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PRO COMP SUSPENSION

Suspension Systems that Work!

**Part # 52203/52203MX
1997-2003 FORD F-150 2WD
6 Inch Lift Kit
(Also, 2004 F-150 Heritage)**

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 4-PN 52203MX-1

Part #	Description	Qty.	Illus.	Page
90-1839	FRONT CROSS MEMBER	1	4	7
90-1844	REAR CROSS MEMBER	1	4	7
90-2126	COMPRESSION STRUTS	2	8	9
90-6234	HARDWARE PACK: COMPRESSION STRUTS	1	8	9
70-0501251800	1/2" X 1 1/4" GR 8 HEX BOLT	2		
70-0504001800	1/2" X 4" GR 8 HEX BOLT	4		
72-050100816	1/2" GR 8 STOVER NUT	4		
73-05000032	1/2" USS GRADE 8 FLAT WASHER	10		
90-1705	COMPRESSION STRUT MOUNTS	2	4	7
90-1104	COMPRESSION STRUT MOUNTS	2		
90-6306	HARDWARE PACK: 97-03 F150	1		
90-1838	COMPRESSION STRUT SPACER	2	8	9
90-1817	REAR BRAKE LINE BRACKET	1	C	12
90-1582	NUT PLATE - 1/2"	2		
90-6263	HARDWARE PACK: BUSHINGS AND SLEEVES	1	8	9
15-11148	COMPRESSION STRUT BUSHING	8		
90-2109	SLEEVE, COMPRESSION STRUT - 2.75"	4		
90-6285	HARDWARE PACK: SWAY BAR END LINKS	1	6	8
P-438	BUSHINGS	4		
90-2369	SWAY BAR SPACER TUBE	2		
70-03710002800	3/8" x 10" SAE GR 8 HEX BOLT	2		
72-03700100512	3/8" NYLOC NUTS	2		
90-6305	HARDWARE PACK: CROSSMEMBER	1	4	7
70-0626001800	5/8" X 6" GR. 8 HEXBOLT	2		
72-062100816	5/8" USS GR. 8 STOVER NUT	2		
73-06200034	5/8" SAE GR. 8 WASHER	4		
90-6255	HARDWARE PACK: CROSSMEMBER	1	4	7
70-0625501800	5/8" X 5 1/2" GR. 8 HEXBOLT	2		
72-062100816	5/8" USS GR. 8 STOVER NUT	2		
73-06200034	5/8" SAE GR. 8 WASHER	4		
90-6290	HARDWARE PACK: FRONT BUMPSTOP BRACKET	1	7	9
90-1862	BUMPSTOP BOLT PLATE	2	7,9	9
70-0371251501	3/8" x 1 1/4" USS GR. 5 HEX BOLT	2		
15-11031	CONE BUMPSTOP	2	7,9	9
72-037100512	3/8" GR 5 NYLOCK NUT	2		
73-03700530	3/8" GR 5 FLAT WASHER	2		
90-1864	FRONT BUMPSTOP BRACKET	2	7,9	9
90-6301	HARD WARE PACK: BUMP/BOLT/BRAKE	1	B,C	12
70-0371001500	3/8" x 1" USS GR. 5 HEX BOLT	3		
72-03700100512	3/8" USS NYLOCK NUT	7		
73-03700530	3/8" USS FLAT WASHER		10	
90-2144	REAR BUMP STOP DROPS	2	B	12

Box 2 of 4-PN 52203MX-2

90-4087	FRONT SPINDLE (DRIVERS)	1	5	8
90-4088	FRONT SPINDLE (PASSENGER)	1	5	8

Part #	Description	Qty.	Illus.	Page
Box 3 of 4-PN 52203MX-3				
95-250F	2 1/2" CAST IRON LIFT BLOCK	2	A	11
20-65302	HARDWARE PACK: U-BOLT	1	A	11
13-10423	9/16" NUTS SAE GR. 8	8		
13-3033	9/16" HARDENED FLAT WASHERS	8		
13-90438	U-BOLTS 9/16" X 10 1/2"	4	A	11

Box 4 of 4-PN 52203MX-4

MX6028	MX6 SHOCKS FRONT	2		
MX6081	MX6 SHOCKS REAR	2		

OR Box 4 of 4-PN 52203-4

922515	9000 SERIES SHOCKS FRONT	2		
926510	9000 SERIES SHOCKS REAR	2		

Optional Equipment Available from your **PRO COMP Distributor!**

**TRACTION BARS
SKID PLATE
COIL SPRINGS (SEE APPLICATION CHART BELOW)
STEERING STABILIZER KIT: 220595**

YEAR	APPLICATION	COIL P/N
1997-2003	F150 2WD Standard cab 4.2(V6), 4.6(V8), 5.4(V8)	24121
1997-2003	F150 2WD Extra cab 4.2(V6)	24121
1997-2003	F150 2WD Extra cab 4.6(V8), 5.4(V8)	24122
2001-2003	F150 2WD Super crew 4.6(V8)	24122
2001-2003	F150 2WD Super crew 5.4(V8)	24123

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

Introduction:

- ◆ **This installation requires a professional mechanic!**
- ◆ We recommend that you have access to a Ford service manual for your vehicle 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 arm. 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.
- ◆ ***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.***

Please Note:

- Front end and head light realignment is necessary!
- Speedometer and ABS recalibration will be necessary if larger tires (10% more than stock diameter) are installed
- 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. For this application, a wheel not to exceed 8" in width with a minimum backspacing of 3.5" to 4.5" maximum backspacing must be used. Additionally, a quality tire of radial design, not exceeding 35" tall X 12.5" wide is recommended. Please note that the use of a 35" X 12.5" tire may require fender modification. 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.
- A new adjustment cam bolt will be required for some applications. NAPA chassis parts cam bolt part number 264-2953 available at your local NAPA store. Pro Comp part number 90-6170.

Special Equipment

Please refer to your service manual for more information.

A special removal tool is required for safe removal of the tie rods. (PN T64P-3590-F).

A special removal tool is required for safe removal of the coil springs. (PN D78P-5310-A).

These tools may be purchased at your local Ford dealer.

You may be able to rent any of these tools at your local parts store.

Front Installation

1. Prior to installing this kit, with the vehicle on the ground, measure the height of your vehicle. This measurement can be recorded from the center of the wheel, straight up to the top of the inner fender lip. Record the measurements below.

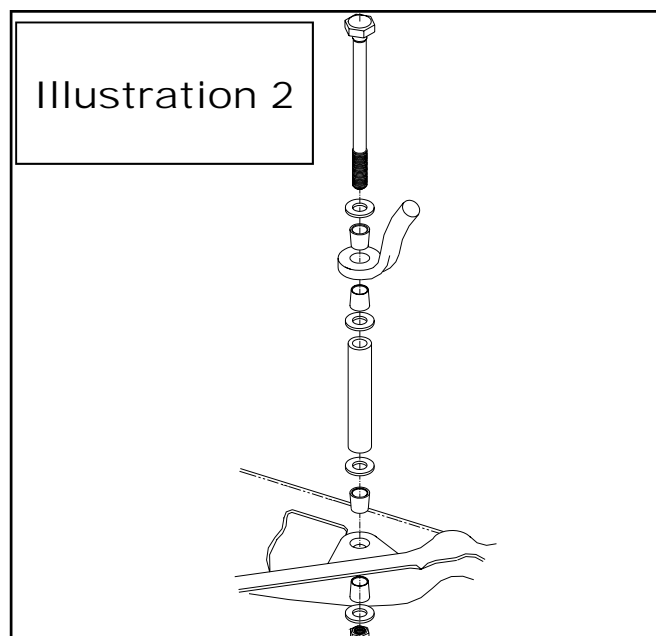
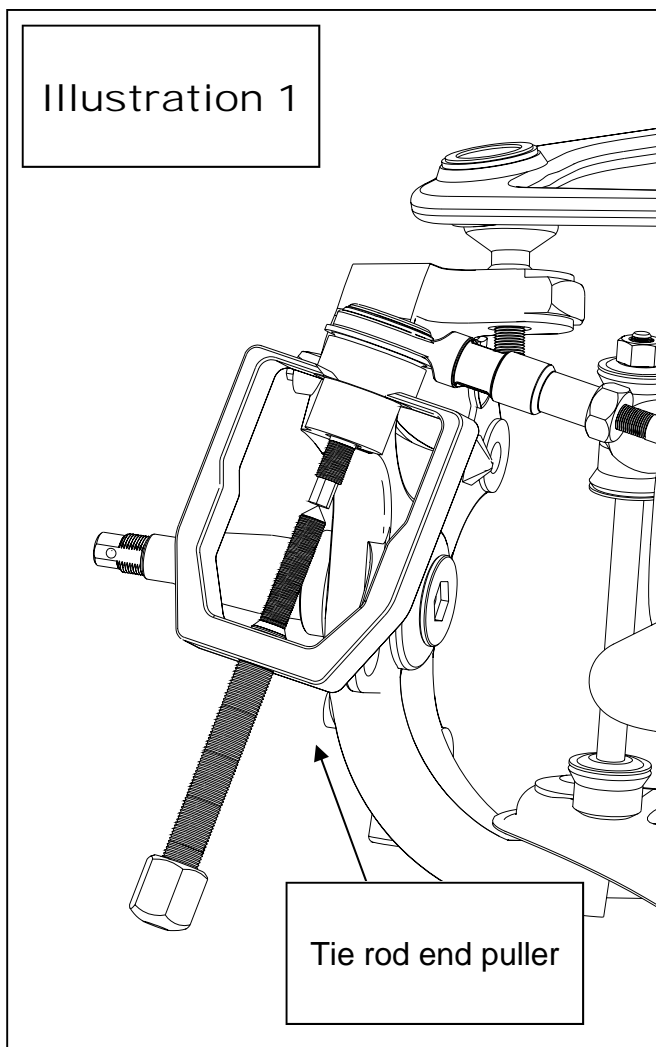
LF: _____ RF: _____

LR: _____ RR: _____

2. Ensure that your work space is of adequate size and the work surface is level. Place the vehicle in neutral. Place your floor jack under the front cross member and raise vehicle. Place jack stands under the frame rails behind the front wheel wells 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 of and behind the rear wheels. Remove the wheels.
3. Remove any skid plates or debris shields from the bottom of the vehicle.
4. Remove the shock absorbers. Using a wrench hold the shock absorber stem while backing the nut off the stem. Remove the bottom bolts from the lower control arm and remove the shock from the bottom.
5. Remove the sway bar end link assemblies from both sides of the vehicle. Remove the sway bar brackets and place the sway bar out of the way.

Work on one side of the vehicle at a time.

6. If your vehicle is equipped with ABS brakes, disconnect the wiring and secure it clear of the work area where it will not get damaged.
7. Remove the brake line clamp from the lower control arm.

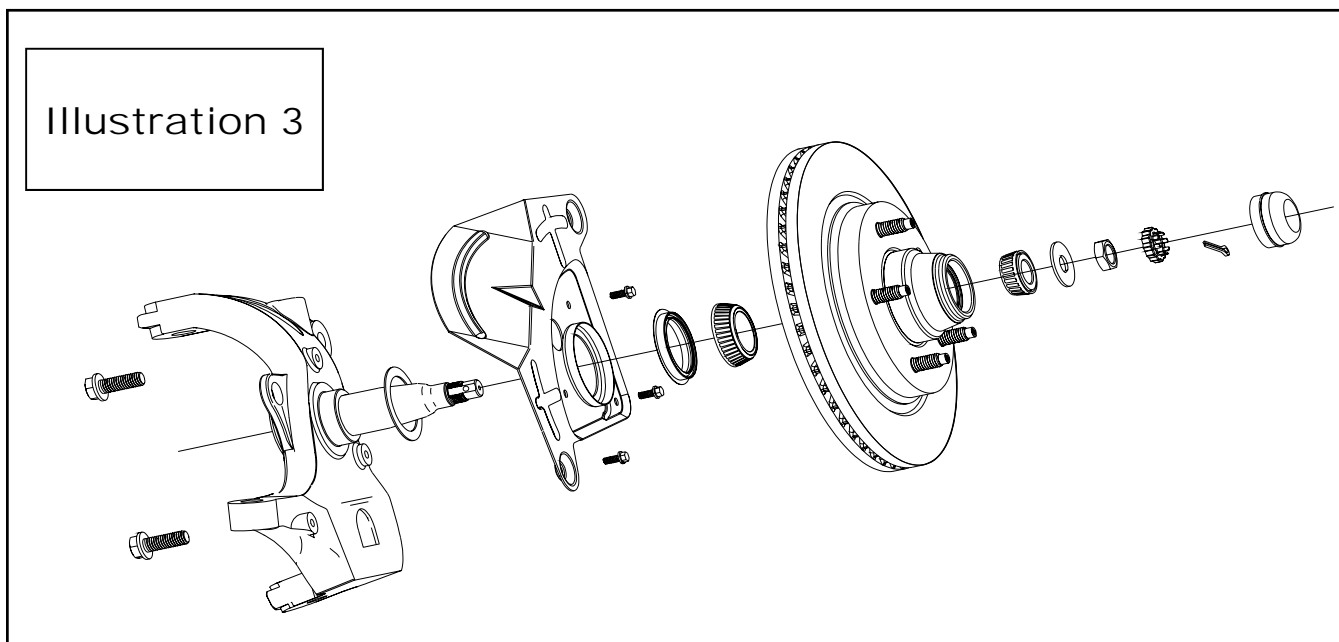


8. Remove the two bolts to the disk brake caliper, lift the caliper off the rotor, Use wire tie or tie wraps to secure them clear of the work area.
NOTE: Be careful that you do not damage the brake lines! Never hang the calipers from the brake lines!
9. Remove the spindle dust covers and remove the spindle cotter pin, nut and washer. Remove the disc brake rotors and set them clear of the work area.
10. Remove the three bolts attaching the splash shields from the OE spindle. Set these parts aside for installation on new spindles.
11. Remove the nuts from the tie rod ends. Using the tie rod end puller, PN T64P-3590-F, remove the tie rod end from the OE spindle. Save the nuts for reuse. Be careful that you do not damage the dust guard or the tie rod ends. ⚠
12. Using a floor jack support the front lower control arm near the spring seat. Raise the jack until it just supports the lower control

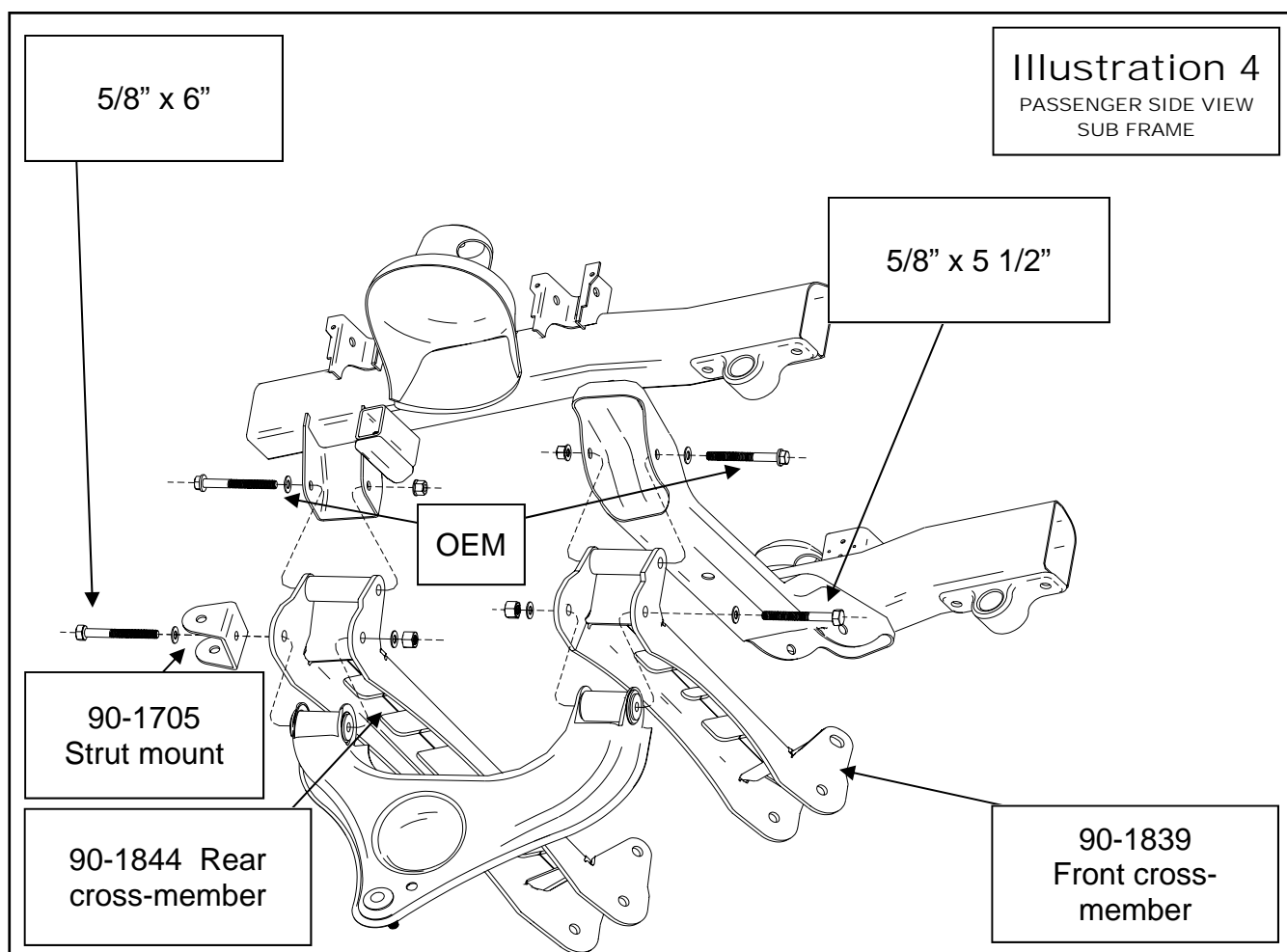
arm.

CAUTION: The floor jack must remain under the front control arm spring seat during disassembly to retain the spring and control arm position or personal injury may result.

13. Install coil spring compressor tool, PN D78P-5310-A or equivalent and compress the coil spring.
14. Locate the upper ball joint, remove the cotter pin and castellated nut from the ball joint. Using the pitman arm puller, PN T64P-3590-F, apply pressure to the tool until the ball joint breaks loose from the upper part of the front spindle.
15. Slowly release the floor jack until all of the pressure has been released. Remove the front coil spring and the compressor.
16. Remove the nuts, washers and bolts fastening the lower control arm to the frame. Set these parts aside for future use.
17. Remove the lower control arm.
- 18. Repeat on other side of the vehicle.** ⚠

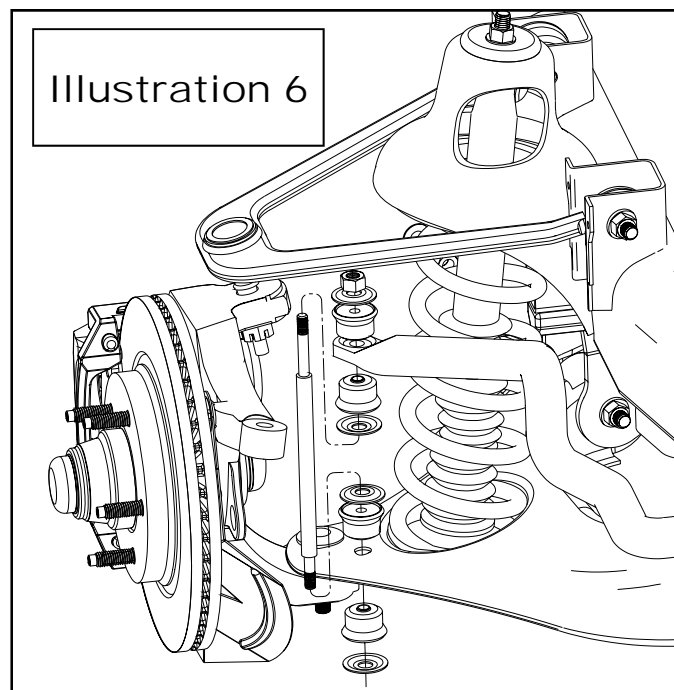
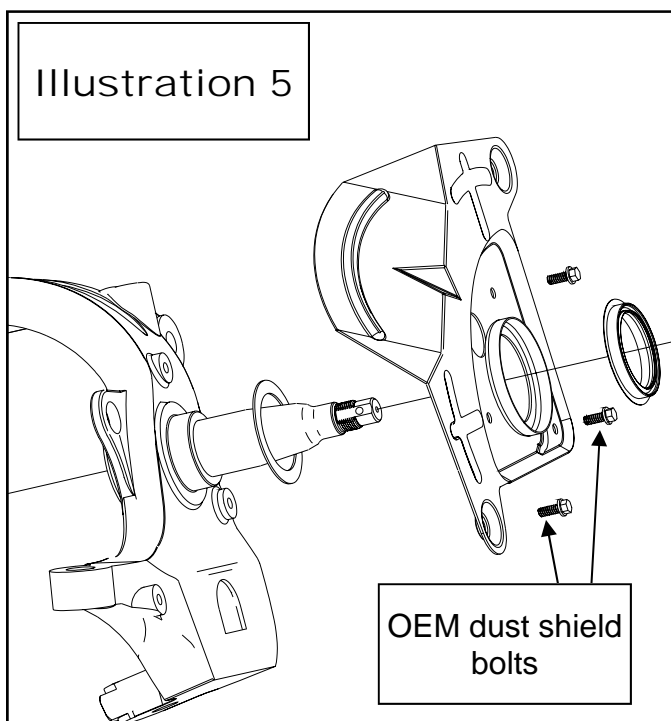


19. Install the front cross-member, **90-1839**, into the existing front lower control arm mounting position, using the OEM hardware previously removed. Make sure that the bolt heads are facing towards the front of the vehicle. Do not tighten at this time.
20. Place the rear cross-member, **90-1844**, into the existing lower control arm mounting position using the OEM hardware previously removed. Make sure that the bolt heads are facing to the rear of the vehicle. Do not tighten at this time.
21. Locate and remove the existing front bump stops. Drill the existing hole to 1/2".
22. Locate **90-1864** bump stop extension. Install bump stop bolt plate **90-1862** into the truck, through the old bump stop bolt location holes. The threads in the bump stop bolt plate should be facing down.
23. Install the bump stop extension **90-1864** with the supplied 3/8" hardware. Torque the hardware to 30 ft./lbs.
NOTE: The hole in the bottom of the bump stop extension is large enough to fit a 3/8" extension through to tighten the inner nut.
24. Install bump stop **15-11031** to the bump stop extension bracket using the supplied 3/8" hardware.
25. Install the lower control arms into the new front and rear cross-member mounting areas. Attach strut mount bracket (PN **90-1705**) to the rear of the lower control arm. Use 5/8" hardware provided. Make sure



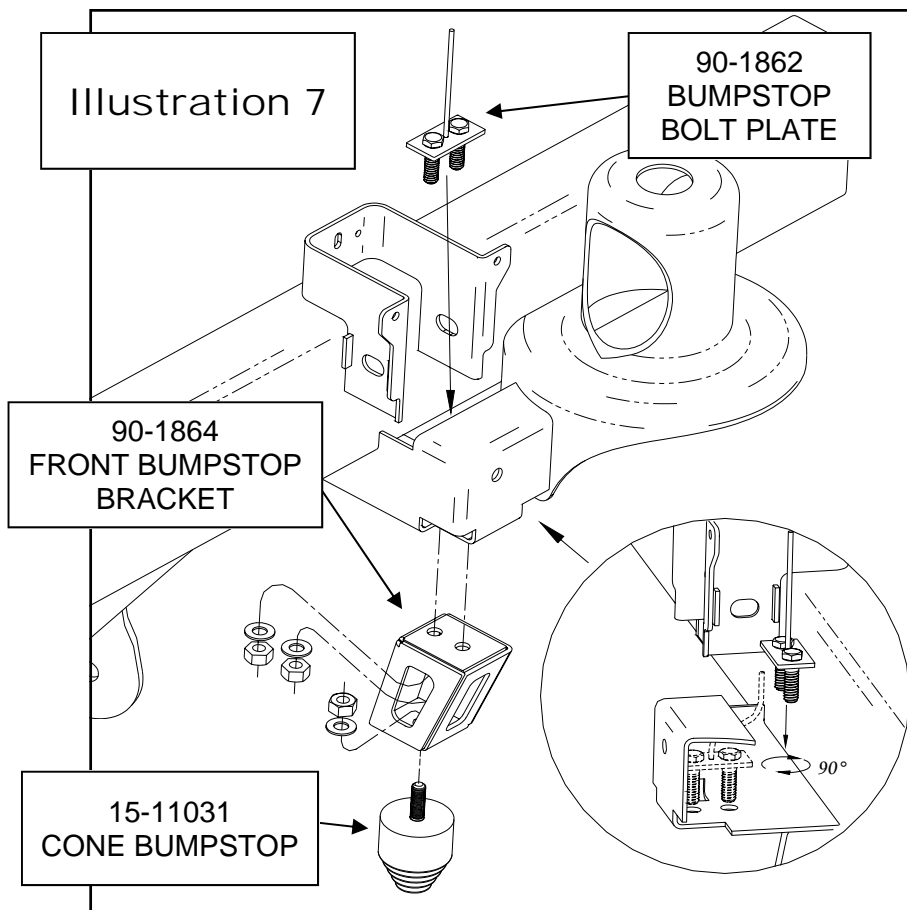
that the bolt heads are facing to the rear of the vehicle. Do not tighten at this time.

26. Torque existing control arm nuts to 100 ft./lbs. Starting with the front then the rear.
27. Using a floor jack support the front lower control arm near the spring seat. Install the coil spring insulator previously removed on to the new coil.
28. Position the coil spring on the lower control arm spring seat. The end of the coil spring should cover the first hole in the lower control arm and be visible in the second.
29. While the lower control arm is supported with the floor jack, compress the coil with the compressor. Place the top of the spring in the upper frame spring pocket.
30. Install new front spindles (**90-4087 DRIVERS and 90-4088 PASSENGER**) to lower control arm ball joints. Fasten with the OEM castellated nuts.
31. Raise the lower control arm using the floor jack. Attach the front spindle to the



upper ball joint. Fasten with the OEM castellated nuts.

32. Reinstall the tie rod ends and fasten with the OEM castellated nuts.
33. Torque the lower ball joint to 94 ft./lbs., Install a cotter pin.
34. Torque the upper ball joint to 74 ft./lbs., Install a cotter pin.
35. Torque the tie rod ends to 40 ft./lbs., Install a cotter pin.
36. Remove the coil spring compressor tool.
37. **Repeat on other side of the vehicle.** ⚡
38. If applicable, re-attach ABS sensor to the front spindle using supplied self tapping screws.
NOTE: Make sure the ABS wire runs under the a-arm not over so the tire will not hit it.
39. Using the template provided, mark and trim the existing brake shields (drivers and passengers side) to provide clearance for the tie rods ends. Install brake shield to new spindles using the hard-



were previously removed. Torque to 19 ft./lbs.

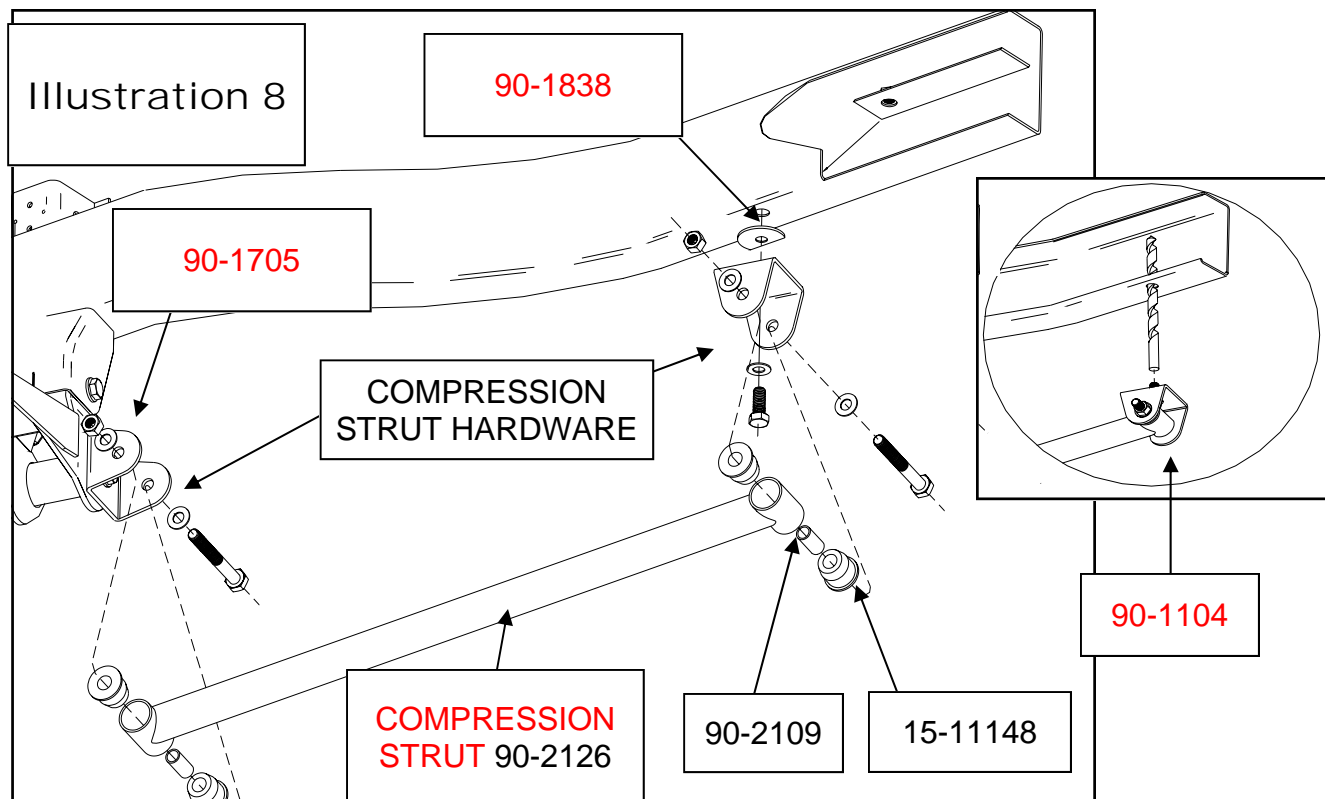
40. Install the new Pro Comp shock absorber **922515** or **MX6028** through the front coil.

41. Install brake rotor onto new front spindle with previously removed hardware, as per Ford repair manual.

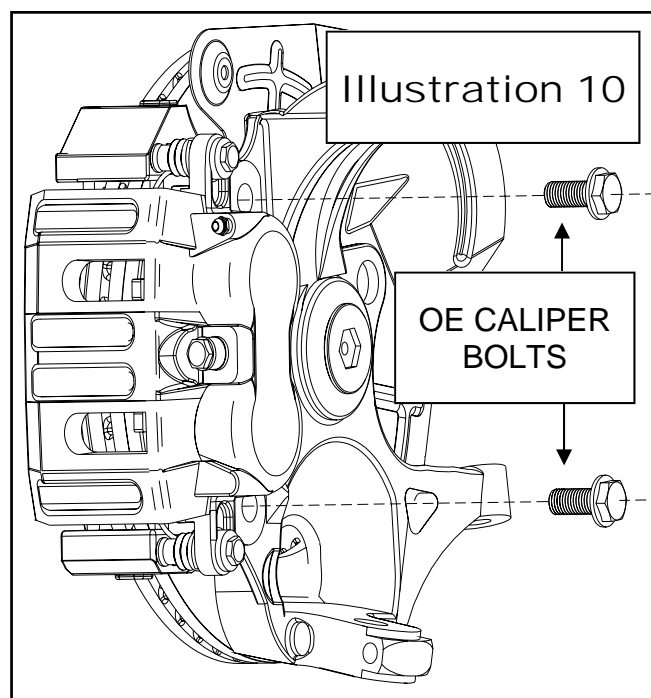
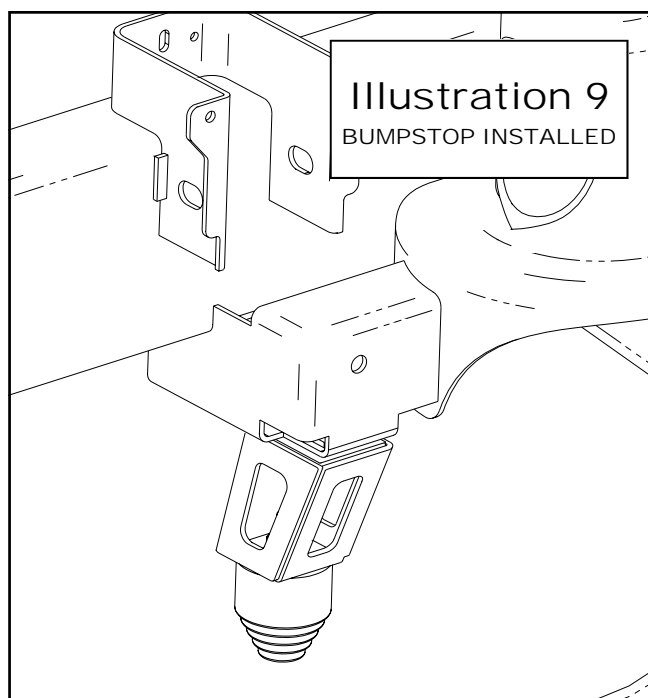
42. Attach the brake caliper assembly to the new front spindle. Torque the bolts to 125-169 ft./lbs.

43. Repeat on other side of the vehicle. ⚠

44. Re-install sway bar to the lower control arm using sway bar link pack **PN 90-6285** and the supplied hardware. See Illustration 6. Torque to 13 ft./lbs.



45. Install the bushings and sleeves into both ends of the compression struts **PN 90-2126**. Attach the compression struts to the strut mount brackets located on the rear cross member, using the supplied hardware. Do not tighten at this time.
46. Attach the strut mount **PN 90-1104** to the other end of the compression strut. Rotate the compression strut assembly upward until the bracket contacts the bottom of the frame rail. Using the bracket as a guide, mark and center punch the mounting hole locations. Drill a 1/2" diameter hole at each of the marked locations. Install the 1/2" hardware provided. Torque the 1/2" hardware to 65 ft./lbs. ⚙
47. Cycle the suspension through full travel cycle and check for adequate clearance between shocks, bump stops and brake line hoses.
48. Raise the lower control arm to the new ride height. This is the measurement from step one plus 5.5– 6.0 inches. Torque the 5/8" hardware to 140 ft./lbs. ⚙
49. Install your wheels and tires and lower the vehicle to the ground. Tighten the lug nuts to 90 ft./lbs. ⚙
50. 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. Use zip ties to secure these items to the steering components. At full droop, cycle the steering from lock to lock while observing the reaction of these components. Reposition them if needed.
51. Recheck for proper installation and torque, all newly installed hardware.
52. After 100 miles recheck for proper torque on all newly installed hardware.
53. Have your headlights adjusted.
54. 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. 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.

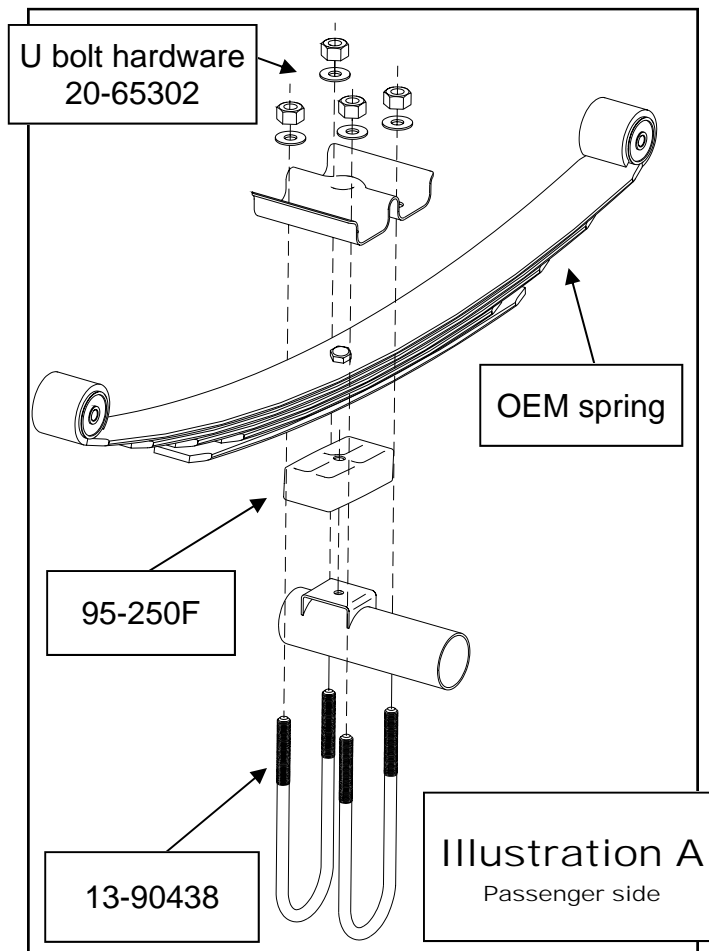
DO NOT allow the axle to hang by any hoses or cables.

4. On drivers side, unbolt the existing brake line bracket from the frame.
5. Install the supplied brake line extension bracket, 90-1817, to the frame using supplied 3/8" hardware. Then bolt the factory bracket to the new bracket. See **Illustration C**.
6. Remove the factory bump stop.
7. Locate PN **90-2144**, rear bump stop extension. Using the bump stop previously removed, install it to the bump stop extension bracket. Install this unit into the originals location, with the supplied hardware pack.
NOTE: You may need to trim off the factory location tab. See **Illustration B**.
8. Support the rear axle with a floor jack and remove the U-bolts on the driver side. Loosen the U-bolts on the passenger side.
9. Install the lift block (**95-250F**) on the axle pad and use your floor jack to raise the axle to the spring. Apply a slight amount of pressure with your floor jack against the spring pack and engage the centering stud into the locating hole at the top of the lift block.
10. Secure the assembly with the U-bolts supplied in hardware pack and new high-nuts and washers from hardware pack. Do

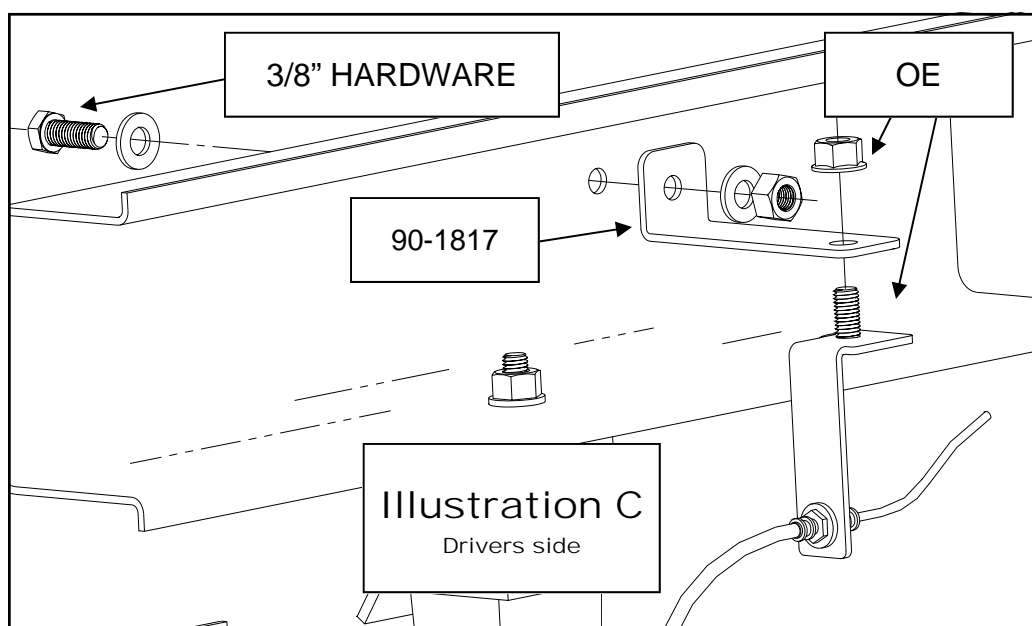
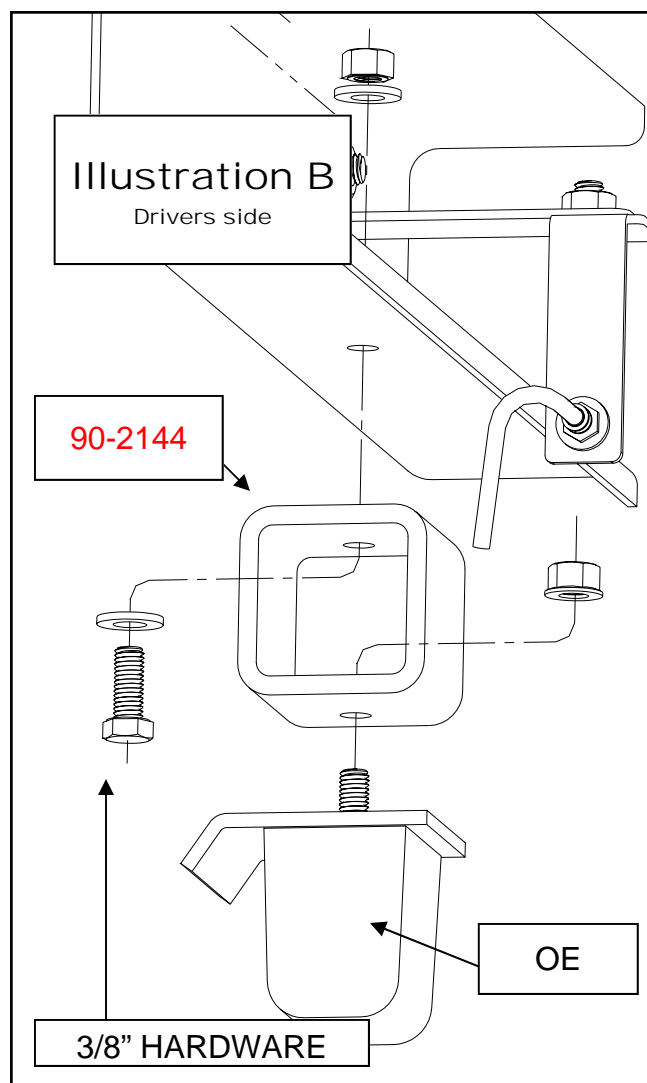
not tighten the U-bolts at this time. See **Illustration A**.

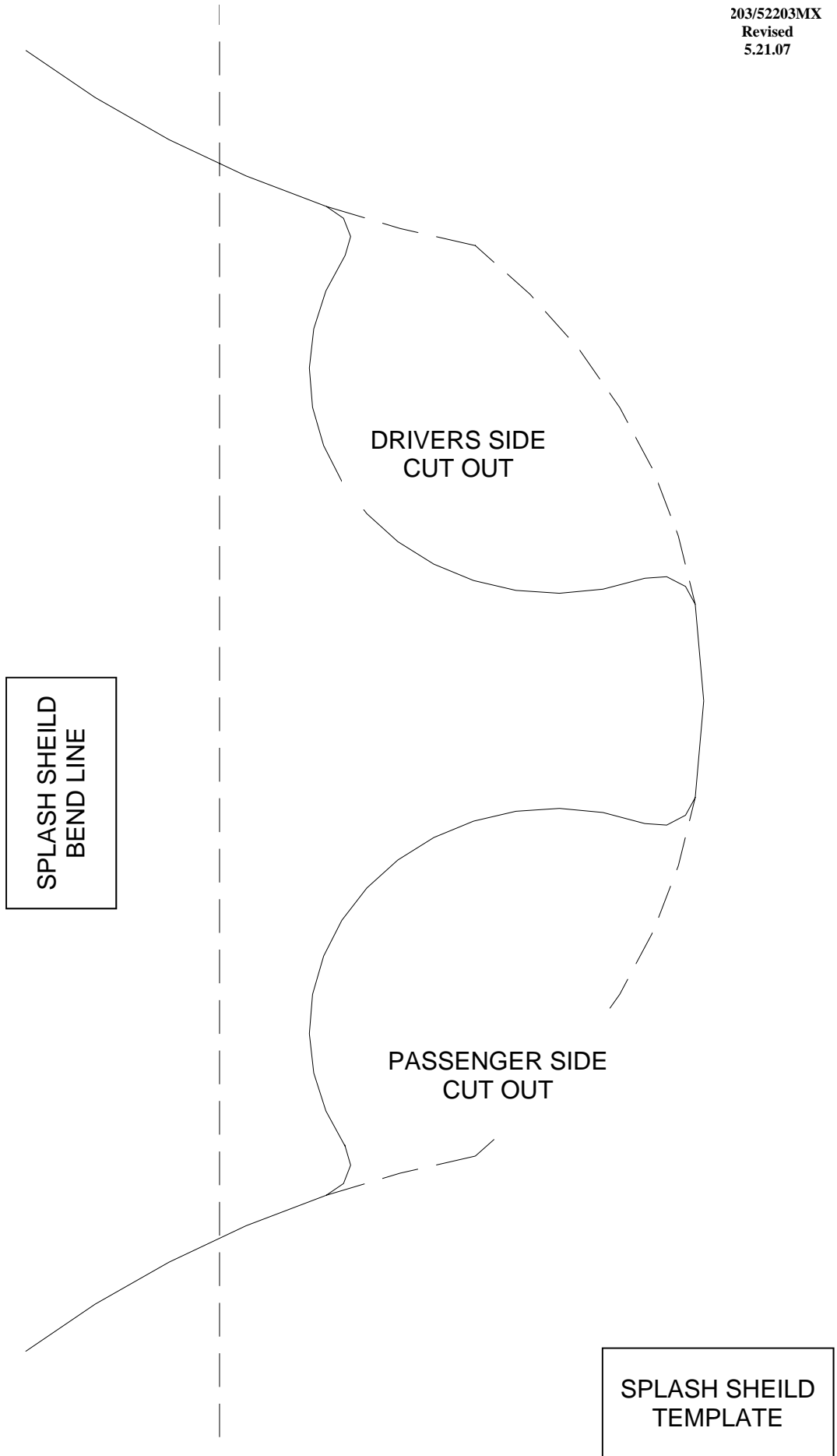
NOTE: make sure the block sits flush on the axle perch.

11. Repeat the installation on the other side of the vehicle. ⚠
12. When the installation of the remaining side is complete, torque the U-bolts to 85 ft. lbs.
13. Install your new Pro Comp shocks **926510 or MX6081** and torque this hardware to 60 ft. lbs.
14. Reinstall the wheels and tires and lower the vehicle to the ground.
15. Recheck the wheel lug torque on all four wheels at this time.



16. Recheck all hardware for proper installation and torque at this time.
17. On completion of the installation, have the suspension and headlights re-aligned. ⚠
18. After 100 miles recheck for proper torque on all newly installed hardware.
19. Recheck all hardware for tightness after off road use. ⚠





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

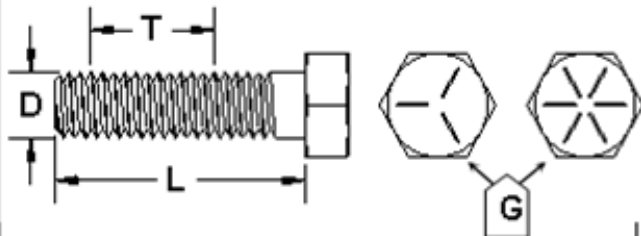
Bolt Torque and ID

Decimal System

Metric System

All Torques in Ft. Lbs. Maximums

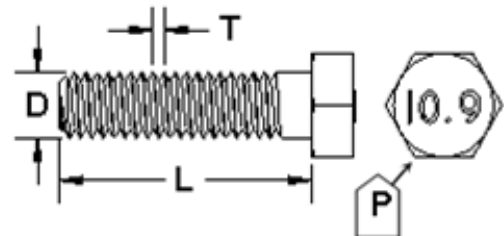
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9
5/16	15	20	M6	5	9	12
3/8	30	45	M8	18	23	27
7/16	45	60	M10	32	45	50
1/2	65	90	M12	55	75	90
9/16	95	130	M14	85	120	145
5/8	135	175	M16	130	165	210
3/4	185	280	M18	170	240	290



1/2-13x1.75 HHCS



Grade 5 Grade 8
(No. of Marks + 2)



M12-1.25x50 HHCS



G = Grade (Bolt Strength)
 D = Nominal Diameter (Inches)
 T = Thread Count (Threads per Inch)
 L = Length (Inches)
 X = Description (Hex Head Cap Screw)

P = Property Class (Bolt Strength)
 D = Nominal Diameter (Millimeters)
 T = Thread Pitch (Thread Width, mm)
 L = Length (Millimeters)
 X = Description (Hex Head Cap Screw)

Notice to Owner operator, Dealer and Installer:

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 your Dealer/Installer explains and delivers all warning notices, warranty forms and instruction sheets included with Pro Comp product.

Application listings in this catalog have been carefully fit checked for each model and year denoted. However, Pro Comp reserves the right to update as necessary, without notice, and will not be held responsible for misprints, changes or variations made by vehicle manufacturers. Please call when in question regarding new model year, vehicles not listed by specific body or chassis styles or vehicles not originally distributed in the USA.

Please note that certain mechanical aspects of any suspension lift product may accelerate ordinary wear of original equipment components. Further, installation of certain Pro Comp products may void the vehicle’s factory warranty as it pertains to certain covered parts; it is the consumer’s responsibility to check with their local dealer for warranty coverage before installation of the lift.

Warranty and Return policy:

Pro Comp warrants its full line of products to be free from defects in workmanship and materials. Pro Comp’s obligation under this warranty is limited to repair or replacement, at Pro Comp’s option, of the defective product. Any and all costs of removal, installation, freight or incidental or consequential damages are expressly excluded from this warranty. Pro Comp is not responsible for damages and / or warranty of other vehicle parts related or non-related to the installation of Pro Comp product. A consumer who makes the decision to modify his vehicle with aftermarket components of any kind will assume all risk and responsibility for potential damages incurred as a result of their chosen modifications. Warranty coverage does not include consumer opinions regarding ride comfort, fitment and design. Warranty claims can be made directly with Pro Comp or at any factory authorized Pro Comp dealer.

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
 - Discontinued products at Pro Comp’s discretion
- Bent or dented product
- Finish after 90 days
- Leaf or coil springs used without proper bump stops
- Light bulbs
- Products with evident damage caused by abrasion or contact with other items
- Damage caused as a result of not following recommendations or requirements called out in the installation manuals
- Products used in applications other than listed in Pro Comp’s catalog
- Components or accessories used in conjunction with other manufacturer’s systems
- Tire & Wheel Warranty as per Pro Competition Tire Company policy
- Warranty claims without “Proof of Purchase”
- Pro Comp Pro Runner 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.

E-Mail: tech@explorerprocomp.com
Website: www.explorerprocomp.com
Fax: (619) 216-1474
Ph: (619) 216-1444

PLACE
<u>WARRANTY REGISTRATION</u>
<u>NUMBER</u>
HERE: _____