



“Master Your Terrain”

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XD Rear Axle Truss

Installation Instructions TJ/LJ

Congratulations for purchasing TNT, Inc. Extreme Duty Rear Truss. Begin by unpacking your kit and comparing the contents to the packing list provided as attachment “A” to this manual. Please observe proper shop safety procedures when performing this install. Use proper eye and hearing protection as required and use safe jack stands/supports, place appropriately for supporting the vehicle while you work on it.

Preliminary Measurements and Assumptions

Before beginning the install of your new Extreme Duty Rear axle truss, you must measure and record your rear pinion angle setting. It is assumed you have a properly installed rear CV style driveshaft that does not give vibration. Recording the rear pinion angle is crucial to a successful install of the rear truss assembly.

STEP 1: Preparations

Begin your rear suspension installation by removing the rear axle assy. completely from the vehicle. It is much easier to perform the following operations in an unobstructed environment. You must remove the upper control arm mounts and track bar mount from your axle housing. Use caution to not damage the axle tube. Grind smooth as needed. Grind the entire length of the axle tube between the cast iron differential housing and coil spring mount. This surface must be clean to weld on your truss assy.

CAUTION: *Welding operations should be performed by a qualified technician. TNT, Inc. highly recommends that the truss assy. be stitch welded in place. You should only weld in 1” increments and the truss/axle tube should be cool to the touch before welding again.*

Position the axle assy. on jack stands; rotate the pinion up to the pinion angle measurement you recorded before you began this install.

NOTE: *If you are installing this suspension as a system at a new lift height or are lifting a stock vehicle please refer to the following chart as a suggestion to set proper pinion angle*

LIFT HEIGHT	Approx Pinion angle setting*
3" – 5"	11*-17*
5"+	18*

Pinion angle settings are based on stock **TJ wheelbase and standard rotation ring and pinion equipped axles only.*

Once proper pinion angle is achieved, support the pinion with a third jack stand to hold your measurement.

STEP 1a: Test Fit Rear suspension truss

Place the supplied truss assy. over the axle housing. Your truss has been shipped to fit your axle differential housing; however, minor trimming and fitting may be required to get the truss to fit your particular axle properly. A properly fitted truss assy. should only touch the axle tubes, not the cast iron differential housing. It should also just fit between the coil buckets.

Once you are satisfied with the fit rotate the truss forward so that the top flat portion of the truss is level front to rear. The truss must be level on top to achieve the best results.

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Begin welding the truss to the axle tubes. Care should be taken as to NOT warp the axle housing. Over welding and welding to quickly will result in a warped housing.

STEP 2: Reinstall Rear Axle

Once the truss has been properly welded in place you may reinstall your rear axle assembly and reattach your suspension components using our optional UCA mounts.

The Following steps are for optional coil and lower control arm mounts (TJ/LJ):

STEP 1: Installation of rear coil buckets and lower control arm mounts

Locate driver's side coil bucket and place on the axle tube. NOTE: The corner of mount with no tab faces inside and towards the front of the vehicle. Find center of the axle, then measure over 19 5/8", this is the center of the coil mount. Rotate mount until it sits at "0 degrees" and tack into place. Locate the driver's side lower control arm mount. Measure 1.25 inches from edge of coil bucket towards outside of axle and put a mark. The outside edge of the supplied lower control arm mount need to line up with this mark. Rotate mount until the top sits at approximately "0 degrees" and tack into place. Verify location of mounts, they should measure approx 43 5/8" center-to-center, once satisfied, weld into place.

STEP 2: Installation of shock mounts

Installation of optional shock mounts depends on such items as shock length, suspension travel, etc and should not be completed until axle is reinstalled in the vehicle and it is sitting on its suspension. At this point, cycle the suspension and locate shock mount at a point that is optimal for your application.

Appendix A:

XD Rear Axle truss

Optional Mounts:

Coil Buckets

Lower control arm mounts

Shock mounts