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**Latest Revision:**  
**8.24.21**



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## **PRO COMP SUSPENSION**

***IMPORTANT!:*** Vehicles equipped with lane departure and camera systems ***MUST*** be aligned by a Ford Dealership equipped with advanced alignment equipment. Alignment of the steering wheel is tied into these systems and programmed at a specific height. After the vehicle is lifted, driving and/or turning may cause the warning lights on the dash to illuminate if these systems are not properly calibrated..

**52896B**  
**K4214B/ BP/ T/ M**  
**2017 & Up Ford Super Duty 4WD F250/F350 Diesel**  
**8" 4-Link Lift Kit**

This document contains very important information that includes warranty information and instructions for resolving problems you may encounter. Please keep it in the vehicle as a permanent record.

## Box 1 of 6-PN 52891B-1

Part #	Description	Qty.	Illus.	Page
91-11620	TRACK BAR DROP BRACKET	1	3	9
90-6918	HARDWARE PACK: Cam Plates	1	-	-
90-9295	Cam Plate	2	3	9
90-6772	HARDWARE PACK: Track Bar Drop	1	-	-
56C300HCS8Y	9/16" X 3" HEX BOLT GR. 8	2	3	9
56C150HCS8Y	9/16" X 1 1/2" HEX BOLT GR. 8	1	3	9
56CNUCZ	9/16" STOVER NUT GR. C	3	3	9
56NWHDY/SAE	9/16" HARDENED FLAT WASHER	6	3	9
91-11714	SWAY BAR DROP BRACKET Drvr	1	12a	17
91-11717	SWAY BAR DROP BRACKET: Pass	1	12a	17
90-60727	HARDWARE PACK: Front Driveshaft	1	-	-
.12C40BFL/12PT	12mm-1.75 X 40mm FLANGE BOLT	4	-	-
.12CNNLZ/DIN985-CL10	12mm-1.75 NYLOCK NUT	4	-	-
.12RWFLZ/HV300-125-A	12mm FLAT WASHER	8	-	-
13-90540	U-BOLT: 5/8"-18 X 3.185 X 16.25": F250	4	13	20
13-90560	U-BOLT: 5/8"-18 X 3.185 X 18.625": F350	4	13	20
20-65471	HARDWARE PACK: 5/8" Hi nuts and Washers	1	13	20
95-556SD	5.5" REAR LIFT BLOCK: Drvr	1	13	20
95-557SD	5.5" REAR LIFT BLOCK: Pass	1	11	18
31-40768	DEGREE SHIM: 2 3/4" X 4"	2	13	20
90-7160	HARDWARE PACK: Leaf Spring	1	-	-
43FNG8I	7/16" HEX NUT Gr. 8	2	13	20
97-716	7/16" X 4.45" LEAF SPRING CENTER BOLT	2	13	20
91-11832	BUMP STOP DROP	2	11	15
90-60726	HARDWARE PACK: Sway Bar Drop	1	-	-
.8C25H10I	8mm-1.25 X 25mm HEX BOLT Gr. 10.9	2	11	15
.12CNNLZ/DIN985-CL10.9	8mm-1.25 NYLOCK NUT	2	11	15
.8RWFLZ/DIN125	8mm FLAT WASHER	4	11	15
317C100STFZ/HEX-WASH	3/8" X 1" SELF-TAPPING SCREW	2	11	15
FD800-1	PITMAN ARM	1	1,2	8.9
96-5002	PITMAN ARM TOOL	1	1,2	8.9
90-6595	HARDWARE PACK: Pitman Arm Tool	1	-	-
	THREAD LOCKER	1	-	-
0431251800	7/16" X 1 1/4" GR. 8 HEX BOLT	1	2	9
04300030	7/16" FLAT WASHER	1	2	9
04300100512	7/16" NYLOC NUT	2	2	9
90-6042	HARDWARE PACK: Rear Sway Bar Links	1	-	-
45359	5/8" RUBBER HOURGLASS BUSHING	4	-	-
60859H	5/8" O.D. X 12mm I.D. X 1.480" SLEEVE	4	-	-
90-6572	HARDWARE PACK: Rear Sway Bar Links	1	-	-
.120C750HCS1Z	12mm-1.75 X 70mm HEX BOLT GR. 10.9	4	-	-
.120CNNEZ	12mm-1.75 NYLOCK NUT	4	-	-
.120NWHDY	12mm HARDENED FLAT WASHER	8	-	-

Part #	Description	Qty.	Illus.	Page
91-2446	REAR SWAY BAR END LINKS	2	-	-
31-11681	BRAKE LINE MOUNT: Rear	1	13	20
90-6773	HARDWARE PACK: Rear Brake Line Mount	1	-	-
0431251800	3/8" X 1" HEX BOLT GR. 8	1	13	20
04300100512	3/8" NYLOCK NUT GR. 5	1	13	20
	3/8" HARDENED FLAT WASHER	2	13	20
72-01015008812	10MM X 1.5 PITCH NYLOCK: Rear E-Brake Bracket	1	13	20
31-10985	FRONT BRAKE LINE DROP BRACKET: Pass	1	8b	13
90-6453	HARDWARE PACK: Brake Line Bracket	1	-	-
S340G6	ADEL CLAMP w/ 10mm HOLE	2	8b	13
90-6789	HARDWARE PACK: Brake Line Bracket: 17&up	2	-	-
31C75HCS8Y	5/16" X 3/4" GR. 8 HEX BOLT	1	8a,8b	13
31NWHYD/SAE	5/16" HARDENED FLAT WASHER	2	8a,8b	13
31CNUCZ	5/16" GR. 8 STOVER NUT	1	8a,8b	13
90-6340	HARDWARE PACK: Sway Bar End Link Bracket	1	-	-
70-0431251800	7/16" X 1 1/4" GR. 8 HEX BOLT	4	12a	17
73-0400830	7/16" SAE FLAT WASHER	8	12a	17
72-04300100816	7/16" GR. 8 STOVER NUT	4	12a	17
90-60676	HARDWARE PACK: Vacuum Line Bracket	1	-	-
31-11628	VACUUM LINE BRACKET 1	2	9	14
31-11629	VACUUM LINE BRACKET 2	2	9	14
31-11630	VACUUM LINE BRACKET 3	1	9	14
90-60675	HARDWARE PACK: OE Lower Coil Mount	1	-	-
67378729	1/4"-20 X 5/8" THREAD-CUTTING SCREW	2	10	14
90-6319	HARDWARE PACK: Vacuum Line	1	-	-
10999	11" ZIP TIE BLACK	12	-	-
90-60026	HARDWARE PACK: Vacuum Line Brackets	1	-	-
25C100HC8I/IMP	1/4"-20 X 1" HEX BOLT GR 8	2	9	14
25CNNLI/GR-C	1/4"-20 NYLOCK NUT	2	9	14
25RWHDI/IMP	1/4" HARDENED FLAT WASHER	4	9	14
90-6584	HARDWARE PACK: Brake Line & Vacuum Brackets	2	-	-
80NWHYD	8mm HARDENED FLAT WASHER	2	10	14
.80C200HCS1Z	8mm-1.25 X 20mm HEX BOLT 10.9	2	10	14
25C100HCS8Y	1/4"-20 X 1" HEX BOLT Gr. 8	2	9,10	14
25CNNE8Y	1/4"-20 NYLOCK NUT Gr. 8	2	9,10	14
25NWHYD/SAE	1/4" HARDENED FLAT WASHER	4	9,10	14
90-3240	-6 ADEL CLAMP	1	10	14
31-11632	BRAKE LINE DROP BRACKET	1	8a	13
91-11631	LOWER BRAKE LINE BRACKET	2	10	14
90-60670	HARDWARE PACK: Lower Brake Line Bracket	1	-	-
31C100SCBZ	5/16" X 1" BUTTON HEAD BOLT	2	10	14
31RWFLI/SAE-PC	5/16" SAE FLAT WASHER – 2 Not Used	4	10	14
31CNNLI/GR-C	5/16" NYLOCK NUT	2	10	14
31-40757	DRAG LINK TAPERED SLEEVE	1	12a	17
90-6803	HARDWARE PACK: Steering Stabilizer	1	-	-
70-0120651758800	12mm– 1.75 X 65mm 10.9 HEX BOLT	1	12a	17
73-01217508812	12mm FLAT WASHER	2	12a	17
72-01200832	12mm– 1.75 STOVER NUT	1	12a	17
35-40825	TURNBUCKLE	2	12a	17
31-11719	CLEVIS BRACKET: Lower	2	12a	17

Part #	Description	Qty.	Illus.	Page
31-11720	CLEVIS BRACKET: Upper	2	12a	17
35-40826	ROD END SPACER	8	12a	17
35-40827	ROD END: 1/2"-20	2	12a	17
35-40828	ROD END: 1/2"-20	2	12a	17
35-40829	JAM NUT: LH- 1/2"-20	2	12a	17
35-40830	JAM NUT: RH- 1/2"-20	2	12a	17
31-11705	CLEVIS BRACKET: Steering Stabilizer	1	12a	17
90-6143	<b>HARDWARE PACK: Sway Bar</b>	2	-	-
/AN960-816	1/2" X 2 1/4 HEX BOLT Gr.8	2	12a	17
50F225HC8I/DOM	1/2" STOVER NUT GR. C	2	12a	17
50FNPTZ/GRC	1/2" FLAT WASHER	4	12a	17
90-6040	<b>HARDWARE PACK: Sway Bar</b>	2		
'50C150HCS8Y	1/2" X 1 1/2" GR. 8 HEX BOLT	2	10	14
'50NWHDY/USS	1/2" HARDENED FLAT WASHER	4	10	14
'50CNUCZ	1/2" GR. 8 STOVER NUT	2	10	14
90-60694	<b>HARDWARE PACK:</b>	1	-	-
.12C50BFLI/10.9	12mm- 1.75 X 50mm 10.9 FLANGE BOLT	1	12a	17
.12CNFLZ/DIN6923	12mm- 1.75 LOCKING FLANGE NUT	1	12a	17
<b>Box 2 of 6-PN 52896B-2</b>				
91-11693	4- LINK FRAME MOUNT: Drvr	1	5,6,7	10,12
91-11701	4- LINK FRAME MOUNT: Pass	1	5,6,7	10,12
31-10991	SPACER: Frame Bracket Mount	12	6	12
31-11556	SPACER: Frame Bracket Mount	4	6	12
1				
31-11557	SPACER: Frame Bracket Mount	4	6	12
90-60682	<b>HARDWARE PACK: Frame Mount</b>	1	-	-
	12mm-1.75 X 200mm HEX BOLTS 10.9	4	5.6	10,12
	12mm STOVER NUTS	4	5.6	10,12
	12mm FLAT WASHER SAE GR. 8	8	5.6	10,12
HERNON427	THREAD LOCKING COMPOUND	1	-	-
31-11685	DOUBLE WASHER: Frame Mount	4	5.6	10,12
90-60665	<b>HARDWARE PACK: Transfer Case Skid Plate</b>	1	-	-
90-40769	3/8"-16 NO-SLIP CLIP-ON BARREL NUT	4	7	12
90-60674	<b>HARDWARE PACK: Transfer Case Skid Plate</b>	1	-	-
37C125HC8I/IMP	3/8" X 1 1/4" FULL THREAD HEX BOLT GR.8	4	7	12
37RLSAI	3/8" LOCK WASHER	4	7	12
37RWHDI/IMP	3/8" HARDENED FLAT WASHER SAE	4	7	12

## Box 3 of 6-PN 52895B-4

Part #	Description	Qty.	Illus.	Page
91-11633	4- LINK LOWER CONTROL ARM: Drvr	1	5	10
91-11647	4- LINK LOWER CONTROL ARM: Pass	1	5	10
90-6485	<b>HARDWARE PACK:</b>	1	-	-
.180C1500HCS1	18mm-2.5 X 150mm HEX BOLT Gr. 10.9	4	5	10
.180CNUCZ	18mm-2.5 STOVER NUT	4	5	10
.180NWUSZ	18mm FLAT WASHER	8	5	10

## Box 4 of 6-PN 52895B-5

90-6337	<b>HARDWARE PACK: Add-A-Leaf</b>	1	-	-
97-165	10MM X 165MM CENTER PIN	2	13	20
72-01015008812	10MM-1.5 NUT (CENTER BOLT NUT)	2	13	20
90-6762	<b>HARDWARE PACK: 4-Link Frame Mount</b>	1	-	-
.180C1300HCS1Z	18mm-2.5 X 130mm HEX BOLT Gr. 10.9	4	5	10
.180CNNEZ	18mm-2.5 NYLOCK NUT	4	5	10
.180NWHDY	18mm HARDENED FLAT WASHER	8	5	10
91-11549	<b>TRANSFER CASE SKID PLATE</b>	1	7	12
90-6317	<b>HARDWARE PACK: Transfer Plate Skid Plate</b>	1	-	-
72-043200810	7/16" GR. 8 HEX NUT	6	7	12
73-04300830	7/16" SAE FLAT WASHER	6	7	12
73-04300836	7/16" SPLIT LOCK WASHER	6	7	12
31-11558	<b>BOLT PLATE: Transfer Plate Skid Plate</b>	2	7	12
90-6569	<b>HARDWARE PACK: Driveline Shim</b>	1	-	-
90-1080	3/8" Driveline Shim	2	-	-
90-1081	1/4" Driveline Shim	2	-	-
90-1082	1/8" Driveline Shim	2	-	-
90-6013	<b>HARDWARE PACK: Driveline Shim</b>	1	-	-
70-04322501800	7/16" x 2 1/4" USS Grade 8 Bolt	2	-	-
73-04300042	7/16 USS Hardened Washer	2	-	-
90-60684	<b>HARDWARE PACK: Upper Control Arm</b>	1	-	-
15-11549	BUSHING	4	4	10
35-20183	UPPER CONTROL ARM SLEEVE	2	4	10
90-60678	<b>HARDWARE PACK: Upper Control Arm</b>	1	-	-
35-40782	JAM NUT: RH	2	4	10
35-40806	JAM NUT: LH	2	4	10
91-11657	<b>UPPER CONTROL ARM: Axle End</b>	2	4	10
31-40805	<b>TURNBUCKLE</b>	2	4	10
91-20184	<b>UPPER CONTROL ARM: Frame End</b>	2	4	10

## Box 6 of 6-PN 52800B-4

13150-1	<b>ADD-A-LEAF</b>	2	13	20
13150-2	<b>ADD-A-LEAF</b>	2	13	018
90-7130	<b>HARDWARE PACK: Add-A-Leaf</b>	1	-	-
98-00300-1	3" SPRING CLAMP	4	13	20
98-003002	3" SPRING PLATE	4	13	20
97-716	7/16"X 4 1/2" CENTER BOLT	2	13	20
8771-1	7/16"GR. 8 CENTER BOLT NUT	2	13	20
90-6337	<b>HARDWARE PACK: Add-A-Leaf</b>	1	-	-
97-165	10MM X 165MM CENTER PIN	2	13	20
72-01015008812	10MM-1.5 NUT (CENTER BOLT NUT)	2	13	20

Part #	Description	Qty.	Illus.	Page
	<b>Box 929553B/ 936005B (K4214T)</b>			
929553B	FRONT SHOCK	2	-	-
936005B	REAR SHOCK	2	-	-
	<b>Box PR2133/ PR2134 (K4214M)</b>			
PR2133	FRONT SHOCK	2	-	-
PR2131	REAR SHOCK	2	-	-
	<b>24815</b>			
24815	COILS DIESEL ENGINE	2	-	-
	<b>PN 52894B</b>			
52894	DRIVESHAFT	1	-	-

**Special Tools:**

Pitman Puller	Snap-On PN	CJ1119B
Tie Rod Separator	Ford PN	T64P-3590-F

**Optional Equipment Available from your Pro Comp Distributor!**

72260B: TRACTION BAR MOUNTING KIT  
72301: PLATE TRACTION BAR KIT (must be used with kit 72260B)  
72300: TUBE TRACTION BAR KIT (must be used with kit 72260B)  
222582: DUAL STEERING STABILIZER

Also, check out our outstanding selection of **Pro Comp** tires to compliment your new installation!

**IMPORTANT!** Due to the increased angle of the front driveline when running an 8" lift, a slight noise or vibration may occur when operating in 4-wheel drive at highway speeds. Decreasing caster angle should decrease the driveline vibration.

## Wheel and Tire Information:

Due to differences in manufacturing, dimensions and inflated measurements, tire and wheel combinations should be test fit prior to installation. Tire and wheel choice is crucial in assuring proper fit, performance, and the safety of your Pro Comp equipped vehicle. See chart below for wheel and tire recommendations. Violation of these recommendations will not be endorsed as acceptable by Pro Comp Suspension and will void any and all warranties either written or implied.

Maximum Tire Size	Maximum Wheel Width	Maximum Wheel Backspacing
37" X 12.50" R17	9"	4 3/4"
37" X 12.50" R20	9"	4 1/2"
40" X 13.50" R17	9"	4 3/4"

## Introduction:

- ◆ **This installation requires a professional mechanic!**
- ◆ We recommend that you have access to a factory service manual to assist in the disassembly and reassembly of your vehicle. It contains a wealth of detailed information.
- ◆ Prior to installation, carefully inspect the vehicle's steering and driveline systems paying close attention to the tie rod ends, ball joints, wheel bearing preload, pitman and idler arms. Additionally, check steering-to-frame and suspension-to-frame attaching points for stress cracks. The overall vehicle must be in excellent working condition. Repair or replace all worn or damaged parts!
- ◆ Read the instructions carefully and study the illustrations before attempting installation! You may save yourself a lot of extra work.
- ◆ Check the parts and hardware against the parts list to assure that your kit is complete. Separating parts according to the areas where they will be used and placing the hardware with the brackets before you begin will save installation time.
- ◆ Check the special equipment list and ensure the availability of these tools.
- ◆ Secure and properly block vehicle prior to beginning installation.
- ◆ **ALWAYS** wear safety glasses when using power tools or working under the vehicle!
- ◆ Use caution when cutting is required under the vehicle. The factory undercoating is flammable. Take appropriate precautions. **Have a fire extinguisher close at hand.**
- ◆ Foot pound torque readings are listed on the Torque Specifications chart at the end of the instructions. These are to be used unless specifically directed otherwise. Apply thread lock retaining compound where specified.
- ◆ A pitman arm removal tool and tie rod separating tool are required to perform the installation. See the special tools at the top of page 4.
- ◆ Always use NEW cotter pins on re-assembly! (These items are NOT supplied)
- ◆ **Please note that while every effort is made to ensure that the installation of your Pro Comp lift kit is a positive experience, variations in construction and assembly in the vehicle manufacturing process will virtually ensure that some parts may seem difficult to install. Additionally, the current trend in manufacturing of vehicles results in a frame that is highly flexible and may shift slightly on disassembly prior to installation. The use of pry bars and tapered punches for alignment is considered normal and usually does not indicate a faulty product. However, if you are uncertain about some aspect of the installation process, please feel free to call our tech support department at the number listed on the cover page. We do not recommend that you modify the Pro Comp parts in any way as this will void any warranty expressed or implied by the Pro Comp Suspension company.**

## Front Installation:

1. Position your vehicle on a smooth, flat, hard surface (i.e. concrete or asphalt) and set the emergency brake.
2. Measure and record the distance from the center of each wheel to the top of its fender opening. Record below.

3. Place the vehicle in neutral. Place your

LF: \_\_\_\_\_ RF: \_\_\_\_\_

LR: \_\_\_\_\_ RR: \_\_\_\_\_

floor jack under the front axle and raise the vehicle. Place jack stands under the frame rails and lower the frame onto the stands. Remove the jack and place the vehicle back in gear, set the emergency brake, and place blocks both in front and behind the rear wheels.

4. Remove the track bar bolt from the driver side frame mount. Save this hardware for re-use.
5. Remove the cast track bar mount on driver side of frame. Save the bolts and pal nuts. Hardware will be reused.
6. Unbolt the sway bar from the sway bar end links on both sides of the vehicle. Save the hardware for reuse.
7. Mark the orientation of the sway bar and unbolt it from the frame of the vehicle. Save the hardware for reuse.
8. If the vehicle is equipped with a factory steering stabilizer unbolt it and remove it from the vehicle.
9. Remove the cotter pin and nut from drag link, at the pitman arm. Save the nut for reinstallation. Use a tie rod separator to separate drag link from Pitman arm.
10. Remove the sector Pitman arm retaining nut and save for reinstallation. Use a Pitman arm puller to remove the OE pitman arm. The threads of the sector shaft and the Pitman arm retaining nut must be cleaned of all factory dry adhesive.

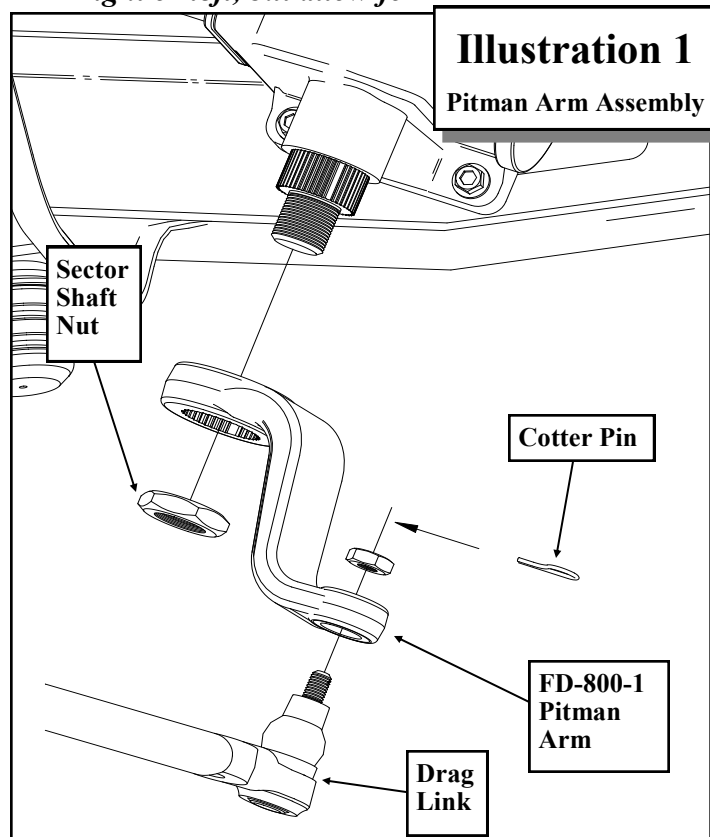
**IMPORTANT!: THE ENTIRE INSTALLATION PROCESS MUST BE DONE WITH HAND TOOLS TO ENSURE PROPER IN-**

### **STALLATION. DO NOT USE IMPACT TOOLS.**

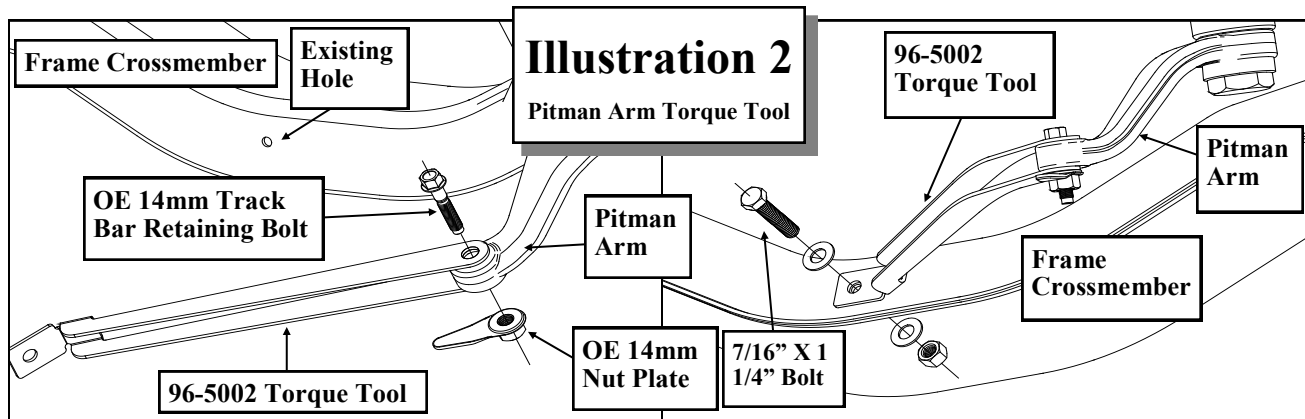
11. Install new pitman arm on sector shaft. Oil the sector shaft threads to ensure a proper torque reading. Install Pitman arm retaining nut and tighten until snug. See ILLUSTRATION 1.
12. Insert the key and unlock the steering wheel.
13. Install the Pitman arm torque tool (96-5002) to the Pitman arm using one of the previously removed OE 14mm track bar bracket outer retaining bolt and nut plate. See ILLUSTRATION 2.
14. Secure the torque tool (96-5002) to the existing hole in the frame crossmember using the supplied 7/16" X 1 1/4" bolt and hardware. See ILLUSTRATION 2.

**NOTE: The steering wheel may need to be turned in order for the hole in the torque tool and the frame crossmember to line up. Once the bolts are tightened the torque tool will align it's self properly.**

**NOTE: The use of the torque tool is to keep the Pitman arm from moving right or left, but allow for**







*movement up the sector shaft. If you do not have this tool, a length of chain or a flat bar with two holes is a suitable replacement.*

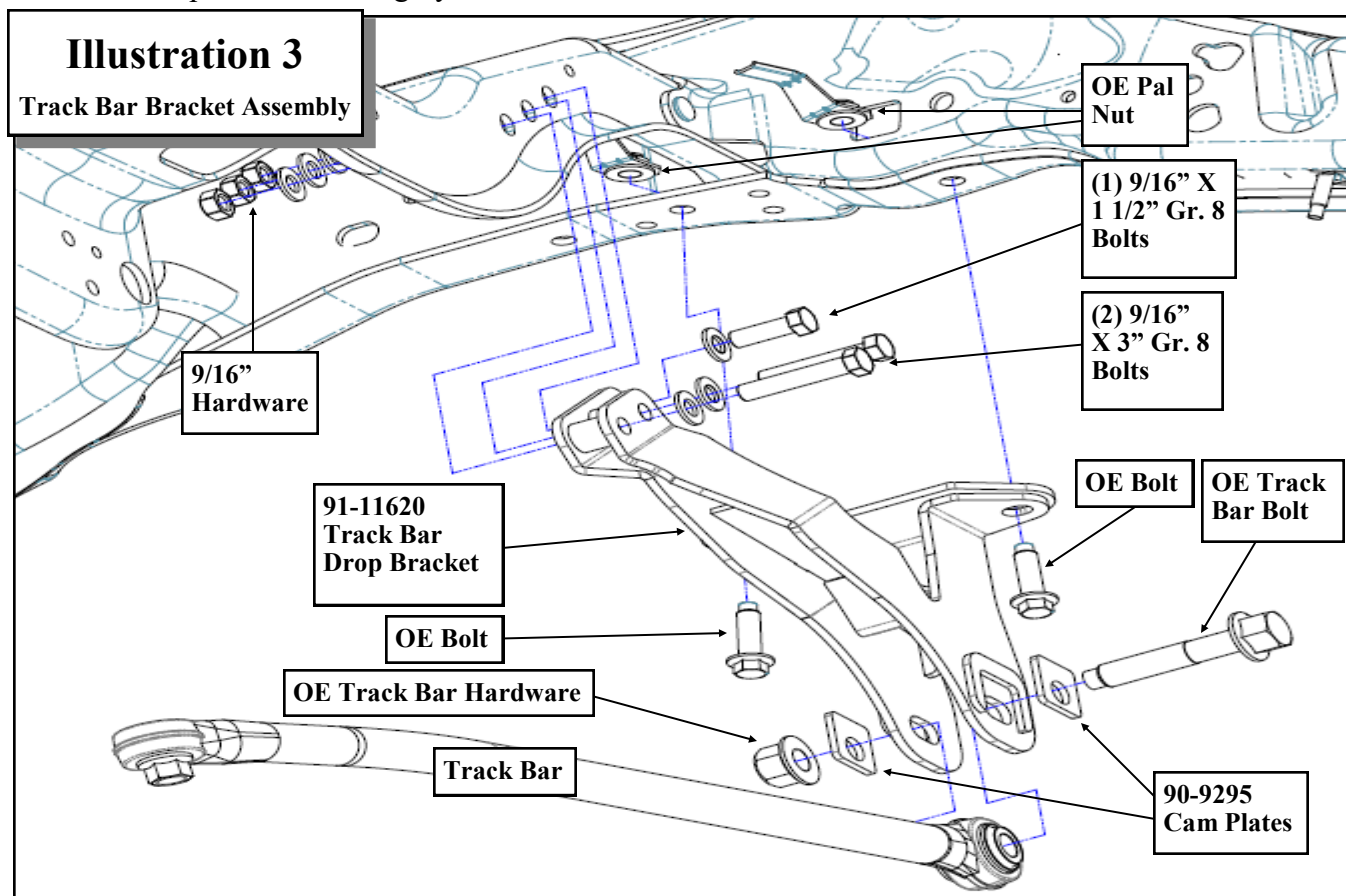
15. Torque the Pitman arm retaining nut to 375 ft./lbs.
16. With the torque tool (96-5002) still in place remove the pitman arm retaining nut. The threads of the sector shaft and the Pitman arm retaining nut **MUST** be cleaned using brake cleaner or another suitable method to remove the previously applied oil.
17. Use the entire supplied thread locking compound to thoroughly cover the entire

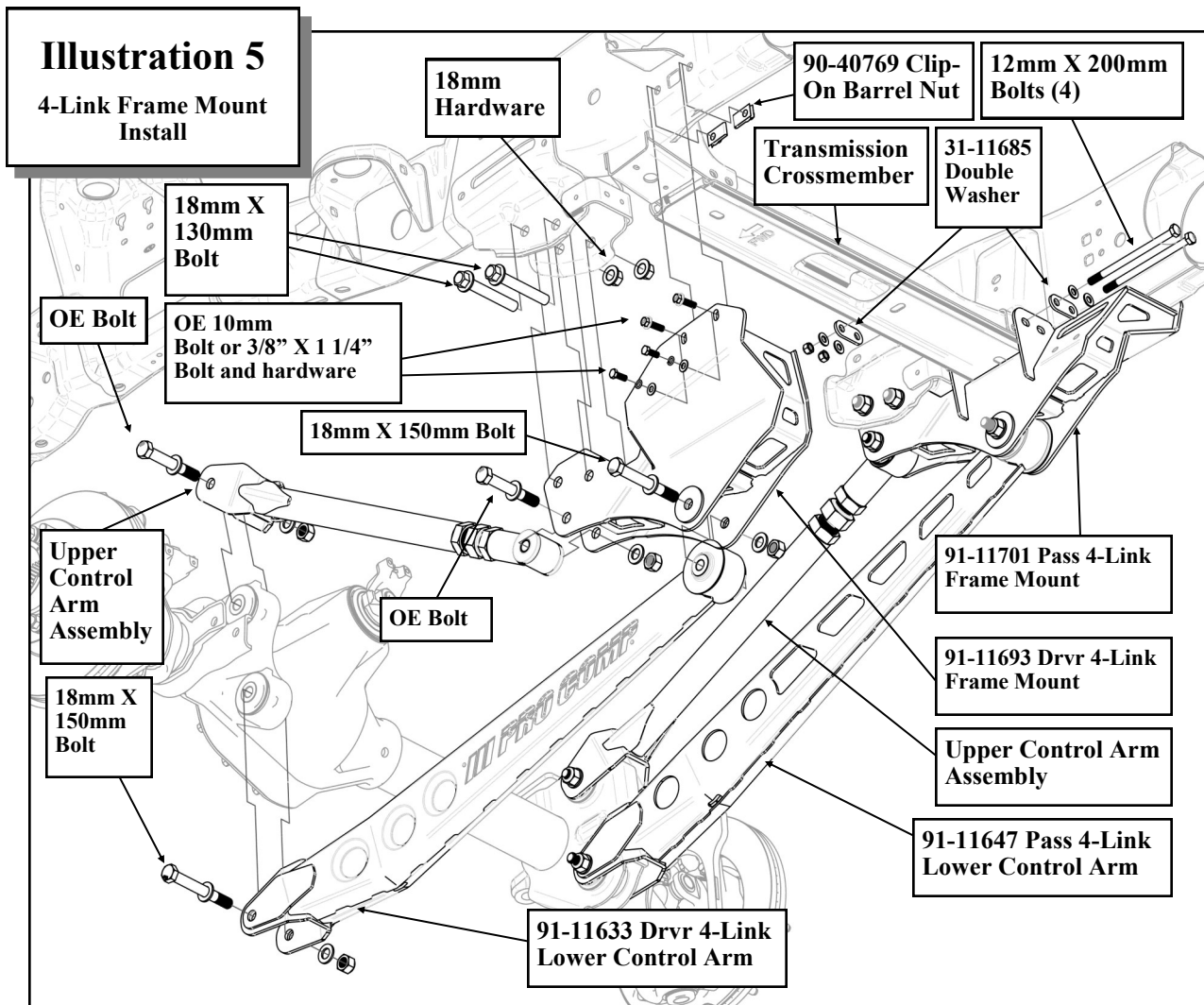
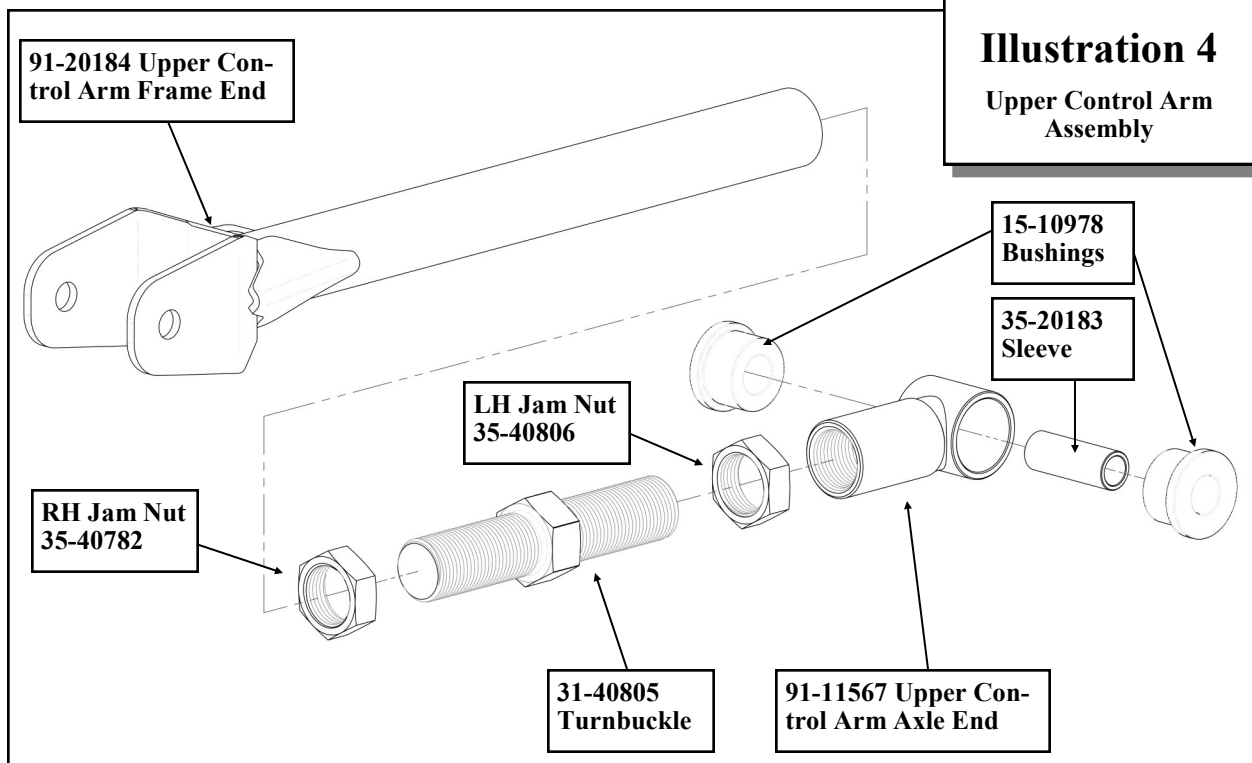
surface of the threads on the Pitman arm retaining nut.

18. Reinstall the Pitman arm retaining nut to the sector shaft and torque to 350 ft./lbs.  
**NOTE: Whether re-using the existing pitman arm retaining nut or replacing with a new nut, the supplied locking compound must be used.**
19. Unbolt and remove the Pitman arm torque tool (96-5002) from the vehicle.

**NOTE: Save this Pitman arm torque tool to add to your toolbox for any future Pitman arm installations.**

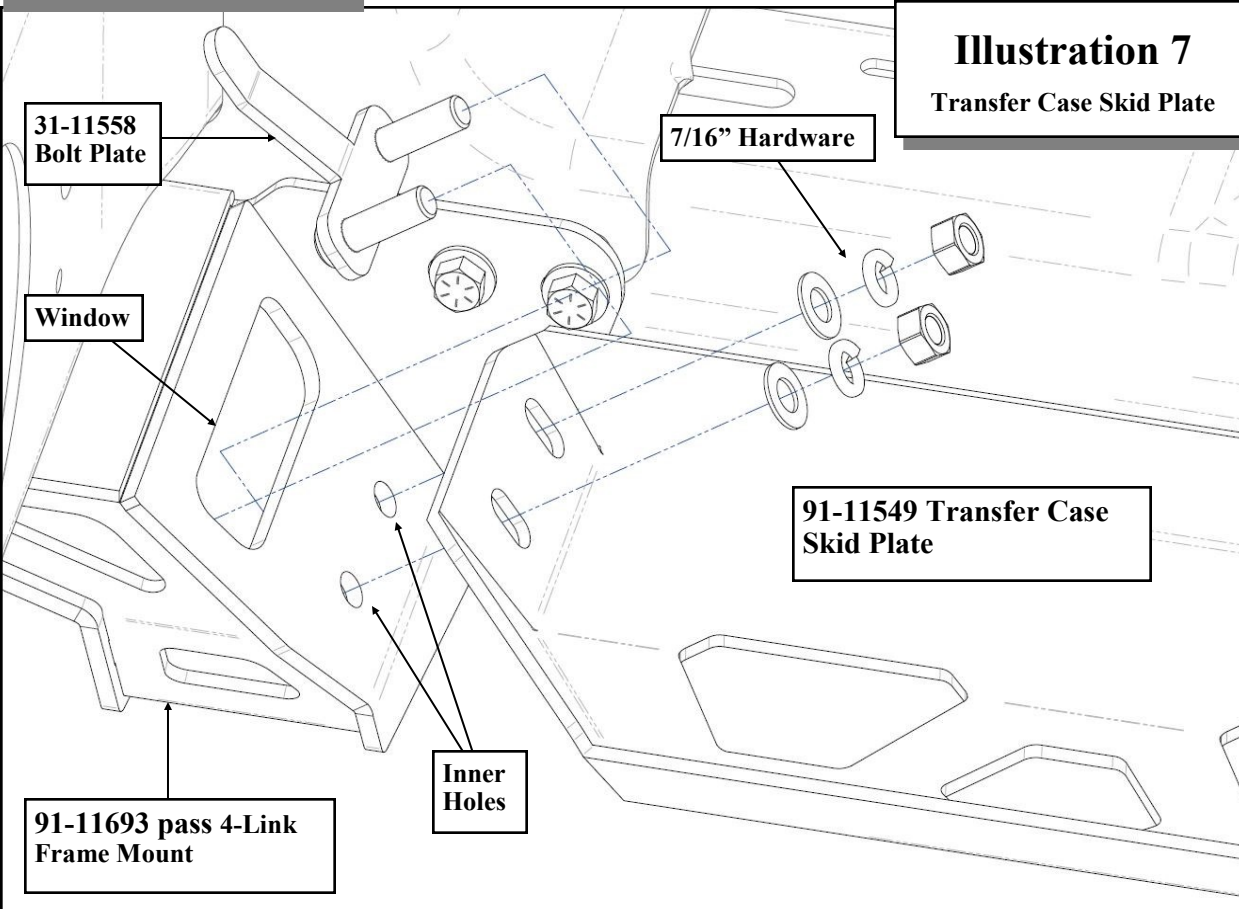
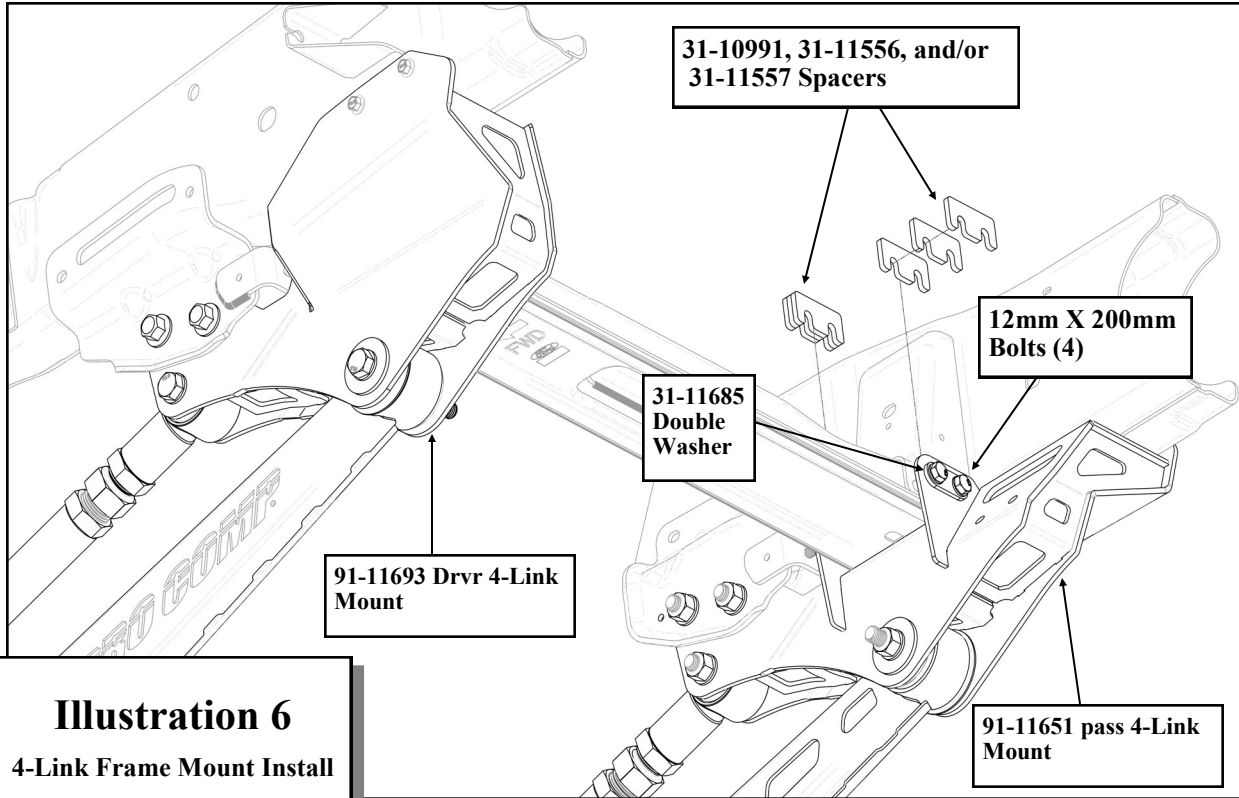
20. Install track bar drop bracket (91-11620)

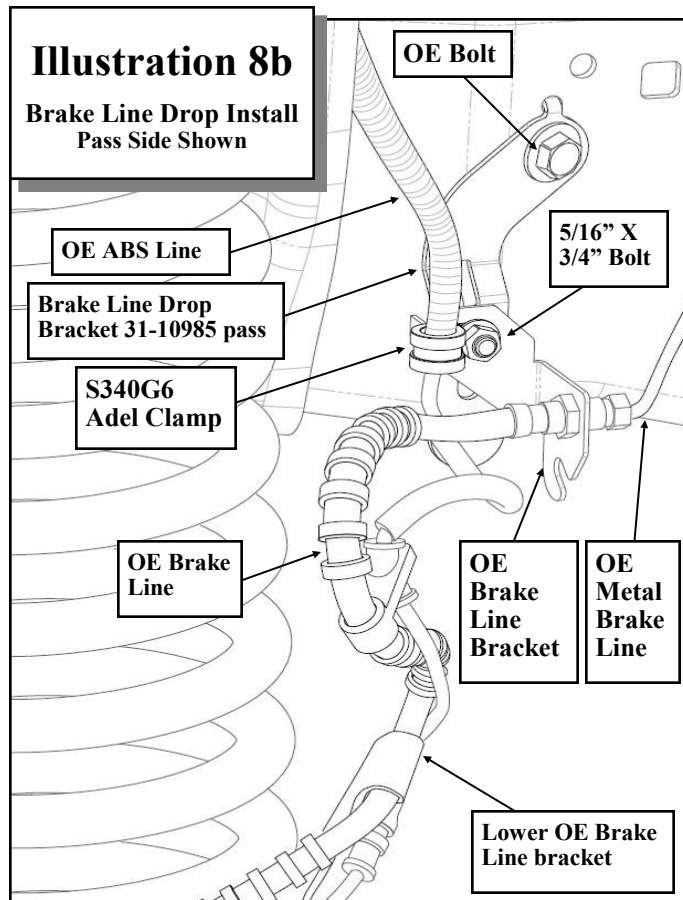
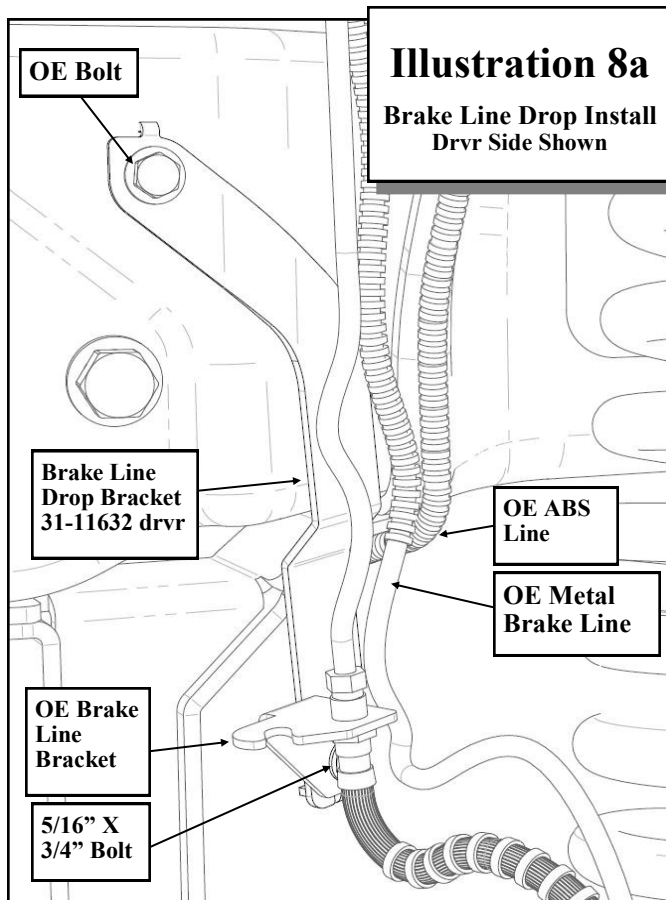




- using **(2) 9/16" X 3"**, **(1) 9/16" X 1 1/2"** and **(2) OE** bolts. Use thread locker on the bolts. Torque **OE** the bolts to 129 ft. lbs. and the **9/16"** bolts to 125ft. lbs. See ILLUSTRATION 3.
21. Unbolt and remove the front driveshaft from the vehicle. Save the axle end mounting hardware for reinstallation.
  22. Install the new front driveshaft (**52894**) to the transfer case using the supplied **12mm X 40mm** bolts and hardware. Secure the axle end of the front driveshaft up out of the work area. Torque **12mm** hardware to 75 ft./lbs.
  23. Unbolt the front brake line bracket from the lower spring perch. Save hardware for reuse.
  24. On the driver side, unclip the axle vent line from inside the frame. Remove the plastic **OE** vacuum line retainers from the frame and axle. Save for reinstallation.
  25. On the passenger side unclip the axle hub vacuum line from inside of the axle bump stop plate. Remove the plastic **OE** vacuum line retainers from the frame and axle. Save for reinstallation.
  26. If equipped, remove the transfer case skid plate.
  27. Assemble upper control arms by threading the jam nuts (**LH 35-40782** and **RH 35-40806**) onto the turnbuckle (**31-40805**). Install the upper control arm axle end (**91-11567**) and the upper control arm frame end (**91-20184**) onto turnbuckle assembly. See ILLUSTRATION 4.
  28. Install the bushings (**15-10978**) and sleeves (**35-20183**) into the upper control arm frame end (**91-20184**). See ILLUSTRATION 4.
  29. Set the overall length of the upper control arm, measured between bolt centerlines, to **31 13/16"** and tighten the **LH** and **RH** jam nuts. See ILLUSTRATION 4.
  30. Place a jack under the pinion yoke to prevent the front axle from rotating while installing upper control arms.
  31. Unbolt and remove the **OE** radius arms from the **OE** mounting pockets and front axle.
  32. If the vehicle is not equipped with a factory transfer case skid plate, install the supplied **3/8"** clip-on barrel nuts (**90-40769**) in the frame. See ILLUSTRATION 5.
  33. On the driver side, support the transmission crossmember and remove the **(2) OE** crossmember bolts and hardware. **OE** hardware will not be reinstalled.
  34. Install the 4-link frame mounts (**91-11693 Drvr** and **91-11701 Pass**) to the **OE** radius arm pivot bracket on the frame and secure using **(2)** supplied **18mm X 130mm** bolts, with the heads facing out. Do not tighten these bolts at this time. See ILLUSTRATION 5.
  - 35a. If the vehicle is equipped with a factory transfer case skid plate, Insert **(2) OE 10mm** bolts through the outside holes in the rear of the drop bracket into the **OE** barrel nuts. Do not tighten at this time. See ILLUSTRATION 5.
  - 35b. If the vehicle is not equipped with a factory transfer case skid plate, install the supplied **3/8" X 1 1/4"** into the previously installed clip-on barrel nuts (**90-40769**) in the frame. Do not tighten at this time. See ILLUSTRATION 5.
  36. Insert the **(2) 12mm X 200mm** bolts, double washers (**31-11685**), and hardware through the 4-link frame mounts (**91-11693 Drvr** and **91-11701 Pass**) and transmission crossmember with the heads facing toward the rear. Insert the supplied radius arm spacer(s) (**31-10991, 31-11556 and/or 31-11557**). Do not tighten at this time. See ILLUSTRATION 5 and 6.

***NOTE: The installation should require (3) 31-10991 Spacer Plates in front and rear of the transmission cross member, but due to manufacturing variations, a combination including the thinner Spacer Plates (31-11556 and 31-11557) may be necessary.***
  37. Repeat steps 34 through 37 on the passenger side of the vehicle.
  38. Install the previously assembled upper control arms into the 4-link frame mounts (**91-11693 Drvr** and **91-11701 Pass**) using the previously removed **OE** bolts and hardware. Secure the upper control arms to the front axle mounts using the previ-





ously removed OE bolt and hardware. See ILLUSTRATION 5.

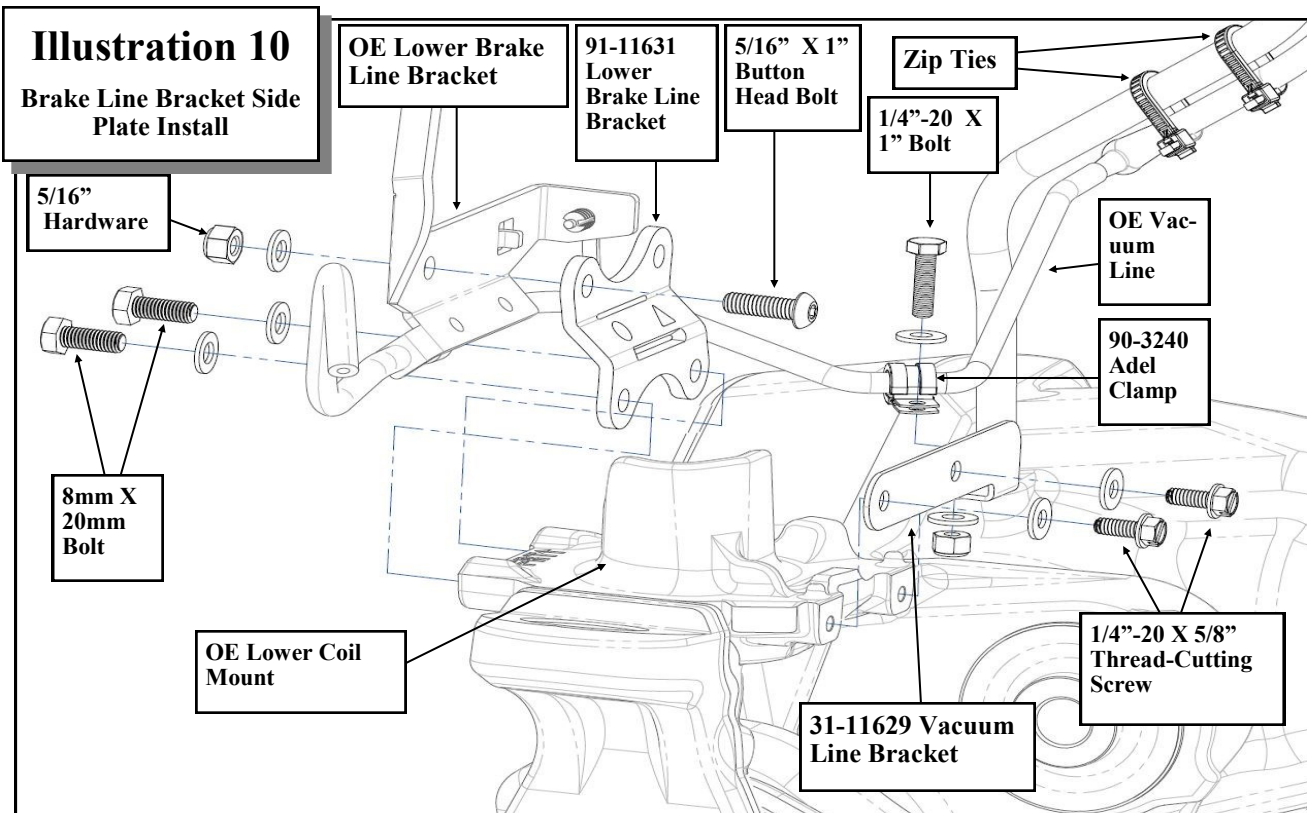
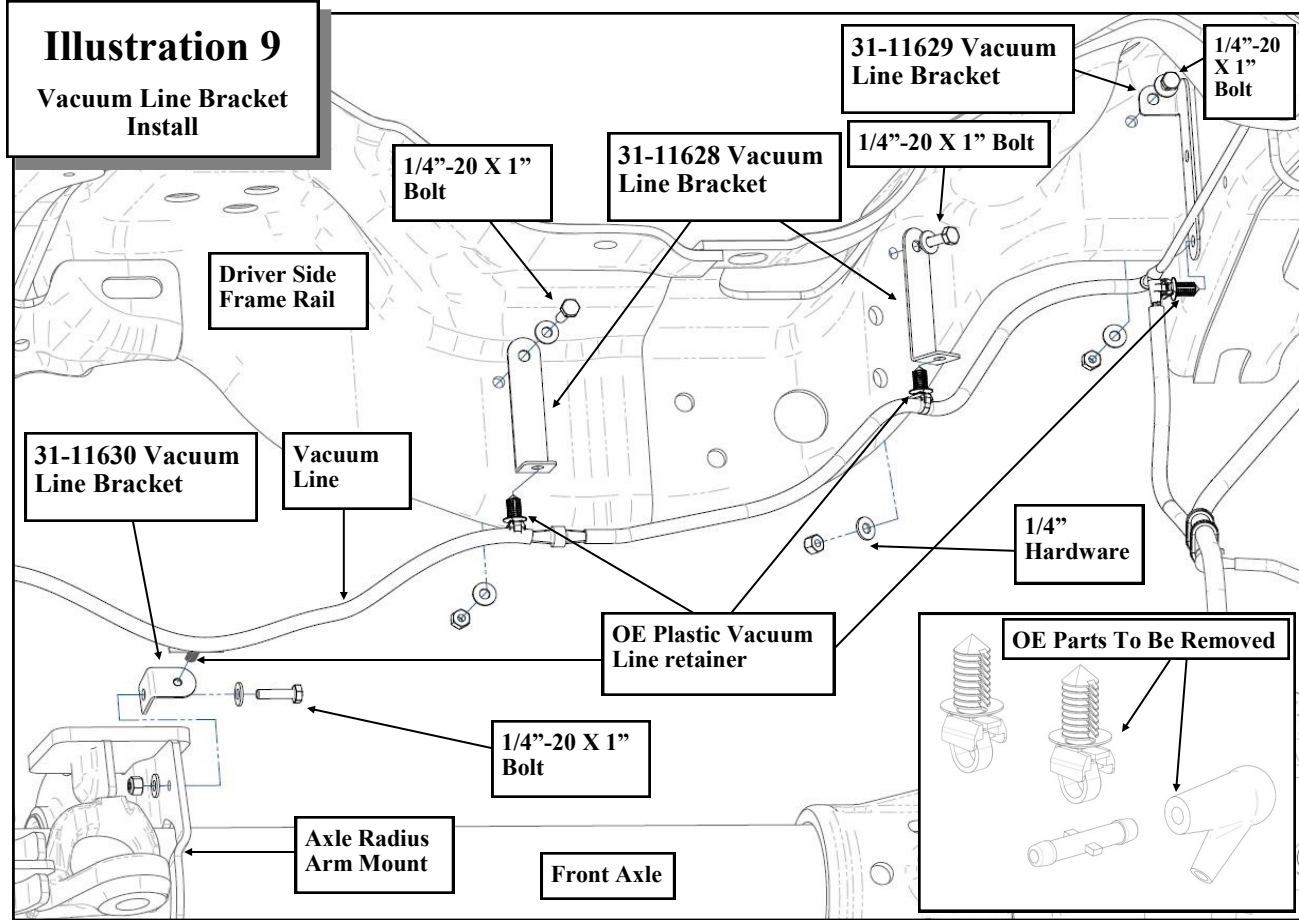
39. Install the lower control arm (91-11633 Drvr and 91-11647 Pass) into the 4-link frame mounts (91-11693 Drvr and 91-11701 Pass) and front axle mounts using the 18mm X 150mm and hardware. Do not tighten at this time. See ILLUSTRATION 5.
40. Insert the stud plates (31-11558) into the window on the 4-link frame mounts (91-11693 Drvr and 91-11701 Pass) and position so the bolts protrude through the (2) inner holes. See ILLUSTRATION 7.
41. Raise the transfer case skid plate (91-11549) into position and secure to the stud plates (31-11558) in the radius arm drop brackets and secure using the supplied 7/16" hardware. Be sure to apply thread locking compound to the 7/16" hardware. See ILLUSTRATION 7.
42. Torque the 12mm hardware to 95 ft. lbs. Torque the transfer case skid plate stud plate hardware to 40 ft. lbs. Torque the 18mm hardware to 180 ft. lbs. Torque

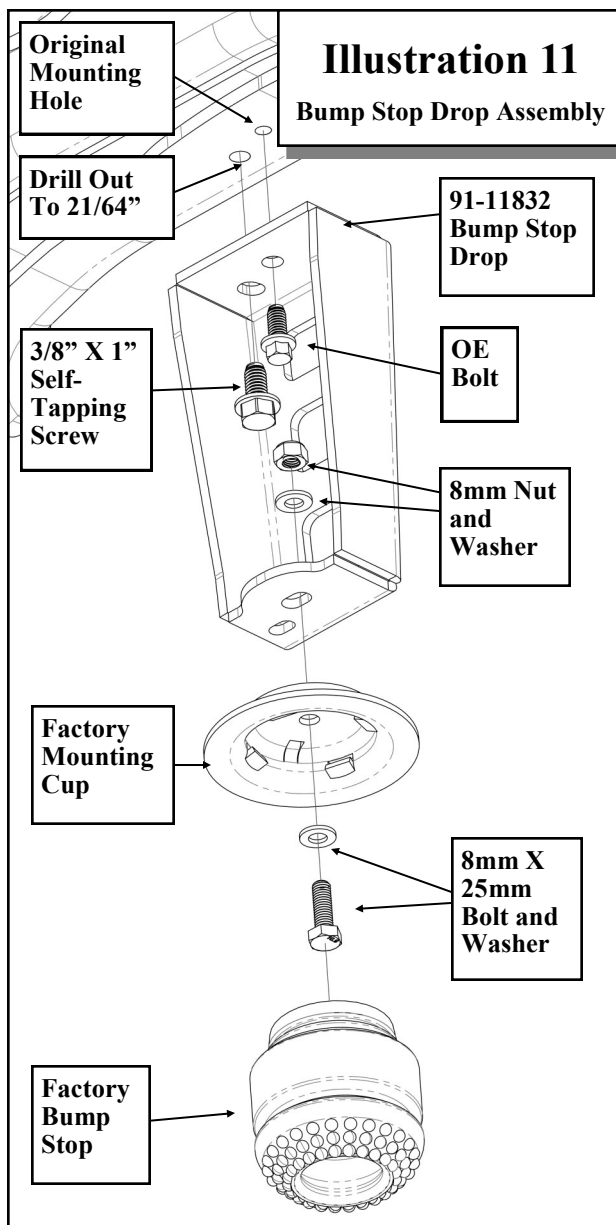
the stud plate hardware and 10mm or 3/8" hardware to 40 ft./lbs. Torque the OE hardware to manufacturer's specifications.

43. Raise the front axle enough to relieve tension on the shock hardware and remove the shocks from the vehicle.
44. Lower the front axle enough to remove the coil springs from the front spring pockets. Save the factory isolators for re-use.

**NOTE:** Be sure to support the axle while the springs and shocks are removed.

45. Remove the OE front brake line bracket OE bolts. See ILLUSTRATION 8a & 8b.
46. On the passenger side only, install the supplied Adel clamp (S340G6) around the ABS line.
47. Secure the OE front brake line brackets to the supplied front brake line drop brackets (31-11632 drvr and 31-10985 pass) using the supplied 5/16" X 3/4" bolts and





hardware. See ILLUSTRATION 8a & 8b.

**NOTE: On the passenger side only, secure the Adel clamp (S340G6) to the 5/16 X 3/4" bolt.**

48. Carefully unbend the metal brake lines, until the front brake line drop brackets (31-11632 **drv**r and 31-10985 **pass**) aligns with original mounting holes in the frame and secure to the frame using the previously removed OE bolts.

**IMPORTANT!:** Be sure to not kink the brake line.

49. Install the new brake line drop bracket (31-10984 **drv**r and 31-10985 **pass**) to the original hole in the frame rail using the previously removed OE bolt. See ILLUSTRATION 8a & 8b.

**NOTE:** The lower OE line brake bracket may need to be bent so that there is at least 1" of clearance between the OE line brake bracket and the coil spring.

50. Install the supplied vacuum line brackets 1 and 2 (31-11629, 31-11628) to the original plastic OE vacuum line retainer holes in the frame using the supplied 1/4"-20 X 1" bolts and hardware. See ILLUSTRATION 9.
51. Install the supplied vacuum line bracket 3 (31-11630) to the existing hole in the axle radius arm mount using the supplied 1/4"-20 X 1" bolts and hardware. See ILLUSTRATION 9.
52. Remove the OE components shown in ILLUSTRATION 9 from the vacuum line assembly and reconnect the vacuum line to itself.
53. Install the plastic OE vacuum line retainers into the holes on the newly installed vacuum line brackets 1, 2, and 3 (31-11628, 31-11629, and 31-11630). See ILLUSTRATION 9.
54. On the rear of the driver side OE lower coil mount, drill out the (2) existing holes using a 15/64" drill bit.
55. Install the vacuum line bracket 2 (31-11629) to the (2) previously drilled out, holes on the rear of the OE lower coil mount. Secure the vacuum line bracket 2 using the (2) 1/4" X 5/8" thread-cutting screws and washers. See ILLUSTRATION 10.
56. Install the lower brake line brackets (91-11631) using the (2) supplied 8mm X 20mm bolts and washers, in the bottom (2) holes, on the front of the OE lower coil mounts. See ILLUSTRATION 10.
57. Secure the OE lower brake line bracket to

the previously installed lower brake line brackets (**91-11631**) using the supplied **5/16" X 1"** button head bolt and hardware in the top outer hole. Locate the bracket tab in the top inner hole. See ILLUSTRATION 10.

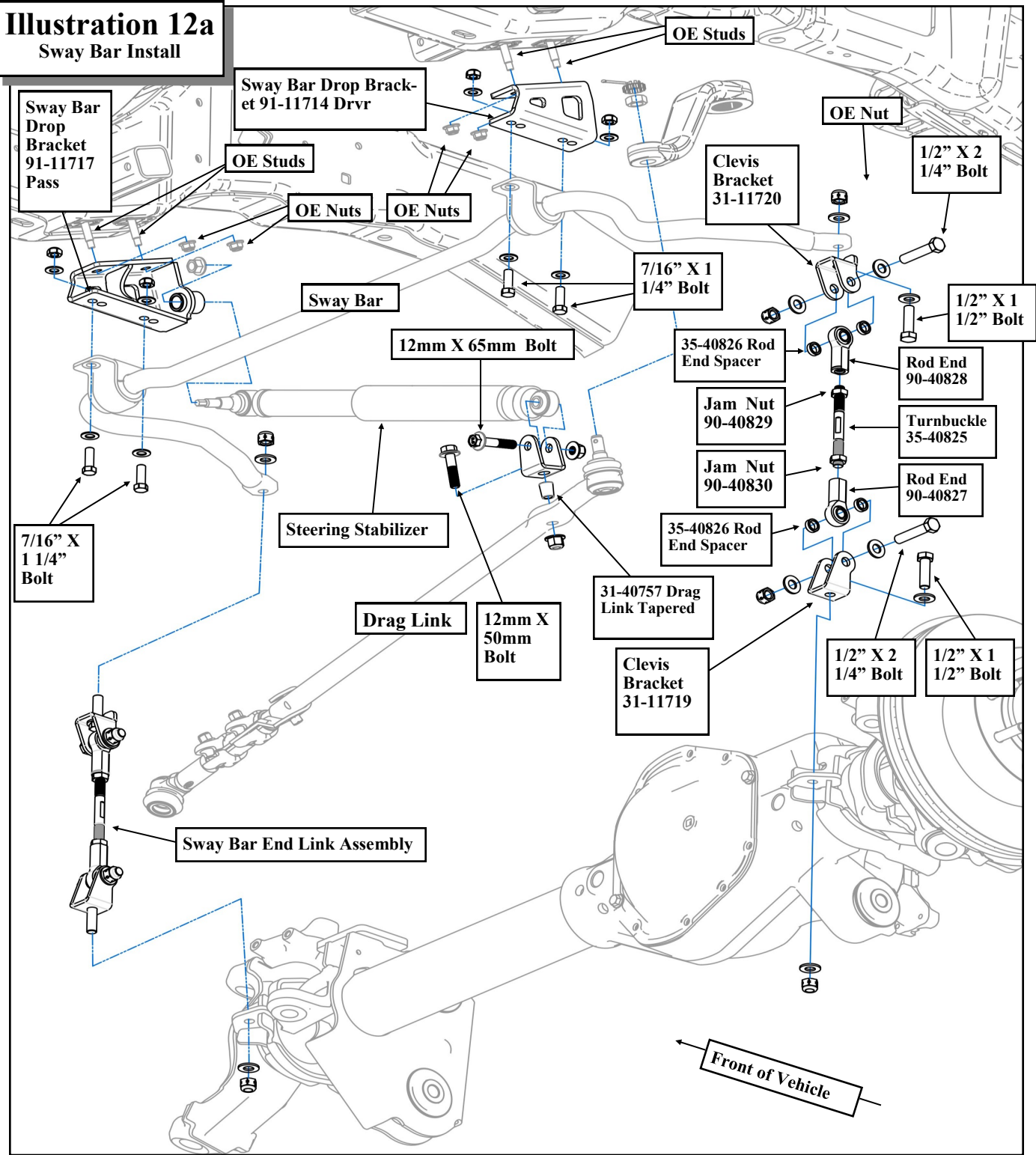
**NOTE: The lower OE brake line bracket may need to be bent so that there is at least 1" of clearance between the OE line brake bracket and the coil spring.**

**Steps 59 and 60 are for the driver side ONLY.**

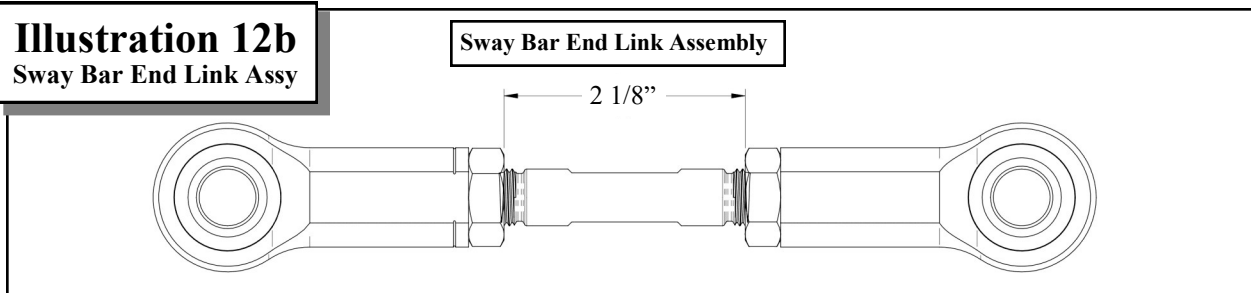
58. Install the supplied Adel clamp (**90-3240**) around the vacuum line. Secure the Adel clamp to the lower coil mount vacuum line bracket 2 (**31-11629**) using the supplied **1/4"-20 X 1"** bolt and hardware. See ILLUSTRATION 10.
59. Secure the vacuum line away from any heat or moving parts using the supplied zip ties from hardware pack (**90-6319**). See ILLUSTRATION 9 and 10.
60. Remove the factory front bump stops from the bump stop mounting cups. Pliers and a back and forth rocking motion will assist in removal of the bump stops.
61. Unbolt the bump stop mounting cups.
62. Using a **21/64"** drill bit, drill out the hole in the frame rail where the OE bump stop cup alignment tang was originally positioned.  
**NOTE: Be sure to apply thread locking compound to OE bolt and 3/8" self tapping screw before installation.**
63. Install the bump stop drops (**91-11832**) to the original threaded bump stop mounting holes in frame rail and secure using the previously removed OE bolts and hardware. Insert the supplied **3/8" X 1"** self tapping screw in the previously drilled hole in the frame rail. See ILLUSTRATION 11.
64. Install the previously removed OE bump stop mounting cup to the bump stop drops (**91-11832**) using the supplied **8mm X 25mm** bolt and hardware. See ILLUSTRATION 11.
65. Reinstall the previously removed factory bump stops into the mounting cup on the new bump stop drops. See ILLUSTRATION 11.
66. Using the factory isolators install the supplied front coil springs (**24815 Diesel**) into the spring buckets and raise the axle into place. Make sure the coil spring seats properly on the lower spring perch.
67. Install the new shocks (**929553**). Torque the upper mounting hardware to 46 ft. lbs. and the lower mounting hardware to 111 ft. lbs. Use thread locker on these bolts.
68. Install the axle end of the front driveshaft (**52894**) to the front axle yoke and secure using the previously removed OE bolts and hardware. Torque the OE hardware to manufacturer's specifications.
69. Loosen drag link turnbuckle pinch bolts and rotate the drag link pitman arm end 180 degrees.
70. Install draglink end into pitman arm and torque draglink nut to 148 ft. lbs. Reinstall cotter pin.  
**NOTE: Always align castellated notches with the hole by tightening the nut.**
71. Torque drag link turnbuckle pinch bolts to OE specification.
72. Install the sway bar drops (**91-11714 drvr** and **91-11717 pass**) to the OE sway bar mounting studs on the frame using the previously removed OE hardware. See ILLUSTRATION 12a.
73. Carefully raise the sway bar back into place and secure the supplied **7/16" X 1 1/4"** bolts and hardware. See ILLUSTRATION 12b.
74. Assemble the new sway bar end links by threading the jam nuts (**90-40829** and **90-40830**) onto the turnbuckle (**35-40825**). See ILLUSTRATION 12b.
75. Thread the rod ends (**90-40827** and **90-40828**) onto the turnbuckle assembly. Adjust the threaded rods leaving **2 1/8"** between jam nuts (**90-40829** and **90-40830**) when locked in position. See ILLUSTRATION 12b.



**Illustration 12a**  
Sway Bar Install



**Illustration 12b**  
Sway Bar End Link Assy



76. Install clevis brackets (31-11720) to the OE sway bar and clevis brackets (31-11719) to the front axle mount using the supplied 1/2" X 1 1/2" bolts and hardware. Torque 1/2" hardware to 90 ft./lbs. See ILLUSTRATION 12a.
77. Install the previously assembled sway bar end links to the upper and lower clevis brackets (31-11719 and 31-11720) and secure using rod end spacers (35-40826) and supplied 1/2" X 2 1/4" bolts and hardware. See ILLUSTRATION 12a.
78. Install the steering stabilizer clevis bracket to the OE drag link assembly using the supplied 12mm X 50mm bolt, drag link tapered sleeve (31-40757), and hardware. See ILLUSTRATION 12a.
79. Install the bushing end of the OE steering stabilizer to the previously installed drag link clevis bracket using 12mm X 65mm bolt and hardware. See ILLUSTRATION 12a.
80. Install the OE Steering Stabilizer stud into the new sway bar drop bracket (91-11717) and secure using the previously removed OE steering stabilizer nut. **DO NOT** torque OE nut at this time. See ILLUSTRATION 12a.
81. Torque the 1/2" sway bar mounting hardware to 90 ft./lbs, the 12mm hardware to 75 ft./lbs., and the OE hardware according to manufacturer's specifications.
82. On the driver side, re clip the axle vent line on the frame providing adequate slack for the line at full droop.
83. On the passenger side, reposition the clip on the axle hub vacuum line to provide adequate slack to re-clip the line to the existing hole on the outside of the bump stop plate.

*NOTE: Be sure that the newly re-routed vent line does not interfere with the travel of the bump stop.*
84. Refasten the lower brake line mount to the lower coil spring perch using the OE hardware.
85. Reinstall the front wheels and lower the vehicle to the ground. Torque to manufacturer's specs.
86. Apply thread locker to the upper and lower control arm bolts and torque 18mm hardware to 250 ft./lbs.
87. Reinstall the track bar into the Pro Comp track bar bracket (91-11620) using the OE bolt and adjustable cam plates (90-9295). Torque to 406 ft. lbs. See ILLUSTRATION 3.

*NOTE: You may find that having someone inside the vehicle and moving the steering wheel from side to side will aid in the alignment of the track bar. **DO NOT** start the engine for this! You only have to move it enough to line the holes up on the track bar mount.*
88. On both sides of the vehicle, check the routing of the brake lines and the ABS wire harnesses. There must be no pinching, rubbing, or stretching of either component. At full droop, cycle the steering from lock to lock while observing the reaction of these components. Reposition them if needed.
89. With the vehicle fully on the ground, measure the clearance between *each* tire and inner fender. If the axle is not properly centered, readjust the track bar cam hardware. Torque to 406 ft.
90. Torque the OE steering stabilizer nut according to manufacturer's specifications.

**NOTES:**

- ⇒ **On completion of the installation, have the suspension and headlights re-aligned.**
- ⇒ **After 100 miles recheck for proper torque on all newly installed hardware.**
- ⇒ **Recheck all hardware for tightness after off road use.**



## Rear Installation:

1. Block the front tires and raise the rear of the vehicle. Support the frame with jack stands forward of the rear springs.
2. Remove the wheels and tires.
3. Unscrew the rear axle vent tube to separate the rear brake line bracket from the rear axle.
4. Remove the shocks on both sides of the vehicle. It may be necessary that you slightly raise the axle to unload the shocks for removal.
5. On the driver side, unbolt the emergency brake line bracket from the upper spring plate. Save hardware for reuse.
6. If your vehicle is equipped with factory sway bar, unbolt it from the end links. Unbolt and remove the end links from the vehicle.
7. Support the rear axle with a floor jack and remove the **U-bolts** on the driver side. Slightly loosen the **U-bolts** on the passenger side.
8. Lower the rear axle and remove the factory block.

**NOTE: Be sure not to over extend the rear brake line and rear axle vent line.**

9. While supporting the rear leaf spring, remove the factory spring mounting bolts and remove the leaf spring from the driver side only at this time.
10. Disassemble leaf spring and insert the add-a-leaves (**13150-1** and **13150-2**).

**NOTE: The add-a-leaves will be added onto the bottom of the factory spring pack, progressively according to length. Do not install the add-a-leaves below the factory overload spring if the vehicle is equipped with one. See ILLUSTRATION 13.**

11. Install the shim (**31-40768**), with the shorter, tapered end toward the front of the vehicle, underneath the spring pack. Using the C-clamps, bolt the leaf pack back together using the supplied center bolt with the head of the bolts facing down and the nut on the top. Reinstall

the spring pack to the hangers using the OE hardware. Do not torque at this time. Remove the C-clamps.

**NOTE: DO NOT trim the excess center bolt on the driver side. The extra threads will be needed to attach the OE emergency brake line bracket.**

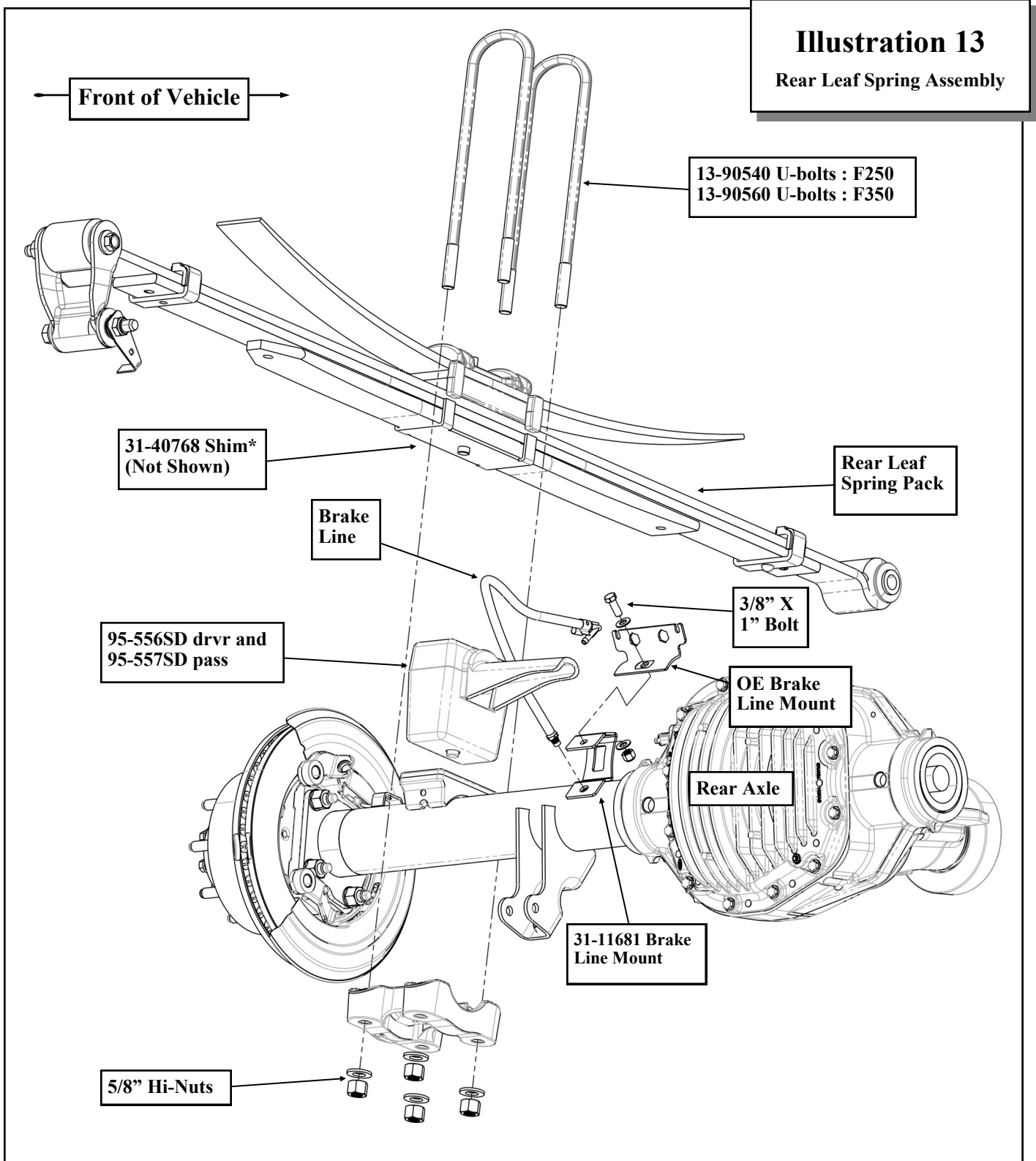
12. Install the supplied lift block (**95-556SD** **drvr** and **95-557SD** **pass**). Make sure the pin fits into the hole on the spring perch. Use your floor jack to raise the axle to the spring making sure the pin on the factory leaf spring assembly fits into the hole on the lift block. Secure the assembly with the **5/8" U-bolts (13-90540 F250 or 13-90560 F350 ) 5/8" hi-nuts (PN 20-65471)** and washers supplied. Do not torque the hi-nuts at this time. See ILLUSTRATION 13.

**NOTE: Make sure the block sits flush on the axle perch and are oriented so the pins shift the rear axle forward.**

13. Repeat the installation on the other side of the vehicle.
14. On driver side, carefully bend down the emergency brake line bracket that secures the line to the frame and bolt the emergency brake line bracket back to the spring pack center bolt using the supplied **10mm-1.5** nut..
15. Install your new Pro Comp shocks (**936005**). Torque the upper mounting hardware to 46 ft. lbs. and the lower mounting hardware to 66 ft. lbs. Use thread locker on these bolts.
16. If the vehicle is equipped with a 2-piece driveshaft, remove the (2) bolts that secure the center drive shaft bearing. Lower bearing and install 1/4" of shim thickness for each inch of rear lift. Use new **7/16" X 2 1/4"** bolts and torque to 55 ft./lbs.

**NOTE: 1/4" of shim for each inch of lift is only a starting point. Only by driving the vehicle and adding or removing shims can the high speed vibration be totally eliminated. The off the line vibration is caused by axle wrap up and cannot be eliminated with these products.**

### Illustration 13 Rear Leaf Spring Assembly



\* Shim used with one piece driveshaft ONLY.

17. If vehicle came equipped with a rear sway bar, assemble the rear sway bar end links **(91-2446)** using the bushings **(45359)** and sleeves **(60859H)**.
  - ⇒ **After 100 miles recheck for proper torque on all newly installed hardware.**
  - ⇒ **Recheck all hardware for tightness after off road use.**
18. Secure the new rear sway bar end links **(91-2446)** to the frame and the sway bar using the provided **12mm-1.75 X 70mm**. Torque the bolts according to the torque chart on page **20**.
19. Secure the new rear brake line bracket **(31-11681)** to the rear axle by reinstalling the vent tube. See ILLUSTRATION 13.
20. Secure the **OE** brake line bracket to the new brake line bracket **(31-11681)** using the supplied **3/8" X 1"** bolt and hardware.
21. Reinstall the wheels and tires and lower the vehicle to the ground. Torque lug nuts to manufacturer specification.
22. Torque the spring mounts at this time. The front bolts are torqued to 250 ft. lbs. and the rear bolts are torqued to 185 ft. lbs. Torque the **5/8" U-bolts** to 120 ft. lbs.
23. Re-check the wheel lug torque on all four wheels at this time.
24. Re-check all hardware (both the front and the rear) for proper installation and torque!!
25. If you wish, you may trim the excess u-bolt thread length. If you do this you should leave approximately one inch of thread exposed after the **U-bolts** are torqued.
26. On both sides of the vehicle, check the routing of the brake lines and the ABS wire harnesses. There must be no pinching, rubbing, or stretching of either component. Reposition them if needed.

**NOTES:**

- ⇒ **On completion of the installation, have the suspension and headlights re-aligned.**

### Revision Page:

8.21.18: Latest Revision

8.24.21: Added T & M instances to K4214

Use this only as a guide for hardware without a called out torque specification in the instruction manual.

<b>Bolt Torque and ID</b>						
<b>Decimal System</b>			<b>Metric System</b>			
All Torques in Ft. Lbs. Maximums						
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9
5/16	15	20	M6	5	9	12
3/8	30	45	M8	18	23	27
7/16	45	60	M10	32	45	50
1/2	65	90	M12	55	75	90
9/16	95	130	M14	85	120	145
5/8	135	175	M16	130	165	210
3/4	185	280	M18	170	240	290

<p>1/2-13x1.75 HHCS</p> <p><span style="border: 1px solid black; padding: 2px;">D</span> <span style="border: 1px solid black; padding: 2px;">T</span> <span style="border: 1px solid black; padding: 2px;">L</span> <span style="border: 1px solid black; padding: 2px;">X</span></p>	<p>M12-1.25x50 HHCS</p> <p><span style="border: 1px solid black; padding: 2px;">D</span> <span style="border: 1px solid black; padding: 2px;">T</span> <span style="border: 1px solid black; padding: 2px;">L</span> <span style="border: 1px solid black; padding: 2px;">X</span></p>
<p><b>Grade 5    Grade 8</b> (No. of Marks + 2)</p>	
<p>G = Grade (Bolt Strength) D = Nominal Diameter (Inches) T = Thread Count (Threads per Inch) L = Length (Inches) X = Description (Hex Head Cap Screw)</p>	<p>P = Property Class (Bolt Strength) D = Nominal Diameter (Millimeters) T = Thread Pitch (Thread Width, mm) L = Length (Millimeters) X = Description (Hex Head Cap Screw)</p>



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Vehicles that have been enhanced for off-road performance often have unique handling characteristics due to the higher center of gravity and larger tires. This vehicle may handle, react and stop differently than many passenger cars or unmodified vehicles, both on and off-road. You must drive your vehicle safely! Extreme care should always be taken to prevent vehicle rollover or loss of control, which can result in serious injury or even death. Always avoid sudden sharp turns or abrupt maneuvers and allow more time and distance for braking! Pro Comp reminds you to fasten your seat belts at all times and reduce speed! We will gladly answer any questions concerning the design, function, maintenance and correct use of our products.

Please make sure that the Dealer / Installer explains and delivers all warning notices, warranty forms and instruction sheets included with Pro Comp product.

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IMPORTANT! To validate the warranty on this purchase please be sure to mail in the warranty card.

Claims not covered under warranty

- \* Parts subject to normal wear; this includes bushings, bump stops, ball joints, tie rod ends and heim joints.
- \* Finish after 90 days.
- \* Damage caused as a result of not following recommendations or requirements called out in the installation manuals.

Pro Comp MX Series coil-over shocks are considered a serviceable shock with a one-year warranty against leakage only. Rebuild service and replacement parts will be available and sold separately by Pro Comp. Contact Pro Comp for specific service charges. Pro Comp accepts no responsibility for any altered product, improper installation, lack of or improper maintenance or improper use of our products.

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**PLACE**  
**WARRANTY REGISTRATION**  
**NUMBER**  
**HERE:** \_\_\_\_\_