



Boostwerks Engineering

Installation Guide: Ultimate XJ Steering Brace

Thank you for purchasing the BWE Ultimate Steering Brace! We take great pride in designing, testing, and fabricating the highest quality components for your beloved 84-01 Cherokee and/or Comanche. If you have any issues or concerns, don't hesitate to contact us! Our contact info is in the back of this document.

Thanks again!

Bryson W. (Owner/Fabricator)

Package Contents:

QTY - Main Components:

- 1 - Steering Brace Assem.
- 2 - Nut Plates
- 1 - 1 1/4" Pillow Block Bearing

QTY - Hardware:

- 1 - Pitman Nut
 - 1 - 7/8" Lock Washer
 - 4 - 1.25" 1/2" FT Bolts
 - 2 - 1.5" 1/2" FT Bolts
 - 6 - 1/2" Washers
 - 2 - 1/2" FT Flange Lock Nuts
 - 4 - M10 x 1.5 x 30 Bolts
 - 4 - M10 Washers
 - 1 - Loctite Capsule
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Tools Required:

- Your favorite ratchet
- 3/4" Socket
- 17mm Socket
- 3/4" Wrench
- 1 1/4" Extra Deep well Socket
- 1 5/16" Socket
- Some tunes
- Hand Drill
- 1/2" Drill Bit
- Paint Marker and Center punch
- Hammer
- Torque wrench capable of 180ft/lbs
- A cold bev'g
- And a sense of humor <@:-)

Installation

1. Begin by removing the sway bar, and anything else that may be attached to the bottom front of the uni-rails (skid plates, lights, wires...etc). The bumper may need to be taken off as well to install the supplied nut strips. The bottom "lip" on both sides will need to be hammered flat to allow the brace to sit flush to the rail. **You will also need to cut out the lower front section between the unirails so the brace will sit flat on the frame rail** (left of the red arrow). An air powered nibbler or angle grinder with a cut off disc will work. **(Fig 1)**.



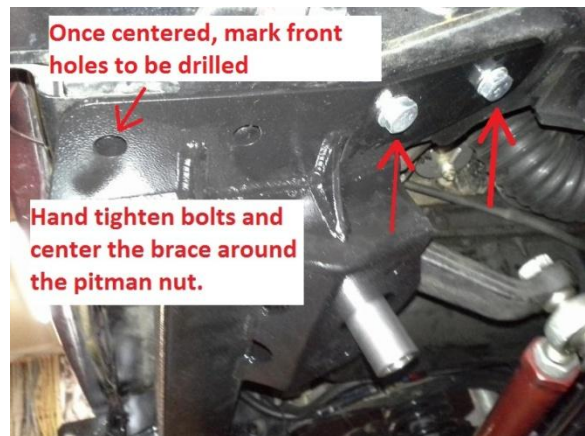
(Fig 1)

2. Next remove the pitman nut and lock washer. Clean the threads of the sector shaft and apply some anti-seize lubricant. Install the supplied lock washer and pitman nut **(Fig 2)**. Be sure that the sector shaft does not interfere with the lock nut to ensure that the pitman arm will be in compression once tightened. Torque to 150ft/lbs (180ft/lbs without antiseize). Do NOT over torque by using an impact. **We will not warranty a stripped pitman nut.**



(Fig 2)

3. Install the steering brace using the 4 supplied 10mm bolts/washers. Before tightening the bolts, adjust the brace so that the pitman nut is centered in the hole **(Fig 3)**. Mark the front most holes for drilling. **(Do not torque the bolts at this time)** Remove the brace and center punch the marks for drilling. Using a 1/2" drill bit, drill both holes and deburr the edges. Be sure to paint the holes to prevent rust from forming.



(Fig 3)

4. Insert each of the nut plates into the inner frame rail from the front openings. Note the positioning of the plates. **(Fig 4)**

5. Reinstall the brace, once again making sure to center around the pitman nut. Align the nut plates and install the 4 - 1.25" ½" bolts. **(Fig 5)** If you are using sway bar drop brackets, they can also be installed at this time. Torque bolts to spec.

6. Install the pillow bearing onto the pitman nut, and bolt to the brace using the 2 – 1.5" 1/2" bolts and flange lock nuts. Make sure to use the supplied washers on the side of the bolt, not the washer. The fit over the pitman nut should be tight, and may require a couple taps from a hammer to install. Once bolted to the brace, both Allen screws can be evenly tightened up (do not over tighten!). **All that's left is to grease the bearing!**

Before you drive the rig, ensure that the pitman arm does not contact the brace! To do this jack up the front axle and turn lock to lock. If it does make contact, you will need to adjust your steering stops at the knuckle.

Test drive, and enjoy!

Boostwerks@hotmail.com

Release of Liability:

Due to the custom nature of this product, Boostwerks LLC will not be held liable for any damage caused by improper installation or use. This product is intended for off-road use only, and should not be used on a public highway. The owner assumes all Liability.

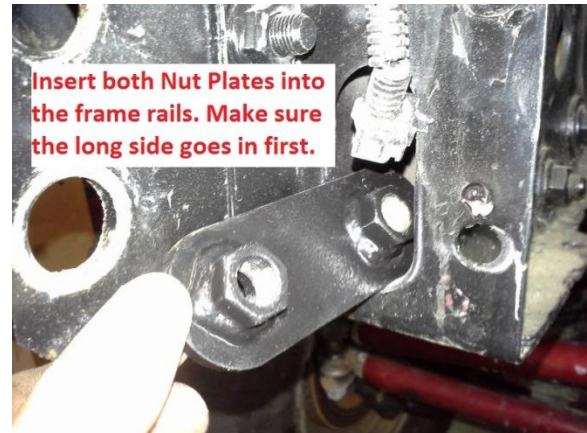


Fig 4

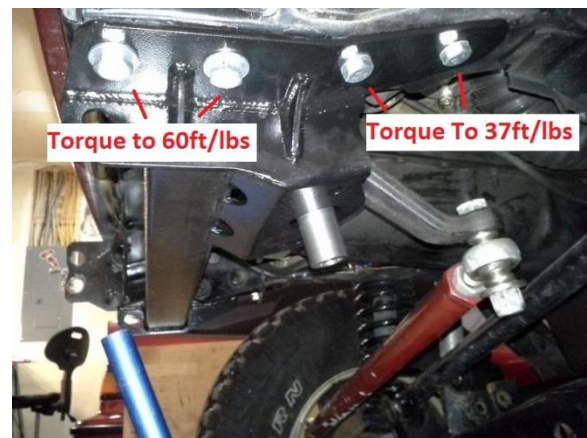


Fig 5



Fig 6