

Bemsee

THE JOURNAL OF THE BRITISH MOTOR CYCLE RACING CLUB

Vol. 2. No. 12 — December, 1949 ONE SHILLING



GEOFF and CROMIE, Winners of the Senior and Junior M.G.P. In background, Francis Beart, who tuned Cromie's 350 Norton.

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Journal of the British Motor Cycle Racing Club

December, 1949.

THE BRITISH MOTOR CYCLE RACING CLUB

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EDITORIAL.

Petrol or Dope? Elsewhere, a famous dope protagonist gives an excellent review of this vexed question. If other readers contribute their own technical views and, if the outcome shall be a more intensive study of tuning rather than mere concentration on riding tactics, Mr. Hartley will have done the club and the sport a great service.

Before going into technicalities, the inescapable present day position must be considered. Primarily, we grieve at the loss of Brooklands and nothing that can be said must be taken as any diminution in our demand for its return to its rightful uses. We want the place for racing and development, whatever the fuel. In altered world trading conditions, Britain no longer has a general leading position but we may fairly say that, in motorcycles, we lead the world. The duty of Bemsee then, is to keep our sport preeminent and at the same time to help our manufacturers to maintain their splendid position in the drive to national recovery.

Our best dollar customers are usually in petrol producing countries, unlikely to be interested in alcohol fuels whilst they enjoy the benefits of abundant supplies of lower and premium grade petrols. To say that we have to import petrol at loss of dollars tempts an enquiry into the peculiarities of reexport business outside the scope of this article. Sufficient to say we possess in the Sterling Area, sources of petrol adequate for all our needs. No information is available as to the production potential of alcohol fuel makers but it is doubtful whether they could cater for the general fuel requirements of this country let alone abroad. If this is correct, the use of dope must be recognised as a means of securing racing results not commercially repeatable.

The development and export of complete motorcycles must continue to grow and, if we spend dollars on petrol for the purpose, it is a business investment of greater value to the country than, say, the import of tobacco. By developing engines which perform well on our Pool Petrol, we know our export vehicles will not let us down in countries

with equal and slightly better fuels.

It is now generally recognized that the 'rich mixture' method of cooling is wasteful. The aircraft and car world have taken the lesson deeply to heart with a general swing to higher C.R. with aids to increased volumetric efficiency and avoidance of sudden pressure rise by slower burning of a relatively weaker mixture to maintain pressure through the expansion stroke. The resultant indicator diagram thereby more nearly approaches the constant pressure cycle. One engine at least exists with a specific fuel consumption approaching Diesel figures, with a B.M.E.P. of 138 lbs./sq." at a running temperature where, from actual experience, the hand can rest on the exhaust port fins without discomfort. This on Pool Petrol.

Note the above efforts give the desirable results claimed for alcohol fuels without wastage of fuel. All heat from combination of fuel with oxygen which is not translated into power at the crankshaft, is wasted energy—whether absorbed by coolant, cooling air or by latent heat of vaporisation. When all is said and done, the working medium for the I.C. engine is air. The fuel, whether petrol, benzole, alcohol or gas is purely a source of heat. It will be found that practically all liquid fuels or lubricants in combination with air at correct ratio, give roughly the same number of B.T.U.'s per lb. of working medium. It is true that Benzol and Alcohol have the advantage to a slight

degree but, with the greater volume required with these fuels, the resultant displacement

of the working medium leaves the advantage with petrol.

It rests with racing motorcyclists to decide whether they will take the short cut of using dope or whether they will devote thought to the task of turning the known heat value of petrol, into useful work. A study of car hot-spot and induction design and, in particular, the principles of anti-turbulent induction and stratification of mixture strength, is to be recommended.

Monza. The article by D. S. Jenkinson shows what can be accomplished by a nation which wants a motor racing track. Members of B.M.C.R.C. have every reason to voice a demand for the return of Brooklands. Letters to M.P's on the subject should quote the details of Jenk's article and should contain the offer, where possible, to work as part of a team, 24 hours a day for three months, as was done by the Italians.

For a start, here is one person willing to volunteer for the job.

To all of you. Best wishes for a very happy Xmas from every member of the Committee. 1949 has been a year of progress and we look forward to ever greater things together in 1950.

Good luck and Success to you all.

The Italians can do it... By D. S. Jenkinson.

It was dark when we arrived and as the wall again, leaving behind a peculiar gatc-keeper opened the iron gates and we drave up the avenue of trees, I could not help feeling that all this was most familiar. Turning a sharp bend the road ran downhill through a tunnel, and as we emerged into the open air in the middle of the track I realized the correctness of my premonition for was it not exactly the same atmosphere that had pervaded Weybridge before the war, This was Monza, and after the war, but the old sensation was there, of being in a place where speed was the only interest to all concerned. I could not help thinking of that desolate waste not 30 miles from London and comparing it with this track we were due to ride round on the following day, just a few miles from Milan.

Although at that time of night the only sign of life was the night watchman's lamp as he made his tour of the ground; the vast concrete Tribunes, the double tier pits, the smooth wide starting area, the paddock, with its row of lock-up garages, the weighbridge, all seemed silent with an air of expectancy, for tomorrow was to see the beginning of a veritable orgy of st eed, the sort of day for which the whole place was intended.

That night I had strange dreams of railway trains, with the cryptic letters S.R. on the side, hurtling along only to be overtaken by evil looking monsters astride queer two wheeled devices, which having passed would wheel away in a large arc round the very edge of a concrete wall, lurking among the trees for a second before dashing down from the top of another concrete wall to rush past another express train, making it look as if it were stationary, hurtling round the top of the aroma accompanied by a mocking echo. Later, these strange devices with the large black boxes behind them, were driven away by sleek red things, making a humming noise from four little tubes protuding out of the back.

I awoke to find the 4 cylinder Gileras out practising, and to realise that I was in the paddock of the track that the Italians built up out of the ruins of Monza left by war. The sort of place that all English enthusiasts dream about, that is open for speed every day while there is daylight, where machines can be ridden to their maximum. A permanent structure which has been built purely for the benefit of the internal combustion engine.

The first post-war race was held at Monza in September 1948; in June 1948 the grounds of the Monza park were a shambles, and the track looked as if it had been the centre of a battlefield. In three months, working 24 hours a day, the whole place was transformed into a magnificent track, with concrete pits, a concrete Grandstand to hold thousands of people, an impressive archway over the entrance from the paddock, offices, garages and all the other amenities so necessary for a permanent speed track. The 'circuit de vitesse pure' consists of two long straights, parallel to one another, joined at one end by a long sweeping arc, slightly banked, while at the other end they are joined by two sharp, 50m.p.h., corners. Leaving the start, which is half-way along one of the parallel legs, the road circuit carries on for another 300 yards, past the banked turn before it takes a long right hand sweep out into the country, continuing flat-out to two right-hand bends following each other fairly closely, which aim the rider back towards the 'circuit vitesse'. The road circuit then joins the second of the parallel legs in a long gentle left hand curve, which brings the rider back onto the straight leading to the two 50 m.p.h. bends, which take him back to the start.

Apart from the two corners before the start, the whole track is surfaced with tarmacadam. The road is very smooth and of even width except for the area past the pits, which is some 60 yards wide. The grandstand has a two-tier restaurant on the ground floor to seat some 2,000 people while all those in the stand proper can see the whole of the 'circuit vitesse' and most of the road circuit. A long row of above, face the main grandstand and have ample parking space behind them for cars and lorries. The paddock, at the moment has a gravel surface, and is surrounded by rows of concrete lock-up garages with wooden floors and electric light. In the centre of the paddock is a concrete loading ramp. At the entrance to the track are the secretary's office and a weighbridge and opposite these is a fuel Yes, I thought the same thing, "how very like our own Brooklands".

Monza is typical of what we badly

need in this country, a true motor circuit not a hashed about aerodrome—laid out as a home for speed, with all the necessary accessories. A track which club members can use on week-days, without having to pay fabulous sums and a place which can become the Headquarters of the premier racing club. Somewhere where one can go, just to breath motorcycles, free from the dead hand of official obstruction, where the wearing of the crossed 'jacks is a passport.

Why does this country always have to lag behind? France has Montlhery, Germany the Grenzland Ring, America Indianapolis, Italy Monza—and what have we? Silverstone? A disused aerodrome, which might be taken away at the whim of a disgruntled government official.

We still produce the finest machines and riders in the world and can continue to do so, but what encouragement is there? Our manufacturers have to go to France to prove their products! What sheer nonsense! Britain, a victorious country, has to make use of defeated countries to prove to the world how good her peacetime products are. Does it make sense?

If the Italians can rebuild their track in 3 months, why can we not do the same, a little of 24 hours work a day, might save our island race, if it's not too late.

SPEAKING PERSONALLY

US. Supported by a hard working committee, a Chairman who never fails with help and invaluable guidance and by a Chief Marshal second to none, the bulk of the work of Bemsee since its inception has had to fall on one man. The financial return has been negative but the effort has been gladly given, in return for the splendid support of members as: riders, officials, unofficial P. R. O's or, if unable for indisputable reasons to do any of these, by valued criticisms and observations.

There are, however, some members who now seem to have joined the Club simply for their own gain. There is nothing illegimate in this, and many pre-war members with good business brains found the Club an asset in their commercial ventures, but they did not regard it, with its voluntary foundations, as any milch cow from which prize money could be drawn ad infinitum to justify a claim—unsupported by any great show of prowess-to the title of 'Professional Racing Motorcyclist.'

The club is solvent and in good position thanks mainly to the voluntary work of

'the few'.

There are some members who are also members of smaller clubs which obtain fields or similar circuits on which semi racing events can be staged with negligible overheads. As a result, they can apparently be extremely generous in the matter of prize money or return of entry fees on the starting line. If those of our members who are 90% for such clubs and 10% for B.M.C.R.C., still think this club is run to 'feather the nests' of the very few people they leave to run it, let them devote the 100% of their loyalties to their little clubs.

The club that bred the best racing men of pre-war days intends to continue to breed the best post-war riders: and is doing it. We want our members to be proud of · their Club.

An interesting possession is an award for fourth in a 200 miles race at Brooklands. As the critics grumble at the enormous expense of modern racing and the small return from the club, the comparison with present day conditions is interseason in esting. In the Brooklands question, the writer expended £250 in money—not in Post-War paper—on racing. His reward was the above prize, a Silver Medal; for the rest of the season he won nothing. It was a grand season.

B.M.C.R.C. exists for enthusiast members. Those who have the idea that the Club can keep them should know that progress has been made by all round contributions of time, health and wealth by a few. That is given willingly to tester

the sport, nothing else.

- C. A. Stevens. writes that he must be on the retired list for a bit and will miss meeting friends at Taylor Mattersons. He crashed at Chapel Curve in practise Oct. 7th. and has had to have his arm set. He sends congratulations on a good day at Silverstone.
- G. A. Reeve. A new member who rode well in the Silverstone race says he intends to die with his boots off. This reprehensible desire is entirely out of keeping with our best traditions.
- C. H. Whorwood. (Pinner) hopes to shake off the shackles of the army in five months and at the same time to be the proud possessor of one of the new Douglases for the Clubman's T.T.
- J. McMeeken. (Dalbeattie) keenly supports our game in a remote part of England. With a start in sand races in 1946, he rode a 500 Norton in the N.W. 200 and a 350 A.J.S. in the 1949 Clubman's finishing in both. A jolly good
- A. R. Taylor of Shipston on Stour will be known to many members from all parts of the country. His support of young C. C. Sandford is a fine combination of rider and manager.
- C. K. Mortimer. Good to welcome Charles amongst us. Outstanding above all his performance on 500 c.c. J.A.P.'s is the memory of his bringing out a 172 c.c. o.h.v. which had been developed by This unusual turn out had, if Ferni. memory serves, vertical valves and final belt drive; in the 1930's!
- C. E. Williams (Hemel Hemptstead) is working on a racing 125 c.c. Another

for Bob Wolton's party of members seriously interested in really fast eighth

V. Davey who came off at Silverstone while riding Stan Pike's old Rudge, works with Gus Kuhn and is all for the next meeting. If you live in the district, pop in to see him.

K. J. Elvey. Is at present in Kenva but plans to be home in time for the 1951

Clubman's.

Peter Reeman writes disjointedly prior to leaving these shores for glacial parts. If he can't commit lappery, he intends to bring back the wherewithal for our future croonmasters to work out a hot number about "The Roast Beef (Mk. VIII, Sperm or Killer) of New England".

Gordon Hadfield left Malta for Cyprus at end of October as M.O. to the Malta Garrison's Trials Team, He will be back in Malta this month and expects to be

home in England in January.

Mrs. Bill Moore. Best of good wishes to Camshaft Moore who will be in hospital for a while in January. Here's wishing you a happy Xmas and we hope you'll be quite fit again long before the 1950 season starts.

S. Bowen (Edgware) in joining us says he intends to compete in all racing poss.ble, not for any personal gain but for the love of it and to keep our sport alive. And so

say all of us.

Don. Sleightholme. After returning from Silverstone has been kept in bed with a sprained leg muscle. Don is champing at the bit at this silly inactivity, reports he left his Triumph in sore need of a clean. Incidentally, his arrangements of a twist grip operated dipping head lamp is a most creditable piece of work.

R. Foster Pegg. Although not as yet a member, will be remembered for his supercharged 500c.c. Ariel 4. Reports that, on return from Canada he has completed 15 hours running and, on dismantling, finds nothing seriously wrong. He is increasing the boosts and hopes to join us and ride

at our meetings in 1950.

Silverstone afterthoughts.

E J. Davis (998 H.R.D.) in the consolation handicap lapped in 2m 5s equals 84 m.p.h.

Geoff Duke rode a standard Manx Norton and not a works model.

Edgar Maddox. In the Brooklands race, lost his third gear on his 2nd. lap. Notwithstanding he finished at 76.19 m.p.h.

Guy Ashenden. Has been doing good work for the Club. In thanking Alan Hoby of the Sunday Express for his recent article, Guy has pointed out the futility of A.M.

C., Norton and Triumph having to use Montlhery for want of a British Track. There is no doubt Mr. Hoby's efforts on

our behalf were excellent.

To return to Guy, he flies over Brooklands several times monthly and reports that, so far as he can see, the track is intact, except for the Byfleet cutting and merely has a few workshops and shacks built on it and a luxuriant growth of weeds between the cracks of the concrete. From one who does much flying, the following observation is welcome, "The point which will never cease to amaze me is that there are scores of redundant airfields all over the country with concrete runways, perimeter tracks, disposal bays, hangars and accommodation for aerodrome personnel yet Vickers have to continue using the small grass airfield of Brooklands which must become increasingly inadequate as larger aircraft are designed and built".

With motor cycles tops in the export field, with our car manufacturers exporting cars to dollar counties at a loss in order to get the dollars, the very least the Government can do in acknowledgement is to see that the motor industry has restored to it, one of its most vital tools-our only bank-

ed flat out circuit.

Bill Quinn. As he cannot get to the dinner this year, sends sincere apprecia-tion of the work done over the years by Andy and regret that he should be retiring. Bill feels, and this feeling goes for all, that Andy will always be in the hearts and minds of thousands.

Bill sends best wishes to all members for Xmas and the New Year and, at the same time sends an application for membership from another old friend-George Tottey of race and record fame on Zenith's, New Imps, Omega and Tot-Jap. George has the distinction of having a corner in the I.O.M. named after him in memory of a monumental bouncer when riding with the Twemlows. Incidentally, if the I.O.M. Government made a general practise of thus commemorating incidents, why not call the T.T. Course— "Ginger Wood Avenue"?

Another amusing set of reminiscences comes from Basil Kent who dropped in recently, met Barry and before you could turn round, they were off. After some fragrant thoughts about colourful dinner parties, they recalled Wal Phillips with a 350 c.c. J.A.P. engined Scott who rode in Mountain races with a maximum speed far below the average of the field.

On each straight, the leaders swept past Wal but after each corner he was ahead, repeating this performance until the last

lap when he stayed in front.

Also, memories of a member in his first sidecar Mountain race, who was given strict instructions to keep behind his guide and mentor, to learn how. They say that Caesar's wife wasn't too sure of her footing after having her sandals resoled, at anyrate—the unthinkable happened and the Maestro misjudged a shade and hit a sand bank. Now our pupil wasn't doing at all badly thank you, and, surprisingly and literally, he did "keep behind" his tutor with a ten thou. feeler space. Consequently, he helped to 'Drive the point home' with considerable force. The ensuing tutorial remarks were generally enjoyed for their concise summing up of the situation.

Les Graham, Fred. Frith, Eric Oliver & Jenks were duly presented with championship awards in Paris at the early part of November. The occasion was a quiet one, but the importance of the badges and certificates presented is appreciated by all

Bemsee members.

Photographs. Some of the clearest action shots yet seen, have been sent in by T. M. Badger they were taken in the I.O.M. in June and clearly demonstrate that in a jump, the front wheel momentarily stops whilst the rear wheel revolves. Mr. Badger has a big selection of all riders. If interested, write to:—189 Chiswick Village, W.4.

At Shelsley a most interesting discussion took place between Barry and A. C. Squillario. The cause was the Blackburne 1000cc. twin engine in the Freikaiser-

The present layout by Robin Jackson is a triumph of the old style of engineering when the tuner, unfettered by any spare parts list, made what he wanted. In this case:—Alloy Cylinders with liners, special heads, copper exhaust extensions, balanced exhaust pipe lengths and two stage Roots type blowers.

The two old-timers consider that only one o.h.v. Blackburne Twin was made and they therefore consider that this actual engine must have previously been used by I. P. Riddoch at Harling Heath and Madresfield, by Tommy Allchin in the Petrol St. Leger at Doncaster and by Jack Emerson when he got his Gold Star. And now after all these years, it holds the car record at Shelsley!!

One thing led to the other and the occasion was recalled when Tommy Allchin was testing a 750cc. Cyril Pullin Douglas for the hour record. Allchin was coming down the finishing straight to the paddock when Pullin-standing on the finishing straight grand stand-waved to him to do another lap. Tommy misunderstood this as a signal to go up the Test Hill and went straight up at high sperd. The ensuing jump must have been a record and Tommy by the Grace of God finished up intact on the members' Bridge. Jack Emerson eventually got the record.

Then after re-calling the great leap to

fame at the end of the finishing straight, the reminiscers told of the 1921 500 miles race, when Reuben's Indian had the biggest fuel tank ever Coming in to re-fuel, he had to be lifted off the machine, put back again and pushed off. The shape of that tank must be fixed in Reub's memory for ever.

SOCIAL OCCASIONS

Hendon. The magazine goes to press too early to give news of the meeting on Nov. 25th. Sufficient to say that some hundred members and friends have notified their intentions to visit the Police College. Our hosts are making the most complete preparations and special thanks are due to Don McBain who has done everything possible on our behalf. Apart from his varied uses of a motorcycle, Mac is a competent band leader and instrumentalist.

The Winning Horse. Another full house on November 17th. Harry Bostock with an ominous patch over a cut on his forehead attributed it to bumping his nut on a lathe. First time we've ever heard a rolling pin so described. A visitor, who intends to join us, was H. E. Cunningham of the B.A.R.C. Although connected with the organisation of car events, is an ardent

motorcyclist who spoke appreciatively of Silverstone and also the advantages of a motorcycle over a car in the event of approaching that course in heavy traffic.

Date of next meeting Dec. 15th. same time and make it a bumper Xmas do.

The White Lion, Edgware. Attendance on Nov. 14th. not much more than previously, Dennis Glover and Chip. and Ken Rickard hope that more of the many Bemsee members in the district will turn up at the next do on Dec. 12th. The preparations for these evenings are extensive and your attendance will help to make it worth while.

A Film Show. Sam Coles is completing his collection of shots of the year. This will include some of Haddenham. Later, in the New Year, Sam will co-operate and we hope to have a Bemsee evening of which details later

Racing News

Final Worlds Championship Figures:

The ultimate marking has been arranged on six events:

The T.T., The Swiss Grand Prix, The Dutch T.T., The Belgian Grand Prix, The Ulster and the Italian Grand Prix.

Points have been awarded down to fifth place with a bonus of one for a fastest lap. Finally the best figures from any three of the six events have been used.

125cc. Champion Nello Pagani 27 marks.2nd R. Magi (14), 3rd C. Ubiali (13).125cc. Makes. 1st Mondial, 2nd Morini, 3rd M.V.

250cc. Champion Bruno Ruffo 24 marks, 2nd D. Ambrosini (19), 3rd R. A. Mead (19).

250cc. Makes. 1st Guzzi, 2nd Benelli, 3rd Mead-Norton.

350cc. Champion Fred Frith 33 marks, 2nd R. Armstrong (18), 3rd A. R. Foster (16).

350cc. Makes. 1st Velocette, 2nd AJS., 3rd Norton.

500cc. Champion Les Graham 30 marks, 2nd N. Pagani (29), 3rd A. Artesiani (25).

500cc. Makes. 1st AJS., 2nd Gilera, 3rd Norton

600cc. s/c. Champion Eric Oliver 27 marks, 2nd E. Frigerio (18), 3rd F. Vanderschrick (16).

600cc. s/c. Makes. 1st Norton, 2nd Gilera, 3rd BMW.

Some Books

Geoff Davison has produced two racing specials:

Continental Circus. The story in the main is the personal story of the late Ted Mellors one of the most consistent and successful members of the Troupe. Starting in a rather unpromising manner, Ted persevered until he began to get wins after which his career, up to the war was one round of successes. Definitely a book to guide and encourage all racing motorcyclists.

Geoff. Davison, with his own great experience of the Circus has framed Ted's personal notes with opening and closing sections and has in general seen that the whole, although written over a period of years becomes one comprehensive, easily read motorcycling classic.

Post Free 10/- from Epsom.

The T.T. Races. Behind the Scenes. If you go over to the T.T., as a rider, a spectator, an official or as a trade representative, you will probably fail adequately to appreciate the many problems which puzzle a multitude of very different minds.

This book is a collection of the impressions of all those types who have the three legged June bug. To know all is to understand all, this book certainly helps the reader to that desirable condition. In a section devoted to the Riders, the contributors are all Bemsee men. An important contribution is that of Bill McVeigh's 'On Keeping Fit.'

Post free from Epsom 10/-.

To be Published in the New Year. A road racing annual by G. S. Davison dealing with the principal events of 1949 including T.T., Manx, Irish races, Continental races, Silverstone and Short Circuit events including Haddenham. Will have a limited printing. Members should note this advance information and book their copies.

Modern Motorcycle Maintenance. Member Bernal Osborne has produced a little book which, although elementary in places is nevertheless worth its modest five bob for the truly remarkable Appendix giving a comprehensive list of carburettor settings for most makes followed by a series of data sheets. Apart from the usual timing and service settings the information as to dimensions and clearances of all pistons and bearings will be invaluable to repairers. Other chapters deserving full marks are on Crankshaft and Crankcase assemblies and Electrics.

Publishers—Temple Press Ltd.

Send all your enquiries for typing, duplicating etc. te

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ALCOHOL FUEL

The iniquitous loss of Brooklands track has resulted in the predominance (in this country) of road racing (with the compulsory use of petrol as fuel). In this, performance is largely bought and not dependent upon the knowledge and tuning capability of rider/tuner. As a result, there exists a considerable lack of knowledge of, and presumably partly consequental prejudice against, any other fuel than petrol.

To those who still set some value on fairness, truth, the unbiased allocation of provable merit, and, most important of all, upon individual initiative and independence of thought and action; this robot outlook is difficult to account for, other than as an amazing example of the result of inspired mass propaganda.

One of the results of this unfortunate state of affairs is that riders have been deprived of the opportunity of experimenting with other types of fuel, many of which include alcohol as an ingredient.

It may be that a few facts about the use of alcohol (not necessarily neat!) as a fuel for motor cycles, will help to stimulate some interest—the first condition to the removal of prejudice! I ask forgiveness for the tabulation which follows—it is so much easier for both writer and reader.

- (1) The terms "dope" and "liquid dynamite" commonly applied to alcohol fuel are both ridiculous and grossly inaccurate, as will be seen, and have done much to foster the existing prejudice.
- (2) Both Ethyl alcohol (the cause of the wandering foot and speech!) and Methyl alcohol, have been successfully used as fuel, but owing to the heavy excise restrictions upon the former, the latter known as Methanol is now more widely used, and I will refer to it entirely, it being understood however, that all advantageous properties apply in only slightly less degree to the Ethyl variety.
- (3) In order to evaporate, liquids have to absorb heat in varying degree. The amount is measurable and quoted in any text book of repute as Latent Heat of Vaporisation. The latent heat of methanol is approximately 3½ and 2½ times that of petrol and benzole respectively. Now as methanol, benzole and petrol require about 6.5, 13.4 and 15 respectively times their own weight of air for chemically correct combust-

tion, it will be clear that, neglecting a small difference in density, the cooling effect (at correct mixture strength) of methanol, on the surrounding surfaces of the combustion space (head, valves, piston, plug, rings, oil etc) is approximately $8\frac{1}{4}$ and $6\frac{1}{3}$ times greater than that of petrol and benzole respectively. The ability of methanol to operate effectively on even richer fuel/air ratios makes the above figures a very conservative estimate, but they will serve.

- (4) Methanol, at correct mixture strength, will operate without detonation on compression ratios of over twice those usable on present petrol (a characteristic which apart from any other consideration, is due to the more constant rate of pressure rise, per degree of crank shaft rotation.) It will also operate perfectly on as low a compression ratio as 5/1.
- (5) The lower operating temperature (3) and freedom from shock loading (4) with methanol results in increased life of valves, springs, plugs, pistons, rings, all bearing surfaces (shall we say, of the whole power unit) and lubricating oil with a vast saving in maintainence and replacement cost, as compared with petrol or other hydro carbon fuel.
- (6) Consideration of (3) and (4) render entirely unnecessary with methanol fuel the expensive masses of high conductivity materials in cylinder head and barrel, which are essential for an engine effectively to operate on petrol, (even at a C. R. of half that usable with methanol and a normal cast iron head and barrel) as is evidenced in the expensive T.T. and Grand Prix replicas used in petrol fueled road events. Thus methanol reduces, by a very considerable factor, the necessary first expenditure upon a machine of given performance.
- (7) Methanol permits the use of "green oil" which, being largely of mineral base, is relatively insoluble in fuel of this type, whereas castor base oil dissolves completely and immediately in alcohol fuel, and is therefore more likely to be washed off the barrel and piston surfaces by any unvaporised fuel.

- (8) Owing to the much reduced running temperature, methanol allows the use of a relatively "soft" plug with a reduced tendency to oiling up.
- (9) Methanol has been accused of making starting difficult. Bearing in mind that its cool running allows (and of course requires, for easy starting) the use of a softer plug, the "startability" from cold, of a fuel depends largely upon the percentage which vaporises up to 100 degrees Centigrade; the approximate figures being methanol completely vaporised at 64.7 degrees Centigrade benzole 75% at 100 degrees Centigrade, Petrol (Pool) 27% at 100 degrees Centigrade, from which it will be seen that methanol is in no respect inferior to either benzole or petrol, in startabilty at normal temperatures.
- (10) Other considerations equal, the power obtained from an engine is approximately in proportion to the weight of fuel charge which can be got into the cylinder during each cycle, and for a given volume the weight is obviously increased by a reduction in temperature. The higher latent heat of methanol ensures lower charge temperature, and increases charge weight, therefore although the internal energy of air/methanol mixture at correct chemical mixture is about $2\frac{1}{2}\%$ less than that for air/ petrol mixture, the charge weight is approximately 10% greater—a nett gain of $7\frac{1}{2}\%$ at chemically correct mixture strength. As however, methanol can be used effectively at up to at least 30% rich mixture strength, the resultant additional cooling (due to the latent heat of the extra fuel vaporised) gives a still further increase in charge density and con-sequent volumetric efficiency. This provides a further increase of at least 8-10\% in power output above that obtainable on petrol on the same C.R. and at the same R.P.M.
- (11) Objection has been raised to the relatively high fuel consumption with methanol. Owing to the lower air/fuel ratio (3) methanol, used neat, has a higher fuel consumption that petrol at the same C.R., (at the increased power output obtainable) of approximately 2.3:1. Corrected consumption at equal power output, then becomes 1.84:1. Increase of C.R. to a point unusable with petrol increases the power and again re-

- duces the difference in consumption, at equal power output, to 1.37:1 in the region of 11:1 C.R. and 1.28:1 in the region of 14:1 C.R. neither of which can be considered outrageously high, and after all we are considering RACING.
- (12) A most important (and apparently little realised) further value of methanol is in blending (mixing) with other fuels to add more or less of its own valuable properties to a harsher and more brutal fuel such as petrol. Although (11) high concentrations of methanol do entail some increase of consumption, it is possible (and commercially easy) to use a small percentage in petrol without increase in consumption. The resultant mixture will have a higher latent heat than can be obtained by straight hydro-carbon or leaded fuels of the same apparent octane number. The advantage of this characteristic will be apparent, and was amply proven in pre-war days by Cleveland Discol a pump fuel containing about 15/17% of alcohol, which required no carburettor resetting, gave cooler running and increased power, but which, for some absurd reason was barred from the T.T. and similar events.
- (13) On point of price, methanol at 5/6 to 6/- per gallon (the present price) may seem expensive, but the difference in new cost between a T.T. replica (bred on petrol) and a normal cast iron head and barrel machine (which, on methanol, will give a better output) would take some 800 odd gallons of fuel to equal, at current prices.
- (14 Methanol is a home produced fuel, whereas petrol has to be imported, mainly from America, and paid for in dollars—the conclusion is obvious.

Summing up, from these few considerations it will be seen that as a fuel for racing, alcohol is superior to petrol or benzole in all respects. (Except consumption when used in high concentration.) It gives at the same time, more power, cooler running, less shock loading and reduced maintenance. It renders unnecessary expensive machines of the T.T. replica class, thus helping the "not so wealthy" racing man. The latter is at least as likely to prove of an inventive turn of mind as his more wealthy brother but, at present he is severely handicapped by compulsory fuel restrictions to the ad-

ventitious benefit of the owner of one particular type of machine. I suggest that if the British Motor Cycle Racing Club intends to maintain its reputation as the premier racing club, it should immediately put and end to this questionable example of "cliquishness". The alternative appears to be a change of title to the narrower horizon envisaged by "British Motor Cycle Road Racing Club."

MARSHAL'S MUSINGS

There is a subtle difference, between the creative artists and the skilled racing men in this mercurial firmament of ours. Some are born, (or quarried) with it, while others learn it the hard way. A percentage, including myself, never acquire it at all. Ask the stars and you'll probably get the usual answer, "Just keep on keeping on."

Listening to Les Graham's recent superb

Listening to Les Graham's recent superb chat (I can't call it a lecture) to a large crowd of keen clubmen, it became obvious at question-time that this racing game calls for a great deal more than icy cold courage even when the bike is diving like a 'doodle-bug.' Anyway that particular evening would have gone on all night if the chairman/secretary hadn't called a halt after three hours of Enthusiasm (capital "E" please Mr. Printer.)

Now that we are in the thick of the Social Season, don't think it's quiet behind the scenes. A good show has come and gone with all kinds of rumours which one dare not mention here. I can, in safety write that the experts seem to agree on the ultimate principle, 125 single, 250 twin, 500 four and 250 single, 500 twin, 1000 four. This doesn't look so rosy for the 350 class unless it is changed to 375 c.c., nicely to accomodate a 3x125 motor. We must have a 'QUIZ' on this subject at some good hostelry during the winter months.

Ugh—I don't like the winter because there's no real racing I suppose. What say

This issue should reach you just in time to give a last minute warning of an impending great occasion—the Annual Dinner on the 2nd. December. "Ladies of Bemsee", you may nag your menfolk about this date in case they start a bit of tuning at the wrong time. Bookings are pretty good at the time of writing.

After that, Christmas; followed by the A.G.M. and then off we go again working, worrying and saying "we'll never do it again". But like a lot of schoolboys, back we bounce for yet another season with Mercury & Co. Ltd on two or three wheels of course. Talking of A.G.M.'s ours is an occasion which calls for your attendance and as by then we shall be a Limited Company, it will be necessary to produce

proof of membership in order to gain admission. We are now within the framework of the Companies Acts which involve responsibilities as well as privileges.

I should like to record a true story of a nameless type who could say nothing very nice about "Bemsee", when surrounded by members and others in the Alpine Tavern one evening of 1949 Show Week. Most of us ignored the rubbish being dished out, recognising that the speaker had been downstairs for a long time. Anyway, the youngest laddie there couldn't stand it and placing himself face to face with the "Moaning Misfit" said, "I've only been a member for nine months but that critical period has been long enough to make me a very proud man. Cut it out, or else!" We did not see "M.M." any more after that.

Ex-racing men, some of them anyway, are supposed to be peculiarly susceptible to the heresy that things are not what they were in the good old days. There isn't a lot of it in "Bemsee" but every so often a few of the older ones contrive to put the clock back and remember those great occasions. History, however, reveals no evidence of a golden age for any but small sections of the racing motorcycle population. The records and results prove that for most of us life itself is a great struggle and the possession of a fast motor only serves to intensify the competition. Taking it by and large each generation compares favourably with any which has gone before. Here's to the next generation and lots of quads, circa 500 c.c. Q.E.D.

As Christmas is not far off, may I conclude this month's contribution with a special tribute to the members of this club, who have between them, won almost everything worth winning. At least we can refute the silly saying that the British are very good at losing....stick out your chests (like the youngster in the Alpine Tavern) and let everyone know the facts about our motorcycles.—Touring, Trials, Scrambles or Racing. There certainly have been one or two difficult periods during the past 30 years but any fair-minded critic will tell you that our 1949-50 Cycle and

Motorcycle Industry is envied by the rest of the world.

Only a handful of our members have competed on the continental circuits during 1949, but boy oh boy, what a handful! The Union Jack went up almost every time at the various winning points but did the B.B.C. and the penny press take much notice? No sirs, and we must therefore continue with our postcard publicity in 1950. Let 'em all have it on a P.C. as big as the pillar box opening. We we owe it to ourselves as well as our topnotchers who are usually most kind to the old-timers working behind the scenes. It is very gratifying to hear the modern aces thanking the Marshals, etc. for turning up all over the place. As it has been my good fortune to collect up well over a hundred of these stalwarts, may I add my grateful acknowledgements and look forward to next year. It is impossible to write to each one individually but I feel sure they will understand. Nineteen forty nine has been a hard year but I'm like the boy in his teens who was quite ready actually to fight for "Bemsee". So are you really, otherwise you wouldn't belong to the premier racing club in existence.

Who is the famous member of this outfit who drives a big station wagon

plastered with periscopes and mirrors? Why didn't he observe the Patrol Car which followed him for a thousand miles along A3 during Show Week? Did he appreciate the fact that some of our best Marshals are also Police officers? The time is not far off when a few of them will be representing us at various high-speed venues. I can think of no better example of a profession which can be allied to a sporting pastime.

Cheerio for now. See you at the Dinner and may I mention one of the late dear McCudden's jokes. "Lots of lubrication but don't get oiled up!"

W. G. (Bill) Jarman.

Special Addendum: The Annual Dinner is a social event. Don't spoil it by trying to turn it into an A.G.M. which is the proper occasion for "reaction propulsion."

Special Note. The London Centre of the Motor Cycle Traders Benevolent Fund is holding its Christmas Dance, etc. at the Lyceum, Wellington Street, Strand, on Tuesday the 13th. December. Tickets including Buffet, 12/6d each from Doris Clark. "Sans Souci", South View Road Pinner Hill, Middlesex. Try and come and enjoy a really good night out.

The A.G.M.

Details will be circulated to all members very shortly but meantime note the date in your diaries:

Friday Jan. 6th. 1950 at the R.A.C. Pall Mall 6.30 p.m. for 7 p.m.

Please make a special effort to attend. The words of Bill Jarman and his indomitable cheeriness and help are commended to all who wish to see B.M.C.R.C. continue its present rate of progress.

Bemsee has reached a stature never before equalled. To those of you who think that all is fine so now we can sit back and free-wheel, the following observations recently made by Lord Hollendon may be worth reading:

HOW TO WRECK A GOOD ASSOCIATION

- 1. Do not come to the meetings, but if you do, come late.
- 2. If the weather does not suit you, do not think of coming.
- If you do attend a meeting, find fault with the work of the officers and the other members.

- 4. Never accept an office as it is easier to criticise than do things.
- Nevertheless, get sore if you are not appointed on a Committee, but if you are, don't attend the Committee meetings.
- If asked by the Chairman to give your opinion on some important matter, tell him you have nothing to say. After the meeting, tell everyone how things ought to be done.
- 7. Do nothing more than is absolutely necessary, but when other members roll up their sleeves and willingly and unselfishly use their ability to help matters along, howl that the organisation is being run by a clique.
- 8. Do not bother about getting new members. Let the Secretary do it.
- If you do not receive a request for your subscription, do not pay it, and if you do, hold it back as long as possible.
- 10. Keep your eyes open for something wrong; when you find it, resign.

NEW MEMBERS

Due to the great amount of news this month, it is regretted that it is impossible to give more than names and home towns of the large number of members who have joined us since the last list given in August.

Your patience is requested, with the growth of the club, the news for dissem-

ination becomes overwhelming.

K. G. Elvy (Kenya)
V. Davey (Stockwell)
C. E. Williams (Hemel Hampstead)
C. K. Mortimer (Weybridge)
A. R. Taylor (Shipston on Stour)

J. McMeeken (Dalbeattie)

J. R. Lewis (Stroud, Glos.)
J. T. Wenman (Farington, Berks)
R. K. Pilling (Bury)
C. H. Whorwood (N. Harrow)
G. A. Reeve (Coventry)
C. F. Salt (Derby)
J. E. Stevens (Wrexham)

Allan Cunningham (Rickmansworth, Herts.)

E. N. Adlington (E.C.1.)

H. J. Stoate (Canada)

J. F. W. Cawte (Ewell, Surrey)
C. L. Brown (leaving R.A.F. for N.W.8.)

A. D. Doyle (Denton, Lancs.)

V. J. Holcroft (Kenilworth)

S. Bowen (Edgware)

E. R. Withers (Of Douglas Ltd. Bristol)

R. H. Smith (Hayes, M'sex.)

P. G. Lowe. (Oxford)

Capt. A. Newton (Malta. M.E.L.F.) R. T. Mathews (Co. Down. N. Ire-

land)

Regretfully, we say farewell for the time being to P. E. Aldworth. P. E. writes that he thinks the Club is doing a good job of work and he looks forward to the possibility of later rejoining. Whether 'in' or 'out,' our good wishes go with him always for a successful future.

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Wanted for 37/39 Velo. MOV/MAC Frame and forks with Q.D. rear wheel. Also M.A.C. cyl. head. Really desperate need. Don. Sleightholme, 280 Burton Stone Lane, York.

A Cri de Coeur. I would like a Triumph Speed Twin, for touring purposes—can anyone sell me one (cheap). D. S. Jenkinson 179 Devonshire Road, Forest Hill, S.E. 23.

Wanted. Pair of cams for 1937 o.h.c. 250 c.c. O.K. Supreme also any tuning data. Please help R. Grange, 6 Maple Gardens, Burnt Oak, Edgware, M'sex.

Wanted. C/R gears to fit 350 type Burman or C/R box complete for 350 Cotton. Condition and price please, to M. Peal, 69 The Close, Salisbury, Wilts.



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THE BALLACRAINE LINE

You may know the road, still with its traditional Roman straightness here and there as it stretches away through the Somerset Plain and over the hills down to Devon where it becomes A 30.

On a vicious night last Autumn it seemed deserted as the twin and I hurried north-east in a gale, with the front wheel throwing up a bow wave. Dropping down the Somerset hills the first trickle of water found its way past the towel. Clearly a good reason for a stop at the next hostelry, and there it was in the wet distance, lights showing dimly through the streaming rain. With wet brakes reluctantly taking effect, I pulled up beyond the bar window.

Peeling off waders and Stormgard, I ducked into the bar, to join the one local occupant. He shared my views about the climate and joined me in a drink. "Heard you coming down the hill, old boy" he said, "nearly overshot the old pit stop didn't you? Reminds me of a spot of overshooting I did at the '46 Manx". Well I am always ready for an Island yarn, so I invited my new acquaintance to empty his glass and he did so in a time which would make any third lap Senior fill-up look slow. Come to think of it, the chap's face did look vaguely familiar and I settled down on the bar stool and waited for the story. We'll call him Stanley-he would like that.

"Never could quite weigh up Ballacraine" he started, "I had shaved the pub wall more than once during practising,—what do you think is the max. round there?" I confessed I wouldnt know, most times I dropped in for a chat with the landlady who told very good stories of the time George Formby motored straight through the pub. Stanley grinned and began the '46 Manx all over again.

"Glencrutchery road on Senior morning was a bit dismal, old boy" (I remembered) "Hoped the drizzle would lift and give me a decent run. Seemed I'd

been around the pits for hours before I pushed off and got weaving down the old hill, past a sea of faces. A little nervous as I hit the bump at the bottom, but I was thinking of all the boys behind me on the grid waiting for the flag. I remember looking over my shoulder as I rounded Quarter and went out a bit wide, too close to the railway wall, but the real Tenni-Lyons line old boy" I refilled his glass and he drained it before he got to Braddan.

"Went into the left-hander too fast" went on Stanley "and took a handful of front stopper,—never could settle down much before Ramsey. Passed some fellow as I sorted out third cog and then heaved some coal on and got the fire burning really brightly. Had to resort to some violent evasive action as some fool ran across the road just before the Highlander, and then got down for the fast stretch.

I could see the Boy Scouts ready to flick his pointer to "B" as the tree lined dive into Ballacraine rushed up, and Stanley poised on the bar stool ready for the right sweep. "Looked quickly over my shoulder, old boy, and there was a chap right on my tail—rather put me off my line and I missed a cog, overshot the corner and couldn't get round. Straight up the slip road I sailed and stopped with the barrier rope across the teles. Pity I couldn't go after that fellow." I looked puzzled, and Stanley explained. "He was one of the Marshal types old boy, roads closed and all that; but Ballacraine isn't a bad spot to watch the race between drinks is it?"

I emptied my glass and clambered into wet kit. Stanley's cheery good-night followed me into the wet blackness outside. Yes, his face was familiar but I can't remember whether it was the Highlander or the Central at Ramsey where I told him a tall one about my 28 minute lap in the "38 Manx.

NEALE SHILTON.

STOP PRESS

Silverstone Steward's Meeting on Nov. 25 upheld protest of entrant No. 66.

Stewards ordered that riders No. 74 and No. 134 be excluded from list of finishers, and result awarded accordingly.

H. L. DANIELL

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