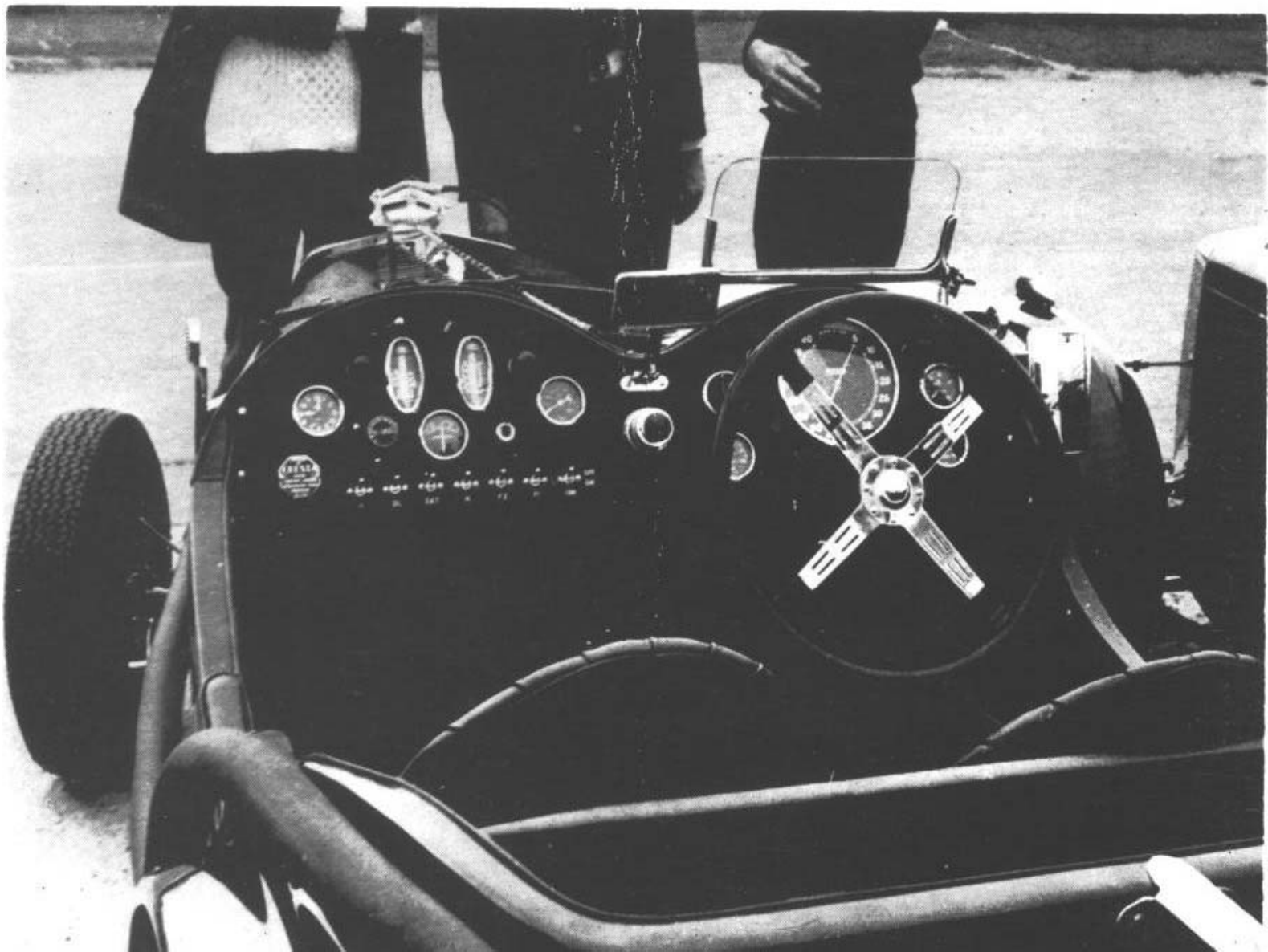




£6.00

TRIPLE M REGISTER YEARBOOK 1973





TERRY AND BARRY BONE

Listed below are some of the new parts available:

Running boards with fixing brackets.

Rear trunnion covers.

Rocker cover insignia plates.

Original manuals (reproductions).

Front and rear wings.

Aprons and valences.

Brake cables.

Complete bodies for most models.

Sales brochure & Service Parts Lists (reproductions).

Plus many other spares which are listed in our new 1973
20 page catalogue, price 15p.

Thousands of secondhand spares
Dozens of cars and chassis available.

See with all enquiries please.

Spares for most models from 1929 to 1935.

Callers to:
(at the Rear of)
92-94 High Street,
Steyning,
Sussex.

This business operates on
Saturdays only.
Steyning 812962.
Five days a week Telephone Service
Tuesday-Saturday.

THE M.G. CAR CLUB TRIPLE-M REGISTER YEAR BOOK 1973

INDEX

Chairman's Chat Stephen Dear	2
Rules for the Car-of-the-Year Award, 1973	3
Idle Chat Colin Butchers	4
1934 Flashback	5
The MMM Attack on the Six Hour Relay Race. Phil Bayne Powell	6
Specials John Adams	8
The Infoletter Phil Bayne Powell	3
Some 1972 Winners	10
Safety Show Ray Brown	12
The Parnell K3 Mike Allison	13
Overhaul of the Oil Pump Mike Hawke	14
Getting the Thread Adrian Mott	15
What Do We Get From Tuning? Mike Hawke	16
The Triple-M Bibliography Nigel Musselwhite	24
Lightening of P and N Type Flywheels Steve Dear	25
The 1972 Car-of-the-Year Competition	26
J-Midget	27
Car-of-the-Year Award Winners	27
Mary Harris Trophy Winners	27
Editorial Postscript Mike Hawke	27
	28

Cover picture: The pilot's eye view in Colin Tice's J4

TRIPLE-M REPRESENTATIVES

Chairman: Stephen Dear, Yew Tree House, Brinslea Road, Congresbury, Bristol, BS19 5JQ.
Hon. Secretary: Colin Butchers, 21, Hill Farm, Way, Southwick, Brighton, Sussex, BN4 4YJ.
And Registrar: Colin Butchers.
Hon. Treasurer: Tony Rogers, Ranmore, Lower Leigh, Tonbridge, Kent.
Spares Secretaries: Phil Bayne Powell, Kimber Cottage, Glaziers Lane, Normandy, Nr. Guildford, Surrey, and Nigel Musselwhite, Flat 15, London Fire Brigade Headquarters, Albert Embankment, London S.E.1.
Technical Advisers, Types M, D, C, F & J: Geoff Coles, 26, Bounds Oak Way, Southborough, Tunbridge Wells, Kent.
Technical Adviser, Types P, K, L, N, Q & R: Ray Witcher, 4, Station Road, Kitbury, Newbury, Berks.
Librarian: Nick Sands, 36, Winkley Court, Eastcote Lane, Harrow, HA2 8RT.
Car of the Year Scorer: Elwin Sappote, 11, Goodby Road, Moseley, Birmingham, B13 8RH.
Year Book Editor: Mike Hawke, 11, Linden Crescent, Lower Westwood, Bradford-on-Avon, Wilts.

S.E. Centre: Mike Allison, 25, Meadow Close, Grove, Wantage, Berks OX12 7NN.
Scottish Centre: Ken Patullo, 8, Ravelston House, Edinburgh, 4.
N.W. Centre: Ray Masters, 78, Derby Road, Heaton Moor, Stockport, Cheshire, and: John Goodacre, 19, Albany Avenue, Eccleston Park, Prescott, Lancs.
Midland Centre: Peter Cranage, 11a, New Coventry Road, Sheldon, Birmingham, 26.
S.W. Centre: Phil Peckham, Ataton, Lime Street, Nether Stowey, Bridgwater, Som.
Devon & Cornwall Centre: Neil Farnfield, 83, Darwin Crescent, Laira, Plymouth, Devon.
N.E. Centre: John Kidder, Denville House, Main Road, Cutthorpe, Chesterfield, Derbyshire.
 If you have an 18/80 or even older M.G., the Hon. Sec. of the M.G.C.C. Vintage Register is: F. Wilson McComb, St. Peter's Cottage, East Morden, Chichester, Sussex.

CHAIRMAN'S CHAT

(by Stephen Dear, whose opinions are his own and have nothing to do with MMM policy!)

There seems to me, to be little about the arrival of 1973 over which to enthuse. We shall be swept into the great community of Europe on an emotional wave of apathy and apprehension, and in the teeth of the whims of the majority. We are about to have V.A.T. and metrication stuffed up our nostrils, whilst inflation gallops on. Great hordes of foreigners waving British passports arrive to tell us how to run the country, and show us how to drive our buses, and we grope about in the dark as usual because of the power workers annual Christmas blackmail.

We therefore need our MMM cars more than ever, and the enthusiasm for old cars in general will increase. Why?

Well, old cars are one of the best guards against inflation, and at the same time can probably give more fun than any alternative form of security. They also provide a valuable ingredient in the fight to retain one's sanity in these high pressure times, viz: a form of escape. When the news on TV is very depressing (whether it always is) and you happen to be one of those sensitive people who is affected by other human beings' misfortunes, then you can always turn the beastly thing off, and retreat into the garage and polish a rocker cover, grind a valve, or simply sit on an old box and gaze at the lovely thing (or then again, you can look at the car).

Eventually, some reforming twit of a Transport Minister (who still won't have grasped the fact that humans are fallible and will always have an occasional prang!) will have banned our cars from the road because they are open, and dangerous, and probably have the wrong sort of exhaust smoke and make the wrong kind of noise. When this moment arrives, we can carry our conception of "living in the past" a stage further, and have huge houses to enable us to mount a concours P type on the mantelpiece, instead of having to instal camp beds and central heating in the garage.

Your MMM MG is something of which to be proud. It was built at a time when militant shop stewards, and waves of industrial blackmail were unheard of phrases. The O.H.C. MGs were created by a handful of enthusiasts whose work was also a hobby, and when car workers shared a sort of National pride about the standards of their work. The MMM MG represents the peak of British sporting motor cars of the period, and has an unequalled competition record to prove it, unlike some of the more fancied marques which are by reason of their smaller production numbers, are more "socially acceptable" in Vintage Club circles.

Gentlemen, living in the past is nothing to be ashamed of, and if I were an ostrich, I would have the biggest, deepest sand-pit in the whole of Somerset (I-on-Avon)

Stephen Dear.

TOULMIN

01560 1722

01560 2228

MG SPECIALIST EXCLUSIVELY

THE FIRM WITH THE WORLD WIDE SERVICE

SAE for list and information

International Response Coupon
Overseas Lists and Information

Coupon available from post office

TOULMIN MOTORS (1962) LIMITED
181 LONDON ROAD,
ISLEWORTH,
MIDDLESEX.

The "Car of the Year" award for 1972 was last year. It is to that car which the widest section of the system which is...

We hope that which is the Reg...

The points score whom all claims will be noted at the owner of the its correct score will be published claim your points filed within three considered and 5th January, 197...

Points scoring system

The best ten More than one If any one dr will be counted

For each event If classed as a In Concours e In addition to awarded to every

A perfectly or For each non e (Mudguards, v the same sort of The following

(1) Historica, y substantially December 19

(2) In all cases: Bucket sea Rear damp Supercharg Steel or fib Electric wip SU 'L' type pulse' Mo penalised Modern ca Internal eng

All cars taking be given their stand for future made to any MM

In addition, pl 1st 2nd 3rd 4th and highly i.e. max. point

RULES FOR CAR OF THE YEAR 1973

The 'Car of the Year Award' will be competed for as last year. It is a splendid trophy awarded annually to that car which performs most creditably in the widest selection of meetings. It is declared on a points system which is outlined below.

We hope that all members will compete for this which is the Register's premier award in 1973.

The points score will be kept by Elwin Sappcote to whom all claims should be sent. Where possible, points will be noted automatically but the onus will be on the owner of the car to make sure that his mount has its correct score. A table as up-to-date as possible will be published in 'Safety First' each month. Please claim your points as soon as possible. Any claims not filed within three months of the meeting will not be considered and no claims will be considered after 5th January, 1974.

Points scoring system

The best ten scores for each CAR will count. More than one driver may use any one car. If any one driver uses more than one car, scores will be counted separately. The award is to the car.

For each event entered, started and finished 2 pts.
For each non-finisher 1 pt.
In **Concours** events
In addition to the 2 pts. for entering, points will be awarded to every competitor for originality as follows:

A perfectly original car having no mods. 5 pts.
For each non-original item, DEDUCT 1 pt.
(Mudguards, wheels, etc. count as a multiplicity of the same sort of mod. and score minus one each).
The following exceptions are made:—

- (1) Historically interesting cars, where these are in substantially the same condition as on 31st December 1939, or before.
- (2) In all cases:
 - Bucket seats
 - Rear dampers on P and N types
 - Superchargers if neatly installed
 - Steel or fibreglass part if of the original shape
 - Electric wipers (early cars)
 - SU 'L' type pumps replacing 'Perolift' or 'Auto-pulse'. Modern high-pressure pumps will be penalised.
 - Modern carburettors (if of standard size)
 - Internal engine and gearbox mods.

All cars taking part in concours events this year will be given their rating at their first meeting. This will stand for future events. A request for rerating may be made to any MMM Committee member.

In addition, place points will be given as follows:
1st 4 pts.
2nd 3 pts.
3rd 2 pts.
4th and highly commended 1 pt.
i.e. max. points for a concours event 2+3+4=11.

Driving Tests Trials

Rallies

Autocross

Sprints

1st MMM car 9 pts.
2nd MMM car 8 pts.
3rd MMM car 7 pts.
etc. down to 9th place 1 pt.
i.e. max. points for these types of event 2+9=11.

Races

At any one race meeting, any two races or one race and a high speed trial only may be counted. Thus:

1st MMM car 5 pts.
2nd MMM Car 4 pts.
etc. to 5th MMM car 1 pt.

In events where cars of younger than MMM age are competing, a place in the first four will win a further 1 point.

In a high speed trial, award winners gain 6 pts.
i.e. max. points for a race meeting is 2+6+5=13.

(Which would make it seem that the racing men have an edge over the others. In fact it is not so for a racing man—sorry, car has not won the award since 1965, Ed).

Marshals, who use their MMM car as transport to and from the meeting will gain 2 pts.

Non-M.G.C.C. Events

The Committee have tried to allow for those cars which have gained success in "outside" events especially where the stature of MMM cars has gained as a result.

Any event run under an R.A.C. Permit may be considered, (i.e., not a concours, gymkhana or treasure hunt). The car's OVERALL position in the results will count (i.e. no points for being 1st MMM but 22nd in a race).

Bonus Points

will be awarded for the variety of events entered:
For one type of event 0 pts.
For two types of event 5 pts.
For three types of event 10 pts.
For four types of event 15 pts.
etc. to eight types of event 35 pts.

Separate types of event are:
Concours
Races and High Speed Trials
Driving Tests and Gymkhanas
Trials
Rallies
Autocross
Sprints
Hill Climbs.

Extra Points

A specially meritorious performance by a MMM car may be deemed to be worthy of extra points, especially if points would not normally be awarded under the above terms. E.g., the breaking of a record, travelling overland to India, winning a "Triple". The normal award will be ten extra points and will, if necessary be considered by a panel of Messrs. Sappcote, Dear, Hawke and Allison.

When I first started thinking about some notes for the 1973 Yearbook, I intended using the title "Where do we go from here - a slight directional dilemma", having even asked the fact that by tradition, the Secretary's notes go under the banner which appears at the top of the page. However, whatever I call it, the following notes reflect the Triple M scene as I see it as we approach our twelfth year of operations, and during the course of the ensuing year I hope that the Committee will be able to ponder at some length on how the Register is likely to develop over the next twelve.

When I first joined the M.G. Car Club in the late 1950s, the excitement of actually finding a Triple M car in any form of competition was quite considerable and I can well remember it now. Of course we didn't call them Triple M cars at the time, as the Register was not due to be formed for another three or four years, but the natural affinity between owners of 'cammy' M.G.s was beginning to make itself noticeable. Very prominent at that time were the two standard J2s of Mike Hawke and Me Jones, whilst Geoff Coles' J4 was disguised under its aero-dynamic body. I really don't recall much else of interest, but it is now clear that my memory was clouded by the passage of time, because without doubt Mike Allison's NA in its "blue-whale" body must have been lurking not far away, and a gent named S. Dear was known to make occasional trips from the South West to shed blower belts from his PB all over Brands Hatch.

Soon after the formation of the Register in 1961, an upsurge of interest in MMM cars came about, and before long there was a noticeable increase in the number of our cars turning out for all types of competition. A reasonable sprinkling of standard Js and Ps began to turn out for driving tests and production car trials, whilst the starting grids at Brands Hatch or Silverstone would yield similar quantities plus the occasional L2, NA or even F1 Salonette.

To me the most impressive thing of all, was that the majority of these cars were driven by people who were essentially novices, some of them competing in their first event and the cars were normal road going models being driven to the event, and on occasions back home again! Our monthly Bulletin carried glowing reports of the daring exploits of lone MMM cars competing against vast hordes of less aged and much less well bred motor vehicles, whilst the technical articles were occasionally more noteworthy for their enthusiasm rather than their technical quality, with the "Wool-worth's pliers" outlook being prominent.

During the past ten years, the strength of the Register has grown steadily, Geoff Coles has rebuilt and rebodied his J4 so that it has become one of the most famous of all vintage sports/racing cars, Mike Allison has discarded the "blue-whale" body from his NA and has produced a staggering original motor car, whilst the quality of many of the articles produced in the Yearbook or Infoletter is such that they have become standard works of reference. In the field of Club racing, the Register events at Silverstone, Brands Hatch and Castle Combe have become firmly established, whilst our racing members are now regular competitors at other Club meetings where invariably the standard of preparation and the speed of the cars gives rise to very favourable comment. On the hill-climb scene, we have lost the venue at Fittle, but we have been fortunate in finding replacements with our own Club event at the classic Wiscombe Park course, and invitations

to drive at Ditcham, Vaenno and Budair, in all cases there being an M.G. award, if not a separate class for MMM cars.

In recent years there have been regular appearances of MMM teams in the long distance MCC Trials, with the performances of individual drivers suggesting that sooner or later the winning of a Team Award is a very real possibility. In production car trials the appearance of a Register car can be almost certain to produce a performance which will rank high in the list of results overall, and at the same time provide considerable enjoyment for the spectators.

Possibly the greatest improvement however, has been in the field of concours events, where almost every year has seen the introduction of several newly rebuilt cars, until we reach the current position of having so many impeccably turned out cars, that the introduction of a separate "Premier" class has become a necessity.

All of this is of course natural progression, and in my opinion has come about largely as a result of the activity of the Triple-M Register with its concentration of effort towards the supply of spare parts, or well informed technical advice, and above all with its constant fanning of enthusiasm. However, it is at this point that I reach the real point of this article and ask again, "Where do we go from here?"

Turning once again to the racing scene, we already have a number of non-standard racing specials, such as Syd Beer's ex Monkhouse K3, Ray Masters' with his Q special, Andy McLennan with the NA and Nev Courcher with the ex-Lund PB, all of which have been accepted by the Register on the strength of their racing histories, whilst during the past two seasons we have seen the introduction of some more recent specials, designed purely for racing, which although still in the tradition of MMM racing, are I feel in danger of causing the rules to become bent just a little too far. You may well ask, "What rules?" and the answer is that they barely exist. This then is one point which I think could well be considered in greater depth by the Committee, and is a point on which the views of you, the ordinary members, would be most welcome. Should we develop our racing on the lines of the T-Register, with one class for standard cars, and another for an elite band of "no holds barred" racing machines, or should we look for greater equality by making our rules more rigid and by using the handicapping system more widely? Whatever we do, I think it is essential to offer encouragement to the owner of the standard road car who relies on it for daily transport and who drives his car both to and from the circuit. It is a most rewarding thought, that over the past couple of seasons, one of the most successful racing cars has been the PA of John Adams which surely comes into this category.

I don't think the problems end at racing, do they, for in the fiercely competitive world of concours events, we are also heading for a certain amount of difficulty. With the increasing number of exquisite concours rebuilds, judges are experiencing difficulty in doing their work without being dragged into rather petty but nonetheless embarrassing arguments over the awarding of points for this, or the deduction of points for that, and frequently the matters in dispute don't seem awfully important when reviewed in the cold light of day. I also get the impression sometimes, that there is a reluctance in some quarters to start the engine or to drive the car, for fear of dropping a bead of oil, or

of attracting a few specks of dirt, or of suffering normal road knocks. Am I imagining this, or is there a possibility of this sort of attitude of mind developing?

If I am right about this, I do hope we can do something to bring about a change, for I am certain in my own mind that Cecil Kimber didn't construct these cars to become museum pieces. There are a number of things which can be done to improve matters, and possibly we will see these come about during the next year, but one thing I feel sure will be met much more frequently from now on.

I have no doubt that judges of originality are going to err much more in favour of the car which is truly original, by which I mean the car which looks as it did

the day it left the Factory almost forty years or more ago.

So there we are—all good, clean contentious stuff, but intended I assure you, in a constructive manner rather than the reverse. I would welcome any views on this topic that you may have, and I hope that those members, and I believe that there are many of you, who are not able to have the car professionally re-built, re-sprayed or re-upholstered, or who are unable to afford the cost of new wheels and racing tyres, will be encouraged to participate in as wide a variety of events as possible. Believe me chaps, I'm with you all the way.

CGB.

1934 FLASHBACK

1934



1934



Brooklands AUGUST BANK HOLIDAY

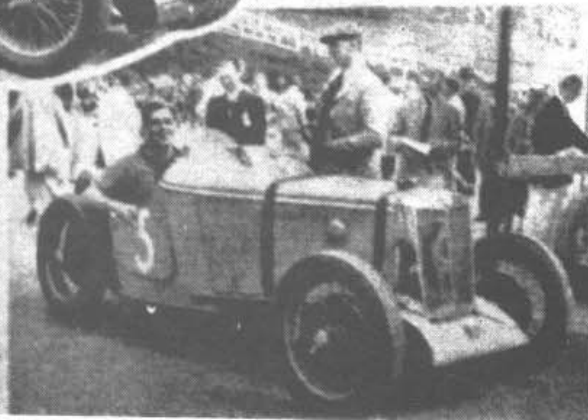
W.G. Ewitt whose 'Q' type Midget averaged 104.47 m.p.h. in winning Race 2. This car had captured the mile & kilo records a few days previously.



John Cobb, the hero of the day set up a lap record at 140.91 m.p.h. winning a 4 1/2 laps race at an average of over 13 1/2 m.p.h.



Donald Letts, winner from scratch of the First Esher Mountain Handicap on his Midget at 66.65 m.p.h.



H. Hulton-Roby being congratulated by C.E.C. Martin after winning the first race at 90.46 m.p.h. on his Magna.

THE MMM ATTACK ON THE 6 HOUR RELAY RACE

Many years ago, in the early sixties, when MMM cars were starting to appear at MG events amongst all the modern MGAs and Midgets, Mike Allison tried hard to arrange for a team of MMM cars to take part in the 750 Motor Club's annual classic event. For this constitutes one of the greatest challenges for car and driver available to the amateur clubman. This is due to the fact that it is a team effort and also the cars are out on the circuit for a far longer time potentially, as well as being of such a length that all but major repairs can be considered. At that date the MMM cars that could be considered for a team were Mel Jones' J4 replica, Geoff Coles' J4, Mike Hawke's J2, possibly a car from the Beers and Mike's own 'Whale', under the aerodynamic body of which was the car we regularly see these days.

Unfortunately the idea never came to fruition; one of the problems being that a National licence was required, as opposed to the Restricted licences that are necessary for club racing. Every year Mike tried to get a team together but without any better results, and gradually gave up the struggle.

However this year, Nigel Musselwhite and the City Natter started talking about making a determined effort to get a MMM team together. Things on the racing scene had greatly improved from those early days, in that there was much more MMM machinery racing regularly, and pretty successfully too. More than the 6 allowable entries were roped in for the team, to allow for setbacks and withdrawals during the season. Mike Allison was asked to be team manager, which he was most pleased to do. He had partly got the urge out of his system by managing for the T-types in the previous years which was good experience.

This year the idea and the planning all came to fruition. The team was duly entered at the early date required, and at the May Silverstone a meeting was held—at the bar! Mike told those present about the procedures and setup of the Relay Race, and asked if they should try to complete the 6 hours or else try all out for a win. Everyone elected to try for a win.

So the great day came, on Sunday, August 13th, at Thruxton this year. We turned up there early, the competitors somewhat earlier than the rest of us. Our team was made up of Nigel Musselwhite with his well campaigned PB, unblown and with a recently replaced engine, John Adams with his blown PA, that was having a head change only the week before, Peter Cranage with the deepthroated NE Replica that we are accustomed to seeing nearly everywhere, then the J2s of Dudley Pinney and Mike Hawke, whilst the sixth car was the brand new car of Colin Tieche, straight from its restoration—the final spray was done only the day before! This was one of the 9 J4s built, and was even more historic in being the car that Hugh Hamilton used in his famous race against Nuvolari in the 1933 Ulster TT, amongst many other events.

The procedure for the Relay Race is for one car from each team to take the sash round the circuit for as many laps as the team manager calculates. This depends on such things as fuel consumption, lap times and order of battle. Every complete lap that the car covers with the sash counts, but when handing over to the next runner in the pits a lap is lost as only a part lap is covered by the two. With cars of very similar potential these changeovers should be kept to

the minimum as even the fastest car would take a long time to make up the loss.

The sash in previous years was simply one that each driver wore, usually round his neck, which wasn't such a good idea when getting crossed up in a hairy motor car. So this year, on the offside of a car a panel of Velcro was fixed and the sash was held by this, at the same time being easily removable as well as being seen by the control tower.

As large variations of speed occur between a 1933 J2 and a Lola Aston, the race is run to a handicap as well as a scratch race. Each team is therefore allotted a number of laps deemed to have been covered by the start of the race. The slower teams have more laps than the faster; the final number of laps, including the allotted laps, determines the winning team. For instance we had 64 laps on handicap, and were expecting to cover 170 to 180 laps in the 6 hours, so our final total would be about 240 laps. Our immediate rivals were the DAF team who had 71 credit laps. We therefore had to cover 7 more laps than them to beat them.

Practising on this fine warm morning went well with all MMM cars covering lap after reliable lap, while Mike Allison worked his slide rule, and the timekeepers practised their watches. A good idea of each car and driver's capacity was evaluated, and Mike also worked out the distance each car could cover without stopping for fuel.

Each driver, incidentally, supplied his own fuel and spares, and altogether a good selection of parts were available.

After practice John Adams found that his radiator had a slight leak, so all hands set to to remove it so that it could be repaired. Mike, consequently had to rearrange his running order. Nigel Musselwhite was therefore to be first into the fray with his PB which then went to line up on the starting grid.

At 12.30 the race was on, but not for Nigel for he was without the team's sash. So he completed his first but noncounting lap as rapidly as possible, to come dashing into the pits to collect the sash and roar away again as fast as possible.

Then he put in some fine motoring, trying to overtake many faster cars that were not so quick through the corners, especially with 'Mad Nigel' driving! As there was a lot of much faster metal around a great deal of the time was spent watching the rear view mirror. In these early laps it was a case of settling down to a constant time, fast but reliable, before the teams position could be assessed.

On the 12th lap the PB's clutch began to lose its claws, and next time round Nigel signalled his intention of coming in, which he did on the 14th lap. The sash was taken over by Peter Cranage. Nigel returned to the paddock to try and do something about the oil on his clutch. Andy McLellan was there to help and also found that the full throttle opening was being restricted at the linkage. All was soon rectified the oil burnt off the clutch and Nigel was then raring to go again, with the car sounding better than ever.

Meanwhile, back on the track Peter was putting in some very consistent laps. As soon as he'd gone the J4 moved into standby position in front of the pits. Peter improved his lap times till he was clocking 1.56 to 1.57 mins., with occasionally a slow one as traffic jams occurred.

After the 1 hour results we had covered 28 laps and at 2.10 33 laps had been covered, with Peter setting a very fine example of reliable and no doubt enjoyable motoring. It was at this stage that the team managers could start to take stock of their positions and at ¼ distance the MMM team were found to be lying 5th on handicap. This was fantastic news, although the rival DAF Team were 3rd equal.

At 2.25 Peter came past and indicated his intention of coming in on the next lap, for he'd been out for about an hour and was getting low on fuel.

Colin Tieche donned crash helmet and slotted himself into the J4. Peter then came into the pits. Mike took the sash, and he carried on to the paddock. Mike put the sash on the J4 and Colin roared away down the pit road, with a gorgeous crackle that topped every other noise, and was soon away out of sight heading for the Campbell Cobb and Seagrave bends. No sooner was he out than John Adams came to take up the standby position in the pits.

After a minute or so the commentator and MMM team noticed something wrong, and Colin hadn't returned. It was then reported that he was still going but going slower and slower, until he was only doing a walking pace along the back straight. All this time Mike was having to assess whether Colin was going to be able to reach the pits under his own steam or whether John Adams should be sent out to pick up the sash. John was eventually sent out. Colin, meanwhile, with no more downhill section of the circuit left came to a halt, and so took to his feet across the remaining distance to the pits. He arrived at the pits puffing and panting, only to find that John was out on the track. So the sash couldn't be handed over, and had to wait until John completed his lap. The sash was hastily changed over and John set out to begin his stint.

What had happened to Colin was that the J4 had dropped a valve up by Campbell bend and as the circuit was downhill right round to the back straight of Brooklands, Colin had managed to coast right the way round about half the circuit.

John now started to repeat Peter's efforts, with laps of around 2 mins. We had now slipped a few places on handicap and needed some fast reliable work to bring us back into the running again. John proceeded to do just that; at 1/3 distance, after 2 hours the team had covered 57 laps. At 2.30 John was still enjoying himself and creating quite a bit of interest; the commentator said "Here is a car that only boasts 939 cc.

It wasn't built this year or last year, it was built all of 30 years ago. It is being driven round here very exuberantly—tail hangs out—opposite lock on—he looks over to see what the front wheel is doing".

The 3½ hour results saw the MMM team in 6th place, due to the fast and reliable motoring of John. Eventually he came into the pits, as he was getting low on fuel, at 4.40. He'd been out on the circuit for 2 hrs. 10 mins. non-stop, and had thoroughly enjoyed himself.

Peter now went back out to carry on the good work, and was soon lapping at 1.57 again. At 2/3rds distance, after 4 hours of racing we were still 6= on handicap. Nigel moved up into the pits and at ¾ distance we were 6th on handicap with 179 laps to our credit.

At 5.20 John Adams took over from Nigel in the pits after we had tried to fool the DAF opposition. John had refuelled and had a good check up and was ready for more action. The weather was now getting worse with a slight drizzle, not enough to dampen the track. With 1 hour to go we were still holding 6th place with 199 laps.

Peter returned to base at 5 to 6, with a bit over half an hour to go John went out again, only to find the track was quite slippery, and spun at Campbell, but continued unrepentant. All the team and supporters were now crossing their fingers and hoping that John would take it carefully in these last few laps. On the last lap John came through the chicane and spun it, ending up across the track and just managed to come to a halt before he clouted the Armco barrier head on. He set the PA straight again and shot off to finish the race, much to everyone's relief.

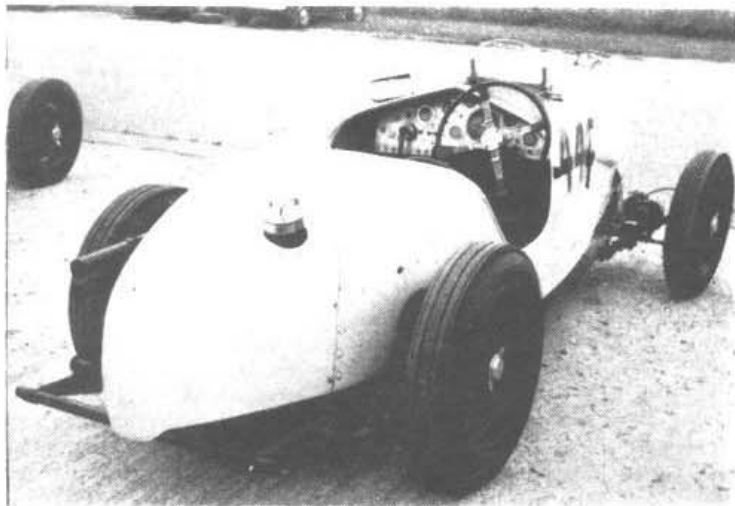
So 6.30 came and the MMM team could feel rightly proud of their 6th place on handicap at the first attempt. Dudley Pinney and Mike Hawke mustn't be forgotten, for they provided us with stoical support by their continued presence in the pit road in case anything should happen out front.

It is interesting to note that John Adams was out on the track for 2 hrs. and 45 mins., so that he nearly did half the race on his own; a really good achievement backed up by the rest of the team, with Mike Allison and assistants in the pits.

This year the idea is to get two teams together, a fast team and a slower team based on Mike Hawke and Dudley Pinney. So now's the time to start thinking about it.

Phil Bayne-Powell.

The two stalwarts of the MMM Team. On the left is John's PA, Centric blower all exposed, receiving radiator treatment, and on the right, Peter's N, which did not need any first aid.



SPECIALS

Most active members will have noticed in recent years the increasing number of non-production MMM cars, and have heard frequent rumours of further impending arrivals. This has caused much concern and controversy. Perhaps I can put forward a few personal thoughts.

Firstly, let it be stated that any person can do just whatever he likes with his own car; it is only when he wishes to enter M.G.C.C. or MMM events with it that we can pass judgement.

Secondly, most members must admit that from all general points of view a standard and original car is to be preferred and encouraged. My definition of "standard" does not exclude such modifications as have always been accepted—cycle wings and blowers, for example. Thus equipped, an otherwise standard car is quite capable of outperforming a trials, or a racing, special at its own particular sport, and still be used as a shopping or concours car without attention. It is this versatility which should encourage members to rebuild and maintain their cars as original models, and no competition-minded member need feel that he has to build a special to be competitive.

However, this is not to say that "specials" should be excluded altogether; indeed quite the reverse in my opinion.

In pre-war days, many of the most famous racing cars were privately built specials, and not necessarily based on a racing chassis. Neither were they confined to the fitting of single-seat bodies, the ex-Evans C-type for example consisted of an R-type engine and blower, 12 inch brakes, and special body, all on the old "C" chassis. Thus, in my opinion, anything which could have existed pre-war should be acceptable today.

A typical example of the present-day special on which some of the controversy is centred is the P-engined J of Dermot Reynolds. Dermot had a very nice and original PB and, like most of us, also had a fair number of spare parts. Then came the realisation that if all the spares were assembled together, a complete car would result. And so it happened—admittedly a "bitsa"—but here was a resurrection, a car where previously none had existed. All that was missing was a body, so one was created as a replica of several which had existed on pre-war "Brooklands Specials". Surely this action is to be applauded, especially when carried out in such a workmanlike manner. If a dozen more members had done the same and raced as regularly as Dermot, the MMM grids would not have looked so feeble in recent years.

Another example is the special-bodied P-type of Colvin Gunn. When acquired by Colvin, this car had the worst type of fibreglass all-enveloping mid-fifties home-made body imaginable. By his splendid rebuild, Colvin has transformed the car into one which for most of the 1972 season was placed second in the Motor Sport Brooklands Memorial Trophy, and has thereby done more for the status of the MMM Register than anyone. (Debatable, Ed.)

Further, good publicity for the Register was obtained during the 1972 season by a group of members with J or P specials comprising Nigel Musselwhite, Tony Dolton, and Dermot and Colvin, who have entered all possible invited clubs' meetings at Snetterton, Silverstone and elsewhere, and, by their regular appearances and good driving and impressive performance have enabled at least one promoting club to provide a separate class and awards. The only one "standard" P which regularly appeared with the above specials was in all cases the fastest car, and the only one driven to and

from the meeting, thus reinforcing my previous comments. But without the specials the full grids and healthy competition would not have been possible.

Another benefit that the special has provided in the past year is the additional demand and impetus to produce new parts such as pistons, crankshafts, c.w.p.s, etc. Through the considerable efforts of Nigel Musselwhite and Phil Bayne-Powell, the MMM Register now provides a most enviable spares service from which the concours and non-competitive members can benefit directly.

And so specials should not be condemned on principle—but precautions are necessary. Our cars must remain presentable, authentic and workmanlike, and the status of the Register must be preserved in the eyes of other clubs. I would therefore suggest that the following rules be kept by anyone engaged in building a special.

1. All mechanics must be genuine MMM.
2. Components should be as unmodified as possible. E.g., retention of brake cables and friction shock absorbers (in my opinion, mods. here will not significantly affect the performance anyway, but that is a separate issue).
3. The body should be "authentic" and of a style and construction which existed or might have existed pre-war.
4. It should be well engineered and executed.
5. A special should never be built by destroying a complete and original car.
6. A special should never be described as a genuine racing model or as a replica of a racing model.

To summarise, a special should be built in such a way that it could have existed, in that identical form, pre-war, and this may be achieved by any reasonable interchange of MMM parts and the construction of an authentic body.

Again, the above are my personal thoughts only, and no official statement of policy. But I think I might look again at the pile of assorted rusty parts at the back of MY garage.

John Adams.

THE RECIPE THEN AND NOW

As an experiment we had a specially balanced Laystall crankshaft made for one of these cars at a cost of £25 and it ran successfully through an entire season without any trouble, and if anyone is thinking of using one of these cars regularly in competitions, I strongly advise obtaining one of these.

Wilkie Wilkinson in Motor Sport, January 1936.

DID THE LUCKY MAN JOIN US?

And the raffle prize was a J2 Midget in dreadful condition; the sort of prize you'd be happy to win and happy not to win.

From Road and Track, March 1972.

TALL T-TYPE TALE

I have fitted a forward-facing air funnel to the carburettor of my T Midget to act as a supercharger and am now getting 100 mph.

From the Sports Car, June 1939.

THE INFOLETTER

I would like to take this opportunity to mention the Register's only regularly circulated medium for keeping members in touch with things and to explain its purpose.

Over three years ago we used to have a Quarterly Bulletin rather like the old Year Book in style. This had to be discontinued when support from British Leyland was cut off because we could no longer afford it. The major cost was in the distribution and you will all know how P.O. costs have gone up since then.

It was therefore thought that if we could avoid postal costs we could get a publication going again. This is where you, the members, come in. For each issue of the Infoletter (as it came to be called), you were asked to send a stamped addressed envelope. This could hardly cripple the members at 1½p per month and would save the Register £7.50. I don't feel that this is unreasonable at all. This arrangement still applies and you are asked to send as many stamped addressed envelopes as you like to Rosemary Davis, The Pike House, High Street, South Cerney, Glos. She will arrange the distribution of the Infoletter which is approximately bimonthly.

What do you get out of it? Basically it will keep you informed of the activities of the Spares Service which, with the help of the Infoletter, has been able to expand quite considerably. We inform members of the spares we have available and use it to canvass opinions for further parts to be added to the range. The new parts side of the spares service is run by Nigel Musselwhite. The rest of the spares are looked after by myself. This includes the finding and purchas-

ing of second-hand spares, keeping an eye on firms who can offer members a service and finding others to supplement known suppliers.

This latter activity of locating firms who can supply items or undertake work relies wholly on each member passing on as much gen as he can. This is then published in Infoletter for the benefit of all.

Other information which I'm trying to encourage in the Infoletter are those little tips and advice on how tasks can be tackled; a special material or tool that makes life easier. So let me know.

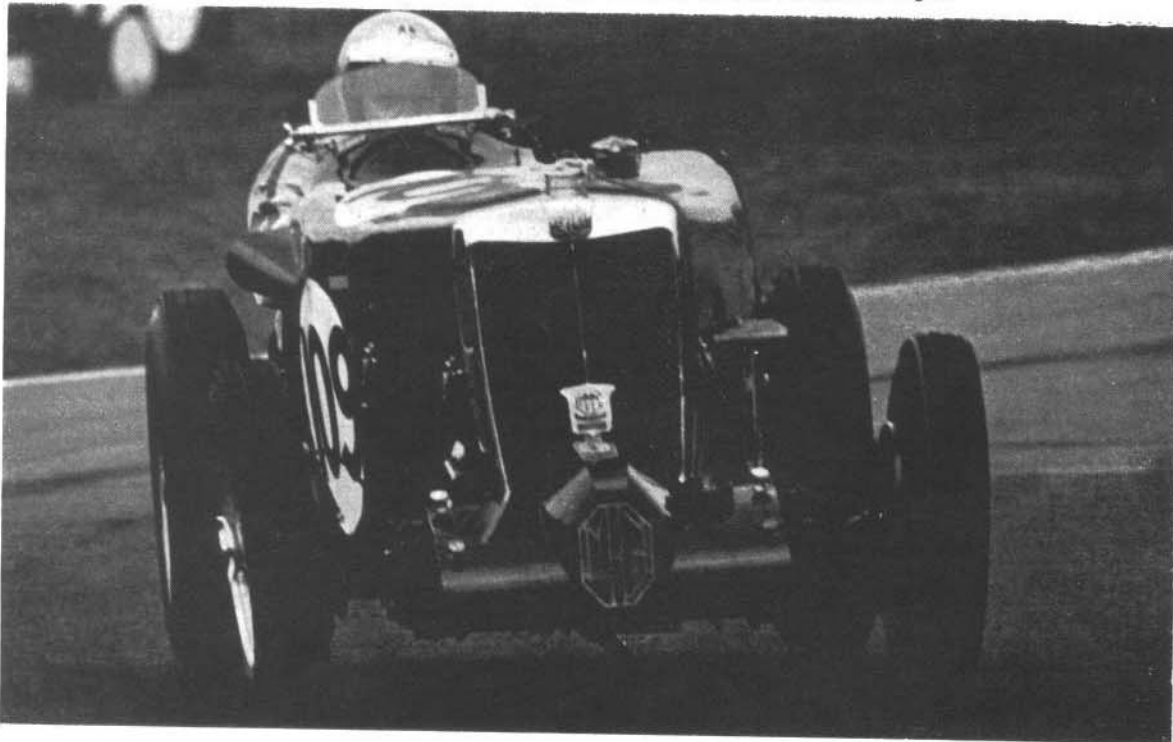
Infoletter is therefore the Register's means of spreading as much information about MMM cars as possible. Both Nigel and I have enjoyed hearing from you all and helping each one who has written. It may seem that I have laboured the point about Infoletter to the majority of members who know all about it but I should like all new members and previous non-participants to join in. It appears from Rosemary's records that something like 75% of us are using the service. But I'd like to see everyone in on the act so that we don't get bleats for someone whose parts have not been supplied as quickly as he hoped when the explanation was in the Infoletter.

As well as the spares service, Nick Sands is expanding the library/photographic service and Infoletter will keep you up-to-date.

All information for the Infoletter should be sent to me please, as well as requests for parts which will be put in as a "wanted" ad.

Phil Bayne-Powell.

One of the most consistent and successful specials about which John Adams writes. Dermot Reynolds in his J-chassis and P-engined car which looks very Q-type like from this angle.



SOME 1972 WINNERS

Date	Event	Driver	Car	Result
Jan. ?	Track Rod M.C. pct	P. Skelsey	F1	Best M.G.C.C.
30/1/72	Salisbury Trial	S. W. Dear	PBs/c	1st Sports Car
		C. L. Shepstone	PB	2nd Sports Car
30/1/72	Thrupton Driving Test	F. Bruce-White	M	2nd Cl. Award
	Exeter Trial	R. N. T. Burke	M	3rd Cl. Award
		I. Davison	PAs/c	1st Cl. Award
5/3/72	Phoenix Trial	S. W. Dear	PBs/c	2nd Cl. Award
		I. Davison	PAs/c	1st Specials Cl.
1/4/72	Land's End Trial	J. C. Adams	PAs/c	2nd Specials Cl.
		J. B. Reid	Aramis	2nd Cl. Award
		S. W. Dear	PBs/c	2nd Cl. Award
		C. G. Butchers	NA	2nd Cl. Award
9/4/72	Brands Hatch Races	S. F. Beer	K3s/c	2nd Pre-1940 Race
9/4/72	M.G.C.C. Min Rally	S. F. Beer	K3s/c	Fastest Lap 1m. 5.0 s.
29/4/72	V.S.C.C. Silverstone	G. Smith	F2	2nd
15/5/72	R.E.C.C. Snetterton	C. Gunn	PBs/c	1st 5-lap h'cap
		J. C. Adams	PAs/c	5th
		C. Gunn	PBs/c	6th
		J. C. Adams	PAs/c	Fastest lap 74.3 m.p.h
21/5/72	Houghton Concours	H. Boerboem	F1	2nd
		C. Tieche	J2	3rd
		F. Scholten	M	4th
21/5/72	Houghton Gymkhana	R. Bateman	J2	1st
		D. Anderson	J2	2nd
		R. Smith	J2	3rd
21/5/72	Chiseldon Autotests	S. W. Dear	PAs/c	1st MMM
		S. C. Shepstone	PB	2nd MMM
		A. D. Dolton	J2/Ps/c	3rd MMM
27/5/72	Silverstone Races	M. B. Hawke	J2	H.S.T. Award
		E. D. Reynolds	J2/Ps/c	2nd Pre-'55 Race
		R. Masters	QAs/cSp.	3rd Pre-'55 Race
		J. C. Adams	PAs/c	1st MMM Race
		P. Cranage	N	2nd MMM Race
		A. R. W. Miles	PBs/c	3rd MMM Race
		R. Masters	QAs/c Sp.	Fastest lap 1 m. 20.6 s.
28/5/72	Silverstone Concours	L. Goff	NB	2nd
		N. v. Koningsveld	NA	3rd
28/5/72	California Cup	S. W. Dear	PBs/c	1st MMM
		S. W. Dear	PBs/c	
		C. L. Shepstone	PB	} Register's Trophy
		S. C. Shepstone	PB	
29/5/72	B.R.D.C. Silverstone	J. C. Adams	PAs/c	4th
18/6/72	Wiscombe Hill Climb	M. B. Hawke	J2	1st Unblown MMM
		C. G. Butchers	NA	2nd Unblown MMM
		D. R. Bennett	PA	3rd Unblown MMM
		E. D. Reynolds	J2/Ps/c	1st Blown MMM
		J. C. Adams	PAs/c	2nd Blown MMM
		D. R. Harris	M/PBs/c/	3rd Blown MMM
25/6/72	N.W. Centre Concours	J. Kidder	NA	1st
25/6/72	N.W. Centre Gymkhana	J. Kidder	NA	1st
25/6/72	Caterham Motor Festival	G. V. Coles	J4s/c	1st Overall
		K. Portsmore	M	1st Pre-1955
2/7/72	Wilsic Hall Concours	E. Sapcote	F2	1st MMM
		F. Ernst	KN	2nd MMM
		J. Kidder	NA	3rd MMM
2/7/72	Wilsic Hall Gymkhana	D. E. G. Taylor	L2	1st MMM
		C. L. Reader	J2	2nd MMM
		E. Sapcote	F2	3rd MMM
2/7/72	Gaydon Sprint	P. Cranage	N	1st MMM
		D. Cranage	N	2nd MMM
15/7/72	A.M.O.C. Silverstone (St. John Horsfall Trophy)	J. C. Adams	PAs/c	1st
		E. D. Reynolds	J2/Ps/c	4th
		A. D. Dolton	J2/Ps/c	6th
		I. Davison	PAs/c	7th
16/7/72	Kinnell Park Sprint	R. Masters	QAs/cSp.	1st MMM
30/7/72	Brentwood Concours	G. V. Coles	J4s/c	1st Pre-1955
Aug. ?	Phoenix Topographia	R. Bayne-Powell	NA	4th
20/8/72	Beaulieu Concours	N. v. Koningsveld	NA	1st MMM
		D. Naylor	J2	2nd MMM
		F. Ernst	KN	3rd MMM

20/8/72	Beaulieu Gymkhana	R. Bateman	J2	1st MMM
		R. Smith	J2	2nd MMM
9/9/72	Spero Trophy Thruxton	A. Smith	PB	3rd MMM
		C. Tieche	J4s/c	3rd
24/9/72	Babdown Gymkhana	G. V. Coles	J4s/c	Fastest lap 1 m. 51 s.
		S. W. Dear	PAs/c	1st Overall
		S. C. Shepstone	PB	1st MMM
		C. L. Shepstone	PB	2nd MMM
17/9/72	Hucking Concours	P. Fletcher	PA	3rd MMM
	Hucking Gymkhana	G. V. Coles	J4s/c	1st MMM
		K. Portsmore	M	2nd MMM
		A. Smith	PB	1st MMM
17/9/72	Snetterton Races	R. Bayne-Powell	NA	2nd MMM
10/9/72	Ditcham Hill Climb	A. McLennan	Ns/c	1st MMM
23/9/72	A.M.O.C. Crystal Palace, evt. 1	I. Davison	PAs/c	1st MMM
		J. Adams	PAs/c	1st MMM
		G. V. Coles	J4s/c	2nd MMM
		M. F. L. Allison	NAs/c	3rd MMM
		A. McLennan	Ns/c	1st
20/8/72	Curborough Sprint	A. McLennan	Ns/c	Record lap 1 m. 10 s.
		R. Masters	QAs/cSp.	1st MMM
		P. Cranage	N	2nd MMM
10/9/72	North-West Concours	D. Cranage	N	3rd MMM
10/9/72	North-West Gymkhana	D. Naylor	J2	1st MMM
17/9/72	Kimnel Park Sprint	P. Lang	J2	1st MMM
23/9/72	Singapore S.M.C. Hill	R. Masters	QAs/cSp	1st MMM
30/9/72	Castle Combe Races	P. D. Hughes	F2	4th
		P. Cranage	N	1st MMM
		A. D. Dolton	J2/Ps/c	2nd MMM
7/10/72	Lincolnshire Autotests	A. R. W. Miles	PBs/c	3rd MMM
1/10/72	Tonbridge Vintage Rally	D. G. E. Taylor	L2	1st MMM
8/10/72	Edinburgh Trial	R. Beasley	F1	1st
		I. Davison	PAs/c	1st Cl. Award
		S. W. Dear	PBs/c	2nd Cl. Award
21/10/72	Bodiam Hill Climb	C. J. Butchers	NA	Finished
22/10/72	Cheddar Concours	C. J. Butchers	NA	1st MMM
		L. Goff	NB	1st MMM
		M. B. Hawke	J2	2nd MMM
22/10/72	Cheddar Gymkhana	F. Ernst	KN	3rd MMM
		M. B. Hawke	J2	1st
		C. J. Butchers	NA	2nd
22/10/72	Gaydon Sprint	P. Fletcher	PA	3rd
		D. Cranage	N	1st MMM
		P. Cranage	N	2nd MMM
7/11/72	Silverstone Sprint	M. F. L. Allison	NAs/c	1st MMM
26/11/72	S.O.C. Fox Hills Trial	J. C. Adams	PAs/c	2nd MMM
26/12/72	Kimber Trophy Trial	Yvonne Ward	PA	8th
		P. Fletcher	PA	1st MMM
		C. S. Shepstone	PB	2nd MMM
		S. C. Shepstone	PB	3rd MMM

These are just a few of the efforts put in by Register cars and drivers in 1972. It has been a busy year.

IT NEEDED SOMETHING

Rob Leclercq, President of the combined Belgian and Dutch vintage car clubs bought a J2 MG on a trailer. This car had some interesting features apart from a Ford 10 engine (with a Ford 8 head). The front hubs were on the wrong side, so that a wheel fell off, the tyres were Avons and Goodyears, over which 'Pirelli Cinturato' had been carefully painted and his bonnet strap bore the genuine signatures of Fangio, Surtees, Hill and Hulme—surely the ultimate in go-faster goodies.

From the Chain Gang Gazette, November 1971.

CABLE BRAKES

In practice it will be found that sufficient force on the handbrake to hold the car will force the brake pedal backwards until the drivers foot may be removed altogether.

A "Modern" Instruction Book.

SAFETY SLOW OR HALF A CRANK IS BETTER THAN NONE

Many years ago (at least eight), when I first bought my "F" type, she was clothed in a two seater closed coupé body, at first thought to be by Abbey, but it was later scrapped when it was discovered that it weighed almost a ton due to lead being used to fill welds and that it was an amateur's effort.

Since that time she has been fitted with three superchargers (not all at once), and has been mistaken for a "C" type at Beaulieu, and I am in the process of fitting the fourth supercharger, (this time without any boggles), together with a gearbox to give two boost pressure of 8 p.s.i. for road work and about 18 p.s.i. for sprints. With this sort of pressure the bottom end needs to be in very good shape.

I have invested in a set of solid skirt pistons, but below these were the thinnest alloy con-rods imaginable, (they have been used for knitting I am told), and when I found that the big-end journals were up to 60 thou' undersize and had a taper visible to the naked eye, I almost sold to the chap with a horse and cart who collects old beds and lead pipe, and bought a F-d Escort.

However, after dire threats from the passenger's seat I decided to strengthen the bottom end, starting with the con-rods. Taking the length between centres as the important dimension (6"), there were three possibilities:—

- (i) use later M.G. rods from a P-type, etc.
- (ii) fit B.M.C. con-rods from the MGA etc.
- (iii) fit con-rods from the Triumph motor-cycle, T110 or T120.

The two objections to (i) were that firstly shell bearings could not be used and secondly that P-type con-rods should be kept for P-types. B.M.C. rods as in (ii) were ruled out because they have offset big-ends . . . which left (iii). Having motor cycle enthusiasts in the family is sometimes an advantage as a quick search

beneath some old parts produced a beautiful pair of alloy rods with steel caps, very strongly made and with the correct centres. These rods are readily available at £5-£6 a pair from "Supreme Motor Cycles" of Leicester.

Now to the problems, (there had to be some didn't there?). The big end size is 1.6" instead of 1.5" and it is narrower than the "F" type journal. Several engineering firms offered to make up oversize shells for about £30 per **big-end**, a method which still leaves the journal 60 thou' undersize. Metal spraying was ruled out by **ALL** the firms I spoke to as not being suitable.

The solution finally appeared in the form of submerged arc welding by the Fields Engine Service of Leyton. The journal is built up by this welding technique and then ground to size, they weld metal bonds to the parent metal and the strength of the crank is increased.

My confidence in this firm started from the time I walked into the workshop and dumped my crank on the counter. "Crikey, we don't get many of those old M.G. cranks in here now", said the foreman. Anyway, to cut a long story short, they made an excellent job of welding and grinding six big-end journals, welding and grinding the two centre mains back to standard, crack testing and cleaning out the oilways, and all for £30.

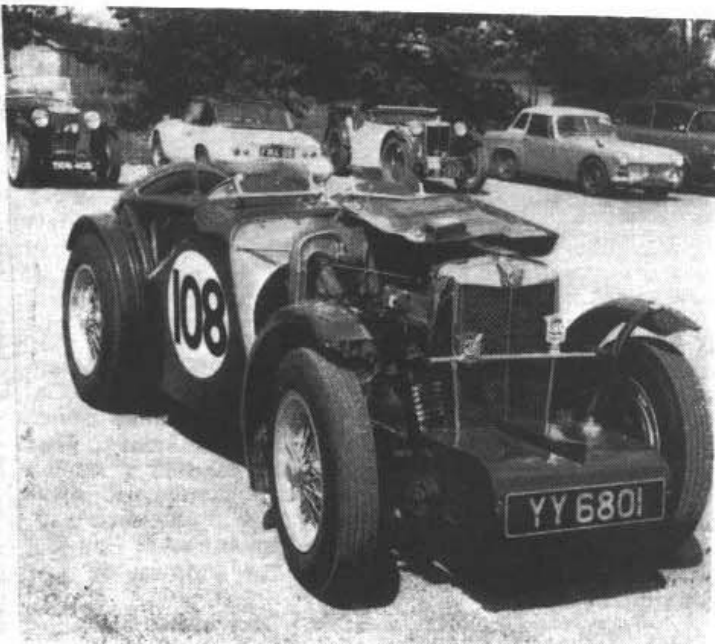
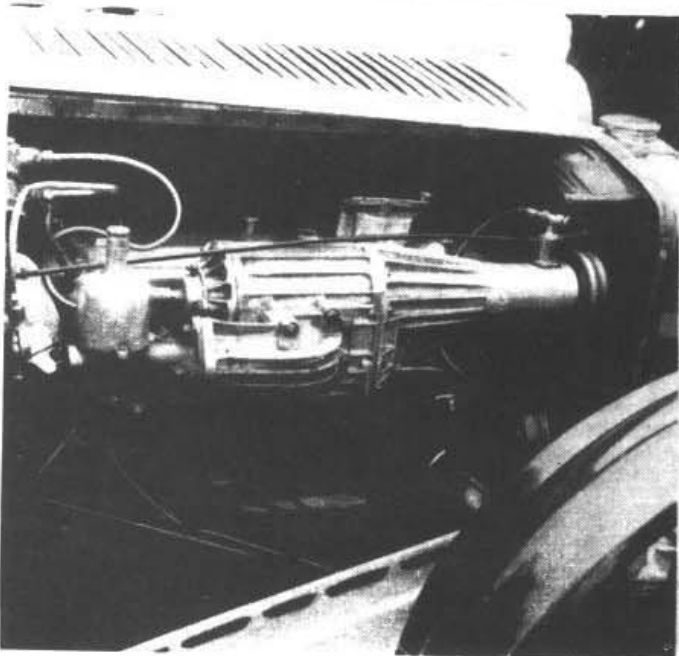
So, now with the bottom end in good order, I can look at the next link in the chain of potential mishaps in getting the power onto the road.

If I was to fit a clutch from an E-type Jaguar I could . . .

Ray Brown.

(Interesting, but what about that two-speed blower installation? And who can tell us about those Triumph Bonneville con-rods which are said to fit our 1 $\frac{3}{8}$ " big-end diameter cars?. Ed.)

Two more MMM specials. On the left, the engine room of Aramis, a pre-war special of the very best kind; and on the right, Tony Dolton's J2 as seen in 1972 with blown P-type engine.



THE PARNELL K3

In 1933 the late Robin Mere, at the time Competitions Secretary of the M.G.C.C. and owner of a C-type and an F-Magna, decided to buy a K3. The car was delivered in time for the second Donington meeting, where Mere was somewhat overwhelmed by the opposition, and then a valve dropped. He drove it in the Mannin Beg, when all the K3s broke their differentials and he followed suit. There was a plan to drive it in the T.T. but this did not come to anything because Mere was "second driver" to Hugh Hamilton in the J4. Actually, he did not get a drive.

Hamilton drove the K3 at Brooklands, including the 500 miles Race and then modified it—presumably at University Motors where he was a salesman—to a single seater. The first half of 1934 was very successful, culminating in the fantastic win in the Coppa Acerbo Junior Race, ahead of two other K3s.

Hamilton was killed in a Maserati at Berne shortly after, and Mere sold the car to R. T. Horton who used it as a second car to the "banana shaped" single seater. Eventually—early in 1935—he sold it to Reg Parnell.

Parnell ran it as it was in 1936 and then fitted the twin-cam engine for 1937. The 'head was developed along the same lines as that for the R-types by Mc-Evoy. A high boost was used and, presumably, a special bottom end was indulged in at this time, as standard K-rods bend nicely with a 15 p.s.i. boost and even R-type ones "only" stand 25 p.s.i. The car was easily distinguished from its earlier guise as the exhaust pipe came from the wrong side of the bonnet.

Parnell had a nasty accident which resulted in his losing his racing licence in 1937 and Bill Everitt—the Q-type king—drove it in early 1938.

A. F. Cudden-Fletcher was the next driver, completing the 1938 season. Parnell then adapted a Lancia Augusta front suspension to the car during 1938, which involved some pretty drastic chassis stiffening. In this form Fletcher won the 1,100 cc class in the 200 Mile Race and the B.R.D.C. Road Race as the major successes.

Cudden-Fletcher gave up racing and Parnell sold the car to Ian Nickols, now a respected journalist, Parnell having built a new special. Nickols fitted hydraulic brakes and started racing with it early in 1939. Then came the war. He ran the car in the first post-war race meeting at Gransden Lodge, where it won the 1,100 cc Race.

The car was run consistently, though without further success through 1947, 48 and 49, eventually be-

ing sold to J. H. Webb. Webb ran the car through 1950, his best performance being third in the Seaman Trophy Race at Silverstone.

After this, a special builder called Turner bought the car and put the engine in one of his chassis. I do not know whether the car was successful and care not, for he sold the engine to an American and the rest of the car to someone else.

The engine is now owned by Harry Crown, whom I believe intends to do nothing with it.

The car is in England, also owned by someone who intends to do nothing with it. It now sports a KD engine and gearbox and a belt-driven blower. The car even turned up at a V.S.C.C. meeting around 1966, but the owner was not really interested.

It would be rather nice to have the car and engine re-united and racing again. This writer has had a go but each of the owners do not wish to sell their respective parts; which is a pity.

Maybe one day?

Mike Allison.

Bibliography

J. W. Thornley: "Maintaining the Breed", 1971 edition, M.R.P.

R. M. Mere: "M.G.s in the 1930's", MMM Bulletin no. 16, 1964.

P. Hull: "History of the V.S.C.C.", Cassell, 1964.

D. S. Jenkinson: "Racing Car Review, 1950", Grenville, 1951.

Also conversations with the late D. C. Pitt.

Editor's Note

All this started from the remark in the 1972 Year Book asking for the whereabouts of that twin-cam K3. Apart from Mike's article above, Ray Witcher wrote an interesting note on the car. Ray used to work on the car in the 1950's when the engine was in the Turner chassis. At that time it was owned by two brothers, John and George Rolls. They lived in the Newbury area and raced it with little apparent success. The Turner chassis had steering trouble which later led it to crash and the car was never repaired. It was at this point that the engine was sold to America. It would therefore appear that Mike's narrative has a missing link here and Turner sold the car to Rolls' who sold it to America. Of course Turner could have sold the original K3 chassis separately to someone who fitted the KD engine. Whatever it was, the end result is the same sad.

M.B.H.

OVERHAUL OF THE OIL PUMP

The symptoms of a worn oil pump are very similar to those of worn big-ends and main bearings; i.e. oil pressure, although acceptable when the oil is cold (and thick) drops off markedly when the oil is warm and the revs are low. Therefore, if your oil pressure is still not good when you have just had a big-end and main bearing job done—suspect the oil pump.

When new, the end clearance of the oil pump gears was about 0.0005 inches (half a thou'). When the end clearance is worn to between 0.005 and 0.010 inches it is definitely time for action although one case of no less than 1/32nd inch was quoted to me when I was technical adviser.

The routine to follow is:—

- 1). Remove the pump from the car.
- 2). Remove oil pump cover and any remains of jointing.
- 3). Measure the end clearance by placing a steel straight edge over the pump body and placing feeler gauges between it and the gears.
- 4). Take out gears. The pin holding the skew gear on the end of the drive shaft will have to be driven or drilled out.
- 5). File down the pump body **evenly** all round. At frequent intervals, wash out with petrol, replace gears and measure the clearance with a straight edge and feelers across each gear and across the centre length of the pump. This will give a check to see that metal is being removed evenly all round the body of the pump. See figure.
- 6). When the measured clearance is such that the thinnest feeler only will pass through (0.0015" on my gauges), grind the pump body using valve grinding paste and a piece of plate glass until all the file marks have disappeared.
- 7). Strip pump (i.e. pressure relief etc.), and clean thoroughly with petrol.
- 8). Make a gasket of thin brown paper (this will be about 0.002 inches thick)—you do not have to measure it unless you have a micrometer handy and not many of us have.
- 9). Assemble pump and gears and end cover "dry"—no gasket goo.
- 10). Check that the gears turn freely. At this stage your clearance will be as much as you had on completion of the filing (could be about 0.002") minus what you ground off on the plate glass (could be up to 0.005") plus the thickness of the paper gasket (say 0.002"). Thus it is possible that the gear will foul the pump cover and be stiff to turn.
- 11). If the gears are free—reassemble with jointing compound and refit to the car.
- 12). If the gears are stiff to turn, make a new gasket in a slightly thicker paper and reassemble using this gasket in place of the first. Really thick brown paper is about 0.005 inches thick and post cards are up to 0.010 inches thick. If your filing was done properly a medium weight paper should give you free running and your end clearance as assembled should be 0.001" or less.

These notes apply to the J2 pump. Pumps on the big camshaft models (P, Q, R, K, L, and N) differ in detail but not in principle.

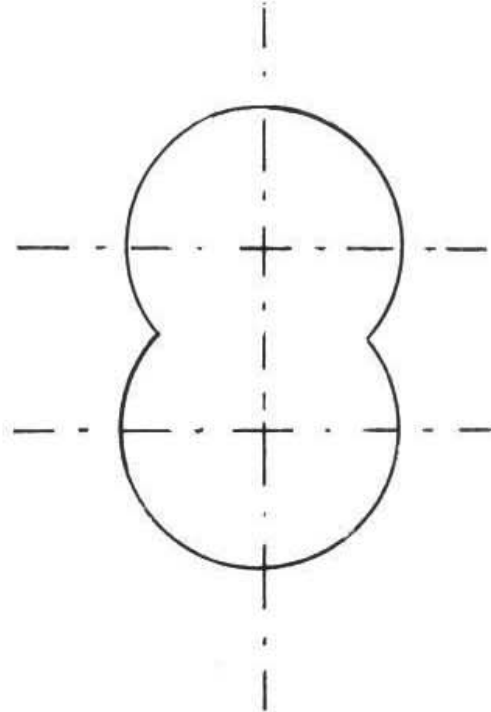


Figure.
Measure clearances along the three dotted lines. (Para. 5).

Long Thin 12 volt Batteries !!

for

J. P, L, F TYPES

(with 2-year Guarantee)

are available at

£8.95 exchange

from

**MOTOR MASTER
BATTERIES**

(S. W. Dear)

**138 Lower Ashley Road,
Bristol BS2 9PR**

Telephone: 551568/558390

CALLERS ONLY, PLEASE

OTHER ODD SIZES

including correct 6 volts for N Types
Exchange MMM Dynamos £12, etc.

M.B.H.



**For all
wheel
problems
contact :**

**MOTOR WHEEL SERVICE
AND REPAIR CO**

that include: wire, pressed steel,
alloy road, race and rally wheels,
motor cycle and commercial re-
pairs, conversions, supplies.

**71 Jeddo Road, Shepherds Bush,
London W12
Tel: 01-749 1391/2**



GETTING THE THREAD

I have recently been involved in making a set of studs for my P-type cylinder head (not cylinder head studs but manifold, camshaft, etc.). I have talked to a number of people in engineering in particular one gentleman who used to race a PB in the Club many years ago and who is now a director of a large company manufacturing and designing aerospace components. My conclusions are as follows.

We often hear of Triple-M owners whose engines have broken in some way or other, especially in the case of supercharged or high compression engines. In a number of cases this is simply due to the failure of a mere nut or bolt or stud and leads to some nasty results such as con-rods coming out for air, broken crank, loose flywheel, damaged head, or some other extensive repair job. Failure of bolt or stud can be avoided.

When rebuilding an engine it is best to throw away all old nuts and bolts and replace them with new high tensile ones. Old nuts and bolts are not high tensile. In the 'thirties they tried to improve their tensile strength by heat treatment. This was achieved at the expense of the elasticity of the metal, making it brittle and liable to snap. Anyone who has tried to remove rusty old manifold studs will tell you. When you buy new bolts, do not think that the black finish means that it is high tensile. Ask specifically for high tensile items and make sure you get them. They may have to be ordered because B.S.W. and B.S.F. are not as readily available as they once were. At a squeeze, U.N.C. will replace B.S.W., there is a five degree difference in the angle of the face on the thread. A B.S.W. die can be run down the bolt without any damage.

So much for nuts and bolts, now for studs. If you can get them made up ask for them to be made in S96. If this is unobtainable, EN24 or EN16 will do, but S96 is best. Avoid anything extremely strong or you will find yourself stripping the threads in the block or head. If the threads in the block are extremely worn, have them helicoiled. This may seem rather a lot but I think that you will find it worthwhile. It is certainly a lot cheaper than a new crank or block weld.

As a last point, do not use a six foot tommy bar when tightening nuts. I cringe when I see supposed mechanics with two feet against the block and two hands on the spanner. Over tightening is as bad as leaving things too loose. Use the torque figures where they are available.

I hope this is of some use to those who are about to start on engine rebuilds.

Adrian Mott.

(And a comfort to those who have just completed them too. Ed.).

David Bennett's P-type makes its competition debut at the California Cup at Silverstone, in which it was a member of the Register's team which gained third place.

As you can see, it is finished in chocolate and cream in the style of a Cream Cracker (and what better colour scheme?). This gave rise to the following conversation at Wiscombe.

Small boy (not one of mine I'm glad to say):—"That's one of Mr. Dear's Cream Crackers".

Self:—"No, it's Mr. Bennett's PA and its not a Cream Cracker, even though it's painted like one".

Small Boy:—"Yes it is. Mr. Dear owns all the Cream Crackers and he has only lent that one to Mr. Bennett".

WHAT DO WE GET FROM TUNING?

1. This piece is a rewrite and amplification of notes which appeared in various Triple-M Bulletins. The background assumption is that your engine is in reasonably good condition, particularly in respect of valves, live gear and camshaft. This is possibly more true nowadays than it was a few years ago, but

2. Many of the remarks made, especially when quantifying increases in power, apply to **small** changes and become less accurate as the changes become larger.

3. Swept Volume

The greater the swept volume of an engine, the more power it is likely to produce (all other things being equal). Thus, if we have an engine of swept volume V_1 and increase it to V_2

$$\text{New power} = \text{Old power} \times \frac{V_2}{V_1} \dots\dots\dots (1)$$

4. Naturally this will apply best to **small** changes. If the increase is too great an increase, carburettor and valve sizes may need to be increased pro rata to get the full benefit, and, if these components were a bit on the small side in the first place, no increase in power at all may be realised. However, for boring your 847 cc PA out to 939 cc this equation is approximately correct. (But see para. 17).

5. It is not generally appreciated that nearly all 500MM engines can be bored out to 60 mm bore. The 500 breather PA blocks are identical to the PB so can obviously be treated in this way. Even the J2 (and hence the M, D, C, and F) can be converted to 939 cc by boring right out and fitting a 60 mm liner—which may be semi-wet. Many of the 6-cylinder cars have been bored out to 1,408 cc and possibly more as some PBs have seen bores of 62.5 mm (1,018 cc) and I have even seen a PB quoted as being of 1,044 cc. Both Geoff Coles and Steve Dear can give practical information on such an operation.

6. Revs per Minute

Engines have their peak power quoted at a specified r.p.m. In the case of many MMM cars this is 5,500 r.p.m. To rev. the engine any faster will not produce any more power because the engine cannot inhale the fuel/air mixture fast enough and each power stroke comes weaker. If the breathing of the engine can be improved by port profiling and polishing and matching, different valve timing, different camshaft contours, different carbs, etc., so that it sucked in mixture at, say 6,000 r.p.m., as efficiently as it did previously at 5,500 r.p.m., then the peak power would be improved in the ratio 6,000 to 5,500 (or by 9%).

7. Needless to say, this statement contains a great many "ifs". We will return to some of them later.

$$\frac{\text{Power at revs. (1)}}{\text{Power at revs. (2)}} = \frac{\text{Revs. (1)}}{\text{Revs. (2)}} \dots\dots\dots (2)$$

8. Compression Ratio.

The thermal efficiency of an engine depends upon a great many factors some of which we cannot alter. One which can be changed and is popularly believed to be the gateway to vast power changes is compression ratio. Alter the compression ratio and you alter the thermal efficiency (the work obtained for each pound of fuel burned). Hence, for better or for worse, you alter the power that the engine will produce.

9. The term in the formula for the thermal efficiency of an internal combustion engine which involves the compression ratio is:—

$$1 - \left(\frac{1}{r}\right)^{(n-1)}$$

r = compression ratio

and n is 1.3 approximately for a petrol engine

10. Calling this expression "e" we can produce a table thus:—

r	e
5.5	0.400
6.0	0.415
6.2	0.420
6.5	0.430
6.8	0.437
7.0	0.442
7.5	0.453
8.0	0.464
8.5	0.474
9.0	0.483
9.5	0.491
9.8	0.496

11. Thus, providing that no horrid symptoms like pinking, knocking, detonation, holed pistons or broken cranks occur, raising the compression ratio raises the thermal efficiency.

12. If the ratio of an engine is increased from 6.2:1 to 8.0:1, "e" changes from 0.420 to 0.464. If nothing else is changed the power will be increased in this proportion. We will have increased the compression ratio (and hence the stresses on the bottom end of the engine) by 29% but the increase in power is only 10%. Thus, although raising the compression ratio is an easy way to boost the power of an engine, it is rather hard on the crankshaft and connecting rods compared to other methods. (J2 owners please note).

$$\frac{\text{Power at } r_1}{\text{Power at } r_2} = \frac{e_1}{e_2} \dots\dots\dots (3)$$

13. When the compression ratio is increased, the rate of burning of the mixture in the combustion chambers is increased. Thus, it may be necessary to retard the ignition. Look in "Blower" and you will see that the NA, with a c.r. of 6.2:1 sets its spark at 20 degrees B.T.D.C., while the NE at 9.8:1 is set at T.D.C.

14. The relationship between ignition advance and compression ratio is not linear. However, up to about 7.0:1 no re-setting should be required. At about 8.0:1 about 15 degrees B.T.D.C. should be about right. Actual running of the engine will indicate the best setting if you have taken a really big slice off the cylinder head (rather you than me).

EXAMPLES

15. You can check the truth of this so far by working out some examples with a known answer

16. Example 1.

The J2 engine has a swept volume of 847 cc, a c.r. of 6.2:1 and produces 36 b.h.p. at 5,500 r.p.m. What power can be expected from the C type with AB head (same pattern at the J2), 9.8:1 compression ratio and 746 cc swept volume at 6,400 r.p.m.?

It should be noted that the C-type had relatively improved breathing in that it had a smaller swept volume and larger (1½ inch) carburettors compared to the J2.

Answer: $36 \times \frac{6,400}{5,500} \times \frac{746}{847} \times \frac{0.496}{0.420} = 43.6 \text{ b.h.p.}$

\uparrow \uparrow \uparrow
 (1) equation (3)

Quoted power of the C-type is 44.1 b.h.p. at 6,400 r.p.m. so, even though some of the changes (particularly in respect of compression ratio) are not "small", the answer is not badly inaccurate.

17. Example 2.

The PA engine has a swept volume of 847 cc and a c.r. of 6.2:1 and produces 36 b.h.p. at 5,500 r.p.m. What power can be expected of the PB engine having a swept volume of 939 cc and a c.r. of 6.8:1?

Answer: $36 \times \frac{939}{847} \times \frac{0.437}{0.420} = 41.6 \text{ b.h.p. at 5,500 r.p.m.}$

Quoted power of the PB is 43 b.h.p. at 5,500 r.p.m. This answer is disappointingly inaccurate as we have in this case, made only small changes and would therefore hope for our simple equations to be a close approximation to the real thing. A clue may be found in "Maintaining the Breed" where John Thornley says "Initially, the improvement of power output derived from these changes was disappointing, and it is interesting that this was rectified merely by an alteration in the width of piston ring. The rings used for the original test were 0.078 inches wide and the resulting power was 39.9 at 5,500. Substitution of rings 0.093 inches wide improved this to 43.3 b.h.p. at the same engine speed."

18. This merely demonstrates the care with which predictions must be made. But let us make some.

19. Example 3.

The compression ratio of a PB engine is raised from 6.8:1 to 8.0:1. No other alterations are made. What power can we expect from the engine now?

Answer: $43 \times \frac{0.464}{0.437} = 45.7 \text{ b.h.p. at 5,500 r.p.m.}$

20. Example 4.

The NE has a modified valve timing with greater overlap than the other o.h.c. MGs. Quoted power is 44.3 b.h.p. at 6,500 r.p.m. on a c.r. of 9.5:1. Power at 5,500 r.p.m. is 68.4 (see power curve in "Maintaining the Breed"). Assuming that in all respects except valve timing and c.r. the NE cylinder head is the same as that of P.A., what power could be expected of a PA with NE type valve timing, no other modifications being made?

Answer: $68.4 \times \frac{4}{6} \times \frac{0.420}{0.491} = 39.3 \text{ b.h.p. at 5,500 r.p.m.}$

Note: I believe that 4 and 6 cylinder type camshafts with NE timing are available from the spares sec. at the time of writing.

21. Example 5.

The above car is now bored out to 60 mm ± 0.060"

5,500 r.p.m. (see later for more of this). What is now the expected power?

Answer: $68.4 \times \frac{4}{6} \times \frac{986}{847} \times \frac{0.464}{0.491} = 50 \text{ b.h.p. at 5,500 r.p.m.}$

It can be seen, therefore, that there is quite a struggle to make one of our unblown four cylinder engines produce 50 b.h.p. (read 75 b.h.p. for the six cylinder types). How, then, is it that some of these speed shops appear to make 100 b.h.p. per litre a simple matter for hot engines? The answer lies in breathing and some aspect of this will now be discussed.

22. The Inlet Tract.

Ideally this should be straight and gradually tapered down to the inlet valve seat. Of course, it is not.

23. Adding four Amal carburettors instead of two S.U.s will eliminate two right-angled bends and have a beneficial effect. The only data I can offer on this topic is that Mel Jones' J2 improved its Silverstone lap times from about 1 min. 37 sec. to 1 min. 31 sec. with this modification. As far as I know, no other significant modifications were done concurrently. Later, the car got down to 1 min. 27 sec. or so in this form. However, if we draw the conclusion that this mod., properly done, is worth a 6% improvement on lap times we will not be wildly inaccurate.

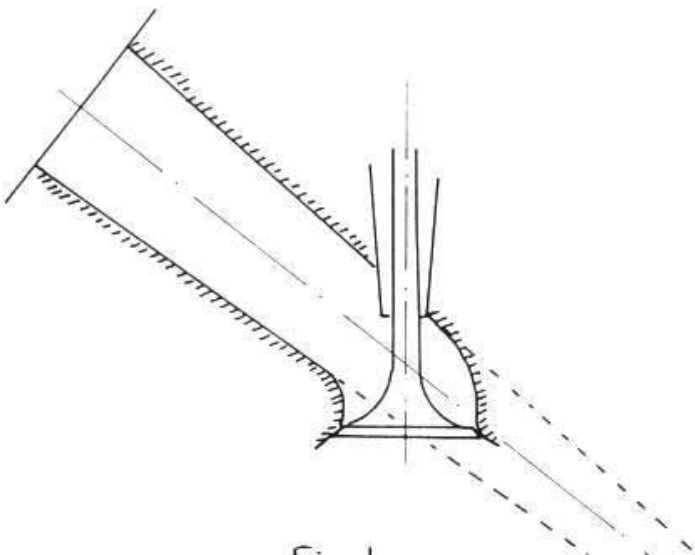
24. Chris Lawrence fitted six Amals to Porthos when he was chasing Loti and Coopers in the late nineteen-fifties.

25. However, the improvement comes in spite of the shortcomings of the system. Let's get back to the gradually tapering inlet which is the ideal required, (see fig. 1).

26. Compare this with the J2 where we have areas of cross-section at various points on the inlet tract like this:—

Carburettor (¾" diameter S.U.) at venturi	= 0.55 sq. in.
Manifold at joint with carburettor	= 0.60 sq. in.
Manifold at entrance to inlet port	= 0.80 sq. in.
Inlet valve fully open	= 0.60 sq. in.

27. If one polishes the inlet ports on the cylinder head and matches the joins at the head and manifold, one may, in theory, be helping the inlet gases on their



headlong rush to the pot but one will be opening out that 0.80 sq. in. dimension even more and moving away from the gradually tapering ideal.

28. What is really needed, preferably in the following order, is:—

- 1) An increase in inlet valve opening area, up to about 0.75 sq. in.
- 2) An increase in carburettor size.
- 3) Reshaped inlet manifold.
- 4) Polished and matched inlet manifolds and ports.

29. The Inlet Valve.

The problems here are threefold:—

1) On the J the valve lift is too small (0.27 inch). This was improved on the L, P, K, Q, N, and R types to 0.31 inch but this is still too little even in an idealised situation as shown in fig. 2. Paradoxically it was 0.282 inch on the M, D, F, and C (AA head) types.

2) BUT the valve circumference is shrouded for three-eighths of its length by the wall of the combustion chamber. This is so for all models. (Fig. 3). Thus, in our case the area available for inlet gases to pass through at the valve is the shaded area in fig. 4, i.e.

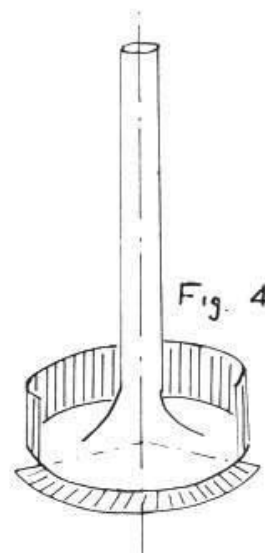
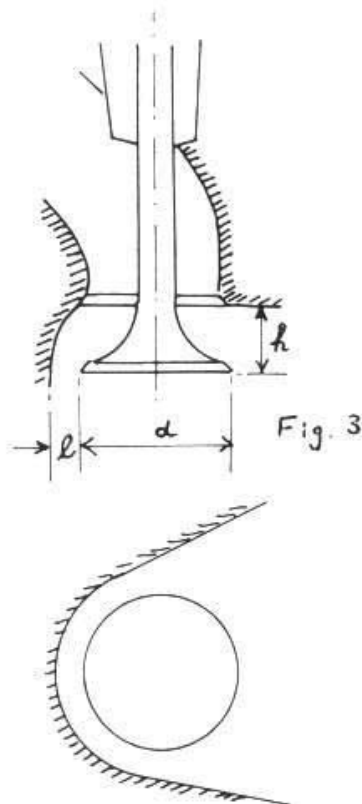
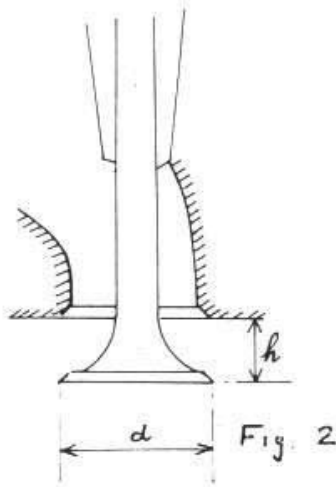
$$\frac{5(\pi dh)}{8} + \frac{3(\pi dl)}{8} \dots \text{and "l" is very small} \dots (5)$$

3) The inlet valve is only FULLY open for part of the inlet stroke of the piston.

30. **Increased Valve Lift**, can be obtained by "backing off" the cam. This is the process of taking off a piece from the back of the camshaft and hence increasing the lift. (Fig. 5).

31. This process cannot be done too violently on our cars because the smaller base circle diameter of the cam alters the required adjustment and hence the geometry of the rockers. This, in turn, alters the valve timing.

32. Additionally the J, C, D, F, and M camshafts might be unacceptably weakened by the process. It is appropriate to mention here that 10% extra lift will increase forces on the camshaft by up to 20%. However, CAM lift is increased from 0.22 inch to 0.24 inch by backing off 0.20 inch and valve lift is increased pro



rata. On the J and C (AB head) lift is increased from 0.27 inch to 0.295 inch and, on the K, L, N, P, Q, and R types, the valve lift is increased from 0.31 inch to 0.338 inch. Has anyone ever done this? If so, what were the results? I must confess that I have tried it. Alas the camshaft was so worn that the thing was a flop anyway. We were one ruined camshaft worse off at the end of the exercise.

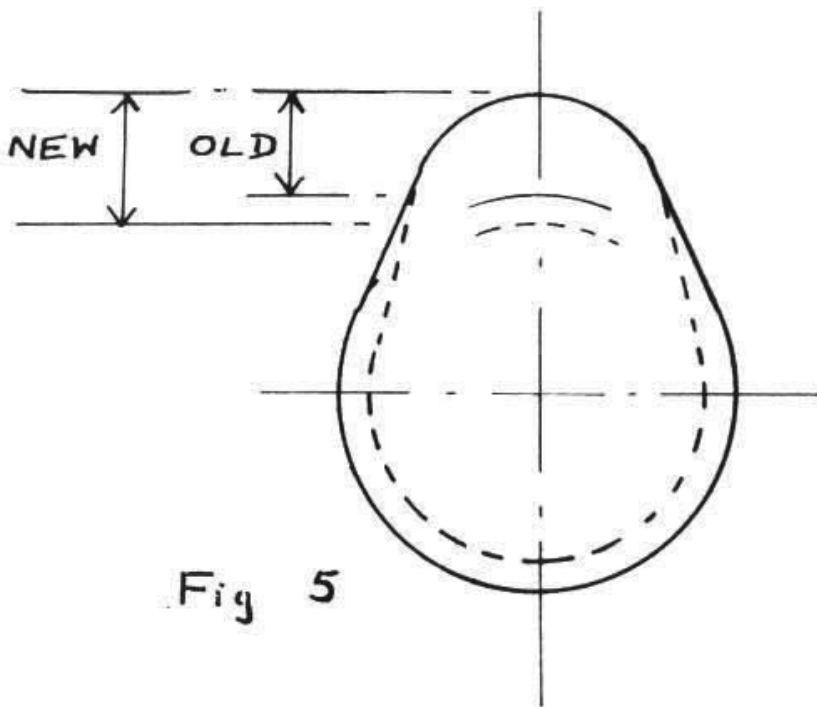
33. **High Lift Camshafts** are the other way to obtain increased valve lift. Leonard Reece has a high lift master cam (0.28 inch of cam lift which represents a valve opening of 0.384 inch) which he claims will give NE valve timing, when applied to an NA cam (and hence to the K, L, P, Q and R). By bitter experience Geoff Coles and I found that this cam profile did not transplant to the smaller base circle diameter of the J cam. We persevered in the attempt and, although I do not think that Geoff now uses his hot high-lift camshaft, I still have mine in modified hand-ground form and believe it to be worth up to three seconds a lap on the Silverstone Club circuit.

34. Precautions to note if this cam is used are:—
 1) If the valve springs become coil bound on opening a spot face grind will have to be carried out on the cylinder head at the foot of the springs. The depth of the grind need not exceed 0.060 inch.
 2) The valves will be getting pretty close to the cylinder block and piston crown at t.d.c. (neither valve should be fully open at t.d.c.). This will need to be checked, especially if large slices have been taken off the cylinder head.

35. **Combustion Chamber Shape.**
 The other constriction, that of the edge of the combustion shrouding the rim of the valve for nearly half of its circumference, is more difficult to overcome. The combustion chamber can be cut away a bit. I have seen 1/16th in. taken off but more would be nicer.

Has anyone ever tried this to destruction on a slave head? If so, what were the results? the principle of the thing is shown in fig. 6.

36. After all this some cutting away of the cylinder wall may be necessary if the kind of situation shown in fig. 7 arises. The top of the block back to the shaded line can be removed but DO NOT go below the level of the top piston ring in your enthusiasm.



Who on earth—in their right mind—would manufacture, and carry stocks of new spares for forty year old M.G's?



SIMPLE! * SPORTS & VINTAGE *

In addition to the largest range of new MMM Spares now available we have many new parts planned for 1973 and details of these may be found monthly in "Safety Fast". Also for 1973 in order to maintain speedy despatch of stock items we plan to introduce Order Forms for Customers use. These should be used for ordering spares only and any queries or requests for advice should be detailed separately together with a S.A.E. We hope that in this way we can continue to give you the best possible service with MMM spares and help when required.

Lists available for M Types; J Types; P Types; N Types—15p each.
 Other models please detail your requirements.

MIKE DOWLEY
 SPORTS & VINTAGE MOTORS (S'BURY) LTD.,
UPPER BATTLEFIELD,
SHREWSBURY, SY4 3DB

Summarising So Far.

If we take the inlet valve diameter as $1\frac{1}{8}$ inch, i.e., $1\frac{1}{8}$ inch actual, less the width of the seats, the areas cross-section of the inlet passage at the inlet valve when fully open will be:—

	J etc. sq. in.	P etc. sq. in.
Standard	0.60	0.69
Cam backed off to 0.020 inch	0.655	0.75
High-lift cam (+0.060 inch)	—	0.85
Cam backed off and combustion chamber wall relieved $1/16$ th inch	0.74	0.83
High-lift cam + chamber wall	—	0.93
Combustion chamber wall relieved $1/16$ inch	0.68	0.77

38. Thus it is possible to obtain a reasonable area of passage at the inlet valve in P types etc. but more difficult in the J type and allied models.

39. Different Valve Timing.

The desirability of altering the valve timing should be mentioned here. The NE valve timing, for instance, is:—

	Inlet Opens	Inlet Closes	Degrees of Crankshaft Rotation
NA etc.	15° b.t.d.c.	55° a.b.d.c.	250°
NE	25° b.t.d.c.	60° a.b.d.c.	265°

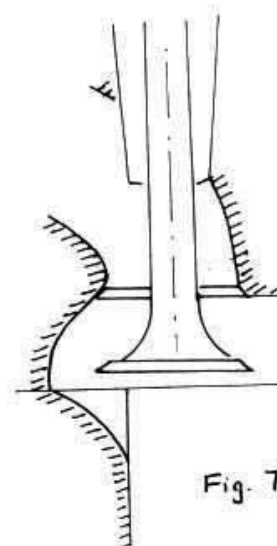
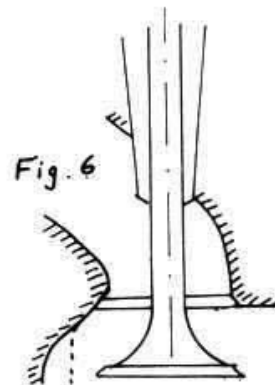
An extra 15 degrees on top of two hundred and fifty does not look much but, remember that this extra is all with the valve fully open (assuming that the opening and closing ramps of the two cams are the same). Thus, as the valve is fully open for barely half the total opening period, the NE timing really represents up to about 15% improvement in valve opening, and should give about 8% to 10% improvement in power at the same engine speed. (See para. 20).

40. M, D, and F type owners might like to reap similar benefits by building up their cams and regrinding to J type profile. Has anyone ever done this?

41. From paras. 20 and 39 it would appear that an X% opening increase of the inlet valve, may increase peak power by something like $\frac{X}{2}\%$. It ought to be possible to use this as a simple rule of thumb, at least for small changes if corresponding improvements are made elsewhere.

42. Thus, from the table in para. 37, possible increases in power from these modifications may be postulated.

	P etc.	J etc.
Cam backed off 0.020 inch	+ 4%	+ 4%
High-lift cam (+ 0.060 inch)	+ 11%	+ —
$1/16$ inch off combustion chamber	+ 6%	+ 7%



43. Now re-read paras. 4 & 6. Interpreted, this means that such power increases will be forthcoming only if other changes are made to improve or maintain the **balance** of the inlet system.

44. The Carburettor.

On a four cylinder engine the firing order is 1-3-4-2. Therefore the two cylinders which draw air from the forward carburettor fire consecutively, (and similarly for the after carb.). Now, cylinders fire at 180 degree intervals and the inlet valve is actually open for 250 or more degrees of crankshaft rotation. Therefore, when no. 1 cylinder begins to inhale, no. 2 is still

breathing in quite hard and is going to do so for a further 70 degrees of crankshaft rotation. The greater the overlap of one's valve timing, the greater the duration of this period of peak demand. Meanwhile the other carb. is sitting idle.

45. The normal method of compensating for this is to fit a balance pipe between the two carbs. It is also a good thing to try to increase the size of the carburettors to allow for this period of peak demand.

46. If we put twin 1½ inch S.U. carburettors on a 4-cylinder engine we have:—

Point in System	Standard area of cross-section sq. in. (for P-type)	Possible modified area of cross-section
Entry to bell-mouth extension, 1½ inch diameter, say.	—	2.41 see para. 47
Bellmouth/carb. join	0.60	1.23
Venturi by jet	0.55	1.10
Carb./manifold joint	0.60	1.23
Manifold/head joint	0.80	1.00 see para. 48
Inlet valve	0.69	0.77 see para. 49

47. A bellmouth extension will give the air a more gradual start to its headlong dash down into the cylinder. They will thus give a better flow over the jets and may thus be expected to provide a small but unidentifiable increase in power. They DO NOT ram tune.

48. This is picked as a mean between the two adjacent readings and assumes that the port on the cylinder head is opened out to 1½ inch diameter and tapered uniformly down to the inlet valve. The manifold is modified to suit and matched to the cylinder head. This figure would have been different if other modifications had been made to the inlet valve.

49. Assumes that the combustion chamber has been cut back by 1/16th inch as described in paras. 35 and 37.

50. Example 6.

The car in examples 4 and 5 has now had its inlet ports modified as in para. 46 and twin 1½ inch carbs. fitted. Assuming that we have now allowed it to breathe as effectively as the NE at 6,500 r.p.m., what power can we now expect?

Answer:

$$74.3 \times \frac{4}{6} \times \frac{986}{847} \times \frac{0.464}{0.491} \times \frac{1.06}{1} = 57.8 \text{ b.h.p. at } 6,500 \text{ r.p.m.}$$

↑
from para. 42

51. If we choose to increase the lift of the camshaft we could clearly aim for 60 b.h.p. or more if the inlet tract was suitably modified and profiled.

52. The Exhaust.

The remarks regarding the inlet valve apply in reverse to the exhaust valve and systems. Valve timing, valve opening and combustion chamber walls can all be altered in a similar way.

53. **The Exhaust Pipe System**, is capable of improvement but I have no idea how many extra b.h.p. are likely to be obtained from such modifications. Probably the effects are similar to bell mouth extensions on the

54. In descending order of merit systems may be classified thus:—

- 1) A 1-4 and 2-3 pairing as on modern racing systems.
- 2) A 1-2-3-4 faired system as on the J4.
- 3) A bunch of bananas as on the PA.
- 4) A cast manifold as on the J2.

55. I have a very nice bunch of bananas manifold for my J2 which seems to make no noticeable difference compared to the standard system; (apologies to Mike Ellman-Brown who gave it to me years ago). However, one feels that some difference there must be. Has anyone any experiences to add?

56. **Six Cylinder Engines.** Going back to para. 44, the firing order for a 6-pot model will be 1-4-2-6-3-5. Therefore, in contrast to the four cylinder engine, demand for inlet gases is made on alternate carbs. (in a two-carb. system). Cylinders start their inlet valve opening at 120 degree intervals and therefore demands are made on individual carburettors at 240 degree intervals. Therefore the peak demand period of the four cylinder engine does not occur.

57. Behold, I tell you a mystery. Why does the six-cylinder engine have larger carburettors than its four cylinder counterpart? E.g., 1 inch carbs. on the PA compared to 1½ on the NA. It would seem that they should have the same size of carb. for the same size of cylinder at any given state of tune. Nevertheless, while it would seem that NA owners could safely retain their standard carburettors while their P type brethren are gaily looking for something bigger than one inch in diameter, if straight comparisons are to be made with the NE for the purposes of estimating power output resulting from modifications, they will be closer if 1½ jobs are fitted. Can anyone comment on this please?

58. Keen-eyed readers will have noticed another paradox in the text so far. "Why", they will say, "does the PA have exactly the same quoted power output as the J2 when it has a larger valve opening (paras. 29 and 37) and a better exhaust manifold (para. 54)?"

having extra and bigger bearings in the crankshaft and the camshaft and more crankcase windage—ask a J2 owner who has fitted a Laystall crank. Also, the equal power at the piston may not be much more because the improvement of inlet valve opening was not offset by changes for the better elsewhere. See pages 26, 28 and 37. The inference is that a pair of 1 1/2 inch S.J. carbs (ex Frog-Eyed Sprite?) bolted right onto a PA or PB might produce an immediate small power increase without any other modifications.

60. Summary So Far.

These are laid out in the table. This is full of personal preferences. For instance, I do not like high compression ratios. DG 5405 ran on an 8:1 c.r. at one time but it is now back to a little under 7:1. Ratios of the order of 9.5:1, although possible, put a very great strain on the engine for the extra power realised. 8.0:1 has therefore been taken as a maximum to which it is useful to go. It is also assumed that M type owners who are after a little extra power will have already equipped themselves with the later M type camshaft which was fitted to engine 2023 and thereafter.

Model	Standard Power Quoted	Bore out to 60 mm	Relieve Comb Chamber Walls to 1/16" around valves	Mod. Cams	Fit Big Carbs	c.r. to?	Polish, match and taper ports, etc.	Possible Resulting Power
0	27 at 4500	Yes	Yes	No	No	6.8	Yes	34.8 at 4500
D				Yes	No	8.0	Yes	36 at 4500
vs				J2?				
ark				No	2 x 1 1/4"	6.8	Yes	44 at 5500
J2	36 at 5500	Yes	Yes	Back off	2 x 1 1/4"	8.0	Yes	48.5 at 5500
J2?				020				
ve								
ark								
A	36 at 5500	Yes		NE	2 x 1 1/4"	8.0	Yes	58 at 6500
S	43 at 5500	060"						
	37 at 4100	Yes	Yes	No	2 x 1 1/4"	6.8	Yes	47 at 4100
	41 at 5500							70 at 6500
1100	41 at 5500	Yes						70 at 6500
1100	39 at 5500		Yes	NE	2 x 1 1/4"	8.0	Yes	70 at 6500
12711	48 at 5500	060						86 at 6500
A, NB	56 at 5500							86 at 6500

62. Those who are intoxicated by the thought of an 80 b.h.p. and 100 b.h.p. NA will be matched by those sceptics who wonder why we are messing about with such silly numbers. After all, this is barely 60 b.h.p. per litre and funny Formula Ford (sorry to use that word) cars with 22 mm diameter orifice restrictors fitted in the inlet manifold manage between 80 and 100 b.h.p. per litre. How do they do it? The answer (or at any rate part of it) is in ram tuning.

63. **Ram Tuning.** Much is said about "ram tuning" but few understand it. This merely means that the natural frequency of vibration of the column of air in the inlet manifold is such that the oscillation which is set up as a result of the suction impulse created by the opening of the inlet valve and the piston rushing down the cylinder becomes a pressure wave just as the inlet valve is closing. The result of this is that there is an extra large jet of air passing through the inlet valve just as it is closing. The natural frequency of vibration required can be calculated if we decided on the r.p.m. at which we wish to ram tune and the valve timing is known. But we cannot calculate the natural frequency of a given inlet manifold system because it varies to an unknown extent upon such things as length, diameter (not uniform), bends, temperature, pressure, interference between cylinders, etc.

64. The only way to get ram tuning really right is to get it nearly so by previous successful practice and

make and modify manifolds and things at will, testing each variation precisely, we might as well forget this.

65. If any MMM chap is lucky enough to have the run of such facilities (ha, ha), he might start by testing a standard engine and following a path outlined in the previous pages, letting us know how accurate the predictions and assumptions have been. He might then try some more sophisticated tuning techniques and tell us how to get even more urge from our engines without buying a supercharger. Which brings us to...

66. **Supercharging,** which is the way to really get power from our engines.

67. Before going any further, it may be appropriate to mention that your scribe has never fitted a supercharger to his car (but just you wait). Therefore I will not mention any of the practical points like stiffness of mounting brackets, sizes of belts and pulleys, layout of manifolds, choice of carburettor needles, problems of methanol mixes and at what pressures these fuels become desirable. Rather I will plead ignorance on these matters and ask for articles on actual installations which have been put on to MMM cars. Would-be supercharger men are recommended to visit events where supercharged MMM cars may be expected to be desporting themselves. For justification of this coward's way out I would refer you to the title of this piece.

does not necessarily apply from here on. In passing it is interesting to note that the fitting of a supercharger on a P or an N type in pre war days did not invalidate the works guarantee provided that the pressure did not exceed six pounds per square inch.

69. A summary of some of the superchargers which are available or which I have seen installed on MMM cars is given in the table below. There is also some gen. on our old friend "Blower" (an appropriate name).

Make	Type	Availability	Driven from	Remarks
Marshall	Rootes	Sold in kit form pre-war. 'Z75 model for J and P types and size 85 for K and N types. Type 85 was standard on 1934 K3. Sold as kit for T types post-war, type J75 being a most the same as LZ75. Many ex-W.D. cabin blowers are of the same type. Manufacturing rights are held by Sir George Godfrey and Partners.	Nose of crank or by belts, both methods can be seen in use.	All Rootes type blowers give a good boost at all revs. They are therefore good for fitting to road or all round competition cars. They are efficient (i.e. they do not absorb much power) up to pressures of 15 lb./sq. in. Above this they are not so good in this respect and above 18 lb./sq. in. or so they are no good at all. Hence the need for two-stage layouts on cars requiring really high pressures and using this kind of blower.
Wade	Rootes	Type R010 sold in kit form for T types post-war. A big Wade is currently sold by Allards. Also used on several diesel engines and can be found as ex-cabin blower.	Ditto.	
Powerplus	Vane	Fitted to C, J3, J4, and 1933 K3 in various sizes. Not as good as later vane types in reliability or in efficiency. Now very scarce and worthwhile only if you want an original installation.	Nose of crank	All vane type superchargers can be used to provide higher boosts (up to 28 lb./sq. in. in the case of the Zoller). Not as effective as the Rootes types at low revs. But this is not really noticeable for some types (50 and 100).
Centric	Vane	Sold pre-war as a bolt-on kit for P and N types and seems to have been used frequently on other cars. Types 125 and 160 have been noted by your scribe. Not many about.	Mostly belt-driven but at least two crank-driven examples in the MMM.	
Arnott	Vane	Type 1600 sold as kit for T types post-war. Not very often seen.	Belt	
Shorrock	Vane	Types C75B and C142B currently sold by Allard Motor Co. Also sold as bolt-on kit for T types. Readily available new or second-hand.	Belt. Not suitable shape for fitting between dumb-irons.	
Zoller	Vane	Fitted to Q and R types as standard. Also available pre-war as bolt-on kit for P and N types. Now rare. The Zoller kit was much more expensive than the Centric and Marshall kits so, presumably not many were sold.	Nose of crank or by belt.	
Cozette	Vane	Never seen one on an MG.		

70. Supercharging was the most popular way to obtain big power outputs before the war and fell out of fashion for political reasons. At high pressures (over 10 lb./sq. in.) cooling problems and all manner of mechanical frailties begin to raise their ugly heads. Some of our cars successfully used much higher pressures and up to 36 lb./sq. in. was pumped into a Q type. At such pressures it is necessary to use methanol used fuels.

71. Atmospheric pressure is 15 lb./sq. in. This simple formula is crude but it works:—

$$\frac{\text{Peak power at } P \text{ lb./sq. in. boost}}{\text{Power unblown}} = \left(\frac{15 + P}{15} \right) \quad (6)$$

72. It should not work because power is lost in driving the supercharger (some of it is recovered when the pressure in the inlet manifold drives the piston down on the inlet stroke) and because the pressure in the inlet manifold of an unblown car is never exactly atmospheric anyway (at least, not on an IMM car). But it does work, possibly because all the inaccuracies cancel each other out. Better is:—

$$\frac{\text{Power at } P \text{ lb./sq. in.}}{\text{Power at } Q \text{ lb./sq. in.}} = \left(\frac{15 + P}{15 + Q} \right) \quad (7)$$

73. **Example 8.** The quoted power of an 847 cc PA on a c.r. of 6.2:1 is 36 b.h.p. at 5,500 r.p.m. What peak power can be expected from the QA which is 746 cc, has a c.r. of 5.5:1, is blown at 28 lb./sq. in. and revs. to 7,200 r.p.m.?

$$\text{Answer: } 36 \times \frac{746}{847} \times \left(\frac{28 + 15}{15} \right) \times \frac{0.400}{0.420} \times \frac{7,200}{5,500} = 113 \text{ b.h.p. at } 7,200 \text{ r.p.m.}$$

equation 6 †

The quoted power of the QA is 112 b.h.p. at 7,200 r.p.m. we are very lucky to have been so close. Try another.

74. **Example 9.** The 847 cc M type produces 20 b.h.p. at 4,000 r.p.m. What power can be expected from the 746 cc C type with AA head and supercharged at 12 lb./sq. in. at 6,000 r.p.m.? The different valve timing will be assumed to allow a breathing efficiency at 6,000 r.p.m. equivalent to the M type's at 4,000 r.p.m. what else can we do anyway?

$$\text{Answer: } 20 \times \frac{746}{847} \times \left(\frac{12 + 15}{15} \right) \times \frac{6,000}{4,000} = 49.4 \text{ b.h.p. at } 6,000 \text{ r.p.m.}$$

The quoted power of the C type in this form is 52 b.h.p. so we are still quite close—our luck is holding.

75. Thus, your PB owner who seeks a modest increase in power to 60 b.h.p. can get it simply by trapping on a supercharger which blows at 6 lb./sq. in.

$$\text{e.g. } 43 \times \left(\frac{15 + 6}{15} \right) = 60 \text{ b.h.p. at } 5,500 \text{ r.p.m.}$$

Compare this with all the rigmarole outlined in paragraphs 1 to 55! No problems should be encountered. If he were doing this in 1936 he would not even have invalidated his guarantee.

and the NA some 90 b.h.p. Pre-war Cream Cracker and Musketeer cars were blown at 15 to 18 lb./sq. in. and the Musketeers were bored out to 60 mm I believe. Well, work out the probable power for yourselves.

77. Never mind about that, suppose all the other mods. we contemplated for an unblown car were to be carried out too.

78. **Example 10.** The NA in example 7 has its own compression ratio reduced to 6.0:1 and is fitted with a blower which delivers at 18 lb./sq. in. What power can we now expect?

$$\text{Answer: } 86 \times \frac{0.415}{0.464} \times \frac{33}{15} \times 169 \text{ b.h.p. at } 6,500 \text{ r.p.m.}$$

79. Before you all rush off to buy Allard-Wade 4R020/4190 blowers for your NAs it would be as well to find someone who can provide you with some Q or R type pattern con-rods. Has anyone any drawings? What about it Mr. Spares Secretary? Reflect that this is lots more power than the catalogue K3 ever had and as much power per cylinder as the Q and R types possessed.

80. On a slightly less elevated plane, it might be possible for someone to market a blower kit based on the Shorrock C75B or C142B in bolt-on form which would puff a 939 cc (or 1,408 cc) engine at a modest pressure of 8 lb./sq. in. In this form and with the standard c.r. of 6.2:1 but using NE valve timing, profiled ports, cut-away combustion chamber walls etc., we could expect about 76 b.h.p. at 5,500 r.p.m. on the PB and 115 b.h.p. on the NA.

81. Such powers might make a few MGBs look a little slow. Good luck to you and please tell me all about your efforts for the 1974 or 1975 Year Book.

M.B.H.

THE TRIPLE-M BIBLIOGRAPHY

Nigel Musselwhite has sent the following additions to the list in the 1972 Year Book.

1. Flat Out, by George Eyston.

Gives the story of the Club President in his early days, told in the first person and giving details of Ex.120, Ex.127 and the Mille Miglia.

2. Motor Racing, by Earl Howe.

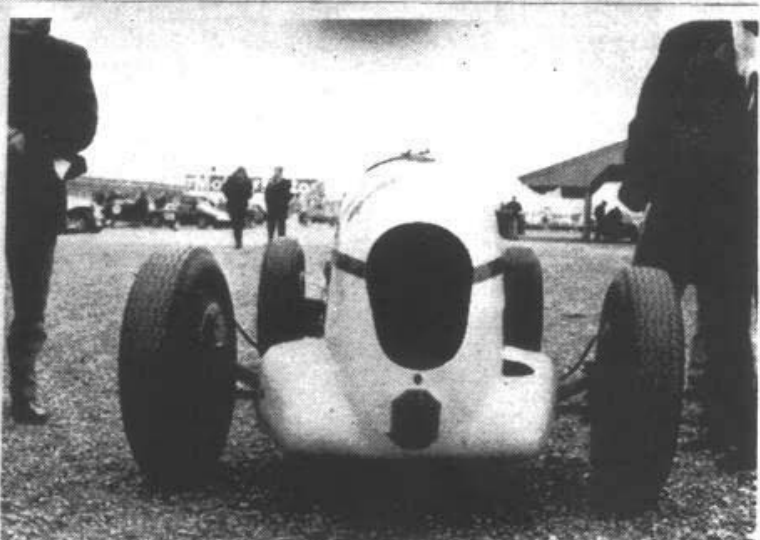
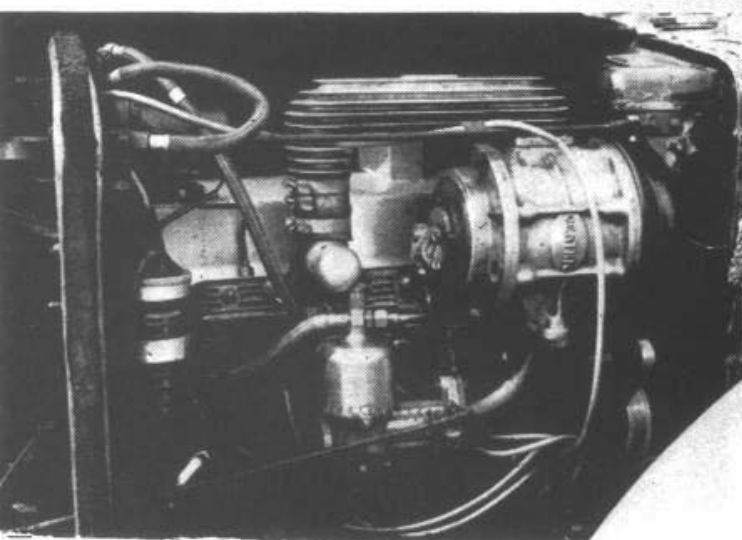
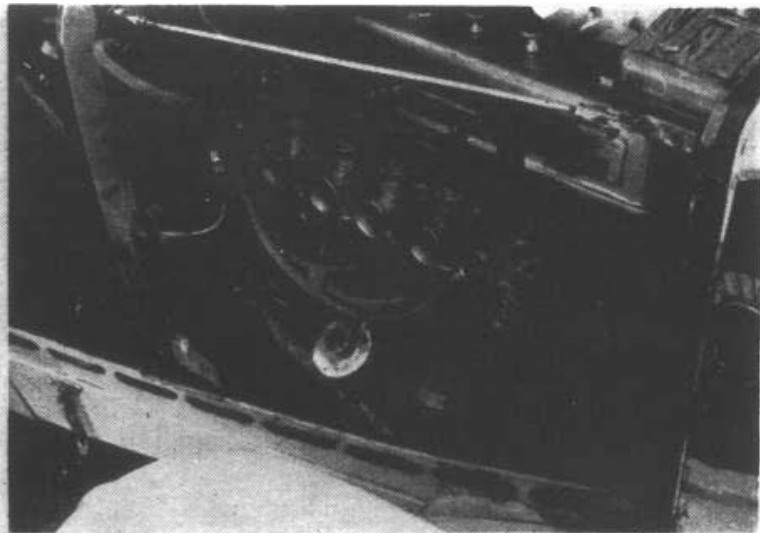
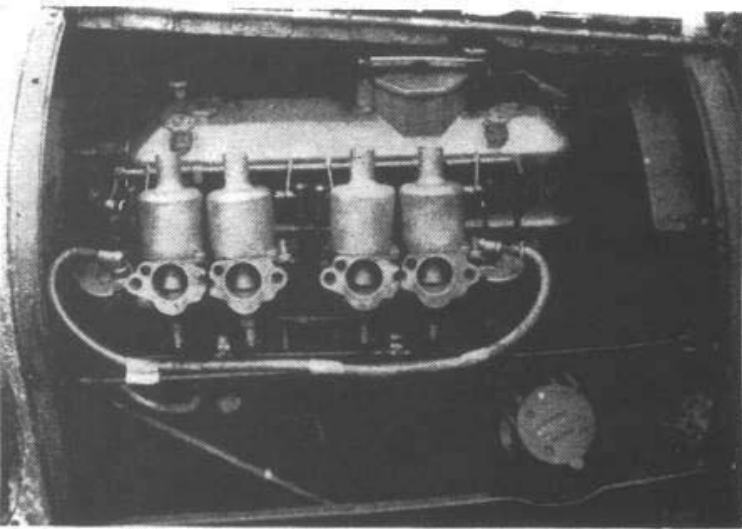
A compendium of information by the experts in their fields, including H. N. Charles. It also gives the pre-war racing fuel mixes and deals with all aspects of racing. There are some good photographs too.

Eds. note: This book was actually first published in the year 1932 under the authorship of S. C. H. Davis. In subsequent years it was re-written many times, the final edition being considerably post-war. It would appear that Nigel's edition is of the late 'thirties).

3. The Sports Car Engine, by Colin Campbell.

A technical book written in non-technical language. If you put it all into practice, "you won't arf go".

4. Sports Car Bodywork, by B. W. Locke.



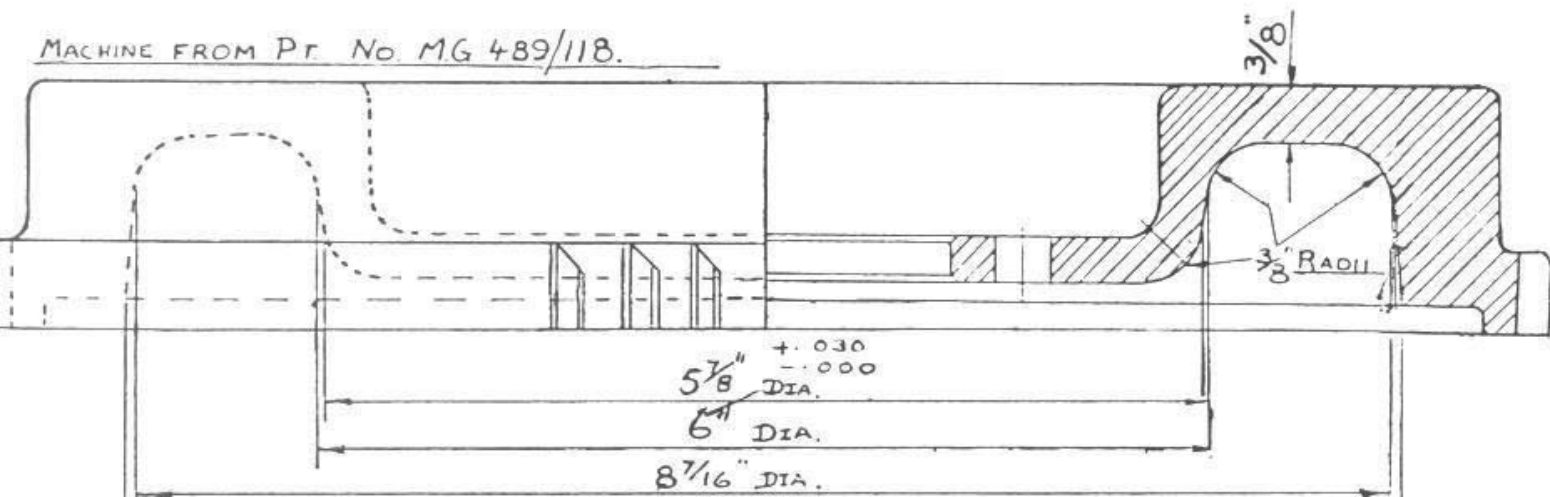
Four approaches to the "go-faster" game. Two twin-choke S.U.s. on John Goodacres single seat PA. It did not go very well and he now has a Wade blower. Mel Jones' J2 with four Amals which did go well although it went even faster when it was given a Centric blower. A belt-driven Centric job on Steve Dear's PB now owned by Paul Fletcher. Finally, a big Marschall peeping coily from the sleek single-seat body of Syd Beer's ex-Harvey-Noble Q-type which lapped Brooklands at over 122 mph.

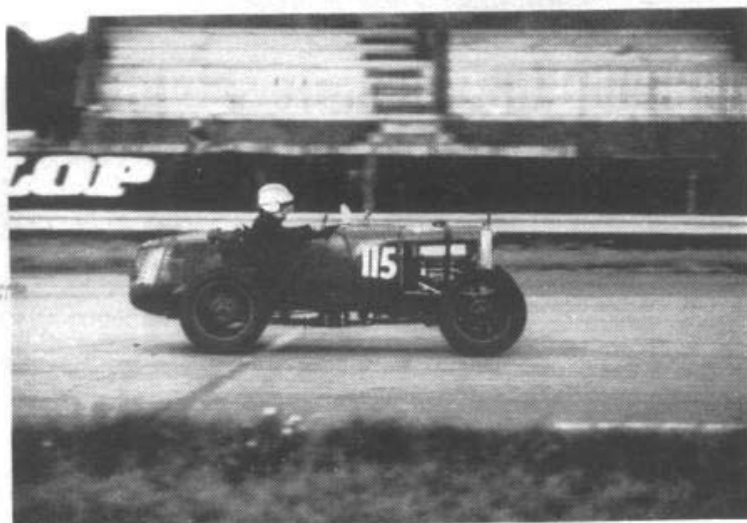
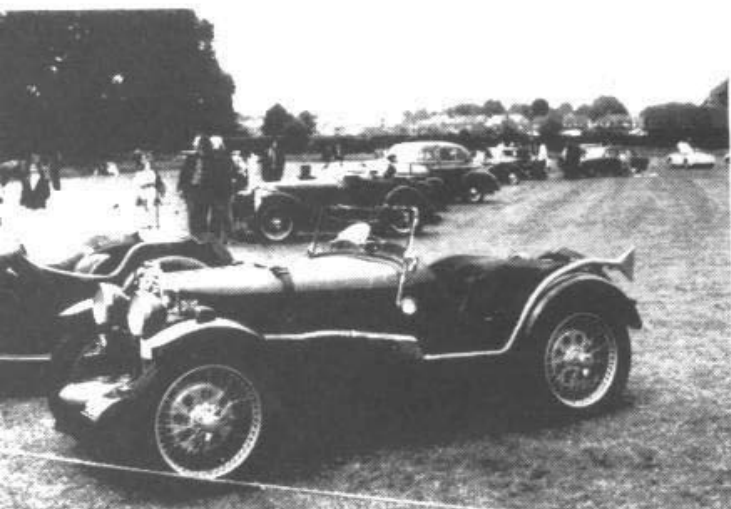
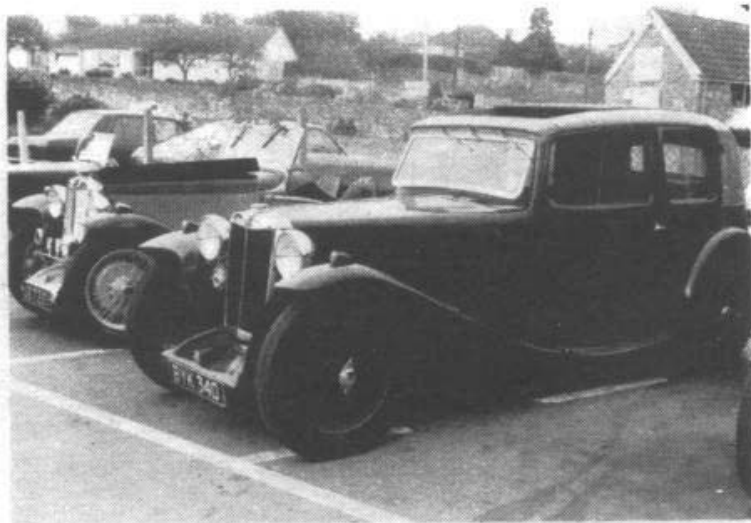
LIGHTENING OF P AND N TYPE FLYWHEELS

We are indebted to Arnold Studley and Steve Dear for this drawing of how to lighten the flywheels of P and N-types. In spite of its scruffy appearance (well, it looked scruffy when I received it but our printers

may have cleaned things up a bit), it is said to be a works drawing. Steve says it has been done to his Cracker JB 3854 and is mentioned in the car's chassis file. The weight saved is about 9 lbs.

MACHINE FROM Pt. No. MG 489/118.





Top left. Four MMM tails at the Silverstone Concours. Can you identify them? The windswept Phil Bayne-Powell should give you a clue in two cases. Top right. Peter Mace's KN Saloon at the Cheddar event, Len Coles' award winning NB is in the background. Bottom left. Geoff Coles' touring J4, and, finally, Mike Dowley urging his M around Silverstone.

1972 CAR OF THE YEAR COMPETITION

Position	Name of Owner	Type	Register No.	Points
1	M. B. Hawke	J2	3	113
2	A. D. Dolton	J2	318	63
3	A. Smith	PB	571	62
4	R. Bateman	J2	768	54
5	C. G. Butchers	NA	438	53
6	J. C. Adams	PA	329	48
7	P. Bayne-Powell	NA	1270	42
8	C. L. Shepstone	PB	433	41
9=	S. W. Dear	PB	1000	31
9=	E. S. Sapcote	F2	644	31
11	E. D. Reynolds	J2	1441	30
12	S. W. Dear	PA	1200	27
13	L. Coles	NB	1266	26

J MIDGET

"My J2 Midget, usual extras. Sacrifice at £730.
Motor Sport."

She: "Look darling, here's a J2 at £730. That's a bit much isn't it?"

He: "No, no, no. That's not a J2. It's a terminological inexactitude. He really means it's a Spridget with 'J' written on it."

She: "Well, our MG has 'J' written on it"

He: "No, no, no. It has a 'J' registration number"

She: "I know people pay a lot for the right thing in registration numbers these days I see lots of them in the "Sunday Times" and it does seem silly to pay the price of a mink for the things and then throw away the old car they are attached to into the bargain just to get a silly old special number even if you have a very bad memory and cannot remember anything but your name or initials or something but you told me that when you applied to Durham County Council that they told you that "J" registrations were not being re-issued these days for fear of confusion with Jersey people who also have "J" numbers on their cars and might for some inexplicable reason leave their holiday island to have a vacation in England so they would not let you have the registration number "J2" even though it might not be in use so how does he get a "J" number on his J2?"

He: (thinking hard to catch up): "No, no, no, it's a "J" suffix. Therefore the car was first registered in 1970/71 and is therefore the current model of Spridget."

She: "Unless, of course, he re-registered his J2 to give it a seven figure number with a "J" in it."

He: Exit in gloom.

TRIPLE-M REGISTER

To: Colin Butchers,
21, Hill Farm Way,
Southwick,
BRIGHTON,
Sussex, BN4 4YJ,
U.K.

Please note the details of my p.h.c. M.G.(s) given overleaf. I am a member of the M.G. Car Club and give my membership number with the details of my car!! am not a member of the M.G. Car Club and request that you send me membership details as soon as possible (Delete as appropriate.)

Please place my name on the mailing list for the 1974 Year Book.

Yours sincerely,

CAR OF THE YEAR AWARD WINNERS

Year	First		Second	
	MMM Type No.	Driver(s)	MMM Type No.	Driver(s)
1964	132 J4s/c	Geoff Coles	110 NE	Syd Beer
1965	132 J4s/c	Geoff Coles	2 PBs/c	Steve Dear
1966	2 PBs/c	Steve Dear	132 J4s/c	Geoff Coles
1967	2 PBs/c	Steve Dear	3 J2	Mike Hawke
1968	644 F2	Elwin Shapcote	2PBs/c	Steve Dear
1969	43 PB	Charles and Stephen Shepstone		Who was it? Own up.
1970	437 J2	Alan Simpson	708 NA	John Kidder
1971	437 J2	Alan Simpson	708 NA	John Kidder

MARY HARRIS TROPHY WINNERS

1963	Mike Hawke	J2	56.17 m.p.h.
1964	Bruce Beer	J3s/c	61.56
1965	Stuart Milton	M	50.10
1966	Peter Bentley	PAs/c	58.56
1967	John Goodacre	PAs/c	64.06
1968	Mike Hawke	J2	58.62
1969	Peter Cranage	NA	66.08
1970	Malcolm Beer	K3s/c	?
1971	Mike M...	PP	60.15

"TRIPLE M REGISTER"

A register of all a.m.c. 'Midgets', 'Magnas' and 'Magnettes' produced 1929-36.

Personal Name
Block Capitals please
Address
Telephone No
M.G.C.C. Membership No.
Centre
Car
Type c.c. of the car
Year Engine No.
Chassis No. Reg No.
Type of body*: Sedan/Saloonette/Tourer/Sports/Racing.
State if specialist coachwork and coach builder
Number of seats*: 1/2/4.
Is car according to original specification? *
Yes/No.
If not, what modifications?
Does the car have a known history?
Delete what does not apply.

EDITORIAL POSTSCRIPT

To be perfectly frank and honest (as a certain P.M. used to say), we think that this year's Year Book is a slight improvement on the 1972 job. However, is it not as great an advance as we would have hoped, this is for two reasons.

Firstly, our campaign to obtain new advertisers was not wholly successful. We would exhort you to support those who do advertise between these covers whenever you can and plead that, if any reader has a contact who might be willing to help the 1974 Year Book by this means, you persuade him to write to us saying so.

Secondly, you as members were not very forthcoming about your motoring activities in 1972. The list of winners was culled entirely from "official sources". No one wrote to me telling of his record breaking attempts on the drag strip (do not laugh—a K3 has gone considerably faster than the current British Class G Flying Mile and Kilo Records), or at Montlhery where the ability to exceed 40 odd m.p.h. for a week could land someone a bundle of International Class H Records, or of his three-week camping honeymoon in an NE. Any such deeds could give you Car-of-the-Year points in 1973 and many lesser ones could put your name in lights in the 1974 Year Book ... if you tell me about them.

Finally my humble editorial thanks are due to all those who did write, to Peter and Rosemary Davis who did the art work and printing nitty-gritty, to Piers Hubbard and John Barnecourt who helped with photos, and to Colin Butchers who is going to distribute the book.

M.B.H.

MMM SPARES DEPARTMENT *offer*

Engine Parts

M.D.J. Camshaft Bearings	£4.50	a set
J Camshafts	£18.50	each
M Camshaft (12/12 timing)	£18.50	each
W Water Manifolds	£7.75	each
J/F/M Rocker Cover Nuts	45p	each
PA Decoke Sets	£2.25	each
P Camshaft Bearings	£5.5	a set
P Water Outlet Manifolds	£5.50	each
K/P/L/N Oil Filter Elements	90p	each
P/L/K/N Valve Guides	35p	each
P Reprofiled Camshaft	£7.50	exchange
N Reprofiled Camshafts	£12.00	exchange
57 mm Pistons - 40, -60 (solid skirt) with 9 rings and gudgeon pins	£3.75	each
P/N/LK/ main bearing carrier locating bolts	60p	each
Rocker beleville washers	50p	a set
P/N/L/K big end bolts and nuts	28p	each
J/M/F/D big end bolts and nuts	25p	each

Accessories

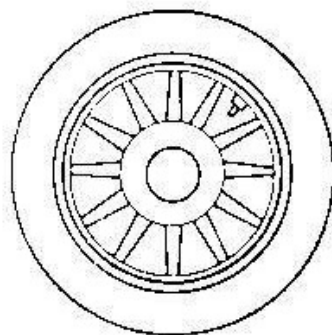
J/F/D front apron bolts less badge	45p	each
Rear axle oil retainers (cork)	20p	pair
N and P front aprons	£8.25	each
Bonnet corners	25p	set of 4
Rubber insignia for inside of doors	25p	each
Bucket Seats	£11.50	pair
Octagonal dash panels with clips (unplated)	£4.00	each
Large (5 in.) bezels (unplated)	£1.10	each
Small (2 in.) bezels (unplated)	80p	each
Rubber T section for running board/wing joint	25p	per foot
Spare wheel badges	90p	each
Radiator badges	90p	each
Bonnet Tape	25p	for a radiator's length
J/F slow running and choke control rods	£2.00	set of 2
P/N petrol taps and rods with dashboard fixing	£8.50	set
Bluemel's 'Brooklands' steering wheels	£7.85	each
Domed wing mounting bolts	£1.65	pair

Please note that these items are all new and only part of the current spares range, which is continually changing. For monthly lists see Infoletter. When ordering these parts, send in to Nigel Musselwhite (Assistant Spares Secretary), Flat



Come to glorious Wiscombe in 1973. Here, taking part in the 1972 MMM Motor-Racing Championships, are Don Bishop in his supercharged PB, Mike Allison in his supercharged NA, and Doug Harris in the only known

VINTAGE TYRE SUPPLIES



TYRES FOR VETERAN AND VINTAGE CARS

Retail Prices

	Cover £ p	Tube £ p		Cover £ p	Tube £ p
Tubed Type			500/525-21	17 54	2 31
500/525-16	8 06	1 40	600-21	24 75	2 31
550-16	8 70	1 44	700-21	27 71	2 31
600-16 RS5	12 36	1 44	Straight Side Type		
670-16 6 PLY	12 54	1 40	32-4½	23 76	2 02
700 16 6 PLY	15 00	1 40	Fort Tubed Type		
450-17	6 19	1 40	600/650-17 1/2	16 26	1 68
500-17	10 50	1 51	700-17	22 20	2 21
525/550-17	12 85	1 51	700-18	27 80	2 21
450-18	7 90	1 40	650/700-19	17 89	1 68
475/500-18	9 69	1 51	Beaded Edge Type		
525/550-18 4 PLY	11 05	1 51	26 x 3	8 19	1 65
525/550-18 6 PLY	12 99	1 51	30 x 3½	16 19	1 57
600/650-18	17 64	1 90	710 x 90	16 19	1 57
350/400-19	7 31	1 40	730 x 130	22 31	2 39
450-19	8 06	1 40	760 x 90	16 19	1 57
475/500-19	10 14	1 51	810 x 90	17 88	1 74
525/550-19 Nok a	12 50	1 51	815 x 105	20 36	1 57
525/550/600 19	15 58	1 51	875 x 105	22 73	1 74
450/475/500-20	14 18	1 81	820 x 120	22 73	2 02
525/550/600-20	24 83	2 31	880 x 120	24 70	2 02
700 20	27 03	2 31	895 x 135	31 46	2 65
450/475-21	14 60	1 81			

Carriage extra. These prices became effective on November 1st, 1972.

We may not have all these sizes in stock, but please let us have your enquiries and we will let you know when we can expect supplies.

Sole U.K. Agents for Universal Tyre Company, U.S.A.
Dunlop Racing Tyres supplied Remoulding Service available

VINTAGE TYRE SUPPLIES LIMITED

**JACKMAN MEWS, NORTH CIRCULAR ROAD,
NEASDEN, LONDON, N.W.10**

Telephone: 01-450 6468