



How to install Versa-Gear™ sets in PENN Torque™ Star Drag reels

(2011 & newer models)

Supplies needed:

Small flat head screw driver

Versa-Gear set

PENN Reel Grease (included in Versa-Gear set)

Torx Wrench (included with reel)

Mat or White Towel to set supplies on



Step 1: Remove handle screw using a small flat head screw driver



Step 2: Remove handle screw lock plate



Step 3: Use handle plate to remove the handle nut by turning counter clockwise



Step 4: Remove handle



Step 5: Unscrew star counter clockwise and remove from reel



Step 6: Remove detent spring assembly and tension washers located below the star on the mainshaft



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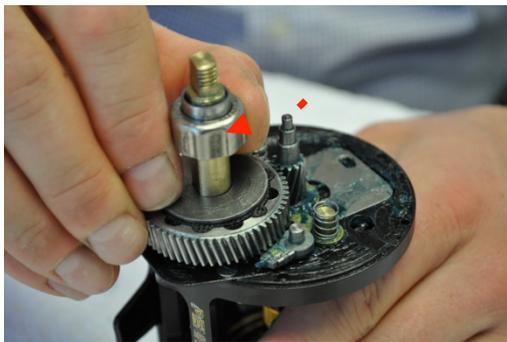
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Step 7: Use torx wrench to loosen three screws on side plate



Step 8: Remove side plate



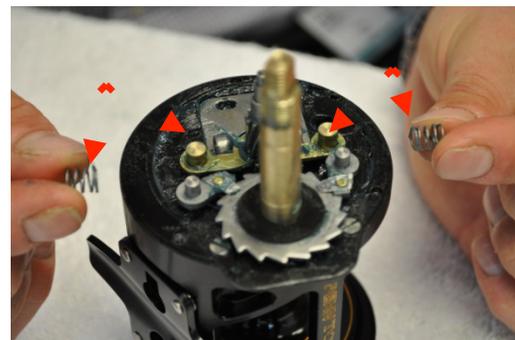
Step 9: Remove instant anti-reverse bearing located on mainshaft



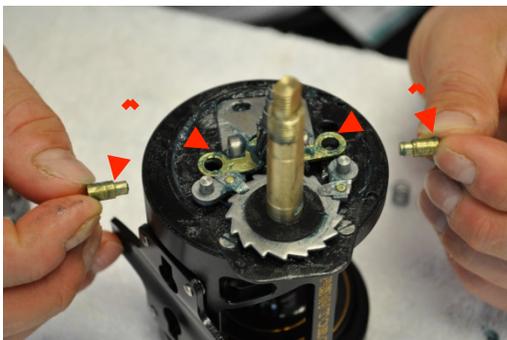
Step 10: Grasp teeth of main gear and slide off the mainshaft. (drag washers located inside main gear will come off at the same time)



Step 11: Turn main gear upside down to remove drag stack



Step 12: Remove yoke springs from yoke pins



Step 13: Remove yoke pins

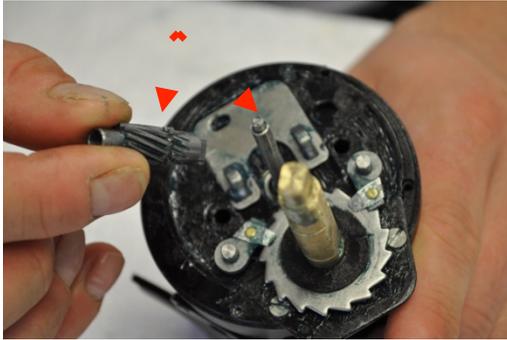


Step 14: Remove yoke

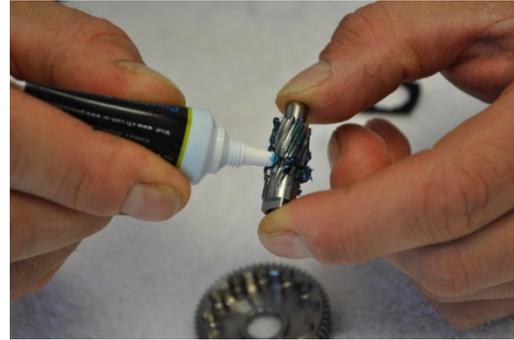


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Step 15: Remove pinion gear from the spool spindle



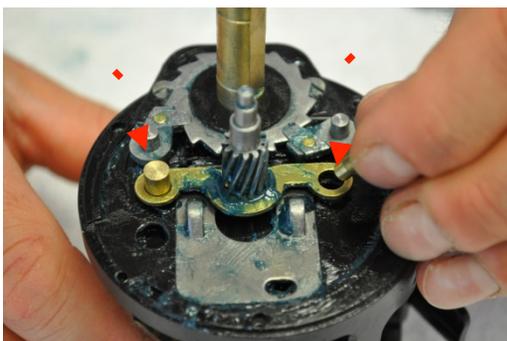
Step 16: Apply PENN reel grease to the new pinion gear included in the Versa-Gear set.



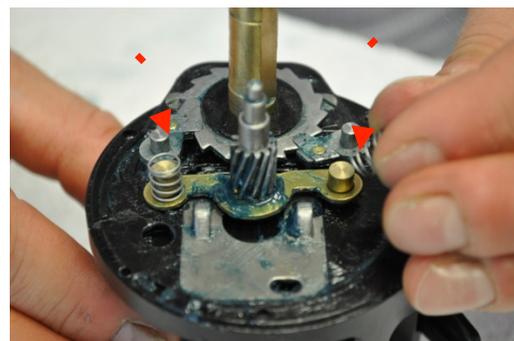
Step 17: Install the new pinion gear on to the main shaft. (note square side of the pinion gear should be facing down towards inside of reel)



Step 18: Install the yoke. It will fit in the groove between teeth on the pinion gear.



Step 19: Install yoke pins

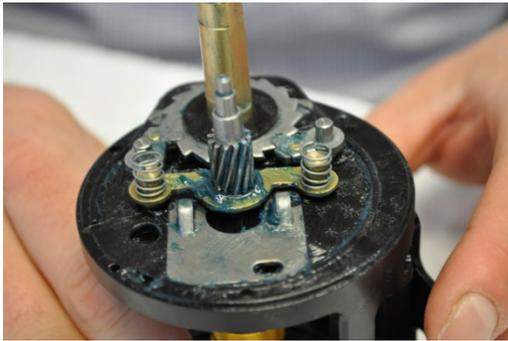


Step 20: Install yoke springs on yoke pins



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Step 21: Completed yoke assembly will look like this



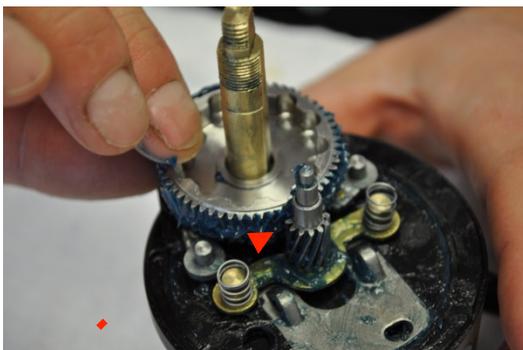
Step 22: Make sure anti-reverse dogs are engaged before finishing assembly or the side plate will not fit onto reel correctly.



Step 23: Use PENN reel grease tube to apply grease all the way around new main gear included in the Versa-Gear set



Step 24: Spread grease with fingers or grease brush



Step 25: Place main gear on main shaft (the teeth should mesh with the pinion gear).



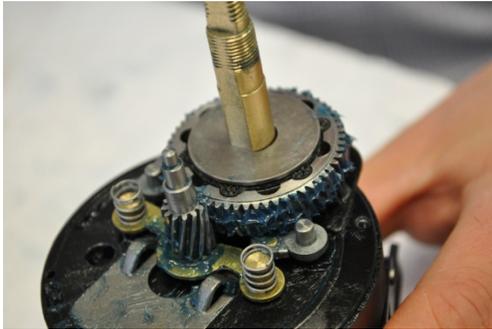
Step 26: Install drag stack on main shaft and place in side the main gear. The slots on the keyed washers will fit inside groves on the main gear.

The order of the drag stack from bottom to top is: HT-100, Steel Washer, HT-100, Steel Washer, HT-100, and on top of the stack a final Steel Washer



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Step 27: Final assembly will look like this



Step 28: Place instant anti-reverse bearing back on mainshaft



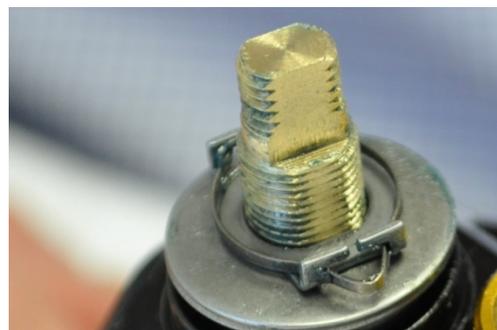
Step 29: Place side plate back on reel. If side plate won't fit flush, check to make sure the anti-reverse dogs are engaged (see step 22)



Step 30: Use torx wrench to tighten three screw on the side plate



Step 31: Place the two tension washers on mainshaft



Step 32: Place dent assembly on mainshaft above tension washers



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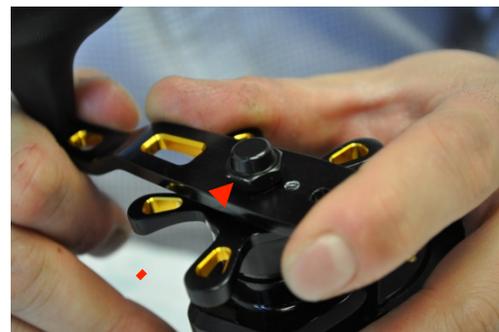
Step 33: Screw the star on by turning clockwise. It will start clicking as it gets tight.



Step 34: Place tension washer on top of star. (note cup/concave side should face down)



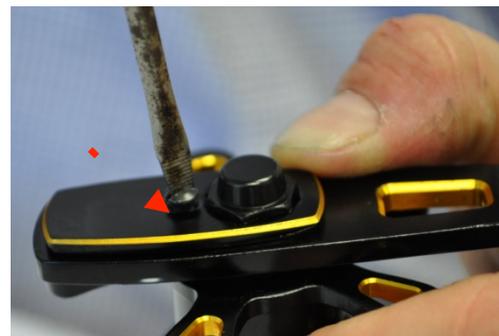
Step 35: Place handle on mainshaft. The length of the handle can be adjusted by placing in the two slots on the handle.



Step 36: Place nut on mainshaft and hand tighten



Step 37: Place locking plate over nut and tighten clockwise until the holes lines up for the screw



Step 38: Place screw in hole and tighten using a small flat head screw driver

End