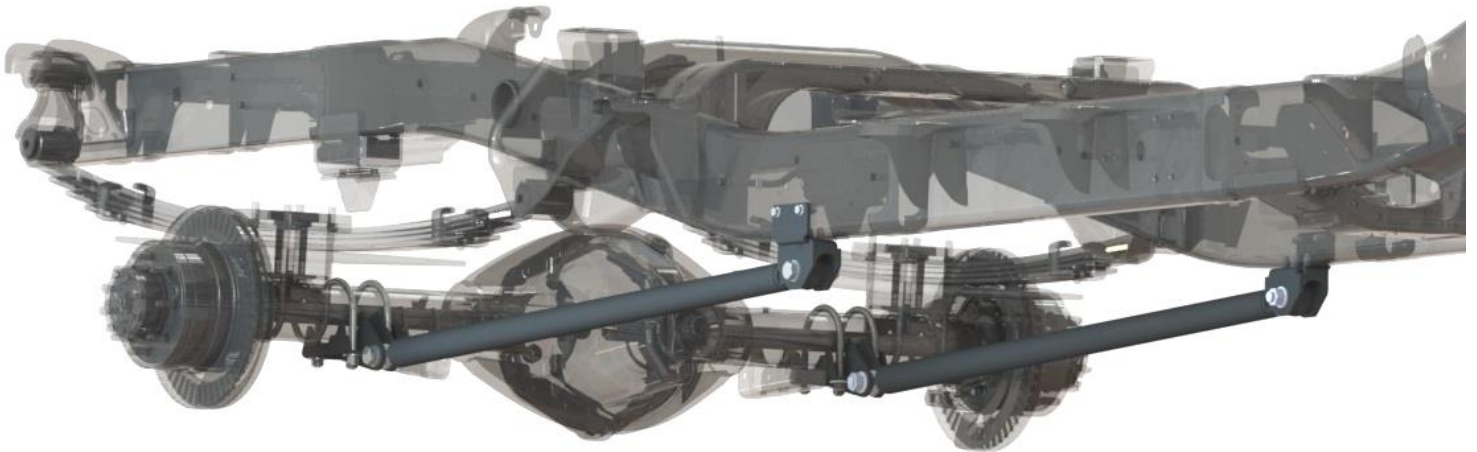




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## ***BD Dodge Traction Bars***

**Dodge 2500/3500 4”  
Axle SRW**

**2003-2018**

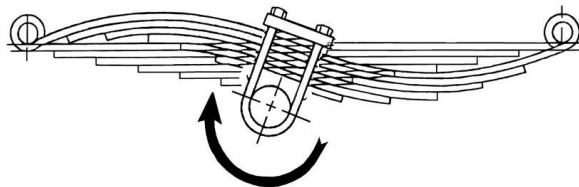
**P/N# 1032130**

**Will not fit 2014-2018 Dodge 2500 models equipped with coil sprung rear suspension or OEM air bag suspension**

**PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION**

## ***Axle Wrap***

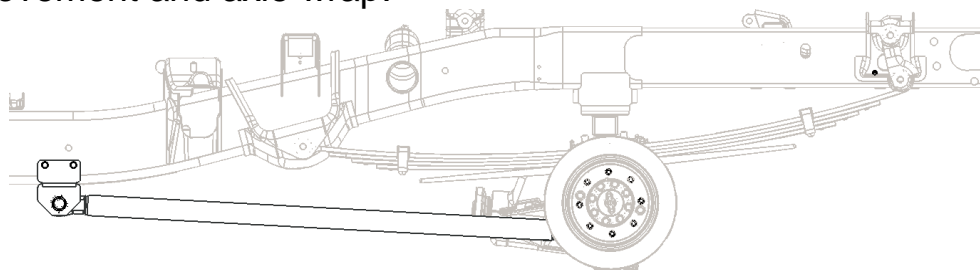
Wheel torque under acceleration causes the leaf spring to load and rotate both the spring and axle in the opposite direction causing an “S” shape. Block lift kits worsen this problem due to the increased leverage between the spring and axle center.



If the tire loses traction, this “S” shaped spring will snap back and cause tire hop. Axle rotation also causes increased U-joint angles in the driveshaft which leads to premature failure.

## ***BD Traction Bars***

Traction bars improve rear wheel traction by holding the rear axle in place by limiting fore and aft axle movement and axle wrap.



BD’s traction bars are specifically designed to arc in the same path the axle travels during suspension movement. This makes for a smooth ride and the ability to tow without having to adjust the length of the bar. Other kits with longer rigid bars do not adhere to this design and will make the ride stiffer and cause suspension binding when the truck is loaded.

The performance of BDs traction bars is superior to that of bars incorporating a spring in the tube as the spring still allows the axle to rotate which reduces their effectiveness.

These traction bars are designed for and work best on trucks ranging from a 6” lift all the way to a 2” drop.

The rod ends used on the BD traction bars are high quality QA1 parts rated to withstand 28,000lbs each while the polyurethane bushings provide a rigid mount for minimal flex. The BD traction bars are supplied with serrated nuts and bolts to ensure the mounts stay in place, even with heavy duty use. These mounts may also be welded in place for extreme applications.

BD Engine Brake Inc.

Plant Address: 33541 MacLure Rd. Abbotsford, BC, Canada V2S 7W2

U.S. Shipping Address: 88-446 Harrison St, Sumas, WA 98295 U.S. Mailing Address: P.O. Box 231, Sumas, WA 98295

Phone: 604-853-6096 | Fax: 604-853-8749 | Internet: [www.bd-power.com](http://www.bd-power.com)

## **KIT CONTENTS:**

Please check to make sure that you have all the parts listed in this kit **before** you start!








<b>Kit # 1032130</b>			
<b>1302130</b>	<b>1302131</b>	<b>1302132</b>	
			
<i>2.0" OD Traction Bar</i>	<i>Frame Mount</i>	<i>Axle Mount</i>	
<b>Qty: 2</b>	<b>Qty: 2</b>	<b>Qty: 2</b>	
<b>1302133</b>	<b>FT-36366</b>	<b>1303104-01</b>	<b>1303104</b>
			
<i>3/4"-16 QA1 Rod End</i>	<i>Nut; 3/4"-16</i>	<i>Bushing</i>	<i>Poly Bushing</i>
<b>Qty: 2</b>	<b>Qty: 6</b>	<b>Qty: 2</b>	<b>Qty: 2</b>
<b>FT-42050</b>	<b>FT-0125686</b>	<b>1302135</b>	
			
<i>U-Bolt; 4"</i>	<i>Rivet Nut</i>	<i>17/32" Deming Drill Bit</i>	
<b>Qty: 4</b>	<b>Qty: 10</b>	<b>Qty: 1</b>	

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<b>FT-37345</b>	<b>1302136</b>	<b>FT-17367</b>	<b>FT-17363</b>
			
<i>1/2" Flange Washer</i>	<i>Spacer; 3/4"</i>	<i>Bolt; 3/4"-16 x 3.5"</i>	<i>Bolt; 3/4"-16 x 2.5"</i>
<b>Qty: 8</b>	<b>Qty: 4</b>	<b>Qty: 2</b>	<b>Qty: 2</b>
<b>FT-0606434</b>	<b>FT-33803</b>	<b>FT-11127064</b>	
			
<i>Thread Lock</i>	<i>Washer; 3/4"</i>	<i>Bolt; 3/8"-16 Serrated Flange</i>	
<b>Qty: 1</b>	<b>Qty: 8</b>	<b>Qty: 10</b>	

<b>Rivet Nut Installation</b>		
<b>1302134</b>	<b>FT-15109</b>	<b>1452815</b>
		
<i>Rivet Nut Tool</i>	<i>Bolt; 3/8"-16 x 1 1/2" Long</i>	<i>Washer; 3/8"</i>
<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 2</b>

**Required Tools**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• 1/2" drill</li> <li>• 27/64" drill bit (assortment of drill bit sizes recommended)</li> <li>• 25-95 ft/lbs torque wrench</li> <li>• 223 ft/lbs torque wrench</li> <li>• 9/16" wrench</li> </ul> | <ul style="list-style-type: none"> <li>• 9/16" socket</li> <li>• 3/4" socket</li> <li>• 1-1/8" wrench</li> <li>• 1-1/8" socket</li> <li>• ratchet/ wrench</li> </ul> |
|--|--|



**VEHICLE SHOULD BE SAFELY SECURED BEFORE INSTALLATION.**

## Installation

1. Lubricate and press in both polyurethane bushings (1303104) into both traction bars (1032130). Then lubricate and insert the steel sleeve (1303104-01) into the bushing.



2. Thread one  $\frac{3}{4}$ "-16 nut onto each rod end (1302133) and install into rod. Ensure there are a minimum of 7 full turns threaded into the rod at any given time. Stock – 2-3 thread showing  
2" Lift 4-5 threads showing  
4" Lift 6-7 threads showing  
6" Lift 8-9 threads showing  
2" Drop 2 threads showing



3. Secure both axle mounts (1302132) using the supplied U-bolts and nuts (do not torque until final assembly).

**NOTE: Ensure the bottom plate is horizontal with the ground. Axle mount position may affect Traction Bar performance and ride comfort. Make sure the brake line does not rub on the installed U-bolts.**



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4. Install the traction bars into the axle mount using the  $\frac{3}{4}$ "-16 X 2.5" bolts. Do not torque at this time.

**Install the rod end spacers (1302136) on either side of the rod end.**

Loosely bolt the frame mount to the bar using the  $\frac{3}{4}$ "-16 X 3.5" bolts. Do not torque at this time.



5. **Ensure the vehicle is positioned on level ground with an empty bed to locate the at-rest frame mount location.** Place the frame mount firmly against the frame. Start one pilot location hole using the  $\frac{27}{64}$ " drill bit. Once the drill hole location has been clearly marked you may use a smaller drill bit to create the pilot hole.

**NOTE: Drill locations and accuracy will affect install.**



6. Gradually increase the drill bit size until the hole is  $\frac{17}{32}$ " (0.531") in diameter. Deburr or smooth the leading edge of the drilled hole and apply a small amount of paint to resist corrosion.



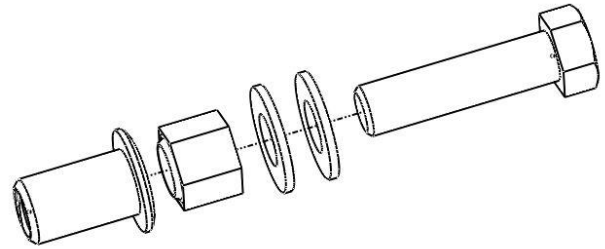
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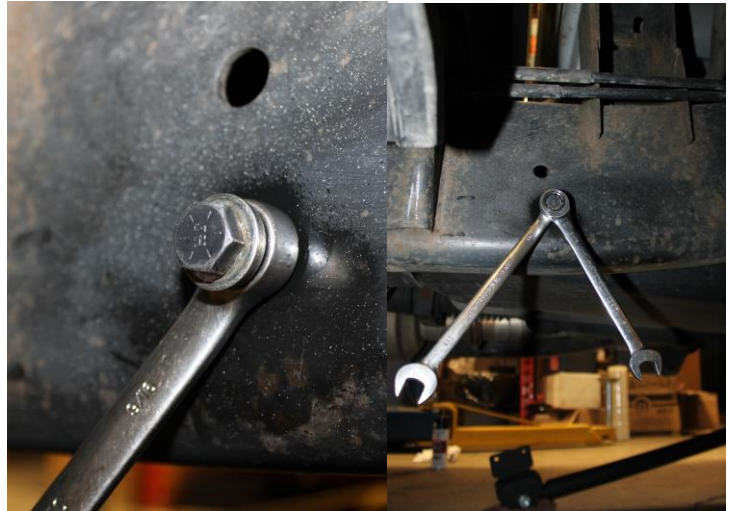
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7. Assemble rivet nut installer as shown. Place two 3/8" washers onto the 3/8"-16 x1.5" bolt, prior to using the rivet nut tool (1302134).



8. Place the rivet nut and assembly in the 17/32" hole. Tighten the 3/8" bolt while holding the rivet tool still. Torque to 23 ft-lbs.

**NOTE: Do not over tighten. Ensure the rivet nut tool remains perpendicular to the frame. Incorrect installation will cause a failed rivet nut.**



9. Remove the frame mount bracket from the traction bar and bolt onto the truck using the installed rivet nut. Ensure the bracket is located square to the frame and does not move during this process. Drill the four remaining bolt locations on each side using the bracket as a drill guide. Repeat steps 5 & 6, ensure drill locations are centered on the bracket holes. DO NOT interchange brackets between sides to mark locations.

**NOTE: Drill locations and accuracy will affect install and performance.**



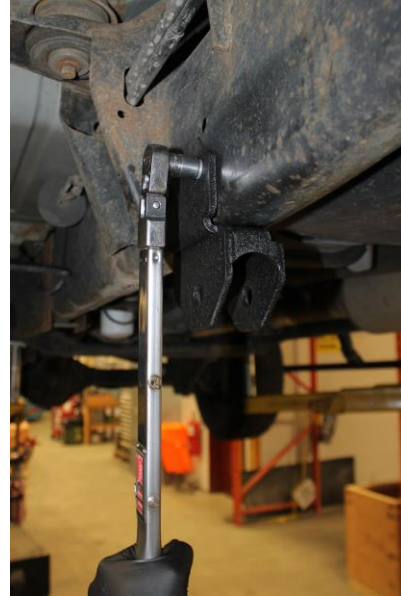
10. Repeat steps 6 through 8 for the eight remaining rivet nuts locations.



11. Mount both frame mount brackets to the frame using the 3/8"-16 serrated flange bolts. **Use blue thread lock on all bolts and torque to 40 ft-lbs.**

**NOTE: If the rivet nut does not fully seat, drill out and re-install the rivet nut. Incorrect hole size, surface finish, improperly torqued, or a crooked rivet nut will cause premature failure.**

**Weld the frame mounts to the frame for heavy duty and competition use.**



12. Loosen the axle brackets enough to rotate and insert the traction bar into the frame bracket. Fasten both sides in place using the 3/4"-16 bolts and washers (tighten to 223 ft-lbs).





13. Use the  $\frac{1}{2}$ " washers and tighten the  $\frac{1}{2}$ "-13 U-bolts in a cross pattern to 95 ft-lbs. Ensure the U-bolts are square to the axle when installed.



14. Torque the  $\frac{3}{4}$ "-16 jam nuts to 145 ft-lbs. Use a flat head screwdriver to centre the rod end during torquing.

Ensure the rod end spacers (1302136) are installed to maximize traction bar articulation.



## ***Installation/ Troubleshooting Tips:***

- A) **Frame Mount:** Correct rivet nut installation is critical. To expedite install time, weld the frame mount bracket to the frame. Premature rivet nut failure will occur if:
- The 17/32" hole is oversized.
  - The drilled hole is scored, thus not allowing the rivet nut to bite into the frame and reach the specified torque.
  - The rivet nut is installed at an angle.
  - Apply ample thread lock and allow thread lock to dry before driving. (Fixture time: 20 minutes. 4 hours to be fully dry).
  - Torque the supplied serrated flange bolts to  $40\pm 5$  lbft. Do not overtighten. If the rivet nut starts to spin freely, you will need to remove the rivet nut and re-install.
  - Check the rivet nuts 1 week after install. If the frame bracket is loose, re-install the rivet nuts, or weld the bracket to the frame.
- B) **Polyurethane bushings:** Without adequate lubrication, polyurethane bushings will squeak. Ensure adequate lubrication is used during initial assembly.
- C) **Rod Ends:** The rod ends are designed to articulate  $12.5^\circ$  in either direction ( $25^\circ$  total), approximately 15" of relative suspension travel. If the rod end is not centered when level, the rod end will contact the spacers and cause the rod end to rotate and loosen the jam nut.
- D) **Axle Mount:** Ensure the axle mount is parallel to the ground and the U-bolts are torqued to 95 lbft using the supplied serrated flange nuts. If the axle mount is not level, ride comfort will be reduced. The axle mount utilizes a non-round bracket to help bite into the rear axle and prevent rotation.

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