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Part#: **012303**

Product: **3" Front Spacer Kit**

Application: **2003-2008 Dodge 2500 4WD**

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

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.

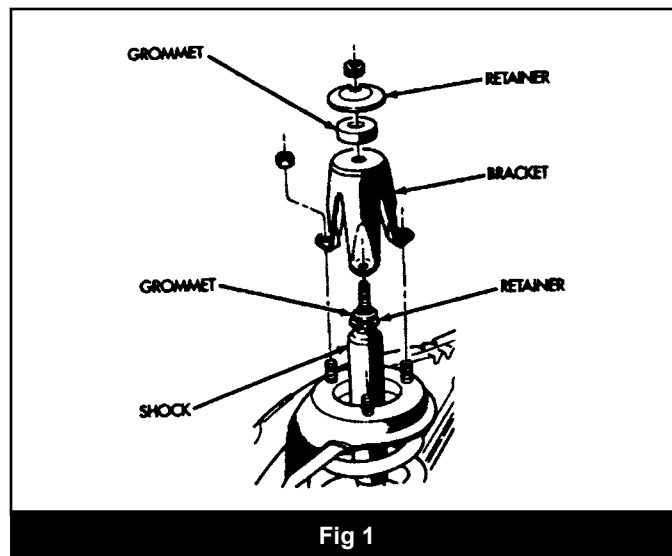
POST-INSTALLATION WARNINGS

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.



INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Open the hood and remove the upper shock stem nuts. Remove the three nuts mounting each of the shock towers to the frame (Fig 1).



3. Raise the front of the vehicle and support the frame with jack stands.
4. Remove the wheels.
5. Support the front axle with a hydraulic jack.
6. Disconnect the brake lines from the axle bracket. Retain all hardware.
7. Disconnect the sway bar links from the sway bar. Retain all hardware.
8. Disconnect the shock from the lower mount. The head of the bolt is accessed through a hole in the front of the axle spring perch. Remove the shocks and retain the mounting hardware.
9. Disconnect the track bar from the frame bracket. Retain hardware.
10. Remove the OE bump stops from the frame. Pull them free of the frame mount with channel lock pliers.
11. Disconnect the drag link from the pitman arm. Retain hardware.
12. Remove the pitman arm nut from the sector shaft. Note the orientation of the pitman arm and remove the arm from the sector shaft using the appropriate puller (Fig 2).

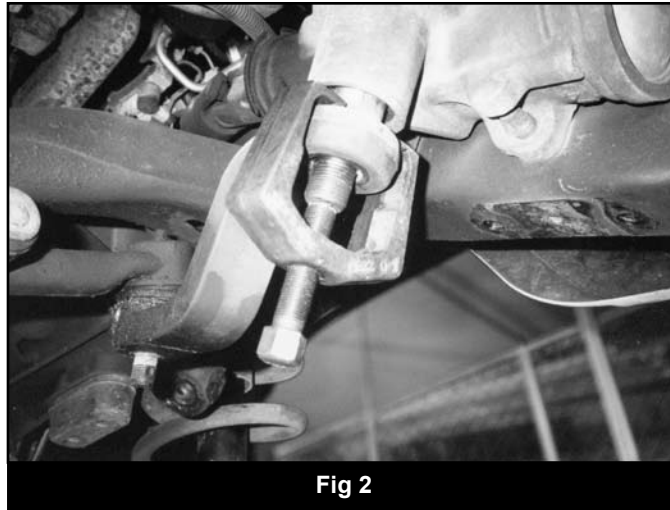


Fig 2

13. Install the new pitman arm on the shaft by lining up the splines on the pitman arm and sector shaft so that the indexing is correct. Fasten the pitman arm with the stock hardware and torque to 225 ft-lbs.
14. On both sides of the vehicle, make index marks on the alignment eccentrics at the axle (Fig 3). Mark the cams to indicate driver's versus passenger's side.

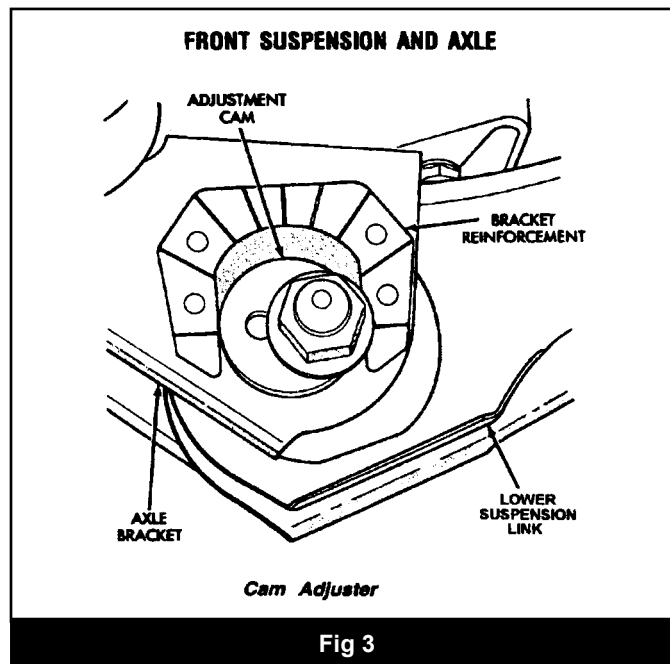


Fig 3

15. Working on one side of the vehicle at a time, remove the OE lower control arm cam bolt. Retain hardware.
16. Lower the jack until the spring can be removed from the vehicle. Also, remove the OE upper spring isolator and shock tower stud ring. The isolator will be reused, the stud ring will not.
17. Install the spring isolator in the provided coil spring spacer. Install the spacer on top of the coil spring and install the entire assembly in the vehicle. Raise the axle to hold the assembly in place but do not compress the spring.
18. Position the new shocks down through the spring and attach to the axle with the OE hardware. Install the OE shock tower by lining up the threaded holes in the spacer with the holes in the spring tower. Fasten the entire assembly with the 7/16" x 1-1/4" bolt and lock washers from bolt pack #602. Torque hardware to 35 ft-lbs.
19. Install a stem washer and bushing on the shock and extend the shock into the tower. Fasten the top of the shock with a stem bushing, washer and 1/2" nut. Tighten the nut until the bushings begin to swell.
20. Reattach the lower control arm with the OE eccentric hardware. Leave hardware loose.
21. Repeat installation on the other side of the vehicle.

22. With both sides complete, attach the drag link to the pitman arm with the OE hardware. Torque the nut to 45 ft-lbs. Do not loosen the nut to align the cotter pin hole.
23. Apply loctite to the OE sway bar link stem threads. Install the provided sway bar link extensions and tighten securely. Attach the sway bar to the extensions with the original hardware. Tighten the stem nuts until the bushings begin to swell.
24. Reattach the brake lines to the axle with the original hardware.
25. Install the new extended bump stops in the original frame mounts. Grease the mounting surfaces to ease installation.
26. Install the new track bar bracket to the OE frame mount with the provided 9/16" x 3" bolt, nut and 1/2" USS washers. Attach the end of the bracket to the frame crossmember with the 9/16" x 3" bolt, nut and 1/2" USS washers from bolt pack #609. Torque the 9/16" hardware to 125 ft-lbs.
27. Install the wheels and lower the vehicle to the ground.
28. Install the track bar in the new bracket with the 14mm x 80mm bolt and 9/16" SAE washer from bolt pack #609 with the OE nut tab. Torque hardware to 125 ft-lbs.
29. Torque the lower control arm eccentric bolts to 160 ft-lbs.
30. Check all hardware for proper torque.
31. Perform a steering sweep to check for proper clearance of all components.
32. Perform a complete front end alignment.
33. Check all hardware after 500 miles.

NOTICE TO DEALER/INSTALLER

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

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:

Shock Absorber Installation Instructions



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LIMITED LIFETIME WARRANTY

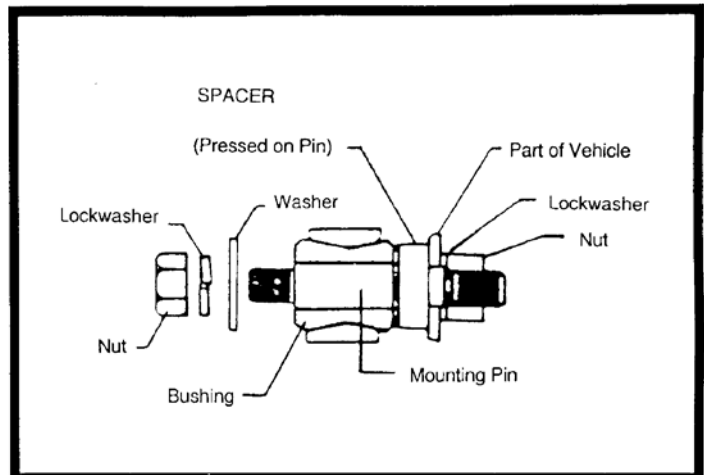
BDS Suspension Co. warrants to the original retail purchaser that its shock and stabilizer cylinders are free from defects in material and workmanship for so long as they own the vehicle. Excluded from this warranty are the finish of the product and mounting bushings. Defects in material and workmanship do not include such things as dented cylinders or bent rods caused by obvious side impact, rust, worn or deformed bushings. A shock absorber is a wear item and over time will experience diminished damping resistance due to normal component wear. This is not a defect in material or workmanship and is therefore not warrantable.

BDS Suspension's obligation under all warranties is limited to the repair or replacement, at BDS's option, of the defective material. Any cost of removal, installation or reinstallation, freight charges, incidental or consequential damages are expressly excluded from these warranties.

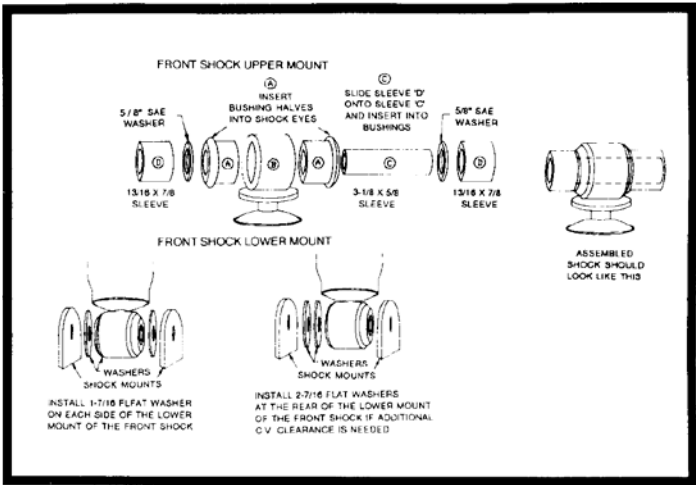
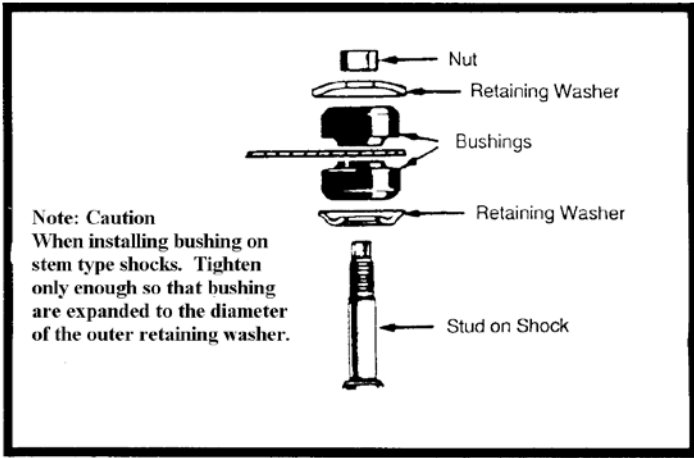
INSTALLATION INSTRUCTIONS

1. **Note: Please read instructions thoroughly before installing shock absorber.**
2. Remove old shock absorber from vehicle. Note any spacers, washers, sleeves or other hardware and note their location. Compare the existing hardware with the supplied hardware. Always use new hardware wherever possible. Due to the variety of applications, you may not use any or all of the hardware supplied. You may need to use some of the original hardware. If any of the original hardware is damaged, corroded, bent or broken it must be replaced.

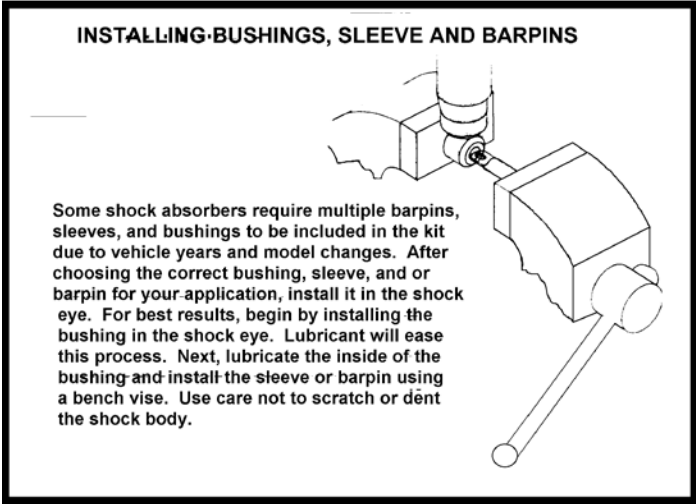
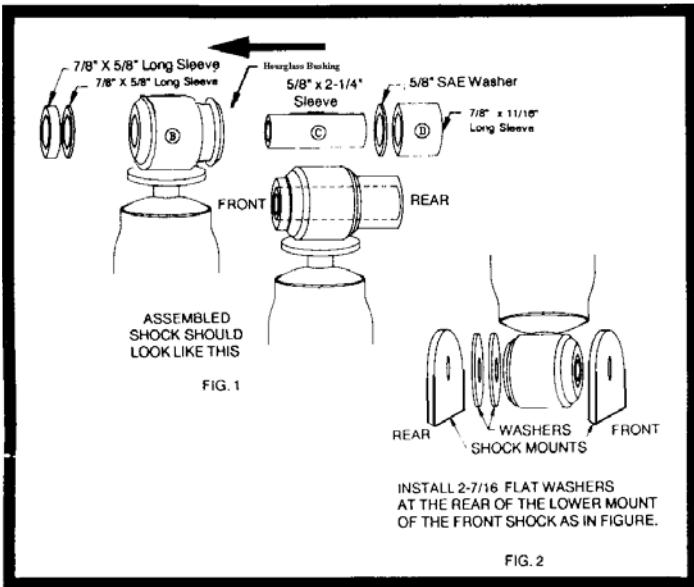
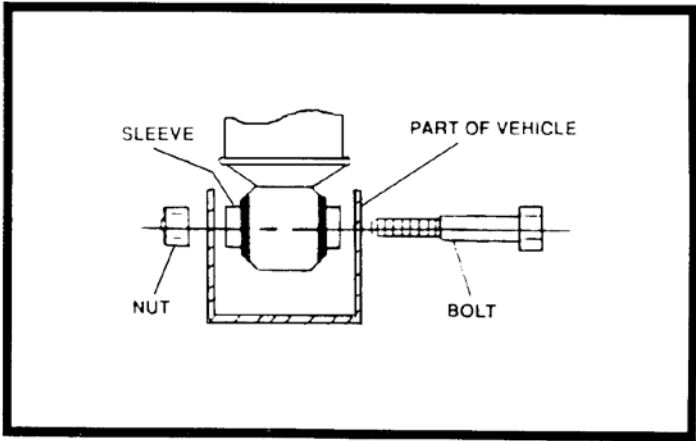
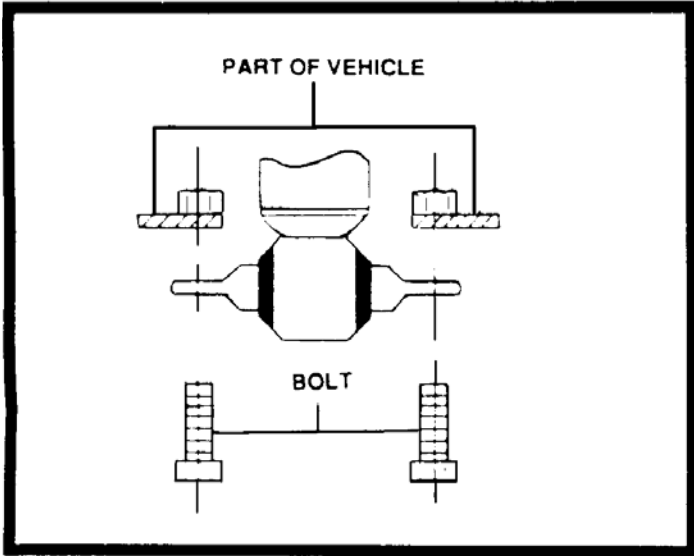
3. If installing dust boot, do so at this time. **Note: The use of a lubricant like dish soap on the inside of the boot will ease installation.** Make sure the washer at the top of the shock is fully seated in the boot all the way around. Secure the bottom of the boot to the cylinder with a plastic tie strap.
4. Install any required bushings and sleeves in to the shock eyes at this time. Install the shock absorber on the vehicle. Use the appropriate illustration as a frame of reference. Due to the different shock mounts within a vehicle model range, the shock eyes must be built to match the shocks that you removed by using the universal hardware kit included. Choose the sleeve with an I.D. closest to the O.D. of the mounting stud or bolt without binding. Some applications will require some extra effort to install.
5. Check all fasteners for tightness before driving and inspect periodically.



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