Master Your Terrain

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XD Front Axle Truss Installation Instructions

Congratulations for purchasing TNT, Inc. Extreme Duty Front Axle 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.

NOTE: Trusses are welded in a jig but due to the extreme amount of heat that occurs during the manufacturing and assembly process some warp-age or twisting of the truss can not be avoided. This is normal side effect of the manufacturing process and it does not affect the integrity or strength of the truss. Follow the steps below and when performing final mounting of the truss to the axle simply clamp the drivers side down first then work your way across the truss clamping as you go.

STEP 1:

Begin by preparing the axle that the truss will be installed on. It is important to have a clean surface to weld to. We recommend that the axle be cleaned with a flap disc attached to a 4.5" Grinder. This assures a clean surface to weld to. See notes for additional prep work required for your application.

Notes by Application:

- **D30 & TJ D44** axles require both upper mounts, coil mounts and swaybar mounts to be cut off the axle.
- **HP D44** radius arm axles will require the weld on wedges to be removed
- **D60** leaf sprung axles will require the PS leaf spring pad to be cut off as well as the shock mounts or other factory mounts. Require trimming of Drivers side spring perch and casting for proper truss clearance.
- **HP 44 & Waggy 44** leaf sprung will require removal of Passenger Side leaf spring pad, shock mounts, trackbar mounts. Trimming of Drivers side spring perch and casting for proper truss clearance is required as well. Truss placement **requires** 2 3/8" of the driver's side casting to be

cut off completely around the axle. Strength of the axle is unaffected due to the addition of the truss.

- **JK D30 & D44** (when swapping into a TJ/LJ/XJ/ZJ) will require removal of UCA mount's, coil spring mounts, lower shock mounts, trackbar mount and lower sway bar mount tabs.
- **JK D30 & D44** (2007+ applications) will require removal of the UCA mount's, coil spring mounts and trackbar mount. Do not remove lower shock mounts or lower sway bar mounts

STEP 2:

Place an angle finder on top of the upper ball joint and set the axle at 5 degrees positive caster (axle will rotate clockwise). Then, place the truss on the axle at zero degrees.

Some minor clearance and/or trimming may be required depending on your application.

STEP 3:

Once you content with the location of the truss tack it into place. Tacks should be located at the outside and inside corners. You are now ready to weld the truss to the axle tubes [DO NOT WELD THE TRUSS TO THE CENTER SECTION/HOUSING]

STEP 4:

The proper welding sequence is as follows: Mark out every 1.5" on the truss where it comes in contact with the axle tube. Once this is done you are ready to weld. A certified/qualified welder is recommended for this. **If you weld too hot, or the whole truss in one pass you WILL likely distort the housing/tubes.** Take your time, and allow the axle to cool. Begin by welding the first 1.25" on the outside of the passenger side. Now weld the opposite side of the truss on the driver's side. Now go take a break and work on something else. Allow at least 10 minutes between each pass. The next weld will be located on the inside of the passenger side, and the inside of the driver's side. Repeat this process until the truss is welded to the axle tubes.

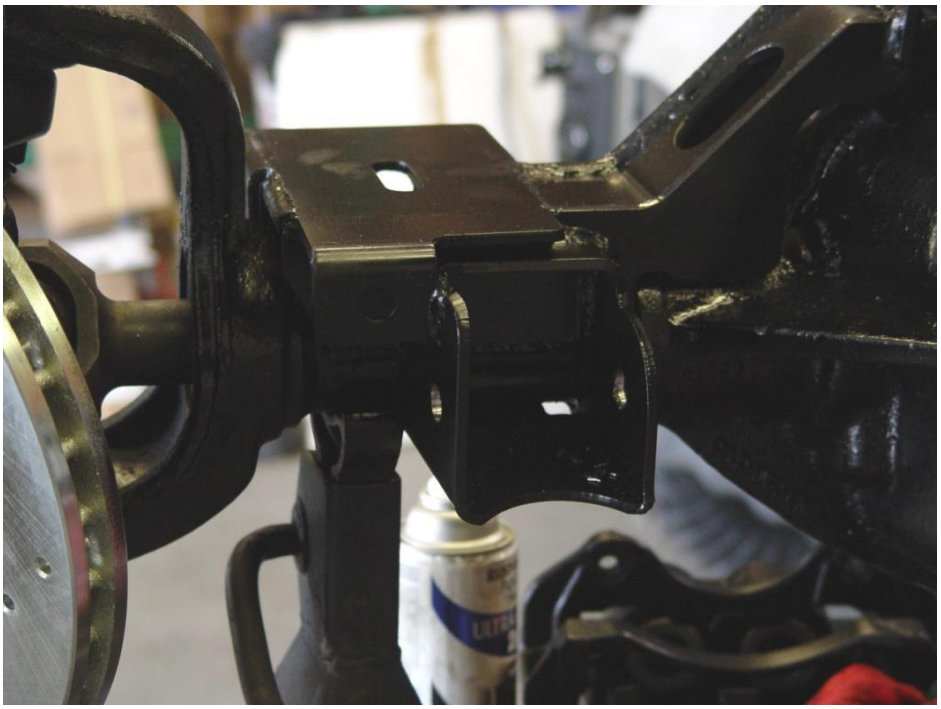
STEP 5: HD Lower Control Arm Mounts

To locate High Clearance HD LCA mount on the axle line up the mount with the inside edge (side closest to differential) of the coil bucket (see Figure 2). Rotate mount upwards until the flat spot sits at the same plane as the truss and coil buckets.

Note: Wagoneer D44 and HP D44/D60 applications, both the drivers side & passengers side LCA mounts line up with notches that are pre-cut into the back of the truss. LCA mounts will weld to the truss and to the axle tube. Truss's ordered with OTK or Crossover Hysteer trackbar mounts may require trimming of the TB mount ears that hang over the rear of the truss for proper LCA mount alignment.

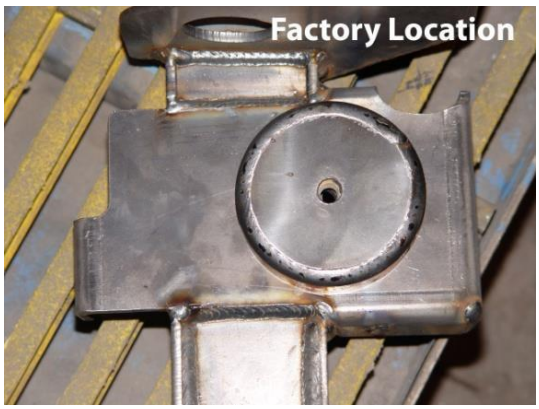
D60 applications will require notching of the drivers side casting for correct LCA mount placement.

Fig. 2 – drivers side view from behind axle (Factory JK application coil mount may differ)



STEP 6: Installation of coil mount cup

Once the truss is installed on the axle, position the axle under the Jeep. Locate one of the provided coil cups and thread 1 – 3/8" x 1 1/12" bolts found in the hardware kit through the nut welded in the center of the cup. Several threads will protrude out the bottom of the cup; place the cup on the drivers side mount using the exposed portion of the bolt to line up with the slot in the truss. To retain the factory location, slide the cup in the forward most position. ***(Note: Before making wheelbase adjustments, you will need to check with your suspension manufacturer regarding the maximum adjustment their arms will allow. TnT is not responsible for incompatibility or failure of another manufacturers arms)*** If additional wheelbase is desired, the rear most position will provide 1 ½" of additional wheelbase. Any position between stock and maximum stretch can be utilized.



Once the desired location of the cup has been achieved, center cup side to side, tack weld into place. Repeat steps for passenger side cup. Install coils and control arms, verify fitment of components. If satisfied, remove coils and weld caps approximately 1" across front and 1" across the rear.

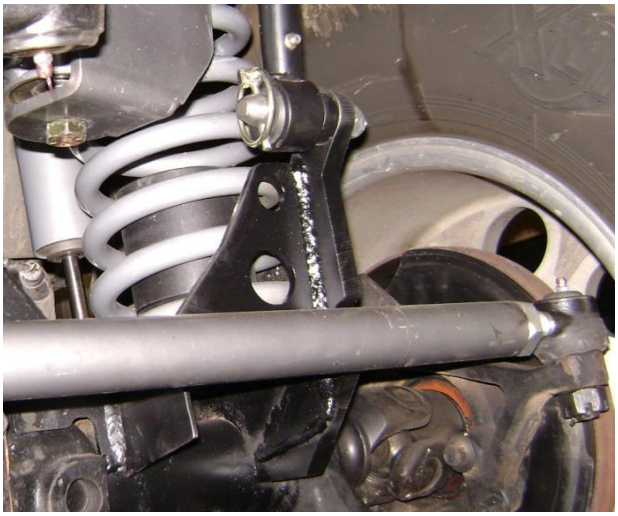
STEP 7: Shock Mount Installation

With the shock installed in the upper mount, choose the appropriate shock spacer (1/2" or 1") that best corresponds with the amount the front end is moved forward. If utilizing the full amount of stretch both spacers may be required. If both spacers are used, place the 1" spacer closest to the mount. Ideally, the shock should be as vertical as possible. Locate the ½" x 3 ½" bolts from the hardware kit and insert through shock, spacer(s) and mount. Be sure to place a provided washer on the outer side of the bushing. Tighten the ½" nut provided. ** **Once the desired spacer is selected tack the spacer in place, remove the shock and then fully weld the spacer to the coil mount. Once welding is completed and cool, reinstall shock.****

STEP 8: Universal Swaybar Mount Installation (optional)

Note: *T&T recommends that steering be installed, even if only temporarily, before performing installation of end-link mounts to insure proper clearance.*

Locate the swaybar end-link mounts and gussets ordered with your truss. With steering turned to the drivers side. Take end-link mount and line it up with the outside edge of DS coil bucket, placing flat end against the axle tube (on stock D30 & D44 applications the end-link will butt up against the knuckle casting, trim mount for best fitment before welding). Using the notch in the mount as a guide, position end-link mount so that it just clears your tie-rod, "tack" mount into place. Turn steering to the passenger side and repeat the steps above for the passenger side mount. Next, cycle steering back and forth to check for clearance issues, repositioning of mount or additional trimming of notch may be required to obtain proper clearance. Once desired position is obtained, install supplied gusset between mount and coil bucket, weld mounts and gussets into place.



STEP 9:

Paint the axle with your favorite paint.

STEP 10:

Reinstall the axle into the vehicle. Plump all hydraulic lines. Double check all fasteners.

Thanks for choosing T&T Customs for your Off-Road needs!!

XD Front Axle Truss UCA Bushing Kit

2 – 12mm x 80 allen head bolt 4 – 12mm washers

2 – 12mm locknuts 2 pairs bushings

Shock Mount Hardware

2 – 1" long, 1" x .250 spacer

2 – ½" long, 1" x .250 spacer 2 – ½" washers

2 – ½" locknuts

Coil Mount Hardware

2 – 3/8" x 1 ½" bolts

Optional Items:

Lower control arm mounts

Swaybar Endlink mounts