

Restoring MG YB 438LRM

Continued...

The June issue of *Safety Fast!* had the first part of this story of the resurrection of a 1952 MG YB sports saloon as carried out by Brown and Gammons of Baldock in Hertfordshire. I had presented them with what at first sight appeared to be a very tidy, but well used, little MG to be repainted in January 2009. The car was returned in early June resplendent in its new paintwork. This is the story of what happened between those dates. B&G took six months to do what would have taken me six years at least. It was not to be a simple respray, but a carefully prepared and repaired job. To do this the YB's body had to be stripped down to the last nut and bolt. Note, only the body, no chassis or engine work was required.

The June issue of *SF!* had the chatty bit about the respray of '438LRM', this is the technical bit for the anoraks. This pair of articles would make a good read for anyone contemplating buying a Y Type, as many of the common old-age as well as well-hidden problems are highlighted. As mentioned before, the sills look very good to the layman's eye but they had corroded away on the insides until they were very, very thin. As the 'Y' has a separate chassis these sills are not deemed structural in the MOT sense, but they do support the floor and hold the doors apart. The fitter who removed the running boards was surprised to find nearly all the bolts holding them to the sills came undone easily. So all the old sills were cut out and complete new sills welded in. The body was left bolted to the chassis as this gave excellent support to the shell during some drastic surgery and maintained vital datum points.

It is vital that the 'A, B & C' posts are accurately fixed. For the uninitiated the 'A' post is the front one that runs up into the windscreen pillar; the 'B' post is the centre one the doors are hinged onto; the 'C' post is the rear one. Doors were re-hung to double-check door gaps and fitting, and then removed again for the painting. Had the body been removed from its chassis a jig would have had to be fabricated to hold things in their correct locations. The doors themselves required partial re-skinning, as mentioned in the June issue. Whereas back in 1983 the correct door

skin profile had been gained by the use of plastic filler, B&G used sheet steel and lead loading. The sunroof aperture in the roof had developed cracks in the offside-rear corner, probably caused by minute flexing of the body shell over its 56-year life. These were welded up and ground flush.

In 1983, Mr Bliss (the first owner, I am the second) had the car repainted by 'Red Gable Thursby Garage' in Dalson, near Carlisle. Back in 1966 his wife had crashed the car, denting the nearside front wing and it had then been relegated to a dry barn on his farm. He had purchased a brand-new MGB and had transferred the YB's registration to his new MGB, getting

the tax office in Keswick to allocate the 'new' number to my YB. The boot area had obviously been repaired during the car's 1983 respray as once the paint was removed the new panels could be clearly seen. The back end of this model suffers very badly from corrosion if untreated, caused by the liberal salting of our frozen roads back in the 1950-'60s when it got cold in winter and we had real snow. The garage who did the repair work in 1983 used a 'YA' spare wheel compartment panel and lid as they are currently of the YA's narrower dimensions. The YB's is one inch deeper and my cross-ply wheel only just fits; a radial ply would not. The



Previous dodgy C Post repairs unearthed.



Properly repaired C Post.

YA and YT have 16" narrow-tyred wheels, the YB has wider 15". On the visible areas the panels were found to be spot-welded but only pop-riveted inside the rear wheel arch. This was corrected by B&G whose spot-welding gun had never worked so hard for ages.

There is a lot more bodywork on a saloon car compared to a T Type. The boot lid has already been mentioned in that it had deep dimples where the hinges were bolted on. This was caused by the bottom of the lid getting a partial new skin back in 1983 that sat about an eighth of an inch above the spacer tubes inside the lid. Again the correct profile was then gained by the use of filler. B&G removed the skin and extended the tubes a little so the skin then sat tight onto them. The result is a beautifully smoothly curved, filler-free, boot lid skin; the envy of many! But the boot hinge studs had to be lengthened otherwise the nuts could not be screwed on. I had supplied a pair of reasonably good second-hand running boards from a black 'Y' to replace my car's very tatty originals. Out of interest B&G subjected the old ones to a chemical paint removal that took off the filler and fibreglass 'repairs' as well to see just how much metal was left. All that was left looked like lacework. The good s/h running boards required splitting and re-welding together as they had previously been repaired by brazing (brass-welding) bits on where they bolted to the sill. Once the body had been stripped right down to

its shell and all wings removed, it was then that I was summoned to be shown that more work was required than had originally been anticipated. The original 'quote' was then increased somewhat. Everyone who has ever undertaken any restoration work on an old car will understand the 'iceberg principle'; you only see half of it at first and it will cost a lot more than you originally thought. Hands up everyone who has been there!

The door skins were worse than at first thought so their new skinning was extra, the sills have already been mentioned, but an area that surprised me was the offside forward-inner rear wheel arch area; the lower end of the 'C' post. It was very corroded and had been patched by pop-riveting with lots of bits of metal tack-welded in place and given a thick coating of underseal. The rear offside door had often creaked and rattled in its latch on rough roads. Now it was obvious why, the shell was very weak here and required urgent surgery. In the event the whole inner wheel arch area and the lower 'C' post were rebuilt onto the new, stronger sill. The bottom of the 'C' post is also one of the eight body-to-chassis mounting points where it joins the rear seat heel-board. The photos show the rotted out area. The nearside rear 'C' post was nowhere near as bad, but it had obviously been dented in the 1966 accident so required new metal and leading.

The area that had caused me the most

concern was the offside windscreen pillar, the top of the 'A' post. I had watched this area disintegrate over the years every time I washed and polished the car. The roof drainage channel is spot welded to the outside of the roof and pillar and was lifting. Inside this area there are three layers of metal overlapping and spot welded together. If corrosion gets between these layers it expands and forces out the drainage channel. At any Y Type meeting you will see at least one car suffering this problem. To add to the complication the sun-roof rain tube runs down inside it. If this tube leaks then water gets into the pillar and between the layers of metal. The little Morris Eight Series 'E' and Wolseley 10/40 suffer the same problem as the three models share the same basic body shell. All corrosion was cut out and new metal welded in and it was not an easy job. The body shell of the Y Type is taken from the little Morris Eight 'Series E', which is a monocoque car, i.e. no chassis. This means the body shell of the Y is very strong indeed considering it is mounted atop a massive box-section chassis. But this brings its own problems when repairs are required as areas have extra strengthening built in. The 'A' posts are an example of this; they are not just a simple single-thickness cross-section.

The wings were in excellent condition and once all the paint was removed only required minor repairs. Earlier nicely 'let-in' welded in sections could be seen obviously



Sill corrosion hidden under the running boards.



The rear panels that were fitted in 1983.

done back in 1983. The front wings are very voluminous with large rounded areas and are held to the car at their lower inner edge as well as supported by a chromed cross tube that runs in front of the radiator upon which the headlamps are mounted, and on my car two Windtone Lucas high and low horns. To make life difficult the tube runs behind the radiator grill through its sides and is fixed to the wings by two 'Mazak' pressure-die-castings. These were once chromed but the years since 1952 had seen them suffer the usual Zinc-Alloy corrosion where the surface disintegrates and becomes pock-marked. The American trade name 'MAZAK' stands for an alloy made from 'Magnesium, Aluminium, Zinc And Kopper' (misspelling of Copper) and a tiny bit of lead or cadmium impurity in it means it will disintegrate after a number of years; both are present in the zinc ore. (In the USA it is called 'ZAMAK'.) Luckily NTG of Ipswich re-manufactures these brackets and a nice, shiny, new pair adorned the front end when I collected the completed car. My engineering training was as an apprentice toolmaker in a toolroom of a pressure die-casting firm. They used Mazak for many of their automotive trim castings. It is an excellent casting material and easily machined and chromed but with only about a five-year life before its surface breaks up.

The reason that the running gear and chassis required no work was because I have maintained them well over the 15 years I have owned the car. Much of the suspension had been renewed in 1983 with new king pins, wheel bearings, etc.

so all I have had to do is regularly service everything. The only chassis repairs I have had to carry out have been to the rear spring shackle-hangers at the very back of the car. They are mounted on the ends of chassis rear-cross-tubes and the curved thick steel plates are in the water-wash line of the rear tyres, ideally placed for all that 1950s to 1980s road salt in winter.

In 1996, I carefully welded in new metal to the then very thin hangers. On the TD/TF sports cars they face the other way up and do not appear to collect road dirt as badly as the Y Type. In case you are unaware the MG TD and TF used the chassis of the 'YA' with seven inches cut out of the centre bit and then the rear bit turned upside down. The Y's rear chassis goes UNDER the rear axle (underslung), the TD and TF's over the rear axle (overslung). The 'Y' has wooden floors

mounted on top of the chassis and fixed to the sills one side and the transmission tunnel at the centre. Would you believe the wood is still the original? In a car like a 'Y' you sit ON the chassis BETWEEN the body sides, unlike a modern car where you sit inside the body between the sills. When I purchased the car it had lap-type front seat belts screwed to the wooden floor with ordinary wood screws....

In 2004, I rewired the car using modern plastic covered wiring. An immediate benefit of this was the semaphore trafficators became far more active. I no longer needed to thump the 'B' door-posts to get them out because they had 'stuck'. I also found some awful 'sticky nests' of black insulating tape over some very dodgy wire connections. Removing these and using correct connectors had obviously improved the electric feed to the indicators. I did not buy a new loom but replaced each wire individually; not something I will ever do again as it took ages and ages to do. It did only cost a fraction of a new loom though. I have now also fitted flashing indicators wired so the semaphores still work as well as an eye-level rear LED brake light in the rear window.

The original paint was of course cellulose and it had survived 26 years of our weather and road dirt. I had tee-cut it a few times to keep its shine but it did seem to chip easily on the large frontal area of the front wings. If inspected closely, the wings had a large number of touch-up spots of BRG on them where I had filled in the deep stone chipped holes in the paint over the years. If I used a polish that dried to a white dust, all of them showed up clearly



The sunroof cracks.

so I had been using that coloured polish to camouflage them. It is now difficult to find any coloured polish. The paint used by B&G on my YB is a modern two-pack that I am told is very tough indeed and will survive the stone efforts to chip it. It also has a very deep shine to it. The primer was a PPG wash/etch primer of three coats, air drying time three hours or it can be low-baked for 75 minutes. The DeBeers 2K 'high-build' primer of five coats was used which is air drying for eight hours or low-baked for three hours. The top coat was Clasurit 68, line 26 high solid of four coats, low bake time of 12 hours or 48 hours air drying.

Once the car was completed, as all those who have restored a car will know, bits of chrome-work looked rather sad against the shiny new paint. So the car gained a new front bumper and new overriders. The dash wood was rubbed clean of its ancient cracked varnish and given some coats of Yacht Varnish. It needs more yet to get that deep shine. The poor car has been dragged into the mid-20th century as it now sports flashing indicators using quite well-hidden flashers (from Halfords). I have kept the semaphore trafficators working as well which required the use of two flasher units (or the semaphores also

go up and down with the flashers!). In-car entertainment was limited to watching the oil pressure gauge and worrying, so now it has a CD player. The CD player is modern so is negative earth, the car being positive earth. As all the solid-state electronic ignition and SU fuel pump are positive earth, the CD player has had to be fully insulated as its 'earth' is the car's 'live'. I cannot use its radio function as any aerial will short out the 'live-earth'. As the CD player had an 'ignition ancillaries' power feed as well as its main feed, I had to have a separate switch to be able to switch it on and off and use it with the ignition switched 'off'. Modern cars have three positions for power, but the Y Type has only 'on' and 'off'. New headlamp reflectors were obtained from MiniSport as the BMC Mini uses the same 7" round type. I had to obtain two 35/35watt QH headlamp bulbs as the ancient YB's dynamo could not supply sufficient power for the 65/65watt QH bulbs that came with the kit. Just one bulb used more power than the correct two. The fittings for the connectors to the bulbs were also modern three-prong types. I found two plugs for them for £1 at my local scrap-yard but I wired them incorrectly, ending up with one headlamp on full beam the other on

dip. A correction caused a full main beam and a half-powered dipped beam. I had inadvertently connected it all up so on dip the current had to pass through both dip filaments. Electricians are designed to cause you grief. The new reflectors improved the headlamp's beam no end.

In use, and after some months, a front wing developed a crack and the cause was traced to the wing flexing. As built, the 'Y' Type has wing stays under its rear wings, but for some reason none are fitted at the front. B&G fitted two wing stays up under the front wings and this has cured the flexing. I have since had surreptitious looks under other Ys and noted some did indeed have this later modification fitted. I am now looking at improving the interior but a quote to do the leather on the seats and door trims was currently well out of financial range. After the respray new carpets and door edge trimming were fitted, along with a posh new boot carpet and this has shown up the 'well-used' look of the seats and door trim. So currently I am talking to NTG about their Y Type interior kits. Externally the car certainly looks superb! Alf was the fitter who took 438LRM to bits and put it together again.

Photos by Tony Hotchkiss of B&G.



Alf poses by his handywork.