JK 2.5 Ton – Flip – ProLock 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.

Note: All parts that begin with TR belong to the Tie Rod Assembly and all DL part numbers belong to the Drag Link Assembly.

Installation Instructions:

1. Before removing your OEM, tie rod and drag link assemblies, measure from zerk to zerk fitting on each, and write these measurements down for later.
2. All parts that begin with TR belong to the tie rod assembly (TR190K and TR191K). The parts for the drag link assembly consist of: DL121KF on the knuckle side of drag link and DL120K for the pitman arm end of the drag link.
3. Thread jam nuts all the way down the tie rod ends, then install the pre-bent **Pro-Lock Keyway** washers onto the keyway tie rod ends, with the bent side facing toward the adjusting sleeve.
4. Locate the lefthand side of the tie rod adjusting sleeve, it will have a cut line toward the end of the rod, find the left tie rod end, this will have notches in the jam nut. (Please, coat the inside threads of the adjusting sleeve with anti-seize, **NOT the tie rod end threads**). Start to thread in the tie rod end, ensuring the correct thread direction. Thread until it reaches the jam nut.
5. Continue with the righthand side of the tie rod and repeat the above instructions.
6. Please, coat the inside threads of the connecting rod with anti-seize, **NOT the drag link end threads**. Getting anti-seize in the area of the jam nuts can decrease the effectiveness of the jam nuts.
7. Thread jam nuts all the way down the drag link ends. Install bent **ProLock Keyway** washers onto DL121KF and DL120K, with the bent side facing toward the adjusting sleeve. Start to thread in the drag link end, ensuring the correct thread direction. Thread until it reaches the jam nut. Thread until it reaches the jam nut.
8. This will require that you drill the knuckle with 7/8” drill bit, make sure to make the hole straight, insert tapered sleeve then install the drag link.
9. Remove OEM tie rod and drag link assemblies.

- CONTINUED ON REVERSE SIDE

10. 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.
11. Install drag link first with the drag link end on the knuckle side then the pitman arm side. **Torque the castle nuts 75-82 ft/lbs**. leave the jam nuts loose and center the steering wheel before turning the tube until lined up.
12. Install the tie rod assembly, **torque castle nuts to 75-82 ft/lbs**. rotate the tube to the previous measurements you wrote down. Leave jam nuts loose and use tape measure to set tow to factory specs. (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 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).
13. Tighten all the jam nuts on the tie rods and drag links, **torque to 150 ft/lbs.**
14. At this point we highly recommend engaging a professional to get the alignment set.
15. After alignment and torquing down jam nuts, use hammer to tap Key Washers onto adjusting sleeve. Apply thread locker to the set screws all the jam nuts, and torque to **8-10 ft/lbs**.
16. Set and adjust steering stabilizer, be sure that it has equal travel at full lock both directions.
17. Check jam nuts for tightness at 500 miles and monitor jam nuts regularly every 5000 miles or after oil changes for tightness.

Wrenches needed:

KIT521 – WR112x2 - 41mm/46mm

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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Use **only ½ to 1 pump of grease per joint. There's very little space inside, and overfilling can cause seals to **pop or tear**, leading to **premature failure**. Proper greasing helps extend part life.