M5 Front Sway Bar Mounts

Text and pictures by JBort
Welding and grinding by JohnS

A popular suspension upgrade to our e28's is the installation of larger sway bars. The following is a list of the stock bar application:

528e*	17/18/19mm front, 14/15.5mm rear
533i	18/19mm front, 14/15.5mm rear
524td	19mm front, 14mm rear
535i	19/21**mm front, 15.5 rear
M5	25mm front, 18mm rear

* early /late model years
**optional "sport suspension"

A popular upgrade to the "non-M5 cars" are the 25/19mm aftermarket sway bars, manufactured by Suspension Techniques (ST), Dinan, Racing Dynamics, and others. These sway bar sets include polyurethane mounts designed to work with the stock mounting pads, welded to the frame rails. Ultimately, under hard driving (that's why we upgrade, right?), these mounts can fail, shearing off from the frame and causing immediate (and drastic) handling changes. The M5, however, was equipped with these "big bars" and incorporated a much more "beefy" mounting system. The pictures say it all:

ST urethane mount vs. M5 hard rubber mount

Stock 535 base (cut from frame) vs. M5 base

Stock 535 support vs. M5 support

So who wouldn't want to upgrade to a more reliable mounting system?
Here's the parts you'll need (l to r):

rubber mounts	31 35 2 226 001
support	31 35 1 131 622
support bracket	41 11 2 230 014

You'll need 2 of each part. In addition, (4) M8 X 15mm bolts and wave washers will be necessary for final assembly (available at good hardware stores). Total cost is about $80.

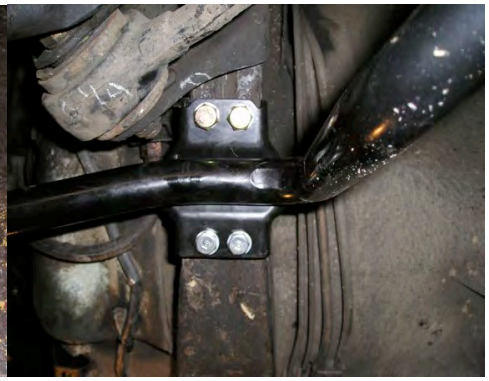
OK, I'll let the pictures tell…*the rest of the story!*


Here's 25mm bars mounted in the "adapter" polyurethane bushings and stock mounts.
By necessity, the bushings *have* to be thin to mount 25mm bars in 19mm supports.


Here's the stock mounting base as welded to the frame. We start with a "sawz-all" to remove the old mounts. Cut *close* to the frame, but try not to *cut* the frame!


With the mount gone, the old welds can be removed. Use a die grinder with a good (expensive) carbide cutting bit. Also notice that the new base is longer, so clean an area lower on the frame rails, corresponding to the legs on the new base. (see next pic.).

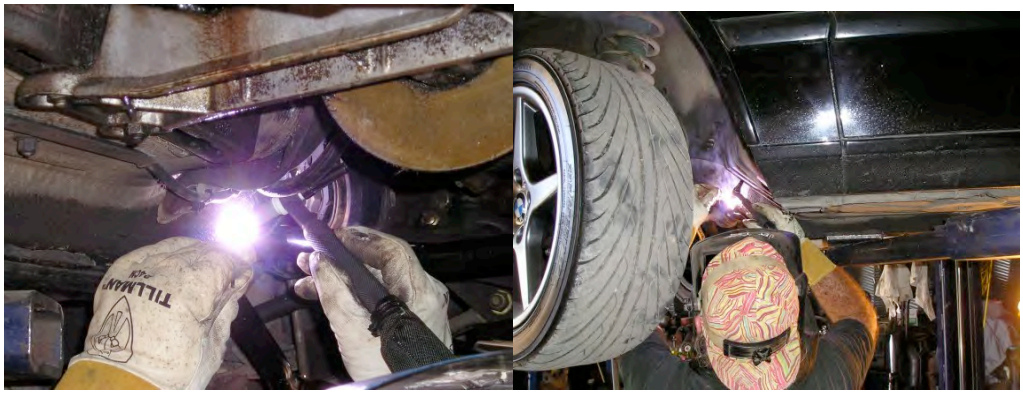

Here's the frame and base ready for welding. Note (red circles) the removal of some power coating on the "legs" to allow for a nice weld!

To set the height for the bases, we installed (2) 15mm bolts in the rearward threaded holes, and (2) 20mm bolts in the front threaded holes. Note that the base fits one way only because of a taper in the frame width. We mocked up one side and marked for welding. Placement is not critical, as long as they are both the same. Again, the taper will help locate the bases. Also check for saddle mounting clearance (using the inner bolt holes).


More pictures of the mock-up. Remember: "mock twice, weld once"!!

Time to roll out the “Big Dog”! John’s TIG welder is a beautiful machine!



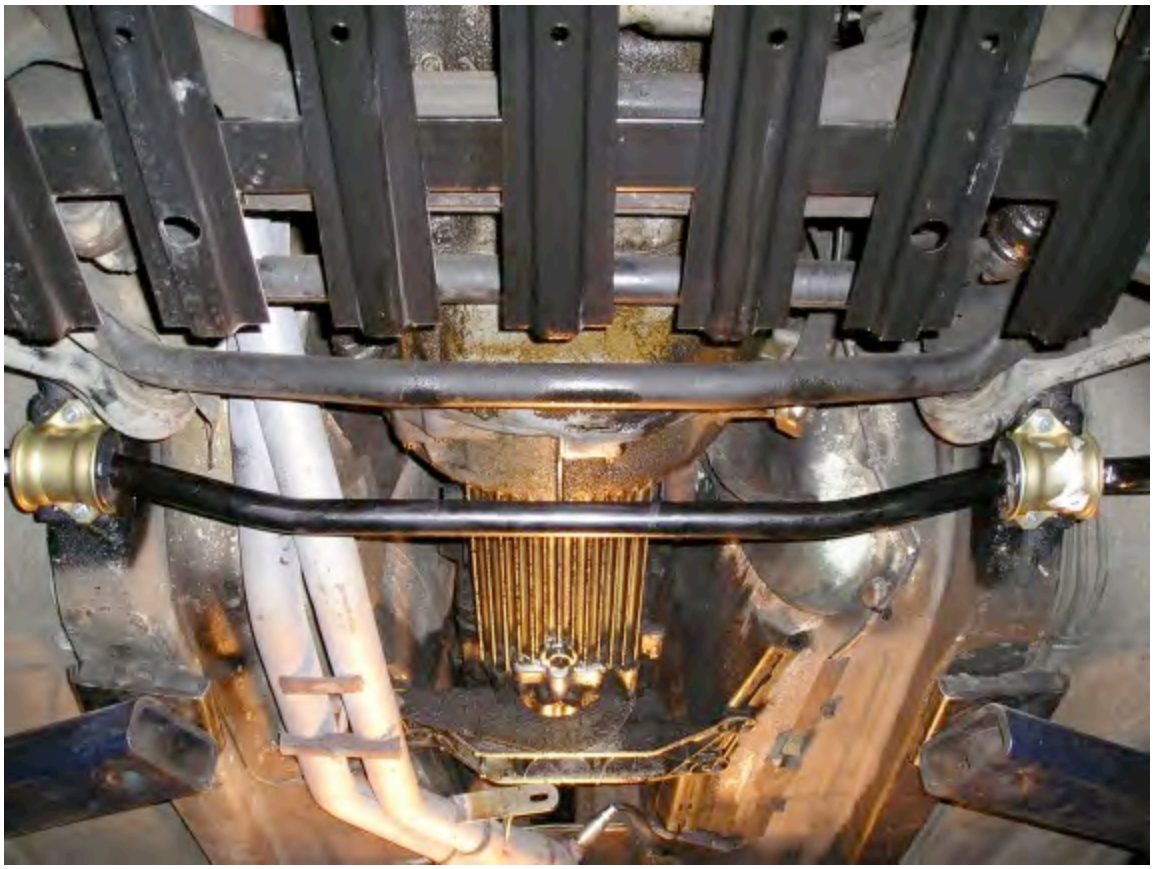
John is a certified welder; I trust him with my car, and maybe my life! This is not the place to cut corners.


Note (red arrows) how the bolts have determined the mounting height of the base, clean the weld areas. The factory undercoating is probably bubbled away in the new weld areas.

As they say, repeat other side! Be sure to measure a reference distance (we used the point where the upper control arm bracket is welded to the frame) to the first bracket and duplicate the distance for the opposite mounting base.


Spray a little (I said a *little*, John!!) undercoating over the bare metal. Oh well, nobody will see it…

And here's the final installation:



The handling is much more predictable, with a smoother transition on curves (suspension was too “jerky” on corners). Also, you will have the confidence to enjoy your new sway bars to the max!

Jay Bortolotto