07-02-2013, 07:25 PM #1

Laszlo@034

Drives: B7 Audi A4 2.0T FSI Quattro
Join Date: Sep 2012
Location: United States
Posts: 187

DIY: Installing Spherical Rear Trailing Arm Bearings (RTABs) - With Torque Specs!

Hopefully the mods are fine with this being here, since this guide can be useful when installing any brand of spherical RTABs. I have removed any product links and catalog images from the post.

Installing stock rubber trailing arm bushings is a little bit different, since there is a preload sequence that is not required when installing sphericals.

Supplied Parts:

- 034Motorsport Rear Trailing Arm Spherical Bearing Upgrade Pair
- Sanding Drum

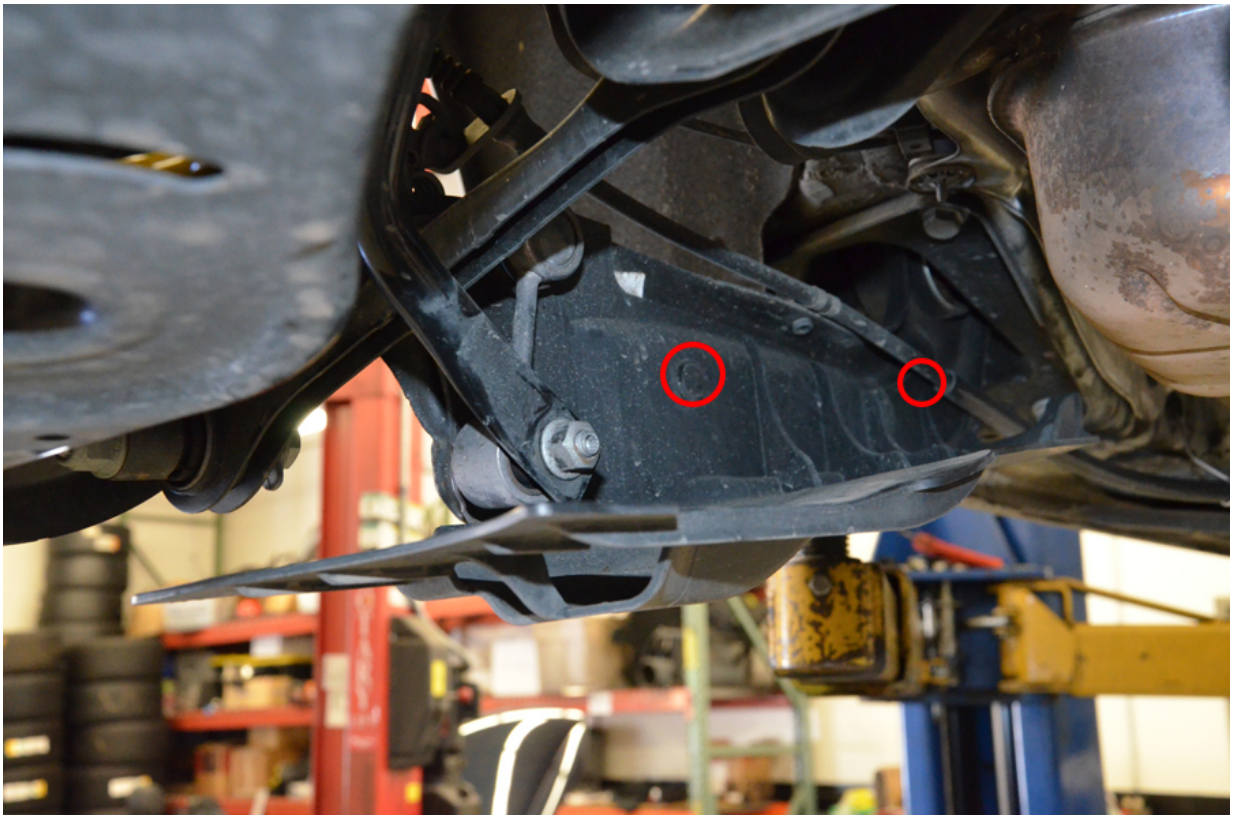
Tools Needed:

- Hands (2) *(Opposable thumbs are optional)*
- T30 Torx Driver
- 6mm Triple Square
- 16mm & 18mm Sockets
- Torque Wrench
- Electric Drill
- Press

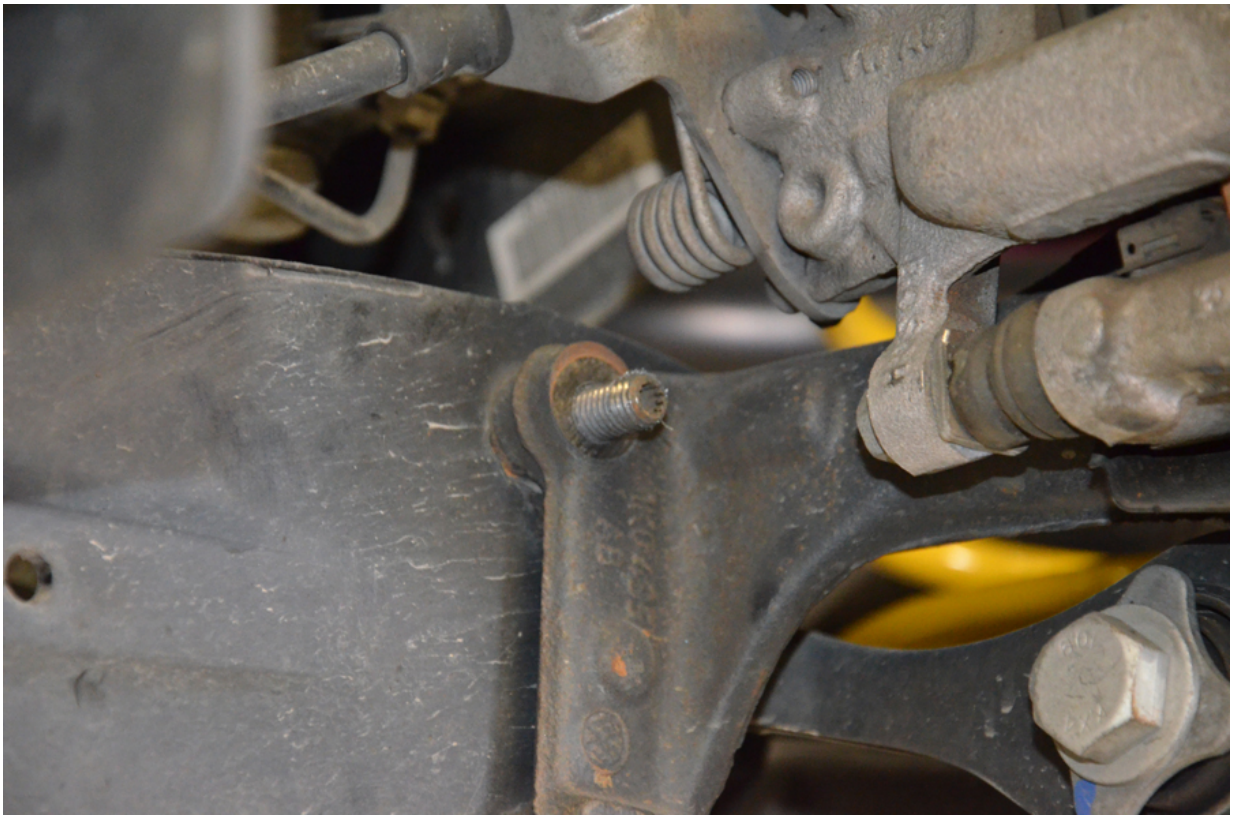
Please Note – These instructions highlight the installation on one side of the car. The procedure is the same for both the left and right side rear trailing arms!

Step 1 – Raise your vehicle securely using a lift or jackstands.

Step 2 – If your car has the optional plastic covers for the rear trailing arms, remove the 2 round clips holding them on. Once the clips are removed, you can remove the covers by sliding the covers forward, and pulling them off of the arms.

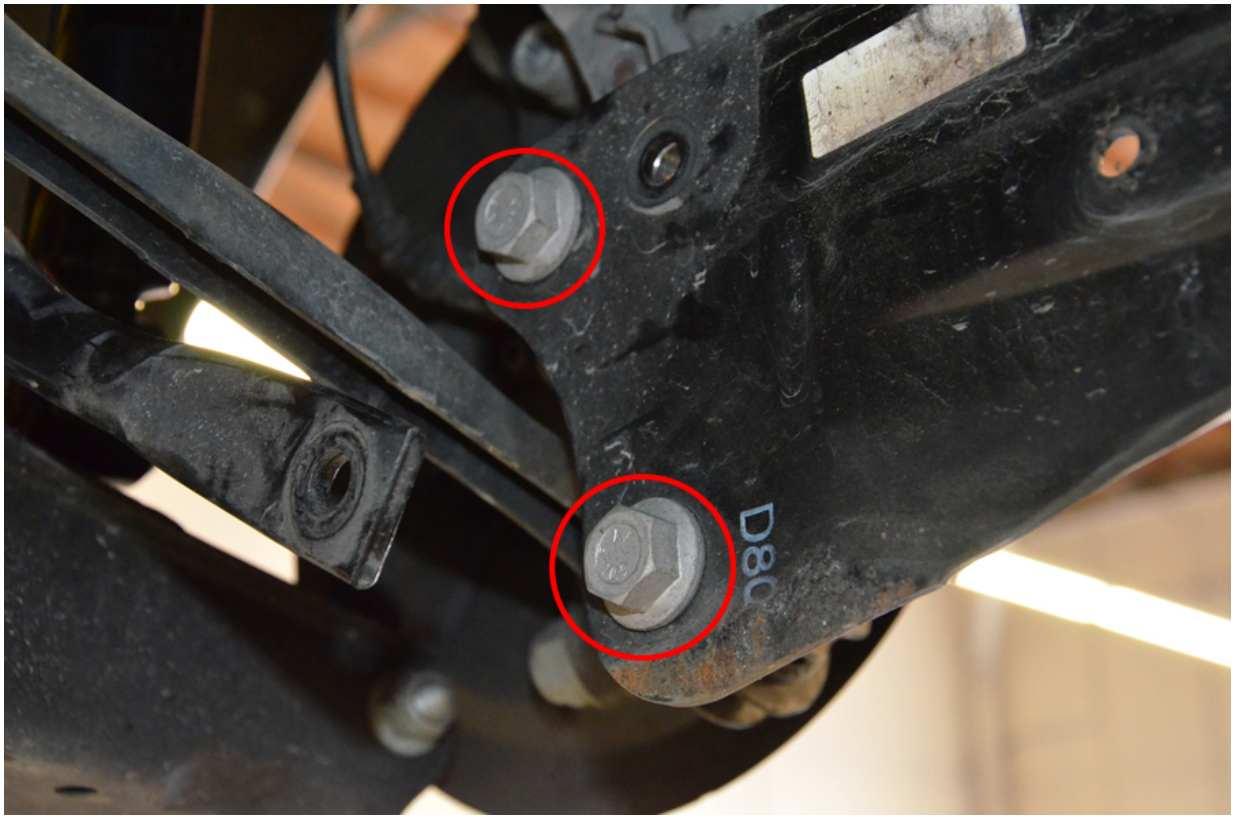


Step 3 – Remove 16mm nut holding rear sway bar end links to trailing arm.

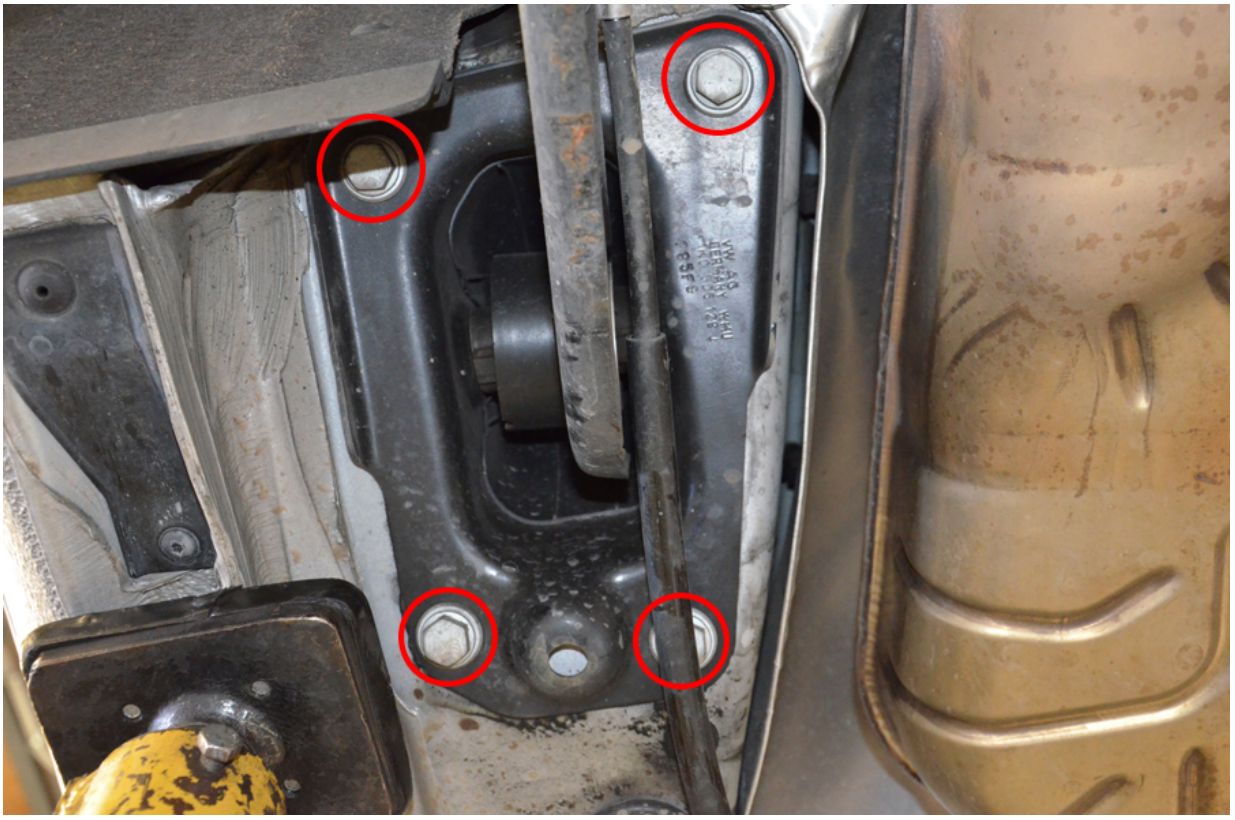


Step 4 – Remove 16mm nuts holding the rear sway bar end link to the sway bar. A 6mm triple square can be used to prevent the threaded inner from turning. Remove the end link.

Step 5 – Remove the two 18mm bolts holding trailing arm to upright.

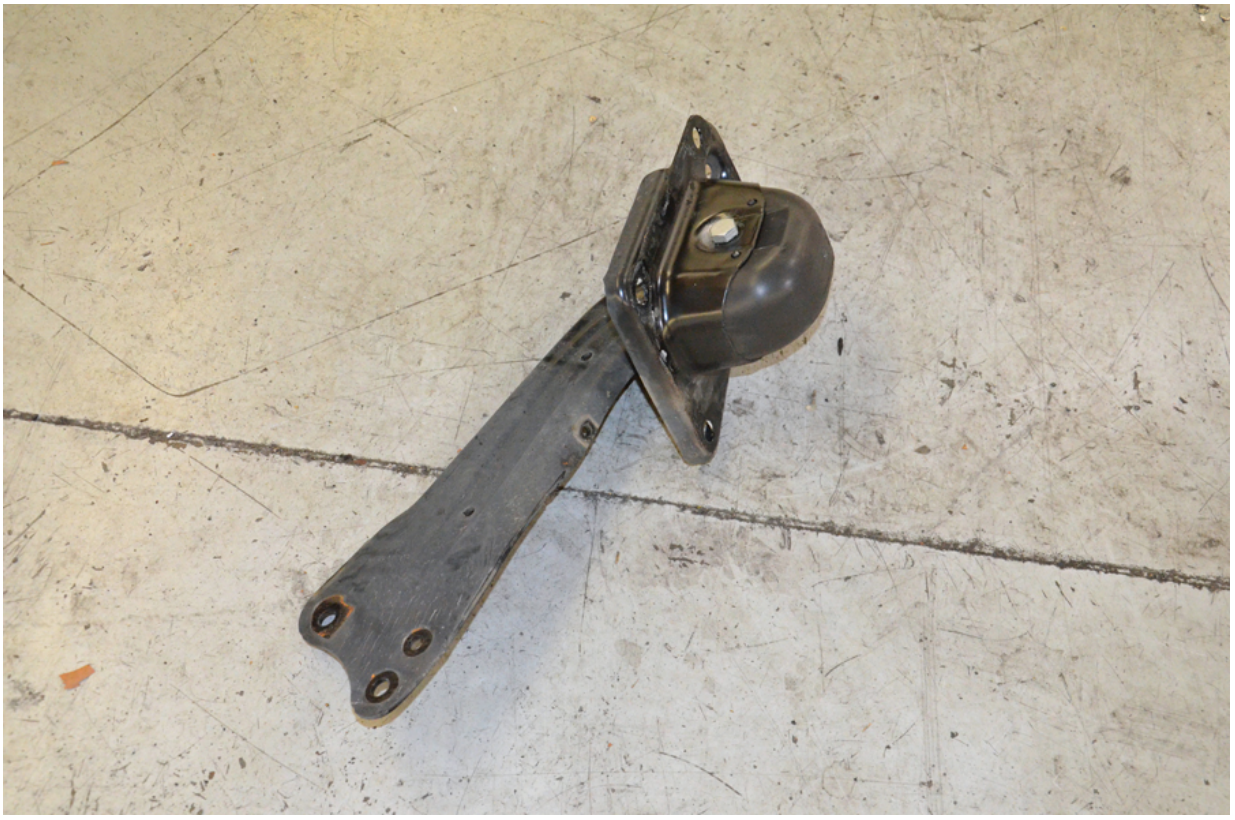


Step 6 – Remove the four 16mm bolts holding the trailing arm housing to the chassis.

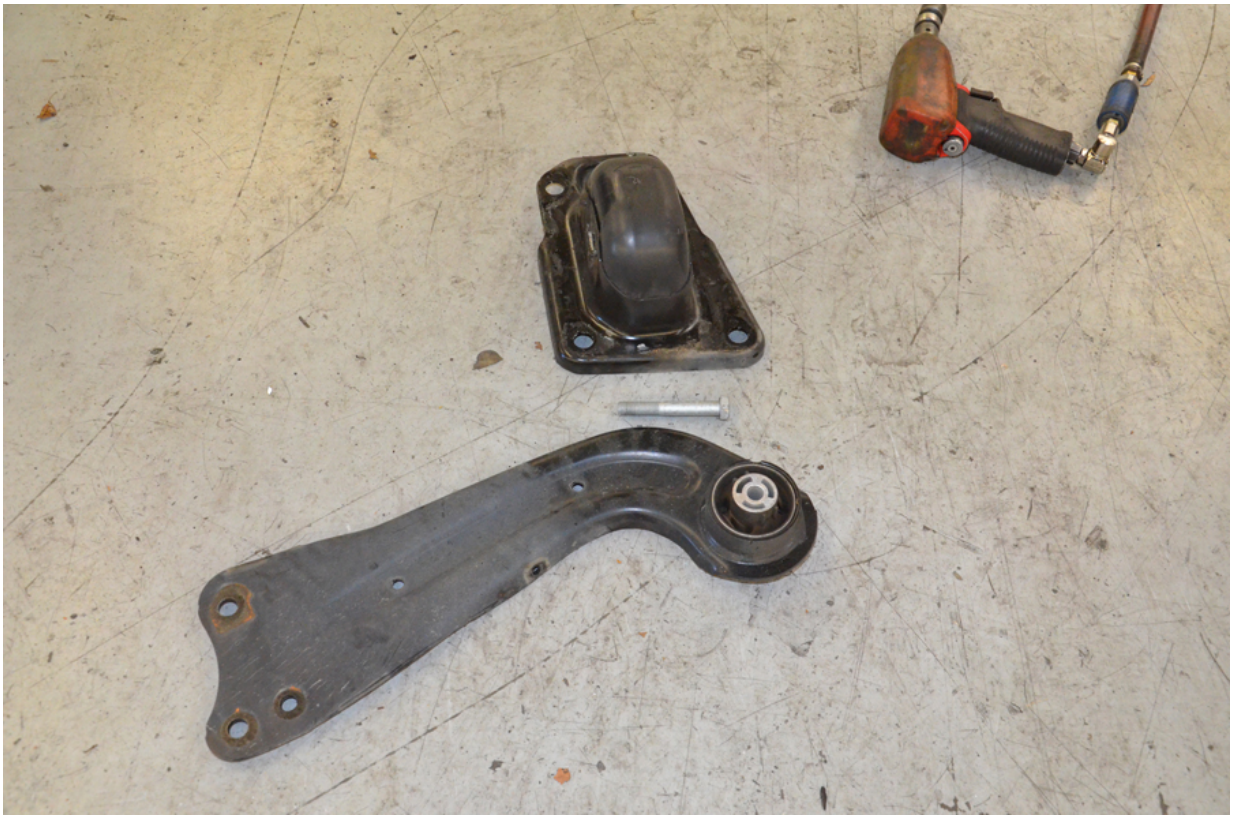


Step 7 – Remove the T30 Torx screw securing the parking brake cable clip.

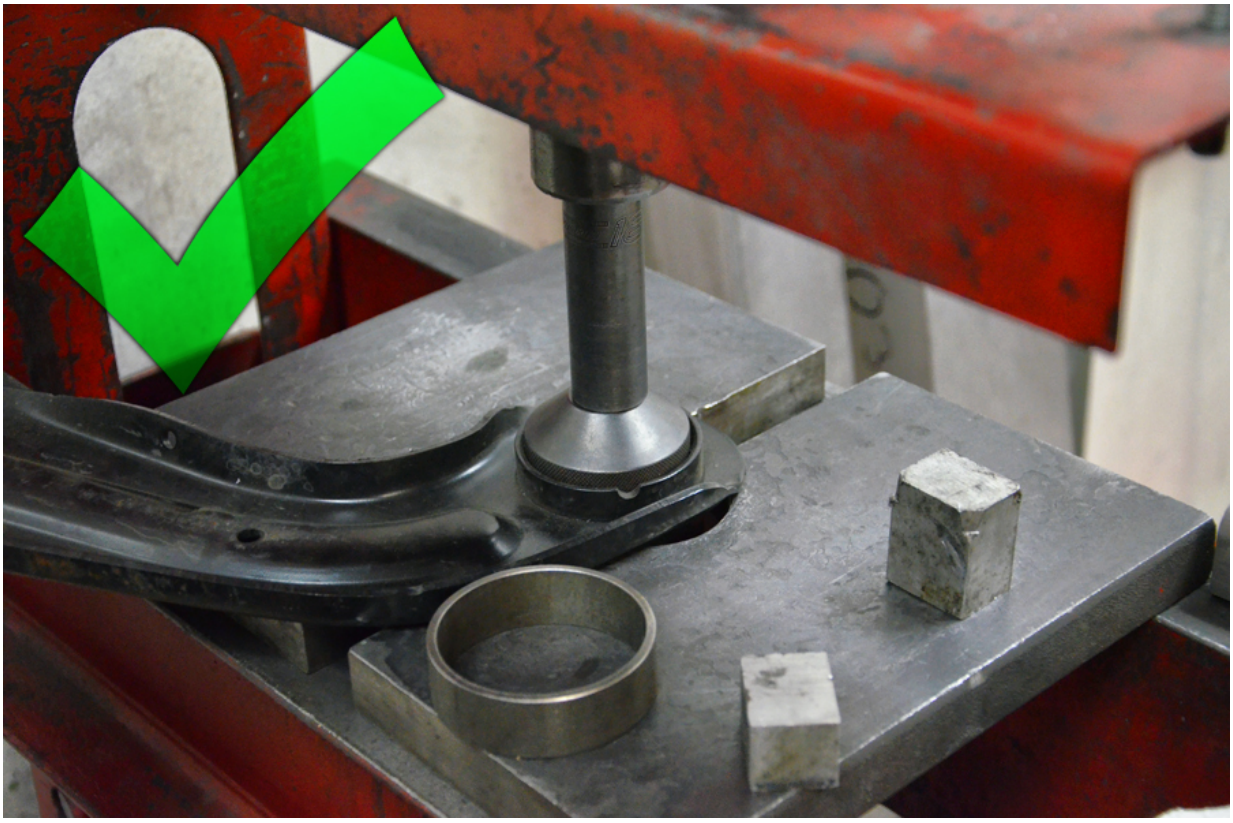
Step 8 – Remove the rear trailing arm assembly from the vehicle.



Step 9 – Remove 18mm bolt holding housing to trailing arm, and remove housing.



Step 10 – Take trailing arm to press. Press out stock bushing as pictured. The press should be in contact with the outside aluminum sleeve of the bushing. Do not try to press out on the inside/middle of the bushing!

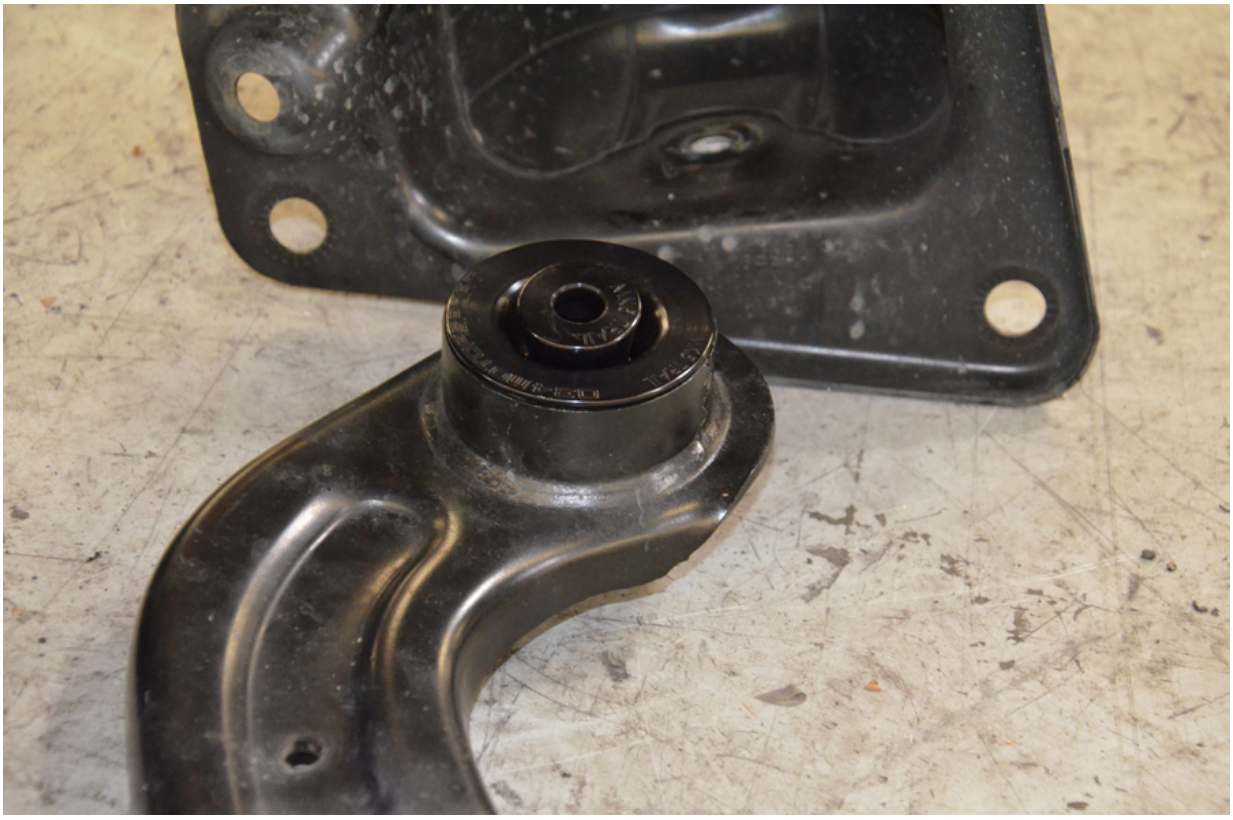


Step 11 – Clean up the inside bore of the trailing arm using supplied sanding drum.

Step 12 – Remove spacers from spherical trailing arm bearing, so that you can press the body into the trailing arm.

Step 13 – Press in spherical holder into trailing arm from the outside (taller) side of the rear trailing arm! Use press on the aluminum body, not the spherical at the center.

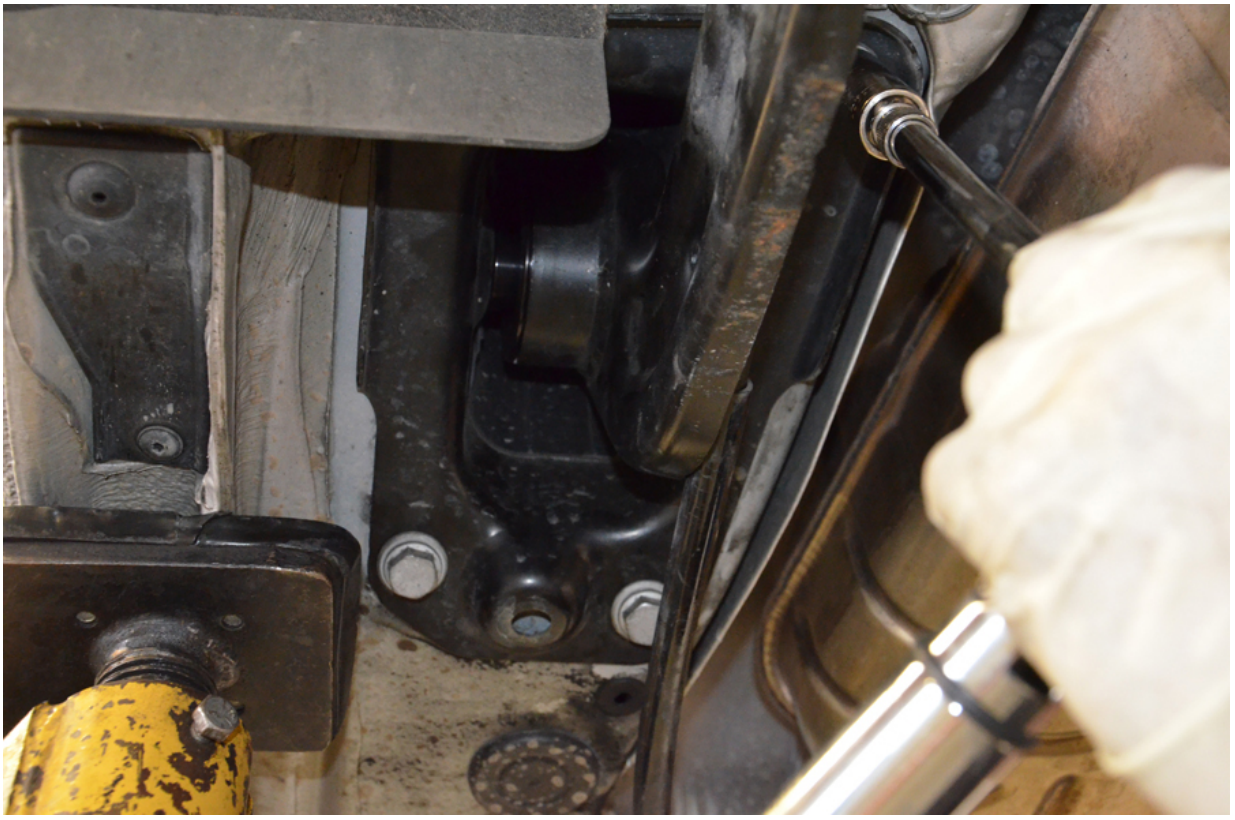
Step 14 – Reinstall spacers into spherical trailing arm bearing.



Step 15 – Reinstall arm into housing, and install 18mm bolt. Torque to 90Nm + 45 degrees. DO NOT OVERTIGHTEN! Overtightening can cause the spherical to bind!

Step 16 – Begin to reinstall arm into the vehicle. Use one bolt at each end to line up. You may have to push up on the upright and/or compress the suspension slightly to align all holes.

Step 17 – Tighten 4 16mm bolts holding housing to chassis to 50 Nm + 45 degrees.

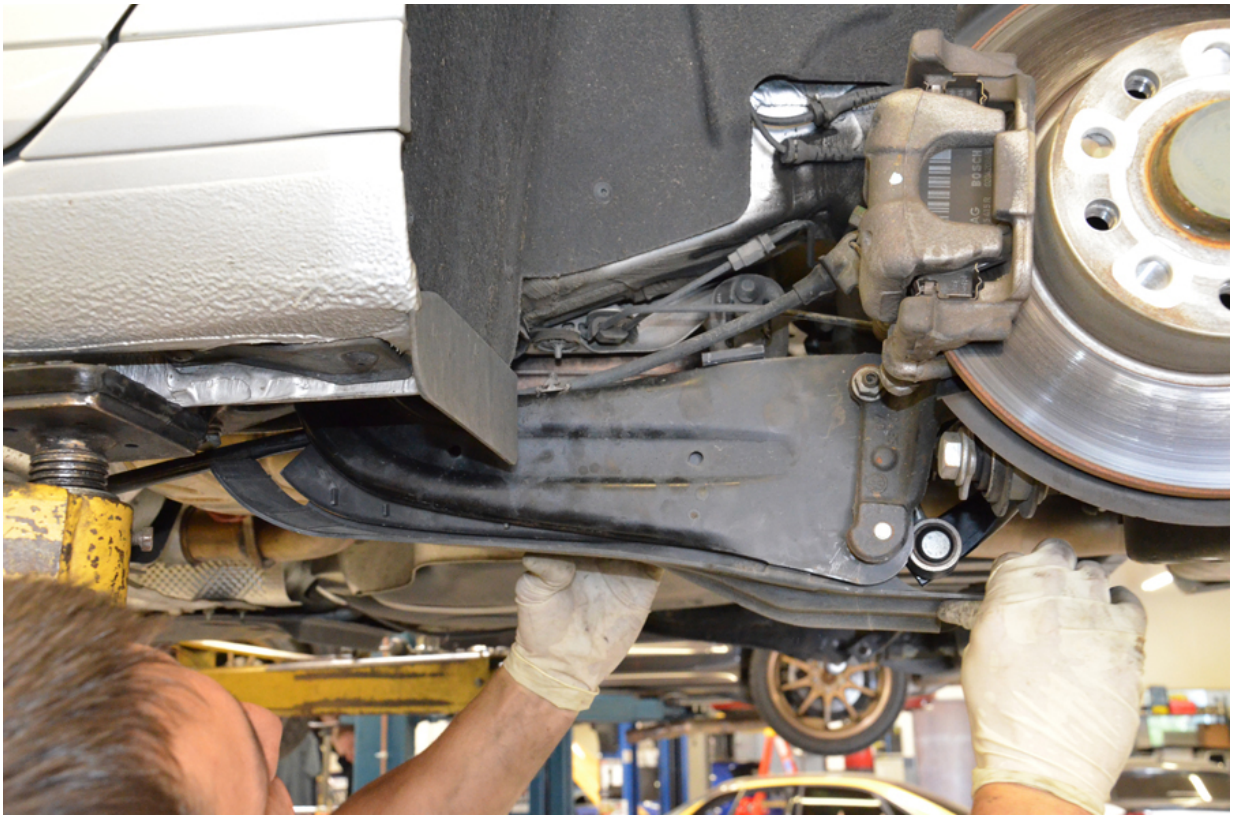


Step 18 – Tighten 2 18mm bolts holding arm to upright to 90 Nm.

Step 19 – Reinstall parking brake cable retaining clip with T30 screw torqued to 8Nm.

Step 20 – Reinstall end links. Torque end link hardware to 45 Nm.

Step 21 – Reinstall optional plastic trailing arm covers.



Step 22 – We strongly recommend having the rear suspension aligned to factory specifications immediately after installing the 034Motorsport Rear Trailing Arm Spherical Bearing Upgrade Kit.

quote

07-03-2013, 10:57 AM #2

bimmer635csi
FIA GT Newbie

Drives: 2013 Porsche Cayenne turbo
Join Date: Dec 2012
Location: Basement of the Alamo
Posts: 726

What is the idea behind this part?

Removing anti-pivot properties of the bushing?

Removing floating action of the compliant rubber?

Other?

Just curious why I would want to do this.

_____
2013 GTI Base, 4dr, DSG, Carbon Steel Grey - Wife stole and traded in on a Mini Countryman S
Autocross & Daily Driver Build Thread

quote

07-03-2013, 11:19 AM #3

Laszlo@034

Drives: B7 Audi A4 2.0T FSI Quattro
Join Date: Sep 2012
Location: United States
Posts: 187

Quote:

> Originally Posted by **bimmer635csi**
> *What is the idea behind this part?*
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>
> *Removing floating action of the compliant rubber?*
>
> *Other?*
>
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The stock rubber bushing deflects drastically under load, which results in less than desirable suspension geometry when cornering.

These chassis are very sensitive to changes in the rear alignment, which can occur when the stock rubber bushings deflect under load, and even as they breaks down and sags with time.

Unlike polyurethane, which prevents proper articulation, these spherical bearings allow for full suspension articulation around a fixed axis, without any deflection.

Installing these results in a more responsive, and less "floaty" rear end, as well as improved grip when pushing the car to its limits.

I can PM you some more info on our specific kit.

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