

## The Continuing Adventures Of...



October 2003: By Bruce Clough ([clough@erinet.com](mailto:clough@erinet.com))

### Drip, Drip, Drip, Drip!

Ever since we've had the TR8 there has been a puddle of oil underneath it, coming from somewhere on the bottom of the oil pan. One could see that it took a whammy at some time, and that there were epoxy repairs around the drain plug and in the middle of a broad dent in the bottom of the pan. Last year I put some extra epoxy around the drain plug area – that helped, but didn't stop it. Lately it's been getting a bit worse, so I knew it was time to fix it. Best bet – find another oil pan not looking like it was a recovered fragment of the Titanic. Call to Ted Schumacher (TSI Automotive – Wedge Guru):

“Ted, I need an oil pan for our 8. “

(Laughter from other end)

“Ted, ours is bashed in, do you have one?”

(Laughter from other end)

“Ted, what's so funny?”

“Bruce, those things are unobtainium, never around. When I get one it's gone instantly!”

Rats! Called Woody Cooper:

“Woody, I need an oil pan for our 8.”

“Yeah, I think I got one (rattling noises). Yep, here's one, and in good shape too, I probably wouldn't even pound out these dents.”

“Great – what'll that set me back?”

“\$”significant sum of money”. These things are rare, especially in this shape, really unobtainium.”

I instantly gave him my Visa number. I wasn't going to tempt fate by not obtaining unobtainium. It was relatively expensive, but it was also obtainable. It also came quickly. A quick inspection showed that it only had a couple of small dents in it, which I did bang out. A bit of acetone, steel wool, and fresh engine paint and it was looking good.

Taking the old oil pan out of the car was an adventure. The ROM (factory manual) shows a special bracket that hold the engine up while getting the pan out (engine has to be raised 2” to get the pan out). Yeah, right. I ended up lifting the engine on the timing chain cover. Time to swap oil pans came to less

than an hour! I must be slipping to do it that fast.

Inspection of the old pan showed epoxy was used to fix a hole and a leak. I'm trying to put myself in this person's shoes. This is an oil pan; it holds the oil so that the engine doesn't destroy itself. It got banged-up, so we're going to use epoxy to plug a hole on the bottom and fix a bad weld around the drain plug tube. Never mind taking it off and welding/brazing



the holes – we'll just plug it with goop in situ! Cheap and lazy...

#### Leak Source One – Bad Weld Around Drain Plug Pipe

Of course, that person might have been looking at what it takes to replace the oil pan. You can't just take it off like a TR2 pan – one has to get it out over the top of the steering rack. This means lifting the engine 2 inches. Of course, the factory manual shows a special tool for this – holds the engine up the 2”. Of course, I don't have one, nor the dimensions to



make one. As I said, I just put a wood block on the front of the engine and jacked it up.

#### Leak Source Two – Hole In Bottom Of Pan

Yanking the old pan off and installing the new pan was straight-forward with the engine raised. Five quarts of oil in the engine later showed no leaks – small victory!

The old pan is over in Performance Clinic being repaired. I never let unobtainium get away...

*Follow-Up. Pan is repaired. They had to weld about 3 inches of cracks and tears in the bottom of the pan and totally reattach the drain plug pipe, but it's good as new! \$65*

## To Vent, Or Not To Vent, That Is The Question?

Speaking of oil, in the TR8 we have a vent that goes under the car for the internal engine gasses, but not the little fresh air vent that was built into the left hand valve cover (got rid of it when the covers were repainted). The car seems to run fine without it, but I think I'd still like a source of fresh air for the engine venting (purging?).

In order not to mar the finish on the valve covers, I decided to insert the vent into the oil cap itself. Below shoes what the filler cap looks like on the car:



### Oil Fill Cap - Painted Black and matching the Valve Cover

I didn't want to mar that cap, so I procured another. I then cut a big notch in the cap, then drilled a hole and pressed the original valve cover vent into it, looking like this:



### “Original” Cap To The Left, Modified Cap To The Right (Tape is to protect hole from paint)

Yeah, it's not the most beautiful thing I've ever done, but since it's only going to be on the engine when I'm running it, who cares? Heck, I might end up buying the Rimmer Brothers chrome valve covers anyway (the Offy ones won't work with twin Strombergs due to breather location)

I put it together and painted it black so folks can see how primitive it looks.



### Oil Filler Cap With Vent

You will only see this on the car when it's running, and not in a show. For show, the original black one comes out!

## The Silence(r) Of The TR7's

I wanted to take the TR7 to the Springfield Car & Parts Swap Meet this last month, so on the day before the swap meet opened, I tried to start it up.

Rrrrrr, rrrr, rr...silence.

Rats. Battery weak, or corroded connections. Out came the battery. Battery needed charged, and the positive terminal needed cleaning. The positive terminal clamp needs replacing – job for another time... On my way back around the car to get the keys out of the ignition I looked down and noticed that the resonator had the chrome tips almost touching the ground.

“This is not good” I told myself.

Not good indeed. The inlet pipe to the Monza (Pacesetter) exhaust system resonator body had broken off right where it is welded to the resonator body. When I removed the rear resonator mounting rubber “donuts” the resonator came off in my hands.

“How much did I pay for this Monza (Pacesetter) system?

Too much” I quipped.

For those who don't know the Monza system, please refer to your Victoria British or Moss catalogs. It has a glass pack muffler in front and a dual-tipped resonator in the back. It is made in Mexico now, but the relative quality versus the older American made units are similar. I like them since they sport a “robust” sound and not the “tinny” noise of stainless units.

Once I got the old resonator and inlet pipe to the workbench it was obvious what happened. The resonator is held to the car by a couple of rubber donuts that connect to ears just above where the inlet pipe connects to the resonator body. The whole weight of the resonator is cantilevered rear of this point. During operation, the front plate of the resonator was not strong enough to support the weight dynamically, and flexed when the car went over bumps. This flexing lead to metal

fatigue, which lead to the break.

## Ready For Paint – One glass-pack



### One Ugly Muffler Problem! That pipe to the right is supposed to be welded to the resonator body.

So how to fix this? Just running a pipe to the rear was not an option (too loud for the rest of the family) Since I just got done putting glass-packs on the TR8, I decided that another glass-pack in the back would work (the Monza has a glass pack for a front muffler also) . Although the swap meet didn't have any TR parts, it did have glass-packs, one of which set me back \$15.

Another \$5 at Pep Boys bought the adaptors needed. The assembly of the rear section went fast (which was a good thing since I was doing it late Friday night). I added a mount on the rear of the muffler. This attaches to a bracket I added to the bumper attachment point – no high cantilevered weight this time.

After painting and another trial fit I decided that a tailpiece was needed. Rather than just a chrome extension, I took a cue from the TR8 and added one of those rice-rocket resonator tips to further muffle the sound. At \$19 it was the most expensive part of the system! Rather than using the clamps provide I attached it with self-tapping sheet metal screws.

Now for the guts check. I started it up, and wonders of all wonders, it was softer than before. Bridgett and Alice will be happy. I'm left with the TR8 as the only loud car we have left!



That's Phat, man!

## Tech Tips From The Internet

### A Cry For Help!

There is a warning in every late TR manual – do not pull on the clutch actuation rod because if you pull it off of the clip you will have to remove the transmission to fix it. So far, I've been lucky, but not John:

*In the process of installing a slave cylinder on my TR8 I dislocated the push rod which attaches to the clutch arm (fork). This attaches by a plastic clip. Is there any way I can reattach this thing without dropping the gearbox, which would be a PITA. All suggestions or ideas are welcome.*

*John*

The replies were fast an furious. Several folks had methods for replacement, very similar!

### Reply 1:

Carl McIver sent this: I got to thinking about this issue last night after I sent the note out and I have an idea, but it's just an idea, mind you. Necessity is the mother of invention.

Take a piece of pipe, such as copper pipe, that is large enough to sit evenly on the ends of the plastic clip over the end of the rod. Make it long enough to reach through the bellhousing, but not too long, and perhaps cut out the near end on one side for better control. Maybe a handle of some sort can be attached. Take a large rubber band and loop it around the near end of the rod in such a fashion that you can pull on the rubber band while manipulating the pipe which has the clip being pulled tight (via the rubber band) against the end. Push firmly on it until both ends return to their proper position, and then take a deep breath and sigh, knowing you didn't have to take the bellhousing off. Pull the pipe out, cut off the rubber band and put your car back together.

I guess it goes without saying that you have managed to fish the rod and clip out of the bellhousing with a piece of wire or magnet or something. If this is a bad idea, someone fill me in on why, but if it works or needs improvement, then I want to hear that too.

## Reply 2:

Yup, I can say with all confidence, you can; I just did the same thing yesterday. You will need the patience of a saint but it really depends how desperately you don't want to pull the gearbox! :-)

Here's the info: I have the car on ramps at the front and axle stands at the rear to ease access (I am in the process of the V8 conversion). I used a piece of steel tube 7/8" OD, 3/4" ID but you could use slightly smaller; slide it over the rod and you'll get the idea. I cut the tube 5 1/2" long. Push the tube over the rod, down onto the clip. Push down onto a bench and insert a piece of tapered wood into the end to hold everything together. I used the handle of paintbrush. That's the easy bit: now you have to put the rod into position and give the end of the tube a sharp tap with a hammer. I used small torches to light up the fork, and a mirror to position the rod/tube ( I also have the flywheel cover plate removed but I don't know if that helps). Three pairs of hands would help. On my own, the worst bit was putting the mirror down to pick up the hammer without moving the rod. After a few attempts I got one side of the clip on but then it was easy to slide the tube back and finish the job. I hope I have explained that OK.

Pete Whitehorn, Leicestershire, England, '79 TR7 V8 FHC

## Reply 3:

Finally, Scott Walker: You gentlemen are on the right track. Slip the clip in the rod, slip the tube over the rod against the clip to hold the clip firmly, then put a pair of vise-grips on the other end of the rod against the tube. Now you can start trying to fish the clip back into the arm.

Scott Walker

## Front Bearing Replacement

*One of my front wheel bearings is making quite a racket. On the way home from TRF/VTR it made me think I would not make it home. I did buy the one available bearing kit from TRF so I might be able to do a roadside repair if I was forced to do so. Now I have the time to do it. I have the ROM and the Haynes, and it \_sounds\_ as if it is pretty easy.*

*A couple of questions:*

*1) the manual says to remove the races, but classically what is described as a simple removal operation is actually something that requires a multi-ton press. What special techniques/tools are required to remove each race?*

*2) Grease: Is a certain grease optimal? The manual says to put a quantity of grease inside the hub, but not to fill it. How much? I have seen these plastic conical bearing packers for sale. Is something like this necessary?*

*3) Reassembly: Do I just reassemble the rollers onto the inner races, hold them in place with the grease, and then push the hub back in place?*

*As you can tell I have never done this before. I casually saw it done once and it looked very simple, but it was a TR4 and I was not paying a lot of attention.*

*-Tom*

Mark Elbers writes: (Question 1) I recently used an old flat head screw driver for a drift and a suitable hammer as the motivator. (note the screw driver is a mess after this, so don't use your good set. The idea is to punch the race out by moving the drift around the edge of the race. I usually try for opposite sides, but on stubborn ones it my take more like a 3rd or 4th of a circumference to get things moving. Be careful not to mangle the machined surface inside the hub, if you do, you need to dress the wounds with a file in order to get the new race in. On that topic. I used the old race, place backwards on the new one, as a drift to push the new one in, again hitting it with a hammer that is a comfortable weight to handle. The old race takes the hammer blows thus protecting the new part from damage. It goes without saying that cleanliness is a good idea. Wash the hub out with solvent and let it air dry over lunch before putting the new races in...you never know what bits of the old bearing are still lurking in the old grease. If reusing old bearings clean them also and inspect for wear before repacking them, don't reuse old seals if you can help it...false economy there

(Question 2) Any high pressure wheel bearing grease should do, just pick your favorite brand. Pack the bearing and then add a little extra around the seal, don't fill the hub, it doesn't do anything but promote grease leaks...I also just wet the seal lip with grease to help installation and haven't had any problems, others say use the seal dry...not sure what the manual says, your choice.

(Question 3) The inner bearing and seal must be in place on the hub, I usually also install the outer bearing just to protect the race from the axle threads as I slide the hub onto the axle. The outer bearing usually pops out a bit, but it is easy to keep it from falling on the floor by using your thumbs to keep it in place. add washer and nut, torque and your done.

**Tease For Next Month**



What Is This???

**Wedges Rule**  
**BRUCE**