

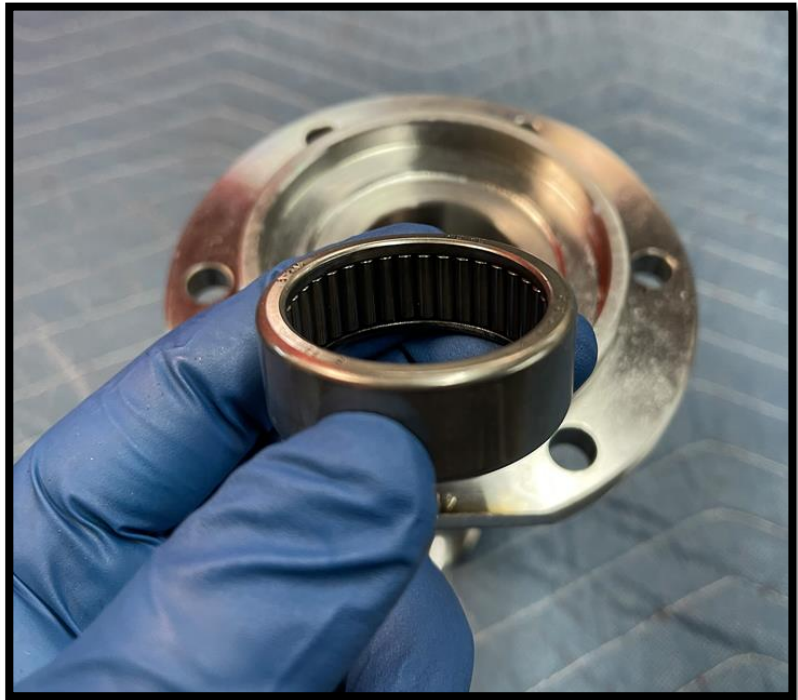
SOLO MOTORSPORTS

4WD Dana 44 hub Installation Guide

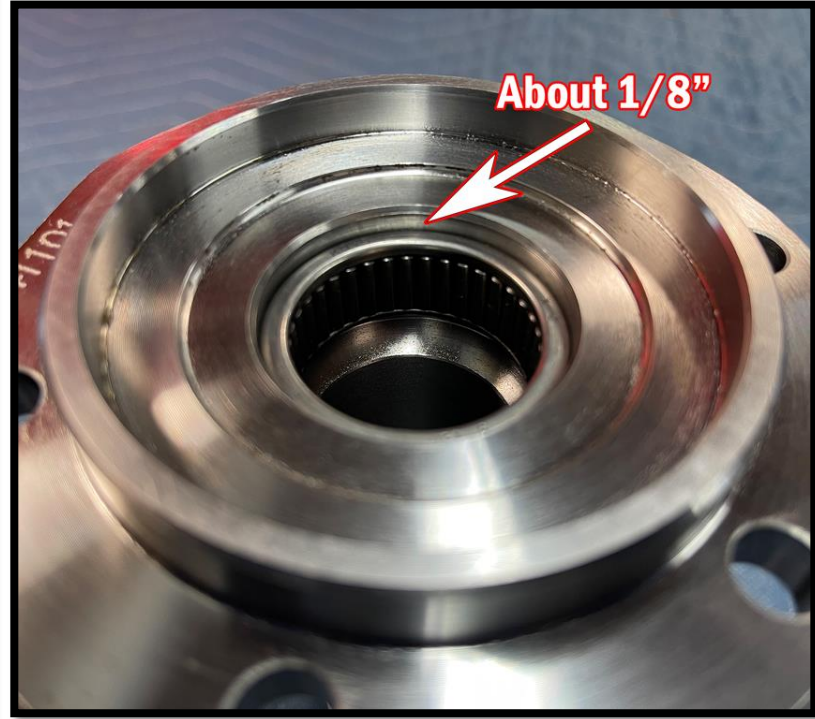
1st Gen Tacoma, 3rd Gen 4Runner,

1st Gen Tundra, 1st Gen Sequoia.





Start with the snout and the rear inner roller bearing. These roller bearings need to be pressed into the back of each snout.



Once the roller bearing is flush with the snout, use a 1 -1/8" socket (or similar) and a rubber dead blow mallet to press the bearing down about 1/8".



**Install rear bearing seal.
Make sure that the seal is
sitting flush with the
snout. If needed press the
snout bearing down more
for the seal to sit flush.**





The Dust/Rock seals will need to be installed on the RCV axle stub shaft. Tools needed are Map gas/Propane torch, pliers, and a hammer.

The metal seal needs to be pressed onto the stub shaft shoulder. Make sure the lip of the metal seal is facing outwards.



We found that applying even heat around the seal will allow the seal to press on the shoulder easier. Apply heat for 2-3 minutes, or more if needed. Use pliers to hold the seal to prevent injury.

***NOTE*: Our method for installation is for the average person that has common hand tools. If you have more advanced tooling (such as a hydraulic press) feel free to use that method of installation.**



While the seal is still hot, hit the seal over the axle stub shaft shoulder. You may have to “walk” the seal on, by hitting it on opposite side. Also using an oversized wrench or an adjustable wrench can help provide a better striking surface to the lip of the seal. The seal should sit flush with the shoulder when finished.

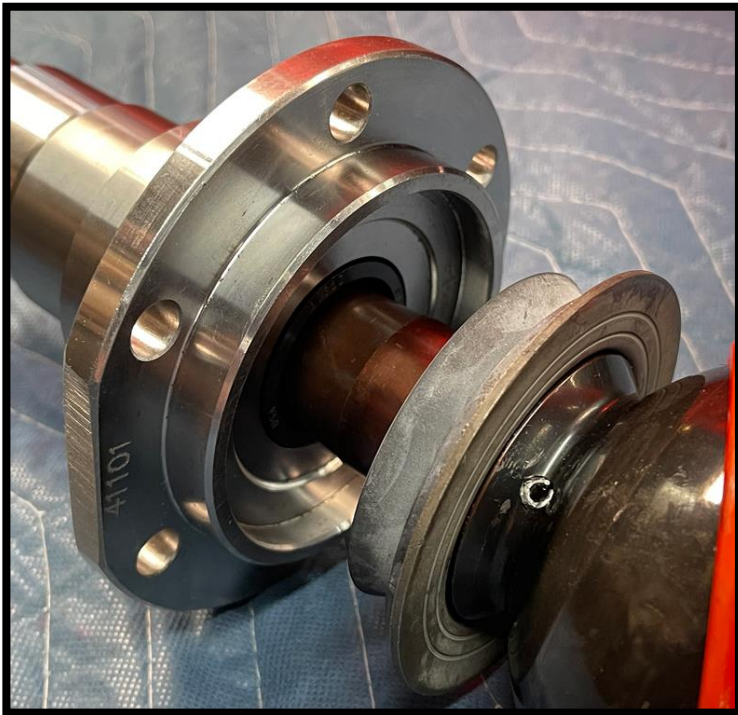
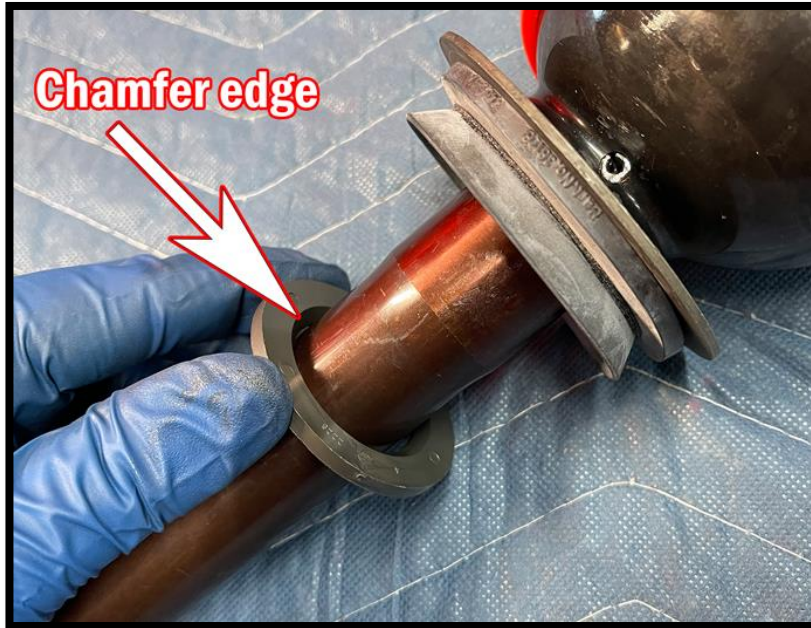
***NOTE* Having a second person can help ease the process of installation.**



Next install the rubber seal to the metal seal. The flared part of the rubber seal faces outward. Be sure that the metal seal has cooled off before installing the rubber seal.



Plastic washer slides to the bottom of the stub axle. The chamfer should face the bottom of the axle.



Slide the snout over axle to check that all seals are seated properly.

NOTE: Depending on what suspension setup is on your vehicle. We recommend to pre-install the axles to the front differential along with bolting up the Fully-Fabricated Spindles to the UCAs (Upper Control Arms) and LCAs (Lower Control Arms). The Fully-Fabricated Spindles should not have the snouts and wheel hubs assembled yet. The axle needs to be pre-installed though the spindle before you bolt the snout and hubs to the spindle.



NOTE: The following assembly pictures were done off the vehicle for instructional purposes.



Install 6-bolt snout to the fabricated spindle. A 3/8th 12 point socket is required (1/2 drive or 3/8th drive). Use green Loctite 290 on the threads of the bolts. Tighten down bolts in star pattern to 37- 40 ft. lbs. (Figure 1)



Pack the bearings with bearing grease and grease the bearing races. Use a bearing packer tool or by hand to ensure that all bearings are well lubricated. (Figure 2)



Install the bigger bearing on the back side of the hub. Be sure that the taper of the bearing is facing towards the front of the hub.

(Figure 3A, 3B)



**Install the inner grease retaining seal on the back side of the hub.
Be sure that seal is seated flush with the hub. (Figure 4)**



Slide hub over the 6-bolt snout. The wheel studs should be facing you. (Figure 5)

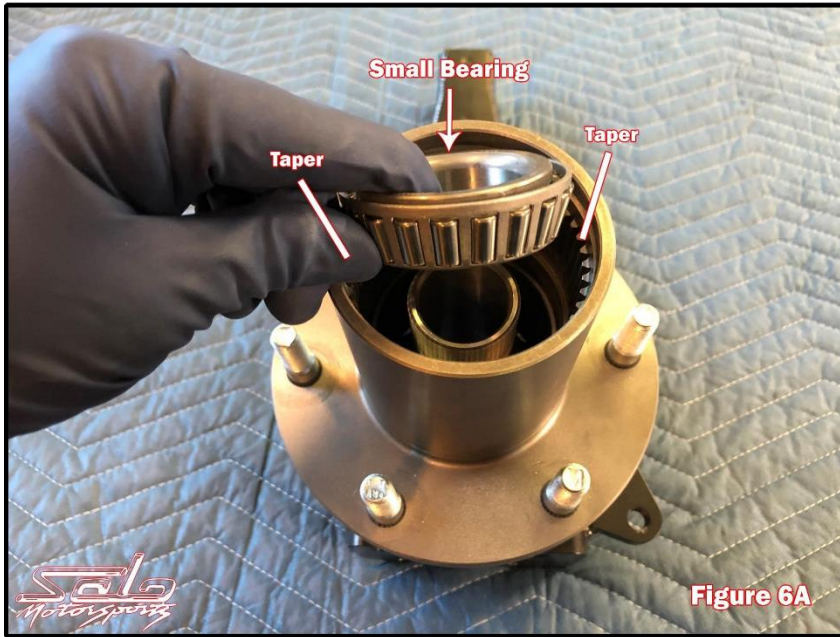


Figure 6A

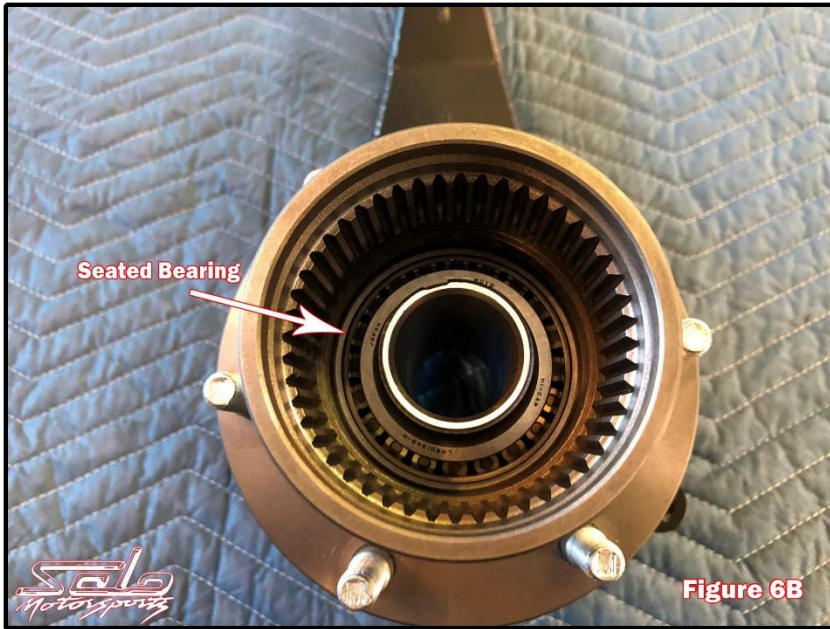
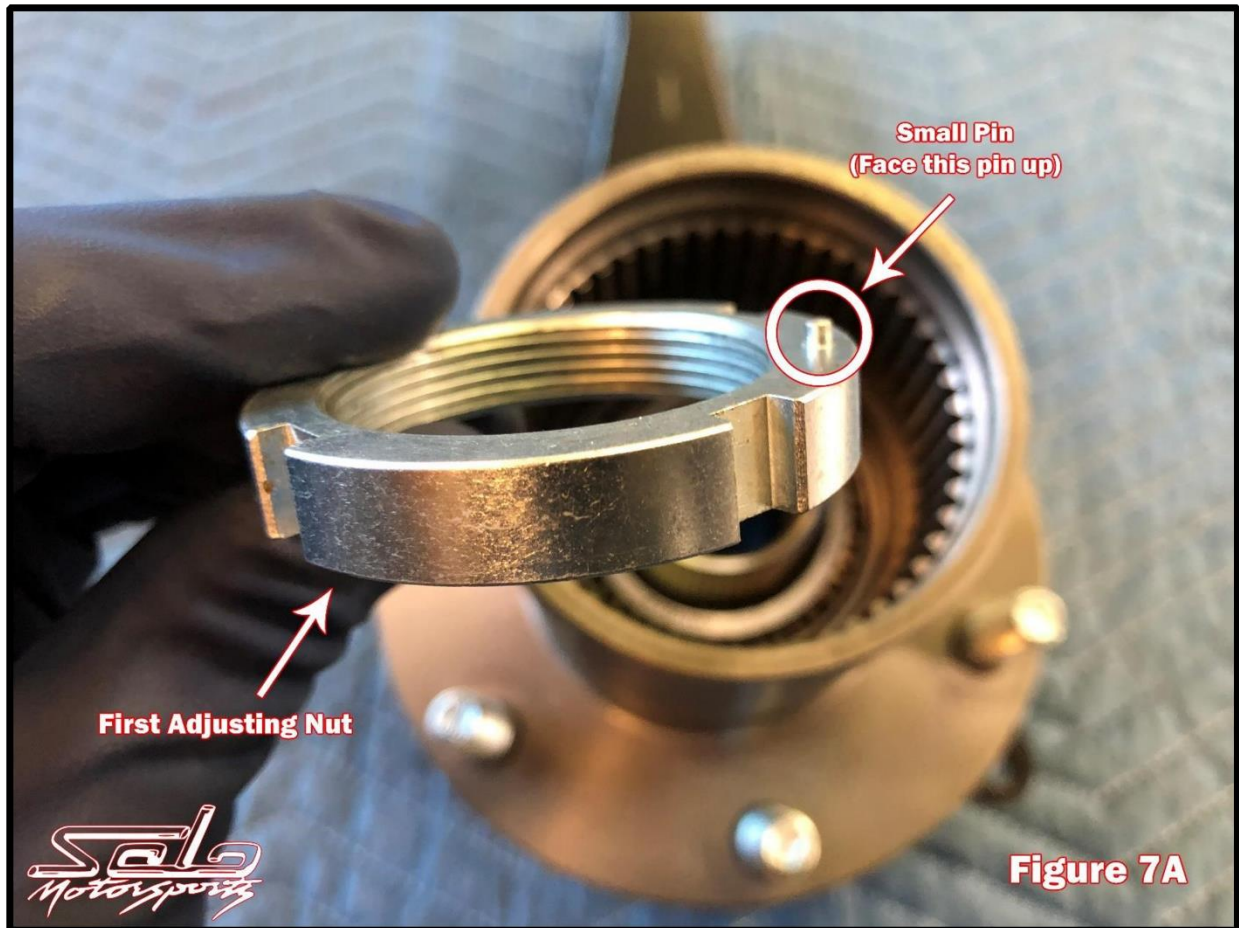


Figure 6B

Install the smaller bearing on the snout. The taper should be facing towards the spindle. (Figure 6A, 6B, 6C)



Figure 3B, 6C



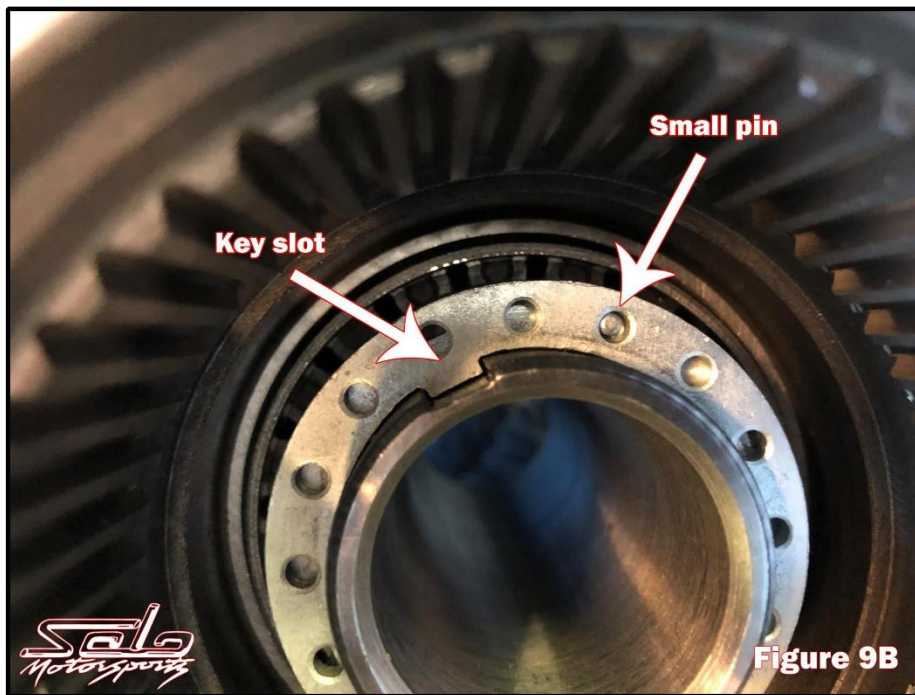
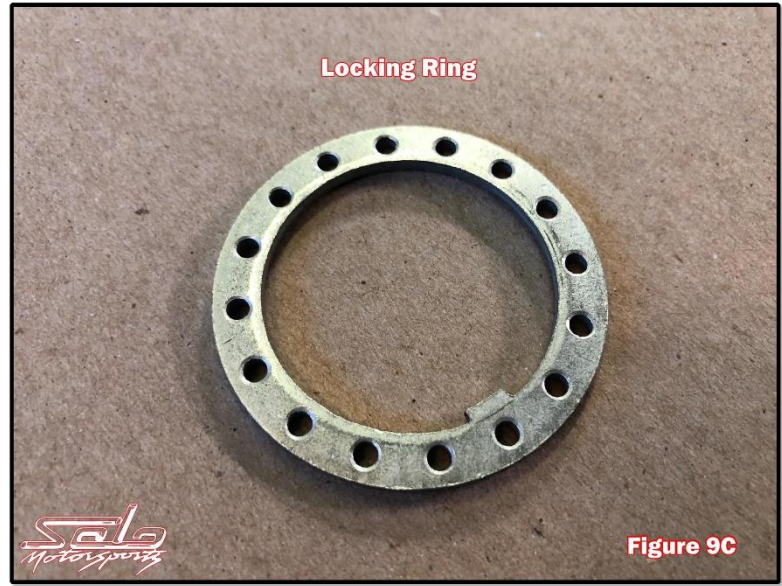
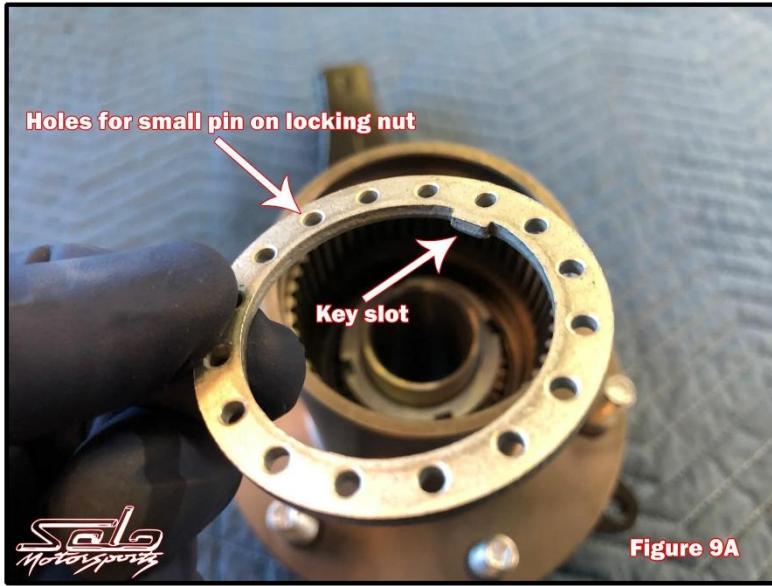
Thread the adjusting nut with the small pin onto the snout. Be sure that the small pin on the nut is facing towards you. (Figure 7A)

Dana 44 Spindle Nut Socket



Using the Dana 44 spindle nut socket (can be purchased at most auto parts stores). Apply inward pressure on the hub nut wrench and tighten the adjusting nut to 70 ft. lbs. (95Nm) while rotating the hub back and forth to seat the bearings. (Figure 8) Apply inward pressure on the wrench and back off the nut about 90° then, re-tighten the nut to 15-20 inch lbs. (20-27Nm).

Remove the wrench. End-play of the hub/ rotor assembly should be 0 (zero) and the torque required to rotate the hub assembly should not exceed 20 inch lbs. (2.26 Nm).



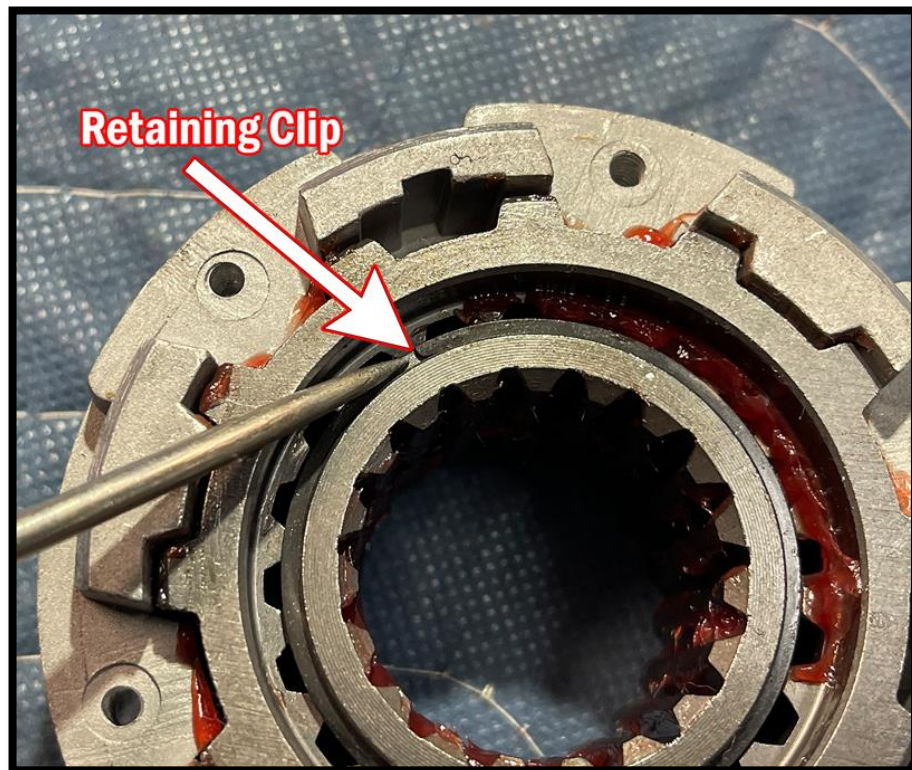
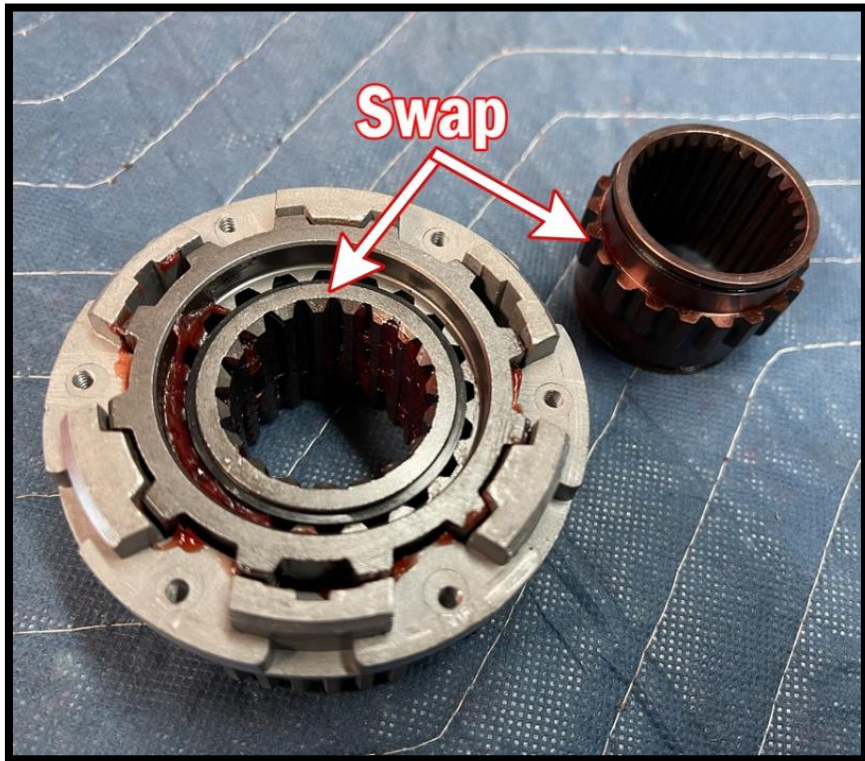
Install locking ring over the snout. The locking ring needs to fit in the key slot on the snout and the holes on the locking ring need to align over the small pin on the adjusting nut. (If needed flip the locking ring over if the holes do not align onto the small pin) (Figure 9A, 9B, 9C)



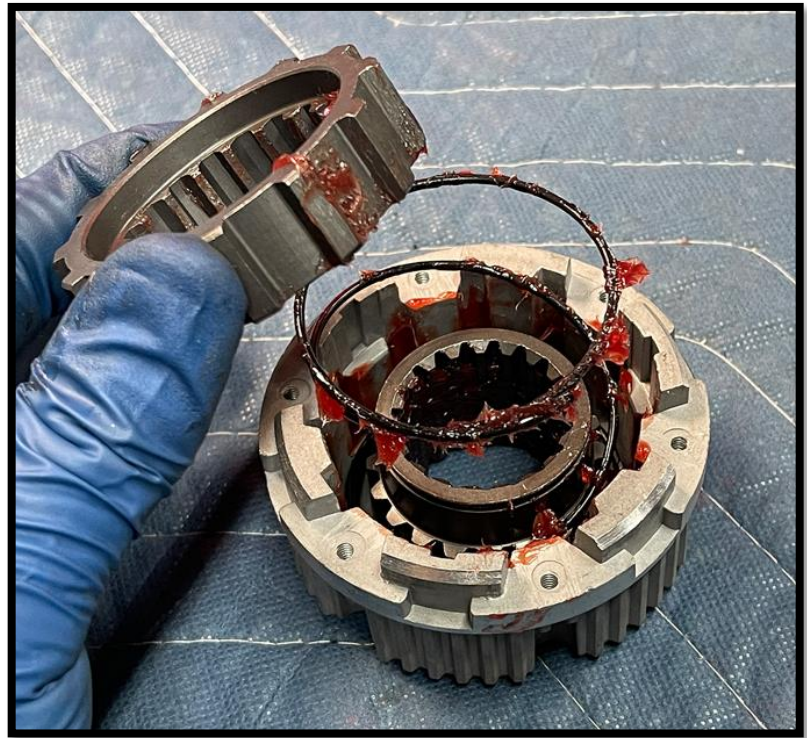
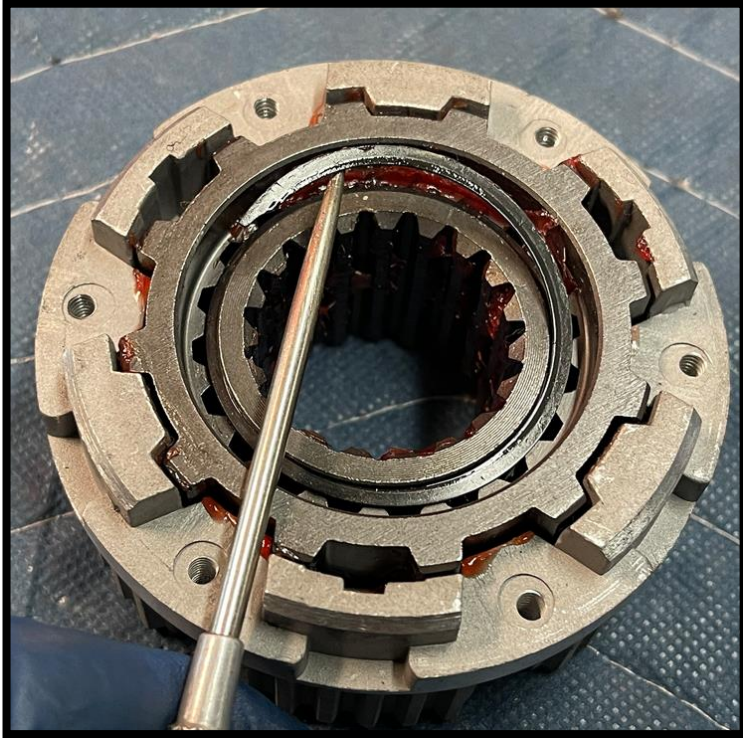
Install secondary locking nut onto snout. Tighten the secondary locking nut to 160-205 ft.lbs. (217-278 Nm) (Figure 10A, 10B)



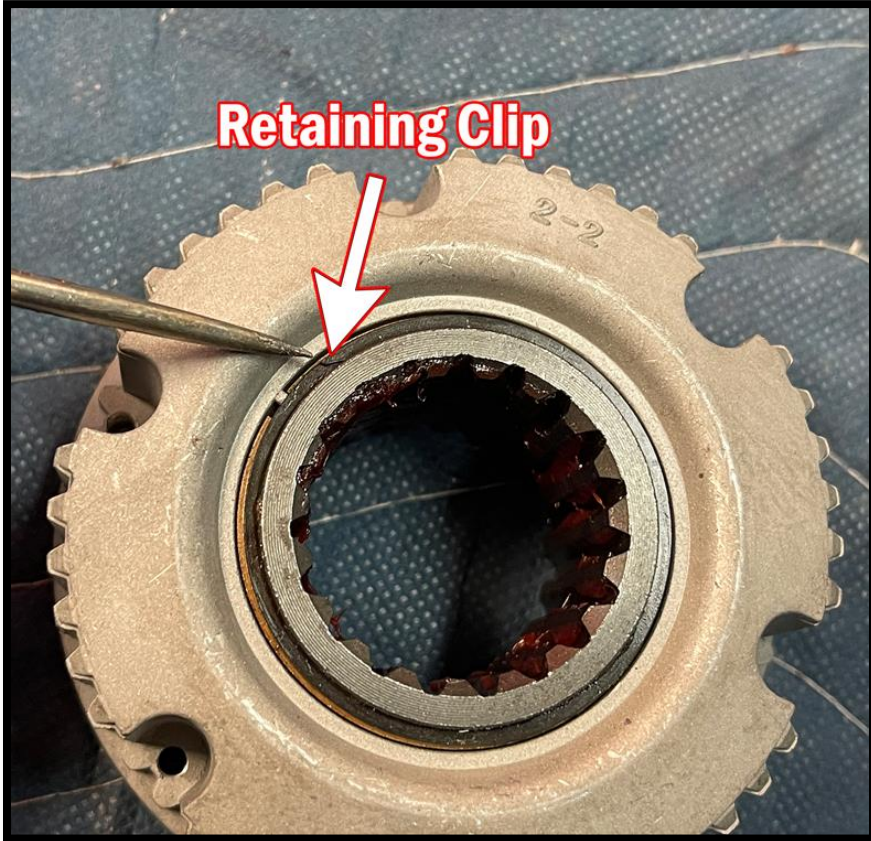
The supplied manual locking hubs come with a 19-spline inner broached star. The RCV 30-spline adapter will need to be swapped into the manual hubs.



Use a pick to pry out the retaining clip. Caution, there is a light duty spring behind the retaining clip.

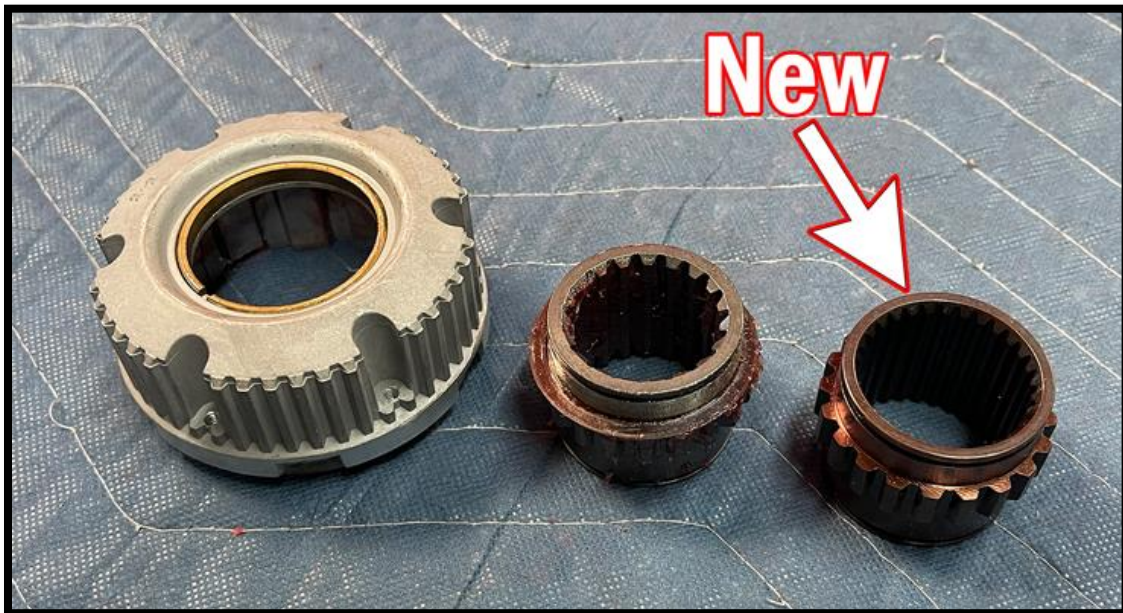


***NOTE*: When disassembling the manual locking hubs be sure to take note of the orientation of each piece. During reassembly double check that each component is placed back in the correct direction.**



Remove the second retaining clip from the back side of manual locking hubs

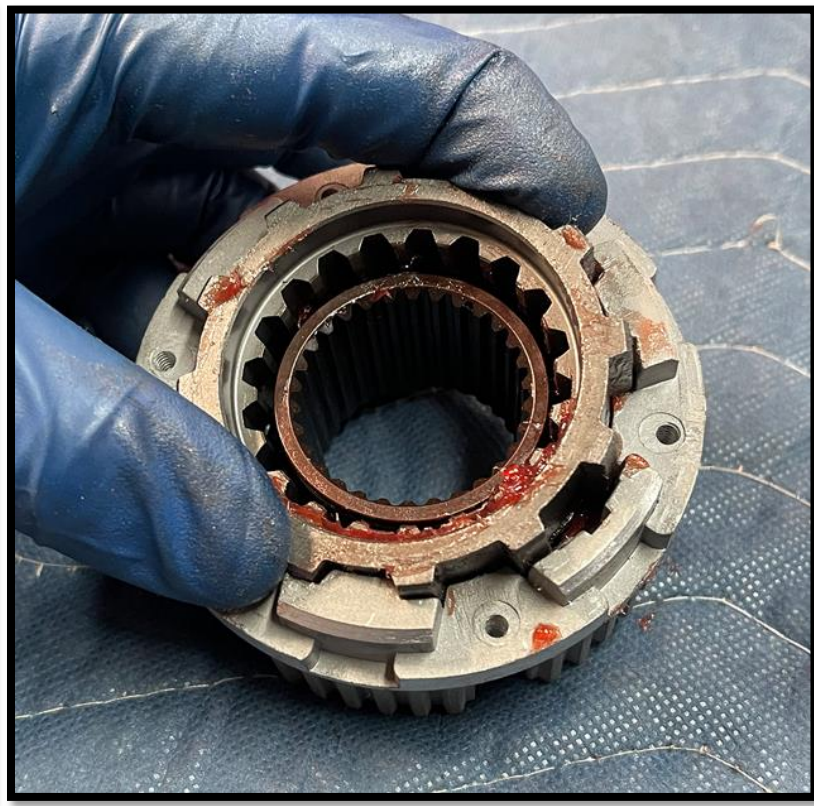
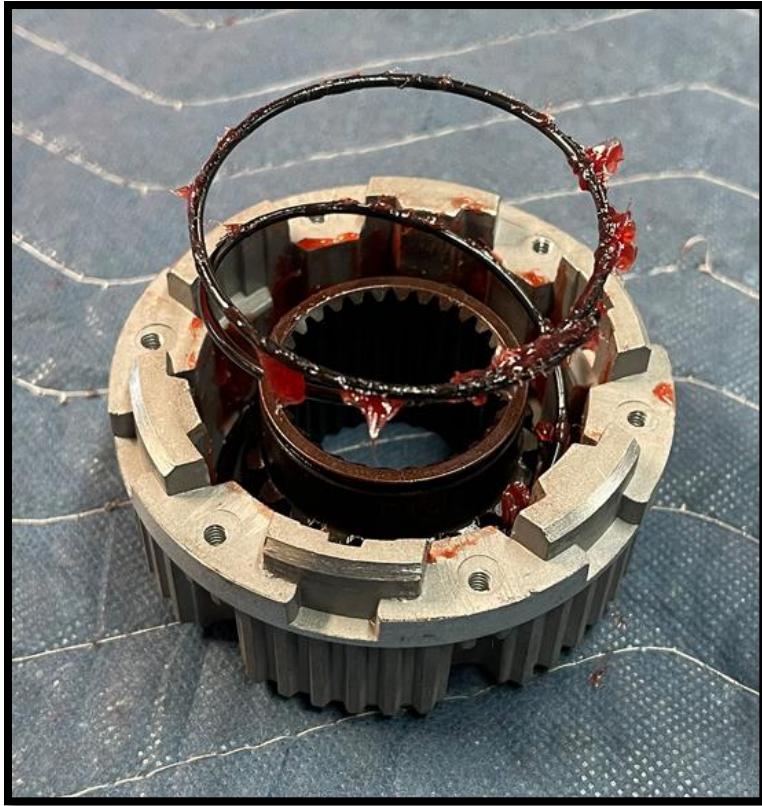




A washer can be suck to the old 19-spline star or stuck on the inside of the hub. Remove the washer and place it on to the new 30-spline star adapter.



Reassemble the retaining clip with the new RCV 30-spline star adapter.

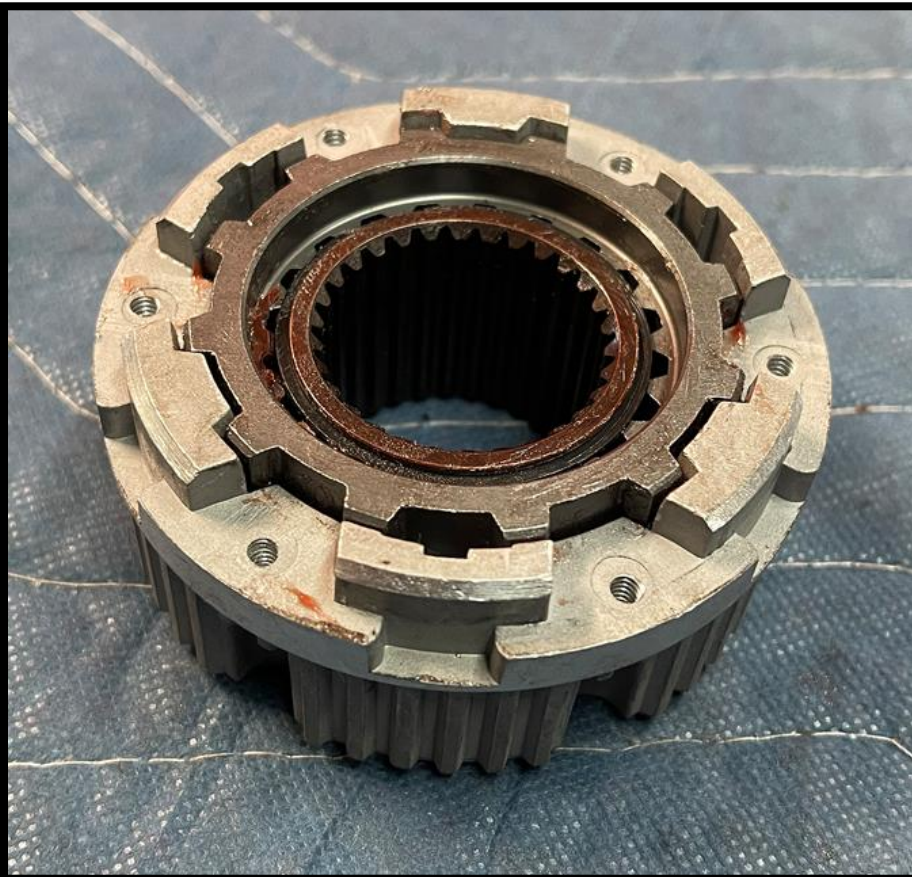


Reassemble the hub with the spring and the metal spring retainer.

***NOTE*: Make sure that each component is facing the correct direction with reassembly.**



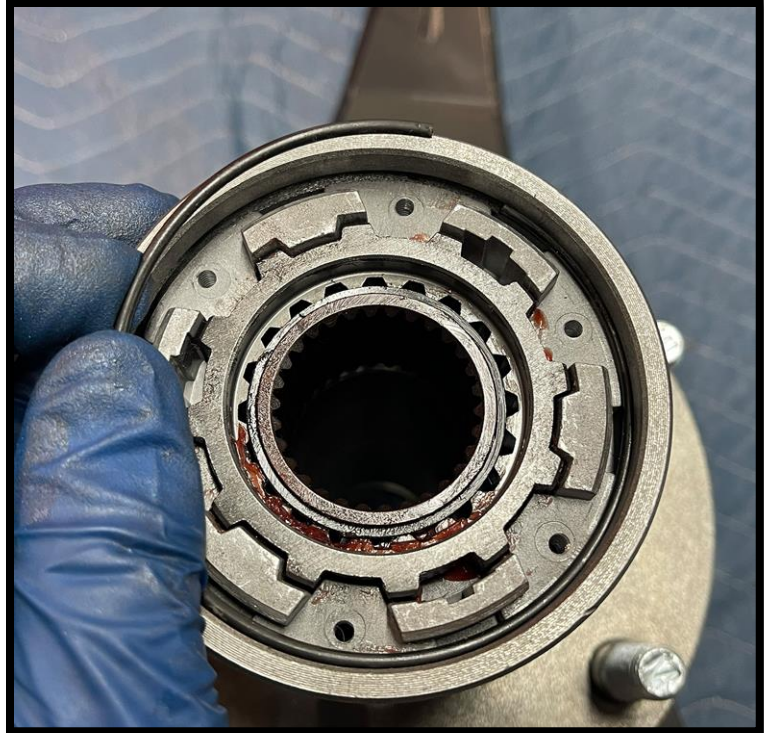
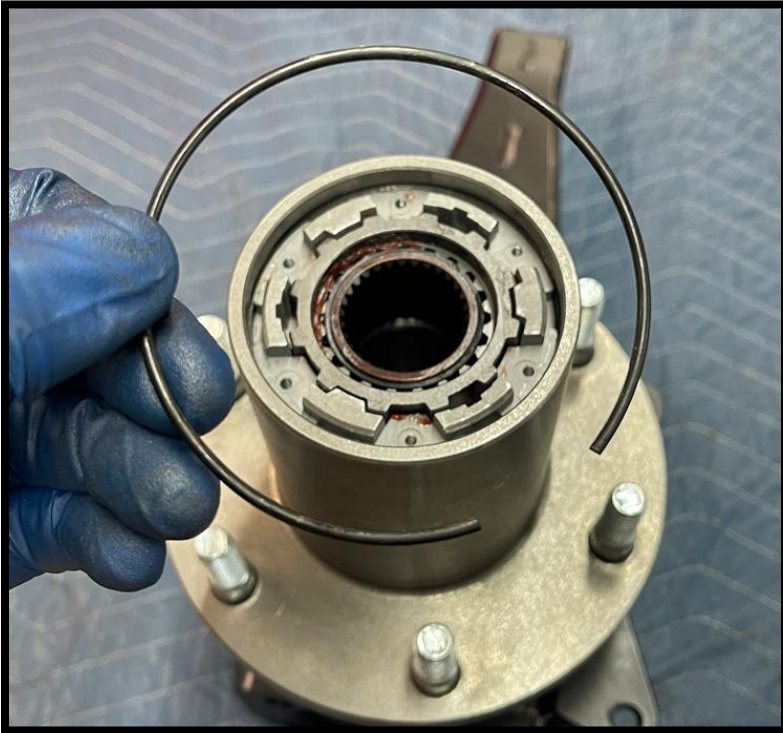
Reinstall the second retaining clip to the RCV adapter. You may need a second set of hands to assist with holding down the spring to install the clip.

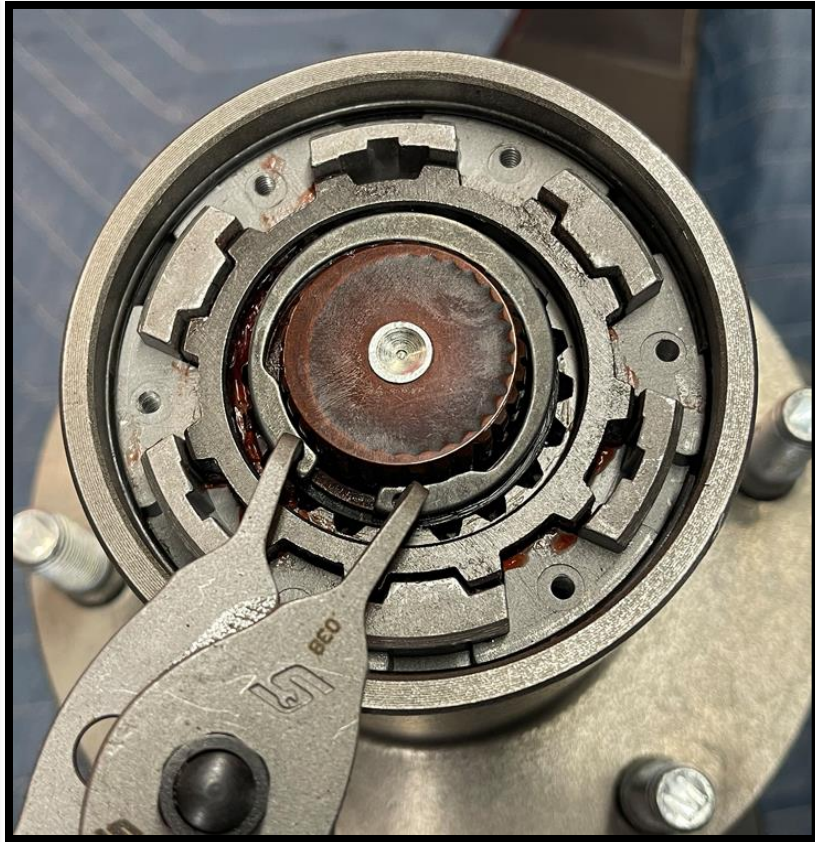
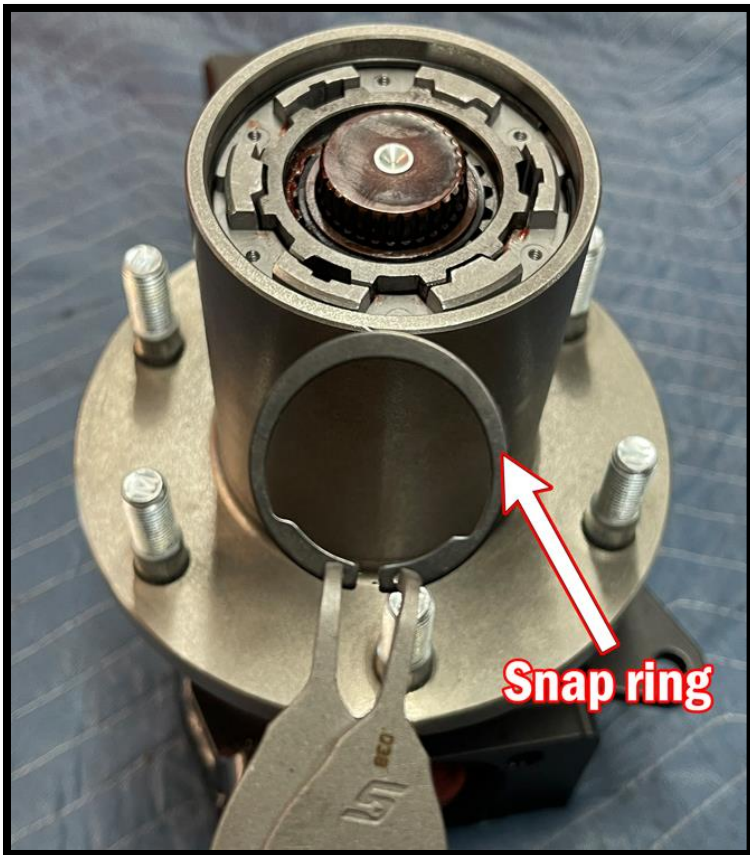




Install the manual locking hub. Make sure that the hub is properly seated in the wheel hub.

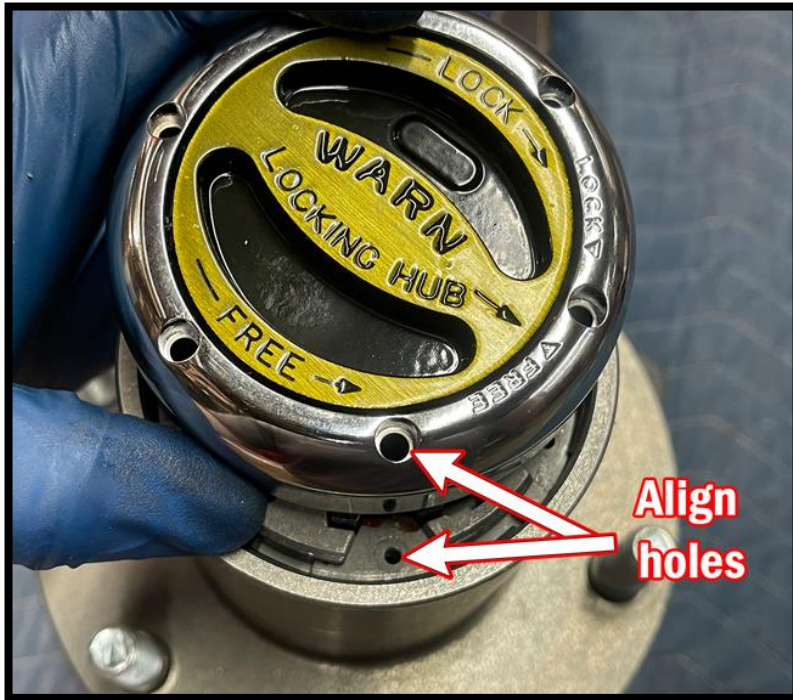
NOTE*: Make sure that all touching metal surfaces have a light amount of bearing grease.





Use a pair of snap ring pliers to install the snap ring around the stub axle shaft.

***NOTE* You may need to compress the suspension for the axle shaft to stick far enough past the hub to place the snap ring in the groove.**



Align the holes on both hub components and press the locking hub into the wheel hub. Use the 6 supplied bolts and tighten down the manual locking hub. The allen key is a 7/64, but depend on the supplied hubs the bolts may vary in size. Do not over tighten the 6 bolts and add anti-seize to the bolt threads.

The manual locking hubs are now complete.

***NOTE*: Make sure that all touching metal surfaces have a light amount of bearing grease.**

Please contact us if you have any questions about any of our suspension products.

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