



PRO COMP SUSPENSION

Suspension Systems that Work!

**Part # 52419/52419MX
(April) 1999-2004 FORD 4 X 4
SUPER DUTY F250- F350
8 1/2" SUSPENSION SYSTEM**

Not for use on vehicles made prior to 04-01-1999!

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 3-PN 52419/52419MX-1

Part #	Description	Qty.	Illus.	Page
90-3007	SUPERDUTY 2" FRONT HANGER DROP (DRVR)	1	1,3,4	6,7
90-3002	SUPERDUTY 2" FRONT HANGER DROP (PASS)	1	-	-
90-3000	SUPERDUTY 2" FRONT SHACKLE	2	2	7
MO-2168-BK-01	BUMP STOPS	2	6	8
90-6154	HARDWARE PACK CONTAINING:	1	-	-
90-1216	LOAD WASHER	1	7	9
72-01015008812	10 MM-1.5 NUT (CENTER BOLT NUT)	4	12A,12B	12,13
90-3113	BUMP STOP SPACER	2	6	8
90-3114	BUMP STOP SPACER	2	6	8
95-150F	1 1/2" ALUMINUM BLOCK	2	12A,12B	12,13
95-100F	1" ALUMINUM BLOCK	2	12B	13
FD500-1	PITMAN ARM	1		
90-6041	HARDWARE PACK CONTAINING:	1	-	-
20-65302	HARDWARE PACK 9/16" HIGHNUTS & WASHERS	1	-	-
20-65471	HARDWARE PACK 5/8" HIGHNUTS & WASHERS	1	12A,12B	12,13
70-0502751800	1/2"X2 3/4" USS GR. 8 HEX BOLT	1	7	9
71-1207017508800	12MMX70MM 1.75 PITCH GR. 8.8 HEX BOLT	2	11	11
72-01217508812	12MMX1.75 PITCH NYLOC NUT	2	11	11
72-03700100512	3/8" USS GR. 5 NYLOC NUT	2	6	8
72-05000100816	1/2" USS GR. 8 STOVER NUT	1	6	8
73-03700032	3/8" USS FLAT WASHER	2	6	8
73-05000032	1/2" USS FLAT WASHER	2	5	8
73-05000042	1/2" USS HARDENED FLAT WASHER	2	7	9
90-6337	HARDWARE PACK CONTAINING:	1	-	-
97-165	10MM X 165MM SUPER DUTY CENTER PIN	2	11A,11B	12,13
90-4107	DRIVESHAFT SPACER	1	9	10
90-3053	REAR DRIVESHAFT SHIM	1	10	11

Box 2 of 3-PN 52419/52419MX-2

90-1318	TRACK ROD MOUNT	1	7	9
13-90180	5/8"X3 1/2"X15 3/4" ROUND U-BOLT	4	12A,12B	12,13
13-90530	9/16" X 3 1/8" X 11 1/4" OVAL U-BOLT	4	-	-
90-6042	PART PACK CONTAINING:	2	-	-
45359	5/8" RUBBER HOURGLASS BUSHING	4	5,11	8,11
60859H	5/8" ODX12 MM IDX1.480" SLEEVE	4	5,11	8,11
90-2446	SWAY BAR LINKS	4	5,11	8,11

Part #	Description	Qty.	Illus.	Page
90-6338	CAM HARDWARE PACK:	1	-	-
90-2033	CAM TUBE	2	7	9
90-2034	.230 OFFSET HEX	4	7	9
90-6343	HARDWARE PACK: TRACK BAR BOLTS	1	-	-
70-0564001000	9/16" X 4" SAE GR. 10 HEX BOLT	2	7	9
72-05600201016	9/16" SAE GR. 10 STOVER NUT	2	7	9
73-05600034	9/16" SAE HARDENED FLAT WASHER	4	7	9
13-90356	9/16"X3 1/8"X9-1/4" SQUARE U-BOLT	4	-	-
90-6341	HARDWARE PACK: DRIVESHAFT/SWAY BAR	1	-	-
.120C600HCS1Y	12MM X 1.75 X 60 MM 10.9 HEX BOLT	4	9	10
73-01200830	12MM SAE FLAT WASHER	4	9	10
70-0431251800	7/16"-14 X 1 1/4" HEX BOLT GR. 8	2	10	11
73-0400830	7/16" SAE FLAT WASHER	4	10	11
72-043100816	7/16"-14 UNITORQUE NUT GR.8 ZINC	2	10	11
73-05000032	1/2" USS FLAT WASHER	14	5,11	8,11
71-1207517508800	12MMX75MM 1.75 PITCH GR. 8.8 HEX BOLT	2	11	11
72-01217508812	12MMX1.75 PITCH NYLOC NUT	2	11	11
90-6339	HARDWARE PACK: BUMPER SUPPORT	1	-	-
73-0400830	7/16" SAE FLAT WASHER	2	3	7
70-0431001800	7/16" X 1" GR. 8 HEX BOLT	2	3	7
73-4300832	7/16" USS FLAT WASHER	2	3	7
72-043100816	7/16" GR. 8 STOVER NUT	2	3	7
Box 3 of 3-PN 52419-3				
929508	FRONT SHOCKS	2	-	-
936008	REAR SHOCKS	2	-	-
OR Box 3 of 3-PN 52419BMX-3				
MX6005	MX-6 FRONT SHOCKS	2	-	-
MX6018	MX-6 REAR SHOCKS	2	-	-
90-3215	REAR SHOCK BRACKET- (Driver)	1	-	-
90-3216	REAR SHOCK BRACKET- (Passenger)	1	-	-

The following parts are used in conjunction with this kit and must be purchased separately.

22610	FRONT LEAF SPRINGS	2	2,3,4	7
22415	REAR LEAF SPRINGS	2	12A,12B	12,13

Special Tools:

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

Optional Equipment Available from your PRO COMP Distributor!

FRONT DUAL SHOCK KITS:	PN 52410 DOUBLE BRACKET KIT
	PN 52420 DOUBLE HOOP KIT
TRACTION BARS:	PN 72400 TRACTION BARS
	PN 72099 MOUNTING KIT
LIGHT BARS:	PN 24400 (BLACK), 24400G (GREY)
STEERING STABILIZERS:	PN 222570
FRONT CRASH BAR KIT:	PN 52483

ALSO, CHECK OUT OUR OUTSTANDING SELECTION OF PRO COMP TIRES TO 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 suspension and head light realignment is necessary!
- ⇒ Speedometer and ABS recalibration will be necessary if larger tires (10% more than stock diameter) are installed.
- ⇒ **IT IS ADVISABLE THAT YOU HAVE HELP AVAILABLE WHEN INSTALLING THIS KIT. SOME COMPONENTS ARE HEAVY AND AWKWARD. AN ADDITIONAL SET OF HANDS IS GOOD INSURANCE AGAINST INJURY!**

Important!

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, we recommend a wheel not to exceed 10" in width with a minimum backspacing of 4" must be used. Additionally, a quality tire of radial design, not exceeding 37" tall X 13.5" wide is also recommended. Please note that the use of a 37" X 13.5" 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.

Before You Begin:

- ⇒ Read the instructions and study the illustrations before attempting the installation.
- ⇒ Separation the 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 parts and hardware against the parts list to assure that your kit is complete.
- ⇒ ALWAYS wear safety glasses when using power tools or working beneath your vehicle.
- ⇒ A pitman arm removal tool and tie rod separating tool are required to perform the installation. See the special tools at the bottom of page 3.
- ⇒ Always use NEW cotter pins on re-assembly! (These items are NOT supplied)

Front Installation:

1. Position your vehicle on a smooth, flat, hard surface (i.e. concrete or asphalt) and block the rear tires. Set the parking brake.
2. Measure and record the distance from the center of each wheel to the top of its fender opening. Record below.
LF: _____ **RF:** _____
LR: _____ **RR:** _____
3. Remove the track bar and set aside for later reinstallation.
4. Place the vehicle in neutral. Place your floor jack under the front axle and raise the vehicle. Place jack stands under the frame rails behind the front leaf spring shackles 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.
5. Remove the front wheels on both sides.
6. Remove the sway bar links on both sides of the vehicle. Save hardware for reuse.
7. Remove the front bumper, support brackets and all plastic push pins from Core support. If vehicle is equipped with driving lights and or a block heater you must first disconnect wiring harnesses to allow bumper removal. Save hardware for reinstallation.
8. Remove factory lower crash bar and plastic air diverter if vehicle came equipped with them. The factory bar will not re installed with this kit.

NOTE: It is highly recommended that you replace the discarded factory crash bar with the new Pro Comp crash bar kit # 52483.
9. Remove the transfer case skid plate and remove the four bolts securing the front drive-shaft to the transfer case. Allow the drive-shaft to rest on the crossmember.
10. Using a tie rod separator tool separate pitman arm and draglink. Secure drag link out of the

way.

11. Remove the bolts that secure the disk brake caliper, lift the calipers 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!

12. Unclip the differential vent tube from frame. Pull the tube down to provide more slack and remount the clip to frame.
13. Loosen the U-bolts on the passenger side of the vehicle. This will make installation of the new spring and U-bolts easier.
14. On the driver side, raise the front axle slightly with your floor jack. Remove the shock absorber and discard the shock. Save the hardware for re-use.
15. Remove the U-bolts from the axle.
16. Lower the axle on the driver side to clear the spring and remove the spring from the truck.

Note: You will need to remove the lower AC condenser mount to perform the next step. This bracket prevents the complete removal of the front spring mount bolt. Remove the AC mount on the side you are working on ONLY.

Tech Tip: Factory spring bolts are secured with thread lock[®] which makes removal difficult. By warming the nut with a propane torch to approximately 300° Fahrenheit, the thread lock[®] will release allowing easier removal with hand tools.

ALWAYS have a fire extinguisher handy whenever using an open flame on or near ANY vehicle!

17. Remove the factory front spring hanger. Save all hardware for reuse.
18. Remove the front shackle from frame. Save all hardware for reuse.

NOTE: It is necessary to loosen the passenger side upper shackle bushing to clear exhaust pipe when removing bolt. Leave loose until after installation of new shackle.

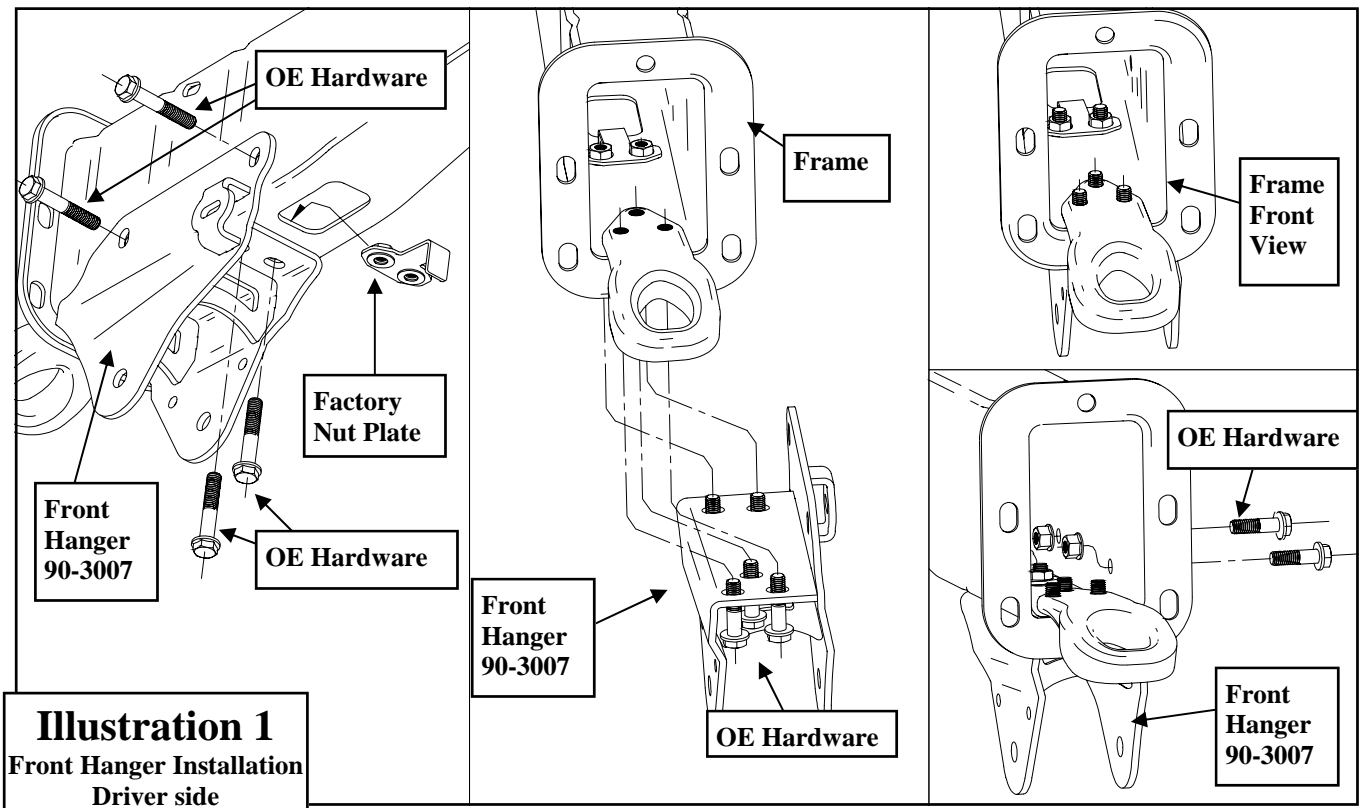


Illustration 2

Front Shackle
Driver Side

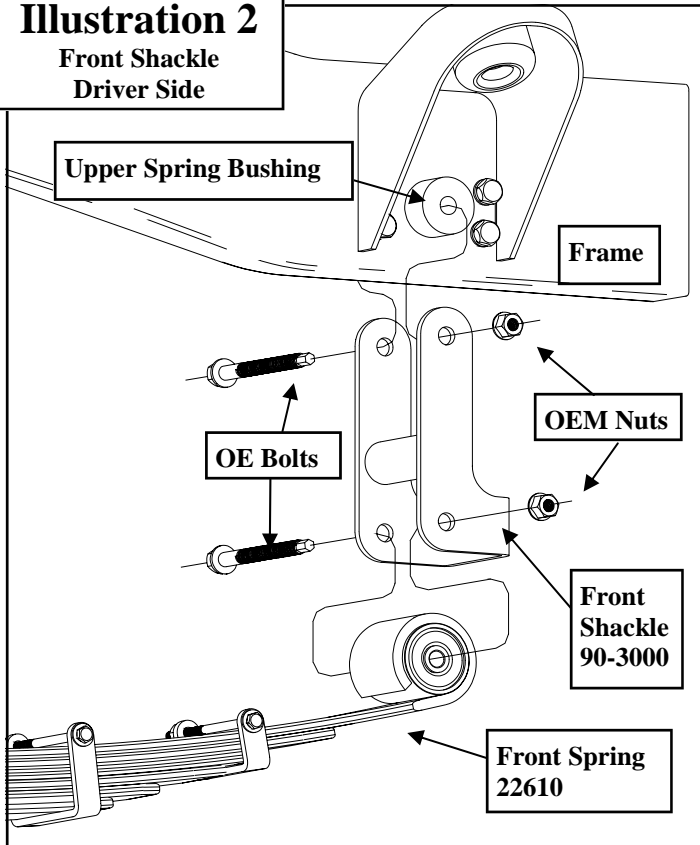


Illustration 3

Front Bumper Ext.
Driver Side

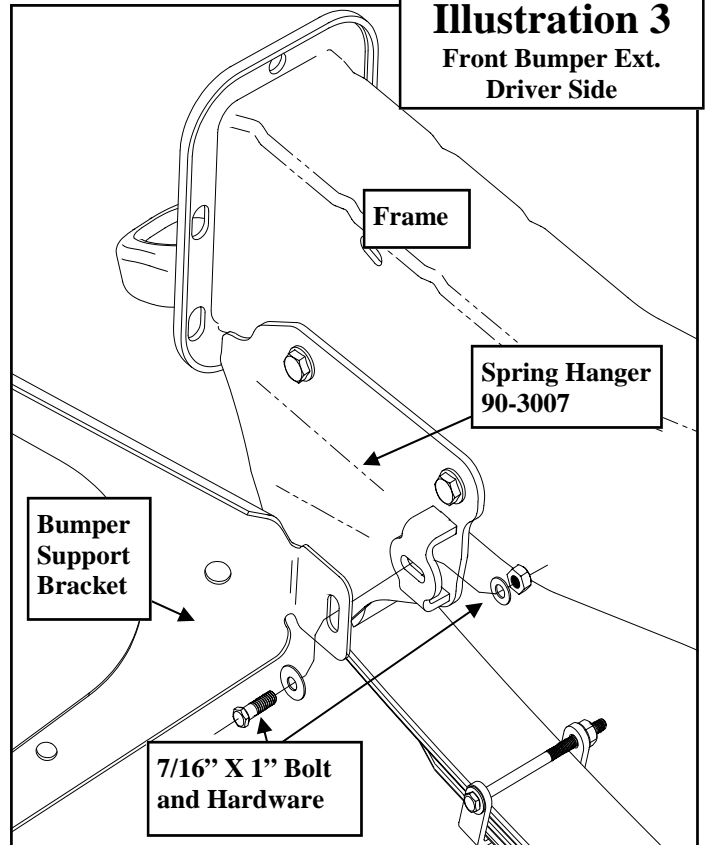
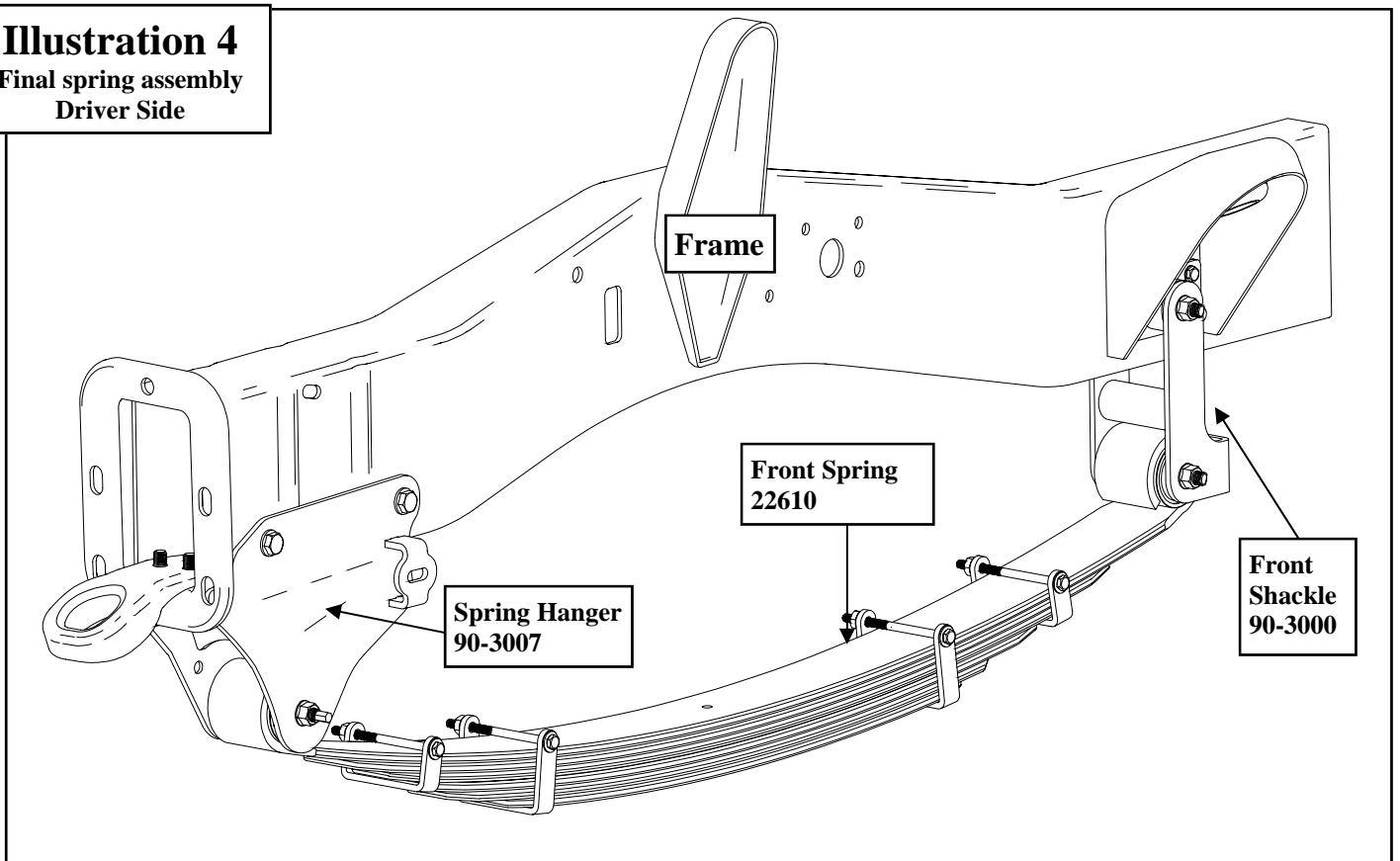
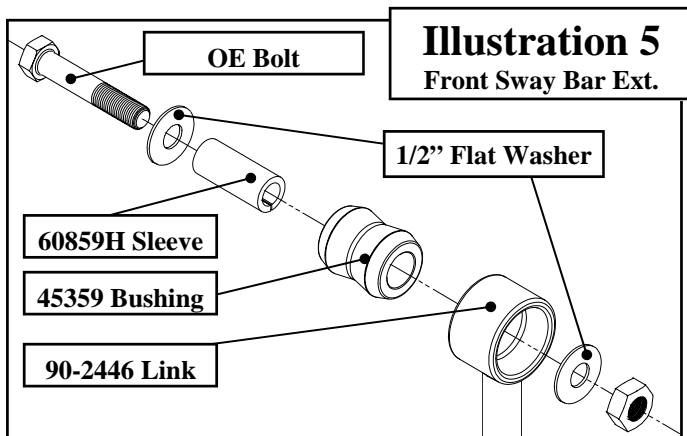


Illustration 4

Final spring assembly
Driver Side





19. Remove the cast track bar mount on the driver side. Save the bolts and nut plate for re-use.

NOTE: First brake bolts loose by hand to avoid braking nut plate.

20. Install the new front hanger drops (PN 90-3007) Driver side and (PN 90-3002) Passenger side using the previously removed hardware. Installs exactly like the stock hangers. SEE ILLUSTRATION 1.

21. Install the front shackle (PN 90-3000) using previously removed hardware as shown in ILLUSTRATION 2.

NOTE: If you purchased Pro Comp crash bar kit (PN 52483) install it at this time

22. Install the front springs (PN 22610) into the new hanger drop and shackle using the factory hardware. Do not torque this hardware at this time.

Important:

The Pro Comp front leaf spring (PN 22610) is supplied with a 1/2" thick spacer block on the bottom of the spring pack. This spacer is for the **diesel application only** and must be removed for vehicles with gasoline engines. To remove the spacer, hold the spring pack together with C-clamps and remove the center pin nut. Remove the center pin and spacer. Reinstall the center pin. Discard the old nut and replace it with the new nut provided in parts pack 90-6154. Torque the nut to 40 ft. lbs.

NOTE: Top spring plate center hole needs to be drilled out to 3/4" to clear nut from pack 90-6154.

23. Reinstall the AC condenser mount before you remove the mount on the opposite side!
24. Raise the axle to the spring and secure it with the new U-bolts, 9/16" Hi-nuts (PN 20-65302) and washers supplied. Again do not torque this hardware at this time.

NOTE: Two sets of 9/16" U-bolts are supplied. PN 13-90530 (round bend) and PN 13-90356 ("square bend") Use the new U-bolts that have the same bend configuration as your OE U-bolts.

Repeat steps 13 thru 18 and 20 thru 24 on the passenger side

25. Install the new front shock (PN 929508 or MX6005) and torque the mounting hardware to 60 ft. lbs.
26. Assemble (2) new front sway bar links (PN 90-2446) using the bushings (PN 45359) and sleeves (PN 60859H) supplied in parts pack 90-6042. Install each side in the stock position using the previously removed OE hardware and supplied 1/2" washers from pack (90-6341). See ILLUSTRATION 5. Torque this hardware to factory specifications.
27. Use a pitman arm puller (See special tools section on page 3) to remove the OE pitman arm.

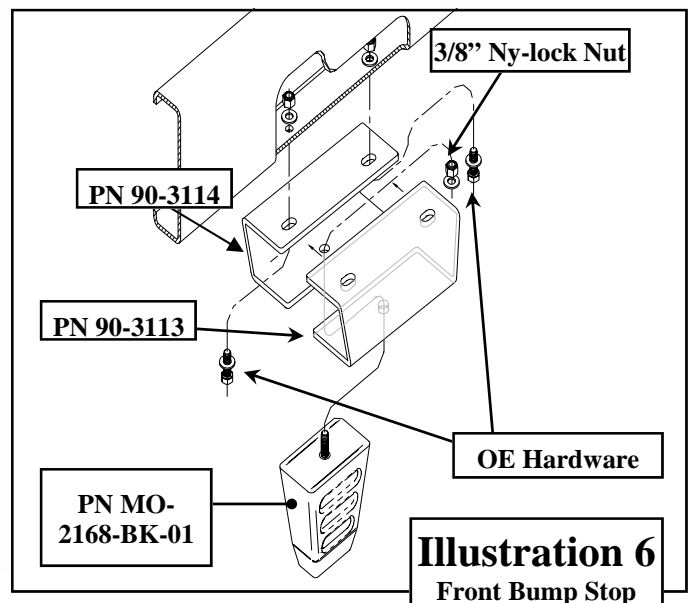
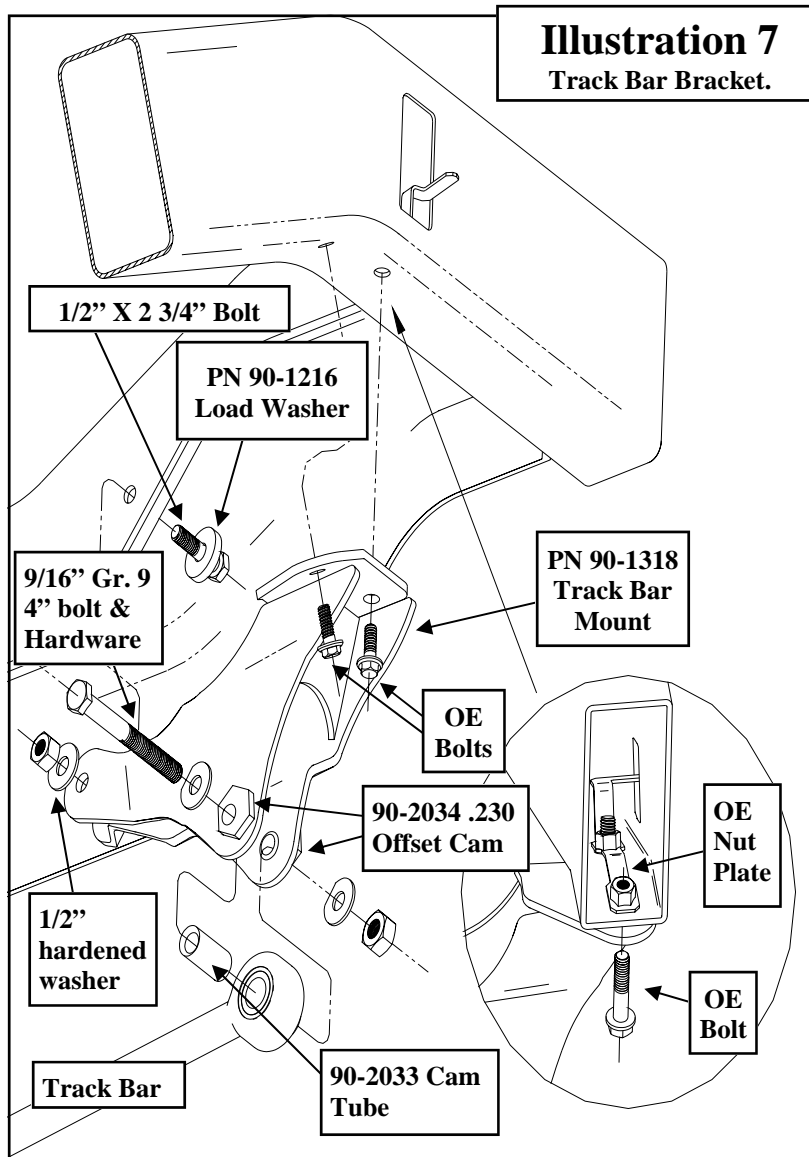


Illustration 7
Track Bar Bracket.



Important: No matter how much you are tempted, **DO NOT** use a torch to heat the pitman arm to remove it! The arm is very close to the steering box seals and you will probably burn the seals before the pitman arm comes loose. Use the proper tools!

28. When installing your new pitman arm you will need to first measure the sector shaft coming out of the steering box. If the diameter of the sector shaft above the splines is 1.3125 inches, install the **FD 400** pitman arm. If the diameter of the sector shaft above the splines is 1.375 inches, install the **FD 500** pitman arm. Install the pitman arm and hand

tighten sector shaft nut then tighten only with a torque wrench. Torque sector shaft nut to 200 ft. lbs.

29. Install the drag link to the pitman arm and torque this fastener to 60 ft. lbs.

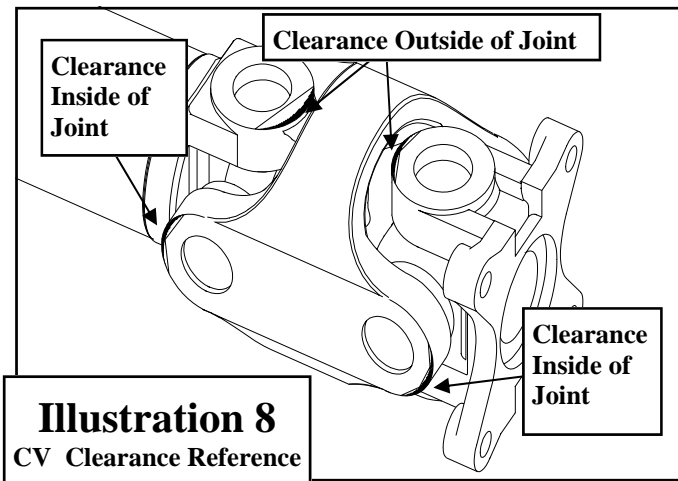
30. Remove the bump stops from the frame flange. Position the bump stop spacers (PN **90-3113** and **3114**) in the center of the lower frame flange. Secure the spacer block with the factory mounting hardware. Install the new bump stops (PN **MO-2168-BK-01**) with the **3/8"** Ny-lock nuts from hardware pack **90-6041**. See ILLUSTRATION 6.

31. Install the Pro Comp track rod mount (PN **90-1318**). Use the existing bolts and pal nuts on the frame and use the new **1/2" X 2 3/4"** bolt and **hardened 1/2"** washers from hardware pack (**90-6041**) with the load washer (PN **90-1216**) from pack (**90-6154**) under the head of the bolt, through the cross member. Install the **1/2"** bolt from the rear of the vehicle. The load washer, when properly installed, will be between the head of the bolt and the cross member as shown in ILLUSTRATION 7. Torque this bolt to 85 ft. lbs.

32. Slip in new aluminum front driveshaft spacer (PN **90-4107**) and fasten with supplied **12mm X 60mm** Bolts and washers from hardware pack (PN **90-6341**). SEE ILLUSTRATION 9. Rotate driveshaft to check for binding. If it binds the driveshaft must be cleared by a qualified driveline shop. SEE ILLUSTRATION 8.

NOTE: The use of this driveshaft spacer is intended for light usage only. If the intended usage is for high speed off road, this spacer should not be installed. The factory front drive-shaft should be lengthened by a qualified driveline shop.

33. Re-install the front bumper using the previously removed OE hardware and the supplied **7/16" X 1 1/4"** hardware from hardware pack (**90-6339**). See ILLUSTRATION 3.



NOTE: Loosening of the bumper support bracket bolts will aid in attaching bracket to spring hanger.

NOTE: Minor trimming of the lower plastic valance is required on vehicles equipped with one. Valance must be trimmed in order for the bumper to properly fit on the truck without contacting the front of the spring eye. Test fit, mark area, then remove and trim.

NOTE: It may be necessary to file smooth the inside of the track bar sleeves before continuing installation.

34. Install offset drilled sleeves into track bar (PN 90-2033). Position sleeves so as to make the holes as far away from each other as possible. See ILLUSTRATION 7. (Press sleeves into holes, do not hammer).

35. Install two .230 offset hex cams (PN 90-2034) from pack (90-6338) into the track bar bracket on the axle. Rotate until the hole in the cam is as close to the driver side as possible. Install track bar and 9/16" x 4" bolt washers and nut from pack (90-6343). Do not torque at this time.

36. Reattach the brake calipers. Torque to factory specifications.

37. Carefully bend down the factory front brake line brackets so that they are parallel with

the ground.

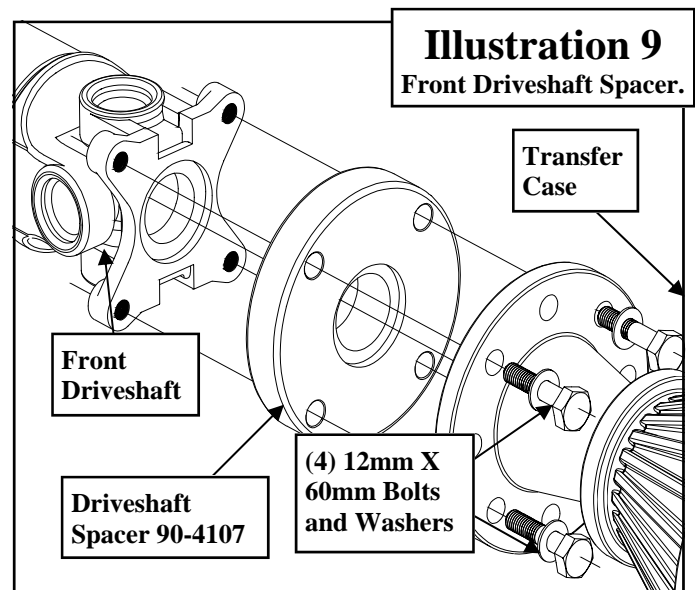
NOTE: Additional clearance may be necessary. Unbolt the bracket from the frame. Drill a 1/4" hole directly 2" below the existing hole and remount. Reroute all lines and wires to ensure that there is no rubbing, stretching or pinching.

38. Install the wheels and set the vehicle on the ground. Torque the lug nuts to manufacturer specifications.

39. Install the remaining .230 hex cams into the track bar bracket (90-1318) on driver side. The shoulder of the cam when installed must not protrude past the inside of the track bracket. See ILLUSTRATION 7.

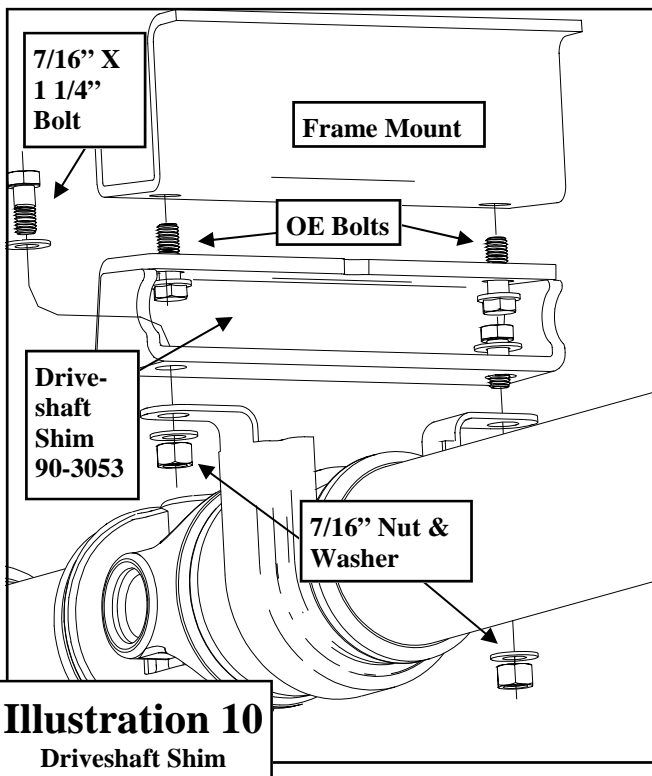
40. Install track bar into bracket and rotate cams until they align with the hole in the track bar. Install 9/16" x 4" bolt, washers and nut from pack (90-6343). It may be necessary to rotate cams on axle to help align track bar bolt holes. Torque the 9/16" bolts to 105 ft./lbs.

41. Torque the 18mm spring mount bolts to 130 ft. lbs. Torque the 16mm spring mount bolts to 115 ft. lbs. Torque the 9/16" U-bolts to 100 ft.



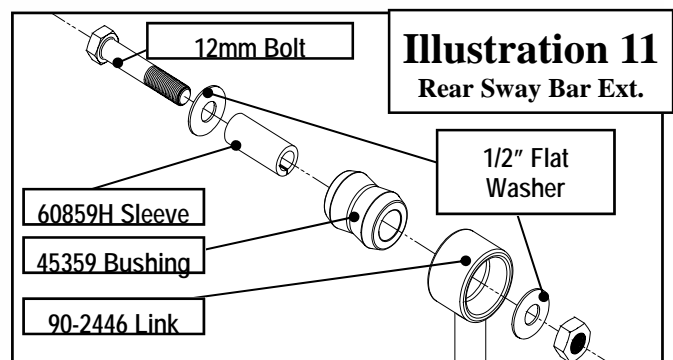
Rear Installation:

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 factory rear sway bars end links.
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. Carefully bend the factory brake line bracket down to provide adequate slack in the line. Remount differential vent tube and secure lines. Make sure there is no pinching,



stretching or rubbing.

6. Loosen emergency brake cable bracket on driver side, over rear tire, and rotate it down into the larger hole below and refasten the bolt. Make sure there is no pinching, stretching or rubbing.
7. 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.
8. Lower the rear axle and remove the factory block and rear leaf spring from the driver side only at this time.
9. The heavy factory leaf on the bottom of the leaf pack and the upper overload spring must be removed and used on the new Pro Comp rear leaf spring. Use C-clamps to hold the leaves together. Make note of the direction of the arch and the offset of the centering hole (long end back etc.). Remove the OE center bolts and separate the spring pack. Use ILLUSTRATION 12a AND 12b on the pages 12 & 13 as a reference.
10. Install the heavy leaf on the bottom of the



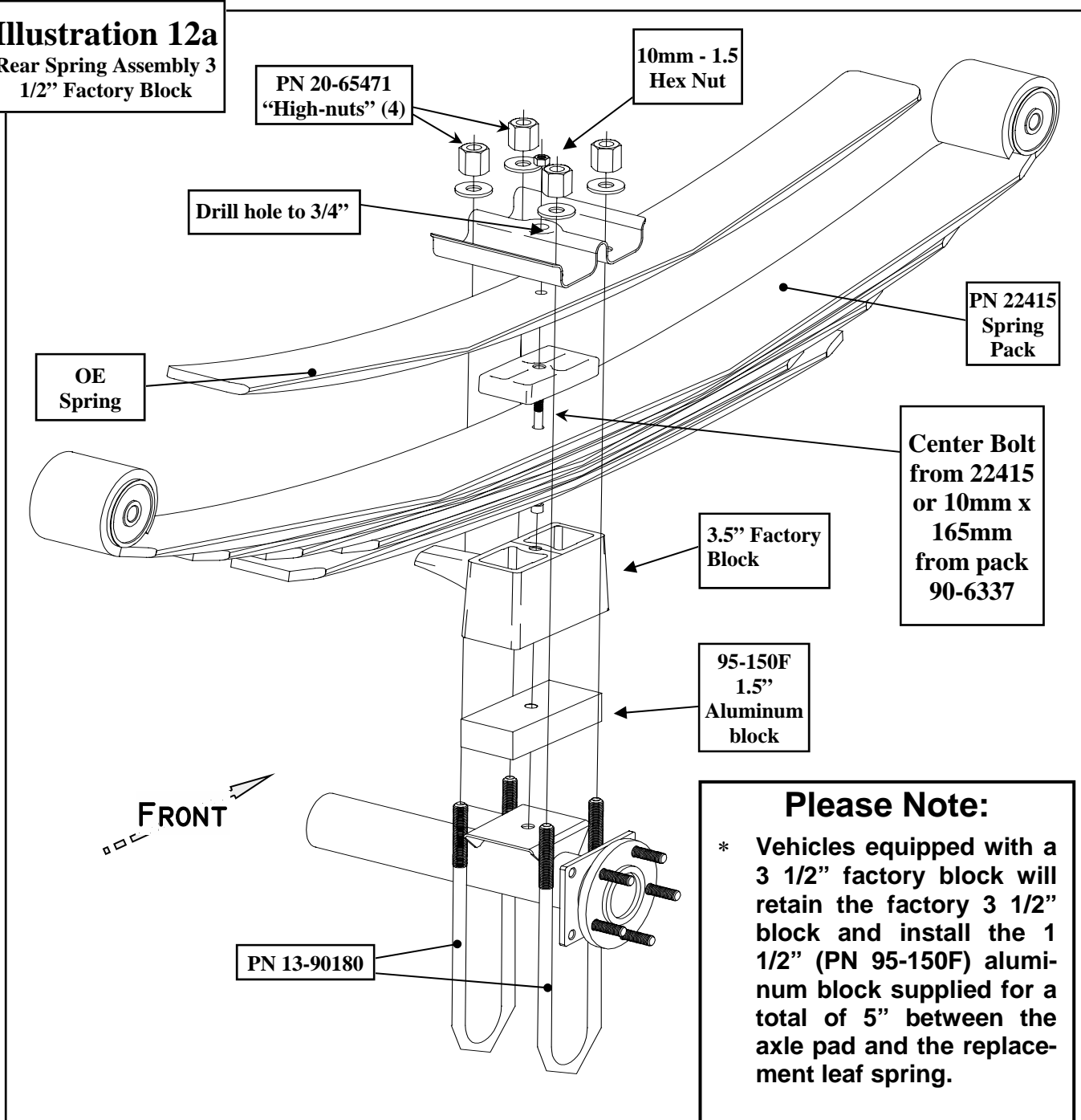
new Pro Comp spring pack (PN 22415). Install the overload with the spacer at the top of the Pro Comp spring, use the new center bolt from pack 90-6337 if needed, again use C-clamps to assist in the assembly. On reassembly use a new lock nut from hardware pack 90-6154.

NOTE: Top spring plate center hole

needs to be drilled out to 3/4" to clear nut from pack 90-6154.

11. Install the spring pack to the hangers using the factory hardware. Do not tighten at this time.
12. The height of your factory block determines which combination of aluminum blocks you will need to use. See the note and Illustration

Illustration 12a
Rear Spring Assembly 3
1/2" Factory Block



Please Note:

* Vehicles equipped with a 3 1/2" factory block will retain the factory 3 1/2" block and install the 1 1/2" (PN 95-150F) aluminum block supplied for a total of 5" between the axle pad and the replacement leaf spring.

on the following page for details.

13. Raise the axle to the spring and secure with the 5/8" U-bolts (PN 13-90180) 5/8" Hi-nuts (PN 20-65471) and washers supplied. Do not torque these bolts at this time.

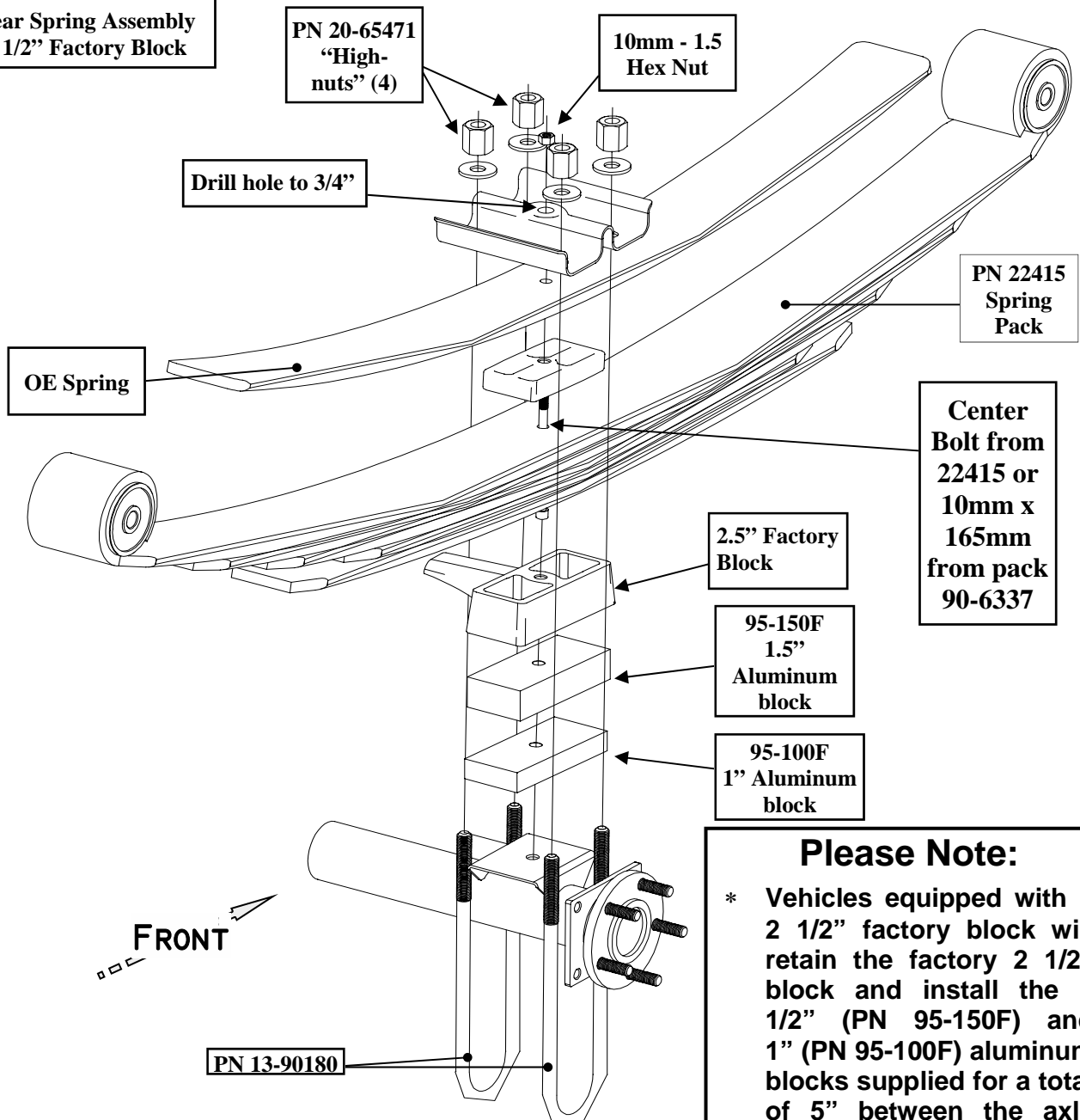
Repeat steps 7 thru 13 on the passenger side

14. Install your new Pro Comp shocks (PN 936008 or MX6018) and torque this hardware to 60 ft. lbs.

NOTE: If installing MX-6 shocks, one at a time remove the factory rear shock brackets and install the new shock adapter brackets (90-3215 drvr and 90-3216 pass) to the rear axle.

Illustration 12b

Rear Spring Assembly
2 1/2" Factory Block



Please Note:

- * Vehicles equipped with a 2 1/2" factory block will retain the factory 2 1/2" block and install the 1 1/2" (PN 95-150F) and 1" (PN 95-100F) aluminum blocks supplied for a total of 5" between the axle pad and the replacement leaf spring.

Reattach the emergency brake bracket to the passenger side bracket (90-3216) using the OE hardware. Make sure the bracket seats properly on the axle locator pin. Use the OE hardware and be sure to not over tighten the hardware.

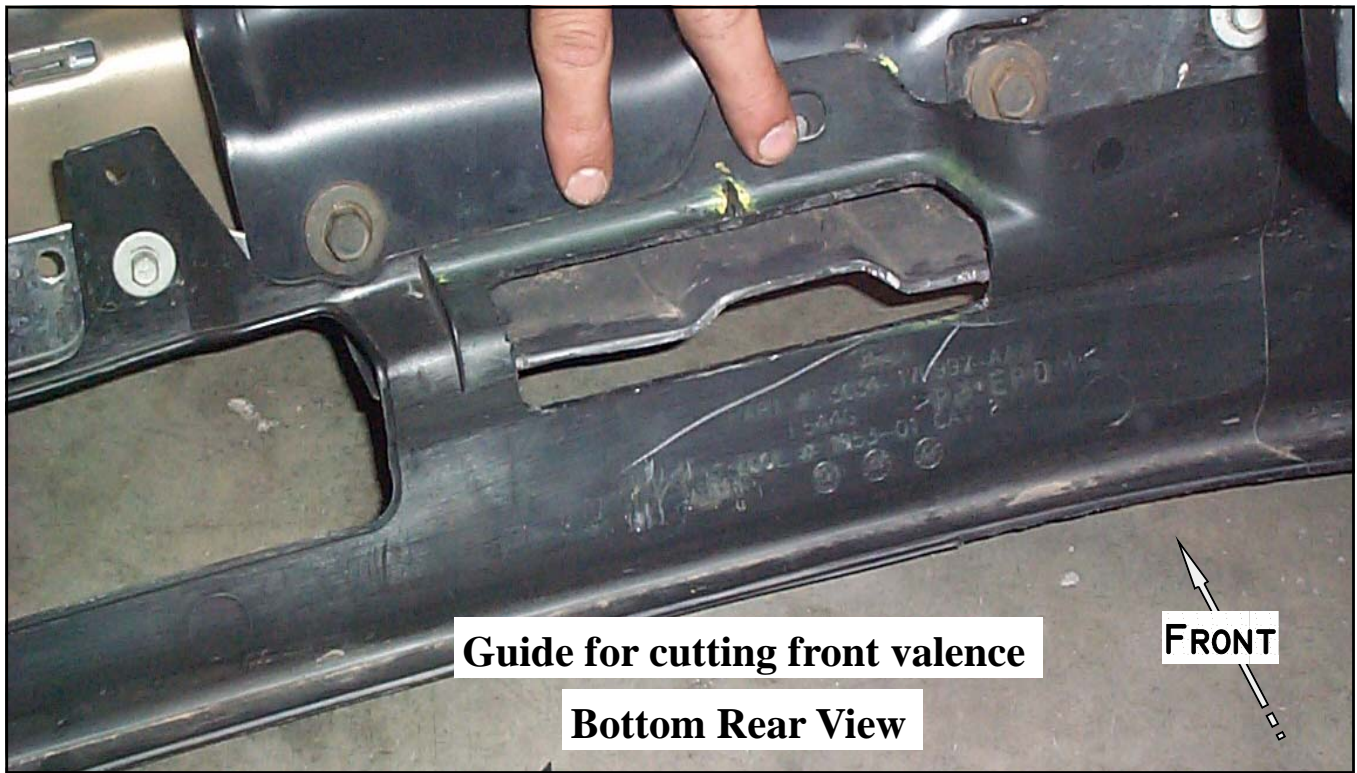
15. Torque the U-bolts to 115 ft. lbs.
16. Remove carrier bearing housing bolts and insert rear driveshaft shim (PN 90-3053) in between carrier bearing housing and frame mount. The open side will be facing to the front and the notch goes on the top. Use stock bolts to bolt shim to frame mount. Use the supplied **7/16" X 1 1/4" bolts** and hardware to secure the bearing housing to the shim. See ILLUSTRATION 10.
17. Assemble the remaining rear sway bar links (PN 90-2446) using the bushings (PN 45359) and sleeves (PN 60859H) supplied in parts pack 90-6042) as seen in Illustration 11. Install each side in the stock position using the new **12mm** bolts and nuts and **1/2"** washers

supplied in hardware packs (**90-6341** and **90-6041**). See ILLUSTRATION 11. The **75mm** bolt from Hardware pack (**90-6341**) is used on the top mount and the **70 mm** bolt from Hardware pack (**90-6041**) is used on the bottom mount. Torque this hardware to factory specifications.

18. Reinstall the wheels and tires and lower the vehicle to the ground.
19. Torque the spring bolts at this time. The 16mm bolts are torqued to 115 ft. lbs. and the 18mm bolts are torqued to 130 ft. lbs. Torque the 5/8" U-bolts to 115 ft. lbs.
20. Re-check the wheel lug torque on all four wheels at this time.
21. Re-check **all** hardware (**both the front and the rear**) for proper installation and torque!!

⇒ **Have your headlights adjusted.**

⇒ **Recheck all hardware for tightness after the first 100 miles AND after any 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

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

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.