## **STEERSMARTS**<sup>™</sup>

## 2018+ JL/JT Jeep Wrangler/Gladiator Yeti XD Sector Support Frame Side Track Bar Reinforcement Bracket

Part Number: 79040001



## Tool List:

- 1. Torque Wrench
- 2. Ratchet Wrench
- 3. Socket Extensions (will need a long one for a couple places)
- 4. 13mm socket (sector shaft support plate fasteners)
- 5. 18mm socket (old steering box fasteners and new track bar bolt)
- 6. 19mm socket (new steering box fasteners)
- 7. 21mm socket (new track bar nut)
- 8. 42mm deep well socket (to remove stock sector shaft nut and to install our new nut)
- 9. Breaker bar or impact gun
- 10. Rubber mallet

We recommend removing the driver's side tie rod end and also the track bar to make this installation as quick and easy as possible. Depending on if you have the stock tie rod, ours, or another aftermarket option will dictate any other tools you may need to uninstall and reinstall said products.

## Installation Steps:

1. Remove the Track Bar bolt from frame side. We recommend removing track bar from the vehicle to keep it out of the way and make the install process easier.



2. Using a ratchet strap, attach one end to the spring and then the other to the frame (or somewhere that won't move and won't be in the way). Gently pull the spring back and out of the way so that you can easily access the steering box fasteners:



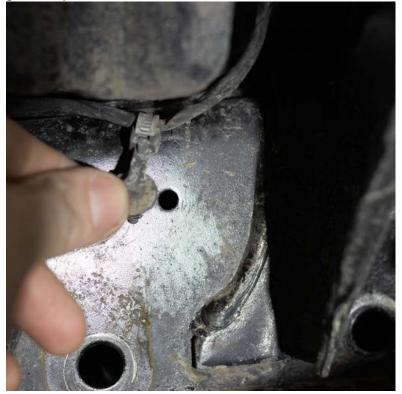
3. Using the 42mm deep well socket and breaker bar (or impact gun), remove stock sector shaft nut from sector shaft (steel box shown in this photo):



4. Use the 18mm socket and remove 4x fasteners holding Power Steering Gear Box in place:



5. \*\*\*STEP ONLY FOR VEHICLES WITH FACTORY EQUIPPED STEEL STEERING BOX (2021+ MODELS)\*\*\* The steel steering box has a wire that mounts in a hole that will be covered once the bracket is installed. The first run of this bracket will require a small (1/4") hole be drilled so that you have a place to mount the wire again. The 2<sup>nd</sup> iteration of the bracket will already have the hole in it, so if you have that version or the aluminum steering box, skip this step, check step 6 if JT Mojave or Diesel, otherwise go to step 7.



Measure approximately 1" to the right from the center of the top hole on the left side of the bracket. Using a center punch tool (or marker).



Drill a smaller pilot hole to get started, then use a ¼" drill bit to get the correct size hole to fit the plug for the wire in. We used a deburring bit to round/smooth the hole on the front and back of the bracket – this is optional. We also recommend using a little bit of black paint (Rustoleum works) and add it to the hole to keep any rust from starting (again, this is optional). \*Note – we have our bracket in a vice to keep it from moving.



6. \*\*\*STEP ONLY NECESSARY FOR JT MOJAVE AND DIESEL GLADIATORS W/ REINFORCEMENT PLATE\*\*\* These vehicles are equipped with a reinforcement plate on the upper coil perch that is only welded in the middle of the plate. You will need to cut the bottom edge of this plate off so that it is flush with the bottom of the coil perch to allow the Sector Support bracket to fit into place. See photos below:



7. With the Bracket oriented in the same way as it will be when installed on the vehicle, begin feeding the bracket up to its mounting location, starting down by the axle (you will not be able to install it from the side as the tabs will get in the way). Once in position, place the new M14 track bar bolt into the bracket to hold it in place. You can now insert the new fasteners included in box, sliding the two longest M12 bolts into holes 1 & 2 (closest to bumper) and the two shorter M12 bolts into 3 & 4. (Proper washer stacking is lock washer first, then the big washer) (see photo). If you have the steel steering box you will use 4x of the shorter bolts.



 Use the 19mm socket and torque to the following spec (for the steel box you can reinstall plug after torqueing): 2x Long Bolts (aluminum box): 44 ft lbs + 170° 2x Short Bolts (aluminum box): 44 ft lbs + 135° 4x short bolts (steel box): 44 ft lbs + 135°

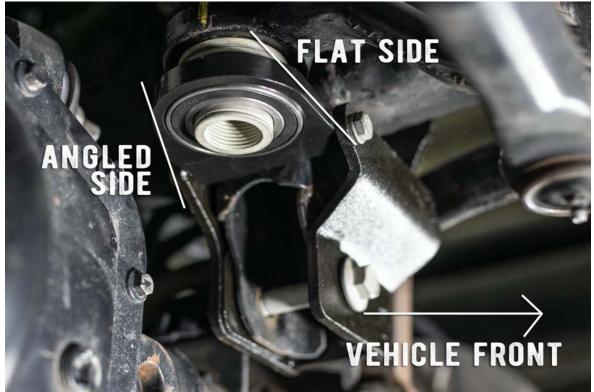


9. Now install the Steer Smarts sector shaft nut. Included are two washers that are used as spacers. Place the two washers on the sector shaft above the sector shaft nut and then thread the sector shaft nut onto the sector shaft. We recommend applying some Red Locktite at this point, too.



- 10. Use the 42mm deep well socket and torque the Steer Smarts sector shaft nut to 177ft lbs
- 11. Place the roller bearing plate into position, orientating the plate with the flat side of the plate facing towards the front of the vehicle and the angled side facing back towards the axle. The fit here will be tight and you will likely need to use a rubber mallet to gentle massage the bearing plate into position.

A few taps on the plate on the end near the bracket should do the trick. Once you have the plate onto the sector shaft nut you can position the plate so the holes line up with the reinforcement bracket and you can start to install the fasteners and their washers.



For any issues with the bearing plate not lining up with bolt holes, you may need to loosen the steering box bolts to adjust the plate for everything to align properly – the holes for the steering box and the track bar mount are slightly oblong and can be adjusted slightly for proper alignment.

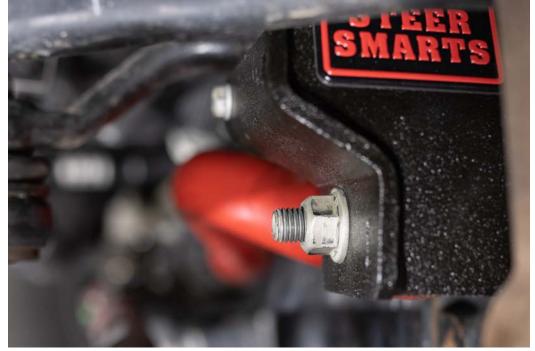
12. Use 13mm socket to torque roller bearing plate bolts to 25-35 ft lbs. (you will need an extension to access axle side bolt)



13. Install the c-clip beneath the roller bearing plate in the sector nut channel



14. Remove the track bar bolt from the bracket and reinstall the track bar onto the vehicle. It is recommended to install the track bar bolt from the bracket side closest to the axle, with the bolt head facing the rear of the vehicle (the nut will be closest to the front of the vehicle). The reason for this is that the fastener is longer than the stock bolt to accommodate for the added thickness of the reinforcement bracket adds, and because of this the bolt could come into contact with the axle if facing the other way (see picture below for correct orientation). Using a 18mm socket on the bolt head and a 21mm socket on the nut, torque the track bar fasteners to 125-130 ft lbs.



- 15. Following the installation instructions for whatever tie rod you have, you can now reinstall the tie rod and anything else that you've taken off to install this piece.
- 16. It is recommended to add a paint marker stripe to all bolts that have been torqued so that you can verify that the bolt has been torqued and will be able to easily tell that something has loosened up if the paint marker lines no longer line up.
- 17. You have successfully installed the Sector Support Frame Side Track Bar Reinforcement Bracket.