

THE OFF-SIDE UNDO

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English Motoring Club of Mississippi

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‘A gentleman does not motor about after dark.’ —Joseph Lucas

The Lucas gods smiled on me today!

by Richard Greene

It all started a couple of months ago when I did my usual spring service on the Lotus Elise. Oil change, brake flush and radiator flush. During the oil change procedure, you must remove the undertray in the back of the car. It was then that I discovered that the front and rear motor mount inserts had disambiguated. The actual motor mounts were still intact and only the add-on inserts were destroyed. No other damage was done. (The inserts were added when the supercharger





But it didn't seem so at first. Remnants of failed motor mount inserts were seen as large pieces and dust (arrows) when Richard took things apart to change the oil. Photos by Richard Greene

was installed to counter the added thrust of the supercharger.) Anyway, I replaced the inserts and did all the other procedures at that time. I buttoned up and the car and took it for a short spin to make sure there were no leaks or problems. After returning from the drive, I detected quite a bit of oil on the undertray from a leak. I put the car up on stands and removed the undertray to ascertain where the leak was. Oil was all over the rear engine and tray. My first impression was that my driver's side axle was leaking at the transfer case seal. I figured that I might have disturbed the seal when replacing the motor mount inserts, as I had to raise the engine to slightly to remove the motor mounts. I thought I was extra careful supporting the engine during this to prevent any problems. I cleaned up the oil mess from the engine, tray and axles. I again buttoned up the car and drove it around the block a couple of times. I parked for the night and went to the manuals and my book of maintenance tips to familiarize myself on what it would take to replace the seal. I knew that the axle needed to be removed to get to the seal. I had removed the axles before when I switched out the engine about eight years ago. But

I never replaced the seals and was hoping it could be done without removing the transmission. It seemed doable and I looked into tracking down a new seal and circlip. I was able to cross-reference the seal to a Toyota part number and thought that the extra cost over an aftermarket seal was worth the money. I planned to head out to the Toyota dealer Monday and get the part for a Tuesday install (the weather for Tuesday was projected to be warm). As is my luck, Monday was Presidents' Day, and the parts department was closed. So, Tuesday morning I decided that I would remove the old seal before heading out to the Toyota dealer. That way, I reasoned, I would have the old seal to check that I got the right one. The '05 Elise was sold with two different transmissions, a C60 and a C64. According to the information on the Lotus Forum, there are some who say that they are the same with only the gear ratios different. Others claim that they are different in other ways. Having the old part in hand would assure me that I was getting the right one. So up on the jack stands again to remove the undertray. To my surprise, the oil residue was much less, and not anywhere near the axle seals. It was leaking out of the oil pan drain plug. I had installed a new crush washer on the plug but must have not tightened it enough. Not the axle seals at all! I tightened the plug and reinstalled the undertray and soon was back on the road. The Lucas gods were smiling on me — for a change.

1996 BMW Z3 Rear End Woes!

By Richard Greene

As my Elise was up on Jack Stands for the time being I headed out to my Local British Car Club Meeting in my Z3. About 4 miles out on the interstate the rear end let go with a very loud clunk and much smoke. Pulled over, with a constant clunking, looked in the back but couldn't determine what had happened. Got towed back home and was able to determine that the rear



end main bearing let go.

Got the differential case open on the Z3 differential (transfer case, rear end). The back case cover has a little sludge at the bottom and a few metal flakes on the magnetic probe but nothing like what I expected. I didn't find any metal pieces or parts. I had expected to find parts of the

bearing but none were found. Since I only drove slowly for about 100 yards after it let go most of the damage must be contained in the bearing races and seals. I haven't been able to remove the pinion shaft from the case, as I don't have a bearing press.

Looking into the case I could see damage to the crown gear hub from the pinion gear hitting it due to the bad bearing. Damage is very limited due to the fact that I didn't drive the car once it let go. The actual pinion gear and crown gear had no damage and perhaps a new pinion bearing, and seal is all that is needed. Of course, I need to figure out how to remove the pinion shaft, pinion bearing and seal to know for sure. Without a shop press I haven't had any luck getting them out.



Here you can see where the pinion gear hit the carrier gear hub causing the marks as noted. They are very slight and don't seem to have caused any damage outside of the superficial scars. I have a half-case coming in early next week and between the two I should be able to get a good rear end ready to install. The half case will have the pinion gear, shaft, bearing and seal already installed and should be a simple job to put back together again with new fluid and gasket. Once I get all that done, I might try and see if I can find a shop to press out the pinion and bearing for me. (Local shop couldn't press it out with a 20-ton press) I think I can then find a bearing and seal to rebuild the extra half case and have it as a spare or resell. There is not a lot of information available on the rear ends for the Z3's available and parts are almost impossible to find. That is probably why I couldn't find any shops locally to try and rebuild the one from the car. I couldn't even find a rebuilt or new differential available but did find a couple of used ones. Only problem is that the 96-98 Z3 used a combination of about 9 different rear ends and the majority of them are for Automatic transmission. I guess that even then manual transmissions were not in style. UPDATE: No luck in finding a shop to repair or even the parts needed. I ended up buying a used rear end and installing it. Wasn't too hard but applying torque to the top mounting bolts were a bitch. AND THE BEAT GOES ON.

Another MGB Brought Back from the Ashes

By Charlie Durning

Rob Adair, a friend of EMC has acquired a badly neglected 1974 MGB Roadster. Overall the car was in pretty good shape in spite of its neglected history.



So far Rob has replaced the floor boards, fixed some wiring issues, replaced the interior, and rebuilt the front suspension. He got the engine running pretty good after cleaning out the fuel system and adjusting the valves. Most recently he removed the Weber carb conversion and went back to a pair of Joe Curto rebuilt SU carbs. For final tuning, Rob enlisted the expert talents of Bro Clay. After getting the carbs balanced an ignition issue was identified. A quick dig through Charlie's "gold

mine” a replacement distributor found. Now the engine runs much better. Also it was identified that someone had installed the distributor drive spindle 180 degrees out. Since Rob has a new replacement distributor inbound, the drive



spindle will be reoriented when the distributor is replaced.
We hope to see Rob and his new to him MGB at an upcoming EMC event.



Happy Motoring From the EMC!