Austin Ten Story – July 2010
by Ron Gush

Someone suggested that we stop in Sedgefield and look at an MG Magnette on offer there. We were on our way back from Cape Town, so what the heck. The MG was there but the car that really took our fancy was the little 1934 Austin Ten. Had a good look underneath and under the bonnet and all the bits and pieces seemed to be there. The salesman said it was in running order (Ha! Ha!) but it had been standing for a while. A week of doing some home work and we were back. They started it, sort of, and after a bit of haggling we bought it. They put it on a car carrier to PE and I hired a trailer to fetch it home to Kenton. I found out early that this car turns heads! We stopped in Alexandria near the Co-op to check the down ties and one farmer was heard calling to his mate, "Boet, kyk daarie mooi ou karretjie!" Off loading it in the street at home almost caused a traffic jam – at least one car stopped to admire the Austin and chat about it.

I'd been looking for something to play with for a while and this looked marvellous. As my first restoration, it was with some trepidation that I approached the task.

One of our first visitors told Pam that this car would now be my mistress. Indeed I have spent many hours rolling around under her, sometimes working up a sweat and always ensuring that she was well lubricated! If you press the right buttons the old girl will give you a good ride!

That was 18 months ago. The car looked very nice and was sold with RWC, and being an honest sort of fellow I didn't ask too many questions. But it was definitely not drivable.
In order to get it going, I have:

- Cleaned about a cupful of crud out of the petrol tank and fuel system. Mixed and matched parts from 3 different carburettors supplied with the car.
- A broken half shaft had to be repaired. Don Fryer did most of the engineering work for me.

This shaft was later found cracked at the weld, during an oil leak repair (how lucky can you get?!) and replaced with a used unit bought in the UK.

- The prop shaft had worn universals. These are not standard needle roller joints and had to be rebuilt and machined.
- When the gear oil was drained, 2 teeth fell out. These were repaired by welding and machining. The repairs did not last and later the gearbox was replaced with a used unit bought from the late Graham Hayward's mom in East London.
- The bell housing was cracked and had to be welded.
- The ring gear, originally part of the flywheel, had to be machined off and a new one made.
- The cylinder head was skimmed and welsh plugs replaced.
- New cylinder head bolts were fitted.
- The camshaft timing was found to be out by 2 teeth. That is about 35 degrees! Remarkably the car ran like that and even drove around the block, but only just!
- Rewired the entire electrical system.
- Overhauled the starter and generator. The generator deserves some mention here: The armature shaft is eccentric to the body and only one field coil is installed. The fan belt is tensioned by rotating the generator in it's cradle. The generator is not ventilated and output must be limited to 15 amps max to avoid over heating.
- Studied and figured out the workings of the regulator, rebuilt the circuit breaker, using the hard contacts from a 220V household plug, and adjusted the output.
- Cleaned out the distributor. I was unable to find the right contact breaker points but Coastal Spares sold me a set to fit a Renault which I was able to modify by soldering the fixed contact hard face onto a ground down 3mm screw.
- The clock mechanism had most of it's innards missing so I replaced it with a quartz

mechanism. I hear an agonised Aaaargh! But it keeps excellent time and never needs winding.

- Re-metalled the main and big end bearings. Not easy to find anyone who can do that these days. In fact it was difficult to find anyone who had the foggiest idea of what I was talking about. HiWay Motors in EL did a very nice job of white metalling and boring the bearings to fit the reground crankshaft and big ends.
- Relined the clutch and brakes and overhauled the mechanisms.
- The aluminium water spigot (cooled water entry to the block) was rotten and Roger Darkes made a pattern and cast a replacement.
- Chromed the bumpers and head light reflectors. I have since found out that chrome is not the correct reflective material for head lights as it only reflects 55% of light striking it. Silver is best and aluminium is a close second. Modern headlights are aluminium coated.
- The little gears that drive the speedo cable had to be re-manufactured.
- Not to mention sundry door locks, window winders and windscreen wiper motor, steering gear, tie rods and king pins etc etc that all needed attention.

The first drive around the block was a highlight. But there was much tuning and fiddling required to get it running nicely.

But the real highlight was getting the speedo to work properly. It had been suggested that I take it to a chap in Joburg who would restore it to pristine original condition, even repainting the face and Smiths logo. But he would take a year to do it and charge over R5000. No thanks! So I took it to Sun Instruments in Benoni as they had done good work for me before at a respectable price. But they hit a blank and could not source a little needle roller bearing for the main spindle. I phoned "R5000" and he told me that it was a very difficult bearing to replace. But he would not divulge his source of supply. Sun Instruments tried various suppliers including a clock maker in Scotland. Eventually they gave up and returned the speedo to me. Finally I plucked up courage, spread a sheet of white paper on my workbench, fished out my smallest screw drivers and switched on all of the lights. The speedo turned out to be a simple but beautifully made instrument. The principle of operation is centrifugal - much like the governor in old stationary engines. The main spindle runs in a cone at the top end and a tiny tapered needle roller at the base, nearest to the speedo cable. This bearing was missing. What now? After a few days of thinking as thoughtfully as I could think, I reasoned that in 1934 they did not have CV joints. So they did not have high performance grease like molybdenum di-sulphide. So they used fiddly needle roller bearings where a good old bush would do just fine. Worth a shot, I thought. So I spent an afternoon measuring, sketching and checking and finally drawing to scale what I wanted: A bush, 19.1mm OD, 6mm thick and with a 30 degree (to parallel) conical bored hole. Don Fryer machined it in brass for R102. Washed out the crud of decades, reassembled the speedo with the new bush and adjusted the end play with the adjusting screw in the top cone. Tested it by spinning with a hand drill. It was smooth. Installed it in the car, with GPS on the windscreen and off we went for a drive. It worked perfectly, although it read 10mph slower than the GPS. Calibration was a simple matter of relocating the needle to the right place and bending the stop pin to indicate 5mph at rest. Bingo! Three years and 7500km later (Nov 2013) and the speedo is still working perfectly.

No doubt the restoration will never be complete and I look forward to many years of fun in the garage and on the road.

Proud new owner at Sedgefield

First drive out of town, at Salem