Installation Instructions

9" Long Travel Coilover Conversion System
FTS21073BK
2001-08 GM 4WD K2500HD P/U ONLY

Fabtech Motorsports 4331 Eucalyptus Ave. Chino, CA 91710
Tech Line 909-597-7800 Fax 909-597-7800 Web www.fabtechmotorsports.com

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PARTS LIST

Qty.	FTS21053BK	Sub-Box 1
8	FT20315	Alignment Cam Plates
1	FT20333BK	Drv. Bump Stop
1	FT20338BK	Pass. Bump Stop
4	FT90078	Frt. Limit Strap 18"
2	FT20271	Nut Tab Rear Hoop Mount
1	FT20272	Nut Tab Pass Frt. Hoop
1	FT20336	Hardware Kit ***(DO NOT USE)***
1	FT87000	4.0 Spanner Wrench
2	FT20274	Sway Bar End Link
2	FTS98003	3/4" Heim Joint
4	FTS43	3/4"Mis-Alignment
4	FT147	Spindle Mis-Alignment
1	FT20345	Arm Bushing Kit
4	FT90051	Sway Bar Bushing
2	FT90050	Sway Bar Cup Washer
4	FT1500-6-101	Upper Control Arm Sleeve
2	FT142	Frt. Pivot Lwr Ctrl Arm HD
2	FT143	Rr. Pivot Lwr Ctrl Arm HD
2	FT20316BK	Solid Impact Tube
2	FT20273BK	Impact Tube Mount
2	FT20067	Impact Tube Mount Nut Tab
2	FT20279	Long Axle
2	FT20328	Inner Boot Kit
2	FT20329	Outer Boot Kit
2	FT20211	HD Tie Rod End
2	FT71002i	Instruction Sheet
2	FT21049i	Instruction Sheet

Qty.	FTS21054BK	Sub-Box 2
1	FTS20246D-1	Driver Spindle
1	FTS20246P-1	Passenger Spindle
2	FT20330	Uni-Ball Nut Tab

Qty.	FTS21055BK	Sub-Box 3
1	FT20260BK	Driver Hoop
1	FT20261BK	Pass Hoop
1	FT20262BK	Driver Support Tube
1	FT20263BK	Pass Support Tube

Qty.	FTS21056BK	Sub-Box 4
1	FT20264BK	Dr. Lower Arm w/BJ
1	FT20265BK	Pas. Lower Arm w/BJ
1	FT20266BK	Dr. Upper Arm w/Uni
1	FT20267BK	Pas. Upper Arm w/Uni

Qty.	FTS83502D	Sub-Box 5
1	4.0 Dirt Logic Shock	

Qty.	FTS83502P	Sub-Box 6
1	4.0 Dirt Logic Shock	

Qty.	FTS21080BK	Sub-Box 7
1	FT20073	Carrier Bearing Drop
1	FT20075	Weld In Plate
1	FT20090BK	Front Crossmember
1	FT20091BK	Rear Crossmember
1	FT20126BK	Skid Plate
2	FT20284BK	Support Tube
1	FT20346	Hardware Kit
1	FT20377	Driver Diff Drop Bracket
1	FT20378	Pass Diff Drop Bracket
1	FT20426	Hdwr Sub-Assembly Kit

Qty.	FT20426	Hdwr Sub-Assembly Kit
1	FT155	Sleeve
1	FT20394	Brake Line Kit
2	FT21080i	Instruction Sheet

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HARDWARE LIST: FT20346

Qua	Description	Location
4	5/8"-11 x 3 1/2" Bolt	Coilover Shocks
4	5/8"-11 C-Lock Nut	
8	5/8" SAE Flat Washer	
4	3/8"-16 x 1 1/4" Bolt	Shock Hp @ A-Arm Pocket
4	3/8"-16 C-Lock Nut	
8	3/8" SAE Flat Washer	
2	1/2"-13 x 3 1/4" Bolt	Shock Hp Support Tube
2	1/2"-13 C-Lock Nut	
4	1/2" SAE Flat Washer	
3	1/2"-13 x 1 1/4" Bolt	Shock Hp @ Frm w/ Nut Tabs
3	1/2" SAE Flat Washer	
2	5/8"-11 x 5 3/4" Bolt	Shock Hp Lwr Mount Rr Leg
2	5/8"-11 C-Lock Nut	
4	5/8" SAE Flat Washer	
2	1/2"-13 x 5 3/4" Bolt	Shock Hp @ Hyd. Bmpstp Mt.
2	1/2"-13 C-Lock Nut	
4	1/2" SAE Flat Washer	
4	1/2"-13 x 1 1/4" Bolt	Hyd. Bumpstop Mount
4	1/2"-13 C-Lock Nut	
8	1/2" SAE Flat Washer	
4	7/16"-14 x 1 1/2" Bolt	Hyd. Bumpstop Cans
4	7/16"-14 C-Lock Nut	
8	7/16" SAE Flat Washer	
2	3/4"-10 x 5" Bolt	Uni-ball @ Upper Control Arm
4	1/4"-20 x 3/4" Bolt	Brake Line Brackets
2	1/4"-20 C-Lock Nut	
6	1/4" SAE Flat Washer	
2	1/4" Split Washer	Brake Line Brkt @ Spindle
12	10mm x 1.5 x 25mm Bolt	C.V. Flange @ Front Diff
12	10mm Flat Washer	
2	3/8"-16 C-Lock Nut	Front Crossmember
2	3/8" SAE Flat Washer	

Qua	Description	Location
1	9/16"-12 x 5" Bolt	Diff. Brackt Drv. (front)
1	9/16"-12 C-Lock Nut	
2	9/16" SAE Flat Washer	
5	10mm x 1.5 x 65mm Bolt	Diff. Brackt Drv.
5	10mm Flat Washer	
1	9/16"-12 x 4 1/2" Bolt	Diff. Bracket Drv. (rear)
1	9/16"-12 C-Lock Nut	
2	9/16" SAE Flat Washer	
1	1/2"-13 x 1 1/4" Bolt	Skid Plate
1	1/2"-13 C-Lock Nut	
2	1/2" SAE Flat Washer	
2	9/16"-12 x 1 3/4" Bolt	Diff. Bracket Pass
2	9/16"-12 C-Lock Nut	
4	9/16" SAE Flat Washer	
2	5/8"-11 x 5" Bolt	Lower Ctrl Arm (front)
2	5/8"-11 x 6 3/4" Bolt	Lower Ctrl Arm (rear)
4	5/8"-11 C-Lock Nut	
8	5/8" SAE Flat Washer	
4	1/2"-13 x 1 1/2" Bolt	Limit Strap
4	1/2"-13 C-Lock Nut	
16	1/2" SAE Flat Washer	
2	1/2"-13 x 3" Bolt	Sway Bar End Link
2	1/2"-13 C-Lock Nut	
4	1/2" SAE Flat Washer	
2	3/4"-16 Jamb Nut	
2	1/2"-13 x 3" Btn Hd bolt	
4	7/16"-14 x 3 3/4" Bolt	Impact Struts
4	7/16"-14 C-Lock Nut	
8	7/16" SAE Flat Washer	
4	7/16"-14 x 1 1/4" Bolt	Impact Strut Brackets
4	7/16" SAE Flat Washer	

THIS SYSTEM INCLUDES TWO HARDWARE KITS.

USE THE FT20346 FROM SUB-BOX 7 FTS21080BK AS LISTED ABOVE AND DISCARD THE FT20336 THAT IS IN THE SUB-BOX 1 FTS21053BK

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READ BEFORE BEGINNING INSTALLATION

THIS KIT HAS 2 SETS OF INSTRUCTIONS. USE THIS SET (FTS21073BK) FOR 2007 – 2008 TRUCKS. FOR 2001 – 2007 TRUCKS, DISCARD THE THESE INSTRUCTIONS & USE THE INSTRUCTIONS IN THE FTS21058BK SUB-BOX 7.

THIS KIT IS DESIGNED FOR CREW CAB SHORT & LONG BED MODEL TRUCKS WITH THE 8.1 GAS OR DIESEL ENGINES

NOTE- THIS SUSPENSION SYSTEM REQUIRES WELDING FOR INSTALLATION. ALL WELDING MUST BE PERFORMED BY A CERTIFIED WELDER. ONLY WELD THE SINGLE COMPONENT CALLED OUT IN THESE INSTRUCTIONS. DO NOT WELD ANY OTHER COMPONENTS IN THIS SYSTEM.

INSTALLATION SHOULD BE PERFORMED BY TWO PROFESSIONAL MECHANICS.

DO NOT ALTER THE FINISH OF THESE COMPONENTS, EXAMPLE- CHROMING, ZINC PLATING OR PAINTING. CHANGING THE FINISH CAN CAUSE STRUCTURAL FATIGUE OF COMPONENTS.

SUSPENSION SYSTEM MUST BE INSTALLED WITH FABTECH SHOCK ASBORBERS

CHECK ALL PARTS INCLUDED IN THIS KIT TO THE PARTS LIST ABOVE BEFORE BEGINNING INSTALLATION OF THE KIT. IF ANY PIECES ARE MISSING, CONTACT FABTECH AT 909-597-7800

VEHICLES THAT WILL RECEIVE OVERSIZED TIRES SHOULD CHECK BALL JOINTS, TIE RODS ENDS AND IDLER ARM EVERY 2500-5000 MILES FOR WEAR AND REPLACE AS NEEDED

EXHAUST MODIFICATION IS REQUIRED TO INSTALL THIS SYSTEM

NOTE- READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED, SEVERE FRAME, DRIVELINE AND / OR SUSPENSION DAMAGE MAY RESULT.

NOTE- PRIOR TO THE INSTALLATION OF THIS SUSPENSION SYSTEM A FRONT END ALIGNMENT MUST BE PERFORMED AND RECORDED. DO NOT INSTALL THIS SYSTEM IF THE VEHICLE ALIGNMENT IS NOT WITHIN FACTORY SPECIFICATIONS. CHECK FOR FRAME AND SUSPENSION DAMAGE PRIOR TO INSTALLATION.

SUSPENSION SYSTEM WILL NOT WORK ON VEHICLES EQUIPPED WITH FACTORY AUTO RIDE SUSPENSION

REAR SUSPENSION COMPONENTS ARE TO BE ORDERED SEPERATELY

FABTECH RECOMMENDS A 355/70/17 TIRE ON A 17X8 RIM WITH A 4 5/8" BACK SPACING BE USED WITH THIS KIT

INSTALLATION OF THIS KIT REQUIRES A FRONT DRIVE LINE MODIFICATION. FTS91004 FRONT CV DRIVESHAFT CAN BE PURCHASED SEPERATLY FOR THE 6.6L DIESEL ENGINE, OR THE FACTORY DRIVE SHAFT CAN BE MODIFIED AND HAVE A CV JOINT ADDED TO IT. IF YOU HAVE 6.0 L GAS MOTOR, THE DRIVESHAFT WILL HAVE TO HAVE THE CV JOINT MODIFIACTION DONE.

TOOL LIST: (NOT INCLUDED)

- **FLOOR JACK & JACK STANDS**
- **ASSORTED METRIC & S.A.E. WRENCHES & SOCKETS**
- **DRILL W/ ASSORTED BITS**
- **SAWZ-ALL WITH LONG AND SHORT BLADES**
- **DIE GRINDER W/ CUT OFF WHEEL**
- **CV BOOT CLAMP PLIERS (Ear Type) Mac Tools part # CVB3080 or equivalent**
- **SNAP RING PLIERS**
- **MIG WELDER**

FRONT SUSPENSION INSTRUCTIONS:

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.

2. Locate the torsion bar adjusting cams and threaded bolts. Using a torsion bar removal tool unload the torsion bars and remove the bars. Retain the hardware for reinstallation. NOTE- Do not attempt to unload or remove torsion bars without the proper torsion bar tool. Torsion Bars are under extreme spring load.

3. Remove the sway bar link ends from the sway bar and lower control arm and discard.

4. Remove the stock shocks and discard.

5. Remove the stock lower foam bump stops from the frame and retain.

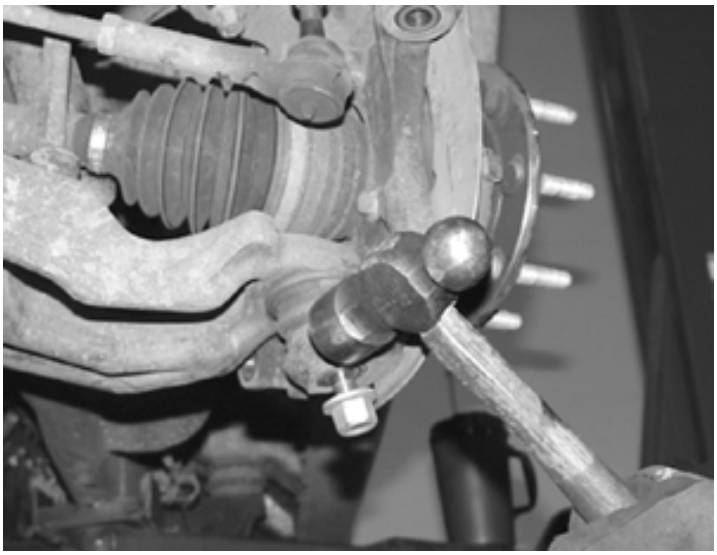
6. Remove front factory differential skid plate and splash shield and discard. Retain hardware for front crossmember installation.

7. Disconnect the tie rod ends from the steering knuckle by striking the knuckle to dislodge the tie rod end. Use care not to damage the tie rod end when removing. SEE PHOTO BELOW.

8. Remove the brake hose bracket from the top of the steering knuckle. Unplug the ABS brake connection from the frame and control arm. Remove the caliper from the rotor and secure the brake caliper to the frame out of the way. **DO NOT ALLOW THE BRAKE CALIPER HANG FROM THE BRAKE LINE HOSE**.

9. Remove brake rotor from the steering knuckle. Remove axle nut, washer and the 4 hub bolts on backside of knuckle. Remove bearing hub assembly including the O ring from knuckle. Retain parts and hardware for reinstallation.

10. Remove the upper and lower ball joint nuts. Disconnect the upper and lower ball joints from the steering knuckle by striking the knuckle with a large hammer next to each ball joint on the knuckle to dislodge the ball joints. Use care not to hit the ball joints when removing. discard nuts and knuckle. SEE PHOTO BELOW.



11. Disconnect and remove CV axles from differential housing. Save the axle assembly and discard the bolts.

12. Remove the lower control arms from the frame and discard with the hardware.

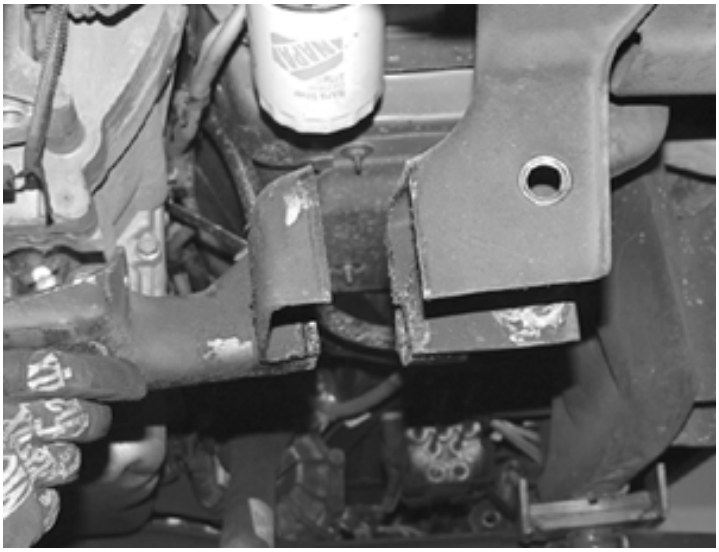
13. Disconnect the ABS line and brake hose from the upper control arms. Remove and discard the entire upper control arm from the frame pocket. Retain the hardware and eccentric cams for reinstallation of new arms.

14. Disconnect front driveshaft from differential housing and retain bolts and u joint straps for reinstallation.

15. Disconnect the differential housing electrical connection and vacuum line from differential housing.

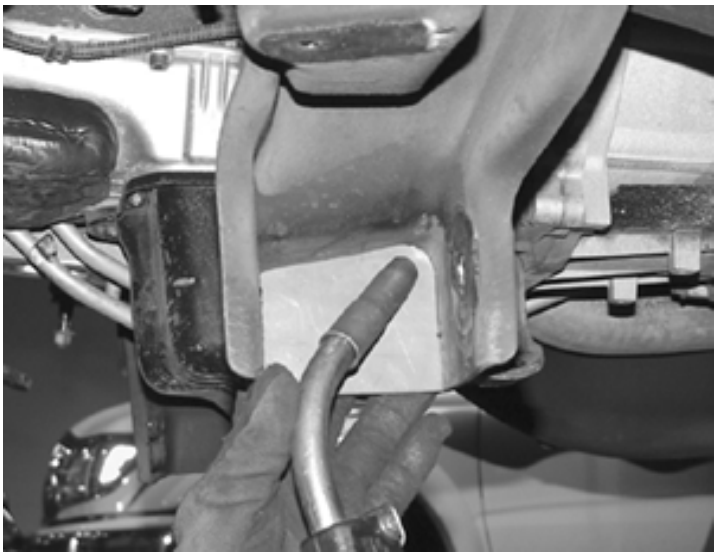
16. Remove the stock rear crossmember and discard. Remove the differential housing assembly from vehicle. To ease the removal, turn the steering wheel to the left for centerlink clearance. Note- Some diesel models may require step 17 first in order to remove housing. Retain hardware for reinstallation.

17. Locate the driver-side lower control arm pocket closest to the rear of the vehicle, measure 1-3/4" from the backside of the pocket and mark a vertical cut line around entire pocket. Using a Sawzall or die grinder cut the backside of the pocket and rear differential crossmember off the frame. SEE PHOTO ON NEXT PAGE.

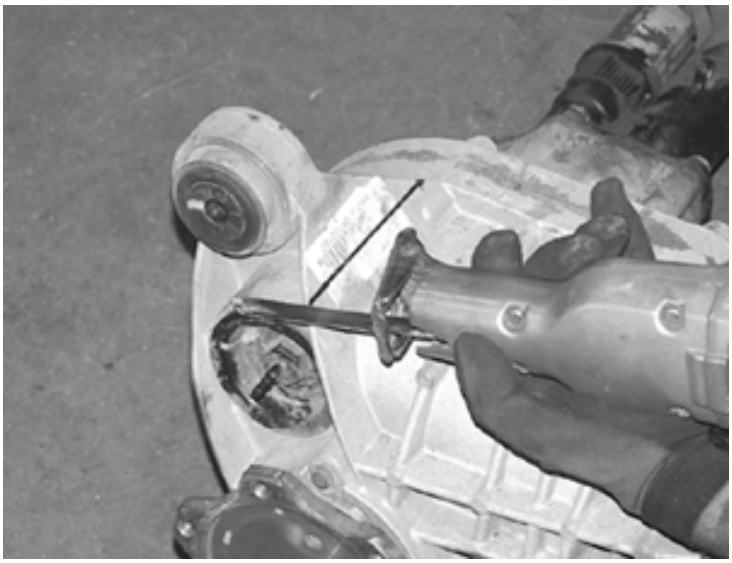


VIEW IS FROM FRONT OF TRUCK ON DRIVER SIDE

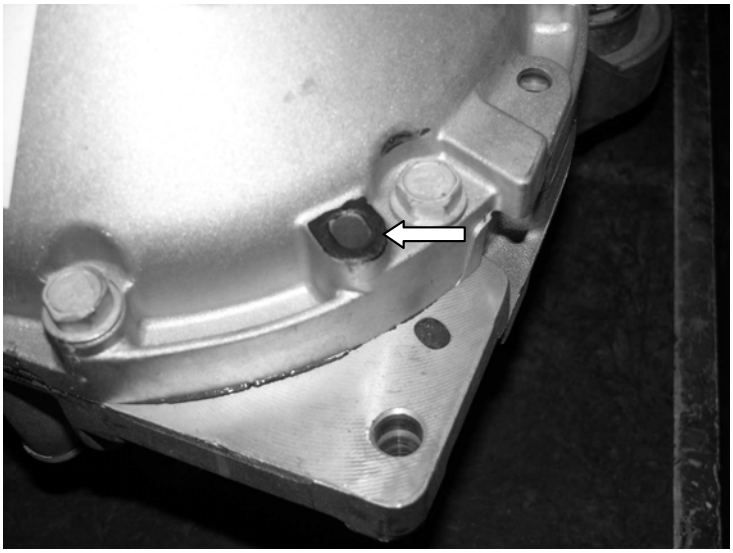
18. With the back of the pocket now removed, clean the area where the new plate is to be welded in. Place the FT20075 weld in plate up to the frame and weld in place. Let the plate cool and paint with a corrosive resistant paint or undercoating. SEE PHOTO BELOW.



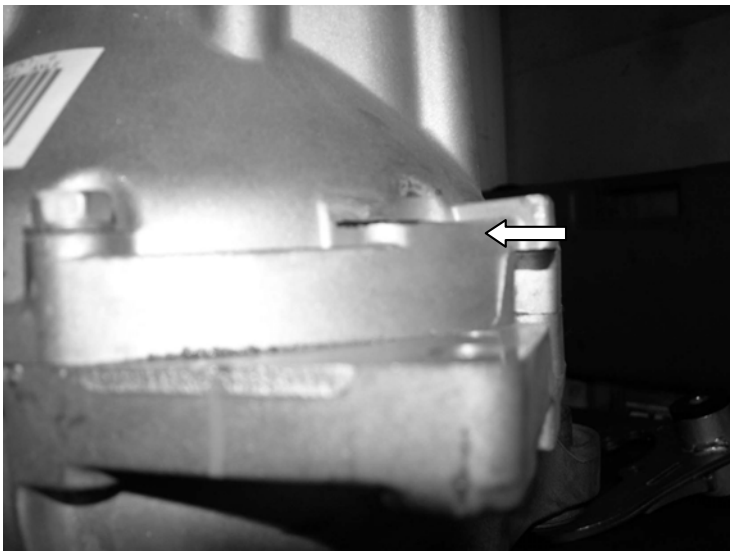
19. Locate the bushing eye on the upper front side of the differential housing and mark the housing with a cut line smooth to the housing. Using a sawzall cut the entire ear off the housing. Take care not to cut into the housing it self. SEE PHOTOS IN NEXT COLUMN.



20. **On some 2006 - model** trucks, the differential has a small area the needs to be sanded down level with the boss to allow the supplied FT20377 Drv. Diff bracket to fit flush against the diff. Using a sanding disc, sand the differential as shown in the following two pictures. **USE CARE TO NOT SAND TO FAR, YOU WILL ONLY NEED TO SAND APPROX. ¼".** SEE PHOTOS ON NEXT PAGE.



Before Sanding



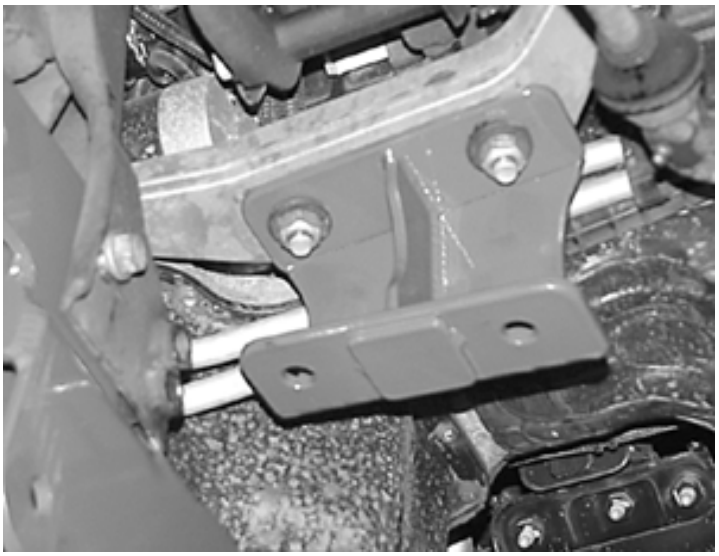
After Sanding

21. Locate the C shaped Fabtech differential bracket and install the FT1019 bushings and FT155 sleeve into the bracket.

22. Place the differential bracket to the differential housing and remove the appropriate 5 housing bolts. Bracket should be positioned with the bushing eye to the top side of the housing. Using provided the 10mm x 1.5 x 65mm bolts and washers, attach the differential bracket to housing using thread lock compound and torque to 30 lbs. Note- Some leakage of the differential oil is normal during this process. Recheck and fill diff housing oil once differential is mounted in vehicle to the recommended level in the owners manual. SEE PHOTO IN NEXT COLUMN.

23. Locate and install the Fabtech rear crossmember into the factory lower control arm pockets using the stock hardware with the nuts to the rear of the truck. Leave loose SEE PHOTO BELOW.

24. Locate and install the FT20378 passenger side Diff bracket to the bottom of the factory frame mount, with the wide end of the bracket to front of the vehicle and the small locator plate towards the ground. Attach using the stock hardware. Torque to 70lbs. SEE PHOTO ON NEXT PAGE.



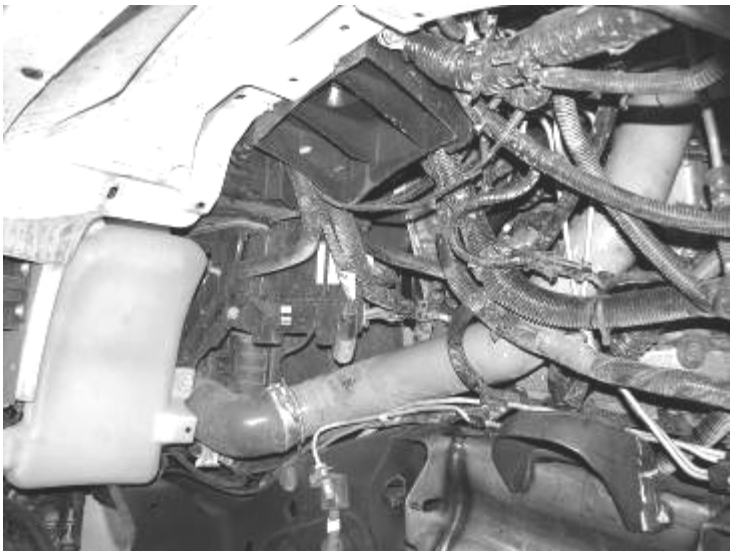
25. Place the differential housing assembly into the Fabtech rear crossmember using the stock hardware on the driver side and 9/16”-12 x 1-3/4” bolts, nuts and washers on the passenger side, leave loose. SEE PHOTO BELOW.

26. Attach the Fabtech front crossmember into the lower control arm pockets using the stock hardware. Leave loose. SEE PHOTO IN NEXT COLUMN.

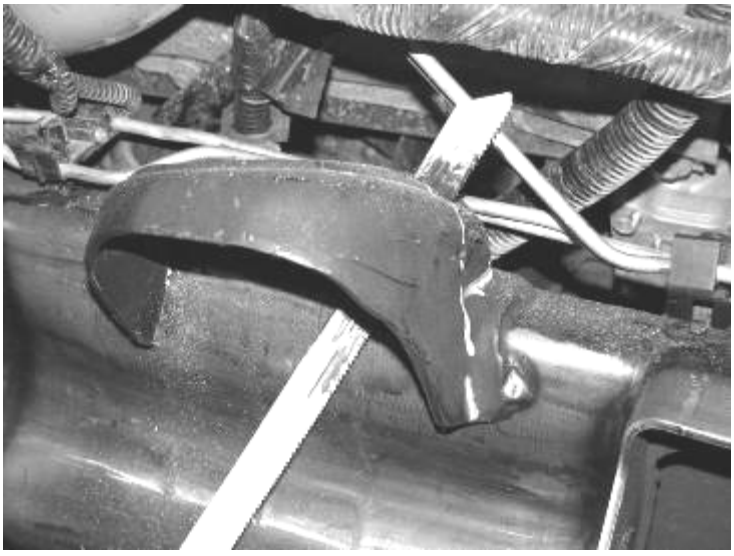
27. Position the front differential urethane bushing mount into the front crossmember tabs. Locate and install the differential skid plate around the differential housing bushing using the provided 9/16”x 5” bolt, nut and washers. Leave loose. SEE PHOTO BELOW.

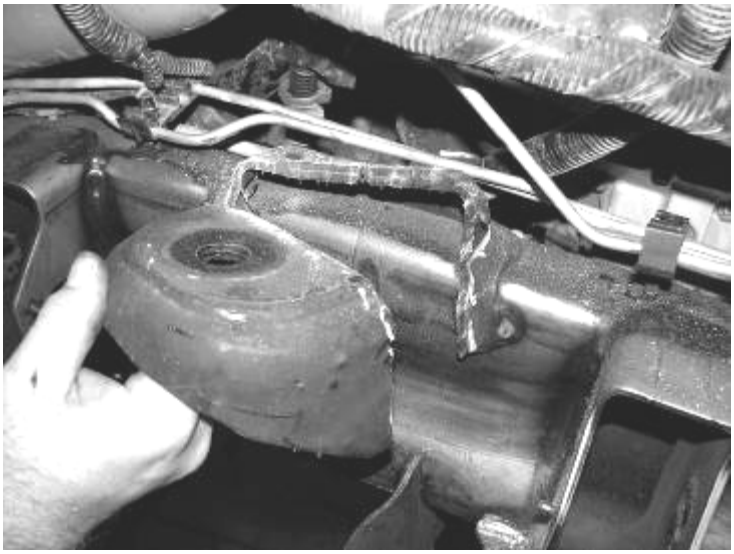
28. Reconnect the electrical connection and the vacuum line to the differential housing.

29. Remove the two front inner wheel well liners and save with the hardware. SEE PHOTO ON NEXT PAGE.

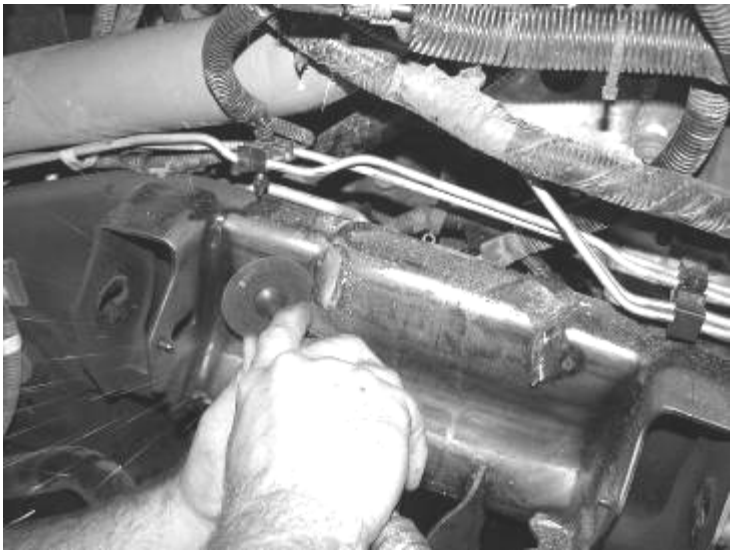


30. Working from the drivers side, locate the factory upper shock mount on the frame. Use a paint pen and mark the mount as shown in the photos below. The shock mount will be completely removed from the frame. Using a sawz-all with a long blade, cut the mount from the face of the frame first. Then use a short blade to cut the remaining parts of the mount from the top of the frame. USE CAUTION NOT TO CUT INTO ANY OF THE BRAKE LINES, ELECTRICAL WIRES, OR INTO THE FRAME ITSELF. SEE PHOTOS BELOW AND IN NEXT COLUMN.

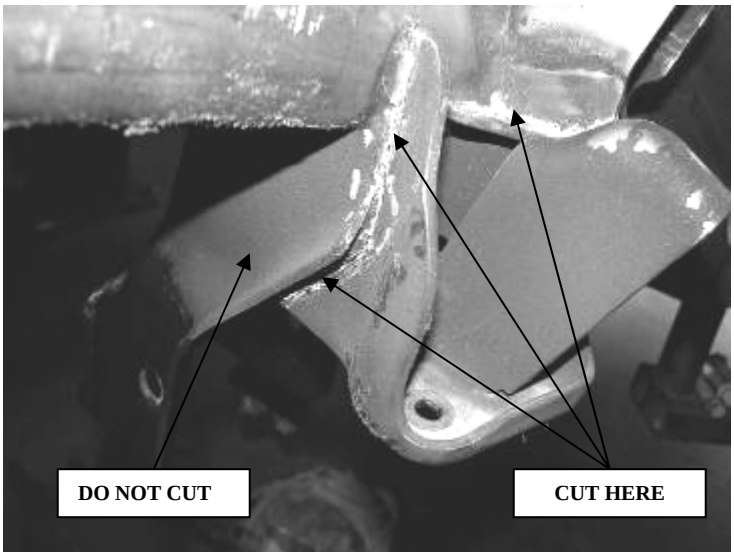


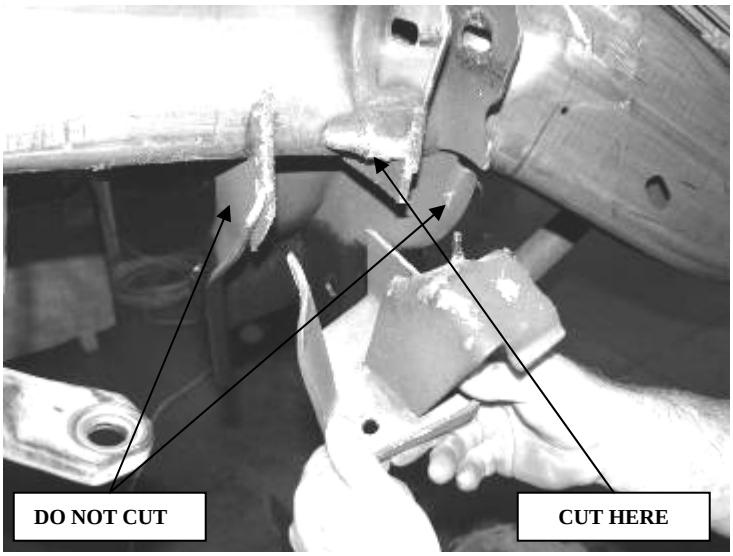


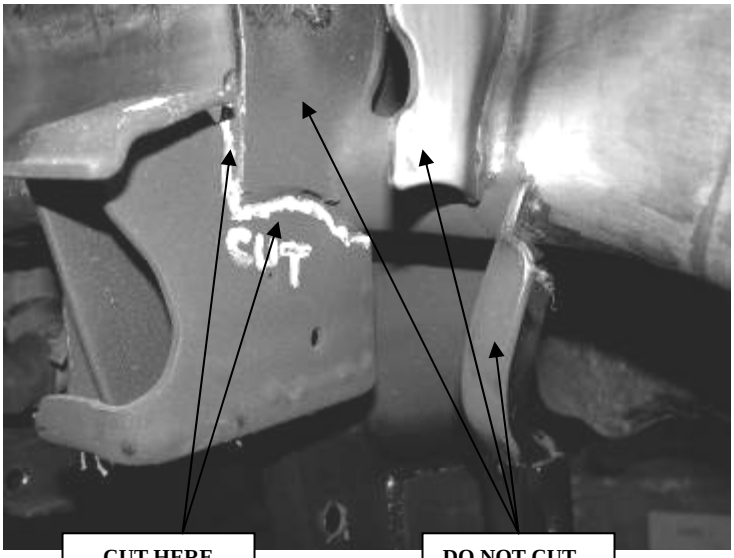
31. Using a die grinder with a cut off wheel, remove the remaining parts of the mount from the face of the frame. Then follow with a die grinder with a sanding disc and sand the frame smooth. SEE PHOTO ON NEXT PAGE.

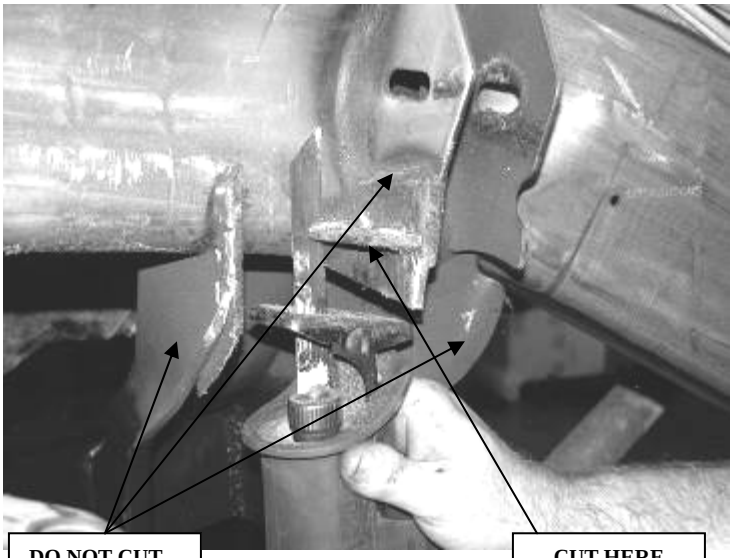


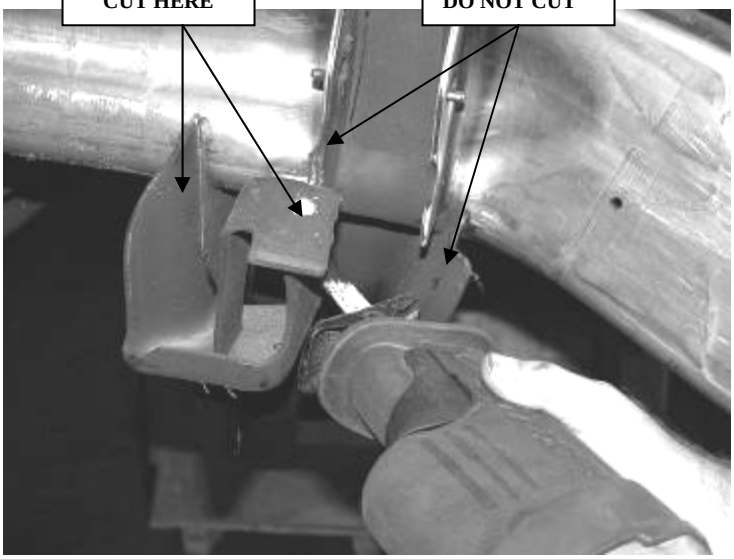
32. Locate the factory bump stop mount on the frame. Use a paint pen and mark the mount as shown in the photos below. ONLY REMOVE THE BUMPSTOP MOUNT FROM THE FRAME. DO NOT CUT OR REMOVE ANY PART OF THE UPPER CONTROL ARM POCKET. Using a sawz-all with a short blade, start the cut at the back of the mount and flush with the bottom of the frame up to the lower control arm pocket. DO NOT CUT OR REMOVE ANY PART OF THE LOWER CONTROL ARM POCKET OR INTO THE FRAME ITSELF. SEE PHOTOS BELOW AND IN NEXT COLUMN AND PAGE.

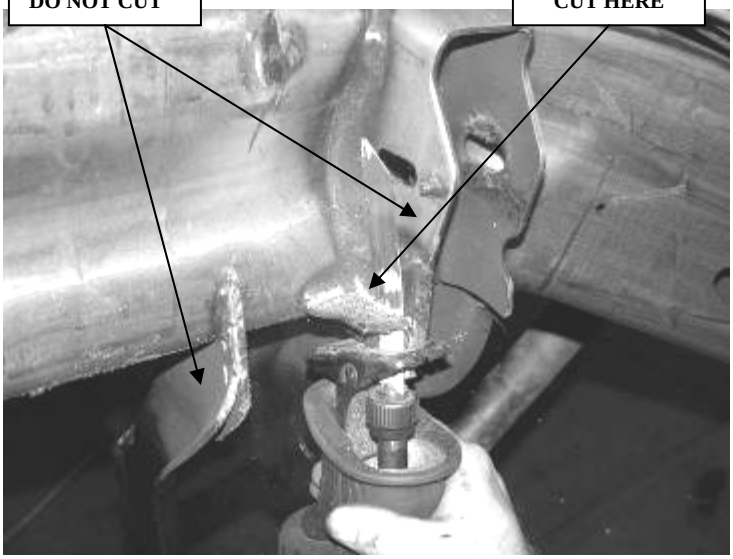






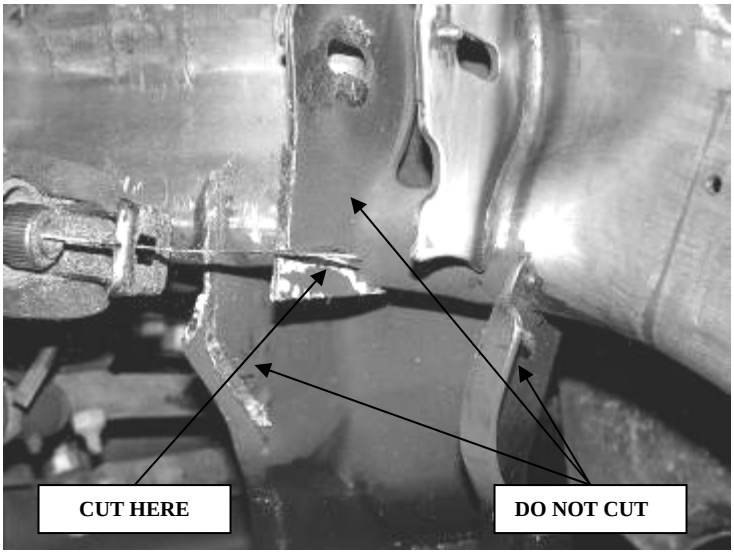


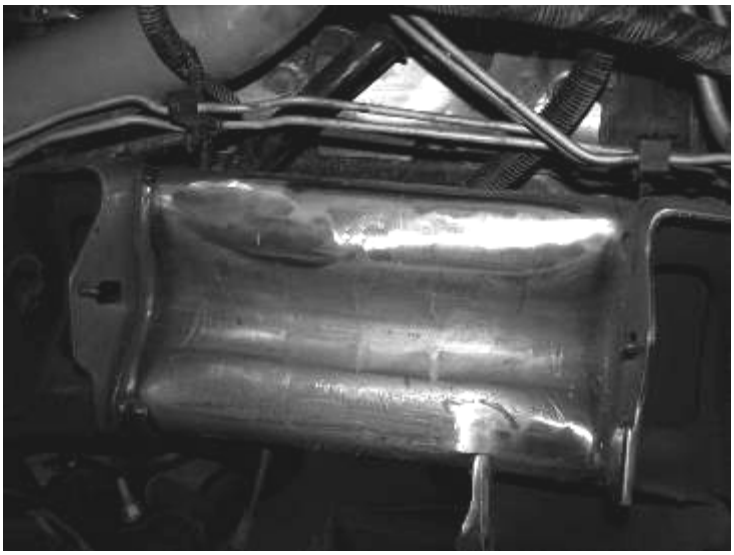


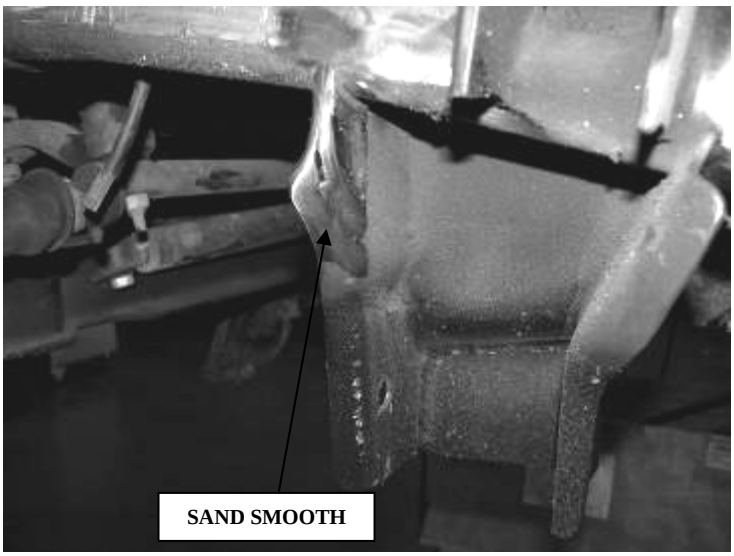


33. Next cut the small piece of the bracket from the frame and the upper control arm pocket. Then remove the remaining part of the mount from the bottom of the inner control arm pocket. ONLY REMOVE THE BUMPSTOP MOUNT. DO NOT CUT OR REMOVE ANY PART OF THE UPPER CONTROL ARM POCKET. Then follow with a die grinder with a sanding disc and sand the frame and

control arm pockets smooth. Paint all bare/exposed metal. SEE PHOTOS IN NEXT COLUMN.

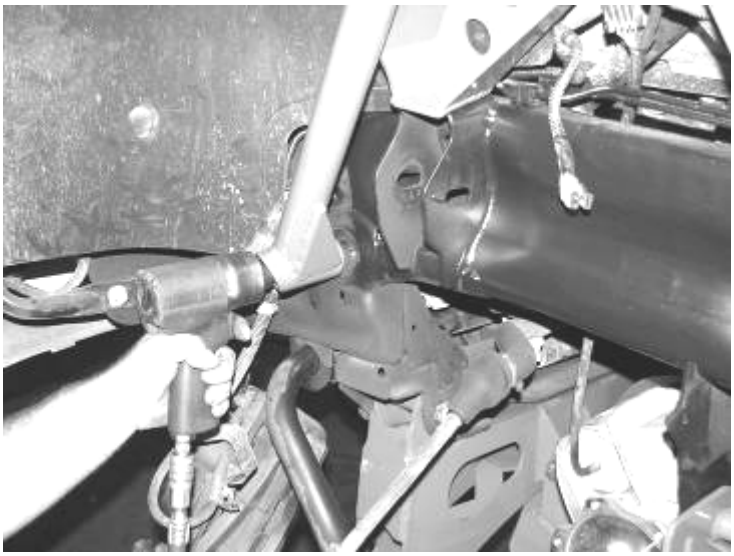






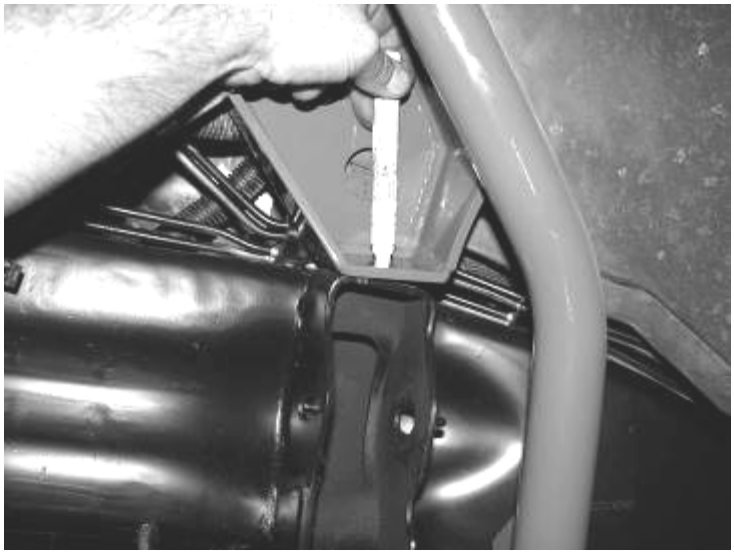
34. Repeat steps thirty-one through thirty-four on the passenger side of truck. Re-install wheel well liners.

35. Working from the drivers side, locate FT20260 Shock hoop. Locate and remove the steering box bolt on the outside of the frame rail closest to the upper control arm. Also remove the nut and washer that retains the stock lower control arm pivot bolt towards the rear of the vehicle. Do not remove the bolt, only the nut and washer. Place the rear leg mount over the stock rear lower control arm bolt and attach with the stock nut and washer. Leave loose. Place the front leg of the hoop over the removed steering box bolt hole and reinstall the stock steering box bolt, nut and washer. Leave loose. SEE PHOTOS BELOW AND IN NEXT COLUMN.

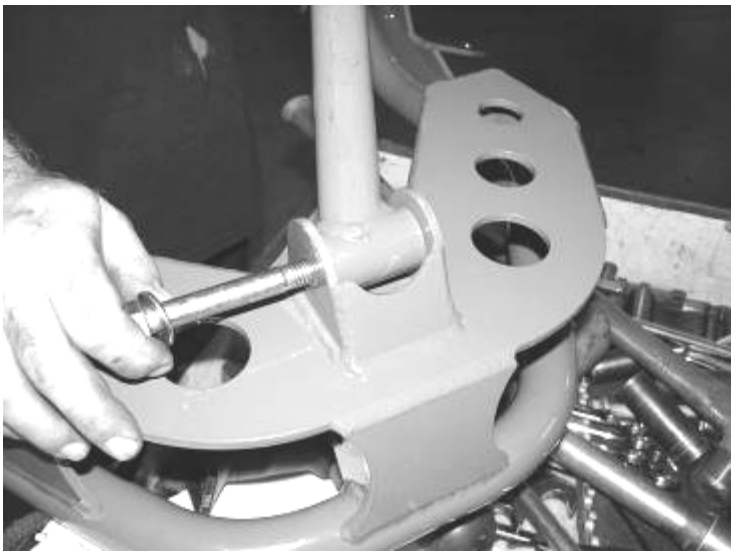


36. Locate the rear tab on the shock hoop at the frame. Using a drill with a ½" drill bit, drill through the frame. Locate FT20271 Nut Tab and supplied 1¼" bolt and flat washer. Place the nut tab into slot in the frame just behind the hoop tab and install (with provided thread-locking compound) the ½" hardware and tighten. SEE PHOTOS BELOW.

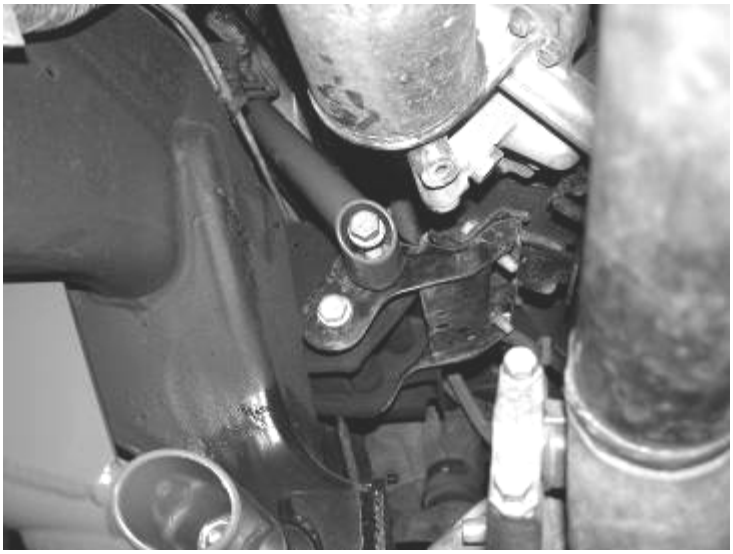
37. Pushing on the top of the hoop, mate the upper mounting tabs to the top of the upper control arm pocket and mark the holes. Locate the support tube mount on the back of the hoop. Use a paint pen to mark the center of the mount onto the wheel well. Remove the hoop from the truck. Using an angle drill with a 3/8"bit, drill the holes on the a-arm pockets. Mark the wheel well so that there will be a 4 ½" wide, 3" tall section to be removed from the liner. This needs to be centered with the tabs on the back of the hoop. SEE PHOTOS BELOW AND IN NEXT COLUMN.

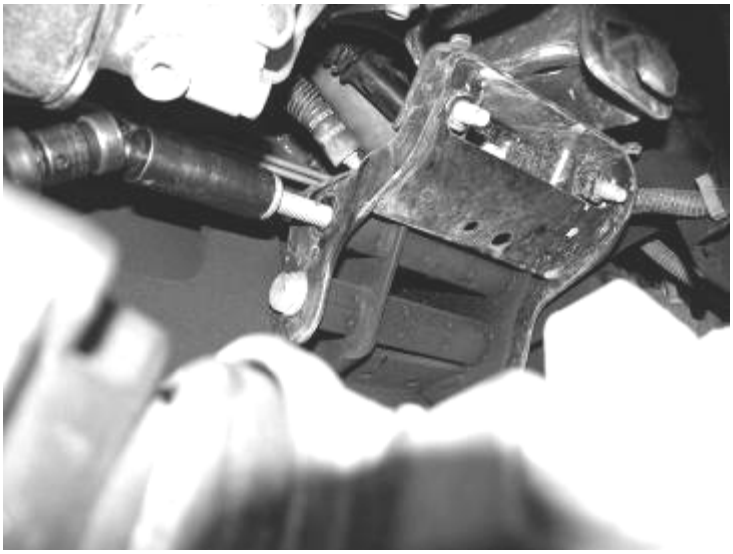


38. Locate FT20262BK Driver Hoop Support Tube (**STRAIGHT ONE**) and the supplied ½" x 3 ¼" bolt and hardware. Position the support tube as shown in photo below in the hoop. Install the bolt in from the back of the hoop toward the front and torque to 75 lbs. Re-install the hoop as in step 35. SEE PHOTOS BELOW AND ON NEXT PAGE.



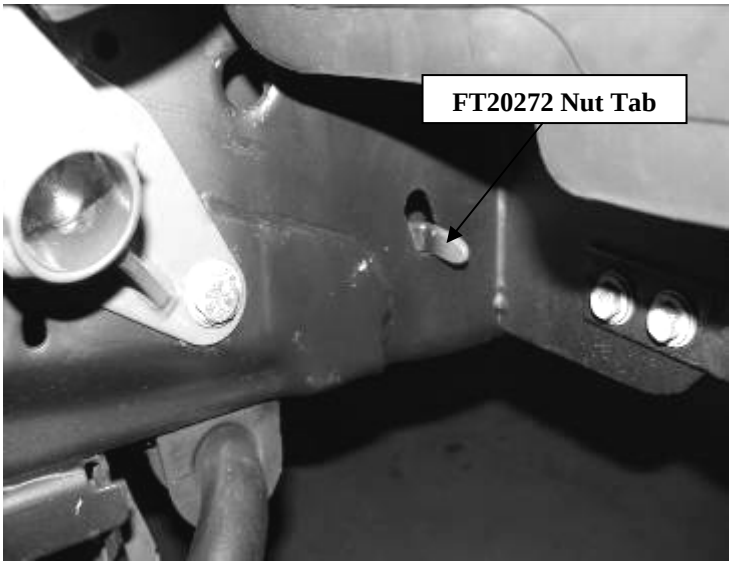
39. Locate the upper bolt on for the motor mount. Remove the bolt and position the Support Tube to the motor mount and re-install the bolt. Torque to 80 SEE PHOTOS BELOW.





40. Repeat steps thirty-two through thirty-nine on the passenger side. The passenger side rear lower control arm pocket must be trimmed to fit the rear leg of the shock hoop. Locate the front tab on the shock hoop at the frame. Using a drill with a ½" drill bit, drill through the frame. Locate FT20272 Nut Tab and supplied 1¼" bolt and flat washer. Place the nut tab into slot in the frame just in front of the hoop tab and install the ½" hardware (with provided thread-locking compound) and tighten SEE PHOTOS BELOW.

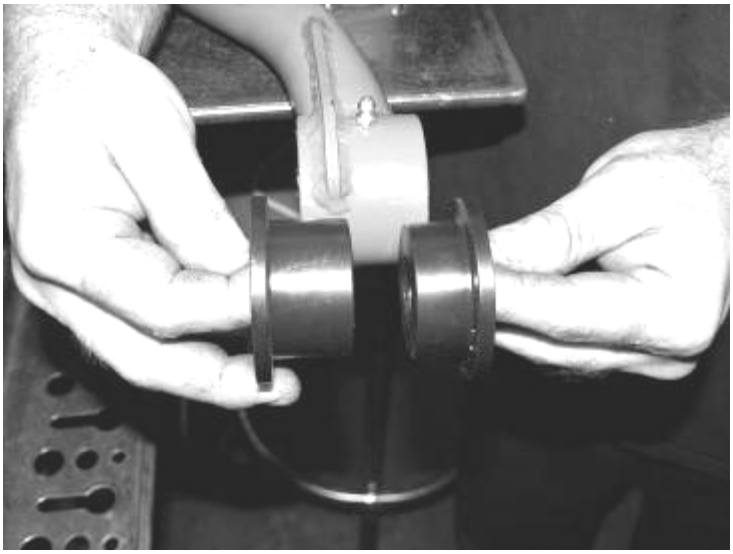
passenger side rear lower control arm pocket

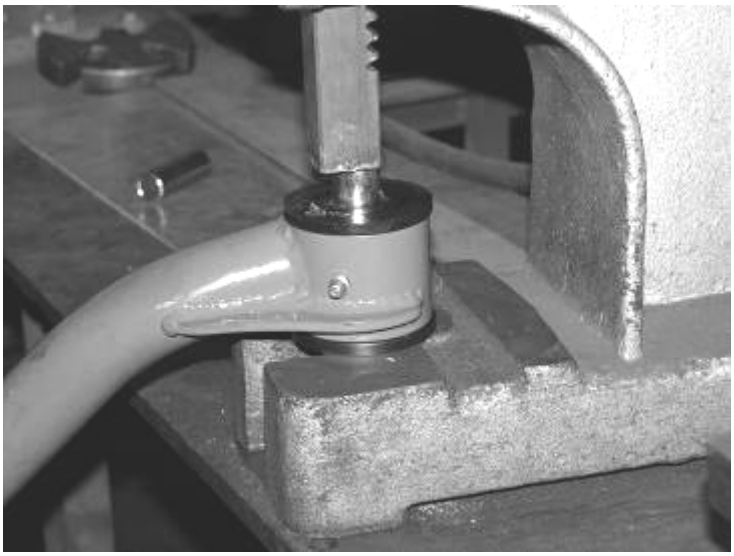


Lower A-arm shown for photo only

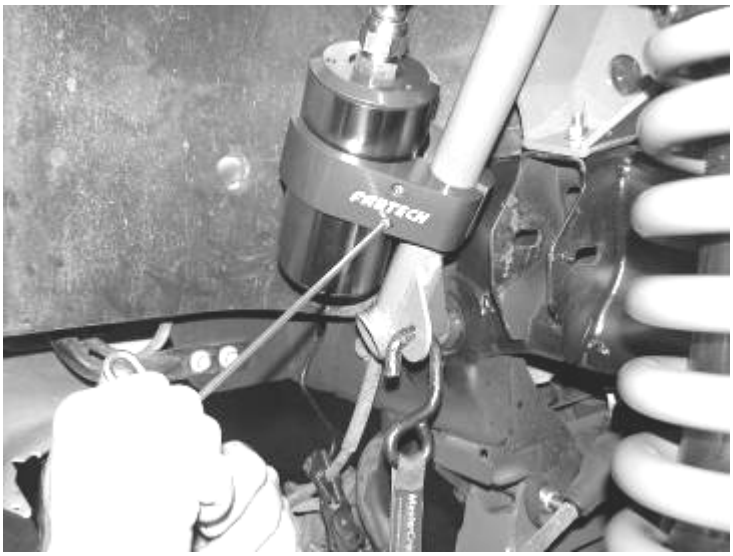
41. Using a drill with a ½" bit, drill the two holes for the bumpstop bracket into the rear of the crossmember. Locate the supplied ½" x 1 ¼" bolts with the hardware and install. Torque the ½" bolts to 75 ft. lbs and remove the 5/8" hardware and save for installation of the lower control arms. SEE PHOTO IN NEXT COLUMN.

42. Locate FT20451BK 6" or FT20434BK 8" (driver) and FT20452BK 6" or FT20435BK 8" (passenger) Upper Control Arms. Next locate the FT1001, FT1002 Bushings. Install the supplied grease fittings into each barrel on the arms. Place a small amount of grease into each of the barrels on the arms. Using an Arbor press, press the short bushing in the outside of barrel and large bushing on the inside of barrel. Place more of the grease onto the FT1500-6-101 sleeves and use the Arbor press to install into each set of bushings. SEE PHOTOS BELOW AND IN NEXT COLUMN.

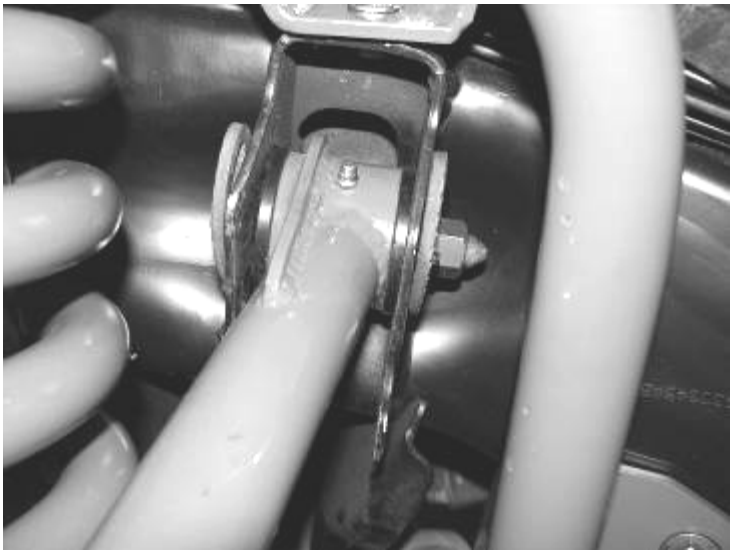




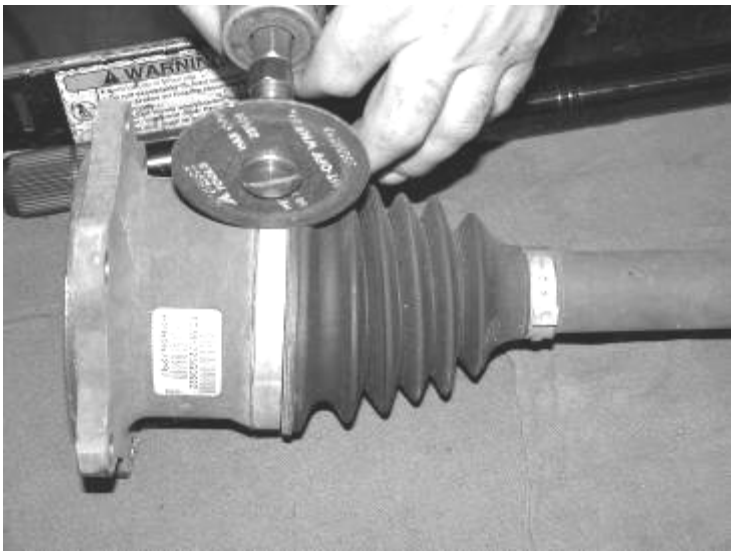
43. Locate FT83507D and FT83507P 4.0 Smooth body shocks and supplied 5/8”x3 ½” hardware. Position the shock with the supplied mis-alignments up into the hoop and install the 5/8” bolt with hardware. Leave loose. Position the supplied Resi Clamp on the hoop and reservoir and tighten. DO NOT INSTALL THE LOWER SHOCK BOLT AT THIS TIME. SEE PHOTOS IN NEXT COLUMN.

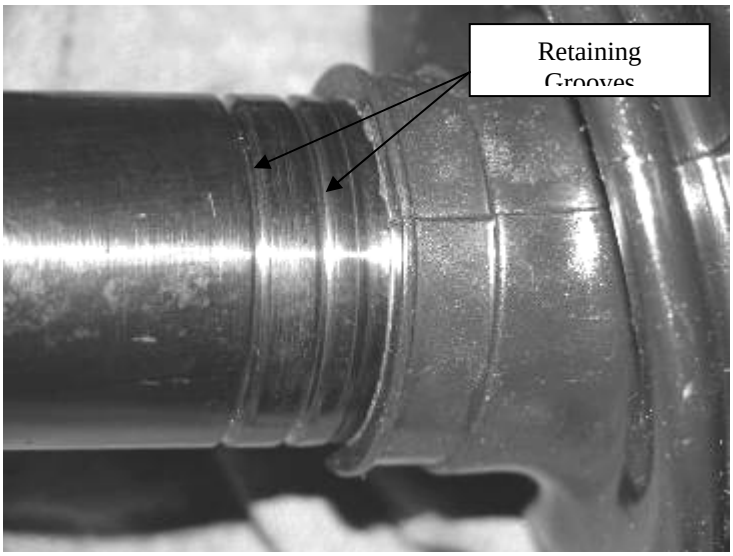


44. Locate the factory upper control arm bolts and alignment cams. Position the assembled upper control arms into the mounts on the frame and install the bolts and cams. Set eccentric cams in the center position of the slots. Rotate the lower control arm up and install the lower 5/8” shock bolt. The lower shock bolt needs to be installed from the front of the mount for proper clearance of the bolt to the CV boot. SEE PHOTOS ON NEXT PAGE.

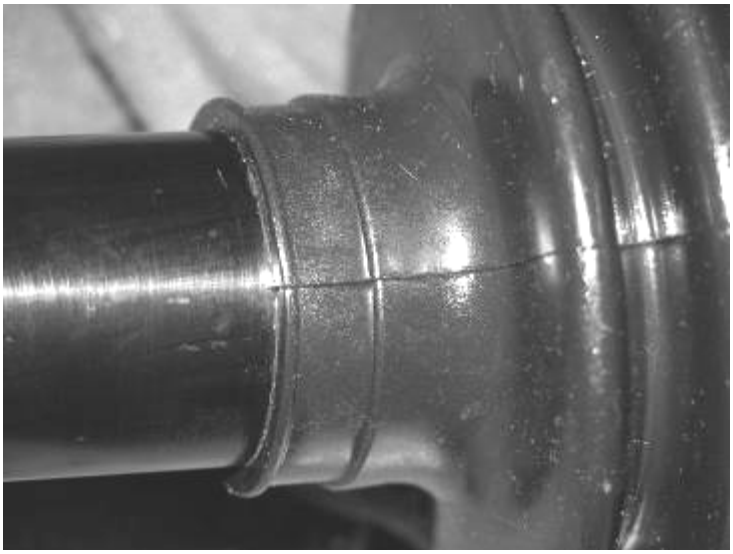


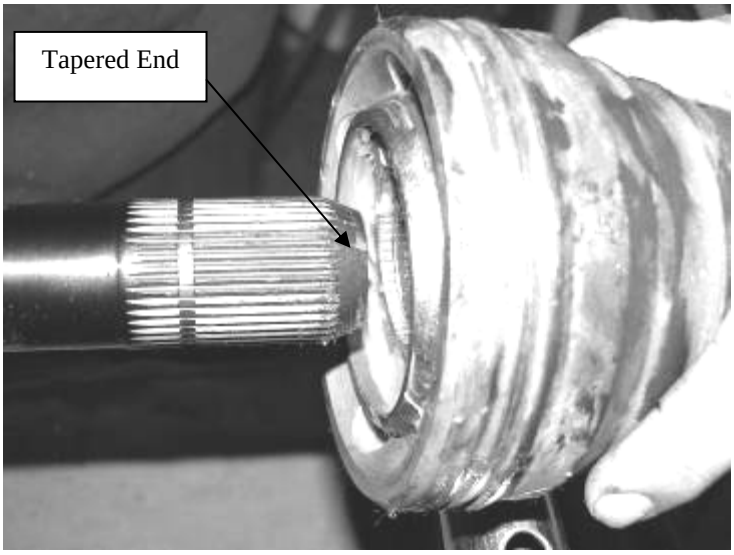
45. Locate the factory C.V. axles. Using a die grinder with a cut off wheel, cut the factory clamps from the boots. Separate the CV Axle housing from the CV and boot. Using snap ring pliers, locate and remove the Snap/Spacer ring on the end of the halfshaft. Remove the CV Joint Spider Assembly and the CV Boot. Pull the Outer CV boot back from the CV and locate the Race Retaining Ring **(it may be necessary to wipe away some of the grease from the CV, do not remove more than required).** Using a snap ring tool, spread the retaining ring just enough to pull the halfshaft from the CV. **DO NOT REMOVE** the retaining ring from the CV. Discard **ONLY** the halfshaft and the CV boots and clamps, **SAVE ALL THE OTHER COMPONENTS FOR REASSEMBLY**. SEE PHOTOS IN NEXT COLUMN AND PAGE.

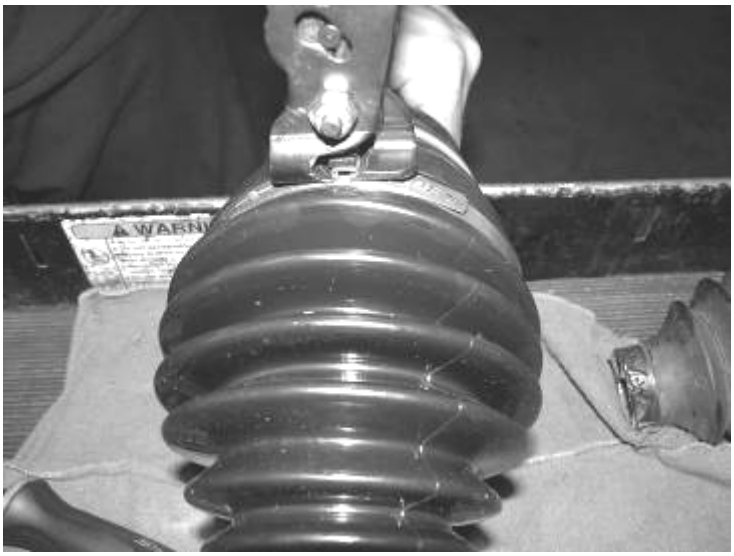


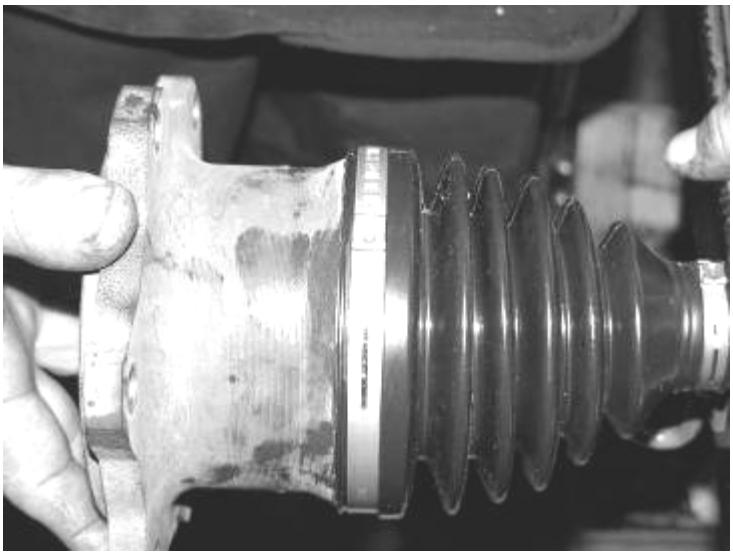


46. Locate FT20279 Long Axle, FT20328 Inner Boot Kit, and FT20329 Outer Boot Kit. Install the tapered end of the long axle into the outer CV. Lightly pull on the axle to ensure the axle is properly engaged in the CV and secured by the retaining ring. Install the outer CV boot over the opposite end of the axle and position it so the inner part of the boot is seated into the boot retaining grooves on the axle. Install the small CV boot clamp using a CV boot clamp pliers (Ear Type). Pack the CV boot and CV assembly with the supplied grease tube. Install the large CV boot clamp and install with the CV joint boot pliers. SEE PHOTOS IN NEXT COLUMN AND PAGE.

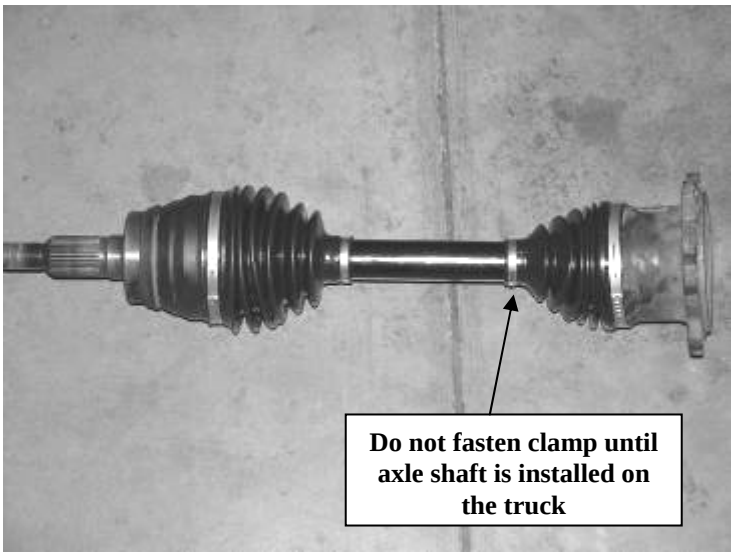




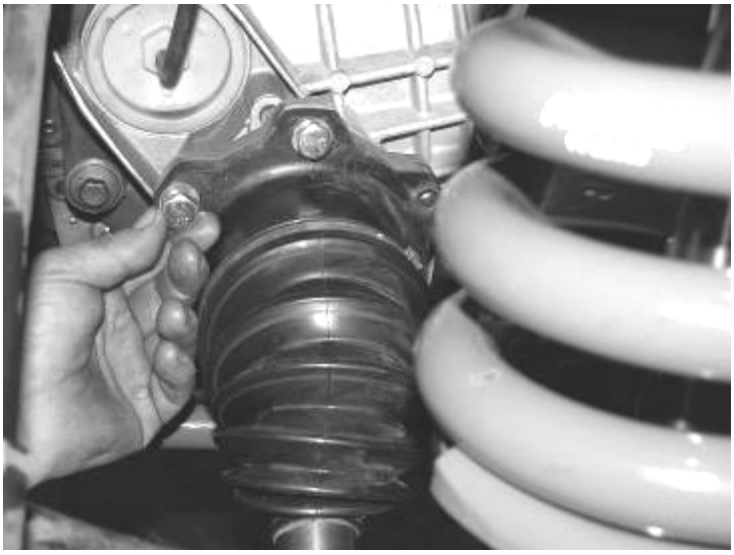




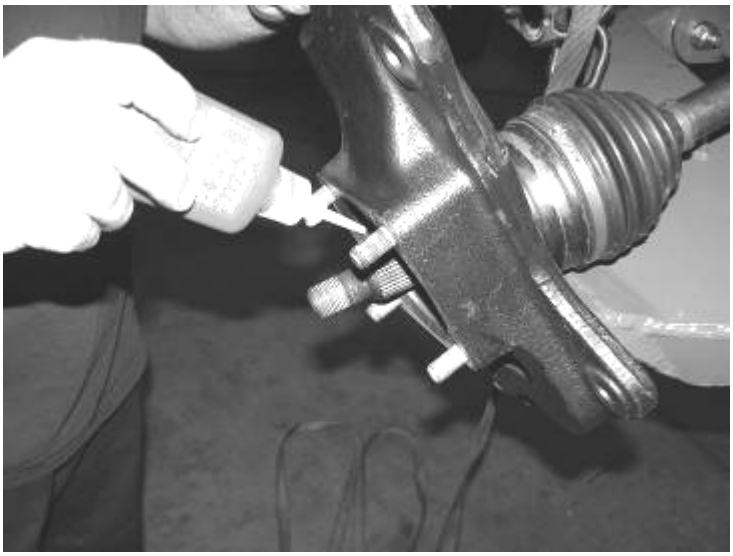
47. Install the small inner boot clamp, then the boot onto the long axle (do not clamp at this time). Locate the CV spider assembly and snap ring and install onto the axle. Position the boot on the axle so the boot is seated into the boot retaining rings on the axle. Pack the CV boot and CV assembly with the supplied grease tube. Install the large CV boot clamp and install with the CV joint boot pliers. **DO NOT FASTEN INNER CLAMP AT THIS TIME**. SEE PHOTOS BELOW AND NEXT PAGE.



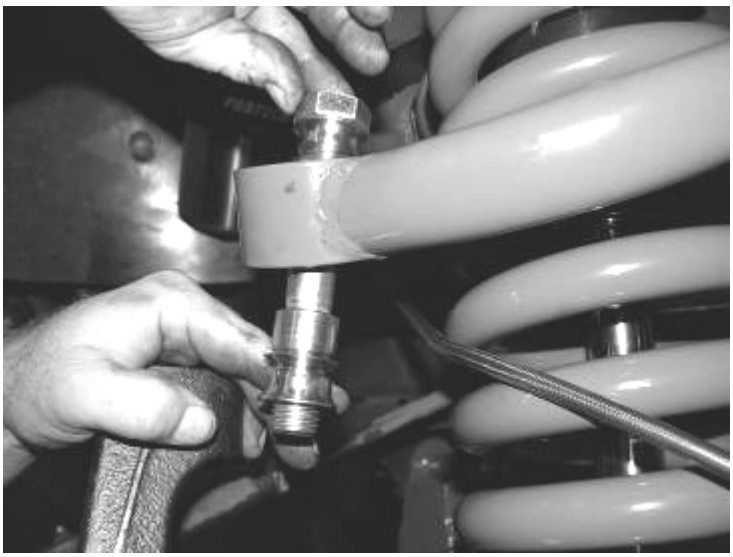
48. Working from the drivers side, install the assembled C.V. axle to the differential housing using 10mm x 25 mm bolts and washers with the provided thread lock compound and torque to 55 lbs. in a cross pattern. **USE CARE NOT TO OVER EXTEND THE CV BOOTS ON THE AXLES.** SEE PHOTO BELOW.



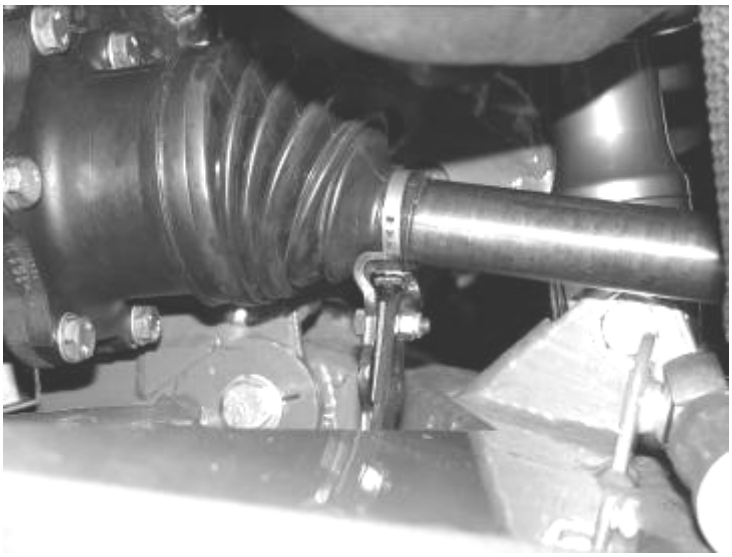
49. Locate FTS20246D Spindle and the supplied lower ball joint hardware. Position the C.V. axle through the spindle and install the spindle to the lower ball joint. Install the stock hub bearing assembly taking care to place O ring in the proper position. **USE CARE NOT TO OVER EXTEND THE CV BOOTS ON THE AXLES.** Apply thread lock compound to the stock hardware torque the flange bolts to 130lbs. SEE PHOTO BELOW.



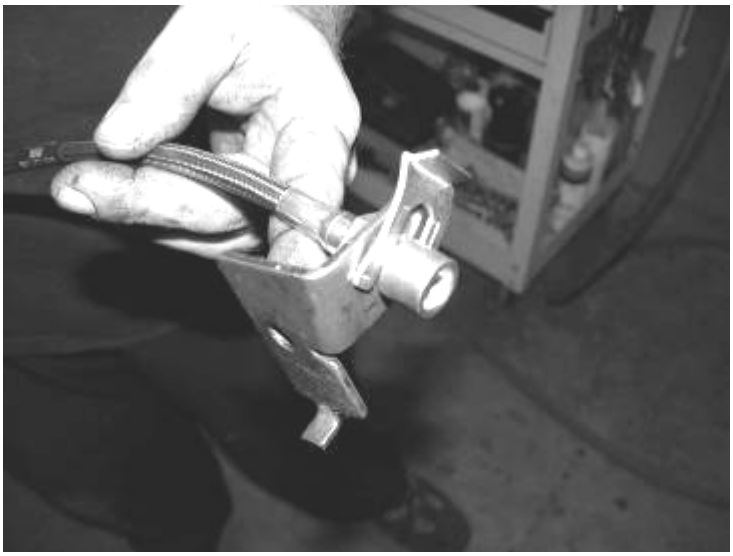
50. Locate FT20330 Uni-Ball Nut Tab, FT147 Spindle Mis-Alignment, and the supplied ¾" x 5" bolt. Place the mis-alignments into the uni-ball and insert the ¾" bolt from the top of the uni-ball through the spindle with the nut tab on the back of the spindle **(it will be necessary to use a floor jack to raise the lower arm to connect the upper arm to the spindle. Use care not to raise the truck off of the jack stands)**. Torque to 125 ft. lbs. Install and torque axle nut to 150 lbs and install hub cover plate... SEE PHOTO BELOW.



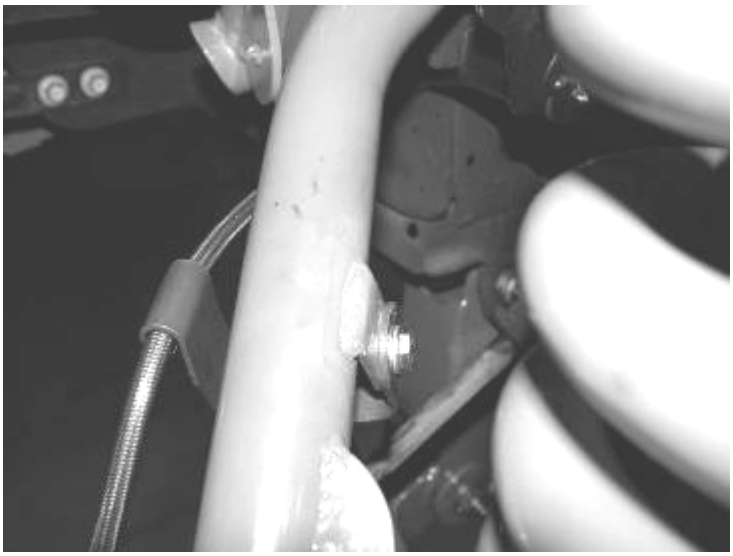
51. Carefully pull the Inner CV Boot over and past the retaining rings on the axle. Then push the boot back so that the boot is properly located back in the retaining rings. Fasten the clamp using a CV boot clamp pliers. SEE PHOTO ON NEXT PAGE.

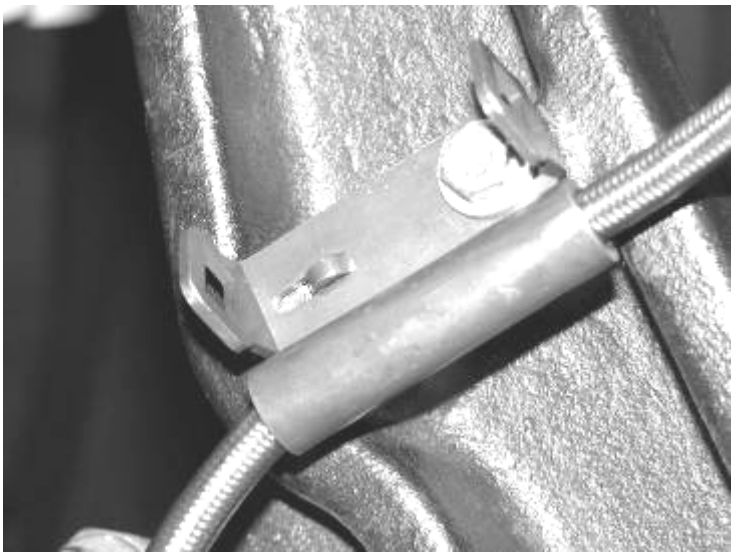


52. Disconnect the factory brake line with bracket from the frame. Disconnect hard line from the brake hose. Remove the clip that attaches the hose to the bracket. Save the factory hardware. Locate FT20394 Brake hose. Insert the new hose into the factory bracket and attach with the factory clip. Connect the hose with the bracket to the hard line and tighten. Use the factory bolt to attach the bracket to frame in the stock location. Disconnect factory hose from the caliper and discard. Connect the new hose to the caliper with the factory banjo bolt and new supplied crush sleeves. SEE PHOTO BELOW AND NEXT COLUMN.

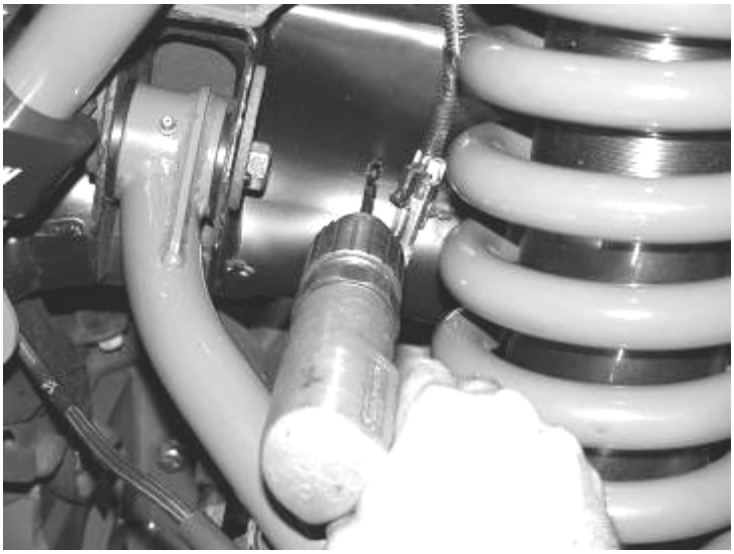


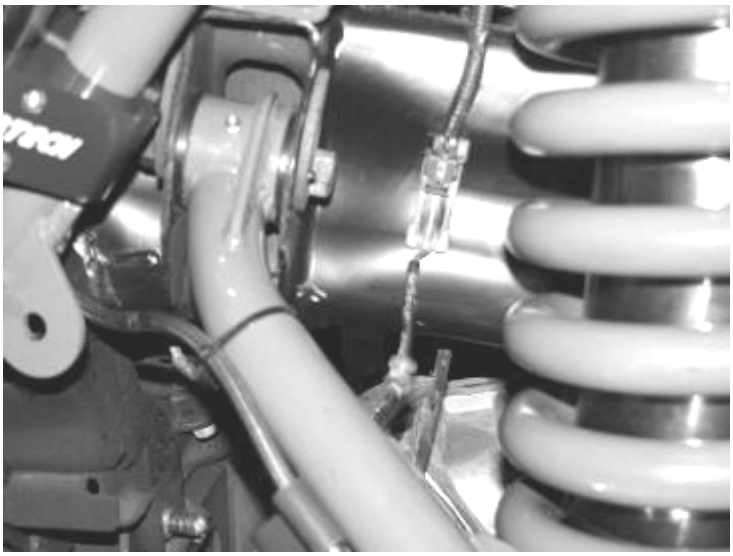
53. Route the brake hose to the steering knuckle using the factory steel guide clamp to the back side of the steering knuckle and to the control arm bracket with supplied ¼” x 1” bolts, nuts and washers. Torque to 5lbs. SEE PHOTOS BELOW AND ON NEXT PAGE.





54. Route the A.B.S. wire with the new brake line and re-connect it to the loose end in the wheel well. Using a drill with a ¼" drill bit, drill a hole into the frame just inside of the front pivot for the upper A-arm. Push the plastic tang on the connector into the new hole. Check to make sure that the brake hose and ABS line is routed as to allow full turning radius to the steering without tire or suspension component contact. Use provided plastic zip ties to secure line and hose to the upper control arm and knuckle away from the tire and wheel. SEE PHOTOS BELOW AND IN NEXT COLUMN.





55. Torque the crossmember frame pocket bolts to 105lbs, Control arm bolts to 105lbs and crossmember tab bolts to 25lbs. Torque the remaining ½" hardware to 75 lbs. and 5/8" hardware to 105 lbs. Recheck all bolts on the front end for proper torque.

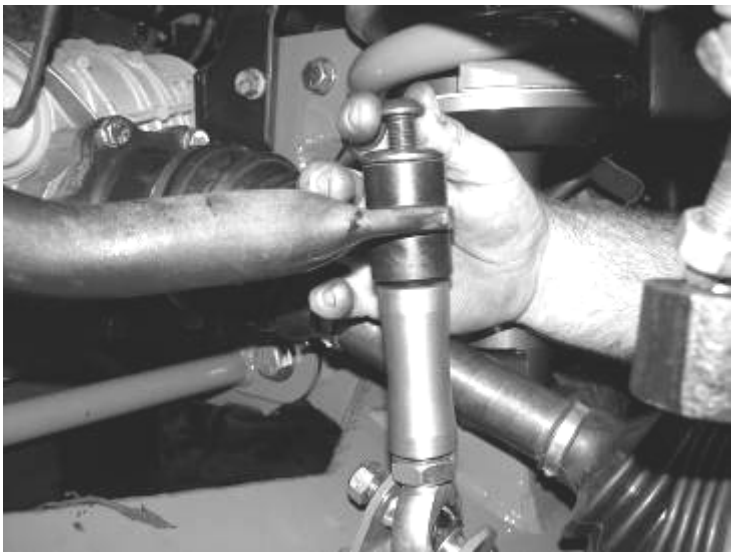
56. Repeat steps fifty-three through sixty on the passenger side of truck.

57. Locate and install FT20211 Heavy Duty Tie Rod ends and install per the instructions included within that kit.

58. On some models, the exhaust pipe will have to be rerouted around the front driveshaft to allow the reattachment of the driveshaft to the differential yoke. A local muffler shop can perform the rerouting after the pipe has been cut to allow the driveshaft to be bolted in place. Attach the front yoke using the stock hardware and torque u joint straps to 19lbs. Do not drive vehicle with driveshaft removed as oil will leak and cause damage.

59. Remove the sway bar from the frame and turn upside down and reattach using the stock bushings and hardware. Torque U strap bolts to 25lbs.

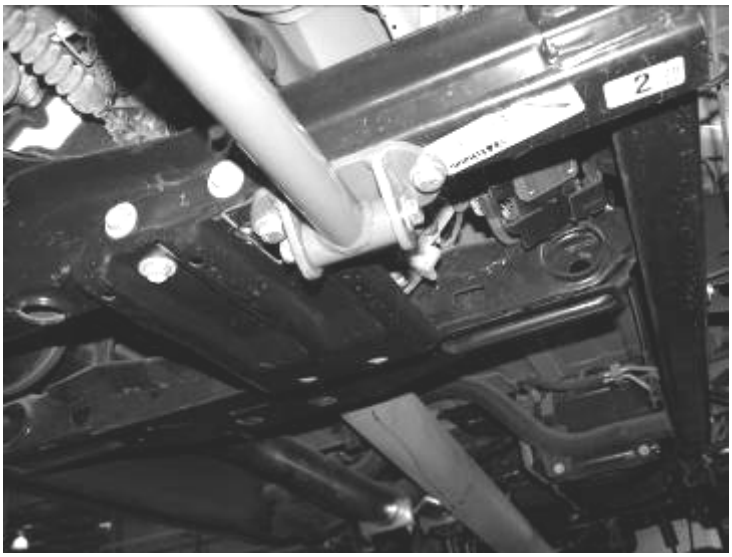
60. Locate both FT20274 billet sway bar end links and both of the supplied FTS98003 ¾" heim joints along with the supplied jam nuts. Thread the jam nuts all the away onto the heim joints, then thread the heim joints into the large end of the end links. Leave the jam nuts loose at this time. Locate the supplied ½" button head bolts and the sway bar bushing along with the cup washers. Attach the bushing end of the sway bar end links to the sway bar, leave loose at this time. Attach the other end of the link to the lower control arm using the supplied FTS43 mis-alignments and supplied ½" x 3" hardware. Torque upper and lower hardware to 60 ft. lbs. SEE PHOTO ON NEXT PAGE.

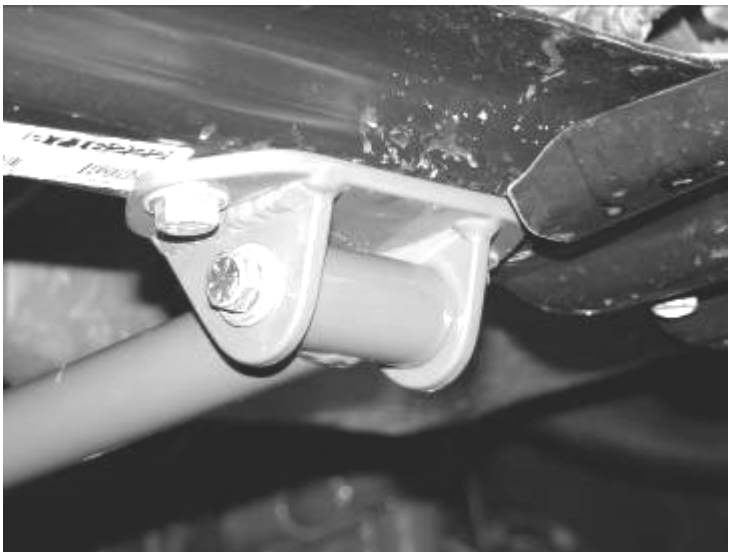


61. Locate and install FT20316 Impact Strut bars into the tabs on the back side of the lower control arm crossmember using the supplied 7/16" x 3-1/2" bolts, nuts and washers. Leave loose. When attaching the impact tube to the crossmember the end of the impact tube with the angle barrel will attach to the crossmember so the impact tube will angle inboard of the truck.

62. Locate and attach the FT 20273 Impact Strut Mount to the other end of the strut with 7/16" x 3-1/2" bolts, nuts and washers, leave loose.

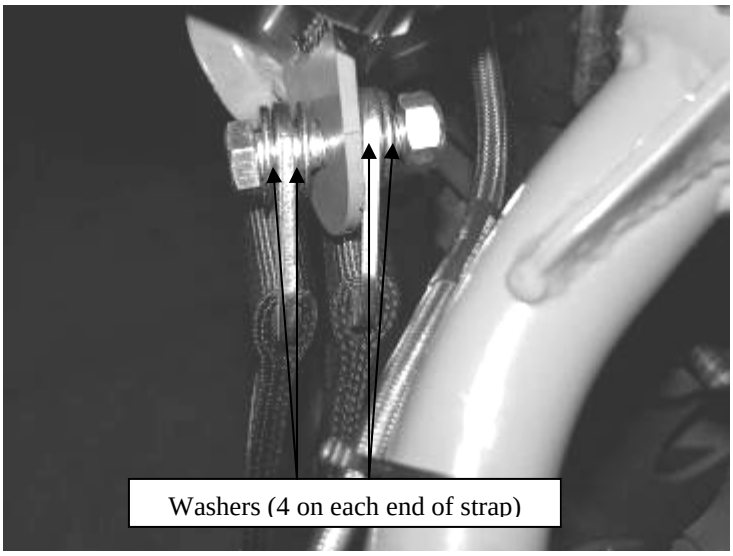
63. Swing the mount up to the bottom of the crossmember, mark and drill holes to 7/16" Diameter. Note- Some models may require cutting of the transfer case skid plate to allow the strut mount to become flush with the bottom of the crossmember. Locate FT20067 nut tab bracket and insert into the side of the crossmember and thread 7/16" x 1-1/4" bolts and washers though the impact mount into the tab nut bracket. Torque mounting bolts and bushing pivot bolts to 30LBS. SEE PHOTOS BELOW AND IN NEXT COLUMN.





64. 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 tires may require trimming of the front plastic bumper valance.

65. Locate FT90078 18" Front Limit Straps and the supplied ½" x 1 ½" bolts, C-lock nuts and 16 flat washers. Place a washer onto the bolt followed by the strap and then another washer. Then place the bolt through the upper limit strap mount on the hoop. Place another washer on the bolt, then the other strap **(2 limit straps per side in the front)** and washer with the nut. Leave loose. There must be a washer on each side of the strap for clearance of the strap and the mounting tabs. Follow the same procedure for the bottom of the strap on the lower control arm mount. Torque to 75 lbs. SEE PHOTOS BELOW AND ON NEXT PAGE.



66. Recheck all bolts for proper torque. Recheck brake hoses and lines for proper clearances.

67. Check the fluid in the front differential and fill if need with factory specification differential oil. Grease upper control arm grease fittings and ball joints.

68. Install tires and wheels and torque lug nuts to wheel manufacturers 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.

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

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

For technical assistance call: 909-597-7800

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. 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.

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, powdercoating, 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 in the catalog, but due to unknown auto manufacturers 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 catalog 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'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 in our current catalog. 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.

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.

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.

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