Spohn Performance, Inc.

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Part #745 – Tubular Front Lower A-Arms – Del-Sphere Pivot Joints
1993-2002 GM F-Body

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

Tools Required:

Wrenches and sockets - 12mm, 13mm, 15mm, 18mm, 21mm
Hydraulic jack and stands
Grease gun
Needle nose pliers

Installation:

1. Raise vehicle and support with stands. Remove both front wheels/tires.
2. Using a 12mm socket, remove the two caliper retaining bolts and slide the caliper out of the way. There is no need to remove the brake line from the caliper.
3. Unplug the ABS sensor from the back of the hub. Remove the plastic wire retaining clips from the lower A-arm and position the ABS wire out of the way.
4. Using a 13mm wrench and a 15mm socket, remove both bolts/nuts on the lower shock mount.
5. Using needle nose pliers, remove the cotter pins from both the upper and lower ball joints. Remove the upper ball joint nut using a 15mm wrench. Using a pickle fork, knock the upper ball joint loose.
6. Loosen the lower ball joint nut using an 18mm wrench and knock the ball joint loose. Move the spindle/rotor assembly out of the way. If you want to completely remove the spindle, loosen the tie rod nut using an 18mm wrench and knock the tie rod loose.

7. Locate the shock mounting bolts in the engine bay. The rear two are bolts, the front two are studs. Remove the front two nuts using a 15mm wrench and the two rear bolts using a 13mm wrench. Pull the upper a-arm and the shock/spring assembly out of the wheel well.

8. Locate the lower a-arm mounting bolts. The location of these bolts in the k-member dictates the alignment settings. Mark the position of the bolts and then loosen them using a 21mm wrench. Remove the a-arm.

9. Install the Spohn lower a-arm, set the a-arm position to your previous marks and tighten the bolts. Lift the a-arm up and down to ensure that it has full range of motion without any binding. Make sure that the rear del-sphere end is horizontal in the mount.

10. Re-install the upper a-arm and shock/spring assembly into the upper shock tower.

11. Using the supplied 3/8" bolts and nuts, bolt the lower shock mount to the lower a-arm.

12. Reinstall the spindle/rotor assembly and install new cotter pins. Reinstall the caliper.

13. Plug the ABS sensor in and route the ABS wire along the back tube of the A-arm. Zip tie the wire to the a-arm.

14. Check to make sure all bolts are tight and reinstall wheels/tires.

15. We recommend that you take your vehicle for a front end alignment.

NOTES:

New lower a-arm mounting hardware is recommended from Spohn Performance (Part # 987). Our locking star washers will ensure your alignment position stays locked in place.

Will not work with KYB shocks.

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