



Dodge 03-08/09-13 2500-3500 Tie Rod and Drag Link

At Apex, customer safety is our top priority, and steering is a **CRITICAL** safety component.

****Be sure the installer has read and follows these instructions****

Failure to follow these instructions may result in loss of control of the vehicle, accident, and injury.

Failure to follow install instructions and use correct install tools may also void the warranty.

Install instructions should follow vehicle through entire install process, including alignment, which requires safety-critical torque and process to complete.

Installation Instructions:

1. Before removing your OEM, tie rod and drag link assemblies, measure from grease fitting to grease fitting on each (or from ball-stud center to ball-stud center if no grease fittings) and write these measurements down for later.
2. All part numbers that begin with TR belong to the tie rod assembly all DL part numbers belong to the drag link assembly.
3. Identify the tie rod ends and adjusting sleeve on both the passenger and driver sides. The passenger side tie rod ends will have notches in the jam nuts, indicating they have left-hand threads. Additionally, the adjusting sleeve will have a ring machined into one end, next to the flats, which also indicates left-hand threads.
4. Thread the jam nuts all the way down the tie rod ends. Then, install the bent Ninja washers onto the adjusting sleeve with the bent side facing toward the adjusting sleeve.
5. Locate the passenger side of the tie rod adjusting sleeve, it will have a cut line toward the end of the sleeve, find the passenger tie rod end that has notches in the jam nut. Please, coat the inside threads of the adjusting sleeve with anti-seize, **NOT the tie rod end threads**. Getting anti-seize in the area of the jam nuts can decrease the effectiveness of the jam nuts.
6. Thread the tie rod ends into the adjusting sleeve, ensuring the correct thread direction. Thread until it reaches the jam nut. Wipe off any excess anti- seize.
7. Continue with the driver's side of the tie rod and repeat the above instructions.
8. Now adjust the ends equally to set the grease fitting to grease fitting (or ball-stud center to center) distance to the same as the OE measurements you took earlier.
9. Now assemble the Drag link assembly, locate drag link adjusting sleeve and ends, follow the instructions as you did with the tie rod assembly.
10. Remove OEM tie rod and drag link assemblies.

- CONTINUED ON REVERSE SIDE

11. Before installing the ends, apply a light layer of grease to the top of the boot. This will create a lubricated surface between the boot and the joint, helping to reduce friction.
12. Install the tie rod first. **Torque the castle nuts to 75-82 ft/lbs.** Leave jam nuts loose and use tape measure to set toe to factory specs.
13. Install drag link next with the drag link end on the passenger side tie rod end first, then the pitman arm side. **Torque the castle nuts 75-82 ft/lbs.** leave the jam nuts loose.
14. Once the toe is set, center your wheel by rotating drag link adjusting sleeve.
15. Tighten all the jam nuts on the tie rods and drag links, **torque to 200 Ft/lbs.** (Note: There is an anti-flop bearing in the tie rod ends. This bearing allows for 4 degrees forward and back rotation (flop). When tightening the tie rod jam nuts ensure that you are not tightening against these bearings. To do this: Tighten the passenger side jam nut first, then center (level) the “flop” in the bearing while tightening the driver’s side jam nut. When both jam nuts are tight there should be approximately 4 degrees of forward and back rotation (flop).
16. Set and adjust steering stabilizer, be sure that it has equal travel at full lock both directions (follow instructions from steering stabilizer manufacturer).
17. Be sure to test the steering lock-to-lock to check for any interference with wheels or other vehicle parts.
18. At this point we highly recommend engaging a professional to get the alignment set. Once alignment is complete, bend the pointed tabs over the jam nut to secure jam nut. We recommend using medium strength thread locker (blue Loctite 243 or blue Permatex 24206 or other preferred brand) under the jam nuts.
19. Using a paint marker across the jam nut and adjusting sleeve provides an easy visual indicator if the jam nuts have loosened.
20. Check jam nuts for tightness at 500 miles and monitor jam nuts regularly every 5000 miles or after oil changes for tightness.

Wrenches needed:

WR108 – 50mm/52mm

WR107 – 46mm/48mm

WR109 – 41mm/42mm

If you have any questions or concerns, please don't hesitate to give us a call or email.

Thank you,

Team Apex

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