

Jeep TJ Dana 44 Front Axle Swap Kit With Truss

Thank you for purchasing our Jeep TJ Dana 44 Front Axle Swap Kit!

Installation Notes:

- Installation of product requires a trained welder!
- Refer to your factory service manual for information regarding removal of the factory axle.
- An adjustable track bar is recommended.
- This kit contains no provisions for brake line, driveshaft, and steering linkage modifications. They will be the responsibility of the end user.

Tools Needed

- Welding machine with the capability of welding at least ¼" thick steel
- Tape measure
- Angle Finder
- Level
- Appropriate safety equipment
- Clamps

Step 1:

Remove your existing front axle. Retain all factory hardware, most of it will be re-used.

Step 2:

All existing brackets will need to be removed from the Dana 44 that you have chosen to swap in. The casting on the driver's side of the housing will need to be trimmed 3". See the image below for trim location, trim the casting all of the way around the axle tube. Take care not to cut into the axle tube.

Pro Tip:

One of the easiest ways we have found to do the cut, is to start the cut all of the way around with a portable band saw or reciprocating saw but don't cut all the way through to the axle tube. Switch to a grinder with a cut-off wheel to finish the cut. When cutting pay close attention to the sparks coming from the grinder, the sparks will change color when the cut is through the casting and starts into the axle tube. After the cut is made around, make a few cuts in the horizontal direction. After the horizontal cuts have been made a hammer and chisel can be used to break the sections of casting free.



Step 3:

Using the proper procedure, we recommend welding the axle tube back to the center section where the trim was just made.

Step 4:

Place the Dana 44 on a sturdy work surface, jack stands are a good option. Place an angle finder on the lower ball joint cap, rotate the axle clockwise until you have +7° caster. The tops of the inner c's should be rotated towards the back of the Jeep when correct.

Step 5:

Assemble the top, side plates, and gussets. Tack weld all pieces together.

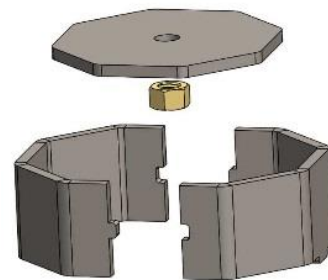


Step 6:

Place the truss on the axle. Level and center the truss and tack into place.

Step 7:

Assemble the coil spring centers. Weld the provided nut to the plate the goes on top of the coil center. Weld the plate/nut assembly to the 2 coil center side pieces and finally tack the two assemblies in place on the truss. The coil center assemblies will locate with the tabs on the bottom in the slots on the truss top.



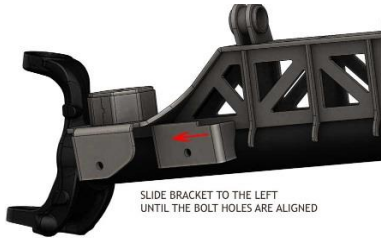
Step 8:

Place the two upper control arm mounts on the top of the truss. Each side will consist of two tabs and one DOM sleeve. Assemble the tabs and sleeves, insert the assembly into the slots in the top of the truss and tack in place. The DOM sleeves should be centered in the tabs. Both upper control arm mounts should angle towards the front of the truss when installed properly.



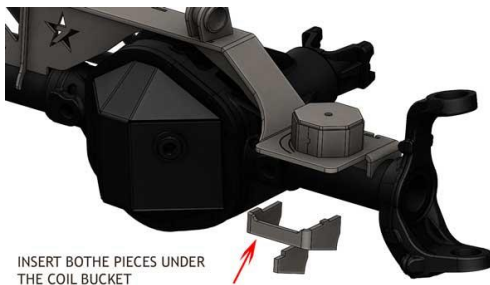
Step 9:

Install the track bar mounting bracket. Insert the back half of the track bar bracket between the truss and the axle tube. Insert the factory track bar bolt through both halves to insure proper alignment and tack in place.



Step 10:

Insert the brace and gusset under the driver's side coil bucket as shown below and tack into place. The bent part will locate in a slot in the truss top, the center gusset will need to be placed in the center of the bent piece.



Step 11:

Install the sway bar brackets on either side of the truss. Both brackets are notched to slide over the edge of the coil spring pads. The driver's side will slide over until it contacts the brace under the coil pad. The passenger side will slide over until contacting the track bar bracket. This will put the brackets in the stock location, depending on the steering used in your application modification may be required.



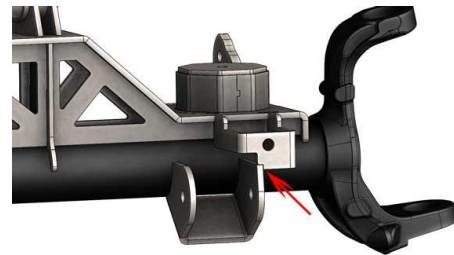
Step 12:

Install the shock brackets on both sides of the axle. The truss is keyed to locate the brackets, the top of the brackets will need to be flush with the top of the spring pad. Take care to position each bracket as shown below, with the cut-out in the bottom of the bracket facing the pinion.



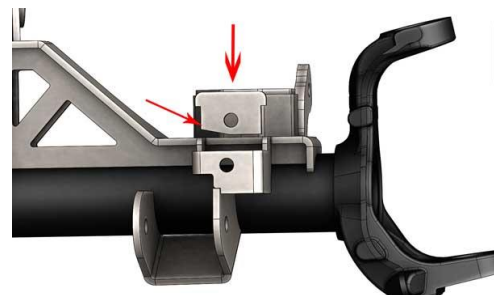
Step 13:

The lower control arm brackets are ready to be installed at this time. Both lower control arm brackets should be angled in towards the pinion. The flat top on the bracket will key into the notch cut in the bottom of the shock bracket. Tack the brackets on both sides in place.



Step 14:

The shock tabs will now need to be installed. The tabs will drop into the shock bracket, take care to turn the trimmed section of the tab towards the lower control arm mount. Most tabs will need to be set at a 1-1/2" mounting width, however this may vary with your particular shocks. If your existing shock have bar pins installed in the lower eye, they will need to be removed and the proper sleeve will need to be installed.



Step 18:

After all welding is completed install the upper control mount bushings and inner sleeves. Install the axle in the Jeep. Replacement lower control arm bolts are included and will need to be installed in place of the factory "cam bolts".

Congratulations you have completed the installation of your axle truss!

Step 15:

The coil spring seats on either side of the truss need to be pressed down and welded. Press the tabs down until the large end is flush with the bottom of the truss and tack in place. The tab should make a gradual taper from the small end to the large end, when bent properly.



Step 16:

Optional

A steering stabilizer bracket is included in the kit. The bracket is designed to go in the same location as the factory stabilizer bracket, however depending on the steering used on your axle the bracket may need to be re-located or a custom solution fabricated.



Step 17:

Install the upper control arm polyurethane bushings and inner DOM sleeves. Test fit the axle in your Jeep. After verifying clearance remove the axle, remove the upper control arm polyurethane bushings and finish weld all brackets. It is not recommended to weld all seams of the truss 100%. On long seams make welds of about 1"-2" long and leave un-welded sections between about the same length. While welding be sure not to concentrate heat in one area longer than necessary. Move around on the axle and take your time.



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