



Ford 11-16 and 17-22 Tie Rod and Drag Link Installation Instructions

Before beginning any work, ensure the vehicle is secured, and follow good safety

practices.

1. Before removing your OEM tie rod and drag link assemblies, measure from the center of the ball studs on each side, and write these measurements down to refer to later. Note – the passenger side tie rod end is an eye, not a ball stud, so measure from the inner edge of the eye to the opposite ball stud.
2. All parts that begin with TR belong to the tie rod assembly all DL part numbers belong to the drag link assembly.
3. Locate the passenger and driver side tie rod ends and adjusting rod. The passenger side rod ends have notches in the jam nuts, indicating left-hand thread. The adjusting tube has a ring machined in one end next to the flats on the ends – this indicates left-hand threads in the tube.
4. Thread jam nuts all the way down the tie rod ends, install Ninja washers on the ends all the way down to the jam nuts.
5. Starting with the tie rod connecting rod, locate the passenger side of the tie rod tube, it will have a cut line toward the end of the rod, find the passenger tie rod end that has notches in the jam nut, and has an eye, not a ball stud. Please, coat the inside threads of the connecting rod with a small amount of anti-seize, DO NOT apply anti-seize to the tie rod end threads. Getting any anti-seize in the area of the jam nuts can decrease the effectiveness of the jam nuts, and possibly prevent the jam nuts from holding torque. If anti-seize is mistakenly applied to the rod end threads, use brake-kleen or other solvent to clean the threads completely.
6. Thread the tie rod ends into the adjusting rod, ensuring the correct thread direction. Thread until it reaches the jam nut. Wipe off any visible 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 distance between the ball studs to the same as the OE measurements you took earlier. Note – the passenger side tie rod end is an eye, not a ball stud, so measure from the inner edge of the eye to the opposite ball stud.

9. Now assemble the Drag link assembly, locate drag link connecting rod and ends, follow the instructions as you did with the tie rod assembly.
10. The passenger side has a long ball stud and the jam nut is notched for left-hand threads
11. Remove OEM tie rod and drag link assemblies.
12. Install drag link first with the drag link end on the passenger/knuckle side (pointing down through the knuckle) then the pitman arm side. Torque the pitman arm end castle nut to 75-82 ft lbs. Leave the jam nuts loose. After tie rod is installed (next) with toe specs set, rotate drag link connecting rod to center the steering wheel.
13. Install the tie rod assembly. The passenger side tie rod attaches to the long ball stud on the drag link under the knuckle. Torque castle nuts to 75-82 ft. lbs. Leave jam nuts loose and use tape measure to set tow to factory specs.
14. Tighten all the jam nuts on the tie rods and drag links, torque to 200 Ft. Lbs.
15. Attach steering stabilizer to taper sleeve in the pitman arm end. This taper sleeve is reversible for various applications (follow instructions from steering stabilizer manufacturer).
16. Be sure to test the steering lock-to-lock to check for any interference with wheels or other vehicle parts.
17. At this point we highly recommend engaging a professional to get the alignment set.
18. Once alignment is complete, bend the square tabs of the Ninja washers over the hex flats on the adjusting tube and 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 center link 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.

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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