# SUSPENSIONS CE DE

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#### **REQUIRED TOOL LIST:**

- Safety Glasses
- Metric / Standard Wrenches & Sockets
- Drill / Assorted Drill Bits
- C-Clamps
- Hacksaw
- Adjustable Wrench
- Hammer
- Floor Jack
- Jack Stands
- Measuring Tape
- Torque Wrench





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<sup>®</sup> Customer Service at 318-388-0816 to obtain the needed items. If you have any questions or reservations about installing this product, contact SKYJACKER<sup>®</sup> 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:**

- If larger tires (10% more than the OEM 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.

I-JC451 11-20 Pg 1

# **Component Box Breakdown:**

Part #: JC45B / JC45H / JC45M / JC45N / JC4058SB / JC4058SM / JC455B / JC455H / JC455M / JC455N

Item #	Description	Qty	Item #	Description	Qty
ABSS2535	FRONT BUMP STOP SPACER	2	B8558	BLACK MAX SHOCK W/BLK	2
SBE401-L	FRONT SWAY BAR END LINK	2		(Included With JC455B Box)	
TBA10	FRONT ADJUST TRACK BAR	1	H7025	HYDRO SHOCK W/RED BOOT	2
	(Included With "H" & "N" Boxes)			(Included With JC45H Box)	
TBA10B	FRONT ADJUST TRACK BAR	1	H7028	HYDRO SHOCK W/RED BOOT	2
	(Included With "B" Boxes)			(Included With JC45H Box)	
TBA10M	FRONT ADJUST TRACK BAR	1	H7058	HYDRO SHOCK W/RED BOOT	2
	(Included With "M" Boxes)			(Included With JC455H Box)	
TJLL24-L	FRONT LOWER LINK	2	M9525	MONOTUBE SHOCK	2
XJ55RS-B	REAR SHACKLE	2		(Included With JC45M &	
12X234X6U	1/2 X 2 3/4 X 6 U-BOLT RD	4		JC4058SM Boxes)	
	(Included With JC4058 Boxes)		M9528	MONOTUBE SHOCK	2
12X318X612U	1/2 X 3 1/8 X 6 1/2 U-BOLT	4		(Included With JC45M &	
	(Included With JC4058 Boxes)			JC4058SM Boxes)	
HB-12	HDWR BAG:1/2 NUTS/WASHERS	1	M9558	MONOTUBE SHOCK	2
	(Included With JC4058 Boxes)			(Included With JC455M Box)	
HB-JC45	HDWR BAG: JC45 COMP BOX	1	N8025	NITRO SHOCK W/RED BOOT	2
HB-SBENB01	HDWR BAG: FRONT END LINKS	1		(Included With JC45N Box)	
HB-XJ20	HDWR BAG: REAR SHACKLES	1	N8028	NITRO SHOCK W/RED BOOT	2
B8525	BLACK MAX SHOCK W/BLK	2		(Included With JC45N Box)	
	(Included With JC45B &		N8058	NITRO SHOCK W/RED BOOT	2
	JC4058SB Boxes)			(Included With JC455N Box)	
B8528	BLACK MAX SHOCK W/BLK	2	I-JC451	INSTRUCTION SHEET: JC451	1
	(Included With JC45B &				
	JC4058SB Boxes)				

#### Part #: TBA10 / TBA10B / TBA10M

Item #	Description	Qty	Item #	Description	Qty
TBA10-B	FRONT ADJUST TRACK BAR	1	B10RS	RED BOOT	1
RE34X34R	3/4" RIGHT HAND ROD END	1		(Included With "H" & "N" Boxes)	
34RFTJN	3/4" RIGHT HAND JAM NUT	1	B10KS	BLACK BOOT	1
7400WS	WHITE STEERING DAMPER	1		(Included With "B" & "M" Boxes)	
	(Included With "H" & "N" Boxes)		HSS	HYDRO SHOCK DECAL	1
8400BS	BLACK STEERING DAMPER	1		(Included With "H" & "N" Boxes)	
	(Included With "B" Boxes)		MXSD	BLACK MAX STABILIZER DECAL	1
9400WS	SILVER STEERING DAMPER	1		(Included With "B" Boxes)	
	(Included With "M" Boxes)		SSD	SILVER STABILIZER DECAL	1
BTIE	RED BOOT TIE	1		(Included With "M" Boxes)	
	(Included With "H" & "N" Boxes)		HB-TBA60	HDWR BAG: FOR TBA10/60/80	1
BTIE-K	BLACK BOOT TIE	1			
	(Included With "B" & "M" Boxes)				

## **Hardware Bag Breakdown:**

#### Part #: HB-TBA60

Item #	Description	Qty	Item #	Description	Qty
TJDLB	DRAG LINK BUSHING	2	142121	ES24 SLEEVE	1
12X212FSB	1/2 X 2 1/2 FLAT SOCKET BOLT	1	81004	TAPERED SLEEVE	1
12X312FTB	1/2 X 3 1/2 FINE THREAD BOLT	1	LT100	NUTS N' BLTS 427	1
12USSW	1/2 USS WASHER	1	HOURGLASS 5/8	HOURGLASS 5/8 SHK BUSH	2
12SAEW	1/2 SAE WASHER	1	P837	STAB TAPERED STUD	1
12STVCTN	1/2 STOVER COARSE LOCK NUT	1	140629	EB6 STUD	1
12STVFTN	1/2 STOVER FINE LOCK NUT	1	7146-B	TRACK BAR / STAB BRACKET	1
2888	FRONT TRACK BAR BUSHING	2			

#### Part #: HB-12

Item #	Description	Qty	Item #	Description	Qty
12FTN	1/2 FINE THREAD LOCK NUT	8	12UBW	1/2 U-BOLT WASHER	8

#### Part #: HB-JC45

Item #	Description	Qty	Item #	Description	Qty
516X34TCFB	5/16 X 3/4 THRD CUT FLG BOLT	2	38FTN	3/8 FINE THREAD LOCK NUT	2
38X412FTB	3/8 X 4 1/2 FINE THREAD BOLT	2	38SAEW	3/8 SAE WASHER	2

#### Part #: HB-SBENB01

Item #	Description	Qty	Item #	Description	Qty
SBB2	SWAY BAR U-BRACKET	2	12CTCLN	1/2 COARSE THREAD LOCK NUT	2
141509	ES25 SLEEVE	4	10MMN	10MM METRIC LOCK NUT	2
12X212CTBG5	1/2 X 2 1/2 COARSE THRD BOLT	2	38SAEW	3/8 SAE WASHER	2
10X35MMB	10MM X 35MM METRIC BOLT	2	12SAEW	1/2 SAE WASHER	2

#### Part #: HB-XJ20

Item #	Description	Qty	Item #	Description	Qty
10X20MMB	10MM X 20MM METRIC BOLT	2	SSXJ	REAR SHACKLE SLEEVE	2
SP2400	REAR SHACKLE BUSHING	4	ZF316	ZERK FITTING / ALEMITE	2

# 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 using jack stands.
- 3. Remove the front tires / wheels, OEM front shocks, OEM steering stablizer, & OEM track bar.
- 4. Disconnect the OEM drag link from the OEM pitman arm.
- 5. Remove the OEM sway bar end links & OEM brake calipers. **Note:** Simply wire the OEM brake calipers out of the way. It will not be necessary to disconnect the OEM brake lines from the OEM brake calipers.

- 6. While checking for appropriate slack in ABS lines, brake lines, differential vent hose, & etc. Lower the front differential until the OEM coil springs become loose. Remove the OEM coil spring retaining bolt & clip on the bottom of the left OEM coil spring & remove the front OEM coil springs. (See Photo # 1)
- 7. Drill a 3/8" hole in each OEM lower coil seat using the OEM indentation as a guide. Install the new Skyjacker bump stop spacers using the supplied 3/8" x 4 1/2" bolts, nuts, & washers. (See Photo # 2)
- 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 # 3)
- 9. Remove the OEM lower links & install the new Skyjacker lower links (one side at a time) using the OEM hardware. (See Photo # 4)
- 10. Install the new Skyjacker adjustable track bar by lubricating & installing the supplied 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 # 5) 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.
- 11. Install the frame end of the new Skyjacker track bar by following the hardware pictured. (See Photos # 6 & # 7) 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 adjustable wrench & tighten using a pipe wrench or adjustable wrench on the jam nut.





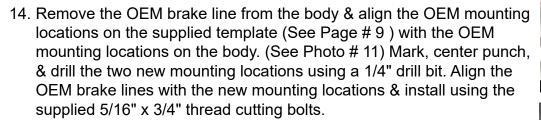








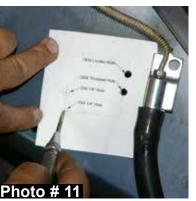
- 12. Install the new Skyjacker steering stabilizer mounting stud in the hole of the OEM drag link & upper mounting hole on the new Skyjacker track bar bracket. Lubricate & install the 5/8 hourglass bushings into the new Skyjacker steering stabilizer & attach to the new Skyjacker studs. (See Photo # 8)
- 13. 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 OEM sway bar & the nut & washer applied on top. (See Photo # 9) Note: Lubricate 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 # 10)



- 15. Install the OEM brake calipers using the OEM hardware.
- Install the new Skyjacker front shocks using the supplied & OEM hardware.
- 17. Install the front tires / wheels & lower the front of the vehicle to the ground.

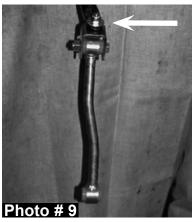
# **Rear Installation:**

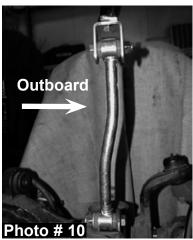
- 1. With the vehicle on flat level ground, set the emergency brake, & block the front tires / wheels.
- 2. Raise the rear of the vehicle & support the vehicle with jack stands.
- 3. Remove the rear tires / wheels & OEM rear shocks.



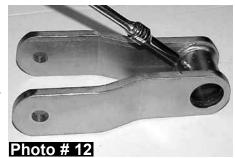








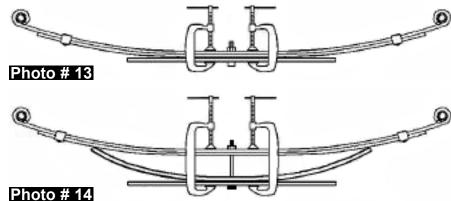
4. Prepare the new Skyjacker shackles by lubricating & inserting a poly bushing half into each side & a steel sleeve into each shackle. Install the drive-in grease fitting in each end of the new Skyjacker shackles using a 1/4" socket over the grease fittings. Tap with a hammer until the grease fitting is completely tapped in. (See Photo # 12)



5. Remove the upper most inner bumper bolt on each side of the body & replace with the supplied

10mm X 20mm bolts.

 Remove the OEM axle u-bolts & lower the rear axle. <u>Note:</u> Care should be taken when the u-bolts are removed, the axle can move freely. If installing new Skyjacker leaf springs, proceed to Step # 12.



### 7. Add - A - Leaf Installation:

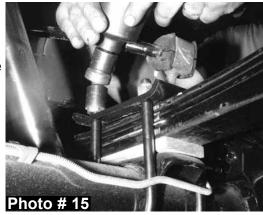
To perform the installation of the new Skyjacker rear add a leafs properly, you must use two large C-clamps to contain the elastic potential energy of the OEM rear leaf springs when the OEM tie bolts are being removed. Attach & tighten a C-clamp on each end of the OEM rear leaf spring to hold the leaf spring assembly securely together. Using a wrench & locking pliers to hold the head of the OEM tie bolt, loosen & remove. With care, slowly loosen & remove the C-clamps. (See Photo # 13)

- 8. Install the new Skyjacker rear add a leafs into the OEM rear leaf springs so the leaves remain progressive longest to shortest while matching the long end & short end of the new rear add-a-leafs to the OEM rear leaf springs. (See Photo # 14)
- 9. Install the new Skyjacker tie bolts through the OEM rear leaf spring. Do not tighten at this time.

# DO NOT USE THE NEW SKYJACKER TIE BOLTS TO DRAW THE OEM LEAF SPRING LEAVES TOGETHER. FAILURE OF ANY COMPONENT CAN CAUSE AN EXPLOSIVE DISASSEMBLY & POSSIBLE INJURY!

- 10. Place one C-clamp on each side of the new Skyjacker tie bolts & tighten evenly. Once the C-clamps have drawn the leaves securely together, hold the tie bolt heads with locking pliers & tighten the tie bolt nuts. Remove the C-clamps & cut off the excess length of the new tie bolts using a hacksaw. (See Photo # 14)
- 11. Install the leaf spring assembly on the vehicle & raise the rear axle, aligning the leaf spring pins with the axle housing. Install the new Skyjacker u-bolts using the supplied 1/2" nuts & washers. (Proceed to Step # 14)

- 12. Cherokee XJ Rear Leaf Spring Installation: Remove the OEM leaf spring eye bolts & remove the OEM leaf springs from the vehicle. 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 # 15)
- 13. Raise the rear axle, aligning the new Skyjacker leaf spring pins with the rear axle housing. Install the new Skyjacker u-bolts using the supplied 1/2" nuts & washers. (See Photo # 15)



- 14. Install the new Skyjacker rear shocks using the supplied & OEM hardware.
- 15. Install the rear tires / wheels & lower the rear of the vehicle to the ground.

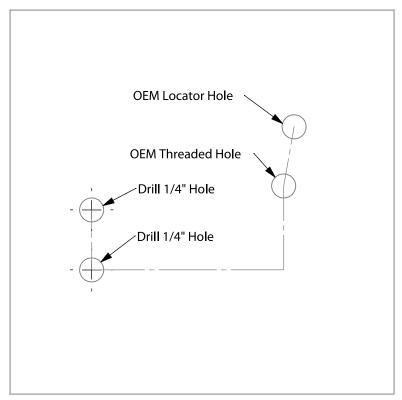
#### **Final Notes:**

- After the installation is complete, 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.
- Have the headlights readjusted to the proper settings.
- Have a qualified alignment center align the vehicle to the OEM specifications.
- After the first 100 miles, check all hardware for the proper torque & periodically thereafter.
- If a drive shaft vibration is present after installation, a transfer case lowering kit is available: Part # TCL30 ('84-'93 Cherokee XJ models & '86-92' Comanche MJ models) or TCL31 ('94-'01 Cherokee XJ models). (Includes shifter linkage relocation bracket.)

	TORQUE SPECIFICATIONS						
	INCH SYSTEM			METRIC SYSTEM			
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	<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		
<u>5/8</u>	135 FT LB	175 FT LB	16MM	130 FT LB	165 FT LB		
3/4	185 FT LB	280 FT LB	<u>18MM</u>	170 FT LB	240 FT LB		

<sup>•</sup> 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**