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# 09-11 Dodge 2500 / 3500 4WD 5" Suspension Lift Installation Instructions

### REQUIRED TOOL LIST:

- \* Safety Glasses
- \* Metric / Standard Wrenches & Sockets
- \* Drill & Assorted Drill Bits
- \* Floor Jack
- \* Jack Stands
- \* Measuring Tape
- \* Torque Wrench
- \* Pitman Arm Puller



Before beginning the installation, thoroughly & completely read these instructions & the enclosed driver's WARNING NOTICE. Affix the WARNING decal in the passenger compartment in clear view of all occupants. Please refer to the Parts List to insure that all parts & hardware are received prior to the disassembly of the vehicle. If any parts are found to be missing, contact SKYJACKER® Customer Service at 318-388-0816 to obtain the needed items. If you have any questions or reservations about installing this lift kit, call SKYJACKER® Technical Assistance at 318-388-0816.

Make sure you park the vehicle on a level concrete or asphalt surface. Many times a vehicle is not level (side-to-side) from the factory & is usually not noticed until a lift kit has been installed, which makes the difference more visible. Using a measuring tape, measure the front & rear (both sides) from the ground up to the center of the fender opening above the axle. Record this information below for future reference.

Driver Side Front: \_\_\_\_\_ Passenger Side Front: \_\_\_\_\_

Driver Side Rear: \_\_\_\_\_ Passenger Side Rear: \_\_\_\_\_

### IMPORTANT NOTES:

- This lift is determined from the amount of lift to the front of the vehicle, while only lifting the rear to a position level with the front.
- If larger tires (10% more than the stock diameter) are installed, speedometer recalibration will be necessary. Contact your local Dodge dealer or an authorized dealer for details.
- After installation a qualified alignment facility is required to align the vehicle to factory specifications.
- If after installation a front driveline vibration occurs, Part # IXR20K must be ordered. It is an indexing ring that rotates the transfer case to improve the driveline angle.

- Some models will come equipped with a larger Sterling rear axle. These models will require a larger rear U-bolt. Order rear U-bolt kit Part # U9B12R.
- Under no circumstances are SKYJACKER® coil springs to be used in conjunction with any type of coil spring tower, block, or spacer. The use of a coil spring tower, block, or spacer will allow the coil spring to exceed its designed stress & travel load allowing it to be overstressed, oversprung, fatigued, & possibly broken. The SKYJACKER® warranty is void under any such application.
- For vehicles with a carrier bearing on the rear driveshaft, lowering brackets are available if a rear driveline vibration occurs. (Part # CBL3401 = 1" Drop & Part # CBL214 = 2 1/4" Drop)

## Kit Box Breakdown:

### Part #: D45510 / D45529

ITEM#	DESCRIPTION	QTY
DUL253-L	03 DGE UPPER LINK 2-5"LIFT	2
DLL45-L	DODGE LWR LINK 4-5"	2
DULRB3-B	03 DGE UPPER LINK RELOC BRK	2
DTB50-B (D45510 Box)	10 DGE TRK BAR DROP BRKT,5"	1
DTB53-B (D45529 Box)	03 DGE TRK BAR DROP BRKT,5"	1
SBL20-L	2.5" SWAY BAR LWG BRKT-LEFT	1
SBL20-R	2.5"SWAY BAR LWG BRKT-RIGHT	1
DA309	2009 DODGE DROP PITMAN ARM	1
BP60S	BUMP STOP DODGE RAM 4-5"	2
HB-D45510-LK (D45510 Box)	HDWR BAG:5"2010 DGE LWR LKS	1
HB-D4510-LK (D45529 Box)	HDWR BAG: 5" DGE LWR LK	1
HB-D4552-LK (D45529 Box)	HDWR BAG/4-5" 2000 DODGE L	1
HB-D4513-ULB	HDWR BAG:UPR LK BRKTS/SBL20	1
HB-D4513-BL	HDWR BAG/BRAKE LINE BRKTS	1
HB-DTB50-TB (D45510 Box)	HDWR BAG: DTB50 TRK BAR BRK	1
HB-DTB53-TB (D45529 Box)	HDWR BAG FOR DTB53	1
I-D4519	INSTRUCTION SHEET: D45529	1

### Hardware Bag Breakdown:

#### HB-D45510-LK      **HARDWARE BAG**

ITEM#	DESCRIPTION	QTY
2617	BUSHING DGE RAM LWR LNK	4
2618	BUSHING DGE RAM UPPR LNK	8
LS20DL	LINK SLEEVE,2K LOWER DODGE	2
LS20DU	LINK SLEEVE,2K UPPER DODGE	4
LS2650	LINK SLEEVE 2.65" LOWER	2
SP3643	LINK BUSHING DODGE / FORD	4
ZF316	ZERK FITTING ALEMITE, 3/16"	8

**Hardware Bag Breakdown:**

**HB-D4510-LK            HARDWARE BAG**

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
SP3643	LINK BUSHING,LOWER	4
LS2650	LINK SLEEVE 2.65" LOWER	2

**Hardware Bag Breakdown:**

**HB-D4552-LK            HARDWARE BAG**

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
2617	BUSHING DGE RAM LWR LNK	8
2618	BUSHING DGE RAM UPPR LNK	8
LS20DU	LINK SLEEVE,2K UPPER DODGE	4
LS20DL	LINK SLEEVE,2K LOWER DODGE	4
ZF316	ZERK FITTING ALEMITE, 3/16"	8

**Hardware Bag Breakdown:**

**HB-D4513-ULB        HARDWARE BAG**

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
916X5FTB	9/16 X 5 FINE THRD BOLT	2
716X112FTB	7/16 X 1 1/2 FINE THRD BOLT	12
LS20DU	LINK SLEEVE,2K UPPER DODGE	2
916FTN	9/16-18 NYLON INSERT LOCKNU	2
716FTN	7/16-20 FINE N/I LOCK NUT	12
916SAEW	9/16 SAE WASHERS	5
716SAEW	7/16 SAE WASHER	24
916X6FTB	9/16 X 6 FINE THRD BOLT	1
12USSW	1/2 USS WASHER	1
916STVFTN	9/16-18 STOVER NUT,GRADE C	1

**Hardware Bag Breakdown:**

**HB-D4513-BL        HARDWARE BAG**

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
DBE23	BRAKE LINE BRKT,03 2500 DGE	2
516X1FTB	5/16 X 1 FINE THRD BOLT	2
516FTN	5/16" FINE THRD N/I LOCKNUT	2
516SAEW	5/16 SAE WASHER	4

**Hardware Bag Breakdown:****HB-DTB50-TB            **HARDWARE BAG****

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
12X412FTB	1/2 X 4 1/2 FINE THD GRD. 8	1
12SAEW	1/2 SAE WASHER	2
12STVFTN	1/2" STOVER LKNUT, FINE THD	1
58X312FTB	5/8 X 3 1/2 FINE THD BLT,G8	1
58FTN	5/8-18 NYLON INSERT LOCKNUT	1
58SAEW	5/8 SAE WASHERS	2

**Hardware Bag Breakdown:****HB-DTB53-TB            **HARDWARE BAG****

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
916X3FTB	9/16 X 3 FINE THREAD BOLT	1
12X412FTB	1/2 X 4 1/2 FINE THD GRD. 8	1
916SAEW	9/16 SAE WASHERS	2
12SAEW	1/2 SAE WASHER	2
916FTN	9/16-18 NYLON INSERT LOCKNU	1
12STVFTN	1/2" STOVER LKNUT, FINE THD	1

**Part #: D4513 (Kit Box)**

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
R334S	ADD-A-LEAF,2003 DGE 3/4 4"	2
H-BOX D4513	HDWR BOX: D4513 COMP BOX	1

**Hardware Box Breakdown:****H-BOX D4513            **HARDWARE BOX****

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
WSP334S	WEDGE SHIM PLATE FOR R334S	2
1206	1/2 X 6 TIE BOLTS PR W/NUTS	2
916X312X11U	9/16 X 3 1/2 X 11 U-BOLT RD	4
7013	OEM STABILIZER,03 DODGE	1
HB-916	HDWR BAG/ 8 - 9/16" NYLON	1

**Hardware Bag Breakdown:****1206                      **HARDWARE BAG****

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1206S	1/2 X 6 TIE BOLT	2
12TBN	1/2" TIE BOLT NUT	2

I-D4519

## Part #: 7013

ITEM#	DESCRIPTION	QTY
7000WS	WHITE STEERING DAMPER	1
HB-7013	HARDWARE BAG FOR 7013	1
HSS	HYDRO SHOCK DECAL	1
B10RS	RED BOOT	1
BTIE	RED BOOT TIE	1

### Hardware Bag Breakdown:

#### HB-7013                      **HARDWARE BAG**

ITEM#	DESCRIPTION	QTY
HOURGLASS 5/8	HOURGLASS 5/8 SHOCK BUSHING	2
142121	ES24 SLEEVE/402087 1.38"	1
141509	ES25 SLEEVE/403646 1.50"	1
58SP	5/8" SPACER - 1 1/4" O.D.	1
12X5FTB	1/2 X 5 FINE THREAD BOLT/G8	1
12FTN	1/2-20 FINE N/I LOCK NUT	1
81004	TAPERED SLEEVE, 1/2" I.D.	1
12SAEW	1/2 SAE WASHER	1
12USSW	1/2 USS WASHER	1

### Hardware Bag Breakdown:

#### HB-916                      **HARDWARE BAG**

ITEM#	DESCRIPTION	QTY
916FTN	9/16-18 NYLON INSERT LOCKNU	8

## Part #: D4513S (System Box)

ITEM#	DESCRIPTION	QTY
916X312X11U	9/16 X 3 1/2 X 11 U-BOLT RD	4
7013	OEM STABILIZER,03 DODGE	1
HB-916	HDWR BAG/ 8 - 9/16" NYLON	1

## Part #: 7013

ITEM#	DESCRIPTION	QTY
7000WS	WHITE STEERING DAMPER	1
HB-7013	HARDWARE BAG FOR 7013	1
HSS	HYDRO SHOCK DECAL	1
B10RS	RED BOOT	1
BTIE	RED BOOT TIE	1

**Hardware Bag Breakdown:**

**HB-7013                      HARDWARE BAG**

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
HOURGLASS 5/8	HOURGLASS 5/8 SHOCK BUSHING	2
142121	ES24 SLEEVE/402087 1.38"	1
141509	ES25 SLEEVE/403646 1.50"	1
58SP	5/8" SPACER - 1 1/4" O.D.	1
12X5FTB	1/2 X 5 FINE THREAD BOLT/G8	1
12FTN	1/2-20 FINE N/I LOCK NUT	1
81004	TAPERED SLEEVE, 1/2" I.D.	1
12SAEW	1/2 SAE WASHER	1
12USSW	1/2 USS WASHER	1

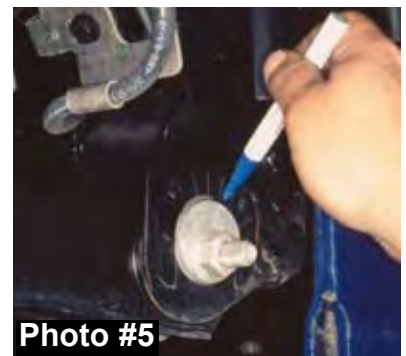
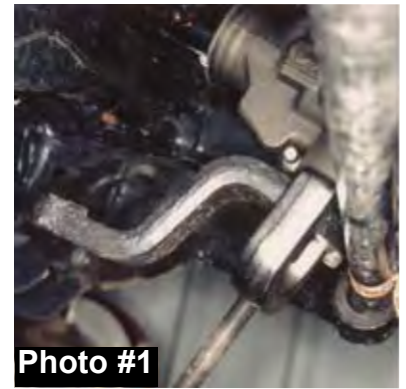
**Hardware Bag Breakdown:**

**HB-916                      HARDWARE BAG**

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
916FTN	9/16-18 NYLON INSERT LOCKNU	8

## Front Installation:

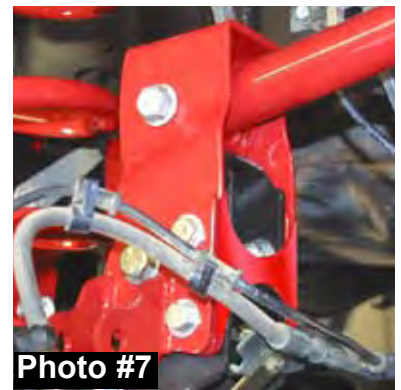
1. Secure & properly block the tires of the vehicle on a level concrete or asphalt surface.
2. Remove the upper shock nuts, retainers, & the three nuts on the upper shock tower brackets.
3. Lift the front of the vehicle & install jack stands under the frame behind the lower link rear brackets.
4. Remove the front tires & brakeline anchor bracket between the upper & lower links behind the coil spring.
5. Loosen the trackbar at the axle housing. Remove the frame end of the track bar from the frame mount & lower it down.
6. Remove the drag link from the pitman arm. Remove the pitman arm from the steering sector using a pitman arm puller. (See Photo # 1) Install the new Skyjacker drop pitman arm using the OEM lock washer & nut. **Note:** Do not reinstall the drag link to the pitman arm at this time.
7. Loosen the front sway bar bolts at the frame (Do not remove). Disconnect the sway bar end link from the sway bar mount on the axle. (See Photo # 2)
8. Remove the upper shock tower & lower shock bolt. Pull the shock up through the coil spring under the hood.
9. Lower the front axle down until the coil springs become loose & remove the coil spring, rubber isolator, & three-bolt tower ring. (See Photo # 3)
10. Locate the front rubber bump stop mounted on the frame rail behind the coil spring. Remove the bump stop from the pocket by using a large flat screwdriver or similar tool to pry them out. A pair of channel lock pliers can also be used to remove this bump stop by working it back & forth. (See Photo # 4)
11. At the front lower link adjustment cams, mark (with an ink marker, or scribe a mark) the vertical line on the cam & the reinforcement bracket for reference so you can realign the marks after installation. (See Photo # 5)
12. Install the drive-in grease fittings in each end of all the link arms by using a 1/4" socket over the grease fitting. Tap with a hammer until the grease fitting is flush.



13. Install the new Skyjacker poly bushings (Part # 2617) in each end of the larger lower links & (Part # 2618) in the smaller upper links. Be sure to slightly grease them prior to installation. Insert the 2.645" long sleeve in the larger lower links & the 2.375" long sleeve in the smaller upper links. **Note:** Some **2009 models** & all **2010 models** use a 18mm lower link bolt at the axle. If your model has this 18mm bolt, use the larger ID poly bushings (Part # SP3643) & 2.65" sleeves (Part # LS2650) to connect the new Skyjacker lower links to the axle.

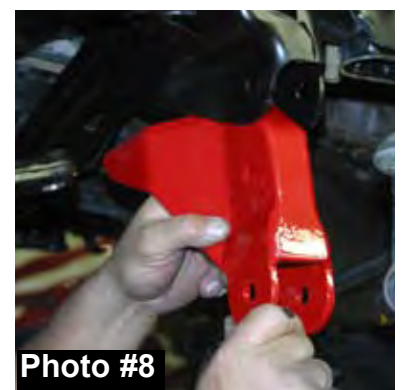


14. Loosen & remove the upper & lower links from both sides. Replace the lower links with the new Skyjacker lower links (one side at a time). **Note:** Do not tighten at this time. **Note:** On some models with the Cummings Diesel the upper control arm bolt on the passenger side at the frame will need to be cut off in order to remove. Skyjacker has provided a 9/16" x 6" fine thread replacement bolt to be used if necessary.



15. Install the new Skyjacker upper control arm relocation bracket over the OEM bracket on the axle. Install the 9/16" x 5" fine thread bolt, washers, & nut into the OEM mounting hole. **Note:** Be sure to install the 2.375" crush sleeve on this bolt inside of the OEM bracket. (See Photo # 6)

16. Mark the two additional holes on each side of the bracket & drill using a 15/32" drill bit. Once drilled, install the 7/16" x 1 1/2" fine thread bolts, washers, & nuts. **Note:** If installing a Skyjacker Dual Shock Kit, be sure to install the bottom dual shock bracket at this time. (See Photo # 7)



17. When installing the new Skyjacker upper links, slide the front eye through the new Skyjacker upper relocation bracket enough to bolt the rear eye in the OEM frame mount. Position & bolt the front eye through the upper relocation bracket using OEM hardware. **Note:** Do not tighten at this time. **Note:** Install the upper links with the front eye of the link having the grease fitting pointing out the end & the rear eye of the link having the grease fitting pointing up.



18. Install the new Skyjacker track bar drop bracket into the OEM mount. Attach the bracket to the OEM mounting hole using the OEM hardware. (See Photo # 8)

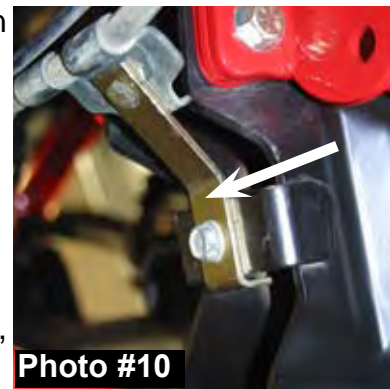
19. Install the 1/2" x 4 1/2" fine thread bolt, washers, & nut into the bottom of the bracket, up through the OEM mount. (See Photo # 9)

20. To begin the coil spring installation, insert the OEM three-bolt tower ring in place inside the top of the coil spring tower. Start a couple of the nuts to hold the ring in place. **Note:** Do not tighten at this time. **Note:** If installing a dual shock kit, it is important to see those instructions at this time.

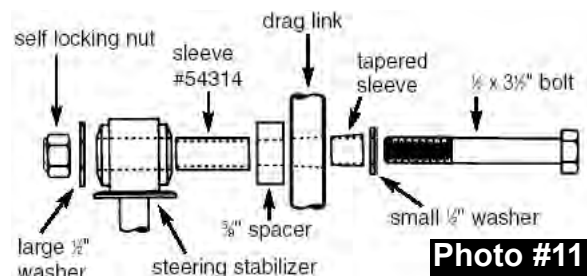


21. Install the new Skyjacker coil springs by placing the rubber isolator on top of the coil spring & aligning the coil spring so that the end of the bottom wraps are turned to the inside at the center of the axle. Lift up on a jack under the differential until the coil springs are securely in place & keeping a load on them to hold them in place.

22. Attach the new Skyjacker front brake line relocation bracket to the OEM position using the OEM hardware. Attach the OEM brakeline to new Skyjacker relocation bracket using the 5/16" x 1" fine thread bolt, washer, & nut with the washer under the nut. (See Photo # 10)



23. Remove the OEM steering stabilizer from the drag link & axle mount. Install the new Skyjacker steering stabilizer by inserting a poly bushing & steel sleeve into the shaft end of the steering stabilizer. Insert a poly bushing & the shorter sleeve into the body end of the steering stabilizer. Attach the red boot & secure it with the supplied plastic tie. Install the shaft end of the steering stabilizer to the drag link using the supplied hardware.



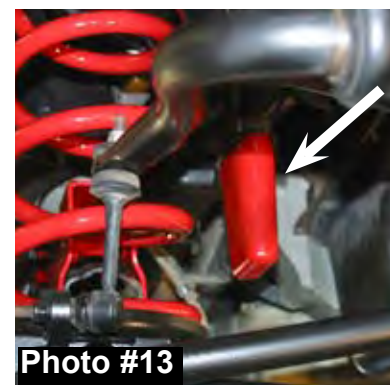
(See Photo # 11) Insert the tapered sleeve into the tapered hole in the tie rod placing the small 1/2" washer on the 1/2" x 5" bolt & install through the drag link hole. Install the 5/8" spacer, the shaft end of the steering stabilizer, the large 1/2" washer, & the 1/2" self locking nut onto the bolt & tighten. Attach the body end of the stabilizer to the OEM mount using the OEM hardware.



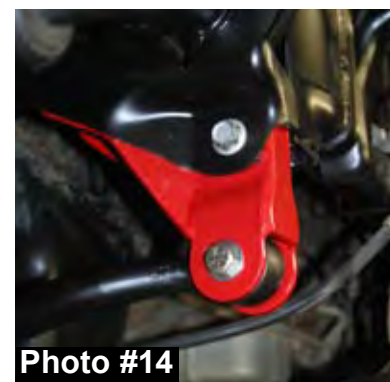
24. Take the stud ends of the front sway bar end links & swing them back up to reattach. Remove the two bolts at the frame from each side of the sway bar & lower the bar down. Install the new Skyjacker sway bar lowering brackets with the offset sloping toward the front bumper using the OEM hardware at the top & the 7/16" x 1 1/2" fine threadbolts, washers, & nuts at the bottom. (See Photo # 12)

25. Install the front tires & lower the vehicle to the ground. Attach the drag link to the pitman arm.

26. Place the new Skyjacker poly bump stop in the OEM bump stop pocket. Using leverage against the bottom of the poly bump stop, force the bump stop into place. (See Photo # 13)



27. Raise the track bar & bolt it to the bottom of the new Skyjacker track bar drop bracket using the 9/16" x 3" fine thread bolt, washers, & nut for **2009 models** or the 5/8" x 3 1/2" fine thread bolt, washers, & nut for **2010 models**. (See Photo # 14) **Note:** It may be necessary to turn the steering wheel left or right in order to realign the holes when installing the bolt. Tighten the track bar bolt on the passenger side axle housing.



28. Tighten each end of the upper & lower links, being sure to realign the marks on the eccentric cams. (See Photo # 15) **Note:** Thoroughly grease all eight grease fittings.

29. Install the poly bushings & steel sleeve in the bottom eye of the new Skyjacker front shock & place a retaining washer & stem bushing on the upper stud of the shock. From under the hood, lower the shock down through the coil spring, install & tighten the bottom bolt.

Remove the nuts on the coil spring's tower ring installed previously.

Place the OEM shock tower (that was removed earlier in Step # 7)

over the shock's stud & align it over the threads of the tower ring. Install & tighten the self locking nuts on both tower rings. Install the upper shock stem bushing, retaining washer, & nut.

**Note:** If installing a dual shock kit, it is important to see those instructions at this time.



**WARNING:** On the Dodge Ram trucks, the front shock absorbers limit the extended position of the front suspension. The use of shocks other than those specified by Skyjacker, may cause coil spring disengagement, adverse steering angles, brake hose failure, driveline component failure, &/or other related component failure. The use of any other shocks will void your Skyjacker warranty!

30. Cycle the steering to full left & right turns checking the clearance between the sway bar end link mounts, at the front base of the coil springs & the drag link / tie rod assembly.

## **Rear Installation:**

1. Lift the rear of the vehicle & place jack stands under the frame to support the vehicle.
2. Remove the rear tires & shock absorbers.
3. Remove the axle U-bolts & lower the axle down a few inches.

**IF INSTALLING A SOFTRIDE® "SYSTEM" WITH NEW REAR SPRINGS, SKIP TO STEP # 10.**

## **Rear Add-A-Leaf Installation:**

**Note:** Use two large C-clamps to contain the elastic potential energy in a leaf spring when the center tie bolts are being removed.

4. Attach & tighten a C-clamp on each end of the leaf spring to hold the spring assembly securely together. (See Photo # 16)
5. Using locking pliers to hold the head of the two outer center bolts, loosen & remove them. With care, slowly loosen & remove the C-clamps.
6. With the tie bolts removed, remove the plastic alignment pin from the bottom shim plate. (See Photo # 17) The new Skyjacker degree shim is produced with an intergrated alignment pin.



7. Insert the new Skyjacker tie bolts through the new Skyjacker axle wedge shim (thick end installs towards the rear bumper), two bottom OEM shim plates, OEM bottom overload leaf, new Skyjacker add-a-leaf, & through the OEM leaf spring pack. (See Photo # 18)

**Note:** Do not use the center tie bolts to draw the leaf spring leaves together. **FAILURE OF ANY COMPONENT CAN CAUSE AN EXPLOSIVE DISASSEMBLY & POSSIBLE INJURY!**

8. Place one C-clamp on each side of the center bolts & tighten evenly. Once the C-clamps have drawn the leaves securely together, hold the center tie bolt heads with locking pliers & torque the nuts to 41 Ft. Lbs.

9. Remove the C-clamps & cut off the excess length of the tie bolts. (Skip to Step # 12)

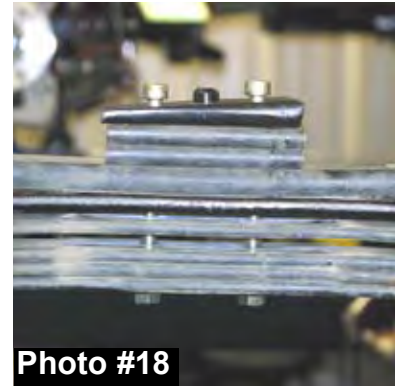


Photo #18

## **Rear Leaf Spring Installation:**

10. Safely support the fuel tank & loosen the vent & fill hoses on the filler neck. Loosen (Do not remove) the front fuel tank strap bolt. Disconnect & remove the rear bolt & strap. Carefully slide the fuel tank toward the center of the vehicle to acquire sufficient room to access the driver side front spring eye bolt. Remove the spring eye bolts & OEM leaf springs from the vehicle. **Note:** It will be necessary on the driver side, to pry the gas tank away from the frame allowing more room to remove & reinstall the front OEM leaf spring eye bolt. **Do not pry on the gas tank too much or lower it down too much because the fitting at the top may be broken off.**

11. Install the new Skyjacker leaf springs with the thick end of the wedge shim towards the rear bumper. Reconnect the rear fuel tank strap & bolt. Tighten the front strap bolt & the vent & fill hoses on the filler neck.

12. Raise the rear axle, aligning the leaf spring pins with the axle housing. (See Photo # 19) Install & tighten the new Skyjacker U-bolts evenly.

13. Install the new Skyjacker rear shock absorbers & rear tires.

14. Remove the jack stands & lower the vehicle to the ground. (See Photo # 20)

### **Available Accessory:**

**Dual Steering Stabilizer Part # 7239**



Photo #19



I-D4519



Photo #20

## **FINAL NOTES:**

- After the installation is complete, double check that all nuts & bolts are tight. Refer to the following chart below again for the proper torque specifications. (Do not retighten the nuts & bolts where thread lock compound was used.)
- With the vehicle placed on the ground, cycle the steering lock to lock & inspect the steering, suspension, brake lines, front & rear drivelines, fuel lines, & wiring harnesses for proper operation, tightness, & adequate clearance.
- Rotate the driveshafts & check for interference at the differential yoke & cardan joint. If necessary, lightly dress the casting(s) &/or U-joint tabs in order to eliminate the binding.
- Have the headlights readjusted to the proper settings.
- Have a qualified alignment center realign the front end to the factory specifications.
- Retorque all the bolts after the first 100 miles.

<b><u>TORQUE SPECIFICATIONS</u></b>					
<b><u>INCH SYSTEM</u></b>			<b><u>METRIC SYSTEM</u></b>		
<b>Bolt Size</b>	<b>Grade 5</b>	<b>Grade 8</b>	<b>Bolt Size</b>	<b>Class 8.8</b>	<b>Class 10.9</b>
5/16	15 FT LB	20 FT LB	6MM	5 FT LB	9 FT LB
3/8	30 FT LB	35 FT LB	8MM	18 FT LB	23 FT LB
7/16	45 FT LB	60 FT LB	10MM	32 FT LB	45 FT LB
1/2	65 FT LB	90 FT LB	12MM	55 FT LB	75 FT LB
9/16	95 FT LB	130 FTLB	14MM	85 FT LB	120 FT LB
5/8	135 FT LB	175 FT LB	16MM	130 FT LB	165 FT LB
3/4	185 FT LB	280 FT LB	18MM	170 FT LB	240 FT LB

- The above specifications are not to be used when the bolt is being installed with a bushing.

**Seat Belts Save Lives, Please Wear Your Seat Belt.**