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## 2004 Ford F-150 4WD / 2WD 2" - 3" Performance Strut Installation Instructions

### REQUIRED TOOL LIST:

- Spring Compressor
- Metric/Standard Wrenches & Sockets
- Floor Jack
- Jack Stands
- Measuring Tape
- Torque Wrench



Before beginning the installation, read these instructions and the enclosed driver's WARNING NOTICE thoroughly and completely. Also affix the WARNING decal in passenger compartment in clear view of all occupants. If any of these items are missing from this instruction packet, do not proceed with installation, but call SKYJACKER® to obtain needed items. If you have any questions or reservations about installing this lift kit, call SKYJACKER® at 318-388-0816 for Technical Assistance or Customer Service departments.

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

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

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

### **IMPORTANT NOTES:**

- Please refer to Parts List to insure that all parts and hardware are received prior to disassembly of vehicle. If any parts are found to be missing, contact your dealer as soon as possible.
- If larger tires (10% more than stock diameter) are installed, speedometer recalibration is necessary (see Ford dealer or Tire Store).
- This lift is determined from the front while only lifting the rear to a position level with the front.
- After installation, a qualified alignment facility is required to align the vehicle to factory specs.

## Kit Box Breakdown:

### **F430ST:**

#### **Main Component Box**

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
F23STS	FORD F150 2-3" STRUT-SINGLE	2
F04ST-R500	1/2" FORD STRUT SPACER RING	2

### **F432ST:**

#### **Main Component Box**

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
F132STS	F150 1.5-3" 2WD STRUT	2
F04ST-R500	1/2" FORD STRUT SPACER RING	4

## Kit Box Breakdown:

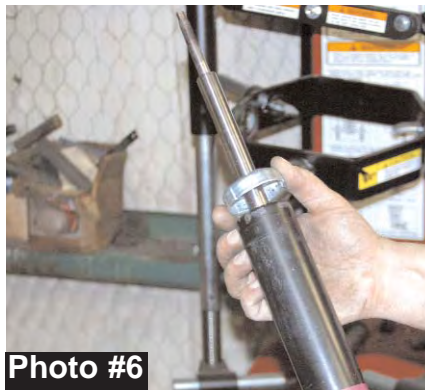
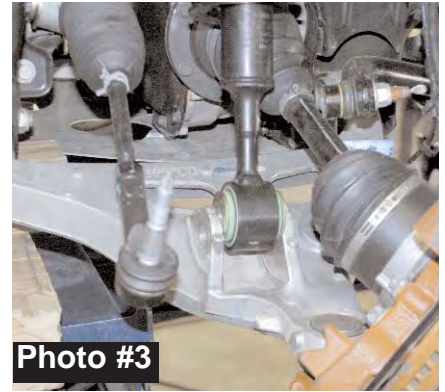
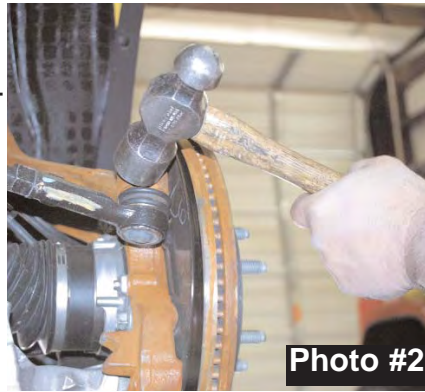
### **R3415:**

#### **Add-A-Leaves**

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
R3415S	SINGLE ADD-A-LEAF,1-1.5" 2004 F150	2
916X318X1012U	9/16 X 3 1/8 X 10 1/2 SQUARE	4
916FTN	9/16-18 NYLON INSERT LOCK NUT	8
1204S	1/2 X 4" TIE BOLT	4
12TBN	1/2" TIE BOLT NUT	4

## **Front Installation:**

1. Secure and properly block the tires of vehicle on a level concrete or asphalt surface.
2. Raise the vehicle from the front center cross member and remove tires and wheels. (See Photo #1)
3. Disconnect outer tie rod from steering knuckle using a 21mm socket. It may be necessary to strike the side of the knuckle to dislodge the tie rod end. Be careful not to damage the tie rod end itself. (See Photo #2)
4. Disconnect the Upper A-Arm ball joint from the top of the steering knuckle using a 21mm socket.
5. Disconnect the lower strut mount from the lower A-Arm using a 1 3/16" and 1 1/16" socket. Remove bolt. (See Photo #3).
6. Remove the upper three strut mounting bolts from the upper frame mount using a 15mm wrench. (See Photo #4).
7. Using a spring compressor, unload the tension on the upper mount of the factory coil assembly. Remove the upper shock retaining nut using 9/16" socket. (See Arrow in Photo #5). Slide shock out from the bottom.
8. Remove the upper end cap from the factory shock. It can easily be tapped off with a rubber mallet. (See Photo #6). With end cap removed, remove the lower coil seat from the shock. (See Photo #7).





9. **4WD Model:** With each Skyjacker Strut there is an additional ringlet included. If 3" of lift is desired the ringlet will be used. If only 2" is desired do not install the ringlet.

**2WD Model:** If aprox. 1" is desired you would use no rings, aprox. 2" - 1 ring, aprox. 3"- 2 rings per side. The 3" suspension kit will make for a firmer ride than stock because of the coils preload.

10. If installing ringlet, slide it over the new Skyjacker Strut. (See Photo #8). Install factory coil seat onto the new Strut. It may be necessary to tap these on due to a tight fit. (See Photo #9).



11. Install new end cap by tapping on with a hammer. Make sure it is seated flush against the top of the shock. (See Photo #10).

12. Assemble new Strut assembly using factory coil and upper coil seat. (See Photo #11).

12. Install new Strut assembly into vehicle. Attach to factory frame mount using factory nuts.

12. Attach to lower A-Arm using factory bolt and nut.

**"Ford Torque Specifications"** for this bolt is 351 Ft. Lbs.

13. Attach outer tie rod to steering knuckle and torque to 111 Ft. Lbs. Reattach upper A-Arm to steering knuckle and torque to 85 Ft Lbs. *Periodically re-torque upper / lower ball joints and outer tie rod!*

14. With all bolts tight, install tires / wheels, lower vehicle to the ground.

### **Rear Installation:**

15. Raise the rear of the vehicle and support the frame rails using jack stands. Remove the rear shocks using a 15mm and 18mm socket. (See Photo #12). Remove the rear U-Bolts using 21mm socket.

16. Lower axle down to gain access to rear leaf spring. To perform the installation of add-a-leaves properly you must use two large C-clamps to contain the elastic potential energy in a leaf spring when the center tie bolts are being removed. Attach and tighten a C-clamp on each end of the leaf spring to hold spring assembly securely together. (See Photo #13) Using vise-grips to hold the head of the two center bolts, loosen and remove them. With care, slowly loosen and remove the C-clamps.



Photo #10



Photo #11



Photo #12

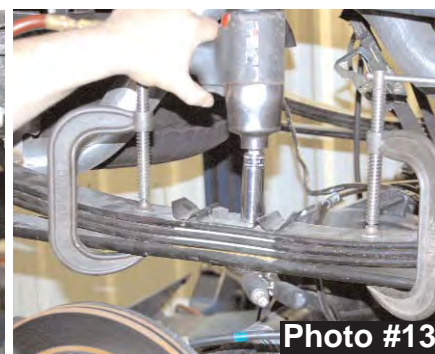
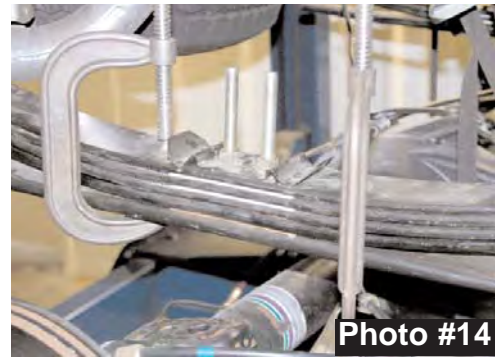


Photo #13

17. Insert new tie bolts through original bottom overload leaf, new add-a-leaf, and through original spring pack. Only finger tighten the nut. Be sure to install add-a-leaf so that the teflon wear pad in towards the rear of the vehicle.

18. **DO NOT USE THE CENTER TIE BOLTS TO DRAW THE SPRING LEAVES TOGETHER. FAILURE OF ANY COMPONENT CAN CAUSE AN EXPLOSIVE DISASSEMBLY AND POSSIBLE INJURY!** Place one C-clamp on each side of the center bolts and tighten evenly. Once C-clamps have drawn leaves securely together, hold the center tie bolt heads with vise-grips and torque nuts to 41 Ft. Lbs. (See Photo #14). Remove C-clamps. Cut off excess length of tie bolts. Install new U-Bolts and torque to 130 Ft. Lbs. Lower vehicle back to the ground. Install new Skyjacker rear shocks.



#### **FINAL NOTES:**

- \* After installation is complete, double check that all nuts and bolts are tight.
- \* Rotate drive shafts and check for interference at differential yoke and cardan joint.
- \* Check to ensure there is adequate clearance between All rotating, mobile and fixed members. Check clearance between inner side wall of tires.
- \* Ensure there is adequate clearance between exhaust and brake lines, fuel lines, fuel tank, floor board, and wiring harnesses. Check steering gear for interference and proper working order. Inspect brake lines for damage and adequate clearance. Test brake system.
- \* With the vehicle on the floor, cycle steering lock to lock and inspect steering, suspension, drive line and brake line systems for proper operation, tightness and adequate clearance.
- \* Have headlights readjusted to proper settings.
- \* Front end realignment is necessary so have a qualified alignment center realign front end to factory specifications.