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## 84 - 01 Jeep Cherokee XJ 4.5" Suspension Lift Installation Instructions

### REQUIRED TOOL LIST:

- Safety Glasses
- Metric / Standard Wrenches & Sockets
- 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 product, contact 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 Jeep dealer or an authorized dealer for details.
- After installation a qualified alignment facility is required to align the vehicle to the OEM specifications.

## Component Box Breakdown:

### Part #: JC45 / JC45-SVX / JC455S / JC458S

Item #	Description	Qty	Item #	Description	Qty
ABSS2535	BUMP STOP SPACER,3.5" TALL	2	JULF24-FX	JEEP UPR FRT LINK FLEX SER (Included With JC45-SVX)	1
JA500	PITMAN ARM JEEP XJ/ZJ/MJ	1	SBE401	END LINKS,FRONT	1
JLL16-L	JEEP LWR BENT LK W/ RB BUSH (Included With JC45 / JC455S / JC458S)	2	SH130	SHACKLE KIT FOR XJ	1
JLL16-SX-L	JEEP LWR FLEX BENT LK W/ RB (Included With JC45-SVX)	2	TBA10	ADJ FRT TRK BAR W/STRG ST	1
RR114X1R	NG ROD END 1 1/4"RIGHT HAND (Included With JC45-SVX)	2	12X234X6U	1/2 X 2 3/4 X 6 U-BOLT RD (Included With JC455S)	4
114RFTJN	1 1/4" RIGHT HAND JAM NUT (Included With JC45-SVX)	2	12X318X612U	1/2 X 3 1/8 X 6 1/2 U-BOLT (Included With JC458S)	4
HB-RR11414-4	HDWR BAG: RR114-14, 4 PCS (Included With JC45-SVX)	1	HB-12	HDWR BAG:1/2 NUTS/WASHERS (Included With JC455S / JC458S)	1
JUL24-L	JEEP UPPER LINK FRONT (Included With JC45 / JC455S / JC458S)	2	HB-JC45	HDWR BAG: JC45 COMP BOX	1
HB-JULR-FX	HDWR BAG/JEEP UPPER LINK (Included With JC45 / JC455S / JC458S)	1	I-JC45	INSTRUCTION SHEET: JC45	1

### Part #: JULF24-FX (Included With JC45-SVX)

Item #	Description	Qty	Item #	Description	Qty
JULF24-L	JEEP UPR LINK FRT FLEX SER	2	34RFTJN	3/4" RIGHT HAND JAM NUT	2
RR34X58R	NG ROD END 3/4" RIGHT HAND	2	RR34-10	ROD END BUSHING 10MM ID	4

### Part #: SBE401

Item #	Description	Qty	Item #	Description	Qty
SBE401-L	SWAY BAR END LINK	2	HB-SBENB01	HDWR BAG:SBE120,226,228,401	1

### Part #: SH130

Item #	Description	Qty	Item #	Description	Qty
XJ55RS-B	XJ REAR SHACKLE	2	HB-XJ20	HDWR BAG: SH130 & XJ20	1

### Part #: TBA10

Item #	Description	Qty	Item #	Description	Qty
TBA10-B	TRACK BAR FOR JEEP	1	BTIE	RED BOOT TIE	1
RE34X34R	ROD END 3/4" RIGHT HAND THR	1	B10RS	RED BOOT	1
34RFTJN	3/4" RIGHT HAND JAM NUT	1	NSS	NITRO SHOCK DECAL	1
7400WS	WHITE STEERING DAMPER	1	HB-TBA60	HDWR BAG FOR TBA10/60/80	1

## **Hardware Bag Breakdown:**

### **Part # HB-RR11414-4 (Included With JC45SVX)**

Item #	Description	Qty
RR114-14	ROD END BUSHING 14MM ID	4

### **Part #: HB-JULR-FX (Included With JC45 / JC455S / JC458S)**

Item #	Description	Qty
2887	JEEP UPPER LINK BUSHING	4
JULRS-FX	JEEP UPPER LINK SLEEVE	2

Item #	Description	Qty
ZF316	ZERK FITTING ALEMITE, 3/16"	2

### **Part #: HB-SBENB01**

Item #	Description	Qty
SBB2	SWAY BAR U-BRKT FOR SBE	2
141509	ES25 SLEEVE, 1.50" LONG	4
12X212CTBG5	1/2 X 2 1/2 CRS THD BLT,GR5	2
10X35MMB	10MM X 35 METRIC BOLT/10.9	2

Item #	Description	Qty
12CTCLN	1/2"COARSE-CENTER LOCK NUT	2
10MMN	10 MM N/I LOCKNUT	2
38SAEW	3/8 SAE WASHER	2
12SAEW	1/2 SAE WASHER	2

### **Part #: HB-XJ20**

Item #	Description	Qty
10X20MMB	10 X 20 METRIC BOLT/10.9	2
SP2400	JEEP XJ/YJ SHACKLE BUSHING	4

Item #	Description	Qty
SSXJ	SHACKLE SLEEVE FOR XJ	2
ZF316	ZERK FITTING ALEMITE, 3/16"	2

### **Part #: HB-TBA60**

Item #	Description	Qty
TJDLB	DRAG LINK BUSHING,1.125"	2
12X212FSB	1/2 X 2 1/2 FLAT SOCKET BLT	1
12X312FTB	1/2 X 3 1/2 FINE THREAD BLT	1
12USSW	1/2 USS WASHER	1
12SAEW	1/2 SAE WASHER	1
12STVFTN	1/2" STOVER LKNUT, FINE THD	1
2888	BUSHING JEEP TRACK BAR	2

Item #	Description	Qty
142121	ES24 SLEEVE, 1.38" LONG	1
81004	TAPERED SLEEVE, 1/2" I.D.	1
LT100	NUTS N' BOLTS 427 TUBE	1
HOURLASS 5/8	HOURLASS 5/8 SHK BUSH	2
P837	STAB TAPERED STUD/141264	1
140629	EB6 STUD BAG - P932/140629	1
7146-B	TRACK BAR/STAB BRACKET	1

### **Part #: HB-12**

Item #	Description	Qty
12FTN	1/2-20 FINE N/I LOCK NUT	8

Item #	Description	Qty
12UBW	1/2" U-BOLT WASHER	8

### **Part #: HB-JC45**

Item #	Description	Qty
516X34TCFB	5/16 X 3/4 THD CUT FLG BOLT	2
38X412FTB	3/8 X 4 1/2 FINE THREAD BOL	2

Item #	Description	Qty
38FTN	3/8-24 FINE N/I LOCK NUT	2
38SAEW	3/8 SAE WASHER	2

## **Pre-Installation Tips: (JC45-SVX)**

Now you are ready to "set" the length of the new Skyjacker upper & lower link assemblies. It is very important to position the swivel ball socket so the bushings are exactly centered. Measure the length of the link assembly center to center & rotate the rod end as needed, being sure to keep the rod end square with the eyelet end until the link assembly measures:

### **4.5" Measurement:**

Front upper link should be set @ 16"

Front lower link should be set @ 16 9/16"

These are pre-alignment measurements only. Final Measurements are to be set by a qualified alignment facility.

On the rod end, rotate the jam nut against the steel tubing. Hold the rod end in place with a pipe wrench & use another pipe wrench on the jam nut to completely tighten.

**Note:** The jam nut must be tightened against the steel tubing before installation.



## **Front Installation:**

1. With the vehicle on flat level ground, set the emergency brake, & block the rear tires / wheels.
2. Raise the front of the vehicle & support the vehicle with jack stands.
3. Remove the front tires / wheels, front shocks, steering stablizer, & track bar.
4. Remove the drag link assembly from the OEM pitman arm. Remove the OEM pitman arm from the steering box using a pitman arm puller & install the new Skyjacker pitman arm. (See Photo # 1)
5. Remove the sway bar end links & brake calipers. **Note:** Simply wire the brake caliper out of the way. It will not be necessary to disconnect the brake line from the brake caliper.
6. Lower the front differential until the OEM coil springs become loose. Remove the coil spring retaining bolt & clip on the bottom of the left coil spring & remove the front OEM coil springs. (See Photo # 2)
7. Drill a 3/8" hole in each lower coil seat using the OEM indentation as a guide. Install the new Skyjacker poly bump stop spacers using the 3/8" x 4 1/2" bolts, nuts, & washers. (See Photo # 3) **Note:** Tighten the 3/8" bolt until the top of the washer is flush with the top of the new Skyjacker bump stop spacer.
8. Install the new Skyjacker coil springs & reinstall the OEM coil spring retaining bolt & clip on the bottom of the left coil spring. (See Photo # 4)
9. Remove the OEM lower links & install the new Skyjacker lower links, one side at a time with the shorter bent end towards the axle using the OEM hardware. (See Photo # 5)





10. Remove the OEM upper links one side at a time. Install the new Skyjacker upper links by inserting two poly bushings & sleeve (JC45) or two small steel insert bushings into each end of the rod ends (JC45-SVX). Attach this end to the OEM location on the body & attach the forked end of the new upper link to the OEM position on the axle using the OEM hardware. (See Photo # 6) **Note:** Non-adjustable upper links will use the mounting hole closest to the end of the fork to achieve the required 16" center to center measurement.



11. Install the new Skyjacker adjustable track bar by greasing & installing the two poly bushings & sleeve. Insert the bushing end into the OEM steering stabilizer location on the passenger side of the axle, not the OEM track bar location. Install the new Skyjacker steering stabilizer mounting bracket with the tab over the OEM sway bar end link stud with the OEM nut. Use the 1/2" x 2 1/2" flat socket head bolt & stover nut to bolt the new Skyjacker bracket to the track bar. (See Photo # 7) **Note:** In extreme situations (Depending on pinion angle & caster settings), the drag link may contact this bracket when turning. This bracket can be slightly ground for additional clearance, if needed.



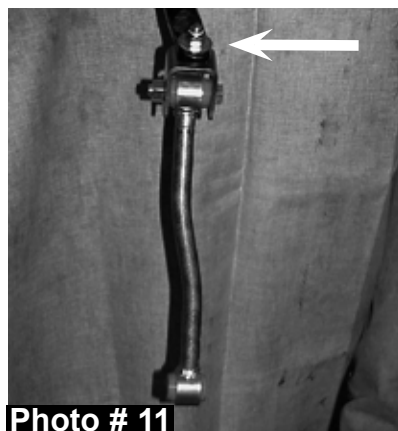
12. Install the frame end of the new Skyjacker track bar by following the hardware pictured. (See Photos # 8 & # 9) Be sure to keep the rod end square (parallel) with the frame mount. **Note:** Be sure no more than 1/2" of threads are extended from the bar (including the jam nut). Hold the rod end in place with a crescent wrench & tighten using a pipe wrench or crescent wrench on the jam nut.



13. Install the steering stabilizer mounting stud in the hole of the drag link & upper mounting hole on the new Skyjacker track bar bracket. Install the provided 5/8 hourglass bushings into the new Skyjacker steering stabilizer & attach to the new Skyjacker studs. (See Photo # 10)



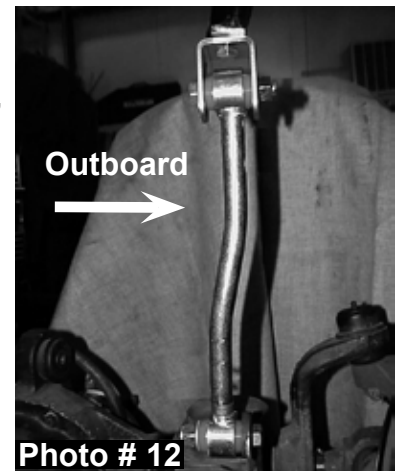
14. The new Skyjacker end link mounting bracket should be mounted to the bottom of the OEM sway bar with the bolt pointing up through the sway bar & the nut & washer applied on top. (See Photo # 11) **Note:** Apply lithium grease to the metal sleeves & insert the metal sleeves into the end link eyes. The top 1/2" x 2 1/2" bolt connecting the bracket to the end link must be installed with the nut to the outside of the vehicle to provide adequate clearance to the body. Install the new Skyjacker end links on the inboard side of the axle, being sure that the offset is turned correctly. (See Photo # 12)



15. Remove the OEM brake line from the body & align the OEM mounting locations on the supplied template (See Page # 9 ) with the OEM mounting locations on the body. (See Photo # 13) Mark, center punch, & drill the two new mounting locations using a 1/4" drill bit. Align the OEM brake line with the new mounting locations & install using the supplied 5/16" x 3/4" thread cutting bolt.

16. Install the brake calipers & new Skyjacker front shocks.

17. Install the front tires / wheels & lower the front of the vehicle to the ground.



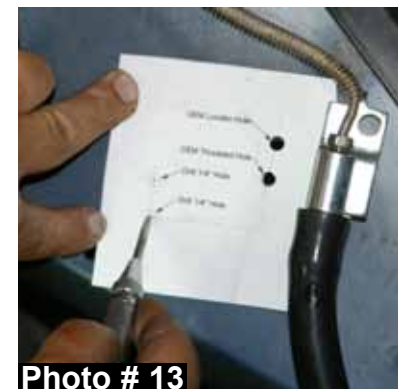
## **Rear Installation:**

1. With the vehicle on flat level ground, set the emergency brake, & block the front tires / wheels.

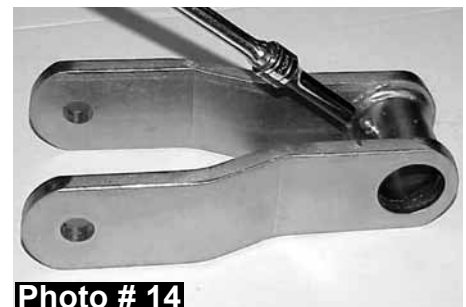
2. Raise the rear of the vehicle & support the vehicle with jack stands.

3. Remove the rear tires / wheels & rear shocks.

4. Prepare the new Skyjacker shackles by inserting a poly bushing half into each side & a steel sleeve into each shackle. Install the drive-in grease fitting in each end of the new Skyjacker shackles using a 1/4" socket over the grease fittings. Tap with a hammer until the grease fitting is completely tapped in. (See Photo # 14)



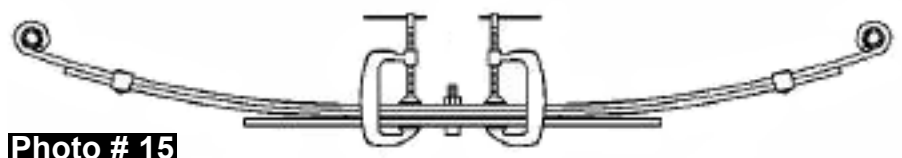
5. Remove the upper most inner bumper bolt on each side of the body & replace with the supplied 10mm X 20mm bolts.



6. Remove the axle u-bolts & lower the axle. **Note:** Care should be taken when the u-bolts are removed, the axle can move freely. If installing new Skyjacker leaf springs, proceed to Step # 11.

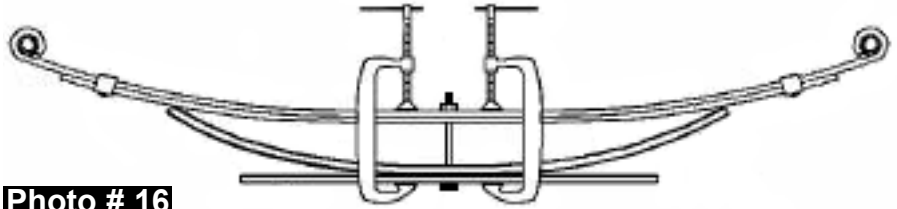
## **7. ADD-A-LEAF INSTALLATION:**

To perform the installation of add a leafs properly you must use two large C-clamps to contain the elastic potential energy in a leaf spring when the center tie bolt is removed. Attach & tighten a C-clamp on the leaf spring assembly on both sides of the center tie bolt to hold the leaf spring assembly securely together. (See Photo # 15) Using locking pliers to hold the head of the center tie bolt, loosen & remove the center tie bolt. With care slowly loosen & remove the C-clamps & the leaf spring assembly bottom overload leaf, if equipped.



8. Place the new Skyjacker add a leaf into the leaf spring assembly so the leaves remain progressive longest to shortest, while matching the long end & short end of the add a leaf to the leaf spring assembly. Insert the new

**Photo # 16**



Skyjacker center tie bolt through the OEM bottom overload leaf, if equipped, & through the leaf spring assembly. Only finger tighten the center tie bolt nut. (See Photo # 16)

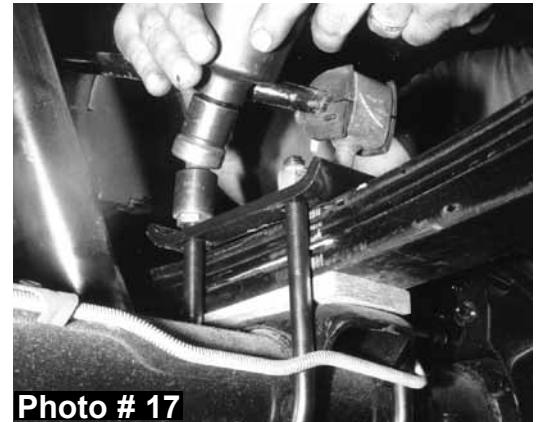
9. DO NOT USE THE CENTER TIE BOLT TO DRAW THE SPRING LEAVES TOGETHER. Failure of any component can cause an explosive disassembly & possible injury! Place one C-clamp on each side of the center tie bolt & tighten evenly. Once the C-clamp has drawn the leaves securely together, hold the center tie bolt head with locking pliers & tighten the nut. Remove the C-clamps.
10. Install the leaf spring assembly on the vehicle & raise the rear axle, aligning the leaf spring pins with the axle housing. Install the OEM u-bolts & tighten evenly. (Proceed to Step # 13)

**11. REAR SPRING INSTALLATION:**

Remove the spring eye bolts & remove the OEM leaf springs. Install the new Skyjacker leaf springs with the thick end of the bottom degree shims pointing toward the rear of the vehicle. Which will also be the long end of the new leaf spring toward the rear of the vehicle. (See Photo # 17)

12. Raise the rear axle, aligning the leaf spring pins with the axle housing. Install the new Skyjacker u-bolts & tighten evenly.

13. Install the new Skyjacker rear shocks.



**Photo # 17**

14. Install the rear tires / wheels & lower the rear of the vehicle to the ground.

**FINAL NOTES:**

- Double check that all nuts & bolts are tight. Refer to the following chart 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.
- If a drive shaft vibration is present, a transfer case lowering kit is available: Part # TCL30 ('84-'93 Models) or TCL31 ('94-'01 Models). (Includes shifter linkage relocation bracket.)
- Have the headlights readjusted to the proper settings.
- Have a qualified alignment center realign the vehicle to the OEM specifications.
- Retorque all the bolts after the first 100 miles.



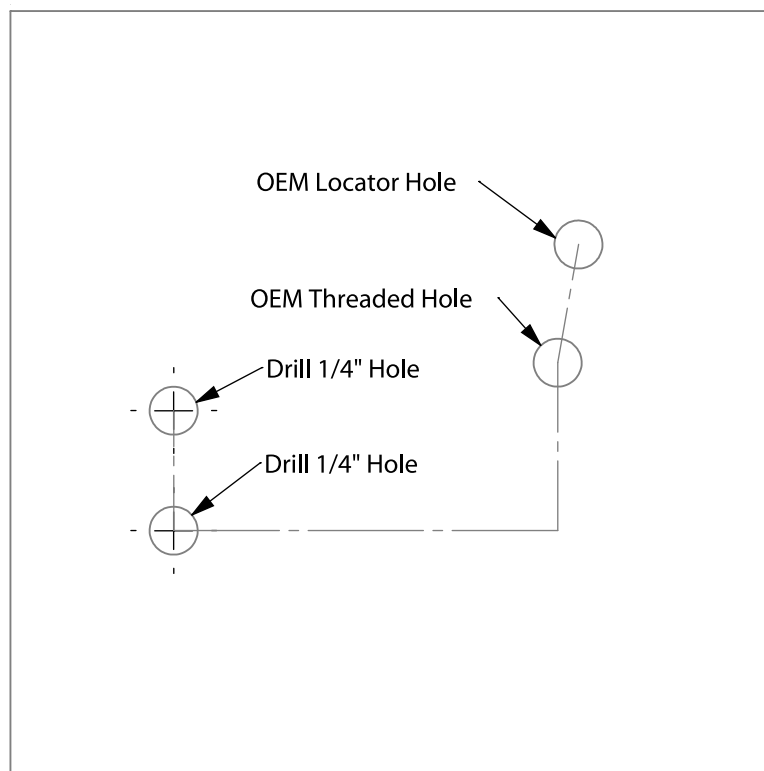
## **Accessories:**

- 3/4" Coil Spring Isolators Pads (Pair) Part # SIP275
- Heavy Duty Tie Rod Tube ('91-'01 Models) Part # TR300
- Transfer Case Lowering Kit ('84-'93 Models) Part # TCL30
- Transfer Case Lowering Kit ('94-'01 Models) Part # TCL31

<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.**



**Brake Line Relocation Template**