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Part#: **013252, 013253**

Product: **2.5" Suspension System**

Application: **3/1/1999-2004 Ford Super Duty**

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## READ AND UNDERSTAND ALL INSTRUCTIONS AND WARNINGS PRIOR TO INSTALLATION OF SYSTEM AND OPERATION OF VEHICLE.

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**SAFETY WARNING** BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

**PRODUCT SAFETY WARNING** Certain BDS Suspension products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. BDS Suspension Co. does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

### PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/ reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
4. Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
5. Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.
7. Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.

### POST-INSTALLATION WARNINGS

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure. Longer replacement hoses, if needed can be purchased from a local parts supplier.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

## PARTS LIST

Part #	Qty	Description
963180900Q	4	9/16 x 3-1/8 x 9" Square U-bolt (013252) or
963180912H	4	9/16 X 3-1/8 x 9" Radius U-bolt (013253)
N96FH	8	9/16" Fine High Nut
W96S	8	9/16" Flatwasher
01036	2	Sway Bar Link (013252) or
01028	2	Sway Bar Link (013253)
SB58BK	4	5/8" Hourglass Bushing (013252 only)
51792	4	5/8" x 1.375" sleeve (013252 only)
M02016BK	4	3/4" Hourglass Bushing (013253 only)
65	4	3/4" x 1.65" Sleeve (013253 only)
01043	1	Track Bar Relocation Brkt (After 3/1/99)
403	1	Bolt pack
	2	12mm x 70mm bolt w/ nut & washers



## INSTALLATION INSTRUCTIONS

1. Park and secure the vehicle on a level hard surface. Block the rear tires to avoid accidental movement.
2. Remove the track rod bolt on the driver side at the frame mount. This is a solid bar that runs from the axle on the passenger side (PS) to the frame on the driver side (DS).
3. Raise the front of the vehicle so the axle is hanging freely and the tires are just off the ground. Support the vehicle with jack stands under the frame rail about 3" behind the front spring.
4. Remove the tires and wheels.
5. Remove the original shocks and retain hardware for later use.
6. Remove the front sway bar links on both sides. Retain OE 12mm bolts to be used later.
7. **2001 models & newer only:** Remove the crossmember that runs between the frame rails right behind the lower valence of the front bumper and retain factory hardware. (Fig. 1)

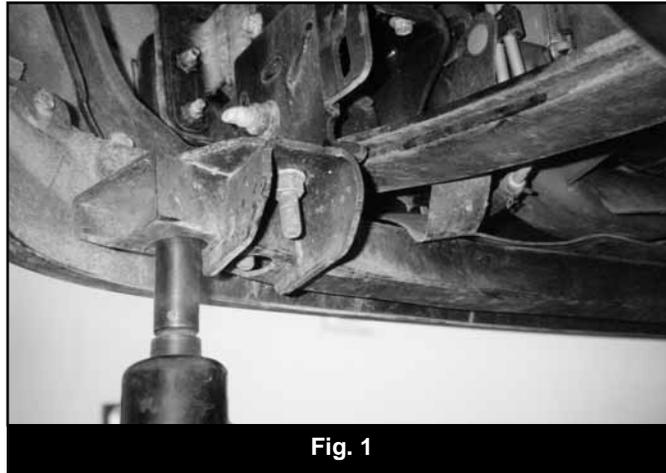


Fig. 1

8.  **2001 models & newer only:** Remove the side bumper support braces and retain factory hardware. (Fig. 2)

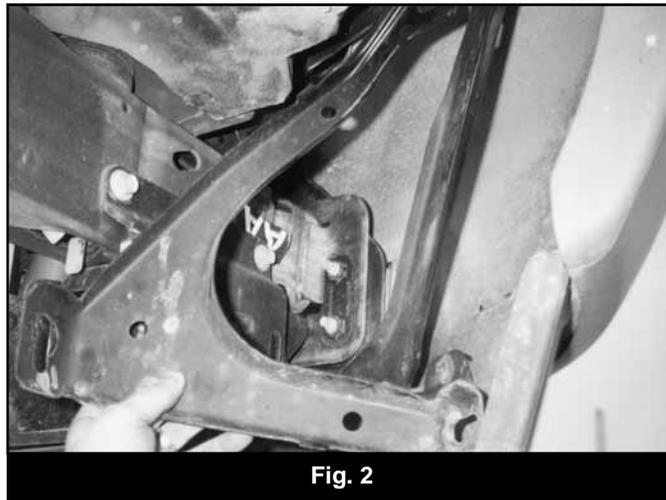


Fig. 2

9. Place a floor jack under the axle to support it. Remove the spring u-bolts.
10. Remove the leaf spring eye bolts. You will need to remove the AC condenser mount brackets that are directly next to the front spring eye bolts in order to gain clearance.  **Note: The OE nuts were attached using loctite.** To aid in removal, heat the nuts. Keep a fire extinguisher handy whenever using an open flame. Lower the axle and remove the original spring. (Fig. 3)

 **CAUTION: Do not over extend the brake lines.**

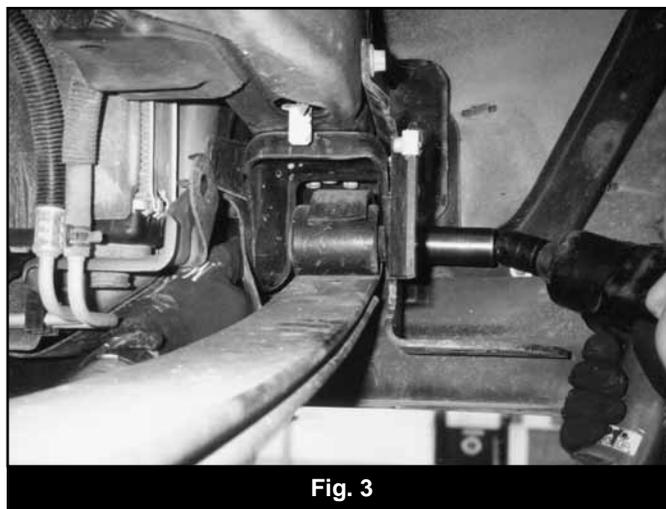
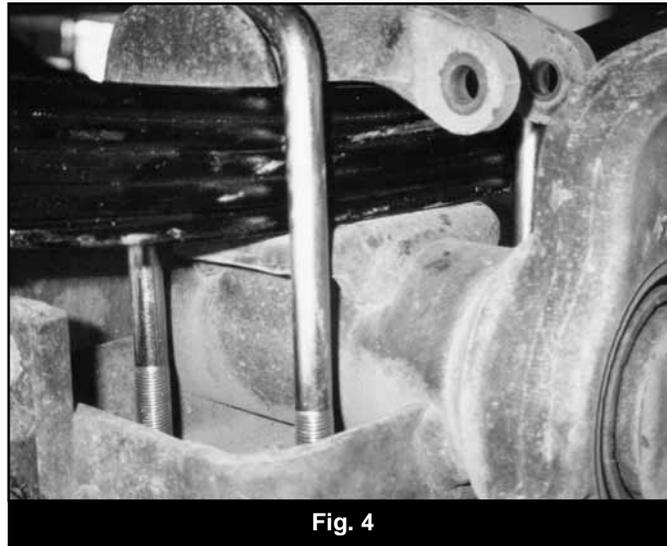


Fig. 3

11. Install the new leaf springs using the original shackle and hanger fasteners. Hand tighten only. The spring eye bolt must be tightened after the vehicle is on the ground.
12. Raise the axle with a floor jack and install the OE top u-bolt plate. Install the new u-bolts to retain the spring to the axle. Torque to 100-120 ft/lbs. (Fig. 4)



13. Install new BDS shocks.
  14. Remove the OE cast track bar mount on the frame on the driver side. Save the original bolts and pal nuts. **Note:** **The OE nuts are attached using loctite.** To ease removal, heat the bolts before attempting to remove. Be sure to keep a fire extinguisher handy when using any open flame.
- ⚠ Caution: Under coating is flammable.**
15. **2001 models & newer only:** Install the factory crossmember behind the front bumper using the factory hardware. Install the side bumper support brackets that were removed earlier using the factory hardware.
  16. Install supplied track bar mounting bracket using the original fasteners at the factory mounting points. Torque to 65 ft/lbs.
  17. Assemble the supplied bushings and sleeves into the supplied sway bar links. Install sway bar links with the supplied 12mm bolts and the OE bolts that were saved earlier. Torque to 55 lbs.
  18. Install tires and wheels and lower the vehicle to the ground.
  19. With the full weight of the vehicle on the springs, tighten the leaf spring eye bolts to OE specification. (18mm -130 ft/lbs, 16mm 115 ft/lbs.)
  20. Install track rod in to the new mounting bracket using OE fastener. Turn the steering wheel to assist in aligning the holes. Tighten to 369 ft/lbs. Use the OE bolt.
  21. Install warning card on rear view mirror for vehicle operator.
  22. Check all fasteners after 500 miles.
  23. A complete front end alignment should be completed after installation of this kit. A headlamp adjustment should also be completed.

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## NOTICE TO DEALER/INSTALLER

These instructions, the warning card, and included decals must be given to the owner of this BDS Suspension product.

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For questions, technical support and warranty issues relating to this BDS Suspension product, please contact your distributor/installer before contacting BDS Suspension directly.

**Sold/Installed by:**