Spohn Performance, Inc.

Part # D94-02-RTB-QCSB – Rear Traction Bar System

1994-2001 Dodge Ram 4x4 1500 – Quad Cab Short Bed
1994-2002 Dodge Ram 4x4 2500 & 3500 – Quad Cab Short Bed

USE OF THIS PRODUCT IS ACCEPTANCE OF SELLER'S DISCLAIMER OF WARRANTY!

By their very nature, competition components are constantly pushed to their limits. While our components are designed to withstand intense race conditions, it is impossible to control the quality of installation or the varying conditions in which they are used. It is for this reason that absolutely no warranty or guarantee is either written or implied. Neither the seller nor the manufacturer will be liable for any loss, damage, or injury – direct or indirect – arising from the use of or inability to determine the use of any product. Before using, the user should determine the suitability of the product for its intended use, and the user shall assume all responsibility in connection therewith. Spohn Performance, Inc. makes no guarantee as to the legality for any specific class. Spohn Performance, Inc. makes no claims, nor does it intend its products to be used in street driven vehicles. Spohn Performance, Inc. reserves the right to make changes in design or add to or improve on their product without incurring any obligation to install the same on product previously manufactured. The Buyer agrees to indemnify and hold Spohn Performance, Inc. harmless from any claim, action or demand arising out of or incident to the Buyer's installation or use of products purchased from Spohn Performance, Inc.

INSTRUCTIONS

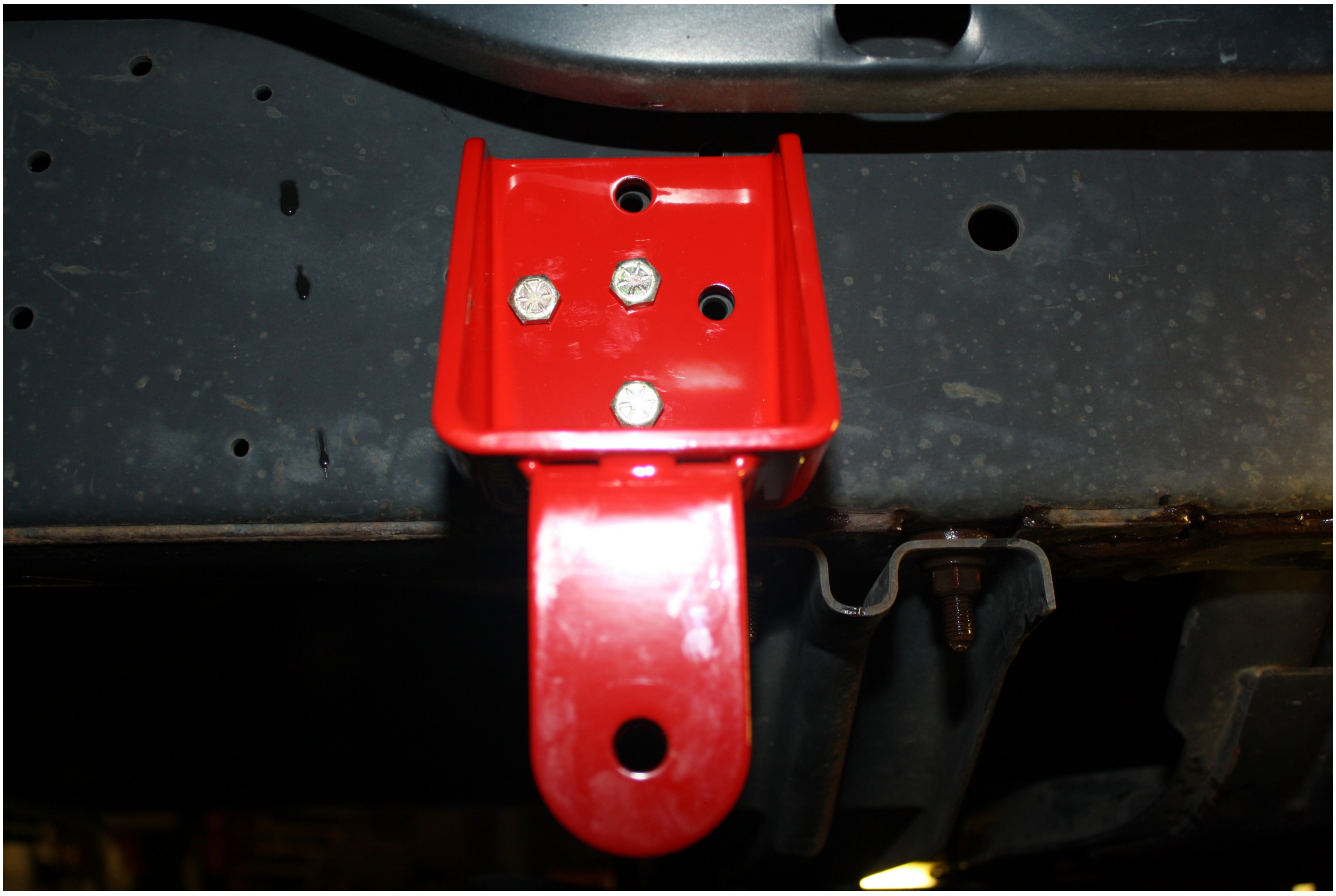
1. Raise the truck on a lift. If you don't have access to a lift, block the front tires of the truck so that the vehicle is stable and can't roll. Jack the rear of the truck in the air and then support the rear of the truck with jack stands under the frame rails.
2. Install the front frame mounting brackets (u bracket faces down). Note that there is a left and a right side bracket. There are five existing holes in the frame lined up almost center with your front door. Drill all 5 holes to 1/2" to allow you to put the supplied 1/2" bolts through them. Bolt the frame bracket on using the supplied 1/2" bolts and 1/2" flanged lock nuts and fully tighten. (Picture 1)

   For the remainder of these instructions only do one side at a time. Fully install the traction bar on to one side of the truck. Once that installation is complete then go over and install the other side.

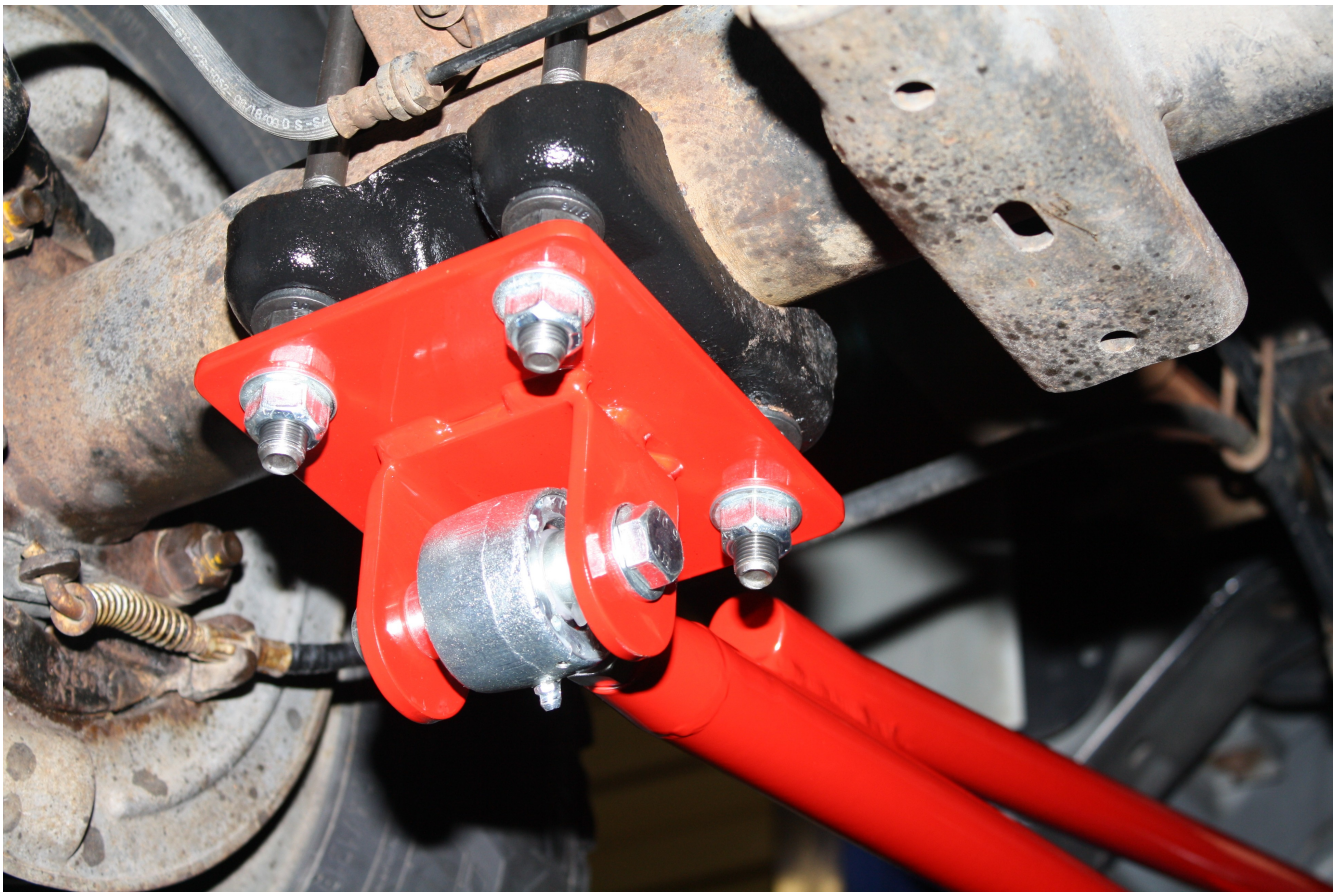
3. Place a jack under the rear shock mount to support the rear end. Remove the four nuts that hold the bottom saddle for the rear end u-bolts. Remove both u-bolts. Clean, scrape and wire brush clean the u-bolt saddle and the axle tube.
4. Install the supplied u-bolts and reinstall the bottom u-bolt saddle using the supplied black 9/16" flat washers and square nuts. Fully tighten. Install the rear traction bar mounting plate (u bracket faces down) over the u-bolts using the supplied 9/16" silver flat washers and lock nuts. Fully tighten. (Picture 2)
5. Hold the traction bar in place (bent tube goes up) and line up the front Delrin bushing with the front mounting bracket. Install and fully tighten the supplied 12mm bolt, flat washer and locking flange nuts. (Picture 3)
6. Line up the rear Del-Sphere pivot joint with the rear mounting bracket. You may need to slightly adjust the length by turning the Del-Sphere joint in or out until the bolt properly aligns with the hole in the bracket. Use the supplied through sleeve reducer through the bore of the Del-Sphere's ball and place the supplied silver spacers over the through sleeve on each side of the ball. Install the supplied 14mm bolts and locking flange nuts and fully tighten. Then fully tighten the Del-Sphere pivot joint's jam nut using Loctite. (Picture 2)
7. Remove the jack from under the rear shock mount.
8. Repeat steps 3-6 on the other side of the truck.

9. Grease the front Delrin bushings and the rear Del-Sphere pivot joints through the grease fittings.
10. Safely lower the truck to the ground. Installation is complete.

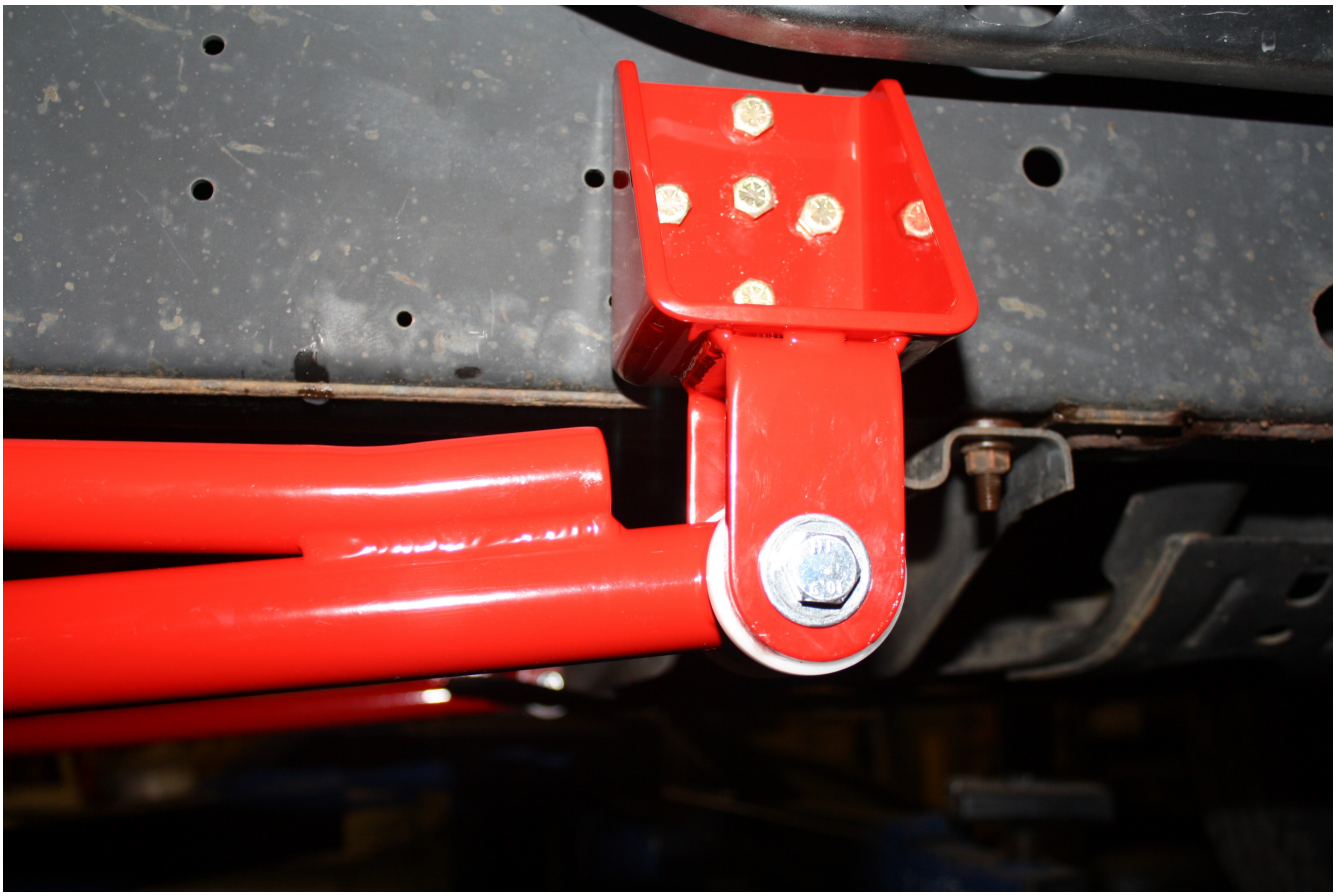
Picture #1 – Step #2



Picture #2 – Step #4 and 6



Picture #3 – Step #5



Del-Sphere Pivot Joint Instructions & Notes

The Del-Sphere pivot joints are slightly greased for assembly purposes. The bushings inside of the del-sphere pivot joints are made of Delrin, which is self-lubricating. We do not recommend greasing the pivot joint any further than as it is supplied as further grease will only attract and retain dirt and grit. The pivot joints are equipped with grease fittings simply because we know certain customers would want/request them no matter what we say. You'll also note we have a second tapped grease fitting hole with a threaded plug installed so you can change the position of the grease fitting on the pivot end for better access if need be depending on your mounting set-up on the vehicle.

Our Del-Sphere pivot joints are 100% rebuildable. We doubt you will ever need to rebuild them, but they certainly can be. The delrin bushings should last the life of your vehicle. What you may find is after you have a lot of miles on the pivot joints the tolerances may slightly open. It is for this reason that we made the pivot joints adjustable. By tightening the threaded end retainer you can take up any slack and make the joint as tight as it was when new, it's that simple. This also allows you to vary the torque load applied to the pivot ball. If you want a very low friction joint you can loosen the threaded end retainer, etc. When making adjustments to the threaded end retainer you will need to loosen the set screw with an allen wrench. When making your adjustment align one of the threaded retainer end's slots with the set screw and re-tighten the set screw, this locks the threaded end retainer's position in to place and keeps it locked to your setting. Use our Part# **DS34-W** adjusting tool for easy adjustments.

What is a Del-Sphere pivot joint? Think of the Del-Sphere pivot joint as a Delrin bushed spherical rod end. Designed and manufactured exclusively by Spohn Performance, we have taken street suspension performance to the next level. Our Del-Sphere pivot joint features a one piece forged and heat treated chrome moly housing, a heat treated and chrome plated chrome moly spherical ball, Delrin bushing races, heat treated retainer washer and snap ring, heat treated and chrome plated chrome moly threaded adjuster ring, an external grease fitting and a beautiful silver zinc plated housing finish. The delrin bushing races absorb shock and road noise so you get the quiet and smooth ride of a bushing as well as **28 degrees of rotation!**

What is Delrin, and why did you choose to use it? Delrin is an acetal homopolymer made by DuPont. It is characterized as having an excellent combination of physical properties that make it suitable for numerous applications. With extremely low moisture absorption and a low coefficient of friction (self-lubricating), Delrin is uniquely tailored for wear applications in high humidity or moisture environments. Delrin will maintain constant physical properties under high moisture conditions and out-perform nylon or polyurethane under these conditions. Delrin has a 10,000 psi tensile strength and a 120 Rockwell Hardness rating making it ideal for our Del-Sphere pivot joint application.

Replacement Parts:

Part #	Description
DS34RH	Del-Sphere Assembly - 3/4"-16 RH x 3/4" Bore
DS34LH	Del-Sphere Assembly - 3/4"-16 LH x 3/4" Bore
DS34-Wash	Del-Sphere End Washer
DS34-W	Del-Sphere Adjustment Tool
DS34-TE	Del-Sphere Threaded Adjuster End
DS34-SR	Del-Sphere Snap Ring
DS34-Bush	Del-Sphere Delrin Bushing (2 per assembly)
DS34-Ball	Del-Sphere Spherical Ball