TREGISTER

Totally T-Type

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Don Harmer's TF1500 bought from the Mills Lane Antique Auto Museum, Atlanta in 1964

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THE EDITOR

A 'Happy New Year' to one and all!

I always feel that starting a new year is like starting with a "clean sheet". You can forgive yourself for not doing all the things you said you would do in the year just past and kid yourself that you will definitely do them this year. Well that's what I've been saying to myself for the last umpteen years but things still don't get done! Maybe this year will be different?

Before I ramble on too much I must say a big 'thank you' to all of you who renewed so promptly. To receive 50% of subscription renewals within two weeks of receipt of the November issue was very heartening. I must say that the support I get and the enormous fund of goodwill out there is really appreciated and keeps me going.

Those of you who haven't renewed so far will find a gentle reminder with this issue of TTT. I'm pleased to say that the number of reminders I am sending out this year is well down on previous years.

We start the Register year with the MG Spares Day at Stoneleigh on 21st February. Our stand will be in the usual place (opposite Barry Walker's stand) and we look forward to meeting you. A month later (on 20th March), we are holding our 'Rebuild' event at a new venue. This is the Performance Engineering Centre at the Bicester Campus of Oxford and Cherwell Valley College. The Centre has excellent facilities as those of you who attended the Practical Skills Workshop in October will surely agree. We then take a bit of a breather until the beginning of June, when we shall be out in force at the Silverstone International Weekend, which is branded as ***MG Live!***

One event not mentioned above, because we don't attend as a Register is Brooklands MG Day on 11th April. I am hoping to attend and meet up with Bob Grunau, who plans to be there, all the way from Ontario, Canada.

‘T’REGISTER NEWS (Compiled by John James)

PAST EVENTS

There are no events to be reported on.

FUTURE EVENTS

The International MG Show and Spares Day (Stoneleigh) 21st February 2010

Details of this event can be seen at www.classiccarshows.org.uk/MG.html

The Register will be in attendance on stands 240B and 241B (opposite Barry Walker’s stand) in Hall 1 at this popular event, which is reckoned to be the largest indoor MG Spares Show in the world and which the organisers claim attracted 5,000 visitors last year.

We shall have a limited range of regalia on sale, including both the “Inside the Octagon” DVDs.

You can bring along unwanted spares for sale and we will NOT charge you commission. All we ask is that items are in reasonably clean condition and each is tagged with a parcel label, giving your name and the amount asked. Additionally, the spares in your name should be listed with a copy for you to keep and a copy for those on the stand. By doing this you will be helping us to help you!

‘Rebuild’ 2010 20th March 2010

Bill Silcock, ‘Rebuild organiser’ reports as follows:

“Final preparations are now nearly complete; Mike Card will be talking about his TC “Café Racer”, as well as Brian Rainbow on single and twin leading shoe brakes. David Lewis who coach painted his TC will tell you how he did it (including the preparation). We are hoping we can schedule some theory and practical welding training for those who missed the Practical Skills Workshop in October. I am still trying to add one or two more items to the day.

Whilst I do not have the final programme details (we hope to firm these up shortly in order to publish them in the February “Safety Fast!”) we can

promise an interesting and informative day and the opportunity to rub shoulders with fellow 'T-Typers'.

The date is **Saturday, March 20th**, and in response to requests to look for a more central location we have moved the venue to the **Oxford & Cherwell Valley Motor Sports College, BICESTER, OX26 4LA**. The day begins at 9.30am, with the first session beginning at 10.00am sharp. The price this year (which includes VAT) is £25 for MGCC members and £32.50 for non-members. This includes a buffet lunch with hot soup, and I'm meeting with the caterers shortly to finalise their offering. Please apply soon to avoid missing out. Send your application (including your MGCC membership number and your email address if you have one) to me, Bill Silcock, 29 Church St, AMPTHILL, Bedfordshire, MK45 2PL. **Please make your cheque payable to "MGCC 'T' Register".**

As we did last year, we would like to encourage the 'next generation' T-Type owners, so if your son, daughter or young friend shows any inclination to acquire your T-Type when you are too old to drive it, they can attend 'Rebuild' for free. All we ask is that you pay for their lunch, which this year will cost £10. These places will be limited to 20, so again, please apply early.

We will be holding our usual 'Bring and Buy Sale' of new and used parts at this event. If you have any parts to dispose of, please bring them along labelled with your name and the asking price. The sale is commission free and is provided as a service to all 'Rebuilders'.

The event finishes around 5.00pm and after a short recess to allow rearrangement of the seating arrangements, the 'T' Register AGM is held".

Silverstone International Weekend (*MG Live!*) 04/05/06 June

As I write, the dates are still shown on the MGCC website as provisional but I think you can take them as read.

Further details will be published in due course.

The 'T' Party

Now that we know the probable date of the Silverstone International event we can focus on the date for the 'T' Party. There are hill climb events at Shelsley on 17th July and at Prescott on 3rd October – both these could be possible contenders.

THE AUTUMN TOUR 10th/11th/12th September 2010

The 2010 Tour will be based on The Metropole Hotel, Llandrindod Wells. The hotel website address is: www.metropole.co.uk Tel. No: 01597

823700, and e-mail: info(at)metropole.co.uk . The Tour organisers are Graham and Sue Brown graham.sue358(at)btinternet.com

You are strongly advised to book the hotel now – just mention the MG Event. At the time of writing, 53 rooms have been reserved from our allocation of 60.

THE AUTUMN TOUR 2011

The 2011 Tour will be based on Skipton, North Yorkshire at the Coniston Hotel www.theconistonhotel.com/ The hotel is family run and independently owned by the Bannister family and is set on a private country estate in the heart of the Yorkshire Dales.

The organisers are Grant and Barbara Humphreys grant.chumphreys(at)btinternet.com More details in the next TTT.

75th ANNIVERSARY OF THE TA

2011 will be the 75th Anniversary of the TA. It will be upon us sooner than we think!

50th ANNIVERSARY OF THE REGISTER

Believe it or not, but 2013 sees the 50th Anniversary of the Register – it does not seem very long ago that we celebrated the 40th Anniversary!

Front Cover – Don Harmer's TF1500

Don Harmer's TF1500 was manufactured between 15th and 24th January, 1955 (from British Motor Heritage records) – build date of 24/01/55 recorded in the 'T' Register records.

We are fortunate that Abingdon adopted the unified Nuffield car number prefix system from the start of TF production as this enables us to know the original colour of the car; something which we do not know for the earlier T-Series models as all the chassis files were destroyed. From correspondence which Historian, Roy Miller holds, a new production line was installed at Abingdon *circa* May 1965, which entailed demolishing most of the old Service Department, including the room where the service records were held. Approximately six and a half tons of files (which included MGA records) left the building, never to be seen again, albeit the Triple-M files were saved for posterity.

Don's car is HDA 46 /8986. The 'H' signifies an MG Midget, the 'D' an open two-seater, the 'A' the colour (Black); the '4' indicates that it is a North American export car and the '6' tells us that the paint is a cellulose finish on the body and synthetic finish on the wings. Finally the '8986' is the chassis number.

TF8986 was originally owned by Lt.??? USN, USS Saratoga, and appears to have been driven only when he was on liberty (shore leave) in Norfolk. It had a Virginia Title. It was purchased By Mr. Frank J. Riddle for his daughter in 1961. She promptly blew the transmission by trying to shift into first while moving. It was repaired and sold to Mr. Mills B. Lane, Jr. A few months later Mr. Riddle again used the car and had a new Interior, top, and tonneau, made for it. After several months he returned it to Mr. Lane. He had it repainted and put into show car condition for his Antique Auto Museum, "The Stable of Thoroughbreds".

In Nov. '64, for tax reasons, he closed the Museum and sold some of the cars. Don bought it at this time from Mr. Lane, with the odometer showing 8500 miles. At that time it had aluminium front side curtains, as the originals had been sold with a TC from the Museum in error.

In March '65, Don moved to Long Island, added a heater and drove it daily. While in New York in 1966, he tuned it to Stage III, by the "Special Tuning

Manual", compression ratio: 9.3:1, polish & port head, etc., increasing the BHP to 75. The clutch linkage was rebuilt using spherical rod end bearings, instead of the shackle and pin.

In Sept. 67, Don returned to Atlanta, and drove it daily to Georgia Tech for several years, making one long trip to Key West in 1968. After being "rear ended" twice in one week in 1973, resulting in breaking 1st gear in the process, the car sat in an open car port while waiting for parts. Eventually Don obtained a transmission, installed it, and started to rebuild the original. One thing led to another and the open car port took its toll on the paint; it was not until 1980 that Don began to actually work on the TF again. He soon discovered the engine had "frozen up" so a rebuild was in order.

Over the next several years, the mechanicals were rebuilt, frame painted, the brakes redone with silicone, etc. In the fall of 1985, fenders (wings) & hood (bonnet) were taken to a body shop to be "fixed-up" and repainted. Lead only was to be used, NO BONDO. In Mar. '86 the body was stripped by Don and taken to the shop for painting. He finally got the car back in Feb. 87 and completed the car just in time for the Show at GOF South in Mt. Dora, Florida in May 1987. He drove the untested TF 250 miles to Mt. Dora, where it won 2nd Place in the TF Class in the Car Show.

In the process of restoring, all new rubber was used; all parts were disassembled, cleaned, stripped and painted, etc. The instruments were rebuilt in 1986 by John Marks, Vintage Restorations, England. The odometer before rebuild showed 18,500 miles. (Reset to 0, '86) The rear axle was converted from 4.825/1 to 4.1/1, Jan 15, 1994. The TF has been driven about 2500 miles/year since rebuild, for pleasure and in Southeastern MG T Register Events.

In the spring of 2006, on a 1100 mile Club tour to Abingdon and Winchester, Virginia, a freeze plug blew, with total loss of coolant. The resultant overheating required an engine rebuild. This was done by Bob Wagner of Atlanta Imported Auto, Inc. The engine was rebuilt 0.20 over, and tuned and broken in on the dynomometer stand Bob uses for Vintage race car engines. He used leaded racing gasoline to initialize the valve seats (leaded gas has been unavailable for general use for over 20 years in the US) The measured horsepower on the Dyno was 75 BHP at 5000 RPM (projected 82 BHP at 6000 RPM)

The TF has now been driven 38500 miles since restoring in 1986.

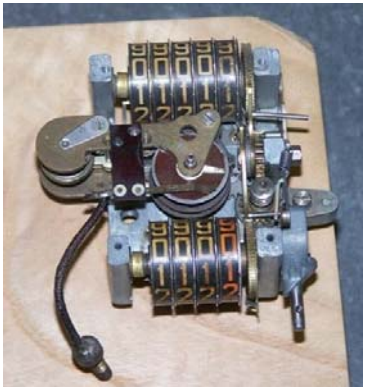
Ed's Note: The car left the Factory painted black with red upholstery. Optional Factory extras fitted were the wire wheels, and full tonneau cover. Dealer or aftermarket equipment was the outside mirror (you can just see this against the forsythia) fender (wing) mirrors, badge bar, Lucas SFT/479 fog lights, seat belts and a heater (since removed).

Shedding Some Light on the TC Map & 30 Lights

In 1935, Howard Hughes set the world speed record of 352 mph in his Hughes H-1 Racer. That same year the UK passed legislation for the first time to limit the speed to 30 mph in all towns and villages. This very act set the stage for the infamous 30 light in our cars today. But not all TCs had one. Only the Home Models had the 30 Light on the dash and the particular components associated with 30 light in the speedo. Or is this correct? Well, no, not completely. Let me explain.

The TC has 2 panel lights, one on each side of the centre control panel. On an Export Model these are both map lights. However, on the Home Model, the right hand map light was originally a 30 light. Its function was simple, come on and alert the driver if the speed reached 30 mph. Both the map light and the 30 light use the same base. So this is a common item and interchangeable between the 2 lights. The difference however, is in the trim caps. The map light has a window to shine the light out of and "onto the map". The 30 light is totally enclosed except it has a bevelled edge green lens in the end of the cap. But how does the 30 light work?

Inside the TC speedo there is a mechanism that simply acts as an on/off switch. At 30 mph a contact is closed and grounds the circuit. Here is the interesting part. All TCs came with this switching mechanism inside their speedo. It is integral to the speedo itself and there was no such thing as a Home or Export Model speedo. If you look at the back of an original speedo you will see the small finger screw cap that is used for wiring the 30 light circuit to. That's it. Just connect the wire to this terminal. The instrument is grounded by the speedo cable going to the gearbox which is grounded to the chassis to complete the circuit. If you look at the photo of the inner workings of the speedo you can see the center post for the needle. Below that is a disc that makes contact with the brass bar when the speed reaches 30 mph. So what if your 30 light does not work?
Remember the bases for the 2 lights are the same. Check to see if your base is turned on. Like your map light, turn the base of the 30 lamp clockwise to the on position and leave it there all the time. If this does not work replace the bulb. If this fails then you will have to get into wiring and maybe even have your speedo checked.



For those of you, who will be rebuilding your dash, please reference the TC Instruction Manual (Brown Book) for proper wiring. However, for the early TC owners, keep in mind that the current reprint of the 1945/48 Home model wiring does not show a 30 light. You will have to use the 1948/49 Home model diagram. Or visit http://fromtheframeup.com and look under Tech Tips for a copy of the original 1946 wiring diagram with the RF91 regulator with the early color codes for wiring.

Acknowledgements go to Fred Kuntz and Craig Seabrook, Whitworth Shop, Ohio for their technical assistance and photos. If you are in need of a Map Light or 30 Light, these are available with many other hard to find parts from "From the Frame Up". As always send comment to doug@FromTheFrameUp.com

THEN AND NOW!

TC4215 pictured in 1967 just after David Moir had purchased her

TC4215 as she is now. Completely dismantled by David in 1968 as a 22 year old novice, who thought it would only take a few months to complete! Now, over 41 years later she looks resplendent in Regency Red paintwork and red leather upholstery.

Installing a Heater in a TF

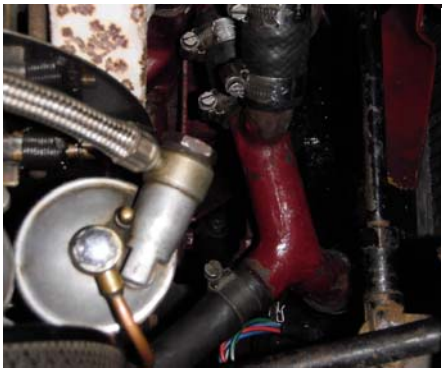
Frans Sitton in The Netherlands sought the advice of Register TD/TF Technical Specialist, Barrie Jones on fitting a heater to his TF in October of 2009. Reproduced below is his e-mail request to Barrie:

I intend to install a heater in my MG TF. Do you perhaps have some tips, how to do this? Where to connect the hoses for instance? And possible to shut off with a cable under the dasboard? I have already a heater and vent from a MG TD, which fit very well under the dash. Looking forward to your answer.

Here's the advice offered by Barrie:

"I attach 3 photos.

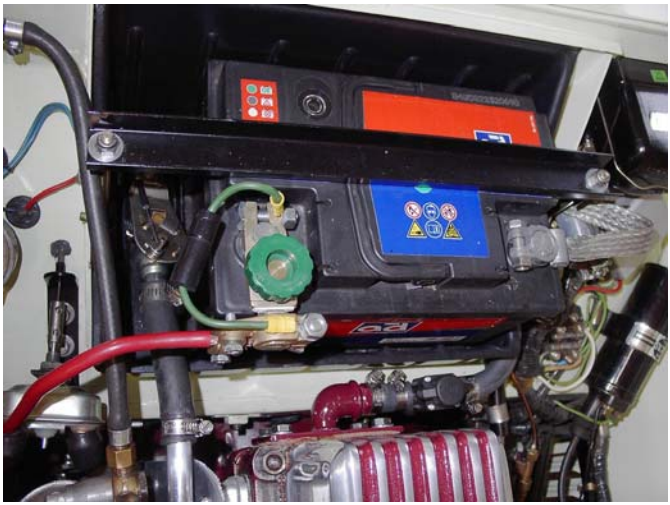
Two of them show how my heater is plumbed into my engine, and the third is a photo of a TF1500 thermostat housing with two take-offs. One outlet is used for the temperature gauge, and the second one is threaded 1/2 inch BSP. I found that the standard heater control valve from a 1275cc MG Midget fitted perfectly. If you have the earlier TF housing with only one take-off, then you could fit the alloy plate from a Wolseley 4/44 which fits onto the rear of the cylinder head. If you want to control the heat from inside the car, then you could fit a Cable-Operated Water Valve into one of the pipes. These are available from www.europaspares.com , part number COWV".



TF heater pipe (above) & heater valve (above right)

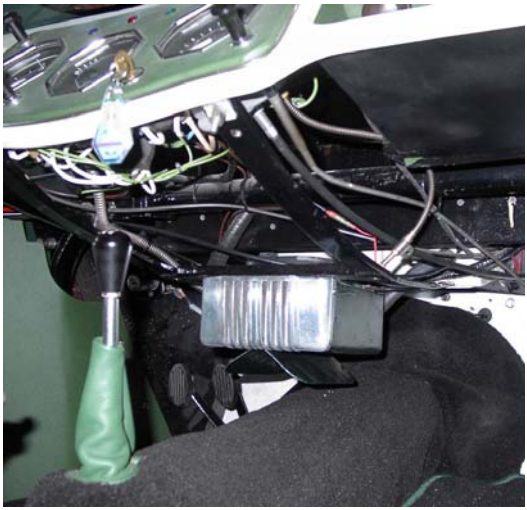
Frans soon set to work and within a matter of a few weeks sent the following e-mail to Barrie:

First let me thank you very much for your advice on how to install a heater in my MG TF. I've just finished it, and the heater is working perfectly! Here are some pictures of it. I didn't succeed in getting another thermostat housing, so I took a T-water hose-pipe from a Wolseley at the other side of the thermostat housing. Fitted over the carbs by a central heating pipe. Had to weld two fitting lips under it for fastening.



At the back of the engine I made a new plate, 5mm thick, with a 1/2" knee from a gaspipe. I mounted the cable-operating device at the underside of my dashboard. Also another take-off at the other side, in case of leaking.... All from Europaspares, as you suggested. Just fits in the old holes precisely! And the on/off of the heater ventilation fitted under my steering wheel by a hose clamp. Doesn't disturb the originality of the car. I think it is a neat solution and it heats perfectly. I'm pleased with it!

(More photos on page 14)



Ed's Note: This is a fine example of how the Register can help you.

Recently I was able to help Frans on another matter. He was coming to the UK (Lincolnshire) to collect a TC he had bought. He had also purchased a headlight from Tony Brier and it would obviously be preferable to collect the headlight in Lincolnshire, rather than Tony send it to The Netherlands from Yorkshire. At the time, Frans was not sure of the address in Lincolnshire and there was only a matter of a couple of days before he was coming over. As I knew the address of the vendor of the TC I contacted him to ask him if he would mind acting as a third party in the delivery and payment for the headlight. He willingly obliged and so I was able to get Tony to send the headlight by Royal Mail Special Delivery to Lincolnshire, where it arrived in the nick of time for Frans to take it back with him. Phew!

Another story, but this time, of trans-continental assistance, to follow later!

Fuel related problems in classic cars

The November 2009 edition of 'Classic Cars' requested information regarding classic cars experiencing problems with modern petrol. Barrie Jones sent the magazine the following:

I am the technical specialist for the MG TD and MG TF within the MG Car Club 'T' Register. I also serve as an expert on MGBs, V8s and MG Midgets on the `Allexperts' website (q.v.).

Lately I have received many phone calls, e-mails and website queries from owners of classic cars who have experienced cutting out or rough running, often accompanied by excessive heat in the engine compartment. These cries for help have come from all over the world. (UK, USA, Canada, Australia, France, Manila …)

I found a document on the FBHVC website, from which I have extracted the following statement. (The words are unchanged, but I have provided some additional punctuation):

Ethanol has a higher latent heat than petrol, and because it boils at a fixed temperature (circa 72 ^{o}C), even at 5% volume addition, will increase the effective latent heat demand in the critical (up to approximately 70 ^{o}C) 'light end' boiling zone, by a calculated 25% compared to petrol containing no ethanol. In a nut-shell, adding ethanol will bump up the heat demand in the inlet manifold, so increasing the risk of carburettor icing.

I checked the latent heat figures. The amount of heat required to vapourise 1 lb of petroleum is approximately 140 BTU, whereas the amount of heat required to vapourise the same weight of Ethanol is 361 BTU.

I therefore conclude that what is happening in older engines (such as the XPAG, the `A' series and the `B' series) is as follows:

Stage 1:

Because of the added Ethanol, the fuel is no longer receiving enough heat in the carburetter throat area and the inlet manifold to vapourise properly, so it is entering the engine partially as liquid droplets. This mixture is not getting burnt completely in the combustion space, and the remainder is being ejected into the exhaust manifold, where it continues to burn.

In extreme cases, the jets in the carburetters are getting so cold that moisture in the air is being frozen as it passes over the jets, causing them to become blocked with ice. This is called `icing up' and usually occurs within 3 or 4 minutes of starting the engine. The engine dies, and the car stops. By the time you have lifted the bonnet, the ice has melted and there is no evidence as to what stopped the car. It may happen again a few minutes later. Eventually the inlet manifold warms up, and the trouble does not happen again until the next time that the engine is started from cold.

Stage 2:

The partially unburnt fuel ejected from the engine continues to burn. The exhaust manifold quickly becomes much hotter than it was originally designed to cope with, and the excess heat radiates to the float chambers and the fuel lines. The incoming fuel now starts to boil before it even reaches the carburettor jets, and the engine dies from fuel starvation. This condition is known as vapour lock. The engine will not re-start until the engine compartment has cooled down, which can take several minutes.

The Solution

This situation can be very confusing, because the engine appears to be overheating, whereas in reality the intake manifold is not getting enough heat.

Unfortunately, older classic engines designed to use carburettors are most at risk, because modern fuel needs MORE heat in the carburetter jet and throat area, but the float chambers and the fuel lines require LESS heat. This can sometimes be solved by fitting a good design of heat shield and wrapping the fuel lines with a suitable heat lagging.

Those cars which have a fuel pump bolted to the engine seem to be worst affected, followed by those with an electric fuel pump in the engine compartment. Fitting an electric fuel pump outside the engine compartment seems to improve matters, and having a return pipe to the fuel tank is even better because the pipes will then carry a continual supply of cool fuel.

In the case of older engines running a low compression ratio, the addition of 10% kerosene to the fuel seems to help. (Kerosene has a latent heat of 108 BTU/lb).

However, Kerosene will lower the octane rating of the fuel, so it is not recommended for engines with a higher compression ratio. In this case, the use of high-octane petrol such as BP Ultimate seems to solve the problem.

Regards,

Barrie Jones, TD/TF Technical Specialist MG Car Club 'T' Register.

Ed's Note:

Barrie (not the Register) sells laser cut heat shields which are designed for the TF model but will (with some fettling) also fit the TB/TC/TD. Barrie sends them to me in batches and I distribute them. I have sent them all over the world and we are now on our fourth batch. Apparently, we are not allowed by MGCC to advertise them as part of the editorial content in TTT so the advert appears in the classified adverts section towards the end of this issue. We will have some on the stand at Stoneleigh for inspection.

MG TC – Notes on Fuel Consumption

Over the past two years I have been experimenting to improve the performance of my 1947 TC in several areas, but especially that of fuel consumption. The car is equipped with an accurate electric speedometer/odometer and I have calibrated the petrol tank in litres versus innage (dip) in two centimetre intervals. I normally buy petrol in exact multiples of five or ten litres so, coupled with the tank calibration, I have a reliable account of petrol usage versus mileage driven from the odometer. The result is that I am able to get 50 mpg on a long run of 50 to 70 miles and more while cruising between 40 to 55 mph in mixed traffic conditions (some open road, some 30mph limits). In town on short shopping trips (5 to 10 miles) the consumption rises to 33 to 38 mpg.

This improvement over standard TC figures is not at the expense of other performance data which is close to that (my impression) of my previous TC of many years ago. The car is very flexible and will accelerate well from 1600 rpm and above, and will still rev freely as the XPAG engine should. It cannot be made to pink on 94 (ROM) octane petrol and the maximum speed is close to the standard TC (73 mph) in spite of the higher gear ratio (see overleaf).

For information I have listed below the changes made to the car to enable the fuel consumption figures to be achieved:

ENGINE

- Higher compression ratio 8.8 to 1.
- Standard TC valve sizes to encourage mid-range power.
- Iskenderian camshaft HR-8 with valve lift 0.355 ins. and nominal timing: Inlet opens 15 deg BTDC, Inlet closes 54 deg ABDC, Exhaust opens 53 deg BBDC, Exhaust closes 16 deg ATDC. Valve clearance (hot) 0.015 ins.
- Standard exhaust system but with 1.5 in. tail pipe (not noisy).
- Plug insulation noses (NGK B6HS) all biscuit coloured, light tan.

CARBURETTORS

- Two 1.25 in. diameter HS2 SU.
- Butterflies inverted to retain TC throttle shaft operating sense (counter clock-wise as viewed from the cockpit).
- Carb. piston weighted to a total of 175 g (6.17 oz), no spring, no damper. This figure is equivalent to a blue spring with the standard piston.
- Carb. needles AC (as for TA)
- Aluminium heat shield behind carbs.
- Air filters, two pancake type, paper elements.

DISTRIBUTOR

● Modified 25D4 (MGB type) with vacuum advance.

● Centrifugal advance weight return springs, two off 17.7 mm length (within circular end loops, no elongated loop).

● Measured experimentally the Hooke's Law constant, relating spring extension to load. Result 617 g/ mm (34.5 lb/ in).

● Maximum centrifugal advance 28 deg crank. Static advance 4 deg crank.

● Centrifugal advance weights, 15 g each.

Centrifugal advance curve:

Advance deg crank	RPM crank
0	915
19	1670
28 (max)	3600 and above

Centrifugal and static advance curve:

Advance deg crank	RPM crank
4	915
23	1670
32 (max)	3600 and above

Vacuum advance capsule	6 -13 – 7
Vacuum advance starts	6ins. mercury
Vacuum advance ends	13 ins. mercury
Total advance (max)	7 deg distrib., 14 deg crank.

Vacuum sensing point – mid point of intake manifold, note – not at carburettor.

Maximum vacuum advance is 14 deg crank at about 2000 rpm crank.

Total advance (centrifugal, static and vacuum) at 2000 rpm crank and part throttle (cruise) is thus about 38 deg crank.

Car speed at 2000rpm in top gear (see overleaf) is about 37 mph.

At this speed, engine power at wheels = total drag = 12 bhp (calculated).

REAR AXLE

● Higher axle ratio 1 to 4.625 (courtesy Roger Furneaux). Tyres 4.75/5.00 x 19in.

● speed mph/ 1000 rpm in top gear = 18.34

● 60 mph = 3270 rpm in top gear

● 60 mph = 4416 rpm in 3rd gear

CONCLUSION

● It is unlikely that all the changes have contributed significantly to the improved fuel consumption, but the following are probably the important points:

● Higher compression ratio 8.8 to 1.

● Iskenderian camshaft, particularly the higher valve lift of 0.355 in.

● The changes to the carburettors (weighted pistons and AC needles).

● Distributor advance curve, particularly the use of vacuum advance (14 deg crank max)

● Higher rear axle ratio 1 to 4.625 to give a cruise of a lower rpm 15.8% below the TC standard ratio, 1 to 5.125, 15.84 mph/ 1000 rpm.

John Saunders

Ed's Note: John is not claiming that the modifications he has carried out are to be seen as a "benchmark" for others to follow; rather that he wanted to share his experience with others. He makes the point that there is nothing particularly special about the Iskenderian camshaft (made in the USA) but the high lift is useful. The same goes for the HS2 carbs which were on the car when John bought it. However, the section on the distributor looks interesting and I have asked him to consider expanding on the theory and practice, perhaps with the aid of diagrams so that novices like me are in a better position to understand what he has done. John has agreed to do this.

BLAST FROM THE PAST!

This issue's 'Blast from the past" is actually an extract of an article written by John Thornley entitled "Whys and Wherefores of the P. Type Midget" which appeared in "The Sports Car" of June 1936.

Marketing 'hype' was not as prevalent as we experience today but JWT was obviously keen to build on the following quote by THE SCRIBE in "The Autocar" of 31st January, 1936.

"That M.G. Complex people talk about is not bunk; the more one drives an M.G., the more one is spoilt for most other cars of the same size"

We join JWT's article half way through a paragraph entitled "Stability", which then leads into the next paragraph entitled "Soft Springing"

"Another interesting item of design which has a very definite bearing upon the stability and controllability of the M.G. Midget is found in the road springs and their mountings. The present-day knowledge of the science of suspension seems to dictate that in order that the car may be really comfortable, laminated springs, where these are used, must be long and supple.

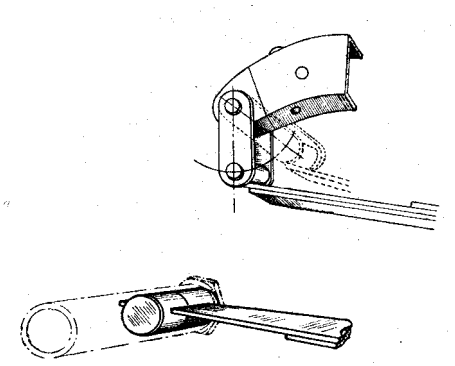
Unfortunately, soft suspensions of this kind usually permit bad rolling, and you will have doubtless have noticed that with modern American saloons, however willing the road wheels and axles may be to stay on the ground, there is a very pronounced tendency for the body and chassis to fly over the hedge when a corner is taken at all fast.

You will have noticed, too, that the bodies of those American cars move very considerably in a vertical direction on a bumpy road, and, whilst this movement is usually controlled by shock absorbers, you may readily imagine how uncomfortable it would be if movement of similar amplitude occurred with a car as small as an M.G. Midget.

Therefore, not only must the road springs be scaled down in proportion to the size of the car, but, in order to achieve absolute rigidity and the best possible road adhesion, the road springs must be stiffer and the suspension generally harder than the ordinary touring car of similar size. The sports car owner cannot, therefore, expect to float along as does his more opulent though less fortunate friend with his Yankee saloon. The phrase "less fortunate" is used advisedly, for despite the somewhat better acceleration and maximum speed which one ought to expect from the American's expensive horse power and low weight, it is this very tendency of the American car to fly off the road on a corner which enables the Midget driver to leave it cold and its driver "hot under the collar" on a cross-country journey.

One other obvious point is that when the correct size and strength of road springs for a particular car have been decided upon they must be rigidly fixed to the chassis. Owing to the fact that any semi-elliptic spring varies in its effective length according to its deflection, means have to be provided to accommodate this change in length. This is normally done by mounting one end of the spring securely to the chassis and the other end on a shackle.

The wear to which shackles are subject will best be seen by reference to the diagram. It will readily be appreciated that a small amount of play developing in the shackle pins due to wear will allow very considerable lateral movement of the spring relative to the chassis. For the general controllability of a small car this is most undesirable as the directional qualities of the car are adversely affected.



In the sketches are seen (above) a spring shackled in the conventional way and (below) a spring fixed in split trunnions in the manner favoured for the M.G. Midget and Magnette.

This has been overcome in the design of the M.G. by taking advantage of the tubular cross member and allowing the rear end of each main leaf to slide through trunnions contained in an extension of the tubular cross member.

It will be apparent that with this arrangement when wear takes place the side play permitted to the springs will be equal only to the amount of wear and will not be multiplied several times as in the case of a shackle.

It is not intended to infer that all shackles are unsatisfactory, but in order that they should be proof against the evils of wear they must be very strongly made and are usually heavy in consequence.

It is intended, in subsequent articles, to deal with more of the special features of M.G. design, notably in connection with the brake gear and certain parts of the engine".

Ed's Note: This article would have been written about the same time as when the TA model was 'on the stocks'. Mercifully, the Nuffield "bean counters" hadn't cottoned on to the potential saving through using the shackle arrangement on the TC for the introduction of the TA and the TB

was also blessed with bronze trunnions. I wonder how JWT would have explained away the spring shackle arrangement on the TC? Also, if *The Sports Car* article had been written ten years later it may not have helped the export drive to North America!

This leads me on to the subject of shackle pins and rubber/poly bushes…..

One of the drawbacks of owning a largely unspoilt original car (as TC0750 – "the Vicar's car" – undoubtedly is) is that maintenance over the years has probably been neglected, so that there is a lot to do and renew. On the other hand, it is a real bonus to find original fittings, which have amazingly survived for over 60 years! Some of these, which are germane to this article, are the rubber bushes which fit between the front and rear shackle plates. The photo above shows a couple of these bushes which were removed from one of the rear springs.

The rubber bushes on the TC were made by Harris Flex and were patented.

There are three different part numbers for these rubber bushes:

ACA 5242 (a BMC part number, I believe) is the bush (one of a pair) which goes through the tube in the chassis at the front. The Harris Flex part number is CW8505 – middle bush in photo.

Part number 99557 is the bush (one of a pair) which goes through the rear 'eye' of the leaf spring and is used for the rear 'eye' of both front and rear leaf springs. The Harris Flex part number is CW719 – Left bush in photo.

Part number 99555 is the bush (one of a pair) which fits on the large (bottom) shackle pin at the back of the rear spring location. The Harris Flex part number is CW8506 – right bush in photo. A fibre washer (part number 99956) fits between the two bushes.

All these bushes are available commercially in both rubber and poly (polyurethane). However, the poly bushes from MOSS have to be cut to size as the ACA 5242 part number bush has to be cut to size to fit the rear eye of both front and rear leaf springs. The bushes are also expensive!

Your Editor has sourced a suitable poly bush which doubles as a replacement for part numbers ACA 5242 and 99557. Both these bushes come ready cut to size. The price is very favourable!

Apparently, we are not allowed by MGCC to advertise these as part of the editorial content in TTT so the advert appears in the classified adverts section towards the end of this issue. We will have some on the stand at Stoneleigh for inspection.

The large bush (part number 99555) is currently being sourced and may have to be specially made, but the price will be favourable. I shall also look for a supply of the large fibre washers which fit in between each large bush as I have a pattern.

INCREASING COOLANT FLOW THROUGH THE CYLINDER HEAD – A TIP FOM ERIC WORPE

Increasing coolant flow through the cylinder head seems to be considered a worthy aim, given the special external block to head water coupling used by some of the racers and also the replacement six bladed impeller offered for the water pump. The term “water pump” is a bit of an euphemism as the impeller blades tend to do little more than sweep coolant from a chamber directly in front of the impeller (fed from the cool water outlet of the radiator), outwards into the duct that runs alongside the block to the back of number 4 cylinder. As Neil Cairns has described in his excellent articles *(in the Octagon Bulletin)*, the coolant is then directed into the head, which is where most of the heat is generated.

If coolant flow is worth improving, then a look through the core plug apertures either end of the coolant duct might reveal a thin ridge where the duct turns the corner. This ridge is probably a vestige of the casting process and would impede coolant flow; it’s easier to detect with a judiciously placed finger especially, as the accompanying photo suggests, the view inside the rusty chamber is not going to make the “photo of the month” competition.

These ridges can be smoothed away with a longish rotary burr mounted in a drill, or preferably in a flexible extension with a small chuck. A longish shank is needed as the web is some 5cm behind the core plug's seat.

Don’t forget to remove the “chippings” with a magnetic pick up afterwards.

Ed’s note: Having seen and felt this ridge through the core plug apertures at both ends of the coolant duct I would say that this fettling job is definitely worth doing, especially if the engine is out and undergoing an overhaul.

I promised an article (actually a pictorial article) on XPAG water flow. I am afraid that this will have to wait for the next issue as I have not managed to get my ducks in a row!

Suck, Squeeze, Bang, Blow

Ask an MG owner how their petrol engine works and, the answer you are likely to get is `*suck, squeeze, bang and blow*'. If only matters were that simple! My research into fuels has surprised me on how complex this process really is. This article describes the journey taken by a single cylinder in an early XPAG engine running at 3000 rpm where it completes the four stages of the cycle in a mere 40 thousandth of a second (40ms). Think how fast 1 second is and imagine that 1ms was equivalent to 1 second. On that timescale, 1 hour would last 6 weeks! 1ms is so fast that even gases can act like solids.

SUCK - The start of our journey is with the piston at top dead centre (TDC). At this point you might expect the exhaust valve to suddenly close and the inlet valve to suddenly open. Valves cannot open and close instantaneously and any delay as the inlet valve opens reduces engine power. Fortunately, MG engineers knew the valves could start to open earlier and close later than expected; increasing an engine's power. At the start of our journey, the inlet valve will already have been opening for 0.6ms (11^{O} before TDC) and it is another 1.3ms (24^{O} after TDC) before the exhaust valve fully closes.

The 1.9 ms when both valves are open is called valve overlap and is beneficial above about 1500rpm. At the top of the exhaust stroke the piston has expelled most of the exhaust gases and as the inlet valve starts to open, a "scavenge" effect takes place where the rush of gases out into the exhaust port draws in some air petrol mixture though the inlet valve.

At TDC the cylinder is not empty. The 45.5cc of the combustion chamber (about 15% of the 312.5cc cylinder volume) still contains hot exhaust gases at approximately 1400^{o}C left over from the previous cycle. As the piston falls, exhaust gases will continue to vent through the exhaust valve, and the remainder will cool as they expand. (If you ever studied Physics, you may remember Boyle's Law. As a gas is expanded it cools, and when compressed it gets hotter). At some time between TDC and Bottom Dead Centre (BDC) when the pressure in the cylinder becomes lower than the inlet manifold the air petrol mixture will start to flow into the cylinder. Induction has begun.

Petrol consists of hydrocarbons, chains of hydrogen and carbon atoms. Forecourt petrol contains hundreds of components with differing hydrocarbon chains, along with additives to help impurities burn and prevent knock. It is produced by the fractional distillation of crude oil which separates the lighter fractions (short chain molecules such as LPG and petrol which have low boiling points and burn easily) from the heavy fractions (longer chain molecules such as diesel with low volatility, high boiling points and which are harder to ignite). While many people think the removal of lead is the main difference between 1970's and today's petrol, in practice the differences are much larger. Modern petrol contains much wider range of distillation fractions, than classic fuels. Recently, ethanol, which has very different physical characteristics, is also being added in increasing quantities.

The ideal mixture for the inducted air/fuel is a stoichiometric ratio consisting of 14.7 times the mass of air to petrol. Unfortunately, carburettors are volumetric devices; they deliver measured volumes of petrol and air. The increased specific gravity of modern fuels affects the ability of a carburettor designed to run on less dense fuels to deliver the ideal stoichiometric ratio. Firstly, a given volume of modern fuel contains more mass than the same volume of classic fuel; more fuel is being delivered for a given volume of air. Secondly, the increase in specific gravity will lower the level of the petrol in the float chambers and hence the jet, which in turn will make it harder for the air flow through the carburetor to suck out the fuel. Fortunately, SU carburetors can be adjusted to accommodate both these effects.

The inducted air / petrol mixture consists of 20% oxygen (O_2), 80% nitrogen (N_2) and small quantities of other atmospheric gases, approximately half the petrol as vapour and the remaining half as varying sizes of liquid droplets. The larger droplets and heavier fuel fractions may deposit on the inlet manifold walls, an effect called pooling, before they stream into the cylinder.

Evaporating petrol requires heat and the petrol evaporating in the carburettor cools it. While this improves the engine's power, the cooler mixture is denser allowing a greater charge to enter the cylinder; it can have the negative effect of causing icing. Modern fuels have a greater range of light fractions to encourage this cooling effect and improve cold starting. Furthermore, ethanol requires twice the heat to evaporate as petrol so if you are suffering from carburettor icing, this will get worse as the percentage of ethanol increases.

The first air petrol mixture entering the cylinder meets the residual hot exhaust gases. These heat the incoming mixture and cause some of the droplets of petrol to evaporate, cooling the residual gases in the process. Before the petrol can burn it must be a vapour. To achieve the ideal stoichiometric mixture all the liquid petrol entering the cylinder must boil before ignition. This boiling is unlike what you see in your kettle, where bubbles form in the bulk of the liquid. Inside the cylinder the petrol evaporates molecule by molecule from the surface of the droplets. Those droplets with a large surface area relative to their volume (i.e. the small ones) will evaporate the fastest. Even though the residual gases are extremely hot, they will not contain sufficient energy to evaporate all the inducted petrol, particularly the heavier fractions and the liquid streams resulting from pooling. 1 cubic centimetre of gas can deliver 0.0013 joules / degree / cm^3, petrol requires 209 joules / cm^3 to evaporate.

SQUEEZE - After reaching BDC, the piston starts to rise, however, Induction continues for another 3.2ms (57^O after BCD) until the inlet valve closes. During this time the air petrol mixture entering the cylinder 90mm above the piston does not have time to feel the effect of the piston's upward motion and continues to flow into the cylinder. This increases the cylinder pressure about 0.2 to 0.5 lbs/$inch^2$ above that of the inlet manifold and is called the stagnation pressure. The compression stroke does not start in earnest until the

inlet valve has closed and continues for another 6.8ms until the piston reaches TDC, 20ms or half way into our journey.

The flash point of a flammable liquid is the lowest temperature at which there is sufficient vapor for an ignition source to ignite; its auto-ignition temperature is the lowest temperature at which it will spontaneously ignite, burning without a source of ignition. Auto-ignition is mainly bad as it causes the pressure in the cylinder to rapidly increase, resulting in pinking or knocking. An ideal fuel has a low flash point and high auto-ignition temperature. The lighter fuel fractions, with low flash points, are referred to as "front end" components, the heavier fractions, with higher flash points, as "back end" components.
During this compression stroke, the pressure and temperature of the mixture increases providing heat to evaporate more liquid petrol. Even so liquid petrol droplets, particularly back end components, may still remain in the cylinder until late in the compression stroke.

BANG - Combustion is initiated by an electrical spark which ignites a small volume of mixture from which a 2500^{o}C flame front propagates outward like a growing balloon. When petrol burns in the presence of sufficient air, the hydrocarbon chains break down. The hydrogen (H) combines with the oxygen (O_2) in the air to produce water (H_2O) and the carbon (C) combines with the O_2 to produce carbon dioxide (CO_2), liberating a great deal of energy in the form of heat, 33 million joules for each litre of petrol. This heat both evaporates any remaining fuel droplets and dramatically increases the pressure of the gases in the cylinder.

After ignition, the ideal situation is that the pressure in the cylinder will reach its maximum 15^{o} after TDC (0.8ms after TDC), anything less and the engine will not run as efficiently. Unfortunately in a non turbulent, air petrol mixture at atmospheric pressure, the flame front travels at a snail pace of 20 inches (500mm)/second and would take an eternity, 130 ms, to travel across the combustion chamber. Additionally, the mixture will burn at the same "slow" rate independent of engine revs, making you wonder how the engine manages to run at all.

Two factors work to ensure the fuel is burned in time. Firstly, bob weights in the distributor cause the ignition to fire in advance of TDC. When running at 3000 rpm, the spark plug is fired 1.8 ms advance of the piston reaching TDC (32^{o} advanced) and only 4.9 ms after the compression stroke started. This gives just 2.6ms for the mixture to burn and reach its peak pressure at 15^{o} after TDC. The bob weights serve to increase the ignition advance with increasing revs to approximately maintain this 2.6ms burn time. The second factor is the turbulence of the gases which both helps mix the fuel and air and spread the flame front. The purpose of the bath-tub shaped combustion chamber in the cylinder head that is smaller than the diameter of cylinder is to provide a `squish zone' at its edges to increase turbulence during the compression stroke.

The pressure of the compressed mixture depends on how much fuel is inducted, i.e. on throttle setting, the lighter the throttle setting, the lower the pressure and slower the burn rate. This is why later cars have a vacuum advance fitted to the distributor. This further advances the spark timing to increase the burn time at low throttle settings.

Firing the ignition in so far in advance of TDC has a number disadvantages. There is less time for the compressive heating to evaporate the remaining fuel droplets so the initial burn is in a weak mixture and the flame is hotter which may cause in pinking. To address this, modern direct-injection petrol engines are able to inject a second charge of fuel just before the ignition fires to ensure that the mixture around the plug is not too weak.

Once the ignition has fired, a race starts between the pressure waves caused by the flame front rushing across and down the cylinder and the piston moving upwards. At 32^{o} advanced, the piston still has 8.5 mm to travel (9.3% of the stroke) before it reaches TDC and the building pressure is working against it. As pressure builds, so does the speed of the flame front resulting in a rapidly increasing cylinder pressure. This is a finely timed race and minor variations in the mixture, gas turbulence or timing which build up during this race can lead to an effect called cyclic variability when not all power strokes run at optimal efficiency. This shows itself as rough running.

The back end components in modern fuel take longer to evaporate. One way to offset this is to further advance the ignition providing more time for the flame front to evaporate the remaining droplets. This is not ideal as the weakening of the mixture when the spark fires will be worse and the race and its associated problems will last longer.

The race ends when the piston reaches TDC and the pressure of the gases in the cylinder start to push the piston on its power stroke. Unfortunately, the power stroke ends all too quickly 7.1 ms after TDC when the exhaust valve starts to open (52^{o} before BDC) and the high pressure gases rush out of the cylinder. The piston is powering the car forward for just 18% of the time of each cycle.

BLOW - If everything were perfect, a fully combusted mixture of gases consisting of water vapour, carbon dioxide and nitrogen rushes into the exhaust, expanding and cooling to around 500^{o}C. The piston reaches BDC, 2.9 ms after the exhaust valve started to open and as it rises the remaining exhaust gas is pushed out of the cylinder. Combustion is not perfect; petrol vapour requires oxygen to burn. The droplets of petrol that evaporate during the combustion cycle will initially exist as “vapour droplets”. Although the temperature is sufficiently high to cause these to burn, the absence of oxygen means they cannot and this fuel will remain unburned until turbulence mixes it with sufficient oxygen, which may not occur until after the exhaust stroke has started. Burning fuel will leave the cylinder, heating the cylinder head, exhaust

valves and exhaust manifold and will continue to burn until the gas temperature drops below the auto-ignition temperature in the exhaust pipe.

Un-burned fuel leaving the cylinder is undesirable as it increases the heating of those parts of the engine already subject to high temperatures, increasing the risk of failure and reducing the engine's efficiency. More fuel must be burned to produce the same power which in turn, increases the amount of waste heat that is generated. Even if your car has been tuned and is returning a good MPG, does not mean the engine is running efficiently. Think about a 3% drop in efficiency, this corresponds to 3 – 4 miles less on a 100 – 120 mile run using 4 gallons of petrol. A difference so small it is not noticeable. However, the extra 1 pint of petrol that is burned has sufficient energy to boil the entire 1 ½ gallons of water in a TC's cooling system. It is no wonder so many classic cars are now fitted with electric fans.

A gas analyser looking at the exhaust gases reveals a great deal about the combustion process. The un-burned hydrocarbons show how much petrol has been unable to burn in the cylinder or exhaust due to a lack of oxygen. This can arise either because of a rich mixture or poor combustion as described above. Carbon monoxide is similar as this is partially burned fuel caused by low levels of oxygen. Finally NOX or Nitrous Oxide, (NO) is produced at high combustion temperatures when the nitrogen in the air oxidises. NOX is bad for three reasons. It takes energy from the burning hydrocarbons further reducing the engine's efficiency, it reduces the amount of oxygen available for the fuel to burn and it is an atmospheric pollutant that contributes to `acid rain'. The presence of NOX is usually an indication of high ignition temperatures caused by a weak mixture.

What about modern cars? While the valve and ignition timing will differ from an XPAG, the journey described above is very similar with three major differences. Firstly, the fuel is injected as very small and evenly sized droplets, typically 50 micrometers diameter (about 1/5th the size of those produce by a carburettor). These not only mix with the air more effectively, caused in part by the careful design of the inlet manifold, they evaporate five times faster. Ultimately this creates a more evenly distributed mixture of air and petrol vapour in the cylinder before the ignition fires. Secondly, compression ratios are higher than in classic cars, increasing the compressive heating. Finally, the timing of the spark is continuously adjusted to ensure that the mixture burns optimally, and it is typically far less advanced than for the XPAG. The race between the piston and flame front is shorter and no longer left to chance. These differences allow modern cars to run on fuels that have a wide range of different hydrocarbons.
After 40 ms our journey ends only to start over again. Driving along in an MG TC at 3000 rpm (48 mph in top gear) each 7.1ms bang moves you forward a massive 8 inches; to see how effort is needed, try pushing your car that distance. **The wonders of suck, squeeze, bang and blow!**

Something Different!!!!

Having rebuilt several T Types over a period of 25 years I was looking for something different!

I had a TC chassis, axles, engine and gearbox in my garage and was wondering what to do with them. Upon visiting MG Stoneleigh in early 2006, I met a gentleman called Raymond Petit who had a stall displaying a beautifully hand crafted aluminium 'racing' body. I had always been very fond of pre-war MG racers such as the C type and K3, but knew I would never be able to afford one.

Raymond agreed to supply me with one of his 'racing' bodies and agreed to build it straight onto my TC chassis which had been modified to accept sliding trunnions.

Three months later I collected my chassis and shining new 'racing' body. One of the great things about building a 'special' is the scope for artistic licence. Having built concourse winning cars in the past, this project was like being let off the leash and I have had more fun building this car than any other.

There is a lot of design and fabrication work involved in a project of this nature. The body arrived as an empty shell, leaving me some distance from having a working roadworthy car. Evenings spent pondering, drawing and generally solving lots of little design issues provided great pleasure.

The car has been completed for about two months and already I have had great fun driving it. I didn't fit a supercharger which proved to be a good

decision as the car weighs very little and is very fast running on carburettors.

I hope my little project doesn't upset the 'originality police' (OP) too much. The chassis can easily be returned to original spec. The car was built along the lines of a pre war racer, but isn't supposed to be a replica or copy of any particular car or model. I'm no expert on the subject, but would be more than happy to try and help / advise anybody considering building something similar.

Mark Deacon mark(at)mgdeacon.plus.com (substitute @ for (at).

Ed's note: Mark has lots of photographs of the build at every stage and has offered to prepare a more detailed article. I have taken him up on his offer!

The time is nigh!

The time has come to really consider the future supply of spares for our T-Types. When I owned my first TA in 1963 it was already 25 years old and in a poor condition. Some new parts were still obtainable and general service items were readily available, but new tyres were difficult to obtain except for the odd 'Blue Star' remould. For the past 40 years or so we have been blessed to have most parts made available to us from enthusiastic restorers and dealers. But stand back for a minute and think about this seriously, do you think all the traders out there will still be trading in 5 to 10 years time? Some of these guys, who have supplied us with all the necessary items we have needed for our restorations, are fast coming up to retirement and deserve a peaceful retirement. We have only recently learnt that John Marks of Vintage Restorations will be winding the business down over the coming months.

There is barely a week goes by now when I don't get a telephone call from a worried TA owner asking me where he can get certain parts from; last week it was TA clutch springs, today it was about pistons. Many TA spares, particularly for the MPJG engine are getting hard if not impossible to find. Ok, the TA is the oldest T-Type, now over 70 years old and the first year of production models will soon be 75, but certain spares for the TC are starting to dry up. I find myself regularly taking parts off of my car, making a drawing of the part, and then getting small batches of the components made. For instance last Summer Gary Wall from New Zealand came over to the UK; Gary has 5 TAs, one for each of his grandchildren; two are on the road and the other three are being restored by him. He went to 'MG Live' with a list of parts he needed, he found a few bits, but a number he still could not find. For instance, he needed a couple of adapters for the TA front brakes. These are unique to the TA and TB, and are used to link the flexible hose with the wheel cylinder at one end and the copper pipe and chassis at the other end. I tried all the usual UK suppliers, Moss, NTG, Octagon, Barry Walker, Andy King, Sports & Vintage etc to no avail. I telephoned quite a few of my TA owning friends in the hope of finding second-hand ones for Gary, still no joy. So I have ended up having a dozen of each adapter made. This week, in response to another question about MPJG oil pressure relief valve springs, I have commissioned a dozen adjustable oil pressure relief valve caps to be made. I know that other TA owners are also doing similar things to help fellow TA owners keep their cars on the road.

Sadly we don't have drawings and/or specifications for lots of these items, or lists of people who can supply or make them for us. This is perhaps where the 'T' Register could play a pivotal role. Historically, the MG Car Club does not supply spares; the Club's present policy is to rely on traders

to satisfy demand, but some parts are not available from traders and as I have pointed out in the introduction to this article, there may be a question mark over future supply - that is why it is guys like John James, Roger Furneaux and to a lesser extent myself get parts made for the 'T' Register members. So maybe the 'T' Register could be the central point for us to archive drawings, specifications, maybe patterns etc, and maintain lists of who can provide and or manufacture the elusive parts that we are likely to need in the future. We must not assume that because we can buy the parts we need today that we will be able to in 5 or 10 years time!

So where and how do we start to move things forward? We have to get approval from the 'T' Register Committee that it is a worthwhile task to undertake, and that they are in agreement with it. We also need volunteers to undertake a bit of research to look into what specs and drawings are available, and also who currently can supply or manufacture the parts. This is perhaps best broken down by model area, for instance XPAG engine, MPJG engine, TA/B/C rear axle, TD/TF rear axle, TD/TF brakes etc. A lot of the information could be stored electronically, but we would perhaps need to store the drawings on paper centrally. There are a lot of things to consider, so firstly I will take it up with the 'T' Register Committee and try to progress it from there if it is deemed worthwhile. After all we have got to protect our prized T-Types, and our own investment in them for future long time usage. **Brian Rainbow**

Editor's Jottings

Forgive me for the random nature of the next few pages but life is currently a bit upside down due to illness in the family and I have struggled a bit with this issue of TTT.

Firstly, I'd like to thank Brian Rainbow for his thought provoking article on **the future supply of spares for our T- Types**. Brian is an unsung hero who provides masses of support and technical advice to TA owners worldwide and he knows his stuff!

I'd like to add a further scenario to the spares supply issue. This being, that it is not beyond the bounds of possibility that one of more traders might just find that it is not cost effective to hold slow moving stock and decide to not continue carrying it.

You will have noticed from comments made by me on pages 16 and 23 that we are not allowed to advertise spares in the editorial section of TTT. The following extract from a communication sent out to all Centres, Registers and Branches (CRBs) explains why:

Advertising these parts in any official MG Car Club magazine or website, other than in the Classified Ads section, implies that they are officially approved for sale by the Club and are therefore "fit for purpose" in the legal sense.

This then places the Club and its Directors at the risk of litigation if any of these parts were to fail in service.

Whilst the Club has insurance cover for normal third party risks and public liability the specific risk, classified as "Component Product Liability", it is not covered.

Therefore if a claim were to arise as the result of a component failure and the Club was found to be inadequately protected by insurance, the Directors would be held responsible and required to prove that the part was fit for purpose.

Failure to demonstrate that the part was fit for purpose would result in the Directors being held personally responsible with dire financial consequences.

Please note that in view of this serious issue parts must not be advertised for sale in the editorial pages of any CRB publication, Safety Fast! or the Club websites with immediate effect.

The Club will continue to investigate the possibility of increasing its insurance cover to include product liability risk but early indications are that the conditions and terms of any such cover would be onerous and prohibitively expensive.

With regard to the last paragraph, it has been pointed out that the MG Octagon Car Club, a Club of around a quarter of the size of the MG Car Club does not appear to have any problem with the conditions and terms of insurance cover against product liability, albeit it can amortise the cost over its spares turnover.

The real issue perhaps is what the MGCC does for members with older cars. Yes, it has the Registers; but the Registers get absolutely no financial support from the Main Club, so from my end of the telescope, Main Club is effectively saying to some of us who are trying to provide a service for fellow Register members in spares which either aren't available elsewhere or are of a better specification than available commercially "You're on your own lads!" I have to say that I find this extremely disappointing.

Sprinting and Hillclimbing needs you and your T type!

Those who attended the 2009 T Party at Shelsley Walsh will have had some insight into the motor sport of Sprinting and Hillclimbing (S&H). You may even have felt you would like to have had a go yourself. Well, now there is an opportunity for you to join like-minded T type drivers in similar specification cars and enjoy some motor sport. Important changes have been made to the 2010 MGCC Luffield Speed Championship regulations to make participation a much more attractive proposition for T type drivers. T Types and XPAG Specials are now incorporated into two classes, catering for the near standard road car and for the more modified cars. he regulations even allow for 5 speed gearboxes!

If you go to the MGCC web site and click on 'motorsport' you will find links to the Luffield Speed Championship and articles about 'getting started'. S&H is governed by the FIA through the Motor Sports Association (MSA) in the UK and means you need a competition licence. Fortunately, for S&H, this is very easy to obtain. All you need is a 'Non race B' and it costs less than £40 per year. Along with your licence you will receive the 'Blue Book', a significant tome, which has all the UK motor sport regulations. If read in bed, it will get you off to sleep quicker than half a bottle of scotch.

You need to join a race championship, the organisation that arranges your events, keeps the records and gives the prizes. The MGCC Luffield Speed Championship will do this for you and as the name suggests, is kindly sponsored by the Luffield MG car dealership in Loughborough. New members joining in 2010 will have their £20 registration fee waived for their first year but will still need to complete a registration form.

Your car needs to be safe and you will need to fit some equipment, an MSA approved fire extinguisher for example. Your car will be inspected by an MSA appointed scrutineer before each event and will have to be certified as compliant before it is allowed to race. The most expensive part will be the purchase of your personal safety equipment, MSA approved helmet, race suit, race boots and gloves. The scrutineer also inspects these.

There are about 23 events scheduled in the Luffield for 2010, you only need to do the ones you want to do. If you choose to drive your 'race' car to the venue, you will probably select the events that are closest. Having chosen the events you plan to do, you will have to send in your entry along with the fee before the

closing date. For popular events like Shelsley and Prescott you need to get your entry in very early to avoid disappointment.

When you receive your entry confirmation you will also get a set of 'supplementary regulations'. This gives you all the details you will need to know for that specific event like where to park in the paddock, when to arrive, where to get a bacon buttie etc.

If you decide to join the Luffield you will find it immensely valuable to have a 'Buddy', someone you can ask all the inevitable questions any newcomer will have. Tony Smith has been running a T type TA special in the Luffield since 2008 and would be very happy to act as that 'Buddy' and guide you through your first season. He will let you have details of all the regulations that apply to T types along with any forms/help you need when applying for your licence and Luffield membership. You can contact him by e-mail at LTM.SMITH(at)BTINTERNET.COM - substitute @ for (at).

So, come along and enjoy the ambience, camaraderie and competition, you do not have to be a hotshot to have fun. It is a bit like golf, it's just you and your car against the track, both doing the best they can, winning is not necessarily important (well, maybe it is sometimes!).

Transcontinental Assistance!

As TTT editor I receive quite a few e-mails from all around the globe. One of my occasional correspondents is Brian Stutchbury in Nairobi, Kenya. Brian is restoring a TF. He e-mailed me to say that virtually all the bright work on his TF needed re-chroming. However, three companies who used to do the work had all closed down – did I have any contacts in South Africa? Well, yes I do – a few to choose from! I decided to ask Tony Lyons-Lewis in Knysna as we correspond quite frequently. Tony came up trumps with African Electroplating in Industria, South West Johannesburg and gave Brian the person to contact along with the telephone number.

Whilst in contact with Tony he took the opportunity to ask me about an alternative supplier for a full set of upholstery panels, carpets and seat covers for his TC as he had had no updates from his chosen supplier. I put him in touch with David Lewis who used PJM Motors in Shropshire and was delighted with the standard of their work.

Isn't this what the Register should be all about?

Midland Centre – DVD of Welsh Rallies 1951-1954

I should really apologise to the Midland Centre for not publicising this DVD before now, especially as they were good enough to send me a copy of the DVD for review.

What can I say? Well, if you are a T-Type owner and you are interested in seeing the cars competing in the Midland Centre Welsh Rallies from 1951 to

1954 (loads of T-Types!) then you should really buy this DVD. Rarely do we see footage of our cars in competition during their heyday and there is the added bonus of the DVD being introduced by that wonderful 'servant' of the Midland Centre and the MGCC, Club President, Bill Wallis. Indeed, Bill is the commentator throughout the DVD and one can only marvel at his encyclopaedic knowledge of the MG marque, MG history and MG personalities.

The running time of the DVD is 105 minutes and it costs £11.50 (UK), £12.50 (EU), £13.50 (Rest of World). These prices are inclusive of postage and packing. For more details contact midlandcentre(at)mgcars.org or you can buy on line from www.mgcc.co.uk

Living with a TF

Following Bob Marshall's article in the November TTT, I received two letters commenting on his contribution; one was from Pat and Graham Stubbs (you may recall Pat's article entitled "Emma" in the May 2009 issue) who enjoyed the article and could empathise with it; the other was from Martin Franklin who was able to answer Bob's questions and also to chronicle similar experiences with at least one coincidence involving "the people in Buxted".

I shall ensure that I publish Martin's letter in the March TTT as the "Blast from the past!" contribution.

Editor's parting comments

Well that's about it for the first issue of 2010. Some items have been held over but please don't let this stop you sending in articles. I would particularly welcome contributions from TD/TF owners; if you are one of these and have sent me an article which I haven't published you are quite entitled to give me a kick up the backside!

CLASSIFIED ADVERTS

For sale Crown wheel and pinion removed from TC0750. Only reason for sale is that I have had a higher ratio diff fitted. Brian Taylor of Hopton Heath Garage who did the work says that the diff is as good as new. £200. Please contact John James (contact details on page 38).

For sale Front main leafs (or is it leaves?) for TC front springs. The enlarged eye (5/8") is fitted with a 1/16" SAE 660 bronze bush, so brought back to standard ½" for front pin fit. Price is £32.50 per leaf which includes a donation to the Register. Available for inspection at Stoneleigh (as will complete bushed front springs) Please contact John James.

For sale Front shackle pins for TC made from EN19T (NDT certificate supplied with each order); also rear (upper) shackle pins (EN19T) and front spring pins (EN351) case hardened and ground. Available for inspection at Stoneleigh. Please contact John James.

For sale TC brake drums, now being re-manufactured. Please contact John James for availability and price. Available for inspection at Stoneleigh.

For sale Polyurethane bushes for TC front shackle pins and rear (upper) shackle pin. The lower front and upper rear will come cut to size (as far as I know, poly bushes cut to size to fit the shackle pin through the leaf springs are not currently commercially obtainable). These are available for inspection at Stoneleigh. I hope to have a sample of the rear lower poly bush (the large one which fits the bottom shackle pin) at Stoneleigh. Please contact John James for details.

For sale King pin and bushes sets for TA/B/C (not early TA); King pins are EN36 case hardened and ground; bushes are "wrapped bushes" (steel backed) – as originally fitted when the cars were new); thrust washers SAE 660 bronze with eccentric turned grooves to improved design; cotters EN19T alloy steel. NDT certificate supplied with each order. Available for inspection at Stoneleigh. Please contact John James for details.

For sale "Wrapped" (steel backed) king pin bushes for TA/B/C (not early TA). These bushes are as originally fitted when the cars were new. £6 per bush plus 50p donation to the Register per bush. Available for inspection at Stoneleigh. Please contact John James for details.

For sale I have just two oil pots left from the current batch. Production is temporarily suspended due to work on other projects. These fit on the cover plate of the Bishops Cam steering box and are a convenient means of checking that there is always oil in the steering box. They were featured on page 30 of September's TTT. £10 each plus £2 UK postage. Available from John James.

For sale Laser cut stainless steel heat shields designed by TD/TF Technical Specialist, Barrie Jones for the TF model but will (with some fettling) also fit the TB/TC/TD. £12.50 each, plus postage of £2.50 (UK); £3.50 (EU); £6.00 (Rest of World). Available for inspection at Stoneleigh.

N.B. Please contact John James in the first instance before ordering.

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