

Fitting SU Carburettors to my GT6

When I bought my GT6 mk3 back in 1993 it came with a pair of SU HS4 carburettors fitted to it, I was advised to removed them as due to the height of the HS4 dashpots if the engine back fired it could possibly dent the bonnet due to insufficient clearance between the SU HS4 carburettors and the bonnet.

I then bought a pair of second hand Stromberg 150CDSE carburettors mounted on a manifold, I then removed the SU HS4 Carburettors along with the manifold and replaced them with the Stromberg CDSE carburettors and manifold. The SU carburettors and manifold were then put up in my garage loft.

The Stromberg CDSE carburettors were fitted to the late GT6mk3's and had the emission control fitted for the American market, These worked perfectly ok when I fitted them to my car.

When I attended a Stoneleigh show around 2005 I came across an auto jumbler who must have had about six sets of triumph Dolomite Sprint Carburettors for sale, these were SU HS6 inch and three quarter carburettors which I bought for about £30.00 (those were the days).I then put them up in my garage loft with the view of one day I might fit them.

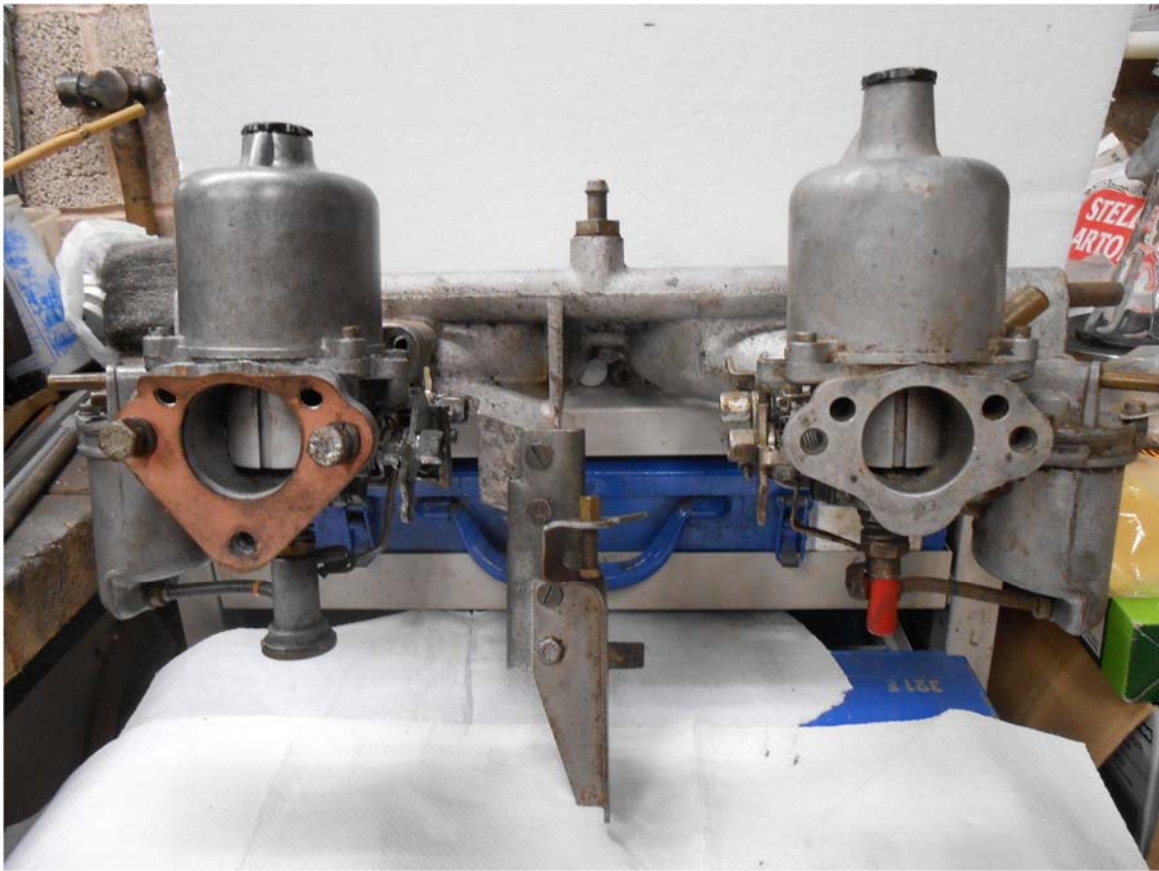
A problem I have always had with my GT6 is that when I have parked it back in my garage after a run after about 5 minutes I could smell petrol, I never could find the problem but it was something I lived with. The last few years I have found that it took about six turns of the key to start my GT6 and it seemed to be getting worse, I had purchased a refurbish kit for the Strombergs but I never got round to doing them.

Last June 2017 I was talking to some of our fellow South Wales members and I then decided that my winter project this year would be to fit the Sprint SU HS6 carburettors to my GT6.

The dashpots on the Dolomite Sprint SU HS6 Carburettors are not as tall as the SU HS4 carburettors (Picture 1 & 2) which will allow clearance underneath the bonnet,



Picture 1 SU HS4 Dashpot on the left Dolomite Sprint SU HS6 Dashpot on the right



Picture 2 SU HS6 Dolomite Sprint Carburettor on the left SU HS4 Carburettor on the right mounted as an example on the GT6 inlet manifold

I located the SU HS4 carburetors and the GT6 manifold originally fitted to my car which had been modified to fit the SU carburetors by the previous owner who had got the mounting studs re drilled I then found the Dolomite Sprint Manifold with the SU HS6 carburetors, I then cleaned them up. There was not a lot of information around of this SU conversion on a GT6 being done on any forums, The SU HS4 carburetors have two mounting points whereas the SU HS6 have four on each carburettor. Triumphtune do an adaptor for mounting SU carburettor with two mountings and two to pick up the existing centres for the Stromberg carburetors onto a GT6 manifold but had mixed reviews and as I would need an adaptor with four mounting points I decided to make my own.

I ordered a 12mm aluminium block big enough to make two adaptors and made a steel template of where I needed to drill the holes (picture 3). I drilled two holes in the aluminium and tapped them so I could fix the steel template onto it to enable me to drill through the steel template and into the aluminium so all the holes would line up. I already had a manifold with the correct centres for the SU carburetors so this enabled me to drill two clearance holes into my aluminium adaptor block for the two existing studs to fix the carburetors and two holes were drilled and tapped into my aluminium adaptor blocks for the other two mounting points so I could fit some studs. I then drilled the centre inch and three quarter hole in both aluminium adaptors with a holesaw which I then smoothed out with a emery wheel fixed in my drill (Picture 4). I carried out all the above drilling with a bench pillar drill for accuracy rather than a hand pistol drill.

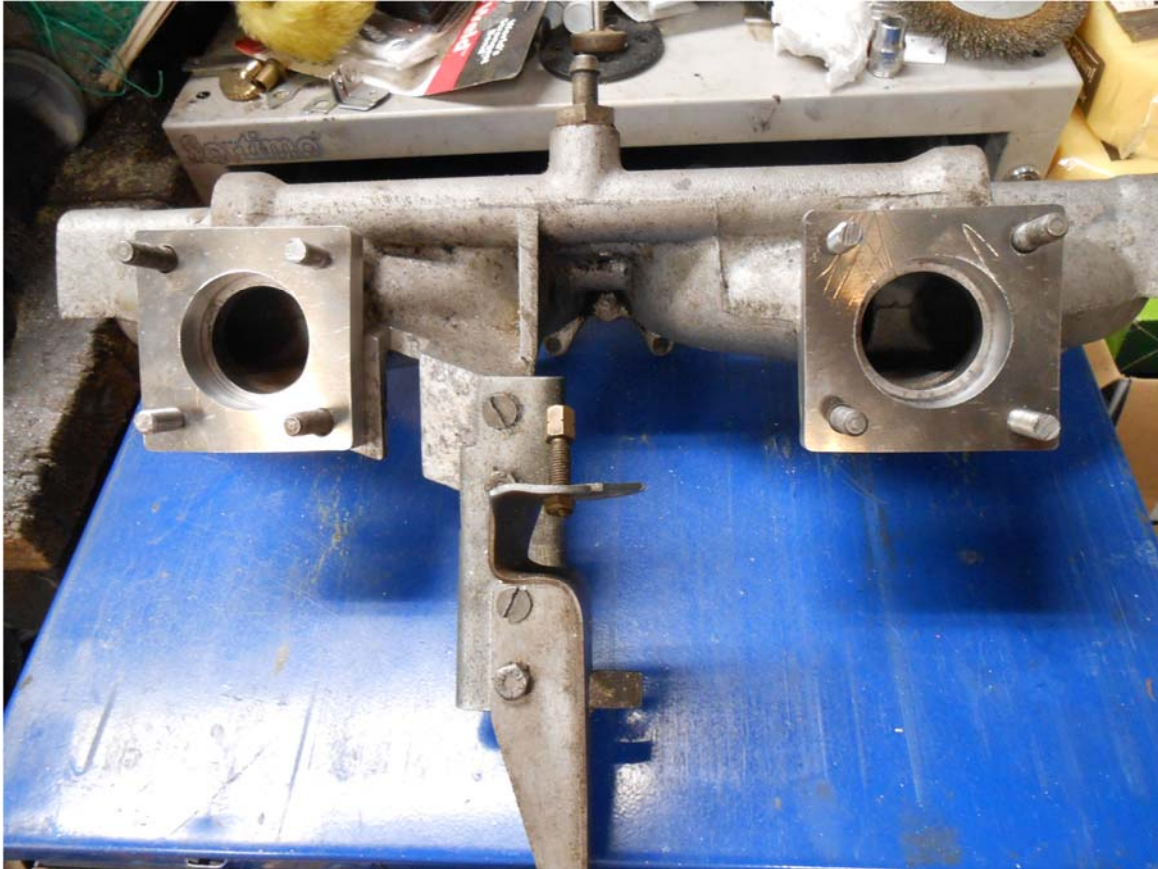


Picture 3 steel template which was fixed onto aluminium blocks for drilling holes in position



Picture 4 the aluminium adaptor blocks after drilling and tapping.

I now needed to work on the manifold, due to the Strombergs and the SU HS4 carburettors being inch and half so I needed to open both inlet ports up to the Dolomite Sprint SU HS6 size being inch and three quarters. I fixed my aluminium adaptor blocks on the manifold and marked the intake ports with pencil (Picture 5), I now used my emery wheel in my hand drill and opened them both up to inch and three quarters as was required. The port on the right hand side was close to the edge so for piece of mind I got a piece of aluminium welded to it so to get a good seal with the gasket when it came to fitting it all together (Picture 6).



Picture 5 shows adaptor blocks on manifold to mark ports with a pencil



Picture 6 shows how much port needs to be opened up and aluminium piece to be welded

Overhauling the SU HS6 Carburetors

I ordered a refurbish kit from Andrew Turner to overhaul both carburetors, I also ordered two HS Lever Link Assemblies for a standard jet conversion kit to replace the waxstats jets that came with the carburetors when I bought them in Stoneleigh to convert them both to the standard jets due to the problems of wax stats people had experienced over the years.

I stripped one carburettor at a time first marking the spindles with a marker and taking plenty of pictures as even though you still can refer to the other carburettor the springs are a mirror image of each other and can cause confusion with the way they are orientated.

I then with a pair of pliers squeezed the throttle disc screws together gently and removed them along with the throttle disc allowing me to withdraw the throttle spindle.

I removed the dashpot and piston from the carburettor body.

I then removed the choke linkages and wax stat jet. I thoroughly cleaned everything with carb cleaner removing all traces of dirt. I also stripped the float chamber thoroughly cleaning everything with carb cleaner.

Using plenty of carb cleaner and an old tooth brush I made sure that the carburettor, the float chamber housing, dashpot and piston were spotless.

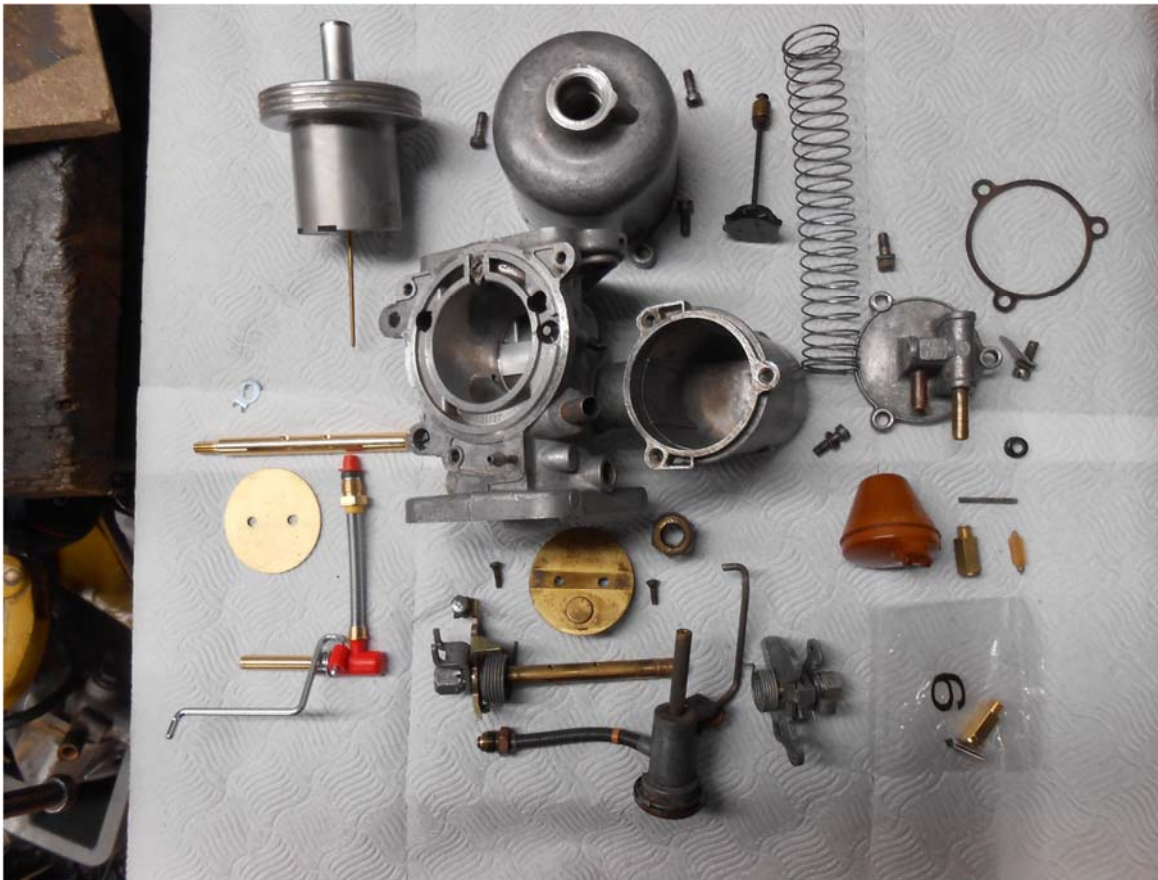
I was lucky as I didn't have any wear in the carburettor spindle so I didn't need to rebush them.

I then started to rebuild the carburettor, I refitted the choke linkage making sure the spring was in the correct position and the throttle spindle referring to my pictures and other carburettor. The throttle disc was refitted with the screws lightly fitted at first to get the best seal when closed, the screws were then tightened and very carefully with a small screw driver the screw ends were slight prised open to prevent them from coming loose.

I then replaced the float chamber fill valve to a viton type as supplied in the kit and checked to make sure the float was not punctured. I then checked that the fill valve was shutting off and sealing. When I was happy with this it was refitted back on the carburettor body.

The new standard jet was fitted on the carburettor with the conversion linkage and then connected to the float chamber. I screwed the jet adjusting nut in with my fingers and backed it off ten flats as a starting point for the mixture when it would be fitted back on the car. I refitted the piston I checked for wear on the metering needle but was found to be ok, the dashpot was then refitted.

I then carried out the same procedure for the other carburettor. Pictures 7 shows a stripped carburettor with the old parts and the new parts to be fitted and picture 8 shows both carburetors after overhaul.



Picture 7 above shows a carburettor stripped down with old parts and new parts to be fitted



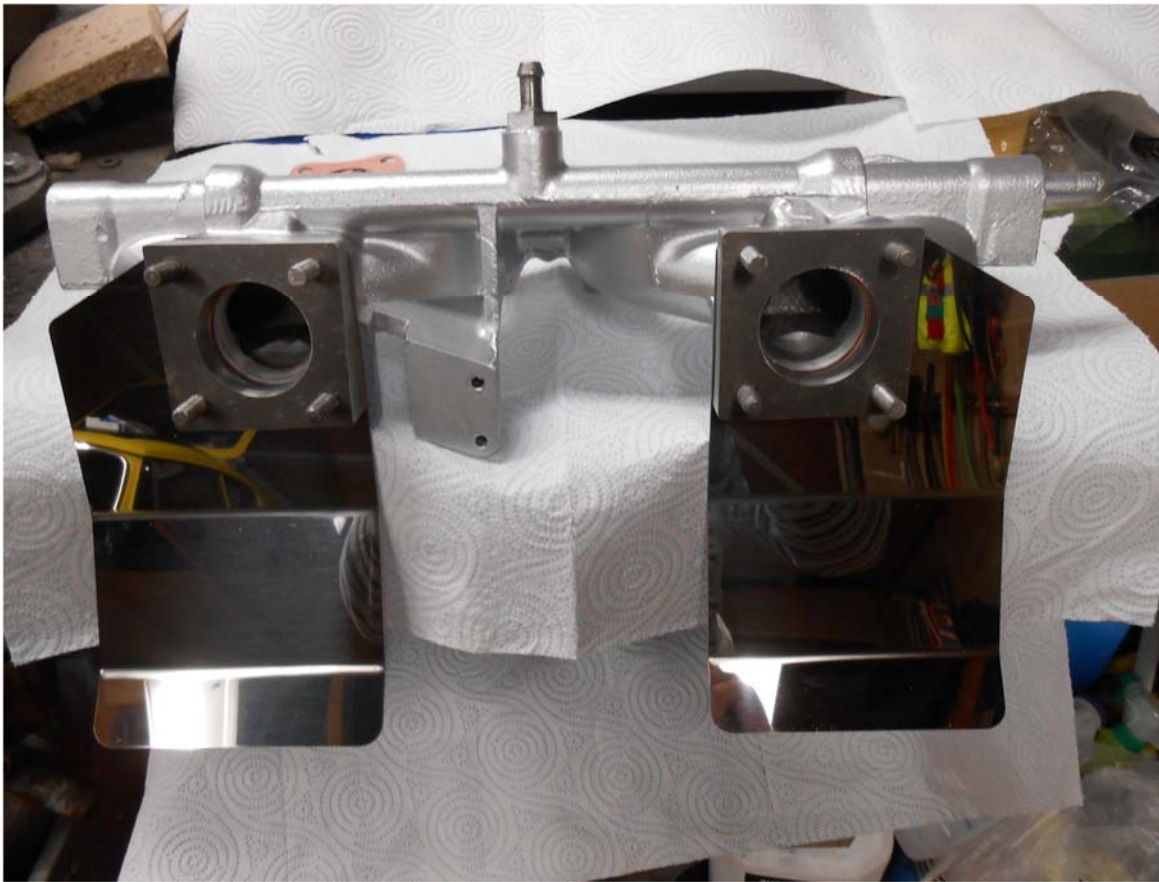
Picture 8 above shows both carburettors overhauled and ready to fit onto inlet manifold

With both the manifold, the aluminium adaptors made and carburettors rebuilt a pair of heat shields were purchased and the manifold now could be built up. With gaskets made the heat shields were fitted next the aluminium adaptors and then the throttle and choke control rods along with the carburettors (Pictures 10 & 11). I was able to reuse the throttle and choke control rods that were fitted to my GT6 when I first purchased it having the SU HS4 carburettors.

The next thing to sort out was adapting my existing GT6 throttle cable to operate the carburettors. On the dolomite Sprint the throttle cable is attached to the throttle control rod via a cable connector from below while on the GT6 it is attached from the top. I made up a bracket which I mounted on the manifold using the existing mounting holes and fitted the cable (Pictures 12 & 13). The choke cable was fitted without any need for modifications by using a cable connector.



Picture 9 shows inlet manifold with ports opened up to inch and three quarters and gaskets made up and fitted.



Picture 10 building up manifold with heat shields and aluminium adaptors



Picture 11 Carburetors fitted along with throttle and choke linkages



Picture 12 shows the adaptor bracket for the throttle linkage



Picture 13 shows bracket and linkage set up with carburetors



Picture 14 shows Carburetors and manifold throttle and choke cables connected along with new K & N Filters and petrol pipes.

The carburetors and manifold were fitted to the car.

I then had to re-pipe the petrol supply lines to both carburetors and float chamber overflows using Fuel hose SAE J30 R6 suitable for unleaded pipe. I also purchased a pair of K&N filters 56-9097 which were in their catalogue for a Dolomite Sprint (Picture 14).

When everything was ready I started the car up and set up with a carburettor balancer and a colour tune. The filters were fitted and took the car for a test run, everything ran ok and since then have carried out 250 miles of driving. I have not noticed any difference in petrol consumption but the car seems to run better with these carburetors fitted It starts better no smells of petrol when parked up after a run.

I did give a lot of thought as to what type of air filters I should fit, the Strombergs that were fitted had the standard air box with a pair of flexible pipes to the front of the car to bring in cold air but I decided to go with the K&N filters have not noticed any problems or extra noise with these fitted.

I will overhaul my Stromberg Carburetors in the future as I have the refurb kit and I can refit them if I need to go back to standard if ever I feel the need to.

Mikey J