MG Midget Restoration

By Stan Carter

Hello I am Stan, I am a 20 year old aircraft engineer from Bedfordshire, I have passion for taking things that other people claim “Are beyond saving” and breathing new life into them. From a very young age I've always had a big interest in anything mechanical, anything that moved would meet the fate of the screwdriver. I was always fascinated by how things worked and I developed a love for returning things that were 'broken', back to life.

In my family there was a big interest in steam engines so as I got older I would get involved in the renovation and restoration of these vehicles. But once I learned to drive my interest turned to cars and from the moment I set foot in the driver's seat I knew I had to have a classic car. And so the search was on, one way or another I had set my heart on a Triumph Spitfire, however I struggled to find one within my price range. I then received a message from a good friend of mine who knew of an 1977 MG Midget 1500 for sale. At that time, never having heard of a Midget before, I was reluctant but I decided to have a look at it and see what it was like.

Upon arrival, there it was, under a tarp on a driveway in Northampton. The moment I saw it I knew it was the one. However, having sat outside under a tarp for a few years the moisture had started to take its toll. The rust was visibly coming through the paint on the offside sill, the gearbox tunnel was cut open like a tin can, and the bodywork had been painted with many different colours to keep the rust at bay. But with the price being so good I took the gamble and before I knew it, the Midget was on a loader on its way home.

With no warm garage to work in I decided to undertake the project on the driveway. The first thing I wanted to do was to see if it ran, and with a new fuel pump and a change of spark plugs we tried to start it. After a few attempts and some lumpy runs it fired into life.

It all got off to a positive start, but as I started to look into the car a bit more the scale of the project started to hit. Speaking to the previous owner I was told that the car had, at some point, been destined to be banger raced and the car had received a few modifications. The most obvious of these was the removal of the rubber bumpers. It had also seen the beginnings of an engine swap to accept Mazda MX5 running gear. On inspection I discovered that the heater tray had been completely removed, the gearbox mount cross member had been cut, and the gearbox tunnel enlarged. There was also a large section missing from the nearside footwell and sections missing from the chassis rails. These were to be the least of my problems as the extent of corrosion became clear. The floor had rotted where it joined the sill and later I discovered the inner sill had rotted on the nearside. This was only the start.

With limited tooling and little experience I decided the welding would need to be done elsewhere, by someone who knew what they were doing. Luckily one of my close friends is a welder and was willing to help carry out the work, so the next task was to prepare the shell for welding and strip it bare. The interior was removed and put into dry storage, unfortunately the original carpets were beyond saving. Any panel that could be removed was removed and stored. Finally I removed the engine and gearbox. Whilst the body shell was being welded I took the opportunity to start cleaning up all the parts I had removed. Starting with the gearbox I drained the oil and removed the inspection cover to check the internal components. I was pleasantly surprised to find that there was very little wear on the internal components. Since the engine ran i decided i would leave it alone and clean it up.

With the welding in progress I began to get a list of the replacement panels needed. Since the nearside sill was being replaced I managed to get a complete new central cross member to replace the original one that had been chopped. This could then be pushed into place when the old one and the sill had been removed. The gearbox tunnel was welded back up and the chassis rails were repaired in the engine bay. The rear axle was then removed from the bodyshell and cleaned up. I managed to save the original springs and shocks. The rear axle was cleaned up and painted to protect it from the rust. Whilst the axle was removed I rebuilt the rear drum brakes and renewed all brake lines.

When it came down to paintwork I really wanted to have a go at it myself. I started out with a cheap spraygun on an old garden table and started with the front wings. I took them back to bare metal and used a thin coat of filler to take up any imperfections on the panels. The first few attempts were awful and I was plagued by runs and orange peel. At one point it came out perfect but I managed to drop it face down on the grass, with a new spraygun (and a gazebo!) in the garden I eventually was happy with my paint finish. As I went through spraying the panels I slowly got more confident. By this point I had adopted the bumper less look and as I found out more about the midgets and sprites I started looking at some of the bumperless championship cars. I took this as inspiration for the stripes and roundels on the doors.

On the return of the bodyshell I stripped off the entire front suspension and decided to turn the bodyshell upside down. I scrapped off all the old underseal and removed any remaining underseal with solvent. I took the opportunity to give the underside a few coats of paint and applied underseal to the wheel arches before turning the bodyshell back upright.

With all the body panels ready to fit to the car, all that was left to do was repaint the bodywork and engine bay ready to put it back together. Using the gazebo on the driveway I sanded down and resprayed the bodyshell and engine bay. By this point I was pleased with the paintwork and was ready to put the car pack together. Avoiding the temptation of fitting the engine straight away I first fitted the renovated engine bay and front suspension components, including new brake discs and calipers. The refitting of the front springs was troublesome requiring some inventive thinking as spring compressors did not fit the springs. With the front end complete I then installed the rear axle and propshaft with new bushes, I then had a rolling shell. Before fitting the engine I replaced the clutch assembly including the housing and release bearing. With that complete I installed the engine into the bodyshell.

Whilst the carburettors were off I stripped them down and cleaned the individual components and the manifold. I decided to invest in a Maniflow exhaust system which was a surprisingly easy fit using existing mounting points. With the engine in, connected up and new coolant pipes all round it was then time to attempt to start the car. Once I managed to get the fuel to pull from the tank it roared into life. After testing the clutch it worked and the car moved up and down the driveway. With that I fitted the remaining bodywork and connected up all the lights and switches. With everything working I applied the final touches to the bodywork by finishing off painting the stripes.

With the car complete and ready for road testing I went for the first drive. I immediately noticed it was pulling to the side under acceleration which turned out to be because the U bolts had settled and were moving under load. With this sorted and wheel alignment set the car settled in very well and has got better and better every time it was driven. I fitted new carpets and panels to the interior and cleaned up the original seats.

6 months down the line I had ironed out the majority of the 'Teething' problems i did however in that time develop one major issue, the old engine had began to become a bit thirsty on oil and the bottom crankshaft pulley had worn becoming loose and noisy. Having found an old 1500 engine on ebay, i decided to build a new one! Having received some advice on some beneficial modifications i began the build. First the block was cleaned up and painted, i flushed all oil passages through and descaled the cooling voids. I removed the old core plugs and replaced with new ones. The Crankshaft assembly and pistons together with the clutch were sent away for balancing to remove some of the 1500s lumpy nature. I decided to change the camshaft for the Canley 1300 grind cam this was to smooth the power range of the original engine. The cylinder head was removed from the old engine I reground the valves and polished the ports before fitting it to the block. With the new engine assembled i refitted it into the car and found it to be a fantastic improvement.

Having completed the work 5 months ago this car has been well used and has been to various shows throughout the summer where possible.