TREGISTER

Totally T-Type

Issue 38 March 2010

The New Editor's Car - TF RPO 621

www.tregister.org

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THE CHAIRMAN'S INTRODUCTION

John James contacted me at the end of January to inform me that he had decided not to renew his membership of the MG Car Club. It was therefore a painful and most unpleasant task to inform him that, having asked for clarification from the MGCC Board, it is not possible for a person who is neither a member of the Club, nor a paid employee of MGCC staff to hold the position of editor of a Club publication. It is sadly necessary for John to relinquish the post of TTT Editor with immediate effect. John had already informed the Register Committee that he would continue until November 2010, handing over the reins to a new editor around next Christmas time.

Everyone who reads this magazine must be aware of what John has contributed to the Register over many years. As well as managing our Regalia sales, the inspiration for this magazine as a successor to the T Register Bulletin, was his alone. He has gathered the input, edited it, organised the printing and distributed it single handed, for 37 issues. The time input that he has contributed is awesome. To many members John has been the "Face of the 'T' Register", and we all owe him a huge thank you for everything he has done for us. I wish him well for the future, and I hope that he will soon have the time to complete the restoration of his TC (The Vicar's car) and a J2.

The new editor of TTT is John Ward, who you will recognise as the Register scribe for Safety Fast. John drives (amongst other MGs) a 1954 metallic green TF, which he has owned since 1968, and has been a member of the MGCC since 1977. He restored the TF between 1998 and 2000 and since then, together with his wife Ann, has attended most of the Autumn Tours, two European Events of the Year, and three Register trips abroad. John has admitted to me that MGs are not just a passion, they are an obsession. I am sure that this obsession will carry him through the task of editing TTT in the future. But please remember that this is your magazine, and without the contribution of articles, notes, advice and photos from you the readers, it has no future.

Whilst John picks up the editorial responsibility, we are not expecting him to look after printing and distribution.

I am glad to report that Regalia sales will be handled in future by David Darrell and Roger Wilson. Your orders and payments will be handled by Roger and the ordering and distribution by David. So you can see that the great workload handled by John James has in effect now been split into four parts.

David Butler.

Chairman MGCC 'T' Register

THE EDITORIAL

Well….. never in my wildest dreams would I have thought that in just over a year of me being cajoled into assisting John James with composing and editing the 'T' Register notes for Safety Fast, that I would receive a call from the Chairman asking me to consider taking over responsibility for editing TTT magazine from John for the March edition onwards.

Much has been said and discussed as to the reason for this dramatic turn of events. The fact is that John decided to leave the MGCC and thus relinquish his role of producer and editor of his beloved TTT magazine. I do not propose to further this debate, but merely to say that along with many others I wish to thank John for his major contribution to the 'T' Register over the last few years.

To say that it was going to be a hard act to follow would be an understatement, but to hit the road running and take over this daunting task at such short notice, has been a little short of a nightmare! There was so much that John did and organized by himself and it is now apparent that it is a task for more than one person. I have agreed, with your support and assistance, to take over the role of collating, editing and producing the script and text for TTT, the printing, publishing and distribution together with the financial and administration tasks will be handled by others.

Over the next few issues I am sure you will bear with me as I take over this mantle. It may be that some of your articles may get lost or shelved, things may be misconstrued and above all copy may be a little late as we struggle to get all the facets of TTT together.

So here we have it, the March edition of TTT. John has kindly forwarded to me all the current articles and contributions received from you, the members. As the Chairman said in the above introduction, this is your magazine and without you and your input, the publication would not exist. It is not proposed to change any of the previous style, content or format and with your help I will use my best endeavours to continue to produce a practical and informative magazine which many of you have expressed as being your wish.

2010 and onwards

It is now confirmed that **MG Silverstone *Live* 2010** will be at the earlier dates of 4th,5th and 6th June. As in the past the 'T' Register will have a strong presence during all three days.

The 'T' Party will again be at the **Shelsley Walsh Hill Climb**, a round of the Luffield Championship, this will be on Saturday July 17th. **The Autumn Tour to Mid Wales** on September 10thto 13th is nearly fully booked up and it is confirmed that the 2011 Autumn Tour will be to **Skipton in the Yorkshire Dales**.

EDITORS NOTES

We received an order for the TTT Archive CD for past Issues 1 to 37 from Frank Albers only to be told that it would not run on his Apple Mac computer, sorry about that Frank, we should have made that clear at the time.

Just a reminder that **Sunday 25th April 2010** is the National Classic Car 'Drive it' Day. There is not a scheduled 'T' Register event but many centres and classic car clubs are arranging a springtime run, event or a picnic.

FRONT COVER
Your new editor's TF RPO 621 looking resplendent but slightly eerie due to the effect of the camera exposure and the sunlight on the gravel. Also the green paintwork is not as dark as it appears on this photograph, it is the original light green metallic from 1954.

The car was purchased in the West Country where we lived in 1968, with some savings that were supposed to be the deposit for a house! We did get a house later but more importantly, I still have that MG. The car was in reasonable order and never let me down for a couple of years but then some clown in Bath decided to go wrong way down a one way street did not stop at the junction and clobbered us broadside. No real damage to us but the driver's side door and wings were horribly bent.

This revealed a substantial 'bodge up' with wood and fibreglass in the offside rear wing and on closer inspection the nearside wing as well. The insurers were wary even in those days to have ***older*** vehicles repaired and I had to haggle and argue strongly for a decent lump sum payout. Fortunately I found a super old boy locally who had years of experience in the trade and knew a thing or two about paneling but not about MG's. Under the circumstances he did a great job and the cost for doing both rear wings and doors was just less than the payout from the insurers.

The car was used regularly for a number of years and I joined the MGCC in 1977. In 1979 a company move saw me back in the London area, but by now 3 babies had arrived and the MG although used as a school bus for a while, 2 small ones on the back shelf and one under the scuttle was a little bit testing (not to say dangerous). The TF was put aside in the back of the garage for a while, 15 years to be precise.

In July 1994 the TF was 40 and I was 50, time to celebrate and break out the car. With a struggle I got her going with a little help from my friends. I managed to keep it running for 3 years (just) but

the time came for the MOT man to condemn the structural bits and the engine was very tired, back to the rear of the garage she went. 1998 saw a new dawning, kids finished at seats of learning and packing their bags. Sold up family house and moved to a new location and a budget was put aside to restore the MG. Needless to say spent well over the budget but the good news was that RPO 621 was fully restored and back on the road by New Year 2000.

'T' REGISTER NEWS AND EVENTS

PAST EVENTS

By the time that you get to read this issue, many of us will have been to Stoneleigh in Warwickshire to the UK's International MG Show and Spares Day held on Sunday February 21st. The 'T' Register always has a presence at this event and maintains a prominent stand in the Main Hall.

FORTHCOMING EVENTS

'REBUILD 2010' 20TH MARCH 2010

I trust that by the time you receive this issue of TTT there may still be just about time to arrange to go to Rebuild 2010
The final programme details are now completed and as usual we can always be promised an interesting and informative day and the opportunity to rub shoulders with fellow 'T'-Typers.

The date is **Saturday, March 20th**, and 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 10.00 am sharp. The price this year is £25 for MGCC members and £32.50 including VAT for non-members and includes a buffet lunch with hot soup. The organiser to whom you send your application (including your MGCC membership number and your email address if you have one) is 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.

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 5.00 pm and after a short recess to allow for the rearrangement of the seating, **the 'T' Register AGM will be held.**

MG *Live* SILVERSTONE 2010

It is now confirmed that the world's biggest MG event will take place at **Silverstone on 4th 5th and 6th June 2010.** This is somewhat earlier than usual due to the date of the British GP in July which has presented the organizers with a monumental headache to get all the arrangements in place in time.

The 'T' Register committee will be there in force as usual, manning the Register Stall, setting up the 'T' Specials marquee and organising the Friday Night Natter. On the Sunday we will be on marshalling duty in the Arena and policing the Register car parking area for all three days. This year more than ever your help and assistance will be greatly appreciated. If you are definitely going to Silverstone and you wish to assist in any capacity, I am sure any member of the committee will be very pleased to hear from you, particularly Bill Silcock!

'T' PARTY 2010

The date for the 'T' Party is **Saturday 17th July 2010** and once more we have managed to secure a dedicated viewing area at the Shelsley Walsh Hill Climb event, the meeting is a round of the 'Luffield Cars MG Car Club Speed Championship'.

If any of you are considering having a go (see February 2010 Safety Fast 'T' Register notes) then put this meeting high on your agenda. If not, but you wish to attend and witness this spectacular event, the cost will be £13 per person, £2 less than the normal entry fee. The venue is near Great Witley in Worcestershire and the arrangements will be as last year, meet up at The Hundred House Hotel before travelling on to Shelsley Walsh some 4 miles away. You must book in advance, all applications to Brian Rainbow by e-mail to:- brian@brianjrainbow.free-online.co.uk

AUTUMN TOUR TO LLANDRINDOD WELLS

As widely publicised, the Autumn Tour this year is to Mid Wales based in LLandindrod Wells on Friday 10th September to Monday 13th. Most of our allocation of 65 rooms at the Hotel Metropole have been snapped up for this Autumn Tour. If you are still contemplating joining us on this ever popular event and you wish to check whether there have been any cancellations, contact Graham Brown on; 01234 358729 or graham.sue358@btinternet.com

Cars, boats, planes and trains……..they are all boys toys

Juliet's 70th Birthday outing

Juliet is a 1939 TB that came off the production line on 11 October 1939. I bought her on 10 March 1966 from S.H. Richardson & Sons Ltd of Peas Pottage, Crawley (that is another whole story). After so many years of faithful service my partner and I decided to give Juliet a special outing for her 70th birthday.

Earlier in the year during a visit to The West Somerset Railway I enquired if it would be possible to photograph Juliet next to a live steam engine on her birthday. The extremely helpful and enthusiastic people at The West Somerset Railway could see no problem. I sent my request in writing and everything was arranged. We were to report to Minehead station between 11 and 11.20 on the Sunday morning to allow time to find our way to the engine shed and coaling stage in order to meet the engine from the train arriving at 11.40am.

Ten days to go and there was a nasty noise developing from the clutch. A quick telephone call to Peter Edney and the likely culprit was thought to be the clutch thrust bearing and Peter sent a new one off in the post. The local garage got the work done by Friday. Saturday was spent washing and polishing Juliet (the first clean since washing all the winter salt and grime off).

Sunday dawned overcast at home in Ilfracombe , with fog on the hill tops, so we decided to leave early to allow an extra hour to get

to Minehead. The journey was wet and very foggy over Exmoor, but good time was made and we arrived at about 10am. Juliet was to pose for the photographs next to a tank engine. However just outside the shed we saw a King class locomotive, the most powerful Great Western Railway class of steam engine! I asked, somewhat hopefully if I could put Juliet next to King Edward I. No trouble was the reply. We were allowed to position Juliet anywhere near the King. The members of the King support team and two staff from The Somerset Railway helped and guided us into position. They then took photographs with their own cameras. When I moved Juliet in front of the King, the Duty Fitter found a tow rope to attach to the King and to Juliet's rear so we had a T type giving assistance to a King Class steam locomotive! It would not surprise me if a photograph or two appears in the next quarterly journal of the West Somerset Railway.

Whilst we were there Marion and I enrolled on a Steam engineman course that will give us the opportunity to help prepare a steam engine for the day's work, then fire it one way and drive it the other over a stretch of about eight miles. Further courses lead up to firing one way and driving the other to a scheduled timetable the full 24 mile length of the railway.

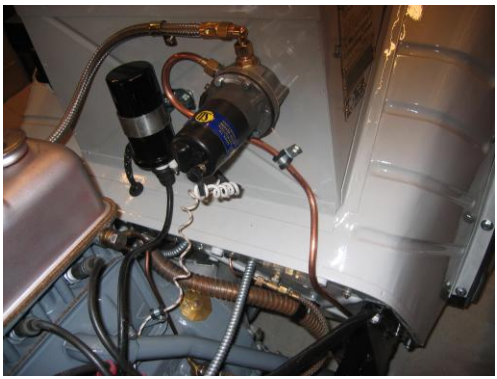
After a meal in the restaurant on the station at Minehead we returned to Ilfracombe via Porlock Hill and Lynton. This return journey was even wetter and foggier than the outward trip. We arrived home still not quite believing the wonderful time that we had just experienced.

TC WIRING CONDUITS

Correspondence and advice received from Arne Rasmussen in Denmark

I have been reading with interest all the articles concerning T-Types and in particular those in TTT. As I have just finished a total rebuild of TC1347, I can recognize many of the troubles and the speculation in deciding what is right and wrong when rebuilding these cars. To be as close as possible, I have based my restoration on the books of Sherrell, Malcolm Green and Clausager.

I read John Steedmans article about the wiring conduits, and especially about “the big one”.



As I took the car apart, I found this main conduit well preserved in a mixture of oil and dust. After cleaning it appeared as seen on the photo. I like it that way and did not want it galvanised.

As work progressed the time came for fitting the wiring harness, and it was obvious, that the conduit would never go over the finished harness. Some days went by with me taking the thing back and forth to the workbench and then back in the box, until one day I found the solution!

Carefully take off the end-caps and enlarge the opening in the conduit by twisting. As you twist a spiral the one way it will tighten the windings, but the other way will open it up. After putting the conduit on the harness, just twist the conduit the other way to

tighten it around the wirings. Cut the end-caps and slip them in place, turn the cutting edges out of sight and fasten them to the conduit by small spots of soldering. So, Yes – it can be done.

About the "tiddler" – well – the hole in my scuttle was there, and I find, that taking the split in the wiring inside the car makes for a nicer look - right or not.

It was a pleasure for me to read, that The Montague Burton Cup was awarded to Malcolm Sayers. My wife and I have met Malcolm and Linda in their TD on several trips to southern Europe. Indeed they are representing "the true spirit of T-Type Motoring".

Arne Rasmussen

Denmark

arneras@mail.tele.dk

Another absorbing and interesting article from our illustrious "History Man"

WHAT'S IN A NUMBER?

A recent comment in The Automobile magazine contained a reference to The MG Car Company Ltd's long association with University Motors Ltd. (UM), its London distributor. It stated that no fewer than 8000 registration numbers with the MG prefix were allocated to UM by Middlesex County Council over the period 1930 to 1949.

In the 1930s, UM had several premises in central London with perhaps the best known being the showrooms in Piccadilly and the workshops in Brick Street, just off Shepherds Market. In 1948 the Head Office was at 7, Hertford Street, W.I. but by 1965 had moved to Boston Road, Hanwell, London, W.7. where the workshops were also located. UM accepted and processed orders from a number of MG main dealers such as Jarvis & Sons Ltd. of London S.W.19 and retail dealers like W.Jacobs & Son of Mill Garage, South Woodford, E.18 and Glanfield Lawrence of Finchley N.12.

The comment in The Automobile reminded me that TC owner Julian Evers had conducted in-depth research into MG cars sold by UM with MG, UMG and YMG registration marks. His findings were published in an informative article written by him in the February 1997 edition of Safety Fast! and later he generously made complete details available to interested owners. I have no wish to plagiarize Julian's broader work but I thought that a few facts extracted from our records as they apply specifically to T-Series cars might be of interest particularly to newer members.

A search of the 'T' Register database reveals that TA 0318 built on 22 July 1936 was the earliest T Series car to get a MG registration with MG 4881, however it was not the lowest MG number as MG 4813 was allocated to TA 0350 built on 25 July. So immediately we see that MG registrations were not necessarily issued in strict numerical order. This pattern of out of sequence allocation appears throughout the life of T-Series cars, thus we see TAs 2925 and 2926 both built on 21 November 1938 being given MG 6343 and 6322 respectively. We can only speculate now why that should have been the case but delays in registering the car for road use was

probably the answer. The last known TA to be allocated an MG number was TA 3235 with MG 6511 built 28 March 1939.

A handful of TBs were allotted MG numbers, the first known being MG 6644 on TB 0257 built 1 May 1939 and the last known before car production at Abingdon ceased in 1939 was MG 6772 given to TB 0588 built 12 October.

In 1945 it was business as usual, TC0255 being the earliest known example with MG 6931. Once again the irregular pattern of number allocation appears with TC 0708 getting MG 6541, which might perhaps have been issued pre-war. However by early 1948 the supply of MG numbers to new TCs appears to have been tailing off because the last new T type known to the Register to have been given an MG plate is TC4555 built 19 January 1948 with MG 7404. There may be later examples but these are not known to the Register or are imported cars and therefore cannot be confirmed. Julian's research indicates that MG numbers in the 8/ 9000 range were issued as some appeared on other makes and others have found their way subsequently to other MG models.

The cessation of supply of MG prefix registrations to UM whilst TC production was in full flow appears in retrospect to be somewhat puzzling. Three letter prefix registrations had first been introduced in the 1930s but UM chose to steadily continue using the MG numbers until 1948 when it appears the block of 8000 simply became used up. A lengthy gap then occurred until the UMG 1 – 999 range become available from the Middlesex registration authority which may have been seen as even more of a publicity coup. Whatever the reason, that's what happened as we see UMG 4 first issued to TC8481 built on 21 April 1949. TC10086 built on 2 November

49 received UMG 80. Production of the TD started later in November and the first known example of the new model is TD01171 with UMG 125, the last being TD22298 with UMG 946. Logically, the YMG series followed in November 1952, this being a popular choice with Y Type owners while a few were allotted to new TDs. Incidentally YMG 1 was owned by UM and used by them on the ex 1954 Motor Show TF 1500 as a demonstration car for approximately nine months until sold and re-registered.

The TF model was not to be short changed by the absence of the letters MG somewhere in the registration mark for we now see AMG appearing in January 1954 but as a suffix as in 322 AMG on TF 2414. In due course BMG, CMG and EMG all put in an appearance in suffix form on TF number plates. The last known by the Register is 44 EMG on TF9308 built on 3 February 1955.

Perhaps at this point, something should be said about transferred MG prefix registration numbers. It is clear that MG owners and indeed any owners having the initials M.G. have always valued, in the broadest sense, their MG registration. This has led to the transfer of MG registration numbers onto later models and indeed onto other makes of car. Sacrilege you cry! Hence we now see a number that may have started life on a MMM car appearing on a later model. Fortunately, most cars have retained their originally allotted MG number and despite the somewhat random pattern of allotment it is not too difficult to pick out those numbers which are seriously out of sequence.

It is worth repeating the point made in Julian's article that not every MG order processed by UM automatically received an MG related registration, nor did UM supply every vehicle

that was allotted an MG plate by Middlesex County registration authorities. It appears that buyers had to pay for the privilege and many would have found that a step too far in the austere post war years, £527-16s-8p for a new TC in 1946/7 was a lot of money to the average worker then.

It would be interesting to know just how much UM charged for supplying an MG registration number, perhaps one of our readers with access to an original UM invoice could enlighten us. A copy for the records would be very welcome.

Roy Miller Historian/DVLA rep. October 2009

Photographs below show owners cars

MG 6450	Bill Hentzen	Wisconsin USA
MG 6938	John Bloomfield	UK
UMG 882	Graeme Curtis	UK

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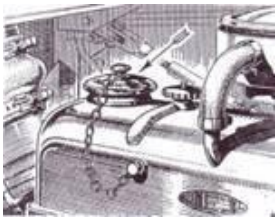

When I first saw TC7670, it was obvious I would have to find the proper oil filler cap. Instead of the cap, I had a "menagerie" of galvanized pipe and fittings to form a filler neck. On a positive note, it was original in every sense of the word and typical of its 1960's restoration. After some time I was fortunate to locate an original brass cap, in excellent condition, to include the chain. But where did the chain attach to? Before I answer that question let's review the transition of proper filler caps for the TC.

The filler caps for TC-TF were essentially the same except for the covers. The cap was manufactured by Enots and had a chrome button cap. You have to pull hard to get it to release and press the button to lock. There was a short break from using this cap during TC production from Engine # XPAG 2019 to 2966. These engines had the aluminum alloy cover with the flip top MG crested filler cap. Otherwise, the progression of different oil caps seems to be as follows:

1. Early TC: Chromed valve cover, MG Crested valve cover nuts, plain chrome filler cap, no lettering.
2. Early TC: XPAG 2019 - 2966, Cast aluminum coffin cover with flip top oil filler cap.
3. Early TC / Post XPAG 2966: Painted valve cover. Filler cap: *brass* filler cap w/wording: "USE N.O.L. ENGINE OIL"
4. Late TC: *Aluminum* filler cap wording: "USE N.O.L. ENGINE OIL"
5. Later TC: A*luminum* filler cap, wording: "CLEAN OIL ESSENTIAL - SEE MANUAL".

It was not until the TD when the chain appeared to fasten the cap to the side of the valve cover. The later T-series cars saw the following filler caps

6. TD: A*luminum* filler cap, wording: "CLEAN OIL ESSENTIAL - SEE MANUAL" with chain.

7. TF: Both *Brass or Nickel* plated steel caps (2 versions), wording "ESSO, STERNOIL, ENERGOL, FILTRATE, SHELL, MOBIL OIL, N.O.L. CASTROL" with chain.

Because various parts tend to migrate across the different T series models, it has become confusing as they all fit each others valve covers. However, there is no anchor point for the TC.
As a matter of economy for vendors, the TF oil cap with chain is commonly offered as a replacement by suppliers for other T-series caps. However, it is not proper for the TC. I have yet to find a source for the TC filler caps. If anyone knows let me know or if you have an oil cap excess to your needs I would appreciate it in order to help others. As always, this information is not absolute and I would request comment.

Doug Pelton doug@fromtheframeup.com

DISCLAIMER

SOME WORDS OF CAUTION!

TC Valve Gear,

This is a word of caution for any members who might be tempted to silence TC valve gear, when set hot at 0.019" Someone suggested that faulty pushrods can be noisy so I removed the overhead valve gear and sure enough one rod had a loose top cup. However, eight new pushrods made NO difference to the clatter! A close look at the shaft and rockers revealed quite a bit of play at the rocker bushes - maybe that was the problem? The valve ends of most rockers were recessed so I bought eight new bushed rockers and a new shaft. After having the bushes honed to fit the shaft the whole lot was ready to be re-assembled. But, what is the correct torque for the 8mm and 10mm tower bolts and how thick were the original tower slot spacers that limit the tension which can be applied to the rocker shaft clamps? My original spacers were 5/32" thick and to my surprise so too were some new replacements!

Here confusion reigned - a number of helpful souls thought I was asking about the spacers under the tower pillars, which of course is an entirely different question. One published list of TC engine torques suggested that the 8mm tower bolts should be set at 16lbsf.ft and the 10mm bolts should be taken to 43lbsf.ft. Further advice ranged from 23 to 25 for 8mm and 35 for 10mm bolts, right up to 28-29 for 8mm and 50+ for 10mm bolts.
To my everlasting shame I chose the higher figures whereupon one 10mm bolt sheared off and one tower top, rocker shaft clamp, snapped off! My torque bar calibrated OK with another tool.
So, I bought four new pillars and eight new bolts and set the 8mm bolts to 25lbsf.ft and the 10mm bolts to 35lbsf.ft.
So far everything is running well and probably a bit quieter too!

Bert Dive 7th November 2009 TC6316

New life for an old wiper motor

As part of the ongoing restoration of TA3120 I had left the wiper motor to near the end as it had been working when I shut the car down 42 years ago. So I was horrified recently when I opened the rear cover to discover that water had got into the electrics and rusted everything up.

My first reaction was to scrap the unit and source a new or rebuilt unit. However none of the usual UK sources had any stock and had no idea when new units would be available, something to do with armature problems in manufacture. Units do turn up on E-bay occasionally but vary greatly in condition, and good ones go for serious money. So what to do, especially as working wipers are mandatory if the car is to pass the UK MOT road worthiness test?

The unit itself is a Lucas CWX 12volt L1, Lucas part no. 730497, which I believe is correct for TA, TB and early TC.

I decided to have another look at the motor, and on applying 12V found it was trying to turn. I'm not an electrical engineer so normally leave this type of unit well alone. However I really had to do something so rejuvenated it as follows:

Electrics (rear section, photo 1 for exploded view)

Photo 1

1. Remove screw from handle, pull handle back and out. Note: my handle is non-standard, as the correct type is short and rounded on the left side.
2. Remove two cover holding screws and pull off cover.
3. Noting that each solder connection has two tags, one to grip the wire and the other to solder it, ease each gripping tag open, including the single tag supporting the thin connecting wire between the two stator sections (stator = the two fixed plates on each side of the rotating armature = rotor).
4. Unsolder the two black wires leading from the inside of the connector block where they connect to the brush holding plate..
5. Unsolder the thin wires to/from the stator where they are soldered to the brush holding frame.
6. Move each brush spring back out of the slot and push aside (photo 2)

7. Remove each brush but carefully note side and orientation of each as they are mounted off-centre and need to be a good fit when replaced.
8. Remove two screws holding the brush plate, carefully lift clear.
   The rotor will then lift out.
9. (Optional if you plan to service the gearbox next) Remove split pin, washer and spring from the extended wiper spindle on the front of the motor. The spindle will then withdraw easily from the rear.
10. Clean rust from all surfaces with emery paper and/or fine files, then coat with Waxoyl (an oil-based product that partially dries out) or similar. I could have used a varnish here but considered that Waxoyl would offer longer term protection against rust.

11. Clean and lubricate rotor shaft.
12. Clean off end of rotor to bare metal, where it touches the brass connector plate on the brush holding plate.
13. Carefully, with finest emery paper or metal polish, clean off the copper elements of the rotor where the brushes make contact. Take care to clean only around the elements, not across them, to ensure good brush contact and longer brush life.
14. Clean out the slots between each copper element, then replace rotor.
15. (Optional) You may wish to re-varnish the windings at this point but I chose to leave well alone.
16. Before replacing the brush holding plate, push each brush spring back and to the rear so that they are locked back and give room to insert the brushes. Check that the ends of the switch contacts are clean and in good condition, and that the inside of the plate is clean where it touches the end of the rotor shaft.
17. (Optional depending on condition of the two side feed wires) Unsolder the two side feed wires and replace with new wire of similar grade and length.
18. Screw brush holding plate back on to the wiper body.
19. Replace brushes exactly as they came out, then release the holding springs back into their slots.
20. Re-solder all connections Photo 3.
21. Clean up the switch inside the cover, but do not remove as it is clipped tightly. A little grease on this area will smooth its operation.
22. Replace cover and screws.

Photo 3 Soldering completed

Gearbox (front section, photo 4 for exploded view)

Photo 4 Exploded view of front (Gearbox side)

23. Remove both motor mounting studs by locking two brass nut together then unscrewing.
24. Lift off ½" spacer.
25. Unscrew two cover locking screws. Prise off cover, possibly using a small screwdriver in the U-shaped slot at top right if tight.
26. Note that the smallest gear, which extends into the rear section, has a small dimple in the inner ring (photo 5). This must align with the centre of the brass quadrant gear in re-assembly.
    Orientation does not matter anywhere else in the gearbox.
27. Remove smallest gear and clean.
28. Swing quadrant gear over to right, lift

crank arm slightly and remove the largest gear. Note that this will show 130 degrees, or 150 degrees for the later TCs, and refers to the angle of sweep (these gears are interchangeable between units). Lift out the resin gear.

29. (Optional, I chose not to disturb) Remove split pin and washer, lift out gear.
30. Clean all gears, shafts and box internals of all old grease. Lubricate shafts and gear teeth with fresh general-purpose automotive grease.
31. Re-assemble gears, noting 26 above.
32. Replace cover.
33. Insert wiper spindle from rear of box, replace spring and washer, and secure with new split pin.
34. Replace two holding studs. Clean off any old paint and grease.
35. Mask off holding studs, spindle at each end, switch lever.
36. Mount whole unit in vice or similar, holding by spindle. Spray with thick coat of wrinkle paint, then two thin coats. Carefully move switch lever between coats to ensure coverage underneath.
37. Leave to dry thoroughly for two days. I used an old vice that I then placed in the airing cupboard. A good wrinkled finish should be easily achieved using this method, without the need for primer coat.
38. Replace chrome handle and locking screw. Photo 5
39. Mount to windscreen using: ½" spacer, tubular locking screw on each motor holding stud, cork washer, windscreen, cork washer, 3-hole plate (early black, later chrome), rubber washer, metal washer (I used SS here), brass nut. The 3-hole plate should have some felt behind the central hole, around the shaft, to keep out water, so man-made fibre such as quilt wadding would be better as it does not hold water.
40. Connect wires, order does not matter.
41. Stand back, admire, and test operation.

The units are, according to Lucas, designed to run warm. However if one is hot to the touch it is overloading, either due to a dry windscreen, wiper blades that are too large, input/output wires which are overheating internally against coils (cure is 17 above), etc

There is one other feature worth mentioning for maintenance. At the top and bottom of the front section there is what looks like a blind rivet. In fact these are spring-loaded balls which seal an oil conduit to the rotor bearing. So a drop or two of a light oil to the top ball every so often, when depressed, will not go amiss. (These valves are fitted on top and bottom as many different car models used these units, and some applications mounted the wiper motor the other way up.)

I hope this article helps others to achieve a good working wiper. These are of course quite basic units but can give reasonable service for many years.

Ian Linton

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Next Edition an article on TF wiper controls

Practical Core Plugs

By Thomas V. Lange

Over the years there has been considerable discussion on core plugs: which are best, how to properly remove and install them, and how to deal with the problematic core plug at the rear of the engine block. Of course, there are as many opinions as there are MG owners, and this note hopes to bring together different opinions to highlight what works for some owners.

The XPAG/XPEG engines have a total of nine domed (convex), replaceable metal plugs called variously core plugs, freeze plugs or Welch plugs, which fit into openings in water passages on the right and back of the engine. These openings in the block are integral to the casting process, and are where the core of sand was supported when the block was cast. The core plugs seal coolant inside the engine, and may be forced out if the liquid inside the engine freezes and expands, thus relieving the pressure and (hopefully) avoiding cracking the block – but don't count on it. Straight water is

unforgiving when it expands, and a block will still be cracked if it freezes solid

In a properly-maintained engine, anti-freeze and water circulate through water passages, absorbing the heat generated by combustion and normal friction. As long as the coolant is kept moving right along inside the engine, there is limited opportunity for rust to form (unless straight water is used). But there are often locations inside the water passages where the flow patterns are not smooth. Over time, rust, mineral deposits and casting debris accumulate in the water passages, slowing and sometimes entirely blocking coolant flow. This generally leads to persistent overheating. Slow or obstructed water flow anywhere near a core plug will cause the core plug to decay very quickly, usually showing itself as a rusty weeping of coolant below a core plug. Sometimes a leaking pinhole can be seen on the outside of a core plug or a core plug will look rusty. This is a sign that it must be removed and replaced, and it makes little sense not to replace all core plugs in the engine at the same time. In fact, it is wise to replace all steel core plugs every time the engine is out.

XPAG/XPEG engines require two 48mm core plugs, six 35mm and one 45mm core plug. Seven are found on the right side of the engine, a 48mm is located in the back of the block just below the head, and there is also a 45mm domed plug that will not need replacing, inside the bell-housing at the end of the camshaft. Core plug sets from Moss and Abingdon Spares are good quality steel core plugs, fit properly and cost less than $10. Steel core plugs will last a long or short time depending on your engine – after installing a new set of core plugs in an engine I found one had rusted through in just

about a year, while all the others in the same engine lasted ten more. This anomaly was no doubt due to circulation peculiarities and obstructions in that engine, since behind the one leaking core plug was a build-up of rust and debris.

The life of a steel core plug can be extended: one old-timer's trick is to paint the back with shellac and to install it wet. A more modern way is to coat the core plug with a couple of coats of epoxy or zinc paint. But an even better trick is to use the amazing POR-15 paint on the back of the core plug. When dry, POR-15 is a remarkably tough paint that will extend the life of core plugs substantially- but be forewarned: apply with great care and remember that it is almost impossible to remove from your skin. A side-benefit of using POR-15 is that you will have a good bit of paint left over and will find new uses for it, such as painting the inside of the water-jacket cover plate on the back of the head, to prevent IT from also rusting through.

An alternative to steel core plugs is using corrosion-resistant brass, which cost about three dollars each. In fact, I have never seen a properly-installed and properly-fitting brass core plug need replacing. Some have suggested the possibility of galvanic erosion occurring between the iron block and brass core plugs, but the leading US manufacturer of steel and brass core plugs, Dorman Industries, has found no evidence of this. Dorman makes brass core plugs that fit just fine in the two smaller sizes: 560-019 and 560-025, and they are available at most auto parts suppliers. The problem occurs with the XPAG/XPEG's 48mm core plugs, for which there is no corresponding Dorman product. The closest stock plug is Dorman's 1-7/8" or 47.625mm,

which WILL pop out of the 48mm hole, no matter how carefully or vigorously it may be installed. The only acceptable solution is to take four Dorman 560-028 plugs to your favorite machinist (two for your engine and two as spares – four will cost no more that two) and have them turned down to 48mm. (Dorman used to make a 2-piece expandable core plug, but no longer offers an appropriate or larger size.)

It is easiest to replace core plugs with the engine out of the car, or at the very least with both manifolds and carbs off. A chisel, punch or old screwdriver driven into the center of a core plug (some drill a hole) will allow it to be twisted out, and you will then see the rusty build-up inside the cooling passage that causes cooling problems. Remove the drain tap on the right front, and probe it well with a piece of wire until water flows. At each core plug hole remove all the rusty pulp you can with wires, brushes, screwdrivers, hoses, etc., and let dry thoroughly. It is also important that you clean out the two drain holes in the left and right raised water-passage core plug holes, as described in *Totally T-Type,* No 34. Particularly scrape and clean the sealing lip or flange of each core plug hole, removing all traces of rust, corrosion and previous sealants (and hope noone has used Araldite or JB Weld before you). Make sure the sealing flange is clean and reasonably flat. If you used POR-15 on the back of your core plugs, paint a bit more on the lip of the hole, let dry, and then use hardening or non-hardening Permatex or similar, OR NOT (I don't). It's all a matter of preference. There are those who recommend a thin bead of Araldite or JB Weld in the lip and another thin bead on the outside of the seated core plug, but I would hate to be the one to

remove all the accumulation when/if the core plugs rust or have to come out as normal part of an engine rebuild.

There are two generally accepted methods of installing core plugs, both of which involve dimpling the center of the plug, which increases the outside diameter and makes an interference fit with the hole in the engine. The first method uses two ball peen hammers: holding one round end against the center of the core plug, strike the flat end of the first hammer twice with the second hammer. Dorman recommends this method to dimple and expand the center of the core plug, which has worked for machinists for many years. A word of caution though: both hammer heads are hardened, and it is possible that one or both might chip. I have never seen it happen, but there is always a first time – wear safety glasses! A piece of tape over one of the heads will soften the sharp impact, or simply use a brass hammer as the hitting hammer.

A better way to install core plugs is to use a stout rod about 1" in diameter, and to flatten the core plug about ½ to 2/3 of it's diameter. "One good whack" will give a strong seal. If you have used POR-15, paint another thin bead around the outside edge of the installed core plug, let dry, and then paint engine color again.

As mentioned earlier, there is also a plug inside the bell housing at the end of the camshaft, often called the cam plug. (Although not technically a core plug because it does not seal a water passage, it is the same size, shape, and is installed identically.) This plug will probably not need replacing; it is generally replaced only when the engine is rebuilt, and need not be disturbed unless there is some leakage. The large core plug at the

rear of the block by the firewall is the real problem, and always has a habit of blowing out while on the road, far from home. This core plug is best replaced with the engine removed from the vehicle: there is not really enough room to easily flatten the core plug with the engine *in situ*. I have seen cars where a small hole was drilled in the firewall (and later filled with a rubber plug), through which a long punch was inserted to dimple the center of the core plug. It has also been suggested that one can remove the toe boards of T-ABC cars, and angle a drift from the inside. I believe there is an article planned in a forthcoming TTT, which will address the replacement of this particularly problematic core plug. Rubber expansion core plugs may be used in an emergency, but should not be relied upon for any length of time.

If a newly-installed core plug has a nice ring when tapped with a hammer, it is probably well-seated. If it has a dull or insincere ring, try to seat it more firmly. If that doesn't work, take it out, clean out the hole again and start over with a new core plug. Good practice is to fill the cooling system with a quality 50/50 coolant/water mix, look for leaks, and flush a couple of times to remove any loosened debris. If the coolant ever turns brown, change it. If you still have overheating problems check ignition timing and proper distributor/advance function, have your radiator gone over (or replace it with a 3-core radiator), and get an improved water pump with more impellor blades. Finally, look forward to many miles of cool and trouble-free motoring.

Thanks to Mick Conde and Dan Craig for their valuable comments.

QUESTIONS & ANSWERS FROM THE EXPERTS

From time to time many of you raise questions with our registrars and 'T' type gurus.

On a frequent basis I will now copy you in by way of this column in TTT, on the some questions and answers that may be exactly just what you also wanted to know.

TF Tonneau Bars

Gordon McDonnel (mailto:gmcdonnell@mac.com) raised the issue of tonneau bars on the back of the TF seats and what was the purpose of them and the correct positioning.

Barrie Jones TF Registrar replied;- The TF had a pair of metal hoops attached to the back of the seats. They were probably designed to take the straps from the half tonneau, but the only use I have found for them is to provide a grip when tilting the seat forward. Originally painted a grey colour with a hint of pink in it, they were attached by 4 screws with the top slightly below the top of the seat so the gap at both sides is the same as the top.

TD Petrol Tank

Graeme Curtis (Graeme.curtis@ntlworld.com) wrote;-

I have looked in the totally t type and other books I have, but cannot find a solution to a problem I have, perhaps it is unique to my TD. Sometimes during the season I need a full tank of fuel, I find if I put more than 10 gallons in the extra

ends up on the road and back of the car. I have replaced the rubber seal in the top of the tank to no avail. As most of the runs I do are on a Sunday I have to resort to putting petrol cans behind the seats, I could take a risk and rely on petrol stations being open but they are few and far between in my area. Do you or another have an answer?

Barrie Jones replied;-

Inside the neck of the petrol cap, where you insert the filler nozzle, you will find two concentric rings of metal. Wedged between them you should have a cork ring. Inside the filler cap you will find a spring-loaded lid, which is designed to sit on the cork ring in order to seal the tank. It must not be 100% air-tight, or else you will draw a vacuum and experience fuel starvation. I have just studied the Moss parts catalogue, and it appears to be part number 293-600.

TD Brake Pipes

Randall Everson (reversion@mweb.co.za) posed the following:-

Horst Schach's book is proving to be very useful but not complete in respect of original detail. Can you assist with this; was the brake piping of the 1952 TD made of steel or copper, I seem to have both on this car?

Barrie Jones again replied;-

The TD originally had pipes made from `bundy' which is a soft steel alloy. It has the disadvantage that it rusts, so many of us have converted to copper brake pipes. If you are

worried that copper is too soft and may suffer from fatigue cracks, then the best material is a copper alloy with nickel added to it. Both are available from motor factors in the UK (the alloy pipe costing twice as much), and both are E-approved for automotive use throughout Europe.

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