

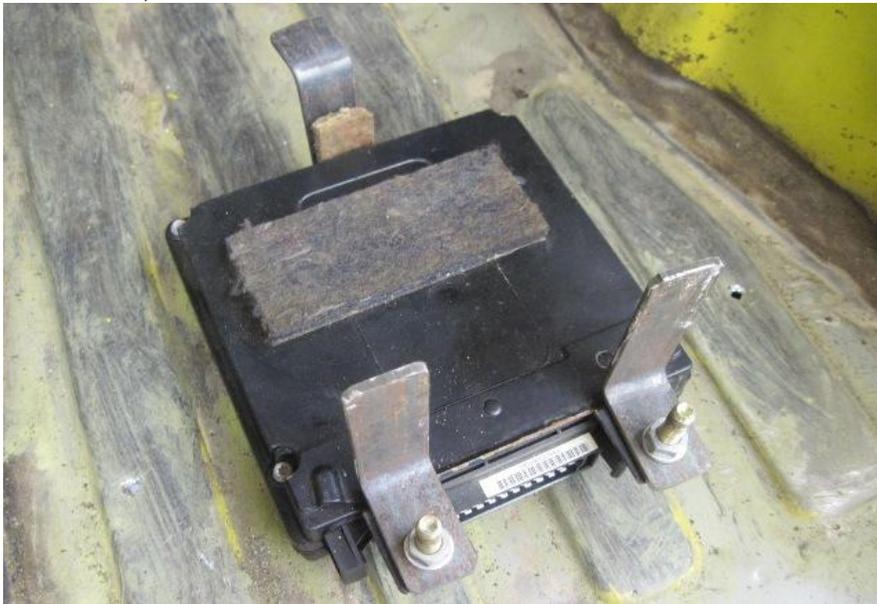
MGB V8 Roadster restoration project – Report 23

Thursday 2nd April 2015

No washing line discussions last night at the Saga Louts noggin and natter. Angus had bought an ultrasonic cleaner to help with the cleaning of the carburettor on his lawn mower. It said in the instructions that it would help sharpen razors. The talk turned into how it could sharpen a razor blade and then shaving in general. Seeing that I have had a beard for as long as I can remember, I was rather out of the conversation. John is coming to motivate and help me on Friday so we should have some good progress this week.

Ordered a "spit" for rotating the bodyshell yesterday from ebay. It comes in kit form to weld up yourself. It was only £205 delivered. I may have to make the brackets up for the MGB bodyshell. If it is any good I will write the details in my reports.

All I managed to get done on the car today was make a decision as to where the RV8 ECU was going to be mounted. The best place seemed to be on underside of the horizontal part of the bulkhead above where the passenger's feet go. I needed some space above the ECU for the wiring loom to pass through to the fuse and relay boxes. I allowed about 40mm for this. I measured the size of the brackets needed and made a drawing of them in my note book. I started marking them out on a sheet of 16G steel sheet and then noticed some 1" x 1/8" flat bar. Being lazy, I thought "that will do". Being even lazier I tried bending the first bracket in the vice cold. Then I thought better of it, marked where I wanted to bend it with a chalk line and heated the bar to cherry red with my oxy/acetylene torch, it then bent easily to the required angle. **Note:** It is always best to drill holes in the bracket you are making before you bend sheet or bar. Also if you are heating up bar to bend it, a chalk line can be seen even when the metal is red hot.



ECU mounting brackets ready to weld to the bulkhead.

I bolted the brackets to the front of the ECU so that I could mark where the brackets were going to weld onto the body. The rear bracket will weld onto the body, although the ECU will just rest on the bracket to support the back of the ECU. Next job was to clean up the metal where the brackets were going to fit. No problem with the front two. The back one had tar type sound deadening pad in the way! I tried lightly chiselling it of – no joy. I would have to get the twisted wire brush on the angle grinder out. Blast – it was down in the other workshop. Oh, knickers! That's enough for today.

Good Friday 3rd April 2015

John turned up just after 9am so I could get on with some jobs that needed two of us. We decided to finish getting the engine bolted in and the engine mountings made. I took the old plates that bolt to the engine, off, whilst John cut down the other engine mounting to match the other mounting I had modified a week or so ago. I blast cleaned the plates where they were to be welded and then we moved the engine for the umpteenth time into the position we finally wanted it. We then discussed how to make the brackets to fit between the plate on the engine and the rubber mounting.



It was then time for lunch. John went back to the pub, he lives there, honest. I was left to manufacture the brackets ready for tomorrow.

Saturday 4th April

Yesterday afternoon I started making the engine mounting brackets straight from a piece of angle iron. I measured the size of angle I needed, cut it out. Drilled the holes, held it up, and tried to fit it; cut bit off here cut a bit off there. Realised I had cut a bit too much off with a couple of cuts. "Stupid boy Pike! Or should it be "Stupid boy Mike". Gave up and went inside to add a bit more to this report, looked at the clock on the computer and saw I had lost half an hour's valuable drinking time and went down the pub.

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This morning I was having my first cuppa and thinking through the work to do on the MG today and suddenly realised I had broken my own rule **MAKE A PAPER PATTERN FIRST**. Feeling happier about it I did what I normally do, first thing in the morning, looking at my emails and any eBay searches that had come through overnight. There was an email from FROSTS which I thought was extremely useful for car restorers regarding bodywork and I thought it would help MGB owners if I repeated it hear.



Martin Thaddeus takes you through all the kit you will need to buy, borrow or make yourself to take on panel-work.

To some extent, exactly what we, as classic-car restorers, can hope to tackle is governed by the tools and facilities at our disposal. Ingenuity can go a long way with bodywork tasks, and it can often be the case that if a tool does the job without breaking, then it's the correct tool for the job. That said there are a few basic items which are important to have to hand. Some tools will have to be bought; others can be obtained from metal fabricators, and the rest fabricated as the need arises. The workplace needs to be well thought out, taking into account noise and hazardous materials, both of which can affect relationships with those living close-by, and also may have an effect on insurance cover. Knowing which tools to buy can be confusing. There's a lot of equipment available and it won't all be needed at once. As a rule of thumb, if it looks useful it probably will be. Making tools has a long tradition within the motor trade. And there can be great satisfaction in working with a crowbar or slappers that you have shaped yourself, not least because this can save large amounts of money.

Where to work is governed by individual circumstances, but if you hamper yourself with a cramped, poorly-lit and damp area, which has no electricity or running water, tasks will be harder to undertake and often won't get finished.



1 BUMPING/PANEL-BEATING HAMMERS

A variety are available. **Flat faced for crowned panels, crowned-faced for flat panels.** These shapes limit the surface contact and can come with round or square faces, heavy or light weights. Also, **cross pein** and **pick ends** are useful. My hammers are all crowned, which works for me.



2 CROSS-PEIN HAMMER

The **cross-pein** allows for a concentrated blow with linear impact. This is used for many jobs, in particular when dressing door skins at critical points such as swage lines. A crowned heavy round-faced bumping hammer with cross-pein end is possibly the most useful tool you will buy.



3 PICK-HAMMER

For an expert, the **pick-hammer** is the most effective tool, but for the uninitiated it is a nightmare. This hammer can be used to pick up a dent from inside, using light, careful blows. The dimples are then planished away.

SHRINKING HAMMERS

There are many wonder hammers on the market, but some are of only limited use. The spiral-faced hammer here is quite good. It is effective when removing scrapes on doors. Use in conjunction with a **flat dolly**.

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4 **SHRINKING HAMMERS**

I have never tried one of these hammers. All the shrinking hammers I have used in the past have been fairly useless. At Jaymic we used to use heat and “Cold Front” for shrinking. Cold Front keeps the area around the heated area cold while you heat the area you want to shrink. At that time the only shrinking hammers available were hammers and dollies with “saw” cuts across them. If the metal was heated the old type of shrinking hammer would work. Perhaps I should buy one of these new types. Mike



5 **DOLLIES**

These provide the counter to a hammer, or can be used to dress directly. Striking on the dolly will raise the metal by stretching, while striking off will cause it to lift. Dollies come in many forms and you can never have too many.



6 **SPOONS**

A spoon can be used to pry, drift and slap, or as a dolly. Generally cast in metal and chrome-plated, these are very handy tools to have around. The universal spoon also has a hooked end. When using as a drift, the spoon is struck with a mallet or club hammer.



7 **HEAVY ROUGHING HAMMERS**

Club hammers, engineer's hammers and heavy mallets. Roughing out is the term given to the stage in a repair before the final shaping and planishing. A range of hide copper and rubber mallets is a good idea, along with at least a couple of heavy steel hammers.

I tend to use my copper hide mallets a lot. I have one medium size and one very heavy one. Mike
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8 **DEAD-BLOW Mallet**

This clever polyurethane hammer deserves a mention. Unlike conventional rubber hammers this has a hollow cavity filled with shot. In use, as the mallet strikes, its natural tendency to bounce is countered by the shot, which instead reinforces the blow. Great for bodywork. Also extremely good for mechanical work like knocking in wheel bearings. Mike



9 **SLAPPERS/SPRING-HAMMER**

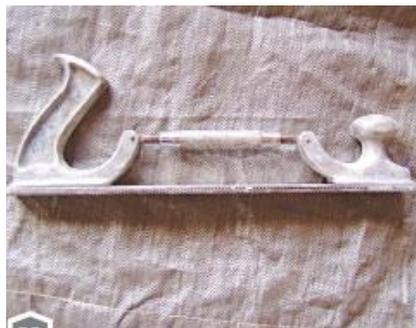
Any long striking device might be regarded as a slapper, be it made of wood, steel, or as in this case, have a rubber face. It is often useful to inflict a defuse blow on the work piece. Higs can be shrunk so as not to leave a flat or hollow. One thing with dents is that the metal more often and not wants to go back to the shape it was pressed into. Mike.

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10
BUMPING-FILE

This was traditionally an old file, which had been lopped and shaped to work as a slapper with grip. The knurled file face will counter the natural tendency of the metal to stretch. The bumping-file or **Shrinking Slapper** is also essential in the process of metal finishing.



11
BODY-FILE

Though not a beating tool, the **flexible body file** is used in conjunction with the bumping-file in the metal-finishing process.

This adjustable file is an essential element in any panel beater's tool kit. Also very good for finding high spots and removing excess lead or filler.
Mike



12
PROPRIETARY PANEL-BEATING KITS

Panel Beating kits are available from companies such as Frost Auto. Higher-priced tools often feel better in the hand. If you are only going to renovate one car, go for the budget set. Should you be more serious, spend a bit more.

Many thanks to Frost Auto Restoration Techniques for this very interesting insight into body repair tools

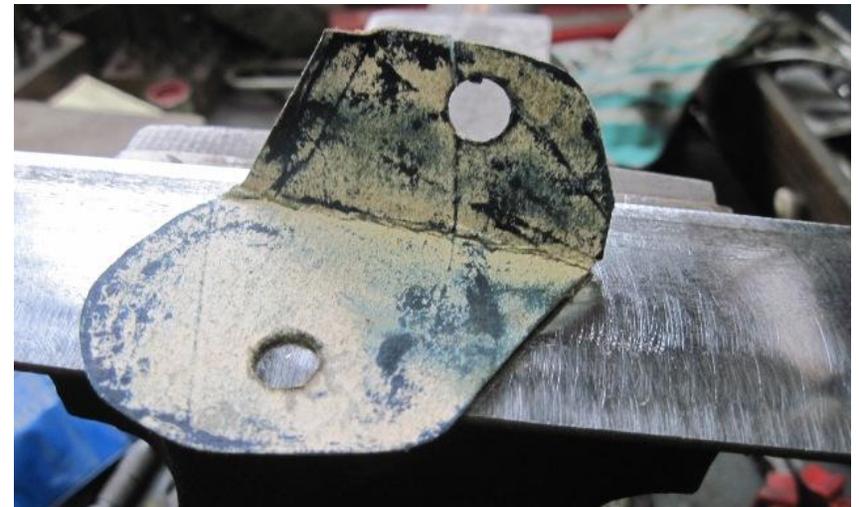
www.frost.co.uk - 01706 758 258

I must have spent a small fortune with Frost over the years. Give them a call for a free catalogue. If you do not know of them, give them a call to receive one of their excellent catalogues.



I am sorry that this report is a bit disjointed – it's a bit like my mind!

This is the cardboard engine mounting pattern. I coated the metal engine mounting and the rubber mounting with engineer's blue, placed the rough cardboard in place. Rubbed it to transfer the blue to the cardboard and then cut the cardboard to the correct size.



This is the finished cardboard pattern to use to make out the shape on the metal you are going to use. The next job is to coat the metal you are going to use for the bracket with engineers marking out blue (it's a very quick drying paint). Well, I have run out of space, you will have to wait for the next thrilling instalment in a couple of day's time.

Comments, etc. etc. etc to mikemacartney@btconnect.com