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David Pughe driving his TD in the Cavalcade of 100 Years of Motoring through Central London in July (see Editorial)



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THE EDITOR

New Years' resolutions are meant to be broken? Well some say so! In the January 2006 issue of TTT I said that I would start to rebuild my J2, strip the front end down on the TC and get the PB back on the road with a rebuilt engine. Well, so far, I've failed miserably with the J2, made some progress with the TC (but on the back end, rather than the front end) but I do have the PB back on the road, with rebuilt engine, courtesy of the cheque book and a severely dented bank balance. T-Type engine rebuilds are positively 'cheap' when compared with Triple-M engine rebuilds!

Since the last issue, Sue and I have been to Harrogate and back in the PB for the 'T' Register Weekend. I may have said it before, but there is something very special about 'T' Register Weekends. What stands out for me is the camaraderie when around 120 T-Type enthusiasts in 60 plus cars come together for the weekend, the highlight of which is the Gala Dinner on the Saturday evening. This year's Dinner was the last to be hosted by Register Chairman, Dennis Barker as he retires from the Chairman's post in March. I shall miss him for he has been wonderfully supportive, but the Register needs to move on and Dennis has earned a well deserved rest. He and Jennifer won't be disappearing from the scene altogether as they will be attending future events as 'ordinary members' with none of the pressure which Officer status brings.

The Harrogate Weekend, superbly organised by Grant and Barbara Humphreys and family will be remembered for the weather on the Saturday. There was a severe weather warning for the Dales and we were all out in it! We all got soaked to the skin with water coming up through the floorboards and over the seats and if you didn't laugh about it you would have cried. Oh for the joys of T-Type motoring!

Those of you who receive TTT in 'hard' copy form (there are around 500 of you) will receive the next issue (November) in full colour...*(cont'd on page 4)*

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Those who tune into TTT via the Register website www.tregister.org (we estimate that there are over 2,000 of you) will not notice the difference as TTT is produced on my computer in colour using Microsoft WORD and sent to the Printers as an e-mail attachment, the WORD document having been converted, using Adobe Acrobat, to a PDF file. Not exactly the last word (pun not intended!) in publishing technology but it works!

The move to full colour is going to cost appreciably more and this will impact on subscriptions. When TTT started out in life in 2004, the subscription was £6 for UK subscribers. It has remained at this level despite significant improvements (glossy paper and colour covers) which were made in November 2004 (glossy paper) and January 2005 (colour covers). This has been possible, partly through advertising income and partly through some economy of scale (remember that we started from a zero subscriber base and it has taken a couple of years to reach the present level). However, colour adds a new dimension and there is no alternative to raising subscriptions, short of filling the magazine with adverts (which I do not want to do).

We have had a good year in terms of TTT income. I estimate that our income will exceed expenditure by about £1,200, which will be carried forward to 2007. The main reason for this is that several subscribers have sent more than the asked for £6 subscription. We have also received £237 from Internet 'subscriber' donations, and £70 from other sources, which is much appreciated. Looking through my crystal ball the future financing is going to be tight, even with a UK subscription of £10 (MGCC members). However, I do not want to ask for more as I am conscious that you already pay your MGCC subscriptions. So £10 it is and I will use this to assess the other rates i.e. for UK MGCC non members and Overseas rates. These will be advised in November's TTT.

The front cover shows David Pughe driving his TD in the Cavalcade of 100 Years of Motoring, which took place in Central London in July. David says "It was advance publicity for the Motor Show. The route started in Park Lane, into Piccadilly, right into Regent Street, into Trafalgar Square and finished in Whitehall. All those roads were closed to normal traffic at the time - that part of Regent Street usually being one way, but the other way to our drive. Along Piccadilly there were crowds two to three deep. I was fortunate to be allocated a ticket and therefore, the 'T' Register was represented with a TB, my TD, and a TF."

Finally, Gary Wall sent me an aerogramme from New Zealand, which arrived in good time to let you know that he has decided to sell his T-Type Tickford body tub. It is fully skinned and comes complete with bulkhead, hood mechanism and doors. It would be suitable for a TA or TB and can be seen at Barry Walker's premises (01789 400181).

T REGISTER NEWS (Compiled by John James)

Committee Members Following the profile of Register Chairman, Dennis Barker in July's TTT, I would like to introduce you to Register Secretary, Chris Sundt and Register Treasurer, John Steedman. Before I do so, I would like to say a brief word about each based on my observation on them at Committee meetings.

Chris is the perfect Register Secretary – completely unflappable, he records clear and concise minutes and action points and has many contacts in the 'T' Register and elsewhere in the MG Car Club. It is in no small part down to him that our Committee meetings run like clockwork. John is to the Treasurer's job as Chris is to the Secretary's. Unusually for a Treasurer, he implores us to spend money! He receives lots of paperwork from me in the form of Regalia sales analyses (which, just lately seem to be almost on a weekly basis) and keeps all this in meticulous order for the end of year accounts.

So, first to Chris.....

Chris Sundt – A Bit of a Profile



A war baby, my early memories are of being frozen in the back of a Wolseley Hornet – my Father's daily transport just after the war. This car was regularly rallied and was joined by an Austin 7 special that he raced (competing with Colin Chapman and the like). So I grew up surrounded by sporting cars and their owners and attended many racing venues. At an early age I was found surrounded by the bits of my bicycle – which I had dismantled. I was told to re-assemble it, which I did. I helped maintain the family cars and, over the years we had a number of interesting vehicles, culminating in a Derby Bentley. Before I could drive legally, I acquired a tatty Morris 8 which I

rebuilt and used, unofficially, for driving tests. This was replaced around the time I went to University (to read Physics) in 1962 by an MG TC – probably inspired by a TA purchased in the UK by a US friend. We drove all over the south of England in it during the summer of 1961 – with a pause while the rear spring trunnions, which snapped off, were replaced. I still have that TC. While

at college I managed to acquire a new TVR Grantura Mk III (with MGA engine) that I raced – until I hit the chicane at Goodwood, (which had a solid brick wall in those days). My financial state at the time stopped further competitive adventures for a while.

Having graduated (just) I entered the then new world of computers – which has provided me with employment ever since. Starting as a programmer, my career covered many disciplines including project management, business planning, system design and development, and computer security. Given the nature of my work, I became familiar with the intricacies of a wide range of businesses with whom I worked on their information systems. Although I never actually moved companies, many mergers and acquisitions meant that I was employed by a fair few organisations over the years, finally retiring from ICL in 1999. Since then I have been working freelance (too often my wife, Gay, complains) on those things that interest me – particularly the need to address computer crime, with all that implies on legislation and the capabilities of the police.

Shortly after starting work I swapped the TVR for a Lotus Elan (one of the very first Coupes) and started rallying and sprinting it – but only at local club level. I also got involved in the BARC, joining the Surrey Centre committee and helping out at events. This included marshalling at race meetings and sprints (Thruxton on a snowy November day requires real dedication) joined in due course by my then girlfriend, now wife, Gay who helped out at Scrutineering and in Race Control. Of course, this all ground to a halt once the children came along – and my working life got more demanding.

Meanwhile the TC was gradually falling apart in my garage. I had sold it to a friend in 1963 for whom I continued to maintain it, and had bought it back when he blew up the engine a couple of years later for £150 with the intention of rebuilding it – but....

In 1989 my daughter, then 14, declared that, if that old car wasn't on the road by the time she could drive, it was hers! So I started to rebuild it, allowing 18 months. In 1995 it was finally MOT'd, registered and on the road. When I started the rebuild I joined every MG-related club I could find, including the MGCC. I attended events like Silverstone, visited most major parts suppliers and talked to people. In so doing I found the MGCC 'T' Register and the Octagon Car Club of most help, but the former ran 'Rebuild' – which I attended from the start of my own rebuild. My real introduction to the Club, however, was the T Type 60th Anniversary Continental Tour in 1996. Having never been out in the newly rebuilt car for more than 40 miles at a stretch, Gay and I found ourselves committed to a 2 week tour of Europe with complete strangers. The group met at Silverstone a couple of weeks before the Tour and everyone seemed friendly enough. During the Tour we got to know everyone well, and made some lasting friendships. We discovered that the 'T' Register is really an excuse to go out and enjoy oneself amongst friends and enthusiasts – and have used the TC on events and trips across the UK and Europe on a regular basis ever since.

One result of all this was, inevitably, that we got to know many of the 'T' Register committee, including Mike Lugg – then Chairman. When the position of Secretary fell vacant following the untimely death of Nigel Mossop, Mike invited me to join him for lunch at a local pub. There is no such thing as a free lunch, and I found myself being persuaded to take on the role – which I have carried out ever since. Initially very much focused on 'T' Register matters, inevitably I have become embroiled in broader MGCC issues, particularly the recent events surrounding New Kimber House and its aftermath. While the main focus must remain the 'T' Register, we need to make sure we do have a strong Club that does give value for money to all its members and become THE Club for those interested in all things MG. I like to think that the 'T' Register is leading the way.

So there you are. I'm an "old fart" to quote a famous rugby player, helping the 'T' Register meet the needs of its members, and enjoying T Type motoring across the UK and Europe with like-minded friends.



And now over to John – the caption reads "Our Treasurer in a German car park in 1967 about to drive to Norway for the first time. Note the rear wings of 50% filler and wooden running boards!"

The Story of a TC Obsessive

If you were walking down Fellows Road in Swiss Cottage during the summer of 1969, the chances are that you would have seen me rebuilding TC0301 by the roadside, opposite number 60. I'd been restoring the car for the past year at my parents' house in Harpenden, however the lure of London life and my girlfriend, persuaded me to rent a bedsit there for £30 a month. What to do with the rolling chassis and half-finished Rebuild? Simple, have my good friend, Nik tow me 25 miles to London and finish the job by the kerb, evenings and weekends!

It had all started in 1954; my father was then based in Germany and family holidays comprised of touring the continent in our Ford Zephyr Six. This would have been fine, except that the three of us in the back had no room

to move, every gap and space had been filled by mother with “essentials” that we must take with us. Climbing a spectacular mountain pass in the alps with endless hairpins I had my life changed; gazing out the side window I saw an MG with a young couple off on their holidays with the top down no luggage and having the greatest time. The T-Type soon passed us, the slab tank and spare wheel engraved on my memory. “That is what I want to be and do”, I thought.

Thirteen years later, in my last year of college, a friend was selling his TC; I could have it for £160. My mother, God bless her, lent me the money and I was the very proud owner of a heap of trouble. My first lesson was about to be learned: don't buy the first car you're offered! In 1967 I joined the MGCC and the 'T' Register (No. 1362) and shortly thereafter I discovered that FTL 60 did not have an XPAG engine and was generally held together by perforated aluminium and filler. So began a two year Rebuild and frantic efforts to get her together for her first run: Swiss Cottage to Bardufosse (between Narvik and Tromso, above the Arctic circle.)

After using TC0301 as my sole transport for a while, a move to Bristol for work purposes and post-graduate study in the USA, meant that my beloved MG was put in a lock-up garage in 1973. After my studies, I joined an International bank and finally returned to England in 1987. Everything was making it impossible to enjoy TC motoring: career, children, and a lack of cash to spend on hobbies. What kept me going was “Safety Fast!” and vicariously enjoying (once removed) the saga of the T-Reg stalwarts: Furneaux, Willmer, Barnes, Jones, Giusti, Brown, Gammons. One day my TC would be back on the road and I'd be able to join in.

Another aspect of being a closet enthusiast is the possibilities of research. Over my “lean years” I'd built up a library of books, articles, magazines devoted to the TC. I was an OS (an originality student) and as such the arrival of “TCs Forever!” was an eye-opener; there were people out there more obsessed than me! I decided that my eventual Rebuild was going to be as close to the condition that TC0301 was in when it left the Factory, consistent with what I could achieve.

Finally secure in Hampshire with a garage and (at last) some spare cash, I started my “Millennium” Rebuild project in 1996, inspired by Don Spurr's immaculate white TC. The project took till June 2003 and along the way I was asked to join the T-Reg Committee, which has been great fun and a chance to put a small something back into the Register.

The only trouble now is that the garage is very quiet at the moment; Mike Card is building a superb high performance TC; Triple-M cars have always intrigued me; there is a wonderful 18/80 Mk II in the next village, my new career as a teacher keeps me out of the country for half the year. Choices, choices – what a great dilemma to have!

PAST EVENTS

1. Shuttleworth 2006 – ‘T’ Party (2nd July) Organiser, Graham Brown has provided a report for me, which will appear in the ‘T’ Register Newsletter in September’s “Safety Fast!” (which, by the time you read this, most of you will have seen). However, for the benefit of those who do not receive “Safety Fast!” I follow with a brief review of the event.

Applications for tickets this year were initially very slow, but as is so often the case, they flooded in during the final few weeks and there was a very good turnout of 61 MGs (mainly T-Types, but also a Triple-M K-Type and a handful of MGBs with a solitary MGF and a ‘rogue’ Morgan. A ‘NG’ kit car also arrived late in the afternoon.

The weather was exceedingly hot, but a freshening wind helped with cooling, albeit, because of it, the really old flying machines could not take to the air at the end of the Show.

The previous day (Saturday 1st July) attracted an entry of 14 cars (to be joined later by a Y-Type) for the Saturday Run, which included visits to Wimpole Hall (National Trust), The Royal Society for the Protection of Birds (RSPB) Lodge at Sandy, and Moggerhanger Park (Georgian Grade 1 Listed Building). The day was rounded off by dinner at The Anchor, Great Barford, on the banks of the river Great Ouse.

Arguably, the most talked about aircraft to appear on the Sunday (there was a 3 hour flying display of varied aircraft from different periods on the Sunday afternoon) was a ¾ size Spitfire from Australia which performed and sounded like the original full size model. It could be built from kit form provided you had the equivalent capital of 16 good looking TCs to sell in order to raise the money!

2. Committee Meeting – 16th July Not really an event, although you might have been forgiven for thinking so as there were three TCs and a V8 lined up in John Steedman’s paddock in the delightful Hampshire village of Barton Stacey.

We were pleased to be joined by Club Chairman, Peter Best, himself very much a T-Type owner. A number of suggestions and initiatives were discussed with Peter and our diligent Secretary, Chris Sundt, has since followed these up in writing to Peter at Kimber House.

From the various reports by Officers and Committee members, Peter heard that the Register is in fine fettle with a steadily growing cash balance.

The Register trip to France in May 2007 was agreed in principle (see page 10 for further details) and we were delighted to learn that Roy Ingleton (a fluent French speaker) has offered to help with the arrangements. A couple of alternative dates for ‘Rebuild 07’ were also agreed.

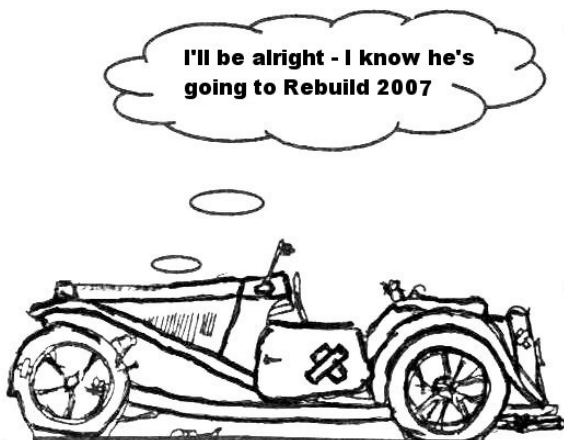
FUTURE EVENTS

1. Practical Skills Workshop (17th September)

This event (to be held at the Workshops of Peter Edney Classic and Sportscar, Leaden Roding, Essex) is fully booked and I understand that Organiser, Graham Brown, might even have had to flex the numbers from 32 to 36. By the time you read this, the event will have been held and I hope to be able to feature some of the sessions in the November issue of TTT and in the January 2007 "Safety Fast!" Newsletter.

2. 'Rebuild 2007'

'Rebuild 2007' will be held at the usual venue, Ernulf Community College, St Neots, Cambs. on either Sunday 11th March (preferred date) or Sunday 18th March. Further details will be published as soon as we have some more information. Peter Cole has again kindly offered to organise this event.



3. 'T' Register Trip to France (May 2007).

We now have a date, which is the weekend of 12th/13th May. The travel arrangements (which have not yet been finalised) will probably be departure from Portsmouth on Thursday 10th with the return journey from Caen on Monday 14th. A provisional booking has been made at a very nice hotel in the Bayeux area. It is likely that we will have to limit the trip to 20 cars.

You will no doubt gather from these brief details that we do not yet have all the arrangements in place. However, the Committee is meeting during the weekend of the Autumn Tour when it should be possible to finalise matters for publication in November's TTT.

4. Autumn Tour 2007

Organiser, Peter Cole has now identified a couple of hotels in the Chichester area to serve as a base for next year's Autumn Tour. The Tour will be held on one of the first two weekends in September with a provisional date of 7th/8th September being pencilled in, but this is to a large extent conditional on when the Goodwood Revival meeting is taking place.

“THEN AND THEN!”



The MG Factory in 1933 (above) and in 1966 (below)



THE AERO LOTUS 6 - RYO 9



If you were lucky enough to be at MG Silverstone this year, and took time to visit the ever-interesting XPAG Specials display put together by Keith Hodder, you would have spotted a slightly unusual looking open 2 seater, resplendent in oxidised aluminium, and you would have been forgiven for thinking it was a car that had been rescued from a barn somewhere after a hard life on the road or race track. Nothing could be further from the truth however, as when it arrived for the weekend, it had covered precisely 50 miles under its own power since it was completed, back in 1955.

The story of its origins is fascinating. When current owner Jack Taylor bought it about 15 years ago from the original owner, Dr John Kenyon, it came with a thick file containing details of every aspect of its design and build. Dr Kenyon, who was a surgeon and lived in South West London had thoughts of building a sports car based on the Lotus 6 chassis available from Colin Chapman's fledgling Lotus engineering company, but he didn't like the rather Spartan cycle-winged body on offer, so designed his own, with enclosed wheels. He got his brother to make proper drawings from his sketches, both for the body and for the de Dion rear axle layout and these have survived. His first design was for a fastback hardtop body, but quotes from the body makers were way outside his budget, so it ended up as an

open car. The bill of sale for the chassis, signed by Chapman over a 2d stamp, (**Yes, it was in the good old days of £.s.d - Ed**) was in the file, together with the invoice for the body. There are handwritten notes comparing engines available at the time, showing power outputs, consumption etc and engines considered included Ford 100E, Triumph, Climax and MG, the latter being chosen probably because it was cheap, readily available and easy to tune. Included in the file is a receipt from Harry Lester for one of his lightweight flywheels.

RYO 9 was completed and on the road by October 1955, but after Dr Kenyon had tried it out, he found he didn't much like it, so, after only 50 miles, put it away in his garage. Before he started on the project he estimated it would cost around £350; the total in the end came to £800 - **eight hundred!** - and there is a pencilled note at the bottom of the list which says "£80 from mother". His running cost came out at **£16** per mile!...

Dr Kenyon moved to Shepperton in 1960, and RYO 9 went with him. It was stored in a wooden shed, one of three placed in a semi-circle, with their doors facing inwards. The other two contained his collection of 12 in. gauge steam locomotives and rolling stock (which he built himself) and the semi-circle contained the turntable for the railway track he built in his garden.

The current owner, Jack Taylor, heard of the car by chance, from a delivery driver who called at his home and mentioned in passing that a friend of his wife's did some cleaning for a chap who had an old Lotus and it might be for sale. Jack already had a Lotus 7, so didn't waste any time following it up. Because the car had never been seen, it wasn't even on the Lotus Register, a rare find indeed. Because the first design was for a fastback, Dr Kenyon called it the Lotus Aero, and the name has stuck.

Jack bought the car back in 1990, but had the engine rebuilt by George Edney recently, and with George's help sorted the timing at Silverstone, then spent much of the weekend driving round the perimeter road. By Sunday evening he had probably doubled the car's total mileage since new! He doesn't intend to restore the car, preferring at the moment to retain its patina; no doubt a situation we'd all like to be in!

Ed's Note: A special (pun not intended!) thank you to TA/B/C and Specials Registrar, Stewart Penfound, for penning this interesting article about this unique car. I've asked Stewart to think about a series of articles on XPAG Specials since there is definitely a lot of interest in them. To help Stewart out, if any XPAG Special owner would like to write a brief article about his car and send me a photo it is guaranteed publication.

Much of the credit for the enthusiasm for Specials must go to Keith Hodder, ably assisted by Maureen. Keith organises a wonderful display of XPAG Specials every year at the MGCC International Weekend at Silverstone.

Renewing bushes on Girling Rear Shock Absorbers for TD

As is well known, particularly by those who have tried to do it, the replacement of the two bushes on the Girling rear shock absorbers is notoriously difficult. Having just been through this process, even with the special kit supplied by Brown and Gammons, (complete with instructions) I still used 7 bushes to replace the four on the two shocks. However, having struggled at home using a vice over two days I resorted to a visit to a friendly engineer with a drill press (as recommended in the instructions) but even then we both continued to struggle, before modifying the process as follows.

The kit supplied consists of four parts. First there is a driver and guide used to insert the new bush inside the link and shock arm respectively, with a base on which the link or arm are placed during the process. Following the instructions for this part of the operation produces results and is reasonably straight forward. The only problem is keeping the driver straight to ensure the bush enters the aperture equally all round but with care it can be achieved, even with a vice. The real problem is the next bit, getting the stud into the new bush in the link, and then the other end of the link into the bush in the shock arm.

The recommended procedure is to use the fourth part of the kit, the pilot on the end of the stud or link, to guide them into the bush, with the link or shock arm aperture resting on the base. Using a drill press to force the link arm or stud through the bush, I found that the pilot squeezed the bush out of the other side of the aperture, past the base, rather than passing right through the bush and dropping out the other side as described in the instructions.

The solution is to discard the pilot and using a grinder, round off the ends of both the stud and link arm. This enables them to act in the same way as the pilot, the rounded off ends forcing open the bush, and passing into it. This reduces the chance of the bush being forced past the base on the other side. Again it is essential to keep the stud and link straight during the operation and to lubricate the parts. I also recommend using a drill press rather than a vice.

For anyone contemplating doing this I now have a surplus kit, with instructions for sale at £25 including p&p (£48 with p&p new). I also suggest you have some spare bushes to hand!

Peter Stevens

Tel: 01803 812905

Design Heritage of the Salmons & Sons M.G. TA & TB Tickford Badge

I am indebted to Rod Sawyer for bringing the following note from USA member and Tickford enthusiast, Bill Hentzen, to my attention.

"Salmons and Sons used a circular badge with an outer ring in medium blue in 1923-1925 on the NP motorcar. Lettering in the ring read 'Salmons Light Car Co.'

In the 1950s, a badge was designed by Bert Thickpenny, who had designed the Tickford M.G.s in the 1930s. This badge displayed a silver swan in relief on top of a shield crest in medium blue, bordered in silver with the silver lettering 'Tickford Coachwork' in the center. These badges were used on the first Tickford bodied Aston Martins, DB2-4, as the workers wanted it known that they were Tickford bodied. This is the swan that was integrated into the M.G. badge.

The Salmons Tickford Enthusiasts Club in the 1980s and 90s had a circular badge with a lettered outer ring and a swan in the center.

The swan motif was used as they frequent the rivers Lovat and Ouse that meet in Newport Pagnell, a few hundred yards from the factory. The main hotel in Newport Pagnell is The Swan.

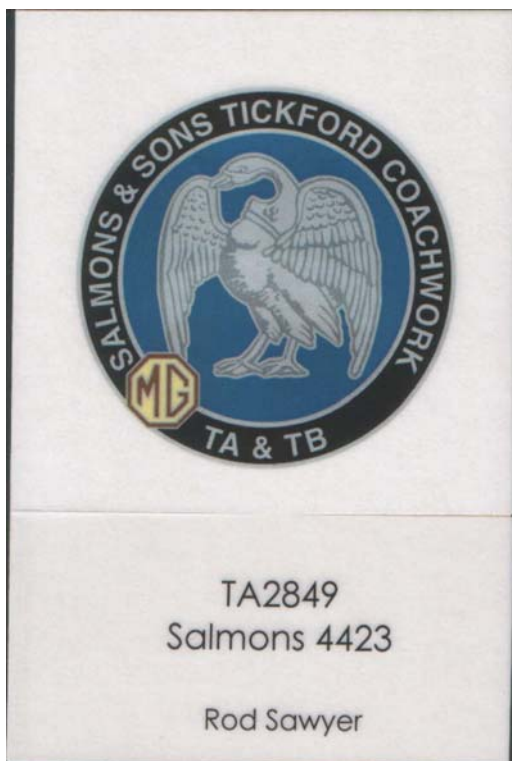
The Salmons family sold the company in 1942 when it became Tickford Limited. David Brown acquired the company in 1952. The name Tickford originated from Tickford Abbey, some of whose buildings were part of the original factory. The patented 'Tickford folding hood', a cranking device to lower and raise the hoods (roof) gave Salmons their mark in the motorcar and coach building industry.

I am indebted to Dennis Mynard, motor book author and historian, of Newport Pagnell, for the historical information and pictures of the previously used Tickford Badges. Dennis is currently writing a history of Salmons & Sons, which will include their involvement with the M.G. Car Company".

Bill Hentzen, March 2006

I subsequently e-mailed Bill following Rod Sawyer's mention of a soon to be available Tickford badge and Bill forwarded me the information below.

"The badge story began when MG2006 held in Gatlinburg (USA) the end of June, provided an opportunity to hold a reunion for the TA/TB Tickfords and it was felt that something special would be in order. The badge was designed and 1¼" lapel badges were made to present to owners attending. With the good reception, it was decided to present the lapel badges to confirmed owners who had contributed to the TA/TB Register list (in booklet form) around the world. Again the reception was such that the question was asked "Why don't you have car badges made?"



The Register list was complimentary to contributing owners, as were the lapel badges. However, the outlay for the manufacture of car badges was more substantial and the potential market is relatively small. Following a solicitation, 3" car badges were ordered to fill those requests. A few extra were ordered for possible future needs of owners. These car badges (example on left) are sold at cost of 20 GB Pounds, 30 Euros or \$40 post paid outside of North America. The cost is minimal as we were able to secure sufficient interest to meet the minimum order requirements of 30 badges. I am doubtful that we will be able to garner enough orders to re-order? The car badges should be delivered

to me by mid October. To avoid bank draft charges and with the faultless integrity of our postal services, bills in the above currencies will be fine."

These badges are quite specific to the TA/TB Tickfords, so sale is strictly limited to TA/TB Tickford owners.

Requests for the lapel badge and the car badge should be made to Bill Hentzen by e-mail at bill@rangelinemews.com by phone at 262 241 4445 or by post to:

Bill Hentzen
Range Line Mews
9832 N. Range Line Rd
Mequon, Wisconsin 53092 5606
USA

Ed's Note: Mention has been made of the TA/TB Tickford Register list. This was produced in 2004 in booklet form through the combined efforts of Rod Sawyer, Carlyle Merritt and Wiard Krook. They continue to maintain it for the use of TA/TB Tickford owners.

Spark plugs for T-Types

TD/TF Technical Adviser, Barrie Jones still receives the occasional query about spark plugs and whenever he does he sends the following brief article. Although now over 10 years old, it is still relevant so I thought it might be of general interest

I recently saw an article on spark plugs which showed the same plug for all TDs, and in the magazine for another club the correspondent recommended short nose plugs to prevent running-on. I have received several worried phone calls as a result of these articles, so let me put the record straight.

There was a change to the XPAG cylinder head during the production of the TD (and the YB). Since later heads will fit earlier blocks, it is pointless giving an engine number for the changeover point - the later heads might even be found on a TC or a TB. Early heads required spark plugs with half an inch of thread, whereas the later heads took three-quarter inch plugs. The difference is obvious if you remove a spark plug and inspect the hole.

The MG factory originally specified Champion NA8 for the later heads, Champion renamed it as the N5 in the 1970s, and they have renamed it again since then, so the modern equivalent is **NOT** an N5 but an N9. Autojumbler must therefore beware of old plugs with earlier markings. Recently, Champion have prefixed the plug type with an R and/or suffixed it with C or CC. The R means they have a built-in resistor to suppress radio interference, C means a copper core, and CC means copper in both the core and the side electrode. I am not happy to fit both R-prefix plugs and suppressed plug leads, especially if the original coil is still fitted.

The original plug was not extended nose (they had not been invented in the 1950s) but I have used them in my TF1500 since they were first marketed by Bosch in the 1970s. I am not aware of any disadvantages unless the design of the cylinder head is such that the extended nose can touch the pistons, not a problem with the XPAG, A-series or B-series. Running-on is usually caused by wrong ignition timing, excess carbon, poor petrol or the wrong grade of plug. Since an extended nose plug has a wider heat range than an ordinary one, ordinary plugs are more prone to running on than extended ones.

I usually recommend the following plugs, but the final decision must be yours bearing in mind the state of tune of your engine, its mechanical condition, and recent changes in the makeup of petrol. Be careful, the wrong plug can

seriously damage your engine, and high-speed pre-ignition is not always audible. I have known two engines with identical specifications that needed different grades of plug.

	Champion	NGK	Bosch
Half inch (TB, TC, early TD)	L92YC	BP5HS	W7BC
Three quarter inch (Late TD, TF, TF1500)	RN9YCC	BP6E	W7DC

As a rule of thumb, if the plugs foul up they are not getting hot enough, so try changing from W7 to W8, and if you have running-on try changing from W7 to W6. If you have both, then you have a real problem.

BTJ 1995

Ed's Note: I use BP6HS plugs in both the TC and the PB and I have never had any problems.

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MG TD SPARE WHEEL SECURITY LOCK

We hear so many stories about various items being stolen from motor cars, and bearing in mind the vulnerability of the older open car, I thought I would secure my spare wheel against the opportunist thief. We all know that if they want it they will steal it but any delaying tactic is worth considering.

I offer the following in the hope that it may help bring peace of mind.

For steel disc wheels only.

These machining instructions assume that the person manufacturing this device is familiar with machine tools and with their operation.

The dimensions shown on the drawing (on page 21) are all in inches and should be checked against the car prior to manufacture. (Originally the car was manufactured to these measurements so it seems only fair to retain that standard). For the metric minded I have included a conversion chart at the end of these instructions.

Machining Instructions

Retainer Shaft

1. Mount the 7/8" bar in the lathe and face the ends to an overall dimension of seven inches.
2. Reduce the diameter of the bar to 1/4" for six inches of its length.
3. Thread the end 1/2 UNF for about three quarters of an inch.
4. Put a small chamfer on all corners.
5. Drill the cross hole in the larger end 5/16" and counter sink both sides to ease the fitting of the padlock.

Retainer Plate

1. Drill or machine a 29/32" hole in the centre of the plate. Lightly chamfer both sides of the hole.
2. Chamfer all outside edges and round off the corners.
3. To avoid rattles and paint damage, after painting, glue a thin piece of rubber or felt to one side.

End Caps

1. Clean both sides of disc and face off to 1/4" thick.
2. Drill or machine a central hole 17/32" diameter and lightly countersink or chamfer the edges.
3. Turn recess or step to 3 11/16" or to suit internal diameter of the tube.
4. Turn down outside edge to 4" and lightly chamfer all edges
5. Repeat the above steps for the second disc.

Cutting list

End caps: 2 off 4" x 5/16" dia. bright mild steel.

Retainer plate: 1 off 5 3/4" x 1 3/4" x 1/4" flat bright mild steel.

Retainer shaft: 1 off 7" x 7/8" dia. bright mild steel.

Anti rattle padding: 1 off 5 3/4" x 1 3/4" x 1/16" flat rubber or felt.

Nut: 1 off 1/4" UNF Nyloc

Flat washer: 1 off 1/4"

Padlock: 1 off 1/4" dia. shackle.

Conversion table

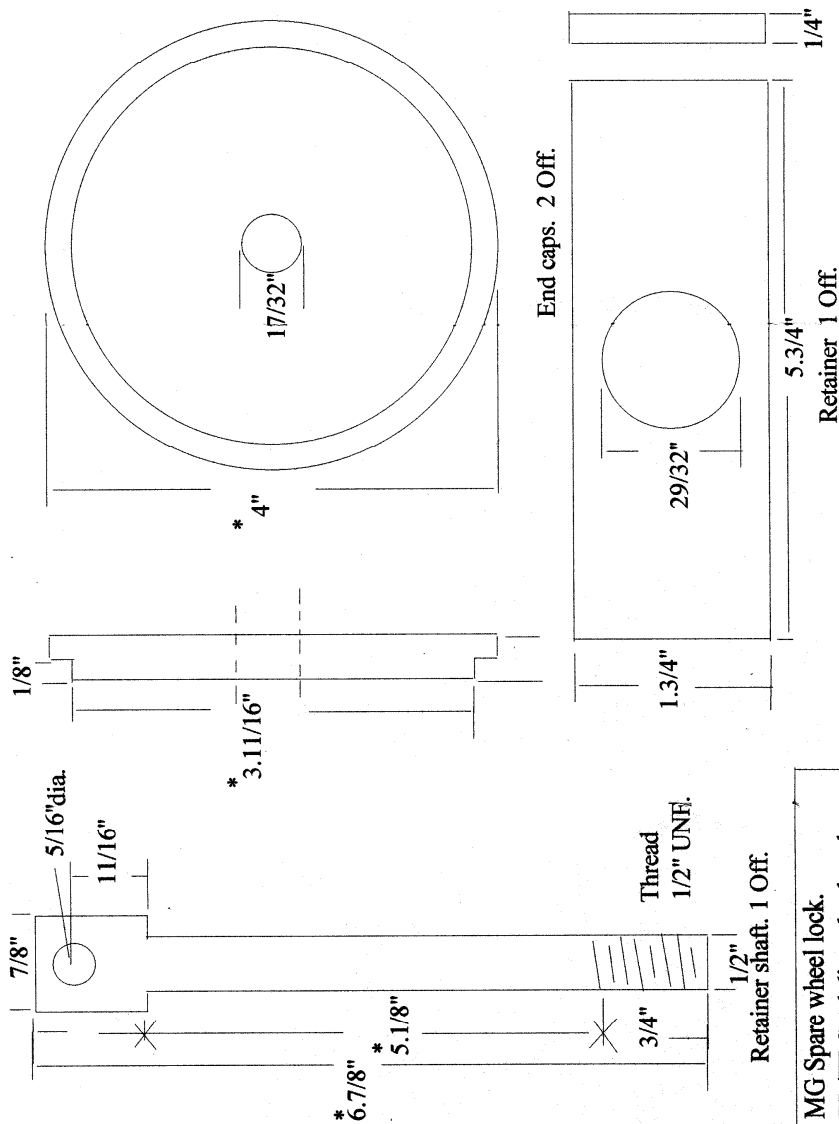
Imperial (inches)	Metric (mm)	Imperial	Metric
7	177.8	7/8 (.875)	22.23
5 1/4 (5.25)	133.4	3/4 (.75)	19.05
4	101.6	17/32 (.53)	13.49
3 11/16 (3.7)	93.7	1/2 (.5)	12.7
1 3/4 (1.75)	44.45	5/16 (.3125)	7.94
1	25.4	1/4 (.25)	6.35
29/32 (.9)	23.02	1/8 (.125)	3.18

Fitting instructions

Note: Prior to final installation it is probably a good idea to coat the assembly and the inside of the tube with a wax/rust inhibitor.

1. Remove spare wheel and clean area inside carrier tube
2. Thread one of the end caps on to the retainer shaft with the flat face toward the padlock boss.
- 3 It is possible that over the years the carrier has become distorted, therefore it is wise to place the retainer shaft in position to ensure there is sufficient clearance between it and the fuel tank. If the shaft is too long, reduce its length to fit.
4. Once the length is satisfactory hold the other end cap in place at the back of the carrier tube with the recess squarely located in the tube. Still holding the end cap in place, thread the retainer shaft through the tube and rear end cap.
5. Fit the flat washer and nut to the retainer shaft. Tighten nut until the retainer shaft is just held firmly in place and rattle free. **Do not over tighten.**
6. Replace spare wheel and place the retainer over the shaft. Fit the padlock. You may notice at this stage that it is possible to turn the shaft by exerting pressure on the padlock. This is normal and providing the assembly is rattle free the nut need not be further tightened. Replace hub cap.

B.R. Craft

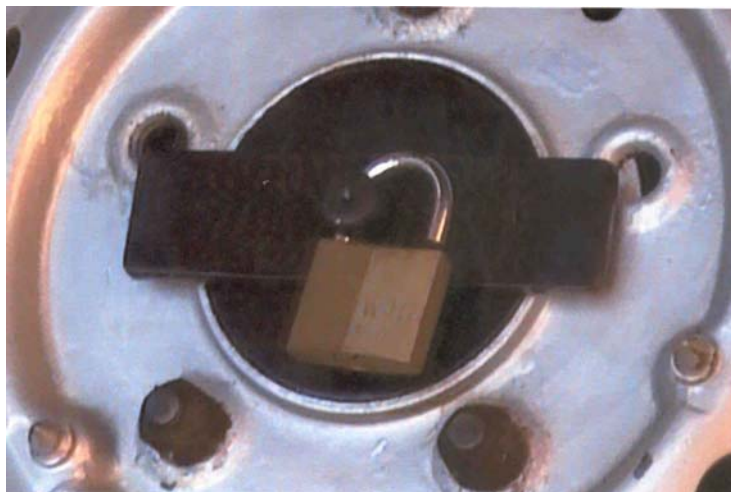


MG Spare wheel lock.

TD/TF Steel disc wheels only

Copyright B.R.Craft

* It is advisable to check these dimensions against the car prior to manufacture.



Hub cap removed to show Brian Craft's TD spare wheel security lock

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Articles published in *Totally T-Type* are published in good faith, but the MGCC 'T' Register cannot be held responsible for their content. Always seek advice from a competent person before doing anything that could affect the safety of your car.

“TD distributor”, a tale of woe! “Jim”Reeve (TD 23414)

Is there a Lucas distributor virus? If so, I am reporting its arrival in North Wiltshire.

One chum of mine is convinced that his TD Mk2's original type distributor is not properly compatible with local petrol and is amassing much literature on the matter.

Another called me in despair about 3 weeks ago because his early TD (unventilated wheels) had started coughing and back-firing at intervals yet was well behaved for the majority of the time. After some tests we found that the points could be made to close completely or open to 30 thou just by wiggling (technical term that) the body when firmly bolted in-situ! On the bench we found that the reported DKY distributor problem of the alloy body losing its grip on the steel housing of the shaft had infected his device. Money changed hands and he now has the V.G.C. item I was keeping “in-case” my D2A type failed. The car is reported to be running smoothly again.

Then within days, I noticed my TD was struggling up a local steep hill and required huge revs in a very low gear to prevent it pinking. A week later with new plugs, points and condenser and with the timing spot-on..... negligible change. So, out came the distributor and on to the bench to get a better look without kneeling on the garage floor and cricking my back. Set up points perfectly, but they were OK anyway. On re-fitment, no change, except that I had not got the drive gear engaged the same so it was at a different angle and one of the HT leads looked a bit tight. By now I was getting ratty and was dis-inclined to take it out, re-position the rotor arm and re-insert and set the timing again so I swapped the HT leads around. Aaaagggghhhh! There's my problem.

Two of the brass ferrules in the cap that contact the HT leads when they are screwed in were an ugly mess of green copper corrosion (poor continuity resulting in weak sparks on two cylinders). Two minutes later with all traces of corrosion removed and without any further fettling or adjustments the engine is ticking-over at a beautifully smooth 900rpm (it was a lumpy 1200rpm). Later the local hill was crested in third with no pinking and on the by-pass a previously untried 5500rpm was smooth as silk and the old girl was still pulling. I even had to temper things for fear of being sent a photo of me grinning by the local “Safety Camera Partnership”. Wow!

I attribute the above corrosion to washing the car with both bonnet sides up (the front resting on the front bolt of the radiator steady bar) in order to access the lower part of the wings and the louvers. Surplus water drips

directly onto the distributor cap and into the HT lead connectors. I doubt many of us take the HT leads out of the cap with good cause but it will now be part of my post-winter annual check-over!

Lumpy tick-over, a feeling that "I'm sure it was better than this last year" or pinking in situations it hasn't before? The least expensive and least trouble fix might be as described above? If not, then you will have eliminated it at no cost.

PS I think the extra power has come as a result of the close focus on the points, i.e. the dwell angle is now as it should have been but I have been too casual about it.

PPS As a result of all this exposure to the dark art of what makes a distributor work I've discovered a couple of very helpful web sites and a way to measure the advance throughout the range..... tune into the next issue!

Ed's Note: Sorry about all these "Ed's notelets" but the combination of Jim's article and the earlier one on spark plugs by Barrie Jones has reminded me that I have agreed with Barrie to publish the answers he gives to the many and varied queries he receives as TD/TF Technical Adviser, so without further ado we will start with an oil pressure question.

Question: *When I had the TD engine rebuilt I was told that oil pressure should be circa 40 psi. Over that could be harmful? I have a 1950 workshop manual that states the oil pressure relief valve is set at 60 psi. My car is 1952, so has the horizontal filter, may be different? Since I changed the oil (Castrol 20/50) the gauge reads 50 psi at 3500 rpm after starting up, only dropping to 45 psi when hot. What is the oil pressure meant to be? Can gauges be inaccurate? (or go "wrong"?) Is it harmful to run over 40 psi?*

Answer: Your oil pressure is excellent. Leave it alone. The factory set the relief valve at 40psi (hot), but cold oil will overwhelm the valve and it could easily reach 65 with a good 20W/50.

Special Tuning recommended uprating the valve to 60 for competition use. However, this does have an undesirable side-effect of increasing any leakage of oil from the rear main bearing and higher pressure doesn't have any advantages in daily driving.

The gauge reads up to 100psi solely in order to protect the gauge, because cold oil, plus a heavy right foot, could otherwise do damage to it.

Relief valves are not precise, so a hot reading of 40-45psi above 2,000rpm is just about perfect for road use. It is normal for it to drop to 15-25 on tickover, (even lower with a worn engine).

It is worth checking that the gauge drops to zero when the engine is switched off. Many inaccuracies are due to incorrect zero-setting of the needle. In any case, Smiths/Jaeger gauges are probably only accurate plus or minus 20%.

Question: *I've just got back from the German MOT and every time I've been over the last few years the front brakes have pulled to the right. The wheel cylinders were replaced quite a long time ago but seem to be alright. Last time (the test is every 2 years here) I put new linings on all round and it was not much better. I got away with it by running round the block and heating them up – they scraped through. Not this time though!*

Is it possible that the brake drums are the cause? If not, what else could it be? I remember swapping the brake drums around a long time ago because they pulled even more severely and that helped. Still doesn't add up to you so may I call on your expert opinion again!?

Answer: If your TD brakes pull to the left, then the problem is usually on the right. I predict that one of the front brake cylinders has seized up with a bit of rust, especially if you haven't used the car lately and if the brake fluid has not been changed recently.

My first step would be to remove the front right-hand brake drum and get someone to press ONCE on the brake pedal. One piston should move easily, but the other one probably won't.

Make sure the moving piston goes back into its hole and put a zip-tie around it to stop it moving. Press the pedal again. This time, the non-moving one should come out. My guess is it will have sticky brown gunge all over it, and it will stay out. Clean the brown gunge off with methylated spirits, clean the inside of the cylinder with meths as well, then put everything back together. My guess is the brakes will now work fine, but the system needs flushing out.

Pump ALL the old brake fluid from the system and keep it for disposal. I usually bleed all 4 pipes in turn. Half fill the master cylinder with fresh fluid and pump it out of one nipple, then do it again with a different nipple until you have done them all.

Next, replace all 6 rubber cup seals (back and front) with new ones. They are all 7/8 inches diameter. While the pistons and seals are out, clean everything with methylated spirits. If you are up to it, do the master cylinder as well. Fill the system with fresh fluid once again. Now bleed the entire system, starting at the nipple furthest from the master cylinder. Keep bleeding until no bubbles of air come out. Do not re-use any of the fluid that comes out, just store it for safe and environmentally friendly disposal.

Question: *I am currently restoring an MG TC and I need a replacement distributor – the one on the car is a DK4A from a TA and needs replacement springs, plate etc. I have read your excellent article on using A Series distributors and may well go this route. I have seen DKY4 distributors on Ebay which are Clockwise - but from the top they look identical to the TC/TD Distributor. My questions are:*

- *Are they the same? i.e. is the only difference the drive gear – being clockwise rather than anticlockwise*
- *If the same can they be used in a TC - with appropriate drive gear and rotor?*

My guess is that they are different and that the advance weights and springs won't operate in the opposite direction. I would appreciate your view.

Answer: The action plate is different, and the weights are directional.

The springs are only suitable for an MG and the drive gear will only fit an MG or Morris.

Count the number of teeth as well as comparing the direction of the spiral gear.

You could use the eBay body and swap all the internals.

Question (or rather follow up observation): *Thanks for your reply. I wasn't sure whether my friend would go with cutting a hole in the bulkhead. In the event he did. I used 1.25 hole saw which produced (with deburring) 1.5 hole for which hole plugs are readily available. The interesting points were there were 5 small plugs made of Brass, 1 of steel, 1 large of steel, 1 large (behind the manifold) best described as a Rubber compression blank. Both the steel plugs were suffering from severe electrolysis. I assume that all these plugs were fitted in the States (LHD TD) but it goes to show it does not do to use mixed metals underwater.*

Answer: Thanks for the feedback. No surprises. The original plugs were mild steel, and they do corrode badly. The one behind the exhaust manifold is worst. Brass or Stainless plugs would be wonderful. I seem to remember stainless are available in Australia. Please note these plugs are all METRIC. Do not be tempted to use old imperial ones, they won't fit correctly.

Ed's Note: Correct sizes for the XPAG are 6 x 35mm (1 3/8" will fit), 2 x 48mm (1 7/8" is too small), 1 x 45mm (for the cam). I am indebted to Bob Grunau for this information.

Regarding corrosion, it helps to paint the inside with red lead (if the Health and Safety "industry" haven't banned this) or a similar rust inhibitor.

Question: *(the question concerned the shade of green used on the TF).*

Answer: You ask about the shade of green used on the TF.

Clausager gives the ICI code as 2007(metallic), but I do not believe that this was the only option, and even Clausager has his doubts (see page 100 of his book).

I am fairly certain that MG made the TF in a solid mid-green, a metallic mid-green, and a solid dark (British Racing) green. Unfortunately, the BMC chassis code was not applied correctly, so all 3 of the above ended up with the same colour code, and the special code for metallic paint was never used.

As regards interior trim colour, green cars could have either green or biscuit. Most of the interior trim was not leather. It was ICI Rexine, apart from the wearing surfaces of the seats, and the edges of the map pockets.

MG made very few RHD TF1500s. According to our records, there were only 210 TF1500s made for the UK market, of which 45 were green.

Question: *I have just purchased off E-Bay a 1953 TDII that is rust free and partially restored (including painting). The New Jersey title has the identification number TD23692. The Body I/D plate has the **body type** number 22381 and **body no.**23013/99137. According to the previous owner, these two plates together with the third (vehicle I/D chassis plate) were taken off for painting. I have the first two but the seller is looking for the chassis I/D plate.*

*I inputted the **title number** into your web site Search feature but it returned N.A.*

*The I/D plate on the engine, which the previous owner/seller said was original, has the **engine number** 24014 TD 2.*

Can you please tell me where on the chassis and where on the body I will find the original stampings so that I can confirm and correlate all the I/D numbers.

Answer: The only thing that you can rely upon is the chassis number. It is stamped into the chassis on the front out-rigger immediately in front of the circular hole where the steering rack protrudes through the chassis.

I assume your car is LHD, so the number will be on the driver's side. It is hidden by the painted front valance, so you will have to remove the valance to reveal the number. The number TD/23692 sounds about right for a TD manufactured in January 1953. The first TD made in 1953 was TD/23635. The Chassis number was copied onto a brass plate screwed to the toolbox, but these plates are removable so they cannot be relied upon. This plate also contains a copy of the original engine number.

The engine number should be on a plate rivetted to the block and visible in front of the exhaust manifold. Original TD engines had a small octagonal brass plate held by one copper rivet. The plate on yours should say something like No 24014 Type XPAG/TD2.

To further confuse matters, each body had a body number. No records were kept of these, and they do not appear to relate to the chassis number in any logical fashion. My guess is that the bodies were made and numbered (possibly pre-painted), and then placed in a store. The chasses were numbered sequentially as they were made, and delivered to Abingdon in batches. Bodies were then taken from the store and fitted to these chasses in some sort of random sequence. All TD bodies were type 22381. The body number 23013 is in the correct range for a 1953 TD.

The T Register does have a copy of the original Factory build records. If you can find the original chassis number, we can tell you a bit more about the car and add it to our register.

Ed's Note: As you can see, Barrie deals with a wide range of queries in his role of TD/TF Technical Adviser and I know that there are many TD and TF owners out there, who are extremely grateful for the help which he has given them in the past. I should also say on behalf of the Register that we are very grateful to Barrie for giving his time (and, of course, expertise!) to handle these queries.

By far the most successful Register publication of recent times (along with the highly acclaimed XPAG Engine video and TD/TF Gearbox video), has been the book "Barrie's Notes" – "Maintaining a 1955 TF in the 21st Century". Written by Barrie Jones, it incorporates the Register booklets, "Electrics", "TD/TF Gearbox" and "TD/TF Suspension and Steering" and much, much more. This great little book is modestly priced at £6 plus postage (£1 UK), (£2 EU), (£3 Rest of World). UK subscribers can order a copy by sending a cheque for £7 made payable to "MGCC 'T' Register" to John James, 85 Bath Road, Keynsham, BRISTOL BS31 1SR. European and Rest of World subscribers (as well as UK subscribers) can order securely on line using their credit card via PayPal by going to the Regalia Section of the Register's website www.tregister.org Alternatively, credit card details can be sent by post to the above address (please do not send credit card details by e-mail as it is not secure). The details required are as follows:

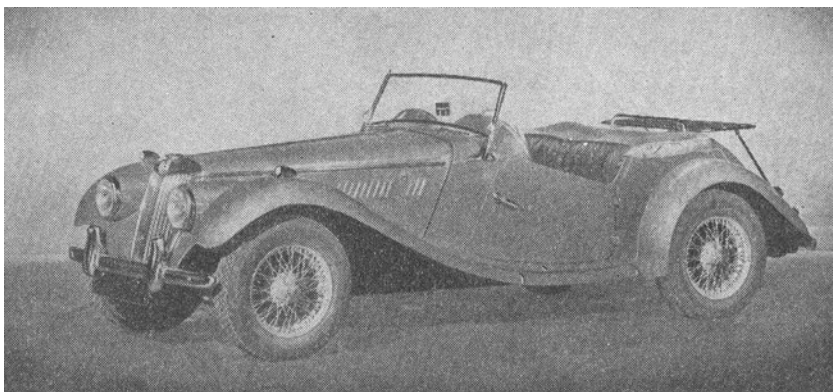
Type of card (e.g. Visa or Mastercard), 16 digit card number on the front of the card, name on card, expiry (valid 'thru) date and 3 digit security number on back of card. There is a £1.50 handling fee for payment by credit card. This amount is what we (the Register) have to pay the MG Car Club Office in Abingdon for processing the transaction.

‘Motor Trader’ Service Data Sheets

“Trader” Service Data Sheets were introduced in 1936 and, as far as I know, were continued up to the late fifties/early sixties. They covered most, if not all, British cars and commercial vehicles and diesel engines. They were issued as a supplement to “The Motor Trader” and normally covered eight pages for each vehicle. With this limited space available, the publishers assumed that “the reader is a trained and competent engineer, who does not need to be told how to perform the normal operations of dismantling, assembly and inspection”. I have seen these data sheets for all of the T Series models and the MGA. I have reproduced here the information on the TF, but I have omitted some of the diagrams (such as engine and wiring) because they are adequately covered in the Workshop Manual.

M.G. MIDGET SERIES TF INCLUDING TF1500, 1954-55 MODELS *(First published in MOTOR TRADER June 29, 1955)*

Following the Series T.D. Midget, the T.F type Midget produced in 1953 retained many of the features of the earlier model. In the main, changes were of bodywork rather than of a drastic mechanical nature, other than the fitting of a 1,500 c.c. engine shortly after the new model was introduced.



DISTINGUISHING FEATURES; Although the TF Midget bears a relationship to the T.D., it has a sloping bonnet, restyled radiator and enclosed headlamps. 1,500 c.c models identified by flash on bonnet side. Wire wheels and rack are not standard.

All mechanical modifications applicable to the T.D. car were incorporated as standard practice. The car is easily identifiable as to type, since the body changes include redesigned headlamps which are faired into the front wings, a lower and more curved radiator shell and an upswept bonnet line. Other detail changes include the fitting of a re-designed dashboard with centrally grouped octagonal shaped instruments, flashing indicators and the repositioning of the

rear number plate along the base of the spare wheel. Wire wheels are among items offered as optional extras.

Chassis serial numbers, together with engine serials, are to be found stamped on a plate on the dash panel beneath the bonnet and engine numbers are also stamped on a disc on the nearside of the engine block.

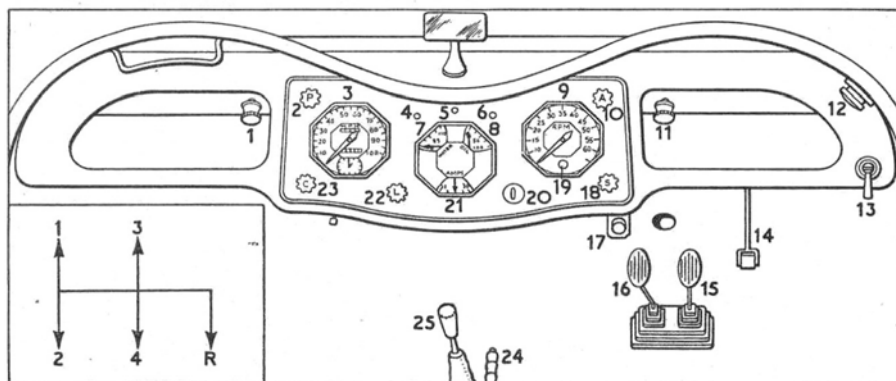
Engine type letters of the 1,250 c.c. engined cars are XPAG/TF up to chassis No. 6500 and XPEG/TF subsequently, denoting the fitting of the 1,500 c.c. engine at this stage. These numbers are also to be found on a plate fixed to the underside of the nearside tool box lid. All these letters and numbers should be quoted when corresponding with the manufacturers or when ordering spares.

Most service operations can be carried out with the normal range of workshop tools, but a number of special tools have been designed by the makers to facilitate certain operations. Those considered essential are listed here and are obtainable from the M.G. Car Co., Ltd.

All hexagons are Whitworth, although threads on the engine and gearbox are metric. On the rest of the car threads are B.S.F. with the exception of the axles on which screwed parts have Unified threads. In order to avoid confusion in refitting these parts it is essential to replace screwed parts as they were dismantled.

INSTRUMENTS, CONTROLS AND GEAR POSITIONS

- | | | |
|---|--|---|
| 1. Screenwiper parking control (push to operate) | 9. Tachometer | 19. Main beam warning light |
| 2. Panel lamp switch (side lamps on); twist and pull for map reading lamps. | 10. Foglamp switch (live when sidelights on) | 20. Ignition switch |
| 3. Speedometer and clock | 11. Screenwiper switch and parking control (push to operate) | 21. Ammeter |
| 4. Fuel warning light (shows less than 2 galls.) | 12. Horn push | 22. Lighting switch |
| 5. Ignition warning light | 13. Flashing indicator switch | 23. Mixture control ($\frac{1}{2}$ -turn to lock) |
| 6. Flasher warning light | 14. Accelerator | 24. Handbrake |
| 7. Water temperature gauge | 15. Brake pedal | 25. Gear lever (positions inset) |
| 8. Oil pressure gauge | 16. Clutch pedal | Halves of bonnet retained by two push-button catches each side. Press down over both catches to close |
| | 17. Dipper switch | |
| | 18. Starter switch | |



ENGINE

Mounting At front, single bonded rubber block bolted to front cross-member and to U-bracket on front engine plate. At rear, gearbox rear extension rests on two loose blocks in frame cradle. Forked bolt, pinned to lug on

gearbox, projects downwards through cradle and rebound rubber bush. Cup washer (edge downwards) fits between nut and rubber. Tighten nut only enough to insert pin.

Torque reaction taken by transverse link between front of engine and bracket bolted to frame.

When engine is reassembled in chassis, refit link before exhaust system is connected, so that engine is quite free. Rock engine slightly and let it assume natural poise on mountings. Then lengthen link until inner rubbers at each end bear lightly but firmly on brackets without altering position of engine. Fit outer rubbers and tighten nuts only enough to nip rubbers.

Removal Remove engine, leaving gearbox in place. (If attention is needed to gearbox as well, it can be removed in unit with engine, but entails moving floorboards). Remove bonnet. Disconnect radiator hoses and tie rods. Take off two nuts below radiator and remove shell and core together. Disconnect all pipes, wires and controls, and torque reaction link. Remove oil filter, starter and gearbox cowl. Take weight of engine on slings below flywheel housing. Detach front mounting from engine bracket and take weight of gearbox on jack. Remove set screws round bell-housing, draw engine forward and out.

Crankshaft Three main bearings. Thick steel white metal-lined shells dowel located in block and caps. End float controlled by centre main bearing, flanged both sides. No hand fitting permissible; bearings cannot be changed with engine in place. When wear is apparent on main and big end journals, XPAG shaft may be ground to undersizes specified (see table). XPEG crank should be replaced together with new bearings. *Crank must not be reground.*

Flywheel, with shrunk-on ring gear spigoted on crankshaft flange, located by two dowels and four set screws. Spigot bush for clutch shaft pressed into end of crankshaft.

SPECIAL TOOLS	
	Part No.
ENGINE	
Reamer for front camshaft bearing	T 111
Timing sprocket extractors	T 123
Oil pump bush	68828
Gudgeon pin clamp screw spanner	68832
TRANSMISSION	
Propeller shaft flange extractor	AJA 5062
Synchromesh assembly tools	T 109
Clutch plate alignment bar	T 124
Front and rear hub drawer ($\frac{1}{2}$ in BSF bolts)	AJA 5024
Front and rear hub drawer ($\frac{1}{2}$ in UNF bolts)	AJA 5020
Front and rear hub drawer plate	AJA 5019
Axle shaft drawer (BSF)	68823
Axle shaft drawer (UNF)	301203
Rear axle pinion inner race fitting and withdrawal tool	301224
Rear axle pre-load checking tool	68839
STEERING & FRONT SUSPENSION	
Line reamer for steering box pinion bearings	T 112
Peg spanner for steering ball housing	T 113
Spanner for steering ball cap	T 114
Extractor for steering ball housing	T 122
Aligning bars for front cross member	T 125
Steering wheel drawer	68827
Front hub inner bearing drawer and crankshaft gear	68895
Wire wheel hub extractor	AJG 5031

ENGINEERING CHANGES	
ENGINE	Engine No.
Introduction of first type TF engine: compression ratio increased to 8:1. Twin S.U. carburetors fitted. Needles for these are—Rich: H1, Standard: G1, Weak: GL. Inlet and exhaust valve head dia. increased 3 mm. Stronger valve springs fitted	XPAG/TF/30301
3.5 mm. bleed hole drilled in priming plug of oil pump	XPAG/TF/30301
Modified sump fitted	XPAG/TF/31263
Introduction of 1,466 c.c. power unit XPEG	XPAG/TF/33024
Introduction of high pressure fuel pump	Chassis: 6501
	Chassis: 1501

BALL AND ROLLER BEARING DATA			
	Part No.	Int. dia., ext. dia., width (in or mm)	Type
FRONT SUSPENSION			
Front hub inner	130640	30 × 72 × 19mm	B
Front hub outer	130127	20 × 52 × 15mm	B
GEARBOX			
Primary shaft ...	MG 900/204	1½ × 2½ × 1½ in	B
Mainshaft ...	MG 900/157	1½ × 2½ × ¾ in	B
Mainshaft extension ...	P 101/116	1 × 2½ × ¾ in	R
REAR AXLE			
Pinion: front ...	100478	1 × 2½ × 1½ in	TR
Pinion: rear ...	101533	1½ × 2½ × 1½ in	TR
Differential ...	101608	35 × 32 × 17mm	B
Rear hubs ...	101547	1½ × 3½ × ¾ in	B

NUT TIGHTENING TORQUE DATA		lb/in
Cylinder head nuts (up to eng.		
XPAG/TF/31727) ...		600
Cylinder head nuts (from eng.		
XPEG/TF/31728) ...		500
Con. rod cap bolts ...		320
Main bearing cap nuts ...		750
Steering wheel nut ...		500

GENERAL DATA	
Wheelbase ...	7ft 10in
Track: front ...	3ft 11¾in*
Track: rear ...	4ft 2in**
Turning circle ...	31ft 3in
Ground clearance (under spring bolt)	6in
Tyre size: front ...	5.50—15
Tyre size: rear ...	5.50—15
Overall length ...	12ft 3in
Overall width: front ...	4ft 11in
Overall width: rear ...	4ft 11¾in
Overall height (hood up) ...	4ft 4¾in
Net unladen weight ...	17 cwt. 1 qr.
With wire wheels: *4ft 0¾in **4ft 2½in	

bearings may be replaced after removal of sump, without removal of engine from car. No hand fitting of bearings permissible; standard undersizes available.

Pistons Aluminium alloy, oval skirt.

Big ends will not pass through cylinder bores. Remove assembly downwards to offside of crankshaft. When reassembling see that small end clamp bolts are towards offside.

Replacement pistons supplied in four grades for standard and oversize bores, rising in .0005in steps from nominal bore. Grade size — “STD,” “+0.0005,” “+.0010,” “+.0015” — is stamped on piston crown and on top of cylinder block. Markings must correspond for each cylinder. Oversize pistons and bores stamped “+.0200,” “+.0205,” “+.0210,” “+.0215,” or “+.0400,” “+.0405,” “+.0410,” “+.0415.”

Camshaft Duplex roller endless chain drive, with spring-loaded, oil-damped slipper tensioner. Oil fed through drilling in tensioner body from main bearing to back of plunger. Spring details: Free length 71mm. Loaded length 48mm at 1¼lb load.

Timing sprocket, long boss to rear, keyed to front end of shaft together with pulley, by separate Woodruff keys, oil thrower between. Assembly retained by starter dog set screw with shims for correct location of starting handle.

Split composition oil seal located in groove in timing cover and nose of sump. When new packing is fitted, ends of both halves should stand slightly proud. Rear wall of sump fits round rear main bearing cap with cork strip in groove in cap. Ends of cork sump gasket must fit over ends of front and rear seals.

At rear of crankshaft, oil return thread works in split collector housing, lower half cast in sump, upper half dowelled and bolted to crankcase. Ends of housing must butt together, and should be coated with jointing compound when sump is refitted.

Connecting Rods H-section stampings, big ends thin wall, steel backed white-metal lined shells located by tabs in rods and caps. Rods retained by set bolts and self-locking nuts; tighten to torque specified. Shell

ENGINE DATA					
Type:		XPAG/TF	XPEG/TF		
No. of cylinders	...	4	4		
Bore x stroke: mm	...	66.5 × 90	72 × 90		
	in	2.61 × 3.54	2.83 × 3.54		
Capacity: c.c.	...	1250	1466		
	cu in	76.25	89.4		
R.A.C. rated h.p.	...	10.97	12.86		
Max. b.h.p. at r.p.m.	...	57 @ 5,500	63 @ 5,000		
Compression ratio	...	8.1:1	8.3:1		
CRANKSHAFT AND CON. RODS					
Diameter	Main bearings			Crankpins	
	2.047in			1.772in	
	Front	Centre	Rear		
Length	1.496in	1.496in	1.575in	1.102in	
Running clearance main bearings big ends				.0008-.003in	
End float: centre main bearing big ends				.0005-.002in	
Undersizes0014-.0037in	
Con. rod centres004-.006in	
No. of teeth on starter ring gear pinion				.020, .040in* 7.00in (178 mm) 120/9	
*See note on regrinding crankshafts, engine section.					
PISTONS AND RINGS					
Clearance0021-.0029in		
Oversizes020, .040in		
Weight without rings or pin	12½oz		
Gudgeon pin: diameter	18mm		
fit in piston	two thumb push		
fit in con. rod	cotter clamped		
Compression height	45mm		
			Compression	Oil Control	
No. of rings	2	1	
Gap006-.010in	.006-.010in	
Side clearance in grooves001-.002in	.001-.002in	
Width of rings0885in (2.25mm)	.1575in (4.0mm)	
CAMSHAFT			No. 1	No. 2	No. 3
Bearing journal: diameter	41mm	23mm	23mm
length	29mm	25mm	29mm
Bearing clearance: front0016-.004in		
centre and rear0018-.0037in		
End float005-.013in		
Timing chain: pitch	in		
No. of links	60		
VALVES			Inlet		Exhaust
Head diameter	36mm		34mm
Stem diameter	8mm		8mm
Face-angle	30°		30°
			Inner		Outer
Spring length: free	2.565		2.927
fitted	1.753		1.847
at load	41.1lb		73.25lb

Camshaft sprocket keyed on shaft with Woodruff key and retained by set screw in end of shaft. To remove chain detach tensioner assembly and draw off both sprockets together.

Camshaft runs in three white metal bushes. Centre bush split. Front bush pressed into crankcase. Centre and rear bushes located by set screw from outside. End float controlled by thrust plate trapped between sprocket and shoulder on shaft, and bolted to crankcase. If bearings are renewed, centre and rear bearings can be pushed in, but front bush must be pressed in and located in slot with punch, and then line-bored or reamed. When reassembling timing chain, assemble sprockets in chain so that bright links on chain correspond with T-marks on sprockets, and shorter run of chain between bright links is towards top of engine.

Valves Overhead, not inter – changeable, inlet larger than exhaust. Split cone cotter fixing, double springs with close coils to head. Spring cup fits over valve guide between springs and head, and shroud fits inside inner spring under collar. Synthetic rubber sealing ring fits over valve stem inside collar and below cotters. Valve guides not shouldered. Fit with smaller outside diameter at top and press in until guide projects approximately 24mm above face of head. Inlet guides longer.

Tappets and Rockers Barrel tappets sliding directly in crankcase, can be extracted upwards when pushrods are removed.

Rocker shaft carried on four identical pillars. Shaft located by round washers in slots in Nos. 2 and 3 brackets

engaging in keyways in shaft. Rocker oil feed holes are at top, single oil feed hole at bottom to rear pillar. Slots in Nos. 1 and 4 brackets contain D-washers.

Rockers are bushed and are of two types. Exhaust rockers (Nos. 1, 4, 5, and 8) are square but offset to left and right hand on bosses. Inlet rockers are set at an angle on bosses. Washers (10 off) are placed at ends of spacing springs between rockers, and rockers are assembled with smaller bosses to pillars, angle of inlet rockers being towards their respective pillars.

Pushrods cannot be extracted until rocker assembly is removed.

Lubrication "Dry" gear pump spigoted and bolted to nearside of crankcase and driven by skew gear from camshaft.

Oil drawn through gauze intake strainer and through drillings in sump and crank case is delivered through full flow filter to gallery in crankcase. Purolator Micronic MF 21 or Tecalemit FG 2381 elements fitted.

Non-adjustable spring loaded ball valve retained in underside of pump cover by plug. Normal working pressure 50-70 lb/sq in.

Ignition Anti-clockwise distributor with centrifugal advance spigoted in crankcase on nearside and retained by clamp plate and dowel-ended set screw. Skew driven gear pinned to distributor shaft, driven from camshaft.

Set contact points to break at T.D.C. indicated by drilling in pulley flange and pointer on timing cover. Make final adjustment on road test.

Cooling System Pump and fan. Non-adjustable bellows thermostat in housing bolted to elbow on front of cylinder head. Adjust fan belt by swinging dynamo until there is about ½in movement either way in longest run of belt.

Ed's Note: To be continued in November's TTT. Transmission, Chassis and Tune-Up data together with Electrical Test Data, Additional Electrical Data and Bulb information still to be covered.

Apologies for splitting the article but there is some important spares news to cover from page 35 onwards.

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SPARES NEWS (NEW ITEMS)

POLYURETHENE BUSH KITS FOR TD/TF SUSPENSION

TD/TF Technical Adviser, Barrie Jones has sent the Editor the following:

"I am still receiving requests for polyurethane bush kits for the TD and TF suspension, which I offered to Register members two years ago.

I have approached the manufacturer to buy some more, and they have offered me a good deal, enabling me to sell the kits at a 25% discount with free postage in the UK.

These bushes are far superior to the standard rubber bushes, and should last for many years. They are impervious to oil and grease, and do not perish, but they must be washed with soapy water if you spill brake fluid on them.

Those which I fitted to my TF 10 years ago are still in perfect condition. The colour is dark blue, and the front bushes come with stainless steel sleeves.

Prices are:

Set of 8 front bushes with 4 s/s sleeves	£21.00
Set of 8 rear spring shackle bushes:	£14.50
Set of 4 spring-to-axle pads	£16.50
Complete kit (all 3 sets):	£50.00

For comparison, the full retail price is about £75 + VAT + postage.

Please ask members to contact me, so that I can gauge the level of demand. Do not send any money at this stage."

Barrie can be contacted by phone on 01579 370487 or e-mail barrietf@btinternet.com

It is worth pointing out that the rear spring shackle bushes for the TD/TF are the same as the front spring shackle bushes (top) on the TC and the same bushes can be used for the bottom shackle pin but they need to be cut to size in order to fit.

.....

Now for some news from Tim Patchett:

More news from Tim Patchett's "Cottage Industry"

Having sold all of the TA - TC stub axles I made earlier this year, due to demand, I have put another batch of 10 sets in production and these will be available towards the end of September. This is the third batch that I have made and now the computer programmes are all set up along with some

changes, batch 3 are looking far too good to fit to your car. Much better to put the left hand thread one on the left side of your mantle piece and the right.....

The changes are cosmetic, namely smoother corners, and secondly, the material. This time they are made from EN 36 steel with heat treated surfaces (bar the threads of course) which make them stronger than the previous material (EN24T) with a tensile of 80 Tonne Tensile @ 60 Rockwell hardness. Again these are made from a solid lump of steel which ensures the grain flows in the right direction.

Unfortunately, for those who bought from the previous batch, the price has actually gone down for this latest batch, so those of you who were interested but did not buy will save £25/set. The price is now £575 plus carriage (insured) at cost.

I have firm orders for 5 sets so if any one is interested please contact me. Again to stop time wasting etc I would like a £150 deposit or full payment as by the time you read this they should be finished and available ex-stock.

Tel/Fax 01274 818748 E-Mail happy.people@virgin.net

And finally, a note from Eric Worpe about **king pin bushes**.

"Not the most intriguing of subjects until problems show up. The original style of bushes was known as bi-metal or wrapped bushes. These were similar to the shell bearings in the engine in that the actual bearing material was supported by a steel backing. The bearing materials were relatively soft and in the case of the king pin bushes, a thin layer of leaded bronze was chosen with grooved grease channels to help distribute lubrication around the bush and to the thrust washer.

Leaded bronze is a fairly tolerant bearing material; it machines very well due to the lead content which makes it free cutting. This is an important aspect as it allows a good finish after reaming, which will prolong the life of the bearing. A seemingly good fit between the king pin and scored bushes will soon loosen up when the high spots wear down.

A significant feature of leaded bronze is its self-lubrication property. In the case of our king pin bushes, which are subjected to water spray and haphazard greasing, this is an important feature. The down side of leaded bronze comes from its relative softness, which results in its deformation under high loads. This is where the steel backing rescues the situation. The overall thickness of a bush is about 63 thou. with the bearing surface only accounting for 12 thou.; such a thin layer reduces any susceptibility to deformation as the steel bulk of the shell provides a rigid platform.

Unfortunately wrapped bushes with oil grooves no longer seem to be available "off the shelf"; which has resulted in the bushes being replaced by solid phosphor-bronze equivalents. Phosphor bronze is a harder bearing material; however, it performs well only if the journal is both much harder and polished and most importantly well lubricated. Therefore its suitability for our king pin bushes, which are exposed with only a limited grease reservoir, is questionable.

This whole issue arose after I'd reamed out some new solid bushes using Peter Cole's recommended technique. This uses a machine reamer held in the rotating chuck of a lathe whilst the whole stub axle is supported through the king pin bushes by a mandrel held in the tail stock. The stub axle is then slid forwards on to the reamer. The operation removes a few thou. of bearing material which ensures correct alignment and dimensional accuracy. However, with the solid bushes quite some force was needed even with a new reamer and the finish was not as good as I had hoped.

The big question is whether it's worth having some original bushes made up. I've located a firm willing to make a batch of 300 for about £6.50 each. However, it's only worth going ahead if enough interest is shown."

Ed's note: I understand that the quote was for bushes for TC kingpins.

If you are interested in a set of bi-metal (wrapped) bushes for your TC, please either phone or e-mail me (details on next page).

Cars For Sale & Wanted No space this month, I'm afraid. However, at the time of writing we have 3 TAs for sale on the website (one of these sports a MG registration number and comes with a 4 wheel trailer to take the car home!), a TC, 3 TDs and a TF1250. Among cars wanted is a TD or TF, a TD and a TF1500. For those who do not have Internet access a phone call to the Editor will provide details on any of the above cars.

Cars can sell very quickly on the Register website. Two have been sold recently within two weeks of appearing. We do not currently charge for these adverts, but we appreciate a donation to Register funds.

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