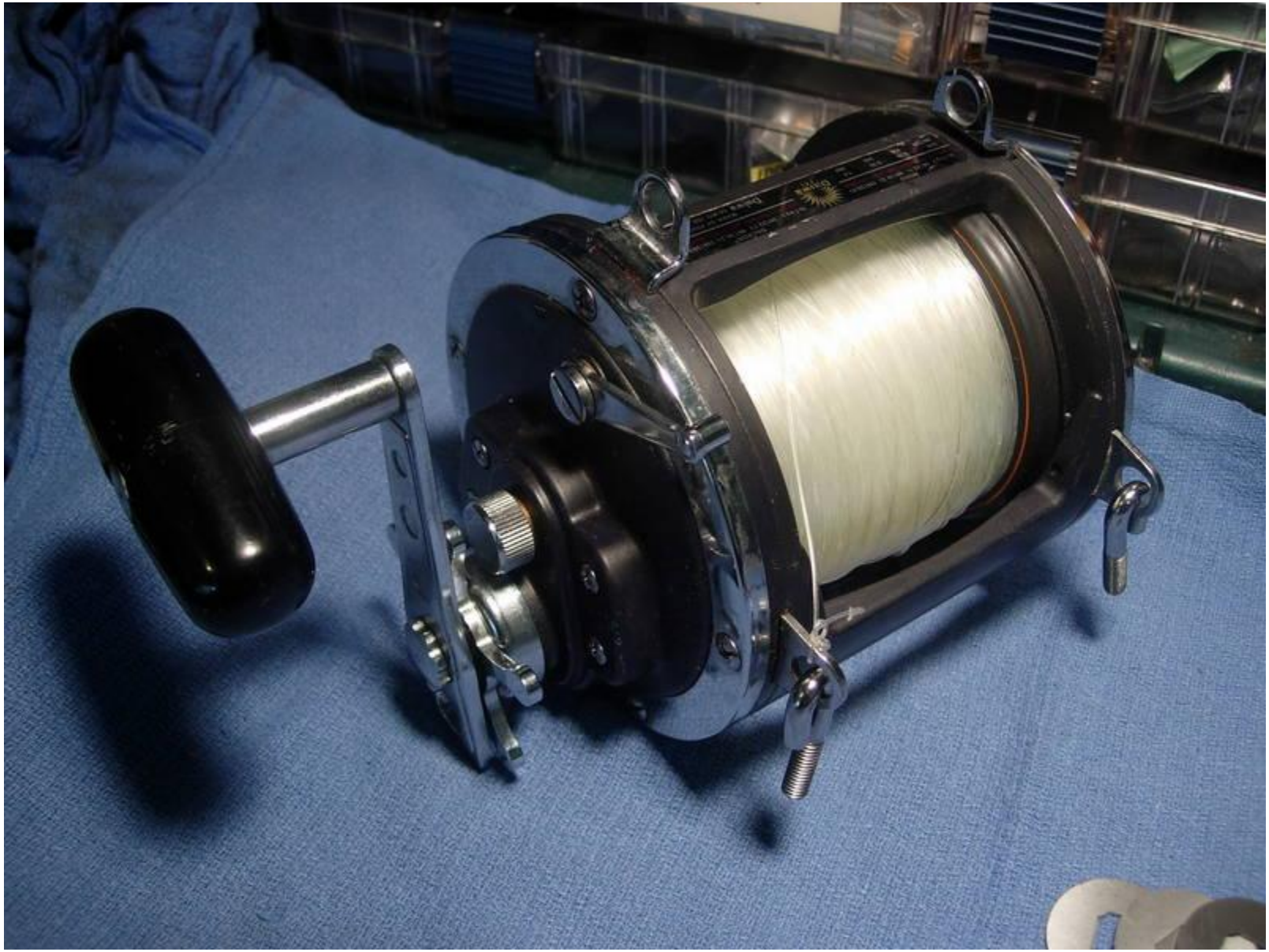
DAIWA SEALINE 900H and 910H (2-7-2009 - ALAN TANI)

as old as they are, the daiwa 900h and 910h are still very popular among big fish fishermen. here's your reel.



what were going to do is change out the old 3-stack of drag washers to a new 5-stack of carbon fiber with thinner metal washers.

we're going to install a bigger handle grip.

and change out the rod clamp.

first, let's back out each one of the left side plate screws (key #'s 2 and 3).

note that the three screws on top are shorter than the two screws on the base.

add a bead of grease to each screw hole and zip the screws back in.

now, let's back out all of the right side plate screws (key #'s 51 and 52).

the reel separates easily into three pieces, the spool, frame and right side plate.

lube the left side plate bearing.

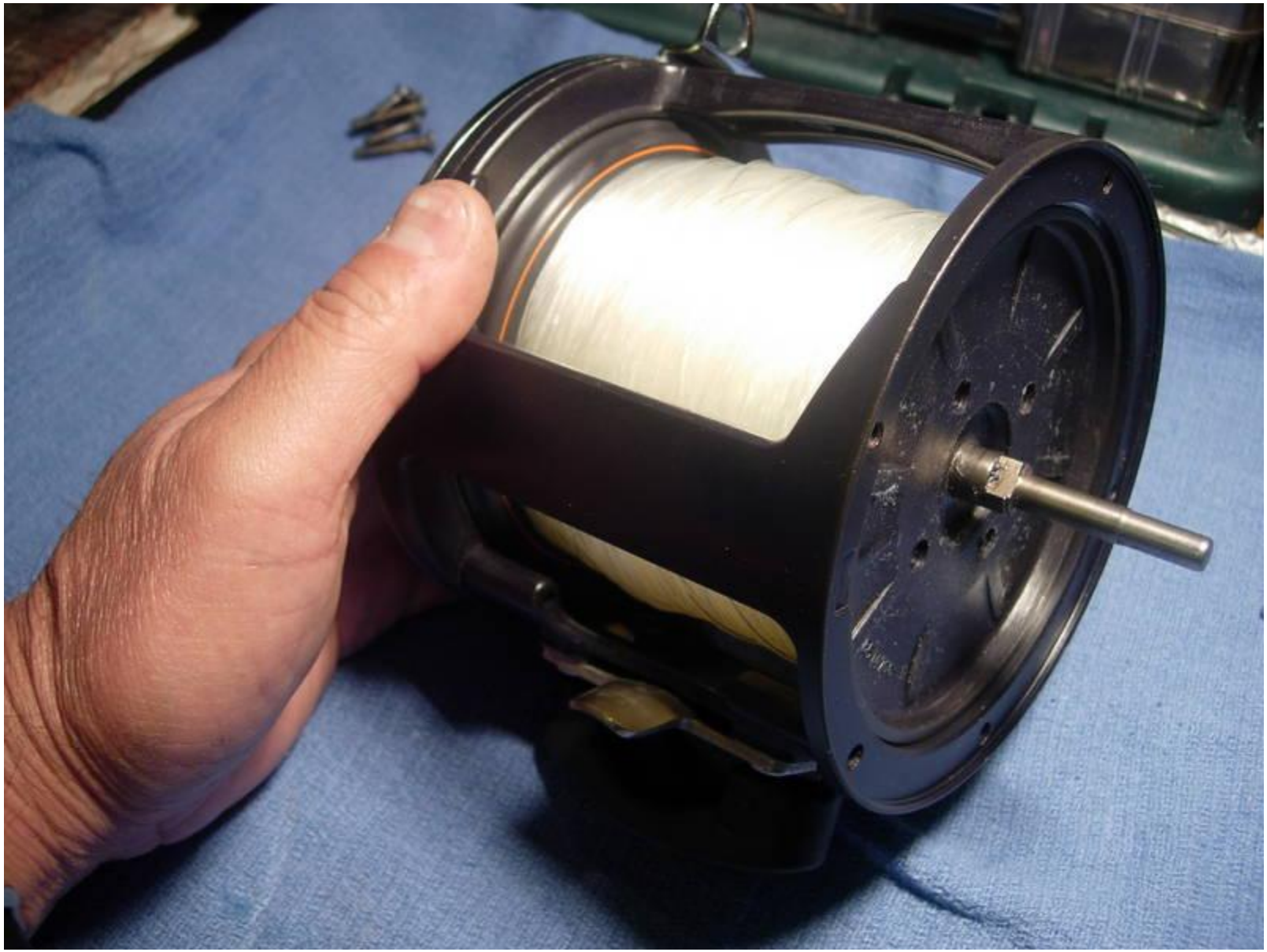
take an old toothbrush and clean up the inside of the frame.

i'm going to install a 6/0 penn graphite clamp.

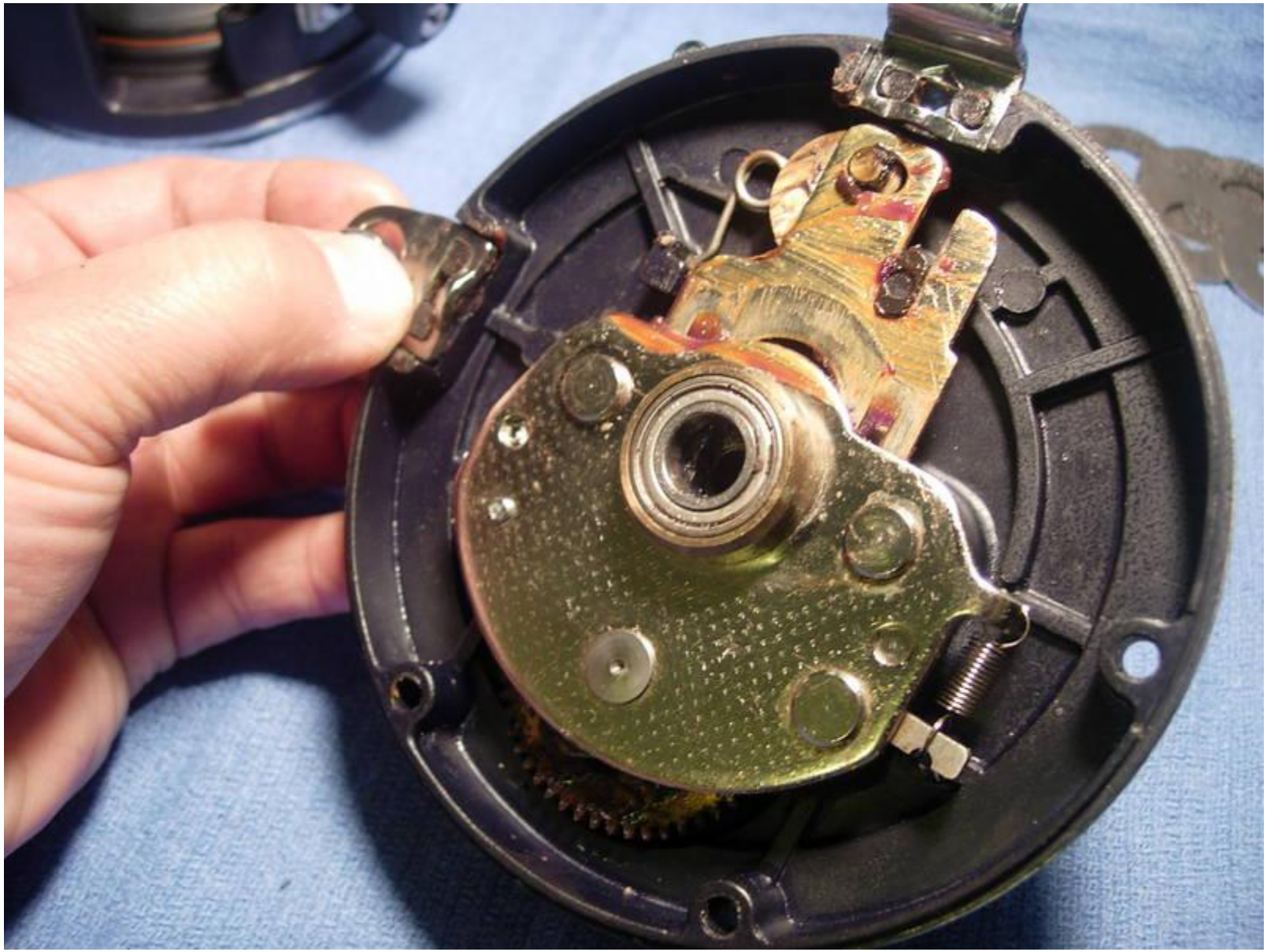
ok, the frame is done.

let's clean up the spool a little.

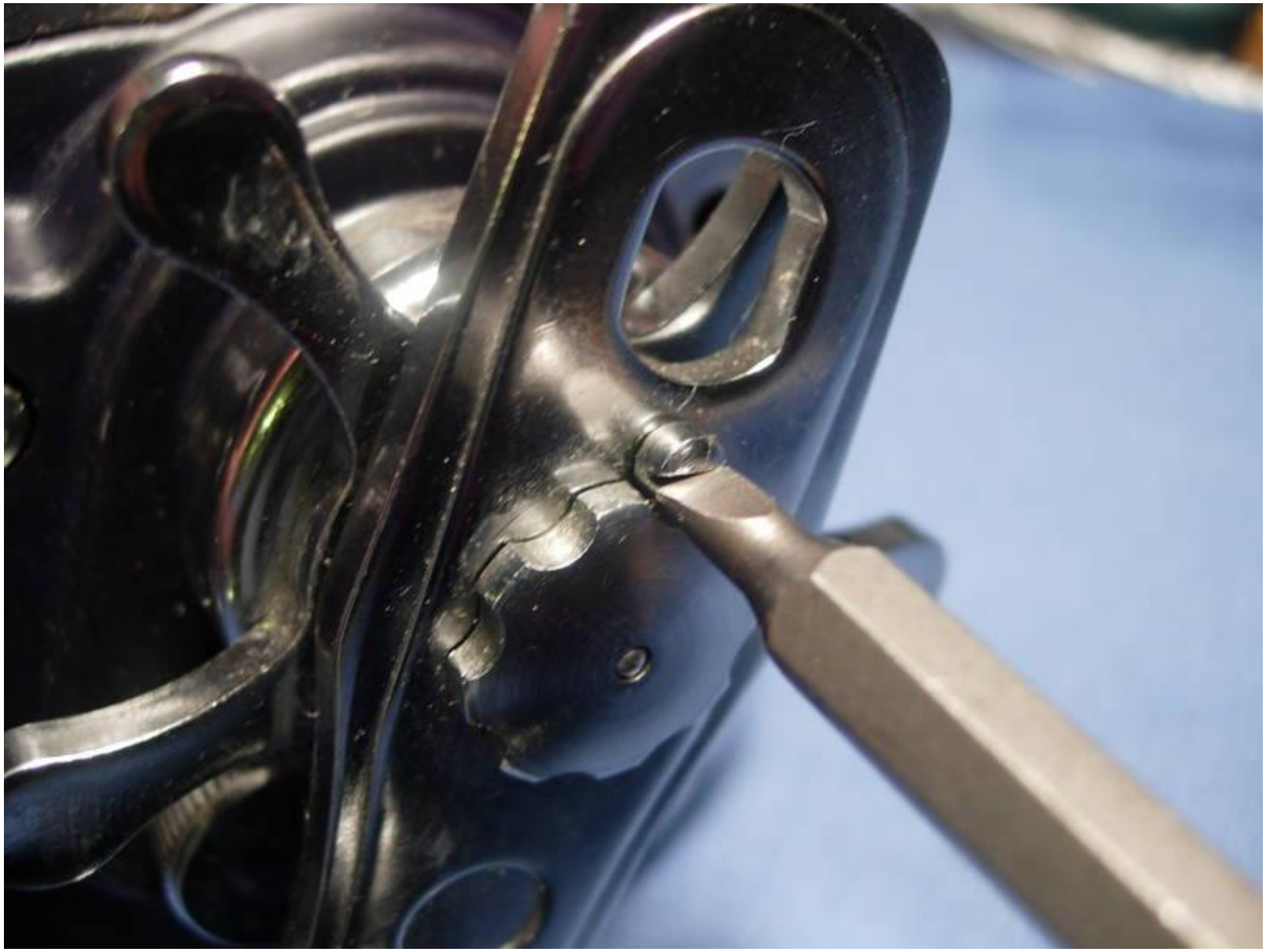
and back into the frame it goes.



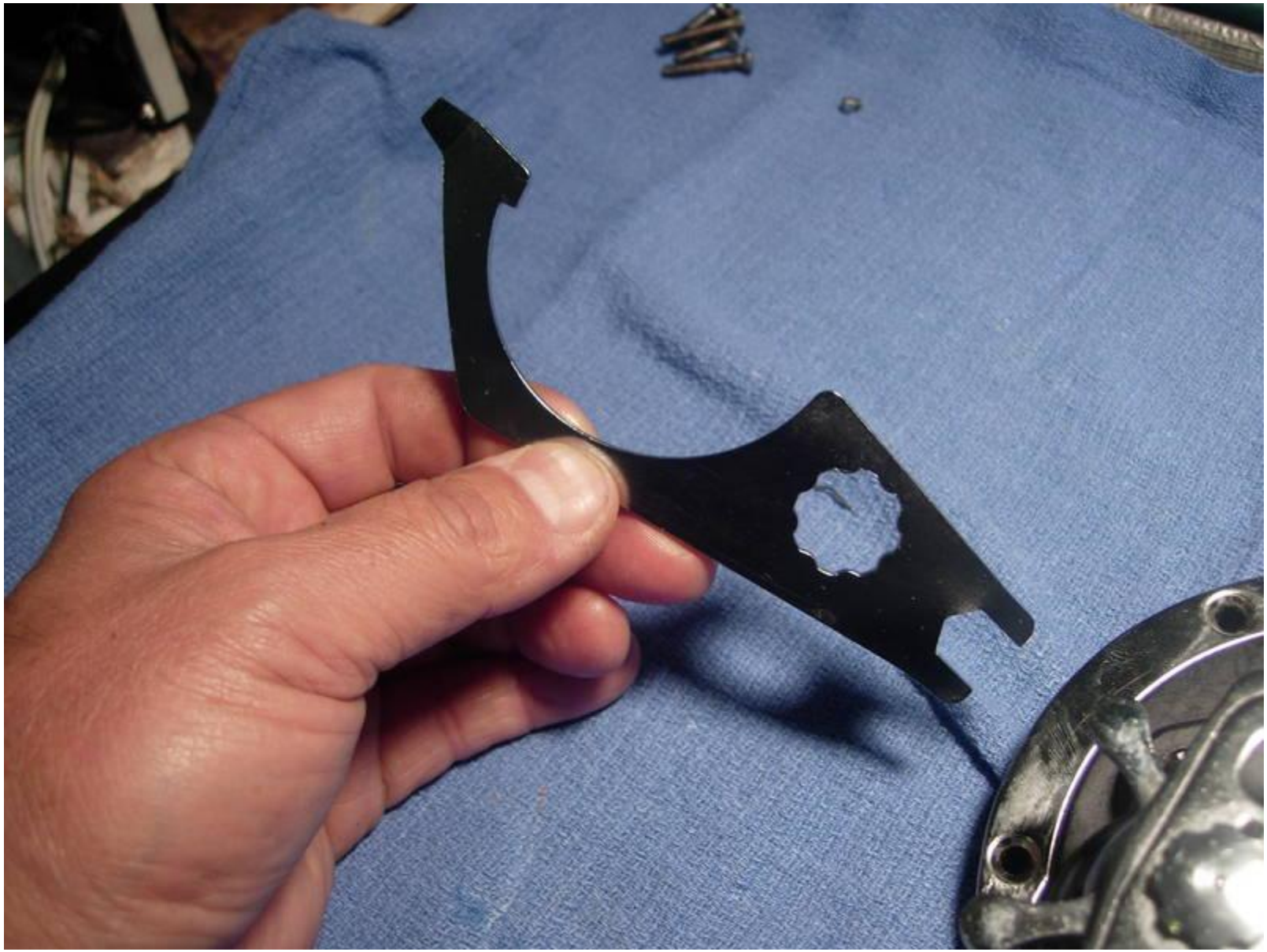
now, on to the right side plate.



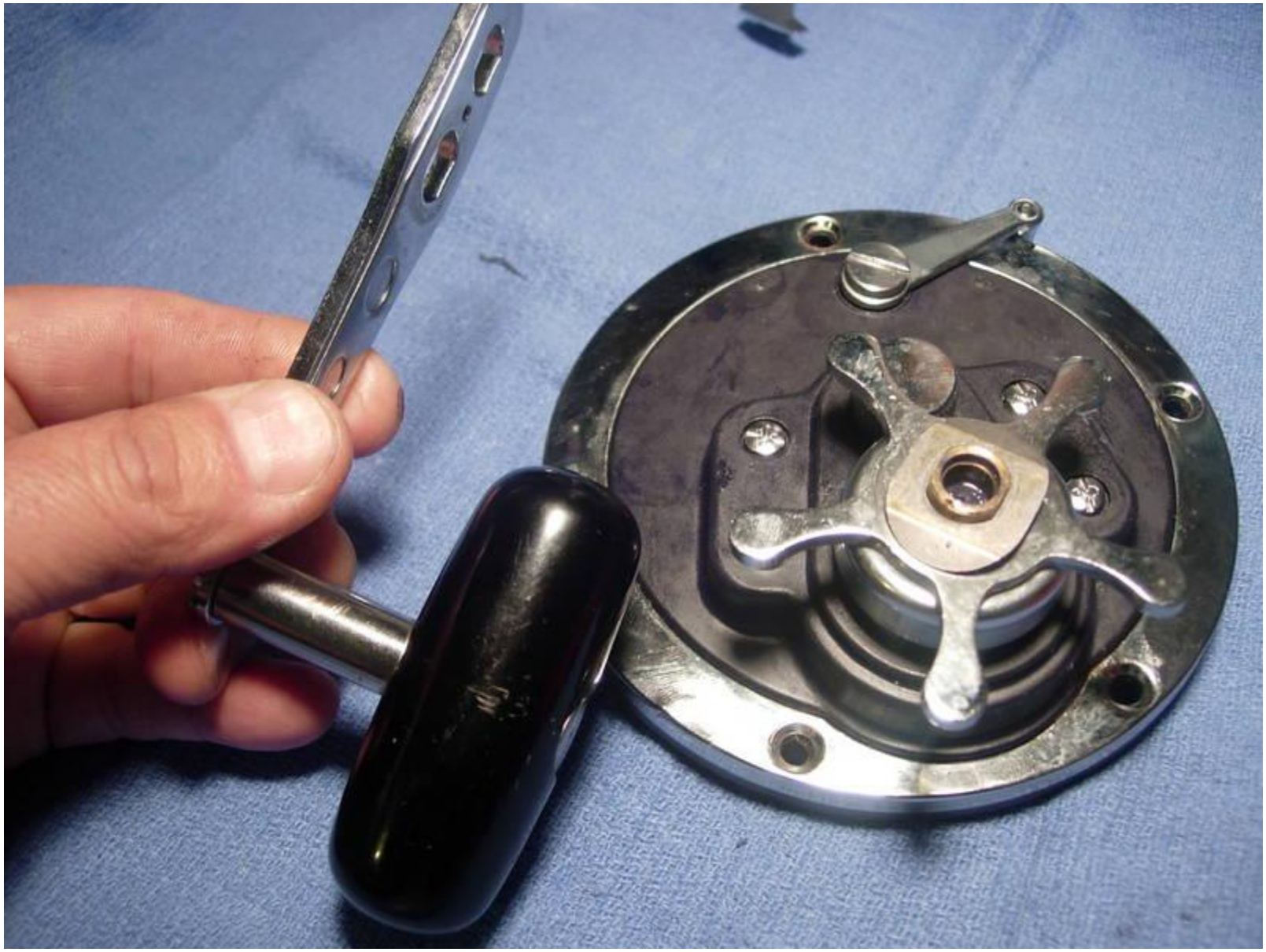
remove the handle lock screw (key #66).



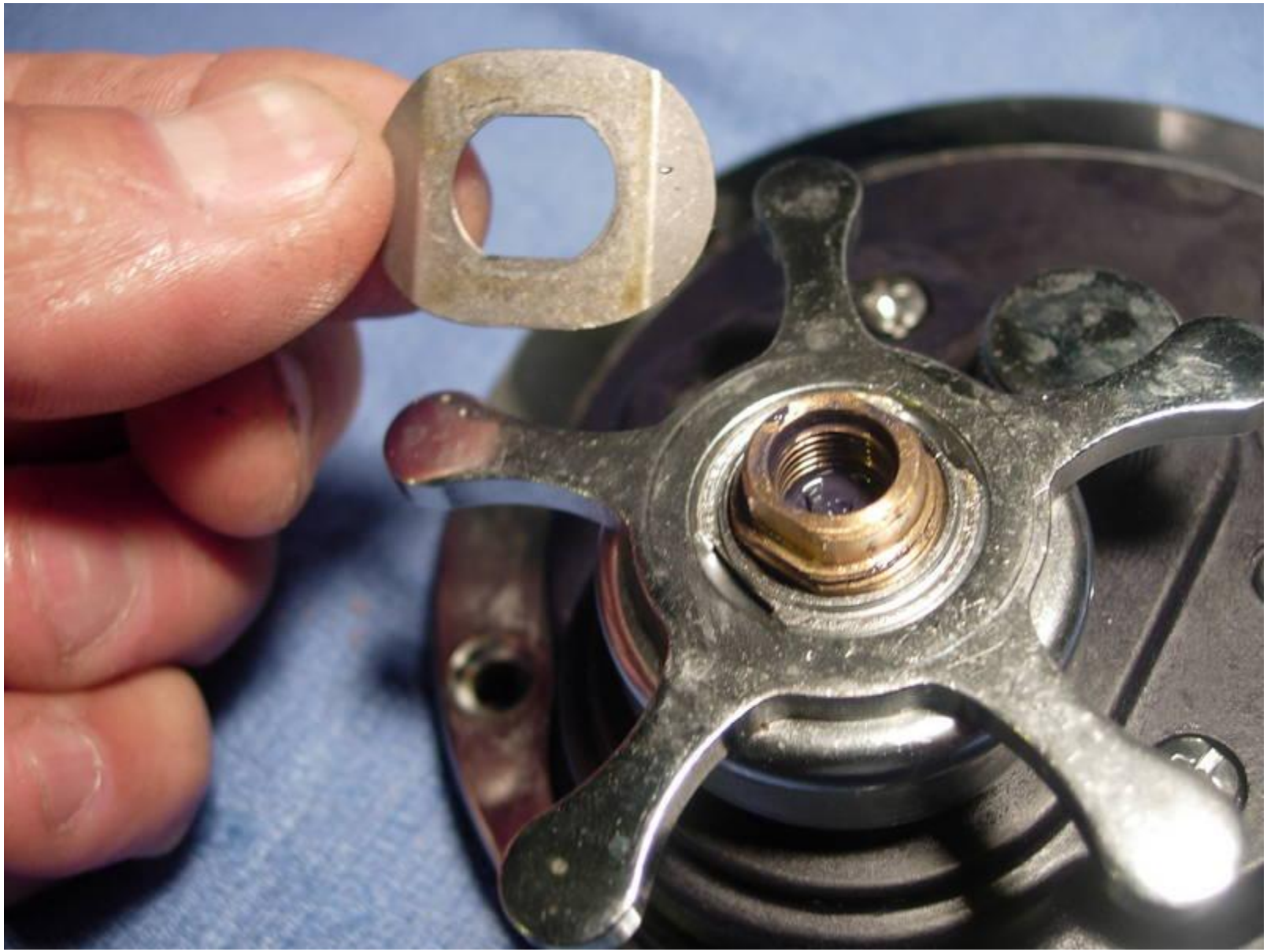
remove the handle screw (key #65) using a a handle wrench from a shimano tld 20/30 two speed.



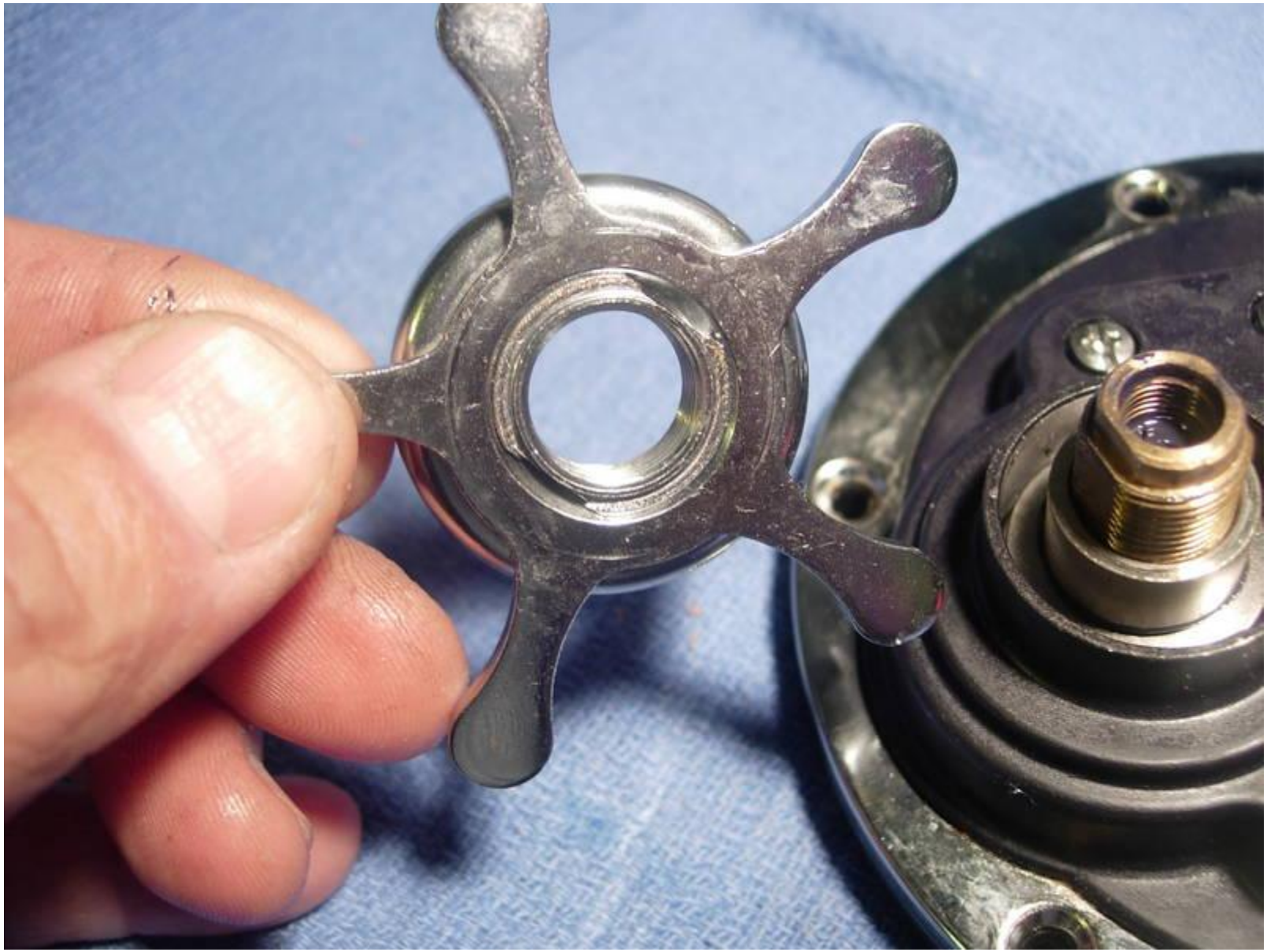
remove the handle (key #64).



remove the handle washer (key #63).



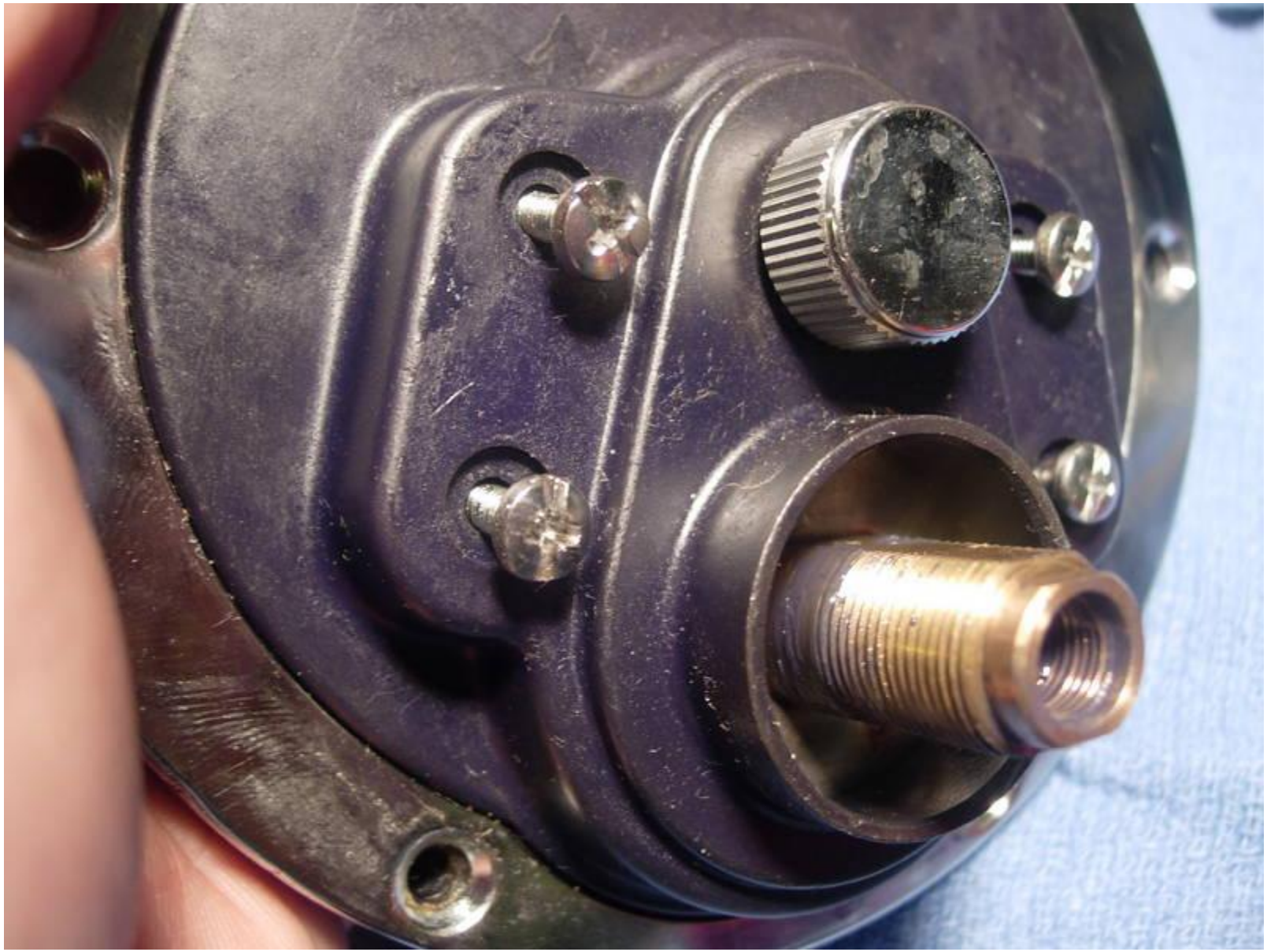
remove the star drag (key #62).



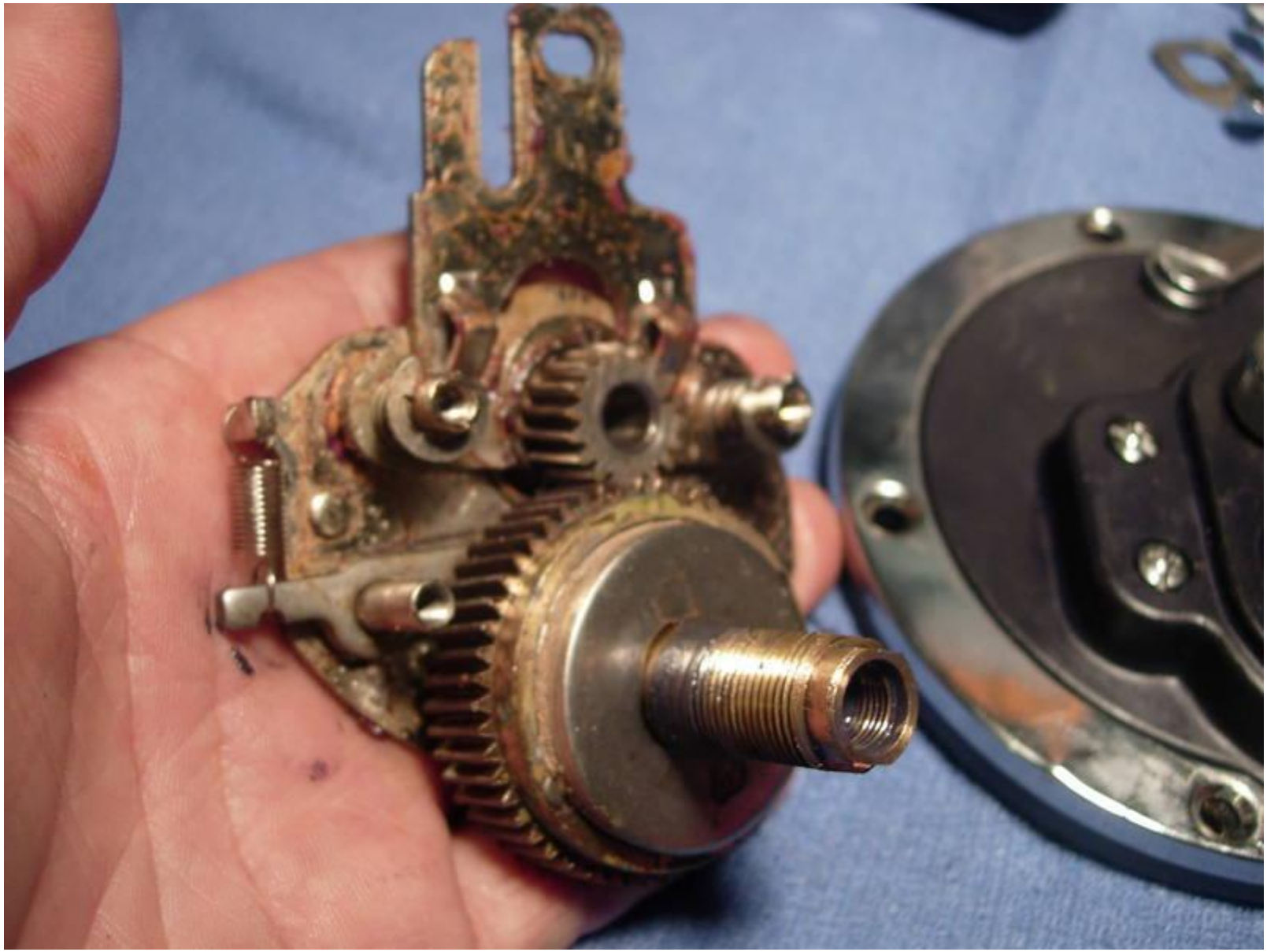
remove the spacing sleeve (key #61).

remove the tension springs (key #58 and 60) and drag spring washer (key #59).

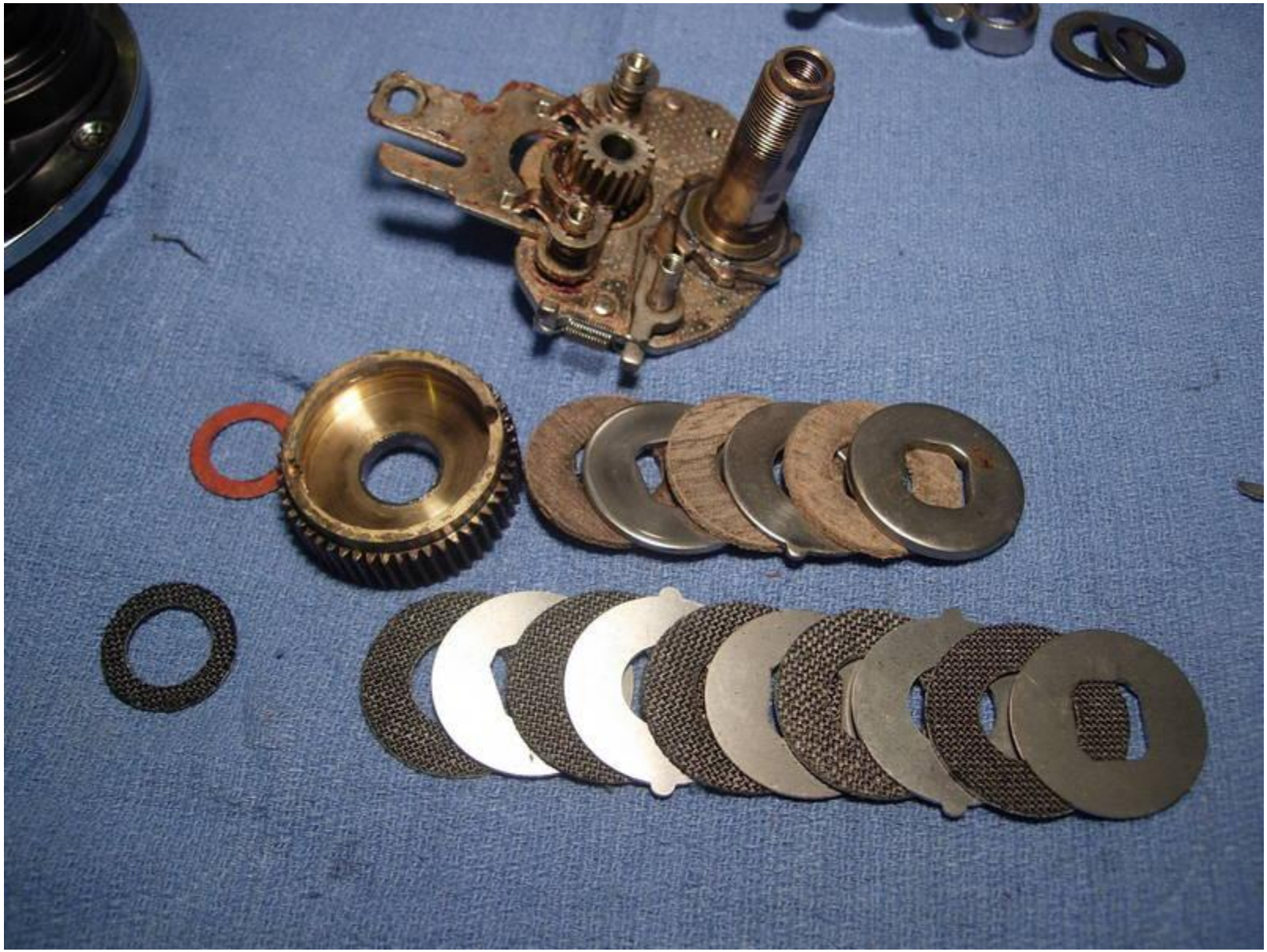
back out the three set plate screw A's (key #45) and set plate screw B (key #46).



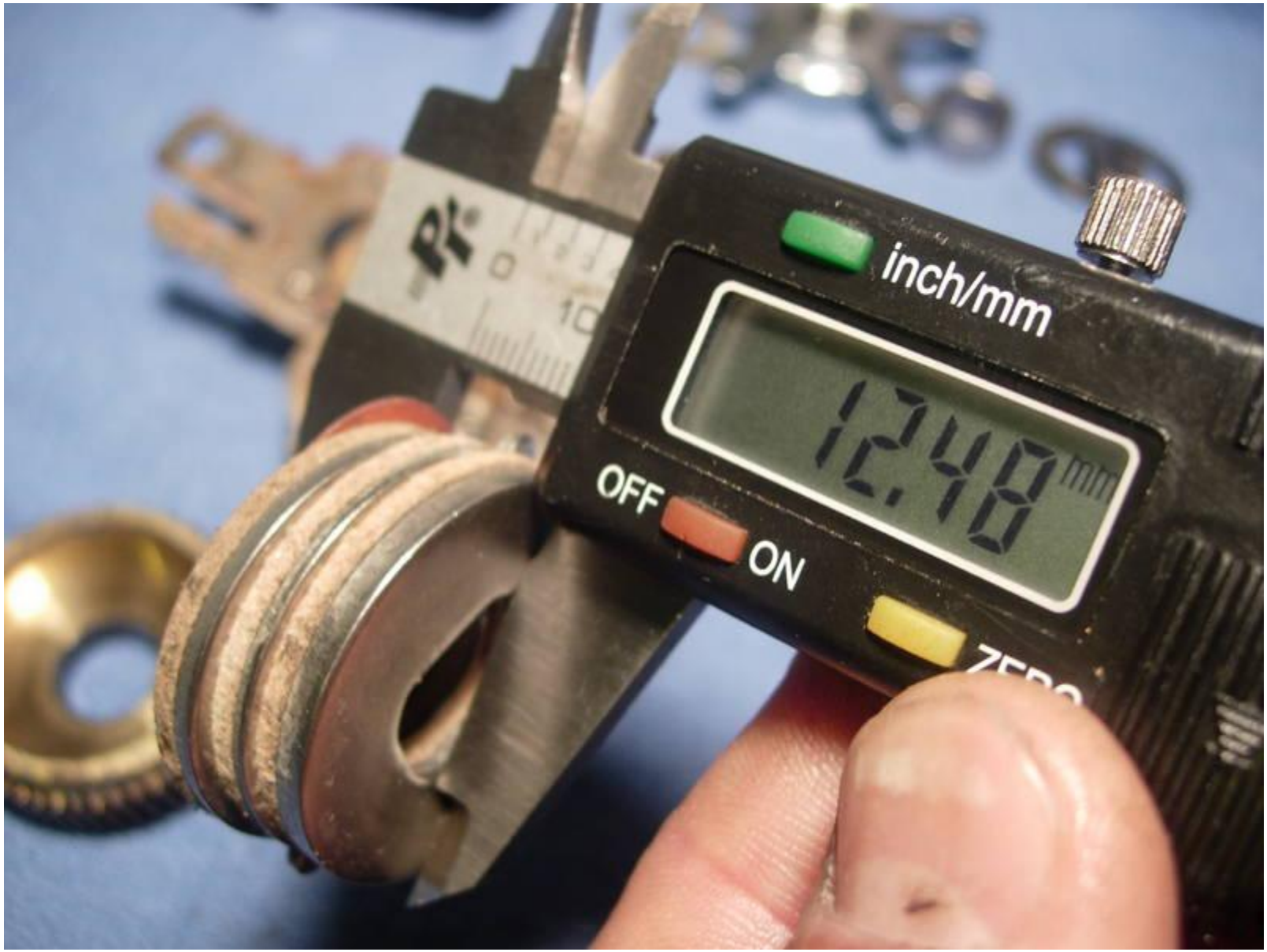
the set plate assembly (key #29) will drop out as a unit.



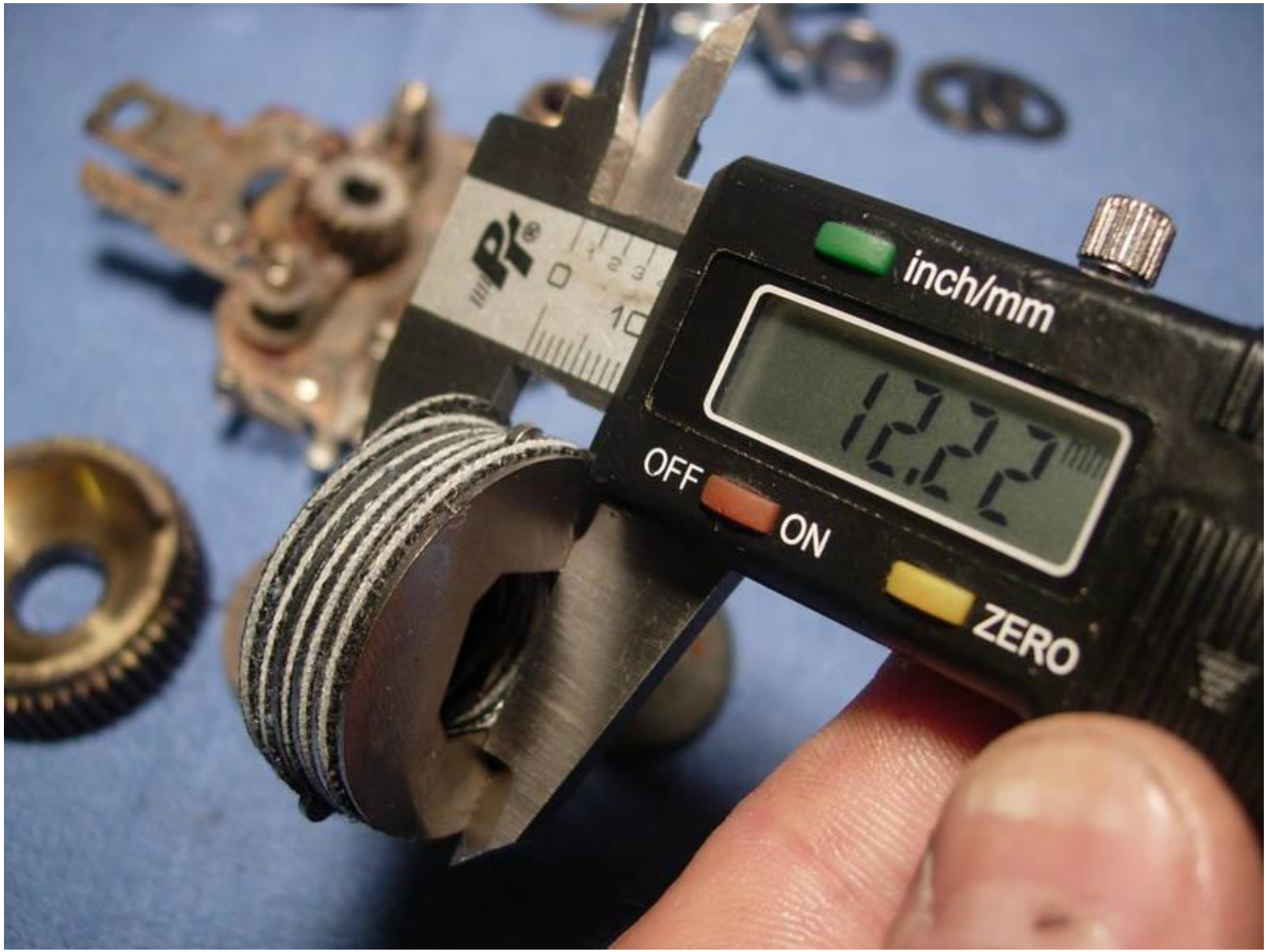
here's the old stack of drag washers compared to the new stack.



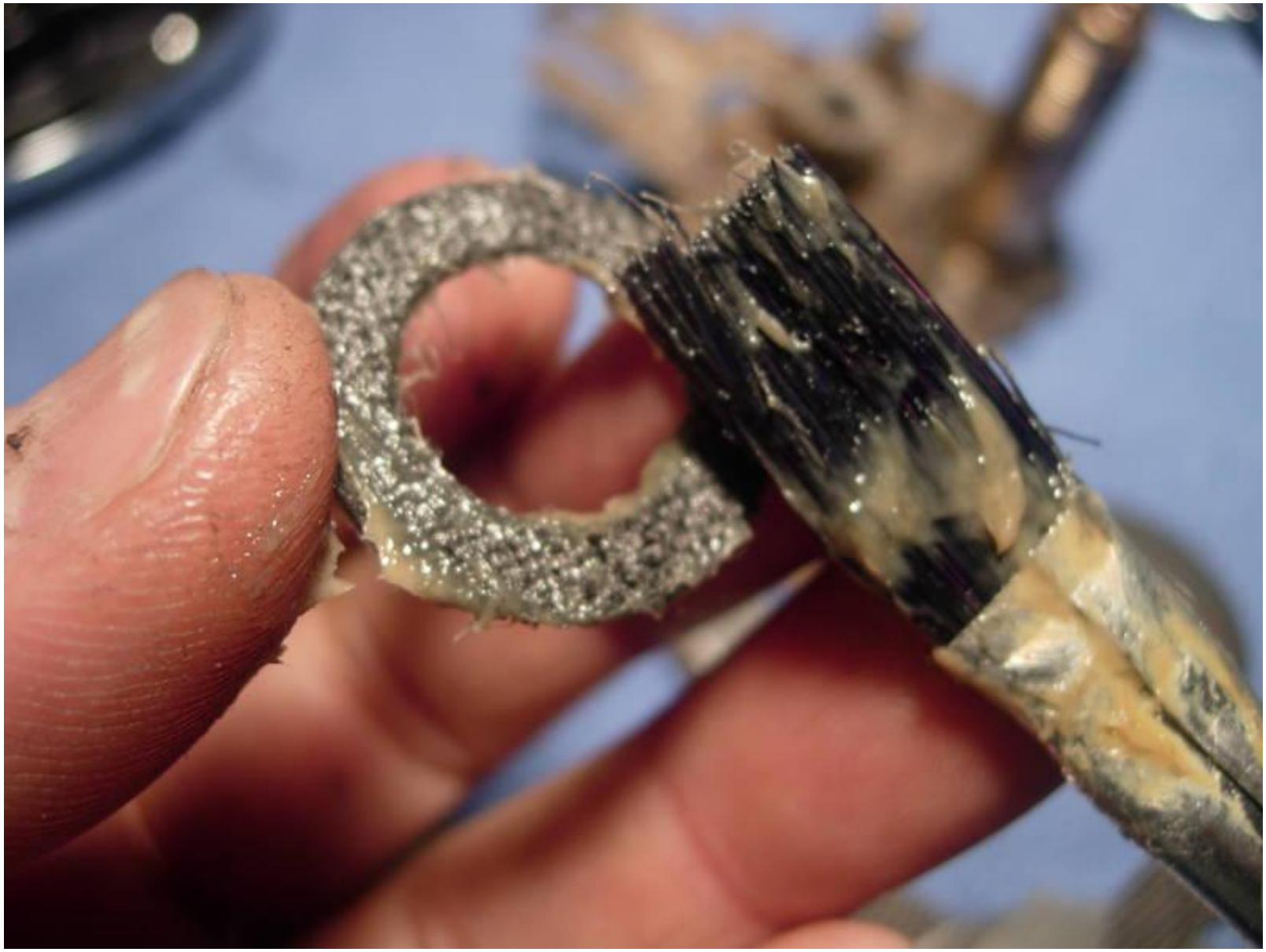
here's the height of the old drag stack.



here's the height of the new stack.

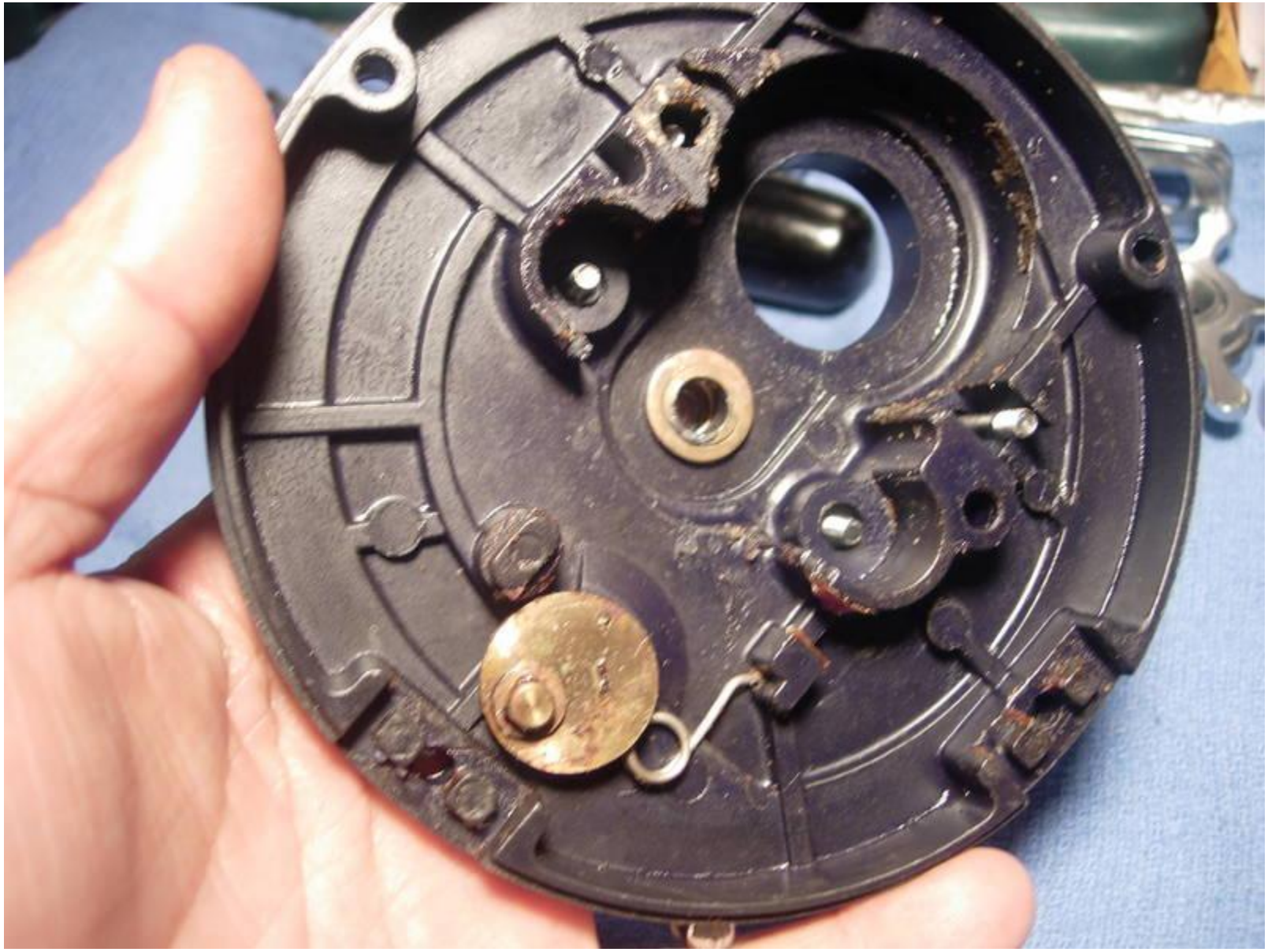


slap a thick coat of cal's drag grease on every carbon fiber drag washer and rebuild the drag stack.



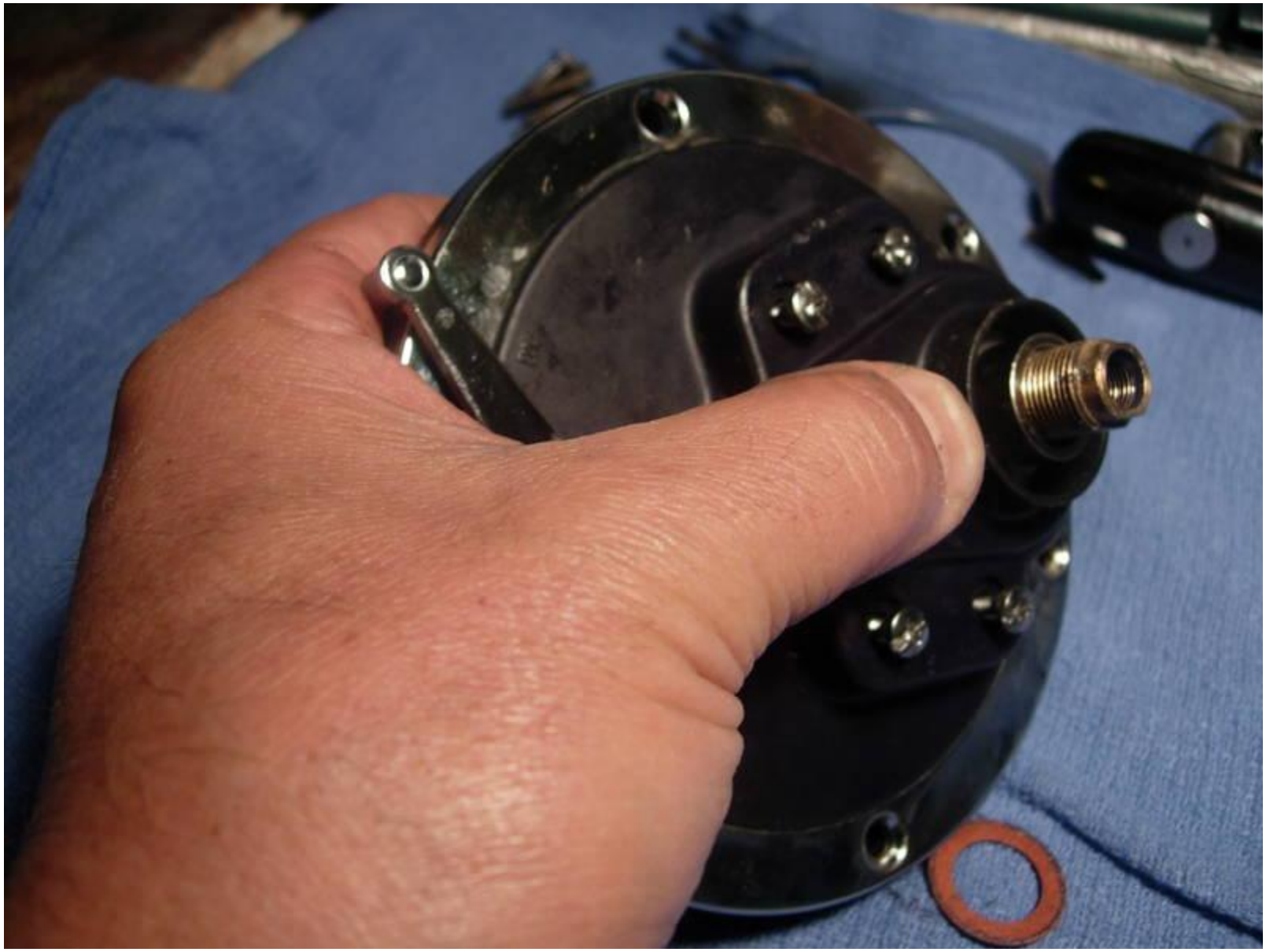
install the spacing sleeve (key #61).

place two fingers over the four set plate screws.



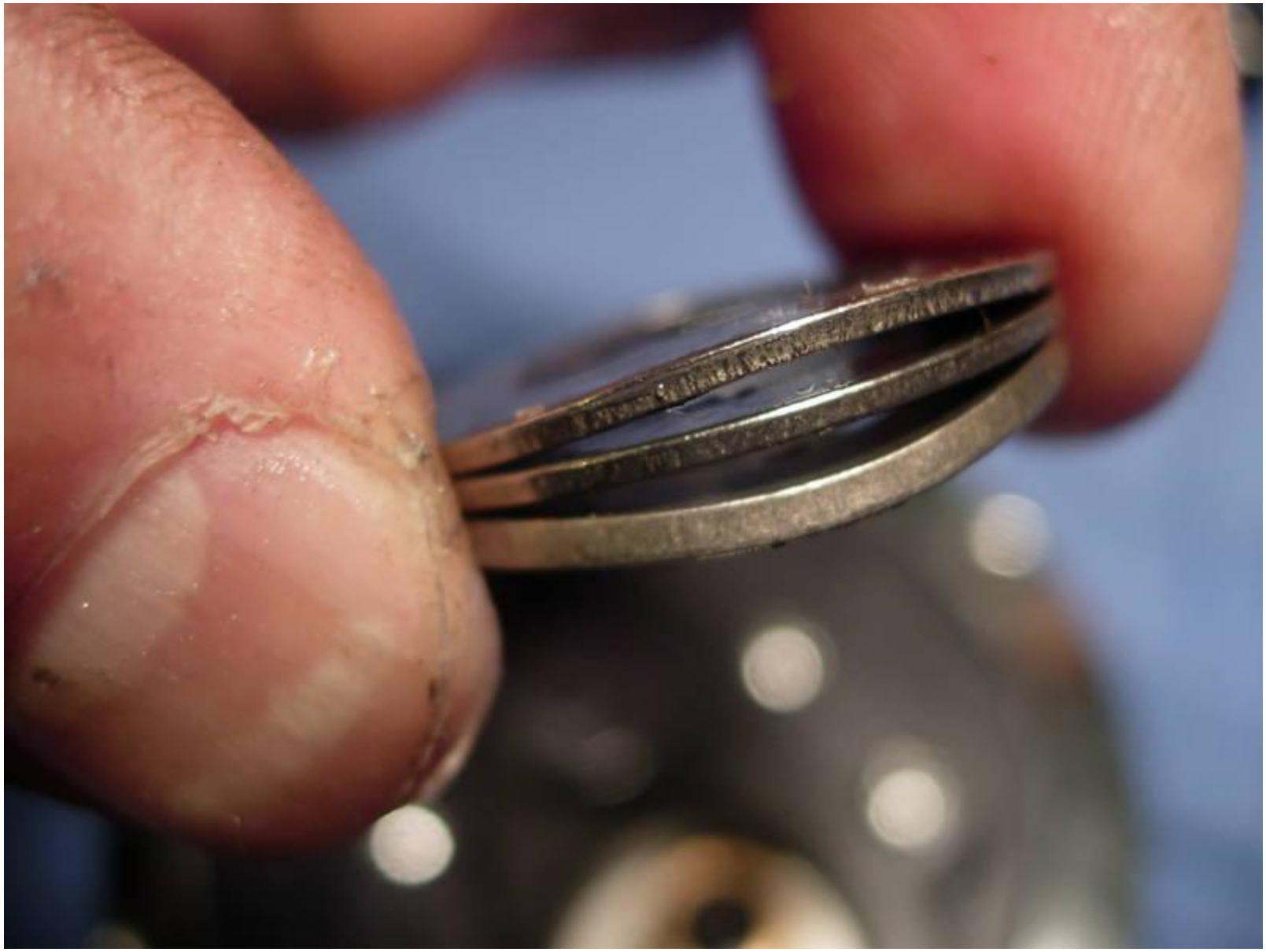
the set plate should lay down cleanly into the right side plate.

flip the right side plate over.



tighten down the set plate screws (key #'s 45 and 46).

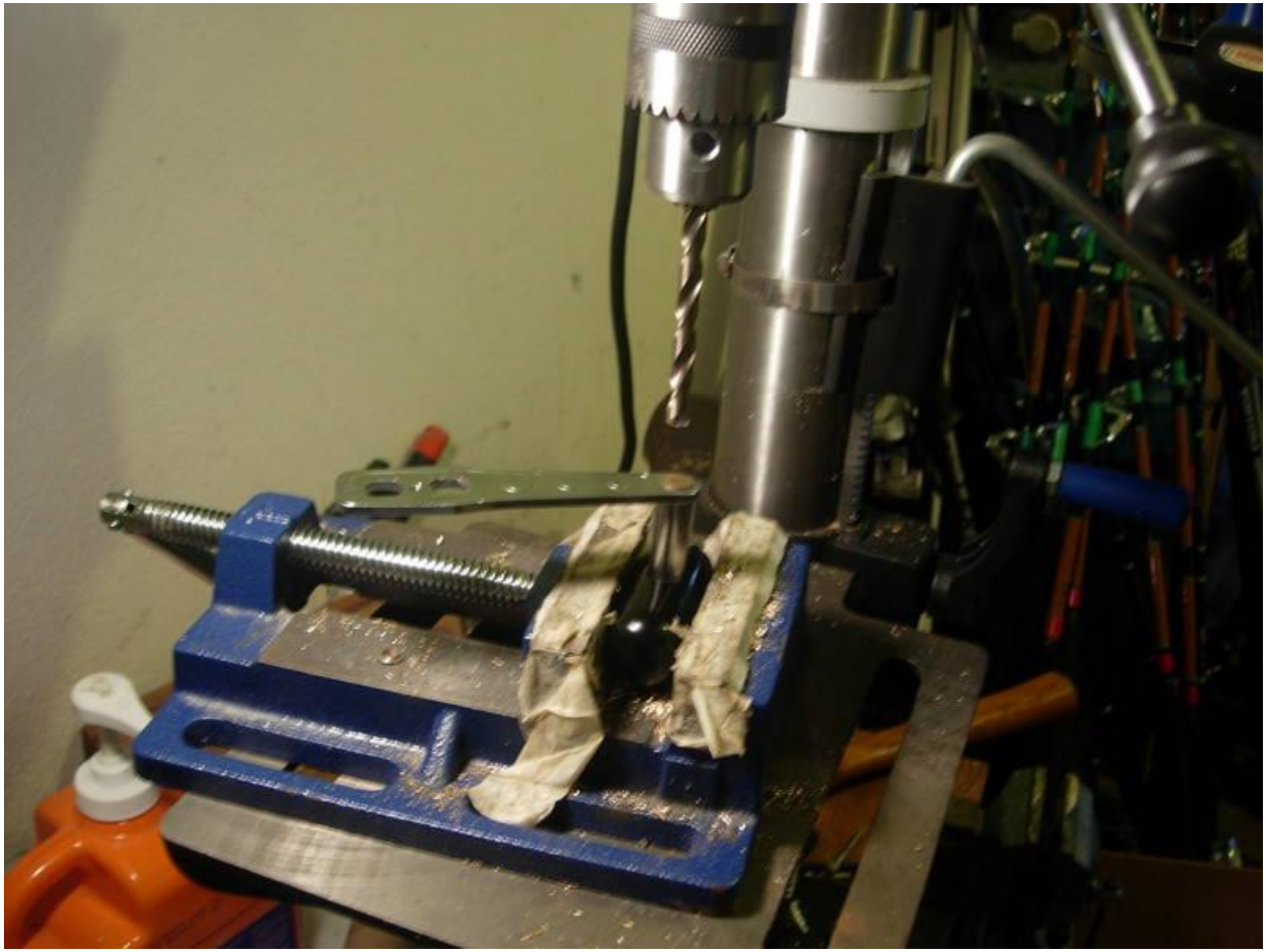
install the tension springs (key #58 and 60) and drag spring washer (key #59).



install the star drag and turn it down until it is well past the shoulders of the drive shaft.

install the handle washer (key #63).

now to switch out the smaller stock grip for a larger kolekar grip. first, let's drill out the rivet.



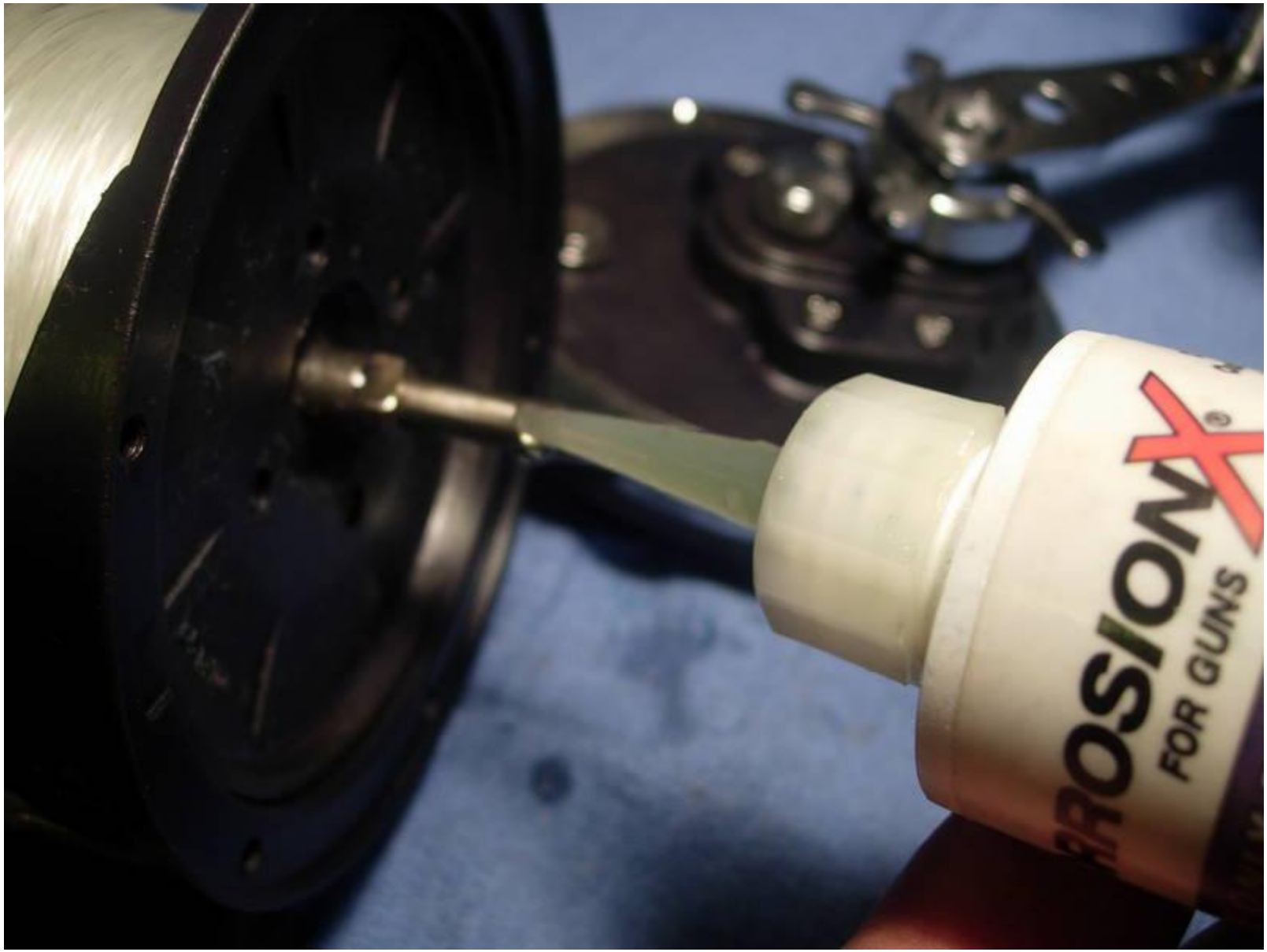
the new grip bolts right on.

tighten down the handle screw (key #65) using the shimano wrench.

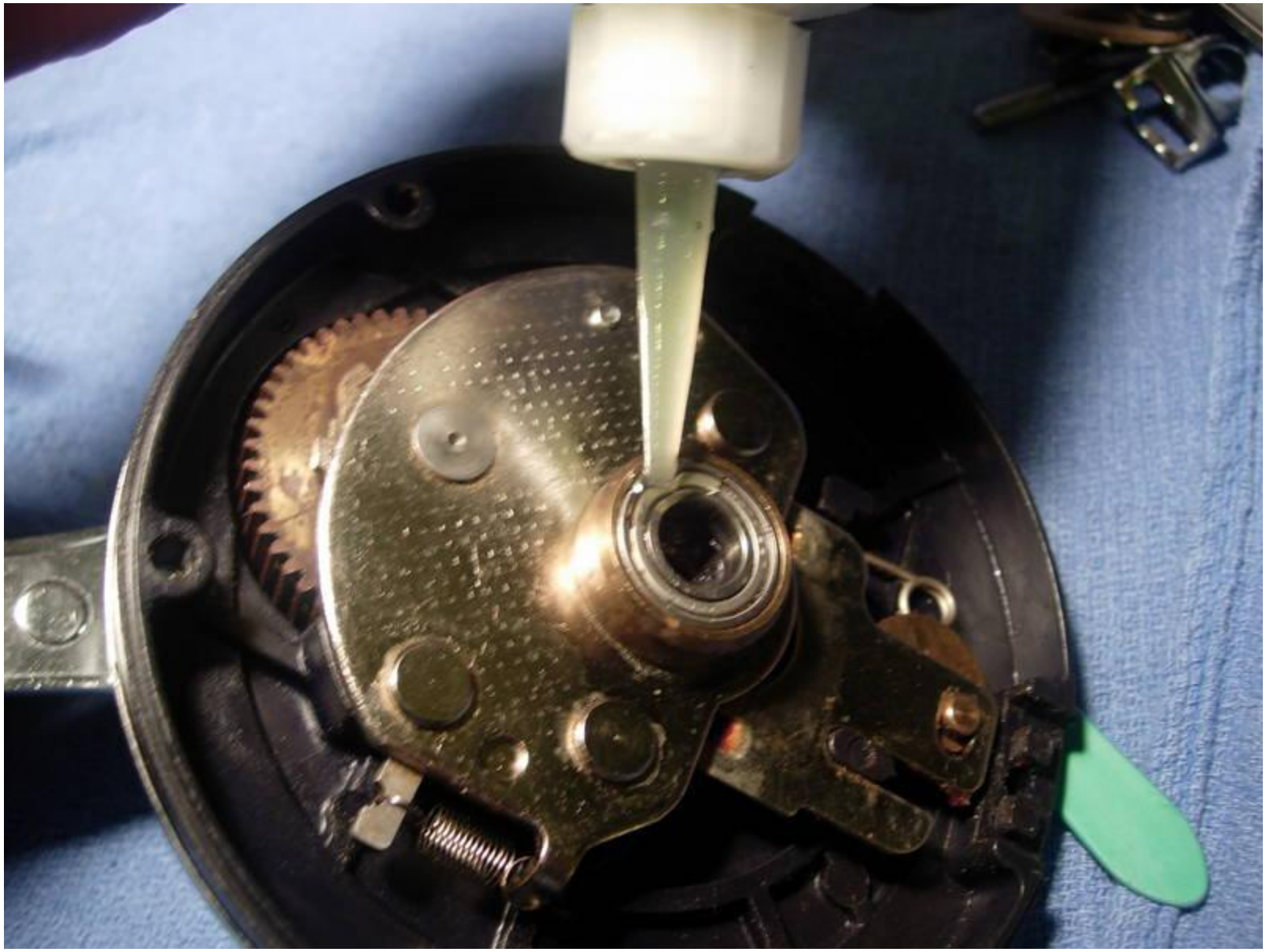
install the handle lock screw (key #66).

the right side plate is done.

lube the spool shaft.



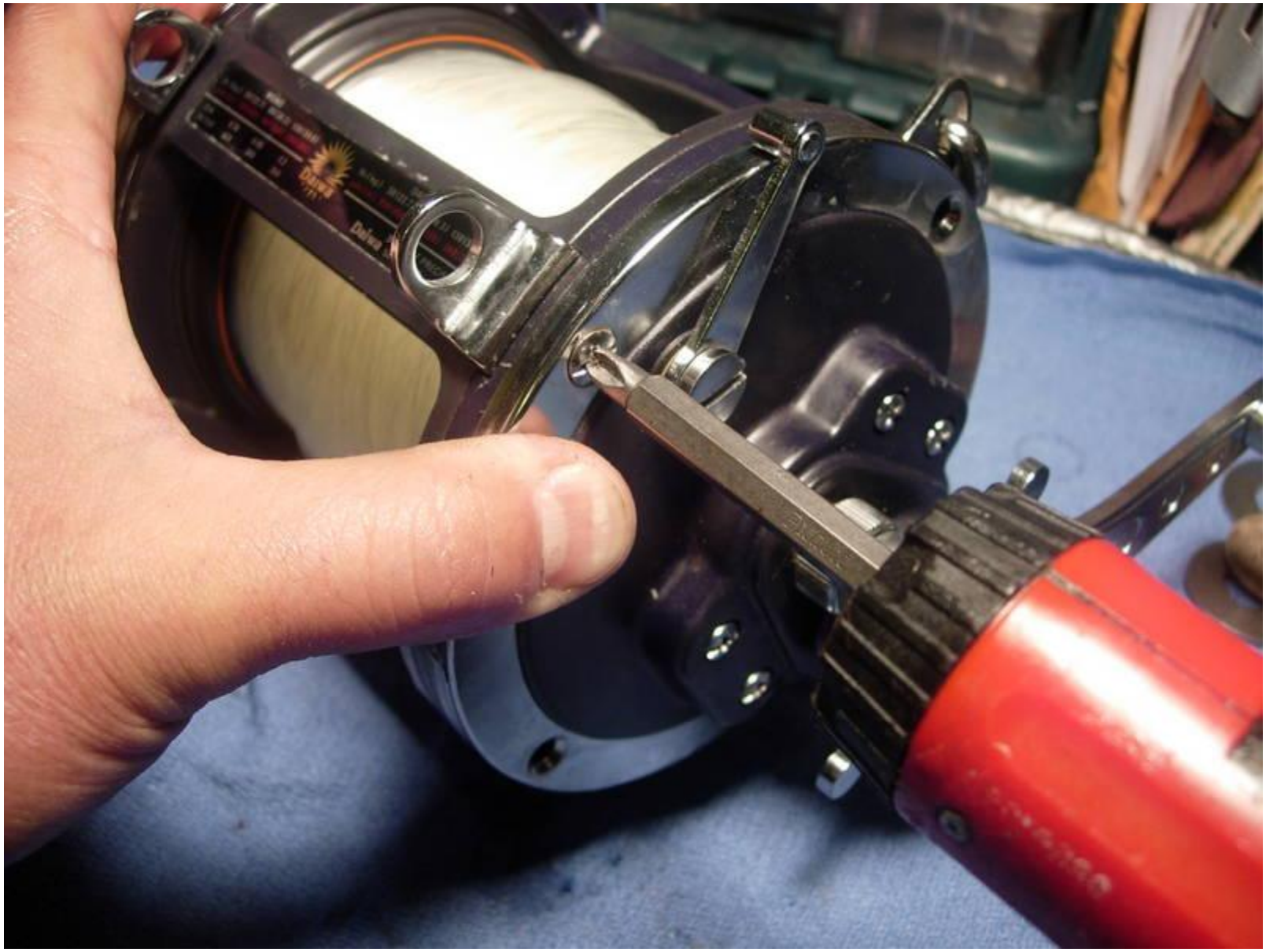
lube the set plate bearing (key #28).



install the right side plate assembly.

install the right side harness lug (key #18) and rod brace lug (key #19).

install the right side plate screws (key #'s 51 and 52).



so here is our completed reel. you now have a full sized handle grip, a stack of 6 penn drag washers (1+5) and a new clamp. the driving force behind this rebuild was the need to increase the drag range of this reel. a stack of four drag washers (1+3) only delivers 20 pounds of drag. that is way too low for a reel this large. by cutting thinner metal drag washers, i could use a set of five #6-116 penn ht-100 drag washers inside the gear and a single #6-114 drag washer underneath the gear. this stack of drag washers will deliver 30 to 35 pounds of drag, bringing the reel up to it's full potential.

to convert a sealine 910h to a 900h, you need a 900h set plate (part #783-3302), a 900h handle screw (part #781-2301), a handle set screw (part #353-2811) and a 900h handle (part #748-1101). you can call daiwa at 562-802-9589 and order these parts. the total should be somewhere around $30. add to that a 6/0 kolekar grip for $33 http://alantani.com/index.php?topic=158.0 and a drag washer set for $25 http://alantani.com/index.php?topic=153.0 .

the other alternative is to cut the handle arm of the 910h a little shorter. the set plate for the 910h is quite a bit shorter than the 900h.

there you go. great reel, and a much better value than the 9/0 penn senator 115L.

Re: sealine 900h/910h
« Reply #1 on: February 08, 2009, 04:00:04 PM »

Quote

Quote
north coast - 2/8/2009 10:58 AM Nice. From what I see, the smaller sealines (350, 400, 450, 600) are all very similar to this reel. I have all the smaller reels mentioned. wondering if the same treatment would work on all?

yes, it does!!!!! http://alantani.com/index.php?board=7.0

now, the smaller reels can all reuse the metal drag washers and just substitute penn washers. to maintain the proper height, you can double up some of the drag washers. it really does not matter as long as the star does not bottom out. the 900h/910h was a different matter, however. a stack of three drag washer was only delivering 20 pounds of drag. for a reel this big, this was clearly not adequate. by having thinner metal washers (0.045") and using the penn ht-100 #6-116's, you can have 5 functional drag washers inside the main gear instead of three drag washer. that increases the drag range from 20 pounds to 35 pounds. this higher drag range brings the reel up to it's full potential. alan

Re: sealine 900h/910h
« Reply #2 on: February 11, 2009, 11:40:56 AM »

Quote

Quote from: bobross;2400810
Alan, On the Daiwa you went from 3 to 5 drag washers and substantially increased the amount of drag. On the Penn 111 tutorial you did pretty much the same thing. I saw an older 4/0 Penn (113) on ebay today that claimed it has increased the drag washers from 3 to 5 (used the 6-60 washers) and claimed it increased drag by 40%. Do I see a pattern here? More but thinner drag surfaces increase performance? What kind of set up would you recommend to do this on some Penn 4/0 and 6/0's? By the way, the reel on that auction site said that he replaced the 4/0 gear sleeve and star wheel with a 505 (not sure what model that is, a Jigmaster?) as it has thinner threads and allows for more fine adjustment of the drag range. What do you think? Your devoted student. Bob Ross

yes. the older black side plate penn senators had a thick composite drag washer. they were so thick that you could only get three washers into the main gear. using the thinner ht-100's, you could squeeze 5 drag washers in. you now have 5 washers instead of three. it functionally increases the total drag surface area by 40%, so that part of the math is correct. it also will increase the drag range, but it might not be an additional 40% because other factors will come into play.

with the daiwa 900h/910h, the math actually did hold up. if you use the original thick metal washers and then double up the stack of penn ht-100 drag washers so that you have a functional stack of "three" drag washers, you get 20 pounds of drag. if you use five thinner metal washers and 5 penn ht-100 washers in a standard configuration, this "five" stack will deliver about 35 pounds of drag. you get a 40% increase in functional drag surface area and, son of a gun, a 40% increase in functional drag pressure! when i first started working on the these big daiwas, i was shocked at how little drag pressure they delivered. to bring this reel to it's full potential, i knew i needed a thinner set of metal washers. it's nice to have friends that own laser cutters!!!!!!

the old black side plate 4/0 penn senator 113 is a special case. it is important not to confuse it with the red side plate 113h. they are totally different reels. yes, you can switch out the drag washers and the stack of 5 ht-100 #6-60's will just barely fit. this "five" stack of drag washers will deliver a pretty reliable 15#'s of drag. the problem is the drive shaft or "gear sleeve." it's made of soft brass. at drag settings in excess of 8 pounds, the top of the gear sleeve will round off and the handle will start to loosen. that's why i had a machine shop buddy make me a bunch of gear sleeves made of stainless steel. they will hold up to a 15# drag setting. so what you have to do is upgrade the penn 113 with a #6-113 drag washer underneath the main gear, a set of 5 #6-60's inside the main gear, a stainless steel gear sleeve and a jigmaster power handle. then spool up with reel with straight 40# mono and set the drags to 12#'s. you have now turned the old black side plate 4/0 penn senator 113 into a true 40# reel. oh, and you'll probably have to dremmel out the side plate a little to accomodate the taller drag stack.

regarding the gear sleeve itself, i have three models available - a coarse thread jigmaster 500 gear sleeve, a fine thread "high speed" jigmaster 505 gear sleeve, and a coarse thread squidder 140 gear sleeve. one of these days i'll have a gear sleeve made for the penn 113h and 114h, but that will be way down the road. not really alot of need for it right now. the penn 113h, 114 and 114h are fine with stock ht-100 drag washers and cal's grease. these larger reels will deliver plenty of drag.

clear as mud, huh! alan

Re: sealine 900h/910h
« Reply #3 on: March 03, 2009, 11:30:10 AM » Quote

Quote
Alan, I am going through my reels this winter, finally. I have a laundry list of parts I want from you. Before I email it with some $$, I want to do the 5 drag stack for 2 Daiwa 600h's. I took the reel apart and the drag washers measure 29.6mm OD, 16.3mm ID, 2 mm thick. They are a little smaller than the 900's and a little bigger than the 400's. They equate to penn #6-115 or #6-895. I can measure the metal washers and the small one under the gear. Can you get new metal washers made if supply the dim's?? I would like the "kit" that you have for the 900 reel, only sized for my 2 600 reels.

yeah, you know, we talked about that one. what i found with the 600 series is that you get 20 to 22 pounds of drag with the doubled up ht-100's. i was thinking that i could have the guys cut out a set of metal washers, but it would cost me about $500 for 300 keyed washers and 200 slotted (eared) washers. the benefit for the 900 series is HUGE. the benefit for the 600 series is marginal. i think most guys would not need more than 20#'s of drag, so i decided against it. alan

Re: sealine 900h/910h
« Reply #69 on: February 28, 2014, 11:03:55 AM » Quote

So 2013 was my second year fishing with my Tani'd 900s, and one of the reels got it's first real test. As some of you will recall I released a massive mako last summer http://alantani.com/index.php?topic=7994.0, which was taken with my 900 w/ 80 lb mono, drag upgrade and kolekar 6/0 handle upgrade. In the past the reels have performed perfectly, but with the mako, I had to button down the drag to slow the fish down. When I got the drag as tight as I could, there was a distinct tight spot, like something was warped in the drag system.

So fast forward to last night, I tore the reel down, looking for whatever might have been the problem. Low and behold the slot milled into the gear for the eared washer doesn't extend to the bottom of the gear, but instead stops well above the bottom of the gear, and is beveled upward toward the outside of the gear.

In this picture, it's kind of hard to see. The original washers were pretty thick, but now with thinner washers in there the first eared washer hit the bevel before the drag could bottom out, resulting bent ears on the washer.

As you can see, when the ears bent, only a small part of the eared washer contacted the HT-100 drag washer.

This was the reason for the lack of drag and the warped feel with the drag cranked tight. My solution is to use one of the original keyed washers at the bottom of the stack, two thin eared washers, one thin keyed washer and one original thick washer at the top of the stack. I haven't tested it yet, but I don't have enough room to use the thickest washer on the top.

As usual, I went through the reel, brushed it up with a little grease. Low and behold, I discovered the reel foot is a separate piece from the frame, and is held there by the two long screws.

who knew? (not me anyway!).

Long story short, I'll post an update when I have a chance to test the drag. I hope the thicker washer gives the eared washer enough room, but ultimately I may have to Dremel out the bottom of the milled slot.

To be continued...