

**Stage3**  
**Tie Rod Assemblies**  
**2001-2010 - 2011 +**  
**GM 2500/3500HD Trucks**  
(158031500), (158031511)

***Installation Guide***

Lock nut      Tie Rod Ball Stud      Grease fitting

**Maintenance Instructions**

**Adjustment to eliminate end-play**

Remove set screws (2)

Use pliers to secure here

Tighten inner face

Apply Loctite to set screws

Reinstall set screws

Tie Rod length

1 1/8" Jam nut  
Inner flats (5/8")

Zerk fitting (2011+ only)

Inner face

End Cap

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

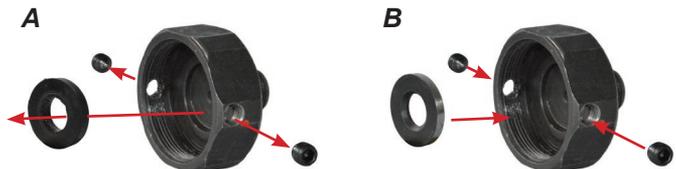
Remove front wheels and engine shield.

- Step 1:** Locate installed tie rods.
- Step 2:** Remove Lock Nut from 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 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 lock 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 alignment 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.

**Upgrade:** Instructions for performance upgrade of PPE Tie Rods to be performed on each side.

**A:** Loosen or remove set screws and remove end cap.

**B:** Install performance shim. Replace and tighten set screws. Reinstall end cap.



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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.

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5011 Brooks St. Montclair CA 91763

[PPEdiesel.com](http://PPEdiesel.com)

[sales@ppediesel.com](mailto:sales@ppediesel.com)

Phone: (714) 985-4825