SCAN ME

THUREN FABRICATION
1994 - 2013 ALIEN LONG ARMS

These instructions are applicable to the following Trucks:
- 1994 - 2013 Ram 2500
- 1994 - 2012 Ram 3500
- 2005 - 2013 Power Wagon

Applicable Part Number:
- TF-ALIENS9413

NOTE

Welding of the frame brackets is standard general fabrication for a skilled welder, and this is a job which a skilled seasoned welder should be performing.
You can weld up the brackets and get them painted and finished, before even taking a tire off the truck. This is nice as you can do the bracket install one day, and still drive the truck daily until you plan to do the final arm install.

1. Bracket Install

- Test fit the brackets to fit your frame properly.
  - They should snug up tight to the bottom of the frame rail front and rear, and the outside bracket surface should sit flush vertically on the outside of the frame rail. The bracket will slide forward about 1/8" away from the body mount. (*see image 1 & 2*)

- Mark weld area around bracket
  - Trace bracket for paint removal area. Don't forget the areas under the bracket, inside, backside, etc.

- Remove Long Arm brackets and clean frame of paint in marked areas with a flap wheel in preparation for welding. (*see image 3*)
  - Make sure there are no deep grooves or marks. Contaminants can be buried deep within and are harder to clean out. It will also affect the quality of the weld and give you limited control.
  - Cutting too much of the surface off, especially if the metal is thin, will ruin the strength and shape of the metal.
  - If you don't wipe down the metal there could be dirt, dust and oils that will ruin your weld and can lead to defects.
  - Never weld when the metal is wet. After you've cleaned the metal make sure it is dry before you start welding.
  - If you are using chemicals then you should handle them with extreme care. Make sure that they are covered and that you protect your skin and eyes when you use them.

- Re-install brackets and slide brackets forward so they are about 1/8" away from touching the body mount, and clamp in place. THIS IS NOT THE FINAL LOCATION.

WARNING

Take many measurements from other frame reference points (rear leaf spring bolts, front control arm original holes, transmission cross member, etc) to verify the new brackets are in identical positions from front to back on the frame, and adjust as needed.
TRIPLE CHECK THIS THERE IS OBVIOUSLY NO GOING BACK ONCE WELDED IN.
Referencing only the body mount for bracket position will not be correct. Make sure when measuring all reference points are IDENTICAL from side to side. The final resting position will be about 1/8" from butting up to the body mount. Less is fine, but should not be much farther away if at all.

- For a very precise install, sight through the bracket bolt holes of one side, and verify you can see through the same holes of the bracket on the opposite side.

- Tack into place (*see image 4*) and recheck positioning. This is the only time you can really undo what's been done with relative ease. If everything is where it should be proceed with fully welding brackets.

- Weld brackets in place! Take your time as to not overheat the frame, and weld 2" or so on one bracket, then move over and weld the same 2" on the other side, as to make sure any distortions or heat-flex matches from side to side.

(*cont*)

• Now the rear boxed braces can be welded in place. Clean frame paint, center under the frame rail where they land, and weld both sides in place. Clean up all brackets/welds and paint as you desire.

2. Arm Install

You will be cutting off a majority of the factory lower control arm brackets welded to the frame rails. Only leaving what you're willing to grind off afterwards.

This can be completed with a Sawzall, using new blades, and a bit of patience. Plasma cutter works best, and again...patience. Get as much of the bracket off as you can to minimize grinding for final finish.

WARNING

Using a Oxy Acetylene cutting torch should only be performed by a skilled individual

Install one side at a time. As long as the axle is supported front to rear, you can completely remove the existing short arms on one side of the truck, and the opposite side of the truck will prevent the axle from rotating. You can even leave the truck static full weight on the ground if you like, as long as wheel chocks are supporting the tire.

Use OEM bolts/hardware at the axle side, and supplied hardware at the new bracket side.

• Support one side of the axle/tire, and remove the upper and lower arms on that side only.

• Cut off the existing control arm bracket, TAKE YOUR TIME, and detail/grind/paint/etc the frame as in above notes.

• Install zerks before arm install.
- straight zerks at lower arm on frame side
- 45° zerks installed everywhere else

• Install new arms. Be sure the "kick" in the arms moves the arm tube closer to the frame rail for tire clearance.

• The "kick" in the lower arms will also mount inward for tire clearance. Snug bolts down, and move to the opposite side of the truck to repeat the same process.

• Re-Torque bolts after 500miles.
- Torque 14mm Bolts to 150 ft/lbs – Upper long arms at axle end
- Torque 16mm Bolts to 215 ft/lbs – Lower long arm axle bolts 2003-2009
- Torque 18mm Bolts to 225 ft/lbs – Lower long arm axle end bolts 2010+
- Torque 9/16" Bolts to 170 ft/lbs – Upper long arm frame mount
- Torque 5/8" Bolts to 220 ft/lbs – Lower long arm frame mount

• Align truck to 3.8° - 4.0° caster, and 0.0° - .05° total toe. Visit our Tech Data Section for applicable Alignment Specs for your specific truck.

NOTES

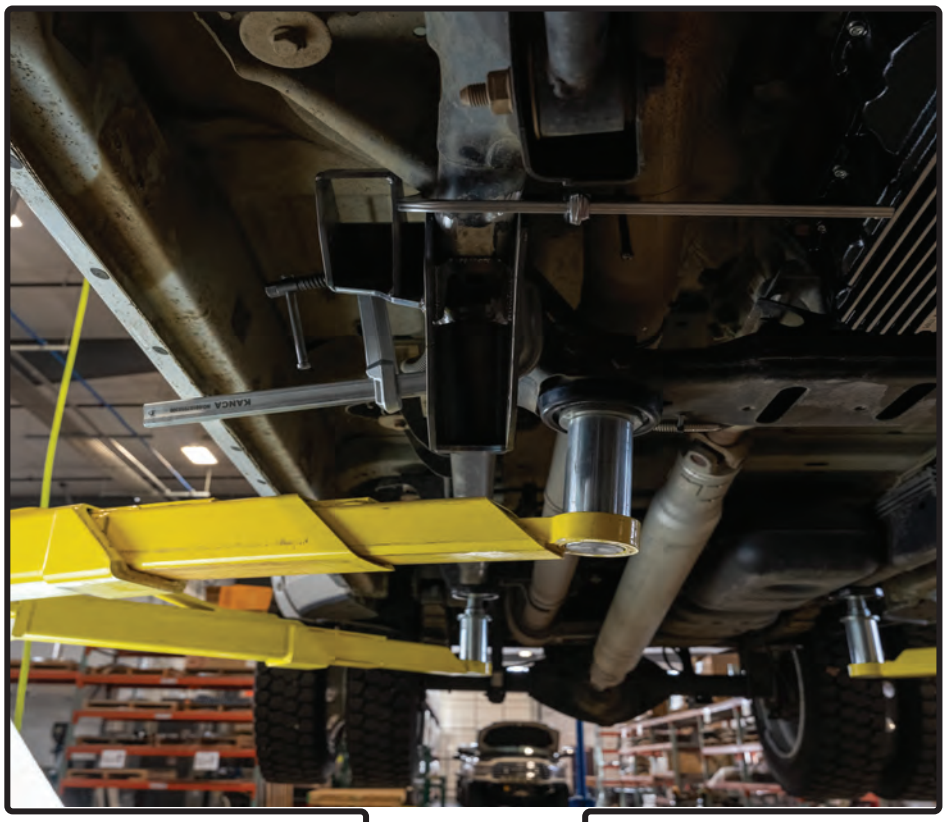

Image 1

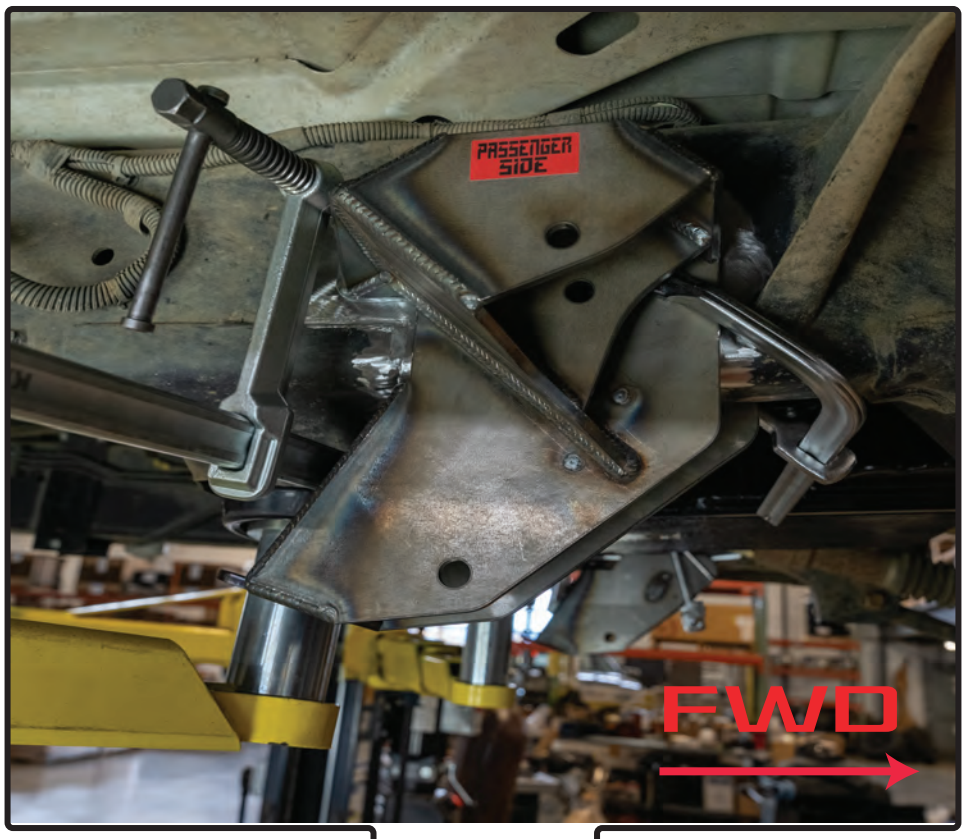

Image 2

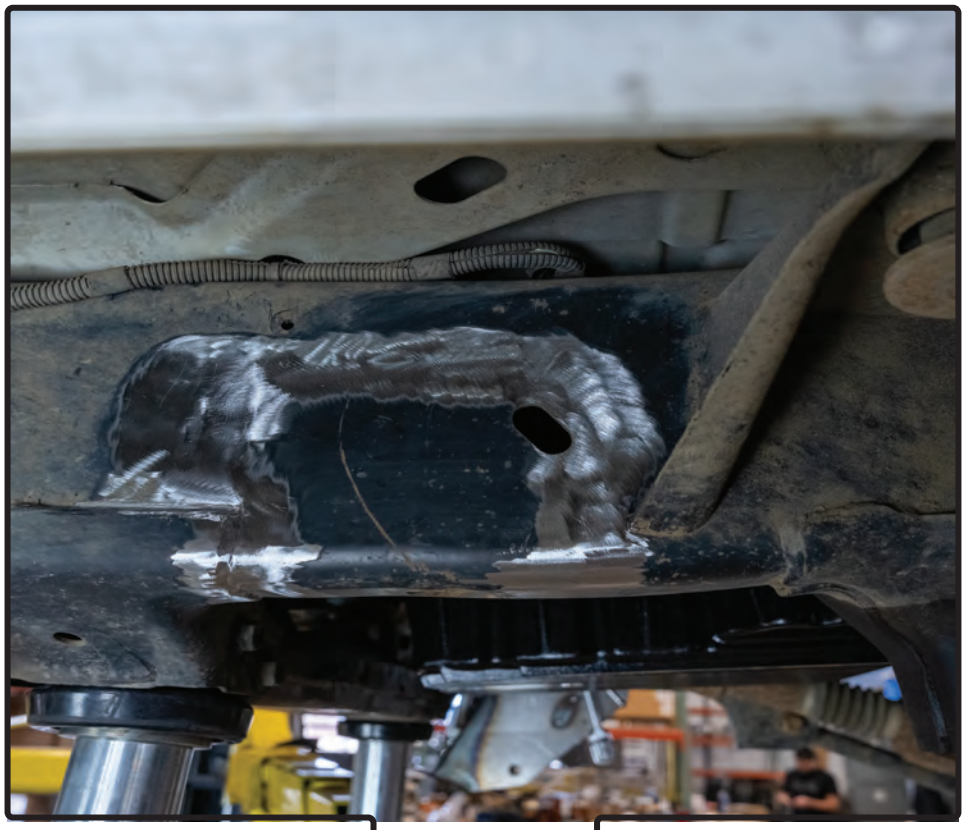

Image 3

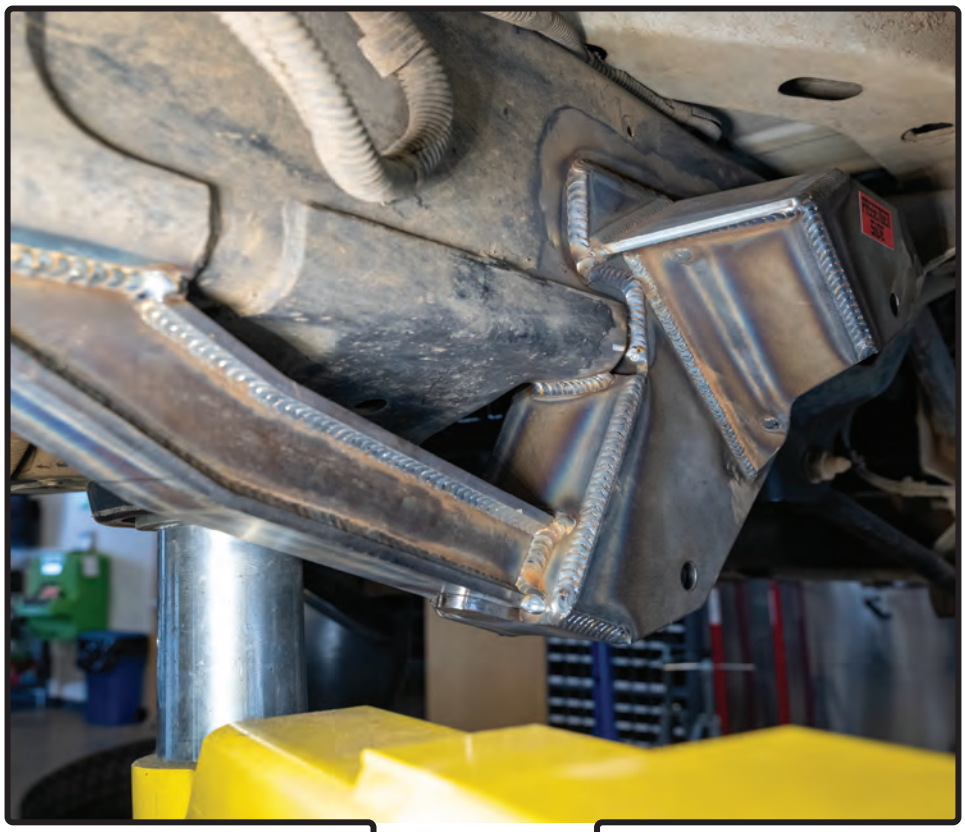

Image 4