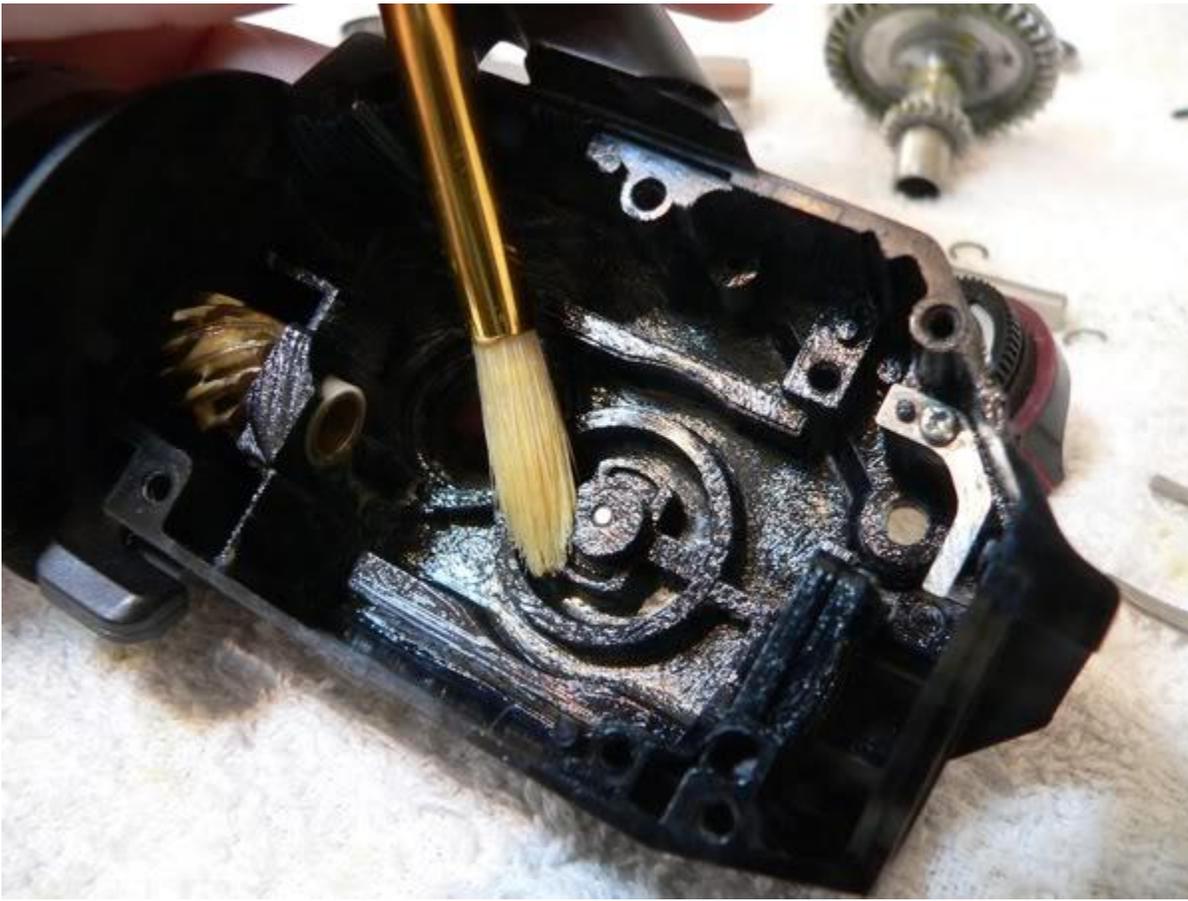




Reattach the clutch bearing



**And give the inside surface of the reel body/right side plate a thin smear of grease with the paintbrush... it's not a metal surface but there are so many mixed metal moving parts in this reel that it's a good idea just to help keep things both lubed and protected from corrosion.**



Replace the right side baitrunner lever arm (ref #3045) and the baitrunner pawl (ref #3041).



Let's clean up the clutch cam (ref #3009) and cam spacer (ref #2966). You can clearly see corrosion on these parts so all the metal moving parts also get a film coat of grease.





Replace them along with the longer clutch cam spacer (ref #3038)



**When reassembling the freespool tensioning parts, I switched to drag grease, making sure to thoroughly work it into the fibre tension washer (ref #693). Just make sure they all go back in the reverse order you removed them and you'll be fine.**





**The baitrunner tension dial assembly got a quick pull-apart, clean, regrease and rebuild. Be really careful with the clear plastic tension spring washers... if you drop them, you'll be lucky to find them again!!**



Replace the tension dial assembly and slip the retaining clip (ref #3010) back into place.





**Replace the baitrunner ratchet (ref #3033) and spacer (ref #3034), locking them back in place with the c-clip (ref #266)**



Ok, so we should move onto the bail arm assembly. Remove the screws (ref #5819 & #5811) from each end of the bail assembly and detach the bail, putting aside the various spacers, washers and collars in order.





To service the bail trip mechanism, back out the 2 screws (ref #5813 & #5814) securing the bail spring cover (ref #7427), which will lift off.





**Lift out and inspect the bail spring assembly (ref #'s 5803, 5804, 5806 and 6223). Give the stainless steel parts a film of grease, which is most easily done by just rubbing them between grease smeared fingers.**



**Before replacing the bail trip mechanism, a thin smear of grease for protection on the metal surface inside the bail recess...**



**Then reassemble the bail trip mechanism...**



**A little note... one of the most useful tools I have when servicing a reel is a box of cotton buds. They can get into all the small nooks and crannies for cleaning and lubing. It goes without saying that all the bail arm assembly got the treatment.**



**Taking apart the liner roller requires the removal of the line roller screw cap (ref #7457), followed by the line roller screw (ref #88) underneath.**



The line roller is still held in place by the line roller washer (ref #5801). Getting at the line roller is a bit of a trick. You'll need to push out the roller parts from the other side. Use something wooden like a paintbrush handle and support the bail arm well so that you don't scratch or bend anything... it takes some pressure.

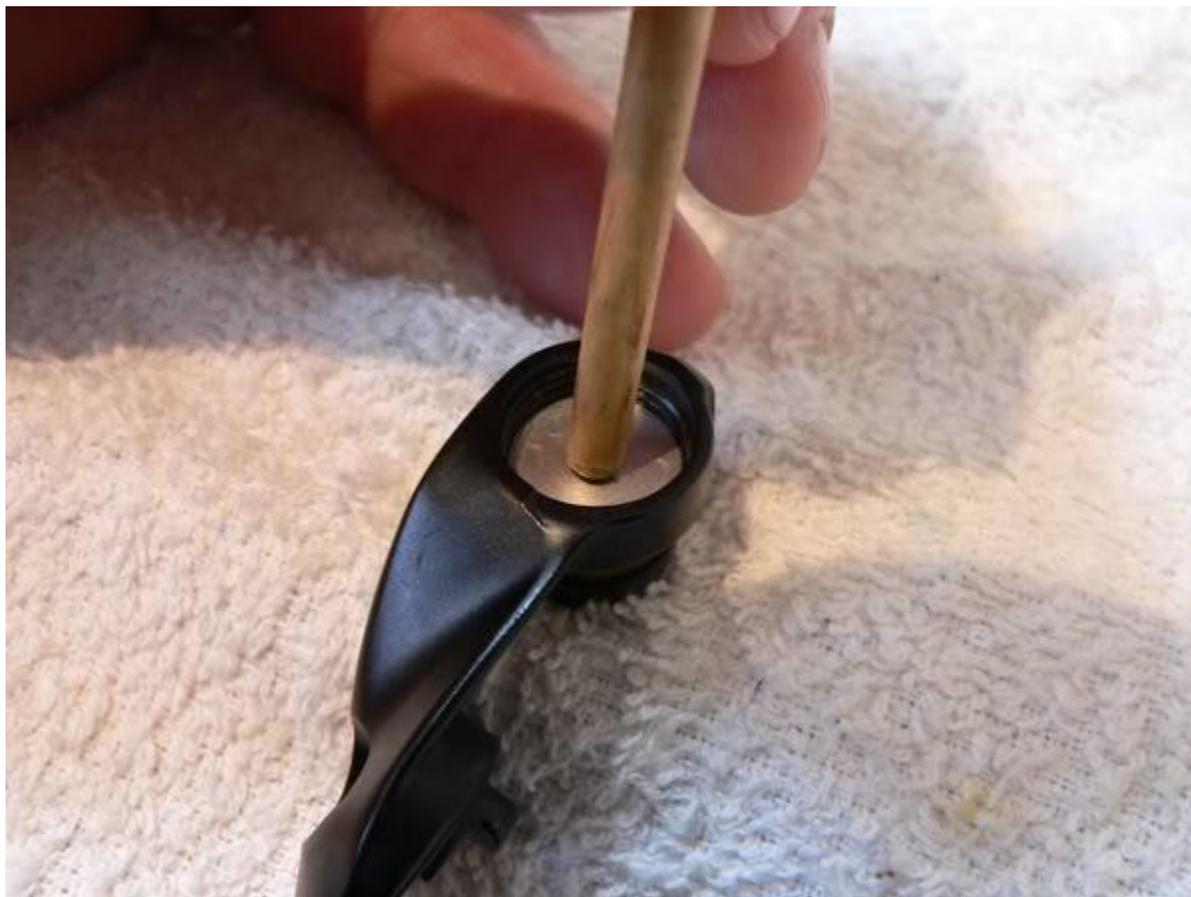




Carefully lay out the line roller assembly that pops out. Line roller washer (ref #5801), roller bearing seal (ref #4744)... particularly interesting part name since there is no bearing in this roller :wacko: ... line roller collar (ref #7426), line roller bushing (ref #4743), line roller (ref #5997) and the line roller support collar (ref #7458). Note that the line roller has a nylon lining which would be very very hard to remove without damage... it doesn't even get its own part number. Just leave it in place.



Again, despite it's 'youth' there was a lot of obvious corrosion in the bail roller parts (check out those pics). In fact, the bail roller wasn't turning at all when I got the reel. I gave them all a good clean and a film coat of grease for protection before reassembling (the wooden end of the paintbrush comes in handy again here). Now the bail roller works again.





**There is a fixed, chromed metal plate on the other end of the bail arm... not the best set up for a low friction surface in a salt water reel. Corrosion and pitting again... a bit of careful work to clean it up as best we could and then a film of grease...**



**Then give each part (including the screw threads) a bit of grease and reassemble everything**





**When you get up to reattaching the bail arm to the bail trip, just carefully align the trip guide (ref #5803) with the corresponding hole under the bail arm mount (ref #7425). The best way to return the bail arm screw collar (ref #5812) is to slip it onto the bail arm screw (ref #5811) and screw it back in.**





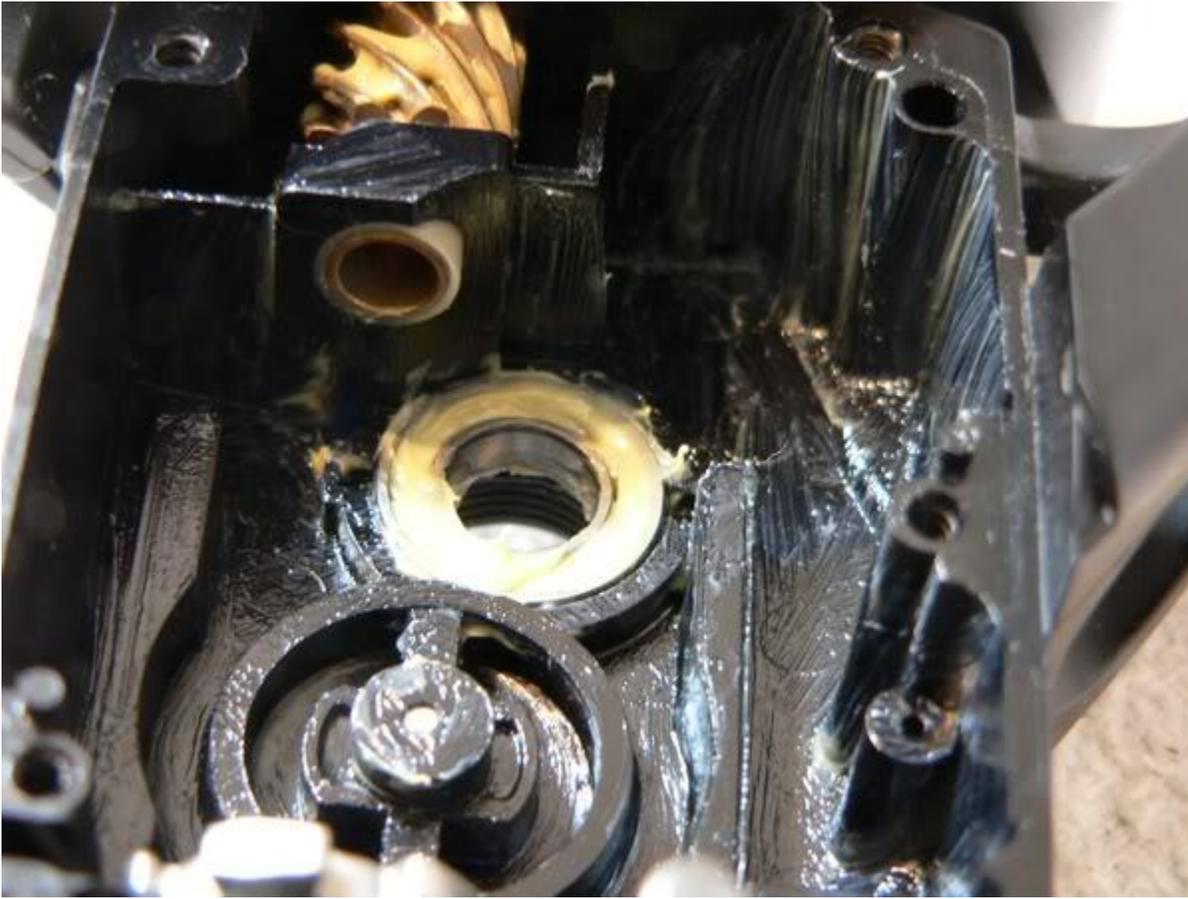
**And the bail arm assembly is done! Time to finish this sucker off...**

**Give the upper surface of the rotor (ref #7422) a coat of grease before replacing it on the reel. The grease will help protect against corrosion once the rotor nut (ref #714) and rotor nut retainer (ref #5799) go back in place. Oh... and give these a smear of grease too.**





**Back inside the reel and I've greased and replaced the right side plate bearing.**



**Grease and replace the oscillating gear bushing (ref #740), the oscillating gear (ref #741) and the oscillating slider (ref #261)**

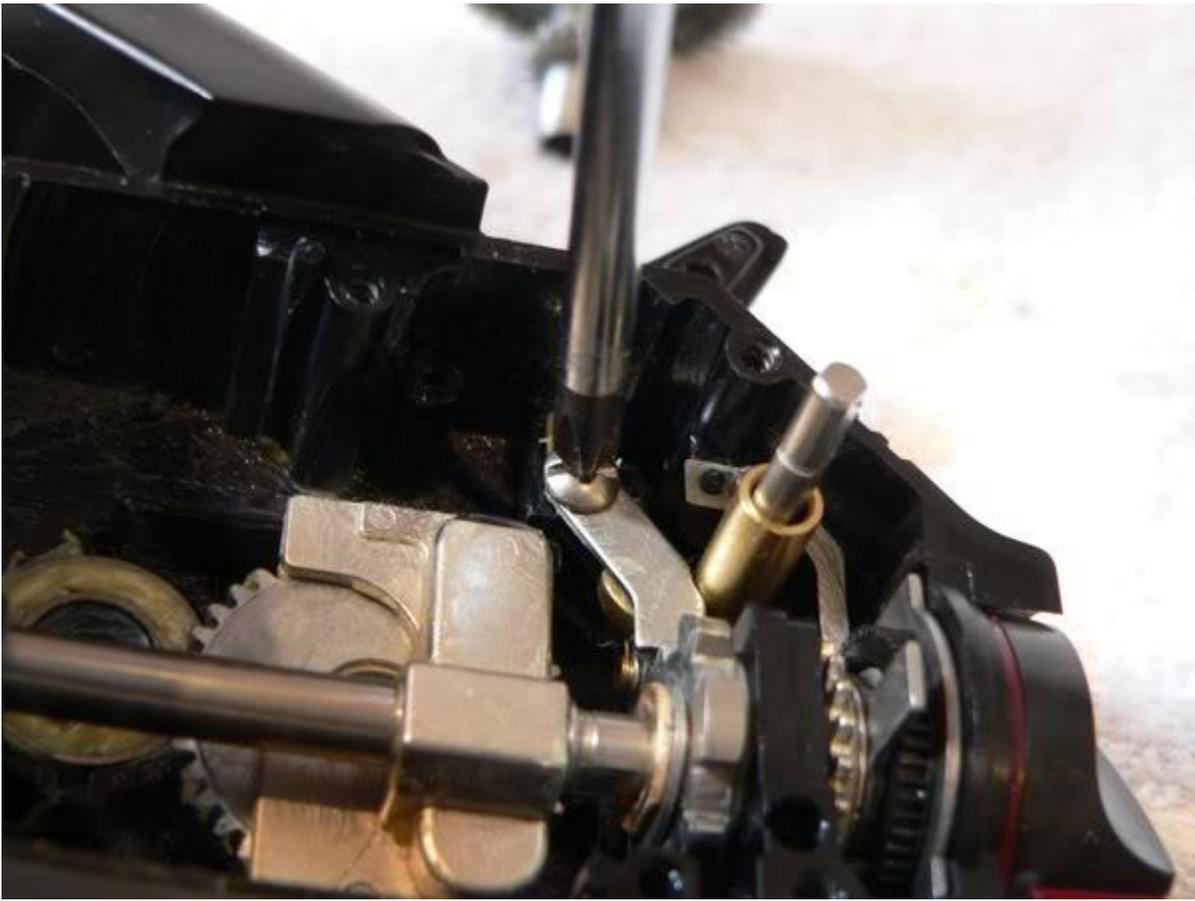


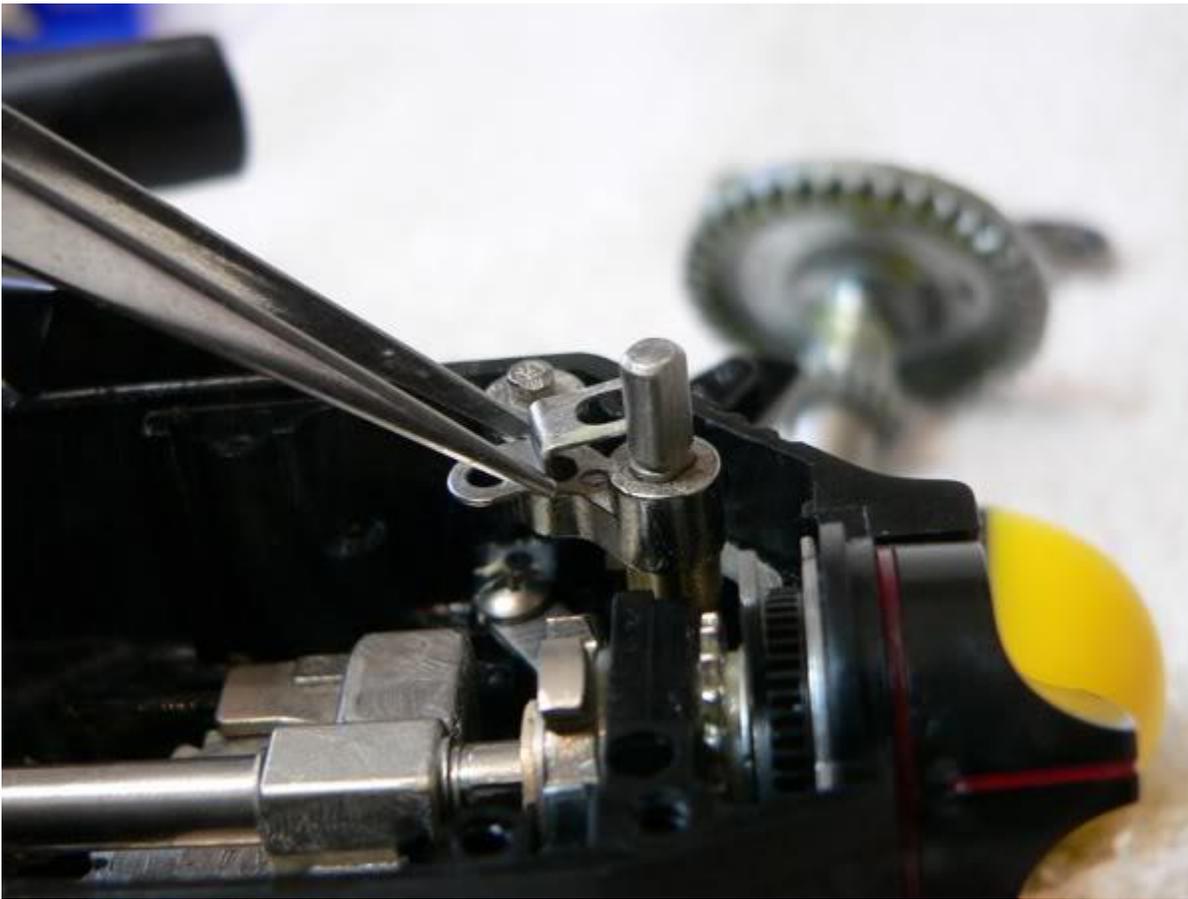


**Slide the main shaft back into the reel, securing it with the c-clips on either side of the oscillating slider**

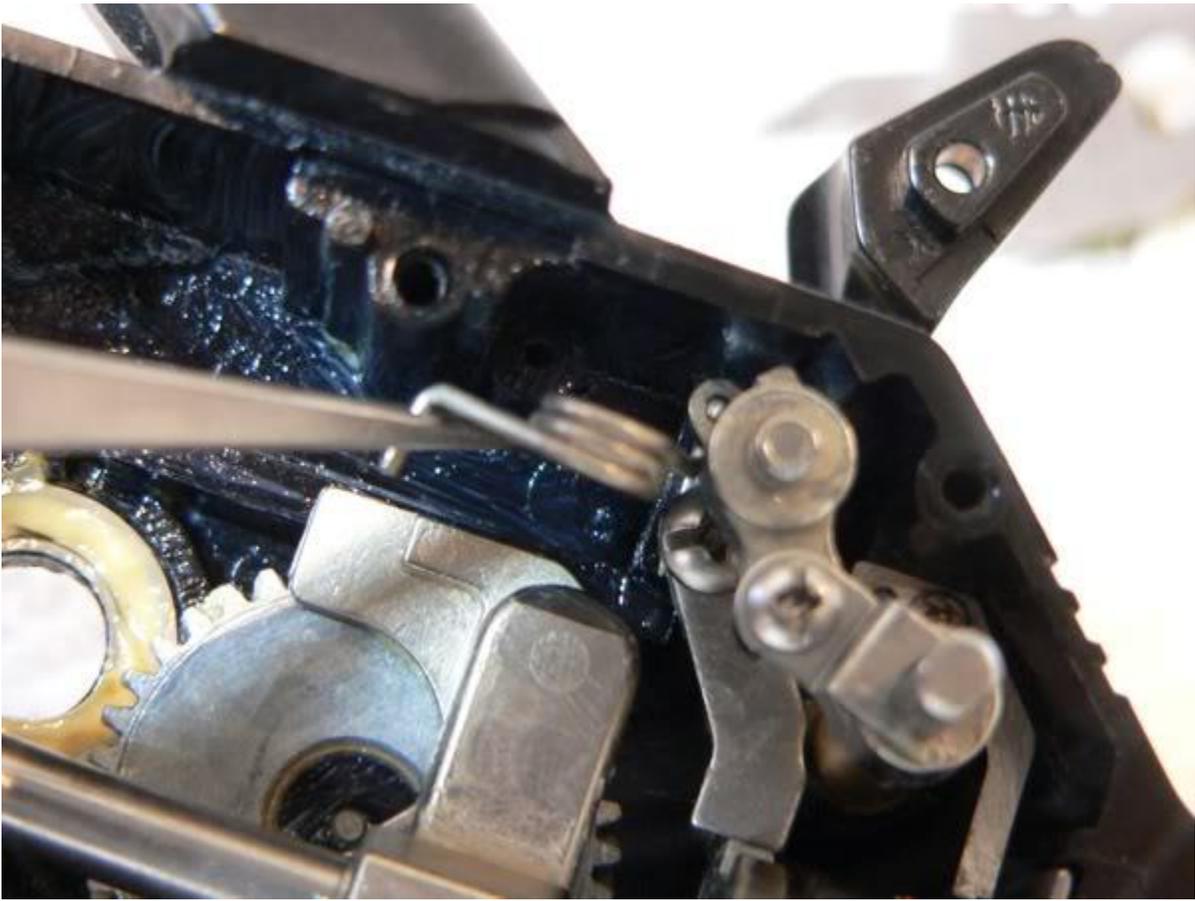


**Reattach the baitrunner pawl guide (ref #3013). Replace the clutch arm (ref #3007), securing with the retainer (ref #2959)**





**With the baitrunner lever in the rear position to take some pressure off, reattach the clutch spring (ref #3002)... a small pair of needle-nose pliers are useful**



Clean, grease and return the main drive gear (ref #741)





**Clean, re-grease and return the clutch plate assembly (ref #3037), screwing it back in place and then reattaching the click spring (ref #2963)**





**Replace the left side bearing spacer (ref #3032), thrust washers (ref #743) and then the cleaned and re-greased (or oiled if that's your preference) bearing.**



**The insides are all done so reattach the left side plate (ref #7435), remembering that the 4 screws are different so have to go in the right hole.**



Reassemble the baitrunner lever



Give the handle a good clean with an old toothbrush (in the case of this reel that was a bit of work!!). Grease the hinge point and reattach the handle... not forgetting the handle screw cap (ref #7436) on the opposite side.



**A drop of oil on the handle knob...**



**And it's over!!**



**Now... breathe a big sigh of relief, go and make yourself a strong coffee or get an icy beverage... and have a biiiiiig rest.**

**If ever there was a good incentive to keep your reels clean, it's the thought of having to do that full service again. "An ounce of prevention is worth several hundred pounds of cure"**

**Cheers, BigT**