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(307) – 775 – 9565
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XD Rear Truss - ZJ

Installation Instructions

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. Measure the center to center distance between your lower control arm mounts as this measurement will be needed later.

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, coil mounts, lower control arm mounts and track bar mount from your axle housing. Use caution to not damage the axle tube. Grind the entire length of the axle tube in preparation for the truss and new mounts. This surface must be clean to weld on your truss and brackets.

Position the axle assy. on jack stands; rotate the pinion up to the pinion angle measurement you recorded before you began this install. **Once proper pinion angle is achieved, support the pinion with a third jack stand to hold your measurement.**

STEP 1a: Installation of Truss

Place the supplied truss assy. over the axle housing at “0” degrees. 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.

Once you are satisfied with the fitment, 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.

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.*

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

STEP 2: Installation of rear coil buckets and shock mounts

Locate driver's side coil bucket (shock mount slots to the outside) and place on the axle tube butted up against the truss. Rotate mount until it sits at "0 degrees" (same as truss), and tack into place. Locate one of the shock mounts included in your kit. Slide the top of the mount into the slots in the coil bucket; line it up so that it rests against the axle tube. Tack into place.

Take the coil cups from your kit; attach the coil cup to the coil mount using one of the supplied 3/8" bolts. Leave loose enough that you can slide the cup back and forth.

STEP 3: Installation of lower control arm mounts

Take the distance between the factory lower control arm mounts you recorded in step 1 and divide it in half. Find center of your axle, then measure from center outward and make a mark on the axle, this will be center of your lower control arm mount. Locate the appropriate LCA mount, place mount on the axle tube so that the bottom sits flat, center the mount (side to side) on the previous made mark and tack into place.

STEP 4: Reinstall Rear Axle

Reinstall your rear axle. Re-attach all control arms and trackbar to verify proper fitment. Make any necessary adjustments to center the axle under the vehicle as well as to line it up with the front axle. Make desired wheelbase changes at this time. Once satisfied with the axle placement, tighten the coil cups down so that they cannot move from their position.

STEP 5: Final Welding

Remove the axle and finish welding coil mounts, shock mounts and lower control arm mounts. Coil cups should be welded 1" across the front and 1" across the rear of the cup.

Appendix A:

ZJ XD Rear Axle truss w/ Upper Control Arm Mounts
ZJ Coil Buckets w/ large cups
ZJ Shock mounts
ZJ Lower control arm mounts