# MIDGE MAGAZINE

34 YEARS

Winter 2018

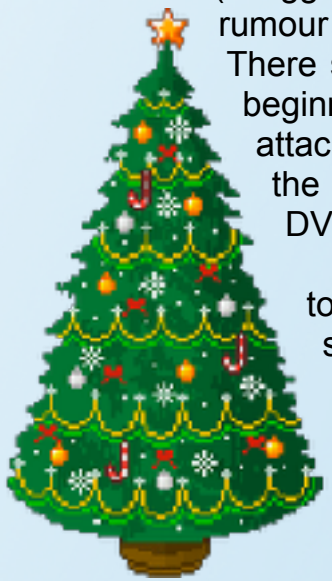

MOBC. the Midge Owners and Builders' Club

John's Prototype Midge

Find us on: facebook

## Hello All.

Well I started working on this a little earlier than usual, on account of a dark, cold, wet spell (here, north of the border referred to as 'dreich'). This meant I had time to lean on a few contributors and could research (plagiarise from) the internet, delve into (re-use) old articles and extrapolate (exaggerate) stories and make some stuff up based on little more than rumour and wishful thinking… well it works for the government.



There seem to be a lot of ex owners looking for long lost Midges… I'm beginning to wonder if Midges should have some kind of plate or plaque attached with the request that new owners should contact the club or the builder and register. Unless anyone has a friendly contact in the DVLA….

Failing that, perhaps a pre-emptive counselling service to explain that there are withdrawal symptoms, and that sellers should record a video list of the faults and disadvantages to be played back now and then, before the golden glow of memory obscures things like 'I'd forgotten how cold they can be.'

JH

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

Welcome to Geoff Smith, Dave Barlow & Mark Powell
Welcome back Peter Vivian



Michael Taylor. 27 Sept 2018
A lovely, sunny autumn morning. Drove Tilly over the Lincolnshire Wolds to the Hemswell Cliff Autojumble at the old bomber base. A small event, much smaller than the Newark Autojumble.

Advertised as ‘last Saturday of each month’.
630am to 1230pm. Car parking £2
http://www.lincolnautojumble.com/

A 6:30 am start !! Obviously favouring the early birds…

At that time of day I can see why Michael had the side screens on.



Christian Guillard Shows off his midge…

'in my village Le Pouliguen, Brittany. Always in very good order'.

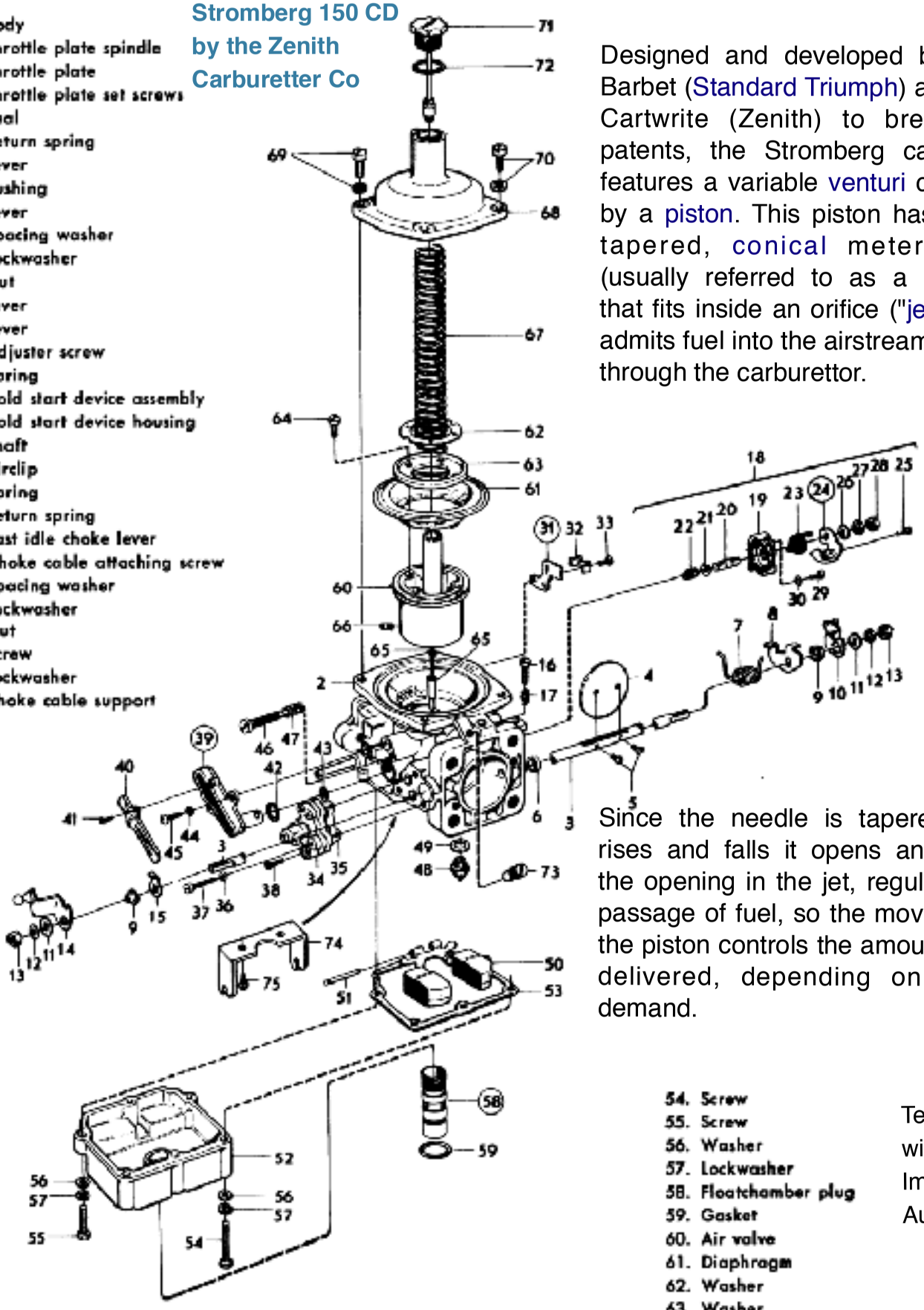
Based on a 1500cc 1975 Spitfire.

…I just looked it up on the map. I must admit, if I was a Midge, I'd head for there too. Mind you, if I was a Midge I don't think I'd look as clean and shiny. JH

Have you seen this car? (other than on page 15) Julian Brown is looking for his Vitesse based Midge. If anybody has seen it he would be most interested. He's not exactly alone in regretting selling his Midge, there's another on page 9. There's a lot goes into building one. Perhaps members could lend theirs for therapeutic driving sessions, if nothing else it would remind the nostalgic of the cold. So if you try it, bring your own driving goggles.

# Stromberg 150 CD by the Zenith Carburetter Co

Designed and developed by Denis Barbet (Standard Triumph) and Harry Cartwrite (Zenith) to break SU's patents, the Stromberg carburettor features a variable venturi controlled by a piston. This piston has a long, tapered, conical metering rod (usually referred to as a "needle") that fits inside an orifice ("jet") which admits fuel into the airstream passing through the carburettor.



Since the needle is tapered, as it rises and falls it opens and closes the opening in the jet, regulating the passage of fuel, so the movement of the piston controls the amount of fuel delivered, depending on engine demand.

Text lifted from wikipedia. Image from Autozone.

2. Body
3. Throttle plate spindle
4. Throttle plate
5. Throttle plate set screws
6. Seal
7. Return spring
8. Lever
9. Bushing
10. Lever
11. Spacing washer
12. Lockwasher
13. Nut
14. Lever
15. Lever
16. Adjuster screw
17. Spring
18. Cold start device assembly
19. Cold start device housing
20. Shaft
21. Circlip
22. Spring
23. Return spring
24. Fast idle choke lever
25. Choke cable attaching screw
26. Spacing washer
27. Lockwasher
28. Nut
29. Screw
30. Lockwasher
31. Choke cable support
32. Choke cable retaining clip
33. Screw
34. By-pass valve assembly (front carb only)
35. Gasket
36. Lockwasher
37. Screw
38. Screw
39. Temperature compensator housing
40. Temperature compensator cover
41. Screw
42. Rubber seal
43. Rubber seal
44. Lockwasher
45. Screw
46. Idle trimming screw
47. Spring
48. Needle valve with seat
49. Gasket
50. Float
51. Float hinge pin
52. Floatchamber cover
53. Gasket
54. Screw
55. Screw
56. Washer
57. Lockwasher
58. Floatchamber plug
59. Gasket
60. Air valve
61. Diaphragm
62. Washer
63. Washer
64. Screw
65. Metering needle
66. Metering needle retaining set screw
67. Air valve return spring
68. Suction chamber cover
69. Screw and washer
70. Screw and washer
71. Damping piston assembly
72. Damping piston gasket
73. Plug for air conditioner speed compensator

## Stromberg 150 CD Tuning adjustment.

There are three adjustments on CD carburettors: a throttle-stop screw, a jet-adjusting screw and a fast-idle stop screw.

Check that the choke is fully shut and that the fast-idle stop screw is clear of the choke linkage. Hook your finger under the edge of the dashpot and press the lifting pin upwards to raise the piston by about 1 mm. If there is no pin, take off the air filter and lift the piston 1 mm with a thin screwdriver.

Listen to the engine note while you do so. If the mixture is correct the engine speed should rise slightly for a moment, then return again to normal. If it rises and stays fast the mixture is too rich. If the engine dies when the pin is lifted, it is too weak. (Same as on an S.U.)

Switch off the engine before adjusting the mixture, and check that the jet needle is central. Remove the air cleaner, lift the piston and let it fall. If the jet is central, the piston falls with a sharp click.

Keep the jet central while you adjust the mixture by taking the damper rod out of the top of the carburettor and pushing a pencil or soft metal rod firmly down the hole to hold the jet in place. Make sure that the jet remains centralised. Use a coin to turn the jet-adjusting screw one-eighth of a turn at a time, waiting each time for the engine speed to settle down. Screwing upwards weakens the mixture, downwards enriches it. Start the engine and bring it up to working temperature.The mixture-adjusting screw is set centrally in the base of the carburettor on CD, CDS and CD2S models. It is brass and has a wide slot in it. Although a screwdriver can be used to turn it, a small coin is easier. Turn only an eighth of a turn at a time, then wait about 15 seconds for the engine speed to settle down. Lift the pin again and see whether the engine speed alters. Screw the jet upwards (that is, anticlockwise looking down on the carburettor) to weaken the mixture, or down (clockwise) to make it richer.

With the mixture setting correct, the idling speed may now be too fast or slow. For most cars it should be 850-950 rpm - judge it by ear if your car does not have a tachometer(or rev counter). Adjust the idling speed by turning the throttle-stop screw.

If tuning fails to make the engine run properly, the carburettor may need cleaning or the air filter renewing. Ignition timing is very relevant and the wrong back pressure from a non standard exhaust can affect performance.

Centralising the jet

Lift the piston while you adjust the height with a coin.

Lift the piston so that the needle is clear of the jet, and screw the jet adjusting screw up until the top of the jet is just above the top of the bridge in the carburettor bore.

Use a spanner to slacken the large nut just above the jet adjusting screw by half a turn. That releases the jet in its housing, but allows it to drop slightly.

Wind the jet adjuster up again until the top of the jet is level with the bridge. Let the piston fall back so that the needle centralises the jet.

Remove the piston damper and hold the piston down with a pencil or soft metal rod slipped into the damper tube. Tighten the jet assembly. Check several times that the piston drops with a click.

Turn until the jet height is just above the bridge in the bore.

Loosen the locknut to free the jet for adjustment.

Screw the jet up until it is level with the ledge.

Hold the jet central with a pencil when you tighten the locknut.

Most of this is researched from web pages, or plagiarised as we call it in the media, feel free to point out errors.

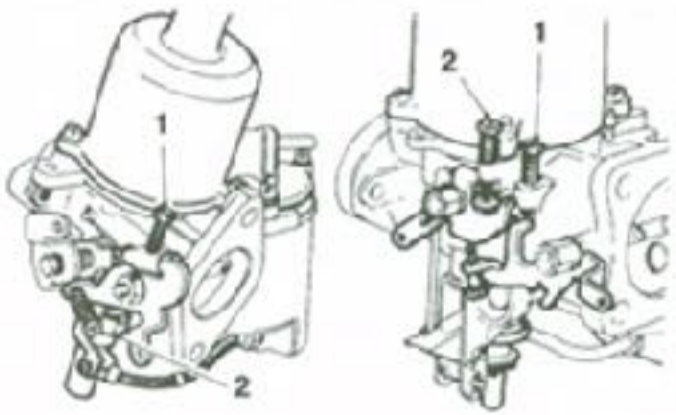
The ‘mini saga’ started when I discovered a leak between the body and the float chamber of the carb, I found one float bowl bolt was the wrong size (32 tpi but 0.75mm too thin) so knowing there was one assembly error I needed to strip (the carburettor) and retune. The information here is collected from various sites and sources, but If I have made or included any errors, please tell. A major question was why did the float chamber over-fill when the car was idling? There was hardly any vibration so the petrol should have stayed in the bowl even if the bowl wasn’t tight on one corner. Other factors might be a worn float valve letting petrol in when it shouldn’t, but it might also be the plastic float jamming down by touching the inside of the bowl (Ethanol provoked swelling perhaps) or the gasket catching it if badly positioned (The wrong bolt suggests historical problems and poor quality control, so what else might be wrong?) This might help. https://www.howacarworks.com/fuel-systems/how-to-overhaul-a-stromberg-carburettor

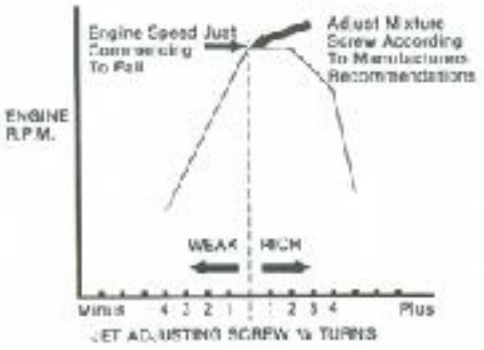
# SU carb tuning page

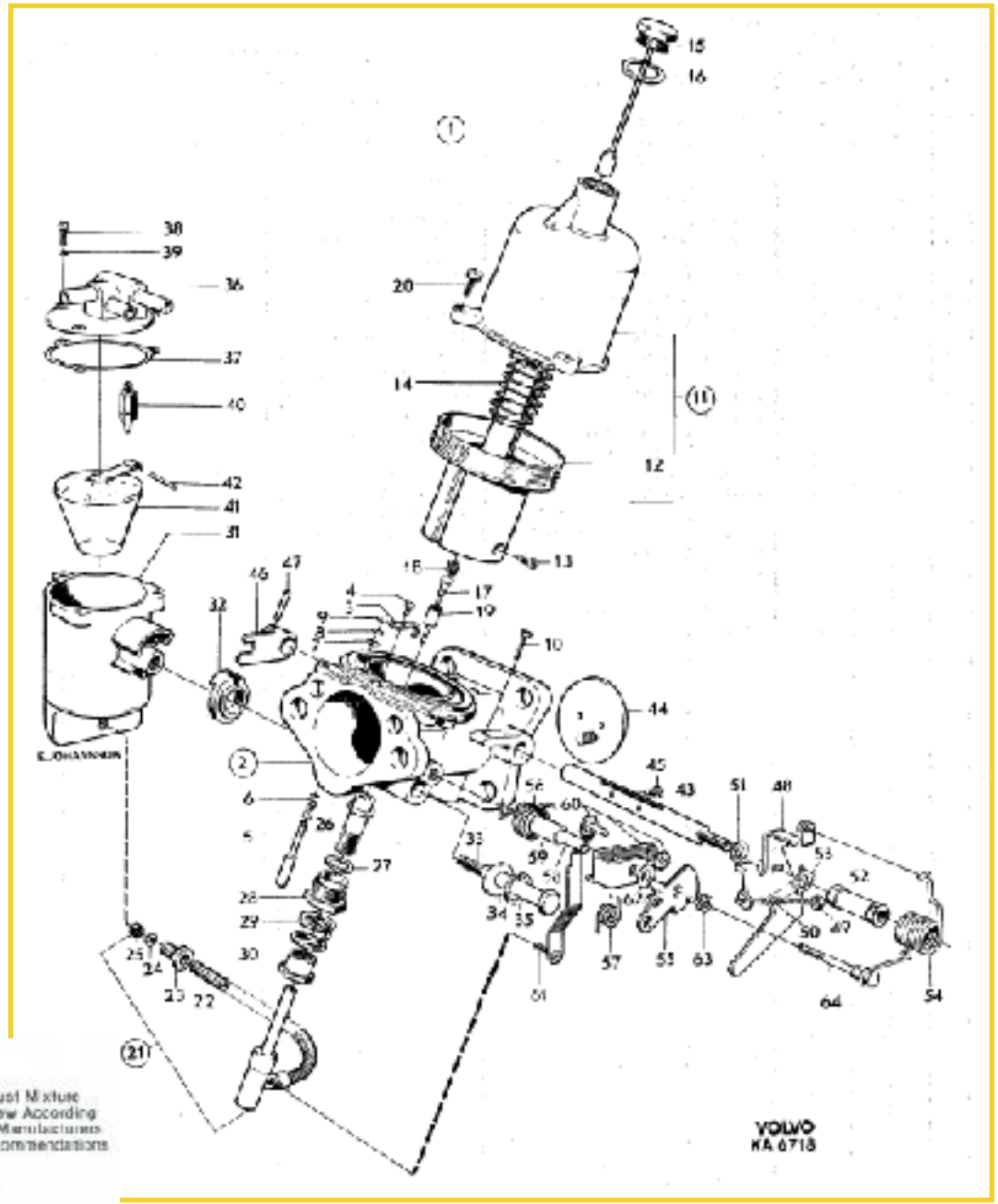
http://www.sw-em.com/su_carbs.htm This image comes from his web page. The site itself http://www.sw-em.com/ is well worth a look, has nothing to do with the Swedish Embassy and only a bit of Volvo. Useful information and some amusement for those with a spare half hour on a wet afternoon

From the Burlen pages:- Tuning a single SU.

(a) Adjust the throttle adjusting screw (1) until the correct idle speed is obtained (see vehicle manufacturer's tuning data).
(b) Turn the jet adjusting nut/screw (2) down/clockwise, to enrich or up/anti-clockwise to weaken, until the fastest speed is indicated; turn the nut/screw up/anti-clockwise until the engine speed just commences to fall. Turn the nut/screw down (clockwise) very slowly the minimum amount until the maximum speed is regained. From this setting adjust the mixture screw according to the vehicle manufacturer's recommendations.
(c) Check the idle speed, and readjust it as necessary with the throttle adjusting screw to obtain the correct setting.



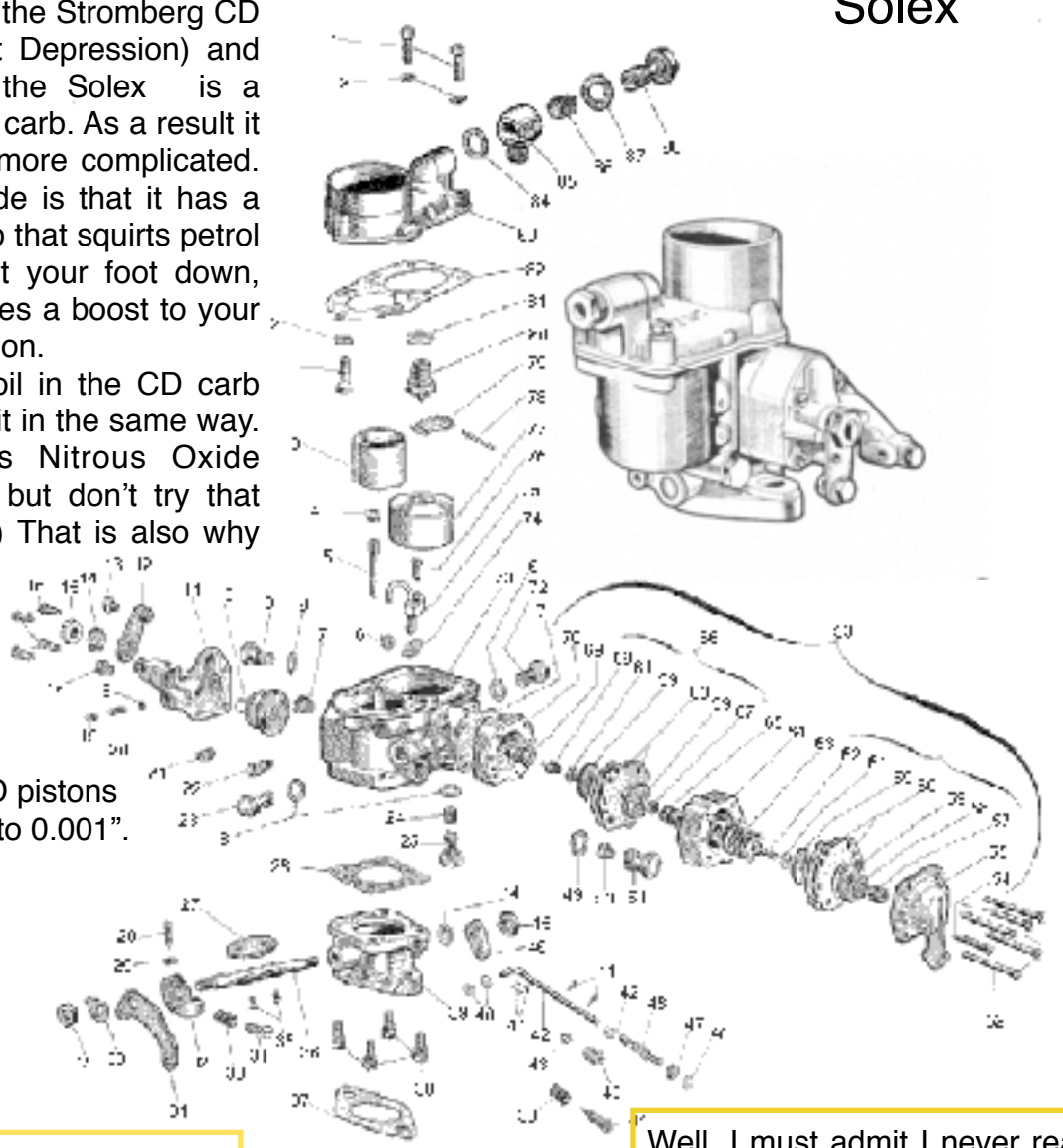



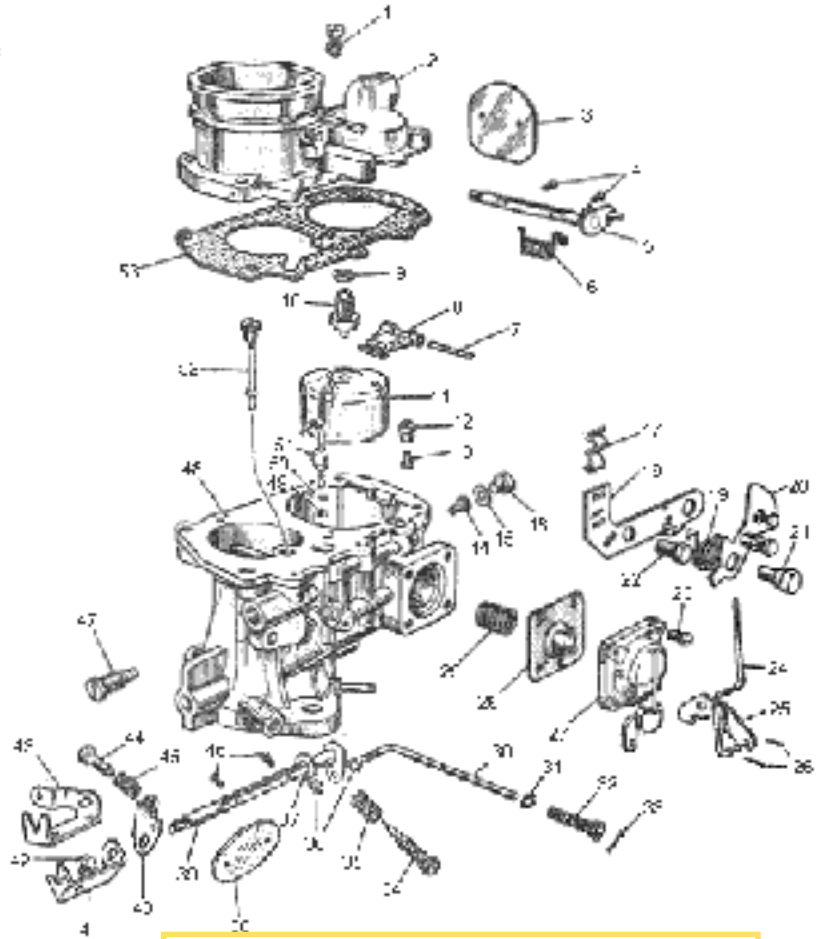

I'm probably teaching grandmothers to suck eggs here, but making the pages up helps me to remember. JH

# Solex

Unlike the Stromberg CD (Constant Depression) and the SU, the Solex is a Fixed Jet carb. As a result it is vastly more complicated. The upside is that it has a fuel pump that squirts petrol if you put your foot down, which gives a boost to your acceleration.

The oil in the CD carb helps a bit in the same way. (As does Nitrous Oxide injection, but don't try that at home.) That is also why there are hundreds of different profile needles on the CD pistons accurate to 0.001".





1200 models from engine number GA43986E All 12/50 models
Carb type - Solex B30 PSE1

1200 Models
To engine number GA34925E
Carb type
- Solex B28 ZIC-2

Well, I must admit I never really loved the Solex. Like the Webber it's just sooo complicated. My first experience being an elderly cement mixer on the farm, circa 1965. However, if you keep the fuel clean and the jets clear they run for a good while without complaint. Being quite elderly they now tend to butterfly spindle wear, sticky float needles and worn jets. On non-crossflow engines If they over-heat they can dump the boiling fuel in the float chamber onto the exhaust. Not nice. So it's worth keeping the heat deflector plate in place.

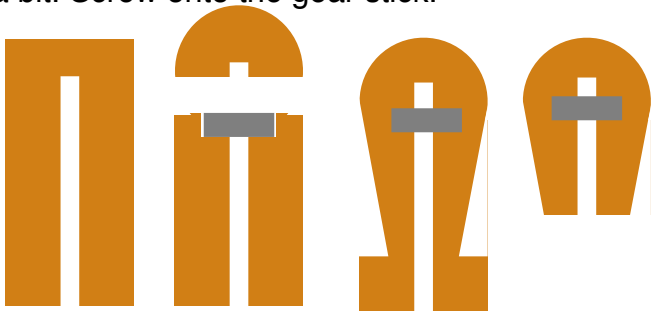
Tuning…keep the petrol clean, don't lose the air filter, blow out the jets occasionally.

Christmas weather is sometimes nice enough for a drive with the roof down, but not always. So what else could you be doing? Well many of our members have constructional hobbies, especially if they have appropriate skills like carpentry, modelling (no not that kind) or metalwork. Even musicians can write Midge driving songs, and those of us with limited abilities make web pages about other people's constructions. If you were looking for something to do indoors over winter. Here, below, is something by Peter, of whom more on page 13.

Fits 99% of Christmas stockings!

## REALLY CHEAP GEAR-STICK CHRISTMAS PRESENT FOR YOURSELF IF ALL YOU GOT WAS SOCKS

Weld a suitable nut to a washer. The washer should have holes drilled through it for pins to lock it and prevent rotation. 1.Turn down a piece of wood to about the right diameter and bore a hole part of the way through for the gear stick. 2.Reverse it so that the open end is hidden in the lathe jaws and turn down the rounded end. Cut the top off and mill out the space for the nut and the welded on washer. (or just cut out a hexagonal hole if the wood is hard enough and leave out the washer.) Glue or otherwise fix the nut. 3.Glue the domed bit back on. Taper the cylinder toward the open end,. Trim and polish to taste. 4.Cut off the bit in the jaws. Varnish. Wait a bit. Screw onto the gear stick.




**UK 2018/19 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.

Or, if you need a garden shed project How about one that looks like a police box? << (That's a link)

Several Midges are being rebuilt or refurbished, and one or two might be looking for interesting variations of trim. John and I extracted this for general edification.

## Cover Story

(OK it's not on page 1, but it's still a good headline) John Bircumshaw wrote (Christmas 1993)

Congratulations! You are well on your way to building your pride and joy. Yet another Midge will be rolling oh the D.I.Y. production line. The refurbished chassis is just sitting there ready to take the body tub which you completed in your workshop/garage/dining room last week.

Building a Midge is not for the indecisive, and one of the decisions you will now need to take is what to use for skinning the body tub. Most Midges are skinned in aluminium sheet but there is an alternative. I'm not suggesting that you should creosote the body tub and leave it at that, but how about using vinyl? It has a number of advantages. In this article I'll attempt to set out the pros and cons in an unbiased way, and I'll allow the editor to censor it if he thinks that I'm getting too carried away!

My decision to use vinyl was made after a visit to the Beaulieu Motor Museum where I saw an early MG Midget with a fabric body. It looked great, and I thought that my Midge would have a more vintage appearance if it was covered with a similar material. One advantage is that vinyl is self-coloured, and selecting this covering will avoid a visit to the body shop for spraying unless of course you're competent with a spray gun, which I most certainly am not. On the negative side, once you've chosen the colour you're stuck with it, and although there are renovators and dyes available for vinyl seats, I'm not sure how they would stand up to exterior use. Of course if you're planning the colour of your Midge to be pearlised. peach or iridescent indigo, then you'll have to go for aluminium skinning, but it your tastes are a more modest red. green or black, then there will be a vinyl covering to suit.

On the down side perhaps the vlnyl is more prone to damage both accidental and as a result of deliberate action. I suspect, however, that few of us would leave our mobile works of art where vandals could do their worst. Without doubt, the biggest disadvantage of a fabric body is that all the holes you make for wing stays, door hinges etc. have to be right first time. The aluminium skinned body can be filled and repainted but If you make a wrong move with your vinyl skinning it's there for the whole world to see! However, apart from the body tub sides most of the panels are relatively small, so any errors made should not turn a drama into a crisis.

After about eighteen months use, (now about 28 years! JH) the vinyl body on my Midge is as good as new, and a vinyl protector (eg. Son of a Gun) used regularly gives it a good sheen. So, if you want your Midge to be a bit different from all the rest, then why not give it a go? continued on page 11

At about the same time as John was skinning his Midge Richard Baldwin was building his, put it down somewhere and lost it. You know how it is…He wrote in saying:-

**Hi, I built a Midge around 1990. TPF173F, Registered as a 1300 Triumph Herald Special Convertible. Red with black seats beige trim and MG spokes. It went to live in Cornwall in 1996 and I never saw it again. Just wondered if anyone had ever heard of it or seen it**

Email: huge.vegetables@gmail.com

You can cover the dash-top with vinyl if careful.

**The Cover Up job**

If I have enthused you into using a vinyl covering for your Midge body tub, then perhaps a few words on the method I used would be helpful. First of all you need about five metres of 54” wide vinyl hooding (that’s a wonderful combination of metric and Imperial just like the nuts and bolts on my Midge) This material costs about £12 per linear metre (+ VAT) for a vinyl of suitable quality. In addition you will require the same amount of ¼” foam rubber. Cut out the vinyl for the body sides, and foam rubber likewise but don’t forget that the vinyl is 'handed'. Oh and do leave about 3” overlap to all edges. There are no prizes tor being about an inch short in critical areas!

The foam rubber is attached to the body sides using an environmentally friendly 'Tac Spray’ aerosol adhesive and trimmed off with scissors. The vinyl is then placed over the rubber loam and stuck down with a positively environmentally-unfriendly adhesive. I used Dunlop S708. Do not glue the vinyl to the foam rubber, but to the edges of the body tub where in will be later covered by a 1' half round aluminium moulding. With a little practice both internal and external corners can be dealt with by snipping the edge off the vinyl in the right places. Do also remember to leave enough vinyl at the back of the body tub to cover the ¾” quarter round moulding next to the petrol tank cover.

Next come the door skins. These are cut out from 4mm plywood (think of the saving on 10g aluminium) and then cover in foam rubber as before. In this case the vinyl is wrapped over the door skin and glued onto the back before the whole door skin Is glued to the 3/4 plywood door. The exterior door handle and the door-hinge screws also help lo keep the two panels together.

An unexpected bonus here is that when you fit the door, the vinyl and foam rubber body sides have a bit of give and this should avoid the need for any further draught proofing of the door edges.

Next come the bulkhead sides, and here’s the clever bit! Using a skin of plywood on these panels has the following advantages:-

(a) The skin can be adjusted slightly to make the leading edge of the door a better fit.

(b) It provides a better joint with the roller coaster dashboard top particularly if a length of wing piping is fitted between.

(c) If small rectangles for the door hinges are cut out from the bulkhead ‘skin' panel, then the hinges will recess neatly into the bulkhead and not stick out like the proverbial sore thumb!

Obviously, it is then necessary to fit the bulk head side panels, the doors and the roller coaster top in that order but it is not as difficult as it sounds.

But what about the roller coaster top I hear you ask? The easy thing Is to cheat and have this painted to match the bonnet. (I assume no one will want a vinyl bonnet!) It is possible to cover the dash top with vinyl, but don't use foam rubber underneath because of the concave curves. If the vinyl is stuck directly onto the GRP from the front, and gradually worked back gluing a little at a time, or can be done. I found it necessary to make a cut about 3' long in the 'cleavage' * of the dash top which was then tilted with a 'V' shaped piece of vinyl. This isn't as drastic as it sounds because if a rear view mirror with a reasonably sized base is used it will almost cover the cut you have made.

The bulkhead extensions under the bonnet sides are straightforward and may be skinned with foam rubber and vinyl in the usual way. One problem I had was that the extensions fouled the engine mounting towers and had to be cut short. Skinning was a convenient way of overcoming the problem,

Finally, don't forget that the top panel of the tank cover will need to be skinned before the aluminium is bent around the frame - I speak from experience on that particular matter!

I must also acknowledge that Josef (the J in T&J) made up a hood and side-screens In the same material that I used for the body skin, and the whole effect is very pleasing. So, it you like the idea of vinyl then get stuck in (or should it be stuck on) and call me if you would like to discuss any difficulties that may arise.

John Bircumshaw.

* Editors Notes. *I bet the editor censors the cleavage bit." …JB. Oct 1993*

"NO, BUT LYN THE TYPIST THOUGHT ABOUT IT!" ..PL DEC 1993

"I think I can safely ignore it. I hear worse on the TV".....JH Nov 2018

<< A 25 year conversation between editors?

2018 seems to have been a year of discovery, or rather rediscoveries. One of them was **Peter Vivian** who after a few years in the wilderness found the MOBC again and re-joined. I'm fairly sure he should have been member number 61. He has the advantage of being very skilled in the wood-work department, so without further ado…The Midgelet returns…

Originally built 28 years ago from plans as above, and then re-built featuring a one-off Ash frame (designed and built by Peter.)

Aluminium body work, including double curvature boat tail also made by Peter on his home made wheeling machine.

Useful lad with his hands, eh? JH .

Other features and stuff on the Midgelet. The Engine is from a 1300cc Spitfire, with fast road cam, lightened and balanced flywheel, and a shiny new single inch and half S.U. Carburettor.

The radiator, re-cored, is from an Austin Maxi and the instrument panel from an Austin 10 (I think), an eBay purchase. The chassis, much modified is from a Spitfire, with a new perimeter frame, stretched by 5 inches and with modified engine mounts to move it back several inches. The seats are modified Midget frames, recovered and there's a one off custom fuel tank

The MGB 14" wire wheels have been shot blasted and powder coated.

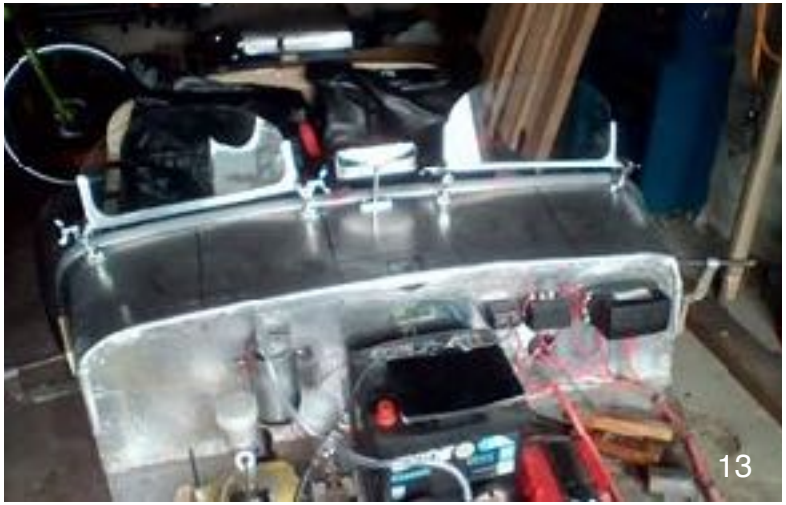
Even on the South coast of England it can still get a bit chilly, so, for weather protection there is a pair of Brooklands aero screens (not shown above) and there is a full height folding windscreen in chromed brass currently under construction.

The steering wheel, a Mota-Lita 13", has been refinished twice during the last 28 years and there have been 2 bodies, 2 steering wheels, 3 interiors, 2 engines (+1 complete rebuild) 2 sets of wire wheels, 2 windscreen (+ Brooklands aero screens) 2 pairs of headlights (another pair on the horizon). Peter, and the Midgelet have been on the Norwich Union run, the London to Brighton Classic, countless Haynes rallies, and the second ever Goodwood

FOS (Festival of Speed) where they were allowed to park by the track under the tree opposite the paddock, (don't think that would be an option these days!)

At the time of writing the engine starts but doesn't run. P.V.

More about the Midgelet later I hope. JH



Julian Brown (Member no 1010) Built an extended Midge SCX 269G in the 80s, started in earnest in April ’86 and finished and registered in May ’87. It was one of the first Vitesse based cars, with his own square tube chassis, He extended the wheelbase by about 9 inches from the


Herald original wheelbase length, sweeping wings modified from a Burlington Berretta, and Healey 3000 wheels. The car incorporated ‘suicide’ doors, a 2 x 2 seating arrangement, and what looks like a very

neat ‘multi-position’ folding windscreen highlighted here for your consideration.

If anyone sees it or knows where SCX 269G went, after it migrated to Huddersfield, Julian would be interested in finding it again.

Current activity includes making a 1/2 scale model Mini Midge of his original Midge working from a set of reduced plans.

The previous experience of building two Toylander Landrovers aided the process.

However it is always worth making a scale model as seen below.

I didn’t ask if he had made a scale model of the scale model of the scale model, as I had developed a headache, just thinking about it. JH

# Julian Brown's Mini-Midge.

Just to show that you can have indoor Midges too.

I have extended the footwell, children have longer legs than you'd think. The shell is being modelled by my 2½ year old granddaughter.

The basic concept was to take a set of Midge plans and reduce to 50%. However, that's when the fun started. I wanted to extend it to look similar to my full sized car, long bonnet with 2+2 cockpit, and I also had to accommodate propulsion, batteries, and the fact that children are varying sizes, not all 50% adult size. Furthermore I don't have a steel chassis for strength, although I might have to resort to a light box section perimeter to pick up the transaxle and the front axle/ steering system.I have sourced appropriate sized wire wheels, and as I write this I am 3d scanning an eared MG TC wheel nut, with a view to making them in 3d print. Still need to work out what material to make the long wings and dash top in, glass-fibre or steamed plywood. That's some way into the future. J.B.

≈≈ Of course the Lightning and EKO safety car for children are still available at lightning-cars.co.uk JH ≈≈

I think if this ToyLander image is anything to go by there are going to be some very over excited grand children sooner or later. The question is, are they growing faster than the Mini-Midge?

...No pressure Julian...

So, I hope everybody has a merry Christmas, or had one if I don't hit the publishing date. If I get the time I'm hoping to get a spot of welding done, the main problem being that my garages are full of Midge, Spitfire, Caravan, various trailers and assorted equipment. I don't suppose I'm alone in that. I found that building extra garages just gets you more stuff, and although I have a very tolerant wife, I think building another might trigger a reaction. Perhaps there should be an eleventh MOBC commandment:- stop collecting stuff if you can't see the floor, and a general suggestion :- If and when you sell a Midge, ask the buyer to contact you when he, in turn, decides to sell. You could even put a metal plate on the bulkhead asking future owners to do that. We were able to re-unite one Midge with its owner and identified the builder of another.

Some members are rebuilding Midges and a set of plans was required where some rot had weakened some parts, Midges bring you a little extra, wood rot as well as rust. John Cowperthwaite was able to get a copy set made for £45 + P&P and I think the club, which is well into the black, might order up a set. The ones I have are very faded and it would be a good plan to have a record. (or I should have a record of the plan) I think the sensible approach would be to allow copies of individual sheets (there are eight) to be loaned to members if the club makes a suitable donation to JC. Obviously they would have to be returned in good condition.

I don't suppose I'm alone in having a few bits of kit on the Midge that are a bit rough and ready. The wrong kind of indicator light, a below standard switch on the dashboard, you know the kind of thing I mean, well, Geoff Smith pointed out an extensive and largely reasonably priced on-line 400 odd page catalogue of useful bits at :- https://www.carbuildersolutions.com/uk/ or ring 01580 891309 for a hard copy. (you pay the postage) I think it might be useful if you were wondering what to get yourself for Christmas, or for passing hints to someone looking for something for you. I noted a notch nibbler on page 344 and a bolt gage on 337. Both would fit in a large sock.

I haven't tried them myself, so I'm not issuing a warranty on the shiny stuff and of course there are many other suppliers, but I am rather tempted by their windscreen wiper kit. ( different angles of sweep available)


I must make sure Fiona sees the magazine before Christmas, which means in turn that I'd better finish it before then.

So… have a happy one, check your anti-freeze, write something and send it in, don't eat too much, (the seats are narrow already), and mind to keep your Midge out of the salt.

Jim