



Part#: 121619

Product: **Rear Traction Bar System**

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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
01805	2	54" Traction Bar
01811	2	Axle Mount (#122618)
01803	2	Traction Bar MT
M02016BK	4	Large Shock Eye-Royal Blue
54587	4	3/4" x .090" x 1.575 Sleeve
95105A159	7	Rivet nut - 3/8" x 0.150
342701	1	Loctite

803	1	Bolt Pack
6		3/8"-16 x 1-1/4" bolt
12		3/8" SAE flat washer
6		3/8"-16 lock nut
1		3/8" serrated washer
1		7/16" high nut
1		3/8"-16 x 1-1/2" bolt
4		1/2" SAE flat washer - not used
4		1/2"-20 lock nut - not used
4		9/16"-12 x 3" bolt
4		9/16"-12 prevailing torque nut
8		9/16" SAE flat washer

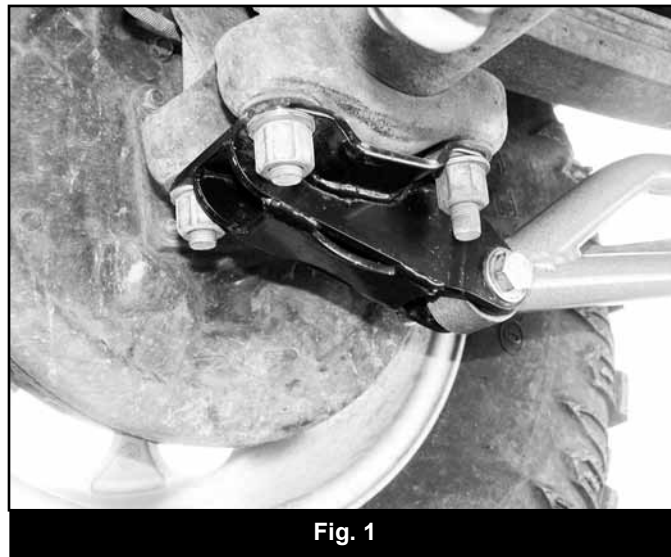
## PRE-INSTALLATION NOTES

ⓘ This kit uses the rear axle u-bolts as a mounting point. Inspect the rear u-bolts before attempting to install this kit. If the u-bolts need to be replaced, purchase them prior to beginning the installation. Never reuse worn or over-stressed u-bolts. BDS always recommends replacing used u-bolts with new whenever they are removed.

ⓘ Will not fit vehicles that are standard cab w/short box.

## INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the front wheels for safety. This installation should be done with the weight of the vehicle on the rear axle.
2. Remove the driver's side u-bolt nuts and washers. If replacing u-bolts, remove old and install new now.
3. With the OE u-bolt plate in place, install a 9/16" SAE washer on each end of the u-bolts followed by the new traction bar mount bracket (01811). Make sure the mounting tabs on the bracket are to the front of the vehicle. Fasten the bracket with the u-bolt (new or used) nuts and washers (Fig 1). Torque u-bolts to 100-120 ft-lbs.



4. Repeat bracket installation on the passenger's side.
5. Lightly grease and install the provided hourglass bushings (M02016BK) and sleeves (54587) in the ends of the new traction bars (01805). (Fig 2)

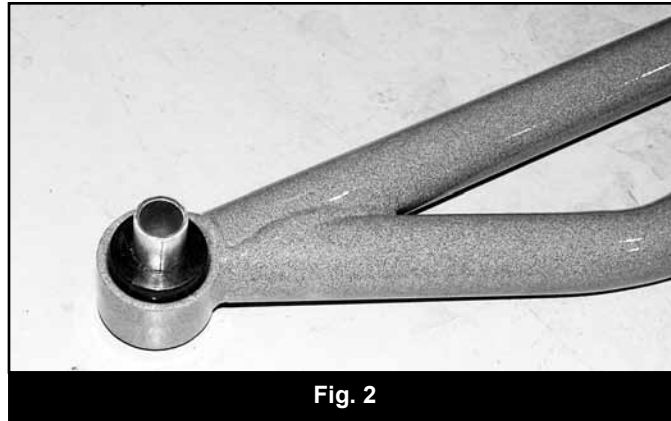


Fig. 2

6. Attach a preassembled traction bar to the axle bracket with a 9/16" x 3" bolt, nut and 9/16" SAE washers. Install the traction bar so that the formed tube is on top and the two tubes gradually come together as it goes to the front of the vehicle. Leave mounting loose at this time.
7. Loosely attach the provided frame bracket (01803) with a 9/16" x 3" bolt, nut and 9/16" SAE washer to the opposite end of the traction bar so that the "L" in the bracket mounts to the frame (Fig 3). Hold the bracket flush against the frame and using the three holes in the bracket as a template, mark the locations to be drilled on the frame (Fig 4). Lower the bracket/traction bar from the frame.

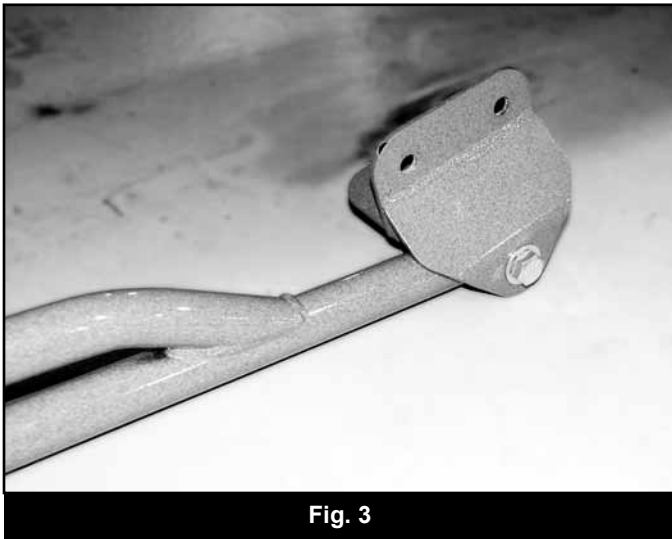


Fig. 3

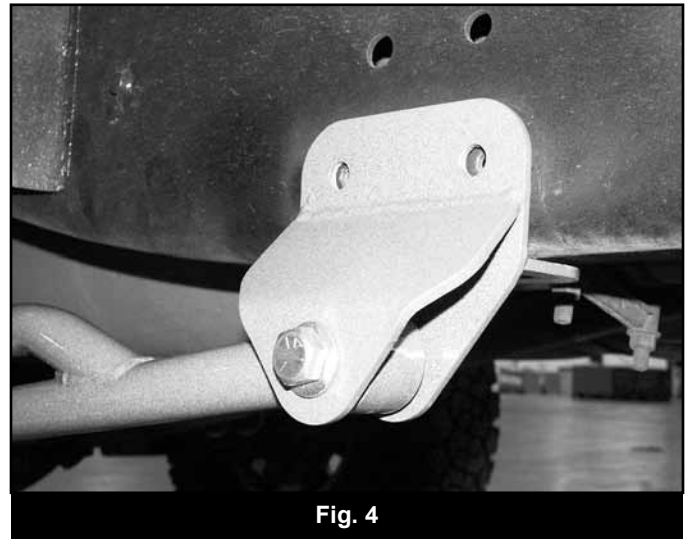


Fig. 4

8. ⚠ 88-98 Models: Drill 3/8" holes in the frame at the marks.
9. ⚠ 07-12 Models: Drill 17/32" (0.531") holes at each of the three marks on the frame. Note: Only drill through the one side of the boxed frame rail. A step drill is highly recommended.
10. ⚠ 07-12 Models: Insert the rivet nut into the hole as shown with 3/8" x 1-1/2" bolt with 7/16" high nut and serrated edge washer. Place a wrench on the high nut and tighten the 3/8" bolt until the rivet nut seats. Be sure to hold the rivet nut flange tight to the frame surface while setting the nut. Repeat for each hole. There is one extra rivet nut included with the kit, if one is installed incorrectly. See detailed rivnut installation instructions at the end of this instruction sheet.
11. Place the bracket up to the frame and align the bracket holes with the rivet nuts (07-12 models) or holes (88-98 models) in the frame. Attach with 3/8" x 1-1/4" bolts and washers (use lock nuts for 88-98 models). Use Loctite on the 3/8" bolt threads when installing into rivet nuts. Torque the 3/8" bolts to 30 ft-lbs.
12. With both traction bar brackets installed, torque the two 9/16" bolts to 90 ft-lbs.
13. ⚠ Repeat installation on the other side of the vehicle.
14. Check all hardware for proper torque.
15. Check hardware after 500 miles.

# DETAILED RIVET NUT INSTALLATION INSTRUCTIONS

## Rivet Nut Sizing

1. Verify the correct size rivet nut for the application based on the thickness of material where the rivet nut is to be installed using the following chart.

Part Number	Thread Size	Body Length (in)	Material Thickness (in)		Drill Size (in)
			Min.	Max.	
95105A159	3/8-16	.690	.027	.150	17/32
95105A168	3/8-16	.805	.150	.312	17/32
95105A169	1/2-13	1.150	.063	.200	11/16
95105A170	1/2-13	1.300	.200	.350	11/16

## Hole Preparation

2. Drill hole to appropriate size for rivet nut installation. 1/2" Rivnuts require an 11/16" hole and 3/8" Rivnuts require a 17/32" drill. It is critical that this hole is drilled to the correct size. Remove any burrs that could keep the rivet nut from seating flat against either side of the hole surface.

ⓘ *Note: If the correct drill size is not available, it is possible to drill the hole to an available smaller size and slowly grind it out to until the rivet nut fits tight.*

## Rivet Nut Installation Tool Assembly

3. For a 3/8" rivet nut, place the provided 3/8" SAE flat washer on the 3/8" x 1-1/2" bolt, followed by 7/16" hex nut and then a 3/8" serrated washer. Figure 1 Thread this tool assembly into the rivet nut.
4. For a 1/2" rivet nut, place the provided 1/2" SAE washer on a 1/2" x 2" bolt followed by a 9/16" high nut and 1/2" serrated edge lock washer. Thread this tool assembly into the rivet nut as shown. Figure 1

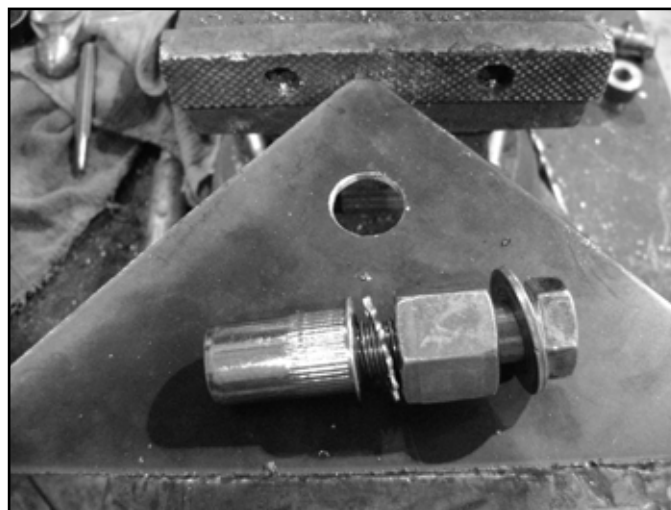


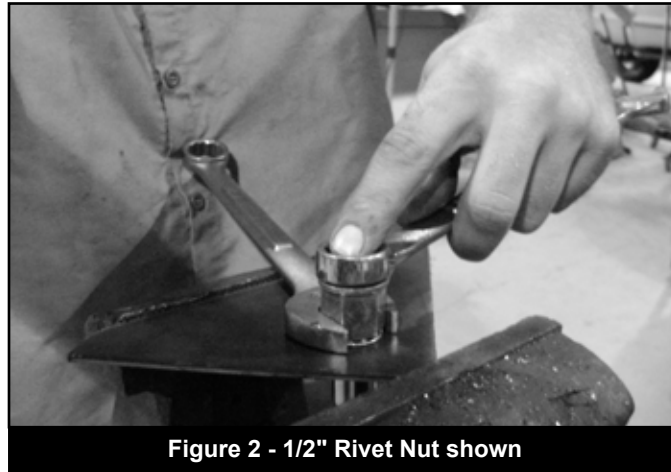
Figure 1 - 1/2" Rivet Nut Shown

## Rivet Nut Installation

5. Place the installation tool with the rivet nut threaded on the end into the appropriately sized hole.
6. For a 3/8" rivet nut, hold the nut closest to the rivet nut still with an 5/8" wrench and tighten the 3/8" bolt with a 9/16" wrench to set the rivet nut. Be sure to hold the rivet nut flush to the surface and square to the hole as it is tightened. Figure 2

ⓘ *Note: If available, an impact gun is recommended for tightening the bolt to ensure the rivet nut remains square to the hole and to ease holding the nut from spinning.*

7. For a 1/2" rivet nut, hold the nut closest to the rivet nut still with an 7/8" wrench and tighten the 1/2" bolt with a 3/4" wrench to set the rivet nut. Be sure to hold the rivet nut flush to the surface and square to the hole as it is tightened. **Figure 2**



### Torque Specifications

8. 3/8" rivet nuts will approach 40 ft. lbs for maximum grip strength. Do not exceed 45 ft-lbs when setting the rivet nut.
9. 1/2" rivet nuts will approach 90 ft lbs for maximum grip strength. Do not exceed 100 ft-lbs when setting the rivet nut.

**ⓘ** *Note: If using the recommended impact gun, use caution to not exceed the recommended torque specifications.*

### Rivet Nut Tool Removal

10. Once the center bolt is tightened, remain holding the nut from spinning with the wrench and loosen the center bolt to remove the installation tool.

**⚠ \*IMPORTANT\*** **It is very important to hold the nut as the bolt is loosened because the grip of the star washer will try to spin the rivet nut and ruin the installation.**

11. Verify proper installation by checking for consistent rivet nut deformation to see the threads are square and centered to the rivet nut. **Figure 3.**

