

MIDGE MAGAZINE



Spring
2021



Neil's Midge

MOBC. the Midge Owners and Builders' Club



Hello All.

Well, Hopefully by the time this goes out there will be a bit more freedom of movement in England at least. The road salt will have washed away and the days not only longer and lighter but warmer too. Well, that's the theory. While writing this I see the weather forecast for my home patch involves high winds, snow and probably a lot of rain.

My thanks to the contributors, especially Mark who has been developing whole branches of Midge Science for our edification.

Midge Science is similar to ordinary science in that it involves imagination, hypothesis and developmental experimentation but with additional cursing and larger hammers.

Meanwhile, stay safe.
JH.

Welcome to, Ian Redshaw and Rob Shallcross, George Formosa and Gérald Boularand

Stories and photographs to Secretary Jim Hewlett at jim@jimhewlett.com or The Old Manse, Tarbrax, West Calder, West Lothian, UK EH55 8XD

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Mark Powell has been doing rather well and has developed several advanced features for Midges. Here is a reasonably self evident demonstration of the double hinge bonnet idea that was popular in the '30's and '40s for getting the side panels out of the way for engine work. This part of the project was triggered by finding four Ripaults catches that he had salvaged from a 1939 Austin 12/4 many years ago. Most will remember them on the sides of Austin, Ford, 'sit up and beg' types.

I think they were not often used in Midge construction because measurements and angles had to be so much more precise, and the Ripaults catches more expensive and harder to find. (£50 each now) The other advantage was that the bonnet was easier to stabilise in terms of wind-lift, being more 'wrap around'. The bonnet and side panels, (or at least some of them), sold by T&J and White Rose amongst others were able to work this way, but I think most Midge builders made their front panels from sheet aluminium, often merging the two side pieces. (You need the lower part to be separate if you want to use this kind of double hinge.)

A rather smart production I think. Mark has achieved a working front bumper, level track rod arms, alternator, heater, Alternative LPG fuel, working windscreen wipers, folding windscreen and wind deflectors (quarter lights), 15" wire wheels, spare wheel carrier, tow-bar and a completely rebuilt body, all on the Midge he built first a long long time ago.



Coil, ballast resistor and sparks

In the latter half of the last century many motor manufactures started making their cars more powerful and faster. This was perhaps because the roads had been upgraded somewhat from the Victorian cart-tracks and drivers wanted to get where they were going sooner and less battered. Aerodynamics, lower profile bonnets and short stroking engines meant the starting handle had disappeared, radiators being lower in front of the engine and compression ratios higher meant the starting handle was impractical and getting dangerous. Batteries had to work harder and were getting constricted and smaller. It became apparent that anything sub-optimal would fail to start the engine in cold or damp conditions. So good sparks were needed.

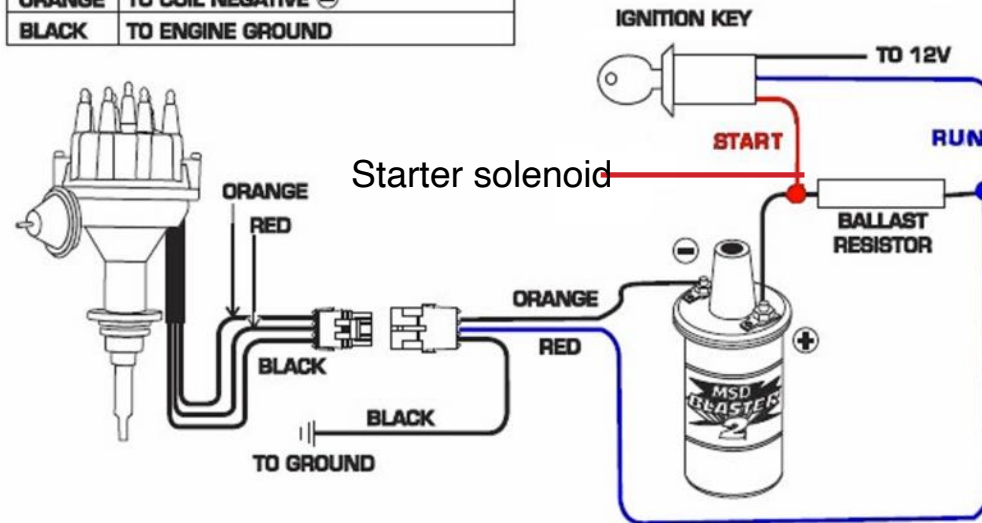
Rather than reinventing the wheel I'll repeat the musings of Calver Special Tuning <https://www.calverst.com/technical-info/ignition-ballast-ignition-systems/> They deal mainly with Mini and other BLMC engines

They say...The ballast resisted ignition system is believed to be developed by Ford. It utilises a 6 (commonly called the 'cold start' system) or 9-volt coil instead of the older style 12-volt item. When you hit the starter button/key, the coil is still seeing maximum current so produces a nice, big, fat, 12-volt induced spark to start the engine.

When the key is released, the ballast resistor ensures the voltage passed to the coil stays at 6 or 9 volts. It also significantly increases points life by massively reducing the EMF contained in the system when the points trigger the ignition system (the spark you see at the points when the open) and therefore the intensity of the 'arc' across the points.

Running a 12-volt coil on a ballast-resisted system will produce a very weak spark - consequently the engine won't run too well. Running a 6 or 9-volt coil on a 12-volt system will produce a healthier spark but will burn the coil out. The only truly definite way of discovering which your car has is by testing the voltage at the coil lead feed with the ignition on. 12-volt says it's the old system, 9-volt identifies it as ballast-resisted, 6-volt as the older 'cold start' set-up.

| | |
|--------|-----------------------------------|
| RED | TO SWITCHED 12V ⊕ (COIL POSITIVE) |
| ORANGE | TO COIL NEGATIVE ⊖ |
| BLACK | TO ENGINE GROUND |



This is how I remember it. The ignition switch start wire, for the short time it is 'on' bypasses the ballast resistor so the coil gets 12 volts through the red wire. Otherwise, when the starter motor is 'off' the coil gets its reduced voltage electricity through the ballast resistor. The red wire should also go to the solenoid, but the artist seemed to have left that out so I put one in.

The actual spark impulse is caused by the opening points breaking the low tension circuit and collapsing the magnetic field in the coil.

Another important device is the capacitor inside the distributor which preserves the points but, when old, can weaken the spark. I found this explanation quite effective <https://www.youtube.com/watch?v=LT4m2LLKwnE> An American accent but very useful for several points (!) I had forgotten.

JH

Oh little white block, tell me what's an ohm? What are all the wires for, and shouldn't you be chrome?

I'm told you're in charge of sparks, well, I need them now to roam, so please don't explode until after we get home.



Garage evaluation (by phone) covid restricted remote analysis chart.

1 Goes 'Tink' on corners

Marble in ashtray. Remove.

2 Goes rumrumrumrum on left or right hand bends

Wheel bearing. Replace.

3 Goes screeeeee on starting

Fan-belt slack Replace

4 Goes tick, tick, tick on left hand corners

Stone in RH tread. Remove

4b Goes tick, tick, tick on right hand corners

Stone in LH tread. Remove

4c Goes tick, tick, tick on left and right corners

It's the indicator. Relax

5 Goes tap, tap, tap on starting

noisy tappets. Adjust and or replace oil pump

6 Just driving along and it slowed down, went bang and stopped.

Leaking / exploded gearbox, Replace

7 Goes nyer nyer, nyer and doesn't start.

Flat battery, Replace and check alternator and fan belt, see 3.

8 Black smoke

Worn engine. New rings

9 White smoke when starting

it's just cold, no worries.

10 White smoke after 5 miles

Head gasket Skim head.

11 Car won't go and lower than usual

Parked in rough area. Replace or ransom stolen wheels

12 Petrol keeps disappearing at random.

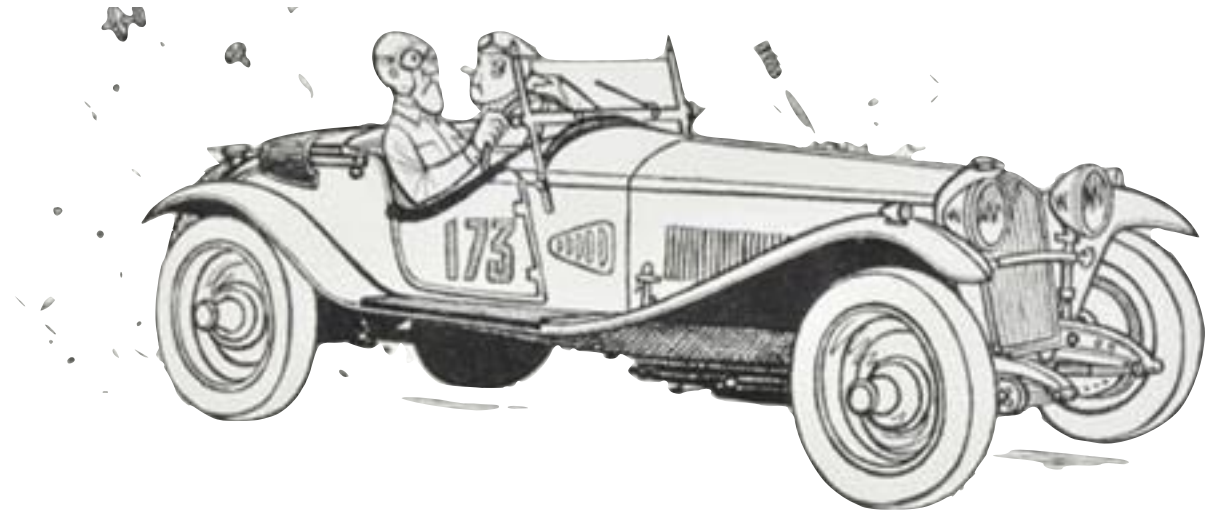
Teenage son. Confiscate keys.

13 Funny scraping noise from back

Rear screen wiper left on. Turn off and replace blade.

14 Funny smell stops when leaving home

Left the gas on, or dead mouse in garage.



15 Thumping noise from back

Kidnap victim still in boot. Release.

16 Car goes but very slowly.

Handbrake Release

17 Fluttering noises from bonnet when stopped

Trapped wildlife Release

18 Feels like square wheels

Puncture, or wheel clamp Repair or pay fine

19 Feels like it is going down hill all the time.

Clutch not releasing Repair

20 Small round holes in windscreen

Somebody is shooting at you. Stop annoying people

21 The scraping noise has stopped

Exhaust has finally fallen off. Replace

22 Droning noise from back seat

Have you forgotten grandmother? Check, Take home

23 Creaking noise when passenger sits.

Over weight, but don't say anything.

24 Creaking noise when driver sits.

Absolutely no idea.

Michael Kanitz continues a deep rebuild in a small garage in Germany.

The second half of last year I focussed on renewal of the interior and installation of the roof. Due to limited work space (have only a small garage limited for one normal size car) and limited access to necessary tooling as well as missing experience and machining for the upholstery job I was looking for a well experienced car upholstery workshop, who would be able and willing to do such a bit different work than used to with normal cars, also not being too expensive.

After a long time search I found one who was also willing to come to my home to visit the car, as I presently cannot drive it on official roads due to all the removed parts.

He gave me a lot of hints and information on what I could prepare in advance.

Unfortunately the old interior was in bad condition, especially the seats were in really very bad condition. So I had to close lots of holes in the wooden interior, have installed some aluminium material coverings in addition to the aluminium gearbox cover to get smooth and even surfaces as well as the construction of an adjustable seat attachment which was not available before.



I have totally dismantled the seats, removed all the corrosion and painted them new.

For the new lining (from the doors to the front) I prepared white coloured fibreboard to fit as measured for later covering with leather.

Same for the aft storage area above the fuel-tank to be covered with carpet.

At the end of October last year we transported the car to the upholstery workshop for the following work:

Carpet covering including gearbox cover. Leather covering of white fibreboards as well as aluminium profile below dashboard and complete upholstery of the seats

Fabrication of roof based on the roof frame prepared by me

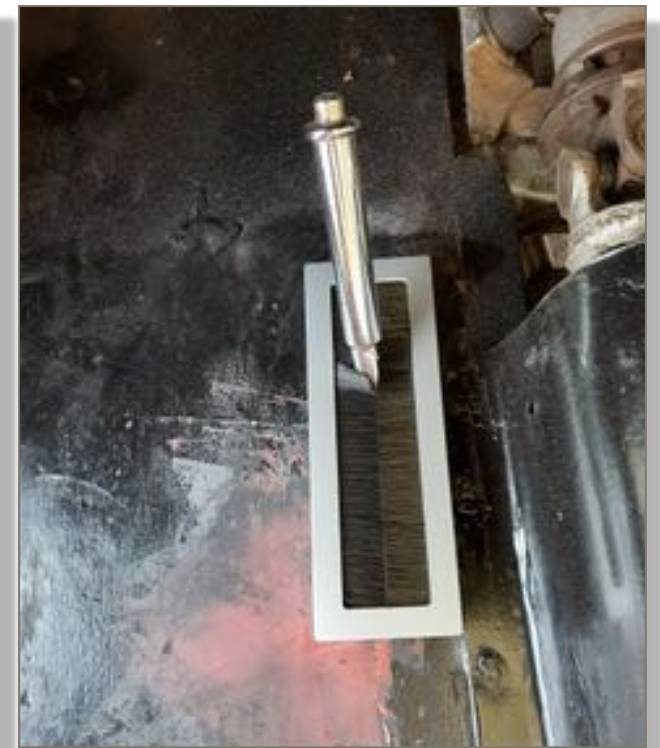
We have the agreement that they do the work on the car whenever it fits to the normal scheduled work.

It's presently a bit difficult due to the special situation as the owner of the shop has to send some workforce home due to missing jobs.

Otherwise the car stands in a warm and dry workshop and I will anyway not be able to work in the garage in winter.

Nevertheless for the time being, the carpet covering has been completed as well as the basic seat upholstery. More later. MK

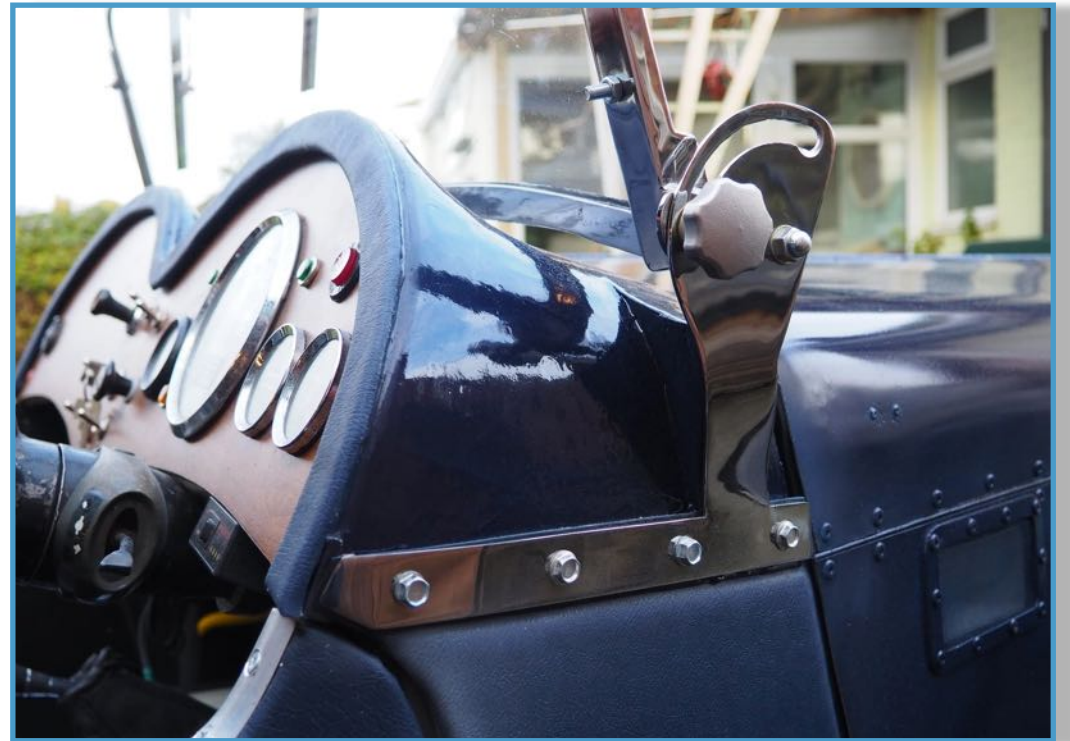
Actually Mark has been so busy I've had to delay his chairs, roof and most of his carpet work. The question is whether I'll be able to keep up JH



Mark's folding screen

Measurements may follow later, but here are some pictures from Mark Powell's folding windscreen and wiper motor assembly. The shapes are self-evident and anyone wanting to have a go should probably try in a light alloy that can be bent to order. Fred Swansborough's method of windscreen wiper mountings (p13 Winter 2020) under the screen would probably be incompatible, but I'll be interested to hear if anyone has a go at both. If anyone manages to add Brookland screens as well I think they'll probably deserve international recognition for services to MOBC.





My thanks to Mark for his photographs, I think most of the questions a replicator or copyist might ask are answered here in the images. They do say every picture is worth a hundred words, however I hope to put another page on the end of this magazine for some measurements and drawings.

The components look very tidy with the chrome plating. Later perhaps we may delve into the particulars of his wheel mount, tow bar and alternative (propane) fuel.



Jim Pailing has not yet achieved Midgetdom, but, keeping busy with something similar, he has uncovered similar problems. It may be an NG rather than a Midge, but you have to work with what you've got, and I think may have had a few ideas 'outside the box' that could be interesting. Certainly much neater than mine, and a tad faster I think.

We're Nearly There !

Impressed with Jim H's comments regarding universal suffrage to kit cars in general. With the understanding that Midges are 'assembled' rather than a kit, of course, I totally concur. My Covid construction is an NG which has many similarities and, I am sure, many of the same problems? I thought it may be of interest to disclose some of the rock faces and remedies in the hope that it may assist other basket cases; me, not the car!

The vehicle had been poorly put together originally with the obverse of Colin Chapman's motor car build logic who stated that the task was quite easy. 'All you needed to do was bore three holes in a piece of metal. If the first one didn't fit the second one would'. However, in my case, the problem was hole-saws with the result that the fibreglass body resembled a Gruyere cheese! The remedy was to clad the infected areas with ply, à la les Midge ? *I tried google translate but it just gave me 'comme un moucheron' and some reference to Les Miserables. Ed.* Also used ply to form a bracket for the remote filter fitted to the Rover V8 engine. Braced by an MFI shelf bracket it looked quite nice! Another shelf bracket supported the remote header bottle for the cooling system courtesy of EBay. I found pale grey paint covered a multitude of sins and the finished result looked a lot better.

The perennial problem of upper fixing points for safety belts was overcome by bolting and bonding a length of well preserved timber across the rear of the cockpit area. Well Mr Wickes says his decking is well preserved and Sikaflex 221 sticks like the proverbial. With a line of screws and gutter bolts securing it the IVA man should be happy, as together with the ply back, this becomes the 'Upper Belt Guide'. Boring carefully placed holes in this assembly I slid a pair of headrests in and the wife made a pair of overlong backrests to fill the gap and provide the requisite height.

The four point harness is attached to steel box section welded into the chassis replicating the later NG design. The vehicle as originally built had the belts bolted to the fibreglass ! There is a cunning ploy some use which is to swap the traditional three point harness' over thereby utilising only one upper fixing point for simplification. However personally I find this a bit risky as it must be possible to eject oneself forward and out with the right/wrong collision ?



When starting the rebuild and faced with the forest load of requirements of the IVA I determined to follow the simplification route. Not having a windscreen usefully obviated the need for a demister and windscreen wipers. My theory based on experience with No.1 son's Robin Hood was that for a trip down to the pub on a Sunday lunch time, little more was needed. Grouping all the switches, instruments and warning lights around the steering wheel within the exemption zone meant that I could use up the shed load of bits I had accumulated over the years ! Weather gear, why worry ?

Being a bit of a lateral thinker also helps and why not a bit of Dexion to mount the radiator and the horn on and whilst we are at it, Meccano makes a wonderful throttle linkage and got me out of a hole when attempting to avoid the standard MGB dip and indicator switches. Also, faced with Covid constraints on my normal sources of supply, my jack handle found itself grafted into the front cycle wing stays! Two blowlamps just managed to get the ends to red heat with a muffler of bricks to concentrate the heat to enable the ends to be flattened.

What did I do right ? Having had the irritating loss of the electric window on the 'other' car when one fuse serviced three items, I determined to use a fuse for each item, Also as a great believer in relays, they were in abundance also. I think a wise move was to incorporate IVA requirements as the build progressed and where a 'back track' would be difficult but not to obsess about all the trifles such as side indicators (I disagree with the IVA here anyway) and 'nut covers' but come back to these relatively simple items when the thing bursts into some semblance of life and I can sit in it and catch a breath, albeit laden with petrol fumes.

What would I do next time? I still have shedloads to use up still and I think a Midge is on the cards. Well, a fold down dash was a good idea to access the wiring but I think a pair of hinges and a support when open would be even better. Not relishing the original MGB loom I used most of my million miles of spare cable but carried out the wiring in bursts which meant copious note taking as the colour coding was, shall we say, unique ! Next time a pre made loom methinks! JP.

I must admit I was surprised that Jim P had managed to squeeze a V8 into a similar sized space as that of a Midge, I'd never even contemplated such a monster mill, but I guess considering the variety of Midge builds, and the, shall we say, idiosyncratic Herald engine it's not a bad idea. The brakes would need a bit of attention if I put one in mine though. The weight doesn't seem that much greater though. It just goes to show there is more than one way of making a lot of bits go forward in a coherent manner. The Midge is a very varied beast, and we have versions with all metal bodies, a variety of engines including a front wheel drive Renault. Not to mention the Ford T&J chassis, the Mk2 Midge and various back ends / grilles / and mudguard supports.

Vive la difference.



I'm running out of suitable pictures for the Front Page 'Headline' so dig out the mobile phone or camera and send me a photo. I'm looking for 'side on' and slightly toward the front. I can subtract the background more easily if the road under the tyres is light coloured and even, and if the car is not in very bright sunlight as that tends to flare out where the reflections are. If you want to make it really easy for me then have a single colour background. But it doesn't have to be perfect.

If you have sent in a picture or words and I haven't included them yet then send me a reminder.

JH



UK 2020/21 Events

The Car and Classic site does event prediction so much better than I can, there seems little point in copying their web page, especially as they can update as the months go by. If you go to

http://www.carandclassic.co.uk/car_events.php

You can get the information direct, that's where I get it. If something you know about isn't on it, tell me and I'll add it to our pages.

At the time of writing it's all a bit quiet.

An Update of the measurements from Mark.

I have marked the angles and measurements. The parallel bit is 25mm wide and the upright is 38mm wide.

I cut the final pieces from 3mm steel plate. This allowed me to bend the upright sections to take in the body taper at the bulkhead and to also bend them out to match the windscreen frame.

The parallel pieces had to have tapered hardwood fillets to allow a vertical fit to the dash-top. At 270 mm long, they fit the bottom edge of the dash top from the bonnet closure to the edge of the dash.

Once I was happy with the fit of them, I had to make screen side supports... They are also angled to suit the inward angle of the surround and with vertical faces at the pivot points.

On the side pieces, the two holes for the pivot slot are countersunk and

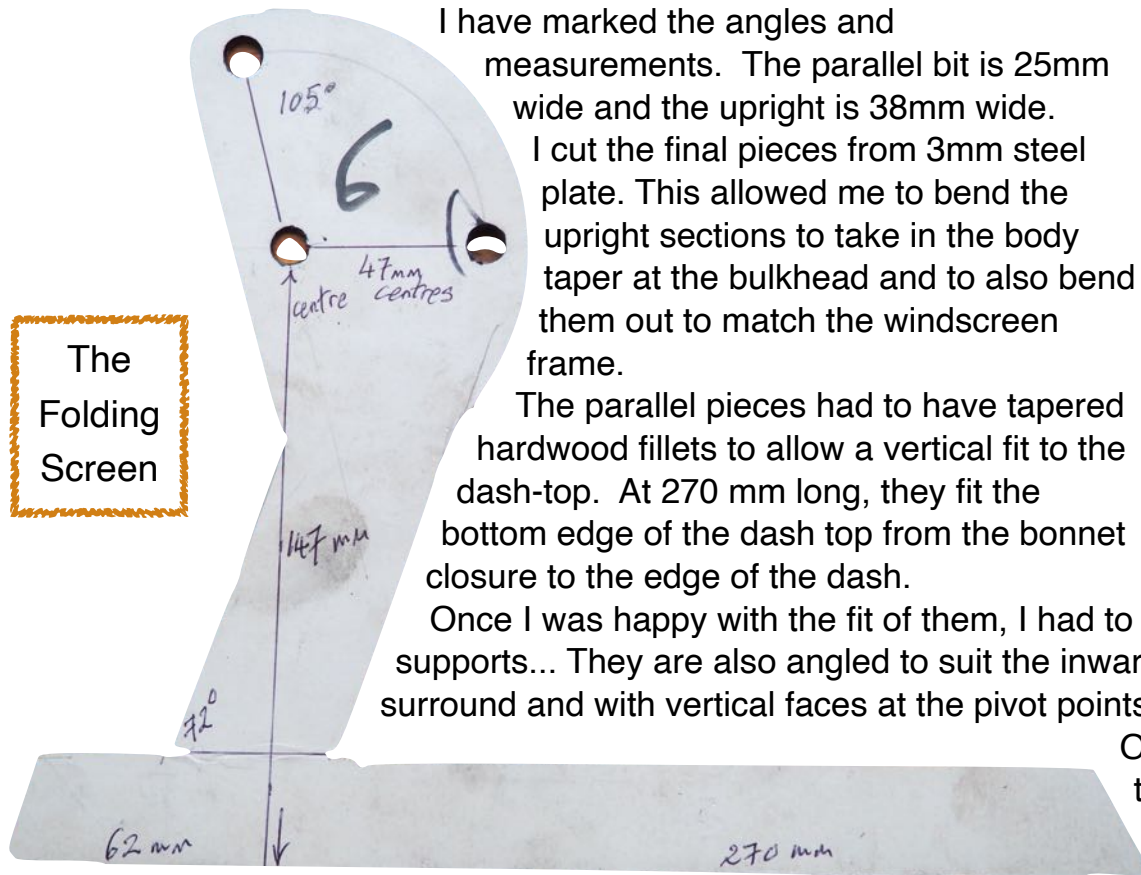
then joined in an arc. I used all 8mm metric fixings. The sliding stud is located in the arc at each end of its travel with stainless thumb nuts bearing on tapered washers which engage in the countersunk ends.

The screen has to be parallel to the back edge of the bonnet... And when folded, clear the bonnet top, even with wipers.

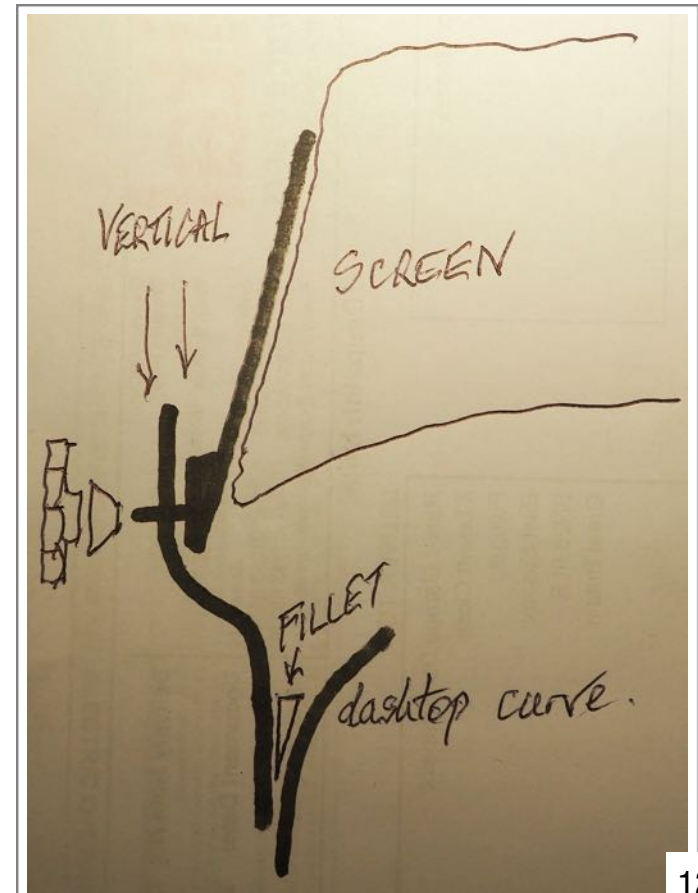
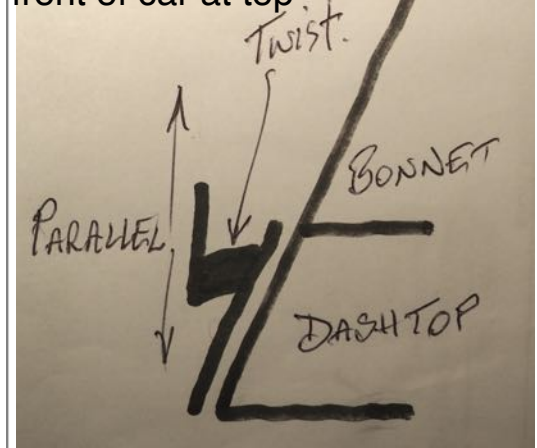
Plating was done by London and Brighton Platers in Brighton at a cost of £150 and took about 4 weeks. (I had higher quotes and longer times quoted elsewhere)

Hope this helps! MP

The Folding Screen



Seen from above, front of car at top



I was hoping to put a link of the Powerspark TL 300 ignition timing light here, as that was what I bought on Amazon, but it seems to have become unavailable, hopefully because of its popularity rather than a tendency to explode. However, if it comes back on sale I found it considerably more advanced than the old Gunson's strobe I have been using for the last 40 years. It was always the HT lead interruptor (a badly shaped spring between spark-plus and HT lead) that made it so awkward. This new (to me) type has a sliding clip that goes over the HT wire and is much less fiddly. There are several other makes of the simpler version, which vary from £20 to £90 so check the product details carefully.



Gadgets, Widgets, Toys and Tools.



Buddygo (the name is a link) Strangely named but definitely a step up from the old heavy kind of battery charger, You can leave it plugged in and it stops charging when the battery is full.

It can output 12 or 24 volts at 8 and 4 amps respectively. Please note it is quite easy to press the little fingerprint button which selects the function and beeps if you press it accidentally. Fan cooled.

Currently (March 5th) it is £31 on Amazon with other types also available.



Tom Sanderson is selling his Midge 'Flo'. Lots of extra stuff and wondrous qualities detailed on the next page.



'Flo'





‘Flo’



1967 J C Midge for Sale

This midge was built during the 1990's, with plans and build manual bought in the late eighties. The 1200 Herald donor was intended to be rebuilt but was so corroded I decided to build a midge. I wanted a long bonnet so used the smaller body tub (usually fitted to a spitfire chassis) made out of exterior ply. The car was put on the road in 2003, Present mileage is 3614, MOT due on 1st June 2021, colour is red, (A head turner when out and about). The car is registered with DVLA as a JC Midge, with Sports body.

The car has been altered to run on unleaded petrol has a Stainless exhaust. Brakes have been altered from original using a Vauxhall Nova servo to all four wheels. All brake lines and petrol lines replaced with new, after the chassis had been blasted rebuilt and painted, all suspension, brake components and bolts replaced, the shocks are Spax Gas adjustable for soft or hard. Wheels are MGB 14". Wind deflectors made and fitted to the windscreen edges.

Note the mudguards move with the wheels

The seats are black squabs with full width backrest as original 1933 MG J2.

There is no cockpit heater or hood, (don't need one during the summer), and it has a homemade tonneau. Recently a new water pump has been fitted with new silicone water hoses and now using waterless coolant. I have the hoops made ready for the hood.

The buyer will get a folder of receipts and build photos with Haynes workshop manual and a box of spares. In the cubby above the spitfire tank are a jack and wheel hammer and a spare wheel spinner.

The price of the car is £4700.ono

For more information or photos contact me by email: - sandersontom58@gmail.com

Tailpipe

Spring is on its way, if not actually banging on the door, and It looks as if the lockdown will be eased before the next Magazine. We shall see. There are a few potential tripwires before we get there.

I've not heard specifically of any members who have had to deal with Covid symptoms, but obviously most of us are old enough to know when to follow the important rules as that gives us the chance to break the little ones when nobody is watching. Ever mindful that wives at least *seem* to have eyes in the back of their heads. I maintain that Midge driving with the roof down is as socially isolated as you can be, as long as you can avoid being surrounded by inquisitive young ladies.

No doubt many of us will have had to change habits and activities during the winter, especially when the Covid restrictions are superimposed on bad weather. Some have been lucky enough to escape to the garage. Mark Powell for example must have been getting in the way in the kitchen, judging by his Midge progress, and I assume he has a form of heating in his workshop. Fortunately many of our suppliers of new bits have learned how to sell 'on line' and I think Amazon may have done quite well. Of course whether that went as far as paying taxes is perhaps still moot, but useful devices like the new kind of battery charger and timing lights are readily available

I found that Shipley, who move things like Midges have been operational for most of the time and I have transferred a Midge with their help. There are other car movers but I've been impressed with their overall efficiency and I am quite happy to recommend them. I think they have moved four or five to and from me in the last few years. I, or the other party, have moved about half of them, and it is certainly less hassle. Generally as I am retired and quite enjoy driving, I prefer to move cars myself but Covid19 put a stop to that just before I invested in a lightweight car trailer. Annoyingly my EV which is perfectly capable of towing a small house, is only rated for 410 kilograms, less than a tenth of the petrol version.

My own Midge work in this last year has been somewhat curtailed and driving opportunities similarly restricted, I would blame the magazine and MOBC paperwork for that, but actually it has been mainly the virus and a cold winter, and those circumstances have provided time for other activities including a little gardening, far too much You-Tube watching, developing what I hope will become barista skills, and endless hand washing. I am looking forward, with some difficulty, to having a hair-cut, having neighbours around for coffee and as the temperature rises, perhaps a beer in the garden.



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