



491 W. Garfield Ave., Coldwater, MI 49036

Phone: 517-279-2135

Web/live chat: [www.bds-suspension.com](http://www.bds-suspension.com)

E-mail: [tech@bds-suspension.com](mailto:tech@bds-suspension.com)

Part#: 122619

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
01805-1	2	54" Traction Bar
01802-1	2	Axle Mount
01803-1	2	Traction Bar MT
M02016RB	4	Large Shock Eye-Royal Blue
54587-1	4	3/4" x .090" x 1.575 Sleeve
123120412R	2	1/2" x 3-1/2" x 4-1/2" Round U-Bolt
95105A159	7	Rivet nut - 3/8" x 0.150
342701	1	Loctite

803	1	Bolt Pack
	6	3/8"-16 x 1-1/4" self-tapping type f, flange head bolt clear zinc
	4	1/2" SAE flat washer thru-hardened yellow zinc
	4	1/2"-20 prevailing torque nut yellow zinc
	4	9/16"-12 x 3" bolt grade 5 clear zinc
	4	9/16"-12 prevailing torque nut clear zinc
	8	9/16" SAE flat washer clear zinc



## INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety. **Note: This install must be performed with the rear axle at ride height (i.e. do not raise the vehicle and allow the rear axle to hang).**
2. Lightly grease and install the provided hourglass bushings (M02016BK) and sleeves (54587) in the ends of the new traction bars (01805). (Fig 1)

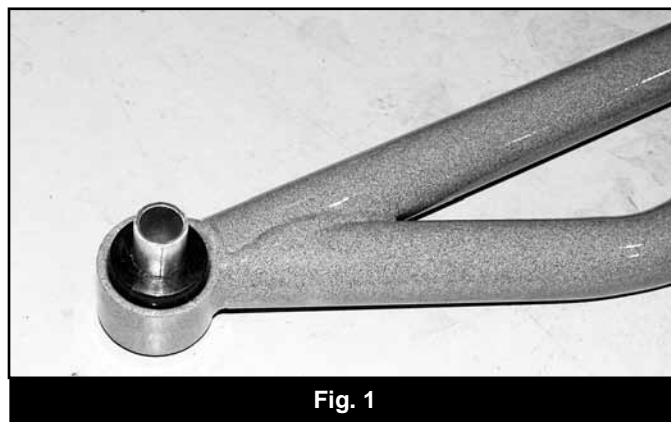
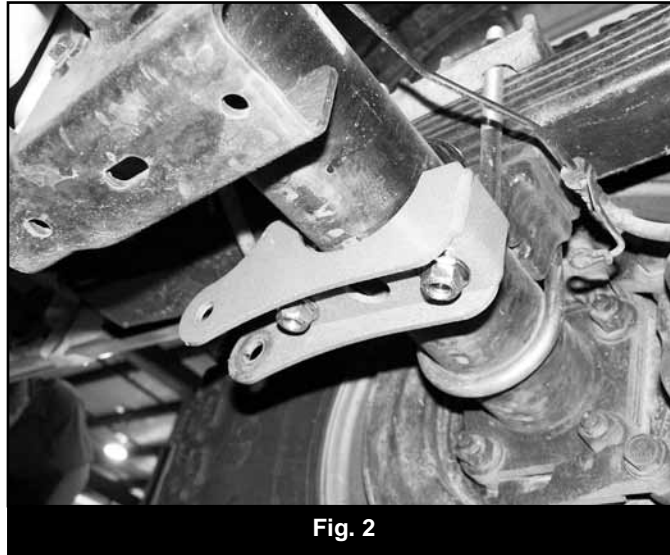


Fig. 1

**Complete the following installation on one side of the vehicle at a time.**

3. Install the new traction bar axle bracket (01802) on the rear axle with a  $\frac{1}{2}$ " x  $3\text{-}1/2$ " x  $4\text{-}1/2$ " u-bolt, nuts and  $\frac{1}{2}$ " SAE washers. Position the bracket so it is against the inboard spring u-bolt and the top edges on the bracket are approximately parallel to the axle spring perch (Fig 2, 3). Torque the u-bolt to 75 ft-lbs.



4. 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.
5. 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 4). Hold the bracket flush against the frame and using the four holes in the bracket as a template, mark the locations to be drilled on the frame (Fig 5). Lower the bracket/traction bar from the frame.

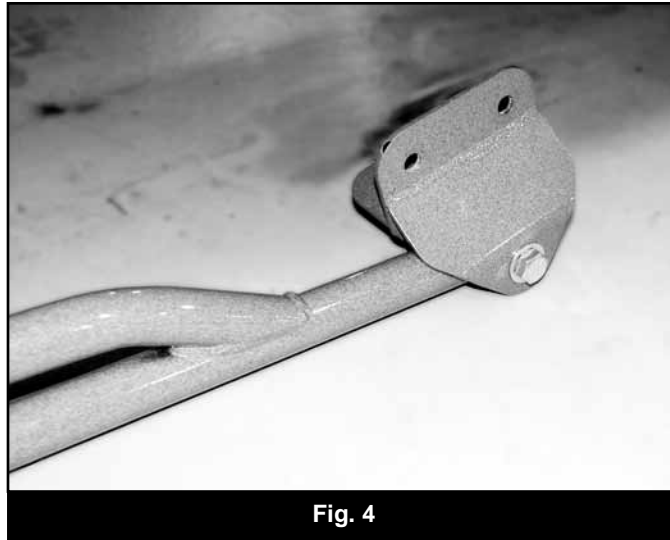


Fig. 4

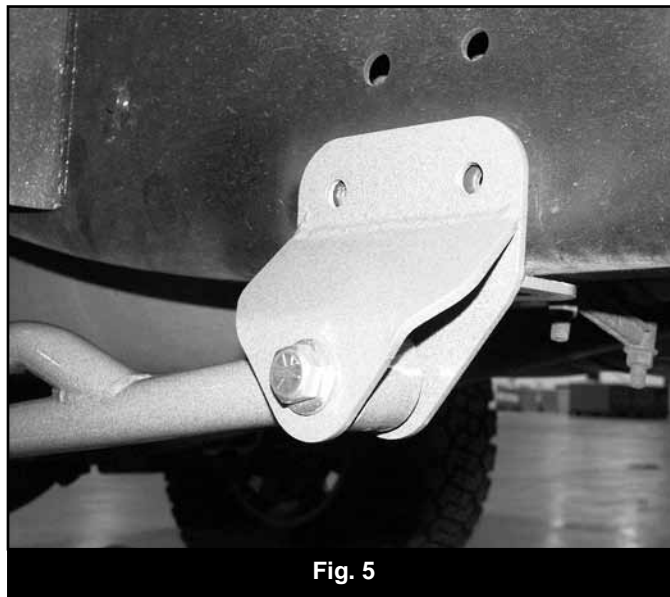


Fig. 5

6. 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.
7. 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. Repeat for each hole. There is one extra rivet nut included with the kit incase one is installed incorrectly. See detailed rivet nut installation instructions at the end of this instruction sheet.
8. Place the bracket up to the frame and align the holes with the newly drilled holes in the frame. Attach with  $3/8$ " x  $1-1/4$ " hardware. Torque the  $3/8$ " bolts to 30 ft-lbs.
9. With both traction bar brackets installed, torque the two  $9/16$ " bolts to 90 ft-lbs.

### **Repeat installation on the other side of the vehicle.**

10. Check all hardware for proper torque.

ⓘ **Note: While this system was designed and tested as a "bolt-on" kit, the axle bracket can also be tack welded to the axle tube. This would only be necessary if increased torque/leverage was consistently applied over the normal loads.**

11. Check hardware after 500 miles.

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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:**

## DETAILED RIVET NUT INSTALLATION INSTRUCTIONS

### Rivet Nut Sizing

12. 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

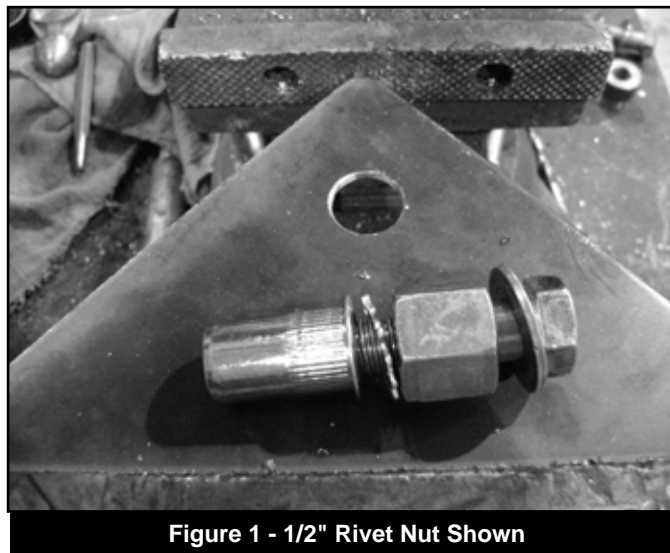
13. Drill hole to appropriate size for rivet nut installation. 1/2" Rivnuts require an 11/16" hole and 3/8" Rivnuts require a 17/32" drill. It is critical that this hole is drilled to the correct size. Remove any burrs that could keep the rivet nut from seating flat against either side of the hole surface.

ⓘ *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

14. 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.

15. 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

16. Place the installation tool with the rivet nut threaded on the end into the appropriately sized hole.
17. 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 4**

🔧 *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.*

18. 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 4**

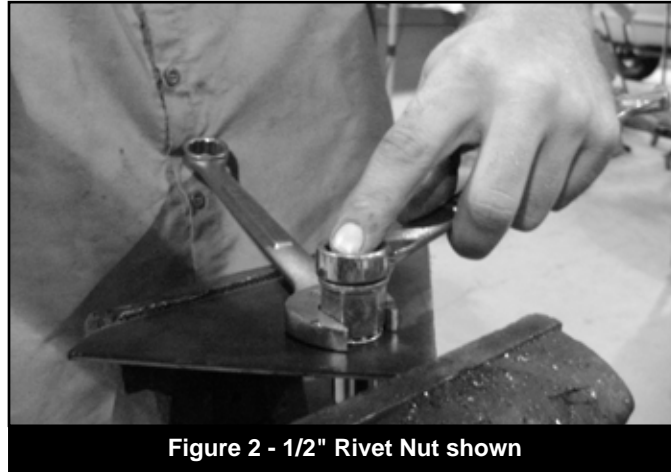


Figure 2 - 1/2" Rivet Nut shown

## Torque Specifications

19. 3/8" rivet nuts will approach 40 ft. lbs for maximum grip strength. Do not exceed 45 ft-lbs when setting the rivet nut.
20. 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

21. 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.**

22. Verify proper installation by checking for consistent rivet nut deformation to see the threads are square and centered to the rivet nut. **Figure 5.**

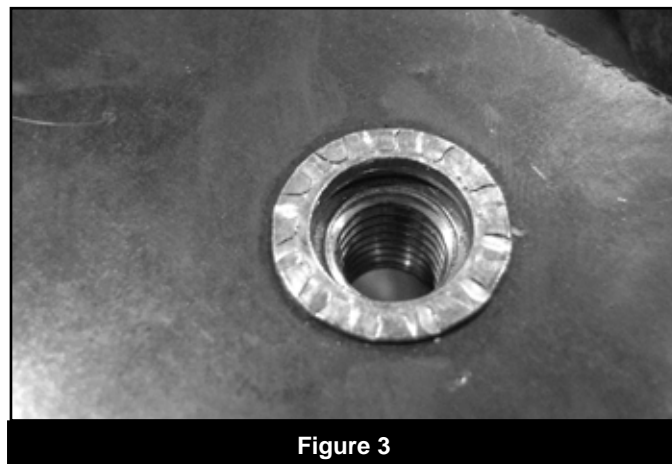


Figure 3