

# Jeep TJ Super Duty Dana 60 Axle Truss Installation Instructions.

Thank you for purchasing our TJ Super Duty  
Axle truss!

## Installation Notes:

- Installation of this kit requires a trained welder
- Refer to your factory service manual for information regarding the removal of any factory components
- This kit does not contain any provisions for the following items: Driveshaft modifications, and brake lines
- Installation of this kit requires custom lower control arms and a custom track bar
- This kit will raise the position of the coil springs 2". Shorter coil springs or longer shocks will need to be used to compensate for the difference.
- The casting on the Superduty axle will need to be trimmed and all factory bracketry removed

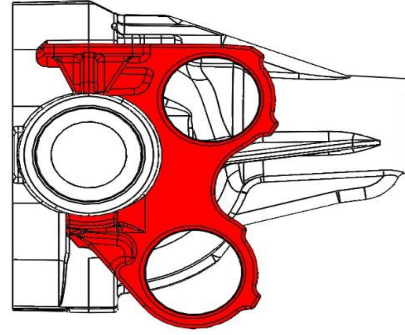
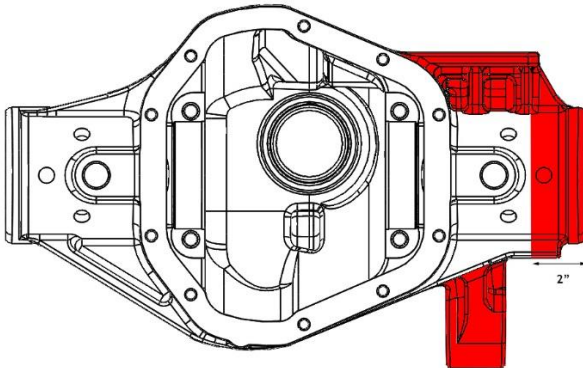
## Tools required:

- Welding machine with the capability to weld at least 5/16" thick steel
- Various hand tools for the removal and installation of the factory suspension components
- Grinder
- Cutting torch, plasma cutter or other appropriate cutting tool
- Angle finder
- Tape measure

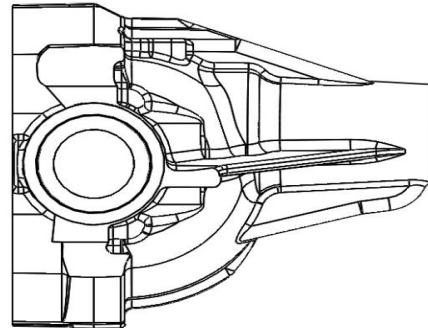
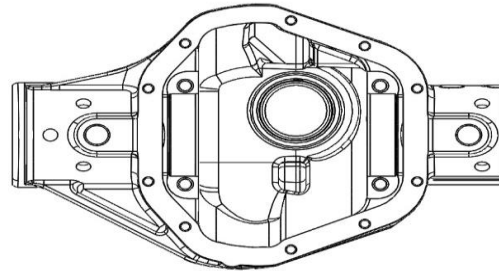
## Step 1:

### 2005-Up Axles

The casting on the Dana 60 axle will need to be trimmed. The cast section of the radius arm bracket on the driver's side will need to be removed, as well as a short section of the casting where the tube enters the center section. See images below for the areas to trim. The end of the casting where the driver tube enters the center section will need to be trimmed back 2". After trimming the casting grind all edges smooth.

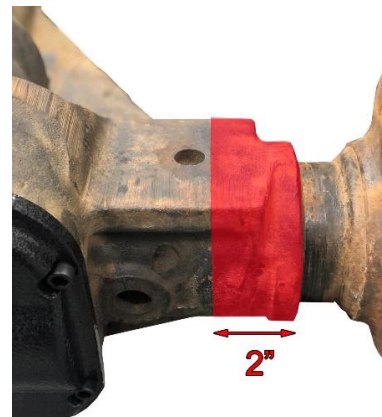


Your axle center section should look like the images below after trimming and grinding.



### 1999-2004 Axles

The casting on the driver's side short axle tube will need to be trimmed back 2". Additional trimming may be required on the webbing to provide clearance for the shock bracket.



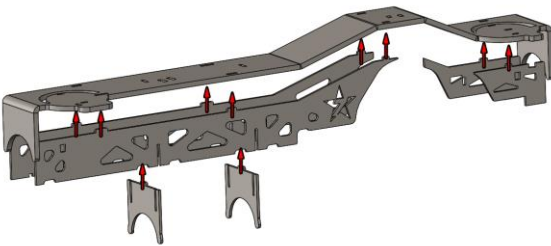
Step 2:

Remove any other factory bracketry on the axle. After removal is complete your axle should look like the image below.



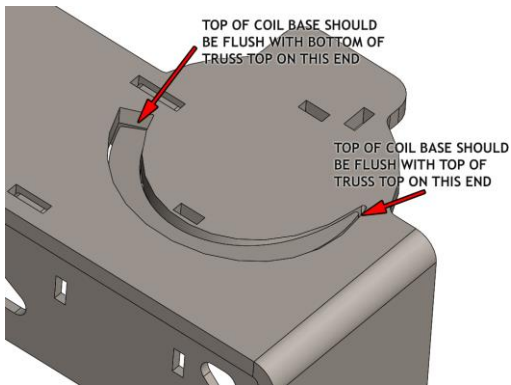
Step 3:

The main parts of the axle truss now need to be assembled. The parts all have tabs that will insert into slots in the truss top. Each tab is a unique and will only fit into the slot when orientated properly. Install the 4 side plates and the two uprights on the truss top and tack weld in place.



Step 4:

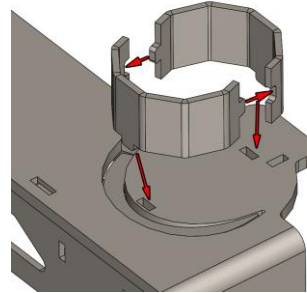
Install the coil spring base on both ends of the truss. The base should be installed at an angle to follow the angle of the bottom of the coil spring. The small end of the base should be flush with the truss top and the large end of the base should be flush with the underside of the truss top. When positioned correctly weld in place. Repeat this step for both ends of the truss.



Step 5:

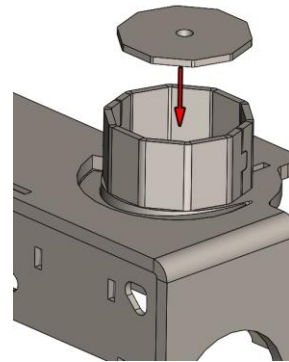
Install the coil spring center on both ends of the truss. It consists of two pieces on each end. The two halves will key together and the two tabs on the bottom of the assembly will fit into two slots in the truss top. We recommend welding on the inside of the assembly to avoid interference with the coil spring. Install the coil

spring center on both ends of the truss and fully weld on the inside.



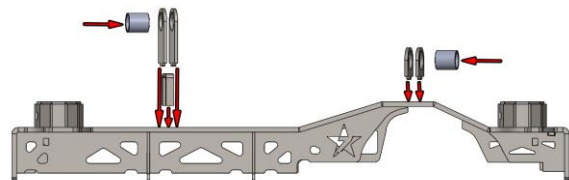
Step 6:

Place the coil spring caps on top of the coil spring centers installed in the last step and weld in place. If bump stop extensions are going to be used on your axle we recommend welding a nut with the proper thread on the bottom of the cap for an attachment point for the extension. The bottom of the cap will need to sit flush with the top of the coil center assembly. Once placed correctly weld the cap in place.



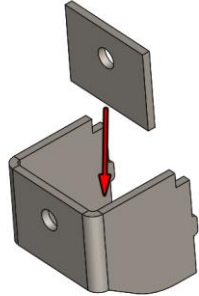
Step 7:

Install the upper control arm mounts. Each mount will key into the truss top on either side. The two taller tabs will go on the passenger side of the truss and the shorter tabs will go on the drivers side. Place the two taller tabs in the slots on the truss and place the center brace between them, insert the large DOM sleeve in the holes in the tabs and weld all components in place. Repeat this procedure for the two shorter tabs, with the exception of the center brace.

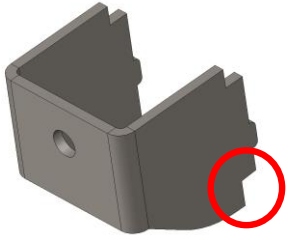


Step 8:

Install the tabs in the shock brackets on both brackets. The mounting width of the brackets are adjustable. Insert the tabs in the brackets, align the holes, adjust to the desired width and weld in place.

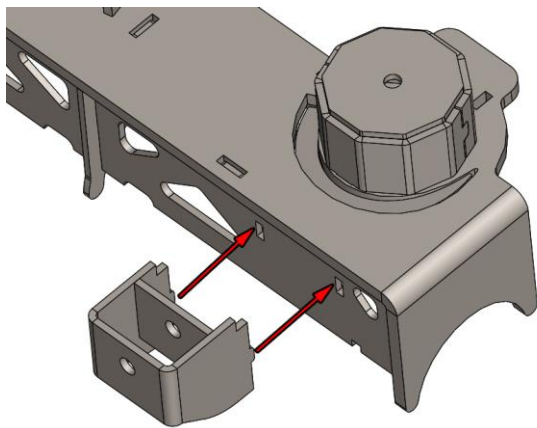


The 99-04 shock bracket on the driver side will have an extra cutout to clear the casting.



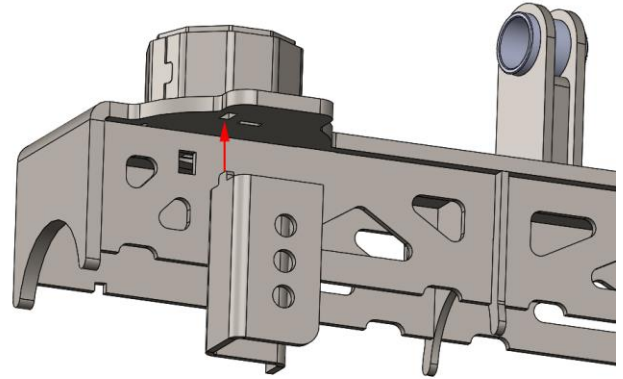
Step 9:

Install the shock bracket assemblies from the last step on the truss assembly, on both sides. The side plates of the truss have slots that the tabs on the shock brackets will need to be inserted into. Once the brackets are located, weld them in place.



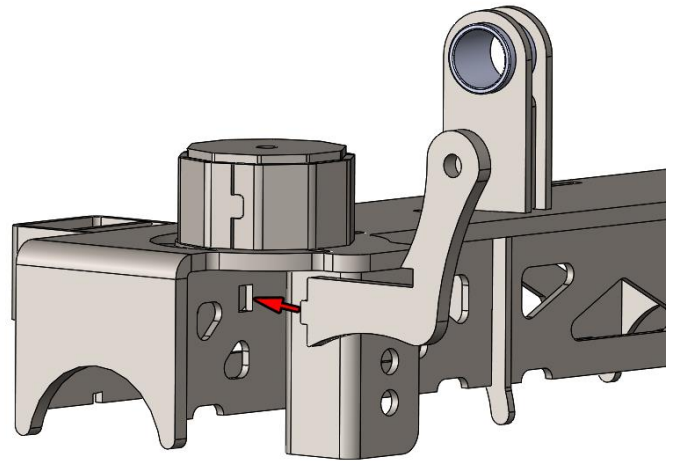
Step 10:

Install the tack bar bracket. Insert the tab on the top of the track bar bracket in the slot in the top of the truss, and tack weld in place.



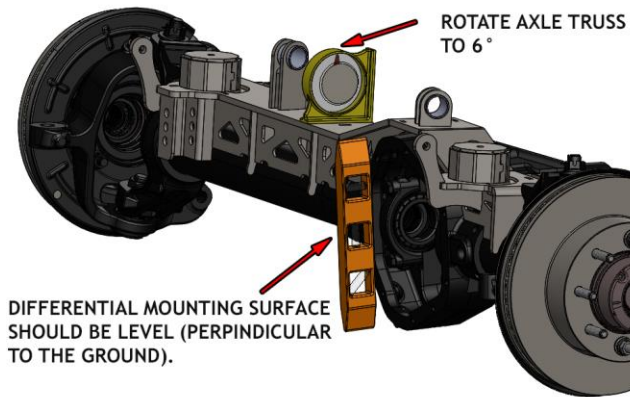
Step 11:

Install the sway bar brackets on both side of the truss assembly. The sway bar brackets have tabs that will insert into the face of the axle truss on both sides. When properly located tack weld both brackets in place.



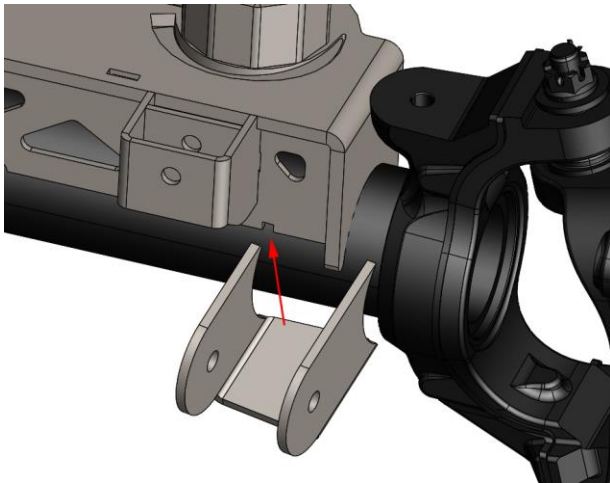
Step 12:

Place the truss assembly on the Dana 60 and rotate back 6° in relation to the differential cover mounting face. The easiest way to achieve this is to place a level on the differential cover mounting surface and rotate the axle until level (perpendicular to the ground). Place an angle finder on the top of the truss and rotate the truss back until an angle of 6° is achieved. Measure from both ends and center the truss on the axle, tack weld the truss in place. Some grinding on the welds on the inner c's may be required for the truss to sit down completely on the axle.



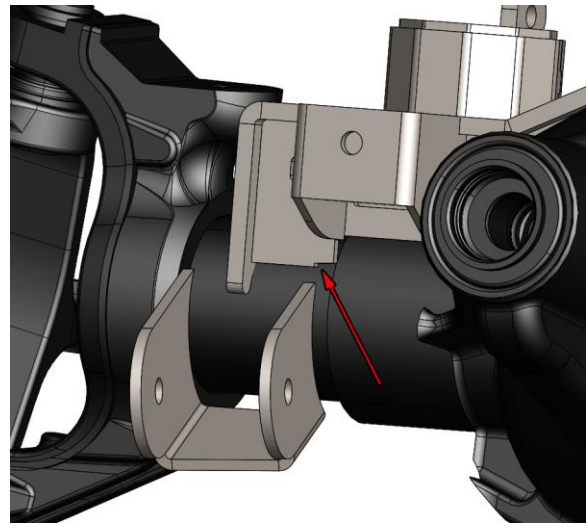
Step 13:

Install the passenger lower control arm bracket. The bracket should angle in towards the pinion on the axle. The upper corner will tab into a slot in the back of the truss. Some grinding may be required on the weld on the inner c to gain clearance for the brackets to sit flush on the axle tube.



Step 14:

Install the driver lower control arm bracket. The bracket should angle in towards the pinion on the axle. The upper corner will fit into a small cut-out in the back plate. Some grinding may be required on the weld on the inner c to gain clearance for the brackets to sit flush on the axle tube.

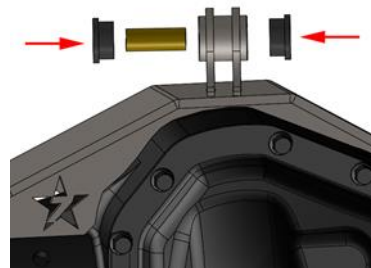


Step 15:

Finish weld any areas that were tacked in the previous steps. It is not necessary to weld all seams completely, make small staggered welds and do not concentrate heat in one area any more than necessary.

Step 16:

After the assembly has cooled install the bushings and inner sleeves in the two upper control arm mounts. Repeat this procedure for both upper control arm brackets.



Congratulations!

Your axle is now ready to be installed in your Jeep. The lower control arm brackets on this kit have been moved outward due to the size of the casting. Your existing lower control arms will need to be modified, or custom lower control arms will need to be fabricated. A custom front track bar will also be required.

Professional Services Disclaimer:

The content of this Website, such as text, graphics, images, information and other material (collectively, "Content") is for informational purposes only. Any information furnished on this Website is not intended nor implied to be automotive advice and is not intended to replace personal consultation with a qualified automotive service technician, mechanic or similar automotive professional.

Barnes 4WD has not examined the Content for accuracy, timeliness, completeness, appropriateness, or helpfulness. Barnes 4WD does not endorse any specific tests, products, procedures, opinions, or other information that may be mentioned on this Website. Your reliance upon information and Content obtained by you at or through this Website is solely at your own risk. IN NO EVENT SHALL BARNES 4WD BE LIABLE OR OTHERWISE RESPONSIBLE FOR ANY DAMAGE OR INJURY (INCLUDING DEATH) TO YOU, OTHER PERSONS, OR PROPERTY ARISING FROM ANY USE OF ANY PRODUCT, INFORMATION, IDEA, OR INSTRUCTION CONTAINED IN THE CONTENT.