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2005 - 2007 Ford Super Duty 8.5" Suspension Lift Installation Instructions

REQUIRED TOOL LIST:

- * Assorted Drill Bits
- * Brake Fluid
- * Metric & Standard Wrenches & Sockets
- * Floor Jack
- * Jack Stands
- * Measuring Tape
- * Pitman Arm Puller
- * Torque Wrench



Before beginning the installation, read these instructions & enclosed driver's WARNING NOTICE thoroughly & completely. Also affix the WARNING decal in the passenger compartment in clear view of all occupants. If any of these items are missing from this instruction packet, do not proceed with the installation & contact SKYJACKER® to obtain the needed items. If you have any questions or reservations about installing this lift kit, contact 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 & 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:

- 2006 Models with 2-piece rear drive shaft, will require "angled" carrier bearing lowering bracket Part # CBL206.
- Models equipped with a Rear Sway Bar must order Extended Rear Sway Bar End Links. 8.5" Lifts Order Part # SBE406
- Some Models may come equipped with a (larger) Sterling rear axle. These models will require wider rear U-Bolts. Order Part # U9B12R.
- Please refer to Parts List to insure that all parts & hardware are received prior to the disassembly of the vehicle.
- 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 the OEM specs.

Kit Box Breakdown:

F5852AS:

| <u>ITEM#</u> | <u>DESCRIPTION</u> | <u>QTY</u> |
|--------------|-----------------------------------|------------|
| TB580-B | TRACK BAR BRACKET,8.5" | 1 |
| RAB545-S | RADIUS DROP BRACKETS, 4" | 2 |
| SBE5956 | FRONT SWAY BAR LINK,8.5" | 2 |
| BSB70-B | BUMP STOP BRKT, 7"TALL | 2 |
| 7154 | STEERING STAB ASSEMBLY | 1 |
| FBL56 | FRONT BRAKELINE KIT, 8" | 1 |
| CBL214-1 | CARRIER BEARING SPACER | 1 |
| 58X312X1012U | 5/8 X 3 1/2 X 10 1/2 ROUND U-BOLT | 4 |
| HB-5250TBS | HDWR BAG:TRACK,BUMP,SWAY | 1 |
| HB-RAB585 | HDWR BAG:RAD ARM BRACKETS | 1 |
| HB-5250-1 | HDWR BAG:BRAKE,CARR BEARING | 1 |
| VH32 | REAR VENT HOSE-5/16"X 32" | 1 |

Hardware Bag Breakdown:

| HB-RAB585 | | Radius Arm Brackets | |
|------------------|--------------------------------|------------------------------------|------------|
| <u>ITEM#</u> | <u>DESCRIPTION</u> | | <u>QTY</u> |
| 34X512CTB | 3/4 X 5 1/2 COARSE BOLT,GR 8 | | 2 |
| 34X2CTB | 3/4 X 2 COARSE THD BOLT,GR 8 | | 4 |
| 34CTN | 3/4" COARSE THREAD N/I LOCKNUT | | 6 |
| 34SAEW | 3/4 SAE WASHER | | 12 |
| HB-5250-1 | | Brakeline / Carrier Bearing | |
| <u>ITEM#</u> | <u>DESCRIPTION</u> | | <u>QTY</u> |
| RBLE5250-S | REAR BRAKE EXT BRACKET | | 1 |
| 716X314CTB | 7/16 X 3 1/4 COARSE BOLT,GR8 | | 2 |
| 716SAEW | 7/16 SAE WASHER | | 2 |
| 516X1FTB | 5/16 X 1 FINE THREAD BOLT | | 1 |
| 516FTN | 5/16" FINE THREAD N/I LOCKNUT | | 1 |
| 516SAEW | 5/16 SAE WASHER | | 1 |
| 38X114FW | 3/8 X 1 1/4 FENDER WASHER | | 1 |
| 58FSFTN | 5/8-18 FLANGE STOVER NUT | | 8 |

F5852B:

| <u>ITEM#</u> | <u>DESCRIPTION</u> | <u>QTY</u> |
|--------------|---------------------------------|------------|
| DLB250-B | AXLE LINK BRACKET | 2 |
| F580UL-L | UPPER LINK | 2 |
| F580LL-L | LOWER LINK | 2 |
| HB-L250-43 | HDWR BAG:05LINKS W/3643 BUSHING | 1 |
| HB-L250-46 | HDWR BAG:05LINKS W/3446 BUSHING | 1 |
| HB-DLB250 | HDWR BAG: AXLE LINK BRACKETS | 1 |

Hardware Bag Breakdown:

| HB-L250-43 | | |
|-------------------|-----------------------------|------------|
| <u>ITEM#</u> | <u>DESCRIPTION</u> | <u>QTY</u> |
| SP3643 | LINK BUSHING | 4 |
| LS1987 | LINK SLEEVE, 1.987" | 2 |
| ZF316 | ZERK FITTING ALEMITE, 3/16" | 4 |

| HB-L250-46 | | |
|-------------------|-----------------------------|------------|
| <u>ITEM#</u> | <u>DESCRIPTION</u> | <u>QTY</u> |
| SP3446 | LOWER A-ARM BUSHING,02DODGE | 12 |
| LS2625 | LINK SLEEVE,05F250,2.625" | 6 |
| ZF316 | ZERK FITTING ALEMITE, 3/16" | 12 |

| HB-DLB250 | | |
|------------------|---------------------------|------------|
| <u>ITEM#</u> | <u>DESCRIPTION</u> | <u>QTY</u> |
| 18X130MMB | 18MM X 130MM BOLT/ 10.9 | 4 |
| 18MMN | 18MM-2.5TPI NYLON LOCKNUT | 8 |
| 34SAEW | 3/4 SAE WASHER | 12 |

Front Installation:

1. Park the vehicle on level ground, set the emergency brake, & block the rear tires. Raise the vehicle & support the frame rails using jack stands.
2. While supporting the front axle with a floor jack, remove the front tires / wheels. Remove the OEM front sway bar end links using a 18mm & 21mm socket. (See Photo # 1) Disconnect the drag link from the OEM pitman arm. Disconnect the OEM upper brake line bracket from the upper coil bucket & disconnect the brake line bracket from the axle.
3. Disconnect the track bar from the OEM track bar bracket using a 1 3/16" socket. (See Photo # 2) Remove both OEM brakeline brackets from the outside of the coil spring buckets on the frame using a 10mm socket.
4. Remove the OEM front shocks from the vehicle. Lower the axle so the coil springs become loose & remove. (See Photo # 3) Be sure to retain the upper rubber isolator pads, they will be used again on the new coil springs.
5. Disconnect the radius arms from the OEM frame bracket using a 15/16" socket. Remove one side at a time so the axle does not move.
6. Remove the OEM track bar bracket from the frame & front cross member using a 18mm & 21mm socket. Loosen & remove the pitman arm nut from the steering sector shaft using a 1 13/16" socket. Using a pitman arm puller, remove the OEM pitman arm from the sector. (See Photo # 4)
7. Before installing the new Skyjacker pitman arm, it is **EXTREMELY IMPORTANT** that the following steps be followed. The dri-lock compound on the threads of the OEM nut & the threads on the steering sector shaft must be thoroughly cleaned off & the threads dried before applying thread locking compound.
8. Apply a heavy bead of the supplied thread locking compound all the way around the entire threads of the nut. (See Photo # 4A) Once the thread locking compound has been applied, install the new pitman & OEM nut. **Torque the OEM nut to 350 Ft. Lbs!**



Photo # 1



Photo # 2



Photo # 3

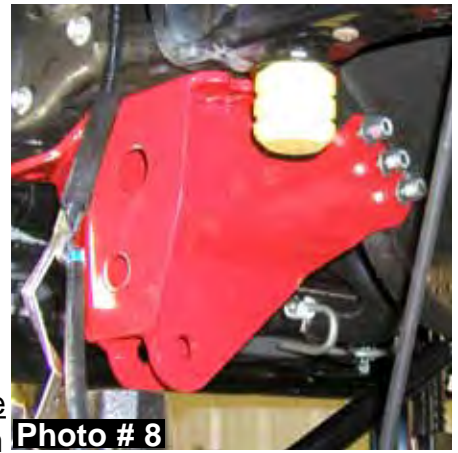


Photo # 4



Photo # 4A

9. Locate the new Skyjacker track bar relocation bracket. Bolt the new bracket to the OEM location on the cross member using the supplied 9/16" X 3" bolts, washers, & nuts. Be sure to use the (3) .938" long anti crush spacers between the front of the bracket & cross member. Do not tighten at this time. (See Photo # 8)



10. Attach the new track bar bracket to the frame using the (2) OEM bolts. Torque all (5) track bar bracket bolts to 129 Ft. Lbs.

11. Remove the OEM bump stop & bump stop cup from the frame. The mounting location on the frame & the bump stop cup must be drilled out to 3/8". (See Photo # 9) Once drilled, the locator tab on top of the OEM bump stop cup must be tapped flat so the cup will sit flush against the new Skyjacker bump stop relocation bracket. (See Photo # 10)

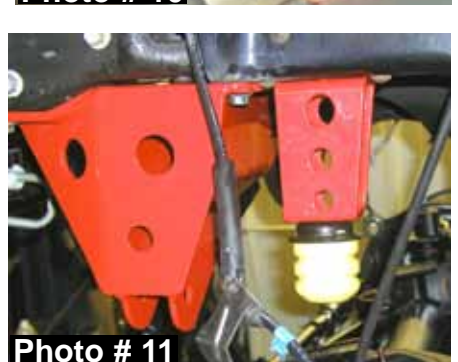


12. Attach the wide end of the new Skyjacker bump stop bracket to the OEM position on the frame. (Flat side of bracket toward the front of the vehicle.) Place a 3/8" small washer on the 3/8" x 1 1/2" bolt. Install the bolt through the top hole in the new bracket & frame. Place the large 3/8" fender washer on top of the frame & secure with a 3/8" nut. Attach the OEM bump stop cup to the bottom of the new relocation bracket using the supplied 3/8 x 1" bolt, washer, & nut. (Do Not use a washer under the bolt head. Tighten all bolts. Reinsert the OEM bump stop into the OEM bump stop cup. (See Photo # 11)



13. Disconnect the ABS line from the OEM radius arm using a 13mm wrench.

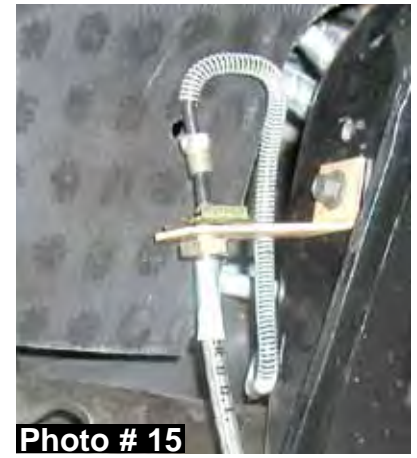
14. Remove the OEM front brakelines from the upper bracket. Pry the lower bracket open & remove the brake line from the bracket. (See Photo # 12) Disconnect the front brake line from the caliper.



15. Attach the new Skyjacker driver side brake line to the caliper. Note: Be very careful when attaching the brake line to the caliper. The lower banjo fitting must be angled upward when attached. If not angled correctly, the brake line will contact the body of the shock when turning. (Driver side brake line shown in Photo # 13 & # 14) Do Not attach the brake line to the OEM position on the steering knuckle.



16A. Attach the new Skyjacker drivers side brake line bracket, with only one bend, to the driver side coil bucket using the OEM bolt. Attach the OEM hardline into the new brake line through the hole in the new bracket. Secure the new brake line to the new bracket by inserting the brake line clip through the groove in the new brake line fitting (on top side of bracket). (See Photo # 15) Please note that the passenger side brake line bracket will look slightly different, but will attach the same way. (See Photo # 16)



16B. Install the new Skyjacker passenger side brake line bracket using the brake line bracket with 2 bends. Install the new bracket to the coil bucket using the OEM bolt. Install the passenger side brake line following steps # 15 & # 16A.

17. Install the new Skyjacker coil springs. Be sure to reuse the OEM rubber isolator pad on top. Let weight down on the new coils springs at this time. (See Photo # 17) Bolt the OEM track bar to the new track bar bracket using the OEM hardware. Torque to 280 Ft. Lbs.



18. Install new Skyjacker front shocks.

19. Install the supplied bushings & sleeves into the new Skyjacker sway bar end links. (See Photo # 18)

20. Assemble the supplied bushings on the other end of the new sway bar end links. The mount on the axle will be between the two bushings. (See Photo # 19)

21. Attach the upper eye of the new sway bar end links to the OEM sway bar using the OEM hardware while being sure to place the large 9/16" Large USS washer between the head of the bolt & the sway bar end link bushing. (See Photo # 21)



22. Reinstall the lower OEM brake line bracket to the axle. Place the new brake line through the lower OEM bracket & shift most of the slack up & away from the caliper. Recrimp the ends to hold the brake line in the bracket. (See Photo # 20 & # 21)

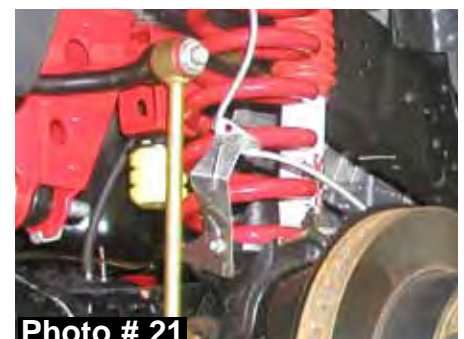


Photo # 19
I-F580-585

Photo # 20

Photo # 21

23. Remove the OEM steering stabilizer. Remove the OEM bracket from the cross member using a 18mm socket. (See Photo # 22)



24. Attach the new Skyjacker steering stabilizer bracket to the cross member in the OEM mounting holes using the OEM hardware. Install the bolts from the front. Torque to 90 Ft. Lbs. (See Photo # 23)



25. Install the new Skyjacker tapered sleeve into the OEM tapered mounting hole on the drag link. With the tapered sleeve installed, insert the new Skyjacker tapered stud. (See Photo # 24)

26. Install the new Skyjacker non-tapered stud onto the bottom of the new steering stabilizer bracket. Install the 5/8 hourglass bushings & boot onto the new steering stabilizer. Install the new steering stabilizer on the new studs & tighten all nuts. (See Photo # 25)

27. Disconnect the radius arms from the OEM frame bracket & axle using a 15/16" socket. Remove one side at a time so the axle does not move.



28. Install the new Skyjacker radius arm drop brackets into the OEM brackets on the frame, using the supplied 3/4" x 2" bolts, washers, & nuts in the OEM rearward holes. The outside bolts will install from the outside in. The inner bolts install from the inside of the bracket, pointing out. Do not tighten at this time. (See Photo # 26)

29. Attach the new Skyjacker axle brackets to the OEM mounts on the axle using the OEM hardware with new 18mm nuts & washers supplied. (See Photo # 27)



30. Insert the new Skyjacker 3/16" grease fittings into each of the new Skyjacker control arms. They can easily be installed by placing a 1/4" socket over the fitting & tapping the socket with a hammer.

31. Locate the new lower control arm. Locate the hardware bag marked HB-L250-46. Install the bushings & sleeves from this bag into the new lower control arms. Be sure to grease thoroughly before installation. Attach the lower control arm to the new bracket on the axle using the supplied 18mm x 130mm bolt, washers, & nut. Attach to the bracket on the frame using the OEM bolt. It may be necessary to use a ratchet strap to help line up the mounting holes. Be sure to install so the grease fittings are easily accessible.



32. Locate the hardware bag marked HB-L250-43. These bushings in this bag have a smaller head. Install the bushings & sleeves from this bag into the rear eye of the upper control arm. (The rear eye of the upper control arm is the farthest away from the ABS line mount). Install the additional bushings & sleeves from the HB-L250-43 bag into the front of the upper control arm. Attach the upper control arm to the new frame bracket using the supplied 3/4" x 5.5" bolt, washers, & nuts. Attach to the new axle bracket using the supplied 18mm x 130mm bolt, washers, & nuts. Tighten all bolts at this time. (See Photo # 28) Torque 18mm & 3/4" bolts to 250 ft. lbs.



33. Attach the OEM ABS bracket to the mount on the new upper control arms using the OEM bolt. The OEM bolt will thread into the tab on the upper control arm. (See Photo # 29)



Rear Installation:

34. Raise the rear of the vehicle & support securely with jack stands & block the front tires / wheels. Remove the rear tires / wheels, shocks, & U-bolts. Remove the vent hose from the frame. (CAUTION: The rear axle will now be free to move, so support securely with a floor jack.)



35. **Rear leaf spring installation:** Unbolt & remove the OEM rear springs, then install the new Skyjacker rear leaf springs with the long end of the spring towards the rear bumper. (NOTE: Be sure the thick end of the bottom degree shim is also towards the rear bumper.) The OEM blocks are maintained. Proceed to Step # 37.

36. **Rear block installation:** Install the new Skyjacker lift blocks, with the taller end toward the rear bumper, between the leaf springs & OEM blocks (The new block will be installed on top of the OEM block).



37. Using a floor jack, raise the axle to the rear leaf springs. Be sure the spring tie bolts & block pins all align in the proper holes & are completely seated. Install & torque the new Skyjacker u-bolts to 110 ft. lbs.

38. Replace the OEM vent hose with the new longer Skyjacker vent hose. Reattach the new vent hose, but relocate the new vent hose to the bottom of the frame rail.

39. Install the new Skyjacker rear shocks & rear tires / wheels, then lower the vehicle to the ground. (See Photo # 30)

40. Remove the top of the brake line from the OEM bracket. Attach the new Skyjacker relocation bracket to the hole in the OEM brake line bracket. Place the small 5/16" washer on the 5/16" x 1" bolt first. Insert the bolt through the new relocation bracket, then through the OEM upper bracket. Now place the large 3/8" fender washer onto the bolt & tighten the 5/16" nut. Reconnect the OEM brake line through the hole in the new relocation bracket using the OEM clip. (See Photo # 31)

BLEEDING THE BRAKE SYSTEM:

- A) Fill the master cylinder with D.O.T. approved brake fluid.
- B) Pump the brake pedal & hold down. While the pedal is down, open the bleeder nut to release air out of the system. Close or tighten the bleeder nut, let the pedal up & re-pump. Continue the pumping / bleeding process until fluid is being excreted out of the bleeder nut and / or until no air is being expelled.
- C) Bleed each line & make sure your master cylinder is full of brake fluid after each bleeding process.
- D) The brake pedal will not "pump up" or will have excessive down - travel if all the air is not out of the system.
- F) It is the customer's responsibility to check the brake lines for any leaks, abrasion, proper clearances, & brake line fittings after the first 100 miles & after every off-road activity.

Note: On models equipped with a carrier bearing on the rear drive shaft, it will be necessary to install the supplied carrier bearing lowering bracket to help eliminate any driveline vibration. Install using the supplied 7/16" bolts & washers. The bracket will mount between the carrier bearing & OEM mount.



Important Note: After installation is completed & the vehicle is on the ground with weight on the springs. Clearance must be checked between the driver side rear shock. In some situations, under acceleration, the shock will contact the u-bolt that attaches the lower bracket to the axle. (See Photo # 1)



Loosen the u-bolt that attaches the bracket to the axle. Rotate the shock bracket upwards so more clearance is achieved between the shock body & the u-bolt. (See Photo # 2)

Once in the desired position, retighten the u-bolt & torque to 90 ft. lbs. It is now recommended to tack weld the bracket to the axle tube to prevent movement of the bracket.

FINAL NOTES:

- After installation is complete, double check that all nuts & bolts are tight. (Do not retighten nuts & bolts where Thread Lock Compound was used.)
- If new tires are installed that are more than 10% taller than the OEM tires, the speedometer must be recalibrated for the rear wheel anti-lock brake system to function properly. Contact an authorized Ford Dealer for details on recalibration.
- With the vehicle on the ground, cycle the steering full left & right turns. Inspect the steering, suspension & driveline systems for proper operation, tightness, & adequate clearance. Recheck the brake hose / fittings for leaks. Be sure to check the clearance between the front brake line at the caliper & the shock.
- Have the headlights readjusted to the proper settings.
- Have a qualified alignment center realign the vehicle to the OEM specifications.
- Re-torque all bolts after the first 100 miles. (Do not retighten nuts where Thread Lock Compound was used.)

| TORQUE SPECIFICATIONS | | | | | |
|------------------------------|----------------|----------------|-----------------------------|------------------|-------------------|
| <u>INCH SYSTEM</u> | | | <u>METRIC SYSTEM</u> | | |
| Bolt Size | Grade 5 | Grade 8 | Bolt Size | Class 8.8 | Class 10.9 |
| 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.