EVO Manufacturing

Jeep Wrangler JK/JKU

JK High Clearance Long Arm Kit

EVO- 1050, EVO-1200

Before starting installation procedure please read http://evomfg.com/Returns-Warranties-Shipping

**CAREFULLY READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND KEEP FOR FUTURE REFERENCE. IF YOU HAVE ANY QUESTIONS ABOUT THE PRODUCT CALL EVO MANUFACTURURING. FAILURE TO FOLLOW GUIDELINES COULD RESULT IN MALFUNCTION OF PARTS OR INJURY. PLEASE HAVE A TRAINED PROFESSIONAL ASSIST WITH OR INSTALL ALL PRODUCTS. INSTALLING EVO MFG PRODUCTS OR KITS DEMANDS SPECIFIC KNOWLEDGE, TOOLS AND EXPERIENCE. GENERAL KNOWLEDGE OF HOW TO USE LATER SPECIFIED TOOLS AND/OR LIMITED EXPERIENCE WITH EVO MFG PRODUCTS MAY NOT BE ENOUGH TO PROPERLY COMPLETE THESE TASKS. SOME OF EVO MFG PRODUCTS MAY REQUIRE TWO OR MORE PEOPLE TO INSTALL SAFELY AND CORRECTLY. DO NOT ATTEMPT ALONE, ALWAYS ENLIST THE HELP OF TRAINED PROFESSIONAL WHEN NEEDED.**

**Notes: Set Up Before installation**

**All Vehicles that spend time on salted roads. It is recommended that removal of both threaded collar and joint on all arms. Apply a small amount of Anti Seize on threads and reassemble.**

**Keep all mounting bolts loose (installed but not torqued) we will torque later at the end of complete installation**

**After alignment is complete and no additional adjustments are to be made to control arms. Torque all 1" Jam Nuts to 250 ft/lbs and all 1-1/4" Jam Nuts torque to 300 ft/lbs. Regularly check all jam nuts and punch bolts on all control arms for proper torque/tightness. Failure to do so may cause premature wear of threads on arms.**

READ BEFORE INSTALL:

2010 and newer JK requires exhaust modifications. 2012 or Newer: Exhaust modifications required on front exhaust loop.

It is generally a good idea to apply Loctite to all threaded bolts.

ALWAYS wear safety glasses and other approved safety gear when working on a vehicle.

All supplied bolts torqued according to chart at end of instruction.

It is recommended all installation be performed by a trained professional. Some modification may have to be done.

Paint all unfinished surfaces after install is complete.

**Parts included: Table below shows JK High Clearance Long Arm Kit.**

| Description | # | Part # | Quantity |
|---|---|---|---|
| Front Lower Arms | 1 | EVO-11060B | 2 |
| Rear Lower Arms | 2 | EVO-11061B | 2 |
| Rear Upper LA Driver | 3 | EVO-11035B | 1 |
| Rear Upper LA Passenger | 4 | EVO-11036B | 1 |
| Front Upper LA Driver | 5 | EVO-11037B | 1 |
| Front Upper LA Passenger | 6 | EVO-11038B | 1 |
| Rear Driver LA Control Arm Bracket | 7 | EVO-11047 | 1 |
| Rear Passenger LA Control Arm Bracket | 8 | EVO-11048 | 1 |
| Driver Front LA Control Arm Bracket | 9 | EVO-11049 | 1 |
| Passenger Front LA Control Arm Bracket | 10 | EVO-11050 | 1 |
| 3 Degree Axle Mount | 11 | EVO-1045 | 1 |
| Shock Tab, Cantilever Sub Frame | 12 | EVO-10003-7 | 4 |
| LA Upgrade Hardware Pack | 13 | EVO-770024 | 1 |
| Misalignment Spacer | 14 | EVO-100563263 | 4 |
| JK Rear Upper Bolt Tab | 15 | EVO-11005CZ | 2 |
| JK Rear Lower Bolt Tab | 16 | EVO-11006CZ | 2 |
| HHCS 3/8-24x1.50 GrC Zink | 17 | EVO-900023 | 8 |
| Stover Lock Nut 3/8-24 GrC Zinc | 18 | EVO-900221 | 8 |
| Black Internal Retain | 29 | EVO-900286 | 2 |
| HHCS M12, 130mm, 1.75mm, Partial Thread | 20 | EVO-900325 | 4 |
| Driver HC Main Bracket | 21 | EVO-12391-1 | 1 |
| Passenger HC Main Bracket | 22 | EVO-12392-1 | 1 |
| Shock Mount Backing Plate | 23 | EVO-12391-2 | 2 |
| Swaybar Mount Plate | 24 | EVO-12391-4 | 2 |
| Driver Shock Mounting Bracket | 25 | EVO-12391-3 | 1 |
| Passenger Shock Mounting Bracket | 26 | EVO-12392-3 | 1 |

**Recommended Tools**:

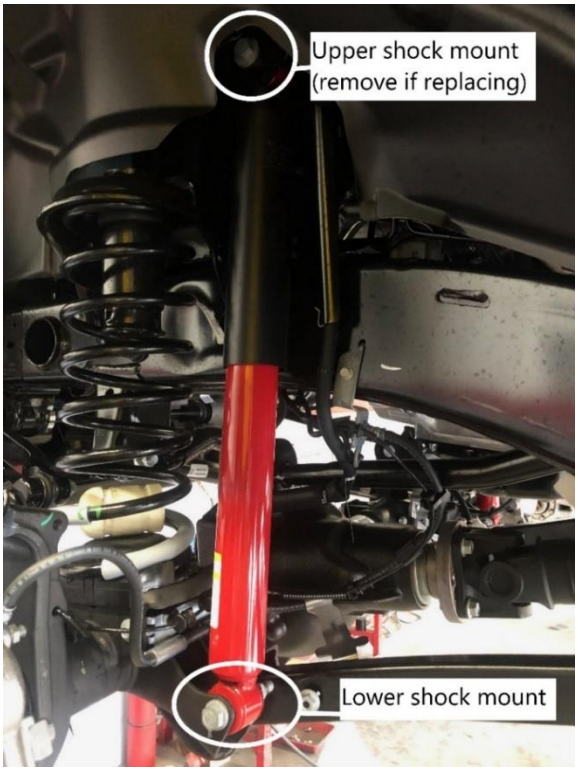
- Impact with standard sockets
- Sawzall/Cut off wheel or similar
- Welder and Materials
- Proper Safety Gear

Safety Steps for installation

- For installing EVO MFG products always use wheel chokes to block rear tires from rolling.
- Always make sure you have everything necessary ready before install.
- If you have to, carefully lift front of vehicle by front frame rails extending suspension until tires leave the ground, place frame on approved jack stands for vehicle. Verify all lines/wires are not over extended.
- Remove tires if needed for easier install.
- Make sure to wear safety equipment (eye protection, hand protection, foot protection etc.) at all times during installation.
- Make sure all safety precautions have been taken.
- Always check and replace any part of vehicle that is warn or broken before starting install.
- Do not mix anything EVO with weaker alternatives.
- It is generally a good idea to apply liquid threadlock to all bolts.
- Tighten included hardware to torque specifications in bottom table unless it is otherwise specified, factory bolts should be torqued to factory Jeep specifications.

With Jeep parked on flat surface, wheel chalked and in park.

1. Support axle with adjustable jacks, Remove shocks.



2. Remove all control arms.

Be careful, axle might shift once all arms are removed.

3. Remove brake line brackets

4. Lower axle carefully until springs can be removed.

## FRONT INSTALL

5. Mark and cut front factory control arm brackets as shown on lines in photos. Lower front factory brackets need to be trimmed as shown leaving the outer factory portion of the bracket remaining on the vehicle.

6. Support transmission cross-member with adjustable jack stand. Remove two bolts on passenger side that hold in cross-member.

7. Install front passenger side brackets as shown.

8. Reinstall transmission bolts just as factory through new front control arm brackets

9. Install supplied ½" bolt at factory lower control arm tab toward front of vehicle.

10. Drill 3/8" hole in front side of factory transmission cross-member

11. Through access hole on underside of cross-member install 3/8" bolt, nut and washer through supplied control arm bracket to transmission cross-member.

Repeat steps on driver side.

12. Weld all control arm brackets to frame in all locations they touch the frame top and bottom. DO NOT weld toward the center of bracket that touches the removable factory transmission crossmember.

13. Install front control arms upper and lower using factory hardware on factory mounting locations and supplied hardware on EVO Brackets. Front lowers starting length 34.5” and upper starting length 26.375”, roughly fully threaded in. FRONT UPPER ARMS SHOULD HAVE THE BEND OF THE ARM MOVING AWAY FROM THE FRAME ON BOTH DRIVER AND PASS SIDES.

14. Front upper control arm mounts at the frame will have the bolt inserted from the ground up. Not left to right.

## REAR INSTALL

After removing all control arms, brake line brackets and springs.

15. Remove all rear factory control arm brackets as shown in lines on photos. All rear control arm brackets need to be removed and grinded flush to the frame.

16. Carefully remove gas tank from vehicle. This can be heavy depending on fuel level. Be very careful as this contains highly flammable gasoline. Store in a safe place.

17. Cut rear body mount using line shown in photo. The rear most tab of the body mount needs to be trimmed all the way to the top. Grind all cuts smooth to frame.

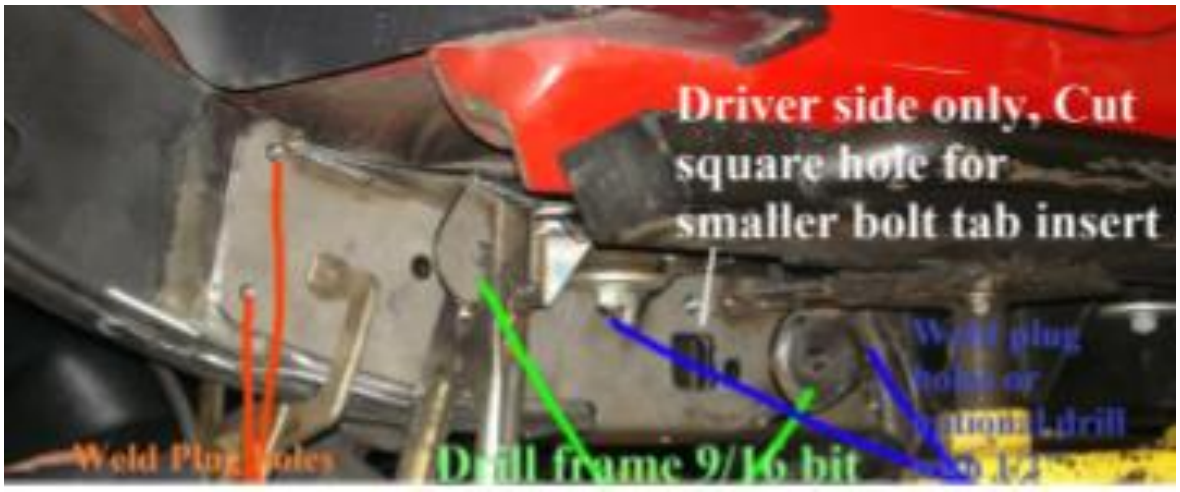
18. Remove two factory body mount bolts.

19. Install driver and pass side brackets on frame.

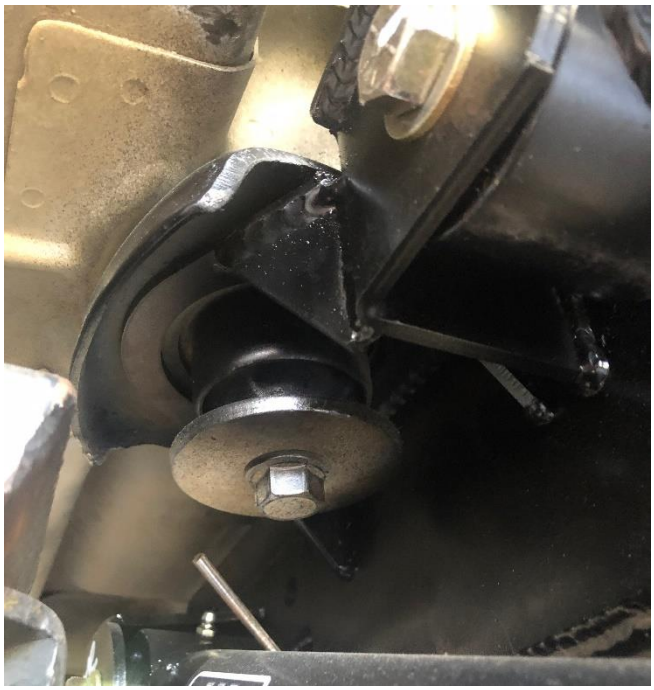
20. Tighten the two body mount bolts to factory specifications.

21. Mark center of all the two control arm holes, 9/16”, and drill through outer frame side only.

Driver side will need a square hole cut into frame (same as the hole on the frame on passenger side). This is for nut access for the driver side rear lower arms. Use bracket as template for cut. Use plasma cutter or drill corners of square with drill and complete the straights of the square with cut off wheel.



22. Reinstall brackets to body mounts if removed and weld all edges of the brackets completely to frame inside and out.



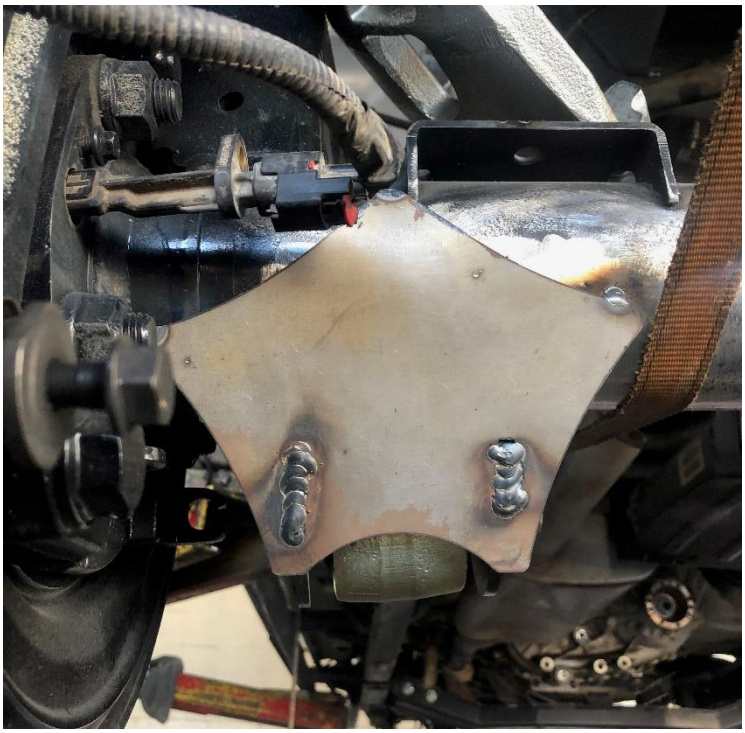
23. Reinstall gas tank to it factory location using factory hardware. Be extremely careful in doing so, no flames, sparks or cutting etc at this time.

24. Cut off rear lower control arm bracket on the axle and grind smooth to axle tube.

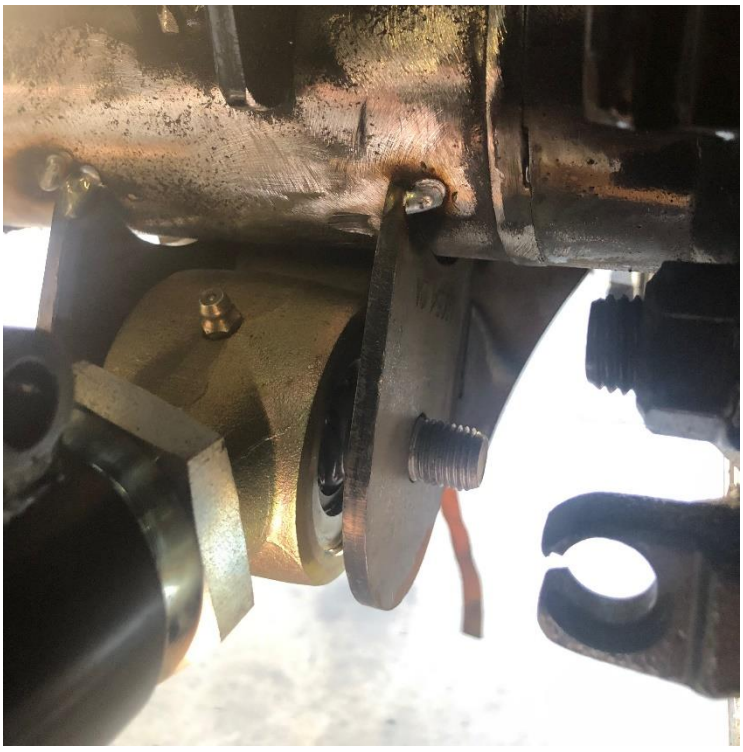
25. Install rear upper and lower control arms into all remaining control arm mounts on axle and frame. Rear lower mounts at axle will not exist at this time. Use small nut plate with bend for rear lower arm nuts at frame through the square holes and longer nut plates for rear upper nuts at frame through factory small square access hole on underside of frame.

26. Adjusts rear lower control arms to 30.5” from center to center and uppers to 20.5” center to center.

For EVOlever ONLY:



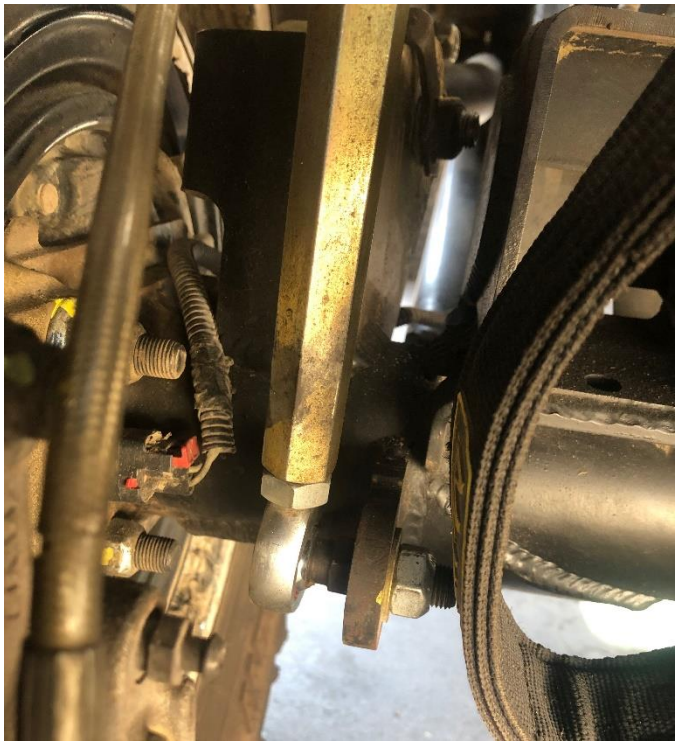
27. Install rear EVOlever axle bracket onto remaining control arm joints with factory hardware. Hold up to axle tube where control arm bracket once was.



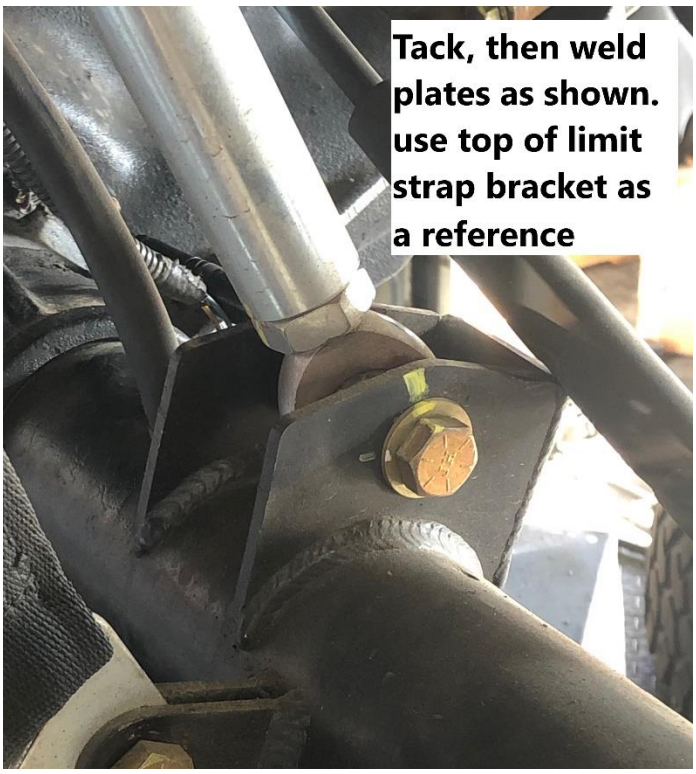
28. With rear wheels and tires installed pivot lower control arm to axle tube and move outward on axle tube while radius on brackets are still around tube until the rear control arms and the inner sidewall of the tire are 1.0” apart. Tack new lower control arm mounts into place on axle tube. Roughly ends of brackets will be close the end flanges on the axle tube ends.

29. If installing with EVOlever or rear DTD. There are 4 smaller tabs that will be used for the new limit strap location. 2 per strap, one on each side of strap tab. They should be installed and tacked into place in line with tabs on subframe above, straight off the back of the axle tube. When cycling later on, make sure shocks do not contact subframe at full droop/extension. If so, rotate tabs lower on axle tube and slightly inward until no contact is made of shocks to subframe.

30. Thick rear swaybar tab should be installed on outside sheet metal edge of factory bumpstop pad and straight rearward of tube. Tack into place.



31. If installing this kit with the EVO LEVER suspension then follow this step and skip the “If not installing EVOlever” steps.




32. The bracket should have the open side facing rear of vehicle and should sit on top of axle, inside where the limit strap bracket sits. (use picture as reference)

Note: **Every axle/EVOlever is specific to your vehicle setup, the above steps for placement are a starting point, adjust as necessary before welding and painting.**

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If NOT installing EVOlever:

33. Assemble shock mount to the main axle bracket. Make sure shock mount is facing towards center of axle on both passenger and driver side.

34. **If using EVO MFG rear bolt on coilovers, shock mount tabs should be inserted in the upper cutouts in the main bracket.**

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35. If using coilspring and shock then install shock mount tabs in the lower cutouts in the main bracket.

36. Tack in place, double check fitment and then weld shock mount bracket to main bracket.

37. Sway bar mount bracket should be welded to long cutout in main axle bracket. If shock mount is in the upper slot then trimming may be required to properly seat sway bar bracket.

38. Mate the rear backing plate to the main EVO MFG bracket by tack welding. Once properly placed, weld both brackets together.

39. Using the slot in the main axle bracket, key into the outermost part of the bump stop bracket. Once you find an acceptable fitment tack in place.

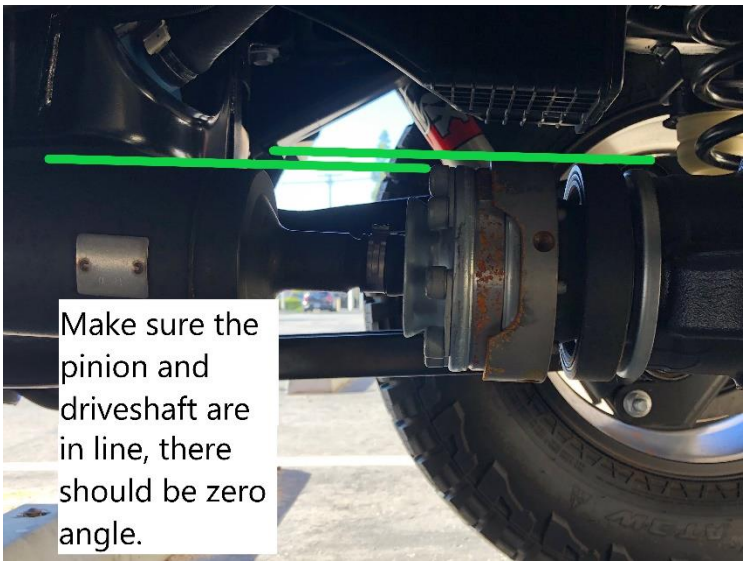
40. Weld on all axle brackets/tabs to axle once axle has been cycled up and down and verification is made that all components clear each other.

41. Once the bracket has been welded in place and painted then loosely install shock/Coilover using factory hardware if applicable.

Reinstall springs if reusing coilsprings.

42. Cycle front and rear suspension up and down while turning front tires left and right to verify no interference with any components and that all wires, hoses etc are clear and are long enough.

43. Set pinion angle on vehicle so that the driveshaft and the pinion are inline with the axle at an approximate right height and centered to vehicle.




44. Very carefully set vehicle back on ground.

45. Torque all suspension bolts to factory specifications including wheels.

2012 or Newer: Exhaust modifications required on front exhaust loop. Custom exhaust fabrication or below required. Exhaust loop needs to be cut perpendicular to floor straight through factory exhaust loop on both the forward side of the loop and rearward near coupling flange. The loop then needs to be flipped 180 so that the previous front is now welded to the rear and vice versa. Rotate and make sure loop clears front upper control arm bracket and arms before fully welding around to reconnect to exhaust system.

After Install:

- Tighten all bolts securing purchased parts to specified locations.
- After completing installation using provided instructions, go through all steps again to make sure nothing was missed, not tightened or improperly assembled.
- Some components may need to be purchased separately.
- Check turn signals, headlights, fog lights (if applicable), taillights, blinkers and windshield wipers.
- Adjust mirrors, speedometer and headlights if needed.
- Make sure all gauges are fully operational.
- Drive the vehicle slowly for a couple minutes, looking and listening for abnormal noises while driving. After modification of a vehicle there will be differences in driving experiences and capabilities, be mindful of that.
- Inspect and Retorque all Bolts after 500 miles of competed installation and regularly thereafter.
- Some modification may be required.

Recommended Torque:

| Size | Grade 2 | | Grade 5 | | Grade 8 | | 18-8 S/S | |
|---|---|---|---|---|---|---|---|---|
| | Coarse | Fine | Coarse | Fine | Coarse | Fine | Coarse | Fine |
| #4* | - | - | - | - | - | - | 5.2 | - |
| #6* | - | - | - | - | - | - | 9.6 | - |
| #8* | - | - | - | - | - | - | 19.8 | - |
| #10* | - | - | - | - | - | - | 22.8 | 31.7 |
| 1/4 | 4 | 4.7 | 6.3 | 7.3 | 9 | 10 | 6.3 | 7.8 |
| 5/16 | 8 | 9 | 13 | 14 | 18 | 20 | 11 | 11.8 |
| 3/8 | 15 | 17 | 23 | 26 | 33 | 37 | 20 | 22 |
| 7/16 | 24 | 27 | 37 | 41 | 52 | 58 | 31 | 33 |
| 1/2 | 37 | 41 | 57 | 64 | 80 | 90 | 43 | 45 |
| 9/16 | 53 | 59 | 82 | 91 | 115 | 129 | 57 | 63 |
| 5/8 | 73 | 83 | 112 | 128 | 159 | 180 | 93 | 104 |
| 3/4 | 125 | 138 | 200 | 223 | 282 | 315 | 128 | 124 |
| 7/8 | 129 | 144 | 322 | 355 | 454 | 501 | 194 | 193 |
| 1† | 188 | 210 | 483 | 541 | 682 | 764 | 287 | 289 |