

# Spohn Performance, Inc.

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## Part# 610DS – Del-Sphere Pivot Joint Rear Axle Housing Bushings 1965-1977 GM A-Body & 1978-1988 GM G-Body

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

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### INSTALLATION INSTRUCTIONS

1. Lift the rear of the vehicle and support it with jack stands underneath the frame rails. DO NOT SUPPORT BY THE REAR AXLE HOUSING!
2. Place a floor jack underneath the rear axle housing to support it, but do not lift.
3. On the driver's side, remove both rear upper control arm bolts and nuts and remove the rear upper control arm. The axle will shift slightly rearward (only swap one UCA at a time, do each side separately). See **Picture 1** below.
4. With the rear upper control arm removed, you now need to remove the bushing assembly that is pressed into the ear on the rear axle housing. This is best done using a ball joint press or similar type press device. See **Pictures 2 and 3** below. If you do not have access to a press tool you can watch a video on a very trick way to easily remove the old bushing using a power drill at [https://youtu.be/t3JfM\\_gbzKA](https://youtu.be/t3JfM_gbzKA)
5. After removing your old bushing and its metal outer shell from the ear on the rear axle housing you want to prep this area for installation of the new bushing assembly. It is important that you clean the inside of the mounting ear and remove any rust, sharp burrs, grease, dirt, etc. This is best done by lightly sanding the area with some sand paper and/or a file.
6. Install the Del-Sphere pivot joint bushing assembly from the outside in with the set screw facing the rear of the vehicle for easiest access. The shorter spacer goes on the outside of the ball and the longer spacer goes on the inside of the ball. See **Picture 4** below.

7. Lightly grease the inside of the rear axle housing's mounting ear and the o.d. of the Del-Sphere pivot joint's housing. Install the new bushing assembly using a press tool and a socket that is large enough to ride against the face of the Del-Sphere's housing flange. You may be able to install the assembly using a socket as described above and lightly tapping it in using a soft faced hammer or mallet. The bevel step of the bushing housing should be seated tightly against the rear axle housing's mounting ear. See **Picture 6** below.

**IMPORTANT: DO NOT** hit or press against the spherical ball, this will damage the bushings inside of the housing!

**Loose Fit:** If the new Del-Sphere assembly simply slides into place and does not have a slight press fit, then apply Blue Loctite to the o.d. of the bushing housing and install it into the rear axle housing mounting ear.

8. The unit has been thoroughly greased during assembly and is ready to use. Re-grease after any disassembly using a premium synthetic grease.

9. After the assembly has been pressed into place you will need to install the supplied retainer snap ring into the machined groove on the inside end of the bushing housing using a pair of external snap ring pliers (a 90° x .090" tip size works best). See **Picture 7** below.

10. Re-install your rear upper control arm using the floor jack to help position the rear axle housing properly. Make the mounting bolts hand tight only at this time. See **Picture 8** below.

11. Repeat Steps 3-10 on the passenger's side.

12. Safely lower the vehicle to the ground and then tighten all four of the rear upper control arm mounting bolts to 72 ft./lbs.

13. Check your pinion angle and make any necessary adjustments for those who have adjustable rear upper control arms installed.

14. As the bushings wear you can tighten the adjustment ring on the outside of the bushing housing to maintain pressure on the spherical ball for a nice tight connection. Simply remove the set screw from the housing flange using a 3mm Allen hex key wrench, remove the rear upper control arm from the assembly, and remove the spacers. Tighten the adjustment ring using the supplied adjustment wrench. Be sure to line up one of the half moon indents on the adjustment ring with the set screw. Do not over tighten the adjustment ring or you will crack the Delrin bushings inside of the housing. After you are done making any adjustment, re-install and tighten the set screw. This locks the adjustment ring.

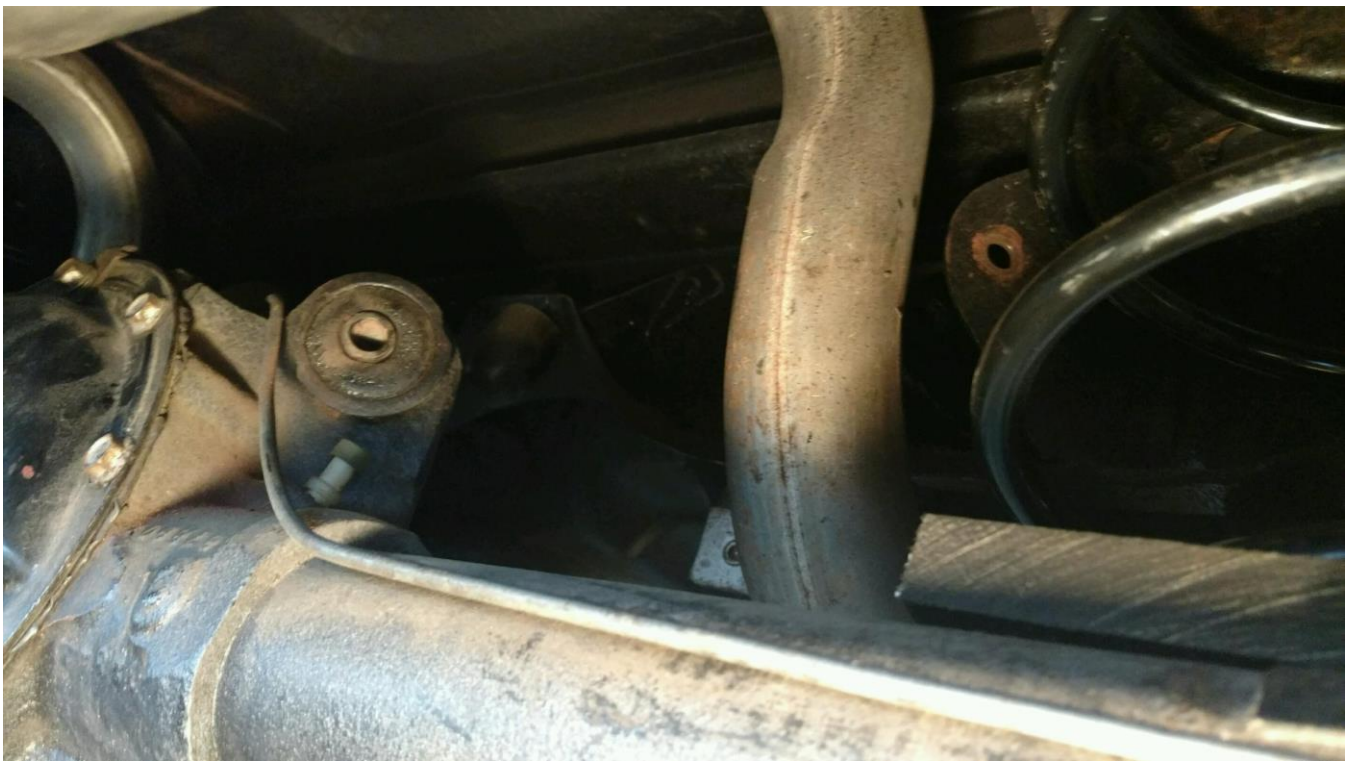
#### **Replacement Parts:**

<b>Part #</b>	<b>Description</b>
610DS-W	Adjustment Wrench
610DS-TE	Threaded Adjuster Ring
610DS-BUSH	Delrin Bushing (2 per assembly)
610DS-BALL	Spherical Ball
610DS-SET	Stainless Steel Set Screw
610DS-WASH	End Flat Washer
610DS-SR	External Snap Ring to Retain Housing
610DS-SP1	Short Stainless Steel Spacer
610DS-SP2	Long Stainless Steel Spacer

**Picture 1**

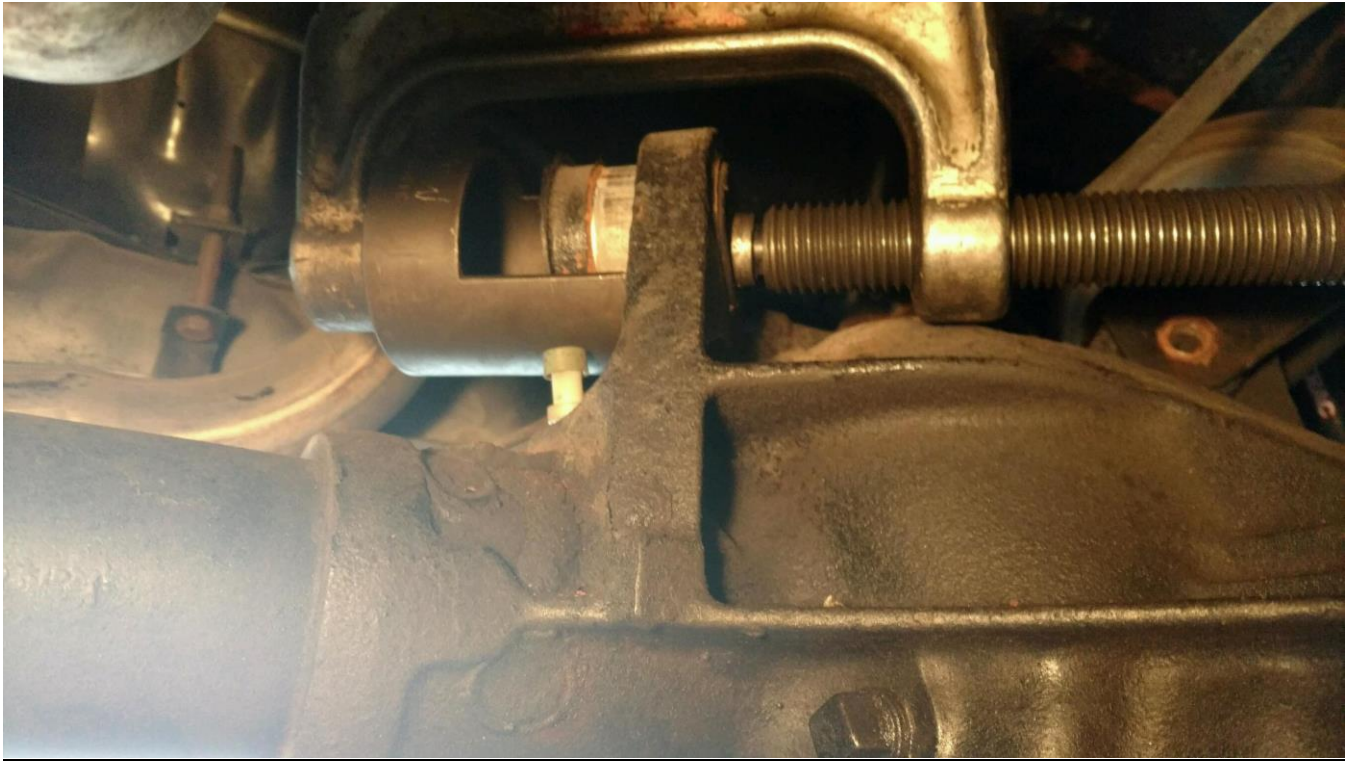


**Picture 2**





**Picture 3**



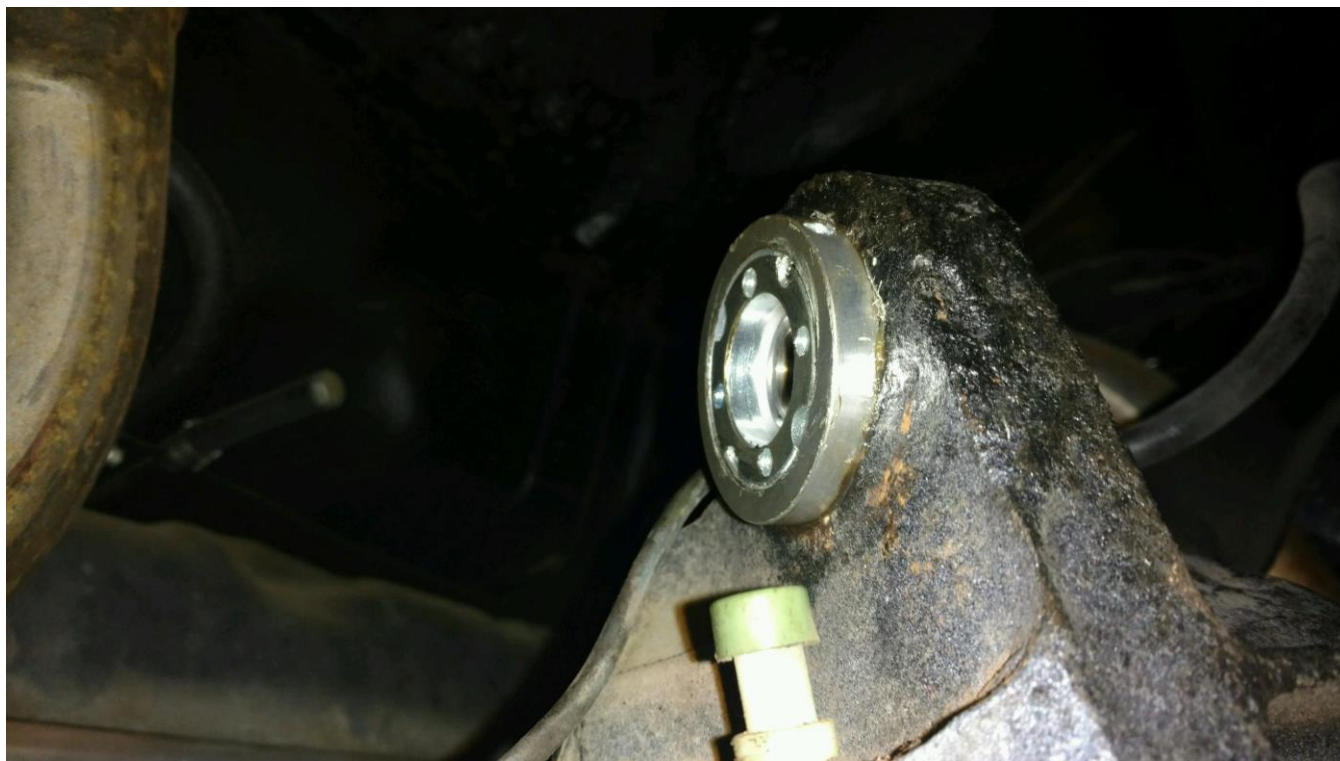
**Picture 4**



**Picture 5**

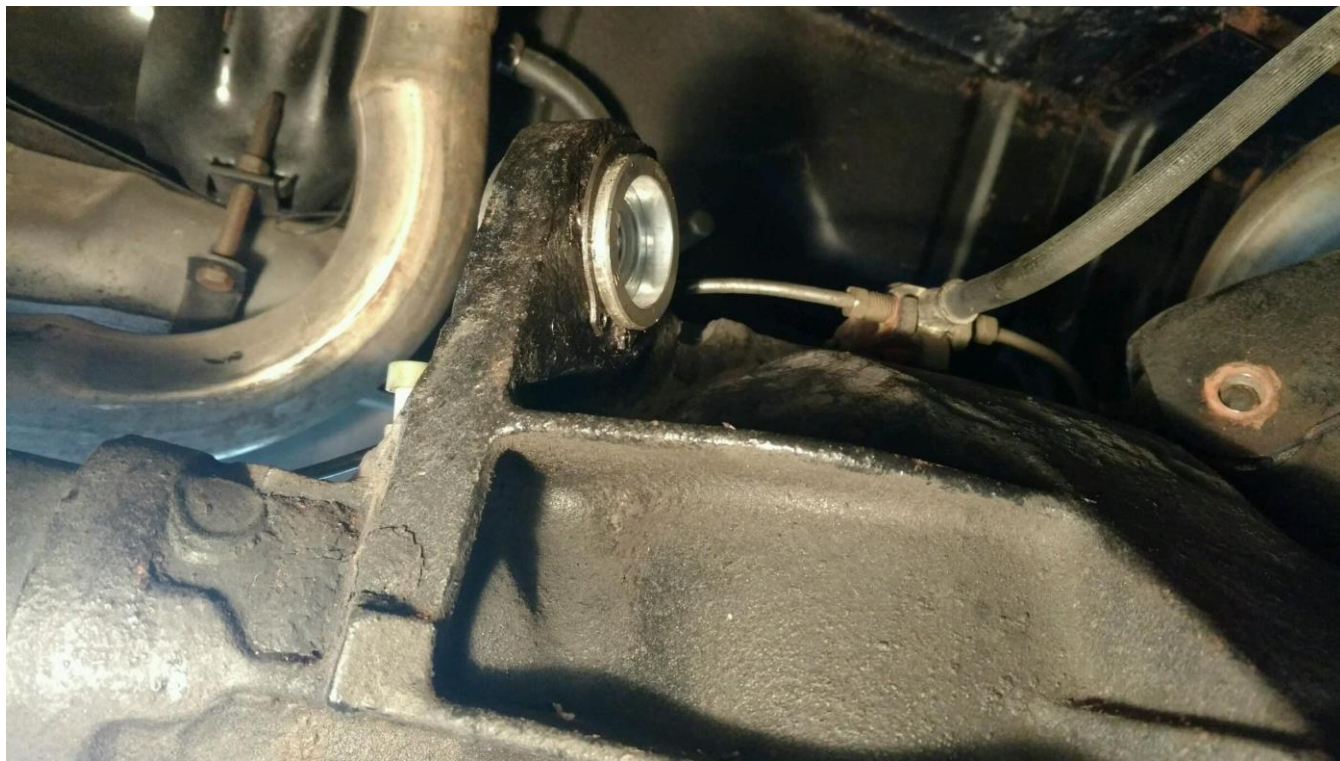


**Picture 6**





**Picture 7**



**Picture 8**

