## **Defender HD Tie Rod Installation Instructions**

- 1) Elevate front of Defender and support with jack stands.
- 2) Remove front tires/wheels.
- 3) Loosen jam nuts on the tie rods.
- 4) Detach the outer tie rod end from the steering knuckle.
- 5) Cut the zip tie holding the rack boot to the rack.
- 6) Roll the inner end of the rack boot away from the rack exposing the inner tie rod end.
- 7) Turn the steering wheel all the way to the right pushing the left tie rod as far to the left as possible.
- 8) Detach the inner tie rod end from the rack (threads are right handed).
- 9) Turn the steering wheel all the way to the left and detach the right inner tie rod (also right handed threads).
- 10)Disassemble stock tie rods.
- 11)With the shim kit installed on the threaded end of the clevises, attach the clevises to both end of the steering rack (apply red loctite). See Image A.
- 12)The threads on the steering clevis may need to be polished with a wire brush to remove zinc coating if they don't thread in easily.
- 13)The Steering Rack Clevis will need to be aligned, using a combination of shims provided, so that the clevis doesn't bind against the inner heim joint during the suspension cycle. Call if you have questions on this.(Tighten as tight as possible)
- 14)Attach the right-handed heim joint (remove jam nut) to the clevis using the supplied 5/8" bolt and nut. See Image B.
- 15)Install jam nut onto the heim and attach the inner end of the tie rod.
- 16)Attach the left-handed heim joint (with jam nut installed) to the outer end of the tie rod.
- 17)Install misalignment spacers (two per side) into the outer heim joints and attach the heim joint to the steering knuckle.
- 18)Reinstall tires/wheels, set alignment, and tighten jam nuts.
- 19)Test ride, recheck alignment, and make adjustments if needed.

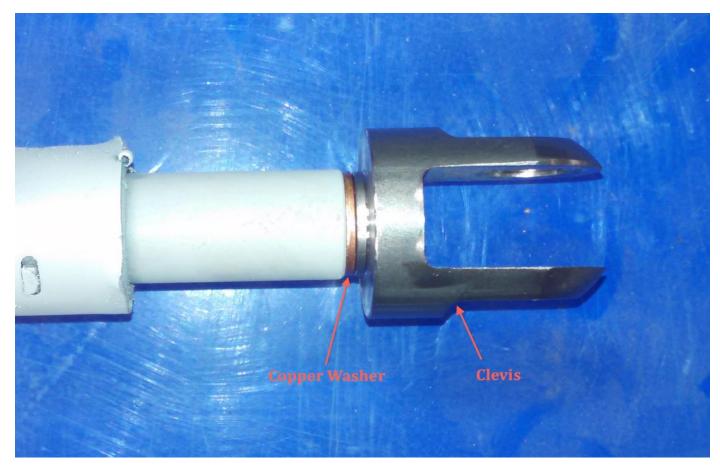


Image A

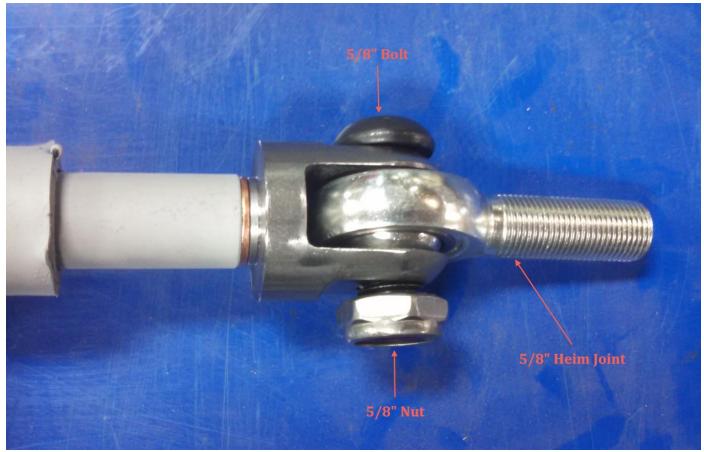


Image B