



# **INSTALLATION INSTRUCTIONS**

**2017 FORD F250/350 4WD  
6" RADIUS ARM SYSTEM**

**FTS22220**

## - PARTS LIST -

<b>FTS22024BK 6" FORD F250/350 FRONT COILS</b>		
2	FT30123BK	6" FRONT COIL

<b>FTS22250 6" FORD F250/350 FRONT GAS COILS</b>		
2	FT30732	6" FRONT COIL

<b>FTS22220 6" RADIUS ARM SYSTEM</b>		
1	FT30122	PITMAN ARM
2	FT30654	6" BUMP STOP EXT
1	FT30125BK	RADIUS ARM (DRIVER)
1	FT30126BK	RADIUS ARM (PASS)
1	FT30724	TRAC BAR DROP BRACKET
1	FT30668	HARDWARE KIT
1	FT30675	HARDWARE SUBASSEMBLY
1	FT30672	STEERING STABILIZER BRACKET
1	FT30686	STEERING STABILIZER CLEVIS MOUNT
1	FT30630	SWAY BAR DROP (DRIVER)
1	FT30629	SWAY BAR DROP (PASSENGER)

<b>FTS22219 6" REAR BOX KIT</b>		
4	FT742U	U-BOLT RD 5/8-18 X 18.00 X 3.50
1	FTBK54D	BLOCK (DRIVER)
1	FTBK54P	BLOCK (PASSENGER)
1	FT58H	5/8" U-BOLT HARDWARE KIT

<b>K2217 6" BASIC SYSTEM W/PERFORMANCE SHOCKS</b>		
1	FTS22220	6" BASIC SYSTEM BOX
1	FTS22219	6" REAR BOX KIT
2	FTS7188	PERFORMANCE SHOCK (FRONT)
2	FTS7266	PERFORMANCE SHOCK (REAR)

<b>K2217M 6" BASIC SYSTEM W/ STEALTH SHOCKS</b>		
1	FTS22220	6" BASIC SYSTEM BOX
1	FTS22219	6" REAR BOX KIT
2	FTS6188	STEALTH MONOTUBE SHOCK (FRONT)
2	FTS6063	STEALTH MONOTUBE SHOCK (REAR)

<b>K2217DL 6" BASIC SYSTEM W/ DLSS SHOCKS</b>		
1	FTS22220	6" BASIC SYSTEM BOX
1	FTS22219	6" REAR BOX KIT
2	FTS810382	2.25 DIRT LOGIC SS N/R (FRONT)
2	FTS810052	2.25 DIRT LOGIC SS N/R (REAR)

<b>FT30675 HARDWARE SUBASSEMBLY</b>		
1	FT22220i	INSTRUCTIONS
1	FT30258	SECTOR SHAFT NUT
2	FT30660	BRAKE LINE TAB
2	FT50290	BUMP STOP NUT TAB
1	FT30604	SPACER
4	FT1006	BUSHING
2	FT102	SLEEVE
1	FT292	ALIGNMENT CAM KIT
1	FTLUBE	URETHANE GREASE
1	FTAS12	STICKER FT BLUE 10X4 DIE CUT
1	FTAS16	DRIVER WARNING DECAL
1	FTREGCARD	REGISTRATION CARD

<b>FT30668 - HARDWARE KIT</b>		<b>LOCATION</b>
8	7/16 SAE WASHER G8 ZINC	SWAY BAR
4	7/16-14 C-LOCK NUT ZINC	
4	7/16-14 X 1 1/4 HEX HD	
2	3/8-16 X 1" HEX BOLT	BRAKE LINE
4	3/8" SAE WASHER	
2	3/8-16 NYLOCK NUT	
2	1/4 SAE WASHER	
1	1/4-20 GR C CROWNLOCK NUT	
1	1/4-20 X 3/4 HEX BOLT G5 ZINC	
2	1/2-13 X 1-1/4 HEX BOLT	BUMP STOP
2	1/2-13 X 1-1/2 HEX BOLT	
6	1/2 SAE WASHER	
2	1/2-13 C-LOCK NUT	
1	COTTER PIN	
1	M12-1.75 X 70MM HEX BOLT	STEERING STABILIZER
2	M12 WASHER	
1	M12-1.75 C-LOCK	
1	9/16-12 NYLOCK NUT	
3	9/16 SAE WASHER	
1	THREAD LOCKING COMPOUND 1 MIL	
1	HOSE CLAMP	

## - TOOL LIST -

### ***Required Tools (Not Included)***

- |  |                   |
|--|-------------------|
| -Basic Hand Tools                                      | -Basic Hand Tools |
| -Assorted Metric and S.A.E sockets, and Allen wrenches | -Floor Jack       |
| -Torque Wrench   | -Jack Stands      |
| -Die Grinder w/ Cutoff Wheel or Sawzall                | -Drill            |
| - 1-1/4" Hole Saw                                      |                   |

## - PRE-INSTALLATION NOTES -

### ***READ THIS BEFORE YOU BEGIN INSTALLATION -***

Check all parts to the parts list above before beginning installation.

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.

This suspension must be installed with Fabtech shock absorbers.

Use the provided thread locking compound on all hardware.

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

Vehicles that receive oversized tires should check ball joints, uniballs, tie rods ends, pitman arm and idler arm every 2500-5000 miles for wear and replace as needed.

Verify differential fluid is at manufactures recommended level prior to kit installation. Installation of the kit will reposition the differential and the fill plug hole may be in a different position. (For example, if the manufacture recommends 3 quarts of fluid, make sure the diff has 3 quarts of fluid). Check your specific manual for correct amount of fluid.

### ***Recommend Tires and Wheels:***

- Use 37/12.50R18 tire w/ 18x9 wheels w/ 4-3/4" BS w/ required fender well trimming
- Use 37/13.50R20 tire w/ 20x9 wheels w/ 5" BS w/ required fender well trimming

### ***FOOTNOTES -***

- NON DUALY MODELS ONLY
- WILL NOT FIT GAS MOTOR VEHICLES
- VEHICLES EQUIPPED WITH 2 PIECE REAR DRIVE SHAFT REQUIRE PART #FTS419
- SOME 2017 MODELS MAY REQUIRE A DUAL STEERING STABILIZER TO ADDRESS STEERING FEEDBACK. ORDER DIRT LOGIC-FTS220512, DIRT LOGIC W/RESI-FTS221162 OR STEALTH-FTS8046
- VEHICLES W/ FACTORY REAR SWAY BAR MUST ORDER EXTENDED SWAY BAR LINK KIT PART NUMBER FTS22276.

# - INSTRUCTIONS -

## FRONT SUSPENSION

1. Disconnect the negative terminal on the battery. 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. Disconnect the sway bar from the sway bar end links and frame. Remove sway bar. Save hardware. **SEE FIGURE 1**



FIGURE 1 - STEP 2

3. Disconnect the brake line from the frame and axle on both driver and passenger sides. Save hardware. **SEE FIGURES 2-3**

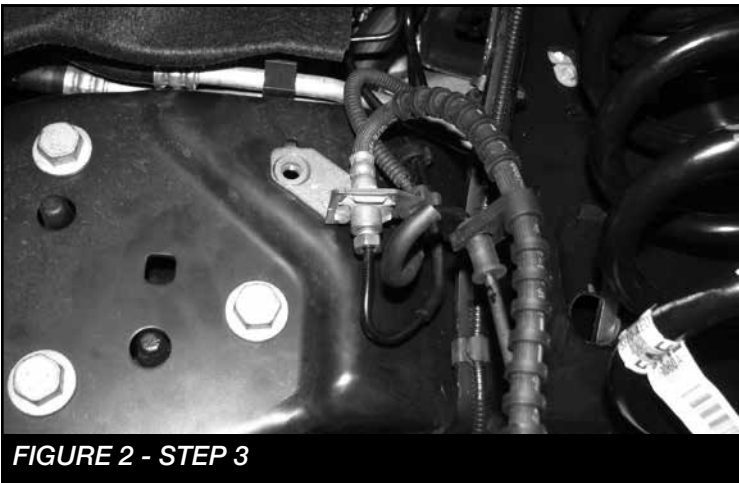


FIGURE 2 - STEP 3



FIGURE 3 - STEP 3

4. Remove the front shocks and discard, save hardware.
5. Lower the front axle allowing the coil springs to come free of tension and remove the coil springs. **EXERCISE EXTREME CAUTION WHEN WORKING WITH COIL SPRINGS UNDER LOAD!**
6. Disconnect the factory steering stabilizer from the frame mount. Remove the steering stabilizer frame bracket. Discard the frame bracket. Save all hardware.
7. Remove the drag link from the pitman arm. **Use care not to damage the threads on the drag link.**
8. Disconnect the trac bar from the frame bracket. Remove the trac bar bracket from the frame, save the original hardware and discard the factory trac bar bracket.
9. Remove the factory pitman arm from the steering box using a large pitman arm puller. Discard hardware and arm.
10. Install FT30122 (Pitman Arm) using the supplied FT30258 (Sector shaft nut). Torque to 350 ft-lbs. **NOTE: This is a one time only use nut. If remove, it must be discarded.**
11. Locate FT30724 (Track Bar Bracket). Attach to the frame using the original hardware in the same position. Torque bolts to 120 ft-lbs. **DO NOT ATTACH THE TRAC BAR TO THE FRAME BRACKET AT THIS TIME. SEE FIGURES 4-5**

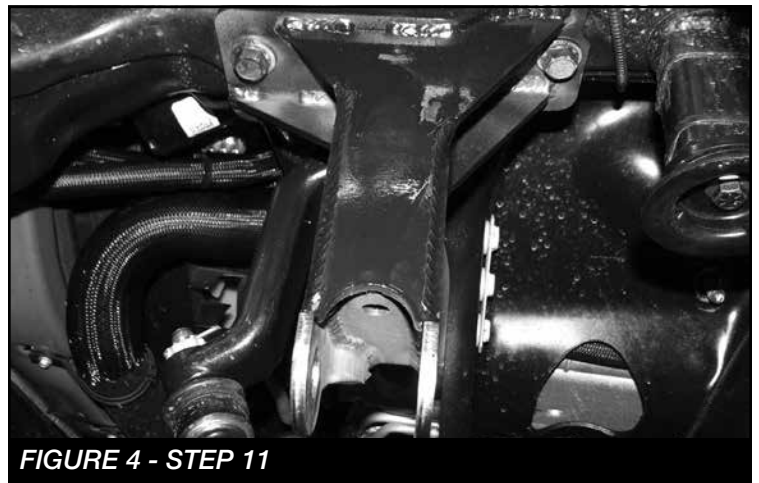


FIGURE 4 - STEP 11

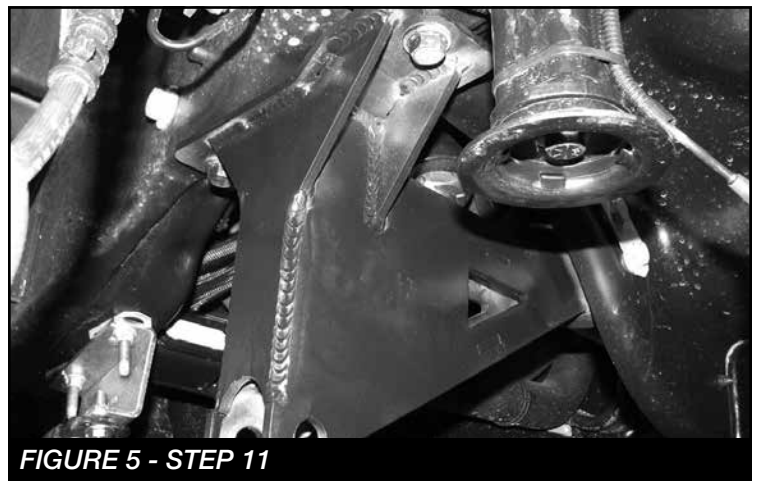
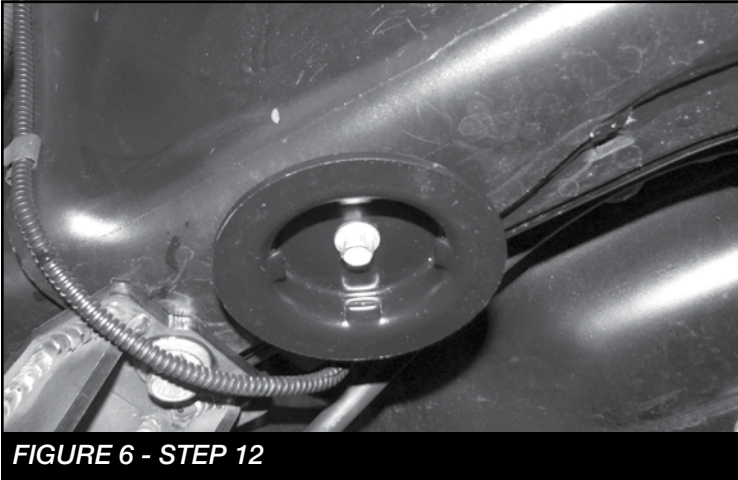


FIGURE 5 - STEP 11

12. Working from both sides of the truck, locate and remove the factory front bump stops and save. Pull on the bump stop itself to free from the cup. Remove the factory mounting cup from the frame and discard the hardware. Drill out the center hole on the factory cup to 1/2". **SEE FIGURES 6-7**

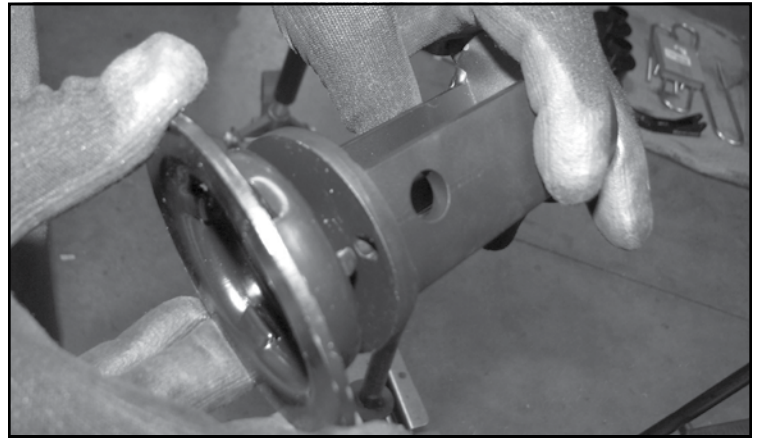


**FIGURE 6 - STEP 12**



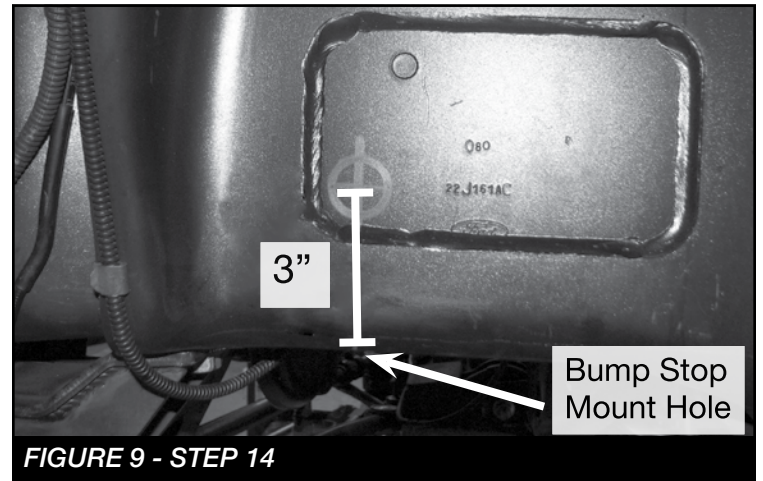
**FIGURE 7 - STEP 12**

13. Install FT30654 (Bump Stop Extension) onto the factory cup using the supplied 1/2" x 1-1/4" hardware and set aside. Torque to 127 ft-lbs. **SEE FIGURE 8**



**FIGURE 8 - STEP 13**

14. Locate the factory bump stop mounting hole. Measure 3" straight up from the bottom of the frame. Mark and drill a 1-1/4" hole using a hole saw into the frame. **SEE FIGURES 9-10**

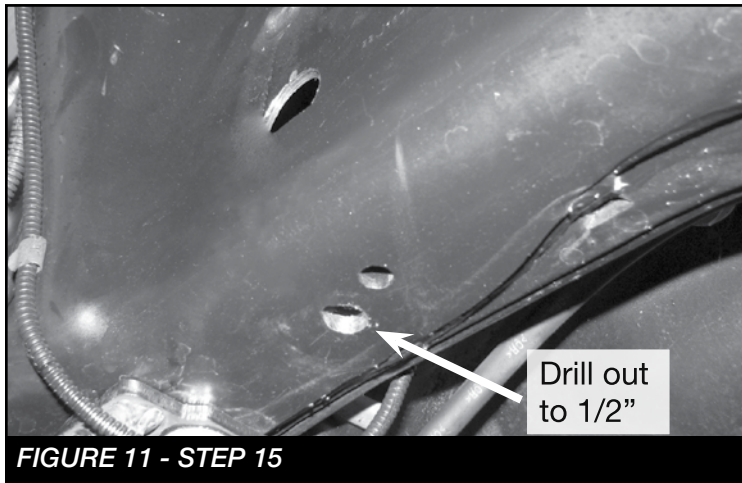


**FIGURE 9 - STEP 14**

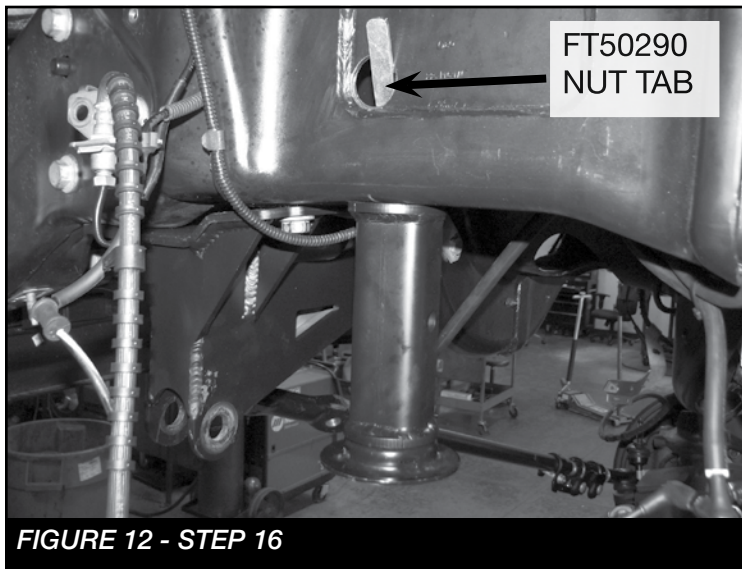


**FIGURE 10 - STEP 14**

15. Drill out the factory bump stop mount hole to 1/2". **SEE FIGURE 11**



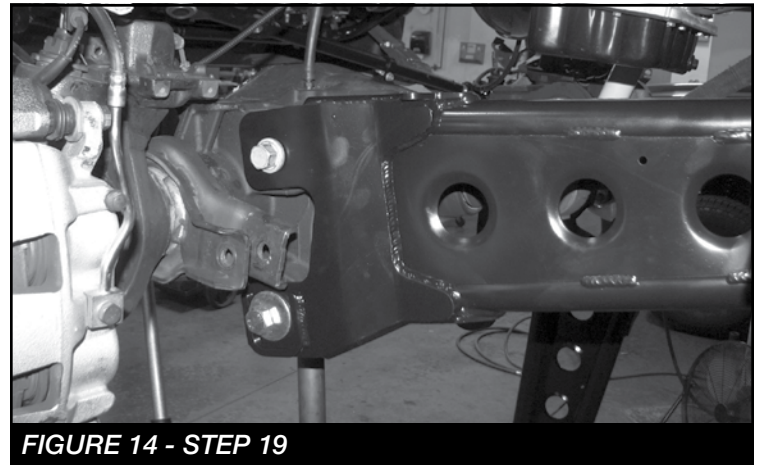
16. Using FT50290 (Nut Tab) and 1/2 X 1-1/2" bolt and washer. Mount the new bump stop extension to the frame. Route the Nut tab through the 1-1/4" hole that was made in Step 11. Torque to 127 ft-lbs. **SEE FIGURE 12**



**REPEAT BUMP STOP INSTALLATION ON PASSENGER SIDE**

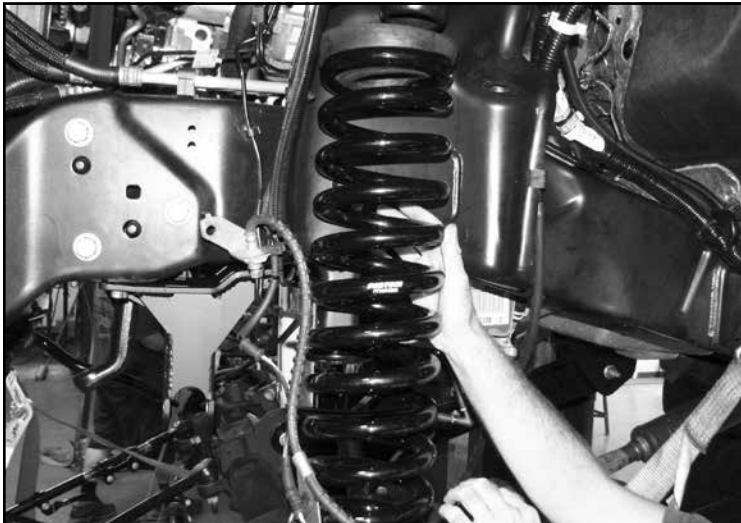
17. With the front axle still supported by the floor jack, remove the Driver side factory radius arm. Save the factory hardware.
18. Install FT1006 (Bushings) & FT102 (Sleeve) into the FT30125BK (Driver Radius Arm) using the supplied Urethane grease.

19. Install the new radius arm using the factory hardware at the frame and upper axle mount. Use the supplied FT292 (Alignment cam kit bolt) at the lower axle location. Torque to 300 ft-lbs. **SEE FIGURES 13-14**



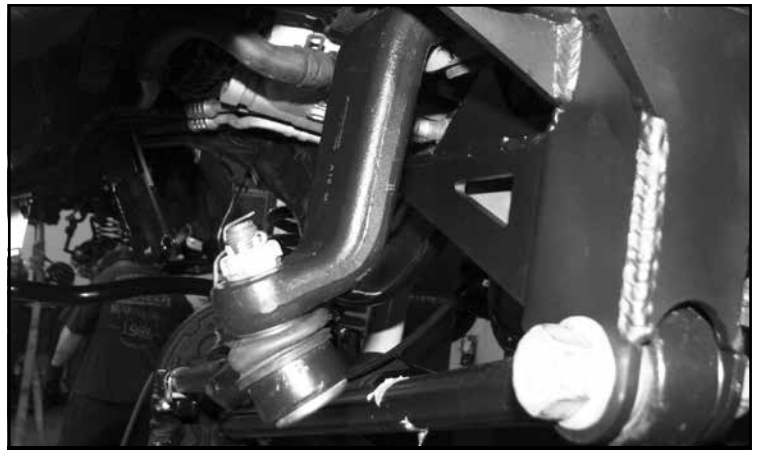
- **REPEAT STEPS 17-19 ON PASSENGER SIDE**
- **IF INSTALLING A COILOVER CONVERSION KIT, DO SO NOW AND SKIP TO STEP 22**

20. Install FT30123BK (Coil Spring) using the factory upper isolator. **SEE FIGURE 15**



**FIGURE 15 - STEP 20**

21. Install the new front shocks FTS7188, FTS6188 or FTS810382 with the supplied bushing kits. Using the factory hardware. **NOTE: Install a supplied 9/16" washer at the lower mount to fill up the gap between the bushing and mount.** Due to vehicle variances the top of the lower shock mount may need to be sanded down to clear the shock body only if installing Stealth shocks. **SEE FIGURE ON LAST PAGE.**
22. Reinstall the track bar to the new frame bracket. Torque to 400 ft-lbs. Install the draglink to the new Fabtech pitman arm using the factory hardware and the new supplied cotter pin. **NOTE: The drag link will need to be rotated 180 degrees and installed from the bottom side of the pitman arm. SEE FIGURE 16**



**FIGURE 16 - STEP 22**

23. **(DRIVER SIDE)** Install FT30660 (Brake line bracket) to the factory brake line tab using the supplied 3/8" hardware. Next, install the bracket to the frame using the factory hardware. Torque hardware to 52 ft-lbs. **SEE FIGURE 17**



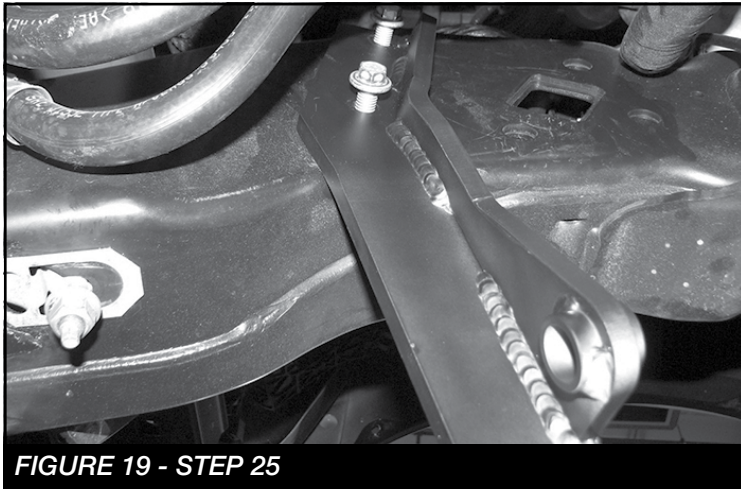
**FIGURE 17 - STEP 23**

24. **(PASSENGER SIDE)** Install FT30660 (Brake line bracket) to the factory brake line tab using the supplied 3/8" hardware (Use lower hole). Next, using the supplied rubber clamp and 1/4" hardware, attach the ABS line to the upper hole on the FT30660 bracket. Re attach to the frame using the factory hardware. Torque 3/8" & factory hardware to 52 ft-lbs. Torque 1/4" hardware to 14 ft-lbs. **SEE FIGURE 18**

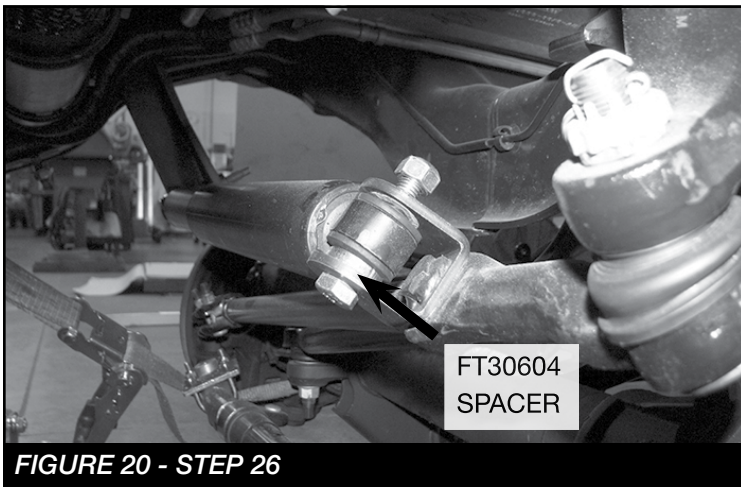


**FIGURE 18 - STEP 24**

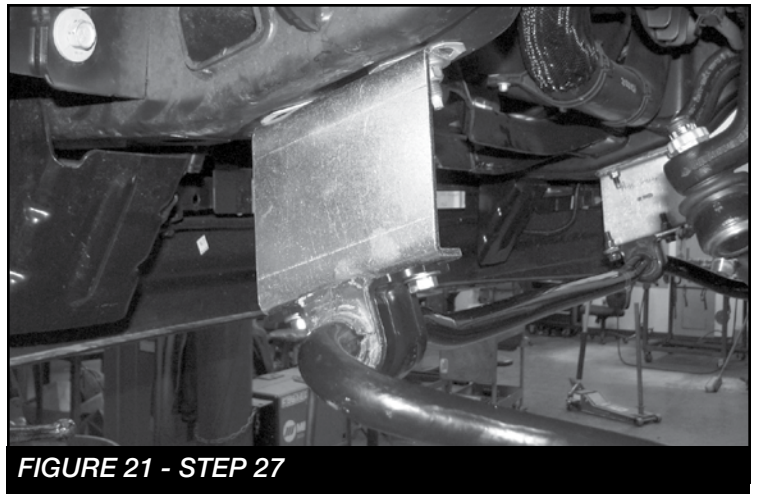
25. Install FT30672 (steering stabilizer drop bracket) in the factory location using the factory hardware. Torque to 127 ft-lbs. **SEE FIGURE 19**



26. Install FT30686 (Stabilizer Clevis) on the factory steering stabilizer using the supplied M12 hardware. **NOTE: Install FT30604 (spacer) like shown in the figure below.** Install the stabilizer using the supplied 9/16" washer and nut to the drag link. Using the factory hardware install the tapered end into the new Fabtech bracket. Torque to 127 ft-lbs. **SEE FIGURE 20**



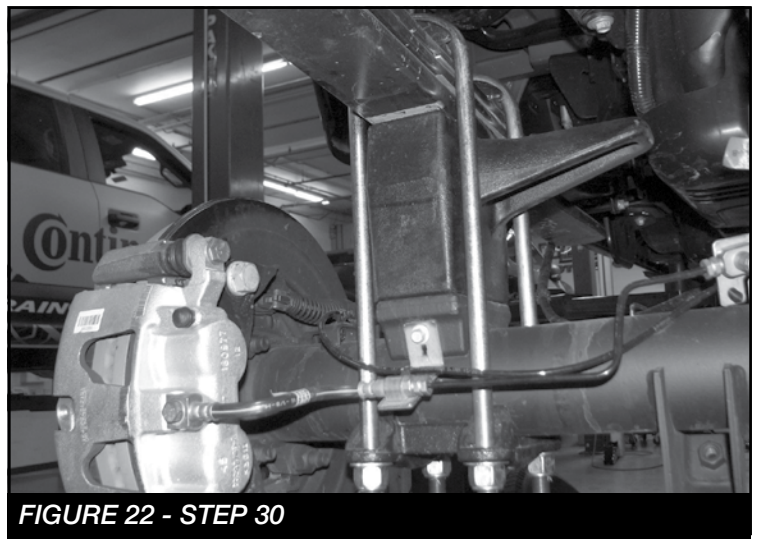
27. Install FT30630 (Driver) & FT30629 (Passenger) Sway bar drop brackets using the factory hardware. Reinstall the front sway bar to the end links using the supplied 7/16" hardware torque all hardware to 83 ft-lbs. Reconnect the sway bar to the end links. Torque to 52 ft-lbs **SEE FIGURE 21**



28. Install the lower brake line bracket to the lower spring perch using the factory hardware. Torque to 29 ft-lbs.
29. Install the front tires and wheels. Torque lug nuts to wheel manufacturer's specifications.

### REAR SUSPENSION

30. Locate and install the rear lift blocks FTBK54D & P. The factory block will need to be removed. The short end of the blocks should face to the front of the vehicle. Using the supplied u-bolts, nuts and washers align axle, lift blocks and springs and torque to U-Bolts to 170 ft-lbs. **SEE FIGURE 22**





31. Install the new rear shocks FTS7266, FTS6063 or DL FTS810052 using the factory hardware, torque to 90 ft-lbs.
32. 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.**
33. Check front end alignment and set to factory specifications. Readjust headlights.
34. Recheck all bolts for proper torque.
35. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.
36. 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.**
37. 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, uniballs and all steering components every 2500-5000 miles for wear and replace as required.**

**RE-TORQUE ALL NUTS, BOLTS AND LUGS  
AFTER 50 MILES AND PERIODICALLY  
THEREAFTER.**

