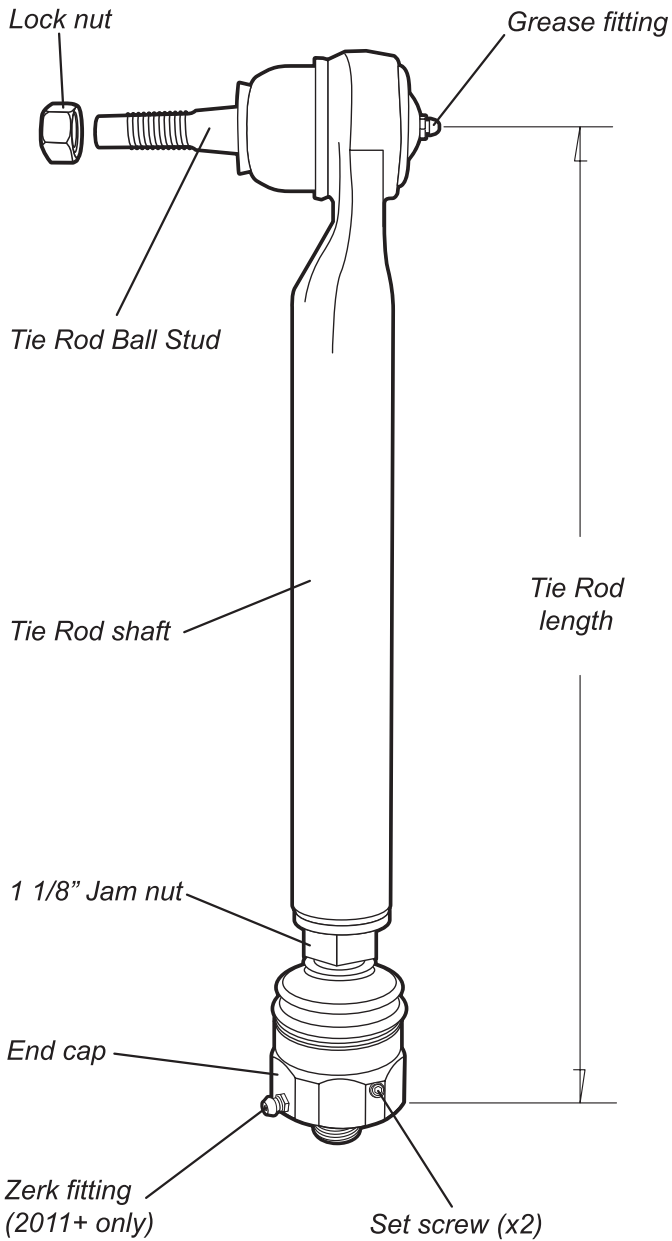


**Stage3**  
**Tie Rod Assemblies**  
**GM 2500/3500HD Trucks**

(158031500), (158031511)

***Installation Guide***



**Installation:** Instructions for installation of new PPE Tie Rods to be performed on each side.

Remove front wheels and wheel well covers.

- Step 1:** Vehicle off and secure.
- Step 2:** Remove lock nut from stock outer tie rod ball stud. Use a tie rod fork tool to remove tie rod ball stud from tapered hole in steering knuckle.
- Step 3:** Unthread stock inner tie rod end from centerlink.
- Step 4:** Clean tapered hole and threaded end of center link.
- Step 5:** Measure length on removed tie rod from inner face to the center of the grease fitting.
- Step 6:** Using measurement from Step 5, adjust the length of the new PPE Tie Rod assembly to match the length of the old assembly.
- Step 7:** Tighten Jam Nut to set length using a 1 1/8" wrench.
- Step 8:** Apply "red thread locker" and thread in the inner Tie Rod face to centerlink. Torque to 74 lb. ft.
- Step 9:** Insert tapered stud into tapered hole in spindle boss. Attach Lock Nut.
- Step 10:** Tighten lock nut using a 20 mm wrench. Torque to 48 lb. ft.
- NOTE:** A 9 mm wrench can be used to secure stud while tightening the Lock Nut.
- Step 11:** Grease outer Tie Rod end and center link with high-grade lubricant.
- Step 12:** Perform and confirm proper installation and clearance. Longer sway bar end links may be required.
- Step 13:** To adjust toe, use 5/8" wrench on the inner flats if adjustment is necessary.
- Step 14:** Confirm/tighten set screws on Tie Rod inners.
- Step 15:** Steering wheel and toe adjustment will need to be adjusted to factory specs with a professional alignment.

**Maintenance instructions**

- Step 1:** Disconnect outer Tie Rod from spindle.
- Step 2:** Remove both set screws.
- Step 3:** Tighten End Cap to eliminate excess play. (do not over tighten) When properly tightened, Tie Rod Shaft is still able to pivot up and down by hand. **Damage may occur if overtightened.**
- Step 4:** Apply "red thread locker" to Set Screws.
- Step 5:** Tighten Set Screws firmly so they contact and seat into the internal Ball Socket threads.
- Step 6:** Reconnect outer Tie Rod to spindle. Thread and tighten Lock Nut to 48 lb ft.



Inner Tie Rod

## **DISCLAIMER OF LIABILITY**

Performance products can increase horsepower above and beyond factory specifications. Additional horsepower creates more stress on the drive-train components, which could result in drive-train failure.

Note regarding emissions-related, non-E.O.-legal products: THESE PRODUCTS ARE LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES THAT MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR HIGHWAY OR OFF-ROAD USE.

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