

**INSTALLATION INSTRUCTIONS: Torque Tamer Long Travel Traction Bar** for Fullsize Bronco

#5328 8.8" axle #5329 9" axle



865.938.6696 www.dufftuff.com 6609 Bronco Ln.

## **CONTENTS:**

7

6

1	Torque Tamer Bar
1	Cross Member
2	Shackle Brackets
2	Axle Housing Mounts*
4	1/2"-13 x 1.5" GR 5 Pltd Bolt
3	1/2"-13 X 4" GR 8 Pltd Bolt
8	1/2" USS Pltd Flat Washer

1/2" NC Nyloc Nut 1/2" SAE Plated Flat Washer 6 **Urethane Bushings** 3/4" RHT Rod End 1 3/4" RHT Jam Nut 1 3/4" X 4" GR 8 Bolt 1 3/4" Nyloc Nut

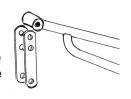
2 M20 Flat Washer 3 Steel Sleeve 2 Spacer

\*2 different brackets for 9"



Please read all instructions before beginning. Notes: This kit requires welding for installation. Clean axle and frame well before starting. It is necessary to have both axles attached to the vehicle and sitting at static ride height and weight. Your Bronco should be running and driving before you install this product to ensure the Torque Tamer goes in properly. Some exhaust modifications may be needed as it was designed to work with the stock exhaust on a 96 Bronco with an E4OD. If your project is a ways away from being driveable then at least consider your exhaust routing so you dont have to redo it.

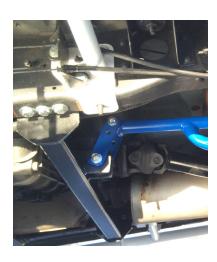
- 1. Orientate the black crossmember so the shackle mount is closer to the drivers side and facing up and towards the back of the vehicle. It will fit snugly inside the frame rails just behind the transfer case. On the bottom of your frame in front of the rear tires you will see a tapered dowel pin. Measure from the front of that pin on the frame and go foward 7" and make a mark on both frame rails. This is approximately where it will mount. Now move anything that might get in the way. You will be drilling 2 holes on the bottom of each frame rail so things like hoses, filters, e-brake cables/mounts can all get damaged by the drill.
- 2. Test fit the crossmember, make sure it slides onto the frame without any obstructions. The FRONT leading edge of the crossmembers frame mounting flange will be perpendicular to the frame when installed correctly and should line up with the mark you made at 7". Don't drill holes in the frame just yet, clamp the crossmember to the frame using C-clamps. You don't want it to move while you mount the main assembly.
- 3. Test fit the main assembly bar. Install all the bushings and sleeves in the bar and on the crossmember. Thread the 3/4" jam nut onto the heim, then thread the heim into the bar. Attach the axle brackets to the bar using the supplied 3/4" bolts and heim spacers and a 1/2" x 4" bolt, SAE washers and Nyloc Nut. You want the axle brackets snug but not tight for mockup. If you are not running an 8.8 rear axle you will probably need to trim one of the axle brackets to fit. Due to so many axle differences from '66-96 we made 2 brackets that cover most configurations. If you have an 8.8 axle, continue to step 5.
- 4. If you have a 1978-85, you likely have a 9", we have supplied you with 2 different shaped brackets; one fits over the tube, that is the outer bracket. The other mounts to the inside towards the differential. It has a flatter profile so it can mount against the trussing of the differential. Bolt them to the main assembly bar, hand tight and now go to the other end of the bar and attach the shackles (see step 6). Now with the TT attached to the crossmember you will want to test fit the axle brackets to the axle. This mock up will also tell you if the crossmember is in the right location front to back. The shackle should be close to the 12 o'clock position ABOVE the crossmember, it can lean back or forward between 10 and 2 o'clock but not past it. You want to keep an eye on this as you fit up the axle brackets. Now moving on to the axle brackets. It is designed to follow along side the driveshaft. You will have some freedom to place the axle brackets where they fit the best just as long as the main bar is running close to parallel with the driveshaft. The flatter bracket that is closer to the center may need to be modified. Using a paint pen, mark where you may need to grind material off the brackets until it fits.
- 5. Attach the shackles (blue, 4" long, 3 holes) to the crossmember using a 1/2"x4" bolt, SAE washers and nyloc nuts, making sure the end of the shackle with 2 holes spaced closer together are mounted to the bar not the crossmember. Loosely attach the nut, attach the bar to the other end of the shackle using the same size bolt. Use the hole furthest out on the shackle and attach the nut. Tighten down the nuts on the shackle so they are firm but not tight.



6. Now that the TT is mocked into position and all the components are fitting properly it is time to to prep the axle for welding and to mark the holes that will be drilled into the frame to attach the crossmember. Start with the axle. On an 8.8 axle, place

the inner axle bracket on the tube 1" away from the center casting where the tube slips into it. This will put the bar in the correct placement and allow for good weld coverage on the axle brackets. Using a paint pen, trace around the axle tube everywhere the axle bracket makes contact. be sure to mark the tube and the brackets. Remove the TT bar from the crossmember and set it off to the side. Before unclamping the crossmember, mark the bottom of the frame on each side of the frame attachment flange mounts using a paint pen. Use these marks on the frame as a guide.

- 7. Using the marks on the frame, clamp the crossmember onto the bottom of the frame. Now you will need clamps not only to keep it in position but also to prevent it from falling down, this may take 2 people to do safely. Now you have access to the 2 holes on each mounting flange and can mark them. Remove crossmember, then drill the holes using a 1/2" drill bit. BEFORE YOU DRILL make sure you have removed anything that would be in the path of the bit. Once the holes are marked and drilled, move on to axle prep and clean the axle till you see shiny metal where you made your paint marks. Do the same on the axle brackets.
- 8. Now your holes are drilled and your axle and axle brackets are prepped to weld. Mount the crossmember and reattach the TT bar to it. Using the 4 1/2"x1.5" bolts, nuts and USS washers, slide the crossmember back into position inside the frame rails. Bolt it in firmly, then reattach the TT bar to the crossmember. With the axle brackets attached to the TT and resting against the prepped bare steel on the axle. Tack weld the brackets to the axle.
- 9. Check all your angles, and make sure the bar, the brackets, the crossmember, and the shackles are all exactly where they should be. Once you're confident the TT is installed correctly, weld on the axle brackets. We recommend a skilled professional welds these brackets on. It's important the weld procedure does two things. 1. Provides proper weld coverage w/o over heating the tube and warping or damaging anything including the polyurethane bushings. 2. Welds the brackets on so they don't heat draw and make the bar fit too tight or too loose. The axle tube and brackets are very thick and will require a welding machine that can weld 3/8" or thicker mild steel. Weld the ends of the brackets on covering an inch on each side for a total of 8 1" welds. Once you have done that remove the bar so you can weld the brackets on to the axle 100% where they touch the axle. Go slow and take your time.
- 10. Prep and paint the axle brackets after they cool down to avoid rust. Once paint is dry, reattach the main bar and tighten down all the hardware. Make sure to reattach all parts removed from the frame and fix the exhaust if necessary. Reattach your negative battery cable and turn the bronco on. Using a flashlight check along the inside of the frame where you drilled and check the fuel and brake lines for any leaks. also check the wiring and make sure its not damaged or in harms way.
- 11. Re-check all fasteners to ensure they are tight. Check all fasteners after the first 50 miles and after the first wheeling trip.







2/2 2/17

## LIMITED WARRANTY

James Duff Inc. warrants our products to the original purchaser to be free from defects in materials and workmanship. Warranty periods begin at the date of purchase and varies by product. Shocks have a limited lifetime warranty. Headers, Radiators and Suspension Products, Power Brake Boosters and Master Cylinders have a one year warranty. Adapters and soft goods such as upholstery, vinyl and rubber products have a 90 day warranty. All warranties are to the original purchase with proof of purchase only. Such obligations under this warranty shall be limited to the repair or replacement, at JDI's discretion, of any assembly or part which upon examination by JDI proves to be defective. Any costs of removal, installation, reinstallation or freight charges are expressly excluded from this warranty. This warranty covers only manufacturers defects, and does not cover product finish or damage resulting from abuse, misuse, negligence, racing, alteration, accident or damage in transit.

All returns must be pre-authorized by JDEI and accompanied with a Return Goods Authorization Number (RGA) and a dated proof of purchase. Returns must be shipped prepaid within 90 days of purchase, packaged sufficiently to prevent damage in shipment and sent to JDI, 6609 Bronco Ln., Knoxville, TN 37921 Returns without an RGA# will be refused.

This warranty is expressly in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for use. This warranty gives you specific legal rights including other rights that vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion of limitation of incidental or consequential damages, so the above limitations and/or exclusions may not apply to you.