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Part#: **028300**

Product: **2007-2011 Toyota Tundra**

Application: **3" Front Strut Spacers**

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.

PARTS LIST

Part #	Qty	Description
02215	2	Strut Spacer
519	1	Bolt Pack
	8	10mm-1.50 prevailing torque nut clear zinc
	8	7/16" SAE flat washer clear zinc
342701	1	Loctite



INSTALLATION INSTRUCTIONS

Front Installation

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support the frame with jack stands behind the lower control arms.
3. Remove the front wheels.
4. Disconnect the sway bar links from the lower control arm (Fig 1). Retain hardware.

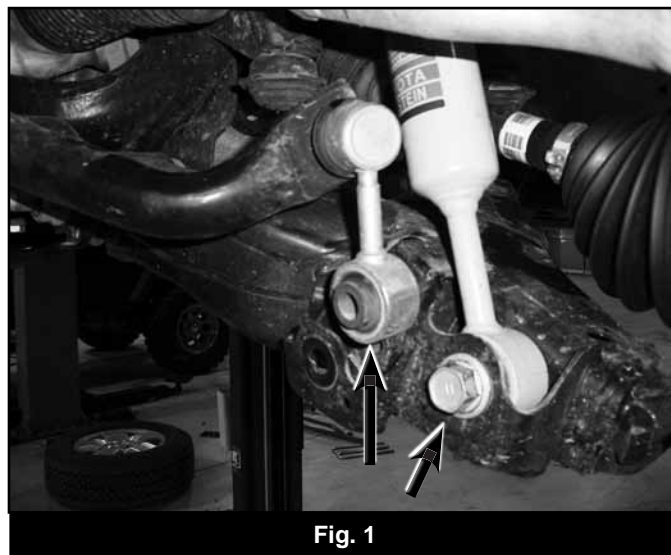
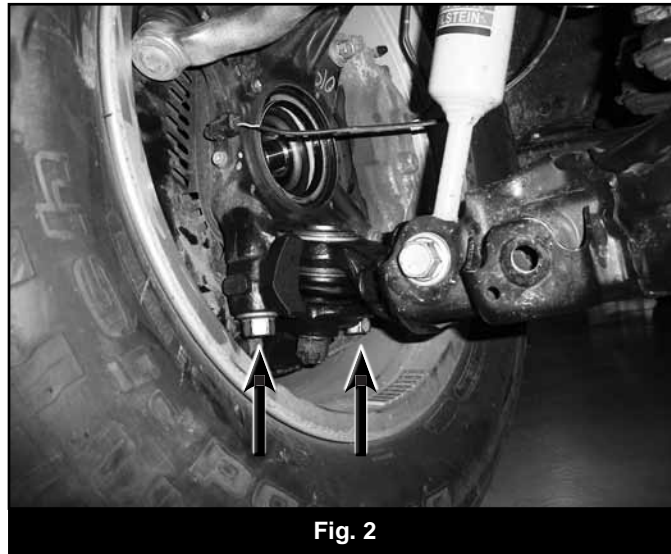


Fig. 1

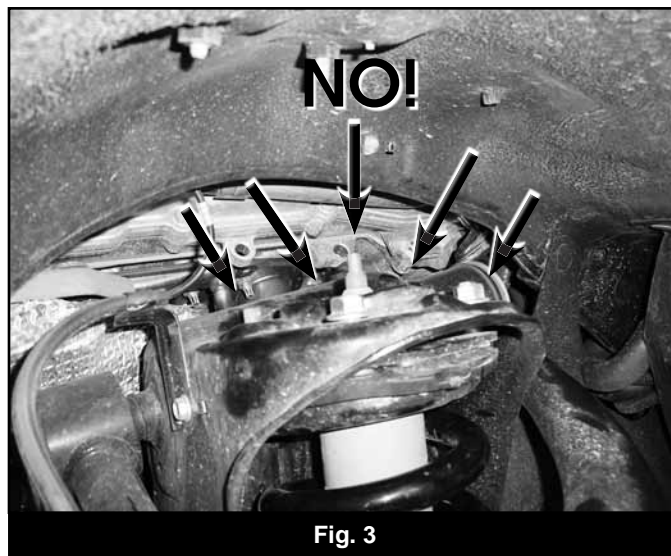
5. Support the lower control arm with a hydraulic jack
6. Loosen the lower control arm bolts. This will allow the lower control arm to swing out of the way. Note: The front mount requires that the bolt head be turned not the nut, it will help if you remove the skid plate, but it is not necessary.
7. Remove the 2 bolts that attach the lower control arm to the lower ball joint (Fig 2).



8. Remove the lower strut bolt (Fig 1)
9. Lower the jack and allow the lower control arm to swing down.
10. Locate the driver's and passenger's top strut mounting nuts (Fig 3). Remove the four nuts that hold each strut to the frame.



CAUTION: DO NOT remove the center strut nut. It is under extreme pressure. Remove the strut from the vehicle by lowering it straight down.



Perform the following steps one side at a time, starting with the passenger's side.

11. Install new spacers on top of strut with OE nuts, tighten to 35 ft-lbs. Note: the new bracket will only fit onto the strut assembly one way. 'OUT' will be located in the same position as the OE assembly and will face towards the outside of the vehicle when it is reinstalled. (Fig 4)

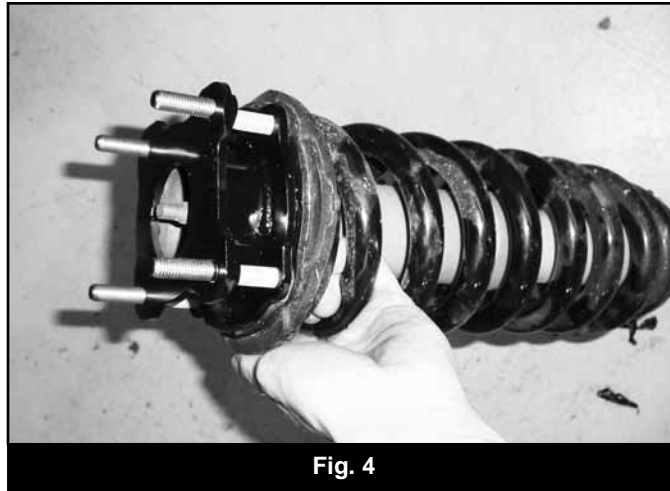


Fig. 4

12. Install the modified strut assembly in the vehicle by aligning the welded studs in the top plate with inside mounting hole. Fasten the strut to the frame with new 10mm nuts with 7/16" washers. Leave hardware loose. Note: It may be necessary to slightly clearance the mounting holes with a die grinder or 7/16" drill bit.
13. Attach the strut to the lower control arm with the OE hardware. Snug nut but do not tighten. Final torque will be done with weight of the vehicle on the suspension.
14. Attach the lower control arm to the lower ball joint with the OE bolts. Use Loc-tite on the threads. Torque hardware to 220 ft-lbs. Note: Use a jack to slightly compress the strut if necessary.
15. The upper control arm will be very close to the coil at full droop. An alignment is required and will generally help the clearance issues. If there is contact between the upper control arm and coil, the coil and lower coil seat will need to be indexed (rotated) slightly to gain adequate clearance.
16. Torque the upper 10mm hardware to 35 ft-lbs.
17. Repeat procedure on the driver's side.
18. With both sides complete, reattach the sway bar links to the control arm with the OE hardware. Tighten lower sway bar bolt to 80 ft-lbs.
19. Install the wheels and lower the vehicle to the ground.
20. Bounce the front of the vehicle to settle the suspension. Torque the lower strut mount hardware to 175 ft-lbs.
21. Adjust and tighten the lower cam bolts. Have an assistant help adjust the toe before driving the vehicle to an alignment shop. A front end alignment **MUST** be performed.
22. Check all hardware for proper torque.
23. Recheck all fasteners after 500 miles and at regular scheduled maintenance intervals.

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: