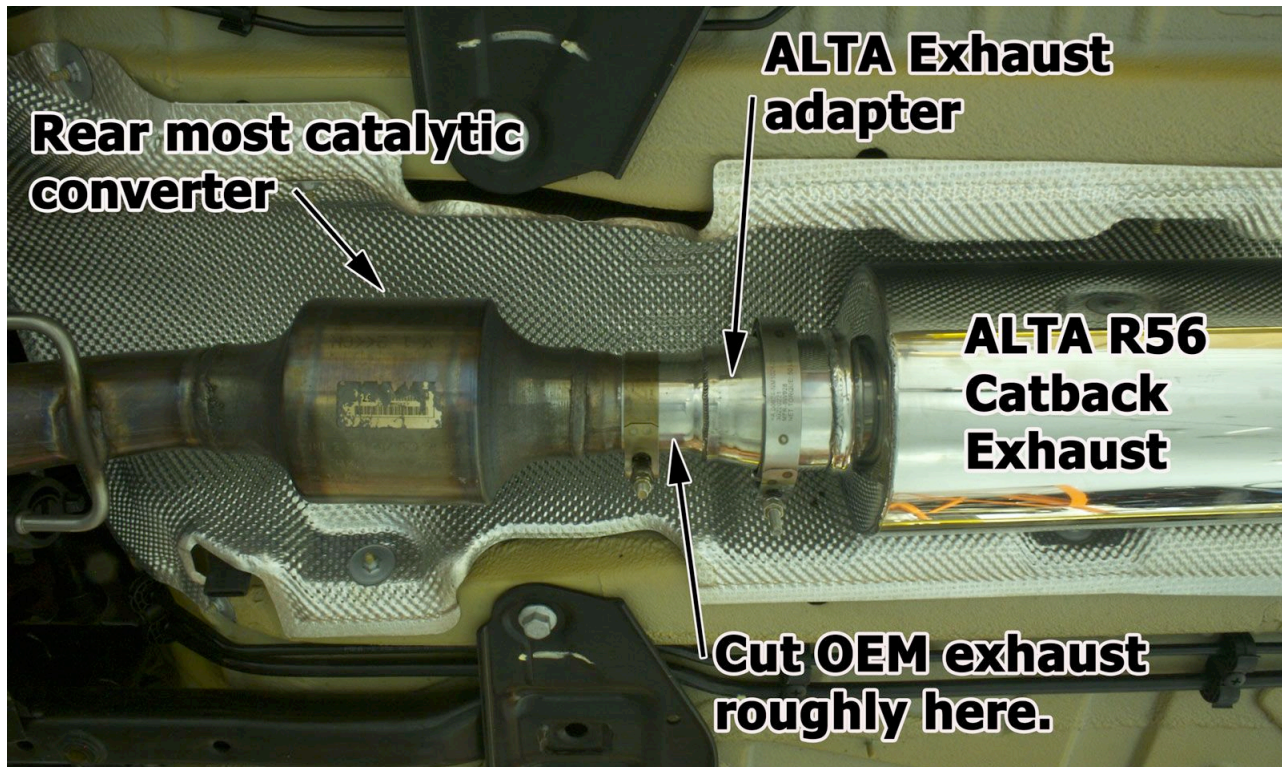


Howard continues to EXHAUST me! (Part two!)

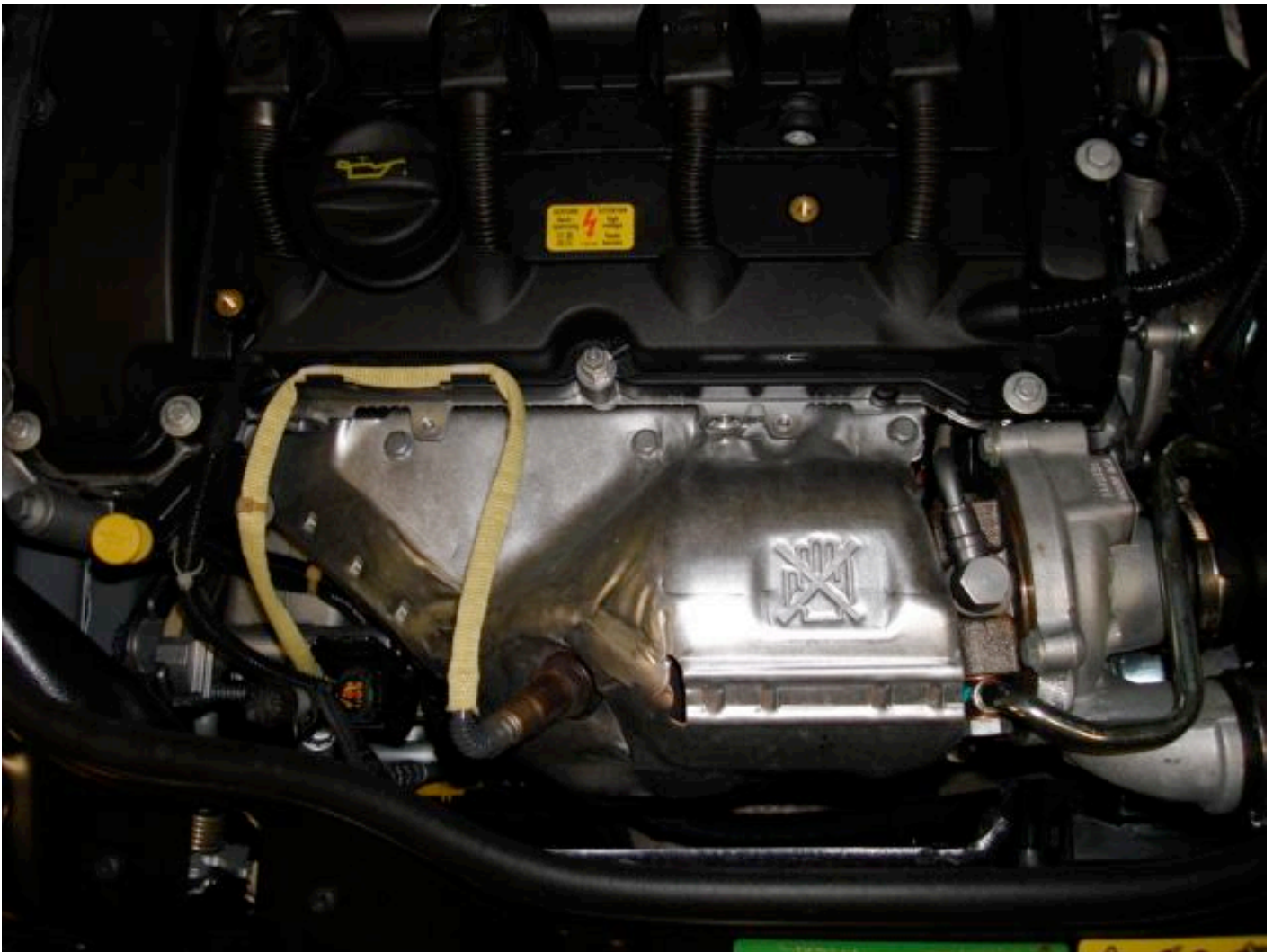
As many of you know the importance of improving exhaust flow is CRUCIAL to making more power on a turbocharged application, Far more important than a non-turbo car! So even after adding the cat-back exhaust in part one, welcome to part two the downpipe! (Prior to ordering and installation contact us and/or your local government regarding the legality of this modification.)

As with any occasion when you need to raise the car, use suitable means to do so safely. Since I think the jury is still out on whether you can take your MINI motoring in the afterlife! I recommend getting the car at least 16 inches clear off the ground. It will make life even better if you can go closer to 24 inches. It simply makes life easier for you as you have more room to maneuver around. Now this installation depicts installation on a car that already has the ALTA cat-back system. It can be installed on a vehicle with stock exhaust as well! Use the photo below as a reference. BUT NOTE: That you essentially turn this around. The ALTA Exhaust adapter goes backward of the photo. You can use a sawzall to cut the exhaust about 4-5" after the rear most catalytic. File the edge smooth and place the adapter over the OEM cat-back and leave somewhat loose. Final tighten after installing the downpipe which is described below. (You can also e-mail me directly with questions! Adam.taft@altaminiperformance.com)



Ok now assuming you have the cat-back installed or the mod above lets continue, shall we!?

Open the hood and locate the turbocharger assembly at the front of the engine bay. (It has a hand on the heat shield that needs to be removed!)



Now begins the hard part. While it seems like a cake walk to remove the small 10mm head bolts that secure the heat shielding to the turbo and downpipe, I can assure you it isn't. Call your small fingered friends and family over, bribe them with beer, pizza, candy or whatever is necessary. You will want their help!!!!!! There are six bolts that secure the top shield to the turbo and the lower shield. The lower shield shield has only four. Once these are removed, remove the shields! Oh but wait there is more!

To get the upper shield off, you need to remove the cable stay for the O2 sensor. This yellow shielded wire winds its way around the passenger side of the engine bay the front. Carefully, pull the wire out of each of the clips that hold it in place. Then release the harness from the engine plug. This can be done easily from the upper plug. Then remove the stay itself. It is held to the A/C compressor with a single 10mm head bolt. Again small fingers and tools are your best friends.

Ok now remove the shields. On my personal car the O2 harness plug was too big to fit through the OEM hole as shown here:



I simply used some tin snips to open the hole a bit. Then pulled the plug through. This may also aid in reassembly later on. (I also filed the rough edges to prevent cutting the shielding on the O2 harness wiring.)

Then use an O2 sensor removal socket, or a crescent wrench if you are feeling lucky to remove the O2 sensor from the downpipe. (I recommend using some penetrating lubricant first to prevent an expensive repair to the threads on the sensor!)

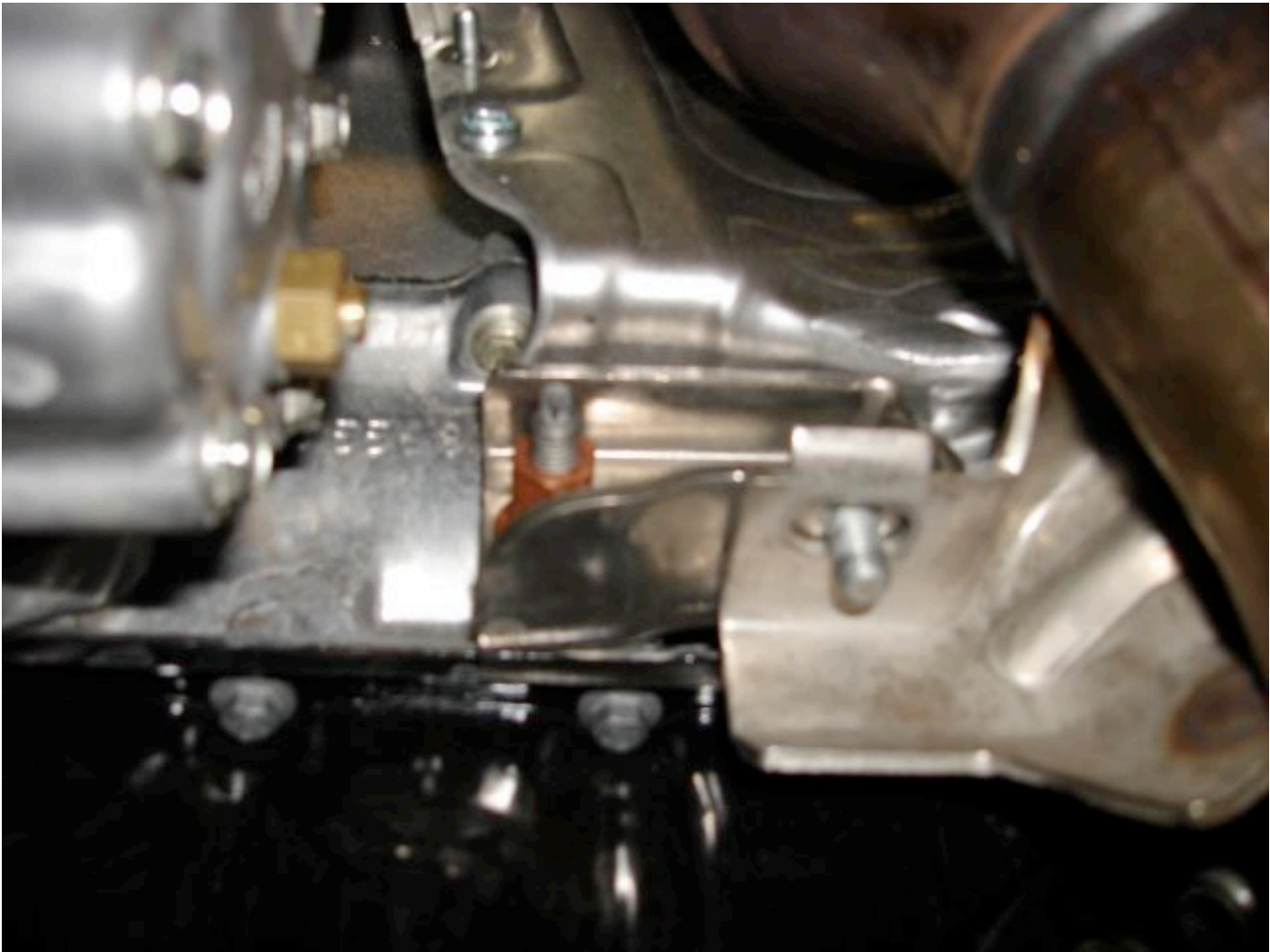


Then again grab the lube, and liberally douse the three mounting studs, nuts, front and back (seen above along with the O2 sensor prior to removal.) Let this set up for a while before attempting to remove them. This can be a real bugger if these strip inside the turbo housing. So be patient!

Then go below and loosen the clamp securing the upper and lower sections of the OEM exhaust system. This is easy! Also shown in the photo below is the lower O2 sensor. This too needs to be removed! Then split the upper and lower halves by removing the clamp.



Ok then loosen and remove the mounting supports for the upper section of the downpipe. One side is shown here:

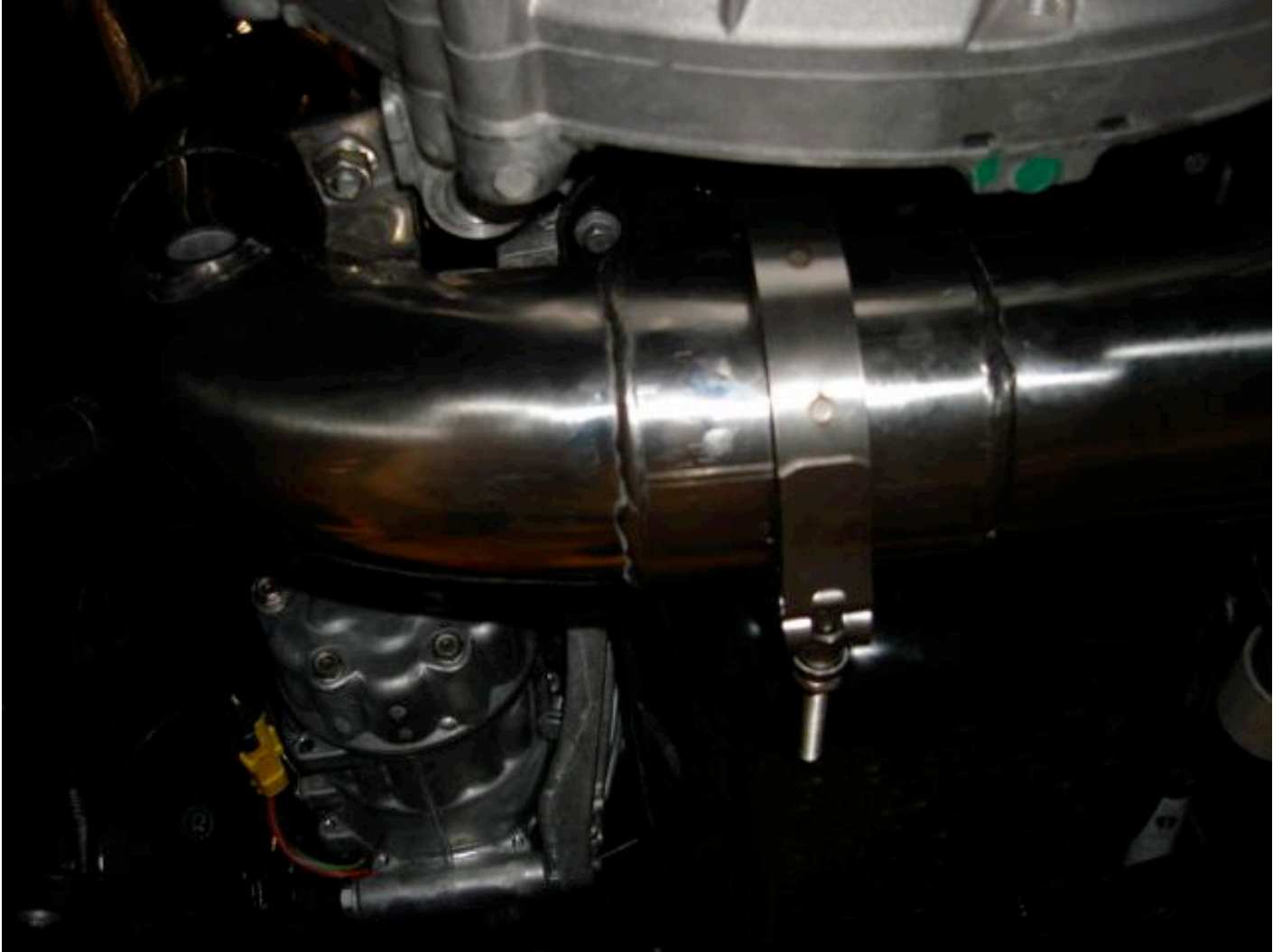


Now carefully remove the upper section and the remaining portion of the lower section. You will want to spray some lube again on the hangers as they can be a PITA to get the barbs past them without the lube! Now on to the fun parts!

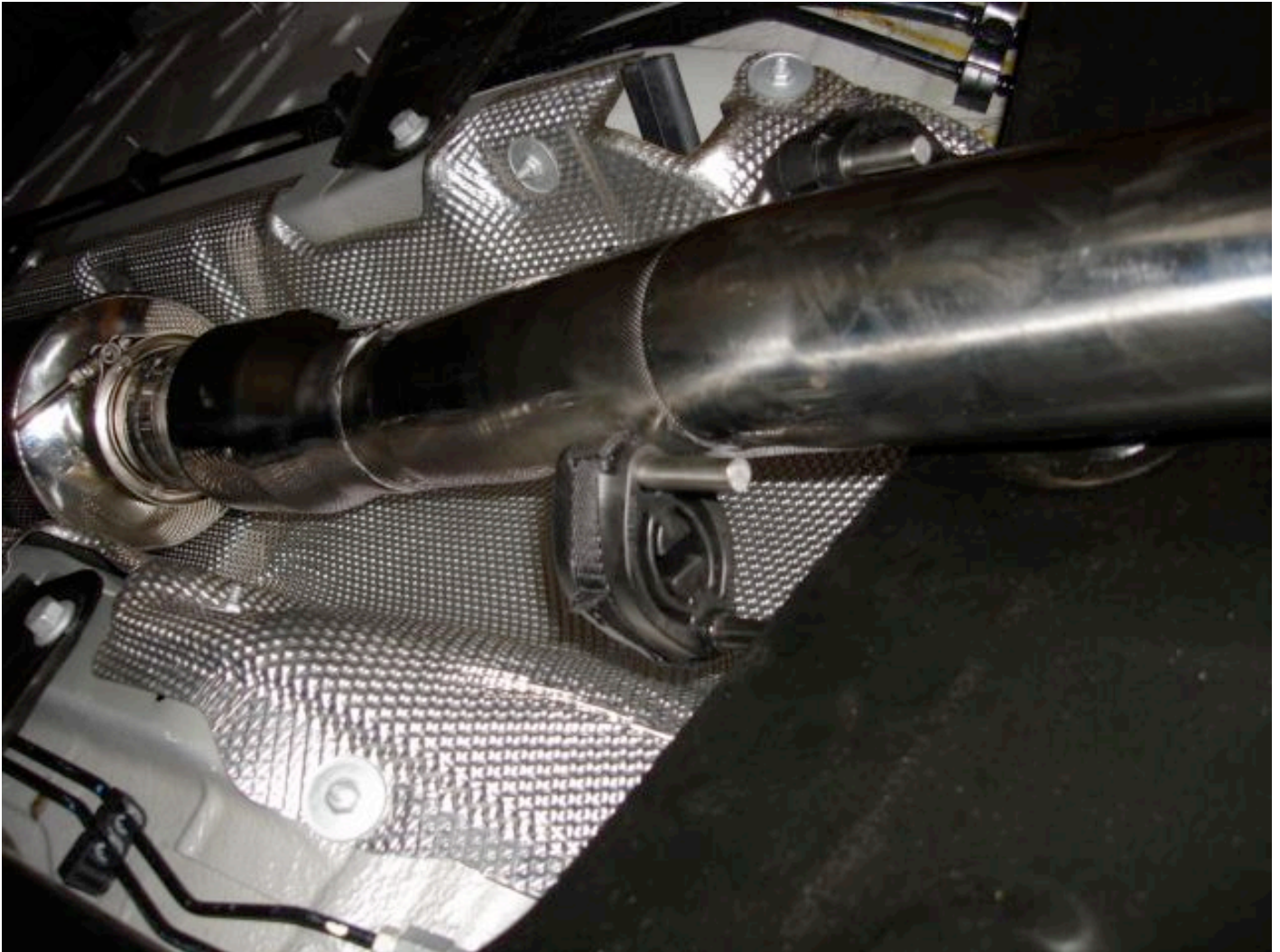
Put the ALTA upper section into the engine bay from the bottom. (Be sure to place the OEM gasket between the turbo and ALTA pipe prior to proceeding.) Then gently start all three of the studs/nuts removed previously, to keep it from falling off the turbo. Then re-attach one of the lower support brackets removed above to secure the pipe to the engine. See the photo below that shows it going back together.



Then connect the lower section to the body by going through the hangers. After that loosely secure the upper and lower sections of the ALTA downpipe using the supplied v-band clamp. (DO NOT FINAL TIGHTEN AT THIS TIME!)



Then connect the DP to the exhaust. Again the next photo shows it being connected to the ALTA cat-back. Refer to the first photo of the removal sequence if you are connecting to the OEM cat-back.



Now, be sure that all areas of the exhaust and downpipe are clear of other systems of the vehicle as well as the exhaust tips. Then final tighten the three bolts at the turbo and the v-band clamps to the torque specs printed on them.

Now install both O2 sensors using anti-seize compound on them.

Finally the last fun part. Reinstall the pain in the A** heat shields and associated hardware. Then connect the O2 sensors back to the harnesses, and re-attach the harness stay on the A/C compressor.

Then double check everything, and lower the car from the jack stands. Start the car and enjoy!

It is VERY common for some obnoxious smelling smoke to be expelled during the first 100 or so miles. This will cease shortly.

This downpipe combined with the cat-back sounds just amazing! Slightly louder under acceleration and yet no droning on the freeway, etc. I can't image anyone not being absolutely thrilled with this combination!

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