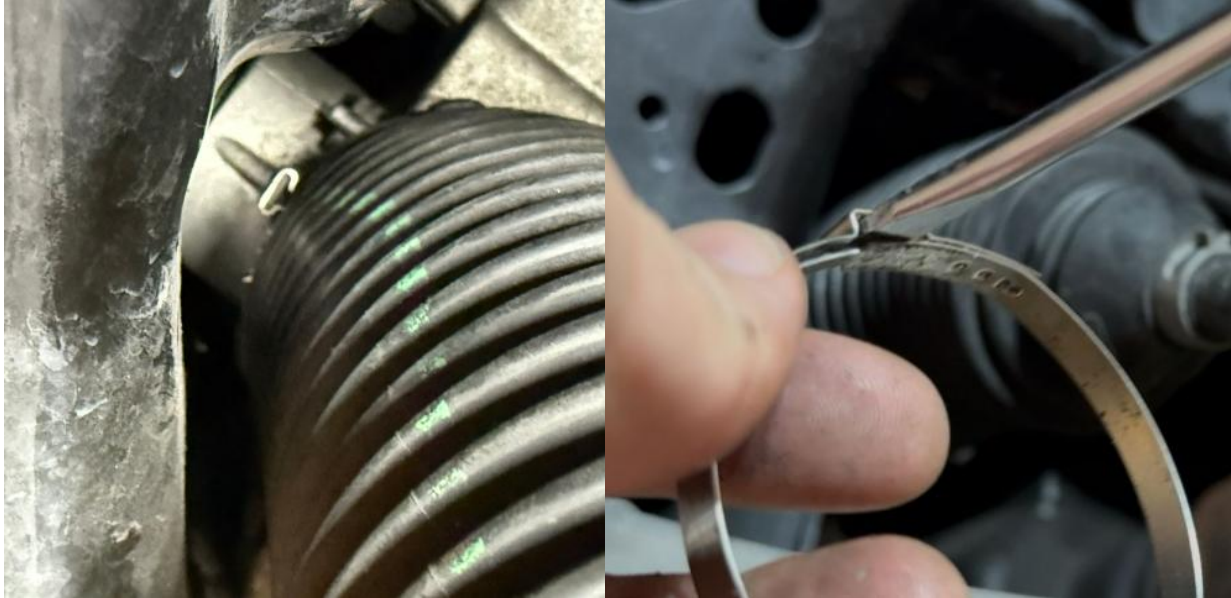


## 21-25 Ford Bronco HD Billet Tie Rod Heim Kit

1. Disconnect the negative battery terminal.
2. Jack up the front of the vehicle and support it properly with jack stands. Remove the front wheels.
3. Starting on one side of the vehicle, loosen the tie rod end nut and separate the tie rod end from knuckle.



4. Release the steering rack boot clamp from the steering rack by inserting a flat blade screwdriver into the loop on the clamp and twisting it. The clamp at the small end of the boot can be loosened and moved with a pair of pliers. Slide the steering rack boot away from the rack.



5. The inner tie rod end will have flats on it to allow you to use a wrench to unscrew it. We used a large adjustable wrench to unscrew and remove the inner tie rod end from the Bronco.



6. Install the tie rod end clevis to the steering rack: Apply a small amount of thread locking compound to the threads of the M16 x 25mm bolt. Position the clevis so the **clevis slot (opening)** is oriented **vertically**. The hole with the threads on the clevis should be facing the rear towards the CV axle. Tighten with a 14mm Allen socket.



**Tech Tip:** If you do not have a 14mm Allen socket, you can make one from a 14mm headed bolt. Thread a couple of nuts onto the bolt and tighten them, or tack weld the nut, then you can use a 14mm deep socket with the bolt inserted to tighten the clevis bolt.





7. Install the tie rod end stud into the knuckle so that the long side face up. Secure it using the 1/2-20 nut, and torque it to 85 ft lbs. Slide the large, tapered spacer over the stud. It should sit flat on the knuckle with the smaller taper side facing up.



8. Install the new UPR steering rack boot onto the UPR aluminum tie rod sleeve:

Place the small squeeze clamp onto the small end of the billet sleeve, then slide the boot onto the small end of the sleeve. Applying a little dish soap and water to the boot will help it to slide onto the sleeve easier. Slide it on until the boot meets the larger diameter portion of the sleeve. Secure the clamp with squeeze clamp pliers.



9. You will need one right hand thread and one left hand thread Heim joints per tie rod end assembly. **Apply a small amount of anti-seize compound to the Heim joint threads**, then thread the Heim joints into the sleeves. Leave about 1/2 inch of thread showing from the jam nut to the head of the Heim joints.

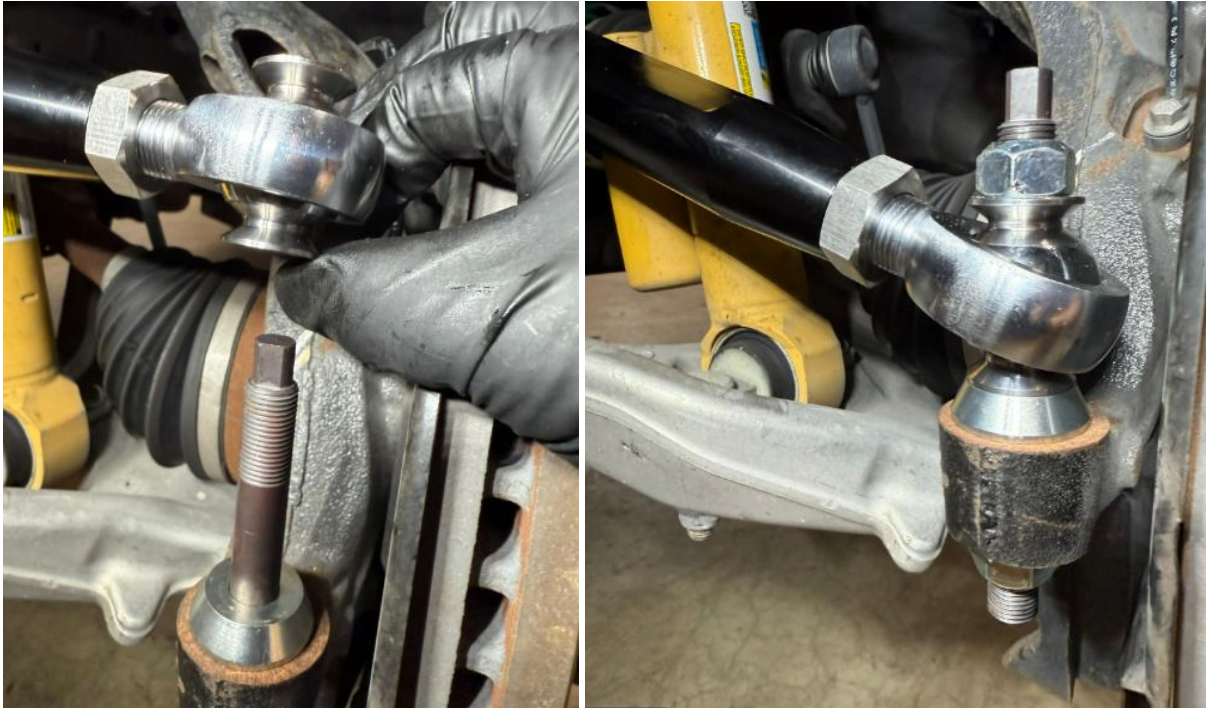


10. Install two of the top hat spacers into the Heim joint on the boot side of the tie rod assembly. Slide the large squeeze clamp over the large end of the steering rack boot. Install the boot side of the tie rod assembly into the clevis on the steering rack. Using the 7/16 allen headed bolt and washer, thread this bolt into the clevis and torque it to 60 Ft lbs. Install the washer and jam nut onto the exposed threads of the bolt and tighten the nut. **Do not install the boot and clamp onto the rack at this time.**

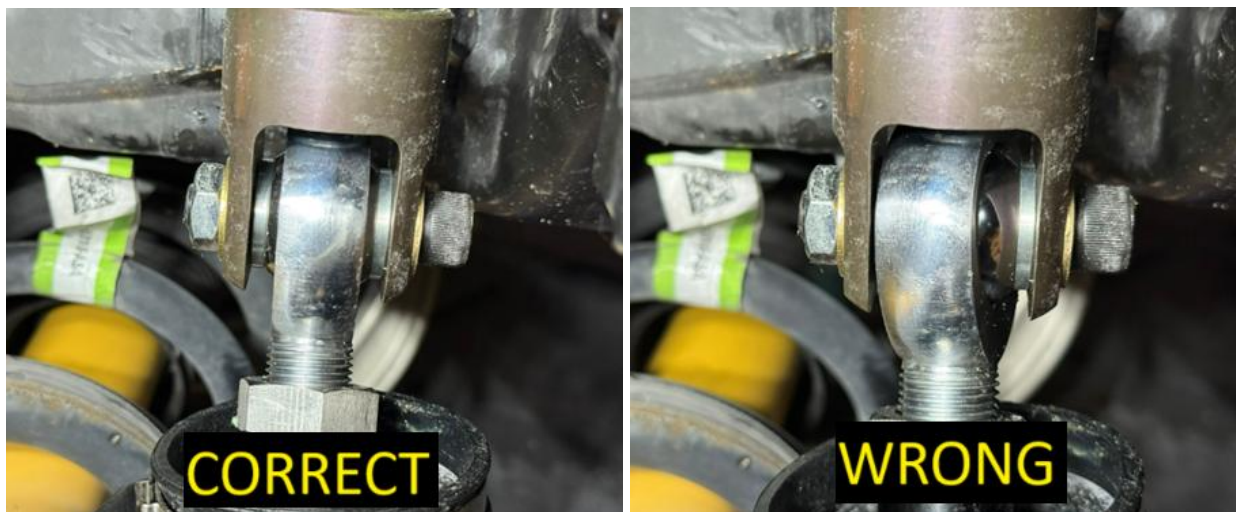




11. Install the misalignment bushings (looks like a small pulley) into the Heim joint at the knuckle side and slide it over the stud that is installed into the knuckle. Install the 1/2 inch lock nut and torque to 42 Ft lbs.



12. Repeat steps 3-10 on the opposite side.
13. Have alignment set to factory specifications. Once the alignment is set, tighten the Heim joint jam nuts. **When tightening the Heim joint jam nut, be sure the Heim joint is centered in the clevis and not canted to one side.** If the Heim Joint is allowed to contact the clevis when it is tightened, it will make noise and shorten the life of the joint.





14. Slide the large end of the steering rack boot onto the steering rack. Secure the boot by tightening the clamp with squeeze clamp pliers.

Heim Joints are designed specifically for racing and off-road applications. As such, they may transfer noise and vibrations through the steering system, which is a normal characteristic and not a defect. Heim Joints are wearable components and should be inspected for excessive play or wear every 2,000 miles or following off-road use. Parts exposed to harsh conditions—such as salt, sand, or extreme weather—may require more frequent replacement.

Please note, the components in this kit are intended for racing and off-road use and do not carry an extended warranty for wear. Additionally, replacing factory components with aftermarket racing or off-road parts may void some or all manufacturer warranties.

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