



TRIPLE M REGISTER INFOLETTER

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CHAIRMAN'S CHAT

I have been reading a 1950 book on tuning which gives a useful little formula for calculating the capacity of your engine for the various over-sizes. This is probably elementary stuff for all the mechanical boffins in our midst, but for untrained mortals like me it is equivalent to the apple falling on whatsisname's head:

$$3.142 \times D^2 \times S \quad - \text{There what more could you want?}$$

Oh: nearly forgot, D = cylinder bore, and S = Stroke.

If you find your PB engine calculated thus has a capacity of 93 litres, try moving some decimal points about to convert the bore and stroke to centimetres instead of millimetres! (Took me hours to sort that one out, and then only when my wife told me).

All of which means by my arithmetic that a normal PB engine is 938.7 cc (makes a change); +.040" = 61mm which makes it 969.5cc; +0.060" is about 984cc, and if you are very brave and take a PB block out to 62.5mm as I once did, this comes to 1018 cc.

The latter is quite exciting blown, but the lack of stiffness allows the cores to crack before long, and one ends up with that familiar creamy mess in the sump. You could have one, good exhilarating five lap race, and have the block lined afterwards! Sorry all you 57mm bore types, you can do your own arithmetic, Oh! and if you have six cylinders I fancy you must add on 50% of the total, though I couldn't explain why, that's Geoff Coles' job

Quite a few issues ago, I was apologising for having mislaid some copy sent by members on several topics, but on cracked cylinder heads in particular and I blamed our 'daily woman' for being brutal with her waste paper basket. (Mrs 'Awkins, all is forgiven, Dear had stuffed them in the wrong file!). If you vaguely recognise some of the following gems therefore, you probably were the chap that sent them in some years ago! e.g.

Ian Collins commends for good work Llewellyn Ryland Ltd., Haden Street, Birmingham 12, for Petrol, Oil and Heat resisting enamels for chassis, engine and coachwork. Speedometer Supply Co Ltd., 34 Shelton Street, Long Acre, WC2 for speedos and rev counter repairs. W. Canning & Co Ltd., Great Hampton Street, Birmingham 18 for Skalene 2602, a composite acid pickle (sounds delicious) that removes corrosion from blocks etc. Ian has found that it has an effect on carbon too, making it easier to move. Anyone interested in this stuff had better seek advice from Ian first, at 22 Fremantle Road, High Wycombe, Bucks, for it does have some funny habits, including gobbling up aluminium bits such as water manifolds, leaving no trace!

Dr. Morton Novis-tells us that $\frac{1}{8}$ " O.D. Brass tubing that will do for the tecalemit lubrication system instead of the original copper can be bought in lengths of 6'0" or 7'0" from the Smiths of Clerkenwell Group. 42/54 St John's Square, Clerkenwell, E.C.1. (or at least it could have been bought there two years ago when the information was first sent in).

Mike Farrow recommends Colin Bird, Automobile Engineer, 9a Lime Tree Walk, Sevenoaks, Kent for a wide range of gaskets and valves etc, for old cars including some MGs. Mike also tells us they do good work on Vintage and PVT cars. Tel: Sevenoaks 54102 for information.

Ray Masters on the subject of P type head cracking suggests that the only sure way is to find a specialist to SHRINK in some inserts with slightly tapered sides, and have the head also machined with a similar taper so that the things can't fall out even if they become loose. This sounds good to me. (but then, so do politicians before an election).

Our Devon and Cornwall representative, Neil Farnfield comes out in favour of welding the head rather than inserts, because he has had some of the latter fall out and bounce up and down with the valve head.

It does appear that ^{the} most modest compression ratios on cars with carbs and only at 57mm will still suffer from cracked heads, though it seems not quite so frequently as blown PBs for example. Many people are in favour of fitting a water pump as a cure for cracking, but in my experience, (and more important, Morgan Marshall's experience when working on MacDormid's Cream Cracker JB 3639), these make very little noticeable difference, and if anything, the wretched car seemed to boil even more frequently with the pump, when stationary, and ran far too cold when motoring fast.

Neil Farnfield goes on to say that rubber dust excluder for the front trunnion blocks can be made out of a rubber cover used for the sliding end of the Mini/1100 drive shaft, and moreover they are only a few bob each.

Phil Peckham also wrote on the cracked head business, and said that his Airline P type (that's going back about 10 years) cracked its head badly in spite of having tuned carbs, standard compression, unblown, a mere 57mm bore and max. revs of 5,500. He adds the invaluable and original comment, 'I don't know why it cracked'. Thank you, we'll let you know!

Charles Landells thinks that perhaps some sodium filled exhaust valves to get the heat away would be a good idea. rather as they did on Goldie Gardener's EX 135 record breaker. Perhaps special bronze valve guides extended down to the head of the valve could do a similar job? My experience with bronze guides was that they wore out very quickly, but I wonder if changing the guides fairly often is not preferable to cracking valuable heads?

We must also thank James Evans for writing with his experiences of head cracking, and he shares the horror of several correspondents about our previous suggestion of trying topeen over the edge of the valve inserts with a centre punch, as cast iron doesn't much like being peened. He would prefer fitting the inserts in the usual way, and then drilling a small hole $\frac{1}{8}$ in the side of the insert and $\frac{1}{8}$ in the head, tapping and screwing in a steel peg, which when cut off could be expanded tight with a centre punch.

We reproduce in full a letter from John Adams, who has been campaigning a blown PA very successfully for at least a year since this letter was written, and running all the while with a cracked head:

He writes: 'Last Spring, on removing the head, 3 cylinders were found to be badly cracked in the usual place. No trouble had been found in running, but hearing all these terrible stories, I entrusted the head to a well-known and widely advertised 'specialist', who performed a highly expensive and secretive

welding process. Several days work were needed subsequently to clean up the head, and on fitting and using for one day only, was removed for another reason. Two of the newly welded seats were re-cracked, now both at the junction of the weld and parent metal, and between the seats. More surgery was performed by welding, and this time, on collection, the third welded seat was found to have re-cracked under treatment. Under much protest, this was re-welded.

After several more days of cleaning up etc, some more fine cracks were found, but since the welder had made it clear that he did not want to see me again, the head was fitted. After some month's running, all the old cracks re-appeared, plus extra cracks at the weld junctions.

However, the point is that my engine seems to run just the same. Some cracks are quite bad - they can be seen with the naked eye from about 8 - 10 feet away (how else can one describe the width of a crack?) so I would strongly suggest to anyone finding a crack NOT to attempt any treatment unless the engine is actually mis-behaving. I will certainly keep using my one-and-only head until it stops!

Incidentally, the welding process is undesirable from sever points of view; distortion inevitably takes place (despite the claims of non-distortion welding processes, which simply mean that the distorted head is re-machined on the face each time) which creates problems with camshaft alignment; valve guides are loosened and scaled; and carefully calculated combustion chamber volumes are upset.

Seat inserts have never appealed to me, but I have no actual experience. However, I would have thought that carefully machined and shrunk-in inserts, possibly in a high expansion austenitic steel, should be satisfactory. The insert can still loosen, causing an undesirable heat-break, even if it does not actually fall out.

The initial cause of cracking is presumable overheating of the exhaust valve and seat, in conjunction with the steep heat gradient between valves and poor water jacketing and circulation. Thus, any means of reducing combustion temperature will help, and I would suggest the following, in descending order of priority:

1. Use Very Rich mixture, especially if blown
2. If blown, fit water pump with revised circulation feeding direct to head.
3. Use correct plugs.
4. Ensure exhaust valve guides are not unduly worn, and are a good fit in head. Bronze guides will help further either turned up from stock or down from M. Cooper S.
5. Use good, well ground exhaust valves. I have had some made in KE 965 at £1.50 each, which is not too unreasonable now that common-or-garden EN 59 cost 75p or more, and have a very short life.

Incidentally, it seems that radiator water temp. is not relevant. Mine runs very cool at 55 - 60°C on the road and 75°C after 10 laps on the track, and yet I have encountered trouble. Other folk who are always boiling seem to suffer less. My water pump works on the standard circulation system but in an endeavour to prevent further cracking I will alter this to feed direct to the head. I am proposing, in fact, to supply water at four points at the side of the head immediately adjacent to the exhaust seats: this, I think, will be no more difficult to arrange than the 'standard modified' system should be far more effective.

On the subject of welding, it has been suggested to me that the annealing and stress-relieving process which should form part of a genuine welding operation results in a finished product which is less likely to re-crack, and could thus

be employed as a precaution to a hitherto un-cracked head. I am very doubtful, but wonder whether the metallurgists amongst us could comment?? ' JOHN ADAMS

Finally, I end my lengthy section of this issue with an irresistible letter from Brian W. Lyth of 41 Marina Drive, West Monkseaton, Northumberland, who has had his P type for 30 years! Better listen to his advice above all I think, when you read of his milages!

'As I have owned my P type 2 seater since 1951 and it has now done 246,000 miles on its original engine (1 rebore and bearings retalled at 146,00 !! also one replacement cylinder head fitted) I think I can claim some authority in advising others in the prevention of cracked cylinder heads namely:- run the engine slightly on the RICH SIDE - set the S.U.s so that although choke is needed to start from dead cold; as soon as gear is engaged and car moving put choke back to 'WEAK' - this in my experience (and a friend's) is the answer; also run on Cleveland Discol 5 star blend petrol (no business connections I assure you) as the alcohol helps to keep valves cool.' BRIAN LYTH

Again, my apologies for the delay in using all this valuable material which I had mislaid under a pile of papers in the wrong file.

May I add my wishes to you all for a happy and successful 1972 season.

STEPHEN DEAR

SPARES SECRETARY'S NEWS

As last month I pinched all the Chairman's Chat I'll confine my scribbling to purely spares this month (or almost!).

Firstly, we are making a change/improvement to the spares service, which has expanded considerably - especially in this last year. It has thus become too much for me to tackle single handed, so that an assistant Spares Secretary has been taken on to deal with the new parts. As he has been setting up a lot of our contacts already and collecting items when ready, Nigel Musselwhite is the obvious choice, and as we see one another regularly anyway, liaison should be pretty good and by this method we hope to speed up delivery of the parts ordered. Therefore, whenever you want any of the parts listed in the back of the Infoletter, send your money and requests to Nigel at Flat 15, London Fire Brigade H.Q. Albert Embankment, London SE1.

This will leave me free to answer your requests for the multitude of parts that Nigel doesn't stock. And on this score please let me know whenever you have some bits to dispose of, and perhaps now that the evenings have drawn in you might sort out the spares that you don't need, and let me know, so that they might earn you some money to help with the rebuild or just keeping the car on the road.

Together, in the coming year, we shall be at all the major meetings that we can make, with a selection of our current stock. We shall also be sallying forth to expose the Register and main Club to external publicity at such places as the Beaulieu Autojumble, Doker Rally and Flea Markets; the first one of the latter will be at St. Silas Hall, Islington on January 29th. Many MG parts are snapped up at these events, an 8 day 2" clock was bought for £3.50 at the last one, where we met quite a few people at our stand.

Now turning to the parts themselves. The 57mm pistons have nearly all gone - just a few sets at +40 and +60. The 60mm PB pistons have been well subscribed so that we've had to raise the order for the +40 and +60 sets. These should be coming through in February. Any late orders should therefore be sent in to Nigel now.

The P and N type camshafts should have all been exchanged, but if not send your Mk 1 reprofiled cam back for the later version - again to Nigel.

Now on to the J types who are being well catered for this time. The new J2 cams that Leonard Reece has produced have come out at £24. But we have got a quote for a bulk order at £19. So send your order and 50% deposit to Nigel right away so that we can place the order as soon as possible to prevent the price going up, as they are wont to do these days. They are made in EN36 and cast-hardened to RC 55-60.

The J 2/4 cranks are well on the way to completion this month. There are now NO spare ones.

As there was no response for the ENV thrust release at £4.25 bearing carriers, these are not being proceeded with. But the rocker shaft Belleville washers have arrived, and work out at 50p a set. Also for J2s and F2s the spare wheel carriers are being made up complete with all straps etc, although the knob that tightens up the whole assembly may be delayed.

The second batch of door hinges have been promised for mid-May, while J2 door handles are on their way.

Brand new P type water manifolds are now available at £5.00 each.

As well as all this, we have NEW J2, D and M type camshaft bearings as original at a most reasonable figure of £4 50 a set not much more than they used to be when last available.

As a side line, F type instruction manuals will be soon available at 75p for a photocopy reproduction. Also available at 40p full plate size are photographs of the Styles threesome (as fitted to the F type) an original publicity photograph, and also a photograph of a Cresta Magnette owned by R.C. Elwes, one of the original directors of the Cresta Motor Company. This car looking exactly like the one that we are currently restoring, these differing from that shown in the adverts in 'The Sports Car' by having different doors, a spare wheel mounted on top of a boot lid, rather than a recessed wheel set into a non-opening tail. A lot of further information has been obtained from J.C. Elwes, who reckons there may have been about 10-12 made. Meanwhile the restoration continues

The Cresta will soon be sharing the garage with an N type Airline Coupe that has just been acquired. This being complete with all the original fittings, although time has not been kind to the paintwork or the interior. Apparently only 6 of these cars were produced, the other one to turn up recently has now gone abroad. To rationalise, therefore, the PA Airline Coupe will consequently be for sale. It needs rebuilding but is basically sound.

Since last writing we have moved into our new garage with house attached, so please address correspondence to Kimber Cottage, Glaziers Lane, Normandy, nr. Guildford, Surrey. and consequently letters have not been answered in the last fortnight, but you have all co-operated marvellously by sending only very few letters.

In the last letter I said that J2 pumps complete with body cover, shaft, driving and idling gear were available at £7.00; due to the rush that the last Infoletter was written this was incorrect as the shaft, gears and driving gears etc, to fit into your body have been produced to the later works details, which entails some work to the body itself. So will all those who want these parts and modification send your old oil pump to us and this will all be done to make your oil pump better than original - all for the price of £7.00.

We are most disappointed in the response to the call for rubber trunnion sets so are not proceeding with these. So for those still wanting these items we suggest you get the rear ones from Mike Dowley and the front ones can be made from Bedford CAV van front spring gaiters, by only cutting off one rib.

Also the modification to the back axle omitted to state that a $\frac{1}{8}$ " or $\frac{3}{16}$ " thick metal ring should be made up and fitted over the rear cover plate between the lip round the edge and the beginning of the doming of the cover plate. This stiffens up the lip of the casing which would otherwise deform as each bolt was tightened up. So, therefore, having made up your distance tubes and got your long high tensile bolts, you reposition the rear cover plate, then slip the ring over it, with holes drilled for the long bolts to go through. These bolts are then fed through the reinforcing ring, through the cover plate and rear lip of the casing, then passing through the distance pieces between the two lips of the casing to pass out through the front lip ready to take the diff carrier which is then bolted up as normally.

The club has just bought a few items that may be of use to members. Starter motor, working £4, horn £1, Windscreen wiper motor, working £2, another not working £1, a 43 tooth crown wheel, P type clutch with flywheel £3, new 450 x 19 Goodyear remould tyre £4, PB brown faced speedo, reasonable condition £5.

John Saville, 3 Debdale Gate, Mansfield Woodhouse, Notts) has an F type radiator core in exchange for an M type radiator core. Also required is a distributor for a 1929/30 M type.

Robin Mace (Greenlands, The Avenue, Ascot, Berks) has the following parts for sale or exchange for an N type sump to pump oil pipe, steering wheel, petrol filler cap, 2 exhaust manifolds, a P type 30 mph warning light, a petrol tap with control rod, etc, also 2" brown faced oil and water temperature gauges, 2" brown clock, P/N back axle dip stick and original trafficators with pulge in arm, the parts for sale or exchange being an early and a late M type wheel, M type steering box and column, three speed gear box, 4 original 'knock on' hub caps with centre fixing bolts, a plug-in fuse holder for a Rotax dash panel, a D type gearbox and remote control, and ignition switch (same as J1 and F types), and a P type windscreen support brackets and posts, water pump, radiator block, 2 slab fuel tanks with caps (10 gall and 12 gall) 3 round sidelights complete with bulb holders, 2 rechromed Dunlop (?) knock on hub caps, 2 rechromed MG hub caps, Lucas ignition/side/head lamp switch (No FLC2) and a 12 volt starter motore (No M35A).

Incidentally Toulmins are said to still stock the black and red inspection points for the dashboard.

Colin Cameron (Eilean Donan, Cradlehall, Inverness) requires the following for his 1931 M type - headlamps, hood (serviceable or to copy), petrol cap, oil cap, rear printed wing aluminium spots, ammeter, 4 hub caps, steering wheel, seat (serviceable or to copy) and one bonnet catch.

B. F. Soars (19 Wood Lane End, Hemel Hempstead, Herts) may still have an F type gearbox.

Bryan Reypert has a few M type bits available: a pair of good brake drums, 6 half shafts, flywheels and a pair of rear springs. He would like the fork part of the M type bonnet catch that fits onto the bonnet, and the M type switch gear (14 Maple Grove, Tadley, Basinstoke, Hants)

H. J. White Ltd., 54 Station Road, Taunton, Somerset has a few PA and PB walnut veneered dashboards available at £3.25.

Roger Lear (51 St. James Park, Bath, Somerset) would like a pair of bronze bodied $1\frac{1}{2}$ " S.U. carbs.

We see from Road and Track that B. Murphy (3 Gordon Street, Elsternwick 3185, Victoria, Australia) is offering his Q type for sale.

Mike Hawke (address at back) has a trailer which can take up to 15 cwt load and is willing to transport immobile M/M cars if he is bribed with M/M parts, beer or both preferably! and also recommends for a good buy new Firestone Universal Motor Cycle Tyres 400 x 19 for £3.95. these are available from H. C. Briggs Ltd, 88 Forest Road, Walthamstow.

Alan Simpson (19 Kings Ride, Tylers Green, Benn, Bucks) is this month offering a pair of LED 150 headlights (N or L type) and a hardly used M type rear axle and would prefer to exchange them for a pair of F type rear wings, a pair of Rotax headlights, a front apron, side valences, early flat topped carb bowls and one offside and one near side early hub caps, with the symmetrical ears.

Mike Dowley (Sports & Vintage Motors, Upper Battlefield Shrewsbury) tells us that the bronze dash conversion instead of the Hyatt or Torrington bearings, is not a very good long term solution. Lasting only 8-9000 miles. So that:-

- a. If the vertical drive shaft is worn more than .005" on the diameter, it should be replaced with an exchanged hard chromed, reground shaft (£3.75)
- b. Measure the internal dimensions of the sleeve, If the wear exceeds .003" put the sleeve on your garage shelf and purchase a set of McGill or Torrington type precision rollers which will replace the outer sleeve and the original Hyatt bearings (£5.25)
- c. If the wear in the sleeve does not exceed .003" then a new pair of original type Hyatt rollers may be used in the old sleeve (£1.30)
- d. Ideally the wear in both shaft and sleeve together, should not exceed .005"
- e. If the vertical drive system is still fitted with the felt type oil seal this must be replaced by a modern oil seal. (Conversion complete with seal £2.50.)

Mike Dowley's approximate prices are given in brackets to give you an eaiden of what is the cost of the overhauling.

A.A. Bray (43 The Fairway, Oadby, Leics) has an F. type radiator grill and 8 19" and 18" wheels, and 5 tyres for sale, along with some T type parts and others off a Wolseley Hornet Special that may be of use.

Ian Davison (23 Wodeland Avenue, Guildford, Surrey) would like a water pump to cool his blown P type. He has/had an Arnott 1600 blower for sale.

Peter Robinson (54 Moor End, Spendon, Derby DE2 7TZ) has a growing family that won't fit into his 2 seater P type, so he would like to acquire a 4 seater body to build onto his car, the basic rear end would be adequate and is prepared to do a reasonable amount of rebuilding. Peter knows of an F2 engine, an N type windscreen and supports, and what appears to be an N type 4 seater hood. Peter has an alleged M type gearbox, but looks just like a J type box with separate cast iron bellhousing. It has a conical casting, instead of the remote control unit, with a long whippy gear lever. Is it the optional 4 speed box?

Terry Dickie (The Cottage, Old Ruislip Road, Northolt, Middx) has original pattern new M type silencers at £4, 1 $\frac{1}{2}$ " inlet and outlet dia, 1 5/16" bore, length 1'10" - only 4 left. Will all those M type owners interested in bonnet catches at £4.50 let Terry know. Also a 1930 M type windscreen is required, with the round side supports.

Mike Smith (24 The Roman Way, Newcastle upon Tyne, NE5 5AB) has quotes for the MG body plates on the door cills those in 20 s/g stainless steel casting £4.50 to £6 depending on numbers and in anodised aluminium £2.70 to £3.50. So let Mike hear from you.

Clive Greenaway (22 Frankly Buildings, Bath, BA1 6EG) has a pair of KN front wings, running boards and bonnet for sale.

Ray Brown, tells us that Fields Engine Services, Leyton High Road London built up his P type crank to 1 $\frac{1}{2}$ " pins, mains back to standard and reclaimed a damaged thread, all for £30 by 'submerged arc welding'. Also Ray has a quote for F type valve springs with 25% increase in seat pressure and 50% increase in rate, one set costing £4.85, with 45 weeks delivery cash with order.

Brian Gothard (2 Lydgate Road, Batley, Yorks) wants an N type radiator.