



Replacing Rear Subframe Mounts on the 126 Chassis

Requested and Answered by [Buckrey](#) on 26-Feb-2005 18:51

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Introduction

The technical material for this FAQ (Frequently Asked Question) was provided by Richard Easley of Baylor University, Raymond Ryel of Portland, Oregon, and Stu Ritter of Denver, Colorado, and is provided as a service to the subscribers of the Mercedes-Benz Discussion List.

To receive similar quality tips as described below on a daily basis, consider subscribing to the Mercedes-Benz Discussion List, which is located at the following site:

<http://hsb.baylor.edu/html/easley/mercedes/welcome.html>

Please note that this procedure is specifically for the 126 chassis (S-body from 1981-1991) but is similar for at least the 123s (280Es, 300Ds 1977-1985), and likely others in the MB line . . .

You may be asking: "How do I know if the subframe mounts need to be replaced?" If you are driving an 80s model Mercedes-Benz (or your MB has exceeded 100K miles) and the mounts have not been replaced yet, then I can tell you that they need to be replaced. Additionally, the rear differential mount should be replaced at the same time.

Replacement should make a difference in ride height and will definitely make a difference in "feel." And -- by extension, camber and toe of the rear are affected because the car has an independent rear suspension. So -- if you are detecting wear on your rear tires, this is likely it. Keep in mind that the entire rear subframe is depending on these 3 contact points.

Stu Ritter has the following to say about replacement of the subframe and differential mounts:

"Having done hundreds of rear subframe mounts over the past 30 years, let me throw in a few pennies..

As the mounts collapse, they lose the ability to maintain the rear wheel tracking ability or the ability to keep the rear wheels right behind the front wheels. When the mounts reach the point, as Kevin

Kenner's did, where they are wearing the inside edge of the rear tire down to steel while 70% of the rest of the tread remains, you can rest assured that mount is moving the rear end of that car around like Jello.

When you replace the rear sub mounts, you are re-establishing the factory specs for rear wheel steer. The Porsche 928 has some rear wheel steer designed into the suspension system, while our Benz's do not. Once the mounts collapse or even get soft for that matter, the rear end of the car starts to steer and when that happens, the very relaxed, high-speed Benz feel goes in the garbage.

Having driven hundreds of resuscitations, let me tell you that it works. It snaps the car back to where it had been when it was new. It ain't in your mind, it's in your hands...you really feel it . . . ”

Assumptions

Using the categories of mechanical ability from the Mercedes-Benz Discussion List <<http://hsb.baylor.edu/html/easley/mercedes/subscribe.html>>, you need to be at the level of "Medium Do-It-Yourselfer" at minimum, to replace the rear subframe mounts. If you are below that level, you may want to provide these instructions for someone who is at the medium level or beyond.

Parts needed:

1. Subframe mounts (note that these are specific for years; later models (1986->?) are designated left and right)
2. 2 large subframe mount attachment bolts (MB part only, very large special bolt with tapered end)
3. Differential mount
4. Tabs that are inside frame for differential mounting bolts

Tools needed:

1. Hydraulic jack
2. Jack Stands
3. MB special tool (bearing puller), part number 126 589 00 33 00. Note: A 1/2" threaded rod with

nuts and large washers will work in the place of the special tool.

4. MB special tool (bearing installer), part number 126 589 01 33 00. Note: A 1/2" threaded rod with nuts, large washers, and a suitable-diameter 1/2" drive socket will work in the place of the special tool.

5. Metric tap and die in case either large bolt or mounting receptacle gets cross threaded.

Replacing the rear subframe mounts

1. Jack up the car and support it securely with jack stands.

2. Using the hydraulic jack tension the subframe near the subframe mount.

3. Loosen the 3 mount bolts and remove the "spider" plate.

4. Relax the jack. The subframe on that side will drop a bit -- no problem.

5. Using a pry bar at the top of the subframe above the mount, pry the subframe down enough to get "hand" clearance.

6. Run the threaded rod up through the subframe mount.

7. Put a washer on the rod at the top. Note: The size of washer is important since you want the washer to go through the hole in the frame assembly. Outside maximum measurement of 1.75" will fit through the hole. Using several washers will increase the access to the nut as you 'spread' to apply pressure to the rubber mount.

8. Thread 2 nuts on the rod at the top, and add a washer on top of the uppermost nut. The top nut/washer will put pressure against the unibody/frame. The middle nut/washers against the bushing. Leave 1/2" thread exposed above the washer. Note: Threading 2 nuts on the rod at the bottom and then 'jamming' them tight allows better control of the rod and allows the use of a wrench on the upper nut and a ratchet on the bottom. One nut/washer on top against the frame; one nut/several washers on top of the rubber mount; two jam nuts on the bottom to grip and use a socket/ratchet on.

9. Run the threaded rod up near or into the mounting hole.

10. Using your pry bar to ensure clearance between the subframe and the body, take the two nuts by hand and increase the distance between them, ensuring that the threaded rod is inserted in the mounting hole. [Note that the mounting hole has no threads for about 1/2" so you are not hurting anything.]

11. Increase the pressure on the subframe with the jack until the subframe mount is under tension (the inner part of it will start "stretching" downward, away from the outer part). You have now preloaded the subframe mount.

12. Using a blunt-faced chisel or screwdriver, tap the side of the outer part of the subframe mount. With the preload, it will immediately start releasing. If it does not (or, you are in a northern area, or both), then you likely need to soak the appropriate areas with a penetrating oil like KROIL. Note: It's not a bad idea to soak with KROIL or other penetrant for several days prior beginning this job. Some individuals have used an air chisel to knock the bushing out. After the bushing is one-third out, re-tension it by adding washers and spread and retighten the nut again if necessary.

13. "Walk" it all the way out. It will probably fall out easily.

Installation (with MB special tool):

1. You are going to "press" the new subframe mount in with the special tool.
2. Hand-fit the new subframe mount to the subframe.
3. Attach the special tool's cup to the subframe mount and run the threaded rod through the mount.
4. Attach the nut to the other side of the mount.
5. Press the new mount into the subframe ensuring that it is centered.
6. Don't forget to install the smaller rubber mount on the mounting hole above the subframe before buttoning everything up.
7. Jack up subframe until it seats against unibody.
8. Place "spider cage assembly on subframe mount.
9. Install the large tapered bolt by applying constant, significant pressure to the bolt head while turning the bolt with a wrench.
10. Attach remaining two smaller bolts.
11. Repeat on other side of car.
12. Install a new rear differential mount.

Note: the mount has a 'front' and 'back'. The back is straight and the front curves down. Look at the unit before removal to determine the correct way to install. Also take care when removing the four small bolts (13mm) as they appear to use the 'nuts on a strip inside the frame' that can be a problem if they don't release cleanly. [Note that you have two new tabs as part of the parts to be installed.] Lower the differential with a hydraulic jack to remove the two big bolts (7/8"). Put the new mount on, tighten the two big bolts, raise the differential with the jack and hand tighten the four small bolts then tighten to final torque.

Installation (with threaded rod tool):

1. You are going to "press" the new subframe mount in with the hydraulic jack; make sure that it is a "shop-sized" floor model, 'cause the "cup" is almost a perfect fit with the outer edge of the new mount. Smaller jacks may work but you need to protect the rubber from damage.
2. Jack up the subframe and place another jack stand under it.
3. First coat all contact surfaces of the new rubber with silicon assembly grease (SILGLIDE) or spray with silicon liquid. Press the new mount into the subframe ensuring that it is centered.
4. Don't forget to install the smaller rubber mount on the mounting hole above the subframe before buttoning everything up. Note: flat side up with 'cup' down.
5. Jack up subframe until it seats against unibody.
6. Three ways to consider:
 - a. Place "spider cage assembly on subframe mount. Install the large tapered bolt by applying constant, significant pressure to the bolt head while turning the bolt with a wrench. Attach remaining two smaller bolts.
 - b. Put the spider cage assembly into place and hand tighten both of the small bolts (with a drop of blue Loctite) then inserted the big bolt and tap it into contact with a hammer. Use a wrench to get the threads started and a ratchet to tighten it firmly into place, finishing by tightening the two small bolts.
 - c. Another method is to use a bottle jack to get the bolt started by pushing directly onto the head and use a 22mm spanner to turn the bolt with the weight on. Don't worry about cross threading the bolt, that's what the taper on the end is for, it guides it into the thread.
7. Repeat on other side of car.
8. Install a new rear differential mount.

Note: the mount has a 'front' and 'back'. The back is straight and the front curves down. Look at the unit before removal to determine the correct way to install. Also take care when removing the four small bolts (13mm) as they appear to use the 'nuts on a strip inside the frame' that can be a problem if they don't release cleanly. [Note that you have two new tabs as part of the parts to be installed.] Lower the differential with a hydraulic jack to remove the two big bolts (7/8"). Put the new mount on, tighten the two big bolts, raise the differential with the jack and hand tighten the four small bolts then tighten to final torque.

Finally, let me know if you complete this procedure successfully; it took a while to type this, and I'd appreciate knowing when each person has completed the repair! Please e-mail me at richard_easley@baylor.edu

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<http://www.mybenz.org/zoopp/html/modules/smartfaq/faq.php?faqid=3>