# INSTALLATION INSTRUCTIONS

## 2007-15 JEEP JK
## 5” CRAWLER SYSTEM

### FTS24083BK / FTS24084BK / FTS24085BK

**Fabtech Motorsports** | 4331 Eucalyptus Ave. Chino, CA 91710

**Tech Line:** 909-597-7800 | **Fax:** 909-597-7185 | **Web:** www.fabtechmotorsports.com

# - PARTS LIST -

| | FTS24083BK | COMPONENT BOX 1 |
|---|---|---|
| 1 | FT50390BK | Front Crossmember |
| 1 | FT50368 | Front Trac Bar Bracket |
| 1 | FT50318BK | Frt. Skid Plate |
| 1 | FT50294 | Pitman Arm |
| 2 | FT50261BK | Front Sway Bar End Link |
| 1 | FT50356 | Hardware Kit |
| 2 | FT50164 | Front Bump Stop Extension |
| 2 | FT50383 | Front Lower Link |
| 2 | FT50384 | Front Upper Link |
| 1 | FT50372 | Hardware Sub-Assembly |

| | FTS24084BK | COMPONENT BOX 2 |
|---|---|---|
| 1 | FT50312BK | Drv. Rear Frame Pocket |
| 1 | FT50313BK | Pass. Rear Frame Pocket |
| 1 | FT50325BK | Lower Rear Shock Mount Driver |
| 1 | FT50326BK | Lower Rear Shock Mount Pass |
| 2 | FT50317BK | Rear Upper Link D/P |
| 2 | FT50386 | Rear Lower Link D/P |
| 1 | FT50357 | Hardware Kit |
| 1 | FT50342 | Rear Trac Bar Bracket |
| 1 | FT50373 | Hardware Sub-Assembly |

| | FTS24084BK | COIL BOX KIT |
|---|---|---|
| 2 | FT50302BK | Front Coil Spring |
| 2 | FT50303BK | Rear Coil Spring |

| | SHOCK INFO | *NOT INCLUDED WITH THIS KIT* |
|---|---|---|
| 2 | FTS7188 | Performance Front |
| 2 | FTS6002 | Performance Rear |
| 2 | FTS81022 | Dirt Logic Front |
| 2 | FTS81057 | Dirt Logic Rear |

| | FT50372 | HARDWARE SUB-ASSEMBLY |
|---|---|---|
| 1 | FT167 | Frt Trac Bar Bkt Sleeve |
| 1 | FT50089 | Sleeve 4 Pack |
| 1 | FT50048 | 5/8" Hourglass Bushing 4 Pack |
| 2 | FT42 | Sway Bar Pin |
| 2 | FT45 | Key Ring |
| 2 | FT90036 | Lynch Pin 1/4" |
| 2 | FT402087 | Shock Sleeve |
| 2 | FT50359 | Front Sway Bar Retainer Bracket |
| 1 | FT50297 | Frt. Alignment Cam Kit |
| 2 | FT24083i | Instructions |
| 1 | FTAS12 | Sticker |
| 1 | FTAS16 | Decal |

| | FT50373 | HARDWARE SUB-ASSEMBLY |
|---|---|---|
| 2 | FT50314 | Ft Xmbr & Rr Frm Pkt Drv Nut Tab |
| 2 | FT50315 | Ft Xmbr & Ps Frm Pkt Drv Nut Tab |
| 2 | FT50308 | Rear Long Nut Tab |
| 1 | FT50309 | Rear Dual Nut Tab Driver |
| 1 | FT50324 | Rear Dual Nut Tab Pass |
| 1 | FT50360 | Sway Bar Link Mount Driver |
| 1 | FT50361 | Sway Bar Link Mount Pass |
| 2 | FT50295 | Rear Brake Line Drop Bracket |
| 1 | FT50298 | E-Brake Drop Bracket |
| 2 | FT50327 | Rear Shock Mount Dual Nut Tab |
| 1 | FT50362 | RearTrac Bar Bracket Gusset |
| 1 | FT157 | Rear Track Bar Bracket Sleeve |
| 8 | FT1003 | Rear Upper Link Arm Bushings |
| 4 | FT7100-6-100 | Rear Upper Link Arm Sleeves |

| | EXHAUST MOD | *NOT INCLUDED WITH THIS KIT* |
|---|---|---|
| 1 | FTS94060 | Exhaust Tube, Clamp, Hardware |

# - PARTS LIST -

| | FT50356 | HARDWARE KIT |
|---|---|---|
| Qty. | Description | Location |
| 6 | 1/2"-13 x 1 1/2" Bolt | Front Crossmember |
| 4 | 1/2"-13 C-Lock Nut | ---------- |
| 10 | 1/2" SAE Flat Washer | ---------- |
| 6 | 1/2" Split Washer | ---------- |
| 2 | 12mm x 1.50 x 50mm Bolt | ---------- |
| 2 | 12mm Flat Washer | ---------- |
| 2 | 9/16"-12 x 4" Bolts | Front Lower Links |
| 2 | 9/16"-12 C-Lok Nut | ---------- |
| 4 | 9/16" SAE Flat Washers | ---------- |
| 2 | 7/16"-14 x 3 1/2" Bolt | Front Upper Link |
| 2 | 7/16"-14 C-Lock Nut | ---------- |
| 4 | 7/16" SAE Flat Washer | ---------- |
| 1 | 9/16"-12 x 3" Bolt | Front Trac Bar Bracket |
| 1 | 9/16"-12 C-lock Nut | ---------- |
| 3 | 9/16" SAE Flat Washer | ---------- |
| 2 | 1/2"-13 x 3" Bolt | Front Sway Bar End Link |
| 2 | 1/2"-13 C-Lock Nut | ---------- |
| 4 | 1/2"SAE Flat Washer | ---------- |
| 2 | 1/2"-13 x 1 1/2' Bolt | Front Lower Sway Bar Bracket |
| 2 | 1/2"-13 C-Lock Nut | ---------- |
| 4 | 1/2" SAE Flat Washer | ---------- |
| 4 | 5/16"-18 x 1" Bolt | Front Sway Bar Rtnr |
| 4 | 5/16"-18 C-Lock Nut | ---------- |
| 8 | 5/16" SAE Flat Washer | ---------- |
| 2 | 1/2"-13 x 2 1/2" Bolt | Front Shock |
| 2 | 1/2"-13 C-Lock Bolt | ---------- |
| 4 | 1/2" SAE Flat Washer | ---------- |
| 4 | 1/2' USS Flat Washer | ---------- |
| 2 | 1/2"-13 x 3 1/2" Bolt | Front Bumpstop |
| 2 | 1/2"-13 C-Lock Nut | ---------- |
| 4 | 1/2" SAE Flat Washers | ---------- |
| 6 | 1/4"-28 Grease Fitting | ---------- |

| | FT50357 | HARDWARE KIT |
|---|---|---|
| Qty. | Description | Location |
| 7 | 1/2"-13 x 1 1/4" Bolt | Rear Link Pockets |
| 1 | 1/2"-13 C-Lock Nuts | ---------- |
| 7 | 1/2" SAE Flat Washer | ---------- |
| 1 | 1/2" USS Flat Washer | ---------- |
| 4 | 1/2" Split Washer | ---------- |
| 4 | 7/16"-14 x 1" Bolt | Rear Shock Mount |
| 4 | 7/16" SAE Flat Washer | ---------- |
| 4 | 7/16" Split Washer | ---------- |
| 2 | 1/2"-13 x 2 3/4" Bolt | Rear Shocks |
| 2 | 1/2"-13 C-Lock Nut | ---------- |
| 4 | 1/2" SAE Flat Washers | ---------- |
| 4 | 9/16"-12 x 4 1/4" Bolt | Rear Lower Links |
| 2 | 9/16"-12 C-Lock Nut | ---------- |
| 6 | 9/16" SAE Flat Washer | ---------- |
| 1 | 9/16"-18 x 3" Bolt | Rear Trac Bar |
| 1 | 9/16"-18 C-Lock | ---------- |
| 2 | 9/16" SAE Flat Washer | ---------- |
| 2 | 3/8"-16x1" Bolt | Rear Trac Bar Bracket |
| 2 | 3/8"-16 C-Lock Nut | ---------- |
| 4 | 3/8" SAE Flat Washer | ---------- |
| 2 | 1/4"-20x1" Bolt | Driver Rear Brake Line Bracket |
| 2 | 1/4"-20 C-lock Nut | ---------- |
| 4 | 1/4" SAE Flat Washer | ---------- |
| 2 | 1/4"-20 x 1" Bolt | E-Brake Cable Bracket |
| 2 | 1/4"-20 C-Lock Nut | ---------- |
| 4 | 1/4" SAE Flat Washer | ---------- |
| 4 | 3/8"-16 x 1" Bolt | Bump Stop Bracket |
| 4 | 3/8"-16 C-Lock Nut | ---------- |
| 8 | 3/8" SAE Flat Washer | ---------- |
| 8 | 1/4"-28 Grease Fitting | ---------- |
| 6 | 8" Zip Ties | ---------- |

# - TOOL LIST -

**Required Tools (Not Included)**

Floor Jack
Jack Stands
Torque Wrench
Pitman Arm Puller
Die Grinder w/Abrasive Disc
MIG Welder
Assorted Metric and S.A.E sockets, and wrenches

# - PRE-INSTALLATION NOTES -

## *Read this before you begin installation-*

Check all parts to the parts list above before beginning installation. If any parts are missing contact Fabtech at 909-597-7800 and a replacement part will be sent to you immediately.

Read all instructions thoroughly from start to finish before beginning the installation. If these instructions are not properly followed severe frame, driveline and / or suspension damage may occur.

Check your local city and state laws prior to the installation of this system for legality. Do not install if not legal in your area.

Prior to the installation of this suspension system perform a front end alignment and record. Do not install this system if the vehicle alignment is not within factory specifications. Check for frame and suspension damage prior to installation.

The installation of this suspension system should be performed by two professional mechanics.

Use the provided thread locking compound on all hardware.

Do not combine this suspension system with any other lift device or parts.

This suspension must be installed with Fabtech shock absorbers.

WARNING- Installation of this system will alter the center of gravity of the vehicle and may increase roll over as compared to stock.

For technical assistance call: 909-597-7800 or e-mail: info@fabtechmotorsports.com

Fabtech replacement driveshafts are required with this system. Due to the different shafts for the 2-door and 4-door models, the driveshafts are sold separately. See chart below for proper driveshafts for your model of Jeep.

| | |
|---|---|
| FTS94057 | 2007-15 Front Driveshaft 2/4 Door |
| FTS94051 | 2007-11 Rear Driveshaft 2 Door Only |
| FTS94052 | 2007-11 Rear Driveshaft 4 Door Only |
| FTS94058 | 2012 - UP Rear Driveshaft 2 Door Only |
| FTS94059 | 2012 - UP Rear Driveshaft 4 Door Only |

Steps 13-16 are for the modification of the exhaust pipe on 2012-15 models and require FTS94060 loop delete pipe not included in this kit or have a local muffler shop replace the cut out section of pipe from steps 13-14.

Factory rocker guards may need to be adjusted and/or trimmed to run 37” tires.

## *Recommend Tires and Wheels:*

Use 37/12.50R17 tire w/ 17x8.5 wheels w/ 5” BS w/ minor trimming

# - INSTRUCTIONS -

## *FRONT SUSPENSION*

1. Disconnect the negative terminal on the battery. With the vehicle on level ground, set the emergency brake and block the rear tires. Jack up the front end of the truck and support the frame rails with jack stands. NEVER WORK UNDER AN UNSUPPORTED VEHICLE! Remove the front tires. Support the front axle. Do not allow to hang freely.

2. Remove the front crossmember & driveshaft from the Jeep and set aside with the hardware.

3. Working from the driver side of the truck, unbolt the front brake line bracket from the frame and save the hardware. Remove the ABS sensor wire from the C-Clips on the front knuckle. Remove and discard the sway bar end link, save the hardware. On Rubicon models only: Unplug the front diff locker harness from the axle.

4. Remove the front shock, save lower mount hardware and upper bushings and washers. Remove the factory coil spring and discard, you will need to allow the front axle to hang freely to remove the coil spring. Do not remove the factory upper coil isolator. **SEE FIGURE 1.**

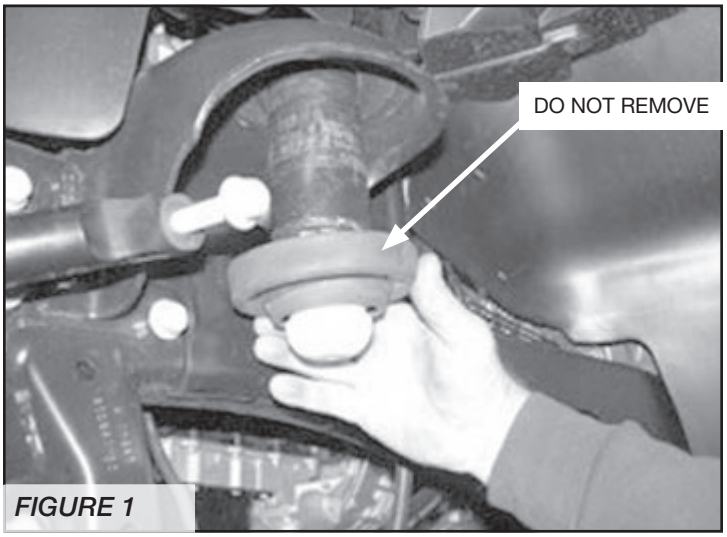


*FIGURE 1*

5. Repeat steps three & four on the passenger side of the Jeep.

6. Locate the new front drive shaft FTS94053 (not included with this kit) and install ** with the supplied hardware.

7. Remove and save the trac bar and hardware. Use a pickle fork and separate the draglink from the pitman arm, save hardware. Use a pitman arm puller and remove the stock pitman arm. Discard the arm and save the nut and washer. Locate the FT50294 pitman arm and install in the same position as the stock one was with the factory hardware. **NOTE: Use thread locker.** Torque to 185 LBS **. **SEE FIGURES 2-3.**

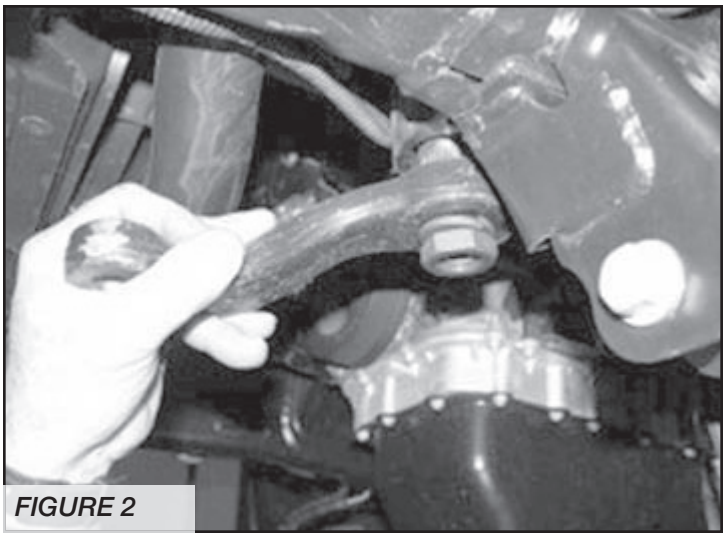

*FIGURE 2*

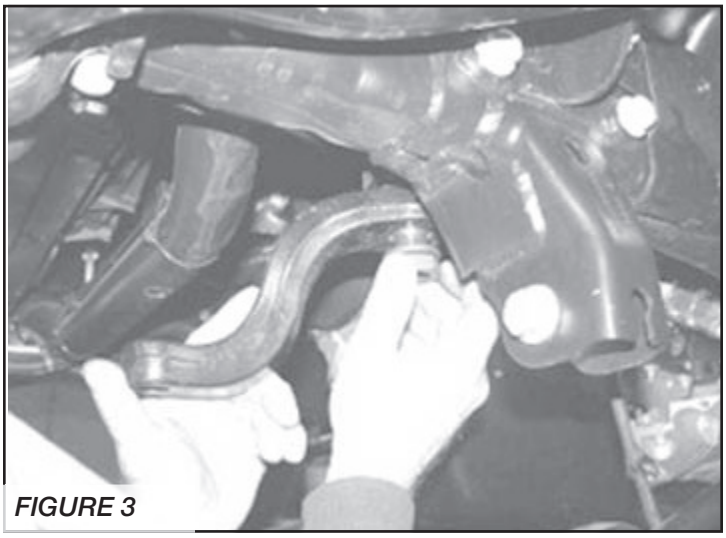

*FIGURE 3*

8. Locate FT50164 Front Bumpstop Spacer position it on the center of the coil spring mount and mark with a center punch. Use a drill with a ½" bit and drill the new hole to mount the new Fabtech spacer. (DO NOT INSTALL AT THIS TIME) **SEE FIGURES 4-5.**

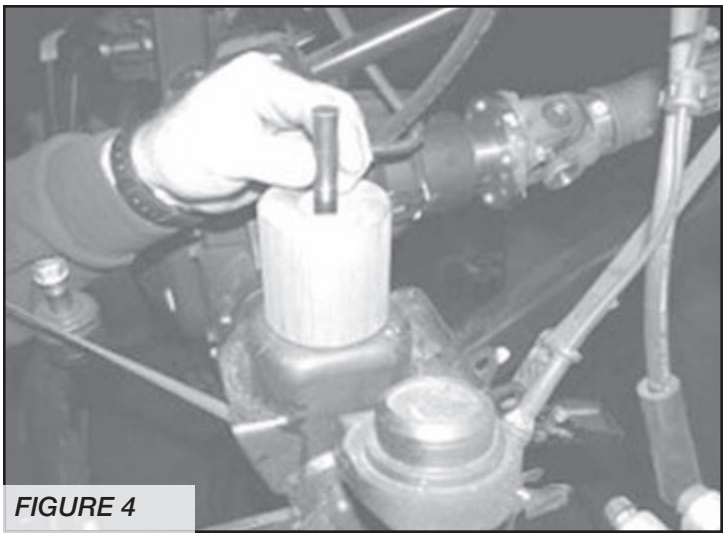

*FIGURE 4*

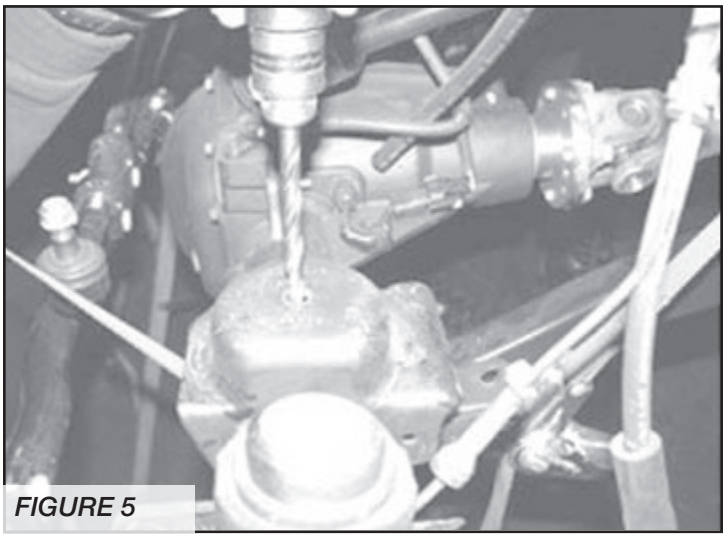

*FIGURE 5*

9. With the Trac Bar removed from the Jeep, remove any and all paint, dirt, or debris from the axle housing where the new bracket is to be installed. The inside front corner of the coil spring mount will need to be cut / trimmed. From the front of the mount, cut 1 ¼" back and ¾" in and down to the axle (This is just a starting point. Each vehicle will need to be trimmed to fit due to variances from Jeep to Jeep). **SEE FIGURE 6.**

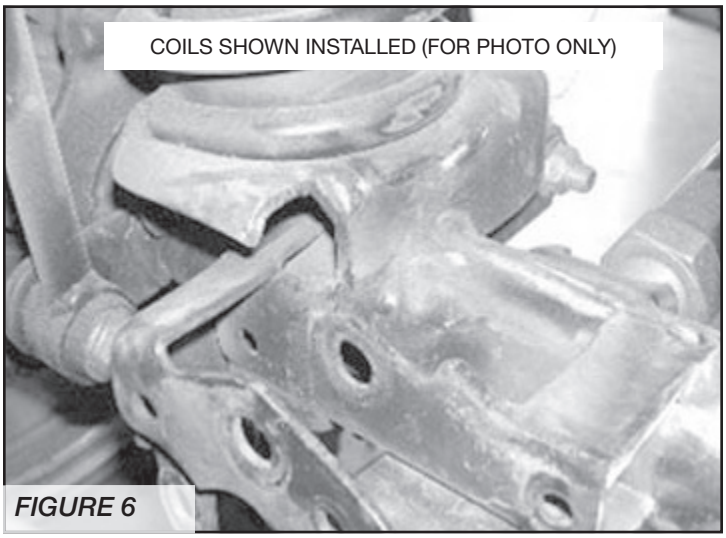


*FIGURE 6*

10. Locate FT50368 Trac Bar Bracket, supplied 9/16" bolt, washers, & nut, and FT167 Trac Bar Sleeve. Place a 9/16" flat washer on the outside of the bolt and put it through the new bracket and put another 9/16" flat washer on the bolt. Position the new bracket with the bolt and washers onto the top of the axle and trac bar mount. Weld the gusset as shown in the photos. **SEE FIGURES 7-13.**

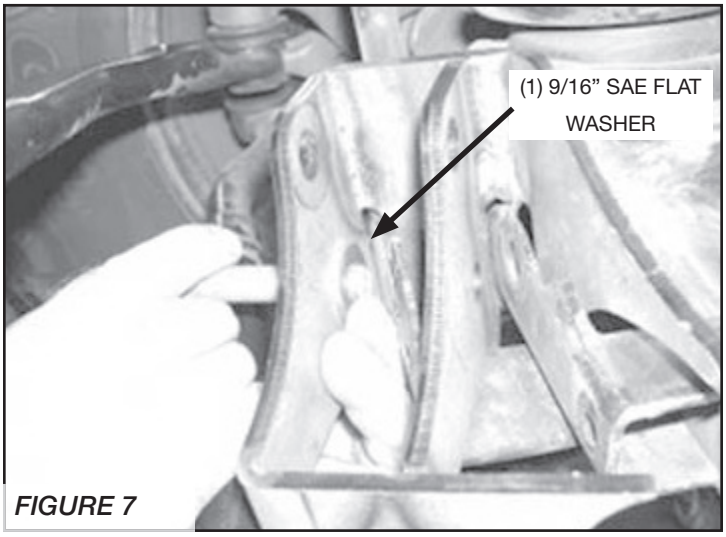


*FIGURE 7*

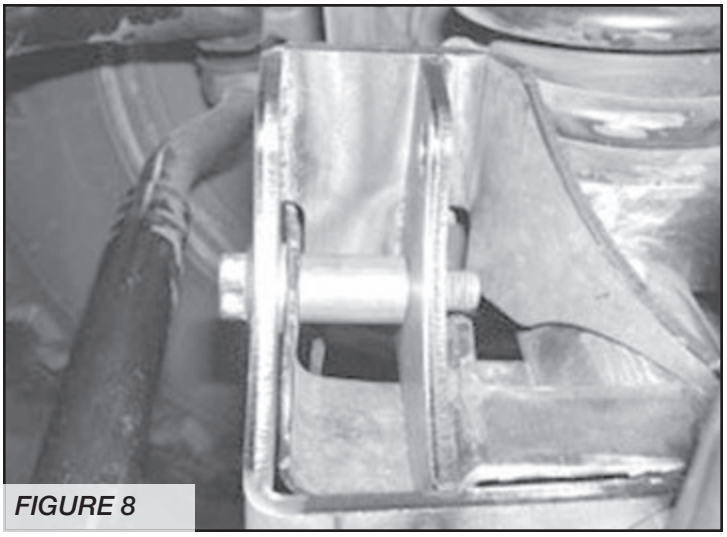

*FIGURE 8*

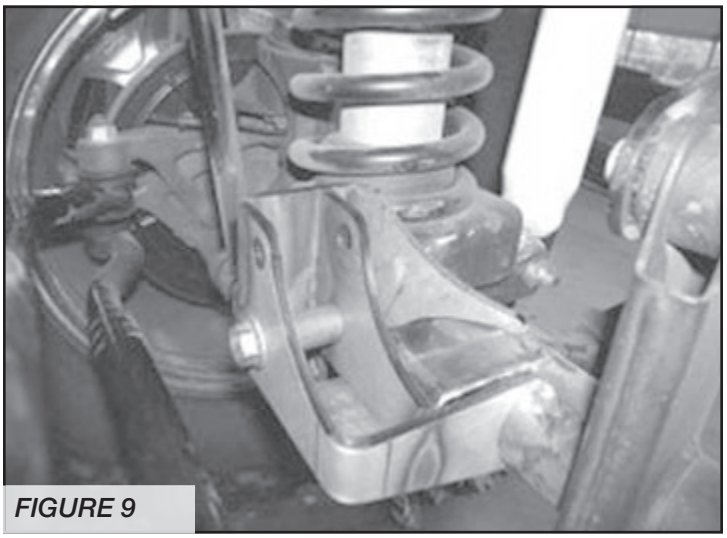

*FIGURE 9*

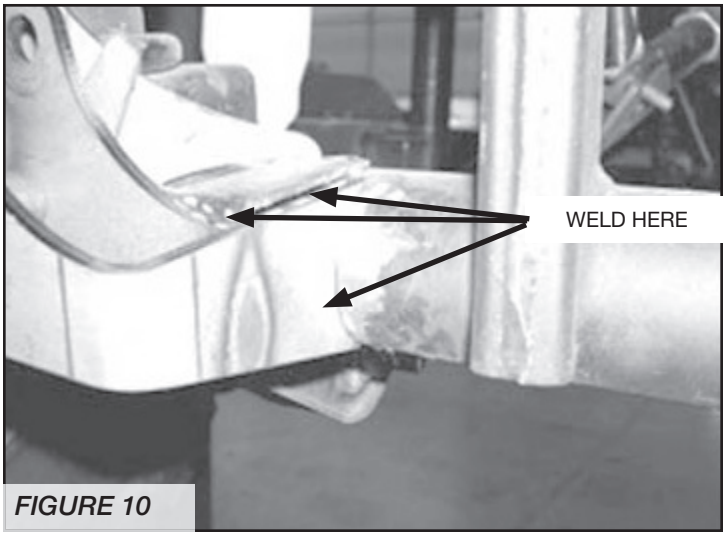


*FIGURE 10*

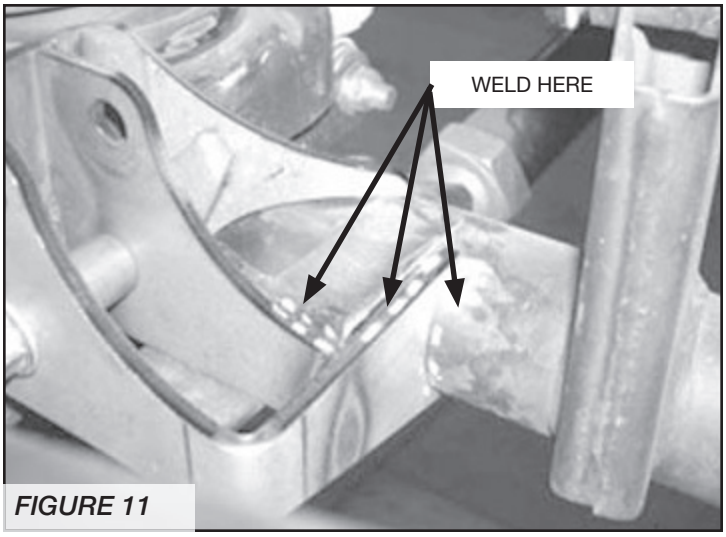


*FIGURE 11*

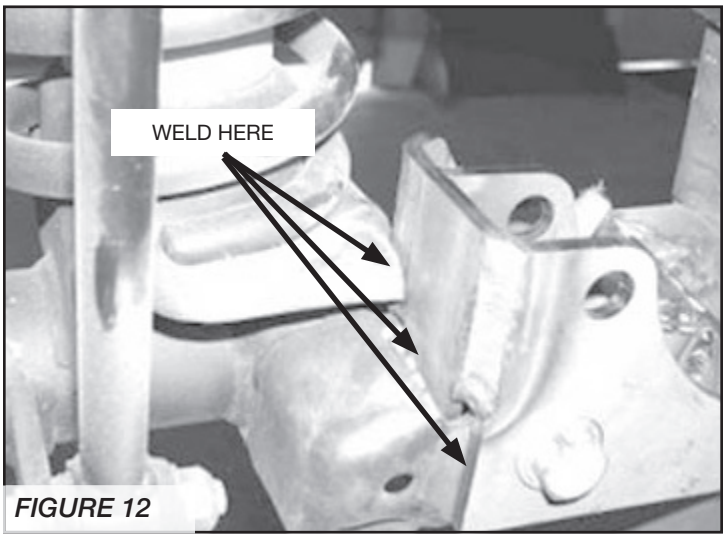


*FIGURE 12*

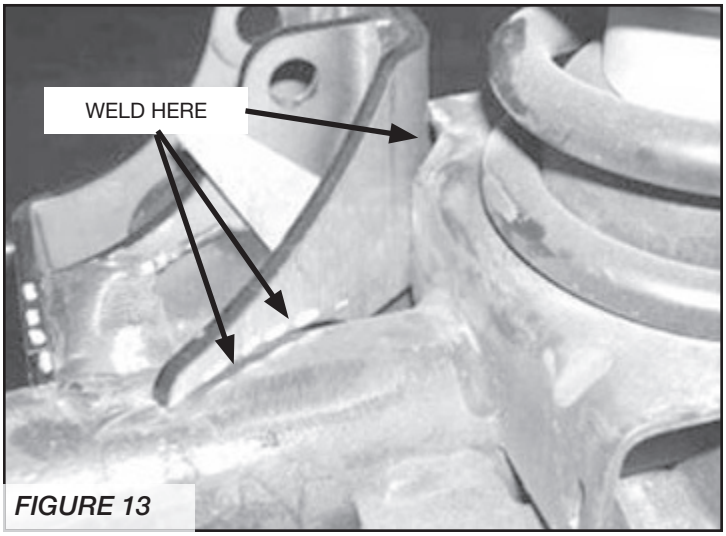


*FIGURE 13*

11. Once gusset kit has completely cooled, paint all bare metal areas. **SEE FIGURE 14.**

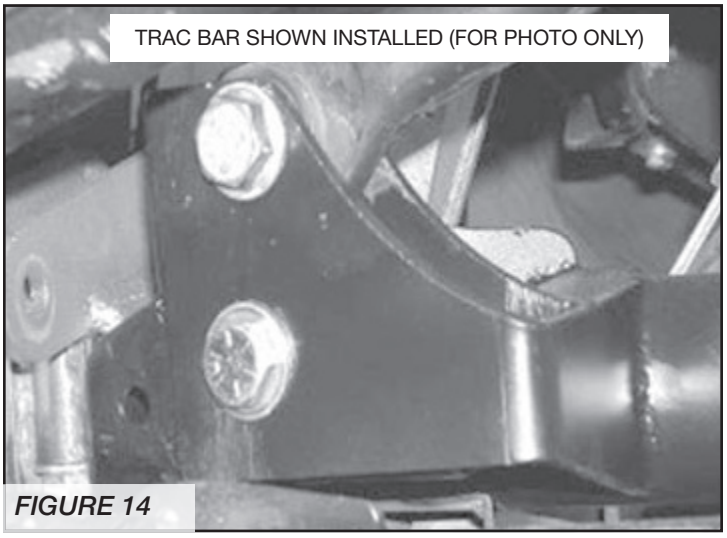


*FIGURE 14*

12. Remove the front upper & lower link arms and save the factory hardware (upper link arm bolt on the passenger side will need to be cut to be removed).

**If you are installing the FTS94060 loop delete pipe for 2012-13 models complete steps 13-16 now.**

13. Locate the section of exhaust after the catalytic converter near the front driver side upper link arm pocket. Measuring 2”back from the weld at the cat, mark and cut the pipe. **SEE FIGURE 15-16.**

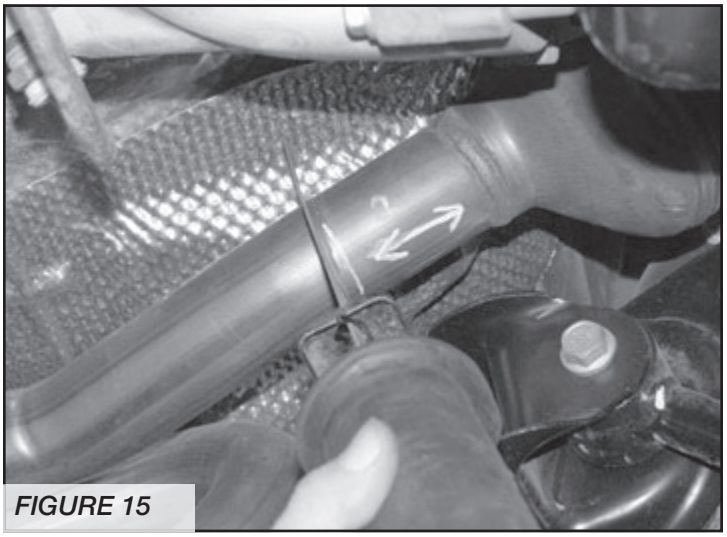

*FIGURE 15*

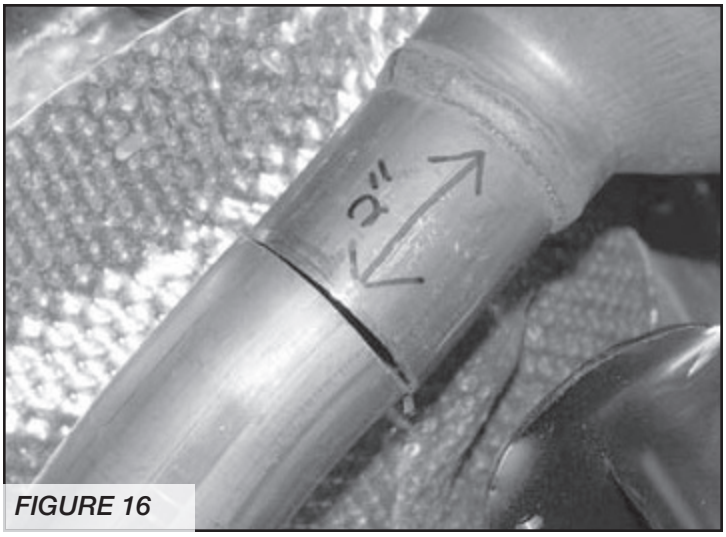


*FIGURE 16*

14. Locate the flange at rear of the pipe just cut. Remove mounting bolts at the flange and discard this section of Exhaust pipe. **SEE FIGURE 17.**

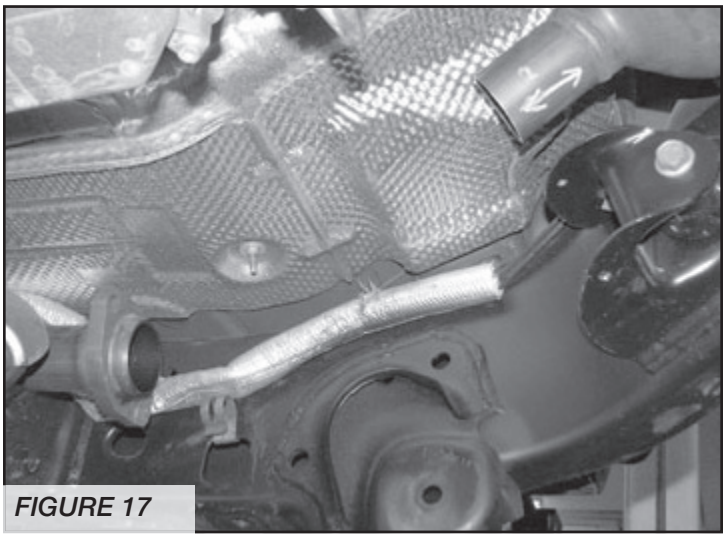

*FIGURE 17*

15. Locate the replacement Exhaust Tube, Clamp and Hardware. Install the slip tube section onto the cut pipe with the Clamp or have muffler shop build and install new pipe after suspension installation. **SEE FIGURE 18.**

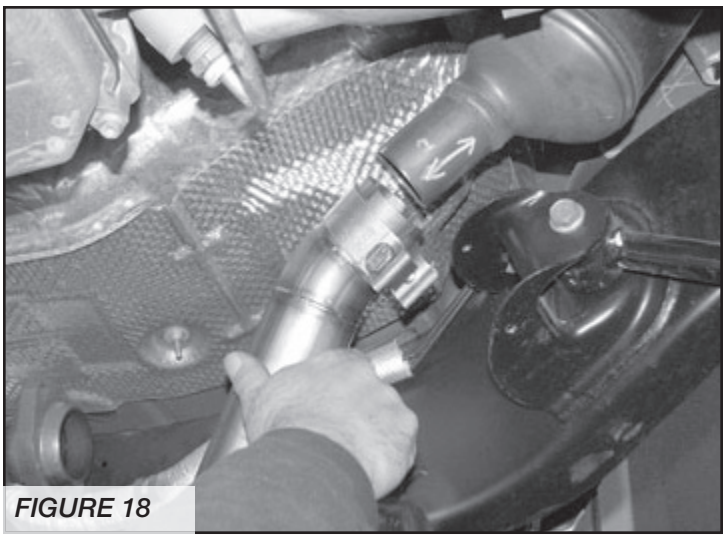

*FIGURE 18*

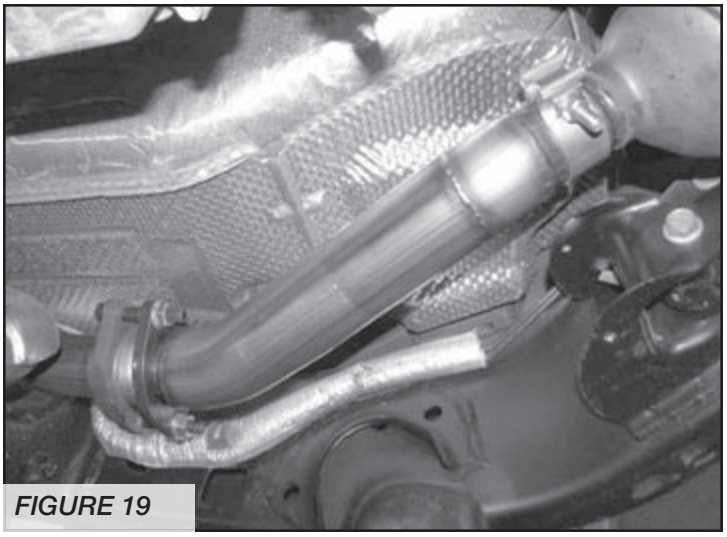

*FIGURE 19*

16. Rotate the rear of the pipe with the two bolt flange up to the factory flange and install the hardware. Torque the two bolt flange and clamp to 37 ft-lbs. **SEE FIGURE 19.**

17. Use a paint pen and mark the inside of the lower link arm pockets as shown in the photos (cut will need to flush with the inside mount, not the frame itself). Use a sawz-all or a die grinder with a cut off wheel and remove the outside of the pocket. Use an angle grinder with a sanding disc to sand the cut area of the pocket. Paint all bare metal areas. **SEE FIGURE 20-25.**

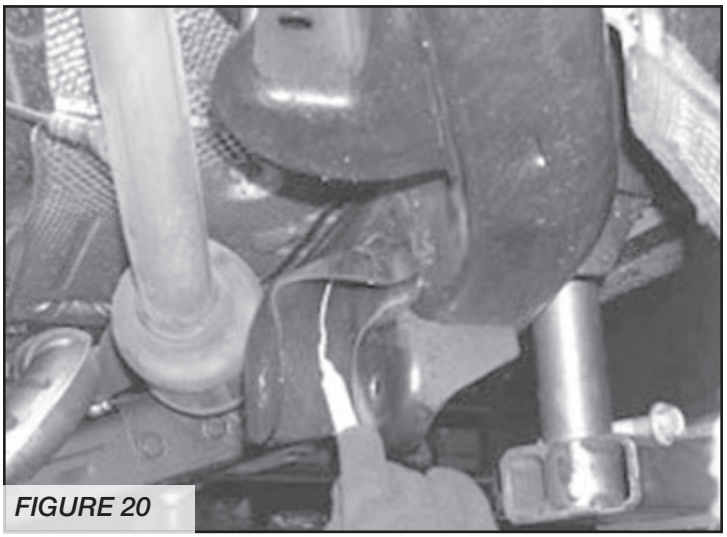

*FIGURE 20*

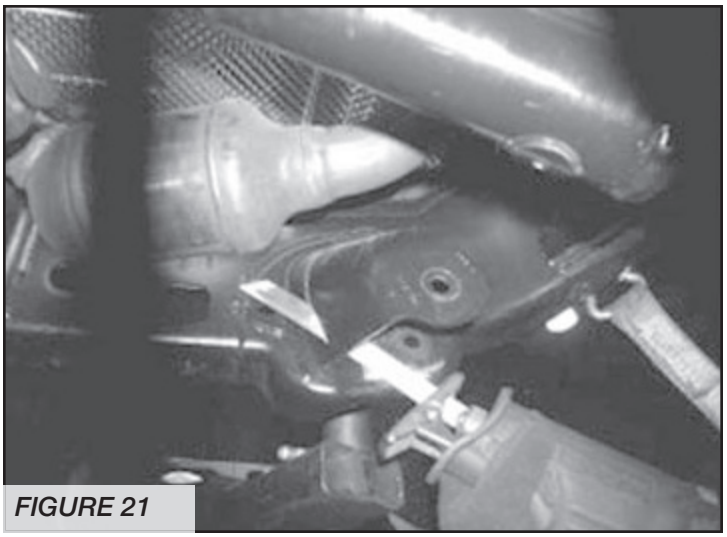

*FIGURE 21*

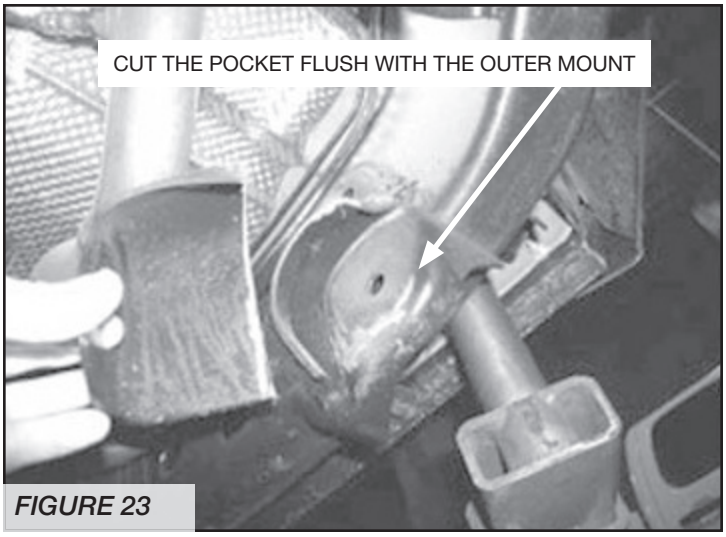


*FIGURE 23*

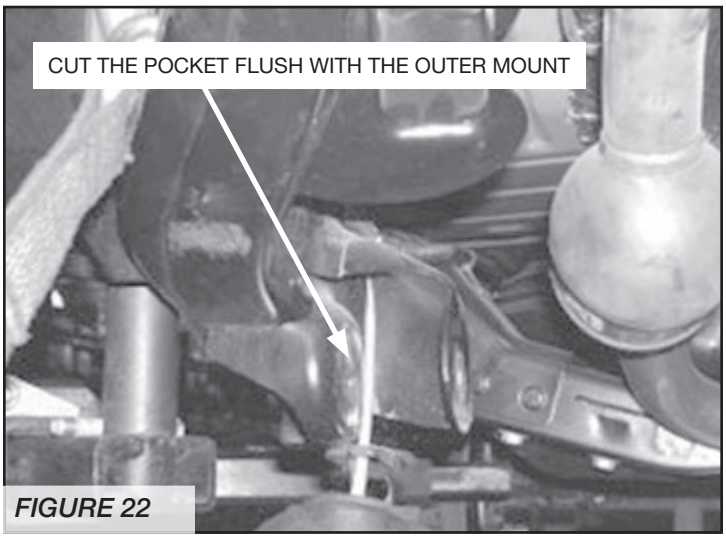


*FIGURE 22*

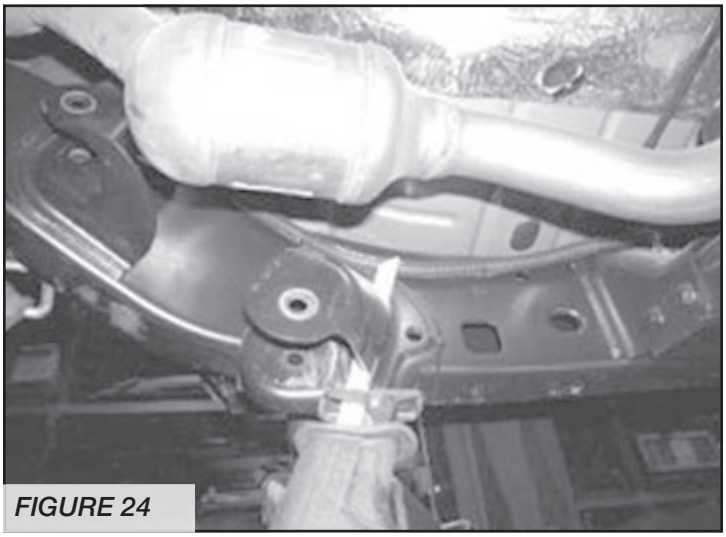

*FIGURE 24*

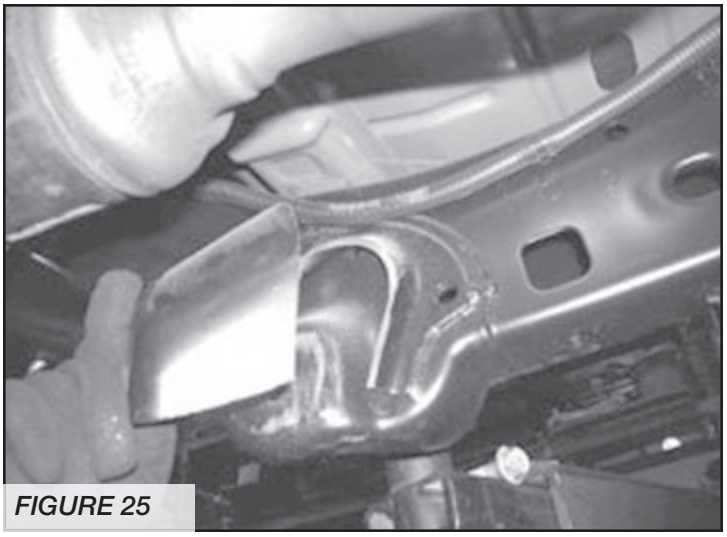

*FIGURE 25*

18. Locate FT50390BK Crossmember, FT50314 & FT50315 Nut Tabs, and the supplied 1/2" & 12mm hardware. Attach ** the front tabs of the crossmember to the factory lower pockets with the 1/2" hardware & leave loose. Rotate the crossmember up to the bottom of the frame and attach with the supplied 12mm bolts with flat & split washer. **SEE FIGURES 26-28.**

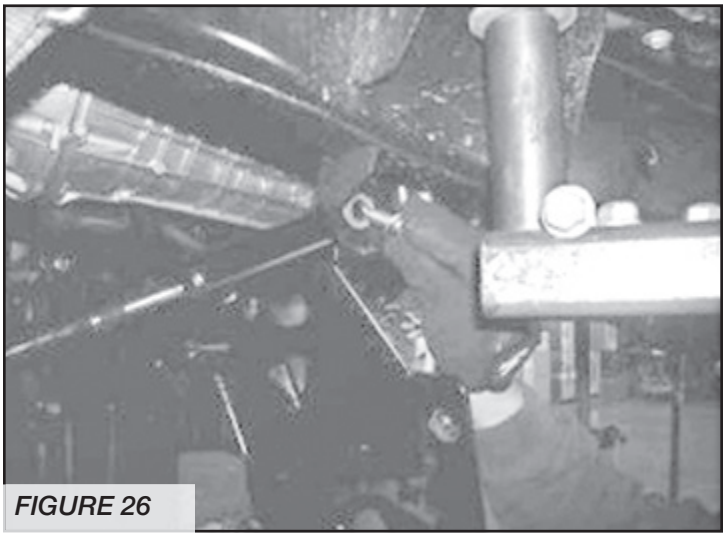

*FIGURE 26*

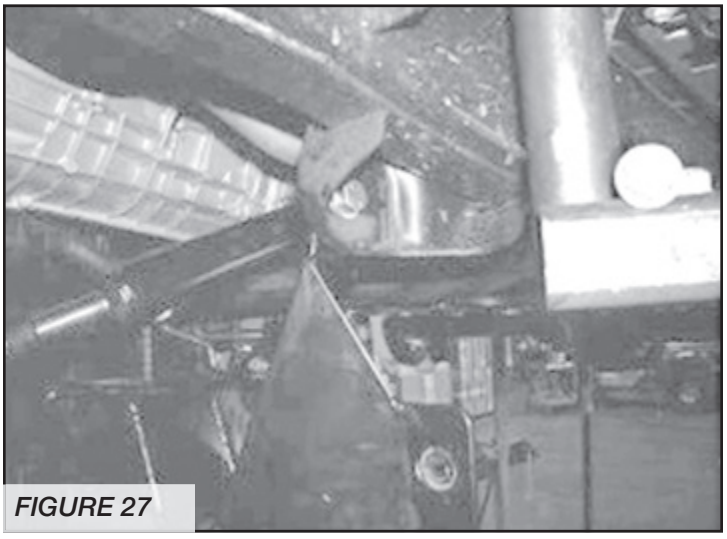

*FIGURE 27*

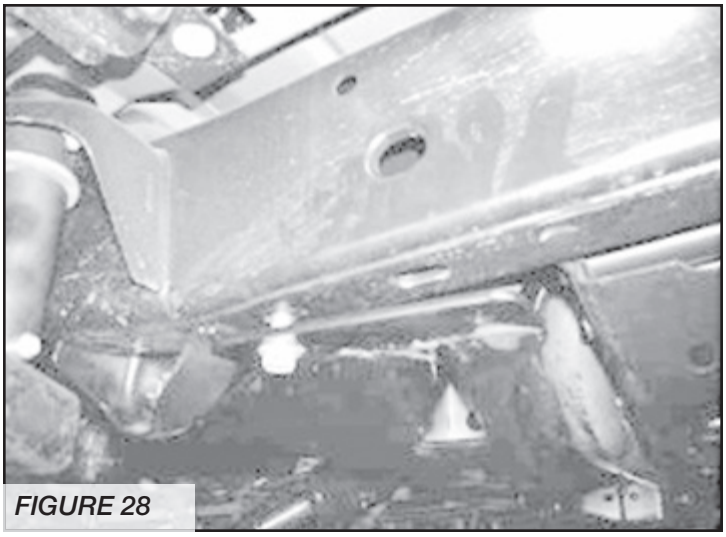

*FIGURE 28*

19. Mark & drill the bottom frame for the rear hole on the new crossmember. Use a small drill bit first and follow with a 1/2" bit. Locate FT50314 & FT50315 Nut Tabs, 1/2" x 1 1/2" bolts with flat & split washers. Insert the nut tab into the frame and attach** with the 1/2" hardware. **SEE FIGURES 29-32.**

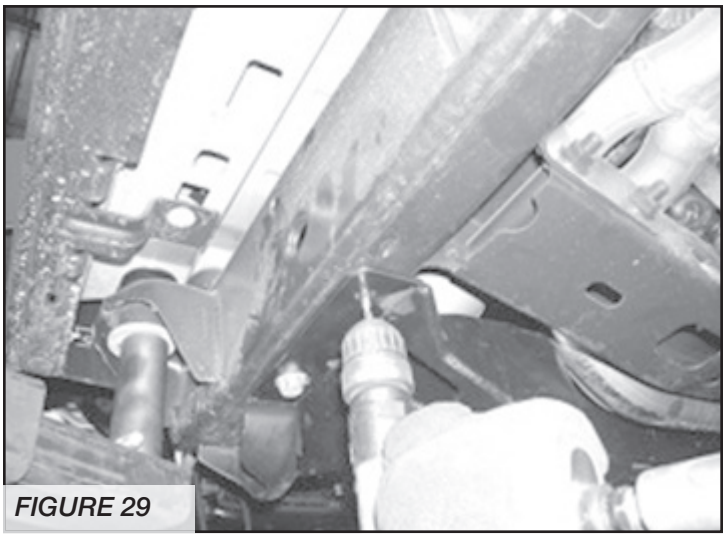

*FIGURE 29*

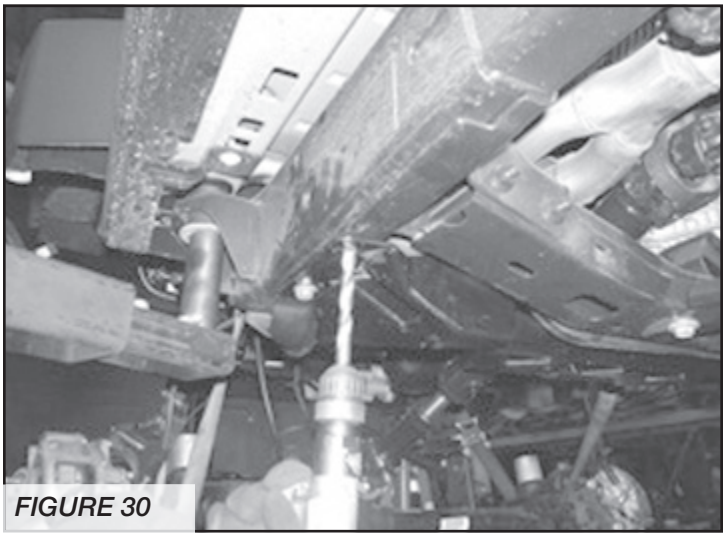

*FIGURE 30*

*FIGURE 31*

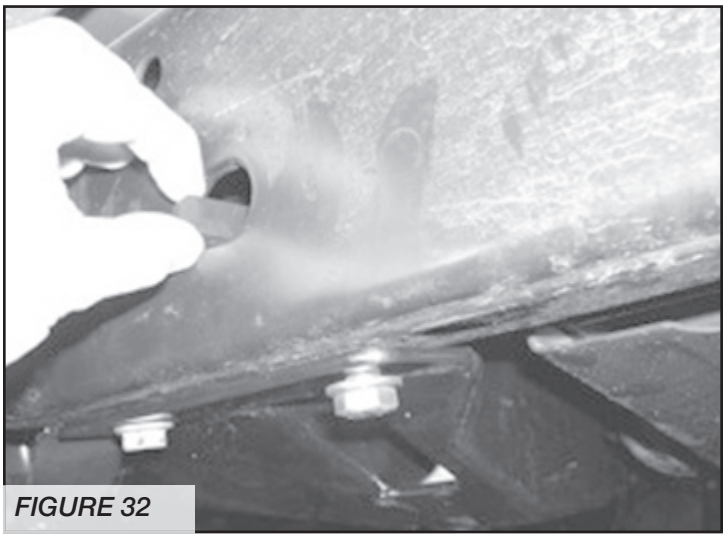

*FIGURE 32*

20. Locate FT50318Bk Skid Plate, 1/2" x 1 1/2" bolts with flat & split washers, and the factory skid plate hardware. Attach **the front of the skid plate to the new crossmember with the 1/2" hardware and the rear to the factory crossmember with the factory hardware. Torque the 1/2" & 12mm hardware on the crossmember to **127lbs.

21. Locate four of FT50123 Large Pivot Joints and thread one of the supplied large jam nuts onto each of the pivot joints. Note- when installing the jam nut onto the pivot end, make sure the flatter side of the jam nut is facing the link arm. You will need to thread the jam nut onto the end so there is 3/8"of thread showing above the jam nut on the UPPER joint and 1/2" of thread showing above the jam nut for the LOWER joint. THESE MEASUREMENTS ARE JUST A STARTING POINT. YOU MAY HAVE TO ADJUST THEM BASED ON YOUR JEEP. BOTH FRONT LINKS MUST BE ADJUSTED EQUALLY FROM SIDE TO SIDE FOR PROPER VEHICLE ALIGNMENT. Locate the new Fabtech front lower link arms FT50144 and install one of the previously assembled large pivot joints into each end of the link. **SEE FIGURE 33.**

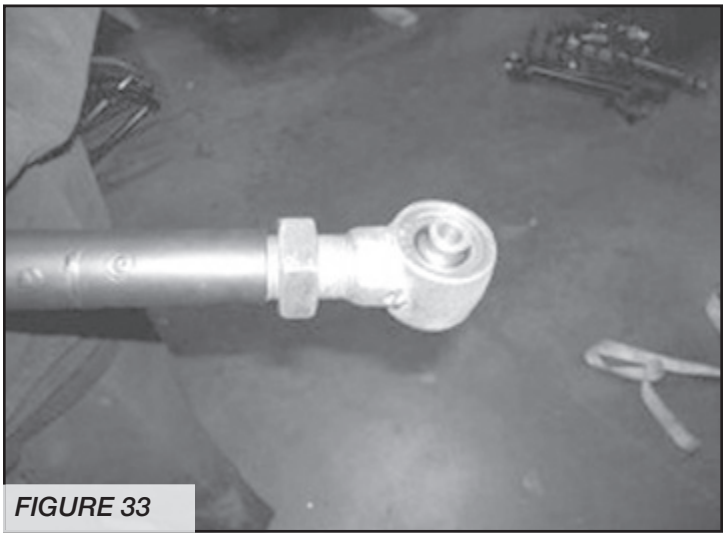

*FIGURE 33*

22. Locate two FT50124 Small Pivot Joints. Assemble one of the supplied Jam nuts onto the small pivot end. Thread the jam nut on until there is 1/4" of thread above the jam nut showing. Note- when installing the jam nut onto the pivot end make sure the flatter side of the jam nut is facing the link arm. Locate FT50145 Upper link arm and thread the assembled pivot joint into the upper link arm until the jam nut makes contact to the arm

23. Using a small flat chisel and hammer, remove the alignment plates from the factory mount. **SEE FIGURE 34.**

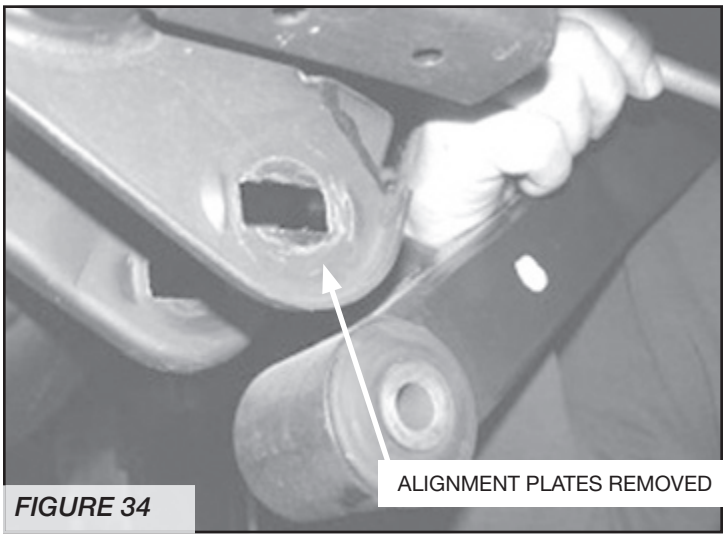


*FIGURE 34*

24. Install the assembled link arm to the axle with the supplied alignment cam bolt and washers first, then attach the other end of the link to the pocket in the new crossmember using the supplied 9/16” hardware. (When attaching the lower link to the Jeep, the pivot end on the frame mount will need to have the grease fittings facing down and the pivot end on the axle will need the grease fitting facing down after the joints are installed on the Jeep) . Tighten the cam bolts & torque the 9/16” bolts to **184 ft. lbs. **SEE FIGURES 35-37.**

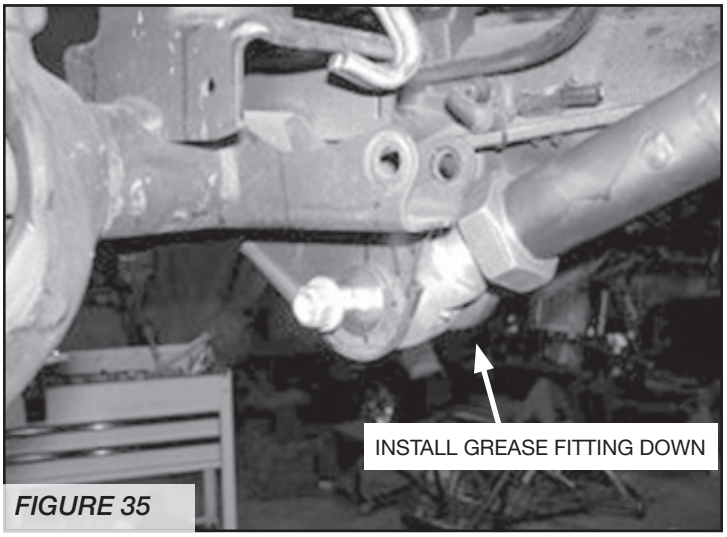

*FIGURE 35*

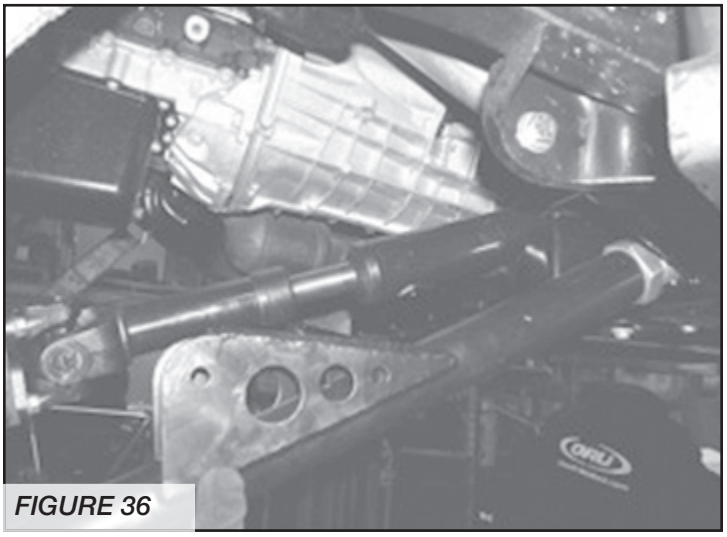
*FIGURE 36*

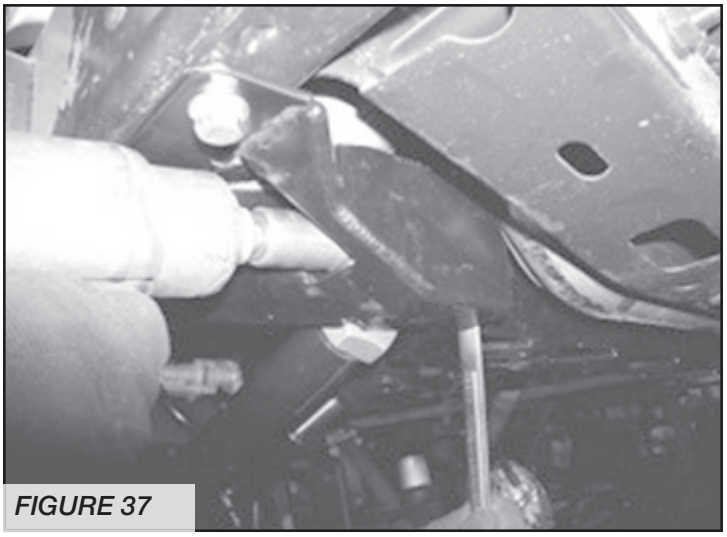
*FIGURE 37*

25. Attach the assembled upper link arm to the lower link arm that is already installed on the Jeep using the supplied 7/16” x 3 ¼” hardware. Then attach the upper link arm to the front axle using the supplied 10mm x 80mm hardware. Leave loose at this time. **SEE FIGURES 38-39.**

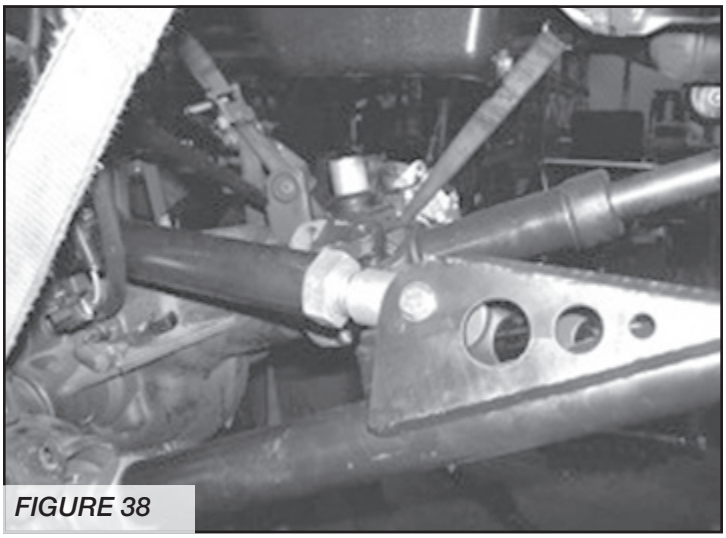
*FIGURE 38*

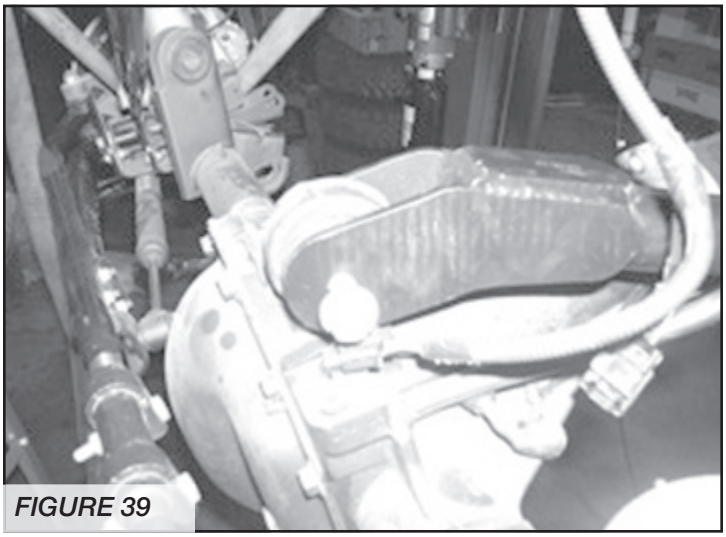
*FIGURE 39*

26. Locate the front bumpstop spacer and hardware and place into the bottom of the new front coils. Install the new coil spring up onto the coil bucket and then onto the spring perch on the axle. Rotate the coil spring so that the end of the coil is seated in the perch. Attach the bumpstop spacer onto the previously drilled axle mounts. **SEE FIGURES 40-43.**

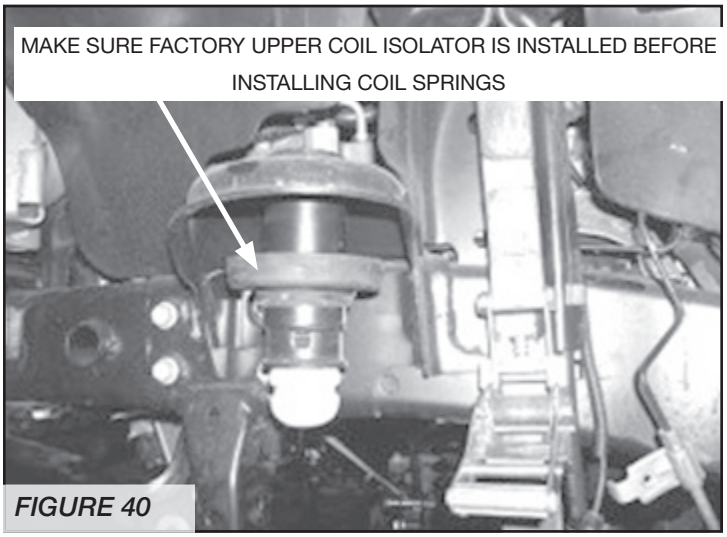

*FIGURE 40*

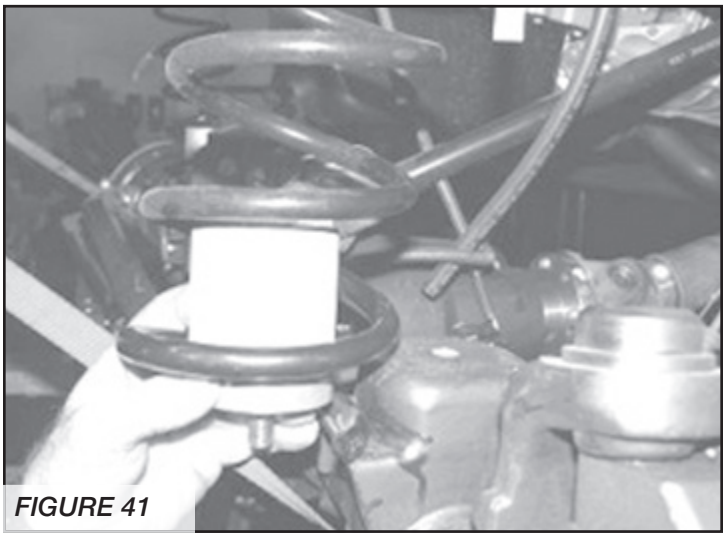
*FIGURE 41*

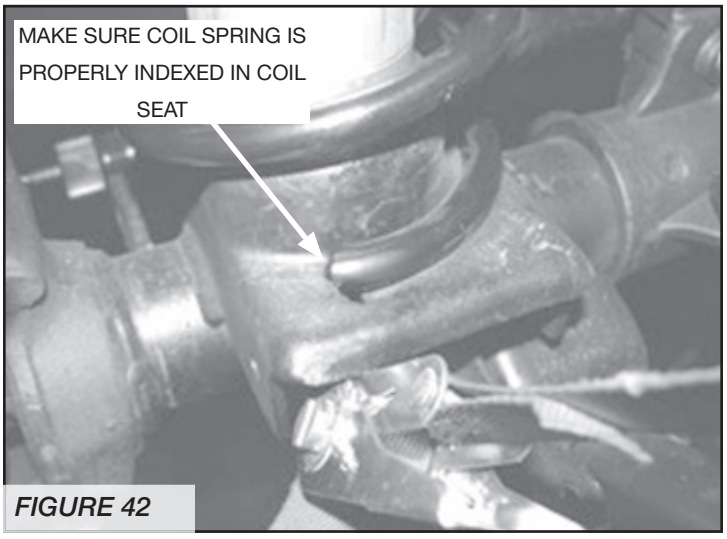

*FIGURE 42*

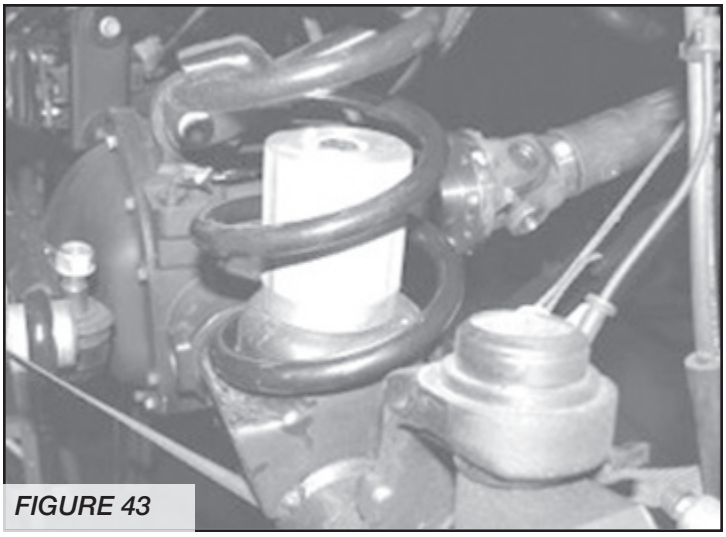
*FIGURE 43*

27. Locate the Fabtech shock FTS7188 (Not included in the kit), the supplied ½" x 2 ½" bolts, USS and SAE Flat Washers, and C-Lock Nuts. Use the supplied lower bushings and sleeves (FT402087 Sleeve) from the kit (discard lower bushings & sleeves provided with the shocks). Attach the bottom of the shock to the stock lower shock mount. Use two flat washers on the outside of the mount and two large USS washers on each side of the shock bushing on the inside of the mount. Use the upper bushings provided with the shock for the upper location. **SEE FIGURES 44-45.**

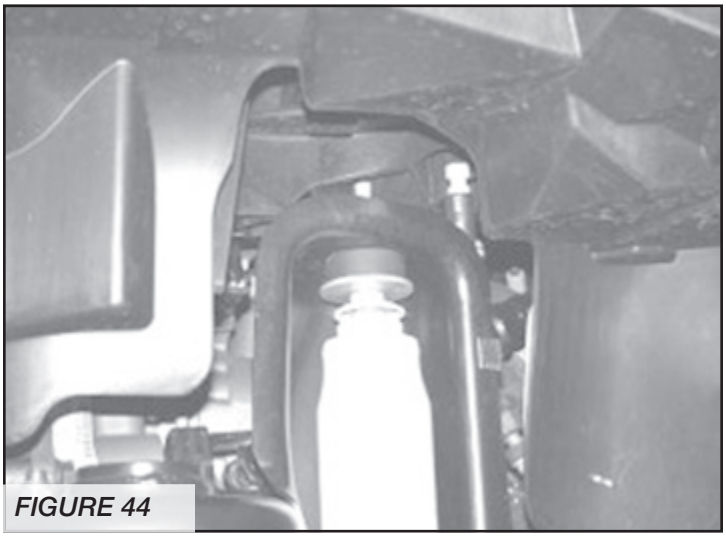
*FIGURE 44*

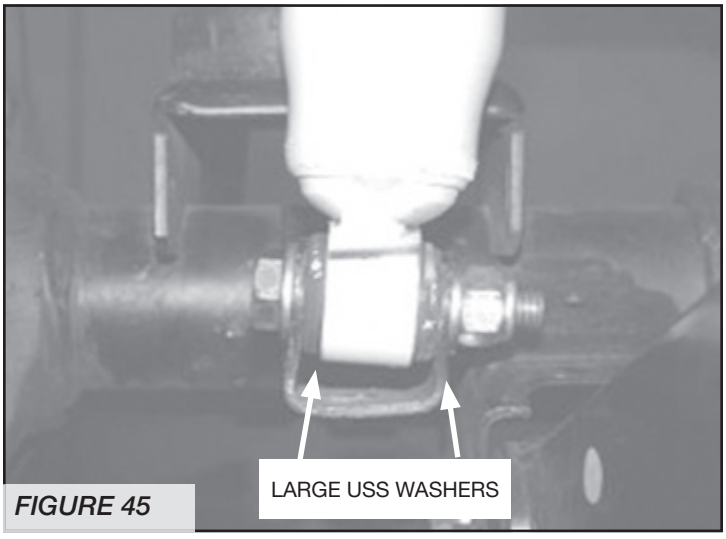

*FIGURE 45*

28. Re-install the ABS lines, differential vent tube, and on Rubicon models, the electrical connection for front locker (use WD-40 on the mounts on the ABS lines to adjust for re-connection into the mounts). The clips that hold the diff vent hose will need to be repositioned on the hose for proper fitment back onto the coil bucket. Re-attach the brake line bracket to the frame with the factory hardware. Carefully adjust / bend the hard line of the brake line for proper fitment and clearance. **SEE FIGURE 46-52.**

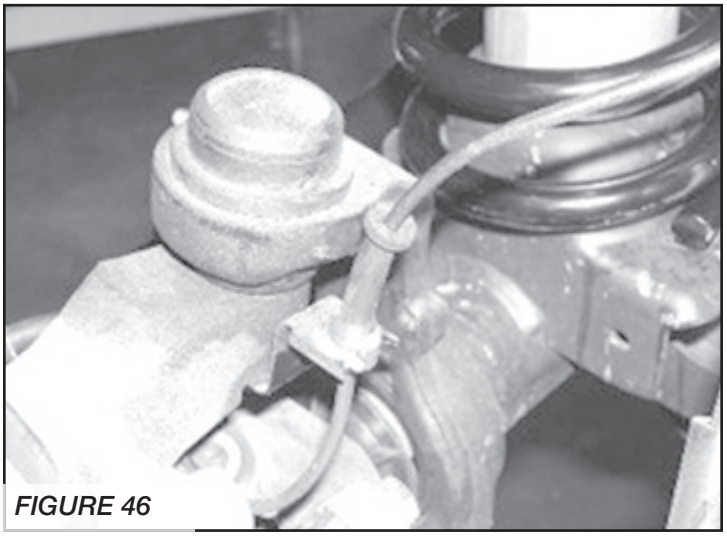

*FIGURE 46*

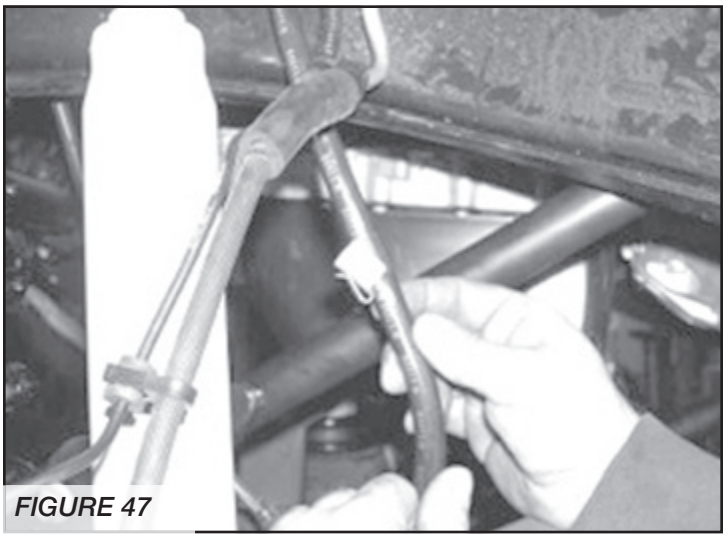

*FIGURE 47*

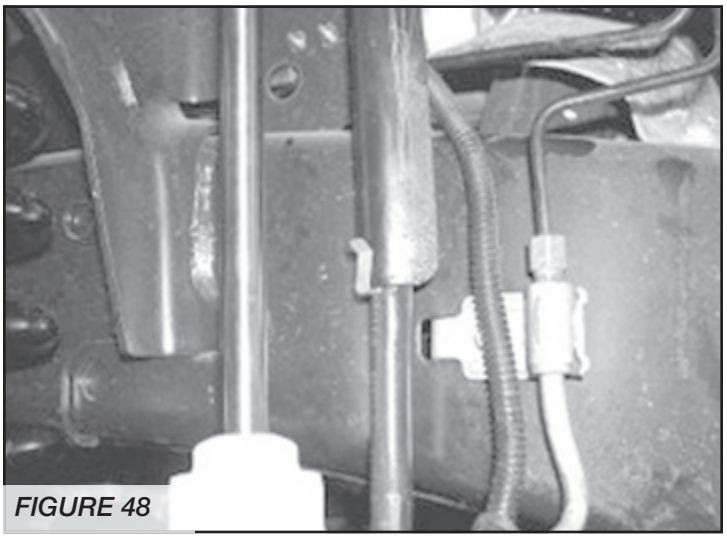

*FIGURE 48*

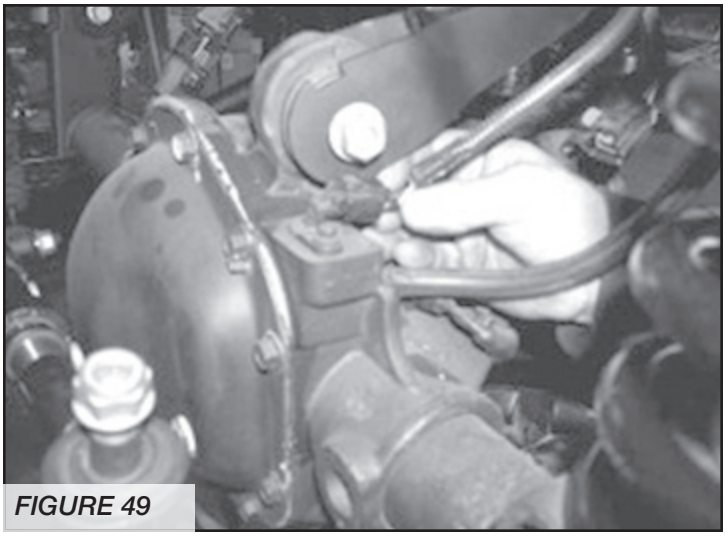

*FIGURE 49*

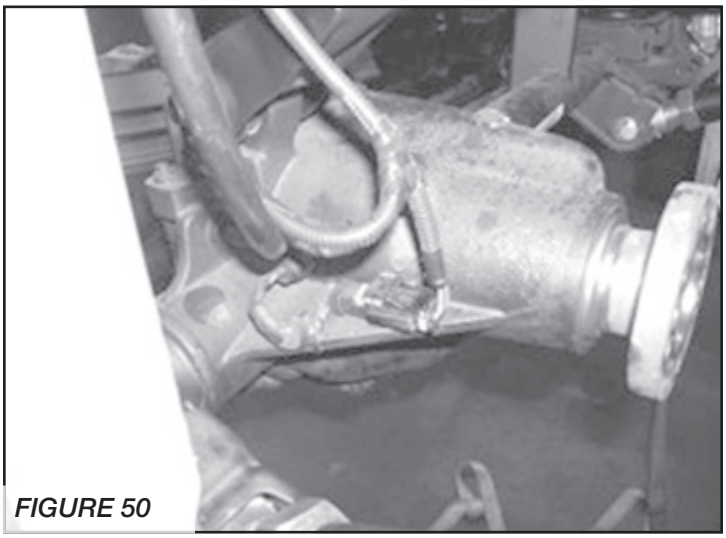

*FIGURE 50*

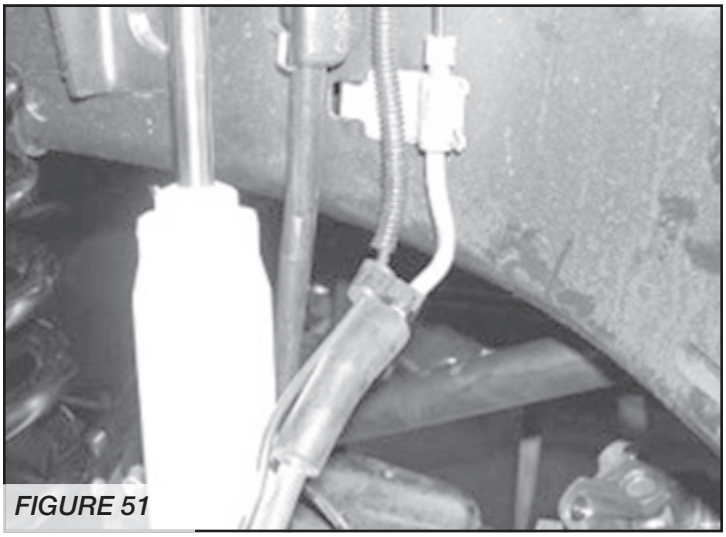

*FIGURE 51*

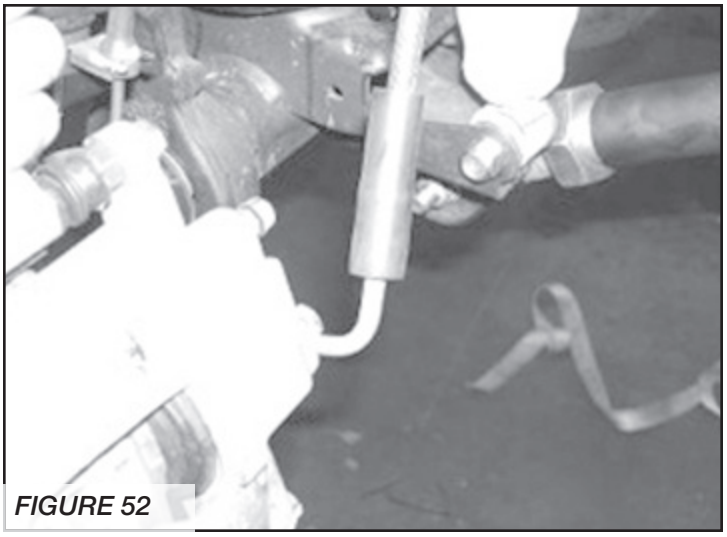

*FIGURE 52*

29. Reconnect the inner tie rod end using factory hardware to the new dropped pitman arm. Torque to 60 ft lbs. **SEE FIGURE 53.**

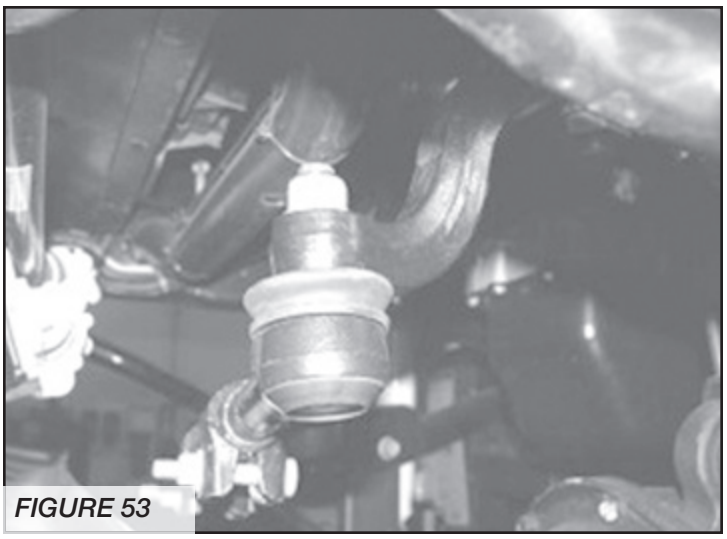

*FIGURE 53*

30. Locate FT50360 drv. & FT50361 pass. Sway Bar Link Mounts, FT50261 Front Sway Bar Endlinks, FT50048 & FT50089 bushing and sleeve kits. Press one bushing and one sleeve from the supplied bushing kit into each end of the end link. Attach the link mount brackets to the factory sway bar mount on the axle with the supplied ½"x1 ½' bolts and hardware. Torque to **127 ft. lbs. With the supplied ½" x 2 ¾" bolts & hardware, connect the new end link to the sway bar (factory hole in sway bar may need to be enlarged with a die grinder out to ½"). Mount the bolt with the head of the bolt facing outward towards the tire. Then, using the FT42 Sway Bar Pin, FT45 Key Ring, & FT90036 Lynch pin, connect to the new lower sway bar mount. Torque the upper hardware to **127 ft. lbs. **SEE FIGURES 54-57.**

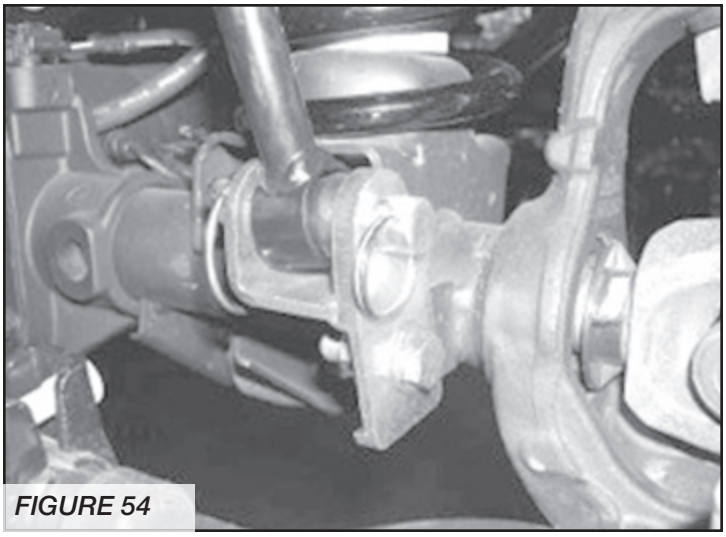

*FIGURE 54*

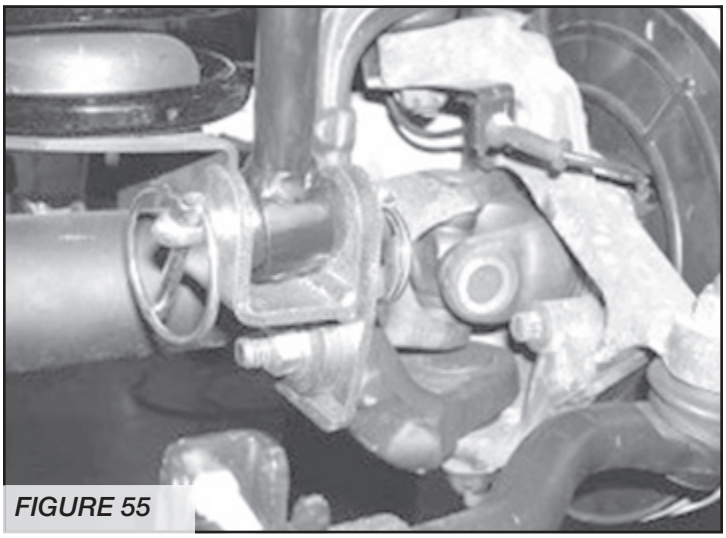

*FIGURE 55*

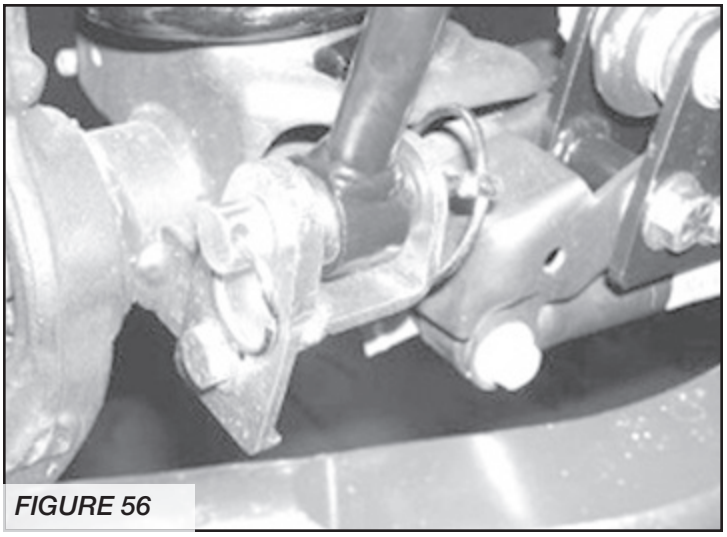

*FIGURE 56*

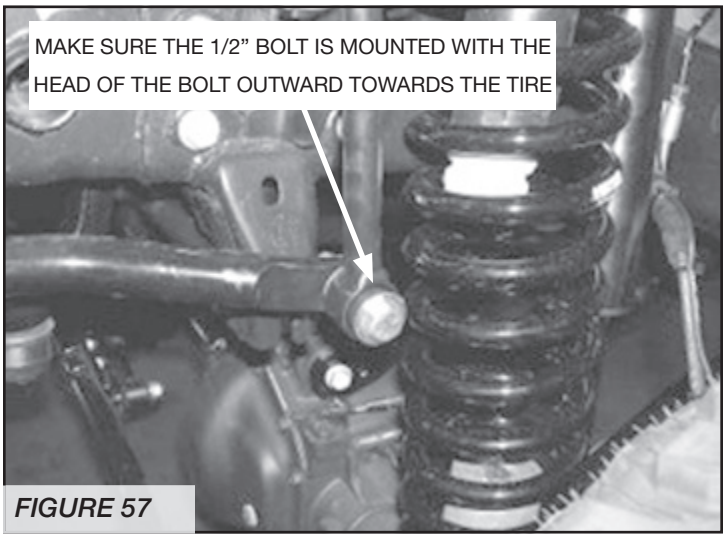


*FIGURE 57*

31. Install front tires and wheels. Torque lug nuts to wheel manufacturer's specifications. Turn wheels left to right to check for proper clearance of brake lines, ABS lines, and fenders.

32. Locate the factory trac bar and upper hardware and the lower factory trac bar bolt and nut tab. Position the trac bar into the new mount on the axle and attach with the factory bolt and nut tab. Then attach the trac bar to the factory upper mount with the factory hardware. Torque the factory hardware & 9/16" hardware to **184 ft. lbs.
**SEE FIGURES 58-59.**

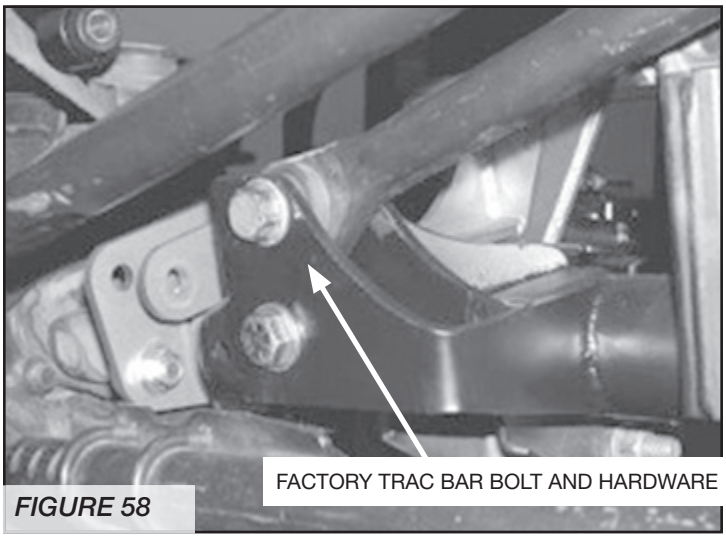


*FIGURE 58*

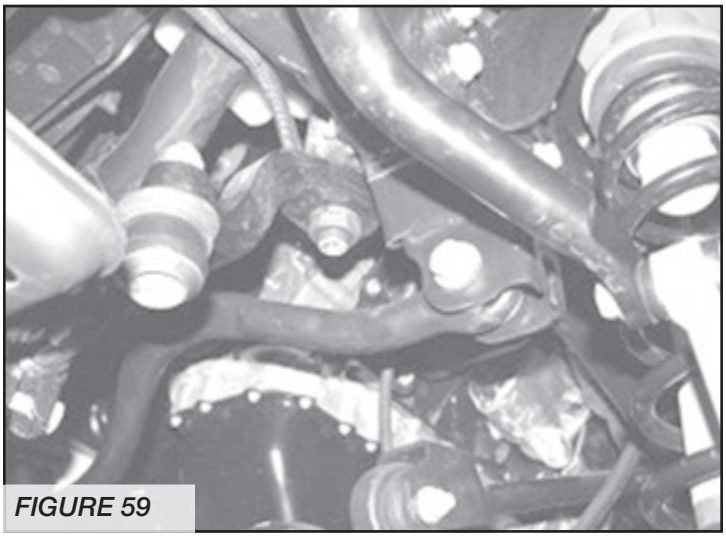

*FIGURE 59*

33. Torque the pivot bolts in all the front link arms to**85 ft. lbs.

34. Locate FT50359 Sway Bar Retainer and the supplied ¼"x 1¼" hardware. Disconnect the sway bar from the lower axle mounts. Rotate the sway bar end links up toward the coil bucket and attach the retainers to the end links. Position the retainer bracket to the coil bucket and mark the bucket for the retainers. Mark the two holes from the retainer to the bucket. Lower the retainers and drill the two new holes to 1/4". Attach the retainer to the coil bucket, then attach the end link to the new retainer with the sway bar pin & lynch pin. After test fitting, re-attach link to axle. **SEE FIGURES 60-65.**

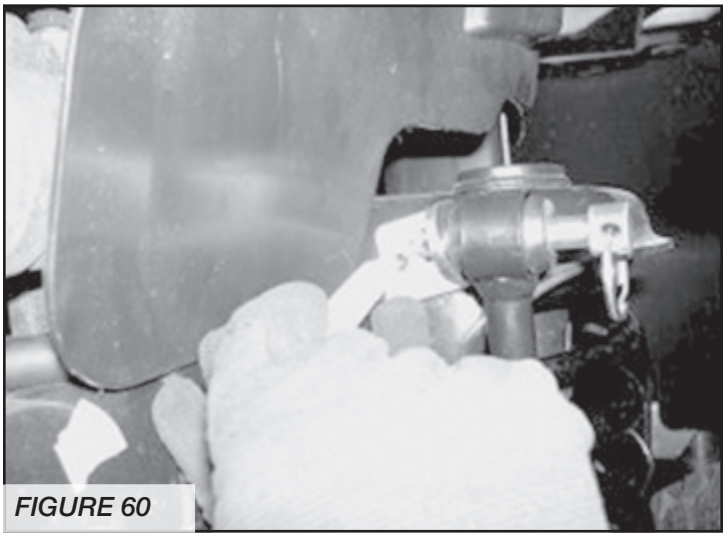

*FIGURE 60*

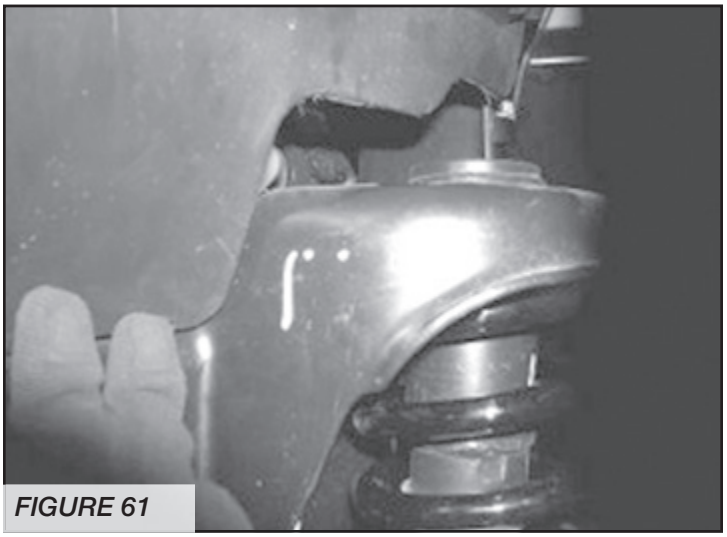

*FIGURE 61*

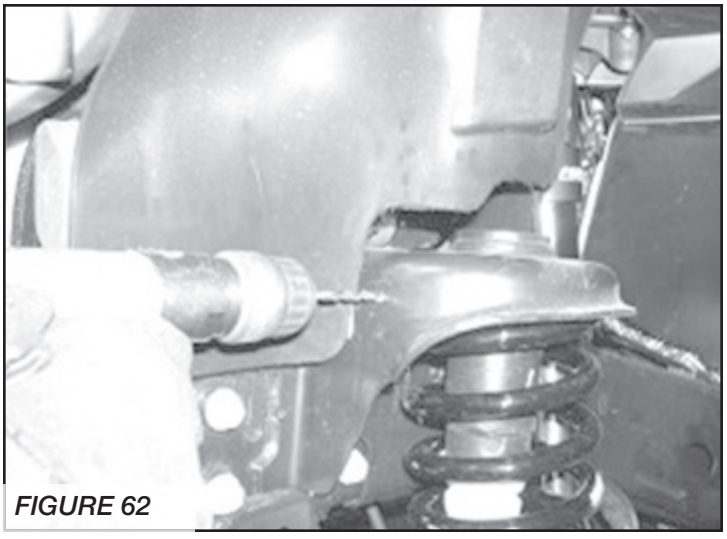

*FIGURE 62*

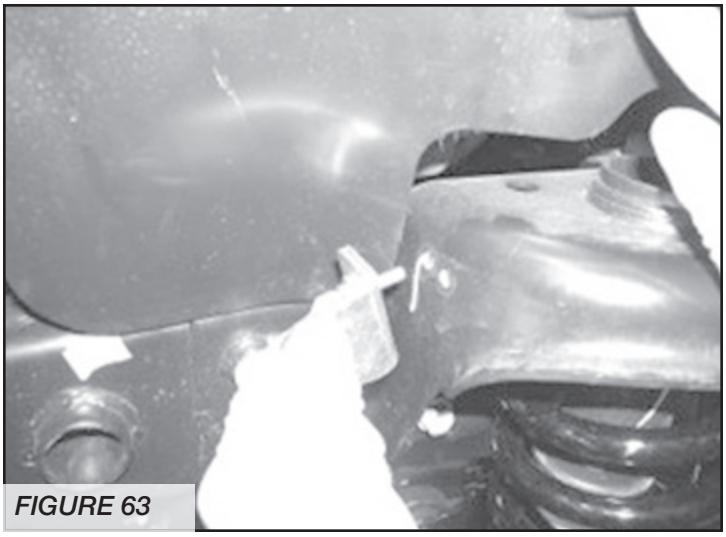

*FIGURE 63*

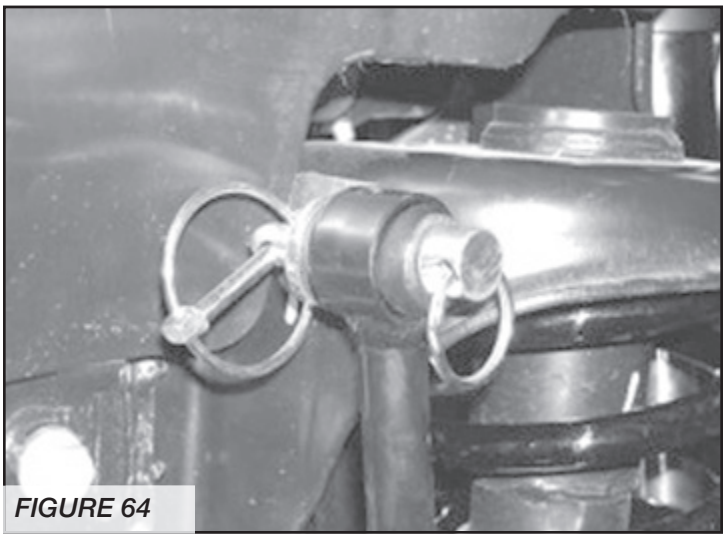

*FIGURE 64*

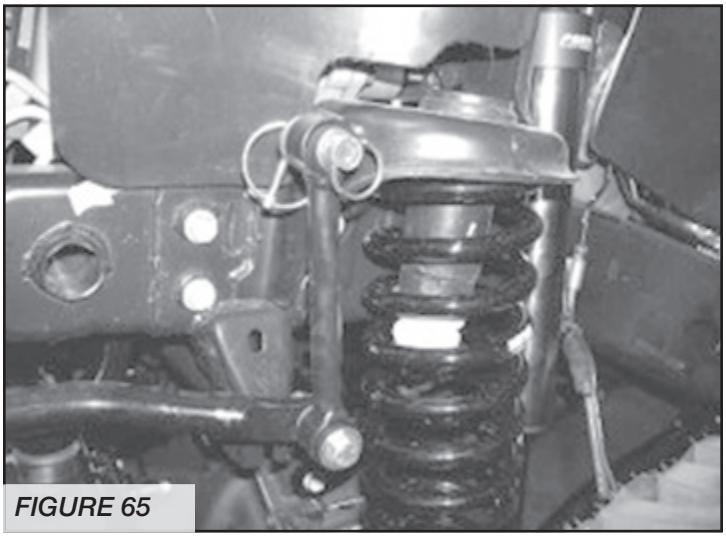

*FIGURE 65*

## *REAR SUSPENSION*

35. Jack up the rear end of the vehicle and support the frame rails just in front of the rear bumper with jack stands. NEVER WORK UNDER AN UNSUPPORTED VEHICLE! Remove the rear tires. Support the rear axle. Do not allow to hang freely.Install rear shocks using FTS7333 Performance shocks or FTS810151 Dirt Logic shocks with factory hardware. Torque to 100 ft-lbs.

36. Remove the factory shocks and discard, save the hardware. Remove the rear sway bar end links and save with the hardware. **SEE FIGURE 66.**

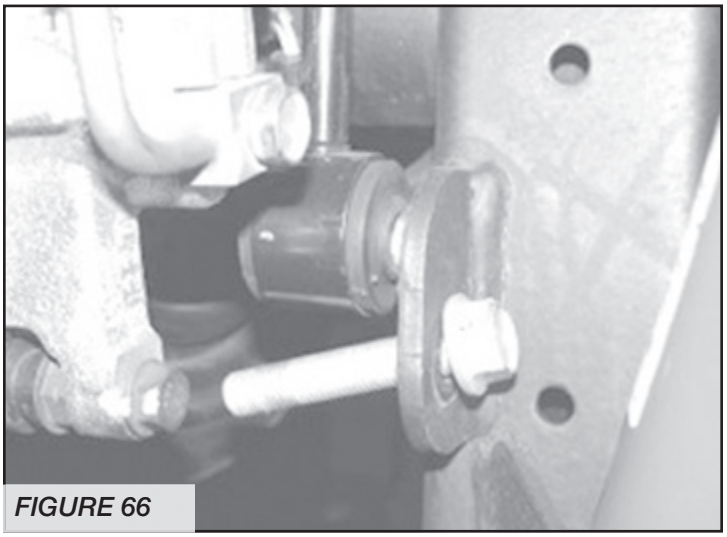

*FIGURE 66*

37. Remove the brake line brackets from the frame and save the hardware. Remove the plastic clips that hold the ABS lines to the frame and at the rear upper link arm pockets. Do not damage the clips, they will be reused. Remove the top differential cover bolt and remove the ABS line clamp. Save the bolt. Remove the two nuts holding the E-Brake cable to the bottom of the body and save.
**SEE FIGURES 67-69.**

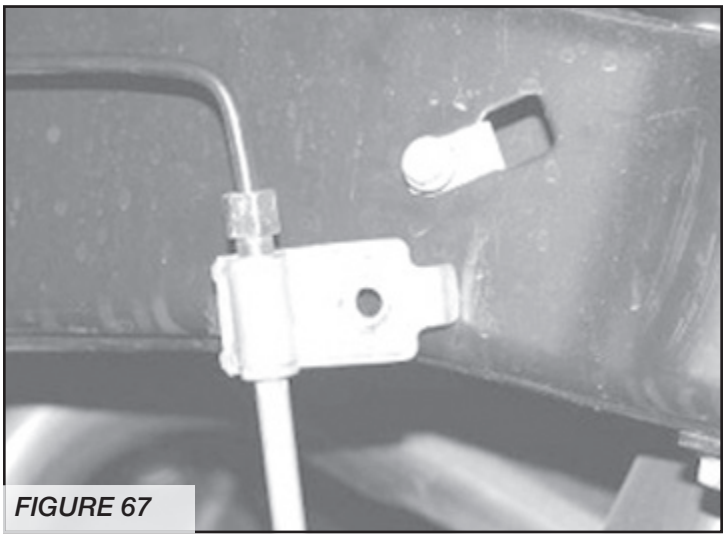

*FIGURE 67*

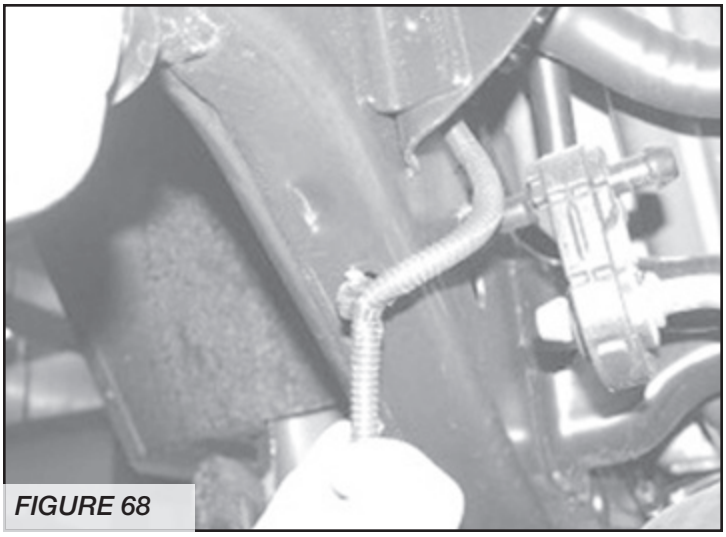

*FIGURE 68*

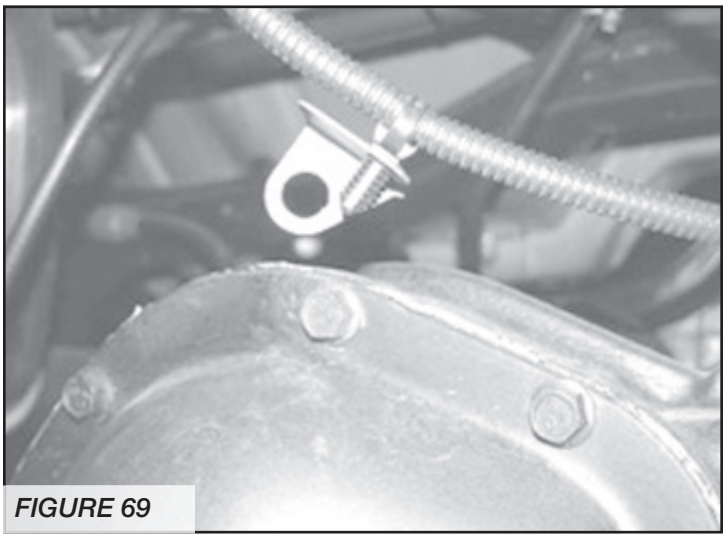

*FIGURE 69*

38. Remove the factory coil springs, and discard, you will need to allow the axle to hang freely to remove the coil springs. Remove the factory upper coil isolator and save.

39. Support the axle with 2 floor jacks or large ratchet straps, remove the upper & lower link arms and save the hardware.

40. Mark the lower link arm pockets & body mounts as shown in the photos below. You will be removing the inner and outer link arm mount from the frame on the driver side & ONLY the outer mount on the passenger side. DO NOT REMOVE the inner mount on the passenger side. Attempting to remove the inner mount could result in damaging the fuel tank. Sand / grind off the rest of the weld and cut areas smooth to the frame. Paint all bare metal areas. **SEE FIGURES 70-78.**

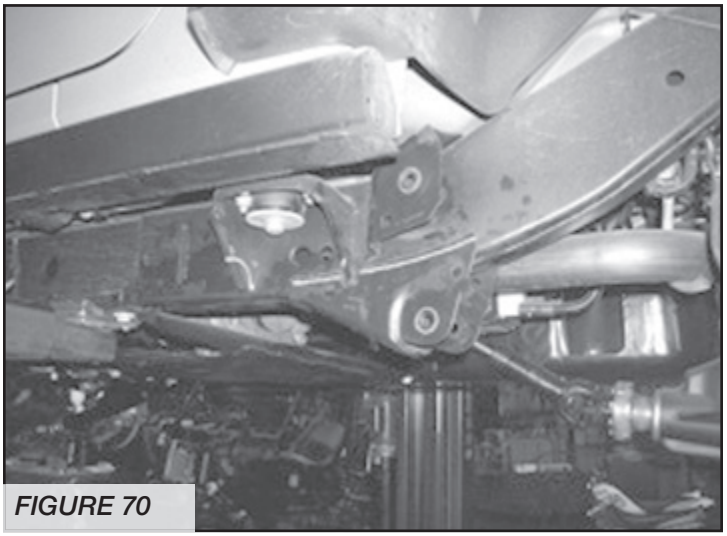

*FIGURE 70*

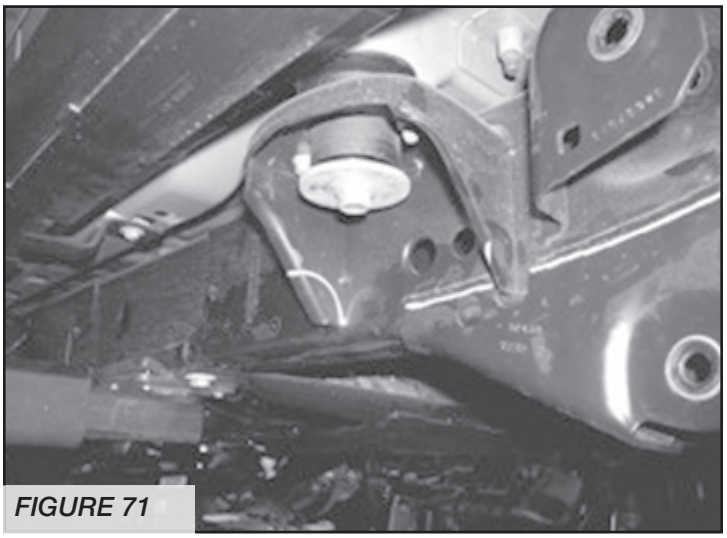

*FIGURE 71*

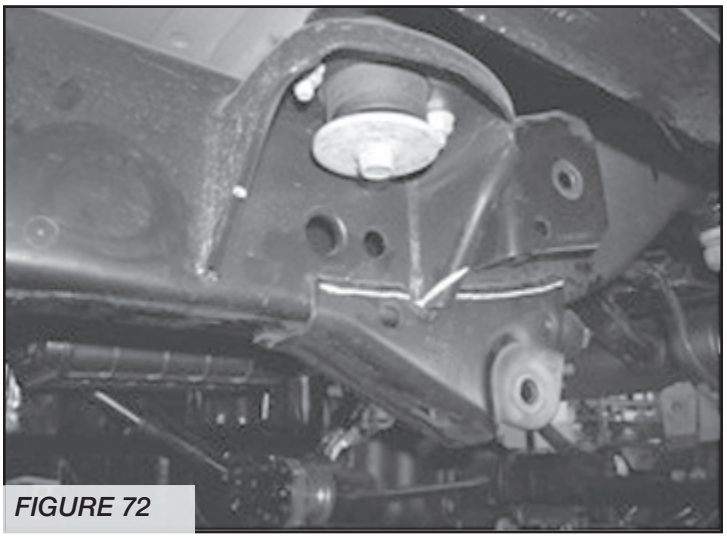

*FIGURE 72*

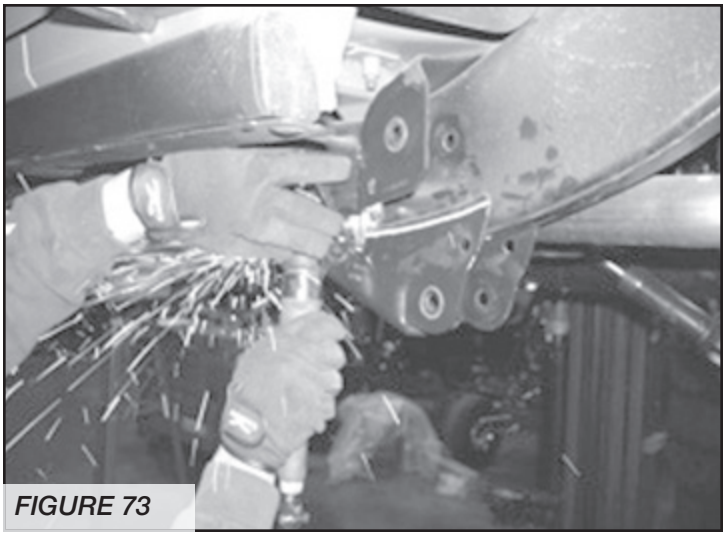

*FIGURE 73*

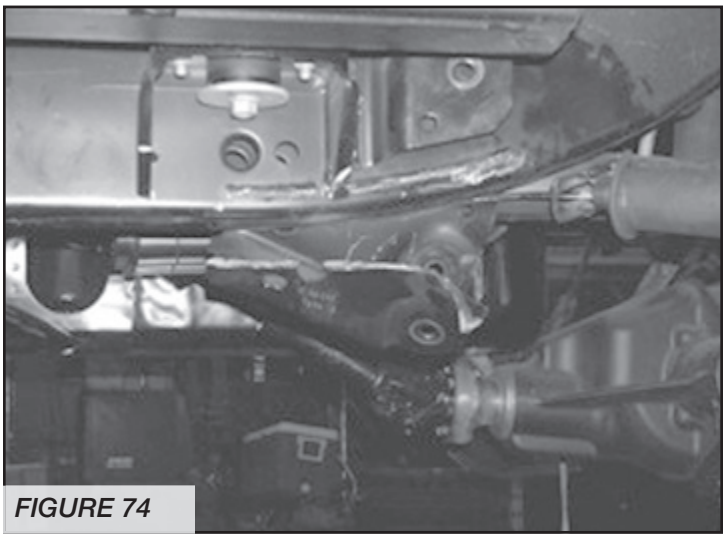

*FIGURE 74*

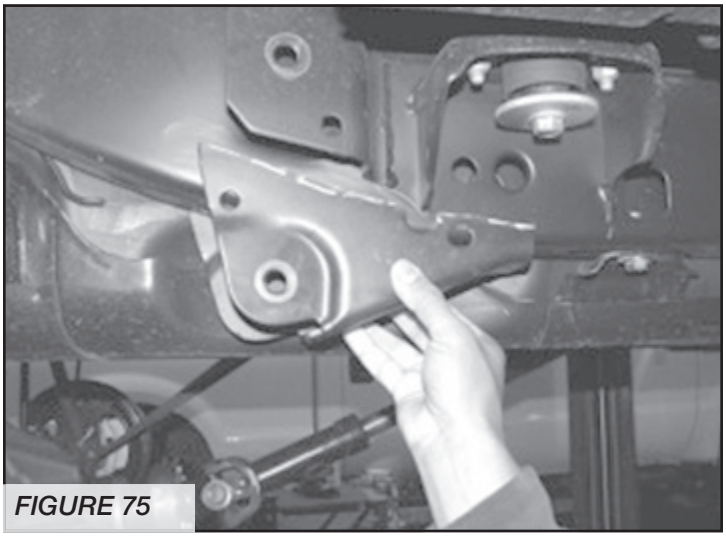

*FIGURE 75*

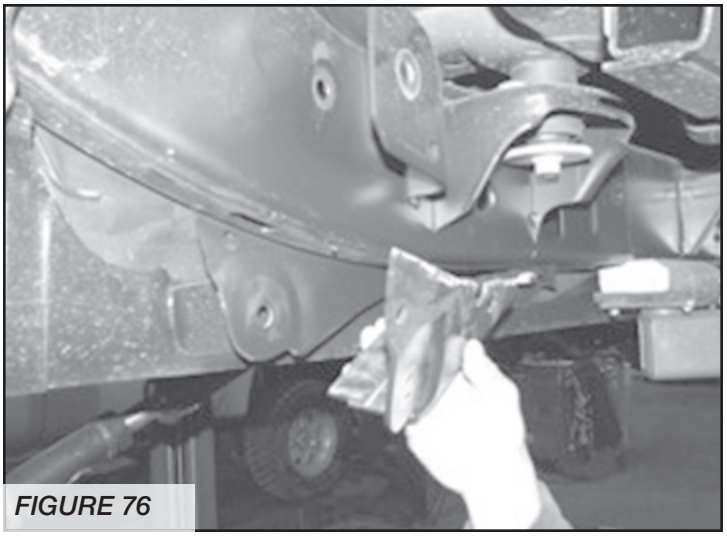

*FIGURE 76*

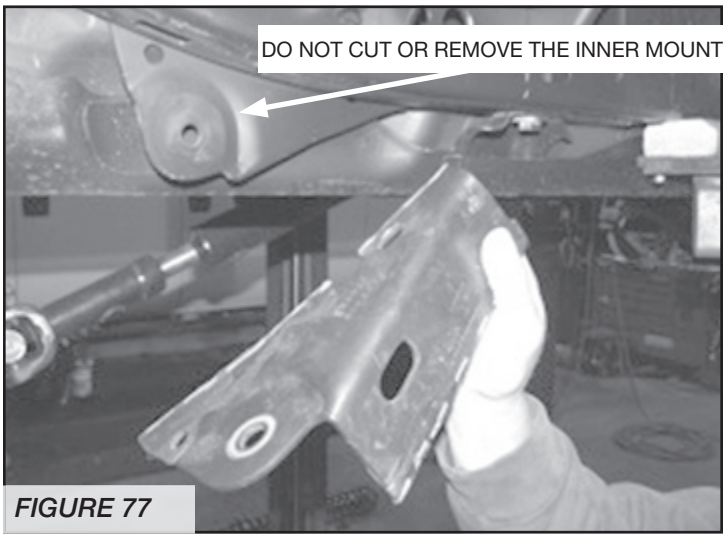


*FIGURE 77*

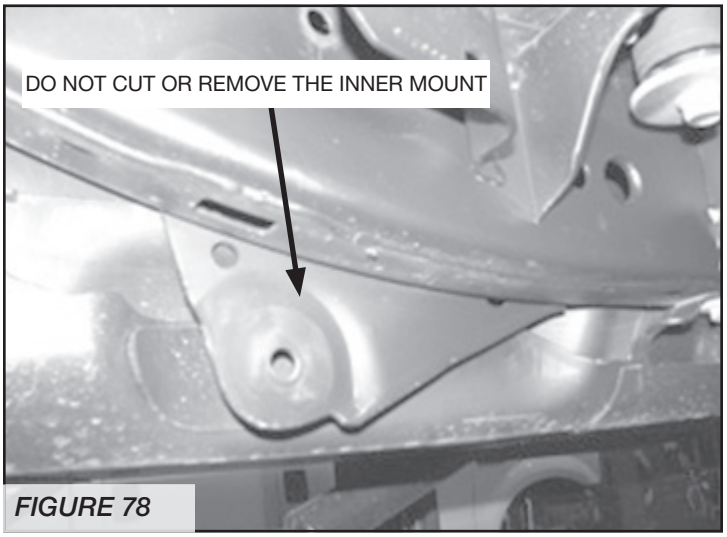


*FIGURE 78*

41. Mark and cut the rear lower shock mounts as shown in the photos below. Locate FT50325BK / FT50326BK Lower Shock Mounts & supplied 9/16" x 4 1/4" bolts. Attach the new mounts with the 9/16" hardware to ensure that the factory mount has been trimmed enough. Remove the bracket & sand / grind off the rest of the weld and cut areas smooth to the frame. Drill out the two factory holes out to 7/16". Paint all bare metal areas.
    **SEE FIGURES 79-89.**

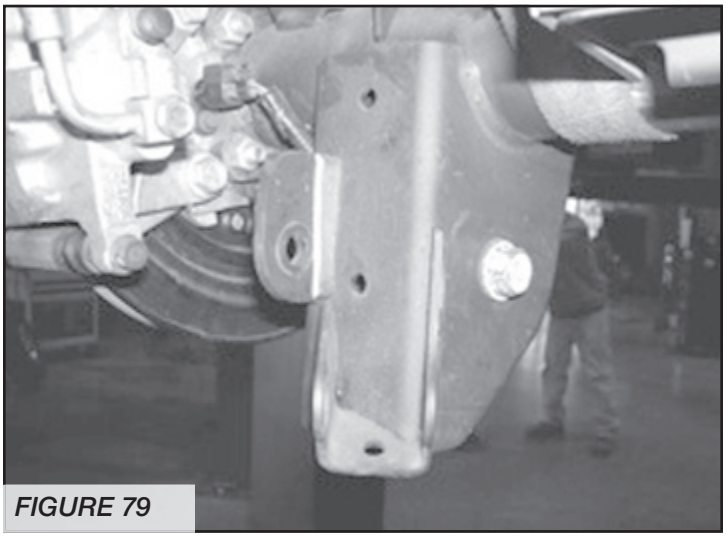

*FIGURE 79*

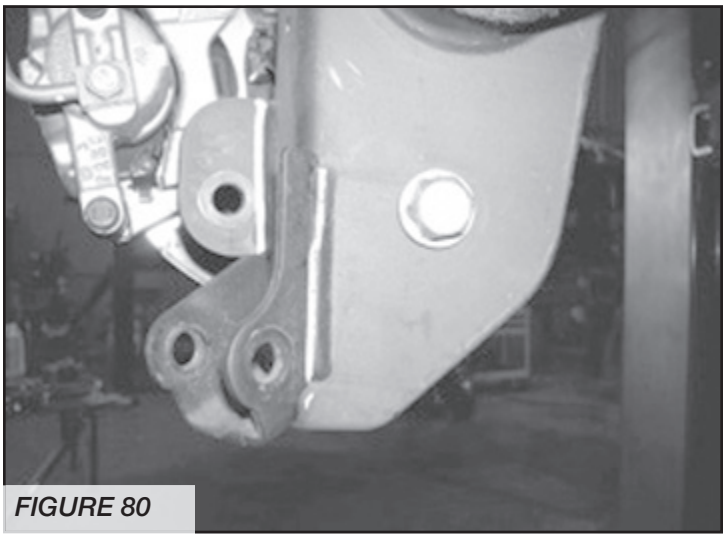

*FIGURE 80*

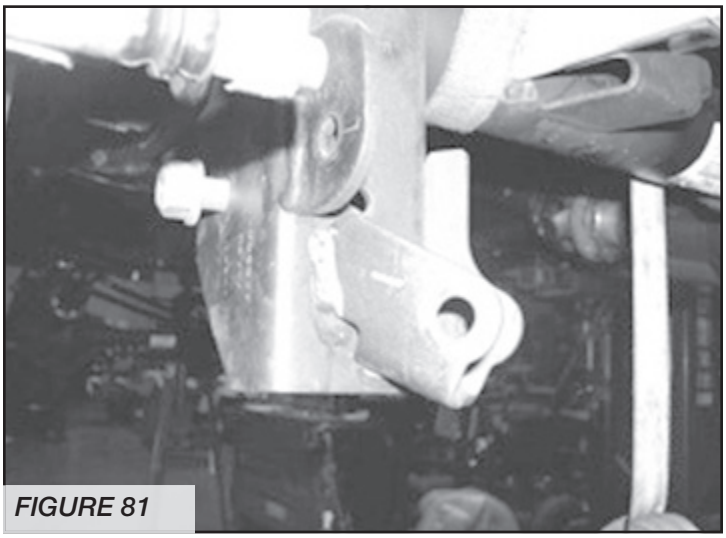

*FIGURE 81*

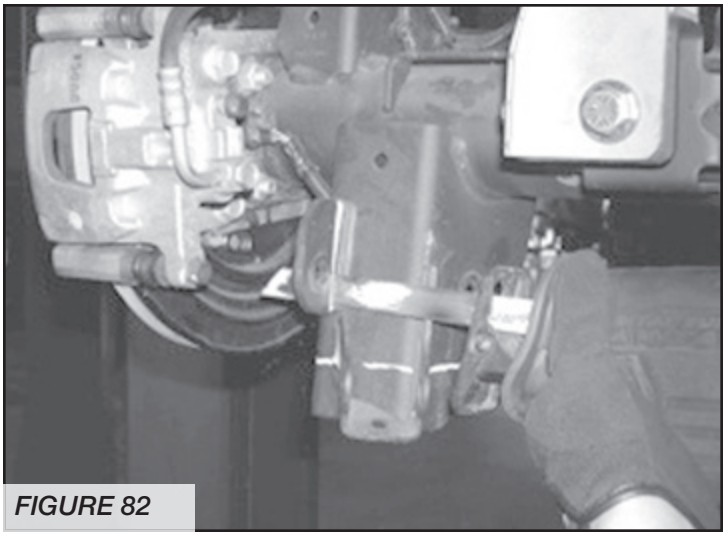

*FIGURE 82*

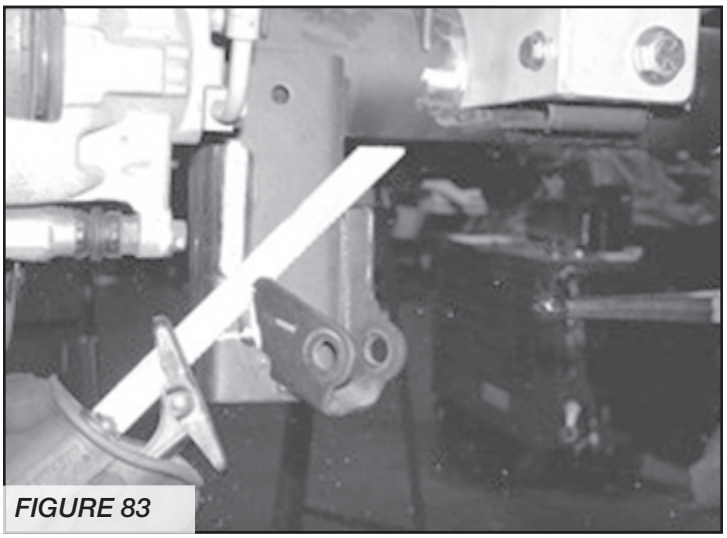

*FIGURE 83*

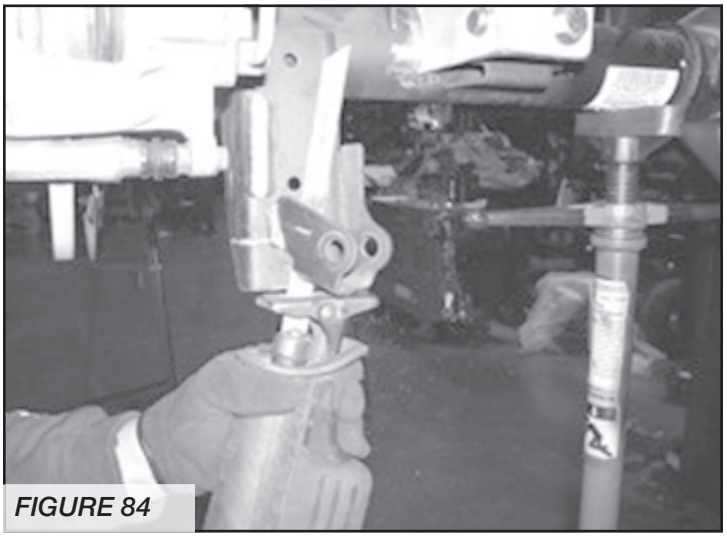

*FIGURE 84*

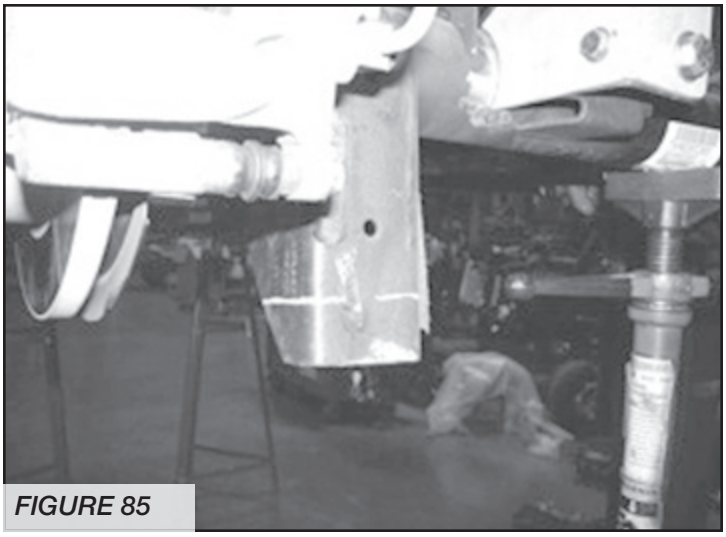

*FIGURE 85*

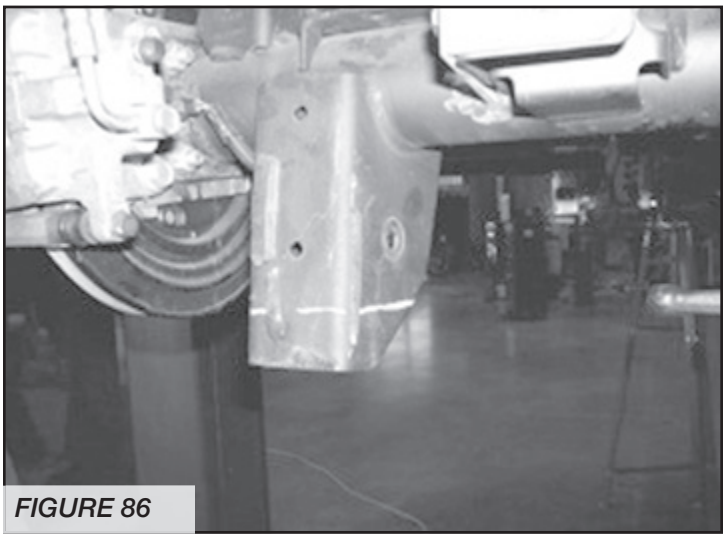

*FIGURE 86*

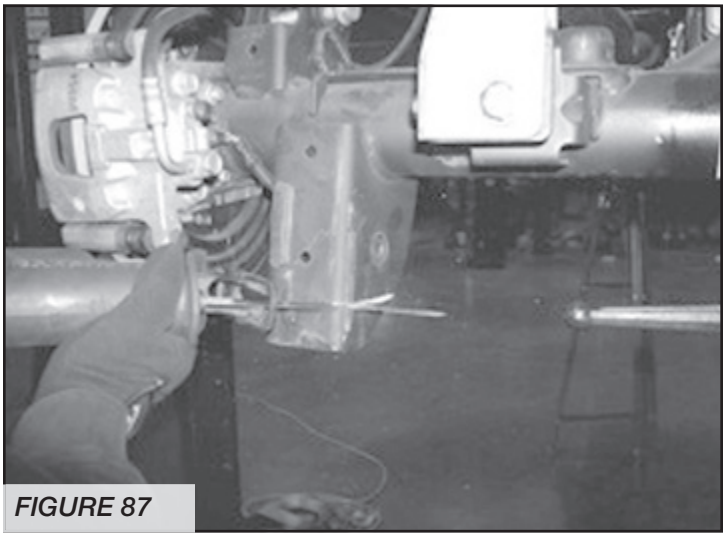

*FIGURE 87*

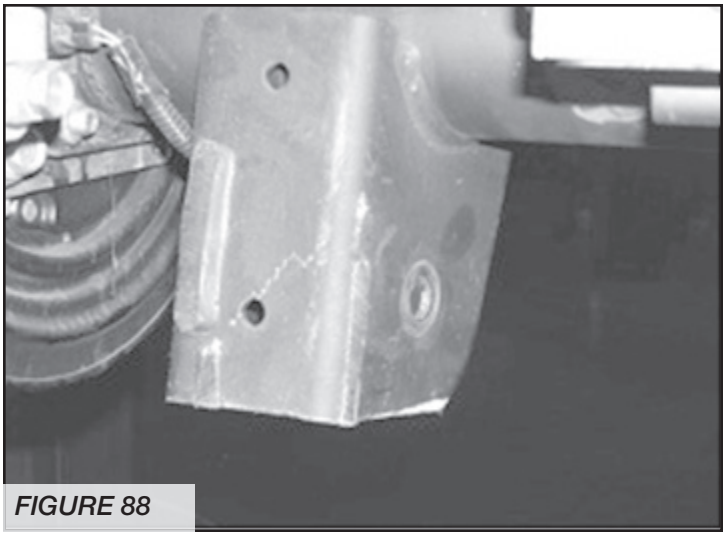

*FIGURE 88*

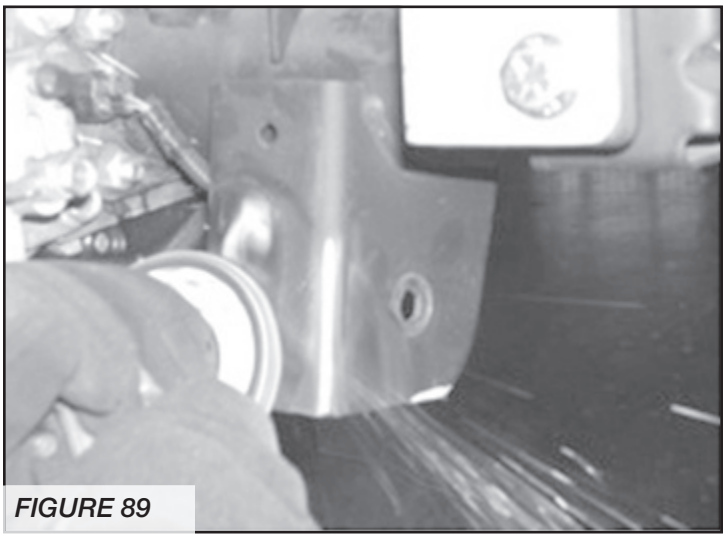

*FIGURE 89*

42. Working from the driver side, locate the body mount on the driver side of the frame. Measure & mark 1 1/2" forward of the body mount and 1" up from the bottom of the frame. Use a 1 1/2" hole saw and drill through the front half of the frame only. Do not drill the inside of the frame. **SEE FIGURES 90-91.**

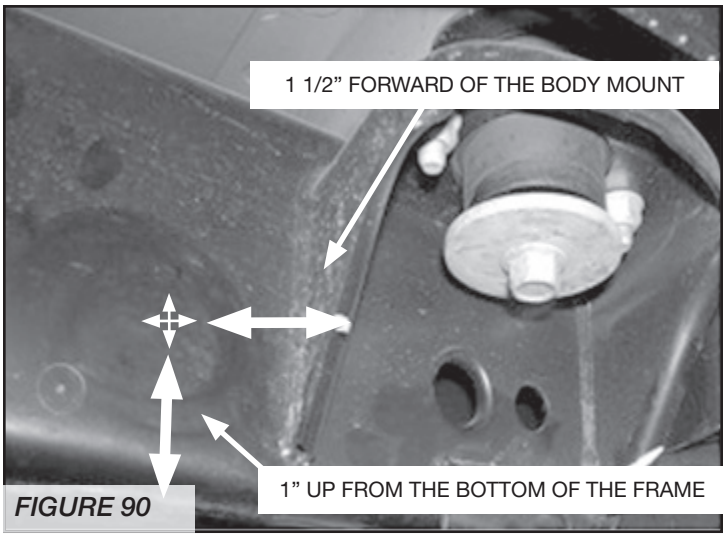


*FIGURE 90*

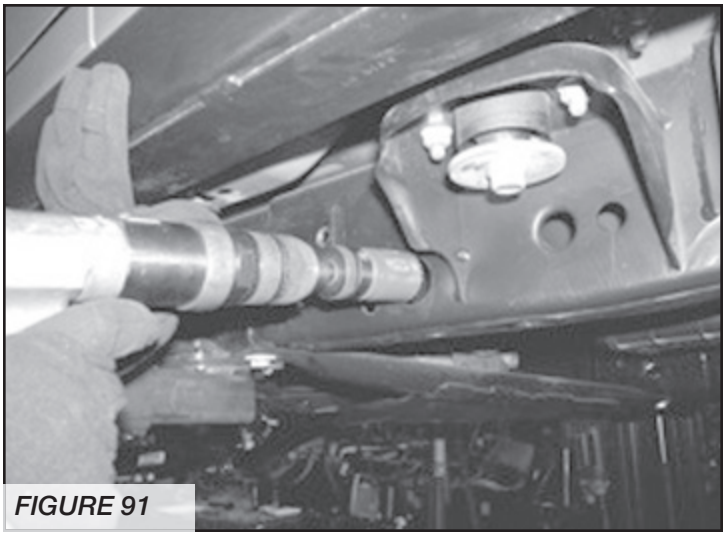

*FIGURE 91*

43. Mark and cut the same body mount on the passenger side of the Jeep as done on the passenger side. There is a factory hole in the frame on the passenger side, so you will not need to make the 1 1/2" hole on this side.

44. Locate FT50312BK & FT50313BK Rear Frame Pockets. Position the bracket onto the bottom of the frame 2" forward of the previously trimmed body mount. Mark the holes in the bracket onto the frame. Remove the bracket from the frame and drill the holes only into the face of the frame. DO NOT drill into the back of the frame. The two bottom holes and two front holes need to be drilled to 1/2" and the center hole needs to be drilled to 9/16". **SEE FIGURE 92-95.**

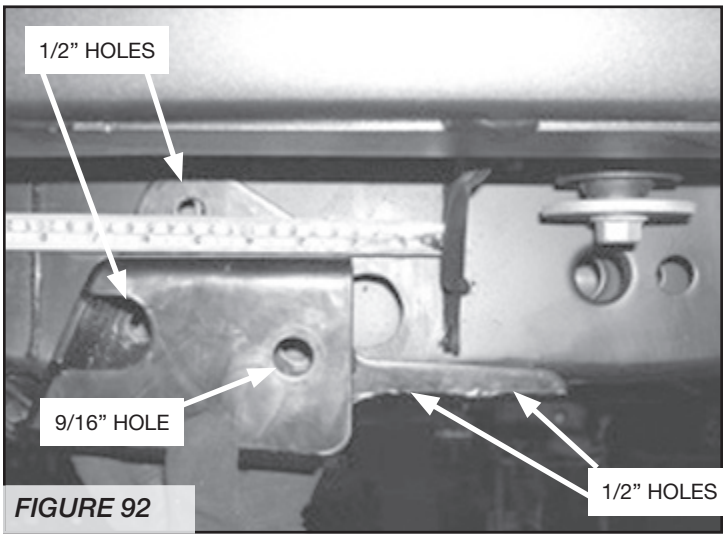


*FIGURE 92*

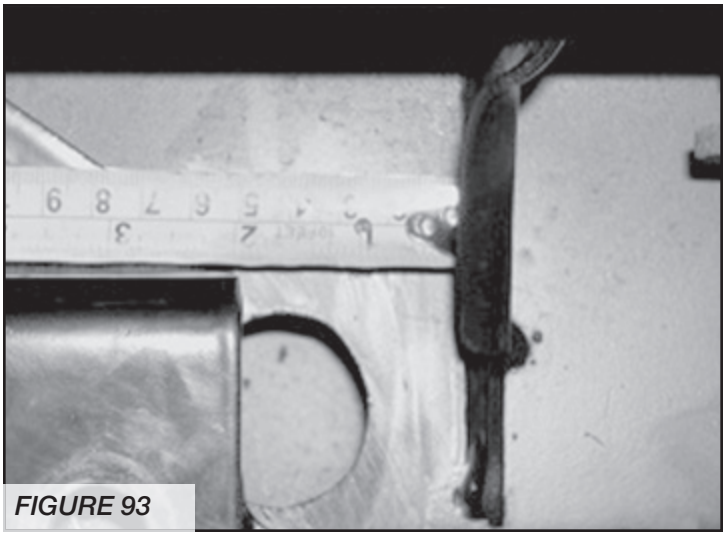

*FIGURE 93*

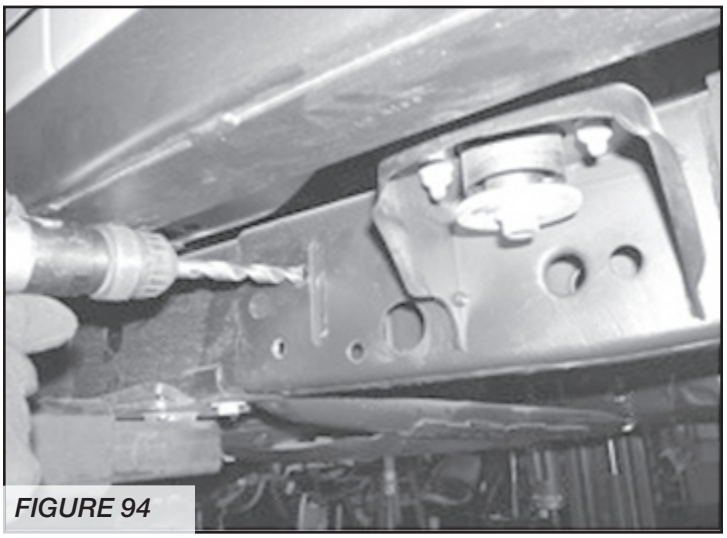

*FIGURE 94*

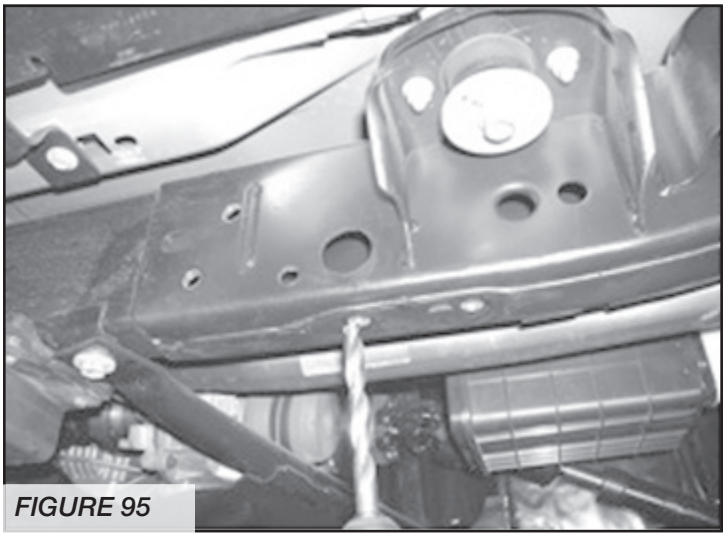

*FIGURE 95*

45. Reposition the bracket to the frame, use a supplied **1/2" x 1 1/4" bolt & hardware and attach the bracket to the frame in the front bottom hole. Torque to **127 ft. lbs.

46. Locate FT50309 & FT50324 Dual Nut Tab, and the supplied 1/2" & 9/16" hardware. Insert the dual nut tab into the new hole (dr. side) / factory hole (pass. side) and attach with a **1/2" x 1 1/4" bolt, flat, & split washer & the 9/16" x 4 1/4" bolt.. Leave loose. **SEE FIGURES 96-97.**

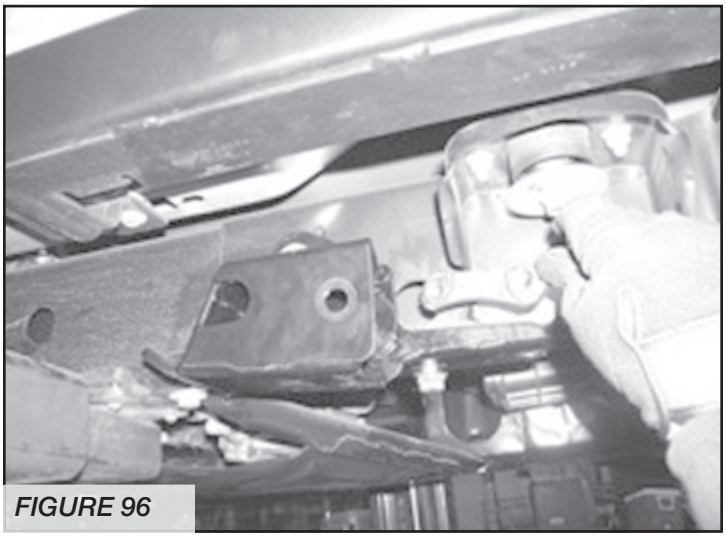

*FIGURE 96*

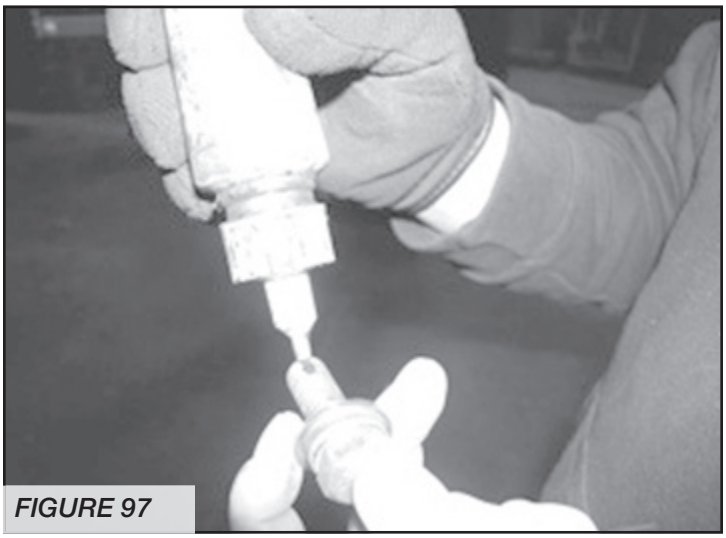

*FIGURE 97*

47. Locate FT50308 Long Nut Tab & insert into the tab into the new hole. Insert the 1/2" bolt with the split & flat washer with the supplied thread-locking compound. Leave loose. **SEE FIGURES 98-99.**

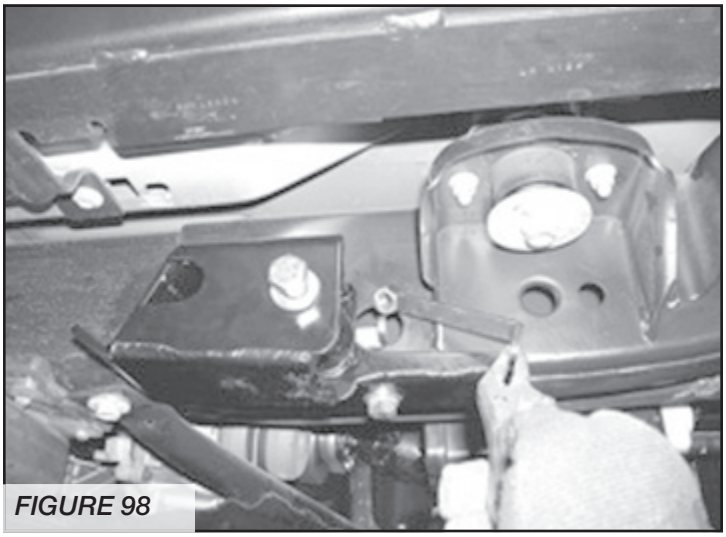

*FIGURE 98*

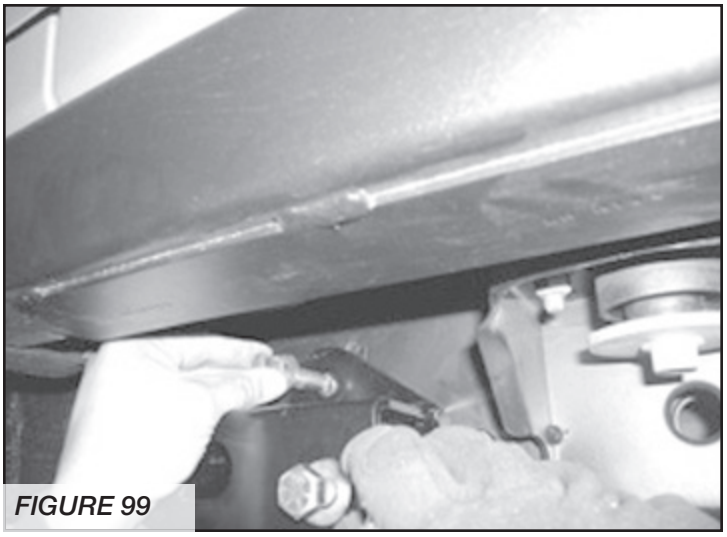

*FIGURE 99*

48. FT503014 & FT503015 Rear Pocket Nut Tabs & insert into the tab into the hole just below the body mount. Insert the 1/2” bolt with the split & flat washer with the supplied thread-locking compound. Leave loose.
**SEE FIGURE 100-101.**

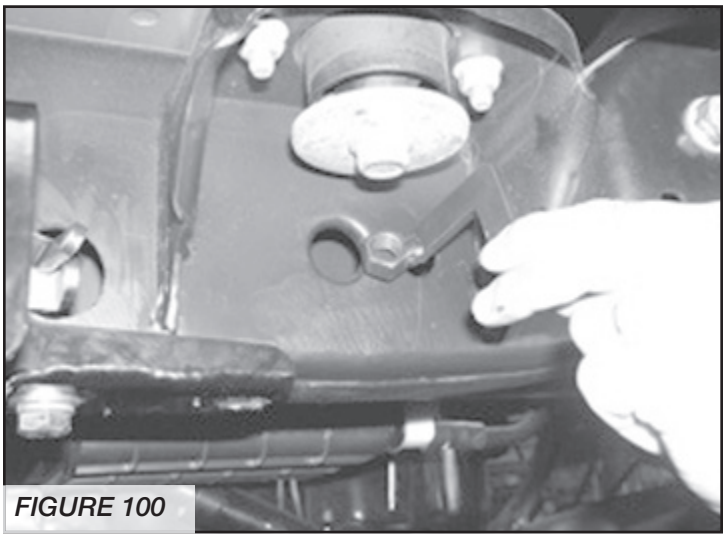

*FIGURE 100*

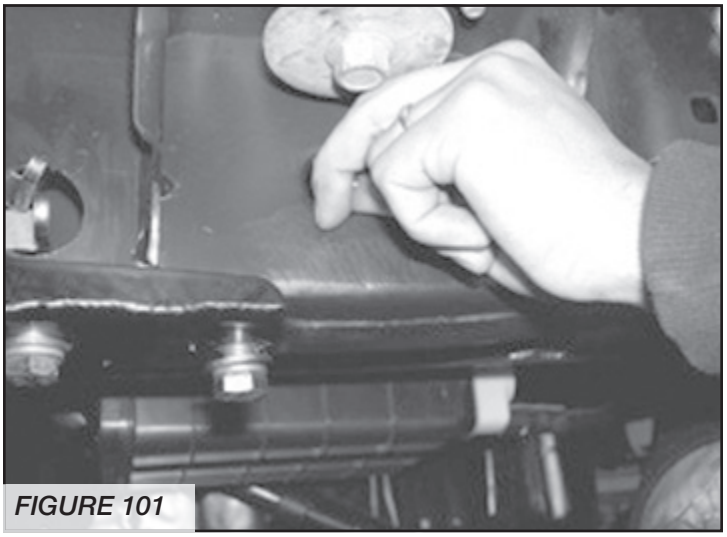

*FIGURE 101*

49. Remove the rear Trac Bar from the Jeep. Remove any paint, dirt, or debris from the axle housing where the new gussets are to be installed.

50. Locate FT50362 Gusset, position it onto the axle and the factory trac bar mount as shown in photo. Weld the gusset on the two sides. **SEE FIGURE 102.**

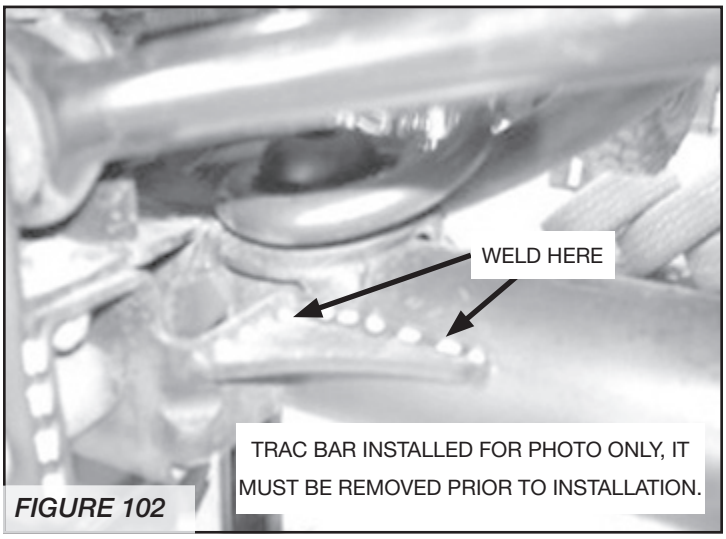


*FIGURE 102*

51. Locate FT50343 Rear Trac Bar Bracket, position it onto the top of the axle and trac bar mount. Use the supplied 9/16” bolt to align the new bracket to the original mount. Use a punch and mark the factory mount through the two holes in the new bracket. Use a drill with a 3/8” bit and drill the two new holes. Locate and install the supplied 3/8” hardware. Weld the gusset as shown in the photos.
**SEE FIGURES 103-109.**

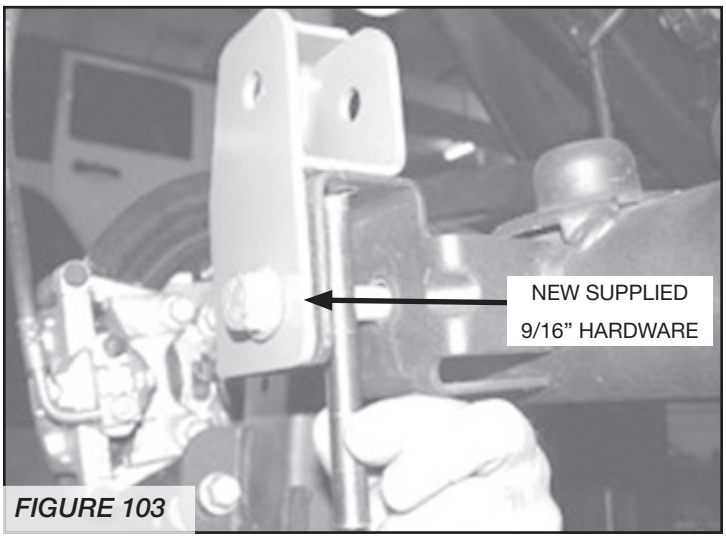


*FIGURE 103*

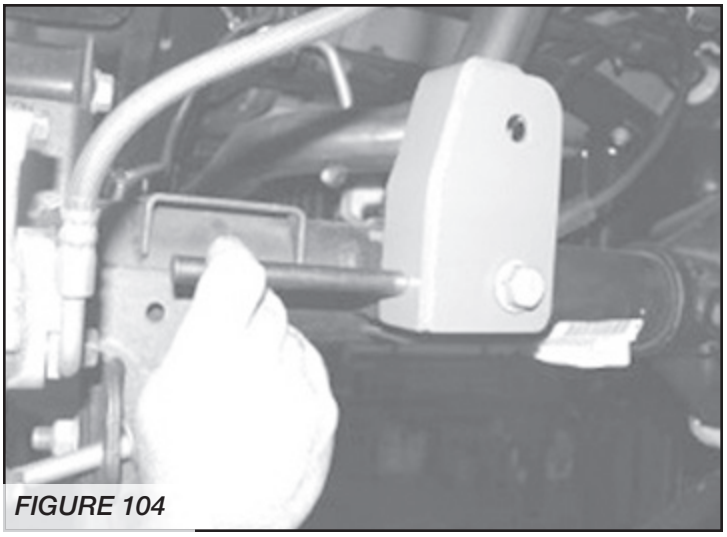

*FIGURE 104*

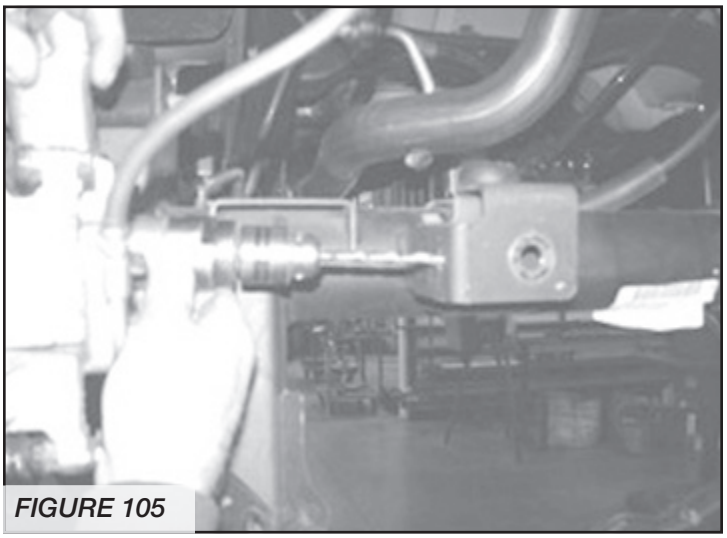

*FIGURE 105*

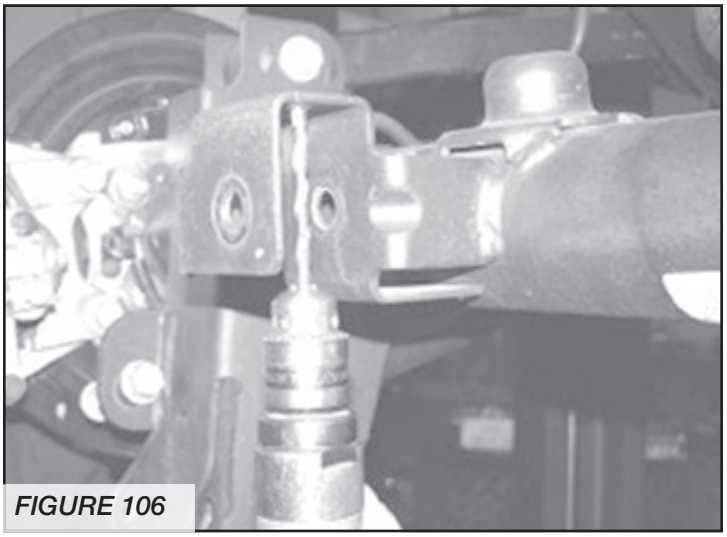

*FIGURE 106*

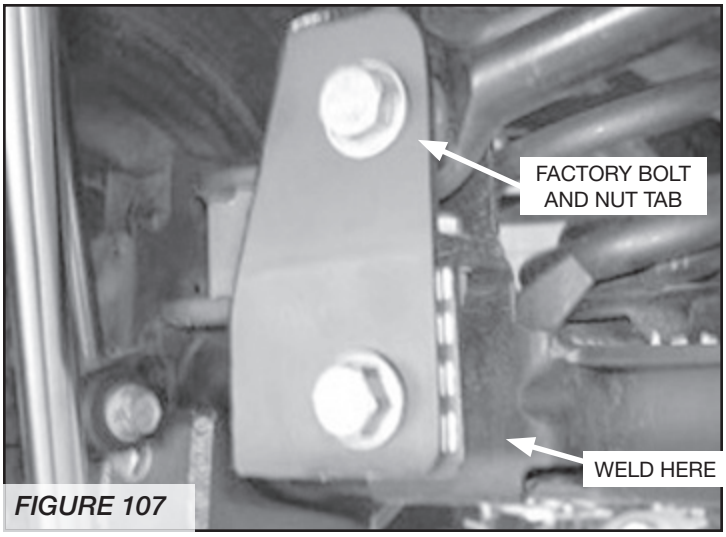


*FIGURE 107*

TRAC BAR INSTALLED FOR PHOTO ONLY, IT MUST BE REMOVED PRIOR TO INSTALLATION.

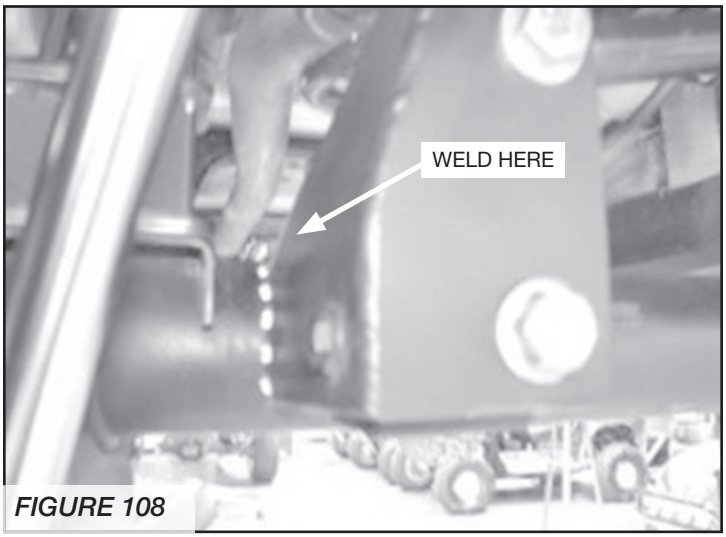


*FIGURE 108*

TRAC BAR INSTALLED FOR PHOTO ONLY, IT MUST BE REMOVED PRIOR TO INSTALLATION.

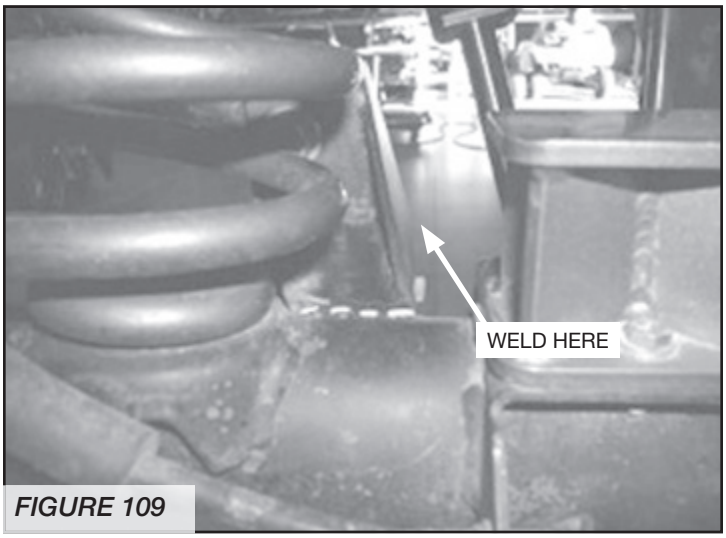


*FIGURE 109*

VIEW OF FRONT SIDE OF AXLE LOOKING TO THE REAR OF THE JEEP

52. Once gusset kit has completely cooled, paint all bare metal areas.

53. Locate FT50346BK Rear Lower Links, (8) FT1003 Bushings, (2) FT7100-6-100 Sleeves, (4) FT50123 Large Adjustable Joints, and (4) large jam nuts. Install the jam nuts onto the joints and insert the joints into the arms. Adjust the joints so the link is 32 1/2" center to center of the joints (Make sure there is an equal amount of threads on both ends. This is just a staring point. Further adjustments may be necessary during the final alignment). Using a press and the supplied bushing lube, install the bushings into the arms and the sleeves into the bushings. **SEE FIGURE 110.**

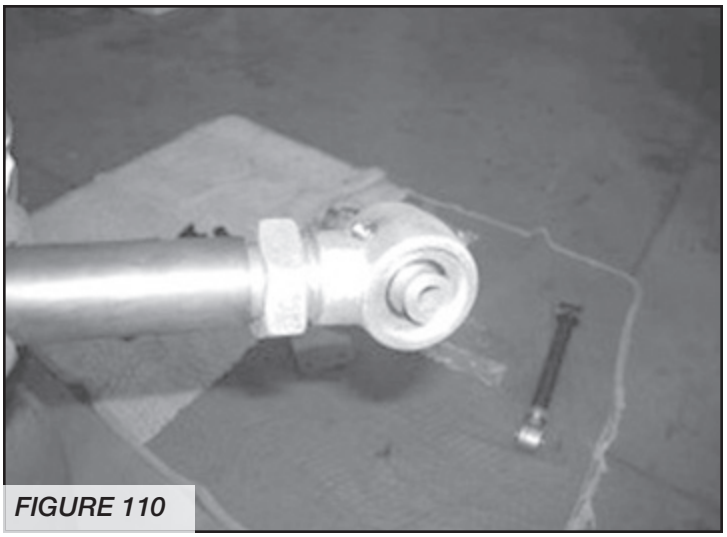

*FIGURE 110*

54. Install the upper links to the factory mounts on the axle with the factory hardware. Then attach the links to the original frame mounts with the factory hardware here also. Torque the bolts to ** 135 ft. lbs. **SEE FIGURE 111-113**

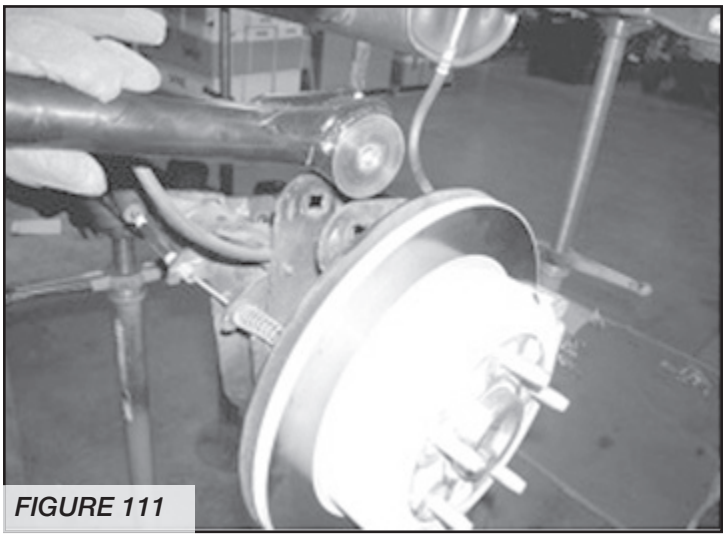

*FIGURE 111*

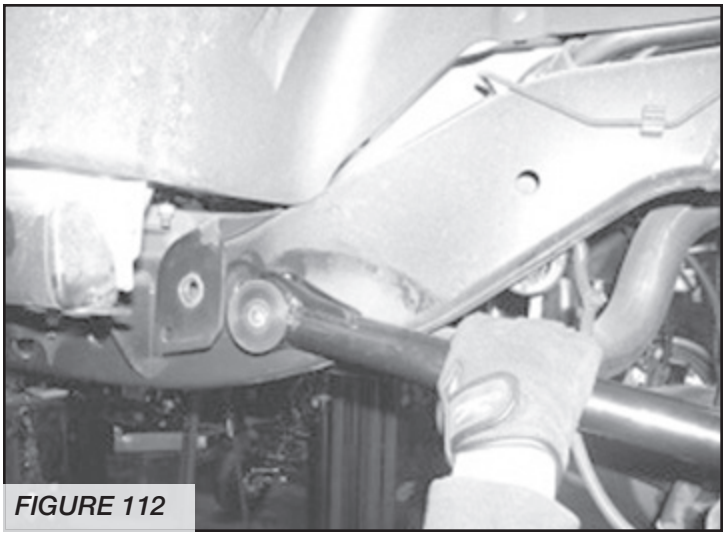

*FIGURE 112*

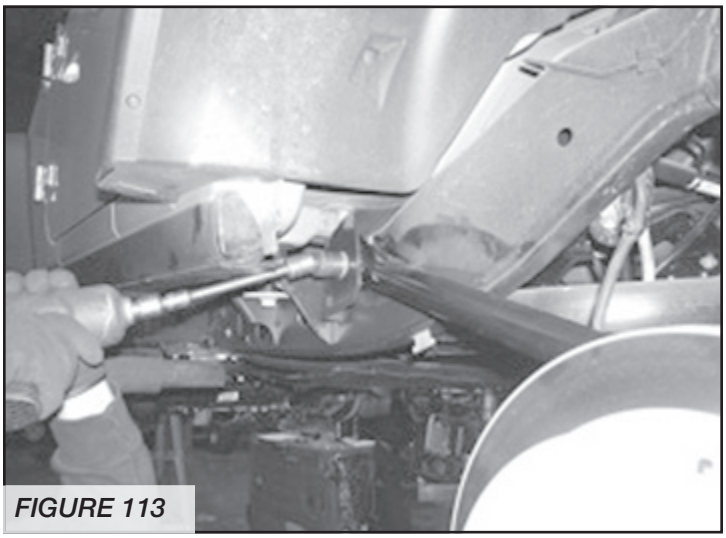

*FIGURE 113*

55. Remove the 9/16" bolt from the frame pocket and install the assembled lower link arm with the zerk fitting facing downward. Torque to **184 ft. lbs. Insert the bottom of the link into the lower shock mount (zerc fitting facing upward) and install the mount to the axle with the 9/16" bolt. Leave loose. Locate FT50327 Rear Shock Mount Nut Tab and the supplied 7/16"x1" bolts with split & flat washers. Install the nut tab from the top of the mount and attach with the 7/16" hardware. Torque the 7/16" bolts to **83 ft. lbs & the 9/16" bolt to **184 ft. lbs.
**SEE FIGURES 114-120.**

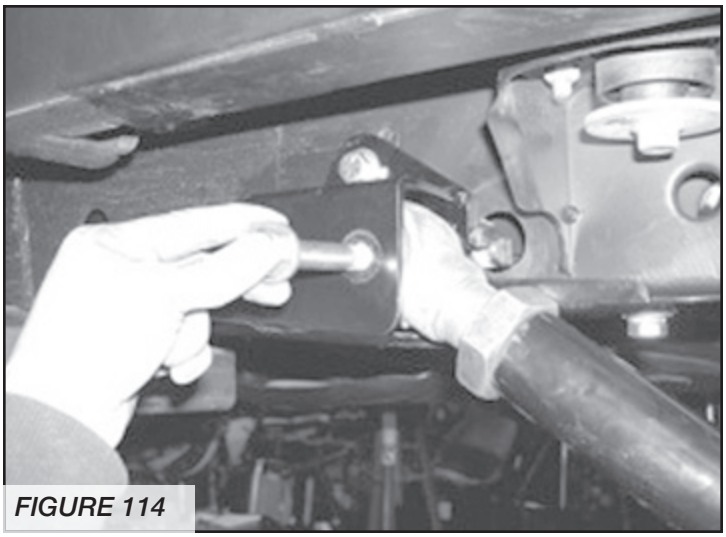

*FIGURE 114*

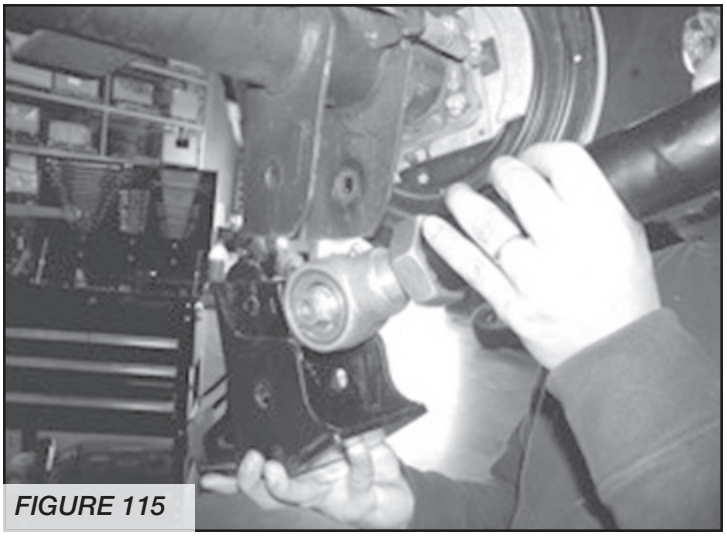

*FIGURE 115*

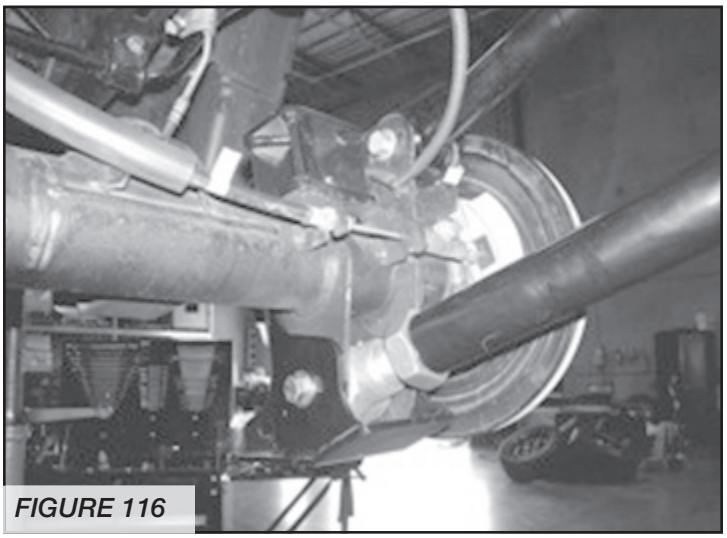

*FIGURE 116*

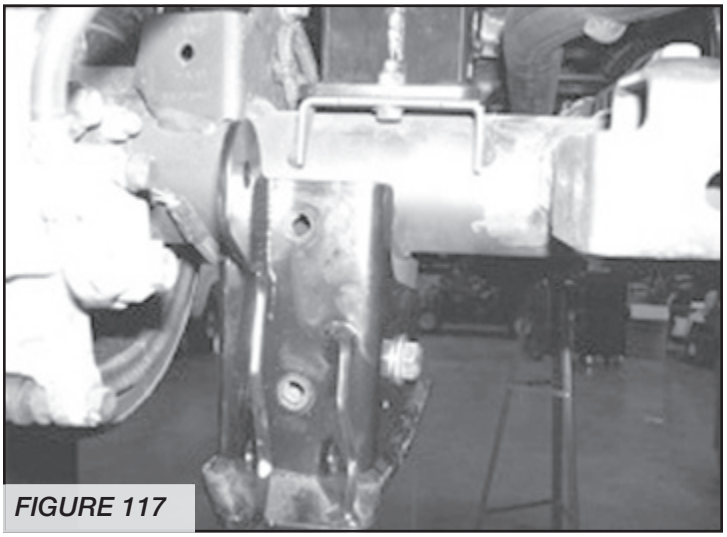

*FIGURE 117*

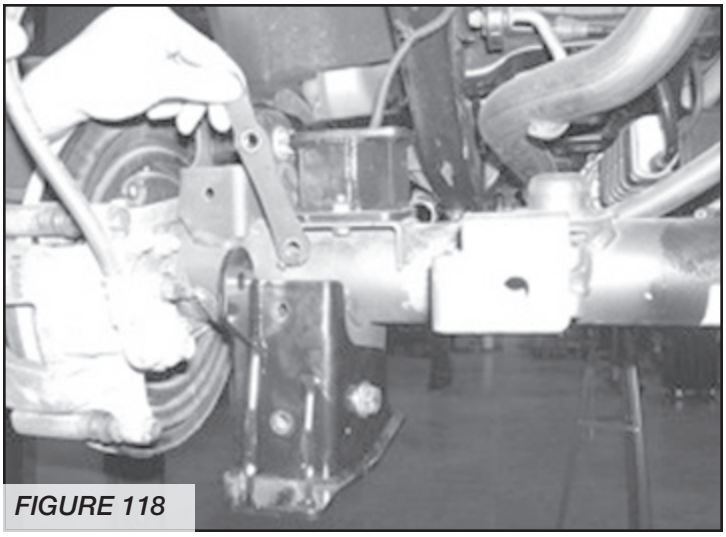

*FIGURE 118*

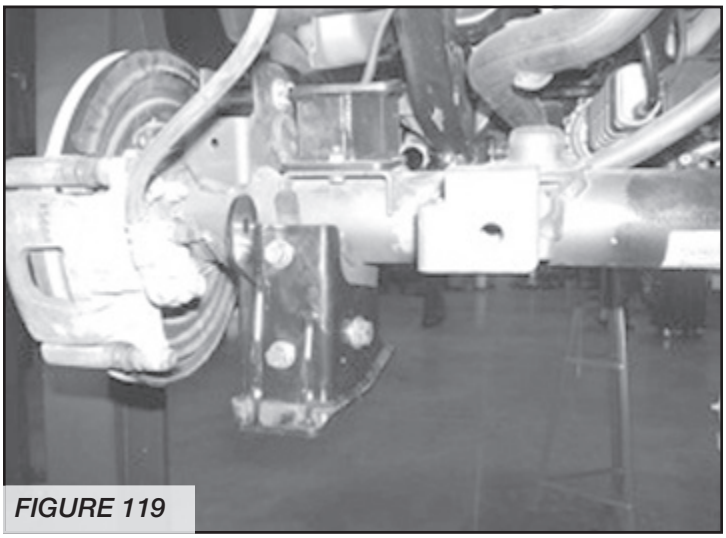

*FIGURE 119*

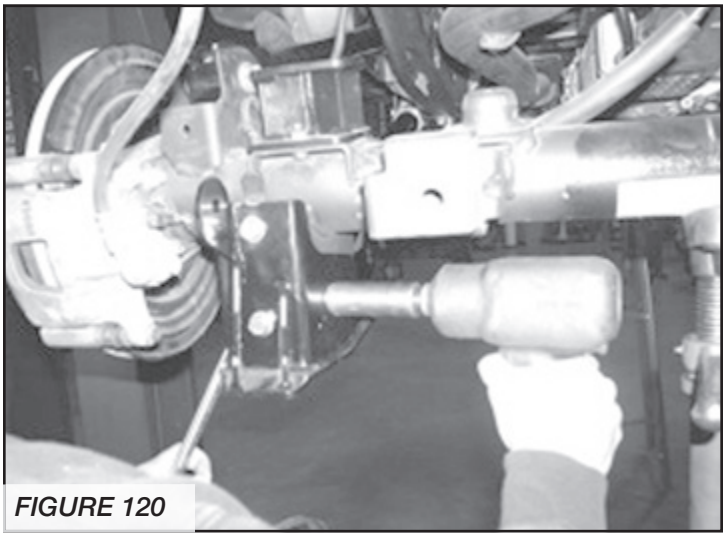

*FIGURE 120*

56. Remove & discard the factory rear driveshaft & hardware. Locate the correct (FTS94051 2 Door or FTS94052 4 door) new rear driveshaft and install at this time.

57. Locate FT50293 Rear Bumpstop Spacer. Position the spacer onto the factory bumpstop pad on the axle and attach with the supplied 5/16" x 1" bolts and hardware (mount the spacer to the axle with the offset of the spacer to the front of the Jeep) **SEE FIGURE 121.**

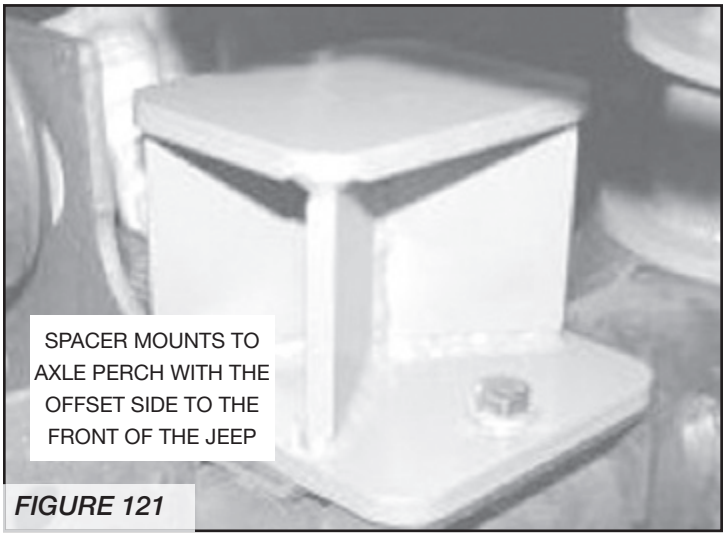


*FIGURE 121*

58. Locate FT50298 E-Brake Bracket and supplied ¼" hardware. Position the bracket to the factory mounting position and attach with the factory hardware. Attach the factory bracket to the new Fabtech bracket with the ¼" hardware. Torque to 10 lbs. **SEE FIGURE 122.**

*FIGURE 122*

59. Locate & install FT50303 Rear 5" Coil Spring with the factory isolators on the top into the upper mount first, then onto the factory coil perch on the axle. (make sure upper isolator is fully seated into the upper pocket / mount). **SEE FIGURES 123-124.**

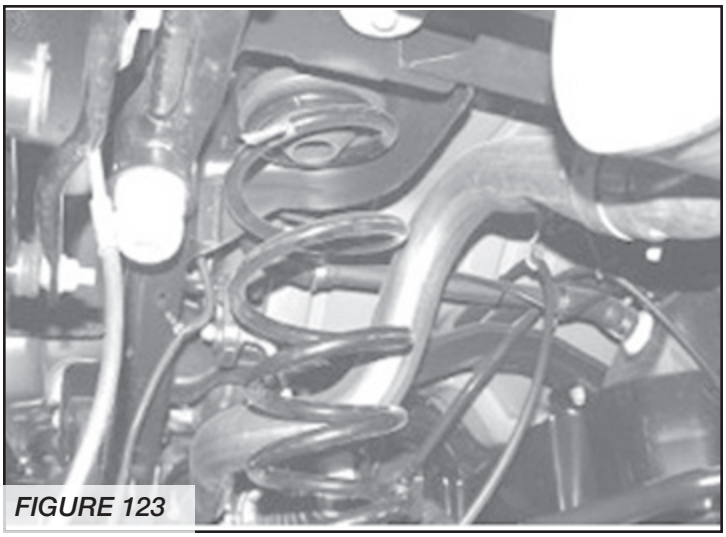

*FIGURE 123*

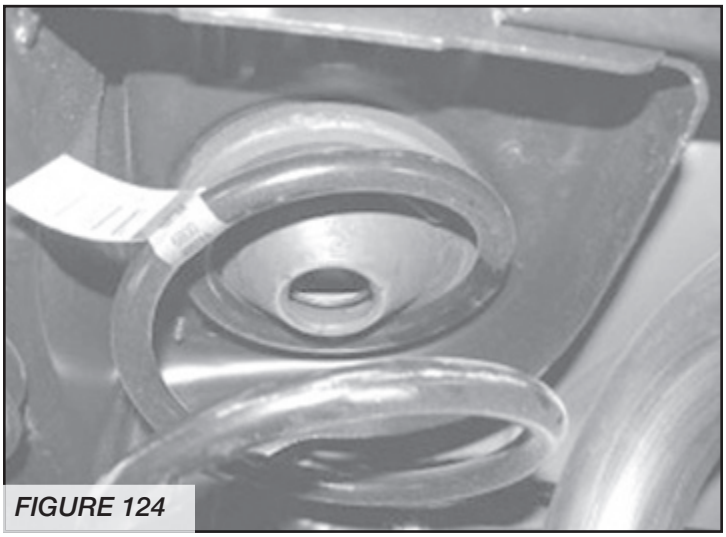

*FIGURE 124*

60. Position the trac bar into the new trac bar bracket and attach with the factory hardware. Remove the 9/16" bolt and install the provided FT157 Sleeve in the factory trac bar mount. Torque the factory trac bar bolt & new 9/16" to **184 ft. lbs. **SEE FIGURE 125.**

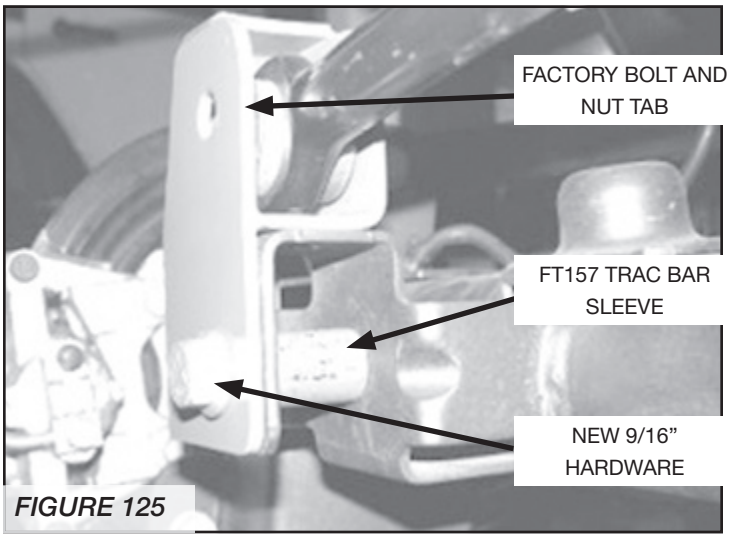


*FIGURE 125*

61. Install the Fabtech shock FTS6002 (Not included in the kit) Use the factory upper hardware to mount the bar bin and the supplied ½" x 2 ½" bolt, large USS washers, and hardware. (insert one large USS washer per side inside the shock mount with the shock) Torque the upper hardware to **60 ft. lbs and the lower to **127lbs.
**SEE FIGURES 126-127.**

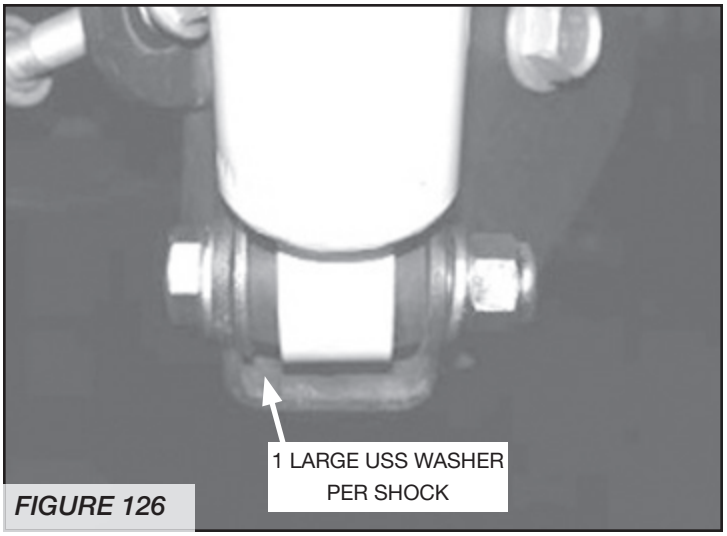

*FIGURE 126*

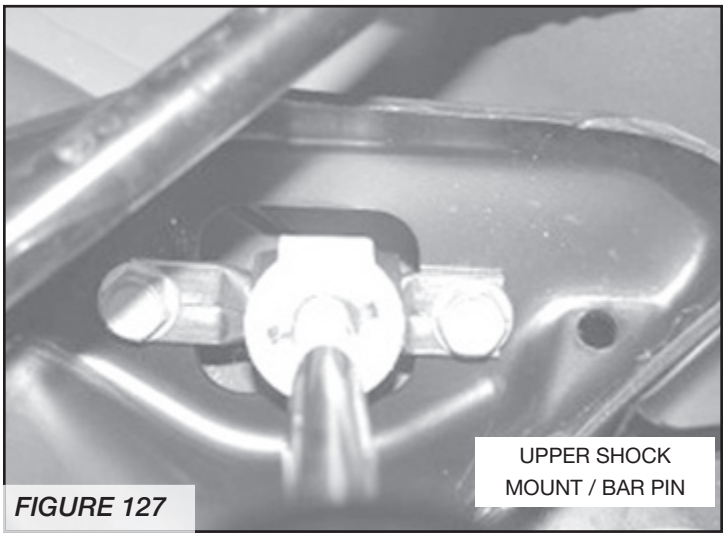

*FIGURE 127*

62. Locate FT50295 Rear Brake Line Drop Bracket, supplied 1/4" hardware, and factory rear brake line hardware. Attach the drop bracket to the factory mount with the factory hardware. Attach the factory brake line bracket to the new drop bracket with the ¼" hardware. Torque to ** 10 lbs. **SEE FIGURE 128.**

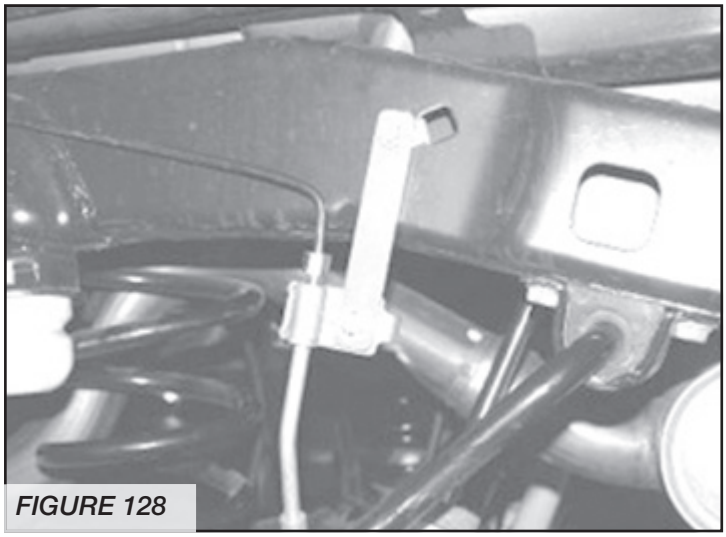
*FIGURE 128*

63. Reconnect the factory ABS mount to the rear differential and torque to 20 lbs.

64. Locate the factory end links and hardware. Attach the links to the outside of the sway bar with the studded end of the link. Attach the opposite end of the link to the lower shock bracket on the inside of the mount. Torque the bolts to **100 ft. lbs. **SEE FIGURES 129-134.**

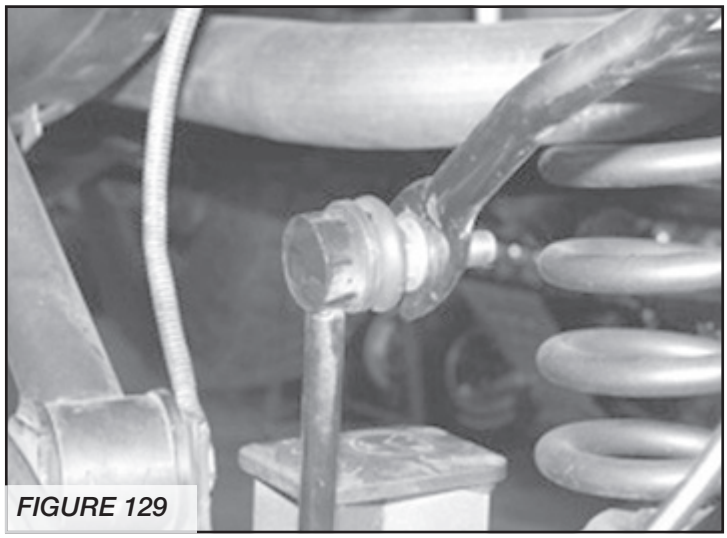
*FIGURE 129*

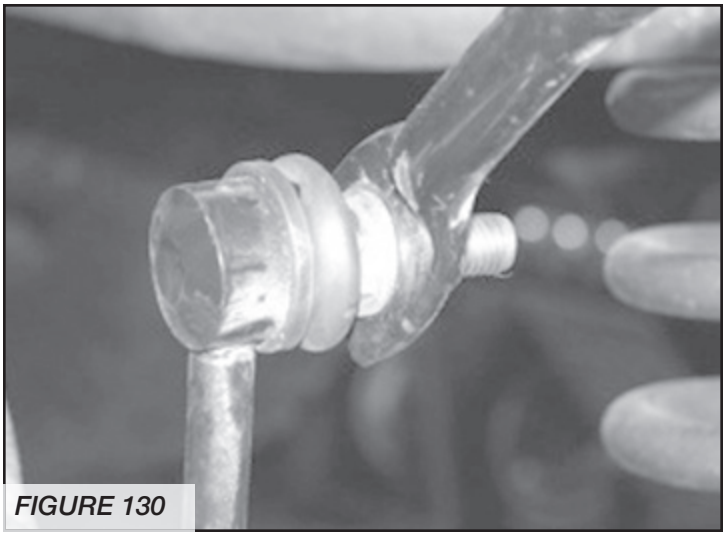

*FIGURE 130*

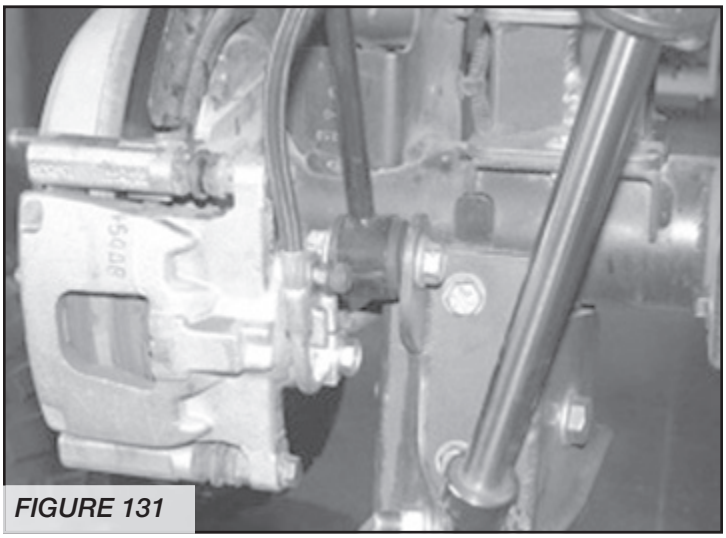

*FIGURE 131*

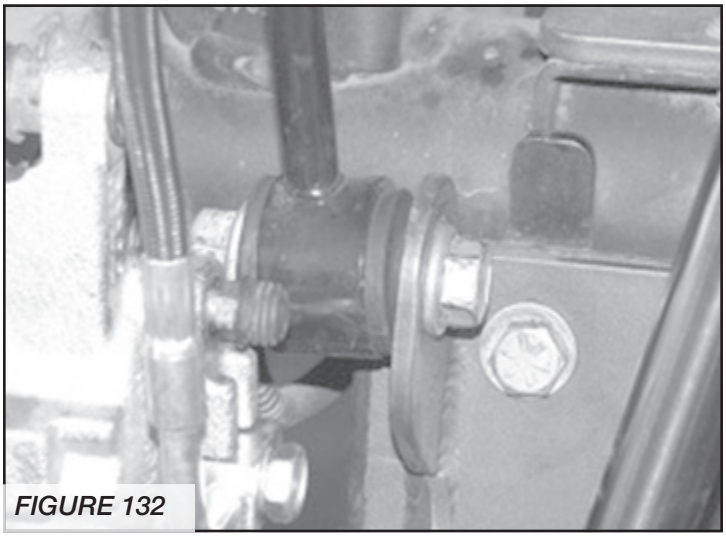

*FIGURE 132*

65. Install tires and wheels and torque lug nuts to wheel manufacturer's specifications. Turn front tires left to right and check for appropriate tire clearance. **Note - Some oversized tires may require trimming of the front bumper & valance.**

66. Check front end alignment and set to factory specifications. Readjust headlights.

67. Recheck all bolts for proper torque.

68. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.

69. Check the fluid in the front and rear differential and fill if needed with factory specification differential oil. **Note - some differentials may expel fluid after filling and driving. This can be normal in resetting the fluid level with the new position of the differential/s.**

70. Install Driver Warning Decal. Complete product registration card and mail to Fabtech in order to receive future safety and technical bulletins on this suspension

**Vehicles that will receive oversized tires should check ball joints and all steering components every 2500-5000 miles for wear and replace as required.**

## RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 50 MILES AND PERIODICALLY THEREAFTER.

For technical assistance call: 909-597-7800

### *S.A.E. Bolt Torque Specification Chart*

*Grade 5*

*Grade 8*

*Metric*

| STANDARD | | | | METRIC | | |
|---|---|---|---|---|---|---|
| | Grade 5 | Grade 8 | | | Grade 8.8 | Grade 10.9 |
| SIZE | ft. lbs. | ft. lbs. | | SIZE | ft. lbs. | ft. lbs. |
| 1/4" | 10 | 14 | | M-6 | 7 | 12 |
| 5/16" | 21 | 29 | | M-8 | 17 | 29 |
| 3/8" | 37 | 52 | | M-10 | 35 | 58 |
| 7/16" | 59 | 83 | | M-12 | 65 | 100 |
| 1/2" | 90 | 127 | | M-14 | 100 | 160 |
| 9/16" | 129 | 184 | | M-16 | 150 | 240 |
| 5/8" | 179 | 254 | | M-18 | 200 | 300 |
| 3/4" | 317 | 450 | | M-20 | 300 | 400 |

# - Product Warranty and Warnings -

Fabtech provides a Limited Lifetime Warranty to the original retail purchaser who owns the vehicle, on which the product was originally installed, for defects in workmanship and materials.

The Limited Lifetime Warranty excludes the following Fabtech items; bushings, bump stops, ball joints, tie rod ends, limiting straps, cross shafts, heim joints and driveshafts. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days from the date of purchase for defects in workmanship.

Dirt Logic and Performance Coilover take apart shocks are considered a serviceable shock with a one year warranty on leakage only. Service seal kits are available separately for future maintenance. All other shocks are covered under our Limited Lifetime Warranty.

Fabtech does not warrant any product for finish, alterations, modifications and/or installation contrary to Fabtech's instructions. Alterations to the finish of the parts including but not limited to painting, powder coating, plating and/or welding will void all warranties. Some finish damage may occur to parts during shipping, which is considered normal and is not covered under warranty.

Fabtech products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities. (A "RACE" is defined as any contest between two or more vehicles, or any contest of one or more vehicle against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America.

Installation of most suspension products will raise the center of gravity of the vehicle and will cause the vehicle to handle differently than stock. It may increase the vehicle's susceptibility to a rollover, on road and off road, at all speeds. Extreme care should be taken to operate the vehicle safely at all times to prevent rollover or loss of control resulting in serious injury or death. Fabtech front end Desert Guards may impair the deployment or operation of vehicles equipped with supplemental restraining systems/air bag systems and should not be installed if the vehicle is equipped as so.

Fabtech makes every effort to ensure suspension product compatibility with all vehicles listed on the website, but due to unknown auto manufacturer's production changes and/or inconstancies by the auto manufacturer, Fabtech cannot be responsible for 100% compatibility, including the fitment of tire and wheel sizes listed. The Tire and Wheel sizes listed in Fabtech's website are only a guideline for street driving with noted fender trimming. Fabtech is not responsible for damages to the vehicle's body or tires. Fabtech is not responsible for premature wear of factory components due to the installation of oversized tires and wheels.

Fabtech's obligation under this warranty is limited to the repair or replacement, at Fabtech option, of the defective product only. All costs of removal, installation or re-installation, freight charges, incidental or consequential damages are expressly excluded from this warranty. Fabtech is not responsible for damages and/or warranty of other vehicle parts related or non related to the installed Fabtech product. This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been subject to accident, negligence, alteration, abuse or misuse as determined by Fabtech.

Fabtech suspension components must be installed as a complete system including shocks as shown on our website. All warranties will become void if Fabtech parts are combined and/or substituted with other aftermarket suspension products. Combination and/or substitution of other aftermarket suspension parts may cause premature wear and/or product failure resulting in an accident causing injury or death. Fabtech does not warrant products not manufactured by Fabtech.

Depending on the condition of the factory suspension components retained after the installation of a Fabtech suspension not all vehicles may have the same ride stance front to rear as described in the website. The blue color of suspension components shown in all Fabtech photographs are for display purposes only. Majority of all Fabtech components will be black specifically where noted with part numbers ending in BK.

Installation of Fabtech product may void the vehicles factory warranty; it is the consumer's responsibility to check with their local vehicle's dealer for warranty disposition before the installation of the product. Some state laws may prohibit modification of suspension to a vehicle in whole or in part. It is the responsibility of the installer and consumer to consult local laws prior to the installation of any Fabtech suspension product to comply with such written laws.

It is the responsibility of the distributor and/or the retailer to review all warranties and warnings of Fabtech products with the consumer prior to purchase.

Fabtech reserves the right to super cede, discontinue, change the design, finish, part number and/or application of parts when deemed necessary without written notice. Fabtech is not responsible for misprints or typographical errors within the website or price sheet. For the most recent Product Warranty and Warnings visit our website www.fabtechmotorsports.com